

CLOSER's resources for teaching and research

Professor Alison Park, Director

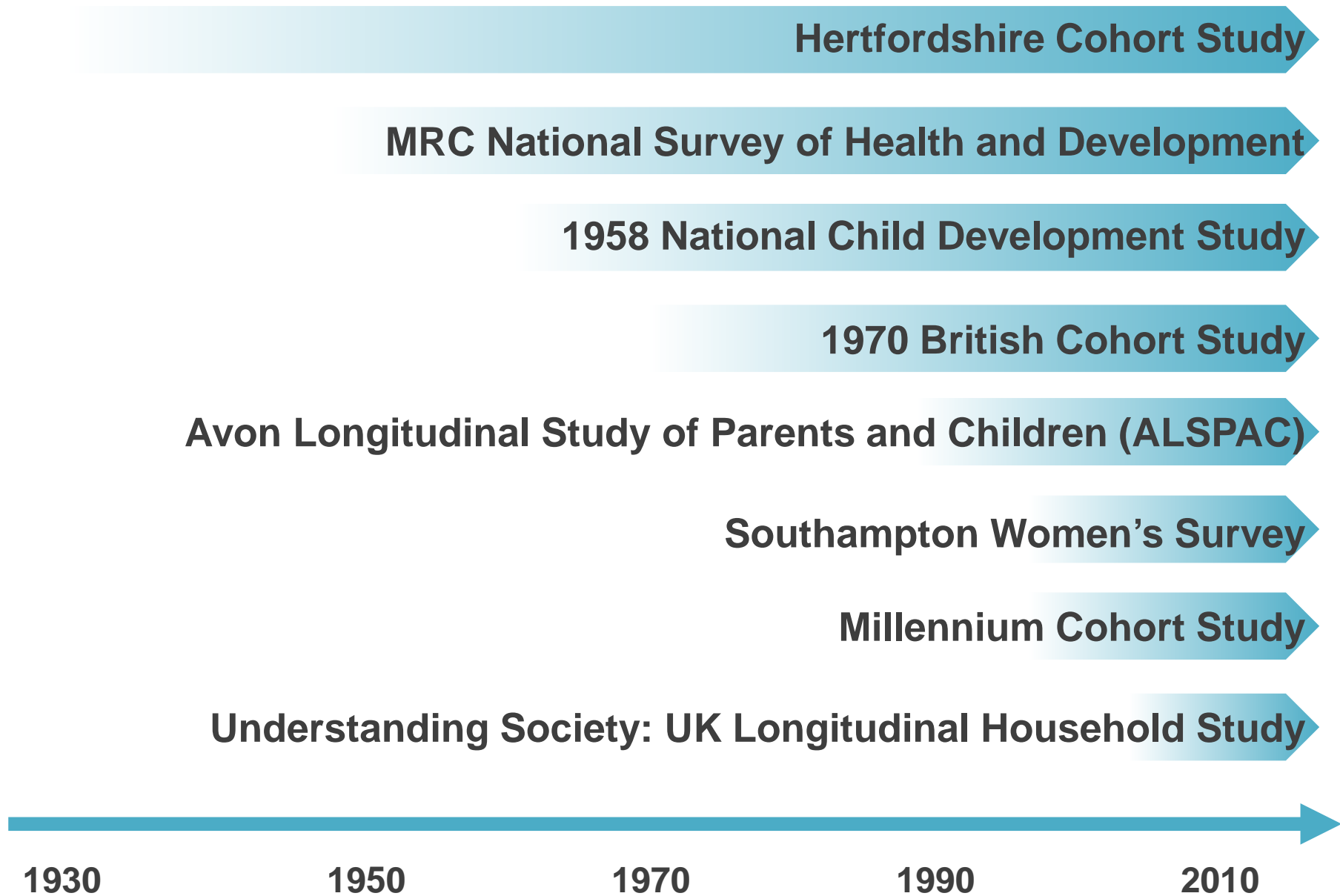
Session 2

Focus on resources for researchers

- CLOSER Discovery
- Harmonisation and data linkage resources

About CLOSER

- **Objective:** to maximise the use, value and impact of the UK's longitudinal studies
- **Consortium:** 8 longitudinal studies, the British Library and the UK Data Service
- **Funded** by the ESRC and the MRC



