## THE ALSPAC STUDY

# PUB\_14YR FILE

## DATA COLLECTED FROM THE QUESTIONNAIRE

# Growing and Changing (6)

# At 175 Months

# Prepared by

## The ALSPAC Study Team

Documentation giving frequencies, background and instructions for use.

Last updated for version 1a of the built file.

January 2008

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## Introduction

#### **Contents**

This questionnaire was sent out to the study teenager when they were 175 months old. As well as being the first puberty questionnaire to be sent directly to the study teenager rather than to the carer, this was the first puberty questionnaire to be designed for scanning and automatic data capture. As well as the obvious rewordings required by the fact that the questionnaire was no longer addressed to the carer there were a few minor changes from the previous puberty questionnaire "Growing and Changing (5)":

- Questions D1 & D2 from the male version of "Growing and Changing (5)" appear as A4 & A5 in "Growing and Changing (6)"
- An extra option "It varies" was added to questions A6a & A7 in the female version.
- An extra option "Don't know" was added to guestions A9 & A10a in the female version.
- The question about completion on the back page was altered to match the standard way in which this is asked on questionnaires completed by the study teenagers.

## **Male Tanner Genital Staging**

As a consequence of an ongoing project conducted by Carol Rubin, serious problems with the male Tanner genital stage data have come to light. When the data from the first five puberty questionnaires were analyzed longitudinally, it was found that 27% of males went backwards in genital stage. This is in contrast with 3-4% going backwards for each of male pubic hair stage, female breast stage and female pubic hair stage. In addition, even after exclusion of males who go backwards in genital stage and males less than 10 years old, the estimated ages at transition into Tanner genital stages 2 or 3 produced by the modeling process are at least a year earlier than expected. It is strongly recommended that the male Tanner genital stage data (variable PUB650 on this file) are not used.

#### **Questionnaire versions**

There was only one version of each of the male and female copies of this questionnaire.

#### Sample & response rates

There are a total of 15,179 records on this built file. This number is made up of the 14,676 fetuses in the core ALSPAC sample (regardless of whether or not this questionnaire was sent out for them or whether it was returned) plus 503 eligible children not in the core sample for whom questionnaires were sent out. Note that questionnaires were completed for 225 of these 503 children.

Of the 14,676 fetuses in the core ALSPAC sample, 14,062 were live born. This questionnaire was sent out for 9,947 (71%) of these live born children. As of 15<sup>th</sup> January 2008 completed questionnaires had been returned for 4,938 (50%) of these children, which is 35% of the 14,062 live born children. For further information on the ALSPAC sample, please see section 5 of the "Guide to ALSPAC data" which can be found in the "Collaborator Pack" on the ALSPAC documentation CD.

#### Format of this documentation

The bulk of this documentation consists of the text of the questionnaire interspersed with editing notes and frequency tables of the variables on the data file.

## 14 Year Puberty File - Introduction

# **Built file version history**

Built version 1a – January 2008 The first version of the built file.

## **Administrative variables**

#### pub681 Questionnaire sent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	10450	68.8	68.8	68.8
	2 No	4729	31.2	31.2	100.0
	Total	15179	100.0	100.0	

## pub682 Reminder sent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	6815	44.9	65.2	65.2
	2 No	3635	23.9	34.8	100.0
	Total	10450	68.8	100.0	
Missing	-2 Questionnaire not sent	4729	31.2		
Total		15179	100.0		

## pub685 Questionnaire return status (as of 15/01/08)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Not returned	5230	34.5	50.0	50.0
	2 Returned, completed	5163	34.0	49.4	99.5
	3 Returned, blank	57	.4	.5	100.0
	Total	10450	68.8	100.0	
Missing	-2 Questionnaire not sent	4729	31.2		
Total		15179	100.0		

## pub686 Questionnaire returned (as of 15/01/08)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	5220	34.4	50.0	50.0
	2 No	5230	34.5	50.0	100.0
	Total	10450	68.8	100.0	
Missing	-2 Questionnaire not sent	4729	31.2		
Total		15179	100.0		

## pub687 Questionnaire completed (as of 15/01/08)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	5163	34.0	49.4	49.4
	2 No	5287	34.8	50.6	100.0
	Total	10450	68.8	100.0	
Missing	-2 Questionnaire not sent	4729	31.2		
Total		15179	100.0		

## pub687a Data available (as of 15/01/08)

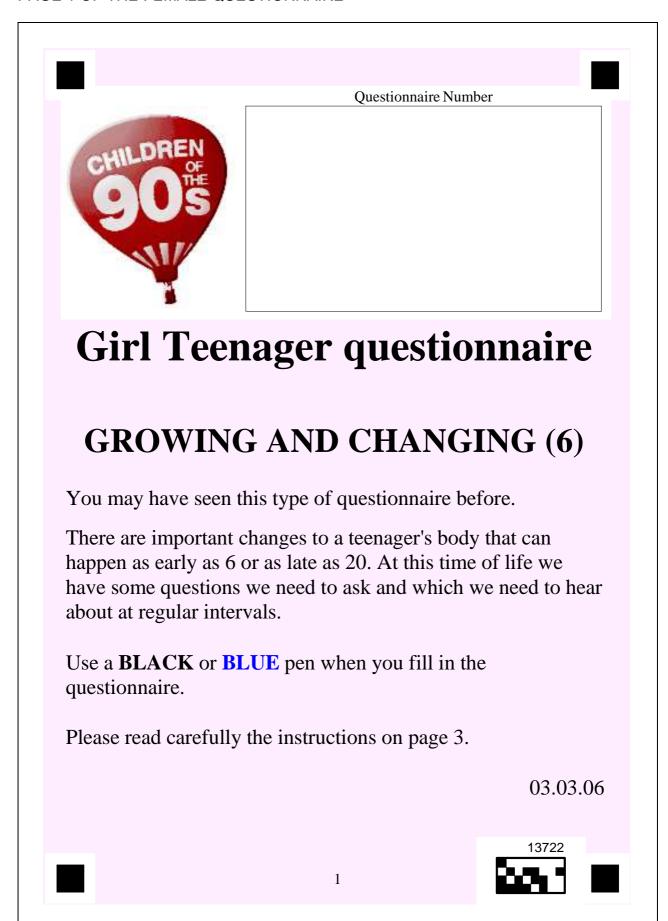
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	5163	34.0	34.0	34.0
	2 No	10016	66.0	66.0	100.0
	Total	15179	100.0	100.0	

## 14 Year Puberty File - Introduction

## pub688 Questionnaire version

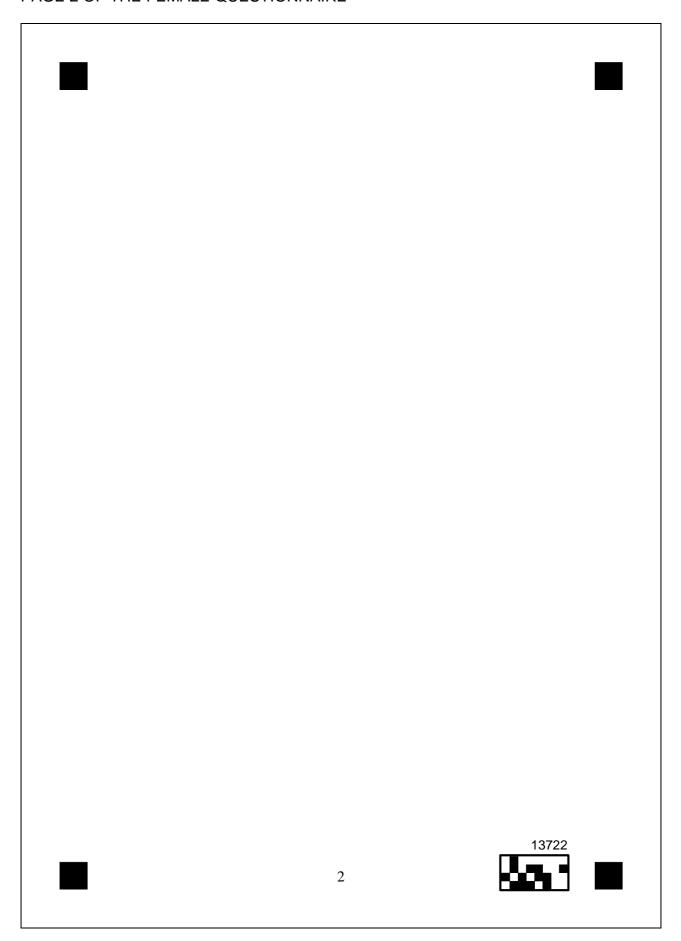
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Female version 1 - 03/03/06	2873	18.9	55.6	55.6
	2 Male version 1 - 02/03/06	2290	15.1	44.4	100.0
	Total	5163	34.0	100.0	
Missing	-10 Not completed	10016	66.0		
Total		15179	100.0		

#### PAGE 1 OF THE FEMALE QUESTIONNAIRE



# 14 Year Puberty File - Introduction

## PAGE 2 OF THE FEMALE QUESTIONNAIRE



## PAGE 3 OF THE FEMALE QUESTIONNAIRE

You will have seen fairly recently that we now have an electronic scanner that will record your answers automatically.

