Harmonized LASI-DAD Documentation

Version A, April 2021

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Preface

The Harmonized Diagnostic Assessment of Dementia for the Longitudinal Aging Study in India (LASI-DAD) is the first and only nationally representative study on late-life cognition and dementia in India. We have drawn what is currently a cross-sectional sample of 4,096 community-residing older adults 60+ years of age from the larger LASI study (N ~ 70,000). LASI is a prospective, multi-purpose population survey, representative of both the entire country and of each state within India.

We have administered the Harmonized Cognitive Assessment Protocol (HCAP), a common cognitive test battery used by an international network of researchers, enabling new and innovative comparative studies across both low- and high-income countries. The HCAP family of studies includes the Health and Retirement Study – HCAP (HRS-HCAP), the English Longitudinal Study of Ageing – HCAP (ELSA-HCAP), and the Mexican Health and Aging Study's Cognitive Aging Ancillary Study (Mex-Cog), along with others in Chile and China.

The HCAP consists of a pair of in-person interviews, one with the target respondent and one with an informant nominated by the respondent. The respondent interview includes a neuropsychological test battery designed to measure a range of key cognitive domains affected by cognitive aging, such as memory, language, attention, executive function, and visuospatial skills. The HCAP studies share core elements, such as the aforementioned domains, specific cognitive tests, questions for informants, and methods of data collection. However, due to differences in literacy and local contexts, some modifications were made in the selection and administration of specific cognitive tests for LASI-DAD. Hence, when analyzing HCAP data, it is recommended that the user consider these differences when constructing an analysis plan.

One unique feature of LASI-DAD is that a comprehensive geriatric assessment accompanied the interviews and was completed in collaboration with regional geriatric hospitals. Through this geriatric assessment, rich epidemiological data on the health of the respondents are collected and made available for research purposes. More detail information is available on lasi-dad.org.

The University of Southern California Gateway to Global Aging Data team has created this codebook along with Harmonized LASI-DAD data files to facilitate cross-country comparisons across the international family of HCAP studies.

The Harmonized LASI-DAD initiative is part of a larger set of projects that aim to facilitate cross-country comparisons using data across the HRS-family of HCAP studies. With funding and support from the National Institute on Aging, we have also created Harmonized HRS (USA), Harmonized ELSA (England), Harmonized SHARE (Europe + Israel), Harmonized KLoSA (South Korea), Harmonized JSTAR (Japan), Harmonized CHARLS (China), Harmonized LASI (India), Harmonized MHAS (Mexico), Harmonized TILDA (Ireland), Harmonized CRELES (Costa Rica), and Harmonized MARS (Malaysia) data. Further information about these Harmonized data files with questionnaires and other metadata is available on our searchable website, g2aging.org.

Requested Acknowledgment

LASI-DAD Version and Acknowledgment

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1.   Introduction and Overview

This codebook documents the Harmonized LASI-DAD data files, a streamlined collection of variables derived from the Longitudinal Aging Study in India, Diagnostic Assessment of Dementia (LASI-DAD). The main goal of LASI-DAD is to provide an interdisciplinary data resource with a focus on cognitive and physical health, and quality of life as people age. LASI-DAD derived variables include cognition variables, informant report variables, and physical measure variables. The Harmonized LASI-DAD data file also incorporates various demographic variables from the Harmonized LASI. Harmonized LASI-DAD does not include any data which is not publically released.

The LASI-DAD is a sub-study of the ongoing, nationally representative survey Longitudinal Aging Study in India (LASI). The survey elicits in-depth cognitive tests, geriatric assessments, and informant interviews. The informant interview is completed by a person chosen by the respondent. Venous blood was also drawn and stored for future studies.

The LASI-DAD aims to:
- Collect high-quality data on late-life cognition and dementia
- Obtain clinical consensus diagnosis
- Estimate the prevalence and incidence of dementia and mild cognitive impairment (MCI)
- Investigate the determinants of late-life cognition, dementia, and MCI
- Study the impact of dementia, cognitive impairment, and MCI on families and society
- Disseminate anonymized data to the larger research community

The LASI-DAD's target sample was older adults aged 60 and older. To obtain national representation within budgetary constraints and to maintain quality supervision of fieldwork, we collaborated with 15 regional centers (RCs) for interviewer recruitment and fieldwork management. The All India Institute of Medical Sciences (AIIMS) in New Delhi was the nodal point that coordinated with and provided logistical support to all the other RCs.[1] We selected the sample from 18 states and 4 metropolitan cities across the country that are within 12 hours of driving distance from participating RCs. The states we draw the LASI-DAD sample from include: Assam, Gujarat, Haryana, Jammu & Kashmir, Karnataka, Kerala, Maharashtra, Odisha, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh, Bihar, Madhya Pradesh, Uttarakhand, Punjab, and West Bengal, and the four metropolitan cities are: Chennai, Delhi, Kolkata, and Mumbai.

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[1] These centers include: the All India Institute of Medical Sciences, Delhi; Madras Medical College, Chennai; National Institute of Mental Health and Neurosciences, Bangalore; BHU, Varanasi; S.N. Medical College, Jodhpur; TMC, Trivandrum; Grant Medical College, Mumbai; SKIMS, Srinagar, Gauwhati Medical College, Guwahati, Assam; Nizam's Institute of Medical Sciences, Hyderabad, All India Institute of Medical Sciences, Bhubaneswar, Odisha; IPGMER, Kolkata; Indira Gandhi Institute of Medical Sciences, Patna, Bihar; All India Institute of Medical Sciences, Madhya Pradesh; All India Institute of Medical Sciences, Rishikesh, Uttarakhand; and Government Medical College, Chandigarh, Punjab.

As our aim was to study dementia, a simple random sampling of age-eligible LASI respondents would not yield enough cognitively impaired respondents to allow for a sufficiently precise estimation of the relationship between dementia and its correlates. Therefore, we employed a two-stage stratified random sampling approach with oversampling of those at high risk of cognitive impairment to ensure sufficient numbers of respondents with dementia and mild cognitive impairment.

To accomplish this, we first classified respondents into those at high and at low risk of cognitive impairment based on the core LASI study's cognitive tests and on the proxy report for those who did not complete the cognitive tests. Specifically, to determine cognitive impairment risk, we grouped the LASI respondents into four groups based on age (60–69 and 70+) and education (no schooling and some education). We then defined cognitive impairment risk within age/education groups based on their relative performance on memory and non-memory cognitive tests, overall test performance, refusal or inability to participate in the cognitive tests, and proxy interviews in the main LASI. Respondents were classified as high risk if any of the following conditions were met: (1) overall cognitive test performance in the core LASI was in the bottom tertile; (2) memory score was in the bottom 15th percentile; (3) non-memory cognitive scores were below the 15th percentile; (4) the number of missing cognitive tests was above the 85th percentile; or (5) scores from the Informant Questionnaire on Cognitive Decline in the Elderly (IQCODE), a widely used screening test for dementia, was 3.9 or higher. We then randomly drew the sample with about an equal number of those at high risk of cognitive impairment and those not at high risk.

As noted earlier, LASI-DAD is one study within a larger international effort to understand dementia risks through longitudinal studies on aging. This effort has been developed as the Harmonized Cognitive Assessment Protocol (HCAP). In order to measure the cognitive ability of the older Indian population, of which many are illiterate and innumerate, the project team carefully evaluated the HCAP protocol and modified it to suit the local context and target population. For example, the Mini Mental State Exam (MMSE) developed by Folstein, Folstein, and McHugh (1975) was replaced by the Hindi version of the MMSE (HMSE) developed by Ganguli et al. (1995). We further considered cognitive and neuropsychological test batteries developed by the National Institute of Mental Health and Neuro Sciences, Bengaluru, India, and consulted with other experts in the field, including geriatricians, community medicine experts, psychiatrists, cognitive psychologists, and members of the HRS–HCAP advisory group. Table 1 presents the tests selected for LASI-DAD, indicating those in common with HCAP and the tests unique to LASI-DAD.

LASI-DAD employs almost the same informant interview protocol that is used in HRS-HCAP, including questions about the informant, particularly his/her relationship with the respondent and his/her own demographic characteristics; the Informant Questionnaire on Cognitive Decline in the Elderly (IQCODE) (Jorm and Jacomb 1989); Blessed Parts 1 and 2 (Blessed, Tomlinson, and Roth 1968; Morris et al. 1989); questions about respondents' activities; and signs of cognitive impairment drawn from the 10/66 Brief Screener for Dementia (Prince et al.

2007). Some modifications were made to the questions about the respondents' activities to make them more culturally relevant.

Please refer Lee et al. (2019) for a more detailed description of the project protocol.

Table 1. Cognitive tests selected for LASI-DAD

(* indicates same HCAP protocol, # indicates protocol with minor modifications, + indicates unique in LASI-DAD)

Test Name	Description
HMSE (Ganguli et al. 1995)#	The HMSE is the Hindi translation and adaptation of the MMSE for screening the Hindi-speaking, illiterate rural elderly population. The HMSE (like the MMSE) assesses general cognitive status with measures of cognitive orientation, language, and memory. This test is often used in clinical and research settings to identify individuals with likely cognitive impairment or dementia.
TICS (Brandt, Spencer, and Folstein 1988)#	This section includes three questions from the HRS–TICS. This includes questions to identify two words (vocabulary) and naming the Prime Minister of India (replacing the HCAP question about the name of the U.S. President and Vice President). This measure is based on the full TICS.
Word learning and recall (CERAD 1987)#	This test presents 10 high-imagery words for 2 seconds each. The respondent hears each word and repeats it aloud as it is presented and is then tested on immediate recall ability. The same list of words is presented to the respondent three times in different orders; after each presentation, the respondent is asked to recall as many words as possible. In addition to correct recall responses, the number of intrusions (words not on the list) are also recorded. We do the delayed recall 5 minutes after the first administration.
Digit span forward and backward (Wechsler 1997)*	A list of random numbers is read out loud at the rate of one per second. Subjects listen to the series of single-digit numbers and are asked to repeat them back in the same order they were given. At the end of a sequence, they are asked to recall the items in reverse of the presented order.
Symbol cancellation (Lowery et al. 2004)#	This test assesses attention and speed, specifically in the illiterate population. Subjects are given a sheet with different symbols. They are then shown a specific symbol, which is present among the different symbols in the sheet, and are asked to scan the sheet as quickly as possible (in a minute) and circle the symbol shown to them. Scores include the number of correctly and incorrectly circled symbols.
Logical memory (Wechsler 2009)#	This section involves the reading of stories to the respondent and is scored based on the number of story points the respondent can immediately recall after hearing each story. The first story read to the respondent is the Brave Man story, included in many dementia studies around the world. The second story read to the respondent is one of two from the Wechsler Memory Scale (WMS-IV).
Constructional praxis (with delayed recall) (Rosen, Mohs,	The constructional praxis tests the subject's ability to copy four geometric forms of varying difficulty shown on a sheet of paper (circle, overlapping rectangles, diamond, and cube). In the delayed recall test, the subjects are asked to recall these shapes and draw them from memory after some

and Davis 1984)*****	time.
Retrieval fluency (Woodcock, McGrew, and Mather 2001)*****	To assess verbal reasoning and processing speed, respondents are asked to name as many animals as possible in a minute. This test was adapted by McArdle and Woodcock from the Woodcock Johnson Test III Tests of Achievement.
Serial 7s (Folstein, Folstein & McHugh, 1975)*****	In this test, the respondent is asked to subtract seven from 100 in the first step and then asked to continue subtracting seven from the previous result in each subsequent step. Each subtraction is scored separately. This test is also part of the MMSE.
CSI-D (Hall, Hendrie, and Brittain 1993)*****	This series of questions derives from the 10/66 and Community Screening Interview for Dementia (CSI-D) surveys to assess cognitive impairment and dementia. The questions evaluate language, knowledge, and the ability to follow directions.
Raven's test (Raven 2000)*****	This test evaluates picture-based pattern reasoning of varying difficulty. Each question presents a geometric picture with a small section that appears to have been cut out. The respondent is shown a set of smaller pictures that fit the missing piece and is asked to identify the one that correctly completes the pattern. We follow HRS–HCAP wherein they have selected a subset of 17 questions out of the 60 in the full test, including one practice question.
Go–No Go (Gomez, Ratcliff, and Perea 2007)**+**	In this test, the respondent is given a task in which stimuli are presented in a continuous stream and participants perform a binary decision on each stimulus. One of the outcomes requires participants to make a motor response (go), whereas the other requires participants to withhold a response (no go). Accuracy is measured for each event.
Hand movement sequencing test (Mattis 1988)**+**	In this test, the subject is shown hand-sequencing movements and is asked to repeat the action shown. The test is adopted from Hindi hand-sequencing movements, which were adapted from Mattis dementia rating scales.
Token test (De Renzi and Vignolo 1962)**+**	The subject is presented with a show card with tokens of different shapes, sizes, and colors. He/she is given verbal commands like touching the different colored tokens, different shapes, one shape or color before the other, etc. The commands start with simple tasks and progresses to more complex ones.
Judgment & problem solving (Morris, 1993)**+**	The subject is asked to (1) identify similarities and differences between things and (2) describe what s/he would do if s/he found a lost child on the road.

1.1   Gateway to Global Aging Data

The Health and Retirement Study (HRS) has achieved remarkable scientific success, as demonstrated by an impressive number of users, research studies, and publications using it. Its success has generated substantial interest in collecting similar data in other regions of the world as population aging progresses.

The result has been a number of surveys designed to be comparable with the HRS: the Mexican Health & Aging Survey (MHAS), the English Longitudinal Study of Ageing (ELSA), the Survey of Health, Ageing and Retirement in Europe (SHARE), the Korean Longitudinal Study of Aging (KLoSA), the Japanese Study on Aging and Retirement (JSTAR), the Irish Longitudinal Study on Ageing (TILDA), the China Health and Retirement Longitudinal Study (CHARLS), Health and Aging in Africa: A Longitudinal Study of an INDEPTH Community in South Africa (HAALSI), the Brazilian Longitudinal Study of Ageing (ELSI), Healthy Ageing in Scotland (HAGIS), the Northern Ireland Cohort Longitudinal Study of Ageing (NICOLA), and the Longitudinal Aging Study in India (LASI). The overview of this family of surveys, including their research designs, samples, and key domains can be found in Lee (2019).

As these surveys were designed with harmonization as a goal, they provide remarkable opportunities for cross-country studies. The value of comparative analyses, especially the opportunities they offer for learning from the results of policies adopted elsewhere, is widely recognized. Yet there are only a limited number of empirical studies exploiting such opportunities. This is partly due to the difficulty associated with learning multiple surveys and the policies and institutions of each country.

Identifying comparable questions across surveys is the first step toward cross-country analyses. The Gateway to Global Aging Data (Gateway) helps users understand and use these large-scale population surveys on health and retirement. The Gateway includes several tools to facilitate cross-national health and retirement research. It includes a digital library of survey questions for all participating surveys. Its search engine enables users to find relevant survey questions. The Gateway also includes a concordance with information comparing measures within and across surveys over time. Using these tools, researchers can identify all questions related to particular key words or within a domain. The Gateway also includes population and sub-population estimates for key harmonized variables and presents them in graphs and tables that can be downloaded.

The Gateway can be accessed at https://g2aging.org/. For more information about using the Gateway visit the Help page.

1.2   Data File Structure

The Harmonized LASI-DAD data are contained in a single file. The data are stored in a "fat format" where each observation represents one respondent. The unit of observation is the individual. Each individual is uniquely identified by the identifier PRIM_KEY. Households are identified by HHID.

1.3   Variable Naming Convention

With a few exceptions, variable names in the Harmonized LASI-DAD Data follow a consistent pattern. The first character indicates whether the variable refers to the reference person ("R") or the household ("H").[2] The second character indicates the wave to which the variable pertains: "1" or "A". The "A" indicates "all," i.e., the variable is not specific to any single wave. An example is RABYEAR, the birth year of the respondent. The remaining characters describe the concept that the variable captures. For example:

```
R1BPCOMPL
 │ │   └──────── Compliance during blood pressure test
 │ └──────────── Wave 1
 └────────────── Respondent
```
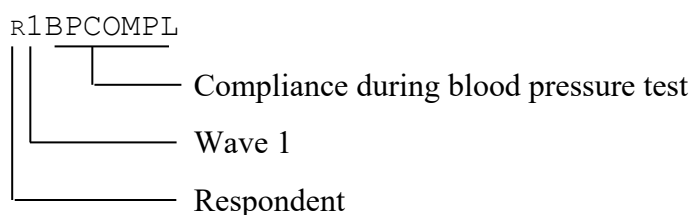
Variable R1BPCOMPL captures the respondent's compliance during the blood pressure test.

In the text below, we may refer to variables by substituting a "w" in for the specific wave number. For example, consider RwBPCOMPL; this reference points at the group of variables that follow the same pattern as R1BPCOMPL.

Variable labels also follow a consistent pattern. The first characters denote the name of the variable, followed by a colon. Then the wave to which the variable pertains follows (for example, "w1" refers to wave 1). The remainder of the label describes the concept that the variable captures. For example, the variable label of R1BPCOMPL is:

```
r1bpcompl:w1 r compliance during blood pressure test
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It may seem duplicative to include the name of the variable and the wave in the variable label. However, statistical packages often suppress the variable name and instead use its label in the presentation of results.

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[2] The reference person need not be the person who responded to the question. It is the person whose information is central to the data file observation.

Variable names in the Harmonized LASI-DAD are generally based on the variable name used in the RAND HRS or in the Harmonized LASI for the same measure. Measures that are exactly or near-exactly comparable between the Harmonized LASI-DAD, RAND HRS or Harmonized LASI use the exact same name. For instance, RABYEAR is the variable name for the respondent's birth year in the Harmonized LASI-DAD, as well as in the RAND HRS and Harmonized LASI. If the Harmonized LASI-DAD measure is deemed only somewhat comparable with the RAND HRS or Harmonized LASI version of that measure, the variable name in the Harmonized LASI-DAD will often end in "_D." This variable name suffix indicates some LASI-DAD-specific difference with the RAND HRS or Harmonized LASI version of this measure. Reasons for Harmonized LASI-DAD-specific variable names include: differences in survey questions, differences in survey routing, and whether both sets of variables use imputed values. Harmonized LASI-DAD-specific variable names are used to notify the user that (i) there are substantial differences between the Harmonized LASI-DAD measure and the RAND HRS or Harmonized LASI measures and (ii) clean harmonization between these measures is not possible.

Users should always check the "Differences with LASI" section of each measure before comparing any Harmonized LASI-DAD measure to the Harmonized LASI version of the same measures or any other Harmonized Dataset version of the same measure.

1.4   Missing Values, and Nonresponse

Variables may contain missing values for several reasons. SAS, Stata, and SPSS offer the capability to distinguish between multiple types of missing values, and we have attempted to record as much information as possible. Generally, the codes adhere to the classification in Table 2.

Table 2. Missing Codes

Code	Reason for missing
.	Reference person did not respond to this wave
.d	Don't know
.r	Refused
.n	Not Assessed
.m	Missing
.p	Proxy
.h	Not interviewed
.s	Skipped
.c	Cannot count
.l	Cannot read or write

Note: The special missing code .n, not assessed, was marked only if the respondent has some physical disability that prevented him or her from performing the test. As examples, .n is assigned if the respondent is blind and hence could not complete the task that involved seeing figures, if he/she is paralyzed and hence could not draw or write in the given task, or if he/she

has a hearing disability and the test in question involves spoken directions. The missing code .n is not assigned if the main reason for not performing a cognition test is a physical disability that is unrelated to the respondent's cognition ability. Consult the Data Codebook for details on individual variables.

2. Sample Weights

LASI-DAD sample weights are meant to account for differential selection probabilities produced by the adopted sampling strategy, and to adjust for differential non-response across sampled individuals. They align the LASI-DAD sample distributions of basic demographics (gender, age, literacy, and urbanicity) to the corresponding distributions in the Indian population age 60 and older. LASI-DAD sample weights are constructed following the steps below.

In order to be included in the study, LASI-DAD participants must have answered the first wave of the main LASI. We therefore start from the LASI base weight, which accounts for differential probabilities of selection into LASI, adjusted by individual-level nonresponse. Let i indicate an individual and $base\_adj_i^{LASI}$ denote such weight for individual i.

LASI-DAD participants were selected among LASI respondents age 60 and older, sampling with equal probability individuals with low and high risk of cognitive impairment. The risk of cognitive impairment was assessed using the complete battery of cognitive test scores in the first wave of the main LASI. Using the sample of first-wave main LASI respondents age 60 and older, we estimate a probability of selection into LASI via Logit. We perform this estimation separately for individuals without and with a proxy interview.

For individuals without a proxy interview, the set of explanatory variables includes:
- demographics
  (gender, marital status, education, parent's education, literacy status, binary indicators for state of residence, rural area, caste, household income and wealth quintiles)
- health variables
  (overall self-reported health status, binary indicators for high blood pressure, diabetes, heart disease, stroke, Alzheimer's disease, number of functional limitations, ADLs, and IADLs)
- cognitive test scores
  (orientation to place, orientation to time, object naming, verbal fluency, computation, executive function, immediate and delayed word recall, picture/clock drawing, serial 7's, backward counting, read and follow command, sentence writing)

For individuals with a proxy interview, the set of explanatory variables includes:
- demographics
  (gender, marital status, education, parent's education, literacy status, binary indicators for state of residence, rural area, caste, household income and wealth quintiles)
- health variables
  (overall self-reported health status, binary indicators for high blood pressure, diabetes, heart disease, stroke, Alzheimer's disease, number of functional limitations, ADLs, and IADLs)
- JORM IQCODE score

Indicating with $\hat{p}_{i,selc}$ the Logit predicted probability of selection into LASI-DAD, we define the LASI-DAD base weight, $base\_weight_i^{DAD}$, as follows:

$$base\_weight_i^{DAD} = base\_adj_i^{LASI} \times \left(1/\hat{p}_{i,selc}\right)$$

This base weight accounts for both the probability of being a LASI respondent and the differential probability of selection of LASI respondents with into LASI-DAD.

In a second step, post-stratification weights are generated by means of a raking algorithm starting from the LASI-DAD base weights described above. The goal of this procedure is to align the weighted distributions of specific socio-demographic variables in the LASI-DAD survey sample to their population counterparts. Specifically, the set of socio-demographic variables used as raking factors includes: gender (Male/Female) × age (60-69/70+), gender × literacy (Literate/Illiterate), and location (Rural/Urban). Hence, the resulting post-stratification weights allow the sample distributions of age and literacy, overall and separately for men and women, and the distribution of rural versus urban residency to match exactly their population benchmarks and, therefore, to correct for differential non-response along such dimensions. Benchmark distributions are taken from the Indian Census 2011 and refer to the population of individuals aged 60 and above in India.[3]

In order to limit variability and improve efficiency of estimators, we trim extreme weights. We follow the general weight trimming and redistribution procedure described by Valliant, Dever and Kreuter (2013). Specifically, we compute relative weights by dividing weights by the sample mean, set the lower and upper bound on relative weights to the 5th and 95th percentile respectively, and trim all weights that exceeds these bounds (Battaglia et al., 2009). We compute the amount of weight lost by trimming and distribute it equally among the respondents whose weights are not trimmed. If all these new relative weights are within bounds, no further adjustment is performed. If any of these new weights are out of bounds, the trimming procedure is repeated iteratively until all weights are within bounds, or until the maximum number of 10 iterations is reached.

While raking weights can match population distributions of selected variables, trimmed weights typically do not. We therefore iterate the raking algorithm and the trimming procedure until post-stratification relative weights are within bounds and align sample and population distributions of selected variables. This procedure stops after 10 iterations if an exact alignment respecting the weight bounds cannot be achieved. In this case, the raked weights will ensure an exact match of (weighted) survey relative frequencies to their population counterparts, but some of them may be out of bounds.

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[3] The LASI-DAD sample includes 18 Indian states. While these states cover the vast majority of the Indian population (more than 90%), the excluded states may have systematically different characteristics, which would prevent us from using national-level statistics as benchmarks at the post-stratification stage. We run an extensive battery of tests and find no evidence that LASI-DAD and non-LASI-DAD states differ systematically in terms of per capita net state domestic product, average gender, age, literacy, education, and cognitive functions.

Let $final\_weight_i^{DAD}$ be the post-stratification weight for respondent i, obtained by applying the raking/trimming algorithm to the base weights as described above. LASI-DAD final post-stratification weights, $final\_weight_i^{DAD}$, are expressed relative to their sample mean. Thus, they sum to the LASI-DAD sample size and average to 1.

Weights for the Sub-Sample with Lab Data
Lab data are available for 70% of the original LASI-DAD sample. The sub-samples with and without lab data exhibit statistical significant differences as far as gender, literacy and residence in rural areas are concerned. Because of these observed differences in demographic characteristics, we implement the weighting/trimming procedure described above separately for the sub-sample of LASI-DAD respondents with lab data.

The resulting weights, $final\_weight_i^{DAD\ Lab}$, are expressed relative to their sample mean and align the sub-sample with lab data to the reference population in terms of gender, age, literacy and urbanicity. These weights sum to the size of the LASI-DAD sub-sample with lab data and average to 1.

3. Imputation

When test items or informant report items are missing, this poses a problem. A single missing item makes all summary scores that depend on it also missing, so even a small fraction of missings in each item can lead to a large fraction of observations that are missing summary scores, which would arguably be of primary interest to most researchers. Therefore, as is common in survey data, we *impute* most missing observations. The goal of imputation is to replace the missing values with random draws from a conditional distribution such that the estimated joint distribution from the completed (imputed) data is an unbiased estimator of the true joint distribution of these variables (e.g., Little & Rubin, 2002, sec. 10.2.1; Lee et al., 2015, sec. 2).

We imputed the cognitive test variables and the informant reports about the individuals' cognitive decline. Some tests were only administered to specific sub-samples: only those surveyed in phases 2 and 3 of the data collection, only literate respondents, or only illiterate respondents. We have not imputed these for the samples that the variables were not administered to. Moreover, in some cases, a certain answer on one question led to a skip of a later question, and the imputations follow such skip patterns. For example, if the imputation of the first trial in the 3-word recall test is 3, then the second and third trials logically follow as skips (.s). For the cognitive test items, we have recoded "don't know" (.d) as incorrect (0). There are some indications that other missings, especially "refuse" (.r) may also sometimes indicate that the respondent does not know the correct answer, but because we cannot be sure about this, we have imputed these in the regular way, with the exception of "not assessed" (.n) in the orientation items. The latter is common among interviews in Hindi and should be interpreted as "don't know", so we have set these to zero as well. In the Jorm IQCODE scale, the informant can indicate that the respondent does not do certain things, which is coded as "not applicable" (.n). For example, when asked whether the individual has more problems than before learning how to use new gadgets, this answer would be given if the person has not obtained any new gadgets. We have imputed such cases as well, based on the rationale that these items were intended to measure cognitive decline and that imputing this allows us to compute a summary score of cognitive decline for the Jorm scale as a whole, but if a researcher is interested in the literal meaning of a question like this, then it may be better to not use the imputations of such a question. Analogously, we have imputed the serial 7s score for individuals who cannot count, even though strictly speaking the individual gave no correct answers and would not be able to do this. This test was intended to measure processing speed and attention, not numerical ability, and a score of 0 for such individuals would not reflect their cognitive status well.

The imputation method we have implemented was inspired by the imputations of cognition variables in the HRS (Fisher et al., 2017). It is also similar to the method used in SHARE (De Luca et al., 2015, although they use a simpler method for variables with few missing values). We specified a regression model for each cognition variable as a function of the other cognition variables and a rich set of background variables: health, demographics, and socio-economic characteristics. The regression model specifies the conditional distribution of the variable that must be imputed as a function of the regressors, and the imputations are pseudo-random

draws from this conditional distribution. Take, for example, a binary variable such as whether the respondent correctly answered the question about what year it is. Let this variable be y and the regressors be collected in the vector **x**. We specified a logistic regression model for y as a function of **x**:

$$\Pr(y_i = 1 \mid \mathbf{x}_i) = p_i = \frac{e^{\mathbf{x}_i'\beta}}{1 + e^{\mathbf{x}_i'\beta}}.$$

This was estimated on the sample where y_i is observed. Then we generated a pseudo-random draw u_i from a uniform distribution on the interval (0,1) and for the sample where y_i was missing, we computed p_i and imputed $y_i = 1$ if $u_i \leq p_i$ and $y_i = 0$ otherwise. For binary variables, we used (binary) logistic regression (i.e., logit) models; for ordinal variables, we used ordered logit; for count variables, we used negative binomial regression; and for unordered categorical variables, we used multinomial logit.

3.1.   Regressors

The vector **x** consists of (1) demographics, socio-economic variables, health, and cognition variables from the LASI core survey; (2) demographics and socio-economic variables from LASI-DAD; (3) health variables from LASI-DAD; and (4) cognitive measures (tests and informant reports) from LASI-DAD. With the exception of the cognition measures, if we had the same variable for both LASI-DAD and LASI core, we only included the LASI-DAD version. The regressors from categories 1-3 are listed in Table 3.

Table 3. Regressors from the LASI core data and LASI-DAD (except the cognition variables from LASI-DAD)

Core demographics	Core socio-economic	Core health	Core cognition[a]
Couple status	Mother's education Father's education Income quintile Wealth quintile	Self-reported health #Chronic conditions[b] #Mobility limitations Distant vision Near vision Hearing	Orientation to place and time Word recall (total) Executive function Language fluency Read and write[c] Whether illiterate Drawing score Jorm IQCODE

DAD demographics	DAD socio-economic	DAD health	
Female Whether iw at home State Rural Interview language Age (categories)	Education (years) Education (cat.) Caste	#Chronic conditions[d] #ADLs #IADLs Mental health (CESD) Anxiety (BAI)	

[a]Jorm IQCODE is informant-reported and only available for proxy interviews; the other items are cognitive test items only available for self-interviews.
[b]Among high blood pressure, heart disease, diabetes, stroke, Alzheimer's/dementia
[c]Zero if illiterate
[d]Among stroke, Parkinson, Alzheimer's/dementia, memory problems

The variables that we imputed are listed in Tables 4 (cognitive test items) and 5 (informant reports). For the imputation of a variable from these lists, the other variables in these lists are also included among the regressors. However, because the large number of variables (more than 200) would create numerical problems, we primarily used aggregate scores instead of individual items. This also likely filters out measurement error and guards against capitalizing on chance. The aggregate scores followed a nested structure based on the model from Gross et al. (2020) for the cognitive test items, theoretical considerations from Gross (2020) for some of the informant reports, and empirical analyses of correlations (principal components analysis).

Figure 1 illustrates the nested structure, and how items are combined into summary scores to be used as regressors, illustrated for the imputation of r1city (whether the respondent correctly names the city they are currently in). This item is part of a short battery for orientation to place. The other four items in this battery are included as regressors. The five items of the orientation to time battery are not included separately. Instead, their sum (0-5) is included as a regressor. This is an example of a level-1 sum score. There are about 30 such level-1 sum scores, which are all simple sums, with one exception, every day activities. Empirical analysis showed that these items could not be satisfactorily summarized by one simple sum score, but that three principal components would represent these items well, so we computed those. The level-1 sum scores

are further grouped into narrow domains of cognitive functioning (e.g., language fluency), and some of these are further grouped into broad domains (memory, executive function). Note that the hierarchy is not complete: sometimes, levels are skipped (absent). The narrow domain scores are sums of the level-1 scores (and sometimes single items) that are nested below them. However, because the level-1 scores have different scales, we first standardized them before aggregating them into narrow domain scores. We found that the resulting sums of standardized scores correlated very highly (typically 0.98 or higher) with the first principal component of these level-1 scores. Because this imputation procedure was very computationally demanding, we preferred using these narrow domain scores as it is much faster than computing the principal components. Analogously, the two broad domain scores were computed as sums of the related standardized narrow domain scores. The rules for including items, level-1 sum scores, narrow domain scores, and broad domain scores were as follows:

1. A broad domain score was used (and none of the scores and items nested below it) if the item to be imputed was not a component of the broad domain score. In Figure 1, this means both broad domain scores were included in the model for r1city, because r1city is not a Memory or Executive Function item.
2. A narrow domain score was used (and none of the scores and items nested below it) if (i) the narrow domain score was not a component of a broad domain score included, and (ii) the item to be imputed was not a component of the narrow domain score. For example, Language Fluency is included, because it is not a component of Memory or Executive Function and r1city is not a component of Language Fluency. But Orientation is not included, because r1city is an Orientation item.
3. A level-1 sum score was used (and none of the items nested below it) if (i) the level-1 score was not a component of a broad or narrow domain score that was already included, and (ii) the item to be imputed was not a component of the level-1 score. For example, because the Orientation narrow domain was not included and Orientation to Time does not contain r1city, Orientation to Time was included in the model for r1city.
4. A single item was used if (i) it was not a component of any higher-level score already included, and (ii) it is not the variable y_i itself. For r1city, these are the other four Orientation to Place items, plus five items (mix-ups, recognizing words that were not part of the word recall list, and similar items) that are not part of any higher-level score.

Figure 1 illustrates these rules: the items and scores shaded blue are used as regressors in the imputation model for r1city (which is shaded yellow). Tables 4 and 5 give more details about the nesting structure.

The reason the Phase 2-3 tests (hand sequencing, token test, judgment, and problem solving) are not included is that they were not administered in Phase 1 and not imputed for Phase 1 either, so they remain systematically missing, whereas r1city was administered in all three phases. These Phase 2-3 tests are only included in the imputation models for items that were only administered in Phases 2 and 3. Analogously, the Blessed Part 1 scale (for the informant) was skipped for most observations in Phase 1 and not imputed, and therefore not included in the model for r1city.

In some cases, the items that were used as covariates were transformed versions of the raw items; for example, animal naming was censored at a maximum of 35 when used as a covariate. Also, because of (partial) mechanical dependencies, some variables were excluded from some models; for example, trials 2 and 3 of the 3-word recall were skipped if trial 1 resulted in all three correct, so for the imputation of trial 1, we did not include trials 2 and 3 as covariates. Note that the imputations themselves also respect such dependencies, for example, if trial 1 was imputed as 3, trials 2 and 3 were set to .s (skipped), and analogously if a Blessed Part 1 item was imputed as 1 (no loss), the corresponding Part 1a item was set to .s. Also, if r1mo (whether individual knows the current month) was imputed as 0, r1date (day of the month) was also set to 0, which respects the pattern in the nonmissing data.

Table 4. Cognition items and the level-1 sum scores and narrow and broad domain scores they are part of.

Items	#items	Description	Level-1	Narrow	Broad
r1date, r1dw, r1mo, r1season, r1yr	5	Time orientation	r1orient5t	Orientation	
r1address, r1city, r1floor, r1name, r1state	5	Place orientation	r1orient5p	Orientation	
r1prime	1	Prime minister		Orientation	
r1trial*	3	3-Word recall (imm)	r1recall3	Memory (imm)	Memory
r1word*	3	10-Word recall (imm)	r1recall10	Memory (imm)	Memory
r1bm_s*	10	Brave man (imm)	r1braveman	Memory (imm)	Memory
r1lmb_s*	25	Robbery (imm)	r1robbery	Memory (imm)	Memory
r1dlrc3, r1word_d	2	Word recall (del)		Memory (del)	Memory
r1bm_rs*	10	Brave man (del)	r1bravemanr	Memory (del)	Memory
r1lmb_rs*	25	Robbery (del)	r1robberyr	Memory (del)	Memory
r1cpr_*	4	Constr praxis (del)	r1conpraxdel	Memory (del)	Memory
r1wre_org, r1log_reco	2	Recognition		Memory (recog)	Memory
r1go_score*	2	Go-no-go	r1gonogo	Abstract reas.	Exec.function
r1dr_clock3, r1rv_score	2	Other abstract reas.		Abstract reas.	Exec.function
r1ds_back, r1ds_for	2	Digit span	r1digitspan	Attn/speed	Exec.function
r1backward6, r1ser7, r1sc_anw	3	Other attn/speed		Attn/speed	Exec.function
r1coconut, r1scis	2	TICS items	r1tics2	Language fluency	
r1object*	2	Object naming	r1object	Language fluency	
r1elbow, r1hammer, r1point, r1store	4	CSID	r1csid	Language fluency	
r1execu, r1repeat, r1verbal	3	Other language fluency		Language fluency	
r1draw2	1	Draw overl. rectangles		Visuospatial	
r1cp_*	4	Constr praxis (imm)	r1conpraximm	Visuospatial	
r1ef_*	3	Hand sequence	r1handseq	Phase 2-3 tests	
r1tt_*	7	Token test	r1token	Phase 2-3 tests	
r1jp_fndkid, r1jp_rupee*	3	Problem solving	r1prsolv	Phase 2-3 tests	
r1jp_* (others)	4	Similarities-differences	r1simdiff	Phase 2-3 tests	
r1readfol, r1write	2	Read-follow; write sentence	r1litt		
r1copyfol, r1say	2	Copy-follow; say sentence	r1llitt		
r1log_rcmix, r1log_wron, r1sc_wr	3	Incorrect answers			
r1verbal_inc, r1wre_foil	2	Incorrect answers			

Table 5. Informant items and the level-1 scores and narrow domain scores they are part of

Items	#items	Description	Level-1	Narrow
r1iqscore* (1-7)	7	Jorm IQCODE (memory)	r1jorm_mem	Difficulties (informant)
r1iqscore* (8-16)	9	Jorm IQCODE (non-memory)	r1jorm_nonmem	Difficulties (informant)
r1csi* (2-6, 11-13)	8	CSI (memory)	r1csi_mem	Difficulties (informant)
r1csi* (1, 7-10, 14-15)	7	CSI (non-memory)	r1csi_nonmem	Difficulties (informant)
r1ten*	5	10/66	r1ten	Difficulties (informant)
r1bl1_*	8	Blessed Pt. 1	r1bl1, r1bl1ment, r1bl1phys	
r1bl1_*a	8	Blessed Pt. 1 mental-physical	r1bl1ment, r1bl1phys	
r1bl2_*r	3	Blessed Pt. 2	r1bl2	
r1feel*	6	Pos.feelings (+neg.reversed)	r1feelpos	
r1act_*	13	Activities	r1act_pc* (1-3)	

Figure 1. Structure of summary scores used as covariates for imputing r1city.
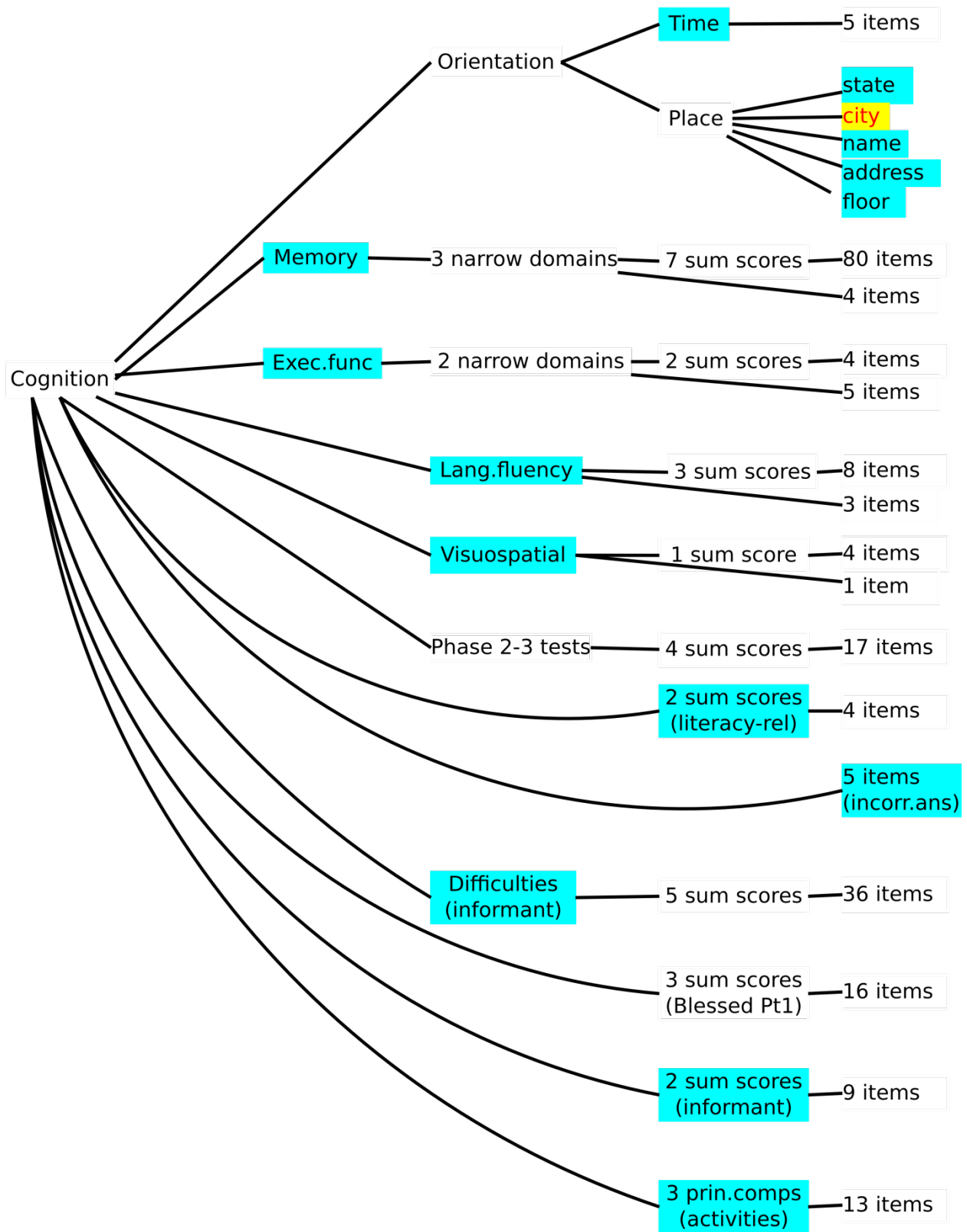
3.2. Block-sequential and chained imputation

One or more of the regressors in **x** could themselves be missing and thus these needed to be imputed as well. Following the HRS (Fisher et al., 2017), we imputed variables in a sequence of blocks, corresponding with the classification in Tables 3, 4, and 5: (1) LASI core variables; (2) LASI-DAD demographics and socio-economic variables; (3) LASI-DAD health variables; (4) LASI-DAD cognitive tests and informant reports. The imputation of the LASI core variables itself uses a similar (though generally slightly simpler) approach as the one for the LASI-DAD variables. See the documentation of the Harmonized LASI data for details. The only variable from the LASI-DAD demographics and socio-economic variables that had any missings was caste, and for this, we copied the corresponding value from the LASI core data. For the health variables, we used a similar chained imputation method as for the cognition variables described below, except that we added corresponding health variables from the LASI core data as regressors (and did not have the LASI-DAD cognition variables as regressors) and that there was only one level of summary scores (as listed in Table 3) above the single items. Because very few individuals were reported to have been diagnosed with Alzheimer's or dementia and this caused numerical problems with its imputation, we imputed this one first, with only the state as covariate (diagnosis is strongly related to state, perhaps because of differences in the health and insurance institutions).

Like HRS and SHARE, we used chained imputation (also known as fully conditional specification; Raghunathan et al., 2001; Van Buuren et al., 2006) for the cognition variables (and for the health variables, as mentioned above). This cycles over the cognition variables, in which each of them is imputed in turn, with the other cognition variables and background variables as regressors, and then repeats this cycle multiple times. We used one cycle to initialize the chain and up to 10 cycles (iterations) to update the imputations, although imputations sometimes converged with fewer iterations.

With each imputed variable, the dataset also includes an imputation flag, which has the same code as the nonimputed variable if the latter was missing, and 1 if the nonimputed variable was not missing. Hence, users who do not want to use our imputations, or who wish to perform nonresponse analyses, can reconstruct the nonimputed variables from these.

3.3. Exceptions, special cases, and other details

Because of the differential availability of regressors, we imputed the cognition variables in four stages, with each stage consisting of a chain as described in the previous section. The first two stages were for individuals who delivered a self-interview in the core data, whereas the last two stages were for individuals for whom we only have a proxy interview in the core data. The reason for treating proxy interviews differently is that the cognitive tests were not administered for them in the core data, and these are likely key predictors when available, so we want to use them when available. Conversely, the Jorm IQCODE variable from the core data was only available for the proxy interviews. Stages 1 and 3 imputed all cognition variables for most observations, the exception being the Blessed Part 1 items in Phase 1. In Phase 1, these items

were only administered if the average of the reported Jorm IQCODE items was less than 3. In Phases 2 and 3, the Blessed Part 1 items were administered to all informants. For the imputation, this implies that in Stages 1 and 3, the Blessed Part 1 items were imputed for Phases 2 and 3, with the other Phase 2 and 3 variables (hand sequence, token test, judgment, and problem solving) included among the regressors. In Stages 2 and 4, the Blessed Part 1 items were imputed for Phase 1, with the estimation and imputation samples only consisting of individuals with an average reported Jorm IQCODE score of less than 3.

The imputation models did not always converge, due to a high degree of collinearity among some of the regressors. Hence, we defined a sequence of increasingly parsimonious fallback options that were used to impute the variables, in case such problems occur. The most common problematic variables were language (which is strongly related to state) and education as a categorical variable (which is strongly related to education in years). So the first fallback specification dropped these two variables. A second fallback, used for four variables, dropped the state indicator in addition to the ones from the first fallback. For some of the Blessed Part 1 items (Part 1 proper and Part 1a follow up items), there were further fallbacks, up to Fallback 5, which only uses three aggregates of other Blessed Part 1 items (sum of the other Blessed Part 1 items, number of times physical problems were mentioned in the other Blessed Part 1a items, number of times mental problems were mentioned in the other Blessed Part 1a items). Because of the strong relations among the Blessed Part 1 items, these were still very predictive. Overall, Fallback 1 was very commonly used, but Fallbacks 2-5 were used for only a few variables each.

There are more implementation details that are not discussed here. We will provide these upon request. The Stata code used is included with the distributed data.

4. Harmonized Domain-Specific Cognition Variables

The cognitive test battery in LASI-DAD was adapted from tests in the HCAP. The HCAP battery was designed to assess Mild Cognitive Impairment (MCI) and dementia in the US HRS and has been successfully adapted in the US, England, Mexico, China, and South Africa (Lee et al., 2019). For LASI-DAD, some culturally and logically appropriate modifications were made to the HCAP, including identification of tests less dependent on schooling and literacy.

We organized tests into broad domains (orientation, executive functioning, language/fluency, memory, and visuospatial) and further into narrow subdomains to be consistent with the CHC theory of human cognitive abilities. The orientation domain contained 5 questions about orientation to time (e.g., name the current month, year, season), 5 questions about orientation to place (e.g., state, city), and the question to name the Prime Minister. The language/fluency domain was represented by animal naming, writing or saying a sentence, phrase repetition, naming of common objects by sight (watch, pencil), naming of common objects by description (elbow, hammer, scissors, coconut, window), following a read or acted command to close one's eyes, and completing a 3-stage task. Memory tests included immediate, delayed, and recognition recall of a 10-word list; immediate, delayed, and recognition recall of the Logical Memory test, immediate and delayed recall of the Brave Man story learning test, and a three word recall task. Additionally, delayed recall of the constructional praxis test was used to measure delayed memory. Visuospatial function was measured by constructional praxis (drawing a circle, rectangle, cube, and diamond), and interlocking pentagons. Abstract reasoning, a narrow domain of executive functioning, was represented by the Ravens progressive matrices task, clock drawing, and two trials of the Go-No-Go test. Attention/speed, a second narrow domain of executive functioning, was represented by a numeracy task, backwards day counting, symbol cancellation, and the Digit Span forwards and backwards tasks.

We first estimated a series of unidimensional factor analysis models for each narrow and broad cognitive domain. Factor scores from these models are provided in the data, scaled to have a mean of 0 and variance of 1. Once adequate fit was obtained for each model, we combined all the domains into a hierarchical multiple domain factor analysis that included a general factor. Factor scores for the general factor are provided in the data. Model fit was evaluated based on a set of a priori cutoffs for the Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), and the Standardized Root Mean Squared Residual (SRMR) (Hu & Bentler, 1999). We characterized model fit as perfect if the CFI=1 and RMSEA=0 and SRMR=0, good if CFI>=0.95 and RMSEA<=0.05 and SRMR<=0.05, adequate if CFI>=0.90 and RMSEA<=0.08 and SRMR<=0.08, and poor if either CFI<0.9 or RMSEA>0.08 or SRMR>0.08. We chose this combination of fit statistics because each statistic has advantages and disadvantages. While low SRMR implies low model residuals, it does not incorporate model complexity and may be partial to overly complex models. The RMSEA provides an index of model discrepancy per degree of freedom (which accounts for model complexity), however it tends to improve with larger sample size. The CFI compares an estimated model to a hypothetical null baseline model which may itself be incorrect. Together, these three statistics considered in conjunction minimize risk of choosing a bad model (Kenny, Kaniskan, & McCoach, 2015).

See Gross et al. (2020) for further details of factor structure of cognitive tests in LASI-DAD.

5. Polygenic Risk Scores (PRSs)

Health outcomes and traits are often highly polygenic, reflecting the aggregate effect of many different genes so the use of single genetic variants or candidate genes may not capture the dynamic nature of more complex phenotypes. A polygenic risk score (PRS) aggregates individual loci across the genome and weights them by effect sizes derived from a genome-wide association study (GWAS) as an estimate of the strength of their association to produce a single quantitative measure of genetic risk and to increase power in genetic analysis.

PRSs were constructed for Alzheimer's Disease and general cognitive function for consenting LASI-DAD respondents who provided whole blood DNA in 2018. These scores will help harmonize research across studies among LASI-DAD data users. PRSs for each phenotype are based on a single, replicated GWAS and will be updated as sufficiently large GWAS are published for new phenotypes or as new meta-analyses for existing phenotypes emerge.

5.1.   LASI-DAD Genomic Data

The DNA samples were genotyped at MedGenome. A total of 1008 study subjects and controls were genotyped on the Illumina Infinium Global Screening Array-24 v2.0 BeadChip, which measures ~600,000 SNPs. All versions of the array are designed to Human Genome Build 37. The total 1008 scans derived from 993 unique subjects (including 960 LASI-DAD subjects and 33 1000G control subjects). Individuals with missing call rates > 2%, SNPs with call rates < 98%, HWE p-value < 0.0001, chromosomal anomalies, and kinship coefficient > 0.088 in the LASI-DAD were removed. Principal component (PC) analysis (Price et al., 2006) was performed to identify population group outliers and to provide sample eigenvectors as covariates in the statistical model used for association testing to adjust for possible population stratification. SNPs used for PC analysis were selected by linkage disequilibrium (LD) pruning from an initial pool consisting of all autosomal SNPs with a missing call rate < 5% and minor allele frequency (MAF) > 5%, and excluding any SNPs with a discordance between 1000G pedigree controls genotyped along with the study samples and those in the external 1000G (phase 3 version 5) data set. In addition, the 2q21 (LCT), HLA, 8p23, and 17q21.31 regions were excluded from the initial pool. The final sample set consisted of 932 unrelated study samples after quality control. For more information on the genotype data and quality control process see the LASI-DAD genotype data QC Report.

Imputation to the 1000G Genomes Project reference panel phase 3 version 5 (initial release on May 2013, haplotypes released Oct 2014) was performed by the University of Michigan using Minimac4 (http://genome.sph.umich.edu/wiki/Minimac4), with phasing performed using Eagle2.4. Overall, ~49 million SNPs were imputed from the original 533,348 SNPs that were genotyped and passed quality control. Masking of genotyped SNPs to assess the accuracy of imputation was performed to estimate the median concordance between actual and imputed genotypes (median concordance>0.91 for common variants), and additional quality control

metrics indicate high quality imputation. Please refer to the LASI-DAD Imputation report using the 1000 Genomes Project Phase 3 reference panel for more details.

5.2.   PRS Construction

To best capture the most significant SNPs from the published GWAS meta-analysis studies, we construct PRSs for genome-wide significant SNPs only ($P < 5 \times 10^{-8}$), noted as a "top SNPs" PRS. In addition, for some traits, we also generated PRSs for all independent SNPs with ($P < 1 \times 10^{-4}$) after clumping ($r^2 < 0.25$ within a 250 kb window) using the LD structure in South Asian ancestry from 1000 Genome Reference Panel, indicated as an "all SNPs" PRS. In either case, only SNPs with high imputation quality ($R^2 > 0.8$) in LASI-DAD were included.

Weighted sums were chosen to calculate the PRSs. Weights were defined by the odds ratio or beta estimate from the GWAS meta-analysis files corresponding to the phenotype of interest. If the beta value from the GWAS meta-analysis was negative (or the odds ratio (OR) < 1), the beta/OR measures were converted to positive values (OR >1) and the reference allele flipped to represent phenotype-increasing PRSs. PRSs are calculated using the following formula:

$$PRS_i = \sum W_j G_{ij}/2J$$

where i is individual i (i=1 to N), j is SNP j (j=1 to J), W_j is the meta-analysis effect size for SNP j, G_{ij} is the genotype, or the number of reference alleles (zero, one, or two), for individual i at SNP j, and J is the total number of SNPs. The "all SNPs" PRSs were constructed using PRScie-2 (Choi & O'Reilly, 2019) and the "top SNPs" PRSs" were constructed in PLINK (Purcell et al., 2007).

5.2.1.   Sources for SNP weights

To incorporate externally valid SNP weights from replicated GWAS, we performed a search of the most recent literature to identify large GWAS meta-analysis studies related to the selected phenotype. SNP weights were downloaded from consortium webpages, requested from consortium authors, or obtained from published supplemental material. All base SNP files from GWAS meta-analyses were converted to NCBI build 37 annotation for compatibility with LASI-DAD SNP data.

5.2.2.   Notes about the use of PRSs

PRSs are released for current LASI-DAD samples (N=932). However, it should be noted that the majority of GWAS used to inform the SNP weights come from GWAS on European ancestry groups and, as a result, PRSs for LASI-DAD samples from South Asian ancestry may not have the same predictive capacity (Martin et al., 2017; Smith et al., 2020).

Standardized versions of ancestry specific PCs 1-10 are included in the LASI-DAD PRS data release. **To protect identifiable information, PCs 1-5 and PCs 6-10 were scrambled.** To control for confounding from population stratification, or to account for any ancestry differences in genetic structures within populations that could bias estimates, ***we highly recommend that users perform analyses adjusted for PCs 1-10***. The PCs control for any genetic aspects of

common ancestry that could be spuriously correlated with the PRS and the outcome of interest (Price et al., 2006).

5.3.   PRSs for Alzheimer's disease (AD)

The three "top SNP" PRSs for Alzheimer's disease (AD) were created using results from three large-scale GWAS meta-analyses: 1) a 2013 GWAS conducted by the International Genomics of Alzheimer's Project (IGAP) (Lambert et al., 2013); 2) a 2019 GWAS meta-analysis using samples from the International Genomics of Alzheimer's Project (IGAP) (Kunkle et al., 2019); 3) a 2019 GWAS meta-analysis using cohorts from the Alzheimer's disease working group of Psychiatric Genomics Consortium (PGC-ALZ), the International Genomics of Alzheimer's Project (IGAP), the Alzheimer's Disease Sequencing Project (ADSP), and UKBiobank (Jansen et al., 2019).

Please note that all three GWAS are conducted using individuals of European ancestry. See Section 5.2.2.: "Notes about the use of PRSs" for more information on the use of PRSs in other ancestry groups.

Three PRSs were constructed using all the identified genome-wide significant AD risk SNPs from each AD GWAS separately. Note that there is overlap in some of the SNPs that comprise these three scores. Since key SNPs in the *APOE* gene have a strong association with AD, we excluded variants in the *APOE* region from the three PRSs, but also released rs7412 and rs429358 (the two SNPs that define the *APOE* ε2, ε3, and ε4 alleles) as independent units. The effect size of each SNP was calculated as the $\ln(OR)$ reported in the corresponding GWAS. The predictive performance of the three "top SNPs" PRSs on memory scores in LASI-DAD have been reported in Smith et al. (2020).

1) A GWAS meta-analysis (Lambert et al., 2013) of AD was conducted across 20 independent studies using data from four international consortia: Alzheimer's Disease Genetic Consortium (ADGC), the Cohorts for Heart and Aging Research in Genomic Epidemiology (CHARGE) Consortium, the European Alzheimer's Disease Initiative (EADI), and the Genetic and Environmental Risk in Alzheimer's Disease (GERAD) Consortium. The stage 1 meta-analysis included 54,162 participants (N_{cases} =17,008 and $N_{controls}$ =37,154) of European decent with a total of 7,055,881 SNPs imputed to 1000 Genomes (2010 release). The stage 2 replication sample included 19,884 participants of European ancestry (N_{cases} =8,572 and $N_{controls}$ =11,312) with a total of 11,632 genotyped SNPs. In addition to the *APOE* locus (encoding apolipoprotein E), the two-stage combined discovery and replication GWAS identified 19 SNPs with genome-wide significant associations with AD. Please refer to Table S1 in Smith et al. (2020) for the list of 19 SNPs. Adjustment covariates within each contributing cohort included age, sex, and genetic principal components.

   The released PRSs in LASI-DAD contains all 19 SNPs. The descriptive statistics and the distribution of the PRS are presented in Table 1 and Figure 1. The posted PRS have been standardized to a standard normal curve (mean=0, standard deviation=1).

2) Another GWAS meta-analysis (Kunkle et al., 2019) was conducted by the same group in (1) by using a larger Stage 1 discovery sample of 63,926 participants from 46 datasets (N_{cases} = 21,982, $N_{controls}$= 41,944) of non-Hispanic Whites (NHW) with a total of 36,648,992 SNPs imputed to 1000 Genomes (phase 1 integrated release 3, March 2012). After quality control, 9,456,058 common variants and 2,024,574 rare variants were selected for analysis. Stage 1 meta-analysis was first followed by Stage 2, using the I-select chip previously developed in Lambert et al. (2013) and finally Stage 3A (n = 11,666) or Stage 3B (n = 30,511) (for variants in regions not well captured in the I-select chip). The final sample was 35,274 clinical and autopsy-documented Alzheimer's disease cases and 59,163 controls. Meta-analysis of Stages 1 and 2 produced 24 genome-wide-significant associations with AD. Please refer to Table S1 in Smith et al. (2020) for the list of 24 SNPs.

The released PRS in LASI-DAD contains 20 SNPs that overlap between the LASI-DAD genetic data and the genome-wide significant SNPs from the GWAS meta-analysis. The descriptive statistics and the distribution of the PRS are presented in Table 6 and Figure 2. The posted PRS have been standardized to a standard normal curve (mean=0, standard deviation=1).

3) A large genome-wide association study of clinically diagnosed AD and AD-by-proxy was performed using a total sample of 455,258 participants (N_{cases} =71,880, $N_{controls}$ =383,378) (Jansen et al., 2019). Phase 1 involved a genome-wide meta-analysis for clinically diagnosed AD case-control status using cohorts collected by 3 independent consortia (Alzheimer's disease working group of the Psychiatric Genomics Consortium (PGC-ALZ), the International Genomics of Alzheimer's Project (IGAP), and the Alzheimer's Disease Sequencing Project (ADSP)), totaling 79,145 of European ancestry and 9,862,738 genetic variants passing quality control. In phase 2 they performed a GWAS of AD-by-proxy using 376,113 individuals of European ancestry from UKB. They defined proxy cases as individuals with one or two parents with AD (giving higher weight to cases with two parents). The proxy controls include individuals whose parents had no AD (giving higher weights to individuals with older parents as younger parents may still have a chance to develop AD). Given the high genetic overlap, in phase 3 they conducted a meta-analysis of the clinical AD GWASs and the AD-by-proxy GWAS. The meta-analysis in phase 3 identified 28 genome-wide significant loci associated with AD. Please refer to Table S1 in Smith et al. (2020) for the list of 28 SNPs.

The released PRSs in LASI-DAD contain 19 SNPs that overlap between the LASI-DAD genetic data and the genome-wide significant SNPs from the GWAS meta-analysis. The descriptive statistics and the distribution of the PRS are presented in Table 6 and Figure 1. The posted PRS have been standardized to a standard normal curve (mean=0, standard deviation=1).

Table 6. Descriptive statistics of polygenic risk scores (PRSs) for Alzheimer's disease

	Unstandardized PRS (original scale)					Standardized PRS				
Study	Min	Max	Median	Mean	SD	Min	Max	Median	Mean	SD
Lambert et al. 2013	0.0375	0.0889	0.0659	0.0654	0.0082	-3.4038	2.8821	0.0593	0.0000	1.0000
Kunkle et al. 2019	0.0297	0.0798	0.0523	0.0522	0.0075	-3.5223	2.7530	0.0170	0.0000	1.0000
Jansen et al. 2019	0.0046	0.0119	0.0087	0.0087	0.0012	-2.9886	3.6543	0.0065	0.0000	1.0000

The PRSs were constructed using the genome-wide significant SNPs reported from three independent genome-wide association studies (GWAS) of Alzheimer's disease (AD).

Figure 2. Histogram of the "top SNPs" polygenic risk scores (PRS) constructed using the genome-wide significant SNPs reported from genome-wide association studies (GWAS) of Alzheimer's disease (AD): (A) Lambert et al., 2013; (B) Kunkle et al., 2019; (C) Jansen et al., 2019.

C.

'top SNPs' PRS - Jansen, et al. 2019
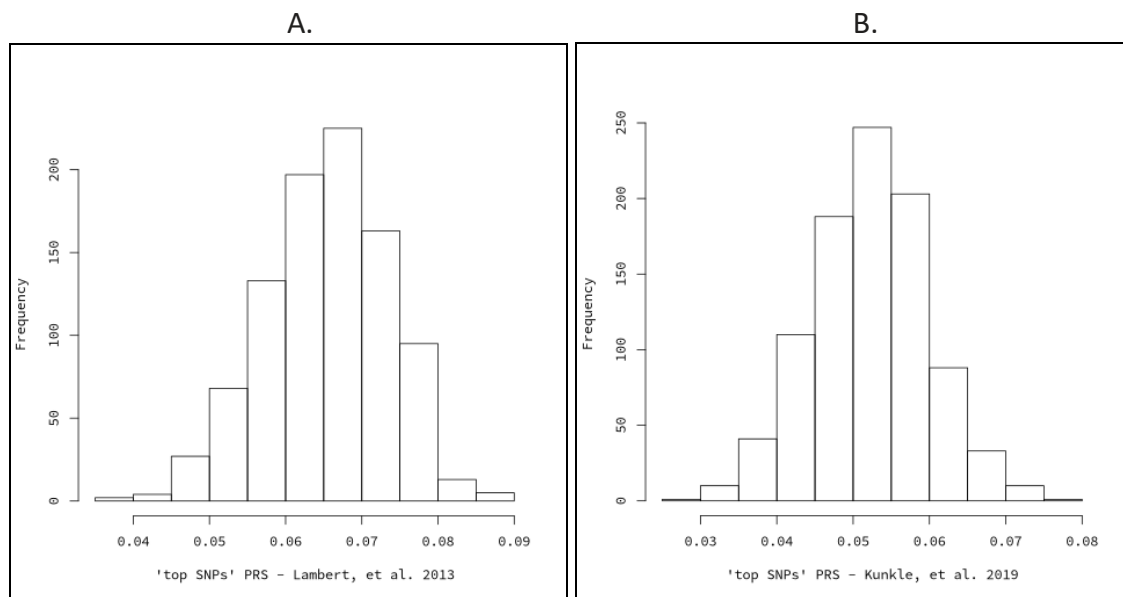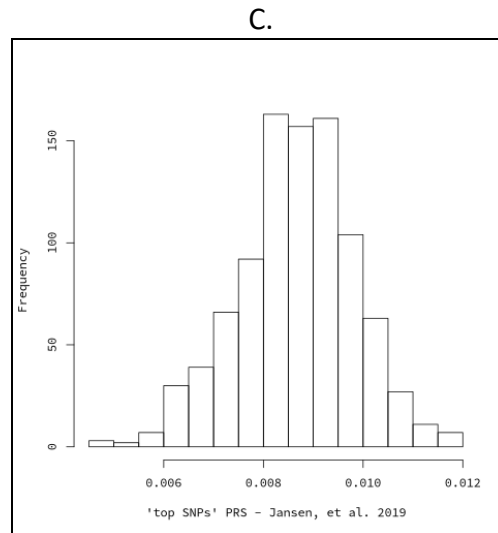
5.4.   PRSs for General Cognitive Function

The PRSs for general cognition were created using results from a 2018 GWAS (Davies et al., 2018) conducted using genetic data from the CHARGE and COGENT consortia, and UK Biobank (total N = 300,486; ages 16–102). A total of 300,486 participants undertook multiple, diverse cognitive tests from which a general cognitive function phenotype was created within each cohort by principal component analysis. In some instances, a single test that captures multiple cognitive functions was used as a proxy for general cognitive ability (e.g. the Moray House Test of Verbal and Numerical Reasoning). A total of 178 genome-wide significant independent lead SNPs from 148 loci were identified for association with general cognitive function. Adjustments for age, sex and population stratification were include in study-specific GWAS association analyses. Cohort-specific covariates such as site or familial relationships were also included as required.

The summary results for all variants with z-score statistics were downloaded from the website "https://www.ccace.ed.ac.uk/node/335". The formula below was used to further obtain the beta estimates for all the variants. Here, "p" was the minor allele frequency (MAF) of the European samples from the 1000G reference panel (phase 3 version 5).

$$Beta = \frac{z}{\sqrt{2p(1-p)(n+z^2)}}$$

We constructed two versions of the PRSs for general cognitive function: "top SNPs" and "all SNPs" PRSs. The "top SNPs" PRS included 130 lead SNPs out of the 178 reported lead SNPs from the 148 loci that overlap between the LASI-DAD genetic data and the GWAS meta-analysis. The "all SNPs" PRS included all independent lead SNPs with ($p < 1 \times 10^{-4}$). Clumping was used to obtain SNPs in linkage disequilibrium with r^2<0.25 within a 250 kb window. The LD was hard to obtain in the MHC region on chromosome 6 (26-33MB) due to long-range LD structure, thus

this region was omitted from "all SNPs" PRS. The final "all SNPs" PRS contains 1,938 SNPs that overlap between the LASI-DAD genetic data and the GWAS meta-analysis. The descriptive statistics and the histogram of the PRSs are presented in Table 7 and Figure 3. The posted PRSs have been standardized within the study sample (mean = 0, standard deviation = 1).

Please note the GWAS was conducted using individuals of European ancestry. See Section 5.2.2.: "Notes about the use of PRSs" for more information on the use of PRSs in other ancestry groups.

Table 7. Descriptive statistics of polygenic risk scores (PRSs) for general cognitive function

	Unstandardized PRS (original scale)					Standardized PRS				
	Min	Max	Median	Mean	SD	Min	Max	Median	Mean	SD
"top SNPs" PRS[a]	0.0081	0.0109	0.0093	0.0093	0.0005	-3.4305	3.6653	-0.0172	0.0000	1.0000
"all SNPs" PRS[b]	0.0092	0.0100	0.0096	0.0096	0.0001	-2.5715	3.4787	-0.0251	0.0000	1.0000

a. The "top SNPs" PRS was constructed using the genome-wide significant SNPs reported from the genome-wide association study (GWAS) of general cognitive function (Davies et al., 2018).
b. The "all SNPs" PRS was constructed using independent SNPs (p<10E-04) reported from the genome-wide association study (GWAS) of general cognitive function (Davies et al., 2018). Independent SNPs were selected using a clumping approach (r^2<0.25, window size 250kb) with LD estimated in South Asian ancestry from 1000 Genomes Reference Panel.

Figure 3. Histogram of the polygenic risk scores (PRS) constructed using (A) genome-wide significant SNPs or (B) independent SNPs at p<10E-4 reported from the genome-wide association study (GWAS) of general cognitive function (Davies et al., 2018).
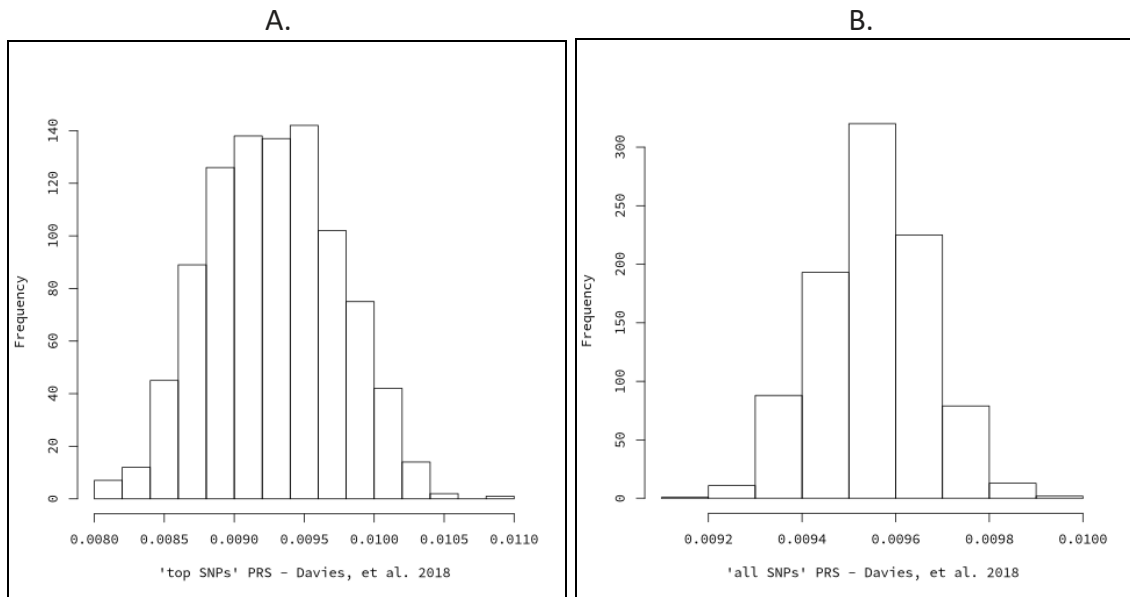
6. Structure of Codebook

The Data Codebook contains the codebook documenting all variables in the Harmonized LASI-DAD Data. This section explains how to interpret the codebook entries. The figure below shows a typical codebook page; the numbers in circles correspond to comments below.

