REHABILITATION
INDICATOR MENU

A tool accompanying the Framework for Rehabilitation Monitoring and Evaluation (FRAME)
REHABILITATION
INDICATOR MENU

RIM

A tool accompanying the Framework for Rehabilitation Monitoring and Evaluation (FRAME)
Rehabilitation indicator menu: a tool accompanying the Framework for Rehabilitation Monitoring and Evaluation (FRAME)

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<tbody>
<tr>
<td>ACTOR</td>
<td>Action on Rehabilitation</td>
</tr>
<tr>
<td>DHMIS</td>
<td>District Health Management Information Systems</td>
</tr>
<tr>
<td>DHIS2</td>
<td>District Health Information Systems 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>ICD</td>
<td>International Classification of Diseases</td>
</tr>
<tr>
<td>NCD</td>
<td>Noncommunicable disease</td>
</tr>
<tr>
<td>NGO</td>
<td>Nongovernmental organization</td>
</tr>
<tr>
<td>RIM</td>
<td>Rehabilitation Indicator Menu</td>
</tr>
<tr>
<td>SHA</td>
<td>System of National Health Accounts</td>
</tr>
<tr>
<td>SDGs</td>
<td>Sustainable Development Goals</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>
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</table>
Background

The World Health Organization’s Rehabilitation Indicator Menu (RIM) is part of the Framework for Rehabilitation Monitoring and Evaluation (FRAME) guidance. The FRAME guidance is part of the Rehabilitation in health systems: guide for action; it is used during Phase 3 of a four-phase process. See Table 1. The Guide for Action supports a strategic planning process and once the strategic plan is produced a monitoring framework and evaluation and review processes should be established. FRAME includes two steps, the first is the development of a monitoring framework with indicators, baselines and targets, and the second step is the establishment of evaluation and review processes for the strategic plan.

A strategic plan should have a monitoring framework in order to track the progress of the plan and its desired outcomes against selected indicators. The purpose of the RIM is to help select these indicators. The RIM includes a number of indicators that are suitable for monitoring of a national rehabilitation strategic plan, these are presented as a menu so that governments only select a limited number. A monitoring framework can also be developed for a sub-national strategic plan and these indicators can be adapted to a sub-national plan. These indicators may also be used when monitoring rehabilitation in other situations, including when rehabilitation is integrated into the monitoring framework of a national health strategic plan or when a national or sub-national rehabilitation programme seeks to monitor its results.

Table 1: The Four-Phase Process and Accompanying Guidance

The Rehabilitation in health systems: guide for action and accompanying 12 steps are illustrated in Figure 1. The RIM is used during Step 9 of the 12 step process.
**Figure 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
Using the Rehabilitation Indicator Menu (RIM)

When is the RIM used?

Phase 3 includes two steps – steps 9 and 10 (see Figure 1) – and the RIM is used in step 9. Step 9 usually occurs during the later stage of development of the strategic plan (step 7), or after it is endorsed (step 8), there is often overlap of these steps.

What does the RIM include?

The RIM includes two categories of indicators: core and expanded indicators. All countries are encouraged to adopt the core indicators, while countries may select any of the expanded indicators according to the objectives of their strategic plan. There are six core indicators and 34 expanded indicators. Each indicator includes detailed information on its definition, rationale, numerators and denominators, method of measurement, and disaggregation options and measurement methods.

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

The core indicator set has been developed to improve the monitoring of rehabilitation strategic plans and to ensure comparability across countries. The objectives of the core indicators (which are the same as those of WHO’s Global Reference List of 100 Core Health Indicators) are to provide guidance for health monitoring; reduce excessive and duplicate reporting requirements; enhance efficiency of data collection investments; enhance quality and availability of data; and improve transparency and accountability.1 A further important objective is to establish rehabilitation indicators with a ‘track record’ of widespread use, as this is a prerequisite for inclusion in many global sets of health monitoring indicators.

The expanded indicator set has also been developed to guide and enhance monitoring of rehabilitation, but international comparability was not a pre-requisite for inclusion in this list. The expanded indicator set has been developed to make the selection of indicators a more straightforward task for countries. The expanded indicator set covers a wider range of rehabilitation results. Many Indicators within it can be tailored to the specific objectives of the rehabilitation strategic plan.

How were these core and expanded indicators developed?

The "rehabilitation results chain" (see Figure 2) played a key role in the development of these indicators and was developed in consultation with rehabilitation and monitoring and evaluation experts. A results chain, widely used in monitoring and evaluation, shows the relationship between actions and results and categorizes what is measured as inputs, outputs, outcomes, and impact. See the STARS section of the Guide for more on the rehabilitation results chain.

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To select the core and expanded indicators a set of rehabilitation indicators with a track record of use at country and global level was identified. Then indicators used in other areas of health which also had an established track record and could be adapted to rehabilitation were identified. A “zero draft” of indicators was first produced by WHO and then reviewed by rehabilitation experts at a WHO technical meeting in Geneva. The review included a rating of each indicator according to the six criteria listed in Table 2.

**Table 2: Criteria for selecting indicators**

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Valid</strong></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>2. <strong>Reliable</strong></td>
<td>Repeated measurements of a stable phenomenon get similar results</td>
</tr>
<tr>
<td>3. <strong>Relevant</strong></td>
<td>An indicator measures an aspect of rehabilitation within health systems with high importance</td>
</tr>
<tr>
<td>4. <strong>Actionable</strong></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>5. <strong>Internationally feasible</strong></td>
<td>An indicator that can be derived for international comparisons without substantial additional resources</td>
</tr>
<tr>
<td>6. <strong>Internationally comparable</strong></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>

Based on this review, a set of core and expanded indicators was selected and field tested. The results of the testing were used for a final review that resulted in the current set of core and expanded indicators.

**How will the indicators be updated?**

The menu of rehabilitation indicators will be periodically reviewed and updated as priorities evolve and evidence of successful measurement methods grows. The indicators in this document contain the 2019 version of core and expanded rehabilitation indicators.

**How can the indicators be categorized?**

Indicators in this menu can be categorized according to the rehabilitation results chain, and some can be categorized according to the relevant health systems building blocks.

Using the rehabilitation results chain, indicators are categorized into input/process indicators, output indicators, outcome indicators, and impact indicators (as seen under the “rehabilitation results chain” heading in each detailed indicator description). These are defined as follows:

- **Input/process indicators** measure the resources and activities needed to undertake an activity.
- **Output indicators** measure the results of the input/activity 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 the long-term effects of the services and products that have been directly or indirectly influenced by outputs, and the extent to which the overall objective has been achieved.

Input and output indicators (but not outcome or impact indicators) can also be categorized by health system building block, such as governance, financing, workforce, health information systems and services. For example, the rehabilitation expenditure indicator can be categorized under “input/processes – rehabilitation financing”.

Before using the RIM, it is highly recommended to read the Framework for Rehabilitation Monitoring and Evaluation (FRAME) tool, the first step of which provides guidance for developing a monitoring framework with the help of RIM.

