****

**OMOP Common Data Model (CDM V4.0)**

**Health Cost and Utilization Project (HCUP) – Nationwide Inpatient Sample (NIS)**

**Mapping Specification**

**Version 1.1**

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Source Data Mapping Approach

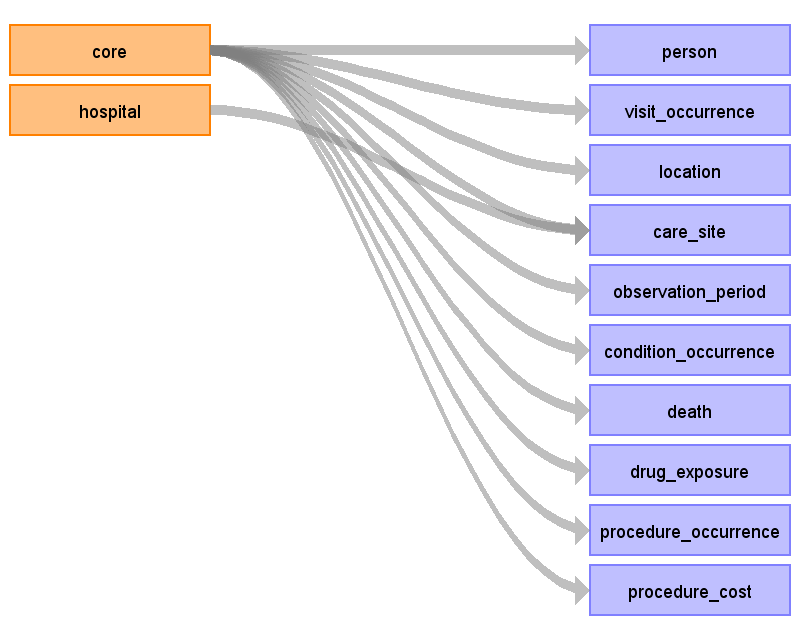
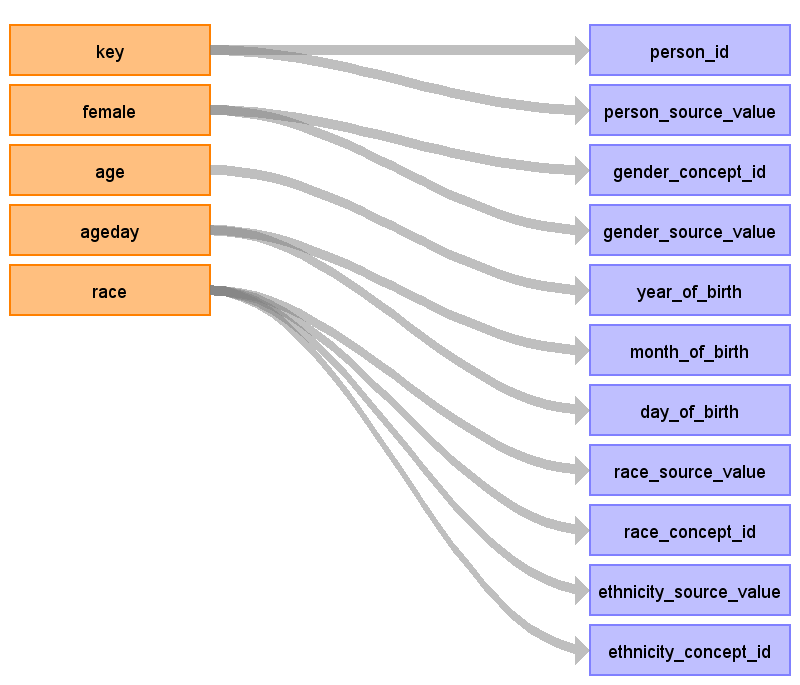


Table name: person

Reading from core

Contains hospital discharges, not persons. But every row can be considered one person



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| person\_id | key |  | One-on-one copy |
| person\_source\_value | key |  |  |
| gender\_concept\_id | female | 1 = female (8532) 0 = male (8507) else = unknown (8551) |  |
| gender\_source\_value | female |  |  |
| year\_of\_birth | age | if age > 0 year\_of\_birth = visit\_start\_date year - age else year\_of\_birth + month\_of\_birth + day\_of\_birth = visit\_start\_date - ageday |  |
| month\_of\_birth | ageday | see year\_of\_birth logic. Only filled if age = 0, else NULL |  |
| day\_of\_birth | ageday | see year\_of\_birth logic. Only filled if age = 0, else NULL |  |
| race\_source\_value | race |  |  |
| race\_concept\_id | race | See mapping table:  source\_value label concept\_id  1 White 8527  2 Black 8516  3 Other 8522  4 Pacific Islander 8557  5 Native American 8657  6 Other 8522 |  |
| ethnicity\_source\_value | race | if race = 3, put that value here, else 0 (note: will be stored in race\_source\_value) |  |
| ethnicity\_concept\_id | race | if race = 3, set to 38003563 (Hispanic), else 0 |  |
| location\_id |  | not used |  |
| provider\_id |  | not used |  |
| care\_site\_id |  | not used |  |

**Sample code for transformation:**

Row person = **new** Row();

person.add("person\_id", row.get("KEY"));

person.add("person\_source\_value", row.get("KEY"));

person.add("gender\_source\_value", row.get("FEMALE"));

person.add("gender\_concept\_id", row.get("FEMALE").equals("1") ? "8532" : row.get("FEMALE").equals("0") ? "8507" : "8551");

**if** (row.getInt("AGE") > 0) {

**int** yearOfBirth = Integer.*parseInt*(StringUtilities.*daysToCalendarYear*(visitStartDate)) - row.getInt("AGE");

person.add("year\_of\_birth", yearOfBirth);

person.add("month\_of\_birth", "");

person.add("day\_of\_birth", "");

