

# Enhancing Continuous Quality Improvement and Supported Clinical Decision Making by Standardized Reporting of Functioning

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## Background and Challenges

- The primary aim of rehabilitation for people with chronic disease<sup>1</sup> is not to achieve cure but to **optimise functioning** in everyday life. Functioning is defined and classified by the International Classification of Functioning, Disability and Health (ICF)<sup>2</sup> 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 standardised reporting system** makes the task of comparison of functioning data from different systems or clinics more difficult.

## Goals

- Developing a multi-purpose standardised 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 specialised rehabilitation centres across Switzerland.
  - 2) To identify functioning trajectories of people throughout inpatient rehabilitation in specialised rehabilitation centres based on the harmonized data set.
  - 3) To design a multi-purpose standardised 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)**<sup>3</sup>.

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

### Methods:

- Rasch Measurement Model**<sup>4</sup> and **ICF Linking Rules**<sup>5</sup> for the harmonization of the different measurements.
- Mixed Models with Repeated Measurement**<sup>6</sup> for the observation of changes in functioning status within and across health condition groups.
- Stakeholder dialogues**<sup>7</sup> to set up an action plan for optimising quality monitoring and improvement based on standardized reporting.

## Part B: Clinical Decision Support

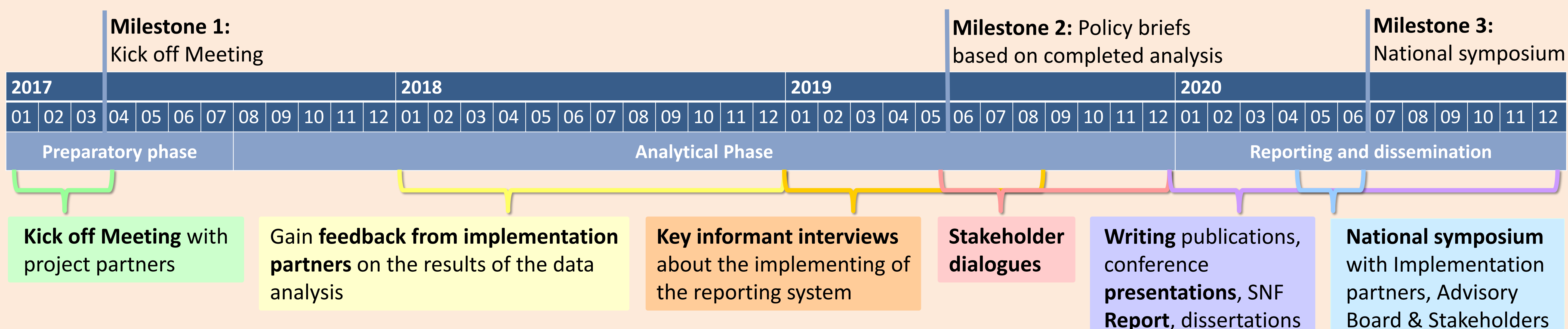
**Data:** **Swiss Spinal Cord Injury Cohort Study (SwiSCI)**<sup>8</sup>, a national cohort study on functioning in people with SCI.

**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 Modelling**<sup>9</sup> for the examination of the relationship between health conditions and functioning.
- Growth Mixture Modelling**<sup>10</sup> to identify rehabilitation patterns or changes in determinants over time and to develop functioning trajectories.
- Focus groups**<sup>11</sup> of potential end-users for the formulation of requirements for a multi-purpose reporting system to be implemented in practice.

## Milestones and expected Results



## Impact

The project will facilitate a standardised 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**.

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