```
┌─────────────────────────────────────────────────────────────────────────┐
│                      Blood Pressure Measurements          ◄──────────  ① │
└─────────────────────────────────────────────────────────────────────────┘

②  Wave Variable    Label                                          ③      Type

      1  R1BPCOMPL  r1bpcompl:w1 r compliance during blood pressure test   Categ  ④


    Descriptive Statistics

    Variable        N         Mean      Std Dev    Minimum    Maximum

⑤  R1BPCOMPL      4041        1.01        0.14       1.00       3.00


⑥  Categorical Variable Code

    Value--------------------------------|   R1BPCOMPL
    .d:DK                                |           2
    .h:Not interviewed                   |          12
    .m:Missing                           |          27
    .s:Skipped                           |          14
    1.Fully compliant                    |        4005
    2.Prevented from being fully compliant |        20
    3.Not fully compliant                |          16
```

⑦ **How Constructed**

RwBPCOMPL indicates how compliant the respondent was for the blood pressure tests. RwBPCOMPL is coded as follows: 1.Fully compliant, 2.Prevented from fully complying due to illness, pain, or other symptoms or discomfort, and 3.Not fully compliant. Special missing (.s) is employed if the questions were skipped because the respondent did not understand the directions, was unwilling to participate in the blood pressure measurement, or had a rash, a cast, edema, open sores or wounds, or a significant bruise where the blood pressure cuff would be placed. Don't know and other missing responses are assigned special missing codes (.d) and (.m), respectively. Special missing (.h) is assigned if the respondent was not interviewed.

⑧ **Cross-Wave Differences in DAD**

No differences known.

⑨ **Differences with LASI**

No differences known.

⑩ **DAD Variables Used**

GA122 HOW COMPLIANT DURING TEST

---

① *Title*: The variables are documented in groups according to the concept that

they measure. For example, the variables related to compliance during the blood pressure test corresponds to one wave and to the respondent. The title is often followed by a short description of the concept that is captured.

(2) *Variable Names*: This entry shows the waves of variables in the group. Not all waves are present for all variables.

(3) *Variable Labels*: This entry shows the Stata variable labels. As discussed above, the labels typically include the name of the variable, the file on which it is present, and a description of its contents.

(4) *Variable Type*: This entry indicates the type of variable. It may be continuous (Cont), categorical (Categ), or character (Char).

(5) *Descriptive Statistics*: This entry shows descriptive statistics on each variable. They include the number of nonmissing values, the mean, standard deviation, minimum value, and maximum value.

(6) *Categorical Value Codes*: This entry shows the value label codes. These are only relevant for categorical variables. The first character(s) of the value labels indicate the value to which each label has been assigned. For example, value "1" is mapped into "1. fully compliant" (not just "fully compliant"). The entry also indicates which labels are assigned to which variables, and shows frequency tabulations for all categorical variables.

(7) *How Constructed*: This entry provides background on the manner in which variables were constructed.

(8) *Cross-Wave Differences in DAD*: This entry briefly describes differences in question wording or contents between interview waves.

(9) *Differences with LASI*: This entry describes any differences between the LASI version of the variable and the LASI-DAD version of the variable. It is imperative these differences are understood when using harmonized measures.

(10) *DAD Variables Used*: This entry provides the names and labels of raw LASI-DAD variables that were used to construct the new variables.

7. Distribution and Technical Notes

The Harmonized LASI-DAD Data file is distributed on the Gateway to Global Aging Data (https://g2aging.org/) website along with the original LASI-DAD data. The Harmonized LASI-DAD Data file is made available free of charge but only to users who register with the Gateway to Global Aging Data and agree to the standard conditions. For more information on obtaining access to the LASI-DAD data visit: https://g2aging.org/.

The Harmonized LASI-DAD Data file is distributed in Stata, SAS, SPSS, and tab delimited dataset formats.

This is Release Version **A** of the Harmonized LASI-DAD Data.

A copy of the Harmonized LASI-DAD dataset and a copy of this Harmonized LASI-DAD Codebook can be obtained on the Gateway to Global Aging Data (https://g2aging.org/) under the Download tab.

8. Data Codebook

Section A: Demographics and Identifiers

Phase I, II, and III

```
Wave Variable      Label                                                        Type

 1  R1PHASE        r1phase:DAD phase                                            Categ
```

Descriptive Statistics

```
Variable          N        Mean      Std Dev      Minimum      Maximum

R1PHASE         4096       1.82        0.75         1.00         3.00
```

Categorical Variable Codes

```
Value--------------------------------|      R1PHASE
1.Phase 1                            |         1592
2.Phase 2                            |         1652
3.Phase 3                            |          852
```

How Constructed

RwPHASE indicates whether the respondent is in phase I, phase II, or phase III of that wave's data collection. This variable is relevant since there were some questions added or dropped between the waves.

Cross Wave Differences in DAD

No differences known.

Differences with Harmonized LASI

No differences known.

Interview Status

Wave	Variable	Label	Type
1	R1IWSTAT_D	r1iwstat_d:w1 Interview status	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1IWSTAT_D	4096	1.01	0.11	1.00	2.00

Categorical Variable Codes

```
Value--------------------------------|  R1IWSTAT_D
1.Both cog and inf                    |      4047
2.Cognitive tests only                |        49
```

How Constructed

RwIWSTAT_D indicates the interview status for the types of tests conducted in the current wave of data collection. 1 indicates that both the cognitive tests and informant report were completed. 2 indicates that only the cognitive tests were completed (the respondent does not have an informant interview).

Cross Wave Differences in DAD

No differences known.

Differences with Harmonized LASI

RwIWSTAT in the Harmonized LASI indicates the response status of the respondent at each wave (whether the respondent participated in the current wave). In the DAD, RwINSTAT_D indicates the interview status for each type of test: whether only the cognitive tests were completed, only the informant reports were completed, or both the cognitive tests and informant reports were completed.

Interview Date: Year and Month

```
Wave Variable      Label                                                   Type

  1  R1IWY_D        r1iwy_d:w1 r year of DAD interview                     Cont

  1  R1IWM_D        r1iwm_d:w1 r month of DAD interview                    Cont

  1  R1LASIDY       r1lasidy:w1 r # days between LASI and DAD interview     Cont
```

Descriptive Statistics

```
Variable          N        Mean      Std Dev      Minimum      Maximum

R1IWY_D         4096     2018.50        0.78      2017.00      2020.00

R1IWM_D         4096        5.48        4.18         1.00        12.00

R1LASIDY        4096      326.37      274.86        16.00      1084.00
```

How Constructed

RwIWY_D and RwIWM_D indicate the respondent's DAD interview year and month, respectively. RwIWY_D and RwIWM_D are assigned plain missing (.) if the respondent did not participate in the current wave.

RwLASIDY indicates the number of days between the DAD interview and the LASI interview. RwLASIDY is assigned plain missing (.) if the respondent did not participate in the current wave.

Cross Wave Differences in DAD

No differences known.

Differences with Harmonized LASI

No differences known.

DAD Variables Used

```
Wave 1 Cog:
    BEGINTIME              TIMESTAMP START
```

Birth Date: Year and Month

Wave	Variable	Label	Type
1	RABYEAR	rabyear: r birth year	Cont
1	RABMONTH	rabmonth: r birth month	Cont

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
RABYEAR	4096	1948.47	7.61	1913.00	1959.00
RABMONTH	3569	4.58	3.30	1.00	12.00

How Constructed

RABYEAR and RABMONTH are taken from Harmonized LASI.

RABYEAR is the respondent's reported birth year. RABMONTH is the respondent's reported birth month. RABYEAR and RABMONTH are derived through the face-to-face computer-assisted personal interview (CAPI), and if missing, RABYEAR is calculated by subtracting the respondent's age from their interview year. Don't know, refused, and other missing responses to RABYEAR and RABMONTH are assigned special missing .d, .r, and .m, respectively. RABYEAR and RABMONTH are set to plain missing (.) if the respondent did not respond to any wave.

Cross Wave Differences in DAD

No differences known.

Differences with Harmonized LASI

No differences known.

	Age at Interview

```
Wave Variable      Label                                            Type

 1  R1AGEY          r1agey:w1 r age (years) at LASI-DAD ivw          Cont
```

Descriptive Statistics

```
Variable         N         Mean       Std Dev      Minimum      Maximum

R1AGEY         4096        69.72        7.60        60.00       105.00
```

How Constructed

RwAGEY is the respondent's age in years at the time of the LASI-DAD interview. RwAGEY is derived from the LASI-DAD interview month and year and the respondent's birth month and year.

Cross Wave Differences in DAD

No differences known.

Differences with Harmonized LASI

No differences known.

Gender

```
Wave Variable      Label                                                    Type

 1  RAGENDER       ragender: r Gender                                       Categ
```

Descriptive Statistics

```
Variable         N         Mean      Std Dev      Minimum      Maximum

RAGENDER       4096        1.54        0.50         1.00         2.00
```

Categorical Variable Codes

```
Value--------------------------------|    RAGENDER
1.Male                               |       1889
2.Female                             |       2207
```

How Constructed

RAGENDER indicates the respondent's gender. RAGENDER is coded as follows: 1.Male and 2.Female.

Cross Wave Differences in DAD

No differences known.

Differences with Harmonized LASI

No differences known.

DAD Variables Used

```
    RGENDER                 Respondent gender
```

Education: Categorical Summary

```
Wave Variable      Label                                                    Type

  1  RAEDUC_L       raeduc_l: r highest level of education                   Categ

  1  RAEDUCL        raeducl: r harmonized education category                 Categ

  1  RAEDYRS        raedyrs: r years of education                            Cont

  1  R1ILLITERATE   r1illiterate: R cannot read or write                     Categ
```

Descriptive Statistics

```
Variable          N       Mean     Std Dev    Minimum     Maximum

RAEDUC_L        4096      1.49       1.98       0.00        9.00

RAEDUCL         4096      1.29       0.53       1.00        3.00

RAEDYRS         4096      3.84       4.67       0.00       21.00

R1ILLITERATE    4096      0.57       0.50       0.00        1.00
```

Categorical Variable Codes

```
Value--------------------------------|   RAEDUC_L
0:never attended school              |      2009
1.less than primary school(standard 1-4)|  549
2.primary school(standard 5-7)       |      527
3.middle school(standard 8-9)        |      314
4.secondary school(standard 10-11)   |      381
5.higher secondary(standard 12)      |      124
6.diploma and certificate            |       27
7.graduate degree(ba,bs)             |      102
8.post-graduate degree(ma,ms,phd)    |       40
9.professional course/degree(mbbs,md,mba|    23

Value--------------------------------|    RAEDUCL
1.less than lower secondary          |      3085
2.upper secondary & vocational training |   846
3.tertiary                           |      165

Value--------------------------------|R1ILLITERATE
0.can read or write                  |      1777
1.cannot read or write               |      2319
```

How Constructed

```
RAEDUC_L, RAEDUCL and RAEDYRS are taken from Harmonized LASI.

RAEDUC_L identifies the highest level of education that the respondent has attained. RAEDUC_L is defined
using the following codes: 0.Never attended school, 1.Less than primary school (Standard 1-4), 2.Primary
school completed (Standard 5-7), 3.Middle school completed (Standard 8-9), 4.Secondary
school/matriculation completed, 5.Higher secondary/Intermediate/Senior secondary school completed,
6.Diploma and certificate holders, 7.Graduate degree (B.A., B.Sc., B.Com.) completed, 8.Post-graduate
degree (M.A., M.Sc., M.Com.) or above (M.Phil, Ph.D., Post-Doc) completed, 9.Professional course/degree
(B.Ed, BE, B.Tech, MBBS, BHMS, BAMS, B.Pharm, BCS, BCA, BBA, LLB, BVSc., B.Arch, M.Ed, ME, M.Tech, MD,
M.Pharm, MCS, MCA, MBA, LLM, MVSc., M.Arch, MS, CA, CS, CWA) completed. Don't know, refused, and other
missing responses are coded as special missing .d, .r, and .m, respectively. RAEDUC_L is set to plain
missing (.) if the respondent did not participate in any wave.
```

RAEDUCL identifies the level of education completed according to a three-tier harmonized scale which we developed to compare education levels across countries. This harmonized education scale is a simplified version of the 1997 International Standard Classification of Education (ISCED-97) codes. For more information on ISCED codes, see www.uis.unesco.org and the OECD document entitled "Classifying Educational Programmes: Manual for ISCED-97 Implementation in OECD Countries, 1999 Edition". RAEDUCL is coded as follows: 1.Less than lower secondary education, 2.Upper secondary & vocational training, and 3.Tertiary education. Respondents are assigned a code of 1 if the respondent completed no education, or reported their highest education level as "Less than primary school" or "Primary school completed". Respondents are assigned a code of 2 if the respondent reported their highest education level as "Middle school completed", "Secondary school/matriculation completed", "Higher secondary/Intermediate/Senior secondary completed" or "Diploma and certificate holders". Respondents are assigned a code of 3 if the respondent reported their highest education level as "Graduate degree completed", "Post-graduate degree or above completed", or "Professional course/degree completed". Don't know, refused, and other missing responses are coded as special missing .d, .r, and .m, respectively. RAEDUCL is set to plain missing (.) if the respondent did not participate in any wave.

RAEDYRS indicates the number of years of education that the respondent completed. Don't know, refused, or other missing responses of RAEDYRS are assigned special missing codes .d, .r, .m respectively. RAEDYRS is set to plain missing (.) for respondents who did not respond to any wave.

RwILLITERATE indicates whether the respondent is illiterate. A 1 is assigned if the respondent reported that s/he can not read and writhe from question mmse117. A 0 is assigned if the respondent reported that s/he can read and write.

Cross Wave Differences in DAD

No differences known.

Differences with Harmonized LASI

No differences known.

Live in Urban or Rural Area

```
Wave Variable      Label                                                    Type

  1  H1RURAL       hh1rural:w1 lives in rural or urban area                 Categ
```

Descriptive Statistics

```
Variable          N         Mean        Std Dev       Minimum       Maximum

H1RURAL         4096        0.62         0.49          0.00          1.00
```

Categorical Variable Codes

```
Value--------------------------------|      H1RURAL
0.urban community                    |         1561
1.rural village                      |         2535
```

How Constructed

```
HwRURAL is taken from Harmonized LASI.

HwRURAL indicates the respondent's living region. This variable is based on the information recorded in
census data. A code of 0 indicates that the respondent is located in an urban region, and a code of 1
indicates that the respondent is located in a rural region. Don't know, refused, or other missing
responses to HwRURAL are assigned special missing codes .d, .r, and .m, respectively. HwRURAL is set to
plain missing (.) for respondents who did not respond to the current wave.
```

Cross Wave Differences in DAD

```
No differences known.
```

Differences with Harmonized LASI

```
No differences known.
```

		Interview Language		

```
Wave Variable     Label                                                Type

  1  R1LANG_D      r1lang_d:w1 r language of interview                  Categ
```

Descriptive Statistics

```
Variable          N         Mean      Std Dev     Minimum     Maximum

R1LANG_D          4096      7.87      6.23        1.00        19.00
```

Categorical Variable Codes

```
Value--------------------------------|     R1LANG_D
1.English                            |           10
2.Hindi                              |         1393
3.Kannada                            |          245
5.Malayalam                          |          349
6.Gujarati                           |          288
7.Tamil                              |          301
8.Punjabi                            |          159
11.Urdu                              |          152
15.Bengali                           |          309
16.Assamese                          |          199
17.Odiya                             |          252
18.Marathi                           |          250
19.Telugu                            |          189
```

How Constructed

```
RwLANG_D indicates the language that the respondent used for the interview. RwLANG_D is coded as follows:
1.English, 2.Hindi, 3.Kannada, 4.Konkani, 5.Malayalam, 6.Gujarati, 7.Tamil, 8.Punjabi, 9.Manipuri,
10.Mizo, 11.Urdu, 12.Nepali, 13.Garo, 14.khasi, 15.Bengali, 16.Assamese, 17.Odiya, 18.Marathi, 19.Telugu.
Don't know, refused, or other missing responses of RwLANG_D are set to .d, .r and .m, respectively.
RwLANG_D is set to plain missing (.) if the respondent did not participate in the current wave.
```

Cross Wave Differences in DAD

```
No differences known.
```

Differences with Harmonized LASI

```
No differences known.
```

DAD Variables Used

```
    LANGUAGE_IW            Iwer Checkpoint: IW Language
```

Cognitive Impairment Risk

```
Wave Variable      Label                                                   Type

  1  R1RISK         r1risk:w1 Whether at risk for cognitive impairment       Categ
```

Descriptive Statistics

```
Variable          N        Mean      Std Dev      Minimum      Maximum

R1RISK          4096      0.48        0.50         0.00         1.00
```

Categorical Variable Codes

```
Value---------------------------------|      R1RISK
0.No                                   |       2115
1.Yes                                  |       1981
```

How Constructed

RwRISK is created using LASI main data.

RwRISK indicates whether the respondent was considered at high risk for cognitive impairment based on the core LASI interview.

A 0 is coded if the respondent is low risk (mid tertile) or very low risk (top tertile) based on the total cognition score without number series, in the upper 85% on word recall, in the upper 85% for the cognition score without number series and without word recall, in the bottom 85% for the missing number of cognition tests, or if the respondent's Jorm IQ code is less than 3.9.

A 1 is coded is the respondent is high risk (bottom tertile) based on the total cognition score without number series, in the bottom 15% on word recall, in the bottom 15% for the cognition score without number series and without word recall, in the upper 15% for the missing number of cognition tests, or if the respondent's Jorm IQ code is 3.9 or higher.

Note: The cognition score used in determining risk is calculated as follows: rowtotal(r1dy r1mo r1yr r1dw r1place r1city r1street r1dist r1imrc r1dlrc r1verbf r1object1 r1object2 r1bwc20 r1bwc100 r1ser7 r1compu1 r1compu2 r1task r1write r1action r1draw1 r1draw2).

Cross Wave Differences in DAD

No differences known.

Differences with Harmonized LASI

No differences known.

Location

```
Wave Variable     Label                                                  Type

   1  R1LOCATION    r1location:w1 r location of interview                 Categ
```

Descriptive Statistics

```
Variable          N        Mean       Std Dev      Minimum      Maximum

R1LOCATION       4096       1.92        0.27         1.00         2.00
```

Categorical Variable Codes

```
Value--------------------------------|  R1LOCATION
1.Hospital                           |         323
2.Home visit                         |        3773
```

How Constructed

```
RwLOCATION indicates whether the interview was conducted at a hospital or at the home of the respondent.
1 indicates that the interview was conducted at a hospital. 2 indicates that the interview was a home
visit. Special missing .r is assigned if the respondent refused to be interviewed.
```

Cross Wave Differences in DAD

```
No differences known.
```

Differences with Harmonized LASI

```
No differences known.
```

DAD Variables Used

```
     LOCATION                location of interview
```

Weights

Wave	Variable	Label	Type
1	R1WTRESP	r1wtresp:w1 r post-stratification weight	Cont

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1WTRESP	4096	1.00	0.72	0.07	2.77

How Constructed

RwWTRESP is the person-level cross-sectional weight. The weight is provided to make the data a nationally representative sample.

Cross Wave Differences in DAD

No differences known.

Differences with Harmonized LASI

No differences known.

DAD Variables Used

DAD_FINAL_WEIGHT   DAD Final Weight after Post-stratification

Interviewer Observation

```
Wave Variable       Label                                                   Type

  1  R1OBSNOISE     r1obsnoise:w1 Interviewer observation - noise in R home      Categ

  1  R1OBSODOR      r1obsodor:w1 Interviewer observation - odor in R home        Categ

  1  R1OBSAIR       r1obsair:w1 Interviewer observation - air pollution in R hom  Categ

  1  R1OBSHOUSE     r1obshouse:w1 Interviewer observation - upkeep house in R ho  Categ
```

Descriptive Statistics

```
Variable          N        Mean       Std Dev      Minimum      Maximum

R1OBSNOISE       800       2.18        1.02         1.00         5.00

R1OBSODOR        800       2.00        0.97         1.00         5.00

R1OBSAIR         800       1.73        0.85         1.00         5.00

R1OBSHOUSE       800       2.47        1.13         1.00         5.00
```

Categorical Variable Codes

```
Value--------------------------------| R1OBSNOISE
.m:Missing                           |          16
.r:Refuse                            |          38
.x:Not in phase/wave                 |        3242
1.Quiet                              |         223
2.2                                  |         314
3.3                                  |         184
4.4                                  |          53
5.Noisy                              |          26

Value--------------------------------| R1OBSODOR
.m:Missing                           |          16
.r:Refuse                            |          38
.x:Not in phase/wave                 |        3242
1.No smell                           |         286
2.2                                  |         297
3.3                                  |         172
4.4                                  |          23
5.Strong smell                       |          22

Value--------------------------------| R1OBSAIR
.m:Missing                           |          16
.r:Refuse                            |          38
.x:Not in phase/wave                 |        3242
1.No air pollution                   |         395
2.2                                  |         254
3.3                                  |         126
4.4                                  |          23
5.Strong air pollution               |           2

Value--------------------------------| R1OBSHOUSE
.m:Missing                           |          16
.r:Refuse                            |          38
.x:Not in phase/wave                 |        3242
1.Very well kept                     |         191
2.2                                  |         225
3.3                                  |         239
4.4                                  |         108
```

```
5.Very poorly kept (needs major repairs)|        37
```

How Constructed

Variables in this section refer to the interviewer's observations about various issues within the respondent's inside home environment. These questions were asked starting in phase 3 of data collection.

RwOBSNOISE indicates the interviewer's ranking of the noise level in the respondent's inside home environment, and ranges from 1 to 5. A 1 indicates that the noise level is quiet and a 5 indicates that the noise level is noisy.

RwOBSODOR indicates the interviewer's ranking of the odor in the respondent's inside home environment, and ranges from 1 to 5. A 1 indicates that there is no smell inside the respondent's home environment and a 5 indicates that there is a strong smell inside the home.

RwOBSAIR indicates the interviewer's ranking of the air pollution in the respondent's inside home environment, and ranges from 1 to 5. A 1 indicates that there is no air pollution and a 5 indicates that there is strong air pollution in the respondent's inside home environment.

RwOBSHOUSE indicates the interviewer's ranking of how well kept the respondent's inside home environment is in, and ranges from 1 to 5. A 1 indicates that the respondent's inside home environment is very well kept and a 5 indicates that the inside home environment is very poorly kept and needs major repairs.

Refused or missing responses are coded as special missing (.r) or (.m), respectively. Responses coded as special missing (.x) indicate that the respondents from phase 1 and phase 2 of data collection were not asked these questions.

Cross Wave Differences in DAD

No differences known.

Differences with Harmonized LASI

These questions are not asked in the Harmonized LASI.

DAD Variables Used

```
    OB001                   iwer observation noise
    OB002                   iwer observation odor
    OB003                   iwer observation odor
    OB004                   iwer observation upkeep house
```

Section B: Cognition

Date Naming

Wave	Variable	Label	Type
1	R1MO	r1mo:w1 R cognition date naming-month(0-1)	Categ
1	R1FMO	r1fmo:impflag w1 r whether imputed value	Categ
1	R1YR	r1yr:w1 R cognition date naming-year(0-1)	Categ
1	R1FYR	r1fyr:impflag w1 r whether imputed value	Categ
1	R1DW	r1dw:w1 R cognition date naming-day of week(0-1)	Categ
1	R1FDW	r1fdw:impflag w1 r whether imputed value	Categ
1	R1SEASON	r1season:w1 R cognition date naming-season(0-1)	Categ
1	R1FSEASON	r1fseason:impflag w1 r whether imputed value	Categ
1	R1DATE	r1date:w1 R cognition date naming-date(0-1)	Categ
1	R1FDATE	r1fdate:impflag w1 r whether imputed value	Categ
1	R1ORIENT_T5	r1orient_t5:w1 R orientation to time(0-5)	Categ
1	R1ORIENT_T4	r1orient_t4:w1 R orientation to time(0-4)- comparable w LASI	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1MO	4096	0.81	0.39	0.00	1.00
R1FMO	4096	0.19	0.63	0.00	4.00
R1YR	4096	0.44	0.50	0.00	1.00
R1FYR	4096	0.57	0.99	0.00	4.00
R1DW	4096	0.81	0.39	0.00	1.00
R1FDW	4096	0.16	0.64	0.00	4.00
R1SEASON	4096	0.83	0.37	0.00	1.00
R1FSEASON	4096	0.13	0.52	0.00	4.00
R1DATE	4096	0.61	0.49	0.00	1.00
R1FDATE	4096	0.34	0.80	0.00	4.00
R1ORIENT_T5	4096	3.51	1.46	0.00	5.00
R1ORIENT_T4	4096	2.67	1.30	0.00	4.00

Categorical Variable Codes

```
Value--------------------------------|      R1MO
0.Incorrect                          |       784
```

```
1.Correct                             |            3312

Value-----------------------------------|            R1FMO
0.Not imputed                         |            3628
1.Dont know                           |             325
2.Missing                             |               6
3.Not Assessed                        |             110
4.Refused                             |              27

Value-----------------------------------|            R1YR
0.Incorrect                           |            2275
1.Correct                             |            1821

Value-----------------------------------|            R1FYR
0.Not imputed                         |            2750
1.Dont know                           |             867
2.Missing                             |               6
3.Not Assessed                        |             440
4.Refused                             |              33

Value-----------------------------------|            R1DW
0.Incorrect                           |             777
1.Correct                             |            3319

Value-----------------------------------|            R1FDW
0.Not imputed                         |            3779
1.Dont know                           |             150
2.Missing                             |               6
3.Not Assessed                        |             135
4.Refused                             |              26

Value-----------------------------------|            R1SEASON
0.Incorrect                           |             682
1.Correct                             |            3414

Value-----------------------------------|            R1FSEASON
0.Not imputed                         |            3767
1.Dont know                           |             235
2.Missing                             |               6
3.Not Assessed                        |              68
4.Refused                             |              20

Value-----------------------------------|            R1DATE
0.Incorrect                           |            1598
1.Correct                             |            2498

Value-----------------------------------|            R1FDATE
0.Not imputed                         |            3247
1.Dont know                           |             589
2.Missing                             |               6
3.Not Assessed                        |             226
4.Refused                             |              28

Value-----------------------------------| R1ORIENT_T5
0                                     |             148
1                                     |             332
2                                     |             552
3                                     |             736
4                                     |             920
5                                     |            1408

Value-----------------------------------| R1ORIENT_T4
0                                     |             323
1                                     |             544
2                                     |             769
3                                     |             972
4                                     |            1488
```

How Constructed

The following variables indicate whether the respondent was able to report today's date correctly.

RwMO indicates whether a respondent was able to report the month correctly. RwYR indicates whether a respondent was able to report the year correctly. RwDW indicates whether a respondent was able to report the day of the week correctly. RwSEASON indicates whether a respondent was able to report the season of the year correctly. RwDATE indicates whether a respondent was able to report the date correctly.

RwMO, RwYR, RwDW, RwSEASON, and RwDATE are coded as 1 if the respondent correctly reports the value. RwMO, RwYR, RwDW, RwSEASON, and RwDATE are coded as 0 if the respondent incorrectly reports the value. Don't know responses are coded as special missing (.d). Refused responses are coded as special missing codes (.r). Other missing is assigned special missing (.m). "Not Assessed" responses are coded as special missing (.n). "Not assessed" is assigned when the test was not administered due to a respondent's physical disability or technical issues.

RwORIENT_T5 is the summary measure for RwYR, RwSEASON, RwDATE, RwDW, and RwMO ranging from 0 to 5. 5 indicates all correct answers. If RwYR, RwSEASON, RwDATE, RwDW, and RwMO are assigned special missing (.d), (.n), (.r), or (.m), RwORIENT_T5 is assigned special missing (.d), (.n), (.r), or (.m), respectively.

RwORIENT_T4 is the summary measure for RwYR, RwDATE, RwDW, and RwMO ranging from 0 to 4. 4 indicates all correct answers. This measure is comparable with the measures from the main LASI study. If RwYR, RwDATE, RwDW, and RwMO are assigned special missing (.d), (.n), (.r), or (.m), RwORIENT_T4 is assigned special missing (.d), (.n), (.r), or (.m), respectively.

RwFMO, RwFYR, RwFDW, RwFSEASON, and RwFDATE are flag variables, indicating whether the corresponding variable was assigned an imputed value. The flag variables are coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, 3.Not Assessed, and 4.Refused. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

No differences known.

Differences with Harmonized LASI

In the Harmonized LASI, only 4 questions were asked: day of month, month, year, and day of week (RwDW, RwMO, RwYR, and RwDW). In DAD, there are 5 questions: day of month, month, year, date, and season (RwDW, RwMO, RwYR, RwDATE, and RwSEASON).

DAD Variables Used

```
Wave 1 Cog:
    MMSE102_YEAR            CORRECT YEAR
    MMSE103_SEASON          CURRENT SEASON OF THE YEAR--CORRECT
    MMSE104_DATE            DATE CORRECT
    MMSE105_DAY             CURRENT DAY OF THE WEEK--CORRECT
    MMSE106_MONTH           CURRENT MONTH--CORRECT
```

Location Naming

Wave	Variable	Label	Type
1	R1STATE	r1state:w1 R cognition place naming-state(0-1)	Categ
1	R1FSTATE	r1fstate:impflag w1 r whether imputed value	Categ
1	R1CITY	r1city:w1 R cognition place naming-city(0-1)	Categ
1	R1FCITY	r1fcity:impflag w1 r whether imputed value	Categ
1	R1FLOOR	r1floor:w1 R cognition place naming-floor(0-1)	Categ
1	R1FFLOOR	r1ffloor:impflag w1 r whether imputed value	Categ
1	R1NAME	r1name:w1 R cognition place naming-name of place/hospital(0-	Categ
1	R1FNAME	r1fname:impflag w1 r whether imputed value	Categ
1	R1ADDRESS	r1address:w1 R cognition place naming-address(0-1)	Categ
1	R1FADDRESS	r1faddress:impflag w1 r whether imputed value	Categ
1	R1ORIENT_P5	r1orient_p5:w1 R orientation to place(0-5)	Categ
1	R1ORIENT_P4	r1orient_p4:w1 R orientation to place(0-4)-comparable w LASI	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1STATE	4096	0.59	0.49	0.00	1.00
R1FSTATE	4096	0.34	0.80	0.00	4.00
R1CITY	4096	0.94	0.23	0.00	1.00
R1FCITY	4096	0.08	0.46	0.00	4.00
R1FLOOR	4096	0.90	0.30	0.00	1.00
R1FFLOOR	4096	0.10	0.50	0.00	4.00
R1NAME	4096	0.77	0.42	0.00	1.00
R1FNAME	4096	0.20	0.63	0.00	4.00
R1ADDRESS	4096	0.86	0.34	0.00	1.00
R1FADDRESS	4096	0.16	0.62	0.00	4.00
R1ORIENT_P5	4096	4.07	1.15	0.00	5.00
R1ORIENT_P4	4096	3.17	1.03	0.00	4.00

Categorical Variable Codes

```
Value--------------------------------|     R1STATE
0.Incorrect                          |       1671
```

```
1.Correct                            |            2425

Value---------------------------------|    R1FSTATE
0.Not imputed                        |            3232
1.Dont know                          |             607
2.Missing                            |               6
3.Not Assessed                       |             226
4.Refused                            |              25

Value---------------------------------|    R1CITY
0.Incorrect                          |             235
1.Correct                            |            3861

Value---------------------------------|    R1FCITY
0.Not imputed                        |            3945
1.Dont know                          |              75
2.Missing                            |               6
3.Not Assessed                       |              49
4.Refused                            |              21

Value---------------------------------|    R1FLOOR
0.Incorrect                          |             412
1.Correct                            |            3684

Value---------------------------------|    R1FFLOOR
0.Not imputed                        |            3905
1.Dont know                          |              95
2.Missing                            |               6
3.Not Assessed                       |              68
4.Refused                            |              22

Value---------------------------------|    R1NAME
0.Incorrect                          |             952
1.Correct                            |            3144

Value---------------------------------|    R1FNAME
0.Not imputed                        |            3587
1.Dont know                          |             365
2.Missing                            |               6
3.Not Assessed                       |             112
4.Refused                            |              26

Value---------------------------------|    R1ADDRESS
0.Incorrect                          |             555
1.Correct                            |            3541

Value---------------------------------|    R1FADDRESS
0.Not imputed                        |            3755
1.Dont know                          |             194
2.Missing                            |               6
3.Not Assessed                       |             117
4.Refused                            |              24

Value---------------------------------| R1ORIENT_P5
0                                    |              53
1                                    |              90
2                                    |             297
3                                    |             631
4                                    |            1047
5                                    |            1978

Value---------------------------------| R1ORIENT_P4
0                                    |              76
1                                    |             268
2                                    |             624
3                                    |            1057
4                                    |            2071
```

How Constructed

The following variables indicate whether the respondent was able to correctly report his/her current location.

RwSTATE indicates whether a respondent was able to report the state he/she were in when interviewed. RwCITY indicates whether a respondent was able to report the city or village he/she were in at the time of the interview. RwFLOOR indicates whether a respondent was able to report which building floor he/she were on when interviewed. For interviews conducted at the respondent's home, RwFLOOR indicates whether the respondent was able to answer the question "What is this place used for?". RwNAME indicates whether a respondent was able to report the name of the hospital he/she were in during the interview. For interviews conducted at the respondent's home, RwNAME indicates whether a respondent was able to report the name of his/her district. RwADDRESS indicates whether a respondent was able to report his/her home address. If the respondent did not answer or did not know, he/she were asked for the name of the area of town/village, house number, or any landmark. If the respondent correctly identified the street name, this was coded as 1 for correct; the full address was not required.

RwSTATE, RwCITY, RwFLOOR, RwNAME, and RwADDRESS are coded as 1 if the respondent answered correctly and as 0 if the respondent answered incorrectly. Don't know responses are coded as special missing (.d). Refused responses are coded as special missing codes (.r). Other missing is coded as special missing (.m). "Not Assessed" responses are coded as special missing (.n). "Not assessed" is assigned when the test was not administered because of a respondent's physical disability or technical issues.

RwORIENT_P5 is the summary measure for RwSTATE, RwCITY, RwFLOOR, RwNAME, and RwADDRESS, ranging from 0 to 5. 5 indicates that all answers were correct. If RwSTATE, RwCITY, RwFLOOR, RwNAME, and RwADDRESS are coded as (.d) or (.n), RwORIENT_P5 is coded as (.d) or (.n), respectively. If RwSTATE, RwCITY, RwFLOOR, RwNAME, and RwADDRESS are coded as (.r), RwORIENT_P5 is assigned (.r).

RwORIENT_P4 is the summary measure for RwSTATE, RwCITY, RwNAME, and RwADDRESS, ranging from 0 to 4. 4 indicates that all answers were correct. This measure is comparable with the measures from the main LASI study. If RwSTATE, RwCITY, RwNAME, and RwADDRESS are coded as (.d) or (.n), RwORIENT_P4 is coded as (.d) or (.n), respectively. If RwSTATE, RwCITY, RwNAME, and RwADDRESS are coded as (.r), RwORIENT_P4A is assigned (.r).

RwFSTATE, RwFCITY, RwFFLOOR, Rw1FNAME, and RwFADDRESS are flag variables, indicating whether the corresponding variable has an imputed value assigned. The flag variables are coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, 3.Not Assessed, and 4.Refused. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

In HRS HCAP, 5 questions were asked: state, county, city/town, floor of the building and address of the place. In DAD, similar questions were asked: state, city/village, floor of the building, name of the hospital or home address. As DAD study interviews were conducted in hospitals or in respondents' homes, either the name of the hospital or home address was asked.

Differences with Harmonized LASI

In the Harmonized LASI interview, only 4 questions were asked: current place, city, street and district where the respondent lives (RwPLACE, RwCITY, RwSTREET, and RwDIST). In the DAD, 5 questions were asked: current place, city, state, district/town/village, and floor (RwNAME, RwCITY, RwSTATE, RwADDRESS, and RwFLOOR).

DAD Variables Used

```
    MMSE107_STATE              CURRENT STATE R IN IS--CORRECT
    MMSE108_CITY               CURRENT CITY/VILLAGE--CORRECT
    MMSE109_FLOOR              CURRENT FLOOR OF BLDG R IS ON
    MMSE109_FLOOR_HOME        CURRENT FLOOR--CORRECT -- CHANGED TO WHAT IS
    MMSE110_NAME              CURRENT ADDRESS--CORRECT -- CHANGED TO DISTRI
```

```
MMSE110_NAME_HOME          CURRENT ADDRESS--CORRECT -- CHANGED TO DISTRI
MMSE111_ADDRESS            HOME ADDRESS
```

3-Word Recall

Wave	Variable	Label	Type
1	R1TRIAL1	r1trial1:w1 R 3-word recall trial 1(0-3)	Cont
1	R1FTRIAL1	r1ftrial1:impflag w1 r whether imputed value	Categ
1	R1TRIAL2	r1trial2:w1 R 3-word recall trial 2(0-3)	Cont
1	R1FTRIAL2	r1ftrial2:impflag w1 r whether imputed value	Categ
1	R1TRIAL3	r1trial3:w1 R 3-word recall trial 3(0-3)	Cont
1	R1FTRIAL3	r1ftrial3:impflag w1 r whether imputed value	Categ
1	R1IMRC3	r1imrc3:w1 R immediate word recall(0-3)	Categ
1	R1FIMRC3	r1fimrc3:impflag w1 r whether imputed value	Categ
1	R1DLRC3	r1dlrc3:w1 R delayed word recall(0-3)	Cont
1	R1FDLRC3	r1fdlrc3:impflag w1 r whether imputed value	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1TRIAL1	4096	2.74	0.61	0.00	3.00
R1FTRIAL1	4096	0.05	0.44	0.00	4.00
R1TRIAL2	752	2.41	0.93	0.00	3.00
R1FTRIAL2	4096	8.97	4.22	0.00	11.00
R1TRIAL3	273	1.78	1.15	0.00	3.00
R1FTRIAL3	4096	10.23	2.72	0.00	11.00
R1IMRC3	4096	2.74	0.61	0.00	3.00
R1FIMRC3	4096	0.05	0.44	0.00	4.00
R1DLRC3	4096	1.96	1.06	0.00	3.00
R1FDLRC3	4096	0.09	0.50	0.00	4.00

Categorical Variable Codes

```
Value--------------------------------|   R1FTRIAL1
0.Not imputed                        |      4021
1.Dont know                          |        22
2.Missing                            |         6
4.Refused                            |        47

Value--------------------------------|   R1FTRIAL2
0.Not imputed                        |       695
1.Dont know                          |        28
2.Missing                            |         6
4.Refused                            |        49
```

```
11.Skipped                          |          3318

Value-------------------------------|     R1FTRIAL3
0.Not imputed                       |           219
1.Dont know                         |            33
2.Missing                           |             6
4.Refused                           |            51
11.Skipped                          |          3787

Value-------------------------------|     R1IMRC3
0                                   |            80
1                                   |           136
2                                   |           536
3                                   |          3344

Value-------------------------------|     R1FIMRC3
0.Not imputed                       |          4021
1.Dont know                         |            22
2.Missing                           |             6
4.Refused                           |            47

Value-------------------------------|     R1FDLRC3
0.Not imputed                       |          3903
1.Dont know                         |           129
2.Missing                           |             6
3.Not Assessed                      |             3
4.Refused                           |            55
```

How Constructed

RwTRIAL1, RwTRIAL2, and RwTRIAL3 indicate a series of consecutive trials that ask the respondent to repeat back three objects named by the interviewer.

RwTRIAL1 is the first trial in which interviewers name three objects and ask the respondent to repeat each object back to them. The respondents are asked to remember what the objects are because they will be asked to name them again in a few minutes. The three objects are "Mango", "Chair", and "Coin". Interviewers record the number of correct words repeated with values ranging from 0-3 for correct words recalled.

RwTRIAL2 and RwTRIAL3 indicate the second and third trial in which interviewers name the same three objects as in trial 1. If the respondent correctly names all three objects in the first trial, trial 2 is skipped. If the respondent correctly names all three objects in the first or second trial, trial 3 is skipped. Otherwise, RwTRIAL2 and RwTRIAL3 follow the same procedure as RwTRIAL1.

RwTRIAL1, RwTRIAL2, and RwTRIAL3 range from 0-3, indicating the number of correct responses. Don't know responses are coded as special missing (.d). Refused responses are coded as special missing codes (.r). If the question is skipped in RwTRIAL2 or RwTRIAL3 because the respondent correctly answered all words in the previous trial, special missing (.s) is assigned. Other missing is assigned as (.m).

RwIMRC3 provides a summary measure for immediate word recall. The first word recall trial, RwTRIAL1, is used for this variable. Interviewers record the number of correct words repeated with values ranging from 0-3 for correct words recalled. Don't know responses are coded as special missing (.d). Refused responses are coded as special missing codes (.r). Other missing is as (.m).

RwDLRC3 provides a measure for delayed word recall. RwDLRC3 is the number of words from the 3-word immediate recall list that were recalled correctly after a delay, in which other survey questions were asked and answered. Specifically, respondents were asked for the three objects they were asked to remember previously. Interviewers record the number of correct words repeated after the delay. Don't know responses are coded as special missing (.d). Refused is coded as special missing codes (.r). Other missing is assigned special missing (.m). "Not assessed" responses are coded as special missing (.n). "Not assessed" is assigned when the test was not administered because of the respondent's physical disability or technical issues.

RwFTRIAL1, RwFTRIAL2, RwFTRIAL3, RwFIMRC3 and RwFDLRC3 are flag variables, indicating whether the corresponding variable has an imputed value assigned. RwFTRIAL1 is coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, and 4.Refused. RwFTRIAL2 and RwFTRIAL3 are coded as follows: The flag variables

are coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, 4.Refused, and 11.Skipped. RwFIMRC3 is
coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, and 4. Refused. RwFDLRC3 is coded as follows:
0.Not imputed, 1.Don't know, 2.Missing, 3.Not Assessed, and 4.Refused. The original missing value is
otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

In DAD, we used the HMSE word recall list "Mango, Chair, Coin" instead of HRS HCAP word recall list
"Apple, Table, Penny". In the HRS HCAP, the interviewer also records the number of trials as H1RMSE11T.

Differences with Harmonized LASI

In the LASI study, the MMSE three word recall test is not administered.

DAD Variables Used

```
MMSE112_TRIAL1          TRIAL 1
MMSE112_TRIAL2          TRIAL 2
MMSE112_TRIAL3          TRIAL 3
MMSE114_DELAYED         MMSE114 Delayed
```

Serial 7's

Wave	Variable	Label	Type
1	R1SER7	r1ser7:w1 R serial 7s(0-5)	Categ
1	R1FSER7	r1fser7:impflag w1 r whether imputed value	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1SER7	2713	2.30	1.80	0.00	5.00
R1FSER7	4096	2.31	2.80	0.00	6.00

Categorical Variable Codes

```
Value--------------------------------|      R1SER7
.c:Cannot Count                      |       1383
0                                    |        575
1                                    |        560
2                                    |        389
3                                    |        368
4                                    |        315
5                                    |        506

Value--------------------------------|      R1FSER7
0.Not imputed                        |       2289
1.Dont know                          |        155
2.Missing                            |         24
4.Refused                            |        245
6.Cannot Count                       |       1383
```

How Constructed

RwSER7 provides the number of correct subtractions in the serial 7's test. This test asks the individual to subtract 7 from the prior result, beginning with 100, for five trials. Correct subtractions are based on the prior number given, so that even if one subtraction is incorrect, subsequent trials are evaluated on the given (perhaps wrong) answer. Valid scores are 0-5. If the respondent cannot count, special missing (.c) is assigned. Don't know responses are coded as (.d). Refused responses are assigned special missing code (.r). Other missing is assigned special missing (.m).

RwFSER7 is a flag variable, indicating whether the corresponding variable has an imputed value. The flag variable is coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, 4.Refused, and 6.Cannot Count. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

This test in DAD was not conducted in the HRS HCAP. Instead, the HRS HCAP uses a Number Series test. Although the Number Series was included in the main LASI, a large portion of respondents refused to answer the questions; hence we decided to drop the Number Series from DAD and use the Serial 7's test instead.

Differences with Harmonized LASI

No differences known.

DAD Variables Used

```
SS_1                    subtraction from 100
SS_1NUMBER              7 Subtracted from 100
SS_2                    2nd time subtraction
SS_3                    3rd time subtraction
SS_4                    4th time subtraction
SS_5                    5th time subtraction
```

Backward Day Naming

```
Wave Variable      Label                                                      Type

  1  R1BACKWARD_D  r1backward_d:w1 R backward day naming(0-5)                 Categ

  1  R1FBACKWAR_D  r1fbackwar_d:impflag w1 r whether imputed value            Categ
```

Descriptive Statistics

```
Variable          N       Mean      Std Dev      Minimum      Maximum

R1BACKWARD_D    4096      3.30        2.15         0.00         5.00

R1FBACKWAR_D    4096      0.23        0.81         0.00         4.00
```

Categorical Variable Codes

```
Value--------------------------------|R1BACKWARD_D
0                                    |           976
1                                    |           248
2                                    |           173
3                                    |           152
4                                    |           288
5                                    |          2259

Value--------------------------------|R1FBACKWAR_D
0.Not imputed                        |          3684
1.Dont know                          |           200
2.Missing                            |            60
4.Refused                            |           152
```

How Constructed

RwBACKWARD_D indicates the number of days of the week the respondent was able to correctly list in backwards order, starting from Sunday. While there are 6 possible answers, RwBACKWARD_D recodes 6 as 5 and thus, ranges from 0-5. Each day in the sequence was given one point if correctly reported. If the respondent gave the wrong response for the first day but a logically correct sequence, one point was deducted from the total score.

Don't know responses are coded as special missing (.d). Refused responses are coded as special missing (.r). Other missing responses are coded as (.m).

RwFBACKWAR_D is a flag variable, indicating whether the corresponding variable has an assigned imputed value. The flag variable is coded as follows: 0.Not imputed, 1.Don't Know, 2.Missing, and 4.Refused. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

In DAD, given the illiteracy in the older population, we asked respondents to say days of the week backwards staring from Sunday. In HRS HCAP, respondents were given the word "WORLD" and were asked to spell it backwards.

Differences with Harmonized LASI

This question was not asked in the Harmonized LASI.

DAD Variables Used

```
MMSE113_CORRBACKWARDS_1_   LIST Backwards
MMSE113_CORRBACKWARDS_2_   LIST Backwards
MMSE113_CORRBACKWARDS_3_   LIST Backwards
MMSE113_CORRBACKWARDS_4_   LIST Backwards
MMSE113_CORRBACKWARDS_5_   LIST Backwards
MMSE113_CORRBACKWARDS_6_   LIST Backwards
MMSE113_CORRBACKWARDS_7_   LIST Backwards
```

Object Naming

Wave	Variable	Label	Type
1	R1OBJECT1	r1object1:w1 R naming 1st object correct-watch(0-1)	Categ
1	R1FOBJECT1	r1fobject1:impflag w1 r whether imputed value	Categ
1	R1OBJECT2	r1object2:w1 R naming 2nd object correct-pencil(0-1)	Categ
1	R1FOBJECT2	r1fobject2:impflag w1 r whether imputed value	Categ
1	R1OBJECT	r1object:w1 R total object naming(0-2)	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1OBJECT1	4096	0.98	0.15	0.00	1.00
R1FOBJECT1	4096	0.06	0.45	0.00	4.00
R1OBJECT2	4096	0.84	0.36	0.00	1.00
R1FOBJECT2	4096	0.06	0.45	0.00	4.00
R1OBJECT	4096	1.82	0.42	0.00	2.00

Categorical Variable Codes

```
Value-----------------------------------|   R1OBJECT1
0.Incorrect                             |         99
1.Correct                               |       3997

Value-----------------------------------|   R1FOBJECT1
0.Not imputed                           |       4007
1.Dont know                             |         21
2.Missing                               |          6
3.Not Assessed                          |         29
4.Refused                               |         33

Value-----------------------------------|   R1OBJECT2
0.Incorrect                             |        647
1.Correct                               |       3449

Value-----------------------------------|   R1FOBJECT2
0.Not imputed                           |       4010
1.Dont know                             |         17
2.Missing                               |          6
3.Not Assessed                          |         29
4.Refused                               |         34

