



Diretrizes analíticas:

Como criar identificadores de deficiência usando a sintaxe Stata do Conjunto Resumido de Perguntas sobre Funcionalidade do Grupo de Washington (WG-SS)

Introdução

Como ocorre com o Conjunto Resumido de Perguntas sobre Funcionalidade do Grupo de Washington (WG-SS), a análise do Conjunto ampliado de perguntas sobre funcionalidade do Grupo de Washington (WG-ES) também pode produzir diversos identificadores de deficiência com base na escolha do limiar ou ponto de corte de severidade. A sintaxe Stata descrita abaixo, no entanto, permite o cálculo de identificadores de deficiência usando diferentes conjuntos de domínios do conjunto WG-ES com base no ponto de corte recomendado para comparações internacionais (descrito abaixo).

Para cada um dos identificadores de deficiência descritos, o nível de inclusão se refere a pelo menos um domínio/pergunta codificada como MUITA DIFICULDADE ou NÃO CONSEGUE DE MODO ALGUM – ou, para os domínios Ansiedade, Depressão, Dor e Fadiga, o nível mais alto de dificuldade em uma escala de quatro pontos.

Cada um dos quatro identificadores de deficiência descritos neste documento é definido com base na escolha dos domínios de funcionalidade incluídos:

WG-SS: *Conjunto resumido:* 6 domínios, 6 perguntas.

WG-ES 1: *Conjunto ampliado:* 11 domínios, 25 perguntas.

WG-ES 2: *Conjunto ampliado modificado* (WG-ES MENOS dor e fadiga): 9 domínios, 20 perguntas.

WG-ES 3: *Conjunto resumido estendido* (WG-SS MAIS parte superior do corpo, ansiedade e depressão): 9 domínios, 12 perguntas.

Os **Documentos de Implementação do Grupo de Washington** abrangem as ferramentas desenvolvidas pelo Grupo de Washington para Estatísticas sobre Pessoas com Deficiência (WG) para coletar dados sobre deficiências comparáveis internacionalmente em censos e pesquisas. Os documentos abordam as melhores práticas a serem adotadas na implementação do Conjunto Resumido, Conjunto Ampliado e Conjunto Resumido – Estendido, dos Módulos sobre Funcionalidade da Criança do WG/UNICEF para crianças nas faixas etárias de 2 a 4 e de 5 a 17 anos e do Módulo de Deficiência do WG/OIT LFS, bem como de outras ferramentas do WG. Os tópicos incluem tradução, especificações de perguntas, diretrizes analíticas, código de programação para análises, o uso das ferramentas para fins de desagregação e muitos outros.

Para localizar outros documentos de implementação do WG e para obter mais informações, visite o site do Grupo de Washington:
<http://www.washingtongroup-disability.com/>.

OBS.: Para a análise dos dados, use suas técnicas padronizadas de ponderação e estimativa.

A sintaxe Stata baseia-se nos *rótulos de variáveis* indicados na tabela abaixo. O módulo completo do conjunto WG-ES inclui mais perguntas do que as apresentadas nessa tabela. A condição de deficiência é determinada pelo grau de dificuldade de uma pessoa de desempenhar atividades básicas e universais *sem* a necessidade de alguma tecnologia assistiva ou outra assistência. Há diversas perguntas sobre mobilidade que, por exemplo, relacionam a dificuldade de andar *com* a necessidade de assistência. Essas perguntas não estão incluídas no plano analítico apresentado aqui; no entanto, elas podem ser usadas em outras análises mais meticulosas do efeito de uma tecnologia assistiva (facilitadores ambientais) sobre a funcionalidade.

Somente as perguntas/variáveis apresentadas abaixo são usadas na determinação de identificadores de deficiência. **Não deixe de usar os mesmos rótulos de variáveis OU revise a sintaxe SPSS para que ela reflita os rótulos de variáveis usados no seu banco de dados.**

O WG-SS é administrado como parte da Pesquisa Nacional de Saúde dos Estados Unidos (NHIS). Os dados usados na elaboração destas diretrizes foram extraídos da NHIS realizada em 2013.

Observação para usuários da NHIS: os nomes das variáveis contidos no arquivo de dados e na documentação da NHIS podem ser diferentes dos usados neste documento; por exemplo, a variável do domínio de cuidados pessoais referenciada como SC-SS neste documento tem o nome de UB_SS no arquivo de dados e na documentação da NHIS.

Perguntas/Domínios do Conjunto Ampliado do WG	Rótulo de variável	Padrão de resposta
VISÃO		
1. Você tem dificuldade para enxergar mesmo quando usa óculos?	VIS_SS	1
COMUNICAÇÃO		
2. Usando sua linguagem habitual, você tem dificuldade para se comunicar (por exemplo, para compreender ou ser compreendido(a) por outras pessoas)?	COM_SS	1
AUDIÇÃO		
3. Você tem dificuldade em ouvir mesmo quando usa um aparelho auditivo?	HEAR_SS	1
4. Tem dificuldade para ouvir o que é dito em uma conversa com outra pessoa em um local silencioso?	HEAR_3	1
5. Tem dificuldade para ouvir o que é dito em uma conversa com outra pessoa em um local silencioso?	HEAR_4	1
COGNIÇÃO		
6. Você tem dificuldade para se lembrar de coisas ou para se concentrar?	COG_SS	1
7. Tem dificuldade para se lembrar de coisas, se concentrar ou ambos?	COG_1	2

8. Com que frequência você tem dificuldade para se lembrar de coisas?	COG_2	3
9. De quantas coisas você tem dificuldade de se lembrar?	COG_3	4
CUIDADOS PESSOAIS / PARTE SUPERIOR DO CORPO		
10. Você tem dificuldade (para realizar cuidados pessoais como) para lavar o corpo ou se vestir?	SC_SS	1
11. Tem dificuldade para levantar uma garrafa de dois litros de água da cintura até a altura dos olhos?	UB_1	1
12. Grau de dificuldade para usar as mãos e os dedos	UB_2	1
MOBILIDADE		
13. Você tem dificuldade para andar ou subir degraus?	MOB_SS	1
14. Tem dificuldade para andar 100 metros em terreno plano sem auxílio ou equipamento?	MOB_4	1
15. Tem dificuldade para andar 500 metros em terreno plano sem auxílio ou equipamento?	MOB_5	1
16. Tem dificuldade para subir ou descer 12 degraus sem auxílio ou equipamento?	MOB_6	1
AFETO (ANSIEDADE)		
17. Com que frequência você fica preocupado(a), nervoso(a) ou ansioso(a)?	ANX_1	5
18. Qual seria o nível dos seus sentimentos na última vez que se sentiu preocupado(a), nervoso(a) ou ansioso(a)?	ANX_3	6
AFETO (DEPRESSÃO)		
19. Com que frequência você se sente deprimido(a)?	DEP_1	5
20. Na última vez que você se sentiu deprimido(a), qual foi o nível da depressão?	DEP_3	6
DOR		
21. Nos últimos três meses, com que frequência você sentiu dor?	DOR	7
22. Na última vez que você sentiu dor, qual foi o nível da dor?	DOR	6
FADIGA		
23. Nos últimos três meses, com que frequência você se sentiu muito cansado(a) ou exausto(a)?	TIRED_1	7
24. Na última vez que você se sentiu muito cansado(a) ou exausto(a), quanto tempo durou essa sensação?	TIRED_2	8
25. Na última vez que você se sentiu assim muito cansado(a) ou exausto(a), como você descreveria o nível de cansaço ou exaustão?	TIRED_3	6

OBS.: A cor **Vermelha** indica o Conjunto resumido de perguntas do Grupo de Washington (**WG-SS**).

Todas as 25 perguntas estão incluídas no **WG-ES 1**.

Perguntas destacadas em **Vermelho** mais **Azul** mais **Verde** estão incluídas no **WG-ES 2**.

Perguntas destacadas em **Vermelho** mais **Verde** estão incluídas no **WG-ES 3**.

