

Focus on Mothers 3

**Prepared by:
The ALSPAC Study Team**

Documentation giving frequencies, background and instructions for use.

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1 Introduction

1.1 Background

The main purpose of this study is to understand how measurements such as bone density, body size and blood pressure change as women go through mid-life. The study aims to understand whether changes in these characteristics are caused by changes in hormones, changes in lifestyle, genetic factors or a mixture of these. The “Focus on Mothers” (FOM) 3 clinic is the third in a series of four funded clinics.

The study was funded by the joint UK Research Councils via their Lifelong Health and Wellbeing programme (G1001357) and Wellcome Trust (WT092830/Z/10/Z), with Professor Debbie Lawlor as the PI for both.

The first “Focus on Mothers” 3 hands-on data collection started in March 2013. All visits were completed by March 2014.

1.2 Sample and response rates

There are a total of 14,680 records on the built file with 3,006 women having attended the FOM3 clinic, however there are a total of 3,093 attended cases on the release file (see section 1.7 for an important note on this). This number is made up of the 14,541 mothers in the core ALSPAC sample (regardless of whether or not they were invited to FOM3), plus 139 eligible mothers not in the core sample to whom invites were sent out. Invitations to FOM3 were sent out to a total of 4,836 study mothers (33.3% of cohort invited; 63.6% response). For further information on the ALSPAC sample, please see the cohort profile paper (Fraser et al, 2012).

Note that there is one mother who attended the clinic that had either triplets or quadruplets enrolled in ALSPAC. For reasons of confidentiality, the data for this mother is not available. The administrative variables fm3a001 and fm3a005 remain unchanged, but all other variables have been set to missing values of ‘-11’ or ‘-111’ (as appropriate).

A small number of attendees were invited back for a second visit in order to check reliability. To be eligible for a return visit the participant had to live locally, went through their first visit in a standard order and was willing to return. The data collected during the second visit is *not* held on the built file.

1.3 Data collection

Data was entered directly into a computerised system at the time of collection. This system had a number of quality control checks built in (e.g. asking for clarification if attempts were made to enter a value that was outside of common ranges for women of this age) in order to minimise data entry errors. On the rare occasion that the computerised system failed, paper data were collected on paper and later entered into the computer system.

Informed consent for each procedure was obtained for all participants at the beginning of the clinic session (appendix 4.1). Mothers were free to not participate in any sessions they did not want to and could retroactively withdraw consent after the session if they wished.

1.4 Format of the clinic

Trained fieldworkers conducted all assessments at the clinic. The visit was structured as follows:

<i>Time</i>	<i>Session</i>
20 mins	Informed consent and fasting blood sample
20 mins	Café
10 mins	Measuring weight, height (standing and seated), waist, arm and hip size
10 mins	DXA scan to measure lean (muscle) and fat mass and bone density of both whole body (first scan) and hip specifically (second scan)
10 mins	pQCT scan of arm and wrist to measure strength and quality of bones
10 mins	3D whole body scan to measure body size, shape and posture
10 mins	Blood pressure and pulse measurements
20 mins	Physical capability (hand grip, chair rises, static balance (one legged stand), timed 3 metre walk)
40 mins	Cognitive capabilities (verbal episodic memory, working memory, speed of information processing, executive function, word recognition)
Post-clinic	Assessment of physical activity (accelerometer), to be worn for seven days, beginning the day after the clinic

Each visit therefore lasted approximately 2 and a half hours.

1.5 Data file structure

The data file is presented with administrative variables appearing first, followed by the data from each of the individual sessions.

Variables are given the prefix fm3xx and a 3-digit number, where xx denotes the session from which the data were collected (e.g. variables from the measures session are fm3msxxx, etc; pQCT data are fm3pqxxx etc.). Variables with the prefix fm3a and a number (e.g. fm3a011) are administrative variables.

Measures repeated from other FoM clinics take exactly the same variable naming format (although note that some measures may differ between clinics). See appendix 4.2 for a summary of the similarities and differences in data collection between the different FoM clinics.

1.6 Format of this documentation

The order of variables herein follows the order of variables in the built file. All variable frequencies are presented either in frequency tables, histograms or summary statistics, as appropriate.

1.7 Important Note for all data users

Please be aware that some women may appear in the release file more than once. This is due to the way in which women were originally enrolled into the study and were assigned IDs. ALSPAC started by enrolling pregnant women and the main study ID is a pregnancy based ID. Therefore if a women enrolled with two different pregnancies (both having an expected delivery date within the recruitment period (April 1991-December 1992)), she will have two separate IDs to uniquely identify these women and their pregnancies. An indicator variable has been included in the file, called *mult_mum* to identify these women. If you are carrying out mother based research that does not require you to consider repeat pregnancies for which we have data then please select *mult_mum* = 2 to remove the duplicate entries. This will keep one pregnancy and drop the other. If you are matching the data included in this file to child based data or have been provided with a dataset that includes the children of the ALSPAC pregnancies, as well as the mother-based data, you need not do anything as each pregnancy (and hence each child from a separate pregnancy) has a unique identifier and a mother's data has been included/repeated here for each of her pregnancies where appropriate. Each of the frequencies below therefore contains duplicate data due to these multiple pregnancies.

mult_mum_fm3 Entry is a duplicate - Remove if only looking at Mothers: FOM3					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	87	.6	2.8	2.8
	2 No	3005	20.5	97.2	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

1.8 Built file version history

Version 1d – released February 2018

Note that although this is version 1d, this is the first version of the release file (versions 1a to 1c were for internal purposes only and have not been released to researchers).

Version 2a – released January 2019

Details of additions/corrections from previous release file:

- A new variable detailing whether the Mother was taking medication for diabetes has been derived from the medications text data (fm3sa210)
- During this process, it was also noticed that a number of Mothers were incorrectly categorised as either taking or not taking any medication (variable fm3sa068). This variable has therefore been updated.

2. The Data and Observations

2.1 Administrative Variables

fm3a001 Attended FOM3 clinic: FOM3

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1 Yes	3093	21.1	21.1	21.1
2 No	11587	78.9	78.9	100.0
Total	14680	100.0	100.0	

fm3a005 In core ALSPAC sample: FOM3

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1 Yes	14541	99.1	99.1	99.1
2 No	139	.9	.9	100.0
Total	14680	100.0	100.0	

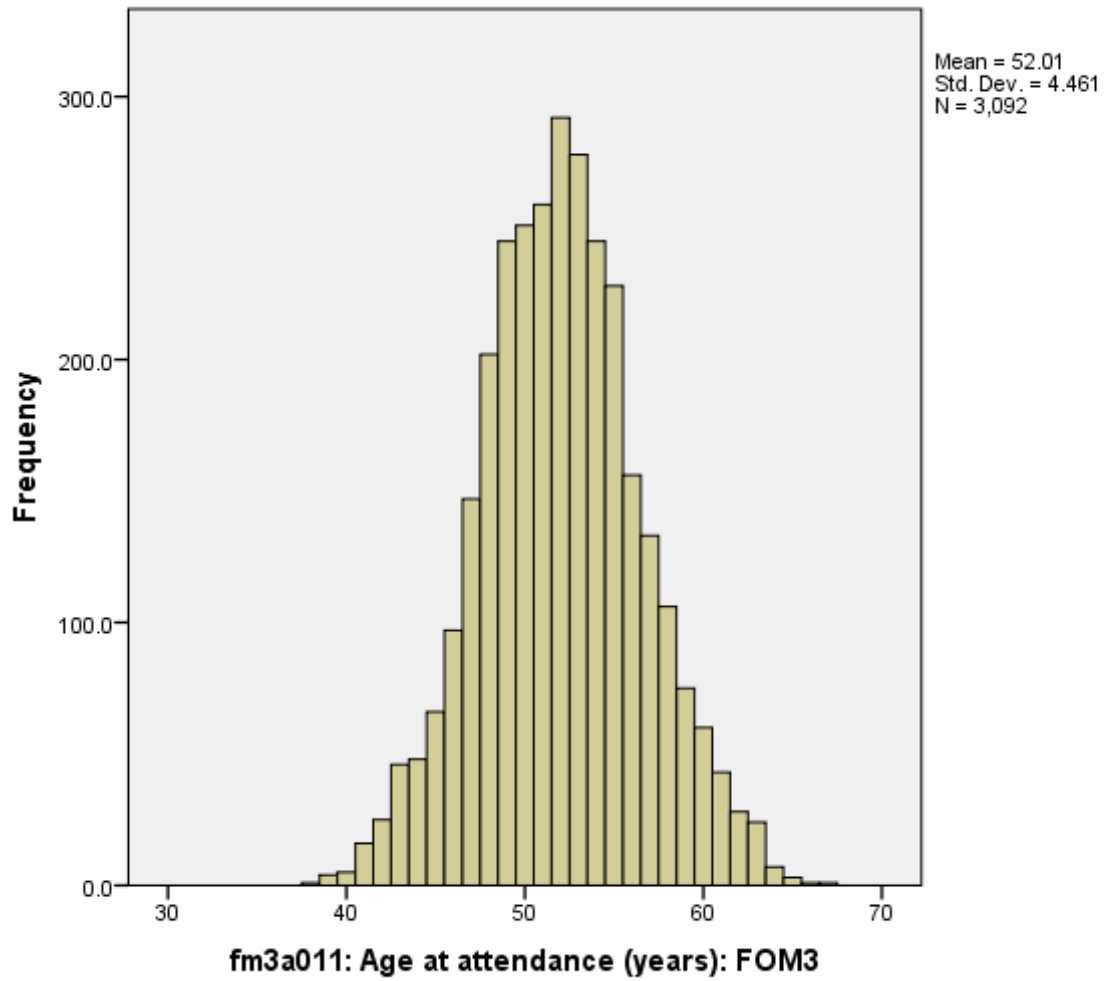
fm3a010a Month of attendance: FOM3

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	217	1.5	7.0	7.0
2	244	1.7	7.9	14.9
3	359	2.4	11.6	26.5
4	225	1.5	7.3	33.8
5	265	1.8	8.6	42.4
6	274	1.9	8.9	51.2
7	264	1.8	8.5	59.8
8	286	1.9	9.2	69.0
9	239	1.6	7.7	76.7
10	272	1.9	8.8	85.5
11	280	1.9	9.1	94.6
12	167	1.1	5.4	100.0
Total	3092	21.1	100.0	
Missing -11 Mother of trip/quad	1	.0		
-10 Did not attend clinic	11587	78.9		
Total	11588	78.9		
Total	14680	100.0		

fm3a010b Year of attendance: FOM3

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 2013	2385	16.2	77.1	77.1
2014	707	4.8	22.9	100.0
Total	3092	21.1	100.0	
Missing -11 Mother of trip/quad	1	.0		
-10 Did not attend clinic	11587	78.9		
Total	11588	78.9		
Total	14680	100.0		

Age at attendance (in years) was reported directly by the mother.



2.2 Anthropometry

Height (seated and standing), weight and circumferences (waist, hip and arm) were all conducted in the same room as blood pressure measurements. The order of measurements was generally height (standing and seated), weight, waist circumference, hip circumference and arm circumference.

fm3ms001 Anthropometry fieldworker: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	8	26	.2	.8	.8
	10	307	2.1	9.9	10.8
	11	89	.6	2.9	13.6
	12	314	2.1	10.2	23.8
	13	28	.2	.9	24.7
	14	71	.5	2.3	27.0
	15	299	2.0	9.7	36.7
	16	283	1.9	9.2	45.8
	17	239	1.6	7.7	53.6
	19	95	.6	3.1	56.6
	20	4	.0	.1	56.8
	23	123	.8	4.0	60.7
	29	337	2.3	10.9	71.6
	30	313	2.1	10.1	81.8
	31	289	2.0	9.3	91.1
	32	1	.0	.0	91.1
	33	203	1.4	6.6	97.7
	40	30	.2	1.0	98.7
	41	41	.3	1.3	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

fm3ms002 Anthropometry consent given: FOM3

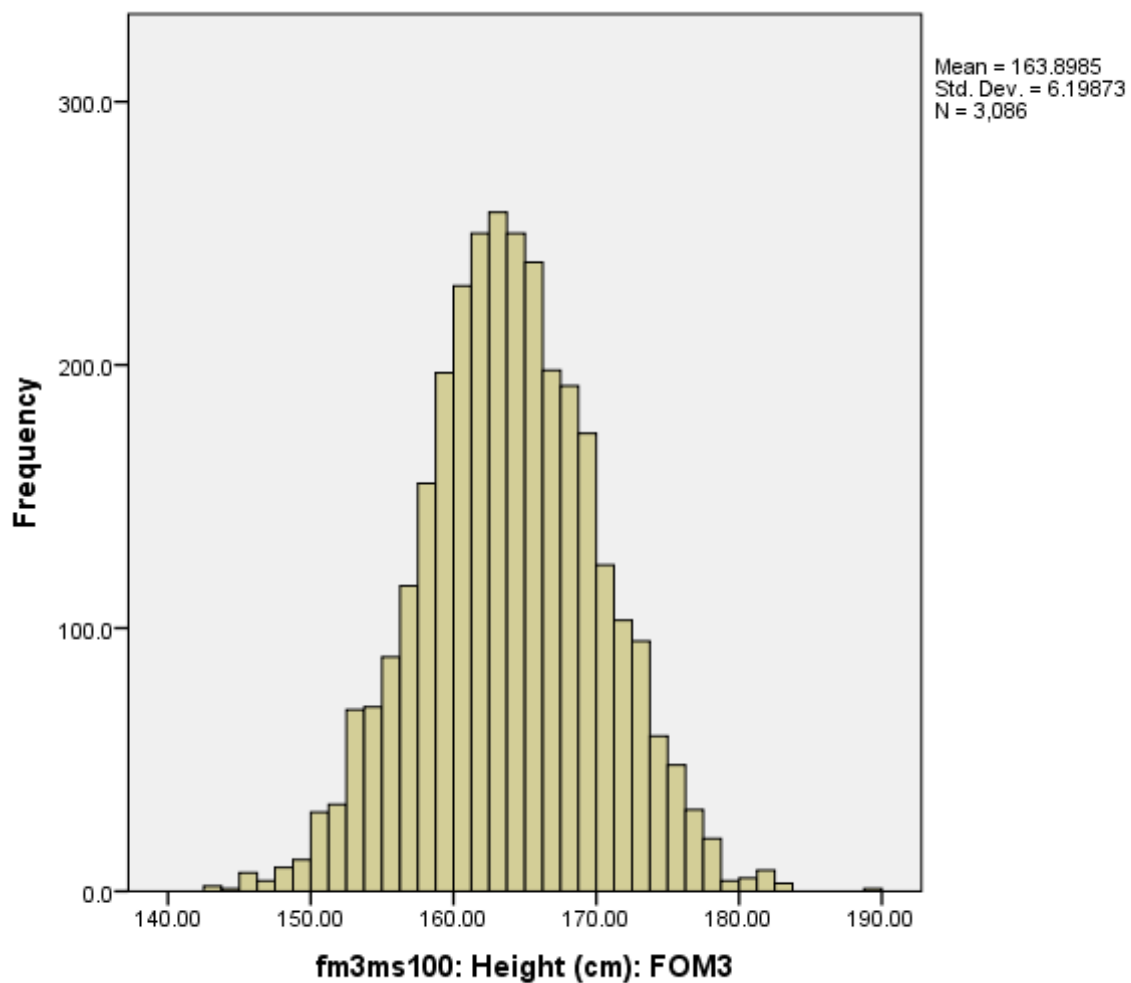
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	3091	21.1	100.0	100.0
	2 No	1	.0	.0	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

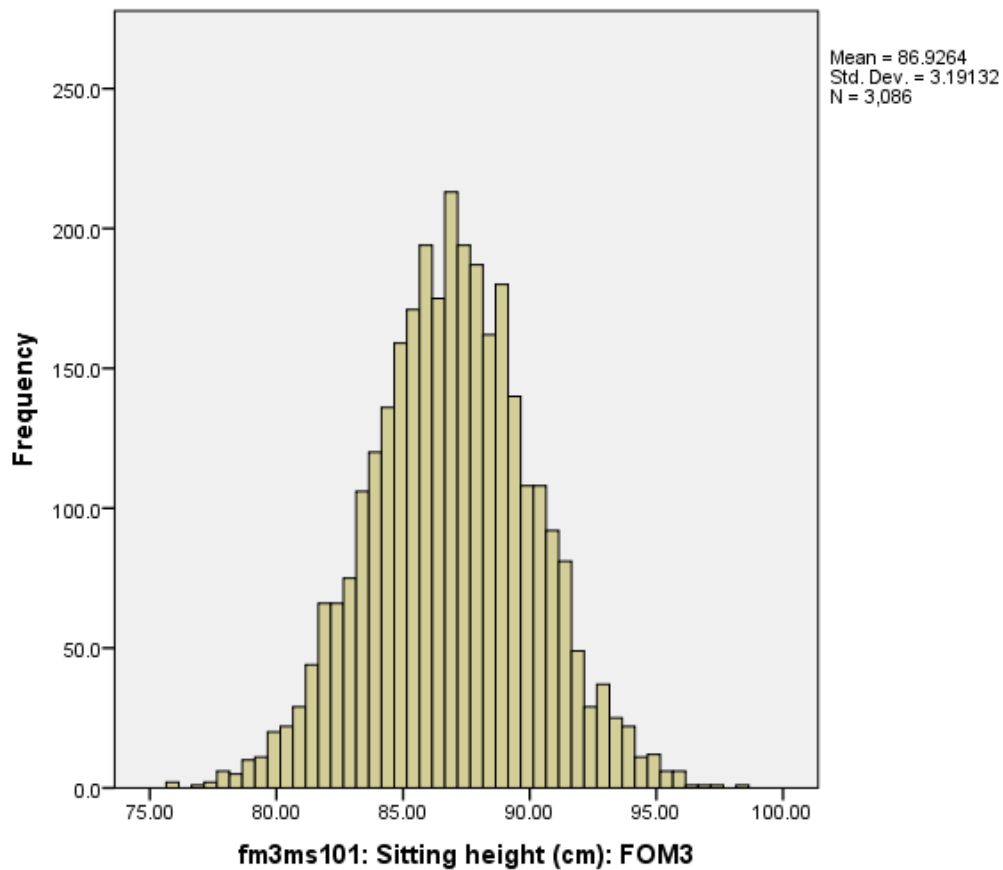
Women were asked whether they had a pacemaker. Those who did could not use the electronic TANITA scales and were instead weighed using standard bathroom scales.

fm3ms105 Pacemaker fitted: FOM3

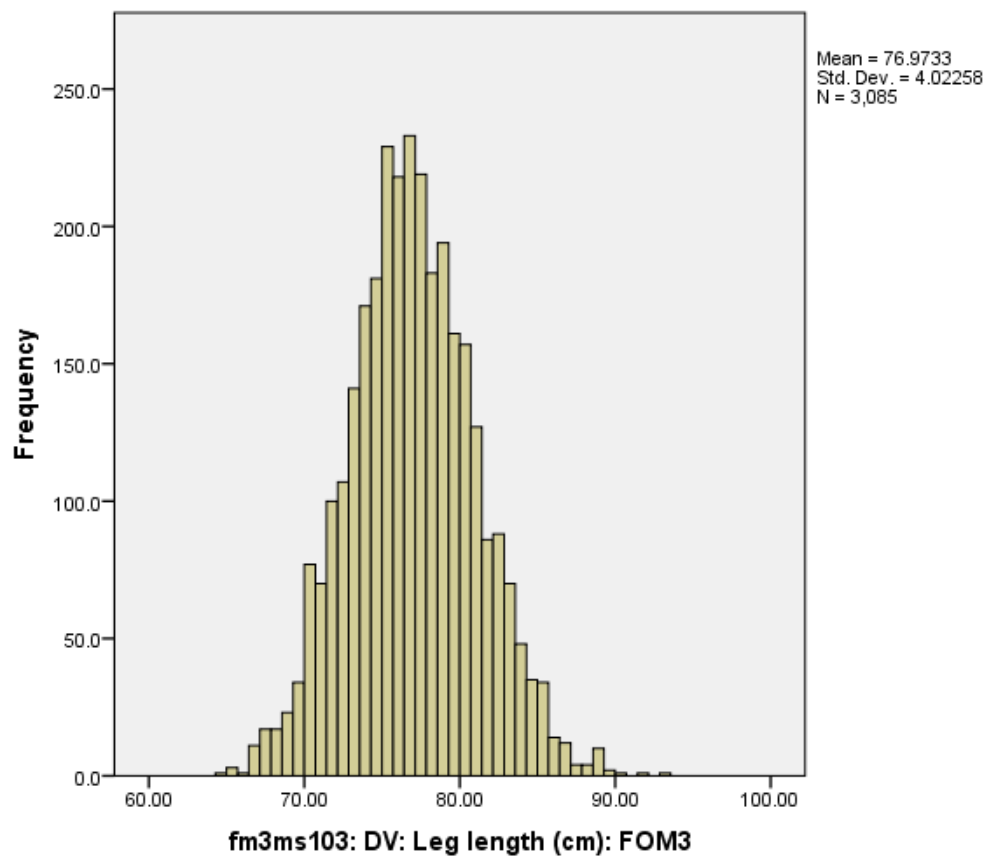
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	24	.2	.8	.8
	2 No	3066	20.9	99.2	100.0
	Total	3090	21.0	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	2	.0		
	Total	11590	79.0		
Total		14680	100.0		

Standing and sitting height were measured using a Harpenden stadiometer and recorded to the nearest 1mm.

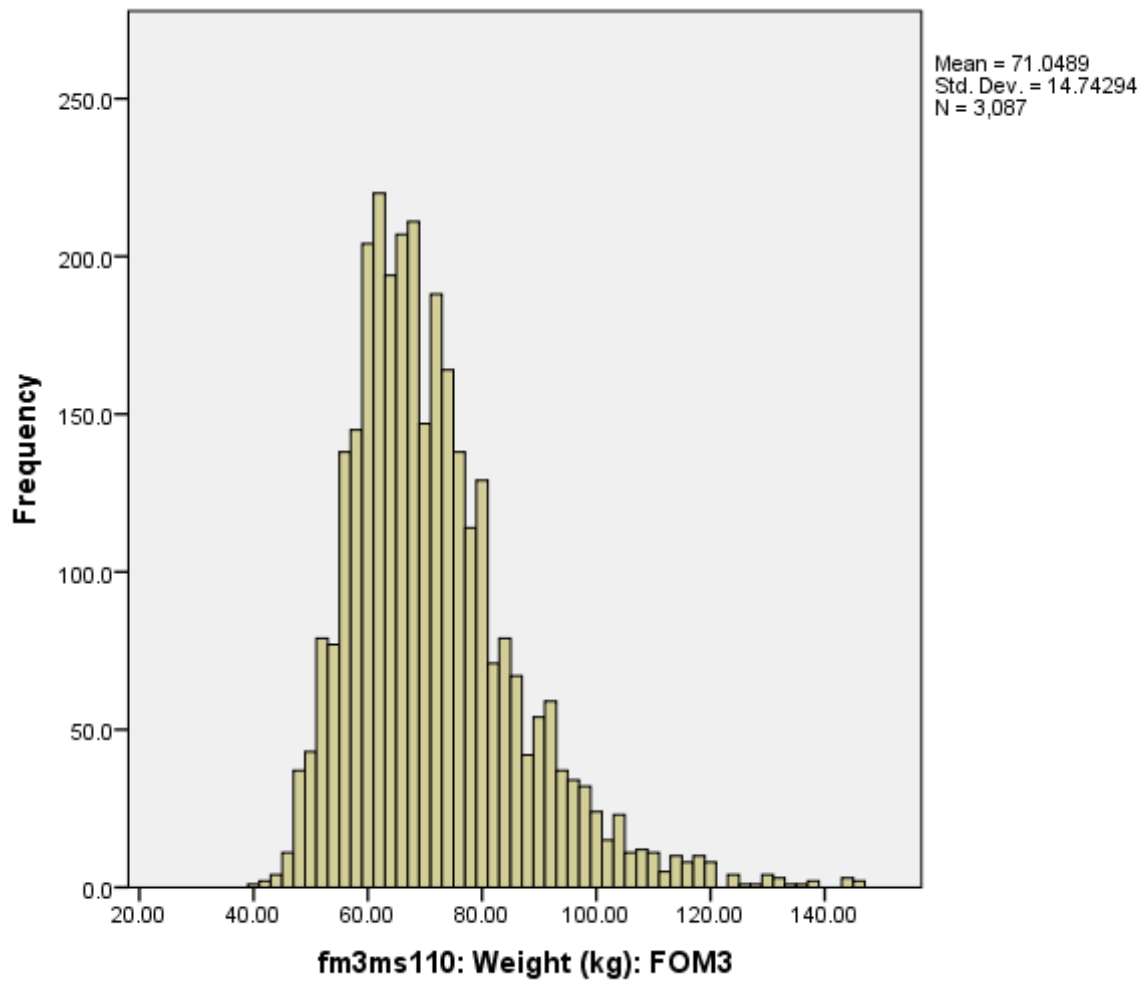




Derived variable: Leg length calculated as the difference between standing height and sitting height (fm3ms100 – fm3ms101).

