

# Fathers and Partners in National and International Birth Cohort Studies

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# **Fathers and Partners in National and International Birth Cohort Studies**

## **Background**

In recognition of the importance of Fathers to children's development and well-being the Nuffield Foundation and the ESRC co-funded an Expert Advisory Group (EAG) on Fathers and Partners from the June 2013 to September 2014 to consider a number of questions relating to the inclusion of Fathers and Partners in Life Study the new UK cohort study and to provide advice to the Scientific Steering Committee of Life Study responsible for the scientific protocol. This included the identification of key scientific opportunities and questions, a consideration of the approaches to maximising recruitment, retention and tracking of fathers. This review of how national and international cohort studies had recruited and retained fathers and the type of information collected was prepared for the EAG.

## **Introduction**

This report examines the ways in which national and international birth cohort studies have recruited and retained fathers and the types of information collected. The review focuses on large scale studies started over the last two decades in the UK, Europe, the USA and the Antipodes. The review covers studies that started in pregnancy, at birth and in infancy.

- ❖ There are a limited number of studies that have started in pregnancy including: community based studies such as Born in Bradford and ALSPAC in the UK; Generation R in the Netherlands; and more nationally representative studies such as Growing up in New Zealand and the Norwegian Mother and Baby study (MoBa).
- ❖ Very few of the recent cohort studies have commenced at birth. Two examples are the recent Etude Longitudinale Francaise depuis L'Enfance (ELFE) in France and the more longstanding US Fragile Families and Child Wellbeing Study.
- ❖ Studies that commence in Infancy are somewhat more common and the ones reviewed here are the Millennium Cohort Study, Growing up in Scotland, Growing up in Ireland, the Longitudinal Study of Australian Children (also known as Growing up in Australia) and the US Early Childhood Longitudinal Study (Birth Cohort).

## Studies started in Pregnancy

### Born in Bradford Study (BiB) <http://www.borninbradford.nhs.uk/>

- ❖ The Born in Bradford cohort study commenced in pregnancy and was set up to examine how genetic, environmental behavioural and social factors impact on children's health and development. Recruitment of the cohort ran from March 2007 to December 2010 with 13776 mothers recruited ante-natally. The ethnic composition of the mothers was 45% Pakistani, 39% White British, 4% Indian and the remaining 12% mix of Bangladeshi, Black, South Asia and mixed ethnicities. Additionally half of all the families were in the poorest quintile of the deprivation index for England and Wales.
- ❖ **Recruitment of Fathers:** Fathers were approached individually at the Maternity Unit during the mothers' recruitment or they were approached on the wards post-natally. Recruitment was opportunistic in that a father was only included if he attended with the mother and agreed to participate in the study. With a few exceptions (see Table 1) recruitment began with fathers who accompanied the mother for the oral Glucose Tolerance Test (GTT) and if not included at this time he was invited to participate when he accompanied his partner at other hospital visits, or after the birth. The great majority of mothers were recruited at the GTT clinic. The procedure was to invite the woman's current partner to participate regardless of whether or not he was the child's genetic father. If there was uncertainty about who was to be approached, the mother was asked who should be offered the opportunity to participate in the study.
- ❖ **The first interview :** The recruitment interview consisted of registration; consent to use of medical records and use of and storage of the saliva sample ; taking a saliva sample; height and weight and a short questionnaire which collected information on their education, employment, country of birth and when they came to the UK, smoking and drinking.
- ❖ **Timing of recruitment of fathers**

	N	%
Dating Scan	11	0.4
20 weeks scan	7	0.3
Glucose Tolerance Test (28 weeks)	1179	48.1
Delivery	120	4.9
Post natal ward	1043	42.6
Other	91	3.7
Total	2451	100.0

- ❖ **BiB 1000:** A subset of the cohort known as BiB 1000 included mothers recruited between August 2008 and March 2009 (n=1707) to study the patterns and aetiology

of childhood obesity. This sample has been followed up at 6 months, 12 months, 18, 24 and 36 months post partum. Telephone contact is made during the month before the child turns 6 months which is followed by a home visit at a time to suit the parents including evenings and weekends as necessary. At the 6 month and 12 month visits the mother's resident partner was invited to complete a questionnaire which included information on employment, general health height and weight, parenting and GHQ. This was given to the father to self-complete if he was present and then returned to the interviewer or left in the home to be returned by post.

- ❖ **Response Rates:** Based on the recruitment over the period March 2007 to the end of January 2010, 10,683 mothers and 2601 fathers (25 per cent) were recruited. Of these fathers, 97.5% (2537) completed the questionnaire and 87.5% (2276) gave a saliva sample. At the 6 month visit 1273 mothers were interviewed and 441 partner questionnaires were returned: a 35% response rate.

## **ALSPAC: Avon Longitudinal Study of Parents and Children**

<http://www.bristol.ac.uk/alspac/>

- ❖ The ALSPAC team has attempted to involve partners and fathers since the start of the birth cohort in 1990. Until the last few years, all contact has been via the mother, with limited (self-completion) questionnaire data. In recent years, the team has been recruiting fathers directly into the study, with growing numbers involved (now around 30 per cent). In addition, the team is now recruiting the original birth cohort members who become parents into a new study of their children, CoCo90s. And as part of this study, the team is also recruiting the child's other parent.

