Rehabilitation Indicator Menu:

a tool accompanying the Framework for Rehabilitation Monitoring and Evaluation (FRAME)

Second edition
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Second edition
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All external experts acted independently and in a personal capacity. Declarations of Interest were submitted by all members, and these were reviewed by two members of the WHO technical unit. Potential conflicts of interest were further assessed with the technical unit team leader. Where there was a possibility of potential or perceived conflict of interest, advice would have been obtained from the WHO Office of Compliance, Risk Management and Ethics (CRE) and the WHO Legal Department (LEG). No conflicts of interest were withheld and nominations were approved by the Unit head, Sensory Functions, Disability and Rehabilitation unit, Department of Noncommunicable Diseases.
### Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ACTOR</td>
<td>Action on Rehabilitation</td>
</tr>
<tr>
<td>APL</td>
<td>WHO Priority Assistive Products List</td>
</tr>
<tr>
<td>DHIS2</td>
<td>District Health Information Software 2 (version 2)</td>
</tr>
<tr>
<td>FRAME</td>
<td>Framework for Rehabilitation Monitoring and Evaluation</td>
</tr>
<tr>
<td>GRASP</td>
<td>Guidance for Rehabilitation Strategic Planning</td>
</tr>
<tr>
<td>HHFA</td>
<td>Harmonized Health Facility Assessment</td>
</tr>
<tr>
<td>HMIS</td>
<td>(district) health management information system</td>
</tr>
<tr>
<td>ICD</td>
<td>International Classification of Diseases</td>
</tr>
<tr>
<td>ICF</td>
<td>International Classification of Functioning, Disability and Health</td>
</tr>
<tr>
<td>ICU</td>
<td>intensive/intermediate care unit</td>
</tr>
<tr>
<td>MDS</td>
<td>Model Disability Survey</td>
</tr>
<tr>
<td>MFL</td>
<td>master facility list</td>
</tr>
<tr>
<td>PHC</td>
<td>primary health care</td>
</tr>
<tr>
<td>rATA</td>
<td>Rapid Assistive Technology Assessment tool</td>
</tr>
<tr>
<td>RHIS</td>
<td>routine health information systems</td>
</tr>
<tr>
<td>RIM</td>
<td>Rehabilitation Indicator Menu</td>
</tr>
<tr>
<td>SDG</td>
<td>Sustainable Development Goal</td>
</tr>
<tr>
<td>STARS</td>
<td>Systematic Assessment of Rehabilitation Situation</td>
</tr>
<tr>
<td>THE</td>
<td>total health expenditure</td>
</tr>
<tr>
<td>UHC</td>
<td>universal health coverage</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
<tr>
<td>WHODAS</td>
<td>World Health Organization Disability Assessment Schedule</td>
</tr>
<tr>
<td>WHS</td>
<td>World Health Survey</td>
</tr>
</tbody>
</table>
Background

This document contains the second edition of the WHO *Rehabilitation Indicator Menu* (RIM), which is a tool accompanying the Framework for Rehabilitation Monitoring and Evaluation (FRAME) guidance. The FRAME guidance is part of the WHO *Rehabilitation in health systems – guide for action* (Fig. 1). FRAME guides users through Phase 3 of a four-phase process that supports governments in strengthening rehabilitation in their health systems. Once a national rehabilitation strategic plan is produced, a monitoring framework should be developed to track the progress of the plan and its desired outcomes against selected indicators, which are central to a monitoring framework.

RIM contains a list of standard indicators for the monitoring of countries’ rehabilitation status and helps countries to select the indicators for their (sub)national monitoring framework. The indicators can also be used when monitoring rehabilitation in other situations, including when rehabilitation is integrated into the monitoring framework of a national health strategic plan.
Fig. 1. The four-phase process used in the WHO Rehabilitation in health systems: guide for action

**Phase 1. STARS**

**ASSESS THE SITUATION**

- Follow the four steps of the Systematic Assessment of Rehabilitation Situation (STARS) to undertake a comprehensive situation assessment
- Use the Template for Rehabilitation Information Collection (TRIC) within STARS to direct collection of data and information
- Use the Rehabilitation Maturity Model (RMM) within STARS to structure the assessment and its findings
- Produce a high-quality situation assessment report

**Phase 2. GRASP**

**DEVELOP A REHABILITATION STRATEGIC PLAN**

- Follow the four steps of the Guidance for Rehabilitation Strategic Planning (GRASP) to undertake a strategic planning process
- Produce a high-quality strategic plan

**Phase 3. FRAME**

**ESTABLISH MONITORING, EVALUATION, AND REVIEW PROCESSES**

- Follow the two steps of the Framework for Rehabilitation Monitoring and Evaluation (FRAME) to establish a monitoring framework for the strategic plan and an evaluation and review process
- Use the Rehabilitation Indicator Menu (RIM) to guide selection of indicators, then identify baselines and targets

**Phase 4. ACTOR**

**IMPLEMENT THE STRATEGIC PLAN**

- Follow the two steps of the Action on Rehabilitation (ACTOR) guidance to establish the recurring implementation cycle
- Build capacity of rehabilitation governance and leadership to improve implementation of the rehabilitation strategic plan over time
1. Using the Rehabilitation Indicator Menu (RIM)

1.1 When is RIM used?
Phase 3 of the WHO *Rehabilitation in health systems: guide for action* (FRAME) has two steps (steps 9 and 10). RIM is used in step 9, which is the development of a monitoring framework. Step 9 usually occurs during the later stages of development of the strategic plan (step 7), or after it is endorsed (step 8). Before using RIM, reading the *Framework for Rehabilitation Monitoring and Evaluation (FRAME)* tool is highly recommended as it provides guidance on developing a monitoring framework with the aid of RIM.

1.2 What does RIM include?
RIM includes two categories of indicators. These are core indicators and expanded indicators. All countries are encouraged to adopt the core indicators when applicable to the country context and appropriate for the monitoring of rehabilitation and strategic objectives. Countries may select any of the expanded indicators relevant to the objectives of their strategic plan. There are 12 core indicators and 32 expanded indicators. Each indicator includes detailed information on its definition, rationale, numerator and denominator, calculation method, disaggregation options and preferred data sources.

1.3 How the rehabilitation indicators are categorized
Indicators in this menu can be categorized in the four domains of the rehabilitation results chain plus under system attributes (Fig. 2).

![Fig. 2. Rehabilitation results chain](image-url)
Using the rehabilitation results chain, indicators are categorized into inputs, output, outcome, impact, and health system attribute indicators. These are defined as follows:

- **Input indicators** measure the resources and activities needed (such as for rehabilitation governance, financing, workforce and health information) to undertake an action.

- **Output indicators** measure the results of the input in the form of achieved services and products.

- **Outcome indicators** measure expected or achieved short- and intermediate-term effects of the services and product outputs.

- **Impact indicators** measure at the population-level the long-term effects of the services and products that have been directly or indirectly influenced by outputs.

- **Health system attribute indicators** report on equity, efficiency, accountability and sustainability of the health system.

1.4 **What is the purpose of a set of core and expanded indicators?**

The core indicators are standard indicators that are recommended for the collection of information on the status of rehabilitation within health systems\(^1\) and for the monitoring of rehabilitation strategic plans, when applicable. These also allow comparison of the status of rehabilitation within health systems across countries. This is because they are standard for monitoring the results chain domains, and have a standardized calculation method. The core indicators are aligned with WHO's Global Reference List of 100 Core Health Indicators. The objectives of these core indicators are to provide guidance for health system monitoring; reduce excessive and duplicate reporting requirements; enhance efficiency of data collection investments; enhance quality and availability of data; and improve transparency and accountability.\(^2\) A further global objective is to establish rehabilitation indicators with a “track record” of widespread use, as this is a prerequisite for rehabilitation being included in many global sets of health system monitoring indicators. Countries are recommended to first consider core indicators if they are feasible to collect, relevant to the country context and appropriate to monitor the strategic plan.

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2 Global Reference List of 100 Core Health Indicators. Geneva: World Health Organization; 2015 ([https://apps.who.int/iris/handle/10665/173589](https://apps.who.int/iris/handle/10665/173589)).
The expanded indicator set covers a wider range of rehabilitation results. Their applicability and feasibility is likely to vary by country, and many of these indicators may be tailored to the specific objectives of the rehabilitation strategic plan.

1.5 Why has this second edition been developed?

This second edition of RIM has been developed for three reasons:

A list of standard WHO rehabilitation facility indicators has been published for routine health information systems (RHIS). This requires harmonization with RIM.

The first edition of RIM was used to develop monitoring frameworks in several countries, providing information about its use and suggestions for new indicators for this second edition.

Several WHO data sources have indicators developed for the monitoring of topics that are applicable to rehabilitation (e.g. WHO National Health Workforce Account, WHO Harmonized Health Facility Assessment [HHFA], WHO Global Health Observatory). A review of these sources was needed to identify indicators for RIM.

1.6 How was this second edition developed?

First, a draft RIM second edition was developed by the WHO Rehabilitation Programme. This was done to align with WHO standard rehabilitation facility indicators and to include new indicators based on a review of available country monitoring frameworks and relevant indicators developed for the monitoring of rehabilitation-related topics with existing WHO data sources.

Second, a group of external experts was established to provide written feedback and technical input on the draft RIM second edition between mid-December 2022 and mid-January 2023. The expert reviewer group was composed of 13 experts in national and subnational monitoring and evaluation of health programmes, including rehabilitation. The expert group represented the WHO regions and was gender balanced. The expert group met online in February 2023 for a discussion and consensus meeting.

Third, an internal WHO review process was conducted across the three levels of the organization, including WHO headquarters, regional offices and country offices.

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To select the core and expanded indicators and to conclude on their metadata, during the review process, experts used the same criteria used for the selection of indicators in the first edition of RIM (Table 1).

### Table 1. Criteria for selecting indicators

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>Sufficient (scientific) evidence exists to support a link between the value of an indicator and one or more aspects of rehabilitation within health systems.</td>
</tr>
<tr>
<td>Reliable</td>
<td>Repeated measurements of a stable phenomenon get similar results.</td>
</tr>
<tr>
<td>Relevant</td>
<td>An indicator measures an aspect of rehabilitation within health systems with high importance.</td>
</tr>
<tr>
<td>Actionable</td>
<td>An indicator measures an aspect of rehabilitation within health systems that is subject to control by providers and/or the health care system and may be used at a national level for policy-making or strategy development.</td>
</tr>
<tr>
<td>Internationally feasible</td>
<td>An indicator that can be derived for international comparisons without substantial additional resources.</td>
</tr>
<tr>
<td>Internationally comparable</td>
<td>Reporting countries comply with the relevant data definition; any differences in the indicator values between countries reflect issues in health systems rather than differences in data collection methodologies, coding or measurements.</td>
</tr>
</tbody>
</table>

#### 1.7 How will RIM be updated?

The WHO Rehabilitation Programme continues to periodically review and will subsequently update RIM as priorities evolve and evidence of implementation grows. The indicators in this document (second edition) contain the 2023 version of core and expanded rehabilitation indicators.

