

Improving UK evidence on health and low carbon behaviours: what can the national birth cohort studies contribute?

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4 Nov 2015

CLS is funded by



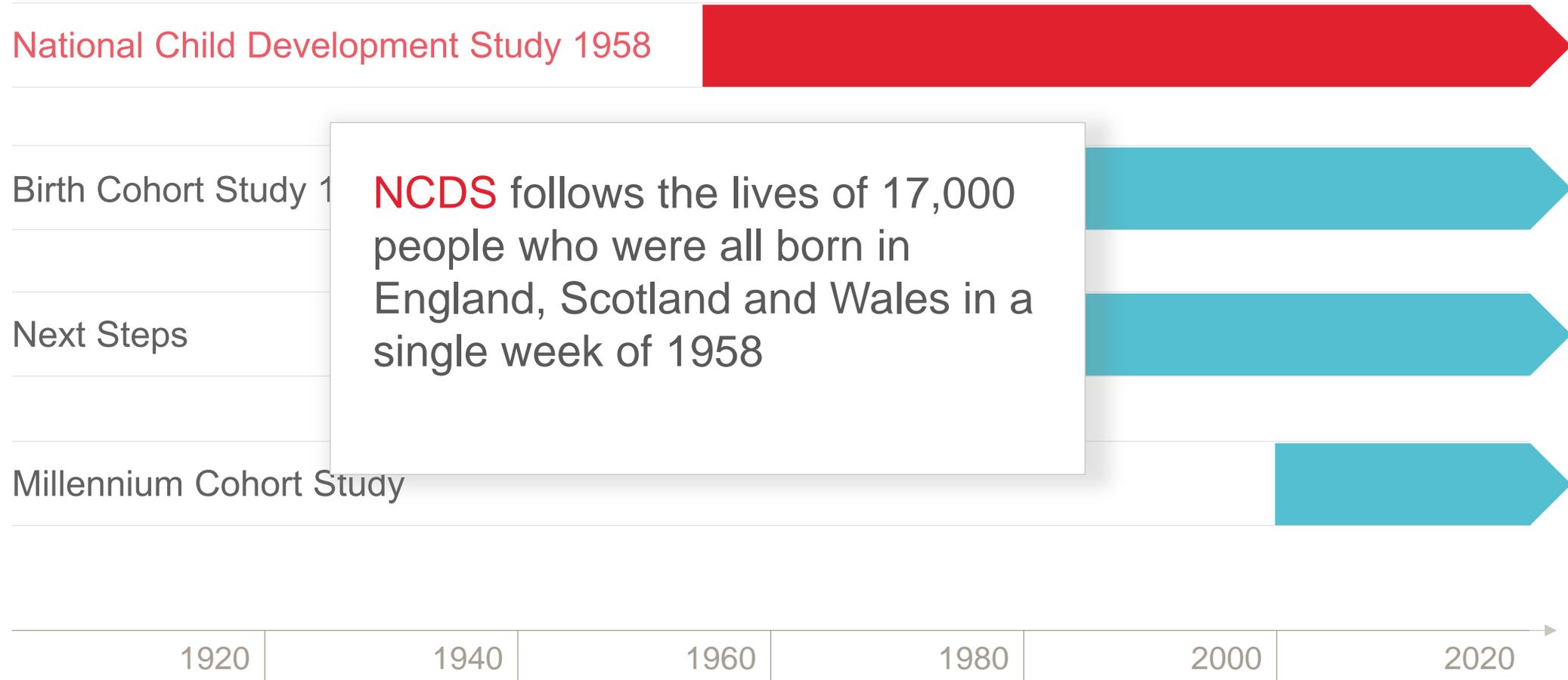
Economic and Social
Research Council

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What we do at CLS

- We run four major national longitudinal studies, which follow people throughout life
- We are funded by ESRC as a 'resource centre' – to provide data to the wider scientific community:
- Research –strong multidisciplinary group

