OntarioMD

OntarioMD Inc.

Electronic Medical Records

SPECIFICATION

Appendix G – Preliminary CIHI Health System Use Data Extract

FINAL

Date: January 17, 2010

Version: 4.0

Ontario

eHealth Ontario

TABLE OF CONTENTS

1. INTRODUCTION

1.1 SCOPE / PURPOSE OF THE DOCUMENT

Primary health care (PHC) is the most common health care experienced by Canadians. Across Canada, Electronic Medical Records (EMRs) are being developed to improve Primary Health Care (PHC) but it is evident that enhancements are essential to reach the goal of establishing new pan-Canadian data sources that can be used to better understand PHC across Canada, report on PHC indicators and inform health policy and decision-making at various levels. In collaboration with stakeholders from across the country, the Canadian Institute of Health Information (CIHI) led a project to establish the draft Pan-Canadian PHC Electronic Medical Record Content Standard (PHC EMR CS), Version 2.0. At its core, the PHC EMR CS is composed of 106 data elements that are commonly captured in EMRs and support primary uses, such as reminders and alerts for patients with chronic conditions and health system uses of EMR data, such as a jurisdictional diabetes management registry.

In support of EMR enhancements to improve PHC, the Pan-Canadian PHC EMR CS is intended to ensure that standardized information is available to improve access, quality, outcomes and chronic disease prevention and management. This standard provides specifications of key concepts and value sets that describe a subset of important data elements in EMRs. The development and implementation of these standards coincides with the rapid evolution and increased use of EMRs in PHC settings across all Canadian jurisdictions.

The following Appendix defines data requirements in support of the PHC EMR CS, Version 2.0 led by the CIHI on behalf of jurisdictions across Canada and including Canada Health Infoway (CHI). This appendix provides preliminary mapping of OntarioMD's Core Data Set (CDS) to the PHC EMR CS[1] 106 data elements and support material for the PHC EMR Vendor Extract Specifications. This mapping is expected to evolve over time.

Analysis has been completed to map existing EMR data elements found in the CDS to the CIHI issued Pan-Canadian PHC EMR CS, version 2.0 in advance of the final release expected in December 2010. This document identifies the content of the extract based on the data elements currently available in EMRs. This extraction specification will require data extraction based on a subset of the CDS XML Schema referenced in Appendix B - Data Portability Requirements. The intent of this document is to provide the data elements that will be the foundation of the PHC EMR Vendor Extract Specifications.

The authoritative source of the Pan-Canadian PHC EMR CS is CIHI and vendors are encouraged to check with them periodically at phc@cihi.ca to identify whether changes to the Standard have occurred

There are data elements in the PHC EMR CS that cannot be mapped to CDS data elements. These elements have been captured in Table 4.1 to provide vendors with a complete view of all the PHC EMR CS data elements. Significant clinical value has been identified in providing the required data elements along with those data elements that do not currently map to any CDS data element.

File transport must provide security that meets corporate and industry standards through the use of encrypted protocols and satisfies national and provincial privacy legislation. Currently there is no requirement for physicians to submit EMR data to CIHI however CIHI is identified in Section 18, subsection 45(1) of Ontario's Personal Health Information Protection Act. The link below directs the reader to the Act:

http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_040329_e.htm

The PHC EMR Vendor Extract Specification is meant to support Clinical Program Management, Health System Management, Monitoring the Health of the Public, and Research.

[1] CIHI Business View of the Draft Pan-Canadian EMR Content Standard Version 2.0

The joint CHI and CIHI PHC EMR Vendor Extract Specifications Manual was released in December 2010 and is intended to provide comprehensive information to EMR Vendors and a broad range of health system use stakeholders who have key roles in the collection of accurate data and reporting on primary health care.

The PHC EMR Vendor Extract Specification Manual is designed to:

1. Be a resource for accurate and consistent coding of Draft Pan-Canadian Primary Health Care Electronic Medical Record Content Standard (December 2010 Version 2.0) that was developed;
2. Provide detailed submission requirements for all primary health care data elements to support Health System Use, including those not contained within the Draft Pan-Canadian Primary Health Care Electronic Medical Record Content Standard;
3. Outline requirements for data submission protocols;
4. Supply the relevant technical specifications, schematics and error messages to support data element validations.

The goal of the PHC EMR Vendor Extraction Specification is to:

- Provide detailed specifications required for the extraction of data required for Health System Use;
- Provide a target state architecture and conceptual data model that supports Health System Use;
- Identify terminology, mapping and extract considerations to support the collection of codified data for Health System Use.

The PHC EMR Vendor Extraction Specification does not include:

- Jurisdictional Schemas;
- Information related to vendor certification and acceptance;
- Algorithms for data encryption, de-identification and anonymization;
- Data transformation rules for Health System Use repositories;
- Physical Data Schemas;
- Extract, transformation and load scripts and functions;
- Subscription/prescription options for subsidiary data sources such as registries, lab information systems etc.

VENDOR CONFORMANCE KEY ASSUMPTIONS FOR THE PHC EMR VENDOR EXTRACT INCLUDE

1. Non codified data to support Health System Use will evolve, over time, to a codified format as part of the planned EMR enhancements; and
2. The Technical Architecture for Health System Use will be designed to support information governance by encompassing best practices for legal, policy, ownership, privacy and security considerations to ensure that patients' and providers' personal and sensitive information is properly managed.

1.2 DEFINITIONS, ACRONYMS AND ABBREVIATIONS

TERM	MEANING
CIHI	**C**anadian **I**nstitute for **H**ealth **I**nformation
CHI	**C**anada **H**ealth **I**nfoway
CPSO	**C**ollege of **P**hysicians and **S**urgeons of Ontario
ICD	**I**nternational **S**tatistical **C**lassification of **D**iseases and **R**elated **H**ealth **P**roblems ICD standards: ICD-9, ICD9-CM, ICD10, ICD10-CM, ICD10-PCS, ICD10-CA / CCI
ICD10-CA & CCI	International Statistical Classification of Diseases and Related Health problems, 10th Revision, Canadian Enhancements **CCI** - Canadian Classification of Health Interventions ▪ is the new national standard for classifying health care procedures. CCI is the companion classification system to ICD-10-CA. ▪ replaces the Canadian Classification of Diagnostic, Therapeutic and Surgical Procedures (CCP) and the intervention portion of ICD-9-CM in Canada
ISO 639-2	Codes for the representation of names of languages. http://www.iso.org/iso/en/ISOOnline.frontpage
OHIP	**O**ntario **H**ealth **I**nsurance **P**lan
OHN	**O**ntario **H**ealth **N**umber
MOHLTC	**M**inistry of **H**ealth and **L**ong-**T**erm **C**are
MRP	**M**ost **R**esponsible **P**hysician - the attending physician who is primarily responsible for the day-to-day care of patient. In absence, the covering physician will fulfill the MRP role.
PHC EMR CS	**P**rimary **H**ealth **C**are **E**lectronic **M**edical **R**ecords **C**ontent **S**tandard
Provider	A person who provides healthcare services to patients or an organization that facilitates such services.
Standard Coding System	A code that identifies the coding scheme used in the source system to classify diseases, procedures and a wide variety of signs, symptoms, abnormal findings, complaints, social circumstances, and external causes of injury or disease. Recognized Standard Coding Systems: ICD, CPT, SNOWMED-CT, ICPC-2, ENCODE-FM
W3C Date Standard	**W**orld **W**ide Web **C**onsortium **S**tandard
WHO	**W**orld **H**ealth **O**rganization