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## 1.8 Rehabilitation Indicator Menu at a glance

<table>
<thead>
<tr>
<th><strong>Input</strong></th>
<th><strong>Output</strong></th>
<th><strong>Outcome</strong></th>
<th><strong>Impact</strong></th>
<th><strong>Health system attributes</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rehabilitation governance</td>
<td>Rehabilitation services</td>
<td>Rehabilitation coverage</td>
<td>Rehabilitation impact</td>
<td>Rehabilitation efficiency</td>
</tr>
<tr>
<td>- Rehabilitation in health monitoring framework</td>
<td>- Basic rehabilitation service availability at primary health care</td>
<td>- Rehabilitation coverage for people with acute onset and complex needs</td>
<td>- Population functioning</td>
<td>- Rehabilitation referral</td>
</tr>
<tr>
<td>- Rehabilitation integrated into health plans</td>
<td>- Rehabilitation service utilization</td>
<td>- Effective coverage of rehabilitation for chronic low back pain</td>
<td></td>
<td>- Rehabilitation waiting time</td>
</tr>
<tr>
<td>- Rehabilitation status report</td>
<td>- Assistive products uptake</td>
<td>- Population access to assistive technology</td>
<td></td>
<td>- Waiting time for assistive product provision</td>
</tr>
<tr>
<td>- Rehabilitation governance</td>
<td>- Rehabilitation day programme availability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- User engagement in rehabilitation governance</td>
<td>- Rehabilitation integrated into acute care</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Priority Assistive Products List (APL)</td>
<td>- Rehabilitation integrated into primary health care</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Assistive technology regulation</td>
<td>- Rehabilitation integrated into secondary health care</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Health emergency preparedness for rehabilitation</td>
<td>- Rehabilitation integrated into tertiary health care</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Rehabilitation services
- Basic rehabilitation service availability at primary health care
- Rehabilitation service utilization
- Assistive products uptake
- Rehabilitation day programme availability
- Rehabilitation integrated into primary health care
- Rehabilitation integrated into secondary health care
- Rehabilitation integrated into tertiary health care
- Assistive products availability
- Rehabilitation outreach uptake
- Accessibility for people with acute onset and complex needs

### Rehabilitation coverage
- Rehabilitation coverage for people with acute onset and complex needs
- Effective coverage of rehabilitation for chronic low back pain
- Population access to assistive technology

### Rehabilitation impact
- Population functioning

### Rehabilitation efficiency
- Rehabilitation referral
- Rehabilitation waiting time
- Waiting time for assistive product provision
<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
<th>Outcome</th>
<th>Impact</th>
<th>Health system attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Rehabilitation occupational group regulation</td>
<td>- Clinical guidelines for rehabilitation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Rehabilitation unemployment rate</td>
<td>- Rehabilitation service standards</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Rehabilitation integrated into the training of medical doctors and nurses</td>
<td>- Length of stay</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Re却ilitation infrastructure</td>
<td>- Individualized rehabilitation plan</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Rehabilitation bed density</td>
<td>- Client experience of rehabilitation care</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rehabilitation information</td>
<td>- Professional development for rehabilitation workers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Rehabilitation reporting completeness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Rehabilitation research</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Core indicators are highlighted in dark orange.
## Core rehabilitation indicators

<table>
<thead>
<tr>
<th>Number</th>
<th>Category of indicator</th>
<th>Indicator name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Input – Rehabilitation governance</td>
<td>Rehabilitation in national health monitoring framework</td>
</tr>
<tr>
<td>2</td>
<td>Input – Rehabilitation infrastructure</td>
<td>Rehabilitation bed density</td>
</tr>
<tr>
<td>3</td>
<td>Input – Rehabilitation financing</td>
<td>Rehabilitation expenditure</td>
</tr>
<tr>
<td>4</td>
<td>Input – Rehabilitation workforce</td>
<td>Rehabilitation personnel density and distribution</td>
</tr>
<tr>
<td>5</td>
<td>Input – Health information for rehabilitation</td>
<td>Rehabilitation reporting completeness</td>
</tr>
<tr>
<td>6</td>
<td>Output – Rehabilitation services – Availability</td>
<td>Basic rehabilitation service availability at primary health care level</td>
</tr>
<tr>
<td>7</td>
<td>Output – Rehabilitation services – Utilization</td>
<td>Rehabilitation service utilization</td>
</tr>
<tr>
<td>8</td>
<td>Output – Rehabilitation services – Utilization</td>
<td>Assistive products uptake</td>
</tr>
<tr>
<td>9</td>
<td>Outcome – Rehabilitation coverage</td>
<td>Rehabilitation coverage for people with acute onset and complex needs</td>
</tr>
<tr>
<td>10</td>
<td>Outcome – Rehabilitation coverage</td>
<td>Effective coverage of rehabilitation for chronic low back pain</td>
</tr>
<tr>
<td>11</td>
<td>Outcome – Rehabilitation effectiveness</td>
<td>Functioning change</td>
</tr>
<tr>
<td>12</td>
<td>Impact – Population functioning</td>
<td>Population functioning</td>
</tr>
</tbody>
</table>
## Core indicator 1: Rehabilitation in national health monitoring framework

**Rehabilitation results chain:** Input – Rehabilitation governance

**Definition:** Percentage of indicators included in the national health monitoring framework for rehabilitation. The national health monitoring framework is that used to determine the implementation or effectiveness of the national health strategic plan. Rehabilitation indicators are indicators that have been developed for the monitoring of the rehabilitation status across the health system building blocks; these are usually drawn from the monitoring framework of the country's national rehabilitation strategic plan (if available).

**Rationale:** Inclusion of rehabilitation indicators in the national health monitoring framework reflects the extent of integration of rehabilitation monitoring in health planning and governance at national level.

**Numerator:** Number of rehabilitation indicators integrated into the national health monitoring framework.

**Denominator:** Total number of indicators integrated into the national health monitoring framework.

**Method of calculation:** \[
\text{Percentage} = \left( \frac{\text{Number of rehabilitation indicators within the national health monitoring framework of the national health strategic plan}}{\text{Total number of indicators integrated into the national health monitoring framework}} \right) \times 100.
\]

**Disaggregation and additional dimensions:** -

**Measurement frequency:** Every 3 to 5 years.

**Preferred data sources:** National health strategic plan from ministry of health.

**Other possible data sources and related links:** -

**Remarks:** -

**Alternative method of calculation:** -

**Resources:** -
<table>
<thead>
<tr>
<th>Core indicator 2:</th>
<th>Rehabilitation bed density</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rehabilitation results chain:</strong></td>
<td>Input – Rehabilitation infrastructure</td>
</tr>
<tr>
<td><strong>Definition:</strong></td>
<td>The total number of dedicated rehabilitation hospital beds per 10,000 population. Usually these beds are in rehabilitation hospitals, centres, units and wards, and used for people with different kinds of underlying health conditions requiring more intensive and specialized rehabilitation care, including people requiring intensive rehabilitation following a mental health condition. This excludes intensive rehabilitation for clients in other wards (e.g. orthopaedic, paediatric or neurology wards) and intensive rehabilitation day programmes (see Expanded indicator 15).</td>
</tr>
<tr>
<td><strong>Rationale:</strong></td>
<td>Dedicated rehabilitation beds per capita is an indicator of the availability of specialist, high-intensity, multidisciplinary, longer stay rehabilitation services for the population.</td>
</tr>
<tr>
<td><strong>Numerator:</strong></td>
<td>Total number of dedicated rehabilitation hospital beds.</td>
</tr>
<tr>
<td><strong>Denominator:</strong></td>
<td>Total population.</td>
</tr>
<tr>
<td><strong>Method of calculation:</strong></td>
<td>Number of rehabilitation hospital beds / Total population x 10,000.</td>
</tr>
<tr>
<td><strong>Disaggregation and additional dimensions:</strong></td>
<td>Numerator and denominator, disaggregation by geographic region (subnational).</td>
</tr>
<tr>
<td><strong>Measurement frequency:</strong></td>
<td>Annually.</td>
</tr>
<tr>
<td><strong>Preferred data sources:</strong></td>
<td>RHIS (WHO standard facility indicator “Rehabilitation bed density”).</td>
</tr>
<tr>
<td><strong>Other possible data sources and related links:</strong></td>
<td>Data from ministry of health.</td>
</tr>
<tr>
<td><strong>Remarks:</strong></td>
<td>The denominator is based on estimates from the World Bank or from the national office for statistics.</td>
</tr>
<tr>
<td><strong>Alternative method of calculation:</strong></td>
<td>-</td>
</tr>
</tbody>
</table>
### Core indicator 3: Rehabilitation expenditure

**Rehabilitation results chain:** Input – Rehabilitation financing

**Definition:** Percentage of total national health expenditure spent for rehabilitation. This includes all rehabilitation expenditure (e.g. for rehabilitation service delivery types, assistive products and workforce). Total health expenditure (THE) is the sum of total private and public health spending in the country annually. Both rehabilitation expenditure and national health expenditure are operationally defined through the system of national health accounts, which should be in line with the WHO recommended system of health accounts (SHA, 2011).

**Rationale:** Rehabilitation expenditure as a proportion of total health expenditure indicates the level of rehabilitation financing compared with the overall health expenditure.

**Numerator:** Total annual national health expenditure for rehabilitation.

**Denominator:** Annual total health expenditure.

**Method of calculation:** \( \frac{\text{Total annual national rehabilitation expenditure}}{\text{Annual total health expenditure}} \times 100. \)

**Disaggregation and additional dimensions:** By public/private.

**Measurement frequency:** Annually.

**Preferred data sources:** Ministry of health, national health accounts.

**Other possible data sources and related links:** Ministry of social affairs, compulsory insurance agencies and international development partners.

**Remarks:** -
Alternative method of calculation:

- In some countries there is limited disaggregation of rehabilitation from other health expenditure making it difficult to accurately assess all rehabilitation expenditure. Disentangling rehabilitation expenditure from other health expenditure may therefore be challenging and data may not be complete. An alternative is measuring only the expenditure that is linked to health dedicated/specialized rehabilitation facilities or programmes. If this is done, it should be clearly noted.

- To measure annual rehabilitation expenditure per capita (instead of the percentage of total national health expenditure), the following method of calculation should be used: Total annual national rehabilitation expenditure / Total population.

Resources:


Core indicator 4: Rehabilitation personnel density and distribution

Rehabilitation results chain: Input – Rehabilitation workforce

Definition: Number of rehabilitation workers (active stock) per 10 000 population. Common rehabilitation personnel are physical medicine and rehabilitation doctors, rehabilitation nurses, physiotherapists, occupational therapists, speech and language therapists, prosthetists and orthotists, and psychologists. Other rehabilitation occupational groups relevant to the country can also be included, for example audiologists, social workers and mid-level rehabilitation cadres. This may include those working in government, private practice and nongovernmental services. Some countries may include other health cadres delivering rehabilitation. Rehabilitation personnel not working for the rehabilitation department but still providing rehabilitation services in the facility can also be included. A plan for a national health workforce typically includes a list of occupational groups for the country; consulting this list is recommended when establishing a country reporting system.

Rationale: The number of employed rehabilitation personnel per 10 000 population provides an indication of the availability of rehabilitation services. The inclusion of all rehabilitation personnel, including mid-level cadres, contributes to this information. When disaggregating further, information about personnel numbers and density for
Rehabilitation Indicator Menu

Geographic areas and facility types is important for measuring workforce composition and distribution.

<table>
<thead>
<tr>
<th>Numerator:</th>
<th>Number of rehabilitation workers providing services.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denominator:</td>
<td>Total population.</td>
</tr>
<tr>
<td>Method of calculation:</td>
<td>Number of rehabilitation workers / Total population x 10 000.</td>
</tr>
</tbody>
</table>

Disaggregation and additional dimensions:

- For numerator, disaggregation by geographic region, facility type (administrative level of care, public/private) and rehabilitation occupational group.
- For denominator, disaggregation by geographic region.

Measurement frequency: Annually.

Preferred data sources: RHIS (WHO standard facility indicator “Rehabilitation personnel density”).

Other possible data sources and related links:

Health worker registries, ministry of health databases, national health workforce accounts (WHO National Health Workforce Accounts, indicators 1-01, 1-02, 1-06) or professional associations.

Remarks:

- Denominator is based on estimates from the World Bank or from national office for statistics.
- Reliable rehabilitation workforce numbers outside of government services can be difficult to determine in countries without registration data or when the private sector is not included for data collection with the health management information system (HMIS).
- Workforce density data collected with the HMIS may include rehabilitation workers that are not fully employed.
- In addition to workforce density data, data collection for the proposed disaggregation types of this indicator enables the assessment of workforce distribution (e.g. percentage of primary care facilities with rehabilitation workforce) and composition (e.g. percentage of tertiary care hospitals with multidisciplinary rehabilitation team).

