Dimensions for an International Classification System for Service Organization in Health-related Rehabilitation (ICSO-R)

Christoph Gutenbrunner
Overview

• Background
• Conceptual description of rehabilitation services
• The development of the ICSO-R
• The ICSO-R dimensions
• Results of (preliminary) ICSO-R testing
• Proposals for a new version (ICSO-R 2.0)
• Outlook: rehabilitation service assessment (tools and application)
Background

• Objectives:

(1) to remove barriers and improve access to health services and programmes

(2) to strengthen and extend rehabilitation, habilitation, assistive technology, assistance and support services, and community-based rehabilitation

(3) to strengthen collection of relevant and internationally comparable data on disability and support research on disability and related services

www.who.int/disabilities/actionplan/en/
Public Health Challenges (Alarcos Cieza)

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CHARM Workshop on Classification Systems for (Re-)Habilitation Services
Oslo, Norway, April 25, 2017

## Health accounts vs. strategies

<table>
<thead>
<tr>
<th>No</th>
<th>Dimensions of ICHA-HC (<em>OECD</em>)</th>
<th>Health Care Strategies (<em>Stucki et al.</em>)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>HC.1: Services of curative care</td>
<td>Curative care (<em>curative strategy</em>)</td>
</tr>
<tr>
<td>2</td>
<td>HC.2: Services of rehabilitative care</td>
<td>Rehabilitative care (<em>rehabilitative strategy</em>)</td>
</tr>
<tr>
<td>3</td>
<td>HC.3: Services of long-term nursing care</td>
<td>Maintenance care (<em>supportive strategy</em>)</td>
</tr>
<tr>
<td>4</td>
<td>HC.4: Ancillary services to health care</td>
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<tr>
<td>5</td>
<td>HC.5: Medical goods dispensed to out-patients</td>
<td></td>
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<td>6</td>
<td>HC.6: Prevention and public health services</td>
<td>Prevention (<em>preventive strategy</em>)</td>
</tr>
<tr>
<td>7</td>
<td>HC.7: Health administration and health insurance</td>
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</table>
Rehabilitation: the health strategy of the 21st century

J Rehabil Med 2017; 49: xx–xx

SPECIAL REPORT

REHABILITATION: THE HEALTH STRATEGY OF THE 21ST CENTURY

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There is strong evidence that population ageing and the epidemiological transition to a higher incidence of chronic, non-communicable diseases will continue to profoundly impact societies worldwide, putting more pressure on healthcare systems to respond to the needs of the people they serve. These trends argue for the need to address what matters to people about their health: limitations in their functioning that affect their day-to-day actions and goals in life. From its inception, rehabilitation, 1 of the 4 health strategies identified in the Declaration of Alma Ata in 1978, has had functioning as its outcome of interest. Its practitioners are from fields that include physical

The objectives of this paper are to assemble the best demographic and epidemiological evidence about future trends, in order to build on the current conceptualization of the health strategy of rehabilitation, compared with other health strategies, and, utilizing the powerful notion of functioning as a health indicator, set out the best case for the proposition that rehabilitation is the key health strategy for the 21st century.

WORLDWIDE POPULATION AGEING

Both the absolute number and proportion of the po-
Rehabilitation 2030: a call for action

• Background:
  ◦ Rehabilitation (in WHO) mainly has been described from the perspective of disability (politically leading to a minority perspective)
  ◦ Rehabilitation must be seen from a majority perspective (universal health coverage)

• Meeting:
  ◦ Held in Geneva, February 2017
  ◦ Participation: WHO departments, governments, NGO’s
  ◦ Working groups: e.g. Professional organizations, professional working in academic institutions
Rehabilitation 2030: a call for action

Rehabilitation: key for health in the 21st century

Key messages

- Rehabilitation is essential, along with prevention, promotion, treatment and support, in addressing the full scope of health needs of a population and achieving Sustainable Development Goal 3: Ensure healthy lives and promote well-being for all at all ages.
- Rehabilitation plays an important role among older populations, reducing the risk of falls and hospital admissions, and keeping people independent for longer.
- More people than ever are living with noncommunicable diseases and other chronic conditions. Health systems need to be equipped to provide services that optimize functioning in light of impairments, injuries or health conditions, acute or chronic.
- The benefits of rehabilitation are realized beyond the health sector. Rehabilitation can reduce care costs and enable participation in education and gainful employment.
- Rehabilitation must be integrated into national health plans and budgets. Current epidemiological trends, demographic shifts and expanded access to health care make scaling up rehabilitation services imperative for health systems in the 21st century.
- Coordinated and concerted action is needed to scale up rehabilitation services and address the profound unmet needs that exist.