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Rehabilitation Indicator Menu at a glance

<table>
<thead>
<tr>
<th>INPUT AND PROCESSES</th>
<th>OUTPUT</th>
<th>OUTCOME</th>
<th>IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rehabilitation governance</td>
<td>Rehabilitation services</td>
<td>Rehabilitation coverage</td>
<td>Rehabilitation impact</td>
</tr>
<tr>
<td>- Rehabilitation integrated into health plans</td>
<td>- Rehabilitation in tertiary hospitals</td>
<td>- Multidisciplinary rehabilitation for people with complex needs</td>
<td>- Population functioning</td>
</tr>
<tr>
<td>- Routine rehabilitation reporting</td>
<td>- Rehabilitation beds and day programme places</td>
<td>- Rehabilitation coverage for specific population groups</td>
<td></td>
</tr>
<tr>
<td>- Rehabilitation-governing measures</td>
<td>- Rehabilitation integrated into secondary care</td>
<td>- Assistive product coverage for specific population groups</td>
<td></td>
</tr>
<tr>
<td>- User engagement in governance</td>
<td>- Rehabilitation integrated into primary health care</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Priority assistive product list</td>
<td>- Rehabilitation delivered in the community</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rehabilitation financing</td>
<td>- Assistive products in health facilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Rehabilitation expenditure</td>
<td>- Clinical guidelines for rehabilitation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Assistive product expenditure</td>
<td>- Rehabilitation standards</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rehabilitation workforce and infrastructure</td>
<td>- Rehabilitation timeliness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Rehabilitation personnel density</td>
<td>- Rehabilitation waiting times</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Rehabilitation bed density</td>
<td>- Length of rehabilitation episode</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- All rehabilitation personnel</td>
<td>- Episode intensity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Rehabilitation graduates</td>
<td>- Functioning assessment on commencement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Rehabilitation professional accreditation</td>
<td>- Individualized care plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Rehabilitation integrated into health professional training</td>
<td>- Rehabilitation referral processes</td>
<td></td>
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</tr>
<tr>
<td>Rehabilitation information systems</td>
<td>- Rehabilitation client education</td>
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<tr>
<td>- Rehabilitation information</td>
<td>- Rehabilitation client experience of care</td>
<td></td>
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<tr>
<td>- Rehabilitation information in health monitoring frameworks</td>
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<tr>
<td>- Rehabilitation research</td>
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</tbody>
</table>

Core indicators are highlighted in orange.
## Core rehabilitation indicators

<table>
<thead>
<tr>
<th>NUMBER</th>
<th>CATEGORY OF INDICATOR</th>
<th>CORE INDICATOR NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Input/process – Rehabilitation governance</td>
<td>Rehabilitation integrated into health plans</td>
</tr>
<tr>
<td>2.</td>
<td>Input/process – Rehabilitation financing</td>
<td>Rehabilitation expenditure</td>
</tr>
<tr>
<td>3.</td>
<td>Input/process – Rehabilitation workforce</td>
<td>Rehabilitation personnel density</td>
</tr>
<tr>
<td>4.</td>
<td>Input/process – Rehabilitation infrastructure</td>
<td>Rehabilitation bed density</td>
</tr>
<tr>
<td>5.</td>
<td>Output – Rehabilitation services</td>
<td>Rehabilitation in tertiary hospitals</td>
</tr>
<tr>
<td>6.</td>
<td>Outcome – Rehabilitation coverage</td>
<td>Multidisciplinary rehabilitation for people with complex needs</td>
</tr>
</tbody>
</table>

### Core indicator 1: Rehabilitation integrated into health plans

**Rehabilitation results chain:** Input/process – Rehabilitation governance.

**Rationale:** Inclusion of rehabilitation in the national health strategic plan, or other relevant national health plans, provides an indication of the extent of the inclusion of rehabilitation in health planning.

**Definition:** This includes the health plans that explicitly include rehabilitation at the level of an activity and in the context of actions – i.e. it is not just included in the background text. It is the total number of plans that include rehabilitation over the previous 2 year period from time of reporting, it does not include internal operational plans, only the high-level, national or sub-national plans. These plans include the national health strategic plan and other relevant health sector plans. The denominator for this indicator is other relevant, available health sector plans which are determined at the national level. At a minimum the denominator should include the national health strategic plan as well as available national plans for mental health, older people, vision, hearing, non-communicable disease and early childhood/nurturing care.

**Numerator:** Number of health plans that include rehabilitation at the level of activities within the plan.

**Denominator:** Total number of available, relevant health plans that should include rehabilitation (as guided by above and ascertained relevant at the national level) at the activity level.

**Disaggregation and additional dimensions:** Some countries have a decentralized government with many sub-national plans for multiple areas of health, depending on the country this indicator could be disaggregated by national and sub-national.

**Method of measurement:** Total number of health plans in the country in which rehabilitation is explicitly included at an activity level.

**Measurement frequency:** Every 2 years.

**Preferred data sources:** National from Ministry of Health.

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

**Limitations:** A denominator is necessary to make this indicator internationally comparable however countries must determine their own denominator by identifying which plans are both available and deemed to be relevant for inclusion of rehabilitation. This may reduce the international comparability.

**References:** /
Core indicator 2: Rehabilitation expenditure

Rehabilitation results chain: Input/process – Rehabilitation financing.

Rationale: The tracking of rehabilitation expenditure is important for decision-making and advocacy. Rehabilitation expenditure as a proportion of total health expenditure indicates the level of public and private rehabilitation financing compared to all other areas of health.

Definition: Total national rehabilitation expenditure as the percentage of total national health expenditure. Total health expenditure is the sum of total private and public spend on health in the country annually. Both of these 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.

Numerator: Total annual national rehabilitation expenditure.

Denominator: Total annual health expenditure (THE).

Disaggregation and additional dimensions: To measure annual rehabilitation expenditure per capita, change denominator from “THE” to total population.

Method of measurement: Total annual national rehabilitation expenditure/total annual national health expenditure x 100.

Measurement frequency: Every 2 years.

Preferred data sources: Ministry of Health, National Health Accounts.

Other possible data sources and related links: Data from Ministry of Health, National Health Accounts, Ministry of Social Affairs, compulsory insurance agencies, and international development partners.

Limitations: Disaggregating rehabilitation expenditure from other health expenditure is challenging in many countries and data may not be complete. In some countries the necessary accounting practices are not in place and even where case-mix or diagnostic reference group mechanisms exist it may remain difficult to accurately assess all components of rehabilitation. An alternative is measuring only the expenditure that is linked to dedicated/specialized rehabilitation facilities or programmes.

References


Core indicator 3: Rehabilitation personnel density

Rehabilitation results chain: Input/process – Rehabilitation workforce.

Rationale: Rehabilitation personnel are the key providers of rehabilitation with few other health personnel delivering rehabilitation. Therefore, the density of personnel indicates the capacity of the health system to deliver rehabilitation to its population.

Definition: Rehabilitation personnel include rehabilitation doctors, rehabilitation nurses, physiotherapists, occupational therapists, speech language therapists, prosthetists and orthotists, and psychologists. These professions have been chosen for international comparability purposes, even though countries may have a broader scope of rehabilitation professions such as other allied health professional staff or mid-level community rehabilitation personnel. It does not include social workers as a significant proportion of their interventions are not rehabilitation interventions. It includes those working in government, private practice and NGO services. Where compulsory licensing exists, rehabilitation personnel include all those currently licensed and known to be in the country.

Numerator: Number of rehabilitation personnel.

Denominator: Total population.
Disaggregation and additional dimensions: There are multiple dimensions by which this indicator should be disaggregated and these are described under Indicator 10, where both density and distribution are considered.

Method of measurement: Total number of rehabilitation personnel/total population x 10 000.

Measurement frequency: Annually.

Preferred data sources: Health worker registries, licensing bodies, Ministry of Health databases.

Other possible data sources and related links: National health workforce database or registry of health workers, professional associations at the national or global level.

Limitations: Reliable rehabilitation workforce numbers outside of government services can be difficult to determine in countries without licensing/registration data.

References

Core indicator 4: Rehabilitation bed density

Rehabilitation results chain: Input/process – Rehabilitation infrastructure.

Rationale: Dedicated rehabilitation beds per capita is an indicator of the availability of specialist, high-intensity, longer stay rehabilitation services for the population.

Definition: The total number of rehabilitation beds per capita that are specifically reserved for rehabilitation clients. These are commonly in rehabilitation hospitals, centres, units and wards, and used for people requiring more intensive and specialized rehabilitation care.

