

# Health Care Systems Research Network (HCSRN) Virtual Data Warehouse (VDW)

Hennepin Healthcare

Data Documentation

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## HCSRN VDW Overview

The Health Care Systems Research Network (HCSRN) is a consortium of research departments that developed the Virtual Data Warehouse (VDW) in order to facilitate collaborative, multi-site research. The VDW is built using a common data model (CDM) with standard definitions and formats. Each organization maintains control of its own data via a “distributed” or “federated” model. That is, the VDW is not a central database. Administrative, clinical and claims data are translated to a common set of data standards at each site. The HCSRN VDW common data model has also served as the basis for other common data models, such as the PCORnet and Sentinel CDMs.

## HCSRN VDW at HENNEPIN HEALTHCARE

### Overview

Hennepin Healthcare (HHC) and the Hennepin Healthcare Research Institute (HHRI) developed a common data model following the HCSRN VDW specifications. Hennepin Healthcare developed the VDW in order to facilitate collaborative research studies with external organizations. Even though Hennepin Healthcare is not a member of the HCSRN network, Hennepin Healthcare can collaborate with any organization that uses the HCSRN VDW CDM, PCORnet or Sentinel CDM.

The standard HCSRN VDW consists of twenty different domains. The Hennepin Healthcare VDW includes twelve of twenty domains. The domains currently populated include: Death, Demographics, Diagnosis, Encounters, Facility, Lab Results, Languages, Med Orders, Procedures, Providers, Social History, and Vital Signs. The standard HCSRN VDW tables not currently populated include: Cause of Death, Census Demographics, and Census Location, Enrollment, EverNDC, Lab Notes, Tumors, and Pharmacy. Please see the HCSRN VDW Domains and Domains Available in Hennepin Healthcare VDW on page 4 for more information.

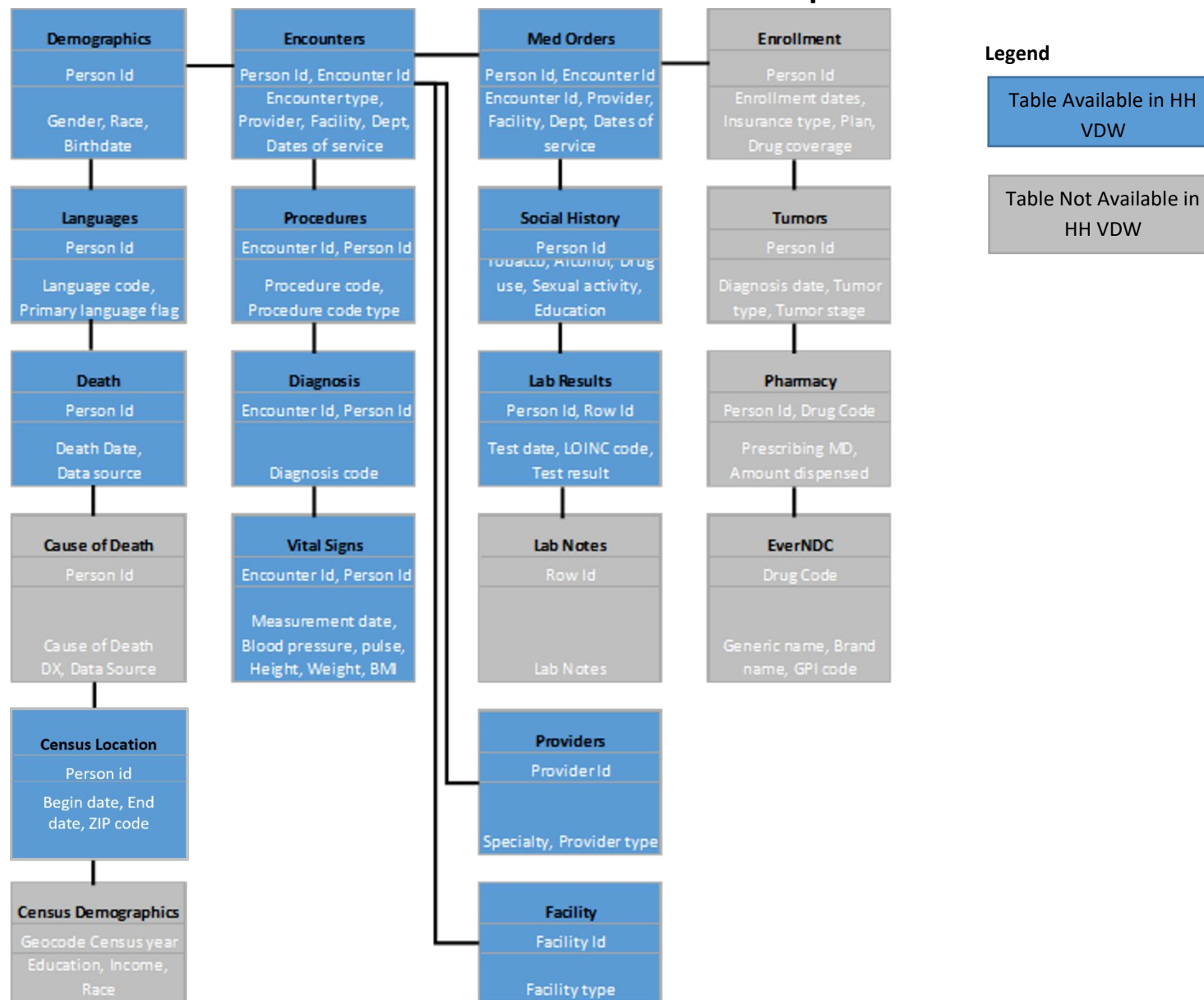
### Data Sources and Years Available

The Hennepin Healthcare VDW is populated with data from EPIC clinical and billing data. The VDW includes encounters from **2/1/2007 to the present** and the VDW is updated weekly.

### Inclusions/Exclusions

The VDW includes over 770,000 patients and over 11 million encounters. It includes completed or arrived encounters from 2/1/2007 to the present that took place at Hennepin Healthcare (service area 2) or MVNA (service area 21). The VDW excludes patients who have opted-out of research or have opted-out of clinical trials, jail, and ambulance only encounters.

## HCSRN VDW Domains and Domains Available in Hennepin Healthcare VDW



## DEMOGRAPHICS

The DEMOGRAPHICS table contains one record per person and contains patient level variables for the people found in VDW tables. Every PAT\_ID appearing in any other VDW table should appear in the DEMOGRAPHICS table, even if demographics information on the person is unknown.

Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
MRN	Unique HHC patient identifier (PAT_ID) Contains PHI.	char(*)	0% missing N = 729,310	Unique to HHC
BIRTH_DATE	The person's date of birth Contains PHI.	Date	Missing < 0.1%	Date
GENDER	The person's gender.	char(1)	M = 51.9% F = 48.0% O < 0.1% U = 0%	M = Male F = Female O = Other including transgendered U = Unknown
RACE1 - RACES	The person's race. Preference is for self-reported; please see Comment 1 for logic used to record multiple race values	char(2)	% Populated with Race RACE1 = 66.6% RACE2 = 0.9% RACE3 < 0.1% RACE4 = 0% RACE5 = 0%	HP = Native Hawaiian / Pacific Islander IN = American Indian / Alaskan Native AS = Asian BA = Black or African American WH = White MU = Multiple races with particular unknown OT = Other, values that do not fit well in any other value UN = Unknown or Not Reported
HISPANIC	Whether the person is of Hispanic origin / ethnicity	char(1)	Y = 12.5% N = 65.3% U = 22.2%	Y = Yes N = No U = Unknown
NEEDS_INTERPRETER	Whether the person needs an interpreter to communicate with an English-only speaker	char(1)	Y = 12.7% N = 64.2% U = 23.1%	Y = Yes N = No U = Unknown

<sup>1</sup> A frequency of "0%" indicates a value of 0. A frequency value "< 0.1%" indicates the variable is populated at some level up to 0.1%.

## Comments

If HISPANIC indicates the person's race as "Hispanic" and "race" does not contain another race value, then the person's race is listed as unknown. When more than one race is known for a given person, the value will be listed in the order as it appears for the RACE values above. Any unused race variables are filled with the value UN for unknown / not reported. Examples of coding RACE1 through RACE5 are illustrated here:

Example Race Coding	Race1	Race2	Race3	Race4	Race5
White only	WH	UN	UN	UN	UN
White and Pacific-Islander	HP	WH	UN	UN	UN
No Race Known	UN	UN	UN	UN	UN
African-American and Native-American	IN	BA	UN	UN	UN
Multi-racial, particular races not reported.	MU	UN	UN	UN	UN

## LANGUAGE

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The LANGUAGE table contains information on the languages that a patient speaks and writes. The table contains one record per person per known language. Only people who have provided language information will have a record in the LANGUAGE table.

Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
MRN	Unique HHC patient identifier (PAT_ID) Contains PHI.	char(*)	Missing = 0%	Unique to HHC
LANG_ISO	A code signifying the language.	char(3)	Top 5 Eng = 81.0% Spa = 11.2% Som = 3.6% Hmo = 0.9% Orm = 0.4% N = 703,142	See <a href="#">APPENDIX A: LANGUAGES</a> for code values.
LANG_USAGE	How the person uses this language.	char(1)	U = 100%	S = Spoken/signed W = Written B = Both spoken and written U = Unknown
LANG_PRIMARY	For spoken languages, whether this is the person's preferred language.	char(1)	U = 100%	Y = Yes U=Unknown

<sup>1</sup> A frequency of "0%" indicates a value of 0. A frequency value "< 0.1%" indicates the variable is populated at some level up to 0.1%.