Alternative method of calculation: -
### Resources:


### Core indicator 5: Rehabilitation reporting completeness

**Rehabilitation results chain:**
Input – Health information for rehabilitation

**Definition:**
The percentage of facilities in the country’s master facility list (MFL), designated to report on rehabilitation, that timely collect the country required rehabilitation information and report it in the (district) HMIS, which collates and synthesizes data from across health facilities and programmes in the district.

**Rationale:**
The indicator measures compliance with the requirements of complete reporting across facilities in a specified period of time. The availability of quality routine rehabilitation data from facilities is essential for decision-making. The integration of rehabilitation into information collected and reported at facility level determines the extent to which rehabilitation information is made available. For optimal decision-making, reporting on rehabilitation should be both timely and complete.

**Numerator:**
Number of facilities in the country’s rehabilitation MFL that timely collect the country required rehabilitation information and report it in the (district) HMIS.

**Denominator:**
Number of facilities in the country’s rehabilitation MFL.

**Method of calculation:**
(Number of facilities in the country’s rehabilitation MFL that timely collect the required rehabilitation dataset and report in HMIS / Number of facilities in the country’s rehabilitation MFL) x 100.
Disaggregation and additional dimensions: Numerator and denominator: facility type (administrative level of care), geographical region.

Measurement frequency: Annually.

Preferred data sources: RHIS (WHO standard facility indicator “Rehabilitation reporting completeness”).

Other possible data sources and related links: -

Remarks: - The country needs to establish a rehabilitation MFL, which is a list of health facilities that are expected to report on rehabilitation (data source: national HMIS), and whether services are provided by rehabilitation workforce or non-rehabilitation workforce through task sharing.

- If rehabilitation is not integrated into the HMIS, this indicator can be adapted to reflect parallel reporting that may occur directly from rehabilitation facilities to the ministry of health.

Alternative method of calculation: -


Core indicator 6: Basic rehabilitation service availability at primary health care level

Rehabilitation results chain: Output – Rehabilitation services – Availability

Definition: Percentage of facilities at primary health care (PHC) level offering a basic package for rehabilitation. The health workers have received training on the package of essential rehabilitation services and protocols, which comes with a national certification. This basic package could include the WHO Basic Rehabilitation Package or a package selected from national guidance (e.g. a basic package of health care for PHC that includes rehabilitation). Services may be provided by rehabilitation workforce or non-rehabilitation workforce through task sharing.

Rationale: Basic rehabilitation services should be available at PHC level for the achievement of universal health coverage (UHC). This indicator informs about rehabilitation provision at the PHC level.

Numerator: Number of primary care facilities offering a basic package for rehabilitation.

Denominator: Total number of primary care facilities.

Method of calculation: \[(\text{Number of primary care facilities offering a basic package for rehabilitation} / \text{Number of primary care facilities}) \times 100\].

Disaggregation and additional dimensions: Numerator: basic package type, geographical region. Denominator: geographical region.

Measurement frequency: Annually.

Preferred data sources: RHIS (WHO standard facility indicator “Essential Package availability”).

Other possible data sources and related links: HHFA, service data, ministry of health administrative data.

Remarks: -

Alternative method of calculation: -

**Core indicator 7: Rehabilitation service utilization**

<table>
<thead>
<tr>
<th>Rehabilitation results chain:</th>
<th>Output – Rehabilitation services – Utilization</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definition:</strong></td>
<td>The number of cases accessing rehabilitation services at facility level per 10,000 population, categorized by health condition group (i.e. musculoskeletal disorders, neurologic disorders, mental disorders, sensory impairments, cardiovascular diseases, respiratory diseases, cancer), over a reporting period. It includes in- and outpatients and people accessing services through telerehabilitation. This indicator excludes people accessing rehabilitation through outreach programmes; these are counted through the “Rehabilitation outreach uptake” indicator (Expanded indicator 21).</td>
</tr>
<tr>
<td><strong>Rationale:</strong></td>
<td>The indicator provides information on the health condition groups and number of cases receiving rehabilitation at different levels of health care that can be compared with country prevalence of health conditions and changes in prevalence driven by demographic and societal conditions, reflecting the integration of rehabilitation into the health system. This indicator enables assessment of accessibility, availability and distribution of services.</td>
</tr>
<tr>
<td><strong>Numerator:</strong></td>
<td>Number of cases that receive rehabilitation services at facility level.</td>
</tr>
<tr>
<td><strong>Denominator:</strong></td>
<td>Total population.</td>
</tr>
<tr>
<td><strong>Method of calculation:</strong></td>
<td>Number of cases that receive rehabilitation services / Total population x 10,000.</td>
</tr>
<tr>
<td><strong>Disaggregation and additional dimensions:</strong></td>
<td>For numerator: health condition group, sex, age group, facility type (administrative level of care, public/private), in- and outpatient, geographic region. For denominator: geographic region.</td>
</tr>
<tr>
<td><strong>Measurement frequency:</strong></td>
<td>Annually.</td>
</tr>
<tr>
<td><strong>Preferred data sources:</strong></td>
<td>RHIS (WHO standard facility indicator “Rehabilitation service utilization”).</td>
</tr>
<tr>
<td><strong>Other possible data sources and related links:</strong></td>
<td>Rehabilitation service records, ministry of health administrative data source or national body charged with reporting on rehabilitation including service provision outside ministry of health HMIS (such as ministry of social affairs and other concerned ministries and private facilities).</td>
</tr>
</tbody>
</table>
Remarks:

- Denominator is based on estimates from the World Bank or national office for statistics.
- Disaggregation for this indicator provides an overview of rehabilitation utilization across the levels of health care (e.g. outpatient utilization across facilities at same level of care or across different levels of care), geographic regions (e.g. utilization for a selected health condition group across subnational regions), age groups (e.g. utilization for a specific health condition group by age groups) and sex.
- In addition, this indicator enables assessment of the intensity of a rehabilitation episode when analysed in combination with the information provided with another WHO standard facility indicator called “Rehabilitation uptake” (which measures the number of sessions provided); this enables the calculation of the average number of rehabilitation sessions provided for people within selected health condition groups, in a given facility or region.

Alternative method of calculation: -

Resources:

Core indicator 8: Assistive products uptake

Rehabilitation results chain: Output – Rehabilitation services – Utilization

Definition: The number of assistive products issued to rehabilitation service users, categorized by the six categories of assistive products listed in the WHO Priority Assistive Products List (APL) (mobility, cognition, self-care, communication, vision and hearing).

Rationale: The indicator gives information on rehabilitation service use by providing the total number of assistive products issued to people accessing rehabilitation. It is measuring the capacity to deliver assistive products, its regional distribution, and age-related accessibility. This information can be used to inform short- to medium-term service planning, i.e. for manufacturing units and personnel requirements.

Numerator: Number of assistive products issued to rehabilitation service users.

Denominator: -

Method of calculation: Number of assistive products provided.
### Disaggregation and additional dimensions:
Geographical region, age group, in- and outpatient, WHO Priority Assistive Products List categories.

### Measurement frequency:
Annually.

### Preferred data sources:
**RHIS** (WHO standard facility indicator “Assistive products uptake”).

### Other possible data sources and related links:
Service records, or national body charged with reporting on rehabilitation including service provision outside ministry of health district HMIS (such as ministry of social affairs and other concerned ministries and private facilities).

### Remarks:
- Alternative method of calculation:
- Resources:

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### Core indicator 9: Rehabilitation coverage for people with acute onset and complex needs

#### Rehabilitation results chain:
Outcome – Rehabilitation coverage

#### Definition:
The percentage of people with an acute onset health condition who access inpatient multidisciplinary intensive rehabilitation in a dedicated rehabilitation ward (whether in a hospital or a rehabilitation centre). The client is under the care of a lead physician and at least two other rehabilitation occupational groups. Admission to the rehabilitation ward should follow a discharge from an acute care ward. The choice of the health conditions for reporting needs to be based on national health condition prevalence and health care priorities and the availability of the estimated number of new cases (denominator). The health condition (group) with acute onset and complex rehabilitation needs may include spinal cord injury, traumatic brain injury, burns, major multiple trauma, amputation, stroke, acute inflammatory demyelinating polyneuropathy, among others.
| **Rationale:** | Good clinical practice prescribes inpatient multidisciplinary rehabilitation for the effective rehabilitation of some people with complex rehabilitation needs, commonly following an acute onset with significant functional decline. Knowing the extent to which people with identified health conditions are covered by rehabilitation services is crucial for planning and decision-making. |
| **Numerator:** | Number of first-time admissions at a dedicated rehabilitation ward, for selected health conditions. |
| **Denominator:** | Estimated number of new cases, for selected health conditions. |
| **Method of calculation:** | \[(\text{Number of first-time admissions for selected health conditions} / \text{Estimated number of new cases for selected health conditions}) \times 100.\] |
| **Disaggregation and additional dimensions:** | Numerator and denominator: health condition, geographic region. |
| **Measurement frequency:** | Annually. |
| **Preferred data sources:** | RHIS (WHO standard facility indicator “Coverage for people with acute and complex needs”). |
| **Other possible data sources and related links:** | Medical records, injury data sources/registries, health insurance databases. |
| **Remarks:** | - Countries may be providing inpatient multidisciplinary intensive rehabilitation in wards other than the dedicated rehabilitation ward such as orthopaedic, neurology or psychiatric wards, among others. In this case, the number of people admitted for selected health conditions can be counted, provided that these are first-time multidisciplinary intensive rehabilitation service users.  
- In most countries the data source for the denominator will need to be established. This may be a national estimate from International Classification of Diseases (ICD) coding or a national survey, or countries may calculate the country denominator by using cumulative incidences for the region. The denominator will need to be adjusted for every reporting year.  
- Countries that do not have access to data for the denominator may report on the same but without the denominator (Expanded indicator 22). |
| **Alternative method of calculation:** | - |
Core indicator 10: Effective coverage of rehabilitation for chronic low back pain

Rehabilitation results chain: Outcome – Rehabilitation coverage

Definition: The percentage of adults with chronic low back pain experiencing limitations in everyday activities that have benefited from rehabilitation.

Rationale: This tracer indicator enables monitoring of coverage of rehabilitation services at population level and the performance of the health system. The indicator has been developed for population-based surveys (requiring the selection of a health condition based on its prevalence and amenability to rehabilitation). The highest contribution to the need for rehabilitation comes from musculoskeletal disorders, with low back pain being the most prevalent condition in a majority of countries (568 million people in 2019). There is evidence showing that many rehabilitation interventions are cost-effective in chronic low back pain.

Numerator: Number of adults with chronic low back pain experiencing limitations in everyday activities benefiting from rehabilitation.

Denominator: Number of adults with chronic low back pain experiencing limitations in everyday activities.

Method of calculation: \( \frac{\text{Prevalent cases of adults with chronic low back pain experiencing limitations in everyday activities benefiting from rehabilitation}}{\text{Identified number of adults with chronic low back pain experiencing limitations in everyday activities}} \times 100 \)

Disaggregation and additional dimensions: Age, gender, socioeconomic status, urban/rural and other relevant sociodemographic stratifiers where available.

Measurement frequency: Every 5 years.

---

**Core indicator 11: Functioning change**

**Rehabilitation results chain:** Outcome – Rehabilitation effectiveness

**Definition:** The difference between the average functioning assessment score at admission (or commencement) and at discharge (or completion of the rehabilitation episode) for patients with the same health condition. This excludes patients that had an incomplete stay (e.g. discharge to acute care or self-discharged). For comparisons and aggregation across facilities, the same functioning assessment instrument per health condition should be used. The health condition (group) may include spinal cord injury, traumatic brain injury, burns, major multiple trauma, amputation, stroke, acute inflammatory demyelinating polyneuropathy. This indicator could be measured where inpatient specialized rehabilitation is delivered: this is a setting with dedicated rehabilitation beds, which contributes to having a defined rehabilitation episode.