} **else** **if** (row.getInt("AGEDAY") >= 0) {

**long** dateOfBirth = visitStartDate - row.getInt("AGEDAY");

person.add("year\_of\_birth", StringUtilities.*daysToCalendarYear*(dateOfBirth));

person.add("month\_of\_birth", StringUtilities.*daysToCalendarMonth*(dateOfBirth));

person.add("day\_of\_birth", StringUtilities.*daysToCalendarDayOfMonth*(dateOfBirth));

} **else** {

person.add("year\_of\_birth", "");

person.add("month\_of\_birth", "");

person.add("day\_of\_birth", "");

}

person.add("race\_source\_value", row.get("RACE"));

**if** (row.get("RACE").equals("1")) // White

person.add("race\_concept\_id", "8527");

**else** **if** (row.get("RACE").equals("2")) // Black

person.add("race\_concept\_id", "8516");

**else** **if** (row.get("RACE").equals("4")) // Pacific islander

person.add("race\_concept\_id", "8557");

**else** **if** (row.get("RACE").equals("5")) // Native American

person.add("race\_concept\_id", "8657");

**else** **if** (row.get("RACE").equals("3")) // Hispanic, should be coded as 'other'

person.add("race\_concept\_id", "8522");

**else** **if** (row.get("RACE").equals("6")) // Other

person.add("race\_concept\_id", "8522");

**else**

person.add("race\_concept\_id", "");

**if** (row.get("RACE").equals("3")) {// Hispanic

person.add("ethnicity\_source\_value", "3");

person.add("ethnicity\_concept\_id", "38003563");

} **else** {

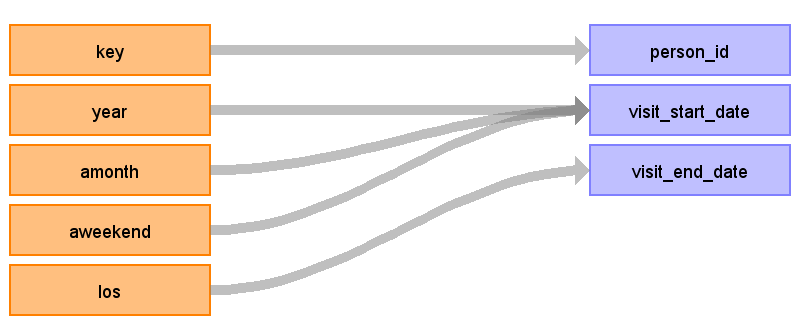
person.add("ethnicity\_source\_value", "");

person.add("ethnicity\_concept\_id", "0");

}

Table name: visit\_occurrence

Reading from core



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| person\_id | key |  |  |
| visit\_occurrence\_id |  | Auto generate |  |
| place\_of\_service\_source\_value |  |  |  |
| place\_of\_service\_concept\_id |  | 9201 |  |
| visit\_start\_date | year amonth aweekend | visit date = year + amonth + ? (first day of month that is correct weekday (weekday or weekend))  if amonth < 1 then amonth = 1  if aweekend < 0 then aweekend = 0 |  |
| visit\_end\_date | los | if los < 1 set to 0 (same day stay): start\_date = end\_date | There are some bogus values, but they are very infrequent. |
| care\_site\_id | hospid |  |  |

**Sample code for computing visit start date**

**if** (Integer.*parseInt*(amonth) < 1)

amonth = Integer.*toString*(Math.*abs*(hash(key) % 12) + 1);

**boolean** isWeekend = aweekend.equals("1");

Calendar calendar = Calendar.*getInstance*();

calendar.set(Integer.*parseInt*(year), Integer.*parseInt*(amonth) - 1, 1);

**while** (isWeekend(calendar) != isWeekend)

calendar.add(Calendar.*DATE*, 1);

**long** time = calendar.getTimeInMillis();

time += calendar.getTimeZone().getOffset(time);

// Millenium is added because for negative numbers, integer division truncates upwards! (-8/10 = 0). This is reversed in the daysToDatabaseDateString function

visitStartDate = (((StringUtilities.*MILLENIUM* + time) / StringUtilities.*DAY*) - (1000 \* 365));

**Sample code for transformation:**

Row visitOccurrence = **new** Row();

visitOccurrence.add("person\_id", row.get("KEY"));

visitOccurrence.add("visit\_occurrence\_id", visitOccurrenceId);

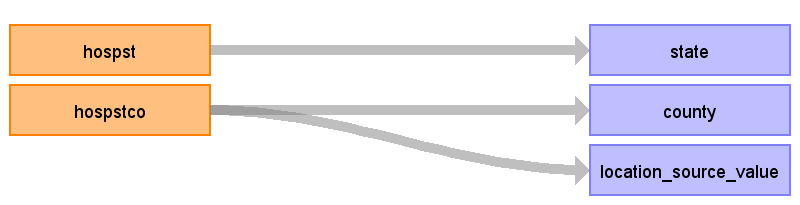
visitOccurrence.add("visit\_start\_date", StringUtilities.*daysToDatabaseDateString*(visitStartDate));

visitOccurrence.add("visit\_end\_date", StringUtilities.*daysToDatabaseDateString*(visitEndDate));

visitOccurrence.add("care\_site\_id", row.get("HOSPID"));

visitOccurrence.add("place\_of\_service\_concept\_id", 9201); // Inpatient visitTable name: location

