

## ORIGINAL RESEARCH

### **Developing an implementation strategy for a World Health Organization public health report: The implementation of the International Perspectives on Spinal Cord Injury (IPSCI) in Romania**

**Per M. von Groote<sup>1-3</sup>, Gabi M. Comanescu<sup>4</sup>, Claudia Ungureanu<sup>4</sup>, Jerome E. Bickenbach<sup>1,2</sup>, John N. Lavis<sup>5</sup>**

<sup>1</sup>Department of Health Sciences and Health Policy, University of Lucerne, Lucerne, Switzerland;

<sup>2</sup>Swiss Paraplegic Research, Nottwil, Switzerland;

<sup>3</sup>Institute of Social and Preventive Medicine (ISPM), University of Bern, Bern, Switzerland;

<sup>4</sup>Motivation Romania Foundation, Ilfov County, Romania;

<sup>5</sup>McMaster Health Forum, Centre for Health Economics and Policy Analysis, Department of Clinical Epidemiology and Biostatistics, and Department of Political Science, McMaster University, Hamilton, ON, Canada.

#### **Corresponding author:**

Per M. von Groote, Institute of Social and Preventive Medicine (ISPM), University of Bern;  
Address: Mittelstrasse 43, 3012 Bern, Switzerland;  
Telephone: +41316313076; Email: per.vongroote@gmail.com

## Abstract

**Aim:** The World Health Organization (WHO) publishes a large number of health reports every year, containing recommendations to overcome societal and system barrier challenges toward targeting unmet health needs. One such report, the International Perspectives on Spinal Cord Injury (IPSCI), specifically describes the situation of persons with spinal cord injury. Against this backdrop, the question arises about how these recommendations can be incorporated into an implementation strategy. Therefore, the aim of this paper is to describe a phased process of developing an implementation strategy for a WHO public health report with IPSCI serving as a case example.

**Methods:** The process to develop the implementation strategy consisted of specific phases each employing particular mechanisms. The preparatory phase was composed of a group discussion to select development mechanisms. The implementation strategy development phase comprised focus-group interviews, as well as of a stakeholder dialogue. Thematic content analysis was applied to qualitative data.

**Results:** The group discussion led to selection of specific development mechanisms. The focus group mechanism allowed key stakeholders to openly discuss implementation goals and processes and impacted the selection of the core implementation group members and the focus of the stakeholder dialogue (SD) discussion. The SD was instrumental in developing a specific implementation strategy based on the report's recommendations. The strategy consisted of a detailed implementation plan, provisions to coordinate an implementation group and expert guidance.

**Conclusion:** The findings from the current study can inform the ongoing development of systematic, evidence-informed, participatory and stakeholder-driven processes for the development of implementation strategies for recommendations from WHO public health reports.

**Keywords:** implementation, implementation framework, implementation principles, implementation plan, implementation strategy, Romania, World Health Organization (WHO).

**Conflict of interest:** None.

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## Introduction

Unmet health needs of people with disabilities due to barriers to healthcare services can pose a considerable challenge and an unnecessary burden for people in their everyday lives (1). These problems are often worsened by ineffective and unresponsive social and educational systems, as can be the case in many former soviet states in Eastern Europe. In Romania, for instance, the employment rate of people with disabilities is only 15.5% and a high number of children with disabilities are not registered in any form of education (2). The situation is very similar in Hungary or Bulgaria where the lack of active labour market measures in combination with the reduction in the level of disability benefits with the aim to incentivise disabled persons to seek a job lead to an increasing poverty risk (3). Disability pensions and welfare benefits are generally below the level of a basic income and pay for people with disabilities on the free market far below the minimum wage. Disability status is still defined on the basis of medical diagnosis with no individual functional capacity or needs assessment for social inclusion and participation. This invariable leads to further dependency on the state disability pension system.

The United Nations (UN) Convention on the Rights of Persons with Disabilities (CRPD), as the guiding international human rights document, mandates that signatory states comply with international standards of inclusion and full participation of people with disabilities in all major life areas and in particular to ensure access to life-improving provisions such as assistive technologies and medical rehabilitation (4).

Despite recent adoption of new national disability strategies, “Romania is far from being an inclusive country for people with disabilities”. Major challenges remain, spanning from finding a tool for monitoring the implementation of the measures proposed as well as “shifting the perspective of the public system to internalising the principles of the CRPD in all areas, including education, access to work and independent living”.

The World Health Organization (WHO), as the UN specialized agency for health, issues several health policy reports every year that formulate health policy and system recommendations toward meeting these goals.

In late 2013, the WHO launched one such public health report, entitled the *International Perspectives on Spinal Cord Injury* (IPSCI) (5). Following the example of the *World Report on Disability* (WRD), launched two years before, IPSCI describes the situation of persons with spinal cord injury (SCI) around the world, and in particular, highlights the barriers they face in accessing health and rehabilitation services, education, employment, and support services, and, most importantly, proposes ways to overcome these barriers (1,5). The report’s policy recommendations follow directly from the human rights provisions set out in the CRPD, and include technical recommendations, such as prescribing particular types of health care, assistive technology or other technical accommodations or modifications to the environment.

Early on, the question arose on how the globally formulated public health recommendations from such a WHO report can be translated to an implementation strategy for a specific, national context.

The implementation of these evidence-based recommendations is a challenge, since international public health reports can call for sweeping changes and innovation across several policy areas beyond the health sector. In addition, policy decision makers, systems and service administrators are under pressure to make reliable and evidence-based decisions under considerable constraints (6). These may often include lack of technical expertise to

translate global public health recommendations to national contexts, lack of access to implementation relevant information or expertise, and minimal cross-sectoral collaboration. Finally, a dialogue mechanism needs to be in place so that civil society and other groups affected by policy changes are consulted and empowered to participate in policy development processes.

To benefit these audiences, this paper will introduce an easy-to-use approach to planning implementation of public health recommendations. This is in addition timely and strategically relevant to service managers as ‘the lack of sufficient specific evidence on how to implement specific policies and interventions in specific contexts to reduce health inequities creates policy confusion and partly explains the lack of progress on health inequalities’ (7).