1.3 RELATED DOCUMENTS AND REFERENCES

The following table lists all documents related to, or referenced by, the Software Requirements Specification:

DOCUMENT NAME	VERSION	DATE
EMR Document Mapping	1.0	17-Jan-2011
Appendix A – EMR Baseline Requirements	Final / v4.0	17-Jan-2011
Appendix B –Data Portability Requirements	Final / v4.0	17-Jan-2011
Appendix C –Chronic Disease Management Requirements	Final / v4.0	17-Jan-2011
Appendix D – Reporting of Diabetes Data Requirements	Final / v4.0	17-Jan-2011
EMR Vendor Extract Spec Manual	Version 2.0	Dec 2010

2. DATA PORTABILITY REQUIREMENTS

For the purposes of the CIHI PHC EMR Extract, the following terms and abbreviations are defined and are applicable to all tables in this section:

CIHI CDS Schema is:

- a data structure that is used to export data for the provincial CIHI data extract
- comprised of CDS Categories

CIHI CDS data is:

- a unit of data as defined in the CIHI data extract and relates to the OMD Core Data Set.
- comprised of data elements as described in Section 3 – 'CDS mapping to CIHI data set categories' and behaves according to the definitions contained in the CIHI CDS Schema in Tables 1 to 16

Scoring Key: **M** = Mandatory criteria for certification
W = Weighted criteria

Status Key: **N** = New requirement for EMR Specification 4.0

ID #	Requirement	Guidelines	M/W	Status	Discussion/Comments
2.1	Generates files that contain available data elements as describes in section 3 / CIHI CDS Schema Generates files in XML format that comply with the schema as described in the CIHI CDS XML Schema – Definition *and* CIHI CDS XML Schema – Data Types.	CDS Schema definition file.	M	N	
2.2	Supports export of all provisioned EMR information as per the extract requirements described in Section 3/ CIHI CDS Schema. Reporting will be based on the following parameter: ▪ **Run Date** – the date the report is run (automatically passed by the system)	Information comes from all areas of the EMR. In order for this requirement to be met, the extract must be user administered and does not require an EMR vendor to attend the process.	M	N	Data elements to be reported for this functionality leverage those within the Core Data Set described in Appendix B.
2.3	Provides the ability to export CIHI CDS data: ▪ For patients of all providers in the EMR; and ▪ For patients of a selected provider in the EMR		M	N	

ID #	Requirement	Guidelines	M/W	Status	Discussion/Comments
2.4	Provide the ability to exclude patients from CIHI extract before running the extract/report.	Provide a list of patients per physician, having an Ontario HCN, with the ability to identify patients to be eliminated from the extract.	M	N	
2.5	EMR Offering to provide an Extract Screen that supports: ▪ run time information – the date and time the export/extract was generated ▪ system static values – non-editable ▪ user entered values – editable	System static values: ▪ Type ▪ Vendor Business Name ▪ EMR Vendor Common Name ▪ EMR Software Name ▪ EMR Software Common Name ▪ EMR Software Version Number ▪ EMR Software Version Date ▪ EMR Vendor ID User entered values: ▪ Organization Name ▪ Contact Last Name ▪ Contact First Name ▪ Contact Phone Number ▪ Contact Email ▪ Contact User Name ▪ EMR Vendor ID Whenever possible, extract information should be defaulted to minimize data entry on the provider's part. Extract Information must be available through the EMR's audit log.	M	N	
2.6	The standard format for xml exported file must be: FN_LN_CPSO	FN – Provider First Name LN – Provider Last Name CPSO – Provider's CPSO number	M	N	

3. CDS MAPPING TO CIHI DATA SET CATEGORIES

This Appendix indentifies data set categories using the following headings:

CDS Mapping Category	CIHI Data Set Category
N/A	Extract Information
Patient Demographics	Patient Demographics
Patient Demographics	Provider Demographics
No mapping exists	Service Delivery Location
Appointment Information	Encounter Information
Past Health, Family History, Problem List, Risk Factors, Allergies & Adverse Reactions and Care Elements	Observation and Family History
Procedures	Intervention
No mapping exists	Laboratory Orders
Laboratory Results	Laboratory Results
No mapping exists	Diagnostic Imaging Orders
No mapping exists	Diagnostic Imaging Results
No mapping exists	Referral Requests
No mapping exists	Referral Results
Medications	Prescription Medications
No mapping exists	Dispensed Medication
Immunizations	Immunization

For the purposes of this section, the following terms and abbreviations are defined and shall be applied to all tables in this section:

OMD # - represent a unique identifier by which any data element in Appendix G will be identified

Data Element means:

- a unit of data as set out in the CDS schema. “Data Element” means that data in column 1 of all tables in the CIHI CDS Schema
- **“ * ”** this symbol means that CDS Data Category, or a subsection within a CDS Data Category or a data element may be repeated
  - An example of a category that may be repeated is a patient that is on more than one medication or immunization.
  - An example of a subsection that repeats as a group is a patient demographic that contains a group of related fields that will repeat together.

Required Fields:

- Y - the data element is a minimum requirement for the construction of a valid CDS record. A data element that is required (i.e. marked as Y) must have a value in the XML file in order for the file to be valid. If there are no records for a given heading (e.g. for risk factors), then this information would not be required
- Y** - yes if Diagnosis Code System Name is provided

Definition means a detailed description of the Data Element**.**

Code Source means the source of the coding system or specific codes that are valid for a given data element.

Data Type means the characteristic of the data listed.