Padrões de resposta:

	Padrão 1	Padrão 2	Padrão 3	Padrão 4
1	Nenhuma dificuldade	Apenas dificuldade para me lembrar de coisas	Às vezes	Algumas coisas
2	Sim, alguma dificuldade	Apenas dificuldade para me concentrar	Frequentemente	Muitas coisas
3	Sim, muita dificuldade	Dificuldade tanto para me lembrar de coisas como para me concentrar	O tempo todo	Quase tudo
4	Não consigo de modo algum			
7	Não quis responder			
8	Não comprovado			
9	Não sabe			

	Padrão 5	Padrão 6*	Padrão 7	Padrão 8
1	Diariamente	Fraco	Nunca	Uma parte do dia
2	Semanalmente	Intenso	Em alguns dias	A maior parte do dia
3	Mensalmente	Em algum ponto intermediário entre fraco e intenso	Na maioria dos dias	O dia inteiro
4	Algumas vezes por ano		Todos os dias	
5	Nunca			
7	Não quis responder			
8	Não comprovado			
9	Não sabe			

*** NA SINTAXE ABAIXO, OBSERVE QUE ITENS COM O PADRÃO DE RESPOSTA 6 (ANX_3, DEP_3, PAIN_4 E TIRED_3) SÃO RECODIFICADOS PARA SITUAR "EM ALGUM PONTO INTERMEDIÁRIO" NUMERICAMENTE NO PONTO CORRESPONDENTE ENTRE "FRACO" E "INTENSO".**

O conjunto WG-SS está incorporado ao WG-ES. O conjunto WG-ES é complementado por:

- perguntas adicionais aos 6 domínios existentes e
- domínios adicionais (diversos domínios com diversas perguntas).

A sintaxe Stata apresentada abaixo inclui alguns elementos específicos para o conteúdo do conjunto WG-ES.

Em primeiro lugar, foi importante determinar identificadores individuais de domínios específicos para

domínios de funcionalidade que incluíam múltiplas perguntas. Por exemplo, a funcionalidade da parte superior do corpo inclui duas perguntas, cada uma das quais relacionadas a ações específicas e singulares: dificuldade para levantar uma garrafa de água da cintura até a altura dos olhos (braços/ombros) e dificuldade para usar as mãos e os dedos. Essas duas perguntas foram analisadas e combinadas para produzir um indicador individual para a parte superior do corpo com quatro níveis de dificuldade que variam de 1 - pouca dificuldade - a 4 - muita dificuldade -, não muito diferentes das respostas categóricas às perguntas individuais do conjunto WG-SS: nenhuma dificuldade, alguma dificuldade, muita dificuldade e não consegue de forma alguma. Assim como no domínio da parte superior do corpo, os domínios do conjunto WG-ES, a saber, cognição, ansiedade, depressão, dor e fadiga, têm diferentes padrões de resposta que não se traduzem facilmente no padrão de resposta usual do WG. Para esses domínios de funcionalidade, um padrão semelhante de respostas em 4 escalas foi produzido e anotado como de nível 1 a 4, em que 1 é o nível mais baixo de dificuldade e 4 corresponde ao mais alto.

Em segundo lugar, indicadores de domínio individuais foram avaliados para determinar o ponto de corte adequado para inclusão em um identificador geral de deficiência – com o objetivo de estimar a prevalência e desagregar os indicadores de resultados por condição de deficiência.

OBS.:

Para todas as variáveis, os códigos (7) *Não quis responder*, (8) *Não comprovado* e (9) *Não sabe* são recodificados para Ausente.

Stata WG Extended Set Syntax Annotated with Output Tables

Actual Stata syntax is indented and are in **Bold** text.

NOTE: For data analysis, use your standard weighting and estimation techniques.

The syntax below produces **frequency distributions** on individual domain questions – **cross-tabulations** on multiple domain questions, and calculates INDICATOR variables for domains with multiple questions – for use in the determination of disability identifiers.

VISION

Step 1. Generate frequency distribution for Vision domain.

VIS_SS is the WG-SS Vision question.

```
gen Vision=VIS_SS if inlist(VIS_SS, 1,2,3,4)
replace Vision=. if inlist(VIS_SS, 7,8,9)
tabulate Vision
```

Vision: Degree of difficulty seeing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difficulty	13690	79.0	81.6	81.6

	Some difficulty	2708	15.6	16.2	97.8
	A lot of difficulty	333	1.9	2.0	99.8
	Cannot do at all	36	.2	.2	100.0
	Total	16767	96.8	100.0	
Missing		559	3.2		
Total		17326	100.0		

COMMUNICATION

Step 2. Generate frequency distribution for Communication domain.

COM_SS is the WG-SS Communication question.

```
gen Communication=COM_SS if inlist(COM_SS, 1,2,3,4)
replace Communication =. if inlist(COM_SS, 7,8,9)
tabulate Communication
```

Communication: Degree of difficulty communicating using usual language

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difficulty	15874	91.6	94.7	94.7
	Some difficulty	745	4.3	4.4	99.2
	A lot of difficulty	94	.5	.6	99.7
	Cannot do at all	43	.2	.3	100.0
	Total	16756	96.7	100.0	
Missing		570	3.3		
Total		17326	100.0		

HEARING

Step 3. Generate frequency distributions and cross-tabulations for Hearing domain questions and determine Hearing Indicator

HEAR_SS is the WG-SS Hearing question.

```
gen Hearing=HEAR_SS if inlist(HEAR_SS, 1,2,3,4)
replace Hearing=. if inlist(HEAR_SS, 7,8,9)
```

HEAR_3 is *Difficulty hearing conversation with one person in quiet room.*

```
gen HEAR_3_R=HEAR_3 if inlist(HEAR_3, 1,2,3,4)
replace HEAR_3_R =. if inlist(HEAR_3, 7,8,9)
```

HEAR_4 is *Difficulty hearing one person in noisier room.*

```
gen HEAR_4_R=HEAR_4 if inlist(HEAR_4, 1,2,3,4)
replace HEAR_4_R=. if inlist(HEAR_4, 7,8,9)
tabulate Hearing
```


Hearing: Degree of difficulty hearing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difficulty	13680	79.0	81.6	81.6
	Some difficulty	2753	15.9	16.4	98.0
	A lot of difficulty	310	1.8	1.8	99.9
	Cannot do at all	23	.1	.1	100.0
	Total	16766	96.8	100.0	
Missing		560	3.2		
Total		17326	100.0		

tabulate HEAR_3_R

HEAR_3_R: Difficulty hearing conversation with one person in quiet room

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difficulty	15249	88.0	91.0	91.0
	Some difficulty	1316	7.6	7.9	98.9
	A lot of difficulty	162	.9	1.0	99.9
	Cannot do at all	10	.1	.1	100.0
	Total	16737	96.6	100.0	
Missing		589	3.4		
Total		17326	100.0		

tabulate HEAR_4_R

HEAR_4_R: Difficulty hearing one person in noisier room

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difficulty	11697	67.5	70.0	70.0
	Some difficulty	4191	24.2	25.1	95.1
	A lot of difficulty	779	4.5	4.7	99.7
	Cannot do at all	48	.3	.3	100.0
	Total	16715	96.5	100.0	
Missing		611	3.6		
Total		17326	100.0		

Step 4. For Hearing questions, recode HEAR_3_R and HEAR_4_R to value 4 (cannot do at all) if Hear_SS is 4 (Cannot do at all).

The syntax below recodes HEAR_3_R and HEAR_4_R to 4 (cannot do at all) if Hear_SS is 4 (cannot do at all).

gen HEAR_3_X=HEAR_3_R

replace HEAR_3_X=4 **if** Hearing==4 & HEAR_3_R==.

gen HEAR_4_X=HEAR_4_R

replace HEAR_4_X=4 **if** Hearing==4 & HEAR_4_R==.

tabulate HEAR_3_X

HEAR_3_X: Difficulty hearing conversation with one person in quiet room

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difficulty	15249	88.0	91.0	91.0
	Some difficulty	1316	7.6	7.9	98.8
	A lot of difficulty	162	.9	1.0	99.8
	Cannot do at all	33	.2	.2	100.0
	Total	16760	96.7	100.0	
Missing		566	3.3		
Total		17326	100.0		

tabulate HEAR_4_X

HEAR_4_X: Difficulty hearing one person in noisier room

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difficulty	11697	67.5	69.9	69.9
	Some difficulty	4191	24.2	25.0	94.9
	A lot of difficulty	779	4.5	4.7	99.6
	Cannot do at all	71	.4	.4	100.0
	Total	16738	96.6	100.0	
Missing		588	3.4		
Total		17326	100.0		

Step 5. Generate a cross-tabulation of the two Hearing Extended Set questions: HEAR_3_X and HEAR_4_X.

