

Provincial Provider Registry

HL7 V3 Implementation Guide

Version 1.0

January 2017

Abstract

HL7 V3 messaging structure supporting interoperability for the
eHealth Ontario Provider Registry

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2.0 Overview

This document serves as a technical specification for implementing HL7 Version 3 messages in order to interact with the eHealth Ontario Provincial Provider Registry. Sufficient business rationale is provided to illustrate the scenarios that the specification aims to fulfill. Storyboards, interactions, message types, vocabulary, data types, object identifiers, and HL7 XML message instance examples are included to facilitate the implementation process.

2.1 Summary and Scope

Based on Ontario’s eHealth Blueprint, the PPR is a registry that contains authoritative information about health care Providers in Ontario that fall within the definition of Health Information Custodian (HIC) or agent of a HIC pursuant to the Personal Health Information and Protection of Privacy Act (PHIPA).

The target vision of the PPR is to:

1. Provide the ability to create a single unique identifier for all health care providers in Ontario.
2. Provide the ability to link information formultiple provider identifiers/sites information to a single provider identity across multiple data sources.
3. Provide the ability for an authoritative source to add provider data to the registry in real time.
4. Provide the ability for an authoritative source to update/provide credentials, demographics, and practice information in real time.
5. Provide the ability for health care providers to maintain their own demographic and contact information.
6. Provide the ability to verify data integrity and quality through reporting and verification scripts.
7. Support eHealth Ontario interface specifications for access to providers information.
8. Provide the ability to notify interested consumers when providers’ particulars (identifiers/ status/ information) are updated or changed.
9. Enable search/link of provider individual in the registry by name (including aliases, near matches and nicknames), profession, specialty/sub-specialty, alternate identifiers, location, unique identifier, etc., and return accurate, up-to-date provider individual profile information generated from information across multiple sources.
10. Enable search/link of provider organizations in the registry by name (including aliases, near matches and nicknames), role (e.g. pharmacy, hospital, clinic etc.), LHIN, alternate identifiers, unique identifier, etc. and return accurate, up-to-date provider organization profile information across multiple sources.
11. Improve accuracy and currency of provider information in the registry.

The PPR provides a key cornerstone service in the context of the Electronic Health Record (EHR) in Ontario.The PPR receives data/information from many sources; the Ministry of Health and Long Term Care (MOHLTC), Hospital Information Systems (HIS), Regulatory Colleges, and the provider themselves.

The PPR Solution will support the following patterns for consuming the provider information:

1. Real-time direct access:
- a. Consumers with systems capable of interacting with the HIAL interfaces for provider access will directly consume the provider information through the HIAL PPR interfaces.

b. Provider individuals will access the information through a user interface that allows the individual to maintain their own information.
2. Batch Synchronization:
- a. Consumers with systems that are unable to interact with the HIAL real-time interfaces (for example, a Hospital Information System) utilize a built-in local provider registry (e.g. a Provider directory) to manage Provider information relevant to their organization. These systems will have the ability to keep their provider information synchronized with the PPR through a daily batch interface.

By providing the ability to link provider identities and identifiers to a single provider identity, the provider registry solution enables consent enforcement to ensure that patient’s consent directive against a provider person or organization is applied no matter which ID or organization a provider is accessing the information from. Without this relationship ,consent is applied on a provider at a one-off basis (e.g. the provider at a specific location). Managing and maintaining the current status of the provider, as provided by the Regulatory body or governing body for the profession, allows the ONE ID entitlement service to identify to the requested service whether the provider requesting access is in good standing (e.g. still an practicing Provider) to allow the service to determine if the requestor should have access to that service. The Provincial Provider Registry technology refresh, moves the Provider Registry solution from a Mainframe solution to an open system COTS implementation on IBM’s Master Data Management platform. This software, formerly known as *Initiate*, is the same platform as the Provincial Client Registry,although a newer version. EMPI stands for Enterprise Master Person/Patient/Provider Index which is a concept of allowing linking of records from multiple sources for the same Entity (person/patient/provider/organization) together to show a single “enterprise” view of the entity. This concept, already applied and in use in the Provincial Client Registry through the use of Initiate/IBM MDM, will now be applied at the Provincial Provider Registry solution through the technology upgrade project.

2.2 Intended Audience

The intended audiences of this document are business and technical implementers who are interested in retrieving provider information from the eHealth Ontario Provincial Provider Registry. The readers are expected to have an understanding of the business and technical requirements for querying and receiving provider information from the Provincial Provider Registry.

2.3 Reference Materials

Table 1 Reference Materials

Artifact	Location, Name of file
eHealth Ontario Terminology Worksheet Note: The terminology is considered dynamic in nature and will require periodic updates.	PPR_Terminology_Worksheet V1.0.xlsx – To be published separately.
Pan Canadian HL7 v3 Data Types Specification	SC-3002-EN - Data Type Specification - MR02.05 - 20131212.pdf I:\Standards\Standards- Vault\CHI\MR02.05\ SC-3002-EN - Data Type Specification - MR02.05 - 20131212.pdf

2.4 Acronyms

Table 2 Acronyms

Acronym	Full Name
CPSO	College of Physicians and Surgeons of Ontario
DIS	Draft International Standard
HIAL	Health Information Access Layer
IF	Integration Facility
EHR	Electronic Health Record
HL7	Health Level Seven
IAP	Identity, Access and Privacy
MoHLTC	Ministry of Health and Long-Term Care
pCS	pan-Canadian Standard(s)
PI	Personal Information
PMS	Pharmacy Medication Management System
PoS	Point of Service
PPR	Provincial Provide Registry

Acronym	Full Name
RHP	Regulated Healthcare Provider
UPI	Unique Provider Identifier number.

3.0 Use Cases

3.1 Use Case Diagram

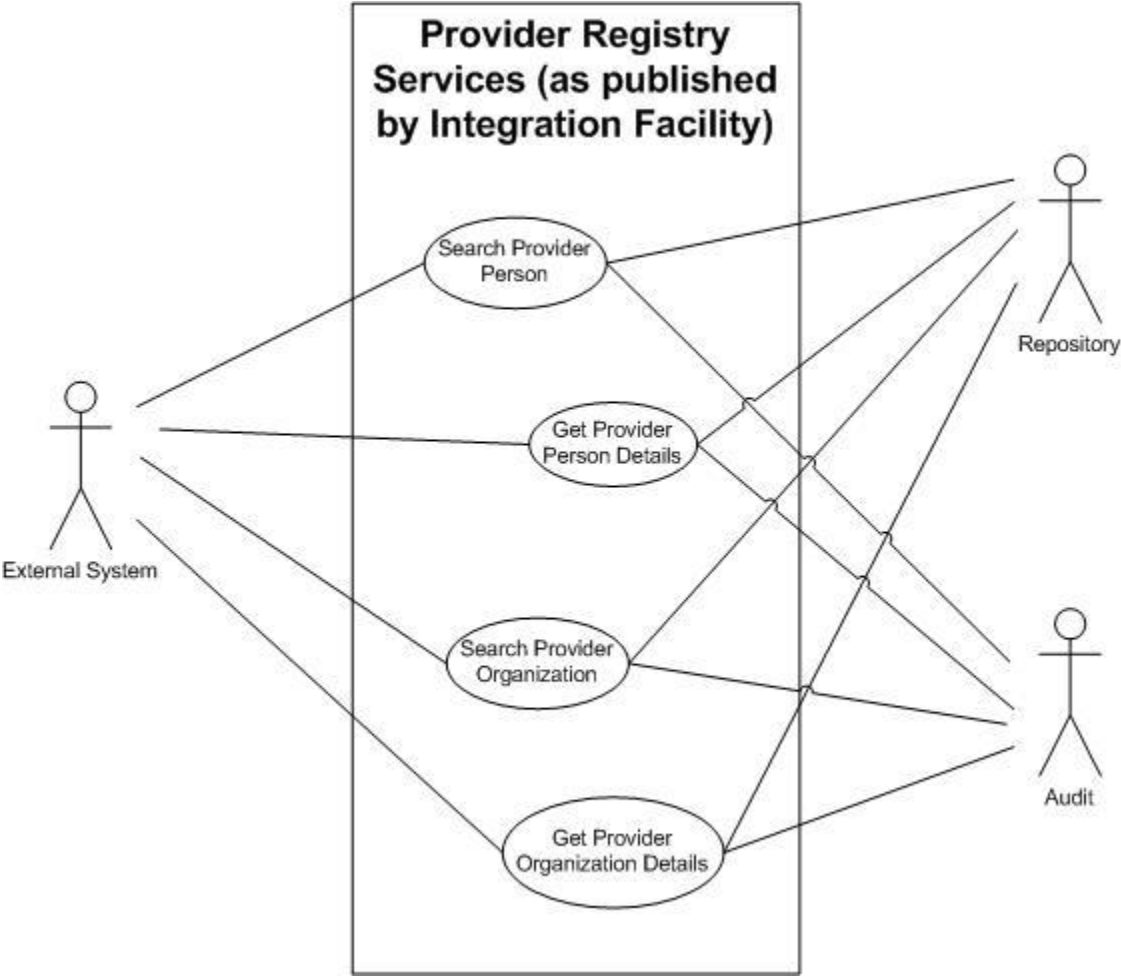


Figure 1- Provincial Provider Registry Services Use Case Diagram for Data Consumption

3.2 IDENTIFY PROVIDER PERSON

The business function of ‘Identify Provider Person’ is to support positive, unique and accurate identification of individuals (i.e. licensed/others providers who provide health services in Ontario or who participate in the collection, use and disclosure of Personal Health Information (PHI) and their locations of work) as well as organizations in their roles as providers of health-related services. There is also the nonidentification function of obtaining detailed information about a specific provider person for the other healthcare related purposes, including directing clients for health services.

3.2.1 Transaction: Provider Person Search Query/Response

This is a business transaction that is used by external systems to request and receive summary information from the Ontario Provincial Provider Registry (PPR), about provider persons (licensed or otherwise).

Depending on the parameter item values used and the data entitlement of the user type, the length and breadth of the query parameter values and query response values will vary. However, the nature of the interaction between the sending and receiving systems remain the same.

The interaction between the requesting and responding systems are depicted in a diagram below. In addition, the full complement of data items that can be returned to the requester is also listed in a table on the following page.

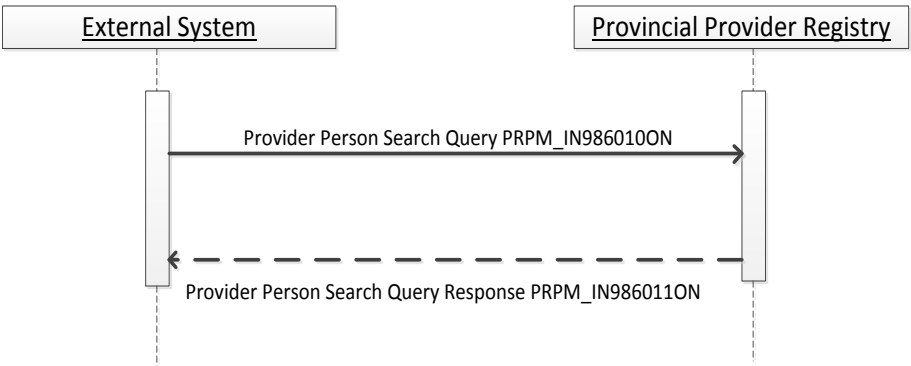


Figure 2- Provider Person Search Query/Response Interaction Diagram

3.2.2 Search Provider Person (SPP)

This describes the generic use case category for searching for provider person summary information. Regardless of the specific business scenario, the message flow for requesting and obtaining provider person summary information remains the same. The difference lies in the combination of query parameter items (resulting in a pre-defined SPP search type/options) that is employed by the user.

Search Types:

- SearchProviderPersonNameRequest
- SearchProviderPersonProfessionRequest
- SearchProviderPersonLicenseRequest
- SearchProviderPersonAlternateIdentifierRequest
- SearchProviderPersonUPIRequest

Scenario Details:

- User of System requests the retrieval of provider summary information, using specific pre-defined combinations of provider person data items as query parameters. The acceptable combinations of parameter items constitute 5 search types as listed above. Please see section 3.2.4 for a complete set of valid values for each parameter domain.

Message Flow:

1. A 'Provider Person Search Query Request (PRPM_IN986010ON)' message is sent from via the External System (via HIAL) to the provider registry system. The query request message contains the parameter items as shown below:

Table 3 Provider Person Search Query – Full Complement of Query Parameter Items

Query Parameter Item	sample Value	Representation in a message
administrativeGender code	F	<v3:administrativeGender> <v3:value code="F" codeSystem="2.16.840.1.113883.5.1"/> </v3:administrativeGender>
alternateIdentifier	999444663	<v3:alternateIdentifier> <v3:value extension="999444663" root="2.16.840.1.113883.3.239.13.36 "/> </v3:alternateIdentifier>
languageOption code	eng	<v3:languageOptionCode> <v3:value code="eng " codeSystem=" 1.0.639.2"/> </v3:languageOptionCode>
licenseNumber	C1234506	<v3:licenseNumber> <v3:value>extension="C1234506" root=" 2.16.840.1.113883.4.347" </v3:value> </v3:licenseNumber>
Address (municipalityName and postalCode)	Mississauga M6P 1B8	<v3:address> <v3:value><v3:city>Mississauga</v3:city></v3:value> <v3:value><v3:postalCode>M6P 1B8</v3:city></v3:value>

Query Parameter Item	sample Value	Representation in a message
		</v3:address>
professionActiveIndicator code	active	<v3: professionStatusCode> <v3:value code="active"/> </v3: professionStatusCode>
providerFirstName	Hans	<v3:providerFirstName> <v3:value use="L"> <v3:given>Hans</v3:given> </v3:value> </v3:providerFirstName>
providerLanguage code	eng	<v3:providerLanguageCode> <v3:value code="eng " codeSystem="2.16.840.1.113883.6.121"/> </v3:providerLanguageCode>
providerLastName	GoodDoctor	<v3:providerLastName> <v3:value use="L"> <v3:family>GoodDoctor</v3:family> </v3:value> </v3:providerLastName>
providerPersonID	102334556778	<v3:providerPersonID> <v3:value extension="102334556778" root="2.16.840.1.113883.3.239.9 "/> </v3:providerPersonID>
providerRoleProfession code	MD	<v3:providerRoleProfession> <v3:value code="MD" codeSystem="2.16.840.1.113883.2.20.5.3"/> </v3:providerRoleProfession>
providerRoleSpecialty code	360	<v3:providerRoleSpecialty> <v3:value code="360" codeSystem="2.16.840.1.113883.2.50.5.4 "/> </v3:providerRoleSpecialty>
searchOption code	1, 2, 3, 4, 5	<v3:searchOption> <v3:value code="1" codeSystem="2.16.840.1.113883.3.239.5.18 "/> </v3:searchOption>

2. A ‘Provider Person Search Query Response (PRPM_IN986011ON)’ message is sent from the provider registry system to the External System, with a list of matching providers with the details as listed in the table below:

Table 4 Provider Person Search Query Response – Full Complement of Data Elements

HL7 Attribute name
UPI
Alternate Identifier Type code
Alternate Identifier
Alternate identifier Source OID

HL7 Attribute name
Multiple Alternate Identifier Indicator Code
Provider Official Registry Name
Gender
Provider Communication Language
Profession Role Class Type
Profession Role Class Code
Profession Active Indicator
Multiple Profession Indicator Code
Communication Language code
License Number
License Origin OID
License Certificate Class Code
License Restriction Type Code
Specialty Role Class Type
Multiple Specialty Indicator Code
Address
Address Postal Code
Address Additional Locator
Address Street Address Line 1
Address street Address Line 2
Address street Address Line 3
Address street Address Line 4
Multiple Practice Address Indicator Code

Alternate Flow of Events:

1. Unable to process the request due to a system-related issue, Integration Facility responds with a Provider Person Search Response interaction containing system-level exception information. Please refer to Section 12.1 for the list of transmission/system exceptions.
2. Unable to process the request due to a business-related issue, Integration Facility responds with a Provider Person Search Response interaction containing business-level exception information. Please refer to Section 12.2 for the list of control event/business exceptions.

3.2.3 Transaction: Provider Person Detail Query / Response

This is a business transaction that is used by external systems to request and receive detail information from the Ontario Provincial Provider Registry (PPR), about a specific provider person (licensed or otherwise).

The interactions between the requesting and responding systems for this transaction are depicted in a diagram below. In addition, the full complement of data items that can be returned to the requester is also listed in a table on the following page.

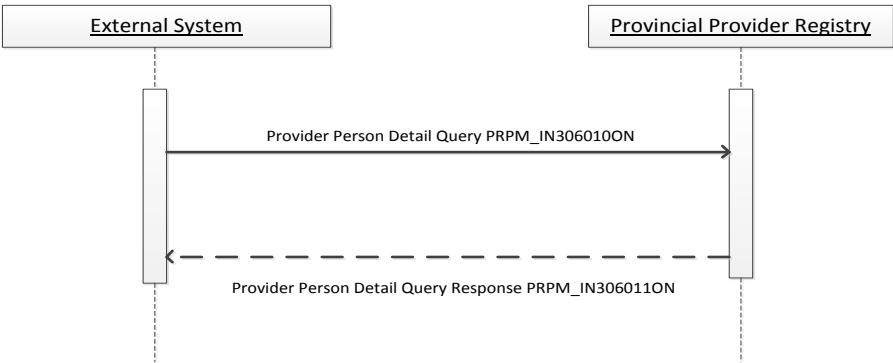


Figure 3- Provider Person Detail Query/Response Interaction Diagram

Table 5 Provider Person Details Query Response – Full Complement of Data Elements

Data Element name
UPI
Alternate Identifier Type code
Alternate Identifier
Alternate Identifier Source OID
Alternate Identifier End Date
Alternate Identifier Start Date
Provider Official Name
Provider Alias Name
Gender code
Date Of Birth - in the initial release Date of Birth will not be exposed (will be masked)
Deceased Indicator
Deceased Date
Communication Language code
Communication Language Preference Indicator
Preferred Official Language
Profession Role Class Code

Data Element name
Profession End Date
Profession Start Date
Profession Role Class Type
Profession Role Status Code
Profession Active Indicator
Profession Official Language code
License Number
License Source OID
License Classification Code
License Restriction Type Code
License Restriction Text (may be a web link)
License Restriction End Date
License Restriction Start Date
Affiliation Type code
Affiliation End Date
Affiliation Start Date
Affiliated Provider Organization UPI
Affiliated Provider Organization Role Class Code
Mailing Address(includes postal code , additional Locator, street Address Line 1, street Address Line 2, street Address Line 3, streetAddressLine 4
Mailing Address End Date
Mailing Address Start Date
Email Address (includes ‘Confidentiality Indicator’)
Email Address Returned Email Indicator
Email Address End Date
Email Address Start Date
Practice Location ID
Practice Location Address
Practice Location LHIN Code
Practice Location LHIN Name
Practice Location Phone (land line)
Practice Location Phone (land line) Confidentiality Indicator
Practice Location Phone (fax)
Practice Location Email Address
Practice Location Web Address
Specialty Role Class Code
Specialty Role Class Type
Specialty End Date
Specialty Start Date
Training Type code
Training Class Code
Training Institution UPI

Data Element name
Training Institution Class Code
Training Completion Date
Training Certification Date

Section 3.2.4.6 includes an example of the Provider Person Detail Query/Response transaction

3.2.4 Examples

3.2.4.1 Search Type: SearchProviderPersonNameRequest

Scenario: RHP (Regulated Health Provider) uses name to look up license number of another RHP

Scenario Details:

- Nurse Goodhope wishes to include the license number of Dr. GoodDoctor on a correspondence to a Diabetes Education Program organization/coordinator to arrange for a client enrolment in the Diabetes Education Program
- Nurse Goodhope uses Dr. GoodDoctor’s last name and the municipality of Mississauga to retrieve the correct Dr. GoodDoctor who practices in Mississauga.
- Upon examining the list of physicians with last name ‘GoodDoctor’, Nurse Goodhope recognized Dr. Janet GoodDoctor as the physician of interest and proceeded to include the license number accordingly.

Message Flow:

1. A ‘Provider Person Search Query Request (PRPM_IN986010ON)’ message is sent via the HIAL/IF to the provincial provider registry system. The query request message contains the parameter items as shown below:

Table 6 Provider Person Search Query – By Name

Query Parameter Item	Value
Search Type code	1
Provider Last Name	GoodDoctor
Provider Role Status Code	Active
Address (Municipality and Postal Code)	Mississauga L5C7H4

2. A ‘Provider Person Search Query Response (PRPM_IN986011ON)’ message is sent from the provider registry system to the PoS application, with a list of 3 matching providers as listed in the table below:

Table 7 Provider Person Search Query Response – Sample Data Values

UPI	Official Name	Gender code	Provider Language code	Profession code	Profession active indicator	Specialty code	License Number	License Restriction code	Address
-----	---------------	-------------	------------------------	-----------------	-----------------------------	----------------	----------------	--------------------------	---------

UPI	Official Name	Gender code	Provider Language code	Profession code	Profession active indicator	Specialty code	License Number	License Restriction code	Address
107778889993	Dr. Janet GoodDoctor	F	eng	MD	active	A160 (Family Medicine)	C12356 2.16.840.1.113883.4.347		12 Bond st. Mississauga ON L5C7H4
104556629284	Dr. Joseph K. GoodDoctor	M	eng	MD	active	360 (Urology)	C23404 2.16.840.1.113883.4.347	SUS (Suspended)	12 Bond st. Mississauga ON L5C7H4
103332288565	Dr. Pierre GoodDoctor	M		MD	active	160 (Pediatrics)	C45569 2.16.840.1.113883.4.347		12 Bond st. Mississauga ON L5C7H4

3.2.4.2 Search Type: SearchProviderPersonProfessionRequest

User Type: User

Scenario: An RHP searches for another RHP

Scenario Details:

- A new member of a diabetes care team, a Nurse Practitioner needs to put the license number of the teams’ endocrinologist on a document that needs to be sent out immediately.
- The Nurse Practitioner proceeds to obtain a list of Endocrinologists in the Mississauga area.
- The Nurse Practitioner uses the Provider Search service to look for correct endocrinologist in the Mississauga area

Message Flow:

1. A ‘Provider Person Search Query Request (PRPM_IN986010ON)’ message is sent via the HIAL/IF to the provider registry system. The query message contains the parameter items as shown below:

Table 8 Provider Person Search Query – By Profession

Query Parameter Item	Value
Search Type code	2
Provider Profession Code	MD
Municipality Name and Postal Code	Mississauga and L5C7H4
Provider Role Specialty code	M15 (Endocrinology)

2. A ‘Provider Person Search Query Response (PRPM_IN986011ON)’ message is sent from the provincial provider registry system to the PoS application, with a list of 2 matching endocrinologists from Mississauga as listed in the table below:

Table 9 Provider Person Search Query Response – Sample Data Values

UPI	Official Name	Gender code	Provider Language code	Profession code	Profession active indicator	Specialty Code	License Number	License Restriction code	Address
104455771891	Dr. Joseph Feelgood	M	eng	MD	active	M15	C44045		12 Bond st. Mississauga ON L5C7H4
104556629282	Dr. Good Specialist	M	eng	MD	terminated	M15	C55054	SUS	12 Bond st. Mississauga ON L5C7H4

3.2.4.3 Search Type: SearchProviderPersonLicenseRequest

User Type: Regulated Health Professional

Scenario: Pharmacist obtains prescriber’s identification information for license validation.

Scenario Details:

- A Pharmacist is about to dispense on a new prescription and realizes that the prescriber’s name attached to the license was unfamiliar, and therefore decided to validate the license status.
- The Pharmacist uses the license number and an origin source of ‘CPSO’ to search for the prescriber.
- Upon reviewing the summary information, the Pharmacist was satisfied with the license being valid and proceeded to complete the dispense.

Message Flow:

1. A ‘Provider Person Search Query Request (PRPM_IN986010ON)’ message is sent via the HIAL/IF to the provider registry system. The query message contains the parameter items as shown below:

Table 10 Provider Person Search Query – By License

Query Parameter Item	Data Value
Search Type code	3
License Number	C44045
License Source OID	2.16.840.1.113883.4.347 (CPSO)

2. A ‘Provider Person Search Query Response (PRPM_IN986011ON)’ message is sent from the provider registry system to the Pharmacist’s PMS, with a single matching provider as listed in the table below:

Table 11 Provider Person Search Query Response – Sample Data Values

UPI	Official Name	Gender code	Provider Language code	Profession Code	Profession active indicator	Specialty Code	License Number	License Source OID	License Restriction Code	Address
104455771891	Dr. Joseph Feelgood	M	eng	MD	active	M15	C44045	2.16.840.1.1138 83.4.347		12 Bond st. Mississauga ON L5C7H4

3.2.4.4 Search Type: SearchProviderPersonAlternateIdentifierRequest

User Type: PoS

Scenario: PoS uses Stakeholder Number to obtain Provider Person summary data.

Scenario Details:

- Having access to Providers’ stakeholder numbers, the PoS uses a provider person’s stakeholder number to obtain detail information about a provider.
- Upon reviewing the summary information, and confirming the identity of the provider person, the PoS proceed to obtain the detailed information about the provider using the provider person UPI of the summary record.

Message Flow:

1. A ‘Provider Person Search Query Request (PRPM_IN986010ON)’ message is sent via the HIAL to the provincial provider registry system. The query message contains the parameter items as shown below:

Table 12 Provider Person Search Query – By Alternate Identifier

Query Parameter Item	Data Value
Search Type code	4
Alternate Identifier	22338899
Alternate Identifier Source OID	2.16.840.1.113883.3.239.13.36 (MOHLTC)

2. A ‘Provider Person Search Query Response (PRPM_IN986011ON)’ message is sent from the provincial provider registry system to the PoS application, with a single matching provider as listed in the table below:

Table 13 Provider Person Search Query Response – Sample Data Values

UPI	Official Name	Gender code	Provider Language code	Profession Role	Profession active indicator	Specialty Code	License Number	Alternate Identifier Type	Alternate Identifier	Alternate identifier Source OID
104455771891	Dr. Joseph Feelgood	M	eng	MD	active	M15	C44045	OTH	22338899	2.16.840.1.113883.3.239.13.36

3.2.4.5 Search Type: SearchProviderPersonUPIRequest

User Type: Health Support Worker

Scenario: Health Support Worker searches for a specific provider person.

Scenario Details:

- A registration clerk wishing to update provider person information requests summary information using provider UPI to search the provider registry repository.

Message Flow:

1. A ‘Provider Person Search Query Request (PRPM_IN986010ON)’ message is sent via the HIAL to the provider registry system. The query message contains the parameter items as shown below:

Table 14 Provider Person Search Query – By UPI

Query Parameter Item	Data Value
Search Type code	5
Provider ID	104455771891

2. A ‘Provider Person Search Query Response (PRPM_IN986011ON)’ message is sent from the provincial provider registry system to the PoS application, with a single matching provider as listed in the table below:

Table 15 Provider Person Search Query Response – Sample Data Values

UPI	Official Name	Gender code	Provider Language code	Profession Code	Profession active indicator	Specialty Code	License Number	License Restriction code	Address
104365771891	Dr. Joseph Feelgood	M	English	MD	active	M15	C44045		12 Bond st. Mississauga ON L5C7H4

3.2.4.6 Provider Service: SearchProviderPersonAlternateldentifierRequest; followed by GetProviderPersonDetail

User Type: eHealth Solution

Scenario: Pharmacist obtains prescriber’s identification information for license validation.

Scenario Details:

- A Pharmacist is about to dispense on a new prescription and realizes that the license was familiar, but that, the name attached to the license was unfamiliar.
- Subsequently, the Pharmacist uses the name and profession license information to search and obtain the detailed information on the prescriber, including license, current and previous name, license restrictions.
- Upon reviewing the detailed information on the Prescriber, the Pharmacist realizes that there had been a name change for the licensee, and proceeds to complete the dispensing activity without a phone call to the doctor’s clinic.

Message Flow:

1. A ‘Provider Person Search Query Request (PRPM_IN986010ON)’ message is sent via the HIAL to the provincial provider registry system. The query message contains the parameter items as shown below:

Table 16 Provider Person Search Query – by License

Query Parameter Item	Data Value
Source Type code	3
License Number	C12356
Identifier Source OID	2.16.840.1.113883.4.347 (CPSO)

2. A ‘Provider Person Search Query Response (PRPM_IN986011ON)’ message is sent from the provider registry system to the Pharmacist’s PMS, with a list of 1 record pertaining to the Provider with the specified License number.

Table 17 Provider Person Search Query Response Sample

UPI	Official Name	Gender code	Official Language code	Profession code	Profession active indicator	Specialty code	License Number	License Identifier Source OID	License Restriction code	Address
107785889925	Dr. Gloria Newdoctor	F	eng	MD	Active	A160	C12356	2.16.840.1.113883.4.347		12 Bond st. Mississauga ON L5C7H4

3. Pharmacist Joe Dispenser then request detailed information about Dr. Gloria Newdoctor, by sending a ‘Get Provider Person Detail Query (PRPM_IN306010ON)’ message from his PMS to the provincial Provider Registry. By selecting a record from the list to request detailed information, the UPI is the single query parameter that is sent to the Provider Registration application.
4. A ‘Provider Person Detail Query Response (PRPM_IN306011ON)’ message is sent from the provincial provider registry to the Pharmacist’s PMS with the Prescriber’s demographic information, including business (practice) address, phone, emails; etc, according to the data entitlement for Pharmacists.

Table 18 Provider Person Detail Query Response – Sample Data Values

Data Element	Data Value	Code Display Name (not transmitted in message)
UPI	777888999	n/a
Designation	Dr	n/a
Official Last name	Newdoctor	n/a
Official First Name	Gloria	n/a
Gender code	F	Female
Date of Birth	Masked	n/a
Official Language	eng	English
Communication Language	eng	English
Profession code	MD	Medical Doctor
Profession active/inactive indicator	active	n/a
Profession Role Class code	RH	Regulated Health Profession
Provider Role Status code	11	unrestricted
License Number	Extension=C12356 root=2.16.840.1.113883.4.347	n/a
License Classification Code	11	Independent Practice (CPSO)
License Restriction code		
Specialty code	A160	Family Medicine
Specialty Role Class code	SP	Specialty
Business – Site ID	56789	n/a
Business – Site Address	175 Wellington, Suite 325. Toronto ON T4G3M6	n/a
Business – Mailing Address	175 Wellington, Suite 325. Toronto ON T4G3M6	n/a
Business - Telephone	1-416-232-3344	n/a
Practice Location Email Address	gloria.newdoctor@group6clinic.com	n/a
Practice Location LHIN #	7	n/a
Provider Role Affiliation Organization-1 UPI		
Affiliated Orgonation-1 Role class code	HOS	Hospital
Provider Role Affiliation Organization-2 UPI		
Affiliated Orgonation-2 Role class code	GHC	Group Health Center
Provider Role Affiliation Organization-3 UPI		
Affiliated Orgonation-3 Role class code	CAC	CCAC Unit

3.3 IDENTIFY PROVIDER ORGANIZATION

The business function of ‘Identify Provider Organization’ is to support positive (uniquely and accurately) identification of organizations that provide health services in Ontario or who participate in the collection, use and disclosure of PHI. There is also the nonidentification function of obtaining detailed information about a specific provider organization for the other healthcare related purposes.

3.3.1 Transaction: Provider Organization Search Query / Response

This is a business transaction that is used by external systems to request and receive summary information from the Ontario Provincial Provider Registry (PPR), about provider organizations.

Depending on the parameter item values used and the data entitlement of the user type, the length and breadth of those query parameter values and query response values will vary. However, the nature of the interaction between the sending and receiving systems remain the same.

The interaction between the requesting and responding systems are depicted in a sequence diagram below. In addition, the full complement of data items that can be returned to the requester is also listed in a table on the following page.

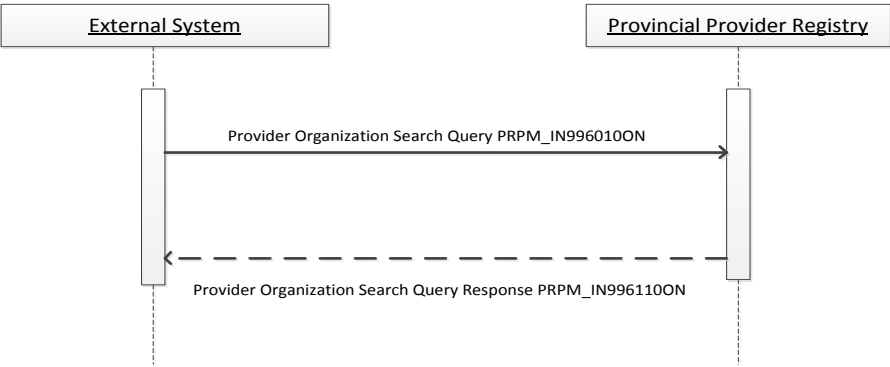


Figure 4- Provider Organization Search Query/Response Interaction Diagram

3.3.2 Search Provider Organization (SPO)

This describes the generic use case category for searching for provider organization summary information. Regardless of the specific business scenario, the message flow for requesting and obtaining provider organization summary information remains the same. The difference lies in the combination of query parameter items (resulting in a pre-defined SPO search type/options) that is employed by the user.

Search Types:

- SearchProviderOrganizationNameRequest
- SearchProviderOrganizationRoleRequest
- SearchProviderOrganizationLHINRequest
- SearchProviderOrganizationUPIRequest
- SearchProviderOrganizationAlternateIdentifierRequest

Scenario Details:

- User or System requests the retrieval of provider summary information, using specific pre-defined combinations of provider organization data items as query parameters. The acceptable combinations of parameter items constitute 5 search types as listed above. Please see section 3.3.4 for a complete set of valid values for each parameter domain.

Message Flow:

1. A 'Provider Organization Search Query Request (PRPM_IN996000ON)' message is sent via the HIAL to the provider registry system. The query message contains the parameter items as shown below:

Table 19 Search Provider Organization Query Sample – Full complement of parameter items

Query Parameter Item	Sample Value	Representation in a message
alternateIdentifier	22338899	<v3:alternateIdentifier> <v3:value extension="22338899" root="2.16.840.1.113883.3.239.13.36"/> </v3:alternateIdentifier>
Address (municipalityName, postal code, address line)	Mississauga	<v3:address> <v3:value><v3:city></Mississauga</v3:city></v3:value> </v3:address>
organizationActiveIndicator code	Active	<v3:organizationActiveIndicator> <v3:value code="active"/> </v3:organizationActiveIndicator>
providerLHIN code	6	<v3:providerLHIN> <v3:value>6</v3:value> </v3:providerLHIN>
providerOrganizationID	102444556778	<v3:providerOrganizationID> <v3:value extension="102444556778" root="2.16.840.1.113883.3.239.9 "/> </v3:providerOrganizationD>
providerOrganizationName	GoodHealth Diabetes	<v3:providerOrganizationName>

Query Parameter Item	Sample Value	Representation in a message
	Clinic	<v3:value>GoodHealth Diabetes Clinic</v3:value> </v3:providerOrganizationName>
providerOrganizationRole code	HOS	<v3:providerOrganizationRole> <v3:value code="HOS" codeSystem="2.16.840.1.113883.3.239.5.17"/> </v3:providerorganizationRole>
searchOption code	1, 2, 3, 4, 5	<v3:searchOption> <v3:value code="1" codeSystem="2.16.840.1.113883.3.239.5.18 "/> </v3:searchOption>
languageOption code	eng	<v3:languageOptionCode> <v3:value code="eng " codeSystem="1.0.639.2"/> </v3:languageOptionCode>

2.
- A ‘Provider Organization Search Query Response (PRPM_IN996100ON)’ message is sent from the provincial provider registry system to the User / System application, with a list of matching organization summary records. The list contains the full complement of summary information deemed entitled to be received by the User or System

Table 20 Provider Organization Search Query Response – Full Complement of Data Elements

Data Element name
UPI
Alternate Identifier Type
Alternate Identifier
Alternate Identifier Origin code
Multiple Alternate Identifier Indicator
Organization Name
Organization Operational Status Code
Organization Role Class code
Organization Status Code (Active/Inactive Indicator)
Organization Site ID
Organization Site Address
Organization Site Telephone
Organization Site Fax
Organization Site Address LHIN Code
Organization Site Address LHIN Name

Alternate Flow of Events

1.
- Unable to process the request due to a system-related issue, Integration Facility responds with a Provider Organization Search Response interaction containing system-level exception information. Please refer to Section 12.1 for the list of transmission/system exceptions.
2.
- Unable to process the request due to a business-related issue, Integration Facility responds with a Provider Organization Search Response interaction containing business-level exception information. Please refer to Section 12.2 for the list of control event/business exceptions.

Section 3.2.4.6 includes an example of the Provider Person Detail Query/Response transaction.

3.3.3 Transaction: Provider Organization Detail Query / Response

The interactions between the requesting and responding systems for this transaction are depicted in a diagram below. In addition, the full complement of data items that can be returned to the requester is listed in table 21.

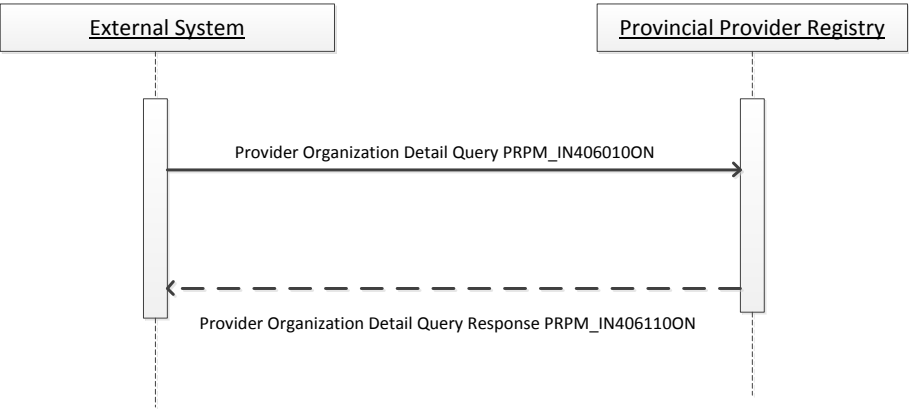


Figure 5 Provider Organization Detail Query/Response Interaction Diagram

Table 21 Provider Organization Detail Query Response – Full Complement of Data Elements

Data Element
UPI
Alternate Identifier Type code
Alternate Identifier
Alternate Identifier Source code
Alternate Identifier Effective Period
Corporate Number (Type of Alternate identifier), Source Code & Effective Period
Registration Number (Type of Alternate identifier), Source Code & Effective Period
Organization Legal Name
Organization Alias Name
Organization Abbreviated Name
Organization Telephone (independent of site/location)
Organization Fax (independent of site/location)
Organization Operational Status Code
Organization Operational Status Reason Code
Organization Role Class Type code
Organization Role Class code
Organization Role Active Indicator
Organization Site ID
Organization Site Address
Organization Site Telephone
Organization Site Telephone Confidentiality Indicator

Data Element
Organization Site Fax
Organization Site Address LHIN Code
Organization Site Address LHIN Name
Organization Mailing Address
Organization Email Address (plus ‘Confidentiality Indicator)
Organization Web Address
Official Language code
Communication Language code
Preferred Communication Language Indicator
Person Affiliation Type code
Person Affiliation Period (Effective/End Dates)
Affiliated Provider Person UPI
Affiliated Provider Person Role Class code
Organization Affiliation Type code
Organization Affiliation Period (Effective/End Dates)
Affiliated Provider Organization UPI
Affiliated Provider Organization Role Class code

Section 3.3.4.5 includes an example of the Provider Person Detail Query/Response transaction.

3.3.4 Examples

3.3.4.1 Search Type: SearchProviderOrganizationNameRequest

Scenario: A Social Worker positively identifying a Provider Organization that provides services.

Scenario Details:

- A social worker is looking for a Diabetes clinic in Mississauga but only knows that the clinic’s name starts with ‘Goodwill’.
- Using the name ‘Goodwill’ and the municipality name of ‘Mississauga’; the social worker sends a request to search the Provincial Provider Registry for an organization in Mississauga with a name starting with ‘Goodwill’ and is open for business.
- A list of Provider Organizations is displayed that meet the search criteria.
- The social worker reviews the list and selects the Provider Organization of interest

Message Flow:

1. A ‘Provider Organization Search Query Request (PRPM_IN996010ON)’ message is sent via the HIAL to the provider registry system. The query message contains the parameter item as shown below:

Table 22 Provider Organization Search Query Sample – By Name

Query Parameter Item	Data Value
Search Type code	1
ProviderOrganizationName	Goodwill
MunicipalityName	Mississauga

Query Parameter Item	Data Value
ProviderOrganizationRoleStatus code	Active

2. A ‘Provider Organization Search Query Response (PRPM_IN996011ON)’ message is sent from the provincial provider registry system to the PoS application, with a list of 2 matching facilities in Mississauga. The list contains the full complement of information the social worker is entitled to receive.

Table 23 Provider Organization Search Query Response – Sample Data Values

UPI	Organization Name	Organization Role	Active/Inactive Indicator	City	LHIN Code
101111222333	Goodwill Diabetes clinic	CCM (Comprehensive Care Model)	Active	Mississauga	6
104444555666	Goodwill Physiotherapy	IHF (Independent Health Facility)	Active	Mississauga	6

3.3.4.2 Search Type: SearchProviderOrganizationRoleRequest

Scenario: A Nurse Practitioner identifies a Provider Organization for service referral.

Scenario Details:

- Nurse Practitioner Ms. Gladys Expert has been given the responsibility of putting together a diabetes core team to operate in the Mississauga area.
- Having been made aware that there is a group of GPs who specialize in diabetes screening and management, Ms. Gladys Expert searches the provincial provider registry for organization role class of ‘GPX – GP Expert Group’ located in the Mississauga area, and are open for business.
- A list of Provider Organizations is displayed that meets the search criteria.
- The Nurse Practitioners selects the GP group of interest to contact.