Rehabilitation 2030: a call for action

1. Creating strong leadership and political support for rehabilitation at sub-national, national and global levels.
2. Strengthening rehabilitation planning and implementation at national and sub-national levels.
3. Improving integration of rehabilitation into the health sector to effectively and efficiently meet population needs.
5. Building comprehensive rehabilitation service delivery models to progressively achieve equitable access to quality services, including assistive products, for all the population.
6. Developing a strong multidisciplinary rehabilitation workforce that is suitable for country context, and promoting rehabilitation concepts across all health workforce education.
7. Expanding financing for rehabilitation through appropriate mechanisms.
8. Collecting information relevant to rehabilitation to enhance health information systems including system level rehabilitation data and information on functioning utilizing the International Classification of Functioning, Disability and Health (ICF).
9. Building research capacity and expanding the availability of robust evidence for rehabilitation.
10. Establishing and strengthening networks and partnerships in rehabilitation, particularly between low-, middle- and high-income countries.

Strengthening Rehabilitation in Health Systems

- Integrate rehabilitation into the health system
- Integrate rehabilitation services into and between primary, secondary and tertiary levels of health systems
- Ensure the availability of a multi-disciplinary rehabilitation workforce
- Ensure both community and hospital rehabilitation services are available
- Ensure hospitals include specialized rehabilitation units for inpatients with complex needs
- Implement financing and procurement policies that ensure assistive products are available to everyone who needs them
- Ensure adequate training is offered to users to whom assistive products are provided
- Ensure financial resources are allocated to rehabilitation services
- Where health insurance exists or is to become available, ensure rehabilitation services are covered

http://www.who.int/disabilities/rehabilitation_health_systems/en/
Integrative phase model of rehab care

- Acute care
- Post-acute care
- Long-term care

Acute rehabilitation (in hospital)
Post-acute rehabilitation (in-patient)
Community based rehabilitation (out-patient)
Intermittent rehabilitation (in-patient or day-clinic)

Time
Intensity

Levels of specialization

- **Level 1**: families, peers, etc.
- **Level 2**: primary care physicians, PT, OT, etc.
- **Level 3**: PRM, specialized PT, OT etc.
- **Level 4**: Multi-professional rehabilitation services
- **Level 5**: highly specialized rehabilitation services (SCI, TBI)

Coordinated referral systems (PRM as advisor and coordinator)
Conclusion

• The need of rehabilitation is growing

• Rehabilitation services must be part of universal health coverage

• Rehabilitation services should be implemented at all levels of health care and in all phases of care provision

• Rehabilitation can be seen as the health strategy of the 21st century

• Systematic approaches for rehabilitation service provision analysis and implementation have to be developed
Conceptual description of rehabilitation services
Conceptual description: Rehab strategy

Rehabilitation is the health strategy which
based on WHO’s integrative model of functioning, disability and health
applies and integrates
- approaches to assess functioning in light of health conditions
- approaches to optimize a person’s capacity
- approaches that build on and strengthen the resources of the person
- approaches that provide a facilitative environment
- approaches that develop a person’s performance
- approaches that enhance a person’s quality of life in light of health conditions
in partnership between person and provider and in appreciation of the person’s perception of
his or her position in life
over the course of a health condition;
for all age-groups;
along and across the continuum of care,
  - including hospitals, rehabilitation facilities and the community;
and across sectors
  - including health, education, labor and social affairs
with the goal
  - to enable persons with health conditions experiencing or likely to experience
disability to achieve and maintain optimal functioning in interaction with
the environment
Health system levels

