Source Data Mapping Approach

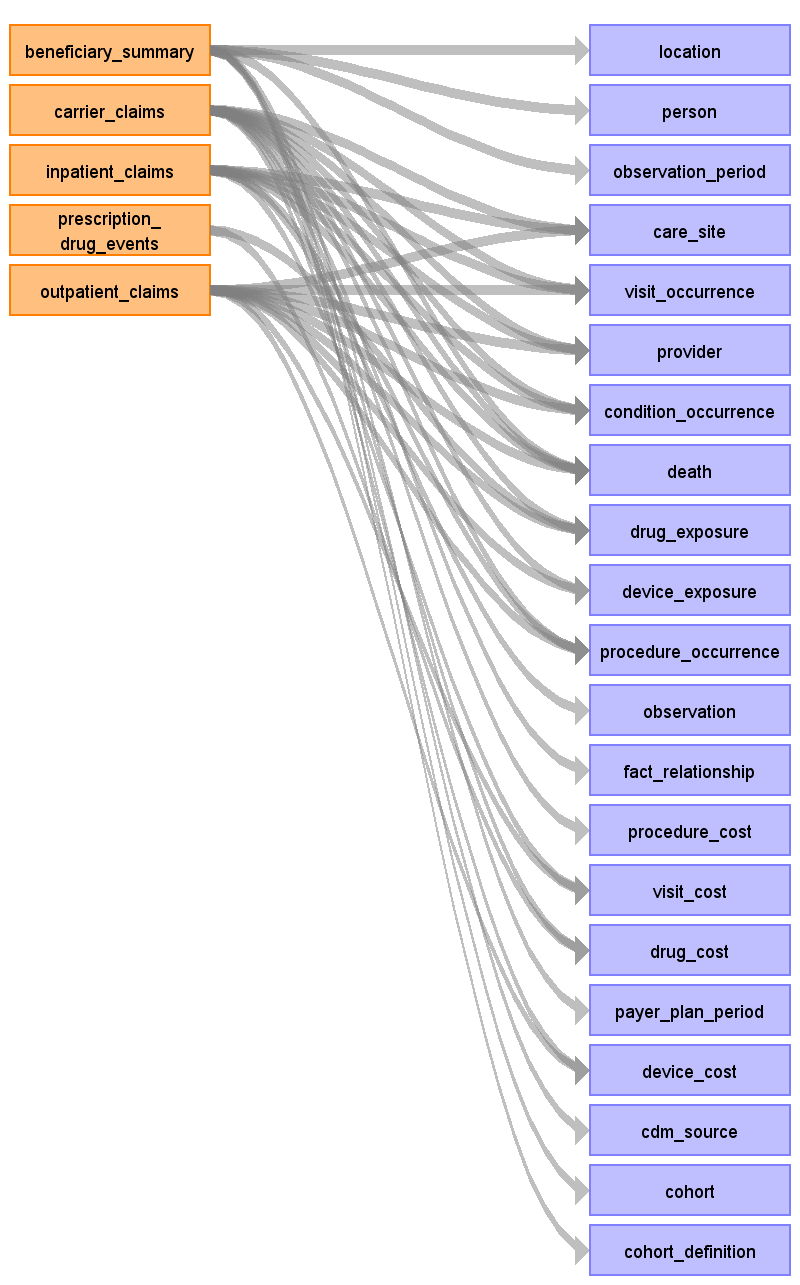
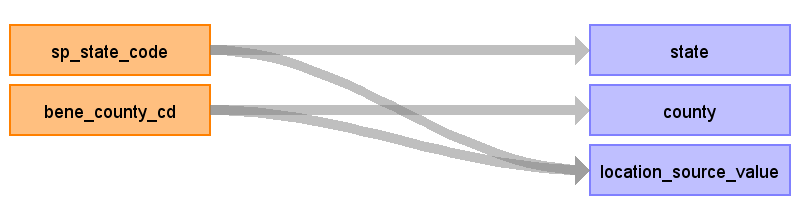


Table name: location

Reading from beneficiary\_summary

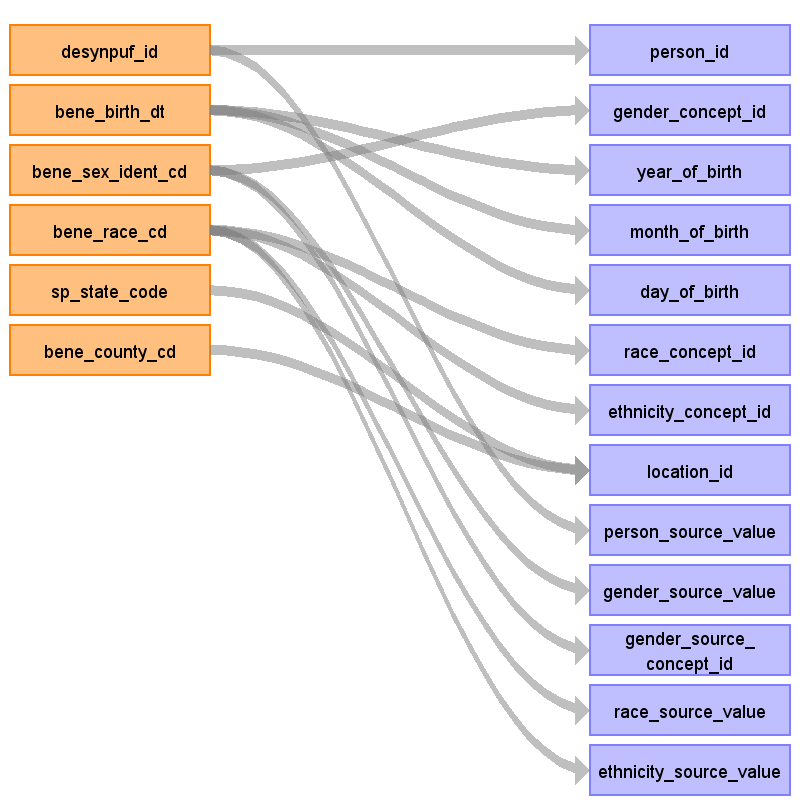
SOURCE\_TO\_CONCEPT\_MAP Entries:
BENE\_RACE\_CD
SP\_STATE\_CD
SSA Codes (http://www.resdac.org/cms-data/variables/County-Code) for COUNTY\_CODE IN BENE\_COUNTY\_CD



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| location\_id |  |  |  |
| address\_1 |  |  |  |
| address\_2 |  |  |  |
| city |  |  |  |
| state | sp\_state\_code |  | The lookup SP\_STATE\_CODE lookup should be found in this document and added to the SOURCE\_TO\_CONCEPT\_MAP: http://www.cms.gov/Research-Statistics-Data-and-Systems/Downloadable-Public-Use-Files/SynPUFs/Downloads/SynPUF\_Codebook.pdf |
| zip |  |  |  |
| county | bene\_county\_cd |  | http://www.cms.gov/Research-Statistics-Data-and-Systems/Downloadable-Public-Use-Files/SynPUFs/Downloads/SynPUF\_Codebook.pdf THIS CODE SPECIFIES THE SSA CODE FOR THE COUNTY OF RESIDENCE OF THE BENEFICIARY. EACH STATE HAS A SERIES OF CODES BEGINNING WITH '000' FOR EACH COUNTY WITHIN THAT STATE. CERTAIN CITIES WITHIN THAT STATE HAVE THEIR OWN CODE. COUNTY CODES MUST BE COMBINED WITH STATE CODES IN ORDER TO LOCATE THE SPECIFIC COUNTY. THE CODING SYSTEM IS THE SSA SYSTEM, NOT THE FEDERAL INFORMATION PROCESSING STANDARD (FIPS). http://www.resdac.org/cms-data/variables/County-Code These will need to be added to the SOURCE\_TO\_CONCEPT\_MAP. |
| location\_source\_value | sp\_state\_code bene\_county\_cd |  |  |

Table name: person

Reading from beneficiary\_summary



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| person\_id | desynpuf\_id |  |  |
| gender\_concept\_id | bene\_sex\_ident\_cd | male: 1 = 8507 female: 2 = 8532 |  |
| year\_of\_birth | bene\_birth\_dt | Source is YYYYMMDD |  |
| month\_of\_birth | bene\_birth\_dt | Source is YYYYMMDD |  |
| day\_of\_birth | bene\_birth\_dt | Source is YYYYMMDD | We assume that the day of birth is set to '01' |
| time\_of\_birth |  |  | Null |
| race\_concept\_id | bene\_race\_cd | The manual lists the following: 0 = Unknown = 0 1 = White = 8527 2 = Black = 8516 3 = Other = 0 5 = Hispanic = 0 Do not believe these will exist so we may not put them in: 4 = Asian = 8515 6 = North American Native = 38003572 |  |
| ethnicity\_concept\_id | bene\_race\_cd | Manual Says These Exists: 0 = Unknown = 0 1 = White = 38003564 2 = Black = 38003564 3 = Other = 0 5 = Hispanic = 38003563 Possible Other Codes, Do Not Believe Exist in Data: 4 = Asian = 38003564 6 = North American Native = 38003564 |  |
| location\_id | sp\_state\_code bene\_county\_cd |  | Lookup based on the source values. |
| provider\_id |  |  | Null |
| care\_site\_id |  |  | Null |
| person\_source\_value | desynpuf\_id |  |  |
| gender\_source\_value | bene\_sex\_ident\_cd |  | Translate into human readable text. |
| gender\_source\_concept\_id | bene\_sex\_ident\_cd |  | <<ACTION ITEM>> We need to know if the source is using a standard, is that in the vocabulary already? 0 |
| race\_source\_value | bene\_race\_cd |  | Put a readable label. |
| race\_source\_concept\_id |  |  |  |
| ethnicity\_source\_value | bene\_race\_cd |  | Put a readable label. |
| ethnicity\_source\_concept\_id |  |  |  |

Table name: observation\_period

Reading from beneficiary\_summary

We are going to look at birth and death date.
We know which months they had claims.
We know how many months they had coverages.
If MONTH = 0 they were not enrolled for that year.
IF MONTH > 0 then they were enrolled.
MONTH = any of these variables: BENE\_HI\_CVRAGE\_TOT\_MONS, BENE\_SMI\_CVRAGE\_TOT\_MONS, BENE\_HMO\_CVRAGE\_TOT\_MONS, PLAN\_CVRG\_MONS\_NUM
We will use the birth and death to correct the tails.
birth = BENE\_BIRTH\_DT
death = BENE\_DEATH\_DT
We need to knit the records together the years.

no overlapping observation periods

Generated

|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| observation\_period\_id |  |  |  |
| person\_id |  |  |  |
| observation\_period\_start\_date |  |  |  |
| observation\_period\_end\_date |  |  |  |
| period\_type\_concept\_id |  |  |  |

Table name: care\_site

Reading from outpatient\_claims



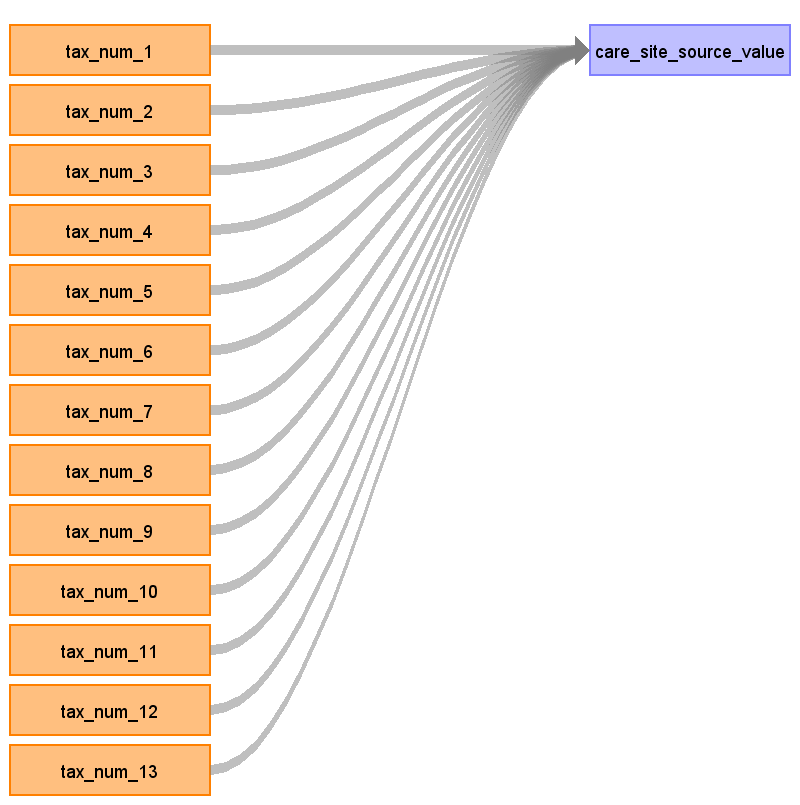
|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| care\_site\_id |  |  | Autogenerated, you pull all columns and put distinct values here. |
| care\_site\_name |  |  |  |
| place\_of\_service\_concept\_id |  |  | INPATIENT\_CLAIMS: 8717-Inpatient Hospital OUTPATIENT\_CLAIMS: 8756-Outpatient Hospital CARRIER\_CLAIMS: 8940-Office |
| location\_id |  |  |  |
| care\_site\_source\_value | prvdr\_num |  |  |
| place\_of\_service\_source\_value |  |  | INPATIENT\_CLAIMS = "Inpatient Facility" OUTPATIENT\_CLAIMS = "Outpatient Facility" |

Reading from inpatient\_claims



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| care\_site\_id |  |  | Autogenerated, you pull all columns and put distinct values here. |
| care\_site\_name |  |  |  |
| place\_of\_service\_concept\_id |  |  | INPATIENT\_CLAIMS: 8717-Inpatient Hospital OUTPATIENT\_CLAIMS: 8756-Outpatient Hospital CARRIER\_CLAIMS: 8940-Office |
| location\_id |  |  |  |
| care\_site\_source\_value | prvdr\_num |  |  |
| place\_of\_service\_source\_value |  |  | INPATIENT\_CLAIMS = "Inpatient Facility" OUTPATIENT\_CLAIMS = "Outpatient Facility" |

Reading from carrier\_claims



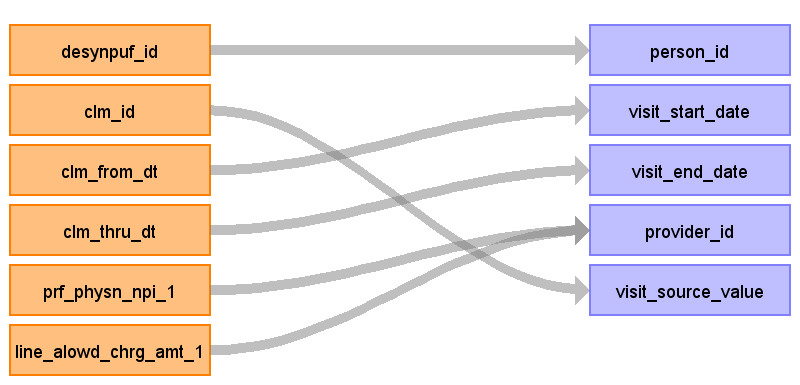
|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| care\_site\_id |  |  | Autogenerated, you pull all columns and put distinct values here. |
| care\_site\_name |  |  |  |
| place\_of\_service\_concept\_id |  |  | INPATIENT\_CLAIMS: 8717-Inpatient Hospital OUTPATIENT\_CLAIMS: 8756-Outpatient Hospital CARRIER\_CLAIMS: 8940-Office |
| location\_id |  |  |  |
| care\_site\_source\_value | tax\_num\_1 tax\_num\_2 tax\_num\_3 tax\_num\_4 tax\_num\_5 tax\_num\_6 tax\_num\_7 tax\_num\_8 tax\_num\_9 tax\_num\_10 tax\_num\_11 tax\_num\_12 tax\_num\_13 |  |  |
| place\_of\_service\_source\_value |  |  | INPATIENT\_CLAIMS = "Inpatient Facility" OUTPATIENT\_CLAIMS = "Outpatient Facility" |

Table name: visit\_occurrence

Reading from carrier\_claims

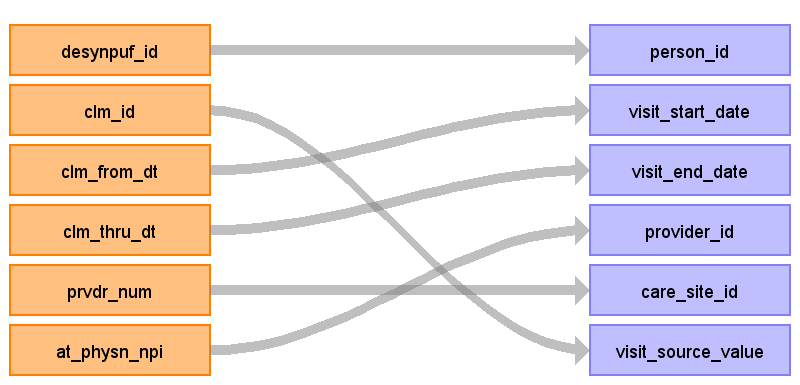
A unique visit is defined by a CLAIM\_ID
Visit Roll-Up Logic:
(1--)INPATIENT logic:
(1A)CARRIER\_CLAIM is within an INPATIENT\_CLAIM, it becomes part of that VISIT\_OCCURRENCE
(1B)OP within IP logic
(1B1)OP that ends the day an IP start or starts before IP, OP gets its own visit
(1B2)OP in the middle of an IP, it adopts the IP visit
(1B3)OP starts on the end of an IP visit, OP gets its own visit
(2--)OUTPATIENT logic:
(2A)On one day, there is one OP and one CC, they share NPI, we link them
(2B)On one day, there is one OP and one CC, they do not share an NPI, we end up with 2 visits
(2C)One OP, and two CC visits, CC1 shares an NPI, CC2 does not, CC1 and OP share a visit, and CC2 is its own visit.
(2D)One OP, and two CC that all share NPIs, they all become one visit.
(2E)Two OP visits, and one CC, if they share NPI connect ELSE end up with 3 visits.
(2F)If you have two OP visits, they do not combined.
(3--)CARRIER CLAIMS logic:
(3A)orphan CCs get categorized 0
In this data we cannot categorize an ER visit, there will only be IP and OP.

CARRIER\_CLAIMS = 0 - ELSE
INPATIENT\_CLAIMS = 9201 - Inpatient Visit
OUTPATIENT\_CLAIMS = 9202 - Outpatient Visit



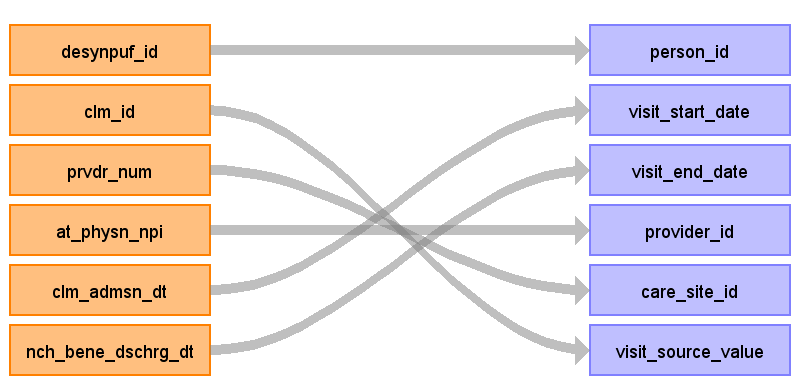
|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| visit\_occurrence\_id |  |  | Autogenerated (possibly a hash lookup) |
| person\_id | desynpuf\_id |  |  |
| visit\_concept\_id |  |  | CARRIER\_CLAIMS = 0 INPATIENT\_CLAIMS = 9201 - Inpatient Visit OUTPATIENT\_CLAIMS = 9202 - Outpatient Visit |
| visit\_start\_date | clm\_from\_dt |  |  |
| visit\_start\_time |  |  | Null |
| visit\_end\_date | clm\_thru\_dt |  |  |
| visit\_end\_time |  |  | Null |
| visit\_type\_concept\_id |  |  | 44818517 - Visit derived from encounter on claim |
| provider\_id | line\_alowd\_chrg\_amt\_1 prf\_physn\_npi\_1 | Use the LIN\_ALOWD\_CHRG\_AMT\_# to find the column that has the MAX() amount. That column identifies the PRF\_PHYSN\_NPI\_# that you need to choose. Alternate proposal (Optimal) - sum up by PRF\_PHYSN\_NPI the LIN\_ALOWD\_CHRG\_AMT, the NPI with the larges charge amount wins the PROVIDER\_ID. |  |
| care\_site\_id |  |  | CARRIER\_CLAIMS: NULL |
| visit\_source\_value | clm\_id |  |  |
| visit\_source\_concept\_id |  |  | 0 |

Reading from outpatient\_claims



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| visit\_occurrence\_id |  |  | Autogenerated (possibly a hash lookup) |
| person\_id | desynpuf\_id |  |  |
| visit\_concept\_id |  |  | CARRIER\_CLAIMS = 0 INPATIENT\_CLAIMS = 9201 - Inpatient Visit OUTPATIENT\_CLAIMS = 9202 - Outpatient Visit |
| visit\_start\_date | clm\_from\_dt |  |  |
| visit\_start\_time |  |  | Null |
| visit\_end\_date | clm\_thru\_dt |  |  |
| visit\_end\_time |  |  | Null |
| visit\_type\_concept\_id |  |  | 44818517 - Visit derived from encounter on claim |
| provider\_id | at\_physn\_npi | Lookup |  |
| care\_site\_id | prvdr\_num | Lookup | CARRIER\_CLAIMS: NULL |
| visit\_source\_value | clm\_id |  |  |
| visit\_source\_concept\_id |  |  | 0 |

Reading from inpatient\_claims

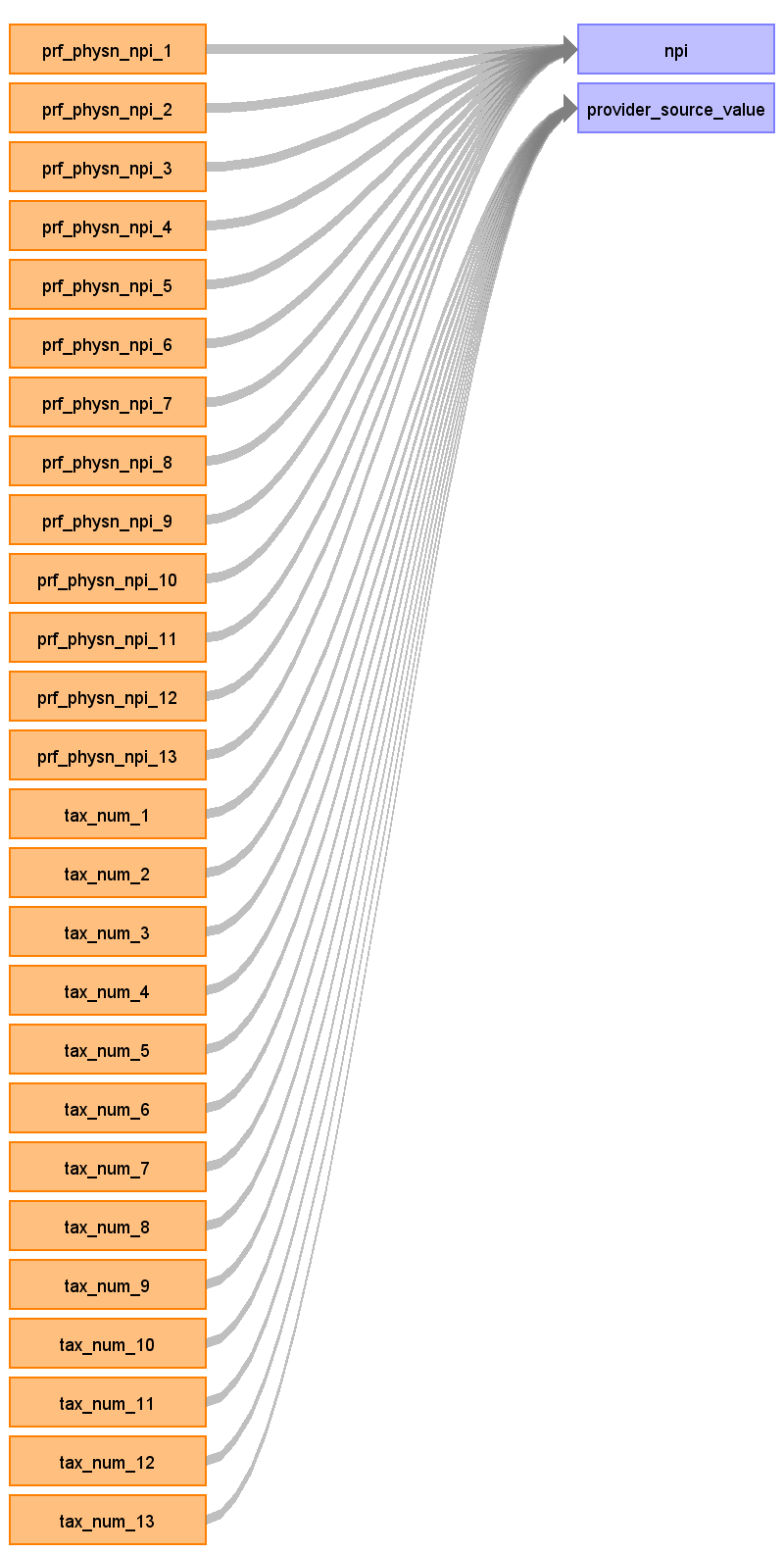


|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| visit\_occurrence\_id |  |  | Autogenerated (possibly a hash lookup) |
| person\_id | desynpuf\_id |  |  |
| visit\_concept\_id |  |  | CARRIER\_CLAIMS = 0 INPATIENT\_CLAIMS = 9201 - Inpatient Visit OUTPATIENT\_CLAIMS = 9202 - Outpatient Visit |
| visit\_start\_date | clm\_admsn\_dt |  |  |
| visit\_start\_time |  |  | Null |
| visit\_end\_date | nch\_bene\_dschrg\_dt |  |  |
| visit\_end\_time |  |  | Null |
| visit\_type\_concept\_id |  |  | 44818517 - Visit derived from encounter on claim |
| provider\_id | at\_physn\_npi | Lookup in PROVIDER table. |  |
| care\_site\_id | prvdr\_num | INPATIENT\_CLAIMS: Lookup with the PRVDR\_NUM | CARRIER\_CLAIMS: NULL |
| visit\_source\_value | clm\_id |  |  |
| visit\_source\_concept\_id |  |  | 0 |

Table name: provider

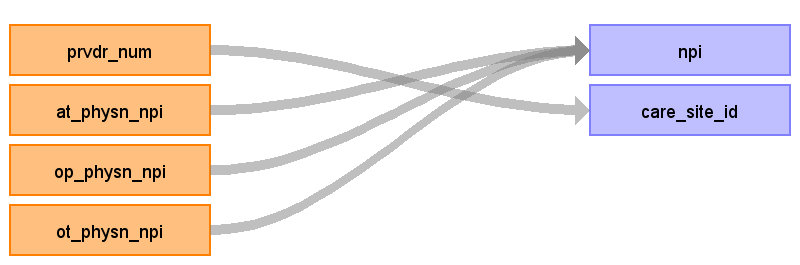
Reading from carrier\_claims

Tax\_IDs will be used in the Care\_Site table as locations for the physician offices.