Message Flow:

1. A ‘Provider Organization Search Query Request (PRPM_IN996010ON)’ message is sent via the HIAL to the provincial provider registry system. The query message contains the parameter items as shown below:

Table 24 Provider Organization Search Query Sample – By Organization Role Class

Query Parameter Item	Data Value
Search Type code	2
ProviderOrganizationRole code	GPX (GP Expert Group)
MunicipalityName	Mississauga
OrganizationActiveIndicator	Active

2. A ‘Provider Organization Search Query Response (PRPM_IN996011ON)’ message is sent from the provincial provider registry system to the PoS application, with a list of 2 matching GP Expert groups in Mississauga. The list contains the full complement of information deemed entitled to be received by the Nurse Practitioner.

Table 25 Provider Organization Search Query Response – Sample Data Values

UPI	Organization Name	Organization Role	Active/Inactive Indicator	City	LHIN Code
101111222333	Mississauga Diabetes Group	GPX (GP Expert Group)	Active	Mississauga	6
104444555666	Good Hope Group Clinic	GPX (GP Expert Group)	Active	Mississauga	6

3.3.4.3 Search Type: SearchProviderOrganizationLHINRequest

Scenario: A Social Worker positively identifying a Provider Organization that provides services.

- Scenario Details:**
- A social worker is looking for a hospital that is closest to his patient.
 - Using the LHIN Code, and Organization Role, the social worker performs a search on the provincial Provider registry
 - A list of Provider Organizations is displayed that meets the search criteria.
 - The social worker reviews the list and selects the Provider Organization to direct the patient to.

Message Flow:

1. A ‘Provider Organization Search Query Request (PRPM_IN996010ON)’ message is sent via the HIAL to the provider registry system. The query message contains the parameter items as shown below:

Table 26 Provider Organization Search Query Sample – By LHIN

Query Parameter Item	Data Value
Search Type code	3
LHIN Code	6
Organization Role Code	CAC

2. A ‘Provider Organization Search Query Response (PRPM_IN996011ON)’ message is sent from the provincial provider registry system to the PoS application, with a list of 5 matching facilities in Mississauga. The list contains the full complement of information deemed entitled to be received by the social worker.

Table 27 Provider Organization Search Query Response – Sample Data Values

UPI	Organization Name	Organization Role	Active/Inactive Indicator	City	LHIN Code
101111222333	The Credit Valley Hospital	HOS (Hospital)	Active	Mississauga	6
104444555666	Trillium Health Centre	HOS (Hospital)	Active	Mississauga	6
107777888999	Oakville-Trafalgar Memorial Hospital	HOS (Hospital)	Active	Oakville	6
107777888999	Milton District Hospital	HOS (Hospital)	Active	Milton	6
107777888999	Georgetown Hospital	HOS (Hospital)	Active	Georgetown	6

3.3.4.4 Search Type: SearchProviderOrganizationUPIRequest;

Scenario: A registration clerk positively identifying a Provider Organization.

Scenario Details:

- A registration clerk wishing to update provider organization information requests summary information using provider UPI to search the Provincial provider Registry.

Message Flow:

1. A ‘Provider Organization Search Query Request (PRPM_IN996010ON)’ message is sent via the HIAL to the provincial provider registry system. The query message contains the parameter items as shown below:

Table 28 Provider Organization Search Query Sample – By UPI

Query Parameter Item Name	Data Value
Search Type code	4
ProviderOrganizationID	101111222333

2. A ‘Provider Organization Search Query Response (PRPM_IN996011ON)’ message is sent from the provider registry system to the PoS application, with a list of 1 CCAC facility in Mississauga. The list contains the full complement of summary information deemed entitled to be received by the registration clerk.

Table 29 Provider Organization Search Query Response – Sample Data Values

UPI	Org Name	Organization Role	Active/Inactive indicator	City	LHIN Code
101111222333	Mississauga Halton CCAC	CAC (Community Care Access Unit)	Active	Mississauga	6

3.3.4.5 Search Type: SearchProviderOrganizationAlternateIdentifierRequest; followed by GetProviderOrganizationDetail

User Type: Regulated Health Professional (Nurse Practitioner)

Scenario: A Provider Person positively identifying a Provider Organization that provides services in Ontario.

Scenario Details:

- A Nurse Practitioner is looking for a physiotherapy clinic that is closest to her patient.
- The Nurse Practitioner uses an identifier of the clinic that is familiar (happens to be a valid alternate identifier) to request summary information. The Nurse Practitioner reviews the summary information, assures herself that it is the clinic that she had in mind, and proceeds to request detail information for the clinic.
- The Nurse Practitioner identifies the Provider Organization that is appropriate for the patient, with enough information for directing the patient appropriately.

Message Flow:

1. A ‘Provider Organization Search Query Request (PRPM_IN996010ON)’ message is sent via the HIAL to the provincial provider registry system. The query message contains the parameter items as shown below:

Table 30 Provider Organization Search Query – Sample Parameter Values

Query Parameter Item	Data – Value
Search Type code	5
Alternate identifier	344599229
Identifier Origin Source OID	2.16.840.1.113883.3.239.13.36 (MOHLTC)

2. A ‘Provider Organization Search Query Response (PRPM_IN996011ON)’ message is sent from the provincial provider registry system to the PoS application, with a single matching facility. In Mississauga. The list contains the full complement of information deemed entitled to be received by the Nurse Practitioner.

Table 31 Provider Organization Search Query Response – Sample Data Values

UPI	Organization Name	Organization Role	Active/Inactive Indicator	City	Alternate identifier	Alternate Identifier Type code	Alternate Identifier Source OID
101451222371	Etobicoke Physiotherapy	IHF	active	Etobicoke	344599229	OTH	2.16.840.1.113883.3.239.13.36

3. Following the selection of the specific facility, a ‘Get Provider Organization Detail Query Request (PRPM_IN406010ON)’ message is sent from the PoS system (via the HIAL) to the Provincial Provider Registry, for a selected facility. This message is transmitted with the ‘UPI’ (behind the scenes) of the selected facility selected from the list.
4. A ‘Provider Organization Detail Query Response (PRPM_IN406011ON)’ message is sent from the Provincial Provider Registry to the PoS Nurse Practitioner with the provider organization’s demographic information, including business address, phone, emails; the necessary information to allow for communication with the organization and to be able to direct the patient for counseling service.

Table 32 Provider Organization Detail Query Response – Sample Data Values

Data Element	Value	Code Display Name
UPI	101451222371	n/a
Organization Name	Etobicoke Physiotherapy	n/a
Alternate Identifier	344599229	n/a
Alternate Identifier Type	OTH	Other Identifier
Alternate Identifier Origin Source OID	2.16.840.1.113883.3.239.13.36	MOHLTC databases such as CPDB (Corporate Providers Database)
Corporate Number	456789503	n/a
Registration Number	12366744	n/a
Organization Name	Etobicoke Physiotherapy	n/a
Official Language	eng	English
Organization Role Class code	IHF	Independent Health Facility
Organization active/inactive indicator	active	n/a
Organization Operational Status	OP	OPEN
Site ID	12345	n/a
Site Address	1255 The Queensway #8 Etobicoke ON M8Z 1S1	n/a
Site Telephone	1-905-796-0040	n/a
Mailing Address	1255 The Queensway #8 Etobicoke ON M8Z 1S1	n/a
Email Address	Etobicoke.physiotherapy@gmail.com	n/a
LHIN Code	6	LHIN 6 - Mississauga Halton
LHIN Name	LHIN 6 - Mississauga Halton	n/a
Web address		n/a

4.0 Consumer Responsibilities

4.1 Schema Validation

The consumer shall implement request messages that are well-formed and validate to the HL7 schemas. The HL7 schemas shall be provided in electronic format.

4.2 User Credentials

Where the consumer is required to specify user credentials by providing WS-TRUST and SAML assertions, the consumer shall reference the SAML ID token within the authorizationToken ID in all HL7 request messages. Refer to HIAL Transport Specification for more details.

4.3 Null Flavors

Some data elements are identified with a conformance of Populated and where no data exists, a null flavor must be specified as an indication as to why the data does not exist. Where no code or identifier exists for a Populated element, only the nullFlavor shall be represented; no code, codeSystem, root, or extension attribute shall be represented.

The following table lists the null flavors that are supported by the eHealth Ontario Provincial Provider Registry.

Table 33 Null Flavors

Code	Display Name	Definition
NI	No Information	No information whatsoever can be inferred from this exceptional value. This is the most general exceptional value. It is also the default exceptional value.
MSK	Masked	There is information on this item available but it has not been provided by the sender due to security, privacy or other reasons. There may be an alternate mechanism for gaining access to this information. Note: using this null flavor does provide information that may be a breach of confidentiality, even though no detailed data is provided. Its primary purpose is for those circumstances where it is necessary to inform the receiver that the information does exist without providing any detail.
UNK	Unknown	A proper value is applicable, but not known.

4.4 Entitlements and Masking

Every data element has either a proper value or it is considered NULL. If and only if it is NULL, a "null flavor" provides more detail as to in what way or why no proper value is supplied. Specific data attributes are not to be present in a message instance, based on user entitlements for e.g. masking attribute. The masking attribute shall be represented as a null flavor with an “MSK” code. “MSK” Code means there is information on this item

available but it has not been provided by the sender due to security, privacy or other reasons. There may be an alternate mechanism for gaining access to this information. Elements defined with a populated or required conformance is available to be masked. Elements with a mandatory conformance are not to be masked.

An example of a masked name pseudonym or alias:

```
<name use="P" nullFlavor="MSK"/>
```

An example of a masked home address:

```
<addr use="H" nullFlavor="MSK"/>
```

An example of a masked home telephone number:

```
<telecom specializationType="TEL.PHONE" use="H" nullFlavor="MSK"/>
```

4.5 ProfileId

All HL7 interactions shall align to and refer to “V02.00” in all messages. The expected representation in the HL7 message shall be:

```
<profileId root="2.16.840.1.113883.3.239.7" extension="V02.00" use="BUS"/>
```

Messages that do not comply to this reference shall fail business rule validation, and an HL7 exception shall be returned to the sender.

5.0 Interface Description

5.1 Search for Provider Person Interface

The following table lists the interactions which support the Search Provider Person business scenario. It lists the interaction and specifies the appropriate transmission wrapper, control event wrapper, and payload message type which, in combination, forms an entire interaction. The trigger event represents the action that causes the interaction to be executed.

Table 34 Provider Person Search Interactions

Interaction	Trigger Event	Transmission Wrapper	Control Event Wrapper	Payload
PRPM_IN986010ON (Provider Person Search Query)	PRPM_TE986010ON (Provider Person Search Query)	MCCI_MT002100CA Request Transport Wrapper	MFMI_MT700751CA Registry Query Request Wrapper - Human Initiated	PRPM_MT986010ON (Provider Person Search Query)
PRPM_IN986011ON (Provider Person Search Query Response)	PRPM_TE986011ON (Provider Person Search Query Response)	MCCI_MT002300CA Application Ack Transport Wrapper	MFMI_MT700746CA Registry Query Response Wrapper - Device Initiated With Role Payload	PRPM_MT986011ON (Provider Person Search Query Response); PRPM_MT986010ON (Provider Person Search Query)

5.2 Get Provider Person Detail Interface

The following table lists the interactions which support the Get Provider Person Detail business scenario. It lists the interaction and specifies the appropriate transmission wrapper, control event wrapper, and payload message type which, in combination, forms an entire interaction. The trigger event represents the action that causes the interaction to be executed.

Table 35 Provider Person Detail Interactions

Interaction	Trigger Event	Transmission Wrapper	Control Event Wrapper	Payload
PRPM_IN306010ON (Provider Person Detail Query)	PRPM_TE306010CA (Provider Detail Query)	MCCI_MT002100CA Request Transport Wrapper	MFMI_MT700751CA Registry Query Request Wrapper - Human Initiated	PRPM_MT306010ON (Provider Person Detail Query)
PRPM_IN306011ON (Provider Person Detail Query Response)	PRPM_TE306011CA (Provider Person Detail Query Response)	MCCI_MT002300CA Application Ack Transport Wrapper	MFMI_MT700746CA Registry Query Response Wrapper - Device Initiated With Role Payload	PRPM_MT306011ON (Provider Person Detail Query Response); PRPM_MT306010ON (Provider Person Detail Query)

5.3 Search for Provider Organization Interface

The following table lists the interactions which support the Search Provider Organization business scenario. It lists the interaction and specifies the appropriate transmission wrapper, control event wrapper, and payload message type which, in combination, forms an entire interaction. The trigger event represents the action that causes the interaction to be executed.

Table 36 Provider Organization Search Interactions

Interaction	Trigger Event	Transmission Wrapper	Control Event Wrapper	Payload
PRPM_IN996010ON (Provider Organization Search Query)	PRPM_TE996000ON (Provider Organization Search Query)	MCCI_MT002100CA Request Transport Wrapper	MFMI_MT700751CA Registry Query Request Wrapper - Human Initiated	PRPM_MT996000ON (Provider Organization Search Query)
PRPM_IN996110ON (Provider Organization Search Query Response)	PRPM_TE996100ON (Provider Organization Search Query Response)	MCCI_MT002300CA Application Ack Transport Wrapper	MFMI_MT700746CA Registry Query Response Wrapper - Device Initiated With Role Payload	PRPM_MT996100ON (Provider Organization Search Query Response); PRPM_MT996000ON (Provider Organization Search Query)

5.4 Get Provider Organization Detail Interface

The following table lists the interactions which support the Get Provider Organization Details business scenario. It lists the interaction and specifies the appropriate transmission wrapper, control event wrapper, and payload message type which, in combination, forms an entire interaction. The trigger event represents the action that causes the interaction to be executed.

Table 37 Provider Organization Detail Interactions

Interaction	Trigger Event	Transmission Wrapper	Control Event Wrapper	Payload
PRPM_IN406010ON (Provider Organization Detail Query)	PRPM_TE406010CA (Provider Organization Detail Query)	MCCI_MT002100CA Request Transport Wrapper	MFMI_MT700751CA Registry Query Request Wrapper - Human Initiated	PRPM_MT406000ON (Provider Organization Detail Query)
PRPM_IN406110ON (Provider Organization Detail Query Response)	PRPM_TE406110CA (Provider Organization Detail Query Response)	MCCI_MT002300CA Application Ack Transport Wrapper	MFMI_MT700746CA Registry Query Response Wrapper - Device Initiated With Role Payload	PRPM_MT406100ON (Provider Organization Detail Query response); PRPM_MT996000ON (Provider Organization Search Query)

5.5 Important Search Implementation Details

5.5.1 Probabilistic Search

Probabilistic matching measures the statistical likelihood that two records are the same. The probabilistic search engine generates match scores that consider the frequency of the occurrence of a given data value within a particular distribution. This Method is able to find non-obvious correlations between data. The correlations drawn offer more flexibility in data analysis because they make fewer assumptions about what is right and what is wrong.

The PPR probabilistic matching algorithms provide highly accurate results .The Initiate algorithms assign a probability score that indicates the likelihood that a given record matches the search criteria. By performing a thorough Threshold Analysis you determine a specific threshold score that produces optimum results for your specific data characteristics and requirements. For a given Search, Initiate's probability score is based on how

many of the attributes on the returned record match the input criteria and on how closely those attributes match the input criteria. In general, higher scores indicate higher confidence matches, where most or all of the search criteria are met. Lower scores reveal less confident matches, where one or more of the search criteria are either different or missing from the returned record.

6.0 Entity Identifiers

HL7 relies on the use of Object Identifiers in order to determine the source for any identifier or code system.

Please refer to the 'PPR Terminology Worksheet' document for a list of defined object identifiers.

Identification of role-based information (i.e. Client Identifier, Provider License Number, etc.) shall leverage existing, publicly registered object identifiers, where available.

Implementation specific object identifiers, such as system identifiers, shall be declared and agreed upon at implementation.

While eHealth Ontario does have the authority to assign object identifiers under their root object identifier, consuming systems that have an awareness of object identifiers can manage and assign their own object identifiers as appropriate.

6.1 Coded Data Elements

Code and codeSystem are the only attributes returned by coded concept; displayName is not returned. The assumption is that External Systems will implement lookup facility to obtain Display Names and Descriptions for coded concepts.

7.0 Search Provider Person Interface

7.1 Provider Person Search Query Payload Model (PRPM_MT986010ON)

The following figure illustrates the HL7 model for Provider Person Search Query parameters that are required to be populated by the patient identity consumer.

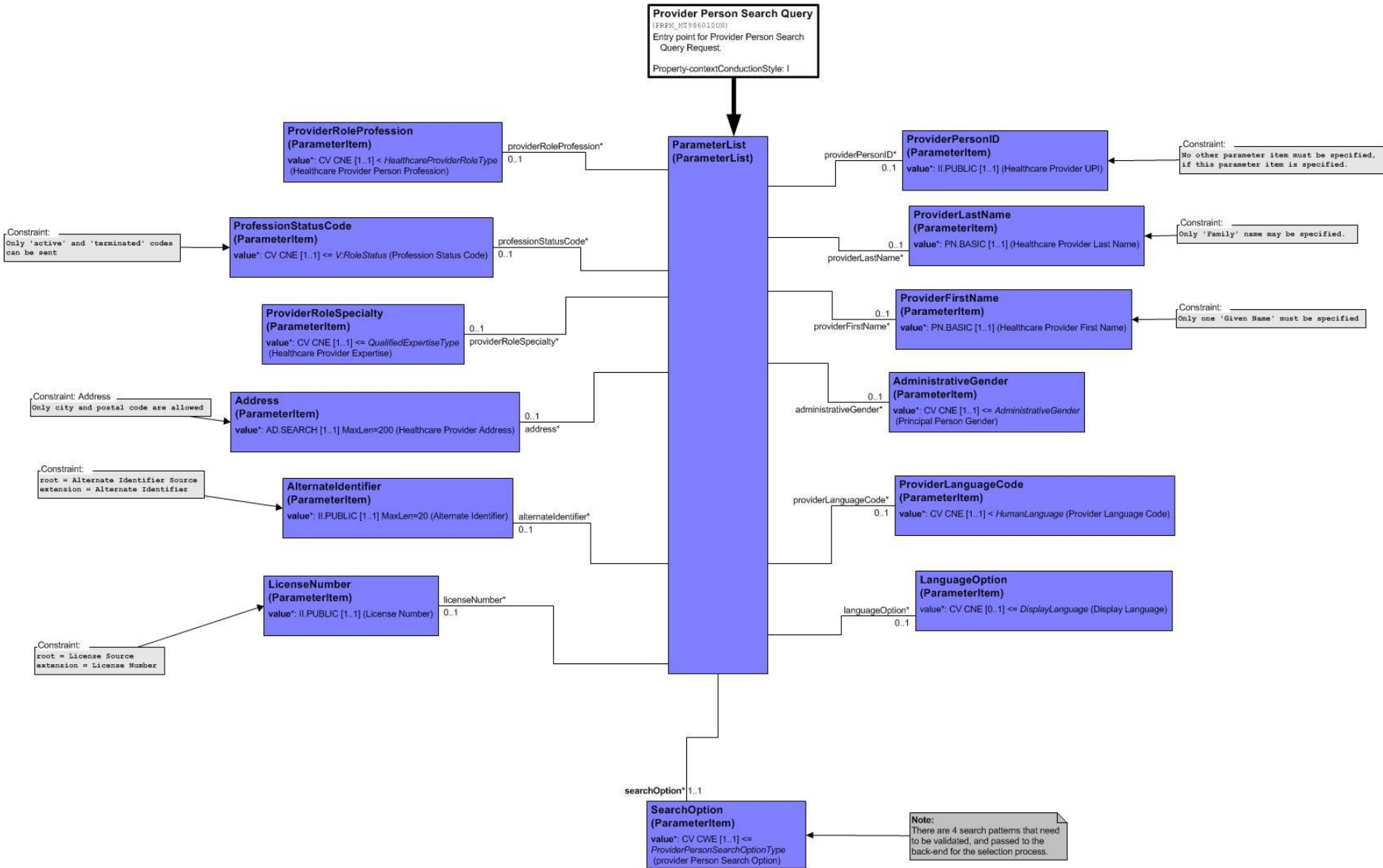


Figure 6- Provider Person Search Query (PRPM_MT986010ON)

This message contains the list of parameter items that are to be used to match and retrieve records from the Provincial Provider Registry. Parameter item values sent with this message are ‘ANDed’ together to determine records to be selected. Regardless of which search option type is invoked, the response message (Provider Person Search Query Response) will contain the same amount of information, except where some pieces of information are masked from specific requester type.

Note that search will return a maximum of 25 results and the user has to pick one from the returned results.

Valid search types are categorized by the ‘Search Option’ parameter item. Validation of search types is carried out by ensuring that the expected combinations of parameter items are specified for a specific search option. Errors are raised for the following exception conditions:

- Invalid search option code; and
- The mandatory combination of parameters for a search option not specified.

There are five valid combinations of search parameters (constituting sub-categories of the Search Provider Person service) summarized as follows:

- Search Provider Person (SPP) Name Request
 - The following parameter items must be specified, else an error condition:
 - Provider Last Name;
 - Search Option = ‘1’.
 - The following parameter items may be specified:
 - Provider Role Profession Code;
 - Profession Status Code;
 - Provider Role Specialty Code;
 - Provider First Name;
 - Address (only Municipality Name and Postal Code)
 - Provider Language Code.

No other parameter item is to be specified, and will be ignored if specified for this search option.

- Search Provider Person (SPP) Profession/Specialty Request
 - The following parameter items must be specified, else an error condition:
 - Either Provider Role Profession Code or Provider Role Specialty Code;
 - Search Option = ‘2’.
 - The following parameter items may be specified:

- Provider Role Profession Code (if Provider Role Profession Code is blank then Provider Role Specialty Code must be specified);
- Profession Status Code;
- Administrative Gender Code;
- Provider Role Specialty Code (if Provider Role Specialty Code is blank then Provider Role Profession Code must be specified);
- Address (only Municipality Name and Postal Code)
- Provider Language Code.

No other parameter item is to be specified, and will be ignored if specified for this search option.

- Search Provider Person (SPP) License Request
 - The following parameter items must be specified, else an error condition:
 - License Number (root=OID of License Source; extension = License Number); and
 - Search Option = '3'.

No other parameter item is to be specified, and will be ignored if specified for this search option.

- Search Provider Person (SPP) Alternate Identifier Request
 - The following parameter items must be specified, else an error condition:
 - Alternate Identifier (root=OID of Alt ID Source; extension = Alt ID); and
 - Search Option = '4'.

No other parameter item is to be specified, and will be ignored if specified for this search option.

- Search Provider Person (SPP) UPI Request
 - The following parameter items must be specified, else an error condition:
 - Provider Person ID (UPI); and
 - Search Option = '5'.

No other parameter item is to be specified, and will be ignored if specified for this search option.

Search by First & Last Name, Municipality, Postal Code, License Number and Alternate Identifier is the case and accent insensitive.

The table below describes the parameter items in the HL7 v3 message.

Table 38 Message Structure (PRPM_MT986010ON)

PRPM_MT986010ON Provider Person Search Query	<i>Description:</i> Entry point for Provider Person Search Query Request.	Search Provider Person Name Request	Search Provider Person Profession Request	Search Provider Person License Request	Search Provider Person Alternate Identifier Request	Search Provider Person UPI Request
ParameterList						
administrativeGender [0..1] (AdministrativeGender)	<i>Definition:</i> This is the gender of the person for which the query is searching. A maximum of one gender may be provided. <i>Rationale:</i> Supports the business requirement to identify the specified roleClass being queried upon					
alternateIdentifier [0..1] (AlternateIdentifier)						
languageOption [0..1] (LanguageOption)						
licenseNumber [0..1] (LicenseNumber)						
address [0..1] (Address)	<i>Definition:</i> Address in relation to the roleClass being queried upon. <i>Rationale:</i> Supports the business requirement to identify the specified roleClass being queried .					
professionStatusCode [0..1] (ProfessionStatusCode)						
providerFirstName [0..1] (ProviderFirstName)						
providerLanguageCode [0..1] (ProviderLanguageCode)						
providerLastName [0..1] (ProviderLastName)	<i>Definition:</i> Name in relation to the roleClass being queried upon <i>Rationale:</i> Supports the business requirement to identify the specified roleClass being queried upon					
providerPersonID [0..1] (ProviderPersonID)	<i>Definition:</i> This is the identifier for the provider for which the query is searching. Multiple ids can be specified through repetition of this parameter. <i>Rationale:</i> Supports the business requirement to identify the specified roleClass being queried upon					
providerRoleProfession [0..1] (ProviderRoleProfession)	<i>Definition:</i> This parameter is constrained to values from the HealthCareProviderRoleType <i>Rationale:</i> Supports the business					

PRPM_MT986010ON Provider Person Search Query	Description: Entry point for Provider Person Search Query Request.	Search Provider Person Name Request	Search Provider Person Profession Request	Search Provider Person License Request	Search Provider Person Alternate Identifier Request	Search Provider Person UPI Request
	requirement to identify the specified roleClass being queried upon					
providerRoleSpecialty [0..1] (ProviderRoleSpecialty)	Definition: This parameter is constrained to values from the QualifiedEntityRoleType Rationale: Supports the business requirement to identify the specified expertise or credential roleClass being queried upon					
searchOption [1..1] (SearchOption)						
AdministrativeGender	Definition: This is the gender of the person for which the query is searching. A maximum of one gender may be provided. Rationale: Supports the business requirement to identify the specified roleClass being queried upon	N/A	Required parameter item – doesn’t have to be supplied by the sender, but if supplied, has to be processed by the receiver.		N/A	N/A
value [1..1] (M) ParameterItem (CV) {CNE:D:AdministrativeGender}	Definition: The principal person’s gender. Rationale: Mandatory attribute supports the identification of the healthcare provider	N/A	/PRPM_IN986010ON/controlActEvent/queryByParameter/parameterList/administrativeGender/value@code		N/A	N/A
AlternateIdentifier		N/A	N/A		Mandatory parameter item	N/A
value [1..1] (M) ParameterItem (II.PUBLIC)	Definition: Indicates an identifier (other than the UPI and provider Role License Number) assign to the Provider Person. E.g. Stakeholder Number (SN) assigned to the provider record by CPDB. Rationale: Allows for the identification of providers by secondary identification numbers.	N/A	N/A		/PRPM_IN986010ON/controlActEvent/queryByParameter/parameterList/alternateIdentifier/value (@root & @extension)	N/A
LanguageOption		Mandatory parameter item	Mandatory parameter item	Mandatory parameter item	Mandatory parameter item	Mandatory parameter item
value [0..1] ParameterItem (CV) {CNE:D:DisplayLanguage}	Definition: Indicates the language in which the requester wishes to receive the response of the query. Rationale: Allows a requester to	/PRPM_IN986010ON/controlActEvent/queryByParameter/parameterList/LanguageOption/value	/PRPM_IN986010ON/controlActEvent/queryByParameter/parameterList/LanguageOption/value	/PRPM_IN986010ON/controlActEvent/queryByParameter/parameterList/LanguageOption/value	/PRPM_IN986010ON/controlActEvent/queryByParameter/parameterList/LanguageOption/value	/PRPM_IN986010ON/controlActEvent/queryByParameter/parameterList/LanguageOption/value

PRPM_MT986010ON Provider Person Search Query	<i>Description:</i> Entry point for Provider Person Search Query Request.	Search Provider Person Name Request	Search Provider Person Profession Request	Search Provider Person License Request	Search Provider Person Alternate Identifier Request	Search Provider Person UPI Request
	determine the preferred official language for the requested information.	@code	@code	@code	@code	on/value@code
LicenseNumber		N/A	N/A	Mandatory parameter item	N/A	N/A
value [1..1] (M) ParameterItem (ST)	<i>Definition:</i> Provider’s License Number	N/A	N/A	/PRPM_IN986010ON/controlActEvent/queryByParameter/parameterList/LicenseNumber/value (@root & @extension)	N/A	N/A
Address	<i>Definition:</i> Address in relation to the roleClass being queried upon. <i>Rationale:</i> Supports the business requirement to identify the specified roleClass being queried upon.	Required parameter item – doesn’t have to be supplied by the sender, but if supplied, has to be processed by the receiver	Required parameter item – doesn’t have to be supplied by the sender, but if supplied, has to be processed by the receiver	N/A	N/A	N/A
value [1..1] (M) ParameterItem (AD.SEARCH)	<i>Definition:</i> The address of the provider when playing the role of a healthcare provider. <i>UsageNotes:</i> Only city and postal code are allowed as a parameter in this release. The search is also done on alternate city names, e.g. Toronto/North York/Willowdale <i>Rationale:</i> Mandatory attribute supports the identification of the healthcare provider	/PRPM_IN986010ON/controlActEvent/queryByParameter/parameterList/address/value/city controlActEvent/queryByParameter/parameterList/address/value/postalCode	/PRPM_IN986010ON/controlActEvent/queryByParameter/parameterList/address/value/city controlActEvent/queryByParameter/parameterList/address/value/postalCode	N/A	N/A	N/A
ProfessionStatusCode		Required parameter item – doesn’t have to be supplied by the sender, but if supplied, has to be processed by the receiver	Required parameter item – doesn’t have to be supplied by the sender, but if supplied, has to be processed by the receiver	N/A	N/A	N/A
value [1..1] (M) ParameterItem (CV) {CNE:V:RoleStatus}	<i>Definition:</i> Provider’s Profession Status Code	/PRPM_IN986010ON/controlActEvent/queryByParameter/parameterList/ProfessionStatusCode/value@code	/PRPM_IN986010ON/controlActEvent/queryByParameter/parameterList/ProfessionStatusCode/value@code	N/A	N/A	N/A
ProviderFirstName		Required parameter item – doesn’t have to be supplied by the	N/A	N/A	N/A	N/A

PRPM_MT986010ON Provider Person Search Query	<i>Description:</i> Entry point for Provider Person Search Query Request.	Search Provider Person Name Request	Search Provider Person Profession Request	Search Provider Person License Request	Search Provider Person Alternate Identifier Request	Search Provider Person UPI Request
		sender, but if supplied, has to be processed by the receiver				
value [1..1] (M) ParameterItem (PN.BASIC)	Definition: The provider's first name pertaining to the specific healthcare provider role. UsageNotes: Allows wildcards. Rationale: Mandatory attribute supports the identification of the healthcare provider	/PRPM_IN986010ON/co ntrolActEvent/queryByP arameter/parameterList /providerFirstName/val ue@given	N/A	N/A	N/A	N/A
ProviderLanguageCode		Required parameter item – doesn't have to be supplied by the sender, but if supplied, has to be processed by the receiver	Required parameter item – doesn't have to be supplied by the sender, but if supplied, has to be processed by the receiver	N/A	N/A	N/A
value [1..1] (M) ParameterItem (CV) {CNE:D:HumanLanguage}	Definition: The code identifying the language supported by the provider for communication and/or service delivery purposes. Rationale: For Search Provider Person By Name or By Profession, this combines search parameters 'official language' and 'spoken language' into one parameter.	/PRPM_IN986010ON/co ntrolActEvent/queryByP arameter/parameterList /providerLanguageCode /value@code	/PRPM_IN986010ON/co ntrolActEvent/queryByP arameter/parameterList /providerLanguageCode /value@code	N/A	N/A	N/A
ProviderLastName [Constraint: "Only 'Family' name may be specified."]	Definition: Name in relation to the roleClass being queried upon Rationale: Supports the business requirement to identify the specified roleClass being queried upon	Mandatory parameter item	N/A	N/A	N/A	N/A
value [1..1] (M) ParameterItem (PN.BASIC)	Definition: The provider's last name pertaining to the specific healthcare provider role. UsageNotes: Allows wildcards. Rationale: Mandatory attribute supports the identification of the healthcare provider	/PRPM_IN986010ON/co ntrolActEvent/queryByP arameter/parameterList /providerFirstName/val ue@family	N/A	N/A	N/A	N/A
ProviderPersonID [Constraint: "No other parameter item must be specified, if this parameter item is specified."]	Definition: This is the identifier for the provider for which the query is searching. Multiple ids can be specified through repetition of this parameter.	N/A	N/A	N/A	N/A	Mandatory parameter item

PRPM_MT986010ON Provider Person Search Query	Description: Entry point for Provider Person Search Query Request.	Search Provider Person Name Request	Search Provider Person Profession Request	Search Provider Person License Request	Search Provider Person Alternate Identifier Request	Search Provider Person UPI Request
	Rationale: Supports the business requirement to identify the specified roleClass being queried upon					
value [1..1] (M) ParameterItem (II.PUBLIC)	Definition: A unique identifier for a provider in a specific healthcare role. UsageNotes: use="BUS" root="2.16.840.1.113883.3.239.9" extension="(UPI)" displayable="true". (UPI) must be 12 digits in length and must pass validation. Rationale: Mandatory attribute supports the identification of the healthcare provider	N/A	N/A	N/A	N/A	/PRPM_IN986010ON/controlActEvent/queryByParameter/parameterList/providerPersonID/value@extension
ProviderRoleProfession	Definition: This parameter is constrained to values from the HealthCareProviderRoleType Rationale: Supports the business requirement to identify the specified roleClass being queried upon	Required parameter item – doesn’t have to be supplied by the sender, but if supplied, has to be processed by the receiver	Mandatory parameter item if Provider Role Specialty is not specified. Required parameter item if Provider Role Specialty is specified.	N/A	N/A	N/A
value [1..1] (M) ParameterItem (CV) {CNE:V:HealthCareProviderRoleType}	Definition: The code identifying the specific healthcare provider role. Rationale: Mandatory attribute supports the identification of the healthcare provider	/PRPM_IN986010ON/controlActEvent/queryByParameter/parameterList/providerRoleProfession/value@code	/PRPM_IN986010ON/controlActEvent/queryByParameter/parameterList/providerRoleProfession/value@code	N/A	N/A	N/A
ProviderRoleSpecialty	Definition: This parameter is constrained to values from the QualifiedEntityRoleType. Rationale: Supports the business requirement to identify the specified expertise or credential roleClass being queried upon.	Required parameter item – doesn’t have to be supplied by the sender, but if supplied, has to be processed by the receiver	Mandatory parameter item if Provider Role Profession is not specified. Required parameter item if Provider Role Profession is specified.	N/A	N/A	N/A
value [1..1] (M) ParameterItem (CV) {CNE:D:QualifiedExpertiseType}	Definition: The code identifying the specific healthcare provider specialty. Rationale: Mandatory attribute supports the identification of the healthcare provider.	/PRPM_IN986010ON/controlActEvent/queryByParameter/parameterList/providerRoleSpecialty/value@code	/PRPM_IN986010ON/controlActEvent/queryByParameter/parameterList/providerRoleSpecialty/value@code	N/A	N/A	N/A
SearchOption		Mandatory parameter item	Mandatory parameter item	Mandatory parameter item	Mandatory parameter item	Mandatory parameter item
value [1..1] (M)	Definition: Indicates the type of	/PRPM_IN986010ON/co	/PRPM_IN986010ON/co	/PRPM_IN986010ON/co	/PRPM_IN986010ON/co	/PRPM_IN986010ON/

PRPM_MT986010ON Provider Person Search Query	<i>Description:</i> Entry point for Provider Person Search Query Request.	Search Provider Person Name Request	Search Provider Person Profession Request	Search Provider Person License Request	Search Provider Person Alternate Identifier Request	Search Provider Person UPI Request
ParameterItem (CV) {CWE:D: ProviderPersonSearchOptionType }	provider person search. Valid codes are: 1 - search by name, 2 - search by profession, 3 - search by license, 4 - search Alt ID, 5 - search by UPI. <i>Rationale:</i> Allows for transmitting search pattern to the back-end to indicate required action.	ntrolActEvent/queryByP arameter/parameterList /searchOption/value@c ode = '1'	ntrolActEvent/queryByP arameter/parameterList /searchOption/value@c ode = '2'	ntrolActEvent/queryByP arameter/parameterList /searchOption/value@c ode = '3'	ntrolActEvent/queryByP arameter/parameterList /searchOption/value@c ode = '4'	controlActEvent/quer yByParameter/param eterList/searchOption /value@code = '5'

7.2 Provider Person Search Query Response - Payload Model (PRPM_MT986011ON)

The following figure illustrates the HL7 model for Provider Person Search Query Response that shall be provided by the Provincial Provider Registry to the service consumer.

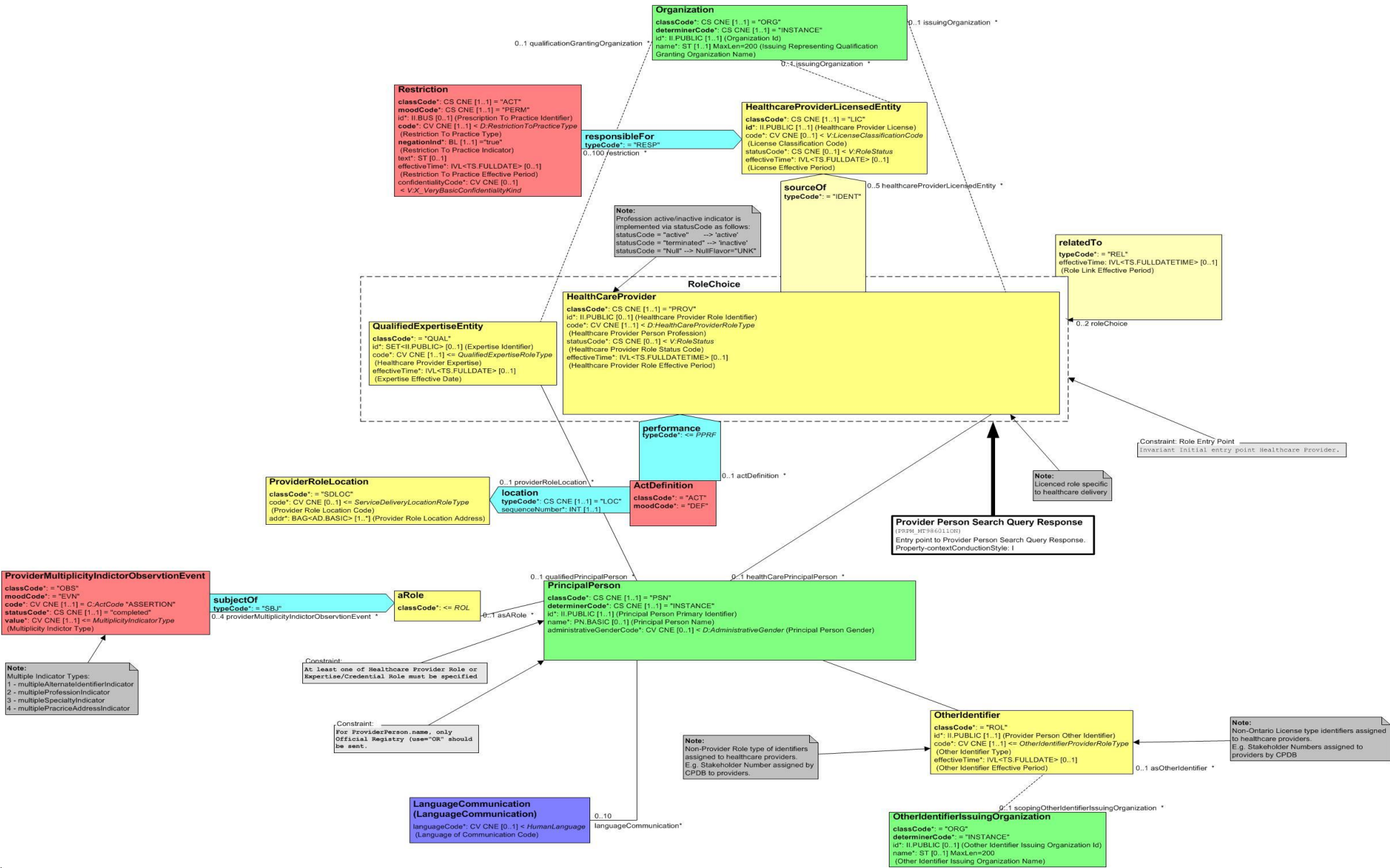


Figure 7- Provider Person Search Query Response (PRPM_MT986011ON)

This message contains the provider data items that are returned to the user, in response to the search query. The comprehensiveness of the information brought back in the message will depend on the data entitlement of the type of user doing the query. Response to a search constitutes summary information, and by default, contains current information only.

