Computation of BMI for side study: Nutrition and Food-related Behaviour Study  
June 2017

If you want to use measured weight instead of self-reported weight in the side study, you can use the variables ‘weight’, ‘height’ and ‘BMI’, which are explained below. We decided to use weight of the medical interview of wave H/3B and I (more valid than self-reported) and measured height of wave I (or H/3B) (height was not asked in side study):

**Weight:**
1. For all:
   a. If clothes, corset or shoes: -1 kg
   b. If 2 or more of them (clothes/corset/shoes): -2 kg
2. Used weight:
   a. If 2 measured weights: mean of H/3B and I ((weight\(_{H/3B}\) + weight\(_{I}\)) / 2)
   b. If 1 measured weight: weight of H/3B or wave I (\(n=162\))
3. If amputation or brace or prosthesis: weight is changed into missing (-99, \(n=9\))

**Height:**
1. For all: if shoes: -1 cm
2. Used height:
   a. height of wave I (as that is more close to the date of the side study)
   b. If height of wave I is not available: height of wave H/3B.

Computed variables in side study \(n=1439\):

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
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<tbody>
<tr>
<td>height</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>Range</td>
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<tr>
<td>Minimum</td>
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<tr>
<td>Maximum</td>
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<tr>
<td>Mean</td>
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<tr>
<td>Std. Deviation</td>
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<tr>
<td>Variance</td>
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</tbody>
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weight  
N 1396  120,00  30,00  150,00  78,9504  14,71520  216,537

BMI  
N 1395  44,79  11,46  56,25  27,1787  4,38702  19,246

Valid N (listwise) 1395

\(n=1439-1396=43\) with no weight (of which 9 have amputation/brace/prosthesis (-99))
\(n=1439-1407=32\) with no height
\(n=1439-1395=44\) with no BMI = 1395 have measured weight and height

Of those 44 persons with no data on BMI, 12 persons have measured height (but not measured weight); for them, the self-reported weight from the side study (C1) could be used to calculate BMI. This is up to researchers themselves.

The BMI computed in this way is available from the dataset ‘BMI_side_study’, and the computation can be found in the syntax ‘Computation BMI side study’ as well as on the next pages.
SYNTAX Computation BMI side study (in Dutch)

***Computation of BMI for the side study: Nutrition and Food-related Behaviour Study.
* BMI is in this syntax by using weight of wave H/3B and I, and height of wave I (or H/3B if missing at wave I).

*a dataset with variables med150 to med155 from waves H, 3B and I is used.

get file='H:\0. MOMENTEEL MEE BEZIG\Dataset LASA\FFQ_FRB_LW6_dataset.sav'.
*SCHONING GEWICHT 3B.
compute weight_3B = BMED153.
recode weight_3B (sysmis=-99).

** kleding, corset of schoenen aan = -1 kg
** 2 van beide (kleding + schoenen etc.) = -2 kg.
IF (BMED154b = 1 & BMED153 > 0) weight_clothes3B = BMED153 - 1.
IF (BMED154c = 1 & BMED153 > 0) weight_clothes3B = BMED153 - 1.
IF (BMED154i = 1 & BMED153 > 0) weight_clothes3B = BMED153 - 1.
IF (BMED154b = 1 & BMED154c = 1 & BMED153 > 0) weight_2clothes3B = BMED153 - 2.
IF (BMED154c = 1 & BMED154i = 1 & BMED153 > 0) weight_2clothes3B = BMED153 - 2.
IF (BMED154i = 1 & BMED154b = 1 & BMED153 > 0) weight_2clothes3B = BMED153 - 2.
recode weight_clothes3B weight_2clothes3B (sysmis=-99).
compute weight3B = weight_3B.
IF (weight_2clothes3B > 0) weight3B = weight_2clothes3B.
IF (weight_clothes3B > 0 AND weight_2clothes3B = -99) weight3B = weight_clothes3B.
execute.

*SCHONING GEWICHT H.
compute weight_H = HMED153.
recode weight_H (sysmis=-99).

** kleding, corset of schoenen aan = -1 kg
** 2 van beide (kleding + schoenen etc.) = -2 kg.
IF (HMED154b = 1 & HMED153 > 0) weight_clothesH = HMED153 - 1.
IF (HMED154c = 1 & HMED153 > 0) weight_clothesH = HMED153 - 1.
IF (HMED154i = 1 & HMED153 > 0) weight_clothesH = HMED153 - 1.
IF (HMED154b = 1 & HMED154c = 1 & HMED153 > 0) weight_2clothesH = HMED153 - 2.
IF (HMED154c = 1 & HMED154i = 1 & HMED153 > 0) weight_2clothesH = HMED153 - 2.
IF (HMED154i = 1 & HMED154b = 1 & HMED153 > 0) weight_2clothesH = HMED153 - 2.
recode weight_clothesH weight_2clothesH (sysmis=-99).
compute weightH = weight_H.
IF (weight_2clothesH > 0) weightH = weight_2clothesH.
IF (weight_clothesH > 0 AND weight_2clothesH = -99) weightH = weight_clothesH.
execute.

*SCHONING GEWICHT I.
compute weight_I = IMED153.
recode weight_I (sysmis=-99).

