12 de maio de 2020

Diretrizes analíticas: Criação de identificadores de incapacidade por meio da sintaxe SAS do Conjunto Alargado sobre Funcionalidade do Washington Group (WG-ES)

Introdução

Tal como no caso do Conjunto Reduzido sobre Funcionalidade do WG (WG-SS), a análise do Conjunto Alargado sobre Funcionalidade do WG (WG-ES) também pode gerar vários identificadores de incapacidade com base na escolha do ponto de corte ou limiar de gravidade. Porém, a sintaxe SAS prevê o cálculo de identificadores de incapacidade a partir de diferentes conjuntos de domínios do WG-ES, usando o ponto de corte recomendado para comparações internacionais (descrito abaixo).

Para cada um dos identificadores de incapacidade descritos, o nível de inclusão é de pelo menos um domínio/pergunta codificado com MUITA DIFICULDADE ou NÃO CONSEGUE – ou – para os domínios da ansiedade, da depressão, da dor e da fadiga, o nível mais elevado de dificuldade numa escala de quatro pontos.

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

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

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

WG-ES 2: *Conjunto Alargado Modificado* (WG-ES MENOS Dor e Fadiga): 9 domínios, 20 perguntas.

WG-ES 3: *Conjunto Reduzido Melhorado* (WG-SS MAIS Parte superior do corpo, Ansiedade e Depressão): 9 domínios, 12 perguntas.

NOTA: para as análises de dados, use as suas técnicas de ponderação e estimação normais.

Os **Documentos de Implementação** do **Washington Group** abrangem as ferramentas desenvolvidas pelo Washington Group sobre Estatísticas de Incapacidade (WG) para a recolha de dados sobre incapacidade internacionalmente comparáveis em censos e inquéritos. Os documentos abordam melhores práticas na implementação do Conjunto Reduzido, do Conjunto Alargado, do Conjunto Reduzido – Melhorado, dos Módulos sobre Funcionalidade da Criança do WG/UNICEF para crianças dos 2 aos 4 e dos 5 aos 17 anos e do Módulo sobre Incapacidade do IFT do WG/OIT, bem como de outras ferramentas do WG. Os temas incluem: tradução, especificações das perguntas, diretrizes analíticas, código de programação para análise, utilização de ferramentas para efeitos de desagregação e não só.

Para localizar outros Documentos de Implementação do WG e mais informações, visite o sítio *web* do Washington Group: http://www.washingtongroup-disability.com/.

A sintaxe SAS baseia-se nas *etiquetas de variáveis* indicadas no quadro abaixo. O módulo WG-ES completo inclui mais perguntas do que as apresentadas no quadro. O estado de incapacidade é determinado através da dificuldade nas atividades universais básicas sem uso de tecnologia de assistência ou outro auxílio. Há várias perguntas sobre mobilidade, por exemplo, que fazem referência à dificuldade em andar *sem* uso de assistência. Tais perguntas não estão incluídas no plano analítico aqui facultado; porém, podem ser usadas noutras análises que examinem mais de perto o efeito da tecnologia de assistência (facilitadores ambientais) na funcionalidade.

Somente as perguntas/variáveis abaixo são usadas na determinação de identificadores de incapacidade. **Certifique-se de usar as mesmas *etiquetas de variáveis* OU reveja a sintaxe SAS para refletir as *etiquetas de variáveis* na sua base de dados.**

O WG-SS é ministrado como parte do National Health Interview Survey (NHIS) dos EUA. Os dados usados na preparação destas diretrizes são provenientes do NHIS de 2013.

***Nota para os utilizadores do NHIS**: os nomes de variáveis no ficheiro de dados e na documentação do NHIS podem diferir dos usados neste documento; ou seja, a variável do domínio dos autocuidados referenciada como SC-SS neste documento é designada como UB_SS no ficheiro de dados e na documentação do NHIS.*

O código SAS usado para gerar os resultados deste documento está integralmente incluído no Anexo 1.

Perguntas/domínios do Conjunto Alargado do WG	**Etiqueta da variável**	**Resposta Padrão**
VISÃO		
1. Tem dificuldade em ver, mesmo usando óculos?	VIS_SS	1
COMUNICAÇÃO		
2. Usando a sua linguagem habitual, tem dificuldade em comunicar (por exemplo, compreender ou fazer-se compreender por outros)?	COM_SS	1
AUDIÇÃO		
3. Tem dificuldade em ouvir, mesmo usando um aparelho auditivo?	HEAR_SS	1
4. Tem dificuldade em ouvir uma conversa com uma pessoa numa sala sossegada?	HEAR_3	1
5. Tem dificuldade em ouvir uma conversa com uma pessoa numa sala mais ruidosa?	HEAR_4	1
COGNIÇÃO		
6. Tem dificuldade em lembrar-se ou concentrar-se?	COG_SS	1
7. Dificuldade em lembrar-se, em concentrar-se ou em ambas?	COG_1	2
8. Com que frequência tem dificuldade em lembrar-se?	COG_2	3

9. Quantidade de coisas de que tem dificuldade em lembrar-se?	COG_3	4
AUTOCUIDADOS/PARTE SUPERIOR DO CORPO		
10. Tem dificuldade em (autocuidados como) tomar banho ou vestir-se?	SC_SS	1
11. Dificuldade em levantar uma garrafa de 2 litros de água do nível da cintura até ao nível dos olhos?	UB_1	1
12. Grau de dificuldade em usar as mãos e os dedos	UB_2	1
MOBILIDADE		
13. Tem dificuldade em andar ou subir degraus?	MOB_SS	1
14. Dificuldade em andar 100 metros em terreno plano sem ajuda nem equipamento?	MOB_4	1
15. Dificuldade em andar 500 metros em terreno plano sem ajuda nem equipamento?	MOB_5	1
16. Dificuldade em subir ou descer 12 degraus sem ajuda nem equipamento?	MOB_6	1
SENTIMENTO (ANSIEDADE)		
17. Com que frequência se sente preocupado(a), nervoso(a) ou ansioso(a)?	ANX_1	5
18. Nível dos sentimentos na última vez em que se sentiu preocupado(a), nervoso(a) ou ansioso(a)?	ANX_3	6
SENTIMENTO (DEPRESSÃO)		
19. Com que frequência se sente deprimido(a)?	DEP_1	5
20. Que nível de depressão sentiu na última vez em que esteve deprimido(a)?	DEP_3	6
DOR		
21. Frequência da dor nos últimos 3 meses?	PAIN_2	7
22. Que nível de dor sentiu na última vez em que sentiu dor?	PAIN_4	6
FADIGA		
23. Com que frequência se sentiu muito cansado(a) ou exausto(a) nos últimos 3 meses?	TIRED_1	7
24. Quanto tempo duraram as mais recentes sensações de cansaço ou exaustão?	TIRED_2	8
25. Nível de cansaço na última vez em que se sentiu muito cansado(a) ou exausto(a)?	TIRED_3	6

NOTA: **Vermelho** refere-se ao Conjunto Reduzido do Washington Group (**WG-SS**).

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

As perguntas **Vermelhas** mais **Azuis** mais **Verdes** estão

incluídas no **WG-ES 2.** As perguntas **Vermelhas** mais **Verdes**

estão incluídas no **WG-ES 3.**

Padrões de resposta:

	Padrão 1	**Padrão 2**	**Padrão 3**	**Padrão 4**
1	Nenhuma dificuldade	Dificuldade só em lembrar-se	Às vezes	Algumas coisas
2	Sim, alguma dificuldade	Dificuldade só em concentrar-se	Frequentemente	Muitas coisas
3	Sim, muita dificuldade	Dificuldade em lembrar-se e em concentrar-se	Sempre	Quase tudo
4	Não consegue			
7	Recusou			
8	Não determinado			
9	Não sabe			

	Padrão 5	**Padrão 6***	**Padrão 7**	**Padrão 8**
1	Diariamente	Leve	Nunca	Uma parte do dia
2	Semanalmente	Intenso	Alguns dias	A maior parte do dia
3	Mensalmente	Algo entre leve e intenso	A maioria dos dias	Todo o dia
4	Algumas vezes por ano		Todos os dias	
5	Nunca			
7	Recusou			
8	Não determinado			
9	Não sabe			

*** NA SINTAXE ABAIXO, NOTE QUE OS ITENS COM O PADRÃO DE RESPOSTA 6 (ANX_3, DEP_3, PAIN_4 E TIRED_3) ESTÃO RECODIFICADOS PARA QUE "ALGO ENTRE" FIQUE NUMERICAMENTE POSICIONADO ENTRE "LEVE" E "INTENSO".**

O WG-SS está incorporado no WG-ES.
O WG-ES é complementado com:

- perguntas adicionais para os seis domínios existentes e
- domínios adicionais (alguns com várias perguntas).