The syntax below produces a cross-tabulation of the two Extended Set questions: HEAR_3_X: *Difficulty hearing in a quiet room* and HEAR_4_X: *Difficulty hearing in a noisier room* to determine a single HEARING INDICATOR.

tabulate HEAR_4_X HEAR_3_X

**HEAR_3_X : Difficulty hearing conversation with one person
in quiet room**

HEAR_4_X (Difficulty hearing in a Nosier room)		HEAR_3_X : Difficulty hearing conversation with one person in quiet room				Total
		No difficulty	Some difficulty	A lot of difficulty	Cannot do at all	
No difficulty	11603	94	0	0	11697	
Some difficulty	3373	809	8	0	4190	
A lot of difficulty	253	388	138	0	779	
Cannot do at all	8	24	16	23	71	
Total	15237	1315	162	23	16737	

Step 6. Create a HEARING INDICATOR (H_INDICATOR) based on the two additional hearing questions HEAR_3_X and HEAR_4_X.

The syntax below creates a HEARING INDICATOR (H_INDICATOR) based on the cross-tabulation of the two additional hearing questions HEAR_3_X and HEAR_4_X.

```

gen H_INDICATOR=.
replace H_INDICATOR=1 if (HEAR_3_X==1 & HEAR_4_X==1) | ///
(HEAR_3_X==1 & HEAR_4_X==2)
replace H_INDICATOR=2 if (HEAR_3_X==2 & (HEAR_4_X==1 | ///
HEAR_4_X==2)) | (HEAR_3_X==1 & HEAR_4_X==3)
replace H_INDICATOR=3 if (HEAR_3_X==3 & (HEAR_4_X==1 | ///
HEAR_4_X==2) | (HEAR_3_X==2 & HEAR_4_X==3) | ///
(HEAR_3_X==1 & HEAR_4_X==4))
replace H_INDICATOR=4 if ((HEAR_3_X==3 & HEAR_4_X==3) | ///
HEAR_3_X==4 | (HEAR_4_X==4 & (HEAR_3_X==2 | HEAR_3_X==3)))
tabulate H_INDICATOR

```

		H_INDICATOR			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	14976	86.4	89.4	89.4
	2.00	1156	6.7	6.9	96.3
	3.00	404	2.3	2.4	98.7
	4.00	211	1.2	1.3	100.0
	Total	16747	96.7	100.0	
Missing		579	3.3		
Total		17326	100.0		

COGNITION: Degree of difficulty remembering or concentrating

Step 7. Generate frequency distributions and cross-tabulations for Cognition domain questions and determine a Cognition Indicator.

```
gen Cognition=COG_SS if inlist(COG_SS, 1,2,3,4)
replace Cognition=. if inlist(COG_SS, 7,8,9)
tabulate Cognition
```

Cognition: Degree of difficulty remembering or concentrating

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difficulty	13719	79.2	81.9	81.9
	Some difficulty	2632	15.2	15.7	97.6
	A lot of difficulty	382	2.2	2.3	99.9
	Cannot do at all	20	.1	.1	100.0
	Total	16753	96.7	100.0	
Missing		573	3.3		
Total		17326	100.0		

If response to COG-SS is *some difficulty*, *a lot of difficulty* or *cannot do at all*, then the respondent is asked COG_1: whether they have difficulty remembering, concentrating or both.

```
gen COG_1_R=COG_1 if inlist(COG_1, 1,2,3)
replace COG_1_R=. if inlist(COG_1, 7,8,9)
tabulate COG_1_R
```

COG_1_R: Difficulty remembering, concentrating, or both?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Difficulty remembering only	983	5.7	32.4	32.4
	Difficulty concentrating only	388	2.2	12.8	45.2
	Difficulty with both remembering and concentrating	1659	9.6	54.8	100.0
	Total	3030	17.5	100.0	
Missing		14296	82.5		
Total		17326	100.0		

Step 8. Account for those who did not answer COG_1 (COG_SS is 1 – no difficulty and they were skipped) by recoding COG_1 to 0 (No difficulty).

If response to COG-SS is 1: *no difficulty*, then the variable COG_1_R is recoded into COG_1A, and the value assigned is 0: *no difficulty*.

```
gen COG_1A=COG_1_R
replace COG_1A=0 if COG_SS==1
tabulate COG_1A
```

COG_1A: Difficulty remembering, concentrating, or both? (including no difficulty)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difficulty	13719	79.2	81.9	81.9
	Difficulty remembering only	983	5.7	5.9	87.8
	Difficulty concentrating only	388	2.2	2.3	90.1
	Difficulty with both remembering and concentrating	1659	9.6	9.9	100.0
	Total	16749	96.7	100.0	
Missing		577	3.3		
Total		17326	100.0		

Step 9. Generate frequency distribution for remaining cognition questions.

Frequency distribution of the Cognition extended REMEMBERING questions: COG_2 *How often have difficulty remembering*, and COG_3 *Amount of things you have difficulty remembering*.

```
gen COG_2_R=COG_2 if inlist(COG_2, 1,2,3)
replace COG_2_R=. if inlist(COG_2, 7,8,9)
```

```
gen COG_3_R=COG_3 if inlist(COG_3, 1,2,3)
replace COG_3_R=. if inlist(COG_3, 7,8,9)
tabulate COG_2_R
```

COG_2_R: How often have difficulty remembering?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sometimes	1916	11.1	72.4	72.4
	Often	513	3.0	19.4	91.8
	All of the time	216	1.2	8.2	100.0
	Total	2645	15.3	100.0	
Missing		14681	84.7		
Total		17326	100.0		

tabulate COG_3_R

COG_3_R: Amount of things you have difficulty remembering?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A few things	2119	12.2	80.3	80.3
	A lot of things	386	2.2	14.6	94.9
	Almost everything	134	.8	5.1	100.0
	Total	2639	15.2	100.0	
Missing		14687	84.8		
Total		17326	100.0		

Step 10. Generate cross-tabulation of the two Cognition extended set questions COG_2R by COG_3_R.

The syntax below produces a cross-tabulation of the two Extended Set REMEMBERING questions: COG_2_R: *How often you have difficulty remembering* and COG_3_R: *The amount of things you have difficulty remembering* to determine a single REMEMBERING INDICATOR.

tabulate COG_2_R COG_3_R

		COG_3_R: Amount of things you have difficulty remembering?				
		A few things	A lot of things	Almost everything	Total	
COG_2_R: How often do you have difficulty remembering?	How often have difficulty remembering?	Sometimes	1788	105	20	1913
		Often	279	197	34	510
		All of the time	51	84	80	215
Total			2118	386	134	2638

Step 11. Create a Remembering Indicator based on distribution of COG_2_R and COG_3_R.

The syntax below creates a REMEMBERING INDICATOR (R_INDICATOR) based on the two additional remembering questions (COG_2_R and COG_3_R).

If Cognition is 1: no difficulty, then the Remembering Indicator is coded as 1: the lowest level of difficulty.

```

gen R_INDICATOR=0
replace R_INDICATOR=1 if Cognition==1
replace R_INDICATOR=2 if ((COG_2_R==1 & COG_3_R==1) | ///
(COG_3_R==1 & COG_2_R==2) | (COG_3_R==2 & COG_2_R==1))
replace R_INDICATOR=3 if (COG_3_R==2 & COG_2_R==2)
replace R_INDICATOR=4 if (COG_3_R==3 | COG_2_R==3)

```

Step 12. If COG_1A is coded as 2 (concentrating only), then the Remembering Indicator is coded as 5.