1930

1950

1970

1990

2010

Key areas of CLOSER's work

- Guidance and exemplar studies on data harmonisation and data linkage
- Promoting value of longitudinal research
- Training and capacity building: Learning Hub
- Data discovery: CLOSER Discovery

CLOSER Discovery

Will Poynter

Technical Manager

14th September 2017

Data discovery tools



Oceanography



SEADATANET COMMON DATA INDEX (CDI) V3

Tools ?

Enlarge Help
Position Index

Datasets 0
Basket Reset

SeaDataNet

Layer control ? Expand Add layer

- CDI entry Points ?
- CDI entry Tracks ?
- CDI entry Areas ?
- Grid Lines ?
- Regional sea ?
- Regional sea labels ?
- Main sea ?
- Main sea labels ?
- Bathymetry ?
- Blue Marble ?

Lat/long ?

Upper-left ? Lower-right ?

Search Search Clear ?

Free search

Disciplines - Parameter groups

- All
- Administration and dimensions
 - > Administration and dimensions
- Atmosphere
 - > Atmospheric chemistry
 - > Meteorology

Astronomy



[The SAO/NASA Astrophysics Data System](#)

[Search](#) [Browse](#) [Help](#)

Welcome to the Digital Library for Physics and Astronomy



This site is hosted by the
[High Energy Astrophysics Division](#) at the
[Harvard-Smithsonian Center for Astrophysics](#)





Environment

The screenshot shows the NASA EarthData website interface. At the top left is the NASA logo and the text "EARTHDATA Powered by EOSDIS". To the right are navigation links: a home icon, "ABOUT", "DATA", "COMMUNITY", and "RESOURCES". Below the navigation is a search bar with the placeholder text "Search datasets, news, articles, and information" and a green search icon. The main content area features a satellite image of Earth with a search bar overlay and a "Feedback" button on the left. At the bottom, there is a dark grey navigation bar with six circular icons and their corresponding labels: "ATMOSPHERE", "CALIBRATED RADIANCE &", "CRYOSPHERE", "HUMAN DIMENSIONS", "LAND", and "OCEAN".

ATMOSPHERE

CALIBRATED RADIANCE &

CRYOSPHERE

HUMAN DIMENSIONS

LAND

OCEAN



New York

[DATA.NY.GOV](#) [OPEN NY](#) [CATALOG](#) [DEVELOPERS](#) [HELP ▼](#) [ABOUT ▼](#)

Providing Unprecedented Access to Data

Browse and download nearly 1,400 New York State data resources on topics ranging from farmers' markets to solar photovoltaic projects to MTA turnstile usage to Arts for Transit.

[Economic Development](#) [Education](#) [Energy & Environment](#) [Government & Finance](#)



Data discovery tools

Data
Metadata
Uniform

Search
Discovery
Documentation

Engine
Platform
Portal



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Metadata

- “What do you understand by the term ‘metadata’?”
 - “data about data”
- What is the difference between data and information?
 - Context
- What gives data context?
 - Metadata
- Metadata + Data = Information



Example

Fields	Units	Data
Eye colour		Brown
Shoe size	Paris points	42
Height	Centimetres	175
Favourite colour		Green
Condition		Handsome



Large amount of information

- 8 studies
 - > 80 sweeps
 - > 400 instruments
 - > 100,000 questions
 - > 450 datasets
 - > 120,000 variables