Numerator: Total number of rehabilitation beds.

Denominator: Total population.

Disaggregation and additional dimensions: This can also include the number of funded places in a rehabilitation day programme. See limitations below and expanded indicator 13.

Method of measurement: Total number of rehabilitation beds/total population of country x 10 000.

Measurement frequency: Annually.

Monitoring and evaluation framework: Output and processes.

Preferred data sources: Data from Ministry of Health.

Other possible data sources and related links:

Limitations: Intense rehabilitation day programmes, which exist in some countries, provide rehabilitation for a similar population group. While day programme places are generally not included in international comparisons, they can be included in the indicator at national level. Such beds are generally used for physical rehabilitation, but in some specialist facilities they may be used by people with mental health conditions.

References
Core indicator 5: Rehabilitation in tertiary hospitals

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

**Rationale:** The presence of three or more rehabilitation professions in tertiary hospitals is an indication of the availability of rehabilitation.

**Definition:** The proportion of tertiary hospitals in the country that have three or more rehabilitation professions working in them. The professions include the seven listed in the rehabilitation personnel indicator (core indicator 2). 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. This measure is used as tracer criteria for availability of rehabilitation services.

**Numerator:** Number of tertiary hospitals in the country with three or more rehabilitation professions.

**Denominator:** Total number of tertiary hospitals in the country.

**Disaggregation and additional dimensions:** At national level this indicator can be adapted to only include government hospitals, or the number of professions may increase or decrease depending maturity of rehabilitation in the health system.

**Method of measurement:** Total number of tertiary hospitals in the country with three or more rehabilitation professions present/total number of tertiary hospitals in the country x 100.

**Measurement frequency:** Every 2 years.

**Preferred data sources:** Ministry of Health administrative data.

**Other possible data sources and related links:** Professional associations.

**Limitations:** Rehabilitation professions can vary around the world, for example some countries may train personnel that perform the tasks of two professions, for example, physiotherapist and occupational therapist. This will impact on comparability.

**References**

Core indicator 6: Multidisciplinary rehabilitation for people with complex needs

**Rehabilitation results chain:** Outcome – Rehabilitation coverage.

**Rationale:** Ensuring access to multidisciplinary rehabilitation for people with complex needs is a core function of health services; all people with complex needs after injury or illness require rehabilitation.

**Definition:** Complex needs refer to needs that arise from having significant or multiple health conditions that impact on various domains of functioning. For this indicator, multidisciplinary rehabilitation constitutes three or more rehabilitation professions assessing and potentially treating the client. Identifying a reliable denominator may depend on the established data sources in the country, for this reason it is suggested that people with complex health needs due to injury – not illness – be measured.

**Numerator:** Number of people with complex needs because of injury who accessed multidisciplinary rehabilitation per year in the county.

**Denominator:** Total number of people with complex needs because of injury per year in the county.

**Disaggregation and additional dimensions:** If injury data are not available, data on people who have experienced catastrophic disease/illness can be used instead. Catastrophic disease/illness is defined as illness resulting in a hospital stay of over 2 weeks that impacts on more than one body system.
**Method of measurement:** Total number of people with complex needs because of injury who accessed multidisciplinary rehabilitation per year in the country / total number of people with complex needs because of injury per year in the country x 100.

**Measurement frequency:** Annual.

**Preferred data sources:** Injury data sources/registries. Health insurance databases. Healthcare medical records.

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

**Limitations:** Identifying an accurate data source for the denominator is the challenge for this indicator and may limit the breadth of utilization. This indicator may require bringing together different data sources, for example, an injury register with discharge records at a specialist rehabilitation center. In some situations, this indicator may not be sensitive to change. For instance, the indicator will show no change when more people with complex needs access rehabilitation but fewer than two rehabilitation professions practice within the rehabilitation service/country.

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## Expanded rehabilitation indicators

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Expanded indicator 1: Routine rehabilitation reporting

**Rehabilitation results chain:** Input/process – Rehabilitation governance.

**Rationale:** Routine reporting on the status of rehabilitation at national level reflects the extent of governance, leadership and accountability in relation to rehabilitation.

**Definition:** The proportion of planned national (or sub-national) rehabilitation status and monitoring reports developed over the previous 2 years. Such reports may include national comprehensive situation assessment reports and the annual or biennial national rehabilitation status and monitoring reports. For purposes of international comparability, reports should be national, and they should address all key aspects of the sector, even if they are not comprehensive.

**Numerator:** Number of new rehabilitation status and monitoring reports available in previous 2 years.

**Denominator:** Number of planned rehabilitation status and monitoring reports.

**Disaggregation and additional dimensions:** The denominator could be removed; this becomes number of status reports only.

**Method of measurement:** Number of new rehabilitation status and monitoring reports available in previous 2 years.

**Measurement frequency:** Annually.

**Preferred data sources:** Reports available from Ministry of Health and, possibly, other government agencies reporting on plan.

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

**Limitations:** /

**References:**

Expanded indicator 2: Rehabilitation governing measures

**Rehabilitation results chain:** Input/process – Rehabilitation governance.

**Rationale:** Governance measures play an essential role in the oversight, strengthening and stewardship of rehabilitation.

**Definition:** Rehabilitation governance includes steering and advisory committees, coordinating and other bodies, and ministry mechanisms and processes that provide governance, oversight and stewardship of rehabilitation. A simple way of measuring rehabilitation governance is the proportion of planned meetings of relevant rehabilitation committees and/or bodies that actually took place. Which committee or body to include in the indicator is largely country-specific. For example, the indicator may measure the proportion of planned meetings of the rehabilitation steering committee that actually took place over a year.

**Numerator:** Number of meetings of relevant rehabilitation committee or body that took place during 1 year in the country.

**Denominator:** Number of planned meetings of relevant rehabilitation committee or body during 1 year in the country.

**Disaggregation and additional dimensions:** /

**Method of measurement:** Total number of meetings which took place per year in the country/total number of meetings planned per year in the country x 100

**Measurement frequency:** Annually.

**Preferred data sources:** National from Ministry of Health.

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

**Limitations:** /

**References:** /
Expanded indicator 3: User engagement in governance

**Rehabilitation results chain:** Input/processes – Rehabilitation governance.

**Rationale:** Inclusion of rehabilitation users and/or their representative organizations in rehabilitation governance and planning is a sign of people-centered care and participation.

**Definition:** Extent to which user (i.e. people representing users’ perspectives) are included (as permanent/regular members) in a steering committee, technical working group, or other group/mechanism to ensure their perspectives are part of the decision-making processes. This is different from consulting users during consultation processes, which should also occur.

**Numerator:** Yes/no – users included in the committee or body used for the rehabilitation governance measure.

**Denominator:** /

**Disaggregation and additional dimensions:** This could be adapted at country level to measure the proportion of meetings attended by the user representative.

**Method of measurement:** Yes/no.

**Measurement frequency:** Annually.

**Preferred data sources:** National from Ministry of Health.

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

**Limitations:** /

**References**


Expanded indicator 4: Priority assistive product list

**Rehabilitation results chain:** Rehabilitation governance.

**Rationale:** Adoption of a priority assistive products list indicates leadership and support for its provision. It is recommended that countries adopt a priority assistive products list in line with the WHO 50 Assistive Product List.

**Definition:** A priority assistive products list, similar to the essential medicines list, is an official government endorsed/adopted list that is designed to support financing and ensure availability of these products.

**Numerator:** Number of assistive products on the list.

**Denominator:** The WHO 50 Assistive Products List.

**Disaggregation and additional dimensions:** There are different categories of assistive products, for example, mobility, vision, cognitive. Where an official assistive product list is not available, this indicator may be adapted to measure the number of products included in health financing packages or arrangements.