Therefore, this paper aims to describe a phased process of developing an implementation strategy for a WHO public health report with a focus on specific development mechanisms. We hypothesized that a practical, nationally applicable implementation strategy based on the recommendations of a WHO public health report can be developed using distinct participatory, stakeholder driven, expert guided and evidence-informed mechanisms.

The work described in the present paper was part of efforts by a partnership between the Motivation Romania Foundation (MRF) and Swiss Paraplegic Research (SPF) to support the implementation of the IPSCI report in Romania. The preparation of a competitive grant application in the third quarter of 2012 marked the starting point for the joint Romanian-Swiss project work, which was guided by an international implementation expert until the end of the study in May 2015.

## Methods

The implementation strategy development process consisted of two phases (Box 1 presents a glossary of terms).

### Box 1. Glossary of implementation research terms [based on (10)]

<i>Implementation strategy</i>	A set of implementation activities or interventions described in a central implementation plan or guideline, to work in combination, and administered by a coordinated group of implementers.
<i>Implementation strategy development mechanism</i>	Specific tools used to conceptualize, inform or frame, and draft an implementation strategy. Multiple mechanism coordinated among each other form an <i>implementation strategy development process</i> .
<i>Implementation activity</i>	Actions taken or interventions performed through which inputs, such as funds, technical assistance and other types of resources are mobilized to produce specific outputs. In the context of this research the <i>mechanisms</i> for the development of the implementation strategy are also activities or interventions toward implementation.
<i>Output</i>	The (tangible) products, capital goods and services, which result from an implementation activity.
<i>Impact</i>	Positive and negative, medium-term and long-term effects on the individual, organizational and systems level produced by an implementation activity, directly or indirectly, intended or unintended. In the context of this research, the impact includes the effect that <i>mechanisms</i> for implementation strategy development can have on their own or in combination as a process.

The preparatory phase was composed of group discussions by the research project team. The implementation strategy development phase comprised focus group interviews (FG) of people with SCI, policy makers, system and service developers and managers, and representatives of non-governmental organizations (NGO); as well as of a stakeholder dialogue (SD) with participants from the same pool of FG participants from Romania and an international implementation expert.

This approach is based on the methodology of expert panel guided and scientific evidence informed consensus processes such as in the development of the WHO functioning and health classifications and SCI research strategies (8,9).

Table 1 provides an overview of the preparatory and strategy development phases, respective input, corresponding mechanisms, and anticipated output. They are described in more detail in the following sections.

**Table 1. Implementation strategy development phases, their input, corresponding mechanisms, and anticipated output**

Phase	Input	Mechanism	Anticipated output
<b>Preparatory phase</b>	<i>Conceptual implementation framework</i>	<i>Group discussion of research project</i>	<i>Selection of mechanisms to develop the implementation strategy and to monitoring and evaluate its application</i>
	<i>Guiding implementation planning principles</i>	<i>team</i>	
<b>Implementation strategy development phase</b>	<i>Information on IPSCI report content and main topics, background information to SCI in the Romanian context</i>	<i>Focus group interviews</i>	<i>Collection of national context specific implementation goals, stakeholders, and possible implementation processes to inform the SD</i>
	<i>Summary results of the focus group interviews</i> <i>Conceptual paper on implementation (framework and tools) (15)</i>	<i>Stakeholder dialogue (SD)</i>	<i>Documentation of implementation goals, related activities, barriers and facilitators to implementation, and next steps per stakeholder</i>

### **Preparatory phase**

WHO has been criticized in the past for the lack of implementation guidance in the reports it develops (11). The IPSCI report itself only gives general implementation considerations, a common gap even in technical WHO guidelines, as reported in a review by Wang et al. (12). WHO acknowledges this challenge and has, for example, called on researchers to document and share their experiences of implementation efforts (13). In research on health equity, where it is increasingly recognized that there is a need to expand the knowledge base toward actual implementation of solutions, a similar call has been voiced (7).

When seeking implementation guidance in WHO's work, however, there are a variety of frameworks and strategies that could be used to support implementation, but only some aspects of these are suited to the case of a complex report like IPSCI that covers such a broad spectrum of technical recommendations and normative principles targeted at policymakers.

The WHO's 'Knowledge Translation on Ageing and Health' framework and guide to implementation research has identified key conceptual considerations (14). The WHO sponsored

Evidence-Informed Policy Networks (EVIPNet), and particularly its use of evidence briefs and policy dialogues to inform policy development and implementation, as well as the SUPPORT tools used to inform EVIPNet’s approaches, offer a variety of useful practical mechanisms. Aspects of EVIPNet’s approach have been used by a research group from Australia as part of their effort to devise a national SCI research strategy (9).

Four team members, consulted by an international implementation expert, entered into a group discussion to select mechanisms to develop the implementation strategy, and to monitor and evaluate its application, to be added to the grant protocol. For the group discussion the team were provided with two sources of information. First, a previous scoping review of implementation science by the research team leader that, among other things, captures elements of the frameworks discussed above suitable for implementing a public health report (15). This review presented, along with a synthesis of central elements of a conceptual implementation framework, a set of *implementation strategy development criteria* for public health reports such as the IPSCI. Secondly, the group was provided with a set of *guiding implementation strategy development principles*(see box 2).The development of principles was based on a review of relevant documents including, but not limited to, peer reviewed articles from implementation science and policy implementation (16-21), innovation and organizational change research (22), and theories of deliberation (23), communication (24), and facilitation (25).

**Box 2. Guiding principles for the development of an implementation strategy**

<i>Participatory and inclusive</i>	Active and meaningful involvement of those most affected by intended change or innovation in implementation planning, goal setting, administration and evaluation.
<i>Deliberative</i>	Encouraging the judgment-free exchange of different and potentially conflicting views.
<i>Consensus-oriented</i>	Seeking agreement on key features of implementation such as options to target the problem.
<i>Ethical soundness</i>	Adherence to basic ethical principles and human rights standards such as confidentiality of information, anonymity, informed consent and intellectual property rights.
<i>External control and evaluation</i>	Independent review or control entity outside of the project such as a funding agency or ethics review committee.
<i>Procedural evaluation</i>	Evaluation at specific time points during processes.
<i>Summative evaluation</i>	Evaluation at the close of processes.
<i>Team-based approach</i>	Collaboration of multiple members of the research team in all phases of the project including conceptualization, planning, administration, analysis and reporting.
<i>Ownership</i>	Facilitating and building on the buy-in of key stakeholders to be drivers of change.
<i>Transparency</i>	Making information on project background, aims, funding and outcomes accessible to all involved stakeholders.
<i>Research integrity and quality</i>	Ensure trustworthiness of research results through adoption of standard criteria for the collection and analysis of data.