Table 39 Message Structure (PRPM_MT986011ON)

PRPM_MT986011ON Provider Person Search Query Response	<i>Description:</i> Entry point to Provider Person Search Query Response.
RoleChoice	
relatedTo1 [0..2] (RelatedTo)	
choice of QualifiedExpertiseEntity	
or HealthCareProvider	<i>Definition:</i> This role is the specific Healthcare provider role such as a Physician, Nurse or another type of caregivers. <i>Rationale:</i> Role class required to support the identification of person responsible for providing healthcare services
RelatedTo	
typeCode [1..1] (M) RoleLink (CS) {CNE:C: RoleLinkType:REL , fixed value= "REL"}	
effectiveTime [0..1] RoleLink (IVL<TS.FULLDATETIME>)	
<i>roleChoice</i> [1..1] (<i>RoleChoice</i>)	
QualifiedExpertiseEntity	
classCode [1..1] (M) QualifiedEntity (CS) {CNE:C: RoleClass:QUAL , fixed value= "QUAL"}	
id [0..1] QualifiedEntity (SET<II.PUBLIC>)	<i>Definition:</i> An identifier assigned to the record of an expertise (specialty/sub-specialty) attained by a healthcare provider. <i>UsageNotes:</i> Queried expertise identifier shall be returned. If masked, the root and extension attributes shall be replaced by a nullFlavor mask attribute. <i>Rationale:</i> Required attribute supports the identification of the healthcare provider.
code [1..1] QualifiedEntity (CV) {CNE:D: QualifiedExpertiseRoleType }	<i>Definition:</i> A coded value that indicates the type of expertise attained by the healthcare provider. <i>Rationale:</i> Allows distinguishing different kinds of healthcare provider expertise.
effectiveTime [0..1] QualifiedEntity (IVL<TS.FULLDATE>)	<i>Definition:</i> An interval of time specifying the period during which this record in a provider registry is in effect if such time limit is applicable and known. <i>Rationale:</i> Required attribute supports the identification of the healthcare provider.
qualifiedPrincipalPerson [0..1] (PrincipalPerson)	<i>Definition:</i> Identification of playing entity is required to support the case in which information directly related to the playing party is not needed. <i>Rationale:</i> Provides additional information about the person playing the role of Healthcare Provider
qualificationGrantingOrganization [0..1] (Organization)	
<i>Inherits associations from RoleChoice</i>	
PrincipalPerson [Constraint: "At least one of Healthcare Provider Role or Expertise/Credential Role must be specified"]	<i>Definition:</i> Identification of playing entity is required to support the case in which information directly related to the playing party is not needed. <i>Rationale:</i> Provides additional information about the person playing the role of Healthcare Provider
classCode [1..1] (M) Person (CS) {CNE:C: EntityClass:PSN , fixed value= "PSN"}	

PRPM_MT986011ON Provider Person Search Query Response	<i>Description:</i> Entry point to Provider Person Search Query Response.
determinerCode [1..1] (M) Person (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
id [1..1] Person (II.PUBLIC)	<i>Definition:</i> A unique identifier for the person who may play various healthcare provider roles. This identifier is specific to the person, not their roles. This is the Provider Person UPI. <i>UsageNotes:</i> Queried provider person UPI shall be returned. If masked, the root and extension attributes shall be replaced by a nullFlavor mask attribute. <i>Rationale:</i> Populated attribute supports the identification of the healthcare provider, and to allow for masking at the data entitlement level.
name [0..1] Person (PN.BASIC)	<i>Definition:</i> The person’s name independent of any role they may play. <i>UsageNotes:</i> If Principal Person is included in the message, then Person Name must exist. If masked, the name attribute shall be replaced by a nullFlavor mask attribute. The system shall support name parts (one prefix, up to two given, one family, and one suffix). The second occurrence of given indicates the middle name. All name parts are 50 characters in length. <i>Rationale:</i> Populated attribute supports the identification of the healthcare provider, and allows for masking of name at the user data entitlement level
administrativeGenderCode [0..1] Person (CV) {CNE:D: AdministrativeGender }	<i>Definition:</i> The principal person’s gender. <i>Rationale:</i> Required attribute supports the identification of the healthcare provider, and allows for masking at the user data entitlement level.
asOtherIdentifier [0..1] (OtherIdentifier)	
asaRole [0..1] (aRole)	
languageCommunication [0..10] (LanguageCommunication)	<i>Definition:</i> Information about what language(s) should be used to communicate with the focal person can be sent in the LanguageCommunication class. <i>Rationale:</i> Supports the business requirement to identify languages used by client for the purposes of communication
OtherIdentifier	
classCode [1..1] (M) Role (CS) {CNE:C: RoleClass:ROL , fixed value= "ROL"}	
id [1..1] Role (II.PUBLIC)	<i>Definition:</i> Indicates an identifier, other than professional license, assigned to the provider person by authorities other than the professional colleges. <i>UsageNotes:</i> The various originCode (e.g. ABH, ABH, etc) are treated as the extension (business identifier) for a generic OID root for eHO Other Identifier Issuing Organizations. Queried other identifier shall be returned. If masked, the root and extension attributes shall be replaced by a nullFlavor mask attribute. <i>Rationale:</i> Supports positive identification of a provider person.
code [1..1] Role (CV) {CNE:D: OtherIdentifierProviderRoleType }	<i>Definition:</i> A code that indicates the type of non-license identifier assigned to the provider person. <i>Rationale:</i> Puts the identifier in context.
effectiveTime [0..1] Role (IVL<TS.FULLDATE>)	<i>Definition:</i> The start and end date for OtherIdentifier. <i>Rationale:</i> Helps establish the validity of the identifier.
scopingOtherIdentifierIssuingOrganization [0..1] (OtherIdentifierIssuingOrganization)	
OtherIdentifierIssuingOrganization	
classCode [1..1] (M) Organization (CS) {CNE:C: EntityClass:ORG , fixed value= "ORG"}	

PRPM_MT986011ON Provider Person Search Query Response	<i>Description:</i> Entry point to Provider Person Search Query Response.
determinerCode [1..1] (M) Organization (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	
id [0..1] Organization (II.PUBLIC)	<i>Definition:</i> Identifier of the organization that issued the other identifier. <i>Rationale:</i> Supports identification of the other identifier issuing organization.
name [0..1] Organization (ST)	<i>Definition:</i> The name of the organization issuing identifiers other than the UPI and provider licenses. <i>Rationale:</i> Supports identification of identifier-issuing organization.
aRole	
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:ROL}	
subjectOf [0..4] (Subject2)	
Subject2	
typeCode [1..1] (M) Participation (CS) {CNE:C:ParticipationType:SBJ, fixed value= "SBJ"}	
providerMultiplicityIndictorObservtionEvent [1..1] (ProviderMultiplicityIndictorObservtionEvent)	
ProviderMultiplicityIndictorObservtionEvent	
classCode [1..1] (M) Observation (CS) {CNE:C:ActClass:OBS, fixed value= "OBS"}	
moodCode [1..1] (M) Observation (CS) {CNE:C:ActMood:EVN, fixed value= "EVN"}	
code [1..1] (M) Observation (CV) {CNE:C:ActCode:ASSERTION, fixed value= "ASSERTION"}	
statusCode [1..1] (M) Observation (CS) {CNE:C:ActStatus:completed, fixed value= "completed"}	
value [1..1] (M) Observation (CV) {CNE:D:MultiplicityIndicatorType}	<i>Definition:</i> A coded value denoting the specific provider element for which multiplicity indicator is set: 1 – Multiple Alternate Identifier Indicator, 2 - Multiple Practice Address Indicator, 3 – Multiple Profession Indicator, 4 – Multiple Specialty Indicator. <i>Rationale:</i> Allows for distinguishing different types of multiplicity indicator settings.
LanguageCommunication	<i>Definition:</i> Information about what language(s) should be used to communicate with the focal person can be sent in the LanguageCommunication class. <i>Rationale:</i> Supports the business requirement to identify languages used by client for the purposes of communication
languageCode [0..1] LanguageCommunication (CV) {CNE:D:HumanLanguage}	<i>Definition:</i> A code indicating the language of communication <i>Rationale:</i> Required attribute conveying the expected language message elements are to be transmitted in
Organization	
classCode [1..1] (M) Organization (CS) {CNE:C:EntityClass:ORG, fixed value= "ORG"}	
determinerCode [1..1] (M) Organization (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	

PRPM_MT986011ON Provider Person Search Query Response	<i>Definition:</i> Entry point to Provider Person Search Query Response.
id [1..1] Organization (II.PUBLIC)	<i>Definition:</i> Identifier of the organization that issued the other identifier. <i>Rationale:</i> Supports identification of the OtherIdentifierIssuingOrganization.
name [1..1] Organization (ST)	<i>Definition:</i> The name of the organization issuing identifiers other than the UPI and provider licenses. <i>Rationale:</i> Supports identification of identifier-issuing organization.
HealthCareProvider	<i>Definition:</i> This role the specific Healthcare provider role such as a Physician, Nurse or another type of caregivers. <i>Rationale:</i> Roleclass required to support the identification of person responsible for providing healthcare services
classCode [1..1] (M) LicensedEntity (CS) {CNE:C: RoleClass:PROV , fixed value= "PROV"}	
id [0..1] LicensedEntity (II.PUBLIC)	<i>Definition:</i> A unique identifier for a provider in a specific healthcare role. <i>UsageNotes:</i> Not in use in the current release. For detailed information about all provider's licenses healthcareProviderLicensedEntity should be used. The root is an OID of the license issuing organization and needs to be obtained from a table IdentifierOriginSourceCode (cross-reference table of originCode and OID). The extension is the healthcare provider license number. If masked, the root and extension attributes shall be replaced by a nullFlavor mask attribute. <i>Rationale:</i> Supports the identification of the healthcare provider
code [1..1] LicensedEntity (CV) {CNE:D: HealthCareProviderRoleType }	<i>Definition:</i> The code identifying the specific healthcare provider role. <i>Rationale:</i> Populated attribute supports the identification of the healthcare provider.
statusCode [0..1] LicensedEntity (CS) {CNE:D: RoleStatus }	<i>Definition:</i> Used to indicate whether or not a provider role is active. statusCode = 'active' if the provider person is active in the role. statusCode = 'terminated' if the provider person is inactive in the role. <i>Rationale:</i> Required attribute supports the identification of the healthcare provider.
effectiveTime [0..1] LicensedEntity (IVL<TS.FULLDATETIME>)	<i>Definition:</i> Indicates the period (Start and End Dates) for which the role is effective. <i>Rationale:</i> Supports the identification and validity of the healthcare provider role.
healthCarePrincipalPerson [0..1] (PrincipalPerson)	
issuingOrganization [0..1] (Organization)	
performance [0..1] (PrimaryPerformer)	
relatedTo2 [0..5] (SourceOf4)	
<i>Inherits associations from RoleChoice</i>	
PrimaryPerformer	
typeCode [1..1] (M) Participation (CS) {CNE:C: ParticipationType:PPRF }	
actDefinition [1..1] (ActDefinition)	
ActDefinition	
classCode [1..1] (M) Act (CS) {CNE:C: ActClass:ACT , fixed value= "ACT"}	
moodCode [1..1] (M) Act (CS) {CNE:C: ActMood:DEF , fixed value= "DEF"}	
location [0..1] (Location)	

PRPM_MT986011ON Provider Person Search Query Response	<i>Description:</i> Entry point to Provider Person Search Query Response.
Location	
typeCode [1..1] (M) Participation (CS) {CNE:C: ParticipationType :LOC, fixed value= "LOC"}	
sequenceNumber [1..1] Participation (INT.POS)	<i>Definition:</i> Allows each Service Delivery Location to be sequentially listed. <i>UsageNotes:</i> Not in use in the current release.
providerRoleLocation [1..1] (ProviderRoleLocation)	
ProviderRoleLocation	
classCode [1..1] (M) Role (CS) {CNE:C: RoleClass :SDLOC, fixed value= "SDLOC"}	
code [0..1] Role (CV) {CNE:V: ServiceDeliveryLocationRoleType }	<i>Definition:</i> The code identifying the specific practice (service delivery) location. <i>UsageNotes:</i> Always “P” – Primary in the current release of Search Response. <i>Rationale:</i> Assignment of code to the SDL is based on the locationRoleType from the backend.
addr [1..1] Role (<AD.BASIC>)	<i>Definition:</i> Address of the specific practice (service delivery) location <i>Rationale:</i> Populated attribute supports the validation and identification of the practice address.
SourceOf4	
typeCode [1..1] (M) RoleLink (CS) {CNE:C: RoleLinkType :IDENT, fixed value= "IDENT"}	
healthcareProviderLicensedEntity [1..1] (HealthcareProviderLicensedEntity)	
HealthcareProviderLicensedEntity	
classCode [1..1] (M) LicensedEntity (CS) {CNE:C: RoleClass :LIC, fixed value= "LIC"}	
id [1..1] (M) LicensedEntity (II.PUBLIC)	<i>Definition:</i> A unique identifier for a provider in a specific healthcare role. This is the License Certificate Number for a regulated healthcare provider. <i>Rationale:</i> Attribute supports the identification of a licensed healthcare provider
code [0..1] LicensedEntity (CV) {CNE:V: LicenseClassificationCode }	<i>Definition:</i> A coded value used to categorize licenses issued by specific issuing organizations. <i>Rationale:</i> Supports role-based access and permissions to be assigned at higher levels than the atomic healthcare provider role.
statusCode [0..1] LicensedEntity (CS) {CNE:D: RoleStatus }	
effectiveTime [0..1] LicensedEntity (IVL<TS.FULLDATE>)	<i>Definition:</i> Indicates the start and end date for the license certificate. <i>Rationale:</i> Required attribute to support the validity of the license.
issuingOrganization [0..1] (Organization)	
responsibleFor [0..100] (ResponsibleParty)	
related [0..1] (SourceOf)	
ResponsibleParty	
typeCode [1..1] (M)	

PRPM_MT986011ON Provider Person Search Query Response	<i>Description:</i> Entry point to Provider Person Search Query Response.
Participation (CS) {CNE:C: ParticipationType:RESP , fixed value= "RESP"}	
restriction [1..1] (Restriction)	
Restriction	
classCode [1..1] (M) Act (CS) {CNE:C: ActClass:ACT , fixed value= "ACT"}	
moodCode [1..1] (M) Act (CS) {CNE:C: ActMood:PERM , fixed value= "PERM"}	
id [0..1] Act (II.BUS)	<i>Definition:</i> Unique identifier for the restriction. <i>Rationale:</i> Required attribute supports the validation and identification of the healthcare provider and his/her given privileges
code [1..1] (M) Act (CV) {CNE:D: RestrictionToPracticeType }	<i>Definition:</i> Type of restriction. <i>Rationale:</i> Mandatory attribute supports the nature of the restriction.
negationInd [1..1] (M) Act (BL){fixed value= "true"}	<i>Definition:</i> Indicating that the privilege is a restriction. <i>Rationale:</i> Mandatory attribute supports the notion that the information pertains to a restriction placed on a provider's license.
text [0..1] Act (ST)	<i>Definition:</i> Comments and/or detailed description pertaining to the nature of the restriction. In some cases, this will be a link to a web page that provides details of the restriction or limitation. <i>Rationale:</i> Required attribute supports the validation and identification of the healthcare provider and the nature of restriction placed on the provider's license. <i>Usage Notes:</i> In the current release this element is populated only for Provider Details.
effectiveTime [0..1] Act (IVL<TS.FULLDATE>)	<i>Definition:</i> Effective date of the restriction. <i>UsageNotes:</i> If Restrictions to Practice are included in the message, then Effective Date Must Exist <i>Rationale:</i> Required attribute supports the validation and identification of the healthcare provider and his/her given privileges
confidentialityCode [0..1] <u>Act (CV)</u> {CNE:V:x VeryBasicConfidentialityKind }	<i>Definition:</i> Indicates the degree to which the restriction to practice is to be kept confidential. <i>Rationale:</i> Required attribute supports the validation and identification of the healthcare provider and the extent of confidentiality of the restriction information. <i>Usage Notes:</i> Not in use in the current release.

8.0 Provider Person Detail Interface

This message is sent to retrieve detailed information about a provider based on a single query parameter, i.e. the Provider UPI. The message can be sent in and on its own, without first having employed the ‘Search Query’ message to retrieve summary information about the provider.

8.1 Provider Person Detail Query - Payload Model (PRPM_MT306010ON)

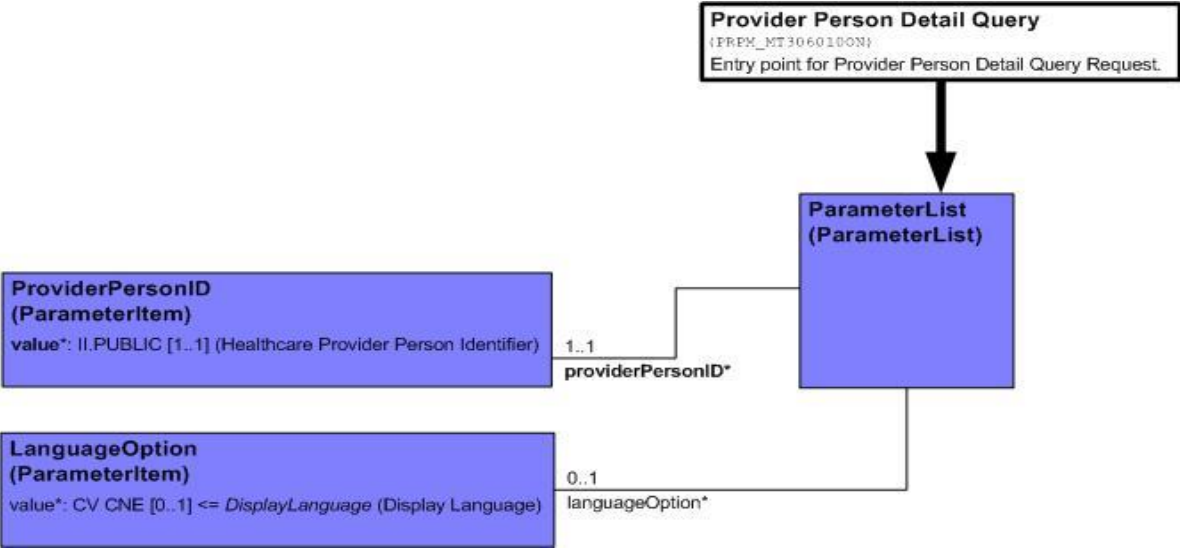


Figure 8. Provider Person Detail Query (PRPM_MT306010ON)

Table 40 Message Structure (PRPM_MT306010ON)

PRPM_MT306010ON Provider Person Detail Query	<i>Description:</i> Entry point for Provider Person Detail Query Request.
ParameterList	
languageOption [0..1] (LanguageOption)	
providerPersonID [1..1] (ProviderPersonID)	<i>Definition:</i> This is the identifier for the provider person for which the query is searching. <i>Rationale:</i> Supports the business requirement to identify the specified provider person.
LanguageOption	
value [0..1] ParameterItem (CV) {CNE:D:DisplayLanguage}	<i>Definition:</i> Indicates the language in which the requester wishes to receive the response of the query. <i>Rationale:</i> Allows a requester to determine the preferred official language for the requested information.

PRPM_MT306010ON Provider Person Detail Query	Description: Entry point for Provider Person Detail Query Request.
ProviderPersonID	Definition: This is the identifier for the provider person for which the query is searching. Rationale: Supports the business requirement to identify the specified provider person.
value [1..1] (M) ParameterItem (II.PUBLIC)	Definition: A unique identifier for a provider in a specific healthcare role. UsageNotes: use="BUS" root="2.16.840.1.113883.3.239.9" extension="(UPI)" displayable="true". (UPI) must be 12 digits in length and must pass validation. Rationale: Mandatory attribute supports the identification of the healthcare provider

Figure 9- Provider Person Detail Query Response (PRPM_MT306011ON)

This message contains the provider person data items that are returned to the user, in response to the detail query message. Response to a detail query constitutes the full complement of provider person data as defined in the Provider Registry functional requirement specifications. The comprehensive of the information brought back in the message will depend on the data entitlement of the type of user doing the query. Response to a detail comprises current and history information as appropriate.

Table 41 Message Structure (PRPM_MT306011ON)

PRPM_MT306011ON Provider Person Detail Query Response	<i>Description:</i> Entry point to Provider Details Response.
RoleChoice	
relatedTo1 [0..100] (RelatedTo)	
related [0..1] (SourceOf)	
choice of QualifiedExpertiseEntity	<i>Definition:</i> This role describes specific qualifications that may be held the provider as a result of training or experience, but having no legal force. Example: special medical training in urology (urologist). The current model does not include role attributes such as name, addr and telecom because there are no known use cases in this domain where this role is contactable. <i>Rationale:</i> Roleclass required to provide additional information for the person responsible for providing healthcare services
or QualifiedCredentialEntity	<i>Definition:</i> This role describes specific qualifications that may be held the provider as a result of training or experience, but having no legal force. Example: a medical degree or diploma. The current model does not include role attributes such as name, addr and telecom because there are no known use cases in this domain where this role is contactable. <i>Rationale:</i> Roleclass required to provide additional information for the person responsible for providing healthcare services
or HealthCareProvider	<i>Definition:</i> This role the specific Healthcare provider role such as a Physician, Nurse or another type of caregivers. <i>Rationale:</i> Roleclass required to support the identification of person responsible for providing healthcare services
RelatedTo	
typeCode [1..1] (M) RoleLink (CS) {CNE:C:RoleLinkType:REL, fixed value= "REL"}	
effectiveTime [0..1] RoleLink (IVL<TS.FULLDATETIME>)	
roleChoice [1..1] (RoleChoice)	
SourceOf	
typeCode [1..1] (M) RoleLink (CS) {CNE:C:RoleLinkType:IDENT, fixed value= "IDENT"}	
providerRoleClassType [1..1] (ProviderRoleClassType)	
ProviderRoleClassType	
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:ROL, fixed value= "ROL"}	
code [1..1] (M) Role (CV) {CNE:D:ProviderRoleClassType}	<i>Definition:</i> A coded value that further classifies provider person role. Valid provider role class type codes includes: 'RH' - Regulated Health professional. <i>Rationale:</i> Allows for higher category specification of provider role access/permissions to clinical information.
QualifiedExpertiseEntity	<i>Definition:</i> This role describes specific qualifications that may be held the provider as a result of training or experience, but having no legal force. Example: special medical training in urology (urologist). The current model does not include role attributes such as

PRPM_MT306011ON Provider Person Detail Query Response	<i>Description:</i> Entry point to Provider Details Response.
	name, addr and telecom because there are no known use cases in this domain where this role is contactable. <i>Rationale:</i> Roleclass required to provide additional information for the person responsible for providing healthcare services
classCode [1..1] (M) QualifiedEntity (CS) {CNE:C:RoleClass:QUAL, fixed value= "QUAL"}	
id [0..1] QualifiedEntity (II.PUBLIC)	<i>Definition:</i> Unique identifier for the Expertise. <i>Rationale:</i> Required attribute supports the identification of the healthcare provider expertise.
code [1..1] QualifiedEntity (CV) {CNE:D:QualifiedExpertiseRoleType}	<i>Definition:</i> A code for the expertise. Includes 'Specialties', Sub-Specialties', etc. <i>Rationale:</i> Populated attribute supports the identification of the healthcare provider expertise.
effectiveTime [1..1] QualifiedEntity (IVL<TS.FULLDATE>)	<i>Definition:</i> The effective date of the provider expertise in the healthcare provider role. <i>Rationale:</i> Populated attribute supports the identification of the healthcare provider expertise.
qualifiedPrincipalPerson [0..1] (PrincipalPerson)	<i>Definition:</i> Identification of playing entity is required to support the case in which information directly related to the playing party is not needed. <i>Rationale:</i> Provides additional information about the person playing the role of Healthcare Provider
qualificationGrantingOrganization [0..1] (Organization)	<i>Definition:</i> The scoping organization for the specified role class <i>UsageNotes:</i> Not in use in the current release. <i>Rationale:</i> Supports the requirement to supply additional information regarding the assigning Organization of the specified RoleClass
Inherits associations from RoleChoice	
PrincipalPerson [Constraint: "Only 'official' & 'alias' names are to be returned"]	<i>Definition:</i> Identification of playing entity is required to support the case in which information directly related to the playing party is not needed. <i>Rationale:</i> Provides additional information about the person playing the role of Healthcare Provider
classCode [1..1] (M) Person (CS) {CNE:C:EntityClass:PSN, fixed value= "PSN"}	
determinerCode [1..1] (M) Person (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	
id [1..1] Person (II.PUBLIC)	<i>Definition:</i> A unique identifier for the person who may play various healthcare provider roles. This identifier is specific to the person, not their roles. This is the healthcare provider's UPI (Unique Provider Identifier). <i>UsageNotes:</i> Queried health number shall be returned. If masked, the root and extension attributes shall be replaced by a nullFlavor mask attribute. <i>Rationale:</i> Required attribute supports the identification of the healthcare provider
name [0..5] Person (LIST<PN.BASIC>)	<i>Definition:</i> The provider person's name independent of any role they may play. <i>UsageNotes:</i> If Principal Person is included in the message, then Person Name Must Exist. If masked, the name attribute shall be replaced by a nullFlavor mask attribute. The system shall support name parts (one prefix, up to two given, one family, and one suffix). The second occurrence of given indicates the middle name. All name parts are 50 characters in length. <i>Rationale:</i> Required attribute supports the identification of the healthcare provider
administrativeGenderCode [0..1] Person (CV) {CNE:D:AdministrativeGender}	<i>Definition:</i> The principal person's gender. <i>Rationale:</i> Required attribute supports the identification of the healthcare provider
birthTime [0..1] Person (TS.FULLDATE)	<i>Definition:</i> The provider person's date of birth. <i>UsageNotes:</i> In the initial release Date of Birth will not be exposed (will be masked).The system shall support both 'YYYYMMDD'

PRPM_MT306011ON Provider Person Detail Query Response	<i>Description:</i> Entry point to Provider Details Response.
	and the full TS.DATETIME data type as required. Should birthTime be masked, a nullFlavor mask attribute shall be present in place of the code attribute. <i>Rationale:</i> Required attribute supports the identification of the healthcare provider
deceasedInd [0..1] Person (BL)	<i>Definition:</i> An indication that the provider person is deceased. Appropriate business process/function will need to be employed to ensure that validation or verification of the death event has been established prior to populating the message. <i>UsageNotes:</i> Indicator shall be 'true' or indicator will be omitted otherwise. The indicator shall not be present should the indicator be masked. <i>Rationale:</i> Required attribute supports the identification of the provider person.
deceasedTime [0..1] Person (TS.FULLDATE)	<i>Definition:</i> The date and time that a provider person's death occurred. <i>UsageNotes:</i> Initial release shall support format 'YYYYMMDD'. The system shall support full TS.DATETIME data type as required. The deceasedTime shall not be present should the indicator be masked. <i>Rationale:</i> Required attribute supports verification of death from an official source such as Vital Statistics.
asAffiliate [0..10] (Affiliate)	
asOtherIdentifier [0..10] (OtherIdentifier)	
languageCommunication [0..10] (LanguageCommunication)	<i>Definition:</i> Information about what language(s) should be used to communicate with the focal person can be sent in the LanguageCommunication class. <i>Rationale:</i> Supports the business requirement to identify languages used by client for the purposes of communication
Affiliate	
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:ROL, fixed value= "ROL"}	
id [0..1] Role (II.TOKEN)	<i>Definition:</i> A token identifier assigned to the affiliation record. <i>Rationale:</i> Used to retrieve the affiliation record.
code [1..1] (M) Role (CV) {CNE:D:ProviderRoleAffiliationType}	<i>Definition:</i> A coded value indicating the type of affiliation between the healthcare provider and the affiliated organization. <i>Rationale:</i> Allows distinguishing different kinds of affiliation.
effectiveTime [0..1] Role (IVL<TS.FULLDATE>)	<i>Definition:</i> An interval of time specifying the period during which this affiliation record is in effect if such time limit is applicable and known. <i>Rationale:</i> Required attribute supports the identification of provider person affiliation.
scopingAffiliatedPrincipalOrganization [0..1] (AffiliatedPrincipalOrganization)	
AffiliatedPrincipalOrganization	
classCode [1..1] (M) Organization (CS) {CNE:C:EntityClass:ORG, fixed value= "ORG"}	
determinerCode [1..1] (M) Organization (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	
id [1..1] (M) Organization (II.PUBLIC)	<i>Definition:</i> The UPI of the affiliated provider organization. <i>Rationale:</i> Mandatory attribute to support specifying healthcare provider's affiliation with provider organization.
assignedOrganization [1..1] (AssignedOrganization)	
AssignedOrganization	

PRPM_MT306011ON Provider Person Detail Query Response	<i>Description:</i> Entry point to Provider Details Response.
classCode [1..1] (M) Role (CS) {CNE:C: RoleClass:ROL , fixed value= "ROL"}	
code [1..1] (M) Role (CV) {CNE:V: AssignedRoleType }	<i>Definition:</i> A coded value indication the role of the affiliated provider organization. <i>Rationale:</i> Mandatory attribute to support specifying healthcare provider to organization affiliation.
scopingOrganization [0..1] (Organization)	<i>UsageNotes:</i> Not in use in the current release.
OtherIdentifier	
classCode [1..1] (M) Role (CS) {CNE:C: RoleClass:ROL , fixed value= "ROL"}	<i>Mapping:</i> Not Permitted
id [1..1] Role (II.PUBLIC)	<i>Definition:</i> Identification number, other than healthcare provider license number, assigned to the provider. <i>Rationale:</i> Additional information that may be used to positively identify a provider.
code [1..1] (M) Role (CV) {CNE:D: OtherIdentifierProviderRoleType }	<i>Definition:</i> A coded value that specifies the type of identifier assigned. <i>Rationale:</i> Used to distinguish different types of identifiers, and is, therefore, mandatory.
effectiveTime [0..1] Role (IVL<TS.FULLDATE>)	<i>Definition:</i> Indicates the period of validity for the non-license identifier. <i>Rationale:</i> Supports identification and authentication of a healthcare provider.
scopingOrganization [0..1] (Organization)	<i>UsageNotes:</i> Not in use in the current release.
LanguageCommunication	<i>Definition:</i> Information about what language(s) should be used to communicate with the focal person can be sent in the LanguageCommunication class. <i>Rationale:</i> Supports the business requirement to identify languages used by client for the purposes of communication
languageCode [0..1] LanguageCommunication (CV) {CNE:D: HumanLanguage }	<i>Definition:</i> A code indicating the language of communication <i>Rationale:</i> Required attribute conveying the expected language message elements are to be transmitted in
modeCode [0..1] LanguageCommunication (CV) {CNE:D: LanguageAbilityMode }	<i>Definition:</i> Indicates the healthcare provider's ability to communicate in the indicated language i.e. written, spoken, read <i>Rationale:</i> Required attribute provides additional information about the healthcare provider's communication skills in a given language
proficiencyLevelCode [0..1] LanguageCommunication (CV) {CNE:D: LanguageAbilityProficiency }	<i>Definition:</i> Indicates the proficiency level at which healthcare provider is able to communicate in the indicated language of communication. <i>Rationale:</i> Required attribute provides additional information about the healthcare provider's communication skills in a given language. <i>Not in use in the current release.</i>
preferenceInd [0..1] LanguageCommunication (BL)	<i>Definition:</i> Indicates the preferred language for all communications. <i>Rationale:</i> A Required attribute that supports the business requirement to indicate the preferred language for all communications.
Organization [Constraint: "As an issuingOrganization, Id is mandatory"] [Constraint: "As a qualificationGrantingorganization, at least one of 'Id' or 'name' must be specified."]	<i>Definition:</i> The scoping organization for the specified role class. <i>UsageNotes:</i> Not in use in the current release. <i>Rationale:</i> Supports the requirement to supply additional information regarding the assigning Organization of the specified RoleClass
classCode [1..1] (M) Organization (CS) {CNE:C: EntityClass:ORG , fixed value= "ORG"}	
determinerCode [1..1] (M)	

PRPM_MT306011ON Provider Person Detail Query Response	<i>Description:</i> Entry point to Provider Details Response.
Organization (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	
id [0..1] Organization (II.PUBLIC)	<i>Definition:</i> Unique identifier for the organization that assigned the specified roleClass identifier. <i>Rationale:</i> Required attribute supports the validation and identification of the scoping organization assigning the id to the specified roleClass
code [0..1] Organization (CV) {CNE:V:OrganizationEntityType}	
name [0..1] Organization (ST)	<i>Definition:</i> 1. Organization that is responsible for registering the provider for a specific healthcare provider role. 2. Organization that grants the qualifications or expertise. <i>Rationale:</i> Required attribute supports the validation and identification of the healthcare provider
addr [0..5] Organization (SET<AD.BASIC>)	<i>Definition:</i> Address for any of the supported roles 1. Issuing Organization 2. Qualification Granting Organization <i>Rationale:</i> Required attribute supports the validation and identification of the healthcare provider
QualifiedCredentialEntity	<i>Definition:</i> This role describes specific qualifications that may be held the provider as a result of training or experience, but having no legal force. Example: a medical degree or diploma. The current model does not include role attributes such as name, addr and telecom because there are no known use cases in this domain where this role is contactable. <i>Rationale:</i> Roleclass required to provide additional information for the person responsible for providing healthcare services
classCode [1..1] (M) QualifiedEntity (CS) {CNE:C:RoleClass:QUAL, fixed value= "QUAL"}	
id [0..1] QualifiedEntity (II.PUBLIC)	<i>Definition:</i> Unique identifier for the Credential. <i>UsageNotes:</i> Not in use in the current release. <i>Rationale:</i> Required attribute supports the identification of the healthcare provider credentials
code [1..1] QualifiedEntity (CV) {CNE:D:QualifiedCredentialRoleType}	<i>Definition:</i> A code for the degree or educational rank that the credential specifies. <i>UsageNotes:</i> If Expertise or Credentials are included in the message, then Role Type Must Exist. <i>Rationale:</i> Populated attribute supports the identification of the healthcare provider credentials
effectiveTime [1..1] QualifiedEntity (IVL<TS.FULLDATE>)	<i>Definition:</i> The effective date of the provider credentials in the healthcare provider role. <i>UsageNotes:</i> If Expertise or Credentials are included in the message, then Role Effective Date Must Exist <i>Rationale:</i> Populated attribute supports the identification of the healthcare provider credentials
qualifiedPrincipalPerson [0..1] (PrincipalPerson)	<i>UsageNotes:</i> Not in use in the current release.
qualificationGrantingOrganization [0..1] (Organization)	<i>UsageNotes:</i> Not in use in the current release.
Inherits associations from RoleChoice	
HealthCareProvider [Constraint: "At least one of issuingOrganization.id or identifierOriginSource.code must be specified."]	<i>Definition:</i> This role the specific Healthcare provider role such as a Physician, Nurse or another type of caregivers. <i>Rationale:</i> Roleclass required to support the identification of person responsible for providing healthcare services
classCode [1..1] (M) LicensedEntity (CS) {CNE:C:RoleClass:PROV, fixed value= "PROV"}	
id [0..1] LicensedEntity (II.PUBLIC)	<i>Definition:</i> A unique identifier for a provider in a specific healthcare role. <i>UsageNotes:</i> Not in use in the current release.For detailed information about all provider’s licenses healthcareProviderLicensedEntity should be used. The root is an OID of the license issuing organization and needs to be obtained from a table IdentifierOriginSourceCode (cross-reference table of originCode and OID). The extension is the healthcare provider license number. If masked, the root and extension attributes shall be replaced by a nullFlavor mask attribute.

PRPM_MT306011ON Provider Person Detail Query Response	<i>Description:</i> Entry point to Provider Details Response.
	<i>Rationale:</i> Required attributes supports the identification of a healthcare provider person.
code [1..1] (M) LicensedEntity (CV) {CNE:D:HealthCareProviderRoleType}	<i>Definition:</i> The code identifying the specific healthcare provider role. E.g. MD - Medical Doctor, DEN – Dentist. <i>Rationale:</i> Mandatory attribute supports the identification of the healthcare provider.
name [0..5] LicensedEntity (LIST<PN.BASIC>)	<i>Definition:</i> The provider's name pertaining to the specific provider role. E.g. the name used by the provider in the role of a Medical Doctor, as opposed to the name in the role of a Dentist. <i>UsageNotes:</i> Not in use in the current release. healthCarePrincipalPerson/name should be used to identify Provider’s names. <i>Rationale:</i> Required attribute supports the identification of the healthcare provider.
addr [0..5] LicensedEntity (LIST<AD.BASIC>)	<i>Definition:</i> The address for the provider when playing the role of a healthcare provider. <i>UsageNotes:</i> Not in use in the current release. providerRoleLocation/addr should be used to identify Provider’s addresses. <i>Rationale:</i> Required attribute supports the identification of the healthcare provider.
telecom [0..25] LicensedEntity (LIST<TEL>)	<i>Definition:</i> The telecom for the provider when playing the role of a healthcare provider. <i>UsageNotes:</i> Telephone and fax numbers, email and web addresses shall be supported. Telecom use code shall consist of a type (e.g. 'WP' - Work Place), optionally followed by 'BAD' (Invalid), 'CONF' (Confidential). Format of telephone/fax number value shall be 'tel:' or fax:' + (optionally) country calling code (Len 6) & area code (Len 3) & local number (Len 7) & (optionally for telephone numbers) extension (Len 6). The format of email address value shall be “mailto:” + email address (up to 100 characters). The format of web address value shall be “http://” or “https://” or “file://” or “nfs://” or “ftp://” + web address (up to 255 characters). The system shall support multiple use codes. SpecializationType attribute shall distinguish between telephone/fax, email, and web addresses. If masked, the specializationType shall be present and a nullFlavor mask shall be present. <i>Rationale:</i> Required attribute supports the identification of the healthcare provider.
statusCode [0..1] LicensedEntity (CS) {CNE:D:RoleStatus}	<i>Definition:</i> The status of the provider in the healthcare provider role i.e. active / inactive profession. <i>Rationale:</i> Required attribute supports the identification of the healthcare provider
effectiveTime [0..1] LicensedEntity (IVL<TS.FULLDATE>)	<i>Definition:</i> The effective date of the provider in the healthcare provider role. This is the effective date of the provider's license. <i>Rationale:</i> Required attribute supports the identification of the healthcare provider
healthCarePrincipalPerson [1..1] (PrincipalPerson)	
issuingOrganization [0..1] (Organization)	
subjectOf1 [0..1] (Subject2)	
subjectOf2 [0..1] (Subject)	
performance [0..5] (PrimaryPerformer)	
relatedTo2 [0..5] (SourceOf5)	
<i>Inherits associations from RoleChoice</i>	
Subject2	
typeCode [1..1] (M) Participation (CS) {CNE:C:ParticipationType:SBJ, fixed value= "SBJ"}	
providerRoleStatusObservationEvent [1..1] (ProviderRoleStatusObservationEvent)	
ProviderRoleStatusObservationEvent	
classCode [1..1] (M)	<i>UsageNotes:</i> Excluded from schemas

PRPM_MT306011ON Provider Person Detail Query Response	<i>Description:</i> Entry point to Provider Details Response.
Observation (CS) {CNE:C: ActClass:OBS , fixed value= "OBS"}	
moodCode [1..1] (M) Observation (CS) {CNE:C: ActMood:EVN , fixed value= "EVN"}	<i>UsageNotes:</i> Excluded from schemas
code [1..1] (M) Observation (CV) {CNE:C: ActCode:ASSERTION , fixed value= "ASSERTION"}	<i>Definition:</i> Indicates a general statement made on the status of the provider role (not the transitional states of the role)
statusCode [1..1] (M) Observation (CS) {CNE:C: ActStatus:completed , fixed value= "completed"}	
value [1..3] (M) Observation (SET<CV>) {CNE:V: ProviderRoleStatusType }	<i>Definition:</i> A coded value indicating the practicing status of the provider as specified by the source. <i>Rationale:</i> Supports business requirement of determining the overall status of the provider in supporting specific clinical program.
Subject	
typeCode [1..1] (M) Participation (CS) {CNE:C: ParticipationType:SBJ , fixed value= "SBJ"}	
preferredOfficialLanguage [1..1] (PreferredOfficialLanguage)	
PreferredOfficialLanguage	
classCode [1..1] (M) Act (CS) {CNE:C: ActClass:INFRM , fixed value= "INFRM"}	
moodCode [1..1] (M) Act (CS) {CNE:C: ActMood:DEF , fixed value= "DEF"}	
languageCode [1..1] (M) Act (CV) {CNE:D: HumanLanguage }	<i>Definition:</i> Indicates one of English or French as a language in which the provider which to be communicated with the health system, in the specific role. <i>Rationale:</i> Facilitates communication with the health system.
PrimaryPerformer	
typeCode [1..1] (M) Participation (CS) {CNE:C: ParticipationType:PPRF , fixed value= "PPRF"}	
actDefinition [1..1] (ActDefinition)	<i>Definition:</i> A record of something that is being done, has been done, can be done, or is intended or requested to be done. Acts connect to Entities in their Roles through Participations and connect to other Acts through ActRelationships. Participations are the authors, performers, and other responsible parties as well as subjects and beneficiaries (which includes tools and material used in the performance of the act, which are also subjects). The moodCode distinguishes between Acts that are meant as factual records, vs. records of intended or ordered services, and the other modalities in which act can appear. <i>Rationale:</i> Acts are the pivot of the RIM; all domain information and processes are represented primarily in Acts. Any profession or business, including healthcare, is primarily constituted of intentional and occasionally non-intentional actions, performed and recorded by responsible actors. An Act-instance is a record of such an action.
ActDefinition	<i>Definition:</i> A record of something that is being done, has been done, can be done, or is intended or requested to be done. Acts connect to Entities in their Roles through Participations and connect to other Acts through ActRelationships. Participations are the authors, performers and other responsible parties as well as subjects and beneficiaries (which includes tools and material used in the performance of the act, which are also subjects). The moodCode distinguishes between Acts that are meant as factual records, vs. records of intended or ordered services, and the other modalities in which act can appear. <i>Rationale:</i> Acts are the pivot of the RIM; all domain information and processes are represented primarily in Acts. Any profession or business, including healthcare, is primarily constituted of intentional and occasionally non-intentional actions, performed and