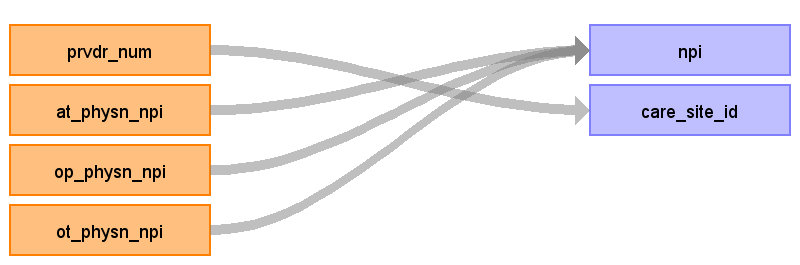
|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| provider\_id |  |  | Autogenerated |
| provider\_name |  |  | Null |
| npi | prf\_physn\_npi\_1 prf\_physn\_npi\_2 prf\_physn\_npi\_3 prf\_physn\_npi\_4 prf\_physn\_npi\_5 prf\_physn\_npi\_6 prf\_physn\_npi\_7 prf\_physn\_npi\_8 prf\_physn\_npi\_9 prf\_physn\_npi\_10 prf\_physn\_npi\_11 prf\_physn\_npi\_12 prf\_physn\_npi\_13 |  |  |
| dea |  |  | Null |
| specialty\_concept\_id |  |  | 0 |
| care\_site\_id |  |  | Null |
| year\_of\_birth |  |  | Null |
| gender\_concept\_id |  |  | 0 |
| provider\_source\_value | tax\_num\_1 tax\_num\_2 tax\_num\_3 tax\_num\_4 tax\_num\_5 tax\_num\_6 tax\_num\_7 tax\_num\_8 tax\_num\_9 tax\_num\_10 tax\_num\_11 tax\_num\_12 tax\_num\_13 |  |  |
| specialty\_source\_value |  |  | Null |
| specialty\_source\_concept\_id |  |  | 0 |
| gender\_source\_value |  |  | Null |
| gender\_source\_concept\_id |  |  | 0 |

Reading from outpatient\_claims



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| provider\_id |  |  | Autogenerated |
| provider\_name |  |  | Null |
| npi | at\_physn\_npi op\_physn\_npi ot\_physn\_npi |  |  |
| dea |  |  | Null |
| specialty\_concept\_id |  |  | 0 |
| care\_site\_id | prvdr\_num |  | Lookup in the CARE\_SITE table. Null |
| year\_of\_birth |  |  | Null |
| gender\_concept\_id |  |  | 0 |
| provider\_source\_value |  |  |  |
| specialty\_source\_value |  |  | Null |
| specialty\_source\_concept\_id |  |  | 0 |
| gender\_source\_value |  |  | Null |
| gender\_source\_concept\_id |  |  | 0 |

Reading from inpatient\_claims



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| provider\_id |  |  | Autogenerated |
| provider\_name |  |  | Null |
| npi | at\_physn\_npi op\_physn\_npi ot\_physn\_npi |  |  |
| dea |  |  | Null |
| specialty\_concept\_id |  |  | 0 |
| care\_site\_id | prvdr\_num | You need to look up the CARE\_SITE\_ID | Null |
| year\_of\_birth |  |  | Null |
| gender\_concept\_id |  |  | 0 |
| provider\_source\_value |  |  |  |
| specialty\_source\_value |  |  | Null |
| specialty\_source\_concept\_id |  |  | 0 |
| gender\_source\_value |  |  | Null |
| gender\_source\_concept\_id |  |  | 0 |

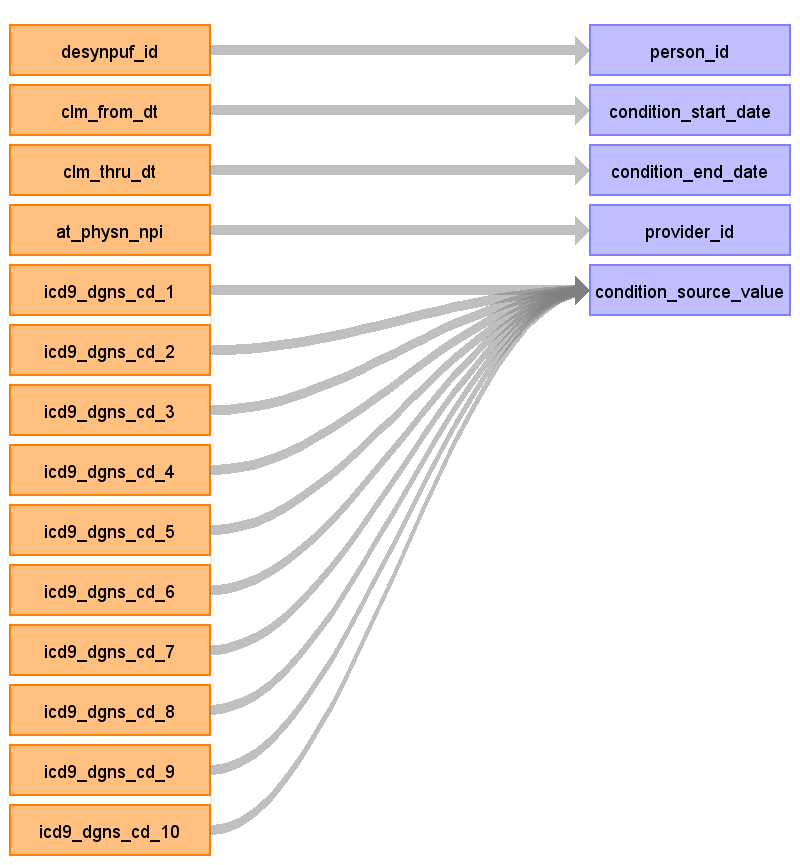
Table name: condition\_occurrence

Reading from carrier\_claims



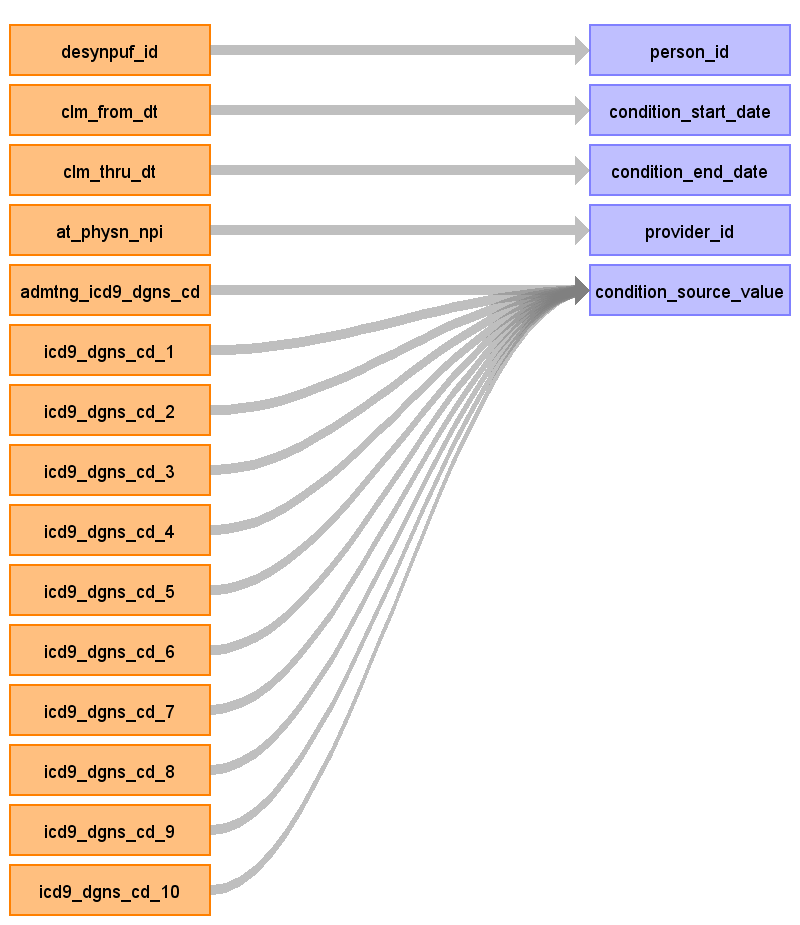
|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| condition\_occurrence\_id |  |  | Autogenerated |
| person\_id | desynpuf\_id |  |  |
| condition\_concept\_id |  |  | Mapping from CONDITION\_SOURCE\_VALUE into SNOMED (INVALID\_REASON IS NULL). |
| condition\_start\_date | clm\_from\_dt | YYYYMMDD converted to date. | YYYYMMDD converted to date. |
| condition\_end\_date | clm\_thru\_dt | YYYYMMDD converted to date. | YYYYMMDD converted to date. |
| condition\_type\_concept\_id |  |  | Line diagnosis are details and the claim diagnosis are headers. Admitting diagnosis (ADMTNG\_ICD9\_DGNS\_CD) is the last number (e.g. 11) CARRIER\_CLAIMS: --ICD9\_DGNS\_CD\_1 = 45756835 Carrier claim header - 1st position --ICD9\_DGNS\_CD\_2 = 45756836 Carrier claim header - 2nd position --ICD9\_DGNS\_CD\_3 = 45756837 Carrier claim header - 3rd position --ICD9\_DGNS\_CD\_4 = 45756838 Carrier claim header - 4th position --ICD9\_DGNS\_CD\_5 = 45756839 Carrier claim header - 5th position --ICD9\_DGNS\_CD\_6 = 45756840 Carrier claim header - 6th position --ICD9\_DGNS\_CD\_7 = 45756841 Carrier claim header - 7th position --ICD9\_DGNS\_CD\_8 = 45756842 Carrier claim header - 8th position --LINE\_ICD9\_DGNS\_CD\_1 = 45756843 Carrier claim detail - 1st position --LINE\_ICD9\_DGNS\_CD\_2 = 45756844 Carrier claim detail - 2nd position --LINE\_ICD9\_DGNS\_CD\_3 = 45756845 Carrier claim detail - 3rd position --LINE\_ICD9\_DGNS\_CD\_4 = 45756846 Carrier claim detail - 4th position --LINE\_ICD9\_DGNS\_CD\_5 = 45756847 Carrier claim detail - 5th position --LINE\_ICD9\_DGNS\_CD\_6 = 45756848 Carrier claim detail - 6th position --LINE\_ICD9\_DGNS\_CD\_7 = 45756849 Carrier claim detail - 7th position --LINE\_ICD9\_DGNS\_CD\_8 = 45756850 Carrier claim detail - 8th position --LINE\_ICD9\_DGNS\_CD\_9 = 45756851 Carrier claim detail - 9th position --LINE\_ICD9\_DGNS\_CD\_10 = 45756852 Carrier claim detail - 10th position --LINE\_ICD9\_DGNS\_CD\_11 = 45756853 Carrier claim detail - 11th position --LINE\_ICD9\_DGNS\_CD\_12 = 45756855 Carrier claim detail - 13th position --LINE\_ICD9\_DGNS\_CD\_13 = 45756855 Carrier claim detail - 13th position INPATIENT\_CLAIMS: --ICD9\_DGNS\_CD\_1 = 38000200-Inpatient header - 1st position --ICD9\_DGNS\_CD\_2 = 38000201-Inpatient header - 2nd position --ICD9\_DGNS\_CD\_3 = 38000202-Inpatient header - 3rd position --ICD9\_DGNS\_CD\_4 = 38000203-Inpatient header - 4th position --ICD9\_DGNS\_CD\_5 = 38000204-Inpatient header - 5th position --ICD9\_DGNS\_CD\_6 = 38000205-Inpatient header - 6th position --ICD9\_DGNS\_CD\_7 = 38000206-Inpatient header - 7th position --ICD9\_DGNS\_CD\_8 = 38000207-Inpatient header - 8th position --ICD9\_DGNS\_CD\_9 = 38000208-Inpatient header - 9th position --ICD9\_DGNS\_CD\_10 = 38000209-Inpatient header - 10th position --ADMTNG\_ICD9\_DGNS\_CD = 38000210-Inpatient header - 11th position OUTPATEINT\_CLAIMS: --ICD9\_DGNS\_CD\_1 = 38000230-Outpatient header - 1st position --ICD9\_DGNS\_CD\_2 = 38000231-Outpatient header - 2nd position --ICD9\_DGNS\_CD\_3 = 38000232-Outpatient header - 3rd position --ICD9\_DGNS\_CD\_4 = 38000233-Outpatient header - 4th position --ICD9\_DGNS\_CD\_5 = 38000234-Outpatient header - 5th position --ICD9\_DGNS\_CD\_6 = 38000235-Outpatient header - 6th position --ICD9\_DGNS\_CD\_7 = 38000236-Outpatient header - 7th position --ICD9\_DGNS\_CD\_8 = 38000237-Outpatient header - 8th position --ICD9\_DGNS\_CD\_9 = 38000238-Outpatient header - 9th position --ICD9\_DGNS\_CD\_10 = 38000239-Outpatient header - 10th position |
| stop\_reason |  |  | NULL |
| provider\_id | prf\_physn\_npi\_1 prf\_physn\_npi\_2 prf\_physn\_npi\_3 prf\_physn\_npi\_4 prf\_physn\_npi\_5 prf\_physn\_npi\_6 prf\_physn\_npi\_7 prf\_physn\_npi\_8 prf\_physn\_npi\_9 prf\_physn\_npi\_10 prf\_physn\_npi\_11 prf\_physn\_npi\_12 prf\_physn\_npi\_13 |  | CARRIER\_CLAIMS: Lookup the PROVIDER\_ID in the PROVIDER table. Associate a PROVIDER\_ID with the ICD9 line item it goes with. The claim ICD9s will not get a PROVIDER\_ID. INPATIENT & OUTPATIENT\_CLAIMS: All get mapped to the AT\_PHYSN\_NPI |
| visit\_occurrence\_id |  |  | Associated to right VISIT\_OCCURENCE. |
| condition\_source\_value | icd9\_dgns\_cd\_1 icd9\_dgns\_cd\_2 icd9\_dgns\_cd\_3 icd9\_dgns\_cd\_4 icd9\_dgns\_cd\_5 icd9\_dgns\_cd\_6 icd9\_dgns\_cd\_7 line\_icd9\_dgns\_cd\_1 icd9\_dgns\_cd\_8 line\_icd9\_dgns\_cd\_2 line\_icd9\_dgns\_cd\_3 line\_icd9\_dgns\_cd\_4 line\_icd9\_dgns\_cd\_5 line\_icd9\_dgns\_cd\_6 line\_icd9\_dgns\_cd\_7 line\_icd9\_dgns\_cd\_8 line\_icd9\_dgns\_cd\_9 line\_icd9\_dgns\_cd\_10 line\_icd9\_dgns\_cd\_11 line\_icd9\_dgns\_cd\_12 line\_icd9\_dgns\_cd\_13 |  |  |
| condition\_source\_concept\_id |  |  | Map the CONDITION\_SOURCE\_VALUE to ICD9 CONCEPT\_IDs. |

Reading from outpatient\_claims



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| condition\_occurrence\_id |  |  | Autogenerated |
| person\_id | desynpuf\_id |  |  |
| condition\_concept\_id |  |  | Mapping from CONDITION\_SOURCE\_VALUE into SNOMED (INVALID\_REASON IS NULL). |
| condition\_start\_date | clm\_from\_dt |  | YYYYMMDD converted to date. |
| condition\_end\_date | clm\_thru\_dt |  | YYYYMMDD converted to date. |
| condition\_type\_concept\_id |  |  | Line diagnosis are details and the claim diagnosis are headers. Admitting diagnosis (ADMTNG\_ICD9\_DGNS\_CD) is the last number (e.g. 11) CARRIER\_CLAIMS: --ICD9\_DGNS\_CD\_1 = 45756835 Carrier claim header - 1st position --ICD9\_DGNS\_CD\_2 = 45756836 Carrier claim header - 2nd position --ICD9\_DGNS\_CD\_3 = 45756837 Carrier claim header - 3rd position --ICD9\_DGNS\_CD\_4 = 45756838 Carrier claim header - 4th position --ICD9\_DGNS\_CD\_5 = 45756839 Carrier claim header - 5th position --ICD9\_DGNS\_CD\_6 = 45756840 Carrier claim header - 6th position --ICD9\_DGNS\_CD\_7 = 45756841 Carrier claim header - 7th position --ICD9\_DGNS\_CD\_8 = 45756842 Carrier claim header - 8th position --LINE\_ICD9\_DGNS\_CD\_1 = 45756843 Carrier claim detail - 1st position --LINE\_ICD9\_DGNS\_CD\_2 = 45756844 Carrier claim detail - 2nd position --LINE\_ICD9\_DGNS\_CD\_3 = 45756845 Carrier claim detail - 3rd position --LINE\_ICD9\_DGNS\_CD\_4 = 45756846 Carrier claim detail - 4th position --LINE\_ICD9\_DGNS\_CD\_5 = 45756847 Carrier claim detail - 5th position --LINE\_ICD9\_DGNS\_CD\_6 = 45756848 Carrier claim detail - 6th position --LINE\_ICD9\_DGNS\_CD\_7 = 45756849 Carrier claim detail - 7th position --LINE\_ICD9\_DGNS\_CD\_8 = 45756850 Carrier claim detail - 8th position --LINE\_ICD9\_DGNS\_CD\_9 = 45756851 Carrier claim detail - 9th position --LINE\_ICD9\_DGNS\_CD\_10 = 45756852 Carrier claim detail - 10th position --LINE\_ICD9\_DGNS\_CD\_11 = 45756853 Carrier claim detail - 11th position --LINE\_ICD9\_DGNS\_CD\_12 = 45756855 Carrier claim detail - 13th position --LINE\_ICD9\_DGNS\_CD\_13 = 45756855 Carrier claim detail - 13th position INPATIENT\_CLAIMS: --ICD9\_DGNS\_CD\_1 = 38000200-Inpatient header - 1st position --ICD9\_DGNS\_CD\_2 = 38000201-Inpatient header - 2nd position --ICD9\_DGNS\_CD\_3 = 38000202-Inpatient header - 3rd position --ICD9\_DGNS\_CD\_4 = 38000203-Inpatient header - 4th position --ICD9\_DGNS\_CD\_5 = 38000204-Inpatient header - 5th position --ICD9\_DGNS\_CD\_6 = 38000205-Inpatient header - 6th position --ICD9\_DGNS\_CD\_7 = 38000206-Inpatient header - 7th position --ICD9\_DGNS\_CD\_8 = 38000207-Inpatient header - 8th position --ICD9\_DGNS\_CD\_9 = 38000208-Inpatient header - 9th position --ICD9\_DGNS\_CD\_10 = 38000209-Inpatient header - 10th position --ADMTNG\_ICD9\_DGNS\_CD = 38000210-Inpatient header - 11th position OUTPATEINT\_CLAIMS: --ICD9\_DGNS\_CD\_1 = 38000230-Outpatient header - 1st position --ICD9\_DGNS\_CD\_2 = 38000231-Outpatient header - 2nd position --ICD9\_DGNS\_CD\_3 = 38000232-Outpatient header - 3rd position --ICD9\_DGNS\_CD\_4 = 38000233-Outpatient header - 4th position --ICD9\_DGNS\_CD\_5 = 38000234-Outpatient header - 5th position --ICD9\_DGNS\_CD\_6 = 38000235-Outpatient header - 6th position --ICD9\_DGNS\_CD\_7 = 38000236-Outpatient header - 7th position --ICD9\_DGNS\_CD\_8 = 38000237-Outpatient header - 8th position --ICD9\_DGNS\_CD\_9 = 38000238-Outpatient header - 9th position --ICD9\_DGNS\_CD\_10 = 38000239-Outpatient header - 10th position |
| stop\_reason |  |  | NULL |
| provider\_id | at\_physn\_npi |  | CARRIER\_CLAIMS: Lookup the PROVIDER\_ID in the PROVIDER table. Associate a PROVIDER\_ID with the ICD9 line item it goes with. The claim ICD9s will not get a PROVIDER\_ID. INPATIENT & OUTPATIENT\_CLAIMS: All get mapped to the AT\_PHYSN\_NPI |
| visit\_occurrence\_id |  |  | Associated to right VISIT\_OCCURENCE. |
| condition\_source\_value | icd9\_dgns\_cd\_1 icd9\_dgns\_cd\_2 icd9\_dgns\_cd\_3 icd9\_dgns\_cd\_4 icd9\_dgns\_cd\_5 icd9\_dgns\_cd\_6 icd9\_dgns\_cd\_7 icd9\_dgns\_cd\_8 icd9\_dgns\_cd\_9 icd9\_dgns\_cd\_10 |  |  |
| condition\_source\_concept\_id |  |  | Map the CONDITION\_SOURCE\_VALUE to ICD9 CONCEPT\_IDs. |

