TECHNICAL MEETING REPORT
Developing a roadmap for making the investment case for rehabilitation in support of the "Rehabilitation 2030: A Call for Action"

WHO Collaborating Center for Rehabilitation in Global Health Systems
University of Lucerne
28-30 November 2019

Content

1 Acknowledgements

The WHO Collaborating Centre for Rehabilitation in Global Health Systems, located at the University of Lucerne, organized a technical meeting on 28-30 November 2019 in support of the call for action rehabilitation 2030.

First of all, our sincere thanks go to all participants of the meeting: representatives of Member States, professional organizations, rehabilitation health professionals and health economists.

We also would like to express our deepest appreciation to all panellists, speakers and moderators who shared the expertise and insights: Sherali Rakhmatulloev (Ministry of Health and Social Protection of the Population, the Republic of Tajikistan), Khin Myo Hla (Yangon General Hospital, Myanmar), Yusniza Mohd Yusof (Ministry of Health, Malaysia), Joachim Breuer (Institute of Social Medicine and Epidemiology, University of Lübeck, Germany), Jürg Kesselring (International Committee of the Red Cross, Switzerland), Theo Vos (Institute for Health Metrics and Evaluation, USA), Neville Calleja (Ministry of Health, Malta), Aleksandra Posarac (World Bank, South Africa), Denise Razzouk (Federal University of Sao Paulo, Brazil), Pauline Kleinitz (WHO Headquarters), Gerold Stucki (University of Lucerne, Switzerland) and Henk Stam (Erasmus University Medical Center, Netherlands).

Finally, we would like to express our sincere gratitude to the Dean of the University of Lucerne, Professor Bruno Staffelbach, for generously hosting the technical meeting at the university facilities.

2 Acronyms

ADL	Activities of Daily Living
GBD	Global Burden of Disease
HICs	High-Income Countries
ICF	International Classification of Functioning, Disability and Health
ICRC	International Committee of the Red Cross
IHME	Institute for Health Metrics and Evaluation
ISSA	International Social Security Association
LMICs	Low- and Middle-Income Countries
NCDs	Non-Communicable Diseases
QoL	Quality of Life
ROIs	Return on Investments
SFP	Special Fund for the Disabled
UN	United Nations
WHO	World Health Organization

3 Structure of the technical meeting

The technical meeting on "Developing a roadmap for making the investment case for rehabilitation in support of the "Rehabilitation 2030: A Call for Action" was divided into two main parts.

On the first day, we aimed to set the stage for the need of making the economic case for rehabilitation. To achieve this goal, we invited rehabilitation experts from several countries and organizations to present their experiences with rehabilitation, highlighting achievements and barriers to be overcome. The first day was then followed by a second, technical part consisting of two days of technical consultations and plenary discussions.

The agenda of the meeting can be found in the appendix of this document.

4 Participants of the technical meeting

A key challenge of this technical meeting was bringing together the needed experts – health economists and rehabilitation professionals with expertise in health economics – who could contribute to identify what needs to be taken into account when making the investment case for rehabilitation. Another key challenge was to include experts not only from high- (HICs) but also from low- and middle-income countries (LMICs) as well as stakeholders from ministries, public insurance (such as injury insurance), non-governmental and United Nations (UN) organizations, such as the International Committee of the Red Cross (ICRC).

WHO headquarters (Geneva) was represented by six colleagues from the Unit of Disability and Rehabilitation as well as from the Department of Health Systems Governance and Financing, a colleague from the Alliance for Health Policy and Systems Research, hosted by the WHO, and by the technical manager of disability and rehabilitation of the WHO Regional Office for Europe.

The complete list of participants of the meeting can be found in the appendix of this document.

