

Allergies

Column Name	Data Type	Required?	Description
Start	Date (YYYY-MM-DD)	true	The date the allergy was diagnosed.
Stop	Date (YYYY-MM-DD)	false	The date the allergy ended, if applicable.
 Patient	UUID	true	Foreign key to the Patient.
 Encounter	UUID	true	Foreign key to the Encounter when the allergy was diagnosed.
Code	String	true	Allergy code
System	String	true	Terminology system of the Allergy code. RxNorm if this is a medication allergy, otherwise SNOMED-CT.
Description	String	true	Description of the Allergy
Type	String	false	Identify entry as an allergy or intolerance.
Category	String	false	Identify the category as drug, medication, food, or environment.
Reaction1	String	false	Optional SNOMED code of the patients reaction.
Description1	String	false	Optional description of the Reaction1 SNOMED code.
Severity1	String	false	Severity of the reaction: MILD, MODERATE, or SEVERE.
Reaction2	String	false	Optional SNOMED code of the patients second reaction.
Description2	String	false	Optional description of the Reaction2 SNOMED code.
Severity2	String	false	Severity of the second reaction: MILD, MODERATE, or SEVERE.

CarePlans

Column Name	Data Type	Required?	Description
 Id	UUID	true	Primary Key. Unique Identifier of the care plan.
Start	Date (YYYY-MM-DD)	true	The date the care plan was initiated.
Stop	Date (YYYY-MM-DD)	false	The date the care plan ended, if applicable.
 Patient	UUID	true	Foreign key to the Patient.
 Encounter	UUID	true	Foreign key to the Encounter when the care plan was initiated.
Code	String	true	Code from SNOMED-CT
Description	String	true	Description of the care plan.
ReasonCode	String	true	Diagnosis code from SNOMED-CT that this care plan addresses.
ReasonDescription	String	true	Description of the reason code.

Conditions

Column Name	Data Type	Required?	Description
Start	Date (YYYY-MM-DD)	true	The date the condition was diagnosed.
Stop	Date (YYYY-MM-DD)	false	The date the condition resolved, if applicable.
 Patient	UUID	true	Foreign key to the Patient.
 Encounter	UUID	true	Foreign key to the Encounter when the condition was diagnosed.
Code	String	true	Diagnosis code from SNOMED-CT
Description	String	true	Description of the condition.

Devices

Column Name	Data Type	Required?	Description
Start	iso8601 UTC Date (yyyy-MM-dd'T'HH:mm'Z')	true	The date and time the device was associated to the patient.
Stop	iso8601 UTC Date (yyyy-MM-dd'T'HH:mm'Z')	false	The date and time the device was removed, if applicable.
 Patient	UUID	true	Foreign key to the Patient.
 Encounter	UUID	true	Foreign key to the Encounter when the device was associated.
Code	String	true	Type of device, from SNOMED-CT
Description	String	true	Description of the device.
UDI	String	true	Unique Device Identifier for the device.

Encounters

Column Name	Data Type	Required?	Description
 Id	UUID	true	Primary Key. Unique Identifier of the encounter.
Start	iso8601 UTC Date (yyyy-MM-dd'T'HH:mm'Z')	true	The date and time the encounter started.
Stop	iso8601 UTC Date (yyyy-MM-dd'T'HH:mm'Z')	false	The date and time the encounter concluded.
 Patient	UUID	true	Foreign key to the Patient.
 Organization	UUID	true	Foreign key to the Organization.
 Provider	UUID	true	Foreign key to the Provider.
 Payer	UUID	true	Foreign key to the Payer.
EncounterClass	String	true	The class of the encounter, such as ambulatory, emergency, inpatient, wellness, or urgentcare
Code	String	true	Encounter code from SNOMED-CT
Description	String	true	Description of the type of encounter.
Base_Encounter_Cost	Numeric	true	The base cost of the encounter, not including any line item costs related to medications, immunizations, procedures, or other services.
Total_Claim_Cost	Numeric	true	The total cost of the encounter, including all line items.
Payer_Coverage	Numeric	true	The amount of cost covered by the Payer.
ReasonCode	String	false	Diagnosis code from SNOMED-CT, only if this encounter targeted a specific condition.
ReasonDescription	String	false	Description of the reason code.

Imaging Studies

Column Name	Data Type	Required?	Description
Id	UUID	true	Non-unique identifier of the imaging study. An imaging study may have multiple rows.
Date	iso8601 UTC Date (yyyy-MM-dd'T'HH:mm'Z')	true	The date and time the imaging study was conducted.
 Patient	UUID	true	Foreign key to the Patient.
 Encounter	UUID	true	Foreign key to the Encounter where the imaging study was conducted.
Series UID	UUID	true	Imaging Study series DICOM UID.
Body Site Code	String	true	A SNOMED Body Structures code describing what part of the body the images in the series were taken of.
Body Site Description	String	true	Description of the body site.
Modality Code	String	true	A DICOM-DCM code describing the method used to take the images.
Modality Description	String	true	Description of the modality.
Instance UID	UUID	true	Imaging Study instance DICOM UID.
SOP Code	String	true	A DICOM-SOP code describing the Subject-Object Pair (SOP) that constitutes the image.
SOP Description	String	true	Description of the SOP code.
Procedure Code	String	true	Procedure code from SNOMED-CT.

