

Resources for research

Professor Alison Park, UCL CLOSER conference 1st Nov





Today

- About CLOSER
- Our resources
 - 1. Harmonisation
 - 2. Data linkage
 - 3. Discovery
 - 4. Learning
- The future



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



Hertfordshire Cohort Study

MRC National Survey of Health and Development

1958 National Child Development Study

1970 British Cohort Study

Avon Longitudinal Study of Parents and Children (ALSPAC)

Southampton Women's Survey

Millennium Cohort Study

Understanding Society: UK Longitudinal Household Study

1930	1950	1970	1990	2010



1. Harmonisation

Facilitating comparisons within and across studies



Image: Kurndakar Rayker, CC (flickr)

Tracking the rise of obesity



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 <u>rebecca.hardy@ucl.ac.uk</u>



Current harmonisation topics

- Height, weight and BMI
- Socio-economic status
- Use & collection of biological samples
- Measures of vision
- Childhood environment & adult wellbeing
- Methods for determining pubertal status
- Biomarkers
- Overcrowding and health



Future harmonisation topics

- Physical activity
- Mental health and wellbeing
- Dietary intake
- Cognitive measures



Harmonisation resources

Harmonised datasets & documentation

DATA ACCESS

- + GN 33529 | CLOSER TRAINING DATASETS
- GN 33530 | CLOSER WORKPACKAGE 1: HARMONISED HEIGHT, WEIGHT AND BMI IN FIVE LONGITUDINAL COHORT STUDIES

SN	Study Description	Access Online	Download / Order
8207	Armonised Height, Weight and BMI in Five Longitudinal Cohort Studies: National Child Development Study, 1970 British Cohort Study and Millennium Cohort Study	\mathbf{V}	↓ □
8209	A: Harmonised Height, Weight and BMI in Five Longitudinal Cohort Studies: MRC National Survey of Health and Development: Special Licence Access	-	◆ □
8208	A Harmonised Height, Weight and BMI in Five Longitudinal Cohort Studies: Avon Longitudinal Study of Parents and Children: Special Licence Access	-	♥ □

Add these datasets to my order

GO

Harmonisation resources

Harmonised datasets & documentation

Resource reports

Resource report



A guide to the biomarker data in the CLOSER studies

A catalogue across cohort and longitudinal studies

Milagros Ruiz, Michaela Benzeval, Meena Kumari July 2017



Harmonisation resources

Harmonised datasets & documentation

Resource reports

Training events & outputs

SEP 9 WORKSHOP

Cross-cohort research: Opportunities, challenges and examples

Senate House, London - 9th September 2015

The aim of this workshop was to provide an overview of the opportunities and challenges inherent in cross-cohort research, with a particular focus on data harmonisation.

ShareThis

Scoop





2. Data linkage

Enhancing study data with administrative records



Current linkage topics

- Education and economic linkage
- Geographic data
- Understanding linkage to Hospital Episode Statistics
- Enabling data linkage in CLOSER studies



Future linkage topic

 Setting standards to maximise the scientific potential of primary care record linkage in longitudinal studies



Longitudinal linkage of schools

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Longitudinal linkage of schools

New geocoded datasets

DATA ACCESS

GN 33004 | NATIONAL CHILD DEVELOPMENT STUDY, 1958-

+ GN 33395 | NATIONAL CHILD DEVELOPMENT STUDY: SPECIAL LICENCE ACCESS

GN 33497 | NATIONAL CHILD DEVELOPMENT STUDY, 1999-: SECURE ACCESS

SN	Study Description	Access Online	Download / Order 📄
7868	<u>National Child Development Study: Sweep 9, 2001 Census Boundaries,</u> 2013-2014: Geographical Identifiers: Secure Access	-	₩ 🗉
7869	National Child Development Study: Sweep 9, 2011 Census Boundaries, 2013-2014: Geographical Identifiers: Secure Access	-	₩ 🗉
7867	National Child Development Study: Sweep 8, 2008-2009: Geographical Identifiers: Secure Access	-	↓ □
7866	National Child Development Study: Sweep 7, 2004-2005: Geographical Identifiers: Secure Access	-	₩ 🗆
7846	<u>National Child Development Study: Sweep 6, 1999-2000: Geographical</u> <u>Identifiers: Secure Access</u>	-	↓ □
8221	National Child Development Study: Sweep 5, 1991: Geographical Identifiers: Secure Access	-	▲ 🗉
8220	<u>National Child Development Study: Sweep 4, 1981: Geographical</u> <u>Identifiers: Secure Access</u>	-	♣ 🗉
8218	National Child Development Study: Sweep 3, 1971 Census Boundaries, 1974: Geographical Identifiers: Secure Access	-	♣ 🗉
8219	 <u>National Child Development Study: Sweep 3, 1981 Census Boundaries,</u> 1974: Geographical Identifiers: Secure Access 	-	₩ 🗉

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Longitudinal linkage of schools

New geocoded datasets

Resource reports

Resource report



A review of resources for geographical variables

Zhiqiang Feng and Chris Dibben

August 2013



Longitudinal linkage of schools

New geocoded datasets

Resource reports

Training events & outputs





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Using linked geographical data in longitudinal studies opens up a multitude of new and exciting research opportunities. This session aims to explore what and how it can be used with longitudinal studies to explore innovative new avenues for research.

