

Data Production and Analysis Using the WG Tools

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WG short set of questions:

Because of a Health problem:

- 1) Do you have difficulty **seeing** even if wearing glasses?
- 2) Do you have difficulty **hearing** even if using a hearing aid?
- 3) Do you have difficulty **walking** or **climbing** stairs?
- 4) Do you have difficulty **remembering** or **concentrating**?
- 5) Do you have difficulty with (**self-care** such as) washing all over or dressing?
- 6) Using your usual language, do you have difficulty **communicating** (for example understanding or being understood by others)?

Response categories:

No difficulty; Yes, some difficulty; Yes, a lot of difficulty;
Cannot do at all

What can the WG SS produce?

Domain specific outputs:

- a range of functioning based on graded responses on each of the 6 domains

Overall outputs:

- a set of disability scores (based on different cut-offs) suitable for disaggregation

Prevalence (weighted %) by domain and degree of difficulty

At least:

Core Domain	Some difficulty	A lot of difficulty	Unable To do it
Vision	17.1	2.0	0.2
Hearing	17.2	1.8	0.1
Mobility	17.0	5.7	1.8
Cognition	16.8	2.1	0.1
Self-Care	3.8	0.9	0.3
Communicating	4.8	0.7	0.2

Defining an overall disability continuum and a disability dichotomy

The WG questions fulfil two specific data needs:
to describe disability data as a continuum of functioning from no difficulty to some difficulty, a lot of difficulty and unable to do at all, and

to define a cut-off (or a set of cut-offs) that can be agreed upon internationally in order to disaggregate other information (e.g. access to education, employment) by disability status

Disability prevalence USA

Person with disability has:	n	%
at least 1 Domain is 'some difficulty'	7511	41.9
at least 2 Domains are 'some difficulty'	3672	19.6
at least 1 Domain is 'a lot of difficulty'	1872	9.5
at least 1 Domain is 'unable to do it'	465	2.2

WG Recommendation:

For purposes of reporting and generating internationally comparable data, the WG has recommended the following cutoff be used to define the population of persons with disabilities:

- The sub-population identified as *with disability* includes those with *at least one domain* that is coded as *a lot of difficulty* or *cannot do it at all*.

Creating the WG disability dichotomy

- Responses to the 6 questions range from 1: no difficulty to 4: cannot do at all
- If responses at all 6 questions are 1 or 2 – i.e. the person has no difficulty or only some difficulty over the 6 domains, then the individual is considered as *without disability*.
- If any one (or more) of the 6 domain responses is 3: a lot of difficulty or 4: cannot do at all – then the person is considered as *with disability*.

SPSS Syntax

See handout

Disability by employment

Person with disability has at least:	Overall prevalence	% working	
		Without disability	With disability
1 Domain 'some difficulty'	35.4	76.6	60.2
2 Domains 'some difficulty'	14.9	74.6	48.5
1 Domain 'a lot of difficulty'	6.6	73.5	30.8
1 Domain 'unable to do it'	1.2	71.4	14.6

Monitoring the UN CRPD and SDGs through data disaggregation

WG question sets are developed:

- to collect internationally comparable data based on the ICF model
- that fulfill the monitoring requirements established by the UN Convention on the Rights of Persons with Disabilities and the Sustainable Development Goals.

Disaggregation in U.S. NHIS Data

NHIS 2013, 18-64 years of age
Weighted %

Disability Status:
WG Short Set
*Cut-off = a lot of
difficulty*
in at least 1 domain

Indicator	Without Disability	With Disability
Employment Status Last Week = Working	73.5	30.8
Current Every Day Smoker	14.5	27.8
Health Insurance Coverage (yes)	79.5	81.0

WG Extended Set on Functioning

Development and Proposed Guidelines for
Analysis

WG Extended Set:

- is comprised of about 35 questions relating to 11 different core domains of functioning that were selected based on their universality and commonality across cultures and countries at various stages of economic development.
- As with the WG-SS, the domains are intended to identify those at a greater risk than the general population of experiencing restrictions in participation in an unaccommodating environment.

WG Extended Set:

- includes domains of functioning that were not in the Short Set (upper body functioning, affect, pain, and fatigue)
- includes additional information on the domains already covered by the short set;
- includes information on the use and impact of assistive devices, thereby beginning to establish a link between functioning and the environment.

The Short Set is embedded in the Extended Set.

WG Extended Set:

- Difficulties are measured using graded responses and
- cut-offs are established to define a set of disability identifiers for the purposes of determining prevalence or disaggregating outcome indicators (like access to education or employment) by disability status.

Going from SS to Extended set

What are the challenges in going from a single question per domain to multiple questions per domain?

1. To create domain specific indicators for domains with more than one question.
2. To combine multiple domain indicators to determine overall disability identifiers.
3. To determine the 'added value' of multiple questions per domain and of including domains not in the Short Set.

Upper body: Short/Extended set questions

1. Do you have difficulty with self-care, such as washing all over or dressing? (SS)
2. Do you have difficulty raising a 2 liter bottle of water or soda from waist to eye level?
3. Do you have difficulty using your hands and fingers, such as picking up small objects, for example, a button or pencil, or opening or closing containers or bottles?

Note: Q2 & Q3 are used for the upper body indicator. Q1 remains the self-care indicator.

