

Universal access to research ready data: An introduction to finding, accessing, and using health data from the UK Data Service

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UK Data Service

- Funded by the UK Government: Economic and Social Research Council
- Largest repository of social science research data in UK (over 7,300 datasets), available for secondary analysis
- Flagship service. Pioneers of data curation. Secure long term research access to data. Data policies used by national data archives and international research organisations
- Sources of data: National Statistical Institutes, Government departments, Research Institutes, Individual Researchers
- Types of data: survey microdata, census data, international macrodata, qualitative/mixed methods

Vision and strategic objectives

Our vision

To continue to be a critical part of the UK's research infrastructure where the exceptional economic and social research data we make available are central to the achievement of excellence in research, teaching and in the realisation of public benefit.



Trusted infrastructure

To be recognised as a trusted national digital repository for data owners and users. To innovate and lead in data infrastructure provision through the development of common standards and agreed strategies for data deposit, preparation processing, documentation and preservation.



Training and user support

To provide training and support services for depositing, finding, accessing, using and managing data.

Our mission

To support high quality social and economic research, teaching and learning through assuring long term access to quality economic, social research and population data, supporting and promoting their use, value and impact.



To provide a federated point of access for

users with clear transparent application

assured economic and social research

increase and enhance our collection of

data, regardless of data access status. To

datasets available for research and impact

or registration procedures to quality



Data impact

To support research funders in their data related activities and influence relevant data policy development. To lead in the discussions on research integrity and open research, ensuring that data can be used in an ethical and legal way. To extend use of our data to the widest possible academic, policy and practitioner communities for generating greater impact.

• Wide range of topics such as health, ageing, crime, economics, education, housing, politics, poverty.....

Who is it for?

- Academic researchers/lecturers and students (70%)
- Government analysts
- Charities and foundations
- School students and teachers
- Business consultants and data analysts
- Independent researchers and think tanks
- Independent researchers

- Wide range of disciplines not just social scientists!
- Data widely used for health research/epidemiology

1 APRIL 2020 - 31 MARCH 2022 **UK Data Service statistics** User profile and reach 50000 U.S.E 40000 0 30000 20000 GIST 10000 Total 38,375 From 148 countries United Kingdom (UK)

Key types of health data available from UK Data Service

Type of data	Examples
Cross-sectional surveys (many are repeated annually or at other time periods for analysis of trends over time)	 Health Survey for England/Scottish Health Survey Dental Health Surveys Psychiatric Morbidity Surveys National Survey of Sexual Attitudes and Lifestyles Smoking, Drinking and Drug Use among Young people National Diet and Nutrition Surveys Active Lives Survey NHS Patient Survey Programme Evidence for Equality National Survey: a Survey of Ethnic Minorities During the COVID-19 Pandemic, 2021
Longitudinal/cohort studies (follow the same people over time)	 Understanding Society/UK Household Longitudinal Study (UKHLS) English Longitudinal Study of Ageing (ELSA) National Child Development Study (1958) British Cohort Study (1970) Millenium Cohort Study (2000) Growing Up in Scotland
Cross-national data	 European Quality of Life Survey OECD Health Statistics

Why use cross-sectional & longitudinal/cohort survey data?

The quality, utility and flexibility of the data:

- High quality, nationally representative data
- Large sample sizes for sub-group analyses
- Many have objective health measurements (biomarkers, blood samples etc)
- Range of covariates for multivariate analyses
- Intra household analyses (e.g. parents and children)
- Microdata flexible, can derive your own variables for your own concepts

A few examples of use

Lancet Psychiatry. 2021 May;8(5):353-354. doi: 10.1016/S2215-0366(20)30570-8. Epub 2021 Jan 11.

Child mental health in England before and during the COVID-19 lockdown

Tamsin Newlove-Delgado ¹, Sally McManus ², Katharine Sadler ³, Sharon Thandi ⁴, Tim Vizard ⁵, Cher Cartwright ⁶, Tamsin Ford ⁷; Mental Health of Children and Young People group

Original research

the third National Survey of Sexual

Attitudes and Lifestyles (Natsal-3)

Rebecca S French,¹ Rebecca Geary,² Kyle Jones,² Anna Glasier,¹

Anne M Johnson,² Kave Wellings¹

BM Journals Epidemiology &

Community Health

Are housing circumstances associated with faster epigenetic ageing? Amy Clair (1),¹ Emma Baker (1),¹ Meena Kumari (1)²