## ENCOUNTER

The ENCOUNTER table contains one record for each significant medical-related interaction between a patient and a medical provider. The table includes encounters provided at Hennepin Healthcare (service area 2) and MVNA (service area 21). For ambulatory encounters, it includes completed and arrived (APPT\_STATUS\_C 2 and 6) for the following encounter types: Office Visit, Immunization, Walk-In, Allied Health/Nurse Visit, Nurse Only, Nutrition, Physical Therapy, Occupational Therapy, Speech Therapy, Respiratory Therapy, Psych Rehab, Hospital Encounter, Nursing Home/Home Visit, Addiction Med Only, Community Health Worker, Hospice Face to Face, Appointment, Ophthalmology Exam, and Home Care Visit. The table excludes ambulance only and jail encounters.

Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
MRN	Unique HHC patient identifier (PAT_ID). Contains PHI.	char(*)	Missing = 0%	Unique to HHC
ADATE	Encounter or admit date for inpatient or institutional stay. Contains PHI.	Date	Missing = 0%	Date
ATIME	Admission time for inpatient, emergency or institutional encounters. Contact time for other encounters (such as ambulatory visits). If unknown, ATIME will be null.	Num(4)	Missing = 0%	24-hour time
DDATE	Discharge date for inpatient and overnight encounters. Contains PHI.	Date	Missing = 36.3%	Date
DTIME	Use discharge time for inpatient, emergency or institutional encounters. Contact time for other encounters (such as ambulatory visits). If unknown, DTIME will be null	Num(4)	Missing = 0%	24-hour time
PROVIDER	Identifies the provider most responsible for the encounter. Link on this variable to the PROVIDER table.	char(*)	Missing = 17.3%	
ENC_ID	Uniquely identifies the encounter. An encounter should be unique across PAT_ID, ADATE,	char(*)	Missing = 0% N = 11,672,084	Unique encounter identifier.

<sup>1</sup> A frequency of "0%" indicates a value of 0. A frequency value "< 0.1%" indicates the variable is populated at some level up to 0.1%.



Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
ENCTYPE	The type of encounter. Valid associated ENCOUNTER_SUBTYPE values are in brackets	char(2)	Missing = 33.8% IP = 2.3% ED = 8.9% AV = 53.0% OE = 2.0%	IP = Acute inpatient hospital stay including inpatient stays, same-day hospital discharges, hospital transfers when patient was admitted into hospital, acute inpatient psych, and detox stays. [SUB = AI]  ED = Emergency department excluding urgent care [SUB = HA, OC]  AV = Ambulatory visit including outpatient clinics, same-day surgeries, observation beds, urgent care visits, and same-day ambulatory hospital encounters. Excludes emergency department. [SUB = OC, OB, SD, HA, UC, RH, DI, OT]  TE = Telephone encounter [SUB = OT, HH]  EM = E-mail including secure messaging [SUB = OT, HH]  IS = Non-acute institutional stays including hospice, SNF, rehab, nursing home, residential, overnight non-hospital dialysis and other non-hospital stays [SUB = HS, SN, NH, RH, DI, OT]  OE = Other non-overnight encounter including hospice, home health, SNF, and other non-hospital visits [SUB = HS, HH, SN, RH, DI, OT]  LO = A lab only encounter that cannot be matched to another
ENCOUNTER_SUBTYPE	Further specification of the type of encounter. Valid associated ENCTYPE values are in brackets	char(2)	Missing = 33.8% AI = 2.3% OB = 0.5% OC = 46.3% SD = 1.2% UC = 1.1% HA = 12.9% HS < 0.1%	AI = Acute inpatient stay excluding observation bed [TYPE=IP]  OB = Observation bed [TYPE = AV]  OC = Outpatient clinic visit [TYPE = AV, LO, RO, ED]  SD = Same-day surgery [TYPE = AV]

Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
			HH = 1.3% SN = 0% NH = 0.7% RH = 0% DI = 0% OT = 0%	UC = Urgent care [TYPE = AV]  HA = Hospital ambulatory; outpatient care at hospital excluding same-day surgery and observation beds [TYPE = AV, ED]  HS = Hospice [TYPE = IS, OE]  HH = Home health [TYPE = OE, TE, EM]  SN = Skilled nursing facility [TYPE = IS, OE]  NH = Nursing home including intermediate care facilities [TYPE = IS]  RH = Rehab [TYPE = IS, AV, OE]  DI = Dialysis [TYPE = IS, AV, OE]  OT = Other non-hospital [TYPE = IS, OE, TE, EM AV, LO, RO]
DRG_VERSION	Identifies the version of the Diagnostic Related Group value (DRG_VALUE). Expected for hospital encounters.	char(1)	A = 4.5% B = 95.5%	A = CMS-DRG (used prior to 10/1/07) B = MS-DRG (used post 10/1/07)
DRG_VALUE	The Diagnostic Related Group value. Used for hospital encounters. Using leading zeros for codes less than 100.	char(3)	Missing = 97.9%	<a href="#">Values maintained by Centers for Medicare &amp; Medicaid Services</a>
ENC_COUNT	Value may be greater than one to indicate number of visits, but dates of visits are not specified as may occur in a bundled claim e.g. of dialysis services.	num(4)	Missing = 0%	Positive integer value HH Note: All encounters have an ENC_COUNT value = 1.
ADMITTING_SOURCE	The location from which the patient was admitted for events with admit.	char(2)	Missing = 71.5% AV = 22.0% ED = 5.1% AF = 0% AL = 0% HH = 0% HS < 0.1%.	AV=Ambulatory Visit ED=Emergency Department AF=Adult Foster Home AL =Assisted Living Facility HH=Home Health HS=Hospice HO=Home / Self Care

Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
			HO < 0.1% IP = 0.2% NH = 0% OT < 0.1% RS < 0.1% RH = 0% SN = 0.1% UN = 1.1%	IP=Other Acute Inpatient Hospital NH=Nursing Home (Includes ICF) OT=Other RS=Residential Facility RH=Rehabilitation Facility SN=Skilled Nursing Facility UN=Unknown
DISCHARGE_STATUS	The status of the patient at discharge for events with discharge.	char(2)	Missing=71.2% AL < 0.1% AM = 0.1% EX < 0.1% HH = 0.3% HO = 23.2% HS < 0.1% IP < 0.1% NH < 0.1% OT < 0.1% RH < 0.1% SH < 0.1% SN = 0.2% UN = 4.6%	AF=Adult Foster Home AL =Assisted Living Facility AM=Against Medical Advice AW=Absent without leave EX=Expired HH=Home Health HS=Hospice HO=Home / Self Care IP=Other Acute Inpatient Hospital NH=Nursing Home (Includes ICF) OT=Other RS=Residential Facility RH=Rehabilitation Facility SH=Still In Hospital SN=Skilled Nursing Facility UN=Unknown
DISCHARGE_DISPOSITION	The disposition of the patient at discharge for events with discharge.	char(1)	A = 99.9% E = 0.1% U = 0%	A = Alive E = Expired U = Unknown
FACILITY_CODE	A code indicating the facility, hospital, or clinic in which the encounter occurred.	char(*)	Top 5 200 = 55.2% UNK = 17.1% 550 = 5.7% 240 = 5.2% 460 = 3.8%	See FACILITY table for values.

Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
DEPT	The department where the encounter took place. This is not necessarily the specialty of the clinician providing services.	char(6)	<p>Top 5</p> <p>Missing = 17.9%</p> <p>RADIOL = 15.8%</p> <p>FAMILY = 8.2%</p> <p>INTMED = 7.9%</p> <p>PYSRHB = 6.0%</p>	<p>See <a href="#">APPENDIX B - DEPARTMENT</a> for values</p> <p>Missing values for IP encounters.</p>
SOURCE_DATA	Classification of the database that was used to create this record.	char(1)	E = 100%	<p>E = Your site's EHR (Electronic Health Record)</p> <p>B = Billing data--for services performed by your organization and captured in your org's EHR</p> <p>C = Claims data --for services performed outside of your health care organization</p> <p>L = Local data source but unrelated to your site's EHR . Often Includes pre-EHR systems prior to EHR implementation such as appointment management systems.</p> <p>M = Multiple sources--the encounter is an combination of data from different sources</p> <p>O = Other. Not from the sources listed above.</p> <p>U = Unknown</p>
ELECTRONIC_CHART_REVIEW	Can this encounter be chart reviewed electronically?	char(1)	Y = 100%	<p>Y=Yes</p> <p>N=No</p> <p>P=Partially (part of the record can be reviewed electronically).</p> <p>U=Unknown</p>

## DIAGNOSIS

The DIAGNOSIS table contains all recorded diagnoses associated with the encounters in the ENCOUNTERS table with the exception of admitting diagnoses for inpatient stays. Each record represent a diagnosis for the encounter. Encounters will have a minimum of one diagnosis per encounter, but may have multiple diagnoses per encounter.

Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
MRN	Unique HHC patient identifier (PAT_ID). Contains PHI.	char(*)	Missing = 0%	Unique to HHC
ADATE	Encounter or admit date for inpatient or institutional stay. Contains PHI.	Date	Missing = 0%	Refer to the <a href="#">ADATE</a> variable on the <a href="#">ENCOUNTER</a> table for definition, type, length, and value set. This variable's redundancy is to improve querying performance.
ENCTYPE	The type of encounter.	char(2)	Missing = 40.8% AV = 44.2% ED = 7.0% IP = 5.5% OE = 2.4%	Refer to the <a href="#">ENCTYPE</a> variable on the <a href="#">ENCOUNTER</a> table for values.
ENC_ID	Encounter identifier that links to the ENCOUNTER table.	char(*)	Missing = 0%	Unique encounter identifier.
PROVIDER	Identifies the provider most responsible for the encounter. Link on this variable to the PROVIDER table.	char(*)	Missing = 15.5%	
DIAGPROVIDER	Identifies the provider that made the diagnosis. If unknown, set the value equal to the PROVIDER variable. Link on this variable to the PROVIDER table.	char(*)	Missing = 15.5%	
DX	The diagnosis made. For ICD diagnosis coding, include decimal points in the value.	char(*)	Missing = 0% N=63,024,153	<a href="#">ICD diagnosis values are set by CMS</a> , others may be defined locally

<sup>1</sup> A frequency of "0%" indicates a value of 0. A frequency value "< 0.1%" indicates the variable is populated at some level up to 0.1%.

Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
DX_CODETYPE	The coding set used in the DX variable for this record.	char(2)	09 = 58.6% 10 = 41.4%	09='ICD-9-CM' (including 'ICD-9') 10='ICD-10-CM' (including 'ICD-10') OT='Other'
ORIGDX	The diagnosis code as reported in source data without standardization or cleaning.	char(*)	Missing = 0%	
PRINCIPAL_DX	For hospital admissions, this indicates whether the diagnosis is the principal discharge diagnosis of the encounter and the basis for the DRG.	char(1)	P = 0.4% N = 72.9% X = 26.7%	P = Principal diagnosis N = Not principal diagnosis X = Unknown or not classifiable
PRIMARY_DX	For all ambulatory encounters, this indicates whether the diagnosis is the primary diagnosis of the encounter.	char(1)	P = 23.1% S = 76.7% X = 0%	P = Principal diagnosis S = Secondary diagnosis X = Unknown or not classifiable
SOURCE_DATA_DX	Classification of the database that was used to create this record.	char(1)	E = 26.7% B = 73.3%	E = Your site's EHR (Electronic Health Record) B = Billing data--for services performed by your organization and captured in your org's EHR C = Claims data --for services performed outside of your health care organization L = Local data source but unrelated to your site's EHR. Often Includes pre-EHR systems prior to EHR implementation such as appointment management systems. O = Other. Not from the sources listed above. U = Unknown

## PROCEDURE

The PROCEDURE table contains all recorded procedures that were actually performed associated with the encounters indicated in the ENCOUNTERS table.

Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
MRN	Unique HHC patient identifier (PAT_ID) Contains PHI.	char(*)	Missing = 0%	Unique to HHC
ENCTYPE	The type of encounter.	char(2)	Missing = 15.1% AV = 38.9% IP = 35.4% ED = 9.9% OE = 0.6%	Refer to the <a href="#">ENCTYPE</a> variable on the ENCOUNTER table for definition, type, length, and value set.
ADATE	Encounter or admit date for inpatient or institutional stay. Contains PHI.	date	Missing = 0%	Refer to the <a href="#">ADATE</a> variable on the ENCOUNTER table for definition, type, length, and value set. This variable's redundancy is to improve querying performance.
PROCDATE	The actual date when the procedure was performed. Contains PHI.	Date	Missing < 0.1%	date
ENC_ID	Encounter identifier that links to the ENCOUNTER table.	char(*)	Missing = 0%	Unique encounter identifier.
PROVIDER	Refer to the <a href="#">PROVIDER</a> variable on the ENCOUNTER table for definition, type, length, and value set. This variable's redundancy is to improve querying performance.	char(*)	Missing = 4.2%	
PERFORMINGPROVIDER	Identifies the provider that performed the procedure. If unknown, set the value equal to the PROVIDER variable.	char(*)	Missing = 4.2%	

<sup>1</sup> A frequency of "0%" indicates a value of 0. A frequency value "< 0.1%" indicates the variable is populated at some level up to 0.1%.

Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
PX	Code identifying the procedure that was performed	char(*)	Missing = 0% N=57,939,365	Value set is dependent on the PX_CODETYPE value and is set by external organizations.
ORIGPX	The procedure code as reported in source data without standardization or cleaning.	char(*)	Missing = 96.2%	HH decided not to populate this field because it is a copy of the PX field.
PX_CODETYPE	Identifies the coding scheme used in the PX variable to identify the procedure performed.	char(2)	09 = 0.6% 10 = 0.2% C4 = 99.2%	09 = ICD-9-CM 10 = ICD-10-CM 11 = ICD-11-CM C4 = CPT-4 H4 = HCPCS-4 <b>Note: HHC has CPT-4 and HCPCS coded as CPT-4.</b> RV = Revenue code LO = Local homegrown OT = Other
PXCNT	Number of times that the procedure was performed during this encounter.	num(4)	Missing = 0%	Positive integer value
CPTMOD1	First modifier to a CPT procedure code use to communicate special circumstances related to the performance of a procedure.	char(2)	Missing = 86.4%	<a href="#">Value set is set by the American Medical Association and proprietary</a>
CPTMOD2	Second modifier to a CPT procedure code use to communicate special circumstances related to the performance of a procedure.	char(2)	Missing = 97.1%	<a href="#">Value set is set by the American Medical Association and proprietary</a>
CPTMOD3	Third modifier to a CPT procedure code use to communicate special circumstances related to the performance of a procedure.	char(2)	Missing = 99.7%	<a href="#">Value set is set by the American Medical Association and proprietary</a>



Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
SOURCE_CATEGORY_PX	Source of the procedure information. Order and billing pertain to internal healthcare processes and data sources. Claim pertains to data from the bill fulfillment, generally data sources held by insurers and other health plans.	char(2)	BI = 100%	OD=Order (such as from your EHR's order table) BI=Billing (billing data such as transaction tables and internal claims created from services inside the health care organization) CL=Claim (external claims for services outside the health care organization) NI=No information UN=Unknown OT=Other (including but not limited to your EHR's encounter table)
SOURCE_DATA_PX	Classification of the source database that was used to create this record.	char(1)	B = 100%	E = Your site's EHR (Electronic Health Record) B = Billing data--for services performed by your organization and captured in your org's EHR C = Claims data --for services performed outside of your health care organization L = Local data source but unrelated to your site's EHR. Often Includes pre-EHR systems prior to EHR implementation such as appointment management systems. O = Other. Not from the sources listed above. U = Unknown

## PROVIDER

The PROVIDER table contains provider level information for the providers found in VDW tables. Every provider appearing in any other VDW file should appear in the PROVIDER table, even if demographic information is unknown.

Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
PROVIDER	The unique provider identifier.	char(*)	Missing = 0% N = 74,269	Unique to HHC
SPECIALTY	The provider's specialty.	char(3)	Top 5 UNK = 44.7% Missing = 43.3% FAM = 1.1% RAD = 1.0% PSY = 1.0%	See <a href="#">APPENDIX C - SPECIALTY</a> for code values.
SPECIALTY2	The provider's second specialty.	char(3)	Top 5 Missing = 88.0% FAM = 3.0% IMG = 2.0% UNK = 1.0% PED = 0.8%	See <a href="#">APPENDIX C - SPECIALTY</a> for code values.
PROVIDER_TYPE	The position, job, title, or role of the provider.	char(3)	Top 5 61 (physician) = 40.5% 82 (student) = 12.9% 999 Unknown = 12.3% 78 Resource = 9.9% 73 RN = 5.8%	See <a href="#">APPENDIX D - PROVIDER_TYPE</a> for code values.
PROVIDER_BIRTH_YEAR	The year that the provider was born.	num(4)	Missing = 98.2%	Year

<sup>1</sup> A frequency of "0%" indicates a value of 0. A frequency value "< 0.1%" indicates the variable is populated at some level up to 0.1%.

Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
PROVIDER_GENDER	The provider's gender and/or sex; if both gender and sex are known, this variable holds gender.	char(1)	M = 12.9% F = 16.9% O = 0% U = 70.2%	M = Male F = Female O = Other including transgendered U = Unknown
PROVIDER_RACE	Refer to the RACE1 variable on the DEMOGRAPHICS table for definition, type, length, and value set.	char(2)	UN = 100%	HP = Native Hawaiian / Pacific Islander IN = American Indian / Alaskan Native AS = Asian BA = Black or African American WH = White MU = Multiple races with particular unknown OT = Other, values that do not fit well in any other value UN = Unknown or Not Reported
PROVIDER_HISPANIC	Refer to the HISPANIC variable on the DEMOGRAPHICS table for definition, type, length, and value set.	char(1)	U = 100%	Y=Yes N=No U=Unknown
YEAR_GRADUATED	The year that the provider graduated from medical/nursing/technical school.	num(4)	Missing = 100%	HH Note: HH does not collect this information.