So, please mark your answers with a cross like this:

If you make a mistake, shade the box in like this:

Then cross the correct box.  $\times$ 

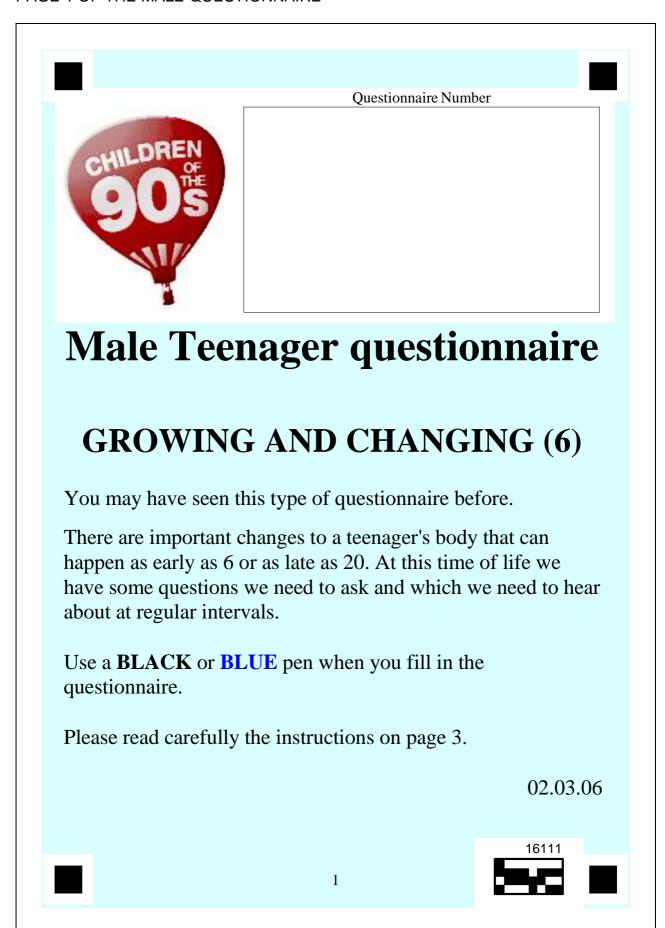
If you are writing numbers make sure they are inside the box like this: 6

Use a **BLACK** or **BLUE** pen

Your answers will of course still be completely confidential and not attached to your actual name

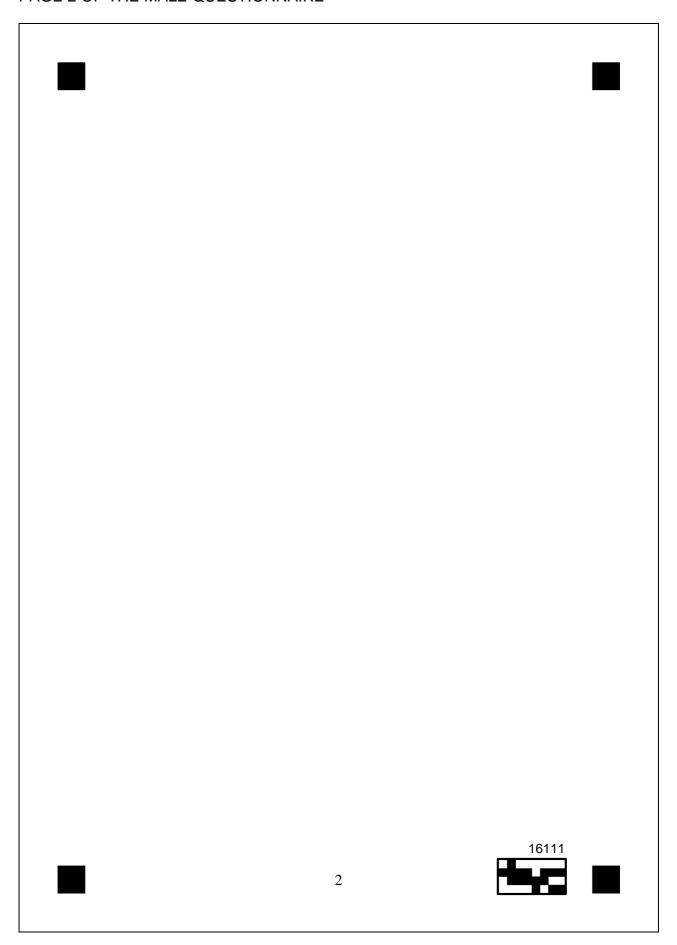
3

#### PAGE 1 OF THE MALE QUESTIONNAIRE



# 14 Year Puberty File - Introduction

## PAGE 2 OF THE MALE QUESTIONNAIRE



#### PAGE 3 OF THE MALE QUESTIONNAIRE

You will have seen fairly recently that we now have an electronic scanner that will record your answers automatically.

So, please mark your answers with a cross like this:

If you make a mistake, shade the box in like this:



Then cross the correct box.

If you are writing numbers make sure they are inside the box like this:

6

Use a **BLACK** or **BLUE** pen

Your answers will of course still be completely confidential and not attached to your actual name



## PAGE 4 OF THE FEMALE QUESTIONNAIRE

		i <b>ght</b> is to sta to make a m	ark on t	foot as straight as p he wall at the higher to the floor.	
feet	inche	S	OR	metres c	entimetres
	ır weight (withou n using kilos or s				
ston	pound	s	OR	kilos	
				of times that you poet, gymnastics, net	participated in ball, swimming, or
<b>vigorous</b> pl					ball, swimming, or
vigorous phaerobics)?		such as runn		ce, gymnastics, net	ball, swimming, or
vigorous phaerobics)?  none  less tha	nysical activity (s	such as runn		ce, gymnastics, net 4-6 times a week	ball, swimming, or  4 □
vigorous phaerobics)?  none  less tha	nysical activity (s	such as runn		ce, gymnastics, net 4-6 times a week	ball, swimming, or  4 □

## PAGE 5 OF THE FEMALE QUESTIONNAIRE

	ve you started your peri	-	. TO 1		.10
	Yes ¹□ No	2 🔲 ——	► If <u>no</u> , ple	ase go to A	A10 on page 7
If <u>yes</u> ,					
a)	How old were you wh	en you had	your first pe	eriod?	
		years old			
A5. W	hen exactly was your fir	st period?			
	month	year			
A6. a)	In the <b>past year</b> , how each period?	many <b>days</b>	of bleeding	have you	usually had during
	Number of days		It varies	88	Don't know 99 □
b)	If you don't know, or	if it varies	is it probab	ly:	
	3 days or less	1 🔲			
	4-6 days	2 🔲			
	7 days or more	3 🔲			
words,	the past year, how man how many days were the kt period?				
	Number of days		It varied	88 🔲	Don't know 99 □

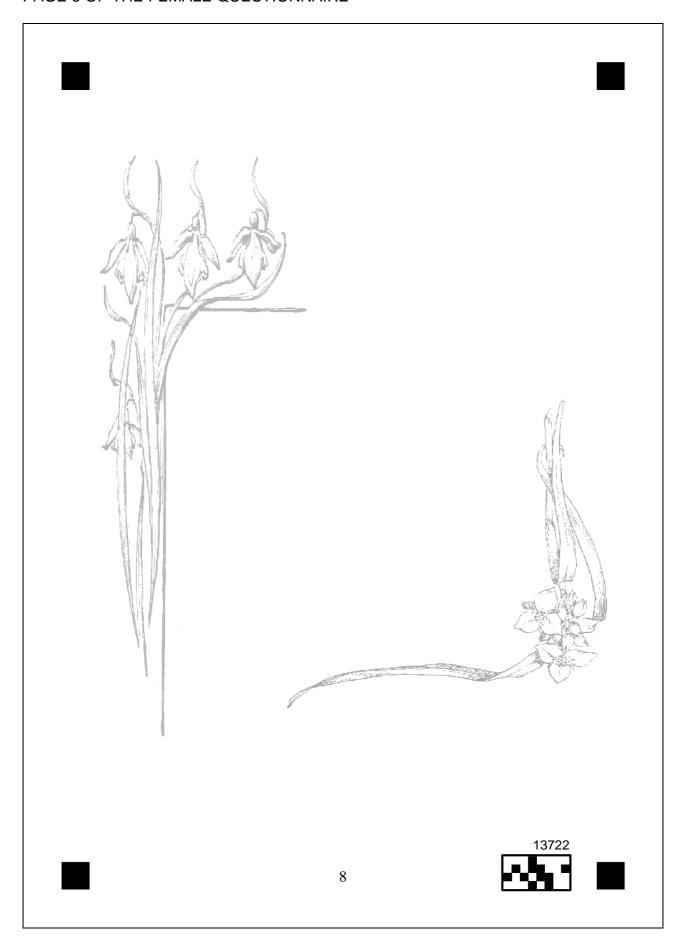
## PAGE 6 OF THE FEMALE QUESTIONNAIRE

A8. Ha	ve yo	ou <b>eve</b> r	r had any of tl	he follov	ving <b>symptoms</b>	associated w	ith <b>your perio</b>	<b>d</b> ?
a)	Hea	avy or	prolonged <b>bl</b>	eeding				
		Yes	1 🔲	No	2 🗆 🗪	If <u>no</u> , go to	A8b below	
If <u>ves</u> ,	i)	did yo	ou contact a d	loctor fo	r this?			
		Yes	1 🗖	No	2 🔲			
b)	Sev	ere <b>cr</b> a	amps with yo	ur perio	d?			
		Yes	1 🔲	No	2 🔲			
If <u>yes</u> ,	i)	did yo	ou contact yo	ur docto	r for this?			
		Yes	1 🔲	No	2 🔲			
c)					ur <b>pelvic</b> area (l hen you are not		your tummy) fo	or
		Yes	1 🔲	No	2 🔲			
If <u>ves</u> ,								
	i)	Did y	ou contact yo	our docto	or for this?			
		Yes	1 🔲	No	2 🔲			