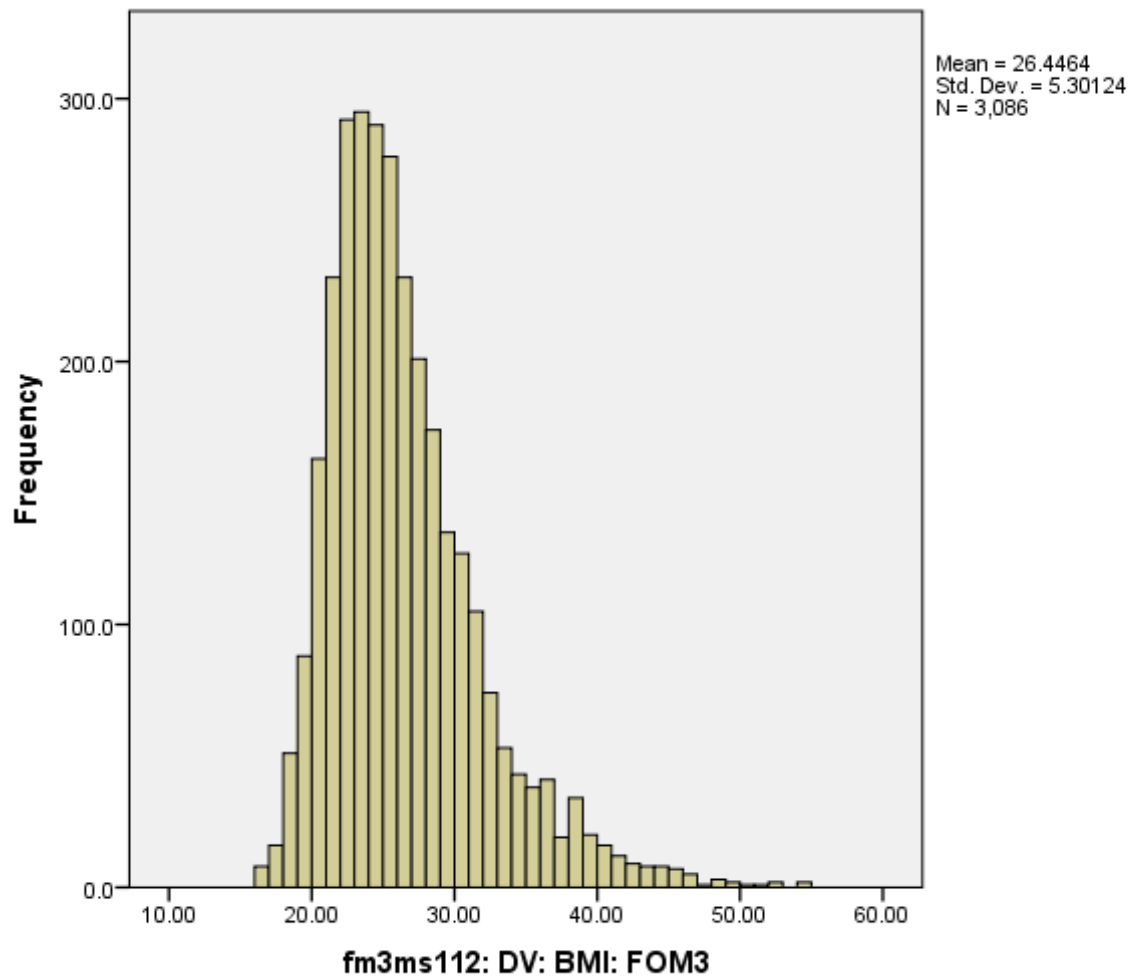


Where the participant had no pacemaker, weight was measured using TANITA scales (TBF401-A) and recorded to the nearest 0.1 kg (else standard bathroom scales were used).



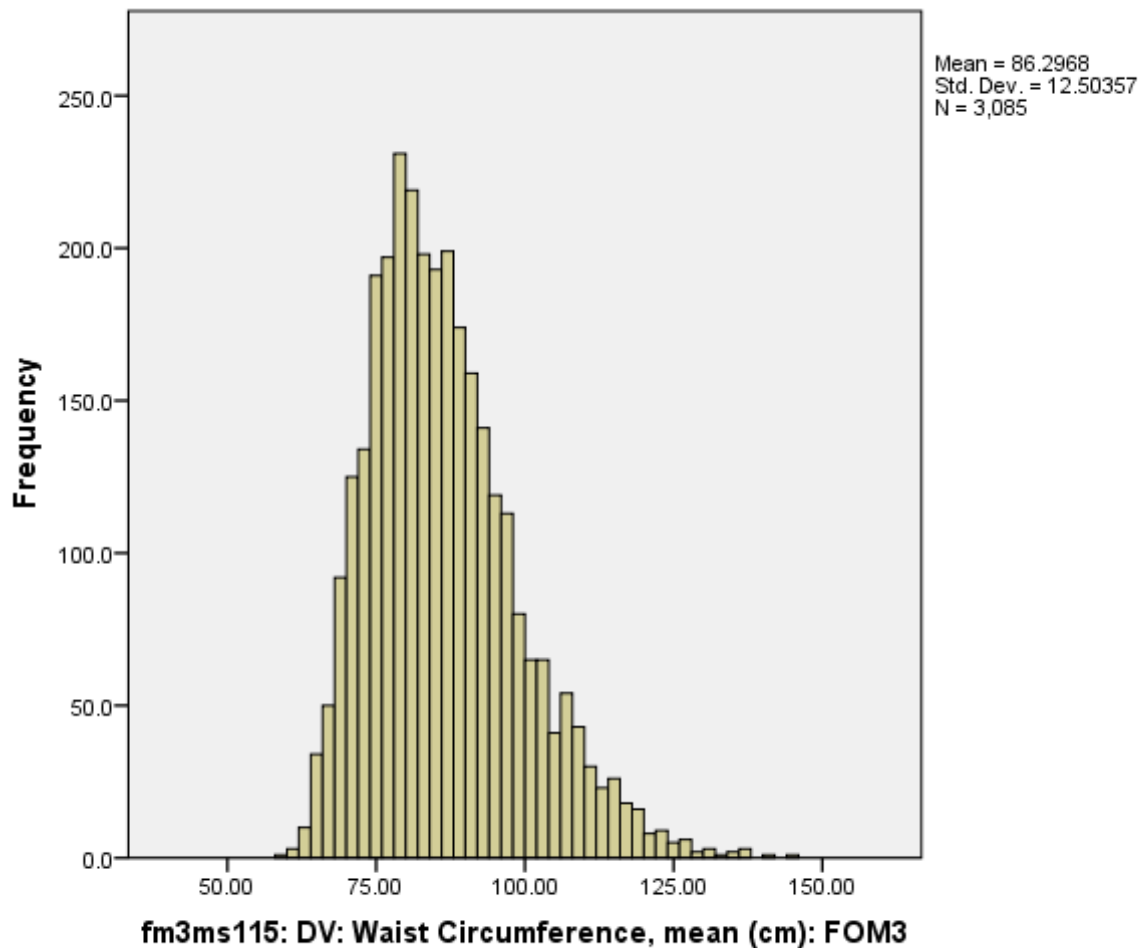
Derived variable: BMI calculated as $[\text{weight (kg)}] / [\text{height (m)}^2]$.

$\text{Fm3ms112} = \text{fm3ms110} / ((\text{fm3ms100}/100) * (\text{fm3ms100}/100))$.



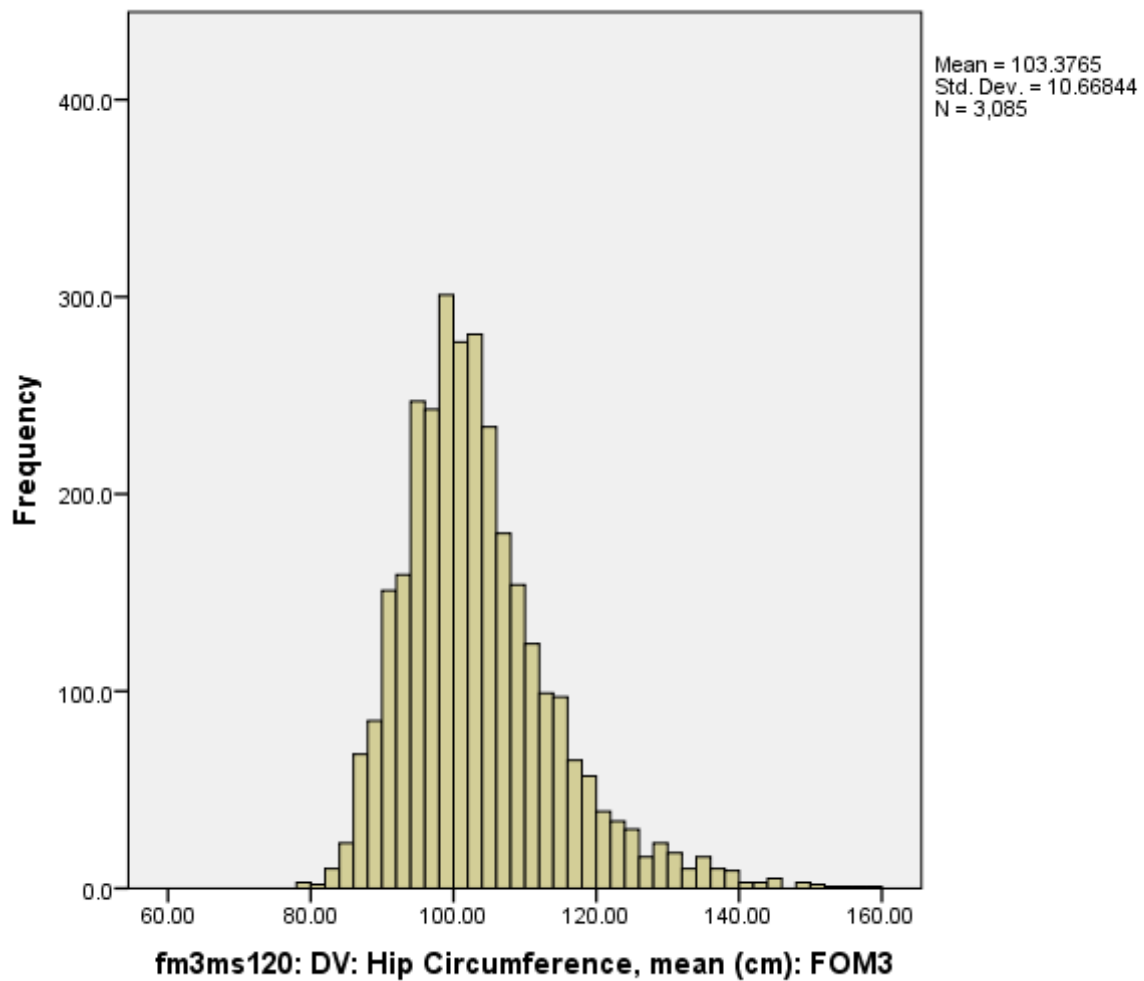
Waist circumference was measured using Seca 200 body tension tape. It was measured twice and recorded to the nearest 1mm. The two measures for waist circumference are variables fm3ms115a and fm3ms115b.

Derived variable (fm3ms115): mean of these two measures: $(fm3ms115a + fm3ms115b)/2$. [If only one measure was taken, that one was used].



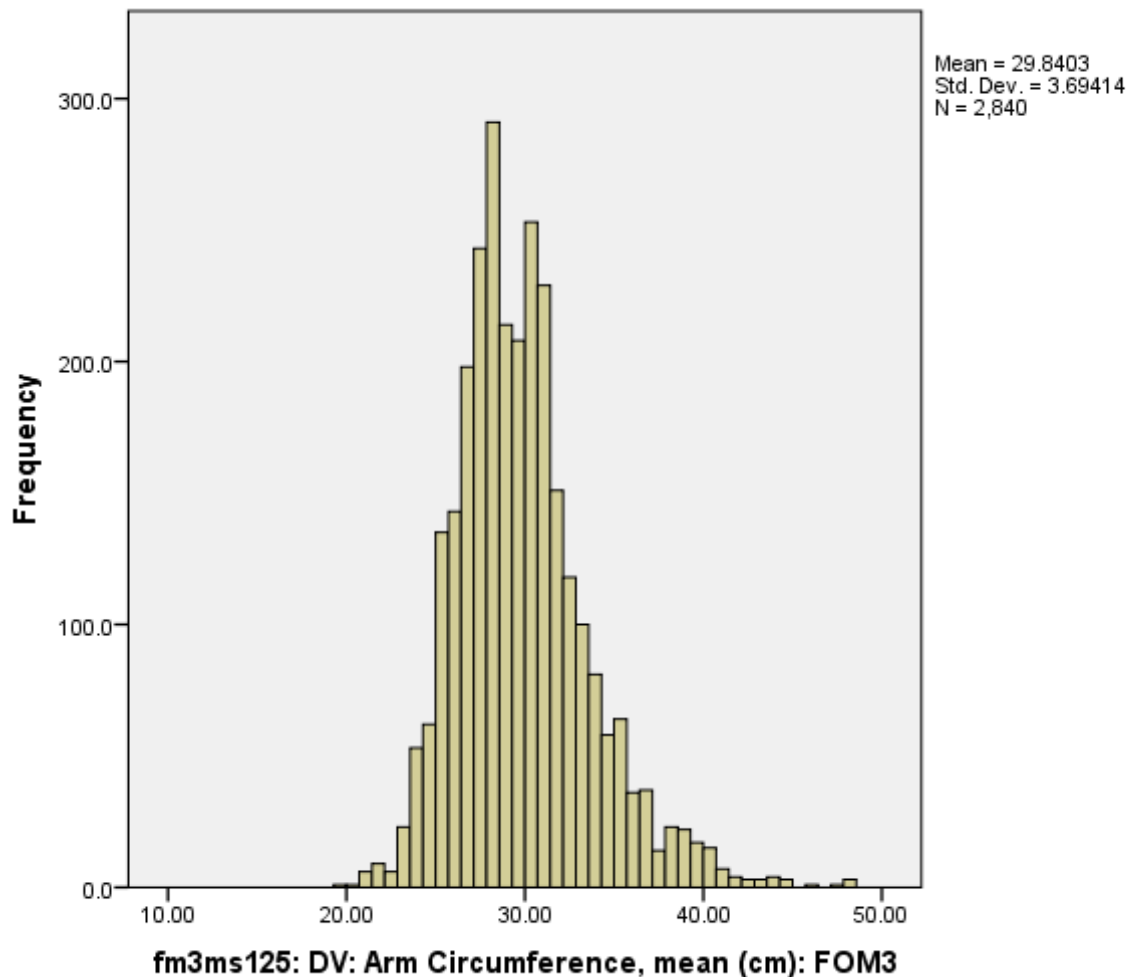
Hip circumference was measured using Seca 200 body tension tape. It was measured twice and recorded to the nearest 1mm. The two measures for waist circumference are variables fm3ms120a and fm3ms120b.

Derived variable (fm3ms120): mean of these two measures: $(fm3ms120a + fm3ms120b)/2$. [If only one measure was taken, that one was used].

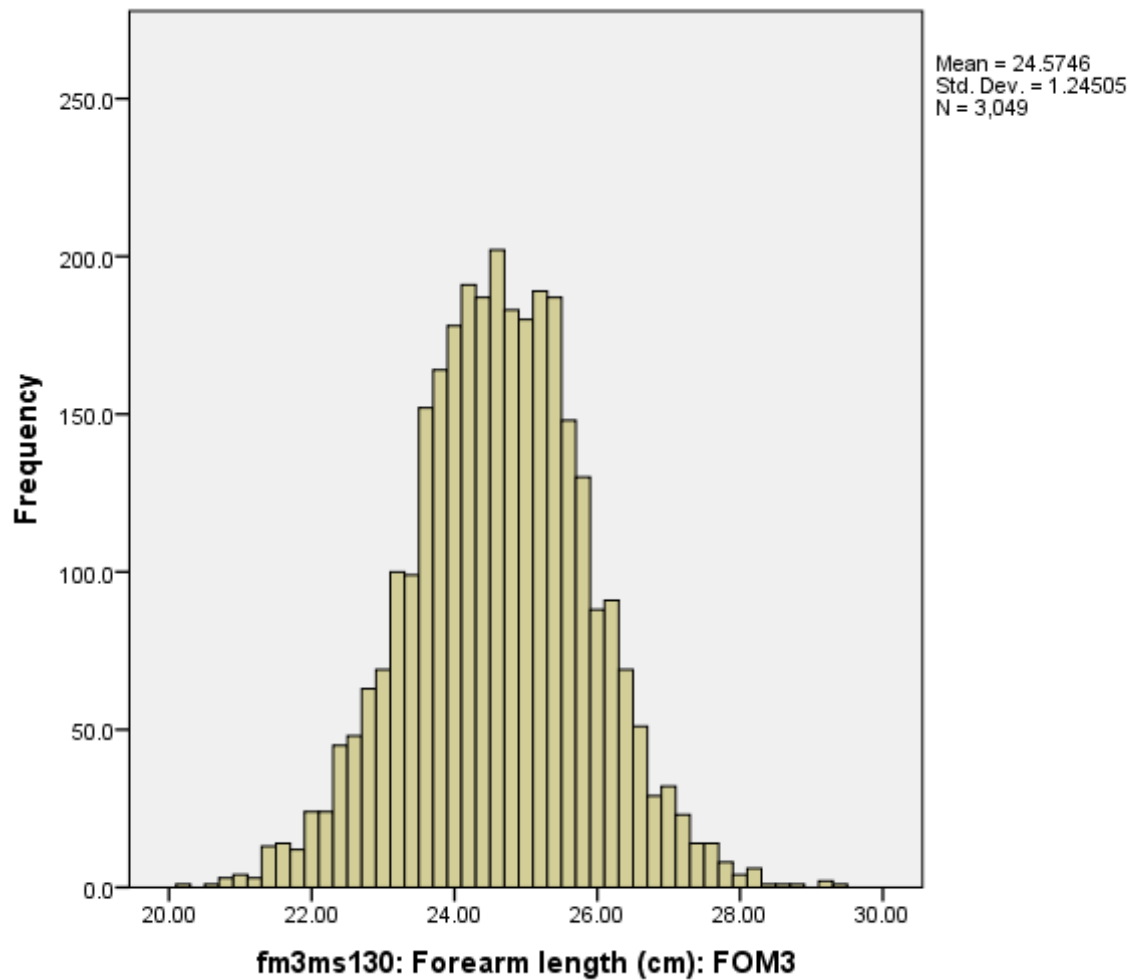


Arm circumference was measured using Seca 200 body tension tape. It was measured once and recorded to the nearest 1mm. The two measures for arm circumference are variables fm3ms125a and fm3ms125b.

Derived variable (fm3ms125): mean of these two measures: $(fm3ms125a + fm3ms125b)/2$. [If only one measure was taken, that one was used].



Forearm length was measured during the pQCT scanning session (see below), but is included here as an anthropometric variable. It was measured once and recorded to the nearest 1mm.



2.3 DXA

Fat mass, muscle mass and bone density were assessed using Dual Emission X-ray Absorptiometry (DXA: Lunar Prodigy). A total body DXA scan was performed using a Lunar prodigy narrow fan beam densitometer. Before the woman was scanned she was asked if she could be pregnant. If she was, then the scan was not performed. Note that variables with the code 'dx' (e.g., Fm3dx020) relate to the full body DXA scan, while variables with the code 'hdx' (e.g., Fm3hdx061) relate to the DXA scan focusing specifically on participants' hips.

Please also note the following regarding the cleaning of the DXA data. The raw scans were not routinely checked for artefacts, alignment issues or other errors. To assess the integrity of the DXA data, each variable in the export of the raw data was checked for outliers which fell outside the main distribution (identified using histograms). Additionally, for full body DXA scans the 'expected weight' (based on DXA values) was compared against the mother's weight from the anthropometry session; any cases where the DXA weight was two kilograms or more lighter than the anthropometric weight were also noted (as this may reflect a substantial proportion of the body being outside the DXA scanner area). All of these cases were noted and the raw DXA scans checked for artefacts, alignment issues or other anomalies. If found, a short description of the problem was noted. This was conducted separately for the full body and the hip scans.

Where any anomalies on the scan were noted, these were categorised and derived variables created to describe the issue (e.g., arm(s) outside of scan area; alignment issues; white masses on chest (breast implant(s)); miscellaneous; etc.). A derived variable, highlighting cases where *any* issues were identified, was also created. For the full body DXA scan, these are variables fm3dx990 to fm3dx995; while for the hip DXA scan these are variables fm3hdx990 to fm3hdx994.

Note also that for cases with an 'issues' flag, this may not apply to the whole scan, but only for specific measures. For instance, someone with their arms outside the scan area will obviously have erroneous arm values, but all other variables are likely to be sensible. Similarly, for the hip scan, an individual who has geometry issues may be fine for all other hip variables.

On a related topic, hip geometry values (CSMI, CSA, etc.) are likely to carry greater error than other DXA variables, given their high dependency on accurate detection of anatomical landmarks. Any corrected results obtained in the future, following manual inspection of scans, will be added to the release file.

It is also important to note that during this process not all DXA scans were checked, so other, potentially more subtle, issues may have been overlooked. For instance, scans with only minor alignment issues, or with arms only marginally outside of the

scan area, are unlikely to have been picked up. ALSPAC are hoping to make the raw DXA scans available for researchers at a later date, so that researchers can explore the raw scans themselves (although additional costs may be involved: please refer to the ALSPAC access policy for further details).

As a consequence of these limitations, we advise researchers to explore the DXA data carefully and use their expertise when deciding which data to use.

fm3dx001 Consent given for DXA scan: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	3077	21.0	99.5	99.5
	2 No	15	.1	.5	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

fm3dx002 Consent given to be informed if low BMD on DXA: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	3075	20.9	99.5	99.5
	2 No	17	.1	.5	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

fm3dx010 DXA scan done: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	3066	20.9	99.2	99.2
	2 No	26	.2	.8	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

fm3dx011 Reason DXA scan not done: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Participant reasons	20	.1	83.3	83.3
	2 Equipment/clinic facilities reasons	4	.0	16.7	100.0
	Total	24	.2	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	3068	20.9		
	Total	14656	99.8		
Total		14680	100.0		

fm3dx015 DXA - possibly pregnant: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2 No	3091	21.1	100.0	100.0
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	1	.0		
	Total	11589	78.9		
Total		14680	100.0		

fm3dx018 Type of DXA scan done: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Standard	2754	18.8	89.8	89.8
	2 Thick	313	2.1	10.2	100.0
	Total	3067	20.9	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	25	.2		
	Total	11613	79.1		
Total		14680	100.0		

The following variables are based upon the full-body DXA scan (fm3dx020 to fm3dx501).