The solution

CLOSER Discovery



CLOSER Discovery

- Search engine
- International standards (e.g. DDI-Lifecycle)
 - Comparable
 - Consistent
- Enhanced search-ability
 - Topics
 - Life stages
 - Equivalencies

Data harmonisation

Height, weight and BMI

Socio-economic status

Use/collection of biological samples

Measures of vision

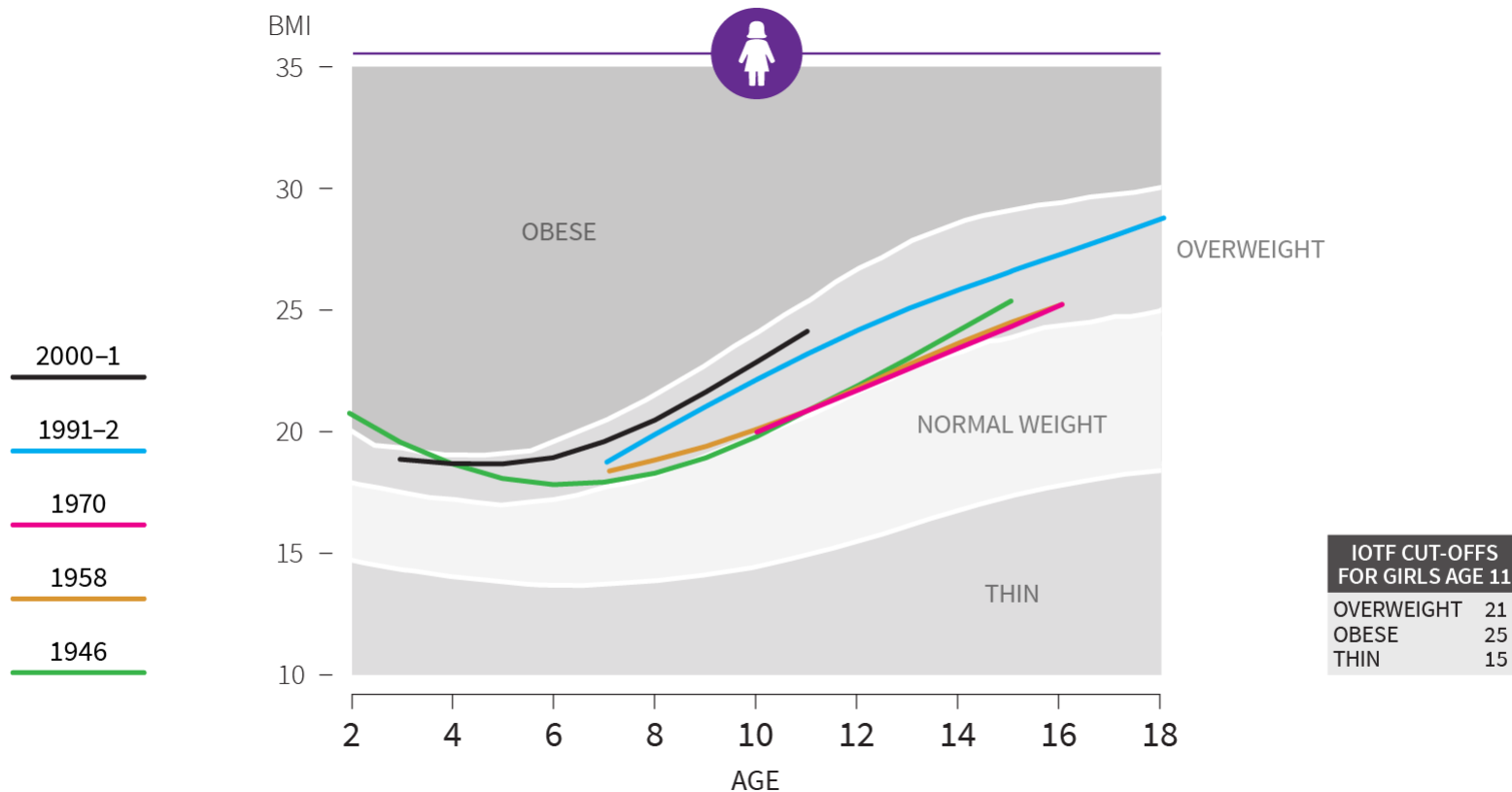
Childhood environment and adult wellbeing