### **Contacting partners and fathers through mothers**

- ❖ Between 1990 (at the start of ALSPAC during the mothers' pregnancies) and 2005, fathers were periodically contacted to participate in the study (with questionnaires covering a range of different issues). Mothers were sent paper questionnaires which they were asked to give to their partner or the child's father to complete. Mothers were asked to give the questionnaire either to their current partner or to the person whom they viewed as the child's father or father-figure. This could be someone inside or outside of the home (so could be the non-resident father). This approach relied on the mothers' participation, and the team did not hold any contact information for partners/fathers. As a result, there was no mechanism for chasing or sending reminders to partners or fathers who did not return the questionnaire. In the early waves, the team received partner/father questionnaires from up to 75 per cent of families where the mother participated. Over time, the response among partners/fathers declined to under 50 per cent of participating families.
- ❖ There had also been some opportunistic hands-on data collection with fathers over this period, this but this was conducted in an ad-hoc manner. For example, where a father had brought their child in to a focus clinic and was also happy to take part, they would give limited measures such as a blood sample, BP and anthropometry where staff were available to take them.

## **Contacting fathers directly**

- ❖ Four years ago, the ALSPAC team began to recruit fathers to take part in clinic visits. There have been several strands to this recruitment. Mothers are given enrolment forms and asked to give these to their partner or the child's father. Later, the young people themselves were asked to approach their father or father-figure about enrolling. And there has been high profile direct advertising, including on the ALSPAC website. The team also sent father's day cards to enrolled fathers to encourage them to attend the clinic.
- ❖ Up to 3,500 fathers (around 30 per cent of fathers) have enrolled to participate in the study, and the ALSPAC team now liaise directly with these fathers.
- ❖ So far, fathers have been invited to two clinics and non-attenders were sent a questionnaire. Fathers are sent an invitation to attend the clinic, which includes a response slip. The ALSPAC team then contact the father to make an appointment. Fathers are followed up with at least one postal reminder and as many phone calls as possible until contact is made and fathers either book an appointment or decline.
- ❖ Fathers attending the clinic are given a £20 voucher as a thank you. Early focus group feedback from fathers highlighted the importance to fathers (more than to mothers) of being able to attend clinics in the evenings and weekends. As a result, the timing of fathers' clinics is biased towards these out-of-work hours.
- ❖ The team has not yet looked at the representativeness of the fathers enrolling to the study or attending the clinics. However, anecdotally, they perceive greater levels of participation among biological fathers and from middle-income households.
- ❖ Fathers are being asked for permission to link to their health records. As this project is still underway, no information is available on the proportion of fathers providing consent.

## **Keeping in touch with fathers**

- ❖ Most recently, the ALSPAC team keep in touch with 'the whole family' via a single annual newsletter rather than take a tailored approach for different family members. They do this in order to emphasise the fact that ALSPAC is a study of their family, rather than of individual members. From the father's perspective, it emphasises the importance of their role within this wider study set-up. The team also sent father's day cards in 2013.
- ❖ The mother is still seen as the primary contact by the ALSPAC team, as they view her willingness to continue to participate in the study as key to ensuring that other family members participate.

## **Children of the Children of the 90s (CoCo90s)**

<http://www.bristol.ac.uk/alspac/participants/coco90s/>

### **Fathers in the original birth cohort and their partners (CoCo90s)**

- ❖ For the past two years, the ALSPAC team has been recruiting parents from within the original birth cohort to join a new study which will track these new families. Ideally, these parents are picked up during pregnancy (e.g. during an interview for the original birth cohort study), although the team is retrospectively identifying any parents from within the cohort. Mothers of the original birth cohort are also asked if they are grandparents in order to identify birth cohort members who are parents.
- ❖ Expectant or parent cohort members are asked if they are willing to enrol into the CoCo90s study. They are provided with paperwork and enrolment forms for both themselves and their partners. The documentation stresses the importance of fathers' involvement in the study.
- ❖ To date, 430 parents have been identified from among the original birth cohort, of whom 375 have agreed to be sent information about joining the CoCo90s study. In order to avoid any request to join this new cohort study jeopardising the involvement of the young person in the original ALSPAC study, these young parents are given the choice to opt in to the new cohort study, which is being described and treated as a separate study.
- ❖ There is a skew towards more mothers than fathers agreeing to join the CoCo90s study: 134 cohort mothers have joined, compared to 22 cohort fathers. Anecdotally, the CoCo90s team perceive that in a large proportion of cases, this is because the partner is not involved in the pregnancy or in the child's life, and that those who are involved tend to be happy to enrol in the study.
- ❖ Although some partners decide not to enrol in the study when they receive the original paperwork, if they attend a clinic with the mother or child, they are often happy to enrol at that point, once they have a clearer idea of what is involved. This shows the importance of getting partners to attend the clinic rather than relying on written communications.
- ❖ The plans so far for involving fathers in this new study are (a) during pregnancy, at a clinic visit (including a blood sample) with a questionnaire and consent to data linkage then (b) when their child is 2 years old and (c) when their child is 3 years old.
- ❖ With reference to mode of collection the CoCo90s team is finding it easier to communicate with the mothers and fathers of this new cohort by email or text rather than by phone.