PRPM_MT306011ON Provider Person Detail Query Response	<i>Description:</i> Entry point to Provider Details Response.
	recorded by responsible actors. An Act-instance is a record of such an action.
classCode [1..1] (M) Act (CS) {CNE:C:ActClass:ACT, fixed value= "ACT"}	
moodCode [1..1] (M) Act (CS) {CNE:C:ActMood:DEF, fixed value= "DEF"}	
location [1..1] (Location)	
Location	
typeCode [1..1] (M) Participation (CS) {CNE:C:ParticipationType:LOC, fixed value= "LOC"}	
sequenceNumber [1..1] Participation (INT.POS)	<i>Definition:</i> Allows each Service Delivery Location to be sequentially listed.
providerRoleLocation [1..1] (ProviderRoleLocation)	
ProviderRoleLocation	
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:SDLOC, fixed value= "SDLOC"}	
id [0..1] Role (II.BUS)	<i>Definition:</i> A unique identifier for the service delivery location. <i>Rationale:</i> Required attribute supports the validation and identification of the service delivery location. Not in use in the current release.
code [0..1] Role (CV) {CNE:V:ServiceDeliveryLocationRoleType}	<i>Definition:</i> The code identifying the specific practice (service delivery) location. <i>Rationale:</i> Required attribute supports the validation and identification of the practice (service delivery location) where applicable
addr [0..1] Role (AD.FULL)	<i>Definition:</i> Address of the specific practice (service delivery) location. <i>UsageNotes:</i> The 'use' attribute shall be populated with a type (WP, PST), with (optionally) additional indicators (BAD, CONF). The following data elements shall be present: unitId, houseNumberNumeric, buildingNumberSuffix, streetNameBase, streetNameType, direction, additionalLocator, streetAddressLine (up to 4 occurrences), city, state code, state text, postalCode, country code, country text. Address elements shall have delimiter tags indicating natural line breaks. Further address information will be captured within the addr element as delimited text, including delivery installation, PO BOX, and route service address information. Masked 'use' codes shall not be present, and masked addresses shall be represented by nullFlavor mask attribute. streetAddressLine(1) and streetAddressLine(2) may be a concatenation of the parsed address parts (unitId, houseNumberNumeric, buildingNumberSuffix, streetNameBase, streetNameType, direction, additionalLocator). Should country code not be recognized, the country code attribute shall be replaced by a nullFlavor unknown attribute. <i>Rationale:</i> Populated attribute supports the validation and identification of the practice address.
telecom [0..25] Role (LIST<TEL>)	<i>Definition:</i> The telecom for the business practice (service delivery) location. <i>UsageNotes:</i> Telephone and fax numbers, email and web addresses shall be supported. Telecom use code shall consist of a type (e.g. 'WP' - Work Place), optionally followed by 'BAD' (Invalid), 'CONF' (Confidential). Format of telephone/fax number value shall be 'tel:' or fax:' + (optionally) country calling code (Len 6) & area code (Len 3) & local number (Len 7) & (optionally for telephone numbers) extension (Len 6). The format of email address value shall be “mailto:” + email address (up to 100 characters). The format of web address value shall be “http://” or “https://” or “file://” or “nfs://” or “ftp://” + web address (up to 255 characters). The system shall support multiple use codes. SpecializationType attribute shall distinguish between telephone/fax, email, and web

PRPM_MT306011ON Provider Person Detail Query Response	<i>Description:</i> Entry point to Provider Details Response.
	addresses. If masked, the specializationType shall be present and a nullFlavor mask shall be present. <i>Rationale:</i> Required attribute supports validation and identification of telecom of provider person location.
effectiveTime [0..1] Role (IVL<TS.FULLDATE>)	<i>Definition:</i> An interval of time specifying the period during which this record in a provider registry is in effect if such time limit is applicable and known. <i>UsageNotes:</i> Low value shall be populated with the location effective date. The high value shall be populated with the date at which the health business location is no longer valid. Should either low or high value is masked; the appropriate value attribute shall be replaced by a nullFlavor mask attribute. <i>Rationale:</i> Required attribute supports the identification of the provider role location.
location [0..1] (Place)	<i>UsageNotes:</i> Not in use in the current release.
related [0..1] (SourceOf4)	
Place	<i>UsageNotes:</i> Not in use in the current release.
classCode [1..1] (M) Place (CS) {CNE:C:EntityClass:PLC, fixed value= "PLC"}	
determinerCode [1..1] (M) Place (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	
name [1..1] (M) Place (ST){fixed value= "200"}	
SourceOf4	
typeCode [1..1] (M) RoleLink (CS) {CNE:C:RoleLinkType:IDENT, fixed value= "IDENT"}	
IHINNumber [1..1] (LHINNumber)	
LHINNumber	
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:ROL, fixed value= "ROL"}	
code [1..1] (M) Role (CV) {CNE:D:LHINCode}	<i>Definition:</i> A coded value indicating a specific jurisdiction of health information network within Ontario. <i>Rationale:</i> Support jurisdictional nature of health service planning and delivery in Ontario.
name [0..1] Role (ST)	<i>Definition:</i> The name associated with the LHIN number/code. <i>Rationale:</i> Allows for a health jurisdiction to be referenced by name.
SourceOf5	
typeCode [1..1] (M) RoleLink (CS) {CNE:C:RoleLinkType:IDENT, fixed value= "IDENT"}	
healthcareProviderLicensedEntity [1..1] (HealthcareProviderLicensedEntity)	
HealthcareProviderLicensedEntity	
classCode [1..1] (M) LicensedEntity (CS) {CNE:C:RoleClass:LIC, fixed value= "LIC"}	
id [1..1] (M)	<i>Definition:</i> A unique identifier for a provider in a specific healthcare role. This is the License Certificate Number for a regulated

PRPM_MT306011ON Provider Person Detail Query Response	<i>Description:</i> Entry point to Provider Details Response.
LicensedEntity (II.PUBLIC)	healthcare provider. <i>Rationale:</i> Required attribute supports the identification of a licensed healthcare provider
code [0..1] LicensedEntity (CV) {CNE:V:LicenseClassificationCode}	<i>Definition:</i> A coded value used to categorize licenses issued by specific issuing organizations. <i>Rationale:</i> Supports role-based access and permissions to be assigned at higher levels than the atomic healthcare provider role.
statusCode [0..1] LicensedEntity (CS) {CNE:D:RoleStatus}	
effectiveTime [0..1] LicensedEntity (IVL<TS.FULLDATE>)	<i>Definition:</i> Indicates the start and end date for the license certificate. <i>Rationale:</i> Required attribute to support the validity of the provider role license.
issuingOrganization [0..1] (Organization)	
responsibleFor [0..100] (ResponsibleParty)	
related [0..1] (SourceOf3)	
ResponsibleParty	
typeCode [1..1] (M) Participation (CS) {CNE:C:ParticipationType:RESP, fixed value= "RESP"}	
restriction [1..1] (Restriction)	
Restriction	
classCode [1..1] (M) Act (CS) {CNE:C:ActClass:ACT, fixed value= "ACT"}	
moodCode [1..1] (M) Act (CS) {CNE:C:ActMood:PERM, fixed value= "PERM"}	
id [0..1] Act (II.BUS)	<i>Definition:</i> Unique identifier for the restriction. <i>Rationale:</i> Required attribute supports the validation and identification of the healthcare provider and his/her given privileges
code [1..1] (M) Act (CV) {CNE:D:RestrictionToPracticeType}	<i>Definition:</i> Type of restriction. <i>Rationale:</i> Mandatory attribute supports the nature of the restriction.
negationInd [1..1] (M) Act (BL){default= "true"}	<i>Definition:</i> Indicating that the privilege is a restriction. <i>Rationale:</i> Mandatory attribute supports the notion that the information pertains to a restriction placed on a provider's license.
text [0..1] Act (ST)	<i>Definition:</i> Comments and/or detailed description pertaining to the nature of the restriction. In some cases, this will be a link to a web page that provides details of the restriction or limitation. <i>Rationale:</i> Required attribute supports the validation and identification of the healthcare provider and the nature of restriction placed on the provider's license.
effectiveTime [0..1] Act (IVL<TS.FULLDATE>)	<i>Definition:</i> Effective date of the restriction. <i>UsageNotes:</i> If Restrictions to Practice are included in the message, then Effective Date Must Exist <i>Rationale:</i> Required attribute supports the validation and identification of the healthcare provider and his/her given privileges
confidentialityCode [0..1] Act (CE) {CNE:V:x_VeryBasicConfidentialityKind}	<i>Definition:</i> Indicates the degree to which the restriction to practice is to be kept confidential. <i>Rationale:</i> Required attribute supports the validation and identification of the healthcare provider and the extent of confidentiality of the restriction information.

9.0 Provider Organization Search Interface

This message contains the list of parameter items that are to be used to match and retrieve provider organization records from the Provider Registry Repository. Parameter item values sent with this message are ‘ANDed’ together to determine records to be selected. Regardless of which search option type is invoked, the response message (Provider Organization Search Query Response) will contain the same amount of information, except where some pieces of information are masked from specific requester type.

9.1 Provider Organization Search Query - Payload Model (PRPM_MT996000ON)

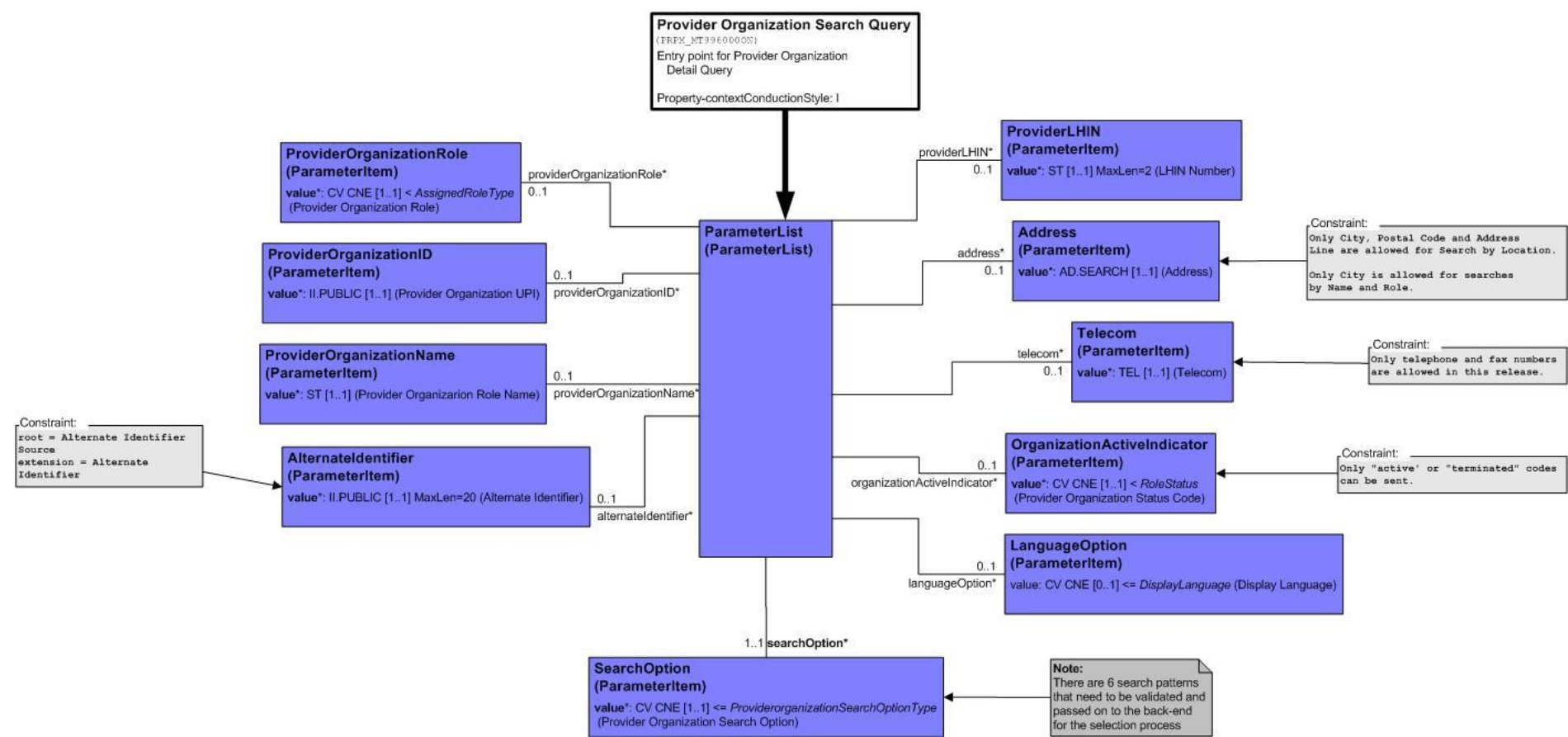


Figure 20- Provider Organization Search Query (PRPM_MT996000ON)

The set of parameter items defined for this query is used in various combinations as dictated by functional requirement search types (refer to Functional Requirements v2.3). Valid search types are categorized by the ‘Search Option’ parameter item. Validation of search types is carried out by ensuring that the expected combinations of parameter items are specified for a specific search option. Errors are raised for the following exception conditions:

- Invalid search option code; and
- The mandatory combination of parameters for a search option not specified.

There are five valid combinations of search parameters (constituting sub-categories of the Search Provider Person service) are summarized as follows:

- Search Provider Organization (SPO) Name Request
 - The following parameter items must be specified, else an error condition:
 - Provider Organization Name; and
 - Search Option = ‘1’.
 - The following parameter items may be specified:
 - Municipality name; and
 - Provider Organization Status Code

No other parameter item is to be specified, and will be ignored if specified for this search option.

- Search Provider Organization (SPO) Role Request
 - The following parameter items must be specified, else an error condition:
 - Organization Role code; and
 - Search Option = ‘2’.
 - The following parameter items may be specified:
 - Municipality name;
 - Provider Organization Name; and
 - Provider Organization Status Code.

No other parameter item is to be specified, and will be ignored if specified for this search option.

- Search Provider Organization (SPO) LHIN Request
 - The following parameter items must be specified, else an error condition:
 - LHIN Code; and
 - Search Option = ‘3’.

- The following parameter items may be specified:

- Provider Organization Role Code; and
- Provider Organization Status Code.

No other parameter item is to be specified, and will be ignored if specified for this search option.

- Search Provider Organization (SPO) UPI Request

- The following parameter items must be specified, else an error condition:

- Provider Organization ID (UPI); and
- Search Option = '4'.

No other parameter item is to be specified, and will be ignored if specified for this search option.

- Search Provider Organization (SPO) Alternate Identifier Request

- The following parameter items must be specified, else an error condition:

- Alternate Identifier (root=OID of Alt ID Source; extension = Alt ID); and
- Search Option = '5'.

No other parameter item is to be specified, and will be ignored if specified for this search option.

- Search Provider Organization (SPO) Location Request

- The following parameter items must be specified, else an error condition:

- At least one of the optional elements; and
- Search Option = '6'.

- The following parameter items may be specified:

- Address – municipality name;
- Address – postal code (at a minimum, 3 first characters);
- Address – address line;
- Telephone/Fax number

No other parameter item is to be specified, and will be ignored if specified for this search option.

Search by Organization Name, Municipality, and Alternate Identifier is the case and accent insensitive. The search will return 25 results and the user has to pick one from the returned results.

The table below describes the parameter items in the HL7 v3 message.

Table 42- Message Structure (PRPM_MT996000ON)

PRPM_MT996000ON Provider Organization Search Query	Description: Entry point for Provider Organization Detail Query.	Search Provider Organization Name Request	Search Provider Organization Role Request	Search Provider Organization LHIN Request	Search Provider Organization UPI Request	Search Provider Organization Alt ID Request	Search Provider Organization Location Request
ParameterList							
alternateIdentifier [0..1] (AlternateIdentifier)							
languageOption [0..1] (LanguageOption)							
address [0..1] (Address)	Definition: Address in relation to the roleClass being queried upon Rationale: Supports the business requirement to identify the specified roleClass being queried upon						
organizationActiveIndicator [0..1] (OrganizationActiveIndicator)							
providerLHIN [0..1] (ProviderLHIN)	Definition: Specifies the LHIN Number to search on. Rationale: Allows for the retrieval of Organization providers within a specific LHIN.						
providerOrganizationID [0..1] (ProviderOrganizationID)	Definition: This is the identifier for the organization provider for which the query is searching. Multiple ids can be specified through repetition of this parameter. Rationale: Supports the business requirement to identify the specified roleClass being queried upon						
providerOrganizationName	Definition: Name in relation to						

PRPM_MT996000ON Provider Organization Search Query	Description: Entry point for Provider Organization Detail Query.	Search Provider Organization Name Request	Search Provider Organization Role Request	Search Provider Organization LHIN Request	Search Provider Organization UPI Request	Search Provider Organization Alt ID Request	Search Provider Organization Location Request
[0..1] (ProviderOrganizationName)	the roleClass being queried upon Rationale: Supports the business requirement to identify the specified roleClass being queried upon						
providerOrganizationRole [0..1] (ProviderOrganizationRole)	Definition: This parameter is constrained to values from the HealthCareProviderRoleType Rationale: Supports the business requirement to identify the specified roleClass being queried upon						
telecom [0..1] (Telecom)	Definition: Telecom in relation to the roleClass being queried upon. Rationale: Supports the business requirement to identify the specified roleClass being queried upon.						
searchOption [1..1] (SearchOption)							
AlternateIdentifier		N/A	N/A	N/A	N/A	Mandatory parameter item	N/A
value [1..1] (M) ParameterItem (II.PUBLIC)	Definition: Indicates an identifier (other than the UPI assign to the Provider Organization. E.g. Stakeholder Number (SN) assigned to the provider record by CPDB. Rationale: Allows identification of providers by secondary identification numbers.	N/A	N/A	N/A	N/A	/PRPM_IN986010ON/controlActEvent/queryByParameter/parameterList/AlternateIdentifier/value (@root & @extension)	N/A
LanguageOption		Mandatory parameter item	Mandatory parameter item	Mandatory parameter item	Mandatory parameter item	Mandatory parameter item	N/A
value [0..1] ParameterItem (CV) {CNE:D:DisplayLanguage}	Definition: Indicates the language in which the requester wishes to receive the response of the query. Rationale: Allows a requester to determine the preferred official language for the requested information.	/PRPM_IN986010ON/controlActEvent/queryByParameter/parameterList/languageOption/value@code	/PRPM_IN986010ON/controlActEvent/queryByParameter/parameterList/languageOption/value@code	/PRPM_IN986010ON/controlActEvent/queryByParameter/parameterList/languageOption/value@code	/PRPM_IN986010ON/controlActEvent/queryByParameter/parameterList/languageOption/value@code	/PRPM_IN986010ON/controlActEvent/queryByParameter/parameterList/languageOption/value@code	N/A

PRPM_MT996000ON Provider Organization Search Query	Description: Entry point for Provider Organization Detail Query.	Search Provider Organization Name Request	Search Provider Organization Role Request	Search Provider Organization LHIN Request	Search Provider Organization UPI Request	Search Provider Organization Alt ID Request	Search Provider Organization Location Request
Address	Definition: Address in relation to the roleClass being queried upon Rationale: Supports the business requirement to identify the specified roleClass being queried upon	Required parameter item – doesn’t have to be supplied by the sender, but if supplied, has to be processed by the receiver	Required parameter item – doesn’t have to be supplied by the sender, but if supplied, has to be processed by the receiver	N/A	N/A	N/A	N/A
value [1..1] (M) ParameterItem (AD.SEARCH)	Definition: The address of the organization when playing the role of healthcare provider. UsageNotes: Only city, postal code (at a minimum, 3 first characters) and address line are allowed. Address line allows wildcards. The search is also done on alternate city names, e.g. Toronto/North York/Willowdale. Rationale: Mandatory attribute supports the identification of the organization provider.	/PRPM_IN996010ON/controlActEvent/queryByParameter/parameterList/address/value The only city is allowed	/PRPM_IN996010ON/controlActEvent/queryByParameter/parameterList/address/value The only city is allowed	N/A	N/A	N/A	/PRPM_IN996010ON/controlActEvent/queryByParameter/parameterList/address/value Only city, postal code (at a minimum, 3 first characters) and address line are allowed.
OrganizationActiveIndicator		Required parameter item – doesn’t have to be supplied by the sender, but if supplied, has to be processed by the receiver	Required parameter item – doesn’t have to be supplied by the sender, but if supplied, has to be processed by the receiver	Required parameter item – doesn’t have to be supplied by the sender, but if supplied, has to be processed by the receiver	N/A	N/A	N/A
value [1..1] (M) ParameterItem (CV) {CNE:D:RoleStatus}	Definition: Organization’s active indicator/status code.	/PRPM_IN996010ON/controlActEvent/queryByParameter/parameterList/OrganizationActiveIndicator/value@code	/PRPM_IN996010ON/controlActEvent/queryByParameter/parameterList/OrganizationActiveIndicator/value@code	/PRPM_IN996010ON/controlActEvent/queryByParameter/parameterList/OrganizationActiveIndicator/value@code	N/A	N/A	N/A
ProviderLHIN	Definition: Specifies the LHIN Number to search on. Rationale: Allows for the retrieval of Organization providers within a specific LHIN.	N/A	N/A	Mandatory parameter item	N/A	N/A	N/A
value [1..1] (M) ParameterItem (ST)	Definition: Indicates that the query response is to be filtered to only include provider role	N/A	N/A	/PRPM_IN996010ON/controlActEvent/queryByParameter/paramet	N/A	N/A	N/A

PRPM_MT996000ON Provider Organization Search Query	Description: Entry point for Provider Organization Detail Query.	Search Provider Organization Name Request	Search Provider Organization Role Request	Search Provider Organization LHIN Request	Search Provider Organization UPI Request	Search Provider Organization Alt ID Request	Search Provider Organization Location Request
	addresses with the associated postal area codes within the specified LHIN. Rationale: Supports filtering for specific provider information.			erList/LHINCode/value			
ProviderOrganizationID	Definition: This is the identifier for the organization provider for which the query is searching. Multiple ids can be specified through repetition of this parameter. Rationale: Supports the business requirement to identify the specified roleClass being queried upon	N/A	N/A	N/A	Mandatory parameter item	N/A	N/A
value [1..1] (M) ParameterItem (II.PUBLIC)	Definition: A unique identifier for an organization in a specific provider role. Rationale: Allows retrieving all records associated with a particular identifier for the Provider Organization's Role.	N/A	N/A	N/A	/PRPM_IN996010ON/controlActEvent/queryByParameter/parameterList/providerOrganizationID/value@extension	N/A	N/A
ProviderOrganizationName	Definition: Name in relation to the roleClass being queried upon Rationale: Supports the business requirement to identify the specified roleClass being queried upon	Mandatory parameter item	Required parameter item – doesn’t have to be supplied by the sender, but if supplied, has to be processed by the receiver	N/A	N/A	N/A	N/A
value [1..1] (M) ParameterItem (ST)	Definition: The provider’s name pertaining to the specific healthcare provider role. UsageNotes: If language is EN, search EN names only. If language is FR, search FR names first and then if there are no results, search EN names. Allows wildcards. Rationale: Mandatory attribute supports the identification of the organization provider. Allows retrieving all records associated	/PRPM_IN996010ON/controlActEvent/queryByParameter/parameterList/organizationName/value	/PRPM_IN996010ON/controlActEvent/queryByParameter/parameterList/organizationName/value	N/A	N/A	N/A	N/A

PRPM_MT996000ON Provider Organization Search Query	Description: Entry point for Provider Organization Detail Query.	Search Provider Organization Name Request	Search Provider Organization Role Request	Search Provider Organization LHIN Request	Search Provider Organization UPI Request	Search Provider Organization Alt ID Request	Search Provider Organization Location Request
	with a particular name for a Provider Organization Role.						
ProviderOrganizationRole	Definition: This parameter is constrained to values from the HealthCareProviderRoleType Rationale: Supports the business requirement to identify the specified roleClass being queried upon	N/A	Mandatory parameter item	Required parameter item – doesn’t have to be supplied by the sender, but if supplied, has to be processed by the receiver	N/A	N/A	N/A
value [1..1] (M) ParameterItem (CV) {CNE:V:AssignedRoleType}	Definition: The code identifying the specific organization provider role. Rationale: Allows retrieving all records associated with a particular type of Provider Organization Role.	N/A	/PRPM_IN996010ON/controlActEvent/queryByParameter/parameterList/organizationRole/value@code	/PRPM_IN996010ON/controlActEvent/queryByParameter/parameterList/organizationRole/value@code	N/A	N/A	N/A
Telecom	Definition: Telecom in relation to the roleClass being queried upon. Rationale: Supports the business requirement to identify the specified roleClass being queried upon.	N/A	N/A	N/A	N/A	N/A	Required parameter item – doesn’t have to be supplied by the sender, but if supplied, has to be processed by the receiver
value [1..1] (M) ParameterItem (TEL.PHONEMAIL)	Definition: The telecom of the organization when playing the role of healthcare provider. Rationale: Mandatory attribute supports the identification of the organization provider.	N/A	N/A	N/A	N/A	N/A	/PRPM_IN996010ON/controlActEvent/queryByParameter/parameterList/telecom/value One telephone/fax number is allowed.
SearchOption		Mandatory parameter item	Mandatory parameter item	Mandatory parameter item	Mandatory parameter item	Mandatory parameter item	Mandatory parameter item
value [1..1] (M) ParameterItem (CV) {CNE:D:ProviderOrganizationSearchOptionType}	Definition: Indicates the type of provider organization search. Valid codes are: 1 - search by org name, 2 - search by org role, 3 - search by LHIN, 4 - search by UPI, 5 - search by Alt ID, 6 - search by Location. Rationale: Allows for transmitting search pattern to the back-end to	/PRPM_IN996010ON/controlActEvent/queryByParameter/parameterList/searchOption/value@code = ‘1’	/PRPM_IN996010ON/controlActEvent/queryByParameter/parameterList/searchOption/value@code = ‘2’	/PRPM_IN996010ON/controlActEvent/queryByParameter/parameterList/searchOption/value@code = ‘3’	/PRPM_IN996010ON/controlActEvent/queryByParameter/parameterList/searchOption/value@code = ‘4’	/PRPM_IN996010ON/controlActEvent/queryByParameter/parameterList/searchOption/value@code = ‘5’	/PRPM_IN996010ON/controlActEvent/queryByParameter/parameterList/searchOption/value@code = ‘6’

PRPM_MT996000ON Provider Organization Search Query	<i>Description:</i> Entry point for Provider Organization Detail Query.	Search Provider Organization Name Request	Search Provider Organization Role Request	Search Provider Organization LHIN Request	Search Provider Organization UPI Request	Search Provider Organization Alt ID Request	Search Provider Organization Location Request
	indicate required action.						

9.2 Provider Organization Search Query Response - Payload Model (PRPM_MT996100ON)

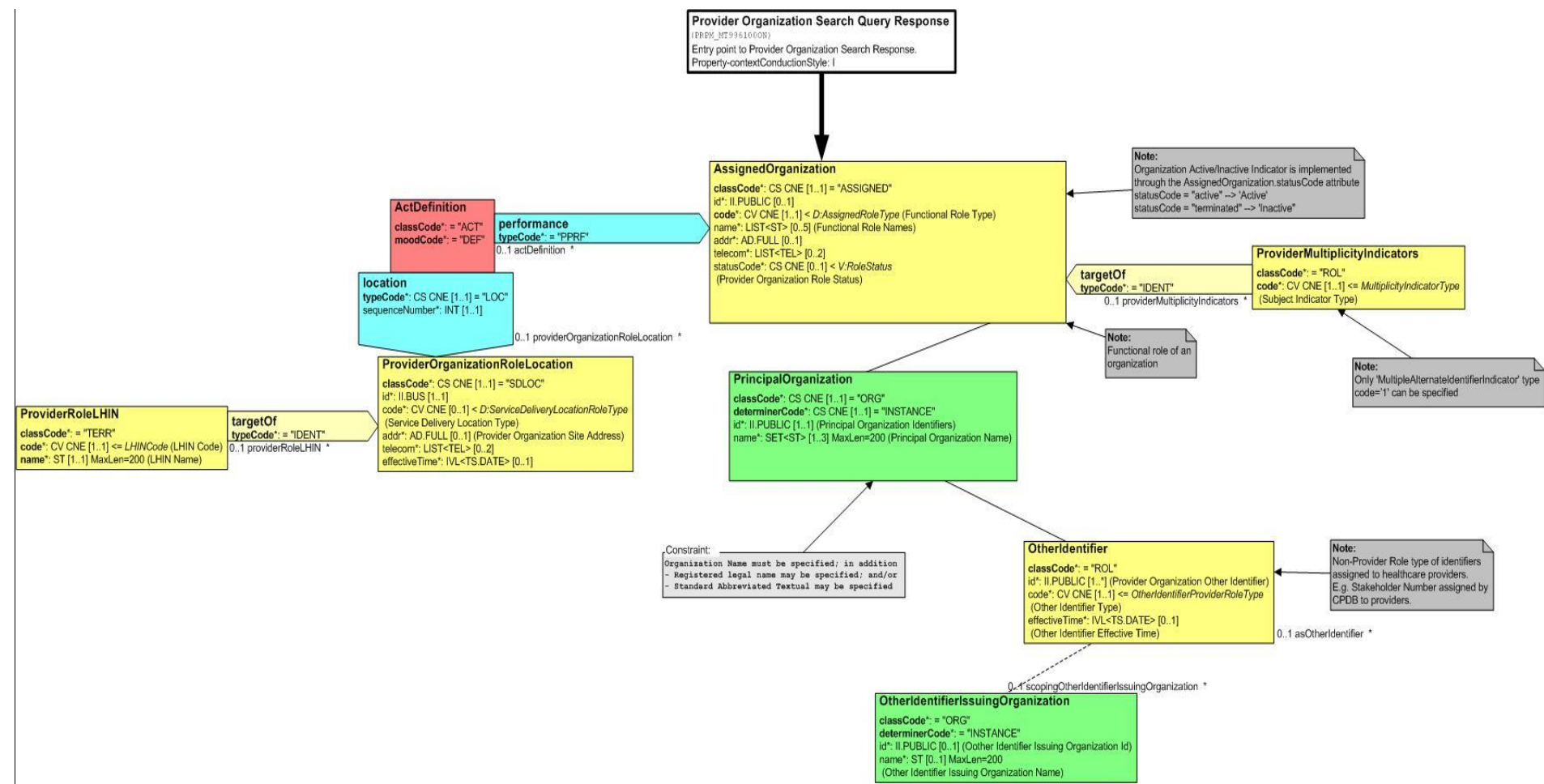


Figure 31- Provider Organization Search Query Response (PRPM_MT996100ON)

This message contains the provider organization data items that are returned to the user, in response to the search query. The comprehensiveness of the information brought back in the message will depend on the data entitlement of the type of user doing the query. Response to a search constitutes summary information, and by default, contains current information only.

Table 43- Message Structure (PRPM_MT996100ON)

PRPM_MT996100ON Provider Organization Search Query Response	<i>Description:</i> Entry point to Provider Organization Search Response.
AssignedOrganization	<i>Definition:</i> The role class, assigned entity, captures the critical information of the provider playing the role of interest. This includes an identifier for the role, mailing address, phone number, and the time within which the role is played (may be open ended). The scooping organization, which may be omitted if not needed, provides the organizational context for the entity that actually plays the role. For example, the role scoper will normally be the party that assigns the identifier for the role. <i>Rationale:</i> Roleclass required to provide additional information for the person responsible for providing healthcare services within a specific healthcare setting
classCode [1..1] (M) Role (CS) {CNE:C: RoleClass:ASSIGNED , fixed value= "ASSIGNED"}	
id [0..1] <u>Organization</u> (II.PUBLIC)	<i>Definition:</i> A unique identifier for the organization provider role. <i>UsageNotes:</i> Not in use in the current release.
code [1..1] (M) Role (CV) {CNE:V: AssignedRoleType }	<i>Definition:</i> The code identifying the specific functional role. <i>Rationale:</i> Mandatory attribute supports the identification of the healthcare provider
name [0..5] Role (LIST<ST>)	<i>Definition:</i> The provider’s name pertaining to the specific functional role. <i>UsageNotes:</i> Not in use in the current release. principalOrganization/name should be used to identify names of the Provider Organization. <i>Rationale:</i> Attribute supports the identification of the healthcare provider.
addr [0..1] Role (<u>AD.FULL</u>)	<i>Definition:</i> Address of provider organization independent of its service delivery locations. <i>Rationale:</i> Not in use in the current release.
telecom [0..2] Role (LIST<TEL.PHONEMAIL>)	<i>Definition:</i> Telephone and fax numbers of provider organization independent of its location. <i>Rationale:</i> Required attribute supports validation and identification of provider organization telecom.
statusCode [0..1] Role (CS) {CNE:D: RoleStatus }	<i>Definition:</i> Used to indicate whether or not an organization role is active. statusCode = 'active' if the organization is active in the role. statusCode = 'terminated' if the organization is inactive in the role. statusCode = "Null" if there is no information to derive 'active' or 'terminated' status.
assignedPrincipalOrganization [1..1] (PrincipalOrganization)	<i>Definition:</i> Identification of playing entity is required to support the case in which information directly related to the playing party is not needed. <i>Rationale:</i> Provides additional information about the organization playing the role of Healthcare Provider
performance [0..1] (PrimaryPerformer)	
related [0..1] (SourceOf4)	
PrincipalOrganization	<i>Definition:</i> Identification of playing entity is required to support the case in which information directly related to the playing party is not needed. <i>Rationale:</i> Provides additional information about the organization playing the role of Healthcare Provider
classCode [1..1] (M) Organization (CS) {CNE:C: EntityClass:ORG , fixed value= "ORG"}	
determinerCode [1..1] (M) Organization (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
id [1..1] Organization (II.PUBLIC)	<i>Definition:</i> A unique identifier for the organization provider who may play various healthcare provider roles. This identifier is specific to the organization, not their roles. <i>Rationale:</i> Required attribute supports the identification of the healthcare provider.

PRPM_MT996100ON Provider Organization Search Query Response	<i>Description:</i> Entry point to Provider Organization Search Response.
name [1..3] Organization (LIST<ST>)	<i>Definition:</i> The organization's name independent of any role they may play. <i>Rationale:</i> Attribute supports the identification of the healthcare provider.
asOtherIdentifier [0..1] (OtherIdentifier)	
OtherIdentifier	
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:ROL, fixed value= "ROL"}	
id [1..1] Role (II.PUBLIC)	<i>Definition:</i> An identifier, other than the UPI, assigned to an organization. <i>Rationale:</i> Mandatory attribute supports the positive identification of the provider organization.
code [1..1] Role (CV) {CNE:D:OtherIdentifierProviderRoleType}	<i>Definition:</i> The type of identifier other than a provider organization's UPI. <i>Rationale:</i> Mandatory identifier, to ensure that the type of identifier would be known.
effectiveTime [0..1] Role (IVL<TS.DATE>)	<i>Definition:</i> An interval of time specifying the period during which this alternate identifier record in the provider registry is in effect if such time limit is applicable and known. <i>UsageNotes:</i> Low value shall be populated with the alternate identifier effective date. The high value shall be populated with the date at which the alternate identifier is no longer valid. Should either low or high value is masked; the appropriate value attribute shall be replaced by a nullFlavor mask attribute. <i>Rationale:</i> Required attribute supports the identification of the provider organization alternate identifier.
scopingOtherIdentifierIssuingOrganization [0..1] (OtherIdentifierIssuingOrganization)	
OtherIdentifierIssuingOrganization	
classCode [1..1] (M) Organization (CS) {CNE:C:EntityClass:ORG, fixed value= "ORG"}	<i>UsageNotes:</i> Exclude from schemas
determinerCode [1..1] (M) Organization (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	<i>UsageNotes:</i> Exclude from schemas
id [0..1] Organization (II.PUBLIC)	
name [0..1] Organization (ST)	
PrimaryPerformer	
typeCode [1..1] (M) Participation (CS) {CNE:C:ParticipationType:PPRF, fixed value= "PPRF"}	
actDefinition [1..1] (ActDefinition)	
ActDefinition	
classCode [1..1] (M) Act (CS) {CNE:C:ActClass:ACT, fixed value= "ACT"}	
moodCode [1..1] (M) Act (CS) {CNE:C:ActMood:DEF, fixed value= "DEF"}	
location [0..1] (Location)	

PRPM_MT996100ON Provider Organization Search Query Response	<i>Description:</i> Entry point to Provider Organization Search Response.
Location	
typeCode [1..1] (M) Participation (CS) {CNE:C: ParticipationType:LOC , fixed value= "LOC"}	
sequenceNumber [1..1] Participation (INT.POS)	<i>Definition:</i> Allows each Service Delivery Location to be sequentially listed. <i>UsageNotes:</i> Not in use in the current release.
providerOrganizationRoleLocation [1..1] (ProviderOrganizationRoleLocation)	
ProviderOrganizationRoleLocation	
classCode [1..1] (M) Role (CS) {CNE:C: RoleClass:SDLOC , fixed value= "SDLOC"}	
id [1..1] Role (II.BUS)	<i>Definition:</i> A unique identifier for the service delivery location. <i>Rationale:</i> Required attribute supports the validation and identification of the service delivery location.
code [0..1] Role (CV) {CNE:V: ServiceDeliveryLocationRoleType }	<i>Definition:</i> A code denoting the type of location for the provider organization. <i>UsageNotes:</i> Always “P” – Primary in the current release of Search Response. <i>Rationale:</i> Required attribute to support provider organization identification. Assignment of code to the SDL is based on the locationRoleType from the backend.
addr [0..1] Role (AD.FULL)	<i>Definition:</i> The business address of the provider organization.
telecom [0..2] Role (LIST<TEL>)	<i>Definition:</i> Telephone and fax numbers of provider organization related to a specific location. <i>Rationale:</i> Required attribute supports validation and identification of provider organization telecom.
effectiveTime [0..1] Role (IVL<TS.DATE>)	<i>Definition:</i> An interval of time specifying the period during which this service delivery location record in the provider registry is in effect if such time limit is applicable and known. <i>UsageNotes:</i> Not in use in the current release.
related [0..1] (SourceOf)	
SourceOf	
typeCode [1..1] (M) RoleLink (CS) {CNE:C: RoleLinkType:IDENT , fixed value= "IDENT"}	
providerRoleLHIN [1..1] (ProviderRoleLHIN)	
ProviderRoleLHIN	
classCode [1..1] (M) Role (CS) {CNE:C: RoleClass:TERR , fixed value= "TERR"}	
code [1..1] (M) Role (CV) {CNE:D: LHINCode }	<i>Definition:</i> A coded value denoting the LHIN of the provider organization business location. <i>Rationale:</i> Supports location identification of the provider organization.
name [1..1] (M) Role (ST)	<i>Definition:</i> The name of the LHIN corresponding to the LHIN Number. <i>Rationale:</i> Supports location identification of the provider organization.
SourceOf4	

PRPM_MT996100ON Provider Organization Search Query Response	<i>Description:</i> Entry point to Provider Organization Search Response.
typeCode [1..1] (M) RoleLink (CS) {CNE:C:RoleLinkType:IDENT, fixed value= "IDENT"}	
providerMultiplicityIndicators [1..1] (ProviderMultiplicityIndicators)	
ProviderMultiplicityIndicators	
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:ROL, fixed value= "ROL"}	
code [1..1] (M) Role (CV) {CNE:D:MultiplicityIndicatorType}	<i>Definition:</i> A coded value denoting provider alternate identifier as the subject for the multiplicity indicator: 1 – Multiple Alternate Identifier Indicator. <i>Rationale:</i> Allows for distinguishing different types of multiplicity indicators.

10.0 Provider Organization Detail Interface

This message is sent to retrieve detailed information about a provider based on a single query parameter, i.e. the Provider UPI. The message can be sent in and on its own, without first having employed the ‘Search Query’ message to retrieve summary information about the provider.

10.1 Provider Organization Detail Query - Payload Model (PRPM_MT406000ON)

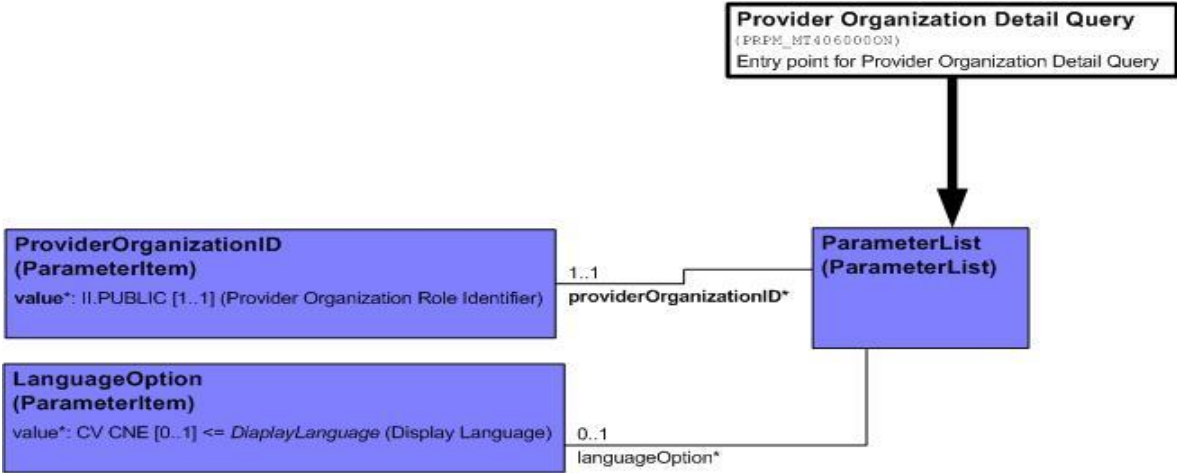


Figure 42- Provider Organization Detail Query (PRPM_MT406000ON)

Table 44 Message Structure (PRPM_MT406000ON)

PRPM_MT406000ON	Description: Entry point for Provider Organization Detail Query
Provider Organization Detail Query	
ParameterList	
languageOption [0..1] (LanguageOption)	
providerOrganizationID [1..1] (ProviderOrganizationID)	Definition: This is the identifier for the organization provider for which the query is searching. Multiple ids can be specified through repetition of this parameter. Rationale: Supports the business requirement to identify the specified roleClass being queried upon
LanguageOption	
value [0..1] ParameterItem (CV) {CNE:D:DisplayLanguage}	Definition: Indicates the language in which the requester wishes to receive the response of the query. Rationale: Allows a requester to determine the preferred official language for the requested information.
ProviderOrganizationID	Definition: This is the identifier for the organization provider for which the query is searching. Multiple ids can be specified through repetition of this parameter.