## PAGE 7 OF THE FEMALE QUESTIONNAIRE

			GP may pr	rescribe the	-	eavy bleeding, irregular e pill (which can be called
	ave you ist 12 m		ontraceptiv	es or birth	control pills, for a	ny reason during the
	Yes	1 🔲	No	2 🔲	Don't know	9 🗖
A10.		Has a doctor chyroid medic			ı had a <b>thyroid pr</b>	oblem or asked you to
	Yes	1 🔲	No	2 🔲	Don't know	9 🗖
If	<u>yes</u> ,					
	b) V	/V 11:41 K 11:11 1				
		What kind of		ooicii did	the doctor say you	nad?
A11.					in the armpits?	nad?
A11.			to have hai			nad?
A11.	Have	you started t	to have hai	ir growing i		nad?
A11.	Have	you started t	to have hai	ir growing i		nad?
A11.	Have	you started t	to have hai	ir growing i		nad?
A11.	Have	you started t	to have hai	ir growing i		nad?
A11.	Have	you started t	to have hai	ir growing i		13722

# PAGE 8 OF THE FEMALE QUESTIONNAIRE



## PAGE 4 OF THE MALE QUESTIONNAIRE

A1. What is your height (with The best way to measure wall, and then ask someous than the second to	height is to some to make a	mark on th	e wall at the highes	-
head, and to measure the		or the mark		centimetres
A2. What is your weight (wit Please fill in using kilos				
stones p	ounds	OR	kilos	
A3. In the past month, what v vigorous physical activit	_		• •	-
A3. In the past month, what vigorous physical activitence	_		• •	-
vigorous physical activit	y (such as run		oall, swimming, athl	etics)?
vigorous physical activit	y (such as run		oall, swimming, athlused 4-6 times a week	etics)?  4 □
vigorous physical activit  none  less than once a wee	y (such as run  1		oall, swimming, athlused 4-6 times a week	etics)?  4 □
vigorous physical activit none less than once a wee 1-3 times a week	y (such as run  1		pall, swimming, athlused 4-6 times a week daily yes, occasionally	etics)?  4 □
vigorous physical activit  none  less than once a wee  1-3 times a week  A4. Has your voice changed	y (such as run  1		oall, swimming, athlused 4-6 times a week daily	etics)? 4 □ 5 □
vigorous physical activit none less than once a wee 1-3 times a week  A4. Has your voice changed no it is the same yes, it has now	y (such as run	ning, footb	yes, occasionally it is a lot lower not sure	etics)?  4

#### **Question A1**

[Editing: Twenty-four reported imperial heights for which the number of inches did not correspond to the number of feet (e.g. 5ft 79in) were set to -1. Two reported imperial measurements with values only in the inches box (in the valid range of 0-11) were set to -1, as were twenty-one other outlying imperial measurements after comparison with other recently collected measurements of height. For forty-five imperial heights for which the inches box was left blank (thirty-eight of 5ft and seven of 6ft) the inches variable was recoded to 0. Seven reported metric measurements with values only in the cm box (in the valid range of 0-99) were set to -1, as were twenty-four other outlying metric measurements after comparison with other recently collected measurements of height.

A single variable for height in cm was then created using a conversion factor of 1in = 2.54cm for imperial measurements (rounding to the nearest integer). If both imperial and metric heights were reported then the metric height was taken unless the two heights were not equivalent and the imperial height was closer to then median (5ft 8in for males and 5ft 4in for females).]

A1: Respondent's height (cm)

pub603 A1: Respondent's height (cm)

pub603 A1: Respondent's height (cm)

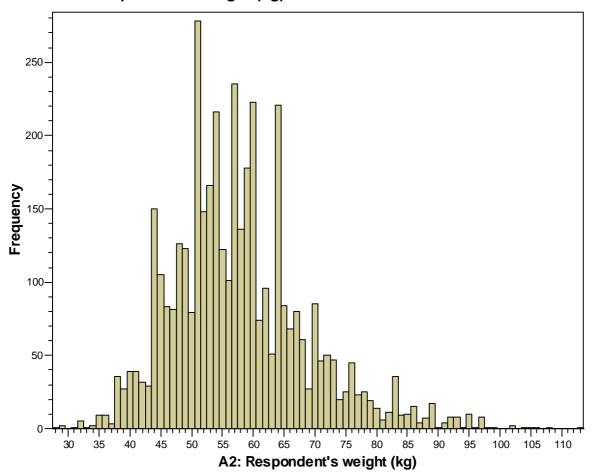
		Frequency	Percent
Missing	-6 Section A omitted	10	1.2
	-1 No response	858	98.8
	Total	868	100.0

#### **Question A2**

[Editing: Forty-seven reported imperial weights for which the number of pounds did not correspond to the number of stones (e.g. 8st 95lb) were set to -1. Two reported imperial measurements with values only in the pounds box (in the valid range of 0 to 13) were set to -1, as were three reported imperial measurements over 30st. For three hundred and thirteen imperial weights for which the pounds box was left blank the pounds variable was recoded to 0.

Four reported metric measurements less than 20kg were set to -1. A single variable for weight in kg was then created using a conversion factor of 1lb = 0.4536kg for imperial measurements (rounding to the nearest integer). If both imperial and metric weights were reported then the metric weight was taken unless the two weights were not equivalent and the imperial weight was closer to the median (59kg for males and 54kg for females).]

pub604 A2: Respondent's weight (kg)



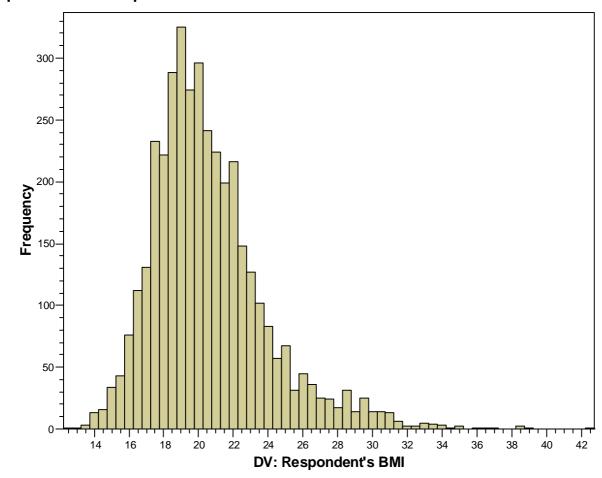
pub604 A2: Respondent's weight (kg)

			• • • •	
			Frequency	Percent
	Missing	-6 Section A omitted	10	1.0
		-1 No response	1042	99.0
		Total	1052	100.0

#### **Derived variable - BMI**

Body Mass Index (BMI) is calculated as PUB605 from PUB603 and PUB604 as weight (in kg) divided by height (in m) squared rounded to 1 decimal place. Missing values of -6 were copied across and if either component had value -1 then the BMI was also set to -1.

pub605 DV: Respondent's BMI



pub605 DV: Respondent's BMI

		Frequency	Percent
Missing	-6.0 Section A omitted	10	.8
	-1.0 Missing	1300	99.2
	Total	1310	100.0

## **Question A3**

pub609 A3: Average number of times respondent participated in vigorous activity in past month

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 None	75	1.5	1.5	1.5
	2 < once	352	6.8	6.9	8.4
	3 1-3	2391	46.3	47.2	55.6
	4 4-6	1324	25.6	26.1	81.7
	5 daily	929	18.0	18.3	100.0
	Total	5071	98.2	100.0	
Missing	-6 Section A omitted	10	.2		
	-1 Not stated	82	1.6		
	Total	92	1.8		
Total		5163	100.0		

## **Question A4 (male)**

## pub660 A4 (male): Respondent's voice has changed

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 No	206	4.0	9.1	9.1
	2 Yes, occasionally a lot lower	788	15.3	34.9	44.1
	3 Yes, has changed totally	955	18.5	42.3	86.4
	4 Not sure	307	5.9	13.6	100.0
	Total	2256	43.7	100.0	
Missing	-7 Respondent is female	2873	55.6		
	-6 Section A omitted	10	.2		
	-1 Not stated	24	.5		
	Total	2907	56.3		
Total		5163	100.0		

## **Question A4 (female)**

[Editing: One respondent ticked 'No' in the initial part of A4 but then reported an age in A4a and went on to make a number of relevant responses to questions A5 to A9. The variable for the initial part of A4 was therefore recoded to 1 'Yes'.