Review of methods for determining pubertal status

Exploiting CLOSER biomarker data

Overcrowding and health

Tracking the rise of obesity in the UK (91st percentile)



Reference

Johnson, W., Li, L., Kuh, D., & Hardy, R. (2015). How Has the Age-Related Process of Overweight or Obesity Development Changed over Time? Co-ordinated Analyses of Individual Participant Data from Five United Kingdom Birth Cohorts. *PLOS Medicine*, e1001828. Contact: Rebecca Hardy rebecca.hardy@ucl.ac.uk

Harmonisation resources

- Harmonised datasets available via UKDS, with documentation
- Future outputs drawing out learning from across CLOSER's harmonisation work
- Further harmonisation projects during 2017-2019
- Training events – eg cross-study harmonisation

Data linkage

Economic and education data

Geographic data

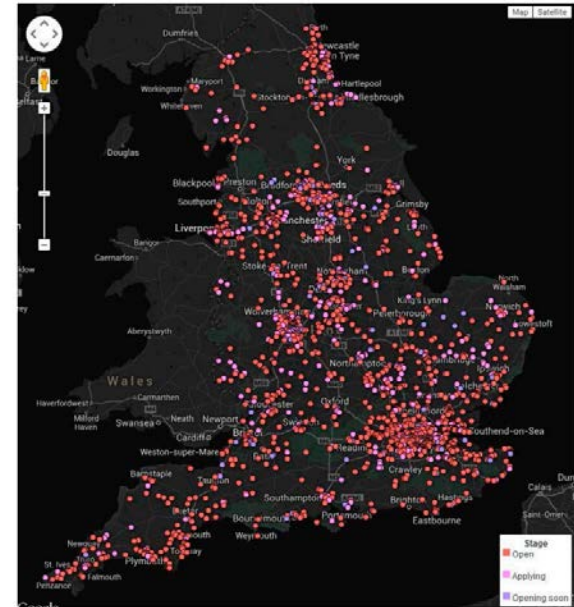
Hospital Episode Statistics

Data linkage in cohorts and longitudinal studies

Longitudinal analysis of schools

urn	urn 2005	urn 2006	urn 2007	urn 2008	urn 2009	urn 2010	urn 2011	urn 2012
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126341	126341	126341	130388	130388	130388	130388	130388	130388
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102877	102877	130899	130899	130899	130899	130899	130899	130899
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130899	102877	130899	130899	130899	130899	130899	130899	130899
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130901	114880	130901	130901	130901	130901	130901	130901	130901
114880	114880	130901	130901	130901	130901	130901	130901	130901
130902	.	130902	130902	130902	130902	130902	130902	130902
130904	.	130904	130904	130904	130904	130904	130904	130904
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107462	107462	130909	130909	130909	130909	130909	130909	130909
130909	107462	130909	130909	130909	130909	130909	130909	130909
101150	101150	101150	130912	130912	130912	130912	130912	130912
130912	101150	101150	130912	130912	130912	130912	130912	130912
130913	.	130913	130913	130913	130913	130913	130913	130913

Note: multiple rows per school, as linked forward and backward and include school mergers. (Churchfields, the village school formed from Atworth Primary School and Monkton Farleigh & South Wraxall.)



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Data linkage resources

- Outputs as part of ongoing data linkage coordination and advocacy
- Schools database
- Dataset linking P14 employment data (HMRC) to birth cohort data
- Training events (eg workshop on linking study data to geographic variables)

Thank you

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closer.ac.uk/discovery

closer.ac.uk/learning