**Method of measurement:** Data from Ministry of Health, Ministry of Social Affairs.

**Measurement frequency:** Every 2 years.

**Preferred data sources:** Ministry of Health.

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

**Limitations:** /

**References**

Expanded indicator 5: Assistive product expenditure

**Rehabilitation results chain:** Input/processes – Rehabilitation financing.

**Rationale:** Expenditure on assistive products, defined through general government funding and compulsory insurance schemes, indicates government commitment to their availability.

**Definition:** Government expenditure and compulsory insurance schemes (as defined through the System of Health Accounts) for assistive products that are provided to clients in the country per capita. It may include other government agencies’ expenditure, such as that of ministries of social affairs. Preferably this is only expenditure on the product itself, not the associated professional service fees when part of a service package. A per capita measure allows for better interpretation of expenditure and comparability across countries.

**Numerator:** Assistive product expenditure per year for the country.

**Denominator:** Total population.

**Disaggregation and additional dimensions:** Across geographic areas. This indicator could be expanded to include all expenditure, including research and other capital costs related to assistive products. It could also be turned into a measure of expenditure as a proportion of total health expenditure by replacing the denominator with the total health expenditure. Finally, this indicator could also be adapted to measure all expenditure, including private expenditure by individuals, if survey data existed that provided an average spend on these by the population.

**Method of measurement:** Total assistive product expenditure per year for country / total population of country.

**Measurement frequency:** Annually.

**Preferred data sources:** Ministry of health, other government agencies, including insurance schemes.

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

**Limitations:** Funding packages for assistive products may include provision, therapy, and education costs which will vary across funding packages and make comparability more complex.

**References**


Expanded indicator 6: All rehabilitation personnel. Density and distribution

**Rehabilitation results chain:** Input/processes – Rehabilitation workforce.

**Rationale:** The number of rehabilitation personnel per capita provides an indication of the availability of rehabilitation services. The inclusion of all rehabilitation personnel, including mid-level cadre, contributes to this information. The inclusion of all rehabilitation personnel in the country makes this different from core indicator 2, and this indicator includes the additional dimension of distribution. Disaggregating personnel density by geographic areas is important for measuring distribution, as unequal distribution of health care staff is a common problem.

**Definition:** Rehabilitation personnel usually include rehabilitation doctors, rehabilitation nurses, physiotherapists, occupational therapists, speech language therapists, prosthetists and orthotists, and psychologists (see core indicator 2). Other rehabilitation professions relevant to the country can also be included, for example audiologists and mid-level rehabilitation cadres. Distribution of the workforce is measured by disaggregating density by geographic area, across, for instance, provinces, districts or rural and urban settings.

**Numerator:** Number of rehabilitation personnel, disaggregated by geographic area.

**Denominator:** Total population, disaggregated by geographic area.
Disaggregation and additional dimensions: For a more detailed analysis of the rehabilitation workforce, this indicator can be disaggregated by rehabilitation profession, level of education (e.g. diploma, degree or post-graduate degree), gender or age.

Method of measurement: Total number of rehabilitation personnel in the country/total population of country \( \times \) 10 000, disaggregated by geographic area.

Measurement frequency: Annually.

Preferred data sources: National health workforce database or registry of health workers.

Other possible data sources and related links: Professional associations, national, global.

Limitations: For countries without licensing/registration data it can be difficult to determine rehabilitation workforce numbers outside government services.

References


Expanded indicator 7: Rehabilitation graduates

Rehabilitation results chain: Input/processes – Rehabilitation workforce.

Rationale: The number of graduates reflects the supply of personnel, which is an indicator of rehabilitation training maturity and the sustainability and potential growth of services.

Definition: The number of graduates in rehabilitation (as defined in expanded indicator 6), graduating in the previous year in the country.

Numerator: Number of rehabilitation graduates in previous 12 months in the country.

Denominator: Total population.

Disaggregation and additional dimensions: Can be disaggregated by profession or expressed as a proportion of current rehabilitation workforce.

Method of measurement: Total number of graduates in previous 12 months in the country/total population in the country \( \times \) 10 000.

Measurement frequency: Annually.

Preferred data sources: Ministry of Education, Ministry of Health databases.

Other possible data sources and related links: Professional associations, academic institutions.

Limitations: /

References


Expanded indicator 8: Rehabilitation professional registration

**Rehabilitation results chain:** Input/processes – Rehabilitation workforce.

**Rationale:** Licensing, registration and/or credentialing processes all support improvement in quality and safety of rehabilitation care. For some countries the development of these processes for rehabilitation personnel is an important goal.

**Definition:** The licensing, registration, credentialing 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.

**Numerator:** Number of the rehabilitation professions, as outlined in expanded indicator 6, that functioning professional licensing, registration and credentialing processes.

**Denominator:** Total number of rehabilitation professions working in the country.

**Disaggregation and additional dimensions:** /

**Method of measurement:** Number of rehabilitation professions with professional licensing, registration, credentialing processes in the country/total number of rehabilitation professions in the country x 100.

**Measurement frequency:** Annually.

**Preferred data sources:** National health workforce database and regulatory bodies.

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

**Limitations:** For countries without licensing/registration data this indicator is unlikely to change over time.

**References**


Expanded indicator 9: Rehabilitation integrated into the training of health professionals

**Rehabilitation results chain:** Input/processes – Rehabilitation workforce.

**Rationale:** The inclusion of rehabilitation in the training of health professionals increases knowledge of rehabilitation and awareness of its importance to health outcomes. In many countries, limited knowledge about rehabilitation has resulted in health personnel attributing little value to it.

**Definition:** The inclusion of rehabilitation in health training refers to the inclusion of a full module or unit of study in the 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 medical and nursing curricula.

**Numerator:** Number of nursing and medical undergraduate training courses into which rehabilitation is integrated.

**Denominator:** Total number of nursing and medical undergraduate training courses.

**Disaggregation and additional dimensions:** /

**Method of measurement:** Number of health training courses in which rehabilitation is integrated over a two year period/ total number of health training courses over a two year period x 100.
Measurement frequency: Every 2 years.

Preferred data sources: Education institutions, professional associations.

Other possible data sources and related links: /

Limitations: /

References: /

Expanded indicator 10: Rehabilitation information

Rehabilitation results chain: Input/process – Rehabilitation information.

Rationale: The integration of rehabilitation into health information systems, including rehabilitation information collated at the district level, reflects the extent to which rehabilitation information can be used for monitoring and decision-making.

Definition: The proportion of districts that routinely collect rehabilitation information and include it in the District Health Management Information System (DHMIS), which collates and synthesizes data from across health facilities and programmes in the district. This indicator requires that a minimum rehabilitation dataset be established for collection and inclusion in the DHMIS; the indicator measures compliance with this dataset across districts in a specified period of time, e.g. collated quarterly over 12 months.

Numerator: Number of districts collecting a minimum rehabilitation dataset and including it in the District Health Management Information System each quarter over 12 months.

Denominator: Total number of districts, x 4 (quarterly).

Disaggregation and additional dimensions: If rehabilitation is not well integrated into the DHMIS, this indicator can be adapted to reflect whatever parallel reporting may occur directly from rehabilitation facilities.

Method of measurement: Number of districts collating a minimum dataset quarterly and including it in DHMIS/total number of districts x 4 x 100.

Measurement frequency: Annually.

Preferred data sources: Ministry of Health DHMIS, the District Health Information System 2 (DHIS2) system in countries, national bodies charged with rehabilitation reporting.

Other possible data sources and related links: Planned – WHO guidance for rehabilitation in the DHIS2.

Limitations: /

References

Expanded indicator 11: Rehabilitation information in national health monitoring frameworks

Rehabilitation results chain: Input/process – Rehabilitation governance.

