The primary aim of rehabilitation for people with chronic disease is not to achieve cure but to optimize functioning in everyday life. Functioning is defined and classified by the International Classification of Functioning, Disability and Health (ICF) from the World Health Organization.

In clinical practice, functioning information is systematically tested using clinical tests and assessments and forms the basis of clinical decision making and the outcome quality assessment. These data often have to be compiled from different systems.

The absence of a standardized reporting system makes the task of comparison of functioning data from different systems or clinics more difficult.

Developing a multi-purpose standardized reporting system for functioning information in quality improvement (Part A) and clinical decision making (Part B) in rehabilitation services. Specific Aims are:

1. To harmonize existing routinely collected functioning data from specialized rehabilitation centres across Switzerland.
2. To identify functioning trajectories of people throughout inpatient rehabilitation in specialized rehabilitation centres based on the harmonized data set.
3. To design a multi-purpose standardized reporting system for functioning information.
4. To develop strategies for implementing this reporting system in quality improvement and supported clinical decision making.

**Part A: Quality Improvement**

**Data:** Routinely collected data for national quality management by the National Association for Quality Development (ANQ)³.

**Approach:** Rehabilitation clinics use different instruments to collect functioning data of their patients for ANQ. To compare the data from different clinics, the derivation of a common interval-scale is needed.

**Methods:**
- Rasch Measurement Model¹ and ICF Linking Rules² for the harmonization of the different measurements.
- Mixed Models with Repeated Measurement⁴ for the observation of changes in functioning status within and across health condition groups.
- Stakeholder dialogues⁵ to set up an action plan for optimising quality monitoring and improvement based on standardized reporting.

**Part B: Clinical Decision Support**

**Data:** Swiss Spinal Cord Injury Cohort Study (SwiSCI)⁶, a national cohort study on functioning in people with SCI.

**Approach:** Analysis of the relation between health conditions and functioning in first rehabilitation and investigation of how this information can be best used to support clinical decision making.

**Methods:**
- Structure Equation Modelling⁷ for the examination of the relationship between health conditions and functioning.
- Growth Mixture Modelling⁸ to identify rehabilitation patterns or changes in determinants over time and to develop functioning trajectories.
- Focus groups⁹ of potential end-users for the formulation of requirements for a multi-purpose reporting system to be implemented in practice.

### Milestones and expected Results

<table>
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<tr>
<th>Milestone 1: Kick off Meeting</th>
<th>Milestone 2: Policy briefs based on completed analysis</th>
<th>Milestone 3: National symposium</th>
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<td>Preparatory phase</td>
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The project will facilitate a standardized reporting system for the rehabilitation of chronically ill people that builds upon established recording methods. It will make an important contribution to monitoring targeted, individual rehabilitation and to achieve a fundamental improvement in the quality of rehabilitation.

### References