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Fm3dx020 Total Fat Mass (g): FOM3	3034	5046.95	78417.18	26829.6214	10917.97502
Fm3dx021 Total Lean Mass (g): FOM3	3034	25272.28	72787.25	41106.4879	5136.61007
Fm3dx030 Total BMD (g/cm ²): FOM3	3034	.90	1.56	1.2020	.09302
Fm3dx031 Total BMC (g): FOM3	3034	1531.28	4108.30	2607.0439	428.26185
Fm3dx035 Total Area (cm ²): FOM3	3034	1571.72	3099.48	2159.5889	238.80372
Fm3dx036 Total Bone Mass (g): FOM3	3034	1531.28	4108.30	2607.1066	428.22544
Fm3dx050 Head BMD (g/cm ²): FOM3	3034	1.51	3.78	2.4013	.30794
Fm3dx051 Head BMC (g): FOM3	3034	191.03	837.10	505.7689	76.61285
Fm3dx052 Head Area (cm ²): FOM3	3034	56.80	496.37	210.4511	14.91375
Fm3dx101 Arm Left Bone Mass (g): FOM3	2985	42.18	741.80	156.2977	30.76624
Fm3dx102 Arm Left Fat Mass (g): FOM3	2985	111.18	20851.62	1310.5626	886.66178
Fm3dx103 Arm Left Lean Mass (g) : FOM3	2985	493.77	15350.75	2185.2135	613.58779
Fm3dx104 Arm Right Bone Mass (g): FOM3	2985	15.01	239.11	154.5131	25.69976
Fm3dx105 Arm Right Fat Mass (g): FOM3	2985	80.06	7538.58	1209.7859	569.76678
Fm3dx106 Arm Right Lean Mass (g) : FOM3	2985	438.24	8099.67	2046.1921	382.94432
Fm3dx107 Arms Bone Mass (g): FOM3	3034	85.69	947.77	310.3992	52.02269
Fm3dx108 Arms Fat Mass (g): FOM3	3034	191.24	26334.83	2532.6808	1338.70167
Fm3dx109 Arms Lean Mass (g) : FOM3	3034	1479.23	19439.73	4229.7321	871.31972
Fm3dx110 Leg Left Bone Mass (g): FOM3	2985	206.71	822.39	477.9363	80.54859
Fm3dx111 Leg Left Fat Mass (g): FOM3	2985	1050.43	14912.41	4756.3474	1808.77187
Fm3dx112 Leg Left Lean Mass (g): FOM3	2985	2201.78	12633.09	6603.2293	946.73474
Fm3dx113 Leg Right Bone Mass (g): FOM3	2985	185.57	870.60	481.8066	79.98061
Fm3dx114 Leg Right Fat Mass (g): FOM3	2985	1042.08	15781.70	4699.4746	1795.45358
Fm3dx115 Leg Right Lean Mass (g): FOM3	2985	1976.14	13352.27	6521.3838	940.56604
Fm3dx116 Legs Bone Mass (g): FOM3	3034	461.48	1692.99	957.4773	159.87329
Fm3dx117 Legs Fat Mass (g): FOM3	3034	2108.19	29909.33	9481.0792	3615.93496
Fm3dx118 Legs Lean Mass (g): FOM3	3034	4177.92	25985.36	13131.6954	1878.90773
Fm3dx119 Trunk Left Bone Mass (g): FOM3	2985	167.44	928.72	424.7780	108.16629
Fm3dx120 Trunk Left Fat Mass (g): FOM3	2985	471.83	24747.51	7135.3015	3385.50901
Fm3dx121 Trunk Left Lean Mass (g): FOM3	2985	5713.11	26968.85	10553.1325	1600.60169
Fm3dx122 Trunk Right Bone Mass (g): FOM3	2985	178.65	949.57	411.1680	104.20713
Fm3dx123 Trunk Right Fat Mass (g): FOM3	2985	473.62	22219.25	6880.5767	3277.43695
Fm3dx124 Trunk Right Lean Mass (g): FOM3	2985	6865.68	23718.83	10156.3219	1550.37628
Fm3dx125 Trunk Bone Mass (g): FOM3	3034	365.20	1791.72	833.4591	209.56249
Fm3dx126 Trunk Fat Mass (g): FOM3	3034	945.45	46038.84	14044.8419	6634.68307
Fm3dx127 Trunk Lean Mass (g): FOM3	3034	13638.07	50687.68	20702.2295	3070.97698
Fm3dx128 Total Left Bone Mass (g): FOM3	2985	738.60	2353.56	1297.9800	221.53347
Fm3dx129 Total Left Fat Mass (g) : FOM3	2985	2572.23	47578.07	13566.5723	5565.63153
Fm3dx130 Total Left Lean Mass (g): FOM3	2985	14308.32	39392.32	20782.3754	2652.77957
Fm3dx131 Total Right Bone Mass (g): FOM3	2985	693.25	2167.24	1314.5107	219.74003
Fm3dx132 Total Right Fat Mass (g): FOM3	2985	2474.73	39590.18	13195.2520	5358.93011
Fm3dx133 Total Right Lean Mass (g): FOM3	2985	14227.43	34003.12	20329.5773	2547.97949
Fm3dx137 Android Bone Mass (g): FOM3	3034	22.98	167.94	56.1426	13.43720
Fm3dx138 Android Fat Mass (g): FOM3	3034	149.46	8697.68	2391.0756	1221.05634
Fm3dx139 Android Lean Mass (g): FOM3	3034	1874.10	6225.80	3018.4033	483.03178
Fm3dx140 Gynoid Bone Mass (g): FOM3	3034	86.78	509.19	262.6171	53.18454
Fm3dx141 Gynoid Fat Mass (g): FOM3	3034	629.50	13343.84	5126.8691	1719.44550
Fm3dx142 Gynoid Lean Mass (g): FOM3	3034	3700.47	10545.94	5977.5736	808.89887
Fm3dx204 Arms BMD (g/cm ²): FOM3	3034	.66	1.32	.9991	.09187
Fm3dx205 Arms BMC (g): FOM3	3034	85.69	947.77	310.3956	52.02385
Fm3dx206 Arms Area (cm ²): FOM3	3034	99.24	742.36	310.1628	38.66614
Fm3dx207 Legs BMD (g/cm ²): FOM3	3034	.89	1.64	1.2500	.10674
Fm3dx208 Legs BMC (g): FOM3	3034	461.48	1692.99	957.4672	159.87665
Fm3dx209 Legs Area (cm ²): FOM3	3034	467.83	1236.07	763.1836	88.12267
Fm3dx210 Trunk BMD (g/cm ²): FOM3	3034	.69	1.42	.9418	.09465
Fm3dx211 Trunk BMC (g): FOM3	3034	365.20	1791.72	833.4122	209.59698
Fm3dx212 Trunk Area (cm ²): FOM3	3034	371.98	1675.06	875.7914	154.88252
Fm3dx213 Ribs BMD (g/cm ²): FOM3	3034	.51	1.37	.6732	.08031
Fm3dx214 Ribs BMC (g): FOM3	3034	26.58	625.41	237.3445	78.60173
Fm3dx215 Ribs Area (cm ²): FOM3	3034	24.72	712.08	347.6538	87.28360

Fm3dx216 Pelvis BMD (g\cm ²): FOM3	3034	.72	1.60	1.1500	.12226
Fm3dx217 Pelvis BMC (g): FOM3	3034	126.61	736.56	335.1823	84.37788
Fm3dx218 Pelvis Area (cm ²): FOM3	3034	138.17	609.64	288.5642	51.00996
Fm3dx219 Spine BMD (g\cm ²): FOM3	3034	.66	1.69	1.0812	.14399
Fm3dx220 Spine BMC (g): FOM3	3034	82.45	898.55	260.8853	60.62014
Fm3dx221 Spine Area (cm ²): FOM3	3034	104.87	592.01	239.5735	35.24187
Fm3dx251 Arm Left BMD (g\cm ²): FOM3	2985	.66	1.37	.9899	.09328
Fm3dx252 Arm Left BMC (g): FOM3	2985	42.18	741.80	156.2985	30.76590
Fm3dx253 Arm Left Area (cm ²): FOM3	2985	41.19	564.39	157.5702	23.29641
Fm3dx254 Arm Right BMD (g\cm ²): FOM3	2985	.61	1.34	1.0117	.09494
Fm3dx255 Arm Right BMC (g): FOM3	2985	15.01	239.11	154.5086	25.70057
Fm3dx256 Arm Right Area (cm ²): FOM3	2985	20.60	228.57	152.5544	19.82550
Fm3dx257 Leg Left BMD (g\cm ²): FOM3	2985	.88	1.63	1.2483	.10847
Fm3dx258 Leg Left BMC (g): FOM3	2985	206.71	822.39	477.9346	80.54922
Fm3dx259 Leg Left Area (cm ²): FOM3	2985	212.25	611.38	381.4950	44.71654
Fm3dx260 Leg Right BMD (g\cm ²): FOM3	2985	.91	1.64	1.2550	.10605
Fm3dx261 Leg Right BMC (g): FOM3	2985	185.57	870.60	481.7979	79.98320
Fm3dx262 Leg Right Area (cm ²): FOM3	2985	162.15	624.69	382.5806	44.55302
Fm3dx263 Trunk Left BMD (g\cm ²): FOM3	2985	.68	1.56	.9480	.09770
Fm3dx264 Trunk Left BMC (g): FOM3	2985	167.44	928.72	424.7540	108.18485
Fm3dx265 Trunk Left Area (cm ²): FOM3	2985	144.74	807.77	443.4006	79.17123
Fm3dx266 Trunk Right BMD (g\cm ²): FOM3	2985	.68	1.32	.9352	.09346
Fm3dx267 Trunk Right BMC (g): FOM3	2985	178.65	949.57	411.1443	104.22370
Fm3dx268 Trunk Right Area (cm ²): FOM3	2985	227.25	897.34	435.0921	78.19754
Fm3dx269 Total Left BMD (g\cm ²): FOM3	2985	.87	1.55	1.1943	.09617
Fm3dx270 Total Left BMC (g): FOM3	2985	738.60	2353.56	1297.9713	221.53946
Fm3dx271 Total Left Area (cm ²): FOM3	2985	775.64	1599.19	1081.6142	122.83725
Fm3dx272 Total Right BMD (g\cm ²): FOM3	2985	.92	1.62	1.2099	.09437
Fm3dx273 Total Right BMC (g): FOM3	2985	693.25	2167.24	1314.4557	219.76573
Fm3dx274 Total Right Area (cm ²): FOM3	2985	573.59	1593.71	1081.5653	122.71649
Fm3dx300 Arms Tissue Mass (g): FOM3	3034	2146.98	45774.56	6762.4128	2029.42107
Fm3dx301 Arm Right Tissue Mass (g): FOM3	2985	953.49	15638.25	3255.9779	849.04873
Fm3dx302 Arm Left Tissue Mass (g): FOM3	2985	908.91	36202.37	3495.7761	1427.21447
Fm3dx303 Legs Tissue Mass (g): FOM3	3034	11988.75	55894.69	22612.7746	4634.45576
Fm3dx304 Leg Right Tissue Mass (g): FOM3	2985	5176.65	29133.97	11220.8583	2306.04920
Fm3dx305 Leg Left Tissue Mass (g): FOM3	2985	5910.55	26760.72	11359.5767	2313.41457
Fm3dx306 Trunk Tissue Mass (g): FOM3	3034	14667.45	96726.52	34747.0714	8676.65391
Fm3dx307 Trunk Right Tissue Mass (g): FOM3	2985	7339.30	45280.43	17036.8986	4329.79891
Fm3dx308 Trunk Left Tissue Mass (g): FOM3	2985	7328.14	51446.09	17688.4340	4442.10246
Fm3dx309 Android Tissue Mass (g): FOM3	3034	2411.75	14404.43	5409.4789	1560.15649
Fm3dx310 Gynoid Tissue Mass (g): FOM3	3034	5667.48	23353.06	11104.4427	2218.25850
Fm3dx311 Total Tissue Mass (g): FOM3	3034	38410.20	138739.16	67936.1093	14046.55153
Fm3dx312 Total Right Tissue Mass (g): FOM3	2985	18791.01	71140.79	33524.8293	6910.50009
Fm3dx313 Total Left Tissue Mass (g): FOM3	2985	19619.19	81718.81	34348.9477	7180.30424
Fm3dx320 Arms Fat Free Mass (g): FOM3	3034	1603.54	19863.75	4540.1313	903.48649
Fm3dx321 Arm Right Fat Free Mass (g): FOM3	2985	486.23	8290.13	2200.7051	400.23262
Fm3dx322 Arm Left Fat Free Mass (g): FOM3	2985	556.56	15658.38	2341.5111	632.58762
Fm3dx323 Legs Fat Free Mass (g): FOM3	3034	4639.40	27028.16	14089.1727	1986.59032
Fm3dx324 Leg Right Fat Free Mass (g): FOM3	2985	2230.91	13885.00	7003.1903	994.92781
Fm3dx325 Leg Left Fat Free Mass (g): FOM3	2985	2408.49	13143.16	7081.1656	1001.26559
Fm3dx326 Trunk Fat Free Mass (g): FOM3	3034	14070.78	51803.76	21535.6886	3145.31608
Fm3dx327 Trunk Right Fat Free Mass (g): FOM3	2985	7088.79	24175.04	10567.4899	1587.58376
Fm3dx328 Trunk Left Fat Free Mass (g): FOM3	2985	5925.76	27628.72	10977.9105	1638.85412
Fm3dx329 Android Fat Free Mass (g): FOM3	3034	1961.80	6302.86	3074.5458	487.45761
Fm3dx330 Gynoid Fat Free Mass (g): FOM3	3034	3849.52	10878.99	6240.1907	842.79232
Fm3dx331 Total Fat Free Mass (g): FOM3	3034	26932.00	75630.84	43713.5945	5368.83899
Fm3dx332 Total Right Fat Free Mass (g): FOM3	2985	15143.58	35962.85	21644.0880	2670.84936
Fm3dx333 Total Left Fat Free Mass (g): FOM3	2985	15061.79	41000.07	22080.3554	2773.45174
Fm3dx340 Arms Total Mass (g): FOM3	3034	2284.52	46198.58	7072.8120	2051.40083
Fm3dx341 Arm Right Total Mass (g): FOM3	2985	976.93	15828.71	3410.4910	861.11494
Fm3dx342 Arm Left Total Mass (g): FOM3	2985	971.71	36509.99	3652.0738	1442.17498
Fm3dx343 Legs Total Mass (g): FOM3	3034	12526.91	56937.49	23570.2519	4749.34644
Fm3dx344 Leg Right Total Mass (g): FOM3	2985	5362.22	29666.70	11702.6649	2364.32183
Fm3dx345 Leg Left Total Mass (g): FOM3	2985	6181.82	27270.80	11837.5129	2372.48094
Fm3dx346 Trunk Total Mass (g): FOM3	3034	15140.21	97842.61	35580.5305	8796.90079
Fm3dx347 Trunk Right Total Mass (g): FOM3	2985	7562.41	45736.65	17448.0667	4390.59023
Fm3dx348 Trunk Left Total Mass (g): FOM3	2985	7577.80	52105.96	18113.2119	4503.49391

Fm3dx349 Android Total Mass (g): FOM3	3034	2443.03	14497.78	5465.6215	1564.82455
Fm3dx350 Gynoid Total Mass (g): FOM3	3034	5827.67	23803.36	11367.0599	2255.63939
Fm3dx351 Total Total Mass (g): FOM3	3034	40358.45	141495.32	70543.2159	14308.34026
Fm3dx352 Total Right Total Mass (g): FOM3	2985	19746.27	72580.53	34839.3400	7049.11777
Fm3dx353 Total Left Total Mass (g): FOM3	2985	20612.18	83693.06	35646.9277	7313.14272
Fm3dx360 Arms Region Fat (g): FOM3	3034	.05	.69	.3445	.08307
Fm3dx361 Arm Right Region Fat (g): FOM3	2985	.05	.67	.3427	.08239
Fm3dx362 Arm Left Region Fat (g): FOM3	2985	.05	.72	.3438	.08310
Fm3dx363 Legs Region Fat (g): FOM3	3034	.12	.65	.3914	.08056
Fm3dx364 Leg Right Region Fat (g): FOM3	2985	.12	.65	.3907	.08067
Fm3dx365 Leg Left Region Fat (g): FOM3	2985	.12	.66	.3910	.08065
Fm3dx366 Trunk Region Fat (g): FOM3	3034	.06	.63	.3765	.09808
Fm3dx367 Trunk Right Region Fat (g): FOM3	2985	.06	.62	.3759	.09797
Fm3dx368 Trunk Left Region Fat (g): FOM3	2985	.06	.64	.3758	.09812
Fm3dx369 Android Region Fat (g): FOM3	3034	.06	.69	.4134	.11015
Fm3dx370 Gynoid Region Fat (g): FOM3	3034	.11	.63	.4412	.07121
Fm3dx371 Total Region Fat (g): FOM3	3034	.10	.60	.3675	.08376
Fm3dx372 Total Right Region Fat (g): FOM3	2985	.10	.59	.3661	.08345
Fm3dx373 Total Left Region Fat (g): FOM3	2985	.10	.62	.3677	.08414
Fm3dx380 Arms Tissue Fat (g): FOM3	3034	.05	.70	.3603	.08450
Fm3dx381 Arm Right Tissue Fat (g): FOM3	2985	.05	.68	.3590	.08408
Fm3dx382 Arm Left Tissue Fat (g): FOM3	2985	.05	.73	.3592	.08440
Fm3dx383 Legs Tissue Fat (g): FOM3	3034	.13	.68	.4079	.08273
Fm3dx384 Leg Right Tissue Fat (g): FOM3	2985	.13	.68	.4075	.08289
Fm3dx385 Leg Left Tissue Fat (g): FOM3	2985	.13	.68	.4074	.08286
Fm3dx386 Trunk Tissue Fat (g): FOM3	3034	.06	.64	.3855	.10014
Fm3dx387 Trunk Right Tissue Fat (g): FOM3	2985	.06	.62	.3850	.10008
Fm3dx388 Trunk Left Tissue Fat (g): FOM3	2985	.06	.65	.3849	.10019
Fm3dx389 Android Tissue Fat (g): FOM3	3034	.06	.69	.4178	.11075
Fm3dx390 Gynoid Tissue Fat (g): FOM3	3034	.11	.64	.4516	.07232
Fm3dx391 Total Tissue Fat (g): FOM3	3034	.10	.61	.3816	.08590
Fm3dx392 Total Right Tissue Fat (g): FOM3	2985	.10	.60	.3804	.08567
Fm3dx393 Total Left Tissue Fat (g): FOM3	2985	.10	.63	.3816	.08624
Fm3dx500 Total T score: FOM3	3032	-2.75	5.40	.9730	1.15280
Fm3dx501 Total Z score: FOM3	3027	-2.60	5.30	1.1749	.98260

Fm3dx990 DV: Arm(s) out of full body DXA scan area: FOM3

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1 Yes	88	.6	2.8	2.8
2 No	3004	20.5	97.2	100.0
Total	3092	21.1	100.0	
Missing -11 Mother of trip/quad	1	.0		
-10 Did not attend clinic	11587	78.9		
Total	11588	78.9		
Total	14680	100.0		

Fm3dx991 DV: Alignment issues in the full body DXA scan: FOM3

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1 Yes	88	.6	2.8	2.8
2 No	3004	20.5	97.2	100.0
Total	3092	21.1	100.0	
Missing -11 Mother of trip/quad	1	.0		
-10 Did not attend clinic	11587	78.9		
Total	11588	78.9		
Total	14680	100.0		

Fm3dx992 DV: Full body DXA image is grainy: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	5	.0	.2	.2
	2 No	3087	21.0	99.8	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

Fm3dx993 DV: White masses on chest (breast implant(s)): FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	14	.1	.5	.5
	2 No	3078	21.0	99.5	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

Fm3dx994 DV: Miscellaneous error/artefact in full body DXA scan: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	34	.2	1.1	1.1
	2 No	3058	20.8	98.9	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

Fm3dx995 DV: Any error/artefact noted in full body DXA scan: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	129	.9	4.2	4.2
	2 No	2963	20.2	95.8	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

The following variables are based upon the hip DXA scan (fm3hdx060 to fm3hdx205).

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Fm3hdx060 Hip total BMD (g\cm ²): FOM3	3023	.59	1.60	1.0006	.14253
Fm3hdx061 Hip total BMC (g): FOM3	3023	16.78	53.58	31.3300	5.23540
Fm3hdx062 Hip total area (cm ²): FOM3	3023	20.17	41.45	31.2768	2.26076
Fm3hdx065 Hip Total T Score: FOM3	3021	-3.30	4.69	-.0520	1.13369
Fm3hdx066 Hip Total Z Score: FOM3	3014	-2.69	5.05	.3611	.99954
Fm3hdx070 Hip Troch BMD (g\cm ²): FOM3	3027	.00	1.32	.7978	.13222
Fm3hdx071 Hip Troch BMC (g): FOM3	3027	.00	19.72	10.0251	2.42165
Fm3hdx072 Hip Troch area (cm ²): FOM3	3027	.00	21.40	12.4916	1.75264
Fm3hdx075 Hip Troch T Score: FOM3	3024	-3.85	4.08	-.4258	1.15034
Fm3hdx076 Hip Troch Z Score: FOM3	3017	-3.54	4.74	.0171	1.01402
Fm3hdx080 Hip Wards BMD (g\cm ²): FOM3	3027	.00	1.78	.7885	.14940
Fm3hdx081 Hip Wards BMC (g): FOM3	3027	.00	5.26	2.0345	.50572
Fm3hdx082 Hip Wards area (cm ²): FOM3	3027	.00	6.15	2.5750	.38830
Fm3hdx085 Hip Wards T Score: FOM3	3023	-3.87	6.68	-.9299	1.13896
Fm3hdx086 Hip Wards Z Score: FOM3	3016	-3.29	7.70	-.0511	1.04620
Fm3hdx090 Hip Shaft BMD (g\cm ²): FOM3	3023	.68	1.93	1.1944	.17548
Fm3hdx091 Hip Shaft BMC (g) : FOM3	3023	9.79	26.90	16.6713	2.49708
Fm3hdx092 Hip Shaft area (cm ²): FOM3	3023	9.39	17.50	13.9772	.81266
Fm3hdx100 Cross-sectional moment of inertia (CSMI) (mm4): FOM3	2978	103.78	82743.16	9916.1451	2851.29578
Fm3hdx101 Bone cross-sectional area (CSA) (mm2): FOM3	2978	23.67	283.19	145.3171	23.52784
Fm3hdx102 Hip axis length (mm): FOM3	2973	.00	127.95	104.9699	6.70204
Fm3hdx103 Strength Index: FOM3	2978	.00	7.45	1.5267	.40875
Fm3hdx108 Alpha (deg: Neck angle): FOM3	2978	-23.15	13.36	-1.2351	3.58780
Fm3hdx109 Theta (deg: Neck angle): FOM3	2978	.00	150.11	125.3565	4.88893
Fm3hdx130 Hip Neck BMD (g\cm ²): FOM3	3027	.58	1.86	.9638	.13540
Fm3hdx131 Hip Neck BMC (g\cm ²): FOM3	3027	.70	9.14	4.6282	.74451
Fm3hdx132 Hip Neck area (cm ²): FOM3	3027	.67	9.79	4.8022	.37251
Fm3hdx135 Hip Neck T Score: FOM3	3025	-3.29	5.93	-.5105	.98239
Fm3hdx136 Hip Neck Z Score: FOM3	3018	-2.10	5.86	.2306	.88010
Fm3hdx140 Hip Upper Neck BMD (g\cm ²): FOM3	3026	.00	1.83	.7980	.14180
Fm3hdx141 Hip Upper Neck BMC (g): FOM3	3026	.00	4.23	1.8829	.35632
Fm3hdx142 Hip Upper Neck area (cm ²): FOM3	3026	.04	4.78	2.3608	.18312
Fm3hdx145 Hip Upper Neck T Score: FOM3	3023	-3.81	8.44	-.1926	1.17539
Fm3hdx146 Hip Upper Neck Z Score: FOM3	3016	-3.82	7.88	.3327	1.08148
Fm3hdx150 Hip Lower Neck BMD (g\cm ²): FOM3	3026	.70	1.89	1.1240	.14230
Fm3hdx151 Hip Lower Neck BMC (g): FOM3	3026	.70	4.93	2.7467	.41520
Fm3hdx152 Hip Lower Neck area (cm ²): FOM3	3026	.63	5.01	2.4426	.18408
Fm3hdx200 Hip cortical width neck: FOM3	2978	.00	14.04	5.5849	2.17948
Fm3hdx201 Hip cortical ratio neck: FOM3	2978	.00	45.46	18.7589	7.19335
Fm3hdx202 Hip cortical width calcar: FOM3	2978	-38.57	10.58	3.8179	1.46062
Fm3hdx203 Hip cortical ratio calcar: FOM3	2978	-36.99	49.69	7.4654	2.65261
Fm3hdx204 Hip cortical width shaft: FOM3	2978	.00	15.59	5.0301	1.58689
Fm3hdx205 Hip cortical ratio shaft: FOM3	2978	.00	41.46	17.2908	5.08805

Fm3hdx299 Side of hip DXA scan: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Left	3014	20.5	99.6	99.6
	2 Right	13	.1	.4	100.0
	Total	3027	20.6	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	65	.4		
	Total	11653	79.4		
Total		14680	100.0		

Fm3hdx990 DV: Alignment issues in the hip DXA scan: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	46	.3	1.5	1.5
	2 No	3046	20.7	98.5	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

Fm3hdx991 DV: Edge of hip missing from hip DXA scan: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	6	.0	.2	.2
	2 No	3086	21.0	99.8	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

Fm3hdx992 DV: All/some hip geometry measures coded as '0' for hip DXA scan: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	144	1.0	4.7	4.7
	2 No	2948	20.1	95.3	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

Fm3hdx993 DV: Miscellaneous error/artefact in hip DXA scan: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	36	.2	1.2	1.2
	2 No	3056	20.8	98.8	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

Fm3hdx994 DV: Any error/artefact noted in hip DXA scan: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	151	1.0	4.9	4.9
	2 No	2941	20.0	95.1	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

2.4 pQCT

Peripheral Quantitative Computerised Tomography (pQCT) arm scans were performed to measure bone density. However, as this data is currently being processed and is not ready for release it is not contained in this version of the release file.

fm3pq001 Consent given for PQCT scan: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	3059	20.8	98.9	98.9
	2 No	33	.2	1.1	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

fm3pq010 PQCT scan done: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	2104	14.3	68.5	68.5
	2 No	969	6.6	31.5	100.0
	Total	3073	20.9	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	System	19	.1		
	Total	11607	79.1		
Total		14680	100.0		

fm3pq011 Reason PQCT scan not done: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Participant reasons	34	.2	3.5	3.5
	2 Equipment/clinic facilities reasons	932	6.3	96.5	100.0
	Total	966	6.6	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	2126	14.5		
	Total	13714	93.4		
Total		14680	100.0		

2.5 Samples

Written and verbal consent was required prior to taking blood.