5 First day: Setting the stage

The technical meeting was opened by **Dr Alarcos Cieza**, Coordinator of the Unit for Disability and Rehabilitation at WHO headquarters, Switzerland. Dr Cieza highlighted the importance of making the investment case for rehabilitation in acute and primary care around the world, reminded the participants of the Call for Action Rehabilitation 2030 and explained the challenges faced by WHO in supporting the implementation of rehabilitation worldwide. She reiterated that "investing in rehabilitation is investing in health" and stressed the importance of identifying suitable methods and approaches to generate the evidence needed by WHO.

Mr Satish Mishra, Technical Manager of Disability and Rehabilitation at the WHO Regional Office for Europe, in Denmark, presented an overview of challenges faced when strengthening rehabilitation in LMICs, including Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. **Professor Gerold Stucki**, Director of the WHO CC for Rehabilitation in Global Health Systems at the University of Lucerne introduced the definitions of functioning and rehabilitation in light of the conceptual framework as the International Classification of Functioning, Disability and Health (ICF). He particularly focused on how to optimize functioning, and on rehabilitation service types. Finally, **Professor Jerome Bickenbach**, Co-director of the WHO CC, introduced the goal and agenda of the meeting, welcomed all participants, and wished all a productive and enjoyable meeting.

PANEL ON REHABILITATION PERSPECTIVES IN ACUTE AND PRIMARY CARE

The panel discussion was moderated by **Professor Jerome Bickenbach**. In his opening remarks, he introduced the panellists, highlighted their considerable experience and expertise in the field of rehabilitation, and pointed out that the purpose of the discussion was to explore different experiences of integrating rehabilitation in health systems.

The panellists included:

- **Dr Sherali Rakhmatulloev**, WHO national Expert for Disability and Rehabilitation, Ministry of Health and Social Protection of the Population, Tajikistan
- **Professor Khin Myo Hla**, Head, Department of Physical Medicine and Rehabilitation, Yangon General Hospital, Myanmar
- **Dr Yusniza Mohd Yusof**, Senior Consultant of Rehabilitation Medicine, Ministry of Health, Malaysia

- **Professor Jürg Kesselring**, Chairman, Special Fund for the Disabled (SFD) Board Member; SFD Executive Committee Member, International Committee of the Red Cross (ICRC) MoveAbility, Switzerland
- **Professor Dr Joachin Breuer**, President, International Social Security Association (ISSA); Professor, Institute of Social Medicine and Epidemiology, University of Lübeck, Germany

Dr Sherali Rahmatulloev introduced the situation of rehabilitation in Tajikistan, stressing that implementing rehabilitation was triggered by an outbreak of polio in the country, and that the provision of rehabilitation was slowly shifted from a rather narrow perspective focusing on persons with impairments only to a more inclusive perspective including any person with health conditions in need of rehabilitation. **Professor Khin Myo Hla** gave a presentation on rehabilitation perspectives in acute and primary care in Myanmar. She presented the National Rehabilitation Strategic Plan for 2019-2023 of the Ministry of Health and Sports, and listed main obstacles to expanding the coverage of rehabilitation, including limited governance, lack of awareness and limited recognition of rehabilitation, especially in acute and primary care, and lack of specified budget for rehabilitation. **Dr Yusniza Mohd Yusof** introduced rehabilitation in acute and primary care in Malaysia. Despite having good coverage, she noted that several challenges remain, and specifically that there is an ongoing need to ensure that adequate attention is paid to rehabilitation by the Malaysian government. **Professor Jürg Kesselring** discussed the experience of the ICRC in supporting people with severe impairments as a key part of its mandate. He noted that the ICRC created the ICRC SFD to ensure the continuity of former ICRC physical rehabilitation programmes. In 2017, the SFD was renamed MoveAbility and in April 2019, the ICRC and MoveAbility Board decided to join efforts to develop a more inclusive approach to better meet the growing needs of people with severe impairments in the most vulnerable contexts, in line with the WHO Rehabilitation 2030 agenda. **Professor Joachin Breuer** focused on the role of vocational rehabilitation and return to work, emphasizing that evidence of effectiveness of rehabilitation should be continuously checked, especially regarding labour market participation.