Dimensions for Service Organization in Rehabilitation (ICSO-R)
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Conceptual description: Rehab service

Rehabilitation services, are personal and non-personal intangible products offered to persons with a health condition experiencing or likely to experience disability or to their informal care-givers within an organisational setting in interaction between provider and person addressing individual functioning needs that aim at enabling persons to achieve and maintain optimal functioning considering the integration of other services addressing the individual’s needs including health, social, labour and educational services and delivered by rehabilitation professionals, other health professionals, or appropriately trained community-based workers.
Conclusion (2)

• Rehabilitation can be described conceptually based on the ICF as a health strategy aiming at optimizing functioning

• Rehabilitation services must be described at the meso-level of health systems (*with interfaces with micro- and macro-levels*)

• A conceptual description of rehabilitation services is also available

• There are (*up to now*) no tool or parameters to systematically describe rehabilitation services
The development of the ICSO-R
The problem

- There is a need to develop and strengthen rehabilitation services (*and programs*)

- Besides the analysis of the need for rehabilitation (*in individuals and populations*) it is crucial to analyse existing services

- To plan the establishment of rehabilitation services it is necessary to identify gaps between existing services and the needs

- A set of internationally accepted parameters for such analysis are indispensable (*but not existing up to date*)
The ICSO-R Approach (ISPRM-WHO-LC)

• Develop a conceptual description of rehabilitation services (based on the conceptual description of rehabilitation as a health strategy)

• Analyse existing classifications and frameworks

• Develop a framework

• Develop (and propose) dimensions

• Describe use cases and check applicability and feasibility
ICSO-R: goals and development

• The aim (…) is to develop a list of dimensions and categories to describe the organisation of health-related rehabilitation services

• The classification starts from the (…) conceptual description of a rehabilitation service *(Meyer et al. 2013)*

• The classification is based on expert workshops including members from the “Strengthening Medical Rehabilitation Subcommittee” within the WHO-Liaison-Committee of the ISPRM
ICSO-R: cornerstones

- In order to make the classification **feasible for use** it should be as short as possible
- The dimensions and categories should be clearly **defined and easy to understand**
- The categories should be **distinctive**, however, some dimensions might be associated with others (e.g. long-term services will be more often associated with maintenance as main health strategy and multi-professional team structure will be more often associated with higher intensity of care interventions). However, the selection of dimensions and categories aimed to avoid overlaps
- Conceptually, a **three-level classification** was aimed at. It should include dimensions, categories, and value sets
Levels to describe rehabilitation

Macro level

Meso level

Micro level

Health strategy, policy

Service provision, concepts

Health condition & functional level (A)

Health condition & functional level (B)

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SPECIAL REPORT

ISPRM DISCUSSION PAPER: PROPOSING DIMENSIONS FOR AN INTERNATIONAL CLASSIFICATION SYSTEM FOR SERVICE ORGANIZATION IN HEALTH-RELATED REHABILITATION

Christoph Gutenbrunner, MD, PhD1, Jerome Bickenbach, LLB, PhD2,3, Carlotte Kiekens, MD4, Thorsten Meyer, PhD5, Dimitrios Skempes, PT, MPH2,3, Boya Nugraha, MS, PhD1, Matthias Bethge, MS, PhD5 and Gerold Stucki, MD, PhD2,3

From the 1Department of Rehabilitation Medicine, Hannover Medical School, Hannover, Germany, 2Swiss Paraplegic Research, Nottwil, 3Department of Health Sciences and Health Policy, University of Lucerne, Lucerne, Switzerland, 4Physical and Rehabilitation Medicine, University Hospitals Leuven, Leuven, Belgium, 5Integrative Rehabilitation Research Unit, Institute for Epidemiology, Social Medicine and Health Systems Research, Hannover Medical School and 6Institute of Social Medicine and Epidemiology, University of Lübeck, Lübeck, Germany

Objective: Rehabilitation is one of 4 main health strategies. The World Report on Disability identifies deficits in rehabilitation care for people with disabilities as an important barrier to full inclusion in society or to achieve optimal functioning. In order to overcome such deficits, to close gaps in national and/or regional rehabilitation systems, and to develop appropriate rehabilitation services, it is crucial to define uniform criteria and a widely accepted language to describe and classify rehabilitation services. The aim of this paper was therefore to develop a list of dimensions and categories to describe the organization of health-related rehabilitation services.