Reading from core



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| location\_id |  | For every combination of hospst + hospstco, a new location\_id is generated. hoststco = NULL and hospstco = -9999 are considered to be the same. |  |
| address\_1 |  |  |  |
| address\_2 |  |  |  |
| city |  |  |  |
| state | hospst |  |  |
| zip |  |  |  |
| county | hospstco | Lookup in FIPS table <http://www.census.gov/geo/reference/docs/codes/national_county.txt> County name is truncated to 20 characters (note: the truncation has been verified to not create duplicate county names) |  |
| location\_source\_value | hospstco |  |  |

**Sample code for transformation:**

String stateCounty = row.get("HOSPST") + "\t" + (row.get("HOSPSTCO").equals("-9999") ? "" : row.get("HOSPSTCO"));

locationId = stateCountyToLocationId.get(stateCounty);

**if** (locationId == **null**) {

locationId = stateCountyToLocationId.size() + 1;

stateCountyToLocationId.put(stateCounty, locationId);

Row location = **new** Row();

location.add("location\_id", locationId);

location.add("state", row.get("HOSPST"));

String county = codeToCounty.get(row.get("HOSPSTCO"));

**if** (county == **null**)

county = "";

**if** (county.length() > 20)

county = county.substring(0,20); //County field in CDM limited to 20 chars

location.add("county", county);

location.add("location\_source\_value", row.get("HOSPSTCO"));

}Table name: care\_site

Reading from core



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| location\_id |  | From location table based on hospst + hospstco |  |
| organization\_id |  |  |  |
| place\_of\_service\_concept\_id |  |  |  |
| place\_of\_service\_source\_value |  |  |  |
| care\_site\_source\_value | hospid |  |  |
| care\_site\_id | hospid |  |  |

**Sample code for transformation:**

**if** (careSiteIds.add(row.getInt("HOSPID"))) {

Row careSite = **new** Row();

careSite.add("care\_site\_id", row.get("HOSPID"));

careSite.add("care\_site\_source\_value", row.get("HOSPID"));

careSite.add("location\_id", locationId);

}

Reading from hospital

Lots of nice data, but no place to put it in the CDM.

Table name: observation\_period

Reading from core

Same logic as visit\_occurrence table (visit = observation\_period)

Generated

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

**Sample code for transformation:**

Row observationPeriod = **new** Row();

observationPeriod.add("observation\_period\_id", observationPeriodId);

observationPeriod.add("person\_id", row.get("KEY"));

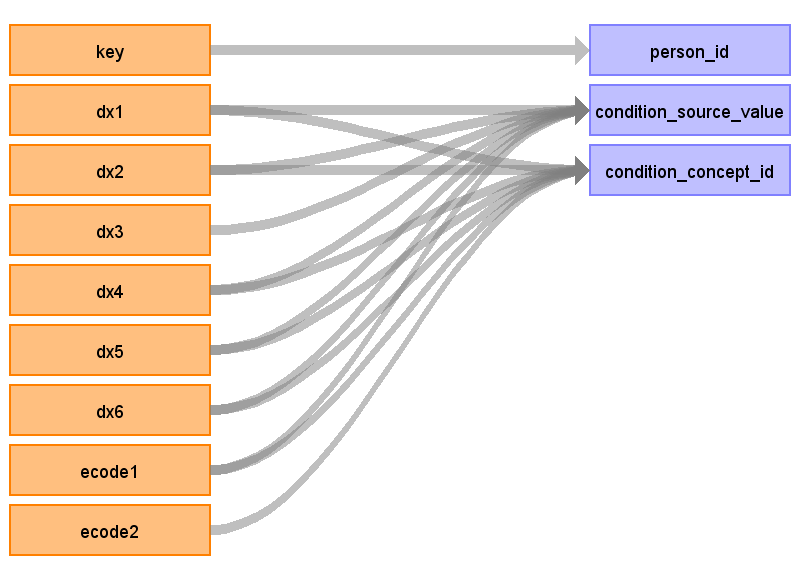
observationPeriod.add("observation\_period\_start\_date", StringUtilities.*daysToDatabaseDateString*(visitStartDate));

observationPeriod.add("observation\_period\_end\_date", StringUtilities.*daysToDatabaseDateString*(visitEndDate));Table name: provider

Table name: condition\_occurrence

Reading from core

If any of the diagnose fields maps to concept 4014295 (Single live birth) and the patient is either male or younger than 12, the code is discarted.



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| person\_id | key |  |  |
| condition\_occurrence\_id |  |  |  |
| condition\_start\_date | visit\_start\_date |  |  |
| condition\_end\_date |  |  |  |
| condition\_type\_concept\_id | 38000184 – 38000198 for dx1-dx15, respectively  if ecode then 38000184-38000185 |  |  |
| stop\_reason |  |  |  |
| associated\_provider\_id |  |  |  |
| visit\_occurrence\_id | From visit\_occurrence table |  |  |
| condition\_source\_value | dx1 dx2 dx3 dx4 dx5 dx6 ecode1 |  |  |
| condition\_concept\_id | dx1 dx2 dx4 dx5 dx6 ecode2 ecode1 |  |  |

**Sample code for transformation:**

*diagnoseFields* = **new** String[] { "DX1", "DX2", "DX3", "DX4", "DX5", "DX6", "DX7", "DX8", "DX9", "DX10", "DX11", "DX12", "DX13", "DX14", "DX15", "DX16", "DX17", "DX18", "DX19", "DX20", "DX21", "DX22", "DX23", "DX24", "DX25", "ECODE1", "ECODE2" };

*diagnoseFieldConceptIds* = **new** **int**[] { 38000184, 38000185, 38000186, 38000187, 38000188, 38000189, 38000190, 38000191, 38000192, 38000193, 38000194, 38000195, 38000196, 38000197, 38000198, 38000198, 38000198, 38000198, 38000198, 38000198, 38000198, 38000198, 38000198, 38000198, 38000198, 38000184, 38000185 };

