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Documentation *TwinLife* Data:

Height, Weight and BMI

F2F2 – v2.0.0

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Table of Contents

Change log BMI Report v2.0.0

Compared to the previous version (Lenau & Hahn, 2017) several changes were made, and additional checking routines were implemented.

In v2.0.0 the following changes have been made:

- Renaming of the final BMI variable (bdy0300_bmi)
- New added Flag Variables that contain information on possible threats to the validity of the data (bdy1001: Peculiarities in height (gen); bdy1002: Peculiarities in weight (gen); bdy1003: Peculiarities in BMI (gen))
- New missing value categories
- Informant Differences greater than 10 cm/kg that could not be resolved by implausible values or typing errors were set missing (-80: substantial informant difference) for both F2F1 and F2F2 data.
- Basic plausibility checks for height and weight measurements for F2F1 and F2F2 using an empirical approach to identify typing errors or implausible values
- Comparison between F2F1 and F2F2 data in terms of child and adult growth and weight gains and losses to identify typing errors or implausible values.
- Besides the changes to the F2F1 data described here, the check routines and calculations of the first report (Lenau & Hahn, 2017) are still valid.

Introduction

This technical report aims to document the calculations and considerations made to a) resolve informant differences, b) conduct basic plausibility checks for height and weight measurements, and c) calculate the body mass index. Data corrections reported here apply mostly to the face-to-face 2 data (Version 4.1.0), but for consistency reasons, the corrections were also adopted for the first data collection of *TwinLife*. These changes were only implemented for the final height (bdy0100_hgt), final weight (bdy0200_wgt) and final BMI (bdy0300) variables. The unaltered variables are still included in the final data set (see bdy0100, bdy0100[t/u/s], bdy0200, bdy0200[t/u/s]). This technical report builds on the previous work of Lenau and Hahn (2017).

Body Measurement

Similar to wave 1 of *TwinLife*, participants were asked to fill in their current height [in cm] and weight [in kg] in an open-ended format. For children younger than 14 years, one parent was asked to provide information on their child's current height and weight (external report). For parents as well as children and adolescents aged 10 years or older, current height and weight were measured via self-report. In face-to-face 2, these values were part of the CASI (computer assisted self-interview), which was a questionnaire to be filled out on a tablet. In contrast to the first data assessment (face-to-face 1), information on height and weight was provided by two informants for all twins of cohort 2 and all siblings in the similar age range, i.e., via self-report and external report of the parents, as the filter conditions overlapped for the age range of 10 to 13 years. Differences in the external report and self-report for the age range of 10 to 13 years are referred to as "informant differences" throughout this report. Variables indicating the occurrence of informant differences were generated in accordance with the first technical report (see Table 1).

For participants aged 10 years or older, 8,280 values for height and 8,259 values for weight have been reported via self-report. The external report was provided in 3,024 cases for height and 3,014 cases for weight for participants younger than 14 years. 9,192 participants provided information on height and 8,999 on weight in both the first and the second data collection.

Flagging System (bdy1001 to bdy1003):

In order to provide users with assistance in dealing with possible inconsistencies in body measurements, we have added three flag variables for each data collection. These contain information on possible threats to the validity of the data. Each flag variable indicates possible problems with each of the body measurements (height - weight – BMI, see Table 3). As the

numerical value in the variables increases, the severity of the potential "threat" to the validity of the data also increases, while "9" stands for "missing" and "0" for "no problem apparent". If a person was assigned multiple flags in one variable, only the numerically highest value was kept.