Reading from inpatient\_claims



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| condition\_occurrence\_id |  |  | Autogenerated |
| person\_id | desynpuf\_id |  |  |
| condition\_concept\_id |  |  | Mapping from CONDITION\_SOURCE\_VALUE into SNOMED (INVALID\_REASON IS NULL). |
| condition\_start\_date | clm\_from\_dt | YYYYMMDD convert to date. | YYYYMMDD converted to date. |
| condition\_end\_date | clm\_thru\_dt | YYYYMMDD convert to date. | YYYYMMDD converted to date. |
| condition\_type\_concept\_id |  |  | Line diagnosis are details and the claim diagnosis are headers. Admitting diagnosis (ADMTNG\_ICD9\_DGNS\_CD) is the last number (e.g. 11) CARRIER\_CLAIMS: --ICD9\_DGNS\_CD\_1 = 45756835 Carrier claim header - 1st position --ICD9\_DGNS\_CD\_2 = 45756836 Carrier claim header - 2nd position --ICD9\_DGNS\_CD\_3 = 45756837 Carrier claim header - 3rd position --ICD9\_DGNS\_CD\_4 = 45756838 Carrier claim header - 4th position --ICD9\_DGNS\_CD\_5 = 45756839 Carrier claim header - 5th position --ICD9\_DGNS\_CD\_6 = 45756840 Carrier claim header - 6th position --ICD9\_DGNS\_CD\_7 = 45756841 Carrier claim header - 7th position --ICD9\_DGNS\_CD\_8 = 45756842 Carrier claim header - 8th position --LINE\_ICD9\_DGNS\_CD\_1 = 45756843 Carrier claim detail - 1st position --LINE\_ICD9\_DGNS\_CD\_2 = 45756844 Carrier claim detail - 2nd position --LINE\_ICD9\_DGNS\_CD\_3 = 45756845 Carrier claim detail - 3rd position --LINE\_ICD9\_DGNS\_CD\_4 = 45756846 Carrier claim detail - 4th position --LINE\_ICD9\_DGNS\_CD\_5 = 45756847 Carrier claim detail - 5th position --LINE\_ICD9\_DGNS\_CD\_6 = 45756848 Carrier claim detail - 6th position --LINE\_ICD9\_DGNS\_CD\_7 = 45756849 Carrier claim detail - 7th position --LINE\_ICD9\_DGNS\_CD\_8 = 45756850 Carrier claim detail - 8th position --LINE\_ICD9\_DGNS\_CD\_9 = 45756851 Carrier claim detail - 9th position --LINE\_ICD9\_DGNS\_CD\_10 = 45756852 Carrier claim detail - 10th position --LINE\_ICD9\_DGNS\_CD\_11 = 45756853 Carrier claim detail - 11th position --LINE\_ICD9\_DGNS\_CD\_12 = 45756855 Carrier claim detail - 13th position --LINE\_ICD9\_DGNS\_CD\_13 = 45756855 Carrier claim detail - 13th position INPATIENT\_CLAIMS: --ICD9\_DGNS\_CD\_1 = 38000200-Inpatient header - 1st position --ICD9\_DGNS\_CD\_2 = 38000201-Inpatient header - 2nd position --ICD9\_DGNS\_CD\_3 = 38000202-Inpatient header - 3rd position --ICD9\_DGNS\_CD\_4 = 38000203-Inpatient header - 4th position --ICD9\_DGNS\_CD\_5 = 38000204-Inpatient header - 5th position --ICD9\_DGNS\_CD\_6 = 38000205-Inpatient header - 6th position --ICD9\_DGNS\_CD\_7 = 38000206-Inpatient header - 7th position --ICD9\_DGNS\_CD\_8 = 38000207-Inpatient header - 8th position --ICD9\_DGNS\_CD\_9 = 38000208-Inpatient header - 9th position --ICD9\_DGNS\_CD\_10 = 38000209-Inpatient header - 10th position --ADMTNG\_ICD9\_DGNS\_CD = 38000210-Inpatient header - 11th position OUTPATEINT\_CLAIMS: --ICD9\_DGNS\_CD\_1 = 38000230-Outpatient header - 1st position --ICD9\_DGNS\_CD\_2 = 38000231-Outpatient header - 2nd position --ICD9\_DGNS\_CD\_3 = 38000232-Outpatient header - 3rd position --ICD9\_DGNS\_CD\_4 = 38000233-Outpatient header - 4th position --ICD9\_DGNS\_CD\_5 = 38000234-Outpatient header - 5th position --ICD9\_DGNS\_CD\_6 = 38000235-Outpatient header - 6th position --ICD9\_DGNS\_CD\_7 = 38000236-Outpatient header - 7th position --ICD9\_DGNS\_CD\_8 = 38000237-Outpatient header - 8th position --ICD9\_DGNS\_CD\_9 = 38000238-Outpatient header - 9th position --ICD9\_DGNS\_CD\_10 = 38000239-Outpatient header - 10th position |
| stop\_reason |  |  | NULL |
| provider\_id | at\_physn\_npi |  | CARRIER\_CLAIMS: Lookup the PROVIDER\_ID in the PROVIDER table. Associate a PROVIDER\_ID with the ICD9 line item it goes with. The claim ICD9s will not get a PROVIDER\_ID. INPATIENT & OUTPATIENT\_CLAIMS: All get mapped to the AT\_PHYSN\_NPI |
| visit\_occurrence\_id |  |  | Associated to right VISIT\_OCCURENCE. |
| condition\_source\_value | admtng\_icd9\_dgns\_cd icd9\_dgns\_cd\_1 icd9\_dgns\_cd\_2 icd9\_dgns\_cd\_3 icd9\_dgns\_cd\_4 icd9\_dgns\_cd\_5 icd9\_dgns\_cd\_6 icd9\_dgns\_cd\_7 icd9\_dgns\_cd\_8 icd9\_dgns\_cd\_9 icd9\_dgns\_cd\_10 |  |  |
| condition\_source\_concept\_id |  |  | Map the CONDITION\_SOURCE\_VALUE to ICD9 CONCEPT\_IDs. |

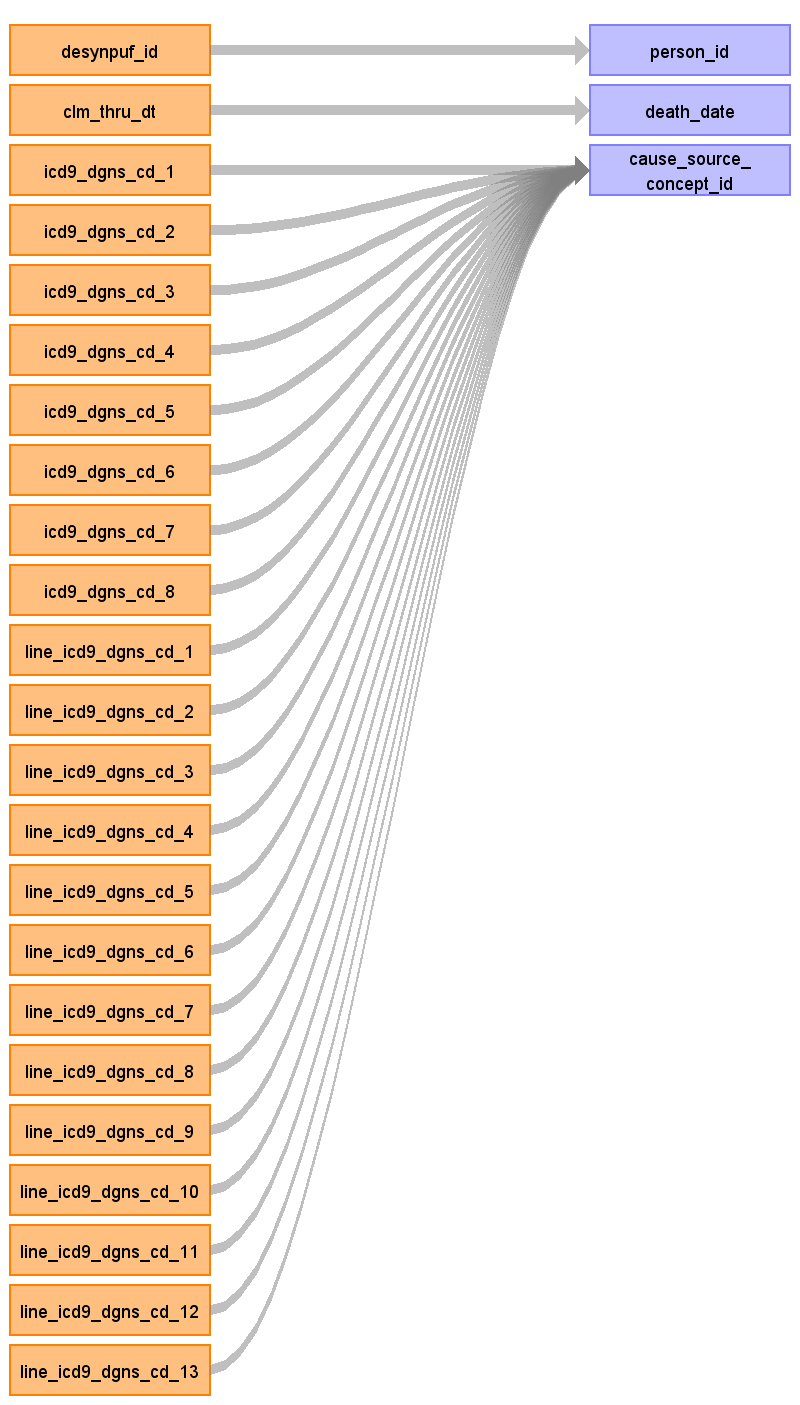
Table name: death

Reading from beneficiary\_summary



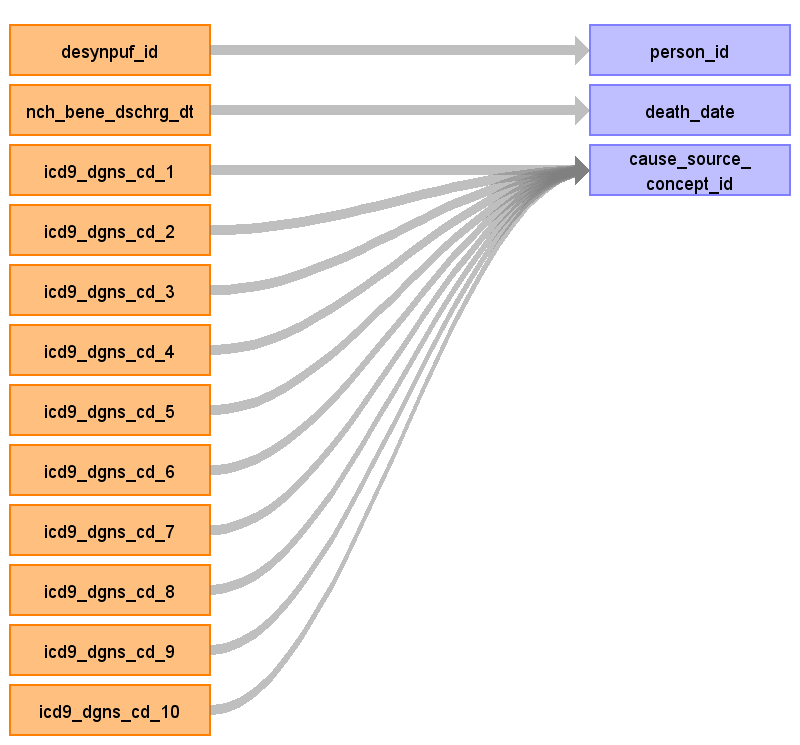
|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| person\_id | desynpuf\_id |  |  |
| death\_date | bene\_death\_dt |  |  |
| death\_type\_concept\_id |  |  | Inpatient\_claims, Outpatient\_claims, Carrier\_claims: 38003567 - death captured by condition Beneficiary\_summary: 38003565 - Payer enrollment status "Deceased" |
| cause\_concept\_id |  |  | 0 |
| cause\_source\_value |  |  | Null |
| cause\_source\_concept\_id |  |  | Inpatient\_claims, Outpatient\_claims, and Carrier\_claims files: write record if ICD9 codes are one of the following: '7616','798','7980','7981','7982','7989','E9131','E978' Beneficiary\_summary: 0 |

Reading from carrier\_claims



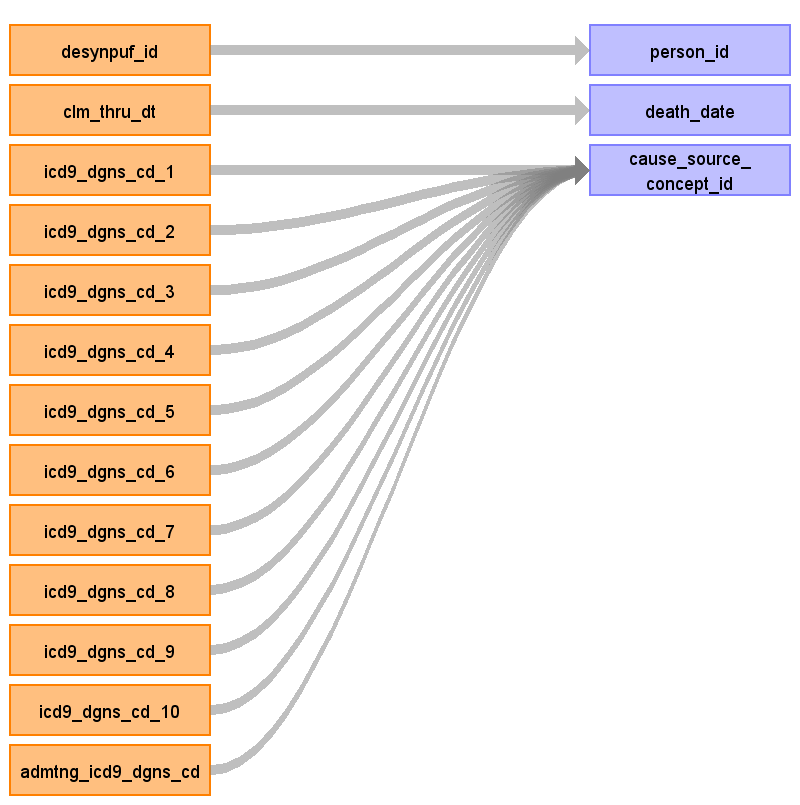
|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| person\_id | desynpuf\_id |  |  |
| death\_date | clm\_thru\_dt |  |  |
| death\_type\_concept\_id |  |  | Inpatient\_claims, Outpatient\_claims, Carrier\_claims: 38003567 - death captured by condition Beneficiary\_summary: 38003565 - Payer enrollment status "Deceased" |
| cause\_concept\_id |  |  | 0 |
| cause\_source\_value |  |  | Null |
| cause\_source\_concept\_id | icd9\_dgns\_cd\_1 icd9\_dgns\_cd\_2 icd9\_dgns\_cd\_3 icd9\_dgns\_cd\_4 icd9\_dgns\_cd\_5 icd9\_dgns\_cd\_6 icd9\_dgns\_cd\_7 icd9\_dgns\_cd\_8 line\_icd9\_dgns\_cd\_1 line\_icd9\_dgns\_cd\_2 line\_icd9\_dgns\_cd\_3 line\_icd9\_dgns\_cd\_4 line\_icd9\_dgns\_cd\_5 line\_icd9\_dgns\_cd\_6 line\_icd9\_dgns\_cd\_7 line\_icd9\_dgns\_cd\_8 line\_icd9\_dgns\_cd\_9 line\_icd9\_dgns\_cd\_10 line\_icd9\_dgns\_cd\_11 line\_icd9\_dgns\_cd\_12 line\_icd9\_dgns\_cd\_13 |  | Inpatient\_claims, Outpatient\_claims, and Carrier\_claims files: write record if ICD9 codes are one of the following: '7616','798','7980','7981','7982','7989','E9131','E978' Beneficiary\_summary: 0 |

Reading from inpatient\_claims



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| person\_id | desynpuf\_id |  |  |
| death\_date | nch\_bene\_dschrg\_dt |  |  |
| death\_type\_concept\_id |  |  | Inpatient\_claims, Outpatient\_claims, Carrier\_claims: 38003567 - death captured by condition Beneficiary\_summary: 38003565 - Payer enrollment status "Deceased" |
| cause\_concept\_id |  |  | 0 |
| cause\_source\_value |  |  | Null |
| cause\_source\_concept\_id | icd9\_dgns\_cd\_1 icd9\_dgns\_cd\_2 icd9\_dgns\_cd\_3 icd9\_dgns\_cd\_4 icd9\_dgns\_cd\_5 icd9\_dgns\_cd\_6 icd9\_dgns\_cd\_7 icd9\_dgns\_cd\_8 icd9\_dgns\_cd\_9 icd9\_dgns\_cd\_10 |  | Inpatient\_claims, Outpatient\_claims, and Carrier\_claims files: write record if ICD9 codes are one of the following: '7616','798','7980','7981','7982','7989','E9131','E978' Beneficiary\_summary: 0 |

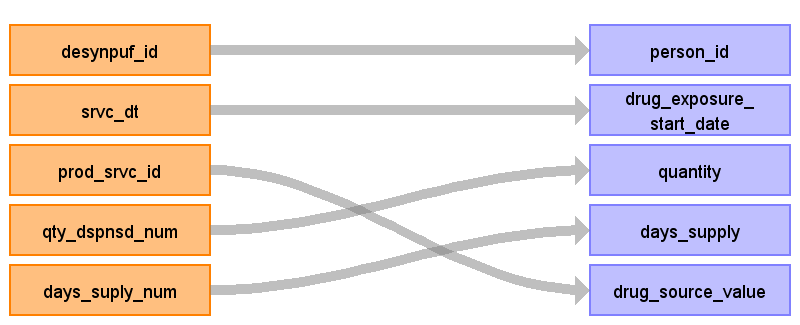
Reading from outpatient\_claims



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| person\_id | desynpuf\_id |  |  |
| death\_date | clm\_thru\_dt |  |  |
| death\_type\_concept\_id |  |  | Inpatient\_claims, Outpatient\_claims, Carrier\_claims: 38003567 - death captured by condition Beneficiary\_summary: 38003565 - Payer enrollment status "Deceased" |
| cause\_concept\_id |  |  | 0 |
| cause\_source\_value |  |  | Null |
| cause\_source\_concept\_id | icd9\_dgns\_cd\_1 icd9\_dgns\_cd\_2 icd9\_dgns\_cd\_3 icd9\_dgns\_cd\_4 icd9\_dgns\_cd\_5 icd9\_dgns\_cd\_6 icd9\_dgns\_cd\_7 icd9\_dgns\_cd\_8 icd9\_dgns\_cd\_9 icd9\_dgns\_cd\_10 admtng\_icd9\_dgns\_cd |  | Inpatient\_claims, Outpatient\_claims, and Carrier\_claims files: write record if ICD9 codes are one of the following: '7616','798','7980','7981','7982','7989','E9131','E978' Beneficiary\_summary: 0 |

Table name: drug\_exposure

Reading from prescription\_drug\_events



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| drug\_exposure\_id |  |  | Autogenerated |
| person\_id | desynpuf\_id |  |  |
| drug\_concept\_id |  |  | RX: Use the VOCABULARY to translate the NDC into a RxNorm CONCEPT\_ID. CARRIER\_CLAIMS & OUTPATIENT\_CLAIMS: Use the VOCABULARY to figure out which HCPCs have the DOMAIN = "Drug", if so the entry is written into the DRUG\_EXPOSURE table and not the PROCEDURE\_OCCURRENCE. The cost data also ends up in the DRUG\_COST table not the PROCEDURE\_COST. |
| drug\_exposure\_start\_date | srvc\_dt |  | YYYYMMDD converted to date. |
| drug\_exposure\_end\_date |  |  | Outpatient\_claims, carrier\_claims: YYYYMMDD converted to date. Perscription\_drugs\_events: Null |
| drug\_type\_concept\_id |  |  | RX: 38000175-Prescription dispensed in pharmacy CARRIER\_CLAIMS & OUTPATIENT\_CLAIMS: 38000179-Physician administered drug (identified as procedure) |
| stop\_reason |  |  | NULL |
| refills |  |  | NULL |
| quantity | qty\_dspnsd\_num |  | CARRIER\_CLAIMS & OUTPATIENT\_CLAIMS: NULL |
| days\_supply | days\_suply\_num |  | CARRIER\_CLAIMS & OUTPATIENT\_CLAIMS: NULL |
| sig |  |  | NULL |
| route\_concept\_id |  |  | NULL |
| effective\_drug\_dose |  |  | NULL |
| dose\_unit\_concept\_id |  |  | NULL |
| lot\_number |  |  | NULL |
| provider\_id |  |  | RX: null |
| visit\_occurrence\_id |  |  | RX: Null for PRESCRIPTION\_DRUG\_EVENTS CARRIER\_CLAIMS & OUTPATIENT\_CLAIMS: Track the VISIT\_OCCURENCE\_ID associated with record. |
| drug\_source\_concept\_id |  |  | RX: Translate NDC to NDC CONCEPT\_ID CARRIER\_CLAIMS & OUTPATIENT\_CLAIMS: Translated HCPC to HCPC CONCEPT\_ID |
| drug\_source\_value | prod\_srvc\_id |  |  |
| route\_source\_value |  |  | NULL |
| dose\_unit\_source\_value |  |  | NULL |

Reading from carrier\_claims

For HCPCS columns, use VOCABULARY to determine if the HCPCS belongs to the PROCEDURE domain, else it will go to a DRUG or DEVICE. If the VOCABULARY determines the HCPCS belongs to the MEASUREMENT or OBSERVATION domain, keep HCPCS in the PROCEDURE\_OCCURRENCE table.
Logic: The MEASUREMENT and OBSERVATION CDM tables do not have cost tables associated with them. If HCPCS are mapped to these tables, the associated costs will be lost. Therefore, these HCPCS codes need to stay in the PROCEDURE\_OCCURRENCE table to preserve the associated costs.



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| drug\_exposure\_id |  |  | Autogenerated |
| person\_id | desynpuf\_id |  |  |
| drug\_concept\_id |  |  | RX: Use the VOCABULARY to translate the NDC into a RxNorm CONCEPT\_ID. CARRIER\_CLAIMS & OUTPATIENT\_CLAIMS: Use the VOCABULARY to figure out which HCPCs have the DOMAIN = "Drug", if so the entry is written into the DRUG\_EXPOSURE table and not the PROCEDURE\_OCCURRENCE. The cost data also ends up in the DRUG\_COST table not the PROCEDURE\_COST. |
| drug\_exposure\_start\_date | clm\_from\_dt |  | YYYYMMDD converted to date. |
| drug\_exposure\_end\_date | clm\_thru\_dt |  | Outpatient\_claims, carrier\_claims: YYYYMMDD converted to date. Perscription\_drugs\_events: Null |
| drug\_type\_concept\_id |  |  | RX: 38000175-Prescription dispensed in pharmacy CARRIER\_CLAIMS & OUTPATIENT\_CLAIMS: 38000179-Physician administered drug (identified as procedure) |
| stop\_reason |  |  | NULL |
| refills |  |  | NULL |
| quantity |  |  | CARRIER\_CLAIMS & OUTPATIENT\_CLAIMS: NULL |
| days\_supply |  |  | CARRIER\_CLAIMS & OUTPATIENT\_CLAIMS: NULL |
| sig |  |  | NULL |
| route\_concept\_id |  |  | NULL |
| effective\_drug\_dose |  |  | NULL |
| dose\_unit\_concept\_id |  |  | NULL |
| lot\_number |  |  | NULL |
| provider\_id | prf\_physn\_npi\_1 prf\_physn\_npi\_2 prf\_physn\_npi\_3 prf\_physn\_npi\_4 prf\_physn\_npi\_5 prf\_physn\_npi\_6 prf\_physn\_npi\_7 prf\_physn\_npi\_8 prf\_physn\_npi\_9 prf\_physn\_npi\_10 prf\_physn\_npi\_11 prf\_physn\_npi\_12 prf\_physn\_npi\_13 |  | RX: null |
| visit\_occurrence\_id |  |  | RX: Null for PRESCRIPTION\_DRUG\_EVENTS CARRIER\_CLAIMS & OUTPATIENT\_CLAIMS: Track the VISIT\_OCCURENCE\_ID associated with record. |
| drug\_source\_concept\_id |  |  | RX: Translate NDC to NDC CONCEPT\_ID CARRIER\_CLAIMS & OUTPATIENT\_CLAIMS: Translated HCPC to HCPC CONCEPT\_ID |
| drug\_source\_value | hcpcs\_cd\_1 hcpcs\_cd\_2 hcpcs\_cd\_3 hcpcs\_cd\_4 hcpcs\_cd\_5 hcpcs\_cd\_6 hcpcs\_cd\_7 hcpcs\_cd\_8 hcpcs\_cd\_9 hcpcs\_cd\_10 hcpcs\_cd\_11 hcpcs\_cd\_12 hcpcs\_cd\_13 |  |  |
| route\_source\_value |  |  | NULL |
| dose\_unit\_source\_value |  |  | NULL |

Reading from outpatient\_claims

For HCPCS columns, use VOCABULARY to determine if the HCPCS belongs to the PROCEDURE domain, else it will go to a DRUG or DEVICE. If the VOCABULARY determines the HCPCS belongs to the MEASUREMENT or OBSERVATION domain, keep HCPCS in the PROCEDURE\_OCCURRENCE table.
Logic: The MEASUREMENT and OBSERVATION CDM tables do not have cost tables associated with them. If HCPCS are mapped to these tables, the associated costs will be lost. Therefore, these HCPCS codes need to stay in the PROCEDURE\_OCCURRENCE table to preserve the associated costs.



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| drug\_exposure\_id |  |  | Autogenerated |
| person\_id | desynpuf\_id |  |  |
| drug\_concept\_id |  |  | RX: Use the VOCABULARY to translate the NDC into a RxNorm CONCEPT\_ID. CARRIER\_CLAIMS & OUTPATIENT\_CLAIMS: Use the VOCABULARY to figure out which HCPCs have the DOMAIN = "Drug", if so the entry is written into the DRUG\_EXPOSURE table and not the PROCEDURE\_OCCURRENCE. The cost data also ends up in the DRUG\_COST table not the PROCEDURE\_COST. |
| drug\_exposure\_start\_date | clm\_from\_dt |  | YYYYMMDD converted to date. |
| drug\_exposure\_end\_date | clm\_thru\_dt |  | Outpatient\_claims, carrier\_claims: YYYYMMDD converted to date. Perscription\_drugs\_events: Null |
| drug\_type\_concept\_id |  |  | RX: 38000175-Prescription dispensed in pharmacy CARRIER\_CLAIMS & OUTPATIENT\_CLAIMS: 38000179-Physician administered drug (identified as procedure) |
| stop\_reason |  |  | NULL |
| refills |  |  | NULL |
| quantity |  |  | CARRIER\_CLAIMS & OUTPATIENT\_CLAIMS: NULL |
| days\_supply |  |  | CARRIER\_CLAIMS & OUTPATIENT\_CLAIMS: NULL |
| sig |  |  | NULL |
| route\_concept\_id |  |  | NULL |
| effective\_drug\_dose |  |  | NULL |
| dose\_unit\_concept\_id |  |  | NULL |
| lot\_number |  |  | NULL |
| provider\_id | at\_physn\_npi |  | RX: null |
| visit\_occurrence\_id |  |  | RX: Null for PRESCRIPTION\_DRUG\_EVENTS CARRIER\_CLAIMS & OUTPATIENT\_CLAIMS: Track the VISIT\_OCCURENCE\_ID associated with record. |
| drug\_source\_concept\_id |  |  | RX: Translate NDC to NDC CONCEPT\_ID CARRIER\_CLAIMS & OUTPATIENT\_CLAIMS: Translated HCPC to HCPC CONCEPT\_ID |
| drug\_source\_value | hcpcs\_cd\_1 hcpcs\_cd\_2 hcpcs\_cd\_3 hcpcs\_cd\_4 hcpcs\_cd\_5 hcpcs\_cd\_6 hcpcs\_cd\_7 hcpcs\_cd\_8 hcpcs\_cd\_9 hcpcs\_cd\_10 hcpcs\_cd\_11 hcpcs\_cd\_12 hcpcs\_cd\_13 hcpcs\_cd\_14 hcpcs\_cd\_15 hcpcs\_cd\_16 hcpcs\_cd\_17 hcpcs\_cd\_18 hcpcs\_cd\_19 hcpcs\_cd\_20 hcpcs\_cd\_21 hcpcs\_cd\_22 hcpcs\_cd\_23 hcpcs\_cd\_24 hcpcs\_cd\_25 hcpcs\_cd\_26 hcpcs\_cd\_45 hcpcs\_cd\_44 hcpcs\_cd\_27 hcpcs\_cd\_43 hcpcs\_cd\_42 hcpcs\_cd\_41 hcpcs\_cd\_40 hcpcs\_cd\_39 hcpcs\_cd\_38 hcpcs\_cd\_37 hcpcs\_cd\_36 hcpcs\_cd\_35 hcpcs\_cd\_28 hcpcs\_cd\_29 hcpcs\_cd\_30 hcpcs\_cd\_31 hcpcs\_cd\_32 hcpcs\_cd\_33 hcpcs\_cd\_34 |  |  |
| route\_source\_value |  |  | NULL |
| dose\_unit\_source\_value |  |  | NULL |

Table name: device\_exposure

Reading from outpatient\_claims

For HCPCS columns, use VOCABULARY to determine if the HCPCS belongs to the PROCEDURE domain, else it will go to a DRUG or DEVICE. If the VOCABULARY determines the HCPCS belongs to the MEASUREMENT or OBSERVATION domain, keep HCPCS in the PROCEDURE\_OCCURRENCE table.
Logic: The MEASUREMENT and OBSERVATION CDM tables do not have cost tables associated with them. If HCPCS are mapped to these tables, the associated costs will be lost. Therefore, these HCPCS codes need to stay in the PROCEDURE\_OCCURRENCE table to preserve the associated costs.



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| device\_exposure\_id |  |  | Autogenerated |
| person\_id | desynpuf\_id |  |  |
| device\_concept\_id |  |  | Look up HCPC CONCEPT\_ID from VOCABULARY (if it is landing here, it should have a DOMAIN = "Device"). |
| device\_exposure\_start\_date | clm\_from\_dt |  | YYYYMMDD converted to date |
| device\_exposure\_end\_date | clm\_thru\_dt |  | YYYYMMDD converted to date |
| device\_type\_concept\_id |  |  | 44818705 Inferred from procedure claim |
| unique\_device\_id |  |  | Null |
| quantity |  |  | Null |
| provider\_id | at\_physn\_npi |  | OUTPATIENT\_CLAIMS: Lookup Provider in PROVIDER table. |
| visit\_occurrence\_id |  |  | At the row level you are assigning a VISIT, this occurs prior to writing to this table. Track that ID and write here. |
| device\_source\_value | hcpcs\_cd\_1 hcpcs\_cd\_2 hcpcs\_cd\_3 hcpcs\_cd\_4 hcpcs\_cd\_5 hcpcs\_cd\_6 hcpcs\_cd\_7 hcpcs\_cd\_8 hcpcs\_cd\_9 hcpcs\_cd\_10 hcpcs\_cd\_11 hcpcs\_cd\_12 hcpcs\_cd\_13 hcpcs\_cd\_14 hcpcs\_cd\_15 hcpcs\_cd\_16 hcpcs\_cd\_17 hcpcs\_cd\_18 hcpcs\_cd\_19 hcpcs\_cd\_20 hcpcs\_cd\_21 hcpcs\_cd\_45 hcpcs\_cd\_44 hcpcs\_cd\_43 hcpcs\_cd\_42 hcpcs\_cd\_41 hcpcs\_cd\_40 hcpcs\_cd\_39 hcpcs\_cd\_38 hcpcs\_cd\_37 hcpcs\_cd\_36 hcpcs\_cd\_35 hcpcs\_cd\_34 hcpcs\_cd\_33 hcpcs\_cd\_32 hcpcs\_cd\_31 hcpcs\_cd\_30 hcpcs\_cd\_29 hcpcs\_cd\_28 hcpcs\_cd\_27 hcpcs\_cd\_26 hcpcs\_cd\_25 hcpcs\_cd\_22 hcpcs\_cd\_23 hcpcs\_cd\_24 |  |  |
| device\_source\_concept\_id |  |  | Look up HCPC CONCEPT\_ID from VOCABULARY. |

Reading from carrier\_claims

For HCPCS columns, use VOCABULARY to determine if the HCPCS belongs to the PROCEDURE domain, else it will go to a DRUG or DEVICE. If the VOCABULARY determines the HCPCS belongs to the MEASUREMENT or OBSERVATION domain, keep HCPCS in the PROCEDURE\_OCCURRENCE table.
Logic: The MEASUREMENT and OBSERVATION CDM tables do not have cost tables associated with them. If HCPCS are mapped to these tables, the associated costs will be lost. Therefore, these HCPCS codes need to stay in the PROCEDURE\_OCCURRENCE table to preserve the associated costs.

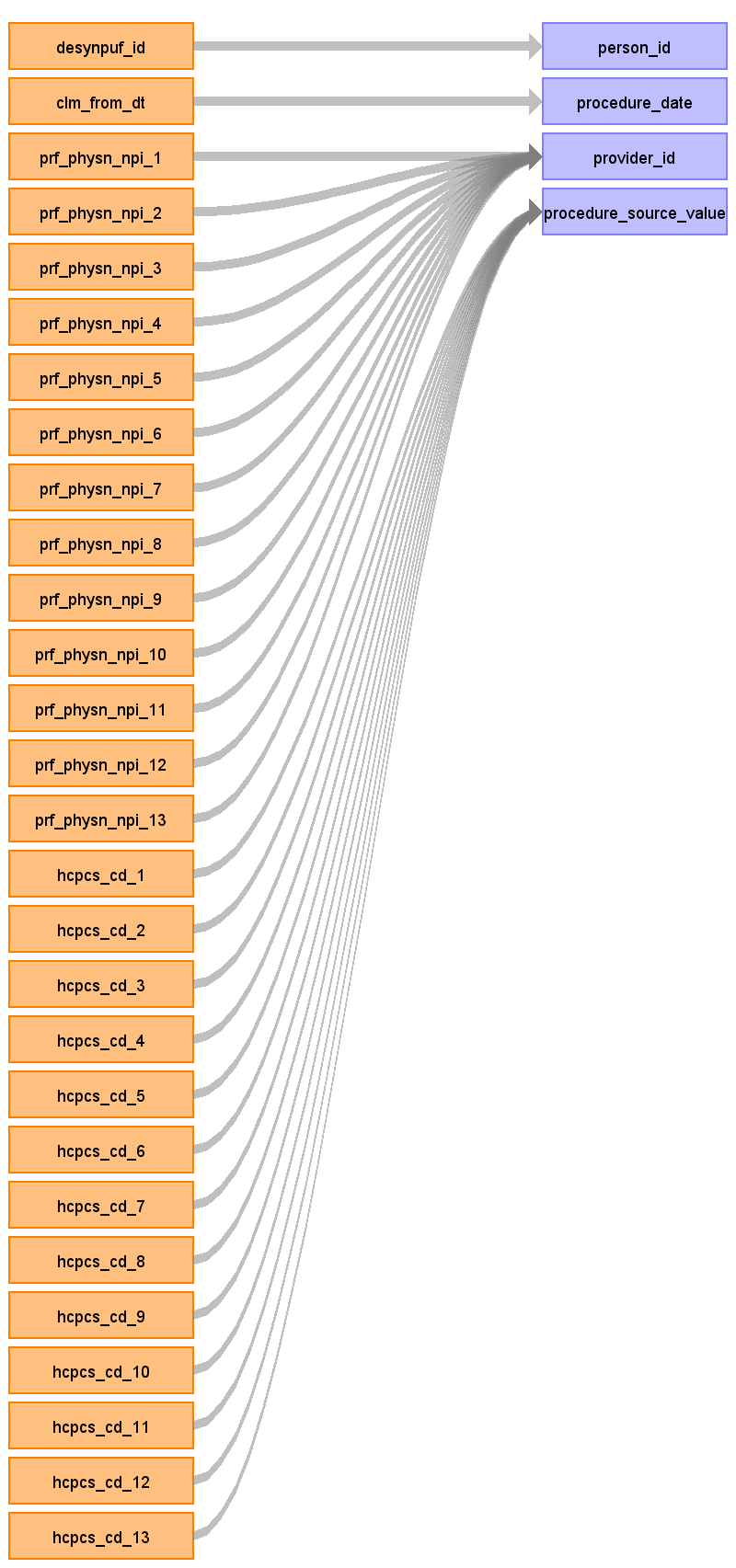


|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| device\_exposure\_id |  |  | Autogenerated |
| person\_id | desynpuf\_id |  |  |
| device\_concept\_id | hcpcs\_cd\_1 hcpcs\_cd\_2 hcpcs\_cd\_3 hcpcs\_cd\_4 hcpcs\_cd\_5 hcpcs\_cd\_6 hcpcs\_cd\_7 hcpcs\_cd\_8 hcpcs\_cd\_9 hcpcs\_cd\_10 hcpcs\_cd\_11 hcpcs\_cd\_12 hcpcs\_cd\_13 |  | Look up HCPC CONCEPT\_ID from VOCABULARY (if it is landing here, it should have a DOMAIN = "Device"). |
| device\_exposure\_start\_date | clm\_from\_dt |  | YYYYMMDD converted to date |
| device\_exposure\_end\_date | clm\_thru\_dt |  | YYYYMMDD converted to date |
| device\_type\_concept\_id |  |  | 44818705 Inferred from procedure claim |
| unique\_device\_id |  |  | Null |
| quantity |  |  | Null |
| provider\_id | prf\_physn\_npi\_1 prf\_physn\_npi\_2 prf\_physn\_npi\_3 prf\_physn\_npi\_4 prf\_physn\_npi\_5 prf\_physn\_npi\_6 prf\_physn\_npi\_7 prf\_physn\_npi\_8 prf\_physn\_npi\_9 prf\_physn\_npi\_10 prf\_physn\_npi\_11 prf\_physn\_npi\_12 prf\_physn\_npi\_13 |  | OUTPATIENT\_CLAIMS: Lookup Provider in PROVIDER table. |
| visit\_occurrence\_id |  |  | At the row level you are assigning a VISIT, this occurs prior to writing to this table. Track that ID and write here. |
| device\_source\_value | hcpcs\_cd\_1 hcpcs\_cd\_2 hcpcs\_cd\_3 hcpcs\_cd\_4 hcpcs\_cd\_5 hcpcs\_cd\_6 hcpcs\_cd\_7 hcpcs\_cd\_8 hcpcs\_cd\_9 hcpcs\_cd\_10 hcpcs\_cd\_12 hcpcs\_cd\_13 |  |  |
| device\_source\_concept\_id |  |  | Look up HCPC CONCEPT\_ID from VOCABULARY. |

Table name: procedure\_occurrence

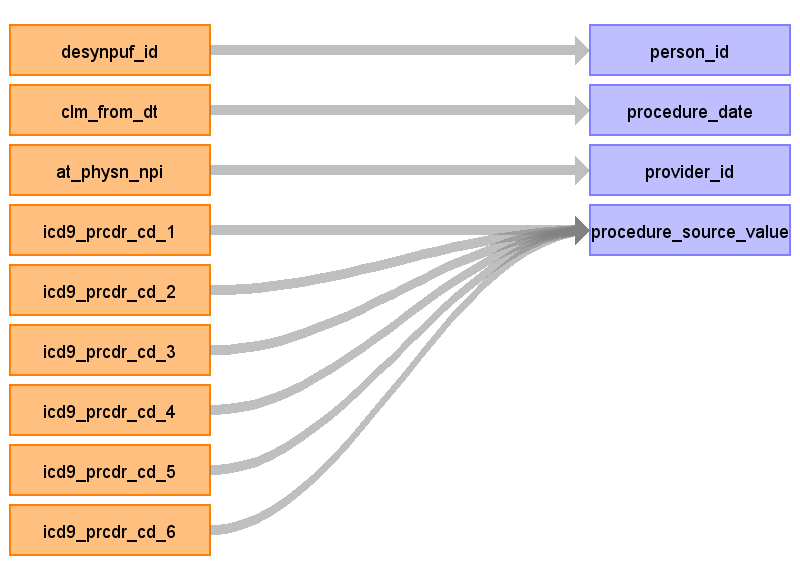
Reading from carrier\_claims

For HCPCS columns, use VOCABULARY to determine if the HCPCS belongs to the PROCEDURE domain, else it will go to a DRUG or DEVICE. If the VOCABULARY determines the HCPCS belongs to the MEASUREMENT or OBSERVATION domain, keep HCPCS in the PROCEDURE\_OCCURRENCE table.
Logic: The MEASUREMENT and OBSERVATION CDM tables do not have cost tables associated with them. If HCPCS are mapped to these tables, the associated costs will be lost. Therefore, these HCPCS codes need to stay in the PROCEDURE\_OCCURRENCE table to preserve the associated costs.



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| procedure\_occurrence\_id |  |  | Autogenerated |
| person\_id | desynpuf\_id |  |  |
| procedure\_concept\_id |  |  | In CARRIER\_CLAIMS & OUTPATIENT\_CLAIMS map to HCPC CONCEPT\_IDs. Only write rows for HCPCs that have a drug associated domain. IN INPATIENT\_CLAIMS map to ICD9 Procedures CONCEPT\_IDs. |
| procedure\_date | clm\_from\_dt | YYYYMMDD converted to date. | When CLM\_FROM\_DT != CLM\_THRU\_DT we do not know which date the procedure occured, we will default to the CLM\_FROM\_DT. |
| procedure\_type\_concept\_id |  |  | CARRIER\_CLAIMS (details) --HCPCS\_CD\_1 - 45756900-Carrier claim detail - 1st position --HCPCS\_CD\_2 - 45756901 Carrier claim detail - 2nd position --HCPCS\_CD\_3 - 45756902 Carrier claim detail - 3rd position --HCPCS\_CD\_4 - TBD45756903        Carrier claim detail - 4th position --HCPCS\_CD\_5 - TBD45756904        Carrier claim detail - 5th position --HCPCS\_CD\_6 - TBD45756905        Carrier claim detail - 6th position --HCPCS\_CD\_7 - TBD45756906        Carrier claim detail - 7th position --HCPCS\_CD\_8 - TBD45756907        Carrier claim detail - 8th position --HCPCS\_CD\_9 - TBD45756908        Carrier claim detail - 9th position --HCPCS\_CD\_10 - TBD45756909        Carrier claim detail - 10th position --HCPCS\_CD\_11 - TBD45756910        Carrier claim detail - 11th position --HCPCS\_CD\_12 - TBD45756911        Carrier claim detail - 12th position --HCPCS\_CD\_13 - TBD45756912        Carrier claim detail - 13th position INPATIENT\_CLAIMS: --ICD9\_PRCDR\_CD\_1 - 38000251-Inpatient header - 1st position --ICD9\_PRCDR\_CD\_2 - 38000252-Inpatient header - 2nd position --ICD9\_PRCDR\_CD\_3 - 38000253-Inpatient header - 3rd position --ICD9\_PRCDR\_CD\_4 - 38000254-Inpatient header - 4th position --ICD9\_PRCDR\_CD\_5 - 38000255-Inpatient header - 5th position --ICD9\_PRCDR\_CD\_6 - 38000256-Inpatient header - 6th position OUTPATIENT\_CLAIMS (DETAILS) --HCPCS\_CD\_1 - 38000267-Outpatient detail - 1st position --HCPCS\_CD\_2 - 45756856 Outpatient detail – 2nd position --HCPCS\_CD\_3 - 45756857 Outpatient detail – 3rd position --HCPCS\_CD\_4 - 45756858 Outpatient detail - 4th position --HCPCS\_CD\_5 - 45756859 Outpatient detail - 5th position --HCPCS\_CD\_6 - 45756860 Outpatient detail - 6th position --HCPCS\_CD\_7 - 45756861 Outpatient detail - 7th position --HCPCS\_CD\_8 - 45756862 Outpatient detail - 8th position --HCPCS\_CD\_9 - 45756863 Outpatient detail - 9th position --HCPCS\_CD\_10 - 45756864 Outpatient detail - 10th position --HCPCS\_CD\_11 - 45756865 Outpatient detail - 11th position --HCPCS\_CD\_12 - 45756866 Outpatient detail - 12th position --HCPCS\_CD\_13 - 45756867 Outpatient detail - 13th position --HCPCS\_CD\_14 - 45756868 Outpatient detail - 14th position --HCPCS\_CD\_15 - TBD45756869        Outpatient detail - 15th position --HCPCS\_CD\_16 - TBD45756870        Outpatient detail - 16th position --HCPCS\_CD\_17 - TBD45756871        Outpatient detail - 17th position --HCPCS\_CD\_18 - TBD45756872        Outpatient detail - 18th position --HCPCS\_CD\_19 - TBD45756873        Outpatient detail - 19th position --HCPCS\_CD\_20 - TBD45756874        Outpatient detail - 20th position --HCPCS\_CD\_21 - TBD45756875        Outpatient detail - 21th position --HCPCS\_CD\_22 - TBD45756876        Outpatient detail - 22th position --HCPCS\_CD\_23 - TBD45756877        Outpatient detail - 23th position --HCPCS\_CD\_24 - TBD45756878        Outpatient detail - 24th position --HCPCS\_CD\_25 - TBD45756879        Outpatient detail - 25th position --HCPCS\_CD\_26 - TBD45756880        Outpatient detail - 26th position --HCPCS\_CD\_27 - TBD45756881        Outpatient detail - 27th position --HCPCS\_CD\_28 - TBD45756882        Outpatient detail - 28th position --HCPCS\_CD\_29 - TBD45756883        Outpatient detail - 29th position --HCPCS\_CD\_30 - TBD45756884        Outpatient detail - 30th position --HCPCS\_CD\_31 - TBD45756885        Outpatient detail - 31th position --HCPCS\_CD\_32 - TBD45756886        Outpatient detail - 32th position --HCPCS\_CD\_33 - TBD45756887        Outpatient detail - 33th position --HCPCS\_CD\_34 - TBD45756888        Outpatient detail - 34th position --HCPCS\_CD\_35 - TBD45756889        Outpatient detail - 35th position --HCPCS\_CD\_36 - TBD45756890        Outpatient detail - 36th position --HCPCS\_CD\_37 - TBD45756891        Outpatient detail - 37th position --HCPCS\_CD\_38 - TBD45756892        Outpatient detail - 38th position --HCPCS\_CD\_39 - TBD45756893        Outpatient detail - 39th position --HCPCS\_CD\_40 - TBD45756894        Outpatient detail - 40th position --HCPCS\_CD\_41 - TBD45756895        Outpatient detail - 41th position --HCPCS\_CD\_42 - TBD45756896        Outpatient detail - 42th position --HCPCS\_CD\_43 - TBD45756897        Outpatient detail - 43th position --HCPCS\_CD\_44 - TBD45756898        Outpatient detail - 44th position --HCPCS\_CD\_45 - TBD45756899        Outpatient detail - 45th position |
| modifier\_concept\_id |  |  | 0 |
| quantity |  |  | NULL |
| provider\_id | prf\_physn\_npi\_1 prf\_physn\_npi\_2 prf\_physn\_npi\_3 prf\_physn\_npi\_4 prf\_physn\_npi\_5 prf\_physn\_npi\_6 prf\_physn\_npi\_7 prf\_physn\_npi\_8 prf\_physn\_npi\_9 prf\_physn\_npi\_10 prf\_physn\_npi\_11 prf\_physn\_npi\_12 prf\_physn\_npi\_13 | Lookup the NPI in the PROVIDER table and associate with the HCPC\_CD\_XX of the same number (e.g. pick PRF\_PHYSN\_NPI\_13 for the row written for HCPCS\_CD\_13) |  |
| visit\_occurrence\_id |  |  | Associate to proper VISIT\_OCCURRENCE\_ID. |
| procedure\_source\_value | hcpcs\_cd\_1 hcpcs\_cd\_2 hcpcs\_cd\_3 hcpcs\_cd\_4 hcpcs\_cd\_5 hcpcs\_cd\_6 hcpcs\_cd\_7 hcpcs\_cd\_8 hcpcs\_cd\_9 hcpcs\_cd\_10 hcpcs\_cd\_11 hcpcs\_cd\_12 hcpcs\_cd\_13 |  |  |
| procedure\_source\_concept\_id |  |  | In CARRIER\_CLAIMS & OUTPATIENT\_CLAIMS map to HCPC CONCEPT\_IDs. Only write rows for HCPCs that have a drug associated domain. IN INPATIENT\_CLAIMS map to ICD9 Procedures CONCEPT\_IDs. |
| qualifier\_source\_value |  |  | NULL |