THE CHALLENGES OF CARRYING OUT BROAD ECONOMIC EVALUATIONS FOR REHABILITATION

Firstly, **Professor Theo Vos**, Institute for Health Metrics and Evaluation (IHME), USA, presented the findings of the study "Rearranging Global Burden of Disease (GBD) results: Making the case for rehabilitation", noting that it may provide a framework for the discussions on the size of the population in need of rehabilitation services. The study estimated the number of people who could benefit from rehabilitation using GBD data to be about 2.4 billion. Professor Vos stressed that these estimates reflect those individuals who may benefit from rehabilitation at some point in the lives and during the course of a disease or injury. Secondly, **Professor Neville Calleja**, Director, Department for Policy in Health, Health Information and Research, Ministry of Health, Malta, gave a presentation on availability and accessibility of data for economic evaluations of rehabilitation. **Professor Calleja** highlighted the differences between financial costs (i.e. direct expenditure for the delivery of a service) and economic costs (i.e. opportunity, productivity, ancillary expenditure, and other indirect costs) and concluded by underlining the advantages and challenges of routine data collection. The session was chaired by **Mr Satish Mishra**.

LESSONS LEARNED FROM OTHER HEALTHCARE AREAS

Professor Denise Razzouk, Federal University of São Paulo, Brazil, presented the economic case for rehabilitation for mental disorders in Brazil. She noted that stakeholders representing different goals and values are interested in different mental health outcomes, but that there are common goals at country level such as economic development, innovation, social justice, and citizens' health and well-being. Visible costs (e.g. hospitalization, health service use, staff, and low reimbursement) and invisible costs (e.g. accidents, early mortality, low productivity, unemployment, and dependence on social benefits or families) were described with examples. In her conclusion, she gave five recommendations for making the economic case for rehabilitation in general. **Ms Aleksandra Posarac**, Lead Economist of the World Bank, focused on the role of structural challenges in LMICs in making the investment case for rehabilitation. She highlighted the need to address the epidemic of non-communicable diseases (NCDs) and discussed several examples of LMICs where access to rehabilitation is dismal. Lastly, she concluded by stating that information systems are still largely paper-based and fragmented, and that service providers report a number of barriers with lack of financial resources in LMICs. The session was chaired by **PD Dr Carla Sabariego**.

6 Second day: Technical work

On the second day, two sessions were held to define **costs** for a roadmap for conducting global Return on Investment (ROIs) analyses for rehabilitation in acute and primary care. A total of four introductory presentations were given in two parallel sessions to set the stage for the group work in each session. For the group work, participants were divided into five groups with a maximum of ten participants per group. Each group was gender balanced and heterogeneous, mixing health economists and health professionals from different countries as well as LMICs and HICs representatives (see **Appendix 3**). After the group work in each session, one speaker was selected from each group to present their results in the plenary. **Dr Jeremy Addison Lauer**, WHO headquarters, introduced the structure of and procedure for the technical consultation, and explained key concepts and methods of economic evaluations in health. He noted that the purpose of the health system is to provide effective healthcare (i.e. to improve health), but that indirect outcomes are also important, including social and labour force participation.

SESSION 1. COSTS OF REHABILITATION IN ACUTE CARE

Professor Henk Stam, Erasmus University MC, Rotterdam, provided an introductory presentation on making the investment case for rehabilitation in acute care. He presented the typical health conditions in acute rehabilitation that benefit from rehabilitation and described acute rehabilitation in detail. Finally, he summarized benefits for patients and service providers. The task of the **group work** following his presentation was to identify all costs associated with providing rehabilitation in acute care. Compiled results of the group word are summarized in **Table 1**. The following key points were raised during the plenary discussion, among others:

- Incremental costs are the key element for health economic evaluations focusing on rehabilitation in acute care;
- costs of assessment, evaluation, and reporting must be part of the healthcare workforce cost estimations but it might be challenging to estimate the time dedicated to them;
- if rehabilitation is not provided in acute care, primary care – already constrained – can be over-burdened and the cost of acute care will increase;
- Finally, that the boundaries between acute and primary care are blurred and some activities can be found in both, and, when conducting analyses, it might be important to think of blended models.