PRPM_MT406000ON Provider Organization Detail Query	<i>Description:</i> Entry point for Provider Organization Detail Query
	<i>Rationale:</i> Supports the business requirement to identify the specified roleClass being queried upon
value [1..1] (M) ParameterItem (II.PUBLIC)	<i>Definition:</i> A unique identifier for an organization in a specific provider role. <i>Rationale:</i> Allows retrieving all records associated with a particular identifier for the Provider Organization's Role.

10.2 Provider Organization Detail Query Response - Payload Model (PRPM_MT406100ON)

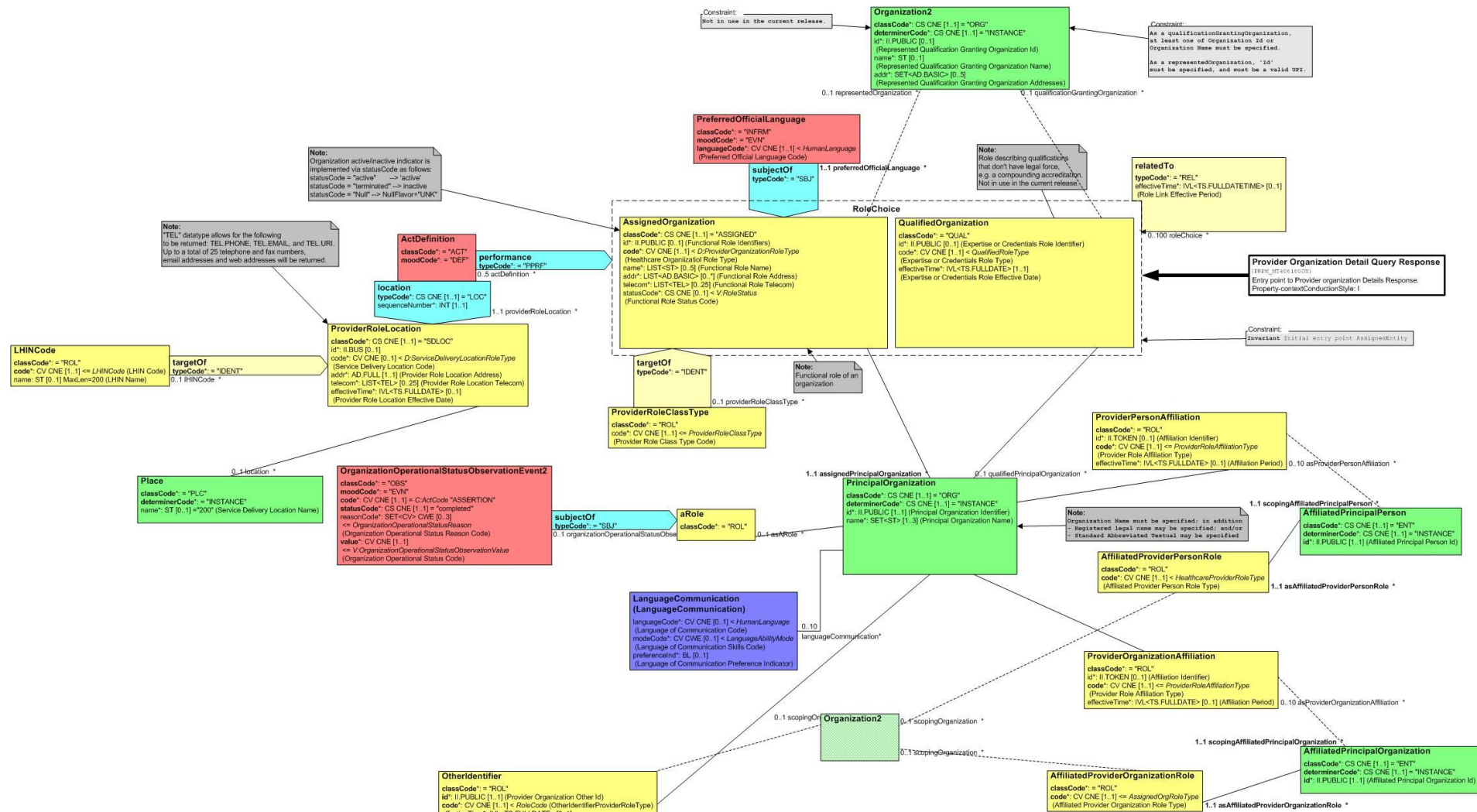


Figure 53- Provider Organization Detail Query Response (PRPM_MT406100ON)

This message contains the provider organization data items that are returned to the user, in response to the detail query message. Response to a detail query constitutes the full complement of provider organization data as defined in the Provider Registry functional specifications. The comprehensive of the information brought back in the message will depend on the data entitlement of the type of user doing the query. Response to a detail comprises current and history information as appropriate.

Table 45 Message Structure (PRPM_MT406100ON)

PRPM_MT406100ON Provider Organization Detail Query Response	<i>Description:</i> Entry point to Provider organization Details Response.
RoleChoice	
performance [0..5] (PrimaryPerformer)	
relatedTo [0..100] (RelatedTo)	
choice of AssignedOrganization	<i>Definition:</i> The role class, assigned entity, captures the critical information of the provider playing the role of interest. This includes an identifier for the role, mailing address, phone number, and the time within which the role is played (may be open ended). The scooping organization, which may be omitted if not needed, provides the organizational context for the entity that actually plays the role. For example, the role scoper will normally be the party that assigns the identifier for the role. <i>Rationale:</i> Roleclass required to provide additional information for the person responsible for providing healthcare services within a specific healthcare setting
or QualifiedOrganization	<i>Definition:</i> This role describes specific qualifications that may be held the provider organization as a result of training or experience, but having no legal force. Example: certificate in diabetes counseling. The current model does not include role attributes such as name, addr and telecom because there are no known use cases in this domain where this role is contactable. <i>UsageNotes:</i> Not in use in the current release. <i>Rationale:</i> Roleclass required to provide additional information for the provider organization.
PrimaryPerformer	
typeCode [1..1] (M) Participation (CS) {CNE:C: ParticipationType:PPRF , fixed value= "PPRF"}	
actDefinition [1..1] (ActDefinition)	
ActDefinition	
classCode [1..1] (M) Act (CS) {CNE:C: ActClass:ACT , fixed value= "ACT"}	
moodCode [1..1] (M) Act (CS) {CNE:C: ActMood:DEF , fixed value= "DEF"}	
location [1..1] (Location)	
Location	
typeCode [1..1] (M) Participation (CS) {CNE:C: ParticipationType:LOC , fixed value= "LOC"}	
sequenceNumber [1..1] Participation (INT.POS)	<i>Definition:</i> Allows each Service Delivery Location to be sequentially listed. <i>UsageNotes:</i> Not in use in the current release.
providerRoleLocation [1..1] (ProviderRoleLocation)	
ProviderRoleLocation	
classCode [1..1] (M) Role (CS) {CNE:C: RoleClass:SDLOC , fixed value= "SDLOC"}	
id [0..1] Role (IL.BUS)	<i>Definition:</i> A unique identifier for the service delivery location. <i>Rationale:</i> Required attribute supports the validation and identification of the service delivery location.

PRPM_MT406100ON Provider Organization Detail Query Response	<i>Description:</i> Entry point to Provider organization Details Response.
code [0..1] Role (CV) {CNE:V:ServiceDeliveryLocationRoleType}	<i>Definition:</i> The code identifying the specific operational (service delivery) location. <i>Rationale:</i> Required attribute supports the validation and identification of provider organization location.
addr [1..1] Role (AD.FULL)	<i>Definition:</i> The business address of the provider organization. <i>UsageNotes:</i> The 'use' attribute shall be populated with a type (WP, PST), with (optionally) additional indicators (BAD, CONF). The following data elements shall be present: unitId, houseNumberNumeric, buildingNumberSuffix, streetNameBase, streetNameType, direction, additionalLocator, streetAddressLine (up to 4 occurrences), city, state code, state text, postalCode, country code, country text. Address elements shall have delimiter tags indicating natural line breaks. Further address information will be captured within the addr element as delimited text; including delivery installation, PO BOX, and route service address information. Masked 'use' codes shall not be present, and masked addresses shall be represented by nullFlavor mask attribute. Street Address Lines may be a concatenation of the parsed address parts (unitId, houseNumberNumeric, buildingNumberSuffix, streetNameBase, streetNameType, direction, additionalLocator). Should country code not be recognized, the country code attribute shall be replaced by a nullFlavor unknown attribute. <i>Rationale:</i> Populated attribute supports validation and identification of address of provider organization location.
telecom [0..25] Role (LIST<TEL>)	<i>Definition:</i> Telephone and fax numbers, email and web addresses of provider organization location. <i>UsageNotes:</i> Telephone and fax numbers, email and web address shall be supported. Telecom use code shall consist of a type (e.g. 'WP' - Workplace), optionally followed by 'BAD' (Invalid), 'CONF' (Confidential). Format of telephone/fax number value shall be 'tel:' or 'fax:' + (optionally) country calling code (Len 6) & area code (Len 3) & local number (Len 7) & (optionally for telephone numbers) extension (Len 6). The format of email address value shall be “ mail to: ” + email address (up to 100 characters). The format of web address value shall be “ http:// ” or “ https:// ” or “ file:// ” or “ nfs:// ” or “ ftp:// ” + web address (up to 255 characters). The system shall support multiple use codes. SpecializationType attribute shall distinguish between telephone/fax, email, and web address. If masked, the specializationType shall be present and a nullFlavor mask shall be present. <i>Rationale:</i> Required attribute supports validation and identification of provider organization telecom.
effectiveTime [0..1] Role (IVL<TS.FULLDATE>)	<i>Definition:</i> An interval of time specifying the period during which this provider role location record in the provider registry is in effect if such time limit is applicable and known <i>UsageNotes:</i> Low value shall be populated with the location registry date. The high value shall be populated with the date at which the is no longer valid. Should either low or high value is masked; the appropriate value attribute shall be replaced by a nullFlavor mask attribute. <i>Rationale:</i> Required attribute supports the identification of the provider role location.
location [0..1] (Place)	
related [0..1] (SourceOf)	
Place	
classCode [1..1] (M) Place (CS) {CNE:C:EntityClass:PLC, fixed value= "PLC"}	
determinerCode [1..1] (M) Place (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	
name [0..1] Place (ST){fixed value= "200"}	
SourceOf	
typeCode [1..1] (M) RoleLink (CS) {CNE:C:RoleLinkType:IDENT, fixed value= "IDENT"}	

PRPM_MT406100ON Provider Organization Detail Query Response	<i>Description:</i> Entry point to Provider organization Details Response.
IHINCode [1..1] (LHINCode)	
LHINCode	
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:ROL, fixed value= "ROL"}	
code [1..1] (M) Role (CV) {CNE:D:LHINCode}	<i>Definition:</i> A coded value indicating a specific jurisdiction of health information network within Ontario. <i>Rationale:</i> Support jurisdictional nature of health service planning and delivery in Ontario.
name [0..1] Role (ST)	<i>Definition:</i> The name associated with the LHIN number/code <i>Rationale:</i> Allows for a health jurisdiction to be referenced by name.
RelatedTo	
typeCode [1..1] (M) RoleLink (CS) {CNE:C:RoleLinkType:REL, fixed value= "REL"}	
effectiveTime [0..1] RoleLink (IVL<TS.FULLDATETIME>)	<i>Definition:</i> An interval of time specifying the period during which this role linkage is in effect if such time limit is applicable and known. <i>Rationale:</i> Helps in determining the applicability of role linkage.
roleChoice [1..1] (RoleChoice)	
AssignedOrganization	<i>Definition:</i> The role class, assigned entity, captures the critical information of the provider playing the role of interest. This includes an identifier for the role, mailing address, phone number, and the time within which the role is played (may be open ended). The scooping organization, which may be omitted if not needed, provides the organizational context for the entity that actually plays the role. For example, the role scoper will normally be the party that assigns the identifier for the role. <i>Rationale:</i> Roleclass required to provide additional information for the person responsible for providing healthcare services within a specific healthcare setting
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:ASSIGNED, fixed value= "ASSIGNED"}	
id [0..1] Role (II.PUBLIC)	<i>Definition:</i> Identifies specific functional role that a provider organization may play within an organization. <i>Rationale:</i> Populated attribute supports the identification of the provider organization
code [1..1] (M) Role (CV) {CNE:D:ProviderOrganizationRoleType}	<i>Definition:</i> The code identifying the specific functional role for an organization provider. <i>Rationale:</i> Mandatory attribute supports the identification of the healthcare provider
name [0..5] Role (LIST<ST>)	<i>Definition:</i> The provider's name pertaining to the specific functional role. <i>UsageNotes:</i> Not in use in the current release. PrincipalOrganization/name should be used to identify names of the Provider Organization. <i>Rationale:</i> Required attribute supports the identification of the healthcare provider
addr [0..1] Role (LIST<AD.BASIC>)	<i>Definition:</i> Address of the provider when playing the functional role. <i>UsageNotes:</i> Not in use in the current release. Use provider role location address instead. <i>Rationale:</i> Required attribute supports the identification of the healthcare provider.
telecom [0..25] Role (LIST<TEL>)	<i>Definition:</i> Telecom of the provider when playing the functional role. <i>UsageNotes:</i> Telephone and fax numbers, email and web address shall be supported. Telecom use code shall consist of a type (e.g. 'WP' - Workplace), optionally followed by 'BAD' (Invalid), 'CONF' (Confidential). Format of telephone/fax number value shall be 'tel:' or 'fax:' + (optionally) country calling code (Len 6) & area code (Len 3) & local number (Len 7) & (optionally for telephone numbers) extension (Len 6). The format of email address value shall be " mail to: " + email address (up to 100 characters). The format of web

PRPM_MT406100ON Provider Organization Detail Query Response	<i>Description:</i> Entry point to Provider organization Details Response.
	address value shall be “ http:// ” or “ https:// ” or “ file:// ” or “ nfs:// ” or “ ftp:// ” + web address (up to 255 characters). The system shall support multiple use codes. SpecializationType attribute shall distinguish between telephone/fax, email, and web address. If masked, the specializationType shall be present and a nullFlavor mask shall be present. <i>Rationale:</i> Required attribute supports the identification of the healthcare provider.
statusCode [0..1] Role (CS) {CNE:D:RoleStatus}	<i>Definition:</i> The status of the provider organization in the functional role i.e. Active <i>Rationale:</i> Required attribute supports the identification of the provider organization.
assignedPrincipalOrganization [1..1] (PrincipalOrganization)	<i>Definition:</i> Identification of playing entity is required to support the case in which information directly related to the playing party is not needed. <i>Rationale:</i> Provides additional information about the organization playing the role of Healthcare Provider
representedOrganization [0..1] (Organization2)	<i>UsageNotes:</i> Not in use in the current release.
subjectOf [1..1] (Subject)	
related [0..1] (SourceOf4)	
<i>Inherits associations from RoleChoice</i>	
PrincipalOrganization	<i>Definition:</i> Identification of playing entity is required to support the case in which information directly related to the playing party is not needed. <i>Rationale:</i> Provides additional information about the organization playing the role of Healthcare Provider
classCode [1..1] (M) Organization (CS) {CNE:C:EntityClass:ORG, fixed value= "ORG"}	
determinerCode [1..1] (M) Organization (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	
id [1..1] Organization (II.PUBLIC)	<i>Definition:</i> A unique identifier for the principal organization that is playing the functional role. This identifier is specific to the organization, not their roles. <i>UsageNotes:</i> Queried provider organization UPI shall be returned. If masked, the root and extension attributes shall be replaced by a nullFlavor mask attribute. <i>Rationale:</i> Populated attribute supports the identification of the provider organization.
name [1..3] Organization (LIST<ST>)	<i>Definition:</i> The organization's name independent of any role they may play. <i>UsageNotes:</i> If masked, the name attribute shall be replaced by a nullFlavor mask attribute. <i>Rationale:</i> Required attribute supports the identification of the healthcare provider
asOtherIdentifier [0..5] (OtherIdentifier)	
asProviderOrganizationAffiliation [0..10] (ProviderOrganizationAffiliation)	
asProviderPersonAffiliation [0..10] (ProviderPersonAffiliation)	
asaRole [0..1] (aRole)	
languageCommunication [0..10] (LanguageCommunication)	
OtherIdentifier	
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:ROL, fixed value= "ROL"}	

PRPM_MT406100ON Provider Organization Detail Query Response	<i>Description:</i> Entry point to Provider organization Details Response.
id [1..1] (M) Role (II.PUBLIC)	<i>Definition:</i> Identification number, other than the provider organization's registration number. <i>Rationale:</i> Additional information that may be used to positively identify a provider organization.
code [1..1] (M) Role (CV) {CNE:D:RoleCode}	<i>Definition:</i> The type of identifier other than a provider organization's UPI. <i>Rationale:</i> Mandatory identifier, to ensure that the type of identifier would be known.
effectiveTime [0..1] Role (IVL<TS.FULLDATE>)	<i>Definition:</i> The start and end date for the other identifier. <i>Rationale:</i> Helps establish the validity of the identifier.
scopingOrganization [0..1] (Organization2)	<i>Definition:</i> The scoping organization for the specified role class <i>Rationale:</i> Supports the requirement to supply additional information regarding the Qualification Granting Organization of the specified RoleClass
Organization2 [Constraint: "As a representedOrganization, 'Id' must be specified, and must be a valid UPI." [Constraint: "As a qualificationGrantingOrganization, at least one of Organization Id or Organization Name must be specified"]	<i>Definition:</i> The scoping organization for the specified role class. <i>UsageNotes:</i> Not in use in the current release. <i>Rationale:</i> Supports the requirement to supply additional information regarding the Qualification Granting Organization of the specified RoleClass.
classCode [1..1] (M) Organization (CS) {CNE:C:EntityClass:ORG, fixed value= "ORG"}	<i>UsageNotes:</i> Excluded from schema
determinerCode [1..1] (M) Organization (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	<i>UsageNotes:</i> Excluded from schema
id [0..1] Organization (II.PUBLIC)	<i>Definition:</i> Unique identifier for the organization that granted the qualification to the specified roleClass identifier. <i>Rationale:</i> Attribute supports the validation and identification of the scoping organization assigning the id to the specified roleClass
name [0..1] Organization (ST)	<i>Definition:</i> Name of the Organization that grants the qualifications or expertise. <i>Rationale:</i> Required attribute supports the validation and identification of the organization provider.
addr [0..5] Organization (SET<AD.BASIC>)	<i>Definition:</i> Address for the Qualification Granting Organization <i>Rationale:</i> Required attribute supports the validation and identification of the organization provider.
ProviderOrganizationAffiliation	
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:ROL, fixed value= "ROL"}	
id [0..1] Role (II.TOKEN)	
code [1..1] (M) Role (CV) {CNE:D:ProviderRoleAffiliationType}	
effectiveTime [0..1] Role (IVL<TS.FULLDATE>)	
scopingAffiliatedPrincipalOrganization [1..1] (AffiliatedPrincipalOrganization)	
AffiliatedPrincipalOrganization	
classCode [1..1] (M)	

PRPM_MT406100ON Provider Organization Detail Query Response	<i>Description:</i> Entry point to Provider organization Details Response.
Entity (CS) {CNE:C:EntityClass:ENT, fixed value= "ENT"}	
determinerCode [1..1] (M) Entity (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	
id [1..1] (M) Entity (II.PUBLIC)	<i>Definition:</i> The UPI of the affiliated provider organization. <i>Rationale:</i> Mandatory attribute to support specifying provider organization to organization affiliation.
asAffiliatedProviderOrganizationRole [1..1] (AffiliatedProviderOrganizationRole)	
AffiliatedProviderOrganizationRole	
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:ROL, fixed value= "ROL"}	
code [1..1] (M) Role (CV) {CNE:D:AssignedOrgRoleType}	<i>Definition:</i> A coded value indicating the role of the provider organization in the affiliation. <i>Rationale:</i> Mandatory attribute to support specifying provider organization to organization affiliation.
scopingOrganization [0..1] (Organization2)	<i>UsageNotes:</i> Not in use in the current release.
ProviderPersonAffiliation	
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:ROL, fixed value= "ROL"}	
id [0..1] Role (II.TOKEN)	
code [1..1] (M) Role (CV) {CNE:D:ProviderRoleAffiliationType}	<i>Definition:</i> A coded value indicating the type of affiliation between the provider organization and the healthcare provider person. <i>Rationale:</i> Allows distinguishing different kinds of affiliation
effectiveTime [0..1] Role (IVL<TS.FULLDATE>)	<i>Definition:</i> An interval of time specifying the period during which this affiliation record is in effect if such time limit is applicable and known <i>Rationale:</i> Required attribute supports the identification of provider person affiliation.
scopingAffiliatedPrincipalPerson [1..1] (AffiliatedPrincipalPerson)	
AffiliatedPrincipalPerson	
classCode [1..1] (M) Entity (CS) {CNE:C:EntityClass:ENT, fixed value= "ENT"}	
determinerCode [1..1] (M) Entity (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	
id [1..1] (M) Entity (II.PUBLIC)	<i>Definition:</i> The UPI of the affiliated healthcare provider person. <i>Rationale:</i> Mandatory attribute to support specifying provider organization to person affiliation.
asAffiliatedProviderPersonRole [1..1] (AffiliatedProviderPersonRole)	
AffiliatedProviderPersonRole	
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:ROL, fixed value= "ROL"}	
code [1..1] (M)	<i>Definition:</i> A coded value indicating the role of the provided person in the affiliation.

PRPM_MT406100ON Provider Organization Detail Query Response	<i>Description:</i> Entry point to Provider organization Details Response.
Role (CV) {CNE:V:HealthCareProviderRoleType}	<i>Rationale:</i> Mandatory attribute to support specifying provider organization to person affiliation.
scopingOrganization [0..1] (Organization2)	<i>UsageNotes:</i> Not in use in the current release.
aRole	
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:ROL, fixed value= "ROL"}	
subjectOf [0..1] (Subject3)	
Subject3	
typeCode [1..1] (M) Participation (CS) {CNE:C:ParticipationType:SBJ, fixed value= "SBJ"}	
organizationOperationalStatusObservationEvent [1..1] (OrganizationOperationalStatusObservationEvent2)	
OrganizationOperationalStatusObservationEvent2	
classCode [1..1] (M) Observation (CS) {CNE:C:ActClass:OBS, fixed value= "OBS"}	
moodCode [1..1] (M) Observation (CS) {CNE:C:ActMood:EVN, fixed value= "EVN"}	
code [1..1] (M) Observation (CV) {CNE:C:ActCode:ASSERTION, fixed value= "ASSERTION"}	
statusCode [1..1] (M) Observation (CS) {CNE:C:ActStatus:completed, fixed value= "completed"}	
reasonCode [0..3] Observation (SET<CV>) {CWE:D:OrganizationOperationalStatusReason}	
value [1..1] (M) Observation (CV) {CNE:V:OrganizationOperationalStatusObservationValue}	<i>Definition:</i> Indicates the operational states of the organization, not specific to any role that the organization may be playing. <i>Rationale:</i> a Mandatory attribute that may determine the organization's ability to play any specific role in the health system.
LanguageCommunication	
languageCode [0..1] LanguageCommunication (CV) {CNE:D:HumanLanguage}	<i>Definition:</i> A code indicating the language of communication <i>UsageNotes:</i> If the code is masked, then the code attribute shall not be present and shall be replaced by a nullFlavor mask attribute. <i>Rationale:</i> Populated attribute conveying the expected language message elements are to be transmitted in
modeCode [0..1] LanguageCommunication (CV) {CWE:D:LanguageAbilityMode}	
preferenceInd [0..1] LanguageCommunication (BL)	<i>Definition:</i> Indicates the preferred language for all communications. <i>UsageNotes:</i> Should the indicator be masked, the value shall not be present, and a nullFlavor mask attribute shall be populated <i>Rationale:</i> Required attribute that supports the business requirement to indicate the preferred language for all communications
Subject	
typeCode [1..1] (M) Participation (CS) {CNE:C:ParticipationType:SBJ, fixed value= "SBJ"}	

PRPM_MT406100ON Provider Organization Detail Query Response	<i>Description:</i> Entry point to Provider organization Details Response.
preferredOfficialLanguage [1..1] (PreferredOfficialLanguage)	<i>Definition:</i> Indicates the preferred Ontario official language for formal communication.
PreferredOfficialLanguage	<i>Definition:</i> Indicates the preferred Ontario official language for formal communication.
classCode [1..1] (M) Act (CS) {CNE:C: ActClass :INFRM, fixed value= "INFRM"}	
moodCode [1..1] (M) Act (CS) {CNE:C: ActMood :EVN, fixed value= "EVN"}	
languageCode [1..1] (M) Act (CV) {CNE:D: HumanLanguage }	<i>Definition:</i> Indicates either 'English' or 'French' as the language in which the provider wishes to communicate with the health system. <i>UsageNotes:</i> Official Language codes for English or French only. If masked, the code shall be replaced with a nullFlavor attribute. <i>Rationale:</i> A Mandatory attribute that represents the preferred Ontario official language for formal communication.
SourceOf4	
typeCode [1..1] (M) RoleLink (CS) {CNE:C: RoleLinkType :IDENT, fixed value= "IDENT"}	
providerRoleClassType [1..1] (ProviderRoleClassType)	
ProviderRoleClassType	
classCode [1..1] (M) Role (CS) {CNE:C: RoleClass :ROL, fixed value= "ROL"}	
code [1..1] Role (CV) {CNE:D: ProviderRoleClassType }	
QualifiedOrganization	<i>Definition:</i> This role describes specific qualifications that may be held the provider organization as a result of training or experience, but having no legal force. Example: certificate in diabetes counseling. The current model does not include role attributes such as name, addr and telecom because there are no known use cases in this domain where this role is contactable. <i>UsageNotes:</i> Not in use in the current release. <i>Rationale:</i> Roleclass required providing additional information for the provider organization.
classCode [1..1] (M) QualifiedEntity (CS) {CNE:C: RoleClass :QUAL, fixed value= "QUAL"}	
id [0..1] QualifiedEntity (II.PUBLIC)	<i>Definition:</i> Unique identifier for the Expertise or Credential. <i>Rationale:</i> Required attribute supports the identification of the healthcare provider credentials
code [1..1] QualifiedEntity (CV) {CNE:V: QualifiedRoleType }	<i>Definition:</i> A code signifying the rank that the credential specifies. May also apply to an Expertise type. <i>UsageNotes:</i> If Expertise or Credentials are included in the message, then Role Type Must Exist. <i>Rationale:</i> Populated attribute supports the identification of the provider organization expertise.
effectiveTime [1..1] QualifiedEntity (IVL<TS.FULLDATE>)	<i>Definition:</i> The effective date of the provider organization expertise. <i>UsageNotes:</i> If Expertise or Credentials are included in the message, then Role Effective Date must exist <i>Rationale:</i> Populated attribute supports the identification of the provider organization expertise.
qualifiedPrincipalOrganization [0..1] (PrincipalOrganization)	
qualificationGrantingOrganization [0..1] (Organization2)	
<i>Inherits associations from RoleChoice</i>	

11.0 Wrappers

11.1 Transmission Wrappers

This section describes requirements for transmission wrappers. The wrapper may be used in multiple interactions. Refer to Transactions and Interactions section for detailed information applicable to message wrappers for the target interaction.

11.1.1 Request Transport Wrapper (MCCI_MT002100CA)

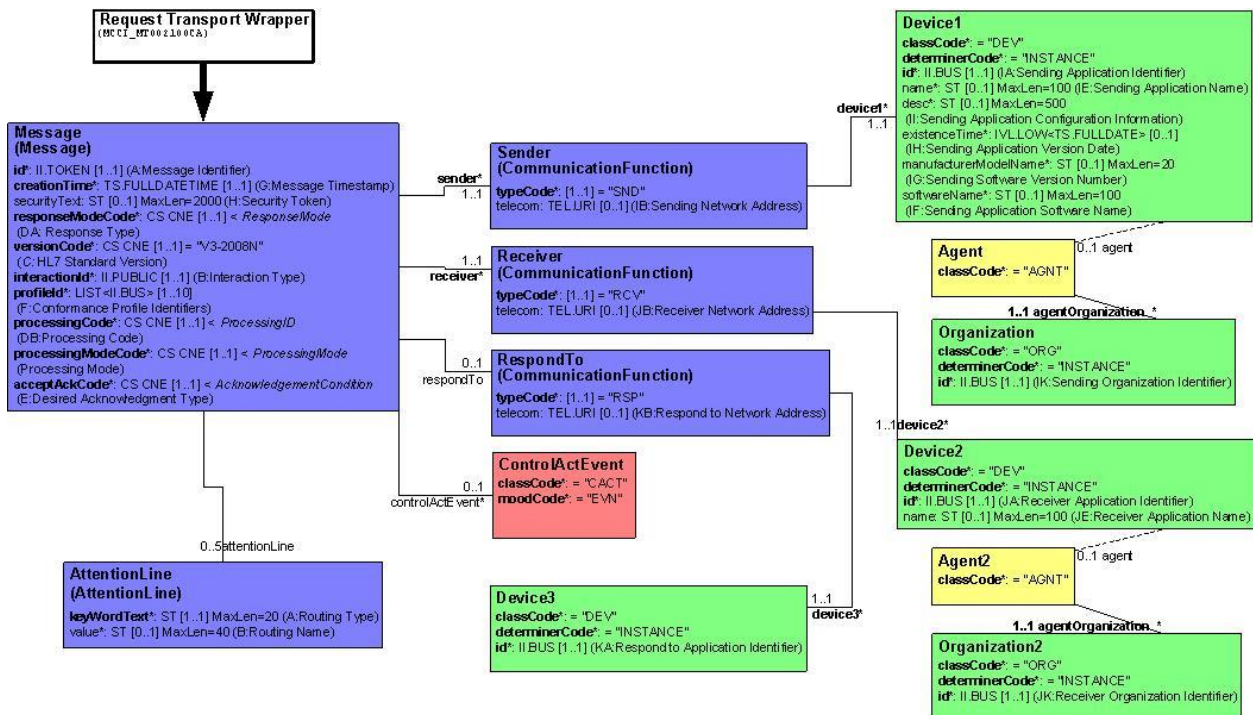


Figure 14 - Request Transport Wrapper (MCCI_MT002100CA) Refined Message Information Model

Table 46 Request Transport Wrapper HMD

MCCI_MT002100CA Request Transport Wrapper	Documentation
Message	Design Comments: The root class of all messages. Rationale: Conveys information about the interaction and how it is to be processed
id [1..1] (M) <u>Message (II.TOKEN)</u>	Design Comments: A unique identifier for the message. Rationale: Allows detection of duplicate messages, and allows tying acknowledgments to the message they are acknowledging. The attribute is, therefore, mandatory. Mapping: soap:Header\wsa:MessageID
creationTime [1..1] (M) <u>Message (TS.FULLDATETIME)</u>	Design Comments: Indicates the time this particular message instance was constructed. Rationale: Allows identification of how current the information in a message is. Also, provides a baseline for identifying the time-zone of other times within the message. As a

	result, the attribute is mandatory. Notes: The format shall be UTC local time.
securityText [0..1] <u>Message (ST)</u>	Design Comments: A locally-defined field used to maintain a session, identify a user, and/or perform some other function related to authenticating the message source. Rationale: Allows jurisdictions and applications to communicate authentication and session information. The attribute is optional because not all jurisdictions will require this capability.
responseModeCode [1..1] (M) <u>Message (CS) {CNE:D:<u>ResponseMode</u>}</u>	Design Comments: Identifies whether the application level response is desired immediately (as a direct acknowledgment), on a deferred basis (as a subsequent independent interaction) or via queue using polling. Rationale: Essential to determining receiver behavior and therefore mandatory. Notes: Only Supports immediate response for the initial release.
versionCode [1..1] (M) <u>Message (CS) {CNE:C:<u>HL7StandardVersionCode</u>:V3-2008N, fixed value= "V3-2008N"}</u>	Design Comments: Indicates the version of the messaging standard being referenced. Rationale: Needed to know how to validate message definition, CMET definition, vocabulary and other information and is, therefore, mandatory. Mapping: soap:Header\wsa:To\ (portion between last “\” and second-last “\”)
interactionId [1..1] (M) <u>Message (II.PUBLIC)</u>	Design Comments: Indicates the interaction conveyed by this message. Rationale: Identifies what the receiving application should do, and how the message should be validated. The attribute is, therefore, mandatory. Mapping: soap:Header\wsa:Action (after “urn:hl7-org:v3:” and before the second underscore, if any)
profileId [1..10] (M) <u>Message (LIST<II.BUS>)</u>	Design Comments: Identifies the conformance profile(s) this message complies with. Rationale: Indicates any additional validation that may be appropriate. Also, influences what extensions can be processed.
processingCode [1..1] (M) <u>Message (CS) {CNE:D:<u>ProcessingID</u>}</u>	Design Comments: Indicates whether this message is intended to be processed as production, test or debug message. Rationale: Indicates how the message should be handled and is, therefore, mandatory.
processingModeCode [1..1] (M) <u>Message (CS) {CNE:D:<u>ProcessingMode</u>}</u>	Design Comments: This attribute defines whether the message is being sent in current processing, archive mode, initial load mode, restore from archive mode Rationale: Describes the mode of processing. For example current processing, archive mode, initial load mode, restore from archive mode.
acceptAckCode [1..1] (M) <u>Message (CS) {CNE:D:<u>AcknowledgementCondition</u>}</u>	Design Comments: Indicates how the message is expected to be acknowledged. Usage Notes: When using SOAP, this attribute MUST be set to NE (Never). (Accept acknowledgements are handled via the transport protocol, not HL7.) Rationale: Provides support for immediate, deferred and polling mode and distinguishes which mode is desired. The attribute is, therefore, mandatory.
receiver [1..1] (<u>Receiver</u>)	
respondTo [0..1] (<u>RespondTo</u>)	Design Comments: Indicates the system that should receive the response to this interaction. Used when different from the sender of the original interaction. Rationale: In complex routing environments, the acknowledgements may need to be sent to a system other than the one which constructed the original message. This association is optional because not all environments will support responses to systems other than the original sender.
sender [1..1] (<u>Sender</u>)	
attentionLine [0..5] (<u>AttentionLine</u>)	Design Comments: Provides information on how the message should be routed within the receiving application. Rationale: Allows direction of messages within complex applications. This association is

	optional because not all applications will require this level of routing.
controlActEvent [0..1] (Stub "ControlActEvent")	Design Comments: The ControlActProcess represents the trigger event control act. .
Receiver	
typeCode [1..1] (M) CommunicationFunction (CS) {CNE:C: CommunicationFunctionType:RCV , fixed value= "RCV"}	
telecom [0..1] CommunicationFunction (TEL.URI)	Design Comments: The address to which this message is being sent. Rationale: Indicates where the message should be sent. This is optional because not all environments require network addresses. It is mandatory when communicating using SOAP. Mapping: soap:Header\wsa:To
device [1..1] (Device2)	
Device2	
classCode [1..1] (M) Device (CS) {CNE:C: EntityClass:DEV , fixed value= "DEV"}	
determinerCode [1..1] (M) Device (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
id [1..1] (M) Device (II.BUS)	Design Comments: The unique identifier of the application to which the message is being sent. Rationale: Used for routing and for verification that "yes, this message is intended for me." This is mandatory because it is the key identifier of the receiving application. Mapping: soap:Header\wsa:To\@endpointID
name [0..1] Device (ST)	Design Comments: Name of the receiver application. Rationale: Optional name of the receiver application.
agent [0..1] (Agent2)	
Agent2	
classCode [1..1] (M) Role (CS) {CNE:C: RoleClass:AGNT , fixed value= "AGNT"}	
agentOrganization [1..1] (Organization2)	
Organization2	
classCode [1..1] (M) Organization (CS) {CNE:C: EntityClass:ORG , fixed value= "ORG"}	
determinerCode [1..1] (M) Organization (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
id [1..1] (M) Organization (II.BUS)	Design Comments: Unique identifier for the receiver organization. Rationale: The identifier is the only non-structural attribute in this class and is, therefore, mandatory. The association from receiver device to agent is optional.

RespondTo	Design Comments: Indicates the system that should receive the response to this interaction. Used when different from the sender of the original interaction. Rationale: In complex routing environments, the acknowledgments may need to be sent to a system other than the one which constructed the original message. This association is optional because not all environments will support responses to systems other than the original sender.
typeCode [1..1] (M) <u>CommunicationFunction</u> (CS) {CNE:C: CommunicationFunctionType : RSP , fixed value= "RSP"}	
telecom [0..1] CommunicationFunction (TEL.URI)	Design Comments: Indicates the address to send acknowledgments of this message to. Rationale: Needed when the address to respond to is different than that of the sender. This is optional because not all environments require network addresses. It is required when communicating using SOAP. Mapping: soap:Header\wsa:ReplyTo
device [1..1] (Device3)	Design Comments: The system to which responses are to be directed. Rationale: Provides support for directing responses to applications other than the original sender.
Device3	Design Comments: The system to which responses are to be directed. Rationale: Provides support for directing responses to applications other than the original sender.
classCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityClass : DEV , fixed value= "DEV"}	
determinerCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityDeterminer : INSTANCE , fixed value= "INSTANCE"}	
id [1..1] (M) <u>Device</u> (II.BUS)	Design Comments: The unique identifier of the applications to which responses should be sent. Only populated when different from the sending application id. Rationale: Allows unique identification and routing to the application to be responded to. This attribute is mandatory because it is the principal identifier of the application to respond to. Mapping: soap:Header\wsa:ReplyTo\@endpointID
Sender	
typeCode [1..1] (M) <u>CommunicationFunction</u> (CS) {CNE:C: CommunicationFunctionType : SND , fixed value= "SND"}	
telecom [0..1] CommunicationFunction (TEL.URI)	Design Comments: The network address of the application which sent the message. Rationale: May be important for sender validation. Usually, also the address to which responses are sent. This is optional because not all environments require network addresses. It is mandatory when communicating using SOAP. Mapping: soap:Header\wsa:From
device [1..1] (Device1)	
Device1	
classCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityClass : DEV , fixed value= "DEV"}	

determinerCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
id [1..1] (M) <u>Device</u> (II.BUS)	Design Comments: The unique identifier of the application or system from which the message has originated. Rationale: Because this is the key identifier of where the message has originated, this attribute is mandatory in order to support efficient logging, auditing, and debugging requirements. Mapping: soap:Header\wsa:From\@endpointID
name [0..1] <u>Device</u> (ST)	Design Comments: This is the name associated with the system or application sending the message. Rationale: Provides useful information when debugging.
desc [0..1] <u>Device</u> (ST)	Design Comments: Provides additional information about the configuration of the sending application. Useful when debugging. Rationale: Provides additional information that may assist in debugging interactions.
existenceTime [0..1] <u>Device</u> (IVL.LOW<TS.FULLDATE>)	Design Comments: Indicates the last time the sending application was modified or reconfigured. Rationale: Can help to isolate the source of a problem when debugging.
manufacturerModelName [0..1] <u>Device</u> (ST) {CWE:D: ManufacturerModelName }	Design Comments: Indicates the version number of the piece of software used to construct the message. Rationale: May be used for filtering messages based on the compliance testing of the sending software.
softwareName [0..1] <u>Device</u> (ST) {CWE:D: SoftwareName }	Design Comments: Indicates the name of the software used to construct the message. Rationale: May be used to filter messages based on sending application compliance testing.
agent [0..1] (Agent)	
Agent	
classCode [1..1] (M) <u>Role</u> (CS) {CNE:C: RoleClass:AGNT , fixed value= "AGNT"}	
agentOrganization [1..1] (Organization)	
Organization	
classCode [1..1] (M) <u>Organization</u> (CS) {CNE:C: EntityClass:ORG , fixed value= "ORG"}	
determinerCode [1..1] (M) <u>Organization</u> (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value= "INSTANCE"}	
id [1..1] (M) <u>Organization</u> (II.BUS)	Design Comments: Sending organization unique identifier. Rationale: The identifier is the only non-structural attribute in this class and is, therefore, mandatory. The association from sending the device to the agent is optional.
AttentionLine	Design Comments: Provides information on how the message should be routed within the receiving application. Rationale: Allows direction of messages within complex applications. This association is optional because not all applications will require this level of routing.

keyWordText [1..1] (M) AttentionLine (ST) {CWE:D:AttentionKeyword}	Design Comments: A particular type of guidance for routing the message. Rationale: Allows categorization of routing types or support for multiple route pieces. Mandatory to understand the routing information.
value [0..1] AttentionLine (ST) {CWE:D:AttentionLineValue}	Design Comments: Indicates the specific value used to route the item. Rationale: Allows internal routing within an application.

