
PURPOSE
This paper sets out an Evaluation Framework that supports heath boards, local authority and third sector services to understand demand for and evaluate the impact of rehabilitation in the 4 populations affected by the Covid-19 pandemic.

AIMS
The Evaluation Framework aims to enable organisations and services:
1. **Track** an individual person’s recovery over time on their rehabilitation pathway across health and community settings
2. Provide understanding for the 4 populations affected by the pandemic of the
   a. **demand** for rehabilitation
   b. **impact** of rehabilitation
3. Inform planning and funding of **high-quality** services to support post Covid-19 rehabilitation
4. Evaluate the **effectiveness** of their interventions to inform service development and transformation

The guidance may also:
- contribute to understanding the impact of the pandemic on health, social care, and third sector services
- support the development of more seamless and integrated rehabilitation services in the future

EVALUATION FRAMEWORK
The Evaluation Framework is based on whole system framework and design process utilising a Results Based Accountability™(RBA™) approach and focuses on the performance accountability of rehabilitation services. It aligns with the National Clinical Framework and the principles of Value Based Healthcare.

It has been developed by a subgroup of the COVID-19 Planning & Response Rehabilitation Task and Finish Group with support from the Value Based Health Care Team, Cedar, Allied Health Professionals (AHP) reference group, modelling group, national clinical leads and professional networks

Who is the population?
The population is all people who have been affected by one of the four harms of COVID-19:
1. People recovering from COVID-19, both those who remained in the community and those who have been discharged following extended critical care/hospital stays;
2. People whose health and function are now at risk due to pauses in planned care;
3. People who avoided accessing health services during the pandemic and are now at greater risk of ill-health because of delayed diagnosis and treatment;
4. People dealing with the physical and mental health effects of lockdown.

The outcome we want for this population
All people who have been affected by one of the 4 harms of Covid-19 enjoy and return to their optimal level of independence and well-being.
Population Outcome Indicators

Rehabilitation is only one element of the whole system that will contribute to achieving this outcome. The other elements include:

- Underlying health conditions and comorbidities
- Medical treatment
- Socio-economic factors
- Environment factors

However, it is important to capture the demand for and specific impact of rehabilitation services due to the harm on someone’s life when it is needed and not received.

In line with Value Based Healthcare principles it is important to capture data from a person-centred perspective on:

- Quality of care (top right quadrant of table one)
- Outcomes (bottom right quadrant of table one)
- Cost effectiveness (left side of table one)

Table one sets out a rehabilitation Evaluation Framework based on these principles.

**Table One: Rehabilitation Evaluation Framework**

<table>
<thead>
<tr>
<th>Effort</th>
<th>Quantity (Cost Effectiveness)</th>
<th>Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>How much?</td>
<td># people provided with rehabilitation because of:</td>
<td>How well</td>
</tr>
<tr>
<td></td>
<td>Direct impact of Covid-19, population 1</td>
<td>Patient reported experience measure</td>
</tr>
<tr>
<td></td>
<td>Indirect impact of Covid-19 populations 2,3,4</td>
<td>Intensity of rehabilitation provided</td>
</tr>
<tr>
<td></td>
<td>length of stay in service</td>
<td>Responsiveness of rehabilitation services</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Where rehabilitation provided, home, school, community setting, hospital setting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Format of rehab interventions - face to face, group, virtual</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Effect</th>
<th>Is anyone better off?</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td># unplanned admissions</td>
<td>% who are confident to manage their health in the long term (PROM)</td>
<td></td>
</tr>
<tr>
<td># attendances at primary care</td>
<td>% who have returned to previous level of independence and well-being (PROM)</td>
<td></td>
</tr>
<tr>
<td>Amount of social care needed</td>
<td>% with improved impairment (COM)</td>
<td></td>
</tr>
<tr>
<td># who are confident to manage their health in the long term (PROM)</td>
<td>% with improved level of activity (PROM)</td>
<td></td>
</tr>
<tr>
<td># who have returned to previous level of independence and well-being (PROM)</td>
<td>% with improved well-being (PROM)</td>
<td></td>
</tr>
<tr>
<td># with improved impairment (COM)</td>
<td>% that achieved goals identified by them that matter to them</td>
<td></td>
</tr>
<tr>
<td># with improved level of activity (PROM/COM)</td>
<td>% of people who return to meaningful occupation /work-based activity/ participation</td>
<td></td>
</tr>
<tr>
<td># with improved well-being (PROM)</td>
<td></td>
<td></td>
</tr>
<tr>
<td># that achieved goals identified by them that matter to them</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table two includes some of the instruments or tools that are commonly used across Wales to capture the outcomes identified in the bottom right quadrant of table one. Some of these are clinician reported (COM) and some are patient reported (PROM). This table focuses on the tools that are used across professional groups and across health conditions or are recommended by national groups. There are numerous other tools that measure the outcome in specific health conditions or populations or are only used by one professional group.