Rationale: Inclusion of rehabilitation indicators in the monitoring frameworks of the national health strategic plan, or other health plans, reflects the extent of integration of rehabilitation into health planning and monitoring.

Definition: Rehabilitation indicators included in the monitoring frameworks of the national health strategic plan, or other health plans. This does not include the monitoring framework for a rehabilitation strategic plan itself.
**Numerator:** Number of rehabilitation indicators integrated into the monitoring frameworks of the national health strategic plan or other health plans.

**Denominator:** /

**Disaggregation and additional dimensions:** /

**Method of measurement:** Total number of rehabilitation indicators within health monitoring frameworks of the national health strategic plan or other health plans.

**Measurement frequency:** Every 2 years.

**Preferred data sources:** National from Ministry of Health.

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

**Limitations:** /

**References:** /

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**Expanded indicator 12: Rehabilitation research**

**Rehabilitation results chain:** Input/process – Rehabilitation information.

**Rationale:** Rehabilitation research is important for the development of rehabilitation within a health system as it contributes to more effective and efficient rehabilitation.

**Definition:** Countries should select – and adapt, if required – one or more of the following definitions depending on which is best suited to their situation.

- Rehabilitation is listed as a research priority by national research funding bodies
- The total funds available for rehabilitation research annually in the country
- The total number of rehabilitation research projects occurring annually in the country

**Numerator:**

- Yes/No, rehabilitation is listed as a research priority by national research funding bodies
- The total funds available for rehabilitation research annually in the country
- The total number of rehabilitation research projects occurring annually in the country

**Denominator:** /

**Disaggregation and additional dimensions:** The total funds available for rehabilitation research could use total health research funds as the denominator; the measure becomes the proportion of total research funds specifically allocated to rehabilitation.

**Method of measurement:** Data from Ministry of Health, research bodies.

**Measurement frequency:** Annually.

**Preferred data sources:** National from Ministry of Health.

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

**Limitations:** /

**References:** /
Expanded indicator 13: Rehabilitation beds and day programme places. Density and distribution

**Rehabilitation results chain:** Output – Rehabilitation services. (Bed density also an input indicator).

**Rationale:** Rehabilitation bed density is an (input) measure of infrastructure for rehabilitation however it can also be used as an indicator of the availability of specialist, high-intensity, longer stay rehabilitation services for the population. The number of day programme places may also reflect availability of this type of rehabilitation. The inclusion of both the beds and day programme places makes this indicator different from core indicator 4, and this indicator includes the additional dimension of distribution. The distribution of beds and day programme places across geographic areas reflects availability of this service in that area, which may also inform the assessment of equity.

**Definition:** The density of rehabilitation beds and rehabilitation day programme places (as funded/allocated to services) which are reserved specifically for rehabilitation clients in the country at one point in time. These are commonly in rehabilitation hospitals, centres, units and wards, and are used for people requiring more intense and specialized rehabilitation care. This measure is used as tracer criteria for availability of rehabilitation services.

**Numerator:** Number of rehabilitation beds and day programme places, disaggregated by geographic areas in the country at one point in time.

**Denominator:** Total population, disaggregated by geographic areas.

**Disaggregation and additional dimensions:** /

**Method of measurement:** Total number of rehabilitation beds and day programme places/total population of country x 10000.

**Measurement frequency:** Annually.

**Preferred data sources:** Administrative data from the Ministry of Health, DHMIS, professional networks.

**Other possible data sources and related links:** Professionals, rehabilitation networks.

**Limitations:** /

**References:** /

Expanded indicator 14: Rehabilitation integrated into secondary care

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

**Rationale:** The presence of different types of rehabilitation professionals in secondary hospitals is an indication of the availability of rehabilitation at this level of health care.

**Definition:** The proportion of secondary hospitals that have two or more rehabilitation professions working in them. Rehabilitation professions include the seven listed in the rehabilitation personnel indicator (core indicator 2). 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. This measure is used as tracer criteria for availability of rehabilitation services.

**Numerator:** Number of secondary hospitals with two or more rehabilitation professions present in the country.

**Denominator:** Total number of secondary hospitals in the country.

**Disaggregation and additional dimensions:** Depending on the maturity of the health, three (or more) professions can be used for this indicator. Identifying separate secondary and tertiary hospitals may be difficult in some countries and combining these is also an option.

**Method of measurement:** Total number of secondary hospitals with two or more professions present in the country/total number of secondary hospitals in the country x 100.
Measurement frequency: Every 2 years.

Preferred data sources: Ministry of Health administrative data.

Other possible data sources and related links: Professional associations.

Limitations: /

References

Expanded indicator 15: Rehabilitation integrated into primary health care

Rehabilitation results chain: Output – Rehabilitation services.

Rationale: The extent to which rehabilitation is integrated into primary level of care reflects its availability in these settings and for the population.

Definition: The definition of a primary health care facility with rehabilitation depends on the context in the country. Options include:

- Presence of one or more rehabilitation professionals in the primary health care setting
- Presence of one or more health professionals trained in a protocol-based package of rehabilitation interventions in the primary health care setting

The definition of primary health care should be in line with common understandings and the same definition should be used nationally. Not all primary health care facilities are necessarily counted in the denominator; sometimes only facilities of a certain size or with inpatient capacity are expected to provide rehabilitation. These measures are used as tracer criteria for availability of rehabilitation services.

Numerator: Number of primary health care facilities with rehabilitation.

Denominator: Total number of primary health care facilities.

Disaggregation and additional dimensions: Government only facilities, by geographic areas.

Method of measurement: Number of primary health care facilities with rehabilitation in the country/total number of primary health care facilities in the country x 100.

Measurement frequency: Annually.

Preferred data sources: Ministry of Health Administrative databases.

Other possible data sources and related links: /

Limitations: /

References: /

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Expanded indicator 16: Rehabilitation delivered in the community

Rehabilitation results chain: Output – Rehabilitation services.

Rationale: Providing rehabilitation in the community, whether in homes, community centres, schools or other places, reflects the availability of rehabilitation for the population.

Definition: Rehabilitation in the community is the delivery of rehabilitation interventions in community settings, such as homes, community centres, schools and other locations. Definitions of “community” should reflect how and where rehabilitation is delivered in that country. For example, it could include community outreach therapy posts, mobile clinics, or nongovernmental organizations contracted by government to deliver rehabilitation in communities. These measures are used as tracer criteria for availability of rehabilitation services.

Numerator: Varies, but may include:
- Number of districts covered by community outreach rehabilitation personnel
- Number of districts where rehabilitation mobile clinics are regularly held. This may then require a set time period, for example over a 12 month period.

It is also possible to count the number of districts in which home visits occur. However, the risk of onerous data collection should be avoided.

Denominator: Total number of districts.

Disaggregation and additional dimensions: /

Method of measurement: Number of districts which rehabilitation is being delivered in the community/total number of districts) x 100.

Measurement frequency: Annually.

Preferred data sources: Ministry of Health Administrative databases.

Other possible data sources and related links: /

Limitations: Some measures of this indicator may not be valid in all settings. For example, community outreach therapists may, due to transport problems or under-staffing, only carry out few community outreach visits.

References: /

Expanded indicator 17: Assistive products available in health facilities

Rehabilitation results chain: Output – Rehabilitation services.

Rationale: The provision of assistive products in a health facility indicates the extent of availability of this service.

Definition: The provision of assistive products at a health facility implies that personnel have the skills to provide appropriate assistive products and the products are either stored there or made available through the facility. The ability to prescribe and refer to a separate facility is not included. 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. These measures are used as tracer criteria for availability of assistive product services.

Numerator: Number of health facilities that provide assistive products in the country.

Denominator: Total number of health facilities that are expected to provide assistive products in the country.

