

# An Introduction to Millennium Cohort Study (MCS)

26 January 2017



### About the UK Millennium Cohort Study

 Millennium Cohort Study (MCS) is a birth cohort study of around 19,000 children born in 398 areas of the UK

 Highly multidisciplinary survey, designed to capture the influence of early family context on child development and outcomes throughout childhood, into adolescence and through adulthood



### Objectives of MCS

- To chart the initial conditions of the social, economic and health advantages and disadvantages facing new children in the new century and their consequences
- To capture information for the future
- To compare patterns of development with other cohorts
- To collect information on previously neglected topics, such as father's involvement and child care
- To investigate the wider social ecology of the family, including community and services, splicing in geo-coded data



### MCS Study Design

- Cohort born over a year
  - In England and Wales born between: 01/09/2000 and 31/08/2001
  - In Scotland and Northern Ireland born between: 24/11/2000 and 10/1/2002
- Geographically clustered by electoral ward
- Oversamples for Wales, Scotland and Northern Ireland, areas with high child poverty and, in England, areas with higher ethnic minority populations



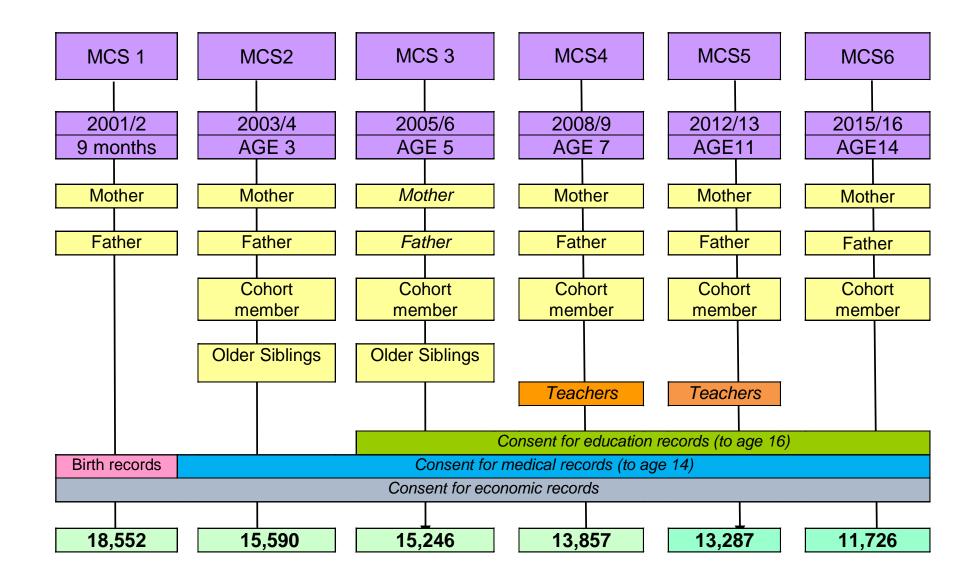
### MCS Sample Design

- Stage 1: Selection of electoral wards (398)
  - Ethnic
  - Disadvantaged
  - Advantaged
- Stage 2: Selection of children (27201)
- Sample of children drawn from child benefit records held by DWP

Design weights: PSUs and clustering



### Overview of MCS1 to MCS6



# MCS Achieved sample by sweep

### Number of families

COUNTRY	Number of Sampled Wards	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6
ENGLAND	200	11532	10050	9717	8839	8618	7678
WALES	73	2761	2261	2181	2018	1881	1669
SCOTLAND	62	2336	1814	1814	1628	1480	1263
N IRELAND	62	1923	1465	1534	1372	1308	1116
TOTAL UK	398	18552	15590	15246	13857	13287	11726



### Overview of content of MCS1 to MCS6

	9m	Age 3	Age 5	Age 7	Age 11	Age 14
Interview (and self-completion	✓	✓	✓	✓	✓	<b>✓</b>
with both resident parents)						
Cognitive assessments		✓	✓	✓	✓	✓
Physical measurements		✓	✓	✓	✓	✓
Child self-completion				✓	✓	✓
Older siblings		✓	✓			
Interviewer observations		✓	✓	✓	✓	✓
Teacher survey			✓	✓	✓	
Consent to data linkage	✓	✓	✓	✓	✓	
Saliva samples		✓				✓
Time use record						✓
Activity monitors				✓		✓



# Overview of cognitive content of MCS1 to MCS6

Age 3	Age 5	Age 7	Age 11	Age 14
BAS Naming Vocabulary	BAS Naming vocabulary	Word Reading	BAS Verbal Similarities	Word activity
Bracken School Readiness Assessment: Colours	BAS Picture Similarities	Progress in Maths	CANTAB Cambridge Gambling Task	CANTAB Cambridge Gambling Task
Letters Sizes Comparisons	BAS Pattern Construction	BAS Pattern Construction	CANTAB Spatial Working Memory	



# MCS Physical Measurements & Samples

Age 3	Age 5	Age 7	Age 11	Age 14
Height	Height	Height	Height	Height
Weight	Weight	Weight	Weight	Weight
Oral fluid (Hygiene hypothesis)	Waist	Waist	Body Fat	Body Fat
		Body Fat		Activity Monitor
		Activity Monitor		Saliva Sample
		Teeth		(DNA extracting)