Value-----------------------------------|   R1OBJECT
0                                       |         56
1                                       |        634
2                                       |       3406
```

How Constructed

RwOBJECT1 indicates whether the respondent properly identified a watch. For this task, interviewers are instructed to point to their watch (not dial) and ask what the watch is called. RwOBJECT2 indicates whether the respondent properly identified a pencil. For this task, interviewers are instructed to show the respondent their pencil and ask what the pencil is called. Don't know responses are coded as special

missing (.d). Refused responses are assigned special missing code (.r). Other missing is coded as special missing (.m). "Not Assessed" responses are coded as special missing (.n). "Not assessed" is assigned when the test was not administered because of the respondent's physical disability or technical issues.

RwOBJECT indicates the number of correct responses between RwOBJECT1 and RwOBJECT2. RwOBJECT ranges from 0-2. If RwOBJECT1 or RwOBJECT2 is assigned special missing (.d) or (.n), RwOBJECT is coded as special missing (.d) or (.n). Refused responses are assigned special missing code (.r). Other missing is coded as special missing (.m).

RwFOBJECT1 and RwFOBJECT2 are flag variables, indicating whether the corresponding variable was assigned an imputed value. The flag variables are coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, 3.Not Assessed, and 4.Refused. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

No differences known.

Differences with Harmonized LASI

In DAD, the respondent is asked to identify two specific objects (watch and pencil). Unlike DAD, LASI asks the respondent to name two random objects that the interviewer points to.

DAD Variables Used

    MMSE115_PENCIL   PENCIL IDENTIFICATION--CORRECT
    MMSE115_WATCH   WATCH ID--CORRECT

Whether able to repeat a phrase

Wave	Variable	Label	Type
1	R1REPEAT	r1repeat:w1 R able to repeat a phrase(0-1)	Categ
1	R1FREPEAT	r1frepeat:impflag w1 r whether imputed value	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1REPEAT	4096	0.88	0.33	0.00	1.00
R1FREPEAT	4096	0.11	0.59	0.00	4.00

Categorical Variable Codes

```
Value--------------------------------|    R1REPEAT
0.Incorrect                          |         498
1.Correct                            |        3598

Value--------------------------------|    R1FREPEAT
0.Not imputed                        |        3933
1.Dont know                          |          40
2.Missing                            |           6
3.Not Assessed                       |          66
4.Refused                            |          51
```

How Constructed

RwREPEAT indicates whether the respondent is able to repeat a phrase back to the interviewer. This phrase is "Neither this nor that". The respondent is allowed only one attempt to repeat the phrase. The interviewer cannot repeat the phrase if the respondent has already attempted the phrase. If the respondent struggles to hear the phrase, the interviewer can repeat the phrase up to five times. Don't know responses are assigned special missing (.d). Refused responses are assigned special missing code (.r). Other missing is assigned special missing (.m). "Not Assessed" responses are coded as special missing (.n). "Not assessed" is assigned when the test was not administered because of the respondent's physical disability or technical issues.

RwFREPEAT is a flag variable, indicating whether the corresponding variable has an imputed value assigned. The flag variables are coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, 3.Not Assessed, and 4.Refused. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

In DAD, we used the HMSE phrase "Neither this nor that" instead of HRS HCAP's MMSE phrase "No if's, and's, or buts".

Differences with Harmonized LASI

This question was not asked in the Harmonized LASI.

DAD Variables Used

MMSE116_REPEAT   REPEAT

Whether able to Follow Command

Wave	Variable	Label	Type
1	R1COPYFOL	r1copyfol:w1 R able to follow example and close eyes(0-1)	Categ
1	R1FCOPYFOL	r1fcopyfol:impflag w1 r whether imputed value	Categ
1	R1READFOL	r1readfol:w1 R able to read command and close eyes(0-1)	Categ
1	R1FREADFOL	r1freadfol:impflag w1 r whether imputed value	Categ
1	R1COMBFOL	r1combfol:w1 R able to read/follow and close eyes(0-1)	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1COPYFOL	2355	0.82	0.38	0.00	1.00
R1FCOPYFOL	4096	4.73	5.40	0.00	11.00
R1READFOL	1741	0.42	0.49	0.00	1.00
R1FREADFOL	4096	7.96	6.91	0.00	14.00
R1COMBFOL	4096	0.65	0.48	0.00	1.00

Categorical Variable Codes

```
Value----------------------------------|    R1COPYFOL
.s:Skipped                             |         1741
0.Incorrect                            |          421
1.Correct                              |         1934

Value----------------------------------|    R1FCOPYFOL
0.Not imputed                          |         2270
1.Dont know                            |           24
2.Missing                              |            6
4.Refused                              |           60
11.Skipped                             |         1736

Value----------------------------------|    R1READFOL
.l:Cannot read and write               |         2355
0.Incorrect                            |         1003
1.Correct                              |          738

Value----------------------------------|    R1FREADFOL
0.Not imputed                          |         1721
1.Dont know                            |            1
2.Missing                              |           41
3.Not Assessed                         |            8
4.Refused                              |            6
14.Cannot read/write                   |         2319

Value----------------------------------|    R1COMBFOL
0.Incorrect                            |         1424
1.Correct                              |         2672
```

How Constructed

The following variables indicate whether the respondent can follow an instruction. The respondent's ability to follow an instruction was assessed in two ways depending on literacy. The original MMSE asks the respondent to read. For illiterate respondents, the HHSE replaces this task with a copying task.

RwCOPYFOL indicates whether the respondent is able to perform a task that is given to them by gestures. This task is only given to respondents who report that they cannot read and write. If the respondent cannot read and write, the respondent is asked to mimic the interviewer's gesture. The interviewer closes his/her eyes for 3 seconds. If the respondent does not close his/her eyes, a 0 is coded for incorrect. If the respondent closes his/her eyes, a 1 is coded for correct. Special missing (.s) is assigned if this task is skipped because the respondent reported that he/she can read and write. Don't know responses are assigned special missing (.d). Refused responses are assigned special missing code (.r). Other missing is assigned special missing (.m). "Not Assessed" responses are coded as special missing (.n). "Not Assessed" option was marked only if the respondent has some physical disability that prevents him/her from performing the test, e.g. if the respondent is blind.

RwREADFOL indicates whether the respondent is able to perform a task that is given to them through text. This task is only given to respondents who report that they can read and write. If respondents can read and write, they are asked to read the words on a page and do as it says. The page says, "Close your eyes". If the respondents do not close their eyes, a 0 is coded for incorrect. If the respondents close their eyes, a 1 is coded for correct. Special missing (.l) is assigned if this task was skipped because the respondent reported they cannot read and write. Don't know responses are assigned special missing (.d). Refused responses are assigned special missing code (.r). Other missing is assigned special missing (.m). "Not Assessed" responses are coded as special missing (.n). "Not assessed" is assigned when the test was not administered because of the respondent's physical disability or technical issues.

RwCOMBFOL indicates whether the respondent is able to perform a task that is given to them by text or gesture. RwCOMBFOL is derived from RwCOPYFOL and RwREADFOL. If respondents can read and write, they are asked to read the words on a page and do as it says. The page says, "Close your eyes". If the respondents cannot read and write, they are asked asked to mimic the interviewer's gesture. The interviewer closes his/her eyes for 3 seconds. If the respondents do not close their eyes after reading the text or observing the gesture, a 0 is coded for incorrect. If the respondent closed their eyes, a 1 is coded for correct. Don't know responses are assigned special missing (.d). Refused responses are assigned special missing code (.r). Other missing is assigned special missing (.m). "Not Assessed" responses are coded as special missing (.n). "Not assessed" is assigned when the test was not administered because of the respondent's physical disability or technical issues.

RwFCOPYFOL and RwFREADFOL are flag variables, indicating whether the corresponding variable has an assigned imputed value. RwFCOPYFOL is coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, 4.Refused, and 11.Skipped. RwFREADFOL is coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, 3.Not Assessed, 4. Refused, and 14.Cannot read/write. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

In HRS HCAP, respondents were only asked to read and follow the instructions, while DAD first asked the respondent if he/she can read and write and had an alternate test for illiterates to see and copy the actions.

Differences with Harmonized LASI

In the Harmonized LASI, respondents were asked to read a sentence on the paper and act out the action. If the respondents were illiterate, the question was skipped. In the DAD, illiterate respondents were asked to copy the action that the interviewer performed. If respondents could read or write, the question was asked the same way in both studies.

DAD Variables Used

```
MMSE117                    can respondent Read and Write
MMSE117_COPY               COPY
```

MMSE117_READ   READ

Executive Functioning

Wave	Variable	Label	Type
1	R1EXECU	r1execu:w1 R cognition executive function-able to do 3-stage	Categ
1	R1FEXECU	r1fexecu:impflag w1 r whether imputed value	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1EXECU	4096	2.58	0.72	0.00	3.00
R1FEXECU	4096	0.07	0.50	0.00	4.00

Categorical Variable Codes

```
Value--------------------------------|     R1EXECU
0.None                               |          94
1.One of the tasks                   |         268
2.Two of the tasks                   |         922
3.All of the tasks                   |        2812

Value--------------------------------|    R1FEXECU
0.Not imputed                        |        3998
1.Dont know                          |          10
2.Missing                            |           6
3.Not Assessed                       |          43
4.Refused                            |          39
```

How Constructed

RwEXECU counts the number of correct actions the respondent follows regarding folding a piece of paper. The respondent is asked to do the following three actions: (1) take the paper in his/her right hand, (2) fold the paper in half with both hands, and (3) give the paper back to the interviewer. The interviewer can read the instructions only once. The interviewer can repeat the instructions only if the respondent did not hear the instructions.

RwEXECU ranges from 0-3, with 3 indicating that all 3 tasks were completed. Don't know responses are assigned special missing (.d). Refused responses are assigned special missing code (.r). Other missing is assigned special missing (.m). "Not Assessed" responses are assigned special missing (.n). "Not Assessed" option was marked only if the respondent has some physical disability that prevents him/her from performing the test, e.g. if the respondent has hemiplegia.

RwFEXECU is a flag variable, indicating whether the corresponding variable has an imputed value assigned. The flag variable is coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, 3.Not Assessed, and 4.Refused. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

In HRS HCAP, interviewer asked respondents to "take the paper in your right hand, fold the paper in half with both hands, and put the paper down on your lap". In the DAD study, we asked respondents to "take the paper in your right hand, fold the paper in half with both hands" and give the paper back to the interviewer.

Differences with Harmonized LASI

In the Harmonized LASI study, the interviewer asks the respondent to "turn it over, fold it in half, and give it back."

DAD Variables Used

```
MMSE118_BACK            GIVES PAPER BACK
MMSE118_FOLDS           FOLDS PAPER
MMSE118_HAND            HANDEDNESS
```

Writing or Saying Sentence

Wave	Variable	Label	Type
1	R1SAY	r1say:w1 R able to say a sentence(0-1)	Categ
1	R1FSAY	r1fsay:impflag w1 r whether imputed value	Categ
1	R1WRITE	r1write:w1 R able to write a sentence(0-1)	Categ
1	R1FWRITE	r1fwrite:impflag w1 r whether imputed value	Categ
1	R1SENTEN	r1senten:w1 R able to write/say a sentence(0-1)	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1SAY	2355	0.82	0.38	0.00	1.00
R1FSAY	4096	4.72	5.41	0.00	11.00
R1WRITE	1741	0.92	0.26	0.00	1.00
R1FWRITE	4096	7.99	6.88	0.00	14.00
R1SENTEN	4096	0.87	0.34	0.00	1.00

Categorical Variable Codes

```
Value-------------------------------|       R1SAY
.s:Skipped                          |        1741
0.Incorrect                         |         417
1.Correct                           |        1938

Value-------------------------------|       R1FSAY
0.Not imputed                       |        2260
1.Dont know                         |          55
2.Missing                           |           6
4.Refused                           |          39
11.Skipped                          |        1736

Value-------------------------------|       R1WRITE
.l:Cannot read and write            |        2355
0.Incorrect                         |         132
1.Correct                           |        1609

Value-------------------------------|       R1FWRITE
0.Not imputed                       |        1678
1.Dont know                         |          11
2.Missing                           |          41
3.Not Assessed                      |          22
4.Refused                           |          25
14.Cannot read/write                |        2319

Value-------------------------------|       R1SENTEN
0.Incorrect                         |         549
1.Correct                           |        3547
```

How Constructed

RwSAY indicates whether a respondent can tell the interviewer something about his/her house. This is only
asked if the respondent reports that he/she cannot read and write. A coded value of 1 indicates that the

respondent was able to say one full sentence about his/her house. A coded value of 0 indicates that the respondent could not say one full sentence about his/her house. Don't know responses are assigned special missing (.d). Refused responses are assigned special missing (.r). If this task was skipped because the respondent reports being able to read and write, the special missing (.s) is assigned. Other missing is assigned as special missing (.m).

RwWRITE indicates whether the respondent can write a complete sentence on a piece of paper. This is only asked if the respondent reports that he/she can read and write. A coded value of 1 indicates that the respondent was able to write a complete sentence or his/her full name. A coded value of 0 indicates that the respondent could not write a sentence. Don't know responses are assigned special missing (.d). Refused responses are assigned special missing (.r). If this task was skipped because the respondent reported that he/she cannot read and write, special missing (.l) is assigned. Other missing is assigned special missing (.m). "Not Assessed" responses are coded as special missing (.n). "Not assessed" is assigned when the test was not administered because of the respondent's physical disability or technical issues.

RwSENTEN indicates whether a respondent is able to write or say a complete sentence. RwSENTEN uses RwWRITE and RwSAY to determine if either is successfully completed. A coded value of 1 indicates that the respondent was either able to write a complete sentence or his/her full name or was able to say one full sentence about his/her house. A coded value of 0 indicates that the respondent could not write a sentence or could not say one full sentence about his/her house. Don't know responses are assigned special missing (.d). Refused responses are assigned special missing (.r). Other missing is assigned special missing (.m). "Not Assessed" responses are assigned special missing (.n). "Not Assessed" option was marked only if the respondent has some physical disability that prevents him/her from performing the test.

RwFSAY and RwFWRITE are flag variables, indicating whether the corresponding variable has an assigned imputed value. RwFSAY is coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, 4.Refused, and 11.Skipped. RwFWRITE is coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, 3.Not Assessed, 4.Refused, and 14.Cannot read/write. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

HRS HCAP asked respondents to write any complete sentence on a piece of paper whereas DAD incorporates an alternate test for those who are illiterate, namely, to tell interviewers "something about your house" if respondents can't read and write. The outcomes of the test used in DAD is captured by the variable RwSAY.

Differences with Harmonized LASI

In the Harmonized LASI, the respondent was asked to write a sentence about how he/she is feeling today and question was skipped if respondent is illiterate. In DAD, the respondent was asked to write a sentence or his/her full name if the respondent reports that he/she can read and write. If the respondent cannot read or write, he/she was asked to tell the interviewer something about his/her house.

DAD Variables Used

```
    MMSE117                  can respondent Read and Write
    MMSE119_SAY              Respondent says the sentance
    MMSE119_WRITE            WRITE COMPLETE SENTENCE
```

Drawing Pentagon

Wave	Variable	Label	Type
1	R1DRAW	r1draw:w1 R cognition able to draw assign picture(0-1)	Categ
1	R1FDRAW	r1fdraw:impflag w1 r whether imputed value	Categ
1	R1DRAW2	r1draw2:w1 R cognition able to draw assign picture(0-2)	Categ
1	R1FDRAW2	r1fdraw2:impflag w1 r whether imputed value	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1DRAW	4096	0.23	0.42	0.00	1.00
R1FDRAW	4096	0.27	0.93	0.00	8.00
R1DRAW2	4096	0.51	0.84	0.00	2.00
R1FDRAW2	4096	0.27	0.93	0.00	8.00

Categorical Variable Codes

```
Value--------------------------------|        R1DRAW
0.Incorrect                          |         3147
1.Correct                            |          949

Value--------------------------------|        R1FDRAW
0.Not imputed                        |         3723
1.Dont know                          |           18
2.Missing                            |          157
3.Not Assessed                       |           49
4.Refused                            |          141
8.Bad image                          |            8

Value--------------------------------|        R1DRAW2
0                                    |         2963
1                                    |          184
2                                    |          949

Value--------------------------------|        R1FDRAW2
0.Not imputed                        |         3723
1.Dont know                          |           18
2.Missing                            |          157
3.Not Assessed                       |           49
4.Refused                            |          141
8.Bad image                          |            8
```

How Constructed

RwDRAW indicates whether the respondent was able to draw an assigned picture: two overlapping pentagons. The respondent is assigned 1 as correct if the drawing met both requirements: (1) the drawing consists of two five-sided figures that intersect to form a four-sided figure and (2) all angles in the five-sided figures are preserved.

If the respondent's drawing doesn't meet both requirements, a 0 score is assigned. That is, the drawing has two five-sided figures that intersect to form a four-sided figure but not all angles in the five-sided figures are preserved, the respondent did not draw the two five-sided figures that intersect to form a four-sided figure, or the respondent did not draw the figure.

RwDRAW2 indicates a score ranging from 0-2 based on the respondent's ability to draw an assigned picture: two overlapping pentagons. The picture is scored on two features. 2 is coded if the drawing has two five-sided figures that intersect to form a four-sided figure and all angles in the five-sided figure are preserved. 1 is coded if either the drawing has two five-sided figures that intersect to form a four-sided figure or all angles in the five-sided figure are preserved. 0 is coded if the respondent did not draw two five-sided figures that intersect to form a four-sided figure.

Don't know responses are assigned special missing (.d). Refused responses are assigned special missing codes (.r). Cases where the respondent's uploaded images were blurry and not yet scored were assigned special missing (.b). If the figure has not been scored yet, special missing (.z) is assigned. Other missing is assigned special missing (.m). "Not Assessed" responses are assigned special missing (.n). "Not Assessed" option was marked only if the respondent has some physical disability that prevented him/her from performing the test.

RwFDRAW and RwFDRAW2 are flag variables, indicating whether the corresponding variable was assigned an imputed value. The flag variables are coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, 3.Not Assessed, 4.Refused, and 8.Bad image. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

HRS HCAP provides a 1-point detailed score while DAD provides a MMSE-comparable 1-point score and a 2-point detailed score.

Differences with Harmonized LASI

In the Harmonized LASI, the answer yes or no was used to indicate whether the respondent was able to draw an assigned picture. In the DAD, a 2-point detailed score was provided based on the respondent's ability to draw an assigned picture.

DAD Variables Used

MMSE120_DRAW   COPY DRAWING

HMSE Summary Score

```
Wave Variable      Label                                                   Type

 1  R1HMSE_SCORE   r1hmse_score:w1 R HMSE total score (0-30)               Cont

 1  R1LASI_SCORE   r1lasi_score:w1 R LASI comparable HMSE total score (0-16)   Cont
```

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1HMSE_SCORE	4096	22.59	5.52	0.00	30.00
R1LASI_SCORE	4096	11.98	2.85	0.00	16.00

How Constructed

RwHMSE_SCORE sums the total value between RwORIENT_T4, RwORIENT_P4, RwIMRC3, RwBACKWARD5, RwDLRC3, RwOBJECT, RwREPEAT, RwCOMBFOL, Rw3TASK, RwSENTEN, and RwDRAW, with missing values. If any of the variables contain a missing value, RwHMSE_SCORE is missing.

If RwORIENT_T4, RwORIENT_P4, RwIMRC3, RwBACKWARD5, RwDLRC3, RwOBJECT, RwREPEAT, RwCOMBFOL, Rw3TASK, RwSENTEN, and RwDRAW are assigned (.d) or (.n), RwHMSE_SCORE is coded as (.d) or (.n), respectively. Refused responses are assigned special missing codes (.r). Cases in which the respondents' images were blurry and not yet scored were assigned special missing (.b). Other missing is assigned special missing (.m).

RwLASI_SCORE sums the total value between RwORIENT_T4, RwORIENT_P4, RwOBJECT, RwCOMBFOL, Rw3TASK, RwSENTEN, and RwDRAW, with missing values. If any of the variables contain a missing value, RwLASI_SCORE is missing.

If RwORIENT_T4, RwORIENT_P4, RwOBJECT, RwCOMBFOL, Rw3TASK, RwSENTEN, and RwDRAW are assigned (.d) or (.n), RwLASI_SCORE is coded as (.d) or (.n), respectively. Refused responses are assigned special missing codes (.r). Cases in which the respondents' images were blurry and not yet scored were assigned special missing (.b). Other missing is assigned special missing (.m).

For further information on the component variables used in this section, please refer to their respective sections above.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

The HRS HCAP uses the Mini-Mental State Examination (MMSE) and LASI-DAD uses the Hindi Mental State Examination (HMSE). The HMSE score in the DAD is largely similar to the HRS HCAP's MMSE score except that the DAD uses backward day naming instead of the backward spelling task used in the HRS HCAP.

Differences with Harmonized LASI

In the DAD, the summary score counts the total value between RwORIENT_T4 (4 points), RwORIENT_P4 (4 points), RwIMRC3 (3 points), RwDLRC3 (3 points), RwOBJECT (2 points), RwBACKWARD5 (5 points), RwREPEAT (1 point), RwCOMBFOL (1 point), Rw3TASK (3 points), RwSENTEN (1 pooint), and RwDRAW (1 point).

In the Harmonized LASI, the summary score counts the total value between RwORIENT (4 points), RwORIENTP (4 points), RwOBJECT (2 points), RwTASK (1 point), RwACTION (3 points), RwWRITE (1 point), and RwDRAW (1 point).

DAD Variables Used

```
MMSE118_BACK            GIVES PAPER BACK
MMSE118_FOLDS           FOLDS PAPER
MMSE118_HAND            HANDEDNESS
MMSE119_SAY             Respondent says the sentance
MMSE119_WRITE           WRITE COMPLETE SENTENCE
MMSE120_DRAW            COPY DRAWING
```

10-Word List Learning

Wave	Variable	Label	Type
1	R1WORD1	r1word1:w1 R word list learning trial 1(0-10)	Categ
1	R1FWORD1	r1fword1:impflag w1 r whether imputed value	Categ
1	R1WORD2	r1word2:w1 R word list learning trial 2(0-10)	Categ
1	R1FWORD2	r1fword2:impflag w1 r whether imputed value	Categ
1	R1WORD3	r1word3:w1 R word list learning trial 3(0-10)	Categ
1	R1FWORD3	r1fword3:impflag w1 r whether imputed value	Categ
1	R1WORD_TOTAL	r1word_total:w1 R word list learning total(0-30)	Cont
1	R1WORD_D	r1word_d:w1 R word list learning recall(0-10)	Categ
1	R1FWORD_D	r1fword_d:impflag w1 r whether imputed value	Categ
1	R1WORD_INT	r1word_int:w1 R word list any interruption(0-1)	Categ
1	R1WORD_PROB	r1word_prob:w1 R word list had hearing problem(0-1)	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1WORD1	4096	2.73	1.64	0.00	9.00
R1FWORD1	4096	0.09	0.56	0.00	4.00
R1WORD2	4096	4.07	1.96	0.00	10.00
R1FWORD2	4096	0.10	0.60	0.00	4.00
R1WORD3	4096	4.69	2.18	0.00	10.00
R1FWORD3	4096	0.12	0.67	0.00	4.00
R1WORD_TOTAL	4096	11.49	5.11	0.00	28.00
R1WORD_D	4096	3.08	2.32	0.00	10.00
R1FWORD_D	4096	0.11	0.62	0.00	4.00
R1WORD_INT	4035	0.05	0.21	0.00	1.00
R1WORD_PROB	4035	0.05	0.21	0.00	1.00

Categorical Variable Codes

```
Value--------------------------------|    R1WORD1
0                                    |       531
1                                    |       330
2                                    |       892
3                                    |      1070
4                                    |       746
5                                    |       337
```

```
6                                       |           140
7                                       |            36
8                                       |            12
9                                       |             2

Value-------------------------------|   R1FWORD1
0.Not imputed                           |          3992
1.Dont know                             |            17
2.Missing                               |             6
4.Refused                               |            81

Value-------------------------------|   R1WORD2
0                                       |           350
1                                       |           101
2                                       |           289
3                                       |           656
4                                       |           911
5                                       |           868
6                                       |           548
7                                       |           257
8                                       |            92
9                                       |            22
10                                      |             2

Value-------------------------------|   R1FWORD2
0.Not imputed                           |          3983
1.Dont know                             |            15
2.Missing                               |             7
4.Refused                               |            91

Value-------------------------------|   R1WORD3
0                                       |           327
1                                       |            63
2                                       |           168
3                                       |           455
4                                       |           714
5                                       |           916
6                                       |           660
7                                       |           432
8                                       |           249
9                                       |            92
10                                      |            20

Value-------------------------------|   R1FWORD3
0.Not imputed                           |          3959
1.Dont know                             |            14
2.Missing                               |             7
4.Refused                               |           116

Value-------------------------------|   R1WORD_D
0                                       |           961
1                                       |           215
2                                       |           420
3                                       |           676
4                                       |           675
5                                       |           529
6                                       |           322
7                                       |           178
8                                       |            79
9                                       |            35
10                                      |             6

Value-------------------------------|   R1FWORD_D
0.Not imputed                           |          3965
1.Dont know                             |            25
2.Missing                               |             9
4.Refused                               |            97

Value-------------------------------|   R1WORD_INT
.d:DK                                   |             4
.m:Missing                              |            13
```

```
.r:Refuse                               |              44
0.No                                    |            3847
1.Yes                                   |             188

Value--------------------------------| R1WORD_PROB
.d:DK                                   |               4
.m:Missing                              |              13
.r:Refuse                               |              44
0.No                                    |            3851
1.Yes                                   |             184
```

How Constructed

RwWORD1, RwWORD2, RwWORD3 are a set of consecutive tasks asking the respondent to repeat a set of 10 words back to the interviewer. Each task consists of the same words but in a different order each time.

RwWORD1 indicates the total number of correct words recalled in the first task. For this task, the interviewer reads a set of 10 words and asks the respondent to recall as many as he/she can. The interviewer states that the set of words is purposely made long so that it will be difficult for anyone to recall all the words and that most people recall just a few. The interviewer cannot repeat the words. The respondent can repeat back the set of words in any order and is given up to about 2 minutes. Once the respondent understands the task, the interviewer reads the items at a slow, steady rate, allowing the respondent to repeat the word before moving on to the next word on the list. The set of 10 words, in order, is Butter, Arm, Corner, Letter, Queen, Book, Stick, Ticket, Grass, and Stone.

RwWORD2 and RwWORD3 indicate the total number of correct words recalled in the second and third tasks. For the second and third task, the interviewer reads the same list of words as the first task but in a different order. Once the interviewer has read the list of words, the respondent is asked to say aloud the words from the list. The order for the second set of 10 words is: Ticket, Book, Butter, Corner, Stone, Arm, Queen, Letter, Stick, and Grass. The order for the third set of 10 words is: Queen, Grass, Arm, Book, Stick, Corner, Butter, Stone, Ticket, and Letter.

Don't know responses are assigned special missing (.d). Refused responses are assigned special missing (.r). Other missing is assigned special missing (.m).

RwWORD_TOTAL counts the total number of correct words between RwWORD1, RwWORD2, and RwWORD3. RwWORD_TOTAL is coded as don't know (.d) or refused (.r) if all RwWORD1, RwWORD2, and RwWORD3 are coded as don't know, or refused. Other missing is assigned special missing (.m).

RwWORD_D indicates the total number of correct words recalled from a 10-word list after a delay where other survey questions were asked and answered. Respondents were given up to 2 minutes to recall as many of the 10 words they could remember.

RwWORD_INT indicates whether there were any interruptions in the administration of any of the three word lists. A code of 0 indicates that there were no interruptions. A code of 1 indicates that there was an interruption.

RwWORD_PROB indicates whether there were any interruptions in the administration of the word lists due to the respondent having difficulty hearing the words. A code of 0 indicates there were no issues with the respondent hearing the words. A code of 1 indicates there was an issue with the respondent hearing the words.

RwFWORD1, RwFWORD2, RwFWORD3, and RwFWORD_D are flag variables, indicating whether the corresponding variable has an assigned imputed value. The flag variables are coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, and 4.Refused. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

In HRS HCAP, the word list is, "Butter, Arm, Shore, Letter, Queen, Cabin, Pole, Ticket, Grass, Engine".

In the DAD study, we have changed some words that are culturally different for Indian population, so the resulting word list is "Butter, Arm, Corner, Letter, Queen, Book, Stick, Ticket, Grass, Stone".

Differences with Harmonized LASI

In DAD, respondents were asked to perform 3 trials of word recalls. The respondent repeats each word after the Interviewer. Each trial consists of the same words but in a different order each time. In the main LASI, there is only one trial for the word recall and the Respondents don't repeat the words after the Interviewer. The word list used in the main LASI is different from the word lists used in DAD.

DAD Variables Used

```
DR100S1              DELAYED RECALL 1 Butter
DR100S10             DELAYED RECALL 10 Stone
DR100S2              DELAYED RECALL 2 Arm
DR100S3              DELAYED RECALL 3 Corner
DR100S4              DELAYED RECALL 4 Letter
DR100S5              DELAYED RECALL 5 Queen
DR100S6              DELAYED RECALL 6 Book
DR100S7              DELAYED RECALL 7 Stick
DR100S8              DELAYED RECALL 8 Ticket
DR100S9              DELAYED RECALL 9 Grass
WR102AS1             WORD RECALL 1 1 Butter
WR102AS10            WORD RECALL 1 10 Stone
WR102AS2             WORD RECALL 1 2 Arm
WR102AS3             WORD RECALL 1 3 Corner
WR102AS4             WORD RECALL 1 4 Letter
WR102AS5             WORD RECALL 1 5 Queen
WR102AS6             WORD RECALL 1 6 Book
WR102AS7             WORD RECALL 1 7 Stick
WR102AS8             WORD RECALL 1 8 Ticket
WR102AS9             WORD RECALL 1 9 Grass
WR102AS97            WORD RECALL 1 97 No words remembered
WR103AS1             Trial List 2 Recall 1 Butter
WR103AS10            Trial List 2 Recall 10 Stone
WR103AS2             Trial List 2 Recall 2 Arm
WR103AS3             Trial List 2 Recall 3 Corner
WR103AS4             Trial List 2 Recall 4 Letter
WR103AS5             Trial List 2 Recall 5 Queen
WR103AS6             Trial List 2 Recall 6 Book
WR103AS7             Trial List 2 Recall 7 Stick
WR103AS8             Trial List 2 Recall 8 Ticket
WR103AS9             Trial List 2 Recall 9 Grass
WR103AS97            Trial List 2 Recall 97 No words remembered
WR104AS1             Trial List 3 Recall 1 Butter
WR104AS10            Trial List 3 Recall 10 Stone
WR104AS2             Trial List 3 Recall 2 Arm
WR104AS3             Trial List 3 Recall 3 Corner
WR104AS4             Trial List 3 Recall 4 Letter
WR104AS5             Trial List 3 Recall 5 Queen
WR104AS6             Trial List 3 Recall 6 Book
WR104AS7             Trial List 3 Recall 7 Stick
WR104AS8             Trial List 3 Recall 8 Ticket
WR104AS9             Trial List 3 Recall 9 Grass
WR104AS97            Trial List 3 Recall 97 No words remembered
WR105S1              WR ADMINISTRATION ISSUES 1 An interruption oc
WR105S2              WR ADMINISTRATION ISSUES 2 An interruption oc
WR105S3              WR ADMINISTRATION ISSUES 3 An interruption oc
WR105S4              WR ADMINISTRATION ISSUES 4 Respondent had dif
```

Word List Recognition

Wave	Variable	Label	Type
1	R1WRE_ORG	r1wre_org:w1 R word list recognition: original(0-10)	Cont
1	R1FWRE_ORG	r1fwre_org:impflag w1 r whether imputed value	Categ
1	R1WRE_FOIL	r1wre_foil:w1 R word list recognition: foil(0-10)	Cont
1	R1FWRE_FOIL	r1fwre_foil:impflag w1 r whether imputed value	Categ
1	R1WRE_SCORE	r1wre_score:w1 R word List Recognition(0-20)	Cont

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1WRE_ORG	4096	8.15	2.34	0.00	10.00
R1FWRE_ORG	4096	0.17	0.77	0.00	4.00
R1WRE_FOIL	4096	7.85	2.79	0.00	10.00
R1FWRE_FOIL	4096	0.17	0.77	0.00	4.00
R1WRE_SCORE	4096	16.00	3.57	0.00	20.00

Categorical Variable Codes

```
Value-------------------------------| R1FWRE_ORG
0.Not imputed                        |      3873
1.Dont know                          |        58
2.Missing                            |        11
4.Refused                            |       154

Value-------------------------------| R1FWRE_FOIL
0.Not imputed                        |      3874
1.Dont know                          |        59
2.Missing                            |        11
4.Refused                            |       152
```

How Constructed

Respondents are presented with a list of 20 words, half of which were previously presented to the respondent in an earlier part of the interview, and RwWRE_ORG counts the number of words that are correctly identified as repeated words. The repeated words include Butter, Arm, Corner, Letter, Queen, Book, Stick, Ticket, Grass, and Stone. RwWRE_FOIL counts the number of words correctly identified as new words, ones not previously seen in an earlier section of questionnaire. From a list of 20 words, 10 of the words were new words. These words include Temple, Tea, Key, Five, Hotel, Mountain, Slipper, Village, String, and Troops. The interviewer states that some of the words are from the list of words they read to the respondent earlier and some of the words have not been read to them before. As the interviewer reads aloud the list of 20 words, the respondent is asked to say "Yes" after a word if he/she heard it earlier. The respondent is asked to say "No" if a word was not heard earlier.

RwWRE_SCORE is the sum of RwWRE_ORG and RwWRE_FOIL, indicating the total number of correct responses given by the respondent.

Don't know responses are assigned special missing (.d). Refused responses are assigned special missing (.r). Other missing is assigned special missing (.m).

RwFWRE_ORG and RwFWRE_FOIL are flag variables, indicating whether the corresponding variable was assigned
an imputed value. The flag variables are coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, and
4.Refused. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

In the HRS HCAP, the interviewer showed respondents a set of words printed on cards while in DAD, the
interviewer read respondents a list of words. In the HRS HCAP, the words are "Church, Coffee, Dollar,
Arm, Shore, Five, Letter, Hotel, Mountain, Queen, Cabin, Slipper, Pole, Village, String, Ticket, Troops,
Grass, Engine" while in DAD, the words are "Temple, Tea, Key, Arm, Corner, Five, Letter, Hotel, Mountain,
Queen, Book, Book, Slipper, Stick, Village, String, Ticket, Troops, Grass, Stone".

Differences with Harmonized LASI

This question was not asked in the Harmonized LASI.

DAD Variables Used

WRE_100	Temple
WRE_101	Tea
WRE_102	Butter
WRE_103	Key
WRE_104	Arm
WRE_105	Corner
WRE_106	Five
WRE_107	Letter
WRE_108	Hotel
WRE_109	Mountain
WRE_110	Queen
WRE_111	Book
WRE_112	Slipper
WRE_113	Stick
WRE_114	Village
WRE_115	String
WRE_116	Ticket
WRE_117	Troops
WRE_118	Grass
WRE_119	Stone

Logical Memory: Brave Man Story

Wave	Variable	Label	Type
1	R1BM_S1	r1bm_s1:w1 R Brave man immediate: story point 1(0-2)	Categ
1	R1FBM_S1	r1fbm_s1:impflag w1 r whether imputed value	Categ
1	R1BM_S2	r1bm_s2:w1 R Brave man immediate: story point 2(0-2)	Categ
1	R1FBM_S2	r1fbm_s2:impflag w1 r whether imputed value	Categ
1	R1BM_S3	r1bm_s3:w1 R Brave man immediate: story point 3(0-2)	Categ
1	R1FBM_S3	r1fbm_s3:impflag w1 r whether imputed value	Categ
1	R1BM_S4	r1bm_s4:w1 R Brave man immediate: story point 4(0-2)	Categ
1	R1FBM_S4	r1fbm_s4:impflag w1 r whether imputed value	Categ
1	R1BM_S5	r1bm_s5:w1 R Brave man immediate: story point 5(0-2)	Categ
1	R1FBM_S5	r1fbm_s5:impflag w1 r whether imputed value	Categ
1	R1BM_S6	r1bm_s6:w1 R Brave man immediate: story point 6(0-2)	Categ
1	R1FBM_S6	r1fbm_s6:impflag w1 r whether imputed value	Categ
1	R1BM_S7	r1bm_s7:w1 R Brave man immediate: story point 7(0-2)	Categ
1	R1FBM_S7	r1fbm_s7:impflag w1 r whether imputed value	Categ
1	R1BM_S8	r1bm_s8:w1 R Brave man immediate: story point 8(0-2)	Categ
1	R1FBM_S8	r1fbm_s8:impflag w1 r whether imputed value	Categ
1	R1BM_S9	r1bm_s9:w1 R Brave man immediate: story point 9(0-2)	Categ
1	R1FBM_S9	r1fbm_s9:impflag w1 r whether imputed value	Categ
1	R1BM_S10	r1bm_s10:w1 R Brave man immediate: story point 10(0-2)	Categ
1	R1FBM_S10	r1fbm_s10:impflag w1 r whether imputed value	Categ
1	R1BMEX_S1	r1bmex_s1:w1 R Brave man immediate: story point 1(0-1) exact	Categ
1	R1BMEX_S2	r1bmex_s2:w1 R Brave man immediate: story point 2(0-1) exact	Categ
1	R1BMEX_S3	r1bmex_s3:w1 R Brave man immediate: story point 3(0-1) exact	Categ
1	R1BMEX_S4	r1bmex_s4:w1 R Brave man immediate: story point 4(0-1) exact	Categ
1	R1BMEX_S5	r1bmex_s5:w1 R Brave man immediate: story point 5(0-1) exact	Categ
1	R1BMEX_S6	r1bmex_s6:w1 R Brave man immediate: story point 6(0-1) exact	Categ
1	R1BMEX_S7	r1bmex_s7:w1 R Brave man immediate: story point 7(0-1) exact	Categ
1	R1BMEX_S8	r1bmex_s8:w1 R Brave man immediate: story point 8(0-1) exact	Categ
1	R1BMEX_S9	r1bmex_s9:w1 R Brave man immediate: story point 9(0-1) exact	Categ

```
1   R1BMEX_S10     r1bmex_s10:w1 R Brave man immediate: story point 10(0-1) exa   Categ

1   R1BM_RS1       r1bm_rs1:w1 R Brave man recall: story point 1(0-2)             Categ

1   R1FBM_RS1      r1fbm_rs1:impflag w1 r whether imputed value                   Categ

1   R1BM_RS2       r1bm_rs2:w1 R Brave man recall: story point 2(0-2)             Categ

1   R1FBM_RS2      r1fbm_rs2:impflag w1 r whether imputed value                   Categ

1   R1BM_RS3       r1bm_rs3:w1 R Brave man recall: story point 3(0-2)             Categ

1   R1FBM_RS3      r1fbm_rs3:impflag w1 r whether imputed value                   Categ

1   R1BM_RS4       r1bm_rs4:w1 R Brave man recall: story point 4(0-2)             Categ

1   R1FBM_RS4      r1fbm_rs4:impflag w1 r whether imputed value                   Categ

1   R1BM_RS5       r1bm_rs5:w1 R Brave man recall: story point 5(0-2)             Categ

1   R1FBM_RS5      r1fbm_rs5:impflag w1 r whether imputed value                   Categ

1   R1BM_RS6       r1bm_rs6:w1 R Brave man recall: story point 6(0-2)             Categ

1   R1FBM_RS6      r1fbm_rs6:impflag w1 r whether imputed value                   Categ

1   R1BM_RS7       r1bm_rs7:w1 R Brave man recall: story point 7(0-2)             Categ

1   R1FBM_RS7      r1fbm_rs7:impflag w1 r whether imputed value                   Categ

1   R1BM_RS8       r1bm_rs8:w1 R Brave man recall: story point 8(0-2)             Categ

1   R1FBM_RS8      r1fbm_rs8:impflag w1 r whether imputed value                   Categ

1   R1BM_RS9       r1bm_rs9:w1 R Brave man recall: story point 9(0-2)             Categ

1   R1FBM_RS9      r1fbm_rs9:impflag w1 r whether imputed value                   Categ

1   R1BM_RS10      r1bm_rs10:w1 R Brave man recall: story point 10(0-2)           Categ

1   R1FBM_RS10     r1fbm_rs10:impflag w1 r whether imputed value                  Categ

1   R1BMEX_RS1     r1bmex_rs1:w1 R Brave man recall: story point 1(0-1) exact     Categ

1   R1BMEX_RS2     r1bmex_rs2:w1 R Brave man recall: story point 2(0-1) exact     Categ

1   R1BMEX_RS3     r1bmex_rs3:w1 R Brave man recall: story point 3(0-1) exact     Categ

1   R1BMEX_RS4     r1bmex_rs4:w1 R Brave man recall: story point 4(0-1) exact     Categ

1   R1BMEX_RS5     r1bmex_rs5:w1 R Brave man recall: story point 5(0-1) exact     Categ

1   R1BMEX_RS6     r1bmex_rs6:w1 R Brave man recall: story point 6(0-1) exact     Categ

1   R1BMEX_RS7     r1bmex_rs7:w1 R Brave man recall: story point 7(0-1) exact     Categ

1   R1BMEX_RS8     r1bmex_rs8:w1 R Brave man recall: story point 8(0-1) exact     Categ

1   R1BMEX_RS9     r1bmex_rs9:w1 R Brave man recall: story point 9(0-1) exact     Categ

1   R1BMEX_RS10    r1bmex_rs10:w1 R Brave man recall: story point 10(0-1) exact   Categ
```

```
1  R1BM_IMM      r1bm_imm:w1 R Brave man immediate: summary score, HRS compar  Cont

1  R1BM_IMM_D    r1bm_imm_d:w1 R Brave man immediate: summary score 2pts-exac  Cont

1  R1BM_IMMEX    r1bm_immex:w1 R Brave man immediate: summary score exact(0-6  Cont

1  R1BM_RECL     r1bm_recl:w1 R Brave man recall: summary score,HRS comparabl  Cont

1  R1BM_RECL_D   r1bm_recl_d:w1 R Brave man recall: summary score 2pts-exact,  Cont

1  R1BM_RECLEX   r1bm_reclex:w1 R Brave man recall: summary score exact (0-6)  Cont
```

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1BM_S1	4096	1.42	0.82	0.00	2.00
R1FBM_S1	4096	0.20	0.85	0.00	4.00
R1BM_S2	4096	0.66	0.79	0.00	2.00
R1FBM_S2	4096	0.20	0.85	0.00	4.00
R1BM_S3	4096	1.31	0.83	0.00	2.00
R1FBM_S3	4096	0.20	0.85	0.00	4.00
R1BM_S4	4096	0.78	0.76	0.00	2.00
R1FBM_S4	4096	0.20	0.85	0.00	4.00
R1BM_S5	4096	0.44	0.76	0.00	2.00
R1FBM_S5	4096	0.20	0.85	0.00	4.00
R1BM_S6	4096	0.71	0.84	0.00	2.00
R1FBM_S6	4096	0.20	0.85	0.00	4.00
R1BM_S7	4096	0.81	0.81	0.00	2.00
R1FBM_S7	4096	0.20	0.85	0.00	4.00
R1BM_S8	4096	0.55	0.82	0.00	2.00
R1FBM_S8	4096	0.20	0.85	0.00	4.00
R1BM_S9	4096	0.40	0.77	0.00	2.00
R1FBM_S9	4096	0.20	0.85	0.00	4.00
R1BM_S10	4096	0.39	0.72	0.00	2.00
R1FBM_S10	4096	0.20	0.85	0.00	4.00
R1BMEX_S1	4096	0.64	0.48	0.00	1.00
R1BMEX_S2	4096	0.20	0.40	0.00	1.00
R1BMEX_S3	4096	0.54	0.50	0.00	1.00
R1BMEX_S4	4096	0.20	0.40	0.00	1.00

R1BMEX_S5	4096	0.16	0.37	0.00	1.00
R1BMEX_S6	4096	0.25	0.44	0.00	1.00
R1BMEX_S7	4096	0.26	0.44	0.00	1.00
R1BMEX_S8	4096	0.21	0.41	0.00	1.00
R1BMEX_S9	4096	0.18	0.38	0.00	1.00
R1BMEX_S10	4096	0.14	0.35	0.00	1.00
R1BM_RS1	4096	0.80	0.93	0.00	2.00
R1FBM_RS1	4096	0.24	0.92	0.00	4.00
R1BM_RS2	4096	0.36	0.69	0.00	2.00
R1FBM_RS2	4096	0.24	0.92	0.00	4.00
R1BM_RS3	4096	0.75	0.91	0.00	2.00
R1FBM_RS3	4096	0.24	0.92	0.00	4.00
R1BM_RS4	4096	0.44	0.70	0.00	2.00
R1FBM_RS4	4096	0.24	0.92	0.00	4.00
R1BM_RS5	4096	0.22	0.59	0.00	2.00
R1FBM_RS5	4096	0.24	0.92	0.00	4.00
R1BM_RS6	4096	0.39	0.73	0.00	2.00
R1FBM_RS6	4096	0.24	0.92	0.00	4.00
R1BM_RS7	4096	0.46	0.75	0.00	2.00
R1FBM_RS7	4096	0.24	0.92	0.00	4.00
R1BM_RS8	4096	0.29	0.67	0.00	2.00
R1FBM_RS8	4096	0.24	0.92	0.00	4.00
R1BM_RS9	4096	0.19	0.57	0.00	2.00
R1FBM_RS9	4096	0.24	0.92	0.00	4.00
R1BM_RS10	4096	0.21	0.57	0.00	2.00
R1FBM_RS10	4096	0.24	0.92	0.00	4.00
R1BMEX_RS1	4096	0.36	0.48	0.00	1.00
R1BMEX_RS2	4096	0.13	0.33	0.00	1.00
R1BMEX_RS3	4096	0.32	0.47	0.00	1.00
R1BMEX_RS4	4096	0.13	0.33	0.00	1.00
R1BMEX_RS5	4096	0.09	0.28	0.00	1.00

R1BMEX_RS6	4096	0.15	0.35	0.00	1.00
R1BMEX_RS7	4096	0.16	0.36	0.00	1.00
R1BMEX_RS8	4096	0.12	0.32	0.00	1.00
R1BMEX_RS9	4096	0.09	0.28	0.00	1.00
R1BMEX_RS10	4096	0.08	0.27	0.00	1.00
R1BM_IMM	4096	5.30	3.09	0.00	12.00
R1BM_IMM_D	4096	7.46	4.66	0.00	20.00
R1BM_IMMEX	4096	2.08	1.62	0.00	6.00
R1BM_RECL	4096	2.95	3.47	0.00	12.00
R1BM_RECL_D	4096	4.12	5.05	0.00	20.00
R1BM_RECLEX	4096	1.19	1.61	0.00	6.00

Categorical Variable Codes

```
Value-----------------------------------|    R1BM_S1
0.Not correct, not mentioned            |      886
1.Approximate answer                    |      603
2.Exact answer                          |     2607

Value-----------------------------------|    R1FBM_S1
0.Not imputed                           |     3852
1.Dont know                             |       29
2.Missing                               |       27
4.Refused                               |      188

Value-----------------------------------|    R1BM_S2
0.Not correct, not mentioned            |     2215
1.Approximate answer                    |     1068
2.Exact answer                          |      813

Value-----------------------------------|    R1FBM_S2
0.Not imputed                           |     3852
1.Dont know                             |       29
2.Missing                               |       27
4.Refused                               |      188

Value-----------------------------------|    R1BM_S3
0.Not correct, not mentioned            |      974
1.Approximate answer                    |      894
2.Exact answer                          |     2228

Value-----------------------------------|    R1FBM_S3
0.Not imputed                           |     3852
1.Dont know                             |       29
2.Missing                               |       27
4.Refused                               |      188

Value-----------------------------------|    R1BM_S4
0.Not correct, not mentioned            |     1732
1.Approximate answer                    |     1539
2.Exact answer                          |      825

Value-----------------------------------|    R1FBM_S4
0.Not imputed                           |     3852
1.Dont know                             |       29
2.Missing                               |       27
4.Refused                               |      188
```

```
Value--------------------------------|     R1BM_S5
0.Not correct, not mentioned        |         2966
1.Approximate answer                |          457
2.Exact answer                      |          673


Value--------------------------------|     R1FBM_S5
0.Not imputed                       |         3852
1.Dont know                         |           29
2.Missing                           |           27
4.Refused                           |          188


Value--------------------------------|     R1BM_S6
0.Not correct, not mentioned        |         2233
1.Approximate answer                |          825
2.Exact answer                      |         1038


Value--------------------------------|     R1FBM_S6
0.Not imputed                       |         3852
1.Dont know                         |           29
2.Missing                           |           27
4.Refused                           |          188


Value--------------------------------|     R1BM_S7
0.Not correct, not mentioned        |         1809
1.Approximate answer                |         1239
2.Exact answer                      |         1048


Value--------------------------------|     R1FBM_S7
0.Not imputed                       |         3852
1.Dont know                         |           29
2.Missing                           |           27
4.Refused                           |          188


Value--------------------------------|     R1BM_S8
0.Not correct, not mentioned        |         2712
1.Approximate answer                |          509
2.Exact answer                      |          875


Value--------------------------------|     R1FBM_S8
0.Not imputed                       |         3852
1.Dont know                         |           29
2.Missing                           |           27
4.Refused                           |          188


Value--------------------------------|     R1BM_S9
0.Not correct, not mentioned        |         3206
1.Approximate answer                |          157
2.Exact answer                      |          733


Value--------------------------------|     R1FBM_S9
0.Not imputed                       |         3852
1.Dont know                         |           29
2.Missing                           |           27
4.Refused                           |          188


Value--------------------------------|     R1BM_S10
0.Not correct, not mentioned        |         3085
1.Approximate answer                |          427
2.Exact answer                      |          584


Value--------------------------------|     R1FBM_S10
0.Not imputed                       |         3852
1.Dont know                         |           29
2.Missing                           |           27
4.Refused                           |          188


Value--------------------------------|     R1BMEX_S1
0.Not correct/Not exact answers     |         1489
1.Exact answer                      |         2607
```

```
Value-------------------------------|     R1BMEX_S2
0.Not correct/Not exact answers    |          3283
1.Exact answer                     |           813

Value-------------------------------|     R1BMEX_S3
0.Not correct/Not exact answers    |          1868
1.Exact answer                     |          2228

Value-------------------------------|     R1BMEX_S4
0.Not correct/Not exact answers    |          3271
1.Exact answer                     |           825

Value-------------------------------|     R1BMEX_S5
0.Not correct/Not exact answers    |          3423
1.Exact answer                     |           673

Value-------------------------------|     R1BMEX_S6
0.Not correct/Not exact answers    |          3058
1.Exact answer                     |          1038

Value-------------------------------|     R1BMEX_S7
0.Not correct/Not exact answers    |          3048
1.Exact answer                     |          1048

Value-------------------------------|     R1BMEX_S8
0.Not correct/Not exact answers    |          3221
1.Exact answer                     |           875

Value-------------------------------|     R1BMEX_S9
0.Not correct/Not exact answers    |          3363
1.Exact answer                     |           733

Value-------------------------------|     R1BMEX_S10
0.Not correct/Not exact answers    |          3512
1.Exact answer                     |           584

Value-------------------------------|     R1BM_RS1
0.Not correct, not mentioned       |          2275
1.Approximate answer               |           358
2.Exact answer                     |          1463

Value-------------------------------|     R1FBM_RS1
0.Not imputed                      |          3790
1.Dont know                        |            68
2.Missing                          |            11
4.Refused                          |           227

Value-------------------------------|     R1BM_RS2
0.Not correct, not mentioned       |          3125
1.Approximate answer               |           456
2.Exact answer                     |           515

Value-------------------------------|     R1FBM_RS2
0.Not imputed                      |          3790
1.Dont know                        |            68
2.Missing                          |            11
4.Refused                          |           227

Value-------------------------------|     R1BM_RS3
0.Not correct, not mentioned       |          2343
1.Approximate answer               |           445
2.Exact answer                     |          1308

Value-------------------------------|     R1FBM_RS3
0.Not imputed                      |          3790
1.Dont know                        |            68
2.Missing                          |            11
4.Refused                          |           227

Value-------------------------------|     R1BM_RS4
0.Not correct, not mentioned       |          2817
```

```
1.Approximate answer                         |          766
2.Exact answer                               |          513

Value-------------------------------|        R1FBM_RS4
0.Not imputed                                |         3790
1.Dont know                                  |           68
2.Missing                                    |           11
4.Refused                                    |          227

Value-------------------------------|        R1BM_RS5
0.Not correct, not mentioned                 |         3546
1.Approximate answer                         |          198
2.Exact answer                               |          352

Value-------------------------------|        R1FBM_RS5
0.Not imputed                                |         3790
1.Dont know                                  |           68
2.Missing                                    |           11
4.Refused                                    |          227

Value-------------------------------|        R1BM_RS6
0.Not correct, not mentioned                 |         3108
1.Approximate answer                         |          385
2.Exact answer                               |          603

Value-------------------------------|        R1FBM_RS6
0.Not imputed                                |         3790
1.Dont know                                  |           68
2.Missing                                    |           11
4.Refused                                    |          227

Value-------------------------------|        R1BM_RS7
0.Not correct, not mentioned                 |         2838
1.Approximate answer                         |          617
2.Exact answer                               |          641

Value-------------------------------|        R1FBM_RS7
0.Not imputed                                |         3790
1.Dont know                                  |           68
2.Missing                                    |           11
4.Refused                                    |          227

Value-------------------------------|        R1BM_RS8
0.Not correct, not mentioned                 |         3376
1.Approximate answer                         |          236
2.Exact answer                               |          484

Value-------------------------------|        R1FBM_RS8
0.Not imputed                                |         3790
1.Dont know                                  |           68
2.Missing                                    |           11
4.Refused                                    |          227

Value-------------------------------|        R1BM_RS9
0.Not correct, not mentioned                 |         3661
1.Approximate answer                         |           83
2.Exact answer                               |          352

Value-------------------------------|        R1FBM_RS9
0.Not imputed                                |         3790
1.Dont know                                  |           68
2.Missing                                    |           11
4.Refused                                    |          227

Value-------------------------------|        R1BM_RS10
0.Not correct, not mentioned                 |         3571
1.Approximate answer                         |          200
2.Exact answer                               |          325

Value-------------------------------|        R1FBM_RS10
0.Not imputed                                |         3790
```

```
1.Dont know                              |              68
2.Missing                                |              11
4.Refused                                |             227

Value-------------------------------| R1BMEX_RS1
0.Not correct/Not exact answers          |            2633
1.Exact answer                           |            1463

Value-------------------------------| R1BMEX_RS2
0.Not correct/Not exact answers          |            3581
1.Exact answer                           |             515

Value-------------------------------| R1BMEX_RS3
0.Not correct/Not exact answers          |            2788
1.Exact answer                           |            1308

Value-------------------------------| R1BMEX_RS4
0.Not correct/Not exact answers          |            3583
1.Exact answer                           |             513

Value-------------------------------| R1BMEX_RS5
0.Not correct/Not exact answers          |            3744
1.Exact answer                           |             352

Value-------------------------------| R1BMEX_RS6
0.Not correct/Not exact answers          |            3493
1.Exact answer                           |             603

Value-------------------------------| R1BMEX_RS7
0.Not correct/Not exact answers          |            3455
1.Exact answer                           |             641

Value-------------------------------| R1BMEX_RS8
0.Not correct/Not exact answers          |            3612
1.Exact answer                           |             484

Value-------------------------------| R1BMEX_RS9
0.Not correct/Not exact answers          |            3744
1.Exact answer                           |             352

Value-------------------------------| R1BMEX_RS10
0.Not correct/Not exact answers          |            3771
1.Exact answer                           |             325
```

How Constructed

In this section, respondents were tested on their immediate and delayed recollection of a brave man story that was read aloud to them.

RwBM_S1 - RwBM_S10 indicate how well respondents remembered the story's points immediately after it was read to them. They are coded as follows: 0.Not correct, not mentioned, 1.Approximate answer, and 2.Exact answer.

RwBMEX_S1 - RwBMEX_S10 indicate how well respondents remembered the exact story points immediately after it was read to them. One point was given if respondents recalled the exact story point and no points were given if respondents either did not remember the story point or could only recall the general gist of the story point.

RwBM_IMM, RwBM_IMM_D, and RwBM_IMMEX are summary scores for the respondents' immediate recollection of the brave man story. RwBM_IMM is the summary score based on the 6-point system that the HRS HCAP uses, with the summary scores ranging from 0 to 12. RwBM_IMM_D follows the 10-point score used in LASI-DAD and is calculated as the total score of RwBM_S1 - RwBM_S10, with scores ranging from 0 to 20. RwBM_IMMEX is the summary score of exact story point responses and is based upon the total score of RwBMEX_S1 - RwBMEX_S10, after converting to the 6-point score used in the HRS HCAP. RwBM_IMMEX has scores ranging from 0 to 6.

RwBM_RS1 - RwBM_RS10 indicate how well respondents remembered the story points after some time had passed and they had answered some unrelated interview questions. They are coded as follows: 0.Not correct, not mentioned, 1.Approximate answer, and 2.Exact answer.

RwBMEX_RS1 - RwBMEX_RS10 indicate how well respondents remembered the exact story points after a delay where the respondent was asked other survey questions. One point was given if respondents recalled the exact story point and no points were given if respondents either did not remember the story point or could only recall the general gist of the story point.

RwBM_RECL, RwBM_RECL_D, and RwBM_RECLEX are summary scores for the respondents' delayed recollection of the brave man story. RwBM_RECL is the summary score based on the 6-point system that the HRS HCAP uses, with the summary scores ranging from 0 to 12. RwBM_RECL_D is calculated as the total score of RwBM_RS1 - RwBM_RS10, with scores ranging from 0 to 20. RwBM_RECLEX is the summary score of exact story point responses and is based upon the total score of RwBMEX_RS1 - RwBMEX_RS10, after converting to the 6-point score used in the HRS HCAP. RwBM_RECLEX has scores ranging from 0 to 6.

Don't know responses are assigned special missing (.d). Refused responses are assigned special missing code (.r). Other missing is assigned special missing code (.m).

RwFBM_S1 - RwFBM_S10 and RwFBM_RS1 - RwFBM_RS10 are flag variables, indicating whether the corresponding variable has an assigned imputed value. The flag variables are coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, and 4.Refused. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

Both HRS HCAP and LASI-DAD used the same story. However, HRS HCAP uses a 6-point scale while LASI-DAD uses a 10-point scale. To facilitate comparison across studies, the LASI-DAD's 10-point scores have also been converted to the 6-point scores used in the HRS HCAP. Both HRS HCAP and DAD give scores for exact words and approximate answers.

Differences with Harmonized LASI

This question was not asked in Harmonized LASI.

DAD Variables Used

```
BM_1S1                 BM1 - Recall of Story Points 1 Three children
BM_1S10                BM1 - Recall of Story Points 10 all were well
BM_1S101               BM1 - Recall of Story Points 101 Three childr
BM_1S103               BM1 - Recall of Story Points 103 House caught
BM_1S104               BM1 - Recall of Story Points 104 Brave man
BM_1S105               BM1 - Recall of Story Points 105 Climbed
BM_1S106               BM1 - Recall of Story Points 106 back window
BM_1S107               BM1 - Recall of Story Points 107 carry to saf
BM_1S108               BM1 - Recall of Story Points 108 Minor cuts
BM_1S109               BM1 - Recall of Story Points 109 bruises
BM_1S110               BM1 - Recall of Story Points 110 all were wel
BM_1S3                 BM1 - Recall of Story Points 3 House caught o
BM_1S4                 BM1 - Recall of Story Points 4 Brave man
BM_1S5                 BM1 - Recall of Story Points 5 Climbed
BM_1S6                 BM1 - Recall of Story Points 6 back window
BM_1S7                 BM1 - Recall of Story Points 7 carry to safet
BM_1S8                 BM1 - Recall of Story Points 8 Minor cuts
BM_1S9                 BM1 - Recall of Story Points 9 bruises
LM2B_1B_S1             Recall of Story 1 Points 1 Three children
LM2B_1B_S10            Recall of Story 1 Points 10 all were well
LM2B_1B_S101           Recall of Story 1 Points 101 Three children
LM2B_1B_S103           Recall of Story 1 Points 103 House caught on
```