Disaggregation and additional dimensions: This indicator can be disaggregated by facility level and category of assistive products.
Method of measurement: Ministry of health, health facility audits.

Measurement frequency: Every 2 years.

Preferred data sources: Ministry of Health and other government agencies providing assistive products.

Other possible data sources and related links: /

Limitations: /

References

Expanded indicator 18: Clinical guidelines for rehabilitation

Rehabilitation results chain: Output – rehabilitation services.

Rationale: Rehabilitation clinical practice – or evidence-based – guidelines and documented protocols indicate that professional efforts are made to improve the quality of rehabilitation care. Research shows that the use of evidence-based rehabilitation clinical practice guidelines improves the effectiveness and efficiency of rehabilitation.

Definition: Evidence-based guidelines, also called clinical practice guidelines, are systematic recommendations based on the best available scientific knowledge that guide the decisions of both professionals and patients regarding the most effective, appropriate and efficient health interventions for addressing a particular health-related problem, given specific circumstances. These guides should be endorsed by national/state health and/or clinical governance/leadership institutions, so they are appropriate to the country context.

Numerator: Total number of clinical practice guidelines for rehabilitation endorsed by the national/state health and/or clinical governance/leadership institutions.

Denominator: /

Disaggregation and additional dimensions: /

Method of measurement: Data from Ministry of Health or national professional bodies.

Measurement frequency: Every 2 years.

Preferred data sources: National data from Ministry of Health.

Other possible data sources and related links: /

Limitations: Presence of the guidelines does not necessarily mean adherence to guidelines.

References

Expanded indicator 19: Rehabilitation standards (including infrastructure and equipment)

Rehabilitation results chain: Output – Rehabilitation services.

Rationale: Rehabilitation standards reflect sectoral and professional efforts made to improve quality of rehabilitation care. There is evidence that the existence of standards improves the quality, effectiveness and efficiency of rehabilitation care. Meeting standards indicates a readiness to deliver quality rehabilitation.
**Definition:** 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 and clinical processes required for provision of quality rehabilitation. This indicator can also be adapted to include a rehabilitation facility accreditation system, or a nationally endorsed Quality of Care Standard/Initiative that is inclusive of rehabilitation.

**Numerator:** Number of rehabilitation facilities in the country where service standards are met.

**Denominator:** Total number of rehabilitation facilities in the country where it is expected standards will be met.

**Disaggregation and additional dimensions:** Components of the standards could be separated. For example, standards related to infrastructure and equipment could form separate indicators. Geographic disaggregation.

**Method of measurement:** Number of facilities in the country where rehabilitation standards are met/total number of facilities in the country where standards are expected to be met x 100.

**Measurement frequency:** Every 2 to 5 years.

**Preferred data sources:** Ministry of Health data from DHMIS and health facility audit/assessments. National accreditation, quality standards agencies.

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

**Limitations:** Assessment of adherence to standards requires moderately intensive resources and data collection.

**References**


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**Expanded indicator 20: Rehabilitation timeliness**

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

**Rationale:** Timely delivery of rehabilitation contributes to its effectiveness and the overall quality of care. A timely rehabilitation assessment is likely to be followed by timely treatment.

**Definition:** To measure timeliness in a feasible way, a health condition for which there is evidence that timeliness is important should be selected. Stroke is such a condition and should be considered: it is relatively common and evidence and standards regarding the best timing for rehabilitation assessment are available. Timeliness can be operationally defined based on a national standard, for instance – for stroke it can be defined as the percentage of stroke patients who receive an assessment by a therapist within 48 hours of admission to a hospital after a stroke event.

**Numerator:** Number of stroke patients with therapist assessment focused on limitations in functioning within 48 hours of admission to a health facility, over specified time period.

**Denominator:** Total number of stroke patients in the country admitted to health facility, over specified time period.

**Disaggregation and additional dimensions:** This may be disaggregated by type of facility, geographical region, age, sex, and socioeconomic status. The time period can be altered and adapted as appropriate.

**Method of measurement:** Total number of stroke patients with therapist assessment within 48 hours of admission/total number of stroke patients admitted x 100.

**Method of estimation/variation:** Rather than use the total population of stroke patients in the country, it is possible to sample a number of facilities in the country to generate an estimate of this indicator.

**Measurement frequency:** Annually.

**Preferred data sources:** Data from Ministry of Health, DHMIS, health facility audits.

**Other possible data sources and related links:** /
Limitations: Moderately intensive data collection required. Only one health condition used as measure.

References

Expanded indicator 21: Rehabilitation waiting times

Rehabilitation results chain: Output – Rehabilitation services.

Rationale: Timely delivery of rehabilitation contributes to its effectiveness and the overall quality of care. Waiting lists for specific rehabilitation services is a common issue in many countries and reducing them may be a goal. Waiting lists can also inform estimation of unmet need and provide helpful information for reporting and advocacy.

Definition: Rehabilitation waiting time is defined as the average length in days between the time people are put on waiting lists and the time they receive their rehabilitation services. The service(s) and measure can be defined nationally. Common examples are waiting lists for hearing aids, wheelchairs, prosthetic limbs, early childhood intervention programmes and other forms of community delivered rehabilitation. The selection of the service should be based on national priorities.

Numerator: This may depend on country and reporting practiced, it could include:
- Average waiting time in days for specific assistive product
- Average waiting time for particular service, or impairment/diagnostic group

Denominator: /

Disaggregation and additional dimensions: Disaggregate by facility, geographical region, age, sex, socioeconomic status.

Method of measurement: Average time in days people who were put on a waiting list for a specific rehabilitation service had to wait to receive the service.

Measurement frequency: Annually.

Preferred data sources: Data from Ministry of Health, DHMIS, key services targeted for waiting list reduction.

Other possible data sources and related links: /

Limitations: Moderately intensive data collection required.

References: /

Expanded indicator 22: Length of rehabilitation episode

Rehabilitation Results chain: Output – Rehabilitation services.

Rationale: Length of the rehabilitation episode provides information on rehabilitation service use. This information can be used to make comparisons across facilities and services, it informs assessment of effectiveness and efficiency.

Definition: An episode is defined as care provided by the health care facility or provider for a specific medical problem, condition or diagnosis, from commencement to completion or discharge from care. Clients may have one or more consecutive episodes if the condition or diagnosis changes. This could then entail a discharge for the first condition and commencement for new condition. It is common for health financing schemes to also have definitions that may be used. The length of the rehabilitation episode is the mean of the total number of episode days divided by the number of episodes. This information is mostly categorized by the ICD code or national health condition or care coding (diagnostic reference group), and generally collated for selected health conditions.

Numerator: Mean length in days of rehabilitation episodes categorized by ICD code in all facilities in the country per year (using national health coding system).
Denominator: / 

Disaggregation and additional dimensions: Disaggregated by ICD code, by inpatient episodes and by nature of service, e.g tertiary hospital inpatient, outpatient, day programme placement, community delivered rehabilitation. This is also important for comparison across facilities and districts.

Method of measurement: Total number of days per episode/number of episodes.

Measurement frequency: Annually.

Preferred data sources: Data extracted from discharge summaries from facilities/programmes. Facility level reporting system through the Ministry of Health DHMIS, or national body charged with reporting on rehabilitation, including facilities outside Ministry of Health DHMIS (such as private facilities or from other ministries).

Limitations: This is mostly useful for inpatient clients; for outpatient and day programme clients the number of episode days may sometimes be unrelated to rehabilitation care, because, for instance, the client may go on holiday; also rehabilitation commonly trails off rather than having a clear discharge date.

References: /

Expanded indicator 23: Rehabilitation episode intensity

Rehabilitation results chain: Output – Rehabilitation services.