Finally, as shown in Table 2 with corresponding implementation strategy development criteria and guiding implementation strategy development principles, the following development mechanisms were selected: focus group interviews, a stakeholder dialogue, and monitoring and evaluation surveys. The rationale behind choosing these mechanisms is described briefly in the next section followed by a detailed presentation of the mechanisms within their development phase. The piloting of the strategy and its monitoring and evaluation organized in a third phase is not part of this paper and is described in more detail elsewhere (26)

**Table 2. Implementation strategy development criteria, corresponding mechanisms, guiding principles, and anticipated output**

<b>Implementation strategy development criteria(15)</b>	<b>Corresponding Mechanism</b>	<b>Guiding Principles</b>	<b>Anticipated output</b>
Multi-stakeholder involvement (practitioners, consumers, policy makers) in identifying the nationally applicable implementation goals on the basis of the recommendations made [...]	<i>Focus group interviews</i>	Participatory and inclusive; Ethical soundness	Collection national context specific implementation goals, stakeholders, and possible implementation processes to inform the SD
Consensus-based national implementation strategy development including indicators with implementation experts and implementers for better buy-in	<i>Stakeholder dialogue;</i> Revision process	Participatory and inclusive; Deliberative; Consensus oriented; Ethical soundness	Documentation of implementation goals, related activities, barriers and facilitators to implementation, and next steps per stakeholder
Piloting of the implementation strategy including the collection of qualitative and quantitative process and output data	Pilot phase including revision of <i>data collection mechanism (surveys)</i> based on external expert review; Half yearly review by funder; Core implementation group as implementers;	Procedural evaluation; External control and evaluation; Participatory and inclusive; Team-based approach Ownership	Comprehensive data on implementation activities; data on effect of strategy development process on implementation activities.
Evaluation and publication of results	Data analysis plan; Team based data extraction, coding and interpretation of data; Summative evaluation of project and report to funder; Summative evaluation of implementation plan; Preparation of scientific manuscript	Team-based approach; Summative evaluation; Transparency; Ethical soundness; Research integrity and quality	Project reports and peer reviewed publications

The focus group interview mechanism was chosen in order to bring together multiple Romanian stakeholders so that they could bring out their insights into the development of an implementation strategy for IPSCI in Romania and make it easier for them to identify implementation goals and priorities. Focus group interviews can be effective in encouraging an open exchange of ideas and concepts, to prioritize issues and reach consensus and is generally thought to trigger inputs through group discussion, inputs that might not be identified as relevant by respondents in single interviews (27). The focus group interview method has been widely used in social science research and it has been accepted as a method in implementation research in health (28,29).

The Stakeholder Dialogue mechanism was chosen with the aim to bring together stakeholders to discuss the development of the IPSCI implementation strategy for Romania in a structured and focused meeting atmosphere. Also, participants of the dialogue were to be encouraged to plan and lead implementation activities themselves as a core implementation group. Stakeholder (or deliberative) dialogues (SD) originated in deliberative democratic theory but have since found application in many fields as practical tools to allow decision makers to consider ways to tackle complex issues taking a variety of views into account (23). The mechanism has been defined as a process that ‘convenes policymakers, stakeholders and researchers to deliberate about a policy issue, and [...] ideally informed by a pre-circulated brief and organized to allow for a full airing of participants’ tacit knowledge and real-world views and experiences (30). SD have been recognized as an innovative knowledge-sharing mechanism and has been applied in implementation science, health policy and health services research (31,32).

### ***Implementation strategy development phase***

#### ***Focus group interviews***

*Content development:* The focus group materials were jointly developed by two research project team members and reviewed by a third. The materials consisted of an introductory text to the situation of people with SCI in Romania and the IPSCI report, and a statement of confidentiality that opened the sessions; open ended questions based on the central elements of the comprehensive implementation framework (15) and central IPSCI topics; a participant recruitment scheme for the recruitment of interviewees; and a self-administered pre-meeting survey to be sent to potential participants for group composition planning. Central IPSCI topics were: data and information about SCI; prevention (primary) of SCI; SCI health care and rehabilitation; health systems and assistive technology for SCI; attitudes, assistance and support; environmental barriers; education and employment. The participant recruitment scheme’s purpose was to define central characteristics of suitable participants to reach heterogeneity in group composition, and describe the process of identification, discussion and invitation of focus group participants, and to also help identify people within the focus group candidate pool as participants to the later stakeholder dialogue.

*Participants recruitment:* Participants were purposefully selected from known contacts of the Romanian project partner and its network. They were contacted in writing by Romanian project team members and followed up on with phone calls. 11 people with SCI and 16 policy makers, systems and service developers or administrators, and representatives from NGOs and think tanks were successfully recruited.

*Setup and design:* Standard focus group operational guidelines were used (27,28). One focus group of people with SCI, and two with the remaining participants were formed to increase

the likelihood that participants would feel comfortable to speak freely within a group of peers and reflect the perception of differing experience based on the information from the short survey (28). Overall, group heterogeneity was reached. A moderator guided through the session, assisted by a local host, posed the questions and encouraged group interaction. Simultaneous translation was available during the interviews.

After an introduction to SCI in Romania and the IPSCI report the central IPSCI topics were handed out participants were first asked to choose and rank three topics they would want policy and decision makers to target in Romania and explain why. Subsequent questions asked about possible processes to target these topics, participants of such processes, role of people with SCI, and monitoring and outcome indicators.