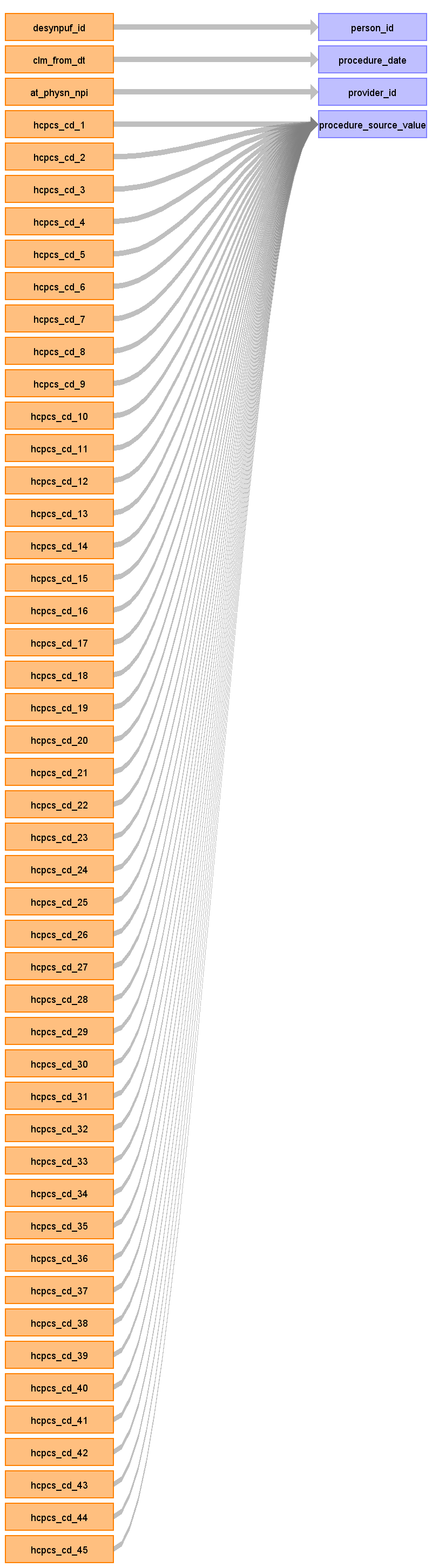
Reading from inpatient\_claims



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| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| procedure\_occurrence\_id |  |  | Autogenerated |
| person\_id | desynpuf\_id |  |  |
| procedure\_concept\_id |  |  | In CARRIER\_CLAIMS & OUTPATIENT\_CLAIMS map to HCPC CONCEPT\_IDs. Only write rows for HCPCs that have a drug associated domain. IN INPATIENT\_CLAIMS map to ICD9 Procedures CONCEPT\_IDs. |
| procedure\_date | clm\_from\_dt | YYYYMMDD converted to date. | When CLM\_FROM\_DT != CLM\_THRU\_DT we do not know which date the procedure occured, we will default to the CLM\_FROM\_DT. |
| procedure\_type\_concept\_id |  |  | CARRIER\_CLAIMS (details) --HCPCS\_CD\_1 - 45756900-Carrier claim detail - 1st position --HCPCS\_CD\_2 - 45756901 Carrier claim detail - 2nd position --HCPCS\_CD\_3 - 45756902 Carrier claim detail - 3rd position --HCPCS\_CD\_4 - TBD45756903        Carrier claim detail - 4th position --HCPCS\_CD\_5 - TBD45756904        Carrier claim detail - 5th position --HCPCS\_CD\_6 - TBD45756905        Carrier claim detail - 6th position --HCPCS\_CD\_7 - TBD45756906        Carrier claim detail - 7th position --HCPCS\_CD\_8 - TBD45756907        Carrier claim detail - 8th position --HCPCS\_CD\_9 - TBD45756908        Carrier claim detail - 9th position --HCPCS\_CD\_10 - TBD45756909        Carrier claim detail - 10th position --HCPCS\_CD\_11 - TBD45756910        Carrier claim detail - 11th position --HCPCS\_CD\_12 - TBD45756911        Carrier claim detail - 12th position --HCPCS\_CD\_13 - TBD45756912        Carrier claim detail - 13th position INPATIENT\_CLAIMS: --ICD9\_PRCDR\_CD\_1 - 38000251-Inpatient header - 1st position --ICD9\_PRCDR\_CD\_2 - 38000252-Inpatient header - 2nd position --ICD9\_PRCDR\_CD\_3 - 38000253-Inpatient header - 3rd position --ICD9\_PRCDR\_CD\_4 - 38000254-Inpatient header - 4th position --ICD9\_PRCDR\_CD\_5 - 38000255-Inpatient header - 5th position --ICD9\_PRCDR\_CD\_6 - 38000256-Inpatient header - 6th position OUTPATIENT\_CLAIMS (DETAILS) --HCPCS\_CD\_1 - 38000267-Outpatient detail - 1st position --HCPCS\_CD\_2 - 45756856 Outpatient detail – 2nd position --HCPCS\_CD\_3 - 45756857 Outpatient detail – 3rd position --HCPCS\_CD\_4 - 45756858 Outpatient detail - 4th position --HCPCS\_CD\_5 - 45756859 Outpatient detail - 5th position --HCPCS\_CD\_6 - 45756860 Outpatient detail - 6th position --HCPCS\_CD\_7 - 45756861 Outpatient detail - 7th position --HCPCS\_CD\_8 - 45756862 Outpatient detail - 8th position --HCPCS\_CD\_9 - 45756863 Outpatient detail - 9th position --HCPCS\_CD\_10 - 45756864 Outpatient detail - 10th position --HCPCS\_CD\_11 - 45756865 Outpatient detail - 11th position --HCPCS\_CD\_12 - 45756866 Outpatient detail - 12th position --HCPCS\_CD\_13 - 45756867 Outpatient detail - 13th position --HCPCS\_CD\_14 - 45756868 Outpatient detail - 14th position --HCPCS\_CD\_15 - TBD45756869        Outpatient detail - 15th position --HCPCS\_CD\_16 - TBD45756870        Outpatient detail - 16th position --HCPCS\_CD\_17 - TBD45756871        Outpatient detail - 17th position --HCPCS\_CD\_18 - TBD45756872        Outpatient detail - 18th position --HCPCS\_CD\_19 - TBD45756873        Outpatient detail - 19th position --HCPCS\_CD\_20 - TBD45756874        Outpatient detail - 20th position --HCPCS\_CD\_21 - TBD45756875        Outpatient detail - 21th position --HCPCS\_CD\_22 - TBD45756876        Outpatient detail - 22th position --HCPCS\_CD\_23 - TBD45756877        Outpatient detail - 23th position --HCPCS\_CD\_24 - TBD45756878        Outpatient detail - 24th position --HCPCS\_CD\_25 - TBD45756879        Outpatient detail - 25th position --HCPCS\_CD\_26 - TBD45756880        Outpatient detail - 26th position --HCPCS\_CD\_27 - TBD45756881        Outpatient detail - 27th position --HCPCS\_CD\_28 - TBD45756882        Outpatient detail - 28th position --HCPCS\_CD\_29 - TBD45756883        Outpatient detail - 29th position --HCPCS\_CD\_30 - TBD45756884        Outpatient detail - 30th position --HCPCS\_CD\_31 - TBD45756885        Outpatient detail - 31th position --HCPCS\_CD\_32 - TBD45756886        Outpatient detail - 32th position --HCPCS\_CD\_33 - TBD45756887        Outpatient detail - 33th position --HCPCS\_CD\_34 - TBD45756888        Outpatient detail - 34th position --HCPCS\_CD\_35 - TBD45756889        Outpatient detail - 35th position --HCPCS\_CD\_36 - TBD45756890        Outpatient detail - 36th position --HCPCS\_CD\_37 - TBD45756891        Outpatient detail - 37th position --HCPCS\_CD\_38 - TBD45756892        Outpatient detail - 38th position --HCPCS\_CD\_39 - TBD45756893        Outpatient detail - 39th position --HCPCS\_CD\_40 - TBD45756894        Outpatient detail - 40th position --HCPCS\_CD\_41 - TBD45756895        Outpatient detail - 41th position --HCPCS\_CD\_42 - TBD45756896        Outpatient detail - 42th position --HCPCS\_CD\_43 - TBD45756897        Outpatient detail - 43th position --HCPCS\_CD\_44 - TBD45756898        Outpatient detail - 44th position --HCPCS\_CD\_45 - TBD45756899        Outpatient detail - 45th position |
| modifier\_concept\_id |  |  | 0 |
| quantity |  |  | NULL |
| provider\_id | at\_physn\_npi |  |  |
| visit\_occurrence\_id |  |  | Associate to proper VISIT\_OCCURRENCE\_ID. |
| procedure\_source\_value | icd9\_prcdr\_cd\_1 icd9\_prcdr\_cd\_2 icd9\_prcdr\_cd\_3 icd9\_prcdr\_cd\_4 icd9\_prcdr\_cd\_5 icd9\_prcdr\_cd\_6 |  |  |
| procedure\_source\_concept\_id |  |  | In CARRIER\_CLAIMS & OUTPATIENT\_CLAIMS map to HCPC CONCEPT\_IDs. Only write rows for HCPCs that have a drug associated domain. IN INPATIENT\_CLAIMS map to ICD9 Procedures CONCEPT\_IDs. |
| qualifier\_source\_value |  |  | NULL |

Reading from outpatient\_claims

For HCPCS columns, use VOCABULARY to determine if the HCPCS belongs to the PROCEDURE domain, else it will go to a DRUG or DEVICE. If the VOCABULARY determines the HCPCS belongs to the MEASUREMENT or OBSERVATION domain, keep HCPCS in the PROCEDURE\_OCCURRENCE table.
Logic: The MEASUREMENT and OBSERVATION CDM tables do not have cost tables associated with them. If HCPCS are mapped to these tables, the associated costs will be lost. Therefore, these HCPCS codes need to stay in the PROCEDURE\_OCCURRENCE table to preserve the associated costs.

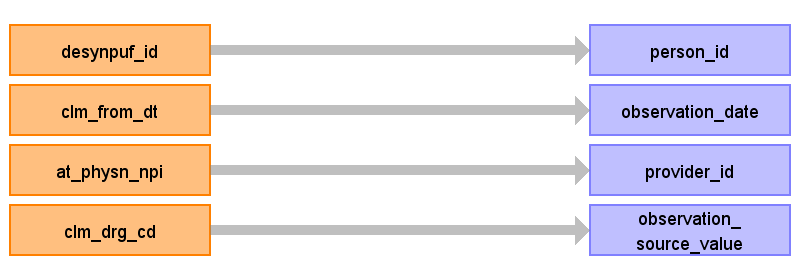


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| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| procedure\_occurrence\_id |  |  | Autogenerated |
| person\_id | desynpuf\_id |  |  |
| procedure\_concept\_id |  |  | In CARRIER\_CLAIMS & OUTPATIENT\_CLAIMS map to HCPC CONCEPT\_IDs. Only write rows for HCPCs that have a drug associated domain. IN INPATIENT\_CLAIMS map to ICD9 Procedures CONCEPT\_IDs. |
| procedure\_date | clm\_from\_dt | YYYYMMDD converted to date. | When CLM\_FROM\_DT != CLM\_THRU\_DT we do not know which date the procedure occured, we will default to the CLM\_FROM\_DT. |
| procedure\_type\_concept\_id |  |  | CARRIER\_CLAIMS (details) --HCPCS\_CD\_1 - 45756900-Carrier claim detail - 1st position --HCPCS\_CD\_2 - 45756901 Carrier claim detail - 2nd position --HCPCS\_CD\_3 - 45756902 Carrier claim detail - 3rd position --HCPCS\_CD\_4 - TBD45756903        Carrier claim detail - 4th position --HCPCS\_CD\_5 - TBD45756904        Carrier claim detail - 5th position --HCPCS\_CD\_6 - TBD45756905        Carrier claim detail - 6th position --HCPCS\_CD\_7 - TBD45756906        Carrier claim detail - 7th position --HCPCS\_CD\_8 - TBD45756907        Carrier claim detail - 8th position --HCPCS\_CD\_9 - TBD45756908        Carrier claim detail - 9th position --HCPCS\_CD\_10 - TBD45756909        Carrier claim detail - 10th position --HCPCS\_CD\_11 - TBD45756910        Carrier claim detail - 11th position --HCPCS\_CD\_12 - TBD45756911        Carrier claim detail - 12th position --HCPCS\_CD\_13 - TBD45756912        Carrier claim detail - 13th position INPATIENT\_CLAIMS: --ICD9\_PRCDR\_CD\_1 - 38000251-Inpatient header - 1st position --ICD9\_PRCDR\_CD\_2 - 38000252-Inpatient header - 2nd position --ICD9\_PRCDR\_CD\_3 - 38000253-Inpatient header - 3rd position --ICD9\_PRCDR\_CD\_4 - 38000254-Inpatient header - 4th position --ICD9\_PRCDR\_CD\_5 - 38000255-Inpatient header - 5th position --ICD9\_PRCDR\_CD\_6 - 38000256-Inpatient header - 6th position OUTPATIENT\_CLAIMS (DETAILS) --HCPCS\_CD\_1 - 38000267-Outpatient detail - 1st position --HCPCS\_CD\_2 - 45756856 Outpatient detail – 2nd position --HCPCS\_CD\_3 - 45756857 Outpatient detail – 3rd position --HCPCS\_CD\_4 - 45756858 Outpatient detail - 4th position --HCPCS\_CD\_5 - 45756859 Outpatient detail - 5th position --HCPCS\_CD\_6 - 45756860 Outpatient detail - 6th position --HCPCS\_CD\_7 - 45756861 Outpatient detail - 7th position --HCPCS\_CD\_8 - 45756862 Outpatient detail - 8th position --HCPCS\_CD\_9 - 45756863 Outpatient detail - 9th position --HCPCS\_CD\_10 - 45756864 Outpatient detail - 10th position --HCPCS\_CD\_11 - 45756865 Outpatient detail - 11th position --HCPCS\_CD\_12 - 45756866 Outpatient detail - 12th position --HCPCS\_CD\_13 - 45756867 Outpatient detail - 13th position --HCPCS\_CD\_14 - 45756868 Outpatient detail - 14th position --HCPCS\_CD\_15 - TBD45756869        Outpatient detail - 15th position --HCPCS\_CD\_16 - TBD45756870        Outpatient detail - 16th position --HCPCS\_CD\_17 - TBD45756871        Outpatient detail - 17th position --HCPCS\_CD\_18 - TBD45756872        Outpatient detail - 18th position --HCPCS\_CD\_19 - TBD45756873        Outpatient detail - 19th position --HCPCS\_CD\_20 - TBD45756874        Outpatient detail - 20th position --HCPCS\_CD\_21 - TBD45756875        Outpatient detail - 21th position --HCPCS\_CD\_22 - TBD45756876        Outpatient detail - 22th position --HCPCS\_CD\_23 - TBD45756877        Outpatient detail - 23th position --HCPCS\_CD\_24 - TBD45756878        Outpatient detail - 24th position --HCPCS\_CD\_25 - TBD45756879        Outpatient detail - 25th position --HCPCS\_CD\_26 - TBD45756880        Outpatient detail - 26th position --HCPCS\_CD\_27 - TBD45756881        Outpatient detail - 27th position --HCPCS\_CD\_28 - TBD45756882        Outpatient detail - 28th position --HCPCS\_CD\_29 - TBD45756883        Outpatient detail - 29th position --HCPCS\_CD\_30 - TBD45756884        Outpatient detail - 30th position --HCPCS\_CD\_31 - TBD45756885        Outpatient detail - 31th position --HCPCS\_CD\_32 - TBD45756886        Outpatient detail - 32th position --HCPCS\_CD\_33 - TBD45756887        Outpatient detail - 33th position --HCPCS\_CD\_34 - TBD45756888        Outpatient detail - 34th position --HCPCS\_CD\_35 - TBD45756889        Outpatient detail - 35th position --HCPCS\_CD\_36 - TBD45756890        Outpatient detail - 36th position --HCPCS\_CD\_37 - TBD45756891        Outpatient detail - 37th position --HCPCS\_CD\_38 - TBD45756892        Outpatient detail - 38th position --HCPCS\_CD\_39 - TBD45756893        Outpatient detail - 39th position --HCPCS\_CD\_40 - TBD45756894        Outpatient detail - 40th position --HCPCS\_CD\_41 - TBD45756895        Outpatient detail - 41th position --HCPCS\_CD\_42 - TBD45756896        Outpatient detail - 42th position --HCPCS\_CD\_43 - TBD45756897        Outpatient detail - 43th position --HCPCS\_CD\_44 - TBD45756898        Outpatient detail - 44th position --HCPCS\_CD\_45 - TBD45756899        Outpatient detail - 45th position |
| modifier\_concept\_id |  |  | 0 |
| quantity |  |  | NULL |
| provider\_id | at\_physn\_npi |  |  |
| visit\_occurrence\_id |  |  | Associate to proper VISIT\_OCCURRENCE\_ID. |
| procedure\_source\_value | hcpcs\_cd\_1 hcpcs\_cd\_45 hcpcs\_cd\_2 hcpcs\_cd\_3 hcpcs\_cd\_4 hcpcs\_cd\_5 hcpcs\_cd\_6 hcpcs\_cd\_7 hcpcs\_cd\_8 hcpcs\_cd\_9 hcpcs\_cd\_10 hcpcs\_cd\_11 hcpcs\_cd\_12 hcpcs\_cd\_13 hcpcs\_cd\_14 hcpcs\_cd\_15 hcpcs\_cd\_16 hcpcs\_cd\_17 hcpcs\_cd\_18 hcpcs\_cd\_19 hcpcs\_cd\_20 hcpcs\_cd\_21 hcpcs\_cd\_22 hcpcs\_cd\_44 hcpcs\_cd\_43 hcpcs\_cd\_42 hcpcs\_cd\_41 hcpcs\_cd\_40 hcpcs\_cd\_39 hcpcs\_cd\_38 hcpcs\_cd\_37 hcpcs\_cd\_36 hcpcs\_cd\_35 hcpcs\_cd\_34 hcpcs\_cd\_33 hcpcs\_cd\_32 hcpcs\_cd\_23 hcpcs\_cd\_24 hcpcs\_cd\_25 hcpcs\_cd\_26 hcpcs\_cd\_27 hcpcs\_cd\_28 hcpcs\_cd\_29 hcpcs\_cd\_30 hcpcs\_cd\_31 |  |  |
| procedure\_source\_concept\_id |  |  | In CARRIER\_CLAIMS & OUTPATIENT\_CLAIMS map to HCPC CONCEPT\_IDs. Only write rows for HCPCs that have a drug associated domain. IN INPATIENT\_CLAIMS map to ICD9 Procedures CONCEPT\_IDs. |
| qualifier\_source\_value |  |  | NULL |

Table name: measurement

Table name: observation

Reading from inpatient\_claims



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| observation\_id |  |  | autogenerated |
| person\_id | desynpuf\_id |  |  |
| observation\_concept\_id |  |  | Use DRG concept IDs |
| observation\_date | clm\_from\_dt | YYYYMMDD converted to date. |  |
| observation\_time |  |  | NULL |
| observation\_type\_concept\_id |  |  | 38000282-Chief complaint |
| value\_as\_number |  |  | NULL |
| value\_as\_string |  |  | NULL |
| value\_as\_concept\_id |  |  | 0 |
| qualifier\_concept\_id |  |  | 0 |
| unit\_concept\_id |  |  | 0 |
| provider\_id | at\_physn\_npi |  |  |
| visit\_occurrence\_id |  |  | Track this as writing records. |
| observation\_source\_value | clm\_drg\_cd |  |  |
| observation\_source\_concept\_id |  |  | Convert DRG to CONCEPT\_ID, look for the source DRG in the CONCEPT.CONCEPT\_CODE and use the CLM\_FROM\_DT to determine the appropriate DRG to select. |
| unit\_source\_value |  |  | NULL |
| qualifier\_source\_value |  |  | NULL |

Table name: note

Table name: specimen

Table name: fact\_relationship

Reading from carrier\_claims

(1) CARE\_SITE --> PROCEDURE\_OCCURRENCE
--DOMAIN\_CONCEPT\_ID\_1 = 57-Care site
--FACT\_ID\_1= (TAX\_NUM\_1 to TAX\_NUM\_13)
--DOMAIN\_CONCEPT\_ID\_2 = 10-Procedure
--FACT\_ID\_2 = (HCPC\_CODE\_1 to HCPC\_CODE\_13)
--RELATIONSHIP\_CONCEPT\_ID = 44818841-Procedure site of (SNOMED)
(2) CONDITION\_OCCURRENCE --> PROCEDURE\_OCCURRENCE
--DOMAIN\_CONCEPT\_ID\_1 = 19-Condition
--FACT\_ID\_1= (LINE\_DGNS\_CD\_1 to LINE\_DGNS\_CD\_13)
--DOMAIN\_CONCEPT\_ID\_2 = 10-Procedure
--FACT\_ID\_2 = (HCPC\_CODE\_1 to HCPC\_CODE\_13)
--RELATIONSHIP\_CONCEPT\_ID = 44818784-Has associated procedure (SNOMED)

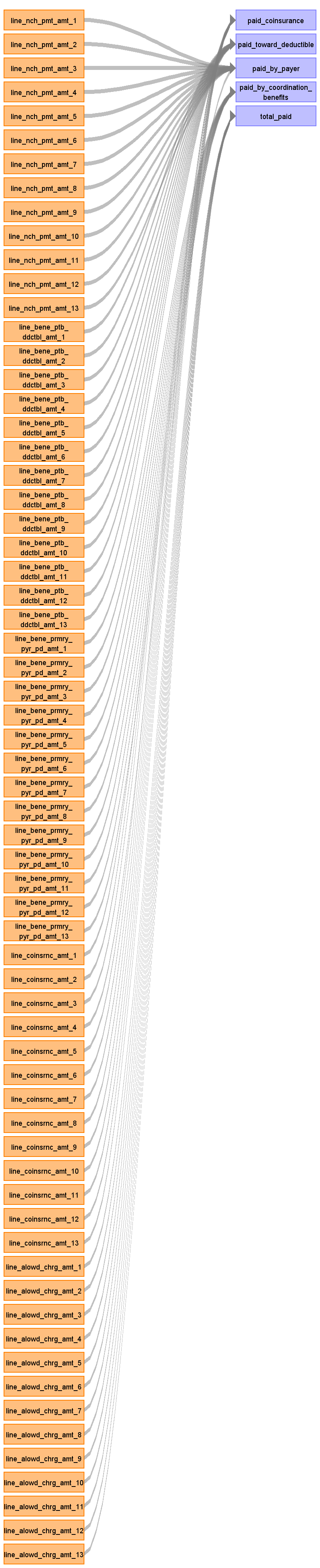
for the FACT\_ID, this is for the related CONDITON\_OCCURRENCE\_ID, PROCEDURE\_OCCURRENCE\_ID or CARE\_SITE\_ID.