## **Growing up in New Zealand (GUiNZ) <http://www.growingup.co.nz/>**

Growing Up in New Zealand is a longitudinal study of approximately 7,000 children and their families that began in pregnancy. Both mothers and their partners were recruited. The study follows a cohort of children born in 2009 and 2010 who are broadly representative of the population of new babies born in New Zealand. The ante-natal study collected information on health and well-being, psychosocial and cognitive development, education, family relationships and aspiration for the child, neighbourhoods and environment and culture and ethnicity, and has strong links with policy makers at all phases to facilitate the transition of research findings into policy. To date it has not collected any biomarker information. Multiple strategies were used to make contact with eligible mothers. The most common source of referrals were the Lead Maternity Carers – referral (41%), Shopping Malls – direct referrals (39%) and 12% self-referral from the Web.

### **Recruitment of Partners**

- ❖ Partners could only be recruited at baseline if the mothers provided their contact details to the recruitment team. Partners were defined as being the current social partners of the mothers at the time they enrolled in the study. Specifically partner was defined as the one she was in a “significant social relationship with”. If contact details were provided an independent interview with the partner was arranged. Antenatal interviews were completed with 6822 mothers, and 4401 (65%) of their partners consented to participate in the longitudinal study. Nearly 87% of these partners completed their interviews before the birth of the cohort child, while 13% completed them after the child was born. In 99% of the cases partners were the biological fathers of the children.

### **Data Collection**

- ❖ The antenatal contact (completed in June 2010) consisted of a face- to-face Computer Assisted Personal Interview (CAPI) with the pregnant mother (most often in the last trimester of her pregnancy) and with her partner (almost always the father). The interviews mainly took place in their own homes. Baseline results are to be found in *Report 1: Before we are born* (2012). A second face-to-face CAPI with the child’s mother and her partner took place when the cohort children were nine months old and was completed in January 2011.
- ❖ In addition, brief Computer Assisted Telephone Interviews (CATI) were conducted six weeks after the expected date of delivery (EDD) of the cohort children (the first point of contact after birth), and when the children were approximately 35 weeks old. These CATI allowed the collection of age-appropriate developmental information on the child and also assisted with cohort retention.

### **Cohort retention and data completeness**

- ❖ The first postnatal contact was a CATI, which occurred at six weeks following the mother’s EDD. Of those who were contacted (6751 mothers or 99% of all those who provided data in pregnancy) it was determined that a total of 6846 live births made

up the participant cohort for *Growing Up in New Zealand*. There were 6384 mothers (94% of all those who provided data in pregnancy) who completed the interviews when the babies were nine months old. These mothers included a small number of new participants who were now the primary caregivers of the babies through a formal or informal adoption arrangement, or were extended family members taking on this role. Of the 6846 children in the *Growing Up in New Zealand* cohort, information for 6470 (95%) was collected at the nine-month contact. Information from 4094 partners was collected when the babies were nine months old (93% of those responding in the antenatal period). Of these, 25 were new partners who were either newly involved in the lives of the cohort children, or who were now interested in being involved in the study despite not wanting to be involved in the antenatal period. There were 258 partners who did not contribute to data collection when the babies were nine months old as they had requested to opt out of this contact, or could not be contacted.

### **Linked data**

- ❖ In addition to the CAPI and CATI information, just under 98% (6656) of the 6822 mothers recruited antenatally consented to *Growing Up in New Zealand* accessing health information for themselves and their infant in the first year of life. Overall, linked perinatal data was obtained for 6652 mothers (98% of all mothers who provided data in pregnancy and 99.9% of those who consented to data linkage) and 6696 babies (98% of the *Growing Up in New Zealand* cohort at birth). Because linked data came from multiple sources, each of which collected information in slightly different ways, extensive consistency checking and validation was required to create one complete perinatal dataset that could be merged with the other longitudinal datasets. Missing information in the linked data on key variables was completed by direct contact with parents wherever practicable, usually at routine CATI contacts. No linked data for fathers has been made.

### **Generation R (Netherlands) <http://www.generationr.nl/>**

Generation R is a longitudinal study of 10,000 children growing up in Rotterdam who were born between 2002 and 2006. The study was designed to identify early biological and environmental determinants of growth, development and health in fetal life and childhood. The core research question is why some children develop optimally whilst other children do not. Enrolment occurred from 18 weeks of pregnancy to birth. Only fathers where the mother was enrolled during pregnancy were eligible to be included. The fathers were not approached directly by the study staff but the mothers were informed about the importance of involvement of the fathers in the study. Seventy one per cent of the fathers were enrolled in the study (n=6347).

### **Pregnancy and birth**

- ❖ Measurements in the prenatal phase of the study were conducted in two research centres in the study area, with a close collaboration with midwives and hospitals Data collection in the prenatal phase included a range of measures.

- Physical examinations were carried out at each visit in early pregnancy, mid-pregnancy and late pregnancy and included height, weight and blood pressure measurements of both parents.
  - Mothers received four postal questionnaires and the father received one postal questionnaire in the prenatal phase. Topics in these questionnaires varied and included medical and family history, diet, life style habits and socio-economic data.
  - Fetal ultrasound examinations were performed at each prenatal visit. These ultrasound examinations were used to establish gestational age and to assess fetal growth patterns.
  - Biological samples included blood samples collected in early and mid-pregnancy, and birth and also cord blood at delivery. Urine samples of mothers have been collected and used for measurement of several environmental exposures, metabolites and pesticides.
- ❖ The father's questionnaire collected information on occupation, education and income smoking, alcohol and substance use. Information was also collected on their health including information on diabetes, mental health, cardio-vascular disease, cancer, autoimmune disease, musculo-skeletal disease, asthma/allergy, infectious diseases and blood pressure. Biological samples included whole blood and purified DNA. All this information was collected during the pregnancy. 82% of the enrolled fathers answered the questionnaire and provided a blood sample.
- ❖ During the pre-school period mothers received a further 8 questionnaires and the father an additional one at 36 months. Additionally, observations of parent-child interaction and behaviour, such as executive function, heart rate variability, infant-parent attachment, moral development, and compliance with mother and child have been performed at the ages of 14, 36 and 48 months and with the father and the child at 48 months.
- ❖ A number of epigenetic studies have emanated from this study examining the children's emotional development from foetal life onwards. The role of Fathers in children's development has also been examined.

