



## 分析指南： 使用华盛顿小组详细功能问题集（WG-ES）SAS语法创建残疾标识符

### 导言

与华盛顿小组简易功能问题集(WG-SS)一样，对华盛顿小组详细功能问题集(WG-ES)的分析也可以根据严重性阈值或分界点的选择产生多个残疾标识符。但是，下面的SAS语法规规定使用不同的WG-ES领域组合来计算残疾标识符，并使用建议的分界点以便进行国际比较（如下文所述）。

对于所述的每个残疾标识符，纳入程度为至少一个领域/问题编码为“非常困难”或“完全无法做到”，或者在焦虑、抑郁、疼痛和疲劳领域，为四分量表上最大程度的困难。

本文件所述的四种残疾标识符的定义均基于对功能领域的选择，包括：

**WG-SS:** 简易问题集：6个领域，6个问题

**WG-ES 1:** 详细问题集：11个领域，25个问题

**WG-ES 2:** 修订版详细问题集(WG-ES去除“疼痛”和“疲劳”这两个领域)：9个领域，20个问题

**WG-ES 3:** 简易问题集增强版(WG-SS加上“上半身机能”、“焦虑”和“抑郁”这三个领域)：9个领域，12个问题

**注：**在进行数据分析时，使用标准的权重和估算技术。

SAS语法基于下表所示变量标签。完整的WG-ES模块包含的问题多于此表中显示的问题。残疾状况是通过在没有使用辅助技术或其他协助的情况下，从事基本的、普遍的活动时出现的困难程度来确定的。例如，有几个关于活动度的问题提到在使用协助的情况下的行走困难程度。这些问题未包含在此处提供的分析计划中。但是，它们可以用于其他分析中，以更仔细地研究辅助技术

**《华盛顿小组实施文件》**涵盖了华盛顿残疾统计小组(WG)开发的、用来在人口普查和调查中收集国际可比的残疾数据的多款工具。实施文件介绍了实施简易问题集、详细问题集、简易问题集-增强版、华盛顿小组/儿基会儿童功能模块(2-4岁和5-17岁)、华盛顿小组/国际劳工组织(ILO)劳动力调查残疾模块，以及其他华盛顿小组工具的最佳实践。主题包括翻译、问题规范、分析指南、用于分析的编程代码、分类工具的使用等等。

如需查找其他《华盛顿小组实施文件》和更多信息，请访问华盛顿小组网站：  
<http://www.washingtongroup-disability.com/>。

(环境促进因素) 对功能的影响。

只有以下这些问题/变量用于确定残疾标识符。

确保您使用的是相同的**变量标签**, 或者修改SAS语法以反映在数据库中使用的**变量标签**。

WG-SS作为美国国民健康访谈调查(NHIS)的一部分实施。用于编制这些指南的数据来自2013年的NHIS。

**NHIS用户注意:** NHIS数据文件和文档中的变量名称可能与本文档中使用的变量名称不同; 例如, 在本文档中称为SC-SS的自理领域变量在NHIS数据文件和文档中称为UB\_SS。

附录I 中完整包含了用于产生本文档中输出信息的SAS代码。

华盛顿小组详细问题集中的问题/领域	变量标签	回答模式
视力		
<b>1.即使戴着眼镜, 您是否也难以看清楚?</b>	VIS_SS	1
沟通		
<b>2.您是否难以使用日常语言和他人沟通, 如理解他人或被他人理解?</b>	COM_SS	1
听力		
<b>3.即使使用助听器, 您是否也难以听清楚?</b>	HEAR_SS	1
<b>4.难以听清在安静房间内与他人谈话的内容?</b>	HEAR_3	1
<b>5.难以听清在更嘈杂房间内与他人谈话的内容?</b>	HEAR_4	1
认知		
<b>6.您是否难以记住东西或集中注意力?</b>	COG_SS	1
<b>7.难以记住东西、集中注意力或两种情况都有?</b>	COG_1	2
<b>8.难以记住东西的情况多久出现一次?</b>	COG_2	3
<b>9.难以记住的事情有多少?</b>	COG_3	4
自理/上半身		
<b>10.您是否难以自理生活, 例如清洗全身或穿衣?</b>	SC_SS	1
<b>11.难以将一瓶2升的水从腰部举到齐眼高度?</b>	UB_1	1