All women were asked to fast overnight (if booked in for a morning appointment) or for at least 8 hours prior to their visit. The protocols followed by the fieldworkers for collecting blood are available on request. A list of medications currently being taken and allergies were also noted (appendix 4.3). This text data is available to researchers (although additional costs may be involved: please refer to the ALSPAC access policy for further details).

All blood assay results will be available in the mother's sample release file as data becomes available.

fm3sa001 Blood sample fieldworker: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	8	21	.1	.7	.7
	10	314	2.1	10.2	10.8
	11	74	.5	2.4	13.2
	12	311	2.1	10.1	23.3
	13	22	.1	.7	24.0
	14	78	.5	2.5	26.5
	15	327	2.2	10.6	37.1
	16	289	2.0	9.3	46.4
	17	209	1.4	6.8	53.2
	19	107	.7	3.5	56.7
	20	4	.0	.1	56.8
	21	1	.0	.0	56.8
	23	142	1.0	4.6	61.4
	29	324	2.2	10.5	71.9
	30	286	1.9	9.2	81.1
	31	320	2.2	10.3	91.5
	33	199	1.4	6.4	97.9
	40	24	.2	.8	98.7
	41	40	.3	1.3	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

fm3sa005 Taking any form of anti-coagulant: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	22	.1	.7	.7
	2 No	3070	20.9	99.3	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

fm3sa006 Taking any clotting/bleeding meds or are anaemic: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	45	.3	1.5	1.5
	2 No	3046	20.7	98.5	100.0
	Total	3091	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	1	.0		
	Total	11589	78.9		
Total		14680	100.0		

fm3sa008 Taking insulin: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	31	.2	1.0	1.0
	2 No	3058	20.8	99.0	100.0
	Total	3089	21.0	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	3	.0		
	Total	11591	79.0		
Total		14680	100.0		

fm3sa010 Consent to take blood: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	3058	20.8	98.9	98.9
	2 No	34	.2	1.1	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

fm3sa011 Consent to cell-line and DNA: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	269	1.8	8.7	8.7
	2 No	2823	19.2	91.3	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

fm3sa013 Consent to Haemoglobin test: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	3023	20.6	97.8	97.8
	2 No	69	.5	2.2	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

fm3sa014 Consent to be informed if Haemoglobin low: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	3005	20.5	97.2	97.2
	2 No	87	.6	2.8	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

fm3sa015 Consent to glucose test: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	3023	20.6	97.8	97.8
	2 No	69	.5	2.2	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

fm3sa016 Consent to be informed if glucose high: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	2990	20.4	96.7	96.7
	2 No	102	.7	3.3	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

fm3sa017 Consent to have lipids test: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	3023	20.6	97.8	97.8
	2 No	69	.5	2.2	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

fm3sa018 Consent to be informed if lipids out of range: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	2989	20.4	96.7	96.7
	2 No	103	.7	3.3	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

fm3sa019 Consent to have blood sample stored for non-genetic research: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	3015	20.5	97.5	97.5
	2 No	77	.5	2.5	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

fm3sa020 Consent to have hormones measured: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	3024	20.6	97.8	97.8
	2 No	68	.5	2.2	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

fm3sa050a Time last eaten (hour): FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	28	.2	.9	.9
	1	18	.1	.6	1.5
	2	8	.1	.3	1.8
	3	7	.0	.2	2.0
	4	11	.1	.4	2.3
	5	126	.9	4.1	6.5
	6	166	1.1	5.4	11.9
	7	106	.7	3.5	15.3
	8	67	.5	2.2	17.5
	9	30	.2	1.0	18.5
	10	25	.2	.8	19.3
	11	36	.2	1.2	20.5
	12	29	.2	.9	21.4
	13	31	.2	1.0	22.4
	14	9	.1	.3	22.7
	15	8	.1	.3	23.0
	16	3	.0	.1	23.1
	17	20	.1	.7	23.8
	18	123	.8	4.0	27.8
	19	305	2.1	10.0	37.7
	20	524	3.6	17.1	54.8
	21	543	3.7	17.7	72.5
	22	539	3.7	17.6	90.1
	23	303	2.1	9.9	100.0
	Total	3065	20.9	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	27	.2		
	Total	11615	79.1		
Total		14680	100.0		

fm3sa050b Time last eaten (minutes): FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1938	13.2	63.2	63.2
	1	1	.0	.0	63.3
	5	8	.1	.3	63.5
	10	15	.1	.5	64.0
	13	1	.0	.0	64.0
	15	74	.5	2.4	66.5
	19	1	.0	.0	66.5
	20	10	.1	.3	66.8
	30	826	5.6	26.9	93.8
	35	1	.0	.0	93.8
	39	1	.0	.0	93.8
	40	12	.1	.4	94.2
	41	1	.0	.0	94.3
	45	111	.8	3.6	97.9
	50	27	.2	.9	98.8
	55	19	.1	.6	99.4
	58	1	.0	.0	99.4
	59	18	.1	.6	100.0
	Total	3065	20.9	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	27	.2		
	Total	11615	79.1		
Total		14680	100.0		

fm3sa055 CPDA sample taken: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	245	1.7	8.0	8.0
	2 No	2830	19.3	92.0	100.0
	Total	3075	20.9	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	17	.1		
	Total	11605	79.1		
Total		14680	100.0		

fm3sa057 Heparin sample taken: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	2914	19.9	94.2	94.2
	2 No	178	1.2	5.8	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

fm3sa058 EDTA sample taken: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	2924	19.9	94.6	94.6
	2 No	168	1.1	5.4	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

fm3sa060a Time blood sample taken (hour): FOM3

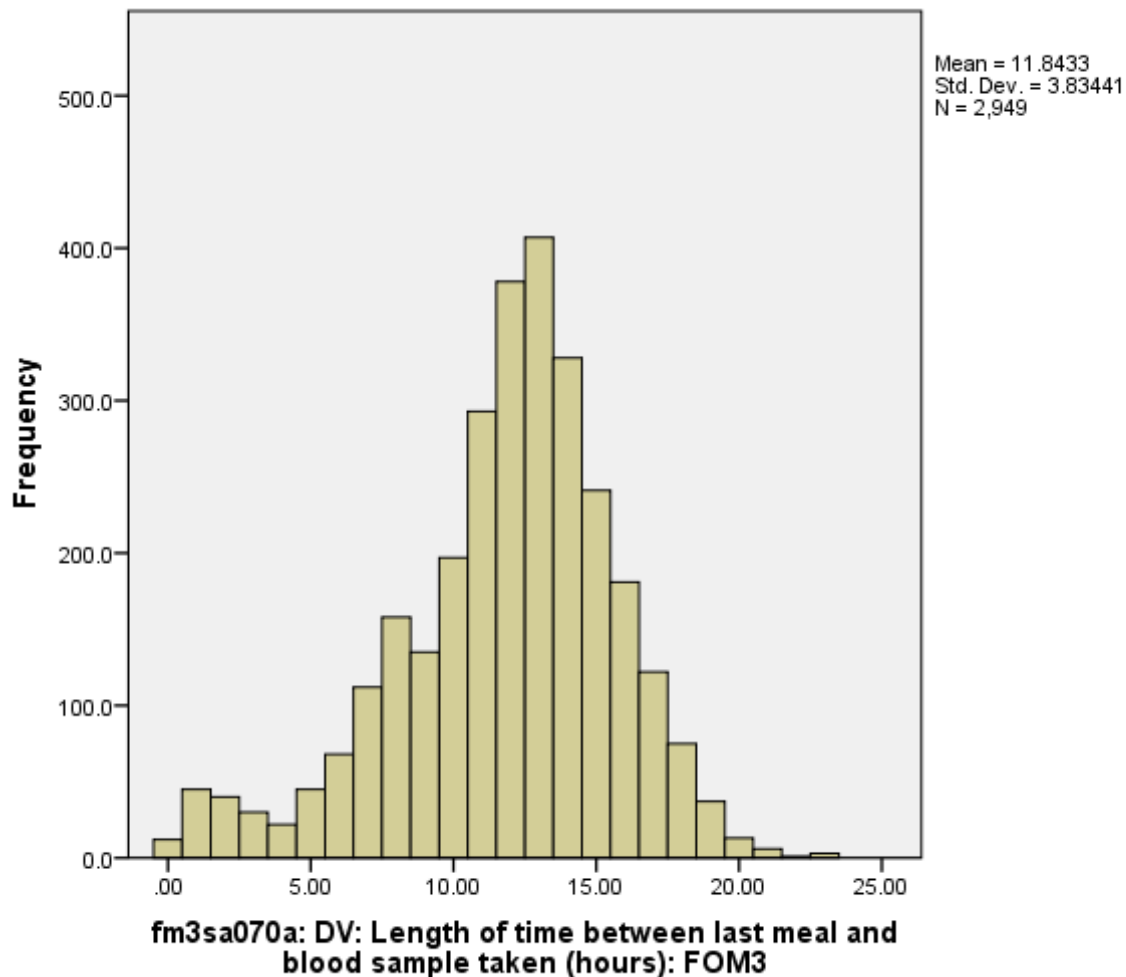
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	7	1	.0	.0	.0
	8	552	3.8	18.7	18.8
	9	467	3.2	15.8	34.6
	10	314	2.1	10.6	45.2
	11	481	3.3	16.3	61.5
	12	311	2.1	10.5	72.1
	13	224	1.5	7.6	79.7
	14	413	2.8	14.0	93.7
	15	148	1.0	5.0	98.7
	16	4	.0	.1	98.8
	17	32	.2	1.1	99.9
	18	2	.0	.1	100.0
	Total	2949	20.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	143	1.0		
	Total	11731	79.9		
Total		14680	100.0		

fm3sa060b Time blood sample taken (minutes): FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	46	.3	1.6	1.6
	1	41	.3	1.4	3.0
	2	53	.4	1.8	4.7
	3	47	.3	1.6	6.3
	4	53	.4	1.8	8.1
	5	40	.3	1.4	9.5
	6	42	.3	1.4	10.9
	7	36	.2	1.2	12.1
	8	54	.4	1.8	14.0
	9	55	.4	1.9	15.8
	10	55	.4	1.9	17.7
	11	53	.4	1.8	19.5
	12	58	.4	2.0	21.5
	13	56	.4	1.9	23.4
	14	50	.3	1.7	25.1
	15	54	.4	1.8	26.9
	16	55	.4	1.9	28.8
	17	49	.3	1.7	30.4
	18	51	.3	1.7	32.1

	19	59	.4	2.0	34.1
	20	73	.5	2.5	36.6
	21	47	.3	1.6	38.2
	22	44	.3	1.5	39.7
	23	54	.4	1.8	41.5
	24	53	.4	1.8	43.3
	25	53	.4	1.8	45.1
	26	66	.4	2.2	47.4
	27	60	.4	2.0	49.4
	28	44	.3	1.5	50.9
	29	41	.3	1.4	52.3
	30	52	.4	1.8	54.1
	31	40	.3	1.4	55.4
	32	46	.3	1.6	57.0
	33	49	.3	1.7	58.6
	34	45	.3	1.5	60.2
	35	43	.3	1.5	61.6
	36	43	.3	1.5	63.1
	37	57	.4	1.9	65.0
	38	48	.3	1.6	66.6
	39	43	.3	1.5	68.1
	40	49	.3	1.7	69.8
	41	38	.3	1.3	71.0
	42	53	.4	1.8	72.8
	43	50	.3	1.7	74.5
	44	35	.2	1.2	75.7
	45	45	.3	1.5	77.2
	46	38	.3	1.3	78.5
	47	44	.3	1.5	80.0
	48	46	.3	1.6	81.6
	49	48	.3	1.6	83.2
	50	50	.3	1.7	84.9
	51	51	.3	1.7	86.6
	52	55	.4	1.9	88.5
	53	43	.3	1.5	90.0
	54	56	.4	1.9	91.9
	55	47	.3	1.6	93.5
	56	47	.3	1.6	95.0
	57	44	.3	1.5	96.5
	58	42	.3	1.4	98.0
	59	60	.4	2.0	100.0
	Total	2949	20.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	143	1.0		
	Total	11731	79.9		
Total		14680	100.0		

The time that the Mother last ate is recorded in fm3sa050a (hour) and fm3sa050b (minutes) and the time that the samples were taken is recorded in fm3sa060a (hour) and fm3sa060b (minutes). These were used to create three new derived variables; the first two detail the length of time between last meal and bloods sample in hours (fm3sa070a) and minutes (fm3sa070b), while the other is a binary variable stating whether the length of time was over eight hours or not (fm3sa071).



fm3sa070b DV: Length of time between last meal and blood sample taken (minutes): FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	58	.4	2.0	2.0
	1	40	.3	1.4	3.3
	2	49	.3	1.7	5.0
	3	52	.4	1.8	6.7
	4	36	.2	1.2	8.0
	5	42	.3	1.4	9.4
	6	42	.3	1.4	10.8
	7	39	.3	1.3	12.1
	8	55	.4	1.9	14.0
	9	62	.4	2.1	16.1
	10	55	.4	1.9	18.0
	11	47	.3	1.6	19.6
	12	59	.4	2.0	21.6

	13	49	.3	1.7	23.2
	14	55	.4	1.9	25.1
	15	51	.3	1.7	26.8
	16	54	.4	1.8	28.7
	17	52	.4	1.8	30.4
	18	46	.3	1.6	32.0
	19	58	.4	2.0	33.9
	20	66	.4	2.2	36.2
	21	42	.3	1.4	37.6
	22	50	.3	1.7	39.3
	23	54	.4	1.8	41.1
	24	50	.3	1.7	42.8
	25	54	.4	1.8	44.7
	26	65	.4	2.2	46.9
	27	60	.4	2.0	48.9
	28	49	.3	1.7	50.6
	29	46	.3	1.6	52.1
	30	34	.2	1.2	53.3
	31	40	.3	1.4	54.6
	32	47	.3	1.6	56.2
	33	46	.3	1.6	57.8
	34	56	.4	1.9	59.7
	35	43	.3	1.5	61.1
	36	45	.3	1.5	62.7
	37	53	.4	1.8	64.5
	38	41	.3	1.4	65.9
	39	42	.3	1.4	67.3
	40	46	.3	1.6	68.8
	41	41	.3	1.4	70.2
	42	51	.3	1.7	72.0
	43	50	.3	1.7	73.7
	44	33	.2	1.1	74.8
	45	51	.3	1.7	76.5
	46	44	.3	1.5	78.0
	47	40	.3	1.4	79.3
	48	45	.3	1.5	80.9
	49	57	.4	1.9	82.8
	50	54	.4	1.8	84.6
	51	52	.4	1.8	86.4
	52	51	.3	1.7	88.1
	53	48	.3	1.6	89.8
	54	51	.3	1.7	91.5
	55	49	.3	1.7	93.2
	56	48	.3	1.6	94.8
	57	54	.4	1.8	96.6
	58	44	.3	1.5	98.1
	59	56	.4	1.9	100.0
	Total	2949	20.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	143	1.0		
	Total	11731	79.9		
Total		14680	100.0		

fm3sa071 DV: Blood sample taken less than eight hours after last meal: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	374	2.5	12.7	12.7
	2 No	2575	17.5	87.3	100.0
	Total	2949	20.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	143	1.0		
	Total	11731	79.9		
Total		14680	100.0		

fm3sa061 Problems taking blood: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	313	2.1	10.4	10.4
	2 No	2707	18.4	89.6	100.0
	Total	3020	20.6	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	72	.5		
	Total	11660	79.4		
Total		14680	100.0		

fm3sa063 Arm used for blood sample: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Left	1465	10.0	52.0	52.0
	2 Right	1354	9.2	48.0	100.0
	Total	2819	19.2	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	273	1.9		
	Total	11861	80.8		
Total		14680	100.0		

fm3sa068 Taking any medications: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	1794	12.2	58.3	58.3
	2 No	1282	8.7	41.7	100.0
	Total	3076	21.0	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	16	.1		
	Total	11604	79.0		
Total		14680	100.0		

fm3sa069 Any allergies: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	1082	7.4	35.7	35.7
	2 No	1946	13.3	64.3	100.0
	Total	3028	20.6	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	64	.4		
	Total	11652	79.4		
Total		14680	100.0		

Derived text medications data

Diabetes medication (fm3sa210) was derived using the following protocol:

- Searching for medications (including misspellings) listed on the British National Formulary (BNF) website (<https://www.bnf.org/>) for the treatment of diabetes being taken by the Mother.
- Searching for 'diabetes' (or related terms, including misspellings) as a reason for the Mother taking a medication.
- Checking each case where drug and reason did not match up (e.g., taking a drug listed by the BNF as for diabetes, yet not giving diabetes as a reason for taking this medication; or taking a drug for diabetes, yet the drug was not listed on the BNF website as treating diabetes).
- Creating a final variable of individuals who were taking diabetes medication because of diabetes.

fm3sa210 DV: Currently taking diabetes medication: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 No	3028	20.6	98.4	98.4
	1 Yes	48	.3	1.6	100.0
	Total	3076	21.0	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	16	.1		
	Total	11604	79.0		
Total		14680	100.0		

2.6 Hormone use and menstruation

Data was collected on women's use of oral contraceptives, contraceptive injections, and Hormone Replacement Therapy (HRT). The fieldworker asked the women directly and entered the responses into the computer. In addition, the women asked whether they had a period in the last 12 months, when their last period occurred, and the reason their periods had stopped (if they had stopped).

fm3ob100 Currently taking oral contraceptives: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	119	.8	3.8	3.8
	2 No	2973	20.3	96.2	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

fm3ob100a How long participant been taking oral contraceptives (years): FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	6	.0	5.2	5.2
	1	3	.0	2.6	7.8
	2	4	.0	3.5	11.3
	3	5	.0	4.3	15.7
	4	2	.0	1.7	17.4
	5	7	.0	6.1	23.5
	6	11	.1	9.6	33.0
	7	1	.0	.9	33.9
	8	3	.0	2.6	36.5
	9	3	.0	2.6	39.1
	10	5	.0	4.3	43.5
	11	2	.0	1.7	45.2
	12	1	.0	.9	46.1
	13	2	.0	1.7	47.8
	15	6	.0	5.2	53.0
	18	1	.0	.9	53.9
	19	2	.0	1.7	55.7
	20	11	.1	9.6	65.2
	21	3	.0	2.6	67.8
	22	3	.0	2.6	70.4
	24	1	.0	.9	71.3
	25	3	.0	2.6	73.9
	26	2	.0	1.7	75.7
	27	1	.0	.9	76.5
	28	2	.0	1.7	78.3
	30	14	.1	12.2	90.4
	32	2	.0	1.7	92.2
	33	2	.0	1.7	93.9
	34	1	.0	.9	94.8
	35	2	.0	1.7	96.5
	36	1	.0	.9	97.4
	37	2	.0	1.7	99.1
	50	1	.0	.9	100.0
	Total	115	.8	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	2977	20.3		
	Total	14565	99.2		
Total		14680	100.0		

fm3ob100b How long participant been taking oral contraceptives (months): FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	39	.3	67.2	67.2
	1	3	.0	5.2	72.4
	2	2	.0	3.4	75.9
	3	5	.0	8.6	84.5
	4	2	.0	3.4	87.9
	6	5	.0	8.6	96.6
	7	1	.0	1.7	98.3
	9	1	.0	1.7	100.0
	Total	58	.4	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	3034	20.7		
	Total	14622	99.6		
Total		14680	100.0		

fm3ob101 Currently using contraceptive injection: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	31	.2	1.0	1.0
	2 No	3061	20.9	99.0	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

fm3ob101a How long participant been using contraceptive injections (years): FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1	.0	3.4	3.4
	1	6	.0	20.7	24.1
	2	2	.0	6.9	31.0
	3	3	.0	10.3	41.4
	4	3	.0	10.3	51.7
	6	1	.0	3.4	55.2
	7	3	.0	10.3	65.5
	10	4	.0	13.8	79.3
	11	1	.0	3.4	82.8
	12	1	.0	3.4	86.2
	17	1	.0	3.4	89.7
	18	1	.0	3.4	93.1
	20	2	.0	6.9	100.0
	Total	29	.2	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	3063	20.9		
	Total	14651	99.8		
Total		14680	100.0		

fm3ob101b How long participant been using contraceptive injections (months): FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	9	.1	47.4	47.4
	1	1	.0	5.3	52.6
	2	1	.0	5.3	57.9
	3	1	.0	5.3	63.2
	4	1	.0	5.3	68.4
	5	1	.0	5.3	73.7
	6	3	.0	15.8	89.5
	7	1	.0	5.3	94.7
	10	1	.0	5.3	100.0
	Total	19	.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	3073	20.9		
	Total	14661	99.9		
Total		14680	100.0		

fm3ob102 Currently using hormonal coil: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	410	2.8	13.3	13.3
	2 No	2682	18.3	86.7	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

fm3ob102a How long participant been using hormonal coil (years): FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	13	.1	3.3	3.3
	1	31	.2	7.8	11.0
	2	45	.3	11.3	22.3
	3	47	.3	11.8	34.0
	4	45	.3	11.3	45.3
	5	40	.3	10.0	55.3
	6	17	.1	4.3	59.5
	7	25	.2	6.3	65.8
	8	24	.2	6.0	71.8
	9	11	.1	2.8	74.5
	10	36	.2	9.0	83.5
	11	12	.1	3.0	86.5
	12	6	.0	1.5	88.0
	13	4	.0	1.0	89.0
	14	8	.1	2.0	91.0
	15	19	.1	4.8	95.8
	16	4	.0	1.0	96.8
	17	4	.0	1.0	97.8
	18	4	.0	1.0	98.8
	20	3	.0	.8	99.5
	21	1	.0	.3	99.8
	23	1	.0	.3	100.0
	Total	400	2.7	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	2692	18.3		
	Total	14280	97.3		
Total		14680	100.0		

fm3ob102b How long participant been using hormonal coil (months): FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	119	.8	48.4	48.4
	1	7	.0	2.8	51.2
	2	12	.1	4.9	56.1
	3	7	.0	2.8	58.9
	4	2	.0	.8	59.8
	5	4	.0	1.6	61.4
	6	50	.3	20.3	81.7
	7	4	.0	1.6	83.3
	8	11	.1	4.5	87.8
	9	10	.1	4.1	91.9
	10	14	.1	5.7	97.6
	11	6	.0	2.4	100.0
	Total	246	1.7	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	2846	19.4		
	Total	14434	98.3		
Total		14680	100.0		

fm3ob110a Currently taking hormone replacement therapy - tablets: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	140	1.0	4.5	4.5
	2 No	2952	20.1	95.5	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

fm3ob110b Currently taking hormone replacement therapy - patches: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	27	.2	.9	.9
	2 No	3065	20.9	99.1	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

fm3ob110c Currently taking hormone replacement therapy - cream: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	52	.4	1.7	1.7
	2 No	3040	20.7	98.3	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

fm3ob110d How long participant been using hormone replacement therapy (years): FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	31	.2	18.2	18.2
	1	30	.2	17.6	35.9
	2	26	.2	15.3	51.2
	3	21	.1	12.4	63.5
	4	11	.1	6.5	70.0
	5	14	.1	8.2	78.2
	6	8	.1	4.7	82.9
	7	3	.0	1.8	84.7
	8	2	.0	1.2	85.9
	9	4	.0	2.4	88.2
	10	9	.1	5.3	93.5
	12	3	.0	1.8	95.3
	13	1	.0	.6	95.9
	16	1	.0	.6	96.5
	17	1	.0	.6	97.1
	20	2	.0	1.2	98.2
	24	2	.0	1.2	99.4
	30	1	.0	.6	100.0
	Total	170	1.2	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	2922	19.9		
	Total	14510	98.8		
Total		14680	100.0		

fm3ob110e How long participant been using hormone replacement therapy (months): FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	41	.3	27.9	27.9
	1	13	.1	8.8	36.7
	2	17	.1	11.6	48.3
	3	12	.1	8.2	56.5
	4	2	.0	1.4	57.8
	5	2	.0	1.4	59.2
	6	33	.2	22.4	81.6
	7	4	.0	2.7	84.4
	8	5	.0	3.4	87.8
	9	7	.0	4.8	92.5
	10	7	.0	4.8	97.3
	11	4	.0	2.7	100.0
	Total	147	1.0	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	2945	20.1		
	Total	14533	99.0		
Total		14680	100.0		

fm3ob120 Had a period/menstrual bleeding in the previous 12 months: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	1434	9.8	46.5	46.5
	2 No	1649	11.2	53.5	100.0
	Total	3083	21.0	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	9	.1		
	Total	11597	79.0		
Total		14680	100.0		

fm3ob121 Reason why periods stopped: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Hysterectomy	216	1.5	12.8	12.8
	2 Chemotherapy or radiation therapy	43	.3	2.5	15.3
	4 Menopause	1071	7.3	63.4	78.7
	5 Hormonal coil	237	1.6	14.0	92.7
	6 Other	123	.8	7.3	100.0
	Total	1690	11.5	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	1402	9.6		
	Total	12990	88.5		
Total		14680	100.0		