Twenty-two respondents left the initial part of A4 blank but reported an age in A4a and went on to make a number of relevant responses to questions A5 to A9. One further respondent left A4 blank but entered a date in A5. The initial part of A4 was therefore recoded to 1 for all twenty-three of these cases. Then if the variable for the initial part of A4 had value -1 or 2 the variables for A4a to A9 were set to -2.]

pub610 A4 (female): Respondent has started menstrual periods

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	2720	52.7	95.1	95.1
	2 No	141	2.7	4.9	100.0
	Total	2861	55.4	100.0	
Missing	-7 Respondent is male	2290	44.4		
	-1 Not stated	12	.2		
	Total	2302	44.6		
Total		5163	100.0		

pub611 A4a: Age of respondent when first period occurred

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	8	2	.0	.1	.1
	9	12	.2	.4	.5
	10	95	1.8	3.5	4.1
	11	498	9.6	18.6	22.7
	12	884	17.1	33.0	55.7
	13	884	17.1	33.0	88.7
	14	301	5.8	11.2	100.0
	15	1	.0	.0	100.0
	Total	2677	51.8	100.0	
Missing	-7 Respondent is male	2290	44.4		
	-2 Periods not started	141	2.7		
	-1 Not stated	55	1.1		
	Total	2486	48.2		
Total		5163	100.0		

## **Question A5 (female)**

[Editing: The date variables were set to -1 for five cases with reported years earlier than 1995 and for three cases with values >12 in the month component. The same action was also taken for nine cases for which the reported date was later than the date of completion of the questionnaire. A variable was then created as PUB513c indicating which components of the date were missing. Then if a year had been reported but not a month the month was imputed as 6 unless the reported year equalled the year of receipt in which case the month was set to the month of receipt divided by 2 and rounded to nearest integer. If a month had been reported but not a year then the month was recoded to -1.]

pub613a A5: Date of first period - month

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 January	260	5.0	11.0	11.0
	2 February	142	2.8	6.0	17.0
	3 March	125	2.4	5.3	22.3
	4 April	194	3.8	8.2	30.6
	5 May	156	3.0	6.6	37.2
	6 June	297	5.8	12.6	49.8
	7 July	204	4.0	8.6	58.4
	8 August	311	6.0	13.2	71.6
	9 September	192	3.7	8.1	79.7
	10 October	147	2.8	6.2	86.0
	11 November	183	3.5	7.8	93.7
	12 December	148	2.9	6.3	100.0
	Total	2359	45.7	100.0	
Missing	-7 Respondent is male	2290	44.4		
	-2 Periods not started	141	2.7		
	-1 Not stated	373	7.2		
	Total	2804	54.3		
Total		5163	100.0		

pub613b A5: Date of first period - year

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1999	2	.0	.1	.1
	2000	3	.1	.1	.2
	2001	34	.7	1.4	1.7
	2002	161	3.1	6.8	8.5
	2003	400	7.7	17.0	25.4
	2004	651	12.6	27.6	53.0
	2005	672	13.0	28.5	81.5
	2006	389	7.5	16.5	98.0
	2007	47	.9	2.0	100.0
	Total	2359	45.7	100.0	
Missing	-7 Respondent is male	2290	44.4		
	-2 Periods not started	141	2.7		
	-1 Not stated	373	7.2		
	Total	2804	54.3		
Total		5163	100.0		

pub613c DV: Components missing (after identification of illegal dates)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 None	2245	43.5	82.2	82.2
	1 Month only	114	2.2	4.2	86.3
	2 Year only	18	.3	.7	87.0
	3 Month and year	355	6.9	13.0	100.0
	Total	2732	52.9	100.0	
Missing	-7 Respondent is male	2290	44.4		
	-2 Periods not started	141	2.7		
	Total	2431	47.1		
Total		5163	100.0		

#### Derived variable - Age at first period

The age of the respondent at her first period was calculated in months as PUB612 from the date of first period and the date of birth from ALSPAC's central database. For the purposes of this calculation the day of first period was assumed to be 15 unless the first period occurred in the same month & year as the questionnaire was completed, in which case it was set to the day of completion divided by 2 and rounded to nearest integer.

If the month of first period was the same as the month of birth then PUB612 was checked against the reported age in years from A4a (PUB611) and manual adjustment made to ensure compatibility if possible. For example, if PUB611 was 12 and the month of first period was the same as the month of birth then values of 143 in PUB612 were recoded to 144 and values of 156 recoded to 155. However, some inconsistencies remain between PUB611 and PUB612 because the reported values are not compatible.

80-70-60-90 95 100 105 110 115 120 125 130 135 140 145 150 155 160 165 170 175 180 DV: Age of respondent at first period (months)

pub612 DV: Age of respondent at first period (months)

pub612 DV: Age of respondent at first period (months)

•	•	•	` '
	_	Frequency	Percent
Missing	-7 Respondent is male	2290	81.7
	-2 Periods not started	141	5.0
	-1 Missing	373	13.3
	Total	2804	100.0

#### **Question A6**

[Editing: The information from part a of this question was captured as three separate variables with some instance of multiple entries. For example, ninety respondents reported a number of days and also ticked "It varies". The information was combined into a single variable PUB615 by taking the reported number of days and recoding values of -1 to -3 if "It varies" had been ticked and then recoding values of -1 to -9 if "Don't know" had been ticked. So a reported number of days was taken in preference to either tick and "It varies" in preference to "Don't know".]

pub615 A6a: Usual number of days of bleeding during each of the respondent's periods in the past year

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	6	.1	.4	.4
	3	72	1.4	4.3	4.6
	4	264	5.1	15.7	20.3
	5	604	11.7	35.9	56.3
	6	367	7.1	21.8	78.1
	7	300	5.8	17.8	96.0
	8	44	.9	2.6	98.6
	9	7	.1	.4	99.0
	10	8	.2	.5	99.5
	11	1	.0	.1	99.5
	12	2	.0	.1	99.6
	14	2	.0	.1	99.8
	28	1	.0	.1	99.8
	30	1	.0	.1	99.9
	35	1	.0	.1	99.9
	60	1	.0	.1	100.0
	Total	1681	32.6	100.0	
Missing	-9 Don't know	161	3.1		
	-7 Respondent is male	2290	44.4		
	-3 It varies	848	16.4		
	-2 Periods not started	141	2.7		
	-1 Not stated	42	.8		
	Total	3482	67.4		
Total		5163	100.0		

pub616 A6b: Estimated usual number of days of bleeding during each of the respondent's periods in the past year

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 3 or less	67	1.3	5.5	5.5
	2 4 to 6	1017	19.7	83.0	88.5
	3 7 or more	141	2.7	11.5	100.0
	Total	1225	23.7	100.0	
Missing	-7 Respondent is male	2290	44.4		
	-2 Periods not started	141	2.7		
	-1 Not stated	1507	29.2		
	Total	3938	76.3		
Total		5163	100.0		

#### **Question A7**

[Editing: The information from this question was captured as three separate variables with some instance of multiple entries. For example, forty-seven respondents reported a number of days and also ticked "It varies". The information was combined into a single variable PUB617 by taking the reported number of days and recoding values of -1 to -3 if "It varies" had been ticked and then recoding values of -1 to -9 if "Don't know" had been ticked. So a reported number of days was taken in preference to either tick and "It varies" in preference to "Don't know".]

Frequency A7: Usual length of respondent's menstrual cycle in the past year

pub617 A7: Usual length of respondent's menstrual cycle in the past year

plus the following missing values and outliers > 56:

pub617 A7: Usual length of respondent's menstrual cycle in the past year

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	84	1	.0	33.3	33.3
	112	1	.0	33.3	66.7
	140	1	.0	33.3	100.0
	Total	3	.1	100.0	
Missing	-9 Don't know	598	14.1		
	-7 Respondent is male	2290	54.1		
	-3 It varies	1114	26.3		
	-2 Periods not started	141	3.3		
	-1 Not stated	85	2.0		
	Total	4228	99.9		
Total		4231	100.0		

## **Question A8**

[Editing: For each of parts a, b and c if the initial indicator variable had value of -1 or 2 then the variable for (i) was set to -3.]

pub620 A8a: Respondent has had heavy or prolonged bleeding associated with period

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	908	17.6	34.1	34.1
	2 No	1755	34.0	65.9	100.0
	Total	2663	51.6	100.0	
Missing	-7 Respondent is male	2290	44.4		
	-2 Periods not started	141	2.7		
	-1 Not stated	69	1.3		
	Total	2500	48.4		
Total		5163	100.0		

pub621 A8a1: Doctor contacted about period associated heavy or prolonged bleeding

