Source Data Mapping Approach to CDMV5.4

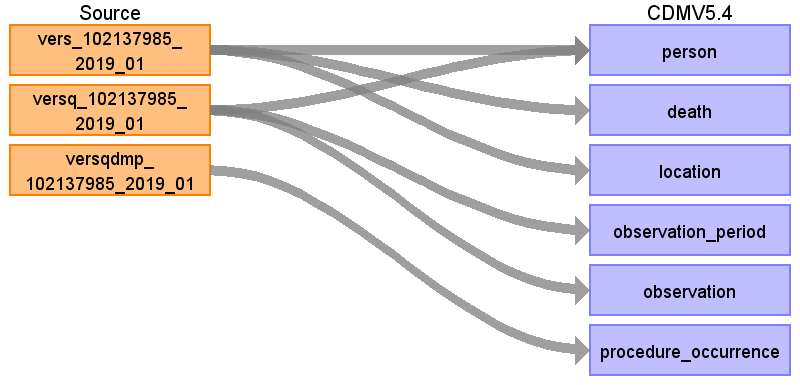
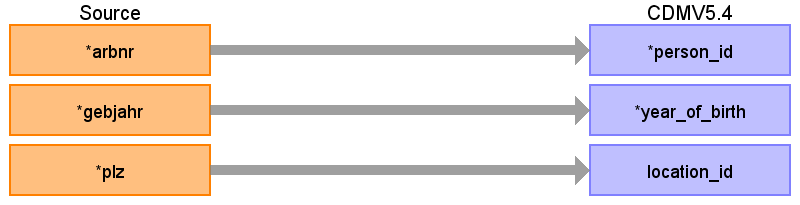


Table name: person

Map from table "vers" (insured person) birthyear and postal code. We join table "vers" (insured party relationship) to get the gender.

Note: We use entries of two tables to create one entry in OMOP table person by joining by identifier "arbnr"

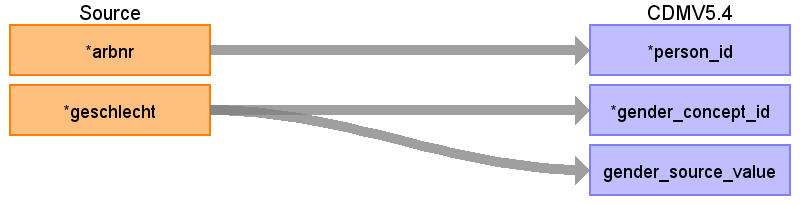
Reading from vers\_102137985\_2019\_01



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| person\_id | arbnr |  |  |
| gender\_concept\_id |  |  |  |
| gender\_source\_value |  |  |  |
| gender\_source\_concept\_id |  |  |  |
| year\_of\_birth | gebjahr |  |  |
| location\_id | plz |  |  |
| month\_of\_birth |  |  |  |
| day\_of\_birth |  |  |  |
| birth\_datetime |  |  |  |
| race\_concept\_id |  |  | 0 since not given |
| ethnicity\_concept\_id |  |  | 0 since not given |
| provider\_id |  |  |  |
| care\_site\_id |  |  |  |
| person\_source\_value |  |  |  |
| race\_source\_value |  |  |  |
| race\_source\_concept\_id |  |  |  |
| ethnicity\_source\_value |  |  |  |
| ethnicity\_source\_concept\_id |  |  |  |