## FACILITY

The FACILITY table contains data on the most recent information about each health care facility found in the encounter table. The FACILITY table will have one record for each value of FACILITY\_CODE in the encounter table.

Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
FACILITY_CODE	VDW Facility Code as defined by each site. This links to FACILITY_CODE in the ENCOUNTER table.	char(*)	Missing = 0% N = 3,898	Unique to HHC.
RELATIONSHIP	Relationship between the facility and your health care organization	char(1)	O = 0.4% E = 22.9% U = 76.7%	O=Owned and/or operated by your health care organization. E=External facility. A facility NOT owned nor operated by your health care organization. Includes contract facilities. U=Unknown
RELATIONSHIP_HISTORY	Describes the relationship history between the facility and your health care organization	char(1)	U = 100%	O=Always owned and/or operated by your health care organization E=Always an external facility (includes contract facilities) 1=Was an owned facility, most recently an external facility 2=Was an external facility, most recently an owned facility U=Unknown
FULL_ADDRESS	Full address of the facility.	char(*)	Missing = 8.5%	Street address, city, state, zip combined in to one variable.
STREET_ADDRESS	Street address of the facility.	char(*)	Missing = 8.5%	Use the street address for the clinical location.
CITY	City where the facility is located	char(*)	Missing = 8.5%	Use the city for the clinical.

<sup>1</sup> A frequency of "0%" indicates a value of 0. A frequency value "< 0.1%" indicates the variable is populated at some level up to 0.1%.

Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
STATE	State where the facility is located	CHAR(2)	Missing = 8.5%	
ZIP	Zip code of the facility (5 or 9 digits).	CHAR(9)	Missing = 8.5%	
ADDRESS_FACILITY_TYPE	Specify whether the address information is for a clinical or billing facility	CHAR(1)	U = 100%	C=Clinical Facility B=Billing Facility. U=Unknown
LATITUDE	The latitude of the location	num(8)	Missing = 100%	Value between -90 and +90 measured in degrees Null values are allowed.
LONGITUDE	The longitude of the location	num(8)	Missing = 100%	Value between -90 and +90 measured in degrees Null values are allowed.

## LAB RESULTS

The LAB RESULTS table contains the results of laboratory tests performed on patients.

Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
MRN	Unique HHC patient identifier (PAT_ID). Contains PHI.	char(*)	Missing = 0%	Unique to HHC
TEST_TYPE	VDW-specific classification of lab test types.	char(20)	OT = 100%	Currently hard coded "OT", however, this is not a valid test type. Treat this as missing.
STAT	Indicates the immediacy of the test.	char(1)	E < 0.1% S = 27.6% R = 68.6% U = 3.8%	E=Expedite S=Stat R=Routine U=Unknown or missing
LOINC	Logical Observation Identifiers Names and Codes (LOINC) for this test.	char(10)	Missing = 70.6%	Variable does not include leading zeros. NOTE: LOINC codes populated from 2014 forward. See <a href="#">APPENDIX F – LOINC</a> for the code table.
PT_LOC	Location of the patient when the lab specimen was obtained.	char(1)	I = 53.2% O = 36.3% E = 10.5% H = 0% U = 0%	I=Inpatient O=Outpatient E=Emergency Department H=Home U=Unknown or missing
RESULT_LOC	General location where the result was completed. Particularly whether the lab was completed in a certified laboratory.	char(1)	L = 100%	L = Lab P = Point of care (e.g. home, provider office) Code nulls and unknowns as "L"
SPECIMEN_ID	Used to uniquely identify a collected specimen which may ultimately be used to obtain multiple lab results.	char(*)	Missing = 100%	HHC does not populate this variable because the LAB NOTES table is not populated and this is the linking variable.

<sup>1</sup> A frequency of "0%" indicates a value of 0. A frequency value "< 0.1%" indicates the variable is populated at some level up to 0.1%.

Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
SPECIMEN_SOURCE	The source and/or method for collecting the specimen.	char(6)	Missing = 3.5% BLOOD = 78.8% SERUM = 0.4% PLASMA = 0.2% SR_PLS = 0% PPP = 0% CSF = 0.2% URINE = 15.5% STOOL = 0% NSWAB < 0.1% NWASH < 0.1% NPH = 0.1% NPWASH = 0% THRT = 0.3% SPUTUM = 0.02% BAL = 0.02% BALBX = 0% OTHER = 1.0% NS = 0%	BLOOD SERUM PLASMA SR_PLS = serum and/or plasma PPP = Platelet Poor Plasma CSF = cerebral spinal fluid URINE STOOL NSWAB = nasal swab (including nose) NWASH = nasal wash NPH = nasopharyngeal swab NPWASH = nasopharyngeal wash THRT = throat, oropharyngeal swab SPUTUM BAL = bronchoalveolar lavage (BAL) BALBX = BAL biopsy OTHER NS = not specified [Null] = missing value
LOCAL_CD	The lab test type code as reported in source data without standardization or cleaning. This code indicates in the data source system which test was performed.	char(*)	Missing = 0% N = 71,039,695	This includes all of the HHC component ids.
BATTERY_CD	The battery code as reported in source data without standardization or cleaning. A battery consists of a grouping or series of tests performed.	char(*)	Missing = 99.7%	
PX	Code identifying the procedure that was performed.	char(*)	Missing = 6.8%	Value set is dependent on the PX_CODETYPE value and is set by external organizations. Missing is also an acceptable value on the lab result table.

Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
PX_CODETYPE	Identifies the coding scheme used in the PX variable to identify the procedure performed.	char(2)	LO = 100%	12 = ICD-9-CM 13 = ICD-10-CM 14 = ICD-11-CM C4 = CPT-4 H4 = HCPCS-4 RV = Revenue code LO = Local homegrown OT = Other missing is also an acceptable value on the lab result table
ORDER_ID	Uniquely identifies the order for this lab test. In the future, may link to a table of orders.	char(*)	Missing = 0%	
ORDER_DT	Date that the lab test was ordered. Contains PHI.	Date	Missing = 0%	Date
LAB_DT	Date that the specimen was collected. Contains PHI.	Date	Missing = 0.2%	Date
LAB_TM	Time that the specimen was collected.	num(4)	Missing = 0.3%	
RESULT_DT	Date that the test was resulted. Contains PHI.	Date	Missing = 0%	Date
RESULT_TM	Time that the specimen was resulted.	num(4)	Missing < 0.1%	
RESULT_C	The result of the test stored in a character field.	char(8)	Missing < 0.1%	
MODIFIER	Modifies the value stored in the RESULT_C field.	char(2)	TX = 21.9% EQ = 76.8% LT = 0.8% LE = 0.1% GT = 0.3% GE = 0.2%	TX = Text EQ = Equal LT = Less than LE = Less than or equal to GT = Greater than GE = Greater than or equal to
RESULT_UNIT	The units of the resulted test in a character field.	char(11)	Missing = 21.3%	



Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
NORMAL_LOW_C	The lowest value still considered normal for this test.	char(8)	Missing = 32.7%	
MODIFIER_LOW	Modifies the value stored in the NORMAL_LOW_C field.	char(2)	Missing = 32.8% TX = 0.2% EQ = 67.1% LT < 0.1% GT < 0.1%	TX = Text EQ = Equal LT = Less than LE = Less than or equal to GT = Greater than GE = Greater than or equal to Null if NORMAL_LOW_C is null
NORMAL_HIGH_C	The highest value still considered normal for this test.	char(8)	Missing = 32.8%	
MODIFIER_HIGH	Modifies the value stored in the NORMAL_HIGH_C field.	char(2)	Missing = 32.9% TX = 0.1% EQ = 67.1% LT < 0.1% GT < 0.1%	TX = Text EQ = Equal LT = Less than LE = Less than or equal to GT = Greater than GE = Greater than or equal to Null if NORMAL_HIGH_C is null
ABN_IND	Indicates whether the test result is abnormal.	char(2)	AB = 1.7% C = 0.3% AH = 12.1% CH < 0.1% AL = 10% CL < 0.1% IN = 0% NL = 45.7% UK = 30.6%	AB = Abnormal C = Critical AH = Abnormal high CH = Critical high AL = Abnormal low CL = Critical low IN = Inconclusive NL = Normal UK = Unknown or missing
ORDER_PROV	Identifies the provider that ordered the lab test. Link on this variable to the PROVIDER table.	char(*)	Missing < 0.1%	
ORDER_DEPT	The department or specialty in which the order took place.	char(4)	Missing = 49.8%	See <a href="#">APPENDIX B - DEPARTMENT</a> for values
FACILITY_CODE	A code indicating the facility, hospital, or clinic in which the lab order originated.	char(*)	Missing = 0%	Value set should match ENCOUNTER.FACILITY_CODE

<b>Variable Name</b>	<b>Definition</b>	<b>Type(Len)</b>	<b>Frequency<sup>1</sup></b>	<b>Values</b>
ROW_ID	A unique row identifier of the LAB table that allows for the joining to the LAB_NOTES table.	char(*)	Missing = 0%	HHC does not populate the LAB NOTES table.

## VITALS

The VITALS table includes physiological measures taken by health professionals during the most recent encounter. Further, the vitals are the last values for each encounter if multiple values exist as can be the case for an inpatient encounter.

Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
MRN	Patient identifier is a unique number for HHC patients (PAT_ID). Contains PHI.	char(*)	Missing = 0%	Unique to HHC.
ENC_ID	Encounter identifier that links to the ENCOUNTER table.	char(*)	Missing = 0% N=11,672,084	Unique encounter identifier.
MEASURE_DATE	The date on which these vital signs were measured. Contains PHI.	Date	Missing = 56.1%	Date
MEASURE_TIME	The time at which these vital signs were measured	num(4)	Missing = 56.1%	
ENCTYPE	The type of encounter.	char(2)	Missing = 33.7%	Refer to the <a href="#">ENCTYPE</a> variable on the ENCOUNTER table for definition, type, length, and value set
HT	The height measured in inches of the patient at this time.	num(8)	Missing = 86.3%	
WT	The weight measured in pounds of the patient at this time.	num(8)	Missing = 70.3%	
SYSTOLIC	The systolic blood pressure measured in mmHg of the patient at this time.	num(4)	Missing = 63.0%	Integer between 0 and 999
DIASTOLIC	The diastolic blood pressure measured in mmHg of the patient at this time	num(4)	Missing = 63.0%	Integer between 0 and 999

<sup>1</sup> A frequency of "0%" indicates a value of 0. A frequency value "< 0.1%" indicates the variable is populated at some level up to 0.1%.

Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
BP_TYPE	The type of blood pressure taken	char(1)	Missing = 100%	R = Rooming O = Orthostatic M = Multiple E = Extended
POSITION	The patient's position for orthostatic blood pressure measurements	char(1)	Missing = 100%	1 = Sitting 2 = Standing 3 = Supine Null = Unknown
HT_RAW	The height measurement as reported in source data without standardization or cleaning	char(*)	Missing = 86.3%	
WT_RAW	The weight measurement as reported in source data without standardization or cleaning	char(*)	Missing = 70.3%	
BMI_RAW	The patient's body mass index measurement as reported in source data without standardization, calculation, or cleaning	char(*)	Missing = 76.1%	
HEAD_CIR_RAW	The patient's head circumference measurement as reported in source data without standardization or cleaning	char(*)	Missing = 98.5%	
SYSTOLIC_RAW	The systolic blood pressure measurement as reported in source data without standardization or cleaning	char(*)	Missing = 63.0%	
DIASTOLIC_RAW	The diastolic blood pressure measurement as reported in source data without standardization or cleaning	char(*)	Missing = 63.0%	
RESPIR_RAW	The respirations in breaths per minute measurement as reported in source data without standardization or cleaning	char(*)	Missing = 84.5%	
TEMP_RAW	The patient's body temperature measurement as reported in source data without standardization or cleaning	char(*)	Missing = 72.9%	
PULSE_RAW	The heartbeats per minute measurement as reported in source data without standardization or cleaning	char(*)	Missing = 64.8%	



## SOCIAL HISTORY

The SOCIAL HISTORY table contains behavioral measures taken by health professionals during an encounter. These measures include the use of tobacco, alcohol, and illegal drugs as well as sexual behavior and contraceptive use. Each record is a unique combination of MRN, CONTACT\_DATE, and ENC\_ID. Not all encounters will have a social history.

Free-form text fields will not be provided to investigators or organizations outside of Hennepin Healthcare due to privacy concerns.

Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
MRN	Unique HHC patient identifier (PAT_ID) Contains PHI.	char(*)	Missing = 0%	Unique to HHC
CONTACT_DATE	Date of encounter or date of social history data collection. Contains PHI.	Date	Missing = 0% N = 11,706,636	
ENC_ID	Encounter identifier that links to the ENCOUNTER table.	char(*)	Missing = 0%	Unique encounter identifier.
EDUCATION_YEARS	Number of years of education completed recorded as free text. May contain PHI.	char(*)	Missing = 99.9%	Free text, missing values allowed
SEX_ACTIVE	Whether the person is sexually active	char(1)	Y = 9.1% N = 4.9% W = 3.5% X = 2.3% U = 80.2%	Y = Yes N = No W = Not currently (Was) X = Not asked U = Unknown or missing
SEX_FEMALE_PARTNER	Whether the person has female sex partners	char(1)	Y = 4.9% N = 27.2% X = 0% U = 68.7%	Y = Yes N = No X = Not asked U = Unknown or missing
SEX_MALE_PARTNER	Whether the person has male sex partners	char(1)	Y = 6.7% N = 24.6% X = 0% U = 68.7%	Y = Yes N = No X = Not asked U = Unknown or missing

<sup>1</sup> A frequency of "0%" indicates a value of 0. A frequency value "< 0.1%" indicates the variable is populated at some level up to 0.1%.

Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
SEX_COMMENT	Comment about the person's sexual activity May contain PHI	char(*)	Missing = 95.7%	Free text, missing values allowed
BC_ABSTINENCE	Whether the person uses abstinence as birth control	char(1)	Y < 0.1 % N = 31.2% X = 0% U = 68.7%	Y = Yes N = No X = Not asked U = Unknown or missing
BC_CONDOM	Whether the person uses condoms as birth control	char(1)	Y = 1.6% N = 29.7% X = 0% U = 68.7%	Y = Yes N = No X = Not asked U = Unknown or missing
BC_DIAPHRAGM	Whether the person uses a diaphragm as birth control	char(1)	Y < 0.1% N = 31.3% X = 0% U = 68.7%	Y = Yes N = No X = Not asked U = Unknown or missing
BC_IMPLANT	Whether the person uses an implant as birth control	char(1)	Y = 0.2% N = 31.1% X = 0% U = 68.7%	Y = Yes N = No X = Not asked U = Unknown or missing
BC_INJECTION	Whether the person uses injections as birth control	char(1)	Y = 0.3% N = 31.0% X = 0% U = 68.7%	Y = Yes N = No X = Not asked U = Unknown or missing
BC_INSERTS	Whether the person uses inserts as birth control	char(1)	Y < 0.1% N = 31.2% X = 0% U = 68.7%	Y = Yes N = No X = Not asked U = Unknown or missing
BC_IUD	Whether the person uses an intrauterine device (IUD) as birth control	char(1)	Y = 0.5% N = 30.8% X = 0% U = 68.7%	Y = Yes N = No X = Not asked U = Unknown or missing

Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>		Values
BC_PILL	Whether the person uses birth control pills	char(1)	Y = 0.4% N = 30.9% X = 0% U = 68.7%	Y = Yes N = No X = Not asked U = Unknown or missing	
BC_RHYTHM	Whether the person uses the rhythm method as birth control	char(1)	Y < 0.1% N = 31.3% X = 0% U = 68.7%	Y = Yes N = No X = Not asked U = Unknown or missing	
BC_SPERMICIDE	Whether the person uses spermicide as birth control	char(1)	Y < 0.1% N = 31.3% X = 0% U = 68.7%	Y = Yes N = No X = Not asked U = Unknown or missing	
BC_SPONGE	Whether the person uses a sponge as birth control	char(1)	Y < 0.1% N = 31.3% X = 0% U = 68.7%	Y = Yes N = No X = Not asked U = Unknown or missing	
BC_SURGICAL	Whether a surgery (e.g. vasectomy, hysterectomy) significantly reduces the chance of contraception	char(1)	Y = 1.3% N = 30.2% X = 0% U = 68.7%	Y = Yes N = No X = Not asked U = Unknown or missing	
BC_OTHER	Whether a surgery (e.g. vasectomy, hysterectomy) significantly reduces the chance of contraception	char(1)	Missing = 100%	Y = Yes N = No X = Not asked U = Unknown or missing	
BC_COMMENT	Comment about the person's sexual activity May contain PHI	char(*)	Missing = 100%	Free text, missing values allowed	
ALCOHOL_USE	Whether the person is an alcohol drinker	char(1)	Y = 9.3% N = 19.1% Q < 0.1% X = 0.2% U = 71.4%	Y = Yes N = No Q = Quit/Former X = Not asked U = Unknown or missing	



Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
ALCOHOL_OUNCES_WEEK	The number of ounces of alcohol consumed per week May contain PHI	char(*)	Missing = 96.3%	Free text, missing values allowed
ALCOHOL_COMMENT	Comment about the person's alcohol use May contain PHI	char(*)	Missing = 89.1%	Free text, missing values allowed
ILLICIT_DRUG_USE	Whether the person uses illicit drugs	char(1)	Y = 2.8% N = 24.9% Q < 0.1% X = 0.2% U = 72.0%	Y = Yes N = No Q = Quit/Former X = Not asked U = Unknown or missing
ILLICIT_DRUG_USE_FREQ	Frequency of illicit drug use as free text May contain PHI	char(*)	Missing = 99.8%	Free text, missing values allowed
ILLICIT_DRUG_USE_COMMENT	Comment about the person's illicit drug use May contain PHI	char(*)	Missing = 94.4%	Free text, missing values allowed
IV_DRUG_USE	Whether the person uses IV drugs	char(1)	Y = 0.2% N = 31.1% Q = 0% X = 0% U = 68.7%	Y = Yes N = No Q = Quit/Former X = Not asked U = Unknown or missing
TOBACCO_USE	Whether the person is a user of tobacco	char(1)	Y = 8.8% I = 0% N = 15.3% Q = 4.5% P = 0.6% X = 0.7% U = 70.2%	Y = Yes / Current I = Infrequent N = Never Q = Quit / Former P = Passive X = Not Asked U = Unknown or missing
TOBACCO_USE_YEARS	The number of years the person used tobacco May contain PHI	char(*)	Missing = 96.5%	Free text, missing values allowed
TOBACCO_PACKS_DAY	Number of packs smoked per day as free text May contain PHI	char(*)	Missing = 92.6%	Free text, missing values allowed

Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
TOBACCO_SMOKELESS_USE	Whether the person uses smokeless tobacco	char(1)	Y = 0.5% I = 0% N = 12.4% Q = 0.6% X = 0% U = 86.5%	Y = Yes / Current I = Infrequent N = No / Never used Q = Quit / Former X = Not asked U = Unknown or missing
TOBACCO_SMOKELESS_START_DATE	Date the person started using smokeless tobacco Contains PHI.	date	Missing = 100%	Date, missing allowed
TOBACCO_SMOKELESS_QUIT_DATE	Date the person quit using smokeless tobacco Contains PHI.	date	Missing = 97.8%	Date, missing allowed
TOBACCO_SMOKING_USE	Whether the person uses smoking tobacco	char(1)	E = 7.5% S = 1.0% H < 0.1% L = 0.2% Q = 4.5% Y = 0% N = 15.3% X = 2.0% P = 0.6% U = 68.9%	E = Current everyday S = Current some days H = Heavy smoker L = Light smoker Q = Former Y = Smoker, current status unknown N = Never smoked X = Never assessed P = Passive U = Unknown
TOBACCO_SMOKING_START_DATE	Date the person started using smoked tobacco Contains PHI.	Date	Missing = 99.8%	Date, missing allowed
TOBACCO_SMOKING_QUIT_DATE	Date the person quit using smoked tobacco Contains PHI.	Date	Missing = 97.8%	Date, missing allowed
TOBACCO_CHEW	Whether the person uses chew tobacco	char(1)	Y = 0.2% N = 31.1% X = 0% U = 68.7%	Y = Yes N = No X = Not asked U = Unknown or missing
TOBACCO_CIGARETTES	Whether the person uses tobacco cigarettes	char(1)	Y = 9.5% N = 21.8% X = 0% U = 68.7%	Y = Yes N = No X = Not asked U = Unknown or missing

Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
TOBACCO_CIGARS	Whether the person uses tobacco cigars	char(1)	Y = 0.3% N = 31.0% X = 0% U = 68.7%	Y = Yes N = No X = Not asked U = Unknown or missing
TOBACCO_PIPES	Whether the person uses tobacco pipes	char(1)	Y < 0.1% N = 31.2% X = 0% U = 68.7%	Y = Yes N = No X = Not asked U = Unknown or missing
TOBACCO_SNUFF	Whether the person uses snuff tobacco	char(1)	Y < 0.1% N = 31.2% X = 0% U = 68.7%	Y = Yes N = No X = Not asked U = Unknown or missing
TOBACCO_UNSPECIFIED	Whether the person uses an unspecified form of tobacco	char(1)	Missing = 100%	Y = Yes N = No X = Not asked U = Unknown or missing
TOBACCO_COMMENT	Comment about the person's tobacco use May contain PHI.	char(*)	Missing = 93.1%	Free text, missing values allowed

## DEATH

The DEATH table contains one record per person in the DEMOGRAPHICS table for whom there is some belief that the person may be dead. When sources of death provide conflicting information, site data managers should make local determinations as to which source to use, collating information when possible, and reflecting their confidence in the observation overall using the CONFIDENCE variable.

Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
MRN	Unique HHC patient identifier (PAT_ID). Contains PHI.	char(*)	Missing = 0% N = 9,201	Unique to HHC.
DEATHDT	The date that the person most likely died. Contains PHI.	Date	Missing = 0%	NOTE: If any person has a death date prior to 2/1/2007, the person should be removed from the cohort because status (alive/dead) can't be verified.
DTIMPUTE	Indicates whether the death date is imputed and if so, how it was imputed.	char(1)	N = 100%	M = Month of date imputed D = Day of date imputed B = Both month & day imputed N = Date not imputed
SOURCE_LIST	A list of all sources of data that report this death regardless of any discrepancies in other variables (e.g. DEATHDT).	char(8)	P = 100%	A concatenated string of letters in descending order of reliability indicating all sources that report this person's death B = Social Security Admin N = National Death Index S = State Death records T = Tumor registry E = Encounter data P = Patient data M = Membership data O = Other
CONFIDENCE	Based on all information available, the level of confidence that this person is in fact dead.	char(1)	F = 100%	E = Excellent F = Fair P = Poor

<sup>1</sup> A frequency of "0%" indicates a value of 0. A frequency value "< 0.1%" indicates the variable is populated at some level up to 0.1%.

## CENSUS LOCATION

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The CENSUS LOCATION table contains geographic location markers for patient residencies over time. For each entry, ZIP code, address, city, county and state are available for local studies, but may not be available for collaboration.

Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
MRN	Unique HHC patient identifier (PAT_ID). Contains PHI.	char(*)	Missing = 0.5%	Unique to HHC.
LOC_START	The date on which the person's tenure at this location began.	Date	Missing = 0%	
LOC_END	The date on which the person's tenure at this location ended.	Date	Missing = 0%	30DEC9999:23:59:59.000 means address is current

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<sup>1</sup> A frequency of "0%" indicates a value of 0. A frequency value "< 0.1%" indicates the variable is populated at some level up to 0.1%.

## MED ORDERS

The MED ORDERS table contains the medication orders for patients in the ambulatory setting found in the clinical chart. Inpatient orders are included but only include general information, not dispensing or dosage detail during the stay.

Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
MRN	Unique HHC patient identifier (PAT_ID). Contains PHI.	char(*)	Missing = 0%	Unique to HHC
ENC_ID	Encounter identifier that links to the ENCOUNTER table.	char(*)	Missing = 0% N= 21,449,410	
MEDICATION_ID	Local id assigned to the order.	char(8)	Missing < 0.1%	Note: 46,608 records only contain a value in the INOUT_FLAG field. Recommend deleting records as these are possibly bulk orders.
QUANTITY	The quantity of the prescription being dispensed as entered by the user in the orders activity.	char(50)	Missing = 70.7%	
REFILLS	The number of refills allowed for this prescription as entered by the user in the orders activity.	char(20)	Missing = 70.7%	
ORDERING_DATE	Date that medication was placed.	num(*)	Missing = 9.9%	
START_DATE	The date when the medication order started.	num(*)	Missing = 1.3%	
END_DATE	The date when the medication order is to end.	num(*)	Missing = 15.5%	
MED_PRESC_PROV_ID	The provider that ordered this medication	char(8)	Missing = 11.5%	
INOUT_FLAG	The category name for the ordering mode of the order	char(100)	Inpatient= 68.6% Outpatient =31.4%	

<sup>1</sup> A frequency of "0%" indicates a value of 0. A frequency value "< 0.1%" indicates the variable is populated at some level up to 0.1%.

Variable Name	Definition	Type(Len)	Frequency <sup>1</sup>	Values
ORDER_CLASS_NAME	The category value name	char(100)	Normal = 85.2% Missing = 11.3% All other = 3.5%	Normal
DISCON_RSN	The category number for the reason a prescription has been discontinued. This column contains data only in prescription orders that have been discontinued.	char(100)	Top 5 Missing = 59.2% Pat Dischg = 21.3% Reorder = 7.9% Therapy complete = 3.3% Pat transfer = 2.8%	

## **APPENDIX A: LANGUAGES**

See the [ISO-639-2 code list](#) maintained by the Library of Congress for the permissible values for the LANG\_ISO variable in the LANGUAGE table.



## APPENDIX B: DEPARTMENT

A list of permissible values for the DEPT variable on the ENCOUNTERS table.