Generated

|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| domain\_concept\_id\_1 |  |  |  |
| fact\_id\_1 |  |  |  |
| domain\_concept\_id\_2 |  |  |  |
| fact\_id\_2 |  |  |  |
| relationship\_concept\_id |  |  |  |

Table name: procedure\_cost

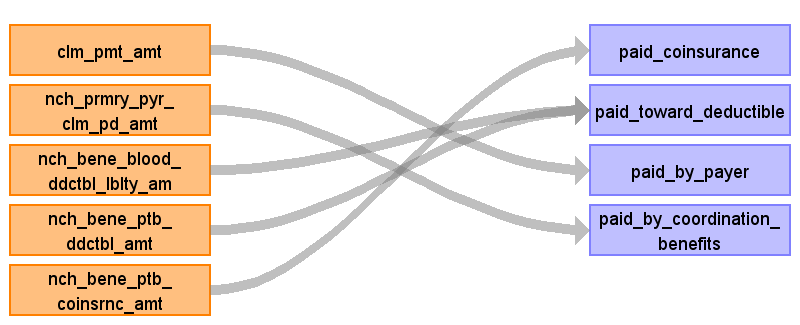
Reading from carrier\_claims



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| procedure\_cost\_id |  |  | autogenerated |
| procedure\_occurrence\_id |  |  | Once the records for the procedures are written to the PROCEDURE\_OCCURRENCE table, then you'll be able to use that autogenerated ID for this column. |
| currency\_concept\_id |  |  | 44818668-United States dollar |
| paid\_copay |  |  | Null |
| paid\_coinsurance | line\_coinsrnc\_amt\_1 line\_coinsrnc\_amt\_2 line\_coinsrnc\_amt\_3 line\_coinsrnc\_amt\_13 line\_coinsrnc\_amt\_5 line\_coinsrnc\_amt\_6 line\_coinsrnc\_amt\_7 line\_coinsrnc\_amt\_8 line\_coinsrnc\_amt\_9 line\_coinsrnc\_amt\_10 line\_coinsrnc\_amt\_11 line\_coinsrnc\_amt\_12 |  |  |
| paid\_toward\_deductible | line\_bene\_ptb\_ddctbl\_amt\_1 line\_bene\_ptb\_ddctbl\_amt\_2 line\_bene\_ptb\_ddctbl\_amt\_3 line\_bene\_ptb\_ddctbl\_amt\_4 line\_bene\_ptb\_ddctbl\_amt\_5 line\_bene\_ptb\_ddctbl\_amt\_6 line\_bene\_ptb\_ddctbl\_amt\_7 line\_bene\_ptb\_ddctbl\_amt\_8 line\_bene\_ptb\_ddctbl\_amt\_9 line\_bene\_ptb\_ddctbl\_amt\_10 line\_bene\_ptb\_ddctbl\_amt\_11 line\_bene\_ptb\_ddctbl\_amt\_12 line\_bene\_ptb\_ddctbl\_amt\_13 |  |  |
| paid\_by\_payer | line\_nch\_pmt\_amt\_1 line\_nch\_pmt\_amt\_2 line\_nch\_pmt\_amt\_3 line\_nch\_pmt\_amt\_4 line\_nch\_pmt\_amt\_5 line\_nch\_pmt\_amt\_6 line\_nch\_pmt\_amt\_7 line\_nch\_pmt\_amt\_8 line\_nch\_pmt\_amt\_9 line\_nch\_pmt\_amt\_10 line\_nch\_pmt\_amt\_11 line\_nch\_pmt\_amt\_12 line\_nch\_pmt\_amt\_13 line\_coinsrnc\_amt\_4 |  |  |
| paid\_by\_coordination\_benefits | line\_bene\_prmry\_pyr\_pd\_amt\_1 line\_bene\_prmry\_pyr\_pd\_amt\_2 line\_bene\_prmry\_pyr\_pd\_amt\_3 line\_bene\_prmry\_pyr\_pd\_amt\_4 line\_bene\_prmry\_pyr\_pd\_amt\_5 line\_bene\_prmry\_pyr\_pd\_amt\_6 line\_bene\_prmry\_pyr\_pd\_amt\_7 line\_bene\_prmry\_pyr\_pd\_amt\_8 line\_bene\_prmry\_pyr\_pd\_amt\_9 line\_bene\_prmry\_pyr\_pd\_amt\_10 line\_bene\_prmry\_pyr\_pd\_amt\_11 line\_bene\_prmry\_pyr\_pd\_amt\_12 line\_bene\_prmry\_pyr\_pd\_amt\_13 |  |  |
| total\_out\_of\_pocket |  |  | PAID\_TOWARD\_DEDUCTIBLE + PAID\_COINSURANCE |
| total\_paid | line\_alowd\_chrg\_amt\_1 line\_alowd\_chrg\_amt\_2 line\_alowd\_chrg\_amt\_3 line\_alowd\_chrg\_amt\_4 line\_alowd\_chrg\_amt\_5 line\_alowd\_chrg\_amt\_6 line\_alowd\_chrg\_amt\_7 line\_alowd\_chrg\_amt\_8 line\_alowd\_chrg\_amt\_9 line\_alowd\_chrg\_amt\_10 line\_alowd\_chrg\_amt\_11 line\_alowd\_chrg\_amt\_12 line\_alowd\_chrg\_amt\_13 |  |  |
| revenue\_code\_concept\_id |  |  | 0 |
| payer\_plan\_period\_id |  |  | CARRIER\_CLAIMS: Lookup to the PAYER\_PLAN\_PERIOD table, the default it to select PART B. |
| revenue\_code\_source\_value |  |  | NULL |

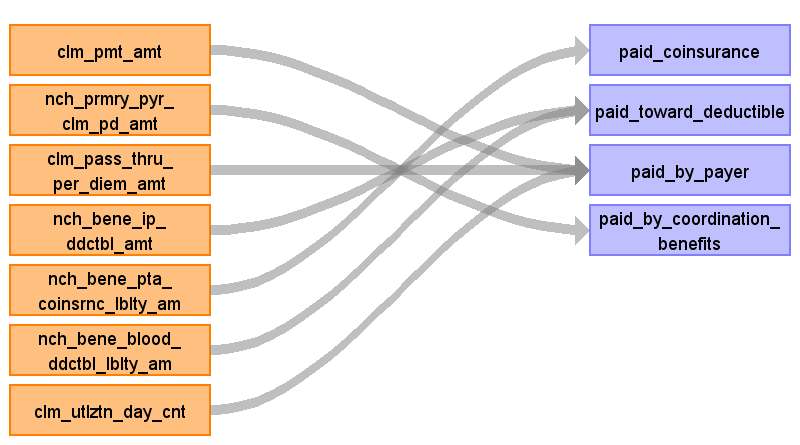
Table name: visit\_cost

Reading from outpatient\_claims



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| visit\_cost\_id |  |  | Autogenerated |
| visit\_occurrence\_id |  |  | Maintain the VISIT\_OCCURRENCE\_ID as you are pulling the information from this table and write it here. |
| currency\_concept\_id |  |  | 44818668-United States dollar |
| paid\_copay |  |  | Null |
| paid\_coinsurance | nch\_bene\_ptb\_coinsrnc\_amt |  |  |
| paid\_toward\_deductible | nch\_bene\_ptb\_ddctbl\_amt nch\_bene\_blood\_ddctbl\_lblty\_am |  | Inpatient Claims: PAID\_TOWARD\_DEDUCTIBLE + NCH\_BENE\_BLOOD\_DDCTBLE\_LBLTY\_AM Outpatient Claims: (NCH\_BENE\_BLOOD\_DDCTBL\_LBLTY\_AM + NCH\_BENE\_PTB\_DDCTBL\_AMT) |
| paid\_by\_payer | clm\_pmt\_amt |  | Inpatient Claims: CLM\_PMT\_AMT + (CLM\_UTLZTN\_DAY\_CNT \* CLM\_PASS\_THRU\_PER\_DIEM\_AMT) |
| paid\_by\_coordination\_benefits | nch\_prmry\_pyr\_clm\_pd\_amt |  |  |
| total\_out\_of\_pocket |  |  | sum of CDM tables (PAID\_COINSURANCE + PAID\_TOWARD\_DEDUCTIBLE) |
| total\_paid |  |  | sum of CDM tables (PAID\_BY\_PAYER + PAID\_BY\_COORDINATION\_BENEFITS + TOTAL\_OUT\_OF\_POCKET) |
| payer\_plan\_period\_id |  |  | Lookup the PAYER\_PLAN\_PERIOD, but for INPATIENT\_CLAIMS we will default to PARTA for OUTPATIENT\_CLAIMS we will default to PARTB ELSE NULL. |

Reading from inpatient\_claims



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| visit\_cost\_id |  |  | Autogenerated |
| visit\_occurrence\_id |  |  | Maintain the VISIT\_OCCURRENCE\_ID as you are pulling the information from this table and write it here. |
| currency\_concept\_id |  |  | 44818668-United States dollar |
| paid\_copay |  |  | Null |
| paid\_coinsurance | nch\_bene\_pta\_coinsrnc\_lblty\_am |  |  |
| paid\_toward\_deductible | nch\_bene\_ip\_ddctbl\_amt nch\_bene\_blood\_ddctbl\_lblty\_am |  | Inpatient Claims: PAID\_TOWARD\_DEDUCTIBLE + NCH\_BENE\_BLOOD\_DDCTBLE\_LBLTY\_AM Outpatient Claims: (NCH\_BENE\_BLOOD\_DDCTBL\_LBLTY\_AM + NCH\_BENE\_PTB\_DDCTBL\_AMT) |
| paid\_by\_payer | clm\_utlztn\_day\_cnt clm\_pass\_thru\_per\_diem\_amt clm\_pmt\_amt |  | Inpatient Claims: CLM\_PMT\_AMT + (CLM\_UTLZTN\_DAY\_CNT \* CLM\_PASS\_THRU\_PER\_DIEM\_AMT) |
| paid\_by\_coordination\_benefits | nch\_prmry\_pyr\_clm\_pd\_amt |  |  |
| total\_out\_of\_pocket |  |  | sum of CDM tables (PAID\_COINSURANCE + PAID\_TOWARD\_DEDUCTIBLE) |
| total\_paid |  |  | sum of CDM tables (PAID\_BY\_PAYER + PAID\_BY\_COORDINATION\_BENEFITS + TOTAL\_OUT\_OF\_POCKET) |
| payer\_plan\_period\_id |  |  | Lookup the PAYER\_PLAN\_PERIOD, but for INPATIENT\_CLAIMS we will default to PARTA for OUTPATIENT\_CLAIMS we will default to PARTB ELSE NULL. |

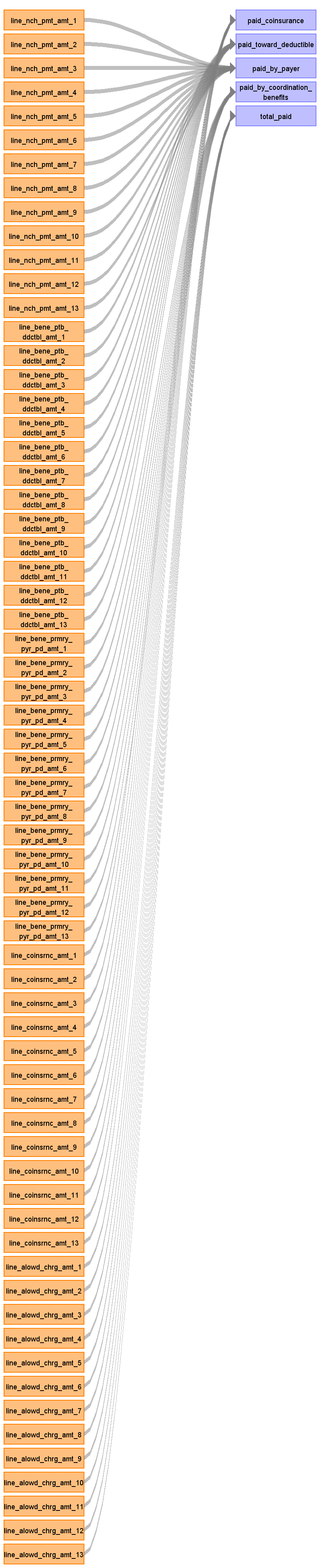
Table name: drug\_cost

Reading from prescription\_drug\_events



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| drug\_cost\_id |  |  | Autogenerated |
| drug\_exposure\_id |  |  | When pulling record into DRUG\_EXPOSURE keep track of that ID generated before writing to DRUG\_COST table. |
| currency\_concept\_id |  |  | 44818668-United States dollar |
| paid\_copay |  |  | NULL |
| paid\_coinsurance | ptnt\_pay\_amt |  |  |
| paid\_toward\_deductible |  |  | PRESCRIPTION\_DRUG\_EVENTS: Null |
| paid\_by\_payer |  |  | PRESCRIPTION\_DRUG\_EVENTS: Null |
| paid\_by\_coordination\_benefits |  |  | PRESCRIPTION\_DRUG\_EVENTS: Null |
| total\_out\_of\_pocket |  |  | SUM of CDM tables (PAID\_COINSURANCE + PAID\_TOWARD\_DEDUCTIBLE) |
| total\_paid | tot\_rx\_cst\_amt |  | CARRIER\_CLAIMS: We are using the allowed amounts here and not the sum of PAID\_BY\_COORDINATION\_BENEFITS, PAID\_BY\_PAYER, and TOTAL\_OUT\_OF\_POCKET. |
| ingredient\_cost |  |  | Null |
| dispensing\_fee |  |  | Null |
| average\_wholesale\_price |  |  | Null |
| payer\_plan\_period\_id |  |  | CARRIER\_CLAIMS: Lookup in the PAYER\_PLAN\_PERIOD table for a PARTB plan, ELSE NULL PRESCRIPTION\_DRUG\_EVENTS: Lookup in the PAYER\_PLAN\_PERIOD table for a PARTD plan, ELSE NULL. |

Reading from carrier\_claims



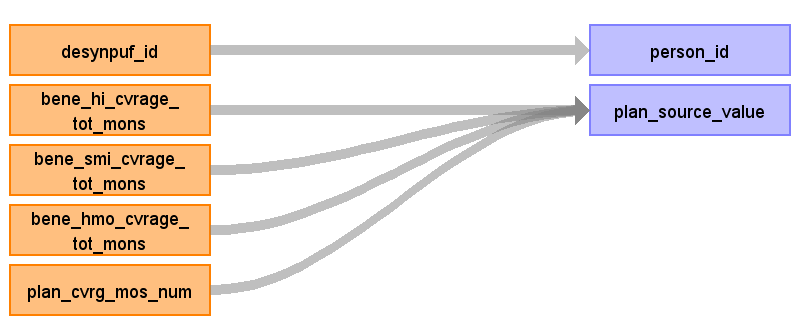
|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| drug\_cost\_id |  |  | Autogenerated |
| drug\_exposure\_id |  |  | When pulling record into DRUG\_EXPOSURE keep track of that ID generated before writing to DRUG\_COST table. |
| currency\_concept\_id |  |  | 44818668-United States dollar |
| paid\_copay |  |  | NULL |
| paid\_coinsurance | line\_coinsrnc\_amt\_1 line\_coinsrnc\_amt\_2 line\_coinsrnc\_amt\_3 line\_coinsrnc\_amt\_4 line\_coinsrnc\_amt\_5 line\_coinsrnc\_amt\_6 line\_coinsrnc\_amt\_7 line\_coinsrnc\_amt\_8 line\_coinsrnc\_amt\_9 line\_coinsrnc\_amt\_10 line\_coinsrnc\_amt\_11 line\_coinsrnc\_amt\_12 line\_coinsrnc\_amt\_13 |  |  |
| paid\_toward\_deductible | line\_bene\_ptb\_ddctbl\_amt\_1 line\_bene\_ptb\_ddctbl\_amt\_2 line\_bene\_ptb\_ddctbl\_amt\_3 line\_bene\_ptb\_ddctbl\_amt\_4 line\_bene\_ptb\_ddctbl\_amt\_5 line\_bene\_ptb\_ddctbl\_amt\_6 line\_bene\_ptb\_ddctbl\_amt\_7 line\_bene\_ptb\_ddctbl\_amt\_8 line\_bene\_ptb\_ddctbl\_amt\_9 line\_bene\_ptb\_ddctbl\_amt\_10 line\_bene\_ptb\_ddctbl\_amt\_11 line\_bene\_ptb\_ddctbl\_amt\_12 line\_bene\_ptb\_ddctbl\_amt\_13 |  | PRESCRIPTION\_DRUG\_EVENTS: Null |
| paid\_by\_payer | line\_nch\_pmt\_amt\_1 line\_nch\_pmt\_amt\_2 line\_nch\_pmt\_amt\_3 line\_nch\_pmt\_amt\_4 line\_nch\_pmt\_amt\_5 line\_nch\_pmt\_amt\_6 line\_nch\_pmt\_amt\_7 line\_nch\_pmt\_amt\_8 line\_nch\_pmt\_amt\_9 line\_nch\_pmt\_amt\_10 line\_nch\_pmt\_amt\_11 line\_nch\_pmt\_amt\_12 line\_nch\_pmt\_amt\_13 |  | PRESCRIPTION\_DRUG\_EVENTS: Null |
| paid\_by\_coordination\_benefits | line\_bene\_prmry\_pyr\_pd\_amt\_1 line\_bene\_prmry\_pyr\_pd\_amt\_2 line\_bene\_prmry\_pyr\_pd\_amt\_3 line\_bene\_prmry\_pyr\_pd\_amt\_4 line\_bene\_prmry\_pyr\_pd\_amt\_5 line\_bene\_prmry\_pyr\_pd\_amt\_6 line\_bene\_prmry\_pyr\_pd\_amt\_7 line\_bene\_prmry\_pyr\_pd\_amt\_8 line\_bene\_prmry\_pyr\_pd\_amt\_9 line\_bene\_prmry\_pyr\_pd\_amt\_10 line\_bene\_prmry\_pyr\_pd\_amt\_11 line\_bene\_prmry\_pyr\_pd\_amt\_12 line\_bene\_prmry\_pyr\_pd\_amt\_13 |  | PRESCRIPTION\_DRUG\_EVENTS: Null |
| total\_out\_of\_pocket |  |  | SUM of CDM tables (PAID\_COINSURANCE + PAID\_TOWARD\_DEDUCTIBLE) |
| total\_paid | line\_alowd\_chrg\_amt\_1 line\_alowd\_chrg\_amt\_2 line\_alowd\_chrg\_amt\_3 line\_alowd\_chrg\_amt\_13 line\_alowd\_chrg\_amt\_12 line\_alowd\_chrg\_amt\_4 line\_alowd\_chrg\_amt\_5 line\_alowd\_chrg\_amt\_6 line\_alowd\_chrg\_amt\_7 line\_alowd\_chrg\_amt\_8 line\_alowd\_chrg\_amt\_11 line\_alowd\_chrg\_amt\_9 line\_alowd\_chrg\_amt\_10 |  | CARRIER\_CLAIMS: We are using the allowed amounts here and not the sum of PAID\_BY\_COORDINATION\_BENEFITS, PAID\_BY\_PAYER, and TOTAL\_OUT\_OF\_POCKET. |
| ingredient\_cost |  |  | Null |
| dispensing\_fee |  |  | Null |
| average\_wholesale\_price |  |  | Null |
| payer\_plan\_period\_id |  |  | CARRIER\_CLAIMS: Lookup in the PAYER\_PLAN\_PERIOD table for a PARTB plan, ELSE NULL PRESCRIPTION\_DRUG\_EVENTS: Lookup in the PAYER\_PLAN\_PERIOD table for a PARTD plan, ELSE NULL. |

Table name: payer\_plan\_period

Reading from beneficiary\_summary

We are going to look at birth and death date.
We know which months they had claims.
We know how many months they had coverages.
If MONTH = 0 they were not enrolled for that year.
IF MONTH > 0 then they were enrolled.
MONTH = any of these variables: BENE\_HI\_CVRAGE\_TOT\_MONS, BENE\_SMI\_CVRAGE\_TOT\_MONS, BENE\_HMO\_CVRAGE\_TOT\_MONS, PLAN\_CVRG\_MONS\_NUM
We will use the birth and death to correct the tails.
birth = BENE\_BIRTH\_DT
death = BENE\_DEATH\_DT
We need to knit the records together the years.

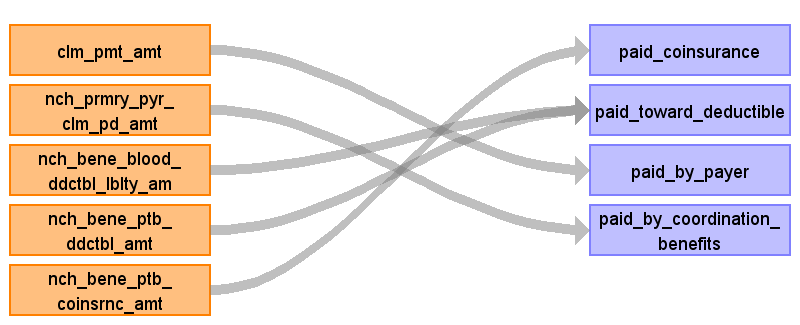
We will have overlapping payer plan periods.



