



Functioning and Disability Disaggregation tool (FDD11)

**Implementation guide
2022**

Functioning and Disability Disaggregation tool (FDD11): implementation guide 2022

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1. Introduction

This implementation guide has been prepared for users of the WHO Functioning and Disability Disaggregation (FDD11) Tool. The FDD11 is a short, 11-question, instrument derived from the WHO Brief Model Disability Survey (MDS) – a larger WHO instrument that has been validated and broadly implemented in many countries. The MDS is a general population survey tool developed by the World Health Organization and the World Bank in collaboration with a diverse group of stakeholders. The FDD11 was derived from questions of the Brief MDS as a standalone instrument for disaggregation purposes. More specifically, the 11 questions of the FDD11 constituted a separate module on intrinsic capacity that is part of the brief version of the MDS.

While the MDS is a full general population survey, the FDD11 was developed to be integrated in health and other specific surveys to facilitate easier and straightforward, continuous monitoring of functioning and disability in a region or country.

FDD11 was created as a separate instrument for three main reasons:

- 1) to allow for quick integration in existing surveys,
- 2) to capture functioning information needed for disaggregating data by disability level, and most importantly,
- 3) to allow for a quick, sound, and valid disaggregation by disability.

This implementation guide does not include detailed information on the MDS that is available elsewhere¹. This document also does not include usual manual information (for example, how to conduct interviews or approach households), but focuses on introducing the tool itself and its goals as well as on providing a straightforward question-by-question guide in the appendix.

2. Why is disaggregated data by disability needed?

Disaggregated data is fundamental to identifying the inequities that people with disability face globally as well as their magnitude. Disaggregating data consists of breaking down data by segments, e.g., disability, in order to understand in detail patterns that can be masked by larger aggregated data. More specifically, disaggregated data can highlight where inequalities or inequities exist and bring out further specifics that are essential for effective program planning and inclusive policies.

Recognizing its importance, the 2030 Sustainable Development Agenda affirms that data should be disaggregated by disability in addition to age, gender, income, ethnicity, race, geographic location, and other characteristics in order to achieve the concept of “leaving no one behind”. Such disaggregation is

¹ <https://www.who.int/activities/collection-of-data-on-disability>

fundamental for countries to be able to develop evidence-based policies to monitor the implementation of the Convention on the rights of persons with disabilities (CRPD), the Sustainable Development Goals (SDGs), to measure progress towards national targets, and to take stock of the challenges that still remain.

Details of the collection of information with the FDD11 are presented below.

3. How can the FDD11 be incorporated into an existing survey?

The FDD11 can be added as an additional module to an existing specific survey. The WHO recommends that the items of the FDD1 remain together and in the same order within the larger survey.

3.1 What data can be produced with the FDD11?

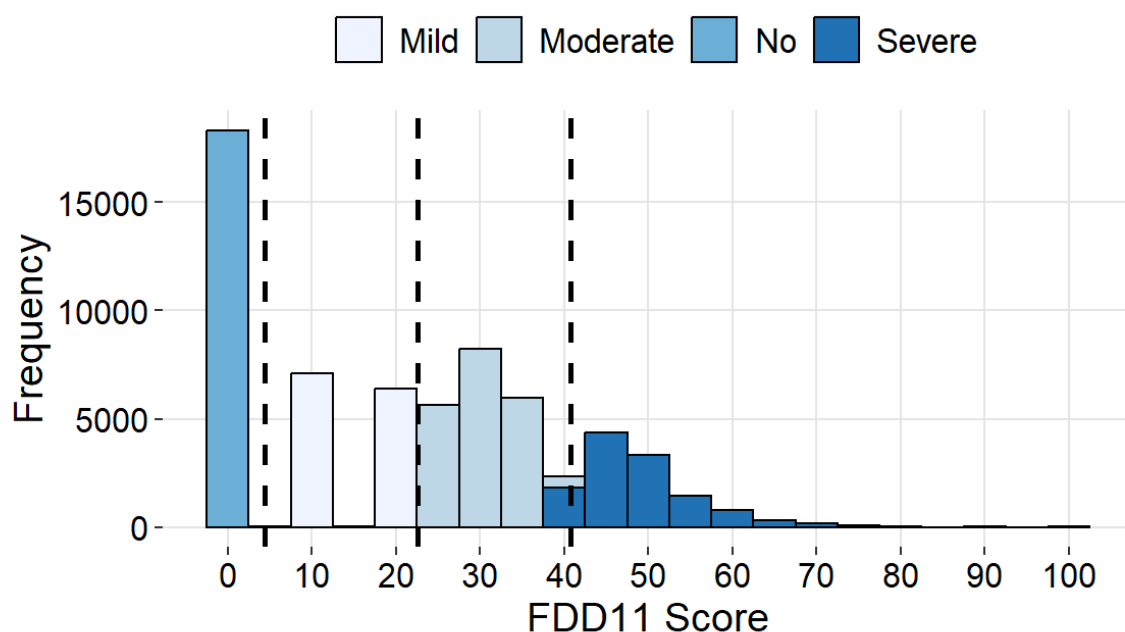
3.1.1 Distribution of disability in the population of interest