11.1.2 Application Ack Transport Wrapper (MCCI_MT002300CA)

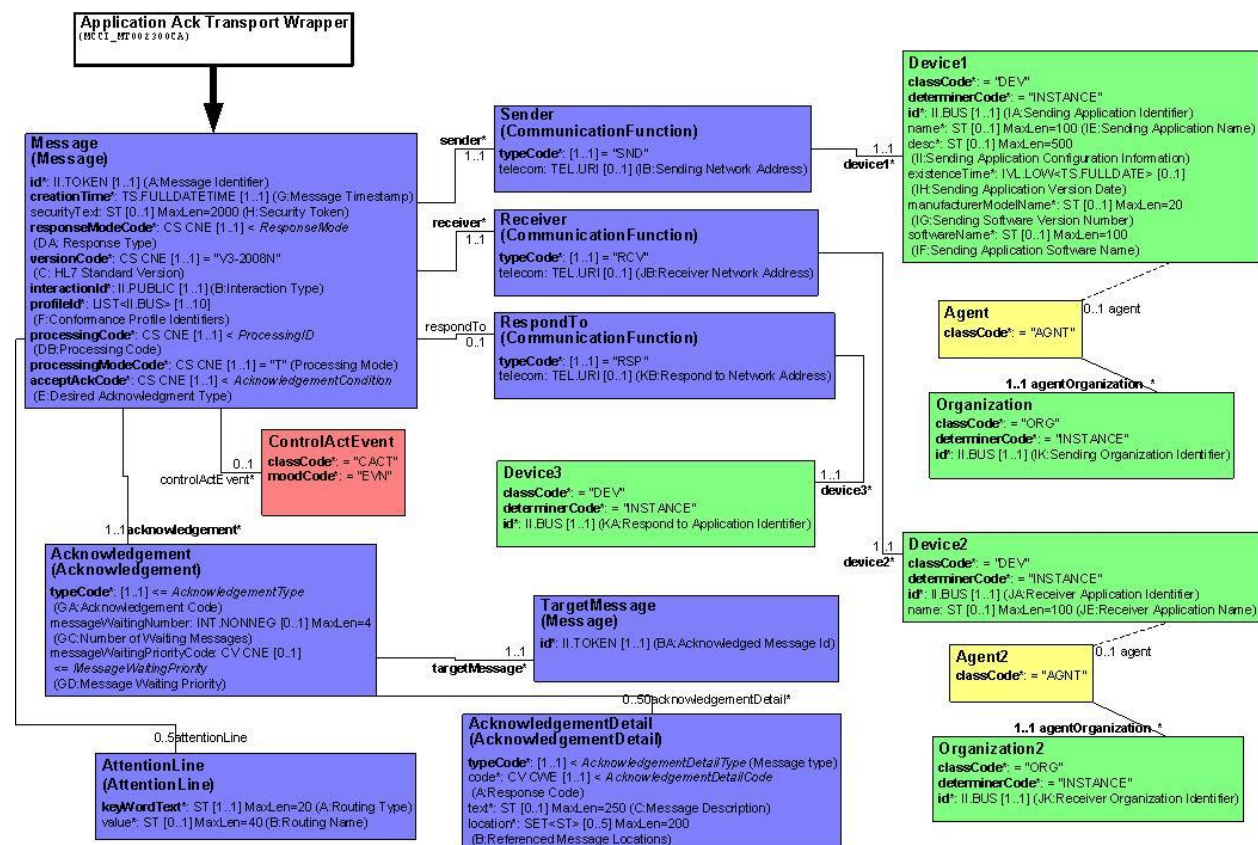


Figure 15 - Application Ack Transport Wrapper (MCCI_MT002300CA) Refined Message Information Model

Table 47 Application Ack Transport HMD

MCCI_MT002300CA Application Ack Transport Wrapper	Documentation
Message	Design Comments: The root class of all messages. Rationale: Conveys information about the interaction and how it is to be processed
id [1..1] (M) Message (II.TOKEN)	Design Comments: A unique identifier for the message. Rationale: Allows detection of duplicate messages, and allows tying acknowledgments to the message they are acknowledging. The attribute is, therefore, mandatory. Notes: Use of UUID is recommended
creationTime [1..1] (M) Message (TS.FULLDATETIME)	Design Comments: Indicates the time this particular message instance was constructed. Rationale: Allows identification of how current the information in a message is. Also, provides a baseline for identifying the time-zone of other times within the message. As a

	result, the attribute is mandatory.
securityText [0..1] Message (ST)	Design Comments: A locally-defined field used to maintain a session, identify a user, and/or perform some other function related to authenticating the message source. Rationale: Allows jurisdictions and applications to communicate authentication and session information. The attribute is optional because not all jurisdictions will require this capability.
responseModeCode [1..1] (M) Message (CS) {CNE:D: <u>ResponseMode</u> }	Design Comments: Identifies whether the response is desired immediately (as a direct acknowledgment), on a deferred basis (as a subsequent independent interaction) or via queue using polling. Rationale: Essential to determining receiver behavior and therefore mandatory.
versionCode [1..1] (M) Message (CS) {CNE:C: <u>HL7StandardVersionCode</u> :V3-2008N, fixed value= "V3-2008N"}	Design Comments: Indicates the version of the messaging standard being referenced. Rationale: Needed to know how to validate message definition, CMET definition, vocabulary and other information and is, therefore, mandatory.
interactionId [1..1] (M) Message (II.PUBLIC)	Design Comments: Indicates the interaction conveyed by this message. Rationale: Identifies what the receiving application should do, and how the message should be validated. The attribute is, therefore, mandatory.
profileId [1..10] (M) Message (LIST<II.BUS>)	Design Comments: Identifies the conformance profile(s) this message complies with. Rationale: Indicates any additional validation that may be appropriate. Also, influences what extensions can be processed.
processingCode [1..1] (M) Message (CS) {CNE:D: <u>ProcessingID</u> }	Design Comments: Indicates whether this message is intended to be processed as production, test or debug message. Rationale: Indicates how the message should be handled and is, therefore, mandatory.
processingModeCode [1..1] (M) Message (CS) {CNE:C: <u>ProcessingMode</u> :T, fixed value= "T"}	Design Comments: This attribute defines whether the message is being sent in current processing, archive mode, initial load mode, restore from archive mode, Rationale: Describes the mode of processing. For example current processing, archive mode, initial load mode, restore from archive mode.
acceptAckCode [1..1] (M) Message (CS) {CNE:D: <u>AcknowledgementCondition</u> }	Design Comments: Indicates how the message is expected to be acknowledged. Usage Notes: When using SOAP, this attribute MUST be set to NE (Never). (Accept acknowledgements are handled via the transport protocol, not HL7.) Rationale: Provides support for immediate, deferred and polling mode and distinguishes which mode is desired. The attribute is, therefore, mandatory.
receiver [1..1] (Receiver)	
respondTo [0..1] (RespondTo)	Design Comments: Indicates the interaction that should receive the response to this interaction. Used when different from the sender of the original interaction. Rationale: In complex routing environments, the acknowledgments may need to be sent to a system other than the one which constructed the original message. This association is optional because not all environments will support responses to systems other than the original sender.
sender [1..1] (Sender)	
attentionLine [0..5] (AttentionLine)	Design Comments: Provides information on how the message should be routed within the receiving application. Rationale: Allows direction of messages within complex applications. This association is optional because not all applications will require this level of routing.
acknowledgment [1..1] (Acknowledgment)	
controlActEvent [0..1] (Stub "ControlActEvent")	

Receiver	
typeCode [1..1] (M) <u>CommunicationFunction</u> (CS) {CNE:C: CommunicationFunctionType:RCV , fixed value="RCV"}	
telecom [0..1] CommunicationFunction (TEL.URI)	Design Comments: The address to which this message is being sent. Rationale: Indicates where the message should be sent. This is optional because not all environments require network addresses. It is mandatory when communicating using SOAP.
device [1..1] (<u>Device2</u>)	
Device2	
classCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityClass:DEV , fixed value="DEV"}	
determinerCode [1..1] (M) <u>Device</u> (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value="INSTANCE"}	
id [1..1] (M) <u>Device</u> (II.BUS)	Design Comments: The unique identifier of the application to which the message is being sent. Rationale: Used for routing and for verification that "yes, this message is intended for me." This is mandatory because it is the key identifier of the receiving application.
name [0..1] <u>Device</u> (ST)	Design Comments: Optional name of receiver application. Rationale: Optional application name.
agent [0..1] (<u>Agent2</u>)	
Agent2	
classCode [1..1] (M) <u>Role</u> (CS) {CNE:C: RoleClass:AGNT , fixed value="AGNT"}	
agentOrganization [1..1] (<u>Organization2</u>)	
Organization2	
classCode [1..1] (M) <u>Organization</u> (CS) {CNE:C: EntityClass:ORG , fixed value="ORG"}	
determinerCode [1..1] (M) <u>Organization</u> (CS) {CNE:C: EntityDeterminer:INSTANCE , fixed value="INSTANCE"}	
id [1..1] (M) <u>Organization</u> (II.BUS)	Design Comments: Organization intended to receive this message Rationale: Id is the only attribute in this class which is non-structural and is, therefore, mandatory. The agent association (from the receiver device) is optional.
RespondTo	Design Comments: Indicates the interaction that should receive the response to this interaction. Used when different from the sender of the original interaction. Rationale: In complex routing environments, the acknowledgments may need to be sent to a system other than the one which constructed the original message. This association is optional because not all environments will support responses to systems other than the original sender.
typeCode [1..1] (M) <u>CommunicationFunction</u> (CS) {CNE:C: CommunicationFunctionType:RSP , fixed value="RSP"}	

"RSP"}	
telecom [0..1] CommunicationFunction (TEL.URI)	Design Comments: Indicates the address to send acknowledgments of this message to. Rationale: Needed when the address to respond to is different than that of the sender. This is optional because not all environments require network addresses. It is required when communicating using SOAP.
device [1..1] (Device3)	Design Comments: The system to which responses are to be directed. Rationale: Provides support for directing responses to applications other than the original sender.
Device3	Design Comments: The system to which responses are to be directed. Rationale: Provides support for directing responses to applications other than the original sender.
classCode [1..1] (M) Device (CS) {CNE:C:EntityClass:DEV, fixed value= "DEV"}	
determinerCode [1..1] (M) Device (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	
id [1..1] (M) Device (II.BUS)	Design Comments: The unique identifier of the applications to which responses should be sent. Only populated when different from the sending application id. Rationale: Allows unique identification and routing to the application to be responded to. This attribute is mandatory because it is the principal identifier of the application to respond to.
Sender	
typeCode [1..1] (M) CommunicationFunction (CS) {CNE:C:CommunicationFunctionType:SND, fixed value= "SND"}	
telecom [0..1] CommunicationFunction (TEL.URI)	Design Comments: The network address of the application which sent the message. Rationale: May be important for sender validation. Usually, also the address to which responses are sent. This is optional because not all environments require network addresses. It is mandatory when communicating using SOAP.
device [1..1] (Device1)	
Device1	
classCode [1..1] (M) Device (CS) {CNE:C:EntityClass:DEV, fixed value= "DEV"}	
determinerCode [1..1] (M) Device (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	
id [1..1] (M) Device (II.BUS)	Design Comments: The unique identifier of the application or system to whom the message is being routed. Rationale: Because this is the key identifier of where the message is intended to go, this attribute is mandatory.
name [0..1] Device (ST)	Design Comments: This is the name associated with the system or application sending the message. Rationale: Provides useful information when debugging.
desc [0..1]	Design Comments: Provides additional information about the configuration of the sending

Device (ST)	application. Useful when debugging. Rationale: Provides additional information that may assist in debugging interactions.
existenceTime [0..1] Device (IVL.LOW<TS.FULLDATE>)	Design Comments: Indicates the last time the sending application was modified or reconfigured. Rationale: Can help to isolate the source of a problem when debugging.
manufacturerModelName [0..1] Device (ST) {CWE:D:ManufacturerModelName}	Design Comments: Indicates the version number of the piece of software used to construct the message. Rationale: May be used to filter messages based on the compliance testing of the sending software.
softwareName [0..1] Device (ST) {CWE:D:SoftwareName}	Design Comments: Indicates the name of the software used to construct the message. Rationale: May be used to filter messages based on sending application compliance testing.
agent [0..1] (Agent)	
Agent	
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:AGNT, fixed value= "AGNT"}	
agentOrganization [1..1] (Organization)	
Organization	
classCode [1..1] (M) Organization (CS) {CNE:C:EntityClass:ORG, fixed value= "ORG"}	
determinerCode [1..1] (M) Organization (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	
id [1..1] (M) Organization (II.BUS)	Design Comments: Sending organization unique identifier. Rationale: The identifier is the only non-structural attribute in this class and is, therefore, mandatory. The association from sending the device to the agent is optional.
AttentionLine	Design Comments: Provides information on how the message should be routed within the receiving application. Rationale: Allows direction of messages within complex applications. This association is optional because not all applications will require this level of routing.
keyWordText [1..1] (M) AttentionLine (ST) {CWE:D:AttentionKeyword}	Design Comments: A particular type of guidance for routing the message. Rationale: Allows categorization of routing types or support for multiple route pieces. Mandatory to understand the routing information.
value [0..1] AttentionLine (ST) {CWE:D:AttentionLineValue}	Design Comments: Indicates the specific value used to route the item. Rationale: Allows internal routing within an application.
Acknowledgement	
typeCode [1..1] (M) Acknowledgement (CS) {CNE:D:AcknowledgementType}	Design Comments: Indicates whether the previous interaction was successfully processed. Rationale: Key to understanding whether the interaction has been successful and is therefore mandatory.
messageWaitingNumber [0..1] Acknowledgment (INT.NONNEG)	Design Comments: For applications which support polling, indicates the total number of messages waiting to be retrieved. Rationale: Indicates to a system how many polled messages are available without the need so send a separate query. The element is optional because not all systems will support

	polling.
messageWaitingPriorityCode [0..1] <u>Acknowledgement</u> (CV) {CNE:D: <u>MessageWaitingPriority</u> }	Design Comments: Indicates the priority of the highest-priority message that is waiting on the poll queue for the system being responded to. Rationale: The priority of the waiting message may influence how quickly the polling system may choose to download queued messages. The element is optional because not all systems will support polling.
targetMessage [1..1] (<u>TargetMessage</u>)	
acknowledgementDetail [0..50] (<u>AcknowledgementDetail</u>)	Design Comments: An error, warning or information message associated with the message being acknowledged. Rationale: Allows identification issues related to the parsing and low-level processing of the message.
TargetMessage	
id [1..1] (M) <u>Message</u> (II.TOKEN)	Design Comments: References the identifier of the message this current message is acknowledging. Rationale: Provides the necessary link to complete a conversation for systems using communication technologies which are not conversational. This attribute is, therefore, mandatory. Mapping: soap:Header\wsa:RelatesTo
AcknowledgementDetail	Design Comments: An error, warning or information message associated with the message being acknowledged. Rationale: Allows identification issues related to the parsing and low-level processing of the message.
typeCode [1..1] (M) AcknowledgementDetail (CS) {CNE:D: <u>AcknowledgementDetailType</u> }	Design Comments: Distinguishes between errors, warnings and information messages. Rationale: Different types of messages have substantially different ramifications.
code [1..1] AcknowledgementDetail (CV) {CWE:D: <u>AcknowledgementDetailCode</u> }	Design Comments: Indicates the specific issue represented by this message. Rationale: By providing coded identification of issues and errors, allows applications to have logic that manages particular errors and warnings automatically. However in some circumstances, a code may not be available. Therefore the attribute is marked as 'populated'. The coding strength is CWE (coded with extensions). The use of local codes is only permitted when those codes are submitted to the SC for consideration and if the SC makes a recommendation other than the adoption of the local code, jurisdictions are bound to adopt the recommendation.
text [0..1] AcknowledgementDetail (ST)	Design Comments: The human-readable description of the error, warning or information message. May convey additional details not present in the 'code', but is not intended to be human-processable. Rationale: Allows supplementing the 'computer' information for human-readability.
location [0..5] AcknowledgementDetail (SET<ST>)	Design Comments: Indicates the location of the elements within the message instance that triggered this error, warning or information message. UsageNotes: I.e. only the default 'child' axis is permitted, occurrence numbers are always specified, and no other predicates are permitted. Rationale: Allows syntax and other messages to be linked to particular fields within the message.

11.2 Control Act Wrappers

This section describes requirements for control act wrappers. The wrapper may be used in multiple interactions. Refer to Transactions and Interactions section for detailed information applicable to message wrappers for the target interaction.

11.2.1 Registry Query Request Wrapper - Human Initiated (MFMI_MT700751CA)

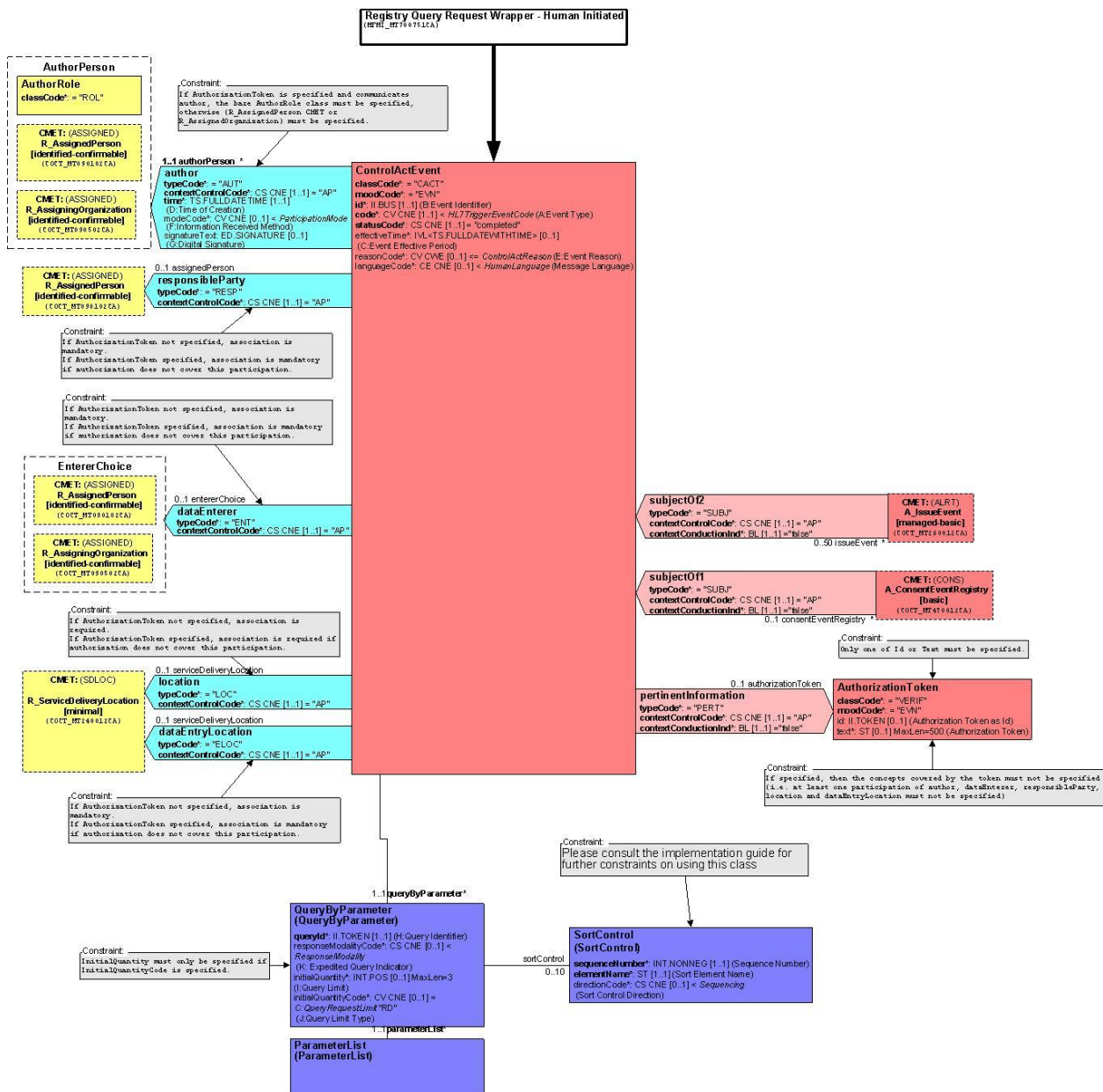


Figure 16 - Registry Query Request Wrapper - Human Initiated (MFMI_MT700751CA) Refined Message Information Model

Table 48 Registry Query Request Wrapper - Human Initiated HMD

MFMI_MT700751CA Registry Query Request Wrapper - Human	Documentation
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Initiated	
ControlActEvent	Design Comments: Identifies the action that resulted in this message being sent. Usage Notes: There may be constraints on the usage of the effectiveTime and reasonCode attributes in the definition of the interaction or the trigger events which are conveyed with this wrapper. Rationale: Key to understanding what action a message represents.
classCode [1..1] (M) ControlAct (CS) {CNE:C:ActClass:CACT, fixed value= "CACT"}	
moodCode [1..1] (M) ControlAct (CS) {CNE:C:ActMood:EVN, fixed value= "EVN"}	
id [1..1] (M) ControlAct (II.BUS)	Design Comments: A unique identifier for this particular event assigned by the system in which the event occurred. Usage Notes: Identifier needs to be persisted by receiving applications, except for queries (queries cannot be retracted or undone). The identifier must be unique and different from the event identifier that is present in the request - it must be generated by the responding application. Rationale: Allows the event to be referenced (for undos) and also indicates whether multiple interactions were caused by the same triggering event. Also used for audit purposes.
code [1..1] (M) ControlAct (CV) {CNE:D:HL7TriggerEventCode}	Design Comments: Identifies the trigger event that occurred. Rationale: This is mandatory because it is essential to understanding the meaning of the event.
statusCode [1..1] (M) ControlAct (CS) {CNE:C:ActStatus:completed, fixed value= "completed"}	Design Comments: Describes the status of the control act, which is always complete (it happened). Rationale: Required for completeness of specification.
effectiveTime [0..1] ControlAct (IVL<TS.FULLDATEWITHTIME>)	Design Comments: Indicates the time the event (e.g. query, change, activation) should begin and occasionally when it should end. Rationale: The time an event becomes effective may differ from the time the event is recorded (i.e. it may be in the future or the past). For events such as 'suspend', an intended end date may also be indicated.
reasonCode [0..1] ControlAct (CV) {CWE:D:ControlActReason}	Design Comments: Identifies why this specific message interaction (e.g. query, activation request, and modification request) occurred. Usage Notes: The domain associated with this attribute will vary for each interaction and will be noted as part of the interaction description. Rationale: Allows identifying a reason for a specific action, such as 'reason for hold' or 'reason for accessing information'.
languageCode [0..1] ControlAct (CE) {CNE:D:HumanLanguage}	
responsibleParty [0..1] (ResponsibleParty)	Design Comments: Allows for the trail of responsibility for the action. The association is optional because, in some jurisdictions, the supervisor may be conveyed by the authentication token. Rationale: Important for audit information and determining permissions. The association is optional because in some jurisdictions this information will be conveyed as part of the authentication token
author [1..1] (Author)	Design Comments: Indicates the person responsible for the event that caused this message. Rationale: Critical for auditing and for validating permissions and therefore mandatory.

dataEnterer [0..1] (DataEnterer)	Design Comments: Indicates the person responsible for entering the query into the system. Used when different from the person responsible for the request (author). For example, physician requests an administrative assistant to print off a patient's medication profile. Usage Notes: This should only be specified if different from the author. Rationale: Important for audit information and determining permissions. The association is optional because in some jurisdictions this information will be conveyed as part of the authentication token.
dataEntryLocation [0..1] (DataEntryLocation)	Design Comments: Indicates the location where the record of this event was entered. Usage Notes: This should only be specified if different from the location where the event was authored. Rationale: Indicates a potential location for written records, and may also be important for authentication purposes. The association is optional because in some jurisdictions this information will be conveyed as part of the authentication token.
location [0..1] (Location)	Design Comments: Indicates the service delivery location where the event occurred. Rationale: Indicates where paper records may be located, and may be important to determining authorization. The association is optional because in some jurisdictions this information will be conveyed as part of the authentication token.
pertinentInformation [0..1] (PertinentInformation)	Design Comments: Identifies the authentication token that references information about the people and/or places responsible for the event. Rationale: Some systems perform centralized authentication of providers and/or locations. The association is optional because not all systems will make use of a token-based authentication process.
subjectOf1 [0..1] (Subject1)	Design Comments: Information pertaining to a client's agreement/acceptance to have his/her client identification and demographic information electronically stored and shared. Usage Notes: This will usually only be populated for queries, but could be used for updates if a jurisdiction requires consent before recording information in the EHR (e.g. consent to participate in electronic data exchange). Note: keywords cannot be passed from one application to another via the EHR (e.g. prescriber to dispenser via a Drug Information System). Rationale: Provides authorization to record and/or view client information. Indicates the consent or keyword used to authorize access or update, including a reason for access; May also be used to overriding access restriction to the information ('break the glass') on a message by message basis.
subjectOf2 [0..50] (Subject2)	Design Comments: This is the list of clinical and business issues that have been detected and/or managed involving the current action. Rationale: Any trigger event can result in errors or may allow for errors to be overridden or managed.
queryByParameter [1..1] (QueryByParameter)	Design Comments: Class which describes the query specifics and parameter list.
ResponsibleParty [Constraint: " If AuthorizationToken not specified, the association is mandatory. If AuthorizationToken specified, the association is mandatory if authorization does not cover this participation. "] "]	Design Comments: Allows for the trail of responsibility for the action. The association is optional because, in some jurisdictions, the supervisor may be conveyed by the authentication token. Rationale: Important for audit information and determining permissions. The association is optional because in some jurisdictions this information will be conveyed as part of the authentication token
typeCode [1..1] (M)	

Participation (CS) {CNE:C:ParticipationType:RESP, fixed value= "RESP"}	
contextControlCode [1..1] (M) Participation (CS) {CNE:C:ContextControl:AP, fixed value= "AP"}	
assignedEntity [1..1] (R_AssignedPersonIdentified-confirmable)	
Author [Constraint: " If AuthorizationToken is specified and communicates author, the bare AuthorRole class must be specified, otherwise (R_AssignedPerson CMET or R_AssignedOrganization) must be specified. "]	Design Comments: Indicates the person responsible for the event that caused this message. Rationale: Critical for auditing and for validating permissions and therefore mandatory.
typeCode [1..1] (M) Participation (CS) {CNE:C:ParticipationType:AUT, fixed value= "AUT"}	Usage Notes: Value should always be AUT
contextControlCode [1..1] (M) Participation (CS) {CNE:C:ContextControl:AP, fixed value= "AP"}	
time [1..1] (M) Participation (TS.FULLDATETIME)	Design Comments: The time the person responsible for the event made the decision for it to occur. This may be different than the time the change became effective. (E.g. If a provider decides today to put a prescription on hold starting next Tuesday, the time of creation would be today and the change effective period would be next Tuesday.) This date can be back-dated. Rationale: The time a change is made is a critical piece of audit information and is, therefore, mandatory.
modeCode [0..1] Participation (CV) {CNE:D:ParticipationMode}	Design Comments: Indicates how the person who recorded the event became aware of it. E.g. Verbal, written, fax, etc. Rationale: May has ramifications for the audit trail and reliability of the information.
signatureText [0..1] Participation (ED.SIGNATURE)	Design Comments: Indicates the formal digital signature of the message content. Rationale: Digital signatures may be needed for authentication of message content. The attribute is marked as optional because it is not yet clear whether there is a use-case for this, or where it will be used.
authorPerson [1..1] (AuthorPerson)	
AuthorPerson	
choice of AuthorRole	Design Comments: This is a messaging artifact used by HL7 to allow the time, signature and method to be captured when the author is not sent. This will happen in circumstances where the author information is sent as part of the authentication token.
or R_AssignedPersonIdentified-confirmable	
or R_AssigningOrganizationIdentified-confirmable	
AuthorRole	Design Comments: This is a messaging artifact used by HL7 to allow the time, signature and method to be captured when the author is not sent. This will happen in circumstances where the author information is sent as part of the authentication token.
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:ROL, fixed value= "ROL"}	
DataEnterer	Design Comments: Indicates the person responsible for entering the query into the

[Constraint: " If AuthorizationToken not specified, the association is mandatory. If AuthorizationToken specified, the association is mandatory if authorization does not cover this participation. "]	system. Used when different from the person responsible for the request (author). For example, physician requests an administrative assistant to print off a patient's medication profile. Usage Notes: This should only be specified if different from the author. Rationale: Important for audit information and determining permissions. The association is optional because in some jurisdictions this information will be conveyed as part of the authentication token.
typeCode [1..1] (M) Participation (CS) {CNE:C:ParticipationType:ENT, fixed value= "ENT"}	
contextControlCode [1..1] (M) Participation (CS) {CNE:C:ContextControl:AP, fixed value= "AP"}	
entererChoice [1..1] (EntererChoice)	
EntererChoice	
choice of R_AssignedPersonIdentified-confirmable	
or R_AssigningOrganizationIdentified-confirmable	
DataEntryLocation [Constraint: " If AuthorizationToken not specified, the association is mandatory. If AuthorizationToken specified, the association is mandatory if authorization does not cover this participation. "]	Design Comments: Indicates the location where the record of this event was entered. Usage Notes: This should only be specified if different from the location where the event was authored. Rationale: Indicates a potential location for written records, and may also be important for authentication purposes. The association is optional because in some jurisdictions this information will be conveyed as part of the authentication token.
typeCode [1..1] (M) Participation (CS) {CNE:C:ParticipationType:ELOC, fixed value= "ELOC"}	
contextControlCode [1..1] (M) Participation (CS) {CNE:C:ContextControl:AP, fixed value= "AP"}	
serviceDeliveryLocation [1..1] (R_ServiceDeliveryLocationMinimal)	
Location [Constraint: " If AuthorizationToken not specified, the association is required. If AuthorizationToken specified, the association is required if authorization does not cover this participation. "]	Design Comments: Indicates the service delivery location where the event occurred. Rationale: Indicates where paper records may be located, and may be important to determining authorization. The association is optional because in some jurisdictions this information will be conveyed as part of the authentication token.
typeCode [1..1] (M) Participation (CS) {CNE:C:ParticipationType:LOC, fixed value= "LOC"}	
contextControlCode [1..1] (M) Participation (CS) {CNE:C:ContextControl:AP, fixed value= "AP"}	
serviceDeliveryLocation [1..1] (R_ServiceDeliveryLocationMinimal)	

PertinentInformation	Design Comments: Identifies the authentication token that references information about the people and/or places responsible for the event. Rationale: Some systems perform centralized authentication of providers and/or locations. The association is optional because not all systems will make use of a token-based authentication process.
typeCode [1..1] (M) ActRelationship (CS) {CNE:C:ActRelationshipType:PERT, fixed value= "PERT"}	
contextControlCode [1..1] (M) ActRelationship (CS) {CNE:C:ContextControl:AP, fixed value= "AP"}	
contextConductionInd [1..1] (M) ActRelationship (BL){fixed value= "false"}	
authorizationToken [1..1] (AuthorizationToken)	Design Comments: Conveys an authentication token associated with the event. The token may represent one or all of the following concepts: author, dataEnterer, responsibleParty, location and dataEntryLocation. Rationale: Conveys information related to the individuals and/or locations involved with the action in situations where the authentication happens on a one-time basis rather than on a per-message basis.
AuthorizationToken [Constraint: " If specified, then the concepts covered by the token must not be specified (i.e. at least one participation of author, dataEnterer, responsibleParty, location and dataEntryLocation must not be specified) "] [Constraint: " Only one of Id or Text must be specified. "] "]	Design Comments: Conveys an authentication token associated with the event. The token may represent one or all of the following concepts: author, dataEnterer, responsibleParty, location and dataEntryLocation. Rationale: Conveys information related to the individuals and/or locations involved with the action in situations where the authentication happens on a one-time basis rather than on a per-message basis.
classCode [1..1] (M) Observation (CS) {CNE:C:ActClass:VERIF, fixed value= "VERIF"}	
moodCode [1..1] (M) Observation (CS) {CNE:C:ActMood:EVN, fixed value= "EVN"}	
id [0..1] Observation (II.TOKEN)	Design Comments: An authorization token expressed as a GUID. The Authorization token may represent the concepts of author, data enterer, supervisor (responsible party), responsible location and/or data entry location. Rationale: GUIDs are an effective way of conveying a temporary authentication token
text [0..1] Observation (ST)	Design Comments: An authentication token expressed as a non-GUID string. The Authorization token may represent the concepts of author, data enterer, supervisor (responsible party), responsible location and/or data entry location. Rationale: Some systems may choose to use a hash code or other approach to token construction.
Subject1	Design Comments: Information pertaining to a client's agreement/acceptance to have his/her client identification and demographic information electronically stored and shared. Usage Notes: This will usually only be populated for queries, but could be used for updates if a jurisdiction requires consent before recording information in the EHR (e.g. consent to participate in electronic data exchange).

	Note: keywords cannot be passed from one application to another via the EHR (e.g. prescriber to dispenser via a Drug Information System). Rationale: Provides authorization to record and/or view client information. Indicates the consent or keyword used to authorize access or update, including a reason for access; May also be used to override access restriction to the information ('break the glass') on a message by message basis.
typeCode [1..1] (M) ActRelationship (CS) {CNE:C:ActRelationshipType:SUBJ, fixed value= "SUBJ"}	
contextControlCode [1..1] (M) ActRelationship (CS) {CNE:C:ContextControl:AP, fixed value= "AP"}	
contextConductionInd [1..1] (M) ActRelationship (BL){fixed value= "false"}	
consentEvent [1..1] (A_ConsentEventRegistryBasic)	
Subject2	Design Comments: This is the list of clinical and business issues that have been detected and/or managed involving the current action. Rationale: Any trigger event can result in errors or may allow for errors to be overridden or managed.
typeCode [1..1] (M) ActRelationship (CS) {CNE:C:ActRelationshipType:SUBJ, fixed value= "SUBJ"}	
contextControlCode [1..1] (M) ActRelationship (CS) {CNE:C:ContextControl:AP, fixed value= "AP"}	
contextConductionInd [1..1] (M) ActRelationship (BL){fixed value= "false"}	
detectedIssueEvent [1..1] (A_IssueEventManaged-basic)	
QueryByParameter [Constraint: " InitialQuantity must only be specified if InitialQuantityCode is specified. "] "	Design Comments: Class which describes the query specifics and parameter list.
queryId [1..1] (M) QueryByParameter (II.TOKEN)	Design Comments: Unique number for this particular query. Rationale: Needed to allow continuation of queries and linking of query requests and responses and therefore mandatory.
responseModalityCode [0..1] QueryByParameter (CS) {CNE:D:ResponseModality}	Design Comments: This allows the sender to indicate to the receiver that this query should follow an expedited processing flow. Rationale: Intended to convey the requested 'packaging' of query results. This attribute does not affect which rows are selected by the query, just the manner in which they are returned. For example, a batch file containing responses, a response message contains multiple payloads, or a stream of response messages (notifications) each identifying itself as a response to a query request.
initialQuantity [0..1] QueryByParameter (INT.POS)	Design Comments: The number of response item repetitions that should be included in the initial response. Usage Notes: If not specified, the default behavior is to return a number of repetitions that is configured for each system that consumes registry services. However the recipient of a query may always choose to limit the quantity returned to be less than the configured number. Regardless of the number specified here, the number of rows

	returned will never exceed the number of matching rows based on the query parameters. Rationale: There may be a very large number of matching rows. To manage communication bandwidth, a limited set may initially be returned with further data retrieved by using query continuations.
initialQuantityCode [0..1] QueryByParameter (CV) {CNE:C:QueryRequestLimit:RD, fixed value= "RD"}	Design Comments: Defines the units associated with the magnitude of the maximum size limit of a query response that can be accepted by the requesting application. Rationale: Needed to quantify the types of records requested to be returned in the query.
parameterList [1..1] (Stub "ParameterList")	
sortControl [0..10] (SortControl)	Design Comments: Holds specification of sort order for instance matches to a query. Rationale: Optional for systems which can receive query requests and sort the results before returning to the query requestor.
SortControl [Constraint: " Please consult the implementation guide for further constraints on using this class "]	Design Comments: Holds specification of sort order for instance matches to a query. Rationale: Optional for systems which can receive query requests and sort the results before returning to the query requestor.
sequenceNumber [1..1] (M) SortControl (INT.NONNEG)	Design Comments: When more than one sort control is specified, this is the order of this sort element amongst the others. Rationale: This number determines which sort element is using primarily, secondary, etc. and is, therefore, mandatory.
elementName [1..1] (M) SortControl (ST)	Design Comments: Name of the element to sort. Rationale: The name of the element is mandatory.
directionCode [0..1] SortControl (CS) {CNE:D:Sequencing}	Design Comments: Sets the ascending or descending nature of the sort request. Rationale: This element is required.

11.2.2 Registry Query Response Wrapper - Device Initiated With Role Payload (MFMI_MT700746CA)

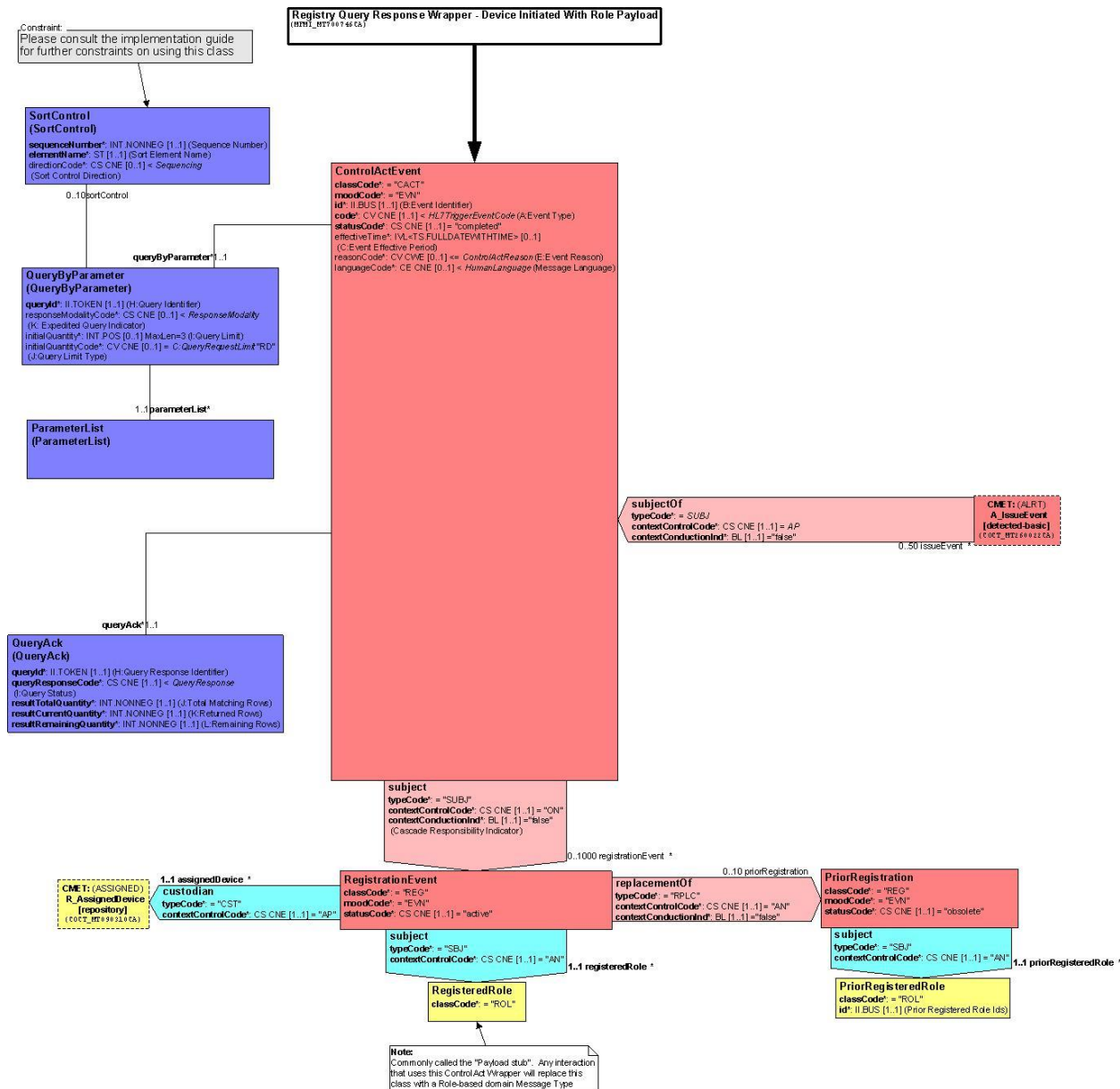


Figure 17 - Registry Query Response Wrapper - Device Initiated With Role Payload (MFMI_MT700746CA) Refined Message Information Model

Table 49 Registry Query Response Wrapper - Device Initiated With Role Payload HMD

MFMI_MT700746CA Registry Query Response Wrapper - Device Initiated With Role Payload	Documentation
ControlActEvent	Design Comments: Identifies the action that resulted in this message being sent. Usage Notes: There may be constraints on the usage of the effectiveTime and reasonCode attributes in the definition of the interaction or the trigger events which are conveyed with this wrapper. Rationale: Key to understanding what action a message represents.

classCode [1..1] (M) ControlAct (CS) {CNE:C: ActClass:CACT , fixed value= "CACT"}	
moodCode [1..1] (M) ControlAct (CS) {CNE:C: ActMood:EVN , fixed value= "EVN"}	
id [1..1] (M) ControlAct (II.BUS)	Design Comments: A unique identifier for this particular event assigned by the system in which the event occurred. Usage Notes: Identifier needs to be persisted by receiving applications, except for queries (queries cannot be retracted or undone). The identifier must be unique and different from the event identifier that is present in the request - it must be generated by the responding application. Rationale: Allows the event to be referenced (for undos) and also indicates whether multiple interactions were caused by the same triggering event. Also used for audit purposes.
code [1..1] (M) ControlAct (CV) {CNE:D: HL7TriggerEventCode }	Design Comments: Identifies the trigger event that occurred. Rationale: This is mandatory because it is essential to understanding the meaning of the event.
statusCode [1..1] (M) ControlAct (CS) {CNE:C: ActStatus:completed , fixed value= "completed"}	Design Comments: Describes the status of the control act, which is always complete (it happened). Rationale: Required for completeness of specification.
effectiveTime [0..1] ControlAct (IVL<TS.FULLDATEWITHTIME>)	Design Comments: Indicates the time the event (e.g. query, change, activation) should begin and occasionally when it should end. Rationale: The time an event becomes effective may differ from the time the event is recorded (i.e. it may be in the future or the past). For events such as 'suspend', an intended end date may also be indicated.
reasonCode [0..1] ControlAct (CV) {CWE:D: ControlActReason }	Design Comments: Identifies why this specific message interaction (e.g. query, activation request, modification request) occurred. Usage Notes: The domain associated with this attribute will vary for each interaction and will be noted as part of the interaction description. Rationale: Allows identifying a reason for a specific action, such as 'reason for hold' or 'reason for accessing information'.
languageCode [0..1] ControlAct (CE) {CNE:D: HumanLanguage }	
subject [0..1000] (Subject2)	Design Comments: Indicates the item(s) being acted upon by this trigger event. Will be mandatory in wrappers with payload messages, otherwise not present. Usage Notes: If there are multiple subject items, the changes to all of them must be either accepted or rejected as a single action. I.e. One trigger event = 1 unit of work. Rationale: Provides information about the thing being created, modified or removed.
subjectOf [0..50] (Subject)	Design Comments: This is the list of clinical and business issues that have been detected and/or managed involving the current action. Rationale: Any trigger event can result in errors or may allow for errors to be overridden or managed.
queryAck [1..1] (QueryAck)	
queryByParameter [1..1] (QueryByParameter)	
Subject2	Design Comments: Indicates the item(s) being acted upon by this trigger event. Will be mandatory in wrappers with payload messages, otherwise not present. Usage Notes: If there are multiple subject items, the changes to all of them must be either accepted or rejected as a single action. I.e. One trigger event = 1 unit of work.