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	128	2.5	14.2	14.2
	2 No	775	15.0	85.8	100.0
	Total	903	17.5	100.0	
Missing	-7 Respondent is male	2290	44.4		
	-3 No heavy bleeding	1824	35.3		
	-2 Periods not started	141	2.7		
	-1 Not stated	5	.1		
	Total	4260	82.5		
Total		5163	100.0		

pub622 A8b: Respondent has had severe cramps associated with period

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	1272	24.6	48.8	48.8
	2 No	1334	25.8	51.2	100.0
	Total	2606	50.5	100.0	
Missing	-7 Respondent is male	2290	44.4		
	-2 Periods not started	141	2.7		
	-1 Not stated	126	2.4		
	Total	2557	49.5		
Total		5163	100.0		

pub623 A8b1: Doctor contacted about period associated severe cramps

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	148	2.9	11.7	11.7
	2 No	1113	21.6	88.3	100.0
	Total	1261	24.4	100.0	
Missing	-7 Respondent is male	2290	44.4		
	-3 No severe cramps	1460	28.3		
	-2 Periods not started	141	2.7		
	-1 Not stated	11	.2		
	Total	3902	75.6		
Total		5163	100.0		

pub624 A8c: Respondent has had period-type pain(s) in pelvic area most days of month even when not bleeding

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	527	10.2	20.6	20.6
	2 No	2031	39.3	79.4	100.0
	Total	2558	49.5	100.0	
Missing	-7 Respondent is male	2290	44.4		
	-2 Periods not started	141	2.7		
	-1 Not stated	174	3.4		
	Total	2605	50.5		
Total		5163	100.0		

pub625 A8c1: Doctor contacted about period-type pain in pelvic area occurring when not bleeding

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	66	1.3	12.6	12.6
	2 No	457	8.9	87.4	100.0
	Total	523	10.1	100.0	
Missing	-7 Respondent is male	2290	44.4		
	-3 No period-type pains when not bleeding	2205	42.7		
	-2 Periods not started	141	2.7		
	-1 Not stated	4	.1		
	Total	4640	89.9		
Total		5163	100.0		

## **Question A9**

pub627 A9: Respondent has taken oral contraceptives/birth control pills in past year

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	176	3.4	6.5	6.5
	2 No	2494	48.3	92.7	99.3
	9 Don't know	20	.4	.7	100.0
	Total	2690	52.1	100.0	
Missing	-7 Respondent is male	2290	44.4		
	-2 Periods not started	141	2.7		
	-1 Not stated	42	.8		
	Total	2473	47.9		
Total		5163	100.0		

## **Question A10**

pub628 A10a: Doctor has advised respondent of Thyroid problem or to take Thyroid medicine/treatment

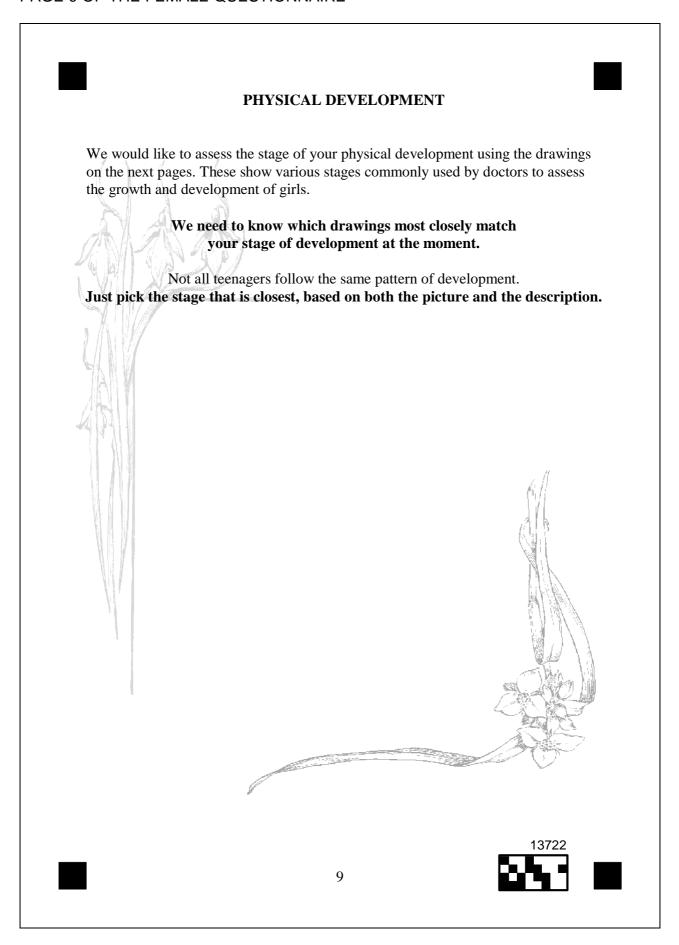
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	21	.4	.8	.8
	2 No	2708	52.5	97.0	97.7
	9 Don't know	63	1.2	2.3	100.0
	Total	2792	54.1	100.0	
Missing	-7 Respondent is male	2290	44.4		
	-1 Not stated	81	1.6		
	Total	2371	45.9		
Total		5163	100.0		

## Question A11 (female) / A4 (male)

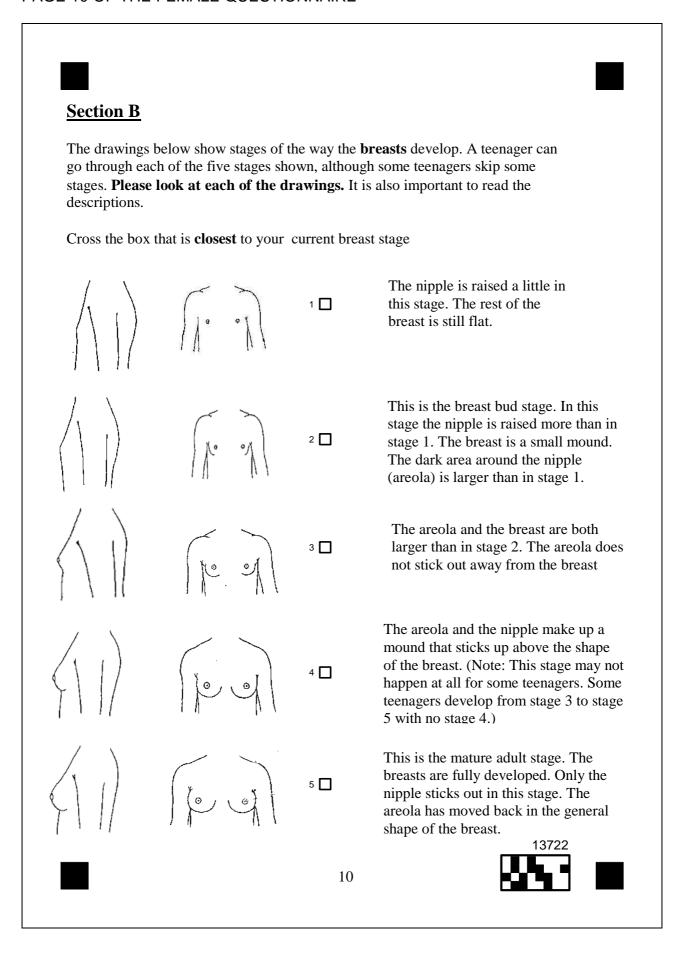
pub670 A11 (female) / A5 (male): Hair has started to grow in respondent's armpits

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	4637	89.8	92.2	92.2
	2 No	395	7.7	7.8	100.0
	Total	5032	97.5	100.0	
Missing	-6 Section A omitted	10	.2		
	-1 Not stated	121	2.3		
	Total	131	2.5		
Total		5163	100.0		

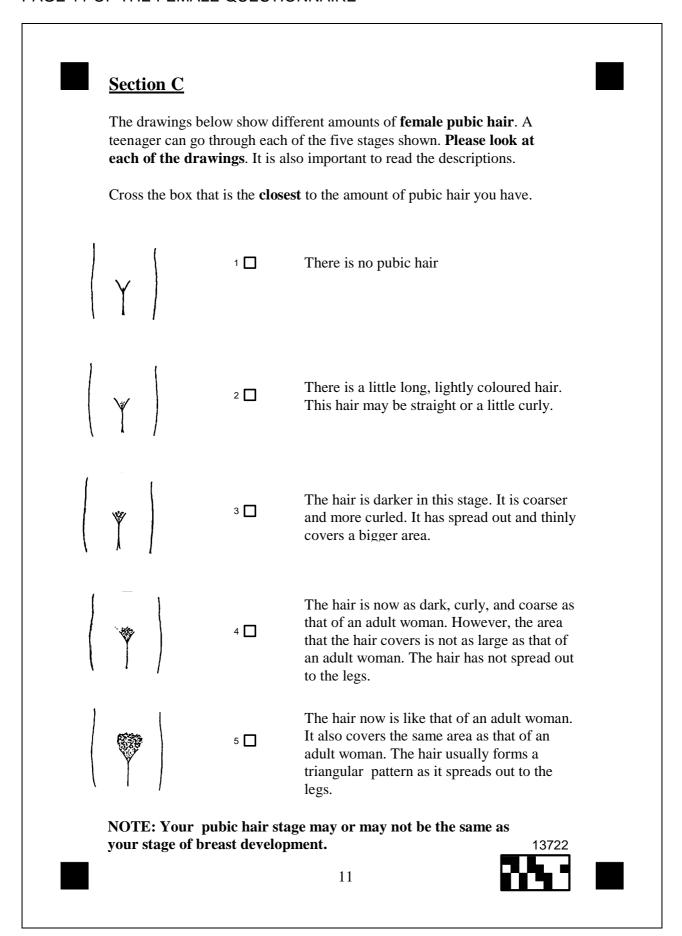
## PAGE 9 OF THE FEMALE QUESTIONNAIRE



#### PAGE 10 OF THE FEMALE QUESTIONNAIRE



#### PAGE 11 OF THE FEMALE QUESTIONNAIRE



## 14 Year Puberty File – Sections B & C (female)

pub630 B (female): Development stage of breasts

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Stage 1	3	.1	.1	.1
	2 Stage 2	40	.8	1.4	1.5
	3 Stage 3	472	9.1	16.9	18.4
	4 Stage 4	1539	29.8	55.1	73.5
	5 Stage 5	739	14.3	26.5	100.0
	Total	2793	54.1	100.0	
Missing	-7 Respondent is male	2290	44.4		
	-1 Not stated	80	1.5		
	Total	2370	45.9		
Total		5163	100.0		