The FDD11 is a psychometrically sound tool to assess levels of disability². A continuum ranging from low to high levels of disability can be generated with the FDD11. The distribution can be used to monitor health in the country – through general population surveys, such as household surveys – or to examine the level of disability in specific populations – through specific surveys, such as labor force surveys. The distribution can be stratified by gender and age, as well as other relevant indicators.

The continuum is a metrical scale developed using Item Response Theory (IRT). The scale is then linearly transformed to range from 0 (lowest level of disability) to 100 (highest level of disability). WHO offers technical support to develop the metrical scale of disability for each country.

² Lee L, Kamenov K, Fellinghauer C, Sabariego C, Chatterji S, Cieza A. WHO Functioning and Disability Disaggregation (FDD11) Tool: A Reliable Approach for Disaggregating Data by Disability. Arch Publ Health. 2022

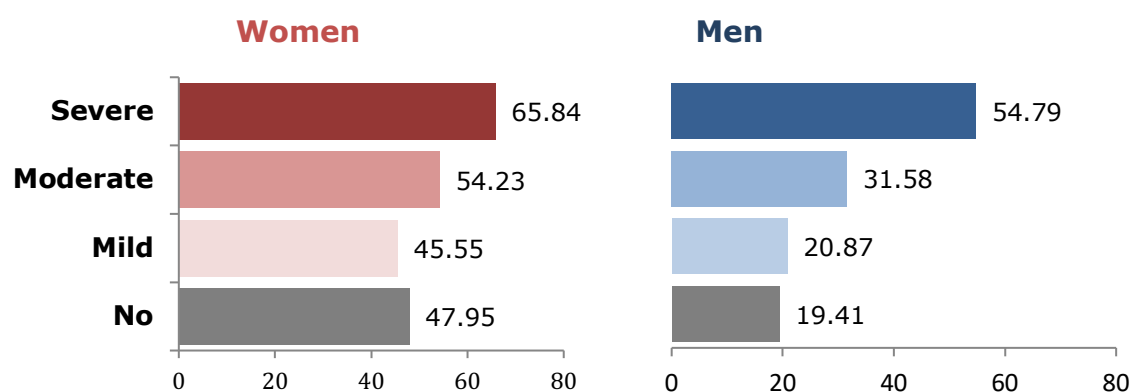
Figure 1. Example figure that can be generated through FDD11, showing distribution of disability in a population.



3.1.2 Definition of groups experiencing mild, moderate or severe disability for disaggregation purposes.

The disability distribution can be partitioned using specific, fit for purpose thresholds, to identify the groups experiencing severe, moderate and mild disability in the sample. These groups can be used to disaggregate Sustainable Development Goals (SDG) indicators by disability. As an illustrative example, for SDG goal 8, indicator 8.5.2: "Unemployment rate, by sex, age and persons with disabilities", the percentage of unemployed persons disaggregated by gender and level of disability (severe, moderate, mild, no) would be presented as below.

Figure 2. Example figure that can be generated through FDD11, showing percentage of unemployed persons disaggregated by gender and level of disability (severe, moderate, mild, no)



WHO currently recommends the cut-offs below for no, mild, moderate and severe disability. However, it is important to note that any cut-off must be fit to purpose and might differ depending on the goals of the survey in which the FDD11 has been incorporated.

Target group	Cut-off criteria
No disability	Score < Mean – 1SD or Score = 0
Mild disability	Mean – 1SD < Score < Mean
Moderate disability	Mean < Score < Mean + 1SD
Severe disability	Score ≥ Mean + 1SD

3.2 Templates of tables for the disaggregation of indicators based on FDD11 data

This section shows examples of tables that can be generated for the disaggregation of indicators based on FDD11 data.

3.2.1 Template – disaggregation by disability level

Table 1: Example table for disaggregation of indicators by disability level

Indicators	Disability level							
	No problems		Mild problems		Moderate problems		Severe problems	
	N	%	N	%	N	%	N	%

3.2.2 Template – indicator disaggregation by disability level

3.2.2.1 General aspects of the environment

Table 2: Persons endorsing that different aspects of their general environment are hindering or very hindering (response options 4 or 5) disaggregated by disability level.

Indicators	Disability level							
	No problems		Mild problems		Moderate problems		Severe problems	
	N	%	N	%	N	%	N	%
Places for socializing or for community activities								
Shops, banks and post office								
Transportation								
Dwelling								

3.2.3 Assistive technologies

Table 3: Persons endorsing that they have, have but need more, or don't have but need assistive products (response option yes or selection of one or more assistive technologies) disaggregated by disability level.