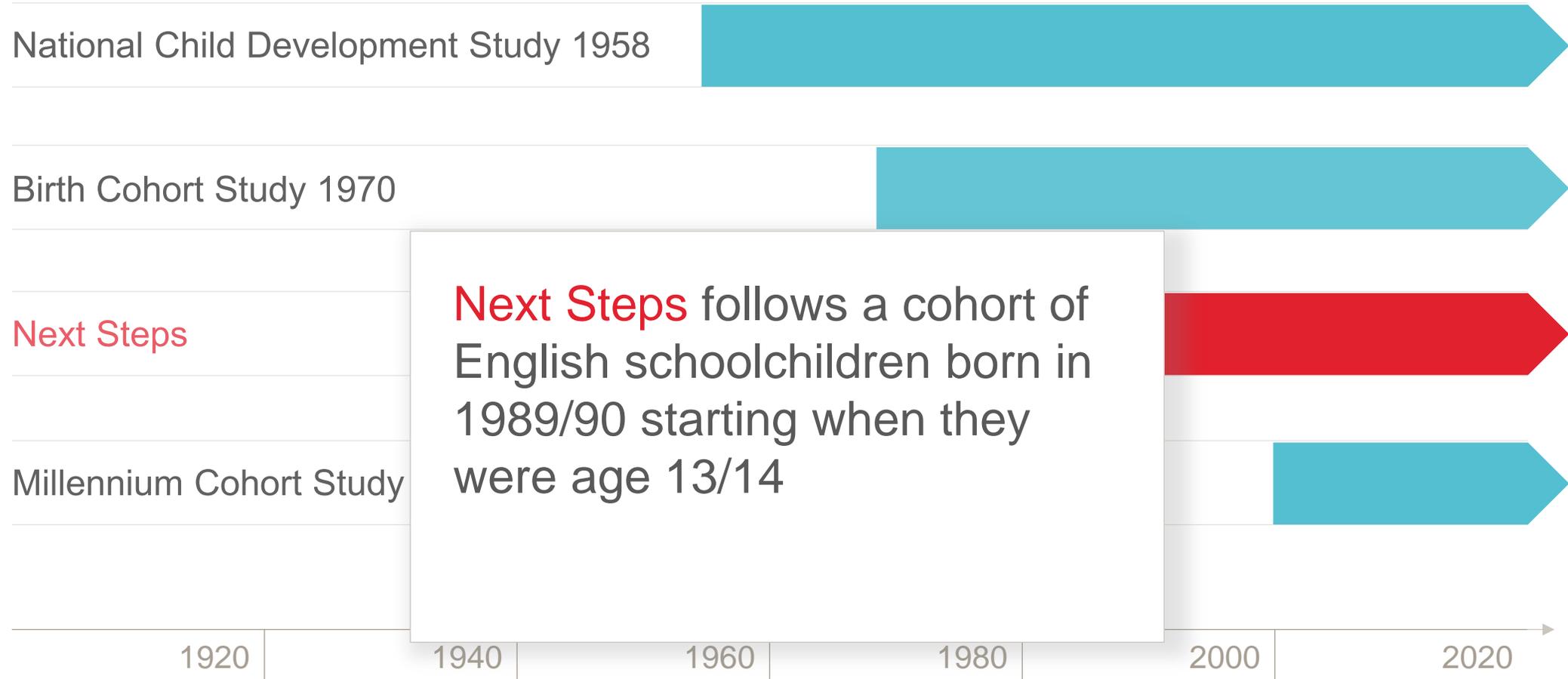
We follow people from 'cradle to grave'