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| payer\_plan\_period\_id |  |  |  |
| person\_id | desynpuf\_id |  |  |
| payer\_plan\_period\_start\_date |  |  | If MONTH = 0 they were not enrolled for that year. IF MONTH > 0 then they were enrolled (for 2008 file date = January 1, 2008) MONTH = any of these variables: BENE\_HI\_CVRAGE\_TOT\_MONS, BENE\_SMI\_CVRAGE\_TOT\_MONS, BENE\_HMO\_CVRAGE\_TOT\_MONS, PLAN\_CVRG\_MONS\_NUM We will use the birth and death to correct the tails. Use birthdate to correct start date: birth = BENE\_BIRTH\_DT Use death date to correct end date: death = BENE\_DEATH\_DT |
| payer\_plan\_period\_end\_date |  |  | If MONTH = 0 they were not enrolled for that year. IF MONTH > 0 then they were enrolled (for 2008 file date = December 31, 2008) MONTH = any of these variables: BENE\_HI\_CVRAGE\_TOT\_MONS, BENE\_SMI\_CVRAGE\_TOT\_MONS, BENE\_HMO\_CVRAGE\_TOT\_MONS, PLAN\_CVRG\_MONS\_NUM We will use the birth and death to correct the tails. Use birthdate to correct start date: birth = BENE\_BIRTH\_DT Use death date to correct end date: death = BENE\_DEATH\_DT |
| payer\_source\_value |  |  | Medicare |
| plan\_source\_value | bene\_hi\_cvrage\_tot\_mons bene\_smi\_cvrage\_tot\_mons bene\_hmo\_cvrage\_tot\_mons plan\_cvrg\_mos\_num |  | if value from bene\_hi\_covrage\_tot\_mons = Part A if value from bene\_smi\_cvrage\_tot\_mons = Part B if value from bene\_hmo\_cvrage\_tot\_mons = HMO if value from plan\_cvrg\_mos\_num = Part D |
| family\_source\_value |  |  | Null |

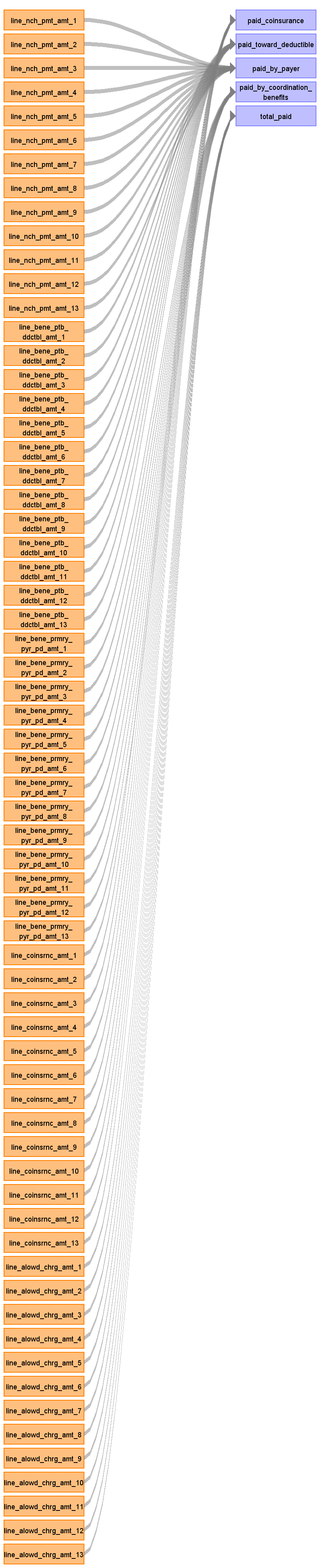
Table name: device\_cost

Reading from outpatient\_claims



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| device\_cost\_id |  |  | autogenerated |
| device\_exposure\_id |  |  | As writing the DEVICE\_EXPOSURE table keep track of ID and write here. |
| currency\_concept\_id |  |  | 44818668-United States dollar |
| paid\_copay |  |  | Null |
| paid\_coinsurance | nch\_bene\_ptb\_coinsrnc\_amt |  |  |
| paid\_toward\_deductible | nch\_bene\_blood\_ddctbl\_lblty\_am nch\_bene\_ptb\_ddctbl\_amt |  | Sum of NCH\_BENE\_BLOOD\_DDCTBL\_LBLTY\_AM + NCH\_BENE\_PTB\_DDCTBL\_AMT |
| paid\_by\_payer | clm\_pmt\_amt |  |  |
| paid\_by\_coordination\_benefits | nch\_prmry\_pyr\_clm\_pd\_amt |  |  |
| total\_out\_of\_pocket |  |  | Sum of CDM Tables (PAID\_COINSURANCE + PAID\_TOWARD\_DEDUCTIBLE) |
| total\_paid |  |  | OUTPATIENT\_CLAIMS: Sum of CDM tables (PAID\_BY\_PAYER + PAID\_BY\_COORDINATION\_BENEFITS + TOTAL\_OUT\_OF\_POCKET) |
| payer\_plan\_period\_id |  |  | Look up to PAYER\_PLAN\_PERIOD and select PARTB plans, else NULL. |

Reading from carrier\_claims



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| device\_cost\_id |  |  | autogenerated |
| device\_exposure\_id |  |  | As writing the DEVICE\_EXPOSURE table keep track of ID and write here. |
| currency\_concept\_id |  |  | 44818668-United States dollar |
| paid\_copay |  |  | Null |
| paid\_coinsurance | line\_coinsrnc\_amt\_1 line\_coinsrnc\_amt\_2 line\_coinsrnc\_amt\_3 line\_coinsrnc\_amt\_4 line\_coinsrnc\_amt\_5 line\_coinsrnc\_amt\_6 line\_coinsrnc\_amt\_7 line\_coinsrnc\_amt\_8 line\_coinsrnc\_amt\_9 line\_coinsrnc\_amt\_10 line\_coinsrnc\_amt\_11 line\_coinsrnc\_amt\_12 line\_coinsrnc\_amt\_13 |  |  |
| paid\_toward\_deductible | line\_bene\_ptb\_ddctbl\_amt\_1 line\_bene\_ptb\_ddctbl\_amt\_2 line\_bene\_ptb\_ddctbl\_amt\_3 line\_bene\_ptb\_ddctbl\_amt\_4 line\_bene\_ptb\_ddctbl\_amt\_5 line\_bene\_ptb\_ddctbl\_amt\_6 line\_bene\_ptb\_ddctbl\_amt\_7 line\_bene\_ptb\_ddctbl\_amt\_8 line\_bene\_ptb\_ddctbl\_amt\_9 line\_bene\_ptb\_ddctbl\_amt\_10 line\_bene\_ptb\_ddctbl\_amt\_11 line\_bene\_ptb\_ddctbl\_amt\_12 line\_bene\_ptb\_ddctbl\_amt\_13 |  | Sum of NCH\_BENE\_BLOOD\_DDCTBL\_LBLTY\_AM + NCH\_BENE\_PTB\_DDCTBL\_AMT |
| paid\_by\_payer | line\_nch\_pmt\_amt\_1 line\_nch\_pmt\_amt\_2 line\_nch\_pmt\_amt\_3 line\_nch\_pmt\_amt\_4 line\_nch\_pmt\_amt\_5 line\_nch\_pmt\_amt\_6 line\_nch\_pmt\_amt\_7 line\_nch\_pmt\_amt\_8 line\_nch\_pmt\_amt\_9 line\_nch\_pmt\_amt\_10 line\_nch\_pmt\_amt\_11 line\_nch\_pmt\_amt\_12 line\_nch\_pmt\_amt\_13 |  |  |
| paid\_by\_coordination\_benefits | line\_bene\_prmry\_pyr\_pd\_amt\_1 line\_bene\_prmry\_pyr\_pd\_amt\_2 line\_bene\_prmry\_pyr\_pd\_amt\_3 line\_bene\_prmry\_pyr\_pd\_amt\_4 line\_bene\_prmry\_pyr\_pd\_amt\_5 line\_bene\_prmry\_pyr\_pd\_amt\_6 line\_bene\_prmry\_pyr\_pd\_amt\_7 line\_bene\_prmry\_pyr\_pd\_amt\_8 line\_bene\_prmry\_pyr\_pd\_amt\_9 line\_bene\_prmry\_pyr\_pd\_amt\_10 line\_bene\_prmry\_pyr\_pd\_amt\_11 line\_bene\_prmry\_pyr\_pd\_amt\_12 line\_bene\_prmry\_pyr\_pd\_amt\_13 |  |  |
| total\_out\_of\_pocket |  |  | Sum of CDM Tables (PAID\_COINSURANCE + PAID\_TOWARD\_DEDUCTIBLE) |
| total\_paid | line\_alowd\_chrg\_amt\_1 line\_alowd\_chrg\_amt\_2 line\_alowd\_chrg\_amt\_3 line\_alowd\_chrg\_amt\_4 line\_alowd\_chrg\_amt\_5 line\_alowd\_chrg\_amt\_6 line\_alowd\_chrg\_amt\_7 line\_alowd\_chrg\_amt\_8 line\_alowd\_chrg\_amt\_9 line\_alowd\_chrg\_amt\_10 line\_alowd\_chrg\_amt\_11 line\_alowd\_chrg\_amt\_12 line\_alowd\_chrg\_amt\_13 |  | OUTPATIENT\_CLAIMS: Sum of CDM tables (PAID\_BY\_PAYER + PAID\_BY\_COORDINATION\_BENEFITS + TOTAL\_OUT\_OF\_POCKET) |
| payer\_plan\_period\_id |  |  | Look up to PAYER\_PLAN\_PERIOD and select PARTB plans, else NULL. |

Table name: drug\_era

Table name: dose\_era

Table name: condition\_era

Table name: cdm\_source

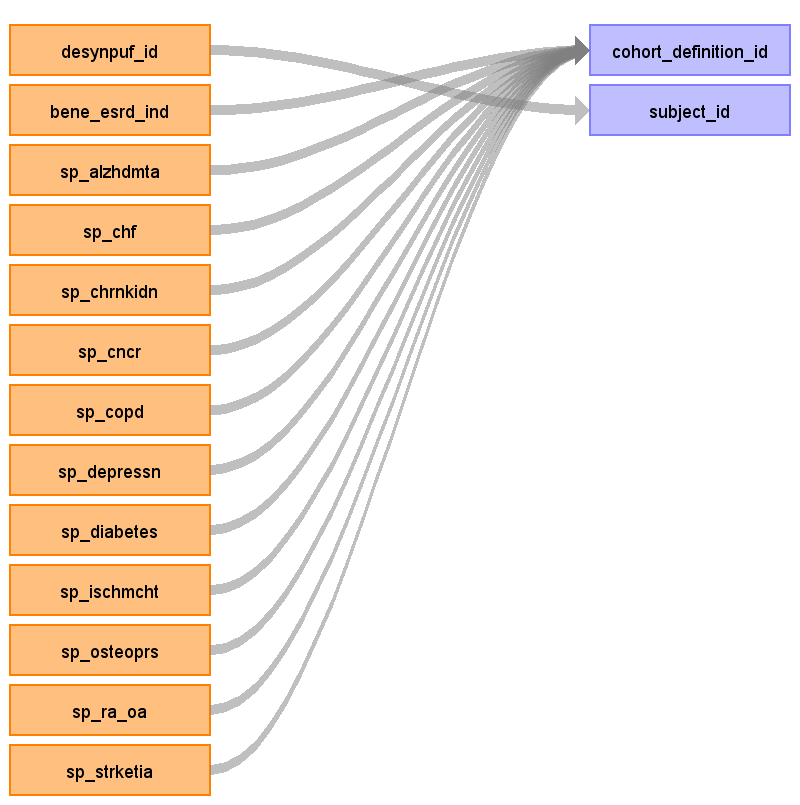
Reading from beneficiary\_summary

Generated

|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| cdm\_source\_name |  |  | Medicare Claims Synthetic Public Use Files (SynPUFs) |
| cdm\_source\_abbreviation |  |  | CDM\_MDCR\_SynPUF |
| cdm\_holder |  |  | OHDSI |
| source\_description |  |  | Medicare Claims Synthetic Public Use Files (SynPUFs) were created to allow interested parties to gain familiarity using Medicare claims data while protecting beneficiary privacy. The data structure of the Medicare SynPUFs is very similar to the CMS Limited Data Sets, but with a smaller number of variables. They provide data analysts and software developers the opportunity to develop programs and products utilizing the identical formats and variable names as those which appear in the actual CMS data files. The files have been designed so that programs and procedures created on the SynPUFs will function on CMS Limited Data Sets. The SynPUFs also provide a robust set of metadata on the CMS claims data that have not been available in the public domain. Although these files have very limited inferential research value to draw conclusions about Medicare beneficiaries due to the synthetic processes used to create the files, they increase access to realistic Medicare claims data files in a timely and less expensive manner to spur the innovation necessary to achieve the goals of better care for beneficiaries and improve the health of the population. |
| source\_documentation\_reference |  |  | http://www.cms.gov/Research-Statistics-Data-and-Systems/Downloadable-Public-Use-Files/SynPUFs/ |
| cdm\_etl\_reference |  |  |  |
| source\_release\_date |  |  |  |
| cdm\_release\_date |  |  | get current date |
| cdm\_version |  |  |  |
| vocabulary\_version |  |  | Populate this field with the vocabulary you use: SELECT VOCABULARY\_VERSION FROM [vocabulary] WHERE VOCABULARY\_ID = 'None' |

Table name: cohort

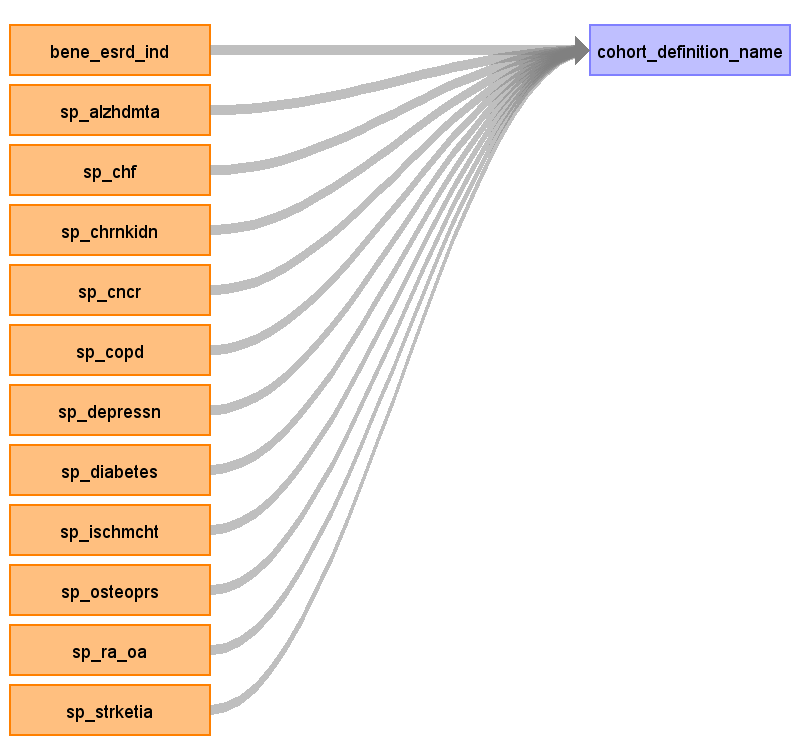
Reading from beneficiary\_summary



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| cohort\_definition\_id | sp\_alzhdmta sp\_chf sp\_chrnkidn sp\_cncr sp\_copd sp\_depressn sp\_diabetes sp\_ischmcht sp\_osteoprs sp\_ra\_oa sp\_strketia bene\_esrd\_ind |  | Depending on the column, will depend on the COHORT\_DEFINITION\_ID used. |
| subject\_id | desynpuf\_id |  |  |
| cohort\_start\_date |  |  | The BENEFICIARY\_SUMMARY files come as yearly files. We concatinate them together and append the year. That YEAR column will be what determines the START\_DATE and END\_DATE. START\_DATE = '01/01' + YEAR |
| cohort\_end\_date |  |  | The BENEFICIARY\_SUMMARY files come as yearly files. We concatinate them together and append the year. That YEAR column will be what determines the START\_DATE and END\_DATE. END\_DATE = '12/31' + YEAR |

Table name: cohort\_definition

Reading from beneficiary\_summary



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| cohort\_definition\_id |  |  | Autogenerated |
| cohort\_definition\_name | sp\_alzhdmta sp\_chf sp\_chrnkidn sp\_cncr sp\_copd sp\_depressn sp\_diabetes sp\_ischmcht sp\_osteoprs sp\_ra\_oa sp\_strketia bene\_esrd\_ind |  | Depending on the column will depend on the values listed in COHORT\_DEFINITION\_NAME, COHORT\_DEFINITION\_DESCRIPTION. It will be listed in the following format: [COLUMN\_NAME][COHORT\_DEFINITION\_NAME][COHORT\_DEFINITION\_DESCRIPTION], [SP\_ALZHDMTA][Alzheimer's Disease and Related Disorders or Senile Dementia][Algorithm: At least 1 inpatient, HOP or Carrier claim with DX codes during the yearly period Codes: DX 331.0, 331.1, 331.11, 331.19, 331.2, 331.7, 290.0, 290.1, 290.10, 290.11, 290.12, 290.13, 290.20, 290.21, 290.3, 290.40, 290.41, 290.42, 290.43, 294.0, 294.1, 294.10, 294.11, 294.8, 797 (any DX on the claim)], [SP\_CHF][Heart Failure][Algorithm: At least 1 inpatient, HOP or Carrier claim with DX codes during the yearly period Codes: DX 398.91, 402.01, 402.11, 402.91, 404.01, 404.11, 404.91, 404.03, 404.13, 404.93, 428.0, 428.1, 428.20, 428.21, 428.22, 428.23, 428.30, 428.31, 428.32, 428.33, 428.40, 428.41, 428.42, 428.43, 428.9 (any DX on the claim)], [SP\_CHRNKIDN][Chronic Kidney Disease][Algorithm: At least 1 inpatient or 2 HOP or Carrier claims with DX codes during the yearly period Codes: DX 016.00, 016.01, 016.02, 016.03, 016.04, 016.05, 016.06, 095.4, 189.0, 189.9, 223.0, 236.91, 249.40, 249.41, 250.40, 250.41, 250.42, 250.43, 271.4, 274.1, 274.10, 283.11, 403.01, 403.11, 403.91, 404.02, 404.03, 404.12, 404.13, 404.92, 404.93, 440.1, 442.1, 572.4, 580.0, 580.4, 580.81, 580.89, 580.9, 581.0, 581.1, 581.2, 581.3, 581.81, 581.89, 581.9, 582.0, 582.1, 582.2, 582.4, 582.81, 582.89, 582.9, 583.0, 583.1, 583.2, 583.4, 583.6, 583.7, 583.81, 583.89, 583.9, 584.5, 584.6, 584.7, 584.8, 584.9, 585, 585.1, 585.2, 585.3, 585.4, 585.5, 585.6, 585.9, 586, 587, 588.0, 588.1, 588.81, 588.89, 588.9, 591, 753.12, 753.13, 753.14, 753.15, 753.16, 753.17, 753.19, 753.20, 753.21, 753.22, 753.23, 753.29, 794.4 (any DX on the claim)], [SP\_CNCR][Female Breast, Colorectal, Prostate, or Lung Cancer][Algorithm: At least 1 inpatient or 2 HOP or Carrier claims with DX codes during yearly time period Codes: DX 174.0, 174.1, 174.2, 174.3, 174.4, 174.5, 174.6, 174.8, 174.9, 233.0, 154.0, 154.1, 153.0, 153.1, 153.2, 153.3, 153.4, 153.5, 153.6, 153.7, 153.8, 153.9, 230.3, 230.4, 185, 233.4, 162.0, 162.2, 162.3, 162.4, 162.5, 162.8, 162.9, 231.2 (any DX on the claim)], [SP\_COPD][Chronic Obstructive Pulmonary Disease][Algorithm: At least 1 inpatient, or 2 HOP or Carrier claims with DX codes during yearly period Codes: DX 491.0, 491.1, 491.20, 491.21, 491.22, 491.8, 491.9, 492.0, 492.8, 494.0, 494.1, 496 (any DX on the claim)], [SP\_DEPRESSN][Depression][Algorithm: At least 1 inpatient, HOP or Carrier claim with DX codes during the yearly period Codes: DX 296.20, 296.21, 296.22, 296.23, 296.24, 296.25, 296.26, 296.30, 296.31, 296.32, 296.33, 296.34, 296.35, 296.36, 296.50, 296.51, 296.52, 296.53, 296.54, 296.55, 296.56, 296.60, 296.61, 296.62, 296.63, 296.64, 296.65, 296.66, 296.89, 298.0, 300.4, 309.1, 311 (any DX on the claim)], [SP\_DIABETES][Diabetes][Algorithm: At least 1 inpatient or 2 HOP or Carrier claim with DX codes during the yearly period Codes: DX 249.00, 249.01, 249.10, 249.11, 249.20, 249.21, 249.30, 249.31, 249.40, 249.41, 249.50, 249.51, 249.60, 249.61, 249.70, 249.71, 249.80, 249.81, 249.90, 249.91, 250.00, 250.01, 250.02, 250.03, 250.10, 250.11, 250.12, 250.13, 250.20, 250.21, 250.22, 250.23, 250.30, 250.31, 250.32, 250.33, 250.40, 250.41, 250.42, 250.43, 250.50, 250.51, 250.52, 250.53, 250.60, 250.61, 250.62, 250.63, 250.70, 250.71, 250.72, 250.73, 250.80, 250.81, 250.82, 250.83, 250.90, 250.91, 250.92, 250.93, 357.2, 362.01, 362.02, 366.41 (any DX on the claim)], [SP\_ISCHMCHT][Ischemic Heart Disease][Algorithm: At least 1 inpatient, HOP or Carrier claim with DX, Procedure or HCPC codes during the yearly period Codes: DX 410.00, 410.01, 410.02, 410.10, 410.11, 410.12, 410.20, 410.21, 410.22, 410.30, 410.31, 410.32, 410.40, 410.41, 410.42, 410.50, 410.51, 410.52, 410.60, 410.61, 410.62, 410.70, 410.71, 410.72, 410.80, 410.81, 410.82, 410.90, 410.91, 410.92, 411.0, 411.1, 411.81, 411.89, 412, 413.0, 413.1, 413.9, 414.00, 414.01, 414.02, 414.03, 414.04, 414.05, 414.06, 414.07, 414.10, 414.11, 414.12, 414.19, 414.2, 414.3, 414.8, 414.9 Proc 00.66, 36.01, 36.02, 36.03, 36.04, 36.05, 36.06, 36.07, 36.09, 36.10, 36.11, 36.12, 36.13, 36.14, 36.15, 36.16, 36.17, 36.19, 36.2, 36.31, 36.32 HCPCS 33510, 33511, 33512, 33513, 33514, 33515, 33516, 33517, 33518, 33519, 33521, 33522, 33523, 33533, 33534, 33535, 33536, 33542, 33545, 33548, 92975, 92977, 92980, 92982, 92995, 33140, 33141 (any DX, PROC or HCPCS on the claim)], [SP\_OSTEOPRS][Osteoporosis][Algorithm: At least 1 inpatient, HOP or Carrier claim with DX code during the yearly period Codes: DX 733.00, 733.01, 733.02, 733.03, 733.09 (any DX on the claim)], [SP\_RA\_OA][rheumatoid arthritis and osteoarthritis (RA/OA)][Algorithm: At least 2 inpatient, HOP or Carrier claims with DX codes during yearly period Codes: DX 714.0, 714.1, 714.2, 714.30, 714.31, 714.32, 714.33, 715.00, 715.04, 715.09, 715.10, 715.11, 715.12, 715.13, 715.14, 715.15, 715.16, 715.17, 715.18, 715.20, 715.21, 715.22, 715.23, 715.24, 715.25, 715.26, 715.27, 715.28, 715.30, 715.31, 715.32, 715.33, 715.34, 715.35, 715.36, 715.37, 715.38, 715.80, 715.89, 715.90, 715.98 (any DX on the claim)], [SP\_STRKETIA][Stroke / Transient Ischemic Attack][Algorithm: At least 1 inpatient claim or 2 HOP or Carrier claims with DX codes during the yearly period Codes: DX 430, 431, 434.00, 434.01, 434.10, 434.11, 434.90, 434.91, 435.0, 435.1, 435.3, 435.8, 435.9, 436, 997.02 (any DX on the claim)], [BENE\_ESRD\_IND][End Stage Renal Disease Indicator][Algorithm: Indicator in the beneficiary summary files showing the patient does have end stage renal disease Codes: ] |
| cohort\_definition\_description |  |  | Information is under cohort\_definition\_name field. |
| definition\_type\_concept\_id |  |  | 0 |
| cohort\_definition\_syntax |  |  | NULL |
| subject\_concept\_id |  |  | 56-Person |
| cohort\_initiation\_date |  |  | GETDATE() |