Table 1. Costs of rehabilitation in acute care.

Human resources, Workforce, Personnel	**Market costs**	**Remarks**
	Wage salaries for: ▪ Main professionals: rehabilitation physicians, nurses, physiotherapists, occupational therapists. ▪ Potential additional professionals: dieticians, speech and language therapists, psychologists, social workers, prosthetists and orthotists, technicians.	▪ Make up bed day costs ▪ Variations in salaries of doctors depending on position, e.g. consultants, registrar, intern ▪ Therapists have approximately same salaries ▪ All components depend on the quantities ▪ Working time includes: - supervision or coordination (of teams) - case management - administrative tasks - direct health care - care planning, reporting, assessments - team meetings
	Recruitment and hiring costs	
	Workforce needed for continuous (medical) education, training, qualifications, capacity building: time of trainer and attendees (including travel time).	▪ Important to differentiate one-time costs (accounting) from recurring costs ▪ Materials and venue costs must be taken into account
Consumables, Supplies, Equipment	**Market costs**	**Remarks**
	Medication	
	Assistive technologies for mobility, communication, pressure relief, feeding and swallowing aids.	Examples: wheelchairs, walkers, standing tables, tilt tables, splints, tubes
	Consumables	Examples: bandages, gloves, soap, bedding
	Diagnostic equipment	Examples: laboratory, x-ray, imaging, patient assessment resources

	Equipment for treatment	Examples: bladder management, breathing
	Additional equipment	Examples: special beds, mattresses
Infrastructure, Buildings	**Market costs**	**Remarks**
	Minor importance: rooms	▪ Room(s) can be used jointly/multi-usage ▪ Rooms are already paid but length of stay may vary ▪ Storage rooms with equipment may be needed ▪ Rooms with space to wheel in a standing table may be needed ▪ Within a price setting per diem ▪ Staff office rental (otherwise just one-time implementation cost)
Informal caregiving	**Non-market costs**	**Remarks**
	Burden, time and productivity of family or friends	▪ Costs cannot be directly derived
Productivity	**Non-market costs**	**Remarks**
	Loss of income informal caregivers	
	Loss of income patient	

SESSION 2. COSTS OF REHABILITATION IN PRIMARY CARE

Ms Pauline Kleinitz, WHO headquarters, introduced rehabilitation in primary care. She highlighted key features of primary care:

- primary care is the entry point to health services;
- focuses on health needs across the life course;
- provides continuous delivery of care for people with chronic health conditions;
- is adaptable to the country situation and population needs;
- includes multiple levels, from community health volunteers, to health posts and clinics, and may even be found in district hospitals;
- has outreach into community settings; and
- encompasses multiple health professions.

She concluded that many health conditions (e.g. musculoskeletal, neurological, and cardiorespiratory conditions) require rehabilitation in primary care around the world.

Professor Gerold Stucki then described differences of rehabilitation service types (e.g. production resources: equipment, consumables, infrastructure, and workforce) between acute and primary care. He showed how access to rehabilitation in primary care can occur from three starting points: 1) after acute care, 2) after acute and post-acute care, 3) by referral from the community. He described in outline, in conclusion, an episode of rehabilitation in primary care including interventions in terms of sessions, timeframe, and outcome.

The **group work** of session 2 followed, aiming at identifying costs in primary care. The results are summarized in **Table 2**. The following key points were raised during the plenary:

- The goals of rehabilitation in acute and primary care are quite different.
- Although many costs are the same as in acute care, timelines and "weights" may be different in primary care.
- Most people cannot afford to go to primary care facilities in LMICs.
- The benefit comes from this mapping, which sets boundaries on the rehabilitation field, and has a joint understanding of what rehabilitation is.