*Data collection and analysis:* Participant observation notes were made by the focus group assistant and moderator. The sessions were audio-recorded, the data were transcribed verbatim, translated, and translations checked by a second researcher and spot-checked by a third one. An iterative thematic data analysis and manual extraction of meaningful concepts was performed (33). Frequency and intensity counts were conducted for the ranking of the IPSCI central topics in each FG group (27,33). A summary of results for each FG was compiled into short reports including the ranking and verbatim quotes by participants to inform the implementation strategy development during the stakeholder dialogue.

### ***Stakeholder dialogue***

The McMaster Health Forum stakeholder dialogue format was used as a guide to develop the stakeholder dialogue (34).

*Development and participant recruitment:* The SD development was led by one researcher, assisted by the Romanian project partner and consulted by an international implementation expert. Participants were purposefully selected and recruited from the focus group candidate pool based on the participant recruitment scheme by mailing and follow-up phone calls. Materials (scientific paper on implementation, ICF Case Studies, agenda, consent form) were jointly selected or developed by the project team.

*Setup and design:* Participants to the three-day meeting were seven mid to high level Romanian disability experts from the private and government sector, two international health policy and implementation science experts, one facilitator and one assistant took part in the meeting. One participant from Romania with a SCI participated and four other participants had first-hand research or service development and management experience in the field of SCI. Two participants were directly involved in the original development of the IPSCI report. The appropriate use of research evidence was ensured by distributing the scientific paper on implementation and the IPSCI report before and again during the meeting, and by a discussion during the SD on the kind and levels of evidence the report's recommendations are based on and in what form these are expressed. Focus group reports, ICF Case Studies (35), and the IPSCI recommendations translated into Romanian were distributed as well as examples of implementation tools and materials discussed during the meeting.

A facilitator with in-depth knowledge of the IPSCI report moderated the discussion (encouraging even participation, in-depth discussion; summarizing findings to assist in targeting open questions; documentation of results in living documents). Two translators provided simultaneous translations and precautions were made to counterbalance effects on the flow and precision of the discussion (hand signalling, restriction of lengthy inputs, allowing translations to be completed, reiteration of arguments by facilitator). The Chatham House rule was applied to encourage free expression of views.

After a deliberation about the implementation themes and goals based on focus group results, expert opinions and guided by the essential implementation components (15) the discussion turned to issues drafted into separate documents during the consultation (the problem, options to target problems, facilitators and barriers to implementation per stakeholder group, and next steps for each stakeholder present). Participants were encouraged to suggest implementation activities they could lead in Romania - themselves and in partnership with others. Participants were from then on defined as a core implementation group.

*Results documentation and follow-up:* Audio recordings were made and notes taken by the meeting assistant. After the meeting final revisions were made of the documents developed during the SD in an online finalization process (three rounds) by participants. Clarifications were sought in the form of exact wording of alternative text, arguments for changing the text or extending the document, and any additional, freely accessible information necessary. Finally, an implementation plan was drafted by participants detailing the implementation activities based on these SD documents developed during the SD and finalized in the follow-up, which then marked the start of implementation activities.

*Data collection and analysis:* Audio recordings and hand notes were used to check and supplement completeness of documents developed during the SD and help verify participant observations discussed after the meeting between project members. An iterative thematic data analysis and manual extraction of meaningful concepts was performed of hand notes summarizing the discussions.

## **Results**

The administration of the implementation strategy development process produced results thematically summarized in a structured, narrative report. These results need to be seen in context of the boundaries of the study setting and particularly that of the people involved. The focus group interviews represent the true voice of those most affected, conveying real world challenges people with SCI face in Romania. Beyond that, the identification of relevant issues came from participants representing a cross-section of Romanian civil society in the field of disability including from NGO's, Think Tanks and Universities as well as health and social system and service administrators as discussants of the remaining focus groups and specifically the SD.

### ***Focus Group***

The analysis of the focus group discussions revealed detailed information on the situation of people with SCI in Romania, including the definition of specific barriers and facilitators they face, as well as implementation considerations.

The voices of people with SCI were evenly represented (FG1: 11 participants and 63 responses) in comparison to those of the non-disabled experts (FG 2&3: 16 participants and 62 responses).

All three FGs provided a clear rating of their three top priority topics for change (Table 3).

**Table 3. Ranking of the main IPSCI themes by FG participants**

Rank	FG 1	FG 2	FG 3
1 <sup>st</sup> :	Education and employment	Education and employment	Education and employment
2 <sup>nd</sup> :	Health systems and assistive technology for SCI	Health systems and assistive technology for SCI	Health systems and assistive technology for SCI
3 <sup>rd</sup> :	SCI health care and rehabilitation	Attitudes, assistance and support	Attitudes, assistance and support

The reasons given for the ranking of topics were the same themes highlighted by the participants toward challenges people with SCI face in Romania and toward possible solutions to target these. The most salient of these themes were:

- Attitudes of individual groups and the influence these have on change, portrayed as playing an important role in terms of self-awareness and awareness of others, such as teachers, physicians or decision makers;
- Education meaning both educating and awareness raising of others about SCI as stated by one participant, *“It’s important to educate people to perceive us as we are, to consider us equal, not different”*, and also in terms of knowledge and skills development of people with SCI, as expressed clearly by another participant: *“For me, a proper recovery process means that somebody in my situation taught me to do things”*;
- Lack of assistive technology and importance of availability and training to social participation in combination with the inaccessible environment in Romania further hindering mobility and participation: *“It does not matter if you have an appropriate wheelchair if you cannot use it because of an inaccessible environment, and, on the other side, it is useless to benefit from an accessible environment if you do not own a wheelchair because it might take years to get one”*;
- Poor state of social services and need to shift from medical to a social model of service provision;
- Importance of employment as a great influence on social participation;
- Cross-cutting and multi-faceted nature of issues, especially in terms of accessibility of the environmental most often as a pre-requisite to education and employment opportunities and the accessibility to rehabilitation programs.

All three FGs presented a broad range of stakeholders that should be involved in implementation, ranging from policy (e.g. ministries of health, employment and education) to practice (e.g. physicians, teachers), and equally valued the importance of people with SCI being involved at key stages of implementation. They are even perceived as being the best drivers of change, as one participant from FG1 pointed out, *“Neither the NGOs in Bucharest, nor the media will promote best our rights”*.