Reading from versq\_102137985\_2019\_01

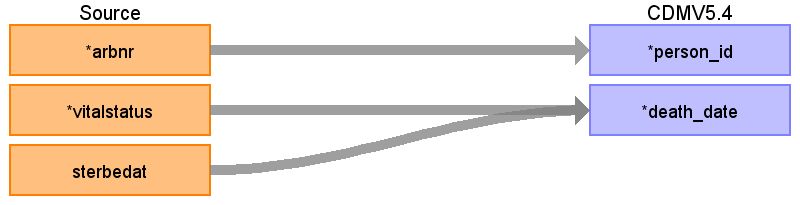
Map gender



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| person\_id | arbnr |  |  |
| gender\_concept\_id | geschlecht |  | 1 female => 8532  2 male => 8507  3,4 (missing, divers) => 0 ow |
| gender\_source\_value | geschlecht |  | 1 = weiblich  2 = männlich  3 = fehlende Geschlechtsangabe gemäß § 30 Abs. 1 Satz Nr. 1 RSAV  4 = divers gemäß § 22 Abs. 3 PStG  Most current gender |
| gender\_source\_concept\_id |  |  |  |
| year\_of\_birth |  |  |  |
| location\_id |  |  |  |
| month\_of\_birth |  |  |  |
| day\_of\_birth |  |  |  |
| birth\_datetime |  |  |  |
| race\_concept\_id |  |  | 0 since not given |
| ethnicity\_concept\_id |  |  | 0 since not given |
| provider\_id |  |  |  |
| care\_site\_id |  |  |  |
| person\_source\_value |  |  |  |
| race\_source\_value |  |  |  |
| race\_source\_concept\_id |  |  |  |
| ethnicity\_source\_value |  |  |  |
| ethnicity\_source\_concept\_id |  |  |  |

Table name: death

Reading from vers\_102137985\_2019\_01



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| person\_id | arbnr |  | only if |
| death\_date | sterbedat  vitalstatus |  | original format: JJJJMMTT  only if vitalstatus = 1 |
| death\_datetime |  |  |  |
| death\_type\_concept\_id |  |  |  |
| cause\_concept\_id |  |  |  |
| cause\_source\_value |  |  |  |
| cause\_source\_concept\_id |  |  |  |

Table name: location

Reading from vers\_102137985\_2019\_01



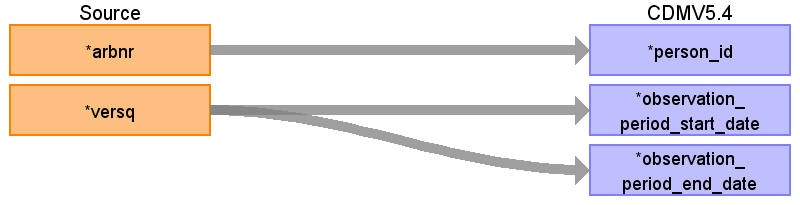
|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| location\_id | plz |  | Select distinct on plz |
| address\_1 |  |  |  |
| address\_2 |  |  |  |
| city |  |  |  |
| state |  |  |  |
| zip | plz |  |  |
| county |  |  |  |
| location\_source\_value |  |  |  |
| country\_concept\_id |  |  |  |
| country\_source\_value |  |  |  |
| latitude |  |  |  |
| longitude |  |  |  |

Table name: observation\_period

Reading from versq\_102137985\_2019\_01

Observation\_periods are given in quarters.

We define ONE observation\_period from the first reported quarter to the last reported quarter. We do not expect gaps between start and end quarter since it is not switching between private and statutory health insurance are attached to conditios.



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| observation\_period\_id |  |  | generate |
| person\_id | arbnr |  |  |
| observation\_period\_start\_date | versq |  | Format JJJJQ  1st dayquarter  Check for which quarter person appears and then create continues obersvation\_period (E.g.quarter 1 and 2 => 01.01. till 30.06)  Format JJJJQ  Grouped by subject: start\_quarter = min(Q)  1st of start\_quarter |
| observation\_period\_end\_date | versq |  | Format JJJJQ  Grouped by subject: last\_quarter = Max(Q)  30/31st of last\_quarter  Assumption: No insurance gaps between quarters  E.g. Min(Q)=1, MAX(Q)=3 => We assume that person was also insured in Q2  Format JJJJQ  31st of quarter ((quarter)\*3) |
| period\_type\_concept\_id |  |  | 32810 Claim |

Table name: observation

Reading from versq\_102137985\_2019\_01

We capture insured days which are used in a specific category (i.e. abroad)

Note:

Needs to be called three times for each category, which equals the columns:

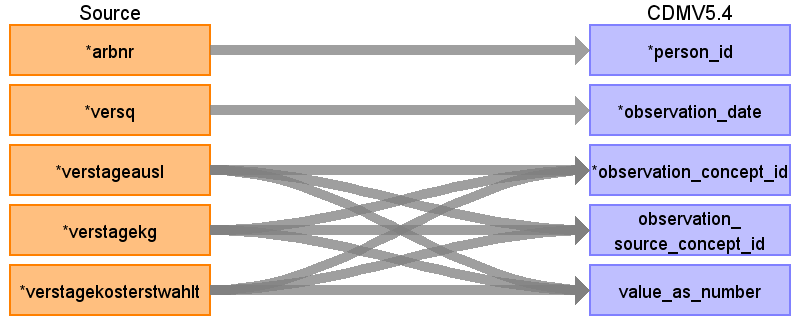
- verstageausl,

- verstagekg,

- verstagekosterstwahlt

in the original format .

Customized concept of format 1 can be reused.

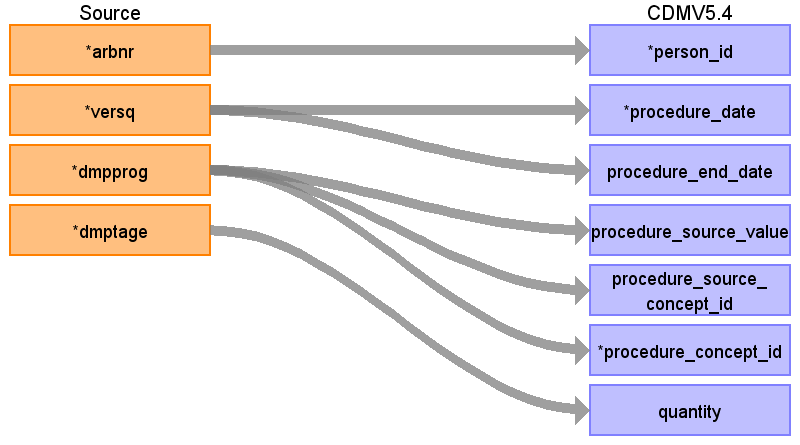


|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| observation\_id |  |  | Generate |
| person\_id | arbnr |  |  |
| observation\_date | versq |  | 1st of quarter ((quarter-1)\*3)+1  Format JJJJQ  1st of quarter ((quarter-1)\*3)+1  Format JJJJQ |
| observation\_datetime |  |  |  |
| observation\_concept\_id | verstageausl  verstagekg  verstagekosterstwahlt |  | 0 as concept\_id since no suitable concept\_id was found  0 as concept\_id since no suitable concept\_id was found  0 as concept\_id since no suitable concept\_id was found |
| observation\_source\_concept\_id | verstageausl  verstagekg  verstagekosterstwahlt |  | Custom concept  Custom concept  Custom concept |
| value\_as\_number | verstageausl  verstagekg  verstagekosterstwahlt |  | number of days  number of days  number of days |
| observation\_type\_concept\_id |  |  | 32810 Claim |
| value\_as\_string |  |  |  |
| value\_as\_concept\_id |  |  |  |
| qualifier\_concept\_id |  |  |  |
| unit\_concept\_id |  |  |  |
| provider\_id |  |  |  |
| visit\_occurrence\_id |  |  |  |
| visit\_detail\_id |  |  |  |
| observation\_source\_value |  |  |  |
| unit\_source\_value |  |  |  |
| qualifier\_source\_value |  |  |  |
| value\_source\_value |  |  |  |
| observation\_event\_id |  |  |  |
| obs\_event\_field\_concept\_id |  |  |  |

Table name: procedure\_occurrence

Reading from versqdmp\_102137985\_2019\_01

Disease-Management-Programms -> These programs are not kept in OPS or ICD. Needs to be captured individually.