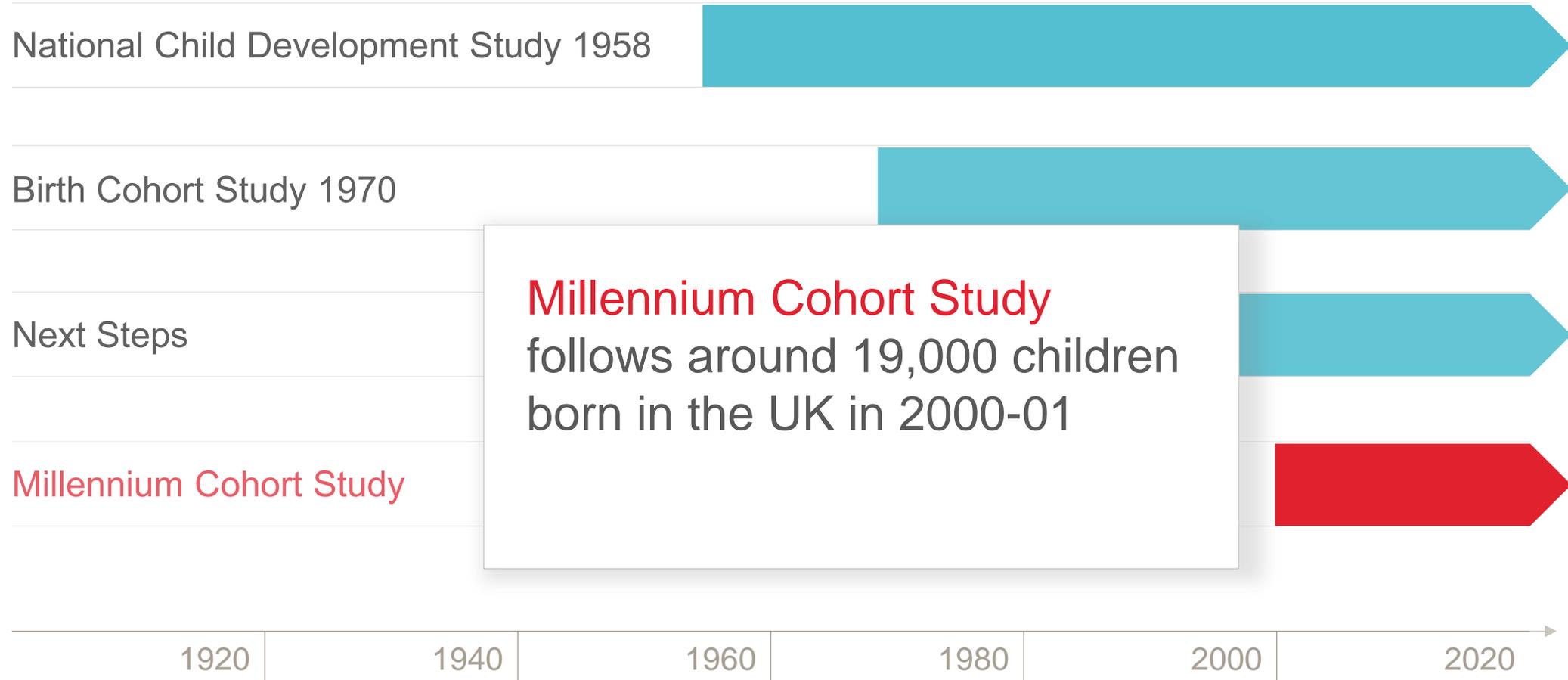
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A study timeline: 1958 cohort study

1958 Birth	1965 7	1969 11	1974 16	1981 23	1991 33	2000 42	2003 45	2004 46	2008 50	2013 55
17,415	15,425	15,337	14,654	12,537	11,469	11,419	9,377	9,534	9,790	9,137
mother	mother	mother	mother	cohort member						
school medical	school medical	school medical	school medical				medcial			

A study timeline: 1958 cohort study

1958	1965	1969	1974	1981	1991	2000	2003	2004	2008	2013
Birth	7	11	16	23	33	42	45	46	50	55
17,415	15,425	15,337	14,654	12,537	11,469	11,419	9,999			
mother	mother	mother	mother	cohort member						

Consent for record linkages



Types of information covered

Birth	School years	Adult
Household composition	Household composition	Household composition
Parental social class	Parental social class	Employment
Obstetric history	Parental employment	Social class
Smoking in pregnancy	Smoking in pregnancy is harmful to baby	
Pregnancy		
Labour		
Birthweight, length		and mental health
	Emotions and behaviour	Health-related behaviour
	School	Training and qualifications
	Views and expectations	Basic skills
	Attainment	Cognitive tests
		Views and expectations