In terms of implementation processes to be considered, dissemination efforts such as distribution of IPSCI copies to educational facilities or government bodies, or in the form of media campaigns were named in all three FGs. The stakeholder dialogue as a specific mechanism to involve people with SCI and politicians so they receive first-hand accounts by people affected was brought up in FG1.

In terms of tools, the use of the IPSCI report and its recommendations was suggested to be used along with the CRPD to submit official complaints to authorities in violation of rights of persons with disabilities and to inform the assessments of PWD by local authorities.

When discussing how to monitor implementation the issue of missing data and lack of appropriate data collection tools was named as a major problem (FG 2&3). Where participants in FG1 emphasized the need to include PWD in monitoring and of independent, uncorrupted monitors, FG3 stressed the need for monitoring authority's collaboration on disability issues and that indicators should be based on the principles promoted by the CRPD.

### ***Stakeholder dialogue***

The dialogue started with discussing the main challenges in terms of SCI and disability in Romania based on the FG results. Major issues voiced were the lack of cross-sectoral and inter-professional communication; the general lack of data and collaboration in terms of data collection; the lack of suitable regulations or provisions and generally of enforcement of accessibility standards; the small number of rehabilitation centres, of qualified staff and technical expertise in health and allied professionals; lack of vocational services including a comprehensive needs assessment; attitudes of employers as well as the resistance to change in the SCI community due to fear of loss of benefits; lack of unity and initiative in the disability community.

Based on this discussion and the FG results, the group agreed to focus their attention and further deliberation on three broad headings: medical rehabilitation and follow up in the community, independent living, and employment & inclusive education overlapping with three out of four top priority topics for change ranked by the FGs (education & employment; health systems and assistive technology for SCI; SCI health care and rehabilitation). The dialogue group then used live documents on screen discussing each recommendation's applicability to the Romanian context, positioning it under the three broad headings, reformulating the recommendations to context specific problem statements, and then defined options to target these. Based on this review, participants then turned to suggesting implementation goals to target, specific implementation considerations, and concrete implementation activities.

Goals (G) suggested included: G1. *raising awareness in the government to disseminate IPSCI and information on SCI*; G2. *presenting specific IPSCI recommendations to policy decision makers*; G3. *raising the awareness of PWD*; G4. *improving access of PWSCI to employment opportunities*; G5. *improving access of PWSCI to medical rehabilitation services*; G6. *improving independence of PWSCI*; G7. *introducing SCI specific rehabilitation knowledge to Romanian professionals*; G8. *improving inter-professional communication*; G9. *showing the benefits of a bio-psychosocial assessment and rehabilitation management approach*; G10. *developing an IPSCI implementation plan*; and G11. *creating a multi-stakeholder working group with a concrete calendar of events*.

Specific implementation considerations (IC) voiced were: IC1. *to involve PWD as implementers*; IC 2. *use one group of PWD as symbolic case to trigger change*; IC3. *deliver technical training to professionals*; IC 4. *using existing foreign guidelines as examples*; IC5. *to start efforts in own organizations and networks*; and IC6. *to lead coordinated efforts such as to jointly consult the government on bio-psychosocial orientation of the disability assessment and provision of services*.

The group went on to formulate the following activities based on the expressed implementation goals and considerations:

- *Development of a joint position paper defining goals and covering topics such as the employment quota system and highlighting a cost-benefit and business case to the human rights approach (G1&2; IC2, IC6)*
- *ICF workshops (G8&9; IC2-4)*

- *ICF conference* (G1, G7-9;IC2)
- *Employment service for PWSCI* (G3, G4, G6; IC5)
- *Wheelchairs Caravan to provide personalized mobility equipment, adaptations and repairs, together with independent living training* (G3, G4, G6; IC1, IC5)
- *Implementation of the ICF into MRF rehabilitation as a good practice example* (G1, G8, G9; IC 2-5);
- *SCI rehabilitation guideline for Romania* (G7-9;IC3&4)
- *Emergency help telephone line for people with SCI* (G3, G5&6; IC2)
- *Translation of the full IPSCI report into Romanian* (G1-3, G7-9; IC2, IC4)

Finally, participants came to an agreement to pursue these jointly devised implementation activities as a core implementation group, centrally coordinated by the local Romanian NGO as leader, and on next steps toward completion of the SD documents in online review cycles toward final development of an implementation plan.

### ***The implementation strategy***

At the core of the strategy was the implementation plan with the implementation activities to be administered (Appendix 1). Participants of the SD and two additional disability experts from Romania who could not join the meeting agreed to work together as a core implementation group in implementing pre-defined and coordinated activities of the implementation plan and report back to the implementation leader to document progress. The implementation leader was to serve as a central communication and coordination hub for all implementers, contact international content experts on the use of the ICF and the IPSCI report to assist implementers in preparing and executing their activities, and link implementers within the core group to assist in activities if needed. The implementation group planned to meet in person or by teleconference regularly over the course of the one-year implementation period to discuss progress, challenges and ways to overcome these.

### **Discussion**

The main findings of the study can be summarized in terms of issues identified in the FG and SD relevant to challenges people face in Romania and toward the implementation of recommendations to target these; the benefits of applying the described process; and contextual implications of the experiences gathered.

First, the FGs and SD identified as main issues the attitudes of individual groups and self-awareness, education meaning both educating and awareness raising of others, the lack of assistive technology in combination with an inaccessible environment as major barrier, the general lack of appropriate health, education and employment systems and services. The cross-cutting nature of these issues call for developing solutions involving a broad range of stakeholders using mechanisms such as the SD and IPSCI and the CRPD as tools.

Secondly, this study showed that the described evidence-informed, stakeholder-driven and participatory process facilitated the development of an implementation strategy for a WHO health report. The process enabled the development of an implementation plan and the establishment of a core implementation group to carry out the implementation strategy.

Specifically, the FGs affected the selection of the core implementation group members and the focus of the SD discussion. Insights from the focus group interviews in terms of who should be involved and what implementation should focus on further informed the discussion of implementation themes and goals during the SD itself. This was most apparent in imple-

mentation approaches or topics named in the FGs that were later part of the discussion in the SD or were even incorporated into the implementation plan.