### **The Norwegian Mother and Child Cohort Study (MoBa)**

<http://www.niehs.nih.gov/research/atniehs/labs/epi/studies/moba/>

MoBa recruited more than 90,000 pregnant women between 1999 and 2008. Recruitment took place at the first ultrasound scan in a hospital or maternity unit. Over 70,000 fathers have also participated. So far there are eight self-completed postal questionnaires for the mothers and one for the fathers. The father's questionnaire is sent out in the 15th week of pregnancy and includes questions on the father's physical and mental health, his lifestyle and working conditions. As far as can be ascertained the only other information collected on partners in later pregnancy and the child's first year of life is some proxy information on smoking behaviour which is included in the 30 week pregnancy questionnaire and in the 4-6 month questionnaire to the mother.

## **Birth Surveys**

### **Etude Longitudinale Francaise depuis L'Enfance (ELFE)**

<http://www.elfe-france.fr/index.php/en/>

ELFE is a French longitudinal study of approximately 20,000 children born in metropolitan France in 2011. Mothers were recruited from a representative sample of French maternity hospitals, and included all mothers giving birth during 4 periods of 6 days spread over the year 2011. There is a specific follow-up of children born before 33 weeks' gestation as part of a parallel project "Epipage-2". Whilst in the maternity hospitals a questionnaire was administered to the mother by the midwife, information is also collected on pregnancy and childbirth from medical records, biological samples (cord blood, maternal urine, venous blood, hair and breast milk), and a self-completion questionnaire on diet and environmental exposures during pregnancy. Consents to participate in the study are obtained from the mother and father. Biological samples were collected for a sub-sample of 10,000 mothers.

### **Follow-ups**

- ❖ When the child was 6-8 weeks old there was a telephone interview with the mother lasting around 50-60 minutes and one with the father of around 20-30 minutes. This interview collected information on the children's living conditions, family circumstances, diet, education and environment. Between 3 and 12 months there are three self-completion questionnaires on infant feeding which are sent and returned by post. Around the child's first birthday there is another telephone interview with the mother and father and another is planned for when the child is two years old.

### **Response rates**

- ❖ The response rate to the individual parent questionnaire at two months after birth was 86% for mothers and 79% fathers. First results for participation at the one year interview show that amongst the parents still in the cohort at this point 82% of mothers (corresponding to 77% of mothers contacted at 2 months) and 70% of fathers (corresponding to 65% of fathers contacted at 2 months) responded to the questionnaire. The response rates for the infant feeding questionnaire, which was sent by post, were much lower at around 56 per cent.

### **Fathers are a specific focus of ELFE**

The ELFE team highlight the importance of fathers in their study and suggest that there has been a lack of interest in fathers in many other cohort studies and that most rely on the mother to obtain data. They point to the fact that the place and function of the father in the family has changed considerably in recent decades, with parents assuming new roles and that men are "a more active and affective presence in the child's life". Consequently, they plan that fathers will be contacted almost as frequently as the mother, and both resident and non-resident fathers will be

followed-up. They will be asked about issues such as their relationship with their children, housing conditions and division of household and childcare tasks. As yet (at the time of writing) there is very limited information available in the public domain such as questionnaires. Findings are reportedly due from 2014 onwards so more materials may become available. Subsequent to writing to this report a personal communication kindly provided by Lidia Panico of INED on response rates for non-resident fathers indicated that only 16% of non-resident fathers responded to the 2 month survey and 21% to the one year old survey.

## **US Fragile Families and Child Wellbeing Study (FFS)**

<http://www.fragilefamilies.princeton.edu/>

The Fragile Families Study was primarily designed to follow the lives of children born to unmarried parents, but the sample also includes a comparison sample of children born to married parents. The Study follows a cohort of nearly 5,000 children born in U.S. cities between 1998 and 2000 (roughly three-quarters of whom were born to unmarried parents). The cities were selected using a stratified random sample of all U.S. cities with a population of 200,000 or more. Cities were grouped according to their policy environments and labour market conditions in order to ensure diversity in policy environments.

### **Birth interview**

- ❖ The core study began with mothers interviewed in the hospital soon after the child's birth. Most fathers were also interviewed in the hospital. These initial interviews were followed by telephone interviews with both parents when the child was one, three, five, and nine years old. The interviews were about an hour in length, and collected extensive information on socio-demographic characteristics, parents' health, parental relationships, parenting, and child wellbeing. In addition there were in home interviews with a subset of mothers and children at ages 3, 5 and 9 years.
- ❖ In the hospital mothers were asked to identify the father of their child. Fathers were interviewed either in person at the hospital (66%) or by telephone (20%) (a few also occurred in the father's home). 89 per cent of the co-resident fathers were interviewed as compared with 61% of the non-resident fathers. Response rates for the latter group were lower as a third of the fathers had not visited the hospital by the time the mother was interviewed and also sometimes due to mothers choosing not to provide the father's name. Both the parents were given a \$20 incentive and both parents were also given an additional \$5 if the father interview was completed at the hospital. At later waves (ages 1, 3 and 5) mothers and fathers who responded were given \$30 dollars each and at the age 9 survey \$75 each.
- ❖ Interviewers were trained to deal sensitively with the situation of parents not living together. When attempting to contact fathers outside the hospital, they were required to keep the specific nature of the study confidential as some fathers might be living with extended family who may have no knowledge of the baby. In such cases the materials sent to the father's address made no reference to "parents".

