WHO and World Bank
MODEL DISABILITY SURVEY
Pilot implementation in Oman

Why should Oman carry out a disability survey?

Oman is facing a continuous rise in non-communicable diseases (NCDs). NCDs – including hypertension, heart disease, asthma, diabetes, stroke, depression, back pain and hearing and vision disorders – are frequently associated with moderate to high levels of disability. Additionally, life expectancy is steadily increasing due to improvements in health care, and ageing is also associated with disability.

Increased life expectancy and the high prevalence of NCDs require a more consistent inclusion of functioning and disability information in health monitoring and evaluation frameworks. In recognition of its importance for complementing information on mortality and morbidity, the ICD-11 will include information on functioning and disability.

Information at population-level collected through a dedicated disability survey is relevant for evaluating the impact of public health interventions targeting functioning and disability. Such interventions can be directed at improving or optimizing functioning of individuals, for instance through provision of rehabilitation services, or at reducing environmental barriers, for instance through dedicated transportation, employment or accessible health care policies.

Information on functioning and disability is also relevant for developing evidence-based plans of action and policies, for planning and allocating resources to health and social services, and to monitor and report on the implementation of the Convention on the Rights of Persons with Disabilities (CRPD) and the indicators of the Sustainable Development Goals (SDGs).

Which disability data is currently available in Oman?

The Sultanate of Oman relies currently on the census to generate data on disability.

Based on the census in 1993, the disability rate was 1.9% among Omani nationals. This rate rose to 2.4% in 2003 and to 3.2% in 2010. Such increase could be partially attributed to an actual increase chronic health conditions associated with disability coupled with better care resulting in higher life expectancy.

However, census data is usually very limited in scope, and provides only rough prevalence estimates of persons with specific impairments.

What is WHO’s understanding of disability?

In the WHO International Classification of Functioning, Disability and Health (ICF), disability encompasses impairments, such as problems with breathing, memory or pain, limitations of activities, such as problems with mobility and self-care, and participation restrictions, such as problems at work or school.

Although associated with health conditions, disability is not understood as the direct consequence of a disease. In line with the ICF, disability is the outcome of the interaction between a health condition (e.g. arthritis, back
problems, hearing loss or depression) and environmental barriers (e.g. limited access to health care, negative attitudes of others, inaccessible transportation and public buildings, or lack of inclusive employment laws).

For WHO, disability is therefore not solely an attribute of persons due to the presence of impairments, for instance blindness or deafness.

Disability is also understood in the ICF as a continuum, ranging from no disability (or full functioning) to very high levels of disability. Disability is therefore a matter of degree and universal, since any person with health conditions or age-related decrements in health will experience disability to some extent at some point in his or her life.

**Patterns and the level of disability in countries are influenced therefore by trends in health conditions and by trends in environmental barriers and other factors – such as road traffic crashes and accidents.**

### What is the Model Disability Survey (MDS)?

The MDS was developed by the World Bank and WHO in 2012 and is the tool recommended by WHO to collect comprehensive data about functioning and disability, in line with the ICF.

Data generated by the MDS is being used by countries to quantify both the impact of health conditions or impairments as well as the impact of the environment on disability. This allows countries to determine which interventions and policies will likely produce the most benefit for the population.

### What were the objectives of the pilot implementation of the MDS in Oman?

The MDS is implemented to estimate the distribution of disability in a country as well as how many people have severe, moderate and mild disability. The MDS also identifies their unmet needs as well as the barriers and inequalities faced by these persons in daily life.

In 2016, a pilot study was carried out in Oman by the Ministry of Health, in collaboration with WHO.

The pilot aimed to 1. Examine the feasibility of the Arabic version of the MDS in the cultural context of Oman; 2. Identify potential problems with the survey, and; 3. Develop strategies to deal with them before a large national implementation is launched.

### How was the pilot carried out in Oman?

A pilot study was carried out in 2016.

The sample used is not representative of the Omani population. It was intentionally selected to include a men and women of varied ages and to include both healthy respondents as well as persons with impairments and health conditions. This is called a convenience sample.

Convenience samples are used in pilot studies to test the feasibility of the survey with different groups, in the case of the MDS especially persons with mild, moderate and severe disability.