```
LM2B_1B_S104          Recall of Story 1 Points 104 Brave man
LM2B_1B_S105          Recall of Story 1 Points 105 Climbed
LM2B_1B_S106          Recall of Story 1 Points 106 back window
LM2B_1B_S107          Recall of Story 1 Points 107 carry to safety
LM2B_1B_S108          Recall of Story 1 Points 108 Minor cuts
LM2B_1B_S109          Recall of Story 1 Points 109 bruises
LM2B_1B_S110          Recall of Story 1 Points 110 all were well
LM2B_1B_S3            Recall of Story 1 Points 3 House caught on fi
LM2B_1B_S4            Recall of Story 1 Points 4 Brave man
LM2B_1B_S5            Recall of Story 1 Points 5 Climbed
LM2B_1B_S6            Recall of Story 1 Points 6 back window
LM2B_1B_S7            Recall of Story 1 Points 7 carry to safety
LM2B_1B_S8            Recall of Story 1 Points 8 Minor cuts
LM2B_1B_S9            Recall of Story 1 Points 9 bruises
```

	Logical Memory: Robbery Story

Wave	Variable	Label	Type
1	R1LMB_S1	r1lmb_s1:w1 R Robbery story immediate: story point 1(0-2)	Categ
1	R1FLMB_S1	r1flmb_s1:impflag w1 r whether imputed value	Categ
1	R1LMB_S2	r1lmb_s2:w1 R Robbery story immediate: story point 2(0-2)	Categ
1	R1FLMB_S2	r1flmb_s2:impflag w1 r whether imputed value	Categ
1	R1LMB_S3	r1lmb_s3:w1 R Robbery story immediate: story point 3(0-2)	Categ
1	R1FLMB_S3	r1flmb_s3:impflag w1 r whether imputed value	Categ
1	R1LMB_S4	r1lmb_s4:w1 R Robbery story immediate: story point 4(0-2)	Categ
1	R1FLMB_S4	r1flmb_s4:impflag w1 r whether imputed value	Categ
1	R1LMB_S5	r1lmb_s5:w1 R Robbery story immediate: story point 5(0-2)	Categ
1	R1FLMB_S5	r1flmb_s5:impflag w1 r whether imputed value	Categ
1	R1LMB_S6	r1lmb_s6:w1 R Robbery story immediate: story point 6(0-2)	Categ
1	R1FLMB_S6	r1flmb_s6:impflag w1 r whether imputed value	Categ
1	R1LMB_S7	r1lmb_s7:w1 R Robbery story immediate: story point 7(0-2)	Categ
1	R1FLMB_S7	r1flmb_s7:impflag w1 r whether imputed value	Categ
1	R1LMB_S8	r1lmb_s8:w1 R Robbery story immediate: story point 8(0-2)	Categ
1	R1FLMB_S8	r1flmb_s8:impflag w1 r whether imputed value	Categ
1	R1LMB_S9	r1lmb_s9:w1 R Robbery story immediate: story point 9(0-2)	Categ
1	R1FLMB_S9	r1flmb_s9:impflag w1 r whether imputed value	Categ
1	R1LMB_S10	r1lmb_s10:w1 R Robbery story immediate: story point 10(0-2)	Categ
1	R1FLMB_S10	r1flmb_s10:impflag w1 r whether imputed value	Categ
1	R1LMB_S11	r1lmb_s11:w1 R Robbery story immediate: story point 11(0-2)	Categ
1	R1FLMB_S11	r1flmb_s11:impflag w1 r whether imputed value	Categ
1	R1LMB_S12	r1lmb_s12:w1 R Robbery story immediate: story point 12(0-2)	Categ
1	R1FLMB_S12	r1flmb_s12:impflag w1 r whether imputed value	Categ
1	R1LMB_S13	r1lmb_s13:w1 R Robbery story immediate: story point 13(0-2)	Categ
1	R1FLMB_S13	r1flmb_s13:impflag w1 r whether imputed value	Categ
1	R1LMB_S14	r1lmb_s14:w1 R Robbery story immediate: story point 14(0-2)	Categ
1	R1FLMB_S14	r1flmb_s14:impflag w1 r whether imputed value	Categ
1	R1LMB_S15	r1lmb_s15:w1 R Robbery story immediate: story point 15(0-2)	Categ

```
1  R1FLMB_S15    r1flmb_s15:impflag w1 r whether imputed value              Categ

1  R1LMB_S16     r1lmb_s16:w1 R Robbery story immediate: story point 16(0-2)  Categ

1  R1FLMB_S16    r1flmb_s16:impflag w1 r whether imputed value              Categ

1  R1LMB_S17     r1lmb_s17:w1 R Robbery story immediate: story point 17(0-2)  Categ

1  R1FLMB_S17    r1flmb_s17:impflag w1 r whether imputed value              Categ

1  R1LMB_S18     r1lmb_s18:w1 R Robbery story immediate: story point 18(0-2)  Categ

1  R1FLMB_S18    r1flmb_s18:impflag w1 r whether imputed value              Categ

1  R1LMB_S19     r1lmb_s19:w1 R Robbery story immediate: story point 19(0-2)  Categ

1  R1FLMB_S19    r1flmb_s19:impflag w1 r whether imputed value              Categ

1  R1LMB_S20     r1lmb_s20:w1 R Robbery story immediate: story point 20(0-2)  Categ

1  R1FLMB_S20    r1flmb_s20:impflag w1 r whether imputed value              Categ

1  R1LMB_S21     r1lmb_s21:w1 R Robbery story immediate: story point 21(0-2)  Categ

1  R1FLMB_S21    r1flmb_s21:impflag w1 r whether imputed value              Categ

1  R1LMB_S22     r1lmb_s22:w1 R Robbery story immediate: story point 22(0-2)  Categ

1  R1FLMB_S22    r1flmb_s22:impflag w1 r whether imputed value              Categ

1  R1LMB_S23     r1lmb_s23:w1 R Robbery story immediate: story point 23(0-2)  Categ

1  R1FLMB_S23    r1flmb_s23:impflag w1 r whether imputed value              Categ

1  R1LMB_S24     r1lmb_s24:w1 R Robbery story immediate: story point 24(0-2)  Categ

1  R1FLMB_S24    r1flmb_s24:impflag w1 r whether imputed value              Categ

1  R1LMB_S25     r1lmb_s25:w1 R Robbery story immediate: story point 25(0-2)  Categ

1  R1FLMB_S25    r1flmb_s25:impflag w1 r whether imputed value              Categ

1  R1LMB_RS1     r1lmb_rs1:w1 R Robbery story recall: story point 1(0-2)     Categ

1  R1FLMB_RS1    r1flmb_rs1:impflag w1 r whether imputed value              Categ

1  R1LMB_RS2     r1lmb_rs2:w1 R Robbery story recall: story point 2(0-2)     Categ

1  R1FLMB_RS2    r1flmb_rs2:impflag w1 r whether imputed value              Categ

1  R1LMB_RS3     r1lmb_rs3:w1 R Robbery story recall: story point 3(0-2)     Categ

1  R1FLMB_RS3    r1flmb_rs3:impflag w1 r whether imputed value              Categ

1  R1LMB_RS4     r1lmb_rs4:w1 R Robbery story recall: story point 4(0-2)     Categ

1  R1FLMB_RS4    r1flmb_rs4:impflag w1 r whether imputed value              Categ

1  R1LMB_RS5     r1lmb_rs5:w1 R Robbery story recall: story point 5(0-2)     Categ

1  R1FLMB_RS5    r1flmb_rs5:impflag w1 r whether imputed value              Categ
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```
1   R1LMB_RS6      r1lmb_rs6:w1 R Robbery story recall: story point 6(0-2)        Categ

1   R1FLMB_RS6     r1flmb_rs6:impflag w1 r whether imputed value                  Categ

1   R1LMB_RS7      r1lmb_rs7:w1 R Robbery story recall: story point 7(0-2)        Categ

1   R1FLMB_RS7     r1flmb_rs7:impflag w1 r whether imputed value                  Categ

1   R1LMB_RS8      r1lmb_rs8:w1 R Robbery story recall: story point 8(0-2)        Categ

1   R1FLMB_RS8     r1flmb_rs8:impflag w1 r whether imputed value                  Categ

1   R1LMB_RS9      r1lmb_rs9:w1 R Robbery story recall: story point 9(0-2)        Categ

1   R1FLMB_RS9     r1flmb_rs9:impflag w1 r whether imputed value                  Categ

1   R1LMB_RS10     r1lmb_rs10:w1 R Robbery story recall: story point 10(0-2)      Categ

1   R1FLMB_RS10    r1flmb_rs10:impflag w1 r whether imputed value                 Categ

1   R1LMB_RS11     r1lmb_rs11:w1 R Robbery story recall: story point 11(0-2)      Categ

1   R1FLMB_RS11    r1flmb_rs11:impflag w1 r whether imputed value                 Categ

1   R1LMB_RS12     r1lmb_rs12:w1 R Robbery story recall: story point 12(0-2)      Categ

1   R1FLMB_RS12    r1flmb_rs12:impflag w1 r whether imputed value                 Categ

1   R1LMB_RS13     r1lmb_rs13:w1 R Robbery story recall: story point 13(0-2)      Categ

1   R1FLMB_RS13    r1flmb_rs13:impflag w1 r whether imputed value                 Categ

1   R1LMB_RS14     r1lmb_rs14:w1 R Robbery story recall: story point 14(0-2)      Categ

1   R1FLMB_RS14    r1flmb_rs14:impflag w1 r whether imputed value                 Categ

1   R1LMB_RS15     r1lmb_rs15:w1 R Robbery story recall: story point 15(0-2)      Categ

1   R1FLMB_RS15    r1flmb_rs15:impflag w1 r whether imputed value                 Categ

1   R1LMB_RS16     r1lmb_rs16:w1 R Robbery story recall: story point 16(0-2)      Categ

1   R1FLMB_RS16    r1flmb_rs16:impflag w1 r whether imputed value                 Categ

1   R1LMB_RS17     r1lmb_rs17:w1 R Robbery story recall: story point 17(0-2)      Categ

1   R1FLMB_RS17    r1flmb_rs17:impflag w1 r whether imputed value                 Categ

1   R1LMB_RS18     r1lmb_rs18:w1 R Robbery story recall: story point 18(0-2)      Categ

1   R1FLMB_RS18    r1flmb_rs18:impflag w1 r whether imputed value                 Categ

1   R1LMB_RS19     r1lmb_rs19:w1 R Robbery story recall: story point 19(0-2)      Categ

1   R1FLMB_RS19    r1flmb_rs19:impflag w1 r whether imputed value                 Categ

1   R1LMB_RS20     r1lmb_rs20:w1 R Robbery story recall: story point 20(0-2)      Categ

1   R1FLMB_RS20    r1flmb_rs20:impflag w1 r whether imputed value                 Categ

1   R1LMB_RS21     r1lmb_rs21:w1 R Robbery story recall: story point 21(0-2)      Categ

1   R1FLMB_RS21    r1flmb_rs21:impflag w1 r whether imputed value                 Categ
```

```
1  R1LMB_RS22    r1lmb_rs22:w1 R Robbery story recall: story point 22(0-2)    Categ

1  R1FLMB_RS22   r1flmb_rs22:impflag w1 r whether imputed value               Categ

1  R1LMB_RS23    r1lmb_rs23:w1 R Robbery story recall: story point 23(0-2)    Categ

1  R1FLMB_RS23   r1flmb_rs23:impflag w1 r whether imputed value               Categ

1  R1LMB_RS24    r1lmb_rs24:w1 R Robbery story recall: story point 24(0-2)    Categ

1  R1FLMB_RS24   r1flmb_rs24:impflag w1 r whether imputed value               Categ

1  R1LMB_RS25    r1lmb_rs25:w1 R Robbery story recall: story point 25(0-2)    Categ

1  R1FLMB_RS25   r1flmb_rs25:impflag w1 r whether imputed value               Categ

1  R1LMB_IMM     r1lmb_imm:w1 R Robbery story immediate:summaryscore,exact wo Cont

1  R1LMB_IMM_D   r1lmb_imm_d:w1 R Robbery story immediate:summary score,with  Cont

1  R1LMB_RECL    r1lmb_recl:w1 R Robbery story recall: summary score,exact wo Cont

1  R1LMB_RECL_D  r1lmb_recl_d:w1 R Robbery story recall: summary score,with g Cont
```

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1LMB_S1	4096	0.42	0.77	0.00	2.00
R1FLMB_S1	4096	0.19	0.71	0.00	4.00
R1LMB_S2	4096	0.54	0.86	0.00	2.00
R1FLMB_S2	4096	0.19	0.71	0.00	4.00
R1LMB_S3	4096	0.27	0.68	0.00	2.00
R1FLMB_S3	4096	0.19	0.71	0.00	4.00
R1LMB_S4	4096	0.59	0.90	0.00	2.00
R1FLMB_S4	4096	0.19	0.71	0.00	4.00
R1LMB_S5	4096	0.34	0.71	0.00	2.00
R1FLMB_S5	4096	0.19	0.71	0.00	4.00
R1LMB_S6	4096	0.40	0.77	0.00	2.00
R1FLMB_S6	4096	0.19	0.71	0.00	4.00
R1LMB_S7	4096	0.21	0.60	0.00	2.00
R1FLMB_S7	4096	0.19	0.71	0.00	4.00
R1LMB_S8	4096	0.18	0.56	0.00	2.00
R1FLMB_S8	4096	0.19	0.71	0.00	4.00
R1LMB_S9	4096	0.34	0.73	0.00	2.00

R1FLMB_S9	4096	0.19	0.71	0.00	4.00
R1LMB_S10	4096	0.53	0.87	0.00	2.00
R1FLMB_S10	4096	0.19	0.71	0.00	4.00
R1LMB_S11	4096	0.32	0.73	0.00	2.00
R1FLMB_S11	4096	0.19	0.71	0.00	4.00
R1LMB_S12	4096	0.07	0.33	0.00	2.00
R1FLMB_S12	4096	0.19	0.71	0.00	4.00
R1LMB_S13	4096	0.10	0.39	0.00	2.00
R1FLMB_S13	4096	0.19	0.71	0.00	4.00
R1LMB_S14	4096	0.03	0.22	0.00	2.00
R1FLMB_S14	4096	0.19	0.71	0.00	4.00
R1LMB_S15	4096	0.53	0.83	0.00	2.00
R1FLMB_S15	4096	0.19	0.71	0.00	4.00
R1LMB_S16	4096	0.50	0.81	0.00	2.00
R1FLMB_S16	4096	0.19	0.71	0.00	4.00
R1LMB_S17	4096	0.43	0.77	0.00	2.00
R1FLMB_S17	4096	0.19	0.71	0.00	4.00
R1LMB_S18	4096	0.58	0.84	0.00	2.00
R1FLMB_S18	4096	0.19	0.71	0.00	4.00
R1LMB_S19	4096	0.14	0.48	0.00	2.00
R1FLMB_S19	4096	0.19	0.71	0.00	4.00
R1LMB_S20	4096	0.27	0.63	0.00	2.00
R1FLMB_S20	4096	0.19	0.71	0.00	4.00
R1LMB_S21	4096	0.09	0.40	0.00	2.00
R1FLMB_S21	4096	0.19	0.71	0.00	4.00
R1LMB_S22	4096	0.67	0.94	0.00	2.00
R1FLMB_S22	4096	0.19	0.71	0.00	4.00
R1LMB_S23	4096	0.33	0.71	0.00	2.00
R1FLMB_S23	4096	0.19	0.71	0.00	4.00
R1LMB_S24	4096	0.59	0.86	0.00	2.00
R1FLMB_S24	4096	0.19	0.71	0.00	4.00
R1LMB_S25	4096	0.34	0.73	0.00	2.00

R1FLMB_S25	4096	0.19	0.71	0.00	4.00
R1LMB_RS1	4096	0.30	0.69	0.00	2.00
R1FLMB_RS1	4096	0.38	1.12	0.00	4.00
R1LMB_RS2	4096	0.34	0.74	0.00	2.00
R1FLMB_RS2	4096	0.38	1.12	0.00	4.00
R1LMB_RS3	4096	0.17	0.55	0.00	2.00
R1FLMB_RS3	4096	0.38	1.12	0.00	4.00
R1LMB_RS4	4096	0.41	0.80	0.00	2.00
R1FLMB_RS4	4096	0.38	1.12	0.00	4.00
R1LMB_RS5	4096	0.24	0.62	0.00	2.00
R1FLMB_RS5	4096	0.38	1.12	0.00	4.00
R1LMB_RS6	4096	0.27	0.67	0.00	2.00
R1FLMB_RS6	4096	0.38	1.12	0.00	4.00
R1LMB_RS7	4096	0.14	0.49	0.00	2.00
R1FLMB_RS7	4096	0.38	1.12	0.00	4.00
R1LMB_RS8	4096	0.15	0.51	0.00	2.00
R1FLMB_RS8	4096	0.38	1.12	0.00	4.00
R1LMB_RS9	4096	0.27	0.67	0.00	2.00
R1FLMB_RS9	4096	0.38	1.12	0.00	4.00
R1LMB_RS10	4096	0.38	0.77	0.00	2.00
R1FLMB_RS10	4096	0.38	1.12	0.00	4.00
R1LMB_RS11	4096	0.24	0.65	0.00	2.00
R1FLMB_RS11	4096	0.38	1.12	0.00	4.00
R1LMB_RS12	4096	0.05	0.30	0.00	2.00
R1FLMB_RS12	4096	0.38	1.12	0.00	4.00
R1LMB_RS13	4096	0.07	0.32	0.00	2.00
R1FLMB_RS13	4096	0.38	1.12	0.00	4.00
R1LMB_RS14	4096	0.03	0.24	0.00	2.00
R1FLMB_RS14	4096	0.38	1.12	0.00	4.00
R1LMB_RS15	4096	0.36	0.74	0.00	2.00
R1FLMB_RS15	4096	0.38	1.12	0.00	4.00

R1LMB_RS16	4096	0.40	0.76	0.00	2.00
R1FLMB_RS16	4096	0.38	1.12	0.00	4.00
R1LMB_RS17	4096	0.30	0.67	0.00	2.00
R1FLMB_RS17	4096	0.38	1.12	0.00	4.00
R1LMB_RS18	4096	0.37	0.73	0.00	2.00
R1FLMB_RS18	4096	0.38	1.12	0.00	4.00
R1LMB_RS19	4096	0.10	0.41	0.00	2.00
R1FLMB_RS19	4096	0.38	1.12	0.00	4.00
R1LMB_RS20	4096	0.17	0.52	0.00	2.00
R1FLMB_RS20	4096	0.38	1.12	0.00	4.00
R1LMB_RS21	4096	0.07	0.35	0.00	2.00
R1FLMB_RS21	4096	0.38	1.12	0.00	4.00
R1LMB_RS22	4096	0.49	0.85	0.00	2.00
R1FLMB_RS22	4096	0.38	1.12	0.00	4.00
R1LMB_RS23	4096	0.25	0.62	0.00	2.00
R1FLMB_RS23	4096	0.38	1.12	0.00	4.00
R1LMB_RS24	4096	0.42	0.77	0.00	2.00
R1FLMB_RS24	4096	0.38	1.12	0.00	4.00
R1LMB_RS25	4096	0.25	0.64	0.00	2.00
R1FLMB_RS25	4096	0.38	1.12	0.00	4.00
R1LMB_IMM	4096	3.86	4.02	0.00	24.00
R1LMB_IMM_D	4096	4.57	4.27	0.00	25.00
R1LMB_RECL	4096	2.76	3.98	0.00	25.00
R1LMB_RECL_D	4096	3.21	4.27	0.00	25.00

Categorical Variable Codes

```
Value-------------------------------|    R1LMB_S1
0.Not correct, not mentioned        |       3098
1.Approximate answer                |        275
2.Exact answer                      |        723

Value-------------------------------|    R1FLMB_S1
0.Not imputed                       |       3766
1.Dont know                         |         35
2.Missing                           |        209
4.Refused                           |         86

Value-------------------------------|    R1LMB_S2
0.Not correct, not mentioned        |       2897
```

```
1.Approximate answer               |          183
2.Exact answer                     |         1016

Value------------------------------|    R1FLMB_S2
0.Not imputed                      |         3766
1.Dont know                        |           35
2.Missing                          |          209
4.Refused                          |           86

Value------------------------------|    R1LMB_S3
0.Not correct, not mentioned       |         3514
1.Approximate answer               |           52
2.Exact answer                     |          530

Value------------------------------|    R1FLMB_S3
0.Not imputed                      |         3766
1.Dont know                        |           35
2.Missing                          |          209
4.Refused                          |           86

Value------------------------------|    R1LMB_S4
0.Not correct, not mentioned       |         2870
1.Approximate answer               |           49
2.Exact answer                     |         1177

Value------------------------------|    R1FLMB_S4
0.Not imputed                      |         3766
1.Dont know                        |           35
2.Missing                          |          209
4.Refused                          |           86

Value------------------------------|    R1LMB_S5
0.Not correct, not mentioned       |         3276
1.Approximate answer               |          249
2.Exact answer                     |          571

Value------------------------------|    R1FLMB_S5
0.Not imputed                      |         3766
1.Dont know                        |           35
2.Missing                          |          209
4.Refused                          |           86

Value------------------------------|    R1LMB_S6
0.Not correct, not mentioned       |         3170
1.Approximate answer               |          210
2.Exact answer                     |          716

Value------------------------------|    R1FLMB_S6
0.Not imputed                      |         3766
1.Dont know                        |           35
2.Missing                          |          209
4.Refused                          |           86

Value------------------------------|    R1LMB_S7
0.Not correct, not mentioned       |         3630
1.Approximate answer               |           73
2.Exact answer                     |          393

Value------------------------------|    R1FLMB_S7
0.Not imputed                      |         3766
1.Dont know                        |           35
2.Missing                          |          209
4.Refused                          |           86

Value------------------------------|    R1LMB_S8
0.Not correct, not mentioned       |         3668
1.Approximate answer               |           99
2.Exact answer                     |          329

Value------------------------------|    R1FLMB_S8
0.Not imputed                      |         3766
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```
1.Dont know                           |              35
2.Missing                             |             209
4.Refused                             |              86

Value--------------------------------|   R1LMB_S9
0.Not correct, not mentioned          |            3313
1.Approximate answer                  |             157
2.Exact answer                        |             626

Value--------------------------------|   R1FLMB_S9
0.Not imputed                         |            3766
1.Dont know                           |              35
2.Missing                             |             209
4.Refused                             |              86

Value--------------------------------|   R1LMB_S10
0.Not correct, not mentioned          |            2949
1.Approximate answer                  |             116
2.Exact answer                        |            1031

Value--------------------------------|   R1FLMB_S10
0.Not imputed                         |            3766
1.Dont know                           |              35
2.Missing                             |             209
4.Refused                             |              86

Value--------------------------------|   R1LMB_S11
0.Not correct, not mentioned          |            3413
1.Approximate answer                  |              36
2.Exact answer                        |             647

Value--------------------------------|   R1FLMB_S11
0.Not imputed                         |            3766
1.Dont know                           |              35
2.Missing                             |             209
4.Refused                             |              86

Value--------------------------------|   R1LMB_S12
0.Not correct, not mentioned          |            3929
1.Approximate answer                  |              65
2.Exact answer                        |             102

Value--------------------------------|   R1FLMB_S12
0.Not imputed                         |            3766
1.Dont know                           |              35
2.Missing                             |             209
4.Refused                             |              86

Value--------------------------------|   R1LMB_S13
0.Not correct, not mentioned          |            3802
1.Approximate answer                  |             168
2.Exact answer                        |             126

Value--------------------------------|   R1FLMB_S13
0.Not imputed                         |            3766
1.Dont know                           |              35
2.Missing                             |             209
4.Refused                             |              86

Value--------------------------------|   R1LMB_S14
0.Not correct, not mentioned          |            4028
1.Approximate answer                  |              24
2.Exact answer                        |              44

Value--------------------------------|   R1FLMB_S14
0.Not imputed                         |            3766
1.Dont know                           |              35
2.Missing                             |             209
4.Refused                             |              86

Value--------------------------------|   R1LMB_S15
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0.Not correct, not mentioned       |        2838
1.Approximate answer               |         346
2.Exact answer                     |         912

Value-------------------------------| R1FLMB_S15
0.Not imputed                      |        3766
1.Dont know                        |          35
2.Missing                          |         209
4.Refused                          |          86

Value-------------------------------| R1LMB_S16
0.Not correct, not mentioned       |        2901
1.Approximate answer               |         347
2.Exact answer                     |         848

Value-------------------------------| R1FLMB_S16
0.Not imputed                      |        3766
1.Dont know                        |          35
2.Missing                          |         209
4.Refused                          |          86

Value-------------------------------| R1LMB_S17
0.Not correct, not mentioned       |        3044
1.Approximate answer               |         337
2.Exact answer                     |         715

Value-------------------------------| R1FLMB_S17
0.Not imputed                      |        3766
1.Dont know                        |          35
2.Missing                          |         209
4.Refused                          |          86

Value-------------------------------| R1LMB_S18
0.Not correct, not mentioned       |        2647
1.Approximate answer               |         513
2.Exact answer                     |         936

Value-------------------------------| R1FLMB_S18
0.Not imputed                      |        3766
1.Dont know                        |          35
2.Missing                          |         209
4.Refused                          |          86

Value-------------------------------| R1LMB_S19
0.Not correct, not mentioned       |        3751
1.Approximate answer               |         115
2.Exact answer                     |         230

Value-------------------------------| R1FLMB_S19
0.Not imputed                      |        3766
1.Dont know                        |          35
2.Missing                          |         209
4.Refused                          |          86

Value-------------------------------| R1LMB_S20
0.Not correct, not mentioned       |        3390
1.Approximate answer               |         295
2.Exact answer                     |         411

Value-------------------------------| R1FLMB_S20
0.Not imputed                      |        3766
1.Dont know                        |          35
2.Missing                          |         209
4.Refused                          |          86

Value-------------------------------| R1LMB_S21
0.Not correct, not mentioned       |        3891
1.Approximate answer               |          41
2.Exact answer                     |         164

Value-------------------------------| R1FLMB_S21
```

```
0.Not imputed                           |        3766
1.Dont know                             |          35
2.Missing                               |         209
4.Refused                               |          86

Value-------------------------------|   R1LMB_S22
0.Not correct, not mentioned            |        2681
1.Approximate answer                    |          74
2.Exact answer                          |        1341

Value-------------------------------|   R1FLMB_S22
0.Not imputed                           |        3766
1.Dont know                             |          35
2.Missing                               |         209
4.Refused                               |          86

Value-------------------------------|   R1LMB_S23
0.Not correct, not mentioned            |        3310
1.Approximate answer                    |         212
2.Exact answer                          |         574

Value-------------------------------|   R1FLMB_S23
0.Not imputed                           |        3766
1.Dont know                             |          35
2.Missing                               |         209
4.Refused                               |          86

Value-------------------------------|   R1LMB_S24
0.Not correct, not mentioned            |        2681
1.Approximate answer                    |         398
2.Exact answer                          |        1017

Value-------------------------------|   R1FLMB_S24
0.Not imputed                           |        3766
1.Dont know                             |          35
2.Missing                               |         209
4.Refused                               |          86

Value-------------------------------|   R1LMB_S25
0.Not correct, not mentioned            |        3334
1.Approximate answer                    |         137
2.Exact answer                          |         625

Value-------------------------------|   R1FLMB_S25
0.Not imputed                           |        3766
1.Dont know                             |          35
2.Missing                               |         209
4.Refused                               |          86

Value-------------------------------|   R1LMB_RS1
0.Not correct, not mentioned            |        3386
1.Approximate answer                    |         176
2.Exact answer                          |         534

Value-------------------------------|   R1FLMB_RS1
0.Not imputed                           |        3584
1.Dont know                             |         152
2.Missing                               |          11
4.Refused                               |         349

Value-------------------------------|   R1LMB_RS2
0.Not correct, not mentioned            |        3329
1.Approximate answer                    |         123
2.Exact answer                          |         644

Value-------------------------------|   R1FLMB_RS2
0.Not imputed                           |        3584
1.Dont know                             |         152
2.Missing                               |          11
4.Refused                               |         349
```

```
Value---------------------------------|    R1LMB_RS3
0.Not correct, not mentioned        |        3739
1.Approximate answer                |          22
2.Exact answer                      |         335


Value---------------------------------|    R1FLMB_RS3
0.Not imputed                       |        3584
1.Dont know                         |         152
2.Missing                           |          11
4.Refused                           |         349


Value---------------------------------|    R1LMB_RS4
0.Not correct, not mentioned        |        3244
1.Approximate answer                |          29
2.Exact answer                      |         823


Value---------------------------------|    R1FLMB_RS4
0.Not imputed                       |        3584
1.Dont know                         |         152
2.Missing                           |          11
4.Refused                           |         349


Value---------------------------------|    R1LMB_RS5
0.Not correct, not mentioned        |        3535
1.Approximate answer                |         137
2.Exact answer                      |         424


Value---------------------------------|    R1FLMB_RS5
0.Not imputed                       |        3584
1.Dont know                         |         152
2.Missing                           |          11
4.Refused                           |         349


Value---------------------------------|    R1LMB_RS6
0.Not correct, not mentioned        |        3473
1.Approximate answer                |         122
2.Exact answer                      |         501


Value---------------------------------|    R1FLMB_RS6
0.Not imputed                       |        3584
1.Dont know                         |         152
2.Missing                           |          11
4.Refused                           |         349


Value---------------------------------|    R1LMB_RS7
0.Not correct, not mentioned        |        3797
1.Approximate answer                |          43
2.Exact answer                      |         256


Value---------------------------------|    R1FLMB_RS7
0.Not imputed                       |        3584
1.Dont know                         |         152
2.Missing                           |          11
4.Refused                           |         349


Value---------------------------------|    R1LMB_RS8
0.Not correct, not mentioned        |        3755
1.Approximate answer                |          70
2.Exact answer                      |         271


Value---------------------------------|    R1FLMB_RS8
0.Not imputed                       |        3584
1.Dont know                         |         152
2.Missing                           |          11
4.Refused                           |         349


Value---------------------------------|    R1LMB_RS9
0.Not correct, not mentioned        |        3494
1.Approximate answer                |          99
2.Exact answer                      |         503
```

```
Value----------------------------------| R1FLMB_RS9
0.Not imputed                          |          3584
1.Dont know                            |           152
2.Missing                              |            11
4.Refused                              |           349


Value----------------------------------| R1LMB_RS10
0.Not correct, not mentioned           |          3280
1.Approximate answer                   |            86
2.Exact answer                         |           730


Value----------------------------------| R1FLMB_RS10
0.Not imputed                          |          3584
1.Dont know                            |           152
2.Missing                              |            11
4.Refused                              |           349


Value----------------------------------| R1LMB_RS11
0.Not correct, not mentioned           |          3591
1.Approximate answer                   |            14
2.Exact answer                         |           491


Value----------------------------------| R1FLMB_RS11
0.Not imputed                          |          3584
1.Dont know                            |           152
2.Missing                              |            11
4.Refused                              |           349


Value----------------------------------| R1LMB_RS12
0.Not correct, not mentioned           |          3974
1.Approximate answer                   |            34
2.Exact answer                         |            88


Value----------------------------------| R1FLMB_RS12
0.Not imputed                          |          3584
1.Dont know                            |           152
2.Missing                              |            11
4.Refused                              |           349


Value----------------------------------| R1LMB_RS13
0.Not correct, not mentioned           |          3907
1.Approximate answer                   |           108
2.Exact answer                         |            81


Value----------------------------------| R1FLMB_RS13
0.Not imputed                          |          3584
1.Dont know                            |           152
2.Missing                              |            11
4.Refused                              |           349


Value----------------------------------| R1LMB_RS14
0.Not correct, not mentioned           |          4025
1.Approximate answer                   |            16
2.Exact answer                         |            55


Value----------------------------------| R1FLMB_RS14
0.Not imputed                          |          3584
1.Dont know                            |           152
2.Missing                              |            11
4.Refused                              |           349


Value----------------------------------| R1LMB_RS15
0.Not correct, not mentioned           |          3237
1.Approximate answer                   |           227
2.Exact answer                         |           632


Value----------------------------------| R1FLMB_RS15
0.Not imputed                          |          3584
1.Dont know                            |           152
2.Missing                              |            11
4.Refused                              |           349
```

```
Value----------------------------------| R1LMB_RS16
0.Not correct, not mentioned          |           3168
1.Approximate answer                  |            238
2.Exact answer                        |            690


Value----------------------------------| R1FLMB_RS16
0.Not imputed                         |           3584
1.Dont know                           |            152
2.Missing                             |             11
4.Refused                             |            349


Value----------------------------------| R1LMB_RS17
0.Not correct, not mentioned          |           3383
1.Approximate answer                  |            214
2.Exact answer                        |            499


Value----------------------------------| R1FLMB_RS17
0.Not imputed                         |           3584
1.Dont know                           |            152
2.Missing                             |             11
4.Refused                             |            349


Value----------------------------------| R1LMB_RS18
0.Not correct, not mentioned          |           3183
1.Approximate answer                  |            299
2.Exact answer                        |            614


Value----------------------------------| R1FLMB_RS18
0.Not imputed                         |           3584
1.Dont know                           |            152
2.Missing                             |             11
4.Refused                             |            349


Value----------------------------------| R1LMB_RS19
0.Not correct, not mentioned          |           3863
1.Approximate answer                  |             71
2.Exact answer                        |            162


Value----------------------------------| R1FLMB_RS19
0.Not imputed                         |           3584
1.Dont know                           |            152
2.Missing                             |             11
4.Refused                             |            349


Value----------------------------------| R1LMB_RS20
0.Not correct, not mentioned          |           3650
1.Approximate answer                  |            192
2.Exact answer                        |            254


Value----------------------------------| R1FLMB_RS20
0.Not imputed                         |           3584
1.Dont know                           |            152
2.Missing                             |             11
4.Refused                             |            349


Value----------------------------------| R1LMB_RS21
0.Not correct, not mentioned          |           3941
1.Approximate answer                  |             32
2.Exact answer                        |            123


Value----------------------------------| R1FLMB_RS21
0.Not imputed                         |           3584
1.Dont know                           |            152
2.Missing                             |             11
4.Refused                             |            349


Value----------------------------------| R1LMB_RS22
0.Not correct, not mentioned          |           3078
1.Approximate answer                  |             33
2.Exact answer                        |            985
```

```
Value--------------------------------| R1FLMB_RS22
0.Not imputed                        |             3584
1.Dont know                          |              152
2.Missing                            |               11
4.Refused                            |              349


Value--------------------------------| R1LMB_RS23
0.Not correct, not mentioned         |             3510
1.Approximate answer                 |              166
2.Exact answer                       |              420


Value--------------------------------| R1FLMB_RS23
0.Not imputed                        |             3584
1.Dont know                          |              152
2.Missing                            |               11
4.Refused                            |              349


Value--------------------------------| R1LMB_RS24
0.Not correct, not mentioned         |             3087
1.Approximate answer                 |              286
2.Exact answer                       |              723


Value--------------------------------| R1FLMB_RS24
0.Not imputed                        |             3584
1.Dont know                          |              152
2.Missing                            |               11
4.Refused                            |              349


Value--------------------------------| R1LMB_RS25
0.Not correct, not mentioned         |             3539
1.Approximate answer                 |               96
2.Exact answer                       |              461


Value--------------------------------| R1FLMB_RS25
0.Not imputed                        |             3584
1.Dont know                          |              152
2.Missing                            |               11
4.Refused                            |              349
```

How Constructed

RwLMB_S1 - RwLMB_S25 indicate how well the respondent remembered the robber story's points immediately after hearing it. They are coded as follows: 0.Not correct, not mentioned, 1.Approximate answer, 2.Exact answer.

RwLMB_IMM and RwLMB_IMM_D are scores based on the robbery story that was read aloud to the respondent. After the story was read, the respondent was asked to retell as much of the story that he/she could remember. Before the story was read, the interviewer stated that the respondent should listen carefully as he/she will be asked to retell the story with as many details as the respondent can remember.

RwLMB_IMM indicates the number of exact story points the respondent was able to recall when retelling a story immediately after it was read aloud to him/her. Scores range from 0-24.

RwLMB_IMM_D indicates the total score of exact story points and approximate answers of RwLMB_S1 - RwLMB_S25. Exact answer is counted as 1 and approximate answer is counted as 0.5. Scores range from 0-25.

RwLMB_RS1 - RwLMB_RS10 indicate how well the respondent remembered the story points when there was a delay between the story and interview questions. They are coded as follows: 0.Not correct, not mentioned, 1.Approximate answer, 2.Exact answer.

RwLMB_RECL and RwLMB_RECL_D provide aggregate measures of how well respondents remembered the robbery story's plot after some time has elapsed. As a prompt for respondents to start recalling the story, the interviewer reminded the respondents that they had been read aloud 2 different stories earlier in the survey, and at that time, they had been asked to retell the stories. The interviewer then asked if the respondents remembered anything from the stories at this later point in time. Respondents are first asked to think back to the first story and then the second story to recall as much as possible.

For the robbery story, RwLMB_RECL indicates the number of exact story points the respondent was able to recall about the robbery story when there was a delay between hearing the story and having to recall it. Scores range from 0-25.

RwLMB_RECL_D indicates the total score of the exact story points and approximate answers given in RwLMB_RS1 - RwLMB_RS25. An exact answer is counted as 1 and an approximate answer is counted as 0.5. Scores range from 0-25.

Don't know responses are assigned special missing (.d). Refused responses are assigned special missing code (.r). Other missing is assigned special missing (.m).

RwFLMB_S1 - RwFLMB_S10 and RwFLMB_RS1 - RwFLMB_RS10 are flag variables, indicating whether the corresponding variable has an assigned imputed value. The flag variables are coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, and 4.Refused. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

In DAD, the stories' character names and places were changed so that the Indian population could relate to them. In addition, a score of 0.5 is assigned in the DAD for approximate answers.

Differences with Harmonized LASI

This question was not asked in the Harmonized LASI.

DAD Variables Used

```
LM1B_1S1            LM1B - Recall of Story Points 1 Manju
LM1B_1S10           LM1B - Recall of Story Points 10 at the polic
LM1B_1S101          LM1B - Recall of Story Points 101 Manju
LM1B_1S102          LM1B - Recall of Story Points 102 Rani
LM1B_1S103          LM1B - Recall of Story Points 103 From East
LM1B_1S104          LM1B - Recall of Story Points 104 Delhi
LM1B_1S105          LM1B - Recall of Story Points 105 employed
LM1B_1S106          LM1B - Recall of Story Points 106 as a cook
LM1B_1S107          LM1B - Recall of Story Points 107 in a school
LM1B_1S108          LM1B - Recall of Story Points 108 canteen
LM1B_1S109          LM1B - Recall of Story Points 109 reported
LM1B_1S11           LM1B - Recall of Story Points 11 station
LM1B_1S110          LM1B - Recall of Story Points 110 at the poli
LM1B_1S111          LM1B - Recall of Story Points 111 station
LM1B_1S112          LM1B - Recall of Story Points 112 that she ha
LM1B_1S113          LM1B - Recall of Story Points 113 at Ramnagar
LM1B_1S114          LM1B - Recall of Story Points 114 the night b
LM1B_1S115          LM1B - Recall of Story Points 115 and robbed
LM1B_1S116          LM1B - Recall of Story Points 116 of two hund
LM1B_1S117          LM1B - Recall of Story Points 117 She had fou
LM1B_1S118          LM1B - Recall of Story Points 118 small child
LM1B_1S119          LM1B - Recall of Story Points 119 the rent wa
LM1B_1S12           LM1B - Recall of Story Points 12 that she had
LM1B_1S120          LM1B - Recall of Story Points 120 and they ha
LM1B_1S121          LM1B - Recall of Story Points 121 for two day
LM1B_1S122          LM1B - Recall of Story Points 122 The police,
LM1B_1S123          LM1B - Recall of Story Points 123 touched by
LM1B_1S124          LM1B - Recall of Story Points 124 took up a c
LM1B_1S125          LM1B - Recall of Story Points 125 for her
LM1B_1S13           LM1B - Recall of Story Points 13 at Ramnagar
LM1B_1S14           LM1B - Recall of Story Points 14 the night be
```

```
LM1B_1S15               LM1B - Recall of Story Points 15 and robbed
LM1B_1S16               LM1B - Recall of Story Points 16 of two hundr
LM1B_1S17               LM1B - Recall of Story Points 17 She had four
LM1B_1S18               LM1B - Recall of Story Points 18 small childr
LM1B_1S19               LM1B - Recall of Story Points 19 the rent was
LM1B_1S2                LM1B - Recall of Story Points 2 Rani
LM1B_1S20               LM1B - Recall of Story Points 20 and they had
LM1B_1S21               LM1B - Recall of Story Points 21 for two days
LM1B_1S22               LM1B - Recall of Story Points 22 The police,
LM1B_1S23               LM1B - Recall of Story Points 23 touched by t
LM1B_1S24               LM1B - Recall of Story Points 24 took up a co
LM1B_1S25               LM1B - Recall of Story Points 25 for her
LM1B_1S3                LM1B - Recall of Story Points 3 From East
LM1B_1S4                LM1B - Recall of Story Points 4 Delhi
LM1B_1S5                LM1B - Recall of Story Points 5 employed
LM1B_1S6                LM1B - Recall of Story Points 6 as a cook
LM1B_1S7                LM1B - Recall of Story Points 7 in a school
LM1B_1S8                LM1B - Recall of Story Points 8 canteen
LM1B_1S9                LM1B - Recall of Story Points 9 reported
LM1B_1S97               LM1B - Recall of Story Points 97 R Cannot rem
LM2B_1C_S1              Recall of Story 2 Points 1 Manju
LM2B_1C_S10             Recall of Story 2 Points 10 at the police
LM2B_1C_S101            Recall of Story 2 Points 101 Manju
LM2B_1C_S102            Recall of Story 2 Points 102 Rani
LM2B_1C_S103            Recall of Story 2 Points 103 From East
LM2B_1C_S104            Recall of Story 2 Points 104 Delhi
LM2B_1C_S105            Recall of Story 2 Points 105 employed
LM2B_1C_S106            Recall of Story 2 Points 106 as a cook
LM2B_1C_S107            Recall of Story 2 Points 107 in a school
LM2B_1C_S108            Recall of Story 2 Points 108 canteen
LM2B_1C_S109            Recall of Story 2 Points 109 reported
LM2B_1C_S11             Recall of Story 2 Points 11 station
LM2B_1C_S110            Recall of Story 2 Points 110 at the police
LM2B_1C_S111            Recall of Story 2 Points 111 station
LM2B_1C_S112            Recall of Story 2 Points 112 that she had bee
LM2B_1C_S113            Recall of Story 2 Points 113 at Ramnagar Junc
LM2B_1C_S114            Recall of Story 2 Points 114 the night before
LM2B_1C_S115            Recall of Story 2 Points 115 and robbed
LM2B_1C_S116            Recall of Story 2 Points 116 of two hundred a
LM2B_1C_S117            Recall of Story 2 Points 117 She had four
LM2B_1C_S118            Recall of Story 2 Points 118 small children
LM2B_1C_S119            Recall of Story 2 Points 119 the rent was due
LM2B_1C_S12             Recall of Story 2 Points 12 that she had been
LM2B_1C_S120            Recall of Story 2 Points 120 and they had not
LM2B_1C_S121            Recall of Story 2 Points 121 for two days.
LM2B_1C_S122            Recall of Story 2 Points 122 The police,
LM2B_1C_S123            Recall of Story 2 Points 123 touched by the w
LM2B_1C_S124            Recall of Story 2 Points 124 took up a collec
LM2B_1C_S125            Recall of Story 2 Points 125 for her
LM2B_1C_S13             Recall of Story 2 Points 13 at Ramnagar Junct
LM2B_1C_S14             Recall of Story 2 Points 14 the night before
LM2B_1C_S15             Recall of Story 2 Points 15 and robbed
LM2B_1C_S16             Recall of Story 2 Points 16 of two hundred an
LM2B_1C_S17             Recall of Story 2 Points 17 She had four
LM2B_1C_S18             Recall of Story 2 Points 18 small children
LM2B_1C_S19             Recall of Story 2 Points 19 the rent was due
LM2B_1C_S2              Recall of Story 2 Points 2 Rani
LM2B_1C_S20             Recall of Story 2 Points 20 and they had not
LM2B_1C_S21             Recall of Story 2 Points 21 for two days.
LM2B_1C_S22             Recall of Story 2 Points 22 The police,
LM2B_1C_S23             Recall of Story 2 Points 23 touched by the wo
LM2B_1C_S24             Recall of Story 2 Points 24 took up a collect
LM2B_1C_S25             Recall of Story 2 Points 25 for her
```

```
LM2B_1C_S3              Recall of Story 2 Points 3 From East
LM2B_1C_S4              Recall of Story 2 Points 4 Delhi
LM2B_1C_S5              Recall of Story 2 Points 5 employed
LM2B_1C_S6              Recall of Story 2 Points 6 as a cook
LM2B_1C_S7              Recall of Story 2 Points 7 in a school
LM2B_1C_S8              Recall of Story 2 Points 8 canteen
LM2B_1C_S9              Recall of Story 2 Points 9 reported
```

Logical Memory: Recall Problem

```
Wave Variable        Label                                                    Type

  1  R1LOG_RCMIX     r1log_rcmix:w1 R logical memory recall-mix up            Categ

  1  R1FLOG_RCMIX    r1flog_rcmix:impflag w1 r whether imputed value          Categ

  1  R1LOG_WRON      r1log_wron:w1 R logical memory recall-wrong story        Categ

  1  R1FLOG_WRON     r1flog_wron:impflag w1 r whether imputed value           Categ
```

Descriptive Statistics

```
Variable          N        Mean       Std Dev     Minimum      Maximum

R1LOG_RCMIX      4096       0.11         0.31        0.00         1.00

R1FLOG_RCMIX     4096       0.38         1.04        0.00         4.00

R1LOG_WRON       4096       0.13         0.34        0.00         1.00

R1FLOG_WRON      4096       0.34         1.02        0.00         4.00
```

Categorical Variable Codes

```
Value--------------------------------| R1LOG_RCMIX
0.No                                  |           3645
1.Yes                                 |            451

Value--------------------------------|R1FLOG_RCMIX
0.Not imputed                         |           3513
1.Dont know                           |            142
2.Missing                             |            183
4.Refused                             |            258

Value--------------------------------| R1LOG_WRON
0.No                                  |           3548
1.Yes                                 |            548

Value--------------------------------| R1FLOG_WRON
0.Not imputed                         |           3587
1.Dont know                           |            149
2.Missing                             |             96
4.Refused                             |            264
```

How Constructed

RwLOG_RCMIX indicates whether the respondent confused or mixed up story points from story 1 and story 2.

RwLOG_WRON indicates whether the respondent mentioned story points that did not belong to either story.

Don't know responses are assigned special missing (.d). Refused responses are assigned special missing (.r). Other missing is assigned special missing (.m).

RwFLOG_RCMIX and RwFLOG_WRON are flag variables, indicating whether the corresponding variable has an assigned imputed value. The flag variables are coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, and 4.Refused. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

These questions were not asked in the HRS HCAP.

Differences with Harmonized LASI

These questions were not asked in the Harmonized LASI.

DAD Variables Used

```
LM2_IWERCKPT1              Iwer Checkpoint 1
LM2_IWERCKPT2              Iwer Checkpoint 2
```

Logical Memory: Recognition (0-15)

Wave	Variable	Label	Type
1	R1LOG_RECO	r1log_reco:w1 R logical memory recognition score(0-15)	Cont
1	R1FLOG_RECO	r1flog_reco:impflag w1 r whether imputed value	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1LOG_RECO	4096	7.46	3.14	0.00	15.00
R1FLOG_RECO	4096	0.37	1.06	0.00	4.00

Categorical Variable Codes

```
Value--------------------------------| R1FLOG_RECO
0.Not imputed                         |       3532
1.Dont know                           |        180
2.Missing                             |         99
4.Refused                             |        285
```

How Constructed

RwLOG_RECO is a score based on the respondent's number of correct answers when asked a series of questions about the second story that had been read to him/her earlier. The interviewer does not specify which story the second story was. Scores range from 0-15. Don't know responses are assigned special missing (.d). Refused responses are assigned special missing (.r). Other missing is assigned special missing (.m).

RwFLOG_RECO is a flag variable, indicating whether the corresponding variable has an assigned imputed value. The flag variable is coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, and 4.Refused. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

Both HRS HCAP and DAD use 15-point scores, but in DAD, the stories' character names and places are changed so that the Indian population can relate to it.

Differences with Harmonized LASI

This question was not asked in the Harmonized LASI.

DAD Variables Used

```
    LM2B_10                 Report Robbery at Police Station
    LM2B_10A                LM2b_10 Score
    LM2B_11                 Robbed of 450 rupees
    LM2B_11A                LM2b_11 Score
    LM2B_12                 No Food for 4 Days
    LM2B_12A                LM2b_12 Score
    LM2B_13                 Was Rent Due
    LM2B_13A                LM2b_13 Score
```

```
LM2B_14                 Police Catch Thief
LM2B_14A                LM2b_14 Score
LM2B_15                 Police Feel Sorry
LM2B_15A                LM2b_15 Score
LM2B_16                 Police Take Up Collection
LM2B_16A                LM2b_16 Score
LM2B_2                  Womans Name
LM2B_2A                 LM2b_2 Score
LM2B_3                  Story location
LM2B_3A                 LM2b_3 Score
LM2B_4                  Cook
LM2B_4A                 LM2b_4 Score
LM2B_5                  Work in Restaurant
LM2B_5A                 LM2b_5 Score
LM2B_6                  Have Four Children
LM2B_6A                 LM2b_6 Score
LM2B_7                  Children Teens
LM2B_7A                 LM2b_7 Score
LM2B_8                  Robbery location
LM2B_8A                 LM2b_ 8 Score
LM2B_9                  Report Robbery 2 Nights Before
LM2B_9A                 LM2b_9 Score
```

TICS

```
Wave Variable       Label                                                    Type

  1  R1SCIS        r1scis:w1 R cognition scissors(0-1)                       Categ

  1  R1FSCIS       r1fscis:impflag w1 r whether imputed value                Categ

  1  R1COCONUT     r1coconut:w1 R cognition coconut(0-1)                     Categ

  1  R1FCOCONUT    r1fcoconut:impflag w1 r whether imputed value             Categ

  1  R1PRIME       r1prime:w1 R cognition Prime Minister(0-1)                Categ

  1  R1FPRIME      r1fprime:impflag w1 r whether imputed value               Categ

  1  R1TICS_SCORE  r1tics_score:w1 R TICS 3-item score(0-3)                  Categ
```

Descriptive Statistics

```
Variable          N        Mean      Std Dev     Minimum     Maximum

R1SCIS          4096       0.84        0.37        0.00        1.00

R1FSCIS         4096       0.05        0.38        0.00        4.00

R1COCONUT       4096       0.57        0.50        0.00        1.00

R1FCOCONUT      4096       0.12        0.50        0.00        4.00

R1PRIME         4096       0.61        0.49        0.00        1.00

R1FPRIME        4096       0.25        0.58        0.00        4.00

R1TICS_SCORE    4096       2.02        0.90        0.00        3.00
```

Categorical Variable Codes

```
Value--------------------------------|      R1SCIS
0.Incorrect                          |         658
1.Correct                            |        3438

Value--------------------------------|      R1FSCIS
0.Not imputed                        |        3995
1.Dont know                          |          63
2.Missing                            |           7
4.Refused                            |          31

Value--------------------------------|      R1COCONUT
0.Incorrect                          |        1774
1.Correct                            |        2322

Value--------------------------------|      R1FCOCONUT
0.Not imputed                        |        3737
1.Dont know                          |         304
2.Missing                            |           7
4.Refused                            |          48

Value--------------------------------|      R1PRIME
0.Incorrect                          |        1582
1.Correct                            |        2514

Value--------------------------------|      R1FPRIME
```

```
0.Not imputed                          |          3239
1.Dont know                            |           799
2.Missing                              |             7
4.Refused                              |            51

Value--------------------------------|R1TICS_SCORE
0                                      |           257
1                                      |           861
2                                      |          1521
3                                      |          1457
```

How Constructed

RwSCIS indicates whether a respondent can name the item that people usually use to cut paper; the correct answers are scissors or shears.

RwCOCONUT indicates whether a respondent can name the fruit/thing that has a thick brown fibrous cover and water inside, with the correct answer being coconut.

RwPRIME indicates whether a respondent can name the current Prime Minister of India, with the correct answer being Modi.

RwSCIS, RwCOCONUT, and RwPRIME are assigned a 1 if the respondent answers correctly and a 0 if they do not answer correctly. Don't know responses are assigned special missing (.d). Refused responses are assigned special missing codes (.r). Other missing is assigned special missing (.m).

RwTICS_SCORE indicates the number of correct responses between RwSCIS, RwCOCONUT, and RwPRIME. Don't know responses are assigned special missing (.d). Refused responses are assigned special missing (.r). Other missing is assigned special missing (.m).

RwFSCIS, RwFCOCONUT, and RwFPRIME are flag variables, indicating whether the corresponding variable has an assigned imputed value. The flag variables are coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, and 4.Refused. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

HRS HCAP asked questions about Scissors or Shears, a Cactus, and the President of the United States, while DAD asked questions about Scissors or Shears, a Coconut, and the Prime Minister of India.

Differences with Harmonized LASI

This question was not asked in LASI.

DAD Variables Used

```
    HT102_SCISSORS            Cut paper
    HT103_COCONUT             NAME COCONUT
    HT104_PM                  Current Prime Minister
```

Digit Span

Wave	Variable	Label	Type
1	R1DS_FOR	r1ds_for:w1 R digit span forward(0-1)	Categ
1	R1FDS_FOR	r1fds_for:impflag w1 r whether imputed value	Categ
1	R1DS_BACK	r1ds_back:w1 R digit span backward(0-1)	Categ
1	R1FDS_BACK	r1fds_back:impflag w1 r whether imputed value	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1DS_FOR	4096	0.27	0.44	0.00	1.00
R1FDS_FOR	4096	0.18	0.80	0.00	4.00
R1DS_BACK	4096	0.28	0.45	0.00	1.00
R1FDS_BACK	4096	0.22	0.87	0.00	4.00

Categorical Variable Codes

```
Value-----------------------------------|    R1DS_FOR
0.Incorrect                             |     2990
1.Correct                               |     1106

Value-----------------------------------|    R1FDS_FOR
0.Not imputed                           |     3875
1.Dont know                             |       46
2.Missing                               |        7
4.Refused                               |      168

Value-----------------------------------|    R1DS_BACK
0.Incorrect                             |     2929
1.Correct                               |     1167

Value-----------------------------------|    R1FDS_BACK
0.Not imputed                           |     3813
1.Dont know                             |       75
2.Missing                               |        8
4.Refused                               |      200
```

How Constructed

RwDS_FOR indicates whether the respondent was able to repeat 5 digits correctly in forward order after the digits were read aloud by the interviewer. RwDS_BACK indicates whether the respondent was able to repeat 3 digits correctly in backwards order after the digits were read aloud by the interviewer. RwDS_FOR and RwDS_BACK are assigned a 1 if correctly repeated and a 0 if incorrectly repeated.

Don't know responses are assigned special missing (.d). Refused responses are assigned special missing (.r). Other missing is assigned special missing (.m).

RwFDS_FOR and RwFDS_BACK are flag variables, indicating whether the corresponding variable has an assigned imputed value. The flag variables are coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, and 4.Refused. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

These tests are not included in the HRS HCAP.

Differences with Harmonized LASI

This question was not asked in the Harmonized LASI.

DAD Variables Used

```
DS001                    Digits repeated in forward order
DS002                    Digits in Backward order
```

Verbal Fluency

Wave Variable   Label   Type

  1 R1VERBAL   r1verbal:w1 R verbal fluency:animal naming-correct   Cont

  1 R1FVERBAL   r1fverbal:impflag w1 r whether imputed value   Categ

  1 R1VERBAL_INC r1verbal_inc:w1 R verbal fluency:animal naming-incorrect   Cont

  1 R1FVERBAL_IN r1fverbal_inc:impflag w1 r whether imputed value   Categ

  1 R1VERBAL_PRB r1verbal_prb:w1 R verbal fluency:animal naming-problem   Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1VERBAL	4096	11.32	4.57	0.00	32.00
R1FVERBAL	4096	0.10	0.61	0.00	4.00
R1VERBAL_INC	4096	0.14	0.66	0.00	16.00
R1FVERBAL_IN	4096	0.13	0.63	0.00	4.00
R1VERBAL_PRB	4004	0.03	0.16	0.00	1.00

Categorical Variable Codes

```
Value-------------------------------|   R1FVERBAL
0.Not imputed                       |      3976
1.Dont know                         |        11
2.Missing                           |        17
4.Refused                           |        92

Value-------------------------------|R1FVERBAL_IN
0.Not imputed                       |      3905
1.Dont know                         |        10
2.Missing                           |       100
4.Refused                           |        81

Value-------------------------------|R1VERBAL_PRB
.r:Refuse                           |        92
0.No                                |      3894
1.Yes                               |       110
```

How Constructed

RwVERBAL indicates the number of correct animals that the respondent names. The respondent has 60 seconds to name as many and as fast as they can. Don't know responses are assigned special missing (.d). Refused responses are assigned special missing (.r). Other missing is assigned special missing (.m). We exclude some outliers and top-code the value to 32.

RwVERBAL_INC indicates the number of incorrect animals the respondent names in the 60 seconds window. Don't know responses are assigned special missing (.d). Refused responses are assigned special missing (.r). Other missing is assigned special missing (.m).

RwVERBAL_PRB indicates whether any problems occurred while the respondent was naming animals. A 1 is assigned if there was an interruption during the 60 second response period, a technical/computer problem,

the respondent did not understand the task, or another issue occurred. A 0 is assigned if there were no issues. Refused responses are assigned special missing (.r).

RwFVERBAL and RwFVERBAL_IN are flag variables, indicating whether the corresponding variable has an assigned imputed value. The flag variables are coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, and 4.Refused. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

In HRS HCAP, repeated animals are counted as incorrect, while in DAD, the total animals named, the number of incorrect names, and the number of repetitions are recorded separately.

The response period in both the HRS HCAP and LASI-DAD is 60 seconds. However, in the HRS HCAP, RwVERBAL_PRB is assigned a value of 1 if there was an interruption during the 60 second response period, the response period exceeded 60 seconds, a technical/computer problem occurred, the respondent did not understand the task, or another issue occurred. The LASI-DAD does not ask whether the response period exceeded 60 seconds.

Differences with Harmonized LASI

No differences known.

DAD Variables Used

```
RF103_ANIMALSANSWERS       TOTAL ANIMAL ANSWERS
RF105_ANIMALNUMINCORRECT   NUMBER OF INCORRECT ANIMAL NAMES GIVEN
RF106_ANIMALPROBLEMSS1     PROBLEMS THAT OCCURRED WHILE NAMING ANIMALS 1
RF106_ANIMALPROBLEMSS3     PROBLEMS THAT OCCURRED WHILE NAMING ANIMALS 3
RF106_ANIMALPROBLEMSS4     PROBLEMS THAT OCCURRED WHILE NAMING ANIMALS 4
RF106_ANIMALPROBLEMSS5     PROBLEMS THAT OCCURRED WHILE NAMING ANIMALS 5
```

Symbol Cancellation

Wave	Variable	Label	Type
1	R1SC_ANW	r1sc_anw:w1 R symbol cancellations	Cont
1	R1FSC_ANW	r1fsc_anw:impflag w1 r whether imputed value	Categ
1	R1SC_WR	r1sc_wr:w1 R symbol cancellation wrong	Cont
1	R1FSC_WR	r1fsc_wr:impflag w1 r whether imputed value	Categ
1	R1SC_SCORE	r1sc_score:w1 R symbol cancellation score	Cont

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1SC_ANW	4096	8.34	8.13	0.00	58.00
R1FSC_ANW	4096	0.14	0.76	0.00	8.00
R1SC_WR	4096	2.17	3.42	0.00	27.00
R1FSC_WR	4096	0.13	0.70	0.00	7.00
R1SC_SCORE	4096	6.89	8.32	0.00	57.00

Categorical Variable Codes