- **DATE**: YYYY-MM-DD
  - YYYY = four-digit year , MM = two-digit month DD = two-digit day of month (01 through 31)
- **DATE/ TIME**: YYYY-MM-DDThh:mm:ss.sTZD
  - YYYY = four-digit year, MM = two-digit month, DD = two-digit day of month (01 through 31)
  - hh = two digits of hour (00 through 23), mm = two digits of minute (00 through 59)
  - ss = two digits of second (00 through 59), s = one or more digits representing a decimal fraction of a second
  - TZD = time zone designator (Z or +hh:mm or -hh:mm)
- **TIME -** hh:mm:ss
- **NUM** (numeric)
- **AN** (alphanumeric) - means the data that does not have restrictions on special characters (e.g. * ‘ -)
- **AB (**alphabetic)

Form means a predefined data format designed to further define the Data Element in CDS Schema

- **Code:** means the source of the coding system or specific codes that are valid for a given data element.
- **Text**
- YYYY-MM-DD
- YYYY-MM-DDThh:mm:ss.sTZD

Length means the maximum number of characters that is represented in a particular Data Element in CDS Schema

- **NL -** No Limit
- **BOT** – Based On Type
- **TBD** – To Be Defined

Business Rules – as relates to Core Data Set elements defined in Appendix A v4.0- EMR Baseline Requirements

3.1 EXTRACT INFORMATION

To provide details about the extract file parameters that are included in the CIHI report.

Table 1: Extract Information

OMD #	DATA ELEMENT	DEFINITION	REQ FIELD	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
CDS -- EXTRACT INFORMATION								
1	Run Date	System date extract was run	Y	DATE/ TIME		30	W3C Date Standard	Run Date time stamped by system.
2	Type	Type of extraction.	Y	AN	Text	15	Code Set of: Full	User entered code. Currently there only one value “Full” but is expected to be expanded over time.
3	Organization Name	Represents the name of the organization submitting the extract.	Y	AN	Text	50		User entered code. This item should be entered once and defaulted for subsequent extract submissions.
4	Contact Last Name	Represents the legal family name of the person with legal authority and responsibility for submission of the data extract file.	Y	AN	Text	50		User entered code. This field should be defaulted with the last value entered.
5	Contact First Name	Represents the legal given name of the person with legal authority and responsible for submission of the data extract file.	Y	AN	Text	50		User entered code. This field should be defaulted with the last value entered.
6	Contact Phone Number	Represents the phone number of the responsible person.	Y	NUM	Text	12		User entered code. Format: nnn-nnn-nnnn This field should be defaulted with the last value entered.
7	Contact Email	Represents the email of the responsible person.	Y	AN	Text	50		User entered code. One primary Email address per contact. This field should be defaulted with the last value entered.
8	Contact User Name	Represents the user name of the responsible person as provided by	Y	AN	Text	50		This field should be defaulted with the last value entered.

OMD #	DATA ELEMENT	DEFINITION	REQ FIELD	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
		CIHI						CIHI will provide user with the Extract Contact User Name code. User will enter the code.
9	EMR Vendor ID	Represents a unique identifier assigned to the EMR Vendor.	Y	AN	Text	20		System generated code. This data element is described in the CDS Schema and is the EMR Vendor code assigned by CIHI.
10	EMR Vendor Business Name	The legal business name of the EMR Vendor.	Y	AN	Text	100		System generated code. This field should be defaulted with the last value entered and should only change if the EMR product is replaced.
11	EMR Vendor Common Name	The common name used by the provider.	Y	AN	Text	50		System generated code.
12	EMR Software Name	The Name of the Software used by the provider.	Y	AN	Text	50		System generated code. This field should be provided by the system.
13	EMR Software Common Name	The name of the software as it is commonly referred.	Y	AN	Text	50		System generated code.
14	EMR Software Version Number	Variant reference to the original release. This is the version # of the EMR product being used. Build number should not be included.	Y	AN	Text	50		System generated code. This field should be provided by the system.
15	EMR Software Version Date	Version Release date: The date the version was placed into production at a site.	Y	DATE	YYYY-MM-DD	30	W3C Date Standard	System generated code. Version Release date.

3.2 CDS MAPPING OF PATIENT DEMOGRAPHICS TO CIHI DATA ELEMENT SET OF PATIENT DEMOGRAPHIC

All patient demographics information is to be reported as of *Run Date*. Reported fields are as listed in Table 2, below.

Table 2: Patient Demographics

CIHI Ref #	CIHI DATA ELEMENT	CIHI DEFINITION	OMD #	CDS DATA ELEMENT	REQ FIELD	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
CDS PATIENT DEMOGRAPHICS										
A1	Client Identifier	Represents a unique identifier assigned to the Client.	16	Patient Identifier	Y	AN	Text	20		CIHI extract: Patient's Ontario Health Card Number Health Card version should not be included.
A2	Client Identifier Type Code	Represents the type of Client Identifier (e.g. Jurisdictional Healthcare Identifier, Passport, etc.)	17	Patient Identifier Type		AB	Code	5		CIHI extract: HCN
A3	Client Identifier Assigning Authority Code	Represents the legal entity responsible for assigning the Client identifier.	18	Patient Identifier Jurisdiction		AB	Code	5	See Appendix B - Table 1.6 – Province/State/Territory	Province pertaining to Health Card. Health Card Province must be valid code. CIHI extract: ON
A4	Client Birth Date	Represents the Client's date of birth.	19	Date of Birth	Y	DATE	YYYY-MM-DD	10	W3C Date Standard	The date on which the patient was born.
A5	Client Administrative Gender Code	Represents a reported gender category of the Client at a given point in time used for administrative purposes.	20	Gender	Y	AN	Code	1	See Table 1.7 – Gender	The reported sexual identity of a person for administrative purposes. Gender must be valid code.
A8	Client Primary Language Code	Represents the preferred spoken language by the Client (Patient).	21	Preferred Spoken Language		AN	Text	25	ISO 639-2	Indicates in which language a patient prefers to communicate.

CIHI Ref #	CIHI DATA ELEMENT	CIHI DEFINITION	OMD #	CDS DATA ELEMENT	REQ FIELD	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
A9	Client Status Code	Represents whether or not the PHC Provider considers the client to be actively seeking PHC services through them.	22	Person Status	Y	NUM	Code	1	Available options in CDS Schema: a) Coded Values • Active (A), • Inactive (I) • Deceased (D) b) Non-coded value: free text	Person Status can be a coded value or non-coded value (free text). CIHI extract: If the exporting system is not able to map to the coded value (A / I / D) then export the Person Status as free-text. See Appendix B / Table 1.13 – Person Status
A10	Client Deceased Date	Represents the Client's date of death.	23	Person Status Date		DATE	YYYY-MM-DD	10	W3C Date Standard	Date associated with Person Status. CIHI extract: Mandatory if Person Status = “D”.
A11	Client Rostered Start Date	Represents the date the Client was included on the roster.	24	Enrolment Date		DATE	YYYY-MM-DD	10	W3C Date Standard	CIHI extract: The last ‘Enrolment Date’ that was logged into the EMR system.
A12	Client Rostered End Date	Represents the date the Client was removed from the roster.	25	Enrolment Termination Date		DATE	YYYY-MM-DD	10	W3C Date Standard	CIHI extract: The last ‘Enrolment Termination Date’ that was logged into the EMR system.
A14	Client Residence Postal Code	Represents the postal code of the Client's permanent residence.	26	Residence Postal/Zip Code		AN	Text	10		Postal/Zip Code must not contain spaces. CIHI extract: If Residence Postal/Zip Code’ is missing then export the ‘Mail Postal/Zip Code’.