Types of information covered

 Birth	 School years	 Adult
<p>Household composition</p> <p>Parental social class</p> <p>Obstetric history</p> <p>Smoking in pregnancy</p> <p>Pregnancy)</p> <p>Labour</p> <p>Birthweight, length</p>	<p>Household composition</p> <p>Parental social class</p> <p>Parental employment</p> <p>Financial circumstances</p> <p>Housing</p> <p>Health</p> <p>Cognitive tests</p> <p>Emotions and behaviour</p> <p>School</p> <p>Views and expectations</p> <p>Attainment</p>	<p>Household composition</p> <p>Employment</p> <p>Social class</p> <p>Income</p> <p>Housing</p> <p>Health</p> <p>Well-being</p> <p>Health-re</p> <p>Training a</p> <p>Basic skill</p> <p>Cognitive tests</p> <p>Views and expectations</p>

Foetal origins: effects of low birthweight on health risks in mid- and later life

Types of information covered

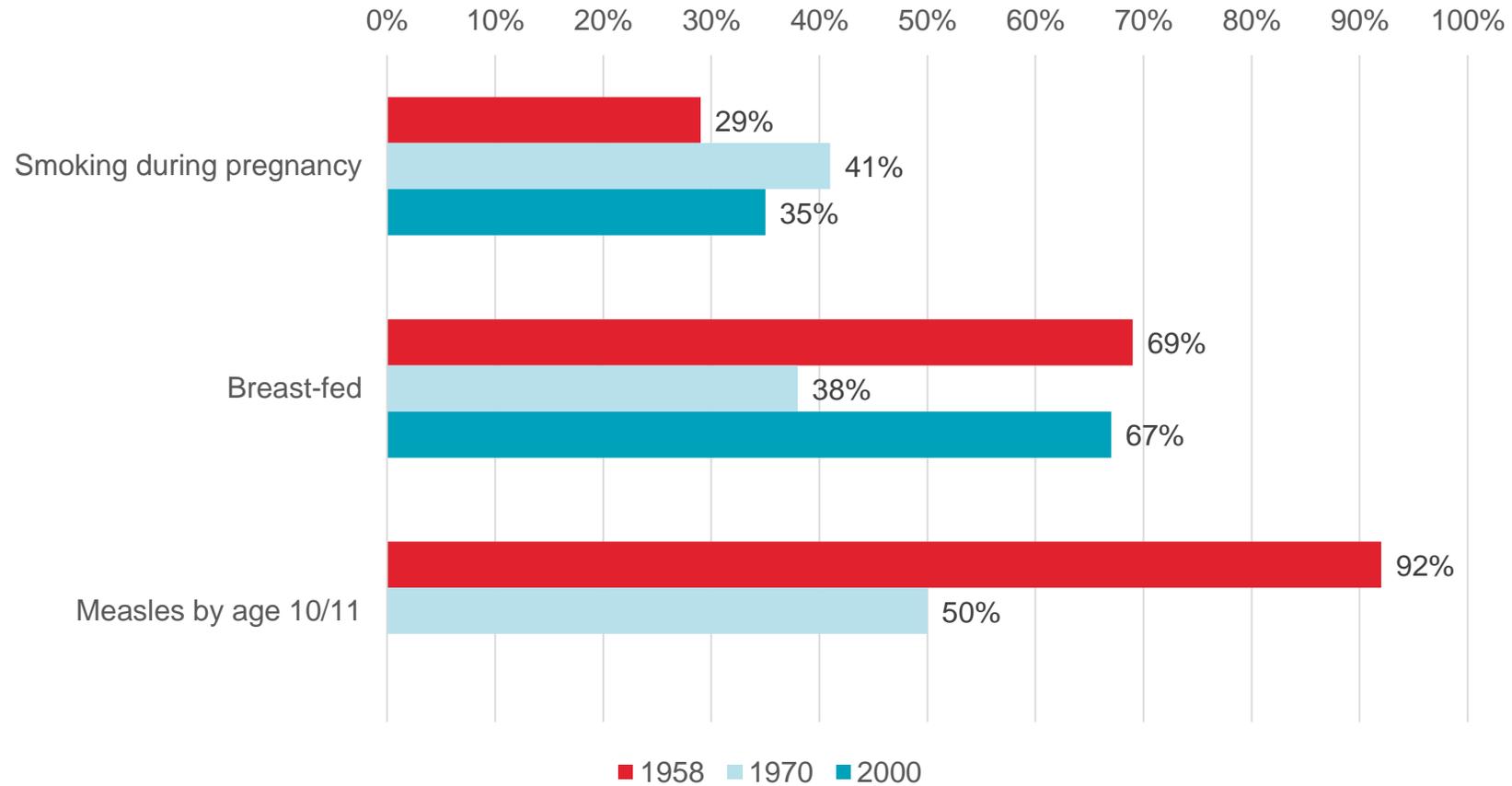
Birth	School years	Adult
Household composition	Household composition	Household composition
Parental social class	Parental social class	Employment
Obstetric history	Parental employment	Social class
Smoking in pregnancy	Financial circumstances	Income
Pregnancy (problems, antenatal care)	Housing	Housing
Labour (length, pain relief, problems)	Health	Health
Birthweight, length	Cognitive tests	Well-being and mental health
	Emotions and behaviour	Health-related behaviour
	School	Training and qualifications
	Views and expectations	
	Attainment	