Research

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OPEN ACCESS

BMJ Journals

BMJ Sexual & Reproductive Health

> Private school education linked to better health more than 25 years later, study finds

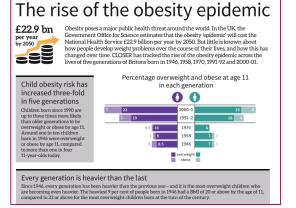
Private school pupils are more likely than their peers at comprehensives to have a lower body mass index (BMI) by the time they reach their early 40s. They also spend less time watching television and eat fewer take-away meals, according to new research published in the International Journal of

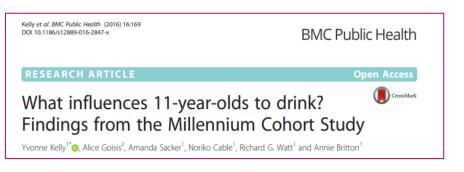


Social Science & Medicine Volume 321, March 2023, 115606

How does arthritis affect employment? Longitudinal evidence on 18,000 British adults with arthritis compared to matched controls

Nasir Rajah ^{a b}, Edward J.D. Webb ^a, Claire Hulme ^c, Sarah R. Kingsbury ^d, Robert West ^e, Adam Martin a 🙎 🖾



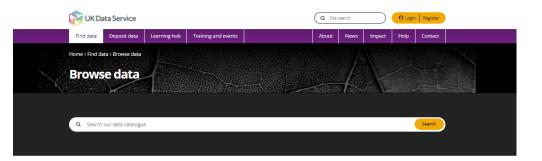




Finding data in the UK Data Service: browsing

me > Find data				
ind data				
Catalogue search guidance	Browse and access key data	Access requirements and processes		
Our video guide provides step-by-step	Find and access key data easily by	• Open, safeguarded or controlled data		
instructions for using the data catalogue.	themes, data types and teaching datasets.	access requirements and application guidance for UKDS SecureLab.		
Short tutorial on how to access and download data >	Browse and access data >	Open, safeguarded or controlled SecureLab access >		

Find data — UK Data Service



Ageing	>	COVID-19	>	Crime	>	Economics	>
Environment and energy	>	Education	>	Ethnicity	>	Food	>
Health	>	Housing	>	Information and Communication	>	Labour	>

UK Surveys	>	Cross-national surveys	Longitudinal studies 📏	International >
Census data	•	Business microdata	Qualitative/mixed	Administrative data

Finding data in the UK Data Service: browsing

Home > Find data > Browse data > Health

View all data >

Health

Health and health behaviour covers a wide range of topics and cuts across many academic disciplines. Data have been collected and are made available via the UK Data Service on topics as varied as the experience of illness, child development, access to care, lifestyle behaviour, subjective physical and mental well-being, dist and nutrition, immunisation programmes and attitudes towards health service provision.

Data on health and health behaviour can cover not only a person's status, behaviour, attitudes and expectations but also the provision of health care, including the mechanics of policy making, government expenditure and service coverage. Explore our library of <u>impact case studies</u> demonstrating how our data have been used. Find our how to search our catalogue

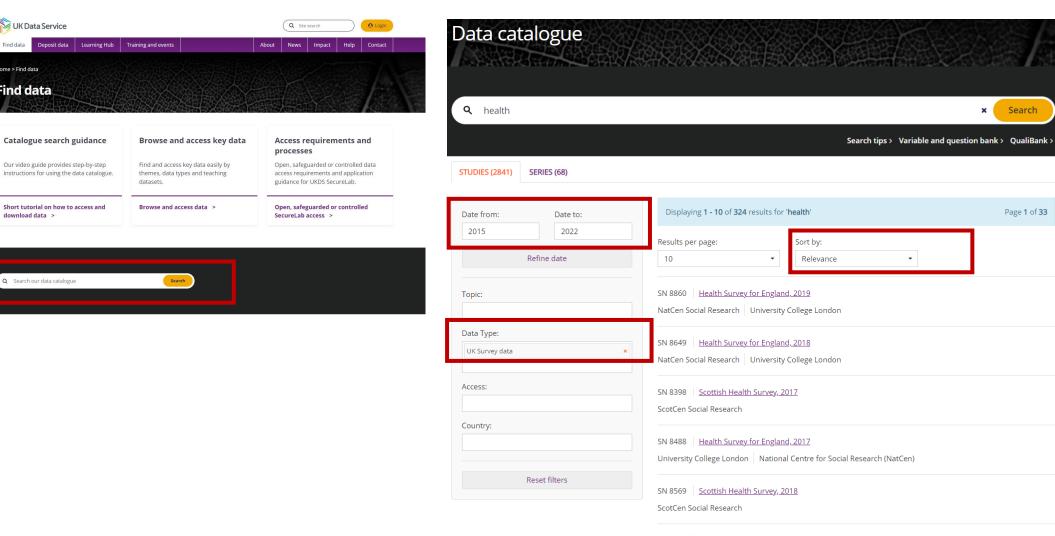
Some key datasets

Here are some popular datasets within the theme of health.