**for** (**int** i = 0; i < *diagnoseFields*.length; i++)

**if** (row.get(*diagnoseFields*[i]).trim().length() != 0) {

**if** (conceptId == 4014295 && row.getInt("AGE") < 12) { // 4014295 = Single live birth

etlReport.reportProblem("Condition\_occurrence", "Person < 12 years old with live birth. Removing condition\_occurrence", row.get("KEY"));

**continue**;

}

**if** (conceptId == 4014295 && row.get("FEMALE").equals("0")) { // 4014295 = Single live birth

etlReport.reportProblem("Condition\_occurrence", "Male with live birth. Removing condition\_occurrence", row.get("KEY"));

**continue**;

}

Row conditionOccurrence = **new** Row();

conditionOccurrence.add("person\_id", row.get("KEY"));

conditionOccurrence.add("condition\_occurrence\_id", ++conditionOccurrenceId);

conditionOccurrence.add("condition\_source\_value", row.get(*diagnoseFields*[i]));

conditionOccurrence.add("condition\_concept\_id", conceptId);

conditionOccurrence.add("condition\_type\_concept\_id", *diagnoseFieldConceptIds*[i]);

conditionOccurrence.add("condition\_start\_date", StringUtilities.*daysToDatabaseDateString*(visitStartDate));

conditionOccurrence.add("visit\_occurrence\_id", visitOccurrenceId);

tableToRows.put("condition\_occurrence", conditionOccurrence);

}Table name: death

Reading from core

Only create a record if died = 1



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| person\_id | key |  |  |
| death\_date |  | visit\_end\_date |  |
| death\_type\_concept\_id |  | 38003566 Medical claim discharge status "Died" |  |
| cause\_of\_death\_concept\_id |  |  |  |
| cause\_of\_death\_source\_value |  |  |  |

**Sample code for transformation:**

**if** (row.get("DIED").equals("1")) {

Row death = **new** Row();

death.add("person\_id", row.get("KEY"));

death.add("death\_date", StringUtilities.*daysToDatabaseDateString*(visitEndDate));

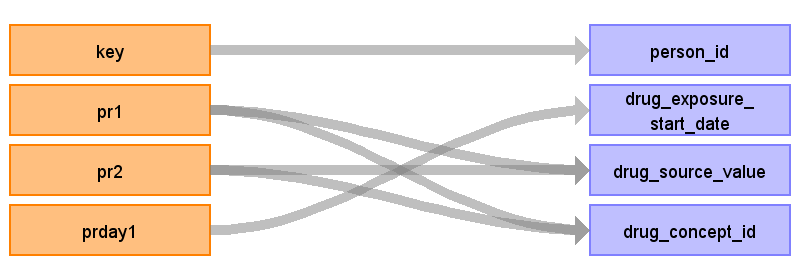
death.add("death\_type\_concept\_id", 38003566); // EHR record patient status "Deceased"

}

Table name: drug\_exposure

Reading from core

A record is created only if procedure implies drug.



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| person\_id | key |  |  |
| drug\_exposure\_start\_date | prday1 prday2  ... | If prdayx < 1 then visit\_start\_date, else (visit\_start\_date + prdayx) |  |
| drug\_exposure\_end\_date |  |  |  |
| drug\_type\_concept\_id |  | 38000179 (Physician administered drug (identified as procedure)) |  |
| stop\_reason |  |  |  |
| refills |  |  |  |
| quantity |  |  |  |
| days\_supply |  |  |  |
| sig |  |  |  |
| prescribing\_provider\_id |  |  |  |
| visit\_occurrence\_id |  | From visit\_occurrence table |  |
| relevant\_condition\_concept\_id |  |  |  |
| drug\_exposure\_id |  | auto generate |  |
| drug\_source\_value | pr1  pr2  ... |  |  |
| drug\_concept\_id | pr1  pr2  ... | Lookup in mapping table |  |

**Sample SQL code for finding procedures that map to drugs:**

SELECT DISTINCT source\_code, source\_code\_description, target\_concept\_id, concept\_code, concept\_name FROM source\_to\_concept\_map INNER JOIN concept ON target\_concept\_id = concept\_id WHERE target\_vocabulary\_id = 8 AND source\_vocabulary\_id in (3,4,5) AND primary\_map = 'Y' AND COALESCE(source\_to\_concept\_map.invalid\_reason,’’) != 'D'

**Sample code for transformation:**

*procedureFields* = **new** String[] { "PR1", "PR2", "PR3", "PR4", "PR5", "PR6", "PR7", "PR8", "PR9", "PR10", "PR11", "PR12", "PR13", "PR14", "PR15"};

*procedureDayFields* = **new** String[] { "PRDAY1", "PRDAY2", "PRDAY3", "PRDAY4", "PRDAY5", "PRDAY6", "PRDAY7", "PRDAY8", "PRDAY9", "PRDAY10", "PRDAY11", "PRDAY12", "PRDAY13", "PRDAY14", "PRDAY15" };

**for** (**int** i = 0; i < *procedureFields*.length; i++)

**if** (row.get(*procedureFields*[i]).trim().length() != 0) {

**int** conceptId = icd9ToRxNorm.getConceptId(row.get(*procedureFields*[i]).trim());

**if** (conceptId != 0) {

Row drugExposure = **new** Row();

drugExposure.add("drug\_exposure\_id", ++drugExposureId);

drugExposure.add("person\_id", row.get("KEY"));

**int** day = row.getInt(*procedureDayFields*[i]);

**if** (day < 0)

day = 0;

**if** (day > visitEndDate - visitStartDate) {

etlReport.reportProblem("Drug\_exposure", "Drug exposure date beyond length of stay, removing drug exposure", row.get("KEY"));

