**HALCyon data and meta-data user guide**

At the end of March 2014 NDA funding of the Healthy Ageing across the Life Course (HALCyon) collaborative research programme (RES-353-25-0001) which involved nine of the UK cohort studies came to an end.

In line with funding agreements, data and metadata which were produced by this programme are to be made available to other researchers. The following files have been prepared:

**DATA**

The NDA grant included funds to:

- collect data on wellbeing in: Hertfordshire Cohort Study (HCS); Caerphilly Prospective Study (CaPS); Aberdeen Birth Cohort 1936 (ABC1936)

- measure telomere length using existing samples in: Lothian Birth Cohort 1921 (LBC1921); CaPS; Hertfordshire Ageing study (HAS); NSHD (sub-set of samples)

- perform cortisol assays using existing samples in: CaPS and NSHD

- undertake 60 qualitative interviews (30 each) in: HCS; NSHD

The following stata data files have thus been prepared

*Wellbeing data:*

HALCyon\_wellbeing data\_Aberdeen\_2011.dta

HALCyon\_wellbeing data\_Caerphilly\_2011.dta

HALCyon\_wellbeing data\_HCS\_2011.dta

HALCyon\_wellbeing data\_NSHD\_2009.dta

*Telomere length data:*

HALCyon data\_telomere length\_Caerphilly\_2011.dta

HALCyon data\_telomere length\_HAS\_2011.dta

HALCyon data\_telomere length\_Lothian1921\_2011.dta

HALCyon\_telomere length\_NSHD\_2009.dta

*Cortisol data:*

HALCyon data\_cortisol\_Caerphilly\_2012.dta

HALCyon\_cortisol\_NSHD\_2009.dta

*Qualitative data:*

HALCyonNSHDandHCS.nvp

The files with the quantitative data, described above, are stored at the MRC Unit for Lifelong Health and Ageing at UCL and can be shared with bona fide scientists who apply to use them.

The qualitative data are highly sensitive and disclosive even after removing all names in the transcripts. For these data we would like to suggest that researchers who wish to use these qualitative data apply through the respective data access systems of the two cohorts (see below ‘Applying for data’).

**META-DATA**

One of the main aims of HALCyon was to perform comparable analyses across cohorts; in many cases, this involved harmonising secondary data from 9 British cohort studies. The first step in this process was to document details of the potentially relevant variables available in each study. The second step in this process was to write syntax which cleaned and recoded relevant variables for use in comparable analyses.

In addition to the publications produced (see <http://www.halcyon.ac.uk>), another key output from HALCyon is: (1) the documentation created which lists out the comparable variables available in each cohort for topics of relevance to HALCyon; (2) Stata syntax which was used to clean and recode existing data for use in analyses that were comparable across cohorts. These meta-data documents will be made available through the HALCyon, CLOSER and MRC DSS websites.

***Documentation of existing variables***

HALCyon metadata\_Physical capability.doc

HALCyon metadata\_Socioeconomic position.doc

HALCyon metadata\_Health status.doc

HALCyon metadata\_Body Size.doc

HALCyon metadata\_Social roles and activities.doc

HALCyon metadata\_Telomere length.doc

HALCyon metadata\_Cortisol.doc

HALCyon metadata\_Cognitive capability.doc

***Stata syntax***

*Coding of physical capability and covariate data (details of variables covered included at the top of each file)*

HALCyon PC covariate syntax\_Aberdeen1936.do

HALCyon PC covariate syntax\_BoydOrr.do

HALCyon PC covariate syntax\_Caerphilly.do

HALCyon PC covariate syntax\_ELSA.do

HALCyon PC covariate syntax\_HAS.do

HALCyon PC covariate syntax\_HCS.do

HALCyon PC covariate syntax\_Lothian1921.do

HALCyon PC covariate syntax\_NSHD.do

[supporting document for these files: HALCyon Recoding and labelling work.doc]