A sintaxe SAS apresentada abaixo inclui alguns elementos específicos do conteúdo do WG-ES.

Em primeiro lugar, é importante definir identificadores únicos específicos para os domínios de

funcionalidade que incluam várias perguntas. Por exemplo, a funcionalidade da parte superior do corpo inclui duas perguntas, com cada uma a evocar uma ação específica e única: dificuldade em levantar uma garrafa do nível da cintura até ao nível dos olhos (braços/ombros) e dificuldade em usar as mãos e os dedos. Estas duas perguntas foram analisadas e combinadas para gerar um indicador único da parte superior do corpo com quatro níveis de dificuldade que vão de 1 – dificuldade baixa a 4 – dificuldade elevada, um pouco como as categorias de resposta às perguntas únicas do WG-SS: "nenhuma dificuldade", "alguma dificuldade", "muita dificuldade" e "não consegue". Tal como acontece com o domínio da parte superior do corpo, os domínios do WG-ES respeitantes à cognição, à ansiedade, à depressão, à dor e à fadiga têm diferentes padrões de resposta que não se "convertem" prontamente no padrão de resposta habitual do WG. Para esses domínios de funcionalidade, foi elaborado e anotado um padrão de resposta com uma escala de quatro níveis, de 1 a 4, em que 1 é o mais baixo nível de dificuldade e 4 o mais elevado.

Em segundo lugar, foram aferidos em conjunto indicadores de domínios individuais a fim de determinar o ponto de corte adequado para inclusão num identificador de incapacidade geral, com o propósito de estimar a prevalência e desagregar os indicadores de resultados por estado de incapacidade.

NOTA:

Para todas as variáveis, os códigos (7) *Recusou*, (8) *Não determinado* e (9) *Não sabe* são recodificados como *Em falta*.

SAS WG Extended Set Syntax Annotated with Output Tables

Actual SAS 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.

```
        If VIS_SS in (1, 2, 3, 4) then Vision=VIS_SS;
    Else If VIS_SS in (7, 8, 9) then Vision=.;

    Proc Freq Data=SS. ExtendedSets2013;
    Tables Vision;
    Run;
```

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.

```
        If COM_SS in (1, 2, 3,4) then Communication=COM_SS;
    Else If COM_SS in (7, 8, 9) then Communication=.;

    Proc Freq Data=SS. ExtendedSets2013;
    Tables Communication;
    Run;
```

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.

```
        If HEAR_SS in (1, 2, 3, 4) then Hearing=HEAR_SS;
    Else If HEAR_SS in (7, 8, 9) then Hearing=.;
```

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

```
        If HEAR_3 in (1, 2, 3, 4) then HEAR_3_R=HEAR_3;
```

```
    Else If HEAR_3 in (7, 8, 9) then HEAR_3_R=.;

HEAR_4 is Difficulty hearing one person in noisier room.
        If HEAR_4 in (1, 2, 3, 4) then HEAR_4_R=HEAR_4;
    Else If HEAR_4 in (7, 8, 9) then HEAR_4_R=.;

    Proc Freq Data=SS. ExtendedSets2013;
    Tables Hearing HEAR_3_R HEAR_4_R;
    Run;
```

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		

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		

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).

```
If Hearing = 4 and HEAR_3_R =. then HEAR_3_X = 4;
Else HEAR_3_X=HEAR_3_R;

If Hearing = 4 and HEAR_4_R =. then HEAR_4_X = 4;
Else HEAR_4_X=HEAR_4_R;

Proc Freq Data=SS. ExtendedSets2013;
Tables HEAR_3_X HEAR_4_X;
Run;
```

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		

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.

```
Proc Freq Data=SS. ExtendedSets2013;
```

```
Tables HEAR_4_X*HEAR_3_X /NOROW NOCOL NOPERCENT;
Run;
```

HEAR_4_X (Difficulty hearing in a Nosier room)		HEAR_3_X : Difficulty hearing conversation with one person in quiet room				
		No difficulty	Some difficulty	A lot of difficulty	Cannot do at all	Total
	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.

```
If ( HEAR_3_X = 1 AND HEAR_4_X = 1) OR (HEAR_3_X = 1 AND HEAR_4_X = 2)
then H_INDICATOR = 1;
Else If ( HEAR_3_X = 2 AND (HEAR_4_X = 1 OR HEAR_4_X = 2)) OR (HEAR_3_X = 1
AND HEAR_4_X = 3) then H_INDICATOR = 2;
Else If ( HEAR_3_X = 3 AND (HEAR_4_X = 1 OR HEAR_4_X = 2) OR (HEAR_3_X = 2
AND HEAR_4_X = 3) OR (HEAR_3_X = 1 AND HEAR_4_X = 4)) then H_INDICATOR =
3;
Else If ((HEAR_3_X = 3 AND HEAR_4_X = 3) OR HEAR_3_X = 4 OR (HEAR_4_X = 4
AND (HEAR_3_X = 2  OR  HEAR_3_X = 3)))       then H_INDICATOR = 4;

Proc Freq Data=SS. ExtendedSets2013;
Tables H_INDICATOR;
Run;
```

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.

COG_SS is the WG-SS Cognition question.

```
If COG_SS in (1, 2, 3, 4) then Cognition=COG_SS;
Else If COG_SS in (7, 8 , 9) then Cognition=.;

Proc Freq Data=SS. ExtendedSets2013;
Tables Cognition;
Run;
```

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.

```
If COG_1 in (1, 2, 3) then COG_1_R=COG_1;
Else If COG_1 in (7, 8, 9) then COG_1_R=.;

Proc Freq Data=SS. ExtendedSets2013;
Tables COG_1_R;
Run;
```

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*.

```
If COG_SS=1 then COG_1A=0;
Else COG_1A=COG_1_R;

Proc Freq Data=SS. ExtendedSets2013;
Tables COG_1A;
Run;
```

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*.

```
If COG_2 in (1, 2, 3) then COG_2_R=COG_2;
Else If COG_2 in (7, 8, 9) then COG_2_R=.;

If COG_3 in (1, 2, 3) then COG_3_R=COG_3;
Else If COG_3 in (7, 8, 9) then COG_3_R=.;

Proc Freq Data=SS. ExtendedSets2013;
Tables COG_2_R COG_3_R;
Run;
```

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		

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.

```
Proc Freq Data=SS. ExtendedSets2013;
Tables COG_2_R*COG_3_R /NOROW NOCOL NOPERCENT;
Run;
```

		COG_3_R: Amount of things you have difficulty remembering?			
COG_2_R: How often do you have difficulty remembering?		A few things	A lot of things	Almost everything	Total
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.

```
If (Cognition = 1) then R_INDICATOR = 1;
Else If ((COG_2_R = 1 AND COG_3_R = 1) OR (COG_3_R = 1 AND COG_2_R = 2) OR
(COG_3_R = 2 AND COG_2_R = 1))          then R_INDICATOR = 2;
Else If (COG_3_R = 2 AND COG_2_R = 2) then R_INDICATOR = 3;
Else If (COG_3_R = 3 OR COG_2_R = 3)    then R_INDICATOR = 4;
```

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.

```
Else If(COG_1A = 2) then R_INDICATOR = 5;
Else                   R_INDICATOR = 0;
```