- ❖ As we see in the Table below there was a decline in response rates overtime, but still 7 out of 10 of the Fathers resident at baseline responded, and many of these fathers would not have been co-resident at subsequent follow-ups. Amongst the fathers who were non-resident at birth one in two were still responding when the child was 5 years old which represents 87% of those who completed at baseline.

#### Completion Rates for Fathers: Fragile Families Study

	Residential at Baseline	Non-Residential at Baseline
Baseline (Birth)	89%	61%
1-YR	79%	54%
3-YR	76%	53%
5-YR	72%	53%

Special tabulation made for this report by the Fragile Families Study Data Manager Kate Jaeger

#### Biomarkers

- ❖ Saliva DNA samples were collected from the mother and the child at the age 9 follow-up using the Oragene DNA sample collection kit. No DNA has been collected from the fathers. Eighty one per cent of the mothers and children in the in-home survey provided samples. DNA for the children will also be collected at the age 15 sweep, which goes into the field this year that will allow the study of epigenetic changes.
- ❖ Several projects are underway with the Year 9 genetic files. These include early research with the telomere files; research on the environmental and genetic predictors of juvenile delinquency; and the role of genetic risk scores and individuals' differential susceptibility to poverty in relation to obesity; research on children's genetic sensitivity to variations in cumulative risk and early harsh parenting and research examining genetic effects on the comorbidity of internalizing and externalizing trajectories.

#### Studies started in Infancy

A number of studies commenced in infancy. Here we review relevant elements from the Millennium Cohort Study (started at 9-11 months), Growing-up in Scotland (10 months), Growing up in Ireland (9 months), the Australian Longitudinal Study of children (6-12 months) and the US Early Childhood Longitudinal Study (9 months).

## **The Millennium Cohort Study**

<http://www.cls.ioe.ac.uk/page.aspx?&sitesectionid=851&sitesectiontitle=Welcome+to+the+Millennium+Cohort+Study>

### **Including fathers as main carers or partners**

- ❖ The Millennium Birth Cohort (MCS) collects the majority of its 'parent' data from the main carer, who is usually the child's mother. Since the first wave when the child was 9-11 months, the study has also included a shorter interview with the main carer's resident partner. With the exception of a pilot in Wave 3, no attempts have been made to interview non-resident parents.
- ❖ Although fathers are eligible to be interviewed as the main carer, the number of cases where this happens is small. The initial contact in wave 1 was with the Child Benefit recipient (in all but a minority of cases identified by health visitors), who is almost always the mother. And, at that wave, wherever possible, main carer data were collected from mothers, as the MCS team wanted to collect information on the pregnancy (and to ask for consent to data linkage to pregnancy records). In wave 1, 21 fathers were interviewed as the main carer (18 of whom were lone fathers). Over time, the number of cases where the main carer interview is conducted with a father has increased, but still (in Wave 4) only amounted to three per cent of the interviews – with 392 fathers (99 lone fathers, 293 couple fathers).
- ❖ So, the vast majority of data on fathers comes through the partner interviews. At each wave, partner interviews are conducted with the current partner of the main carer, regardless of their status to the MCS child - although this relationship is recorded in the interview so fathers can be identified. Partners/fathers who leave the household in subsequent waves are no longer eligible to be interviewed as part of the MCS. So, at each wave, the MCS provides data on resident (or at least partly resident) fathers, as well as step-fathers, but nothing (directly) from non-resident fathers.
- ❖ Partners are defined as resident – or at least eligible for interview – if they stay overnight at least one or two nights each week. So, in effect, the MCS collects data from partners whose permanent residence may be elsewhere, but who have a regular overnight presence in the child's home.

### **Response rates and representativeness**

- ❖ Wave 1 of the MCS included data on 72 per cent of natural fathers. In 17 per cent of households, there was no resident partner (i.e. the father was not resident for whatever reason) and in a further 10 per cent a resident partner did not complete the interview. In only 61 cases, the interviewed partner was not the MCS child's natural father.
- ❖ Across the five waves of fieldwork completed to date, the response rate to the partner interview has remained high and stable. For example, at wave 5 (age 11

years) 87 per cent of eligible partners were interviewed in households where the main carer participated. Response is higher in more advantaged wards and in wards with a lower BME density (e.g. in wave 1, overall partner response rate was 88 per cent, but it was 90 per cent in advantaged wards and 79 per cent in English wards with high BME proportions).

- ❖ The main carer is able to do the partner interview by proxy if the partner is unable to do the interview during the fieldwork period (through illness or absence). Proxy interviews are not allowed in cases where the partner refuses to participate in person or the main carer refuses on their behalf. Across the waves, the proportion of partner interviews conducted by proxy is only around one or two per cent.
- ❖ An analysis of wave 1 data found that there were some non-response biases in terms of partner participation in the survey. Partners were less likely to be interviewed in households where the main respondent: was unmarried, Asian/Black, educated below degree level, had more children, lived in high BME/disadvantaged wards.

### **Contacting and keeping in touch with resident fathers (partners)**

- ❖ In the initial first wave, opt out and introductory letters were addressed to the mother alone (as hers were the only details available on the Child Benefit records). At that stage, the mother was the gatekeeper to accessing partner's contact details. More recently at each wave advance letters are addressed to both partners in households identified as couple households in the previous wave. This is done regardless of whether the partner participated in an interview in the previous wave.
- ❖ Information leaflets also mention the fact that the interviewer would like to interview partners as well as main carers (often referred to as interviewing 'fathers' and 'father-figures').
- ❖ Again, thank you letters sent out after interviews were addressed to both the main carer and their partner where both had participated.
- ❖ When getting in touch, interviewers are briefed to firstly attempt contact with or trace the main carer interviewed in the previous wave. Initial contact with the previous partner respondent is only made if the interviewer is unable to get hold of the main carer respondent. Separate contact and details are collected from partners as well as main carers.
- ❖ Interviewers are briefed to make sure that the survey is explained clearly to each respondent, and each gives fully informed consent - rather than proxy consent being given by the main carer on behalf of the partner, or the partner consenting without the full information.
- ❖ Some technical documentation refers to the fact that interviewers (e.g. in pilot debriefings) reported finding it more difficult to contact fathers than mothers. Although not encouraged, interviewers were allowed to conduct the partner interview before (or on a different visit to) the main carer interview if they felt it was the best opportunity of achieving the partner interview.

- ❖ In wave 5, an introductory letter for partners was introduced into the documentation. Interviewers leave this letter for partners where they have interviewed the main carer but the partner was not available at that time. The aim of the 'partner specific' letter was to encourage their response.
- ❖ In early piloting, interviewer feedback on partners' reaction to the interview led to the inclusion of more questions at the start of the partner interview on their involvement in their child's life. These were introduced to make the interview more interesting and engaging to fathers and partners.

### **Contacting non-resident parents**

- ❖ Non-resident parents are not eligible for interview within the MCS. However, in the piloting stage of wave 3, the MCS team tested whether it might be feasible to collect some data from non-resident parents. In situations where the non-resident parent was in contact with their child, interviewers asked the main carer for the contact details of the non-resident parent in order to send him a self-completion questionnaire. In cases where the main carer was reticent to give out contact information, she was asked if she would be willing to pass on the questionnaire to the non-resident parent. The pilot results were not encouraging, and the methodology was not pursued in the main stage. Among the 22 eligible households identified in the pilot, five mothers refused to provide details or pass the questionnaire to the non-resident father. Among the other 17 households, less than half of the mothers provided the non-resident father's address, with the others passing on the questionnaire directly (which counts out the possibility of sending reminders). Only three fathers returned the questionnaire (after a reminder in the case of those with addresses provided).

### **Growing Up in Scotland <http://growingupinscotland.org.uk/>**

Growing up in Scotland (GUS) is a longitudinal cohort study funded by the Scottish Government and run by ScotCen Social Research. There have been three cohorts (each sampled from Child Benefit Records): two ongoing birth cohorts that began in 2004 and 2010, and a cohort of children that ran from 2002 to 2007, tracking them from age 3 to age 6. The following largely applies to the 2004 birth cohort.

### **Including fathers as partners**

- ❖ In all but one sweep (sweep 2), interviews have been conducted with the main carer (almost always the mother) with any information about partners/fathers collected by proxy. Proxy data and updated at each sweep includes the household grid data, employment and educational qualifications. When a new partner enters the household information on their religion and ethnicity is recorded.
- ❖ In sweep 2, the children in the birth cohort were just under 2 in addition to the main carer (mother) interview, the mothers' resident partners were interviewed. While 97 per cent of those interviewed were the GUS children's natural fathers, no attempts were made or have subsequently been made to contact or interview non-resident fathers.

- ❖ The partner's interview included, for example, information on parenting, work, employment and income. One of the rationales for having a partner interview was to obtain accurate factual information on employment and education and to gauge different attitudes to parenting styles such as approaches to discipline and division of domestic responsibilities.

### **Response rates and representativeness**

- ❖ Among households where the main carer was interviewed, 80 per cent of partners interviewed. There was a degree of non-response bias among the participating partners, which included, partners being more likely to respond when:
  - Mothers were over 40;
  - Mothers had fewer children (first time mothers);
  - Mothers were educated to degree level;
  - Children were white;
  - Mother works full-time (sole earner fathers less likely to respond);
  - Neither parent in work or worked short hours.

### **Contacting and interviewing resident fathers (partners)**

- ❖ The advance letter was sent to the main carer, but mentioned the partner interview within it. There was no direct correspondence with the partner. Where possible, the partner interview was conducted when the interviewer visited the main carer. If not, they arranged to make a second visit. On rare occasions (e.g. remote addresses) the partner interview was conducted by telephone.
- ❖ The partner interview was arranged via the mother unless the partner was in the home at the time the mother interview was conducted. Partners (resident fathers) were asked a 20-25 minute interview, including a subset of questions asked of the mother.
- ❖ No consent for data linkage was sought from partners, nor separate stable address or contact details.
- ❖ The Scottish Government has not funded further sweeps with fathers as there was little policy use of the data.