Persons endorsing that they:	Disability level					
	Mild problems		Moderate problems		Severe problems	
	N	%	N	%	N	%
Use assistive products						
Use but need more assistive products						
Don't use but need assistive products						

3.3 Question-by-question guide

The following section contains guidance about what each question is referring to and how to prompt the respondent, if necessary. The questions are presented in the order in which they are asked in the survey. The tables provide guidelines for completing each question. Respondents may refer to "show cards" for some questions of the FDD11, which are cards with images used to facilitate the selection of a response. They are provided by the WHO.

3.3.1 FDD11

Questions of the FDD11 refer to problems in day-to-day life exclusively because of health issues.

Respondents are required to answer how much difficulty they have on a scale from 1 to 5 where 1 means "no difficulty" and 5 means "extreme difficulty." For all questions, the interviewer should read aloud all response options to the respondent, and circle only one response option.

Question No.	Question	Guide for completion
Q01	How much difficulty do you have seeing things at a distance?	<p>The purpose of this item is to identify persons who have vision difficulties or problems of any kind even when wearing glasses (if they wear glasses). They can have a problem seeing things close up or far away. They may not be able to see out of one eye or they may be only able to see directly in front of them, but not to the sides. Any difficulty with vision that they consider a problem should be captured.</p> <p>Definitions: Seeing refers to an individual using his/her eyes and visual capacity in order to perceive or observe what is happening around them.</p>
Q02	How much difficulty do you have hearing?	<p>The purpose of this item is to identify persons who have some hearing limitation or problems of any kind with their hearing even when using a hearing aid (if they wear a hearing aid). They can have a problem hearing only when they are in a noisy environment, or they may have problems distinguishing sounds from different sources. They may not</p>

Question No.	Question	Guide for completion
Q03	How much difficulty do you have walking or climbing steps?	<p>be able to hear in one ear or both. Any difficulty with hearing that they consider a problem should be captured.</p> <p>Definitions: Hearing refers to an individual using his/her ears and auditory (or hearing) capacity in order to know what is being said to them or the sounds of activity, including danger that is happening around them.</p> <p>The purpose of this item is to identify persons who have some limitation or problems of any kind getting around on foot. It may or may not contribute to difficulty in doing their daily activities. They can have a problem walking more than a block, or short or long distances, or the problem can be that they can't walk up or down steps without difficulty. They may not be able to walk any distance without stopping to rest or they may not be able to walk without using some type of device such as a cane, a walker or crutches. In some instances they may be totally unable to stand for more than a minute or two and need a wheelchair to get from place to place. Difficulties walking can include those resulting from impairments in balance, endurance, or other non-musculoskeletal systems. Any difficulty with walking (whether it is on flat land or up or down steps) that they consider a problem should be captured.</p> <p>Definitions: Walking refers to an individual using his/her legs in such a way as to propel themselves over the ground to get from point A to point B. The capacity to walk should be without assistance of any device or human. If such assistance is needed, the person has difficulty walking.</p>
Q04	How much difficulty do you have remembering or concentrating?	<p>The purpose of this item is to identify persons who have some problems with remembering or thinking that contribute to difficulty in doing their daily activities. They can have a problem finding their way around, or the problem can be that they can't concentrate on what they are doing, or they may forget where they are or what month it is. They may not remember what someone just said to them or they may seem confused or frightened about most things. Any difficulty with remembering, concentrating or understanding what is going on around them that they or family members (if the family member is the respondent) consider a problem should be captured. We do not intend to capture difficulties remembering or concentrating because of common everyday situations such as high workload or stress, or as a result of substance abuse.</p> <p>Definitions: Remembering refers to an individual using his/her memory capacity in order to recall what has happened around them. It means the individual can bring to mind or think again about something that has taken place in the past (either the recent past or further back). In connection with younger people, remembering is often associated with storing facts learned in school and being able to retrieve them when needed.</p>