These 388 individuals are respondents who were not included in the Remembering Indicator since they had only difficulty concentrating.

```
replace R_INDICATOR=5 if (COG_1A==2)
```

Step 13. Generate frequency distribution of the Remembering Indicator.

```
tabulate R_INDICATOR
```

		R_INDICATOR			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	580	3.3	3.3	3.3
	1.00	13719	79.2	79.2	82.5
	2.00	2172	12.5	12.5	95.1
	3.00	197	1.1	1.1	96.2
	4.00	270	1.6	1.6	97.8
	5.00	388	2.2	2.2	100.0
Total		17326	100.0	100.0	

Step 14. Supplement Remembering Indicator with information on difficulty concentrating.

The syntax below adds information on whether cognitive difficulties are compounded by difficulty concentrating in addition to difficulty remembering.

Create a COGNITION INDICATOR (COG_INDICATOR) based on R_INDICATOR (above) and the cognition question (COG_1_R).

The 388 individuals with ‘concentrating only’ were allocated as follows:

1. 357 with a little difficulty on Cognition question were classified as **2**
2. 30 with a lot of difficulty on Cognition question were classified as **3**
3. 1 with cannot do on Cognition question was classified as **4**

Those with both remembering and concentrating difficulty were upgraded 36 individuals from **2** to **3**, and 125 individuals from **3** to **4**.

```
gen COG_INDICATOR=R_INDICATOR
```

```
replace COG_INDICATOR=2 if (R_INDICATOR==5 & Cognition==2)
```

```
replace COG_INDICATOR=3 if (R_INDICATOR==5 & Cognition==3)
```

```
replace COG_INDICATOR=4 if (R_INDICATOR==5 & Cognition==4)
```

```
replace COG_INDICATOR=3 if (R_INDICATOR==2 & COG_1_R==3 & Cognition==3)
```

```
replace COG_INDICATOR=4 if (R_INDICATOR==3 & COG_1_R==3 & Cognition==3)
```

Step 15. Generate frequency distribution of the Cognition Indicator.

tabulate COG_INDICATOR

		COG_INDICATOR			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	580	3.3	3.3	3.3
	1.00	13719	79.2	79.2	82.5
	2.00	2449	14.1	14.1	96.7
	3.00	226	1.3	1.3	98.0
	4.00	352	2.0	2.0	100.0
Total		17326	100.0	100.0	

UPPER BODY

Step 16. Generate frequency distributions and cross-tabulations for Self-care and Upper body domain questions and determine the Upper Body Indicator.

SC_SS is the WG-SS Self-care question.

UB_1 is *Difficulty raising 2 liter bottle of water from waist to eye level.*

UB_2 is *Difficulty using hands and fingers*

gen SELF_CARE=SC_SS **if inlist**(SC_SS, 1,2,3,4)
replace SELF_CARE=. **if inlist**(SC_SS, 7,8,9)

gen UB_1_R=UB_1 **if inlist**(UB_1, 1,2,3,4)
replace UB_1_R=. **if inlist**(UB_1, 7,8,9)

gen UB_2_R=UB_2 **if inlist**(UB_2, 1,2,3,4)
replace UB_2_R=. **if inlist**(UB_2, 7,8,9)

First, calculate frequency distributions on the short set and two extended set questions.

tabulate SELF_CARE

		SELF_CARE: Degree of difficulty with self-care			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difficulty	16029	92.5	95.7	95.7
	Some difficulty	544	3.1	3.2	98.9
	A lot of difficulty	114	.7	.7	99.6
	Cannot do at all	68	.4	.4	100.0
	Total	16755	96.7	100.0	
Missing		571	3.3		
Total		17326	100.0		

tabulate UB_1_R

UB_1_R: Diff raising 2 liter bottle of water from waist to eye level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difficulty	15677	90.5	93.6	93.6
	Some difficulty	743	4.3	4.4	98.0
	A lot of difficulty	167	1.0	1.0	99.0
	Cannot do at all	166	1.0	1.0	100.0
	Total	16753	96.7	100.0	
Missing		573	3.3		
Total		17326	100.0		

tabulate UB_2_R

UB_2_R: Degree of difficulty using hands and fingers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difficulty	15199	87.7	90.7	90.7
	Some difficulty	1229	7.1	7.3	98.1
	A lot of difficulty	255	1.5	1.5	99.6
	Cannot do at all	70	.4	.4	100.0
	Total	16753	96.7	100.0	
Missing		573	3.3		
Total		17326	100.0		

Step 17. Generate a cross-tabulation of the two Upper body Extended Set questions: UB_2_R and UB_1_R.

The syntax below produces a cross-tabulation of the two Extended Set questions: UB_1_R: *Difficulty raising a 2 liter bottle of water from waste to eye level* UB_2_R: *Difficulty using hands and fingers* to determine a single UPPER BODY INDICATOR (UB_INDICATOR).

tabulate UB_2_R UB_1_R

		UB_1_R: Diff raising 2 liter bottle of water from waist to eye level				Total
		No difficulty	Some difficulty	A lot of difficulty	Cannot do at all	
UB_2_R: Difficulty using hands and fingers	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 at all	9	5	7	49	70
Total		15675	742	167	166	16750

Step 18. Create an UPPER BODY INDICATOR (UB_INDICATOR) based on the two additional upper body questions UB_2_R and UB_3_R.

Syntax below creates UB_INDICATOR based on the distribution in the cross-tabulation above.

```
gen UB_INDICATOR=4 if (UB_1_R==4 | UB_2_R==4)
replace UB_INDICATOR=3 if UB_INDICATOR ~=4 & (UB_1_R==3 | UB_2_R==3)
replace UB_INDICATOR=2 if UB_INDICATOR ~=4 & UB_INDICATOR~=3 & ///
(UB_1_R==2 | UB_2_R==2)
replace UB_INDICATOR=1 if UB_INDICATOR~=4 & UB_INDICATOR~=3 & ///
UB_INDICATOR~=2 & (UB_1_R==1 | UB_2_R==1)
tabulate UB_INDICATOR
```

		UB_INDICATOR			
		Frequen cy	Percent	Valid Percent	Cumulative Percent
Valid	1.00	14790	85.4	88.3	88.3
	2.00	1448	8.4	8.6	96.9
	3.00	331	1.9	2.0	98.9
	4.00	187	1.1	1.1	100.0
	Total	16756	96.7	100.0	
Missing		570	3.3		
Total		17326	100.0		

MOBILITY

Step 19. Generate frequency distributions and cross-tabulations for Mobility domain questions and determine Mobility Indicator.

MOB_SS is the WG-SS Mobility question.

MOB_4 is Difficulty walking 100 yards on level ground without aid or equipment.

MOB_5 is Difficulty walking 1/3rd mile on level ground without aid or equipment.

```
gen Mobility=MOB_SS if inlist(MOB_SS, 1,2,3,4)
replace Mobility=. if inlist(MOB_SS, 7,8,9)
```

```
gen MOB_4_R=MOB_4 if inlist(MOB_4, 1,2,3,4)
replace MOB_4_R=. if inlist(MOB_4, 7,8,9)
```

```
gen MOB_5_R=MOB_5 if inlist(MOB_5, 1,2,3,4)
replace MOB_5_R=. if inlist(MOB_5, 7,8,9)
```

First, calculate frequency distributions on the short set and two extended set WALKING questions.

tabulate Mobility

Mobility: Degree of difficulty walking or climbing steps

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difficulty	13424	77.5	80.1	80.1
	Some difficulty	2165	12.5	12.9	93.0
	A lot of difficulty	792	4.6	4.7	97.7
	Cannot do at all	380	2.2	2.3	100.0
	Total	16761	96.7	100.0	
Missing		565	3.3		
Total		17326	100.0		

tabulate MOB_4_R

MOB_4_R: Diff walking 100 yards on level ground w/o aid or equipment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difficulty	13892	80.2	84.8	84.8
	Some difficulty	1369	7.9	8.4	93.2
	A lot of difficulty	491	2.8	3.0	96.2
	Cannot do at all	623	3.6	3.8	100.0
	Total	16375	94.5	100.0	
Missing		951	5.5		
Total		17326	100.0		

tabulate MOB_5_R

MOB_5_R: Diff walking 1/3rd mile on level ground w/o aid or equipment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difficulty	13025	75.2	82.8	82.8
	Some difficulty	1650	9.5	10.5	93.3
	A lot of difficulty	708	4.1	4.5	97.8
	Cannot do at all	347	2.0	2.2	100.0
	Total	15730	90.8	100.0	
Missing		1596	9.2		
Total		17326	100.0		

Step 20. Generate a cross-tabulation of the walking distance questions: MOB_4_R and MOB_5_R.