Dr Jeremy Addison Lauer summarized the plenary discussions and closed the second day of the meeting.

Table 2. Costs of rehabilitation in primary care.

Human resources, Workforce, Personnel	**Market costs**	**Remarks**
	Wage salaries for: ▪ Main professionals: rehabilitation physicians, nurses, physiotherapists, occupational therapists, community health workers. ▪ Potential additional professionals: general practitioners, nurses, mid-level health workers (nurse assistant), administration staff, social workers, dietitians, psychologists, speech and language therapists, prosthetists and orthotists	▪ Management, coordination, administration, communication, reporting, support staff ▪ Account for direct care, planning, reporting, assessments, meeting, travel ▪ Recruitment and hiring costs
	Costs for mobile teams or telemedicine	▪ May include additional human resources (e.g. IT, technical assistance)
	Workforce needed for continuous (medical) education, training, and task shifting: time of trainer and attendees (including travel time).	▪ Important to differentiate one-time costs (accounting) from recurring costs ▪ Materials, technical equipment and venue costs must be taken into account
	Recruitment and hiring costs	
	Management cost to start-up new services in low- and middle-income countries	
Travel outreach	**Market costs**	**Remarks**
	Physicians and other related human resources (e.g. physiotherapists, nurses)	▪ Costs for transportation (public and private cars) ▪ Travel time and outreach materials ▪ Mobile teams

Consumables, Supplies, Equipment	Market costs	Remarks
	Medication	
	Assistive technologies for mobility, communication, pressure relief, feeding and swallowing aids	Examples: wheelchairs, walkers, standing tables, tilt tables, splints, tubes
	Consumables	Examples: bandages, gloves, soap, bedding
	Diagnostic equipment	Examples: x-ray, patient assessment resources
	Equipment for treatment	Examples: exercise equipment, electrotherapy, material for activities of daily living training
	Telemedicine	Need of IT

Infrastructure, Buildings	Market costs	Remarks
	Rooms, facilities 4G, Wi-Fi access Home or workplace modifications	Need to be accessible

Informal caregiving	Non-market costs	Remarks
	Burden, time and productivity of family or friends	Costs cannot be directly derived
Productivity		
	Loss of income informal caregivers	Losses are larger than in acute care
	Loss of income patient	

7 Third day: Technical work

On the last day of the meeting, two sessions were organized to define **benefits** in acute and primary care. **Dr Jeremy Addison Lauer**, WHO headquarters, introduced the group work. Given the experience of the previous day, the work on benefits was done together for primary and acute care. Working groups remained the same.

SESSION 3. BENEFITS FOR REHABILITATION IN ACUTE CARE
SESSION 4. BENEFITS FOR REHABILITATION IN PRIMARY CARE

Results of group work are summarized in **Table 3**.

The plenary was used to identify key challenges and issues to be considered when carrying out economic analyses for rehabilitation care. The main challenges raised were:

- Problems in defining boundaries of rehabilitation care, for instance episodes of care, packages of care, rehabilitation project;
- the breath of platforms of care, including acute hospitals, primary healthcare centers, outreach, and eHealth;
- the need to consider not only direct costs but also averted, as well as related future costs;
- the valuation of non-market costs and benefits;
- the diversity of perspectives on benefits, namely patient, family, workplace, economy, and society;
- the lack of availability and accessibility of data as well as its quality;
- the boundaries of care in LMICs is important;
- the need to account for the role of political challenges in terms of political will in making the economic case;
- the need to take into account a budget impact analysis;
- the natural course of health conditions when no care is provided;
- the existence of ineffective rehabilitation programs, and the missing evidence for some rehabilitation interventions;
- the existence of a publication bias in the area as LMICs have problems getting studies published and exists only in grey literature;
- the need of working with more specific scenarios when conducting economic evaluations, an inherent challenge of health economics;
- the question on how to work together with or best interact with the private sector;

- the need of a guide for donors in terms of what is necessary;
- the fact that budgets in LMICs are sometimes misspent (i.e. there is money, but it is not always linked to the continuum of care);
- the fact that comparators are different across settings, and this might affect the estimates;
- the need to consider the cost for training staff in primary care and models of capacity building that can be shared.

