

**Table S1.** Washington Group Tools as used in each of the included surveys.

NB excludes optional questions included in survey but not in analyses

**1A. Extended Set on Functioning (ESF) as used in Cameroon, India and Guatemala**

#	Question	Response options
VIS_1	[Do/Does] [you/he/she] wear glasses or contact lenses?	Yes, No
VIS_2	[Do/Does] [you/he/she] have difficulty seeing, [If VIS_1 = 1: even when wearing [your/his/her] glasses/contact lenses ?	No difficulty, some difficulty, a lot of difficulty, cannot do
HEAR_1	[Do/Does] [you/he/she] use a hearing aid?	Yes, No
HEAR_2	[Do/Does] [you/he/she] have difficulty hearing, [If HEAR_1 = 1: even when using a hearing aid(s)]?	No difficulty, some difficulty, a lot of difficulty, cannot do
MOB_1	[Do/Does] [you/he/she] have difficulty walking or climbing steps?	No difficulty, some difficulty, a lot of difficulty, cannot do
MOB_2	[Do/does] [you/he/she] use any equipment or receive help for getting around?	Yes, No
MOB_MOD	[if MOB_2 = 1] [Do/does] [you/he/she] have difficulty walking or climbing steps, even when using your equipment or with help?	No difficulty, some difficulty, a lot of difficulty, cannot do
COG_SS	[Do/does] [you/he/she] have difficulty remembering or concentrating?	No difficulty, some difficulty, a lot of difficulty, cannot do
SC_SS	[Do/does] [you/he/she] have difficulty with self-care, such as washing all over or dressing?	No difficulty, some difficulty, a lot of difficulty, cannot do
COM_SS	Using [your/his/her] usual language, [do/does] [you/he/she] have difficulty communicating, for example understanding or being understood?	No difficulty, some difficulty, a lot of difficulty, cannot do
UB_1	[Do/Does] [you/he/she] have difficulty raising a 2 liter bottle of water or soda from waist to eye level?	No difficulty, some difficulty, a lot of difficulty, cannot do
UB_2	[Do/Does] [you/he/she] have difficulty using [your/his/her] hands and fingers, such as picking up small objects, for example, a button or pencil, or opening or closing containers or bottles?	No difficulty, some difficulty, a lot of difficulty, cannot do
ANX_1	How often [do/does] [you/he/she] feel worried, nervous or anxious?	Daily, weekly, monthly, a few times a year, never
ANX_2	Thinking about the last time [you/he/she] felt worried, nervous or anxious, how would [you/he/she] describe the level of these feelings?	A little, a lot, somewhere between a little and a lot
DEP_1	How often [do/does] [you/he/she] feel depressed?	Daily, weekly, monthly, a few times a year, never
DEP_2	Thinking about the last time [you/he/she] felt depressed, how depressed did [you/he/she] feel?	A little, a lot, somewhere between a little and a lot
PAIN_1	In the past 3 months, how often did [you/he/she] have pain?	Never, some days, most days, every day
PAIN_2	Thinking about the last time [you/he/she] had pain, how much pain did [you/he/she] have?	A little, a lot, somewhere between a little and a lot
TIRED_1	In the past 3 months, how often did [you/he/she] feel very tired or exhausted?	Never, some days, most days, every day
TIRED_2	Thinking about the last time [you/he/she] felt very tired or exhausted, how long did it last?	Some of the day, most of the day, all of the day
TIRED_3	Thinking about the last time [you/he/she] felt this way, how would you describe the level of tiredness?	A little, a lot, somewhere between a little and a lot

**1B Short Set Enhanced (SS-E) as used in Nepal and Maldives**

#	Question	Response options
VIS_1	[Do/Does] [you/he/she] wear glasses or contact lenses?	Yes, No
VIS_2	[Do/Does] [you/he/she] have difficulty seeing, [If VIS_1 = 1: even when wearing [your/his/her] glasses/contact lenses ?	No difficulty, some difficulty, a lot of difficulty, cannot do
HEAR_1	[Do/Does] [you/he/she] use a hearing aid?	Yes, No
HEAR_2	[Do/Does] [you/he/she] have difficulty hearing, [If HEAR_1 = 1: even when using a hearing aid(s)]?	No difficulty, some difficulty, a lot of difficulty, cannot do