Methods: The classification is based on a series of expert workshops including members of the International and Eu- to achieve optimal functioning (4). Thus, it is one of the most important tools for overcoming disability in persons with health conditions, such as congenital deformities, chronic diseases or trauma (5). In this context, disability may be defined as the result of an interaction between the person with a health condition and his or her environment (5, 6). Thus rehabilitation must aim both at empowering persons experiencing disability to enhance their level of activity and participation, and at removing barriers from the environment (4). Physical and Rehabilitation Medicine integrates medical interventions to improve body functions and activities and actions to overcome environmental barriers, e.g. providing assistive technology or advising employers to create a supportive work environment (7).
The ICSO-R dimensions
ICSO-R dimensions

• **Service provider:**
  ◦ The main questions behind are *where* and *in which context* the service is delivered

• **Funding of the service:**
  ◦ The question behind is *what are the principles* of financial resources

• **Service delivery:**
  ◦ It focuses on the question *how* the services are delivered to the user
ICSO-R categories

1. Provider
   1.1. Location
   1.2. Organisation
   1.3. Context
   1.4. Facility
   1.5. Human resources
   1.6. Technical resources and equipment
   1.7. Quality assurance
   1.8. Profit-orientation
   1.9. Other categories of provider

2. Funding
   2.1. Source of money
   2.2. Criteria of cost refund
   2.3. Other criteria of funding

3. Service delivery
   3.1. Strategy
   3.2. Target groups
   3.3. Service goals
   3.4. Aspects of time
   3.5. Intensity
   3.6. Team structure
   3.7. Mode of production
   3.8. Other categories of service delivery

ICSO-R: value sets (provider)

1. Provider

1.1 Location (centralized vs. decentralized service, situated in rural area vs. urban area, accessibility (transport systems and others) and other dimensions of location).
1.2 Organization (independent organization, affiliation, or other dimensions of organization).
1.3 Context (single practise, community-based service, institutional care, such as nursing home or hospital-based service, home-based or other dimensions of context).
1.4 Facility (building, hotel service and other aspects of facility).
1.5 Human resources (health professionals, administrative staff, technical staff, and other personnel).
1.6 Technical resources and equipment (diagnostic devices, therapeutic devices and treatment modalities, data procession and communication, and other technical resources).
1.7 Quality assurance (total quality assurance system, single quality assurance measures and other methods of quality assurance).
1.8 Profit-orientation (profit-oriented, non-profit organization as charity organization and others, and other aspects of profit-orientation).
1.9 Other categories of provider.

Value sets have not been developed yet, however, descriptions, inclusions and exclusions are under development.

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**ICSO-R: value sets (service delivery)**

3. **Service delivery**

3.1 Strategy (prevention (preventive strategy), therapy (curative strategy), rehabilitation (rehabilitation strategy), maintenance (supportive strategy), or other health strategies).

3.2 Target groups (e.g. patients with defined health conditions, persons with specific deficits in body functions, activities and participation, case mix index and other target groups).

3.3 Service goals (restitutio ad integrum, improvement of health status, improvement of self-care, return to normal life, return-to-work, or other service goals).

3.4 Aspects of time (phase of disease (acute phase, post-acute phase, long-term phase), time-frame of intervention (short-term intervention, long-term intervention, intermittent interventions), number and duration of treatment time per day, and other aspects of time).

3.5 Intensity (high, medium or low intensity or other dimensions of intensity).

3.6 Team structure (involved professions, team organization (e.g. multidisciplinary team, interdisciplinary team), or other dimensions of team structure).

3.7 Mode of production (hospitalization, inpatient service, day clinic, outpatient service or other modes of production).