|  |  |  |  |
| --- | --- | --- | --- |
| Destination Field | Source Field | Logic | Comment |
| procedure\_occurrence\_id |  |  | Generate |
| person\_id | arbnr |  |  |
| procedure\_date | versq |  | Assumption: 1st day of the quarter |
| procedure\_end\_date | versq |  | Assumption: Last day of the quarter |
| procedure\_datetime |  |  |  |
| procedure\_source\_value | dmpprog |  | Create customized concept  Disease-Management-Program  01 = Diabetes mellitus Type 2  02 = Breast cancer  03 = coronary heart disease  04 = Diabetes mellitus Type 1  05 = Asthma bronchial  06 = COPD  07 = chronic heart failure  08 = Depression  09 = back pain  10 = rheumatoid arthritis  11 = osteoporosis |
| procedure\_source\_concept\_id | dmpprog |  | No official source concept  -> 0 |
| procedure\_concept\_id | dmpprog |  | Map directly to target concept  01 and 04 = Diabetes => 45765969 Agreeing on diabetes care plan  05 = Asthma bronchiale =>  37396658 Asthma action care planning  06 = COPD => 44809305 Management of chronic obstructive pulmonary disease  08 = Depression =>  44810259 Agreeing on mental health care plan  otherwise 4123847 Agreement of care plan |
| quantity | dmptage |  | The exact number of days |
| procedure\_end\_datetime |  |  |  |
| procedure\_type\_concept\_id |  |  | 32810 Claim |
| modifier\_concept\_id |  |  |  |
| provider\_id |  |  |  |
| visit\_occurrence\_id |  |  |  |
| visit\_detail\_id |  |  |  |
| modifier\_source\_value |  |  |  |

Table name: payer\_plan\_period

Table name: visit\_occurrence

Table name: visit\_detail

Table name: drug\_exposure

Table name: device\_exposure

Table name: condition\_occurrence

Table name: measurement

Table name: note

Table name: note\_nlp

Table name: specimen

Table name: fact\_relationship

Table name: care\_site

Table name: provider

Table name: cost

Table name: drug\_era

Table name: dose\_era

Table name: condition\_era

Table name: episode

Table name: episode\_event

Table name: metadata

Table name: cdm\_source

Table name: cohort

Table name: cohort\_definition

Appendix: source tables

Table: vers\_102137985\_2019\_01

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Type | Most freq. value | Comment |
| arbnr | numeric |  | subject identifier |
| gebjahr | numeric | 2015 |  |
| plz | character varying | 53119 | German postal code |
| vitalstatus | numeric | 0 | Only if 1  (1 died in reported year, 0 still alive) |
| sterbedat | numeric |  | date of death |

Table: versq\_102137985\_2019\_01

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Type | Most freq. value | Comment |
| arbnr | numeric |  |  |
| versq | numeric | 20194 | Insured quarter: Format JJJJQ |
| geschlecht | numeric | 1 | 1 = weiblich  2 = männlich  3 = fehlende Geschlechtsangabe gemäß § 30 Abs. 1 Satz Nr. 1 RSAV  4 = divers gemäß § 22 Abs. 3 PStG  Most current gender |
| verstage | numeric | 91 |  |
| verstageausl | numeric | 5 | Insured days abroad |
| verstagekg | numeric | 91 | Anzahl Versichertentage mit Krankengeldbezug  (insured days with sicknessbenefit) |
| versstatus | numeric | 10010 |  |
| verstagekosterstwahlt | numeric | 0 | Anzahl Versichertentage mit Kostenerstattung oder Wahltarif  (Insured days with selective health insurance plan) |

Table: versqdmp\_102137985\_2019\_01

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Type | Most freq. value | Comment |
| arbnr | numeric |  |  |
| versq | numeric | 20194 |  |
| dmpprog | character varying | 11 | 01 = Diabetes mellitus Typ 2  02 = Brustkrebs  03 = Koronare Herzkrankheit  04 = Diabetes mellitus Typ 1  05 = Asthma bronchiale  06 = COPD  07 = Chronische Herzinsuffizienz  08 = Depression  09 = Rückenschmerz  10 = Rheumatoide Arthritis  11 = Osteoporose |
| dmptage | numeric | 91 |  |

Table: liefer\_102137985\_2019\_01

no ID which could link to other tables. Therefore, we can probablly not use this information

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Type | Most freq. value | Comment |
| bnr | character varying |  | company number of the health insurance |
| kassenik | numeric |  | health insurance regitration number |
| bjahr | numeric |  | reporting year |
| version | character varying |  |  |
| erstzeit | numeric |  | creation time |