	Rationale: Provides information about the thing being created, modified or removed.
typeCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: <u>ActRelationshipType</u> :SUBJ, fixed value= "SUBJ"}	
contextControlCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: <u>ContextControl</u> :ON, fixed value= "ON"}	
contextConductionInd [1..1] (M) <u>ActRelationship</u> (BL){fixed value= "false"}	Design Comments: Indicates whether or not objects of the trigger event are to be cascaded to the payload. If true, associations in the parent act are conducted across the ActRelationship to the message payload (act). Conduction for each association is specifically indicated by each association's contextControlCode value. In other words, if the "subject" act relationship has contextConductionInd=true; THEN the subjectOf association is carried (to the registrationEvent act) according to the subjectOf.contextControlCode (AP = propagate to the reg event and add to any subject(s) (issues) already present). Rationale: Cascading of trigger event objects allows different messages to employ consistent and common objects. The attribute is mandatory to ensure that cascading will be specified one way or another.
registrationEvent [1..1] (<u>RegistrationEvent</u>)	Design Comments: This class contains information relevant to the registration of the payload item(s) into the Master File or Registry. This message is a response to a request to register (therefore, the mood is an event). Rationale: The RegistrationProcess act is the focal act of the message and therefore is mandatory
RegistrationEvent	Design Comments: This class contains information relevant to the registration of the payload item(s) into the Master File or Registry. This message is a response to a request to register (therefore, the mood is an event). Rationale: The RegistrationProcess act is the focal act of the message and therefore is mandatory
classCode [1..1] (M) <u>Act</u> (CS) {CNE:C: <u>ActClass</u> :REG, fixed value= "REG"}	
moodCode [1..1] (M) <u>Act</u> (CS) {CNE:C: <u>ActMood</u> :EVN, fixed value= "EVN"}	
statusCode [1..1] (M) <u>Act</u> (CS) {CNE:C: <u>ActStatus</u> :active, fixed value= "active"}	
subject [1..1] (<u>Subject4</u>)	Design Comments: Commonly called the Payload stub. Any interaction that uses this ControlAct Wrapper will replace this class with a Role-based domain Message Type Rationale: Defines the content of the registration and is therefore mandatory.
custodian [1..1] (<u>Custodian</u>)	Design Comments: This indicates the EHR repository the record is stored in. Rationale: Different repositories may have different access rules governing access to data. Knowing the custodian of the data also helps to provide context. As a result, this association is mandatory.
replacementOf [0..10] (<u>ReplacementOf</u>)	Design Comments: Associates a new registration which is intended to replace a registration received prior to this message. Rationale: Supports this message "replacing" a prior registration with a current registration (merges).
Subject4	Design Comments: Commonly called the Payload stub. Any interaction that uses this ControlAct Wrapper will replace this class with a Role-based domain Message Type

	Rationale: Defines the content of the registration and is, therefore, mandatory.
typeCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ParticipationType:SBJ , fixed value= "SBJ"}	
contextControlCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ContextControl:AN , fixed value= "AN"}	
registeredRole [1..1] (Stub "RegisteredRole")	
Custodian	Design Comments: This indicates the EHR repository the record is stored in. Rationale: Different repositories may have different access rules governing access to data. Knowing the custodian of the data also helps to provide context. As a result, this association is mandatory.
typeCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ParticipationType:CST , fixed value= "CST"}	
contextControlCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ContextControl:AP , fixed value= "AP"}	
assignedDevice [1..1] (R_AssignedDeviceRepository)	
ReplacementOf	Design Comments: Associates a new registration which is intended to replace a registration received prior to this message. Rationale: Supports this message "replacing" a prior registration with a current registration (merges).
typeCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: ActRelationshipType:RPLC , fixed value= "RPLC"}	
contextControlCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: ContextControl:AN , fixed value= "AN"}	
contextConductionInd [1..1] (M) <u>ActRelationship</u> (BL){fixed value= "false"}	
priorRegistration [1..1] (<u>PriorRegistration</u>)	Design Comments: This class describes the registration of a client, provider, location, etc. in the past. Rationale: Used to associate (replace) a current registration with a registration already received (supports merges).
PriorRegistration	Design Comments: This class describes the registration of a client, provider, location, etc. in the past. Rationale: Used to associate (replace) a current registration with a registration already received (supports merges).
classCode [1..1] (M) <u>Act</u> (CS) {CNE:C: ActClass:REG , fixed value= "REG"}	
moodCode [1..1] (M) <u>Act</u> (CS) {CNE:C: ActMood:EVN , fixed value= "EVN"}	
statusCode [1..1] (M) <u>Act</u> (CS) {CNE:C: ActStatus:obsolete , fixed value= "obsolete"}	
subject [1..1] (<u>Subject5</u>)	

Subject5	
typeCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ParticipationType:SBJ , fixed value= "SBJ"}	
contextControlCode [1..1] (M) <u>Participation</u> (CS) {CNE:C: ContextControl:AN , fixed value= "AN"}	
priorRegisteredRole [1..1] (<u>PriorRegisteredRole</u>)	Design Comments: Identifies "duplicate" records of the registered item that have been superseded by this record. Rationale: Provides support for merges.
PriorRegisteredRole	Design Comments: Identifies "duplicate" records of the registered item that have been superseded by this record. Rationale: Provides support for merges.
classCode [1..1] (M) <u>Role</u> (CS) {CNE:C: RoleClass:ROL , fixed value= "ROL"}	
id [1..1] (M) <u>Role</u> (II.BUS)	Design Comments: Identifies "duplicate" records of the registered item that have been superseded by this record. Rationale: Provides support for merges.
Subject	Design Comments: This is the list of clinical and business issues that have been detected and/or managed involving the current action. Rationale: Any trigger event can result in errors or may allow for errors to be overridden or managed.
typeCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: ActRelationshipType:SUBJ , fixed value= "SUBJ"}	
contextControlCode [1..1] (M) <u>ActRelationship</u> (CS) {CNE:C: ContextControl:AP , fixed value= "AP"}	
contextConductionInd [1..1] (M) <u>ActRelationship</u> (BL){fixed value= "false"}	
detectedIssueEvent [1..1] (A <u>IssueEventDetected-basic</u>)	
QueryAck	
queryId [1..1] (M) <u>QueryAck</u> (II.TOKEN)	Design Comments: Identifies the query being acknowledged Rationale: Allows linking of a response back to the request that triggered it and is, therefore, mandatory. Particularly useful when responses are deferred or queued.
queryResponseCode [1..1] (M) <u>QueryAck</u> (CS) {CNE:D: QueryResponse }	Design Comments: Indicates whether the query was successful or not. Rationale: Used to control receiver logic and is, therefore, mandatory.
resultTotalQuantity [1..1] (M) <u>QueryAck</u> (INT.NONNEG)	Design Comments: Identifies the total number of rows identified that matched the query. Rationale: Indicates the overall size of the result-set and is, therefore, mandatory. Particularly useful when only part of the result set is actually returned.
resultCurrentQuantity [1..1] (M) <u>QueryAck</u> (INT.NONNEG)	Design Comments: Identifies the number of rows returned as part of this particular query response. Rationale: Provides a quick overview of the results of the query and is, therefore, mandatory

resultRemainingQuantity [1..1] (M) <u>QueryAck</u> (INT.NONNEG)	Design Comments: Indicates the number of rows that still exist after the last row returned in this response. Usage Notes: Not in use in the current release. Rationale: Identifies how much data remains to be queried and is therefore mandatory.
QueryByParameter	
queryId [1..1] (M) <u>QueryByParameter</u> (II.TOKEN)	Design Comments: Unique number for this particular query. Rationale: Needed to allow continuation of queries and linking of query requests and responses and therefore mandatory.
responseModalityCode [0..1] <u>QueryByParameter</u> (CS) {CNE:D: ResponseModality }	Design Comments: This allows the sender to indicate to the receiver that this query should follow an expedited processing flow. Rationale: Intended to convey the 'packaging' of query results. This attribute does not affect which rows are selected by the query, just the manner in which they are returned. For example, a batch file containing responses, a response message containing multiple payloads, or a stream of response messages (notifications) each identifying itself as a response to a query request.
initialQuantity [0..1] <u>QueryByParameter</u> (INT.POS)	Design Comments: The number of response item repetitions that should be included in the initial response. Rationale: There may be a very large number of matching rows. To manage communication bandwidth, a limited set may initially be returned with further data retrieved by using query continuations.
initialQuantityCode [0..1] <u>QueryByParameter</u> (CV) {CNE:C: QueryRequestLimit :RD, fixed value= "RD"}	Design Comments: Defines the units associated with the magnitude of the maximum size limit of a query response that can be accepted by the requesting application. Rationale: Needed to quantify the types of records requested to be returned in the query.
parameterList [1..1] (Stub "ParameterList")	
sortControl [0..10] (<u>SortControl</u>)	Design Comments: Holds specification of sort order for instance matches to a query. Rationale: Optional for systems which can receive query requests and sort the results before returning to the query requestor.
SortControl [Constraint: " Please consult the implementation guide for further constraints on using this class "] "]	Design Comments: Holds specification of sort order for instance matches to a query. Rationale: Optional for systems which can receive query requests and sort the results before returning to the query requestor.
sequenceNumber [1..1] (M) <u>SortControl</u> (INT.NONNEG)	Design Comments: When more than one sort control is specified, this is the order of this sort element amongst the others. Rationale: This number determines which sort element is using primarily, secondary, etc. and is, therefore, mandatory.
elementName [1..1] (M) <u>SortControl</u> (ST)	Design Comments: Name of the element to sort. Rationale: The name of the element is mandatory.
directionCode [0..1] <u>SortControl</u> (CS) {CNE:D: Sequencing }	Design Comments: Sets the ascending or descending nature of the sort request. Rationale: This element is required.

12.0 Exception Handling

There are several levels of exception handling that are supported, all of which align to typical HL7 request and response behavior related to registry query interactions.

12.1 Transmission Exceptions

Transport-related exceptions shall be reported on registry query response interactions via the Accept Acknowledgement Transport Wrapper (MCCI_MT002300CA). There shall be no control event wrapper and no payload message type in the response.

The following table illustrates the exception conditions that may occur. These exceptions are typical of request messages that do not conform to the specification, or internal errors that may occur where a fully formed HL7 message cannot be processed.

Table 50 Transmission Exceptions

Exception	Acknowledgment Type Code	Acknowledgment Detail Type Code	Acknowledgment Detail Code
Exception in the syntax or structure of the request communication.	AE	E	SYN
Unsupported interaction specified	AE	E	NS200
Unsupported version ID (profile)	AE	E	NS203
Message routing error, unknown destination; typically due to unrecognized receiver identifier	AE	E	RTUDEST
Unrecognized sender identifier	AE	E	NS260
Internal error	AE	E	INTERR

12.2 Control Event Exceptions

Where basic transport requirements are satisfied, additional business-level exceptions may occur. In these cases, the Accept Acknowledgement Transport Wrapper acknowledgment type code may indicate an 'AA' code. The business-level exception shall be populated within the Registry Query Response Wrapper (MFMI_MT700746CA) and the A_IssueEventDetected-basic CMET (COCT_MT260022CA). There shall be no payload message included in these response messages.

The following table illustrates the business-level exception conditions that may occur.

Table 51 Control Event Exceptions

Exception	Detected Issue Event Code	Detected Issue Event Priority Code	Query Acknowledgement Response Code
Invalid query identifier	VALIDAT	E	QE
Identifier not found exception (Issued as warning)	KEY204	W	NF
Missing mandatory request elements	MISSMAND	E	QE
Invalid query request identifier format	FORMAT	E	QE

13.0 Data Types Summary

eHealth Ontario aligns to pan-Canadian data types, with additional constraints (see section 13.1). Please refer to the pan-Canadian MR 02.05 -20131212 Data Types specification for further details.

13.1 PN.FULL Data Type

The data types specification indicates pan-Canadian rules where at least one name part must be present with a name. This can be one of given, family, or other. eHealth Ontario Registries enforce a mandatory last name. Should any record have only one name, it shall be persisted in the last name field.

14.0 Common Message Element Types (CMETs)

This section provides details for Common Message/Model Element Types (CMETs) that are referenced as part of the Provider Registry messaging requirements. CMETs are generically-defined, reusable classes that are used to support the creation of a conformant HL7 message. The content is repeated in this document for completeness. Further information can be obtained by referencing the pan-Canadian document “SC-0006-EN – Implementation Guide volume 1 – Infrastructure MR02.05-20131212.pdf”.

14.1 R_PatientPersonIdentified-confirmable (COCT_MT050202CA)

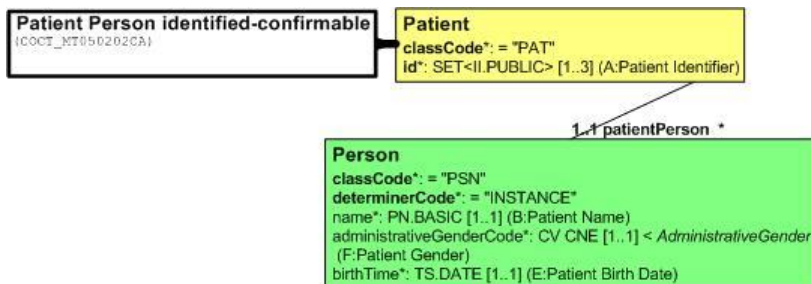


Figure 18- R_PatientPersonIdentified-confirmable (COCT_MT050202CA)

Table 52 CMET Description (COCT_MT050202CA)

Description	A person who is receiving or may receive healthcare services and has personal attributes (e.g. name, birth date).
Rationale	Information used to identify the patient and confirm their identity against the client registry

Table 53 Message Structure (COCT_MT050202CA)

COCT_MT050202CA Patient Person identified-confirmable	
Patient	Definition: A person who is receiving or may receive healthcare services and has personal attributes (e.g. name, birth date). UsageNotes: Only the identifier attribute is intended to be persisted, with the remaining attributes confirmed against the provider registry. Rationale: Information used to identify the patient and confirm their identity against the client registry.
classCode [1..1] (M) Patient (CS) {CNE:C:RoleClass:PAT, fixed value= "PAT"}	UsageNotes: Excluded from schemas.
id [1..3] (M) Patient (SET<II.PUBLIC>)	Definition: Unique identifier assigned to a person by a Federal, Provincial or Territorial jurisdiction. Rationale: Allows a patient to be referred to unambiguously. Because this is the principal mechanism for identifying patients to computer systems, the attribute is mandatory. If an identifier is not known, it should be looked up using the 'client registry' capabilities of the EHR application. The cardinality of patient identifiers is up to 3 based on the use case to support communication of a local and jurisdictional identifier along with the national identifier.
patientPerson [1..1] (Person)	
Person	
classCode [1..1] (M) Person (CS) {CNE:C:EntityClass:PSN, fixed value= "PSN"}	UsageNotes: Excluded from schemas.
determinerCode [1..1] (M) Person (CS)	UsageNotes: Excluded from schemas.

COCT_MT050202CA Patient Person identified- confirmable	
{CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	
name [1..1] Person (PN.BASIC)	Definition: The name by which the patient is known to the underlying client registry application Rationale: Used, with other patient identity attributes, to confirm patient identity. This element is 'populated' because the patient's name is necessary for positive identification of the patient in the jurisdictional client registry; however in some circumstances, it may not exist in the registry (e.g. newborn).
administrativeGenderCode [1..1] Person (CV) {CNE:D:AdministrativeGender}	Definition: Indicates the gender (sex) of the patient as known by the client registry. Complex genetic genders are handled as observations if they are considered relevant. Rationale: Used to confirm patient identity. The element is mandatory because the patient's gender is necessary for positive identification of the patient in the jurisdictional client registry and should always be known.
birthTime [1..1] Person (TS.DATE)	Definition: Indicates the date on which the patient was born, as known by the client registry. Rationale: Used to confirm patient identity. This element is 'populated' because the patient's birth date is necessary for positive identification of the patient in the jurisdictional client registry. However, there may be circumstances where the date of birth is not known to the registry.

14.2 R_AssignedPersonIdentified-confirmable (COCT_MT090102CA)

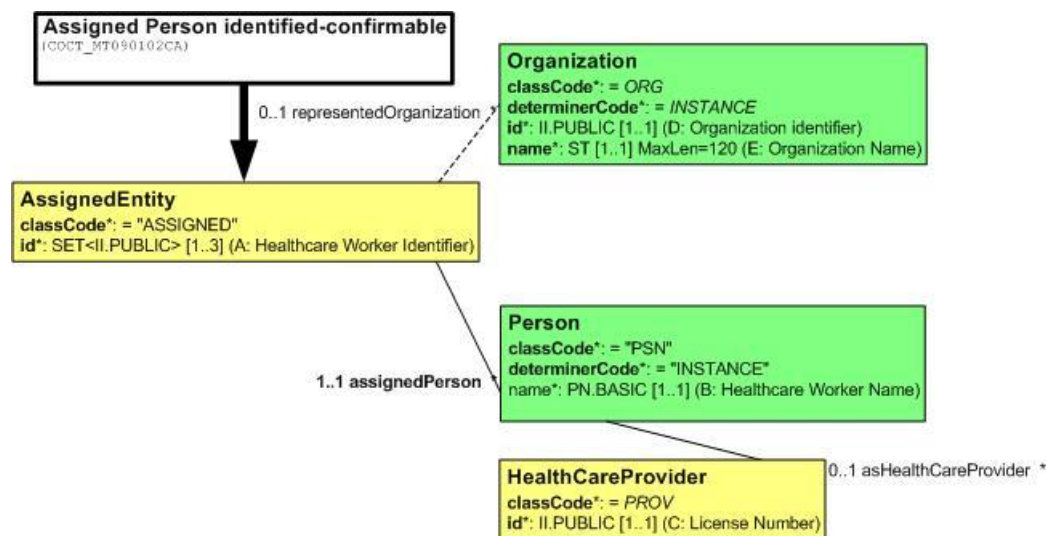


Figure 19- R_AssignedPersonIdentified-confirmable (COCT_MT090102CA)

Table 54 CMET Description (COCT_MT090102CA)

Description	The person assigned to carry out the associated action (linked by participation) and/or the organization/group under whose authority they are acting.
Rationale	Critical to tracking responsibility and performing follow-up. The CMET supports both licensed providers as well as non-licensed providers such as technicians, receptionists, etc.

Table 55 Message Structure (COCT_MT090102CA)

COCT_MT090102CA Assigned Person identified-confirmable	
AssignedEntity	Definition: The person assigned to carry out the associated action (linked by participation) and/or the organization/group under whose authority they are acting. Rationale: Critical to tracking responsibility and performing follow-up. The CMET supports both licensed providers as well as non-licensed providers such as technicians, receptionists, etc.
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:ASSIGNED, fixed value="ASSIGNED"}	UsageNotes: Excluded from schemas.
id [1..3] (M) Role (SET<II.PUBLIC>)	Definition: Unique identifier the person involved in the action. Rationale: Allows unique identification of the person which can be critical for authentication, permissions, drill-down and traceability and is, therefore, mandatory.
assignedPerson [1..1] (Person)	Definition: Describes the person actually involved in the action. Rationale: Even when an organization is taking responsibility, a person is generally involved in the work.
representedOrganization [0..1] (Organization)	Definition: Identifies the organization or group on whose behalf the action is performed. Rationale: Used for determining responsibility and potentially confirming permissions.
Person	Definition: Describes the person actually involved in the action. Rationale: Even when an organization is taking responsibility, a person is generally involved in the work.
classCode [1..1] (M) Person (CS) {CNE:C:EntityClass:PSN, fixed value="PSN"}	UsageNotes: Excluded from schemas.
determinerCode [1..1] (M) Person (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value="INSTANCE"}	UsageNotes: Excluded from schemas.
name [1..1]	Definition: The name of the involved person.

COCT_MT090102CA Assigned Person identified-confirmable	
Person (PN.BASIC)	Rationale: This is a human-readable name and is essential for validation of the person. As a result, the attribute is mandatory
asHealthCareProvider [0..1] (HealthCareProvider)	
HealthCareProvider	
classCode [1..1] (M) LicensedEntity (CS) {CNE:C:RoleClass:PROV, fixed value= "PROV"}	UsageNotes: Excluded from schemas.
id [1..1] (M) LicensedEntity (II.PUBLIC)	Definition: The license number issued to the provider and relevant to the current action. UsageNotes: If the identifier used in the root of the CMET is the same as the license number, the license number should be sent in both places. Rationale: Allows lookup on the college website, confirmation of identity, etc. Regulations occasionally require license numbers to be specified as part of clinical records.
Organization	Definition: Identifies the organization or group on whose behalf the action is performed. Rationale: Used for determining responsibility and potentially confirming permissions.
classCode [1..1] (M) Organization (CS) {CNE:C:EntityClass:ORG, fixed value= "ORG"}	UsageNotes: Excluded from schemas.
determinerCode [1..1] (M) Organization (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	UsageNotes: Excluded from schemas.
id [1..1] (M) Organization (II.PUBLIC)	Definition: A unique identifier for the organization Rationale: Allows the organization to be referenced when determining privileges and for drill-downs to retrieve additional information. Because of its importance, the attribute is mandatory.
name [1..1] (M) Organization (ST)	Definition: Identifies the name of the organization Rationale: Allows for human recognition of the organization as well as confirmation of the identifier. As a result, the attribute is mandatory.

14.3 AssignedPerson identified-informational (COCT_MT090108CA)

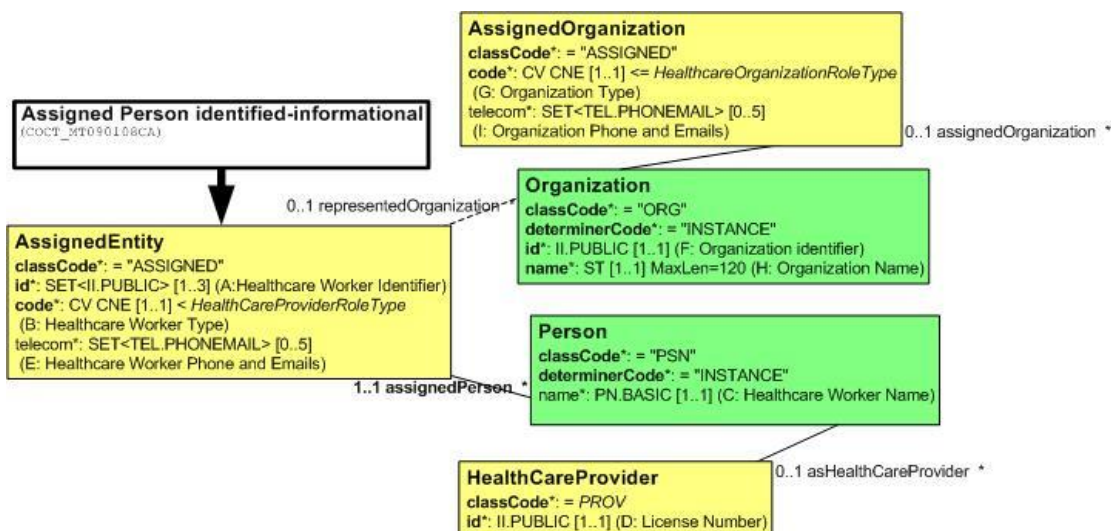


Figure 20- AssignedPerson identified-informational (COCT_MT090108CA)

Table 56 CMET Description (COCT_MT090108CA)

Description	The person assigned to carry out the associated (linked by a participation) action and/or the organization under whose authority they are acting.
Rationale	Critical to tracking responsibility and performing follow-up. The CMET supports both licensed providers as well as non-licensed providers such as technicians, receptionists, etc.

Table 57 Message Structure (COCT_MT090108CA)

COCT_MT090108CA Assigned Person identified-informational	
AssignedEntity	Definition: The person organization assigned to carry out the associated (linked by a participation) action and/or the organization under whose authority they are acting. UsageNotes: All attributes other than the various identifiers are expected to be retrieved from the provider registry. Rationale: Critical to tracking responsibility and performing follow-up. The CMET supports both licensed providers as well as non-licensed providers such as technicians, receptionists, etc.
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:ASSIGNED, fixed value="ASSIGNED"}	UsageNotes: Excluded from schemas.
id [1..3] (M) Role (SET<II.PUBLIC>)	Definition: Unique identifier the person involved in the action. Rationale: Allows unique identification of the person which can be critical for authentication, permissions, drill-down and traceability and is, therefore, mandatory.
code [1..1] (M) Role (CV) {CNE:D:HealthCareProviderRoleType}	Definition: Indicates the "kind" of healthcare participant, such as "physician", "dentist", "lab technician", "receptionist", etc. Rationale: Provides context around the actions of the participant and is, therefore, mandatory.
telecom [0..5] Role (SET<TEL.PHONEMAIL>)	Definition: Indicates phone and/or e-mail addresses at which the healthcare worker can be reached. Rationale: This is the most commonly used piece of contact information and is returned here to avoid unnecessary queries of the provider registry.
assignedPerson [1..1] (Person)	
representedOrganization [0..1] (Organization)	Definition: Identifies the organization on whose behalf the action is performed. Rationale: Used for determining responsibility and potentially confirming permissions.
Person	
classCode [1..1] (M)	UsageNotes: Excluded from schemas.

COCT_MT090108CA Assigned Person identified-informational	
Person (CS) {CNE:C:EntityClass:PSN, fixed value="PSN"}	
determinerCode [1..1] (M) Person (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value="INSTANCE"}	UsageNotes: Excluded from schemas.
name [1..1] Person (PN.BASIC)	Definition: The name of the participating person. Rationale: This is a human-readable name and is thus essential for both display and validation of the person. As a result, the attribute is mandatory.
asHealthCareProvider [0..1] (HealthCareProvider)	
HealthCareProvider	
classCode [1..1] (M) LicensedEntity (CS) {CNE:C:RoleClass:PROV, fixed value="PROV"}	UsageNotes: Excluded from schemas.
id [1..1] (M) LicensedEntity (II.PUBLIC)	Definition: The license number issued to the provider and relevant to the current action. UsageNotes: If the identifier used in the root of the CMET is the same as the license number, the license number should be sent in both places. Detailed information about the status and effective period of licenses must be retrieved from the provider registry. Rationale: Allows lookup on the college website, confirmation of identity, etc. Regulations occasionally require license numbers to be specified as part of clinical records.
Organization	Definition: Identifies the organization on whose behalf the action is performed. Rationale: Used for determining responsibility and potentially confirming permissions.
classCode [1..1] (M) Organization (CS) {CNE:C:EntityClass:ORG, fixed value="ORG"}	UsageNotes: Excluded from schemas.
determinerCode [1..1] (M) Organization (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value="INSTANCE"}	UsageNotes: Excluded from schemas.
id [1..1] (M) Organization (II.PUBLIC)	Definition: A unique identifier for the organization Rationale: Allows the organization to be referenced when determining privileges and for drill-downs to retrieve additional information. Because of its importance, the attribute is mandatory.
name [1..1] (M) Organization (ST)	Definition: Identifies the name of the organization Rationale: Allows for human recognition of the organization as well as confirmation of the identifier. As a result, the attribute is mandatory.
assignedOrganization [0..1] (AssignedOrganization)	
AssignedOrganization	
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:ASSIGNED, fixed value="ASSIGNED"}	UsageNotes: Excluded from schemas.
code [1..1] (M) Role (CV) {CNE:D:HealthcareOrganizationRoleType}	Definition: Identifies the type of organization on whose behalf the action was taken. E.g. Pharmacy, Clinic, Hospital, etc. Rationale: Provides context to the action and is, therefore, mandatory.
telecom [0..5] Role (SET<TEL.PHONEMAIL>)	Definition: Identifies contact information for the responsible organization. Rationale: This is the most commonly used contact information and is returned to avoid unnecessary queries against the client registry.

14.4 R_AssignedDeviceRepository (COCT_MT090310CA)

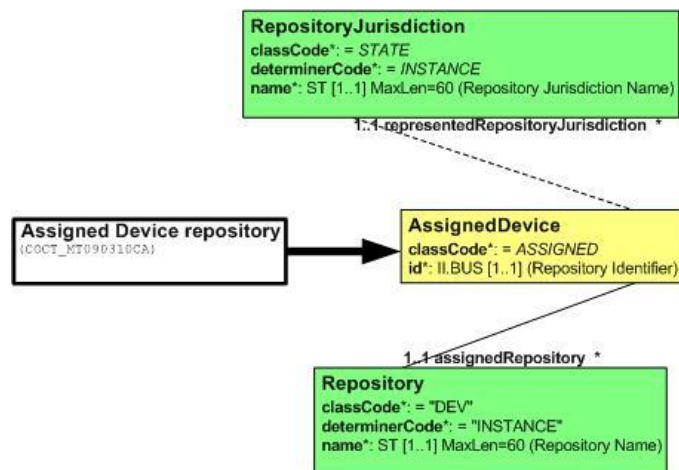


Figure 21- R_AssignedDeviceRepository (COCT_MT090310CA)

Table 58 CMET Description (COCT_MT090310CA)

Description	Identification of the EHR Infostructure responsible for the storage and management of the record.
Rationale	Provides context about the record and its management.

Table 59 Message Structure (COCT_MT090310CA)

COCT_MT090310CA Assigned Device repository	
AssignedDevice	Definition: Identification of the EHR infostructure responsible for the storage and management of the record. Rationale: Provides context about the record and its management.
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:ASSIGNED, fixed value="ASSIGNED"}	UsageNotes: Excluded from schemas.
id [1..1] (M) Role (II.BUS)	Definition: A unique identifier for the EHR repository. Rationale: Allows repositories to be uniquely identified for linking or grouping purposes and is, therefore, mandatory.
assignedRepository [1..1] (Repository)	
representedRepositoryJurisdiction [1..1] (RepositoryJurisdiction)	
Repository	
classCode [1..1] (M) Device (CS) {CNE:C:EntityClass:DEV, fixed value="DEV"}	UsageNotes: Excluded from schemas.
determinerCode [1..1] (M) Device (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value="INSTANCE"}	UsageNotes: Excluded from schemas.
name [1..1] (M) Device (ST)	Definition: The name of the repository which is responsible for maintaining the record. E.g. "Ontario Provider Registry Repository" Rationale: Provides a human-readable name for the repository and is therefore mandatory
RepositoryJurisdiction	
classCode [1..1] (M) Organization (CS) {CNE:C:EntityClass:STATE, fixed value="STATE"}	UsageNotes: Excluded from schemas.

COCT_MT090310CA Assigned Device repository	
determinerCode [1..1] (M) Organization (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value= "INSTANCE"}	UsageNotes: Excluded from schemas.
name [1..1] (M) Organization (ST)	Definition: The name of the jurisdiction that is responsible for the EHR infrastructure that contains and manages the record. Rationale: Establishes business context for determining custodianship, and is, therefore, mandatory.

14.5 R_AssigningOrganizationIdentified-confirmable (COCT_MT090502CA)

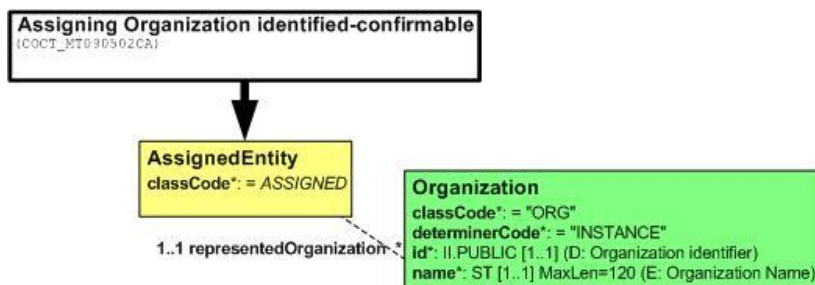


Figure 22- R_AssigningOrganizationidentified-confirmable (COCT_MT090502CA)

Table 60 CMET Description (COCT_MT090502CA)

Description	The organization under whose authority the associated action (linked by participation) was performed.
Rationale	Critical to tracking responsibility and performing follow-up.

Table 61 Message Structure (COCT_MT090502CA)

COCT_MT090502CA Assigning Organization identified-confirmable	
AssignedEntity	Definition: The organization under whose authority the associated action (linked by participation) was performed. Rationale: Critical to tracking responsibility and performing follow-up.
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:ASSIGNED, fixed value="ASSIGNED"}	UsageNotes: Excluded from schemas.
representedOrganization [1..1] (Organization)	Definition: Identifies the organization or group on whose behalf the action is performed. Rationale: Used for determining responsibility and potentially confirming permissions.
Organization	Definition: Identifies the organization or group on whose behalf the action is performed. Rationale: Used for determining responsibility and potentially confirming permissions.
classCode [1..1] (M) Organization (CS) {CNE:C:EntityClass:ORG, fixed value="ORG"}	UsageNotes: Excluded from schemas.
determinerCode [1..1] (M) Organization (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value="INSTANCE"}	UsageNotes: Excluded from schemas.
id [1..1] (M) Organization (II.PUBLIC)	Definition: A unique identifier for the organization Rationale: Allows the organization to be referenced when determining privileges and for drill-downs to retrieve additional information. Because of its importance, the attribute is mandatory.
name [1..1] (M) Organization (ST)	Definition: Identifies the name of the organization Rationale: Allows for human recognition of the organization as well as confirmation of the identifier. As a result, the attribute is mandatory.

14.6 R_ServiceDeliveryLocationMinimal (COCT_MT240012CA)

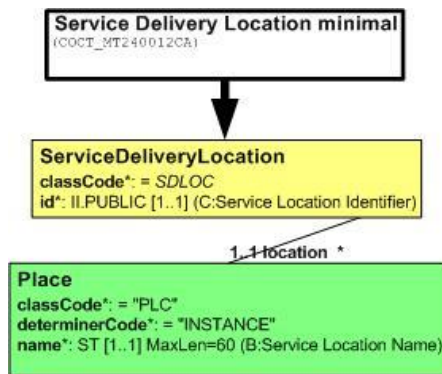


Figure 23- R_ServiceDeliveryLocationMinimal (COCT_MT240012CA)

Table 62 CMET Description (COCT_MT240012CA)

Description	An identification of a service location (or facility) where health service has been or can be delivered. E.g. Pharmacy, Medical Clinic, Hospital.
Rationale	Used for tracking service delivery responsibility but where contact information other than name is either not known or unneeded.

Table 63 Message Structure (COCT_MT240012CA)

COCT_MT240012CA Service Delivery Location minimal	
ServiceDeliveryLocation	Definition: An identification of a service location (or facility) that can be found in the service delivery location. E.g. Pharmacy, Medical Clinic, Hospital Rationale: Used for tracking service delivery responsibility, to provide contact information for follow-up and for statistical analysis. Also important for indicating where paper records can be located.
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:SDLOC, fixed value="SDLOC"}	UsageNotes: Excluded from schemas.
id [1..1] (M) Role (II.PUBLIC)	Definition: Unique identifier for a healthcare service location. Rationale: Allows for lookup and retrieval of detailed information about a specific service location. Also, ensures unique identification of service location and is, therefore, mandatory. The identifier is mandatory because it is the principal mechanism for uniquely identifying the facility.
location [1..1] (Place)	
Place	
classCode [1..1] (M) Place (CS) {CNE:C:EntityClass:PLC, fixed value="PLC"}	UsageNotes: Excluded from schemas.
determinerCode [1..1] (M) Place (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value="INSTANCE"}	UsageNotes: Excluded from schemas.
name [1..1] (M) Place (ST)	Definition: The name assigned to the service location. Rationale: Used for human communication, and for cross-checking of location Id and is, therefore, mandatory

14.7 A_IssueEventManager-basic (COCT_MT260012CA)

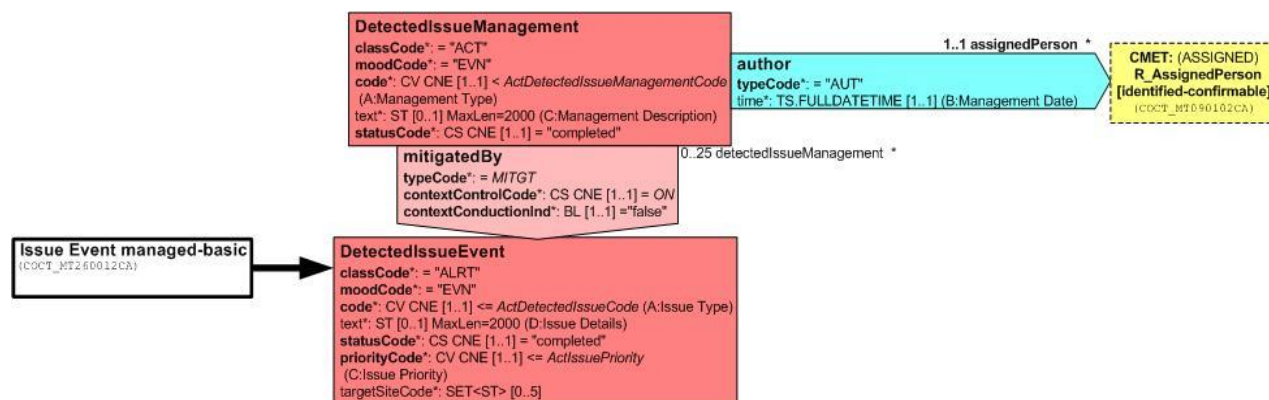


Figure 24- A_IssueEventManager-basic (COCT_MT260012CA)

Table 64 CMET Description (COCT_MT260012CA)

Description	This is the list of clinical and business issues that have been detected and recorded involving the current action.
Rationale	Provides a list of issues that have been detected and/or managed.

Table 65 Message Structure (COCT_MT260012CA)

COCT_MT260012CA Issue Event managed-basic	
DetectedIssueEvent	Definition: This is the list of clinical and business issues that have been detected and recorded involving the current action. Rationale: Provides a list of issues that have been detected and/or managed.
classCode [1..1] (M) Observation (CS) {CNE:C:ActClass:ALRT, fixed value="ALRT"}	UsageNotes: Excluded from schemas.
moodCode [1..1] (M) Observation (CS) {CNE:C:ActMood:EVN, fixed value="EVN"}	UsageNotes: Excluded from schemas.
code [1..1] (M) Observation (CV) {CNE:V:ActDetectedIssueCode}	Definition: A coded value that is used to distinguish between different kinds of issues. Types of the issue include: unrecognized identifiers, permission issues, drug-drug contraindications, drug-allergy alerts, duplicate therapies, etc. Rationale: Identifies what kind of issue was detected or is being managed. This is mandatory so as to ensure that one issue type can be distinguished from another.
text [0..1] Observation (ST)	Definition: A free-form textual description of a detected issue. This textual information is provided to either augment the coded information or in place of the coded information. Rationale: Lets providers see a textual explanation of the issue.
statusCode [1..1] (M) Observation (CS) {CNE:C:ActStatus:completed, fixed value="completed"}	
priorityCode [1..1] (M) Observation (CV) {CNE:D:ActIssuePriority}	Definition: A coded value denoting the importance of a detectable issue. Valid codes are: I - for Information, E - for Error, and W - for Warning. Rationale: Allows the provider to make an informed decision on the importance and criticality of an issue. May also be used by the DIS to determine the order of returning issues. The attribute is mandatory because every issue needs to be prioritized.
targetSiteCode [0..5] Observation (SET<ST>)	Definition: Used to identify XPath references that indicate which attributes from the message instance were involved in the issue.
mitigatedBy [0..25] (Mitigates)	Definition: Indicates how the issue has been managed. Rationale: Allows issues to be overridden and provides for enhanced clinical communication about issues.
Mitigates	Definition: Indicates how the issue has been managed.