The convenience sample used in Oman included 288 adults aged 18 years or older. Data collection was done in the morning only and the individual who was at home during the visit was selected for the interview. For
this reason, the sample includes more women, who were not working or not studying. Their socio-demographic characteristics are shown in table 1.

The pilot test was completed in the capital area for ease of logistics.

What are the results of the pilot?

Results of the pilot are very positive and corroborate the feasibility of the survey.

Interviewers rated that approximately 96% of respondents were highly or very highly cooperative. Additionally, the answers of approximately 96% of the respondents were rated as highly or very highly accurate by interviewers.

Regarding the questions, following problems were observed. Questions such as 2014 (How many weeks do you work during the year?) were perceived as difficult due to problems to calculate the number of weeks accurately. Questions about attitudes of others in Section 3000 A (3024 to 3034) posed some problems as the majority of respondents asked about the relationship of these questions to health and disability. Especially questions 3032 (Do people around you tend to become impatient with you?) and 3034 (Is living with dignity a problem for you because of the attitudes and actions of others?) caused problems. The introduction of the “attitudes of others” questions would need a revision that stresses why these questions are relevant. Finally, question 8007 (To what extent would you agree with the statement that you are a person who tends to find fault with others?) was perceived as embarrassing by respondents, and questions 8013 and 8014 (Do you think that the problems you have told me about have made you a stronger person?; Do you think that the problems you have told me about have made you more determined to reach your goals?) would need a response option “does not have any problem” for respondents who reported having no problems at all. These issues need revisions before a full implementation is started.

Overall results above corroborate, however, that the Arabic translation of the survey works well in the field and is suitable for a large scale implementation, after minor revisions.

Figure 1 shows the distribution of the convenience sample on the disability continuum; the scale ranges from 0 no disability (full functioning) to 100 (very severe disability).

Recommendations for the MDS implementation in Oman

Two versions of the MDS\textsuperscript{1} are currently available and have been implemented in several countries (box 1).

\footnotesize{\textsuperscript{1} Questionnaires are available at http://www.who.int/disabilities/data/mds/en/}
WHO generally recommends that the stand-alone version of the MDS is implemented every 5 to 10 years while the brief version – a module developed to be integrated to existing household surveys – should be implemented routinely to allow a continuous monitoring of disability in countries.

Because the stand-alone version has already been successfully tested in the pilot study in Oman, WHO recommends that this version is implemented nationally or in selected regions of the country.

The Arabic version has also been implemented in 2017 in Qatar, and will be implemented in 2018 in Dubai, after a pilot carried out in December 2017.

WHO provides countries implementing the MDS with technical support throughout all phases of the implementation. For more information, please contact Lindsay Lee at leel@who.int.

Box 1: Available versions of the Model Disability Survey.

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<tr>
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<th>MDS Standalone Version</th>
<th>MDS Brief version</th>
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<tbody>
<tr>
<td><strong>Goal</strong></td>
<td>National or regional implementations as a dedicated standalone disability survey</td>
<td>Integration as disability module in existing household surveys</td>
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<tr>
<td><strong>Developed in</strong></td>
<td>2012</td>
<td>2016</td>
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| **Modules**          | - Module 1000: Socio-demographics  
- Module 2000: Work history, benefits  
- Module 3000: Environmental factors  
- Module 4000: Functioning  
- Module 5000: Health conditions  
- Module 6000: Health care utilization  
- Module 7000: Well-being  
- Module 8000: Empowerment | Brief versions of the core modules:  
- Module 3000: Environmental factors  
- Module 4000: Functioning  
- Module 5000: Health conditions |
| **Length (time)**    | 60 to 90 minutes       | 10-15 minutes                   |
| **National implementations** | - Chile, 2015, 12000 interviews  
- Sri Lanka, 2015, 3000 interviews  
- Philippines, 2017, 11000 interviews  
- Qatar, 2017, 6000 interviews | - India, 2018  
- Tajikistan, 2018  
- Laos, 2018 |
| **Regional implementations** | - Cameroon, 2016, Adamawa  
- Pakistan, 2017, Balochistan  
- United Arab Emirates, 2018, Dubai | |

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