3.8 Other categories of service delivery.

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Value sets have not been developed yet, however, descriptions, inclusions and exclusions are under development.

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### ICSO-R: examples

<table>
<thead>
<tr>
<th>No.</th>
<th>Dimension and category</th>
<th>Rehabilitation service A</th>
<th>Rehabilitation service B</th>
<th>Rehabilitation service C</th>
<th>Rehabilitation service D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td></td>
<td>University department</td>
<td>Inpatient and outpatient rehabilitation service</td>
<td>Inpatient and outpatient rehabilitation service</td>
<td>Community based rehabilitation service</td>
</tr>
<tr>
<td><strong>Name, place</strong></td>
<td></td>
<td>Department for Rehabilitation Medicine, Hannover Medical School, Hannover, Germany</td>
<td>Department for Rehabilitation Medicine, Fatmawati, Jakarta, Indonesia</td>
<td>Saint Joseph Children and Adult Home, Mambu, Bafut, NWR, Cameroon</td>
<td>Functional rehabilitation program for achieving independence and autonomy in the community, Medellin, Colombia</td>
</tr>
<tr>
<td>1.</td>
<td>Provider</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1.</td>
<td>Location</td>
<td>City</td>
<td>City</td>
<td>Village</td>
<td>Poor neighborhoods in a city</td>
</tr>
<tr>
<td>1.2.</td>
<td>Organisation</td>
<td>Public</td>
<td>Public/government hospital</td>
<td>Private</td>
<td>Nongovernmental</td>
</tr>
<tr>
<td>1.3.</td>
<td>Context</td>
<td>University hospital</td>
<td>General hospital</td>
<td>Rehabilitation centre</td>
<td>City neighbourhoods</td>
</tr>
<tr>
<td>1.4.</td>
<td>Facility</td>
<td>Rehabilitation department</td>
<td>Rehabilitation department for out patient and in-patient ward, orthotic and prosthetic workshop and wheelchair workshop</td>
<td>Rehabilitation department with vocational training, orthopaedic workshop, Infirmary, shoe making works, embroidery workshop, cane workshop, bakery and the resource room for the visually impaired</td>
<td>Community centers and homes.</td>
</tr>
<tr>
<td>1.5.</td>
<td>Human resources</td>
<td>Multiprofessional Team (Physicians, PT’s, OT’s, Dysphagia Therapists, Sport Therapist, researchers)</td>
<td>Multiprofessional team (physicians PMR, PT’s, OT’s, Speech Therapist, P&amp;O, Social Workers, Nurse, psychologists)</td>
<td>Physical therapists, orthopaedic technicians, prosthetic technicians, special education teachers, technical workers.</td>
<td>Interdisciplinary Team (Physiotherapy, Psychology, Social Work, Special Education, sign language interpreter, sign language teacher (hearing impaired))</td>
</tr>
</tbody>
</table>
Conclusion (3)

- ICSO-R is an approach to systematically describe rehabilitation services or at least to provide dimensions to do so.

- Its dimensions are:
  - service provider
  - financing
  - service delivery

- The ICSO-R is going to be tested and modified based on the testing results.
Results of (preliminary) ICSO-R testing (and proposals for a new version)
European initiative for the application of the International Classification of Service Organization in Health-related Rehabilitation (ICSO-R)

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UEMS-PRM-Section Initiative

- **Framework:**
  - Working meeting of UEMS-PRM section and Board delegates (*Nottwil, January 2016*)
  - Main topic: rehabilitation quality management

- **Goal:** Analyzing the feasibility of ICSO-R to describe rehabilitation services for quality management

- **Agenda** (*working groups*):
  - Narrative descriptions of rehabilitation services
  - Description using ICSP-R
  - Identifying problems with ICSO-R
### Table II.—Description of a highly specialized post-acute rehabilitation service for spinal cord injury (Group 4).