**Table Two: Common outcome measures and tools used in rehabilitation across Wales**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>% who are confident to manage their health in the long term</td>
<td>Patient Activation Measure, General Self Efficacy Scale, Adapted Therapy Outcome Measure, Therapy Outcome Measure, Occupational Self Assessment (OSA) Version 2.2, Austoms, MOTOM</td>
</tr>
<tr>
<td>% who have returned to previous level of independence and well being</td>
<td>EQ5D-5L, WHO-DAS2, PROMIS-10, SF-12, SF-36, Life Satisfaction Questionnaire</td>
</tr>
<tr>
<td>% with improved impairment</td>
<td>Fatigue (Fatigue Severity Scale [FSS], Fatigue Impact Scale [FIS], Brief Fatigue Inventory [BFI] Fatigue Symptom Inventory [FSI], Multidimensional Assessment of Fatigue [MAF], and Multidimensional Fatigue Symptom Inventory [MFSI]) Cognition (MOCA, Mini- Addenbrooke’s Cognitive Examination [M-ACE-III], Addenbrooke’s Cognitive Examination-III [ACE-III]) Physical Function (BERG, muscle strength, Elderly Mobility Scale, Rivermead Mobility Index, Handgrip, Modified Rankin Scale, Nottingham Extended ADL Index) Respiratory Function (6 minute walk test, sit to stand, St Georges Questionnaire, Borg Scale of Breathlessness, Medical Research Council Scale of Breathlessness) Mood (PHQ 9, GAD 7, HADS, TSQ) Communication (La Trobe Communication Questionnaire) Swallow/Voice (Voice Handicap Index (VHI), GRBAS, Reflux Symptom Index (RSI), EAT-10, Functional Oral Intake Scale (FOIS), Airway Voice Swallowing (AVS) scale, Newcastle Laryngeal Hypersensitivity Questionnaire)</td>
</tr>
<tr>
<td>% with improved level of activity</td>
<td>Derbyshire Outcome Measure, Barthel Index, FIM, FIM+FAM, Rockwood Frailty Score, Nottingham Extended Activities of Daily Living Scale (NEADL)</td>
</tr>
<tr>
<td>% with improved wellbeing</td>
<td>Warwick Edinburgh Mental Wellbeing Scale (WEMBS), ReQol, CORE-COM, CORE-10, DISC, TSQ</td>
</tr>
<tr>
<td>% that achieved goals that matter to them</td>
<td>Goal Attainment Scale, Adapted Therapy Outcome Measure, COPAM, Occupational Self Assessment (OSA) Version 2.2 (MOHO), Goals Achieved Yes/No/Partially</td>
</tr>
</tbody>
</table>

There is an online resource which details which tools have been translated to Welsh and validated [http://micym.org/llais/static/index.html#](http://micym.org/llais/static/index.html#)
RECOMMENDATION

It is recommended that practitioners, services and organisations use this evaluation framework to help them choose which measures and tools are most relevant to demonstrate the value and impact of their service users. In doing so it is important to consider the burden of data collection on service users and clinicians.

**Step One: Recovery**

In order to be able to track an individual person’s recovery over time on their rehabilitation pathway across health and community settings it is recommended that all services and organisation use the same high level measure of independence and well-being (PROM):

- EQ5D-5L

Organisations or services may choose to use additional measures such as WHO-DAS2 or PROMIS-10, which have more detailed questions and may be more sensitive to certain aspects of a person’s level of activity or well-being. Both of these tools have had robust comparative studies undertaken that enable them to be mapped to the EQ5D-5L.