Table 1.
Relevant variables in this report

Measure	Label
bdy0100	Height in cm (>= 10 yr.)
bdy0100[t/u/s]	Height in cm [twin1/twin2/sibling] (m/f/n/g)
bdy0200	Weight in kg (>=10 yr.)
bdy0200[t/u/s]	Weight in cm [twin1/twin2/sibling] (m/f/n/g)
bdy0100_nht	Number of height values given (gen)
bdy0200_nwt	Number of weight values given (gen)
bdy0100_dht	Difference between several height values (gen)
bdy0200_dwt	Difference between several weight values (gen)
bdy0100_hgt	Height in cm: corrected (gen)
bdy0200_wgt	Weight in kg: corrected (gen)
bdy0300	BMI: corrected (gen)
bdy1001	Flag: Peculiarities in height (gen)
bdy1002	Flag: Peculiarities in weight (gen)
bdy1003	Flag: Peculiarities in BMI (gen)

We divided the flags into two categories: correction flags, which were set to indicate which values were altered, and potential data error flags. While flag values 1, 2 and 3 indicate little threat to the validity of the data, an increasing value provides stronger indications that a data point may be invalid. We strongly recommend checking cases with numbers higher than 3 in the flag variables.

A flag variable was provided for each body measurement variable and in each data collection. However, please note that flags based on comparisons between wave 1 and 2 are only provided in the Face-to-Face 2 variable (see table 2).

Additionally, we are introducing some new missing categories for the final body measurement variables to provide more details on the reasons why a case was set invalid (see Table 3).

Table 2.
Flag variable system

bdy1001 – Peculiarities in height	bdy1002 – Peculiarities in weight	bdy1003 – Peculiarities in BMI
Face-to-Face 1		
9: value is missing 0: no problem apparent *Correction flags* 1: typing error corrected 2: one value invalid (informant difference) *Potential Data Error Flags* 3: informant difference	9: value is missing 0: no problem apparent *Correction Flags* 1: typing error corrected 2:one value invalid (informant difference) *Potential Data Error Flags* 3: informant difference	9: value is missing 0: no problem apparent *Potential Data Error Flags* 4: very low BMI
Face-to-Face 2		
9: value is missing 0: no problem apparent *Correction flags* 1: typing error corrected 2: one value invalid (informant difference) *Potential Data Error Flags* 3: informant difference **4: unusual growth (adults)** **5: negative growth (adults)** **6: no or negative growth (children)** **7: extreme growth (children)**	9: value is missing 0: no problem apparent *Correction Flags* 1: typing error corrected 2: one value invalid (informant difference, *Potential Data Error Flags* 3: informant difference **4: high weight difference (children)** **5: high weight difference (teenagers and adults)** **6: no weight gains while growing**	9: value is missing 0: no problem apparent *Potential Data Error Flags* 4: very low BMI

Note. Bold font indicates that these flag categories are only part of the Face-to-Face 2 data file.

Table 3.
Missing value categories

Value	Value label
-80	Substantial informant difference
-81	Implausible
-82	Weight instead of height reported/ height instead of weight reported
-83	Twins' values could be interchanged

Informant Differences

Corrections in Face-To-Face 2

In face-to-face 2, for twins in cohort 2 or siblings in the age range of 10 to 13 years, multiple values are available from two different informants (self-report and external report of one parent). 1,369 cases (13.7% of the sample) had double information in weight or height. In analogy to the first technical report, we generated several variables indicating the number of reported values for height (bdy0100_nht) and weight (bdy0200_nwt) and the difference between the information sources (bdy0100_dht for height and bdy0200_dwt for weight; see table 1). The distribution of differences is depicted in table 2. Please note that only the absolute value of the difference was kept in the final variable.

As is apparent from the descriptive statistics, the informant difference rarely exceeded the plus/minus 10 cm/kg margin, with more than 95% of all values falling into this margin, while around 80% of the differences lay within the plus/minus 5 cm/kg difference margin. Therefore, in a first step, we resolved these informant differences before conducting further plausibility checks. In accordance with the first report, we decided to build a mean score for those participants who had informant differences of 10 cm/kg or less (variables bdy0100_hgt or bdy0200_wgt). Since raw values are still included in the data set, users are free to use only the external report or self-report (as indicated in the variables bdy0100_nht or bdy0200_nwt for height or weight).