Step 13. Generate frequency distribution of the Remembering Indicator.

```
Proc Freq Data=SS. ExtendedSets2013;
Tables R_INDICATOR;
Run;
```

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.**

```
COG_INDICATOR=R_INDICATOR;
If (R_INDICATOR = 5 AND Cognition = 2) then COG_INDICATOR = 2;
Else If (R_INDICATOR = 5 AND Cognition = 3) then   COG_INDICATOR = 3;
Else If (R_INDICATOR = 5 AND Cognition = 4) then   COG_INDICATOR = 4;

If (R_INDICATOR = 2 AND COG_1_R = 3 AND Cognition = 3) then COG_INDICATOR = 3;
Else If (R_INDICATOR = 3 AND COG_1_R = 3 AND Cognition = 3) then
COG_INDICATOR = 4;
```

Step 15. Generate frequency distribution of the Cognition Indicator.

```
Proc Freq Data=SS. ExtendedSets2013;
Tables COG_INDICATOR;
Run;
```

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*

```
If SC_SS in (1, 2, 3, 4)    then Self_Care=SC_SS;
Else If SC_SS in (7, 8, 9) then Self_Care=.;

If UB_1 in (1, 2, 3, 4) then UB_1_R=UB_1;
Else If UB_1 in (7, 8, 9) then UB_1_R=.;

If UB_2 in (1, 2, 3, 4) then UB_2_R=UB_2;
Else If UB_2 in (7, 8, 9) then UB_2_R=.;
```

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

```
Proc Freq Data=SS. ExtendedSets2013;
Tables Self_Care UB_1_R UB_2_R;
Run;
```

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		

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		

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).

```
Proc Freq Data=SS. ExtendedSets2013;
Tables UB_2_R*UB_1_R /NOROW NOCOL NOPERCENT;
Run;
```

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

UB_2_R: Difficulty using hands and fingers		No difficulty	Some difficulty	A lot of difficulty	Cannot do at all	Total
Degree of difficulty using hands and fingers	No difficulty	14786	309	58	44	15197
	Some difficulty	782	333	51	40	1228
	A lot of difficulty	98	73	51	33	255

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.

```
If (UB_1_R = 4 OR UB_2_R = 4) then UB_INDICATOR = 4;
Else If UB_INDICATOR NE 4 AND (UB_1_R = 3 OR UB_2_R = 3)
        then UB_INDICATOR = 3;
Else If UB_INDICATOR NE 4 AND UB_INDICATOR NE 3 AND (UB_1_R = 2 OR UB_2_R
= 2)    then UB_INDICATOR = 2;
Else If UB_INDICATOR NE 4 AND UB_INDICATOR NE 3 AND UB_INDICATOR NE 2
AND (UB_1_R = 1 OR UB_2_R = 1) then UB_INDICATOR = 1.;

Proc Freq Data=SS. ExtendedSets2013;
Tables UB_INDICATOR;
Run;
```

UB_INDICATOR

		Frequency	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.

```
If MOB_SS in (1, 2, 3, 4) then Mobility=MOB_SS;
```

```
Else MOB_SS in (7, 8, 9) then Mobility=.;

If MOB_4 in (1, 2, 3, 4) then MOB_4_R=MOB_4;
Else If MOB_4 in (7, 8, 9) then MOB_4_R=.;

If MOB_5 in (1, 2, 3,4) then MOB_5_R=MOB_5;
Else If MOB_5 in (7, 8, 9) then MOB_5_R=.;
```

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

```
Proc Freq Data=SS. ExtendedSets2013;
Tables Mobility MOB_4_R MOB_5_R;
Run;
```

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		

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		

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.

```
Proc Freq Data=SS. ExtendedSets2013;
Tables MOB_4_R*MOB_5_R /NOROW NOCOL NOPERCENT;
Run;
```

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**				
	No difficulty	Some difficulty	A lot of difficulty	Cannot do at all	Total
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.

```
WALK_INDICATOR=0;
If (MOB_4_R = 1 AND (MOB_5_R = 1 OR MOB_5_R = 2)) then WALK_INDICATOR = 1;
Else If (MOB_4_R = 1 AND MOB_5_R = 3) OR (MOB_4_R = 2 AND (MOB_5_R = 1 OR
MOB_5_R = 2 OR MOB_5_R = 3)) then WALK_INDICATOR = 2;
Else If (MOB_4_R = 1 AND MOB_5_R = 4) OR (MOB_4_R = 3 AND (MOB_5_R = 1 OR
MOB_5_R = 2 OR MOB_5_R = 3)) then WALK_INDICATOR = 3;
Else If (MOB_4_R = 2 AND MOB_5_R = 4) OR (MOB_4_R = 3 AND MOB_5_R = 4)
                                    then WALK_INDICATOR = 4;
```

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

```
Else If (WALK_INDICATOR = 0 AND MOB_4_R = 4) then WALK_INDICATOR = 4;

If WALK_INDICATOR=0 then WALK_INDICATOR=.;

Proc Freq Data=SS. ExtendedSets2013;
```

```
Tables WALK_INDICATOR;
Run;
```

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).

```
If MOB_6 in (1, 2, 3, 4) then MOB_6_R=MOB_6;
Else If MOB_6 in (7, 8, 9) then MOB_6_R=.;

Proc Freq Data=SS. ExtendedSets2013;
Tables WALK_INDICATOR* MOB_6_R /NOROW NOCOL NOPERCENT;
Run;
```

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:

1. 55 individuals with level 1 on the WALKING INDICATOR as level 2 on the MOBILITY INDICATOR
2. 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
3. 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.

```
MOB_INDICATOR = WALK_INDICATOR;
If (WALK_INDICATOR = 2 AND MOB_6_R = 3) then MOB_INDICATOR = 3;
Else If (WALK_INDICATOR = 1 AND MOB_6_R = 3) then MOB_INDICATOR = 2;
Else If (WALK_INDICATOR = 2 AND MOB_6_R = 4) then MOB_INDICATOR = 4;
Else If (WALK_INDICATOR = 1 AND MOB_6_R = 4) then MOB_INDICATOR = 3;

Proc Freq Data=SS. ExtendedSets2013;
Tables MOB_INDICATOR;
Run;
```

MOB_IDICATOR

		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*?

```
If ANX_1 in (1, 2, 3, 4, 5) then ANX_1_R=ANX_1;
Else If ANX_1 in (7, 8, 9) then ANX_1_R=.;

Proc Freq Data=SS. ExtendedSets2013;
Tables ANX_1_R;
Run;
```

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_3 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".

```
If ANX_3 =1 then ANX_3Y=1;
Else If ANX_3 =2 then ANX_3Y=3;
Else If ANX_3 =3 then ANX_3Y=2;
Else If ANX_3 in (7, 8, 9) then ANX_3Y=.;
```

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

```
If ANX_1 =5 then ANX_3Y=0;

Proc Freq Data=SS. ExtendedSets2013;
Tables ANX_3Y;
Run;
```

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).

```
Proc Freq Data=SS. ExtendedSets2013;
Tables ANX_3Y*ANX_1_R/NOROW NOCOL NOPERCENT;
Run;
```

ANX_3Y: Level of feelings last time felt worried, nervous or anxious	ANX_1_R: How often feel worried, nervous or anxious?					
	Daily	Weekly	Monthly	A Few Times A Year	Never	Total
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.

```
If (missing(ANX_1_R) OR missing(ANX_3Y)) then ANX_INDICATOR=.;
Else If ( ANX_3Y le 4 AND (ANX_1_R = 4 OR ANX_1_R = 5)) then ANX_INDICATOR=1;
Else If ((ANX_1_R = 3) OR (ANX_1_R LT 3 AND ANX_3Y=1) OR
(ANX_1_R = 2 AND ANX_3Y = 2)) then ANX_INDICATOR = 2;
Else If ((ANX_1_R = 1 AND ANX_3Y = 2) OR (ANX_1_R = 2 AND ANX_3Y = 3))
then ANX_INDICATOR = 3;
Else If ( ANX_1_R = 1 AND ANX_3Y = 3) then ANX_INDICATOR = 4;

Proc Freq Data=SS. ExtendedSets2013;
Tables ANX_INDICATOR;
Run;
```

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*?

```
If DEP_1 in (1, 2, 3, 4, 5) then DEP_1_R=DEP_1;
Else If DEP_1 in (7, 8, 9) then DEP_1_R=.;
Else DEP_1_R=.;

Proc Freq Data=SS. ExtendedSets2013;
Tables DEP_1_R;
Run;
```

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_3 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)

```
If DEP_3 =1 then DEP_3Y=1;
Else If DEP_3=2 then DEP_3Y=3;
Else If DEP_3=3 then DEP_3Y=2;
Else If DEP_3in (7,8,9) then DEP_3Y=.;

If DEP_1 =5 then DEP_3Y=0;

Proc Freq Data=SS. ExtendedSets2013;
Tables DEP_3Y;
Run;
```

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).

```
Proc Freq Data=SS. ExtendedSets2013;
Tables DEP_3Y*DEP_1_R/NOROW NOCOL NOPERCENT;
Run;
```

DEP_1_R: How often do you feel depressed?