Adult Dental Health Survey, 2009 Coverage: 2009 - 2009; England, Northern Ireland, Wales Topic: See data catalogue record for full topic listing.	(View >
English Longitudinal Study of Ageing Coverage: 1998- ongoing: England Topic: See data catalogue record for full topic listing.	View >
European Quality of Life Survey Coverage: 2003 - ongoing: Europe Topic: See data catalogue record for full topic listing.	View >
Health Survey for England Coverage: 1991 - ongoing: England Topic: See data catalogue record for full topic listing.	View >
National Survey of Sexual Attitudes and Lifestyles Coverage: 1990 - 1991, 2000, 2010; Great Britain Topic: See data catalogue record for full topic listing.	View >
Scottish Health Survey Coverage: 1995, 1998, 2003, from 2008 - ongoing: Scotland Topic: See data catalogue record for full topic listing.	View >
Understanding Society Coverage: 2009 - ongoing: United Kingdom Topic: See data catalogue record for full topic listing.	View >
Welsh Health Survey Coverage: 1995 1998 from 2003/4 - ongoing Wales	View >



Finding data in the UK Data Service: Data Catalogue



UK Data Service

download data >

Q Search our data catalogue

Find data

Home > Find data Find data

> SN 8737 Scottish Health Survey, 2019 ScotCen Social Research



Search

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UK Data Service training programme

Research Data Management	Finding and Accessing Data from the UK Data Service		Using data (introductory skills)
 Data management planning: sharing, archiving and preserving data Anonymisation and licence/access frameworks Documentation and metadata standards Ethical and legal considerations <u>New project</u> Sept 2023 (ESRC & MRC funded) – training for Population Research UK 	 Data discovery How to access data Safe Researcher T most confidential data 	raining for the	Introductions to data we hold: • Datasets e.g Census, LFS • Data types e.g Surveys • Substantive themes e.g health • Evaluating data for research • Preparing data/data handling • Basic data analysis skills • Basic software/tools • Teaching with data • User conferences + Computational Social Science + Reproducible research
 At the heart: Secondary data analysis Introductory level Training for the data that we hold (Survey, Census, Longitudinal, Cohort, International) 	nternational Aggregate)	Annua	-data specific training: health studies user conference -themed webinars/workshops

UK Data Service Training programme

- Training and events UK Data Service
 - 100+ training events per year
 - 6000+ attendee per year
- Learning Hub and YT channel
 - <u>Learning Hub</u> 15000+ unique visitors per month
 - YouTube channel 7000+ views per month
- All free of charge!

Learning Hub

Enhance your data skills and teaching

<u>New to using data</u>

Best practice and training for researchers new to accessing and using data in our collection. Includes advice and tools to correctly cite data; student-specific information on our Dissertation Award for undergraduates; and more.

Data skills modules

There is a wealth of data available for reuse in research and reports. These free, interactive tutorials are designed for anyone who wants to start using secondary data. They show you how to get started with finding good quality data, understanding it and starting your analyses.

<u>Students</u>

Students can access most of the UK Data Service's collection of social, economic and population data. Find resources to help you find and use our data during your studies including the UK Data Service dissertation resources.

<u>Survey data</u>

Survey data, including data from longrunning surveys, series and longitudinal studies, are a major part of social science research. Learn how to use survey and longitudinal data through training resources including videos, on-demand webinars and written guides.

International data

Our international macrodata contain socioeconomic time series data aggregated to a country or regional level for a range of countries over a substantial time period.

Qualitative data

Qualitative research gives a voice to the lived experience, offering researchers a deeper insight into a topic or individuals' experiences. Qualitative data can be combined with quantitative to enhance understanding around a policy or topic in a way that quantitative data by itself often cannot.