3.3 CDS MAPPING OF PATIENT DEMOGRAPHICS TO CIHI DATA ELEMENT SET OF PROVIDER DEMOGRAPHICS

Table 1: Provider Demographics

CIHI Ref #	CIHI DATA ELEMENT	CIHI DEFINITION	OMD #	CDS DATA ELEMENT	REQ FIELD	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
CDS PROVIDER										
B1	Provider Family Name Text	Represents the Provider's legal family name.	27	Primary Physician Last Name	Y	AN	Text	50		Last Name of Primary Physician.
B2	Provider Given Name Text	Represents the Provider's legal given name.	28	Primary Physician First Name	Y	AN	Text	50		First Name of Primary Physician.
B4	Provider Identifier	Represents the unique identifier assigned to the Provider.	29	Primary Physician CPSO	Y	NUM	Code	5	CPSO number	Primary Physician CPSO number.
B7	Provider Role Type Code	Represents the role of the Provider in relation to his/her participation in a specific healthcare event	30	Healthcare Practitioner Type		AN	Code	10		Healthcare Practitioner Type must be valid code. Role of the healthcare professional that created the information about allergies or adverse reactions. See Appendix B -Table 1.14 – Healthcare Practitioner Type

3.4 Service Delivery Information

No data elements are mapped for Service Delivery Location Information

3.5 CDS MAPPING OF APPOINTMENT INFORMATION TO CIHI DATA ELEMENT SET OF ENCOUNTER INFORMATION

May contain multiple records for past and future appointments for a patient

Table 5: Encounter Information

CIHI Ref #	CIHI DATA ELEMENT	CIHI DEFINITION	OMD #	CDS DATA ELEMENT	REQ FIELD	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
CDS -- APPOINTMENTS										
D2	Client Encounter Reason Code	Represents reason for the encounter as conveyed by the Client.	31	Appointment Purpose		AN	Text	250		Appointment Purpose / Reason for Visit. May contain procedure(s) and other details about the appointment.
D3	Encounter Date	Represents the date the Client had an encounter with the Provider.	32	Appointment Date	Y	DATE	YYYY-MM-DD	10	W3C Date Standard	CIHI extract: If Appointment Status = “Confirmed”; and the date is the actual date the patient was seen by the clinician.

3.6 CDS MAPPING OF PAST HEALTH, FAMILY HISTORY, PROBLEM LIST, RISK FACTORS, ALLERGIES & ADVERSE REACTIONS AND CARE ELEMENTS TO CIHI DATA ELEMENT SET OF OBSERVATION AND FAMILY HISTORY

Table 6: Observation and Family History

CIHI Ref #	CIHI DATA ELEMENT	CIHI DEFINITION	OMD #	CDS DATA ELEMENT(S)	REQ FIELD	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
CDS -- FAMILY HISTORY										
E1	Observation Family History Health Concern Code	Represents the relevant health concerns of a person sharing common ancestry with the Client.	33	Problem/Diagnosis /Procedure Description		AN	Text	250		A description that identifies the family history (problem / diagnosis / procedure). Data element to be populated when the EMR system does not support a *Standard Coding System*.
			34	Diagnosis/Procedure Code System Name		AN	Text	250		The name of the Standard Coding System used by the EMR system to record a problem / diagnosis / procedure.
			35	Diagnosis/Procedure Code	Y**	AN	Text	20		The code associated with problem / diagnosis / procedure as relates to a particular Standard Coding System. Mandatory if the Standard Coding System is used to record a diagnosis or procedure.
			36	Diagnosis/Procedure Code Description	Y**	AN	Text	250		A description that identifies the family history (problem / diagnosis / procedure). The description associated with the Standard Code as relates to a particular Standard Coding System. Mandatory if the Standard Coding System and Standard Code are provided.
E3	Observation Family History Intervention Code	Represents the relevant interventions performed on a person sharing common ancestry with the Client.	37	Treatment		AN	Text	250		Type or nature of the treatment delivered.

CIHI Ref #	CIHI DATA ELEMENT	CIHI DEFINITION	OMD #	CDS DATA ELEMENT(S)	REQ FIELD	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
E4	Observation Family History Familial Relationship Code	Represents the relationship between the person and the Client that share common ancestry.	38	Relationship		AN	Text	50		Relationship to patient. Only refer to blood relationship that would not include step-father, or step-sister, etc.
E5	Observation Family History Effective Onset Age Number	Represents the age of the family member (in years) when the health concern, intervention, or social behaviour started.	39	Age at Onset		NUM	Text	3		Age at Onset.
E6	Observation Family History Effective Start Date	Represents the date on which the health concern, intervention, or social behaviour started for the family member.	40	Start Date		DATE	YYYY-MM-DD	10	W3C Date Standard	Known date or partial date related to the Family History issue/concern. Date may be a partial date if known.
NEW – Problem / Diagnosis (Ongoing & Past)										
E11	Observation Health Concern Code	Represents the Client's relevant clinical problems, conditions, diagnoses, symptoms, findings, and complaints.	41	Problem/Diagnosis Description		AN	Text	250		A description that identifies the patient's problem / diagnosis. Data element to be populated when the EMR system does not support a *Standard Coding System*.
			42	Diagnosis Code System Name		AN	Text	250		The name of the Standard Coding System used by the EMR system to record a problem / diagnosis.
			43	Diagnosis Code	Y**					The code associated with a problem / diagnosis as relates to a particular Standard Coding System. Mandatory if the Standard Coding System is used to record a problem / diagnosis.

CIHI Ref #	CIHI DATA ELEMENT	CIHI DEFINITION	OMD #	CDS DATA ELEMENT(S)	REQ FIELD	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
			44	Diagnosis Code Description	Y**					A description that identifies patient's problem / diagnosis. The description associated to the Standard Code as relates to a particular Standard Coding System. Mandatory if the Standard Coding System and Standard Code are provided.
E12	Observation Health Concern Start Date	Represents the date on which the Client's health concern started.	45	Onset Date		DATE	YYYY-MM-DD	10	W3C Date Standard	Date of onset. May contain exact or partial date if known. CIHI extract: If problem/diagnosis is from Appendix A/ Problem List then 'Onset Date' else 'Onset or Event Date' from Appendix A / Past Health
E13	Observation Health Concern End Date	Represents the date on which the Client's health concern ended.	46	Resolution Date		DATE	YYYY-MM-DD	10	W3C Date Standard	Date problem resolved. May contain exact or partial date if known. CIHI extract: If problem/diagnosis is from Appendix A/ Problem List then 'Resolution Date' else 'Resolved Date' from Appendix A / Past Health
CDS -- RISK FACTORS										
E14	Observation Social Behaviour Code	Represents a type of Client social behaviour that increases the possibility of disease or injury for the Client. For example, this can include risk factors such as tobacco use, alcohol use, abuse of illicit or prescription drugs, and occupation.	47	Risk Factor		AN	Text	120		Factors placing patient at health risk.