Immunizations

Column Name	Data Type	Required?	Description
Date	iso8601 UTC Date (yyyy-MM-dd'T'HH:mm'Z')	true	The date the immunization was administered.
 Patient	UUID	true	Foreign key to the Patient.
 Encounter	UUID	true	Foreign key to the Encounter where the immunization was administered.
Code	String	true	Immunization code from CVX.
Description	String	true	Description of the immunization.
Cost	Numeric	true	The line item cost of the immunization.

Medications

Column Name	Data Type	Required?	Description
Start	iso8601 UTC Date (yyyy-MM-dd'T'HH:mm'Z')	true	The date and time the medication was prescribed.
Stop	iso8601 UTC Date (yyyy-MM-dd'T'HH:mm'Z')	false	The date and time the prescription ended, if applicable.
 Patient	UUID	true	Foreign key to the Patient.
 Payer	UUID	true	Foreign key to the Payer.
 Encounter	UUID	true	Foreign key to the Encounter where the medication was prescribed.
Code	String	true	Medication code from RxNorm.
Description	String	true	Description of the medication.
Base_Cost	Numeric	true	The line item cost of the medication.
Payer_Coverage	Numeric	true	The amount covered or reimbursed by the Payer.
Dispenses	Numeric	true	The number of times the prescription was filled.
TotalCost	Numeric	true	The total cost of the prescription, including all dispenses.
ReasonCode	String	false	Diagnosis code from SNOMED-CT specifying why this medication was prescribed.
ReasonDescription	String	false	Description of the reason code.

Observations

Column Name	Data Type	Required?	Description
Date	iso8601 UTC Date (yyyy-MM-dd'T'HH:mm'Z')	true	The date and time the observation was performed.
 Patient	UUID	true	Foreign key to the Patient.
 Encounter	UUID	true	Foreign key to the Encounter where the observation was performed.
Category	String	false	Observation category.
Code	String	true	Observation or Lab code from LOINC
Description	String	true	Description of the observation or lab.
Value	String	true	The recorded value of the observation.
Units	String	false	The units of measure for the value.
Type	String	true	The datatype of Value: text or numeric

Organizations

	Column Name	Data Type	Required?	Description
	Id	UUID	true	Primary key of the Organization.
	Name	String	true	Name of the Organization.
	Address	String	true	Organization's street address without commas or newlines.
	City	String	true	Street address city.
	State	String	false	Street address state abbreviation.
	Zip	String	false	Street address zip or postal code.
	Lat	Numeric	false	Latitude of Organization's address.
	Lon	Numeric	false	Longitude of Organization's address.
	Phone	String	false	Organization's phone number.
	Revenue	Numeric	true	The monetary revenue of the organization during the entire simulation.
	Utilization	Numeric	true	The number of Encounters performed by this Organization.

Patients

Column Name	Data Type	Required?	Description
 Id	UUID	true	Primary Key. Unique Identifier of the patient.
BirthDate	Date (YYYY-MM-DD)	true	The date the patient was born.
DeathDate	Date (YYYY-MM-DD)	false	The date the patient died.
SSN	String	true	Patient Social Security identifier.
Drivers	String	false	Patient Drivers License identifier.
Passport	String	false	Patient Passport identifier.
Prefix	String	false	Name prefix, such as Mr., Mrs., Dr., etc.
First	String	true	First name of the patient.
Last	String	true	Last or surname of the patient.
Suffix	String	false	Name suffix, such as PhD, MD, JD, etc.
Maiden	String	false	Maiden name of the patient.
Marital	String	false	Marital Status. M is married, S is single. Currently no support for divorce (D) or widow (W)
Race	String	true	Description of the patient's primary race.
Ethnicity	String	true	Description of the patient's primary ethnicity.
Gender	String	true	Gender. M is male, F is female.
BirthPlace	String	true	Name of the town where the patient was born.
Address	String	true	Patient's street address without commas or newlines.
City	String	true	Patient's address city.
State	String	true	Patient's address state.