The syntax below produces a cross-tabulation of the two Extended Set WALKING questions: MOB_4_R: *Difficulty walking 100 yards without equipment* and MOB_5_R: *Difficulty walking 1/3 mile without equipment* to determine a single WALKING INDICATOR.

NOTE: **623** individuals who responded cannot do at all to MOB_4_R were not asked MOB_5_R and they do not appear in the table below. They are, however, accounted for in the WALKING indicator calculation.

tabulate MOB_4_R MOB_5_R

MOB_4_R: Diff walking 100 yards on level ground w/o aid or equipment	MOB_5_R: Diff walking 1/3rd mile on level ground w/o aid or equipment				Total
	No difficulty	Some difficulty	A lot of difficulty	Cannot do at all	
No difficulty	12950	819	63	39	13871
Some difficulty	72	810	343	142	1367
A lot of difficulty	3	21	301	166	491
Cannot do at all (623)	0	0	0	0	0
Total	13025	1650	707	347	15729

Step 21. Create a WALKING INDICATOR (WALK_INDICATOR) based on the two additional walking questions MOB_4_R and MOB_5_R.

Syntax below creates WALKING_INDICATOR based on the distribution in the cross-tabulation above.

```

gen WALK_INDICATOR=0
replace WALK_INDICATOR=1 if (MOB_4_R==1 & (MOB_5_R==1 | MOB_5_R==2))
replace WALK_INDICATOR=2 if (MOB_4_R==1 & MOB_5_R==3) | (MOB_4_R==2 & ///
(MOB_5_R==1 | MOB_5_R== 2 | MOB_5_R==3))
replace WALK_INDICATOR=3 if (MOB_4_R==1 & MOB_5_R==4) | (MOB_4_R==3 & ///
(MOB_5_R==1 | MOB_5_R==2 | MOB_5_R==3))
replace WALK_INDICATOR=4 if (MOB_4_R==2 & MOB_5_R==4) | (MOB_4_R==3 & ///
MOB_5_R==4)

```

Syntax below includes the **623** who responded cannot do at all to MOB_4_R into the WALKING INDICATOR.

```

replace WALK_INDICATOR=4 if (WALK_INDICATOR==0 & MOB_4_R==4)
replace WALK_INDICATOR=. if WALK_INDICATOR==0
tabulate WALK_INDICATOR

```

WALK_INDICATOR

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	13769	79.5	84.2	84.2
	2.00	1288	7.4	7.9	92.1
	3.00	364	2.1	2.2	94.3
	4.00	931	5.4	5.7	100.0
	Total	16352	94.4	100.0	
Missing		974	5.6		
Total		17326	100.0		

Step 22. Supplement Walking Indicator with information on difficulty Climbing steps (MOB_6).

Syntax below adds information from MOB_6 on *difficulty climbing up or down 12 steps* to create a combined Mobility Indicator (MOB_INDICATOR).

```
gen MOB_6_R=MOB_6 if inlist(MOB_6, 1,2,3,4)
replace MOB_6_R=. if inlist(MOB_6, 7,8,9)
tabulate WALK_INDICATOR MOB_6_R
```

		MOB_6_R: Difficulty climbing up or down 12 steps				
WALK_INDICATOR		No difficulty	Some difficulty	A lot of difficulty	Cannot do at all	Total
walk_INDICATOR2	1.00	13048	645	55	17	13765
	2.00	370	767	135	16	1288
	3.00	43	106	200	14	363
	4.00	79	242	226	384	931
Total		13540	1760	616	431	16347

According to the table above, the syntax below reclassifies:

- 55 individuals with level 1 on the WALKING INDICATOR as level 2 on the MOBILITY INDICATOR
- 17 individuals with level 1 on the WALKING INDICATOR and 135 individuals with level 2 on the WALKING INDICATOR as level 3 on the MOBILITY INDICATOR, and
- 16 individuals with level 2 on the WALKING INDICATOR as level 4 on the MOBILITY INDICATOR.

Step 23. Create a mobility indication (MOB_INDICATOR) with information garnered from cross-tabulation above.

```
gen MOB_INDICATOR= WALK_INDICATOR
replace MOB_INDICATOR=2 if (WALK_INDICATOR==1 & MOB_6_R==3)
```

```

replace MOB_INDICATOR=3 if (WALK_INDICATOR==2 & MOB_6_R==3) | ///
(WALK_INDICATOR==1 & MOB_6_R==4)
replace MOB_INDICATOR=4 if (WALK_INDICATOR==2 & MOB_6_R==4)
tabulate MOB_INDICATOR

```

		MOB_INDICATOR			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	13697	79.1	83.8	83.8
	2.00	1192	6.9	7.3	91.1
	3.00	516	3.0	3.2	94.2
	4.00	947	5.5	5.8	100.0
	Total	16352	94.4	100.0	
Missing		974	5.6		
Total		17326	100.0		

ANXIETY

Step 24. Generate frequency distribution on ANX_1.

First, calculate frequency distributions on ANX_1: *How often do you feel worried, nervous or anxious?*

```

gen ANX_1_R=ANX_1 if inlist(ANX_1, 1,2,3,4,5)
replace ANX_1_R=. if inlist(ANX_1, 7,8,9)
tabulate ANX_1_R

```

ANX_1_R: How often feel worried, nervous, or anxious?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Daily	1632	9.4	9.8	9.8
	Weekly	1872	10.8	11.2	21.0
	Monthly	1558	9.0	9.3	30.4
	A few times a year	4898	28.3	29.4	59.7
	Never	6714	38.8	40.3	100.0
	Total	16674	96.2	100.0	
Missing		652	3.8		
Total		17326	100.0		

Step 25. The syntax below recodes ANX_3R into ANX_3Y

- 1) to create a NOT ASKED category based on those who responded NEVER to ANX_1_R and
- 2) to place "SOMEWHERE BETWEEN" numerically in-between "A LITTLE" and "A LOT".

```

gen ANX_3Y=1 if ANX_3R==1

```

replace ANX_3Y=3 if ANX_3R==2
 replace ANX_3Y=2 if ANX_3R==3
 replace ANX_3Y=. if inlist(ANX_3R, 7, 8, 9)

Recode ANX_3Y to 0 (not asked) if ANX_1 is 5 (Never)

replace ANX_3Y=0 if ANX_1==5
 tabulate ANX_3Y

ANX_3Y: Level of feelings last time felt worried/nervous/anxious

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not asked	6714	38.8	40.3	40.3
	A little	5700	32.9	34.2	74.5
	In between a little and a lot	3076	17.8	18.5	92.9
	A lot	1176	6.8	7.1	100.0
	Total	16666	96.2	100.0	
Missing		660	3.8		
Total		17326	100.0		

Step 26. Generate a cross-tabulation of the anxiety Extended Set questions: ANX_1_R and ANX_3Y.

The syntax below produces a cross-tabulation of ANX_1_R: *How often you felt worried, nervous or anxious* (a measure of frequency) and ANX_3Y: *The level of those feeling the last time you felt worried, nervous or anxious* (a measure of intensity) – used to determine a single ANXIETY INDICATOR (ANX_INDICATOR).

tabulate ANX_3Y ANX_1_R

ANX_3Y: Level of feelings last time felt worried, nervous or anxious	ANX_1_R: How often feel worried, nervous or anxious?					Total
	Daily	Weekly	Monthly	A Few Times A Year	Never	
Not asked	0	0	0	0	6714	6714
A little	489	887	897	3417	0	5690
In between a little and a lot	589	725	535	1221	0	3070
A lot	548	256	123	248	0	1175
Total	1626	1868	1555	4886	6714	16649

Step 27. Create an ANXIETY INDICATOR (ANX_INDICATOR) based on the two anxiety questions ANX_1_R and ANX_3Y.