The relationship between health behaviours and well-being in mid and later life

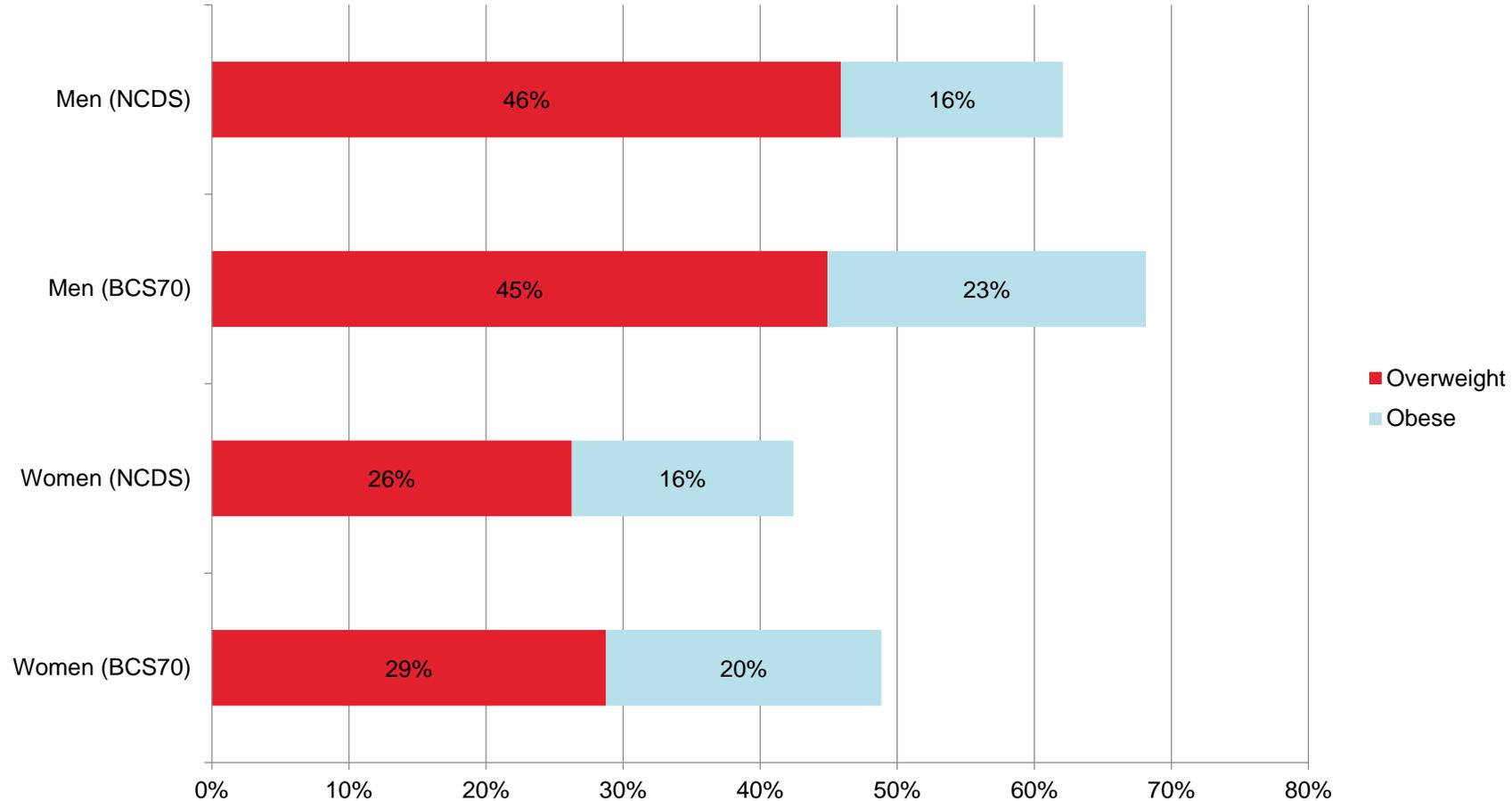
Scientific questions that these studies can answer