Column Name	Data Type	Required?	Description
County	String	false	Patient's address county.
Zip	String	false	Patient's zip code.
Lat	Numeric	false	Latitude of Patient's address.
Lon	Numeric	false	Longitude of Patient's address.
Healthcare_Expenses	Numeric	true	The total lifetime cost of healthcare to the patient (i.e. what the patient paid).
Healthcare_Coverage	Numeric	true	The total lifetime cost of healthcare services that were covered by Payers (i.e. what the insurance company paid).
Income	Numeric	true	Annual income for the Patient

Payer Transitions

	Column Name	Data Type	Required?	Description
	Patient	UUID	true	Foreign key to the Patient.
	Member ID	UUID	false	Member ID for the Insurance Plan.
	Start_Year	Date (YYYY)	true	The year the coverage started (inclusive).
	End_Year	Date (YYYY)	true	The year the coverage ended (inclusive).
	Payer	UUID	true	Foreign key to the Payer.
	Secondary Payer	UUID	false	Foreign key to the Secondary Payer.
	Ownership	String	false	The owner of the insurance policy. Legal values: Guardian, Self, Spouse.
	Owner Name	String	false	The name of the insurance policy owner.

Payers

Column Name	Data Type	Required?	Description
 Id	UUID	true	Primary key of the Payer (e.g. Insurance).
Name	String	true	Name of the Payer.
Address	String	false	Payer's street address without commas or newlines.
City	String	false	Street address city.
State_Headquartered	String	false	Street address state abbreviation.
Zip	String	false	Street address zip or postal code.
Phone	String	false	Payer's phone number.
Amount_Covered	Numeric	true	The monetary amount paid to Organizations during the entire simulation.
Amount_Uncovered	Numeric	true	The monetary amount not paid to Organizations during the entire simulation, and covered out of pocket by patients.
Revenue	Numeric	true	The monetary revenue of the Payer during the entire simulation.
Covered_Encounters	Numeric	true	The number of Encounters paid for by this Payer.
Uncovered_Encounters	Numeric	true	The number of Encounters not paid for by this Payer, and paid out of pocket by patients.
Covered_Medications	Numeric	true	The number of Medications paid for by this Payer.
Uncovered_Medications	Numeric	true	The number of Medications not paid for by this Payer, and paid out of pocket by patients.
Covered_Procedures	Numeric	true	The number of Procedures paid for by this Payer.
Uncovered_Procedures	Numeric	true	The number of Procedures not paid for by this Payer, and paid out of pocket by patients.
Covered_Immunizations	Numeric	true	The number of Immunizations paid for by this Payer.
Uncovered_Immunizations	Numeric	true	The number of Immunizations not paid for by this Payer, and paid out of pocket by patients.
Unique_Customers	Numeric	true	The number of unique patients enrolled with this Payer during the entire simulation.

Column Name	Data Type	Required?	Description
QOLS_Avg	Numeric	true	The average Quality of Life Scores (QOLS) for all patients enrolled with this Payer during the entire simulation.
Member_Months	Numeric	true	The total number of months that patients were enrolled with this Payer during the simulation and paid monthly premiums (if any).

Procedures

Column Name	Data Type	Required?	Description
Start ("Date", prior to v3.0.0)	iso8601 UTC Date (yyyy-MM-dd'T'HH:mm'Z')	true	The date and time the procedure was performed.
Stop	iso8601 UTC Date (yyyy-MM-dd'T'HH:mm'Z')	false	The date and time the procedure was completed, if applicable.
 Patient	UUID	true	Foreign key to the Patient.
 Encounter	UUID	true	Foreign key to the Encounter where the procedure was performed.
Code	String	true	Procedure code from SNOMED-CT
Description	String	true	Description of the procedure.
Base_Cost	Numeric	true	The line item cost of the procedure.
ReasonCode	String	false	Diagnosis code from SNOMED-CT specifying why this procedure was performed.
ReasonDescription	String	false	Description of the reason code.

Providers

	Column Name	Data Type	Required?	Description
	Id	UUID	true	Primary key of the Provider/Clinician.
	Organization	UUID	true	Foreign key to the Organization that employs this provider.
	Name	String	true	First and last name of the Provider.
	Gender	String	true	Gender. M is male, F is female.
	Speciality	String	true	Provider speciality.
	Address	String	true	Provider's street address without commas or newlines.
	City	String	true	Street address city.
	State	String	false	Street address state abbreviation.
	Zip	String	false	Street address zip or postal code.
	Lat	Numeric	false	Latitude of Provider's address.
	Lon	Numeric	false	Longitude of Provider's address.
	Utilization	Numeric	true	The number of Encounters performed by this provider.

Supplies

Column Name	Data Type	Required?	Description
Date	Date (YYYY-MM-DD)	true	The date the supplies were used.
 Patient	UUID	true	Foreign key to the Patient.
 Encounter	UUID	true	Foreign key to the Encounter when the supplies were used.
Code	String	true	Code for the type of supply used, from SNOMED-CT
Description	String	true	Description of supply used.
Quantity	Numeric	true	Quantity of supply used.