About the event

How do the characteristics of our local neighbourhoods effect our socioeconomic chances, health and wellbeing over the course of our lives? Answers to these questions can be found by linking geographical data – such as levels of local air pollution, quantity of green space, and crime rates – to survey data collected by longitudinal studies.

The first session of this workshop will explore what and how geographical data can be used with longitudinal studies to explore innovative new avenues for research.

- Longitudinal linkage of schools
- New geocoded datasets
- Resource reports
- Training events & outputs
- Linked cohort & HMRC earnings data







Search		Welcome
Item type	All	CLOSER Discovery is an online resource that enables researchers to search the data from eight leading UK longitudinal studies. We need your
Studies	All	feedback to help us shape this resource to best meet the needs of its users.
Life Stages	All	To find out more about CLOSER Discovery visit the CLOSER website or take a look at the FAQs.
Search query	Search Q Search	Our studies: • Avon Longitudinal Study of Parents and Children • 1970 British Cohort Study • Hertfordshire Cohort Study • Millennium Cohort Study • Understanding Society

3. CLOSER Discovery

Helping users to explore study content



Rationale

- Aim to make it easier to explore study content
- Allows researchers to search and browse questionnaires and data from eight leading UK longitudinal studies
- Up to date international metadata standards



Key functions

- Search keywords, or browse by topic
- Search by study, or sweep
- Access full question wording and questionnaire context
- Shows how data variables relate to source questions
- Provides top level statistics
- Points users towards data access





Search



bully	Q	Sort by:	Relevance	-
0				

Item types: Questions

Query: bully

Search within: Understanding Society, National Child Development Study, Millennium Cohort Study, Southampton Women's Survey, 1970 British Cohort Study, Avon Longitudinal Study of Parents and Children, National Survey of Health and Development, Hertfordshire Cohort Study Search life stages: Childhood

Results 1 to 20 of 23 (0.031 seconds)



Have you been bullied?

I get bullied all the time

Study: Avon Longitudinal Study of Parents and Children / Sweep: ALSPAC Childhood (5 years to 12 years 11 months)

/ Questionnaire: Me and My School



This child: Is picked on or bullied by other children

Study: Avon Longitudinal Study of Parents and Children / Sween: ALSPAC Childhood (5 years to 12 years 11 months)

Q

Learning Hub





Britain's mobility problem

you are born into a working class family, what are your chances of moving up the social ladder?

Longitudinal studies track the same individuals and households over time. They are powerful research tools to help us understand how our early circumstances and experiences influence our later lives. The CLOSER Learning Hub has information and resources to help you explore longitudinal studies and get you started using the data.

4. The Learning Hub

Introductory materials for new users



Rationale

- Materials aimed at beginners and less experienced data users, initially with academic focus
- Focus on methods & topics
- Easily discoverable and downloadable material to support teaching and supervision
- Showcases CLOSER & individual study resources



Contents

- Introduction
- Study design
- Analysis
- Teaching dataset
- Evidence
- Explore by topic
- Glossary



What are longitudinal studies?

A longitudinal study is a observational study that follows the same subjects repeatedly over a period of time, in some cases from birth to death. The UK is home to the largest and longest-running collection of longitudinal studies in the world.

2 Types of longitudinal studies

There are a range of different types of longitudinal studies: cohort studies, panel studies, record linkage studies. These studies may be either prospective or retrospective in nature.

- Cohort studies
- Panel studies
- Record linkage studies
- Prospective vs retrospective studies
- Longitudinal vs cross-sectional studies

3 Using longitudinal data for research

Each time the studies collect new information about their participants' lives, they are adding rich new data to what is already known about them.

Teaching datasets and exercises

Teaching datasets

CLOSER has developed a teaching dataset based on the 1958 National Child Development Study (NCDS). It is fully documented and is available via the UK Data Service. We have also created a series of suggested teaching exercises to use with this dataset.

The dataset includes variables from eight waves of the NCDS, from the first sweep in 1958, to the age 50 sweep in 2008. Variables in the dataset include:

- personal and family background (respondent sex; parental education and class)
- cognitive ability
- education
- marital status
- employment status and social class
- political participation
- wellbeing
- health indicators (including BMI, drinking and smoking)

The dataset will comprise respondents who have taken part in every <u>sweep</u> of the study (complete cases). A subsequent data set will be prepared that includes respondents who have taken place in some but not all sweeps of the study, so students can learn how to deal with <u>sweep</u>-level missing cases. This dataset will be available soon.

Teaching exercises

We have developed teaching exercises using this data set on the following topics. The first PDF in each topic sets out an exercise and the second PDF provides the answers to those activities:

Learning Hub

Topic | Health behaviours

Health behaviours



Why use longitudinal data to study health behaviours?

Future resources

- New harmonisation and data linkage resources
- New content & functionality for Discovery, and Learning Hub



Thank you

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closer.ac.uk closer.ac.uk/discovery closer.ac.uk/learning