- Long term effects of behaviours, and returns to choices made across the life course
- Drivers of individual life trajectories –health, physical activity
- Intergenerational transmission of health and well-being
- Policy evaluation
- The changing experiences of different cohorts

Childhood health – 3 cohorts



% Overweight or obese, comparison of 1958 and 1970 cohorts at age 42



What can our studies contribute on low carbon behaviours and health

- Extensive coverage of health outcomes
- Extensive coverage of health behaviours, across different generations and life stages
- But more limited coverage of specifically 'low carbon' behaviours

Health outcomes

- Questionnaires provide:
 - Health conditions, self-rated health
 - Mental health/ distress
- Physical measurements – e.g. repeated measures of height and weight
- Biomarkers in blood – subclinical indicators of health and disease risk
- Record linkages – hospital episodes

Health behaviours collected

- Exercise/ physical activity
- Includes objective measures from activity monitors (age 7 & 14 MCS, age 46 BCS70)
- Alcohol use
- Smoking
- Illicit substances

Low carbon health behaviours

- **Transport**
- Limited questions on mode of transport to school or work
- **Healthy/sustainable diet**
- Some food frequency/ dietary diary information
- **Attitudes/environmental involvement**
- ‘Preserving the environment is the most important political issue’, ‘Environment more important than economic growth’, ‘Environment problems not as serious as claimed’ (ages 30/33 &42)
- **Domestic energy use: very limited**

Examples of relevant studies

- COOPER, R, HYPPONEN, E, BERRY, D and POWER, C. (2010) Associations between parental and offspring adiposity up to mid-life: the contribution of adult lifestyle factors in the 1958 British birth cohort study. [*American Journal of Clinical Nutrition*](#), 92(4), 946-953.
- CHENG, H. and FURNHAM, A. (2013) Personality Traits, Education, Physical Exercise, and Childhood Neurological Function as Independent Predictors of Adult Obesity. [*PLoS One*](#), 8(11), e79586.
- PARSONS, T, POWER, C and MANOR, O. (2006) Longitudinal physical activity and diet patterns in the 1958 British birth cohort. [*Medicine & Science in Sports & Exercise*](#), 38(3), 547-554.

Examples of relevant studies

- FLOURI, E, MIDOUHAS, E and JOSHI, H. (2014) The Role of Urban Neighbourhood Green Space in Children's Emotional and Behavioural Resilience. [*Journal of Environmental Psychology*](#), 40, 179–186.
- CHENG, H, BYNNER, J, WIGGINS, R and SCHOON, I. (2012) The measurement and evaluation of social attitudes in two British cohort studies. [*Social Indicators Research*](#), 107(2), 351-371.
- CHERRIE, M.P.C, WHEELER, B.W, WHITE, M.P, SARRAN, C.E and OSBORNE, N.J. (2015) Coastal climate is associated with elevated solar irradiance and higher 25(OH)D level. [*Environment International*](#), 77(April 2015), 76-84.