```
Value-----------------------------------|    R1FSC_ANW
0.Not imputed                           |         3937
1.Dont know                             |           24
2.Missing                               |           27
4.Refused                               |           93
7.No score                              |            9
8.Bad image                             |            6

Value-----------------------------------|    R1FSC_WR
0.Not imputed                           |         3939
1.Dont know                             |           30
2.Missing                               |           26
4.Refused                               |           92
7.No score                              |            9
```

How Constructed

RwSC_ANW, RwSC_WR, and RwSC_SCORE pertain to a task in which respondents are asked to find figures that match a given figure shown to them. The respondent is asked to find as many matching figures as he/she can and draw a circle around each matching figure. The interviewer demonstrates to the respondent how the circle should be drawn in the middle of the page. The respondent is instructed to start from the top left corner of the page, go line by line, and work as fast as he/she can until the interviewer says to stop. The interviewer starts counting when the respondent circles the first figure and stops the respondent after 60 seconds. Circling at random is not allowed; if this starts to happen, the respondents are reminded to go from left to right, line by line.

RwSC_ANW indicates the number of symbol cancellations. RwSC_WR indicates the number of incorrect symbol cancellations. RwSC_SCORE indicates the difference between the number of correct and incorrect cancelations; it is coded so that it is never less than 0. Cases where the respondent's uploaded images are blurry and unreadable are assigned special missing (.b). If the respondent's score is not yet

available, special missing (.z) is assigned. Don't know responses are assigned special missing (.d).
Refused responses are assigned special missing (.r). Other missing is assigned special missing (.m).

RwFSC_ANW and RwFSC_WR are flag variables, indicating whether the corresponding variable has an assigned
imputed value. RwFSC_ANW is coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, 4.Refused, 7.No
Score, and 8.Bad image. RwFSC_WR is coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, 4.Refused,
and 7.No score. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

HRS HCAP uses a Digit Symbol test. As most of the age 60 and above population in India is illiterate, DAD
replaced the Digit Symbol test with the Symbol Cancellation test, an assessment that does not rely on
literacy. The Symbol Cancellation test was taken from the "Mexican Health and Aging Study (MHAS)".

Differences with Harmonized LASI

This question was not asked in LASI.

DAD Variables Used

    SC001   Phase 1
    SC002   Phase 1 wrong
    SC1_CORRECT   correctly circled
    SC1_INCORRECT   incorrectly circled

Constructional Praxis

Wave	Variable	Label	Type
1	R1CP_CIRCLE	r1cp_circle:w1 R circle drawing score(0-2)	Categ
1	R1FCP_CIRCLE	r1fcp_circle:impflag w1 r whether imputed value	Categ
1	R1CP_RECTAN	r1cp_rectan:w1 R drew a rectangle(0-2)	Categ
1	R1FCP_RECTAN	r1fcp_rectan:impflag w1 r whether imputed value	Categ
1	R1CP_CUBE	r1cp_cube:w1 R drew a cube(0-4)	Categ
1	R1FCP_CUBE	r1fcp_cube:impflag w1 r whether imputed value	Categ
1	R1CP_DIAMON	r1cp_diamon:w1 R drew a diamond(0-3)	Categ
1	R1FCP_DIAMON	r1fcp_diamon:impflag w1 r whether imputed value	Categ
1	R1CP_SCORE	r1cp_score:w1 R Constructional Praxis score(0-11)	Categ
1	R1CPR_CIRCLE	r1cpr_circle:w1 R drew a circle-recall(0-2)	Categ
1	R1FCPR_CIRCL	r1fcpr_circle:impflag w1 r whether imputed value	Categ
1	R1CPR_RECTAN	r1cpr_rectan:w1 R drew a rectangle-recall(0-2)	Categ
1	R1FCPR_RECTA	r1fcpr_rectan:impflag w1 r whether imputed value	Categ
1	R1CPR_CUBE	r1cpr_cube:w1 R drew a cube-recall(0-4)	Categ
1	R1FCPR_CUBE	r1fcpr_cube:impflag w1 r whether imputed value	Categ
1	R1CPR_DIAMON	r1cpr_diamon:w1 R drew a diamond-recall(0-3)	Categ
1	R1FCPR_DIAMO	r1fcpr_diamon:impflag w1 r whether imputed value	Categ
1	R1CPR_SCORE	r1cpr_score:w1 R Constructional Praxis score-recall(0-11)	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1CP_CIRCLE	4096	1.85	0.52	0.00	2.00
R1FCP_CIRCLE	4096	0.31	0.97	0.00	8.00
R1CP_RECTAN	4096	1.28	0.91	0.00	2.00
R1FCP_RECTAN	4096	0.34	1.02	0.00	8.00
R1CP_CUBE	4096	0.84	1.45	0.00	4.00
R1FCP_CUBE	4096	0.38	1.07	0.00	8.00
R1CP_DIAMON	4096	1.62	1.36	0.00	3.00
R1FCP_DIAMON	4096	0.33	1.00	0.00	8.00
R1CP_SCORE	4096	5.59	3.25	0.00	11.00

```
R1CPR_CIRCLE    4096        1.06        1.00        0.00        2.00

R1FCPR_CIRCL    4096        0.47        1.24        0.00        8.00

R1CPR_RECTAN    4096        0.63        0.89        0.00        2.00

R1FCPR_RECTA    4096        0.50        1.27        0.00        8.00

R1CPR_CUBE      4096        0.23        0.84        0.00        4.00

R1FCPR_CUBE     4096        0.58        1.34        0.00        8.00

R1CPR_DIAMON    4096        0.73        1.23        0.00        3.00

R1FCPR_DIAMO    4096        0.49        1.25        0.00        8.00

R1CPR_SCORE     4096        2.64        2.68        0.00       11.00
```

Categorical Variable Codes

```
Value--------------------------------| R1CP_CIRCLE
0                                     |          298
1                                     |           28
2                                     |         3770

Value--------------------------------|R1FCP_CIRCLE
0.Not imputed                         |         3666
1.Dont know                           |           10
2.Missing                             |          154
3.Not Assessed                        |          129
4.Refused                             |          131
8.Bad image                           |            6

Value--------------------------------| R1CP_RECTAN
0                                     |         1275
1                                     |          398
2                                     |         2423

Value--------------------------------|R1FCP_RECTAN
0.Not imputed                         |         3634
1.Dont know                           |           15
2.Missing                             |          151
3.Not Assessed                        |          137
4.Refused                             |          152
8.Bad image                           |            7

Value--------------------------------|   R1CP_CUBE
0                                     |         2959
1                                     |           90
2                                     |          251
3                                     |          323
4                                     |          473

Value--------------------------------|  R1FCP_CUBE
0.Not imputed                         |         3584
1.Dont know                           |           19
2.Missing                             |          145
3.Not Assessed                        |          162
4.Refused                             |          181
8.Bad image                           |            5

Value--------------------------------| R1CP_DIAMON
0                                     |         1606
1                                     |           69
2                                     |          708
3                                     |         1713
```

```
Value--------------------------------|R1FCP_DIAMON
0.Not imputed                        |           3650
1.Dont know                          |             11
2.Missing                            |            152
3.Not Assessed                       |            140
4.Refused                            |            136
8.Bad image                          |              7

Value--------------------------------|  R1CP_SCORE
0                                    |            278
1                                    |             22
2                                    |            746
3                                    |            148
4                                    |            524
5                                    |            200
6                                    |            446
7                                    |            682
8                                    |            143
9                                    |            225
10                                   |            286
11                                   |            396

Value--------------------------------|R1CPR_CIRCLE
0                                    |           1927
1                                    |              7
2                                    |           2162

Value--------------------------------|R1FCPR_CIRCL
0.Not imputed                        |           3466
1.Dont know                          |             76
2.Missing                            |            135
3.Not Assessed                       |            215
4.Refused                            |            176
8.Bad image                          |             28

Value--------------------------------|R1CPR_RECTAN
0                                    |           2669
1                                    |            278
2                                    |           1149

Value--------------------------------|R1FCPR_RECTA
0.Not imputed                        |           3439
1.Dont know                          |             83
2.Missing                            |            105
3.Not Assessed                       |            249
4.Refused                            |            193
8.Bad image                          |             27

Value--------------------------------|  R1CPR_CUBE
0                                    |           3779
1                                    |             29
2                                    |             80
3                                    |             84
4                                    |            124

Value--------------------------------|  R1FCPR_CUBE
0.Not imputed                        |           3336
1.Dont know                          |             94
2.Missing                            |             74
3.Not Assessed                       |            320
4.Refused                            |            248
8.Bad image                          |             24

Value--------------------------------|R1CPR_DIAMON
0                                    |           2996
1                                    |             26
2                                    |            265
3                                    |            809

Value--------------------------------|R1FCPR_DIAMO
```

```
0.Not imputed                            |             3424
1.Dont know                              |               88
2.Missing                                |              136
3.Not Assessed                           |              262
4.Refused                                |              157
8.Bad image                              |               29


Value--------------------------------| R1CPR_SCORE
0                                        |             1412
1                                        |               73
2                                        |             1018
3                                        |              190
4                                        |              464
5                                        |              281
6                                        |              181
7                                        |              290
8                                        |               53
9                                        |               45
10                                       |               37
11                                       |               52
```

How Constructed

The following variables pertain to a series of questions asking the respondent to draw a shape. The respondent is asked to draw a circle, overlapping rectangles, a cube, and a diamond. Respondents are presented with each shape and asked to draw that shape freehand. The respondent is given one or two minutes to draw the figure with a pencil to allow for erasing errors. The interviewer is allowed to repeat the instructions once if the respondent does not understand the first time. If the respondent cannot draw the figure in the allotted time, the interviewer is instructed to reassure the respondent and select "Respondent Cannot Draw". Multiple self-starts were allowed but repeated attempts were not encouraged.

RwCP_CIRCLE indicates whether a respondent successfully drew a circle. RwCP_CIRCLE ranges from 0-2. If the respondent drew a circular shape and drew a closed circle (within 1/8''), 2 is coded. If the respondent drew a circular shape but did not draw a closed circle (within 1/8''), 1 is coded. If the respondent did not draw a circular shape, 0 is coded.

RwCP_RECTANGLE indicates whether a respondent successfully drew two overlapping rectangles. RwCP_RECTANGLE ranges from 0-2. If the respondent drew two 4-sided, overlapping figures that resembled the original picture, a 2 is coded. If the respondent drew two 4-sided figures but the overlapping sections did not resemble the original picture, a 1 is coded. If the respondent did not draw two 4-sided figures, a 0 is coded.

RwCP_CUBE indicates whether a respondent successfully drew a cube. RwCP_CUBE ranges from 0-4. If the respondent drew a 3-dimensional figure, drew the frontal face correctly oriented (either left or right), drew the internal lines correctly, and drew the opposite sides parallel with each other (within 10 degrees), a 4 is coded. If the respondent drew a 3-dimensional figure, drew the frontal face correctly oriented (either left or right), and drew the internal lines correctly, a 3 is coded. If the respondent drew a 3-dimensional figure and drew the frontal face correctly oriented (either left or right), a 2 is coded. If the respondent drew a 3-dimensional figure, a 1 is coded. If the respondent did not draw a 3-dimensional figure, a 0 is coded.

RwCP_DIAMOND indicates whether a respondent successfully drew a diamond. RwCP_DIAMOND ranges from 0-3. If the respondent drew a 4-sided figure, closed all 4 angles of the figure (within 1/8''), and drew sides of approximately equal length, a 3 is assigned. If the respondent drew four sides, closed all 4 angles of the figure (within 1/8''), but did not draw sides of approximately equal length, a 2 is assigned. If the respondent drew four sides but did not close all 4 angles of the figure (within 1/8''), a 1 is assigned. If the respondent did not draw a 4-sided figure, a 0 is assigned.

RwCP_SCORE provides the total score between RwCP_CIRCLE, RwCP_RECTANGLE, RwCP_CUBE, and RwCP_DIAMOND.

Don't know responses are assigned special missing (.d). Refused responses are assigned special missing (.r). Cases where the uploaded respondent's images were blurry were assigned special missing (.b). Cases where scores are not yet available are assigned special missing (.z). If the respondent cannot draw, special missing (.n) is assigned as "Not Assessed". "Not Assessed" option was marked only if the

respondent has some physical disability that prevented him/her from performing the test. Other missing is assigned as special missing (.m).

The following variables pertain to a series of questions asking the respondent to draw from memory the same figures that he/she previously drew in the interview: a circle, two overlapping rectangles, a cube, and a diamond. The respondent is given a sheet of paper to draw the shapes and allowed up to 8 minutes to draw all 4 shapes.

The results of this second batch of drawings are stored in the variables RwCPR_CIRCLE, RwCPR_RECTANGLE, RwCPR_CUBE, and RwCPR_DIAMOND, with the same scoring rules applied as in the first set of drawings. RwCPR_SCORE provides the total score between RwCPR_CIRCLE, RwCPR_RECTANGLE, RwCPR_CUBE, and RwCPR_DIAMOND.

RwFCP_CIRCLE, RwFCP_RECTAN, RwFCP_CUBE, RwFCP_DIAMON, RwFCPR_CIRCLE, RwFCPR_RECTAN, RwFCPR_CUBE, and RwFCPR_DIAMON are flag variables, indicating whether the corresponding variable has an assigned imputed value. The flag variables are coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, 3.Not Assessed, 4.Refused, and 8.Bad image. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

In addition to HRS HCAP comparable scores, we also have more detailed scores for overlapping Rectangles and Cube.

Differences with Harmonized LASI

This question was not asked in the Harmonized LASI.

DAD Variables Used

CE001	CP - Cube 3D - Respondent
CE002	CP - Cube face correct oriented - Respondent
CE003	CP - Cube internal lines - Respondent
CE004	CP - Cube parallel sides - Respondent
DC001	CP - Circular shape - Respondent
DC002	CP - Closed circle - Respondent
DD001	CP - Diamond draw 4 sides - Respondent
DD002	CP - Diamond close 4 angles - Respondent
DD003	CP - Diamond sides equal length - Respondent
DR001	CP - Rectangle Both 4-Sided - Respondent
DR002	CP - Rectangle overlaps - Respondent
RCE001	CPR - Cube 3D - Respondent
RCE002	CPR - Cube face correct oriented - Respondent
RCE003	CPR - Cube internal lines - Respondent
RCE004	CPR - Cube parallel sides - Respondent
RDC001	CPR - Circular shape - Respondent
RDC002	CPR - Closed circle - Respondent
RDD001	CPR - Diamond draw 4 sides - Respondent
RDD002	CPR- Diamond close 4 angles - Respondent
RDD003	CPR - Diamond sides equal length - Respondent
RDR001	CPR - Rectangle both 4-Sided - Respondent
RDR002	CPR - Rectangle overlaps - Respondent

Drawing: Clocks

```
Wave Variable       Label                                                   Type

  1  R1DR_CLOCK3    r1dr_clock3:w1 R clock drawing score(0-3)               Categ

  1  R1FDR_CLOCK3   r1fdr_clock3:impflag w1 r whether imputed value         Categ
```

Descriptive Statistics

```
Variable          N       Mean      Std Dev     Minimum     Maximum

R1DR_CLOCK3     4096      0.98        1.06        0.00        3.00

R1FDR_CLOCK3    4096      0.39        1.28        0.00        8.00
```

Categorical Variable Codes

```
Value--------------------------------| R1DR_CLOCK3
0                                     |        1822
1                                     |        1090
2                                     |         644
3                                     |         540

Value--------------------------------|R1FDR_CLOCK3
0.Not imputed                         |        3625
1.Dont know                           |          22
2.Missing                             |         170
3.Not Assessed                        |         106
4.Refused                             |         113
8.Bad image                           |          60
```

How Constructed

RwDR_CLOCK3 is based on 3 components, specifically: 1) whether the respondent drew a closed circle, 2) whether the respondent correctly placed and ordered clock numbers on the circle, and 3) whether the respondent drew two clock hands. Scores range from 0-3. This measure is comparable with the measures from the main LASI study.

Don't know response are assigned special missing (.d). Refused responses are assigned special missing (.r). Cases where the uploaded respondent's images were blurry and unreadable were assigned special missing (.b). Cases where scores are not yet available are assigned special missing (.z). If the respondent cannot draw, special missing (.n) is assigned as "Not Assessed". "Not Assessed" option was marked only if the respondent had some physical disability that prevented him/her from performing the test. Other missing is assigned special missing (.m).

RwFDR_CLOCK3 is a flag variable, indicating whether the corresponding variable has an assigned imputed value. The flag variables are coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, 3.NotAssessed, 4. Refused, and 8. Bad image. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

These tests are not included in the HRS HCAP.

Differences with Harmonized LASI

```
No differences known.
```

DAD Variables Used

```
CK001                     Clock - Closed circle
CK002                     Clock - Numbers placed correctly
CK003                     Clock - Two clock hands
CK004                     Clock - Correct time
CK005                     Clock - Hr and min hands diff length
```

```
                                    CSID
```

Wave	Variable	Label	Type
1	R1ELBOW	r1elbow:w1 R cognition elbow(0-1)	Categ
1	R1FELBOW	r1felbow:impflag w1 r whether imputed value	Categ
1	R1HAMMER	r1hammer:w1 R cognition hammer(0-1)	Categ
1	R1FHAMMER	r1fhammer:impflag w1 r whether imputed value	Categ
1	R1STORE	r1store:w1 R cognition store(0-1)	Categ
1	R1FSTORE	r1fstore:impflag w1 r whether imputed value	Categ
1	R1POINT	r1point:w1 R cognition point(0-1)	Categ
1	R1FPOINT	r1fpoint:impflag w1 r whether imputed value	Categ
1	R1CSID_SCORE	r1csid_score:w1 R CSID 4-item score(0-4)	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1ELBOW	4096	0.94	0.23	0.00	1.00
R1FELBOW	4096	0.09	0.57	0.00	4.00
R1HAMMER	4096	0.70	0.46	0.00	1.00
R1FHAMMER	4096	0.10	0.58	0.00	4.00
R1STORE	4096	0.90	0.31	0.00	1.00
R1FSTORE	4096	0.11	0.60	0.00	4.00
R1POINT	4096	0.90	0.31	0.00	1.00
R1FPOINT	4096	0.11	0.63	0.00	4.00
R1CSID_SCORE	4096	3.43	0.82	0.00	4.00

Categorical Variable Codes

```
Value-------------------------------|    R1ELBOW
0.Incorrect                         |       236
1.Correct                           |      3860

Value-------------------------------|    R1FELBOW
0.Not imputed                       |      3968
1.Dont know                         |        28
2.Missing                           |        21
4.Refused                           |        79

Value-------------------------------|    R1HAMMER
0.Incorrect                         |      1227
1.Correct                           |      2869

Value-------------------------------|    R1FHAMMER
0.Not imputed                       |      3947
```

```
1.Dont know                          |              46
2.Missing                            |              21
4.Refused                            |              82

Value--------------------------------|       R1STORE
0.Incorrect                          |             427
1.Correct                            |            3669

Value--------------------------------|       R1FSTORE
0.Not imputed                        |            3931
1.Dont know                          |              62
2.Missing                            |              15
4.Refused                            |              88

Value--------------------------------|       R1POINT
0.Incorrect                          |             428
1.Correct                            |            3668

Value--------------------------------|       R1FPOINT
0.Not imputed                        |            3938
1.Dont know                          |              44
2.Missing                            |              16
4.Refused                            |              98

Value--------------------------------|R1CSID_SCORE
0                                    |              33
1                                    |             115
2                                    |             345
3                                    |            1151
4                                    |            2452
```

How Constructed

RwELBOW indicates whether the respondent correctly identified an elbow when pointed at by the interviewer. If the respondent correctly identified the elbow, a 1 is coded. If the respondent incorrectly identified the elbow, a 0 is coded.

RwHAMMER indicates whether the respondent correctly described what one does with a hammer, with "driving a nail into something" as the correct answer. Correct answers are coded as 1 and incorrect answers are coded as 0.

RwSTORE indicates whether the respondent correctly described where the local market/local store was located. Correct answers can be a specific address or a clear description on how to get to the market/store. Incorrect answers include just repeating the store's name or giving a very confused answer. If the respondent originally provided a vague response, interviewers are instructed to probe for a more specific answer. Correct answers are coded as 1 and incorrect answers are coded as 0.

RwPOINT indicates whether the respondent correctly points first at a window and then at a door after being instructed to do so. If there is no window available, then the respondent is asked to point first at the ceiling and then at the door. If the respondent correctly follows the interviewer's directions, a 1 is coded. If the respondent does not point at the objects in the correct order, a 0 is coded.

RwCSID_SCORE provides a score indicating the total number of correct responses between RwELBOW, RwHAMMER, RwSTORE, and RwPOINT. Scores range from 0 to 4.

Don't know responses are assigned special missing (.d). Refused responses are assigned special missing (.r). Other missing is assigned special missing (.m).

RwFELBOW, RwFHAMMER, RwFSTORE, and RwFPOINT are flag variables, indicating whether the corresponding variable has an assigned imputed value. The flag variables are coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, and 4.Refused. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

In HRS HCAP, when respondents were asked to point first to a window and then at the door, if only a window or a door was available (not both), respondents were only asked to point at whichever object was present; a "replacement" object was not used. In DAD, if a window was not available, respondents were asked to point at the ceiling and then at the door. If the door was not available, respondents were asked to point at a window and then at the ceiling.

Differences with Harmonized LASI

This question was not asked in the Harmonized LASI.

DAD Variables Used

```
CSID1_ELBOW             CSID1: Elbow
CSID2_HAMMER            CSID2: Hammer
CSID3_STORE             CSID3: Store
CSID4_POINT             CSID4: Point
```

Raven's Test

Wave	Variable	Label	Type
1	R1RV_SCORE	r1rv_score:w1 R Raven's test score(0-17)	Cont
1	R1FRV_SCORE	r1frv_score:impflag w1 r whether imputed value	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1RV_SCORE	4096	7.48	3.32	0.00	17.00
R1FRV_SCORE	4096	0.30	1.02	0.00	4.00

Categorical Variable Codes

```
Value--------------------------------| R1FRV_SCORE
0.Not imputed                         |          3723
1.Dont know                           |            92
4.Refused                             |           281
```

How Constructed

RwRV_SCORE indicates the number of correct answers to a series of questions where respondents were presented with incomplete images and asked to identify the missing piece for each image out of six possible options. The Raven's booklet was used for this task (item A1-B10). For the first image that was presented to respondents, interviewers pointed out that the image had a pattern with a piece cut out of it. Next, the interviewer described why four of the six options for the image's missing pieces could not be correct and stated that only one of the options was correct. The respondent was then instructed to point to the correct answer. If the respondent did not point to the correct piece, the interviewer explained the answer. After working through the first image, the respondent continues with items A2-B10 without any feedback on whether the response is correct or incorrect. Don't know responses are assigned special missing (.d). Refused responses are assigned special missing (.r). Other missing is assigned special missing (.m).

RwFRV_SCORE is a flag variable, indicating whether the corresponding variable has an assigned imputed value. The flag variable is coded as follows: 0.Not imputed, 1.Don't know, and 4.Refused. The original missing value is otherwise included.

Cross Wave Differences in DAD

No difference known.

Differences with HRS HCAP

No difference known.

Differences with Harmonized LASI

This question was not asked in LASI.

DAD Variables Used

```
    RV_A1                   RAVEN A1
    RV_A11                  RAVEN A11
    RV_A12                  RAVEN A12
    RV_A2                   RAVEN A2
```

```
RV_A4                 RAVEN A4
RV_A5                 RAVEN A5
RV_A6                 RAVEN A6
RV_A7                 RAVEN A7
RV_A8                 RAVEN A8
RV_B1                 RAVEN B1
RV_B10                RAVEN B10
RV_B2                 RAVEN B2
RV_B3                 RAVEN B3
RV_B4                 RAVEN B4
RV_B5                 RAVEN B5
RV_B6                 RAVEN B6
RV_B8                 RAVEN B8
```

Go-no-go Score

```
Wave Variable      Label                                                      Type

  1  R1GO_SCORE1    r1go_score1:w1 R Go-no-go trial 1 total score(0-10)        Categ

  1  R1FGO_SCORE1   r1fgo_score1:impflag w1 r whether imputed value            Categ

  1  R1GO_SCORE2    r1go_score2:w1 R Go-no-go trial 2 total score(0-10)        Categ

  1  R1FGO_SCORE2   r1fgo_score2:impflag w1 r whether imputed value            Categ

  1  R1GO_SCORE     r1go_score:w1 R Go-no-go total score(0-20)                 Cont
```

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1GO_SCORE1	4096	6.44	3.45	0.00	10.00
R1FGO_SCORE1	4096	0.17	0.79	0.00	4.00
R1GO_SCORE2	4096	4.93	3.59	0.00	10.00
R1FGO_SCORE2	4096	0.19	0.83	0.00	4.00
R1GO_SCORE	4096	11.37	6.47	0.00	20.00

Categorical Variable Codes

```
Value--------------------------------| R1GO_SCORE1
0                                     |          380
1                                     |          157
2                                     |          190
3                                     |          216
4                                     |          260
5                                     |          386
6                                     |          266
7                                     |          268
8                                     |          310
9                                     |          372
10                                    |         1291

Value--------------------------------|R1FGO_SCORE1
0.Not imputed                         |         3894
1.Dont know                           |           21
2.Missing                             |           19
4.Refused                             |          162

Value--------------------------------| R1GO_SCORE2
0                                     |          731
1                                     |          246
2                                     |          292
3                                     |          322
4                                     |          388
5                                     |          369
6                                     |          265
7                                     |          209
8                                     |          234
9                                     |          310
10                                    |          730

Value--------------------------------|R1FGO_SCORE2
0.Not imputed                         |         3871
```

```
1.Dont know                              |              25
2.Missing                                |              19
4.Refused                                |             181
```

How Constructed

The following variables pertain to the Go-no-go task. This task allows for up to 3 practice trials until the subject can correctly respond (for both part 1 and part 2). This task consists of two parts. For each part, the interviewer scores each response as either correct or incorrect.

The first part goes as follows:

"In this task, when I tap the table once, like this (tap), I want you to tap twice. And when I tap twice (tap tap) I want you to tap once. Let's practice."

"So when I tap once (tap) - you tap...?" (subject taps)

"…and when I tap twice (tap tap) - you tap...?" (subject taps)

If incorrect, the interviewer is instructed to say, "Let's try again: remember when I tap once, you tap twice. And when I tap twice, you tap once - here we go" (examiner repeats above practice trial).

Instructions and practice rounds can be repeated one more time if necessary, making a maximum of three times.

If correct, the interviewer is instructed to say, "OK that's right, remember - I tap once, you tap twice. I tap twice, you tap once. Here we go."

The examiner begins the test by tapping once. If the respondent responds incorrectly, the examiner stops and repeats the instructions. This will be the last time the subject can be reminded of the instructions.

There are 10 trials total. If the respondent has five consecutive incorrect responses, part 1 ends.

The second part goes as follows:

"Now I am going to change the rules. This time when I tap once, you tap twice just like before. But now, when I tap twice, you do nothing - OK? Let us practice. So, when I tap once (tap), you tap…? And when I tap twice (tap tap), you…?"

If an incorrect response is given, the interviewer says, "Let's do that again. Remember, when I tap once, you tap twice, and when I tap twice, you do nothing – let's practice again (examiner taps once, then twice).

If the subject gives another incorrect response, the interviewer repeats the instructions again and allows one more practice round, making three rounds total in all.

When the subject has correctly completed the practice round(s), the interviewer says, "OK that's right. Remember, when I tap once, you tap twice. And when I tap twice, you do nothing - here we go." The examiner always begins the sequence with two taps. If the subject responds incorrectly, the examiner stops and reminds him/her of the instructions again. This is the last time a reminder can be given.

There are 10 trials total. If the respondent has five consecutive incorrect responses, part 2 ends.

RwGO_SCORE1 provides the score indicating the number of correct responses to part one. RwGO_SCORE2 provides the score indicating the number of correct responses to part two. RwGO_SCORE is the sum of RwGO_SCORE1 and RwGO_SCORE2. RwGO_SCORE ranges from 0-20. Don't know responses are assigned special missing (.d). Refused responses are assigned special missing (.r). Other missing is assigned special missing (.m).

R1FGO_SCORE1 and R1FGO_SCORE2 are flag variables, indicating whether the corresponding variable has an assigned imputed value. The flag variables are coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, and 4.Refused. The original missing value is otherwise included.

Cross Wave Differences in DAD

```
No differences known.
```

Differences with HRS HCAP

```
This test is not included in the HRS HCAP.
```

Differences with Harmonized LASI

```
This question was not asked in the Harmonized LASI.
```

DAD Variables Used

```
G1_TOTAL                    G1_Total Correct
G2_TOTAL                    G2_Total Correct
```

Hand Sequencing Test

Wave	Variable	Label	Type
1	R1EF_PALM	r1ef_palm:w1 R able to repeat palm-up, palm-down test(0-2)	Categ
1	R1FEF_PALM	r1fef_palm:impflag w1 r whether imputed value	Categ
1	R1EF_CLENCH	r1ef_clench:w1 R able to do clenched extended hand movement(	Categ
1	R1FEF_CLENCH	r1fef_clench:impflag w1 r whether imputed value	Categ
1	R1EF_FIST	r1ef_fist:w1 R able to do fist-side-palm test(0-2)	Categ
1	R1FEF_FIST	r1fef_fist:impflag w1 r whether imputed value	Categ
1	R1EF_SCORE	r1ef_score:w1 R Hand Sequencing 3-item score(0-6)	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1EF_PALM	2504	1.86	0.40	0.00	2.00
R1FEF_PALM	4096	2.02	2.43	0.00	5.00
R1EF_CLENCH	2504	1.79	0.51	0.00	2.00
R1FEF_CLENCH	4096	2.03	2.43	0.00	5.00
R1EF_FIST	2504	0.90	0.77	0.00	2.00
R1FEF_FIST	4096	2.08	2.42	0.00	5.00
R1EF_SCORE	2504	4.55	1.25	0.00	6.00

Categorical Variable Codes

```
Value--------------------------------|   R1EF_PALM
.x:Not in phase/wave                 |       1592
0.Incorrect or did not repeat        |         56
1.Correctly repeated 1-4 movements   |        231
2.Correctly repeated all 5 movements |       2217

Value--------------------------------|   R1FEF_PALM
0.Not imputed                        |       2398
1.Dont know                          |          9
2.Missing                            |          8
3.Not Assessed                       |         51
4.Refused                            |         38
5.Not in phase/wave                  |       1592

Value--------------------------------|   R1EF_CLENCH
.x:Not in phase/wave                 |       1592
0.Incorrect or did not repeat        |        118
1.Correctly repeated 1-4 movements   |        287
2.Correctly repeated all 5 movements |       2099

Value--------------------------------|R1FEF_CLENCH
0.Not imputed                        |       2396
1.Dont know                          |          9
2.Missing                            |          8
3.Not Assessed                       |         49
```

```
4.Refused                               |              42
5.Not in phase/wave                     |            1592

Value-----------------------------------|   R1EF_FIST
.x:Not in phase/wave                    |            1592
0.Incorrect or did not repeat           |             881
1.Correctly repeated 1-4 movements      |             993
2.Correctly repeated all 5 movements    |             630

Value-----------------------------------|   R1FEF_FIST
0.Not imputed                           |            2329
1.Dont know                             |               9
2.Missing                               |               8
3.Not Assessed                          |             111
4.Refused                               |              47
5.Not in phase/wave                     |            1592

Value-----------------------------------|   R1EF_SCORE
.x:Not in phase/wave                    |            1592
0                                       |              40
1                                       |              33
2                                       |              90
3                                       |             196
4                                       |             710
5                                       |             848
6                                       |             587
```

How Constructed

RwEF_PALM indicates how the respondent did on the Palm-Up Palm-Down task. For this task, the interviewer instructs the respondent to watch the demonstration of this task three times. Then, the respondent is asked to make the same movement with the interviewer and is then asked to perform it alone for 5 times. RwEF_PALM is coded as follows: 0.Incorrect or did not repeat, 1.Correctly repeated 1-4 movements, and 2.Correctly repeated all 5 movements.

RwEF_CLENCH indicates how the respondent performed on the Clenched Extended Hand Movement task. For this task, the interviewer instructs the respondent to watch the demonstration of this task three times. Then, the respondent is asked to make the same movement with the interviewer, and then asked to perform it alone for 5 times. RwEF_CLENCH is coded as follows: 0.Incorrect or did not repeat, 1.Correctly repeated 1-4 movements, and 2.Correctly repeated all 5 movements.

RwEF_FIST indicates how the respondent did on the Fist-Edge-Palm task. For this task, the interviewer instructs the respondent to watch the demonstration of this task three times. Then, the respondent is asked to make the same movement with the interviewer, and then asked to perform it alone for 5 times. RwEF_FIST is coded as follows: 0.Incorrect or did not repeat, 1.Correctly repeated 1-4 movements, and 2.Correctly repeated all 5 movements.

Don't know responses are assigned special missing (.d). Refused responses are assigned special missing (.r). Special missing (.x) is assigned if not in phase/wave. If the respondent cannot perform the hand movements, special missing (.n) is assigned as "Not Assessed". "Not Assessed" option was marked only if the respondent has some physical disability, which prevents him/her from performing the test. Other missing is assigned special missing (.m).

RwEF_SCORE indicates a summary score between RwEF_PALM, RwEF_CLENCH, and RwEF_FIST. Scores range from 0-6.

These questions were asked starting phase 2 data collection.

RwFEF_PALM, RwFEF_CLENCH and RwFEF_FIST are flag variables, indicating whether the corresponding variable has an assigned imputed value. The flag variables are coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, 3.Not Assessed, 4.Refused, and 5.Not in phase/wave. The original missing value is otherwise included.

Cross Wave Differences in DAD

These questions were asked starting phase 2 data collection.

Differences with HRS HCAP

These questions were not asked in the HRS HCAP.

Differences with Harmonized LASI

These questions were not asked in the Harmonized LASI.

DAD Variables Used

```
EF100B                    Palm-up Palm-down
EF101B                    Clenched Extended Hand movements
EF102B                    fist-side-palm
```

Token Test

Wave	Variable	Label	Type
1	R1TT_CRCL	r1tt_crcl:w1 circle: R able to identify and touch(0-1)	Categ
1	R1FTT_CRCL	r1ftt_crcl:impflag w1 r whether imputed value	Categ
1	R1TT_SQR	r1tt_sqr:w1 yellow square: R able to identify and touch(0-1)	Categ
1	R1FTT_SQR	r1ftt_sqr:impflag w1 r whether imputed value	Categ
1	R1TT_DMND	r1tt_dmnd:w1 large diamond: R able to identify and touch(0-1	Categ
1	R1FTT_DMND	r1ftt_dmnd:impflag w1 r whether imputed value	Categ
1	R1TT_BLCKCRL	r1tt_blckcrl:w1 black circle,black diamond: R able to identi	Categ
1	R1FTT_BLCKCR	r1ftt_blckcrl:impflag w1 r whether imputed value	Categ
1	R1TT_BLSQR	r1tt_blsqr:w1 blue square,yellow square: R able to identify	Categ
1	R1FTT_BLSQR	r1ftt_blsqr:impflag w1 r whether imputed value	Categ
1	R1TT_YLDMND	r1tt_yldmnd:w1 yellow diamond,blue circle: R able to identif	Categ
1	R1FTT_YLDMN	r1ftt_yldmnd:impflag w1 r whether imputed value	Categ
1	R1TT_YLSQR	r1tt_ylsqr:w1 yellow square,black circle: R able to identify	Categ
1	R1FTT_YLSQR	r1ftt_ylsqr:impflag w1 r whether imputed value	Categ
1	R1TT_SCORE	r1tt_score:w1 R Token Test 7-item score(0-7)	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1TT_CRCL	2504	0.93	0.25	0.00	1.00
R1FTT_CRCL	4096	2.06	2.42	0.00	5.00
R1TT_SQR	2504	0.75	0.43	0.00	1.00
R1FTT_SQR	4096	2.06	2.42	0.00	5.00
R1TT_DMND	2504	0.63	0.48	0.00	1.00
R1FTT_DMND	4096	2.07	2.42	0.00	5.00
R1TT_BLCKCRL	2504	0.53	0.50	0.00	1.00
R1FTT_BLCKCR	4096	2.07	2.42	0.00	5.00
R1TT_BLSQR	2504	0.43	0.49	0.00	1.00
R1FTT_BLSQR	4096	2.07	2.42	0.00	5.00
R1TT_YLDMND	2504	0.41	0.49	0.00	1.00
R1FTT_YLDMN	4096	2.07	2.42	0.00	5.00

```
R1TT_YLSQR      2504          0.60          0.49          0.00          1.00

R1FTT_YLSQR     4096          2.08          2.42          0.00          5.00

R1TT_SCORE      2504          4.28          1.93          0.00          7.00
```

Categorical Variable Codes

```
Value--------------------------------|  R1TT_CRCL
.x:Not in phase/wave                 |       1592
0.No                                 |        173
1.Yes                                |       2331

Value--------------------------------|  R1FTT_CRCL
0.Not imputed                        |       2344
1.Dont know                          |         26
2.Missing                            |          8
3.Not Assessed                       |         67
4.Refused                            |         59
5.Not in phase/wave                  |       1592

Value--------------------------------|  R1TT_SQR
.x:Not in phase/wave                 |       1592
0.No                                 |        627
1.Yes                                |       1877

Value--------------------------------|  R1FTT_SQR
0.Not imputed                        |       2346
1.Dont know                          |         20
2.Missing                            |          8
3.Not Assessed                       |         69
4.Refused                            |         61
5.Not in phase/wave                  |       1592

Value--------------------------------|  R1TT_DMND
.x:Not in phase/wave                 |       1592
0.No                                 |        931
1.Yes                                |       1573

Value--------------------------------|  R1FTT_DMND
0.Not imputed                        |       2330
1.Dont know                          |         26
2.Missing                            |          8
3.Not Assessed                       |         77
4.Refused                            |         63
5.Not in phase/wave                  |       1592

Value--------------------------------|R1TT_BLCKCRL
.x:Not in phase/wave                 |       1592
0.No                                 |       1167
1.Yes                                |       1337

Value--------------------------------|R1FTT_BLCKCR
0.Not imputed                        |       2330
1.Dont know                          |         22
2.Missing                            |          8
3.Not Assessed                       |         80
4.Refused                            |         64
5.Not in phase/wave                  |       1592

Value--------------------------------|  R1TT_BLSQR
.x:Not in phase/wave                 |       1592
0.No                                 |       1434
1.Yes                                |       1070

Value--------------------------------|  R1FTT_BLSQR
0.Not imputed                        |       2331
1.Dont know                          |         23
```

```
2.Missing                                | 8
3.Not Assessed                           | 79
4.Refused                                | 63
5.Not in phase/wave                      | 1592

Value--------------------------------| R1TT_YLDMND
.x:Not in phase/wave                     | 1592
0.No                                     | 1488
1.Yes                                    | 1016

Value--------------------------------| R1FTT_YLDMN
0.Not imputed                            | 2334
1.Dont know                              | 22
2.Missing                                | 8
3.Not Assessed                           | 74
4.Refused                                | 66
5.Not in phase/wave                      | 1592

Value--------------------------------| R1TT_YLSQR
.x:Not in phase/wave                     | 1592
0.No                                     | 1001
1.Yes                                    | 1503

Value--------------------------------| R1FTT_YLSQR
0.Not imputed                            | 2327
1.Dont know                              | 20
2.Missing                                | 12
3.Not Assessed                           | 76
4.Refused                                | 69
5.Not in phase/wave                      | 1592

Value--------------------------------| R1TT_SCORE
.x:Not in phase/wave                     | 1592
0                                        | 73
1                                        | 166
2                                        | 233
3                                        | 418
4                                        | 418
5                                        | 420
6                                        | 383
7                                        | 393
```

How Constructed

These questions indicate how the respondent did on the Token Test.

RwTT_CRCL indicates whether the respondent is able to identify the circle.

RwTT_SQR indicates whether the respondent is able to identify the yellow square.

RwTT_DMND indicates whether the respondent is able to identify the large diamond.

RwTT_BLCKCRL indicates whether the respondent is able to identify the black circle and then the black diamond.

RwTT_BLSQR indicates whether the respondent is able to identify the blue square and the yellow square.

RwTT_YLDMND indicates whether the respondent is able to tap the yellow diamond and the blue circle.

RwTT_YLSQR indicates whether the respondent is able to tap the black circle instead of tapping the yellow square.

RwTT_CRCL, RwTT_SQR, RwTT_DMND, RwTT_BLCKCRL, RwTT_BLSQR, RwTT_YLDMND, RwTT_YLSQR are coded as follows: 0. No, 1. Yes. Don't know responses are assigned special missing (.d). Refused responses are assigned special missing (.r). Special missing (.x) is assigned if not in phase/wave. If the respondent cannot perform the requested actions, special missing (.n) is assigned as "Not Assessed". "Not Assessed" option

was marked only if the respondent has some physical disability, which prevents him/her from performing the test. Other missing is assigned special missing (.m).

RwTT_SCORE indicates a summary score between RwTT_CRCL, RwTT_SQR, RwTT_DMND, RwTT_BLCKCRL, RwTT_BLSQR, RwTT_YLDMND, and RwTT_YLSQR. Scores range from 0-7.

RwFTT_CRCL, RwFTT_SQR, RwFTT_DMND, RwFTT_BLCKCR, RwFTT_BLSQR, RwFTT_YLDMN and RwFTT_YLSQR are flag variables, indicating whether the corresponding variable has an assigned imputed value. The flag variables are coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, 3.Not Assessed, 4.Refused, and 5.Not in phase/wave. The original missing value is otherwise included.

Cross Wave Differences in DAD

These questions were asked starting in phase 2 of the data collection.

Differences with HRS HCAP

These questions were not asked in the HRS HCAP.

Differences with Harmonized LASI

These questions were not asked in the Harmonized LASI.

DAD Variables Used

EF103A	Touch a circle
EF103B	Touch the yellow square
EF103C	Touch the large diamond
EF103D	Touch the black circle then the black diamond
EF103E	Before touching the blue square, touch the ye
EF103F	After tapping the yellow diamond, tap the blu
EF103G	Instead of tapping the yellow square, tap the

Judgement and Problem Solving

Wave	Variable	Label	Type
1	R1JP_ANIML	r1jp_animl:w1 similarities: R elephant and monkey	Categ
1	R1FJP_ANIML	r1fjp_animl:impflag w1 r whether imputed value	Categ
1	R1JP_FLWR	r1jp_flwr:w1 similarities: R rose and jasmine	Categ
1	R1FJP_FLWR	r1fjp_flwr:impflag w1 r whether imputed value	Categ
1	R1JP_LIE	r1jp_lie:w1 differences: R lie and mistake	Categ
1	R1FJP_LIE	r1fjp_lie:impflag w1 r whether imputed value	Categ
1	R1JP_RIVER	r1jp_river:w1 differences: R river and pond	Categ
1	R1FJP_RIVER	r1fjp_river:impflag w1 r whether imputed value	Categ
1	R1JP_RUPEE1	r1jp_rupee1:w1 R 25 paise coins for one Rupee	Categ
1	R1FJP_RUPE1	r1fjp_rupee1:impflag w1 r whether imputed value	Categ
1	R1JP_RUPEE2	r1jp_rupee2:w1 R 25 paise coins for six and half rupees	Categ
1	R1FJP_RUPE2	r1fjp_rupee2:impflag w1 r whether imputed value	Categ
1	R1JP_FNDKID	r1jp_fndkid:w1 judgement: R find a lost child on road	Categ
1	R1FJP_FNDKI	r1fjp_fndkid:impflag w1 r whether imputed value	Categ
1	R1SIM_SCORE	r1sim_score:w1 R similiarity and difference summary score	Categ
1	R1PRO_SCORE	r1pro_score:w1 R problem solving summary score	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1JP_ANIML	2504	0.38	0.49	0.00	1.00
R1FJP_ANIML	4096	2.05	2.40	0.00	5.00
R1JP_FLWR	2504	0.59	0.49	0.00	1.00
R1FJP_FLWR	4096	2.05	2.41	0.00	5.00
R1JP_LIE	2504	0.18	0.38	0.00	1.00
R1FJP_LIE	4096	2.07	2.40	0.00	5.00
R1JP_RIVER	2504	0.59	0.49	0.00	1.00
R1FJP_RIVER	4096	2.02	2.42	0.00	5.00
R1JP_RUPEE1	2504	0.77	0.42	0.00	1.00
R1FJP_RUPE1	4096	2.06	2.41	0.00	5.00
R1JP_RUPEE2	2504	0.32	0.47	0.00	1.00

```
R1FJP_RUPE2    4096          2.13          2.38          0.00          5.00

R1JP_FNDKID    2504          0.71          0.45          0.00          1.00

R1FJP_FNDKI    4096          2.00          2.43          0.00          5.00

R1SIM_SCORE    2504          1.75          1.21          0.00          4.00

R1PRO_SCORE    2504          1.79          0.96          0.00          3.00
```

Categorical Variable Codes

```
Value-------------------------------| R1JP_ANIML
.x:Not in phase/wave                |      1592
0.Incorrect                         |      1547
1.Correct                           |       957

Value-------------------------------| R1FJP_ANIML
0.Not imputed                       |      2222
1.Dont know                         |       219
2.Missing                           |        11
4.Refused                           |        52
5.Not in phase/wave                 |      1592

Value-------------------------------| R1JP_FLWR
.x:Not in phase/wave                |      1592
0.Incorrect                         |      1017
1.Correct                           |      1487

Value-------------------------------| R1FJP_FLWR
0.Not imputed                       |      2242
1.Dont know                         |       197
2.Missing                           |         8
4.Refused                           |        57
5.Not in phase/wave                 |      1592

Value-------------------------------| R1JP_LIE
.x:Not in phase/wave                |      1592
0.Incorrect                         |      2062
1.Correct                           |       442

Value-------------------------------| R1FJP_LIE
0.Not imputed                       |      2178
1.Dont know                         |       253
2.Missing                           |        10
4.Refused                           |        63
5.Not in phase/wave                 |      1592

Value-------------------------------| R1JP_RIVER
.x:Not in phase/wave                |      1592
0.Incorrect                         |      1017
1.Correct                           |      1487

Value-------------------------------| R1FJP_RIVER
0.Not imputed                       |      2359
1.Dont know                         |        85
2.Missing                           |         8
4.Refused                           |        52
5.Not in phase/wave                 |      1592

Value-------------------------------| R1JP_RUPEE1
.x:Not in phase/wave                |      1592
0.Incorrect                         |       580
1.Correct                           |      1924

Value-------------------------------| R1FJP_RUPE1
0.Not imputed                       |      2260
```

```
1.Dont know                          |           162
2.Missing                            |             8
4.Refused                            |            74
5.Not in phase/wave                  |          1592

Value-------------------------------| R1JP_RUPEE2
.x:Not in phase/wave                 |          1592
0.Incorrect                          |          1710
1.Correct                            |           794

Value-------------------------------| R1FJP_RUPE2
0.Not imputed                        |          2053
1.Dont know                          |           343
2.Missing                            |             8
4.Refused                            |           100
5.Not in phase/wave                  |          1592

Value-------------------------------| R1JP_FNDKID
.x:Not in phase/wave                 |          1592
0.Incorrect                          |           728
1.Correct                            |          1776

Value-------------------------------| R1FJP_FNDKI
0.Not imputed                        |          2419
1.Dont know                          |            18
2.Missing                            |            19
4.Refused                            |            48
5.Not in phase/wave                  |          1592

Value-------------------------------| R1SIM_SCORE
.x:Not in phase/wave                 |          1592
0                                    |           450
1                                    |           667
2                                    |           658
3                                    |           526
4                                    |           203

Value-------------------------------| R1PRO_SCORE
.x:Not in phase/wave                 |          1592
0                                    |           265
1                                    |           659
2                                    |           905
3                                    |           675
```

How Constructed

RwJP_ANIML and RwJP_FLWR ask the respondent to identify similarities between different things. Prior to these graded tasks, the respondent is given the example that pencils and pens are alike because both are writing instruments. RwJP_ANIML indicates whether the respondent correctly associated elephants and monkeys. RwJP_FLWR indicates whether the respondent correctly associated roses and jasmine. They are coded as follows: 0. Incorrect, 1. Correct.

RwJP_LIE and RwJP_RIVER ask the respondent to identify differences between different things. Prior to these tasks, the respondent is given the example that dogs and crows are different because one is an animal and the other is a bird. RwJP_LIE indicates whether the respondent correctly distinguishes the difference between a lie and a mistake. RwJP_RIVER indicates whether the respondent correctly distinguishes the difference between a river and a pond. They are coded as follows: 0. Incorrect, 1. Correct.

RwJP_RUPEE1 indicates whether the respondent correctly answers a calculation problem. The respondent is asked how many 25paise coins will be given for one Rupee. It is coded as follows: 0. Incorrect, 1. Correct.

RwJP_RUPEE2 indicates whether the respondent correctly answers a calculation problem. The respondent is asked how many 25paise coins they will need to make six and half rupees. It is coded as follows: 0. Incorrect, 1. Correct.

RwJP_FNDKID indicates whether the respondent correctly indicates what he/she would do if he/she found a lost child on the road. It is coded as follows: 0. Incorrect, 1. Correct.

Don't know responses are assigned special missing (.d). Refused responses are assigned special missing (.r). Special missing (.x) is assigned if not in phase/wave. Other missing is assigned as special missing (.m).

RwSIM_SCORE is a similarities and differences summary score referencing RwJP_ANIML, RwJP_FLWR, RwJP_LIE, and RwJP_RIVER. Scores range from 0-4.

RwPRO_SCORE is a problem-solving summary score referencing RwJP_RUPEE1, RwJP_RUPEE2, and RwJP_FNDKID. Scores range from 0-3.

RwFJP_ANIML, RwFJP_FLWR, RwFJP_LIE, RwFJP_RIVER, RwFJP_RUPE1, RwFJP_RUPE2 and RwFJP_FNDKI are flag variables, indicating whether the corresponding variable has an assigned imputed value. The flag variables are coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, 4.Refused, and 5.Not in phase/wave. The original missing value is otherwise included.

Cross Wave Differences in DAD

These questions were asked starting in phase 2 of data collection.

Differences with HRS HCAP

These questions were not asked in the HRS HCAP.

Differences with Harmonized LASI

These questions were not asked in the Harmonized LASI.

DAD Variables Used

```
JP100A                    Elephant  - Monkey
JP100B                    Rose - Jasmine
JP101A                    Lie - .Mistake
JP101B                    River - Pond
JP102A                    25paise coins will you give me for one Rupee
JP102B                     25paise coins will you need to make six and
JP103A                    find a lost child on road
```

Factor Analysis

Wave	Variable	Label	Type
1	R1BORIENT	r1borient: w1 factor analysis broad domain: orientation	Cont
1	R1BEXEFU	r1bexefu: w1 factor analysis broad domain: executive functio	Cont
1	R1BLANGF	r1blangf: w1 factor analysis broad domain: language/fluency	Cont
1	R1BMEMORY	r1bmemory: w1 factor analysis broad domain: memory	Cont
1	R1BVSP	r1bvsp: w1 factor analysis broad domain: visuospatial	Cont
1	R1NMEMIMM	r1nmemimm: w1 factor analysis narrow domain: memory, imm epi	Cont
1	R1NMEMDEL	r1nmemdel: w1 factor analysis narrow domain: memory, delay e	Cont
1	R1NMEMREC	r1nmemrec: w1 factor analysis narrow domain: memory, recognt	Cont
1	R1NREASON	r1nreason: w1 factor analysis narrow domain: abstract reason	Cont
1	R1NATNSPD	r1natnspd: w1 factor analysis narrow domain: attention speed	Cont
1	R1SGCP	r1gcp: w1 factor analysis: general cognitive factor	Cont

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1BORIENT	4096	-0.05	0.81	-2.49	0.94
R1BEXEFU	4096	-0.01	0.91	-1.93	2.48
R1BLANGF	4096	-0.02	0.81	-3.39	1.96
R1BMEMORY	4096	-0.00	0.96	-2.20	3.73
R1BVSP	4096	0.01	0.83	-1.59	1.58
R1NMEMIMM	4096	-0.00	0.88	-2.13	3.51
R1NMEMDEL	4096	0.00	0.89	-1.39	3.49
R1NMEMREC	4096	0.00	0.67	-2.43	1.23
R1NREASON	4096	0.00	0.89	-1.94	1.93
R1NATNSPD	4096	-0.01	0.83	-1.32	2.21
R1SGCP	4096	-0.01	0.93	-3.04	2.77

How Constructed

RwBORIENT is a summary measure of cognitive tests that are organized into the orientation broad domain. This broad domain is represented by 5 questions about orientation to time (e.g., name the current month, year, season), 5 questions about orientation to place (e.g., state, city), and one question to name the Prime Minister.

RwBEXEFU is a summary measure of cognitive tests that are organized into the executive functioning broad domain. This broad domain consists of two narrow subdomains: attention/speed and abstract reasoning. Further information about the tests used are described in the narrow subdomains of executive functioning.

RwBLANGF is a summary measure of cognitive tests that are organized into the language/fluency broad domain. This domain is represented by animal naming, writing or saying a sentence, phrase repetition, naming of common objects by sight (watch, pencil), naming of common objects by description (elbow, hammer, scissors, coconut, window), following a read or acted command to close one's eyes, and completing a 3-stage task.

RwBMEMORY is a summary measure of cognitive tests that are organized into the memory broad domain. This broad domain consists of 3 narrow subdomains: immediate, delayed, and recognition recall of different cognitive tests used in LASI-DAD. The different cognitive tests used are further described for the memory variables in the narrow domain.

RwBVSP is a summary measure of cognitive tests that are organized into the visuospatial broad domain. This domain is measured by constructional praxis, drawing pentagons, and drawing clocks.

RwNMEMIMM is a summary measure for cognitive tests that are organized into the immediate episodic memory narrow subdomain. This subdomain consists of immediate recall of a 3-word task, a 10-word list, the logical memory test, and the Brave man test.

RwNMEMDEL is a summary measure of cognitive tests that are organized into the delayed episodic memory narrow subdomain. This subdomain consists of delayed recall of a 10-word list, the logical memory test, the Brave man test, a 3-word task, and the constructional praxis test that was used to measure delayed memory.

RwNMEMREC is a summary measure of cognitive tests that are organized into the recognition memory narrow subdomain. This subdomain consists of a recognition recall of a 10-word list and the logical memory test.

RwNREASON is a summary measure of cognitive tests that are organized into the abstract reasoning narrow subdomain within the executive functioning broad domain. This subdomain consists of the Ravens task, clock drawing, and the Go-No-Go test.

RwNATNSPD is a summary measure of cognitive tests that are organized into the attention/speed narrow subdomain within the executive functioning broad domain. This subdomain consists of a numeracy task, backwards counting, symbol cancellation, and the Digit Span forwards and backwards task.

RwSGCP is a general cognitive factor score and can be used as a predictor or outcome in a model. It is the broadest cognitive summary variable, measured by memory, executive functioning, visuospatial, and language domains.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

For the variable RwBORIENT: In HRS HCAP, it contains 5 questions about orientation to time and 5 questions about orientation to place. In LASI-DAD, it also includes a question to name the Prime Minister.

For the variable RwBLANGF: No differences known.

For the variable RwBVSP: In HRS HCAP, only the CERAD constructional praxis was tested. In LASI DAD, additional tests were asked: drawing pentagons and drawing clocks.

For the variable RwBMEMORY: No differences known.

For the variable RwBEXEFU: For the attention/speed narrow subdomain, LASI DAD uses the test "Digits Backward/Forward", which is not used in HRS HCAP. For the abstract reasoning subdomain, HRS HCAP uses TMT, but LASI-DAD substitutes this TMT test for the Go-No-Go task.

For the variable RwNMEMIMM: No differences known.

For the variable RwNMEMDEL: No differences known.

For the variable RwNMEMREC: No differences known.

For the variable RwNREASON: In HRS HCAP, the TMT test was used. However, the LASI DAD substitutes the TMT test with the Go-No-Go task.

For the variable RwNATNSPD: HRS HCAP does not have the Digits Forward and Backward task.

For the variable RwSGCP: No differences known.

Differences with Harmonized LASI

These summary measures were not created in the Harmonized LASI.

Standardized Summary Scores

```
Wave Variable       Label                                                    Type