If the informant difference was higher than 10 cm/kg, we decided to take a closer look at these cases (n = 95). We specifically searched for typing errors and obvious implausibilities (extremely high or low values or obviously impossible to be valid values, for a documentation on case level see Appendix B). If not automatically conducted, all decisions regarding the corrections in this report were made independently by two raters. Any changes made are either specified in the flag variable or recorded via setting a value missing with a specific missing

code, providing additional information about these cases. Ultimately, we applied the following criteria:

- Flag 1 – Correction of typing error: Obvious typing errors were only corrected if the independent decision of the two raters were congruent. If one of the raters decided that a case was invalid, it was set invalid. In the cases identified as possible typing errors, either the "1" at the beginning of the value for height was forgotten or the "1" at the beginning of the value for weight was wrongly entered. Possible typing errors were only corrected if the information provided was consistent with the other information (i.e. external or self-report) or the information from the face-to-face 1 survey. If the informant difference with corrected information was within the acceptable margin of 10 cm/kg or less, we then calculated the mean score for final height (bdy0100_hg; n_{height} = 13) or final weight (bdy0200_wgt; n_{weight} = 3).
- Flag 2 – One value invalid: If only one value was valid and the other value was missing or highly implausible, the invalid value was omitted and the valid value was taken as the final value for height (bdy0100_hg; n_{height} = 4) or weight (bdy0200_wgt; n_{weight} = 4).

- Missing value -80 – Substantial informant difference: If the informant difference exceeded the plus/minus 10 cm/kg margin and could not be resolved otherwise, the final value was set missing (-80: substantial informant difference) (n_{height} = 32, n_{weight} = 39).
- Missing value -83 – Twins' values could be interchanged: One pair of twins was probably mixed up in the self-report. However, as this could not be clearly determined, we set their final values to "missing" with a separate missing code (-83: Twins' values could be interchanged, n_{height} = 2, n_{weight} = 2).

For all remaining cases:

- Flag 3 – Informant difference: Any participant who exceeded the 5 cm/kg margin was flagged (n_{height} = 88, n_{weight} = 111), as this might reflect a slight bias in the final height or weight variables.

Corrections in Face-To-Face 1

Consistent with our routine established in this report for the face-to-face 2 data, we applied the same rules to the face-to-face 1 data. This led to an additional n = 6 values in height and n = 5 values in weight to be set missing (-80: substantial informant difference) due to informant differences higher than 10 cm/kg. Changes in the BMI-variable were made

accordingly. We also flagged n = 17 cases for height and n = 11 cases for weight due to informant differences exceeding the 5 cm/kg difference margin (flag 3).

Development of Checking Routines

With a second data collection at hand, we were able to establish checking routines based on the natural progression of the growth or weight development in certain age groups (Robert Koch-Institut, 2013b; Robert Koch-Institut, 2013c). Additionally, we investigated the upper and lower boundaries of age and gender specific body measurement distribution in order to uncover potential implausiblities in the data. First, we present routines for detecting implausible values that operate without the need to compare data between data collections. Second, we present the additional criteria used to investigate implausible changes in weight or height between the data collections.

The procedure was always as following: First, identifying suspicious cases with checking routines (all checking routines were applied simultaneously), then screening these cases for obvious data errors, and finally, flagging very extreme deviations automatically.

Routines Based on the Distribution of Body Measures Within One Data Collection

We considered developing an approach that takes into account normative reference data. However, testing this approach (by using, e.g., data of the Robert Koch-Institute, 2013c) resulted in a high number of cases to be reviewed but was not very sensitive to possible true validity issues of some cases. Instead, we chose an empirical approach for the checking routine. For each age and gender group, we ranked the values and set a 2.5 % percent cut-off at both the top and bottom of the distribution in order to identify typing errors or implausible values. Until the age of 20, each age group formed its own reference group. From the age of 20 onwards, the intervals were expanded to 5-year intervals. In addition to this indicator, which was specific for each data collection, we used further criteria that benefited from the comparison between data collections. First, we will describe these additional criteria for each body measurement. Subsequently, we describe the corrections that were conducted based on all checking routines combined.