### **Growing up in Ireland <http://www.growingup.ie/index.php?id=83>**

Growing up in Ireland is a national longitudinal study launched in 2007 and 2008 of two birth cohorts of children an infant cohort and a cohort of 9-year-old school children (n=8500) sampled from a random sample of schools. The Infant Cohort consists of 11,000 children selected randomly from the Child Benefit Register. The first wave of face-to-face interviews with these families took place when the infants were aged nine months from September 2008 to April 2009. Interviews for the second round of data collection took place when the child was 3 years of age and 91 per cent responded. A special tabulation provided by Richard Layte of Growing up in Ireland and Trinity College Dublin showed that of the 11134 households interviewed in wave 1 9,775 were two parent households (88%) and in these two parent households interviews were

obtained with 8,629 father partners - a response rate of 88%. For the 8568 children in the 'child' cohort (9 year olds), 7,577 or 88% were two parent households and 7,118 interviews were obtained with fathers – a response rate of 94%.

- ❖ A specially trained Study Researcher arranged a visit to the home of the infant at a time convenient for the family. The infant's parent(s) filled out separate questionnaires, which covered areas such as the child's health and development, daily routines and childcare arrangements. The parents were also asked questions about their own health and lifestyle and parental experiences.
- ❖ After each round of data collection with the infant cohort, the study team also carry out a Qualitative Study, which involves collecting more in-depth information from 120 families selected from the original sample of 10,000. The Qualitative Study aims to record in their own words the participants' views and experiences of their family lives, interests, aspirations etc. The two data sets will be linked.

### **Non-resident parents**

- ❖ Where relevant, permission was sought from the infant's primary carer to contact a non-resident parent, with the latter then being sent a questionnaire to fill out and return through the post. A third of the mothers (33%) gave contact details and permission and 32% of the non-resident fathers responded which gives an overall response rate of 10%.
- ❖ Focus of the study is social scientific. There has been no record linkage or biological samples collected to date.

### **The Longitudinal Study of Australian Children (LSAC)**

<http://www.growingupinaustralia.gov.au/>

This study often referred to as Growing up in Australia, is a national longitudinal survey on children's development. LSAC aims to investigate the contribution of the children's social, economic and cultural environments to their adjustment and wellbeing.

- ❖ The study is using an accelerated cross-sequential design in which two cohorts of children are being followed, starting from when the children were aged 0–1 years and 4–5 years. The 0–1 year old cohort is often described as the B (baby) cohort and the 4–5 year old cohort as the K (kindergarten) cohort (or alternatively they can be identified by the years of their birth: 1999–2000 birth cohort and 2003–2004 birth cohort).
- ❖ Face-to-face interviews are conducted every two years, with the first wave of data collected in 2004. In addition, postal surveys are conducted between waves. The two cohorts will be able to be compared at overlapping ages, to gauge the effect of growing up in differing social conditions and policy settings.
- ❖ A total of 10,090 children and their families participated in Wave 1. The sample is broadly representative of all Australian children in each of two selected age cohorts.

Information is collected from the parents who live with the child (biological, adoptive or step-parents), the child (using physical measurement, cognitive testing and interview depending upon the age of the child), home-based and centre-based carers for pre-school children who are regularly in non-parental care, and teachers (for school-aged children). Reports from multiple informants are sought in order to obtain information about the child's behaviour across differing contexts and to reduce the effects of respondent bias.

- ❖ The sampling frame was created from the Health Insurance Commissions Medicare data base. For each family parents were asked to nominate one parent as the primary carer with most families nominating the mother. This parent provides extensive information on their child and about themselves and also on some items about the other parent (proxy). Face to face interviews and self-completion are used. In couple families, the other resident parent is also asked to complete a questionnaire relating to parenting practices and wellbeing.

### **Response rates for resident fathers/partners**

- ❖ 85% of the secondary carers (in the main fathers) responded at wave 1 in infancy and 88% at wave 2 at ages 2-3 years. 90% of the mothers interviewed at wave 1 responded at wave 2.

### **Non-resident fathers**

From wave 2, information has been collected from parents who live apart from their child but still have contact with the child.

- ❖ A particular strength of the LSAC data is the inclusion of non-resident fathers in the study so as to provide a more complete picture of the family environments within which children are being raised in Australia.
- ❖ In Waves 2 and 3, (ages 2-3 years and ages 4-5 years) when the child had a father living elsewhere whom they had seen in the last year, the mother was asked if she would provide contact details for the father. When provided, in Wave 2 these contact details were used to send the father a postal questionnaire that captured various socio-demographic characteristics, as well as information about involvement with the study child and various aspects of co-parenting and child support. The response rate in Wave 2 was quite low (24 per cent for the B cohort (LSAC Project Operations Team 2009). At Wave 3, computer-assisted telephone interviewing was used instead, in order to increase the response rate. The non-resident fathers who were contacted tended to be positive about being asked to be involved in LSAC, and this was reflected, in Wave 3, in a refusal rate of only 6 per cent of those contacted. The remainder of the non-response was due to an inability to make contact with the non-resident fathers (LSAC Project Operations Team 2009).
- ❖ Almost 80 per cent (78.2%) of fathers for whom contact details were provided responded to this survey which represented just less than half (47.3%) of all families with fathers living elsewhere.

## **The Early Childhood Longitudinal Study, (ECLS-B) USA**

<http://nces.ed.gov/ecls/>

The Early Childhood Longitudinal Study, Birth Cohort (ECLS-B) was designed to provide policy makers, researchers, child care providers, teachers, and parents with detailed information about children's early life experiences. Data collected for the ECLS-B focus on children's health, development, care, and education during the formative years from birth through kindergarten entry. It is a nationally representative sample of 14,000 children born in 2001 with oversampling of certain ethnic minorities, twins and preterm babies.