Rationale: Appropriate levels of rehabilitation intensity often vary across the same health condition. But for a few health conditions there is good evidence for appropriate intensity and data on appropriate intensity for these conditions can provide an indication of the effectiveness and efficiency of care. Hip fracture with surgical management in adults is one such condition that measurement of intensity would be appropriate. Countries may also select other relevant health conditions.

Definition: The definition is operationalized through the selection of the health condition. For example, rehabilitation for hip fracture with surgical management in adults consists of mobilization exercises most commonly delivered or overseen by a physiotherapist. It starts the day after surgery and the number of therapy sessions recommended is once a day while an inpatient.

Numerator: Total number of adults with hip fracture and surgical management that receive rehabilitation once a day while an inpatient.

Denominator: Total number of adult clients with hip fracture and surgical management.

Disaggregation and additional dimensions: Disaggregate by age, sex, geographical region, socioeconomic status.

Method of measurement: Total number of adult clients with hip fracture and surgical management who receive rehabilitation once a day while an inpatient in all facilities in the country per year/total number of adult clients with hip fracture and surgical management in all facilities in the country per year x 100.

Method of estimation/variation: Rather than use the total population of hip fracture patients in the country, it is possible to sample a number of facilities in the country to generate an estimate of this indicator.

Measurement frequency: Annually.

Preferred data sources: Ministry of Health, health facility audits, health insurance databases.

Other possible data sources and related links: Tertiary level hospitals or specialist rehabilitation facilities.

Limitations: Moderately intensive data collection required. Only one health condition used as measure.

References
Expanded indicator 24: Functioning assessment on commencement of rehabilitation

**Rehabilitation Results chain:** Output – Rehabilitation services.

**Rationale:** Assessment of functioning at the start of the rehabilitation episode contributes to clinical decision-making and is an indication of the quality of care being provided. Also, it is essential for the measurement of the change in outcomes over a rehabilitation episode.

**Definition:** The undertaking of a functioning assessment at the commencement of a rehabilitation programme, within a specified period shortly after the programme starts. This indicator may be applied where dedicated/specialized rehabilitation is delivered, and the expected time period may be determined by national standards.

**Numerator:** Total number of rehabilitation episodes where a functioning assessment was done at the start of the rehabilitation programme.

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

**Disaggregation and additional dimensions:** By inpatient, outpatient, day programme and community delivered, and by rehabilitation facilities.

**Method of measurement:** Total number of rehabilitation episodes where a functioning assessment was done at the start of the rehabilitation programme in the country per year/total number of rehabilitation episodes in the country per year x 100.

**Measurement frequency:** Annually.

**Preferred data sources:** Data extracted from discharge summaries from facilities/programmes. Facility level reporting system through the Ministry of Health DHMIS, or national body charged with reporting on rehabilitation, including facilities outside Ministry of Health DHMIS (such as private facilities or other ministries). Preferred use of standardized functioning measures, such as Functioning Independence Measure (FIM) or the new WHO 10/10 Functioning Measure.

**Limitations:**

**References**
A new tool, the WHO 10/10 Functioning Measure, is being developed to improve functioning assessment.

Expanded indicator 25: Individualized care plan

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

**Rationale:** An individualized rehabilitation care plan is an indication that quality care is being provided; they contribute to better rehabilitation outcomes for clients.

**Definition:** The development of an individualized rehabilitation care plan within a specified period by the rehabilitation team, the time period can be based on a national standard. An individualised rehabilitation care plan includes those developed with one rehabilitation professional and those developed with multiple professionals, often known as a multi-disciplinary care plan. This indicator may be applied where dedicated/specialized rehabilitation is delivered, and the expected time period may be determined by national standards.

**Numerator:** Total number of rehabilitation individualized care plans completed within the specified time period in all relevant facilities.

**Denominator:** Total number of rehabilitation episodes in all relevant facilities.

**Disaggregation and additional dimensions:** Inpatient, outpatient, day programme, community delivered.

**Method of measurement:** Total number of rehabilitation individualized care plans completed within the specified time period in all relevant facilities in the country per year) / (total number of rehabilitation episodes in all relevant facilities in the country per year) X 100.
Measurement frequency: Annually.

Preferred data sources: Data extracted from discharge summaries from facilities and programmes. Facility level reporting system through the Ministry of Health DHMIS, or national body charged with reporting on rehabilitation including facilities outside Ministry of Health DHMIS (such as private facilities or other ministries). Health Facility Assessment and or audit of patient records.

Limitations: /

References: /

Expanded indicator 26: Rehabilitation referral processes

Rehabilitation results chain: Output – Rehabilitation services.

Rationale: 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.

Definition: Multiple mechanisms and documents need to be present in a facility for referrals to operate smoothly. These include access to documented referral pathways, procedures, criteria and contact details of referral locations in community settings and in more specialized rehabilitation care. This measure is used as tracer criteria for readiness of making referrals.

Numerator: Number of rehabilitation facilities where documented referral mechanisms are observed in the country.

Denominator: Total number of facilities in the country.

Disaggregation and additional dimensions: By geographic area or by facility level.

Method of measurement: Number of facilities where rehabilitation referral mechanisms documented/total number of facilities x 100.

Measurement frequency: Every 2 years.

Preferred data sources: Data from Ministry of Health, health facility assessment or audit.

Other possible data sources and related links: /

Limitations: The presence of these documents and mechanisms does not necessarily mean they are used effectively.

References

Expanded indicator 27: Rehabilitation client education

Rehabilitation results chain: Output – Rehabilitation services.

Rationale: Education about the health condition and its management is a core rehabilitation intervention, and its presence is an indication of quality. Education includes the time spent by rehabilitation personnel sharing knowledge and educational materials.

Definition: In this context education refers to an interaction between rehabilitation personnel and patients that involves educating them on their health condition and its management, which must be documented in patient records. To simplify measurement, one health condition such as lower back pain can be used and a definition of education be developed that enables measurement across facilities and programmes, such as education for prevention, self-management and home exercises.

Numerator: Number of lower back pain patients who underwent rehabilitation and received education on their condition.
Denominator: Total number of lower-back pain patients who underwent rehabilitation.

Disaggregation and additional dimensions: By facility level and other health condition groups.

Method of measurement: Clients with health conditions (e.g. lower back pain) who underwent rehabilitation and received education/total clients who underwent rehabilitation x 100.

Method of estimation/variation: Rather than use the total population of lower-back pain patients in the country, it is possible during a Health Facility Assessment to audit selected client records and generate an estimate measure of this indicator.

Measurement frequency: Every 2 years.

Preferred data sources: Ministry of Health facility audits, including with established sampling method of medical record checks.

Limitations: Moderately intensive data collection required. Only one health condition used as measure/proxy for others. Good note-taking practices must be in place for auditing.

References: /

Expanded indicator 28: Rehabilitation client experience of care

Rehabilitation results chain: Output – Rehabilitation services.

Rationale: Assessment of a client’s experience of care is important and it can drive improvements in quality, accountability and responsiveness in health care.

Definition: Self-reports of clients’ experience of care while accessing rehabilitation. These self-reports are typically collected by means of a survey or patient feedback questionnaire. This information should be collated, reported and acted upon by facilities and programmes.

Numerator: Number of rehabilitation facilities or programmes in the country that undertake a survey or questionnaire on clients’ experience of care, in specified period of time.

Denominator: Total number of rehabilitation facilities expected to undertake a survey or questionnaire during a specified period of time.

Disaggregation and additional dimensions: By facility level, geographic area, or health condition. A national standard/model patient survey or questionnaire may be developed and adopted by all appropriate facilities in order to allow comparability of results across facilities. Where there is a model questionnaire and compliance with its use across multiple facilities, this indicator could be adapted to measure the number of facilities that achieve a particular level of positive client experience.