DEP_3Y: Level of feelings last time felt depressed	Daily	Weekly	Monthly	A Few Times A Year	Never	Total
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.

```
If (missing(DEP_1_R) OR missing(DEP_3Y)) then DEP_INDICATOR = .;
Else If (DEP_3Y Le 4 AND (DEP_1_R = 4 OR DEP_1_R = 5)) then DEP_INDICATOR=1;
Else If ((DEP_1_R = 3) OR (DEP_1_R LT 3 AND DEP_3Y=1) OR
(DEP_1 = 2 AND DEP_3Y = 2)) then DEP_INDICATOR = 2;
Else If ((DEP_1_R = 1 AND DEP_3Y = 2) OR (DEP_1_R = 2 AND DEP_3Y = 3))
then DEP_INDICATOR = 3;
Else If (DEP_1_R = 1 AND DEP_3Y = 3) then DEP_INDICATOR = 4;

Proc Freq Data=SS. ExtendedSets2013;
Tables DEP_INDICATOR;
Run;
```

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*.

```
If PAIN_2 in (1, 2, 3, 4) then PAIN_2_R=PAIN_2;
Else If PAIN_2 in (7, 8, 9) then PAIN_2_R=.;

Proc Freq Data=SS. ExtendedSets2013;
```

```
Tables PAIN_2_R;
Run;
```

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).

```
If PAIN_4 =1 then PAIN_4Y=1;
Else If PAIN_4 =2 then PAIN_4Y=3;
Else If PAIN_4 =3 then PAIN_4Y=2;
Else If PAIN_4 in (7,8,9) then PAIN_4Y=.;

If PAIN_2=1 then PAIN_4Y=0;


Proc Freq Data=SS. ExtendedSets2013;
Tables PAIN_4Y;
Run;
```

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).

```
Proc Freq Data=SS. ExtendedSets2013;
```

```
Tables PAIN_4Y*PAIN_2_R/NOROW NOCOL NOPERCENT;
Run;
```

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.

```
If ( PAIN_2_R = 1) OR (PAIN_4Y = 1 AND (PAIN_2_R = 2 OR PAIN_2_R = 3)) then
P_INDICATOR = 1;
Else If ((PAIN_2_R = 2 AND (PAIN_4Y = 2 OR PAIN_4Y = 3)) OR (PAIN_2_R = 3 AND
PAIN_4Y = 2) OR (PAIN_2_R = 4 AND PAIN_4Y = 1)) then P_INDICATOR = 2;
Else If ( PAIN_2_R = 3 AND PAIN_4Y = 3) OR (PAIN_2_R = 4 AND PAIN_4Y = 2)  then
P_INDICATOR = 3;
Else If (PAIN_2_R = 4 AND PAIN_4Y = 3) then P_INDICATOR = 4;

Proc Freq Data=SS. ExtendedSets2013;
Tables P_INDICATOR;
Run;
```

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*.

```
If TIRED_1 in (1, 2, 3, 4) then TIRED_1_R=TIRED_1;
Else If TIRED_1 in (7, 8, 9) then TIRED_1_R=.;
```

```
Proc Freq Data=SS. ExtendedSets2013;
Tables TIRED_1_R;
Run;
```

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.

```
If TIRED_2 in (1, 2, 3) then TIRED_2_R=TIRED_2;
Else If TIRED_2 in (7, 8, 9) then TIRED_2_R=.;
Else TIRED_2_R=.;

If TIRED_1 =1 then TIRED_2_R=0;
Proc Freq Data=SS. ExtendedSets2013;
Tables TIRED_2_R;
Run;
```

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.

```
If TIRED_3 =1 then TIRED_3Y=1;
Else If TIRED_3 =2 then TIRED_3Y=3;
Else If TIRED_3 =3 then TIRED_3Y=2;
Else If TIRED_3 in (7, 8, 9) then TIRED_3Y=.;

If TIRED_1=1 then TIRED_3Y=0;

Proc Freq Data=SS. ExtendedSets2013;
Tables TIRED_3Y;
Run;
```

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).

```
Proc Freq Data=SS. ExtendedSets2013;
Tables TIRED_3Y* TIRED_2_R*TIRED_1_R /NOROW NOCOL NOPERCENT;
Run;
```

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***				
		Never	Some days	Most days	Every day	Total
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.

```
If (TIRED_1_R = 1) then T_INDICATOR = 1;
Else If (TIRED_1_R = 2 AND TIRED_2_R = 1 AND TIRED_3Y = 1) then T_INDICATOR = 1;
Else If (TIRED_1_R = 3 AND TIRED_2_R = 1 AND TIRED_3Y = 1) then T_INDICATOR = 1;
Else If (TIRED_1_R in (2, 3, 4) AND TIRED_2_R in (2,3) AND TIRED_3Y =1) then T_INDICATOR
= 2;
Else If (TIRED_1_R in (2, 3, 4) AND TIRED_2_R =1 AND TIRED_3Y =2) then T_INDICATOR = 2;
Else If (TIRED_1_R =2 AND TIRED_2_R =2 AND TIRED_3Y =2) then T_INDICATOR = 2;
Else If (TIRED_1_R =4 AND TIRED_2_R =1 AND TIRED_3Y =1) then T_INDICATOR = 2;
Else If (TIRED_1_R in (3, 4) AND TIRED_2_R =2 AND TIRED_3Y =2) then T_INDICATOR = 3;
Else If (TIRED_1_R in (2, 3, 4) AND TIRED_2_R =3 AND TIRED_3Y =2) then T_INDICATOR = 3;
Else If (TIRED_1_R in (2, 3, 4) AND TIRED_2_R =1 AND TIRED_3Y =3) then T_INDICATOR = 3;
Else If (TIRED_1_R in (2, 3) AND TIRED_2_R =2 AND TIRED_3Y =3) then T_INDICATOR = 3;
Else If (TIRED_1_R =2 AND TIRED_2_R =3 AND TIRED_3Y =3) then T_INDICATOR = 3;
Else If (TIRED_1_R =4 AND TIRED_2_R =2 AND TIRED_3Y =3) then T_INDICATOR = 4;
Else If (TIRED_1_R in (3, 4) AND TIRED_2_R =3 AND TIRED_3Y =3) then T_INDICATOR = 4;
Else T_INDICATOR = .;

Proc Freq Data=SS. ExtendedSets2013;
Tables T_INDICATOR;
Run;
```

