

## HARMONISATION OF HOSPITAL DATA

### THE CLINICAL DATA WAREHOUSE [CDW] AS A CORE ELEMENT AND SUCCESS FACTOR

The professional handling of data is currently a focus topic in Swiss hospitals and one of the central success factors for affordable and qualitatively outstanding medical care. The multitude of isolated operating systems in a historically grown application landscape poses a great challenge for the achievement of a 360° view of all processes in a hospital.

The use of a clinical data warehouse [CDW] is a good way to make previously independent data silos usable in their entirety. In the Clinical Data Warehouse [CDW], all relevant data are stored together. The data can be used for a variety of purposes, such as research [e.g. SPHN, register reference], process optimisation, benchmarking, quality management, billing optimisation, controlling and much more. Process optimization, benchmarking, quality management, billing optimization, controlling and much more.

In more than 10 years of practical project experience with leading Swiss university and cantonal hospitals, we have found that the needs of hospitals are very similar. That is why we have developed a solution so that you can also benefit from our learning curve: the Common Data Model Healthcare [CDMH]. This is a standardized, modular and target technology independent data model, which helps your organization, based on your source systems, very quickly to a standard set of evaluations and data deliveries. In addition, the model can be perfectly tailored to your individual, constantly changing requirements.

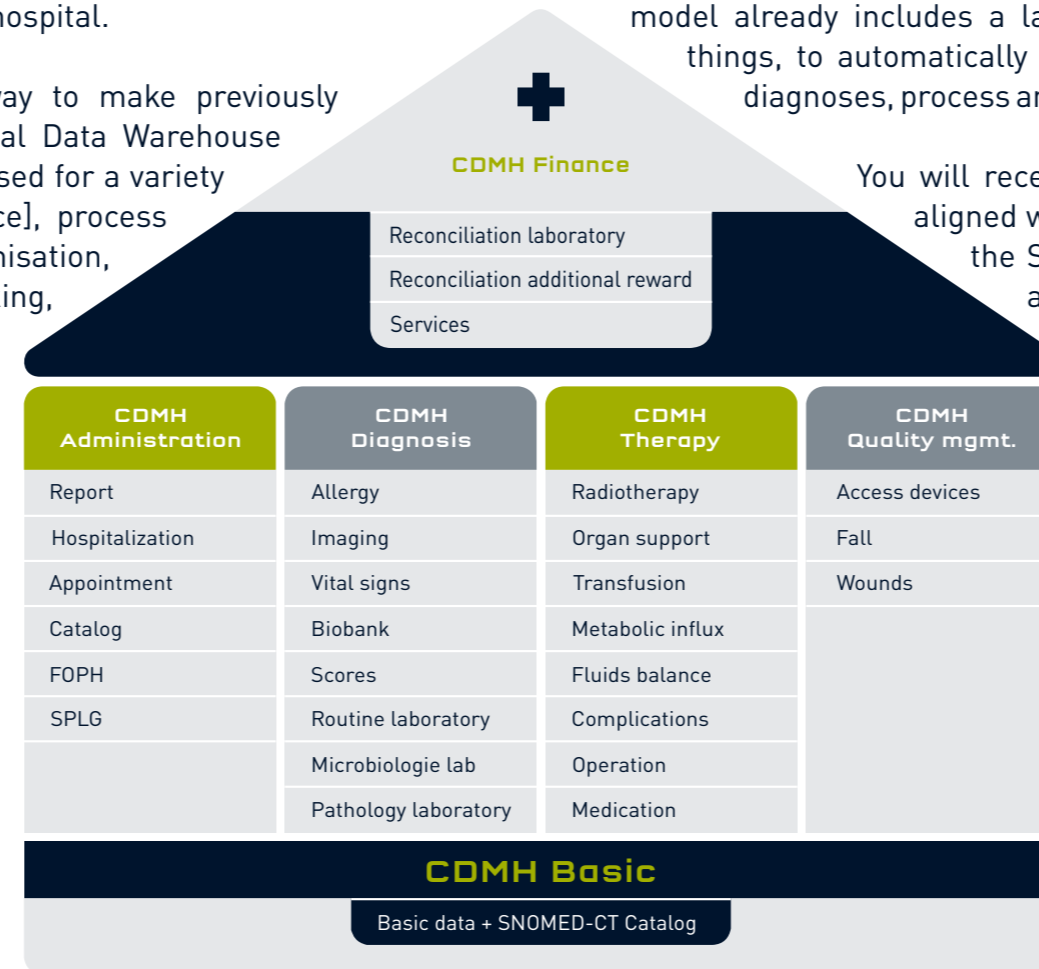
## BEST PRACTICE MODEL FOR SWISS HOSPITALS

### THE BLUEPRINT FOR THE SUCCESS OF YOUR CLINICAL DATA WAREHOUSE [CDW]

The Common Data Model Healthcare [CDMH] is a data model that is essentially based on the SPHN DataSet requirements and is constantly being further developed based on hospital-specific project experience. Accordingly, in addition to the SPHN-specific concepts, the data model already includes a large number of other structures that enable you, among other things, to automatically supply healthcare registers with data or to perform data-driven diagnoses, process analyses and to carry out administrative evaluations.

You will receive the predefined data model from us as a template, which is aligned with the SNOMED-CT catalogue and the semantic data definition of the SPHN [including their Cohort Explorer solution Clinerion], as well as a description of the data modelling, which serves as a data catalogue for your users. This template is your QuickStarterPackage and can be adapted to your individual needs in subsequent steps together with our experts. The associated framework includes all the necessary components to model your Clinical Data Warehouse [CDW], load it with data and automate it.

With the CDMH, we have created a blueprint that will quickly lead your Clinical Data Warehouse [CDW] to success. The model meets your analysis-specific requirements and is designed for maximum agility in further development and lean operation. We would be happy to answer any questions you may have about your CDW in a non-binding meeting.



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## COMMON DATA MODEL HEALTHCARE (CDMH)

### Modules and building blocks

| CDMH Basic  | CDMH Administration  | CDMH Diagnosis  | CDMH Therapy  | CDMH Quality mgmt.  | CDMH Finance  |
|---|--|---|---|---|---|
| The basic data objects form the basis for all downstream modules and thus the basis of your clinical data warehouse. Patient, case, consent, organization, employee, date, etc. and the entire SNOMED-CT catalog are mapped here. | In this module, the data objects for all basic catalogues are stored, as well as the patient appointments and stays, which form the basis for modules in the "CDMH Therapy" module. In addition, all necessary reports are modeled here. | The modules in this module represent all relevant laboratory data, scores and the associated components. The vital signs and allergies are also modelled here, the latter in connection with the building block "Vital Signs". "Medication" from the module "CDMH Therapy". | In this module, all data objects related to patient treatment are modelled, from surgery and possible complications to treatment in intensive care and medication, which are standardised across systems for consistent analyses. | All data objects related to hospital hygiene are modeled in this module: From fall protocols, to wounds, to all accesses that are placed or removed from a patient. These data serve as the basis for specific key figures [e.g. catheter days, CLABSI, decubitus rate or | In this module, all billable services including their raw data from the source systems are modelled with the aim of obtaining a comparison between the individual systems [e.g. between laboratory and billing system]. |