Links with stakeholders

Longitudinal champions within government/ MCS co-funders

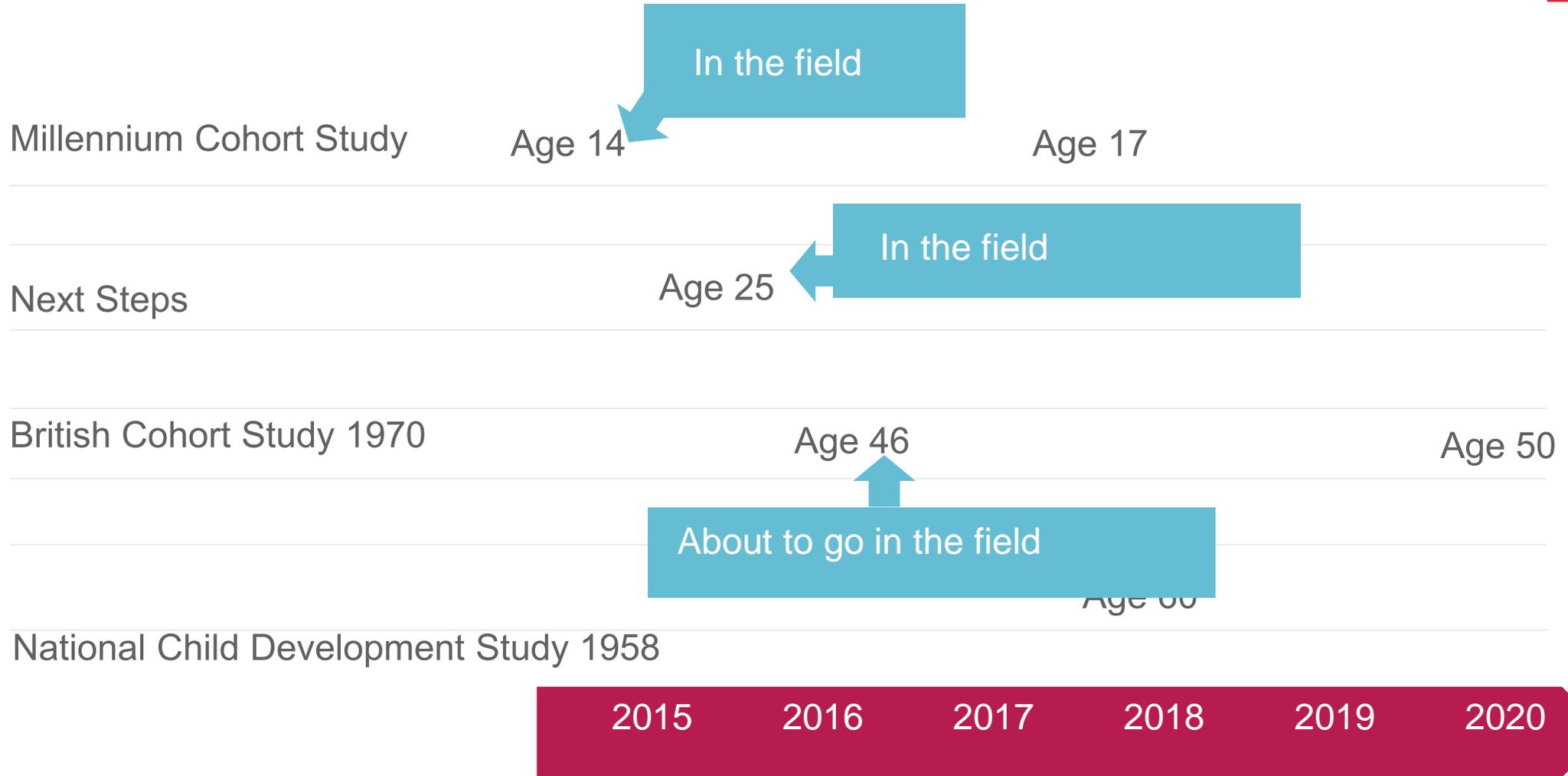
- Department of Health
- Department for Transport

