Directives analytiques :
Créer des éléments d'identification du handicap à l'aide de la syntaxe SAS pour le questionnaire détaillé du Groupe de Washington sur le fonctionnement

Introduction

À l'instar de l'analyse de la brève série de questions du Groupe de Washington sur le fonctionnement, l'analyse du questionnaire détaillé peut également produire plusieurs éléments d'identification du handicap en fonction du seuil de gravité choisi. Cependant, la syntaxe SAS (pour système d'analyse statistique) ci-après prévoit des calculs pour les éléments d'identification du handicap s'appuyant sur différents ensembles de domaines du questionnaire détaillé, en partant du seuil recommandé pour les comparaisons internationales (décrit ci-dessous).

Pour chacun des éléments d'identification du handicap décrits, le niveau d'inclusion est fixé à : au moins un domaine/une question est codé(e) BEAUCOUP ou N'Y PARVIENT PAS DU TOUT. Pour les domaines Anxiété, Dépression, Douleur et Fatigue, le niveau d'inclusion est fixé au niveau de difficulté le plus élevé sur une échelle de quatre points.

Chacun des quatre éléments d'identification du handicap décrits dans le présent document est défini en fonction des domaines de fonctionnement que l'on a choisi d'inclure :

Brève série de questions du Groupe de Washington sur le fonctionnement : *Brève série* – 6 domaines, 6 questions.

Questionnaire détaillé 1 du Groupe de Washington sur le fonctionnement : *Questionnaire détaillé* – 11 domaines, 25 questions.

Questionnaire détaillé 2 du Groupe de Washington sur le fonctionnement : *Questionnaire détaillé modifié* (questionnaire détaillé MOINS les domaines Douleur et Fatigue) – 9 domaines, 20 questions.

Questionnaire détaillé 3 du Groupe de Washington sur le fonctionnement : *Version enrichie de la brève série de questions* (brève série PLUS les domaines Partie supérieure du corps, Anxiété et Dépression) – 9 domaines, 12 questions.

REMARQUE : Aux fins de l'analyse des données, utilisez vos techniques standard de pondération et d'estimation.

La syntaxe SAS s'appuie sur les *étiquettes de variable* figurant dans le tableau suivant. Le module complet du questionnaire détaillé comprend d'autres questions qui n'apparaissent pas dans ce tableau. Le type de handicap est déterminé en fonction de la difficulté éprouvée pour réaliser des activités universelles de base *sans* aide, technologique ou autre. Par exemple, plusieurs questions de mobilité font référence à la difficulté de marcher *avec* une aide. Ces questions ne sont pas incluses dans le plan analytique figurant ici ; cependant, elles peuvent être

Les **documents de mise en œuvre** du **Groupe de Washington** couvrent les outils élaborés par le Groupe de Washington pour recueillir des données sur le handicap comparables à l'échelle internationale dans le cadre des recensements et des enquêtes. Les documents portent sur les bonnes pratiques de mise en œuvre concernant la brève série de questions, le questionnaire détaillé, la version enrichie de la brève série de questions, les modules sur le fonctionnement de l'enfant du Groupe de Washington et du Fonds des Nations Unies pour l'enfance (UNICEF) pour les enfants de 2 à 4 ans et de 5 à 17 ans, le module sur le handicap de l'enquête sur la population active du Groupe de Washington et de l'Organisation internationale du Travail (OIT), ainsi que d'autres outils du Groupe de Washington. Ces documents couvrent notamment les sujets suivants : traduction, précision des questions, directives analytiques, code de programmation pour les analyses, utilisation des outils à des fins de ventilation, etc.

Vous trouverez d'autres documents de mise en œuvre du Groupe de Washington et des informations supplémentaires sur le site Internet du Groupe de Washington : http://www.washingtongroup-disability.com/.

utilisées dans d'autres analyses qui s'intéressent de plus près aux effets des aides technologiques (facilitateurs environnementaux) au fonctionnement.