*Coding of cognitive capability data*

HALCyon cognitive syntax\_Aberdeen1936.do

HALCyon cognitive syntax\_Caerphilly.do

HALCyon cognitive syntax\_ELSA.do

HALCyon cognitive syntax\_HAS.do

HALCyon cognitive syntax\_Lothian1921.do

HALCyon cognitive syntax\_NSHD.do

*Coding of body size variables*

HALCyon body size syntax\_Boyd Orr.do

HALCyon body size syntax\_Caerphilly.do

HALCyon body size syntax\_ELSA.do

HALCyon body size syntax\_NSHD.do

*Coding of wellbeing variables (these files code up the Warwick Edinburgh Mental Wellbeing Scale)*

HALCyon wellbeing syntax\_Aberdeen1936.do

HALCyon wellbeing syntax\_Caerphilly.do

HALCyon wellbeing syntax\_HCS.do

HALCyon wellbeing syntax\_Lothian1921.do

HALCyon wellbeing syntax\_NSHD.do

[supporting document for these files: HALCyon\_WEMWBS\_descriptive checks.doc]

*Coding of cortisol data*

HALCyon cortisol syntax\_BoydOrr.do

HALCyon cortisol syntax\_Caerphilly.do

HALCyon cortisol syntax\_HCS.do

HALCyon cortisol syntax\_NSHD.do

It should be noted that new datasets of harmonised data have not been created for use within the HALCyon collaboration as the syntax files containing the coding to harmonise data were run on the original data files each time of use; this ensured that when updates to any dataset became available they could more easily be incorporated and if corrections or updates to the syntax were required these could more easily be implemented. This also provided a clear audit trail and ensured that HALCyon researchers were always running their analyses on the most up to date versions of the data, using the most up to date versions of the syntax (the final versions of which are publicly accessible).

**APPLYING FOR DATA**

Quantitative data

Bona fide scientists can apply to access these data on wellbeing, telomere length and cortisol by completing the HALCyon data sharing form (appendix 1) and sending this back to stephanie.pilling@ucl.ac.uk.

Qualitative data

Due to their highly sensitive and disclosive nature, researchers who wish to use the qualitative data collected will need to access these at agreed safe havens (the Centre for Longitudinal Studies, Institute of Education, the MRC Lifecourse Epidemiology Unit at Southampton University or the MRC Unit for Lifelong Health and Ageing at UCL) and should apply to do this through the respective data access systems of the two cohorts.

Once approved, these data can be looked at in safe havens that have the relevant software (NVivo) to read the files which are currently the Centre for Longitudinal Studies or the MRC Lifecourse Epidemiology Unit at Southampton University. The written transcripts can be read at the MRC Unit for Lifelong Health and Ageing (LHA).

**MRC National Survey of Health and Development**

Guidance for accessing data through the NSHD data sharing process

<http://www.nshd.mrc.ac.uk/data_archive.aspx>

**Hertfordshire Cohort Study**

Please see the HCS website for access details

<http://www.mrc.soton.ac.uk/herts/contact/>

Appendix 1

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| **Healthy Ageing across the Life Course (HALCyon)****Request for access to new data generated by the HALCyon Programme** **Cortisol, Wellbeing, Telomere length**\*For access to qualitative interview data please contact the relevant cohorts individually MRC NSHD: <http://www.nshd.mrc.ac.uk/data_archive.aspx>HCS: <http://www.mrc.soton.ac.uk/herts/contact/> |
| **1. Applicants** Principal Applicant: Co-applicant: Co-applicant:Co-applicant:Co-applicant: |
| **2. Title of project:** start date: expected end date:  |
| **3. Which HALCyon datasets would you like to use?** (please tick) Cortisol Caerphilly Prospective Study MRC National Survey of Health and Development  Wellbeing Hertfordshire Cohort Study Caerphilly Prospective Study Aberdeen Birth Cohort 1936 MRC National Survey of Health and Development  Telomere length Lothian Birth Cohort 1921 Caerphilly Prospective Study Hertfordshire Ageing study MRC National Survey of Health and Development |
| **4. Brief description of aims and objectives of the project and planned analyses**  |
| **5. Electronic data: Will the project require deriving or producing new variables from existing data?** (Please specify the types of variables you are planning to derive) |
| Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |