

# CPCSSN Data Dictionary

v4.0.5 (2019-Q2)

## General Information

### Data Types used in this document:

- Bit: Contains 0 (false) or 1 (true) only.
- TinyInt: An integer in the range 0 to 255. One byte in size.
- SmallInt: An integer in the range -32 768 to 32 768. Two bytes in size.
- BigInt: An integer in the range  $-2^{63}$  to  $2^{63}$ . Four bytes in size. Generally used as primary keys for data tables and often auto-incremented.
- Date: A pure date in the format yyyy-mm-dd. Only date information is to be input into these fields – no additional time information is allowed.
- NVarchar: Variable length unicode text field. The field is assumed to hold 255 characters unless otherwise noted.

### Data Constraints:

- Auto: An auto-incrementing value, typically used for primary keys.
- Primary Key: A unique key for the table, typically in the form of an auto-incrementing integer.
- Foreign Key: A field in one table that points to the primary key in another table.
- Unique: Requires all elements of a column to be unique. Applied to columns that are not primary keys.
- Not Null: Field cannot contain a null value.
- Composite: Prepend to 'Primary Key', 'Foreign Key' or 'Unique' where the combination of two or more fields are required to produce a unique primary key, foreign key, or to satisfy a separate uniqueness constraint.

### Highlighting

Table fields that are highlighted in **blue** are filled in by algorithms or are auto-incrementing values and *are not* filled in by Data Managers. Any values in these fields will be overwritten by the algorithm results.

### Table and Column Naming Style Guide

- Short, descriptive names.
- Try not to abbreviate.
- No spaces in names.
- CamelCase for both table and column names.
- Primary and foreign keys are both named as: TableName\_ID.
- Foreign keys have the same name as the primary key to which they point.
- Columns that contain original text have '\_orig' appended to their name. The field (or fields) into which they are coded have '\_orig' replaced with '\_calc'.
- The only 'underscore' extensions that are used are '\_ID', '\_orig', and '\_calc'.
- Column names are not preceded by the table name unless they improve readability (or are the primary/foreign key).
- Column names should make sense when read out loud in the "TableName.ColumnName" format.
- No SQL keywords can be used as table/column names.
- No pluralization.

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## Table: Network

### Table Notes:

- This table is filled by Central prior to database distribution amongst data managers.
- Reference table for Network specific information.

Field	Data Type	Constraints	Definition	Field Notes
Network_ID	TinyInt	Primary Key	Unique identifier for each Network	<ul style="list-style-type: none"><li>• Unique number assigned to each network from the central repository</li><li>• e.g. '9' for NS</li></ul>
NetworkName	NVarchar	Not Null	Name of the Network	<ul style="list-style-type: none"><li>• Name of the Network in Acronym form (e.g., SAPCReN, MaRNet)</li></ul>
GeographicArea	NVarchar		Geographical area of the Network	<ul style="list-style-type: none"><li>• Examples. Southern Alberta; Northern Alberta; Maritimes, etc.</li></ul>

## Table: Cycle

### Table Notes:

- This table is filled by Central repository prior to database distribution amongst data managers.
- Reference table for Cycle specific information. This table only contains one row for the current cycle.

Field	Data Type	Constraints	Definition	Field Notes
Cycle_ID	NVarchar	Primary Key	Name of the Cycle	<ul style="list-style-type: none"><li>• Follows the regular naming schema</li><li>• 2010-Q3, 2010-Q4, 2011-Q1, etc.</li></ul>
CutOffDate	Date	Not Null	Latest date permitted on any record extracted from the EMR	<ul style="list-style-type: none"><li>• All data occurring before the cut-off date are to be extracted, and data after the cut-off date are to be dropped</li></ul>
SchemaVersion	NVarchar		The version number for the current database schema	<ul style="list-style-type: none"><li>• Follows the standard versioning format</li><li>• e.g., v4.0.2, v4.1.0</li></ul>

## Table: Provider

### Table Notes:

- A master list of all providers whose data has been sent to the central repository.
- This table will be maintained manually at each network.
- New providers are added as they join the project.
- Data is only collected for providers while they participate in the CPCSSN project. When a provider no longer participates in the CPCSSN project, no new data is collected from them.

Field	Data Type	Constraints	Definition	Field Notes
Provider_ID	BigInt	Primary Key	Unique identifier for each provider	<ul style="list-style-type: none"><li>● Unique number assigned by each network to the providers in its sites</li><li>● e.g. '15'</li></ul>
BirthYear	SmallInt		Provider's year of birth	
Sex	NVarchar		Provider's sex	<ul style="list-style-type: none"><li>● Permitted values are 'Male' or 'Female'</li></ul>

## Table: Site

### Table Notes:

- A master list of all the sites within each network whose data has been sent to the central repository.
- This table will be maintained manually at each network.
- New sites are added as they join the project.

Field	Data Type	Constraints	Definition	Field Notes
Network_ID	TinyInt	<i>Composite Primary Key,</i> Foreign Key, Not Null	Unique identifier for each Network	<ul style="list-style-type: none"> <li>● Only a Network_ID that exists in the Network table can be referenced here</li> <li>● Unique number assigned to each network from the central repository</li> <li>● e.g. '9' for NS</li> <li>● Forms a Composite Primary Key with Site_ID</li> </ul>
Site_ID	BigInt	<i>Composite Primary Key,</i> Not Null	Unique identifier for each Site in the Site_ID format	<ul style="list-style-type: none"> <li>● Site_ID: Unique number assigned by the network to identify each of its sites</li> <li>● e.g. '1' for first site</li> <li>● Site_ID remains constant across cycles</li> <li>● Forms a Composite Primary Key with Network_ID</li> </ul>
LocationType	NVarchar	Not Null	Type of location of the provider's practice	<ul style="list-style-type: none"> <li>● Permitted values enforced by check constraints</li> <li>● e.g. 'Primary Care Clinic', 'Walk-in Clinic'</li> </ul>
PostalCode	NVarchar	Not Null	FSA or postal code of the Site location	<ul style="list-style-type: none"> <li>● e.g. 'X2X' or 'X2X X2X'</li> </ul>
Province	NVarchar	Not Null	A unique 2-character province name	<ul style="list-style-type: none"> <li>● Permitted values enforced by check constraints</li> <li>● e.g. 'AB', 'NS'</li> </ul>
EMRName	NVarchar	Not Null	Name of the EMR used by the participating site	<ul style="list-style-type: none"> <li>● Permitted values enforced by check constraints</li> <li>● Med Access; Wolf; Jonoke; Nightingale; etc.</li> </ul>

**Table:** SiteProvider

**Table Notes:**

- This table will be maintained manually at each network.
  - As new providers are added to the project or move between sites, changes are made to this table.
- Only include Site Providers that are participating in CPCSSN.

Field	Data Type	Constraints	Definition	Field Notes
SiteProvider_ID	BigInt	Auto Primary Key	Auto-incrementing integer	
Network_ID	TinyInt	Composite Foreign Key, Composite Unique, Not Null	Foreign Key from the Network table	<ul style="list-style-type: none"> <li>• Only a Network_ID that exists in the Network table can be referenced here</li> <li>• Forms a Composite Foreign Key with Site_ID</li> <li>• Forms a Unique constraint with Site_ID and Provider_ID</li> </ul>
Site_ID	BigInt	Composite Foreign Key, Composite Unique, Not Null	Foreign Key from the Site table	<ul style="list-style-type: none"> <li>• Only a Site_ID that exists in the Site table can be referenced here</li> <li>• Forms a Composite Foreign Key with Network_ID</li> <li>• Forms a Unique constraint with Network_ID and Provider_ID</li> </ul>
Provider_ID	BigInt	Foreign Key, Composite Unique, Not Null	Provider_ID from the Provider table	<ul style="list-style-type: none"> <li>• Only a Provider_ID that exists in the Provider table can be referenced here</li> <li>• Forms a Unique constraint with Network_ID and Site_ID</li> </ul>
ProviderType	NVarchar	Not Null	Role of this provider	<ul style="list-style-type: none"> <li>• Permitted values enforced by check constraints</li> <li>• e.g. 'Family Physician', 'Nurse Practitioner'</li> </ul>
ProviderRole	NVarchar	Not Null	Role of this provider	<ul style="list-style-type: none"> <li>• For now, Role = ProviderType</li> </ul>
StartDate	Date	Not Null	Date that the provider starts participating in CPCSSN at the site	<ul style="list-style-type: none"> <li>• Can either be the date the provider began with CPCSSN or the date that the provider moved to a new site</li> </ul>



**Table:** GroupInfo

**Table Notes:**

- All defined groups/teams.

Field	Data Type	Constraints	Definition	Field Notes
GroupInfo_ID	BigInt	Auto Primary Key	Auto-incrementing integer	
Network_ID	TinyInt	Composite Foreign Key, Not Null	Foreign Key from the Network table	<ul style="list-style-type: none"> <li>• Only a Network_ID that exists in the Network table can be referenced here</li> <li>• Forms a Composite Foreign Key with Site_ID</li> </ul>
Site_ID	BigInt	Composite Foreign Key	Foreign Key from the Site table	<ul style="list-style-type: none"> <li>• Only a Site_ID that exists in the Site table can be referenced here</li> <li>• Forms a Composite Foreign Key with Network_ID</li> </ul>
GroupName	NVarchar		Name of the group	<ul style="list-style-type: none"> <li>• e.g. Toronto Family Health Team, ASA Study</li> </ul>
GroupType	NVarchar		Type of group	<ul style="list-style-type: none"> <li>• e.g. Family Health Team, Study</li> </ul>
PaymentModel	NVarchar		Capitation model	
CareModel	NVarchar		How care is provided	
GovernanceModel	NVarchar		How the group is managed	
Description	NVarchar		Other descriptions that may not fit in the above categories	

## Table: ProviderGroup

### Table Notes:

- All of the Provider-group pairings.
- The Provider\_ID, GroupInfo\_ID pairing must be unique.

Field	Data Type	Constraints	Definition	Field Notes
ProviderGroup_ID	BigInt	Auto Primary Key	Auto-incrementing integer	
Provider_ID	BigInt	Foreign Key, <i>Composite Unique</i> , Not Null	Foreign Key from the Provider table	<ul style="list-style-type: none"><li>• Only a Provider_ID that exists in the Provider table can be referenced here</li><li>• Forms a Unique constraint with GroupInfo_ID</li></ul>
GroupInfo_ID	BigInt	Foreign Key, <i>Composite Unique</i> , Not Null	Foreign Key from the GroupInfo table	<ul style="list-style-type: none"><li>• Only a GroupInfo_ID that exists in the GroupInfo table can be referenced here</li><li>• Forms a Unique constraint with Provider_ID</li></ul>

## Table: Patient

### Table Notes:

- List of EMR patients whose primary provider is a consenting physician in the CPCSSN project (has an entry in the Provider table).

Field	Data Type	Constraints	Definition	Field Notes
Patient_ID	BigInt	Primary Key	Unique and randomised patient ID	<ul style="list-style-type: none"> <li>● Assign each patient a unique CPCSSN identification number e.g. '123456'</li> </ul>
Network_ID	TinyInt	<i>Composite Foreign Key, Not Null</i>	Foreign Key from Network table	<ul style="list-style-type: none"> <li>● Only a Network_ID that exists in the Network table can be referenced here</li> <li>● Forms a Composite Foreign Key with Site_ID</li> </ul>
Site_ID	BigInt	<i>Composite Foreign Key, Not Null</i>	Foreign Key from Site table	<ul style="list-style-type: none"> <li>● Only a Site_ID that exists in the Site table can be referenced here</li> <li>● Forms a Composite Foreign Key with Network_ID</li> </ul>
Sex	NVarchar		Patient's sex	<ul style="list-style-type: none"> <li>● Permitted values enforced by check constraints</li> <li>● e.g. 'Male' or 'Female'</li> </ul>
BirthYear	SmallInt		4-digit year of patient's birth date	<ul style="list-style-type: none"> <li>● Must be greater than or equal to 1850</li> </ul>
BirthMonth	TinyInt		Numerical value of patient's birth month	
Occupation	NVarchar		Patient's occupation	<ul style="list-style-type: none"> <li>● Extract this from the EMR if it is available</li> </ul>
HighestEducation	NVarchar		Patient's highest education	<ul style="list-style-type: none"> <li>● Extract this from the EMR if it is available</li> </ul>
HousingStatus	NVarchar		Patient's housing status	<ul style="list-style-type: none"> <li>● Extract this from the EMR if it is available</li> </ul>
ResidencePostalCode	NVarchar		FSA or postal code of the patient	<ul style="list-style-type: none"> <li>● e.g. 'X2X' or 'X2X 2X2'</li> </ul>
PatientStatus_orig	NVarchar		Status of the patient	<ul style="list-style-type: none"> <li>● e.g: deceased, expired, active, hospital, transient, senior clinic</li> <li>● If both codes and description of codes are available(e.g. code=1, description=active), only enter the description</li> </ul>
PatientStatus_calc	NVarchar		PatientStatus_orig recoded into consistent text	<ul style="list-style-type: none"> <li>● Permitted values are enforced by check constraints</li> <li>● e.g. 'Active', 'Deceased', etc.</li> </ul>
PrimaryLanguage	NVarchar		Patient's primary language	
Ethnicity	NVarchar		Patient's ethnicity	<ul style="list-style-type: none"> <li>● Extract this from the EMR if it is available</li> </ul>
DeceasedYear	SmallInt		The year in which the patient became deceased	
DateCreated	Date		EMR date stamp of the record	

**Table:** PatientProvider

**Table Notes:**

- This table identifies which patients are assigned to which providers.

Field	Data Type	Constraints	Definition	Field Notes
PatientProvider_ID	BigInt	Auto Primary Key	Auto-incrementing integer	
Network_ID	TinyInt	Composite Foreign Key, Not Null	Foreign Key from the Network table	<ul style="list-style-type: none"> <li>● Only a Network_ID that exists in the Network table can be referenced here</li> <li>● Forms a Composite Foreign Key with Site_ID and Provider_ID</li> </ul>
Site_ID	BigInt	Composite Foreign Key, Not Null	Foreign Key from the Site table	<ul style="list-style-type: none"> <li>● Only a Site_ID that exists in the Site table can be referenced here</li> <li>● Forms a Composite Foreign Key with Network_ID and Provider_ID</li> </ul>
Patient_ID	BigInt	Foreign Key, Not Null	Foreign Key from the Patient table	<ul style="list-style-type: none"> <li>● Only a Patient_ID that exists in the Patient table can be referenced here</li> </ul>
Provider_ID	BigInt	Composite Foreign Key, Not Null	Foreign Key from the Provider table	<ul style="list-style-type: none"> <li>● Only a Provider_ID that exists in the Provider table can be referenced here</li> <li>● Forms a Composite Foreign Key with Network_ID and Site_ID</li> </ul>
PatientType	NVarchar		How the patient is identified in the provider's roster	<ul style="list-style-type: none"> <li>● Suggested use as an indicator for rostered patients</li> </ul>
StartDate	Date		Date that the provider starts providing care to the patient at this site	

**Table:** AllergyIntolerance**Table Notes:**

- All allergy and intolerance data for the patient.

Field	Data Type	Constraints	Definition	Field Notes
AllergyIntolerance_ID	BigInt	Auto Primary Key	Auto-incrementing integer	
Network_ID	TinyInt	Composite Foreign Key, Not Null	Foreign Key from the Network table	<ul style="list-style-type: none"> <li>• Only a Network_ID that exists in the Network table can be referenced here</li> <li>• Forms a Composite Foreign Key with Site_ID</li> </ul>
Site_ID	BigInt	Composite Foreign Key, Not Null	Foreign Key from the Site table	<ul style="list-style-type: none"> <li>• Only a Site_ID that exists in the Site table can be referenced here</li> <li>• Forms a Composite Foreign Key with Network_ID</li> </ul>
Patient_ID	BigInt	Foreign Key, Not Null	Foreign Key from Patient table	<ul style="list-style-type: none"> <li>• Only a Patient_ID that exists in the Patient table can be referenced here</li> </ul>
Encounter_ID	BigInt	Foreign Key	Foreign Key from Encounter table	<ul style="list-style-type: none"> <li>• Only an Encounter_ID that exists in the Encounter table can be used</li> <li>• May be null if the EMR does not have the data</li> </ul>
StartDate	Date		Date that the allergy was first identified	
StopDate	Date		Date that the allergy noted as inactive	<ul style="list-style-type: none"> <li>• If an allergy is inactive and StopDate cannot be found, Status field must still be set to 'Inactive'</li> </ul>
DIN	NVarchar		DIN for the medication	<ul style="list-style-type: none"> <li>• Extract this where available</li> </ul>
Name_orig	NVarchar		Name of the allergy exactly as it appears in the EMR	
Name_calc	NVarchar		Name_orig recoded into consistent text	<ul style="list-style-type: none"> <li>• Populated by an ATC coding algorithm</li> </ul>
CodeType_orig	NVarchar		Allergy CodeType of the allergy exactly as it appears in the EMR	<ul style="list-style-type: none"> <li>• e.g. 'ATC'</li> </ul>
CodeType_calc	NVarchar		Code set name for the Name_calc entry	<ul style="list-style-type: none"> <li>• Populated by an ATC coding algorithm</li> </ul>
Code_orig	NVarchar		Allergy code exactly as it appears in the EMR	
Code_calc	NVarchar		Allergy code in the CodeType_calc code set	<ul style="list-style-type: none"> <li>• Populated by an ATC coding algorithm</li> </ul>
Category	NVarchar		The category of the allergy	<ul style="list-style-type: none"> <li>• Permitted values enforced by check constraints</li> <li>• e.g. 'Medication', 'Non-Medication', 'Medication Intolerance'</li> </ul>
Severity	NVarchar		The severity of the reaction	<ul style="list-style-type: none"> <li>• Permitted values enforced by check constraints</li> <li>• e.g. 'Mild', 'Moderate', 'Severe'</li> </ul>
AllergyStatus	NVarchar		Current status of the allergy	<ul style="list-style-type: none"> <li>• Permitted values enforced by check constraints (e.g. 'Active', 'Inactive')</li> <li>• If allergy is inactive, this field is always filled, even if no StopDate exists</li> </ul>
ReactionType	NVarchar		Type of reaction that occurs with	<ul style="list-style-type: none"> <li>• e.g. 'Rash', 'Anaphylaxis', etc.</li> </ul>

			allergy	
DateCreated	Date		EMR date stamp of the record	

## Table: Billing

### Table Notes:

- All billing data submitted to the province for the patient.

Field	Data Type	Constraints	Definition	Field Notes
Billing_ID	BigInt	Auto Primary Key	Auto-incrementing integer	
Network_ID	TinyInt	<i>Composite Foreign Key</i> , Not Null	Foreign Key from the Network table	<ul style="list-style-type: none"> <li>• Only a Network_ID that exists in the Network table can be referenced here</li> <li>• Forms a Composite Foreign Key with Site_ID</li> </ul>
Site_ID	BigInt	<i>Composite Foreign Key</i> , Not Null	Foreign Key from the Site table	<ul style="list-style-type: none"> <li>• Only a Site_ID that exists in the Site table can be referenced here</li> <li>• Forms a Composite Foreign Key with Network_ID</li> </ul>
Patient_ID	BigInt	Foreign Key, Not Null	Foreign Key from Patient table	<ul style="list-style-type: none"> <li>• Only a Patient_ID that exists in the Patient table can be referenced here</li> </ul>
Encounter_ID	BigInt	Foreign Key	Foreign Key from Encounter table	<ul style="list-style-type: none"> <li>• Only an Encounter_ID that exists in the Encounter table can be used</li> <li>• May be null if the EMR does not have the data</li> </ul>
ServiceDate	Date		Date the billing was performed/submitted	
ServiceCode	NVarchar		Service code associated with the billing	<ul style="list-style-type: none"> <li>• e.g. '03.03A' in Alberta</li> </ul>
DiagnosisText_orig	NVarchar		Text exactly as it appears in the EMR	
DiagnosisText_calc	NVarchar		DiagnosisText_orig recoded into consistent text	<ul style="list-style-type: none"> <li>• Populated by the ICD-9 coding algorithm</li> </ul>
DiagnosisCodeType_orig	NVarchar		Type of code for any diagnosis codes attached to the billing as it appears in the EMR	<ul style="list-style-type: none"> <li>• e.g. 'ICD9'</li> </ul>
DiagnosisCodeType_calc	NVarchar		DiagnosisCodeType_orig recoded into consistent text	<ul style="list-style-type: none"> <li>• Populated by the ICD-9 coding algorithm</li> </ul>
DiagnosisCode_orig	NVarchar		Diagnosis code associated with the billing as it appears in the EMR	<ul style="list-style-type: none"> <li>• e.g. '250.0'</li> </ul>
DiagnosisCode_calc	NVarchar		DiagnosisCode_orig recoded into consistent text	<ul style="list-style-type: none"> <li>• Populated by the ICD-9 coding algorithm</li> </ul>
DateCreated	Date		EMR date stamp of the record	

## Table: Deprivation

### Table Notes:

- Calculated social and material deprivation indices of the patient. Work still proceeding.

Field	Data Type	Constraints	Definition	Field Notes
Deprivation_ID	BigInt	Auto Primary Key	Auto-incrementing integer	
Network_ID	TinyInt	Composite Foreign Key, Not Null	Foreign Key from the Network table	<ul style="list-style-type: none"> <li>• Only a Network_ID that exists in the Network table can be referenced here</li> <li>• Forms a Composite Foreign Key with Site_ID and Provider_ID</li> </ul>
Site_ID	BigInt	Composite Foreign Key, Not Null	Foreign Key from the Site table	<ul style="list-style-type: none"> <li>• Only a Site_ID that exists in the Site table can be referenced here</li> <li>• Forms a Composite Foreign Key with Network_ID and Provider_ID</li> </ul>
Patient_ID	BigInt	Foreign Key, Not Null	Foreign Key from the Patient table	<ul style="list-style-type: none"> <li>• Only a Patient_ID that exists in the Patient table can be referenced here</li> </ul>
MaterialQ1	TinyInt	Not Null	Quintiles	
MaterialQ2	TinyInt	Not Null	Quintiles	
MaterialQ3	TinyInt	Not Null	Quintiles	
MaterialQ4	TinyInt	Not Null	Quintiles	
MaterialQ5	TinyInt	Not Null	Quintiles	
SocialQ1	TinyInt	Not Null	Quintiles	
SocialQ2	TinyInt	Not Null	Quintiles	
SocialQ3	TinyInt	Not Null	Quintiles	
SocialQ4	TinyInt	Not Null	Quintiles	
SocialQ5	TinyInt	Not Null	Quintiles	
MaterialSocialQ1	TinyInt	Not Null	Quintiles	
MaterialSocialQ2	TinyInt	Not Null	Quintiles	
MaterialSocialQ3	TinyInt	Not Null	Quintiles	
MaterialSocialQ4	TinyInt	Not Null	Quintiles	
MaterialSocialQ5	TinyInt	Not Null	Quintiles	



## Table: Encounter

### Table Notes:

- All encounters of the patient.
- An encounter is an interaction of the patient with a provider in some fashion. The provider does not need to be a participating provider.

Field	Data Type	Constraints	Definition	Field Notes
Encounter_ID	BigInt	Auto Primary Key	Auto-incrementing integer	
Network_ID	TinyInt	Composite Foreign Key, Not Null	Foreign Key from the Network table	<ul style="list-style-type: none"> <li>• Only a Network_ID that exists in the Network table can be referenced here</li> <li>• Forms a Composite Foreign Key with Site_ID and Provider_ID</li> </ul>
Site_ID	BigInt	Composite Foreign Key, Not Null	Foreign Key from the Site table	<ul style="list-style-type: none"> <li>• Only a Site_ID that exists in the Site table can be referenced here</li> <li>• Forms a Composite Foreign Key with Network_ID and Provider_ID</li> </ul>
Patient_ID	BigInt	Foreign Key, Not Null	Foreign Key from the Patient table	<ul style="list-style-type: none"> <li>• Only a Patient_ID that exists in the Patient table can be referenced here</li> </ul>
Provider_ID	BigInt	Composite Foreign Key	Responsible provider for this encounter	<ul style="list-style-type: none"> <li>• The composite foreign key requires that the Network_ID, Site_ID, and Provider_ID MUST be in the SiteProvider table.</li> <li>• If the provider for the encounter is not a CPCSSN sentinel, assign NULL</li> <li>• Forms a Composite Foreign Key with Network_ID and Site_ID</li> </ul>
EncounterDate	Date		Date the encounter occurred	
Reason_orig	NVarchar		Text exactly as it appears in the EMR	<ul style="list-style-type: none"> <li>• If there is more than one source of this data, then precede the entry with 'Patient: ' and 'Provider: ' as appropriate</li> </ul>
Reason_calc	NVarchar		Re-coded or cleaned version of Reason_orig	<ul style="list-style-type: none"> <li>• We will recode this in a future cycle, do not fill in</li> <li>• Permitted values NOT enforced by check constraints, they are the name of the coding set</li> </ul>
EncounterType	NVarchar		How or where the encounter was conducted	<ul style="list-style-type: none"> <li>• Permitted values enforced by check constraints</li> <li>• e.g. 'Phone', 'Walk-In', 'ER Visit'</li> <li>• Extract this data if available</li> <li>• If recording is not straightforward, populate with original text and indicate this in the extraction notes</li> </ul>
DateCreated	Date		Date the record was created in the EMR	

**Table:** EncounterDiagnosis

**Table Notes:**

- All diagnoses resulting from an encounter with the patient.

Field	Data Type	Constraints	Definition	Field Notes
EncounterDiagnosis_ID	BigInt	Auto Primary Key	Auto-incrementing integer	
Network_ID	TinyInt	<i>Composite Foreign Key, Not Null</i>	Foreign Key from Network table	<ul style="list-style-type: none"> <li>• Only a Network_ID that exists in the Network table can be referenced here</li> <li>• Forms a Composite Foreign Key with Site_ID</li> </ul>
Site_ID	BigInt	<i>Composite Foreign Key, Not Null</i>	Foreign Key from Site table	<ul style="list-style-type: none"> <li>• Only a Site_ID that exists in the Site table can be referenced here</li> <li>• Forms a Composite Foreign Key with Network_ID</li> </ul>
Patient_ID	BigInt	Foreign Key, Not Null	Foreign Key from Patient table	<ul style="list-style-type: none"> <li>• Only a Patient_ID that exists in the Patient table can be referenced here</li> </ul>
Encounter_ID	BigInt	Foreign Key	Foreign Key from Encounter table	<ul style="list-style-type: none"> <li>• Only an Encounter_ID that exists in the Encounter table can be used</li> <li>• May be null if the EMR does not have the data</li> </ul>
DiagnosisText_orig	NVarchar		Text exactly as it appears in the EMR	<ul style="list-style-type: none"> <li>• This is the final physician diagnosis, not the presenting complaint of the visit</li> </ul>
DiagnosisText_calc	NVarchar		DiagnosisText_orig recoded into consistent text	<ul style="list-style-type: none"> <li>• Populated by the ICD-9 coding algorithm</li> <li>• Permitted values NOT enforced by check constraints, they are from the associated coding set</li> </ul>
DiagnosisCodeType_orig	NVarchar		Name of the code set from which the original diagnosis code was taken	<ul style="list-style-type: none"> <li>• Populate this field ONLY if there is a value in the DiagnosisCode_orig field for this record</li> <li>• e.g. 'ICD9', 'SNOMED'</li> </ul>
DiagnosisCodeType_calc	NVarchar		DiagnosisCodeType_orig recoded into consistent text	<ul style="list-style-type: none"> <li>• Populated by the ICD-9 coding algorithm</li> <li>• Permitted values NOT enforced by check constraints, they are from the associated coding set</li> </ul>
DiagnosisCode_orig	NVarchar		Original diagnosis code from EMR	<ul style="list-style-type: none"> <li>• Populate this only if it is already available in the EMR. Do not clean any data</li> </ul>
DiagnosisCode_calc	NVarchar		DiagnosisCode_orig recoded into consistent text	<ul style="list-style-type: none"> <li>• Populated by the ICD-9 coding algorithm</li> <li>• Permitted values NOT enforced by check constraints, they are from the associated coding set</li> </ul>
DateCreated	Date		EMR date stamp of the record	

**Table: Exam**

**Table Notes:**

- Results of physical exams performed on the patient.
- Extract only the designated physical exams (see the check constraints).

Field	Data Type	Constraints	Definition	Field Notes
Exam_ID	BigInt	Auto Primary Key	Auto-incrementing integer	
Network_ID	TinyInt	Composite Foreign Key, Not Null	Foreign Key from Network table	<ul style="list-style-type: none"> <li>● Only a Network_ID that exists in the Network table can be referenced here</li> <li>● Forms a Composite Foreign Key with Site_ID</li> </ul>
Site_ID	BigInt	Composite Foreign Key, Not Null	Foreign Key from Site table	<ul style="list-style-type: none"> <li>● Only a Site_ID that exists in the Site table can be referenced here</li> <li>● Forms a Composite Foreign Key with Network_ID</li> </ul>
Patient_ID	BigInt	Foreign Key, Not Null	Foreign Key from Patient table	<ul style="list-style-type: none"> <li>● Only a Patient_ID that exists in the Patient table can be referenced here</li> </ul>
Encounter_ID	BigInt	Foreign Key	Foreign Key from Encounter table	<ul style="list-style-type: none"> <li>● Only Encounter_IDs existing in the Encounter table can be used</li> <li>● May be null if the EMR does not have the data</li> </ul>
Exam1	NVarchar		Name of the physical exam; recoded into consistent text	<ul style="list-style-type: none"> <li>● Permitted values enforced by check constraints</li> <li>● e.g. 'BMI (kg/m^2)', 'dBP (mmHg)', 'Foot Exam', 'sBP (mmHg)'</li> </ul>
Result1_orig	NVarchar		Result of the physical exam	<ul style="list-style-type: none"> <li>● Use consistent units. Units are contained in the 'Exam' name</li> </ul>
Result1_calc	NVarchar		Re-coding of Result1_orig	<ul style="list-style-type: none"> <li>● Populated by Exam Coding algorithm</li> </ul>
Exam2	NVarchar		Name of the paired physical exam	<ul style="list-style-type: none"> <li>● Currently the only paired exam is blood pressure</li> <li>● 'Exam1' must be 'sBP (mmHg)' and 'Exam2' must be 'dBP (mmHg)'</li> </ul>
Result2_orig	NVarchar		Second result of paired physical exam	<ul style="list-style-type: none"> <li>● Currently the only paired exam is blood pressure</li> <li>● 'Result1' must be a systolic value and 'Result2' must be a diastolic value</li> </ul>
Result2_calc	NVarchar		Re-coding of Result2_orig	<ul style="list-style-type: none"> <li>● Populated by Exam Coding algorithm</li> </ul>
UnitOfMeasure_orig	NVarchar		Units that accompany the ExamResult	<ul style="list-style-type: none"> <li>● Use consistent units. Units are contained in the 'Exam' name</li> </ul>
UnitOfMeasure_calc	NVarchar		Re-coding of UnitOfMeasure_orig	<ul style="list-style-type: none"> <li>● Populated by Exam Coding algorithm</li> </ul>
PairingMethod	NVarchar		PairingMethod for physical exam	<ul style="list-style-type: none"> <li>● Permitted values enforced by check constraints</li> <li>● PairingMethod is only filled in for exams that have paired results (e.g. blood pressures where both Exam1 and Exam2 fields are populated, BMIs that are calculated from recorded heights and weights)</li> <li>● e.g. 'Algorithm', 'Pre-paired'</li> </ul>
DateCreated	Date		EMR date stamp of the record	

**Table:** FamilyHistory

**Table Notes:**

- Family history of the patient.

Field	Data Type	Constraints	Definition	Field Notes
FamilyHistory_ID	BigInt	Auto Primary Key	Auto-incrementing integer	
Network_ID	TinyInt	Composite Foreign Key, Not Null	Foreign Key from Network table	<ul style="list-style-type: none"> <li>● Only a Network_ID that exists in the Network table can be referenced here</li> <li>● Forms a Composite Foreign Key with Site_ID</li> </ul>
Site_ID	BigInt	Composite Foreign Key, Not Null	Foreign Key from Site table	<ul style="list-style-type: none"> <li>● Only a Site_ID that exists in the Site table can be referenced here</li> <li>● Forms a Composite Foreign Key with Network_ID</li> </ul>
Patient_ID	BigInt	Foreign Key, Not Null	Foreign Key from Patient table	<ul style="list-style-type: none"> <li>● Only a Patient_ID that exists in the Patient table can be referenced here</li> </ul>
Encounter_ID	BigInt	Foreign Key	Foreign Key from Encounter table	<ul style="list-style-type: none"> <li>● Only an Encounter_ID that exists in the Encounter table can be used</li> <li>● May be null if EMR does not have the data</li> </ul>
DiagnosisText_orig	NVarchar		Text exactly as it appears in the EMR	
DiagnosisText_calc	NVarchar		DiagnosisText_orig recoded into consistent text	<ul style="list-style-type: none"> <li>● Populated by the ICD-9 coding algorithm</li> <li>● Values are from the associated coding set, NOT enforced by check constraints</li> </ul>
DiagnosisCodeType_orig	NVarchar		Name of the code set from which the original diagnosis code was taken	<ul style="list-style-type: none"> <li>● Populate this field ONLY if there is a value in the DiagnosisCode_orig field for this record</li> <li>● e.g. 'ICD9', 'SNOMED'</li> </ul>
DiagnosisCodeType_calc	NVarchar		DiagnosisCodeType_orig recoded into consistent text	<ul style="list-style-type: none"> <li>● Populated by the ICD-9 coding algorithm</li> </ul>
DiagnosisCode_orig	NVarchar		Original diagnosis code from EMR	<ul style="list-style-type: none"> <li>● Populate this only if it is available in the EMR. Do not clean any data</li> </ul>
DiagnosisCode_calc	NVarchar		DiagnosisCode_orig recoded into consistent text	<ul style="list-style-type: none"> <li>● Populated by the ICD-9 coding algorithm</li> <li>● Values are from the associated coding set, NOT enforced by check constraints</li> </ul>
Relationship_orig	NVarchar		Original relationship from the EMR	
Relationship_calc	NVarchar		Coded CPCSSN relationship type	<ul style="list-style-type: none"> <li>● e.g. 'Father', 'Uncle', 'Grandmother'</li> </ul>
RelationshipSide_calc	NVarchar		Coding of side of the relationship	<ul style="list-style-type: none"> <li>● e.g. 'Maternal' or 'Paternal'</li> </ul>
RelationshipDegree_calc	TinyInt		Genetic degree of the relationship	<ul style="list-style-type: none"> <li>● Relationship degree defined here: <a href="http://www.cdc.gov/genomics/resources/diseases/breast_ovarian_cancer/risk_categories.htm">http://www.cdc.gov/genomics/resources/diseases/breast_ovarian_cancer/risk_categories.htm</a></li> </ul>
AgeAtOnset	TinyInt		Age of onset of the condition	
VitalStatus	NVarchar		Whether relative is alive or deceased	
WasCauseOfDeath	Bit		Was this condition the cause of	

			death	
AgeAtDeath	TinyInt		Relation's age at death	
DateCreated	Date		EMR date stamp of the record	

**Table:** HealthCondition

**Table Notes:**

- All health conditions of the patient.

Field	Data Type	Constraints	Definition	Field Notes
HealthCondition_ID	BigInt	Auto Primary Key	Auto-incrementing integer	
Network_ID	TinyInt	Composite Foreign Key, Not Null	Foreign Key from Network table	<ul style="list-style-type: none"> <li>● Only a Network_ID that exists in the Network table can be referenced here</li> <li>● Forms a Composite Foreign Key with Site_ID</li> </ul>
Site_ID	BigInt	Composite Foreign Key, Not Null	Foreign Key from Site table	<ul style="list-style-type: none"> <li>● Only Site_IDs that exist in the Site table can be referenced</li> <li>● Forms a Composite Foreign Key with Network_ID</li> </ul>
Patient_ID	BigInt	Foreign Key, Not Null	Foreign Key from Patient table	<ul style="list-style-type: none"> <li>● Only a Patient_ID that exists in the Patient table can be referenced here</li> </ul>
Encounter_ID	BigInt	Foreign Key	Foreign Key from Encounter table	<ul style="list-style-type: none"> <li>● Only an Encounter_ID that exists in the Encounter table can be used</li> <li>● May be null if the EMR does not have the data</li> </ul>
DiagnosisText_orig	NVarchar		Text exactly as it appears in the EMR	
DiagnosisText_calc	NVarchar		DiagnosisText_orig recoded into consistent text	<ul style="list-style-type: none"> <li>● Populated by the ICD-9 coding algorithm</li> <li>● Values are from the associated coding set</li> </ul>
DiagnosisCodeType_orig	NVarchar		Name of the code set from which the original diagnosis code was taken	<ul style="list-style-type: none"> <li>● Populate this field ONLY if there is a value in the DiagnosisCode_orig field for this record</li> <li>● e.g. 'ICD9', 'SNOMED'</li> </ul>
DiagnosisCodeType_calc	NVarchar		DiagnosisCodeType_orig recoded into consistent text	<ul style="list-style-type: none"> <li>● Populated by the ICD-9 coding algorithm</li> </ul>
DiagnosisCode_orig	NVarchar		Original diagnosis code from the EMR	<ul style="list-style-type: none"> <li>● Populate this only if it is already available in the EMR. Do not clean any data</li> </ul>
DiagnosisCode_calc	NVarchar		DiagnosisCode_orig recoded into consistent text	<ul style="list-style-type: none"> <li>● Populated by the ICD-9 coding algorithm</li> <li>● Values are from the associated coding set</li> </ul>
DateOfOnset	Date		Date that the health condition began	
SignificantNegativeFlag	Bit		An indicator that the Patient does NOT have this health condition	<ul style="list-style-type: none"> <li>● 'True': does not have this condition</li> <li>● 'False'/NULL: has this condition</li> </ul>
ActiveInactiveFlag	NVarchar		An indicator that the condition is active at the time of data extraction.	<ul style="list-style-type: none"> <li>● Permitted values enforced by check constraints</li> <li>● If it is in the problem list, it is likely to be Active. If it is in the Past Medical History, it is likely to be Inactive</li> </ul>
DateCreated	Date		EMR date stamp of the record	

**Table:** Lab

**Table Notes:**

- Results of lab tests.

Field	Data Type	Constraints	Definition	Field Notes
Lab_ID	BigInt	Auto Primary Key	Auto-incrementing integer	
Network_ID	TinyInt	Composite Foreign Key, Not Null	Foreign Key from Network table	<ul style="list-style-type: none"> <li>● Only a Network_ID that exists in the Network table can be referenced here</li> <li>● Forms a Composite Foreign Key with Site_ID</li> </ul>
Site_ID	BigInt	Composite Foreign Key, Not Null	Foreign Key from Site table	<ul style="list-style-type: none"> <li>● Only a Site_ID that exists in the Site table can be referenced here</li> <li>● Forms a Composite Foreign Key with Network_ID</li> </ul>
Patient_ID	BigInt	Foreign Key, Not Null	Foreign Key from Patient table	<ul style="list-style-type: none"> <li>● Only a Patient_ID that exists in the Patient table can be referenced here</li> </ul>
Encounter_ID	BigInt	Foreign Key	Foreign Key from Encounter table	<ul style="list-style-type: none"> <li>● Only an Encounter_ID that exists in the Encounter table can be used</li> <li>● May be null if EMR does not have the data</li> </ul>
PerformedDate	Date		Date that the lab test was done	
Name_orig	NVarchar		Text exactly as it appears in the EMR	
Name_calc	NVarchar		Name_orig recoded into consistent text	<ul style="list-style-type: none"> <li>● Permitted values enforced by check constraints</li> <li>● Populated by lab result coding algorithm</li> </ul>
CodeType_orig	NVarchar		CodeType text exactly as it appears in the EMR	
CodeType_calc	NVarchar		CodeType_orig recoded into consistent text	<ul style="list-style-type: none"> <li>● Populated by lab result coding algorithm</li> <li>● Values are the name of the coding set (NOT enforced by check constraints)</li> <li>● e.g. 'LOINC', 'Life Labs Proprietary'</li> </ul>
Code_orig	NVarchar		Code text exactly as it appears in the EMR	
Code_calc	NVarchar		Code_orig orig recoded into consistent text	<ul style="list-style-type: none"> <li>● Populated by lab result coding algorithm</li> <li>● Values are from the associated coding set</li> </ul>
TestResult_orig	NVarchar		Result of the lab test	
TestResult_calc	NVarchar		TestResult_orig recoded into consistent text	
UpperNormal	NVarchar		Highest lab result value that is considered normal	<ul style="list-style-type: none"> <li>● May not be available</li> </ul>
LowerNormal	NVarchar		Lowest lab result value that is considered normal	<ul style="list-style-type: none"> <li>● May not be available</li> </ul>
NormalRange	NVarchar		Original text containing upper and lower lab ranges in one record from the EMR	<ul style="list-style-type: none"> <li>● If upper and lower ranges are already given in separate fields, this field can be left blank</li> </ul>
UnitOfMeasure_orig	NVarchar		Unit of measure for the value in Name_orig field	<ul style="list-style-type: none"> <li>● May not be available</li> </ul>

UnitOfMeasure_calc	NVarchar		UnitOfMeasure_orig recoded into consistent text	
DateCreated	Date		EMR date stamp of the record	



**Table:** Measurement

**Table Notes:**

- More general table for measurements performed on the patient.

Field	Data Type	Constraints	Definition	Field Notes
Measurement_ID	BigInt	Auto Primary Key	Auto-incrementing integer	
Network_ID	TinyInt	Composite Foreign Key, Not Null	Foreign Key from Network table	<ul style="list-style-type: none"> <li>• Only a Network_ID that exists in the Network table can be referenced here</li> <li>• Forms a Composite Foreign Key with Site_ID</li> </ul>
Site_ID	BigInt	Composite Foreign Key, Not Null	Foreign Key from Site table	<ul style="list-style-type: none"> <li>• Only a Site_ID that exists in the Site table can be referenced here</li> <li>• Forms a Composite Foreign Key with Network_ID</li> </ul>
Patient_ID	BigInt	Foreign Key, Not Null	Foreign Key from Patient table	<ul style="list-style-type: none"> <li>• Only a Patient_ID that exists in the Patient table can be referenced here</li> </ul>
Encounter_ID	BigInt	Foreign Key	Foreign Key from Encounter table	<ul style="list-style-type: none"> <li>• Only an Encounter_ID that exists in the Encounter table can be used</li> <li>• May be null if EMR does not have the data</li> </ul>
Name_orig	NVarchar		Procedure text exactly as it appears in the EMR	
Name_calc	NVarchar		Name_orig recoded into consistent text	<ul style="list-style-type: none"> <li>• Re-coding will be done in a future cycle</li> </ul>
CodeType_orig	NVarchar		Original code set used in the EMR	
CodeType_calc	NVarchar		CodeType_orig recoded into consistent text	
Code_orig	NVarchar		Original code used in the EMR	
Code_calc	NVarchar		Code_orig recoded into consistent text	
Value_orig	NVarchar		Original measurement value	
Value_calc	NVarchar		Value_orig recoded into consistent text	
ContentType_orig	NVarchar		Original text describing the measurement type	
ContentType_calc	NVarchar		Coded value of content type	
DateCreated	Date		EMR date stamp of the record	

**Table:** MedicalProcedure

**Table Notes:**

- All procedures performed on the patient.

Field	Data Type	Constraints	Definition	Field Notes
MedicalProcedure_ID	BigInt	Auto Primary Key	Auto-incrementing integer	
Network_ID	TinyInt	Composite Foreign Key, Not Null	Foreign Key from Network table	<ul style="list-style-type: none"> <li>• Only a Network_ID that exists in the Network table can be referenced here</li> <li>• Forms a Composite Foreign Key with Site_ID</li> </ul>
Site_ID	BigInt	Composite Foreign Key, Not Null	Foreign Key from Site table	<ul style="list-style-type: none"> <li>• Only a Site_ID that exists in the Site table can be referenced here</li> <li>• Forms a Composite Foreign Key with Network_ID</li> </ul>
Patient_ID	BigInt	Foreign Key, Not Null	Foreign Key from Patient table	<ul style="list-style-type: none"> <li>• Only a Patient_ID that exists in the Patient table can be referenced here</li> </ul>
Encounter_ID	BigInt	Foreign Key	Foreign Key from Encounter table	<ul style="list-style-type: none"> <li>• Only an Encounter_ID that exists in the Encounter table can be used</li> <li>• May be null if EMR does not have the data</li> </ul>
PerformedDate	Date		Date that the procedure was performed	
Name_orig	NVarchar		Procedure text exactly as it appears in the EMR	
Name_calc	NVarchar		Name_orig recoded into consistent text	<ul style="list-style-type: none"> <li>• Re-coding will be done in a future cycle</li> </ul>
DateCreated	Date		EMR date stamp of the record	

**Table:** Medication

**Table Notes:**

- All medications prescribed for the patient.

Field	Data Type	Constraints	Definition	Field Notes
Medication_ID	BigInt	Auto Primary Key	Auto-incrementing integer	
Network_ID	TinyInt	Composite Foreign Key, Not Null	Foreign Key from Network table	<ul style="list-style-type: none"> <li>• Only a Network_ID that exists in the Network table can be referenced here</li> <li>• Forms a Composite Foreign Key with Site_ID</li> </ul>
Site_ID	BigInt	Composite Foreign Key, Not Null	Foreign Key from Site table	<ul style="list-style-type: none"> <li>• Only a Site_ID that exists in the Site table can be referenced here</li> <li>• Forms a Composite Foreign Key with Network_ID</li> </ul>
Patient_ID	BigInt	Foreign Key, Not Null	Foreign Key from Patient table	<ul style="list-style-type: none"> <li>• Only a Patient_ID that exists in the Patient table can be referenced here</li> </ul>
Encounter_ID	BigInt	Foreign Key	Foreign Key from Encounter table	<ul style="list-style-type: none"> <li>• Only an Encounter_ID that exists in the Encounter table can be used</li> <li>• May be null if EMR does not have the data</li> </ul>
StartDate	Date		Date that the Patient started taking the medication	
StopDate	Date		Date that the Patient stopped taking the medication	
Reason	NVarchar		Reason that Patient was prescribed the medication	<ul style="list-style-type: none"> <li>• Exact text as in the EMR, no cleaning for now</li> </ul>
DIN	NVarchar		DIN number for the medication	<ul style="list-style-type: none"> <li>• Extract this where available</li> </ul>
Name_orig	NVarchar		Text exactly as it appears in the EMR	
Name_calc	NVarchar		Name_orig recoded into consistent text	<ul style="list-style-type: none"> <li>• Populated by an ATC coding algorithm</li> <li>• Values are from the associated coding set, NOT enforced by check constraints</li> </ul>
CodeType_orig	NVarchar		Original code set used in the EMR	<ul style="list-style-type: none"> <li>• e.g. 'ATC'</li> </ul>
CodeType_calc	NVarchar		CodeType_orig recoded into consistent text	<ul style="list-style-type: none"> <li>• Populated by an ATC coding algorithm</li> <li>• Values are from the associated coding set, NOT enforced by check constraints</li> </ul>
Code_orig	NVarchar		Original code used in the EMR	
Code_calc	NVarchar		Code_orig recoded into consistent text	<ul style="list-style-type: none"> <li>• Populated by an ATC coding algorithm</li> <li>• Values are from the associated coding set, NOT enforced by check constraints</li> </ul>
Strength	NVarchar		Concentration of the medication	<ul style="list-style-type: none"> <li>• e.g. 40</li> </ul>
Dose	NVarchar		Number of units of the medication to be taken	<ul style="list-style-type: none"> <li>• e.g. 2</li> </ul>
UnitOfMeasure	NVarchar		Units of medication strength	<ul style="list-style-type: none"> <li>• e.g. mg, ml</li> </ul>

Frequency	NVarchar		Frequency at which medication to be taken	● e.g. bid, tid, q4hr
DurationCount	NVarchar		Length of time that the patient should take the medication	● e.g. 10
DurationUnit	NVarchar		The units of measure for the DurationCount	● e.g. 'days'
DispensedCount	NVarchar		Number of units (as defined in DispensedForm) to be dispensed	● e.g. 90
DispensedForm	NVarchar		Form of dispensed medication	● e.g. 'Vial', 'Tab', 'Capsule'
RefillCount	NVarchar		Number of refills	● e.g. 3
DateCreated	Date		EMR date stamp of the record	

## Table: Referral

### Table Notes:

- All referrals made for the patient.
- Include only referrals made by this provider/practice. Exclude referrals made by specialists to another provider.

Field	Data Type	Constraints	Definition	Field Notes
Referral_ID	BigInt	Auto Primary Key	Auto-incrementing integer	
Network_ID	TinyInt	Composite Foreign Key, Not Null	Foreign Key from Network table	<ul style="list-style-type: none"> <li>● Only a Network_ID that exists in the Network table can be referenced here</li> <li>● Forms a Composite Foreign Key with Site_ID</li> </ul>
Site_ID	BigInt	Composite Foreign Key, Not Null	Foreign Key from Site table	<ul style="list-style-type: none"> <li>● Only a Site_ID that exists in the Site table can be referenced here</li> <li>● Forms a Composite Foreign Key with Network_ID</li> </ul>
Patient_ID	BigInt	Foreign Key, Not Null	Foreign Key from Patient table	<ul style="list-style-type: none"> <li>● Only a Patient_ID that exists in the Patient table can be referenced here</li> </ul>
Encounter_ID	BigInt	Foreign Key	Foreign Key from Encounter table	<ul style="list-style-type: none"> <li>● Only an Encounter_ID that exists in the Encounter table can be used</li> <li>● May be null if EMR does not have the data</li> </ul>
CompletedDate	Date		Date when the patient saw the provider to whom they were referred	<ul style="list-style-type: none"> <li>● Extract if available in your EMR</li> </ul>
Name_orig	NVarchar		Referral Text exactly as it appears in the EMR	<ul style="list-style-type: none"> <li>● We want the reason for referral, not the entire referral letter</li> </ul>
Name_calc	NVarchar		Name_orig recoded into consistent text	<ul style="list-style-type: none"> <li>● Populated by the Referral Cleaning algorithm</li> </ul>
ConceptCode_calc	BigInt		SNOMED concept code	<ul style="list-style-type: none"> <li>● Populated by the Referral Cleaning algorithm</li> </ul>
DateCreated	Date		EMR date stamp of the record	

**Table:** RiskFactor

**Table Notes:**

- Risk factors recorded for the patient.
- Extract only the designated risk factors (see the MasterLookup RiskFactor list).

Field	Data Type	Constraints	Definition	Field Notes
RiskFactor_ID	BigInt	Auto Primary Key	Auto-incrementing integer	
Network_ID	TinyInt	Composite Foreign Key, Not Null	Foreign Key from Network table	<ul style="list-style-type: none"> <li>● Only a Network_ID that exists in the Network table can be referenced here</li> <li>● Forms a Composite Foreign Key with Site_ID</li> </ul>
Site_ID	BigInt	Composite Foreign Key, Not Null	Foreign Key from Site table	<ul style="list-style-type: none"> <li>● Only a Site_ID that exists in the Site table can be referenced here</li> <li>● Forms a Composite Foreign Key with Network_ID</li> </ul>
Patient_ID	BigInt	Foreign Key, Not Null	Foreign Key from Patient table	<ul style="list-style-type: none"> <li>● Only a Patient_ID that exists in the Patient table can be referenced here</li> </ul>
Encounter_ID	BigInt	Foreign Key	Foreign Key from Encounter table	<ul style="list-style-type: none"> <li>● Only an Encounter_ID that exists in the Encounter table can be used</li> <li>● May be null if EMR does not have the data</li> </ul>
StartDate	Date		Date that the risk factor began	
EndDate	Date		Date that the risk factor ended	
Name_orig	NVarchar		Risk factor name exactly as it appears in the EMR	
Name_calc	NVarchar		Name_orig recoded into consistent text	<ul style="list-style-type: none"> <li>● Permitted values are enforced by check constraints</li> <li>● Re-coding is currently performed by the individual Data Managers</li> </ul>
Value_orig	NVarchar		Measure of the risk factor	<ul style="list-style-type: none"> <li>● For example, if Risk Factor is 'smoker', value might be '3 pk/week' or '7/day'</li> </ul>
Value_calc	NVarchar		Value_orig recoded into consistent text	
Status_orig	NVarchar		Original value denoting whether the risk is current, past, never, etc.	
Status_calc	NVarchar		Coded value of the status	<ul style="list-style-type: none"> <li>● Permitted values are enforced by check constraints</li> </ul>
Frequency	NVarchar		How often the patient is currently affected by the specified risk factor	<ul style="list-style-type: none"> <li>● For example, if the person currently smokes less than 3 packs per day, value would be "3"</li> </ul>
FrequencyType	NVarchar		For entries where a specific value is not provided, allows a comparative description of frequency length	<ul style="list-style-type: none"> <li>● Possible values: Greater than; Less than</li> <li>● For example, if the person currently smokes less than 3 packs per day, value would be "Less than"</li> </ul>
FrequencyUnit	NVarchar		Frequency Unit of Measure	<ul style="list-style-type: none"> <li>● For example, if the person currently smokes less than 3 packs per day, value would be "Packs per day"</li> </ul>
Duration	NVarchar		Amount of time that the person has been affected by the specified risk factor	<ul style="list-style-type: none"> <li>● For example, if the person has been smoking for more than 10 years, value would be "10"</li> </ul>
DurationType	NVarchar		For entries where a specific value is not provided, allows for the entry of a	<ul style="list-style-type: none"> <li>● Possible values: Greater than; Less than</li> </ul>

			comparative description of Duration length	<ul style="list-style-type: none"> <li>For example, if the person has been smoking for more than 10 years, value would be "Greater than"</li> </ul>
DurationUnit	NVarchar		Duration Unit of Measure	<ul style="list-style-type: none"> <li>For example, if the person has been smoking for more than 10 years, value would be "Years"</li> </ul>
EndDuration	NVarchar		Period of time since the person is no longer affected by the specified risk factor	<ul style="list-style-type: none"> <li>For example, if the person has not had a drink for more than 5 years, value would be "5"</li> </ul>
EndDurationType	NVarchar		For entries where a specific value is not provided, allows for the entry of a comparative description of EndDuration length	<ul style="list-style-type: none"> <li>Possible values: Greater than; Less than</li> <li>For example, if the person has not had a drink for more than 5 years, value would be "Greater than"</li> </ul>
EndDurationUnit	NVarchar		EndDuration Unit of Measure	<ul style="list-style-type: none"> <li>For example, if the person has not had a drink for more than 5 years, value would be "Years"</li> </ul>
RiskDetails	NVarchar		Any additional details regarding the risk factor	<ul style="list-style-type: none"> <li>Possible entries: details regarding cessation attempts and type; relevant details to risk which currently may not fit structured fields, etc.</li> </ul>
DateCreated	Date		EMR date stamp of the record	

**Table:** Vaccine

**Table Notes:**

- All vaccinations given to the patient.

Field	Data Type	Constraints	Definition	Field Notes
Vaccine_ID	BigInt	Auto Primary Key	Auto-incrementing integer	
Network_ID	TinyInt	Composite Foreign Key, Not Null	Foreign Key from Network table	<ul style="list-style-type: none"> <li>● Only a Network_ID that exists in the Network table can be referenced here</li> <li>● Forms a Composite Foreign Key with Site_ID</li> </ul>
Site_ID	BigInt	Composite Foreign Key, Not Null	Foreign Key from Site table	<ul style="list-style-type: none"> <li>● Only a Site_ID that exists in the Site table can be referenced here</li> <li>● Forms a Composite Foreign Key with Network_ID</li> </ul>
Patient_ID	BigInt	Foreign Key, Not Null	Foreign Key from Patient table	<ul style="list-style-type: none"> <li>● Only a Patient_ID that exists in the Patient table can be referenced here</li> </ul>
Encounter_ID	BigInt	Foreign Key	Foreign Key from Encounter table	<ul style="list-style-type: none"> <li>● Only an Encounter_ID that exists in the Encounter table can be used</li> <li>● May be null if EMR does not have the data</li> </ul>
GivenDate	Date		Date of vaccine administration.	
ExpiryDate	Date		Vaccine expiry date.	<ul style="list-style-type: none"> <li>● The vaccine-batch expiry date, NOT the end-date of vaccine efficacy</li> </ul>
Name_orig	NVarchar		Text exactly as it appears in the EMR	
Name_calc	NVarchar		Name_orig recoded into consistent text	<ul style="list-style-type: none"> <li>● Populated by an ATC coding algorithm</li> </ul>
CodeType_orig	NVarchar		Original code set used in the EMR	<ul style="list-style-type: none"> <li>● e.g. 'ATC'</li> </ul>
CodeType_calc	NVarchar		CodeType_orig recoded into consistent text	<ul style="list-style-type: none"> <li>● Populated by an ATC coding algorithm</li> </ul>
Code_orig	NVarchar		Original code used in the EMR	
Code_calc	NVarchar		Code_orig recoded into consistent text	<ul style="list-style-type: none"> <li>● Populated by an ATC coding algorithm</li> </ul>
DIN	NVarchar		DIN number for the vaccine	<ul style="list-style-type: none"> <li>● Extract this where available</li> </ul>
Dose	NVarchar		Number of units/volumes of the administered vaccine	<ul style="list-style-type: none"> <li>● e.g. 0.1</li> </ul>
UnitOfMeasure	NVarchar		Units used for the vaccine	<ul style="list-style-type: none"> <li>● e.g. mL</li> </ul>
NotGiven	Bit		Identifies if vaccination was prevented	<ul style="list-style-type: none"> <li>● e.g. 'Yes'=1, 'No'=0</li> </ul>
NotGivenReason	NVarchar		Represents the reason a vaccine was not administered to a patient	<ul style="list-style-type: none"> <li>● e.g. 'Patient Objection', 'Allergy', 'history of severe reaction'</li> </ul>
Reaction	NVarchar		Adverse reaction related to immunization	<ul style="list-style-type: none"> <li>● e.g. 'Allergic', 'idiosyncratic', 'Intolerance', 'Overdose'</li> </ul>
AdminSite	NVarchar		Site of vaccine administration	<ul style="list-style-type: none"> <li>● e.g. 'Left deltoid', 'Right gluteus'</li> </ul>
Route	NVarchar		Route of vaccine administration	<ul style="list-style-type: none"> <li>● e.g. 'PO', 'IM', 'SC'</li> </ul>
Lot	NVarchar		The vaccine lot number	<ul style="list-style-type: none"> <li>● e.g. 'C2274AA', 'M005060'</li> </ul>
DateCreated	Date		EMR date stamp of the record	



**Table:** DiseaseCase

**Table Notes:**

- Patients in the Patient table who have one or more of the Index Diseases.
- Populated by the case detection algorithm.

Field	Data Type	Constraints	Definition	Field Notes
DiseaseCase_ID	BigInt	Auto Primary Key	Auto-incrementing integer	
Network_ID	TinyInt	<i>Composite Foreign Key</i> , Not Null	Foreign Key from Network table	<ul style="list-style-type: none"><li>● Only a Network_ID that exists in the Network table can be referenced here</li><li>● Forms a Composite Foreign Key with Site_ID</li></ul>
Site_ID	BigInt	<i>Composite Foreign Key</i> , Not Null	Foreign Key from Site table	<ul style="list-style-type: none"><li>● Only a Site_ID that exists in the Site table can be referenced here</li><li>● Forms a Composite Foreign Key with Network_ID</li></ul>
Patient_ID	BigInt	Foreign Key, Not Null	Foreign Key from Patient table	<ul style="list-style-type: none"><li>● Only a Patient_ID that exists in the Patient table can be referenced here</li></ul>
Disease	NVarchar	Not Null	The Patient's chronic condition of interest to this database	<ul style="list-style-type: none"><li>● Valid values are diseases with CPCSSN case definitions</li><li>● e.g. 'COPD', 'Depression', 'Diabetes Mellitus'</li></ul>
DateOfOnset	Date		Date that the earliest indicator for the case	

**Table:** DiseaseCaseIndicator

**Table Notes:**

- Collects all of the reasons that a patient has been identified as having an index disease.
- Populated by the case detection algorithm.

Field	Data Type	Constraint s	Definition	Field Notes
DiseaseCaseIndicator_ID	BigInt	Auto Primary Key	Auto-incrementing integer	
Network_ID	TinyInt	Composite Foreign Key, Not Null	Foreign Key from Network table	<ul style="list-style-type: none"> <li>● Only a Network_ID that exists in the Network table can be referenced here</li> <li>● Forms a Composite Foreign Key with Site_ID</li> </ul>
Site_ID	BigInt	Composite Foreign Key, Not Null	Foreign Key from Site table	<ul style="list-style-type: none"> <li>● Only a Site_ID that exists in the Site table can be referenced here</li> <li>● Forms a Composite Foreign Key with Network_ID</li> </ul>
Patient_ID	BigInt	Foreign Key, Not Null	Foreign Key from Patient table	<ul style="list-style-type: none"> <li>● Only a Patient_ID that exists in the Patient table can be referenced here</li> </ul>
Disease	NVarchar	Not Null	The Patient's chronic condition of interest to this database	<ul style="list-style-type: none"> <li>● Valid values are diseases with CPCSSN case definitions</li> <li>● e.g. 'COPD', 'Depression', 'Diabetes Mellitus'</li> </ul>
IndicatorType	NVarchar		General category that the indicator falls under	<ul style="list-style-type: none"> <li>● Values are the names of the table where the original record can be found</li> <li>● e.g. "HealthCondition", "Medication", etc.</li> </ul>
IndicatorValue	NVarchar		Data value from the original record	
TableName	NVarchar		Name of the table storing the original record	
TableKey	BigInt		Primary key of the original record in the original table	
DateCreated	Date		EMR date stamp of the original record	
ExcludeFlag	Tinyint		Flag for whether an indicator was excluded	
ExcludeReason	NVarchar		Reason an indicator was excluded	