CIHI Ref #	CIHI DATA ELEMENT	CIHI DEFINITION	OMD #	CDS DATA ELEMENT(S)	REQ FIELD	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
E15	Observation Social Behaviour Start Date	Represents the effective date the Client started the social behaviour.	48	Start Date		DATE	YYYY-MM-DD	10	W3C Date Standard	Date the patient was first exposed to the risk factor. Date may be a partial date if known.
E16	Observation Social Behaviour End Date	Represents the effective date the Client ceased the social behaviour.	49	End Date		DATE	YYYY-MM-DD	10	W3C Date Standard	Date the patient was last exposed to the risk factor. Date may be a partial date if known.
CDS -- ALLERGIES & ADVERSE REACTIONS										
E17	Observation Allergy/Intolerance Type Code	Represents the type of allergy or intolerance a Client has.	50	Property of Offending Agent		AN	Code	2	One of: ▪ Drug (DR); ▪ Non-drug (ND) and ▪ Unknown (UK)	Property of Offending Agent must be valid code. Agent that caused the related allergy or adverse reaction. See Appendix B - Table 6.1 – Property of Allergy/Adverse Reaction Offending Agent
E18	Observation Allergy/Intolerance Agent Code	Represents the specific allergen or other agent/substance to which the Client has an allergic reaction or intolerance.	51	Offending Agent Description		AN	Text	120		Text description of agent, whether drug or non-drug.
E19	Observation Allergy/Intolerance Severity Code	Represents the level of severity a Client has in relation to an allergy or intolerance.	52	Severity		AB	Code	2	One of: ▪ NO -No Reaction, ▪ MI - Mild (MI), ▪ MO - Moderate and ▪ LT - Severe Life Threatening	Severity must be valid code. Vendor should map the severity levels in their system to the provided levels. See Appendix B - Table 6.3 – Allergy/Adverse Reaction Severity
E21	Observation Allergy and or Intolerance Start Date	Represents the date on which the recorded allergy/intolerance is considered active.	53	Start Date		DATE	YYYY-MM-DD	10	W3C Date Standard	Start Date of Allergy or Adverse Reaction. May contain partial date.

CIHI Ref #	CIHI DATA ELEMENT	CIHI DEFINITION	OMD #	CDS DATA ELEMENT(S)	REQ FIELD	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
CDS -- CARE ELEMENTS										
E23	Observation Systolic Blood Pressure Number	Represents the Client's systolic blood pressure value (in mmHg) measured. The unit of measure (mmHg) is implied when representing the value.	54	Systolic Blood Pressure	Y	NUM	Text	1K		Measured systolic blood pressure in mmHg.
E24	Observation Diastolic Blood Pressure Number	Represents the Client's diastolic blood pressure value (in mmHg) measured. The unit of measure (mmHg) is implied when representing the value.	55	Diastolic Blood Pressure	Y	NUM	Text	3		Measured diastolic blood pressure in mmHg.
N/A	N/A	N/A	56	Date Blood Pressure Recorded	Y	DATE	YYYY-MM-DD	10	W3C Date Standard	Date blood pressure recorded
E28	Observation Height Number	Represents the height of the Client as measured.	57	Height	Y	NUM	Text	5		
E29	Observation Height Unit of Measure Code	Represents the Client height unit of measure captured.	58	Unit of Measure	Y	AN	Text	10		
N/A	N/A	N/A	59	Date Height Recorded	Y	DATE	YYYY-MM-DD	10	W3C Date Standard	Mandatory if height reported
E30	Observation Weight Number	Represents the weight of the Client as measured.	60	Weight	Y	NUM	Text	1K		Measured patient weight.
E31	Observation Weight Unit of Measure Code	Represents the Client weight unit of measure captured.	61	Weight Unit of Measure	Y	AN	Text	10		
N/A	N/A	N/A	62	Date Weight Recorded		DATE	YYYY-MM-DD	10	W3C Date Standard	Mandatory if weight reported

CIHI Ref #	CIHI DATA ELEMENT	CIHI DEFINITION	OMD #	CDS DATA ELEMENT(S)	REQ FIELD	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
E32	Observation Waist Circumference Number	Represents the waist circumference of the Client as measured.	63	Waist Circumference	Y	NUM	Text	1K		
E33	Observation Waist Circumference Unit of Measure Code	Represents the Client Waist Circumference unit of measure captured.	64	Waist Circumference Unit of Measure	Y	AN	Text	10		
N/A	N/A	N/A	65	Date Waist Circumference Recorded	Y	DATE	YYYY-MM-DD	10	W3C Date Standard	Mandatory if waist circumference reported

3.7 INTERVENTION

Table 7: Intervention

CIHI Ref #	CIHI DATA ELEMENT	CIHI DEFINITION	OMD #	CDS DATA ELEMENT(S)	REQ FIELD	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
CDS -- PROCEDURE										
F1	Intervention Code	Represents the services/activities performed by the Provider for the Client.	66	Procedure/Intervention Description		AN	Text	250		A description that identifies patient's procedure/ intervention as recorded by provider. Data element to be populated when the EMR system does not support a *Standard Coding System*.
			67	Procedure Code System Name		AN	Text	250		The name of the Standard Coding System used by the EMR system to record a procedure / intervention.
			68	Procedure Code	Y**	AN	Text	220		The code associated with a procedure / intervention as relates to a particular Standard Coding System. Mandatory if the Standard Coding System is used to record a problem / diagnosis.
			69	Procedure Code Description	Y**	AN	Text	250		A description that identifies a procedure / intervention. The description associated with the Standard Code as relates to a particular Standard Coding System. Mandatory if the Standard Coding System and Standard Code are provided.
F2	Intervention Date	Represents the date the intervention was performed by the Provider for the Client.	70	Procedure Date		DATE	YYYY-MM-DD	10	W3C Date Standard	May contain partial date.

3.8 LABORATORY ORDERS

No data elements are mapped for Laboratory Orders

3.9 CDS MAPPING OF LABORATORY RESULTS TO CIHI DATA ELEMENT SET OF LABORATORY RESULT

May contain multiple records each of which represents the electronic receipt or manual entry of Laboratory Results.
It is mandatory to export all available Laboratory Results electronically received or manually entered into the EMR.

Table 9: Laboratory Result

CIHI Ref #	CIHI DATA ELEMENT	CIHI DEFINITION	OMD #	CDS DATA ELEMENT	REQ FIELD	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
CDS -- LABORATORY RESULTS										
H1	Laboratory Test Performed Date	Represents the date the lab test was performed.	71	Collection Date/Time	Y	DATE/ TIME		10	W3C Date Standard	The date and time that the specimen was collected.
H2	Laboratory Test Result Name Code	Represents the name of the lab test performed.	72	Test Name Reported by Laboratory		AN	Text	120		Test name reported by Laboratory.
			73	Test Code		AN	Text	50		Test code reported by the laboratory.
H3	Laboratory Test Result Value Text (Number, Code)	Represents the result of the lab test.	74	Result Value		AN	Text	120		The numeric result value. Required where there is a numeric test result. Includes decimal places.
			75	Text – Test Results Information Reported by the Laboratory		AN	Text	32K		Results Information reported by the Laboratory that must be left unstructured (e.g. microbiology results, cytology, etc.)
H4	Laboratory Test Result Value Unit of Measure Code	Represents the unit of measure of the lab result for the performed lab test.	76	Result Unit of Measure		AN	Text	120		Unit of Measure as supplied by the Lab associated with the Result Value. Includes unit quantity and unit of measure numeric and alpha numeric. Required where a test result value is provided.

CIHI Ref #	CIHI DATA ELEMENT	CIHI DEFINITION	OMD #	CDS DATA ELEMENT	REQ FIELD	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
H5	Laboratory Test Result Reference Range Low Number	Represents the low end of a normal reference range lab result for a particular test performed in a particular lab.	77	Reference Range Low Limit		NUM	Text	1k		A numeric value where it exists. Required where there is a numeric test result. Include decimal places
H7	Laboratory Test Result Reference Range High Number	Represents the high end of a normal reference range lab result for a particular test performed in a particular lab.	78	Reference Range High Limit		NUM	Text	1k		A numeric value where it exists. Required where there is a numeric test result. Include decimal places.

3.10 DIAGNOSTIC IMAGING ORDERS

No data elements are mapped for Diagnostic Imaging Orders

3.11 DIAGNOSTIC IMAGING RESULTS

No data elements are mapped for Diagnostic Imaging Results

3.12 REFERRAL REQUESTS

No data elements are mapped for Referral Requests

3.13 Referral Results

No data elements are mapped for Referral Results

3.14 CDS MAPPING OF MEDICATIONS CIHI DATA ELEMENT SET OF PRESCRIPTION MEDICATION

May contain multiple records each of which represents a medication.

In the case of the same medication being prescribed multiple times then there will be one corresponding record for each prescription.

Table 14: Prescription Medication

CIHI Ref #	CIHI DATA ELEMENT	CIHI DEFINITION	OMD #	CDS DATA ELEMENT	REQ FIELD	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
CDS -- MEDICATION and TREATMENTS										
M1	Medication Prescribed Name Code	Represents the medications prescribed (or intended to be prescribed) to the Client.	79	Medication Name		AN	Text	120		The name of the medication, as prescribed in the source system.
			80	Drug Description		AN	Text	2000		Can be used to define a compound Rationale: Allows description of compound ingredients and/or recipe in free text form.
M2	Medication Prescribed Date	Represents the date the prescription for the medication was created for the Client.	81	Prescription Written Date		DATE	YYYY-MM-DD	10	W3C Date Standard	The written date of the current prescription. Full date or partial date are acceptable.
M5	Medication Prescribed Strength Number	Represents the potency of the drug/chemical, usually measured in metric weight (e.g., micrograms, milligrams, grams) and described as the strength of the product's active (medicinal) ingredient.	82	Drug Strength		AN	Text	10		The quantity of the ingredient in a drug. The drug strength from the drug database when DIN is provided **else** the strength as entered by the provider. Upon export, just the strength of the first ingredient is expected to be exported for the case the drug has a representative DIN else the strength as entered by provider.
M6	Medication Prescribed Strength Unit of Measure Code	Represents the Prescribed Medication Strength units of measure.	83	Drug Strength Unit of Measure	Y	AN	Text	20		Drug's strength unit of measure, as prescribed in the source system.

CIHI Ref #	CIHI DATA ELEMENT	CIHI DEFINITION	OMD #	CDS DATA ELEMENT	REQ FIELD	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
M7	Medication Prescribed Dose Number	Represents the measured portion of a drug to be taken at any one time that pertains to the drug prescribed.	84	Dosage		AN	Text	120		Dose *amount and unit of measure of* medication intended to be consumed during a single administration as prescribed in the source system. Dosage unit of measure must be mapped to HL7 standard. Example : 2 tsp, 2 puffs, 2%, 5 ml, 250 mg
M8	Medication Prescribed Dose Unit of Measure Code	Represents the unit of measure of a drug dose taken at any one time.	85	Dosage Unit of Measure		AN	Test	120		Dose *amount and unit of measure of* medication intended to be consumed during a single administration as prescribed in the source system. Dosage unit of measure must be mapped to HL7 standard. Example : 2 tsp, 2 puffs, 2%, 5 ml, 250 mg
M9	Medication Prescribed Form Code	The physical configuration, presentation of state of matter of any given drug product. The dosage form in which the medication is administered (e.g. tablet, liquid. suppository, solution).	86	Drug Form		AN	Text	120		Form, as prescribed in the source system. Form must be mapped to HL7 standard.
M10	Medication Prescribed Frequency Text	Represents the number of occurrences within a given time period that a dose of a drug is to be administered.	87	Frequency		AN	Text	120		Frequency of prescribed use, as prescribed in the source system Exporting source system should map medication frequency to the values catalogued in Appendix B - Table 7.1 – Medication Frequency
M11	Medication Prescribed Route Code	Represents the part of the body on which, through which or into which a drug product is to be introduced. A drug product can have more than one route of administration.	88	Route		AN	Text	120		Route of administration, as prescribed in the source system. Route must be mapped to HL7 standard.

CIHI Ref #	CIHI DATA ELEMENT	CIHI DEFINITION	OMD #	CDS DATA ELEMENT	REQ FIELD	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
M12	Medication Prescribed Repeat Number	Represents the number of times the prescription can be used to refill the prescribed medication.	89	Number of Refills/Repeats		NUM	Text	100		Subsequent fills that follow the initial prescription.
M14	Medication Prescribed Adherence Code	Represents whether or not the Client has been administering the prescribed medication(s) as instructed.	90	Patient Compliance		AN	Text	1		Typically used to indicate that the patient is compliant with the medication as prescribed. The values for this data element must be “Y”, “N”, or blank. If blank the patient’s compliance with their medication has not been documented in the EMR.