| Slide 1: Patients with newly acquired spinal cord injury (SCI) need complex and comprehensive rehabilitation including specific diagnostics after the acute phase:  
| • to stabilize the health condition and prevent early and long term complications  
| • to achieve best functioning, participation in society and quality of life according to the expected outcome.  
| Slide 2: To set this into practice it is necessary to provide a specialized inpatient rehabilitation service including:  
| • a multidisciplinary rehabilitation team skilled in SCI, integrated in an interdisciplinary setup (e.g. orthopedic surgeon, urologist, radiologist)  
| • a team highly experienced in SCI specific patient centered goal setting process to choose the right interventions in the early phase only in an inpatient setting and perhaps in an outpatient setting such as day clinics in later phases.  
| • therefore it necessary to organize these services in highly specialized centers with specific infrastructure and equipment in a national centralized organization with an adequate patient load.  

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### Dimensions for Service Organization in Rehabilitation (ICSO-R)

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**CHARM Workshop on Classification Systems for (Re-)Habilitation Services**  
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#### Mind map approach

<table>
<thead>
<tr>
<th>Complication Management</th>
<th>SWOT</th>
<th>Decentralized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concentration of cases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fragmentation</td>
<td>T</td>
<td></td>
</tr>
<tr>
<td>Earlier rehabilitation</td>
<td>S</td>
<td></td>
</tr>
<tr>
<td>Less specialized team</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower concentration of cases</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Difficulties of communication</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>Rate of acute medical conditions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early and less in rehabilitation</td>
<td>T</td>
<td></td>
</tr>
<tr>
<td>Rehabilitation in clinically unstable cases</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Location (centralized vs. decentralized service, situated in rural area vs. urban area, accessibility (transport systems and others) and other dimensions of location).

1.2 Organization (independent organization; affiliation, or other dimensions of organization).

1.3 Context (single practice, community-based service, institutional care, such as nursing home or hospital-based service, home-based or other dimensions of context).

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1.7 Quality assurance (total quality assurance system, single quality assurance measures and other methods of quality assurance).

1.8 Profit-orientation (profit-oriented, non-profit organization as charity organization and others, and other aspects of profit-orientation).

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**Diagram:**

- Customer
- SD
- Acquired Brain Injury
- Pediatric
- Inpatient oriented
### TABLE III.—Application of the dimensions and categories of the 2-level classification in six rehabilitation services.

<table>
<thead>
<tr>
<th>Number</th>
<th>Dimensions and category</th>
<th>Acute I Mobile</th>
<th>Post-acute I Polyvalent</th>
<th>Post-acute II Neurorehabilitation</th>
<th>Post-acute III SCI</th>
<th>Long term I Day Clinic</th>
<th>Long term II Rehab in Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Funding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>Source of money</td>
<td>Health insurance and government (ministry of health)</td>
<td>Public, through the social security system</td>
<td>Social security, Insurances and Private</td>
<td>Health insurance, Accident insurance, Pension insurance, Public or private sources</td>
<td>The same principles apply as for inpatient rehabilitation</td>
<td>Depends on the welfare system</td>
</tr>
<tr>
<td>2.2</td>
<td>Criteria of cost refund</td>
<td>DRGs or budget based</td>
<td>Health insurance reimbursed by government and private patients</td>
<td>Case-mix oriented to results (Social Security) and Per day (insurance and private)</td>
<td>Patient classification system and compensation on a daily basis</td>
<td>Refund must be the multi-professional rehabilitation not for single therapies</td>
<td>Based on the health care needs</td>
</tr>
<tr>
<td>2.3</td>
<td>Other categories</td>
<td>Not applicable</td>
<td>Donations</td>
<td>Charity grants</td>
<td>Not specified</td>
<td>Not specified</td>
<td>Not specified</td>
</tr>
</tbody>
</table>
Conclusion (4)

- The ICSO-R is a feasible instrument to describe rehabilitation services
- Its application leads to more comparable descriptions as compared to narrative description
- Some issues for understanding of ICSO-R occurred, e.g.
  - One institution can provide more than one type of service
  - Financing of institution and of service delivery may differ
- The ICSO-R working group took the following
  - Thinking on a new version (based on testing results)
  - Thinking about describing prototype services (incl. matrix)
Proposals for a new version \textit{(ICSO-R 2.0)}
Financing

