Prescription Drug Monitoring Program & Health IT Integration Initiative

Implementation Guide

8 **Version 1.0**

9 **September 9, 2014**

Version History

Version Number	Revision Date	Author/ Editor	Revisions
1.0	6/27/14	Divya/Rita	Modified Initiative Overview (Section 1.1)
1.0	7/9/14	Rita	Updates made to: Intended Audience (Section 1.3), Actors and Roles (Section 1.5)
1.0	7/22/14	Rita	Section 1: Separated Pre/Post conditions from System Requirements Section 2: Reworded Implementation Approach Standards (Section 2.1.2)
1.0	8/1/14	Rita	Removed IG outline description text for Introduction sections (Section 1). Retained description text for Section 2 until we are through drafting the Implementation Approach.
1.0	8/13/14	Rita	Removed Pharmacy Request and Response data elements replicated from what was initially defined for EHR request and response data elements in response to community consensus on 8/12 All-Hands around data elements requirements for both providers and pharmacies and there being no difference in what Pharmacy and EHR transactions should contain. Updated text to reflect that Health IT systems include both EHR and Pharmacy systems.
1.0	9/3/14	Alex	Updated HL7 Sections, including transformation tables, data element mappings, conformance statements, and coded examples. Included Appendix tables: Value sets, data type conversions, data types.

Open Items **Revision Date**	**Questions/Revisions**	Section
6/27/14	**Questions to be answered (from 6/26/2014 SPWG meeting):** 1. What transforms have to take place for each standard to conform to PMIX specification? 2. Can data elements required in SCRIPT/V2 but not supported in PMIX be ignored by the PDMP Hub and/or PDMP? Can the reverse also be ignored? 3. Differences in payload and container configurations? If PDMP Hubs require envelope arcHealth ITecture as part of PMIX, do the standards stemming from EHR support such structure? 4. Can the Gateway be placed at the EHR level?	Implementation Approach
7/8/2014	**Questions from 7/8/14 All-Hands:** Does a switch need to be limited to a pharmacy? If we are using the existing medication history exchange between prescribers, PBMs and pharmacies as an example of a switch, then the switch sits between the prescriber and the PBM/Pharmacy. (Pharmacy switches/intermediaries and HIE Systems are not prioritized in this IG) Comment from Lynn Gilbertson posted 7/10/2014: Agree with comment that a switch/intermediary is not only a pharmacy actor. Prescribing systems and EHRs have relationships with switch/intermediary(ies) also. This was an original comment. This would affect the diagrams as well. Lynne Gilbertson: this is not only pharmacy transactions; this is prescribers who send medication history and use intermediaries.	Actors (1.5)
7/29/2014	**For the Request Data Elements:** • Representation/Purpose of Requestor data element • Resolution on whether Requestor First Name and Requestor Last Names are necessary • Facility ID and Facility Name (if this means the requesting entity rather than the dispensing pharmacy). Neither appear to be in the response (separate from the prescriber's/requestor's address) • Request and Response Date/Timestamp element may be 1 or 2 fields (it's 2 fields in PMIX) •	Data Elements for EHR & Pharmacy Request tables (Sections 2.2.1.1.2 and 2.2.2.1.2)
8/12/2014	The optional data elements are removed from the required Response Data Elements list. Patient Identification Qualifier — Pickup Person for Prescription Requestor — Pickup Person Relationship to Patient Requestor Role — Pharmacist First Name Requested States — Pharmacist Last Name	Section 2.2.2.1

	Patient Phone Number Drug Branded Name RxNorm Vocab ID ePrescription Reference Number ePrescription Order Number Prescription Sold Date	Dispenser State License Identifier Dispense State of License Free Text Message Summary of Response: 1. # of Pharmacies 2. # of Prescribers 3. # of Prescriptions	

13

Table of Contents

List of Figures

1 Introduction

1.1 Initiative Overview

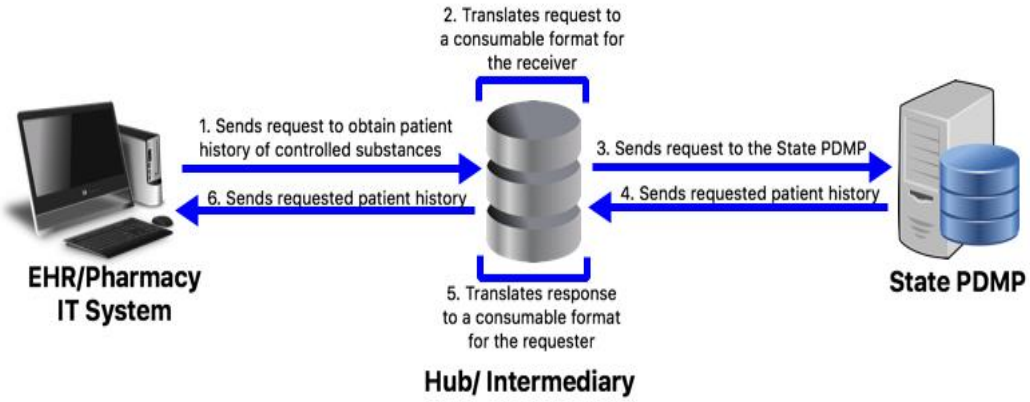
Prescription drug misuse and overdose is one of the fastest growing health epidemics in the United States. In response, Prescription Drug Monitoring Programs (PDMPs) have been created to address prescription drug abuse. PDMPs are state-run electronic databases – functioning in 49 U.S. states and territories – that track the dispensing of controlled prescription drugs to patients. In some states, healthcare professionals are required to check the PDMP prior to prescribing or dispensing controlled substances and drugs of concern. When available at the point of care, PDMP information can help healthcare professionals discern between patients who may need a controlled substance for legitimate medical treatment and those who may be seeking to misuse prescription drugs. It also provides an opportunity to intervene if there are signs of misuse and abuse. This underscores the need for PDMPs to share information with Health IT systems in ambulatory and acute care settings.

While healthcare professionals see PDMPs as a valuable tool, they often do not use PDMPs because they are "stand-alone" systems, which are cumbersome and time consuming to access. Currently, many healthcare professionals must either interrupt their workflow and log on to a separate system to access the PDMP, or write and dispense prescriptions without consulting the PDMP- potentially leaving healthcare professionals without the information needed to make important clinical decisions. One way to improve and encourage PDMP access is to reduce the number of steps it takes to access PDMP information. Health IT systems can accomplish this by querying PDMPs for prescription information and presenting this information to healthcare professionals when they access a patient's health record.

This initiative aims to bring together the PDMP and Health IT system communities to standardize the exchange of PDMP data between PDMPs and Health IT systems. Doing so would enable healthcare professionals to make more informed clinical decisions through more timely, effective and convenient access to PDMP data in an effort to reduce prescription drug misuse and overdose in the United States.

For the purposes of this implementation guide, we will be focusing on hub-mediated transactions originating from the Health IT System (EHR or Pharmacy System) to accommodate in-scope transactions identified in the consensus-approved use case document illustrated in Figure 1:

Figure 1: Pilot Diagram



Hubs have varying mechanisms for supporting requests to one or more state PDMPs as well as how Requestors and/or Requesting Facilities are authorized for querying single or multiple states.

While the use case determined that interstate data sharing is out-of-scope for this IG, pilots may leverage hubs that vary in how they maintain and process requests for PDMP information for one or more states. The number of states that can be included in a query is a policy decision and not for this initiative to determine.

Out-of-Scope

PDMPs have different mechanisms of responding to queries and handling patient identity matching where there isn't a complete match on a person of interest. However patient-identity matching is out-of-scope for describing mechanisms for identity matching. Additional out of scope items were identified in the use case development phase and consensus-approved as follows:

- Defining the trigger event for how the PDMP is queried or initiated by the user (e.g., hyperlink while ordering, pressing a button, automatic trigger, etc.)*
- Addressing delegation of rights to individuals not legally authorized to prescribe or dispense medications (this is an implementation specific decision and may vary by implementation and pilot sites)*
- Third party access - (this is an implementation specific decision and may vary by implementation, pilot sites and state statutes and law)*
- Reporting patient prescription information from dispensers to state PDMP
- Policy-based decisions on how PDMPs are managed, accessed, and updated that vary from state to state
- Timeliness of PDMP: Currency of Data
- Storing query response from PDMP within the Health IT system
- Health IT system's structure of display for the query response
- Unsolicited reporting (PDMP pushing information out to a variety of users)

* These items have been leveraged from the Charter

Specific implementation guidance addresses:

- Secure access and communication of PDMP data from PDMP to Health IT system
- Harmonization of data format(s) sent between PDMPs to Health IT systems
- Query/Transaction standards between the Health IT system and the state PDMP
- Standards and work with standards organizations to fill in those gaps

1.2 Purpose

This implementation guide provides implementers with guidance for real-world implementation of solutions that support standards-based interoperable communication and exchange of PDMP data (prescriptions for controlled substances and other drugs of concern) with Health IT systems. Guidance focuses on how to achieve conformance with the (data, transport, and security) standards recommended by the Office of the National Coordinator for Health Information Technology (ONC) Standards & Interoperability Framework (S&I), PDMP & Health IT Integration Initiative for the submission of request/queries from Health IT systems to PDMPs and receiving responses from PDMPs.

1.3 Intended Audience

This implementation guide is intended to be informative to the following audiences:

- Healthcare Professionals* (Prescribers, Providers, Dispensers, etc.)
- Pharmacies and Healthcare facilities*
- PDMPs*
- Privacy and Security Experts
- Local, State, Federal Government Agencies
- EHR, HIE, Pharmacy, and Intermediary vendors*
- Professional associations

* Leveraged from the Use Case

1.4 Organization and Conventions of This Guide

This guide is organized into the following sections:

- Introduction and overview;
- Implementation approach including guidance on transactions to support system and data requirements
- Appendices that provide acronyms and key terms, conformance statements, and references.

1.4.1 Conformance Verbs (Keywords)

Conformance Verb (also known as keywords) is defined throughout this implementation guide using **BOLD** and CAPS to denote the conformance criteria to be applied.

The keywords **SHALL, SHALL NOT, SHOULD, SHOULD NOT, MAY,** and **MAY NOT** in this document are to be interpreted as described in the *HL7 Version 3 Publishing Facilitator's Guide*:

- **SHALL**: an absolute requirement;
- **SHALL NOT**: an absolute prohibition against inclusion;
- **SHOULD/SHOULD NOT**: best practice or recommendation. There may be valid reasons to ignore an item, but the full implications must be understood and carefully weighed before choosing a different course;
- **MAY/MAY NOT**: truly optional; can be included or omitted as the author decides with no implications.

Much of the conformance requirements are specified in the underlying standards. The **SHALL** and **SHALL NOT** conformance verbs relating to requirements that are only defined in this implementation guide are underlined as well for distinction.

1.4.2 Cardinality

Table 1 shows the *Cardinality* of elements used within this guide. *Cardinality* is defined by the minimum and maximum number of times that the data element may appear.

The cardinality indicators are interpreted with the following format “m…n” where m represents the least and n the most.

Table 1: Cardinality

Cardinality	Description
0..0	The element SHALL NOT be present

Cardinality	Description
0..1	The element MAY be omitted and has at most one occurrence
1..1	The element SHALL appear once and only once
0..n	The element MAY be omitted or may repeat up to n times
1..n	The element SHALL appear at least once, and MAY repeat up to n times
0..*	The element MAY be omitted, or it MAY repeat an unlimited number of times
1..*	The element SHALL appear at least once, and MAY repeat an unlimited number of times
m..n	The element SHALL appear at least m times, and at most, n times
2..2	The element SHALL appear two and only two times
3..3	The element SHALL appear three and only three times

1.5 Actors

The table below outlines the possible actors identified in the use case document that participate in the exchange of PDMP data. Actors depend on systems to perform functions associated with their roles and involve exchanging content (e.g., send, receive, etc.).

Table 2: Actors and Roles

Actor / System	Role
Health IT System	• Send request • Receives response
PDMP	• Receive request • Return response
PDMP Hub	• Receive request • Route request • Receive response(s) • Package response(s) • Return response(s)
Pharmacy switch / Intermediary*	• Receive request • Route request • Receive response(s) • Package response(s) • Return response(s)
HIE System*	• Receive request • Route request • Receive response(s) • Package response(s) • Return response(s)

*** Pharmacy switches/intermediaries and HIE Systems are not prioritized for this IG**

1.6 Pre-conditions and Post-conditions

The Pre-Conditions and Post-Conditions outline what needs to be in place for PDMP and Health IT system information exchange as described by the use case functional and dataset requirements.

Pre-Conditions

1. The necessary access controls and authorization protocols based on State and/or Federal regulations (which could include patient consentor privacy permissions) for any of the systems or users described, are in place
    - The Health IT system application shall provide necessary/required authorization, authentication or privacy information to the PDMP
    - The Health IT system can apply PDMP authorization requirements to restrict access to PDMP data to authorized users or authorized HEALTH IT systems
2. If an intermediary, such as a Hub, is used it provides necessary technology infrastructure to allow PDMP data exchange from the PDMP to the Health IT system
3. Parameters required to create the request in a standardized format by the Health IT system/Hub are recognized and accepted by the PDMP system or employs a translation service to do so
4. Health IT System or Hub is able to determine which state PDMP(s) should receive the request and at least one PDMP is specified as a state to receive the request
5. The PDMP system can provide a response in a standardized format which is recognized and accepted by the Hub/Health IT system
6. Health IT System and PDMP have a common understanding of the shared vocabulary that are required to initiate the request and provide the response
7. In the event a request is parsed out to other states and the other states respond back, the Health IT system, Hub (if applicable) and PDMP systems will have knowledge about the order of succession to provide the response

Post-Conditions

1. Health IT System has sent a request
2. PDMP system has received the request
3. PDMP system has sent a response to the Health IT system (which may include error conditions)
4. Health IT system has successfully received the response from the PDMP system
5. Health IT system can display/present/perform appropriate action based on response

Table 3: System Requirements

Exchanges	System	Condition (from system requirements)[1]
Request sent from Health IT System	Health IT System	Health IT system can generate a query/request for PDMP data in compliance with this implementation guide
		Health IT system is able to assemble authentication, authorization and consent information for PDMP system validation when required
	PDMP System	PDMP System has PDMP data available in standard format and

[1] For this IG the assumption is no consent is required from patient to query PDMP.

		the capability to respond appropriately.
	Hub/HIE/Pharmacy Intermediary System	Hub/HIE/Pharmacy intermediary can route request to appropriate PDMPs
	Health IT System	Health IT system sends the request (to a PDMP, Hub, or Intermediary)
	PDMP System (or Hub/ HIE/Intermediary System)	PDMP system receives the request
Response sent to Health IT System	PDMP System or Hub/HIE/Pharmacy Intermediary System	Receiving PDMP/Hub/ Intermediary can authenticate requesting Health IT system's credentials, validate authorization for data access, and make determination to release patient data
		Receiving PDMP/Hub/ Intermediary) can identify patient data that matches query based upon request parameters
	Hub/HIE/Pharmacy Intermediary System	The Hub/HIE/Pharmacy Intermediary System can transform the request/response information from one format to another format recognized by PDMP and Health IT System
	PDMP or Hub/HIE/Pharmacy Intermediary System	The PDMP or Hub/HIE/Pharmacy Intermediary System sends the response to the requesting Health IT System
	Health IT System	Health IT System receives the response and displays PDMP data

1.7 About This Guide

1.7.1 Relevant Work and HL7

Please note that while the intention is to test the NCPDP 10.6, ASAP Web Services, V2.x standards, the HL7 V2.x standard remains untested. In addition to the HL7 version 2 data element mappings documented in Appendix E, Community members have additionally identified the use of Integrating the Healthcare Enterprise (IHE) profiles as an standards-based approach to PDMP integration. These community members are leveraging (or plan to leverage) Cross-domain document sharing (XDS.b) transactions to exchange structured documents (typically Consolidated-Clinical Document ArcHealth ITecture - CCDA), which contain patient's medication history.

1.7.2 Scope of Work

This Implementation Guide captures the request sent by the EHR/Pharmacy IT System to the Hub/Intermediary and the response returned by the Hub/Intermediary to the EHR/Pharmacy IT System. While the Implemenation Guide focuses on testing this capability, it does not verify the data element mapping; specifically, how the Hub/intermediary translates between standards. For additional information on the state PDMP and Intermediary, please contact your state's PDMP. Their information is located here.

2 Implementation Approach

2.1 Solution Plan

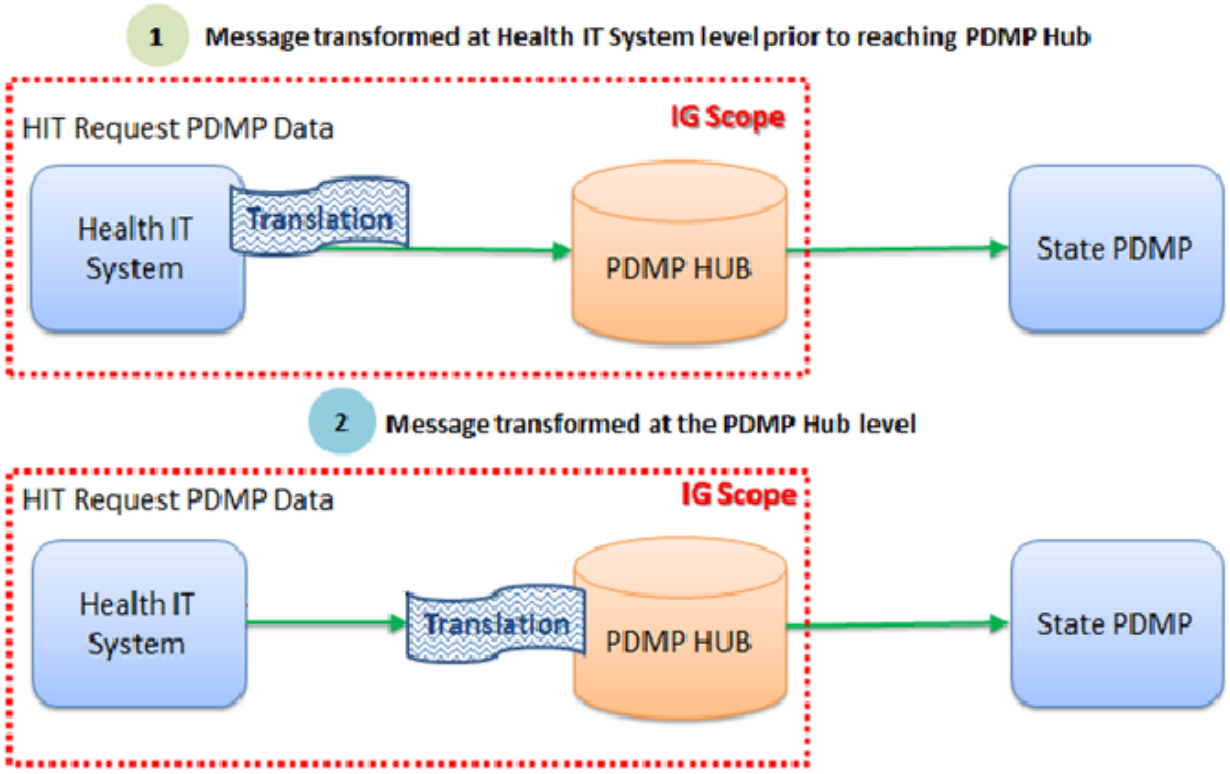
The Implementation Guide will focus on the translations between Health IT standards (NCPDP SCRIPT v10.6, ASAP Web Services V2.1A) and the PDMP native standard, PMIX, in order to facilitate interoperability and seamless integration of PDMP data into Health IT systems. Based on this initiative's solution planning work effort with PDMP community the initial focus of the implementation approach will highlight the PDMP Hub vendors as the preferred mechanism for routing and retrieval of PDMP data from multiple sources. PDMP Hubs may also provide translation or transformation services similar to intermediary actors described in the Use Case. Those other actors

may be HIEs or other systems or applications that enable translation somewhere between the Health IT system and the PDMP it queries.

Note that although this particular implementation guide strives to standardize routing and message content based on Health IT system connectivity through a PDMP Hub, it is understood that other workflows inherent to the PDMP ecosystem are capable of providing PDMP data integration. Alternate workflows that utilize intermediary actors such as HIEs or represent direct connections between Health IT Systems and PDMPs may also leverage the guidance in this artifact to enable necessary transformations for PDMP data integration.

Figure 2 below provides an illustration of the data flow between Health IT Systems, PDMP Hubs, and State PDMPs. The scope of this implementation guide is constrained to the transactions occurring between Health IT Systems and PDMP hubs, where message transformations are performed between the two entities. In certain states, regulations governing the transmission of PDMP data restrict use of PDMP Hubs or any intermediary from performing value-added services such as translations/transformations of data into different standard formats. Consequently, these scenarios imply a need for translation to occur at the Health IT System level via an interface application. The figure below demonstrates that message transformations may occur either at the Health IT System layer or in between the two systems, for example at the PDMP Hub vendor level.

Figure 2: Translation Protocol via PDMP Hub Workflow



2.1.1 Overview

The solution plan presented here derives from analyses of standards and arcHealth ITectures accommodating Provider and Pharmacy workflows and prioritized by participating S&I PDMP initiative community stakeholders. High priority workflow models for both Providers and Pharmacies along with standards were considered in developing guidance for how Health IT systems and PDMPs can effectively communicate and support the following implementation objectives:

- Integration of PDMP data within Electronic Health Record and Pharmacy systems;

- Specification and harmonization of standards that can be mapped/translated to those currently in use for PDMP data sharing capabilities;
- Seamless integration of PDMP data into EHR and Pharmacy systems through (standardized) query-response mechanism through PDMP Hubs

2.1.2 Standards

The PDMP initiative evaluated existing standards used in the community to document data elements used and also identify gaps across some common adopted standards. The purpose was to gain an understanding of the commonalities and differences in data elements used by the Actors (systems/organizations) and to identify gaps from those expected/anticipated by the community. This guide highlights the standards and specifications used to integrate PDMP data and shows how each standard contributes to interoperability between Health IT systems and PDMPs.

PMIX (the Prescription Monitoring Program Information Exchange) is important in understanding any translation that may occur within the intermediary and/or PDMP Hub vendor, as PMIX is the standard that all PDMPs and their related PDMP data sharing "hubs" use for all data exchanges. Therefore, Health IT system messages not in the PMIX format will need to be translated into PMIX during the request transaction and from PMIX back to the Health IT System standard in the response transaction. NCPDP SCRIPT v10.6, which is also specified in meaningful use certification criteria, was identified as viable candidate standard for the request-response of PDMP data. ASAP Web Services V2.1A was also identified as a viable candidate standard and provides other capabilities that allow Health IT systems to directly communicate with PDMPs.

2.2 Transaction Details

EHR and Pharmacy Systems may send requests through interface engines or application software at the EHR or Pharmacy, providing the PDMP Hub with a message compliant to the PMIX standard. In this case, the PDMP Hub can act simply as a routing mechanism. Health IT Systems may alternatively query the PDMP Hub by sending NCPDP SCRIPT v10.6, ASAP Web Services V2.1A messages to the PDMP Hub via a trusted translation service to be routed to one or more selected PDMPs. The PDMP Hub subsequently provides the necessary infrastructure to facilitate necessary translation in the form of a PMIX compliant message, to then be routed to the selected PDMP(s). Hubs have varying mechanisms for supporting requests to one or more state PDMPs as well as how Requestors and/or Requesting Facilities are authorized for querying single or multiple states.

Table 4: Transaction Details

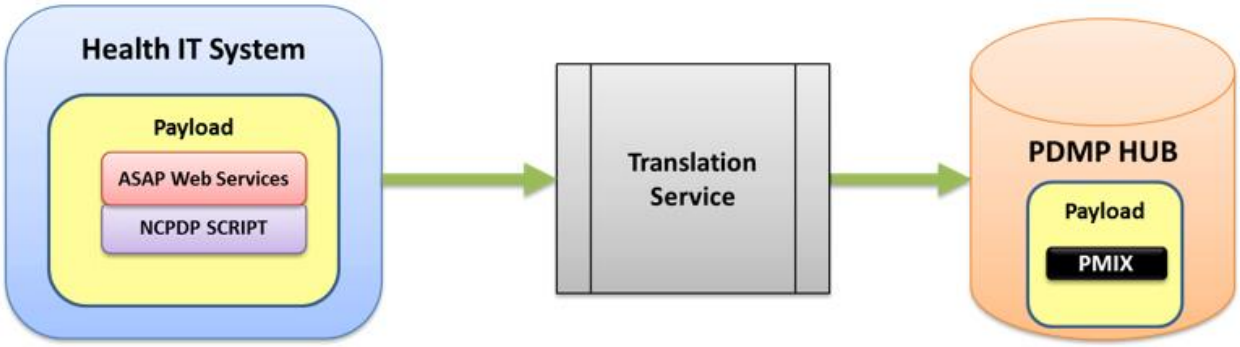
Transaction	Query Message Content + Header Standard	Routing/Container Information Standard	Location of Translation Service/Actor/ translation
Health IT →Hub	NCPDP SCRIPT v10.6	PMIX	Interface Engine
Health IT → Hub	NCPDP SCRIPT v10.6	PMIX	PDMP Hub Vendor Solution
Health IT → PDMP	ASAP Web Services V2.1A	PMIX	PDMP Hub/Interface Engine Vendor Solution

2.2.1 Request to PDMP via PDMP Hub (Health IT Systems-PDMP Hub)

Figure 3 below demonstrates the workflow of the Health IT system sending a query to the PDMP Hub, using one of two standards: ASAP Web Services V2.1A, and NCPDP SCRIPT v10.6. A translation service, provided either by the PDMP Hub vendor or a third party, offers the necessary infrastructure to convert the outbound message into a

PMIX compliant PDMP request. The message content is extracted in a manner that retains message level security and data integrity, transformed into a PMIX-structured request recognizable by the PDMP Hub. Note that the implementation guide is agnostic as to the location or entity performing such translation services.

Figure 3: Health IT Request for PDMP Data via PDMP Hub Service



Request Transaction via PDMP Hub:

Step 1: The Health IT system sends a request for PDMP Data on a specific person of interest across specified U.S. States leveraging one of two applicable standards: ASAP Web Services V2.1A, and NCPDP SCRIPT v10.6.

Step 2: A translation service/entity receives the PDMP request from the Health IT system and executes transformation/translation of the PDMP request message, including message body, header, and routing information sections of the request construct.

Step 3: PDMP Hub then receives the request in the form of a PMIX message. Note that the PDMP Hub may perform necessary authentication/authorization protocol prior to routing the patient query to state PDMPs or other hubs.

2.2.1.1 Data Elements for the Request

The Required Data Elements in the Request Transaction table below (Table 4) reflects the data elements identified by the S&I PDMP community as required for the request. Note that the request data elements described throughout the artifact are organized into two general categories: “Routing Information” and “Message Body”. Data elements described in both categories may be located in varying sections of the request message based on the configuration of the standard used to initiate the query. PDMP Hub vendors performing translation/transformation services assume responsibility of parsing the message to extract necessary data elements and develop a PMIX-compliant request to the target PDMP(s).

Some Required Data Elements are conditionally required and asterisks (*) indicate the possible value the element can include from the possible set of values where available, and only 1 is required. This is specified in within conformance statements found in Transformation details (Section 2.3) where requirements for what requests emanating from EHR or Pharmacy systems contain are addressed. For example, the option to choose an identifier other than NPI, like DEA, accommodates requestors that may not have an NPI or PDMPs that, like Rhode Island, use the DEA# to identify prescribers and dispensers.

Table 5: Required Data Elements in the Request Transaction

Element Name	Description
Routing Information	

	Element Name	Description
Request	Requestor	Person that requests PDMP data
	Requestor Role	Specifies the role of the Healthcare Professional Digit indicators (codes) are used that are tied to specific roles.
	Disclosing State(s)*[2]	State PDMPs that should receive the request. MAY NOT BE REQUIRED/TRANSMITTED IN SOME STATES/QUERIES.
	Request ID	Identification associated with transaction instance
	Request date/ timestamp	Date and Time of request
Requestor Identifier	NPI Number*	National Provider Identifier
	DEA Number*	Drug Enforcement Adminstration unique identification number.
	State License ID	A license that gives the individual the right to prescribe or dispense drugs for patients.
	State of License*[3]	State that issues the State License ID
Requesting Facility ID	DEA Number*	Drug Enforcement Adminstration unique identification number.
	NCPDP Number*	Identifier assigned by the National Council for Prescription Drug Programs. (Used only for dispensing facility)
	NPI*	National Provider Identifier
Requesting Facility	Facility Name	Name of the entity from which the Healthcare Professional sends the request (e.g. pharmacy name, hospital name, name of group practice, etc.)
	State code of Requesting Facility	U.S. Postal Service state code; consumes Requesting State field (state where request was initiated)
Message Body		
Patient	First Name	First name of patient
	Last Name	Last name of patient
	Date of Birth	Date patient was born
Request Prescription Date Range	Start Date	Used in a request for prescription data to indicate the beginning of the date range in which the responding PMP should search for prescriptions matching the search criteria.
	End Date	Used in a request for prescription data to indicate the end of the date range in which the responding PMP should search for prescriptions matching the search criteria.