**Rationale:** Measuring the change in client functioning over a rehabilitation episode produces a measure of the outcome of the rehabilitation episode. Following a rehabilitation service stay, a gain in functioning means an increase in a person's activities. The information enables comparisons across facilities that support clinical benchmarking. This information can be analysed alongside average length of stay to provide information related to the efficiency of services.

**Numerator:** The difference between the client’s average functioning assessment score at admission and at discharge, by health condition.

**Denominator:** -
Method of calculation: Difference between the average functioning assessment score at admission and at discharge.

Disaggregation and additional dimensions: Disaggregation by health condition, geographic region.

Measurement frequency: Annually.

Preferred data sources: RHIS (WHO standard facility indicator “Functioning change”).

Other possible data sources and related links: Service records, or national body charged with reporting on rehabilitation including facilities outside ministry of health district HMIS (such as private facilities or other ministries).

Remarks:
- This indicator may be expanded to measuring functioning change over rehabilitation episodes of services provided in other wards or outpatient settings.
- Aggregation requires use of the same instrument per health condition (group) across all participating rehabilitation units. The choice of this functioning measure would be a national decision.
- WHO is promoting the use of the International Classification of Functioning, Disability and Health (ICF) as a reference to collect information on functioning. If the country is using the ICF as a reference, information on functioning should be reported based on the ICF (e.g. with WHODAS 2.0). This would enable comparison of information on functioning across health conditions and countries.

Alternative method of calculation:


Core indicator 12: Population functioning

<table>
<thead>
<tr>
<th>Rehabilitation results chain:</th>
<th>Impact – Population functioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definition:</td>
<td>Population functioning measured through population-based surveys with instruments such as the WHO Model Disability Survey (MDS), WHODAS 2.0, or the functioning module of the WHO World Health Survey (WHS). These measures provide detailed and nuanced information on how people with and without disabilities conduct their lives and the difficulties they encounter, regardless of any underlying health condition or impairment.</td>
</tr>
<tr>
<td>Rationale:</td>
<td>The overall aim of rehabilitation is to improve people’s functioning. Rehabilitation is not the only contribution to population functioning. It is, however, an important one as good coverage of rehabilitation contributes to higher levels of population functioning.</td>
</tr>
<tr>
<td>Numerator:</td>
<td>Functioning of population as measured with the selected instrument, across the spectrum of functioning levels.</td>
</tr>
<tr>
<td>Denominator:</td>
<td>-</td>
</tr>
<tr>
<td>Method of calculation:</td>
<td>Functioning of population as measured with the selected instrument, across the spectrum of functioning levels.</td>
</tr>
<tr>
<td>Disaggregation and additional dimensions:</td>
<td>Can be disaggregated by age, sex, geographical region, socioeconomic status. Findings can also differentiate between disability types due to the individual’s impairments, health condition or societal or environmental barriers.</td>
</tr>
<tr>
<td>Measurement frequency:</td>
<td>Every 5 years.</td>
</tr>
<tr>
<td>Preferred data sources:</td>
<td>Population based survey, using results from WHO MDS, WHODAS 2.0, or the functioning module of the WHS.</td>
</tr>
<tr>
<td>Other possible data sources and related links:</td>
<td>National statistics offices.</td>
</tr>
<tr>
<td>Remarks:</td>
<td>-</td>
</tr>
<tr>
<td>Alternative method of calculation:</td>
<td>-</td>
</tr>
</tbody>
</table>

### 3. Expanded rehabilitation indicators

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<th>Expanded indicator name</th>
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<td>2</td>
<td>Input – Rehabilitation governance</td>
<td>Rehabilitation status report</td>
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<td>3</td>
<td>Input – Rehabilitation governance</td>
<td>Rehabilitation governance</td>
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<td>4</td>
<td>Input – Rehabilitation governance</td>
<td>User engagement in rehabilitation governance</td>
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<td>Input – Rehabilitation governance</td>
<td>Priority Assistive Products List</td>
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<td>6</td>
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<td>Assistive technology regulation</td>
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<td>Input – Rehabilitation governance</td>
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<td>Input – Rehabilitation financing</td>
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<td>9</td>
<td>Input – Rehabilitation financing</td>
<td>Rehabilitation workforce expenditure</td>
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<td>Input – Rehabilitation workforce</td>
<td>Rehabilitation unemployment rate</td>
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<td>13</td>
<td>Input – Rehabilitation workforce</td>
<td>Rehabilitation integrated into the training of medical doctors and nurses</td>
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<td>Input – Health information for rehabilitation</td>
<td>Rehabilitation research</td>
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<td>15</td>
<td>Output – Rehabilitation services – Availability</td>
<td>Rehabilitation day programme availability</td>
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<td>16</td>
<td>Output – Rehabilitation services – Availability</td>
<td>Rehabilitation integrated into acute care</td>
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<td>Output – Rehabilitation services – Availability</td>
<td>Rehabilitation integrated into primary health care</td>
</tr>
<tr>
<td>18</td>
<td>Output – Rehabilitation services – Availability</td>
<td>Rehabilitation integrated into secondary health care</td>
</tr>
<tr>
<td>Number</td>
<td>Category of indicator</td>
<td>Expanded indicator name</td>
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</tr>
<tr>
<td>19</td>
<td>Output – Rehabilitation services – Availability</td>
<td>Rehabilitation integrated into tertiary health care</td>
</tr>
<tr>
<td>20</td>
<td>Output – Rehabilitation services – Availability</td>
<td>Assistive products availability</td>
</tr>
<tr>
<td>21</td>
<td>Output – Rehabilitation services – Utilization</td>
<td>Rehabilitation outreach uptake</td>
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<tr>
<td>22</td>
<td>Output – Rehabilitation services – Utilization</td>
<td>Accessibility for people with acute onset and complex needs</td>
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<tr>
<td>23</td>
<td>Output – Rehabilitation services – Quality</td>
<td>Clinical guidelines for rehabilitation</td>
</tr>
<tr>
<td>24</td>
<td>Output – Rehabilitation services – Quality</td>
<td>Rehabilitation service standards</td>
</tr>
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<td>25</td>
<td>Output – Rehabilitation services – Quality</td>
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</tr>
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<td>Output – Rehabilitation services – Quality</td>
<td>Individualized rehabilitation plan</td>
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<td>27</td>
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<td>Client experience of rehabilitation care</td>
</tr>
<tr>
<td>28</td>
<td>Output – Rehabilitation services – Quality</td>
<td>Professional development for rehabilitation workers</td>
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<td>Population access to assistive technology</td>
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<td>31</td>
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<td>Rehabilitation waiting time</td>
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<tr>
<td>32</td>
<td>Health system attributes – Efficiency – Continuum of care</td>
<td>Assistive products waiting time</td>
</tr>
</tbody>
</table>
Expanded indicator 1: Rehabilitation integrated into health plans

Rehabilitation results chain: Input – Rehabilitation governance

Definition: The number of specific health plans that include rehabilitation. This means rehabilitation is included in the context of actions – i.e. it is not only mentioned in the background text. It does not include internal operational plans, only the high-level, national or subnational specific health plans such as national plans for mental health, older people, vision, hearing, noncommunicable disease and early childhood/nurturing care.

Rationale: The inclusion of rehabilitation in specific national health plans indicates the extent of the integration of rehabilitation in health planning.

Numerator: Number of specific health plans that include rehabilitation.

Denominator: -

Method of calculation: Number of specific health plans that include rehabilitation.

Disaggregation and additional dimensions: Some countries have a decentralized government with many subnational plans for multiple areas of health; this indicator could be disaggregated by geographic/administrative region.

Measurement frequency: Every 2 years.

Preferred data sources: National and subnational health sector plans from ministry of health.

Other possible data sources and related links: -

Remarks: -

Alternative method of calculation: -

Resources: -
### Expanded indicator 2: Rehabilitation status report

**Rehabilitation results chain:** Input – Rehabilitation governance

**Definition:** The number of new national rehabilitation status and monitoring reports developed. These regular analytical reviews assess progress and performance with equity. Reports are developed based on international standards.

**Rationale:** A review report about rehabilitation at subnational or national level indicates interest in and capacity to collect data on the situation of rehabilitation. The quality of the report reflects the capacity to synthesize and review the status of rehabilitation for optimal governance, leadership and accountability in relation to rehabilitation.

**Numerator:** Number of new rehabilitation status and monitoring reports.

**Denominator:** -

**Method of calculation:** Number of new rehabilitation status and monitoring reports.

**Disaggregation and additional dimensions:** Some countries have a decentralized government with subnational plans for rehabilitation; depending on the country this indicator could be disaggregated by geographic/administrative region.

**Measurement frequency:** Annually or biennial.

**Preferred data sources:** Reports available from ministry of health.

**Other possible data sources and related links:** Other government agencies reporting on rehabilitation (sub)national plan.

**Remarks:** -

**Alternative method of calculation:** -

**Resources:**
Expanded indicator 3: Rehabilitation governance

Rehabilitation results chain: Input – Rehabilitation governance

Definition: The number of meetings of relevant rehabilitation committees or bodies that took place. Rehabilitation governing bodies include dedicated steering and advisory committees, coordinating and other bodies, and ministry mechanisms (such as technical working groups) and processes that provide governance, oversight and stewardship of rehabilitation. Which committee(s) or body(ies) to include in the indicator is largely country-specific.

Rationale: Governing bodies oversee, strengthen and take stewardship of rehabilitation. One way to measure rehabilitation governance is the number of meetings of relevant rehabilitation committees or bodies that took place.

Numerator: Number of meetings of relevant rehabilitation committee or body that took place.

Denominator: -

Method of calculation: Number of meetings of relevant rehabilitation committee or body that took place.

Disaggregation and additional dimensions:

Measurement frequency: Annually.

Preferred data sources: Reports available from ministry of health.

Other possible data sources and related links: Reports available from other concerned ministries.

Remarks: -

Alternative method of calculation: Countries that have terms of reference for their rehabilitation governing body could use the number of specified annual meetings as a denominator to calculate the proportion of planned meetings that took place.

Resources: -
### Expanded indicator 4: User engagement in rehabilitation governance

**Rehabilitation results chain:** Input – Rehabilitation governance

**Definition:** The number of rehabilitation governance committee or body meetings including users that took place. Consulting users during a consultation process is not adequate to fulfil this indicator – it has to be membership of governance bodies. This is measuring the extent to which users and/or their representative organizations are included as permanent or regular members in a governing body such as a steering committee, advisory committee, technical working group, or other group/mechanism contributing to rehabilitation planning for the health sector.

**Rationale:** Participation of rehabilitation users and/or their representative organizations in rehabilitation governance and planning indicates consumer-inclusive development of health sector plan for rehabilitation.

**Numerator:** Number of rehabilitation governance committee or body meetings including users that took place.

**Denominator:** -

**Method of calculation:** Number of rehabilitation committee or body meetings including users that took place.

**Disaggregation and additional dimensions:** -

**Measurement frequency:** Annually.

**Preferred data sources:** Reports available from ministry of health.

**Other possible data sources and related links:** Reports available from other concerned ministries.

**Remarks:** This indicator is an expansion of Expanded indicator 3, to include user representatives at relevant rehabilitation committee or body meetings.

**Alternative method of calculation:** Countries that have terms of reference for their rehabilitation governing body could use the number of specified annual meetings as a denominator to calculate the proportion of planned meetings that took place and involved user representation.
**Expanded indicator 5: Priority Assistive Products List**

**Rehabilitation results chain:** Input – Rehabilitation governance

**Definition:** The percentage of assistive products on the WHO Priority Assistive Products List (APL) that are on the country APL.