**continue**;

}

drugExposure.add("drug\_exposure\_start\_date", StringUtilities.*daysToDatabaseDateString*(visitStartDate + day));

drugExposure.add("drug\_source\_value", row.get(*procedureFields*[i]));

drugExposure.add("drug\_concept\_id", conceptId);

drugExposure.add("drug\_type\_concept\_id", 38000179); // Physician administered drug (identified as procedure)

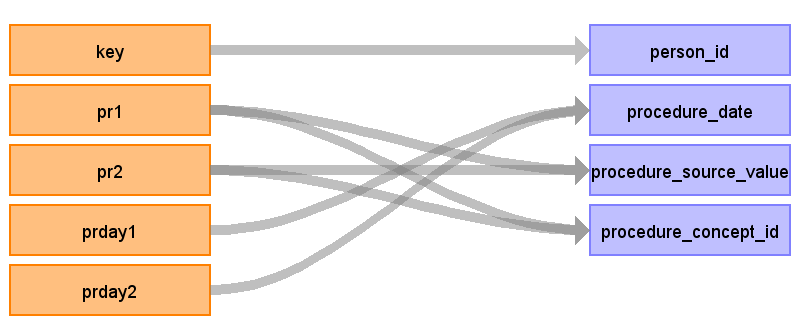
drugExposure.add("visit\_occurrence\_id", visitOccurrenceId);

tableToRows.put("drug\_exposure", drugExposure);

}

}Table name: procedure\_occurrence

Reading from core



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| person\_id | key |  |  |
| procedure\_occurrence\_id |  | Auto generate |  |
| procedure\_type\_concept\_id |  | 38000251 to 38000265, for pr1 through pr15 |  |
| procedure\_date | prday1 prday2  ... | If prdayx < 1 then visit\_start\_date, else (visit\_start\_date + prdayx) |  |
| associated\_provider\_id |  |  |  |
| visit\_occurrence\_id |  | from visit occurrence table |  |
| relevant\_condition\_concept\_id |  |  |  |
| procedure\_source\_value | pr1  pr2  ... |  |  |
| procedure\_concept\_id | pr1  pr2  ... | Lookup in source\_to\_concept\_map |  |

**Sample code for transformation:**

*procedureFields* = **new** String[] { "PR1", "PR2", "PR3", "PR4", "PR5", "PR6", "PR7", "PR8", "PR9", "PR10", "PR11", "PR12", "PR13", "PR14", "PR15"};

*procedureDayFields* = **new** String[] { "PRDAY1", "PRDAY2", "PRDAY3", "PRDAY4", "PRDAY5", "PRDAY6", "PRDAY7", "PRDAY8", "PRDAY9", "PRDAY10", "PRDAY11", "PRDAY12", "PRDAY13", "PRDAY14", "PRDAY15" };

*procedureFieldConceptIds* = **new** **int**[] { 38000251, 38000252, 38000253, 38000254, 38000255, 38000256, 38000257, 38000258, 38000259, 38000260, 38000261, 38000262, 38000263, 38000264, 38000265 };

**for** (**int** i = 0; i < *procedureFields*.length; i++)

**if** (row.get(*procedureFields*[i]).trim().length() != 0) {

**int** day = row.getInt(*procedureDayFields*[i]);

**if** (day < 0)

day = 0;

**if** (day > visitEndDate-visitStartDate){

etlReport.reportProblem("Procedure\_occurrence", "Procedure date beyond length of stay, removing procedure", row.get("KEY"));

**continue**;

}

Row procedureOccurrence = **new** Row();

procedureOccurrence.add("procedure\_occurrence\_id", ++procedureOccurrenceId);

procedureOccurrence.add("person\_id", row.get("KEY"));

procedureOccurrence.add("procedure\_date", StringUtilities.*daysToDatabaseDateString*(visitStartDate + day));

procedureOccurrence.add("procedure\_source\_value", row.get(*procedureFields*[i]));

procedureOccurrence.add("procedure\_concept\_id", icd9ProcToConcept.getConceptId(row.get(*procedureFields*[i]).trim()));

procedureOccurrence.add("procedure\_type\_concept\_id", *procedureFieldConceptIds*[i]);

procedureOccurrence.add("visit\_occurrence\_id", visitOccurrenceId);

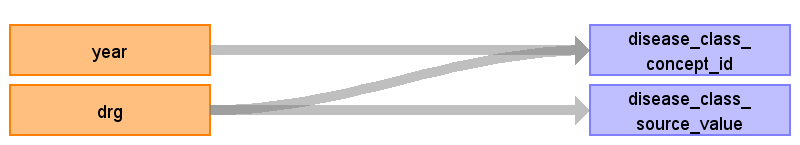
tableToRows.put("procedure\_occurrence", procedureOccurrence);

**if** (*procedureFields*[i].equals("PR1"))

primaryProcedureOccurrenceId = procedureOccurrenceId;

}Table name: procedure\_cost

Reading from core



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| procedure\_cost\_id |  | Autogenerate, starts at value 1 |  |
| procedure\_occurrence\_id |  | procedure\_occurrence\_id corresponding to PR1 |  |
| paid\_copay |  |  |  |
| paid\_coinsurance |  |  |  |
| paid\_toward\_deductible |  |  |  |
| paid\_by\_payer |  |  |  |
| paid\_by\_coordination\_benefits |  |  |  |
| total\_out\_of\_pocket |  |  |  |
| total\_paid |  |  |  |
| revenue\_code\_concept\_id |  |  |  |
| payer\_plan\_period\_id |  |  |  |
| revenue\_code\_source\_value |  |  |  |
| disease\_class\_concept\_id | drg year | Use year to select only the DRG code in the vocab that was valid that year |  |
| disease\_class\_source\_value | drg |  |  |