Table 4.
Descriptive statistics on informant differences in the face-to-face 2 data collection

Measure	*N*	*M*	*SD*	Percentile						
				1	5	25	50	75	95	99
Informant difference in height in cm (bdy0100_dht)	1369	-1.32	20.50	-99.00	-5.00	0.00	0.00	1.00	6.00	13.30
Informant difference in weight in kg (bdy0200_dwt)	1365	0.96	9.02	-11.34	-5.00	0.00	0.00	1.00	8.00	18.00

Note. *N* = Number of doubled values; *M* = Mean of the informant difference (self-report – proxy report), *SD* = standard deviation.

Additional Routines Based on the Comparison of Values Between Data Collections

Checking Routine for Height

To monitor the growth of children and adolescents, we first established an indicator for the monthly growth rate to control for the temporal variance between the data assessments. Given the natural course that body length growth should follow in an assumed two-year period between data collections, we were able to formulate additional criteria that mark possible inconsistencies (see Prader et al., 1989; Robert Koch-Institut, 2013b):

Criterion A: Adults (people over 20) should not grow, hence the height difference between the two data collections should not exceed a tolerance limit of 5 cm.

Criterion B: Adults should not shrink and the height difference between the two data collections should therefore not exceed a tolerance limit of 5 cm.

Criterion C: Boys under the age of 16 and girls under the age of 14 should grow (see Robert Koch-Institut, 2013c). The growth rate must therefore be higher than 0 cm/per month.

Criterion D: Extremely high growth rates are unlikely. We reviewed the 2.5% at the top of the growth rate distribution for each age and gender group under 21 years.[1]

Corrections in Face-to-Face 2. Any case that violated at least one of these rules was therefore considered suspicious and was further investigated. The above-mentioned criteria led to a sample of $n = 740$ (7.5 %) participants being checked for typing errors and implausibilities. Typing errors were corrected with the help of other conclusive information (e.g., information of the first interview). For height we then altered values as following (see Appendix C):

- Flag 1: correction of typing errors ($n = 7$).

- Missing value -81 – implausible value: The value is impossible ($n = 6$).
- Missing value -82 – weight instead of height reported: Participants reported weight instead of height, whereby the both values were identical ($n = 2$).

Subsequently, remaining odd cases were flagged automatically as following:

[1] The lower boundary of the distribution was not included separately, as it was already covered by Criterion C.

Adults:

- Flag 4: unusual growth with more than 5 cm height gain in between the two data collections (n = 38).
- Flag 5: negative growth with more than 5 cm height loss in between the two data collections (n = 33).

Children/Adolescents:

- Flag 6: no or negative growth (n = 39).
- Flag 7: extreme growth, exceeding a growth rate of 1.5 cm per month for children and a growth rate of 1 cm per month for 16 to 21-year-old participants (n = 2).

All these flags indicate that one wave's data values could be incorrect, but as only two data points are available, it is impossible to estimate which one is valid.

Corrections in Face-to-Face 1. By applying the checking routines for implausible values and the routines for data collection comparisons, we were able to identify n = 10 invalid height values which were set to missing. Accordingly, the BMI-value was also set to missing (see Appendix A).

Checking Routine for Weight

Unfortunately, in contrast to the development of height, weight development follows fewer natural rules, so that we were able to apply strict criteria for checking routines only to a limited extent. In addition to checking the distribution for every data collection, we decided to check the cases that showed a weight difference of at least 20 kilograms in any direction compared to the first data assessment.