Given the interest of participants, **Professor Vos** kindly presented the GBD and how the GBD data can be used for economic evaluations.

Table 3. Benefits for rehabilitation in acute and primary care.

Relevance to		Benefits	Perspectives				
Primary care	Acute Care		Patient	Family	Health profes-sional	Health system	Society
x	X	Reduction in health complications	x		x	x	
x	X	Optimal functioning	x	x		x	x
x	X	Reduction in mortality	x	x	x	x	x
x	X	Reduction in morbidity	x	x	x	x	x
x	X	Improved mental health	x	x	x		
	X	Shorter length of stay(s) in hospital(s)	x	x	x	x	
	X	Less bed blockade in hospital(s)				x	
x	X	Increased social participation (including better personal relationships, capacity to perform other activities, leisure and sport)	x	x			x
x	X	Improved Activities of Daily Living	x	x			x
x	X	Earlier return to work (less absenteeism) and school	x	x			x
x	X	Avoid lost income	x	x			x
x	X	Avoid lower salary	x	x			x
x	X	Improve Quality of life	x	x			x
	X	Decrease in use of medicines	x			x	
x	X	Decrease in side-effects due to medicines	x			x	
x	X	Decrease in out-of-pocked expenditure	x	x			x
	X	Less informal care during inpatient stay and after dis-charge		x		x	x

Relevance to		Benefits	Perspectives				
Primary care	Acute Care		Patient	Family	Health professional	Health system	Society
x	X	Less need of informal care		x			x
x	X	Decrease in caregiving burden		x			
x		Higher job satisfaction			x		
x	X	Less subsequent medical costs (e.g. treatment, medicine, laboratory exams) associated with longer inpatient stays and outpatient care (future health service needs reduced)	x	x		x	
	X	Less subsequent medical and rehabilitation costs (e.g. less need for assistive devices)	x	x		x	x
x	X	Decrease in use of other health services (system more efficient: more patients can receive care from reduction in bed occupancy, efficiency of other sectors)				x	x
	X	Better accreditation of hospitals				x	
x	X	Better allocation of resources to other health care areas			x	x	
x	X	Increased productivity at work (avoid re-training (changing job roles) and lower wages (salary)	x	x			x
x	X	Increased job retention	x				x
x	X	Avoidance of tax loss					x
x	X	Averted social security payments (less need for continued disability social support)					x
x	X	Avoid loss of pension contribution					x

Relevance to		Benefits	Perspectives				
Primary care	Acute Care		Patient	Family	Health professional	Health system	Society
x	X	Avoid early retirement	x	x			x
	X	Avoid cost for social protection for dependents (if a person does not die)					x
x		Decrease in emergency attendances	x			x	
x		Decrease in costs of living (no need to live in urban, central areas)	x	x		x	x
x		Decrease in need to see primary healthcare providers for other health conditions and treatment	x	x	x	x	
x		Low cost per encounter	x	x		x	
x	x	Protection from catastrophic health expenditure in general: e.g. fewer follow-up visits and readmissions	x	x		x	
x	X	Improved referrals (from an intensive care unit to a general ward, and between hospitals)			x	x	
	X	Earlier return home and community (in general)				x	x
	X	Avoidance of institutionalization (severe cases)				x	
x		Increase of health literacy	x	x		x	

8 Summary

In the closing session **Dr Alarcos Cieza** thanked all participants, summarizing not only the achievements but also the challenges identified during the meeting. She stressed that this meeting was a starting point of a long process to move forward with the agenda of creating investment cases for rehabilitation. She also emphasized the importance of this agenda for advocacy and for allocation of resources.