**Sample code for transformation:**

**if** (primaryProcedureOccurrenceId != -1) {

String drg = row.get("DRG").trim();

**int** conceptId;

**if** (StringUtilities.*isInteger*(drg)) {

conceptId = drgYearToConcept.getConceptId(String.*format*("%03d", Integer.*parseInt*(drg)) + "\_" + row.get("YEAR"));

} **else**

conceptId = drgYearToConcept.getConceptId(drg + "\_" + row.get("YEAR"));

procedureCostId++;

Row procedureCost = **new** Row();

procedureCost.add("procedure\_cost\_id", procedureCostId);

procedureCost.add("procedure\_occurrence\_id", primaryProcedureOccurrenceId);

procedureCost.add("disease\_class\_source\_value", row.get("DRG"));

procedureCost.add("disease\_class\_concept\_id", conceptId);

}Table name: observation

Table name: condition\_era

Table name: drug\_era

Table name: organization

Table name: payer\_plan\_period

Table name: drug\_cost

Table name: cohort

Appendix: source tables

Table: core

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Type | Most freq. value | Comment |
| key | Integer | List truncated... |  |
| female | Integer | 1 |  |
| year | Integer | 2006 |  |
| amonth | Integer | -9 |  |
| aweekend | Integer | 0 |  |
| age | Integer | 0 |  |
| ageday | Integer | -99 |  |
| race | Integer | 1 |  |
| hospst | VarChar | CA |  |
| hospstco | Integer |  | Indicates the five (or four) digits of zip code for hospital |
| hospid | Integer | 51043 |  |
| los | Integer | 2 |  |
| los\_x | Integer | 2 |  |
| asource | Integer | 5 |  |
| asource\_x | VarChar |  |  |
| atype | Integer | 1 |  |
| died | Integer | 0 |  |
| discwt | Real | 4.6286 |  |
| dispub92 | Integer |  |  |
| dispuniform | Integer | 1 |  |
| dqtr | Integer | 1 |  |
| drg | Integer | 391 | DRG |
| drgver | Integer | 22 |  |
| drg18 | Integer |  | DRG 18 |
| drg24 | Integer |  | DRG 24 |
| dshospid | VarChar |  |  |
| dx1 | VarChar | V3000 |  |
| dx2 | VarChar |  |  |
| dx3 | VarChar |  |  |
| dx4 | VarChar |  |  |
| dx5 | VarChar |  |  |
| dx6 | VarChar |  |  |
| dx7 | VarChar |  |  |
| dx8 | VarChar |  |  |
| dx9 | VarChar |  |  |
| dx10 | Free text | 4019 |  |
| dx11 | Free text | 4019 |  |
| dx12 | VarChar |  |  |
| dx13 | VarChar |  |  |
| dx14 | VarChar |  |  |
| dx15 | VarChar |  |  |
| dxccs1 | Integer | 218 | CCS = clinical classification systems |
| dxccs2 | Integer | -999 |  |
| dxccs3 | Integer | -999 |  |
| dxccs4 | Integer | -999 |  |
| dxccs5 | Integer | -999 |  |
| dxccs6 | Integer | -999 |  |
| dxccs7 | Integer | -999 |  |
| dxccs8 | Integer | -999 |  |
| dxccs9 | Integer | -999 |  |
| dxccs10 | Integer | -999 |  |
| dxccs11 | Integer | -999 |  |
| dxccs12 | Integer | -999 |  |
| dxccs13 | Integer | -999 |  |
| dxccs14 | Integer | -999 |  |
| dxccs15 | Integer | -999 |  |
| mdc | Integer | 5 |  |
| mdc18 | Integer |  |  |
| mdnum1\_s | VarChar |  |  |
| mdnum2\_s | VarChar |  |  |
| ndx | Integer | 9 |  |
| neomat | Integer | 0 |  |
| nis\_stratum | Integer | 3033 |  |
| npr | Integer | 0 |  |
| pay1 | Integer | 1 |  |
| pay1\_x | VarChar | C |  |
| pay2 | Integer | -9 |  |
| pay2\_x | VarChar |  |  |
| pr1 | VarChar |  |  |
| pr2 | VarChar |  |  |
| pr3 | VarChar |  |  |
| pr4 | VarChar |  |  |
| pr5 | VarChar |  |  |
| pr6 | Free text | 8853 |  |
| pr7 | VarChar |  |  |
| pr8 | VarChar |  |  |
| pr9 | VarChar |  |  |
| pr10 | VarChar |  |  |
| pr11 | VarChar |  |  |
| pr12 | VarChar |  |  |
| pr13 | VarChar |  |  |
| pr14 | VarChar |  |  |
| pr15 | Integer |  |  |
| prccs1 | Integer | -99 |  |
| prccs2 | Integer | -99 |  |
| prccs3 | Integer | -99 |  |
| prccs4 | Integer | -99 |  |
| prccs5 | Integer | -99 |  |
| prccs6 | Integer | -99 |  |
| prccs7 | Integer | -99 |  |
| prccs8 | Integer | -99 |  |
| prccs9 | Integer | -99 |  |
| prccs10 | Integer | -99 |  |
| prccs11 | Integer | -99 |  |
| prccs12 | Integer | -99 |  |
| prccs13 | Integer | -99 |  |
| prccs14 | Integer | -99 |  |
| prccs15 | Integer | -99 |  |
| prday1 | Integer | -99 |  |
| prday2 | Integer | -99 |  |
| prday3 | Integer | -99 |  |
| prday4 | Integer | -99 |  |
| prday5 | Integer | -99 |  |
| prday6 | Integer | -99 |  |
| prday7 | Integer | -99 |  |
| prday8 | Integer | -99 |  |
| prday9 | Integer | -99 |  |
| prday10 | Integer | -99 |  |
| prday11 | Integer | -99 |  |
| prday12 | Integer | -99 |  |
| prday13 | Integer | -99 |  |
| prday14 | Integer | -99 |  |
| prday15 | Integer | -99 |  |
| totchg | Integer | -999999999 |  |
| totchg\_x | Real | -99999999999.99 |  |
| zipinc | Integer |  |  |
| discwtcharge | Real |  |  |
| mdid\_s | VarChar |  |  |
| surgid\_s | VarChar |  |  |
| asourceub92 | VarChar |  |  |
| dispub04 | Integer |  |  |
| dqtr\_x | Integer |  |  |
| drg\_nopoa | Integer |  |  |
| dx16 | VarChar |  |  |
| dx17 | VarChar |  |  |
| dx18 | VarChar |  |  |
| dx19 | VarChar |  |  |
| dx20 | VarChar |  |  |
| dx21 | VarChar |  |  |
| dx22 | VarChar |  |  |
| dx23 | VarChar |  |  |
| dx24 | VarChar |  |  |
| dx25 | VarChar |  |  |
| dxccs16 | Integer |  |  |
| dxccs17 | Integer |  |  |
| dxccs18 | Integer |  |  |
| dxccs19 | Integer |  |  |
| dxccs20 | Integer |  |  |
| dxccs21 | Integer |  |  |
| dxccs22 | Integer |  |  |
| dxccs23 | Integer |  |  |
| dxccs24 | Integer |  |  |
| dxccs25 | Integer |  |  |
| ecode1 | VarChar |  |  |
| ecode2 | VarChar |  |  |
| ecode3 | VarChar |  |  |
| ecode4 | VarChar |  |  |
| elective | Integer | 0 |  |
| e\_ccs1 | Integer | -999 |  |
| e\_ccs2 | Integer | -999 |  |
| e\_ccs3 | Integer | -999 |  |
| e\_ccs4 | Integer | -999 |  |
| hcup\_ed | Integer |  |  |
| hospbrth | Integer |  |  |
| mdc24 | Integer |  |  |
| mdc\_nopoa | Integer |  |  |
| nchronic | Integer |  |  |
| necode | Integer | 0 |  |
| orproc | Integer |  |  |
| pl\_nchs2006 | Integer |  |  |
| pointoforiginub04 | VarChar |  |  |
| pointoforigin\_x | VarChar |  |  |
| tran\_in | Integer |  |  |
| tran\_out | Integer |  |  |
| zipinc\_qrtl | Integer |  |  |
| mdnum1\_r | Integer |  |  |
| mdnum2\_r | Integer |  |  |
| pl\_ur\_cat4 | Integer |  |  |