**Rationale:** A priority assistive products list, similar to an essential medicines list, is the government endorsed/adopted list designed to support financing and ensure availability of assistive products. It is recommended that countries adopt a national priority assistive products list that has been developed based on the WHO APL.

**Numerator:** Number of WHO APL assistive products on the country priority list.

**Denominator:** The 50 assistive products on the WHO APL.

**Method of calculation:** \( \frac{\text{Number of WHO APL assistive products on the country priority list}}{\text{The 50 assistive products on the WHO APL}} \times 100 \)

**Disaggregation and additional dimensions:** Disaggregation for both numerator and denominator: six WHO Priority Assistive Products List categories.

**Measurement frequency:** Every 3 to 5 years.

**Preferred data sources:** Reports from ministry of health.

**Other possible data sources and related links:** Reports from ministry of social affairs or country specific-relevant authority.

**Remarks:** -

**Alternative method of calculation:** -

## Expanded indicator 6: Assistive technology regulation

**Rehabilitation results chain:** Input – Rehabilitation governance

**Definition:** Percentage of recommended areas for which standards or protocols for assistive products have been developed. These include the following seven areas: safety of assistive products; procurement of assistive products; delivery of assistive technology services; qualifications of assistive products providers; barrier-free/accessible environments; inclusion of assistive products in emergency preparedness and response programmes; inclusion of barrier-free/accessible environments in emergency preparedness and response programmes.

**Rationale:** Standards developed for assistive products reflect sectoral and professional efforts made to improve quality of rehabilitation care. There is evidence that the existence of standards for assistive products improves the quality, effectiveness and efficiency of rehabilitation care.

**Numerator:** Number of recommended areas for which standards or protocols for assistive products have been developed.

**Denominator:** Seven areas for which standards or protocols for assistive products are recommended.

**Method of calculation:** \((\text{Number of recommended areas for which standards or protocols for assistive products have been developed} / \text{Seven areas for which standards or protocols for assistive products are recommended}) \times 100\).

**Disaggregation and additional dimensions:** -

**Measurement frequency:** Every 4 to 5 years.

**Preferred data sources:** WHO Assistive Technology Progress Indicators (indicator ‘Assistive technology regulation’).

**Other possible data sources and related links:** Administrative data from ministry of health, other concerned ministries, quality standards agencies.

**Remarks:** -

**Alternative method of calculation:** -
**Expanded indicator 7: Health emergency preparedness for rehabilitation**

**Rehabilitation results chain:** Input – Rehabilitation governance

**Definition:**
- The status of health emergency preparedness planning for rehabilitation defined by the percentage of key components included in (sub)national health emergency preparedness plans that are up to date. Eight key components for rehabilitation that should be included in health emergency preparedness plans are:
  - Risk assessment that includes considerations of surges in rehabilitation needs and threats to essential rehabilitation services.
  - Designation of a rehabilitation focal person for health emergency preparedness and response.
  - Description of rehabilitation stockpiles or supply chain analysis if stockpiles are not required.
  - Review of key rehabilitation infrastructure, with a requirement for key facilities to have conducted risk assessments and developed evacuation plans.
  - Mapping of critical rehabilitation services with the development of adapted rehabilitation referral pathways based on the risk assessment.
  - Rehabilitation workforce surge plan.
  - Rehabilitation services continuity plan.
  - Integration of rehabilitation into (sub)national multidisciplinary, multisectoral health emergency preparedness plan.

**Rationale:** Health emergencies can create enormous surges in rehabilitation needs and also disrupt essential rehabilitation services. Integrating rehabilitation into health emergency preparedness planning is the best way to systematically prepare rehabilitation services for emergencies.

**Numerator:** Number of key components for rehabilitation preparedness planning that have been included in (sub)national health emergency preparedness plans.

**Denominator:** Eight key components for rehabilitation preparedness planning that should be included in health emergency preparedness plans.
### Method of calculation:

(Number of key components for rehabilitation preparedness planning that have been included in (sub)national health emergency preparedness plans / Eight key components for rehabilitation preparedness planning that should be included in health emergency preparedness plans) x 100.

### Disaggregation and additional dimensions:

- 

### Measurement frequency:

Every 4 to 5 years.

### Preferred data sources:

(Sub)national health emergency preparedness plan, (sub)national dedicated rehabilitation emergency preparedness plan, preparedness plans from key facilities.

### Other possible data sources and related links:

- 

### Remarks:

- 

### Alternative method of calculation:

- 

### Resources:


---

### Expanded indicator 8: Assistive products expenditure

**Rehabilitation results chain:**

Input – Rehabilitation financing

**Definition:**

Government expenditure and compulsory insurance schemes (as defined through the system of health accounts, 2011) for assistive products per capita. This includes government expenditure from the ministry of health and in some cases from the ministry of social affairs. Preferably this is only expenditure on the product itself, not the associated professional service fees when part of a service package.

**Rationale:**

Expenditure on assistive products from general government funding and compulsory insurance schemes indicates government commitment to their availability.

**Numerator:**

Annual assistive product expenditure.

**Denominator:**

Total population.
<table>
<thead>
<tr>
<th><strong>Method of calculation:</strong></th>
<th>Total annual assistive product expenditure / Total population.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Disaggregation and additional dimensions:</strong></td>
<td>-</td>
</tr>
<tr>
<td><strong>Measurement frequency:</strong></td>
<td>Annually.</td>
</tr>
<tr>
<td><strong>Preferred data sources:</strong></td>
<td>Ministry of health.</td>
</tr>
<tr>
<td><strong>Other possible data sources and related links:</strong></td>
<td>Ministry of social affairs or other government agencies, including insurance schemes.</td>
</tr>
<tr>
<td><strong>Remarks:</strong></td>
<td>Funding packages for assistive products may include provision, therapy, training, repair and maintenance costs which will vary across funding packages and make comparability across countries more complex. If expenditure on assistive products includes more than supply of assistive products, this needs to be noted, stating other cost inclusions.</td>
</tr>
</tbody>
</table>
| **Alternative method of calculation:** | - This per capita measure allows for better interpretation of expenditure and comparability across countries. The method of calculation could, however, be turned into a measure of expenditure as a proportion of total health expenditure (THE) by replacing the denominator with the total health expenditure, i.e. (Annual assistive product expenditure / Total health expenditure) x 100.  
- This indicator could be adapted to measure all expenditure on assistive products, e.g. including private expenditure by individuals, if survey data exist which provide private expenditure on assistive products by the population. |
Expanded indicator 9: Rehabilitation workforce expenditure

**Rehabilitation results chain:** Input – Rehabilitation financing

**Definition:** The percentage of total expenditure on health workforce by public sources for rehabilitation. This includes salaries and excludes expenditure on workforce education (pre-service and professional development). Common rehabilitation workforce are physical medicine and rehabilitation doctors, rehabilitation nurses, physiotherapists, occupational therapists, speech and language therapists, prosthetists and orthotists, and psychologists. Other rehabilitation occupational groups relevant to the country can also be included, for example audiologists, social workers and mid-level rehabilitation cadres.

**Rationale:** The proportion of health workforce expenditure allocated to the rehabilitation workforce indicates the level of investment being made to develop, support and maintain the rehabilitation workforce.

**Numerator:** Total expenditure on rehabilitation workforce in a given financial year.

**Denominator:** Total expenditure on health workforce in a given financial year.

**Method of calculation:** \((\text{Total expenditure on rehabilitation workforce} / \text{Total expenditure on health workforce}) \times 100\).

**Disaggregation and additional dimensions:** Numerator; by rehabilitation occupational group.

**Measurement frequency:** Annually.

**Preferred data sources:** ministry of health records ([WHO National Health Workforce Accounts, indicator 7-01](https://apps.who.int/iris/bitstream/handle/10665/259360/9789241513111-eng.pdf), accessed 11 May 2023), ministry of finance records.

**Other possible data sources and related links:** Income tax data, national statistics office records.

**Remarks:** Data to disaggregate may not be available.

**Alternative method of calculation:** -

<table>
<thead>
<tr>
<th><strong>Expanded indicator 10: Rehabilitation workforce graduation rate</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rehabilitation results chain:</strong></td>
</tr>
<tr>
<td><strong>Definition:</strong></td>
</tr>
<tr>
<td><strong>Rationale:</strong></td>
</tr>
<tr>
<td><strong>Numerator:</strong></td>
</tr>
<tr>
<td><strong>Denominator:</strong></td>
</tr>
<tr>
<td><strong>Method of calculation:</strong></td>
</tr>
<tr>
<td><strong>Disaggregation and additional dimensions:</strong></td>
</tr>
<tr>
<td><strong>Measurement frequency:</strong></td>
</tr>
<tr>
<td><strong>Preferred data sources:</strong></td>
</tr>
<tr>
<td><strong>Other possible data sources and related links:</strong></td>
</tr>
<tr>
<td><strong>Remarks:</strong></td>
</tr>
</tbody>
</table>
Alternative method of calculation: The exact graduation rate can also be calculated from following a (national) cohort of students from entry to graduation. The denominator in this case would be the number of students enrolled in first year of the same cohort.

Resources:


Expanded indicator 11: Rehabilitation occupational group regulation

Rehabilitation results chain: Input – Rehabilitation workforce

Definition: The percentage of rehabilitation occupational groups that have regulation processes. This includes licensing, registration and credentialling processes. The number of occupational groups working in the country that need regulation processes are defined at country level. Common rehabilitation personnel include physical medicine and rehabilitation doctors, rehabilitation nurses, physiotherapists, occupational therapists, speech and language therapists, prosthetists and orthotists, and psychologists. Other rehabilitation occupational groups relevant to the country can also be included, for example audiologists, social workers and mid-level rehabilitation cadres. The licensing, registration, credentialling processes for health personnel are governed by specific regulations and laws in each country. These are formal, documented processes that may be specific to rehabilitation personnel or part of wider health personnel licensing, registration processes.

Rationale: Licensing, registration and credentialling processes all support improvement in quality and safety of rehabilitation care.

Numerator: Number of rehabilitation occupational groups that have professional licensing, registration and credentialling processes.

Denominator: Total number of rehabilitation occupational groups working in the country.
Method of calculation: (Number of rehabilitation occupational groups with regulation processes / Total number of rehabilitation occupational groups) x 100.

Disaggregation and additional dimensions: Numerator: disaggregation by regulatory process: licensing, registration and credentialling process.

Reporting frequency: Annually.

Preferred data sources: Regulatory bodies.

Other possible data sources and related links: National health workforce database.

Remarks: -

Alternative method of calculation: - This indicator could be adapted to measure one or more of the different regulatory processes: licensing, registration, credentialling.


Expanded indicator 12: Rehabilitation unemployment rate

Rehabilitation results chain: Input – Rehabilitation workforce

Definition: Percentage of trained rehabilitation workers that is unemployed. This includes rehabilitation workers who have gained rehabilitation certifications in other countries and people who have been trained locally. Persons in unemployment are those of legal working age who are not currently employed for rehabilitation, whether in public or private sector, but who have actively sought employment and are available to take up a job opportunity for rehabilitation, whether in clinical practice, or administrative and management positions. New graduates not in activity should also be included.
**Rationale:**
The unemployment rate reflects the alignment of supply and demand for rehabilitation workers and indicates the investment made in the funding of rehabilitation jobs for the available workforce. The unemployment rate may also reflect working conditions, which can attract or deter workers.

**Numerator:**
Number of trained rehabilitation workers currently unemployed in rehabilitation.

**Denominator:**
Sum of number of active rehabilitation workers in the labour force and unemployed rehabilitation workers.