Corrections in Face-to-Face 2. The application of this criterion and the checking of implausible values resulted in a checking sample of n = 1,247 (12.5 %), which was screened for potential data errors. Again, the only changes we made were to correct obvious typing errors and to set impossibilities to missing (see Appendix D):

- Flag 1: correction of typing errors (n = 5).

- Missing value -81 – implausible (n = 4).

- Missing value -82 – Height instead of weight reported: Participants reported height instead of weight, whereby the both values were identical (n = 2).

All other peculiarities were flagged in the flag variable as following:

- Flag 4: Unusual weight difference in children who have gained more than 20 kg when under the age of 12 (n = 5).
- Flag 5: Unusual weight difference in adolescents and adults who have either lost or gained more than 30 kg (n = 16).
- Flag 6: No or negative weight gains while growing for boys under the age of 16 and girls under the age of 14 (n = 72)[2].

In contrast to the height flags, these flags are far less indicative of potential data errors. We therefore advise users to check these cases thoroughly.

Corrections in Face-to-Face 1. Applying the checking routines for implausible values and the routines for data collection comparisons, we corrected n = 4 typing errors for weight (flagged 1: correction of typing error) and identified n = 2 invalid values which were set to missing. Accordingly, the BMI-values were also corrected or set to missing (see Appendix).

Calculation and Checking of the BMI in Face-to-Face 2

Finally, the Body Mass Index was calculated using the Quetelet's body mass index formula (for an overview on indices, see Khosla & Lowe, 1967):

$$\text{BMI} = \frac{\text{Weight in kg}}{(\text{Height in m})^2}$$

Although the data on which the BMI was finally based were thoroughly checked, some BMI values were suspiciously low. We flagged these cases as suspiciously low (flag 4: very low BMI), if their BMI fell below 12 (for under 10-year-olds) below 13 (for under 13-year-olds) or below 14 (for older participants)[3], resulting in n = 66 flagged cases. Accordingly, suspicious cases were flagged as well for face-to-face 1 (n =133).

[2] Age cut-offs base on the data of the Robert-Koch-Institute (2013c).
[3] These cut-offs were based on the normative data of the Robert-Koch-Institute (2013a) and literature indicating life-threatening low BMIs common for anorexia nervosa patients (e.g., Queensland Eating Disorder Service, 2019).

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Appendix

Appendix A.
Corrections in face-to-face 1

PID	Age	Sex	Original value (Difference)	Correction
Height				
187586001	5	Male	201 cm	-81
214159001	10	Male	80 cm (Height Diff: 83 cm)	-81
214159002	10	Male	80 cm (Height Diff: 84 cm)	-81
224233200	13	Male	0 cm (Height Diff: 168 cm)	-81
318116400	50	Male	117 cm	-81
388532001	17	Female	100 cm	-81
435631200	24	Male	128 cm	-81
451555300	57	Female	126 cm	-81
463889002	23	Female	115 cm	-81
463953400	48	Male	85 cm	-81
Weight				-81
221865002	11	Female	160 kg	-81
224233200	13	Male	0 kg (Weight diff: 50 kg)	-81
289480200	14	Female	136 kg (Weight diff: -93 kg)	36 kg
352132002	17	Female	160 kg (Weight diff: -85 kg)	60 kg
399208400	53	Male	182 kg (Weight diff: -99 kg)	82 kg
498367300	51	Female	158 kg (Weight diff: -98 kg)	58 kg

Note. PID = scientific use file person identifier; Height diff = Height difference, calculated: height value of face-to-face 2 – height value of face-to-face 1; Weight diff = Weight difference, calculated: weight value of face-to-face 2 – weight value of face-to-face 1; if there is no difference indicated, no value for face-to-face 2 was provided by the participants.

Appendix B.