Syntax below creates ANX_INDICATOR based on the distribution in the cross-tabulation above.

```

gen ANX_INDICATOR=1 if (ANX_3Y <= 4 & (ANX_1_R==4 | ANX_1_R==5))
replace ANX_INDICATOR=2 if ((ANX_1_R==3) | (ANX_1_R < 3 & ANX_3Y==1) | ///
(ANX_1_R==2 & ANX_3Y==2))
replace ANX_INDICATOR=3 if ((ANX_1_R==1 & ANX_3Y==2) | ///
(ANX_1_R==2 & ANX_3Y==3))
replace ANX_INDICATOR=4 if (ANX_1_R==1 & ANX_3Y==3)
replace ANX_INDICATOR=. if (missing(ANX_1_R) | missing(ANX_3Y))
tabulate ANX_INDICATOR

```

ANX_INDICATOR

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	11600	67.0	69.7	69.7
	2.00	3656	21.1	22.0	91.6
	3.00	845	4.9	5.1	96.7
	4.00	548	3.2	3.3	100.0
	Total	16649	96.1	100.0	
Missing		677	3.9		
Total		17326	100.0		

DEPRESSION

Step 28. Generate frequency distribution on DEP_1.

First, calculate frequency distributions on DEP_1: *How often do you feel depressed?*

```

gen DEP_1_R=DEP_1 if inlist(DEP_1, 1,2,3,4,5)
replace DEP_1_R=. if inlist(DEP_1, 7,8,9)
tabulate DEP_1_R

```

DEP_1_R: How often do you feel depressed?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Daily	756	4.4	4.5	4.5
	Weekly	926	5.3	5.6	10.1
	Monthly	1038	6.0	6.2	16.3
	A few times a year	4012	23.2	24.1	40.4
	Never	9929	57.3	59.6	100.0
	Total	16661	96.2	100.0	
Missing		665	3.8		
Total		17326	100.0		

Step 29. The syntax below recodes DEP_3R into DEP_3Y to place “SOMEWHERE BETWEEN” numerically in-between “A LITTLE” and “A LOT”. It also creates the category NOT ASKED, if DEP_1 is NEVER (1)

```

gen DEP_3Y=1 if DEP_3R==1
replace DEP_3Y=3 if DEP_3R==2
replace DEP_3Y=2 if DEP_3R==3
replace DEP_3Y=. if inlist(DEP_3R, 7,8,9)

replace DEP_3Y=0 if DEP_1==5
tabulate DEP_3Y

```

DEP_3Y: Level of feelings last time felt depressed

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not asked	9929	57.3	59.6	59.6
	A little	3775	21.8	22.7	82.3
	In between a little and a lot	2016	11.6	12.1	94.4
	A lot	935	5.4	5.6	100.0
	Total	16655	96.1	100.0	
Missing		671	3.9		
Total		17326	100.0		

Step 30. Generate a cross-tabulation of the depression Extended Set questions: DEP_1_R and DEP_3Y.

The syntax below produces a cross-tabulation of DEP_1_R: *How often do you feel depressed* (a measure of frequency) and DEP_3Y: *The level of those feeling the last time you felt depressed* (a measure of intensity) – used to determine a single DEPRESSION INDICATOR (DEP_INDICATOR).

```

tabulate DEP_3Y DEP_1_R

```

DEP_3Y: Level of feelings last time felt depressed	DEP_1_R: How often do you feel depressed?					Total
	Daily	Weekly	Monthly	A Few Times A Year	Never	
Not asked	0	0	0	0	9929	9929
A little	161	346	548	2708	0	3763
In between a little and a lot	209	384	378	1042	0	2013
A lot	381	191	112	248	0	932
Total	751	921	1038	3998	9929	16637

Step 31. Create a DEPRESSION INDICATOR (DEP_INDICATOR) based on the two depression questions DEP_1_R and DEP_3Y.

Syntax below creates DEP_INDICATOR based on the distribution in the cross-tabulation above.

```

gen DEP_INDICATOR=. if (missing(DEP_1_R) | missing(DEP_3Y))
replace DEP_INDICATOR=1 if (DEP_3Y <= 4 & (DEP_1_R==4 | DEP_1_R==5))
replace DEP_INDICATOR=2 if ((DEP_1_R==3) | (DEP_1_R < 3 & DEP_3Y==1) | ///
(DEP_1==2 & DEP_3Y==2))
replace DEP_INDICATOR=3 if ((DEP_1_R==1 & DEP_3Y==2) | ///
(DEP_1_R==2 & DEP_3Y==3))
replace DEP_INDICATOR=4 if (DEP_1_R==1 & DEP_3Y==3)
tabulate DEP_INDICATOR

```

DEP_INDICATOR

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	13927	80.4	83.7	83.7
	2.00	1929	11.1	11.6	95.3
	3.00	400	2.3	2.4	97.7
	4.00	381	2.2	2.3	100.0
	Total	16637	96.0	100.0	
Missing		689	4.0		
Total		17326	100.0		

PAIN

Step 32. Generate frequency distribution on PAIN_2.

First, calculate frequency distributions on PAIN_2: *Frequency of pain in the past 3 months.*

```

gen PAIN_2_R=PAIN_2 if inlist(PAIN_2, 1,2,3,4)
replace PAIN_2_R=. if inlist(PAIN_2, 7,8,9)
tabulate PAIN_2_R

```

PAIN_2_R: Frequency of pain in past 3 months

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	6636	38.3	39.8	39.8
	Some days	6556	37.8	39.3	79.2
	Most days	1227	7.1	7.4	86.5
	Every day	2245	13.0	13.5	100.0
	Total	16664	96.2	100.0	
Missing		662	3.8		
Total		17326	100.0		

Step 33. The syntax below recodes PAIN_4 into PAIN_4Y to place “SOMEWHERE BETWEEN” numerically in-between “A LITTLE” and “A LOT”. It also creates the category NOT ASKED, if PAIN_2 is NEVER (1).

```
gen PAIN_4Y=1 if PAIN_4==1
replace PAIN_4Y=3 if PAIN_4==2
replace PAIN_4Y=2 if PAIN_4==3
replace PAIN_4Y=. if inlist(PAIN_4, 7,8,9)

replace PAIN_4Y=0 if PAIN_2==1
tabulate PAIN_4Y
```

PAIN_4Y: How much pain you had last time you had pain?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not asked	6636	38.3	39.8	39.8
	A little	4865	28.1	29.2	69.0
	In between a little and a lot	3296	19.0	19.8	88.8
	A lot	1869	10.8	11.2	100.0
	Total	16666	96.2	100.0	
Missing		660	3.8		
Total		17326	100.0		

Step 34. Generate a cross-tabulation of the PAIN Extended Set questions: PAIN_2_R and PAIN_4Y.

The syntax below produces a cross-tabulation of PAIN_2_R: *Frequency of pain in the past 3 months* and PAIN_4Y: *How much pain you has the last time you had pain* (a measure of intensity) – used to determine a single PAIN INDICATOR (P_INDICATOR).

```
tabulate PAIN_4Y PAIN_2_R
```

PAIN_4Y: How much pain you had last time you had pain		PAIN_2_R: Frequency of pain in past 3 months				
		Never	Some Days	Most days	Every day	Total
Not asked		6636	0	0	0	6636
A little		0	4136	323	401	4860
In between a little and a lot		0	1772	624	896	3296
A lot		0	645	278	944	1867
Total		6636	6553	1225	2241	16655

Step 35. Create a PAIN INDICATOR (P_INDICATOR) based on the two PAIN questions PAIN_2_R and PAIN_4Y.