Seules les questions/variables figurant ci-dessous sont utilisées pour déterminer les éléments d'identification du handicap.
**Veillez à utiliser les mêmes *étiquettes de variable* OU révisez la syntaxe SPSS en fonction des *étiquettes* employées
dans votre base de données.**

La brève série de questions du Groupe de Washington est administrée dans le cadre de l'enquête nationale de santé des États-Unis (NHIS). Les données utilisées pour préparer les présentes directives sont tirées de la NHIS de 2013.

Remarque à l'intention des utilisateurs de la NHIS : les noms des variables dans le fichier de données et la documentation de la NHIS peuvent être différents de ceux employés dans le présent document ; par exemple, la variable relative au domaine des soins de soi portant la référence SC_SS dans le présent document est désignée par UB_SS dans le fichier de données et la documentation de la NHIS.

Le code SAS utilisé pour produire les résultats figurant dans ce document est inclus dans son intégralité à l'annexe 1.

Questions/domaines du questionnaire détaillé du Groupe de Washington	Étiquette de variable	Schéma de réponses
VUE		
1. Éprouvez-vous des difficultés à voir, même avec des lunettes ?	VIS_SS	1
COMMUNICATION		
2. Éprouvez-vous des difficultés à communiquer dans votre langue habituelle, à comprendre les autres ou à vous faire comprendre, par exemple ?	COM_SS	1
AUDITION		
3. Éprouvez-vous des difficultés à entendre, même avec une prothèse auditive ?	HEAR_SS	1
4. Éprouvez-vous des difficultés à entendre les paroles d'une autre personne lors d'une conversation dans une pièce calme ?	HEAR_3	1
5. Éprouvez-vous des difficultés à entendre les paroles d'une autre personne lors d'une conversation dans une pièce bruyante ?	HEAR_4	1
COGNITION		
6. Éprouvez-vous des difficultés à vous rappeler certaines choses ou à vous concentrer ?	COG_SS	1
7. Éprouvez-vous des difficultés à vous rappeler certaines choses, à vous concentrer, ou les deux ?	COG_1	2
8. À quelle fréquence éprouvez-vous des difficultés à vous rappeler certaines choses ?	COG_2	3
9. Éprouvez-vous des difficultés à vous rappeler certaines choses, beaucoup de choses ou presque tout ?	COG_3	4

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SOINS DE SOI/PARTIE SUPÉRIEURE DU CORPS		
10. Éprouvez-vous des difficultés à prendre soin de vous, à vous laver ou à vous habiller, par exemple ?	SC_SS	1
11. Éprouvez-vous des difficultés à soulever une bouteille d'eau de 2 litres du niveau de la taille jusqu'au niveau des yeux ?	UB_1	1
12. Éprouvez-vous des difficultés à utiliser vos doigts ou vos mains ?	UB_2	1
MOBILITÉ		
13. Éprouvez-vous des difficultés à marcher ou à monter des escaliers ?	MOB_SS	1
14. Éprouvez-vous des difficultés à marcher sur une distance d'environ 100 mètres sur terrain plat, sans aide ou équipement d'assistance ?	MOB_4	1
15. Éprouvez-vous des difficultés à marcher sur une distance d'environ 500 mètres sur terrain plat, sans aide ou équipement d'assistance ?	MOB_5	1
16. Éprouvez-vous des difficultés à monter ou à descendre 12 marches d'escalier, sans aide ou équipement d'assistance ?	MOB_6	1
AFFECT (ANXIÉTÉ)		
17. À quelle fréquence ressentez-vous de l'inquiétude, de la nervosité ou de l'anxiété ?	ANX_1	5
18. La dernière fois que vous avez ressenti de l'inquiétude, de la nervosité ou de l'anxiété, comment décririez-vous le niveau de ces sentiments ?	ANX_3	6
AFFECT (DÉPRESSION)		
19. À quelle fréquence vous sentez-vous déprimé(e) ?	DEP_1	5
20. La dernière fois que vous vous êtes senti(e) déprimé(e), quel était le niveau de cette dépression ?	DEP_3	6
DOULEUR		
21. Au cours des trois derniers mois, à quelle fréquence avez-vous ressenti des douleurs ?	PAIN_2	7
22. La dernière fois que vous avez ressenti des douleurs, quel était le niveau de ces douleurs ?	PAIN_4	6
FATIGUE		
23. Au cours des trois derniers mois, à quelle fréquence vous êtes-vous senti(e) fatigué(e) ou épuisé(e) ?	TIRED_1	7
24. La dernière fois que vous vous êtes senti(e) fatigué(e) ou épuisé(e), combien de temps cela a-t-il duré ?	TIRED_2	8
25. La dernière fois que vous vous êtes senti(e) fatigué(e) ou épuisé(e), comment décririez-vous le niveau de cette fatigue ?	TIRED_3	6