fm3ob125 Year participants periods stopped: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1990	4	.0	.2	.2
	1991	2	.0	.1	.3
	1992	7	.0	.4	.7
	1993	19	.1	1.0	1.7
	1994	11	.1	.6	2.3
	1995	14	.1	.8	3.1
	1996	16	.1	.9	4.0
	1997	22	.1	1.2	5.2
	1998	22	.1	1.2	6.4
	1999	28	.2	1.5	7.9
	2000	40	.3	2.2	10.1
	2001	27	.2	1.5	11.6
	2002	35	.2	1.9	13.5
	2003	106	.7	5.8	19.3
	2004	77	.5	4.2	23.5
	2005	86	.6	4.7	28.2
	2006	97	.7	5.3	33.5
	2007	95	.6	5.2	38.7
	2008	132	.9	7.2	45.9
	2009	141	1.0	7.7	53.6
	2010	192	1.3	10.5	64.1
	2011	257	1.8	14.0	78.1
	2012	225	1.5	12.3	90.4
	2013	163	1.1	8.9	99.3
	2014	13	.1	.7	100.0
	Total	1831	12.5	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	1261	8.6		
	Total	12849	87.5		
Total		14680	100.0		

fm3ob126 Period/menstrual bleeding in last 3 months: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	1191	8.1	49.5	49.5
	2 No	1217	8.3	50.5	100.0
	Total	2408	16.4	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	684	4.7		
	Total	12272	83.6		
Total		14680	100.0		

fm3ob123 Day of last period: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	116	.8	8.7	8.7
	2	31	.2	2.3	11.0
	3	55	.4	4.1	15.1
	4	43	.3	3.2	18.3
	5	43	.3	3.2	21.5
	6	40	.3	3.0	24.5
	7	45	.3	3.4	27.8
	8	44	.3	3.3	31.1
	9	27	.2	2.0	33.1
	10	40	.3	3.0	36.1
	11	38	.3	2.8	38.9
	12	39	.3	2.9	41.8
	13	41	.3	3.1	44.9
	14	41	.3	3.1	47.9
	15	99	.7	7.4	55.3
	16	32	.2	2.4	57.7
	17	22	.1	1.6	59.4
	18	33	.2	2.5	61.8
	19	37	.3	2.8	64.6
	20	57	.4	4.3	68.8
	21	36	.2	2.7	71.5
	22	26	.2	1.9	73.5
	23	35	.2	2.6	76.1
	24	41	.3	3.1	79.1
	25	54	.4	4.0	83.1
	26	46	.3	3.4	86.6
	27	51	.3	3.8	90.4
	28	37	.3	2.8	93.1
	29	29	.2	2.2	95.3
	30	37	.3	2.8	98.1
	31	26	.2	1.9	100.0
	Total	1341	9.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	1751	11.9		
	Total	13339	90.9		
Total		14680	100.0		

fm3ob124 Month of last period: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	108	.7	7.8	7.8
	2	139	.9	10.1	17.9
	3	153	1.0	11.1	29.0
	4	123	.8	8.9	37.9
	5	148	1.0	10.7	48.6
	6	141	1.0	10.2	58.8
	7	141	1.0	10.2	69.1
	8	110	.7	8.0	77.0
	9	83	.6	6.0	83.0
	10	73	.5	5.3	88.3
	11	86	.6	6.2	94.6
	12	75	.5	5.4	100.0
	Total	1380	9.4	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	1712	11.7		
	Total	13300	90.6		
Total		14680	100.0		

fm3ob124a Year of last period: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1997	1	.0	.1	.1
	1999	1	.0	.1	.1
	2000	1	.0	.1	.2
	2001	1	.0	.1	.3
	2003	1	.0	.1	.4
	2004	1	.0	.1	.4
	2005	2	.0	.1	.6
	2008	2	.0	.1	.7
	2009	2	.0	.1	.9
	2010	7	.0	.5	1.4
	2011	10	.1	.7	2.1
	2012	83	.6	6.0	8.1
	2013	1070	7.3	77.1	85.2
	2014	205	1.4	14.8	100.0
	Total	1387	9.4	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	1705	11.6		
	Total	13293	90.6		
Total		14680	100.0		

fm3ob130 Periods are regular: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes, occur every 28-30 days	481	3.3	23.6	23.6
	2 Yes, occur less than every 28 days	139	.9	6.8	30.4
	3 Yes, occur more than every 30 days	68	.5	3.3	33.7
	4 No	1351	9.2	66.3	100.0
	Total	2039	13.9	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	1053	7.2		
	Total	12641	86.1		
Total		14680	100.0		

fm3ob131 Periods have changed in last 12 months: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 No	1301	8.9	64.6	64.6
	2 Yes, stayed regular but occur more frequently	93	.6	4.6	69.2
	3 Yes, stayed regular but occur less frequently	82	.6	4.1	73.3
	4 Yes, have become irregular	539	3.7	26.7	100.0
	Total	2015	13.7	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	1077	7.3		
	Total	12665	86.3		
Total		14680	100.0		

2.7 Blood Pressure

Blood pressure and pulse readings were measured using an Omron M6 upper arm BP/Pulse monitor. BP was measured twice for both seated and standing, while pulse was measured twice seated. Means are given for both seated and standing.

fm3bp001 Blood pressure fieldworker: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	8	24	.2	.8	.8
	10	316	2.2	10.2	11.0
	11	86	.6	2.8	13.8
	12	304	2.1	9.8	23.6
	13	25	.2	.8	24.4
	14	76	.5	2.5	26.9
	15	300	2.0	9.7	36.6
	16	295	2.0	9.5	46.1
	17	235	1.6	7.6	53.7
	19	94	.6	3.0	56.8
	20	4	.0	.1	56.9
	23	141	1.0	4.6	61.4
	29	331	2.3	10.7	72.2
	30	300	2.0	9.7	81.9
	31	287	2.0	9.3	91.1
	33	188	1.3	6.1	97.2
	40	32	.2	1.0	98.3
	41	54	.4	1.7	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

fm3bp002 Consent for blood pressure: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	3083	21.0	99.7	99.7
	2 No	9	.1	.3	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

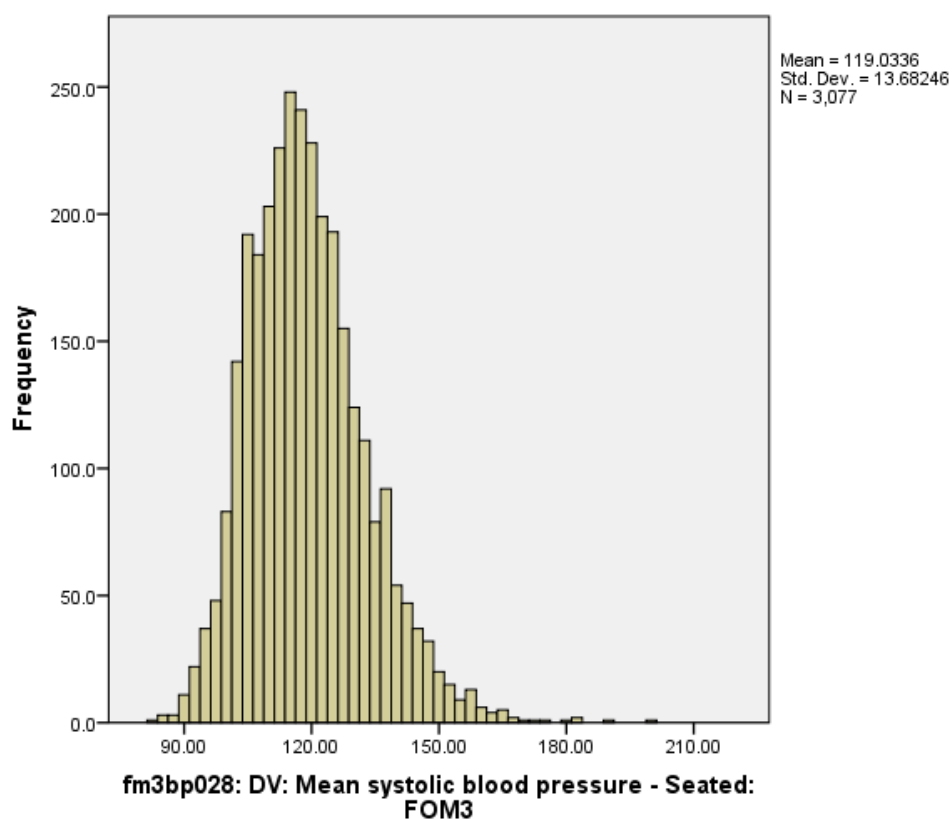
fm3bp003 Consent to be informed if BP high: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	3078	21.0	99.5	99.5
	2 No	14	.1	.5	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

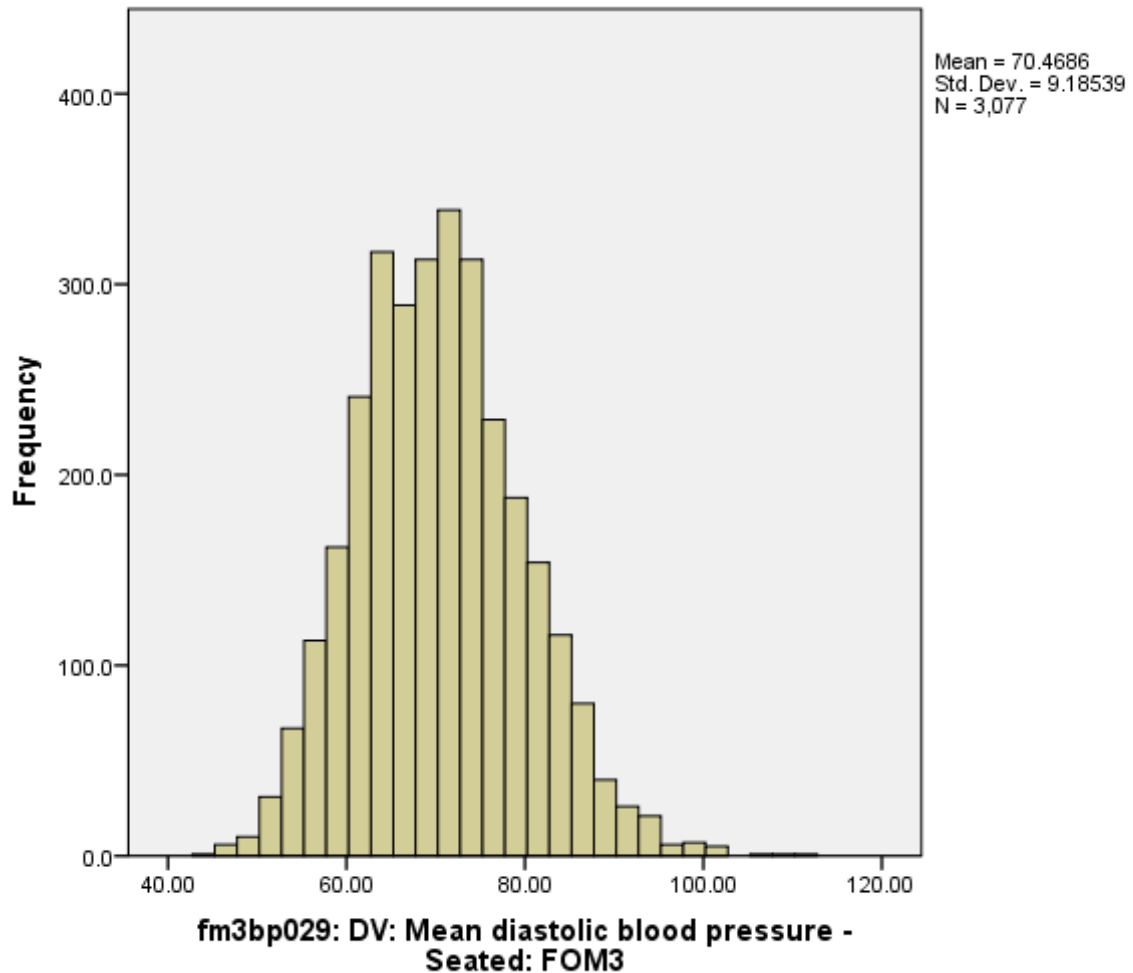
fm3bp010 Arm used for BP: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Right	3019	20.6	98.0	98.0
	2 Left	61	.4	2.0	100.0
	Total	3080	21.0	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	12	.1		
	Total	11600	79.0		
Total		14680	100.0		

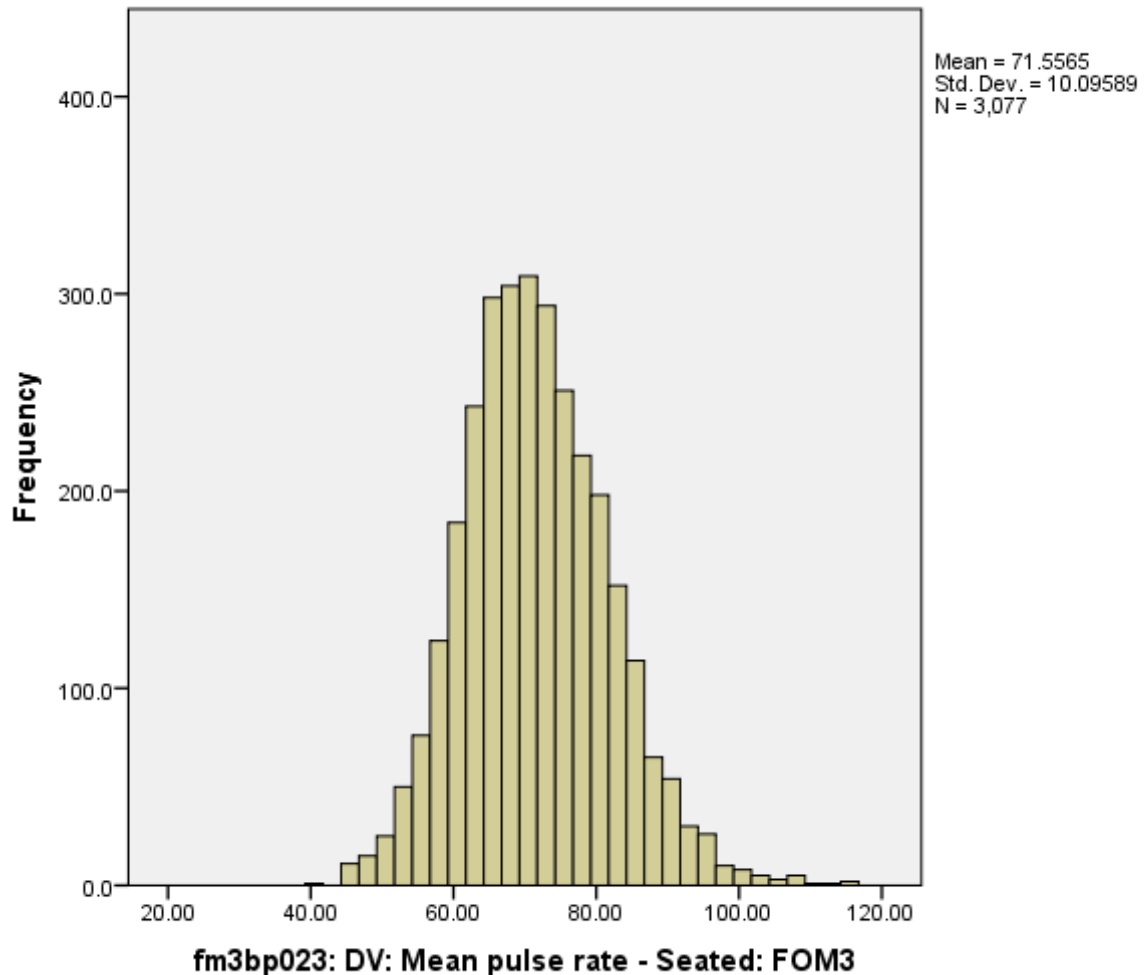
The two measures for seated systolic blood pressure are variables fm3bp020 and fm3bp025. Only the derived variable (fm3bp028) is displayed here: this was calculated as the mean of these two measures: $(fm3bp020 + fm3bp025)/2$. [If only one measure was taken, that one was used].



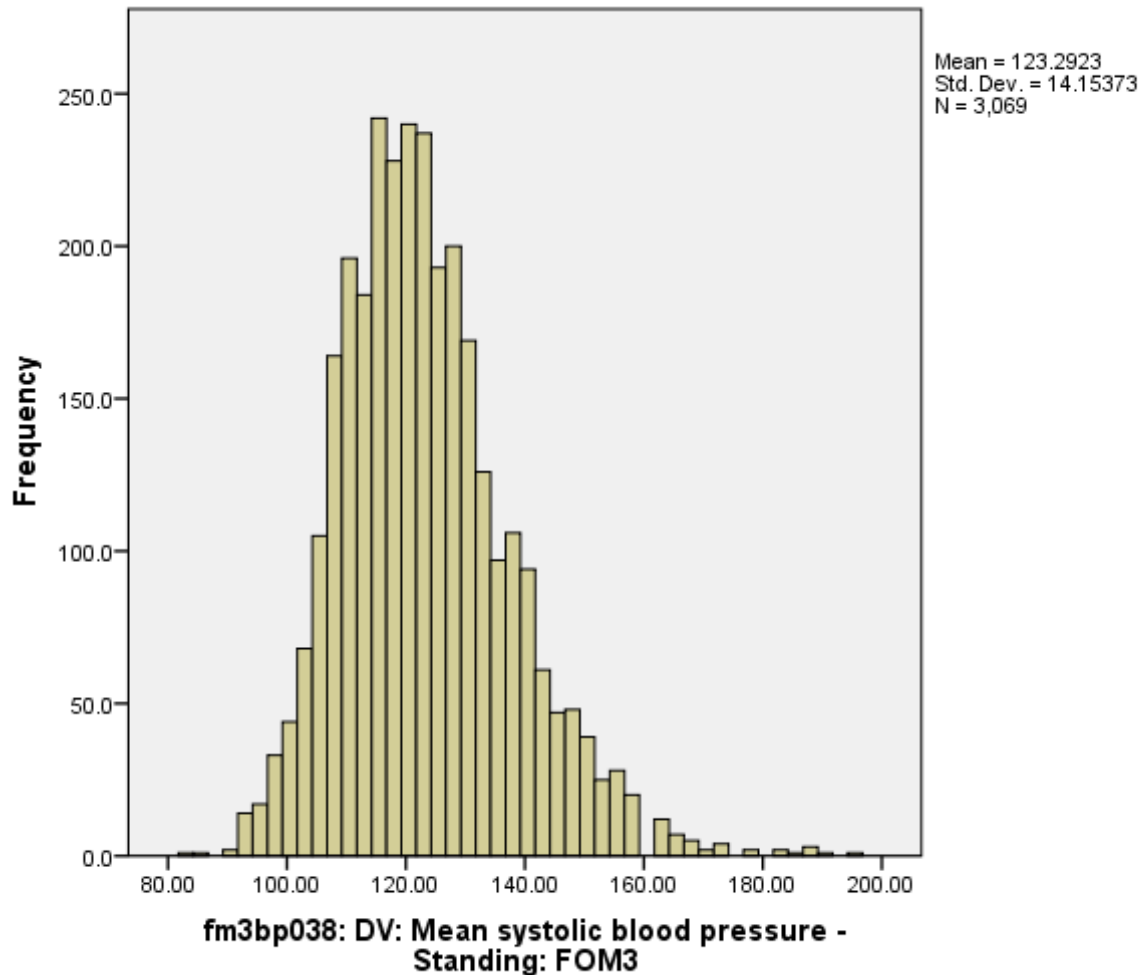
The two measures for seated diastolic blood pressure are variables fm3bp021 and fm3bp026. Only the derived variable (fm3bp029) is displayed here: this was calculated as the mean of these two measures: $(fm3bp021 + fm3bp026)/2$. [If only one measure was taken, that one was used].



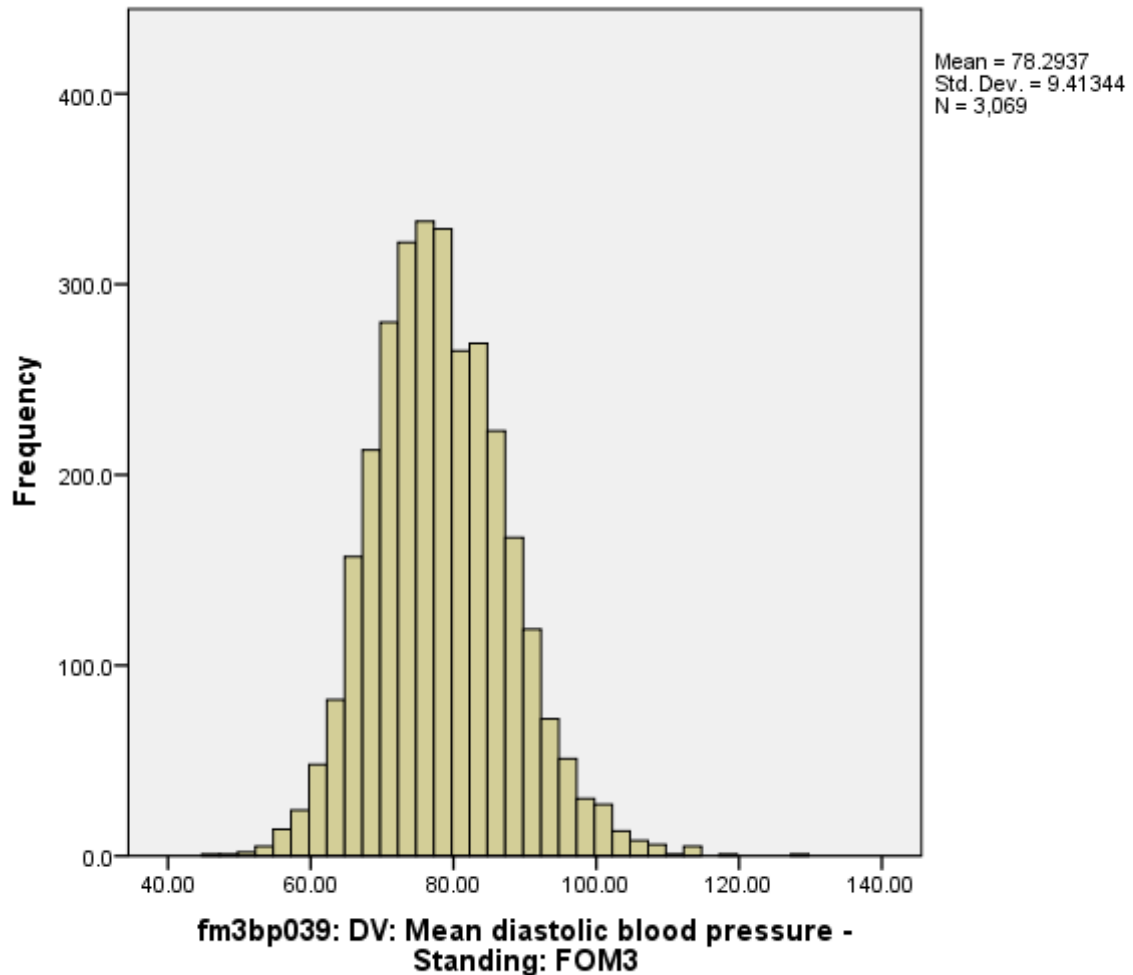
The two measures for pulse rate (beats per minute) are variables fm3bp022 and fm3bp027. Only the derived variable (fm3bp023) is displayed here: this was calculated as the mean of these two measures: $(fm3bp022 + fm3bp027)/2$. [If only one measure was taken, that one was used].



The two measures for standing systolic blood pressure are variables fm3bp030 and fm3bp035. Only the derived variable (fm3bp038) is displayed here: this was calculated as the mean of these two measures: $(fm3bp030 + fm3bp035)/2$. [If only one measure was taken, that one was used].



The two measures for seated diastolic blood pressure are variables fm3bp031 and fm3bp036. Only the derived variable (fm3bp039) is displayed here: this was calculated as the mean of these two measures: $(fm3bp031 + fm3bp036)/2$. [If only one measure was taken, that one was used].



2.8 Physical Tests

The tests were conducted in accordance with the following procedure instruction sheet:

Timed 3 Metre Walk

1. Instruct the SP (study person) to stand with their toes positioned directly behind the black tape on the line on the floor.
2. Explain to the SP that they are to walk until they have crossed the second black tape line on the floor.
3. Instruct them to walk at their usual pace.
4. On the word "GO" they walk and the FW starts the stopwatch.
5. The FW (fieldworker) walks alongside them and then stops the stopwatch when the SP's foot touches or crosses the second line. The foot could be mid-air when it crosses the line.
6. Record this time in the box on the Access direct data entry database.

Chair Rises

1. Ensure that the SP is wearing sensible flat shoes.
2. Seat the participant in an armless chair with back support ensuring that the same chair is used each time.
3. Instruct the SP to fold their arms across their chest.
4. For practice, ask the SP to rise from a sitting position to a straight-legged fully standing position, keeping their arms folded. The SP should stand up as straight as possible, so that their back is upright and their knees are not bent. Where this is not possible, SP should be encouraged to get to their normal standing position.
5. After successful completion of the practice go, explain to the SP that on the word "GO" they are to stand up and sit back down as practiced, ten times. Between each rise the SP must sit back down fully with their back supported against the back of the chair. Explain that we would like them to do this as quickly as possible and that they will be timed.
6. Count each successful completion out loud for the SP x 10.
7. Stop the stopwatch when the SP is seated back in the chair on the final descent, with arms remaining folded and back supported by the chair.
8. Record this time in the box on the Access direct data entry database.