Syntax below creates P_INDICATOR based on the distribution in the cross-tabulation above.

```

gen P_INDICATOR=1 if (PAIN_2_R==1) | (PAIN_4Y==1 & ///
(PAIN_2_R==2 | PAIN_2_R==3))
replace P_INDICATOR=2 if ((PAIN_2_R==2 & (PAIN_4Y==2 | PAIN_4Y==3)) | ///
(PAIN_2_R==3 & PAIN_4Y==2) | (PAIN_2_R==4 & PAIN_4Y==1))
replace P_INDICATOR=3 if (PAIN_2_R==3 & PAIN_4Y==3) | ///
(PAIN_2_R==4 & PAIN_4Y==2)
replace P_INDICATOR=4 if (PAIN_2_R==4 & PAIN_4Y==3)
tabulate P_INDICATOR

```

		P_INDICATOR			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	11095	64.0	66.6	66.6
	2.00	3442	19.9	20.7	87.3
	3.00	1174	6.8	7.0	94.3
	4.00	944	5.4	5.7	100.0
	Total	16655	96.1	100.0	
Missing		671	3.9		
Total		17326	100.0		

FATIGUE (Tired)

Step 36. Generate frequency distribution on FATIGUE Extended Set questions Tired_1, Tired_2 and Tired_3.

First, calculate frequency distributions on TIRED_1: *How often you felt tired in the past 3 months.*

```

gen TIRED_1_R=TIRED_1 if inlist(TIRED_1, 1,2,3,4)
replace TIRED_1_R=. if inlist(TIRED_1, 7,8,9)
tabulate TIRED_1_R

```

TIRED_1_R: How often felt very tired or exhausted in past 3 months

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	5619	32.4	33.7	33.7
	Some days	8391	48.4	50.4	84.1
	Most days	1632	9.4	9.8	93.9
	Every day	1019	5.9	6.1	100.0
	Total	16661	96.2	100.0	
Missing		665	3.8		
Total		17326	100.0		

Step 37. Recode Tired_2 to 0 (not asked) if Tired_1 is 1 (Never).

If response to TIRED_1 is 1: Never, then TIRED_2 (*How long most recent tired or exhausted feelings lasted*) is not asked. This variable is recoded so these individuals are included in the syntax below.

```

gen TIRED_2_R=.
replace TIRED_2_R=TIRED_2 if inlist(TIRED_2, 1,2,3)
replace TIRED_2_R=. if inlist(TIRED_2, 7,8,9)
replace TIRED_2_R=0 if TIRED_1==1
tabulate TIRED_2_R

```

TIRED_2_R: How long most recent tired or exhausted feelings lasted?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not asked	5619	32.4	33.8	33.8
	Some of the day	8036	46.4	48.3	82.0
	Most of the day	1955	11.3	11.7	93.8
	All of the day	1036	6.0	6.2	100.0
	Total	16646	96.1	100.0	
Missing		680	3.9		
Total		17326	100.0		

Step 38. The syntax below recodes TIRED_3 into TIRED_3Y to place “SOMEWHERE BETWEEN” numerically in-between “A LITTLE” and “A LOT”.

Also, if response to TIRED_1 is 1: Never, then TIRED_3 (Level of tiredness) is not asked. This variable is recoded so these individuals are included in the syntax below.

```

gen TIRED_3Y=1 if TIRED_3==1
replace TIRED_3Y=3 if TIRED_3==2
replace TIRED_3Y=2 if TIRED_3==3
replace TIRED_3Y=. if inlist(TIRED_3, 7, 8, 9)
replace TIRED_3Y=0 if TIRED_1==1
tabulate TIRED_3Y

```

TIRED_3Y: Level of tiredness

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not asked	5619	32.4	33.8	33.8
	A little	4912	28.4	29.5	63.3
	In between a little and a lot	4030	23.3	24.2	87.5
	A lot	2087	12.0	12.5	100.0
	Total	16648	96.1	100.0	
Missing		678	3.9		
Total		17326	100.0		

Step 39. Generate a cross-tabulation of the FATIGUE Extended Set questions: TIRED_1_R, TIRED_2_R and TIRED_3Y.

The syntax below produces a cross-tabulation of TIRED_1_R: *How often you felt tired or exhausted in the past 3 months* (a measure of frequency) and TIRED_2_R: *How long those feelings lasted* (a measure of duration) and TIRED_3Y: *The level of tiredness* (a measure of intensity) – used to determine a single TIRED INDICATOR (T_INDICATOR).

`table TIRED_2_R TIRED_1_R , by(TIRED_3Y) contents(freq)`

TIRED_3Y: Level of tiredness: Intensity	TIRED_2: How long feelings lasted: Duration	TIRED_1: How often felt very tired or exhausted in past 3 months: Frequency				Total
		Never	Some days	Most days	Every day	
Not asked	Not asked	5619				5619
A little	Some of the day		4066	264	124	4454
	Most of the day		252	73	27	352
	All of the day		68	15	18	101
In between	Some of the day		2224	400	166	2791
	Most of the day		497	266	123	887
	All of the day		194	71	84	349
A lot	Some of the day		536	165	84	785
	Most of the day		297	255	160	713
	All of the day		237	118	230	585
TOTAL		5619	8371	1627	1016	16633

Step 40. Create a FATIGUE INDICATOR (T_INDICATOR) based on the three FATIGUE questions TIRED_1_R, TIRED_2_R and TIRED_3Y.

Syntax below creates T_INDICATOR based on the distribution in the cross-tabulation above.

```
gen T_INDICATOR = .
replace T_INDICATOR=1 if (TIRED_1_R==1)
replace T_INDICATOR=1 if (TIRED_1_R==2 & TIRED_2_R==1 & TIRED_3Y==1)
replace T_INDICATOR=1 if (TIRED_1_R==3 & TIRED_2_R==1 & TIRED_3Y==1)

replace T_INDICATOR=2 if (inlist(TIRED_1_R, 2,3,4) & inlist(TIRED_2_R, 2,3) & ///
TIRED_3Y==1)
replace T_INDICATOR=2 if (inlist(TIRED_1_R, 2,3,4) & TIRED_2_R==1 & TIRED_3Y==2)
replace T_INDICATOR=2 if (TIRED_1_R==2 & TIRED_2_R==2 & TIRED_3Y==2)
replace T_INDICATOR=2 if (TIRED_1_R==4 & TIRED_2_R==1 & TIRED_3Y==1)
```

replace T_INDICATOR=3 if (inlist(TIRED_1_R, 3,4) & TIRED_2_R==2 & TIRED_3Y==2)
 replace T_INDICATOR=3 if (inlist(TIRED_1_R, 2,3,4) & TIRED_2_R==3 & TIRED_3Y==2)
 replace T_INDICATOR=3 if (inlist(TIRED_1_R, 2,3,4) & TIRED_2_R==1 & TIRED_3Y==3)
 replace T_INDICATOR=3 if (inlist(TIRED_1_R, 2,3) & TIRED_2_R==2 & TIRED_3Y==3)
 replace T_INDICATOR=3 if (TIRED_1_R==2 & TIRED_2_R==3 & TIRED_3Y==3)

replace T_INDICATOR=4 if (TIRED_1_R==4 & TIRED_2_R==2 & TIRED_3Y==3)
 replace T_INDICATOR=4 if (inlist(TIRED_1_R, 3,4) & TIRED_2_R==3 & TIRED_3Y==3)
 tabulate T_INDICATOR

		T_Indicator		Valid Percent	Cumulative Percent
		Frequency	Percent		
Valid	1.00	9949	57.4	59.8	59.8
	2.00	3864	22.3	23.2	83.0
	3.00	2312	13.3	13.9	96.9
	4.00	508	2.9	3.1	100.0
	Total	16633	96.0	100.0	
Missing		693	4.0		
Total		17326	100.0		

Creating Disability Status Indicators

Type of Disability Indicator		Number of Questions
SS_1	Short Set (SS)	6
Extended Set		
ES_1	SS + <u>Hearing-indicator</u> , <u>Mobility-indicator</u> , <u>Cognition-indicator</u> , <u>Upper Body-indicator</u> + PFAD (4)*	25
ES_2	SS + <u>Hearing-indicator</u> , <u>Mobility-indicator</u> , <u>Cognition-indicator</u> , <u>Upper Body-indicator</u> + AD (4)†	20
Short Set Enhanced		
ES_3	SS + Upper Body-indicator + AD (4)†	12