<b>12.使用手和手指的困难程度</b>	UB_2	1
活动度		
<b>13.您是否难以正常行走或上下阶梯？</b>	MOB_SS	1
<b>14.在未依靠协助或设备的情况下，难以在平地行走100码？</b>	MOB_4	1
<b>15.在未依靠协助或设备的情况下，难以在平地行走1/3英里？</b>	MOB_5	1
<b>16.在未依靠协助或设备的情况下，难以向上或向下走12级阶梯？</b>	MOB_6	1
情感（焦虑）		
<b>17.多久会出现感觉到担忧、紧张或焦虑的情况？</b>	ANX_1	5
<b>18.上一次感到担忧、紧张或焦虑时的感受程度？</b>	ANX_3	6
情感（抑郁）		
<b>19.您多久会出现感觉到抑郁的情况？</b>	DEP_1	5
<b>20.上一次您感到抑郁时，您感觉到有多抑郁？</b>	DEP_3	6
疼痛		
21.过去3个月内疼痛发生的频率？	PAIN_2	7
22.上一次您感到疼痛时，您感觉到有多疼痛？	PAIN_4	6
疲劳		
23.过去3个月内，多久会出现感到非常疲劳或精疲力尽的情况？	TIRED_1	7
24.最近一次非常疲劳或精疲力尽的感觉持续了多长时间？	TIRED_2	8
25.最近一次感到非常疲劳或精疲力尽时，疲劳的程度？	TIRED_3	6

注：红色代表华盛顿小组简易问题集(WG-SS)。

所有25个问题都包含在**WG-ES 1**中。

红色加蓝色加绿色的问题包含在**WG-ES 2**中。

红色加绿色的问题包括在**WG-ES 3**中。

## 回答模式

	模式1	模式2	模式3	模式4
1	没有困难	仅难以记住东西	有时	一些事
2	是，有点困难	仅难以集中注意力	经常	很多事
3	是，非常困难	记住东西和集中注意力均有困难	总是	几乎所有事
4	完全无法做到			
7	拒绝回答			
8	不确定			
9	不知道			

	模式5	模式6*	模式7	模式8
1	每天都有	有点	从未有过	当天的一段时间
2	每周都有	显著	有时候	当天的大多数时间
3	每月都有	介于有点和显著之间	大多数时候	全天
4	一年几次		每天	
5	从未有过			
7	拒绝回答			
8	不确定			
9	不知道			

\*在下面的语法中，请注意回答模式为6（ANX\_3、DEP\_3、PAIN\_4和TIRED\_3）的题目被重新编码，以便将“介于”的数值放置在“有点”和“显著”之间。

WG-SS嵌入到WG-ES中。WG-ES还补充

了以下内容：

- 现有6个领域的额外问题，以及
- 额外领域（有几个领域具有多个问题）。

下面介绍的SAS语法包括一些WG-ES内容特有的元素。

首先，为包括多个问题的功能领域确定特定领域单一标识符是很重要的。例如，上半身机能包括两个问题，每个问题都引出了具体而独特的动作：将一瓶水从腰部举到齐眼高度（手臂/肩膀）的困难程度，以及使用手和手指的困难程度。对这两个问题进行分析和组合后，产生一个上半身指标，困难程度分为4级，从“1 - 困难程度低”

到“4 - 困难程度高”——这与对单个WG-SS问题的分类回答没有什么不同：没有困难、有点困难、非常困难、完全无法做到。与上半身领域一样，WG-ES领域“认知、焦虑、抑郁、疼痛和疲劳”有不同的回答模式，不易“转化”为通常的华盛顿小组回答模式。对于这些功能领域，编制了一个相似的4分量表回答模式，并标注为1级到4级，1级表示困难程度最低，而4级表示困难程度最高。

其次，对各个领域指标一起进行评估，以确定纳入总体残疾标识符的适当分界点——以便根据残疾状况估计发生率和对结果指标进行分类。

**注：**

对于所有变量，代码(7)“拒绝回答”，(8)“不确定”，以及(9)“不知道”，被重新编码为“缺失”。

## **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		Valid	Cumulative
		Frequency	Percent	Percent	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		

如需详细了解华盛顿残疾统计小组的信息，请访问：

## 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	Perc ent	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				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.

```
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		

如需详细了解华盛顿残疾统计小组的信息，请访问：

*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\_2\_R 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).

如需详细了解华盛顿残疾统计小组的信息，请访问：

[http://www.washingtongroup-disability.com/。](http://www.washingtongroup-disability.com/)

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
<b>1.00</b>	13719	79.2	79.2	82.5
<b>2.00</b>	2172	12.5	12.5	95.1
<b>3.00</b>	197	1.1	1.1	96.2
<b>4.00</b>	270	1.6	1.6	97.8
<b>5.00</b>	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	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.