### **Interviews**

- ❖ The first survey took place when the child was 9 months old, and subsequently occurred when the child was 2 years, 4 years, and 6-7 years of age. For the first wave, the interview was held at home with the reference parent (usually the mother); a self-completion questionnaire was left with the reference parent and the non-reference parent living with the child; questionnaires were also sent to a parent not residing with the child if parents separated.
- ❖ Resident fathers were asked about themselves and their role in the children's lives in the 9-month, 2-year, and preschool collections. Similar information was collected from non-resident biological fathers in the 9-month and 2-year collections.

### **Response Rates**

- ❖ The response rate for the 9-month parent interview was 77 per cent and that for the resident father was 75 per cent. The response rate for the non-resident father questionnaire was 51%. This was based on cases in which mothers reported that the sampled child had a biological father living outside the household who met predetermined criteria for frequency and recency of contact with either the mother or child (and for whom mothers provided consent for participation).

### **Study strengths**

- ❖ Strengths of the study involvement of the father from the first survey wave, whether or not he lived with the child. A self-completion questionnaire was sent to any father not residing with the child if the mother agreed to give the address to the interviewer.

## Overview and Pointers for Life Study

- Life Study uniquely combines community based pregnancy studies and a nationally representative sample of births. Potentially it will be amongst one of the largest in the world. Large scale studies, which start in pregnancy are still relatively rare.
- Increasingly studies are collecting data across the socio-economic, behavioural, environmental, biological and medical domains and this is a growing trend. However, collecting across this spectrum for fathers is very rare. Only a few studies have collected biomedical data on fathers with Generation R being the best example.
- Most of the birth cohort studies have included both mothers and fathers in their survey contacts. Thus proxy reporting in these surveys is rare. Exceptions are Growing up in Scotland (GUS) and the more medical studies that tend to have much fewer contacts with fathers. GUS explicitly included a partner's survey at wave 2 in order to collect more accurate information on their education, occupation and income and to obtain information on their parenting, attitudes and participation in the domestic domain
- In the pregnancy samples with the exception of BiB there have been reasonably good response rates for fathers. Generation R and MoBa had response rates of 71 and 79 per cent respectively, Growing up in New Zealand was 65% and BiB's was very low at 25% but this study used an opportunistic approach to recruiting fathers.
- If fathers are successfully recruited in pregnancy they have high levels of participation in the studies and the response rates to filling in questionnaires and to giving biological samples have been found to be similar.
- Some studies such as ALSPAC and the Fragile Families study have used monetary rewards. This was explicit in the Fragile Families study which gave an additional amount to both the mother and father if the father was interviewed. This may be important for more disadvantaged families and non-resident fathers.
- The US Fragile Families Study is one of the few studies to have followed up non-resident fathers. At birth 89% of co-resident fathers completed the survey compared with 61% of the non-resident fathers. At subsequent sweeps attrition was similar for these two groups of fathers.
- Telephone interviewing which is much cheaper than face to face interviewing has been successful in the ELFE study with 86% of mothers and 79% of fathers/partners responding at the 6-8 week old post birth survey and is a major mode of data collection in US studies.
- Postal surveys tend to have much lower response rates and decline over time. For example MoBa had response rates of 85% when the child was 6 months old

which fell to 73% at the 18 month contact and was 53% by the time the children were 5 years old.

- Mode of data collection may matter more for fathers. For example when telephone interviews were used to contact non-resident fathers in the Australian study (LSAC) 78% responded as compared with 35% who responded to an earlier postal questionnaire.
- There are indications that very recent studies e.g CoCo90s is finding it easier to make contact by text or email to make appointments rather than by phone.
- Interviews of fathers are more likely to be successful if they are arranged for outside working hours.
- The response rates for co-resident fathers/partners are high and relatively stable as evidenced from the studies that started in infancy. For example in the MCS at wave 5 (age 11 survey) 87% of eligible partners were interviewed but note these have all been home based interviews.
- In all the studies the mother is the gatekeeper to the initial contact with the father so it is crucial that they are informed about the importance of the involvement of fathers in the study. Mothers also continue to be viewed as the primary contact person in most studies and e.g. in ALSPAC seen as key to ensuring other family members participate.

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### Websites consulted -

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Birthcohort.Net <http://www.birthcohorts.net/>

Eucconet <http://www.eucconet.com/>

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#### Specific websites:

ALSPAC: <http://www.bristol.ac.uk/alspac/>

BiB: <http://www.borninbradford.nhs.uk/>

CoCo90s: <http://www.bristol.ac.uk/alspac/participants/coco90s/>

ECLS: <http://nces.ed.gov/ecls/>

ELFE: <http://www.elfe-france.fr/index.php/en/>

FFS: <http://www.fragilefamilies.princeton.edu/>

Generation R: <http://www.generationr.nl/>

GUI: <http://www.growingup.ie/index.php?id=83>

GUINZ: <http://www.growingup.co.nz/>

GUS: <http://growingupinscotland.org.uk/>

LSAC: <http://www.growingupinaustralia.gov.au/>

MCS:

<http://www.cls.ioe.ac.uk/page.aspx?&sitesectionid=851&sitesectiontitle=Welcome+to+the+Millennium+Cohort+Study>

MoBa: <http://www.niehs.nih.gov/research/atniehs/labs/epi/studies/moba/>

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