(Main) funding mechanism

ICSO-R domain

ICSO-R 2.0 domains

Explanations (examples)

State payment, investors money, NGO investment

To respond to needs, return on investment, charity

Health insurances, state welfare system, out of pocket

Per case payment, per diem payment, single intervention refund

Total budget

Indirect funding

Service provider

Source of money

Criteria of funding

Direct funding

Service delivery

Source of money

Criteria of funding

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Oslo, Norway, April 25, 2017
Clarifications & subcategories

ICSO-R Proposal (2015)

1.1. Location
1.2. Organization
1.3. Context
1.4. Facility
1.5. Human resources
1.6. Technical resources
1.7. Quality Assurance
1.8. Profit orientation
1.9. Other categories

ICSO-R 2.0 (2017)

1.1. Context/Organization
1.2. Location of institution
1.3. Governance and Leadership
1.3.1. Vision
1.3.2. Mission
1.4. Quality Assurance
1.5. Human resources
1.6. Technical resources
1.7. Source of funding
1.7.1. Source of funding
1.7.2. Criteria of payment
1.8. Other categories

Financial

2.1. Source of money
2.2. Criteria of cost refund
2.3. Other categories

3.1. Strategy
3.2. Target group

2.1. Health strategy
2.2. Service goals
<table>
<thead>
<tr>
<th>!</th>
<th>Dimensions! and!category!</th>
<th>Descriptions!</th>
<th>Inclusions!</th>
<th>Exclusions!</th>
<th>Explana6tions!</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.11.!</td>
<td>Aspects'of' time'</td>
<td>Time'schedule'of' service'provision' and'interventions'</td>
<td>Length'stay'or' treatment'period'</td>
<td>Any'aspects'of'time' related'to'service' organisation'such' as'</td>
<td>Ranges' and/or'av: erages' may'be're: ported'</td>
</tr>
<tr>
<td>2.12.!</td>
<td>Rehabilitation'Team'</td>
<td>Professions'and' competencies'of're: habilitation'team' members;'team' structure'and' method'of'team' communication'</td>
<td>Health'and'health: related'profession: als'delivering'ser: vices'to'the'users' (patients)', 'such'as' diagnostics,'treat: ments,'and'others'</td>
<td>Administrative' staff,'technical'and' maintenance'staff' (exception: rehabilitation'engineers),' cleaning'staff'</td>
<td></td>
</tr>
</tbody>
</table>

Dimensions for Service Organization in Rehabilitation (ICSO-R)
Christoph Gutenbrunner
CHARM Workshop on Classification Systems for (Re-) Habilitation Services
Oslo, Norway, April 25, 2017

MH
Hannover Medical School
Conclusion (5)

- The ICSO-R working group is coming up with a proposal for a version 2.0.
- Main changes will be:
  - integrating the financing part into both domains ("provider/institution" and "service provision")
  - adding some missing (useful) dimensions (such as "governance and leadership" and "access to service") and some subcategories (for clarification in case of multi-dimensional categories)
  - including inclusions and exclusions
- ICSO-R 1.0 and ICSO-R 2.0 will be compatible (a linking table will be provided).
Outlook: rehabilitation service assessment (*tools and application*)

• General Collaboration area: Contribution to WHO meetings and projects and information to ISPRM

• Collaboration project 1: Learning Health Systems for Spinal Cord Injury, an initiative incl. international spinal cord injury survey (in co-leadership with ISCoS)

• Collaboration project 2: Fast Response Teams on strategies and plans of rehabilitation and related services

• Collaboration project 3: ICF based routine data collection in national health information systems
Collaboration Project 2

• To **carry out consultations with countries** on request and suggested by the DTO aiming at strengthening rehabilitation services and building capacity of the rehabilitation workforce
  ◦ To **provide matrix and checklists** to analyse existing rehabilitation services as well as to identify gaps in service provision
  ◦ To establish **Rehabilitation Services Advisory Teams** of experts with global and regional health systems understanding that can provide guidance to governments
  ◦ (...) This includes **Rehabilitation Service Advisory Meetings** and **Stakeholder Dialogues**
Learning health systems (Stucki et al.)