MOB_1	[Do/Does] [you/he/she] have difficulty walking or climbing steps?	No difficulty, some difficulty, a lot of difficulty, cannot do
MOB_2	[Do/does] [you/he/she] use any equipment or receive help for getting around?	Yes, No
MOB_MOD	[if MOB_2 = 1] [Do/does] [you/he/she] have difficulty walking or climbing steps, even when using your equipment or with help?	No difficulty, some difficulty, a lot of difficulty, cannot do
COG_SS	[Do/does] [you/he/she] have difficulty remembering or concentrating?	No difficulty, some difficulty, a lot of difficulty, cannot do
SC_SS	[Do/does] [you/he/she] have difficulty with self-care, such as washing all over or dressing?	No difficulty, some difficulty, a lot of difficulty, cannot do
COM_SS	Using [your/his/her] usual language, [do/does] [you/he/she] have difficulty communicating, for example understanding or being understood?	No difficulty, some difficulty, a lot of difficulty, cannot do
UB_1	[Do/Does] [you/he/she] have difficulty raising a 2 liter bottle of water or soda from waist to eye level?	No difficulty, some difficulty, a lot of difficulty, cannot do
UB_2	[Do/Does] [you/he/she] have difficulty using [your/his/her] hands and fingers, such as picking up small objects, for example, a button or pencil, or opening or closing containers or bottles?	No difficulty, some difficulty, a lot of difficulty, cannot do
ANX_1	How often [do/does] [you/he/she] feel worried, nervous or anxious?	Daily, weekly, monthly, a few times a year, never
ANX_2	Thinking about the last time [you/he/she] felt worried, nervous or anxious, how would [you/he/she] describe the level of these feelings?	A little, a lot, somewhere between a little and a lot
DEP_1	How often [do/does] [you/he/she] feel depressed?	Daily, weekly, monthly, a few times a year, never
DEP_2	Thinking about the last time [you/he/she] felt depressed, how depressed did [you/he/she] feel?	A little, a lot, somewhere between a little and a lot

### 1C Short Set Enhanced (SS-E) as used in Turkey

#	Question	Response options
VIS_1	[Do/Does] [you/he/she] wear glasses or contact lenses?	Yes, No
VIS_2	[Do/Does] [you/he/she] have difficulty seeing, [If VIS_1 = 1: even when wearing [your/his/her] glasses/contact lenses ?	No difficulty, some difficulty, a lot of difficulty, cannot do
HEAR_1	[Do/Does] [you/he/she] use a hearing aid?	Yes, No
HEAR_2	[Do/Does] [you/he/she] have difficulty hearing, [If HEAR_1 = 1: even when using a hearing aid(s)]?	No difficulty, some difficulty, a lot of difficulty, cannot do
MOB_SS	[Do/Does] [you/he/she] have difficulty walking or climbing steps?	No difficulty, some difficulty, a lot of difficulty, cannot do
COG_SS	[Do/does] [you/he/she] have difficulty remembering or concentrating?	No difficulty, some difficulty, a lot of difficulty, cannot do
SC_SS	[Do/does] [you/he/she] have difficulty with self-care, such as washing all over or dressing?	No difficulty, some difficulty, a lot of difficulty, cannot do
COM_SS	Using [your/his/her] usual language, [do/does] [you/he/she] have difficulty communicating, for example understanding or being understood?	No difficulty, some difficulty, a lot of difficulty, cannot do
UB_1	[Do/Does] [you/he/she] have difficulty raising a 2 liter bottle of water or soda from waist to eye level?	No difficulty, some difficulty, a lot of difficulty, cannot do
UB_2	[Do/Does] [you/he/she] have difficulty using [your/his/her] hands and fingers, such as picking up small objects, for example, a button or pencil, or opening or closing containers or bottles?	No difficulty, some difficulty, a lot of difficulty, cannot do
ANX_1	How often [do/does] [you/he/she] feel worried, nervous or anxious?	Daily, weekly, monthly, a few times a year, never
ANX_2	Thinking about the last time [you/he/she] felt worried, nervous or anxious, how would [you/he/she] describe the level of these feelings?	A little, a lot, somewhere between a little and a lot
DEP_1	How often [do/does] [you/he/she] feel depressed?	Daily, weekly, monthly, a few times a year, never
DEP_2	Thinking about the last time [you/he/she] felt depressed, how depressed did [you/he/she] feel?	A little, a lot, somewhere between a little and a lot

## 1D. Labour Force Disability Module as used in Vanuatu

#	Question	Response options
VIS_SS	[Do/Does] [you/he/she] have difficulty seeing, even if wearing glasses?	No difficulty, some difficulty, a lot of difficulty, cannot do
HEAR_SS	[Do/Does] [you/he/she] have difficulty hearing, even if using a hearing aid(s)?	No difficulty, some difficulty, a lot of difficulty, cannot do
MOB_SS	[Do/Does] [you/he/she] have difficulty walking or climbing steps?	No difficulty, some difficulty, a lot of difficulty, cannot do
COG_SS	[Do/does] [you/he/she] have difficulty remembering or concentrating?	No difficulty, some difficulty, a lot of difficulty, cannot do
SC_SS	[Do/does] [you/he/she] have difficulty with self-care, such as washing all over or dressing?	No difficulty, some difficulty, a lot of difficulty, cannot do
COM_SS	Using [your/his/her] usual language, [do/does] [you/he/she] have difficulty communicating, for example understanding or being understood?	No difficulty, some difficulty, a lot of difficulty, cannot do
<i>Below questions only asked of those who self reported (not proxy)</i>		
ANX_1	How often do you feel worried, nervous or anxious?	Daily, weekly, monthly, a few times a year, never
ANX_2	Thinking about the last time you felt worried, nervous or anxious, how would [you/he/she] describe the level of these feelings?	A little, a lot, somewhere between a little and a lot
DEP_1	How often do you feel depressed?	Daily, weekly, monthly, a few times a year, never
DEP_2	Thinking about the last time you felt depressed, how depressed did you feel?	A little, a lot, somewhere between a little and a lot