Corrections in face-to-face 2 - Informant difference

PID	Age	Sex	Face-to-Face 1 data	Self-report – Face-to-Face 2	External report – Face-to-Face 2	Informant difference	Correction
Height							
137011200	10	Female	-95	45 cm	145 cm	-100 cm	145 cm
139324200	10	Female	-95	36 cm	132 cm	-96 cm	134 cm
151635200	10	Male	132 cm	46 cm	145 cm	-99 cm	145.5 cm
167021200	12	Male	142 cm	52 cm	155 cm	-103 cm	153.5 cm
184568200	12	Female	137 cm	52 cm	152 cm	-100 cm	152 cm
185718200	10	Male	131 cm	128 cm	142 cm	-14 cm	-80
186238200	11	Male	134 cm	152 cm	140 cm	12 cm	-80
188672200	10	Male	144 cm	55 cm	155 cm	-100 cm	155 cm
214057001	13	Male	154 cm	150 cm	170 cm	-20 cm	-80
214345002	13	Female	140 cm	55 cm	155 cm	-100 cm	155 cm
214347002	13	Male	152 cm	136 cm	163 cm	-27 cm	163 cm
218748001	13	Female	150 cm	163 cm	150 cm	13 cm	-80
222421002	13	Female	148 cm	145 cm	164 cm	-19 cm	-80
224024002	13	Male	164 cm	180 cm	165 cm	15 cm	-80
226177001	13	Male	146 cm	110 cm	162 cm	-52 cm	162 cm
227424001	13	Female	141 cm	159 cm	759 cm	-600 cm	159 cm
232735001	13	Female	158 cm	161 cm	140 cm	21 cm	-80
232735002	13	Female	157 cm	159 cm	139 cm	20 cm	-80
236509002	13	Female	-95	65 cm	154 cm	-89 cm	-80
240822001	13	Male	148 cm	50 cm	164 cm	-114 cm	164 cm
245262200	10	Male	134 cm	134 cm	146 cm	-12 cm	-80
253843001	13	Female	152 cm	167 cm	155 cm	12 cm	-80
253843002	13	Female	151 cm	166 cm	155 cm	11 cm	-80
254123002	13	Male	148 cm	151 cm	165 cm	-14 cm	-80
257141002	13	Female	138 cm	45 cm	140 cm	-95 cm	142.5 cm
261448001	13	Male	140 cm	136 cm	160 cm	-24 cm	-80

Appendix B.

Corrections in face-to-face 2 - Informant difference

PID	Age	Sex	Face-to-Face 1 data	Self-report – Face-to-Face 2	External report – Face-to-Face 2	Informant difference	Correction
261945001	13	Male	160 cm	185 cm	168 cm	17 cm	-80
261945002	13	Male	150 cm	170 cm	150 cm	20 cm	-80
262571001	13	Female	160 cm	70 cm	170 cm	-100 cm	170 cm
264761002	13	Female	142 cm	1 cm	142 cm	-141 cm	142 cm
264889001	13	Male	149 cm	61 cm	169 cm	-108 cm	165 cm
266121002	13	Male	149 cm	158 cm	39 cm	119 cm	158 cm
269485002	13	Female	148 cm	150 cm	168 cm	-18 cm	-80
272169001	13	Female	-95	166 cm	152 cm	14 cm	-80
274037001	13	Male	152 cm	156 cm	140 cm	16 cm	-80
274037002	13	Male	146 cm	153 cm	136 cm	17 cm	-80
282112002	13	Male	151 cm	170 cm	158 cm	12 cm	-80
282449001	13	Female	152 cm	164 cm	150 cm	14 cm	-80
282449002	13	Female	150 cm	163 cm	150 cm	13 cm	-80
284427002	13	Male	152 cm	153 cm	164 cm	-11 cm	-80
287877002	13	Male	145 cm	189 cm	140 cm	49 cm	-80
288444001	13	Male	142 cm	59 cm	158 cm	-99 cm	158.5 cm
291206001	13	Male	142 cm	162 cm	150 cm	12 cm	-80
292289200	10	Female	130 cm	42 cm	145 cm	-103 cm	143.5 cm
296152001	13	Female	140 cm	152 cm	130 cm	22 cm	-80
296152002	13	Female	134 cm	45 cm	130 cm	-85 cm	-80
299955001	13	Male	164 cm	169 cm	185 cm	-16 cm	-83
299955002	13	Male	157 cm	182 cm	168 cm	14 cm	-83
362532200	10	Female	-95	140 cm	152 cm	-12 cm	-80
375625200	12	Male	156 cm	155 cm	166 cm	-11 cm	-80
Weight							
126786200	12	Female	-95	50 kg	65 kg	-15 kg	-80
130692200	10	Female	40 kg	66 kg	50 kg	16 kg	-80

