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## Telerehabilitation Application

### Development of exercises related to trauma and neurological conditions

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#### | Terms of Reference |

## 1. Introduction and Background Information

### 1.1. Humanity and Inclusion

Humanity and Inclusion (HI) – previously known as Handicap International- is an independent and impartial aid organisation working in situations of poverty and exclusion, conflict and disaster. We work alongside people with disabilities and vulnerable populations, taking action and bearing witness in order to respond to their essential needs, improve their living conditions and promote respect for their dignity and fundamental rights. HI is working in more than 60 countries over the World.

### 1.2. Rehabilitation Project

Humanity and Inclusion is implementing more than 70 projects in 36 low and middle income countries. One of the common challenges faced in our contexts of intervention is related to the limited access to rehabilitation services for the population, especially the population from rural or peri-urban location. This is mainly due to geographical, transportation, financial barriers but also a consequence of the shortage of rehabilitation services and professionals that are mostly located in the capital or major provincial cities. As a consequence, many of the people with provisory or permanent impairments are either not identified or can be discharged from hospitals at an early stage with limited capacities to continue their rehabilitation treatment. As a consequence they will remain with permanent sequels or won't recover their optimal functional capacities.

As part of its innovation strategy and in order to reduce the barriers mentioned above, Humanity and Inclusion is developing an application of digital rehabilitation adapted to the context and characteristic of low and middle income countries.

The objective of this project is to strengthen discharge procedures of patients from hospital, transition of care from hospital to community-level care and home- or family-based rehabilitation care and follow-up.

### 1.3. Exercises

A first phase of project funded by USAID in Vietnam has focused on the development of the application and the creation of a library of exercises related to 5 conditions: stroke, traumatic brain injury, cerebral palsy, spina bifida/hydrocephalus and amputation.

Thanks to this application, therapists will be able to select and prescribe exercises to their patients from the library. Patients will access the prescribed exercises through the patient mobile app. Therapist will be able to monitor the adherence of their patients by setting up the number of sets and reps they would like their patient to do (if relevant). An exercise is therefore considered as a single repetition and a single set.

The objective is now to complement this library to cover the conditions presenting a higher incidence in low and middle income countries. This will allow health professionals in low-income countries in Haiti and Rwanda to have access to relevant solution, funded by the DGD 2017-2021 program.

## 2. Assignment

### 2.1. Assignment Objectives:

The consultant supports HI's Rehabilitation project in developing exercises related to **fractures, peripheral nerve injuries, spinal cord injuries and burns**, in order to enrich the content of the library of exercises to match the needs of the telerehabilitation solution. By doing so, the consultant will make sure to respect the following guidelines for development of exercises:

#### Modalities

**In order to develop the library of exercises in coherence with what has already be done and without duplicating them the following steps will need to be followed:**

1. **HI sends you the list of exercises that have already been developed under other conditions.**
2. **You list the main rehabilitation exercises relevant for the implementation of digital rehabilitation (between 80 and 120 for each condition), ensuring that there are no duplicates.**
3. **You will send us back the complete list of exercises to be developed.**
4. **HI validates the list.**
5. **You create the exercises related to the ones that haven't been developed yet in accordance with the core principle and structure presented below.**

#### Core principles:

Each exercise must respect the following principles to ensure consistency and quality of the library:

- **Use exercise template (excel sheet) document provided.**
- Use short sentences and short paragraphs. Exercise's content should be as shorter as possible/acceptable. Long content is not adapted to digital use. Each exercises should try to have around 75/100 words. Maximum number of words/exercise is 150. Keep in mind that animated illustrations will also support understanding.
- Make statements specific
- Put the most important item in each sentence at the beginning
- Say one thing in each sentence
- Choose words carefully, avoiding jargon and technical terms if possible
- Don't omit steps or take shortcuts
- Avoid using context specific words or tools/objects/equipment that would not be easily understood or available in low and middle income contexts (i.e.: Bobath ball,...).
- Arrange points in logical order. Number instructions/progressions/precautions only if there is a need for a specific sequence/order. If not, use bullet points.
- **Create exercise that can be done without direct supervision of therapist. Safety first!**

#### Core structure:

Each exercise must follow the following structure:

- **Title** : short description (i.e. : Assisted hip adductor stretch sitting on the floor)
- **Patient’s aim** : start the sentence with “To ...” and use point of view of the patient (i.e. : To improve the ability to move between crawling and sitting”
- **Instructions:** use imperative mode (i.e. Position the child on their hands and knees on the floor. Instruct and encourage the child to move into sitting. Provide manual assistance by guiding the child’s bottom to the floor.). Avoid using possessing pronouns “Position **your** child” in case another person takes care of the patient.
- **Precautions (optional):** subdivided into “less advanced” and “more advanced” (if any).

**Other/Additional information (optional):** use imperative mode (i.e.: Slowly apply pressure until resistance is felt. Do not push through resistance or pain.). This section is reserved for specific precautions that need to be taken into account when doing the activity.

### **Illustrations:**

- Each exercise must include draft illustration(s)/picture(s). Each of them should be saved in a separate folder, using the exercise # from the template excel sheet as title and letter for order (i.e. : 1a,1b,1c – 2a – 3a, 3b)
- Each exercise must include instructions for illustration that will be used by graphic designer. Instructions for graphic designer should at least mention if the illustration needs to be dynamic (motion) or static (no motion). If dynamic animated illustration is needed, instructions should include start and end positions.

## **2.2. Deliverables**

- Between 80 and 100 exercises (table on a word format) related to each condition mentioned in the assignment objectives, as per the instructions specified above.
- Picture or illustration related to each of the developed exercise.

## **2.3. Consultant and HI’s Responsibilities**

The consultant:

- Develops the exercises following the guidelines for development of exercises
- Provides aforementioned deliverables and presents them to HI technical team

HI:

- Validates deliverables
- Provides necessary documents or information

## **3. Additional Information**

### **3.1. Working Organization**

- The deliverables are to be developed in English

### 3.2. Budget

The available total budget is maximum 4000 euro without VAT (for non-Belgian organisation or individual VAT will be paid by HI in Belgium)

### 3.3. Consultant Profile

- Eligibility for **consultant statue**, either being an individual consultant with consultancy registration document, either apply as an organisation with a registration number.

## APPLICATION MODALITIES

Technical proposal, budget and timeline to be send by July 9<sup>th</sup> 2021 to Wissal HEDHLI [w.hedhli@hi.org](mailto:w.hedhli@hi.org) with the following title: Tele Rehabilitation exercise development.