NOTE: Conditionally required data elements have asterisks (*), meaning at least one data element is required within its category. For example, under Requesting Facility ID, one of the three data elements (DEA Number, NCPDP Number or NPI) is required.

[2] Not all Health IT Systems will provide the Disclosing State information in the request transaction or Disclosing State field may not be used in certain implementation scenarios

[3] Required if the State License ID is used for the Identifier.

340 ***2.2.1.2 Data Element Mapping***

341 The table below provides a high-level mapping of required PMIX data elements to selected standards (NCPDP SCRIPT v10.6, and ASAP Web Services V2.1A) for
342 the Request transaction. Note that PMIX does not explicitly require certain data elements within the IEPD and schemas. Data elements in the PMIX columns
343 that are denoted as NR reflect data elements to be transferred within a request/response based on the requirements of this initiative's Implementation Guide
344 that do not have a distinct xpath within the current PMIX IEPD. It is up to PMIX to provide specifications for how to handle these data elements for the second
345 leg of the transaction (i.e. after the request is routed from the intermediary to the state(s) PDMP.

346 **Table 6: Field Name Data Element Mapping for a PMIX Request Transaction**

Data Element	PMIX XML DE Name	NCPDP SCRIPT v10.6 XML DE Name	ASAP Web Services V2.1A XML DE Name
Requestor	<pmix:Requestor> </pmix:Requestor>	<LastName> <FirstName>	<Requestor>
Requestor Role	<pmix:RequestorRole> </pmix:RequestorRole>	<To Qualifer> <From Qualifier>	<To Qualifer> <From Qualifier>
Disclosing State	<pmix:DisclosingState> </pmix:DisclosingState>	<State>	<DisclosingStates>
Request ID	<pmix:RequestID> </pmix:RequestID>	<MessageID>	<RequestID>
Request date/ timestamp	NR[4]	<SentTime>	<QueryDate>

[4] NR = Not Relevant. An "NR" in the PMIX DE Name column indicates that while the PDMP hub or gateway requires the data element in a received request (e.g. Request date/timestamp), the PMIX message sent from the hub or gateway to the PMP will not include the field. Therefore, a PMIX equivalent for the data element is not of relevance to this IG.

Data Element		PMIX XML DE Name	NCPDP SCRIPT v10.6 XML DE Name	ASAP Web Services V2.1A XML DE Name
Requestor Identifier	DEA Number*	<nc:IdentificationID> </nc:IdentificationID>	<DEANumber>	<DEANumber>
	NPI Number*	<nc:IdentificationID> </nc:IdentificationID>	<NPI>	<NPI>
	State License ID*[5]	<nc:IdentificationID> </nc:IdentificationID>	NA	<StateLicenseNumber>
	State of License*[6]	<nc:IdentificationJurisdictionText> </nc:IdentificationJurisdictionText>	NA	<StateIssuedID>
Requesting Facility ID	DEA Number*	<nc:IdentificationID> </nc:IdentificationID>	<DEANumber>	<DEANumber>
	NCPDP Number*	<nc:IdentificationID> </nc:IdentificationID>	<NCPDPID> (only if dispensing facility)	<NCPDPProviderID>
	NPI*	<nc:IdentificationID> </nc:IdentificationID>	<NPI>	<NPI>

[5] In NCPDP SCRIPT, DEA Number or NPI Number will be used.

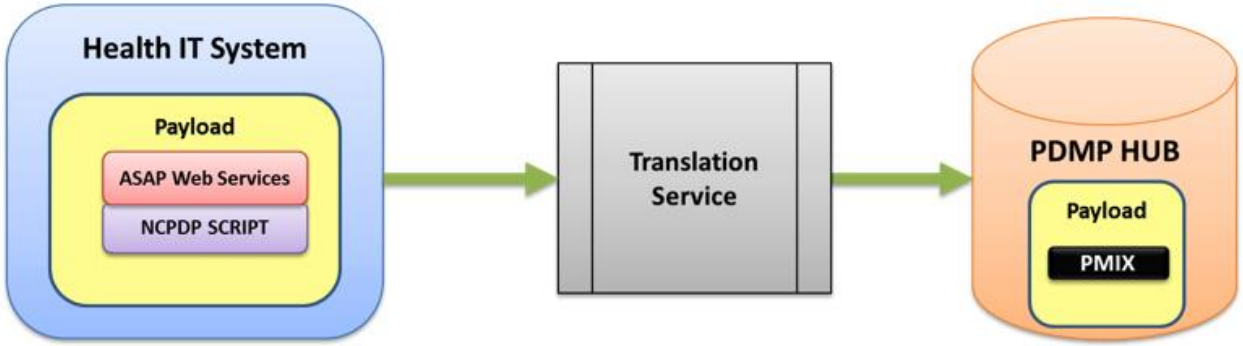
[6] Required if the State License ID is used for the Identifier.

Data Element		PMIX XML DE Name	NCPDP SCRIPT v10.6 XML DE Name	ASAP Web Services V2.1A XML DE Name
Requesting Facility	Name	<nc:OrganizationDoingBusinessAsName> </nc:OrganizationDoingBusinessAsName>	<StoreName> or <ClinicName>	<FacilityName>
	State code of Facility	<nc:LocationStateUSPostalServiceCode> </nc:LocationStateUSPostalServiceCode>	<State>	<LocationStateUsPostalServiceCode>
Patient	First Name	<nc:PersonGivenName> </nc:PersonGivenName>	<FirstName>	<GivenName>
	Last Name	<nc:PersonSurName> </nc:PersonSurName>	<LastName>	<SurName>
	Date of Birth	<nc:Date> </nc:Date>	<DateOfBirth>	<BirthDate>
Request Prescription Date Range	Start Date	<pmp:RequestPrescriptionDateRangeBegin> </pmp:RequestPrescriptionDateRangeBegin>	<EffectiveDate>	<DateRangeBegin>
	End Date	<pmp:RequestPrescriptionDateRangeEnd> </pmp:RequestPrescriptionDateRangeEnd>	<ExpirationDate>	<DateRangeEnd>

2.2.2 PDMP Hub Response to Health IT Systems

Figure 4 below demonstrates the workflow of a PDMP Hub providing a PDMP response to the Health IT System and the corresponding message content standards. The same translation service implicated in the request transaction provided either by the PDMP Hub vendor or a separate third party offers the necessary infrastructure to convert the inbound response from PMIX into the standard supported by the Health IT System. The message is received by the Health IT System as either an ASAP Web Services V2.1A XML report, or NCPDP SCRIPT v10.6 Medication History response.

Figure 4: PDMP Hub Response Workflow



Response Transaction via PDMP Hub:

Step 1: The PDMP Hub sends back a PDMP response to the translation service with PDMP data collected across requested states and other hubs in the PMIX message format.

Step 2: The same translation service implicated in the request transaction, translates/transforms the PDMP Hub response into a format supported by the requesting Health IT System.

Step 3: The Health IT System receives the PDMP response in one of two format standards: ASAP Web Services V2.1A message, or NCPDP SCRIPT v10.6 Medication History message.

2.2.2.1 Data Elements for PDMP Response

366 This section provides a list of data elements in the RESPONSE transaction between the PDMP Hub and the Health IT System. The Required Data Elements for
367 the Response shown in Table 6 reflects the data elements identified by the S&I PDMP community as required for the response.

368 Note that the response data elements, similar to that of the request, described throughout the artifact are organized into two general categories: "Routing
369 Information" and "Message Body". Data elements described in both categories may be located in varying sections of the response message based on the
370 configuration of the standard used by the Health IT System. PDMP Hub vendors performing translation/transformation services assume responsibility of
371 parsing the PMIX response to extract necessary data elements and construct a final response message conformant to the standard leveraged by the Health IT
372 System.

373

374

375 **Table 7: Required Data Elements for the Response Transaction**

Element Name		Description
Routing Information		
Response Date/Timestamp		Date and Time of Response (1 field)
Disclosing State(s)		State PDMPs providing PDMP data with patient history
Request ID		Identifier assigned in the Request. The Request ID is sent back in the Response.
Message Body		
Patient	Patient First Name	First name of patient
	Patient Last Name	Last name of patient
	Patient Date of Birth	Patient's birth date
	Patient Street Address	Street address information for patient
	Patient City Address	City name
	Patient State Code	US Postal Service State Code
	Patient Zip Code	US Postal Service Zip Code
Prescription	Prescription Filled Date	The date the prescription was filled at the pharmacy
	Prescription Written Date	The date the prescription was written by the prescriber
	Prescription Number	Serial number assigned to the prescription by the pharmacy

	Element Name	Description
	Drug Name[7]	Product name of the drug prescribed to the patient, as sent to the PDMP from the pharmacy in reporting.
	Drug Strength[8]	Strength of the dispensed product. This value can be derived by the product ID contained in the NDC code.
	Dosage Form[9]	Describes the physical form in which the medication will be delivered to the body. (Tablet, capsule, extended release tablet, syrup, injectable, etc)
	Drug Quantity	Number of metric units dispensed in the metric decimal format
	Days of Supply	Calculated or estimated number of days the medication will be consumed by the patient based on prescriber orders
	Refill Number	The number of times the prescription has been filled, with the original fill count starting at zero.
Drug	Product ID Qualifier	Qualifies the value given in the Product ID field (i.e. RxNorm ID, NDC number, etc.), as sent to the PDMP from the pharmacy in reporting. Also indicates if it's a compound.
	Product ID	Value of the Product ID, as sent to the PDMP from the pharmacy in reporting.
	Dispenser Organization Street Address[10]	Street address information for the pharmacy
	Dispenser Organization City Address[11]	City name of pharmacy
	Dispenser Organization State Code[12]	US Postal Service State Code of pharmacy
	Dispenser Organization Zip Code[13]	US Postal Service Zip Code of pharmacy
Dispenser	DEA Number*	Identifier assigned to the pharmacy by the DEA

[7] Drug Name data is required to be provided in the response, on the condition that the data is available to be sent

[8] Drug Strength data is required to be provided in the response, on the condition that the data is available to be sent

[9] Dosage Form data is required to be provided in the response, on the condition that the data is available to be sent

[10] Dispenser Organization Street Address data is required to be provided in the response, on the condition that the data is available to be sent

[11] Dispenser Organization City Address data is required to be provided in the response, on the condition that the data is available to be sent

[12] Dispenser Organization State Code data is required to be provided in the response, on the condition that the data is available to be sent

[13] Dispenser Organization Zip Code data is required to be provided in the response, on the condition that the data is available to be sent

	Element Name	Description
Organization (Pharmacy Identifier)	NCPDP Number*	Identifier assigned to the pharmacy by NCPDP
	NPI Number*	Identifier assigned to the dispenser by NPPES
Prescriber	Prescriber First Name	First name of prescriber
	Prescriber Last Name	Last name of prescriber
	Prescriber Street Address[14]	Prescriber's street address information
	Prescriber City Address[15]	City name associated with the prescriber
	Prescriber State Code[16]	US Postal Service State Code associated with the prescriber
	Prescriber Zip Code[17]	US Postal Service Zip Code associated with the prescriber
Prescriber Identifier	DEA Number*	Identifying number assigned to a prescriber or facility by the DEA
	NPI Number*	Identifier assigned to the prescriber by NPPES (Conditionally Required (if DEA not present)
	State License* Identifier	Prescriber state license number (Conditionally Required if DEA not present)
	State of License*[18]	Used to identify the prescriber's licensing state (Conditionally Required (if DEA not present)

376

[14] Prescriber Street Address data is required to be provided in the response, on the condition that the data is available to be sent

[15] Prescriber City Address data is required to be provided in the response, on the condition that the data is available to be sent

[16] Prescriber State Code data is required to be provided in the response, on the condition that the data is available to be sent

[17] Dispenser Organization Zip Code data is required to be provided in the response, on the condition that the data is available to be sent

[18] Required if the State License ID is used for the Identifier.

377 **Table 8: Required Data Elements for the Response Transaction**

OPTIONAL RESPONSE FIELDS		
Element Name		**Description**
Patient	Patient Gender	Patient's Gender
Patient Identifier[19]	SSN*	Social Security Number of patient
	License ID*	Driver's license number of patient
	State of License*	The state issuing the patient's driver's license listed above
	Passport ID*	Patient's Passport ID number
	Military ID*	Patient's Military ID number
	Tribal Identifier*	Patient's Tribal identification number
Prescription	Refill Number	The number of times the prescription has been filled, with the original fill count starting at zero.
	Refills Authorized	Number of refills authorized by the prescriber
	Partial Fill Indicator	Indicator used to signal if a prescription was only partially filled by the pharmacy
	Method of Payment	Method used to purchase the prescription
Dispenser Organization	Dispenser Organization Name (Facility)	Name of the pharmacy or dispensing facility
	Dispenser Organization Phone Number[20]	Phone number of the pharmacy

378 NOTE: Conditionally required data elements have asterisks (*), meaning at least one data element is required within its category. For example, under
379 Requesting Facility ID, one of the three data elements (DEA Number, NCPDP Number or NPI) is required.

[19] Patient Identifier data is optional in the response where permitted by policy and when available

[20] Dispenser Organization Phone Number data is optional in the response, on the condition that the data is available to be sent

380 *2.2.2.2* **Data Element Mapping for PDMP Response**

381 This section provides the data element mapping for a RESPONSE message between the PMIX standard and NCPDP SCRIPT v10.6, and ASAP Web Services V2.1A
382 standards.
383

384 **Table 9: Field Name Data Element Mapping for a PMIX Response Transaction**

385

Data Element		PMIX XML DE Name	NCPDP SCRIPT v10.6 XML DE Name	ASAP Web Services V2.1A XML DE Name
Response Date/Timestamp		<pmp:ReportExecutionDate> </pmp:ReportExecutionDate> <pmp:ReportExecutionTime> </pmp:ReportExecutionTime>	<SentTime>	<ResponseDate>
Disclosing States		<pmix:DisclosingState> </pmix:DisclosingState>	NA	<DisclosingStates> <DisclosingStates>
Request ID		NR[21]	<RelatesToMessageID>	<RequestID> <RequestID>
Patient	First Name	<nc:PersonGivenName> </nc:PersonGivenName>	<FirstName>	<GivenName>
	Last Name	<nc:PersonSurName> </nc:PersonSurName>	<LastName>	<SurName>
	Date of Birth	<nc:Date> </nc:Date>	<DateOfBirth>	<BirthDate>
	Gender	<nc:PersonSexCode> </nc:PersonSexCode>	<Gender>	<Gender>
	Street Address	<nc:StreetFullText> </nc:StreetFullText>	<AddressLine1> <AddressLine2>	<Street Address> <Street Address2>
	City Address	<nc:LocationCityName> </nc:LocationCityName>	<City>	<City>
	State Code	<nc:LocationStateUSPostalServiceCode>	<State>	<LocationStateUsPostalServiceCode>

[21] NR = Not Relevant. An "NR" in the PMIX DE Name column indicates that while the PDMP hub or gateway requires the data element in a received request (e.g. Request date/timestamp), the PMIX message sent from the hub or gateway to the PMP will not include the field. Therefore, a PMIX equivalent for the data element is not of relevance to this IG.

		</nc:LocationStateUSPostalServiceCode>		
	Zip Code	<nc:LocationPostalCode> </nc:LocationPostalCode> <nc:LocationPostalExtensionCode> </nc:LocationPostalExtensionCode>	<ZipCode>	<LocationPostalCode>
Prescription	Filled Date	<pmp:ReportDateRangeBegin> </pmp:ReportDateRangeBegin> <pmp:ReportDateRangeEnd> </pmp:ReportDateRangeEnd>	<LastFillDate>	<DispenseDate>
	Written Date	<nc:Date> </nc:Date>	<WrittenDate>	<WrittenDate>
	Number	<pmp:PrescriptionNumberText> </pmp:PrescriptionNumberText>	<SourceReference>	<PrescripionNumber>
	Drug Name[22]	<pmp:DrugProductNameText> </pmp:DrugProductNameText>	<DrugDescription>	<DrugName>
	Strength[23]	<pmp:DrugStrengthText> </pmp:DrugStrengthText>	<Strength>, <StrengthCode> Fields	<Strength>
	Dosage Form[24]	<pmp:DrugUnitOfMeasureText></pmp:DrugUnitOfMeasureText>	<FormCode>	<DosageForm>
	Quantity	<pmp:DispensedQuantity> </pmp:DispensedQuantity>	<Quantity>	<Quantity>
	Days of Supply	<pmp:DaysSupplyCount> </pmp:DaysSupplyCount>	<DaysSupply>	<DaysSupply>
	Refill Number	<pmp:DrugRefillNumberCount> </pmp:DrugRefillNumberCount>	<FillNumber>	<FillNumber>
	Refills Authorized	<pmp:RefillsAuthorizedCount> </pmp:RefillsAuthorizedCount>	<Refills>	<RefillsAuthorized>

[22] Drug Name data is required to be provided in the response, on the condition that the data is available to be sent

[23] Drug Strength data is required to be provided in the response, on the condition that the data is available to be sent

[24] Dosage Form data is required to be provided in the response, on the condition that the data is available to be sent

	Partial Fill Indicator	<pmp:PartialFillIndicator> </pmp:PartialFillIndicator>	gap[25]	<PartialFillIndicator>
	Method of Payment	<pmp:MethodOfPaymentCode> </pmp:MethodOfPaymentCode>	<Note>	<PaymentType>
Drug	Product ID Qualifier	<pmp:DrugCPDProductIdentifier> <pmp:DrugDINProductIdentifier> <pmp:DrugHRIProductIdentifier> <pmp:DrugNDCProductIdentifier> <pmp:DrugUPCProductIdentifier> <pmp:DrugUPNProductIdentifier>	<CodeListQualifer>	<ProductIDQualifier>
	Product ID	<IdentificationID>	<ProductCode>	<ProductID>
Dispenser Organization (Pharmacy)	Name	<nc:OrganizationDoingBusinessAsName> </nc:OrganizationDoingBusinessAsName>	<StoreName>	<PharmacyName>
	Street Address[26]	<nc:StreetFullText> </nc:StreetFullText>	<AddressLine1> <AddressLine2>	<Street Address> <Street Address2>
	City Address[27]	<nc:LocationCityName> </nc:LocationCityName>	<City>	<City>
	State Code[28]	<nc:LocationStateUSPostalServiceCode> </nc:LocationStateUSPostalServiceCode>	<State>	<LocationStateUsPostalServiceCode>
	Zip Code[29]	<nc:LocationPostalCode> </nc:LocationPostalCode>	<ZipCode>	<LocationPostalCode>

[25] NCPDP participants are concerned with use of this field misunderstanding that could occur and will discuss further if it would be added to a future version of the NCPDP SCRIPT Medication History transaction.

[26] Dispenser Organization Street Address data is required to be provided in the response, on the condition that the data is available to be sent

[27] Dispenser Organization City Address data is required to be provided in the response, on the condition that the data is available to be sent

[28] Dispenser Organization State Code data is required to be provided in the response, on the condition that the data is available to be sent

[29] Dispenser Organization Zip Code data is required to be provided in the response, on the condition that the data is available to be sent

	Phone Number[30]	<nc:TelephoneNumberFullID> </nc:TelephoneNumberFullID>	<CommunicationNumber>	<Phone>
Dispenser Organization (Pharmacy) Identifier	DEA Number*	<nc:IdentificationID> </nc:IdentificationID>	<DEANumber>	<DEANumber>
	NCPDP Number*	<nc:IdentificationID> </nc:IdentificationID>	<NCPDPID>	<NCPDPProviderID>
	NPI Number*	<nc:IdentificationID> </nc:IdentificationID>	<NPI>	<NationalProviderID>
Prescriber	First Name	<nc:PersonGivenName> </nc:PersonGivenName>	<FirstName>	<GivenName>
	Last Name	<nc:PersonSurName> </nc:PersonSurName>	<LastName>	<SurName>
	Street Address[31]	<nc:StreetFullText> </nc:StreetFullText>	<AddressLine1> <AddressLine2>	<StreetAddress2> <StreetAddress3>
	City Address[32]	<nc:LocationCityName> </nc:LocationCityName>	<City>	<City>
	State Code[33]	<nc:LocationStateUSPostalServiceCode> </nc:LocationStateUSPostalServiceCode>	<State>	<LocationStateUsPostalServiceCode>
	Zip Code[34]	<nc:LocationPostalCode> </nc:LocationPostalCode>	<ZipCode>	<LocationPostalCode>

[30] Dispenser Organization Phone Number data is optional in the response, on the condition that the data is available to be sent

[31] Prescriber Street Address data is required to be provided in the response, on the condition that the data is available to be sent

[32] Prescriber City Address data is required to be provided in the response, on the condition that the data is available to be sent

[33] Prescriber State Code data is required to be provided in the response, on the condition that the data is available to be sent

[34] Prescriber Zip Code data is required to be provided in the response, on the condition that the data is available to be sent

386

Prescriber Identifier	DEA Number*	<nc:IdentificationID> </nc:IdentificationID>	<DEANumber>	<DEANumber> <DeaNumberSuffix>
	NPI Number*	<nc:IdentificationID> </nc:IdentificationID>	<NPI>	<NPI>
	State License Identifier*	<nc:IdentificationID> </nc:IdentificationID>	NA	<StateLicenseNumber>
	State of License*[35]	<nc:IdentificationJurisdictionText> </nc:IdentificationJurisdictionText>	NA	<StateIssuedID>

[35] Required if the State License ID is being used as the Identifier.

2.3 Transformation/Translation Details

This section describes the implementation details to transform messages between PMIX and each of the three standards used in this guide- NCPDP SCRIPT v10.6, ASAP Web Services V2.1A.

2.3.1 Request: NCPDP SCRIPT v10.6 to PMIX

Table 10: Request Transformation Details from NCPDP SCRIPT v10.6 to PMIX

Data Element	PMIX					NCPDP SCRIPT				
	DE Name	Element Path	Optionality	Cardinality	Data Type/ Code set	DE Name	Element Path	Optionality	Cardinality	Data Type/ Code set
Routing Information										
Requestor	<pmix:Requestor> </pmix:Requestor>	NA	R	1..1	Unspecified	<LastName> <FirstName>	SCRIPT:RxHistoryRequest /Pharmacy /Pharmacist/ OR SCRIPT:RxHistoryRequest /Prescriber /Name/	CR	1..1	AN..35
Requestor Role	<pmix:RequestorRole> </pmix:RequestorRole>	/pmix:MetaData/	R	1..1	Unspecified	<To Qualifier>[36] <From Qualifier> Derived from Qualifier – if	SCRIPT:RxHistoryRequest /Header /From	R	1..1	string

[36] Data element Requestor Role is not currently in NCPDP SCRIPT v10.6, but will be derived from the <Qualifier> field as shown above. This value will be further defined by taxonomy code mapping.

							"P" Pharmacist if "D" Prescriber if "C" Clinic				
Disclosing State		<pmix:DisclosingState> </pmix:DisclosingState>	/pmix:MetaData /pmix:RoutingData/	R	1..1	Unspecified	<State>[37]	SCRIPT:RxHistoryRequest /Prescriber /Address OR SCRIPT:RxHistory Request /Pharmacy /Address	CR	0..1	string
Request ID		<pmix:RequestID> </pmix:RequestID>	/pmix:MetaData /pmix:RoutingData/	R	1..1		<MessageID>	SCRIPT:RxHistoryRequest /Header/	R	1..1	AN..35
Request date/ timestamp		Unspecified	Unspecified	R	1..1	Unspecified	<SentTime>	SCRIPT:RxHistoryRequest /Header/	R	1..1	Date or DateTime
Requestor Identifier	DEA Number*	<nc:IdentificationID> </nc:IdentificationID>	pmp:DEANumberIdentifier/	CR	0..1	nc:IdentificationID	<DEANumber>	SCRIPT:RxHistoryRequest /Prescriber /Identification	CR	0..3	AN..35
	NPI Number*	<nc:IdentificationID> </nc:IdentificationID>	pmp:NPIIdentifier/	CR	0..1	nc:IdentificationID	<NPI>	SCRIPT:RxHistoryRequest /Prescriber /Identification	CR	0..3	AN..35
	State License ID*[38]	<nc:IdentificationID> </nc:IdentificationID>	pmp:StateLicenseIdentifier/	CR	0..1	nc:IdentificationID	NA				

[37] Data element Disclosing State is not currently in NCPDP SCRIPT v10.6, but will be derived from the <State> field as shown above.

[38] Required if License is being used as the Identifier.

	State of License* [39]	<nc:IdentificationJurisdictionText></nc:IdentificationJurisdictionText	pmp:StateLicenseIdentifier/	CR	0..1	Unspecified	**NA**				
Requesting Facility ID	DEA Number*	<nc:IdentificationID></nc:IdentificationID>	pmp:DEANumberIdentifier/	CR	0..1	nc:IdentificationID	<DEANumber>	SCRIPT:RxHistoryRequest /Pharmacy /Identification> or <Prescriber><Identification>	CR	0..3	AN..35
	NCPDP Number*	<nc:IdentificationID></nc:IdentificationID>	pmp:NCPDPIdentifier/	CR	0..1	nc:IdentificationID	<NCPDPID> (only if dispensing facility)	SCRIPT:RxHistoryRequest /Pharmacy /Identification NA for Prescriber Facility ID	CR	0..3	AN..35
	NPI*	<nc:IdentificationID></nc:IdentificationID>	pmp:NPIIdentifier/	CR	0..1	nc:IdentificationID	<NPI>	SCRIPT:RxHistoryRequest /Pharmacy /Identification/	CR	0..3	AN..35
Requesting Facility	Name	<nc:OrganizationDoingBusinessAsName></nc:OrganizationDoingBusinessAsName>	pmp:Prescription /pmp:Dispenser/	R	1..1	nc:OrganizationType	<StoreName> or <ClinicName>	SCRIPT:/RxHistory Request /Pharmacy/ OR SCRIPT:/RxHistory Request /Prescriber/	CR	0..1	AN..35
	State code of Requesti	<nc:LocationStateUSPostalServiceCode>	pmp:Prescription /pmp:Dispenser /nc:OrganizationLocation /nc:LocationAddress	R	1..1	usps:USStateCodeType	<State>	SCRIPT:RxHistoryRequest /Pharmacy /Address	CR	0..1	string

[39] Required if the State License ID is being used as the Identifier.

	ng Facility	</nc:LocationStateUSPostalServiceCode>	/nc:StructuredAddress/					OR SCRIPT:/RxHistoryRequest /Prescriber /Address			
Message Body											
Patient Name	First Name	<nc:PersonGivenName> </nc:PersonGivenName>	/pmix:PMPRequest /pmp:RequestPatient /nc:PersonName/	R	1..1	nc:PersonNameTextType	<FirstName>	SCRIPT:RxHistoryRequest /Patient /Name	R	1..1	AN..35
	Last Name	<nc:PersonSurName> </nc:PersonSurName>	/pmix:PMPRequest /pmp:RequestPatient /nc:PersonName/	R	1..1	nc:PersonNameTextType	<LastName>	SCRIPT:RxHistoryRequest /Patient /Name	R	1..1	AN..35
	Date of Birth	<nc:Date> </nc:Date>	/pmix:PMPRequest /pmp:RequestPatient /nc:PersonBirthDate/	R	1..1	niem-xsd:date	<DateOfBirth>	SCRIPT:RxHistoryRequest /Patient/	R	0..1	Date or DateTime
Request Prescription Date Range	Start Date	<pmp:RequestPrescriptionDateRangeBegin> </pmp:RequestPrescriptionDateRangeBegin>	/pmix:PMPRequest /pmp:RequestPrescriptionDateRange/	R	1..1	niem-xsd:date	<EffectiveDate>	SCRIPT:RxHistoryRequest /BenefitsCoordination/	R	1..1	Date or DateTime
	End Date	<pmp:RequestPrescriptionDateRangeEnd> </pmp:RequestPrescriptionDateRangeEnd>	/pmix:PMPRequest /pmp:RequestPrescriptionDateRange/	R	1..1	niem-xsd:date	<ExpirationDate>	SCRIPT:RxHistoryRequest /BenefitsCoordination/	R	1..1	Date or DateTime