## pub635 C (female): Development stage of pubic hair

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Stage 1	10	.2	.4	.4
	2 Stage 2	15	.3	.5	.9
	3 Stage 3	239	4.6	8.6	9.5
	4 Stage 4	1326	25.7	47.9	57.4
	5 Stage 5	1178	22.8	42.6	100.0
	Total	2768	53.6	100.0	
Missing	-7 Respondent is male	2290	44.4		
	-1 Not stated	105	2.0		
	Total	2395	46.4		
Total		5163	100.0		

## PAGE 5 OF THE MALE QUESTIONNAIRE



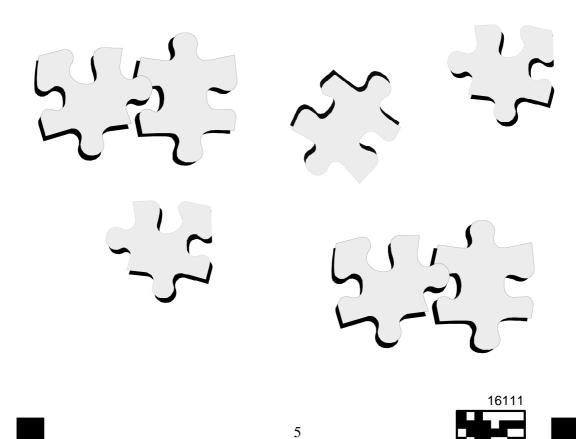
#### PHYSICAL DEVELOPMENT

We would like to assess the stage of your physical development using the drawings on the next pages. These show various stages commonly used by doctors to assess the growth and development of boys.

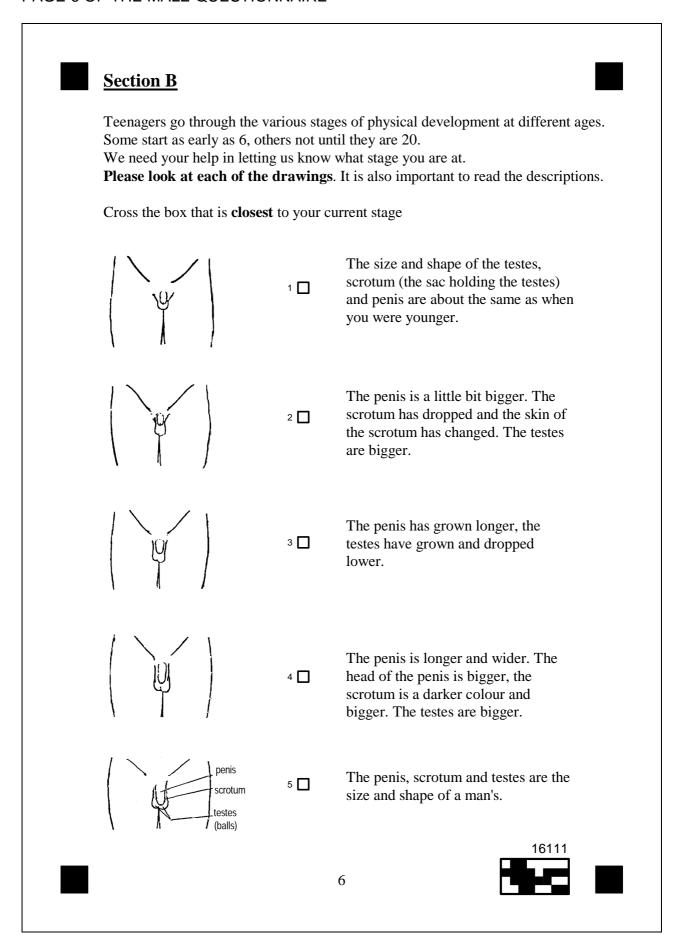
We need to know which drawings most closely match your stage of development at the moment.

Not all teenagers follow the same pattern of development.

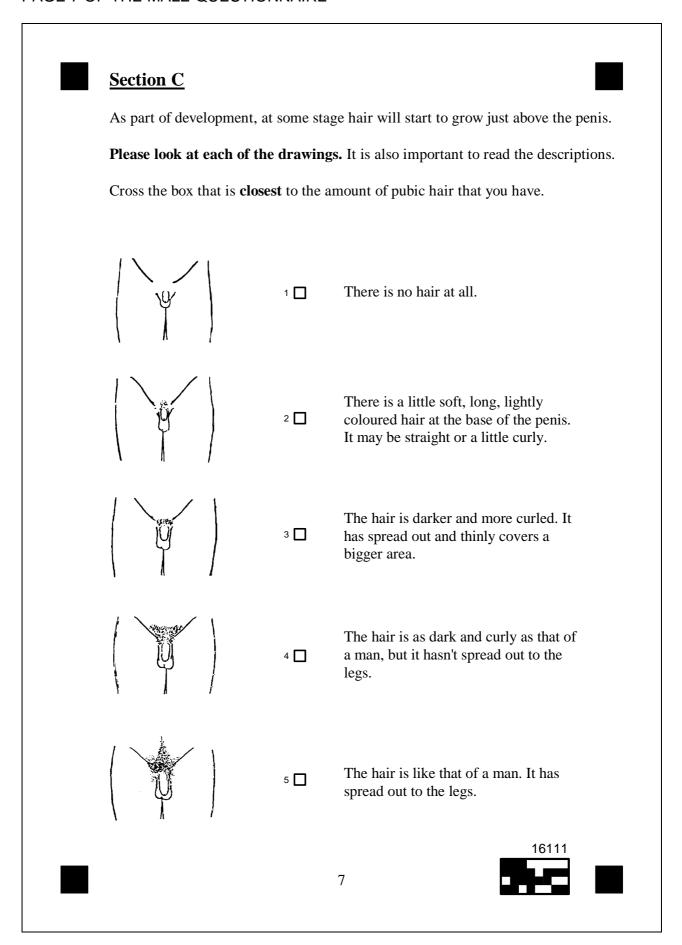
Just pick the stage that is closest, based on both the picture and the description.



### PAGE 6 OF THE MALE QUESTIONNAIRE



### PAGE 7 OF THE MALE QUESTIONNAIRE



## 14 Year Puberty File – Sections B & C (male)

pub650 B (male): Development stage of testes, scrotum and penis

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Stage 1	19	.4	1.0	1.0
	2 Stage 2	93	1.8	4.7	5.7
	3 Stage 3	342	6.6	17.3	22.9
	4 Stage 4	1005	19.5	50.7	73.6
	5 Stage 5	523	10.1	26.4	100.0
	Total	1982	38.4	100.0	
Missing	-7 Respondent is female	2873	55.6		
	-1 Not stated	308	6.0		
	Total	3181	61.6		
Total		5163	100.0		

### pub655 C (male): Development stage of pubic hair

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Stage 1	18	.3	.8	.8
	2 Stage 2	65	1.3	3.0	3.8
	3 Stage 3	248	4.8	11.3	15.1
	4 Stage 4	1226	23.7	56.0	71.2
	5 Stage 5	631	12.2	28.8	100.0
	Total	2188	42.4	100.0	
Missing	-7 Respondent is female	2873	55.6		
	-1 Not stated	102	2.0		
	Total	2975	57.6		
Total		5163	100.0		

## PAGE 12 OF THE FEMALE QUESTIONNAIRE

Section D						
D1. Did you have any h	elp to fill this in	?				
No 1 🗆						
Yes <sup>2</sup> □ ↓						
If <u>yes</u> , please s	ay who helped yo	ou:				
a) A pare	ent helped	1 🔲				
b) Someo	one else helped	1 🔲				
D2. What is your date o	Day f birth?	7	Month	l , [	Year <b>1 9 9</b>	
<b></b>			M 4	l'L		
D3. What is today's date	Day	/	Month	/ [	Year <b>2 0 0</b>	
Tì	nank you VE	RY mu	ch for you	ır help	)	
When completed, please	e send this back	to:				
	Children of t 24 Tyndall A Bristol BS8 1BR		ties - ALSP	AC		
	Offfice us	se only [	<b>-</b>	©	University of	Bristo
coder						