REMARQUE : Les questions **rouges** font partie de la **brève série de questions** du Groupe de Washington sur le fonctionnement.

Les 25 questions figurent dans le **questionnaire détaillé 1** du Groupe de Washington.
Les questions **rouges**, **bleues** et **vertes** figurent dans le **questionnaire détaillé 2**.

Les questions **rouges** et **vertes** figurent dans le **questionnaire détaillé 3**.

Schémas de réponses :

	Schéma 1	Schéma 2	Schéma 3	Schéma 4
1	Non, pas du tout.	Uniquement des difficultés à se rappeler.	Parfois.	Certaines choses.
2	Oui, un peu.	Uniquement des difficultés à se concentrer.	Souvent.	Beaucoup de choses.
3	Oui, beaucoup.	Des difficultés à se rappeler et à se concentrer.	Tout le temps.	Presque tout.
4	N'y parvient pas du tout.			
7	Refuse de répondre.			
8	Incertain(e).			
9	Ne sait pas.			

	Schéma 5	Schéma 6*	Schéma 7	Schéma 8
1	Tous les jours	Faible	Jamais	Une partie de la journée
2	Une fois par semaine	Élevé	Certains jours	Presque toute la journée
3	Une fois par mois	Niveau intermédiaire entre faible et élevé	Presque tous les jours	Toute la journée
4	Quelques fois par an		Tous les jours	
5	Jamais			
7	Refuse de répondre.			
8	Incertain(e).			
9	Ne sait pas.			

* DANS LA SYNTAXE CI-APRÈS, VEUILLEZ NOTER QUE LES QUESTIONS PRÉSENTANT DES SCHÉMAS DE RÉPONSES 6 (ANX_3, DEP_3, PAIN_4 ET TIRED_3) SONT RECODÉES POUR PLACER « NIVEAU INTERMÉDIAIRE ENTRE » NUMÉRIQUEMENT ENTRE « FAIBLE » ET « ÉLEVÉ ».

La brève série de questions est intégrée au questionnaire détaillé. Le questionnaire détaillé est complété par :
• des questions supplémentaires dans les 6 domaines existants et
• des domaines supplémentaires (dont plusieurs prévoient de multiples questions).

La syntaxe SAS présentée ci-après comprend deux éléments propres au contenu du questionnaire détaillé.