393

2.3.1.1 Coded Example

This section provides an example of a NCPDP SCRIPT Request transformation. The following shows a Request being made by a Pharmacist. Note while there are additional Data element fields, these fields are not mandatory.

```
<?xml version="1.0" encoding="UTF-8"?>
<!--Sample XML file generated by XMLSpy v2011 rel. 3 sp1 (x64) (http://www.altova.com)-->
<Message HighestVersionSupported="" release="006" version="010"
xsi:schemaLocation="http://www.ncpdp.org/schema/SCRIPT SCRIPT_XML_10_6.xsd"
  xmlns="http://www.ncpdp.org/schema/SCRIPT"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <Header>
    <To Qualifier="ZZZ">3428903284</To>
    <From Qualifier="P">7701630</From>
    <MessageID>123456789AA001</MessageID>
    <SentTime>2014-08-21T16:00:47Z</SentTime>
    <DisclosingState>
      <State>VA</State>
    </DisclosingState>
    <Security>
      <UsernameToken>
        <Username/>
        <Password Type="PasswordDigest">String</Password>
        <Nonce/>
        <Created>2014-08-21T16:00:00Z</Created>
      </UsernameToken>
      <Sender>
        <SecondaryIdentification>PASSWORD</SecondaryIdentification>
        <TertiaryIdentification/>
      </Sender>
      <Receiver>
        <SecondaryIdentification/>
        <TertiaryIdentification/>
      </Receiver>
    </Security>
  </Header>
  <Body>
    <RxHistoryRequest>
      <Pharmacist>
        <LastName>BARTON</LastName>
        <FirstName>CLARA</FirstName>
        <Identification>
          <NPI>1234567890</NPI>
          <DEANumber></DEANumber>
        </Identification>
      </Pharmacist>
      <Pharmacy>
        <Identification>
          <NPI></NPI>
          <DEANumber>BJ6125341</DEANumber>
          <NCPDPID></NCPDPID>
        </Identification>
        <StoreName>RITE WAY PHARMACY</StoreName>
        <Address>
```

```
            <AddressLine1>1 STATE STREET</AddressLine1>
            <City>SOMEWHERE</City>
            <State>VA</State>
            <ZipCode>015660000</ZipCode>
          </Address>
        </Pharmacy>
        <Patient>
          <Name>
            <LastName>FLEMING</LastName>
            <FirstName>ALEXANDER</FirstName>
          </Name>
          <Gender>M</Gender>
          <DateOfBirth>
            <Date>1981-08-08</Date>
          </DateOfBirth>
        </Patient>
        <BenefitsCoordination>
          <EffectiveDate>
            <Date>2014-08-01</Date>
          </EffectiveDate>
          <ExpirationDate>
            <Date>2014-08-20</Date>
          </ExpirationDate>
          <Consent>N </Consent>
        </BenefitsCoordination>
      </RxHistoryRequest>
    </Body>
</Message>
```

In this example, the Prescriber is making the Request.

```
<?xml version="1.0" encoding="UTF-8"?>
<!--Sample XML file generated by XMLSpy v2011 rel. 3 sp1 (x64) (http://www.altova.com)-->
<Message HighestVersionSupported="" release="006" version="010"
xsi:schemaLocation="http://www.ncpdp.org/schema/SCRIPT SCRIPT_XML_10_6.xsd"
  xmlns="http://www.ncpdp.org/schema/SCRIPT"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <Header>
    <To Qualifier="ZZZ">3428903284</To>
    <From Qualifier="C">ASEUROWEDF</From>
    <MessageID>123456789AA001</MessageID>
    <SentTime>2014-08-21T16:00:47Z</SentTime>
    <DisclosingState>
      <State>VA</State>
    </DisclosingState>
    <Security>
      <UsernameToken>
        <Username/>
        <Password Type="PasswordDigest">String</Password>
        <Nonce/>
        <Created>2001-12-17T09:30:47Z</Created>
      </UsernameToken>
      <Sender>
        <SecondaryIdentification>PASSWORD</SecondaryIdentification>
```

```
            <TertiaryIdentification/>
          </Sender>
          <Receiver>
            <SecondaryIdentification/>
            <TertiaryIdentification/>
          </Receiver>
        </Security>
      </Header>
      <Body>
        <RxHistoryRequest>
          <Prescriber>
            <Specialist> Physician  </Specialist>
            <Name>
              <LastName>SMITH</LastName>
              <FirstName>JACK</FirstName>
            </Name>
            <Identification>
              <NPI>3209998001</NPI>
              <DEANumber>AX123234</DEANumber>
            </Identification>
          </Prescriber>
          <Clinic>
            <ClinicName>SMITH ASSOCIATES</ClinicName>
            <Address>
              <AddressLine1>1801 LAWN DRIVE</AddressLine1>
              <City>SOMEWHERE</City>
              <State>MA</State>
              <ZipCode>015660000</ZipCode>
            </Address>
            <Identification>
              <NPI></NPI>
              <DEANumber>AX123234</DEANumber>
              <NCPDPID></NCPDPID>
            </Identification>
          </Clinic>
          <Patient>
            <Name>
              <LastName>JONES</LastName>
              <FirstName>DEAN</FirstName>
            </Name>
            <Gender>M</Gender>
            <DateOfBirth>
              <Date>1960-03-18</Date>
            </DateOfBirth>
          </Patient>
          <BenefitsCoordination >
            <EffectiveDate>
              <Date>2014-08-01</Date>
            </EffectiveDate>
            <ExpirationDate>
              <Date>2014-08-20</Date>
            </ExpirationDate>
            <Consent>N</Consent>
          </BenefitsCoordination>
        </RxHistoryRequest>
```

```
  </Body>
</Message>
```

2.3.1.2 Conformance Statements

This section describes what implementers must do to claim conformance with this Implementation Guide.

Request message

NCPDP SCRIPT RxHistoryRequest to PMIX

1. Each Request SHALL have *one each* of following data elements:
    i. Requestor: <FirstName> <LastName>
    ii. Requestor Role: <From Qualifier>
    iii. Disclosing State: <State>
    iv. Request ID: <MessageID>
    v. Request Date/Timestamp: <SentTime>
    vi. Patient First Name: <FirstName>
    vii. Patient Last Name: <LastName>
    viii. Patient Date of Birth: <DateOfBirth>
    ix. Requesting Facility Name: <StoreName> or <ClinicName>
    x. State Code of Requesting Facility: <State>
2. Each Request SHALL have one Requestor Identifier. The Identifier SHALL be one of the following:
    i. DEA Number: <DEANumber>
    ii. NPI Number: <NPI>
3. The Requestor in the Request SHALL be one of the following:
    i. Prescriber
    ii. Dispenser
4. The Requestor Role in the Request SHALL be one of the following:
    i. Dispenser: If <From><Qualifier> is "P"
    ii. Prescriber: If <From><Qualifier> is "D" or "C"
5. If the Requestor Role in the Request requires more specificity, the Request SHALL have a qualifier (<Specialty[40]>) to provide additional information about the Requestor's role.
6. Each Request SHALL have *one* Requesting Facility ID. The ID SHALL be one of the following:
    i. DEA Number: <DEANumber>
    ii. NCPDP Number: <NCPDPID>
    iii. NPI Number: <NPI>

[40] The Specialty field will contain a value, which will be further defined by taxonomy code mapping. Appendix B has Value sets with preliminary mapping for role (NCPDP mapped to 6-8 roles). The SCRIPT Standard supports the HIPAA-named NUCC Taxonomy codes for Specialty.

590 7. The Requesting Facility in the Request for a Requestor that is a Prescriber SHALL be the Prescriber
591 Facility to which the Prescriber is affiliated i.e. <ClinicName>
592 8. The Requesting Facility in the Request for a Requestor that is a Dispenser SHALL be the Pharmacy to
593 which the Dispenser is affiliated i.e. <StoreName>
594 9. The State Code of Requesting Facility in the Request SHALL be the state code of the Requesting
595 Facility to which the Requestor is affiliated.
596 10. The Disclosing State in the Request SHALL be derived from the State Code of Requesting Facility.[41]
597 11. Each Request MAY have one instance of the Consent field <Consent>[42]

[41] PDMP hubs should ignore the value in this field for NCPDP request messages. Where the hub has agreements with specific state PMPs, the hub should query all of those state PMPs for the requested information and include the relevant information returned from each of the PMPs in the response to the NCPDP system.

[42] This IG assumes that patient consent is not required for a PDMP query

2.3.2 Request: ASAP Web Services V2.1A to PMIX

Table 11: Request Transformation Details from ASAP Web Services V2.1A to PMIX

Data Element	PMIX					ASAP Web Services V2.1A				
	DE Name	Element Path	Optionality	Cardinality	Data Type	DE Name	Element Path	Optionality	Cardinality	Data Type
Routing Information										
Requestor	<pmix:Requestor> </pmix:Requestor>	/pmix:PMPRequest /pmp:RequestPatient /nc:PersonName/	R	1..1	Unspecified	<Requestor>[43]	RequestRoutingData/Requestor	R	1..1	string
Requestor Role	<pmix:RequestorRole> </pmix:RequestorRole>	/pmix:MetaData/	R	1..1	Unspecified	<RequestorRole>	RequestRoutingData/RequestorRole	R	1..1	string
Disclosing States	<pmix:DisclosingState> </pmix:DisclosingState>	/pmix:MetaData /pmix:RoutingData/	R	1..1	Unspecified	<DisclosingStates>	RequestRoutingData/DisclosingState	R	1..n	string
Request ID	<pmix:RequestID> </pmix:RequestID>	/pmix:MetaData /pmix:RoutingData/	R	1..1	Unspecified	<RequestID>	RequestRoutingData/RequestID	R	1..1	string

[43] The requestor can opt to optionally ask for third party risk assessment software

Request Date/Timestamp		Unspecified	Unspecified	R	1..1	Unspecified	<QueryDate>	AdHocPMPRequest/req/QueryDate	R	1..1	dateTime
Requestor Identifier	DEA Number (PrescriberID)[44]	<nc:IdentificationID> </nc:IdentificationID>	pmp:DEANumberIdentifier/	CR	0..1	nc:IdentificationID	<DEANumber>	RequestRoutingData/RequestorID/DEANumber	CR	0..1	string
	NPI (Prescriber ID)	<nc:IdentificationID> </nc:IdentificationID>	pmp:NPIIdentifier/	CR	0..1	nc:IdentificationID	<NationalProviderID>	RequestRoutingData/RequestorID/NPI	CR	0..1	string
	State License ID (Prescriber ID)	<nc:IdentificationID> </nc:IdentificationID>	pmp:StateLicenseIdentifier/	CR	0..1	nc:IdentificationID	<StateLicenseNumber>	RequestRoutingData/RequestorID/StateLicenseNumber	CR	0..1	string
	State of License	<nc:IdentificationJurisdictionText> </nc:IdentificationJurisdictionText	pmp:StateLicenseIdentifier/	CR	0..1	nc:IdentificationJurisdiction	<StateIssuedID>	RequestRoutingData/RequestorID/StateIssuedID	CR	0..1	string
Requesting Facility ID	DEA Number (Facility ID)	<nc:IdentificationID> </nc:IdentificationID>	pmp:DEANumberIdentifier/	CR	0..1	nc:IdentificationID	<DEANumber>	RequestRoutingData/RequestingFacilityID/DEANumber	CR	0..1	string
	NCPDP Number (Facility ID)	<nc:IdentificationID> </nc:IdentificationID>	pmp:NCPDPIdentifier/	CR	0..1	nc:IdentificationID	<NCPDPProviderID>	RequestRoutingData/RequestingFacilityID/NCPDPProviderID	CR	0..1	string
	NPI Number (Facility ID)	<nc:IdentificationID> </nc:IdentificationID>	pmp:NPIIdentifier/	CR	0..1	nc:IdentificationID	<NationalProviderID>	RequestRoutingData/RequestingFacilityID/NPI	CR	0..1	string

[44] The Requestor Identifier ID can be one of four values (DEA Number, NCPDP Provider ID, NPI, State License ID)

Facility	Facility Name	<nc:OrganizationDoingBusinessAsName> </nc:OrganizationDoingBusinessAsName> <nc:OrganizationName>	pmp:Prescription /pmp:Dispenser/	R	1..1	nc:OrganizationType	<FacilityName>	RequestRoutingData/RequestingFacility/FacilityName	R	1..1	string
	State code of Requesting Facility	<nc:LocationStateUSPostalServiceCode> </nc:LocationStateUSPostalServiceCode>	pmp:Prescription /pmp:Dispenser /nc:OrganizationLocation /nc:LocationAddress /nc:StructuredAddress/	R	1..1	usps:USStateCodeType	<LocationStateUsPostalServiceCode>	RequestRoutingData/RequestingFacility/LocationStateUsPostalServiceCode	R	1..1	string
Message Body											
Patient	First Name	<nc:PersonGivenName> </nc:PersonGivenName>	/pmix:PMPRequest /pmp:RequestPatient /nc:PersonName/	R	1..1	nc:PersonNameTextType	<GivenName>	AdHocPMPRequest /req/Patient/Name /GivenName	R	1..1	string
	Last Name	<nc:PersonSurName> </nc:PersonSurName>	/pmix:PMPRequest /pmp:RequestPatient /nc:PersonName/	R	1..1	nc:PersonNameTextType	<SurName>	AdHocPMPRequest /req/Patient/Name /SurName	R	1..1	string
	Date of Birth	<nc:Date> </nc:Date>	/pmix:PMPRequest /pmp:RequestPatient /nc:PersonBirthDate/	R	1..1	niem-xsd:date	<BirthDate>	AdHocPMPRequest /req/Patient/BirthDate	R	1..1	date
Request Prescription Date Range	Request Prescription Date Range (Start Date)	<pmp:RequestPrescriptionDateRangeBegin> </pmp:RequestPrescriptionDateRangeBegin>	/pmix:PMPRequest /pmp:RequestPrescriptionDateRange/	R	1..1	niem-xsd:date	<DateRangeBegin>	AdHocPMPRequest /req/RequestDateRange/DateRangeBegin	R	1.1	date
	Request Prescription Date	<pmp:RequestPrescriptionDateRangeEnd>	/pmix:PMPRequest /pmp:RequestPrescriptionDateRange/	R	1..1	niem-xsd:date	<DateRangeEnd>	AdHocPMPRequest /req/RequestDateRange/DateRangeEn	R	1..1	date

	Range (End Date)	</pmp:RequestPrescriptionDateRangeEnd>						d			

600

2.3.2.1 ASAP Web Services Coded Example (for a Request Transformation)

In this example, the ASAP Web Services Standard PMP Detailed Query provides the patient name, patient date of birth, request date/timestamp, and request date range within the body of the request transaction, as specified by the ASAP Web Services Standard V2.1A. Data elements specified as required within this implementation guide are included within the SOAP envelope or transport layer of the query transmission. These data elements, as written in the conformance statements below, provide routing information essential to the PDMP Hubs and/or other intermediaries providing routing or translation services necessary for interoperability.

PDMP data requests originating from Health IT Systems are subject to state policies or laws governing the exchange of PDMPdata. Such policies may restrict healthcare professionals to query for a person of interest in his/her state, while other states may allow for PDMP searches to span multiple PDMP databases per established business agreements or memorandums of understanding (MOUs). PDMP Hubs, in particular, provide the technology infrastructure necessary to widen search criteria to multiple states where agreements for interstate data sharing have been authorized and extended to the requesting healthcare entity. The example below assumes that the requesting healthcare entity is authorized to select multiple inputs for target PDMPs. The PDMP Hub[45], in this example, extends the search criteria to include Virginia AND Maryland as choices for the requestor and assumes the back-end infrastructure responsibility to enable multiple state querying.

```
<?xml version="2.1A" encoding="utf-8"?>
<s:Envelope
  xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <RequestRoutingData>
    <Requestor>Clara Barton</Requestor>
    <RequestorRole>Pharmacist</RequestorRole>
    <RequestID>123456789AA001 </RequestID>
    <DisclosingStates>MD</DisclosingStates>
    <DisclosingStates>VA</DisclosingStates>
    <QueryDate> xxxxxxxx </QueryDate>
    <RequestingFacilityID>
      <DEANumber></DEANumber>
      <NPI>1234567890</NPI>
      <NCPDPProviderID></NCPDPProviderID>
    </RequestingFacilityID>
    <RequestingFacility>
      <FacilityName>Rite Way Pharmacy</FacilityName>
      <LocationStateUsPostalServiceCode>VA</LocationStateUsPostalServiceCode>
    </RequestingFacility>
    <RequestorID>
      <DEANumber>BJ6125341 </DEANumber>
      <NPI></NPI>
      <StateLicenseNumber></StateLicenseNumber>
      <StateIssuedID></StateIssuedID>
    </RequestorID>
  </RequestRoutingData>
  <s:Body
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <AdHocPMPRequest
      xmlns="http://www.asapnet.org/pmprequest">
```

[45] PMP Gateway – in one request, multiple states are queried at once.

```
        <userId>user@somepharmacy.com</userId>
        <passwordDigest>ajJHM1ZGN1lOa05udGV1VjJGVmhFaWNNbGhjPQ==</passwordDigest>
        <nonce>0F2ED1EA-2E78-48CC-9D22-C70A1FEB7615</nonce>
        <ts>2014-08-21T14:12:47.8088824-04:00</ts>
        <req xsi:type="PMPDetailedQuery">
          <RequestDateRange>
            <DateRangeBegin>2014-08-01T00:00:00</DateRangeBegin>
            <DateRangeEnd>2014-08-20T00:00: </DateRangeEnd>
          </RequestDateRange>
          <Patient>
            <BirthDate>1981-08-08T00:00:00</BirthDate>
            <Name>
              <GivenName>Alexander</GivenName>
              <SurName>Fleming</SurName>
            </Name>
          </Patient>
        </req>
      </AdHocPMPRequest>
    </s:Body>
  </s:Envelope>
```

2.3.2.2 Request Conformance Statements

A. ASAP Web Services to PMIX

1. Each Request SHALL have *one of each* of the following data elements:
   i. Requestor: <Requestor>
   ii. Requestor Role: <RequestorRole>
   iii. Request ID: <RequestID>
   iv. Request Date/Timestamp: <ts>
   v. Disclosing State: <DisclosingState>
   vi. Requesting Facility Name: <FacilityName>
   vii. State Code of Requesting Facility: <LocationStateUsPostalServiceCode>
   viii. Patient First Name: <GivenName>
   ix. Patient Last Name: <SurName>
   x. Patient Date of Birth: <BirthDate>
   xi. Request Prescription Date Range – Begin Date: <DateRangeBegin>
   xii. Request Prescription Date Range – End Date: <DateRangeEnd>
2. The Requestor in the Request SHALL be one of the following healthcare professional types referenced in the Appendix section table titled, "Role Value Set", verified by governance policy set forth by the state PDMP(s)
3. Each Request SHALL have *one* Requestor Identifier: <RequestorID>. The Identifier SHALL be one of the following:
   i. DEA Number: <DEANumber>
   ii. NPI Number: <NPI>
   iii. State License ID: <StateLicenseNumber>
4. Each Request SHALL have *one* State of License if State License ID <StateIssuedID> is provided.
5. Each Request SHALL have *one* Requesting Facility ID <RequestingFacilityID>. The ID SHALL be one of the following:
   i. DEA Number: <DEANumber>
   ii. NCPDP Number: <NCPDPProviderID>
   iii. NPI Number: <NPI>

2.3.3 Response: PMIX to NCPDP SCRIPT v10.6

Table 12: Response Transformation Details from PMIX to NCPDP SCRIPT v10.6

Data Element		PMIX					NCPDP SCRIPT				
		DE Name	Element Path	Optionality	Cardinality	Data Type/ Code set	DE Name	Element Path	Optionality	Cardinality	Data Type/ Code set
Routing Information											
Response Date/ Timestamp		<pmp:ReportExecutionDate> </pmp:ReportExecutionDate> <pmp:ReportExecutionTime> </pmp:ReportExecutionTime>	Top-level pmix:RoutingData/	R	1..1	Unspecified	<SentTime>	SCRIPT:RxHistoryResponse /Header/	R	1..1	string
Disclosing State		<pmix:DisclosingState> </pmix:DisclosingState>	pmix:RoutingData/	R	1..N	Unspecified	NA	NA	NA	NA	NA
Request ID		<pmix:RequestID> </pmix:RequestID>	pmix:RoutingData/	R	1..1	Unspecified	<RelatesToMessage ID>	SCRIPT:RxHistoryREsponse /Header/	R	1..1	AN..35
Message Body											
Patient	First Name	<nc:PersonGivenName> </nc:PersonGivenName>	pmp:Prescription /pmp:Patient /nc:PersonName/	R	1..N	nc:TextType	<FirstName>	SCRIPT:RxHistoryResponse /Patient /Name/	R	1..1	AN..35
	Last Name	<nc:PersonSurName> </nc:PersonSurName>	pmp:Prescription /pmp:Patient /nc:PersonName/	R	1..N	nc:TextType	<LastName>	SCRIPT:RxHistoryResponse /Patient /Name	R	1..1	AN..35

	Date of Birth	<nc:Date> </nc:Date>	pmp:Prescription /pmp:Patient /nc:PersonBirthDate/	R	1..1	nc:DateType	<DateofBirth>	SCRIPT:RxHistoryResponse /Patient/	R	1..1	Date or DateTime
	Street Address	<nc:StreetFullText> </nc:StreetFullText>	pmp:Prescription /pmp:Patient /pmp:PersonPrimaryContactInformation /nc:ContactMailingAddress / nc:StructuredAddress /nc:LocationStreet/	R	1..1	nc:TextType	<AddressLine1> <AddressLine2>	SCRIPT:RxHistoryResponse /Patient /Address/	R	0..1	AN..35
	City Address	<nc:LocationCityName> </nc:LocationCityName>	pmp:Prescription /pmp:Patient /pmp:PersonPrimaryContactInformation /nc:ContactMailingAddress /nc:StructuredAddress/	R	1..1	nc:TextType	<City>	SCRIPT:RxHistoryResponse /Patient /Address/	R	0..1	AN..35
	State Code	<nc:LocationStateUSPostalServiceCode> </nc:LocationStateUSPostalServiceCode>	pmp:Prescription /pmp:Patient /pmp:PersonPrimaryContactInformation /nc:ContactMailingAddress / nc:StructuredAddress/	R	1..1	Unspecified	<State>	SCRIPT:RxHistoryResponse /Patient /Address/	R	0..1	string
	Zip Code	<nc:LocationPostalCode> </nc:LocationPostalCode> <nc:LocationPostalExtensionCode> </nc:LocationPostalExtensionCode>	pmp:Prescription /pmp:Patient /pmp:PersonPrimaryContactInformation /nc:ContactMailingAddress / nc:StructuredAddress/	R	1..1	Unspecified	<ZipCode>	SCRIPT:RxHistoryResponse /Patient /Address/	R	0..1	string
Prescription	Filled Date	<pmp:ReportDateRangeBegin> </pmp:ReportDateRangeBegin> <pmp:ReportDateRangeEnd> </pmp:ReportDateRangeEnd>	pmp:ReportDateRange/	R	1..N	niem-xsd:date	<LastFillDate>	SCRIPT:RxHIstoryResponse /MedicationDispensed/	R	1..1	Date or DateTime
	Written Date	<nc:Date> </nc:Date>	pmp:Prescription /pmp:PrescriptionWrittenDate/	R	1..N	nc:DateType	<WrittenDate>	SCRIPT:RxHistoryResponse /MedicationDispensed/	R	0..1	Date or DateTime

	Number	<pmp:PrescriptionNumberText> </pmp:PrescriptionNumberText>	pmp:Prescription/	R	1..N	nc:TextType	<SourceReference>	SCRIPT:RxHistoryResponse /MedicationDispensed /HistorySource/	R	0..1	AN..35
	Drug Name [46]	<pmp:DrugProductNameText> </pmp:DrugProductNameText>	pmp:Prescription /pmp:PrescriptionDrug/	R	1..N	nc:TextType	<DrugDescription>	SCRIPT:RxHistoryResponse /MedicationDispensed/	CR	1..1	AN..105
	Strength[47]	<pmp:DrugStrengthText> </pmp:DrugStrengthText>	pmp:Prescription /pmp:PrescriptionDrug/	R	1..N	nc:TextType	<Strength>, <StrengthCode> fields	SCRIPT:RxHistoryResponse /MedicationDispensed /DrugCoded/	CR	0..1	string
	Dosage Form[48]	<pmp:DrugUnitOfMeasureText></pmp:DrugUnitOfMeasureText>	pmp:Prescription /pmp:PrescriptionDrug/	R	1..N	nc:TextType	<FormCode>	SCRIPT:RxHistoryResponse /MedicationDispensed /DrugCoded/	CR	0..1	string
	Quantity	<pmp:DispensedQuantity> </pmp:DispensedQuantity>	pmp:Prescription/	R	1..N	niem-xsd:decimal	<Quantity>	SCRIPT:RxHistoryResponse /MedicationDispensed/	R	0..2	string
	Days of Supply	<pmp:DaysSupplyCount> </pmp:DaysSupplyCount>	pmp:Prescription/	R	1..N	niem-xsd:nonNegativeInteger	<DaysSupply>	SCRIPT:RxHistoryResponse /MedicationDispensed/	R	0..1	AN..35
	Refill Number	<pmp:DrugRefillNumberCount> </pmp:DrugRefillNumberCount>	pmp:Prescription/	R	1..N	niem-xsd:nonNegativeInteger	<FillNumber>	SCRIPT:RxHistoryResponse /MedicationDispensed> /HistorySource/	R	0..1	N..2
	Method of Payment	<pmp:MethodOfPaymentCode> </pmp:MethodOfPaymentCode>	pmp:Prescription/	R	1..N	pmpcd:MethodOfPaymentCodeType	<Note[49]>	SCRIPT:RxHistoryResponse /MedicationDispensed/	CR	0..1	AN..210

[46] Drug Name data is required to be provided in the response, on the condition that the data is available to be sent

[47] Drug Strength data is required to be provided in the response, on the condition that the data is available to be sent

[48] Dosage Form data is required to be provided in the response, on the condition that the data is available to be sent

[49] Method of Payment - For the purposes of the pilot, the <MedicationDispensed><Note> field may be used for Method of Payment. If Method of Payment is exchanged, the <MedicationDispensed><Note> will contain the literal "PT:' followed by the method of payment value. (PT = Payment Type.) The payment type must be appended to any existing data in <Note>, if there is room.

Drug	Product ID Qualifier	<pmp:DrugCPDProductIdentifier><pmp:DrugDINProductIdentifier><pmp:DrugHRIProductIdentifier><pmp:DrugNDCProductIdentifier><pmp:DrugUPCProductIdentifier><pmp:DrugUPNProductIdentifier>	NA	R	1..N	-	<CodeListQualifer>	SCRIPT:RxHistoryResponse /MedicationDispensed/DrugCoded	R	0..1	string
	Product ID	<IdentificationID>	NA	R	1..N	Unspecified	<ProductCode>	SCRIPT:RxHistoryResponse /MedicationDispensed/DrugCoded	R	0..1	AN..35
Dispenser Organization	Name (Pharmacy)	<nc:OrganizationDoingBusinessAsName></nc:OrganizationDoingBusinessAsName>	pmp:Prescription /pmp:Dispenser/	R	1..N	nc:TextType	<StoreName>	SCRIPT:RxHistoryResponse /MedicationDispensed /Pharmacy/	R	1..1	AN..35
	Street Address[50]	<nc:StreetFullText></nc:StreetFullText>	pmp:Prescription /pmp:Dispenser /nc:OrganizationLocation /nc:LocationAddress /nc:StructuredAddress /nc:LocationStreet/	R	1..N	nc:TextType	<AddressLine1> <AddressLine2>	SCRIPT:RxHistoryResponse /MedicationDispensed /Pharmacy /Address/	CR	0..1	AN..35
	City Address[51]	<nc:LocationCityName></nc:LocationCityName>	pmp:Prescription /pmp:Dispenser /nc:OrganizationLocation /nc:LocationAddress	R	1..N	nc:TextType	<City>	SCRIPT:RxHistoryResponse /MedicationDispensed /Pharmacy /Address/	CR	0..1	AN..35

[50] Dispenser Organization Street Address data is required to be provided in the response, on the condition that the data is available to be sen

[51] Dispenser Organization City Address data is required to be provided in the response, on the condition that the data is available to be sent

			/nc:StructuredAddress/								
	State Code[52]	<nc:LocationStateUSPostalServiceCode> </nc:LocationStateUSPostalServiceCode>	pmp:Prescription /pmp:Dispenser /nc:OrganizationLocation /nc:LocationAddress /nc:StructuredAddress/	R	1..N	-	<State>	SCRIPT:RxHistoryResponse /MedicationDispensed /Pharmacy /Address/	CR	0..1	string
	Zip Code[53]	<nc:LocationPostalCode> </nc:LocationPostalCode>	pmp:Prescription /pmp:Dispenser /nc:OrganizationLocation /nc:LocationAddress /nc:StructuredAddress/	R	1..N	-	<ZipCode>	SCRIPT:RxHistoryResponse /MedicationDispensed /Pharmacy /Address/	CR	0..1	string
Dispenser Organization (Pharmacy) Identifier	DEA Number	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Dispenser /pmp:DEANumberIdentifier/	CR[54]	0..N	nc:IdentificationType	<DEANumber>	SCRIPT:RxHistoryResponse /MedicationDispensed /Pharmacy /Identification/	CR	0..3	AN..35
	NCPDP Number	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Dispenser /pmp:NCPDPIdentifier/	CR	0..N	nc:IdentificationType	<NCPDPID>	SCRIPT:RxHistoryResponse /MedicationDispensed /Pharmacy /Identification/	CR	0..3	AN..35
	NPI Number	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Dispenser /pmp:NPIIdentifier/	CR	0..N	nc:IdentificationType	<NPI>	SCRIPT:RxHistoryResponse /MedicationDispensed /Pharmacy /Identification/	CR	0..3	AN..35
Prescriber	First Name	<nc:PersonGivenName> </nc:PersonGivenName>	pmp:Prescription /pmp:Prescriber /nc:PersonName/	R	1..N	nc:TextType	<FirstName>	SCRIPT:RxHistoryResponse /MedicationDispensed /Prescriber /Name/	R	1..1	AN..35

[52] Dispenser Organization State Code data is required to be provided in the response, on the condition that the data is available to be sent.