## PAGE 8 OF THE MALE QUESTIONNAIRE

Section D	
D1. Did you have any he	lp to fill this in?
No 1 🗖	
Yes 2 □ ↓	
If yes, please say	y who helped you:
a) A parer	nt helped ¹□
b) Someon	ne else helped 1 🔲
D2. What is your date of D3. What is today's date?	Day Month Year
Th	ank you VERY much for your help
When completed, please	Children of the Nineties - ALSPAC 24 Tyndall Avenue Bristol BS8 1BR
coder	Offfice use only   © University of Bristol
	http://www.alspac.bris.ac.uk/discovery

### **Question D1**

[Editing: If all three parts of question D1 were omitted then variables PUB690 to PUB692 were all set to -5. If either of the variables for parts a & b had value 1 then the initial indicator variable (PUB690) was set to 2 and values of -1 in PUB691 & PUB692 recoded to 2 'No'.]

pub690 D1: Respondent had help filling in the questionnaire

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 No	4414	85.5	87.1	87.1
	2 Yes	652	12.6	12.9	100.0
	Total	5066	98.1	100.0	
Missing	-5 Question D1 omitted	97	1.9		
Total		5163	100.0		

pub691 D1a: A parent helped fill in the questionnaire

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	556	10.8	11.1	11.1
	2 No	4443	86.1	88.9	100.0
	Total	4999	96.8	100.0	
Missing	-5 Question D1 omitted	97	1.9		
	-1 Not stated	67	1.3		
	Total	164	3.2		
Total		5163	100.0		

pub692 D1b: Someone else helped fill in the questionnaire

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	35	.7	.7	.7
	2 No	4964	96.1	99.3	100.0
	Total	4999	96.8	100.0	
Missing	-5 Question D1 omitted	97	1.9		
	-1 Not stated	67	1.3		
	Total	164	3.2		
Total		5163	100.0		

### **Question D2**

[Editing: Note that this reported date of birth is not used.]

### **Question D3**

[Editing: The date of completion was substituted with the date of receipt of the questionnaire from ALSPAC's administrative database if any of the following occurred: The date of completion was not fully completed, the date of completion was not a valid date (e.g. 31<sup>st</sup> November), the date of completion was later than the date of receipt or the date of completion was earlier than the date on which the questionnaire was sent out by ALSAPAC. This action was flagged in variable PUB696c. The month and year of completion were retained on the built file, but the day was dropped.]

pub696a D3: Date of completion of questionnaire - month

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 January	365	7.1	7.1	7.1
	2 February	280	5.4	5.4	12.5
	3 March	284	5.5	5.5	18.0
	4 April	284	5.5	5.5	23.5
	5 May	1372	26.6	26.6	50.1
	6 June	633	12.3	12.3	62.3
	7 July	485	9.4	9.4	71.7
	8 August	442	8.6	8.6	80.3
	9 September	337	6.5	6.5	86.8
	10 October	263	5.1	5.1	91.9
	11 November	264	5.1	5.1	97.0
	12 December	154	3.0	3.0	100.0
	Total	5163	100.0	100.0	

pub696b D3: Date of completion of questionnaire - year

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2006	2955	57.2	57.2	57.2
	2007	2208	42.8	42.8	100.0
	Total	5163	100.0	100.0	

pub696c DV: Date of completion replaced with date of receipt

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes, incomplete d.o.c.	208	4.0	4.0	4.0
	2 Yes, illegal d.o.c.	1	.0	.0	4.0
	3 Yes, d.o.c. < d.o.s.	107	2.1	2.1	6.1
	4 Yes, d.o.c. > d.o.r.	67	1.3	1.3	7.4
	5 No	4780	92.6	92.6	100.0
	Total	5163	100.0	100.0	

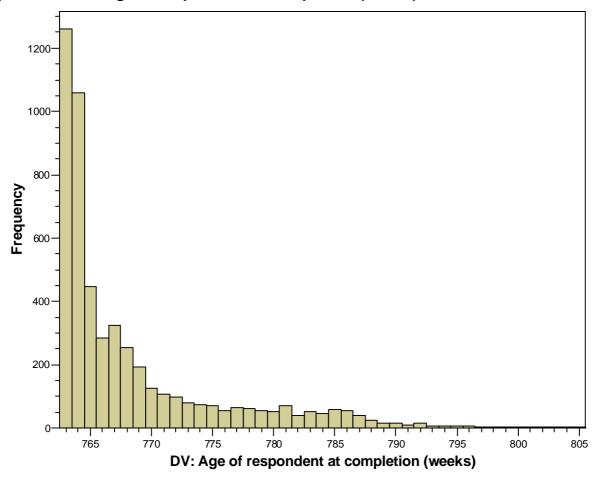
## **Derived Variables - Age at Completion**

The date of completion and the children's dates of birth from ALSPAC's central database, were used to calculate the child's age at completion in completed weeks and completed months.

pub697a DV: Age of respondent at completion (months)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	175	2431	47.1	47.1	47.1
	176	1312	25.4	25.4	72.5
	177	486	9.4	9.4	81.9
	178	282	5.5	5.5	87.4
	179	253	4.9	4.9	92.3
	180	224	4.3	4.3	96.6
	181	97	1.9	1.9	98.5
	182	34	.7	.7	99.1
	183	15	.3	.3	99.4
	184	12	.2	.2	99.7
	185	8	.2	.2	99.8
	186	2	.0	.0	99.9
	187	2	.0	.0	99.9
	188	1	.0	.0	99.9
	189	1	.0	.0	99.9
	190	1	.0	.0	100.0
	192	1	.0	.0	100.0
	193	1	.0	.0	100.0
	Total	5163	100.0	100.0	

pub697b DV: Age of respondent at completion (weeks)



plus the following missing values and outliers < 762 or > 805:

pub697b DV: Age of respondent at completion (weeks)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	762	1	8.3	8.3	8.3
	806	2	16.7	16.7	25.0
	809	1	8.3	8.3	33.3
	813	1	8.3	8.3	41.7
	815	2	16.7	16.7	58.3
	819	1	8.3	8.3	66.7
	822	1	8.3	8.3	75.0
	829	1	8.3	8.3	83.3
	837	1	8.3	8.3	91.7
	842	1	8.3	8.3	100.0
	Total	12	100.0	100.0	

## **Appendix A**

This appendix contains the general coding instructions for scanned questionnaires that are referred to whenever any questionnaire is being coded. This document provides a general overview to the coding process as well as defining abbreviations for standard methods that are used in the specific coding instructions for the questionnaire (see Appendix B).

### 14 Year Puberty File – Appendix A

General coding instructions for *electronically scanned* ALSPAC questionnaires – first version, 5th December 2005.

These points are taken and adapted where necessary from the "General coding instructions for ALSPAC questionnaires – 3rd revision" document. They are to be used in conjunction with the specific instructions for each questionnaire.

### General guidelines:

Check that the meaning of the question or the stated answer has not been adjusted by the respondent editing the question or qualifying the answer with words that make it not applicable.

Remember that a blank answer should always be left blank. It is not our task to infer what the respondent meant to say.

In cases where a box has been struck out, it should be considered as blank, meaning no answer given.

Logical editing will be taken care of by the data preparation team.

#### Dates

- a) If the <u>year is stated</u> but the day and/or month are left unfilled or are described as not known, then code the unknown element(s) as 99.
- b) In contrast, if the <u>year is blank or stated as not known</u>, but other elements of the date have been written, leave the unknown year *blank* so that there is no ambiguity with 1999.
- c) If the whole date is left totally blank, leave all blank.

### **Coding instructions:**

Each type of questionnaire has its own unique coding sheet. To carry out the instructions by a standardised method, the abbreviations that have been used are:

- 7 If more than one box is crossed, record the one with the lowest number in the specific range
- 8 If more than one box is crossed, record the one with the highest number in the specific range
- I If 'Yes' <u>and</u> 'no' are crossed in a <u>stand-alone</u> question, then leave the question blank. However, if the Yes/No have both been marked in a lead question with 'If Yes...' or 'If No...' after it, then the answer should be obvious from the information given after the 'If Yes/No'.

#### II Code as a number.

Make sure that the answer is in the required units, e.g. weeks rather than months, or pints rather than glasses, or whatever. There will be rules in the coding instructions as to whether to round fractions up or down, for each question where it is likely to occur.

Other possible 'non-standard' indications by the respondent:

If answer stated as not known, code as 9, 99, 999 or 9999 - depending on field length. For this occurrence with <u>dates</u> see above.

If "occasional" is stated where a number is required, this is usually coded as 97. There are occasionally other codes in the 90 range to be used as indicated in the coding instructions.

If "none" or "nil" is stated for a numeric response, code as zero.

If there is no response, or they reply "Not applicable", "N/A" or something equivalent, leave the boxes blank.

IV Code as ddmmyy for days, months, years. See instructions above about dates.