# MCS6: Content of the Age 14 Survey

Main Parent	Partner parent	Young Person
Interview & Self completion	Interview & Self completion	Self completion questionnaire (40 mins)
Cognitive assessment: word activity	Cognitive assessment: word activity	Cognitive assessment: word activity decision making task (CGT)
		Physical Measurements: height weight body fat
Saliva Sample* (*Biological parents only)	Saliva Sample* (*Biological parents only)	Saliva Sample
		Accelerometer
		Time Use Diary



# A QUICK GUIDE TO THE AGE 14 SURVEY

### ANSWER SOME QUESTIONS ABOUT YOUR LIFE (40 MINS)

- Tell us about different things such as your family, friends, school and what you do for fun
- ☼ Do it on your own using a tablet
- No one will see your answers

#### BE MEASURED TO Understand how you grow (10 mins)

- So we can see how tall you are, how much you weigh and your body fat percentage
- Stand on some scales and have your height measured using a height measure
- You won't be told your measurements unless you want them









#### DO SOME ACTIVITIES TO Understand how you Think (20 Mins)

- Show us how you understand the meaning of different words and how you make decisions
- ☼ On a tablet
- ₽ Not a test!



The interviewer will explain everything again when they come to visit and answer any questions you may have.









# GIVE A SALIVA SAMPLE FOR RESEARCH ABOUT GENES (5 MINS)

- So we can see how young people develop
- ⇔ Spit in a small container
- You can do it on your own in private





### COMPLETE A TIME-USE RECORD AND WEAR AN ACTIVITY MONITOR

- So we can find out about young people's physical activity and how they spend their time
- By wearing a monitor on your wrist and completing a record of your time
- Completely secure and confidential





Most young people enjoy the different parts of the survey, but it's up to you whether you would like to take part. You can always choose to do some things and not others.







## Age 14 young persons questionnaire

Free time activities Views and values **Feelings about** school and the future Their identity Romantic **Smoking** Their friends, family relationships **Drinking** and relationships Sexual Illegal drugs experiences Things they might have Gambling experienced or done Anti-social behaviour Wrong doing Puberty Their body, health and Criminal activity Dieting feelings Contact with police Harassment Their personality Bullying

# MCS Linkage to Administrative Records

Consent to admin linkages	Status
1. Mother's maternity records	Deposited with some available through UKDS Special Licence
2. Parents' economic records (retrospective + prospective)	In progress. Approvals in place, with data providers to agree and define the linkage process
3. Cohort members' health records (age 0-14)	In progress
	Scotland: Approvals in place. NHS Scotland currently linking the data. Should become available through UKDS Secure Data Service in 2017
	England: Currently being assessed by data holders (HSCIC, Health Social Care Information Centre). Subject to approvals, will become available through UKDS Secure Data in 2017
4. Cohort members' education records (to age 16)	Available through UKDS Secure Data; ongoing updates occurring

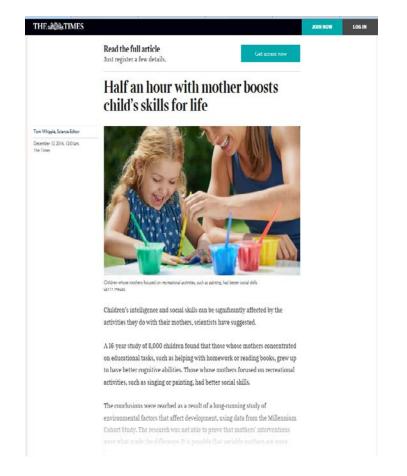


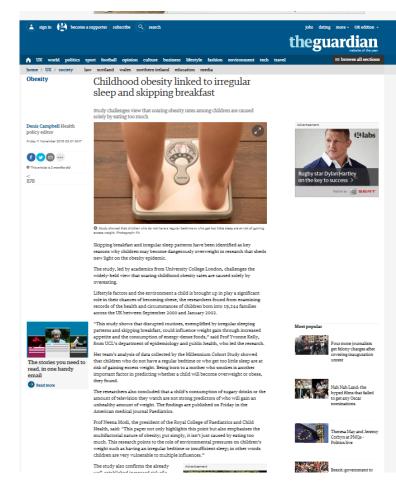
### MCS add on projects

- Postal survey of mothers who had assisted fertility treatment
- Nursery Observations
- Every Tooth Tells a Story (MCS4)
- And MCS6
  - Genotyping
  - Accelerometer
  - Time use survey



### In the news







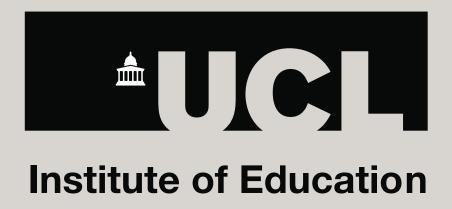
### MCS Data and Documentation

- Data and Documentation for MCS1-MCS6 now available from UK Data Service
  - www.ukdataservice.ac.uk
- Documentation available from CLS website
   <a href="http://www.cls.ioe.ac.uk/studies.asp?section=0001000200010015">http://www.cls.ioe.ac.uk/studies.asp?section=0001000200010015</a>
- Guides to Initial findings (MCS1/MCS2/MCS3/MCS4/MCS5) available from CLS website
  - http://www.cls.ioe.ac.uk/studies.asp?section=0001000200010012



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# Thank you

Any questions?