[53] Dispenser Organization Zip Code data is required to be provided in the response, on the condition that the data is available to be sent

[54] CR: Conditionally Required

	Last Name	<nc:PersonSurName> </nc:PersonSurName>	pmp:Prescription /pmp:Prescriber /nc:PersonName/	R	1..N	nc:TextType	<LastName>	SCRIPT:RxHistoryResponse /MedicationDispensed /Prescriber /Name/	R	1..1	AN..35
	Street Address[55]	<nc:StreetFullText> </nc:StreetFullText>	pmp:Prescription /pmp:Prescriber /pmp:PersonPrimaryContactInformation /nc:ContactEntity /nc:EntityOrganization /nc:OrganizationLocation /nc:LocationAddress /nc:StructuredAddress /nc:LocationStreet/	R	1..N	nc:TextType	<AddressLine1> <AddressLine2>	SCRIPT:RxHistoryResponse /MedicationDispensed /Prescriber /Address/	CR	0..1	AN..35
	City Address[56]	<nc:LocationCityName> </nc:LocationCityName>	pmp:Prescription /pmp:Prescriber /pmp:PersonPrimaryContactInformation /nc:ContactEntity /nc:EntityOrganization /nc:OrganizationLocation /nc:LocationAddress /nc:StructuredAddress/	R	1..N	nc:TextType	<City>	SCRIPT:RxHistoryResponse /MedicationDispensed /Prescriber /Address/	CR	0..1	AN..35
	State Code[57]	<nc:LocationStateUSPostalServiceCode> </nc:LocationStateUSPostalServiceCode>	pmp:Prescription /pmp:Prescriber /pmp:PersonPrimaryContactInformation /nc:ContactEntity /nc:EntityOrganization /nc:OrganizationLocation	R	1..N	-	<State>	SCRIPT:RxHistoryResponse /MedicationDispensed /Prescriber /Address/	CR	0..1	string

[55] Prescriber Street Address data is required to be provided in the response, on the condition that the data is available to be sent

[56] Prescriber City Address data is required to be provided in the response, on the condition that the data is available to be sent

[57] Prescriber State Code data is required to be provided in the response, on the condition that the data is available to be sent

			/nc:LocationAddress /nc:StructuredAddress/								
	Zip Code[58]	<nc:LocationPostalCode> </nc:LocationPostalCode>	pmp:Prescription /pmp:Prescriber /pmp:PersonPrimaryContactInformation /nc:ContactEntity /nc:EntityOrganization /nc:OrganizationLocation /nc:LocationAddress /nc:StructuredAddress/	R	1..N	-	<ZipCode>	SCRIPT:RxHistoryResponse /MedicationDispensed /Prescriber /Address/	CR	0..1	string
Prescriber Identifier	DEA Number	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Prescriber /pmp:DEANumberIdentifier/	CR	0..N	nc:IdentificationType	<DEANumber>	SCRIPT:RxHistoryResponse /MedicationDispensed /Prescriber /Identification	CR	0..3	AN..35
	NPI Number	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Prescriber /pmp:NPIIdentifier/	CR	0..N	nc:IdentificationType	<NPI>	SCRIPT:RxHistoryResponse /MedicationDispensed /Prescriber /Identification/	CR	0..3	AN..35
	State License Identifier	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Prescriber /pmp:StateLicenseIdentifier/	CR	0..N	nc:IdentificationType	NA	NA	NA	NA	NA

705

706 **2.3.4 Optional Response: PMIX to NCPDP SCRIPT v10.6**

707 **Table 13: Optional Response Transformation Details from PMIX to NCPDP SCRIPT v10.6**

Data Element	PMIX					NCPDP SCRIPT				
	DE Name	Element Path	Optionality	Cardinality	Data Type/ Code set	DE Name	Element Path	Optionality	Cardinality	Data Type/ Code set

[58] Prescriber Zip Code data is required to be provided in the response, on the condition that the data is available to be sent.

Gender	<nc:PersonSexCode> </nc:PersonSexCode>	pmp:Prescription /pmp:Patient/	R	1..1	Unspecified	<Gender>	SCRIPT:RxHistoryResponse /Patient/			
Refills Authorized	<pmp:RefillsAuthorizedCount> </pmp:RefillsAuthorizedCount>	pmp:Prescription/	R	1..N	niem-xsd:nonNegativeInteger	<Refills>	SCRIPT:RxHistoryResponse /MedicationDispensed/	O	0..2	string
Partial Fill Indicator	<pmp:PartialFillIndicator> </pmp:PartialFillIndicator>	pmp:Prescription/	R	1..N	niem-xsd:boolean	gap[59]		O		
Phone Number[60]	<nc:TelephoneNumberFullID> </nc:TelephoneNumberFullID>	pmp:Prescription /pmp:Dispenser /nc:OrganizationPrimaryContactInformation /nc:ContactTelephoneNumber /nc:FullTelephoneNumber/	R	1..N	-	<CommunicationNumbers>	SCRIPT:RxHistoryResponse /MedicationDispensed /Pharmacy/	O	1..N	string
SSN	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Patient /nc:PersonSSNIdentification/	CR	0..1	nc:IdentificationType	<SocialSecurity>	SCRIPT:RxHistoryResponse /Patient /Identification/	O	0..1	AN..35
License	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Patient /pmp:PersonStateIssuedIdentifier/	CR	0..1	nc:IdentificationType	NA	NA	NA	NA	NA

[59] NCPDP participants are concerned with use of this field misunderstanding that could occur and will discuss further if it would be added to a future version of the NCPDP SCRIPT Medication History transaction.

[60] Dispenser Organization Phone Number data is required to be provided in the response, on the condition that the data is available to be sent

State of License[61]	<nc:IdentificationJurisdictionText> </nc:IdentificationJurisdictionText>	pmp:Prescription /pmp:Patient /pmp:PersonStateIssuedIdentifier/	CR	0..1	nc:TextType	NA	NA	NA	NA	NA
Passport ID	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Patient /pmp:PersonPassportIdentifier/	CR	0..1	nc:IdentificationType	NA	NA	NA	NA	NA
Military ID	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Patient /pmp:PersonMilitaryIdentifier/	CR	0..1	nc:IdentificationType	NA	NA	NA	NA	NA
Tribal Identifier	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Patient /pmp:PersonTribalIdentifier/	CR	0..1	nc:IdentificationType	NA	NA	NA	NA	NA

708

[61] Required if the License is being used as the Identifier

2.3.4.1 NCPDP SCRIPT Coded Example – Response

The following code shows a sample response to a request from a Pharmacist:

```
<?xml version="1.0" encoding="UTF-8"?>
<!--Sample XML file generated by XMLSpy v2011 rel. 3 sp1 (x64) (http://www.altova.com)-->
<Message HighestVersionSupported="" release="006" version="010"
xsi:schemaLocation="http://www.ncpdp.org/schema/SCRIPT SCRIPT_XML_10_6.xsd"
  xmlns="http://www.ncpdp.org/schema/SCRIPT"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <Header>
    <To Qualifier="P">7701630</To>
    <From Qualifier="ZZZ">3428903284</From>
    <MessageID>PMP113</MessageID>
    <RelatesToMessageID>123456789AA001</RelatesToMessageID>
    <SentTime>2014-08-21T16:01:47Z</SentTime>
    <Security>
      <UsernameToken>
        <Username/>
        <Password Type="PasswordDigest">String</Password>
        <Nonce/>
        <Created>2014-08-21T16:01:47Z</Created>
      </UsernameToken>
      <Sender>
        <SecondaryIdentification>PASSWORD</SecondaryIdentification>
        <TertiaryIdentification/>
      </Sender>
      <Receiver>
        <SecondaryIdentification/>
        <TertiaryIdentification/>
      </Receiver>
    </Security>
  </Header>
  <Body>
    <RxHistoryResponse>
      <Response>
        <Approved></Approved>
      </Response>
      <Pharmacy>
        <Identification>
          <NPI>1234567890</NPI>
          <DEANumber>BJ6125341</DEANumber>
        </Identification>
        <Pharmacist>
          <LastName>BARTON</LastName>
          <FirstName>CARLA</FirstName>
        </Pharmacist>
        <StoreName>RITE WAY PHARMACY</StoreName>
        <Address>
          <AddressLine1>1 STATE STREET</AddressLine1>
          <City>SOMEWHERE</City>
          <State>VA</State>
          <ZipCode>015660000</ZipCode>
        </Address>
```

```
762         </Pharmacy>
763         <Patient>
764           <Name>
765             <LastName>FLEMING</LastName>
766             <FirstName>ALEXANDER</FirstName>
767           </Name>
768           <DateOfBirth>
769             <Date>1981-08-08</Date>
770           </DateOfBirth>
771           <Gender>M</Gender>
772           <Address>
773             <AddressLine1>1000 ABC ST</AddressLine1>
774             <City>SOMEWHERE</City>
775             <State>VA</State>
776             <ZipCode>12345</ZipCode>
777           </Address>
778         </Patient>
779         <BenefitsCoordination>
780           <EffectiveDate>
781             <Date>2014-08-01</Date>
782           </EffectiveDate>
783           <ExpirationDate>
784             <Date>2014-08-20</Date>
785           </ExpirationDate>
786           <Consent>N</Consent>
787         </BenefitsCoordination>
788         <MedicationDispensed>
789           <DrugDescription>OXYMORPHONE 20MG TABLET</DrugDescription>
790           <WrittenDate>
791             <Date>2014-08-02</Date>
792           </WrittenDate>
793           <LastFillDate>
794             <Date>2014-08-02</Date>
795           </LastFillDate>
796           <HistorySource>
797             <SourceReference>00000000 </SourceReference>
798           </HistorySource>
799           <DrugCoded>
800             <Strength>20</Strength>
801             <FormSourceCode>AA</FormSourceCode>
802             <FormCode>C42998</FormCode>
803             <StrengthSourceCode>AB</StrengthSourceCode>
804             <StrengthCode>C28253</StrengthCode>
805           </DrugCoded>
806           <Quantity>
807             <Value>10</Value>
808             <CodeListQualifier>87</CodeListQualifier>
809             <UnitSourceCode>AC</UnitSourceCode>
810             <PotencyUnitCode>C48542</PotencyUnitCode>
811           </Quantity>
812           <DaysSupply>10</DaysSupply>
813           <Note> PT: 01 </Note>
814           <Directions>TAKE 1 TABLET DAILY</Directions>
815           <Refills>
816             <Qualifier>R</Qualifier>
```

```
            <Value>0</Value>
          </Refills>
          <FillNumber> 0 </FillNumber>
          <ProductCode>60951079401</ProductCode>
          <CodeListQualifier>ND</CodeListQualifier>
          <Pharmacy>
            <Identification>
              <NPI>78787878</NPI>
              <DEANumber>AB1234563</DEANumber>
              <NCPDPID></NCPDPID>
            </Identification>
            <StoreName>ABCD EFGH PHARMACY</StoreName>
            <Address>
              <AddressLine1>200 CDE ST</AddressLine1>
              <City>SOMEWHERE</City>
              <State>VA</State>
              <ZipCode>015660000</ZipCode>
            </Address>
          </Pharmacy>
          <Prescriber>
            <Identification>
              <NPI>3209998001</NPI>
              <DEANumber>CD3456781</DEANumber>
            </Identification>
            <Name>
              <LastName>DAVIS</LastName>
              <FirstName>MILES</FirstName>
            </Name>
            <Address>
              <AddressLine1>3000 FGH DRIVE</AddressLine1>
              <City>ANOTHERCITY</City>
              <State>VA</State>
              <ZipCode>12345</ZipCode>
            </Address>
          </Prescriber>
        </MedicationDispensed>
      </RxHistoryResponse>
    </Body>
</Message>
```

Another example of a response; this is a Response to a Request from a Prescriber:

```
<?xml version="1.0" encoding="UTF-8"?>
<!--Sample XML file generated by XMLSpy v2011 rel. 3 sp1 (x64) (http://www.altova.com)-->
<Message HighestVersionSupported="" release="006" version="010"
xsi:schemaLocation="http://www.ncpdp.org/schema/SCRIPT SCRIPT_XML_10_6.xsd"
   xmlns="http://www.ncpdp.org/schema/SCRIPT"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
   <Header>
      <To Qualifier="C">ASEUROWEDF</To>
      <From Qualifier="ZZZ">3428903284</From>
      <MessageID>PMP112</MessageID>
      <RelatesToMessageID>123456789AA001</RelatesToMessageID>
      <SentTime>2014-08-21T16:01:47Z</SentTime>
      <Security>
```

```
        <UsernameToken>
          <Username/>
          <Password Type="PasswordDigest">String</Password>
          <Nonce/>
          <Created>2001-12-17T09:30:47Z</Created>
        </UsernameToken>
        <Sender>
          <SecondaryIdentification>PASSWORD</SecondaryIdentification>
          <TertiaryIdentification/>
        </Sender>
        <Receiver>
          <SecondaryIdentification/>
          <TertiaryIdentification/>
        </Receiver>
      </Security>
    </Header>
    <Body>
      <RxHistoryResponse>
        <Response>
          <Approved></Approved>
        </Response>
        <Patient>
          <Name>
            <LastName>JONES</LastName>
            <FirstName>DEAN</FirstName>
          </Name>
          <DateOfBirth>
            <Date>1960-03-18</Date>
          </DateOfBirth>
          <Gender>M</Gender>
          <Address>
            <AddressLine1>18991 STATE STREET</AddressLine1>
            <City>SHREWSBURY</City>
            <State>MA</State>
            <ZipCode>015450000</ZipCode>
          </Address>
        </Patient>
        <BenefitsCoordination>
          <EffectiveDate>
            <Date>2014-08-01</Date>
          </EffectiveDate>
          <ExpirationDate>
            <Date>2014-08-20</Date>
          </ExpirationDate>
          <Consent>N</Consent>
        </BenefitsCoordination>
        <MedicationDispensed>
          <DrugDescription>MECLIZINE 12.5 MG TABLET PAR</DrugDescription>
          <DrugCoded>
            <Strength>20</Strength>
            <FormSourceCode>XX</FormSourceCode>
            <FormCode>C00000</FormCode>
            <StrengthSourceCode>XX</StrengthSourceCode>
            <StrengthCode>C00000</StrengthCode>
          </DrugCoded>
```

```
<Quantity>
  <Value>90</Value>
  <CodeListQualifier>38</CodeListQualifier>
  <UnitSourceCode>AC</UnitSourceCode>
  <PotencyUnitCode>C48542</PotencyUnitCode>
</Quantity>
<DaysSupply>30</DaysSupply>
<Note> PT: 01 </Note>
<Directions>TAKE 1 TABLET 3 TIMES A DAY</Directions>
<Refills>
  <Qualifier>R</Qualifier>
  <Value>1</Value>
</Refills>
<FillNumber> 0 </FillNumber>
<ProductCode>60951079401</ProductCode>
<CodeListQualifier>ND</CodeListQualifier>
<WrittenDate>
  <Date>2014-08-01</Date>
</WrittenDate>
<LastFillDate>
  <Date>2014-08-01</Date>
</LastFillDate>
<HistorySource>
  <SourceReference>00000000 </SourceReference>
</HistorySource>
<Pharmacy>
  <Identification>
    <NPI>78787878</NPI>
    <DEANumber>BC123233</DEANumber>
    <NCPDPID></NCPDPID>
  </Identification>
  <StoreName>ABC PHARMACY</StoreName>
  <Address>
    <AddressLine1>1 STATE STREET</AddressLine1>
    <City>SOMEWHERE</City>
    <State>MA</State>
    <ZipCode>015660000</ZipCode>
  </Address>
  <CommunicationNumber>
    <Communication>
      <Number>5554440222</Number>
      <Qualifier>TE</Qualifier>
    </Communication>
  </CommunicationNumber>
</Pharmacy>
<Prescriber>
  <Identification>
    <NPI>3209998001</NPI>
    <DEANumber>BF2820199</DEANumber>
  </Identification>
  <Name>
    <LastName>FAHEY</LastName>
    <FirstName>DAVID</FirstName>
    <MiddleName>A</MiddleName>
  </Name>
```

```
            <Address>
              <AddressLine1>26 JULIO DR</AddressLine1>
              <City>SHREWSBURY</City>
              <State>MA</State>
              <ZipCode>015450000</ZipCode>
            </Address>
            <CommunicationNumber>
              <Communication>
                <Number>5088425594</Number>
                <Qualifier>TE</Qualifier>
              </Communication>
              <Communication>
                <Number>5088420989</Number>
                <Qualifier>FX</Qualifier>
              </Communication>
            </CommunicationNumber>
          </Prescriber>
        </MedicationDispensed>
        <MedicationDispensed>
          <DrugDescription>FLONASE 0.05% NASAL SPRAY GSK</DrugDescription>
          <DrugCoded>
            <Strength>20</Strength>
            <FormSourceCode>XX</FormSourceCode>
            <FormCode>C00000</FormCode>
            <StrengthSourceCode>XX</StrengthSourceCode>
            <StrengthCode>C00000</StrengthCode>
          </DrugCoded>
          <Quantity>
            <Value>16</Value>
            <CodeListQualifier>38</CodeListQualifier>
            <UnitSourceCode>AC</UnitSourceCode>
            <PotencyUnitCode>C48542</PotencyUnitCode>
          </Quantity>
          <DaysSupply>25</DaysSupply>
          <Note></Note>
          <Directions>TWO SPRAYS IN EACH NOSTRIL TWICE A DAY</Directions>
          <Refills>
            <Qualifier>R</Qualifier>
            <Value>5</Value>
          </Refills>
          <FillNumber> 0 </FillNumber>
          <ProductCode>60951079401</ProductCode>
          <CodeListQualifier>ND</CodeListQualifier>
          <WrittenDate>
            <Date>2014-08-06</Date>
          </WrittenDate>
          <LastFillDate>
            <Date>2014-08-07</Date>
          </LastFillDate>
          <HistorySource>
            <SourceReference>00000000 </SourceReference>
          </HistorySource>
          <Pharmacy>
            <Identification>
              <NPI>78787878</NPI>
```

```
            <DEANumber>BC123233</DEANumber>
            <NCPDPID></NCPDPID>
          </Identification>
          <StoreName>ABC PHARMACY</StoreName>
          <Address>
            <AddressLine1>1 STATE STREET</AddressLine1>
            <City>SOMEWHERE</City>
            <State>MA</State>
            <ZipCode>015660000</ZipCode>
          </Address>
          <CommunicationNumber>
            <Communication>
              <Number>5554440222</Number>
              <Qualifier>TE</Qualifier>
            </Communication>
          </CommunicationNumber>
        </Pharmacy>
        <Prescriber>
          <Identification>
            <NPI>3209998001</NPI>
            <DEANumber>BF2820199</DEANumber>
          </Identification>
          <Name>
            <LastName>FAHEY</LastName>
            <FirstName>DAVID</FirstName>
            <MiddleName>A</MiddleName>
          </Name>
          <Address>
            <AddressLine1>26 JULIO DR</AddressLine1>
            <City>SHREWSBURY</City>
            <State>MA</State>
            <ZipCode>015450000</ZipCode>
            <PlaceLocationQualifier>AD2</PlaceLocationQualifier>
          </Address>
          <CommunicationNumber>
            <Communication>
              <Number>5088425594</Number>
              <Qualifier>TE</Qualifier>
            </Communication>
            <Communication>
              <Number>5088420989</Number>
              <Qualifier>FX</Qualifier>
            </Communication>
          </CommunicationNumber>
        </Prescriber>
      </MedicationDispensed>
      <MedicationDispensed>
        <DrugDescription>METFORMIN HCL 500 MG TABLETMYL</DrugDescription>
        <DrugCoded>
          <Strength>20</Strength>
          <FormSourceCode>XX</FormSourceCode>
          <FormCode>C00000</FormCode>
          <StrengthSourceCode>XX</StrengthSourceCode>
          <StrengthCode>C00000</StrengthCode>
        </DrugCoded>
```

```
<Quantity>
  <Value>60</Value>
  <CodeListQualifier>38</CodeListQualifier>
  <UnitSourceCode>AC</UnitSourceCode>
  <PotencyUnitCode>C48542</PotencyUnitCode>
</Quantity>
<DaysSupply>30</DaysSupply>
<Note></Note>
<Directions>TAKE 1 TABLET TWICE DAILY WITH MEALS</Directions>
<Refills>
  <Qualifier>R</Qualifier>
  <Value>5</Value>
</Refills>
<FillNumber> 0 </FillNumber>
<ProductCode>60951079401</ProductCode>
<CodeListQualifier>ND</CodeListQualifier>
<WrittenDate>
  <Date>2014-08-06</Date>
</WrittenDate>
<LastFillDate>
  <Date>2014-08-07</Date>
</LastFillDate>
<HistorySource>
  <SourceReference>00000000 </SourceReference>
</HistorySource>
<Pharmacy>
  <Identification>
    <NPI>78787878</NPI>
    <DEANumber>BC123233</DEANumber>
    <NCPDPID></NCPDPID>
  </Identification>
  <StoreName>ABC PHARMACY</StoreName>
  <Address>
    <AddressLine1>1 STATE STREET</AddressLine1>
    <City>SOMEWHERE</City>
    <State>MA</State>
    <ZipCode>015660000</ZipCode>
  </Address>
  <CommunicationNumber>
    <Communication>
      <Number>5554440222</Number>
      <Qualifier>TE</Qualifier>
    </Communication>
  </CommunicationNumber>
</Pharmacy>
<Prescriber>
  <Identification>
    <NPI>3209998001</NPI>
    <DEANumber>AS5563386</DEANumber>
  </Identification>
  <Name>
    <LastName>STARR</LastName>
    <FirstName>JEROME</FirstName>
    <MiddleName>I</MiddleName>
  </Name>
```

```
            <Address>
              <AddressLine1>67 BELMONT ST</AddressLine1>
              <City>WORCESTER</City>
              <State>MA</State>
              <ZipCode>016050000</ZipCode>
              <PlaceLocationQualifier>AD2</PlaceLocationQualifier>
            </Address>
            <CommunicationNumber>
              <Communication>
                <Number>5087541707</Number>
                <Qualifier>TE</Qualifier>
              </Communication>
              <Communication>
                <Number>5083345331</Number>
                <Qualifier>FX</Qualifier>
              </Communication>
            </CommunicationNumber>
          </Prescriber>
        </MedicationDispensed>
      </RxHistoryResponse>
    </Body>
</Message>
```

2.3.4.2 Conformance Statements

PMIX to NCPDP SCRIPT RxHistoryResponse

1. A Response SHALL have *one each* of the following:
   i. Response Date/Timestamp: <SentTime>
   ii. Request ID: <RelatesToMessageID>
   iii. Message ID: <MessageID>
2. Each Response SHALL have *one each* of the following data elements for Patient Information:
   i. Patient – Date of Birth: <DateOfBirth>
   ii. Patient Address – Street Address: <AddressLine1>
   iii. Patient Address – City: <City>
   iv. Patient Address – State: <State>
   v. Patient Address – Zip Code: <ZipCode>
3. Each Response MAY have *one each* of the following data elements for Patient Information:
   i. Patient – Gender: <Gender>
4. Each Response SHALL have one of the following information for Patient Information:
   i. Patient - First Name: <FirstName>
   ii. Patient – Last Name: <LastName>
5. Each Response SHALL have *one or more* instances of Prescription Information. Prescription Information includes:
   i. Prescription – Filled Date: <LastFillDate>
   ii. Prescription – Written Date: <WrittenDate>
   iii. Prescription – Number: <SourceReference>
   iv. Dispenser Organization – Name: <StoreName>
   v. Dispenser Organization – Pharmacy Identifier
   vi. Prescriber – First Name: <FirstName>

vii. Prescriber – Last Name: <LastName>
viii. Method of Payment: <Note>

6. Each Response SHOULD have *one or more* instances of the following Prescription Information:
   i. Dispenser Organization Address – Street Address: <AddressLine1>
   ii. Dispenser Organization Address – City: <City>
   iii. Dispenser Organization Address – State: <State>
   iv. Dispenser Organization Address – Zip Code: <ZipCode>
   v. Dispenser Organization – Phone Number: <CommunicationNumbers>
   vi. Prescriber Address - Street Address: <AddressLine1>
   vii. Prescriber Address – City: <City>
   viii. Prescriber Address – State: <State>
   ix. Prescriber Address – Zip Code: <ZipCode>

7. The Method of Payment value SHALL be specified in the following format:
   PT: <2-digit code>
   where the 2-digit code SHALL be one of the following values:
   01 = Private Pay; 04 = Commercial Insurance

8. Each Prescription within a Response SHALL have *one or more instances* of Drug Information[62]. Drug Information includes:
   i. Drug – Quantity: <Quantity>
   ii. Drug – Days of Supply: <DaysSupply>
   iii. Drug – Product ID Qualifier: <ProductCodeQualifier>
   iv. Drug – Product ID: <ProductCode>
9. Each Prescription within a Response MAY have *one or more instances* of Drug Information[63]. Drug Information includes:
   i. Drug – Refill Number: <FillNumber>
   ii. Drug – Refills Authorized: <Refills>
10. Each Prescription within a Response SHOULD have one or more instances of the following Drug Information:
   i. Drug – Name: <DrugDescription>
   ii. Drug – Strength: <Strength> fields
   iii. Drug – Dosage Form: <FormCode>
11. Each Prescription within a Response SHALL have *one* Pharmacy Identifier per fill. The Identifier SHALL be one of the following:
   i. DEA Number: <DEANumber>
   ii. NCPDP Number: <NCPDPID>
   iii. NPI Number: <NPI>
12. Each Prescription within a Response SHALL have *one* Prescriber Identifier. The Identifier SHALL be one of the following:
   i. DEA Number: <DEANumber>
   ii. NPI Number: <NPI>

[62] These data elements contain what was sent from the pharmacy.

[63] These data elements contain what was sent from the pharmacy.