Question No.	Question	Guide for completion
Q05	How much difficulty do you have washing all over or dressing?	<p>The purpose of this item is to identify persons who have some problems with taking care of themselves independently. Washing and dressing represent tasks that occur on a daily basis and are very basic activities.</p> <p>Definitions: Washing all over refers to the process of cleaning one's entire body (usually with soap and water) in the usual manner for the culture. The washing activity includes cleaning hair and feet, as well as gathering any necessary items for bathing such as soap or shampoo, a washcloth, or water. Dressing refers to all aspects of putting clothing or garments on the upper and lower body including the feet if culturally appropriate. Gathering clothing from storage areas (e.g., closet, dressers), securing buttons, tying knots, zipping, etc., should be considered part of the dressing activity.</p>
Q06	How much difficulty do you have sleeping because of your health?	<p>Respondents should evaluate the difficulties they have in sleeping, such as difficulties falling asleep or waking up too early, because of their health and not taking any personal assistance, aids or modifications into account.</p> <p>Example: a person has difficulties to fall asleep and uses relaxation techniques to handle them → the respondent should describe the extent of the difficulties without the use of relaxation techniques.</p>
Q07	How much difficulty do you have doing household tasks because of your health?	<p>Respondents should evaluate the difficulties they have in doing household tasks, such as doing laundry, cleaning or putting out the garbage, because of their health and not taking any personal assistance, aids or modifications into account.</p> <p>Example: a person with spinal cord injury has important difficulties in getting housework done but has a personal assistant takes care of it → the respondent should describe the extent of the difficulties without the help of the personal assistant.</p>
Q08	Because of your health, how much difficulty do you have with joining community activities, such as festivities, religious or other activities?	<p>The question includes being involved in town meetings, fairs, leisure or sport activities in the town, neighbourhood or community. Respondents should evaluate the difficulties they have in joining community activities because of their health and not taking any personal assistance, aids or modifications into account.</p> <p>Example: a person in a wheelchair can join festivities because of the support of the family → the respondent should describe the extent of the difficulties without the support of the family.</p>

Question No.	Question	Guide for completion
Q09	How much difficulty do you have with feeling sad, low, worried or anxious because of your health?	<p>Respondents should evaluate the difficulties they have in with feeling sad, low, worried or anxious because of their health and not taking any personal assistance, aids or modifications into account.</p> <p>Example: a person with cancer feels very often sad, low or depressed but gets support from the spouse → the respondent should describe the extent of the difficulties not taking into account the support from the spouse.</p> <p>Example: a person with chronic pain feels worried, nervous or anxious → the respondent should describe the extent of the difficulties not taking into account any kind of support.</p>
Q10	Because of your health, how much difficulty do you have getting along with people who are close to you, including your family and friends?	<p>Getting along with people who are close includes showing respect, warmth, appreciation, and tolerance in relationships; responding to criticism and social cues in relationships; and using appropriate physical contact. Respondents should evaluate the difficulties they have in getting along with people who are close to them because of their health and not taking any personal assistance, aids or modifications into account.</p> <p>Example: a person has increasing difficulties getting along with people who are close after a stroke but can handle this when the spouse is present → the respondent should describe the extent of the difficulties not taking into account the support of the spouse.</p>
Q11	How much bodily aches or pains do you have?	<p>Respondents should evaluate how many bodily aches or pains they have because of their health without taking any personal assistance, aids or modifications into account.</p> <p>Example: a person has chronic pain and uses meditation techniques to cope with it → the respondent should describe how much pain he/she has without using meditation techniques.</p>

3.4 FDD11 Tool

Functioning and Disability Disaggregation Tool

I have asked you many questions about the kinds of problems you experience in your life. The next questions ask about difficulties you may have doing certain activities only because of your HEALTH. Please think about the last 30 days taking both good and bad days into account.

The questions ask about difficulties you may have doing certain activities because of a HEALTH PROBLEM.

I want you to answer the following questions on a scale from 1 to 5, where 1 means no difficulty and 5 means you cannot do the activity. Please answer these questions WITHOUT taking into account any help.

	1	2	3	4	5
	None				Extreme
How much difficulty do you have seeing things at a distance?	1	2	3	4	5
How much difficulty do you have hearing?	1	2	3	4	5
How much difficulty do you have walking or climbing steps?	1	2	3	4	5
How much difficulty do you have remembering or concentrating?	1	2	3	4	5
How much difficulty do you have washing all over or dressing?	1	2	3	4	5
How much difficulty do you have sleeping because of your health?	1	2	3	4	5
How much difficulty do you have doing household tasks because of your health?	1	2	3	4	5
Because of your health, how much difficulty do you have with joining community activities, such as festivities, religious or other activities?	1	2	3	4	5
How much difficulty do you have with feeling sad, low, worried or anxious because of your health?	1	2	3	4	5
Because of your health, how much difficulty do you have getting along with people who are close to you, including your family and friends?	1	2	3	4	5
How much bodily aches or pain do you have?	1	2	3	4	5

4 Data analysis

WHO has created a simple excel sheet with underlying algorithm, where implementers of FDD11 can import data and automatically obtain the disability score for each participant, as well as a figure with distribution of disability in the assessed population. The excel file contains instructions for use and can be downloaded from the WHO disability webpage³.

5 Contact

For further information, resources and technical support, please contact:
World Health Organization
disability@who.int

³ <https://www.who.int/activities/collection-of-data-on-disability>

9789240067479