Department Code	Alternative Department Code	Department Description	Department Code	Alternative Department Code	Department Description
ADMINS		Administration	CLNPHR		Clinical Pharmacy/Clinical Pharmacology
ADULHC		Adult Day Health	CMGEMR		Care Management/Coordination, Emergency Medicine
ADV CNT		Advice Center	CMGGER		Care Management/Coordination, Geriatric
ALLRGY	ALLERG	Allergy	CMGMEN		Care Management/Coordination, Mental Health
AMBULN		Ambulance Services	CMGNOS		Care Management, Not Otherwise Specified
ANCILL	ANCILY	Ancillary Services	CMGPOP		Care Management/Population Based
ANESTH		Anesthesiology	CMPACP	ALTACP	Complementary Medicine, Acupuncture
AUDIOL		Audiology	CMPCHI	ALTCHI	Complementary Medicine, Chiropractic
AVIATN		Aviation Medicine/Aerospace Medicine	CMPHOL		Complementary Medicine, Holistic Health
BARIAT		Bariatric Medicine	CMPINT		Complementary Medicine, Integrative Medicine
BLDBNK		Blood Bank	CMPMED	ALTMED	Complementary Medicine (includes Alternative Medicine) Not Otherwise Specified
BREAST		Breast Care	CMPNAT		Complementary Medicine, Naturopathy
BURNCL		Burn Care	CMPOST		Complementary Medicine, Osteopathy
CADALC	CHEALC	Chemical and/or Alcohol Dependency, Alcoholism Treatment	COAGUL	COAGCL	Anti-coagulation Services
CADNOS	CHEGEN	Chemical and/or Alcohol Dependency, Not Otherwise Specified	COMMHL		Community Health, Public Health
CADRHB		Chemical and/or Alcohol Dependency, Rehabilitation	COSMET		Cosmetic Services
CADSUB	CHEADD	Chemical and/or Alcohol Dependency, Substance Abuse	CYTOPA		Cytopathology
CARCAT		Cardiology, Cardiac Catherization	DENEND		Dental, Endodontics
CARCVL		Cardiology, Cerebrovascular Lab	DENNOS	DENGEN	Dental, Not Otherwise Specified
CARINT		Cardiology, Cardiac Intensive Care	DENORT		Dental, Orthodontics
CARLAB		Cardiology, Cardiac Lab (Non-Invasive)	DENPAI		Dental, Orofacial Pain, TMD
CARMED		Cardiology, Cardiovascular Medicine	DENPED		Dental, Pediatric Dentistry
CARNOS	CARGEN	Cardiology, Not Otherwise Specified	DENPER		Dental, Periodontics
CARPRH		Cardiopulmonary Rehabilitation	DENSUR		Dental, Oral Surgery
CARPUL		Cardiology, Cardiopulmonary	DERMAT		Dermatology
CARRHB		Cardiology, Cardiac Rehabilitation	DIABET		Diabetes Services
CARRHB		Cardiac Rehabilitation	DIALYS		Dialysis
CARTRD		Cardiology, Cardiac Stress Lab (Cardiac Treadmill)	DMEQMT		Durable Medical Equipment

Department Code	Alternative Department Code	Department Description	Department Code	Alternative Department Code	Department Description
DSMAST		Disease management, Asthma	EMENOS	EDGENE	Emergency Department, Not Otherwise Specified
DSMCCC		Disease management, Complex Chronic Conditions	EMETRA	EDTRAU	Emergency Department, Trauma
DSMCHF		Disease management, Congestive Heart Failure	EMEXOB	EDEXOB	Emergency Department, Extended Observation
DSMCOP		Disease management, COPD	EMPHLT		Employee Health
DSMDBT		Disease management, Diabetes	ENDOCCR		Endocrinology
DSMHYP		Disease management, Hypertension	ENTOTO		Otolaryngology (includes ENT - Ear, Nose and Throat)
DSMNOS	DSMGEN	Disease management, Not Otherwise Specified	EPILEP		Epilepsy Services
DXTANG		Diagnostic testing, Angiography	FAMILY		Family Practice
DXTBRE		Diagnostic testing, Breast Imaging	FRACTU		Fracture Care
DXTCAT		Diagnostic testing, CAT Scan	GASINT		Gastro-Intestinal Medicine
DXTDEN		Diagnostic testing, Densitometry	GENETI		Genetics
DXTDNA		Diagnostic testing, DNA Diagnostic Lab	GERONT		Gerontology/Geriatrics
DXTEEG		Diagnostic testing, Electroencephalography	HEMATO		Hematology
DXTEKG		Diagnostic testing, Echocardiogram	HEPATO		Hepatology
DXTELC		Diagnostic testing, Electrophysiology	HLTAPP		Health Appraisals
DXTEND		Diagnostic testing, Endoscopy	HOMHLT	HOMEHL	Home Health
DXTEPL		Diagnostic testing, Evoked Potential Lab	HOSPIC	HOSPCE	Hospice
DXTFLU		Diagnostic testing, Fluoroscopy	HSPAMB		Hospital Ambulatory Medical Care/Treatment
DXTIVP	IVPYEL	Diagnostic testing, IVP (Intravenous Pyelogram X-ray test)	HSPCRT	CRTNOS	Hospital Critical Care Medicine, Not Otherwise Specified
DXTMEG		Diagnostic testing, Magnetoencephalography (MEG) Laboratory	HSPICU	CRTICU	Hospital Critical Care Medicine - Intensive Care Unit (ICU)
DXTMRI		Diagnostic testing, MRI	HSPNIC	CRTNIC	Hospital Critical Care Medicine - Neonatal Intensive Care Unit (NICU)
DXTNEU		Diagnostic testing, Neurology	HSPNOS	HOSPPL	Hospital Care, Not Otherwise Specified
DXTNOS	DXTNOS	Diagnostic testing, Not Otherwise Specified	HSPPRO		Hospital, Progressive Care Unit
DXTPET		Diagnostic testing, PET Scan	IMMUNO		Immunology
DXTTEL		Diagnostic testing, Telemetry	INDUST		Industrial Medicine
DXTTOM		Diagnostic testing, Tomography	INFECT		Infectious Disease
DXTTOX		Diagnostic testing, Toxicology	INJECT		Injection Room
DXTULT		Diagnostic testing, Ultrasound	INTCAR	INTERM	Intermediate Care Services (typically at an Intermediate Care Facility)
EDUCAT	EDUCTN	Education	INTMED		Internal Medicine
EMEHOS	EDHOSP	Emergency Department, Hospital Based Urgent Care	LABORD		Labor and Delivery

Department Code	Alternative Department Code	Department Description
LABTRY		Laboratory
LACTAT		Lactation Services
LIFEST		Lifestyle Medicine
LIPDCL	LIPIDC	Lipid Care
LOWACC		Low Acuity Care
LTCNOS	CONTIN	Long Term Care (includes Continuing Care), Not Otherwise Specified
MENEAT		Mental Health, Eating Disorders
MENIMM		Mental Health, Psychiatry Immune Deficiency
MENNOS		Mental Health (includes behavioral health) Not Otherwise Specified
MENPSG		Mental Health, Psychiatry Geriatric
MENPSO		Mental Health Psychology
MENPSY		Mental Health Psychiatry Not Otherwise Specified
MENRHB		Mental Health Rehabilitation
MICROB		Microbiology
MIDWIF		Midwifery
NEPHRO		Nephrology
NEUJINT		Neurology, Neurology Intensive Care
NEUMUS		Neurology, Neuromuscular Center
NEUNOS	NEUGEN	Neurology, Not Otherwise Specified
NEUPSY		Neurology, Neuropsychology
NEURHB		Neurology, Neurology Rehabilitation
NEWBOR	NWBNRS	Newborn: Nursery
NUCLEA		Nuclear Medicine
NURGER		Nursing, Geriatric
NURNOS	NURGEN	Nursing Services, Not Otherwise Specified
NUROBG		Nursing, Obstetrics and Gynecology
NUROBS		Nursing Observation
NUTRIT		Nutrition
OBFGET		Obstetrics/Gynecology, Maternal Fetal Medicine
OBGNOS	OBBGEN	Obstetrics/Gynecology (includes Gynecology/Urology), Not Otherwise Specified

Department Code	Alternative Department Code	Department Description
OCCMED		Occupational Medicine
OCCTHE		Occupational Therapy
ONCGYN		Oncology, Gynecologic Oncology
ONCNOS		Oncology, Not Otherwise Specified
OPHCOR		Ophthalmology, Corneal
OPHLAS		Ophthalmology, Laser Vision Correction
OPHLOW		Ophthalmology, Low Vision
OPHNOS	OPHGEN	Ophthalmology, Not Otherwise Specified
OPHRET		Ophthalmology, Retinal
OPHRHB		Ophthalmology, Vision Rehabilitation
OPTOME		Optometry
ORTHOP		Orthopedics
OTHNOS	OTHNOS	Other, Not Otherwise Specified
PAINCL		Pain Care
PALLIA		Palliative Care
PATHOL		Pathology
PEDADH		Pediatric Attention Deficit Disorder Services
PEDADO		Pediatric Adolescent Medicine
PEDANE		Pediatric Anesthesiology
PEDAUT		Pediatric Autism Center
PEDCRD		Pediatric Cardiology
PEDCRT		Pediatric Critical Care
PEDDVL		Pediatric Learning and Development
PEDEND		Pediatric Endocrinology
PEDGAS		Pediatric Gastroenterology
PEDGEN		Pediatric Genetics
PEDIMM		Pediatric Immunology
PEDINF		Pediatric Infectious Disease
PEDMEN		Pediatric Mental Health
PEDNEO		Pediatric Neonatology

Department Code	Alternative Department Code	Department Description
PEDNEP		Pediatric Nephrology
PEDNEU		Pediatric Neurology
PEDNOS	PEDGEN	Pediatrics, Not Otherwise Specified
PEDNUR		Pediatric Nursing Unit
PEDOCT		Pediatric Occupational Therapy
PEDONC		Pediatric Hematology/Oncology
PEDORT		Pediatric Orthopaedics
PEDPLM		Pediatric Pulmonology
PEDPSY		Pediatric Psychiatry
PEDRHM		Pediatric Rheumatology
PEDSPT		Pediatric Speech Therapy
PEDURG		Pediatric Urgent Care
PERINA		Perinatology
PHYSIA		Physiatry (includes Physical Medicine)
PHYTHE		Physical Therapy
PODIAT		Podiatry
PREVEN		Preventive Medicine
PRIMAR		Primary Care
PULMON		Pulmonary Medicine
PULRHB		Pulmonary Rehabilitation
PYSRHB		Physical Rehabilitation
RADIOL		Radiology
RADONC		Radiation Oncology
RADTHE		Radiation Therapy
RECTHE		Recreational Therapy
REPROD		Reproductive Medicine, Infertility Services, Family Medicine
RESMED		Research Medicine
RESPTH	RESTHE	Respiratory Therapy
RHBNOS		Rehabilitation Not Otherwise Specified
RHEUMA		Rheumatology