Licensing and access framework





Open

Available under open licences with almost no restrictions on reuse, registration is not required

Safeguarded

Available under the End User Licence Agreement, requires registration and additional conditions of use may apply



Controlled

Available under the Five Safes Framework, requires registration, project approval, user training and safe settings

15% of studies

82% of studies

3% of studies

2

On average, data from the Service are downloaded or accessed every 6 minutes, every day, throughout the entire year

Registering with the UK Data Service



Students and members of staff at a UK institution of higher or further education or members of organisations part of the <u>UK Access Management Federation</u> can <u>register with us</u> using the username and password issued by their institution



Any other researchers can register with us by applying for a username



Registration and login FAQs



Why is registration required?

Registration and agreeing to the terms and conditions of the End User Licence Agreement and any additional access conditions are part of your ethical responsibility in secondary data analysis

The conditions of use require researchers to act responsibly and ethically with the data, thoughtout the project and at the end of their project

UK Data Service

ukdataservice.ac.uk

Research data handling and security guide for users

27 February 2023

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Version: 12.00

Source

Five Safes Framework



- Safe data: treated and de-identified
- Safe projects: approved by data owners/Research Accreditation Panel and must demonstrate public good
- Safe people: complete the Safe Researcher Training and gain Accredited Researcher status
- Safe settings: environment prevents unauthorised access i.e. UKDS SecureLab
- Safe outputs: screened and approved to ensure no disclosive information leaves the Safe Settings

Bespoke data licences and reproducibility

Repositories (national/institutional) employ different access/licence frameworks, including open and bespoke ones

Data published under bespoke (i.e. non-open) licences can rarely be shared without permission from the original data creator

Always check the licence agreement e.g. End User Licence Agreement before sharing data obtained from a repository, if unsure get in touch.

Sharing well documented code ensure reproducibility and increases the visibility of your research, while respecting the usage terms and conditions



Sharing code guidance

code/syntax file are clean, well formatted and do not contain any data

- S avoid including unnecessary personal information
- code/syntax file are well commented
- always include the full citation (including the persistent identifier) for the data used
- provide in-depth metadata describing the files and methods used
- provide a ReadMe/Methods document for ease of use for secondary users

English Longitudinal Study of Ageing example

Economic activity and family history data management code

2020

Chanfreau, Jenny (2020). Economic activity and family history data management code 2020. [Data Collection]. Colchester, Essex: UK Data Service. <u>10.5255/UKDA-SN-854277</u>

This ESRC-funded PhD project compared cohorts to investigate whether and how differences in women and men's labour market and family patterns have changed over time and educational differences in these patterns.

DATA DESCRIPTION (ABSTRACT)

Collection consists of Stata do files which reformat the economic activity history, partner history and parenthood history variables included in the ELSA life history study (person-level, wide format) into separate long format files (person-activity-spell, person-child and person-partner format respectively). The aim of the project that the code resulted from was to compare the employment and parenthood histories from age 16 reported in ELSA to the employment and parenthood histories of two of the UK birth cohorts (the 1958 National Child Development Study and the 1970 British Cohort Study) and thus some decisions were necessary for the purpose of harmonisation. The accompanying note sets out the decisions taken in the data management process.

Data creators:	Creator Name	Affiliation	ORCID (as URL)		
	Chanfreau Jenny	University College London	<u>https://orcid.org/0000-0003-</u> <u>3914-5859</u>		
Sponsors:	Economic and Social Research Council				
Topic classification:	Economics Demography (population, vital statistics and censuses) Labour and employment				
Keywords:	LIFE HISTORY, ECONOMIC ACTIVITY, FERTILITY, EMPLOYMENT, PARENTS				
Project title:	Gendered and classed work-family life courses: stability and change over time in the UK				
Grant holders:	Jenny Chanfreau				
Project dates: Date published:	From 1 October 2015 27 Apr 2020 12:46	To 30 Septembe	er 2018		
Last modified:	08 Jun 2020 11:59				

AVAILABLE FILES

Data

+ 854277_ELSA_history_do_files.zip

Documentation

+ 854277_ELSA_Employment_and_family_histories_note.docx

DOWNLOADS

 $84 \; \text{data downloads and} \; 159 \; \text{page views since this item was published} \\ \underline{\text{View more statistics}}$

Images source

Metadata records for code



Ensures resource discovery and citation supported with persistent identifiers (DOIs)

Make your code available via ReShare



Thank you

Cristina Magder: <u>dcmagd@essex.ac.uk</u> Vanessa Higgins: <u>vanessa.higgins@manchester.ac.uk</u>

http://ukdataservice.ac.uk