  1  R1HMSE_SCORZ   r1hmse_score:w1 R HMSE total score (0-30) (stdized)      Cont

  1  R1WORD_TOTAZ   r1word_total:w1 R word list learning total(0-30) (stdized) Cont

  1  R1WORD_DZ      r1word_d:w1 R word list learning recall(0-10) (stdized)  Cont

  1  R1WRE_SCOREZ   r1wre_score:w1 R word List Recognition(0-20) (stdized)   Cont

  1  R1LOG_RECOZ    r1log_reco:w1 R logical memory recognition score(0-15) (stdi Cont

  1  R1BM_IMMEXZ    r1bm_immex:w1 R Brave man immediate: summary score exact(0-6 Cont

  1  R1BM_RECLEXZ   r1bm_reclex:w1 R Brave man recall: summary score exact (0-6) Cont

  1  R1VERBALZ      r1verbal:w1 R verbal fluency:animal naming-correct (stdized) Cont

  1  R1CSID_SCORZ   r1csid_score:w1 R CSID 4-item score(0-4) (stdized)       Cont

  1  R1RV_SCOREZ    r1rv_score:w1 R Raven's test score(0-17) (stdized)       Cont

  1  R1COG_TOTALZ   r1cog_total:w1 total cognition score (stdized)           Cont
```

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1HMSE_SCORZ	4096	-0.00	1.00	-4.09	1.34
R1WORD_TOTAZ	4096	-0.00	1.00	-2.25	3.23
R1WORD_DZ	4096	-0.00	1.00	-1.33	2.99
R1WRE_SCOREZ	4096	-0.00	1.00	-4.48	1.12
R1LOG_RECOZ	4096	0.00	1.00	-2.38	2.40
R1BM_IMMEXZ	4096	-0.00	1.00	-1.28	2.42
R1BM_RECLEXZ	4096	-0.00	1.00	-0.74	2.99
R1VERBALZ	4096	0.00	1.00	-2.48	4.52
R1CSID_SCORZ	4096	0.00	1.00	-4.17	0.69
R1RV_SCOREZ	4096	-0.00	1.00	-2.26	2.87
R1COG_TOTALZ	4096	0.00	6.75	-25.45	20.62

How Constructed

The following variables are the standardized cognition summary scores, for the common tests also administered in other HCAP studies.

RwHMSE_SCORZ is the standardized summary score of RwHMSE_SCORE, which is the sum total value of RwORIENT_T5, RwORIENT_P5, RwIMRC3, RwBACKWARD5, RwDLRC3, RwOBJECT, RwREPEAT, RwCOMBFOL, RwEXECU, RwSENTEN, and RwDRAW.

RwWORD_TOTAZ is the standardized summary score of RwWORD_TOTAL, the total number of correct words between RwWORD1, RwWORD2, and RwWORD3.

RwWORD_DZ is the standardized summary score of RwWORD_D, the total numer of words recalled from the 10-word list after a delay.

RwWRE_SCOREZ is the standardized summary score of RwWRE_SCORE, the total number of correct responses given by the respondent for RwWRE_ORG and RwWRE_FOIL.

RwLOG_RECOZ is the standardized summary score of RwLOG_RECO, which test how well respondents remember the specific details of the second story that was read to them.

RwBM_IMMEXZ is the standardized summary score of RwBM_IMMEX, which measures how well respondents remembered the exact story points of a brave man story.

RwBM_RECLEXZ is the standardized summary score of RwBM_RECLEX, which measures how well respondents remembered the exact story points of a brave man story after a delay.

RwVERBALZ is the standardized summary score of RwVERBAL, the number of correct animals that the respondents named.

RwCSID_SCORZ is the standardized summary score of RwCSID_SCORE, the total number of correct responses between RwELBOW, RwHAMMER, RwSTORE, and RwPOINT.

RwRV_SCOREZ is the standardized summary score of RwRV_SCORE, the number of correct answers to a series of questions where respondents identified the missing piece of each image in a set of images.

RwCOG_TOTALZ is the standardized total cognition score, and is calculated by adding RwHMSE_SCORZ, RwWORD_TOTAZ, RwWORD_DZ, RwWRE_SCOREZ, RwLOG_RECOZ, RwBM_IMMEXZ, RwBM_RECLEXZ, RwVERBALZ, RwCSID_SCORZ, and RwRV_SCOREZ together.

"Not Assessed" responses are coded as special missing (.n). Cases in which respondents' images were blurry and not yet scored were assigned special missing code (.b). Don't know, refused, or other missing responses are coded as special missing (.d), (.r), or (.m), respectively.

For further information on the variables mentioned in this section, please reference their respective sections above.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

The standardized cognition summary scores are available in the HRS HCAP and LASI-DAD.

Differences with Harmonized LASI

The standardized cognition summary scores were not created in the main Harmonized LASI study.

Section C: Informant Report

Informant Demographics

Wave	Variable	Label	Type
1	R1INF_AGE	r1inf_age:w1 Informant: age	Cont
1	R1INF_GENDR	r1inf_gendr:w1 Informant: gender	Categ
1	R1INF_EDUC	r1inf_educ:w1 Informant: education	Categ
1	R1INF_REL	r1inf_rel:w1 Informant: relation with r	Categ
1	R1INF_FREQ	r1inf_freq:w1 Informant: freq contact with r	Categ
1	R1INF_CARE	r1inf_care:w1 Informant: caregiver for r	Categ
1	R1INF_YRS	r1inf_yrs:w1 Informant: years know r	Cont

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1INF_AGE	4026	44.28	16.78	18.00	92.00
R1INF_GENDR	4036	1.64	0.48	1.00	2.00
R1INF_EDUC	4029	3.14	2.46	0.00	9.00
R1INF_REL	4036	4.00	3.37	1.00	15.00
R1INF_FREQ	4024	1.29	0.59	1.00	4.00
R1INF_CARE	4035	0.83	0.38	0.00	1.00
R1INF_YRS	4027	32.04	15.78	1.00	87.00

Categorical Variable Codes

```
Value-----------------------------------| R1INF_GENDR
.h:Not interviewed                       |           49
.m:Missing                               |           10
.r:Refuse                                |            1
1.Male                                   |         1464
2.Female                                 |         2572

Value-----------------------------------| R1INF_EDUC
.h:Not interviewed                       |           49
.m:Missing                               |           10
.o:Other                                 |            6
.r:Refuse                                |            2
0.Never attended school                  |          913
1.Less than primary school(standard 1-4) |          309
2.Primary school completed (standard 5-7 |          482
3.Middle school completed (standard 8- 9 |          495
4.Secondary school completed (standard 1 |          724
5.Higher secondary completed (standard 1 |          450
6.Diploma and certificate holders        |           68
7.Graduate degree completed              |          419
8.Post-graduate degree                   |          126
9.Professional course/degree             |           43

Value-----------------------------------| R1INF_REL
.h:Not interviewed                       |           49
```

```
.m:Missing                            |              10
.r:Refuse                             |               1
1.Spouse/partner                      |            1204
2.Son                                 |             696
3.Daughter                            |             302
4.Son-in-law                          |              27
5.Daughter-in-law                     |             954
6.Grandchild                          |             239
7.Parent                              |             139
8.Parent-in-law                       |             119
9.Brother                             |              32
10.Sister                             |              29
11.Grandparent                        |              61
12.Other relative                     |             102
13.Servant                            |               1
14.Friend                             |              27
15.Other                              |             104

Value---------------------------------|  R1INF_FREQ
.h:Not interviewed                    |              49
.m:Missing                            |              10
.o:Other                              |              12
.r:Refuse                             |               1
1.Lives with respondent               |            3057
2.Daily                               |             819
3.Once to several times/week          |              81
4.Once a month or less                |              67

Value---------------------------------|  R1INF_CARE
.h:Not interviewed                    |              49
.m:Missing                            |              11
.r:Refuse                             |               1
0.No                                  |             685
1.Yes                                 |            3350
```

How Constructed

RwINF_AGE indicates the age of the informant. Special missing (.h) is assigned if the respondent does not have an informant interview. Special missing (.d) is assigned for don't know responses. Special missing (.r) is assigned for refused responses. Other missing is assigned as special missing (.m).

RwINF_GENDR indicates the gender of the informant. A code of 1 indicates male and a code of 2 indicates female. Special missing (.h) is assigned if the respondent does not have an informant interview. Special missing (.r) is assigned for refused responses. Other missing is assigned as special missing (.m).

RwINF_EDUC indicates the highest grade of school or year of college the informant completed. Education levels are assigned as follows: 0. Never attended school, 1. Less than primary school (standard 1-4), 2. Primary school completed (standard 5-7), 3. Middle school completed (standard 8- 9), 4. Secondary school completed (standard 10 -11), 5. Higher Secondary completed (standard 12), 6. Diploma and certificate holders, 7. Graduate degree (B.A., B.Sc., B. Com.) completed, 8. Post-graduate degree or (M.A., M.Sc., M. Com.) above (M.Phil, Ph.D.,Post-Doc) completed, and 9. Professional course/degree (B.Ed, BE, B.Tech, MBBS, BHMS, BAMS, B. Pharm, BCS, BCA, BBA,LLB, BVSc., B. Arch, M.Ed, ME, M.Tech, MD, M.Pharm, MCS, MCA, MBA, LLM, MVSc., M. Arch, MS, CA, CS, CWA). Special missing (.o) is assigned if the informant reports 'other'. Special missing (.h) is assigned if the respondent does not have an informant interview. Special missing (.r) is assigned for refused responses. Other missing is as assigned special missing (.m).

RwINF_REL indicates the informant's relationship with the respondent. RwINF_REL is coded as follows: 1. Spouse/partner, 2. Son, 3. Daughter, 4. Son-in-law, 5. Daughter-in-law, 6. Grandchild, 7. Parent, 8. Parent-in-law, 9. Brother, 10. Sister, 11. Grandparent, 12. Other relative, 13. Servant. 14. Friend, and 15. Other. Special missing (.h) is assigned if the respondent does not have an informant interview. Special missing (.r) is assigned for refused responses. Other missing is as assigned special missing (.m).

RwINF_FREQ indicates how often the informant generally saw the respondent in the last year. A code of 1 is assigned if the informant lives with the respondent. A code of 2 is assigned if the informant saw the respondent daily. A code of 3 is assigned if the informant saw the respondent between once a week and several times a week. A code of 4 is assigned if the informant never saw the respondent or saw the

respondent up to once a month. Special missing (.o) is assigned if the informant reports an unspecified other frequency. Special missing (.h) is assigned if the respondent does not have an informant interview. Special missing (.r) is assigned for refused responses. Other missing is assigned as special missing (.m).

RwINF_CARE indicates whether the informant is a caregiver for the respondent. A code of 1 is assigned if the informant is a caregiver for the respondent. A code of 0 is assigned if the informant is not a caregiver for the respondent. Special missing (.h) is assigned if the respondent does not have an informant interview. Special missing (.r) is assigned for refused responses. Other missing is assigned as special missing (.m).

RwINF_YRS indicates the number of years the informant has known the respondent. If the informant is a child, sibling or parent, RwINF_YRS is coded as either the informant's age or respondent's age, whichever is younger. Special missing (.h) is assigned if the respondent does not have an informant interview. Special missing (.d) is assigned for don't know responses. Special missing (.r) is assigned for refused responses. Other missing is assigned as special missing (.m).

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

No differences known.

DAD Variables Used

```
Wave 1 Inf:
    DM_AGE                  Informant Age
    DM_CARE                 Inf Caregiver for Respondent
    DM_EDUC1                EVER ATTENDED SCHOOL
    DM_EDUC2                Informant Ed Level
    DM_FREQ                 Informant Freq See Respondent
    DM_GENDER               Informant Gender
    DM_RTR                  Informant Rel To Respondent
    DM_YEARS                Informant Yrs Known Respondent
```

Diagnosed Health Conditions

```
Wave Variable       Label                                                     Type

  1  R1INF_STROK    r1inf_strok:w1 Informant: r diagnosed with stroke         Categ

  1  R1INF_PARKN    r1inf_parkn:w1 Informant: r diagnosed with Parkinsons     Categ

  1  R1INF_ALZHE    r1inf_alzhe:w1 Informant: r diagnosed with Alzheimers     Categ

  1  R1INF_MEMRY    r1inf_memry:w1 Informant: r diagnosed with memory problems Categ
```

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1INF_STROK	4015	0.06	0.24	0.00	1.00
R1INF_PARKN	4016	0.04	0.18	0.00	1.00
R1INF_ALZHE	4020	0.04	0.19	0.00	1.00
R1INF_MEMRY	4002	0.12	0.32	0.00	1.00

Categorical Variable Codes

```
Value--------------------------------| R1INF_STROK
.d:DK                                |              19
.h:Not interviewed                   |              49
.m:Missing                           |              11
.r:Refuse                            |               2
0.No                                 |            3777
1.Yes                                |             238

Value--------------------------------| R1INF_PARKN
.d:DK                                |              18
.h:Not interviewed                   |              49
.m:Missing                           |              11
.r:Refuse                            |               2
0.No                                 |            3874
1.Yes                                |             142

Value--------------------------------| R1INF_ALZHE
.d:DK                                |              14
.h:Not interviewed                   |              49
.m:Missing                           |              11
.r:Refuse                            |               2
0.No                                 |            3877
1.Yes                                |             143

Value--------------------------------| R1INF_MEMRY
.d:DK                                |              32
.h:Not interviewed                   |              49
.m:Missing                           |              11
.r:Refuse                            |               2
0.No                                 |            3536
1.Yes                                |             466
```

How Constructed

RwINF_STROK indicates whether the informant reported that the respondent has been diagnosed with a stroke.

RwINF_PARKN indicates whether the informant reported that the respondent has been diagnosed with Parkinson's disease.

RwINF_ALZHE indicates whether the informant reported that the respondent has been diagnosed with Alzheimer's disease.

RwINF_MEMRY indicates whether the informant reported that the respondent has been diagnosed with memory problems.

RwINF_STROK, RwINF_PARKN, RwINF_ALZHE, and RwINF_MEMRY are coded as 1 if the informant reports that the respondent was diagnosed with the corresponding health condition. A code of 0 is assigned if the informant reports that the respondent has not been diagnosed with the condition. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know responses are assigned special missing (.d). Special missing (.r) is assigned for refused responses. Other missing is assigned as special missing (.m).

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

No differences known.

DAD Variables Used

DM_AD	Resp Diagnosed Alzheimers
DM_MEM	Resp Diagnosed Memory Probs
DM_PARK	Resp Diagnosed Parkinsons
DM_STROKE	Resp Diagnosed Stroke

JORM IQCODE Test

Wave	Variable	Label	Type
1	R1IQSCORE1	r1iqscore1:w1 JORM family/friend details	Categ
1	R1FIQSCORE1	r1fiqscore1:impflag w1 r whether imputed value	Categ
1	R1IQSCORE2	r1iqscore2:w1 JORM recent events	Categ
1	R1FIQSCORE2	r1fiqscore2:impflag w1 r whether imputed value	Categ
1	R1IQSCORE3	r1iqscore3:w1 JORM recent conversations	Categ
1	R1FIQSCORE3	r1fiqscore3:impflag w1 r whether imputed value	Categ
1	R1IQSCORE4	r1iqscore4:w1 JORM address and telephone number	Categ
1	R1FIQSCORE4	r1fiqscore4:impflag w1 r whether imputed value	Categ
1	R1IQSCORE5	r1iqscore5:w1 JORM day and month	Categ
1	R1FIQSCORE5	r1fiqscore5:impflag w1 r whether imputed value	Categ
1	R1IQSCORE6	r1iqscore6:w1 JORM where things are usually kept	Categ
1	R1FIQSCORE6	r1fiqscore6:impflag w1 r whether imputed value	Categ
1	R1IQSCORE7	r1iqscore7:w1 JORM where to find things	Categ
1	R1FIQSCORE7	r1fiqscore7:impflag w1 r whether imputed value	Categ
1	R1IQSCORE8	r1iqscore8:w1 JORM work familiar machines	Categ
1	R1FIQSCORE8	r1fiqscore8:impflag w1 r whether imputed value	Categ
1	R1IQSCORE9	r1iqscore9:w1 JORM new gadget or machine	Categ
1	R1FIQSCORE9	r1fiqscore9:impflag w1 r whether imputed value	Categ
1	R1IQSCORE10	r1iqscore10:w1 JORM new things in general	Categ
1	R1FIQSCORE10	r1fiqscore10:impflag w1 r whether imputed value	Categ
1	R1IQSCORE11	r1iqscore11:w1 JORM story in a book or on TV	Categ
1	R1FIQSCORE11	r1fiqscore11:impflag w1 r whether imputed value	Categ
1	R1IQSCORE12	r1iqscore12:w1 JORM making decisions on everyday matters	Categ
1	R1FIQSCORE12	r1fiqscore12:impflag w1 r whether imputed value	Categ
1	R1IQSCORE13	r1iqscore13:w1 JORM handling money for shopping	Categ
1	R1FIQSCORE13	r1fiqscore13:impflag w1 r whether imputed value	Categ
1	R1IQSCORE14	r1iqscore14:w1 JORM handling financial matters	Categ
1	R1FIQSCORE14	r1fiqscore14:impflag w1 r whether imputed value	Categ
1	R1IQSCORE15	r1iqscore15:w1 JORM handling other everyday arithmetic probl	Categ

```
1  R1FIQSCORE15   r1fiqscore15:impflag w1 r whether imputed value              Categ

1  R1IQSCORE16    r1iqscore16:w1 JORM reason things through                    Categ

1  R1FIQSCORE16   r1fiqscore16:impflag w1 r whether imputed value              Categ

1  R1JORMSCORE    r1jormscore:w1 JORM average score                           Cont
```

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1IQSCORE1	4096	3.46	0.73	1.00	5.00
R1FIQSCORE1	4096	0.19	1.34	0.00	12.00
R1IQSCORE2	4096	3.43	0.71	1.00	5.00
R1FIQSCORE2	4096	0.17	1.32	0.00	12.00
R1IQSCORE3	4096	3.45	0.69	1.00	5.00
R1FIQSCORE3	4096	0.16	1.32	0.00	12.00
R1IQSCORE4	4096	3.44	0.72	1.00	5.00
R1FIQSCORE4	4096	0.46	1.57	0.00	12.00
R1IQSCORE5	4096	3.40	0.71	1.00	5.00
R1FIQSCORE5	4096	0.24	1.39	0.00	12.00
R1IQSCORE6	4096	3.52	0.69	1.00	5.00
R1FIQSCORE6	4096	0.18	1.34	0.00	12.00
R1IQSCORE7	4096	3.59	0.71	1.00	5.00
R1FIQSCORE7	4096	0.18	1.34	0.00	12.00
R1IQSCORE8	4096	3.43	0.75	1.00	5.00
R1FIQSCORE8	4096	0.71	1.70	0.00	12.00
R1IQSCORE9	4096	3.53	0.83	1.00	5.00
R1FIQSCORE9	4096	1.02	1.81	0.00	12.00
R1IQSCORE10	4096	3.56	0.85	1.00	5.00
R1FIQSCORE10	4096	0.54	1.61	0.00	12.00
R1IQSCORE11	4096	3.35	0.73	1.00	5.00
R1FIQSCORE11	4096	0.57	1.63	0.00	12.00
R1IQSCORE12	4096	3.42	0.74	1.00	5.00
R1FIQSCORE12	4096	0.36	1.49	0.00	12.00
R1IQSCORE13	4096	3.41	0.75	1.00	5.00

R1FIQSCORE13	4096	0.42	1.54	0.00	12.00
R1IQSCORE14	4096	3.44	0.79	1.00	5.00
R1FIQSCORE14	4096	0.72	1.71	0.00	12.00
R1IQSCORE15	4096	3.41	0.73	1.00	5.00
R1FIQSCORE15	4096	0.41	1.53	0.00	12.00
R1IQSCORE16	4096	3.36	0.70	1.00	5.00
R1FIQSCORE16	4096	0.21	1.37	0.00	12.00
R1JORMSCORE	4096	3.45	0.55	1.00	5.00

Categorical Variable Codes

```
Value-------------------------------| R1IQSCORE1
1.Much improved                     |         36
2.A bit improved                    |         83
3.Not much changed                  |       2322
4.A bit worse                       |       1257
5.Much worse                        |        398

Value-------------------------------| R1FIQSCORE1
0.Not imputed                       |       3980
1.Dont know                         |          9
2.Missing                           |         13
3.Not Assessed                      |         42
4.Refused                           |          3
12.Not interviewed                  |         49

Value-------------------------------| R1IQSCORE2
1.Much improved                     |         34
2.A bit improved                    |         82
3.Not much changed                  |       2410
4.A bit worse                       |       1231
5.Much worse                        |        339

Value-------------------------------| R1FIQSCORE2
0.Not imputed                       |       4001
1.Dont know                         |         16
2.Missing                           |         13
3.Not Assessed                      |         14
4.Refused                           |          3
12.Not interviewed                  |         49

Value-------------------------------| R1IQSCORE3
1.Much improved                     |         19
2.A bit improved                    |         75
3.Not much changed                  |       2390
4.A bit worse                       |       1278
5.Much worse                        |        334

Value-------------------------------| R1FIQSCORE3
0.Not imputed                       |       4006
1.Dont know                         |         16
2.Missing                           |         13
3.Not Assessed                      |          7
4.Refused                           |          5
12.Not interviewed                  |         49

Value-------------------------------| R1IQSCORE4
1.Much improved                     |         22
2.A bit improved                    |         68
3.Not much changed                  |       2518
```

```
4.A bit worse                            |         1067
5.Much worse                             |          421

Value----------------------------------| R1FIQSCORE4
0.Not imputed                            |         3598
1.Dont know                              |           17
2.Missing                                |           13
3.Not Assessed                           |          415
4.Refused                                |            4
12.Not interviewed                       |           49

Value----------------------------------| R1IQSCORE5
1.Much improved                          |           29
2.A bit improved                         |           75
3.Not much changed                       |         2583
4.A bit worse                            |         1040
5.Much worse                             |          369

Value----------------------------------| R1FIQSCORE5
0.Not imputed                            |         3906
1.Dont know                              |           14
2.Missing                                |           13
3.Not Assessed                           |          111
4.Refused                                |            3
12.Not interviewed                       |           49

Value----------------------------------| R1IQSCORE6
1.Much improved                          |           12
2.A bit improved                         |           55
3.Not much changed                       |         2223
4.A bit worse                            |         1421
5.Much worse                             |          385

Value----------------------------------| R1FIQSCORE6
0.Not imputed                            |         3986
1.Dont know                              |           11
2.Missing                                |           13
3.Not Assessed                           |           34
4.Refused                                |            3
12.Not interviewed                       |           49

Value----------------------------------| R1IQSCORE7
1.Much improved                          |           15
2.A bit improved                         |           53
3.Not much changed                       |         1985
4.A bit worse                            |         1592
5.Much worse                             |          451

Value----------------------------------| R1FIQSCORE7
0.Not imputed                            |         3979
1.Dont know                              |           15
2.Missing                                |           13
3.Not Assessed                           |           37
4.Refused                                |            3
12.Not interviewed                       |           49

Value----------------------------------| R1IQSCORE8
1.Much improved                          |           33
2.A bit improved                         |           92
3.Not much changed                       |         2512
4.A bit worse                            |         1007
5.Much worse                             |          452

Value----------------------------------| R1FIQSCORE8
0.Not imputed                            |         3251
1.Dont know                              |           29
2.Missing                                |           13
3.Not Assessed                           |          751
4.Refused                                |            3
12.Not interviewed                       |           49
```

```
Value--------------------------------| R1IQSCORE9
1.Much improved                      |              48
2.A bit improved                     |             153
3.Not much changed                   |            2061
4.A bit worse                        |            1247
5.Much worse                         |             587

Value--------------------------------| R1FIQSCORE9
0.Not imputed                        |            2825
1.Dont know                          |              35
2.Missing                            |              13
3.Not Assessed                       |            1170
4.Refused                            |               4
12.Not interviewed                   |              49

Value--------------------------------| R1IQSCORE10
1.Much improved                      |              45
2.A bit improved                     |             195
3.Not much changed                   |            1920
4.A bit worse                        |            1306
5.Much worse                         |             630

Value--------------------------------|R1FIQSCORE10
0.Not imputed                        |            3479
1.Dont know                          |              32
2.Missing                            |              13
3.Not Assessed                       |             520
4.Refused                            |               3
12.Not interviewed                   |              49

Value--------------------------------| R1IQSCORE11
1.Much improved                      |              37
2.A bit improved                     |             127
3.Not much changed                   |            2675
4.A bit worse                        |             881
5.Much worse                         |             376

Value--------------------------------|R1FIQSCORE11
0.Not imputed                        |            3451
1.Dont know                          |              20
2.Missing                            |              13
3.Not Assessed                       |             559
4.Refused                            |               4
12.Not interviewed                   |              49

Value--------------------------------| R1IQSCORE12
1.Much improved                      |              26
2.A bit improved                     |              95
3.Not much changed                   |            2553
4.A bit worse                        |             977
5.Much worse                         |             445

Value--------------------------------|R1FIQSCORE12
0.Not imputed                        |            3745
1.Dont know                          |              15
2.Missing                            |              13
3.Not Assessed                       |             269
4.Refused                            |               5
12.Not interviewed                   |              49

Value--------------------------------| R1IQSCORE13
1.Much improved                      |              31
2.A bit improved                     |              81
3.Not much changed                   |            2645
4.A bit worse                        |             863
5.Much worse                         |             476

Value--------------------------------|R1FIQSCORE13
0.Not imputed                        |            3665
1.Dont know                          |              12
2.Missing                            |              13
```

```
3.Not Assessed                         |          352
4.Refused                              |            5
12.Not interviewed                     |           49

Value-------------------------------| R1IQSCORE14
1.Much improved                        |           41
2.A bit improved                       |          110
3.Not much changed                     |         2492
4.A bit worse                          |          909
5.Much worse                           |          544

Value-------------------------------|R1FIQSCORE14
0.Not imputed                          |         3252
1.Dont know                            |           15
2.Missing                              |           14
3.Not Assessed                         |          761
4.Refused                              |            5
12.Not interviewed                     |           49

Value-------------------------------| R1IQSCORE15
1.Much improved                        |           28
2.A bit improved                       |           74
3.Not much changed                     |         2609
4.A bit worse                          |          960
5.Much worse                           |          425

Value-------------------------------|R1FIQSCORE15
0.Not imputed                          |         3672
1.Dont know                            |           20
2.Missing                              |           14
3.Not Assessed                         |          336
4.Refused                              |            5
12.Not interviewed                     |           49

Value-------------------------------| R1IQSCORE16
1.Much improved                        |           32
2.A bit improved                       |           95
3.Not much changed                     |         2681
4.A bit worse                          |          947
5.Much worse                           |          341

Value-------------------------------|R1FIQSCORE16
0.Not imputed                          |         3940
1.Dont know                            |           17
2.Missing                              |           14
3.Not Assessed                         |           72
4.Refused                              |            4
12.Not interviewed                     |           49
```

How Constructed

The following variables pertain to a series of questions asking the informant whether the respondent has improved, stayed the same, or gotten worse in various situations that require memory or intelligence. The interviewer emphasizes the importance of comparing present performance with past performance. The informant is asked to compare the current year with 10 year ago. If the informant has known the respondent for less than 10 years, they are to compare the current year with the year they first met the respondent.

In RwIQSCORE1, the informant compares the respondent's current ability to remember things about family and friends, such as occupations, birthdays, and addresses, with his/her ability to remember these things in the past

In RwIQSCORE2, the informant compares the respondent's current ability to remember things that have happened recently with his/her ability in the past.

In RwIQSCORE3, the informant compares the respondent's current ability to recall conversations a few days later with his/her ability in the past.

In RwIQSCORE4, the informant compares the respondent's current ability to remember their address and telephone number with his/her ability in the past.

In RwIQSCORE5, the informant compares the respondent's current ability to remember what day and month it is with his/her ability in the past.

In RwIQSCORE6, the informant compares the respondent's current ability to remember where things are usually kept with his/her ability in the past.

In RwIQSCORE7, the informant compares the respondent's current ability to remember where to find things that have been put in a different place from usual with his/her ability in the past.

In RwIQSCORE8, the informant compares the respondent's current ability to know how to work familiar machines around the house with his/her ability in the past.

In RwIQSCORE9, the informant compares the respondent's current ability to learn to use a new gadget or machine around house with his/her ability in the past.

In RwIQSCORE10, the informant compares the respondent's current ability to learn new things in general with his/her ability in the past.

In RwIQSCORE11, the informant compares the respondent's current ability to follow a story in a book or on TV with his/her ability in the past.

In RwIQSCORE12, the informant compares the respondent's current ability to make decisions on everyday matters with his/her ability in the past.

In RwIQSCORE13, the informant compares the respondent's current ability to handle money for shopping with his/her ability in the past.

In RwIQSCORE14, the informant compares the respondent's current ability to handle financial matters with his/her ability in the past. Examples include pension-related decisions or dealing with a bank.

In RwIQSCORE15, the informant compares the respondent's current ability to handle other everyday arithmetic problems, such as knowing how much food to buy and knowing how much time elapsed between visits from family or friends, with his/her ability in the past.

In RwIQSCORE16, the informant compares the respondent's current ability to use his/her intelligence to understand what's going on and to reason things through with his/her ability in the past.

RwIQSCORE1- RwIQSCORE16 are coded as follows: 1. Much improved, 2. A bit improved, 3. Not much changed, 4. A bit worse, and 5. Much worse. If the informant reports that a particular activity does not apply to the respondent, special missing (.n) is assigned. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwJORMSCORE indicates the average value of RwIQSCORE1- RwIQSCORE16. RwJORMSCORE is calculated by taking the sum of values between RwIQSCORE1- RwIQSCORE16 over the number of non-missing values between RwIQSCORE1- RwIQSCORE16. If the informant reports that no activities apply to the respondent, special missing (.n) is assigned. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwFIQSCORE1- RwFIQSCORE16 are flag variables, indicating whether the corresponding variable has an assigned imputed value. The flag variables are coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, 3.Not Assessed, 4.Refused, and 12.Not interviewed. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

HRS HCAP asks respondent the same questions, but the questions are formed by the primary questions (H1IQ1 - H1IQ16) and two kinds of sub-questions: 1. (H1IQ1I - H1IQ16I) Is it much improved or a bit improved? and 2. (H1IQ1W - H1IQ16W) Is it much worse or a bit worse? The primary HRS HCAP questions are coded as follows: 1. Improved, 2. Not much changed, 3. Gotten worse, 4. Does not apply; R doesn't do activity, 8. DK (Don't Know), and 9. RF (Refused). Missing is assigned as (.). H1IQ1I - H1IQ16I are coded as follows: 1. Much improved, 2. A bit improved, 8. DK (Don't Know), and 9. RF (Refused). Missing is assigned as (.). H1IQ1W - H1IQ16W are coded as follows: 1. A bit worse, 2. Much worse, 8. DK (Don't Know), and 9. RF (Refused). Missing is assigned as (.). In DAD, the primary questions and sub-questions are combined together.

In HRS HCAP, both the mean score (1-5) and trimmed mean score (3-5) are calculated while in DAD, only the mean score is calculated.

DAD Variables Used

```
J10A                    Learning New Things
J11A                    Following a Story in Book or on TV
J12A                    Making Everyday Decisions
J13A                    Handling Money for Shopping
J14A                    Handling Fin Matters with Bank
J15A                    Handling Everyday Math
J16A                    Using Intelligence to Reason
J1A                     Remembering Family, Friends, Dates
J2A                     Remembering Recent Happenings
J3A                     Recalling Conversations
J4A                     Remembering Address and Telephone
J5A                     Remembering Day and Month
J6A                     Remembering Where Things Are Kept
J7A                     Remembering Where to Find Things
J8A                     Knowing How to Work Machines
J9A                     Learning to Use a New Gadget
```

Blessed Test—Part 2

Wave	Variable	Label	Type
1	R1BL2_2R	r1bl2_2r:w1 Blessed Test part 2- eating	Categ
1	R1FBL2_2R	r1fbl2_2r:impflag w1 r whether imputed value	Categ
1	R1BL2_3R	r1bl2_3r:w1 Blessed Test part 2- toilet	Categ
1	R1FBL2_3R	r1fbl2_3r:impflag w1 r whether imputed value	Categ
1	R1BL2_4R	r1bl2_4r:w1 Blessed Test part 2- dressing	Categ
1	R1FBL2_4R	r1fbl2_4r:impflag w1 r whether imputed value	Categ
1	R1BL2SCORE	r1bl12_score:w1 Blessed Test part 2 average score	Cont

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1BL2_2R	4096	1.08	0.43	1.00	4.00
R1FBL2_2R	4096	0.15	1.31	0.00	12.00
R1BL2_3R	4096	1.07	0.36	1.00	4.00
R1FBL2_3R	4096	0.16	1.32	0.00	12.00
R1BL2_4R	4096	1.09	0.41	1.00	4.00
R1FBL2_4R	4096	0.15	1.31	0.00	12.00
R1BL2SCORE	4096	1.08	0.32	1.00	4.00

Categorical Variable Codes

```
Value-------------------------------|    R1BL2_2R
1.Feeds self without assistance     |        3909
2.Feeds self with minor assistance  |          88
3.Feeds self with much assistance   |          38
4.Has to be fed                     |          61

Value-------------------------------|    R1FBL2_2R
0.Not imputed                       |        4029
1.Dont know                         |           1
2.Missing                           |          14
4.Refused                           |           3
12.Not interviewed                  |          49

Value-------------------------------|    R1BL2_3R
1.Clean, cares for self at toilet   |        3918
2.Occasional incontinence, or needs to b|     96
3.Frequent incontinence, or needs much a|     56
4.Little or no control              |          26

Value-------------------------------|    R1FBL2_3R
0.Not imputed                       |        4024
1.Dont know                         |           2
2.Missing                           |          14
4.Refused                           |           7
12.Not interviewed                  |          49
```

```
Value---------------------------------|    R1BL2_4R
1.Unaided                              |       3871
2.Occasionally misplaces buttons, requir|      142
3.Wrong sequences, forgets items, requir|       34
4.Unable to dress                      |         49

Value---------------------------------|    R1FBL2_4R
0.Not imputed                          |       4028
1.Dont know                            |          1
2.Missing                              |         14
4.Refused                              |          4
12.Not interviewed                     |         49
```

How Constructed

The following variables pertain to a series of questions asked to the informant regarding how well the respondent does with different activities.

RwBL2_2R asks the informant how well the respondent feeds himself/herself. A 1 is coded for being able to feed oneself without assistance. A 2 is coded for being able to feed oneself with minor assistance. A 3 is coded for feeding oneself with much assistance. A 4 is coded for having to be fed. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing are assigned as special missing (.d), (.r), and (.m), respectively.

RwBL2_3R asks the informant how well the respondent can clean and care for himself/herself at a toilet. A 1 indicates that the respondent is able to clean and care for oneself at a toilet. A 2 indicates that the respondent has occasional incontinence or needs to be reminded. A 3 indicates that the respondent has frequent incontinence or needs a lot of assistance. A 4 indicates that the respondent has little or no control over incontinence. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing are assigned as special missing (.d), (.r), and (.m), respectively.

RwBL2_4R asks the informant how well the respondent is able to get dressed unaided. A 1 indicates that the respondent can dress unaided. A 2 indicates that the respondent occasionally misplaces buttons and requires minor help. A 3 indicates that the respondent gets dressed in the wrong sequence, forgets items, and requires much assistance. A 4 indicates that the respondent is unable to dress oneself. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing are assigned as special missing (.d), (.r), and (.m), respectively.

RwBL2SCORE indicates the average value of RwBL2_2R, RwBL2_3R, and RwBL2_4R. RwBL2SCORE is calculated by taking the sum of values between RwBL2_2R, RwBL2_3R, and RwBL2_4R over the number of non-missing values between RwBL2_2R, RwBL2_3R, and RwBL2_4R. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing are assigned as special missing (.d), (.r), and (.m), respectively.

RwFBL2_2R- RwFBL2_4R are flag variables, indicating whether the corresponding variable has an assigned imputed value. The flag variables are coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, 4.Refused, and 12.Not interviewed. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

No differences known.

DAD Variables Used

```
    BL2_2                    Ability to Feed Self
    BL2_3                    Ability to Use Toilet
    BL2_4                    Ability to Dress Self
```

Everyday Activities

Wave	Variable	Label	Type
1	R1ACT_TV	r1act_tv:w1 Activities- watching TV	Categ
1	R1FACT_TV	r1fact_tv:impflag w1 r whether imputed value	Categ
1	R1ACT_READ	r1act_read:w1 Activities- reading	Categ
1	R1FACT_READ	r1fact_read:impflag w1 r whether imputed value	Categ
1	R1ACT_CHOR	r1act_chor:w1 Activities- chores, maintenance, or gardening	Categ
1	R1FACT_CHOR	r1fact_chor:impflag w1 r whether imputed value	Categ
1	R1ACT_COMP	r1act_comp:w1 Activities- computer or the internet	Categ
1	R1FACT_COMP	r1fact_comp:impflag w1 r whether imputed value	Categ
1	R1ACT_NAP	r1act_nap:w1 Activities- taking naps	Categ
1	R1FACT_NAP	r1fact_nap:impflag w1 r whether imputed value	Categ
1	R1ACT_MEAL	r1act_meal:w1 Activities- preparing hot meals	Categ
1	R1FACT_MEAL	r1fact_meal:impflag w1 r whether imputed value	Categ
1	R1ACT_TRAV	r1act_trav:w1 Activities- traveling	Categ
1	R1FACT_TRAV	r1fact_trav:impflag w1 r whether imputed value	Categ
1	R1ACT_PUBT	r1act_pubt:w1 Activities- public transit	Categ
1	R1FACT_PUBT	r1fact_pubt:impflag w1 r whether imputed value	Categ
1	R1ACT_WORK	r1act_work:w1 Activities- work or volunteer	Categ
1	R1FACT_WORK	r1fact_work:impflag w1 r whether imputed value	Categ
1	R1ACT_STOR	r1act_stor:w1 Activities- store or market for food	Categ
1	R1FACT_STOR	r1fact_stor:impflag w1 r whether imputed value	Categ
1	R1ACT_WALK	r1act_walk:w1 Activities- walks	Categ
1	R1FACT_WALK	r1fact_walk:impflag w1 r whether imputed value	Categ
1	R1ACT_SPOR	r1act_spor:w1 Activities- yoga or any other exercise	Categ
1	R1FACT_SPOR	r1fact_spor:impflag w1 r whether imputed value	Categ
1	R1ACT_DAIL	r1act_dail:w1 Activities- daily activities	Categ
1	R1FACT_DAIL	r1fact_dail:impflag w1 r whether imputed value	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1ACT_TV	4096	1.62	1.36	0.00	5.00

R1FACT_TV	4096	0.16	1.32	0.00	12.00
R1ACT_READ	4096	0.55	0.94	0.00	5.00
R1FACT_READ	4096	0.17	1.32	0.00	12.00
R1ACT_CHOR	4096	1.80	1.53	0.00	5.00
R1FACT_CHOR	4096	0.16	1.32	0.00	12.00
R1ACT_COMP	4096	0.07	0.44	0.00	5.00
R1FACT_COMP	4096	0.17	1.33	0.00	12.00
R1ACT_NAP	4096	2.06	1.45	0.00	5.00
R1FACT_NAP	4096	0.16	1.32	0.00	12.00
R1ACT_MEAL	4096	0.40	0.49	0.00	1.00
R1FACT_MEAL	4096	0.16	1.32	0.00	12.00
R1ACT_TRAV	4096	0.61	0.49	0.00	1.00
R1FACT_TRAV	4096	0.16	1.32	0.00	12.00
R1ACT_PUBT	4096	0.62	0.49	0.00	1.00
R1FACT_PUBT	4096	0.16	1.32	0.00	12.00
R1ACT_WORK	4096	4.69	1.87	1.00	6.00
R1FACT_WORK	4096	0.16	1.32	0.00	12.00
R1ACT_STOR	4096	4.00	1.84	1.00	6.00
R1FACT_STOR	4096	0.16	1.32	0.00	12.00
R1ACT_WALK	4096	4.16	2.27	1.00	6.00
R1FACT_WALK	4096	0.16	1.32	0.00	12.00
R1ACT_SPOR	4096	5.59	1.27	1.00	6.00
R1FACT_SPOR	4096	0.16	1.32	0.00	12.00
R1ACT_DAIL	4096	1.79	0.67	1.00	3.00
R1FACT_DAIL	4096	0.16	1.32	0.00	12.00

Categorical Variable Codes

```
Value----------------------------------|    R1ACT_TV
0.Never                                 |       1301
1.One-half                              |        575
2.One                                   |        934
3.Two to three                          |       1014
4.Four to six                           |        211
5.Seven or more                         |         61

Value----------------------------------|   R1FACT_TV
0.Not imputed                           |       4005
```

```
1.Dont know                          |            18
2.Missing                            |            15
4.Refused                            |             9
12.Not interviewed                   |            49

Value--------------------------------| R1ACT_READ
0.Never                              |          2841
1.One-half                           |           512
2.One                                |           529
3.Two to three                       |           177
4.Four to six                        |            31
5.Seven or more                      |             6

Value--------------------------------| R1FACT_READ
0.Not imputed                        |          3998
1.Dont know                          |            26
2.Missing                            |            15
4.Refused                            |             8
12.Not interviewed                   |            49

Value--------------------------------| R1ACT_CHOR
0.Never                              |          1327
1.One-half                           |           428
2.One                                |           786
3.Two to three                       |          1013
4.Four to six                        |           371
5.Seven or more                      |           171

Value--------------------------------| R1FACT_CHOR
0.Not imputed                        |          4013
1.Dont know                          |            12
2.Missing                            |            16
4.Refused                            |             6
12.Not interviewed                   |            49

Value--------------------------------| R1ACT_COMP
0.Never                              |          3959
1.One-half                           |            35
2.One                                |            57
3.Two to three                       |            32
4.Four to six                        |             8
5.Seven or more                      |             5

Value--------------------------------| R1FACT_COMP
0.Not imputed                        |          4004
1.Dont know                          |            16
2.Missing                            |            16
4.Refused                            |            11
12.Not interviewed                   |            49

Value--------------------------------| R1ACT_NAP
0.Never                              |           846
1.One-half                           |           496
2.One                                |          1188
3.Two to three                       |           976
4.Four to six                        |           310
5.Seven or more                      |           280

Value--------------------------------| R1FACT_NAP
0.Not imputed                        |          4003
1.Dont know                          |            23
2.Missing                            |            16
4.Refused                            |             5
12.Not interviewed                   |            49

Value--------------------------------| R1ACT_MEAL
0.No                                 |          2452
1.Yes                                |          1644

Value--------------------------------| R1FACT_MEAL
0.Not imputed                        |          4022
```

```
1.Dont know                              |               3
2.Missing                                |              16
4.Refused                                |               6
12.Not interviewed                       |              49


Value-------------------------------| R1ACT_TRAV
0.No                                     |            1579
1.Yes                                    |            2517


Value-------------------------------| R1FACT_TRAV
0.Not imputed                            |            4020
1.Dont know                              |               7
2.Missing                                |              16
4.Refused                                |               4
12.Not interviewed                       |              49


Value-------------------------------| R1ACT_PUBT
0.No                                     |            1572
1.Yes                                    |            2524


Value-------------------------------| R1FACT_PUBT
0.Not imputed                            |            4019
1.Dont know                              |               6
2.Missing                                |              16
4.Refused                                |               6
12.Not interviewed                       |              49


Value-------------------------------| R1ACT_WORK
1.Daily                                  |             587
2.Several times a week                   |             230
3.Once a week                            |             187
4.Once a month                           |             178
5.Rarely                                 |             606
6.Never                                  |            2308


Value-------------------------------| R1FACT_WORK
0.Not imputed                            |            4008
1.Dont know                              |              16
2.Missing                                |              16
4.Refused                                |               7
12.Not interviewed                       |              49


Value-------------------------------| R1ACT_STOR
1.Daily                                  |             503
2.Several times a week                   |             664
3.Once a week                            |             576
4.Once a month                           |             292
5.Rarely                                 |             716
6.Never                                  |            1345


Value-------------------------------| R1FACT_STOR
0.Not imputed                            |            4012
1.Dont know                              |              10
2.Missing                                |              16
4.Refused                                |               9
12.Not interviewed                       |              49


Value-------------------------------| R1ACT_WALK
1.Daily                                  |            1246
2.Several times a week                   |             158
3.Once a week                            |              85
4.Once a month                           |              31
5.Rarely                                 |             372
6.Never                                  |            2204


Value-------------------------------| R1FACT_WALK
0.Not imputed                            |            4011
1.Dont know                              |              10
2.Missing                                |              16
4.Refused                                |              10
12.Not interviewed                       |              49
```

```
Value---------------------------------| R1ACT_SPOR
1.Daily                               |          246
2.Several times a week                |           38
3.Once a week                         |           26
4.Once a month                        |           19
5.Rarely                              |          177
6.Never                               |         3590

Value---------------------------------| R1FACT_SPOR
0.Not imputed                         |         4006
1.Dont know                           |           15
2.Missing                             |           16
4.Refused                             |           10
12.Not interviewed                    |           49

Value---------------------------------| R1ACT_DAIL
1.No change                           |         1444
2.Slowing down                        |         2085
3.Activities decreased or discontinued|          567

Value---------------------------------| R1FACT_DAIL
0.Not imputed                         |         4012
1.Dont know                           |           11
2.Missing                             |           16
4.Refused                             |            8
12.Not interviewed                    |           49
```

How Constructed

The following variables pertain to a series of questions regarding the respondent's activity level, according to the informant.

RwACT_TV asks the informant how many hours in an average day the respondent spends watching television. RwACT_TV is coded as follows: 0. Never, 1. 30 minutes, 2. One hour, 3. Two to three hours, 4. Four to six hours, and 5. Seven or more hours. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwACT_READ asks the informant how many hours in an average day the respondent spends reading. RwACT_READ is coded as follows: 0. Never, 1. 30 minutes, 2. One hour, 3. Two to three hours, 4. Four to six hours, and 5. Seven or more hours. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwACT_CHOR asks the informant how many hours in an average day the respondent spends doing chores, maintenance, or gardening. RwACT_CHOR is coded as follows: 0. Never, 1. 30 minutes, 2. One hour, 3. Two to three hours, 4. Four to six hours, and 5. Seven or more hours. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwACT_COMP asks the informant how many hours in an average day the respondent spends using a computer or the internet. RwACT_COMP is coded as follows: 0. Never, 1. 30 minutes, 2. One hour, 3. Two to three hours, 4. Four to six hours, and 5. Seven or more hours. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwACT_NAP asks the informant how many hours in an average day the respondent spends taking naps. RwACT_NAP is coded as follows: 0. Never, 1. 30 minutes, 2. One hour, 3. Two to three hours, 4. Four to six hours, and 5. Seven or more hours. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwACT_MEAL asks the informant whether the respondent prepares hot meals. A 1 indicates that the respondent prepares hot meals. A 0 indicates that the respondent does not prepare hot meals or that it is not customary for the respondent to do this. Special missing (.h) is assigned if the respondent does not

have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwACT_TRAV asks the informant whether the respondent is able to travel somewhere by himself/herself. A 1 is coded for yes. A 0 is coded for no. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwACT_PUBT asks the informant whether the respondent can use public transit by himself/herself. A 1 is coded for yes. A 0 is coded for no. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwACT_WORK asks the informant how often the respondent goes to work or volunteers. RwACT_WORK is coded as follows: 1. Daily, 2. Several times a week, 3. Once a week, 4. Once a month, 5. Rarely, and 6. Never. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwACT_STOR asks the informant how often the respondent goes to the store or market for food or other things. RwACT_STOR is coded as follows: 1. Daily, 2. Several times a week, 3. Once a week, 4. Once a month, 5. Rarely, and 6. Never. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwACT_WALK asks the informant how often the respondent goes for walks. RwACT_WALK is coded as follows: 1. Daily, 2. Several times a week, 3. Once a week, 4. Once a month, 5. Rarely, and 6. Never. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwACT_SPOR asks the informant how often the respondent does yoga or any other exercise. RwACT_SPOR is coded as follows: 1. Daily, 2. Several times a week, 3. Once a week, 4. Once a month, 5. Rarely, and 6. Never. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwACT_DAIL indicates how much, if any, the informant has seen a change in the respondent's daily activities in the past few years. RwACT_DAIL is coded as follows: 1. No change, 2. Slowing down, and 3. Activities decreased or discontinued. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwFACT_TV - RwFACT_DAIL are flag variables, indicating whether the corresponding variable has an assigned imputed value. The flag variables are coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, 4.Refused, and 12.Not interviewed. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

Both the LASI-DAD and the HRS HCAP ask the same questions in this section, with some having slight variations.

For the variable RwACT_TRAV, the HRS HCAP asked "Is R able to drive on his/her own?" while DAD asked "Is R able to travel somewhere on his/her own?". For RwACT_SPOR, the HRS HCAP asked "How often does R play sports or exercise?" while DAD asked "How often does R do yoga or any other exercise?".

DAD Variables Used

ACT_1	Hrs Spent Watching TV
ACT_10	Prepares Hot Meals

```
ACT_13                          Able To Travel on Own
ACT_14                          Use Public Transit on Own
ACT_15                          Freq Go To Work/Volunteer
ACT_16                          Freq Go To Store/Market
ACT_2                           Hrs Spent Reading
ACT_22                          Freq Go for Walk
ACT_24                          Freq Play Sports/Exercise
ACT_38                          Change In Daily Activities
ACT_5                           Hrs Spent Playing Puzzles/GamesHrs Spent Chor
ACT_7                           Hrs Spent Using Computer/Internet
ACT_8                           Hrs Spent Taking Naps
ACT_9                           Other Activities
```

Everyday Feelings

Wave	Variable	Label	Type
1	R1FEEL27	r1feel27:w1 Activities- feelings: happy	Categ
1	R1FFEEL27	r1ffeel27:impflag w1 r whether imputed value	Categ
1	R1FEEL29	r1feel29:w1 Activities- feelings: engaged	Categ
1	R1FFEEL29	r1ffeel29:impflag w1 r whether imputed value	Categ
1	R1FEEL30	r1feel30:w1 Activities- feelings: alert	Categ
1	R1FFEEL30	r1ffeel30:impflag w1 r whether imputed value	Categ
1	R1FEEL31	r1feel31:w1 Activities- feelings: interested	Categ
1	R1FFEEL31	r1ffeel31:impflag w1 r whether imputed value	Categ
1	R1FEEL36	r1feel36:w1 Activities- feelings: confused	Categ
1	R1FFEEL36	r1ffeel36:impflag w1 r whether imputed value	Categ
1	R1FEEL37	r1feel37:w1 Activities- feelings: withdrawn	Categ
1	R1FFEEL37	r1ffeel37:impflag w1 r whether imputed value	Categ
1	R1FEELPOS	r1feelpos:w1 Activities- feelings: mean positive emotions	Cont
1	R1FEELNEG	r1feelneg:w1 Activities- feelings: mean negative emotions	Cont

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1FEEL27	4096	3.05	1.16	1.00	5.00
R1FFEEL27	4096	0.17	1.33	0.00	12.00
R1FEEL29	4096	2.79	1.26	1.00	5.00
R1FFEEL29	4096	0.17	1.33	0.00	12.00
R1FEEL30	4096	2.97	1.31	1.00	5.00
R1FFEEL30	4096	0.17	1.33	0.00	12.00
R1FEEL31	4096	2.92	1.30	1.00	5.00
R1FFEEL31	4096	0.31	1.41	0.00	12.00
R1FEEL36	4096	1.94	1.17	1.00	5.00
R1FFEEL36	4096	0.18	1.33	0.00	12.00
R1FEEL37	4096	1.88	1.19	1.00	5.00
R1FFEEL37	4096	0.17	1.33	0.00	12.00
R1FEELPOS	4096	2.93	0.95	1.00	5.00

```
R1FEELNEG       4096            1.91            1.01            1.00            5.00
```

Categorical Variable Codes

```
Value----------------------------------|    R1FEEL27
1.Not at all                           |         519
2.A little                             |         629
3.Somewhat                             |        1531
4.Quite a bit                          |         964
5.Very much                            |         453

Value----------------------------------|    R1FFEEL27
0.Not imputed                          |        3972
1.Dont know                            |          49
2.Missing                              |          16
4.Refused                              |          10
12.Not interviewed                     |          49

Value----------------------------------|    R1FEEL29
1.Not at all                           |         904
2.A little                             |         687
3.Somewhat                             |        1265
4.Quite a bit                          |         849
5.Very much                            |         391

Value----------------------------------|    R1FFEEL29
0.Not imputed                          |        3993
1.Dont know                            |          28
2.Missing                              |          16
4.Refused                              |          10
12.Not interviewed                     |          49

Value----------------------------------|    R1FEEL30
1.Not at all                           |         823
2.A little                             |         530
3.Somewhat                             |        1237
4.Quite a bit                          |         946
5.Very much                            |         560

Value----------------------------------|    R1FFEEL30
0.Not imputed                          |        3981
1.Dont know                            |          40
2.Missing                              |          16
4.Refused                              |          10
12.Not interviewed                     |          49

Value----------------------------------|    R1FEEL31
1.Not at all                           |         864
2.A little                             |         558
3.Somewhat                             |        1251
4.Quite a bit                          |         907
5.Very much                            |         516

Value----------------------------------|    R1FFEEL31
0.Not imputed                          |        3696
1.Dont know                            |          41
2.Missing                              |         298
4.Refused                              |          12
12.Not interviewed                     |          49

Value----------------------------------|    R1FEEL36
1.Not at all                           |        2141
2.A little                             |         719
3.Somewhat                             |         705
4.Quite a bit                          |         406
5.Very much                            |         125

Value----------------------------------|    R1FFEEL36
```

```
0.Not imputed                         |            3969
1.Dont know                           |              50
2.Missing                             |              16
4.Refused                             |              12
12.Not interviewed                    |              49

Value--------------------------------|      R1FEEL37
1.Not at all                          |            2334
2.A little                            |             586
3.Somewhat                            |             656
4.Quite a bit                         |             355
5.Very much                           |             165

Value--------------------------------|      R1FFEEL37
0.Not imputed                         |            3978
1.Dont know                           |              43
2.Missing                             |              16
4.Refused                             |              10
12.Not interviewed                    |              49
```

How Constructed

The following variables asks the informant a series of questions regarding the respondent's feelings.

RwFEEL27 indicates how much the informant would say that the respondent felt happy. The informant is instructed to answer this thinking about yesterday or the most recent time the informant observed the respondent for most of the day. RwFEEL27 is coded as follows: 1. Not at all, 2. A little, 3. Somewhat, 4. Quite a bit, and 5. Very much. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwFEEL29 indicates how much the informant would say that the respondent felt engaged. The informant is instructed to answer this thinking about yesterday or the most recent time the informant observed the respondent for most of the day. RwFEEL29 is coded as follows: 1. Not at all, 2. A little, 3. Somewhat, 4. Quite a bit, and 5. Very much. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwFEEL30 indicates how much the informant would say that the respondent felt alert. The informant is instructed to answer this thinking about yesterday or the most recent time the informant observed the respondent for most of the day. RwFEEL30 is coded as follows: 1. Not at all, 2. A little, 3. Somewhat, 4. Quite a bit, and 5. Very much. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwFEEL31 indicates how much the informant would say that the respondent felt interested. The informant is instructed to answer this thinking about yesterday or the most recent time the informant observed the respondent for most of the day. RwFEEL31 is coded as follows: 1. Not at all, 2. A little, 3. Somewhat, 4. Quite a bit, and 5. Very much. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively. RwFEEL31 is coded as special missing (.m) if ACT_31 is 0.

RwFEEL36 indicates how much the informant would say that the respondent felt confused. The informant is instructed to answer this thinking about yesterday or the most recent time the informant observed the respondent for most of the day. RwFEEL36 is coded as follows: 1. Not at all, 2. A little, 3. Somewhat, 4. Quite a bit, and 5. Very much. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwFEEL37 indicates how much the informant would say that the respondent felt withdrawn. The informant is instructed to answer this thinking about yesterday or the most recent time the informant observed the respondent for most of the day. RwFEEL37 is coded as follows: 1. Not at all, 2. A little, 3. Somewhat, 4. Quite a bit, and 5. Very much. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwFEELPOS indicates the mean value for positive emotions. This variable is composed of RwFEEL27, RwFEEL29, RwFEEL30, and RwFEEL31. RwFEELPOS is calculated by taking the sum of RwFEEL27, RwFEEL29, RwFEEL30, and RwFEEL31 over the number of non-missing values between RwFEEL27, RwFEEL29, RwFEEL30, and RwFEEL31. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwFEELNEG indicates the mean value for negative emotions. This variable is composed of RwFEEL36 and RwFEEL37. RwFEELNEG is calculated by taking the sum of RwFEEL36 and RwFEEL37 over the number of non-missing values between RwFEEL36 and RwFEEL37. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwFFEEL27 - RwFFEEL37 are flag variables, indicating whether the corresponding variable has an assigned imputed value. The flag variables are coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, 4.Refused, and 12.Not interviewed. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

No differences known.

DAD Variables Used

ACT_27	Felt Happy
ACT_29	Felt Engaged
ACT_30	Felt Alert
ACT_31	Felt AlertInterested
ACT_36	Felt Confused
ACT_37	Felt Withdrawn

Cognitive Activity Score (CSI)

Wave	Variable	Label	Type
1	R1CSI1	r1csi1:w1 CSI- general decline in mental functioning	Categ
1	R1FCSI1	r1fcsi1:impflag w1 r whether imputed value	Categ
1	R1CSI2	r1csi2:w1 CSI- remembering things a serious problems	Categ
1	R1FCSI2	r1fcsi2:impflag w1 r whether imputed value	Categ
1	R1CSI3	r1csi3:w1 CSI- forget where put things	Categ
1	R1FCSI3	r1fcsi3:impflag w1 r whether imputed value	Categ
1	R1CSI4	r1csi4:w1 CSI- forget where things are usually kept	Categ
1	R1FCSI4	r1fcsi4:impflag w1 r whether imputed value	Categ
1	R1CSI5	r1csi5:w1 CSI- forget the names of friends	Categ
1	R1FCSI5	r1fcsi5:impflag w1 r whether imputed value	Categ
1	R1CSI6	r1csi6:w1 CSI- forget the names of family members	Categ
1	R1FCSI6	r1fcsi6:impflag w1 r whether imputed value	Categ
1	R1CSI7	r1csi7:w1 CSI- forget what r wanted to say in the middle of	Categ
1	R1FCSI7	r1fcsi7:impflag w1 r whether imputed value	Categ
1	R1CSI8	r1csi8:w1 CSI- difficulty finding the right words	Categ
1	R1FCSI8	r1fcsi8:impflag w1 r whether imputed value	Categ
1	R1CSI9	r1csi9:w1 CSI- use the wrong words	Categ
1	R1FCSI9	r1fcsi9:impflag w1 r whether imputed value	Categ
1	R1CSI10	r1csi10:w1 CSI- tend to talk about what happened long ago	Categ
1	R1FCSI10	r1fcsi10:impflag w1 r whether imputed value	Categ
1	R1CSI11	r1csi11:w1 CSI- forget when last saw informant	Categ
1	R1FCSI11	r1fcsi11:impflag w1 r whether imputed value	Categ
1	R1CSI12	r1csi12:w1 CSI- forget what happened the day before	Categ
1	R1FCSI12	r1fcsi12:impflag w1 r whether imputed value	Categ
1	R1CSI13	r1csi13:w1 CSI- forget where they are	Categ
1	R1FCSI13	r1fcsi13:impflag w1 r whether imputed value	Categ
1	R1CSI14	r1csi14:w1 CSI- get lost in the community	Categ
1	R1FCSI14	r1fcsi14:impflag w1 r whether imputed value	Categ
1	R1CSI15	r1csi15:w1 CSI- get lost in own home	Categ

  1 R1FCSI15   r1fcsi15:impflag w1 r whether imputed value   Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1CSI1	4096	0.29	0.45	0.00	1.00
R1FCSI1	4096	0.17	1.32	0.00	12.00
R1CSI2	4096	0.23	0.42	0.00	1.00
R1FCSI2	4096	0.17	1.33	0.00	12.00
R1CSI3	4096	1.11	0.91	0.00	2.00
R1FCSI3	4096	0.17	1.33	0.00	12.00
R1CSI4	4096	1.08	0.92	0.00	2.00
R1FCSI4	4096	0.17	1.33	0.00	12.00
R1CSI5	4096	0.41	0.77	0.00	2.00
R1FCSI5	4096	0.17	1.33	0.00	12.00
R1CSI6	4096	0.21	0.59	0.00	2.00
R1FCSI6	4096	0.16	1.32	0.00	12.00
R1CSI7	4096	0.64	0.88	0.00	2.00
R1FCSI7	4096	0.17	1.33	0.00	12.00
R1CSI8	4096	0.57	0.85	0.00	2.00
R1FCSI8	4096	0.17	1.33	0.00	12.00
R1CSI9	4096	0.42	0.77	0.00	2.00
R1FCSI9	4096	0.17	1.33	0.00	12.00
R1CSI10	4096	0.84	0.92	0.00	2.00
R1FCSI10	4096	0.17	1.33	0.00	12.00
R1CSI11	4096	0.25	0.62	0.00	2.00
R1FCSI11	4096	0.17	1.33	0.00	12.00
R1CSI12	4096	0.40	0.75	0.00	2.00
R1FCSI12	4096	0.17	1.33	0.00	12.00
R1CSI13	4096	0.18	0.54	0.00	2.00
R1FCSI13	4096	0.17	1.33	0.00	12.00
R1CSI14	4096	0.23	0.59	0.00	2.00
R1FCSI14	4096	0.18	1.34	0.00	12.00

```
R1CSI15        4096        0.10        0.40        0.00        2.00

R1FCSI15       4096        0.17        1.33        0.00       12.00
```

Categorical Variable Codes

```
Value--------------------------------|        R1CSI1
0.No                                  |         2917
1.Yes                                 |         1179

