

# The Millennium Cohort Study

## *Design and Content*

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CWiPP Seminar: 28<sup>th</sup> January 2014

# Outline

- Background
- Objective
- Design
- Sample
- Content

# Background

There have been four UK national longitudinal birth cohort studies

1. 1946: National Survey of Health & Development (NSHD)
2. 1958: National Child Development Study (NCDS)
3. 1970: British Cohort Study (BCS70)
4. **2000: Millennium Cohort Study (MCS)**

*Last three are hosted by **Centre of Longitudinal Studies***  
(<http://www.cls.ioe.ac.uk>)

# Objective

Objective of MCS is to chart out the early years of the **'Children of the New Century'**

- Look at the initial conditions of **social**, **economic**, and **health** advantages and disadvantages facing the children in the new century
- Focus on children's **parents** as the immediate background of the children
- Allow comparison with previous cohort studies

# Design

Design of MCS is different from other cohort studies:

- Population: includes children born over a period of **12 months**, starting in 2000
  - Unlike other studies where sample children are born in one week in the year
- Cover all four UK countries

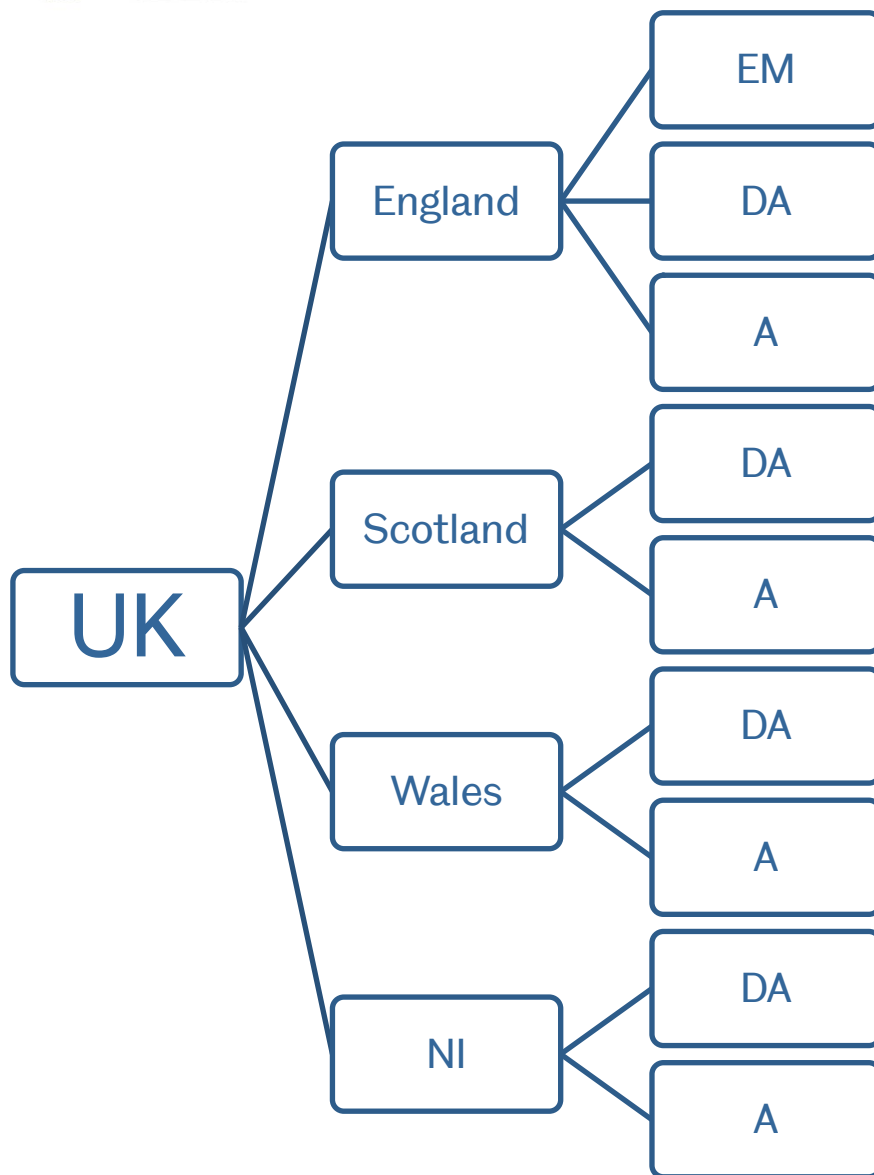
# Design

## ➤ **Over-representation** of ethnic and national minorities

- Over-sampling...
  - ... from the smaller countries: Wales, Scotland and Northern Ireland
  - ... of ethnic minorities in England\*
  - ... of children living in disadvantaged areas\*\*