### 14 Year Puberty File - Appendix A

"Other, please describe" questions
Where information is written in an "other, please describe" box, check various points:

- 1. The information given there should not fit into one of the other categories in the question. If it is the same, recode it as that category, but if there is doubt, or it is clearly different, leave it as "other".
- 2. If there is information written in the box, it should have the corresponding box marked. If it is not possible to assign an answer to a corresponding box, (which happens often in qualitative answers) then assign the code "zero" - indicating a relevant comment has been given, but we don't know which "yes" category to put it into.

# **Appendix B**

This appendix contains the coding instructions specific to this questionnaire. Note that there are separate instructions for the male and female versions. The instructions for the female version are presented first.

### 14 Year Puberty File - Appendix B

<u>Coding instructions for: sixth version (03/03/06) "Growing and Changing (6) – Girl Teenager Questionnaire"</u> (fomerly known in Versions 1-5 as "Mother/Daughter Growing and Changing")

These questionnaires have all been electronically scanned.

### Coding the "Growing and Changing (6) - Girl Teenager Questionnaire" replies

For data preparation follow the general rules outlined in the "General Coding Instructions For Electronically Scanned ALSPAC Questionnaires – First Version, 5th December 2005".

## <u>In addition, run through the whole questionnaire to make sure that any names or other identifiers of the</u> respondent are deleted. These are not always in the text answers.

#### **Front Cover**

Check that the questionnaire number is present, and that the date of form is 03/03/06

Page 4, Section A		
A1	П, П	Round fractions down. If the height is given in more than one form, leave them both in. Convert 12+ inches to feet and inches. Convert 100+ cms to metres and centimetres.  If they have written NK or equivalent, code with 9s throughout.  Note that quite unrealistic and impossible answers are sometimes written in this question when respondents cannot cope with imperial and metric equivalents.
A2	II, II	As A1, but converting 'pounds' to 'stones & pounds' if necessary ( <b>14lbs</b> = 1 stone!). Again, note that quite unrealistic and impossible answers are sometimes written in this question when respondents cannot cope with imperial and metric equivalents.
A3	7	
Page 5		
A4		If Yes and No are both crossed, code as blank unless part a) is answered, in which case code as Yes.  If No is answered, ensure the skip to A10.
A4a	II	Round age down to completed years.
A5	II	Code as month, year. Code 'Not Known' or equivalent as 99 9999. If not yet started, should be blank.
A6a	II	If not yet started, should be blank. If 'It varies' is crossed as well as 'number of days', delete the number.
A6b	8	
A7	II	If not yet started, should be blank. If a range is given, code to the midpoint. If 'It varied' is crossed as well as 'number of days', delete the number.
Page 6		
A8a		If Yes and No are both crossed, code as blank unless there is a meaningful answer in part i), in which case code as Yes.  If No is answered, ensure the skip to A8b

## 14 Year Puberty File – Appendix B

A8ai		If Yes and No are both crossed, code as blank.
A8b		If Yes and No are both crossed, code as blank unless there is a meaningful answer in part i), in which case code as Yes.
A8bi		If Yes and No are both crossed, code as blank.
A8c		If Yes and No are both crossed, code as blank unless there is a meaningful answer in part i), in which case code as Yes.
A8ci		If Yes and No are both crossed, code as blank.
Page 7		
A9	8	
A10a	8	
A10b		If a relevant description is given in A10b, please ensure that the "yes" box is crossed in A10a. Please note that the text response is not being coded here.
A11		If Yes and No are both crossed, code as blank.
Page 10, Section B		
Breast development	8	
Page 11, Section C		
Beetion C		
Hair growth	8	
D 10		
Page 12, Section D		
D1		If both "Yes" and "No" are answered, code as blank <u>unless</u> an answer has been
		given in a) or b) in which case code as 2.
D1a,b		There should be either a cross or a blank here.
D2	177.	
D2	IV	The year should be either 91, 92 or Jan/Feb (only) 93, as there were no female cases born in 1990.
D3	IV	If this question is blank, copy the date of receipt from the front cover. Watch out for dates at the turn of the year as the stated year is sometimes incorrect!

### END OF QUESTIONNAIRE

Growing & Changing (6) – Girl Teenager Questionnaire (03/03/06)

Sheila Preece 19/04/06

coding specifications\nc06\chG&C Girl

### 14 Year Puberty File - Appendix B

<u>Coding instructions for: sixth version (02/03/06) "Growing and Changing (6) – Male Teenager Questionnaire"</u> (fomerly known in Versions 1-5 as "Parent/Son Growing and Changing")

These questionnaires have all been electronically scanned.

### Coding the "Growing and Changing (6) - Male Teenager Questionnaire " replies

For data preparation follow the general rules outlined in the "General Coding Instructions For Electronically Scanned ALSPAC Questionnaires – First Version, 5th December 2005".

<u>In addition, run through the whole questionnaire to make sure that any names or other identifiers of the</u> respondent are deleted. These are not always in the text answers.

#### **Front Cover**

Check that the questionnaire number is present, and that the date of form is 02/03/06

Page 4, Section A		
A1	П, П	Round fractions down. If the height is given in more than one form, leave them both in. Convert 12+ inches to feet and inches. Convert 100+ cms to metres and centimetres.  If they have written NK or equivalent, code with 9s throughout.  Note that quite unrealistic and impossible answers are sometimes written in this question when respondents cannot cope with imperial and metric equivalents.
A2	II, II	As A1, but converting 'pounds' to 'stones & pounds' if necessary ( <b>14lbs</b> = 1 stone!). Again, note that quite unrealistic and impossible answers are sometimes written in this question when respondents cannot cope with imperial and metric equivalents.
A3	7	
A4	8	
A5		If Yes and No are both crossed, code as blank.
Page 6, Section B		
Penis development	8	
Page 7, Section C		
Hair growth	8	
Page 8, Section D		
D1		If both "Yes" and "No" are answered, code as blank <u>unless</u> an answer has been given in a) or b) in which case code as 2.
D1a,b		There should be either a cross or a blank here.

## 14 Year Puberty File – Appendix B

D2	IV	There is only one male case in the cohort born in 1990. The year should otherwise be either 91, 92 or Jan/Feb (only) 93.
D3	IV	If this question is blank, copy the date of receipt from the front cover. Watch out for dates at the turn of the year as the stated year is sometimes incorrect!

### END OF QUESTIONNAIRE

Growing & Changing (6) – Male Teenager Questionnaire (02/03/06)

Sheila Preece 19/04/06

coding specifications\nc06\chG&C Boy

## **Appendix C: Questionnaire Methodology**

### Administration

Questionnaires were identified by a 9 digit check-summed identifier (QUESTIONNAIRE ID) that is unique to both the recipient and the particular questionnaire. These numbers, together with bar codes, were printed on sticky labels that were then applied to the front pages of the questionnaires prior to being mailed out. If a response was not received after 3 weeks a reminder letter was sent.

The receipt of questionnaires was logged by the Questionnaire Administration Department using a bar code scanning system, which recorded the date of receipt. If returned blank by the respondent (but not, for example, if returned as "not known at this address") this was flagged. The questionnaires were examined and if badly completed (e.g. marks not in boxes) or if text was written outside of supplied boxes then the office use box on the back page was marked in order to flag that detailed checking was required at the verification stage (see below). Any signed comments on the back page were dealt with as appropriate and the completed questionnaires batched together in batches of 20, separately for the male and female versions.

### **Data handling**

The questionnaires were designed using the Teleform data capture software. They were the first questionnaires completed by the study children to be designed in this way, although the Teleform system had previously been used for the carer and partner adult learning questionnaires and for staff completed forms from the Focus clinics. The questionnaires were booklets with A5 pages, stapled in the folded spine. The expected responses to the questions fall into four categories: self-coding tick boxes, numeric, free text and occasionally constrained print (text entered one letter to a box).

Completed questionnaires had the spine guillotined off and were then fed into a document scanner. The data were captured from the resulting images by the Teleform software. Any anomalies, such as multiple ticks or numeric / constrained print responses that the system could not interpret were flagged by the software and corrected by an operator at the verification stage. During verification the captured free text was also checked for accuracy. The rules for correcting multiple ticks and other anomalies were set out in the ALSPAC general coding instructions (see Appendix A) and the specific coding instructions for this questionnaire (see Appendix B). The numeric, tick box and any constrained print data were then exported to an SPSS data file and the free text exported to a database. The images of the forms were exported to the ADOS image storage system for archiving.

The SPSS data files then had appropriate variable and value labels applied. The administrative identifier (QUESTIONNAIRE ID) was converted to the research identifiers ALN & QLET. At the end of this process the data were classified as clean; they are deemed to accurately represent what the respondent actually entered on the questionnaire, except that the text responses have not been processed. The free text is available on request under special confidentiality rules for projects that require it.

In order to prepare the data for general release the clean data were matched to the information about dispatch and return held in the ALSPAC administrative database. This enabled creation of variables for all members of the cohort indicating whether or not a

### 14 Year Puberty File - Appendix C

questionnaire was sent out, whether it was returned etc. The variables were renamed according to a unique system to ensure there are no conflicts with variable on other data files. All variable names start with the letters "pub" which are followed by three digits (the first of which is always a 6) and occasionally a further letter. The data were then edited, adjusting for illogical responses, dealing with skip statements and adding useful derived variables, as described in the relevant sections of this documentation.