* PFAD (4): Pain, Fatigue, Anxiety and Depression Indicators at level 4

† AD (4): Anxiety and Depression Indicators at level 4

SS_1: WG Short Set Disability Indicator based on the 6 short set questions

The syntax below calculates the WG Short Set Disability Indicator based on the six short set questions **SS_1** at the recommended cut-off. The level of inclusion is: at least 1 domain/question is coded A LOT OF DIFFICULTY or CANNOT DO AT ALL.

```
gen SS_1=2
replace SS_1=. if (missing(Vision) & missing(Hearing) & missing(Mobility) & ///
missing(Communication) & missing(SELF_CARE) & missing(Cognition))
replace SS_1=1 if ((Vision==3 | Vision==4) | (Hearing==3 | Hearing==4) | ///
(Mobility==3 | Mobility== 4) | (Communication==3 | Communication==4) | ///
(SELF_CARE==3 | SELF_CARE==4) | (Cognition==3 | Cognition==4))
tabulate SS_1
```

SS_1: WG Short Set Disability Identifier

		Frequency	Percent	Valid Percent	Weighted Estimate
Valid	WITHOUT DISABILITY	14905	86.0	88.8	90.5
	WITH DISABILITY	1872	10.8	11.2	9.5
	Total	16777	96.8	100.0	
Missing		549	3.2		
Total		17326	100.0		

ES_1: SS_1 + Hearing-indicator, Mobility-indicator, Cognition-indicator + Upper Body-indicator + PFAD (4)

The syntax below calculates an Extended Set Disability Indicator (**ES_1**) based on 25 questions at the recommended cut-off. The level of inclusion is: at least 1 domain/question is coded A LOT OF DIFFICULTY or CANNOT DO AT ALL for the six short set question; severity levels 3 or 4 for the Hearing-, Mobility-, Cognition- and Upper body-Indicators; and severity level 4 for Pain-, Fatigue-, Anxiety- and Depression-Indicators.

```
gen ES_1=2
replace ES_1=. if ///
(missing(SS_1) & ///
(H_INDICATOR < 1 | H_INDICATOR > 4) & ///
(MOB_INDICATOR < 1 | MOB_INDICATOR > 4) & ///
missing(COM_SS) & ///
missing(SC_SS) & ///
(COG_INDICATOR < 1 | COG_INDICATOR > 4) & ///
(UB_INDICATOR < 1 | UB_INDICATOR > 4) & ///
missing(P_INDICATOR) & ///
(T_INDICATOR < 1 | T_INDICATOR > 4) & ///
(ANX_INDICATOR < 1 | ANX_INDICATOR > 4) & ///
(DEP_INDICATOR < 1 | DEP_INDICATOR > 4) )
replace ES_1=1 if (SS_1==1 | ///
```



```
(H_INDICATOR==3 | H_INDICATOR==4) | ///
(MOB_INDICATOR==3 | MOB_INDICATOR==4) | ///
(COG_INDICATOR==3 | COG_INDICATOR==4) | ///
(UB_INDICATOR==3 | UB_INDICATOR==4) | ///
P_INDICATOR==4 | T_INDICATOR==4 | ///
ANX_INDICATOR==4 | DEP_INDICATOR==4)
```

tabulate ES_1

ES_1: WG-ES Disability Indicator based on 11 domains and 25 questions

		Frequency	Percent	Valid Percent	Weighted Estimate
Valid	WITHOUT DISABILITY	13823	79.8	79.8	82.3
	WITH DISABILITY	3503	20.2	20.2	17.7
	Total	17326	100.0	100.0	

ES_2: SS_1 + Hearing-indicator, Mobility-indicator, Cognition-indicator + Upper Body-indicator + AD (4)

The syntax below calculates an Extended Set Disability Indicator (**ES_2**) based on 20 questions at the recommended cut-off. The level of inclusion is: at least 1 domain/question is coded A LOT OF DIFFICULTY or CANNOT DO AT ALL for the six short set question; severity levels 3 or 4 for the Hearing-, Mobility-, Cognition- and Upper body-Indicators; and severity level 4 for Anxiety- and Depression-Indicators.

```
gen ES_2=2
replace ES_2=. if (missing(SS_1) & ///
(H_INDICATOR < 1 | H_INDICATOR > 4) & ///
(MOB_INDICATOR < 1 | MOB_INDICATOR > 4) & ///
missing(COM_SS) & missing(SC_SS) & ///
(COG_INDICATOR < 1 | COG_INDICATOR > 4) & ///
(UB_INDICATOR < 1 | UB_INDICATOR > 4) & ///
(ANX_INDICATOR < 1 | ANX_INDICATOR > 4) & ///
(DEP_INDICATOR < 1 | DEP_INDICATOR > 4))
replace ES_2=1 if (SS_1==1 | (H_INDICATOR==3 | H_INDICATOR==4) | ///
(MOB_INDICATOR==3 | MOB_INDICATOR==4) | ///
(COG_INDICATOR==3 | COG_INDICATOR==4) | ///
(UB_INDICATOR==3 | UB_INDICATOR==4) | ///
ANX_INDICATOR==4 | DEP_INDICATOR==4)
tabulate ES_2
```

ES_2: WG-ES Disability Indicator based on 9 domains and 20 questions

		Frequency	Percent	Valid Percent	Weighted Estimate
Valid	WITHOUT DISABILITY	14222	82.1	82.1	84.6
	WITH DISABILITY	3104	17.9	17.9	15.4
	Total	17326	100.0	100.0	

ES_3: SS_1 + Upper Body-indicator + AD (4)

The syntax below calculates the WG Short Set ENHANCED Disability Indicator (**ES_3**) based on the 12 questions at the recommended cut-off. The level of inclusion is: at least 1 domain/question is coded A LOT OF DIFFICULTY or CANNOT DO AT ALL for the six short set question; severity levels 3 or 4 for the Upper body-Indicators; and severity level 4 for Anxiety- and Depression-Indicators.

```
gen ES_3=2
replace es_3=. if (missing(Vision) & ///
missing(Vearing) & ///
missing(Mobility) & ///
missing(Communication) & ///
missing(SELF_CARE) & ///
missing(Cognition) & ///
missing(UB_INDICATOR) & ///
missing(ANX_INDICATOR) & ///
missing(DEP_INDICATOR) )
replace es_3=1 if ((Vision==3 | Vision==4) | ///
(Hearing==3 | Hearing==4) | ///
(Mobility==3 | Mobility==4) | ///
(Communication==3 | Communication==4) | ///
(SELF_CARE==3 | SELF_CARE==4) | ///
(Cognition==3 | Cognition==4) | ///
(UB_INDICATOR==3 | UB_INDICATOR==4) | ///
ANX_INDICATOR==4 | DEP_INDICATOR==4)
tabulate ES_3
```

ES_3: WG-SS Enhanced Disability Indicator based on 9 domains and 12 questions

		Frequency	Percent	Valid Percent	Weighted Estimate
Valid	WITHOUT DISABILITY	14393	83.1	85.8	87.7
	WITH DISABILITY	2384	13.8	14.2	12.3
	Total	16777	96.9	100.0	
Missing		549	3.2		
Total		17326	100.1		

POSTSCRIPT: Por que excluir a dor e a fadiga?

A exclusão dos domínios da dor e da fadiga de diversos dos Identificadores de Deficiência descritos acima é digna de nota. Esses domínios, que têm sido intensamente discutidos no WG, não são, a rigor, domínios de funcionalidade – e as nossas análises indicaram que ambos são altamente correlacionados com outros domínios e que as taxas de deficiência com a inclusão desses domínios podem ser muito altas.

Por último, em termos de comparabilidade internacional, esses domínios são menos universais; ou seja, eles são mais suscetíveis a influências socioculturais locais do que outros domínios de funcionalidade.

Por essas razões, optamos por excluí-los de várias dessas análises, embora eles possam ser incluídos em análises suplementares realizadas por institutos nacionais de estatística em âmbito nacional.