Department Code	Alternative Department Code	Department Description
RISKMG		Risk Management
RXCOAG		Pharmacy Anticoagulation Care
RXINFC	IVINFU	Pharmacy Infusion Center, IV therapy
RXINFH		Pharmacy, Home Infusion
RXINPT		Pharmacy, Inpatient
RXLTCR		Pharmacy, Long Term Care
RXNOSP		Pharmacy, Not Otherwise Specified
RXONCO		Pharmacy, Oncology
SKLNUR		Skilled Nursing Services (typically at a Skilled Nursing Facility)
SLEEPM		Sleep Medicine (including Sleep Apnea)
SMOKTX		Tobacco Treatment Services (including smoking cessation)
SOCIALS		Social Services
SPEECH		Speech Therapy
SPINAL		Spinal Disorders Services
SPORTS		Sports Medicine
SURAMB		Surgery, Ambulatory (includes Day Surgery, Procedure Room)
SURBAR		Surgery, Bariatric
SURCOL		Surgery, Colon & Rectal
SURCRD		Surgery, Cardiac/Thoracic
SURCVA		Surgery, Cardiovascular
SURFOO		Surgery, Foot and Ankle
SURHND		Surgery, Hand
SURMOH		Surgery, MOHS
SURMXF		Surgery, Maxillofacial
SURNEU		Surgery, Neurosurgery
SURNOS	SURGEN	Surgery, Not Otherwise Specified
SURONC		Surgery, Oncology
SURORT		Surgery, Orthopaedic/Spinal
SURPED		Surgery, Pediatric
SURPLA		Surgery, Plastic and Reconstructive

Department Code	Alternative Department Code	Department Description
SURPRE		Surgery, Preoperative Evaluation
SURREF		Surgery, Refractive
SURTBO		Surgery, Transplant Surgery, Bone Marrow
SURTHR		Surgery, Transplant Surgery, Heart
SURTLI		Surgery, Transplant Surgery, Liver
SURTLU		Surgery, Transplant Surgery, Lung
SURTNE		Surgery, Nephrology Transplant
SURTRA		Surgery, Trauma
SURTRN		Surgery, Transplant Surgery, NOS
SURVAS		Surgery, Vascular
TRANSG		Transgender Services

Department Code	Alternative Department Code	Department Description
TRANSP		Transplant Medicine (excluding surgery). See surgery section for transplant surgery departments.
TRAVEL		Travel Medicine
UNKNWN		Unknown
URGENT		Urgent Care
UROLOG		Urology
VACCLN		Vaccination Services (All potential vaccines)
VACFLU		Flu Shot Services (just flu shots)
WEIGHT		Weight Management
WOMENS		Women's Health Services
WOUNDC		Wound Care

## APPENDIX C: SPECIALTY

SPECIALTY	Description
ADO	Adolescent Medicine
AER	Aerospace Medicine
ALC	Chemical Dependency
ALL	Allergy
ANC	Ancillary Services
ANE	Anesthesiology
ATH	Sports Medicine
AUD	Audiology
BON	Bone And Mineral
CAR	Cardiology
CAV	Cardiovascular Surgery
CHR	Chiropractor
CLC	Clin Cardiac Electrophysiology
COL	Colon & Rectal Surgery
COM	Complimentary & Alternative Medicine
CON	Continuing Care
CRI	Critical Care
DEN	Dentistry
DER	Dermatology
DOR	Dor
EDU	Medical Education
EME	Emergency Medicine
EMI	Emi
END	Endocrinology
ENT	Otolaryngology
FAM	Family Medicine
FLX	Flexible
GAS	Gastroenterology

SPECIALTY	Description
GEN	Genetics
GER	Gerontology
HAN	Hand Surgery
HOM	Home Health
HOS	Hospital
HYM	Hyperbaric Medicine
HYP	Hypertension
IMG	General Internal Medicine
INF	Infectious Disease
LAB	Laboratory
MEN	Mental Health
MGM	Care Management
MID	Midlevel
MUL	Multispecialty
NEH	Nephrology
NEO	Neonatology
NES	Neurosurgery
NEU	Neurology
NOB	No Boards
NUM	Nuclear Medicine
NUR	Nurse
NUT	Nutrition
OBO	Gynecologic Oncology
OBS	Obstetrics - Gynecology
OCM	Occupational Health
ONC	Oncology
ONS	Surgical Oncology
OPH	Ophthalmology

SPECIALTY	Description
OPL	Optical
OPT	Optometry
ORA	Oral Surgery
ORD	Orthodontia
ORT	Orthopedics
OTO	Otolaryngology
PAI	Pain Management
PAT	Pathology
PED	Pediatrics
PES	Pediatric Subspecialty
PEY	Perinatology
PHA	Pharmacy
PHT	Physical Therapy
PHY	Physiatry
PLA	Plastic Surgery
POD	Podiatry
PRE	Preventive Medicine
PRO	Prosthodontia
PSY	Psychiatry

SPECIALTY	Description
PUB	Public Health
PUL	Pulmonary Medicine
RAD	Radiology
REH	Rehabilitation Medicine
RES	Respiratory Therapy
RHE	Rheumatology
ROP	Radiation Oncology
SLC	Sleep Center
SOC	Social Services
SPP	Speech Patholgy
SUR	Surgery
TEE	Teen Clinic
TOX	Medical Toxicology
TRN	Transportation/Non-Emergency
TRS	Transplant Surgery
UNK	Unknown
URG	Urgent Care
URO	Urology
VAS	Vascular Surgery

## APPENDIX D: PROVIDER TYPE

Provider Type	Description
001	ACUPUNCTURIST
002	ANESTHESIOLOGY ASST
003	AUDIOLOGIST
004	AUDIOLOGY ASSISTANT
005	CARDIAC REHAB THERAPIST
006	CASE MANAGER
007	CERTIFIED NURSE SPECIALIST
008	CERTIFIED REG NURSE ANESTHETIST
009	CHAPLAIN
010	CHEM DEP COUNSELOR, ADULT
011	CHEM DEP COUNSELOR, CHILD/ADOL
012	CHIROPRACTOR
013	CIGNA
014	CLINICAL NURSE SPECIALIST
015	COUMADIN NURSE
016	CPAP SPECIALIST
017	DENTAL ASSISTANT
018	DENTIST
019	DIABETIC NURSE
020	DIETETIC TECH
021	DIETITIAN
022	EEG TECHNICIAN
023	ER TECH
024	EXERCISE PHYSIOLOGIST
025	FELLOW
026	HEALING TOUCH
027	HEALTH EDUCATOR
028	HOME HEALTH AIDE

Provider Type	Description
029	HP PHYSICIAN
030	HYGIENIST
031	INDEPENDENT LAB/X-RAY
032	INF CNTRL PRACT
033	INFUSION THERAPIST
034	INTERPRETER
035	LAB ASSISTANT
036	LAB TECHNICIAN
037	LACTATION CONSULTANT
038	LIC FAM THERAPIST
039	LIC SOCIAL WORKER
040	MASSAGE THERAPIST
041	MEDICAL ASSISTANT
042	MIDLEVEL
043	MIDWIFE
044	MUSIC THERAPIST
045	NOT APPLICABLE
046	NURSE
047	NURSE CLINICIAN
048	NURSE PRACTITIONER
049	OCCUPATIONAL THERAPIST
050	OPHTHALMIC ASSISTANT
051	OPHTHALMIC TECHNICIAN
052	OPTICIAN
053	OPTOMETRIST
054	ORTHO PHY ASST
055	ORTHO PAEDIC
056	OSTEOPATH



<b>Provider Type</b>	<b>Description</b>
057	PERSONAL CARE ATTENDANT
058	PHARM TECH
059	PHARMACIST
060	PHYSICAL THERAPIST
061	PHYSICIAN
062	PHYSICIAN ASSISTANT
063	PODIATRIST
064	PSYCH TECHNICIAN
065	PSYCHOLOGIST
066	PSYCHOTHERAPIST
067	PSYCHOTHERAPIST, ADULT
068	PSYCHOTHERAPIST, CHILD/ADOL
069	PT ASSISTANT
070	RADIATION THERAPIST
071	RADIOLOGY TECHNICIAN
072	RECREATIONAL THERAPIST

<b>Provider Type</b>	<b>Description</b>
073	REGISTERED NURSE
074	REHAB ASSISTANT
075	REHAB THERAPIST
076	REIKI
077	RESIDENT
078	RESOURCE
079	RESPIRATORY THERAPIST
080	SOCIAL WORKER
081	SPEECH PATHOLOGIST CERTIFIED
082	STUDENT
083	SURG TECH
084	SURGEON ASSISTANT
085	THERAPEUTIC AQUATIC SPECIALIST
086	ULTRASOUND TECHNICIAN
888	OTHER
999	UNKNOWN

## **APPENDIX E: LOINC codes**

The [LOINC.org](https://loinc.org) website contains the full list of codes.