## Supplementary Material: Table S2

Table S2: Prevalence of functional limitations among subpopulations with and without assistive products						
	Cameroon (n=1617)	Guatemala (n=8910)	India (n=2350)	Nepal (n=4067)	Maldives (n=3592)	Turkey (n=1554)
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
<b>Wears glasses</b>	<b>5.5 (4.1 – 6.9)</b>	<b>12.3 (11.0 – 13.5)</b>	<b>10.0 (8.1 – 11.8)</b>	<b>11.8 (10.8-12.8)</b>	<b>33.3 (31.8-34.9)</b>	<b>16.4 (14.3-18.8)</b>
Some or greater difficulty seeing, while wearing glasses	41.4 (27.7 – 55.1)	26.3 (23.1 – 29.6)	50.2 (42.6 – 57.9)	20.0 (16.7-23.8)	19.6 (17.5-21.9)	45.1 (37.9-52.4)
A lot or greater difficulty, while wearing glasses	1.0 (0.0 – 3.1)	4.3 (3.0 – 5.6)	3.9 (1.2 – 6.6)	0.8 (0.3-2.2)	2.2 (1.5-3.2)	7.1 (4.2-11.4)
<b>Does not wear glasses</b>	<b>94.5 (93.1 – 95.9)</b>	<b>87.7 (86.5 – 89.0)</b>	<b>90.0 (88.2 – 91.9)</b>	<b>88.2 (87.2-89.2)</b>	<b>66.7 (65.1-68.2)</b>	83.5 (81.1-85.7)
Some or greater difficulty seeing	28.2 (25.6 – 30.8)	25.7 (24.3 – 27.1)	32.5 (29.6 – 35.3)	12.8 (11.8-14.0)	24.9 (23.2-26.7)	16.3 (13.9-18.9)
A lot or greater difficulty seeing	1.5 (0.1 – 2.1)	3.0 (2.5 – 3.4)	3.6 (2.2 – 5.0)	0.6 (0.4-1.0)	2.0 (1.5-3.2)	2.7 (1.9-3.8)
<b>Uses mobility equipment or assistance</b>	<b>9.7 (7.9 – 11.4)</b>	<b>2.5 (2.1 – 2.9)</b>	<b>4.3 (3.3 – 5.3)</b>	<b>2.2 (1.8-2.7)</b>	<b>2.0 (1.6-2.5)</b>	-
Some or greater difficulty walking, using equipment/assistance	64.6 (55.5 – 73.5)	79.3 (73.6 – 84.9)	93.0 (88.2 – 97.8)	87.9 (79.4-93.2)	98.3 (88.8-99.8)	-
A lot or greater difficulty walking, using equipment/assistance	16.7 (11.7 – 21.7)	49.5 (41.9 – 57.0)	53.0 (44.7 – 61.3)	47.3 (37.2-57.5)	73.8 (62.9-82.4)	-
<b>Does not use mobility equipment or assistance</b>	<b>90.3 (88.6 – 92.1)</b>	<b>97.5 (97.1 – 97.9)</b>	<b>95.7 (94.7 – 96.6)</b>	<b>97.8 (97.3-98.2)</b>	<b>98.0 (97.5-98.4)</b>	-
Some or greater difficulty walking	33.8 (30.9 – 36.8)	7.5 (6.6 – 8.4)	26.4 (23.3 – 29.6)	8.5 (7.6-9.4)	16.9 (15.7-18.1)	-
A lot or greater difficulty walking	1.8 (0.9 – 2.6)	1.6 (1.3 – 2.0)	2.6 (1.6 – 3.7)	1.0 (0.7-1.4)	2.5 (2.0-3.0)	-
<b>Uses hearing aid<sup>‡</sup></b>	<b>0.3 (0.0 – 0.9)</b>	<b>0.4 (0.2 – 0.5)</b>	<b>0.1 (0.0 – 0.3)</b>	<b>0.3 (0.1-0.5)</b>	<b>0.5 (0.3-0.8)</b>	<b>0.6 (0.3-1.1)</b>

<sup>‡</sup>Insufficient data for further analyses