** kleding, corset of schoenen aan = -1 kg
** 2 van beide (kleding + schoenen etc.) = -2 kg.
IF (IMED154b = 1 & IMED153 > 0) weight_clothesI = IMED153 - 1.
IF (IMED154c = 1 & IMED153 > 0) weight_clothesI = IMED153 - 1.
IF (IMED154i = 1 & IMED153 > 0) weight_clothesI = IMED153 - 1.
IF (IMED154b = 1 & IMED154c = 1 & IMED153 > 0) weight_2clothesI = IMED153 - 2.
IF (IMED154c = 1 & IMED154i = 1 & IMED153 > 0) weight_2clothesI = IMED153 - 2.
IF (IMED154i = 1 & IMED154b = 1 & IMED153 > 0) weight_2clothesI = IMED153 - 2.
recode weight_clothesI weight_2clothesI (sysmis=-99).
compute weightI = weight_I.
IF (weight_2clothesI > 0) weightI = weight_2clothesI.
IF (weight_clothesI > 0 AND weight_2clothesI = -99) weightI = weight_clothesI.
execute.

missing values weightI (-1, -2, -99).
missing values weightH (-1, -2, -99).
missing values weight3B (-1, -2, -99).

** FILTER: 2 KEER GEWOGEN GEWICHT OF NIET?
compute weight_filter=0.
if (WEIGHTI>0 AND WEIGHTH>0) weight_filter=1.
if (WEIGHTI>0 AND WEIGHT3B>0) weight_filter=1.

*GEWICHT: GEMIDDELDE H EN I.
USE ALL.
COMPUTE filter_$=(weight_filter = 1 AND WEIGHTH>0).
VARIABLE LABELS filter_$ 'weight_filter = 1 (FILTER)'.
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.
FORMATS filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE.
compute weight1=(WEIGHTH+WEIGHTI)/2.
if (weight_filter=0) weight1=-2.

*GEWICHT: GEMIDDELDE 3B EN I.
USE ALL.
COMPUTE filter_$=(weight_filter=1 AND WEIGHT3B>0).
VARIABLE LABELS filter_$ 'weight_filter = 1 (FILTER)'.
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.
FORMATS filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE.
compute weight2=(WEIGHT3B+WEIGHTI)/2.
if (weight_filter=0) weight2=-2.

*SAMENVOEGEN GEMIDDELDEN IN 1 SCORE.
USE ALL.
compute weight=0.
if (weight1>0) weight=weight1.
if (weight2>0) weight=weight2.

if (weight=0) weight=-2.

* exclusie amputatie, brace, prothese (-99).
IF (HMED154d=1 OR HMED154e=1 OR HMED154f=1) weight=-99.
IF (BMED154d=1 OR BMED154e=1 OR BMED154f=1) weight=-99.
IF (IMED154d=1 OR IMED154e=1 OR IMED154f=1) weight=-99.

*GEWICHT: GEWOGEN OP 1 WAVE.
if (weight=-2 AND WEIGHTI>0) weight=WEIGHTI.
execute.
if (weight=-2 AND WEIGHTH>0) weight=WEIGHTH.
execute.
if (weight=-2 AND WEIGHT3B>0) weight=WEIGHT3B.
execute.

VARIABLE LABELS weight 'weight side study'.
missing values weight (-1, -2, -99).

* SCHONING LENGTE I.
compute height_I=IMED150.

*shoes: - 1 cm.
IF (IMED151e = 1 & IMED150 > 0) height_shoesI = IMED150 - 1.
recode height_shoesI (sysmis=-99).

compute heightI = height_I.
IF (height_shoesI > 0) heightI = height_shoesI.

* SCHONING LENGTE H.
compute height_H=HMED150.

*shoes: - 1 cm.
IF (HMED151e = 1 & HMED150 > 0) height_shoesH= HMED150 - 1.
recode height_shoesH (sysmis=-99).

compute heightH = height_H.
IF (height_shoesH > 0) heightH = height_shoesH.

* SCHONING LENGTE 3B.
compute height_3B=BMED150.
*shoes: - 1 cm.
IF (BMED151e = 1 & BMED150 > 0) height_shoes3B = BMED150 - 1.
recode height_shoes3B (sysmis=-99).

compute height3B = height_3B.
IF (height_shoes3B > 0) height3B = height_shoes3B.

* VARIABELE LENGTE.
missing values heightI (-1, -2, -99).
missing values heightH (-1, -2, -99).
missing values height3B (-1, -2, -99).

compute height=0.
if (heightI>0) height=heightI.
if (height=0 AND heightH>0) height=heightH.
if (height=0 AND height3B>0) height=height3B.
if (height=0) height=-2.

VARIABLE LABELS height 'height side study'.
missing values height (-1, -2, -99).

* BMI: gebaseerd op het gemiddelde weight van H/3B en I, en height van I (of H/3B).
COMPUTE height_m=height/100.
EXECUTE.

compute BMI=0.
COMPUTE BMI=(weight/ (height_m * height_m)).
VARIABLE LABELS BMI 'Body Mass Index side study'.
EXECUTE.

MISSING VALUES BMI (-99).

DESCRIPTIVES VARIABLES=weight height BMI
/STATISTICS=MEAN STDDEV MIN MAX.

SORT CASES BY RespNr(A).

*save as dataset 'bmi_side_study'.
SAVE OUTFILE="Z:\Beta-VU\HealthScience\Specifiek\MooDFOOD\Laura en Liset\1. LASA deelstudie Voeding\1+2. Papier+online merged\5. Schoning FRB\C gewicht\BMI computation side study\BMI_side_study.sav".