Table: dx\_pr\_grps

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Type | Most freq. value | Comment |
| hospid | Integer | 12320 |  |
| key | Integer | List truncated... |  |
| chron1 | Integer | 0 |  |
| chron2 | Integer | 0 |  |
| chron3 | Integer | 1 |  |
| chron4 | Integer | 1 |  |
| chron5 | Integer | 1 |  |
| chron6 | Integer | -99 |  |
| chron7 | Integer | -99 |  |
| chron8 | Integer | -99 |  |
| chron9 | Integer | -99 |  |
| chron10 | Integer | -99 |  |
| chron11 | Integer | -99 |  |
| chron12 | Integer | -99 |  |
| chron13 | Integer | -99 |  |
| chron14 | Integer | -99 |  |
| chron15 | Integer | -99 |  |
| chron16 | Integer |  |  |
| chron17 | Integer |  |  |
| chron18 | Integer |  |  |
| chron19 | Integer |  |  |
| chron20 | Integer |  |  |
| chron21 | Integer |  |  |
| chron22 | Integer |  |  |
| chron23 | Integer |  |  |
| chron24 | Integer |  |  |
| chron25 | Integer |  |  |
| chronb1 | Integer | 7 |  |
| chronb2 | Integer | 7 |  |
| chronb3 | Integer | 7 |  |
| chronb4 | Integer | -99 |  |
| chronb5 | Integer | -99 |  |
| chronb6 | Integer | -99 |  |
| chronb7 | Integer | -99 |  |
| chronb8 | Integer | -99 |  |
| chronb9 | Integer | -99 |  |
| chronb10 | Integer | -99 |  |
| chronb11 | Integer | -99 |  |
| chronb12 | Integer | -99 |  |
| chronb13 | Integer | -99 |  |
| chronb14 | Integer | -99 |  |
| chronb15 | Integer | -99 |  |
| chronb16 | Integer |  |  |
| chronb17 | Integer |  |  |
| chronb18 | Integer |  |  |
| chronb19 | Integer |  |  |
| chronb20 | Integer |  |  |
| chronb21 | Integer |  |  |
| chronb22 | Integer |  |  |
| chronb23 | Integer |  |  |
| chronb24 | Integer |  |  |
| chronb25 | Integer |  |  |
| dxmccs1 | VarChar |  |  |
| e\_mccs1 | VarChar |  |  |
| pclass1 | Integer | -99 |  |
| pclass2 | Integer | -99 |  |
| pclass3 | Integer | -99 |  |
| pclass4 | Integer | -99 |  |
| pclass5 | Integer | -99 |  |
| pclass6 | Integer | -99 |  |
| pclass7 | Integer | -99 |  |
| pclass8 | Integer | -99 |  |
| pclass9 | Integer | -99 |  |
| pclass10 | Integer | -99 |  |
| pclass11 | Integer | -99 |  |
| pclass12 | Integer | -99 |  |
| pclass13 | Integer | -99 |  |
| pclass14 | Integer | -99 |  |
| pclass15 | Integer | -99 |  |
| prmccs1 | VarChar |  |  |
| ccsmgn1 | Integer |  |  |
| ccsmgn2 | Integer |  |  |
| ccsmgn3 | Integer |  |  |
| ccsmgn4 | Integer |  |  |
| ccsmgn5 | Integer |  |  |
| ccsmgn6 | Integer |  |  |
| ccsmgn7 | Integer |  |  |
| ccsmgn8 | Integer |  |  |
| ccsmgn9 | Integer |  |  |
| ccsmgn10 | Integer |  |  |
| ccsmgn11 | Integer |  |  |
| ccsmgn12 | Integer |  |  |
| ccsmgn13 | Integer |  |  |
| ccsmgn14 | Integer |  |  |
| ccsmgn15 | Integer |  |  |
| ccsmsp1 | Integer |  |  |
| ccsmsp2 | Integer |  |  |
| ccsmsp3 | Integer |  |  |
| ccsmsp4 | Integer |  |  |
| ccsmsp5 | Integer |  |  |
| ccsmsp6 | Integer |  |  |
| ccsmsp7 | Integer |  |  |
| ccsmsp8 | Integer |  |  |
| ccsmsp9 | Integer |  |  |
| ccsmsp10 | Integer |  |  |
| ccsmsp11 | Integer |  |  |
| ccsmsp12 | Integer |  |  |
| ccsmsp13 | Integer |  |  |
| ccsmsp14 | Integer |  |  |
| ccsmsp15 | Integer |  |  |
| eccsmgn1 | Integer |  |  |
| eccsmgn2 | Integer |  |  |
| eccsmgn3 | Integer |  |  |
| eccsmgn4 | Integer |  |  |