**Method of calculation:**
\[
\frac{\text{Number of trained rehabilitation workers currently unemployed}}{\text{Total number of active rehabilitation workers in the labour force and unemployed rehabilitation workers}} \times 100
\]

**Disaggregation and additional dimensions:**
By rehabilitation occupational group, and sex.

**Measurement frequency:**
Annually.

**Preferred data sources:**
Professional associations, statistics from employment offices (WHO National Health Workforce Accounts, indicator 5-06).

**Other possible data sources and related links:**
Health workforce registry or database, labour force surveys, national health accounts surveys, population census data.

**Remarks:**
- A low unemployment rate reflects the capacity of the health system to absorb available rehabilitation workers; this, however, does not necessarily mean that supply and demand for rehabilitation workers is aligned with population needs.

**Alternative method of calculation:**
-

**Resources:**
## Expanded indicator 13: Rehabilitation integrated into the training of medical doctors and nurses

<table>
<thead>
<tr>
<th>Rehabilitation results chain:</th>
<th>Input – Rehabilitation workforce</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definition:</strong></td>
<td>The percentage of entry-to practice health training courses for medical doctors and nurses in which rehabilitation is integrated. The inclusion of rehabilitation in health training refers to the inclusion of a full module or unit of study in the core curriculum and not simply a lecture or visit to a therapy department. The definition of health training may vary based on the strategic plan objectives, for example it may only include undergraduate training courses.</td>
</tr>
<tr>
<td><strong>Rationale:</strong></td>
<td>The inclusion of rehabilitation in the training of medical doctors and nurses increases knowledge of rehabilitation and awareness of its importance to health and functioning outcomes.</td>
</tr>
<tr>
<td><strong>Numerator:</strong></td>
<td>Number of nursing and medical entry-to practice health training courses into which rehabilitation is integrated.</td>
</tr>
<tr>
<td><strong>Denominator:</strong></td>
<td>Total number of nursing and medical entry-to practice health training courses.</td>
</tr>
<tr>
<td><strong>Method of calculation:</strong></td>
<td>( \frac{\text{Number of nursing and medical entry-to practice health training courses in which rehabilitation is integrated}}{\text{Total number of nursing and medical entry-to practice health training courses}} \times 100 )</td>
</tr>
<tr>
<td><strong>Disaggregation and additional dimensions:</strong></td>
<td>Numerator and denominator: nursing and medical.</td>
</tr>
<tr>
<td><strong>Measurement frequency:</strong></td>
<td>Every 2 years.</td>
</tr>
<tr>
<td><strong>Preferred data sources:</strong></td>
<td>Education institutions.</td>
</tr>
<tr>
<td><strong>Other possible data sources and related links:</strong></td>
<td>Professional associations.</td>
</tr>
<tr>
<td><strong>Remarks:</strong></td>
<td>-</td>
</tr>
<tr>
<td><strong>Alternative method of calculation:</strong></td>
<td>Instead of the integration into entry-to practice training, this indicator may be adapted to measure the integration of rehabilitation into continuous professional development courses for nurses and medical doctors.</td>
</tr>
<tr>
<td><strong>Resources:</strong></td>
<td>-</td>
</tr>
</tbody>
</table>
## Expanded indicator 14: Rehabilitation research

<table>
<thead>
<tr>
<th>Rehabilitation results chain:</th>
<th>Input – Health information for rehabilitation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definition:</strong></td>
<td>The number of new publications on rehabilitation research. These are counted based on a country definition of “rehabilitation research” and ideally, but not necessarily, informed by a rehabilitation research agenda.</td>
</tr>
<tr>
<td><strong>Rationale:</strong></td>
<td>Rehabilitation research, such as health policy and systems research, contributes to evidence informed decision-making and thus to more effective and efficient rehabilitation.</td>
</tr>
<tr>
<td><strong>Numerator:</strong></td>
<td>The number of new publications on rehabilitation research.</td>
</tr>
<tr>
<td><strong>Denominator:</strong></td>
<td>-</td>
</tr>
<tr>
<td><strong>Method of calculation:</strong></td>
<td>The number of new publications on rehabilitation research.</td>
</tr>
<tr>
<td><strong>Disaggregation and additional dimensions:</strong></td>
<td>By type of research: with government (agency) involvement, e.g. integral part of a country policy/action cycle, and without political involvement.</td>
</tr>
<tr>
<td><strong>Measurement frequency:</strong></td>
<td>Annually.</td>
</tr>
<tr>
<td><strong>Preferred data sources:</strong></td>
<td>Research bodies.</td>
</tr>
<tr>
<td><strong>Other possible data sources and related links:</strong></td>
<td>nongovernmental organizations, data from ministry of health.</td>
</tr>
<tr>
<td><strong>Remarks:</strong></td>
<td>-</td>
</tr>
<tr>
<td><strong>Alternative methods of calculation:</strong></td>
<td>- The total funds available for rehabilitation research annually in the country. This requires a mechanism that records funds for research related to rehabilitation. To measure the proportion of total research expenditure specifically allocated to rehabilitation use denominator “total health research expenditure”.</td>
</tr>
<tr>
<td></td>
<td>Number of rehabilitation research projects awarded.</td>
</tr>
<tr>
<td></td>
<td>Number of rehabilitation research topics included in the (sub) national health research agenda.</td>
</tr>
<tr>
<td><strong>Resources:</strong></td>
<td>-</td>
</tr>
</tbody>
</table>
Expanded indicator 15: Rehabilitation day programme availability

**Rehabilitation results chain:** Output – Rehabilitation services – Availability

**Definition:** The number of facilities offering a rehabilitation day programme per 10,000 population. These rehabilitation day programmes (as funded/allocated to services) are intensive outpatient rehabilitation services reserved specifically for the rehabilitation of clients with subacute and chronic health conditions requiring more intense and specialized rehabilitation care (e.g. clients with autism spectrum disorder, intellectual disability, cerebral palsy, spina bifida). These programmes commonly involve multiple professions and are usually available in rehabilitation hospitals, centres and units, or integrated into nursing homes (e.g. clients with dementia) or schools.

**Rationale:** The density of dedicated rehabilitation day programmes is an indication of the availability of high-intensity outpatient rehabilitation service delivery. The distribution of day programmes across geographic areas reflects availability for the population in different regions, which informs the assessment of equitable access. Information about day programme types provides information about coverage of interventions for selected population groups.

**Numerator:** Number of facilities offering a rehabilitation day programme.

**Denominator:** Total population.

**Method of calculation:** Number of facilities offering a rehabilitation day programme / Total population x 10,000.

**Disaggregation and additional dimensions:** Numerator and denominator: geographic area, day programme type.

**Measurement frequency:** Annually.

**Preferred data sources:** Administrative data from ministry of health.

**Other possible data sources and related links:** HHFA or audit, HMIS.

**Remarks:** The working definition of a rehabilitation day programme would need to be defined at country level and may include minimum number of rehabilitation occupational groups involved, minimum duration of sessions, or capacity to deliver, among others. These could be based on accreditation standards.
Expanded indicator 16: Rehabilitation integrated into acute care

Rehabilitation results chain: Output – Rehabilitation services – Availability

Definition: The percentage of stroke units and intensive/intermediate care units (ICUs) that offer rehabilitation services. This includes the integrated delivery of interventions by rehabilitation personnel in a dedicated stroke unit and ICU. The rehabilitation personnel may be on the staffing list or deliver services on a demand basis, and should take part in team meetings.

Rationale: The integration of rehabilitation in selected acute care settings reflects its availability in these settings and for the population and serves as a proxy for timely delivery of rehabilitation services. Timely delivery of rehabilitation contributes to its effectiveness and the overall quality of care.

Numerator: Number of stroke units and ICUs that offer rehabilitation services.

Denominator: Total number of stroke units and ICUs.

Method of calculation: \[
\left( \frac{\text{Number of stroke units and ICUs that offer rehabilitation services}}{\text{Total number of stroke units and ICUs}} \right) \times 100.
\]

Disaggregation and additional dimensions: Numerator and denominator: geographic region, facility type.

Measurement frequency: Every 3 to 5 years.

Preferred data sources: HHFA or audit.

Other possible data sources: -

Remarks: -

Alternative method of calculation: -


Expanded indicator 17: Rehabilitation integrated into primary health care

**Rehabilitation results chain:** Output – Rehabilitation services – Availability

**Definition:** Proportion of primary care facilities with a mandate to allocate rehabilitation personnel that has one or more rehabilitation occupational groups. Primary care refers to services delivered by health professionals who act as a first point of consultation. Not all primary care facilities are necessarily counted in the denominator; sometimes only facilities of a certain size, with a medical doctor, or with inpatient capacity are expected to provide rehabilitation with rehabilitation personnel.

**Rationale:** The extent to which rehabilitation services are integrated in primary care settings reflects its availability in these settings and for the population.

**Numerator:** Number of primary care facilities that has one or more rehabilitation occupational groups.

**Denominator:** Total number of primary care facilities with a mandate to allocate rehabilitation personnel.

**Method of calculation:** \( \frac{\text{Number of primary care facilities that has one or more rehabilitation occupational groups}}{\text{Number of primary care facilities with a mandate to allocate rehabilitation personnel}} \times 100 \)

**Disaggregation and additional dimensions:** Both numerator and denominator by geographic region.

**Measurement frequency:** Annually.

**Preferred data sources:** [RHIS](https://www.who.int/rh/standard_facility_indicators/en/) (WHO standard facility indicator “Rehabilitation personnel density”).

**Other possible data sources and related links:** [HHFA](https://www.who.int/hfa/ready.html) (*WHO HHFA Rehabilitation care readiness indicator 3.6.2.3.1*), ministry of health administrative databases.
Remarks:
- Core indicator 6 measures the percentage of primary care facilities offering a basic package of interventions for rehabilitation, which may be offered through task sharing by non-rehabilitation workers, whereas this Expanded indicator 17 measures the proportion of primary care facilities that have rehabilitation personnel.

Alternative method of calculation:
-

Resources:


Expanded indicator 18: Rehabilitation integrated into secondary health care

Rehabilitation results chain:
Output – Rehabilitation services – Availability

Definition:
The proportion of secondary care hospitals that have two or more rehabilitation occupational groups. This includes any secondary care hospital-based rehabilitation service, whether at inpatient or outpatient clinics. Rehabilitation occupational groups include the seven common occupational groups listed in the rehabilitation personnel density indicator (Core indicator 4). The country's own definition of secondary hospital can be used, but such hospitals generally refer to those with 5 to 10 clinical specialties and whose size ranges between 200 and 800 beds; they are often referred to as a provincial, general or regional hospital.

Rationale:
The presence of different types of rehabilitation professionals in secondary care hospitals indicates the availability of rehabilitation services at this level of health care. This information indirectly informs quality of care through the assessment of the available skill set.

Numerator:
Number of secondary care hospitals with two or more rehabilitation occupational groups.

Denominator:
Total number of secondary care hospitals.

Method of calculation:
(Total number of secondary care hospitals with two or more rehabilitation occupational groups / Total number of secondary care hospitals) x 100.
Expanded indicator 19: Rehabilitation integrated into tertiary health care

Rehabilitation results chain: Output – Rehabilitation services – Availability

Definition: The proportion of tertiary care hospitals in the country that have three or more rehabilitation occupational groups. This includes any tertiary care hospital-based rehabilitation service, whether inpatient or outpatient clinics. The occupational groups include the seven common occupational groups listed in the rehabilitation personnel density indicator (Core indicator 4). Countries can use their own definitions of tertiary hospital, but such hospitals are generally understood to provide highly specialized care and may have teaching facilities. They typically range from 300–1500 beds and are often referred to as national, central or teaching hospitals.
**Rationale:** The presence of three or more rehabilitation professions in tertiary care hospitals indicates the availability of multidisciplinary rehabilitation services. This indirectly informs quality of care by the assessment of the available skill set.