The mechanisms for developing the implementation strategy can themselves be characterized as implementation interventions, since they engaged key stakeholders, informed the process and educated the stakeholders into jointly taking actions. In this sense, standard implementation outcome variables used in implementation research (29) show the *appropriateness* of the mechanisms, and the fact that in this setting and with this target audience it was possible to successfully engage participants to contribute to the development of the implementation strategy. The mechanisms were also *feasible*, since they could be carried out in the settings and the way intended. The criterion of *fidelity* was satisfied as the mechanisms were implemented as designed by the research team. The intended *coverage* of stakeholder representativeness was achieved. Also, process *costs* were sufficiently covered by the project grant. Furthermore, network ties introduced or reaffirmed in the form of the core implementation group in combination with the implementation information embedded show signs of *sustainability*.

Finally, these results also have implications for the participation of civil society actors in the development of policies that influence them. This study has shown how the participatory process of issue identification, discussion and development of possible solutions served to actively engage civil society representatives and empower them in their crucial role in policy development and promotion of fundamental rights. In times of both legal and practical restrictions, these experiences will likely become ever more important (36).

### ***Findings in relation to other studies***

The present study is also novel in its focused attempt at developing an implementation strategy for a WHO health report and thus limiting points of comparison to other studies. In a synthesis of guideline development and implementation advice towards the development of a checklist for implementation planning Gagliardi and colleagues found overall ‘no evidence on the effectiveness of planning steps or considerations’ in respect to planning for implementation of guidelines, arguing further that ‘the impact of forming an implementation team or developing an implementation plan on the conduct and outcomes of implementation planning is a logistical consideration’ (18). However, results of the present case show that conceptualizing and planning corresponding development mechanisms involves more than just logistical considerations.

Guiding principles and characteristics of the present development process are however also reflected in other research. Single guidelines and studies highlight the value of considering and assessing stakeholder needs and preferences through observations or focus groups (37-39); forming an implementation team from the start including a wide range of stakeholders; and one or more knowledge translation experts (37-39) when planning for guideline implementation. All of these steps have also been proven to be useful in the present study.

### ***Implications for health policy report development and implementation***

Two implications for policy can be derived from these observations. First, comprehensive planning of implementation should begin alongside the development of the health policy report so as to realize the full potential of the implementation content or innovation being proposed. In an ideal world, the development team should not only be assisted by public relations or media specialists but also by implementation experts. Early involvement of stakeholder groups through advisory structures is a common feature of the development of health policy report. A stronger and more immediate involvement of these stakeholders -- in the

form of an implementation working group -- should be part of the planning for publication and dissemination processes, including the process of applying for funding and developing a detailed implementation strategy using the mechanisms studied here. In essence, the developed public health report or guideline should include implementation advice (12,40).

Secondly, the nature of the mechanisms used here depended on the fact that the participants were not only knowledgeable in the overlapping areas of health, disability and SCI, but they were also relevant stakeholders.

The openness of decision- and policy- makers and their availability ensured a timely, easily accessible, and evidence-appraised input through mechanisms such as the SD. Much can be gained from such purposely planned approaches for implementation planning of health policy report recommendations.

### ***Implications for future research***

The boundaries of this study leave unanswered questions for future research: How far does the context-specific environment impact on the implementation planning in terms of planning (feasibility), execution (barriers and facilitators) and outcomes? It is important to stress that the original intent of this study was to demonstrate the application of the mechanisms in the Romanian context. Future research is needed to test the transferability of the underlying theoretical framework and the application of the mechanisms in different contexts and countries similar to recent examples from the field and expand this research by an outcome or impact evaluation (17,41).

### ***Strengths and limitations of the approach***

The approaches' strengths lie in the adherence to the guiding implementation strategy development principles set out at the beginning of the preparatory phase. Specifically, the process was evidence-informed as it included scientific evidence summarized in key documents introduced to the preparatory and strategy development phase. The process was participatory and stakeholder driven involving people with SCI, disability experts and policy makers from Romania in every phase. Furthermore, this study was a theoretically grounded, multi-method explorative effort. Namely, in its design, the study was based on a theoretical framework derived from a scoping review and involved key informants and experts in its review. Also, transparency was achieved by describing details of the mechanism selection, data collection, and the researcher's level of involvement.

The studies' focus on civil society representatives as key participants to the FGs and SD, however, and the representativeness and completeness of what is a much more complex picture of societal and system interactions constitutes important limitations to the study. The involvement of policy decision-makers would have helped to solve the policy puzzle.

In addition, the present case was a small-scale pragmatic study that took place in a naturally occurring (authentic) societal and policy environment with complex circumstance out of control of the researchers with methodological challenges to any study (42). This naturally limits the explanatory power of results and also their transferability to other contexts.

Also, it needs to be mentioned that the lead author fulfilled a dual role of moderator and observer. However, precautions were taken in the form of note taking by meeting assistants and discussion of observations after interactions to prevent this impacting the overall results.

### ***Conclusion***

The findings from the current study can inform the ongoing development of systematic, evidence-informed, participatory and stakeholder driven processes for the development of im-

plementation strategies for recommendations from WHO public health reports. Given limitations of this study in terms of scope and focus, the study does support the conclusion that a strong conceptualization and careful consideration of contextual factors needs to inform the refinement and application of this process in other European or global scenarios.