13. A Response MAY NOT have Disclosing States as unique data elements. Disclosing States can be ascertained by the Prescription Information returned.
14. If the prescriber or pharmacy Identifier value is repeated within an <Identification> tag, the first occurrence of that identifier SHALL be the location. The second value of the identifier SHALL be the Requesting Person. For example:
    For Pharmacy:
    - <NPI> -- is the Pharmacy
    - <NPI> --- is the Pharmacist
    - <DEA> --- is the Pharmacy

    For Prescriber:
    - <NPI> --- is the Clinic
    - <NPI> --- is the Prescriber
    - <DEA>---- is the Prescriber

2.3.5 Response: PMIX to ASAP Web Services V2.1A

Table 14: Response Transformation Details from PMIX to ASAP Web Services V2.1A

Data Element	PMIX					ASAP Web Services V2.1A				
	DE Name	Element Path	Optionality	Cardinality	Data Type	DE Name	Element Path	Optionality	Cardinality	Data Type
Routing Information										
Response Date/ Timestamp	<pmp:ReportExecutionDate> </pmp:ReportExecutionDate> <pmp:ReportExecutionTime> </pmp:ReportExecutionTime>	pmix:RoutingData/	R	1..1	Unspecified	<ResponseDate>	AdHocPMPRequestResponse/AdHocPMPRequestResult/ResponseDate	R	1..1	dateTime
Disclosing States	<pmix:DisclosingState> </pmix:DisclosingState>	pmix:RoutingData/	R	1..n	Unspecified	<DisclosingStates>	ResponseRoutingData/DisclosingState	R	1..n	String
Request ID	<pmix:RequestID> </pmix:RequestID>	pmix:RoutingData/	R	1..1	Unspecified	<RequestID>	ResponseRoutingData/RequestID	R	1..1	String
Message Body										
Patient **First Name**	<nc:PersonGivenName> </nc:PersonGivenName>	pmp:Prescription /pmp:Patient /nc:PersonName/	R	1..1	nc:TextType	<GivenName>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ Patient/Name/ GivenName	R	1..n	String
Last Name	<nc:PersonSurName> </nc:PersonSurName>	pmp:Prescription /pmp:Patient /nc:PersonName/	R	1..1	nc:TextType	<SurName>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/	R	1..n	String

								Patient/Name/ SurName			
	Date of Birth	<nc:Date> </nc:Date>	pmp:Prescription /pmp:Patient /nc:PersonBirthDate/	R	1..1	nc:DateType	<BirthDate>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ Patient/BirthDate	R	1..1	Date
	Street Address	<nc:StreetFullText> </nc:StreetFullText>	pmp:Prescription /pmp:Patient /pmp:PersonPrimaryContactInformation /nc:ContactMailingAddress /nc:StructuredAddress /nc:LocationStreet/	R	1..1	nc:TextType	<StreetAddress> <StreetAddress2>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ Patient/ContactInformation/ StreetAddress	R	1..1	LocationInfo String String
	City Address	<nc:LocationCityName> </nc:LocationCityName>	pmp:Prescription /pmp:Patient /pmp:PersonPrimaryContactInformation /nc:ContactMailingAddress /nc:StructuredAddress/	R	1..1	nc:TextType	<City>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ Patient/ContactInformation/ City	R	1..1	String
	State Code	<nc:LocationStateUSPostalServiceCode> </nc:LocationStateUSPostalServiceCode>	pmp:Prescription /pmp:Patient /pmp:PersonPrimaryContactInformation /nc:ContactMailingAddress / nc:StructuredAddress/	R	1..1		<Location StateUsPostalServiceCode>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ Patient/ContactInformation/ LocationStateUsPostalServiceCode	R	1..1	String
	Zip Code	<nc:LocationPostalCode> </nc:LocationPostalCode> <nc:LocationPostalExtensionCode> </nc:LocationPostalExtensionCode>	pmp:Prescription /pmp:Patient /pmp:PersonPrimaryContactInformation /nc:ContactMailingAddress /nc:StructuredAddress/	R	1..1		<LocationPostalCode>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ Patient/ContactInformation/ LocationPostalCode	R	1..1	String
Prescription	**Filled Date**	<pmp:ReportDateRangeBegin> </pmp:ReportDateRangeBegin> <pmp:ReportDateRangeEnd> </pmp:ReportDateRangeEnd>	pmp:ReportDateRange/	R	1..n	niem-xsd:date	<DispenseDate>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ PrescriptionDetails/Prescriptions/DispensingEventInfo/DispensingEvent/DispenseDate	R	1..n	Date

	Written Date	<nc:Date> </nc:Date>	pmp:Prescription /pmp:PrescriptionWrittenDate/	R	1..n	nc:DateType	<WrittenDate>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ PrescriptionDetails/Prescriptions/DispensingEventInfo/DispensingEvent/WrittenDate	R	1..n	Date
	Prescription Number	<pmp:PrescriptionNumberText> </pmp:PrescriptionNumberText>	pmp:Prescription/	R	1..n	nc:TextType	<PrescriptionNumber>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ PrescriptionDetails/Prescriptions/DispensingEventInfo/DispensingEvent/PrescriptionNumber	R	1..n	String
	Drug Name	<pmp:DrugProductNameText> </pmp:DrugProductNameText>	pmp:Prescription /pmp:PrescriptionDrug/	R	1..n	nc:TextType	<DrugName>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ PrescriptionDetails/Prescriptions/DispensingEventInfo/DispensingEvent/DrugName	R	1..n	String
	Strength	<pmp:DrugStrengthText> </pmp:DrugStrengthText>	pmp:Prescription /pmp:PrescriptionDrug/	R	1..n	nc:TextType	<Strength>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ PrescriptionDetails/Prescriptions/DispensingEventInfo/DispensingEvent/Strength	R	1..n	String
	Dosage Form	<pmp:DrugUnitOfMeasureText></pmp:DrugUnitOfMeasureText>	pmp:Prescription /pmp:PrescriptionDrug/	R	1..n	nc:TextType	<DosageForm>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ PrescriptionDetails/Prescriptions/DispensingEventInfo/DispensingEvent/DosageForm	R	1..n	String
	Quantity	<pmp:DispensedQuantity> </pmp:DispensedQuantity>	pmp:Prescription/	R	1..n	niem-xsd:decimal	<Quantity>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ PrescriptionDetails/Prescriptions/DispensingEventInfo/DispensingEvent/Quantity	R	1..n	Decimal
	Days of Supply	<pmp:DaysSupplyCount> </pmp:DaysSupplyCount>	pmp:Prescription/	R	1..n	niem-xsd:nonNegativeInteger	<DaysSupply>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ PrescriptionDetails/Prescriptions/DispensingEventInfo/DispensingEvent/DaysSupply	R	1..n	Decimal
Drug	**Product ID Qualifier**	<IdentificationID>	Unspecified	R	1..N	Unspecified	<ProductIDQualifier>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/	R	1..1	String

								PrescriptionDetails/Prescriptions/DispensingEventInfo/DispensingEvent/ProductIDQualifier			
	Product ID	<pmp:DrugCPDProductIdentifier><pmp:DrugDINProductIdentifier> <pmp:DrugHRIProductIdentifier> <pmp:DrugNDCProductIdentifier> <pmp:DrugUPCProductIdentifier> <pmp:DrugUPNProductIdentifier>	Unspecified	R	1..N	Unspecified	<ProductID>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/PrescriptionDetails/Prescriptions/DispensingEventInfo/DispensingEvent/ProductID	R	1..1	String
Dispenser Organization	**Name (Pharmacy)**	<nc:OrganizationDoingBusinessAsName></nc:OrganizationDoingBusinessAsName>	pmp:Prescription/pmp:Dispenser/	R	1..n	nc:TextType	<PharmacyName>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/PrescriptionDetails/PharmacyDispenseInfo/Pharmacy/Location/ StreetAddress	R	1..1	String
	Street Address[64]	<nc:StreetFullText></nc:StreetFullText>	pmp:Prescription/pmp:Dispenser/nc:OrganizationLocation/nc:LocationAddress/nc:StructuredAddress/nc:LocationStreet/	R	1..n	nc:TextType	<StreetAddress> <StreetAdress2>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/PrescriptionDetails/PharmacyDispenseInfo/Pharmacy/Location/ City	R	1..n	LocationInfo String String
	City Address[65]	<nc:LocationCityName></nc:LocationCityName>	pmp:Prescription/pmp:Dispenser/nc:OrganizationLocation/nc:LocationAddress/nc:StructuredAddress/	R	1..n	nc:TextType	<City>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/PrescriptionDetails/PharmacyDispenseInfo/Pharmacy/Location/ City	R	1..n	String

[64] Dispenser Organization Street Address data is required to be provided in the response, on the condition that the data is available to be sent

[65] Dispenser Organization City Address data is required to be provided in the response, on the condition that the data is available to be sent

	State Code[66]	<nc:LocationStateUSPostalServiceCode> </nc:LocationStateUSPostalServiceCode>	pmp:Prescription /pmp:Dispenser /nc:OrganizationLocation /nc:LocationAddress /nc:StructuredAddress/	R	1..n	Unspecified	<LocationStateUsPostalServiceCode>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ PrescriptionDetails/PharmacyDispenseInfo/Pharmacy/ Location/ LocationStateUsPostalServiceCode	R	1..n	String
	Zip Code[67]	<nc:LocationPostalCode> </nc:LocationPostalCode>	pmp:Prescription /pmp:Dispenser /nc:OrganizationLocation /nc:LocationAddress /nc:StructuredAddress/	R	1..n	Unspecified	<LocationPostalCode>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ PrescriptionDetails/PharmacyDispenseInfo/Pharmacy/ Location/ LocationPostalCode	R	1..n	String
	Phone Number[68]	<nc:TelephoneNumberFullID> </nc:TelephoneNumberFullID>	pmp:Prescription /pmp:Dispenser /nc:OrganizationPrimaryContactInformation /nc:ContactTelephoneNumber /nc:FullTelephoneNumber/	R	1..n	Unspecified	<Phone>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ PrescriptionDetails/PharmacyDispenseInfo/Pharmacy/ Location/ Phone	R	1..n	String
Dispenser Organization (Pharmacy) Identifier	**DEA Number**	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Dispenser /pmp:DEANumberIdentifier/	R	0..n	nc:IdentificationType	<DEANumber>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ PrescriptionDetails/PharmacyDispenseInfo/Pharmacy/PharmacyID/ DEANumber	R	0..3	String
	NCPDP Number	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Dispenser /pmp:NCPDPIdentifier/	R	0..n	nc:IdentificationType	<NCPDPProviderID>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ PrescriptionDetails/PharmacyDispenseInfo/Pharmacy/PharmacyID/ NCPDPProviderID	R	0..3	String
	NPI Number	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Dispenser	R	0..n	nc:IdentificationType	<NationalProviderID>	AdHocRequestResponse/AdHocRequestResult/Details/PM	R	0..3	String

[66] Dispenser Organization State Code data is required to be provided in the response, on the condition that the data is available to be sent

[67] Dispenser Organization Zip Code data is required to be provided in the response, on the condition that the data is available to be sent

[68] Dispenser Organization Phone Number data is required to be provided in the response, on the condition that the data is available to be sent

			/pmp:NPIIdentifier/					PDetailedResponse/ PrescriptionDetails/PharmacyDispenseInfo/Pharmacy/PharmacyID/ NationalProviderID			
Prescriber	**First Name**	<nc:PersonGivenName> </nc:PersonGivenName>	pmp:Prescription /pmp:Prescriber /nc:PersonName/	R	1..n	nc:TextType	<GivenName>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ PrescriptionDetails/Prescriptions/DispensingEventInfo/Prescriber/Name /GivenName	R	1..1	String
	Last Name	<nc:PersonSurName> </nc:PersonSurName>	pmp:Prescription /pmp:Prescriber /nc:PersonName/	R	1..n	nc:TextType	<SurName>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ PrescriptionDetails/Prescriber/Name/PersonName/SurName	R	1..1	String
	Street Address[69]	<nc:StreetFullText> </nc:StreetFullText>	pmp:Prescription /pmp:Prescriber /pmp:PersonPrimaryContactInformation /nc:ContactEntity /nc:EntityOrganization /nc:OrganizationLocation /nc:LocationAddress /nc:StructuredAddress /nc:LocationStreet/	R	1..n	nc:TextType	<StreetAddress> <StreetAddress2>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ PrescriptionDetails/Prescriptions/DispensingEventInfo/Prescriber/Location/ StreetAddress	R	1..n	String
	City Address[70]	<nc:LocationCityName> </nc:LocationCityName>	pmp:Prescription /pmp:Prescriber /pmp:PersonPrimaryContactInformation /nc:ContactEntity /nc:EntityOrganization /nc:OrganizationLocatio	R	1..n	nc:TextType	<City>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ PrescriptionDetails/Prescriptions/DispensingEventInfo/Prescriber/Location/ City	R	1..n	String

[69] Prescriber Street Address data is required to be provided in the response, on the condition that the data is available to be sent.

[70] Prescriber City Address data is required to be provided in the response, on the condition that the data is available to be sent

			n /nc:LocationAddress /nc:StructuredAddress/								
	State Code[71]	<nc:LocationStateUSPostalServiceCode> </nc:LocationStateUSPostalServiceCode>	pmp:Prescription /pmp:Prescriber /pmp:PersonPrimaryContactInformation /nc:ContactEntity /nc:EntityOrganization /nc:OrganizationLocation /nc:LocationAddress /nc:StructuredAddress/	R	1..n	Unspecified	<LocationStateUsPostalServiceCode>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ PrescriptionDetails/Prescriptions/DispensingEventInfo/Location/LocationStateUsPostalServiceCode	R	1..n	String
	Zip Code[72]	<nc:LocationPostalCode> </nc:LocationPostalCode>	pmp:Prescription /pmp:Prescriber /pmp:PersonPrimaryContactInformation /nc:ContactEntity /nc:EntityOrganization /nc:OrganizationLocation /nc:LocationAddress /nc:StructuredAddress/	R	1..n	Unspecified	<LocationPostalCode>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ PrescriptionDetails/Prescriptions/DispensingEventInfo/Prescriber/Location/ LocationPostalCode	R	1..n	String
Prescriber Identifier	**DEA Number**	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Prescriber /pmp:DEANumberIdentifier/	R	0..n	nc:IdentificationType	<DEANumber>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ PrescriptionDetails/Prescriptions/DispensingEventInfo/Prescriber/PrescriberID/DEANumber	R	0..3	String
	NPI Number	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Prescriber /pmp:NPIIdentifier/	R	0..n	nc:IdentificationType	<NationalProviderID>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ PrescriptionDetails/Prescriptions/DispensingEventInfo/Prescriber/PrescriberID/ NPI	R	0..3	String

[71] Prescriber State Code data is required to be provided in the response, on the condition that the data is available to be sent

[72] Prescriber Zip Code data is required to be provided in the response, on the condition that the data is available to be sent

	State License Identifier	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Prescriber /pmp:StateLicenseIdentifier/	R	0..n	nc:IdentificationType	<StateLicenseNumber>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ PrescriptionDetails/Prescriptions/DispensingEventInfo/Prescriber/PrescriberID/StateLicenseNumber	R	0..3	String
	State of License[73]	<nc:IdentificationJurisdictionText> </nc:IdentificationJurisdictionText>	pmp:Prescription /pmp:Prescriber /pmp:PersonStateIssuedIdentifier/	R	0..n	nc:TextType	<StateIssuedID>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ PrescriptionDetails/Prescriptions/DispensingEventInfo/Prescriber/PrescriberID/StateIssuedID	R	0..1	String

2.3.6 Optional Response: PMIX to ASAP Web Services V2.1A

Table 15: Optional Response Transformation Details from PMIX to ASAP Web Services V2.1A

Data Element	PMIX					ASAP Web Services V2.1A				
	DE Name	**Element Path**	**Optionality**	**Cardinality**	**Data Type/ Code set**	**DE Name**	**Element Path**	**Optionality**	**Cardinality**	**Data Type/ Code set**
Gender	<nc:PersonSexCode> </nc:PersonSexCode>	pmp:Prescription /pmp:Patient/	R	1..1		<Gender>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ Patient/Gender	O	1..1	String
Refill Number	<pmp:DrugRefillNumberCount> </pmp:DrugRefillNumberCount>	pmp:Prescription/	R	1..n	niem-xsd:nonNegativeInteger	<FillNumber>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ PrescriptionDetails/Prescriptions/DispensingEventInfo/DispensingEvent/RefillStatus	O	1..n	String
Refills	<pmp:RefillsAuthorizedCount>	pmp:Prescription/	R	1..n	niem-xsd:nonNeg	<RefillsAuthorized>	AdHocRequestResponse/AdHocRequestResu	O	1..n	String

[73] Required if the State License ID is being used as the Identifier

Authorized	</pmp:RefillsAuthorized Count>				ativeInteger		lt/Details/PMPDetailed Response/ PrescriptionDetails/Prescriptions/Dispensing EventInfo/Dispensing Event/RefillsAuthorized			
Partial Fill Indicator	<pmp:PartialFillIndicator> </pmp:PartialFillIndicator>	pmp:Prescription/	R	1..n	niem-xsd:boolean	<PartialFillIndicator>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ PrescriptionDetails/Prescriptions/DispensingEventInfo/DispensingEvent/PartialFillIndicator	0	1..n	String
Method of Payment	<pmp:MethodOfPaymentCode> </pmp:MethodOfPaymentCode>	pmp:Prescription/	R	1..n	pmpcd:MethodOfPaymentCodeType	<PaymentType>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ PrescriptionDetails/Prescriptions/DispensingEventInfo/DispensingEvent/PaymentType	0	1..n	String
SSN	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Patient /pmp:PersonStateIssuedIdentifier/	CR	0..1	nc:IdentificationType	<SSN>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ Patient/PatientID/SSN	0	0..1	String
License	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Patient /nc:PersonSSNIdentification/	CR	0..1	nc:IdentificationType	<DriverLicenseID>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ Patient/PatientID/ DriversLicenseID	0	0..1	String
State of License	<nc:IdentificationJurisdictionText> </nc:IdentificationJurisdictionText>	pmp:Prescription /pmp:Patient /pmp:PersonStateIssuedIdentifier/	CR	0..1	nc:TextType	<StateIssuedID>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ Patient/PatientID/StateIssuedID	0	0..1	String

Passport ID	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Patient /pmp:PersonPassportIdentifier/	CR	0..1	nc:IdentificationType	<PassportID>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ Patient/PatientID/PassportID	O	0..1	String
Military ID	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Patient /pmp:PersonMilitaryIdentifier/	CR	0..1	nc:IdentificationType	<MilitaryID>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ Patient/PatientID/MilitaryID	O	0..1	String
Tribal Identifier	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Patient /pmp:PersonTribalIdentifier/	CR	0..1	nc:IdentificationType	<TribalID>	AdHocRequestResponse/AdHocRequestResult/Details/PMPDetailedResponse/ Patient/PatientID/TribalID	O	0..1	String

2.3.6.1 ASAP Web Services Coded Example – Response

The following ASAP Web Services response message example assumes a match on a person of interest (Alexander Fleming), returning one instance of a PDMP drug, oxymorphone, and corresponding prescriber and dispenser information. ASAP Web Services specification allows for free text messages, if applicable, as part of the message response. Additionally, ASAP Web Services provides the option of including a "summary" of the report, containing the number of prescriptions, pharmacies, and prescribers detailed in the response.

While this artifact does not offer guidance on patient identity matching due to variability in algorithmic solutions and implementation approaches taken to capture patients in a PDMP query integrated within a Health IT System, this implementation guide acknowledges that certain states may employ a two pass process involving a picklist mechanism. To accommodate situations where a picklist has been developed by the sovereign PDMP, Health IT Systems and PDMP Hubs may choose to implement the two pass query process. In such cases, the response message will contain reference numbers associated with possible patients matching the query parameters. Refer to the ASAP Web Services V2.1A specification for detailed guidance on implementing a two pass process.

Data elements required by this implementation guide but not explicitly written into the ASAP Web Services V2.1A specification, are included within the SOAP envelope transport layer of the request transaction. The required data elements contained within the transport layer of the response transaction, as specified by the conformance statements in section 0 below, include: Request ID and Disclosing State(s).

```
<?xml version="2.1A" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
   <ResponseRoutingData>
    <RequestID>123456789AA001</RequestID>
    <DisclosingStates>VA</DisclosingStates>
      <ReportDateRange>
        <DateRangeBegin>2014-08-01T00:00:00</DateRangeBegin>
        <DateRangeEnd>2014-08-20T00:00:00</DateRangeEnd>
      </ReportDateRange>
   </ResponseRoutingData>
         <soap:Body>
           <AdHocPMPRequestResponse xmlns="http://www.asapnet.org/pmprequest">
             <AdHocPMPRequestResult>
               <ResponseDate>2014-08-21T00:00:00-04:20</ResponseDate>
                 <Details>
                   <PMPDetailedResponse>
                     <Patient>
                       <BirthDate>1981-08-08T00:00:00</BirthDate>
                       <Name>
                         <GivenName>Alexander</GivenName>
                         <SurName>Fleming</SurName>
                       </Name>
                       <ContactInformation>
                         <StreetAddress>1000 ABC St</StreetAddress>
                         <City>SomeWhere</City>
                         <LocationStateUsPostalServiceCode>VA</LocationStateUsPostalServiceCode>
                         <LocationPostalCode>12345</LocationPostalCode>
                       </ContactInformation>
                       <Gender>M</Gender>
```

```
</Patient>
<PrescriptionDetails>
  <PharmacyDispenseInfo>
    <Pharmacy>
      <PharmacyName>Abcd Efgh Pharmacy</PharmacyName>
        <PharmacyID>
          <DEANumber> AB1234563</DEANumber>
          <NationalProviderID> </NationalProviderID>
          <NCPDPProviderID> </NCPDPProviderID>
        </PharmacyID>
        <Location>
          <StreetAddress>2000 CDE St</StreetAddress>
          <City>AnotherCity</City>
          <LocationStateUsPostalServiceCode>VA</LocationStateUsPostalServiceCode>
          <LocationPostalCode>12345</LocationPostalCode>
          <Phone>123-456-7890</Phone>
        </Location>
      </Pharmacy>
      <Prescriptions>
        <DispensingEventInfo>
          <Prescriber>
            <Name>
              <GivenName>Miles</GivenName>
              <SurName>Davis</SurName>
            </Name>
          <PrescriberID>
            <DEANumber> CD3456781</DEANumber>
            <NationalProviderID> </NationalProviderID>
            <StateLicenseNumber> </StateLicenseNumber>
            <StateIssuedID> </StateIssuedID>
          </PrescriberID>
          <Location>
                <StreetAddress>3000 FGH Drive</StreetAddress>

                <StreetAddress2>Suite 100</StreetAddress2>
            <City>AnotherCity</City>
            <LocationStateUsPostalServiceCode>VA</LocationStateUsPostalServiceCode>
            <LocationPostalCode>12345</LocationPostalCode>
          </Location>
        </Prescriber>
      <DispensingEvent>
        <DispenseDate>2012-02-08T00:00:00</DispenseDate>
        <WrittenDate>2012-02-08T00:00:00</WrittenDate>
        <PrescriptionNumber>987654321</PrescriptionNumber>
        <DrugName>oxymorphone</DrugName>
        <Strength>20MG</Strength>
        <DosageForm>TAB</DosageForm>
        <Quantity>10</Quantity>
        <DaysSupply>10</DaysSupply>
        <RefillsAuthorized>0</RefillAuthorized>
        <RefillStatus>0</RefillStatus>
        <PartialFillIndicator>0</PartialFillIndicator>
```

```
                        <PaymentType>01</PaymentType>[74]
                        <ProductID>60951-0794</ProductID>
                        <ProductIDQualifier>NDC Code</ProductIDQualifier>
                      </DispensingEvent>
                    </DispensingEventInfo>
                  </Prescriptions>
                </PharmacyDispenseInfo>
              </PrescriptionDetails>
              <Messages>
                <string>Free form message</string>
              </Messages>
              <Summary>
                <NumberOfPharmacies>1</NumberOfPharmacies>
                <NumberOfPrescribers>1</NumberOfPrescribers>
                <NumberOfPrescriptions>1</NumberOfPrescriptions>
              </Summary>
            </PMPDetailedResponse>
          </Details>
        </AdHocPMPRequestResult>
      </AdHocPMPRequestResponse>
    </soap:Body>
</soap:Envelope>
```

In the event where no match can be found, the following example message would be returned by the PDMP and subsequently, the PDMP Hub.

```
<?xml version="2.1A" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <AdHocPMPRequestResponse xmlns="http://www.asapnet.org/pmprequest">
      <AdHocPMPRequestResult>
        <ResponseDate>2014-08-21T00:00:00</ResponseDate>
        <Details/>
      </AdHocPMPRequestResult>
    </AdHocPMPRequestResponse>
  </soap:Body>
</soap:Envelope>
```

2.3.6.2 Conformance Statements

A. PMIX to ASAP Web Services
   1. Each Response SHALL have one each of the following:
      i. Response Date/Timestamp: <ResponseDate>
      ii. Request ID: <RequestID>
      iii. Disclosing States: <DisclosingState>
   2. Each Response SHALL have one each of the following data elements:

[74] Code “01” or "Private Pay" includes Cash, Charge, Credit Card as payment methods.

1406 i. Patient First Name: <GivenName>
1407 ii. Patient Last Name: <SurName>
1408 iii. Patient Date of Birth: <BirthDate>
1409 iv. Patient Address – Street Address: <StreetAddress>
1410 v. Patient Address – City: <City>
1411 vi. Patient Address – State: <LocationStateUsPostalServiceCode>
1412 vii. Patient Address – Zip Code: <LocationPostalCode>
1413 viii. Dispenser Organization – Name: <PharmacyName>
1414 ix. Prescriber First Name: <GivenName>
1415 x. Prescriber Last Name: <SurName>
1416 3. Each Response MAY have one each of the following data elements:
1417 i. Patient – Gender: <Gender>
1418 4. Each Response SHOULD include one of each of the following data elements:
1419 i. Dispenser Organization – Phone Number: <Phone>
1420 ii. Dispenser Organization Address – Street Address: <StreetAddress>
1421 iii. Dispenser Organization Address – City: <City>
1422 iv. Dispenser Organization Address – State: <LocationStateUsPostalServiceCode>
1423 v. Dispenser Organization Address – Zip Code: <LocationPostalCode>
1424 vi. Prescriber Address - Street Address: <StreetAddress>
1425 vii. Prescriber Address – City: <City>
1426 viii. Prescriber Address – State: <LocationStateUsPostalServiceCode>
1427 ix. Prescriber Address – Zip Code: <LocationPostalCode>
1428 5. Each Response MAY have one or more Patient Identifiers. If provided, the Identifier SHALL be
1429 one or more of the following:
1430 i. Patient Identifier – SSN: <SSN>
1431 ii. Patient Identifier – License ID: <DriversLicenseID>
1432 iii. Patient Identifier – State of License: <StateIssuedID>
1433 iv. Patient Identifier – Passport ID: <PassportID>
1434 v. Patient Identifier – Military ID: <MilitaryID>
1435 vi. Patient Identifier – Tribal Identifier: <TribalID>
1436 6. Each Response SHALL have one Dispenser Organization (Pharmacy) Identifier. The Identifier
1437 SHALL be one of the following data elements:
1438 i. DEA Number: <DEANumber>
1439 ii. NCPDP Number: <NCPDPProviderID>
1440 iii. NPI Number: <NationalProviderID>
1441 7. Each Response SHALL have one Prescriber Identifier. The Identifier SHALL be one of the
1442 following:
1443 i. DEA Number: <DEANumber>
1444 ii. NPI Number: <NPI>
1445 iii. State License ID: <StateLicenseNumber>
1446 8. Each Response SHALL have one State of License if State License ID <StateIssuedID> is provided.
1447 9. Each Prescription within a Response SHALL have one or more instances of Prescription
1448 Information. Prescription Information includes:
1449 i. Prescription Filled Date: <DispenseDate>
1450 ii. Prescription Written Date: <WrittenDate>
1451 iii. Prescription Number: <PrescriptionNumber>

iv. Drug Quantity: <Quantity>
v. Days of Supply: <DaysSupply>
vi. Product ID: <ProductID>
vii. Product ID Qualifier: <ProductIDQualifier>

10. Each Prescription within a Response MAY have one or more instances of Prescription Information. Prescription Information includes:
    i. Refills Authorized: <RefillsAuthorized>
    ii. Refill Number: <RefillNumber>
    iii. Method of Payment: <PaymentType>
    iv. Partial Fill Indicator: <PartialFillIndicator>
11. Each Prescription within a Response SHOULD have one or more instances of the following Prescription Information:
    i. Drug Name: <DrugName>
    ii. Drug Strength: <Strength>
    iii. Drug Dosage Form: <DosageForm>

2.4 Transport and Security

This Implementation Guide (IG) describes how standards may be implemented to meet the requirements of the PDMP/HEALTH ITI S&I Initiative Use Case. The Use Case document contains a Security and Privacy Appendix, which outlines some of the policy considerations and implementation challenges faced by those organizations who may wish to pilot this IG. As described in the Use Case Security and Privacy Appendix, there are unique privacy and security risks inherent to the exchange of sensitive information from a PDMP to a Health IT system, including any intermediaries that may transport the information between the systems. The appropriate level of security is always a risk-based decision by implementers. For this initiative, it is imperative that pilots and reference implementations adequately address both user authentication and patient matching so that the right requester receives the right information about the right patient, without violating any existing security or privacy policy.

There is variability in the policies governing how different state PDMPs authorize and provide access to the PDMP data for the end users as well as for any intermediaries or third parties, which may facilitate access to the PDMP data by an authorized user. Given this variability, the initiative has not specified any additional constraints or requirements for the security and privacy of the PDMP data beyond those already required through Federal law, state law, or other local or jurisdictional policy. Because no additional constraints are being put on the security and privacy protocols or standards that are necessary for the implementation guide to be piloted, pilot participants are able to select the security and privacy controls, standards, and procedures appropriate for their implementation, while adhering to requirements and regulations such as HIPAA, other Federal laws such as 42 CFR Part 2, state laws, and decisions based on local policy and risk assessment.

Considerations in regard to whether or not a third party (such as a Health Information Exchange) may have access to the PDMP data are important. In some cases, state law may prohibit access by anyone other than the original authorized requestor, where as in other cases third parties might be considered authorized users with respect to their particular role in the workflow. For instances when the intermediary is allowed by policy or regulation to access the PDMP data, a standards translation can be implemented by the third party, using portions of this IG as the basis for the mapping of data elements between standards. If, however, access to the PDMP data is not permitted by the intermediary, security considerations will need to address how the intermediary can route the PDMP data without requiring access to the content by employing techniques such as encryption for wrapping the data with an envelope so only the outer layer is usable by the intermediary.

Potential pilots are strongly encouraged to review the following resources when considering security and privacy related options:

1) Congressional Research Service Report dated March 24, 2014. This report cites “Security and Access” as one of the four areas central to the success of PDMPs and data sharing. The report specifically calls out key security and privacy considerations, including: Authorized users, authentication, audit trails, Internet access, vendor security, reporting, privacy, confidentiality, and the use of data.

2) Prescription Drug Monitoring Program Interoperability Standards; A Report To Congress prepared by the Office of the Assistant Secretary for Health (OASH), The Office of the National Coordinator for Health Information Technology (ONC), The Substance Abuse and Mental Health Services Administration (SAMHSA), and The Centers for Disease Control and Prevention (CDC). This report discusses the new privacy and security challenges PDMP interoperability poses. It describes how the need to accurately identify and verify the credentials of those accessing the PDMP data across state lines requires appropriately defined and mutually agreeable administrative and technical safeguards to ensure patient health information is protected when it is shared outside of a state’s PDMP.

As organizations form pilot ecosystems for testing the standards and interoperability aspects of this IG, it is hoped that lessons learned from the pilots will include details on how security and privacy challenges were addressed,

and details on the specific technical methods for protecting the confidentiality, integrity and availability of PDMP data while at rest and in transit, so they may collectively be considered for inclusion into future editions of this IG.