**Numerator:** Number of tertiary care hospitals with three or more rehabilitation occupational groups.

**Denominator:** Total number of tertiary care hospitals.

**Method of calculation:** \[
\left( \frac{\text{Total number of tertiary care hospitals with three or more rehabilitation occupational groups}}{\text{Total number of tertiary care hospitals}} \right) \times 100.
\]

**Disaggregation and additional dimensions:** For both numerator and denominator: geographical region.

**Measurement frequency:** Annually.

**Preferred data sources:** RHIS (WHO standard facility indicator “Rehabilitation personnel density”).

**Other possible data sources and related links:** HHFA (WHO HHFA Rehabilitation care readiness indicator 3.6.2.3.2), ministry of health administrative data, professional associations.

**Remarks:**
- At national level this indicator can be adapted to only include government hospitals.
- Identifying separate secondary and tertiary care hospitals may be difficult in some countries and combining these is also an option.

**Alternative method of calculation:** -

**Resources:**
## Expanded indicator 20: Assistive products availability

**Rehabilitation results chain:** Output – Rehabilitation services – Availability

**Definition:** The proportion of facilities with a mandate to provide assistive products that have a minimum of assistive products available (from national standards, and irrespective of the source of funding). It is not expected that all health facilities provide all assistive products so this indicator should be determined based on the objectives of the assistive product programme in the country. Facility prescription and referral to a separate facility for assistive product provision is not included in this indicator.

**Rationale:** The availability of assistive products in a health facility indicates readiness to provide assistive products.

**Numerator:** Number of health facilities that have a minimum of assistive products available.

**Denominator:** Number of health facilities that are expected to have a minimum of assistive products available.

**Method of calculation:** \( \left( \frac{\text{Number of health facilities that have a minimum of assistive products available}}{\text{Number of health facilities that are expected to have a minimum of assistive products available}} \right) \times 100 \)

**Disaggregation and additional dimensions:** both numerator and denominator by facility type and WHO APL category.

**Measurement frequency:** Every 3 to 5 years.

**Preferred data sources:** Health facility survey, HHFA or audit.

**Other possible data sources and related links:** Ministry of health and other government agencies providing assistive products.

**Remarks:**
- The availability of assistive products at a health facility implies that personnel have the skills to appropriately provide assistive products (assessment, selection, fitting and training).
- In some countries rehabilitation facilities do not have the assistive products in their facilities and rehabilitation professionals may prescribe the products that will be delivered in some other location. In this case, these facilities would not be counted for the country denominator.
### Alternative method of calculation:
- 

### Resources:

### Expanded indicator 21: Rehabilitation outreach uptake

#### Rehabilitation results chain:
Output – Rehabilitation services – Utilization

#### Definition:
The number of rehabilitation sessions provided by outreach programmes over a specified reporting period. Rehabilitation outreach is the delivery of rehabilitation interventions in community settings, such as homes, community centres, schools and other locations. The definition of a session needs to be defined at country level.

#### Rationale:
Providing rehabilitation in the community, whether in homes, community centres, schools or other places, reflects the availability of rehabilitation for the population. Rehabilitation services that are delivered in the community improve early identification of rehabilitation needs and provide services to those who experience constraints to travel (i.e. people who are housebound or with financial barriers to travel). For many countries, outreach programmes are crucial to reduce the barriers to rehabilitation service use and therefore increase accessibility. Knowing the extent to which these services are used is essential to assess the capacity. A disaggregation for geographical area may be used to assess the percentage of districts covered with rehabilitation delivered in the community. This can be used for short- to medium-term service planning.

#### Numerator:
Number of rehabilitation sessions provided by outreach programmes.

#### Denominator:
- 

#### Method of calculation:
Number of rehabilitation sessions provided by outreach programmes.

#### Disaggregation and additional dimensions:
Facility type (administrative level of care), geographical area, sex, age group.

#### Measurement frequency:
Annually.

#### Preferred data sources:
RHIS (WHO standard facility indicator “Outreach programmes uptake”).
Other possible data sources and related links: Service records.

Remarks:
- Definitions of “outreach” should reflect how and where rehabilitation is delivered in the country. For example, it could include community outreach therapy posts, mobile clinics, or nongovernmental organizations contracted by government to deliver rehabilitation in communities.
- In situations where health workers delivering rehabilitation in the community are hired directly under the education sector, the data for this indicator may not be captured, unless if data exchange is occurring.

Alternative method of calculation:


Expanded indicator 22: Accessibility for people with acute onset and complex needs

Rehabilitation results chain: Output – Rehabilitation services – Utilization

Definition: The number of people with an acute onset health condition who access inpatient multi-disciplinary intensive rehabilitation in a dedicated rehabilitation ward (whether in a hospital or a rehabilitation centre). The client is under the care of a lead physician and at least two other rehabilitation occupational groups. Admission to the rehabilitation ward should follow a discharge from an acute care ward. The choice of the health conditions for reporting needs to be based on national health condition prevalence and health care priorities. The health condition (group) with acute and complex rehabilitation needs may include spinal cord injury, traumatic brain injury, burns, major multiple trauma, amputation, stroke, acute inflammatory demyelinating polyneuropathy.

Rationale: Good clinical practice prescribes inpatient multidisciplinary rehabilitation for the effective rehabilitation of some people with complex rehabilitation needs, commonly following an acute onset with significant functional decline. Knowing the extent to which people with identified health conditions have access to rehabilitation services is crucial for planning and decision-making.

Numerator: Number of first-time admissions at a dedicated rehabilitation ward for selected health conditions.
### Denominator:
- 

### Method of calculation:
Number of first-time admissions at a dedicated rehabilitation ward for selected health conditions.

### Disaggregation and additional dimensions:
Health condition, geographic region.

### Measurement frequency:
Annually.

### Preferred data sources:
- RHIS (WHO standard facility indicator “Accessibility for people with acute and complex needs”).

### Other possible data sources and related links:
Service records, condition registry.

### Remarks:
- Countries may be providing inpatient multidisciplinary intensive rehabilitation in wards other than the dedicated rehabilitation ward such as in orthopaedic, neurology or psychiatric wards, among others. In this case, the number of people admitted for selected health conditions can be counted, provided that these are first-time, multidisciplinary intensive rehabilitation service users.

### Alternative method of calculation:
- 

### Resources:

### Expanded indicator 23: Clinical guidelines for rehabilitation

### Rehabilitation results chain:
Output – rehabilitation services – Quality

### Definition:
The number of up-to-date clinical practice guidelines that include rehabilitation endorsed by national or state health institutions or institutions of clinical governance and leadership, during a reporting period. Up-to-date evidence-based guidelines have recommendations for rehabilitation based on the best available scientific knowledge (not older than 5 years) that guide the decisions of both professionals and patients regarding the most effective, appropriate and efficient interventions for addressing a particular health-related problem, given specific circumstances.
**Rationale:**
Research shows that the use of evidence-based rehabilitation clinical practice guidelines improves the effectiveness and efficiency of rehabilitation. Rehabilitation clinical practice – or evidence-based – guidelines and documented protocols indicate that professional efforts are made to improve the quality of rehabilitation care.

**Numerator:**
Number of up-to-date clinical practice guidelines that include rehabilitation endorsed by a national institution.

**Denominator:**
-

**Method of calculation:**
Number of up-to-date clinical practice guidelines that include rehabilitation endorsed by a national institution.

**Disaggregation and additional dimensions:**
-

**Measurement frequency:**
Every 2 years.

**Preferred data sources:**
Data from ministry of health.

**Other possible data sources and related links:**
Academic institutions, public health institutes, national professional bodies.

**Remarks:**
-

**Alternative method of calculation:**
-

**Resources:**

---

**Expanded indicator 24: Rehabilitation service standards**

**Rehabilitation results chain:**
Output – Rehabilitation services – Quality

**Definition:**
Percentage of rehabilitation facilities meeting national endorsed rehabilitation standards. Standards provide guidance that support the provision of quality rehabilitation. These are commonly “rehabilitation service standards” that have been set at the national level and define personnel, infrastructure, equipment, administration, management and clinical processes required for provision of quality rehabilitation.
Rationale: There is evidence that the existence and implementation of rehabilitation service standards improve the quality, effectiveness and efficiency of rehabilitation care.

Numerator: Number of rehabilitation facilities meeting national endorsed rehabilitation standards.

Denominator: Total number of rehabilitation facilities.

Method of calculation: \( \frac{\text{Number of facilities meeting national endorsed rehabilitation standards}}{\text{Total number of rehabilitation facilities}} \times 100\).

Disaggregation and additional dimensions: For both numerator and denominator: by facility type (administrative level of care), geographic area.

Measurement frequency: Every 3 to 5 years.

Preferred data sources: National accreditation, quality standards agencies.

Other possible data sources and related links: HHFA or audit.

Remarks: - Components of the service standards could be separated, for example, standards related to infrastructure and equipment could form separate indicators.

Alternative method of calculation: - This indicator can be replaced to assess the performance of a rehabilitation facility accreditation system, or a nationally endorsed quality of care standard/initiative that is inclusive of rehabilitation.

- To assess rehabilitation care readiness, the percentage of facilities offering rehabilitation services with minimum equipment could be measured (WHO HHFA Rehabilitation care readiness indicators 3.6.2.2.4 -13).


**Expanded indicator 25: Length of stay**

**Rehabilitation results chain:** Output – Rehabilitation services – Quality

**Definition:** The average number of inpatient days for selected health conditions. The length of stay is defined as rehabilitation care provided by the health care facility or provider, from admission to the rehabilitation unit to discharge from care. This excludes incomplete stays (e.g. people discharged to an acute ward, or self-discharged clients). This indicator should be measured where inpatient specialized rehabilitation is delivered: this is a setting with dedicated rehabilitation beds, which contributes to having a defined rehabilitation episode.

**Rationale:** The length of a rehabilitation episode for inpatient stay provides information on the quantity of rehabilitation service use and may be used to develop a benchmarking strategy. This can be used to make comparisons across facilities and services. Combining length of stay with information on functioning change enables the assessment of effectiveness and efficiency of rehabilitation care.

**Numerator:** Total number of days of inpatient stay for discharged clients.

**Denominator:** Number of discharges.

**Method of calculation:** Number of days of inpatient stay for discharged clients / Number of discharges.

**Disaggregation and additional dimensions:** Numerator and denominator: health condition, geographic region.

**Measurement frequency:** Annually.

**Preferred data sources:** RHIS (WHO standard facility indicator “Length of stay”).

**Other possible data sources and related links:** Service data, ministry of health administrative data sources.

**Remarks:**

**Alternative method of calculation:**


---

**Expanded indicator 26: Individualized rehabilitation plan**

<table>
<thead>
<tr>
<th>Rehabilitation results chain:</th>
<th>Output – Rehabilitation services – Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definition:</strong></td>
<td>Percentage of new inpatients at a rehabilitation ward or unit receiving an individualized care plan for rehabilitation. The development of an individualized rehabilitation care plan by the rehabilitation facility can be based on a national standard. An individualized rehabilitation care plan should be developed for every client admitted at a dedicated ward and usually includes: i) a functioning assessment at the start of the rehabilitation episode; ii) person-centred goal-setting; and iii) an intervention plan.</td>
</tr>
<tr>
<td><strong>Rationale:</strong></td>
<td>An individualized rehabilitation care plan is an indication that quality care is being provided; they contribute to better rehabilitation outcomes for clients.</td>
</tr>
<tr>
<td><strong>Numerator:</strong></td>
<td>Total number of new rehabilitation inpatients at the rehabilitation ward receiving an individualized care plan.</td>
</tr>
<tr>
<td><strong>Denominator:</strong></td>
<td>Total number of new rehabilitation inpatients at the rehabilitation ward.</td>
</tr>
<tr>
<td><strong>Method of calculation:</strong></td>
<td>( \frac{\text{Number of new inpatients receiving an individualized care plan}}{\text{Number of new inpatients}} \times 100 )</td>
</tr>
<tr>
<td><strong>Disaggregation and additional dimensions:</strong></td>
<td>Numerator and denominator: geographic region.</td>
</tr>
<tr>
<td><strong>Measurement frequency:</strong></td>
<td>Annually.</td>
</tr>
<tr>
<td><strong>Preferred data sources:</strong></td>
<td>RHIS (WHO standard facility indicator “Individualized care plan”).</td>
</tr>
<tr>
<td><strong>Other possible data sources and related links:</strong></td>
<td>Service records, HHFA.</td>
</tr>
</tbody>
</table>
### Expanded indicator 27: Client experience of rehabilitation care

**Rehabilitation results chain:** Output – Rehabilitation services – Quality

**Definition:** Percentage of rehabilitation facilities that undertake a survey or questionnaire on clients’ experience of care over a specified period. These are self-reports of clients’ experience of care while accessing rehabilitation.