Appendix B.

Corrections in face-to-face 2 - Informant difference

PID	Age	Sex	Face-to-Face 1 data	Self-report – Face-to-Face 2	External report – Face-to-Face 2	Informant difference	Correction
135840200	12	Female	30 kg	51 kg	40 kg	11 kg	-80
144426200	11	Female	38 kg	52 kg	36 kg	16 kg	-80
161885200	10	Female	30 kg	53 kg	33 kg	20 kg	-80
212647002	13	Male	34 kg	47 kg	30 kg	17 kg	-80
214057001	13	Male	43 kg	45 kg	57 kg	-12 kg	-80
214473002	13	Male	46 kg	65 kg	54 kg	11 kg	-80
216596002	13	Male	-95	60 kg	48 kg	12 kg	-80
221518001	13	Male	38 kg	58 kg	0 kg	58 kg	58 kg
221518002	13	Male	35 kg	50 kg	0 kg	50 kg	50 kg
224158001	13	Male	40 kg	65 kg	50 kg	15 kg	-80
224158002	13	Male	34 kg	61 kg	50 kg	11 kg	-80
224922001	13	Female	37 kg	50 kg	35 kg	15 kg	-80
226177001	13	Male	41 kg	42 kg	55 kg	-13 kg	-80
227298002	13	Male	36 kg	38 kg	51 kg	-13 kg	-80
232794001	13	Male	30 kg	60 kg	40 kg	20 kg	-80
236662001	13	Male	32 kg	52 kg	35 kg	17 kg	-80
239175001	13	Female	35 kg	49 kg	35 kg	14 kg	-80
239873200	12	Male	45 kg	42 kg	55 kg	-13 kg	-80
240282001	13	Male	42 kg	45 kg	60 kg	-15 kg	-80
241228001	13	Female	40 kg	56 kg	40 kg	16 kg	-80
241228002	13	Female	40 kg	57 kg	40 kg	17 kg	-80
243338001	13	Male	-95	50 kg	70 kg	-20 kg	-80
249311002	13	Male	39 kg	151 kg	51 kg	100 kg	51 kg
250331002	13	Male	55 kg	70 kg	55 kg	15 kg	-80
251236001	13	Male	26 kg	43 kg	20 kg	23 kg	-80
251236002	13	Male	22 kg	18 kg	36 kg	18 kg	-80
256655001	13	Female	50 kg	45 kg	56 kg	-11 kg	-80

Appendix B.