3.15 DISPENSED MEDICATION

No data elements are mapped for Dispensed Medications

3.16 CDS MAPPING OF IMMUNIZATIONS TO CIHI DATA ELEMENT SET OF IMMUNIZATION

May contain multiple records each of which represents an immunization.
In the case of the same immunization, vaccine and or booster administered multiple times, there will be one corresponding record for each occurrence.

Table 16: Immunization

CIHI Ref #	CIHI DATA ELEMENT	CIHI DEFINITION	OMD #	CDS DATA ELEMENT	REQ FIELD	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
CDS -- IMMUNIZATION										
O1	Vaccine Administered Name Code	Represents the name of the vaccine which was administered to the Client	91	Immunization Name	Y	AN	Text	120		Immunization Name is based on the brand name and can be associated with a DIN as provided by EMR's Drug Database. Export historical data: ▪ If DIN number is extractable then export the Brand Name ▪ If DIN number is not extractable then export the available name/type Export starting with EMR v4.0: ▪ If DIN number is extractable then export the Immunization's Brand Name ▪ If DIN number is not extractable then export the available Immunization Name
O2	Vaccine Administered Date	Represents the date the vaccine was administered to the Client.	92	Immunization Date		DATE	YYYY-MM-DD	10	W3C Date Standard	Date that the immunization was administered or refused.
O3	Vaccine Administered Lot Number	Represents the batch identification number of the vaccine.	93	Immunizations Lot #		AN	Text	120		The product lot number corresponding to the administered immunization
O4	Vaccine Not Given Reason Code	Represents the reason a vaccine was not administered to a Client.	94	Refused Flag	Y	AB	Text	1	Yes (Y) – refused immunization No (N) – administered immunization	A flag to indicate that the immunization was not given but refused.

4. DATA ELEMENTS NOT MAPPED

The data elements described below are not mapped in the CDS and will not be included in the file extract. They are listed below in order to provide vendors a complete view of the current extract requirements:

For the purposes of this section, the following terms and abbreviations are defined and shall be applied to all tables in this section:

Code Source and Selected Examples identify the source of the coding system or provide specific codes that are valid for a given data element along with some samples of valid entries for the field.

Table 4.1: Data elements currently not mapped to any CDS Data Element

CIHI Ref #	CIHI DATA ELEMENT	CIHI DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE AND SELECTED EXAMPLES	BACKGOUND ON ELEMENT'S INCLUSION
A6	Client Highest Education Code	Represents the highest level of education completed by the Client	N	Code	10	SNOMED CT 2243000008 (received university education) 224297003 (educated to secondary school level)	Used in the administration of care. Highest education level is needed as, on average, the more education a person has the more likely they are to understand health choices.
A7	Client Housing Status Code	Represents the housing status of the Client.	N	Code	10	SNOMED CT 160940004 (house rented from private landlord) 302145009 (owns own home) 32911000 (homeless)	Used in both the provision and administration of care. Housing status is important since it can also directly relate to health outcomes. Clients who are homeless or without a permanent address (renters) are much more likely to be depressed and unable to afford a healthy lifestyle.
A13	Client Administrative Ethnicity Code	Represents the Client's self reported ethnic group to which he or she belongs for administrative purposes. Therefore, the ethnic origin refers to a person's "roots" and should not be confused with his or her citizenship or nationality.	AN	Text	10	Statistics Canada 2006 Census – ethnic categories and subcategories	
B3	Provider Middle Name Text	Represents the Provider's middle name.	AN	Text	50		Used in the provision of care. Name of the provider used on referral requests.
B5	Provider Identifier Type Code	Represents the type of Provider identifier.	NUN	CODE	5	CPSO	Represents the legal entity responsible for assigning the unique identifier to the Provider, CPSO

CIHI Ref #	CIHI DATA ELEMENT	CIHI DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE AND SELECTED EXAMPLES	BACKGOUND ON ELEMENT'S INCLUSION
B6	Provider Identifier Assigning Authority Code	Represents the legal entity responsible for assigning the unique identifier to the Provider	NUN	CODE	5	CPSO number	CPSO number for practitioner
B8	Provider Expertise Code	Represents the expertise or qualifications of the Provider	NUM	Code	3	SCPQUAL	MTW – Infoway Standards Collaborative
C1	Service Delivery Location Identifier Code	Represents the unique identifier of the PHC practice (Service Delivery Location) where the client received care.	AN	Text	10		
C2	Service Delivery Location Name Text	Represents the name of the PHC practice (Service Delivery Location) where the Client received care.	AN	Text	50		
C3	Service Delivery Location Type Code	Represents the type of PHC (Service Delivery Location) location where the Client received care.	AN	Text	10	Service Delivery Location Detail	MTW – Infoway Standards Collaborative
C4	Service Delivery Location Postal Code	Represents the postal code where the client received the PHC service.	AN	ANA NAN, NNNNN	10		Postal/Zip code must not contain spaces.
D1	Encounter Request Date	Represents the date on which an appointment was created for the Client by the Provider (or his/her staff)	DATE	YYYY-MM-DD	10	W3C Date Standard	Date of appointment where:
D4	Encounter Mode Code	A description of the type of contact between the provider and the Client for a registered encounter or visit.	AN	Text	10	MTW Infoway Standards Collaborative SC TEMP 010 - Face-to-face 020 -Telephone 030 -Video Conference 040- Email	

CIHI Ref #	CIHI DATA ELEMENT	CIHI DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE AND SELECTED EXAMPLES	BACKGOUND ON ELEMENT'S INCLUSION
D5	Encounter Payor Source Code	Represents the source of payment for the encounter.	AN	Text	50	Used in the administration of care for billing purposes. Determines the source of payment for encounter. 01-Patient (self-pay) 02–Provincial 03 -territorial insurance 04- Workers' compensation 05- Federal governance funds – 06- Department of Veterans Affairs 07- Other 08- Unknown	
D6	Encounter Remuneration Mode Code	Represents the type of reimbursement paid to the Provider for the encounter.	N	Code	2	National Physician Database. Data Submission Specification Version 4.0 00 - Fee For Service 01 – Salary	
D7	Encounter Billing (Fee) Code	Represents the Jurisdictional Billing Code.	AN	Code	6	Jurisdiction specific set of values – MOHLTC guidelines – does not amp to any CDS data element ANNNA, MOHLTC guidelines	
E2	Observation Family History Social Behaviour Code	Represents the relevant social behaviours of a person sharing common ancestry with the Client. For example, this can include risk factors such as tobacco use, alcohol use, abuse of illicit or prescription drugs, and occupation.	AN	Text	32k	ICD- 9-CA ICD-10-CA As an example, Z81.1 Alcohol abuse Z81.3 Substance abuse Z83.3 Diabetes Mellitus	General notes about the specific Family member health issue/concern
E7	Observation Family History Effective End Date	Represents the date on which the health concern, intervention, or social behaviour ended for the family member.	DATE	YYYY-MM-DD	10	W3C Date Standard	Used in the provision of care. Family History Effective End Date is often recorded to note that the Client may be at a higher risk of developing a health concern or social behaviour at a certain age. Date may be a partial date if known.