Assessment of Grip Strength

1. Sit the SP comfortably in a standard chair with legs, back support and fixed arms. Use the same chair for every measurement.
2. Ask them to rest their forearms on the arms of the chair with the wrists just over the end of the arms of the chair – wrists in a neutral position, thumbs facing upwards.
3. Demonstrate how to use the Jamar handgrip dynamometer to show that gripping very tightly registers the best score.
4. Start with the right hand.
5. Position the hand so that the thumb is round one side of the handle and the four fingers are around the other side. The instrument should feel comfortable in the hand. Alter the position of the handle if necessary. One can usually observe if the SP is uncomfortable.
6. The FW should rest the base of the dynamometer on the palm of their hand as the SP holds the dynamometer. The aim of this is to support the weight of the dynamometer, but care should be taken not to restrict its movement.

7. Encourage the SP to squeeze as long and as tightly as possible or until the needle stops rising. Once the needle stops rising, the SP can be instructed to stop squeezing.
8. Read grip strength in kilograms from the outside dial and record the result to the nearest 1kg on the data entry sheet.
9. Repeat measurement in the left hand.
10. Do two further measurements for each hand alternating sides to give 2 readings in total for each side.
11. The best of the four grip strength measurements is used in statistical analyses to encourage the SP to get as high a score as possible.
12. Also record hand dominance, i.e. right, left or ambidextrous (people who can **genuinely** write with both hands).

One Legged Stands

Eyes open

1. Ensure that the SP is wearing sensible flat shoes.
2. Remove all obstacles immediately surrounding the SP except for a table.
3. Explain to the SP that she will be standing on one leg and that it will be timed (without mentioning how long they will be timed for).
4. Instruct the SP to stand next to the table and grab it at any time they feel unbalanced. The FW should stand at the other side to also act as support should the SP need it.
5. Ask the SP to remain vertical during the stand and to stare straight ahead. Their arms should remain straight down by their sides.
6. Ask the SP to take a short time to choose a leg (but not to practise) and then to raise it off the floor to ankle height. The SP should bend the leg and the foot should be relaxed at ankle level. The stop watch should be started as the foot is raised and continued until the SP loses their balance and drops their foot, or has to reach out to the table for support.
7. Record this time on the Access direct data entry database.
8. If the SP remains on one leg for longer than 30 seconds instruct them to stop and record 30 seconds on the database.

Eyes shut

9. Repeat steps 3 – 7, but ask the SP to close her eyes for this second balance.
10. Record the time on the Access direct data entry database.

fm3pt001 Had physical tests: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	3066	20.9	99.3	99.3
	2 No	23	.2	.7	100.0
	Total	3089	21.0	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	3	.0		
	Total	11591	79.0		
Total		14680	100.0		

fm3pt002 Consent to have physical tests: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	3082	21.0	99.7	99.7
	2 No	10	.1	.3	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

2.8.1 Grip Strength

Average grip strength and maximum grip strength were calculated for the right hand, the left hand, and both hands combined. Right hand values are variables fm3pt012 (1st measure) and fm3pt014 (2nd measure), while left hand values are variables fm3pt013 (1st measure) and fm3pt015 (2nd measure). Hand dominance was also noted.

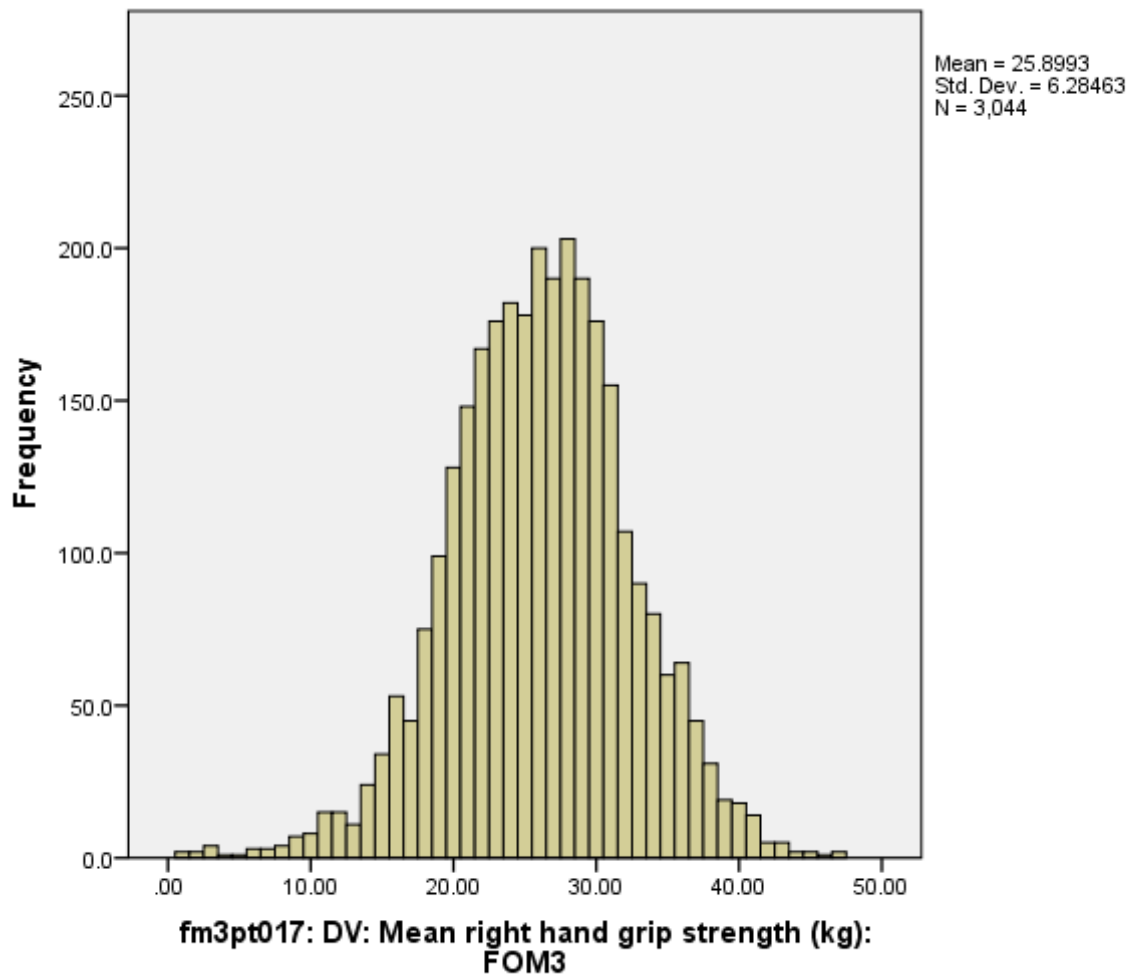
fm3pt010 Able to perform hand grip test: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	3024	20.6	98.6	98.6
	2 No	43	.3	1.4	100.0
	Total	3067	20.9	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	25	.2		
	Total	11613	79.1		
Total		14680	100.0		

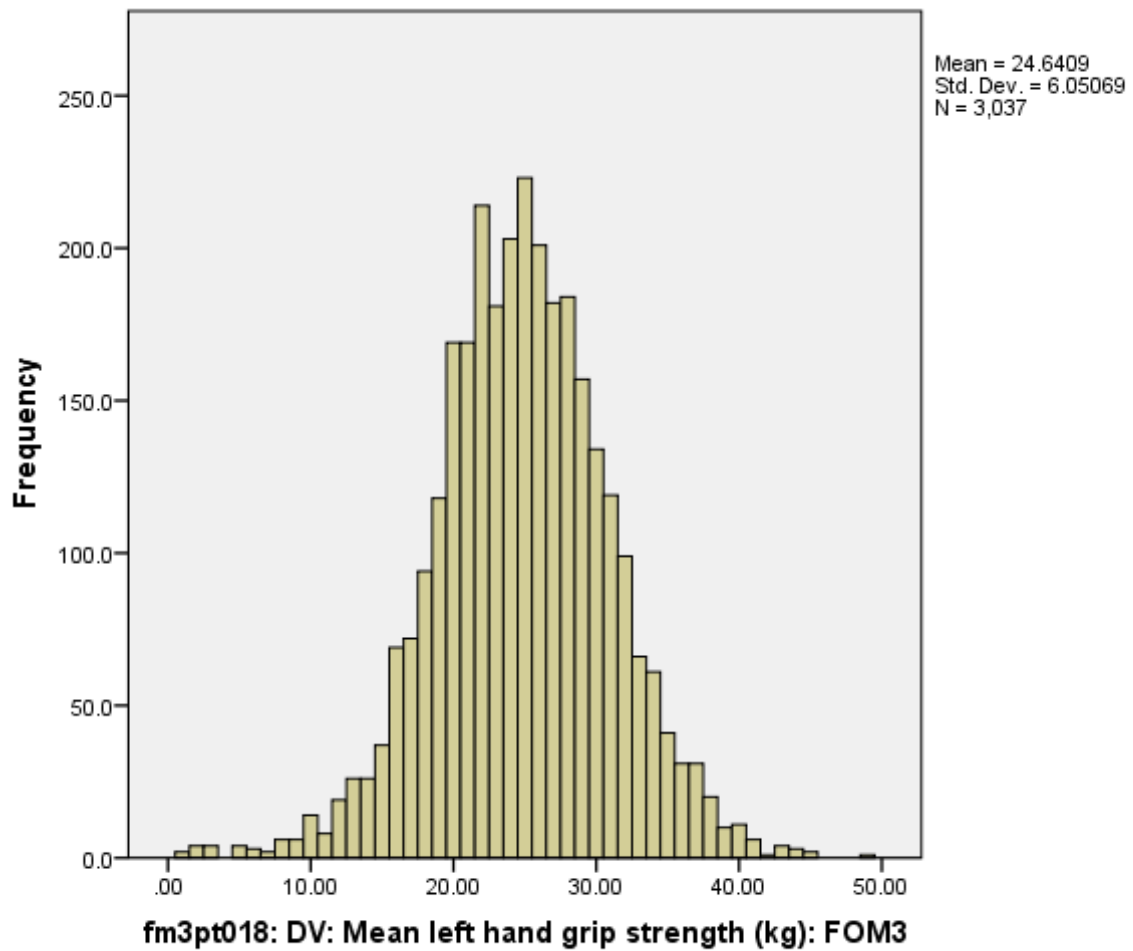
fm3pt016 Hand mostly write with: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Left	307	2.1	10.0	10.0
	2 Right	2761	18.8	89.6	99.6
	3 Ambidextrous	13	.1	.4	100.0
	Total	3081	21.0	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	11	.1		
	Total	11599	79.0		
Total		14680	100.0		

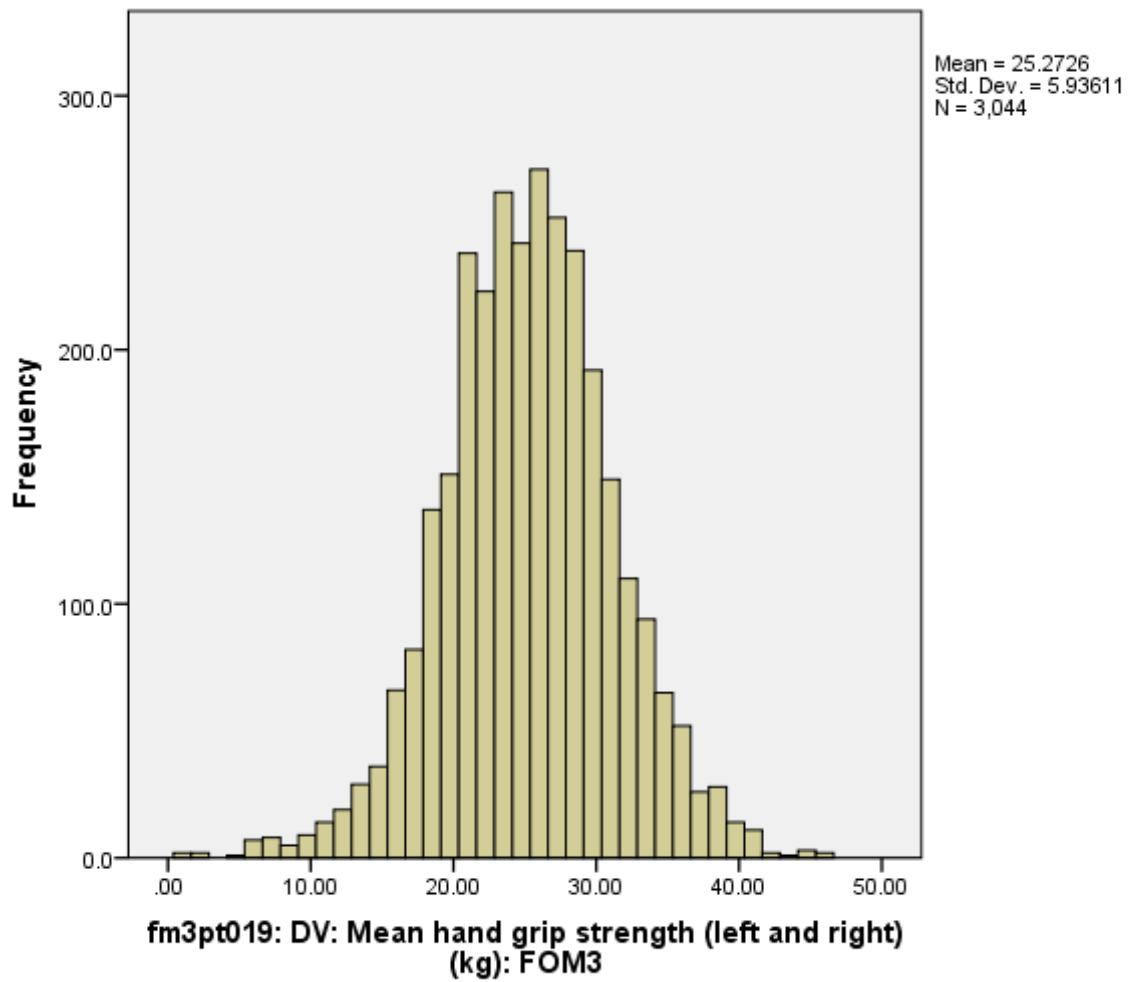
Derived variable (fm3pt017) – Mean of right hand grip measurements:
(fm3pt012+fm3pt014)/2. [If only one measure was taken, that one was used].



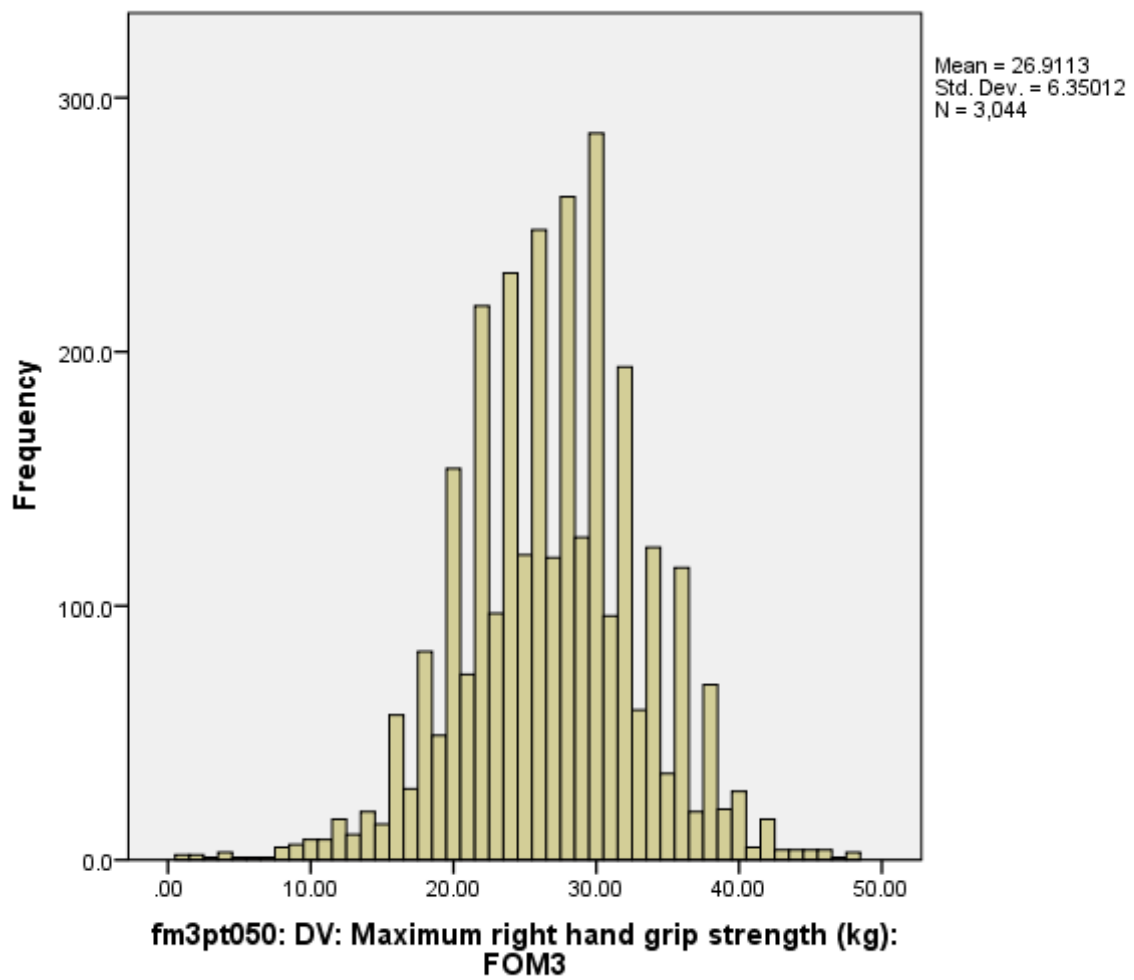
Derived variable (fm3pt018) – Mean of left hand grip measurements:
(fm3pt013+fm3pt015)/2. [If only one measure was taken, that one was used].



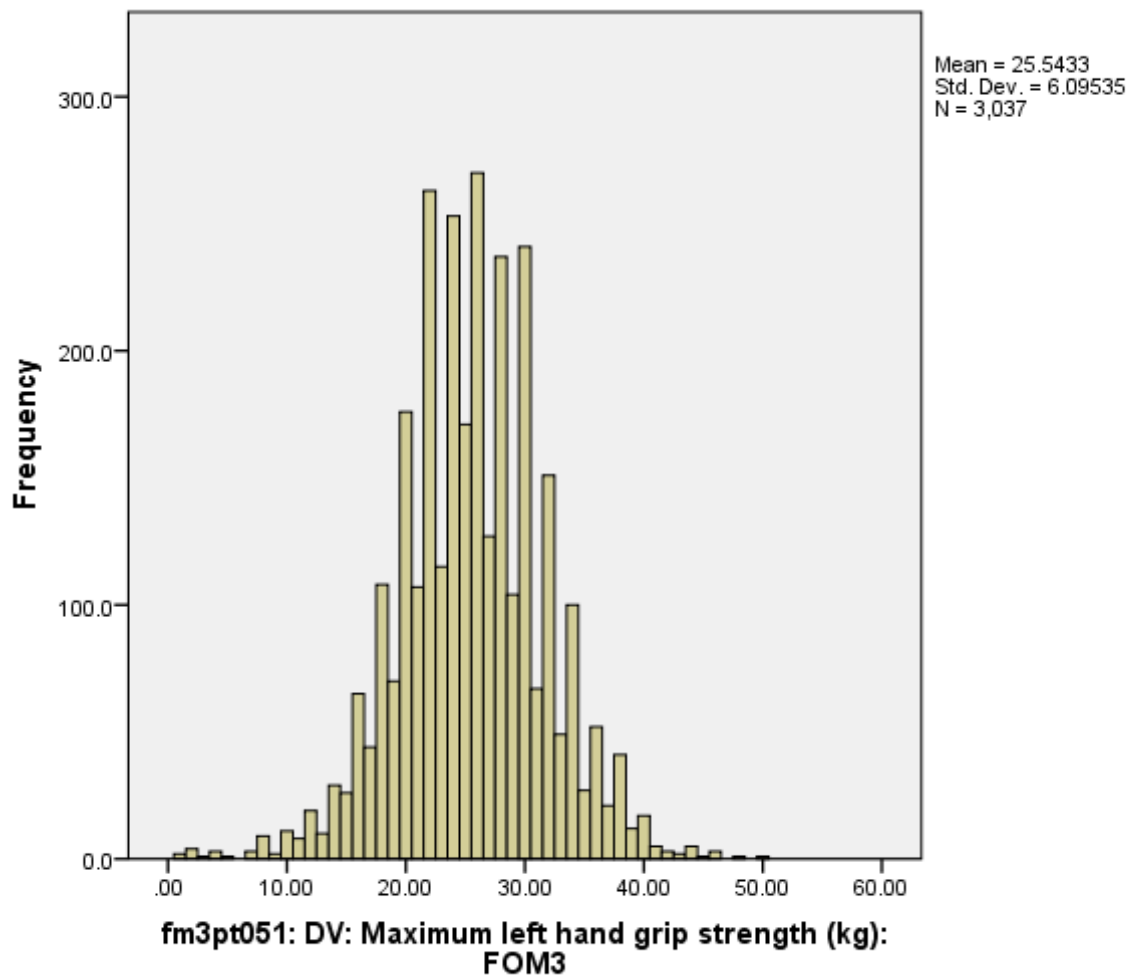
Derived variable (fm3pt019) – Mean of all hand grip measurements (both hands):
(fm3pt017+fm3pt018)/2. [If only one measure was taken, that one was used].



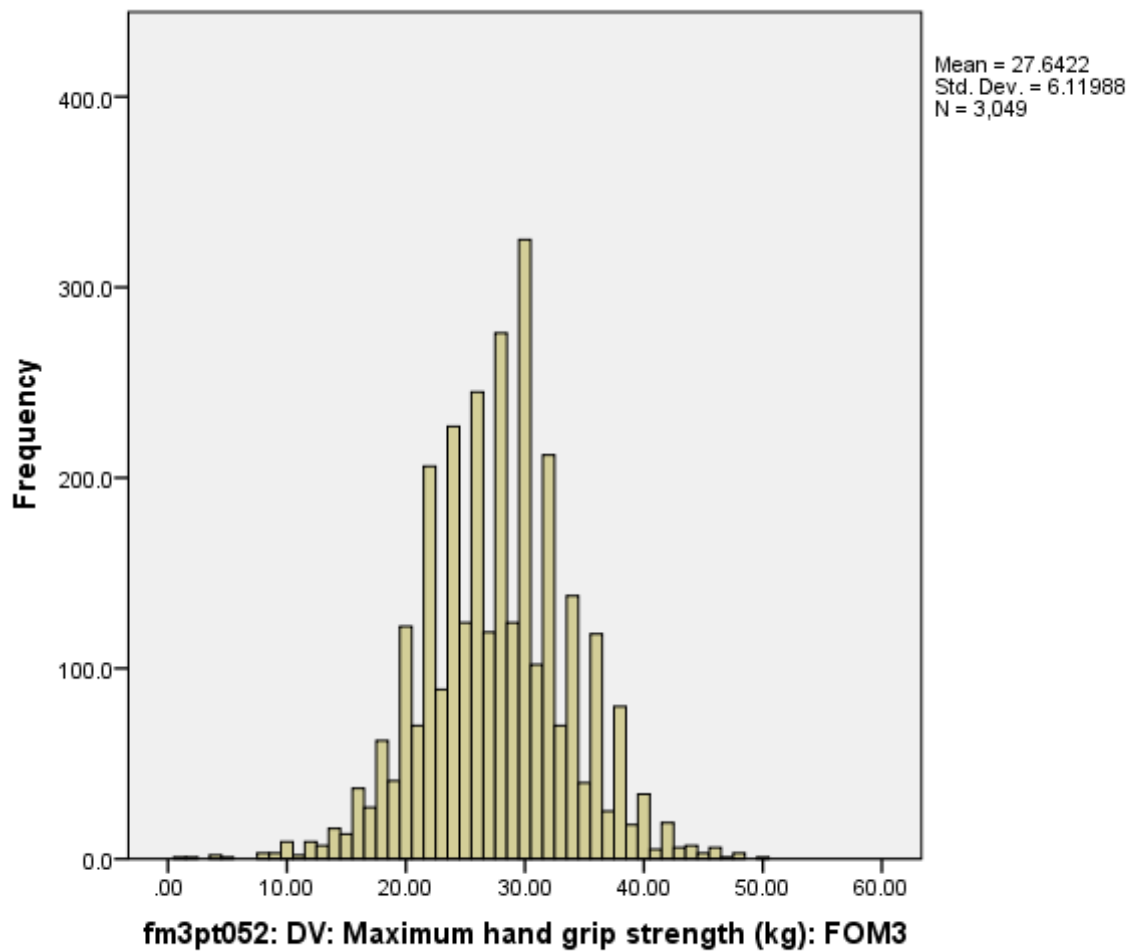
Derived variable (fm3pt050) – Maximum right hand grip measurement: highest value of fm3pt012 and fm3pt014). [If only one measure was taken, that one was used].