Corrections in face-to-face 2 - Informant difference

PID	Age	Sex	Face-to-Face 1 data	Self-report – Face-to-Face 2	External report – Face-to-Face 2	Informant difference	Correction
261505002	13	Male	31 kg	73 kg	38 kg	35 kg	37.5 kg
262149002	13	Male	34 kg	55 kg	44 kg	11 kg	-80
262270002	13	Female	42 kg	59 kg	46 kg	13 kg	-80
264021002	13	Male	31 kg	250 kg	45 kg	205 kg	45 kg
268513002	13	Female	55 kg	157 kg	65 kg	92 kg	65 kg
269242002	13	Male	62 kg	48 kg	63 kg	-15 kg	-80
271158002	13	Male	35 kg	45 kg	56 kg	-11 kg	-80
272937001	13	Male	41 kg	71 kg	53 kg	18 kg	-80
274341001	13	Male	-95	40 kg	56 kg	-16 kg	-80
276455002	13	Male	40 kg	49 kg	60 kg	-11 kg	-80
276883002	13	Female	40 kg	55 kg	43 kg	12 kg	-80
279926001	13	Male	23 kg	43 kg	30 kg	13 kg	-80
280816200	11	Male	-95	36 kg	48 kg	-12 kg	-80
285302001	13	Male	38 kg	160 kg	50 kg	110 kg	55 kg
289299002	13	Male	38 kg	40 kg	60 kg	-20 kg	-80
289925001	13	Male	39 kg	39 kg	50 kg	-11 kg	-80
290742200	13	Male	46 kg	42 kg	55 kg	-13 kg	-80
291543002	13	Female	-95	159 kg	56 kg	103 kg	57.5 kg
299955001	13	Male	50 kg	48 kg	75 kg	-27 kg	-83
299955002	13	Male	35 kg	75 kg	46 kg	29 kg	-83

Note. PID = scientific use file person identifier; Informant difference is calculated as: self-report – external report.

Appendix C.

Corrections in face-to-face 2 for height

PID	Age	Sex	F2F1 - Height	F2F2 - Height	Growth per Month	Correction
126022002	7	Male	120 cm	172 cm	2.17 cm/m	-81
163716400	57	Male	175 cm	75 cm	-3.45 cm/m	175 cm
166025200	8	Female	114 cm	230 cm	4.46 cm/m	-81
214570400	57	Male	175 cm	110 cm	-2.95 cm/m	-81
216760002	13	Male	146 cm	185 cm	1.63 cm/m	-81
251236300	37	Female	150 cm	90 cm	-2.50 cm/m	-81
251843300	48	Female	172 cm	72 cm	-4.76 cm/m	172 cm
271158500	45	Male	172 cm	90 cm	-2.93 cm/m	-81
282021002	13	Female	144 cm	58 cm	-3.74 cm/m	158 cm
339555001	19	Female	163 cm	66 cm	-4.22 cm/m	166 cm
412946001	24	Female	157 cm	52 cm	-5.25 cm/m	-82
464666002	26	Female	161 cm	61 cm	-3.70 cm/m	161 cm
466035200	26	Female	160 cm	63 cm	-4.22 cm/m	163 cm
472737400	60	Male	180 cm	78 cm	-4.25 cm/m	178 cm
485347001	25	Male	-95	67 cm	-	-82

Note. PID = scientific use file person identifier; F2F1 = Face-to-face 1 data collection; F2F2 = Face-to-face 2 data collection.

Appendix D.

Corrections in face-to-face 2 for weight

PID	Age	Sex	F2F1 - Weight	F2F2 - Weight	Weight difference	Correction
154461002	7	Female	24 kg	338 kg	314 kg	38 kg
159070001	7	Female	22 kg	130 kg	108 kg	-82
173501001	7	Male	22.5 kg	92 kg	69.5 kg	-81
174018002	6	Male	18 kg	115 kg	97 kg	-81
218748400	44	Male	106 kg	1 kg	-105 kg	-81
256281001	14	Female	34 kg	158 kg	124 kg	58 kg
323960002	19	Female	66 kg	171 kg	105 kg	-82
346234002	19	Male	67 kg	170 kg	103 kg	70 kg
370522001	19	Male	64 kg	165 kg	101 kg	65 kg
435519400	52	Male	71 kg	170 kg	99 kg	70 kg
464666002	26	Female	45 kg	12 kg	-33 kg	-81
464666002	26	Female	45 kg	12 kg	-33 kg	-81

Note. PID = scientific use file person identifier; F2F1 = Face-to-face 1 data collection; F2F2 = Face-to-face 2 data collection.