T_Indicator

		Frequency	Percent	Valid Percent	Cumulative 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** + Hearing-indicator, Mobility-indicator, Cognition-indicator, Upper Body-indicator + PFAD (4)*	**25**
ES_2	**SS** + Hearing-indicator, Mobility-indicator, Cognition-indicator, Upper Body-indicator + 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.

```
If (missing(vision) AND missing(hearing) AND missing(mobility) AND
missing(communication) AND missing(Self_Care) AND missing(Cognition)) then SS_1 = .;
Else If ((vision = 3 OR vision = 4) OR  (hearing= 3 OR hearing = 4 ) OR
(mobility= 3 OR mobility = 4) OR (communication= 3 OR communication = 4) OR
 (Self_Care = 3 OR Self_Care = 4) OR (Cognition = 3 OR Cognition = 4 )) then SS_1 = 1;
Else SS_1 = 2;

Proc Freq Data=SS. ExtendedSets2013;
Tables SS_1;
Run;
```

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.

```
If ( missing(SS_1) AND (H_INDICATOR LT 1 OR H_INDICATOR GT 4) AND
(MOB_INDICATOR LT 1 OR MOB_INDICATOR GT 4) AND missing(COM_SS) AND
missing(SC_SS) AND (COG_INDICATOR LT 1 OR COG_INDICATOR GT 4) AND
(UB_INDICATOR LT 1 OR UB_INDICATOR GT 4) AND missing(P_INDICATOR) AND
(T_INDICATOR LT 1 OR T_INDICATOR GT 4) AND (ANX_INDICATOR LT 1 OR
ANX_INDICATOR GT 4) AND (DEP_INDICATOR LT 1 OR DEP_INDICATOR GT 4))
then ES_1 =.;
Else If (SS_1 = 1 OR (H_INDICATOR = 3 OR H_INDICATOR = 4) OR (MOB_INDICATOR
= 3 OR MOB_INDICATOR = 4) OR (COG_INDICATOR = 3 OR COG_INDICATOR = 4) OR
(UB_INDICATOR = 3 OR UB_INDICATOR = 4) OR P_INDICATOR = 4 OR T_INDICATOR
= 4 OR ANX_INDICATOR = 4 OR DEP_INDICATOR = 4) then ES_1 = 1;
Else ES_1 = 2;

Proc Freq Data=SS. ExtendedSets2013;
Tables ES_1;
Run;
```

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.

```
If (missing(SS_1) AND (H_INDICATOR LT 1 OR H_INDICATOR GT 4) AND
(MOB_INDICATOR LT 1 OR MOB_INDICATOR GT 4) AND missing(COM_SS) AND
missing(SC_SS) AND (COG_INDICATOR LT 1 OR COG_INDICATOR GT 4) AND
(UB_INDICATOR LT 1 OR UB_INDICATOR GT 4) AND (ANX_INDICATOR LT 1 OR
ANX_INDICATOR GT 4) AND (DEP_INDICATOR LT 1 OR DEP_INDICATOR GT 4))
then ES_2 = .;
Else If (SS_1 = 1 OR (H_INDICATOR = 3 OR H_INDICATOR = 4) OR (MOB_INDICATOR
```

```
= 3 OR MOB_INDICATOR = 4) OR (COG_INDICATOR = 3 OR COG_INDICATOR = 4) OR
(UB_INDICATOR = 3 OR UB_INDICATOR = 4) OR ANX_INDICATOR = 4 OR
DEP_INDICATOR = 4) then ES_2 = 1;
Else ES_2 = 2;

Proc Freq Data=SS. ExtendedSets2013;
Tables ES_2;
Run;
```

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.

```
If (missing(vision) AND missing(hearing) AND missing(mobility) AND
missing(communication) AND missing(Self_Care) AND missing(Cognition) AND
missing(UB_INDICATOR) AND missing(ANX_INDICATOR) AND
missing(DEP_INDICATOR) ) then ES_3 = .;
Else If ((vision = 3 OR vision = 4) OR (hearing= 3 OR hearing = 4) OR (mobility= 3 OR
mobility = 4) OR (communication= 3 OR communication = 4) OR (Self_Care = 3 OR Self_Care
= 4) OR (Cognition = 3 OR Cognition = 4) OR (UB_INDICATOR=3 OR UB_INDICATOR=4)
OR ANX_INDICATOR = 4 OR DEP_INDICATOR = 4)
then ES_3 = 1;
Else ES_3 = 2;

Proc Freq Data=SS. ExtendedSets2013;
Tables ES_3;
Run;
```

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		

POST SCRIPTUM: porquê excluir a dor e a fadiga?

É de realçar a exclusão dos domínios da dor e da fadiga de vários dos identificadores de incapacidade acima. Tem havido considerável debate sobre estes domínios no âmbito do WG. Em bom rigor, não são domínios de funcionalidade; e as nossas análises indicam que estão ambos altamente correlacionados com outros domínios e que as taxas de incapacidade com a sua inclusão podem ser muito elevadas. Por fim, em termos de comparabilidade internacional, estes domínios são menos universais; ou seja, são mais propensos a influências socioculturais locais do que outros domínios de funcionalidade.

Por tais motivos, optámos por exclui-los de várias destas análises, embora possam ser incluídos em análises complementares efetuadas por serviços nacionais de estatística ao respetivo nível.