Impact partners for our healthy lifestyles research programme

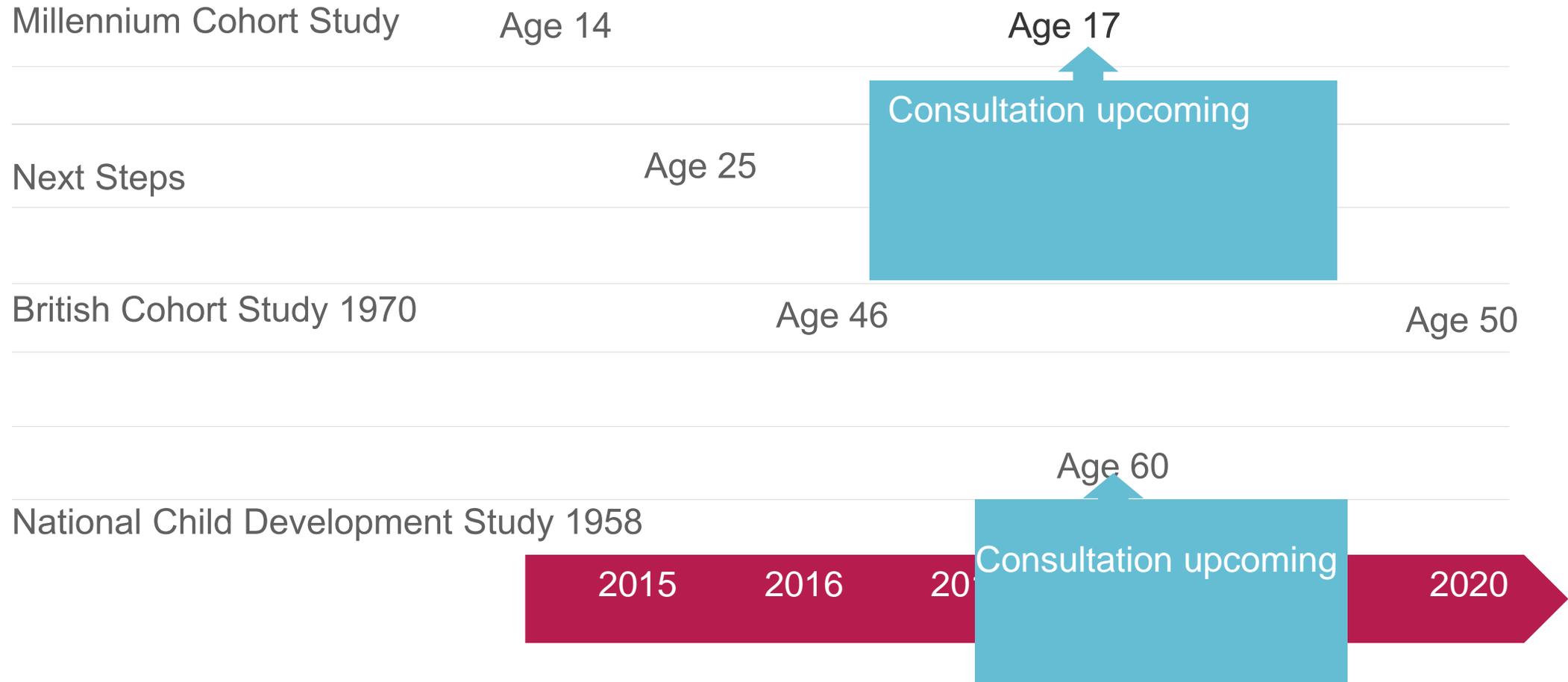
- London Sport
- Camden Council
- Islington Council



Core data collections planned 2015-2020



Core data collections planned 2015-2020



Thank you