Professor Gerold Stucki highlighted that the technical meeting is a first milestone towards ROIs because it enumerates costs and benefits of rehabilitation and the unique features and challenges of providing rehabilitation in primary and acute care. **Professor Stucki** also stressed the importance of keeping the experts who joined the meeting connected and ensured that the WHO CC at the University of Lucerne is willing to take the lead on creating a sustainable network and follow up with further activities.

Professor Gerold Stucki, Professor Jerome Bickenbach, and **PD Dr Carla Sabariego** expressed then their sincere appreciation to all participants, panellists, and speakers, and closed the meeting.

9 Appendices

- **Appendix 1.** Agenda
- **Appendix 2.** List of all participants
- **Appendix 3.** List of participants attending the group work

TECHNICAL MEETING
WHO Collaborating Center for Rehabilitation in Global Health Systems
Lucerne, 28-30 November 2019

Developing a roadmap for making the investment case for rehabilitation in support of the "Rehabilitation 2030: A Call for Action"

Location: Universität Luzern, Frohburgstrasse 3, Lucerne

Day 1 - November 28th

Room: HS5, ground floor

Opening and welcome	
13.30 – 13.45	Alarcos Cieza, WHO headquarters Making the investment case for rehabilitation in acute and primary care: relevance and expectations of WHO
13.45– 14.00	Satish Mishra, WHO Regional Office for Europe Developing a roadmap for making the investment case: what should be taken into account for low- and middle-income countries
14.00 – 14.15	Gerold Stucki, Jerome Bickenbach, Carla Sabariego, WHO CC Lucerne Welcome, meeting goals and agenda
14.15 – 15.30	**Panel on rehabilitation perspectives in acute and primary care** Moderation: Jerome Bickenbach
Participants: ▪ Dr. Sherali Rahmatulloev, WHO national expert for disability and rehabilitation, Tajikistan ▪ Khin Myo Hla, Director of Rehabilitation at Yangon General Hospital, Myanmar ▪ Yusniza Mohd. Yusof, Ministry of Health of Malaysia ▪ Jürg Kesselring, International Committee of the Red Cross (ICRC) ▪ Joachin Breuer, International Social Security Association (ISSA)	
15.30 – 15.45	Coffee Break
The challenges of carrying out broad economic evaluations for rehabilitation Chair: Satish Mishra, WHO Regional Office for Europe	
15.45 – 16.00	Theo Voss, Institute for Health Metrics and Evaluation (IHME) The size of the population in need of rehabilitation services
16.00 – 16.15	Neville Calleja, director, Ministry of Health of Malta Availability and accessibility of data for economic evaluations
16.15 – 16.30	Open discussion and questions
Lessons learned from other health care areas Chair: Gerold Stucki, WHO CC Lucerne	
16.30 – 16.45	Denise Razzouk, Federal University of São Paulo, Brazil Making the economic case for mental disorders in Brazil: lessons learned
16.45 – 17.00	Aleksandra Posarac, World Bank The role of structural challenges in LMICs in making the investment case for rehabilitation
17.00 – 17.15	Gerold Stucki, WHO CC Lucerne Brief discussion and closing
19.00 – 21.00	**Dinner Restaurant RED** Welcome by the Rector of the University of Lucerne, Prof. Bruno Staffelbach

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Day 2 - November 29th

Room: 3.B58, third floor

9.10 – 9.30	Jeremy Addison Lauer, WHO headquarters Introduction to the technical consultation structure and procedure
Session I	**Rehabilitation in acute care**
9.30 – 10.00	Henk Stam, Erasmus University MC, Rotterdam Rehabilitation in acute care
10.00 – 11.30	Group work
11.30 – 12.30	Plenary discussion
12.30 – 13.30	Lunch break
Session II	**Rehabilitation in primary care**
13.30 – 13.45	Pauline Kleinitz, WHO headquarters Introduction to rehabilitation in primary care
13.45 – 14.00	Gerold Stucki, WHO CC Lucerne Rehabilitation in primary care
14.00 – 15.30	Group work
15.30 – 16.00	Coffee break
16.00 – 17.00	Plenary discussion
17.00 – 17.30	Jeremy Addison Lauer, WHO headquarters Summary and closing