Learning Health System

Principles:
- Rehabilitation system: evidence and policy informed response
- Rehabilitation services
- Rehabilitation interventions
- Rehabilitation quality management

Building blocks:
- Policies and programs
- Provision and payment
- Professional and person interaction
- Products and procedures
- Work force
- Health information
- Interventions

Person
Health Functioning

needs

response

Society
Health system
Rehabilitation services

Rehabilitation Service Implementation

• **Guiding principles:**
  ◦ Assessment of existing services (*incl. workforce*)
  ◦ Development of recommendations & projects
  ◦ Stakeholder dialogues

• **Tools (*some are still under development*):**
  ◦ Rehabilitation Service Assessment Tool (*RSAT*)
  ◦ International Classification of Service Organization in Rehabilitation (*ICSO-R*)
  ◦ Rehabilitation Service Implementation Framework (*RSIF*)
  ◦ WHO Health Systems Building Blocks

• **Recommendations:**
  ◦ According to WRD or GDAP
ISPRM Rehabilitation Advisory Teams

- Government, WHO country office
- Rehabilitation Advisory Team
- Stakeholder workshop
- Project plan
- Situation Assessment
- Benchmark
- Stakeholder dialogue

- Identification and reporting of gaps
- Draft recommendations
- Recommendations & Projects

- UNCRPD, WRD, GDAP
- Rehab. Service Assessment Tool
- Health Care Service Matrix
- Site visit
- WRD, GDAP
- Health System Building Blocks
## Spectrum and types of services

<table>
<thead>
<tr>
<th></th>
<th>A. Acute care</th>
<th>B. Post-acute care</th>
<th>C. Long-term-care</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tertiary level of health care</strong></td>
<td>A.1: Acute rehabilitation wards</td>
<td>B.1: In-patient post acute rehabilitation unit</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>A.2: Mobile acute rehabilitation teams</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Secondary level of health care</strong></td>
<td>A.2: Mobile acute rehabilitation teams</td>
<td></td>
<td>C.1: Intermittent in-patient rehabilitation service</td>
</tr>
<tr>
<td><strong>Primary level of health care</strong></td>
<td>--</td>
<td>B.2: Out-patient post acute rehabilitation unit</td>
<td>C.2: Primary care rehabilitation centres</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B.3: Mono-professional post-acute services</td>
<td>C.3: Mono-professional long-term services</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C.4: Community Based Rehabilitation Service</td>
</tr>
</tbody>
</table>
### Box 1. Short narrative descriptions of the most relevant types of health-related rehabilitation services (11)

- **Acute rehabilitation services delivered in hospitals at the secondary and tertiary levels.** The target group are patients with severe disease or injury who are likely to develop long-term disability. Acute rehabilitation services should start even during intensive care and should be performed in internal medicine (PRM), orthopedics (OT), and other related services may also be involved. Post-acute rehabilitation services delivered immediately or shortly after discharge from acute care hospitals. The target groups are patients with persisting impairment, activity limitations, and participation restrictions after acute care or trauma. Post-acute rehabilitation services improve functioning (including participation) and can contribute to earlier discharge from hospital. For more severe cases (with limitations in mobility and activities of daily living), post-acute rehabilitation should be carried out in inpatient post-acute rehabilitation units. Patients with fewer restrictions can be referred to outpatient post-acute rehabilitation units. For patients with minor deficits, monoprofessional services may be sufficient. Post-acute rehabilitation services should be specialized for the specific disease or trauma and be delivered by a multi-professional rehabilitation team.
Conclusion

• From the perspective of rehabilitation service analysis and implementation a broader approach is necessary

• Tools may be
  ◦ Rehabilitation service assessment tool (RSAT)
  ◦ Rehabilitation service implementation framework (RSIF)
  ◦ Rehabilitation advisory team missions (including stakeholder dialogues)

• ICSO-R should be used in service assessment and implementation projects

• As mentioned before, description of prototype services are needed too (normative approach)