CIHI Ref #	CIHI DATA ELEMENT	CIHI DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE AND SELECTED EXAMPLES	BACKGOUND ON ELEMENT'S INCLUSION
E8	Observation Family History Effective Deceased Date	Represents the date on which the family member died.	DATE	YYYY-MM-DD	10	W3C Date Standard	Date may be a partial date if known.
E9	Observation Family History Death Cause Code	Represents the clinical cause of death for the family member.	N	Code	10	SNOMED CT Ex. 237734007 (ACTH-dependent Cushing's syndrome)	Used in the provision of care. Family History Death Cause Code is often recorded to note that the Client may have a risk factor for diseases. For example a woman whose mother died of breast cancer may be at higher risk of developing breast cancer.
E10	Observation Family History Familial Ethnicity Code	Represents the ethnicity of the family member.	AN	Text	10	Statistics Canada 2006 Census	Used in the provision of care. Family History Familial Ethnicity Code is often recorded to note that the Client may have a risk factor for diseases and social behaviours. For example some health conditions are more prominent in certain ethnic groups such as sickle cell anemia in people with African origins.
E20	Observation Allergy/Intolerance Status Code	Represents whether an allergy/intolerance is 'active' or 'completed' (indicating no longer active).	AN	Code	10	One of: Active Complete	
E22	Observation Allergy and or Intolerance End Date	Represents the date on which the recorded allergy/intolerance is no longer considered active.	DATE	YYYY-MM-DD	10	W3C Date Standard	May contain partial date.
E25	Observation Blood Pressure Measurement Anatomical Location Code	Represents the anatomical location of where the blood pressure was measured on the Client's body.	NUM	Code	10	SNOMED CT Ex. 507692010 (right upper arm structure)	
E26	Observation Blood Pressure Measurement Body Position Code	Represents the position the Client's body was in when blood pressure was measured (e.g. standing, sitting, or lying).	NUM	Code	10	SNOMED CT Ex. 163035008 (sitting blood pressure)	
E27	Observation Representative Blood Pressure Reading Code	Represents if the Client blood pressure reading is representative of the Client's current health condition.	AB	Code	1	T (True) F (False)	

CIHI Ref #	CIHI DATA ELEMENT	CIHI DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE AND SELECTED EXAMPLES	BACKGOUND ON ELEMENT'S INCLUSION
E34	Observation Encounter Clinical Assessment Code	Represents the Provider's professional opinion of the most relevant clinical findings related to the Client's encounter. The most relevant clinical finding for the encounter can include diagnoses, symptoms, and professional services	NUM	Code	10	SNOMED CT Ex. 237734007 (ACTH-dependent Cushing's syndrome) 43364001 (Abdominal discomfort) 408952002 (Acute pain control assessment)	
F3	Intervention Refusal Reason Code	Represents the reason the Client refused an intervention.	AN	Code	10	ActNoImmunizationReason concept domain Ex. PATOBJ (Patient Objection) RELIG (Religious Objection)	
G1	Laboratory Test Name Ordered Code	Represents the lab test ordered by the Provider for the Client.	AN	Text	50	Jurisdictional Lab Information System, PCLOCD	
G2	Laboratory Test Order Date	Represents the date the lab test was ordered by the Provider.	DATE	YYYY-MM-DDThh:mm:ss.sTZD	30	W3C Date Standard	Date & Time that the lab test was ordered
H6	Laboratory Test Result Reference Range Low Unit of Measure Code	Represents the unit of measure associated with the Lab Reference Range Low Number.	AN	Code		MTW – Infoway Standards Collaborative UCUM Ex. mg	
H8	Laboratory Test Result Reference Range High Unit of Measure Code	Represents the unit of measure associated with the Lab Reference Range High Number.	AN	Code		MTW – Infoway Standards Collaborative UCUM Ex. mg	
I1	Diagnostic Imaging Test Ordered Code	Represents the type of diagnostic imaging test ordered by the Provider for the Client.	N	Code	10	SNOMED CT Ex. 363000009 (cardiovascular diagnostic imaging procedure)	

CIHI Ref #	CIHI DATA ELEMENT	CIHI DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE AND SELECTED EXAMPLES	BACKGOUND ON ELEMENT'S INCLUSION
I2	Diagnostic Imaging Test Ordered Date	Represents the date the diagnostic imaging test was ordered by the Provider.	DATE	YYYY-MM-DD	10	W3C Date Standard	May contain partial date.
J1	Diagnostic Imaging Test Performed Date	Represents the date the diagnostic imaging test was performed.	DATE	YYYY-MM-DDThh:mm:ss.sTZD	30	W3C Date Standard	Date and Time the event occurred (e.g. Consultation, Visit, Procedure)
K1	Referral Service Code	Represents the type of service required for the Client.	AN	Text	NL		Text content of the Clinical Note Format the note according to the order that the information was entered.
K2	Referral Requested Date	Represents the date the referral request was created by the Primary Health Care Provider.	DATE	hh:mm:ss.sTZD	20	W3C Date Standard	Date and Time the event occurred (e.g. Consultation, Visit, Procedure, Follow-up) where:
L1	Referral Occurred Date	Represents the actual date the Client had the encounter with the referred to Provider.	DATE	YYYY-MM-DD	10	W3C Date Standard	Appointment date if status of confirmed is the actual date seen by the clinician, else could be the event occurred date.
M3	Medication Prescribed Expected Completion Date	Represents the last date the prescribed medication is expected to finish.	DATE	YYYY-MM-DD	10	W3C Date Standard	
M4	Medication Prescribed Stopped Date	Represents the last date the Client took the prescribed medication	DATE	YYYY-MM-DD	10	W3C Date Standard	Must be on or after the start date. This date may also be used as the discontinued date.
M13	Medication Prescribed Not Given Reason Code	Represents the reason why a preferred medication was not prescribed to a Client.	AN	Code		MTW – Infoway Standards Collaborative Ex. PATINELIG (patient not eligible) ALGY (Allergy Alert)	
N1	Medication Dispensed Code	Represents the medication that was dispensed to the Client.	AN	Code		HC-DIN HC-NPN Ex. 02237722 (gen-acebutolol 200 mg)	

CIHI Ref #	CIHI DATA ELEMENT	CIHI DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE AND SELECTED EXAMPLES	BACKGOUND ON ELEMENT'S INCLUSION
N2	Medication Dispensed Date	Represents the date the medication was dispensed to the Client.	DATE	YYYY-MM-DD	10	W3C Date Standard	Must be on or after the start date. This date may also be used as the discontinued date.