APPENDIX 1: SAS Code used in the NHIS data file

```
Data ES.ExtendedSets13;
      Set NHIS.Funcdisb13;

      *Step 1. Generate frequency distribution for each domain question: Vision
       VIS_SS is the WG-SS Vision question;
      *Convert 7,8,9 to missing;

      If VIS_SS2 in (1,2,3,4) then Vision=VIS_SS2;
      Else Vision=.;

      *Step 2. Generate frequency distribution for each domain question:
      Communication
       COM_SS is the WG-SS Communication question;
      *Convert 7,8,9 to missing;

      If COM_SS in (1,2,3,4) then communication=COM_SS;
      Else communication=.;

      *Step 3. Generate frequency distribution for each domain question (including
      domains with multiple questions): Hearing
       HEAR_SS is the WG-SS Hearing question.
       HEAR_3 is Difficulty hearing conversation with one person in quiet room.
       HEAR_4 is Difficulty hearing one person in noisier room;
      *Convert 7,8,9 to;

      If HEAR_SS2 in (1,2,3,4) then hearing=HEAR_SS2;
      Else If HEAR_SS2 in (7,8,9  ) then hearing=.;

      If HEAR_3 in (1,2,3,4) then HEAR_3_R=HEAR_3;
      Else If HEAR_3 in (7,8,9  ) then HEAR_3_R=.;

      If HEAR_4 in (1,2,3,4) then HEAR_4_R=HEAR_4;
      Else If HEAR_4 in (7,8,9  ) then HEAR_4_R=.;

      *Step 4. For Hearing questions, recode Hear_3_R and Hear_4_R to 4 (cannot do
      at all) if HEAR_SS2 is 4 (Cannot do at all).
      IF HEAR_SS = 4 HEAR_3_R = 4.
      IF HEAR_SS = 4 HEAR_4_R = 4.;

      If hearing = 4 and HEAR_3_R =. then HEAR_3_X = 4;
      Else HEAR_3_X=HEAR_3_R;

      If hearing = 4 and HEAR_4_R =. then HEAR_4_X = 4;
      Else HEAR_4_X=HEAR_4_R;

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

      *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 two
      additional hearing questions HEAR_3_X and HEAR_4_X;

      IF (HEAR_3_X = 1 AND  HEAR_4_X = 1) OR (HEAR_3_X = 1 AND HEAR_4_X = 2) then
      H_INDICATOR = 1;
```

```
Else IF (HEAR_3_X = 2 AND (HEAR_4_X = 1  OR  HEAR_4_X = 2)) OR (HEAR_3_X = 1
AND  HEAR_4_X = 3) then H_INDICATOR = 2;
Else IF (HEAR_3_X = 3 AND (HEAR_4_X = 1  OR  HEAR_4_X = 2) OR (HEAR_3_X = 2
AND  HEAR_4_X = 3) OR (HEAR_3_X = 1 AND HEAR_4_X = 4)) then H_INDICATOR = 3;
Else IF ((HEAR_3_X = 3 AND  HEAR_4_X = 3) OR  HEAR_3_X = 4 OR (HEAR_4_X = 4
AND (HEAR_3_X = 2 OR  HEAR_3_X = 3))) then H_INDICATOR = 4;

*Step 7. Generate frequency distribution for each domain question: Cognition
COG_SS is the WG-SS Cognition question.
Cognition: Degree of difficulty remembering or concentrating;
*Recode 7,8,9 to .;

If COG_SS in (1,2,3,4) then Cognition=COG_SS;
Else If COG_SS in (7,8,9) then Cognition=.;

*If response to COG-SS 2, 3 or 4 then the respondent is asked COG_1: whether
they have difficulty remembering, concentrating or both. ;

If COG_1 in (1,2,3) then COG_1_R=COG_1;
Else If COG_1 in (7,8,9) then COG_1_R=.;

*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 is recoded
into COG_1A, and the value assigned is 0: no difficulty;

If COG_SS=1 then COG_1A=0;
Else COG_1A=COG_1_R;

*Step 9. Generate frequency distribution for remaining cognition questions.
Frequency distribution of the Cognition extended REMEMBERING questions: COG_2
and COG_3.;

If COG_2  in (1,2,3) then COG_2_R=COG_2;
Else If COG_2 in (7,8,9) then COG_2_R=.;

If COG_3  in (1,2,3) then COG_3_R=COG_3;
Else If COG_3 in (7,8,9) then COG_3_R=.;

*Step 10. Generate cross-tabulation of the two Cognition extended set
questions COG_2 by COG_3.;

*Step 11. Create a Remembering Indicator based on distribution of COG_2 and
COG_3. The syntax below creates a REMEMBERING INDICATOR (R_INDICATOR) based
on the additional remembering questions (COG_2_R and COG_3_R).
If COG_SS is 1: no difficulty, then the Remembering Indicator is coded as 1:
the lowest level of difficulty;

IF (Cognition = 1) then R_INDICATOR = 1;
Else IF ((COG_2_R = 1 AND COG_3_R = 1) OR (COG_3_R = 1 AND COG_2_R = 2) OR
(COG_3_R = 2 AND COG_2_R =    1)) then R_INDICATOR = 2;
Else IF (COG_3_R = 2 AND COG_2_R = 2) then R_INDICATOR = 3;
Else IF (COG_3_R = 3 OR COG_2_R = 3) then R_INDICATOR = 4;

*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. ;
```

```
Else IF (COG_1A = 2) then R_INDICATOR = 5;
Else R_INDICATOR = 0;

*Step 13. Generate frequency distribution of the Remembering Indicator.;

*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). The 388 individuals with 'concentrating only'
were allocated as follows:
1. 357 with a little difficulty on COG_SS question were classified as 2
2. 30 with a lot of difficulty on COG_SS question were classified as 3
3. 1 with cannot do on COG_SS 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.;

COG_INDICATOR=R_INDICATOR;
IF (R_INDICATOR = 5 AND Cognition = 2) then COG_INDICATOR = 2;
Else IF (R_INDICATOR = 5 AND Cognition = 3) then COG_INDICATOR = 3;
Else IF (R_INDICATOR = 5 AND Cognition = 4) then COG_INDICATOR = 4;
IF (R_INDICATOR = 2 AND COG_1_R = 3 AND Cognition = 3) then COG_INDICATOR =
3;
Else IF (R_INDICATOR = 3 AND COG_1_R = 3 AND Cognition = 3) then
COG_INDICATOR = 4;

*Step 15. Generate frequency distribution of the Cognition Indicator.;

*Step 16. Generate frequency distribution for each domain question: Self-care
and Upper body functioning.;
*UB_SS is the WG-SS Self-care question.
Recode 7,8,9 to .;

If UB_SS in (1,2,3,4) then Self_care =UB_SS;
Else Self_care =.;

If UB_1 in (1,2,3,4) then UB_1_R=UB_1;
Else If UB_1 in (7,8,9) then UB_1_R=.;

If UB_2 in (1,2,3,4) then UB_2_R=UB_2;
Else If UB_2 in (7,8,9) then UB_2_R=.;

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

*Step 18. Create an UPPER BODY INDICATOR (UB_INDICATOR) based on the two
additional self care questions UB_2_R and UB_3_R.
Syntax below creates UB_INDICATOR based on the distribution in the cross-
tabulation above.;

IF (UB_1_R = 4 OR UB_2_R = 4) then UB_INDICATOR = 4;
Else IF UB_INDICATOR NE 4 AND (UB_1_R = 3 OR UB_2_R = 3) then UB_INDICATOR =
3;
Else IF UB_INDICATOR NE 4 AND UB_INDICATOR NE 3 AND (UB_1_R = 2 OR UB_2_R =
2) then UB_INDICATOR = 2;
Else IF UB_INDICATOR NE 4 AND UB_INDICATOR NE 3 AND UB_INDICATOR NE 2 AND
(UB_1_R = 1 OR UB_2_R = 1)    then UB_INDICATOR = 1.;
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*Step 19. Generate frequency distribution for each domain question: Mobility.
MOB_SS is the WG-SS Mobility question
First, calculate frequency distributions on the short set and two extended
set WALKING questions (MOB_4,MOB_5);

If MOB_SS2 in (1,2,3,4) then Mobility=MOB_SS2;
Else Mobility=.;

If MOB_4 in (1,2,3,4) then MOB_4_R=MOB_4;
Else If MOB_4 in (7,8,9) then MOB_4_R=.;

If MOB_5 in (1,2,3,4) then MOB_5_R=MOB_5;
Else If MOB_5 in (7,8,9) then MOB_5_R=.;

*Step 20. Generate a cross-tabulation of the walking distance 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 were not asked