3 Gap Resolution Plan

3.1 Request

Table 16: Gaps Mitigation for Request Data Elements

Standard	Data Element Gaps Identified	Mitigation	Status
ASAP Web Services	• Requestor • Requestor Role • Disclosing States • Request ID • DEA Number • National Provider ID • State License Number • State Issued ID • Request Date/Timestamp		These Data Elements were included in the original ASAP version. They were erroneously captured as gaps in the draft version of the IG, but they are not gaps. Only the first three were initially gaps, but have been resolved. There are currently no gaps.
NCPDP SCRIPT	• Requestor Role • Disclosing States	New data elements to be suggested enhancements to SCRIPT Medication History transaction in a future version of NCPDP SCRIPT. Will depend on outcome of industry mapping to Healthcare Provider Taxonomy Code Set. See Open Items section.	Gaps will be addressed in a future version
HL7 V2.7	• Requestor • Requestor Role • Disclosing States • Requestor DEA Number • Requestor National Provider ID • Requestor State License Number • Requestor State Issued ID • Requesting Facility DEA Number • Requesting Facility NCPDP Number • Requesting Facility NPI • Requesting Facility Name • State Code of the Facility • Request Date/Timestamp	Mitigation: Proposed modifications as HL7V2.7 fields in QBP segments There are a number of concepts, relating primarily to the query request/routing, that are not directly supported in HL7 v2.7.1. These concepts have been added to the QPD segment as query parameters. The QPD segment, beyond QPD.2, is a user-defined set of fields which are not required to have a corresponding "standard field definition". As such, these concepts do not require endorsement by HL7 or inclusion in HL7 v2.x. Implementers will need to	Untested

		support these concepts, but they are essential to the data exchange described in this Implementation Guide and are not unique to the HL7 expression.	

1519
1520

3.2 Response

Table 17: Gap Mitigation for Response Data Elements

Standard	Data Element Gaps Identified	Mitigation	Status
ASAP Web Services	• Refills Authorized • Product ID • Product ID Qualifier		These Data Elements were included in the original ASAP version. They were erroneously captured as gaps in the draft version of the IG, but they are not gaps.
NCPDP SCRIPT	• Patient ID (State of License, Passport, Military, Tribal) • Partial Fill Indicator* • Method of Payment**	New data elements to be suggested enhancements to SCRIPT Medication History transaction in a future version of NCPDP SCRIPT *NCPDP participants are concerned with use of Partial Fill Indicator field misunderstanding that could occur and will discuss further if it would be added to a future version of the NCPDP SCRIPT Medication History transaction. **Pilot solution for Method of Payment in Conformance Section. Will be discussed as suggested enhancement to Medication History transaction in a future version of NCPDP SCRIPT.	Pilots determined patient identifiers are not required. Pilots determined Partial Fill Indicator is not required. The method of payment is currently captured in the notes field. It is addressed in the new version.
HL7 V2.7	• Response Date/Timestamp • Disclosing State(s)	Mitigation: Proposed modifications as new HL7V2.7 Z Segment RSP message elements	Untested

3.3 Open Items

This section serves to capture open issues of interest to the PDMP community that are not addressed in this IG.

Table 18: Open Items

Open Issue	Reported by	Reported Date
Roles and Role ID: community members developing a preliminary value set; NCPDP is analyzing the set for mapping to the national Health Care Provider Taxonomy code set.	Community	
Method of Payment - The industry needs to work together to synthesize the method of payment submitted by the industry. Until then payment type will be returned in the way it is reported.	NCPDP MC PDMP WHealth ITe Paper Task Group	9/2/2014

Open Issue	Reported by	Reported Date
Partial Fill Indicator - NCPDP participants are concerned with use of this field misunderstanding that could occur and will discuss further if it would be added to a future version of the NCPDP SCRIPT Medication History transaction.	NCPDP MC PDPD PDMD WHealth ITe Paper Task Group	9/8/2014
Value Sets provided in the Appendix should be vetted by the community and updated according to pilot outcomes – Closed value sets reflect pilot feedback to the extent possible.	Community	9/7/2014 Closed
Drug Name, Drug Strength and Dosage Form. These may not be reported by Pharmacies or are reported differently (e.g. the three fields are combined or NDC codes used).	Community	9/9/2014
Response messages for no match return or a match with no Health ITs on PDMP data where no match can be found. This needs to be worked out if there is to be standard language that is commonly understood by the requestor.	Community	9/2/2014; 9/9/2014

4 Appendices

4.1 Appendix A: Acronyms and Glossary

4.1.1 Acronyms

Table 19: List of Acronyms

Terms/Acronyms	Working Definition
API	Application Programming Interface
ASAP	American Society for Automation in Pharmacy
DEA	Drug Enforcement Administration
EHR	Electronic Health Record
FDA	Food and Drug Administration
HEALTH ITECH	Health Information Technology for Economic and Clinical Health Act of 2009
HL7	Health Level Seven International
NDC	National Drug Code
NCPDP	National Council for Prescription Drug Programs
NIEM	National Information Exchange Model
NPPES	National Plan and Provider Enumeration System developed by CMS
ONC	Office of the National Coordinator for Health Information Technology
PDMP	Prescription Drug Monitoring Program
PMIX	Prescription Monitoring Information eXchange
SAMHSA	Substance Abuse and Mental Health Services Administration
S&I	Standards and Interoperability
SDO	Standards Development Organization
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. XML is a structured language for describing information being sent electronically from one entity to another.

4.1.2 Glossary

Table 20: Glossary of Terms

Term	Definition
Container	Message structure/format that contains the payload and carries the message.

Term	Definition
Controlled Substances	Drug, substance, or immediate precursor in Schedules II through V or a precursor required to be reported to a PDMP by law or regulation.
Entity	An “entity” is an organization or a person that fulfills a role, e.g., Pharmacy, PDMP, Provider.
Federal Agencies	Organizations within the federal government that deliver, regulate or provide funding for health and health care.
Health Insurance Portability and Accountability Act (HIPAA)	Health Insurance Portability and Accountability Act (1996): act that protects health insurance coverage for workers and their families when they change or lose their jobs; The basic privacy policy relating an individual's protected health information, providers and payers.
Healthcare Information Exchange (HIE) System Vendors	An organization which develops, sells, and sometimes installs, an HIE for customer organizations.
Health IT System	An information system that is used by a Healthcare Professional to collect and store patient information including demographics, medicine, etc. (i.e. EHR, Hospital Information System, Pharmacy System).
Healthcare Payer/Purchaser	A third-party entity that establishes indications and limitations of coverage for payments or underwrites coverage for healthcare expense.
Healthcare Professionals (Also referred to as Individual Providers)	A medical practitioner or provider of care (or someone legally authorized to act on their behalf by relevant state laws, rules or regulations) who has legal authorization to access prescription drug data for patients at the point of care to make informed clinical decisions and appropriate treatment recommendations. This may include: prescribers, dispensers, pharmacists, nurses, etc.
Hub	A highly secure communications exchange platform that facilitates transmission of PDMP data to authorized requestors, allowing for in state and, where allowed, out of state queries on a person of interest.
Intermediary	An entity that accepts an electronic transaction from another organization electronically routes the transaction to a receiving entity. A switch/intermediary may perform value added services including detailed editing/messaging of input/output of data for validity and accuracy and translating data from one format to another. An intermediary may act as a consolidator of PDMP data exchange between disparate systems (which may include EHRs, Pharmacy IT systems, and state PDMPs) to provide seamless integration capabilities
Message Content (Body)	Information that is sent within the container that includes encrypted data regarding person of interest, provider, dispenser, and prescription data.
Metadata	A set of data that describes and gives information about other data. Structured data about data. Metadata includes data associated with either an information system or an information object for purposes of description, administration, legal requirements, technical functionality, use and usage, and preservation
Patient Advocates	A person who helps a patient work with others who have an effect on the patient's health, including doctors, insurance companies, employers, case managers, and lawyers. A patient advocate helps resolve issues about health care, medical bills, and job discrimination related to a patient's medical condition.

Term	Definition
Packaging	The assembly of the query or response in a manner that can be transported and consumed by the receiving entity.
Patients	Members of the public who require healthcare services from ambulatory, emergency department, physician's office, and/or a public health agency/department.
PDMP Data	PDMP data are prescriptions or other information for controlled substances and drugs of concern that PDMPs are authorized to monitor.
PHI	Protected Health Information, as defined in 45 CFR 160.103, where 'CFR' means 'Code of Federal Regulations', and, as defined, is referenced in Section 13400 of Subtitle D ('Privacy') of the HEALTH ITECH Act.
Privacy and Security Experts	Professional in designing, implementing, and administering comprehensive privacy and security protection programs in all types of healthcare organizations, aligned with regulation and healthcare reform.
Provider	A provider describes any medical personnel that may come in contact with the patient, handle a patient's EHR Form, or provide a patient with medical care. This includes, but is not limited to personnel that handle transitional care or direct care. The following are examples of providers: doctors, nurse practitioners, nurses, unit clerks, clinical researchers, medical residents, EMTs, emergency care personnel, medical aids, etc.
Provider Organizations	Organizations that are engaged in or support the delivery of healthcare. These organizations include but are not limited to hospitals, ambulatory centers, provider practices, integrated delivery systems, preferred provider organizations, health maintenance organizations, Accountable Care Organizations (ACOs), academic health systems, and professional societies.
Routing Information	Section of message that provides necessary to/from addressing and routing information. This section may also include metadata about what is inside the message content.
RxNorm	RxNorm provides normalized names for clinical drugs and links its names to many of the drug vocabularies commonly used in pharmacy management and drug interaction software,. By providing links between these vocabularies, RxNorm can mediate messages between systems not using the same software and vocabulary.
S&I	Standards and Interoperability Framework is an open forum sponsored by ONC's Office of Standards & Interoperability (OSI) to advance harmonization and implementation of specifications that support national healthcare priorities. SDC is an S&I Framework initiative.
Standards Organizations	Organizations whose purpose is to define, harmonize and integrate standards that will meet clinical and business needs for sharing information among organizations and for system interoperability. Includes Standards Development Organizations (SDOs) as accredited by the American National Standards Institute (ANSI), as well as consortia and other standards bodies.
Transformation	Data transformation allows the facilitation of data from one source to another by converting it, usually on an intermediate server, from one format into another to fit the operational needs of the end source
Translation	Enables systems that use different standards to understand one another.
User Stories	Any potential scenario that involves an End user accessing the system.

Term	Definition
Vocabulary & Terminology Owners	Organization whose purpose it is to define, harmonize, and maintain clinical terminologies and vocabulary that will meet information sharing needs to drive towards system interoperability and standardization.
XML Schema	XML Schema defines the rules and constraints for the characteristics of the data, such as structure, relationships, allowable values, and data types. It defines the vocabulary (elements and attributes), the content model (structure, element nesting, and text content), and data types (value constraints) of a class of XML documents. Note: When written with a capital S, the term refers specifically to the XML Schema Definition (XSD) language developed by the W3C. However, when written with a lowercase s, the meaning is more generic, referring to any of several schema languages for use with XML. In both cases, an XML Schema is used to validate XML instances, to verify that the instances conform to the model that the schema describes.

4.2 Appendix B: Value Sets

The table provided below is a preliminary set of free text or code values applicable to the data elements described in the implementation approach section. The list is intended to be vetted through the PDMP, EHR, and Pharmacy communities during pilot programs and updated accordingly.

Standard	Data Element	Value Set
PMIX (to be leveraged across all standards specified in PDMP&HEALTH ITI IG)	**Requestor Role**	101
		102
		103
		104
		105
		106
		107
		108
		109
		110
		111
		112
		113
		114
		115

		116
		117
		201
		202
		203
		204
HL7 V2.7	**Requestor Role**	HL70912
NCPDP SCRIPT 10.6	**Requestor Role**	Healthcare Provider Taxonomy Code Set See list of specialty taxonomy codes here **Reference taxonomy to PMIX master list mapping*
ASAP Web Services V2.1A NCPDP SCRIPT V10.6	**Gender** (Patient)	M
		F
		U
HL7 V2.7	**Gender** (Patient)	HL70001
ASAP Web Services V2.1A HL7 V2.7 NCPDP SCRIPT V10.6	**Product ID**	See RxNorm Code List here
		See NDC Directory here
ASAP Web Services V2.1A HL7 V2.7 NCPDP SCRIPT V10.6	**Product ID Qualifier**	RxNorm
		NDC
NCPDP SCRIPT V10.6	**Dosage Form**	See NCI Thesaurus Subsets files here
NCPDP SCRIPT V10.6	**Drug Strength**	See NCI Thesaurus Subsets files here
NCPDP SCRIPT V10.6	**Drug Quantity Qualifier**	See NCI Thesaurus Subsets files here

ASAP Web Services V2.1A HL7 V2.7 NCPDP SCRIPT V10.6	**State** (Disclosing States, State of License, State Code of Requesting Facility, Patient/Prescriber/Dispenser Organization State Code)	See USPS State Code List here	
		AL	Alabama
		AK	Alaska
		AR	Arkansas
		AZ	Arizona
		CA	California
		CO	Colorado
		CT	Connecticut
		DE	Delaware
		DC	District of Columbia
		FL	Florida
		GA	Georgia
		HI	Hawaii
		ID	Idaho
		IL	Illinois
		IN	Indiana
		IA	Iowa
		KS	Kansas
		KY	Kentucky
		LA	Louisiana
		ME	Maine
		MD	Maryland
		MA	Massachusetts
		MI	Michigan
		MN	Minnesota
		MS	Mississippi
		MO	Missouri
		MT	Montana
		NE	Nebraska
		NV	Nevada
		NH	New Hampshire
		NJ	New Jersey
		NM	New Mexico

		NY	New York
		NC	North Carolina
		ND	North Dakota
		OH	Ohio
		OK	Oklahoma
		OR	Oregon
		PA	Pennsylvania
		RI	Rhode Island
		SC	South Carolina
		SD	South Dakota
		TN	Tennessee
		TX	Texas
		UT	Utah
		VT	Vermont
		VA	Virginia
		WA	Washington
		WV	West Virginia
		WI	Wisconsin
		WY	Wyoming
ASAP Web Services V2.1A HL7 V2.7 NCPDP SCRIPT V10.6	**Zip Code**	See USPS List of Zip codes here	
ASAP Web Services V2.1A	**Method of Payment**	01	Private Pay
		02	Medicaid
		03	Medicare
		04	Commercial Insurance
		05	Military Installations and VA
		06	Worker's Compensation
		07	Indian Nations

		99	Other
NCPDP SCRIPT V10/6	**Method of Payment**	01	Private Pay
		04	Commercial Insurance
ASAP Web Services V2.1A	**Partial Fill Indicator**	0	
		1	
HL7 V2.7	**Patient ID – State of License**	HL70363	
HL7 V2.7	**Dosage Form**	Local	
HL7 V2.7	**Partial Fill Indicator**	HL70484	
HL7 V2.7	**Method of Payment**	HL70017	
HL7 V2.7	***Patient ID Qualifier**[75]	HL70203	

4.3 Appendix C: Requestor Role to Healthcare Provider Taxonomy Mapping

The following table serves as a preliminary mapping between the PMIX Requestor Role value codes and the Healthcare Provider Taxonomy Code Set maintained by the Washington Publishing Company. This mapping can be leveraged for use in NCPDP SCRIPT implementations for PDMP integration, where more granular role information is provided by the SCRIPT "specialty code" data element.

PDMP/PMIX Requestor Role	PDMP/PMIX Role ID	Healthcare Provider Taxonomy Code Set – Provider Type	Healthcare Provider Taxonomy Code
Prescribers			
Dentist	101	Dentist	1223*
Medical Intern under supervising DEA#	102		
Medical Intern with independent DEA#	103		
Medical Resident under supervising DEA#	104		
Medical Resident with independent	105		

[75] Patient ID Qualifier has been deemed as an optional data element and is not required in this IG

DEA#			
Naturopathic Physician	106	Naturopath	175F00000X
Nurse Practitioner	107	Nurse Practitioner	363L*
Optometrist	108	Optometrist	152W*
Other Non-Prescriber	109		
Other Prescriber	110		
Pharmacist with Prescriptive Authority	111	Pharmacist Clinician (PhC)/ Clinical Pharmacy Specialist	1835P0018X
Physician	112	Physicians (multiple entries)	207* 208* 213E*
Physician's Assistant	113	Physician Assistant	363A*
Prescriber's Delegate – licensed	114		
Prescriber's Delegate – unlicensed	115		
Psychologist with Prescriptive Authority	116	Psychologist	103T*
Veterinarian	117	Veterinarian	174M00000X
Dispensers			
Pharmacist	201	Pharmacist	1835*
Pharmacy	202	Pharmacy	3336*
Pharmacist Delegate – licensed	203	Pharmacy Technician	183700000X
Pharmacist Delegate – unlicensed	204		

4.4 Appendix D: Base Data Type Structure Conversions

The transformation details section of this IG (section 2.3) drills down to mostly simple string data types, which do not require transforms. However, there are a few transformations that are necessary – date and date/time data types. These are illustrated in the following tables.

Data Type Conversions: PMIX and NCPDP SCRIPT

PMIX Data Type	Simple Data Structure	Data Format	Conversion to SCRIPT Data Type	NCPDP SCRIPT Data Type	Simple Data Structure	Data Format	Conversion to PMIX Data Type
nc:PersonNameTextType	xsd:string			AN..35			Constrained to alphanumeric 35.
niem-xsd:date	Date	YYYY-MM-DD	=CONCATENATE(LEFT(INPUT,4), MID(INPUT,6,2),RIGHT(INPUT,2))	DateTime (xs:date or xs:dateTime)	Date and Time	CCYYMMDDhhmmssmss	=CONCATENATE(LEFT(INPUT,4), "-",MID(INPUT, 5,2),"-", MID(INPUT,7,2))
niem-xsd:time	Time	hh:mm:ss.sss.	=CONCATENATE(LEFT(INPUT,2),MID(INPUT,4,2),MID(INPUT,7,2),RIGHT(INPUT,3))	DateTime (xs:date or xs:dateTime)	Date and Time	CCYYMMDDhhmmssmss	=CONCATENATE(MID(INPUT,9,2), ":",MID(INPUT, 11,2),":", MID(INPUT,13,2), ":",RIGHT(INPUT,3))
nc:OrganizationType	xsd:string			AN..35			Constrained to alphanumeric 35.
usps:USStateCode	usps:US			string			Constrained to two digit

PMIX Data Type	Simple Data Structure	Data Format	Conversion to SCRIPT Data Type	NCPDP SCRIPT Data Type	Simple Data Structure	Data Format	Conversion to PMIX Data Type
Type	StateCodeSimpleType						state and territory codes. http://www.loc.gov/standards/iso639-2/ascii_8bits.html - downloadable text file of ISO 639-3 Codes for the Representation of Names of Languages (Also available at http://en.wikipedia.org/wiki/List_of_ISO_639-1_codes)
nc:TextType				AN..35			Constrained to alphanumeric 35.
nc:DateType	xsd:dateTime	CCYY-MM-DDThh:mm:ss.sss	=CONCATENATE(LEFT(INPUT,4),MID(INPUT,6,2),MID(INPUT,9,2),MID(INPUT,12,2), MID(INPUT,15,2), MID(INPUT,18,2),RIGHT(INPUT,3))	DateTime (xs:date or xs:dateTime)		CCYYMMDDhhmmssmss	=CONCATENATE(LEFT(INPUT,4), "-", MID(INPUT,5,2), "-", MID(INPUT,7,2), "T", MID(INPUT,9,2), ":",MID(INPUT,11,2), ":",MID(INPUT,13,2), ":",RIGHT(INPUT,3))
niem-xsd:decimal				string			
niem-xsd:nonNegativeInteger				n..2			Constrained to numeric 2 digits (in FillNumber).

1555

1556 **Data Type Conversions: PMIX and ASAP Web Services 2.1A**

PMIX Data Type	Simple Data Structure	Data Format	Conversion to ASAP	ASAP Data Type	Simple Data Structure	Data Format	Conversion to PMIX Data Type
niem-xsd:date	Date	YYYY-MM-DD	No conversion needed	DT	Date	yyyy-mm-dd	No conversion needed
niem-xsd:date	Date	YYYY-MM-DD	No conversion needed	DTM	Date + Time	yyyy-mm-ddThhmmss	No conversion needed
niem-xsd:time	Time	hh:mm:ss.sss.	No conversion needed	DTM	Date + Time	yyyy-mm-ddThhmmss	No conversion needed

1557

1558 **Data Type Conversions: PMIX and HL7 V2.7**

PMIX Data Type	Simple Data Structure	Data Format	Conversion to HL7 V2.7 Data Type	HL7 Data Type	Simple Data Structure	Data Format	Conversion to PMIX Data Type
niem-xsd:date	Date	YYYY-MM-DD	=MID([pmixdate],1,4)&MID([pmixdate],6,2)&MID([pmixdate],9,2)	DT	Date	YYYY[MM[DD]]	=MID([hl7date],1,4)&"-"&MID([hl7date],5,2)&"-"&MID([hl7date],7,2)
niem-xsd:date	Date	YYYY-MM-DD	=MID(<pmixdate>,1,4)&MID(<pmixdate>,6,2)&MID(<pmix	DTM	Date + Time	YYYY[MM[DD[HH[MM[SS[.S[S[S]]]]]]]][+	=MID(<hl7datetime>,1,4)&"-"&MID(<hl7

PMIX Data Type	Simple Data Structure	Data Format	Conversion to HL7 V2.7 Data Type	HL7 Data Type	Simple Data Structure	Data Format	Conversion to PMIX Data Type
niem-xsd:time	Time	hh:mm:ss.sss.	date>,9,2)&MID(<pmix time>,1,2)&MID(<pmix datetime>,4,2)&MID(B16,7,2)	DTM	Date + Time	/-ZZZZ] YYYY[MM[DD[HH[MM[SS[.S[S[S]]]]]]]][+/-ZZZZ]	datetime>,5,2)&"-"&MID(<hl7 datetime>,7,2) =MID(<hl7 datetime>,9,2)&":"&MID(<hl7 datetime>,11,2)&":"&MID(<hl7 datetime>,13,2)

1559

4.5 Appendix E: HL7 Reference Material

During the course of our work, Community Members identified HL7 as a potential solution to PDMP integration. However, this solution remains untested as part of the pilots. In addition to the HL7 version 2 data element mappings documented below, Community members have additionally identified the use of Integrating the Healthcare Enterprise (IHE) profiles as an standards-based approach to PDMP integration. These community members are leveraging (or plan to leverage) Cross-domain document sharing (XDS.b) transactions to exchange structured documents (typically Consolidated-Clinical Document ArcHealth ITecture - CCDA), which contain patient's medication history.

4.5.1 Data Element Mapping for PDMP Request

Table 21: Field Name Data Element Mapping for a PMIX Request Transaction

Data Element		PMIX XML DE Name	HL7 v2.7 DE Name
Requestor		<pmix:Requestor> </pmix:Requestor>	QPD.3 Requestor
Requestor Role		<pmix:RequestorRole> </pmix:RequestorRole>	QPD.4 RequestorRole
Disclosing State		<pmix:DisclosingState> </pmix:DisclosingState>	QPD.5 DisclosingState
Request ID		<pmix:RequestID> </pmix:RequestID>	QPD.2 QueryTag
Request date/ timestamp		NR	QPD.6 RequestDateTime
Requestor Identifier	DEA Number*	<nc:IdentificationID> </nc:IdentificationID>	QPD.7 RequestorDEA

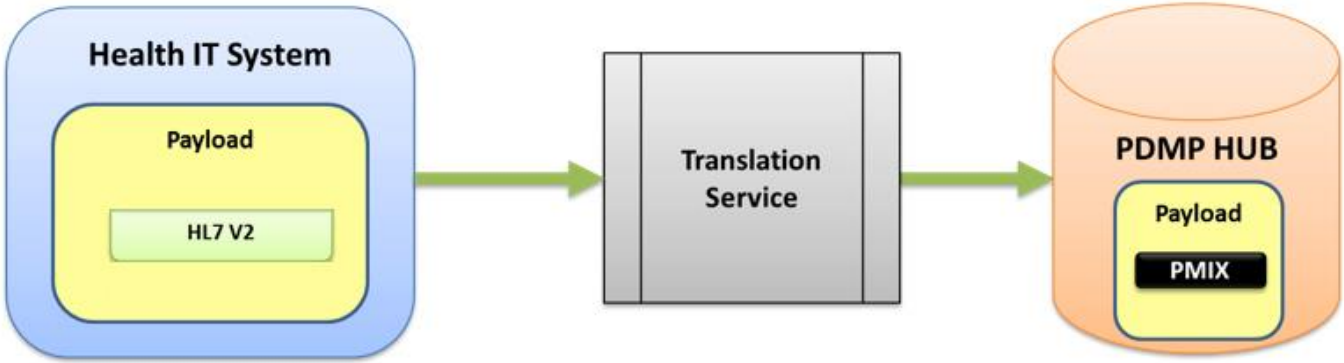
Data Element		PMIX XML DE Name	HL7 v2.7 DE Name
	NPI Number*	<nc:IdentificationID> </nc:IdentificationID>	QPD.8 RequestorNPI
	State License ID*	<nc:IdentificationID> </nc:IdentificationID>	QPD.9 RequestorStateLicense
Requesting Facility ID	DEA Number*	<nc:IdentificationID> </nc:IdentificationID>	QPD.10 RequestingFacilityDEA
	NCPDP Number*	<nc:IdentificationID> </nc:IdentificationID>	QPD.11 RequestingFacilityNCPDP
	NPI*	<nc:IdentificationID> </nc:IdentificationID>	QPD.12 RequestingFacilityNPI
Requesting Facility	Name	<nc:OrganizationDoingBusinessAsName> </nc:OrganizationDoingBusinessAsName>	QPD.13 RequestingFacilityName
	State code of Facility	<nc:LocationStateUSPostalServiceCode> </nc:LocationStateUSPostalServiceCode>	QPD.14 RequestingFacilityState
Patient	First Name	<nc:PersonGivenName> </nc:PersonGivenName>	QPD.15.2 Given Name
	Last Name	<nc:PersonSurName> </nc:PersonSurName>	QPD.15.1 Family Name

Data Element		PMIX XML DE Name	HL7 v2.7 DE Name
	Date of Birth	<nc:Date> </nc:Date>	QPD.16 Date/Time of Birth
Request Prescription Date Range	Start Date	<pmp:RequestPrescriptionDateRangeBegin> </pmp:RequestPrescriptionDateRangeBegin>	QPD.17 DispenseDate.LL
	End Date	<pmp:RequestPrescriptionDateRangeEnd> </pmp:RequestPrescriptionDateRangeEnd>	QPD.18 DispenseDate.UL

4.5.2 PDMP Hub Request Workflow

Figure 4 below demonstrates the workflow of the Health IT system sending a query to the PDMP Hub, using HL7 V2.7. A translation service, provided either by the PDMP Hub vendor or a third party, offers the necessary infrastructure to convert the outbound message into a PMIX compliant PDMP request. The message content is extracted in a manner that retains message level security and data integrity, transformed into a PMIX-structured request recognizable by the PDMP Hub. Note that the implementation guide is agnostic as to the location or entity performing such translation services.

Figure 5: PDMP Hub Request Workflow (HL7)


Health IT System
Payload
HL7 V2
Translation Service
PDMP HUB
Payload
PMIX

1579

4.5.3 Request: HL7 v2.7 to PMIX

Table 22 Request Transformation Details from HL7 V2.7.0 to PMIX

Date Element		PMIX					HL7 V2.7.1			
		Data Element	Element Path	Optionality	Cardinality	Data Type	Element Path	Optionality	Cardinality	Data Type
Routing Information										
Requestor		<pmix:Requestor> </pmix:Requestor>	NA	R	1..1	Unspecified	QPD.3 Requestor	R	1..1	XPN
Requestor Role		<pmix:RequestorRole> </pmix:RequestorRole>	/pmix:MetaData/	R	1..1	Unspecified	QPD.4 RequestorRole	R	1..1	ST
Disclosing State		<pmix:DisclosingState> </pmix:DisclosingState>	/pmix:MetaData /pmix:RoutingData/	R	1..1	Unspecified	QPD.5 DisclosingState	R	1..*	ST
Request ID		<pmix:RequestID> </pmix:RequestID>	/pmix:MetaData /pmix:RoutingData/	R	1..1		QPD.2 QueryTag	R	1..1	ST
Request Date/Timestamp		Unspecified	Unspecified	R	1..1	Unspecified	QPD.6 RequestDateTime	R	1..1	DTM
Requestor Identifier	DEA Number	<nc:IdentificationID> </nc:IdentificationID>	pmp:DEANumberIdentifier/	CR	0..1	nc:IdentificationID	QPD.7.1 RequestorDEA.ID[76]	C	0..*	ST
	NPI	<nc:IdentificationID>	pmp:NPIIdentifier/	CR	0..1	nc:Identificati	QPD.8.1 RequestorNPI.ID[77]	C	0..*	ST

[76] RequestorDEA.ID is not currently supported by HL7 V2.7 Query. Concept has been added to the QPD segment as a user-defined query parameter.