En premier lieu, il était important de déterminer des éléments d'identification uniques propres aux différents domaines pour ceux d'entre eux comprenant plusieurs questions. Par exemple, le fonctionnement de la partie supérieure du corps comprend deux questions, dont chacune porte sur des actions spécifiques et uniques : la difficulté à soulever une bouteille d'eau du niveau de la taille jusqu'au niveau des yeux (bras/épaules) et la difficulté à utiliser ses mains et ses doigts. Ces deux questions ont été analysées et combinées de sorte à

produire un seul indicateur relatif à la partie supérieure du corps, englobant quatre niveaux de difficulté qui vont de 1 (faible difficulté) à 4 (difficulté élevée), ce qui n'est pas sans rappeler les catégories de réponses de la brève série de questions : pas du tout de difficultés, un peu de difficultés, beaucoup de difficultés et n'y parvient pas du tout. À l'instar du domaine relatif à la partie supérieure du corps, les domaines du questionnaire détaillé relatifs à la cognition, à l'anxiété, à la dépression, à la douleur et à la fatigue présentent des schémas de réponses différents que l'on ne peut pas « transposer » si facilement dans le schéma de réponses habituel du Groupe de Washington. Pour ces domaines de fonctionnement, un schéma de réponses semblable prenant la forme d'une échelle en quatre points a été produit et annoté, le niveau 1 étant le niveau de difficulté le plus faible et le niveau 4 le plus élevé.

En second lieu, les indicateurs individuels des domaines ont été évalués ensemble pour déterminer le seuil approprié d'inclusion dans un élément global d'identification du handicap, en vue d'estimer la prévalence et de ventiler les indicateurs de résultats par type de handicap.

REMARQUE :
Pour toutes les variables, les codes 7) *Refuse de répondre*, 8) *Incertain(e)* et 9) *Ne sait pas* sont regroupés sous le code *« Données manquantes »*.

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		

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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**;

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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_2_R: How often do you have difficulty remembering?		COG_3_R: Amount of things you have difficulty remembering?			Total
		A few things	A lot of things	Almost everything	
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).

Pour de plus amples informations concernant le Groupe de Washington sur les statistiques du handicap, veuillez consulter la page suivante : 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
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 <u>both</u> remembering <u>and</u> concentrating difficulty were upgraded 36 individuals from **2** to **3**, and 125 individuals from **3** to **4**.

Pour de plus amples informations concernant le Groupe de Washington sur les statistiques du handicap, veuillez consulter la page suivante : http://www.washingtongroup-disability.com/.

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_2_R: Difficulty using hands and fingers		No difficulty	**UB_1_R: Diff raising 2 liter bottle of water from waist to eye level**			
			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

		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.

Pour de plus amples informations concernant le Groupe de Washington sur les statistiques du handicap, veuillez consulter la page suivante : http://www.washingtongroup-disability.com/.

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				
		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_3Y: Level of feelings last time felt depressed	DEP_1_R: How often do you feel 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.*

Pour de plus amples informations concernant le Groupe de Washington sur les statistiques du handicap, veuillez consulter la page suivante : http://www.washingtongroup-disability.com/.

```
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 + <u>Hearing-indicator</u>, <u>Mobility-indicator</u>, <u>Cognition-indicator</u> + <u>Upper Body-indicator</u> + 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 + <u>Hearing-indicator</u>, <u>Mobility-indicator</u>, <u>Cognition-indicator</u> + <u>Upper Body-indicator</u> + 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 + <u>Upper Body-indicator</u> + 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 : Pourquoi avoir exclu la douleur et la fatigue ?

On remarquera que les domaines de la douleur et de la fatigue ont été exclus de plusieurs des éléments d'identification du handicap ci-dessus. Ces domaines ont fait l'objet de discussions considérables au sein du Groupe de Washington. Strictement parlant, ils ne sont pas des domaines de fonctionnement ; nos analyses indiquent qu'ils sont tous deux fortement corrélés à d'autres domaines, et que les taux de handicap les incluant peuvent être très élevés.
Enfin, ces domaines sont difficiles à comparer au niveau international, car ils sont moins universels ; c'est-à-dire qu'ils sont plus sensibles aux influences locales et socioculturelles que d'autres domaines de fonctionnement.

Pour ces raisons, nous avons choisi de les exclure de plusieurs de ces analyses. Ils peuvent néanmoins être inclus dans des analyses complémentaires réalisées par les instituts nationaux de statistique au niveau national.