Day 3 - November 30th

Room: HS5, ground floor

9.00 – 9.15	David McDaid, London School of Economics Specific challenges of rehabilitation for global Return on Investment Analyses
9.15 – 9.30	Jeremy Addison Lauer, WHO headquarters Introduction to the 2nd round of the technical consultation
Session III	**Rehabilitation in acute care**
9.30 – 10.15	Group work
10.15 – 11.15	Plenary consensus
11.15 – 11.30	Coffee break
Session IV	**Rehabilitation in primary care**
11.30 – 12.15	Group work
12.15 – 13.15	Plenary consensus
13.15 – 13.30	Alarcos Cieza, WHO headquarters The way forward
13.30 – 13.40	Gerold Stucki, Jerome Bickenbach, Carla Sabariego, WHO CC Lucerne Closing and next steps
13.40 – 14.40	Closing lunch

UNIVERSITÄT LUZERN

TECHNICAL MEETING
WHO Collaborating Center for Rehabilitation in Global Health Systems
Lucerne, 28-30 November 2019

Developing a roadmap for making the investment case for rehabilitation in support of the "Rehabilitation 2030: A Call for Action"

Participants

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Appendix 3. List of participants attending the group work

	Group 1	Group 2	Group 3	Group 4	Group 5
1 Facilitators	**Theo Vos** US	**Neville Calleja** Malta	**Gerold Stucki** Switzerland	**John Melvin** US	**Satish Mishra** WHO Euro
2	Stella M. Umuhoza Rwanda	Khin Myo Hla Myanmar	***Yusniza Mohd Yusof Malaysia	Aleksandra Posarac World Bank	Sherali Rakhmatulloev Tajikistan
3	***Henk Stam Netherlands	Andrea Popa Germany	Denise Razzouk Brazil	Quinette A. Louw South Africa	***Abdulgafoor M. Bachani US
4	Anna Boisgillot France	Shoji Kinoshita Japan	Denny John India	***Eline Aas Norway	Reykhan Muminova WHO Tajikistan
5	§Peter Feys Belgium	Ingrid Lekander Sweden	Vanessa Seijas Colombia	Carl Willers Sweden	Anna Rupert Canada
6	Ana de Morais Duarte UK	Fábio de Souza e Castro Brazil	Job van Boven Netherlands	Mario Giraldo-Prieto Colombia	§Diana Pacheco Switzerland
7	Pauline Kleinitz WHO HQ	Abderrazak Hajjioui Morroco	Maznah Binti Dahlui Malaysia	§Elanie Marks WHO HQ	Patricia Kahn Brazil
8	Kirsten Saether Norway	Milica Lazovic Serbia	Gregory Halford Australia	Francois Theron South Africa	Baljinnyam Avirmed Mongolia
9	Jerome Bickenbach Switzerland	***Karsten Dreinhöfer Germany	Aku Kwamie WHO HQ	Averi Chakrabarti US	Stephen Muldoon Myanmar/UK
10		§Alex Rauch WHO HQ	Ximena N. Zapata Chile		
11 Observers	Olena Bychkovska Swiss Paraplegic Research Switzerland	Luciana Castaneda University of Rio de Janeiro Brazil	§Sarah Mantwill University of Lucerne Switzerland	Adrian Spiess University of Lucerne Switzerland	Dimitrios Skempes Swiss Paraplegic Research Switzerland

Remarks:

- Composition: gender-balanced (women in orange) and heterogeneous mixing health economists (blue cells) and clinicians from different countries
- Each group has:
  - **one facilitator**: pre-defined (bold)
  - **one speaker**: to present results in the plenary, suggested person = ***
  - **one person taking notes:** to take notes of key points and keep timing, suggested person = §
  - **one observer**: observers won't participate of group discussions and decisions