**Step Two: Demand**

In order to provide a national and local understanding of the demand for rehabilitation for the 4 populations affected by the pandemic, organisations and services are requested to collect data on:

- the number of people affected by Covid-19 using their services (direct or indirect)
- the Health & Social Care Partners (HSCP) involved
- duration of support received
- number of contacts during this period
- types of intervention: face to face, telephone or virtual consultation
- location of contacts
- response time to request for support

This aligns with the national strategic drive to ensure rehabilitation remains a key and ongoing priority at all levels to support the population’s recovery from the impacts of the Covid-19 pandemic, and the long-term sustainability of the health and social care system.

**Step Three: Impact**

In order to provide a national and local understanding of the impact or effectiveness of rehabilitation on the 4 populations affected by the pandemic it is suggested that all services and organisations use the same measure of self-efficacy:

- General Self Efficacy Scale

Organisations and services are also recommended to choose a set of outcome tools from table two that reflect the intended aim of the intervention(s) provided. This may be at an impairment, activity or participation level. Consideration should be made of the factors set out in Appendix Two including:

- specific population
- service interactions and comorbidities
- psychometric properties

**Step Four: Quality**

In order to understand the quality of a rehabilitation intervention organisations and services will need to capture data on:
- The service user experience in line with national guidance
- The responsiveness of their service-time from referral to first contact
- How close to home rehabilitation delivered-place of intervention

Capturing, Collating and Reporting Data

Organisations and services need to make sure there are systems in place within their clinical systems to capture the activity that relates to rehabilitation through appropriate coding.

Where possible outcome tools should also be incorporated into clinical systems, although in some cases it is recognised that this is not possible. Online resources that are GDPR compatible, such as Microsoft Teams and Smart Survey, may need to be used.

Work is ongoing with the Value Based Healthcare Team to identify ways to collate and report on this data.
APPENDIX One: The International Classification of Functioning, Disability and Health
https://www.who.int/classifications/icf/icfbeginnersguide.pdf?ua=1

Body Functions are physiological functions of body systems (including psychological functions).

Body Structures are anatomical parts of the body such as organs, limbs and their components.

Impairments are problems in body function or structure such as a significant deviation or loss.

Activity is the execution of a task or action by an individual.

Activity Limitations are difficulties an individual may have in executing activities.

Participation is involvement in a life situation.

Participation Restrictions are problems an individual may experience in involvement in life situations.

Environmental Factors make up the physical, social and attitudinal environment in which people live and conduct their lives.

APPENDIX TWO: Factors to consider when choosing an outcome tool

Outcome measures help to assess the quality and effect of a rehabilitation intervention or service. Different tools will measure the outcome in different populations and situations.

First you need to consider who is the population you are delivering your intervention or service to, for example:

- Age range- adults, older people, children,
- People with cognitive impairment or learning disabilities, people with communication difficulties
- Availability of a Welsh language version (check Mesurau Iechyd Cymraeg or Welsh Language Health Measures website http://micym.org/llais/static/index.html#)
- Medical condition- is it a condition specific group, such as stroke survivors or people living with a respiratory condition, or is it a more general group- for example anyone who has been affected by one of the 4 harms of Covid-19.

Then you need to decide what impact you think your intervention or service might have- what outcome would you expect a person to have. Are you trying to have an impact on someone’s:

- overall health and well-being
- confidence
- mental health
- their ability to manage their own condition, or
- a specific impairment (swallow, balance, weight, mood) or
- an activity (walking, self-care, social interaction, well-being) or
- their participation (environmental interaction, vocational activities, family roles, social networks).

You need to consider who will be administering the tool

- is it the participant who self-administers (patient reported outcome measure PROM)?
- is it a profession specific tool (see training below)?
- can it be used by a wide number of professions or service providers (health and social care/third sector)?

Lastly you need to think about:

- Interoperability- can it be used across multiple existing systems
- Training requirements
- Cost implications

WHODAS asks people about their symptoms for the last 30 days- not so good if you are evaluating a 4 week intervention PROMIS is 7 days

PROMIS has been translated to Welsh and there is a PROMIS Paediatric and Parent Proxy Global 7+2 version for children.

PROMIS captures fatigue and pain and has questions about general health, physical health and quality of life

WHODAS quantifies how much of the time in days that difficulties were present.