MOB_5 and they do not appear in the table below.
They are, however, accounted for in the WALKING indicator calculation;

*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.;

WALK_INDICATOR=0;
IF (MOB_4_R = 1 AND (MOB_5_R = 1  OR  MOB_5_R = 2)) then WALK_INDICATOR = 1;
Else IF (MOB_4_R = 1 AND  MOB_5_R = 3) OR (MOB_4_R = 2 AND (MOB_5_R = 1 OR
MOB_5_R = 2 OR MOB_5_R = 3)) then WALK_INDICATOR = 2;
Else IF (MOB_4_R = 1 AND  MOB_5_R = 4) OR (MOB_4_R = 3 AND (MOB_5_R = 1 OR
MOB_5_R = 2 OR MOB_5_R = 3)) then WALK_INDICATOR = 3;
Else IF (MOB_4_R = 2 AND  MOB_5_R = 4) OR (MOB_4_R = 3 AND MOB_5_R = 4) then
WALK_INDICATOR = 4;

*Syntax below includes the 623 who responded cannot do at all to MOB_4 into
the WALKING INDICATOR;

Else IF (WALK_INDICATOR = 0 AND MOB_4_R = 4) then WALK_INDICATOR = 4;

*RECODE WALK_INDICATOR (0 = SYSMIS).;

IF WALK_INDICATOR=0 then WALK_INDICATOR=.;

*Step 22. Supplement Walking Indicator with information on difficulty
Climbing steps (MOB_6). CROSSTABS WALK_INDICATOR BY MOB_6.;

If MOB_6 in (1,2,3,4) then MOB_6_R=MOB_6;
Else If MOB_6 in (7,8,9) then MOB_6_R=.;

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

MOB_INDICATOR = WALK_INDICATOR;
IF (WALK_INDICATOR = 2 AND MOB_6_R = 3) then MOB_INDICATOR = 3;
Else IF (WALK_INDICATOR = 1 AND MOB_6_R = 3) then MOB_INDICATOR = 2;
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Else IF (WALK_INDICATOR = 2 AND MOB_6_R = 4) then MOB_INDICATOR = 4;
Else IF (WALK_INDICATOR = 1 AND MOB_6_R = 4) then MOB_INDICATOR = 3;

*Step 24. Generate frequency distribution on ANX_1 (Anxiety);

If ANX_1 in (1,2,3,4,5) then ANX_1_R=ANX_1;
Else If ANX_1 in (7,8,9) then ANX_1_R=.;

*Step 25. The syntax below recodes ANX_3R into ANX_3Y to place "SOMEWHERE
BETWEEN" numerically in-between "A LITTLE" and "A LOT";

If ANX_3R =1 then ANX_3Y=1;
Else If ANX_3R =2 then ANX_3Y=3;
Else If ANX_3R =3 then ANX_3Y=2;
Else If ANX_3R in (7,8,9) then ANX_3Y=.;

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

If ANX_1 =5 then ANX_3Y=0;

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

*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.;

IF (missing(ANX_1_R) OR missing(ANX_3Y)) then ANX_INDICATOR=.;
Else IF ( ANX_3Y le 4 AND (ANX_1_R = 4 OR ANX_1_R = 5)) then ANX_INDICATOR=1;
Else IF ((ANX_1_R = 3) OR (ANX_1_R LT 3 AND ANX_3Y=1) OR (ANX_1_R = 2 AND
ANX_3Y = 2)) then ANX_INDICATOR = 2;
Else IF ((ANX_1_R = 1 AND ANX_3Y = 2) OR (ANX_1_R = 2 AND ANX_3Y = 3)) then
ANX_INDICATOR = 3;
Else IF ( ANX_1_R = 1 AND ANX_3Y = 3) then ANX_INDICATOR = 4;

*Step 28. Generate frequency distribution on DEP_1 (Depression);

If DEP_1 in (1,2,3,4,5) then DEP_1_R=DEP_1;
Else If DEP_1 in (7,8,9) then DEP_1_R=.;
Else DEP_1_R=.;

*Step 29. The syntax below recodes DEP_3R into DEP_3Y to place "SOMEWHERE
BETWEEN" numerically in-between "A LITTLE" and "A LOT";

If DEP_3R =1 then DEP_3Y=1;
Else If DEP_3R =2 then DEP_3Y=3;
Else If DEP_3R =3 then DEP_3Y=2;
Else If DEP_3R in (7,8,9) then DEP_3Y=.;

*Recode DEP_3Y to 0 (not asked) if DEP_1 is 5 (Never).;

If DEP_1 =5 then DEP_3Y=0;

*Step 30. Generate a cross-tabulation of the depression Extended Set
questions: DEP_1_R and DEP_3Y.;
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*Step 31. Create a DEPRESSION INDICATOR (DEP_INDICATOR) based on the two
depression questions DEP_1_R  and DEP_3Y;

IF (missing(DEP_1_R) OR missing(DEP_3Y)) then DEP_INDICATOR = .;
Else IF (DEP_3Y Le 4 AND (DEP_1_R = 4 OR DEP_1_R = 5)) then DEP_INDICATOR=1;
Else IF ((DEP_1_R = 3) OR (DEP_1_R LT 3 AND DEP_3Y=1) OR (DEP_1 = 2 AND
DEP_3Y = 2)) then DEP_INDICATOR = 2;
Else IF ((DEP_1_R = 1 AND DEP_3Y = 2) OR (DEP_1_R = 2 AND DEP_3Y = 3)) then
DEP_INDICATOR = 3;
Else IF (DEP_1_R = 1 AND DEP_3Y = 3) then DEP_INDICATOR = 4;

*Step 32. Generate frequency distribution on PAIN_2 (Pain);

If PAIN_2 in (1,2,3,4) then PAIN_2_R=PAIN_2;
Else If PAIN_2 in (7,8,9) then PAIN_2_R=.;

*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);

If PAIN_4 =1 then PAIN_4Y=1;
Else If PAIN_4 =2 then PAIN_4Y=3;
Else If PAIN_4 =3 then PAIN_4Y=2;
Else If PAIN_4 in (7,8,9) then PAIN_4Y=.;

If PAIN_2=1 then PAIN_4Y=0;

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

*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.;

IF (PAIN_2_R = 1) OR (PAIN_4Y = 1 AND (PAIN_2_R = 2 OR PAIN_2_R = 3)) then
P_INDICATOR = 1;
Else IF ((PAIN_2_R = 2 AND (PAIN_4Y = 2  OR PAIN_4Y = 3)) OR (PAIN_2_R = 3
AND PAIN_4Y = 2) OR (PAIN_2_R = 4 AND PAIN_4Y = 1)) then P_INDICATOR = 2;
Else IF (PAIN_2_R = 3 AND  PAIN_4Y = 3) OR (PAIN_2_R = 4 AND PAIN_4Y = 2)
then P_INDICATOR = 3;
Else IF (PAIN_2_R = 4 AND  PAIN_4Y = 3) then P_INDICATOR = 4;


*Step 36. Generate frequency distribution on FATIGUE Extended Set questions
Tired_1 (How often you  felt tired in the past 3 months.),
Tired_2 and Tired_3;

If TIRED_1 in (1,2,3,4) then TIRED_1_R=TIRED_1;
Else If TIRED_1 in (7,8,9) then TIRED_1_R=.;


If TIRED_2 in (1,2,3) then TIRED_2_R=TIRED_2;
Else If TIRED_2 in (7,8,9) then TIRED_2_R=.;
Else TIRED_2_R=.;
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*Step 37. Recode Tired_2 to 0 (not asked) if Tired_1 is 1 (Never).;

If TIRED_1 =1 then TIRED_2_R=0;

*Step 38.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 is not asked;

If TIRED_3 =1 then TIRED_3Y=1;
Else If TIRED_3 =2 then TIRED_3Y=3;
Else If TIRED_3 =3 then TIRED_3Y=2;
Else If TIRED_3 in (7,8,9) then TIRED_3Y=.;
If TIRED_1=1 then TIRED_3Y=0;

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

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

IF (TIRED_1_R = 1) then T_INDICATOR = 1;
Else IF (TIRED_1_R = 2 AND TIRED_2_R = 1 AND TIRED_3Y = 1) then T_INDICATOR =
1;
Else IF (TIRED_1_R = 3 AND TIRED_2_R = 1 AND TIRED_3Y = 1) then T_INDICATOR =
1;

Else IF (TIRED_1_R in (2,3,4) AND TIRED_2_R in (2,3) AND TIRED_3Y =1) then
T_INDICATOR = 2;
Else IF (TIRED_1_R in (2,3,4) AND TIRED_2_R =1 AND TIRED_3Y =2) then
T_INDICATOR = 2;
Else IF (TIRED_1_R =2 AND TIRED_2_R =2 AND TIRED_3Y =2) then T_INDICATOR = 2;
Else IF (TIRED_1_R =4 AND TIRED_2_R =1 AND TIRED_3Y =1) then T_INDICATOR = 2;

Else IF (TIRED_1_R in (3,4) AND TIRED_2_R =2 AND TIRED_3Y =2) then
T_INDICATOR = 3;
Else IF (TIRED_1_R in (2,3,4) AND TIRED_2_R =3 AND TIRED_3Y =2) then
T_INDICATOR = 3;
Else IF (TIRED_1_R in (2,3,4) AND TIRED_2_R =1 AND TIRED_3Y =3) then
T_INDICATOR = 3;
Else IF (TIRED_1_R in (2,3) AND TIRED_2_R =2 AND TIRED_3Y =3) then
T_INDICATOR = 3;
Else IF (TIRED_1_R =2 AND TIRED_2_R =3 AND TIRED_3Y =3) then T_INDICATOR = 3;

Else IF (TIRED_1_R =4 AND TIRED_2_R =2 AND TIRED_3Y =3) then T_INDICATOR = 4;
Else IF (TIRED_1_R in (3,4) AND TIRED_2_R =3 AND TIRED_3Y =3) then
T_INDICATOR = 4;
Else T_INDICATOR = .;


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

IF (missing(vision) AND missing(hearing) AND missing(mobility) AND
