SPHN Data Coordination Centre
Clinical Data Semantic Interoperability
User Guide on Clinical Variable List

1 Document change history

Version	Changes	Date	Author of change
1.0	First release.	25.10.18	CDS-IOP Working Group

2 Scope and purpose of document

The CDS-IOP WG is in charge of defining semantic interoperability in SPHN, thus the scope of the work covers the extent and definition of the variables according to a roadmap of releases. Other elements such as delivery of data are not enforced by the working group. This document is the user guide for the clinical variable list and explains the content, how relevant changes can be made and the release management. It also defines details of the CDS-IOP Strategy paper related to the SPHN interoperability data set.

It addresses the following user groups for the given purposes:

- Scientists doing clinical research by using and building the clinical variables list
- Stakeholders in charge of implementing this

3 Related documents

- CDS-IOP strategy paper
- SPHN core and extended data set (clinical variable list)

4 What is it for?

The variable list is made to ease interoperability and consists of two groups: the Core dataset and the extended datasets. These two groups will be release up to 4 times per year.

This document is made to ease the understanding and the use of these datasets, as well as detailing the various processes to express new needs.

5 How is it built?

The Excel file contains lines and columns. The lines are the variables, or the dependent attributes. The columns express the metadata, or additional information about the variables or dependent attributes.

An attribute is also a variable, but is only meaningful with a related variable, which it helps to define or refine. For example an Encounter, a visit of a patient in a hospital, can be ambulatory or inpatient. It has a date, etc. so, the variable Encounter has attributes such as type, date, etc. This way to do is a "building block" approach allowing to assemble various groups of variables coming from the two datasets, and doesn't provide a model.

6 Where can I send my remarks?

If some variables seem wrong or weird, or are missing, remarks and requirements can be sent to the DCC Office: dcc@sib.swiss

7 Terms and definitions / glossary

Term / Abbreviation	Description
CDS-IOP WG	Clinical Data Semantic Interoperability Working Group
CDS-IOP	Clinical Data Semantic Interoperability
DCC	Data Coordination Centre
Clinical Variable List	The variable list contains Clinical Variables and their related details, i.e. the “Dependent Attributes”, which are of interest for research.
Clinical Variable	A clinical variable describes a medical value of interest in the perspective of a researcher, e.g. a specific laboratory value “Lab Value - Total bilirubin in serum”. A variable may consist of several single attributes (see “Dependent Attributes”).
(Variable) Dependent Attribute	A variable may consist of several single attributes. These attributes cannot stand alone for themselves and depend on the Clinical Variable context. E.g. the Clinical Variable for the "FOPH Diagnosis” consists of attributes like “date”, “rank”, “coding system” and “coding system version”.
Code Book	The code book specifies the semantics of single attributes.

8 List of Clinical Variables

The list of clinical variables describes clinical variables and dependent attributes with detailed information. They consist of the core and extended data set as defined in the strategy paper.

8.1 Column specification

The list of clinical variables and their related dependent attributes will be specified in a table, which consists of the following columns:

Column Name	Column Specification
Unique ID	The unique SPHN ID (numeric) of the clinical variable or a dependent attribute.
Indicator of “Variable” and “Dependent Attribute”	Indicates, whether the line refers to a variable or a variable-dependent attribute. Possible values: • Variable • Dependent Attribute
Variable / Attribute Name	The variable or attribute name, e.g. “FOPH Diagnosis”
Specification	This specification serves data providers as how the clinical variable/ dependent attribute has to be retrieved from the clinical data set. Filter/computation rules & examples can be added, where appropriate.

Column Name	Column Specification
Elementary Data Type	The elementary data type of the clinical variable/dependent attribute. In case of “list of values”, a precise list of possible values should be specified in the “Value set (semantics)” column. Possible values: • string • date • number • list of values
Value set (semantics)	Specifies the allowed values, i.e. the semantic of the clinical variable/dependent attribute.