COCT_MT260012CA Issue Event managed-basic	
	Rationale: Allows issues to be overridden and provides for enhanced clinical communication about issues.
typeCode [1..1] (M) ActRelationship (CS) {CNE:C:ActRelationshipType:MITGT, fixed value="MITGT"}	UsageNotes: Excluded from schemas.
contextControlCode [1..1] (M) ActRelationship (CS) {CNE:C:ContextControl:ON, fixed value="ON"}	UsageNotes: Excluded from schemas.
contextConductionInd [1..1] (M) ActRelationship (BL){fixed value="false"}	UsageNotes: Excluded from schemas.
detectedIssueManagement [1..1] (DetectedIssueManagement)	Definition: The processes and procedures employed by providers to resolve clinical and business issues between the action being performed and additional information already in the patient's record or system business rules. Rationale: It allows overriding of the detected issue
DetectedIssueManagement	Definition: The processes and procedures employed by providers to resolve clinical and business issues between the action being performed and additional information already in the patient's record or system business rules. Rationale: It allows overriding of the detected issue
classCode [1..1] (M) Act (CS) {CNE:C:ActClass:ACT, fixed value="ACT"}	UsageNotes: Excluded from schemas.
moodCode [1..1] (M) Act (CS) {CNE:C:ActMood:EVN, fixed value="EVN"}	UsageNotes: Excluded from schemas.
code [1..1] (M) Act (CV) {CNE:V:ActDetectedIssueManagementCode}	Definition: Indicates the kinds of management actions that have been taken, depending on the issue type. Rationale: Ensures consistency in the description of management actions. This is mandatory so as to ensure the distinction between different kinds of management.
text [0..1] Act (ST)	Definition: Additional free-text details describing the management of the issue. Rationale: Allows additional clinical detail to be conveyed that are important clinically and not conveyed by the code.
statusCode [1..1] (M) Act (CS) {CNE:C:ActStatus:completed, fixed value="completed"}	
author [1..1] (Author1)	Definition: Identifies the provider who managed the issue. Rationale: Part of the audit record and therefore mandatory.
Author1	Definition: Identifies the provider who managed the issue. Rationale: Part of the audit record and therefore mandatory.
typeCode [1..1] (M) Participation (CS) {CNE:C:ParticipationType:AUT, fixed value="AUT"}	UsageNotes: Excluded from schemas.
time [1..1] Participation (TS.FULLDATETIME)	Definition: The date and time on which the provider managed the issue. Rationale: Part of the audit record, but not always available and therefore 'populated'.
assignedEntity [1..1] (R_AssignedPersonIdentified-confirmable)	

14.8 A_IssueEventDetected-basic (COCT_MT260022CA)

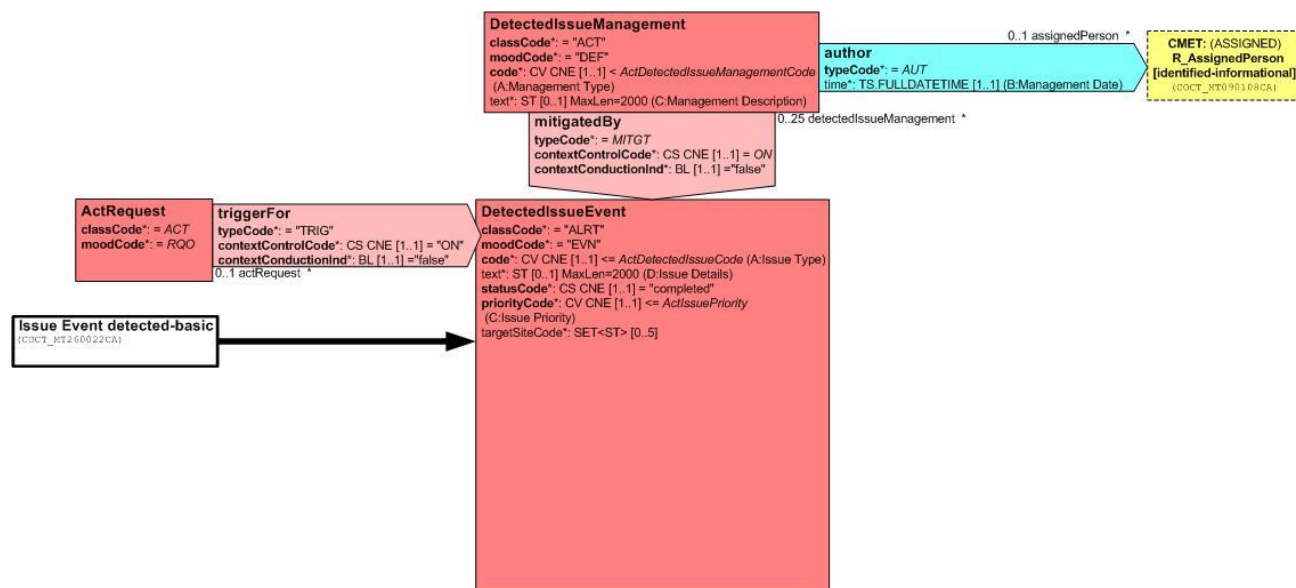


Figure 25- A_IssueEventDetected-basic (COCT_MT260022CA)

Table 66 CMET Description (COCT_MT260022CA)

Description	This is the list of clinical and business-rule issues that have been detected and recorded involving the current action.
Rationale	Provides a list of issues that have been detected.

Table 67 Message Structure (COCT_MT260022CA)

COCT_MT260022CA Issue Event detected-basic	
DetectedIssueEvent	Definition: This is the list of clinical and business-rule issues that have been detected and recorded involving the current action. Rationale: Provides a list of issues that have been detected.
classCode [1..1] (M) Observation (CS) {CNE:C:ActClass:ALRT, fixed value="ALRT"}	UsageNotes: Excluded from schemas.
moodCode [1..1] (M) Observation (CS) {CNE:C:ActMood:EVN, fixed value="EVN"}	UsageNotes: Excluded from schemas.
code [1..1] (M) Observation (CV) {CNE:V:ActDetectedIssueCode}	Definition: A coded value that is used to distinguish between different kinds of issues. Types of the issue include: unrecognized identifiers, permission issues, drug-drug contraindications, drug-allergy alerts, duplicate therapies, etc. Rationale: Identifies what kind of issue was detected. This is mandatory so as to ensure that one issue type can be distinguished from another.
text [0..1] Observation (ST)	Definition: A free-form textual description of a detected issue. This textual information is provided to either augment the coded information or in place of the coded information. Rationale: Lets providers see a textual explanation of the issue.
statusCode [1..1] (M) Observation (CS) {CNE:C:ActStatus:completed, fixed value="completed"}	
priorityCode [1..1] (M) Observation (CV) {CNE:D:ActIssuePriority}	Definition: A coded value denoting the importance of a detectable issue. Valid codes are: I - for Information, E - for Error, and W - for Warning. Rationale: Allows the provider to make an informed decision on the importance and criticality

COCT_MT260022CA Issue Event detected-basic	
	of an issue. May also be used by the DIS to determine the order of returning issues. The attribute is mandatory because every issue needs to be prioritized.
targetSiteCode [0..5] Observation (SET<ST>)	Definition: Used to identify XPath references that indicate which attribute in a message instance were involved in the issue.
mitigatedBy [0..25] (Mitigates)	Definition: Indicates how the issue could be managed. Rationale: Allows past or potential managements to be displayed to assist providers in determining how to manage a particular issue.
triggerFor [0..1] (Trigger2)	Definition: Information that indicates whether or not a detected issue needs to be managed. Rationale: Lets applications distinguish between minor issues that require no management versus those that need management to successfully process the request. The association behaves as a mandatory attribute where the presence of the association indicates 'true', while the absence of indicates 'false'. Mapping: Contraindication.ManagementRequired (True, if this association is present)
Mitigates	Definition: Indicates how the issue could be managed. Rationale: Allows past or potential managements to be displayed to assist providers in determining how to manage a particular issue.
typeCode [1..1] (M) ActRelationship (CS) {CNE:C:ActRelationshipType:MITGT, fixed value= "MITGT"}	UsageNotes: Excluded from schemas.
contextControlCode [1..1] (M) ActRelationship (CS) {CNE:C:ContextControl:ON, fixed value= "ON"}	UsageNotes: Excluded from schemas.
contextConductionInd [1..1] (M) ActRelationship (BL){fixed value= "false"}	UsageNotes: Excluded from schemas.
detectedIssueManagement [1..1] (DetectedIssueManagement)	Definition: The processes and procedures employed by providers to resolve clinical conflicts between the action being performed and additional information already in the patient's record. Rationale: Presents alternatives for how the issue could be managed or has been managed in the past.
DetectedIssueManagement	Definition: The processes and procedures employed by providers to resolve clinical conflicts between the action being performed and additional information already in the patient's record. Rationale: Presents alternatives for how the issue could be managed or has been managed in the past.
classCode [1..1] (M) Act (CS) {CNE:C:ActClass:ACT, fixed value= "ACT"}	UsageNotes: Excluded from schemas.
moodCode [1..1] (M) Act (CS) {CNE:C:ActMood:DEF, fixed value= "DEF"}	UsageNotes: Excluded from schemas.
code [1..1] (M) Act (CV) {CNE:V:ActDetectedIssueManagementCode}	Definition: Indicates the kinds of management actions that can be taken, based on the issue type. Rationale: Ensures consistency in the description of management actions. This is mandatory so as to ensure the distinction between different kinds of management.
text [0..1] Act (ST)	Definition: Additional free-text details describing the management of the issue. Rationale: Allows additional clinical detail to be conveyed that are important clinically and not conveyed by the code.
author [0..1] (Author1)	Definition: Identifies the provider who created the management of the issue. Rationale: Part of the audit record, but may not always be known for historical managements.
Author1	Definition: Identifies the provider who created the management of the issue. Rationale: Part of the audit record, but may not always be known for historical managements.
typeCode [1..1] (M) Participation (CS) {CNE:C:ParticipationType:AUT, fixed value= "AUT"}	UsageNotes: Excluded from schemas.
time [1..1] Participation (TS.FULLDATETIME)	Definition: The date and time on which the provider used this management for the issue in the past.

COCT_MT260022CA Issue Event detected-basic	
	Rationale: Part of the audit record but not always available and therefore only marked as 'populated'.
assignedEntity [1..1] (R_AssignedPersonIdentified-informational)	
Trigger2	Definition: Information that indicates whether or not a detected issue needs to be managed. Rationale: Lets applications distinguish between minor issues that require no management versus those that need management to successfully process the request. The association behaves as a mandatory attribute where the presence of the association indicates 'true', while the absence of indicates 'false'.
typeCode [1..1] (M) ActRelationship (CS) {CNE:C:ActRelationshipType:TRIG, fixed value="TRIG"}	UsageNotes: Excluded from schemas.
contextControlCode [1..1] (M) ActRelationship (CS) {CNE:C:ContextControl:ON, fixed value="ON"}	UsageNotes: Excluded from schemas.
contextConductionInd [1..1] (M) ActRelationship (BL){fixed value="false"}	UsageNotes: Excluded from schemas.
actRequest [1..1] (ActRequest)	
ActRequest	
classCode [1..1] (M) Act (CS) {CNE:C:ActClass:ACT, fixed value="ACT"}	UsageNotes: Excluded from schemas.
moodCode [1..1] (M) Act (CS) {CNE:C:ActMood:RQO, fixed value="RQO"}	UsageNotes: Excluded from schemas.

14.9 A_ConsentEventRegistryBasic (COCT_MT470012CA)

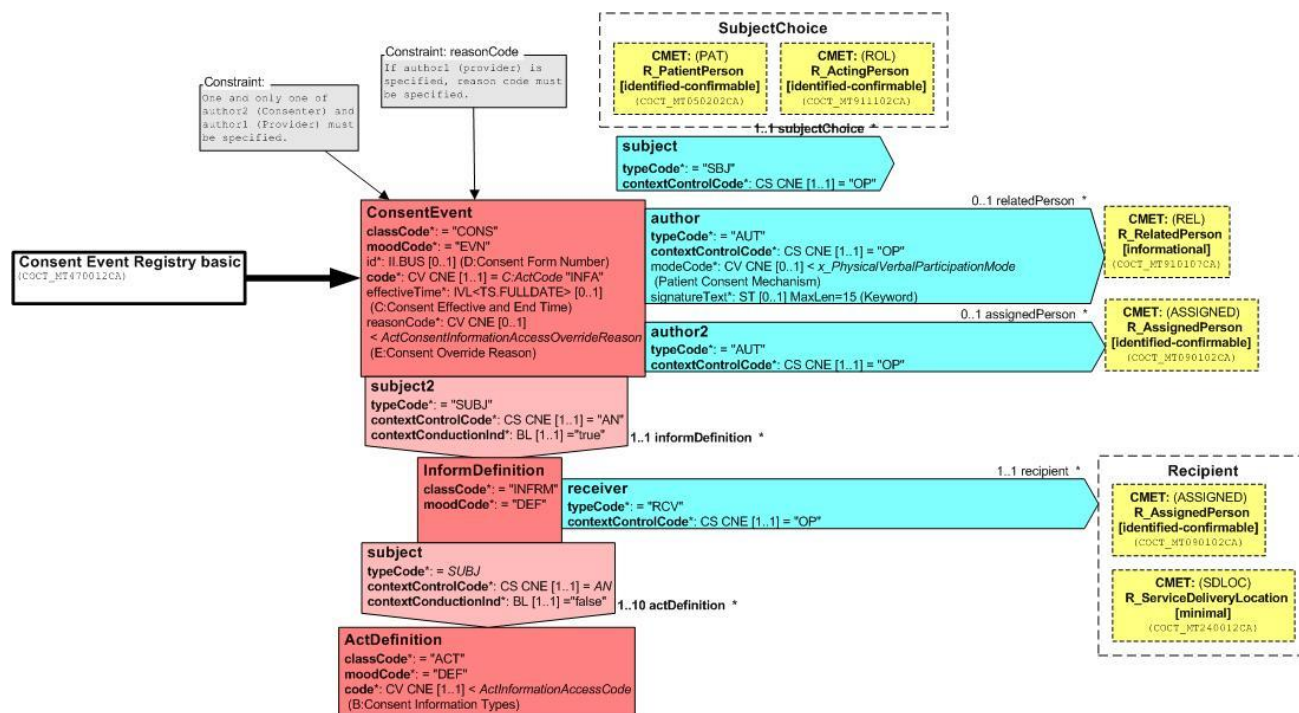


Figure 26- A_ConsentEventRegistryBasic (COCT_MT470012CA)

Table 68 CMET Description (COCT_MT470012CA)

Description	Information pertaining to a patient's agreement/acceptance to have his/her clinical information electronically stored and shared.
Rationale	Provides authorization to record and/or view patient information. Indicates the consent or keyword used to authorize access or update, including a reason for access; May also be used to overriding access restriction to the information ('break the glass') on a message by message basis. May be required on a Prescription Request to indicate a keyword for contraindication checking.

Table 69 Message Structure (COCT_MT470012CA)

COCT_MT470012CA Consent Event Registry basic	
ConsentEvent [Constraint: "One and only one of author2 (Consenter) and author1 (Provider) must be specified."]	Definition: Information pertaining to a patient's (or client or provider) agreement/acceptance to have his/her clinical or demographic information electronically stored and shared. UsageNotes: The keywords will not be passed from prescriber to dispenser by the DIS. Rationale: Provides authorization to record and/or view patient, client, or provider information. Indicates the consent or keyword used to authorize access or update, including a reason for access; May also be used to overriding access restriction to the information ('break the glass') on a message by message basis. May be required on a Prescription Request to indicate a keyword for DUR processing.
classCode [1..1] (M) Act (CS) {CNE:C:ActClass:CONS, fixed value= "CONS"}	UsageNotes: Excluded from schemas.
moodCode [1..1] (M) Act (CS) {CNE:C:ActMood:EVN, fixed value= "EVN"}	UsageNotes: Excluded from schemas.
id [0..1] Act (II.BUS)	Definition: A unique identifier for a specific consent for a patient, client or provider. Rationale: Provides a traceable audit link between a physical consent form and its

COCT_MT470012CA Consent Event Registry basic	
	electronic record
code [1..1] (M) Act (CV) {CNE:C:ActCode:INFA, fixed value= "INFA"}	
effectiveTime [0..1] Act (IVL<TS.FULLDATE>)	Definition: Indicates the time that the consent will expire. 'Low' is effective time and 'High' is end time. Rationale: Most consents are not open-ended, to ensure the patient, client, or provider retains a level of control.
reasonCode [0..1] Act (CV) {CNE:D:ActConsentInformationAccessOverrideReason} Constraint: If author1 (provider) is specified, reason code must be specified.	Definition: Indicates a reason for overriding a patient's (or client or provider) consent rules. Rationale: Important for audit purposes
subject1 [1..1] (Subject)	Definition: The client's(or patient's) or provider's record the consent is associated with. Rationale: Essential for knowing what patient, client, or provider the consent is for, and therefore mandatory.
author1 [0..1] (Author)	Definition: Indicates that the consent was provided by the patient, client, provider or representative. Rationale: Consent can be provided by the patient or representative or the provider.
author2 [0..1] (Author2)	Definition: Indicates that information access was approved by a provider rather than a patient, client, or original provider. I.e. This is an override rather than an actual consent, and is used for the purposes of 'breaking the glass' only. Rationale: Clinical circumstances may demand that a patient's information be accessed without consent to ensure patient safety.
subject2 [1..1] (Subject2)	
Subject	Definition: The client's(or patient's) or provider's record the consent is associated with. Rationale: Essential for knowing what patient, client, or provider the consent is for, and therefore mandatory.
typeCode [1..1] (M) Participation (CS) {CNE:C:ParticipationType:SBJ, fixed value= "SBJ"}	UsageNotes: Excluded from schemas.
contextControlCode [1..1] (M) Participation (CS) {CNE:C:ContextControl:OP, fixed value= "OP"}	UsageNotes: Excluded from schemas.
subjectChoice [1..1] (SubjectChoice)	
SubjectChoice	
choice of R_PatientPersonIdentified-confirmable	
or R_ActingPersonIdentified-confirmable	
Author	Definition: Indicates that the consent was provided by the patient, client, provider or representative. Rationale: Consent can be provided by the patient or representative or the provider.
typeCode [1..1] (M) Participation (CS) {CNE:C:ParticipationType:AUT, fixed value= "AUT"}	UsageNotes: Excluded from schemas.
contextControlCode [1..1] (M) Participation (CS) {CNE:C:ContextControl:OP, fixed value= "OP"}	UsageNotes: Excluded from schemas.
modeCode [0..1] Participation (CV) {CNE:V:x_PhysicalVerbalParticipationMode}	Definition: Indicates whether the patient's consent is written or verbal. Rationale: Verbal consents may trigger a higher level of auditing.
signatureText [0..1] Participation (ST)	Definition: Indicates the keyword appropriate to the action being performed by the message. Rationale: Allows providers who know the keyword to access information protected by patient keywords.

COCT_MT470012CA Consent Event Registry basic	
personalRelationship [1..1] (R_RelatedPersonInformational)	
Author2	Definition: Indicates that information access was approved by a provider rather than a patient, client, or original provider. I.e. This is an override rather than an actual consent, and is used for the purposes of 'breaking the glass' only. Rationale: Clinical circumstances may demand that a patient's information be accessed without consent to ensure patient safety.
typeCode [1..1] (M) Participation (CS) {CNE:C:ParticipationType:AUT, fixed value="AUT"}	UsageNotes: Excluded from schemas.
contextControlCode [1..1] (M) Participation (CS) {CNE:C:ContextControl:OP, fixed value="OP"}	UsageNotes: Excluded from schemas.
assignedEntity [1..1] (R_AssignedPersonIdentified-confirmable)	
Subject2	
typeCode [1..1] (M) ActRelationship (CS) {CNE:C:ActRelationshipType:SUBJ, fixed value="SUBJ"}	UsageNotes: Excluded from schemas.
contextControlCode [1..1] (M) ActRelationship (CS) {CNE:C:ContextControl:AN, fixed value="AN"}	UsageNotes: Excluded from schemas.
contextConductionInd [1..1] (M) ActRelationship (BL){fixed value="true"}	UsageNotes: Excluded from schemas.
informDefinition [1..1] (InformDefinition)	Definition: Defines the types of information permission is being granted to access. Rationale: Allows discrete control over different types of information.
InformDefinition	Definition: Defines the types of information permission is being granted to access. Rationale: Allows discrete control over different types of information.
classCode [1..1] (M) Act (CS) {CNE:C:ActClass:INFRM, fixed value="INFRM"}	UsageNotes: Excluded from schemas.
moodCode [1..1] (M) Act (CS) {CNE:C:ActMood:DEF, fixed value="DEF"}	UsageNotes: Excluded from schemas.
receiver [1..1] (Receiver)	Definition: Identifies the beneficiary of the consent as being a Provider or Service Location. Rationale: Indicates who is receiving consent to view information. This participation is marked as "populated" as receiver must be specified when the keyword is involved.
subject [1..10] (Subject3)	
Receiver	Definition: Identifies the beneficiary of the consent as being a Provider or Service Location. Rationale: Indicates who is receiving consent to view information. This participation is marked as "populated" as receiver must be specified when the keyword is involved.
typeCode [1..1] (M) ManagedParticipation (CS) {CNE:C:ParticipationType:RCV, fixed value="RCV"}	UsageNotes: Excluded from schemas.
contextControlCode [1..1] (M) ManagedParticipation (CS) {CNE:C:ContextControl:OP, fixed value="OP"}	UsageNotes: Excluded from schemas.
recipient [1..1] (Recipient)	
Recipient	
choice of R_AssignedPersonIdentified-confirmable or R_ServiceDeliveryLocationMinimal	
Subject3	
typeCode [1..1] (M)	UsageNotes: Excluded from schemas.

COCT_MT470012CA Consent Event Registry basic	
ActRelationship (CS) {CNE:C:ActRelationshipType:SUBJ, fixed value= "SUBJ"}	
contextControlCode [1..1] (M) ActRelationship (CS) {CNE:C:ContextControl:AN, fixed value= "AN"}	<i>UsageNotes:</i> Excluded from schemas.
contextConductionInd [1..1] (M) ActRelationship (BL){fixed value= "false"}	<i>UsageNotes:</i> Excluded from schemas.
actDefinition [1..1] (ActDefinition)	
ActDefinition	
classCode [1..1] (M) Act (CS) {CNE:C:ActClass:ACT, fixed value= "ACT"}	<i>UsageNotes:</i> Excluded from schemas.
moodCode [1..1] (M) Act (CS) {CNE:C:ActMood:DEF, fixed value= "DEF"}	<i>UsageNotes:</i> Excluded from schemas.
code [1..1] (M) Act (CV) {CNE:D:ActInformationAccessCode}	<i>Definition:</i> The type of patient, client, or provider information that can be accessed or modified. <i>Rationale:</i> Different consents (or even keywords) may be needed to access different types of patient, client, or provider information (e.g. demographics, medications, allergies, lab results). Understanding the type of information the consent applies to is critical, and therefore the attribute is mandatory.

14.10 R_RelatedPersonIdentified-confirmable (COCT_MT910102CA)

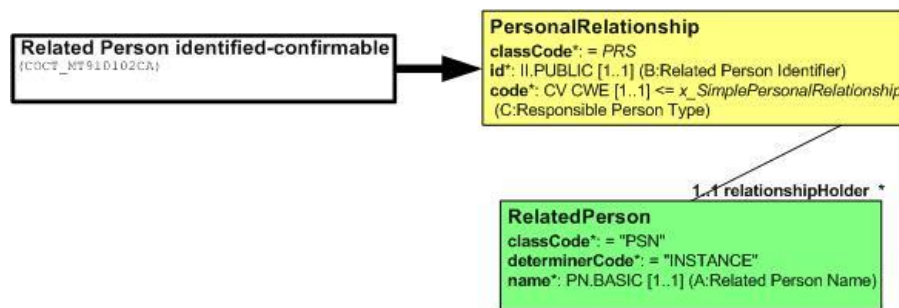


Figure 27- R_RelatedPersonIdentified-confirmable (COCT_MT910102CA)

Table 70 CMET Description (COCT_MT910102CA)

Description	Describes a person (other than a health-care provider or employee) who is providing information and making a decision on behalf of the patient, in relation to the delivery of healthcare for the patient. E.g. Patient's mother. Also used with a relationship of "self" when the patient themselves is providing the care. The expectation is that the person can be found in the client registry.
Rationale	Important for tracking the source of information for decision making and other actions taken on behalf of a patient.

Table 71 Message Structure (COCT_MT910102CA)

COCT_MT910102CA Related Person identified-confirmable	
PersonalRelationship	Definition: Describes a person (other than a health-care provider or employee) who is providing information and making a decision on behalf of the patient, in relation to the delivery of healthcare for the patient. E.g. Patient's mother. Also used with a relationship of "self" when the patient themselves is providing the care. The expectation is that the person can be found in the client registry. Rationale: Important for tracking the source of information for decision making and other actions taken on behalf of a patient.
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:PRS, fixed value="PRS"}	UsageNotes: Excluded from schemas.
id [1..1] (M) Role (II.PUBLIC)	Definition: A unique identifier for the responsible person (as found in a client registry). Rationale: Allows a person to be uniquely referred to and retrieved from the client registry and is, therefore, mandatory.
code [1..1] (M) Role (CV) {CWE:D:x_SimplePersonalRelationship}	Definition: A coded value indicating how the responsible person is related to the patient. If the code is "SELF", it indicates that the action was performed by the patient themselves. Rationale: Essential for understanding the authority to perform certain actions as well as the context of the information and is, therefore, mandatory. E.g. A 'friend' may not be able to make consent decisions, but may be able to pick up dispenses.
relationshipHolder [1..1] (RelatedPerson)	
RelatedPerson	
classCode [1..1] (M) Person (CS) {CNE:C:EntityClass:PSN, fixed value="PSN"}	UsageNotes: Excluded from schemas.
determinerCode [1..1] (M) Person (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value="INSTANCE"}	UsageNotes: Excluded from schemas.
name [1..1] (M) Person (PN.BASIC)	Definition: The name by which the responsible person is known Rationale: Used when contacting or addressing the responsible person. Because this will be the principle means of identifying the responsible person, it is mandatory.

14.11 R_RelatedPersonInformational (COCT_MT910107CA)

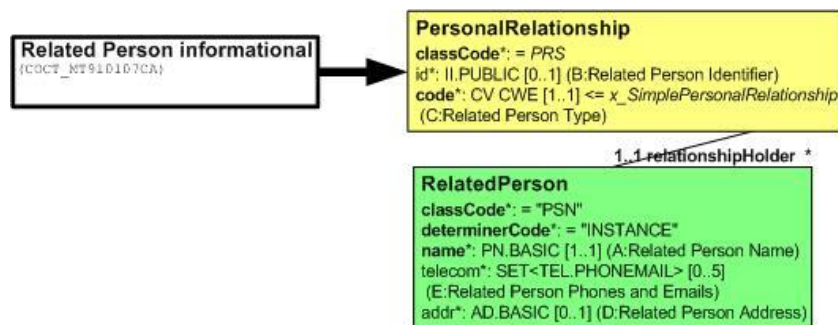


Figure 28- R_RelatedPersonInformational (COCT_MT910107CA)

Table 72 CMET Description (COCT_MT910107CA)

Description	Describes a person (other than a health-care provider or employee) who is providing information and making a decision on behalf of the patient, in relation to the delivery of healthcare for the patient. E.g. Patient's mother. Used when the person cannot be found in the Client registry.
Rationale	Important for tracking the source of information for decision making and other actions taken on behalf of a patient.

Table 73 Message Structure (COCT_MT910107CA)

COCT_MT910107CA Related Person informational	
PersonalRelationship	Definition: Describes a person (other than a health-care provider or employee) who is providing information and making a decision on behalf of the patient, in relation to the delivery of healthcare for the patient. E.g. Patient's mother. Used when the person cannot be found in the Client registry. Rationale: Important for tracking the source of information for decision making and other actions taken on behalf of a patient.
classCode [1..1] (M) Role (CS) {CNE:C:RoleClass:PRS, fixed value="PRS"}	UsageNotes: Excluded from schemas.
id [0..1] Role (II.PUBLIC)	Definition: A unique identifier for the related person. May include PHNs, drivers license or other identifiers. Rationale: Allows a person to be uniquely referred to.
code [1..1] (M) Role (CV) {CWE:D:x_SimplePersonalRelationship}	Definition: A coded value indicating how the related person is related to the patient. Rationale: Essential for understanding the authority to perform certain actions as well as the context of the information and is, therefore, mandatory. E.g. A 'friend' may not be able to make consent decisions, but may be able to pick up dispenses.
relationshipHolder [1..1] (RelatedPerson)	
RelatedPerson	
classCode [1..1] (M) Person (CS) {CNE:C:EntityClass:PSN, fixed value="PSN"}	UsageNotes: Excluded from schemas.
determinerCode [1..1] (M) Person (CS) {CNE:C:EntityDeterminer:INSTANCE, fixed value="INSTANCE"}	UsageNotes: Excluded from schemas.
name [1..1] (M) Person (PN.BASIC)	Definition: The name by which the responsible person is known Rationale: Used when contacting or addressing the responsible person. Because this will be the principle means of identifying the responsible person, it is mandatory.
telecom [0..5] Person (SET<TEL.PHONEMAIL>)	Definition: The phone number(s) and email address(s) by which a related person may be contacted. Rationale: Used to contact the related person.
addr [0..1] Person (AD.BASIC)	Definition: The mail and/or physical address associated with a related person. Rationale: Used to contact the related person.

14.12 R_ActingPersonIdentified-confirmable (COCT_MT911102CA)

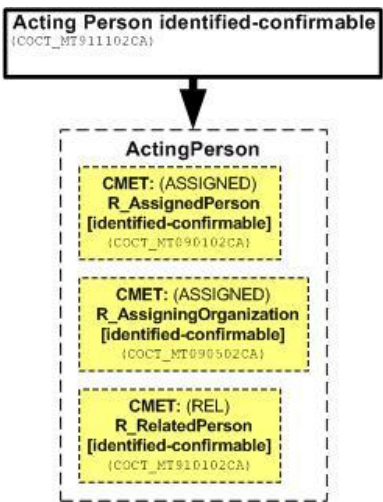


Figure 29- R_ActingPersonIdentified-confirmable (COCT_MT911102CA)

Table 74 CMET Description (COCT_MT911102CA)

Description	The organization under whose authority the associated action (linked by participation) was performed.
Rationale	Critical to tracking responsibility and performing follow-up.

Table 75 Message Structure (COCT_MT911102CA)

COCT_MT911102CA	
Acting Person identified-confirmable	
ActingPerson	
choice of R_AssignedPersonIdentified-confirmable	
or R_AssigningOrganizationIdentified-confirmable	
or R_RelatedPersonIdentified-confirmable	

15.0 HL7 Messaging Fundamentals

The Message Specifications have been developed following the HL7 v3 (Health Level 7 Version 3) Message Development Methodology (MDF). For those readers who do not have an understanding of the HL7 Reference Information Model (RIM), the HL7 methodology, the authors recommend that the reader refers to the HL7 Release documentation (available to HL7 members at www.hl7.org) to augment this document.

15.1 Message Wrappers and Payloads

- Transactions consist of one or more messages to support both outbound and inbound communications (i.e. send/receive pairs). Every HL7Transport Wrapper: One can think of transport wrappers as being the equivalent of envelopes which describe where the message originated and where it is being sent, primarily in technical terms. For example, the transport wrapper indicates which system originated the message.
- Message Content: The message content includes two components:
 - Control Event Wrapper: One can think of control event wrappers as file folders which provide business information about the content. This wrapper contains information about the business event that precipitated the sending of this message, who sent it and other associated business information such as the facility from which it was sent. This wrapper will, for example, also include the Prescriber for a new prescription request;
 - Payload: This consists of the core data attributes for the message such as a prescription order or dispense event.

It is the combination of each of these components that make up a valid HL7 interaction.

Of note, any particular message component (e.g. Rx Order Payload) may include nested message models (e.g. Patient). The use of multiple message models in a message allows message models to be reused multiple times to provide consistency throughout all domains in the HL7 standard. For example, the Patient message model can be used in an Rx Order message, in an Rx Dispense message as well as in a Lab or Claims related message.

15.2 Indicating Message Version in the Transport Wrapper

With multiple releases of pan-Canadian Specifications being implemented across Canada and with the possibility that a jurisdiction will support multiple releases, there is a need to identify in the message instance what release the instance conforms to.

HL7v3 messages have an attribute in the Transport Wrapper called `profileID`. The definition of this attribute in the MIF is “Identifies the conformance profile(s) this message complies with.”

To allow for implementations to indicate the Specification that they are conforming to, jurisdictions **MUST** define a release identifier for their constrained version of the pan-Canadian Specifications.

Every message instance that is created by an implementation will conform to at least one specification release. Some instances may be conformant to multiple specification releases – especially when the implementation is pan-Canadian in nature. For example, laboratory software used in Manitoba may be capable of sending messages that conform to a

version of the Manitoba constrained Specifications, to a version of the pan-Canadian Specifications, and to a version of the Saskatchewan constrained Specifications.

When the message instance is created, the profileID attribute MAY be populated with all the release identifiers of the specifications that the message is conformant to. At a minimum, the profileID attribute MUST be populated with the release identifier for the jurisdiction that the message is being sent to. In the example above, the laboratory software, when sending a Lab Order request, must include the release identifier for the Manitoba Specification, but may also include the pan-Canadian Specification release identifier, and the Saskatchewan Specification release identifier. By sending a release identifier, the sending system is indicating that they are conformant to that release of both the sending interaction and the receiving interaction.

When a message instance is received, the receiver will need to scan all of the profileID attributes to determine whether the message conforms to specifications that the receiver understands. Once the receiver has determined the appropriate profileID, the receiver MUST then ensure that the response conforms to that release identifier.

Along with identifying the Specification release identifier, it is possible to indicate the identifier of the pan-Canadian Conformance Profiles and the Implementation Conformance Profiles that a message instance is conforming to. Since the pan-Canadian Conformance Profiles are published in the Specification release, there is no need to indicate the version of the pCCPs since that is implied by the indicated pan-Canadian Specification release identifier. For example, indicating that a message instance is conformant to MR 02.05 implies the specific version of the pCCP, e.g. V2 of LAB-005. Similarly, an Implementation Conformance Profile should be associated with a specific release of a jurisdiction Specification. However, for clarity, an implementation can send the list of Conformance Profiles in the message instance.

Example of Use

Here is an example of how implementations will send the information in the transport wrapper, using the profileID attribute:

- <profileID root="Jurisdiction 1 Release OID" extension="Jurisdiction 1 Release identifier"> (the only mandatory identifier)
- <profileID root="Jurisdiction 2 Release OID" extension="Jurisdiction 2 Release identifier"> (optional but good to send if known)
- <profileID root=" pan-Canadian HL7 v3 Specification OID" extension="pan-Canadian Release Identifier"/> (optional as the Jurisdictional identifier implies this)
- <profileID root="Implementation Conformance Profile OID" extension="XXX-XXX"/> (optional, included for documentation/future purposes)
- <profileID root=" pan-Canadian Conformance Profile OID" extension="XXX-XXX"/> (optional as the ICP identifier implies this)

The diagram below helps to illustrate the wrapper and payload concept:

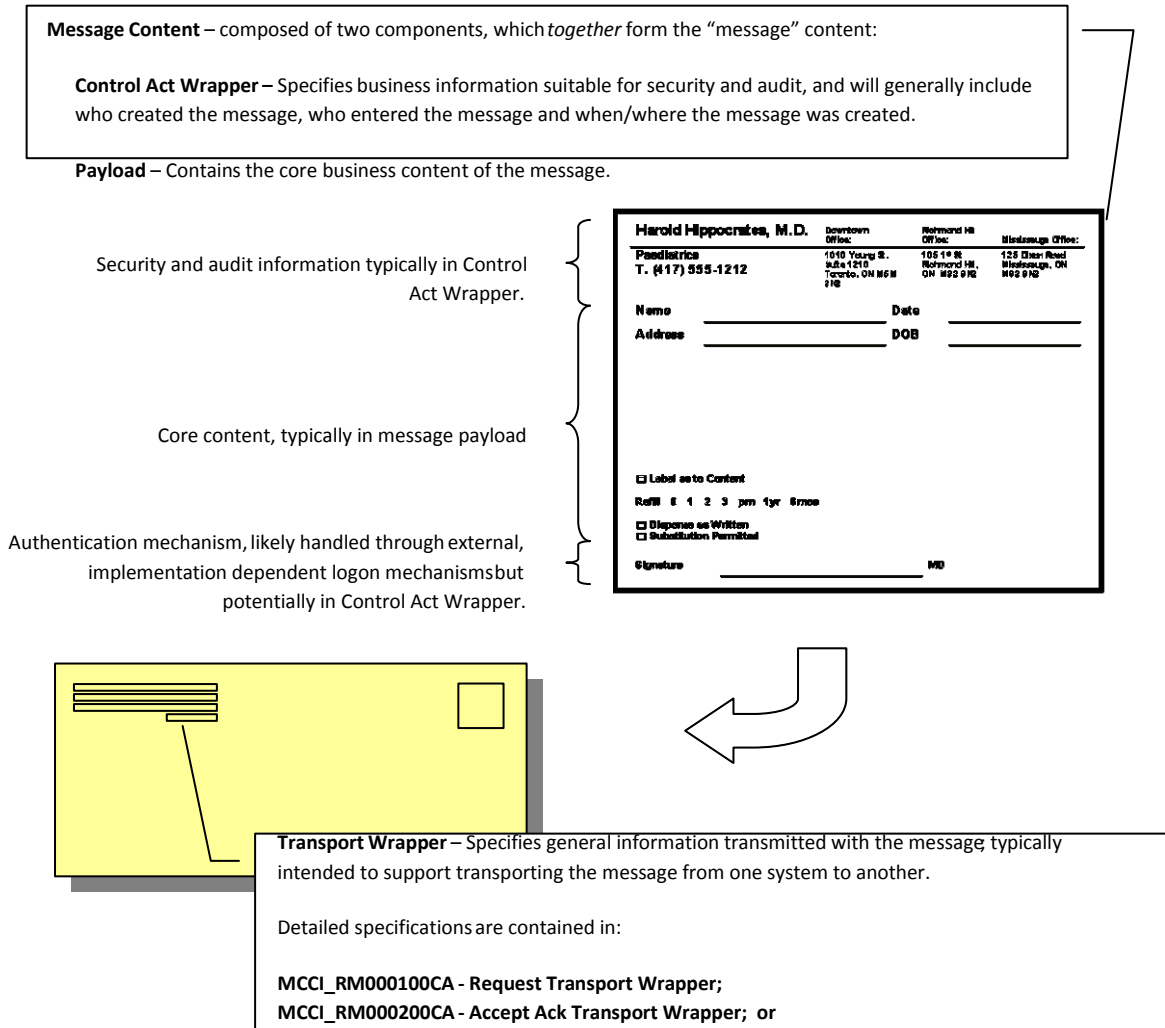


Figure 30- HL7 Wrapper and Payload Concept

15.3 Message Flow

There are three styles of transactions:

1. A REQUEST transaction consists of the following types of messages:
 - a. REQUEST: This message (e.g. Rx Order) is sent by a sending system (e.g. EMR) to a receiving system (e.g. EHR);
 - b. RESPONSE, one of:
 - i. RESPONSE (ACCEPT): If the intent of the request message was successful (e.g. Rx Order created), this message is returned to the requesting system;
 - ii. RESPONSE (REFUSE): If the intent of the request message was not successful but well formed (e.g. Rx Order had contraindications), this message is returned to the requesting system; or

- iii. RESPONSE (REJECT): If the request message is malformed (that is to say it did not follow the formatting specifications of the standard), a standard HL7 message is returned.
- 2. A NOTIFICATION transaction consists of the following types of messages:
 - c. NOTIFICATION: This message (e.g. Prescription Fulfillment Request (No Resp.)) is sent by a sending system (e.g. Pharmacy) to a receiving system (e.g. EHR) as a simple notification, with no application-level response message returned (but possibly with transport level acknowledgment);
 - d. RESPONSE (REJECT): If the notification message is malformed (that is to say it did not follow the formatting specifications of the standard), a standard HL7 message is returned. Note that the details of this message are not specified in this document. Please consult the transmission infrastructure section of the HL7 version 3 specifications under Infrastructure Management (IM) Domain for further details.

Unlike the request messages, there is no opportunity in a notification to accept or refuse based on the content of the message i.e. contraindication checking. It is only possible to reject because it is malformed or to send a general acknowledgment of receipt of the notification.

- 3. A QUERY REQUEST transaction consists of the following types of messages:
 - e. QUERY REQUEST: This message (e.g. Provider Person Search Query) is sent by a sending system (e.g. EMR) to a receiving system (e.g. PPR);
 - f. RESPONSE, one of:
 - iv. QUERY RESPONSE (ACCEPT): If the intent of the query request message was successful, this message will contain the query results, which could include no records found;
 - v. QUERY RESPONSE (REFUSE): If the intent of the query of the query request message was not successful, this message will indicate reasons why the query was refused (e.g. too many records, requestor not allowed to run this query, etc.); or
 - vi. RESPONSE (REJECT): If the query request message is malformed (that is to say it did not follow the formatting specifications of the standard), a standard HL7 message is returned. Note that the details of this message are not specified in this document. Please consult the transmission infrastructure section of the HL7 version 3 specifications under Infrastructure Management (IM) Domain for further details.

15.4 Attribute Conformance

In order to provide clear direction to implementers as to which content elements (i.e. attributes or fields) in a message are to be filled in, HL7 V3 provides a rigorous conformance framework. Each content element is assigned a specific conformance level that must be adhered to by software solutions claiming conformance to the Message Specifications. The framework defines the following levels:

- **Mandatory** (Must Exist) – A valid instance of this message must include all mandatory content elements.
- **Populated** (Expected to Exist) – Content elements in this category must be present in all circumstances. However, on occasion, values for these elements will not be present and a Null Flavor would be provided to indicate why the data is not being provided (e.g. masked for hidden/protected data, unable to send due to regulatory constraint). Implementers should note that Populated is not a currently accepted term by HL7. The equivalent HL7 representation is an attribute with a conformance of Required and an optionality of 1..1.
- **Required** (May Exist) – These content elements may or may not be present in the message but implementers are required to support the interchange of this information.

- **Optional** (May or May Not be Supported) – These content elements may or may not be present and there is no requirement for implementers to support the interchange of this information. Generally, categorizing attributes and attribute groups as optional has been avoided within the Message Specification and will be applied on an exception basis only.

Note that Message Specifications often reference information elements that are themselves complex structures of other attributes (or other structures). When such an “association” is present, it is important to note that it may also contain mandatory elements. However, these mandatory elements only come into play when such a required association is actually used in a message and therefore they should not be considered mandatory for the message as a whole.

For example, on an Rx Order, if Coverage Extension is specified in a message, then there may be some mandatory data elements such as a Coverage Extension Id and Payor Id.