Derived variable (fm3pt051) – Maximum left hand grip measurement: highest value of fm3pt013 and fm3pt015). [If only one measure was taken, that one was used].



Derived variable (fm3pt052) – Maximum hand grip measurement (both hands): highest value of fm3pt050 and fm3pt051). [If only one measure was taken, that one was used].



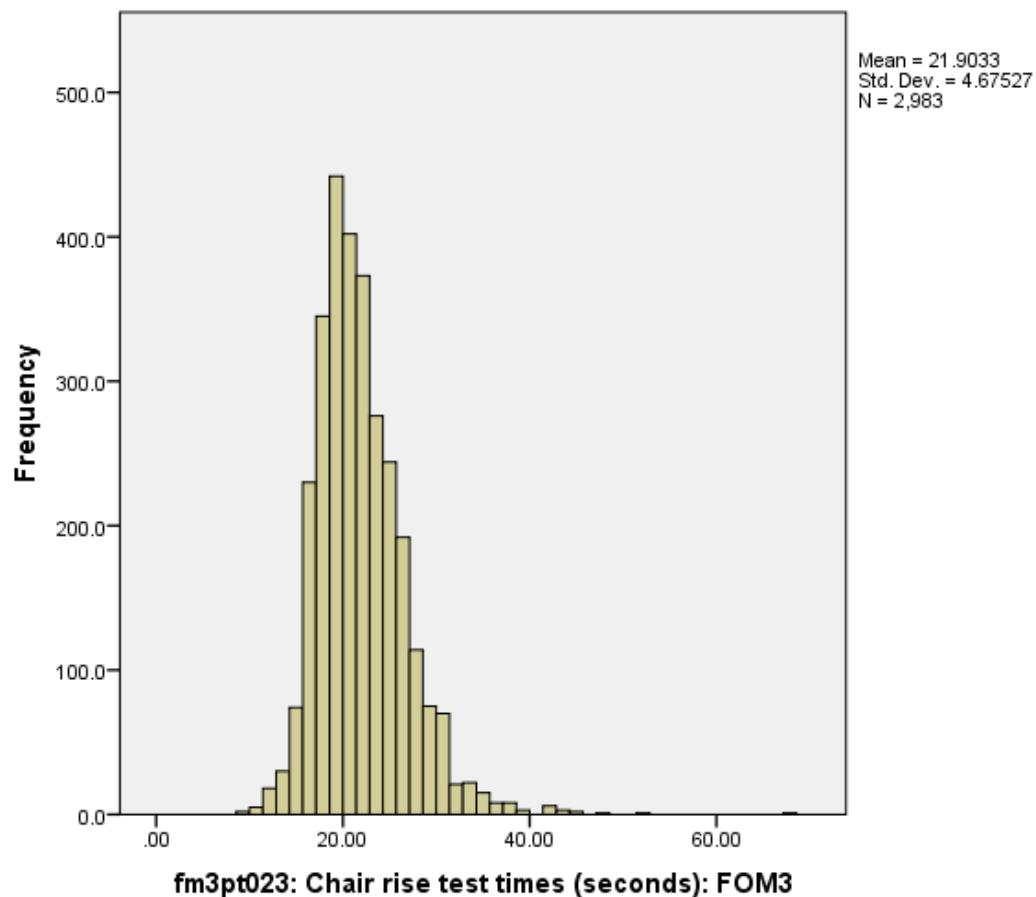
2.8.2 Chair Rises

fm3pt022 Able to perform chair rise test: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	2983	20.3	96.9	96.9
	2 No	97	.7	3.1	100.0
	Total	3080	21.0	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	12	.1		
	Total	11600	79.0		
Total		14680	100.0		

fm3pt024 Reason not able to perform chair rise test: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Balance	12	.1	11.7	11.7
	2 Walking Aid	8	.1	7.8	19.4
	3 Injury	83	.6	80.6	100.0
	Total	103	.7	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	2989	20.4		
	Total	14577	99.3		
Total		14680	100.0		



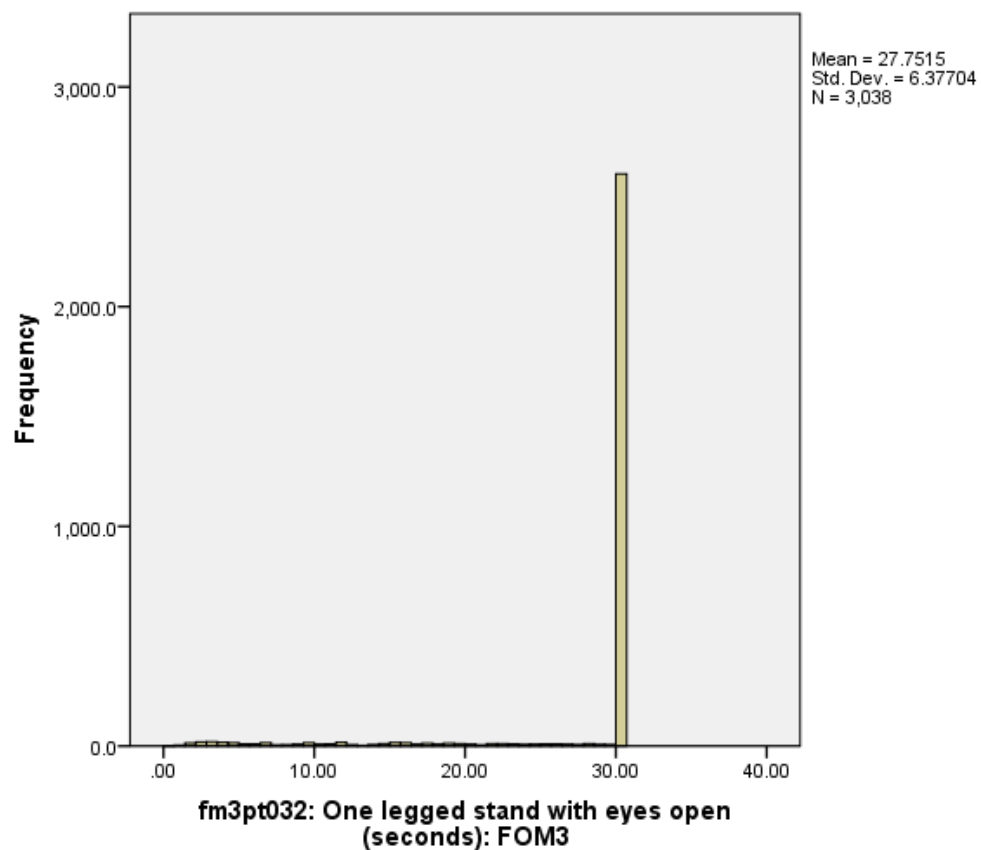
2.8.3. One Legged Stands

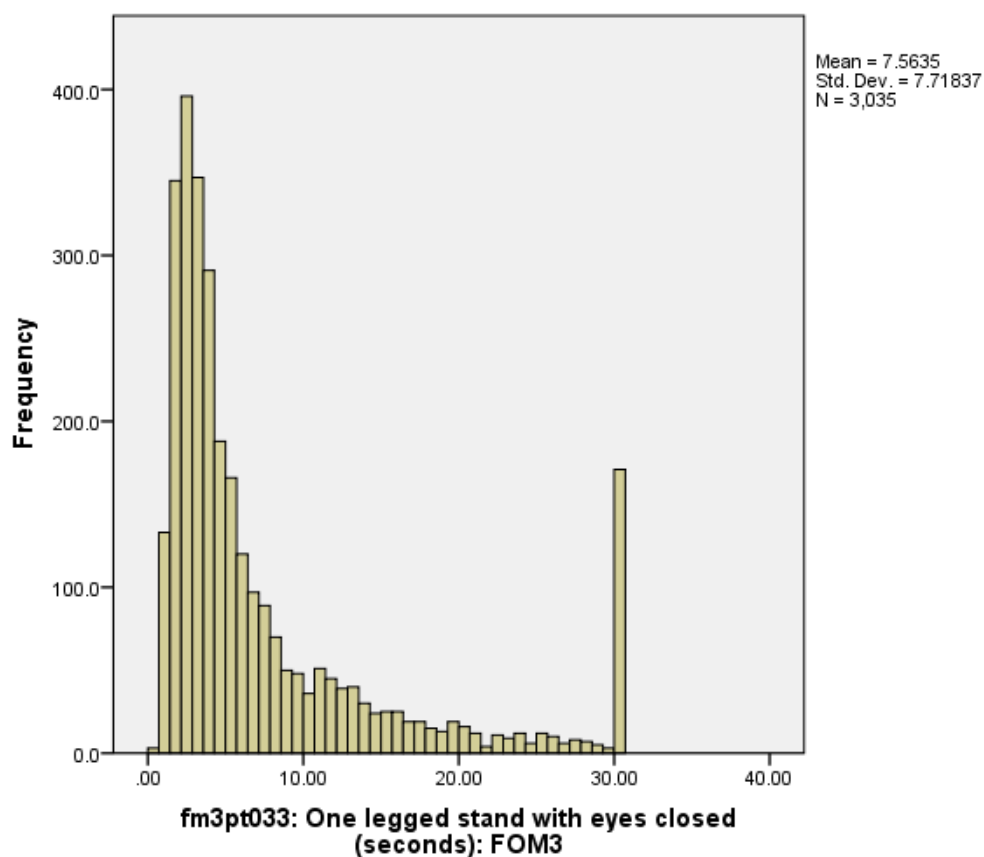
fm3pt030 Able to perform one legged stand test: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	3026	20.6	98.2	98.2
	2 No	55	.4	1.8	100.0
	Total	3081	21.0	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	11	.1		
	Total	11599	79.0		
Total		14680	100.0		

fm3pt031 Reason not able to perform one legged stand test: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Balance	10	.1	20.4	20.4
	2 Walking Aid	7	.0	14.3	34.7
	3 Injury	32	.2	65.3	100.0
	Total	49	.3	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	3043	20.7		
	Total	14631	99.7		
Total		14680	100.0		





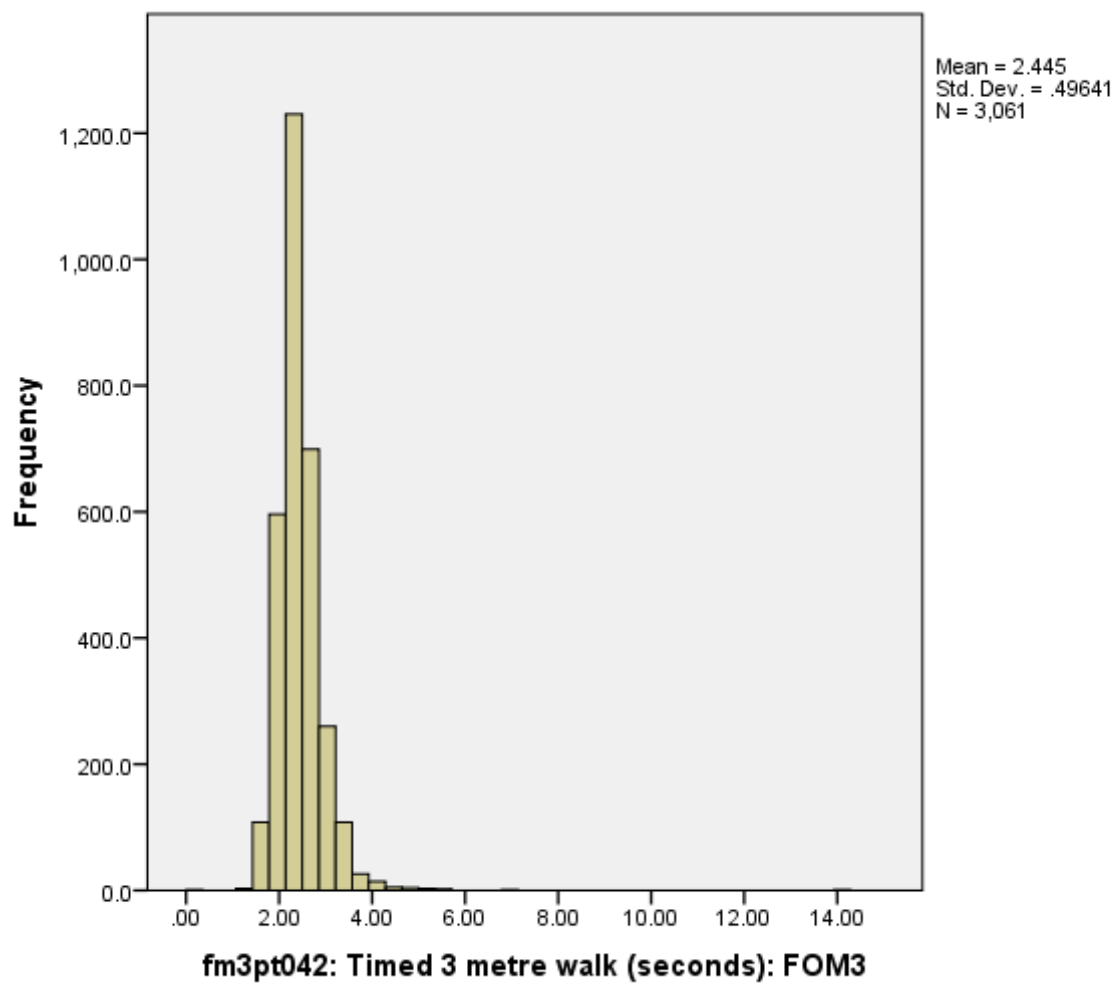
2.8.4 Timed 3 Metre Walk

fm3pt040 Able to perform 3 metre walk unaided: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	3025	20.6	98.2	98.2
	2 No	54	.4	1.8	100.0
	Total	3079	21.0	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	13	.1		
	Total	11601	79.0		
Total		14680	100.0		

fm3pt041 Reason not able to perform 3 metre timed walk: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Stick	18	.1	62.1	62.1
	2 Frame	1	.0	3.4	65.5
	3 Person	10	.1	34.5	100.0
	Total	29	.2	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	3063	20.9		
	Total	14651	99.8		
Total		14680	100.0		



2.9 Cognitive Tests

Tests were conducted in accordance with the following procedure instruction sheet. Quality control was conducted by collaborators from University of Edinburgh on a regular basis.

Logic Memory 1

- Before playing the standardised recording of the story, say:
'I am going to play a recorded reading of a short story. Please listen carefully and try to remember it just the way it is said, as close to the same words as you can remember. When I am finished, I want you to tell me everything you heard. Please tell me all that you can remember even if you are not sure. Are you ready?'
- *Play standardised recording of story*
- After *playing* the story, say: 'Tell me everything you can remember about this story. Please start at the beginning'
- After participant has finished recalling the story, say: 'Anything else?'
- Allow a few seconds for any further recall. Add any further response to the list. Allow approximately one minute.
- Then say: 'I want you to remember this story because I am going to ask you to tell me it again later'
- END OF TEST
- SCORING: Score 1 point for each correct item at each line. If the participant's response is not exactly as in the story, write it down and refer to the scoring guidelines. Enter the total number in the box.

Digits Backwards

- Say: "Now I am going to say some numbers. When I have said them I want you to say them backwards straight away. For example, if I say 7-1-9, what would you say?"
- If the *participant* responds correctly (9-1-7) say "That's right" and proceed to Trial 1 of Item 1.
- If the *participant* responds incorrectly, provide the correct response and say: "No, you would say 9-1-7. I said 7-1-9, so to say it backward, you would say 9-1-7. Now try these numbers. Remember, you are to say them backward: 3-4-8."
- Do not provide any assistance on this example or on any of the items. Whether or not the *participant* responds correctly (i.e. 8-4-3), proceed to Trial 1 of Item 1.
- *Participants must respond immediately, without repeating the numbers to themselves or spending too much time thinking about the answer.*
- Write the respondents scores on the answer sheet.
- Discontinue Rule: Discontinue if a participant scores 0 on both trials of any item.
- END OF TEST
- SCORING:
Each item is scored 0, 1 or 2 points as follows:
2 points = if the participant passes both trials
1 points = if the participant passes only 1 trial
0 points = if the participant fails both trials
Maximum score = 14 points

Spot-the-Word Test

- Hand the participant the sheet titled “Instruction Sheet and Practice Items”. Read through the instructions with the participant: ‘Each of the pairs of words below contains one real and one nonsense word, which is a word made-up to look like a word, but it has no real meaning. Please place a tick next to the word in each pair that you think is the real word. If you think the word on the left of the pair is the real word, put a tick in the column to the left; if you think the item on the right is the real word, put a tick in the column to the right. Some will be common words, most will be uncommon and some very rarely used. We don’t expect people to know all of the words, so if you are unsure just guess, you will probably be right more often than you think. Before we move on to the main test, try the following practice ones. If you think the word on the left of the pair is the real word (point to items on the left), put a tick in the column to the left (point to the column on the left of the word pair). If you think the word on the right of the pair is the real word (point to items on the right), put a tick in the column to the right (point to the column on the right of the word pair).’
- *Score the practice items to ensure the participant has understood the instructions. If there were any mistakes, correct the items and reassure the subject that many of the words are very uncommon and it is fine to guess if need be.*
- Check that the participant understands the task and ask if he/she has any questions. Answer any questions and then give the participant the sheet titled “Test Sheet”.
- Say: ‘This is the real list now. Please complete all of them. If you do not know the answer, just have a guess and move on to the next one. Are you ready? ... Go.’
- If the participant is taking too long on any question, prompt them to guess. When they have finished, check that they have answered all questions and ticked only one word in each question. If they have missed any ask them to complete the remaining questions.
- END OF TEST
- SCORING: Score 1 point for each correct answer.

Digit Symbol Coding

- Before administering the test, say: ‘In this test, I’m going to ask you to copy some symbols. Look at these boxes.’
- Point to squares immediately under heading ‘Digit Symbol-Coding.’ Say ‘Each box has a number in the upper part and a special mark in the lower part. Each number has its own mark. The squares have numbers in the top part but the squares at the bottom are empty.’
- Point to squares immediately under heading ‘Sample items’. ‘In each of the empty squares, put the mark that should go there. Like this.’
- Point to the first number on the left hand side, the number 2. ‘Here is a 2; the 2 has this mark. So I put it in this empty square, like this.’ Fill in the appropriate symbol under the number 2. ‘Here is a 1; the 1 has this mark, so I put it in this square.’
- Point to the next number and fill in the appropriate symbol under the number 1. ‘This number is a 3; the 3 has this mark. So I put it in the square.’
- Point to the next number and fill in the appropriate symbol under the number 3. ‘Now you fill in the squares up to this heavy line.’
- Point to the thick black line between the number 8 and the number 2. Supervise participant filling in remaining 4 squares.
- Say ‘Now you know how to do them. When I tell you to start, you do the rest of them. Begin here.’

- Point to the first number after the thick black line, the number 2. Say 'Fill in as many squares as you can one after the other without skipping any. Keep working until I tell you to stop. Work as quickly as you can and try not to make any mistakes. When you finish this line, go on to the next one. Go ahead.'
- Start the stopwatch. After 120 seconds, say: 'Stop'
- END OF TEST
- SCORING: Score 1 point for each correct entry done in the allocated time.

Verbal Fluency Test

- Before administering, say: 'I am going to give you a letter from the alphabet and I'd like you to say as many words as you can think of that begin with that letter. You can't include proper nouns, like people's names or towns or numbers, or any word which would have a capital letter. You also can't include the same word with different ending. For example, if the letter was S then 'see' as in 'to look' is allowed but you can't also have 'seeing'. We can practice first with the letter S if you wish. Do you want to practice?'
- After *participant* has said 3 to 4 correct words beginning with S, say: 'I am going to give you 3 different letters. We will do them one at a time and you have one minute to tell me as many words as you can beginning with that letter. The first letter is C for cat. Are you ready? Begin!'
- Time 1 minute with stopwatch and write down all the words the *participant* says in the allocated time under the letter C.
- Say 'The second letter is F for fun. Are you ready? Begin!'
- Time 1 minute with stopwatch and write down all the words the *participant* says in the allocated time under the letter F.
- Say 'The last letter is L for log. Are you ready? Begin!'
- Time 1 minute with stopwatch and write down all the words the *participant* says in the allocated time under the letter L.
- If the *participant* appears to be struggling, say gently and encouragingly: 'It's OK, keep going'.
- END OF TEST
- SCORING: Score one point for each correct entry done in allocated time. Total score is obtained as a summary of scores from all three columns.
- Note: if the participant produces words too quickly, note one point for each correct entry without writing the actual word. Make sure not to allocate any point for proper nouns, numbers and repeats.

Logical Memory – Delay

- Say: 'Do you remember the story you heard a little while ago? I want you to tell me the story again. Tell me everything that you can remember about the story. Start at the beginning.'
- If the person does not recall any story units, say: 'The story was about a lady who was robbed.'
- Tick the sheet for each correct response; write anything on sheet which is not said exactly the same as was read.
- After the *participant* has finished recalling the story, ask: 'Anything else?'
- Allow a few seconds for any further recall. Add any further responses to list.
- END OF TEST
- SCORING: Score 1 point for each correct item at each line. If the participant's response is not exactly as in the story, write it down and refer to the scoring guidelines. Enter the total number in the box.

Scoring Procedures

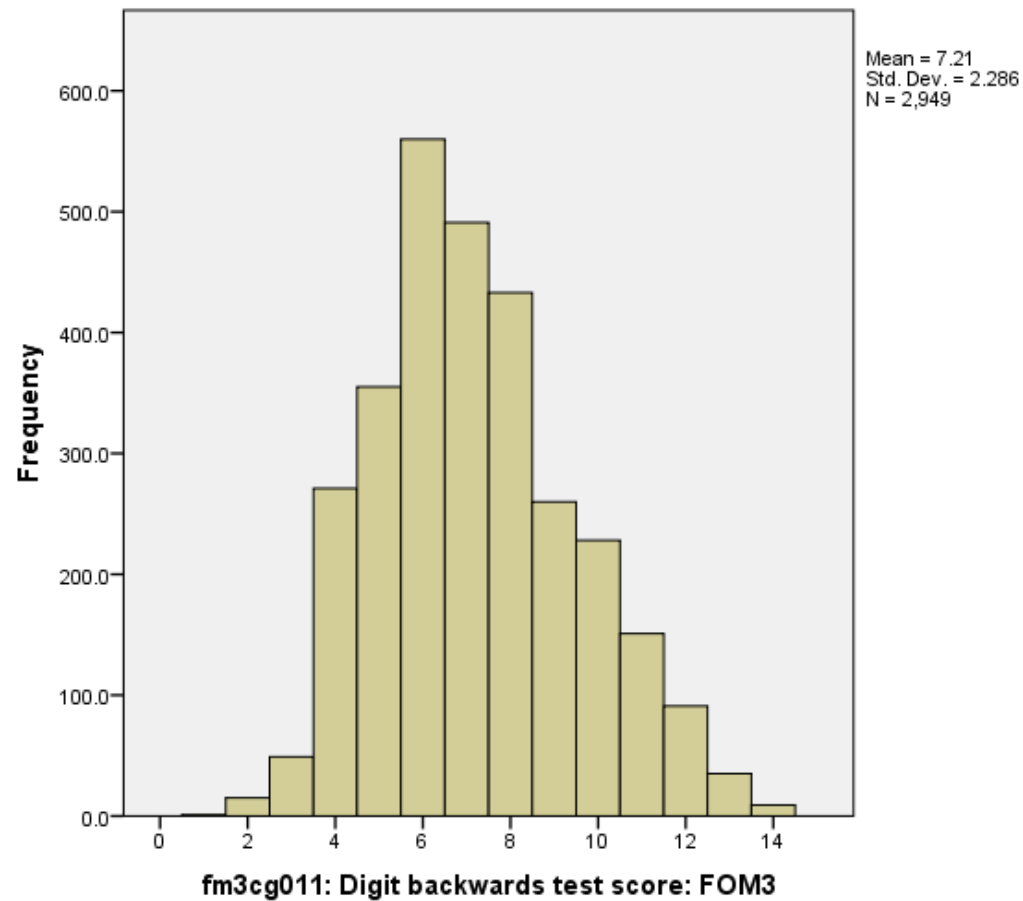
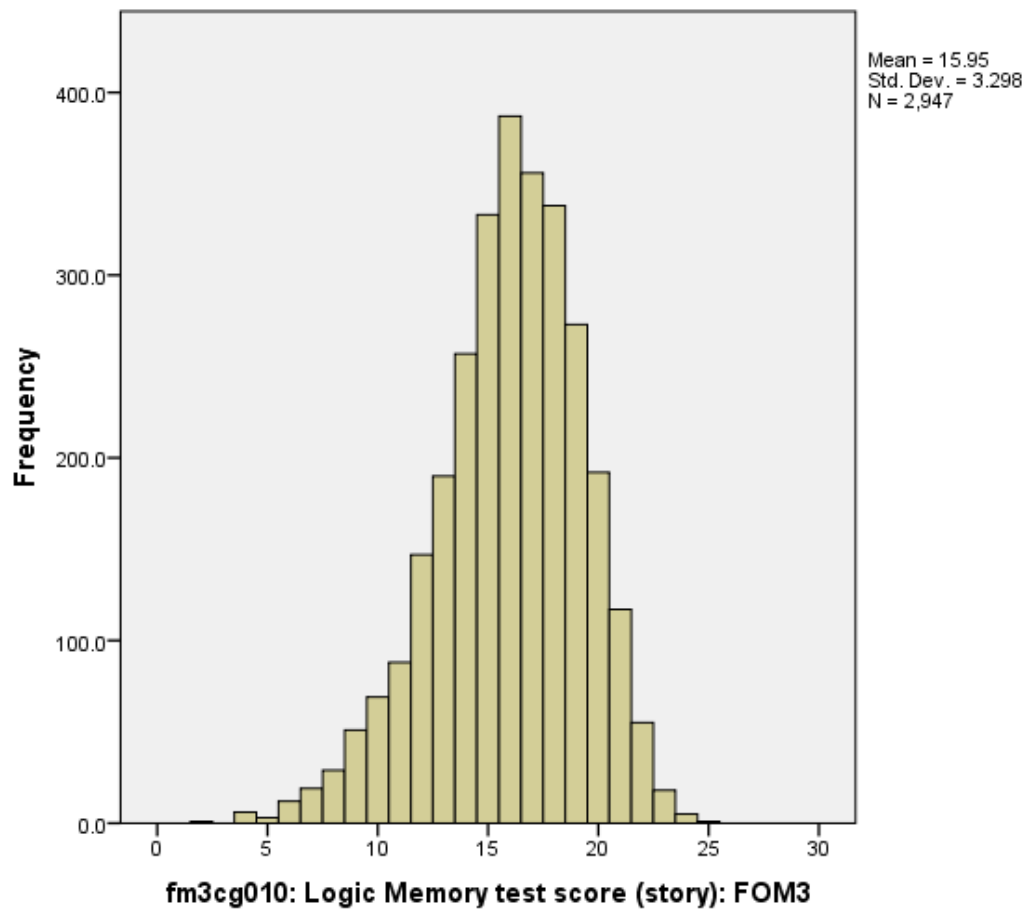
- Logic Memory scoring guidelines and instructions are provided on the datasheet 'Focus on Mothers 2 Participant Test Sheet'.
- Digits Backwards and Spot-the-Word scoring is conducted using acetate templates to overlay the study person's datasheet.
- Scores for all tests are entered by the fieldworker onto the computer database.