**Rationale:** Assessment of and action to ensure good experience of rehabilitation care is important and can help drive improvements in quality, accountability and responsiveness in health care. The base level is for facilities to provide a survey or questionnaire on experience of quality of care. This information should be collated, reported and acted upon by facilities and programmes.

**Numerator:** Number of rehabilitation facilities using an experience of rehabilitation care questionnaire, in a specified period of time.

**Denominator:** Total number of rehabilitation facilities.

**Method of calculation:** \[(\text{Number of rehabilitation facilities using an experience of rehabilitation care questionnaire} / \text{Number of rehabilitation facilities}) \times 100\].

**Disaggregation and additional dimensions:** Both numerator and denominator by facility level, geographic region.

**Measurement frequency:** Annually.

**Preferred data sources:** Health facility survey.

**Other possible data sources and related links:** HHFA or audit.
Remarks:
- A national standard for a rehabilitation patient survey or questionnaire may be developed and adopted by all appropriate facilities in order to allow comparability of survey results across facilities.
- For the denominator, the number of rehabilitation facilities could be defined at national level by the number of facilities that have a mandate to undertake surveys on clients’ experience.

Alternative method of calculation:
- This indicator could be adapted to measure the percentage of respondents to a survey on patient satisfaction that have demonstrated to be satisfied with rehabilitation services (e.g. with a satisfaction measurement tool).

Resources:
- 

Expanded indicator 28: Professional development for rehabilitation workers

Rehabilitation results chain:
Output – Rehabilitation services – Quality

Definition:
Percentage of facilities offering rehabilitation with at least one staff member who has received related professional development training in the last 2 years. This only includes trainings that have come with a certification and excludes professional development activities such as department activities or scientific sessions at conferences. Training may be for any aspect of rehabilitation care. Common rehabilitation staff are physical medicine and rehabilitation doctors, rehabilitation nurses, physiotherapists, occupational therapists, speech and language therapists, prosthetists and orthotists, and psychologists. Other rehabilitation occupational groups relevant to the country can also be included, for example audiologists, social workers and mid-level rehabilitation cadres.

Rationale:
The extent of rehabilitation services provided by staff who are receiving related professional development training is reflecting the quality of rehabilitation services.

Numerator:
Number of facilities with at least one rehabilitation staff that has received certified professional development training in past 2 years.

Denominator:
Total number of facilities offering rehabilitation services.

Method of calculation:
(Number of facilities with at least one rehabilitation staff that has received certified professional development training in past 2 years / Total number of facilities offering rehabilitation services) x 100.
Disaggregation and additional dimensions: Geographical region, facility type (administrative level of care), rehabilitation occupational group.

Measurement frequency: Every 5 years.

Preferred data sources: HHFA or audit (WHO HHFA Rehabilitation care readiness indicator 3.6.2.2.2).

Other possible data sources and related links: Academic institutions, professional associations registers, data from health facilities (routine administrative records).

Remarks: -

Alternative method of calculation: Annual number of rehabilitation professional development opportunities, by rehabilitation occupational group.


### Expanded indicator 29: Population access to assistive technology

<table>
<thead>
<tr>
<th>Rehabilitation results chain:</th>
<th>Outcome – Rehabilitation coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definition:</td>
<td>The percentage of prevalence of met need to prevalence of need.</td>
</tr>
<tr>
<td>Rationale:</td>
<td>Knowing the extent of assistive products use in a population that needs assistive products is crucial for planning and decision-making. Rehabilitation may not be the only contribution to population access to assistive products. It is, however, an important one as good coverage of rehabilitation contributes to higher levels of population access to assistive products.</td>
</tr>
<tr>
<td>Numerator:</td>
<td>Number of people who are using assistive products and do not need new or additional assistive products.</td>
</tr>
<tr>
<td>Denominator:</td>
<td>Number of people who are using assistive products and do not need new or additional assistive products + Number of people who report needing new or additional assistive products regardless of whether they are already using assistive products or not.</td>
</tr>
<tr>
<td><strong>Method of calculation:</strong></td>
<td>(Number of people who are using assistive products and do not need new or additional assistive products / Number of people who are using assistive products and do not need new or additional assistive products + Number of people who report needing new or additional assistive products regardless of whether they are already using assistive products or not) x 100.</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Disaggregation and additional dimensions:</strong></td>
<td>Both numerator and denominator by age, gender, socioeconomic, rural/urban, WHO APL category.</td>
</tr>
<tr>
<td><strong>Measurement frequency:</strong></td>
<td>Every 5 years.</td>
</tr>
<tr>
<td><strong>Preferred data sources:</strong></td>
<td>Population-based surveys. Estimates derived from national household surveys using the WHO Rapid Assistive Technology Assessment (rATA).</td>
</tr>
<tr>
<td><strong>Other possible data sources and related links:</strong></td>
<td>-</td>
</tr>
<tr>
<td><strong>Remarks:</strong></td>
<td>-</td>
</tr>
<tr>
<td><strong>Alternative method of calculation:</strong></td>
<td>-</td>
</tr>
</tbody>
</table>
| **Resources:** | Rapid Assistive Technology Assessment tool (rATA), WHO AT programme. [https://www.who.int/publications/i/item/WHO-MHP-HPS-ATM-2021.1](https://www.who.int/publications/i/item/WHO-MHP-HPS-ATM-2021.1).  
## Expanded indicator 30: Rehabilitation referral

<table>
<thead>
<tr>
<th>Rehabilitation results chain:</th>
<th>Health system attributes – Efficiency – Continuum of care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definition:</td>
<td>The percentage of new cases accessing the facility that are referred in for rehabilitation from another level of health care, regardless of the source. A new case is defined as a person who presents with a newly identified rehabilitation need; this may be either a first-time rehabilitation user or a user already known to the department. This includes inpatient and outpatient cases. Referrals are done by a health worker and may be written or verbal; self-referrals are excluded.</td>
</tr>
<tr>
<td>Rationale:</td>
<td>Rehabilitation is commonly part of a continuum of care and a strong continuum results in better health outcomes. Well-functioning referral processes are crucial to creating this continuum and happen in both directions across the levels of health care. Understanding the trends of referrals are important as well.</td>
</tr>
<tr>
<td>Numerator:</td>
<td>Number of referrals; number of new cases accessing the facility that are referred in for rehabilitation from another level of health care.</td>
</tr>
<tr>
<td>Denominator:</td>
<td>Number of new cases accessing the facility.</td>
</tr>
<tr>
<td>Method of calculation:</td>
<td>((\text{Number of referrals} / \text{Total number of new cases accessing the facility}) \times 100.)</td>
</tr>
<tr>
<td>Disaggregation and additional dimensions:</td>
<td>Numerator: referral type (for assistive product provision or other rehabilitation services). Numerator and denominator: facility type (administrative level of care), in- and outpatient, geographical region.</td>
</tr>
<tr>
<td>Measurement frequency:</td>
<td>Annually.</td>
</tr>
<tr>
<td>Preferred data sources:</td>
<td>RHIS (WHO standard facility indicator “Rehabilitation referral”).</td>
</tr>
<tr>
<td>Other possible data sources and related links:</td>
<td>-</td>
</tr>
<tr>
<td>Remarks:</td>
<td>-</td>
</tr>
<tr>
<td>Alternative method of calculation:</td>
<td>- HHFA or audits may be used to assess the percentage of facilities where rehabilitation referral mechanisms have been documented. This provides information about the extent to which referrals are being made from facilities, without the information of actual uptake of the referral.</td>
</tr>
</tbody>
</table>
Expanded indicator 31: Rehabilitation waiting time

Rehabilitation results chain: Health system attributes – Efficiency – Continuum of care

Definition: Average of waiting days until the first rehabilitation session. This includes all waiting days, including weekends and holidays, for new outpatients from the time of contact in arranging an appointment (whether made in-person, by telephone or online) to the first encounter with a rehabilitation health care worker. Common rehabilitation workers include physical medicine and rehabilitation doctors, rehabilitation nurses, physiotherapists, occupational therapists, speech and language therapists, prosthetists and orthotists, and psychologists. Other rehabilitation occupational groups relevant to the country can also be included, for example, audiologists, social workers and mid-level rehabilitation cadres.

Rationale: Timely delivery of rehabilitation is an indication of an efficient health system for rehabilitation. It contributes to its effectiveness and the overall quality of care. Waiting time for specific rehabilitation services (e.g. occupational groups) is a common issue in many countries and reducing them may be a goal. Waiting times can also inform estimation of unmet need and provide helpful information for reporting and advocacy.

Numerator: Total of waiting days until the first rehabilitation session for new outpatient cases.

Denominator: Number of new outpatient cases.

Method of calculation: Total of waiting days until the first rehabilitation session / Number of new cases.

Disaggregation and additional dimensions: Numerator and denominator: facility type (administrative level of care), rehabilitation occupational group, geographical region.

Measurement frequency: Annually.
Preferred data sources: RHIS (WHO standard facility indicator “Rehabilitation waiting time”).

Other possible data sources and related links: Administrative data from facilities.

Remarks: Countries may want to measure waiting times for inpatients as well if waiting times apply to people that are admitted for hospital-based rehabilitation care. It is then recommended to disaggregate this indicator for in- and outpatient.

Alternative method of calculation: -


Expanded indicator 32: Assistive products waiting time

Rehabilitation results chain: Health system attributes – Efficiency – Continuum of care

Definition: Average of waiting days for assistive product provision. This includes all waiting days, including weekends and holidays, for inpatients and outpatients from the time of first contact with the assistive product provider to the actual provision of the product. This includes provision of assistive products that are intended for temporary use. Extra days needed for additional fitting or repairs are not counted as waiting days. For inpatients the waiting time for assistive products provision may exceed time of inpatient stay.

Rationale: Timely delivery of assistive products contributes to its effectiveness and the overall quality of care. Waiting time for assistive product provision is particularly an issue in some countries; although delays may result from poor capacity for service delivery (e.g. weak potential for local manufacturing), most often they are caused by problems with procurement processes. Waiting times can also inform estimation of unmet need and provide helpful information for reporting and advocacy.

Numerator: Total number of days waiting for assistive product provision.

Denominator: Number of assistive products provided.

Method of calculation: Total number of days waiting for assistive product provision / Number of assistive products provided.
<table>
<thead>
<tr>
<th>Disaggregation and additional dimensions:</th>
<th>Numerator and denominator: facility type (administrative level of care), WHO APL categories, in- and outpatient, geographical region.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement frequency:</td>
<td>Annually.</td>
</tr>
<tr>
<td>Preferred data sources:</td>
<td>RHIS (WHO standard facility indicator “Waiting time for assistive product provision”).</td>
</tr>
<tr>
<td>Remarks:</td>
<td>-</td>
</tr>
<tr>
<td>Alternative method of calculation:</td>
<td>-</td>
</tr>
</tbody>
</table>