Table: hospital

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Type | Most freq. value | Comment |
| ahaid | VarChar |  |  |
| discwt | Real | 4.4322 |  |
| hospaddr | VarChar |  |  |
| hospcity | VarChar |  |  |
| hospid | Integer | List truncated... |  |
| hospname | VarChar |  |  |
| hospst | VarChar | TX |  |
| hospwt | Real | 5.0000 |  |
| hospzip | Integer |  |  |
| hosp\_bedsize | Integer | 1 |  |
| hosp\_control | Integer | 0 |  |
| hosp\_location | Integer | 1 |  |
| hosp\_locteach | Integer | 2 |  |
| hosp\_region | Integer | 3 |  |
| hosp\_teach | Integer | 0 |  |
| idnumber | VarChar |  |  |
| nis\_stratum | Integer | 2411 |  |
| n\_disc\_u | Integer | 133443 |  |
| n\_hosp\_u | Integer | 78 |  |
| s\_disc\_u | Integer | 84786 |  |
| s\_hosp\_u | Integer | 16 |  |
| total\_disc | Integer | List truncated... |  |
| year | Integer | 2008 |  |
| discwtcharge | Real |  |  |
| hfipsstco | Integer |  |  |
| h\_contrl | Integer |  |  |
| hospstco | Integer | -9999 |  |
| hosp\_rnpct | Integer |  |  |
| hosp\_rnfteapd | Real |  |  |
| hosp\_lpnfteapd | Real |  |  |
| hosp\_nafteapd | Real |  |  |
| hosp\_opsurgpct | Integer |  |  |
| hosp\_mhsmember | Integer |  |  |
| hosp\_mhscluster | Integer |  |  |

Table: severity

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Type | Most freq. value | Comment |
| hospid | Integer | 51043 |  |
| key | Integer | List truncated... |  |
| aprdrg | Integer | 640 |  |
| aprdrg\_risk\_mortality | Integer | 1 |  |
| aprdrg\_severity | Integer | 1 |  |
| cm\_aids | Integer | 0 |  |
| cm\_alcohol | Integer | 0 |  |
| cm\_anemdef | Integer | 0 |  |
| cm\_arth | Integer | 0 |  |
| cm\_bldloss | Integer | 0 |  |
| cm\_chf | Integer | 0 |  |
| cm\_chrnlung | Integer | 0 |  |
| cm\_coag | Integer | 0 |  |
| cm\_depress | Integer | 0 |  |
| cm\_dm | Integer | 0 |  |
| cm\_dmcx | Integer | 0 |  |
| cm\_drug | Integer | 0 |  |
| cm\_htn\_c | Integer | 0 |  |
| cm\_hypothy | Integer | 0 |  |
| cm\_liver | Integer | 0 |  |
| cm\_lymph | Integer | 0 |  |
| cm\_lytes | Integer | 0 |  |
| cm\_mets | Integer | 0 |  |
| cm\_neuro | Integer | 0 |  |
| cm\_obese | Integer | 0 |  |
| cm\_para | Integer | 0 |  |
| cm\_perivasc | Integer | 0 |  |
| cm\_psych | Integer | 0 |  |
| cm\_pulmcirc | Integer | 0 |  |
| cm\_renlfail | Integer | 0 |  |
| cm\_tumor | Integer | 0 |  |
| cm\_ulcer | Integer | 0 |  |
| cm\_valve | Integer | 0 |  |
| cm\_wghtloss | Integer | 0 |  |
| ds\_dx\_category1 | VarChar |  |  |
| ds\_stage1 | Real | 1.01 |  |
| apsdrg | Integer |  |  |
| apsdrg\_charge\_weight | Real |  |  |
| apsdrg\_los\_weight | Real |  |  |
| apsdrg\_mortality\_weight | Real |  |  |
| ds\_los\_level | Integer |  |  |
| ds\_los\_scale | Real |  |  |
| ds\_mrt\_level | Integer |  |  |
| ds\_mrt\_scale | Real |  |  |
| ds\_rd\_level | Integer |  |  |
| ds\_rd\_scale | Real |  |  |