Table name: cohort\_attribute

Table name: attribute\_definition

Appendix: source tables

Table: beneficiary\_summary

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Type | Most freq. value | Comment |
| desynpuf\_id | varchar | List truncated... |  |
| bene\_birth\_dt | int | 19421001 |  |
| bene\_death\_dt | int | 0 |  |
| bene\_sex\_ident\_cd | smallint | 2 |  |
| bene\_race\_cd | smallint | 1 |  |
| bene\_esrd\_ind | varchar | 0 |  |
| sp\_state\_code | smallint | 5 |  |
| bene\_county\_cd | smallint | 200 | THIS CODE SPECIFIES THE SSA CODE FOR THE COUNTY OF RESIDENCE OF THE BENEFICIARY. EACH STATE HAS A SERIES OF CODES BEGINNING WITH '000' FOR EACH COUNTY WITHIN THAT STATE. CERTAIN CITIES WITHIN THAT STATE HAVE THEIR OWN CODE. COUNTY CODES MUST BE COMBINED WITH STATE CODES IN ORDER TO LOCATE THE SPECIFIC COUNTY. THE CODING SYSTEM IS THE SSA SYSTEM, NOT THE FEDERAL INFORMATION PROCESSING STANDARD (FIPS). |
| bene\_hi\_cvrage\_tot\_mons | smallint | 12 |  |
| bene\_smi\_cvrage\_tot\_mons | smallint | 12 |  |
| bene\_hmo\_cvrage\_tot\_mons | smallint | 0 |  |
| plan\_cvrg\_mos\_num | smallint | 12 |  |
| sp\_alzhdmta | smallint | 2 |  |
| sp\_chf | smallint | 2 |  |
| sp\_chrnkidn | smallint | 2 |  |
| sp\_cncr | smallint | 2 |  |
| sp\_copd | smallint | 2 |  |
| sp\_depressn | smallint | 2 |  |
| sp\_diabetes | smallint | 2 |  |
| sp\_ischmcht | smallint | 2 |  |
| sp\_osteoprs | smallint | 2 |  |
| sp\_ra\_oa | smallint | 2 |  |
| sp\_strketia | smallint | 2 |  |
| medreimb\_ip | real | 0.0 |  |
| benres\_ip | real | 0.0 |  |
| pppymt\_ip | real | 0.0 |  |
| medreimb\_op | real | 0.0 |  |
| benres\_op | real | 0.0 |  |
| pppymt\_op | real | 0.0 |  |
| medreimb\_car | real | 0.0 |  |
| benres\_car | real | 0.0 |  |
| pppymt\_car | real | 0.0 |  |

Table: carrier\_claims

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Type | Most freq. value | Comment |
| desynpuf\_id | varchar | AEF310232161AC91 |  |
| clm\_id | bigint | List truncated... |  |
| clm\_from\_dt | int | 20090216 |  |
| clm\_thru\_dt | int | 20081106 |  |
| icd9\_dgns\_cd\_1 | varchar | 4011 |  |
| icd9\_dgns\_cd\_2 | varchar |  |  |
| icd9\_dgns\_cd\_3 | varchar |  |  |
| icd9\_dgns\_cd\_4 | varchar |  |  |
| icd9\_dgns\_cd\_5 | varchar |  |  |
| icd9\_dgns\_cd\_6 | varchar |  |  |
| icd9\_dgns\_cd\_7 | varchar |  |  |
| icd9\_dgns\_cd\_8 | varchar |  |  |
| prf\_physn\_npi\_1 | bigint | 888901330 |  |
| prf\_physn\_npi\_2 | bigint | 0 |  |
| prf\_physn\_npi\_3 | bigint | 0 |  |
| prf\_physn\_npi\_4 | bigint | 0 |  |
| prf\_physn\_npi\_5 | bigint | 0 |  |
| prf\_physn\_npi\_6 | bigint | 0 |  |
| prf\_physn\_npi\_7 | bigint | 0 |  |
| prf\_physn\_npi\_8 | bigint | 0 |  |
| prf\_physn\_npi\_9 | bigint | 0 |  |
| prf\_physn\_npi\_10 | bigint | 0 |  |
| prf\_physn\_npi\_11 | bigint | 0 |  |
| prf\_physn\_npi\_12 | bigint | 0 |  |
| prf\_physn\_npi\_13 | bigint | 0 |  |
| tax\_num\_1 | int | 532092265 |  |
| tax\_num\_2 | int | 0 |  |
| tax\_num\_3 | int | 0 |  |
| tax\_num\_4 | int | 0 |  |
| tax\_num\_5 | int | 0 |  |
| tax\_num\_6 | int | 0 |  |
| tax\_num\_7 | int | 0 |  |
| tax\_num\_8 | int | 0 |  |
| tax\_num\_9 | int | 0 |  |
| tax\_num\_10 | int | 0 |  |
| tax\_num\_11 | int | 0 |  |
| tax\_num\_12 | int | 0 |  |
| tax\_num\_13 | int | 0 |  |
| hcpcs\_cd\_1 | varchar | 99213 |  |
| hcpcs\_cd\_2 | varchar |  |  |
| hcpcs\_cd\_3 | varchar |  |  |
| hcpcs\_cd\_4 | varchar |  |  |
| hcpcs\_cd\_5 | varchar |  |  |
| hcpcs\_cd\_6 | varchar |  |  |
| hcpcs\_cd\_7 | varchar |  |  |
| hcpcs\_cd\_8 | varchar |  |  |
| hcpcs\_cd\_9 | varchar |  |  |
| hcpcs\_cd\_10 | varchar |  |  |
| hcpcs\_cd\_11 | varchar |  |  |
| hcpcs\_cd\_12 | varchar |  |  |
| hcpcs\_cd\_13 | varchar |  |  |
| line\_nch\_pmt\_amt\_1 | real | 0.0 |  |
| line\_nch\_pmt\_amt\_2 | real | 0.0 |  |
| line\_nch\_pmt\_amt\_3 | real | 0.0 |  |
| line\_nch\_pmt\_amt\_4 | real | 0.0 |  |
| line\_nch\_pmt\_amt\_5 | real | 0.0 |  |
| line\_nch\_pmt\_amt\_6 | real | 0.0 |  |
| line\_nch\_pmt\_amt\_7 | real | 0.0 |  |
| line\_nch\_pmt\_amt\_8 | real | 0.0 |  |
| line\_nch\_pmt\_amt\_9 | real | 0.0 |  |
| line\_nch\_pmt\_amt\_10 | real | 0.0 |  |
| line\_nch\_pmt\_amt\_11 | real | 0.0 |  |
| line\_nch\_pmt\_amt\_12 | real | 0.0 |  |
| line\_nch\_pmt\_amt\_13 | real | 0.0 |  |
| line\_bene\_ptb\_ddctbl\_amt\_1 | real | 0.0 |  |
| line\_bene\_ptb\_ddctbl\_amt\_2 | real | 0.0 |  |
| line\_bene\_ptb\_ddctbl\_amt\_3 | real | 0.0 |  |
| line\_bene\_ptb\_ddctbl\_amt\_4 | real | 0.0 |  |
| line\_bene\_ptb\_ddctbl\_amt\_5 | real | 0.0 |  |
| line\_bene\_ptb\_ddctbl\_amt\_6 | real | 0.0 |  |
| line\_bene\_ptb\_ddctbl\_amt\_7 | real | 0.0 |  |
| line\_bene\_ptb\_ddctbl\_amt\_8 | real | 0.0 |  |
| line\_bene\_ptb\_ddctbl\_amt\_9 | real | 0.0 |  |
| line\_bene\_ptb\_ddctbl\_amt\_10 | real | 0.0 |  |
| line\_bene\_ptb\_ddctbl\_amt\_11 | real | 0.0 |  |
| line\_bene\_ptb\_ddctbl\_amt\_12 | real | 0.0 |  |
| line\_bene\_ptb\_ddctbl\_amt\_13 | real | 0.0 |  |
| line\_bene\_prmry\_pyr\_pd\_amt\_1 | real | 0.0 |  |
| line\_bene\_prmry\_pyr\_pd\_amt\_2 | real | 0.0 |  |
| line\_bene\_prmry\_pyr\_pd\_amt\_3 | real | 0.0 |  |
| line\_bene\_prmry\_pyr\_pd\_amt\_4 | real | 0.0 |  |
| line\_bene\_prmry\_pyr\_pd\_amt\_5 | real | 0.0 |  |
| line\_bene\_prmry\_pyr\_pd\_amt\_6 | real | 0.0 |  |
| line\_bene\_prmry\_pyr\_pd\_amt\_7 | real | 0.0 |  |
| line\_bene\_prmry\_pyr\_pd\_amt\_8 | real | 0.0 |  |
| line\_bene\_prmry\_pyr\_pd\_amt\_9 | real | 0.0 |  |
| line\_bene\_prmry\_pyr\_pd\_amt\_10 | real | 0.0 |  |
| line\_bene\_prmry\_pyr\_pd\_amt\_11 | real | 0.0 |  |
| line\_bene\_prmry\_pyr\_pd\_amt\_12 | real | 0.0 |  |
| line\_bene\_prmry\_pyr\_pd\_amt\_13 | real | 0.0 |  |
| line\_coinsrnc\_amt\_1 | real | 0.0 |  |
| line\_coinsrnc\_amt\_2 | real | 0.0 |  |
| line\_coinsrnc\_amt\_3 | real | 0.0 |  |
| line\_coinsrnc\_amt\_4 | real | 0.0 |  |
| line\_coinsrnc\_amt\_5 | real | 0.0 |  |
| line\_coinsrnc\_amt\_6 | real | 0.0 |  |
| line\_coinsrnc\_amt\_7 | real | 0.0 |  |
| line\_coinsrnc\_amt\_8 | real | 0.0 |  |
| line\_coinsrnc\_amt\_9 | real | 0.0 |  |
| line\_coinsrnc\_amt\_10 | real | 0.0 |  |
| line\_coinsrnc\_amt\_11 | real | 0.0 |  |
| line\_coinsrnc\_amt\_12 | real | 0.0 |  |
| line\_coinsrnc\_amt\_13 | real | 0.0 |  |
| line\_alowd\_chrg\_amt\_1 | real | 10.0 |  |
| line\_alowd\_chrg\_amt\_2 | real | 0.0 |  |
| line\_alowd\_chrg\_amt\_3 | real | 0.0 |  |
| line\_alowd\_chrg\_amt\_4 | real | 0.0 |  |
| line\_alowd\_chrg\_amt\_5 | real | 0.0 |  |
| line\_alowd\_chrg\_amt\_6 | real | 0.0 |  |
| line\_alowd\_chrg\_amt\_7 | real | 0.0 |  |
| line\_alowd\_chrg\_amt\_8 | real | 0.0 |  |
| line\_alowd\_chrg\_amt\_9 | real | 0.0 |  |
| line\_alowd\_chrg\_amt\_10 | real | 0.0 |  |
| line\_alowd\_chrg\_amt\_11 | real | 0.0 |  |
| line\_alowd\_chrg\_amt\_12 | real | 0.0 |  |
| line\_alowd\_chrg\_amt\_13 | real | 0.0 |  |
| line\_prcsg\_ind\_cd\_1 | varchar | A | Develop logic to eliminate columns associated to bad claims. Remove Conditions and Procedures associated to values I (for 'Invalid data') and M (for multiple submittal - duplicate line item) |
| line\_prcsg\_ind\_cd\_2 | varchar |  | Develop logic to eliminate columns associated to bad claims. Remove Conditions and Procedures associated to values I (for 'Invalid data') and M (for multiple submittal - duplicate line item) |
| line\_prcsg\_ind\_cd\_3 | varchar |  | Develop logic to eliminate columns associated to bad claims. Remove Conditions and Procedures associated to values I (for 'Invalid data') and M (for multiple submittal - duplicate line item) |
| line\_prcsg\_ind\_cd\_4 | varchar |  | Develop logic to eliminate columns associated to bad claims. Remove Conditions and Procedures associated to values I (for 'Invalid data') and M (for multiple submittal - duplicate line item) |
| line\_prcsg\_ind\_cd\_5 | varchar |  | Develop logic to eliminate columns associated to bad claims. Remove Conditions and Procedures associated to values I (for 'Invalid data') and M (for multiple submittal - duplicate line item) |
| line\_prcsg\_ind\_cd\_6 | varchar |  | Develop logic to eliminate columns associated to bad claims. Remove Conditions and Procedures associated to values I (for 'Invalid data') and M (for multiple submittal - duplicate line item) |
| line\_prcsg\_ind\_cd\_7 | varchar |  | Develop logic to eliminate columns associated to bad claims. Remove Conditions and Procedures associated to values I (for 'Invalid data') and M (for multiple submittal - duplicate line item) |
| line\_prcsg\_ind\_cd\_8 | varchar |  | Develop logic to eliminate columns associated to bad claims. Remove Conditions and Procedures associated to values I (for 'Invalid data') and M (for multiple submittal - duplicate line item) |
| line\_prcsg\_ind\_cd\_9 | varchar |  | Develop logic to eliminate columns associated to bad claims. Remove Conditions and Procedures associated to values I (for 'Invalid data') and M (for multiple submittal - duplicate line item) |
| line\_prcsg\_ind\_cd\_10 | varchar |  | Develop logic to eliminate columns associated to bad claims. Remove Conditions and Procedures associated to values I (for 'Invalid data') and M (for multiple submittal - duplicate line item) |
| line\_prcsg\_ind\_cd\_11 | varchar |  | Develop logic to eliminate columns associated to bad claims. Remove Conditions and Procedures associated to values I (for 'Invalid data') and M (for multiple submittal - duplicate line item) |
| line\_prcsg\_ind\_cd\_12 | varchar |  | Develop logic to eliminate columns associated to bad claims. Remove Conditions and Procedures associated to values I (for 'Invalid data') and M (for multiple submittal - duplicate line item) |
| line\_prcsg\_ind\_cd\_13 | varchar |  | Develop logic to eliminate columns associated to bad claims. Remove Conditions and Procedures associated to values I (for 'Invalid data') and M (for multiple submittal - duplicate line item) |
| line\_icd9\_dgns\_cd\_1 | varchar | 4019 |  |
| line\_icd9\_dgns\_cd\_2 | varchar |  |  |
| line\_icd9\_dgns\_cd\_3 | varchar |  |  |
| line\_icd9\_dgns\_cd\_4 | varchar |  |  |
| line\_icd9\_dgns\_cd\_5 | varchar |  |  |
| line\_icd9\_dgns\_cd\_6 | varchar |  |  |
| line\_icd9\_dgns\_cd\_7 | varchar |  |  |
| line\_icd9\_dgns\_cd\_8 | varchar |  |  |
| line\_icd9\_dgns\_cd\_9 | varchar |  |  |
| line\_icd9\_dgns\_cd\_10 | varchar |  |  |
| line\_icd9\_dgns\_cd\_11 | varchar |  |  |
| line\_icd9\_dgns\_cd\_12 | varchar |  |  |
| line\_icd9\_dgns\_cd\_13 | varchar |  |  |

Table: inpatient\_claims

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Type | Most freq. value | Comment |
| desynpuf\_id | varchar | List truncated... |  |
| clm\_id | bigint | List truncated... |  |
| segment | smallint | 1 |  |
| clm\_from\_dt | int | 20080522 |  |
| clm\_thru\_dt | int | 20080529 |  |
| prvdr\_num | varchar | 23006G |  |
| clm\_pmt\_amt | real | 4000.0 |  |
| nch\_prmry\_pyr\_clm\_pd\_amt | real | 0.0 |  |
| at\_physn\_npi | bigint | 0 |  |
| op\_physn\_npi | bigint | 0 |  |
| ot\_physn\_npi | bigint | 0 |  |
| clm\_admsn\_dt | int | 20080522 |  |
| admtng\_icd9\_dgns\_cd | varchar | 78605 |  |
| clm\_pass\_thru\_per\_diem\_amt | real | 0.0 |  |
| nch\_bene\_ip\_ddctbl\_amt | real | 1024.0 |  |
| nch\_bene\_pta\_coinsrnc\_lblty\_am | real | 0.0 |  |
| nch\_bene\_blood\_ddctbl\_lblty\_am | real | 0.0 |  |
| clm\_utlztn\_day\_cnt | int | 3 |  |
| nch\_bene\_dschrg\_dt | int | 20080529 |  |
| clm\_drg\_cd | varchar | 882 |  |
| icd9\_dgns\_cd\_1 | varchar | 486 |  |
| icd9\_dgns\_cd\_2 | varchar | 4019 |  |
| icd9\_dgns\_cd\_3 | varchar | 4019 |  |
| icd9\_dgns\_cd\_4 | varchar | 4019 |  |
| icd9\_dgns\_cd\_5 | varchar |  |  |
| icd9\_dgns\_cd\_6 | varchar |  |  |
| icd9\_dgns\_cd\_7 | varchar |  |  |
| icd9\_dgns\_cd\_8 | varchar |  |  |
| icd9\_dgns\_cd\_9 | varchar |  |  |
| icd9\_dgns\_cd\_10 | varchar |  |  |
| icd9\_prcdr\_cd\_1 | varchar |  |  |
| icd9\_prcdr\_cd\_2 | varchar |  |  |
| icd9\_prcdr\_cd\_3 | varchar |  |  |
| icd9\_prcdr\_cd\_4 | varchar |  |  |
| icd9\_prcdr\_cd\_5 | varchar |  |  |
| icd9\_prcdr\_cd\_6 | varchar |  |  |
| hcpcs\_cd\_1 | varchar |  |  |
| hcpcs\_cd\_2 | varchar |  |  |
| hcpcs\_cd\_3 | varchar |  |  |
| hcpcs\_cd\_4 | varchar |  |  |
| hcpcs\_cd\_5 | varchar |  |  |
| hcpcs\_cd\_6 | varchar |  |  |
| hcpcs\_cd\_7 | varchar |  |  |
| hcpcs\_cd\_8 | varchar |  |  |
| hcpcs\_cd\_9 | varchar |  |  |
| hcpcs\_cd\_10 | varchar |  |  |
| hcpcs\_cd\_11 | varchar |  |  |
| hcpcs\_cd\_12 | varchar |  |  |
| hcpcs\_cd\_13 | varchar |  |  |
| hcpcs\_cd\_14 | varchar |  |  |
| hcpcs\_cd\_15 | varchar |  |  |
| hcpcs\_cd\_16 | varchar |  |  |
| hcpcs\_cd\_17 | varchar |  |  |
| hcpcs\_cd\_18 | varchar |  |  |
| hcpcs\_cd\_19 | varchar |  |  |
| hcpcs\_cd\_20 | varchar |  |  |
| hcpcs\_cd\_21 | varchar |  |  |
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| hcpcs\_cd\_27 | varchar |  |  |
| hcpcs\_cd\_28 | varchar |  |  |
| hcpcs\_cd\_29 | varchar |  |  |
| hcpcs\_cd\_30 | varchar |  |  |
| hcpcs\_cd\_31 | varchar |  |  |
| hcpcs\_cd\_32 | varchar |  |  |
| hcpcs\_cd\_33 | varchar |  |  |
| hcpcs\_cd\_34 | varchar |  |  |
| hcpcs\_cd\_35 | varchar |  |  |
| hcpcs\_cd\_36 | varchar |  |  |
| hcpcs\_cd\_37 | varchar |  |  |
| hcpcs\_cd\_38 | varchar |  |  |
| hcpcs\_cd\_39 | varchar |  |  |
| hcpcs\_cd\_40 | varchar |  |  |
| hcpcs\_cd\_41 | varchar |  |  |
| hcpcs\_cd\_42 | varchar |  |  |
| hcpcs\_cd\_43 | varchar |  |  |
| hcpcs\_cd\_44 | varchar |  |  |
| hcpcs\_cd\_45 | varchar |  |  |

Table: prescription\_drug\_events

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Type | Most freq. value | Comment |
| desynpuf\_id | varchar | 91D777A10F0E8C60 |  |
| pde\_id | bigint | List truncated... |  |
| srvc\_dt | int | 20090323 |  |
| prod\_srvc\_id | varchar | 00002840099 |  |
| qty\_dspnsd\_num | real | 30.0 |  |
| days\_suply\_num | smallint | 30 |  |
| ptnt\_pay\_amt | real | 0.0 |  |
| tot\_rx\_cst\_amt | real | 10.0 |  |

Table: outpatient\_claims

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Type | Most freq. value | Comment |
| desynpuf\_id | varchar | AD5D4E087BF57C05 |  |
| clm\_id | bigint | List truncated... |  |
| segment | smallint | 1 |  |
| clm\_from\_dt | int | 0 |  |
| clm\_thru\_dt | int | 0 |  |
| prvdr\_num | varchar | 0502NA |  |
| clm\_pmt\_amt | real | 100.0 |  |
| nch\_prmry\_pyr\_clm\_pd\_amt | real | 0.0 |  |
| at\_physn\_npi | bigint | 0 |  |
| op\_physn\_npi | bigint | 0 |  |
| ot\_physn\_npi | bigint | 0 |  |
| nch\_bene\_blood\_ddctbl\_lblty\_am | real | 0.0 |  |
| icd9\_dgns\_cd\_1 | varchar | 4019 |  |
| icd9\_dgns\_cd\_2 | varchar |  |  |
| icd9\_dgns\_cd\_3 | varchar |  |  |
| icd9\_dgns\_cd\_4 | varchar |  |  |
| icd9\_dgns\_cd\_5 | varchar |  |  |
| icd9\_dgns\_cd\_6 | varchar |  |  |
| icd9\_dgns\_cd\_7 | varchar |  |  |
| icd9\_dgns\_cd\_8 | varchar |  |  |
| icd9\_dgns\_cd\_9 | varchar |  |  |
| icd9\_dgns\_cd\_10 | varchar |  |  |
| icd9\_prcdr\_cd\_1 | varchar |  |  |
| icd9\_prcdr\_cd\_2 | varchar |  |  |
| icd9\_prcdr\_cd\_3 | varchar |  |  |
| icd9\_prcdr\_cd\_4 | varchar |  |  |
| icd9\_prcdr\_cd\_5 | varchar |  |  |
| icd9\_prcdr\_cd\_6 | varchar |  |  |
| nch\_bene\_ptb\_ddctbl\_amt | real | 0.0 |  |
| nch\_bene\_ptb\_coinsrnc\_amt | real | 0.0 |  |
| admtng\_icd9\_dgns\_cd | varchar |  |  |
| hcpcs\_cd\_1 | varchar | 36415 |  |
| hcpcs\_cd\_2 | varchar |  |  |
| hcpcs\_cd\_3 | varchar |  |  |
| hcpcs\_cd\_4 | varchar |  |  |
| hcpcs\_cd\_5 | varchar |  |  |
| hcpcs\_cd\_6 | varchar |  |  |
| hcpcs\_cd\_7 | varchar |  |  |
| hcpcs\_cd\_8 | varchar |  |  |
| hcpcs\_cd\_9 | varchar |  |  |
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| hcpcs\_cd\_12 | varchar |  |  |
| hcpcs\_cd\_13 | varchar |  |  |
| hcpcs\_cd\_14 | varchar |  |  |
| hcpcs\_cd\_15 | varchar |  |  |
| hcpcs\_cd\_16 | varchar |  |  |
| hcpcs\_cd\_17 | varchar |  |  |
| hcpcs\_cd\_18 | varchar |  |  |
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| hcpcs\_cd\_22 | varchar |  |  |
| hcpcs\_cd\_23 | varchar |  |  |
| hcpcs\_cd\_24 | varchar |  |  |
| hcpcs\_cd\_25 | varchar |  |  |
| hcpcs\_cd\_26 | varchar |  |  |
| hcpcs\_cd\_27 | varchar |  |  |
| hcpcs\_cd\_28 | varchar |  |  |
| hcpcs\_cd\_29 | varchar |  |  |
| hcpcs\_cd\_30 | varchar |  |  |
| hcpcs\_cd\_31 | varchar |  |  |
| hcpcs\_cd\_32 | varchar |  |  |
| hcpcs\_cd\_33 | varchar |  |  |
| hcpcs\_cd\_34 | varchar |  |  |
| hcpcs\_cd\_35 | varchar |  |  |
| hcpcs\_cd\_36 | varchar |  |  |
| hcpcs\_cd\_37 | varchar |  |  |
| hcpcs\_cd\_38 | varchar |  |  |
| hcpcs\_cd\_39 | varchar |  |  |
| hcpcs\_cd\_40 | varchar |  |  |
| hcpcs\_cd\_41 | varchar |  |  |
| hcpcs\_cd\_42 | varchar |  |  |
| hcpcs\_cd\_43 | varchar |  |  |
| hcpcs\_cd\_44 | varchar |  |  |
| hcpcs\_cd\_45 | varchar |  |  |