Method of measurement: Number of rehabilitation facilities or programmes in the country that undertake a survey or questionnaire on clients’ experience of care over specified period/total number of rehabilitation facilities expected during the same specified period x 100.

Measurement frequency: Every 3–5 years.

Preferred data sources: Through periodic rehabilitation facility reporting, audit of rehabilitation facilities or programmes that have evidence of collating and reporting on findings.

Limitations: Moderately intensive data collection required.

References: /
Expanded indicator 29: Rehabilitation episodes

Rehabilitation results chain: Output – Rehabilitation services.

Rationale: Provides information on the health conditions and number of clients, this can be used for short-to-medium-term service planning (e.g. for personnel requirements). Also reflects how long-term health trends may be affecting service use.

Definition: An episode is defined as care provided by the health care facility or provider for a specific medical problem, condition or diagnosis from commencement to completion or discharge from care. See indicator 22 for additional information. This indicator measures the number of episodes categorized by the ICD code, or by national health condition or care coding.

Numerator: Number of rehabilitation episodes categorized by ICD code, or other national health condition or care coding system, over a set period.

Denominator: 

Disaggregation and additional dimensions: Episodes can also be disaggregated by age and gender.

Alternative measurement: Numerator replaced with new client (including repeated) rather than episode.

Method of measurement: Number of rehabilitation episodes categorized by ICD code in health facilities in the county over a set period.

Measurement frequency: Monthly extraction and reporting recommended, or quarterly or annually where necessary.

Preferred data sources: Data extracted from discharge summary by facility or programme. Facility level reporting system through the Ministry of Health DHMIS, or national body charged with reporting on rehabilitation including facilities outside Ministry of Health DHMIS (such as private facilities or other ministries).

Limitations: Requires end of episode data, commonly through a discharge summary. An alternative is to count client numbers rather than episodes.

References: /

Expanded indicator 30: Assistive products provided

Rehabilitation results chain: Output – Rehabilitation services.

Rationale: Gives information on rehabilitation use by providing the total number of assistive products issued to people accessing rehabilitation. This information can be used to inform short-to-medium-term service planning such as for personnel requirements. Also reflects how long-term health trends may be affecting service use.

Definition: The number of assistive products given to rehabilitation clients. This information can be categorized by the ICD code, or national health condition or care coding.

Numerator: Number of assistive products issued categorized by ICD code (or national health condition or care coding system) in all relevant facilities for set period (e.g. 12 months).

Denominator: 

Disaggregation and additional dimensions: Assistive products issued could also be disaggregated by age and gender, and by the six categories of products listed in the WHO Assistive Product List.

Method of measurement: Number of assistive products issued categorized by ICD code (or national health condition or care coding system), in all relevant facilities for a set period.

Measurement frequency: Monthly extraction and reporting recommended, or quarterly or annually where necessary.

Preferred data sources: Data extracted from discharge summary by facility or programme. Facility level reporting system through the Ministry of Health DHMIS, or national body charged with reporting on rehabilitation including facilities outside Ministry of Health DHMIS (such as private facilities or other ministries).
Limitations: In most countries the data source for this will need to be established. It will require end of episode data, commonly through a discharge summary.

References:

Expanded indicator 31: Functioning change over episode

Rehabilitation results chain: Outcome – rehabilitation effectiveness.

Rationale: Measuring the total change in client functioning over the rehabilitation episode produces a measure of the outcome of the rehabilitation. This indicator is designed to be used for one specific health condition or related groups of health conditions, in this way the data can be interpreted against what is expected for the health condition. A monitoring framework may include indicators for multiple health conditions.

Definition: This is the total change in the functioning assessment score from admission or commencement to discharge or completion of the rehabilitation episode. See the previous definition of episode in Indicator 22. This is defined through establishing a mean (average) score for the health condition group. Utilization of the same functioning assessment measure is required across facilities for comparisons and aggregation. See expanded indicator 24 regarding functioning assessment.

Numerator: Average (mean) change in functioning from initial rehabilitation assessment to discharge.

Denominator:

Disaggregation and additional dimensions: By ICD code, or other national health condition or care coding. This information enables comparisons across facilities that support clinical benchmarking. This information can be analysed alongside average length of episode to provide information related to efficiency of services.

Method of measurement: The total of the change in functioning from initial rehabilitation assessment to discharge/total episodes, disaggregated by health condition group.

Measurement frequency: Annually.

Preferred data sources: Data extracted from discharge summary by facility or programme. Facility level reporting system through the Ministry of Health DHMIS, or national body charged with reporting on rehabilitation including facilities outside Ministry of Health DHMIS (such as private facilities or other ministries).

Limitations: Aggregation requires use of the same functioning measures which may be difficult across all rehabilitation population groups – for example, tools may vary across adult and paediatric groups.

References


Expanded indicator 32: Rehabilitation coverage for specific population groups

Rehabilitation results chain: Output – Rehabilitation coverage.

Rationale: Knowing the extent to which population groups who need rehabilitation are covered by rehabilitation services is crucial for planning and decision-making.

Definition: The proportion of people in a defined population group in need of rehabilitation who access adequate rehabilitation services. The population group could be, for instance, children with cerebral palsy or people with stroke or spinal cord injury. Access to adequate rehabilitation can also be defined, for example for children with cerebral palsy this may be enrollment in an early childhood intervention programme.
Numerator: Number of people in the country within a defined population group in need of rehabilitation who access rehabilitation.

Denominator: Total number of people in the country in that population group in need of rehabilitation.

Disaggregation and additional dimensions: By geographic area.

Method of measurement: Number of people in the country within a defined population group in need of rehabilitation who access rehabilitation/total number of people in the country within that population group in need of rehabilitation.

Measurement frequency: Depends on data source. If, for example, through population survey then every 5 years. If through practitioners keeping record, using informal list or registries then every 1–2 years.

Preferred data sources: Population surveys that estimate rehabilitation need in population groups, service data, condition registry.

Limitations: In most countries the data sources for this will need to be established.

References: /

Expanded indicator 33: Assistive product coverage of specific population groups

Rehabilitation results chain: Outcome – Rehabilitation coverage.

Rationale: Knowing the level of coverage of assistive products in the population groups that need assistive products is crucial for planning and decision-making.

Definition: The proportion of people in a defined population group in need of assistive products who actually have the assistive product. The population group that needs an assistive product is defined operationally through the available mechanisms – either a population survey or clinically by practitioners.

Numerator: Number of people within a specific population group in the country who need and have an assistive product.

Denominator: Number of people in that population group in the country who need an assistive product.

Disaggregation and additional dimensions: By age, geographic area, gender.

Method of measurement: Number of people within a specific population group in the country who need an assistive product and have one/number of people in that population group in the country who need an assistive product x 100.

Measurement frequency: Depends on data source. If survey every 5 years, if clinically by practitioners then every 1–2 years.


Limitations: In most countries the data source for this will need to be established.

References
Rapid Assistive Technology Needs Assessment Tool (RATA) from the GATE initiative.
Expanded indicator 34: Population functioning

Rehabilitation results chain: Impact.

Rationale: Good coverage of rehabilitation contributes to higher levels of population functioning.

Definition: Population functioning is operationalized through the measures used in the WHO Model Disability Survey (MDS). The MDS is a population survey that provides 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. Other national population surveys that measure functioning may also be used.

Numerator: Functioning of population as measured by the MDS, across the spectrum of functioning levels.

Denominator: /

Disaggregation and additional dimensions: Can be disaggregated by age, sex, geographical region, socioeconomic status. Findings can also differentiate between disability due to the individual’s impairments, health condition, or societal or environmental barriers.

Method of measurement: Population survey.

Measurement frequency: Every 5 years.


Other possible data sources and related links: Population survey.

Limitations: In most countries the data source for this will need to be established.

References
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