## Stratum 1

## Stratum 2



Stratum 1: *Countries*  
Stratum 2: *Electoral Wards*

EM: *Ethnic Minority*  
DA: *Disadvantaged*  
A : *Advantaged*

Within each strata there is  
geographical clustering

*Plewis (2007) gives  
technical details*

# Sample

- **Population:** children born between September 2000 to January 2002
  - England and Wales: 1<sup>st</sup> September 2000 to 31<sup>st</sup> August 2001\*
  - Scotland and NI: 23<sup>rd</sup> November 2000 to 11<sup>th</sup> January 2002\*\*
  
- Children were *largely* identified from Child Benefit records



# Sample: Waves

Wave	Year of survey	Age of the child
<b>Available Now</b>		
1 (MCS1)	2001/02	9 months
2 (MCS2)	2003/04	3 years
3 (MCS3)	2006	5 years
4 (MCS4)	2008	7 years
<i>Available any day....</i>		
5 (MCS5)	2012	11 years
<i>Planned</i>		
6 (MCS6)	2015	14 years

# Sample: MCS1

	Target Sample	Achieved Responses	
		Families	Children
<b>Total UK</b>	<b>20,646</b>	<b>18,552</b>	<b>18,818</b>
England	13,146	11,533	11,695
Wales	3,000	2,760	2,798
Scotland	2,500	2,336	2,370
NI	2,000	1,923	1,955

Plewis (2007) gives the details of the (non) response rates by different categories: country, disadvantaged area, ethnic minority

# Sample: Other waves

Wave	Target Sample	Achieved Sample*	
		Families (r.r.)	Children
MCS2	18,552 (MCS1 families)	14,898 (80%)	
	1,389 (New families)	692 (50%)	
	Total = 19,941	<b>15,590</b> (78%)	15,808
MCS3	18,552 (MCS1 families)		
	692 (New Families)		
	Total = 19,244	<b>15,246</b> (79%)	15,459
MCS4	19,244	<b>13,857</b> (72%)	14,043

r.r. = response rate

# Sample: response rates

## ➤ Achieved Sample

- These are *productive* interviews – data is available (if not all then some)

## ➤ The gap between the target and achieved sample can be for three reasons:

1. Ineligibility
2. Uncertain eligibility
3. Unproductive

# Sample: response rates

## 1. Ineligibility

- death, emigration

## 2. Uncertain eligibility

- away temporarily, untraced movers, not certain if eligible

## 3. Unproductive\*

- Refusals\*, non-contacts\*, non-responses, language problems, ill/incapacitated, deleted/lost data

See Hansen (2012) for details

# Sample: weights

- Weight should be used in the analysis to correct for the sampling design:
  - **weight 1** : MCS weight to use on single country analyses
  - **weight 2** : MCS weight to use on whole UK analyses
  
- These weights correct for the stratified clustered sampling design

# Sample: weights

- Weight are also available at each wave to correct for non-response bias
- E.g:
  - **aovwt 1** s1: overall weight (inc nr adjustment) single country analysis
  - **aovwt 2** s1: overall weight (inc nr adjustment) whole uk analysis
  - **bovwt 1** s2: overall weight (inc nr adjustment) single country analysis
  - **bovwt 2** s2: overall weight (inc nr adjustment) whole uk analysis

# Survey Content

## Information on:

- Child's behaviour and cognitive development
- Child and parents' health
- Parents' employment and education (Income and poverty)
- Parenting (for the first time focus on fathers' involvement)
- Older siblings
- Childcare, school choice
- Housing, neighbourhood, ethnicity, etc....