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### Appendix 1. Implementation plan

<i>Action</i>	<i>Context, venue or event</i>	<i>Date &amp; place</i>	<i>Relation to another event or initiative</i>	<i>Activity leader</i>	<i>Contributor from core group</i>	<i>Target audience</i>	<i>Tools &amp; materials to be used</i>	<i>IPSCI link<sup>1</sup></i>
<b>Presentations (n=6)</b>								
IPSCI presentation	National Conference of Medical Expertise and Work Capacity Rehabilitation, <i>Evolution of Invalidity in Romania</i>	March, Bucharest		Core implementation group member		Medical rehabilitation and work capacity specialists	Presentation; Conference program book	1, 3
IPSCI presentation	Debate on International Day of Health, organised by Institute for Human Rights (IRDO)	April, Bucharest	National Health Day	Core implementation group member		IRDO, Health Ministry, Parliament members, Non-governmental Organizations (NGO)	Website	3, 6
IPSCI presentation and MRF research report promotion (Life in an wheelchair)	Seminar, Ministry of Labour, Family and Social Protection	May, Bucharest	Technical Assistance Grant to Support Disability and Development	Core implementation group leader	Core implementation group members	Ministry of Labour, Family and Social Protection	IPSCI presentation, research reports	6
IPSCI presentation and MRF research report promotion (Life in an wheelchair)	Workshop, Ministry of Labour, Family and Social Protection	May, Bucharest	Technical Assistance Grant to Support Disability and Development	Core implementation group member	Core implementation group members	Ministry of Labour, Family and Social Protection	IPSCI presentation, research reports	1-6
IPSCI presentation and MRF research report promotion (Life in an wheelchair)	Meeting with Persons with disabilities committee	May-June, Prahova		Prahova directorate	Core implementation group leader	Disability experts, NGOs	IPSCI presentation, research reports	6
Three IPSCI presentations	National Congress of Medical Rehabilitation	September, Sibiu		Core implementation group member	Core implementation group leader	Medical rehabilitation and allied health	IPSCI presentation, conference	1, 3

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<i>Action</i>	<i>Context, venue or event</i>	<i>Date &amp; place</i>	<i>Relation to another event or initiative</i>	<i>Activity leader</i>	<i>Contributor from core group</i>	<i>Target audience</i>	<i>Tools &amp; materials to be used</i>	<i>IPSCI link<sup>i</sup></i>
						professionals	program book	
<b>Publications (n=4)</b>								
Translation of IPSCI full report into Romanian	Publication of Romanian IPSCI version	January-December	IPSCI implementation	Core implementation group leader	Core implementation group members	Broad range of policy makers, civil society and people with SCI	IPSCI full report	7
Drafting of article on IPSCI	Publication in the Romanian Institute for Human Rights (IRDO) magazine	June-July, nationwide	Debate on International Day of Health, organized by IRDO	Core implementation group member		IRDO, Health Ministry, Parliament members, NGOs	Magazine article	3, 6 6
Drafting of article on IPSCI	Publication in Magazine of National Institute of Medical Expertise and Work Capacity	November, nationwide	Conference of National Institute of Medical Expertise and Work Capacity	Core implementation group member		Medical rehabilitation and work capacity specialists	IPSCI full report, Group position paper	1, 3
IPSCI report and Group position paper dissemination	Dissemination by the National Authority for the Protection of Child Rights and Adoption (ANPDCA)	October-December, nationwide		ANPDCA	Core implementation group member	ANPDC evaluation services	IPSCI report, Group position paper	1-6
<b>Development(n=5)</b>								
Website development	Accessibility Map	ongoing	USAID project <i>Wheels of change</i>	Core implementation group leader		People with SCI, Wheelchair users, NGOs	Website	2, 4
Evaluation	Evaluating costs of rehabilitation services in hospitals, for introducing home rehabilitation	May, Bucharest	In coordination with national WHO office	Core implementation group member	Core implementation group member	Health system and service providers, Ministry of Health, WHO	Hospital documentation and reports, IPSCI report	1, 6

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<b>Action</b>	<b>Context, venue or event</b>	<b>Date &amp; place</b>	<b>Relation to another event or initiative</b>	<b>Activity leader</b>	<b>Contributor from core group</b>	<b>Target audience</b>	<b>Tools &amp; materials to be used</b>	<b>IPSCI link<sup>i</sup></b>
Proposal development	Proposal for Department of Teacher Training (DPPD, ANPDCA) for SCI statistics in Romania	May-June, Bucharest		Core implementation group leader	Core implementation group member	DPPD, ANPDCA	Proposal document, IPSCI report	6
Elaborating, signing and disseminating group statement	IPSCI implementation	May – September, Bucharest		Core implementation group member	Core implementation group members	IRDO, Ministry of Health, Parliament members, NGOs	SD documents	1-6
Development of SCI rehabilitation guideline	IPSCI implementation in Romanian medical rehabilitation system	May-December, Sibiu		Core implementation group member	Core implementation group members	Rehabilitation medicine, other medical specialties, and allied health professions	IPSCI, international medical guidelines	1
<b>Training (n=9)</b>								
Delivery of trainings	4 ICF trainings for disability professionals using SCI and IPSCI themes as cases in point	May-June, Bucharest; September, Sibiu; October, Bacău; November, Braşov	Project <i>Look at Abilities, Forget Incapacity</i>	Core implementation group leader	Core implementation group members	Disability professionals	IPSCI presentation, hand-outs, website	1, 3
Delivery of training	Independent living training camps	July, Varatec	Project USAID <i>Wheels of change</i>	Core implementation group leader		People with SCI	Working tools based on ICF, camp materials	2, 3, 5
Delivery of training	WHO accredited courses regarding adequate evaluation and	September, Bucharest	Project USAID <i>Wheelchair ACCESS to Educa-</i>	Core implementation group leader		Wheelchair service personnel	IPSCI presentation, hand-outs, website	1, 3

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<i>Action</i>	<i>Context, venue or event</i>	<i>Date &amp; place</i>	<i>Relation to another event or initiative</i>	<i>Activity leader</i>	<i>Contributor from core group</i>	<i>Target audience</i>	<i>Tools &amp; materials to be used</i>	<i>IPSCI link<sup>i</sup></i>
	prescription of wheel-chairs		<i>tion, Services and Community for wheelchair users</i>					
Delivery of training	Camp for educational inclusion	September, Bucharest	Project <i>ACCESS</i>	Core implementation group leader		Pupils with disabilities, teachers, parents	Presentations, handouts, website	2, 3, 5
Delivery of training	WHO accredited courses regarding adequate evaluation and prescription of wheel-chairs	September	Project Vodafone <i>Mobile for good</i>	Core implementation group leader	Core implementation group member	Rehabilitation specialists and allied health professionals	IPSCI presentation, handouts, website	1, 3
Delivery of training	WHO accredited courses regarding adequate evaluation and prescription of wheel-chairs	October & December, Bucharest	Project <i>ACCESS</i>	Core implementation group leader		Rehabilitation system and service managers	IPSCI presentation, handouts, website	1, 3
Development and delivery of training	Training on revised legislation for disabled children and ICF-CY	October-March, Bucharest		Department of Teacher Training, National Authority for Child Protection (DPPD, ANPDCA)	Core implementation group member	ANPDCA evaluation services	ICF training materials, website, IPSCI report	1-6
Development and delivery of training	Independent living training to be jointly developed and delivered by government authorities	October-December, Bucharest		ANPDC, NGOs federations	Core implementation group member	NGOs	Website, handouts	1-6
Delivery of training	Seminar <i>Take part!</i> In schools where pupils with disabilities learn	November, Bucharest	Project <i>ACCESS</i>	Core implementation group leader		Pupils with disabilities, teachers,	Presentations, handouts	2, 3