Value--------------------------------|        R1FCSI1
0.Not imputed                         |         4000
1.Dont know                           |           21
2.Missing                             |           16
4.Refused                             |           10
12.Not interviewed                    |           49

Value--------------------------------|        R1CSI2
0.No                                  |         3136
1.Yes                                 |          960

Value--------------------------------|        R1FCSI2
0.Not imputed                         |         3999
1.Dont know                           |           21
2.Missing                             |           16
4.Refused                             |           11
12.Not interviewed                    |           49

Value--------------------------------|        R1CSI3
0.No                                  |         1514
1.Yes                                 |          623
2.Sometimes                           |         1959

Value--------------------------------|        R1FCSI3
0.Not imputed                         |         3999
1.Dont know                           |           18
2.Missing                             |           16
4.Refused                             |           14
12.Not interviewed                    |           49

Value--------------------------------|        R1CSI4
0.No                                  |         1580
1.Yes                                 |          624
2.Sometimes                           |         1892

Value--------------------------------|        R1FCSI4
0.Not imputed                         |         3994
1.Dont know                           |           25
2.Missing                             |           16
4.Refused                             |           12
12.Not interviewed                    |           49

Value--------------------------------|        R1CSI5
0.No                                  |         3135
1.Yes                                 |          249
2.Sometimes                           |          712

Value--------------------------------|        R1FCSI5
0.Not imputed                         |         3977
1.Dont know                           |           41
2.Missing                             |           16
4.Refused                             |           13
12.Not interviewed                    |           49

Value--------------------------------|        R1CSI6
0.No                                  |         3591
1.Yes                                 |          140
2.Sometimes                           |          365
```

```
Value----------------------------------|      R1FCSI6
0.Not imputed                           |        4009
1.Dont know                             |          12
2.Missing                               |          16
4.Refused                               |          10
12.Not interviewed                      |          49

Value----------------------------------|      R1CSI7
0.No                                    |        2606
1.Yes                                   |         362
2.Sometimes                             |        1128

Value----------------------------------|      R1FCSI7
0.Not imputed                           |        3992
1.Dont know                             |          27
2.Missing                               |          16
4.Refused                               |          12
12.Not interviewed                      |          49

Value----------------------------------|      R1CSI8
0.No                                    |        2752
1.Yes                                   |         370
2.Sometimes                             |         974

Value----------------------------------|      R1FCSI8
0.Not imputed                           |        3995
1.Dont know                             |          23
2.Missing                               |          16
4.Refused                               |          13
12.Not interviewed                      |          49

Value----------------------------------|      R1CSI9
0.No                                    |        3102
1.Yes                                   |         268
2.Sometimes                             |         726

Value----------------------------------|      R1FCSI9
0.Not imputed                           |        3996
1.Dont know                             |          22
2.Missing                               |          16
4.Refused                               |          13
12.Not interviewed                      |          49

Value----------------------------------|      R1CSI10
0.No                                    |        2091
1.Yes                                   |         558
2.Sometimes                             |        1447

Value----------------------------------|      R1FCSI10
0.Not imputed                           |        3983
1.Dont know                             |          32
2.Missing                               |          16
4.Refused                               |          16
12.Not interviewed                      |          49

Value----------------------------------|      R1CSI11
0.No                                    |        3477
1.Yes                                   |         219
2.Sometimes                             |         400

Value----------------------------------|      R1FCSI11
0.Not imputed                           |        3995
1.Dont know                             |          22
2.Missing                               |          16
4.Refused                               |          14
12.Not interviewed                      |          49

Value----------------------------------|      R1CSI12
0.No                                    |        3136
1.Yes                                   |         301
2.Sometimes                             |         659
```

```
Value------------------------------------|      R1FCSI12
0.Not imputed                            |        3998
1.Dont know                              |          21
2.Missing                                |          16
4.Refused                                |          12
12.Not interviewed                       |          49

Value------------------------------------|      R1CSI13
0.No                                     |        3677
1.Yes                                    |         121
2.Sometimes                             |         298

Value------------------------------------|      R1FCSI13
0.Not imputed                            |        4007
1.Dont know                              |          12
2.Missing                                |          16
4.Refused                                |          12
12.Not interviewed                       |          49

Value------------------------------------|      R1CSI14
0.No                                     |        3517
1.Yes                                    |         225
2.Sometimes                             |         354

Value------------------------------------|      R1FCSI14
0.Not imputed                            |        3977
1.Dont know                              |          33
2.Missing                                |          16
4.Refused                                |          21
12.Not interviewed                       |          49

Value------------------------------------|      R1CSI15
0.No                                     |        3864
1.Yes                                    |          74
2.Sometimes                             |         158

Value------------------------------------|      R1FCSI15
0.Not imputed                            |        4001
1.Dont know                              |          14
2.Missing                                |          16
4.Refused                                |          16
12.Not interviewed                       |          49
```

How Constructed

The following variables pertain to a series of questions that ask the informant about any changes they may have noticed in the respondent.

RwCSI1 indicates whether the informant has noticed a general decline in the respondent's mental functioning.

RwCSI2 indicates whether the informant has noticed that remembering things has been a serious problem for the respondent.

RwCSI3 indicates whether the informant has noticed that the respondent forgets where he/she have put things.

RwCSI4 indicates whether the informant has noticed that the respondent forgets where things are usually kept.

RwCSI5 indicates whether the informant has noticed that the respondent forgets the name of friends.

RwCSI6 indicates whether the informant has noticed that the respondent forgets names of family members.

RwCSI7 indicates whether the informant has noticed that the respondent forgets what he/she wanted to say in the middle of a conversation.

RwCSI8 indicates whether the informant has noticed that the respondent has difficulty finding the right words.

RwCSI9 indicates whether the informant has noticed that the respondent uses the wrong words.

RwCSI10 indicates whether the informant has noticed that the respondent tends to talk about what happened long ago, rather than the present.

RwCSI11 indicates whether the informant has noticed that the respondent forgets when they last saw the informant.

RwCSI12 indicates whether the informant has noticed that the respondent forgets what happened the day before.

RwCSI13 indicates whether the informant has noticed that the respondent forgets where they are.

RwCSI14 indicates whether the informant has noticed that the respondent gets lost in the community, such as when finding the post office or friends' houses.

RwCSI15 indicates whether the informant has noticed that the respondent gets lost in their own home, such as when finding the toilet.

RwCSI1 and RwCSI2 are coded as follows: 0. No and 1. Yes. RwCSI3 - RwCSI15 are coded as follows: 0. No, 1. Yes, and 2. Sometimes. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwFCSI1 - RwFCSI15 are flag variables, indicating whether the corresponding variable has an assigned imputed value. The flag variables are coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, 4.Refused, and 12.Not interviewed. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

No differences known.

DAD Variables Used

CSI_COGACT1	Decline in Mental Functioning
CSI_COGACT10	Talks About Past Not Present
CSI_COGACT11	Forget When Last Saw Inf
CSI_COGACT12	Forget What Happened Prior Day
CSI_COGACT13	Forget Where He/She Is
CSI_COGACT14	Gets Lost in Community
CSI_COGACT15	Gets Lost in Own Home
CSI_COGACT2	Difficulty Remembering Things
CSI_COGACT3	Forget Where Put Things
CSI_COGACT4	Forget Where Things Kept
CSI_COGACT5	Forget Friends Names
CSI_COGACT6	Forget Family Member Names
CSI_COGACT7	Forget in Middle Convo
CSI_COGACT8	Hard Time Finding Right Words
CSI_COGACT9	Uses Wrong Word

`10/66

Wave	Variable	Label	Type
1	R1TEN1	r1ten1:w1 10-66- household chores	Categ
1	R1FTEN1	r1ften1:impflag w1 r whether imputed value	Categ
1	R1TEN2	r1ten2:w1 10-66- special skill or hobby	Categ
1	R1FTEN2	r1ften2:impflag w1 r whether imputed value	Categ
1	R1TEN3	r1ten3:w1 10-66- handle money	Categ
1	R1FTEN3	r1ften3:impflag w1 r whether imputed value	Categ
1	R1TEN4	r1ten4:w1 10-66- adjusting to change	Categ
1	R1FTEN4	r1ften4:impflag w1 r whether imputed value	Categ
1	R1TEN5	r1ten5:w1 10-66- think and reason	Categ
1	R1FTEN5	r1ften5:impflag w1 r whether imputed value	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1TEN1	4096	0.49	0.73	0.00	2.00
R1FTEN1	4096	0.28	1.46	0.00	12.00
R1TEN2	4096	0.35	0.48	0.00	1.00
R1FTEN2	4096	0.23	1.35	0.00	12.00
R1TEN3	4096	0.63	0.82	0.00	2.00
R1FTEN3	4096	0.19	1.35	0.00	12.00
R1TEN4	4096	0.57	0.82	0.00	2.00
R1FTEN4	4096	0.18	1.33	0.00	12.00
R1TEN5	4096	0.29	0.45	0.00	1.00
R1FTEN5	4096	0.21	1.34	0.00	12.00

Categorical Variable Codes

```
Value-------------------------------|     R1TEN1
0.No                                 |       2665
1.Yes                                |        848
2.Sometimes                          |        583

Value-------------------------------|     R1FTEN1
0.Not imputed                        |       3871
1.Dont know                          |         42
2.Missing                            |         17
4.Refused                            |        117
12.Not interviewed                   |         49
```

```
Value-------------------------------|       R1TEN2
0.No                                 |        2651
1.Yes                                |        1445

Value-------------------------------|       R1FTEN2
0.Not imputed                        |        3758
1.Dont know                          |         253
2.Missing                            |          16
4.Refused                            |          20
12.Not interviewed                   |          49

Value-------------------------------|       R1TEN3
0.No difficulty                      |        2415
1.Cannot handle money                |         776
2.Some difficulty                    |         905

Value-------------------------------|       R1FTEN3
0.Not imputed                        |        3957
1.Dont know                          |          48
2.Missing                            |          16
4.Refused                            |          26
12.Not interviewed                   |          49

Value-------------------------------|       R1TEN4
0.No                                 |        2656
1.Yes                                |         562
2.Sometimes                          |         878

Value-------------------------------|       R1FTEN4
0.Not imputed                        |        3961
1.Dont know                          |          58
2.Missing                            |          16
4.Refused                            |          12
12.Not interviewed                   |          49

Value-------------------------------|       R1TEN5
0.No                                 |        2913
1.Yes                                |        1183

Value-------------------------------|       R1FTEN5
0.Not imputed                        |        3853
1.Dont know                          |         160
2.Missing                            |          19
4.Refused                            |          15
12.Not interviewed                   |          49
```

How Constructed

RwTEN1 indicates the informant's perception whether the respondent has difficulty performing household chores that they used to do, such as preparing food or boiling a pot of tea. RwTEN1 is coded as follows: 0. No, 1. Yes, and 2. Sometimes. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwTEN2 asks the informant whether the respondent has lost a special skill or hobby that was previously manageable. RwTEN2 is coded as 0 if no and 1 if yes. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwTEN3 asks the informant whether there has been a change in the respondent's ability to handle money. RwTEN3 is coded as follows: 0. No difficulty, 1. Cannot handle money, and 2. Some difficulty. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwTEN4 asks the informant whether the respondent has difficulty in adjusting to change in their daily routine. RwTEN4 is coded as follows: 0. No, 1. Yes, and 2. Sometimes. Special missing (.h) is assigned if

the respondent does not have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwTEN5 asks the informant whether there has been a change in the respondent's ability to think and reason. RwTEN5 is coded as 0 if no and 1 if yes. Special missing (.h) is assigned if the respondent does not have an informant interview. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwFTEN1 - RwFTEN5 are flag variables, indicating whether the corresponding variable has an assigned imputed value. The flag variables are coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, 4.Refused, and 12.Not interviewed. The original missing value is otherwise included.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

No differences known.

DAD Variables Used

```
TEN_1                    Difficulty HH Chores
TEN_2                    Loss of Special Skill or Hobby
TEN_3                    Change in Handling Money
TEN_4                    Difficulty Daily Routine
TEN_5                    Change in Ability to Think/Reason
```

Blessed Test—Part 1

```
Wave Variable      Label                                                      Type

  1  R1BL1_1       r1bl1_1:w1 Blessed test part 1- performing household tasks  Categ

  1  R1FBL1_1      r1fbl1_1:impflag w1 r whether imputed value                Categ

  1  R1BL1_2       r1bl1_2:w1 Blessed test part 1- coping with small sums of mo Categ

  1  R1FBL1_2      r1fbl1_2:impflag w1 r whether imputed value                Categ

  1  R1BL1_3       r1bl1_3:w1 Blessed test part 1- remembering a short list of  Categ

  1  R1FBL1_3      r1fbl1_3:impflag w1 r whether imputed value                Categ

  1  R1BL1_4       r1bl1_4:w1 Blessed test part 1- finding her/his way about in Categ

  1  R1FBL1_4      r1fbl1_4:impflag w1 r whether imputed value                Categ

  1  R1BL1_5       r1bl1_5:w1 Blessed test part 1- finding his/her way around f Categ

  1  R1FBL1_5      r1fbl1_5:impflag w1 r whether imputed value                Categ

  1  R1BL1_6       r1bl1_6:w1 Blessed test part 1- grasping situations or expla Categ

  1  R1FBL1_6      r1fbl1_6:impflag w1 r whether imputed value                Categ

  1  R1BL1_7       r1bl1_7:w1 Blessed test part 1- recalling recent events     Categ

  1  R1FBL1_7      r1fbl1_7:impflag w1 r whether imputed value                Categ

  1  R1BL1_8       r1bl1_8:w1 Blessed test part 1- tending to dwell on the past Categ

  1  R1FBL1_8      r1fbl1_8:impflag w1 r whether imputed value                Categ

  1  R1BL1_1A      r1bl1_1a:w1 Blessed test part 1- performing household tasks  Categ

  1  R1FBL1_1A     r1fbl1_1a:impflag w1 r whether imputed value               Categ

  1  R1BL1_2A      r1bl1_2a:w1 Blessed test part 1- coping with small sums of m Categ

  1  R1FBL1_2A     r1fbl1_2a:impflag w1 r whether imputed value               Categ

  1  R1BL1_3A      r1bl1_3a:w1 Blessed test part 1- remembering a short list of Categ

  1  R1FBL1_3A     r1fbl1_3a:impflag w1 r whether imputed value               Categ

  1  R1BL1_4A      r1bl1_4a:w1 Blessed test part 1- finding her/his way about i Categ

  1  R1FBL1_4A     r1fbl1_4a:impflag w1 r whether imputed value               Categ

  1  R1BL1_5A      r1bl1_5a:w1 Blessed test part 1- finding his/her way around  Categ

  1  R1FBL1_5A     r1fbl1_5a:impflag w1 r whether imputed value               Categ

  1  R1BL1_6A      r1bl1_6a:w1 Blessed test part 1- grasping situations or expl Categ

  1  R1FBL1_6A     r1fbl1_6a:impflag w1 r whether imputed value               Categ

  1  R1BL1_7A      r1bl1_7a:w1 Blessed test part 1- recalling recent events - P Categ
```

1	R1FBL1_7A	r1fbl1_7a:impflag w1 r whether imputed value	Categ
1	R1BL1_8A	r1bl1_8a:w1 Blessed test part 1- tending to dwell on the pas	Categ
1	R1FBL1_8A	r1fbl1_8a:impflag w1 r whether imputed value	Categ
1	R1BL1SCORE	r1bl1score:w1 Blessed Test part 1 total score (0-8)	Cont

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1BL1_1	2638	1.72	0.73	1.00	3.00
R1FBL1_1	4096	4.08	5.31	0.00	12.00
R1BL1_2	2638	1.42	0.67	1.00	3.00
R1FBL1_2	4096	4.08	5.31	0.00	12.00
R1BL1_3	2638	1.54	0.70	1.00	3.00
R1FBL1_3	4096	4.09	5.31	0.00	12.00
R1BL1_4	2638	1.24	0.53	1.00	3.00
R1FBL1_4	4096	4.07	5.31	0.00	12.00
R1BL1_5	2638	1.25	0.53	1.00	3.00
R1FBL1_5	4096	4.08	5.31	0.00	12.00
R1BL1_6	2638	1.38	0.61	1.00	3.00
R1FBL1_6	4096	4.07	5.32	0.00	12.00
R1BL1_7	2638	1.41	0.61	1.00	3.00
R1FBL1_7	4096	4.08	5.31	0.00	12.00
R1BL1_8	2638	1.56	0.62	1.00	3.00
R1FBL1_8	4096	4.08	5.31	0.00	12.00
R1BL1_1A	1471	1.88	0.95	1.00	3.00
R1FBL1_1A	4096	7.16	5.25	0.00	12.00
R1BL1_2A	845	2.30	0.84	1.00	3.00
R1FBL1_2A	4096	8.79	4.42	0.00	12.00
R1BL1_3A	1111	2.23	0.83	1.00	3.00
R1FBL1_3A	4096	8.14	4.83	0.00	12.00
R1BL1_4A	496	2.30	0.85	1.00	3.00
R1FBL1_4A	4096	9.70	3.57	0.00	12.00
R1BL1_5A	532	2.29	0.85	1.00	3.00

R1FBL1_5A	4096	9.61	3.67	0.00	12.00
R1BL1_6A	842	2.33	0.81	1.00	3.00
R1FBL1_6A	4096	8.79	4.41	0.00	12.00
R1BL1_7A	909	2.28	0.81	1.00	3.00
R1FBL1_7A	4096	8.62	4.54	0.00	12.00
R1BL1_8A	1292	2.21	0.81	1.00	3.00
R1FBL1_8A	4096	7.68	5.06	0.00	12.00
R1BL1SCORE	2638	1.25	1.71	0.00	8.00

Categorical Variable Codes

```
Value-----------------------------------|    R1BL1_1
.s:Skipped                              |      1458
1.No loss                               |      1167
2.Some loss                             |      1033
3.Severe loss                           |       438

Value-----------------------------------|    R1FBL1_1
0.Not imputed                           |      2558
1.Dont know                             |         7
2.Missing                               |        11
4.Refused                               |        13
11.Skipped                              |      1458
12.Not interviewed                      |        49

Value-----------------------------------|    R1BL1_2
.s:Skipped                              |      1458
1.No loss                               |      1793
2.Some loss                             |       572
3.Severe loss                           |       273

Value-----------------------------------|    R1FBL1_2
0.Not imputed                           |      2557
1.Dont know                             |        11
2.Missing                               |        10
4.Refused                               |        11
11.Skipped                              |      1458
12.Not interviewed                      |        49

Value-----------------------------------|    R1BL1_3
.s:Skipped                              |      1458
1.No loss                               |      1527
2.Some loss                             |       801
3.Severe loss                           |       310

Value-----------------------------------|    R1FBL1_3
0.Not imputed                           |      2533
1.Dont know                             |        27
2.Missing                               |         8
4.Refused                               |        21
11.Skipped                              |      1458
12.Not interviewed                      |        49

Value-----------------------------------|    R1BL1_4
.s:Skipped                              |      1458
1.No loss                               |      2142
2.Some loss                             |       370
3.Severe loss                           |       126

Value-----------------------------------|    R1FBL1_4
```

```
0.Not imputed                              |        2563
1.Dont know                                |           9
2.Missing                                  |           8
4.Refused                                  |           9
11.Skipped                                 |        1458
12.Not interviewed                         |          49

Value----------------------------------|    R1BL1_5
.s:Skipped                                 |        1458
1.No loss                                  |        2106
2.Some loss                                |         407
3.Severe loss                              |         125

Value----------------------------------|    R1FBL1_5
0.Not imputed                              |        2564
1.Dont know                                |           6
2.Missing                                  |           8
4.Refused                                  |          11
11.Skipped                                 |        1458
12.Not interviewed                         |          49

Value----------------------------------|    R1BL1_6
.s:Skipped                                 |        1458
1.No loss                                  |        1796
2.Some loss                                |         671
3.Severe loss                              |         171

Value----------------------------------|    R1FBL1_6
0.Not imputed                              |        2565
1.Dont know                                |           6
2.Missing                                  |           8
4.Refused                                  |          10
11.Skipped                                 |        1458
12.Not interviewed                         |          49

Value----------------------------------|    R1BL1_7
.s:Skipped                                 |        1458
1.No loss                                  |        1729
2.Some loss                                |         734
3.Severe loss                              |         175

Value----------------------------------|    R1FBL1_7
0.Not imputed                              |        2560
1.Dont know                                |          11
2.Missing                                  |           8
4.Refused                                  |          10
11.Skipped                                 |        1458
12.Not interviewed                         |          49

Value----------------------------------|    R1BL1_8
.s:Skipped                                 |        1458
1.None                                     |        1346
2.Sometimes                                |        1106
3.Frequently                               |         186

Value----------------------------------|    R1FBL1_8
0.Not imputed                              |        2543
1.Dont know                                |          27
2.Missing                                  |           8
4.Refused                                  |          11
11.Skipped                                 |        1458
12.Not interviewed                         |          49

Value----------------------------------|    R1BL1_1A
.s:Skipped                                 |        2625
1.Physical                                 |         758
2.Mental                                   |         130
3.Both                                     |         583

Value----------------------------------|    R1FBL1_1A
0.Not imputed                              |        1419
```

```
1.Dont know                        |                6
2.Missing                          |               11
11.Skipped                         |             2611
12.Not interviewed                 |               49

Value----------------------------------|        R1BL1_2A
.s:Skipped                         |             3251
1.Physical                         |              208
2.Mental                           |              174
3.Both                             |              463

Value----------------------------------|        R1FBL1_2A
0.Not imputed                      |              814
1.Dont know                        |                6
2.Missing                          |               10
11.Skipped                         |             3217
12.Not interviewed                 |               49

Value----------------------------------|        R1BL1_3A
.s:Skipped                         |             2985
1.Physical                         |              281
2.Mental                           |              291
3.Both                             |              539

Value----------------------------------|        R1FBL1_3A
0.Not imputed                      |             1051
1.Dont know                        |               12
2.Missing                          |                8
11.Skipped                         |             2976
12.Not interviewed                 |               49

Value----------------------------------|        R1BL1_4A
.s:Skipped                         |             3600
1.Physical                         |              127
2.Mental                           |               93
3.Both                             |              276

Value----------------------------------|        R1FBL1_4A
0.Not imputed                      |              481
1.Dont know                        |                2
2.Missing                          |                8
11.Skipped                         |             3556
12.Not interviewed                 |               49

Value----------------------------------|        R1BL1_5A
.s:Skipped                         |             3564
1.Physical                         |              139
2.Mental                           |              101
3.Both                             |              292

Value----------------------------------|        R1FBL1_5A
0.Not imputed                      |              514
1.Dont know                        |                2
2.Missing                          |                8
11.Skipped                         |             3523
12.Not interviewed                 |               49

Value----------------------------------|        R1BL1_6A
.s:Skipped                         |             3254
1.Physical                         |              184
2.Mental                           |              200
3.Both                             |              458

Value----------------------------------|        R1FBL1_6A
0.Not imputed                      |              811
1.Dont know                        |                9
2.Missing                          |                8
11.Skipped                         |             3219
12.Not interviewed                 |               49

Value----------------------------------|        R1BL1_7A
```

```
.s:Skipped                       |          3187
1.Physical                       |           204
2.Mental                         |           244
3.Both                           |           461

Value----------------------------|  R1FBL1_7A
0.Not imputed                    |           877
1.Dont know                      |             6
2.Missing                        |             8
4.Refused                        |             1
11.Skipped                       |          3155
12.Not interviewed               |            49

Value----------------------------|  R1BL1_8A
.s:Skipped                       |          2804
1.Physical                       |           316
2.Mental                         |           385
3.Both                           |           591

Value----------------------------|  R1FBL1_8A
0.Not imputed                    |          1216
1.Dont know                      |            21
2.Missing                        |             8
4.Refused                        |             1
11.Skipped                       |          2801
12.Not interviewed               |            49
```

How Constructed

The following variables pertain to a series of questions regarding the informant's perception about how well the respondent does with different activities.

RwBL1_1 indicates whether the informant would say that the respondent has no loss, some loss, or severe loss performing household tasks.

RwBL1_2 indicates whether the informant would say that the respondent has no loss, some loss, or severe loss coping with small sums of money.

RwBL1_3 indicates whether the informant would say that the respondent has no loss, some loss, or severe loss remembering a short list of items such as a shopping list.

RwBL1_4 indicates whether the informant would say that the respondent has no loss, some loss, or severe loss in his/her ability to find his/her way around indoor locations, such as at home or other familiar locations.

RwBL1_5 indicates whether the informant would say that the respondent has no loss, some loss, or severe loss finding his/her way around familiar streets.

RwBL1_6 indicates whether the informant would say that the respondent has no loss, some loss, or severe loss in his/her ability to grasp situations or explanations.

RwBL1_7 indicates whether the informant would say that the respondent has no loss, some loss, or severe loss in his/her ability to recall recent events.

RwBL1_1- RwBL1_7 are coded as follows: 1. No loss, 2. Some loss, and 3. Severe loss. Special missing (.s) is assigned if the respondent skipped the question. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwBL1_8 indicates whether the informant would say that the respondent tends to dwell on the past: 1. None (of the time), 2. Sometimes, or 3. Frequently. Special missing (.s) is assigned if the respondent skipped this question. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

R1BL1_1A - RwBL1_8A indicate whether the informant would say that the loss of RwBL1_1 - RwBL1_8 is due to physical reasons, mental reasons, or both. R1BL1_1A - RwBL1_8A are coded as follows: 1.Physical, 2.Mental and 3.Both. Special missing (.s) is assigned if the respondent skipped these questions due to answering

"1. No loss", "don't know", or "refused to answer" in the previous question (respective to RwBL1_1 - RwBL1_7) or "1. None (of the time)", "don't know", or "refused to answer" to RwBL1_8. Don't know, refused, or other missing responses are assigned as special missing (.d), (.r), and (.m), respectively.

RwBL1SCORE indicates the total score of RwBL1_1- RwBL1_8. RwBL1SCORE is calculated by taking the sum of values between R RwBL1_1 - RwBL1_8 if the loss is due to mental and/or both physical and mental reasons. Some loss/sometimes is scored as 0.5 and Severe loss/frequently is scored as 1. Special missing (.s) is assigned if the respondent skipped the questions in this section. Don't know response is assigned special missing (.d). Other missing is assigned as special missing (.m).

RwFBL1_1 - RwFBL1_8 and RwFBL1_1A - RwFBL1_8A are flag variables, indicating whether the corresponding variable has an assigned imputed value. The flag variables are coded as follows: 0.Not imputed, 1.Don't know, 2.Missing, 4.Refused, 11.Skipped, and 12.Not interviewed. The original missing value is otherwise included.

Cross Wave Differences in DAD

Due to a skipped pattern error in the phase 1 data, there are special missing (.s) for phase 1 respondents.

Differences with HRS HCAP

No differences known.

DAD Variables Used

BL1_1	Ability to Perform HH Tasks
BL1_1A	HH Tasks - Physical/Mental/Both
BL1_2	Ability to Cope with Money
BL1_2A	Coping with Money - Physical/Mental/Both
BL1_3	Ability to Remember Lists
BL1_3A	Remembering Lists - Physical/Mental/Both
BL1_4	Ability to Find Way in Home
BL1_4A	Find Way in Home - Physical/Mental/Both
BL1_5	Ability to Find Way on Streets
BL1_5A	Find Way on Streets - Physical/Mental/Both
BL1_6	Ability to Grasp Situation
BL1_6A	Grasp Situation - Physical/Mental/Both
BL1_7	Ability to Recall Events
BL1_7A	Recall Events - Physical/Mental/Both
BL1_8	Tend to Dwell on Past
BL1_8A	Dwell on Past - Physical/Mental/Both

Section D: Health & Physical Measures

Self-rated Abilities

```
Wave Variable       Label                                              Type

  1  R1I_HEAR       r1i_hear:w1 R whether any difficulty hearing or seeing(0-3)  Categ

  1  R1I_SLEEP      r1i_sleep:w1 R self rated sleep quality,last night(1-5)      Categ

  1  R1I_MEMORY     r1i_memory:w1 R self rated memory,present time(1-5)          Categ

  1  R1I_COMPMEM    r1i_compmem:w1 R self rated memory compared to two years ago Categ

  1  R1I_MENABIL    r1i_menabil:w1 R self rated mental abilities(1-5)            Categ

  1  R1I_COMPABIL   r1i_compabil:w1 R self rated mental abilities to two years a Categ
```

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1I_HEAR	4081	1.10	1.18	0.00	3.00
R1I_SLEEP	2490	2.69	0.97	1.00	5.00
R1I_MEMORY	2482	2.88	0.89	1.00	5.00
R1I_COMPMEM	2483	2.49	0.57	1.00	3.00
R1I_MENABIL	2231	2.89	0.85	1.00	5.00
R1I_COMPABIL	2478	2.42	0.59	1.00	3.00

Categorical Variable Codes

```
Value---------------------------------|    R1I_HEAR
.d:DK                                 |          2
.m:Missing                            |          6
.r:Refuse                             |          7
0.No difficulty                       |       1974
1.Difficulty hearing only             |        421
2.Difficulty seeing only              |       1005
3.Difficulty hearing & seeing         |        681

Value---------------------------------|    R1I_SLEEP
.d:DK                                 |          4
.m:Missing                            |          3
.r:Refuse                             |          7
.x:Not in phase/wave                  |       1592
1.Very good                           |        176
2.Good                                |       1080
3.Average                             |        666
4.Poor                                |        487
5.Very poor                           |         81

Value---------------------------------|    R1I_MEMORY
.d:DK                                 |          8
.m:Missing                            |          3
.r:Refuse                             |         11
.x:Not in phase/wave                  |       1592
1.Very good                           |         95
2.Good                                |        781
3.Average                             |       1012
4.Poor                                |        515
```

```
5.Very poor                               |                79

Value----------------------------------|  R1I_COMPMEM
.d:DK                                     |                 8
.m:Missing                                |                 3
.r:Refuse                                 |                10
.x:Not in phase/wave                      |              1592
1.Better now                              |                94
2.About the same                          |              1087
3.Worse now than it was then              |              1302

Value----------------------------------|  R1I_MENABIL
.d:DK                                     |                16
.m:Missing                                |               248
.r:Refuse                                 |                 9
.x:Not in phase/wave                      |              1592
1.Very good                               |                55
2.Good                                    |               726
3.Average                                 |               919
4.Poor                                    |               474
5.Very poor                               |                57

Value----------------------------------|R1I_COMPABIL
.d:DK                                     |                13
.m:Missing                                |                 3
.r:Refuse                                 |                10
.x:Not in phase/wave                      |              1592
1.Better now                              |               130
2.About the same                          |              1182
3.Worse now than it was then              |              1166
```

How Constructed

RwI_HEAR indicates whether the respondent has any difficulty in hearing or seeing. RwI_HEAR is coded as follows: 0.No difficulty, 1.Difficulty hearing, 2.Difficulty seeing, and 3.Difficulty hearing and seeing. This question was asked in all three phases of the data collection.

RwI_SLEEP indicates how the respondent self-reported his/her sleep quality the night before. RwI_SLEEP is coded as follows: 1.Very good, 2.Good, 3.Average, 4.Poor, and 5.Very poor. This question was asked starting in phase 2 of the data collection.

RwI_MEMORY indicates how the respondent self-reported his/her memory at the present interview. RwI_MEMORY is coded as follows: 1.Very good, 2.Good, 3.Average, 4.Poor, and 5.Very poor. This question was asked starting in phase 2 of the data collection.

RwI_COMPMEM indicates how the respondent would compare his/her memory at the time of the current interview to two years ago. RwI_COMPMEM is coded as follows: 1.Better now, 2.About the same, and 3.Worse now than it was then. This question was asked starting in phase 2 of the data collection.

RwI_MENABIL indicates how the respondent self-reported his/her mental abilities, such as thinking clearly and solving problems. RwI_MENABIL is coded as follows: 1.Very good, 2.Good, 3.Average, 4.Poor, and 5.Very poor. This question was asked starting in phase 2 of the data collection.

RwI_COMPABIL indicates how the respondent would compare his/her mental abilities, such as thinking clearly and solving problems, at the time of the current interview to two years ago. RwI_COMPABIL is coded as follows: 1.Better now, 2.About the same, and 3.Worse now than it was then. This question was asked starting in phase 2 of the data collection.

Special missing includes (.r) refused, (.d) don't know, (.x) not in phase/wave, and (.m) other missing.

Cross Wave Differences in DAD

These questions were added starting in phase 2 of the data collection.

Differences with HRS HCAP

```
This series of questions was not asked in HRS HCAP.
```

Differences with Harmonized LASI

```
This series of questions was not asked in LASI.
```

DAD Variables Used

```
Wave 1 Cog:
    COGVAL_101B            rating sleep quality
    COGVAL_101C            rating current memory
    COGVAL_101D            Compared to two years ago, memory is
    COGVAL_101E            rating of other mental abilities
    COGVAL_101F            Compared to two years ago,other mental abilit
    INTRO_101S1            Respondent IW Introduction 1 Yes, difficulty
    INTRO_101S2            Respondent IW Introduction 2 Yes, difficulty
    INTRO_101S3            Respondent IW Introduction 3 None
```

Blood Pressure Measurements

Wave	Variable	Label	Type
1	R1SYSTO1	r1systo1:w1 r blood pressure measure (systolic) 1	Cont
1	R1SYSTO2	r1systo2:w1 r blood pressure measure (systolic) 2	Cont
1	R1SYSTO3	r1systo3:w1 r blood pressure measure (systolic) 3	Cont
1	R1SYSTO	r1systo:w1 r average blood pressure measure (systolic) 2 & 3	Cont
1	R1DIASTO1	r1diasto1:w1 r blood pressure measure (diastolic) 1	Cont
1	R1DIASTO2	r1diasto2:w1 r blood pressure measure (diastolic) 2	Cont
1	R1DIASTO3	r1diasto3:w1 r blood pressure measure (diastolic) 3	Cont
1	R1DIASTO	r1diasto:w1 r average blood pressure measure (diastolic) 2 &	Cont
1	R1PULSE1	r1pulse1:w1 r pulse measure 1	Cont
1	R1PULSE2	r1pulse2:w1 r pulse measure 2	Cont
1	R1PULSE3	r1pulse3:w1 r pulse measure 3	Cont
1	R1PULSE	r1pulse:w1 r average pulse measure 2 & 3	Cont
1	R1BPHIGH	r1bphigh:w1 r high blood pressure	Categ
1	R1BPEAT	r1bpeat:w1 r blood pressure-ate food	Categ
1	R1BPARM	r1bparm:w1 r arm used for blood pressure test	Categ
1	R1BLDPOS	r1bldpos:w1 r position for blood pressure test	Categ
1	R1BPCOMPL	r1bpcompl:w1 r compliance during blood pressure test	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1SYSTO1	4017	140.49	24.39	75.00	232.00
R1SYSTO2	4011	137.56	23.48	72.00	232.00
R1SYSTO3	4007	136.14	22.88	77.00	235.00
R1SYSTO	4011	136.85	22.82	76.50	233.50
R1DIASTO1	4016	83.56	12.82	46.00	149.00
R1DIASTO2	4010	82.35	12.57	43.00	162.00
R1DIASTO3	4004	81.72	12.39	43.00	155.00
R1DIASTO	4011	82.04	12.14	47.50	137.00
R1PULSE1	4014	80.65	13.04	39.00	136.00
R1PULSE2	4010	80.05	12.97	2.00	160.00

R1PULSE3	3998	79.94	12.86	39.00	188.00
R1PULSE	4010	80.00	12.73	28.00	160.00
R1BPHIGH	4011	0.45	0.50	0.00	1.00
R1BPEAT	4061	0.16	0.37	0.00	1.00
R1BPARM	4040	1.02	0.13	1.00	2.00
R1BLDPOS	4040	2.01	0.07	2.00	3.00
R1BPCOMPL	4041	1.01	0.14	1.00	3.00

Categorical Variable Codes

```
Value----------------------------------|    R1BPHIGH
.d:DK                                   |           5
.h:Not interviewed                      |          12
.i:Invalid                              |           1
.m:Missing                              |          11
.q:Did not complete                     |          25
.r:Refuse                               |           3
.s:Skipped                              |          28
0.No                                    |        2190
1.Yes                                   |        1821

Value----------------------------------|    R1BPEAT
.h:Not interviewed                      |          12
.m:Missing                              |          22
.r:Refuse                               |           1
0.No                                    |        3417
1.Yes                                   |         644

Value----------------------------------|    R1BPARM
.d:DK                                   |           1
.h:Not interviewed                      |          12
.m:Missing                              |          27
.r:Refuse                               |           2
.s:Skipped                              |          14
1.Left arm                              |        3967
2.Right arm                             |          73

Value----------------------------------|    R1BLDPOS
.d:DK                                   |           1
.h:Not interviewed                      |          12
.m:Missing                              |          27
.r:Refuse                               |           2
.s:Skipped                              |          14
2.Sitting                               |        4019
3.Lying down                            |          21

Value----------------------------------|    R1BPCOMPL
.d:DK                                   |           2
.h:Not interviewed                      |          12
.m:Missing                              |          27
.s:Skipped                              |          14
1.Fully compliant                       |        4005
2.Prevented from being fully compliant  |          20
3.Not fully compliant                   |          16
```

How Constructed

RwSYSTOL1, RwSYSTOL2, and RwSYSTOL3 are the respondent's first, second, and third systolic blood pressure readings. RwSYSTOL is the average of the second and third systolic blood pressure readings. If either the second or the third systolic blood pressure reading is missing, but not both, the first systolic blood

pressure reading and the non-missing second or third reading is used to calculate RwSYSTOL. Don't know, refused, or other missing responses are assigned special missing codes (.d), (.r), and (.m), respectively. Special missing (.q) is assigned if the respondent tried to do the test but was unable to complete it. Special missing (.s) is employed if the questions were skipped because the respondent did not understand the directions, was unwilling to participate in the blood pressure measurement, or had a rash, a cast, edema, open sores or wounds, or a significant bruise where the blood pressure cuff would be placed. Special missing (.i) is assigned for invalid readings. Special missing (.h) is assigned if the respondent was not interviewed.

RwDIASTO1, RwDIASTO2, RwDIASTO3 are the respondent's first, second, and third diastolic blood pressure readings. RwDIASTO is the average of the second and the third diastolic blood pressure readings. If either the second or the third diastolic blood pressure reading is missing, but not both, the first diastolic blood pressure reading and the non-missing second or third reading is used to calculate RwDIASTO. Don't know, refused, or other missing responses are assigned special missing codes (.d), (.r), and (.m), respectively. Special missing (.q) is assigned if the respondent tried to do the test but was unable to complete it. Special missing (.s) is employed if the questions were skipped because the respondent did not understand the directions, was unwilling to participate in the blood pressure measurement, or had a rash, a cast, edema, open sores or wounds, or a significant bruise where the blood pressure cuff would be placed. Special missing (.i) is assigned for invalid readings. Special missing (.h) is assigned if the respondent was not interviewed.

RwPULSE1, RwPULSE2, and RwPULSE3 are the respondent's first, second, and third pulse readings. RwPULSE is the average of the second and the third pulse readings. If either the second or the third pulse reading is missing, but not both, the first pulse reading and the non-missing second or third reading is used to calculate RwPULSE. Don't know, refused, or other missing responses are assigned special missing codes (.d), (.r), and (.m), respectively. Special missing (.q) is assigned if the respondent tried to do the test but was unable to complete it. Special missing (.s) is employed if the questions were skipped because the respondent did not understand the directions, was unwilling to participate in the blood pressure measurement, or had a rash, a cast, edema, open sores or wounds, or a significant bruise where the blood pressure cuff would be placed. Special missing (.i) is assigned for invalid readings. Special missing (.h) is assigned if the respondent was not interviewed.

RwBPHIGH indicates whether the respondent has high blood pressure. If RwSYSTO is 140 mmHg or higher or RwDIASTO is 90 mmHg or higher, a 1 is coded. If RwSYSTO is below 140 mmHg and RwDIASTO is below 90 mmHg, a 0 is coded. If RwSYSTO or RwDIASTO have don't know, refused, or other missing responses are assigned special missing codes (.d), (.r), and (.m), respectively. Special missing (.q) is assigned if the respondent tried to do the test but was unable to complete it. Special missing (.s) is employed if the questions were skipped because the respondent did not understand the directions, was unwilling to participate in the blood pressure measurement, or had a rash, a cast, edema, open sores or wounds, or a significant bruise where the blood pressure cuff would be placed. Special missing (.i) is assigned for invalid readings. Special missing (.h) is assigned if the respondent was not interviewed.

RwBPEAT indicates whether the respondent had smoked, exercised, or consumed alcohol or food within 30 minutes prior to the blood pressure test. A code of 1 indicates the respondent had smoked, exercised, or consumed alcohol or food within the 30 minutes prior to the blood pressure test. A code of 0 indicates the respondent had not smoked, exercised, or consumed alcohol or food within the 30 minutes prior to the blood pressure test. Refused and other missing responses are assigned special missing codes (.r) and (.m), respectively. Special missing (.h) is assigned if the respondent was not interviewed.

RwBPARM indicates the arm the respondent used for the blood pressure tests. RwBPARM is coded as follows: 1.Left arm and 2.Right arm. Special missing (.s) is employed if the questions were skipped because the respondent did not understand the directions, was unwilling to participate in the blood pressure measurement, or had a rash, a cast, edema, open sores or wounds, or a significant bruise where the blood pressure cuff would be placed. Refused and other missing responses are assigned special missing codes (.r) and (.m), respectively. Special missing (.h) is assigned if the respondent was not interviewed.

RwBLDPOS indicates the position the respondent was in for the blood pressure tests. RwBLDPOS is coded as 2 if sitting and 3 if lying down. Special missing (.s) is employed if the questions were skipped because the respondent did not understand the directions, was unwilling to participate in the blood pressure measurement, or had a rash, a cast, edema, open sores or wounds, or a significant bruise where the blood pressure cuff would be placed. Refused and other missing responses are assigned special missing codes (.r) and (.m), respectively. Special missing (.h) is assigned if the respondent was not interviewed.

RwBPCOMPL indicates how compliant the respondent was for the blood pressure tests. RwBPCOMPL is coded as follows: 1.Fully compliant, 2.Prevented from fully complying due to illness, pain, or other symptoms or discomfort, and 3.Not fully compliant. Special missing (.s) is employed if the questions were skipped because the respondent did not understand the directions, was unwilling to participate in the blood pressure measurement, or had a rash, a cast, edema, open sores or wounds, or a significant bruise where the blood pressure cuff would be placed. Don't know and other missing responses are assigned special missing codes (.d) and (.m), respectively. Special missing (.h) is assigned if the respondent was not interviewed.

We have left the determination of valid and invalid measurement values to the discretion of the user.

Cross Wave Differences in DAD

No differences known.

Differences with Harmonized LASI

No differences known.

DAD Variables Used

```
Wave 1 GA:
    GA101                     Blood Pressure
    GA102                     ACTIVITY PRIOR TO BP TEST
    GA103                     INJURY WHERE BP CUFF CONTACTS ARM
    GA104                     INJURY WHERE BP CUFF CONTACTS ARM
    GA106                     SYSTOLIC READING 1
    GA107                     DIASTOLIC READING 1
    GA108                     PULSE READING 1
    GA110                     SYSTOLIC READING 2
    GA111                     DIASTOLIC READING 2
    GA112                     PULSE READING 2
    GA114                     SYSTOLIC READING 3
    GA115                     DIASTOLIC READING 3
    GA116                     PULSE READING 3
    GA120                     ARM USED FOR BP MEASUREMENTS
    GA121                     RS POSITION FOR BP TEST
    GA122                     HOW COMPLIANT DURING TEST
```

```
┌─────────────────────────────────────────────────────────────────────────────────┐
│                          Height, Weight, and BMI                                  │
└─────────────────────────────────────────────────────────────────────────────────┘
```

```
Wave Variable       Label                                                      Type

  1  R1MHEIGHT      r1mheight:w1 r height measurement in meters                Cont

  1  R1MWEIGHT      r1mweight:w1 r weight measurement in kilograms             Cont

  1  R1MBMI         r1mbmi:w1 r Body Mass Index=kg/m2                          Cont

  1  R1BMICAT       r1bmicat:w1 r bmi categorization                          Categ

  1  R1HT_FLAG      r1ht_flag:w1 Flag: r LASI height measurement in meters    Categ

  1  R1WT_FLAG      r1wt_flag:w1 Flag: r LASI weight measurement in kilograms Categ

  1  R1MSTAND       r1mstand:w1 r whether able to stand for measurements      Categ

  1  R1HTLIMBS      r1htlimbs:w1 r whether wearing artificial limb/orthosis duri Categ

  1  R1WTLIMBS      r1wtlimbs:w1 r whether wearing artificial limb/orthosis duri Categ

  1  R1HTCOMPL      r1htcompl:w1 r compliance during height measurement       Categ

  1  R1WTCOMPL      r1wtcompl:w1 r compliance during weight measurement       Categ
```

Descriptive Statistics

```
Variable          N       Mean      Std Dev      Minimum      Maximum

R1MHEIGHT       3808      1.54        0.09         1.03         2.05

R1MWEIGHT       3992     53.58       13.30        12.30       111.40

R1MBMI          3775     22.50        5.05         9.53        47.69

R1BMICAT        3775      1.14        0.86         0.00         3.00

R1HT_FLAG       4089      0.63        0.48         0.00         1.00

R1WT_FLAG       4089      0.05        0.22         0.00         1.00

R1MSTAND        4016      0.97        0.18         0.00         1.00

R1HTLIMBS       2524      0.10        0.31         0.00         1.00

R1WTLIMBS       3853      0.00        0.04         0.00         1.00

R1HTCOMPL       2438      1.08        0.35         1.00         3.00

R1WTCOMPL       3846      1.01        0.11         1.00         3.00
```

Categorical Variable Codes

```
Value--------------------------------|    R1BMICAT
.h:Not interviewed                   |           7
.i:Invalid                           |          36
.m:Missing                           |         118
.r:Refuse                            |         118
.s:Skipped                           |          42
0.Less than 18.5 bmi                 |         860
```

```
1.18.5-24.99 bmi                        |           1843
2.25.0-29.9 bmi                         |            770
3.30.0 and greater bmi                  |            302

Value--------------------------------|  R1HT_FLAG
.h:Not interviewed                      |              7
0.DAD                                   |           1504
1.LASI                                  |           2585

Value--------------------------------|  R1WT_FLAG
.h:Not interviewed                      |              7
0.DAD                                   |           3886
1.LASI                                  |            203

Value--------------------------------|  R1MSTAND
.d:DK                                   |              3
.h:Not interviewed                      |             12
.m:Missing                              |              4
.r:Refuse                               |             61
0.No                                    |            132
1.Yes                                   |           3884

Value--------------------------------|  R1HTLIMBS
.d:DK                                   |            394
.h:Not interviewed                      |             12
.m:Missing                              |            604
.r:Refuse                               |            430
.s:Skipped                              |            132
0.No                                    |           2261
1.Yes                                   |            263

Value--------------------------------|  R1WTLIMBS
.d:DK                                   |             29
.h:Not interviewed                      |             12
.m:Missing                              |             68
.r:Refuse                               |              2
.s:Skipped                              |            132
0.No                                    |           3848
1.Yes                                   |              5

Value--------------------------------|  R1HTCOMPL
.d:DK                                   |            483
.h:Not interviewed                      |             12
.m:Missing                              |            604
.r:Refuse                               |            427
.s:Skipped                              |            132
1.Fully compliant                       |           2296
2.Prevented from being fully compliant  |             86
3.Not fully compliant                   |             56

Value--------------------------------|  R1WTCOMPL
.d:DK                                   |             33
.h:Not interviewed                      |             12
.m:Missing                              |             68
.r:Refuse                               |              5
.s:Skipped                              |            132
1.Fully compliant                       |           3824
2.Prevented from being fully compliant  |             15
3.Not fully compliant                   |              7
```

How Constructed

RwMHEIGHT and RwMWEIGHT indicate the respondent's measured height in meters and measured weight in kilograms, respectively. Don't know, refused, or other missing responses are assigned special missing codes (.d), (.r), and (.m), respectively. Special missing (.q) is assigned if the respondent tried to be measured but received an error message record. Special missing (.s) is employed if the questions were skipped because the respondent could not stand to complete the test. Special missing (.i) is assigned for invalid readings. Special missing (.h) is assigned if the respondent was not interviewed. RwHT_FLAG and

RwWT_FLAG indicate whether RwMHEIGHT and RwMWEIGHT use DAD or LASI height and weight measurements, respectively. A 0 indicates DAD measurements were used and a 1 indicates LASI measurements were used.

RwMBMI is the respondent's body mass index and it is calculated by dividing the respondent's weight (kg) by the squared value of his/her height (m). RwBMICAT assigns RwMBMI into four categories. RwBMICAT includes the following BMI ranges: 0. 0-18.49, 1. 18.5-24.99, 2. 25.0-29.99, and 3. 30 and up. Refused or other missing responses are assigned special missing codes (.r) and (.m), respectively. Special missing (.s) is employed if the questions were skipped because the respondent could not stand to complete the test. Special missing (.i) is assigned for invalid readings. Special missing (.h) is assigned if the respondent was not interviewed.

RwMSTAND indicates whether the respondent is able to stand for the height and weight measurements. RwMSTAND is coded as 1 if the respondent was able to stand and is coded as 0 if the respondent was unable to stand. Don't know, refused, or other missing responses are assigned special missing codes (.d), (.r), and (.m), respectively. Special missing (.h) is assigned if the respondent was not interviewed.

RwHTLIMBS indicates whether the respondent was wearing any artificial limbs or orthosis during the height measurements and RwWTLIMBS indicates whether the respondent was wearing any artificial limbs or orthosis during the weight measurements. RwHTLIMBS and RwWTLIMBS are coded as 1 if the respondent was wearing an artificial limb or orthosis during the measurement and coded as 0 if the respondent was not wearing any artificial limb or orthosis. RwHTCOMPL and RwWTCOMPL indicate how compliant the respondent was during the height and weight measurements, respectively. RwHTCOMPL and RwWTCOMPL are coded as follows: 1.Fully compliant, 2.Prevented from fully complying due to illness, pain, or other symptoms or discomforts, and 3.Not fully compliant, but no obvious reason for this. Don't know, refused, or other missing responses are assigned special missing codes (.d), (.r), and (.m), respectively. Special missing (.s) is employed if the questions were skipped because the respondent could not stand to complete the test. Special missing (.h) is assigned if the respondent was not interviewed.

Cross Wave Differences in DAD

No differences known.

Differences with Harmonized LASI

No differences known.

DAD Variables Used

```
GA123                    CAN RESPONDENT STAND
GA123B                   Measurement height
GA124                    R WEARING ARTIFICIAL LIMBS OR ORTHOSIS
GA125                    HOW COMPLIANT DURING TEST
GA127B                   Measurement weight
GA128                    ARTIFICIAL LIMB
GA129                    HOW COMPLIANT DURING TEST
```

Mid Arm Circumference, Calf Circumference and Knee Height

```
Wave Variable       Label                                                           Type

  1  R1MIDARM       r1midarm:w1 r mid arm circumference(cm)                         Cont

  1  R1CALF         r1calf:w1 r calf circumference(cm)                              Cont

  1  R1KNEEHT       r1kneeht:w1 r knee height(cm)                                   Cont
```

Descriptive Statistics

```
Variable          N          Mean        Std Dev        Minimum       Maximum

R1MIDARM       4051         25.17           3.79          11.70         55.80

R1CALF         4049         29.41           4.23          15.20         62.00

R1KNEEHT       3848         49.10           3.54          25.00         61.00
```

How Constructed

RwMIDARM, RwCALF, and RwKNEEHT indicate the respondent's measured mid arm circumference (cm), measured calf circumference (cm), and measured knee height (cm), respectively. Don't know, refused, or other missing responses are assigned special missing codes (.d), (.r), and (.m), respectively. Special missing (.i) is assigned for invalid readings. Special missing (.h) is assigned if the respondent was not interviewed.

Cross Wave Differences in DAD

No differences known.

Differences with Harmonized LASI

These variables are not included in LASI.

DAD Variables Used

```
    GA131                   MID ARM CIRCUMFERENCE
    GA134                   CALF CIRCUMFERENCE
    GA137                   Knee measurement
```

Activities of daily living (ADLs): Some difficulty

```
Wave Variable       Label                                                      Type

  1  R1DRESSA       r1dressa:w1 r Some Diff-Dressing                           Categ

  1  R1WALKRA       r1walkra:w1 r Some Diff-Walk across room                   Categ

  1  R1BATHA        r1batha:w1 r Some Diff-Bathing                             Categ

  1  R1EATA         r1eata:w1 r Some Diff-Eating                               Categ

  1  R1BEDA         r1beda:w1 r Some Diff-Get in/out bed                       Categ

  1  R1TOILTA       r1toilta:w1 r Some Diff-Using the toilet                   Categ
```

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1DRESSA	4065	0.16	0.37	0.00	1.00
R1WALKRA	4065	0.26	0.44	0.00	1.00
R1BATHA	4064	0.17	0.38	0.00	1.00
R1EATA	4065	0.15	0.36	0.00	1.00
R1BEDA	4065	0.35	0.48	0.00	1.00
R1TOILTA	4065	0.37	0.48	0.00	1.00

Categorical Variable Codes

```
Value--------------------------------|      R1DRESSA
.d:DK                                |            4
.h:Not interviewed                   |           12
.m:Missing                           |            5
.r:Refuse                            |           10
0.No                                 |         3408
1.Yes                                |          657

Value--------------------------------|      R1WALKRA
.d:DK                                |            4
.h:Not interviewed                   |           12
.m:Missing                           |            5
.r:Refuse                            |           10
0.No                                 |         3012
1.Yes                                |         1053

Value--------------------------------|      R1BATHA
.d:DK                                |            5
.h:Not interviewed                   |           12
.m:Missing                           |            5
.r:Refuse                            |           10
0.No                                 |         3370
1.Yes                                |          694

Value--------------------------------|      R1EATA
.d:DK                                |            4
.h:Not interviewed                   |           12
.m:Missing                           |            5
.r:Refuse                            |           10
```

```
0.No                                    |            3447
1.Yes                                   |             618

Value---------------------------------|          R1BEDA
.d:DK                                   |               4
.h:Not interviewed                      |              12
.m:Missing                              |               5
.r:Refuse                               |              10
0.No                                    |            2662
1.Yes                                   |            1403

Value---------------------------------|        R1TOILTA
.d:DK                                   |               4
.h:Not interviewed                      |              12
.m:Missing                              |               5
.r:Refuse                               |              10
0.No                                    |            2562
1.Yes                                   |            1503
```

How Constructed

These variables pertain to questions regarding Activities of Daily Living (ADLs) and whether the
respondent experienced any difficulty performing said tasks due to health or memory problems. The ADLs
include dressing (RwDRESSA), walking across a room (RwWALKRA), bathing (RwBATHA), eating (RwEATA),
getting in and out of bed (RwBEDA), and using the toilet (RwTOILTA). The respondent was instructed to
exclude any difficulties they expect to last less than three months.

A code of 0 indicates that the respondent did not report any problems with the activity. A code of 1
indicates that the respondent reported some difficulty with the activity due to health or memory
problems. Don't know, refused, or other missing responses are assigned special missing codes (.d), (.r),
and (.m), respectively. Special missing (.h) is assigned if the respondent was not interviewed.

Cross Wave Differences in DAD

No differences known.

Differences with Harmonized LASI

No differences known.

DAD Variables Used

```
    GA201                      Dressing, including putting on chappals, shoe
    GA202                      Walking across a room
    GA203                      Bathing
    GA204                      Eating, breaking chapatti, mixing rice
    GA205                      Getting in or out of bed
    GA206                      Using the toilet, including getting up and do
```

ADL Summary: Any difficulty

```
Wave Variable      Label                                                    Type

  1  R1ADLA_D       r1adla_d:w1 r Some Diff-ADLs(0-6)                        Categ

  1  R1ADLANY       r1adlany:w1 r Any ADL Diff                              Categ
```

Descriptive Statistics

```
Variable          N        Mean      Std Dev      Minimum      Maximum

R1ADLA_D        4065       1.46        1.83         0.00         6.00

R1ADLANY        4065       0.53        0.50         0.00         1.00
```

Categorical Variable Codes

```
Value--------------------------------|     R1ADLA_D
.d:DK                                |           4
.h:Not interviewed                   |          12
.m:Missing                           |           5
.r:Refuse                            |          10
0                                    |        1927
1                                    |         606
2                                    |         542
3                                    |         333
4                                    |         253
5                                    |         197
6                                    |         207

Value--------------------------------|     R1ADLANY
.d:DK                                |           4
.h:Not interviewed                   |          12
.m:Missing                           |           5
.r:Refuse                            |          10
0.No                                 |        1927
1.Yes                                |        2138
```

How Constructed

RwADLA_D is an Activities of Daily Living (ADL) summary, indicating the number of ADLs that are difficult
for the respondents. Specifically, RwADLA_D is constructed as:

RwADLA_D = sum(RwWALKRA, RwBATHA, RwDRESSA, RwEATA, RwBEDA, RwTOILTA)

RwADLANY indicates whether the respondent had any difficulty with one or more ADLs between RwWALKRA,
RwBATHA, RwDRESSA, RwEATA, RwBEDA, and RwTOILTA. A 1 is coded if the respondent reported having
difficulty with one or more ADL. A 0 indicates no difficulty with any of the included ADLs.

RwADLM indicates the number of missing values the respondent has between RwWALKRA, RwBATHA, RwDRESSA,
RwEATA, RwBEDA, and RwTOILTA. RwADLM ranges from 0 to 6.

Don't know, refused, or other missing responses are assigned special missing codes (.d), (.r), and (.m),
respectively. Special missing (.h) is assigned if the respondent was not interviewed.

Please see "Activities of Daily Living (ADLs): Some difficulty" for a description of how each individual
ADL was constructed.

Cross Wave Differences in DAD

No differences known.

Differences with Harmonized LASI

The harmonized DAD constructs an Activities of Daily Living (ADL) summary measure (RwADLA_D) by taking the sum of RwWALKRA, RwBATHA, RwDRESSA, RwEATA, RwBEDA, and RwTOILTA. The harmonized LASI constructs four Activities of Daily Living (ADL) summary measures. One uses the ADLs proposed by Wallace and Herzog in their paper (Wallace and Herzog, 1995) to define an ADL summary (RwADLWA): bathe, dress, and eat. The second includes the aforementioned ADLs and adds getting in/out of bed and walking across a room. The third includes the three ADLs from the three-item summary and adds getting in/out of bed and using the toilet. The fourth includes all six ADLs asked in the LASI: bathe, dress, eat, getting in/out of bed, walking across a room, and using the toilet.

Instrumental activities of daily living (IADLs): Some difficulty

Wave	Variable	Label	Type
1	R1MEALSA	r1mealsa:w1 r Some Diff-Prepare hot meal	Categ
1	R1SHOPA	r1shopa:w1 r Some Diff-Shop for grocery	Categ
1	R1PHONEA	r1phonea:w1 r Some Diff-Use telephone	Categ
1	R1MEDSA	r1medsa:w1 r Some Diff-Take medications	Categ
1	R1HOUSEWKA	r1housewka:w1 r Some Diff-Doing hhold chores	Categ
1	R1MONEYA	r1moneya:w1 r Some Diff-Managing money	Categ
1	R1GETA	r1geta:w1 r Some Diff-Getting around	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1MEALSA	4033	0.32	0.47	0.00	1.00
R1SHOPA	4042	0.31	0.46	0.00	1.00
R1PHONEA	3961	0.43	0.49	0.00	1.00
R1MEDSA	4056	0.17	0.37	0.00	1.00
R1HOUSEWKA	4044	0.34	0.47	0.00	1.00
R1MONEYA	4017	0.37	0.48	0.00	1.00
R1GETA	4040	0.42	0.49	0.00	1.00

Categorical Variable Codes