```
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					
	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.

**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	<b>12950</b>	<b>819</b>	<b>63</b>	<b>39</b>	13871	
Some difficulty	<b>72</b>	<b>810</b>	<b>343</b>	<b>142</b>	1367	
A lot of difficulty	<b>3</b>	<b>21</b>	<b>301</b>	<b>166</b>	491	
Cannot do at all (623)	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	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;

```

WALK_INDICATOR	MOB_6_R: Difficulty climbing up or down 12 steps					Total
	No difficulty	Some difficulty	A lot of difficulty	Cannot do at all		
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	<b>1.00</b>	11600	67.0	69.7	69.7
	<b>2.00</b>	3656	21.1	22.0	91.6
	<b>3.00</b>	845	4.9	5.1	96.7
	<b>4.00</b>	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_RNOROW NOCOL NOPERCENT;
Run;

```

#### DEP\_1\_R: How often do you feel depressed?

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.

```
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_2_R: Frequency of pain in past 3 months				
PAIN_4Y: How much pain you had last time you had pain		Never	Some days	Most days	Every day	Total
Not asked	6636	0	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
	2.00	3442	19.9	20.7
	3.00	1174	6.8	7.0
	4.00	944	5.4	5.7
	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: <i>Intensity</i>	TIRED_2: How long feelings lasted: <i>Duration</i>	TIRED_1: How often felt very tired or exhausted in past 3 months: <i>Frequency</i>				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.

```

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;**

如需详细了解华盛顿残疾统计小组的信息，请访问：

[http://www.washingtongroup-disability.com/。](http://www.washingtongroup-disability.com/)

		T_Indicator			
	Frequency	Percent	Valid Percent	Cumulative Percent	
<b>Valid</b>	<b>1.00</b>	9949	57.4	59.8	59.8
	<b>2.00</b>	3864	22.3	23.2	83.0
	<b>3.00</b>	2312	13.3	13.9	96.9
	<b>4.00</b>	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
<b>SS_1</b>   Short Set (SS)	<b>6</b>
<b>Extended Set</b>	
<b>ES_1</b>   SS + <u>Hearing-indicator</u> , <u>Mobility-indicator</u> , <u>Cognition-indicator</u> , <u>Upper Body-indicator</u> + PFAD (4)*	<b>25</b>
<b>ES_2</b>   SS + <u>Hearing-indicator</u> , <u>Mobility-indicator</u> , <u>Cognition-indicator</u> , <u>Upper Body-indicator</u> + AD (4)†	<b>20</b>
<b>Short Set Enhanced</b>	
<b>ES_3</b>   SS + Upper Body-indicator + AD (4)†	<b>12</b>

\* 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.

如需详细了解华盛顿残疾统计小组的信息，请访问：

```

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		

#### 补充说明：为什么将疼痛和疲劳排除在外？

值得注意的是，在上述几个残疾标识符中排除了“疼痛”和“疲劳”这两个领域。华盛顿小组内部对这些领域已经进行了相当多的讨论。严格地说，它们不是功能领域（我们的分析表明它们都与其他领域高度相关），并且在纳入这些领域后，残疾发生率可能会非常高。最后，在国际可比性方面，这些领域的普适性较低；也就是说，它们比其他功能领域更容易受到当地社会文化的影响。

出于这些原因，尽管它们可以被纳入国家统计局在全国范围内进行的补充分析中，但我们仍然选择将它们从几个分析中排除。

## 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;
```

---

如需详细了解华盛顿残疾统计小组的信息，请访问：

```

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.;


```

\***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;
```

```

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.;
```

\***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_R = 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=.;
```

```

*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 indicator, Fatigue indicator, Anxiety indicator, 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 indicator 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 indicator 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
pain2Tirelf. 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"

```

```

;
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;

```