# Survey Content

## Information obtained by:

### ➤ Parent interviews:

- **MAIN** respondent: this is the mother **OR** the mother figure of the child
- **PARTNER**: this is MAIN respondent's current partner, *not necessarily the father of the child*

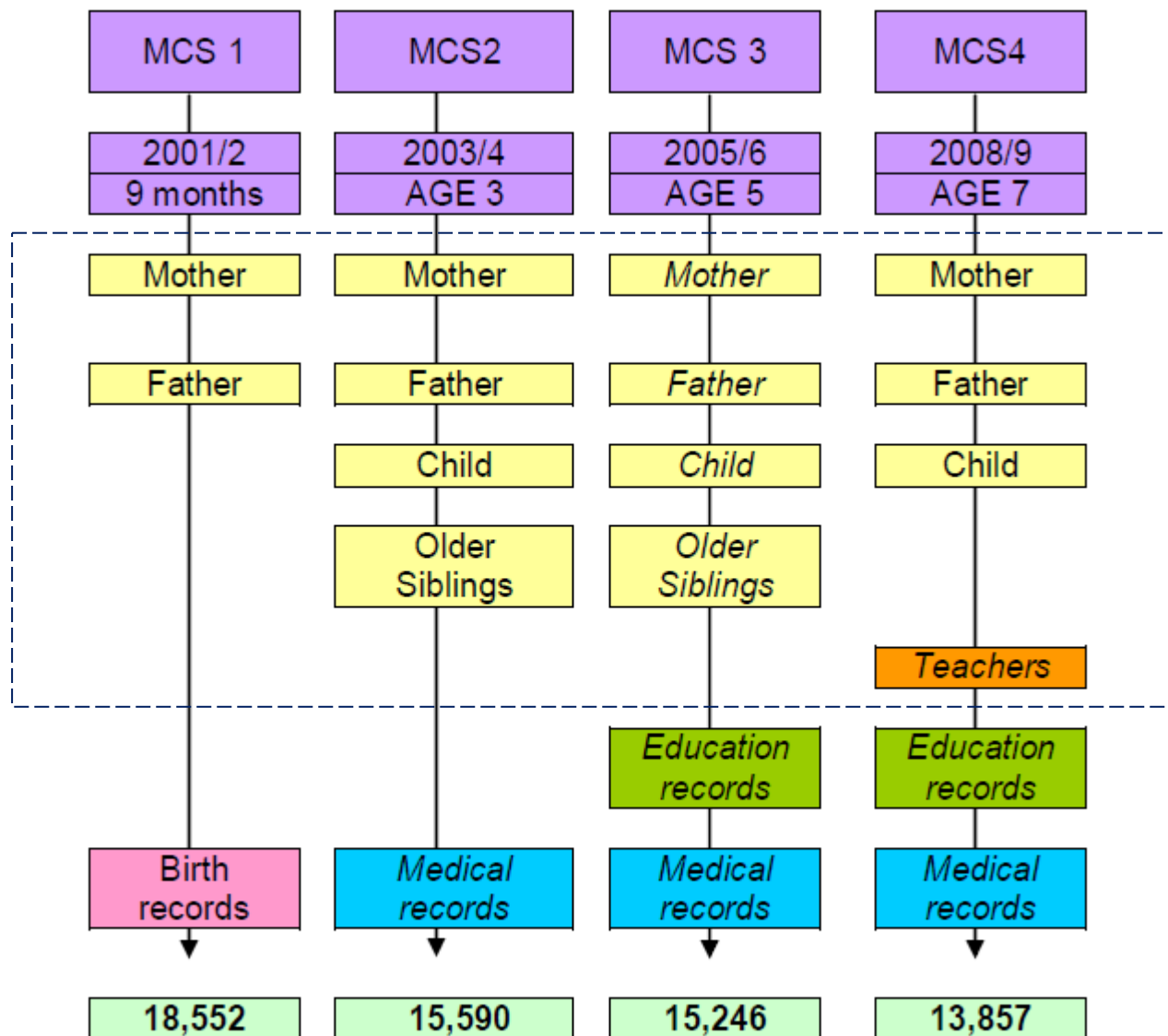
### ➤ Child assessment / measurement

### ➤ Older siblings of the child

### ➤ Teacher



# Survey Content



# References

- *The Millennium Cohort Study. First, Second, Third and Fourth Surveys: A Guide to Datasets*, 7<sup>th</sup> Edition. Hansen, K. (Ed.) October 2012.
- *The Millennium Cohort Study: Technical Report on Sampling*, 4<sup>th</sup> Edition. Plewis, I. (Ed.) July 2007.



# Questions?