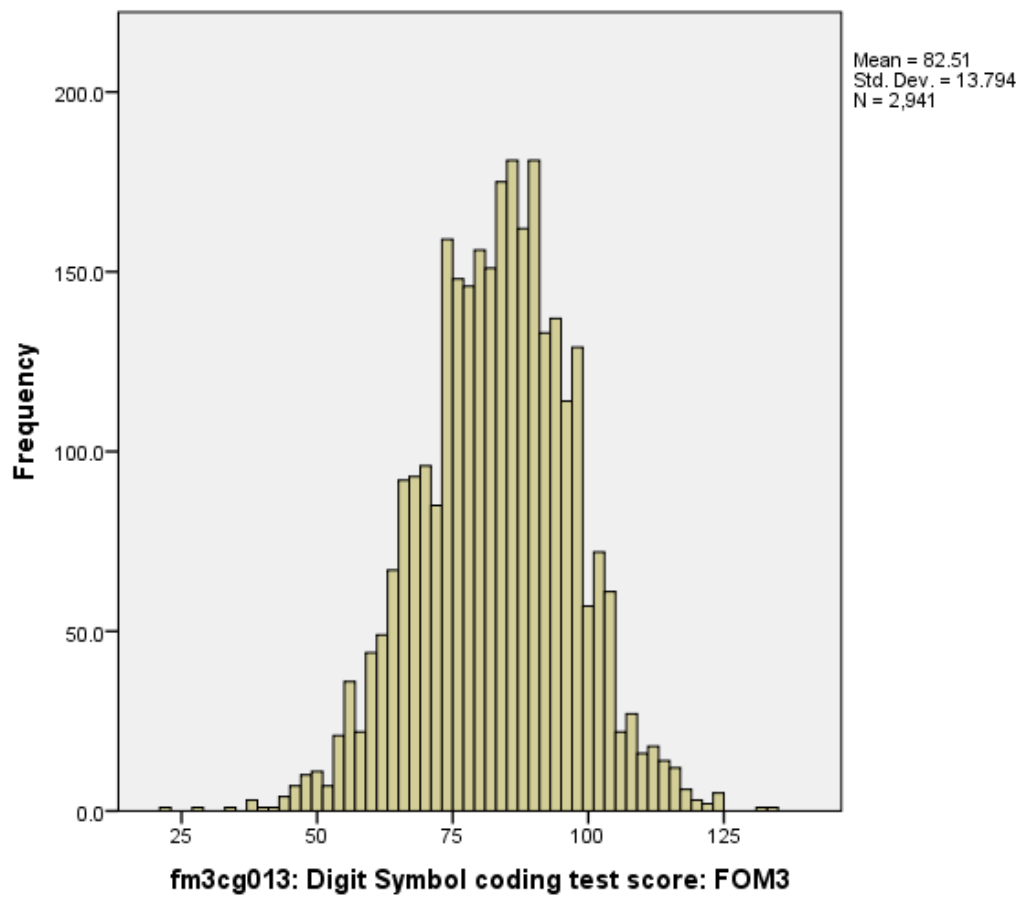
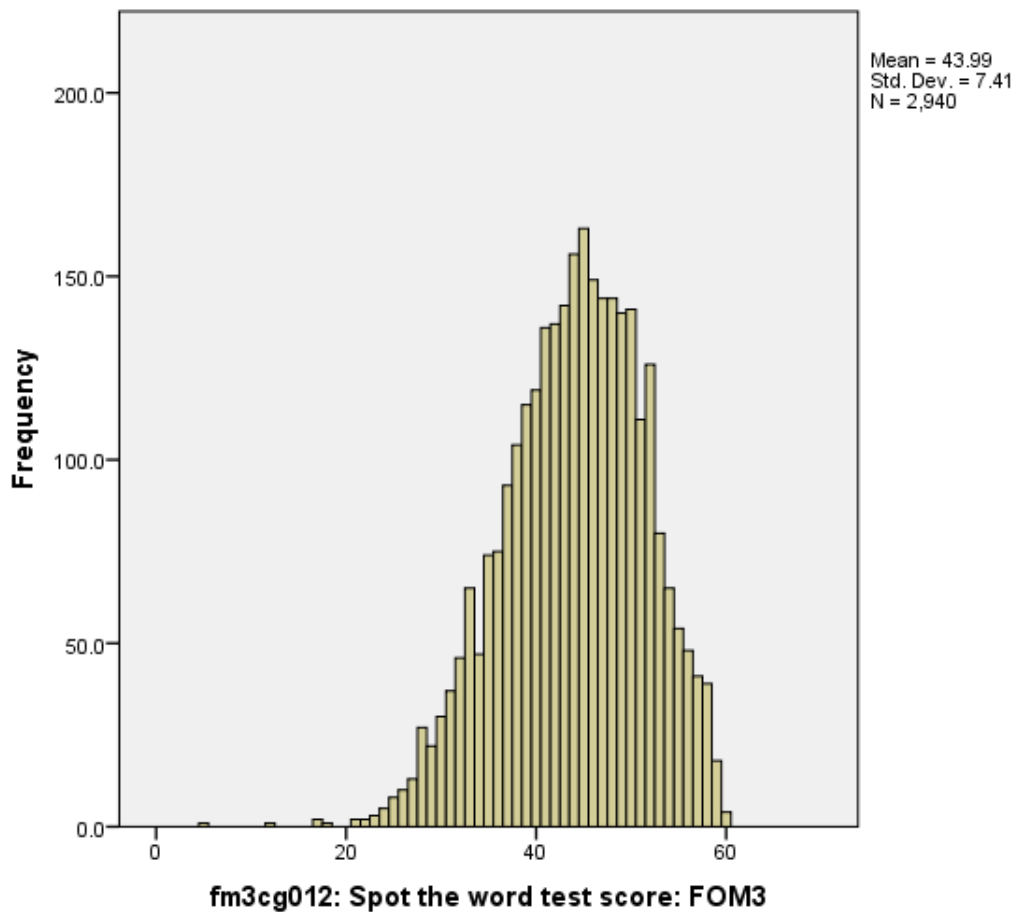
fm3cg001 Fieldworker for Cognitive tests: FOM3

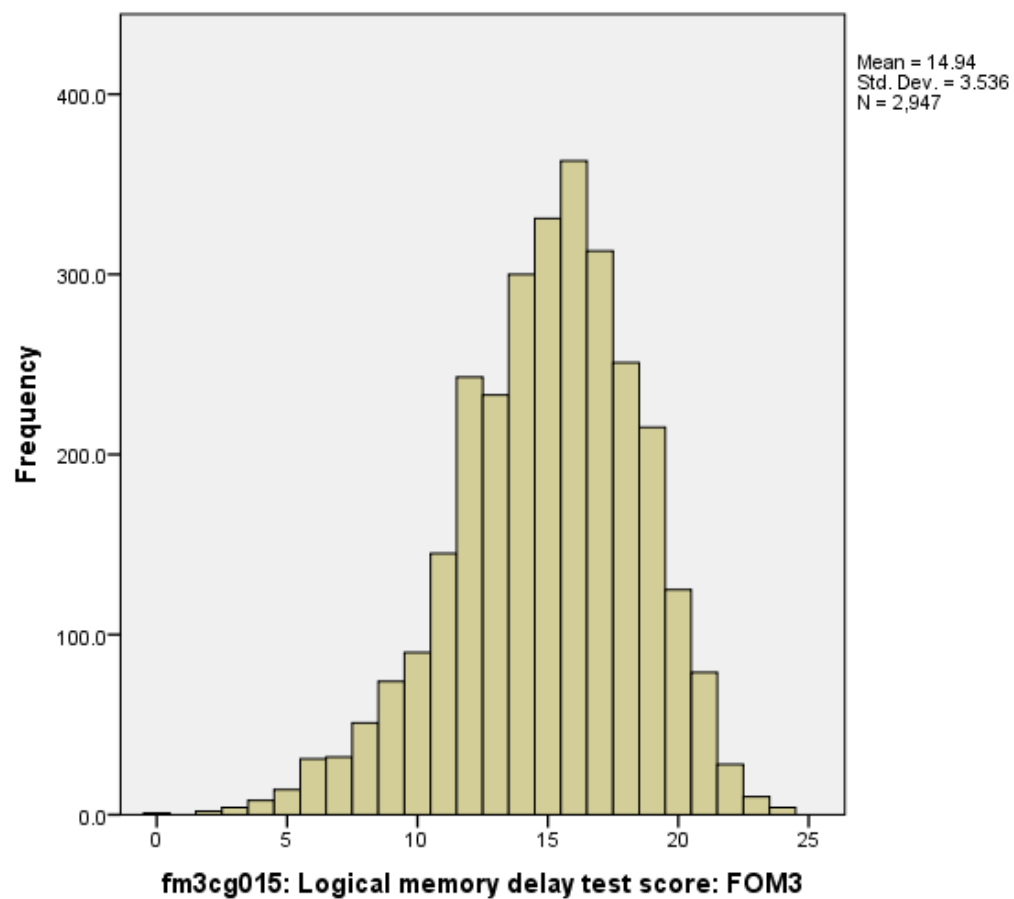
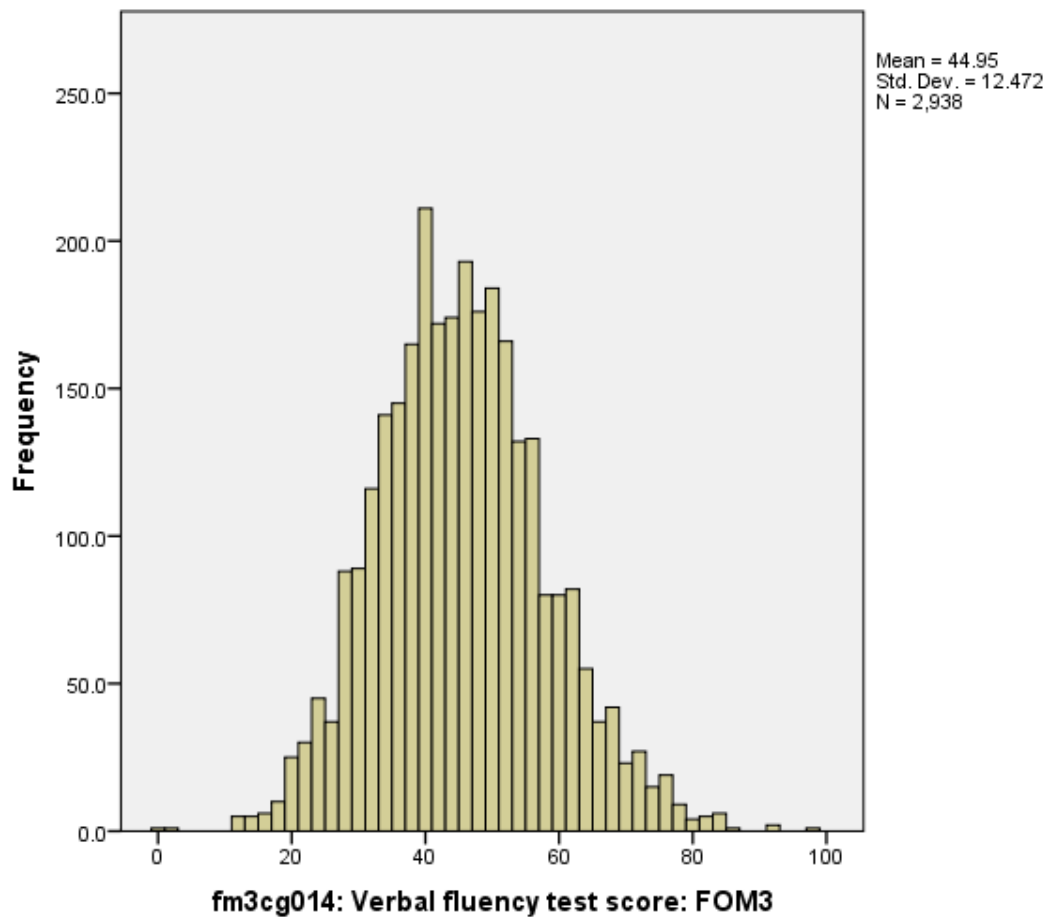
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	.0	.1	.1
	2	7	.0	.2	.3
	8	28	.2	.9	1.2
	10	305	2.1	9.9	11.1
	11	83	.6	2.7	13.8
	12	297	2.0	9.6	23.4
	13	26	.2	.8	24.2
	14	76	.5	2.5	26.7
	15	293	2.0	9.5	36.2
	16	291	2.0	9.4	45.6
	17	233	1.6	7.5	53.1
	19	92	.6	3.0	56.1
	20	4	.0	.1	56.2
	23	141	1.0	4.6	60.8
	29	330	2.2	10.7	71.4
	30	305	2.1	9.9	81.3
	31	299	2.0	9.7	91.0
	33	198	1.3	6.4	97.4
	40	32	.2	1.0	98.4
	41	49	.3	1.6	100.0
	Total	3092	21.1	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	Total	11588	78.9		
Total		14680	100.0		

fm3cg002 Consent to have Cognitive tests: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	3007	20.5	97.6	97.6
	2 No	75	.5	2.4	100.0
	Total	3082	21.0	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	10	.1		
	Total	11598	79.0		
Total		14680	100.0		







fm3cg020 Cognitive tests completed: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	2942	20.0	95.5	95.5
	2 No	139	.9	4.5	100.0
	Total	3081	21.0	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	11	.1		
	Total	11599	79.0		
Total		14680	100.0		

2.10 Assessment of Physical Activity

Physical activity was assessed using a motion sensor (CSA accelerometer), worn for 7 days after the FoM3 clinic. 'Count' is a proxy for physical activity, based upon the rate of acceleration experienced by the device. To remove times the accelerometer was not recording physical activity, participants kept a diary of the times each day the accelerometer was not worn (including sleep, water-based activities and contact activities which may damage the device).

Note that this data is currently being processed, so only the administrative variables are presented here.

fm3ac001 Fieldworker for Accelerometer session: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	.0	.0	.0
	2	7	.0	.2	.3
	8	24	.2	.8	1.0
	10	313	2.1	10.1	11.2
	11	85	.6	2.8	13.9
	12	300	2.0	9.7	23.7
	13	25	.2	.8	24.5
	14	77	.5	2.5	27.0
	15	296	2.0	9.6	36.6
	16	292	2.0	9.5	46.0
	17	237	1.6	7.7	53.7
	19	92	.6	3.0	56.7
	20	5	.0	.2	56.8
	23	139	.9	4.5	61.3
	29	333	2.3	10.8	72.1
	30	297	2.0	9.6	81.8
	31	293	2.0	9.5	91.3
	33	184	1.3	6.0	97.2
	40	32	.2	1.0	98.3
	41	54	.4	1.7	100.0
	Total	3086	21.0	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	6	.0		
	Total	11594	79.0		
Total		14680	100.0		

fm3ac002 Consent to wear Accelerometer: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	2849	19.4	92.5	92.5
	2 No	232	1.6	7.5	100.0
	Total	3081	21.0	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	11	.1		
	Total	11599	79.0		
Total		14680	100.0		

fm3ac003 Accelerometer given in session: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	2368	16.1	77.3	77.3
	2 No, will be sent at later date	370	2.5	12.1	89.4
	3 Not given	326	2.2	10.6	100.0
	Total	3064	20.9	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	28	.2		
	Total	11616	79.1		
Total		14680	100.0		

fm3ac004 Reason Accelerometer not given during session: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Participant requested	402	2.7	97.6	97.6
	2 No monitor available	10	.1	2.4	100.0
	Total	412	2.8	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	2680	18.3		
	Total	14268	97.2		
Total		14680	100.0		

2.11 3D Whole Body Scan

A whole-body three-dimensional scan of the participant's body to provide anthropometric information on size, shape and posture. The participant was asked to remove all clothing (if possible) or to wear off coloured underwear preferably grey but not black. If the participant has hair covering their neck they were asked to pin the hair up and away from the neck.

Note that this data is currently being processed, so only the administrative variables are presented here.

fm3sc001 Fieldworker for 3D body scan: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	9	.1	.3	.3
	8	23	.2	.7	1.0
	10	306	2.1	9.9	11.0
	11	90	.6	2.9	13.9
	12	311	2.1	10.1	23.9
	13	26	.2	.8	24.8
	14	73	.5	2.4	27.2
	15	290	2.0	9.4	36.6
	16	284	1.9	9.2	45.8
	17	237	1.6	7.7	53.4
	19	93	.6	3.0	56.4
	20	4	.0	.1	56.6
	23	132	.9	4.3	60.9
	29	334	2.3	10.8	71.7
	30	315	2.1	10.2	81.9
	31	284	1.9	9.2	91.1
	33	202	1.4	6.5	97.6
	40	31	.2	1.0	98.6
	41	42	.3	1.4	100.0
	Total	3086	21.0	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	6	.0		
	Total	11594	79.0		
Total		14680	100.0		

fm3sc002 Consent for 3D body scan: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	3003	20.5	97.6	97.6
	2 No	75	.5	2.4	100.0
	Total	3078	21.0	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	14	.1		
	Total	11602	79.0		
Total		14680	100.0		

fm3sc010 3D body scan performed: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	2969	20.2	96.5	96.5
	2 No	108	.7	3.5	100.0
	Total	3077	21.0	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	15	.1		
	Total	11603	79.0		
Total		14680	100.0		

fm3sc011 3D body scan performed in underwear: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 No,naked	2457	16.7	82.6	82.6
	2 Yes, in underwear	518	3.5	17.4	100.0
	Total	2975	20.3	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	117	.8		
	Total	11705	79.7		
Total		14680	100.0		

fm3sc020 Reason 3D body scan not completed: FOM3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Participant refused to undress	22	.1	23.7	23.7
	2 Participant unable to complete scan	38	.3	40.9	64.5
	3 Equipment / clinic facilities reasons	33	.2	35.5	100.0
	Total	93	.6	100.0	
Missing	-11 Mother of trip/quad	1	.0		
	-10 Did not attend clinic	11587	78.9		
	-1 Missing	2999	20.4		
	Total	14587	99.4		
Total		14680	100.0		

3. References

Fraser A, Macdonald-Wallis C, Tilling K, Boyd A, Golding J, Davey Smith G, Henderson J, Macleod J, Molloy L, Ness A, Ring S, Nelson SM, Lawlor DA. Cohort profile: the Avon Longitudinal Study of parents and Children: ALSPAC mothers cohort. *Int J Epidemiol.* 2013; 42: 97-110.

4.1 Consent forms

Permission to use blood sample for cell lines

CONSENT

I agree that information about my genes can be analysed together with information about my health, disease and life style factors in order to undertake research into biological or genetic factors affecting the risk of developing a range of common medical conditions. I understand that any such analyses will only be undertaken on data from which all personal information has been removed and replaced with an anonymous code.

A sample for cell lines ('immortalised' DNA) 1 ☐

OR

A sample for DNA only 2□

[illegible]

The University of Bristol holds legal liability insurance in the event that any participant is injured due to any negligence on the part of the University.



4.2 Comparison of data collected over the four FoM clinics. Note that even though the same type of data may have been collected (e.g., anthropometry or hormone use), some methods of data collection differed between the clinics so occasional variables may not be consistent across the FoM clinics.

Data	FoM1	FoM2	FoM3	FoM4
Anthropometry	Yes	Yes	Yes	Yes
DXA scans (full-body and hip)	Yes	Yes	Yes	Yes
Blood samples ^a	Yes	Yes	Yes	Yes
Hormone use and menstruation	Yes	Yes	Yes	Yes
Blood pressure	Yes	Yes	Yes	Yes
pQCT scan ^b	No	Yes	Yes	Yes
Physical tests	No	Yes	Yes	Yes
Cognitive tests	No	Yes	Yes	Yes
Carotid intima-media thickness (cIMT) scan	Yes	No	No	Yes
Mammogram use	Yes	No	No	No
Assessment of physical activity (accelerometer)	No	No	Yes ^c	No
3D body scan	No	No	Yes ^d	No
BCG scar size	No	No	No	Yes

^a Note that blood samples do not appear in this 'clinic' release file, but rather are in the 'sample' release file. All blood assay results will be available in the mother's sample release file as data becomes available.

^b Note that pQCT data are currently not available for any of the FoM clinics (other than preliminary pQCT data in FoM2). Once they have been processed they will be made available for release.

^c Note that the physical activity data for FoM3 has not been processed yet. Once this has been processed the data will be made available for release.

^d Note that the 3D body scan data for FoM3 has not been processed yet. Once this has been processed the data will be made available for release.

4.3 Medication and allergy form



Focus on Mothers 3 Medications and Allergies Form v1

Focus on Mothers 3



Medications

Q1. Are you currently taking any regular medication?

Yes ☐

No ☐

If yes, please tell us which medications you are currently taking?

The fieldworker will ask you for the name, reason, how often you take them

N.B. Please include prescribed tablets, inhalers, sprays, injections.

	<u>Name of Medication</u> (Please copy name in full from container)	<u>Amount, and how often</u> (please copy from container)	<u>Reason for taking</u>	<u>Type</u> Prescribed or Bought	
1				1 <input type="checkbox"/>	2 <input type="checkbox"/>
2				1 <input type="checkbox"/>	2 <input type="checkbox"/>
3				1 <input type="checkbox"/>	2 <input type="checkbox"/>
4				1 <input type="checkbox"/>	2 <input type="checkbox"/>
5				1 <input type="checkbox"/>	2 <input type="checkbox"/>
6				1 <input type="checkbox"/>	2 <input type="checkbox"/>
7				1 <input type="checkbox"/>	2 <input type="checkbox"/>
8				1 <input type="checkbox"/>	2 <input type="checkbox"/>
9				1 <input type="checkbox"/>	2 <input type="checkbox"/>
10				1 <input type="checkbox"/>	2 <input type="checkbox"/>
11				1 <input type="checkbox"/>	2 <input type="checkbox"/>
12				1 <input type="checkbox"/>	2 <input type="checkbox"/>
13				1 <input type="checkbox"/>	2 <input type="checkbox"/>
14				1 <input type="checkbox"/>	2 <input type="checkbox"/>

If you are unsure of the name or amount of any of your medications please bring the container / package to the clinic with you.

28875





Focus on Mothers 3



Allergies

Q2. Do you have any allergies?

Yes ☐

No ☐

If yes, please describe what you are allergic to below.

1

2

3

4

5

6

7

8

9

10