	Number	</nc:IdentificationID>				onID				
	State License ID	<nc:IdentificationID> </nc:IdentificationID>	pmp:StateLicenseIdentifier/	CR	0..1	nc:IdentificationID	QPD.9.1 [78]RequestorStateLicense.ID	C	0..*	ST
	State of License	<nc:IdentificationJurisdictionText> </nc:IdentificationJurisdictionText	pmp:StateLicenseIdentifier/	CR	0..1	Unspecified	QPD.9.4.1 [79]RequestorStateLicense.AssigningAuthority	C	0..*	ST
Requesting Facility ID	DEA Number	<nc:IdentificationID> </nc:IdentificationID>	pmp:DEANumberIdentifier/	CR	0..1	nc:IdentificationID	QPD.10.1 FacilityDEA.ID[80]	C	0..*	ST
	NCPDP Number	<nc:IdentificationID> </nc:IdentificationID>	pmp:NCPDPIdentifier/	CR	0..1	nc:IdentificationID	QPD.11.1 FacilityNCPDP.ID[81]	C	0..*	ST
	NPI Number	<nc:IdentificationID> </nc:IdentificationID>	pmp:NPIIdentifier/	CR	0..1	nc:IdentificationID	QPD.12.1 FacilityNPI.ID[82]	C	0..*	ST
Requesting	Name	<nc:OrganizationDoingBusinessAsName> </nc:OrganizationDoingBusinessAsName>	pmp:Prescription/pmp:Dispenser/	R	1..1	nc:OrganizationType	QPD.13 FacilityName[83]	R	0..1	ST

[77] RequestorNPI.ID is not currently supported by HL7 V2.7 Query. Concept has been added to the QPD segment as a user-defined query parameter.

[78] RequestorStateLicense.ID is not currently supported by HL7 V2.7 Query. Concept has been added to the QPD segment as a user-defined query parameter.

[79] RequestorStateLicense.AssigningAuthority is not currently supported by HL7 V2.7 Query. Concept has been added to the QPD segment as a user-defined query parameter.

[80] FacilityDEA.ID is not currently supported by HL7 V2.7 Query. Concept has been added to the QPD segment as a user-defined query parameter.

[81] Facility NCPDP.ID is not currently supported by HL7 V2.7 Query. Concept has been added to the QPD segment as a user-defined query parameter.

[82] FacilityNPI.ID is not currently supported by HL7 V2.7 Query. Concept has been added to the QPD segment as a user-defined query parameter.

[83] FacilityName is not currently supported by HL7 V2.7 Query. Concept has been added to the QPD segment as a user-defined query parameter.

	State Code of Requesting Facility	<nc:LocationStateUSPostalServiceCode></nc:LocationStateUSPostalServiceCode>	pmp:Prescription /pmp:Dispenser /nc:OrganizationLocation /nc:LocationAddress /nc:StructuredAddress/	R	1..1	usps:USStateCodeType	QPD.14.1 FacilityState.code[84]	R	0..1	ST
Message Body										
Patient	First Name	<nc:PersonGivenName></nc:PersonGivenName>	/pmix:PMPRequest /pmp:RequestPatient /nc:PersonName/	R	1..1	nc:PersonNameTextType	QPD.15.2 PatientList.GivenName	R	0..1	ST
	Last Name	<nc:PersonSurName></nc:PersonSurName>	/pmix:PMPRequest /pmp:RequestPatient /nc:PersonName/	R	1..1	nc:PersonNameTextType	QPD.15.1 PatientList.FamilyName	R	0..1	ST
	Date of Birth	<nc:Date></nc:Date>	/pmix:PMPRequest /pmp:RequestPatient /nc:PersonBirthDate/	R	1..1	niem-xsd:date	QPD.16 PatientDOB	R	0..1	DT
Request Prescription Date Range	Start Date	<pmp:RequestPrescriptionDateRangeBegin></pmp:RequestPrescriptionDateRangeBegin>	/pmix:PMPRequest /pmp:RequestPrescriptionDateRange/	R	1..1	niem-xsd:date	QPD.17 DispenseDate.LL	R	0..1	DT
	End Date	<pmp:RequestPrescriptionDateRangeEnd></pmp:RequestPrescriptionDateRangeEnd>	/pmix:PMPRequest /pmp:RequestPrescriptionDateRange/	R	1..1	niem-xsd:date	QPD.18 DispenseDate.UL	R	0..1	DT

4.5.3.1 Coded Example (Request Transformation)

[84] FacilityStateCode is not currently supported by HL7 V2.7 Query. Concept has been added to the QPD segment as a user-defined query parameter.

1584

1585 **Table 23: HL7 V2.7 Transformation Details - Query Grammar**

QBP^ZS1^QBP_Q11	Query Grammar: QBP Message	Chapter
MSH	Message Header Segment	2
[{ SFT }]	Software	2
QPD	Query Parameter Definition	5
RCP	Response Control Parameter	5
[DSC]	Continuation Pointer	2

1586

1587

1588

1589 ## QPD Input Parameter Specification

1590 **Table 24: HL7 V2.7 Transformation Details - QPD Input Parameter Specification**

Field Seq (Query ID=ZS1)	Name	Key/Search	Sort	LEN	TYPE	Opt	Rep	Match Op	TBL	Segment Field Name	Service Identifier Code	Element Name
1	MessageQueryName				CE	R						
2	QueryTag				ST	R						
3	Requestor				XPN	R						
4	RequestorRole				ST	R						
5	DisclosingState				ST	R	Y		USPS State Codes			
6	RequestDateTime				DTM	R						
7	RequestorDEA				CX	C						
8	RequestorNPI				CX	C						

Field Seq (Query ID=ZS1)	Name	Key/Search	Sort	LEN	TYPE	Opt	Rep	Match Op	TBL	Segment Field Name	Service Identifier Code	Element Name
9	RequestorStateLicense				CX	C	Y					
10	RequestingFacilityDEA				CX		Y					
11	RequestingFacilityNCPDP				CX		Y					
12	RequestingFacilityNPI				CX		Y					
13	RequestingFacilityName				ST		N					
14	RequestingFacilityState				ST		N		USPS State Codes			
15	PatientName	**S**	**Y**		**XPN**	**R**				PID.3		PID-3: Patient Identifier List
16	PatientDOB				DTM	O				PID.7		PID.7: Date/Time of Birth
17	DispenseDate.LL				DT	O		>=		RXD.3		RXD-3: Date/Time Dispensed

Field Seq (Query ID=ZS1)	Name	Key/Search	Sort	LEN	TYPE	Opt	Rep	Match Op	TBL	Segment Field Name	Service Identifier Code	Element Name
18	DispenseDate.UL				DT	O		<=		RXD.3		RXD-3: Date/Time Dispensed
19	ResponseDateTime				DTM	C						

1591

1592 ## QPD Input Parameter Field Description and Commentary

1593 **Table 25: HL7 V2.7. Transformation Details - QPD Input Parameter Field Description and Commentary**

Input Parameter (Query ID=ZS1)	Comp. Name	DT	Description
MessageQueryName		CWE	Must be valued ZSP^PDMP Dispense History^HL70471.
QueryTag		ST	Unique to each query message instance
Requestor		XPN	Name of query requestor
	LastName	ST	Query requestor Last Name
	GivenName	ST	Query requestor Given Name
RequestorRole		ST	Role of query requestor
DisclosingState		ST	State which is the target of the query. Can repeat to support querying multiple States. Uses USPS 2-letter State Abbreviations
RequestDateTime		DTM	The date and (optionally) time of the query message
RequestorDEA		CX	Requestor DEA number
	ID	ST	DEA Number

Input Parameter (Query ID=ZS1)	Comp. Name	DT	Description
	IDType	ST	"DEA" indicates this is a DEA number
RequestorNPI		CX	Requestor NPI
	ID	ST	NPI
	IDType	ST	"NPI" indicates this is an NPI
RequestorStateLicense		CX	Requestor State License Number. Can repeat to support requestors with multiple state licenses
	ID	ST	State License Number
	IDType	ST	"SL" indicates this is a State License "MD" indicates this is a Medical License "RPH" indicates this is a Pharmacist License Values are from HL7 Table 0203 Identifier Type
	AssigningAuthority	ST	The State issuing the license. Uses USPS 2-letter State Abbreviations
RequestingFacilityDEA		CX	Requesting facility DEA number
	ID	ST	DEA Number
	IDType	ST	"DEA" indicates this is a DEA number
RequestingFacilityNCPDP		CX	Requesting facility NCPDP number
	ID	ST	NCPDP Number
	IDType	ST	"NCPDP" indicates this is an NCPDP number
RequestingFacilityNPI		CX	Requesting facility NPI
	ID	ST	NPI
	IDType	ST	"NPI" indicates this is an NPI
RequestingFacilityName		ST	Requesting facility name
RequestingFacilityState		ST	The requesting facility State

Input Parameter (Query ID=ZS1)	Comp. Name	DT	Description
PatientName		XPN	Name of patient (subject of query)
	LastName	ST	Query subject Last Name
	GivenName	ST	Query subject Given Name
	OtherGivenName	ST	Query subject Middle and other given names
PatientDOB		DTM	Patient date of birth. Format: YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ].
DispenseDate.LL		DT	Lower date limit (inclusive) of request Format: YYYY[MM[DD]]
DispenseDate.UL		DT	Upper date limit (inclusive) of request Format: YYYY[MM[DD]]
ResponseDateTime		DTM	Date and time of response. Not present in the request. Required in the response (supplied by responder). Format: YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ].

1594

Example: The user, pharmacist Clara Barton, wishes to know all the medications dispensed for the patient whose name is "Alexander Fleming", residing in a PDMP, for the period beginning 08/01/2014 and ending 08/20/2014. The following QBP message is generated:

```
MSH|^&~\|RiteWay||PDMP||201408211600-0500||QBP^ZS1^QBP_Q11|ACK9901|P|2.7.1|
QPD|ZSP^PDMP Dispense History^HL70471|123456789AA001|Barton^Clara|Pharmacist|MD~VA|201408211600-
    0500||||BJ6125341^^^^DEA||1234567890^^^^NPI|Rite Way
    Pharmacy|VA|Fleming^Alexander|19810808|20140801|20140820||
RCP|I|999^RD|
```

4.5.3.2 Conformance Statements

Conformance Statements

Table 26: HL7 V2.7 Conformance Statements

Query Statement ID (Query ID=ZS1):	ZS1
Type:	Query
Query Name:	PDMP Dispense History
Query Trigger (= MSH-9):	QBP^ZS1^QBP_Q11
Query Mode:	Both
Response Trigger (= MSH-9):	RSP^K31^RSP_K31
Query Characteristics:	May specify patient, patient date of birth, date range and States to be queried
Purpose:	To request PDMP data from a Prescription Drug Monitoring Program (PDMP)
Response Characteristics:	Sorted by patient
Based on Segment Pattern:	RDS_O01

HL7 v2.7.1 PDMP Query (QPB^ZS1^QBP_Q11) request to PMIX

1. Each Request SHALL include a Request ID: QPD.2 QueryTag

2. Each Request SHALL include a Request Date/Timestamp: QPD.6 RequestDateTime
3. Each Request SHALL include a Request Prescription Date Range - Begin Date: QPD.17 DispenseDate.LL
4. Each Request SHALL include a Request Prescription Date Range – End Date: QPD.18 DispenseDate.UL
5. Each Request SHALL specify one Requestor, such that
    a. The Request SHALL include the Requestor Last Name: QPD.3 Requestor.LastName
    b. The Request SHALL include the Requestor First Name: QPD.3.2 Requestor.GivenName
    c. The Request SHALL include the Requestor Role: QPD.4 RequestorRole
6. The Requestor Role SHALL correspond to one of the values referenced in the Appendix section table titled, “Role Value Set”, verified by governance policy set forth by the state PDMP(s)

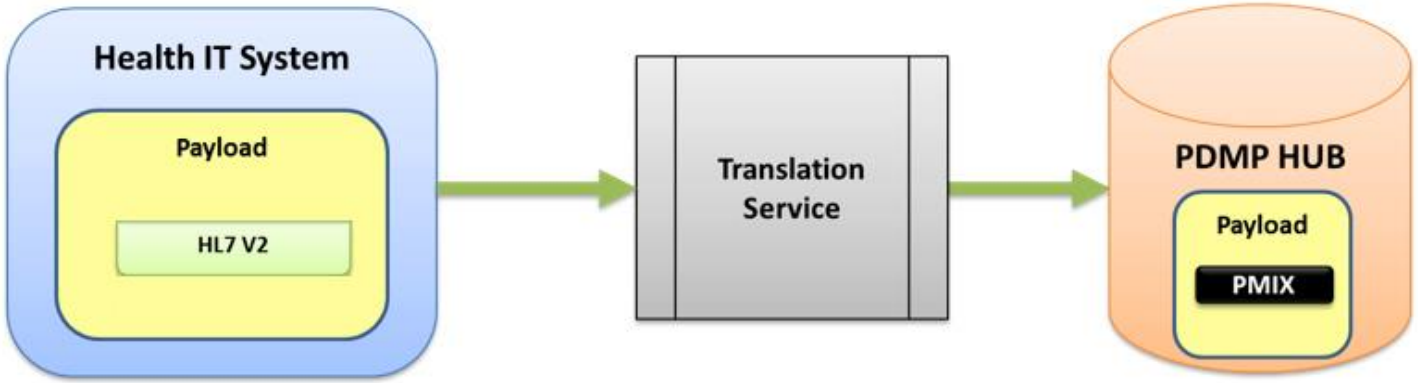
    d. The Request SHALL include at least one Requestor Identifier. Permitted identifiers are:
        i. Requestor DEA Number: QPD.7 RequestorDEA
        ii. Requestor NPI Number: QPD.8 RequestorNPI
        iii. Requestor State License Number: QPD.9 RequestorStateLicense
    e. The Request SHALL include the Requesting Facility Name: QPD13 RequestingFacilityName
    f. Each Request SHALL include at least one Requesting Facility ID. Permitted identifiers are
        i. Facility DEA Number: QPD.10 FacilityDEA
        ii. Facility NPI Number: QPD.11 FacilityNPI
        iii. Facility NCPDP Number: QPD.12 FacilityStateLicense
    g. The Request SHALL include the State Code of Requesting Facility: QPD.14 RequestingFacilityState
        i. The State Code SHALL be identified using the USPS 2-letter State Abbreviations
6. Each Request SHALL identify one Patient as the subject of the query, such that:
    a. The Request SHALL include the Patient First Name: QPD.15.2 PatientList.GivenName
    b. The Request SHALL include the Patient Last Name: QPD.15.1 PatientList.FamilyName
    c. The Request SHALL include the Patient Date of Birth: QPD.16 PatientDOB
7. Each Request SHALL have at least one Disclosing State: QPD.5 DisclosingState

The Disclosing States SHALL be identified using the USPS 2-letter State Abbreviations

4.5.4 PDMP Hub Response to Healht IT Systems (HL7)

Figure 6 below demonstrates the workflow of a PDMP Hub providing a PDMP response to the Health IT System and the corresponding message content standards. The same translation service implicated in the request transaction provided either by the PDMP Hub vendor or a separate third party offers the necessary infrastructure to convert the inbound response from PMIX into the standard supported by the Health IT System. The message is received by the Health IT System as an HL7 v2.7 message.

Figure 6: PDMP Hub Response Workflow (HL7)



4.5.5 Data Element Mapping for PDMP Response

Data Element		PMIX XML DE Name	HL7 v2.7 DE Name
Response Date/Timestamp		<pmp:ReportExecutionDate> </pmp:ReportExecutionDate> <pmp:ReportExecutionTime> </pmp:ReportExecutionTime>	MSH.7 Date/Time of Message (date/time portion)
Response Prescription Date Range	Start Date	<pmp:ReportDateRangeBegin> </pmp:ReportDateRangeBegin>	QPD.17 DispenseDate.LL
	End Date	<pmp:ReportDateRangeEnd> </pmp:ReportDateRangeEnd>	QPD.18 DispenseDate.UL
Disclosing States		<pmix:DisclosingState>	QPD.5 DisclosingState

		</pmix:DisclosingState>	
Request ID		NR[85]	QPD.2 QueryTag
Patient	First Name	<nc:PersonGivenName> </nc:PersonGivenName>	PID.5.2 Given Name
	Last Name	<nc:PersonSurName> </nc:PersonSurName>	PID.5.1 Family Name
	Date of Birth	<nc:Date> </nc:Date>	PID.7 Date/Time of Birth
	Gender	<nc:PersonSexCode> </nc:PersonSexCode>	PID.8 Administrative Sex
	Street Address	<nc:StreetFullText> </nc:StreetFullText>	PID.11.1 Street Address
	City Address	<nc:LocationCityName> </nc:LocationCityName>	PID.11.3 City
	State Code	<nc:LocationStateUSPostalServiceCode> </nc:LocationStateUSPostalServiceCode>	PID.11.4 State or Province
	Zip Code	<nc:LocationPostalCode> </nc:LocationPostalCode> <nc:LocationPostalExtensionCode> </nc:LocationPostalExtensionCode>	PID.11.5 Postal or ZIP code
Patient Identifier[86]	SSN*	<nc:IdentificationID> </nc:IdentificationID>	PID.3.1 ID Where PID.3.5="SSN"
	License	<nc:IdentificationID> </nc:IdentificationID>	PID.3.1 ID Where PID3.5="DL"
	State of License*[87]	<nc:IdentificationJurisdictionText> </nc:IdentificationJurisdictionText>	PID.3.3.1 Assigning Authority Where PID3.5="DL"
	Passport ID*	<nc:IdentificationID> </nc:IdentificationID>	PID.3.1 ID Where PID3.5="PPN"

[85] NR = Not Relevant. An “NR” in the PMIX DE Name column indicates that while the PDMP hub or gateway requires the data element in a received request (e.g. Request date/timestamp), the PMIX message sent from the hub or gateway to the PMP will not include the field. Therefore, a PMIX equivalent for the data element is not of relevance to this IG.

[86] Patient Identifier data is required to be provided in the response, on the condition that the data is available to be sent

[87] Required if License is being used as the Identifier

	Military ID*	<nc:IdentificationID> </nc:IdentificationID>	PID.3.1 ID Where PID3.5="MI"
	Tribal Identifier*	<nc:IdentificationID> </nc:IdentificationID>	PID.3.1 ID Where PID3.5="IND"
Prescription	Filled Date	<pmp:ReportDateRangeBegin> </pmp:ReportDateRangeBegin> <pmp:ReportDateRangeEnd> </pmp:ReportDateRangeEnd>	RXD.3 DateTimeDispensed
	Written Date	<nc:Date> </nc:Date>	QPD.6 DispenseDate.UL
	Number	<pmp:PrescriptionNumberText> </pmp:PrescriptionNumberText>	RXD.7 PrescriptionNumber
	Drug Name[88]	<pmp:DrugProductNameText> </pmp:DrugProductNameText>	RXD.2.2 DispenseGiveCode.text
	Strength[89]	<pmp:DrugStrengthText> </pmp:DrugStrengthText>	Implied in RXD.2.2 OR RXD.16 ActualStength & RXD.17.2 ActualStrengthUnit.text
	Dosage Form[90]	<pmp:DrugUnitOfMeasureText></pmp:DrugUnitOfMeasureText>	Implied in RXD.2.2 OR RXD.6 ActualDosageForm.text
	Quantity	<pmp:DispensedQuantity> </pmp:DispensedQuantity>	RXD.4 Actual Dispense Amount
	Days of Supply	<pmp:DaysSupplyCount> </pmp:DaysSupplyCount>	Calculated: RXD.4 Actual Dispense Amount / RXD.12 Total Daily Dose
	Refill Number	<pmp:DrugRefillNumberCount> </pmp:DrugRefillNumberCount>	RXD.1 DispenseSubIDCounter
	Refills Authorized	<pmp:RefillsAuthorizedCount> </pmp:RefillsAuthorizedCount>	RXD.1 DispenseSubIDCounter PLUS RXD.8 NumberOfRefillsRemaining

[88] Drug Name data is required to be provided in the response, on the condition that the data is available to be sent

[89] Drug Strength data is required to be provided in the response, on the condition that the data is available to be sent

[90] Dosage Form data is required to be provided in the response, on the condition that the data is available to be sent

	Partial Fill Indicator	<pmp:PartialFillIndicator> </pmp:PartialFillIndicator>	RXD.33 Dispense Type ="Q" is partial fill
	Method of Payment	<pmp:MethodOfPaymentCode> </pmp:MethodOfPaymentCode>	FT1.6 Transaction Type
Drug	Product ID Qualifier	<pmp:DrugCPDProductIdentifier> <pmp:DrugDINProductIdentifier> <pmp:DrugHRIProductIdentifier> <pmp:DrugNDCProductIdentifier> <pmp:DrugUPCProductIdentifier> <pmp:DrugUPNProductIdentifier>	RXD.2.3 DispenseGiveCode.CodingSystem RXD.25.3 SupplementaryCode.CodingSystem
	Product ID	<IdentificationID>	RXD.2.1 DspenseGiveCode.ID RXD25.1 SupplementaryCode.ID
Dispenser Organization (Pharmacy)	Name	<nc:OrganizationDoingBusinessAsName> </nc:OrganizationDoingBusinessAsName>	RXD.PRT.8.1 Organization Name Where RXD.PRT.4 Participation="DP"
	Street Address[91]	<nc:StreetFullText> </nc:StreetFullText>	RXD.PRT.14.1 ParticipationAddress.Street Where RXD.PRT.4 Participation="DP"
	City Address[92]	<nc:LocationCityName> </nc:LocationCityName>	RXD.PRT.14.3 ParticipationAddress.City Where RXD.PRT.4 Participation="DP"
	State Code[93]	<nc:LocationStateUSPostalServiceCode> </nc:LocationStateUSPostalServiceCode>	RXD.PRT.14.5 ParticipationAddress.State Where RXD.PRT.4 Participation="DP"
	Zip Code[94]	<nc:LocationPostalCode> </nc:LocationPostalCode>	RXD.PRT.14.6 ParticipationAddress.ZIP Where RXD.PRT.4 Participation="DP"

[91] Dispenser Organization Street Address data is required to be provided in the response, on the condition that the data is available to be sent

[92] Dispenser Organization City Address data is required to be provided in the response, on the condition that the data is available to be sent

[93] Dispenser Organization State Code data is required to be provided in the response, on the condition that the data is available to be sent

[94] Dispenser Organization Zip Code data is required to be provided in the response, on the condition that the data is available to be sent

	Phone Number[95]	<nc:TelephoneNumberFullID> </nc:TelephoneNumberFullID>	RXD.PRT.15.1 TelephoneNumber Where RXD.PRT.4 Participation="DP"
Dispenser Organization (Pharmacy) Identifier	DEA Number*	<nc:IdentificationID> </nc:IdentificationID>	RXD.PRT.8.10 ParticipationOrganization Where RXD.PRT.4 Participation="DP" And RXD.PRT.8.7="DEA"
	NCPDP Number*	<nc:IdentificationID> </nc:IdentificationID>	RXD.PRT.8.10 ParticipationOrganization Where RXD.PRT.4 Participation="DP" And RXD.PRT.8.7="NCPDP"
	NPI Number*	<nc:IdentificationID> </nc:IdentificationID>	RXD.PRT.8.10 ParticipationOrganization Where RXD.PRT.4 Participation="DP" And RXD.PRT.8.7="NPI"
Prescriber	First Name	<nc:PersonGivenName> </nc:PersonGivenName>	ORC.12.3 Given Name
	Last Name	<nc:PersonSurName> </nc:PersonSurName>	ORC.12.2 Family Name
	Street Address[96]	<nc:StreetFullText> </nc:StreetFullText>	ORC.24.1 Street Address
	City Address[97]	<nc:LocationCityName> </nc:LocationCityName>	ORC.24.3 City
	State Code[98]	<nc:LocationStateUSPostalServiceCode> </nc:LocationStateUSPostalServiceCode>	ORC.24.4 State
	Zip Code[99]	<nc:LocationPostalCode> </nc:LocationPostalCode>	ORC.24.5 ZIP
Prescriber Identifier	DEA Number*	<nc:IdentificationID> </nc:IdentificationID>	ORC.PRT.5.1 ParticipationPerson.ID Where ORC.PRT.4 Participation="OP"

[95] Dispenser Organization Phone Number data is required to be provided in the response, on the condition that the data is available to be sent

[96] Prescriber Street Address data is required to be provided in the response, on the condition that the data is available to be sent

[97] Prescriber City Address data is required to be provided in the response, on the condition that the data is available to be sent

[98] Prescriber State Code data is required to be provided in the response, on the condition that the data is available to be sent

[9999] Prescriber Zip Code data is required to be provided in the response, on the condition that the data is available to be sent

			AND ORC.PRT.5.13 ParticipationPerson.IdentifierTypeCode="DEA"
	NPI Number*	<nc:IdentificationID> </nc:IdentificationID>	ORC.PRT.5.1 ParticipationPerson.ID Where ORC.PRT.4 Participation="OP" AND ORC.PRT.5.13
	State License Identifier*	<nc:IdentificationID> </nc:IdentificationID>	ORC.12.1 ID Number with ORC.PRT.5.1 ParticipationPerson.ID Where ORC.PRT.4 Participation="OP" AND ORC.PRT.5.13 ParticipationPerson.IdentifierTypeCode = "DDS" Dentist License or "MD" Medical License number
	State of License*[100]	<nc:IdentificationJurisdictionText> </nc:IdentificationJurisdictionText>	ORC.PRT.5.9 ParticipationPerson.AssigningAuthority Where ORC.PRT.4 Participation="OP" AND ORC.PRT.5.13 ParticipationPerson.IdentifierTypeCode = "DDS" Dentist License or "MD" Medical License number

4.5.6 Response: PMIX to HL7 v2.7

Table 27: Response Transformation Details from HL7 V2.7.0 to PMIX

Date Element	PMIX					HL7 V2.7.1			
	Data Element	Element Path	Optionality	Cardinality	Data Type	Element Path	Optionality	Cardinality	Data Type
Routing Information									

[100] Required if the State License ID is being used as the Identifier.

Response Date/Time		<pmp:ReportExecutionDate></pmp:ReportExecutionDate><pmp:ReportExecutionTime></pmp:ReportExecutionTime>	Top-level pmix:RoutingData/	R	1..1	Unspecified	QPD.19[101] ResponseDateTime	C	0..1	DTM
Prescription Response Data	Begin Date	<pmp:ReportDateRangeBegin></pmp:ReportDateRangeBegin>	pmix:RoutingData /pmp:ReportDateRange/	R	1..1	niem-xsd:date	QPD.17 DispenseDate.LL	O	0..1	DT
	End Date	<pmp:ReportDateRangeEnd></pmp:ReportDateRangeEnd>	pmix:RoutingData /pmp:ReportDateRange/	R	1..1	niem-xsd:date	QPD.18 DispenseDate.UL	O	0..1	DT
Disclosing States		<pmix:DisclosingState></pmix:DisclosingState>	pmix:RoutingData/	R	1..N	Unspecified	QPD.5[102] DisclosingStates	ST	1..*	ST
Request ID		<pmix:RequestID></pmix:RequestID>	pmix:RoutingData/	R	1..1	Unspecified	QPD.2 QueryTag	R	1..1	ST
Message Body										
Patient	First Name	<nc:PersonGivenName></nc:PersonGivenName>	pmp:Prescription /pmp:Patient /nc:PersonName/	R	1..N	nc:TextType	PID.5.2 GivenName	C	0..1	ST

[101] ResponseDateTime is not currently supported by HL7 V2.7 Query. Concept has been added to the QPD segment as a user-defined query-response parameter.

[102] ResponseDateTime is not currently supported by HL7 V2.7 Query. Concept has been added to the QPD segment as a user-defined query-response parameter.