```
Value--------------------------------|    R1MEALSA
.d:DK                                 |        35
.h:Not interviewed                    |        12
.m:Missing                            |         5
.r:Refuse                             |        11
0.No                                  |      2750
1.Yes                                 |      1283

Value--------------------------------|    R1SHOPA
.d:DK                                 |        21
.h:Not interviewed                    |        12
.m:Missing                            |         5
.r:Refuse                             |        16
0.No                                  |      2788
1.Yes                                 |      1254

Value--------------------------------|    R1PHONEA
.d:DK                                 |       106
.h:Not interviewed                    |        12
.m:Missing                            |         5
.r:Refuse                             |        12
0.No                                  |      2264
1.Yes                                 |      1697

Value--------------------------------|    R1MEDSA
```

```
.d:DK                                    |              12
.h:Not interviewed                       |              12
.m:Missing                               |               5
.r:Refuse                                |              11
0.No                                     |            3372
1.Yes                                    |             684

Value--------------------------------|    R1HOUSEWKA
.d:DK                                    |              19
.h:Not interviewed                       |              12
.m:Missing                               |               5
.r:Refuse                                |              16
0.No                                     |            2686
1.Yes                                    |            1358

Value--------------------------------|      R1MONEYA
.d:DK                                    |              47
.h:Not interviewed                       |              12
.m:Missing                               |               5
.r:Refuse                                |              15
0.No                                     |            2548
1.Yes                                    |            1469

Value--------------------------------|        R1GETA
.d:DK                                    |              24
.h:Not interviewed                       |              12
.m:Missing                               |               5
.r:Refuse                                |              15
0.No                                     |            2335
1.Yes                                    |            1705
```

How Constructed

These variables pertain to questions regarding Instrumental Activities of Daily Living (IADLs) and whether the respondent experienced any difficulty performing said tasks due to health or memory problems. The IADLs included are: preparing a meal (RwMEALSA), shopping for groceries (RwSHOPA), making telephone calls (RwPHONEA), taking medications (RwMEDSA), doing work around the house or garden (RwHOUSEWKA), managing money, such as paying bills and keeping track of expenses (RwMONEYA), and getting around or finding an address in an unfamiliar place (RwGETA). The respondent was instructed to exclude any difficulties they expect to last less than three months.

A code of 0 indicates that the respondent did not report any problems with the activity. A code of 1 indicates that the respondent reported some difficulty with the activity due to health or memory problems. Don't know, refused, or other missing responses are assigned special missing codes (.d), (.r), and (.m), respectively. Special missing (.h) is assigned if the respondent was not interviewed.

Cross Wave Differences in DAD

No differences known.

Differences with Harmonized LASI

No differences known.

DAD Variables Used

```
    GA207                       Preparing a hot meal
    GA208                       Shopping for groceries
    GA209                       Making telephone calls
    GA210                       Taking medications
    GA211                       Doing work around the house or garden
    GA212                       Money, such as paying bills and keeping track
    GA213                       Getting around or finding address in unfamili
```

IADL Summary: Any difficulty

```
Wave Variable      Label                                                      Type

  1  R1IADLTOT1_D   r1iadltot1_d:w1 r Some Diff-IADLs(0-7)                    Categ

  1  R1IADLTO1A_D   r1iadltot1a_d:w1 r Any IADL Diff                         Categ
```

Descriptive Statistics

```
Variable          N        Mean       Std Dev     Minimum      Maximum

R1IADLTOT1_D     4062       2.33        2.30        0.00         7.00

R1IADLTO1A_D     4062       0.68        0.47        0.00         1.00
```

Categorical Variable Codes

```
Value--------------------------------|R1IADLTOT1_D
.d:DK                                |          6
.h:Not interviewed                   |         12
.m:Missing                           |          5
.r:Refuse                            |         11
0                                    |       1285
1                                    |        669
2                                    |        490
3                                    |        407
4                                    |        324
5                                    |        313
6                                    |        299
7                                    |        275

Value--------------------------------|R1IADLTO1A_D
.d:DK                                |          6
.h:Not interviewed                   |         12
.m:Missing                           |          5
.r:Refuse                            |         11
0.No                                 |       1285
1.Yes                                |       2777
```

How Constructed

RwIADLTOT1_D is an Instrumental Activities of Daily Living (IADL) summary measure, indicating the number of IADLs that are difficult for the respondent. Each limitation adds one to the summary measure and the variable is constructed as:

RwIADLTOT1_D = sum (RwPHONEA, RwMONEYA, RwMEDSA, RwSHOPA, RwMEALA, RwHOUSEWKA, RwGETA).

RwIADLTO1A_D indicates whether the respondent has any difficulty with one or more IADL between RwPHONEA, RwMONEYA, RwMEDSA, RwSHOPA, RwMEALA, RwHOUSEWKA, and RwGETA. A 1 is coded if the respondent reported having difficulty with one or more IADL. A 0 indicates no difficulty with any of the included IADLs.

Don't know, refused, or other missing responses are assigned special missing codes (.d), (.r), and (.m), respectively. Special missing (.h) is assigned if the respondent was not interviewed.

Please see "Instrumental Activities of Daily Living (IADLs): Some difficulty" for a description of how individual dummy variables were constructed.

Cross Wave Differences in DAD

No differences known.

Differences with Harmonized LASI

The Harmonized DAD constructs an Instrumental Activities of Daily Living (IADL) summary (RwIADLTOT1_D) by taking the sum of RwPHONEA, RwMONEYA, RwMEDSA, RwSHOPA, RwMEALA, RwHOUSEWKA, and RwGETA. The Harmonized LASI constructs four Instrumental Activities of Daily Living (IADL) summary measures. One summarizes the commonly used IADLs: using the phone, managing money, and taking medications. The second summarizes managing money, taking medications, shopping for groceries, and preparing hot meals. The third includes the three IADLs from the three-item summary and adds shopping for groceries and preparing hot meals. The fourth summarizes all seven IADLs that are asked in the LASI: making telephone calls, managing money, taking medications, shopping for groceries, preparing hot meals, getting around or finding an address in an unfamiliar place, and doing work around the house or garden.

Mental health (CESD score)

Wave	Variable	Label	Type
1	R1MINDTS_D	r1mindts_d:w1 r CESD trouble concentrating	Categ
1	R1DEPRES_D	r1depres_d:w1 r CESD felt depressed	Categ
1	R1FTIRED_D	r1ftired_d: w1 r CESD felt tired	Categ
1	R1FEARL_D	r1fearl_d:w1 r CESD afraid	Categ
1	R1ENLIFE_D	r1enlife_d:w1 r CESD enjoyed life	Categ
1	R1FLONE_D	r1flone_d:w1 r CESD lonely	Categ
1	R1BOTHER_D	r1bother_d:w1 r CESD bothered by things	Categ
1	R1EFFORT_D	r1effort_d:w1 r CESD everything was an effort	Categ
1	R1FHOPE_D	r1fhope_d:w1 r CESD felt hopeful	Categ
1	R1WHAPPY_D	r1whappy_d:w1 r CESD was happy	Categ
1	R1CESD10	r1cesd10:w1 r CESD score 10 item(0-30)	Cont

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1MINDTS_D	4032	1.66	0.87	1.00	4.00
R1DEPRES_D	4024	1.91	0.96	1.00	4.00
R1FTIRED_D	4035	2.32	1.01	1.00	4.00
R1FEARL_D	4019	1.42	0.74	1.00	4.00
R1ENLIFE_D	4009	2.51	1.14	1.00	4.00
R1FLONE_D	4022	1.66	0.95	1.00	4.00
R1BOTHER_D	4011	1.72	0.90	1.00	4.00
R1EFFORT_D	3992	1.92	0.99	1.00	4.00
R1FHOPE_D	3998	2.42	1.12	1.00	4.00
R1WHAPPY_D	4021	2.60	1.10	1.00	4.00
R1CESD10	3917	9.98	5.39	0.00	30.00

Categorical Variable Codes

```
Value--------------------------------| R1MINDTS_D
.d:DK                                 |         19
.h:Not interviewed                    |         12
.m:Missing                            |          5
.r:Refuse                             |         28
1.Rarely or never (less than 1 day)   |       2218
2.Sometimes (1 or 2 days)             |       1186
```

```
3.Often (3 or 4 days)                    |            410
4.Most or all of the time (5-7 days)     |            218

Value---------------------------------|  R1DEPRES_D
.d:DK                                   |             22
.h:Not interviewed                      |             12
.m:Missing                              |              5
.r:Refuse                               |             33
1.Rarely or never (less than 1 day)     |           1680
2.Sometimes (1 or 2 days)               |           1395
3.Often (3 or 4 days)                    |            590
4.Most or all of the time (5-7 days)     |            359

Value---------------------------------|  R1FTIRED_D
.d:DK                                   |             13
.h:Not interviewed                      |             12
.m:Missing                              |              5
.r:Refuse                               |             31
1.Rarely or never (less than 1 day)     |            998
2.Sometimes (1 or 2 days)               |           1398
3.Often (3 or 4 days)                    |            997
4.Most or all of the time (5-7 days)     |            642

Value---------------------------------|  R1FEARL_D
.d:DK                                   |             27
.h:Not interviewed                      |             12
.m:Missing                              |              5
.r:Refuse                               |             33
1.Rarely or never (less than 1 day)     |           2842
2.Sometimes (1 or 2 days)               |            783
3.Often (3 or 4 days)                    |            286
4.Most or all of the time (5-7 days)     |            108

Value---------------------------------|  R1ENLIFE_D
.d:DK                                   |             37
.h:Not interviewed                      |             12
.m:Missing                              |              5
.r:Refuse                               |             33
1.Rarely or never (less than 1 day)     |           1049
2.Sometimes (1 or 2 days)               |            949
3.Often (3 or 4 days)                    |            934
4.Most or all of the time (5-7 days)     |           1077

Value---------------------------------|  R1FLONE_D
.d:DK                                   |             22
.h:Not interviewed                      |             12
.m:Missing                              |              5
.r:Refuse                               |             35
1.Rarely or never (less than 1 day)     |           2397
2.Sometimes (1 or 2 days)               |            898
3.Often (3 or 4 days)                    |            411
4.Most or all of the time (5-7 days)     |            316

Value---------------------------------|  R1BOTHER_D
.d:DK                                   |             32
.h:Not interviewed                      |             12
.m:Missing                              |              5
.r:Refuse                               |             36
1.Rarely or never (less than 1 day)     |           2107
2.Sometimes (1 or 2 days)               |           1176
3.Often (3 or 4 days)                    |            476
4.Most or all of the time (5-7 days)     |            252

Value---------------------------------|  R1EFFORT_D
.d:DK                                   |             49
.h:Not interviewed                      |             12
.m:Missing                              |              5
.r:Refuse                               |             38
1.Rarely or never (less than 1 day)     |           1760
2.Sometimes (1 or 2 days)               |           1161
3.Often (3 or 4 days)                    |            691
```

```
4.Most or all of the time (5-7 days)    |        380

Value---------------------------------|    R1FHOPE_D
.d:DK                                  |         43
.h:Not interviewed                     |         12
.m:Missing                             |          5
.r:Refuse                              |         38
1.Rarely or never (less than 1 day)    |       1069
2.Sometimes (1 or 2 days)              |       1113
3.Often (3 or 4 days)                  |        875
4.Most or all of the time (5-7 days)   |        941

Value---------------------------------|   R1WHAPPY_D
.d:DK                                  |         17
.h:Not interviewed                     |         12
.m:Missing                             |          5
.r:Refuse                              |         41
1.Rarely or never (less than 1 day)    |        818
2.Sometimes (1 or 2 days)              |       1098
3.Often (3 or 4 days)                  |        979
4.Most or all of the time (5-7 days)   |       1126
```

How Constructed

```
The following variables indicate the frequency with which a respondent experienced different feelings in
the past week.

RwMINDTS_D indicates how often the respondent had trouble concentrating during the past week.

RwDEPRES_D indicates how often the respondent felt depressed during the past week.

RwFTRIED_D indicates how often the respondent felt tired or low in energy during the past week.

RwFEARL_D indicates how often the respondent was afraid of something during the past week.

RwENLIFE_D indicates how often the respondent felt generally satisfied during the past week.

RwFLONE_D indicates how often the respondent felt alone during the past week.

RwBOTHER_D indicates how often the respondent was bothered by things that do not usually bother him/her
during the past week.

RwEFFORT_D indicates how often the respondent felt everything he/she did was an effort during the past
week.

RwFHOPE_D indicates how often the respondent felt hopeful about the future during the past week.

RwWHAPPY_D indicates how often the respondent felt happy during the past week.

Each variable is coded as follows: 1. Rarely or never (less than 1 day), 2. Sometimes (1 or 2 days), 3.
Often (3 or 4 days), and 4. Most or all of the time (5-7 days). Don't know, refused, or other missing
responses are assigned special missing codes (.d), (.r), and (.m), respectively. Special missing (.h) is
assigned if the respondent was not interviewed.

RwCESD10 is a summary of RwMINDTS_D, RwDEPRES_D, RwFTRIED_D, RwFEARL_D, RwENLIFE_D, RwFLONE_D,
RwBOTHER_D, RwEFFORT_D, RwFHOPE_D, and RwWHAPPY_D. RwENLIFE_D, RwFHOPE_D, and RwWHAPPY_D are reverse
coded for RwCESD10. RwCESD10 is the sum of these variables. The higher the score, the more negative the
respondent felt in the past week.
```

Cross Wave Differences in DAD

```
No differences known.
```

Differences with Harmonized LASI

```
No differences known.
```

DAD Variables Used

```
GA402                      TROUBLE CONCENTRATING
GA403                      FELT DEPRESSED
GA404                      FEEL TIRED
GA405                      AFRAID OF SOMETHING
GA406                      OVERALL SATISFIED
GA407                      FEEL ALONE
GA408                      BOTHERED BY THINGS
GA409                      EVERYTHING WAS AN EFFORT
GA410                      HOPEFUL ABOUT FUTURE
GA411                      FEEL HAPPY
```

Anxiety inventory (BAI)

```
Wave Variable      Label                                              Type

  1  R1WORST       r1worst:w1 r BAI worst happening                   Categ

  1  R1NERV        r1nerv:w1 r BAI nervous                            Categ

  1  R1TREMB       r1tremb:w1 r BAI hands trembling                   Categ

  1  R1FDYING      r1fdying:w1 r BAI fear of dying                    Categ

  1  R1FAINT       r1faint:w1 r BAI felt faint                        Categ

  1  R1ANX5        r1anx5:w1 r anxiety score 5 item(0-15)             Cont
```

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1WORST	4037	1.54	0.91	1.00	4.00
R1NERV	4032	1.66	0.96	1.00	4.00
R1TREMB	4038	1.68	0.99	1.00	4.00
R1FDYING	4027	1.36	0.78	1.00	4.00
R1FAINT	4031	1.53	0.90	1.00	4.00
R1ANX5	4014	2.75	3.25	0.00	15.00

Categorical Variable Codes

```
Value--------------------------------|     R1WORST
.d:DK                                |          11
.h:Not interviewed                   |          12
.m:Missing                           |           5
.r:Refuse                            |          31
1.Never                              |        2826
2.Hardly ever                        |         415
3.Some of the time                   |         606
4.Most of the time                   |         190

Value--------------------------------|     R1NERV
.d:DK                                |          14
.h:Not interviewed                   |          12
.m:Missing                           |           5
.r:Refuse                            |          33
1.Never                              |        2558
2.Hardly ever                        |         514
3.Some of the time                   |         745
4.Most of the time                   |         215

Value--------------------------------|     R1TREMB
.d:DK                                |           9
.h:Not interviewed                   |          12
.m:Missing                           |           5
.r:Refuse                            |          32
1.Never                              |        2557
2.Hardly ever                        |         489
3.Some of the time                   |         722
4.Most of the time                   |         270
```

```
Value--------------------------------|    R1FDYING
.d:DK                                 |          18
.h:Not interviewed                    |          12
.m:Missing                            |           5
.r:Refuse                             |          34
1.Never                               |        3241
2.Hardly ever                         |         267
3.Some of the time                    |         393
4.Most of the time                    |         126

Value--------------------------------|    R1FAINT
.d:DK                                 |          15
.h:Not interviewed                    |          12
.m:Missing                            |           5
.r:Refuse                             |          33
1.Never                               |        2832
2.Hardly ever                         |         418
3.Some of the time                    |         605
4.Most of the time                    |         176
```

How Constructed

The following variables indicate the frequency that respondents experienced various feelings during the
past week. For each variable, a statement about a feeling is read to the respondents and then they are
asked how often they felt that way during the past week.

RwWORST indicates how often the respondent feared the worst would happen in the past week. RwNERV
indicates how often the respondent felt nervous in the past week. RwTREMB indicates how often the
respondent felt his/her hands trembling. RwFDYING indicates how often the respondent had a fear of dying.
RwFAINT indicates how often the respondent felt faint. RwWORST, RwNERV, RwTREMB, RwFDYING, and RwFAINT
are coded as follows: 1. Never, 2. Hardly ever, 3. Some of the time, and 4. Most of the time. Don't know,
refused, or other missing responses are assigned special missing codes (.d), (.r), and (.m),
respectively. Special missing (.h) is assigned if the respondent was not interviewed.

RwANX5 is a summary measure based on RwWORST, RwNERV, RwTREMB, RwFDYING, and RwFAINT. RwANX5 is the sum
of these variables after their ranges were recoded from 1-4 to 0-3. The higher the score, the more
anxious the respondent felt in the past week.

Cross Wave Differences in DAD

No differences known.

Differences with Harmonized LASI

These variables are not included in LASI.

DAD Variables Used

```
    GA422                    FEAR OF WORST HAPPENING
    GA423                    NERVOUS
    GA424                    HANDS TREMBLING
    GA425                    FEAR OF DYING
    GA426                    FELT FAINT
```

Mini Nutritional Assessment (MNA)

Wave	Variable	Label	Type
1	R1MNA_DFOOD	r1mna_dfood:w1 r MNA declined food intake(0-2)	Categ
1	R1MNA_WLOSS	r1mna_wloss:w1 r MNA weight loss(0-3)	Categ
1	R1MNA_MOB	r1mna_mob:w1 r MNA mobility(0-2)	Categ
1	R1MNA_STRESS	r1mna_stress:w1 r MNA stress(0-2)	Categ
1	R1MNA_PSYCHO	r1mna_psycho:w1 r MNA neuropsychological problem(0-2)	Categ
1	R1MNA_LIVE	r1mna_live:w1 r MNA lives independently (0-1)	Categ
1	R1MNA_DRUG	r1mna_drug:w1 r MNA takes 3+ prescription drugs(0-1)	Categ
1	R1MNA_SORES	r1mna_sores:w1 r MNA has pressure sores or skin ulcers(0-1)	Categ
1	R1MNA_MEALS	r1mna_meals:w1 r MNA number of meals(0-2)	Categ
1	R1MNA_PROTN	r1mna_protn:w1 r MNA protein intake(0-1)	Categ
1	R1MNA_PROTN3	r1mna_protn3:w1 r MNA protein intake(0-3)	Categ
1	R1MNA_VEG	r1mna_veg:w1 r MNA vegetables intake(0-1)	Categ
1	R1MNA_FLUID	r1mna_fluid:w1 r MNA fluid intake(0-1)	Categ
1	R1MNA_FEED	r1mna_feed:w1 r MNA mode of feeding(0-2)	Categ
1	R1MNA_NSTAT	r1mna_nstat:w1 r MNA nutritional status(0-2)	Categ
1	R1MNA_HSTAT	r1mna_hstat:w1 r MNA health status(0-2)	Cont
1	R1MNA_MAC	r1mna_mac:w1 r MNA mid-arm circumference(0-1)	Cont
1	R1MNA_CC	r1mna_cc:w1 r MNA calf circumference(0-1)	Cont
1	R1MNA_SCREEN	r1mna_screen:w1 r MNA total score of screening(0-14)	Cont
1	R1MNA_ASSESS	r1mna_assess:w1 r MNA assessment(0-16)	Cont
1	R1MNA_SCALE	r1mna_scale:w1 r MNA assessment scale(0-30)	Cont

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1MNA_DFOOD	4044	1.38	0.69	0.00	2.00
R1MNA_WLOSS	4028	1.65	1.00	0.00	3.00
R1MNA_MOB	4061	1.87	0.42	0.00	2.00
R1MNA_STRESS	4039	1.68	0.74	0.00	2.00
R1MNA_PSYCHO	4021	1.89	0.37	0.00	2.00
R1MNA_LIVE	4058	0.70	0.46	0.00	1.00

R1MNA_DRUG	4054	0.79	0.41	0.00	1.00
R1MNA_SORES	4053	0.91	0.29	0.00	1.00
R1MNA_MEALS	4060	1.33	0.56	0.00	2.00
R1MNA_PROTN	4096	0.26	0.31	0.00	1.00
R1MNA_PROTN3	4048	1.33	0.87	0.00	3.00
R1MNA_VEG	4052	0.78	0.41	0.00	1.00
R1MNA_FLUID	4049	0.82	0.31	0.00	1.00
R1MNA_FEED	4059	1.76	0.62	0.00	2.00
R1MNA_NSTAT	4024	1.31	0.82	0.00	2.00
R1MNA_HSTAT	4023	0.82	0.64	0.00	2.00
R1MNA_MAC	4051	0.84	0.33	0.00	1.00
R1MNA_CC	4049	0.18	0.24	0.00	0.50
R1MNA_SCREEN	3690	9.66	2.09	3.00	14.00
R1MNA_ASSESS	3950	10.55	2.12	1.50	15.50
R1MNA_SCALE	3623	20.30	3.51	6.00	29.00

Categorical Variable Codes

```
Value--------------------------------| R1MNA_DFOOD
.d:DK                                |          14
.h:Not interviewed                   |          12
.m:Missing                           |           5
.r:Refuse                            |          21
0                                    |         492
1                                    |        1534
2                                    |        2018

Value--------------------------------| R1MNA_WLOSS
.d:DK                                |          28
.h:Not interviewed                   |          12
.m:Missing                           |           5
.r:Refuse                            |          23
0                                    |         357
1                                    |        1904
2                                    |         564
3                                    |        1203

Value--------------------------------| R1MNA_MOB
.d:DK                                |           2
.h:Not interviewed                   |          12
.m:Missing                           |           5
.r:Refuse                            |          16
0                                    |         126
1                                    |         275
2                                    |        3660

Value--------------------------------|R1MNA_STRESS
.d:DK                                |          19
.h:Not interviewed                   |          12
.m:Missing                           |           5
.r:Refuse                            |          21
```

```
0                                         |            655
2                                         |           3384

Value---------------------------------|R1MNA_PSYCHO
.d:DK                                     |             37
.h:Not interviewed                        |             12
.m:Missing                                |              5
.r:Refuse                                 |             21
0                                         |             89
1                                         |            249
2                                         |           3683

Value---------------------------------|  R1MNA_LIVE
.d:DK                                     |              7
.h:Not interviewed                        |             12
.m:Missing                                |              5
.r:Refuse                                 |             14
0                                         |           1215
1                                         |           2843

Value---------------------------------|  R1MNA_DRUG
.d:DK                                     |              3
.h:Not interviewed                        |             12
.m:Missing                                |             21
.r:Refuse                                 |              6
0                                         |            840
1                                         |           3214

Value---------------------------------|  R1MNA_SORES
.d:DK                                     |             10
.h:Not interviewed                        |             12
.m:Missing                                |              5
.r:Refuse                                 |             16
0                                         |            367
1                                         |           3686

Value---------------------------------|  R1MNA_MEALS
.d:DK                                     |              5
.h:Not interviewed                        |             12
.m:Missing                                |              5
.r:Refuse                                 |             14
0                                         |            195
1                                         |           2318
2                                         |           1547

Value---------------------------------|  R1MNA_PROTN
0                                         |           2214
0.5                                       |           1603
1                                         |            279

Value---------------------------------|R1MNA_PROTN3
.d:DK                                     |              9
.h:Not interviewed                        |             12
.m:Missing                                |              5
.r:Refuse                                 |             22
0                                         |            819
1                                         |           1348
2                                         |           1602
3                                         |            279

Value---------------------------------|  R1MNA_VEG
.d:DK                                     |              6
.h:Not interviewed                        |             12
.m:Missing                                |              5
.r:Refuse                                 |             21
0                                         |            873
1                                         |           3179

Value---------------------------------|  R1MNA_FLUID
.d:DK                                     |             10
.h:Not interviewed                        |             12
```

```
.m:Missing                          |                5
.r:Refuse                           |               20
0                                   |              293
0.5                                 |              911
1                                   |             2845

Value-------------------------------|  R1MNA_FEED
.d:DK                               |                5
.h:Not interviewed                  |               12
.m:Missing                          |                5
.r:Refuse                           |               15
0                                   |              408
1                                   |              140
2                                   |             3511

Value-------------------------------|  R1MNA_NSTAT
.d:DK                               |               32
.h:Not interviewed                  |               12
.m:Missing                          |                5
.r:Refuse                           |               23
0                                   |              903
1                                   |              951
2                                   |             2170
```

How Constructed

The following variables are part of the Mini Nutritional Assessment. These variables pertain to the respondent's appetite and eating habits.

RwMNA_DFOOD indicates the degree to which the respondent's food intake declined over the past 3 months due to a loss of appetite, digestive problems, or chewing or swallowing difficulties. RwMNA_DFOOD is coded as follows: 0. Severe decrease in food intake, 1. Moderate decrease in food intake, and 2. No decrease in food intake.

RwMNA_WLOSS indicates the degree to which the respondent experienced weight loss during the last 3 months. RwMNA_WLOSS is coded as follows: 0. Weight loss greater than 3 kg (6.6lbs), 1. Does not know, 2. Weight loss between 1 and 3 kg (2.2 and 6.6 lbs), and 3. No weight loss.

RwMNA_MOB indicates a self-reported value of mobility given 3 answer options. RwMNA_MOB is coded as follows: 0. Bed or chair bound, 1. Able to get out of bed/chair but does not go out, and 2. Goes out.

RwMNA_STRESS indicates whether the respondent reports suffering from psychological stress or acute disease in the past 3 months. A 0 is coded if the respondent reports he/she did suffer psychological stress or acute disease in the past 3 months. A 1 is coded if the respondent reports he/she have not experienced this in the past 3 months.

RwMNA_PSYCHO indicates whether the respondent suffered neuropsychological problems. RwMNA_PSYCHO is coded as follows: 0. Severe neuropsychological problems, 1. Mild neuropsychological problems, and 2. No neuropsychological problems.

RwMNA_LIVE indicates whether the respondent lives independently, that is not in a nursing home or a hospital. A 0 is coded if the respondent does not live independently. A 1 is coded if the respondent does live independently.

RwMNA_DRUG indicates whether the respondent takes more than 3 prescription drugs per day. A 0 is coded if the respondent does take more than 3 prescription drugs per day. A 1 is coded if the respondent does not take more than 3 prescription drugs per day.

RwMNA_SORES indicates whether the respondent has pressure sores or skin ulcers. A 0 is coded if the respondent reports they do have pressure sores or skin ulcers. A 1 is coded if the respondent reports they do not have pressure sores or skin ulcers.

RwMNA_MEALS indicates the number of full meals the respondent eats daily. RwMNA_MEALS is coded as follows: 0. 1 meal, 1. 2 meals, and 2. 3 meals.

RwMNA_PROTN and RwMNA_PROTN3 count the number of protein sources that the respondent incorporates into his/her daily diet and are based on three survey questions. The respondent is asked (1) whether he/she eat at least one serving of dairy products (e.g. milk, cheese, and yogurt) per day, (2) whether he/she eat two or more servings of legumes or eggs per week, and (3) whether he/she eat meat, fish or poultry every day. The number of affirmative answers from these three questions are added together for the total protein intake score. RwMNA_PROTN is coded as follows: 0. 0-1 sources of protein; 0.5. 2 sources of protein; and 1. 3 sources of protein. RwMNA_PROTN3 is coded as follows: 0. 0 sources of protein; 1. 1 source of protein; 2. 2 sources of protein; and 3. 3 sources of protein.

RwMNA_VEG indicates whether the respondent consumes two or more servings of fruit or vegetables per day. A 0 is coded if the respondent does not consume two or more servings of fruit or vegetables per day. A 1 is coded if the respondent does consume two or more servings or fruit or vegetables per day.

RwMNA_FLUID indicates the amount of fluid (e.g. water, juice, coffee, tea, and milk) the respondent drinks per day. RwMNA_FLUID is coded as follows: 0. Less than 3 cups; 0.5. 3 to 5 cups; and 1. More than 5 cups.

RwMNA_FEED indicates the degree to which the respondent can eat without assistance. RwMNA_FEED is coded as follows: 0. Unable to eat without assistance; 1. Self-fed with some difficulty; and 2. Self-fed without any problems.

RwMNA_NSTAT indicates the respondent's perceived nutritional status, given three options. RwMNA_NSTAT is coded as follows: 0. View self as being malnourished; 1. Is uncertain of nutritional state; and 2. Views self as having no nutritional problem.

RwMNA_HSTAT indicates how the respondent considers his/her health status in comparison with other people of the same age. RwMNA_HSTATUS is coded as follows: 0. Not as good; 0.5. Does not know; 1. As good; and 2. Better.

RwMNA_MAC indicates a score for the respondent's mid arm circumference measurement. RwMNA_MAC is derived using the Harmonized DAD variable RwMIDARM. RwMNA_MAC is coded based on the following ranges of RwMIDARM: 0. 0-20.99; 0.5. 21-22; and 1. 22. 01-50.

RwMNA_CC indicates a score for the respondent's calf circumference measurement. RwMNA_CC is derived using the Harmonized DAD variable RwCALF. RwMNA_CC is coded based on the following ranges of RwCALF: 0. 0-30.99 and 0.5. 31-80.

RwMNA_SCREEN is a summary measure for RwMNA_DFOOD, RwMNA_WLOSS, RwMNA_MOB, RwMNA_STRESS, RwMNA_PSYCHO, and RwBMICAT. RwMNA_SCREEN is the sum of each component variable. RwMNA_SCREEN ranges from 0-14. Please refer to the "Height, Weight, and Other Measurements" section for further information on how RwBMICAT was constructed.

RwMNA_ASSESS is a summary measure for RwMNA_LIVE, RwMNA_DRUG, RwMNA_SORES, RwMNA_MEALS, RwMNA_PROTN, RwMNA_VEG, RwMNA_FLUID, RwMNA_FEED, RwMNA_NSTAT, RwMNA_HSTAT, RwMNA_MAC, and RwMNA_CC, ranging from 0-16. RwMNA_ASSESS is the sum of these variables.

RwMNA_SCALE is a summary measure for all the variables comprising RwMNA_SCREEN and RwMNA_ASSESS. Specifically, this includes RwMNA_DFOOD, RwMNA_WLOSS, RwMNA_MOB, RwMNA_STRESS, RwMNA_PSYCHO, RwBMICAT, RwMNA_LIVE, RwMNA_DRUG, RwMNA_SORES, RwMNA_MEALS, RwMNA_PROTN, RwMNA_VEG, RwMNA_FLUID, RwMNA_FEED, RwMNA_NSTAT, RwMNA_HSTAT, RwMNA_MAC, and RwMNA_CC. RwMNA_SCALE ranges from 0-30.

Don't know, refused, or other missing responses are assigned special missing codes (.d), (.r), and (.m), respectively. Special missing (.i) is assigned for invalid readings. Special missing (.h) is assigned if the respondent was not interviewed.

Cross Wave Differences in DAD

No differences known.

Differences with Harmonized LASI

These variables are not included in LASI.

DAD Variables Used

```
GA602                      FOOD INTAKE DECLINED
GA603                      EXPERIENCED WEIGHT LOSS
GA604                      MOBILITY
GA605                      PSYCHOLOGICAL STRESS
GA606                      NEUROPSYCHOLOGICAL PROBLEMS
GA607                      LIVE INDEPENDENTLY
GA608                      3 PRESCRIPTION DRUGS
GA609                      SORES/ULCERS
GA610                      FULL MEALS DAILY
GA611                      AT LEAST ONE SERVING OF DAIRY
GA612                      2 OR MORE LEGUMES/EGGS PER WEEK
GA613                      EAT MEAT/FISH/POULTRY
GA614                      TWO OR MORE SERVINGS OF FRUIT/VEGGIES
GA615                      FLUID PER DAY
GA616                      MODE OF FEEDING
GA617                      NUTRITIONAL STATUS
GA618                      HEALTH STATUS
```

Spice Questions

Wave	Variable	Label	Type
1	R1TURMERF	r1turmerf:w1 r use turmeric daily	Categ
1	R1TURMERQ	r1turmerq:w1 r use turmeric at least half teaspoon	Categ
1	R1SPICE1	r1spice1:w1 r spice-Red Chillies	Categ
1	R1SPICE2	r1spice2:w1 r spice-Cumin Seeds	Categ
1	R1SPICE3	r1spice3:w1 r spice-Coriander Seeds	Categ
1	R1SPICE4	r1spice4:w1 r spice-Mustard Seeds(Rai)	Categ
1	R1SPICE5	r1spice5:w1 r spice-Fenugreek Seeds(Mehthi)	Categ
1	R1SPICE6	r1spice6:w1 r spice-Black Pepper(Kali mirch)	Categ
1	R1SPICE7	r1spice7:w1 r spice-Cloves(Lavang)	Categ
1	R1SPICE8	r1spice8:w1 r spice-Cardamom(Ilaichi)	Categ
1	R1SPICE9	r1spice9:w1 r spice-Cinnamon(Dalchini)	Categ
1	R1SPICE10	r1spice10:w1 r spice-Caraway Seeds(Shahzeera)	Categ
1	R1SPICE11	r1spice11:w1 r spice-Carom seeds(Ajwain)	Categ
1	R1SPICE12	r1spice12:w1 r spice-Nutmeg(Jaiphal)	Categ
1	R1SPICE13	r1spice13:w1 r spice-mace(Japatri)	Categ
1	R1SPICE14	r1spice14:w1 r spice-Fennel(Saunf)	Categ
1	R1SPICE15	r1spice15:w1 r spice-Asafoetida(Hing)	Categ
1	R1SPICE16	r1spice16:w1 r spice-Star Anise(Anasphal)	Categ
1	R1SPICE17	r1spice17:w1 r spice-black cardamom	Categ
1	R1SPICE18	r1spice18:w1 r spice-bay leaf	Categ
1	R1SPICE19	r1spice19:w1 r spice-other	Categ
1	R1SPICE	r1spice:w1 r # of spices intake (0-18)	Cont

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1TURMERF	4037	0.98	0.15	0.00	1.00
R1TURMERQ	3860	0.73	0.44	0.00	1.00
R1SPICE1	1571	0.83	0.38	0.00	1.00
R1SPICE2	1571	0.70	0.46	0.00	1.00
R1SPICE3	1571	0.80	0.40	0.00	1.00

R1SPICE4	1571	0.39	0.49	0.00	1.00
R1SPICE5	1571	0.39	0.49	0.00	1.00
R1SPICE6	1571	0.37	0.48	0.00	1.00
R1SPICE7	1571	0.15	0.36	0.00	1.00
R1SPICE8	1571	0.09	0.29	0.00	1.00
R1SPICE9	1571	0.07	0.26	0.00	1.00
R1SPICE10	1571	0.01	0.11	0.00	1.00
R1SPICE11	1571	0.02	0.14	0.00	1.00
R1SPICE12	1571	0.01	0.10	0.00	1.00
R1SPICE13	1571	0.01	0.09	0.00	1.00
R1SPICE14	1571	0.01	0.12	0.00	1.00
R1SPICE15	1571	0.09	0.28	0.00	1.00
R1SPICE16	1571	0.01	0.08	0.00	1.00
R1SPICE17	1571	0.02	0.12	0.00	1.00
R1SPICE18	1571	0.02	0.13	0.00	1.00
R1SPICE19	1571	0.16	0.36	0.00	1.00
R1SPICE	1490	4.36	2.32	0.00	16.00

Categorical Variable Codes

```
Value-----------------------------------|   R1TURMERF
.d:DK                                    |          23
.h:Not interviewed                       |          12
.m:Missing                               |           5
.r:Refuse                                |          19
0.No                                     |          88
1.Yes                                    |        3949

Value-----------------------------------|   R1TURMERQ
.d:DK                                    |         170
.h:Not interviewed                       |          12
.m:Missing                               |          53
.r:Refuse                                |           1
0.No                                     |        1032
1.Yes                                    |        2828

Value-----------------------------------|   R1SPICE1
.h:Not interviewed                       |          12
.m:Missing                               |        2496
.r:Refuse                                |          17
0.No                                     |         269
1.Yes                                    |        1302

Value-----------------------------------|   R1SPICE2
.h:Not interviewed                       |          12
.m:Missing                               |        2496
.r:Refuse                                |          17
0.No                                     |         477
```

```
1.Yes                               |          1094

Value-----------------------------------|        R1SPICE3
.h:Not interviewed                   |            12
.m:Missing                           |          2496
.r:Refuse                            |            17
0.No                                 |           321
1.Yes                                |          1250

Value-----------------------------------|        R1SPICE4
.h:Not interviewed                   |            12
.m:Missing                           |          2496
.r:Refuse                            |            17
0.No                                 |           959
1.Yes                                |           612

Value-----------------------------------|        R1SPICE5
.h:Not interviewed                   |            12
.m:Missing                           |          2496
.r:Refuse                            |            17
0.No                                 |           965
1.Yes                                |           606

Value-----------------------------------|        R1SPICE6
.h:Not interviewed                   |            12
.m:Missing                           |          2496
.r:Refuse                            |            17
0.No                                 |           990
1.Yes                                |           581

Value-----------------------------------|        R1SPICE7
.h:Not interviewed                   |            12
.m:Missing                           |          2496
.r:Refuse                            |            17
0.No                                 |          1330
1.Yes                                |           241

Value-----------------------------------|        R1SPICE8
.h:Not interviewed                   |            12
.m:Missing                           |          2496
.r:Refuse                            |            17
0.No                                 |          1428
1.Yes                                |           143

Value-----------------------------------|        R1SPICE9
.h:Not interviewed                   |            12
.m:Missing                           |          2496
.r:Refuse                            |            17
0.No                                 |          1457
1.Yes                                |           114

Value-----------------------------------|        R1SPICE10
.h:Not interviewed                   |            12
.m:Missing                           |          2496
.r:Refuse                            |            17
0.No                                 |          1550
1.Yes                                |            21

Value-----------------------------------|        R1SPICE11
.h:Not interviewed                   |            12
.m:Missing                           |          2496
.r:Refuse                            |            17
0.No                                 |          1540
1.Yes                                |            31

Value-----------------------------------|        R1SPICE12
.h:Not interviewed                   |            12
.m:Missing                           |          2496
.r:Refuse                            |            17
0.No                                 |          1554
1.Yes                                |            17
```

```
Value----------------------------------|    R1SPICE13
.h:Not interviewed                      |            12
.m:Missing                              |          2496
.r:Refuse                               |            17
0.No                                    |          1558
1.Yes                                   |            13

Value----------------------------------|    R1SPICE14
.h:Not interviewed                      |            12
.m:Missing                              |          2496
.r:Refuse                               |            17
0.No                                    |          1549
1.Yes                                   |            22

Value----------------------------------|    R1SPICE15
.h:Not interviewed                      |            12
.m:Missing                              |          2496
.r:Refuse                               |            17
0.No                                    |          1432
1.Yes                                   |           139

Value----------------------------------|    R1SPICE16
.h:Not interviewed                      |            12
.m:Missing                              |          2496
.r:Refuse                               |            17
0.No                                    |          1562
1.Yes                                   |             9

Value----------------------------------|    R1SPICE17
.h:Not interviewed                      |            12
.m:Missing                              |          2496
.r:Refuse                               |            17
0.No                                    |          1547
1.Yes                                   |            24

Value----------------------------------|    R1SPICE18
.h:Not interviewed                      |            12
.m:Missing                              |          2496
.r:Refuse                               |            17
0.No                                    |          1545
1.Yes                                   |            26

Value----------------------------------|    R1SPICE19
.h:Not interviewed                      |            12
.m:Missing                              |          2496
.r:Refuse                               |            17
0.No                                    |          1327
1.Yes                                   |           244
```

How Constructed

RwTURMERF indicates whether the respondent uses turmeric daily. A 0 is coded if the respondent reports he/she doesn't use turmeric daily. A 1 is coded if the respondent reports he/she uses turmeric daily.

RwTURMERQ indicates whether the respondent uses at least half a teaspoon of turmeric. A 0 is coded if the respondent uses less than half a teaspoon. A 1 is coded if the respondent uses half a teaspoon or more.

The following variables indicate whether the respondent uses a specific spice:

RwSPICE1 indicates whether the respondent uses Red Chilies.

RwSPICE2 indicates whether the respondent uses Cumin Seeds.

RwSPICE3 indicates whether the respondent uses Coriander Seeds.

RwSPICE4 indicates whether the respondent uses Mustard Seeds (Rai).

RwSPICE5 indicates whether the respondent uses Fenugreek Seeds (Mehthi).

RwSPICE6 indicates whether the respondent uses Black Pepper(Kali mirch).

RwSPICE7 indicates whether the respondent uses Cloves (Lavang).

RwSPICE8 indicates whether the respondent uses Cardamom (Ilaichi).

RwSPICE9 indicates whether the respondent uses Cinnamon (Dalchini).

RwSPICE10 indicates whether the respondent uses Caraway Seeds (Shahzeera).

RwSPICE11 indicates whether the respondent uses Carom Seeds (Ajwain).

RwSPICE12 indicates whether the respondent uses Nutmeg (Jaiphal).

RwSPICE13 indicates whether the respondent uses Mace (Japatri).

RwSPICE14 indicates whether the respondent uses Fennel (Saunf).

RwSPICE15 indicates whether the respondent uses Asafoetida (Hing).

RwSPICE16 indicates whether the respondent uses Star Anise (Anasphal).

RwSPICE17 indicates whether the respondent uses Black Cardamom.

RwSPICE18 indicates whether the respondent uses Bay Leaf.

RwSPICE19 indicates whether the respondent uses Other spices not listed.

RwSPICE1-RwSPICE19 are coded as 1 if the respondent reports he/she uses any quantity of the spice. This includes those who report using a quarter of a teaspoon to 3+ teaspoons each time. If the spice is not used, a 0 is coded.

RwSPICE indicates the number of spices that the respondent uses. RwSPICE is constructed by taking the sum of RwSPICE1-RwSPICE19. RwSPICE ranges from 0-18.

Don't know, refused, or other missing responses are assigned special missing codes (.d), (.r), and (.m), respectively. Special missing (.h) is assigned if the respondent was not interviewed.

Cross Wave Differences in DAD

No differences known.

Differences with Harmonized LASI

These variables are not included in LASI.

DAD Variables Used

```
GA619A                  Use of Turmeric
GA619B                  Approximate Quantity of it used each time
GA620_0_S1              Other spice used 1 Red chillies (Lal mirch)
GA620_0_S10             Other spice used 10 Caraway seeds (Shahzeera)
GA620_0_S11             Other spice used 11 Carom seeds (Ajwain)
GA620_0_S12             Other spice used 12 Nutmeg (Jaiphal)
GA620_0_S13             Other spice used 13 Mace (Japatri)
GA620_0_S14             Other spice used 14 Fennel (Saunf)
GA620_0_S15             Other spice used 15 Asafoetida (Hing)
GA620_0_S16             Other spice used 16 Star Anise (Anasphal)
GA620_0_S17             Other spice used 17 Black Cardamom (Badiilaic
GA620_0_S18             Other spice used 18 Bay leaf (tejpatta)
```

```
GA620_0_S19           Other spice used 19 Other GA620_other
GA620_0_S2            Other spice used 2 Cumin seeds (Zeera)
GA620_0_S3            Other spice used 3 Coriander seeds (Dhania)
GA620_0_S4            Other spice used 4 Mustard seeds (Rai)
GA620_0_S5            Other spice used 5 Fenugreek seeds (Mehthi)
GA620_0_S6            Other spice used 6 Black pepper (Kali mirch)
GA620_0_S7            Other spice used 7 Cloves (Lavang)
GA620_0_S8            Other spice used 8 Cardamom (Ilaichi)
GA620_0_S9            Other spice used 9 Cinnamon (Dalchini)
GA621_10_            Frequency-Other spice used 10 Caraway seeds (
GA621_11_            Frequency-Other spice used 11 Carom seeds (Aj
GA621_12_            Frequency-Other spice used 12 Nutmeg (Jaiphal
GA621_13_            Frequency-Other spice used 13 Mace (Japatri)
GA621_14_            Frequency-Other spice used 14 Fennel (Saunf)
GA621_15_            Frequency-Other spice used 15 Asafoetida (Hin
GA621_16_            Frequency-Other spice used 16 Star Anise (Ana
GA621_17_            Frequency-Other spice used 17 Black Cardamom
GA621_18_            Frequency-Other spice used 18 Bay leaf (tejpa
GA621_19_            Frequency-Other spice used 19 Other GA620_oth
GA621_1_             Frequency-Other spice used 1 Red chillies (La
GA621_2_             Frequency-Other spice used 2 Cumin seeds (Zee
GA621_3_             Frequency-Other spice used 3 Coriander seeds
GA621_4_             Frequency-Other spice used 4 Mustard seeds (R
GA621_5_             Frequency-Other spice used 5 Fenugreek seeds
GA621_6_             Frequency-Other spice used 6 Black pepper (Ka
GA621_7_             Frequency-Other spice used 7 Cloves (Lavang)
GA621_8_             Frequency-Other spice used 8 Cardamom (Ilaich
GA621_9_             Frequency-Other spice used 9 Cinnamon (Dalchi
```

Hearing Tests

Wave	Variable	Label	Type
1	R1HEAR_R	r1hear_r:w1 r hearing test-right ear(0-6)	Cont
1	R1HEAR_L	r1hear_l:w1 r hearing test-left ear(0-6)	Cont
1	R1HEAR_NA	r1hear_na:w1 r hearing test-unable to do	Categ
1	R1HEAR_AID	r1hear_aid:w1 r hearing test-wear hearing aids	Categ
1	R1HEAR_P	r1hear_p:w1 r hearing test-problems occur	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1HEAR_R	3918	2.83	1.27	0.00	6.00
R1HEAR_L	3919	2.97	1.30	0.00	6.00
R1HEAR_NA	4048	0.03	0.16	0.00	1.00
R1HEAR_AID	3938	0.01	0.08	0.00	1.00
R1HEAR_P	3941	0.16	0.36	0.00	1.00

Categorical Variable Codes

Value	R1HEAR_NA
.d:DK	6
.h:Not interviewed	12
.m:Missing	5
.r:Refuse	25
0.No	3940
1.Yes	108

Value	R1HEAR_AID
.d:DK	6
.h:Not interviewed	12
.m:Missing	5
.r:Refuse	27
.s:Skipped	108
0.No	3910
1.Yes	28

Value	R1HEAR_P
.d:DK	6
.h:Not interviewed	12
.r:Refuse	29
.s:Skipped	108
0.No	3321
1.Yes	620

How Constructed

The following variables pertain to the Hearing Test. For the Hearing Test, a HearCheck device is placed over each of the respondent's ears. The device plays a series of tones. The respondent is asked to raise his/her finger each time he/she hears a sound. The test begins on the words "Ready, begin". The interviewer is instructed to remove any obstructions from the respondent's ears, such as long hair, glasses, and jewelry for this test.

RwHEAR_R and RwHEAR_L indicate the respondent's Hearing Test summary scores based on two tests for the right ear and left ear, respectively. For each tone the respondent correctly hears, 1 is added to the respective ear's summary score (left or right). Each test has 3 tones per ear. RwHEAR_R and RwHEAR_L range from 0-6. Special missing (.s) is assigned if the respondent did not do the Hearing Test because he/she refused, had a cochlear implant, or had an ear infection in either ear. Don't know, refused, or other missing responses are assigned special missing codes (.d), (.r), and (.m), respectively. Special missing (.h) is assigned if the respondent was not interviewed.

RwHEAR_NA indicates whether the respondent was unable to do the Hearing Test. A 0 is coded if the respondent was able to do the Hearing Test. A 1 is coded if the respondent was not able to do the Hearing Test because he/she refused, had a cochlear implant, or had an ear infection in either ear. Don't know, refused, or other missing responses are assigned special missing codes (.d), (.r), and (.m), respectively. Special missing (.h) is assigned if the respondent was not interviewed.

RwHEAR_AID indicates whether the respondent wears hearing aids. A 0 is coded if the respondent does not wear hearing aids. A 1 is coded if the respondent does wear hearing aids. Don't know, refused, or other missing responses are assigned special missing codes (.d), (.r), and (.m), respectively. Special missing (.h) is assigned if the respondent was not interviewed. Special missing (.s) is assigned if the respondent did not do the Hearing Test because he/she refused, had a cochlear implant, or had an ear infection in either ear.

RwHEAR_P indicates whether there were any interruptions during the Hearing Test. A 0 is coded if there were no interruptions. A 1 is coded if there was background noise that interfered with the hearing test, there were problems with the equipment or supplies, had to restart the test, the respondent removed obstructions (glasses, earrings, etc.), the respondent removed hearing aid, the respondent raised their finger more than three times for a single test, or other not already specified. Don't know, refused responses are assigned special missing codes (.d) and (.r), respectively. Special missing (.h) is assigned if the respondent was not interviewed. Special missing (.s) is assigned if the respondent did not do the Hearing Test because he/she refused, had a cochlear implant, or had an ear infection in either ear.

Cross Wave Differences in DAD

No differences known.

Differences with Harmonized LASI

These variables are not included in LASI.

DAD Variables Used

```
GA901                    Hearing test introduction
GA902                    wearing hearing aids
GA904_1                  Left ear test 1
GA904_2                  Left  ear test 2
GA905_1                  Right ear test
GA905_2                  Right ear test 2
GA906                    occurred during the hearing test
```

Section E: Polygenic Risk Scores (PRSs)

Polygenic Risk Scores for Alzheimer's Disease

```
Wave Variable      Label                                                Type

  1  R1PRS_TOPLAM  std top SNPs PRS using genome-wide significant SNPs:Lambert   Cont

  1  R1PRS_TOPKUN  std top SNPs PRS using genome-wide significant SNPs:Kunkle e  Cont

  1  R1PRS_TOPJAN  std top SNPs PRS using genome-wide significant SNPs:Jansen e  Cont
```

Descriptive Statistics

```
Variable          N        Mean      Std Dev      Minimum      Maximum

R1PRS_TOPLAM     932       -0.00        1.00        -3.40         2.88

R1PRS_TOPKUN     932       -0.00        1.00        -2.99         3.65

R1PRS_TOPJAN     932        0.00        1.00        -3.52         2.75
```

How Constructed

The LASI-DAD genotyped respondents who consented to the blood sample collection and provided whole blood DNA. Polygenic risk scores (PRSs) were constructed, which provide a quantitative measure of genetic risk for genetic analyses. PRSs are based on large-scale replicated genome-wide association studies (GWAS) and were constructed using genome-wide significant single nucleotide polymorphisms (SNPs), noted as "top SNPs" PRSs.

For detailed information on the general method of constructing PRSs, please refer to Section 5 "Polygenic Risk Scores (PRSs)" in the Harmonized LASI-DAD data documentation.

The following variables are "top SNPs" PRSs for Alzheimer's disease (AD), each created based on results from one of three large-scale GWAS meta-analyses. All three PRSs have been standardized to a standard normal curve with a mean of 0 and standard deviation of 1. Please note that all three GWAS meta-analyses were conducted using individuals of European ancestry. As key SNPs in the *APOE* gene have a strong association with Alzheimer's disease, variants in the *APOE* region are excluded from the following three polygenic risk scores.

RwPRS_TOPLAM is the polygenic risk score for Alzheimer's disease, using results from a 2013 GWAS conducted by the International Genomics of Alzheimer's Project (IGAP) (Lambert et al., 2013). The 2013 meta-analysis identified 19 SNPs with genome-wide significant associations with AD. RwPRS_TOPLAM contains all 19 SNPs that were identified.

RwPRS_TOPKUN is the polygenic risk score for Alzheimer's disease, using results from a 2019 GWAS meta-analysis that had samples from the International Genomics of Alzheimer's Project (IGAP) (Kunkle et al., 2019). The 2019 meta-analysis identified 24 genome-wide-significant associations with AD. RwPRS_TOPKUN contains 20 SNPs that overlap between the LASI-DAD genetic data and the genome-wide significant SNPs from the GWAS meta-analysis.

RwPRS_TOPJAN is the polygenic risk score for Alzheimer's disease, using results from a 2019 GWAS meta-analysis that had samples from the Alzheimer's disease working group of Psychiatric Genomics Consortium (PGC-ALZ), the International Genomics of Alzheimer's Project (IGAP), the Alzheimer's Disease Sequencing Project (ADSP), and UKBiobank (Jansen et al., 2019). The 2019 meta-analysis identified 28 genome-wide significant loci associated with AD. RwPRS_TOPJAN contains 19 SNPs that overlap between the LASI-DAD genetic data and the genome-wide significant SNPs from the GWAS meta-analysis.

Please refer to Table S1 in Smith et al. (2020) for the list of SNPs included in each PRS.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

The HRS HCAP does not provide polygenic risk scores and associated variables.

Differences with Harmonized LASI

The Harmonized LASI does not provide polygenic risk scores and associated variables.

Polygenic Risk Scores for General Cognitive Function

```
Wave Variable      Label                                                   Type

  1  R1PRS_TOPCOG  std top SNP PRS using genome-wide significant SNPs:Davies et  Cont

  1  R1PRS_ALLCOG  std all SNP PRS using all independent SNPs with p lt 10e-04:  Cont
```

Descriptive Statistics

```
Variable          N          Mean        Std Dev      Minimum      Maximum

R1PRS_TOPCOG      932         0.00         1.00        -2.57         3.48

R1PRS_ALLCOG      932         0.00         1.00        -3.43         3.67
```

How Constructed

For detailed information on the general method of constructing PRSs, please refer to Section 5 "Polygenic Risk Scores (PRSs)" in the Harmonized LASI-DAD data documentation.

Two versions of the PRSs for general cognitive function were created, which were based on results from a 2018 GWAS conducted using genetic data from the CHARGE and COGENT consortia, and UKBiobank (Davies et al., 2018). The 2018 GWAS identified a total of 178 genome-wide significant independent lead SNPs from 148 loci that were associated with general cognitive function. Please note that this GWAS was conducted using individuals of European ancestry.

The following variables have been standardized within the study sample to have a mean of 0 and standard deviation of 1.

RwPRS_TOPCOG is the polygenic risk score for general cognitive function, constructed using "top SNPs". RwPRS_TOPCOG includes 130 lead SNPs out of the 178 reported lead SNPs from 148 loci that overlap between the LASI-DAD genetic data and the 2018 GWAS meta-analysis.

RwPRS_ALLCOG is the polygenic risk score for general cognitive function, constructed using "all SNPs", or all independent SNPs with p-value less than 10E-04. RwPRS_ALLCOG contains 1,938 SNPs that overlap between the LASI-DAD genetic data and the 2018 GWAS meta-analysis.

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

The HRS HCAP does not provide polygenic risk scores and associated variables.

Differences with Harmonized LASI

The Harmonized LASI does not provide polygenic risk scores and associated variables.

Genetic Principal Components (PCs)

Wave	Variable	Label	Type
1	R1PRS_PC1	std genetic principal component 1	Cont
1	R1PRS_PC2	std genetic principal component 2	Cont
1	R1PRS_PC3	std genetic principal component 3	Cont
1	R1PRS_PC4	std genetic principal component 4	Cont
1	R1PRS_PC5	std genetic principal component 5	Cont
1	R1PRS_PC6	std genetic principal component 6	Cont
1	R1PRS_PC7	std genetic principal component 7	Cont
1	R1PRS_PC8	std genetic principal component 8	Cont
1	R1PRS_PC9	std genetic principal component 9	Cont
1	R1PRS_PC10	std genetic principal component 10	Cont

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1PRS_PC1	932	0.00	1.00	-4.42	1.60
R1PRS_PC2	932	0.00	1.00	-5.08	1.80
R1PRS_PC3	932	-0.00	1.00	-2.82	11.24
R1PRS_PC4	932	0.00	1.00	-2.17	2.46
R1PRS_PC5	932	0.00	1.00	-3.22	3.38
R1PRS_PC6	932	-0.00	1.00	-3.99	15.31
R1PRS_PC7	932	-0.00	1.00	-5.24	13.73
R1PRS_PC8	932	0.00	1.00	-22.63	3.01
R1PRS_PC9	932	-0.00	1.00	-6.47	20.30
R1PRS_PC10	932	0.00	1.00	-4.94	4.63

How Constructed

Principal component (PC) analysis (Price et al., 2006) was performed to identify population group outliers and to provide sample principal components to be used as covariates in the statistical models used for association testing to adjust for possible population stratification.

RwPRS_PC1 – RwPRS_PC10 are standardized versions of ancestry specific genetic principal components 1 – 10. PCs 1 – 5 and PCs 6 – 10 were scrambled to protect identifiable information.

It is highly recommended that users perform analyses adjusted for RwPRS_PC1 – RwPRS_PC10 in order to control for confounding from population stratification, or to account for any ancestry differences in genetic structures within populations that could bias estimates. The PCs control for any genetic aspects

of common ancestry that could be spuriously correlated with the PRS and the outcome of interest (Price et al., 2006).

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

The HRS HCAP does not provide polygenic risk scores and associated variables.

Differences with Harmonized LASI

The Harmonized LASI does not provide polygenic risk scores and associated variables.

SNPs in the APOE Gene

Wave	Variable	Label	Type
1	R1RS7412	key SNP in APOE gene: rs7412	Cont
1	R1RS429358	key SNP in APOE gene: rs429358	Cont

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
R1RS7412	932	0.09	0.30	0.00	2.00
R1RS429358	932	0.20	0.42	0.00	2.00

How Constructed

Key SNPs in the *APOE* gene have a strong association with Alzheimer's disease. Variants in the *APOE* region were excluded from the three polygenic risk scores for Alzheimer's disease, but two SNPs have been released in the Harmonized LASI-DAD as independent units.

RwRS7412 is the number of T alleles of SNP rs7412 (C/T), which ranges from 0 to 2 (e.g., 0=CC, 1=CT, 2=TT). RwRS7412 is one of the two SNPs that define the *APOE* ε2, ε3, and ε4 alleles. The imputed version (1000G phase 3 version 5 reference panel) that incorporates imputation uncertainty is provided so that the numbers are not always exactly 0, 1, or 2. The imputation quality score R^2 for this SNP is 0.9998 (R^2 ranges from 0 to 1, with the larger number indicating better quality).

RwRS429358 is the number of C alleles of SNP rs429358 (T/C), which ranges from 0 to 2 (e.g., 0=TT, 1=TC, 2=CC). RwRS429358 is one of the two SNPs that define the *APOE* ε2, ε3, and ε4 alleles. The imputed version (1000G phase 3 version 5 reference panel) that incorporates imputation uncertainty is provided so that the numbers are not always exactly 0, 1, or 2. The imputation quality score R^2 for this SNP is 0.9979 (R^2 ranges from 0 to 1, with the larger number indicating better quality).

Cross Wave Differences in DAD

No differences known.

Differences with HRS HCAP

The HRS HCAP does not provide polygenic risk scores and associated variables.

Differences with Harmonized LASI

The Harmonized LASI does not provide polygenic risk scores and associated variables.

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