Change request
Birth Date

Author	Kristin Gnodtke	Date of request	22.04.2022
Project	eFrailty	Contact person	Vasundra Toure
Dataset release	2022.1	Consulted expert	-

1   Change request input / rationale

For data identification reasons based on ethical requirements, projects may not be allowed to use the patient's date of birth. Depending on the category of the research project, perhaps only the year of birth can be used. To account for such use cases and to avoid inaccurate implementation of the SPHN dataset, the *Birth Date* concept should be adapted and its parts should be described more precisely.

2   Comparison to other standards/data models

2.1   NICER Core Dataset (NCD)
The NICER Core Dataset separates between Month of birth and Year of birth. It does not include Day of birth.

2.2   HL7 FHIR
In the R5 Draft Ballot version of FHIR, Patient.birthDate is defined as "The date of birth for the individual.".

2.3   OMOP CDM
In OMOP CDM, there are the following attributes related to Person:
-    Year_of_birth
-    Month_of_birth
-    Day_of_birth.

A project of   SAMW ASSM
Schweizerische Akademie der Medizinischen Wissenschaften
Académie Suisse des Sciences Médicales
Accademia Svizzera delle Scienze Mediche
Swiss Academy of Medical Sciences

SIB
Swiss Institute of Bioinformatics

SIB | Swiss Institute of Bioinformatics
PHI | Personalized Health Informatics Group
www.sphn.ch | dcc@sib.swiss

3 Change content

3.1 Currently released concept

SPHN Dataset version: 2021.1

Unique concept ID: 0000000281

Concept name	Description	Type	Standard	Value set	Meaning binding SNOMED CT	Meaning binding LOINC
Birth Date	the datetime of birth of the individual	temporal			184099003 |Date of birth (observable entity)|	21112-8 Birth date

3.2 Proposed new concept

Contextualized concept name	Contextualized description	Type	Standard	Value set	Meaning binding SNOMED CT	Meaning binding LOINC
Birth Date	the date and time of birth of the individual				184099003 |Date of birth (observable entity)|	21112-8 Birth date
comparator	qualifier of a not exactly measurable quantity	qualitative		<; <=; >; >=; =		
year	year the individual was born	temporal				80904-6 Birth year
month	month the individual was born	temporal				
day	day the individual was born	temporal				
time	time the individual was born	temporal				

4   Pros and cons

4.1   Advantages
- Comparators allow representation of birth year in a "blurred" way, e.g. <1938
- Allows to capture the meaning of Birth year with the LOINC code,
- Allows to represent the birthdate as year only, month year or full date depending on de-identifcation rules,
- Serves future automatic creation of RDF Schema out of SPHN Dataset.

4.2   Disadvantages
None.

5   Discussion

Other datasets or data models, such as NCD or OMOP CDM also distinguish between birth month and year. In addition, the semantics of the birth year can be represented with a LOINC code, and thus the meaning of the data point can be expressed through a well accepted semantic standard which ultimately will enable linked data. The time of birth has been added because it can be important for pediatric research projects.