	Last Name	<nc:PersonSurName> </nc:PersonSurName>	pmp:Prescription /pmp:Patient /nc:PersonName/	R	1..N	nc:TextType	PID 5.1.1 FamilyName.Surname	C	0..1	ST
	Date of Birth	<nc:Date> </nc:Date>	pmp:Prescription /pmp:Patient /nc:PersonBirthDate/	R	1..1	nc:DateType	PID.7 Date/Time of Birth	O	0..1	DTM
	Gender	<nc:PersonSexCode> </nc:PersonSexCode>	pmp:Prescription /pmp:Patient/	R	1..1	Unspecified	PID.8 Administrative Sex	O	0..1	IS
	Street Address	<nc:StreetFullText> </nc:StreetFullText>	pmp:Prescription /pmp:Patient /pmp:PersonPrimaryContactInformation /nc:ContactMailingAddress / nc:StructuredAddress /nc:LocationStreet/	R	1..1	nc:TextType	PID.11.1 PatientAddress.StreetAddress WHERE PID.11.7 Address Type = "H" home or "M" Mailing	O	0..1	ST
	City Address	<nc:LocationCityName> </nc:LocationCityName>	pmp:Prescription /pmp:Patient /pmp:PersonPrimaryContactInformation /nc:ContactMailingAddress /nc:StructuredAddress/	R	1..1	nc:TextType	PID.11.3 PatientAddress.City WHERE PID.11.7 Address Type = "H" home or "M" Mailing	O	0..1	ST
	State Code	<nc:LocationStateUSPostalServiceCode> </nc:LocationStateUSPostalServiceCode>	pmp:Prescription /pmp:Patient /pmp:PersonPrimaryContactInformation /nc:ContactMailingAddress / nc:StructuredAddress/	R	1..1	Unspecified	PID.11.4 PatientAddress.StateOrProvince WHERE PID.11.7 AddressType = "H" home or "M" Mailing	O	0..1	ST
	Zip Code	<nc:LocationPostalCode> </nc:LocationPostalCode> <nc:LocationPostal	pmp:Prescription /pmp:Patient /pmp:PersonPrimaryContactInformation /nc:ContactMailingAddre	R	1..1	Unspecified	PID.11.5 PatientAddress.PostalOrZIPCode WHERE PID.11.7 Address Type = "H" home or "M" Mailing	O	0..1	ST

		ExtensionCode> </nc:LocationPostalExtensionCode>	ss / nc:StructuredAddress/							
Patient Identifier[103]	SSN	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Patient /nc:PersonSSNIdentification/	CR	0..1	nc:IdentificationType	PID.3.1 PatientIdenifierList.ID WHERE PID.3.5 Identifier.Type = "SS"	O	0..*	ST
	License	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Patient /pmp:PersonStateIssuedIdentifier/	CR	0..1	nc:IdentificationType	PID.3.1 PatientIdenifierList.ID WHERE PID.3.5 Identifier.Type = "DL"	O	0..1	ST
	State of License	<nc:IdentificationJurisdictionText> </nc:IdentificationJurisdictionText>	pmp:Prescription /pmp:Patient /pmp:PersonStateIssuedIdentifier/	CR	0..1	nc:TextType	PID.3.3.1 PatientIdentifierList.AssigningAuthority WHERE PID.3.5 Identifier.Type = "DL"	O	0..1	IS
	Passport ID	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Patient /pmp:PersonPassportIdentifier/	CR	0..1	nc:IdentificationType	PID.3.1 PatientIdenifierList.ID WHERE PID.3.5 Identifier.Type. = "PPN"	O	0..1	ST
	Military ID	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Patient /pmp:PersonMilitaryIdentifier/	CR	0..1	nc:IdentificationType	PID.3.1 PatientIdenifierList.ID WHERE PID.3.5 Identifier.Type = "MI"	O	0..1	ST
	Tribal Identifier	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Patient /pmp:PersonTribalIdentifier/	CR	0..1	nc:IdentificationType	PID.3.1 PatientIdenifierList.ID WHERE PID.3.5 Identifier.Type = "IND" Indigenous/Aboriginal or "TN" Treaty Number	O	0..1	ST

[103] Patient Identifier data is required to be provided in the response, on the condition that the data is available to be sent

Prescription	Filled Date	<pmp:ReportDateRangeBegin></pmp:ReportDateRangeBegin> <pmp:ReportDateRangeEnd></pmp:ReportDateRangeEnd>	pmp:ReportDateRange/	R	1..N	niem-xsd:date	RXD.3 DateTimeDispensed	R	1..1	DTM
	Written Date	<nc:Date></nc:Date>	pmp:Prescription /pmp:PrescriptionWrittenDate/	R	1..N	nc:DateType	RXE.32 OriginalOrderDateTime	O	0..1	DTM
	Number	<pmp:PrescriptionNumberText></pmp:PrescriptionNumberText>	pmp:Prescription/	R	1..N	nc:TextType	RXD.7 PrescriptionNumber	R	1..1	ST
	Drug Name[104]	<pmp:DrugProductNameText></pmp:DrugProductNameText>	pmp:Prescription /pmp:PrescriptionDrug/	CR	1..N	nc:TextType	RXD.2.2 DispenseGiveCode.text	R	1..1	ST
	Strength[105]	<pmp:DrugStrengthText></pmp:DrugStrengthText>	pmp:Prescription /pmp:PrescriptionDrug/	CR	1..N	nc:TextType	If not implied in RXD.2.2 use RXD.16 Actual Strength & RXD.17.2 Actual Strength Unit.text	O	0..1	calculated
	Dosage Form[106]	<pmp:DrugUnitOfMeasureText></pmp:DrugUnitOfMeasureText>	pmp:Prescription /pmp:PrescriptionDrug/	CR	1..N	nc:TextType	If not implied in RXD.2.2 use RXD.6 ActualDosageForm	O	0..1	CWE
	Quantity	<pmp:DispensedQuantity></pmp:DispensedQuantity>	pmp:Prescription/	R	1..N	niem-xsd:decimal	RXD.4 Actual Dispense Amount	R	1..1	NM

[104] Drug Name data is required to be provided in the response, on the condition that the data is available to be sent

[105] Drug Strength data is required to be provided in the response, on the condition that the data is available to be sent

[106] Dosage Form data is required to be provided in the response, on the condition that the data is available to be sent

	Days of Supply	<pmp:DaysSupplyCount></pmp:DaysSupplyCount>	pmp:Prescription/	R	1..N	niem-xsd:nonNegativeInteger	Calculated: RXD.4 Actual Dispense Amount / RXD.12 Total Daily Dose	O	1..1	calculated
	Refill Number	<pmp:DrugRefillNumberCount></pmp:DrugRefillNumberCount>	pmp:Prescription/	R	1..N	niem-xsd:nonNegativeInteger	RXD.1 DispenseSubIDCounter	R	1..1	NM
	Refills Authorized	<pmp:RefillsAuthorizedCount></pmp:RefillsAuthorizedCount>	pmp:Prescription/	R	1..N	niem-xsd:nonNegativeInteger	RXO.13 Number of Refills OR RXE.12 Number of Refills OR RXD.1 Dispense SubID Counters PLUS RXD.8 Number of Refills Remaining	R	1..1	NM
	Partial Fill Indicator	<pmp:PartialFillIndicator></pmp:PartialFillIndicator>	pmp:Prescription/	R	1..N	niem-xsd:boolean	RXD.33.1 DispenseTypeCode ="Q" is partial fill	O	0..1	ST
	Method of Payment	<pmp:MethodOfPaymentCode></pmp:MethodOfPaymentCode>	pmp:Prescription/	R	1..N	pmpcd:MethodOfPaymentCodeType	FT1.6 TransactionType	R	1..1	CWE
Drug	Product ID Qualifier	<pmp:DrugCPDProductIdentifier><pmp:DrugDINProductIdentifier><pmp:DrugHRIProductIdentifier><pmp:DrugNDCProductIdentifier><pmp:DrugUPCProductIdentifier><pmp:DrugUPNProductIdentifier>	NA	R	1..N	-	RXD.2.3 DispenseGiveCode.CodingSystem	C	0..1	IS

	Product ID	<IdentificationID>	NA	R	1..N	Unspecified	RXD.2.1 DispenseGiveCode.Code	C	0..1	ST
Dispenser Organization	Name (Pharmacy)	<nc:OrganizationDoingBusinessAsName> </nc:OrganizationDoingBusinessAsName>	pmp:Prescription /pmp:Dispenser/	R	1..N	nc:TextType	PRT(RXD).8.1 Participation.Organization.Organization.Name WHERE PRT(RXD).4.1 Participation.code = "DP" Dispensing Provider	C	0..*	ST
	Street Address[107]	<nc:StreetFullText> </nc:StreetFullText>	pmp:Prescription /pmp:Dispenser /nc:OrganizationLocation /nc:LocationAddress /nc:StructuredAddress /nc:LocationStreet/	CR	1..N	nc:TextType	PRT(RXD).14.1 ParticipationAddress.StreetAddress WHERE PRT(RXD).4.1 Participation.code = "DP" Dispensing Provider	O	0..*	ST
	City Address[108]	<nc:LocationCityName> </nc:LocationCityName>	pmp:Prescription /pmp:Dispenser /nc:OrganizationLocation /nc:LocationAddress /nc:StructuredAddress/	CR	1..N	nc:TextType	PRT(RXD).14.3 ParticipationAddress.City WHERE PRT(RXD).4.1 Participation.code = "DP" Dispensing Provider	O	0..*	ST
	State Code[109]	<nc:LocationStateUSPostalServiceCode> </nc:LocationStateUSPostalServiceCode>	pmp:Prescription /pmp:Dispenser /nc:OrganizationLocation /nc:LocationAddress /nc:StructuredAddress/	CR	1..N	-	PRT(RXD).14.5 ParticipationAddress.State WHERE PRT(RXD).4.1 Participation.code = "DP" Dispensing Provider	O	0..*	ST
	Zip Code[110]	<nc:LocationPost	pmp:Prescription	CR	1..N	-	PRT(RXD).14.6	O	0..*	ST

[107] Dispenser Organization Street Address data is required to be provided in the response, on the condition that the data is available to be sent

[108] Dispenser Organization City Address data is required to be provided in the response, on the condition that the data is available to be sent

[109] Dispenser Organization State Code data is required to be provided in the response, on the condition that the data is available to be sent

[110] Dispenser Organization Zip Code data is required to be provided in the response, on the condition that the data is available to be sent

		alCode> </nc:LocationPostalCode>	/pmp:Dispenser /nc:OrganizationLocation /nc:LocationAddress /nc:StructuredAddress/				ParticipationAddressZIP WHERE PRT(RXD).4.1 Participation.code = "DP" Dispensing Provider			
	Phone Number[111]	<nc:TelephoneNumberFullID> </nc:TelephoneNumberFullID>	pmp:Prescription /pmp:Dispenser /nc:OrganizationPrimaryContactInformation /nc:ContactTelephoneNumber /nc:FullTelephoneNumber/	CR	1..N	-	PRT(RXD).15.12 ParticipationTelecommunicationsAddress.UnformattedTelephoneNumber WHERE PRT(RXD).4.1 Participation.code = "DP" Dispensing Provider	O	0..*	calculated
Dispenser Organization (Pharmacy) Identifier	DEA Number	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Dispenser /pmp:DEANumberIdentifier/	CR[112]	0..N	nc:IdentificationType	PRT(RXD).8.10 ParticipationOrganization.OrganizationIdentifier WHERE PRT(RXD).8.7 IdentifierTypeCode = "DEA" AND WHERE PRT(RXD).4.1 Participation.code = "DP" Dispensing Provider	O	0..1	ST
	NCPDP Number	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Dispenser /pmp:NCPDPIdentifier/	CR	0..N	nc:IdentificationType	PRT(RXD).8.10 ParticipationOrganization.OrganizationIdentifier WHERE PRT(RXD).8.7 IdentifierTypeCode = "NCPDP" AND WHERE PRT(RXD).4.1 Participation.code = "DP" Dispensing Provider	O	0..1	ST
	NPI Number	<nc:IdentificationID>	pmp:Prescription /pmp:Dispenser	CR	0..N	nc:IdentificationType	PRT(RXD).8.10 ParticipationOrganization.Orga	O	0..1	ST

[111] Dispenser Organization Phone Number data is required to be provided in the response, on the condition that the data is available to be sent

[112] CR: Conditionally Required

		</nc:IdentificationID>	/pmp:NPIIdentifier/				nizationIdentifier WHERE PRT(RXD).8.7 IdentifierTypeCode = "NPI" AND WHERE PRT(RXD).4.1 Participation.code = "DP" Dispensing Provider			
Prescriber	First Name	<nc:PersonGivenName> </nc:PersonGivenName>	pmp:Prescription /pmp:Prescriber /nc:PersonName/	R	1..N	nc:TextType	PRT(RXD).5.3 ParticipationPerson.GivenName WHERE PRT(RXD).4.1 Participation.code = "OP" Ordering Provider	R	1..1	ST
	Last Name	<nc:PersonSurName> </nc:PersonSurName>	pmp:Prescription /pmp:Prescriber /nc:PersonName/	R	1..N	nc:TextType	PRT(RXD).5.2.1 ParticipationPerson.FamilyName.Surname WHERE PRT(RXD).4.1 Participation.code = "OP" Ordering Provider	R	1..1	ST
	Street Address[113]	<nc:StreetFullText> </nc:StreetFullText>	pmp:Prescription /pmp:Prescriber /pmp:PersonPrimaryContactInformation /nc:ContactEntity /nc:EntityOrganization /nc:OrganizationLocation /nc:LocationAddress /nc:StructuredAddress /nc:LocationStreet/	CR	1..N	nc:TextType	PRT(RXD).14.1 ParticipationAddress.StreetAddress WHERE PRT(RXD).4.1 Participation.code = "OP" Dispensing Provider	O	0..*	ST
	City Address[114]	<nc:LocationCityName> </nc:LocationCityName>	pmp:Prescription /pmp:Prescriber /pmp:PersonPrimaryContactInformation /nc:ContactEntity /nc:EntityOrganization /nc:OrganizationLocation	CR	1..N	nc:TextType	PRT(RXD).14.3 ParticipationAddress.City WHERE PRT(RXD).4.1 Participation.code = "OP" Dispensing Provider	O	0..*	ST

[113] Prescriber Street Address data is required to be provided in the response, on the condition that the data is available to be sent

[114] Prescriber City Address data is required to be provided in the response, on the condition that the data is available to be sent

			/nc:LocationAddress /nc:StructuredAddress/							
	State Code[115]	<nc:LocationStateUSPostalServiceCode> </nc:LocationStateUSPostalServiceCode>	pmp:Prescription /pmp:Prescriber /pmp:PersonPrimaryContactInformation /nc:ContactEntity /nc:EntityOrganization /nc:OrganizationLocation /nc:LocationAddress /nc:StructuredAddress/	CR	1..N	-	PRT(RXD).14.5 ParticipationAddress.State WHERE PRT(RXD).4.1 Participation.code = "OP" Dispensing Provider	O	0..*	ST
	Zip Code[116]	<nc:LocationPostalCode> </nc:LocationPostalCode>	pmp:Prescription /pmp:Prescriber /pmp:PersonPrimaryContactInformation /nc:ContactEntity /nc:EntityOrganization /nc:OrganizationLocation /nc:LocationAddress /nc:StructuredAddress/	CR	1..N	-	PRT(RXD).14.6 ParticipationAddressZIP WHERE PRT(RXD).4.1 Participation.code = "OP" Dispensing Provider	O	0..*	ST
Prescriber Identifier	DEA Number	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Prescriber /pmp:DEANumberIdentifier/	CR	0..N	nc:IdentificationType	PRT(RXD).5.1 ParticipationPerson.PersonIdentifier WHERE PRT(RXD).5.13 IdentifierTypeCode = "DEA" AND WHERE PRT(RXD).4.1 Participation.code = "OP" Ordering Provider	O	0..1	ST
	NPI Number	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Prescriber /pmp:NPIIdentifier/	CR	0..N	nc:IdentificationType	PRT(RXD).5.1 ParticipationPerson.PersonIdentifier WHERE PRT(RXD).5.13	O	0..1	ST

[115] Prescriber State Code data is required to be provided in the response, on the condition that the data is available to be sent

[116] Prescriber Zip Code data is required to be provided in the response, on the condition that the data is available to be sent

							IdentifierTypeCode = "NPI" AND WHERE PRT(RXD).4.1 Participation.code = "OP" Ordering Provider			
	State License Identifier	<nc:IdentificationID> </nc:IdentificationID>	pmp:Prescription /pmp:Prescriber /pmp:StateLicenseIdentifier/	CR	0..N	nc:IdentificationType	PRT(RXD).5.1 ParticipationPerson.PersonIdentifier WHERE PRT(RXD).5.13 IdentifierTypeCode = "SL" AND WHERE PRT(RXD).4.1 Participation.code = "OP" Ordering Provider	O	0..1	ST
	State of License	<nc:IdentificationJurisdictionText> </nc:IdentificationJurisdictionText>	pmp:Prescription /pmp:Prescriber /pmp:StateLicenseIdentifier/	CR	0..N	-	PRT(RXD).5.9.1 ParticipationPerson.AssingingAuthority WHERE PRT(RXD).5.13 IdentifierTypeCode = "SL" AND WHERE PRT(RXD).4.1 Participation.code = "OP" Ordering Provider	O	0..1	ST

1650

4.5.6.1 HL7 v2.7 Coded Example

Table 28: HL7 V2.7 Transformation Details - Response Grammar

RSP^K31^RSP_K31	Response Grammar: Pharmacy Dispense Message	Chapter
MSH	Message Header	2
MSA	Message Acknowledgement	2
[{ ERR }]	Error	2
[{ SFT }]	Software	2
QAK	Query Acknowledgement	5
QPD	Query Parameter Definition	5
RCP	Response Control Parameter	5
{	--- RESPONSE begin	
[	--- PATIENT begin	
PID	Patient Identification	3
[	--- ADDITIONAL_DEMOGRAPHICS begin	
PD1	Additional Demographics	3
[{PRT}]	Participation (for Additional Demographics)	7
]	--- ADDITIONAL_DEMOGRAPHICS end	
[{ NTE }]	Notes and Comments (for PID)	2
[{ AL1 }]	Allergy Information	2
[	--- PATIENT_VISIT begin	
PV1	Patient Visit	3
[PV2]	Patient Visit – Additional Info	3
[{PRT}]	Participation (for Patient Visit)	7
]	--- PATIENT_VISIT end	
]	--- PATIENT end	
{	--- ORDER begin	
ORC	Common Order	4
[{	--- TIMING begin	
TQ1	Timing/Quantity	4
[{ TQ2 }]	Timing/Quantity Order Sequence	4
}]	--- TIMING end	
[	--- ORDER_DETAIL begin	
RXO	Pharmacy /Treatment Order	4
[	--- ORDER_DETAIL_SUPPLEMENT begin	

{ NTE }	Notes and Comments (for RXO)	2
{ RXR }	Pharmacy/Treatment Route	4
[{	--- COMPONENT begin	
RXC	Pharmacy/Treatment Component	4
[{ NTE }]	Notes and Comments (for each RXC)	2
}]	--- COMPONENT end	
]	--- ORDER_DETAIL_SUPPLEMENT end	
]	--- ORDER_DETAIL end	
[{PRT}]	Participation (for Order)	7
[	--- ENCODING begin	
RXE	Pharmacy/Treatment Encoded Order	4
[{PRT}]	Participation (for Order Encoding)	7
[{ NTE }]	Notes and Comments (for RXE)	2
{	--- TIMING_ENCODED begin	
TQ1	Timing/Quantity	4
[{ TQ2 }]	Timing/Quantity Order Sequence	4
}	--- TIMING_ENCODED end	
{ RXR }	Pharmacy/Treatment Route	4
[{ RXC }]	Pharmacy/Treatment Component	4
]	--- ENCODING end	
RXD	Pharmacy/Treatment Dispense	4
[{PRT}]	Participation (for Treatment Dispense)	7
[{ NTE }]	Notes and Comments (for RXD)	2
{ RXR }	Pharmacy/Treatment Route	4
[{ RXC }]	Pharmacy/Treatment Component	4
[{	--- OBSERVATION begin	
OBX	Results	7
[{PRT}]	Participation (for Observation)	7
[{ NTE }]	Notes and Comments (for OBX)	2
}]	--- OBSERVATION end	
[{ FT1 }]	Financial Transaction segment	6
}	--- ORDER end	
}	--- RESPONSE end	

The pharmacy system identifies the patient and locates the prescription dispensed for the query time period range via the PDMP query. The system returns the following RSP message:

MSH|^&~\|PDMP||RiteWay||2004108211620-0500||RSP^K31^RSP_K31|8858|P|2.7.1|

MSA|AA|ACK9901|

QAK|123456789AA001|OK|ZS1^PDMP Dispense History^HL70471|1|

QPD|ZSP^PDMP Dispense History^HL70471|123456789AA001|Barton^Clara|Pharmacist|MD~VA|201408211600-0500||||BJ6125341^^^^DEA||1234567890^^^^NPI|Rite Way Pharmacy|VA|Fleming^Alexander|19810808|20140801|20140820|201408211620-0500|

RCP|I|999^RD|

PID|||123-45-6789^^^^SS||Fleming^Alexander||19810808|M|||1000 ABC St^^Somewhere^VA^12345^^H|

ORC|RE|

RXE||60951-0794^Oxymorphone^NDC|1||^TABLET|||||||0|||||||||||||||||||20140802|

TQ1|

RXR|^Unspecified|

RXD|1|60951-0794^Oxymorphone^NDC|20140802|10||^TABLET|987654321|0||||1||||20|^MG|

PRT||UC||DP^Dispensing Provider^HL70443||||Abcd Efgh Pharmacy^^^^^^DEA|||||2000 CDE St^^AnotherCity^VA^12345|^^^^^^^^^^123-456-7899|

PRT||UC||OP^Ordering Provider^HL70443|CD3456781^Davis^Miles^^DEA||||||||3000 FGH Drive^^AnotherCity^VA^12345|

RXR|^Unspecified|

FT1||||20140802||^CASH|60951-0794^Oxymorphone^NDC|>

4.5.7 HL7 v2.7 Conformance Statements

A. PMIX to HL7 v2.7.1 PDMP Query (RSP^K31^RSP_K31) response

1. Each Response SHALL include the Response Date/Timestamp: QPD. QPD.19 ResponseDateTime
2. Each Response SHALL include the Prescription Response Date Range – Begin Date: QPD.17 DispenseDate.LL
3. Each Response SHALL include the Prescription Response Date Range – End Date: QPD.18 DispenseDate.UL
4. Each Response SHALL include the Request ID: QPD.2 QueryTag
5. Responses returning positive results SHALL include patient information, such that
    i. Patient information SHALL include Patient First Name: PID.5.2 PatientName.GivenName
    ii. Patient information SHALL include Patient Last Name: PID 5.1 PatientName.FamilyName
    iii. Patient information SHALL include Patient Date of Birth PID.7 DateTimeOfBirth
    iv. Patient information SHALL include Patient Gender: PID.8 AdministrativeSex
    v. Patient information SHALL include Patient Street Address: PID.11.1 PatientAddress.StreetAddress
    vi. Patient information SHALL include Patient City: PID.11.3 PatientAddress.City
    vii. Patient information SHALL include Patient State: PID.11.4 PatientAddress.State
    viii. Patient information SHALL include Patient Zip Code: PID.11.5 PatientAddress.ZIPCode
6. Responses returning positive results MAY have *one or more* instances of Prescription Information.
    i. Prescription information SHALL include the Date Written: RXE.32 OriginalOrderDateTime
    ii. Prescription information SHALL include the Date of the dispense: RXD.3 DateTimeDispensed
    iii. Prescription information SHALL include Prescription Number: RXD.7 PrescriptionNumber
    iv. Prescription information SHALL include Dispense number: RXD.1 DispenseSubIDCounter. NOTE: HL7 convention is original fill is Fill #1
    v. Prescription information SHALL include Refills Remaining: RXD.8 NumberOfRefillsRemaining
    vi. Prescription information SHALL include Quantity Dispensed. RXD.4 QuantityDispensed
    vii. Prescription information SHOULD include Days Supply. NOTE: HL7 specifies Total Daily Dose. Days Supply can be calculated by Quantity Dispensed/Total Daily Dose (RXD.4 ActualDispenseAmount / RXD.12 TotalDailyDose)
    viii. Prescription information SHALL include Medication/product information, specifically
        i. Medication/Product information SHOULD include a Drug Description (Drug Name): RXD.2.2 DispenseGiveCode.text

ii. Medication/Product information SHALL include an Identifier AND Identifier Qualifier: RXD.2.3 DispenseGiveCode.Code AND RXD.2.3 DispenseGiveCode.CodingSystem

1. Allowed Identifier Qualifiers are "NDC" and "RxNORM"

iii. If not included in the Drug Description, the Medication/Product information SHOULD include the Medication Strength: RXD.16 ActualStrength & RXD.17.2 ActualStrengthUnit.text

iv. If not included in the Drug Description, the Medication/Product information SHOULD include the Dosage Form: RXD.6 ActualDosageForm

ix. Prescription information SHALL include Dispenser Information, specifically:

i. The Dispenser Information SHALL include the Dispenser's Organization Name: PRT.8 ParticipationOrganization

ii. The Dispenser Information SHOULD include the Dispenser's Address: PRT.14 ParticipationAddress

iii. The Dispenser Information SHOULD include the Dispenser's Phone: PRT.15 ParticipationTelecommunicationAddress

iv. The Dispenser Information SHALL include at least one Dispenser Identifier: PRT.8 ParticipationOrganization.

1. The Dispenser Identifier MAY be an NCPDP Number.

2. The Dispenser Identifier MAY be a DEA Number.

x. Prescription information SHALL include Prescriber information, specifically:

i. The Prescriber Information SHALL include the Prescriber's Name: PRT.5 ParticipantName

ii. The Prescriber Information SHOULD include the Prescriber's Address: PRT.14 ParticipationAddress

iii. The Prescriber Information SHALL include at least one Prescriber Identifier. PRT.8

1. The Dispenser Identifier MAY be an NPI Number.

2. The Dispenser Identifier MAY be a DEA Number.

3. The Dispenser Identifier MAY be a State License Number.

4.5.8 HL7 Data Types

HL7 data types define the kind of data that can be included in a field, and are used throughout the HL7 message structure. Examples would be a string, formatted text, timestamp, address, or coded element. Each data type may contain additional data types that are referenced as components or subcomponents. Complex data types use other data types to define the kind of data they can contain.

Below is a list of HL7 data types:

DATA TYPE CATEGORY/ DATA TYPE	DATA TYPE NAME
Alphanumeric	
ST	String
TX	Text data
FT	Formatted text
Numerical	
CQ	Composite quantity with units
MO	Money
NM	Numeric
SI	Sequence *ID*
SN	Structured numeric
Identifier	
ID	Coded values for HL7 tables
IS	Coded values for user-defined tables
HD	Hierarchic designator
EI	Entity identifier
RP	Reference pointer
PL	Person location
PT	Processing type
Date/Time	
DT	Date
TM	Time
TS	Time stamp
Code Values	
CE	Coded element
CF	Coded element with formatted values
CK	Composite ID with check digit
CN	Composite ID number and name
CX	Extended composite ID with check digit
XCN	Extended composite ID number and name
Generic	
CM	Composite

DATA TYPE CATEGORY/ DATA TYPE	DATA TYPE NAME
Demographics	
AD	Address
PN	Person name
TN	Telephone number
XAD	Extended address
XPN	Extended person name
XON	Extended composite name and ID number for organizations
XTN	Extended telecommunications number
Specialty/Chapter specific	
CD	Channel definition
MA	Multiplexed array
NA	Numeric array
ED	Encapsulated data
CP	Composite price
FC	Financial class
Extended Queries	
QSC	Query selection criteria
QIP	Query input parameter list
RCD	Row column definition
Master Files	
DLN	Driver's license number
JCC	Job code/class
VH	Visiting hours
Medical Records/Info Mgmt	
PPN	Performing person time stamp
Time Series	
DR	Date/time range
RI	Repeat interval
SCV	Scheduling class value pair
TQ	Timing/quantity

A data type may reference one or more additional data types as components or subcomponents. For example, the CK (composite ID with check digit) data type can be broken down into four components, each referencing a specific data type. One of these components (HD) also references three other data types as subcomponents.

CK data type:

SEQ	DATA TYPE	COMPONENT NAME
1	NM	ID Number
2	ST	Check Digit
3	ID	Code Identifying the Check Digit Scheme Employed
4	HD	Assigning Authority

HD data type:

SEQ	DATA TYPE	COMPONENT NAME
1	IS	Namespace ID
2	ST	Universal ID
3	ID	Universal ID Type

4.6 Appendix F: References

The initiatives general references can be found here. The following is a list of useful artifacts for the community and sources that have contributed to the creation of this Implementation Guide:

- Previous PDMP work efforts (January 2013-March 2013) can be found here.
- All Harmonization S&I artifacts that contributed to the Solution Plan and consented approach for this Implementation Guide can be found here.
- Project Charter: The page describes the overall project charter including the challenge statement, scope, deliverables and timelines.
- PDMP & Health IT Terminology: The page defines the terminology used for this initiative.
- Initiative Parking Lot: This page highlights any items identified as parking lot items at any stage in this initiative.
- PDMP & Health IT Consented Use Case: This document describes the functional & business requirements, as well as scope of the initiative, as consented by the S&I Framework PDMP & Health IT community.
- PMIX IEPD: This document is the PMIX Information Exchange Package Documentation used in as the base standard in this Implementation Guide.
- NCPDP SCRIPT v10.6: This document is the Implementation Guide for NCPDP SCRIPT standard Version 2014041, which is used as a standard of translation in this PDMP & Health IT Implementation Guide.
- ASAP Web Services V2.1A: This document is the Implementation Guide for ASAP Web Services 2.1A, used as a standard of translation in this PDMP & Health IT Implementation Guide.
- ASAP 4.2 Pharmacy Reporting Standard – Submitter's Guide: This document is the standard for ASAP pharmacy reporting.
- HL7 V2.x ADT Orders Product Brief: This document contains the HL7 V2.7 standard used in this PDMP & Health IT Implementation Guide as one of the standards of translation.
- HIPAA Healthcare Provider Taxonomy: This document lists all taxonomy codes as regulated by CMS for all Provider roles.