missing(communication) AND missing(Self_care) AND missing(Cognition)) then
SS_1 = .;
Else IF ((vision = 3 OR vision = 4) OR
         (hearing= 3 OR hearing = 4) OR
         (mobility= 3 OR mobility = 4) OR
         (communication= 3 OR communication = 4) OR
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          (Self_care = 3 OR Self_care = 4) OR
          (Cognition = 3 OR Cognition = 4))  then  SS_1 = 1;
Else SS_1 = 2;

*ES_1: SS_1 + Hearing-indicator, Mobility-indicator, Cognition-indicator +
Upper Body-indicator +  PFAD (4).
PFAD=only level 4 in Pain indictor, Fatigue indicator, Anxiety indictor, and
Depression indicator;

IF ( missing(SS_1)  AND (H_INDICATOR LT 1 OR H_INDICATOR GT 4) AND
(MOB_INDICATOR LT 1 OR  MOB_INDICATOR GT 4) AND missing(COM_SS) AND
missing(UB_SS) AND (COG_INDICATOR LT 1 OR COG_INDICATOR GT 4) AND
(UB_INDICATOR LT 1 OR UB_INDICATOR GT 4) AND missing(P_INDICATOR) AND
(T_INDICATOR LT 1 OR T_INDICATOR GT 4) AND (ANX_INDICATOR LT 1 OR
ANX_INDICATOR GT 4) AND (DEP_INDICATOR LT 1 OR  DEP_INDICATOR GT 4)) then
ES_1 = .;

Else IF (SS_1 = 1 OR (H_INDICATOR = 3 OR H_INDICATOR = 4) OR (MOB_INDICATOR =
3 OR MOB_INDICATOR = 4) OR (COG_INDICATOR = 3 OR COG_INDICATOR = 4) OR
(UB_INDICATOR = 3 OR UB_INDICATOR = 4) OR P_INDICATOR = 4 OR T_INDICATOR = 4
OR ANX_INDICATOR = 4 OR DEP_INDICATOR = 4) then ES_1 = 1;
Else ES_1 = 2;


*ES_2: SS_1 + Hearing-indicator, Mobility-indicator, Cognition-indicator +
Upper Body-indicator + AD (4)
AD=only level 4 in Anxiety indictor and Depression indicator;

IF (missing(SS_1) AND (H_INDICATOR LT 1 OR H_INDICATOR GT 4) AND
(MOB_INDICATOR LT 1 OR MOB_INDICATOR GT 4) AND missing(COM_SS) AND
missing(UB_SS) AND (COG_INDICATOR LT 1 OR COG_INDICATOR GT 4) AND
(UB_INDICATOR LT 1 OR UB_INDICATOR GT 4) AND (ANX_INDICATOR LT 1 OR
ANX_INDICATOR GT 4) AND (DEP_INDICATOR LT 1 OR DEP_INDICATOR GT 4)) then
ES_2 = .;

Else IF (SS_1 = 1 OR (H_INDICATOR = 3 OR H_INDICATOR = 4) OR (MOB_INDICATOR =
3 OR MOB_INDICATOR = 4) OR (COG_INDICATOR = 3 OR COG_INDICATOR = 4) OR
(UB_INDICATOR = 3 OR UB_INDICATOR = 4) OR ANX_INDICATOR = 4 OR
DEP_INDICATOR = 4) then ES_2 = 1;
Else ES_2 = 2;


*ES_3: SS_1 + Upper Body-indicator + AD (4)
 AD=only level 4 in  Anxiety indictor and Depression indicator;

IF (missing(vision) AND  missing(hearing)  AND missing(mobility) AND
missing(communication) AND missing(Self_care) AND missing(Cognition) AND
missing(ANX_INDICATOR) AND missing(DEP_INDICATOR)) then ES_3 = .;

Else IF ((vision = 3 OR vision = 4) OR (hearing= 3 OR hearing = 4) OR
mobility= 3 OR mobility = 4)  OR (communication= 3 OR communication = 4) OR
(Self_care = 3 OR Self_care = 4) OR (Cognition = 3 OR Cognition = 4) OR
ANX_INDICATOR = 4 OR DEP_INDICATOR = 4) then ES_3 = 1;
Else ES_3 = 2;

Label
      Vision="Degree of difficulty seeing"
      communication="Degree of difficulty communicating using usual language"
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            hearing="Degree of difficulty hearing"
            HEAR_3_R="Difficulty hearing conversation with one person in quiet
            room"
            HEAR_3_X="Difficulty hearing conversation with one person in quiet
            room:Recoded from HEAR_3_R"
            HEAR_4_R="Diff hearing one person in noisier room even w/ hearing aid"
            HEAR_4_X="Diff hearing one person in noisier room even w/ hearing
            aid:Recoded from HEAR_4_R"
            H_INDICATOR="Hearing indictor"
            Cognition="Degree of difficulty remembering or concentrating"
            COG_1_R="Difficulty remembering, concentrating, or both?"
            COG_1A="Include respondents who did not asked COG_1"
            COG_2_R="How often have difficulty remembering?"
            COG_3_R="Amount of things you have difficulty remembering?"
            R_INDICATOR="Remembering indicator"
            COG_INDICATOR="COG INDICATOR"
            Self_care="Degree of difficulty with self-care"
            UB_1_R="Diff raising 2 liter bottle of water from waist to eye level"
            UB_2_R="Degree of difficulty using hands and fingers"
            UB_INDICATOR="UB INDICATOR"
            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"
            WALK_INDICATOR="WALK INDICATOR"
            MOB_INDICATOR="MOB INDICATOR"
            PAIN_2_R="Frequency of pain in past 3 months"
            PAIN_4Y="How much pain you had last time you had pain?"
            P_INDICATOR="Pain INDICATOR"
            TIRED_1_R="How often felt very tired or exhausted in past 3 months"
            TIRED_2_R="How long most recent tired or exhausted feelings lasted?"
            TIRED_3Y="Level of tiredness last time felt very tired or exhausted"
            T_INDICATOR="Tired INDICATOR"
            SS_1="WG Short Set Disability Identifier"
            ES_1="WG-ES Disability Indicator based on 11 domains and 25 questions"
            ES_2="WG-ES Disability Indicator based on 9 domains and 20 questions"
            ES_3="WG-SS Enhanced Disability Indicator based on 9 domains and 12
questions"
      ;

      Format Vision communication hearing HEAR_3_R HEAR_4_R HEAR_3_X HEAR_4_X
      Cognition Self_care UB_1_R    UB_2_R Mobility MOB_4_R MOB_5_R Diff.
      COG_1_R COGF. COG_1A COG1AF. COG_2_R Cog2f. COG_3_R Cog3f. PAIN_2_R TIRED_1_R
      pain2Tire1f.      TIRED_2_R  Tire2f.  PAIN_4Y  TIRED_3Y pain4Tire3f.
      ANX_1_R DEP_1_R AnxDep. ANX_3Y DEP_3Y AnxDep3F. SS_1 ES_1 ES_2 ES_3 DisabF.;
Run;


Proc format library=ES.ES;
      Value Diff
            1="No Difficulty"
            2="Some Difficulty"
            3="A lot of Difficulty"
            4="Cannot do at all"
            .="Missing"
      ;
      Value  COGF
            1="Difficulty remembering only"
            2="Difficulty concentrating only"
            3="Difficulty with both remembering and concentrating"
```

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;
Value  COG1AF
      0="(0)No difficulty"
      1="Difficulty remembering only"
      2="Difficulty concentrating only"
      3="Difficulty with both remembering and concentrating"
;
Value Cog2f
      1="Sometimes"
      2="Often"
      3="All of the time"
;
Value Cog3f
      1="A few things"
      2="A lot of things"
      3="Almost everything"
;
Value AnxDep
      1="Daily"
      2="Weekly"
      3="Monthly"
      4="Afew times a year"
      5="Never"
;
Value AnxDep3F
      0="Not asked"
      1="A little"
      2="In bewteen"
      3="A lot"
;
Value pain2Tire1f
      1="Never"
      2="Some days"
      3="Most days"
      4="Every day"
;
Value Tire2f
      0="NOT ASKED"
      1="Some days"
      2="Most days"
      3="Every day"
;
Value pain4Tire3f
      0="NOT ASKED"
      1="A little"
      2="in between"
      3="A lot"
;
Value DisabF
      1="With Disability"
      2="Without Disability"
;
Run;
```