Do you have difficulty with self-care, such as washing all over or dressing? **SS**

	Unweighted Frequency	Weighted Percent
No difficulty	16029	96.2
Some difficulty	544	2.9
A lot of difficulty	114	0.6
Cannot do	68	0.3
Total	16755	100.0

Difficulty lifting 2 liter bottle *by* difficulty using hands/fingers

Amount of difficulty using hands/fingers	Amount of difficulty raising 2 liter bottle				Total
	No difficulty	Some difficulty	A lot of difficulty	Cannot do	
No difficulty	14786	309	58	44	15197
Some difficulty	782	355	51	40	1228
A lot of difficulty	98	73	51	33	255
Cannot do	9	5	7	49	70
Total	15675	742	167	166	16750

Upper body Indicator

	Unweighted Frequency	Weighted Percent
1: low difficulty	14786	89.5
2	1446	7.8
3	331	1.7
4: high difficulty	187	0.9
Total	16750	100.0

Employment status last week by upper body indicator

Weighted Column %	Upper Body Indicator				
	1	2	3	4	Total
Employment status					
not working	26.7	53.6	79.9	93.4	29.3
working	73.3	46.4	20.1	6.6	70.7

Anxiety: Extended set questions

1. How often do you feel worried, nervous or anxious? (Frequency)
2. Thinking about the last time you felt worried, nervous or anxious, how would you describe the level of these feelings? (Intensity)
3. (Do you take medication for these feelings?)

Challenge to combining the questions into a single anxiety indicator

- Medication variable: what did taking medication for anxiety mean? Should everyone reporting medication use be considered anxious?
- Medication is an accommodation. (Prevalence of taking medication is 9.2%)
- What kind of medication are they taking?
- Are people reporting their anxiety with or without medication?

Anxiety: Frequency by Intensity

How often feel worried/nervous/anxious:

Level of feeling last time: <i>Intensity</i>	<i>Frequency</i>					Total
	Daily	Weekly	Monthly	A few times a year	Never	
Not asked	0	0	0	0	6638	6638
A little	489	887	897	3417	44	5734
In between	589	725	535	1221	16	3086
A lot	548	256	123	248	13	1188
Total	1626	1868	1555	4886	6711	16646

Anxiety Indicator

	Unweighted Frequency	Weighted Percent
1: low level	11597	70.2
2	3656	22.1
3	845	4.9
4: high level	548	2.9
Total	16646	100.0

Employment status last week by Anxiety indicator

Weighted Column %	Anxiety Indicator				
	1	2	3	4	Total
Employment status					
not working	26.0	30.8	47.7	59.4	29.3
working	74.0	69.2	52.3	40.6	70.7

K6 score by Anxiety indicator

Weighted Column %	Anxiety Indicator				
	1	2	3	4	Total
K6 score					
0-12	99.1	96.0	76.9	41.9	95.7
13-24	0.9	4.0	23.1	58.1	4.3

WG Extended set: Pain, Fatigue, Anxiety, Depression (PFAD)

		# of ?s	%
1	Pain, Fatigue, Anxiety, Depression (3/4)	9	24.9
2	Pain, Fatigue, Anxiety, Depression (4)	9	8.5
3	Pain, Fatigue (4)	5	6.5
4	Anxiety, Depression (4)	4	3.4

WG Extended set: Defining the population with disability

		# of ?s	%
1	Short Set (SS)	6	9.5

WG Extended set: Defining the population with disability

		# of ?s	%
1	Short Set (SS)	6	9.5
2	SS plus <u>Hearing-indicator</u> , <u>Mobility-indicator</u> , <u>Cognition-indicator</u>	14	12.7

WG Extended set: Defining the population with disability

		# of ?s	%
1	Short Set (SS)	6	9.5
2	SS plus <u>Hearing-indicator</u> , <u>Mobility-indicator</u> , <u>Cognition-indicator</u>	14	12.7
3	plus <u>Upper Body-indicator</u>	16	13.2

WG Extended set: Defining the population with disability

		# of ?s	%
1	Short Set (SS)	6	9.5
2	SS plus <u>Hearing-indicator</u> , <u>Mobility-indicator</u> , <u>Cognition-indicator</u>	14	12.7
3	plus <u>Upper Body-indicator</u>	16	13.2
4	plus PFAD (4)	25	17.2

WG Extended set: Defining the population with disability

		# of ?s	%
1	Short Set (SS)	6	9.5
2	SS plus <u>Hearing-indicator</u> , <u>Mobility-indicator</u> , <u>Cognition-indicator</u>	14	12.7
3	plus <u>Upper Body-indicator</u>	16	13.2
4	plus PFAD (4)	25	17.2
5	plus AD (4)	20	14.8

WG Extended set: Defining the population with disability

		# of ?s	%
1	Short Set (SS)	6	9.5

WG Extended set: Defining the population with disability

		# of ?s	%
1	Short Set (SS)	6	9.5
2	SS plus <u>Upper Body-indicator</u>	8	10.0

WG Extended set: Defining the population with disability

		# of ?s	%
1	Short Set (SS)	6	9.5
2	SS plus <u>Upper Body-indicator</u>	8	10.0
3	SS plus <u>Upper Body-indicator</u> plus PFAD (4)	17	14.7

WG Extended set: Defining the population with disability

		# of ?s	%
1	Short Set (SS)	6	9.5
2	SS plus <u>Upper Body-indicator</u>	8	10.0
3	SS plus <u>Upper Body-indicator</u> plus PFAD (4)	17	14.7
4	SS plus <u>Upper Body-indicator</u> plus AD (4)	12	11.9

Defining the population with disability for disaggregation

		%
1	Short Set (SS)	9.5
2	Short Set plus Upper Body-indicator plus Anxiety and Depression at level 4	11.9

Defining the population with disability for disaggregation

			Employment Status Last Week: % working	
			Without disability	With disability
		Prevalence		
1	Short Set (SS)	6.6	73.5	30.8
2	Short Set plus Upper Body-indicator plus Anxiety and Depression at level 4	9.3	74.3	36.0