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<i>Action</i>	<i>Context, venue or event</i>	<i>Date &amp; place</i>	<i>Relation to another event or initiative</i>	<i>Activity leader</i>	<i>Contributor from core group</i>	<i>Target audience</i>	<i>Tools &amp; materials to be used</i>	<i>IPSCI link<sup>i</sup></i>
						parents		
<b>Service (n=8)</b>								
Development and delivery of service	Creation Emergency Call Centre for people with SCI including software and relevant SCI information; equipping and training 10 hospitals sites	Mai - December, nationwide	Project Vodafone <i>Mobile for good</i>	Core implementation group leader	Core implementation group member	10 Neurology Hospitals/ Rehabilitation Centres	Software, tablets, telephones	1, 2, 3, 6
Delivery of service	Home Care Services for people with SCI and otherfor wheelchair users	May- December	Project ACCESS	Core implementation group leader		People with SCI	Working tools based on ICF	1, 2
Delivery of service	Psychological support groups to empower people with SCI to take part in social activities and to finding jobs	May- December	Project ACCESS & <i>Wheels of change</i>	Core implementation group leader		People with SCI	Working tools based on ICF	2, 5
Delivery of service	Mobility Caravan to provide personalized mobility equipment, adaptations and repairs, together with independent living training	June- Septembre, Varatec, Tulcea, Constanta, Alba	Project Vodafone <i>Mobility Caravan</i>	Core implementation group leader		People with SCI	Wheelchairs caravan vehicle; Working tools based on ICF	2, 3
Delivery of service	ICF based rehabilitation assessment service for wheelchair users at main project partner	July- December	Project <i>Look at Abilities, Forget Incapacity</i>	Core implementation group leader		People with SCI	Working tools based on ICF	2, 5
Delivery of service	Employment services	September - November	ESF financed Project <i>Motivation for occupation</i>	Core implementation group leader		People with disabilities	Working tools based on ICF	2, 5

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<i>Action</i>	<i>Context, venue or event</i>	<i>Date &amp; place</i>	<i>Relation to another event or initiative</i>	<i>Activity leader</i>	<i>Contributor from core group</i>	<i>Target audience</i>	<i>Tools &amp; materials to be used</i>	<i>IPSCI link<sup>i</sup></i>
Delivery of service	Wheelchair services	Ongoing		Core implementation group leader		People with SCI, wheelchair users	Working tools based on ICF	2, 5
Delivery of service	Service of assisted transportation	Ongoing	Project <i>ACCESS</i>	Core implementation group leader		People with SCI, wheelchair users	Working tools based on ICF	2, 4
<b>Consultation (n=3)</b>								
Consultancy and promotion on disability data collection	Meeting at the Romanian Ministry of Labour, Family, Social Protection and Elderly	May-June 2014		Core implementation group leader	Core implementation group members	Government authorities responsible for data collection and maintenance	Position paper, IPSCI report	6
Consultancy and promotion on the use of the ICF and IPSCI	Meetings with representatives of the General Directorate of Social Assistance and Child Protection	May-June, Prohava		Prohava Directorate; Core implementation group leader		Disabilities experts from government and civil society	Project presentation	1-6
Consultancy and promotion on the use of the ICF and IPSCI	Meeting with stakeholders as part of government lead working group	June	Technical Assistance Grant to Support Disability and Development	Core implementation group leader	Core implementation group members	Disabilities experts from government and civil society	Project presentation	1-6
<b>Conference (n=1)</b>								
Organization and hosting of conference	Scientific conference <i>Look at Abilities, Forget Incapacity</i>	25-26 September	Project <i>Look at Abilities, Forget Incapacity</i>	Core implementation group leader	Core implementation group members	Disabilities experts from government and civil society, health pro-	Website, hand-out, presentation	1-6

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<i>Action</i>	<i>Context, venue or event</i>	<i>Date &amp; place</i>	<i>Relation to another event or initiative</i>	<i>Activity leader</i>	<i>Contributor from core group</i>	<i>Target audience</i>	<i>Tools &amp; materials to be used</i>	<i>IPSCI link<sup>1</sup></i>
						professionals		
<b>Event (n=4)</b>								
Organization of swimming event	Sport events for persons with/without disabilities	May, Bucharest	Project Vodafone <i>Mobility Caravan</i>	Core implementation group leader		People with SCI, sports persons with disabilities	Website, social media	2, 3
Organization of wheelchair sport demonstrations	Wheelchair sport demonstrations	June, September, November, nationwide	Project <i>ACCESS</i>	Core implementation group leader		Pupils, teachers, trainers, people with SCI	Website, social media	2, 3
Organization of Basketball event	Sport events for persons with/without disabilities	October, Bucharest	Project Vodafone <i>Mobility Caravan</i>	Core implementation group leader		People with SCI, sports persons with disabilities	Website, social media	2, 3
Organization of national television disability gala	Annual persons with disabilities gala	November, Bucharest	Project <i>Look at Abilities, Forget Incapacity</i>	Core implementation group leader	Core implementation group members	Persons with disabilities, TV audience	TV, website, social media	2, 3,4, 5

<sup>1</sup>IPSCI recommendations: 1. Improve health sector response to spinal cord injury; 2. Empower people with spinal cord injury and their families; 3. Challenge negative attitudes to people with spinal cord injury; 4. Ensure that buildings, transport and information are accessible; 5. Support employment and self-employment; 6. Promote appropriate research and data collection; 7. Implement recommendations.