



Dementias
Platform^{UK}
Medical Research Council

COGNITIVE TEST DIRECTORY

Prepared for Dementias Platform UK by
CATHERINE CALVIN, IAN DEARY, CHLOE FAWNS-
RITCHIE, MARCUS RICHARDS, AND JOHN GALLACHER

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Dementias Platform UK
Department of Psychiatry
University of Oxford
Warneford Hospital
Oxford OX3 7JX

Tel: +44 (0)1865 613166
Email: dpuk@psych.ox.ac.uk
Web: www.dementiasplatform.uk
Twitter: @DementiasUK

Prepared for Dementias Platform UK by:

Catherine Calvin, PhD, Department of Psychiatry, University of Oxford

Catherine is a senior researcher funded by DPUK. She contributes to DPUK's work in cognitive assessment and conducts studies of dementia epidemiology through the DPUK data portal.

Ian Deary, OBE, FBA, FRSE, FMedSci, Department of Psychology, University of Edinburgh

Ian is Director of the University of Edinburgh Centre for Cognitive Ageing and Cognitive Epidemiology, and Professor of Differential Psychology at the University of Edinburgh. He leads the DPUK study on cognitive assessment and the project that tests for blood based signs of cognitive decline.

Chloe Fawns-Ritchie, MSc, Department of Psychology, University of Edinburgh

Chloe is a research assistant and PhD student based in the Centre for Cognitive Ageing and Cognitive Epidemiology, University of Edinburgh. She is currently working on a DPUK study that focuses on developing cognitive assessments for use in cognitive ageing research.

Marcus Richards, PhD, Faculty of Population Health Sciences, University College London

Marcus is a Programme Leader at the MRC Unit for Lifelong Health and Ageing at UCL, and Professor of Psychology in Epidemiology at the Faculty of Population Health Sciences. Marcus is a member of the DPUK Steering Group, and contributes to DPUK's work on the amyloid cohort and cognitive assessment.

John Gallacher, PhD, AFBPsS, CPsychol, FFPH, Department of Psychiatry, University of Oxford

John is the PI and Director of DPUK, and Professor of Cognitive Health at the University of Oxford.

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Introduction

The Dementias Platform UK (DPUK) Cognitive testing directory has been specifically produced as a resource for researchers who wish to exploit the cognitive data available from cohort studies in the DPUK Data Portal. In its first edition the directory gives details of cognitive testing for 39 cohort studies that are currently either fully uploaded to the DPUK Data Portal, are available for upload to the portal on a per-project basis, or, have their metadata available. These cohorts are listed in a recent report on the DPUK Data Portal¹, and include longitudinal studies of non-clinical population-based samples, as well as clinic-based studies, some of which include prospective follow-up. The directory is particularly beneficial to those researchers wishing to run cross-cohort studies and therefore identify comparable cognitive data across studies. Whereas a wide array of cognitive tests was used across the different studies, the directory identifies the specific cognitive domain targeted by each test to enable cross-cohort comparisons to be made. It can be used in conjunction with the discovery tools available on the DPUK website, which may contain more up-to-date information on the metadata available for these cohorts beyond the release date of this document (May 2019).

The *Directory of DPUK cohorts* devotes a table to each cohort study (in alphabetical order) listing all cognitive tests used within each cohort. Alongside each test is the specific cognitive domain or set of domains that the test aims to measure performance on, and the specific waves the test data were collected. The majority of cognitive domains covered by the different tests are described in a Medical Research Council report entitled Guidelines for Biomarkers of Healthy Ageing², by one of the contributors to this directory (I.J.D), which we encourage researchers to read. Citations to seminal publications and web resources are provided in this section for researchers needing more detail about specific tests.

In the *Directory of cognitive tests and tools* we list the published cognitive tests in alphabetical order that appear in this directory, with hyperlinks to their web sources or associated publications. For bespoke tests we recommend using the references provided on the cohort-specific page.

In *Cognitive domains in DPUK's cohorts* we provided a comparison of cohorts according to the specific cognitive domains covered by their longitudinal assessment, and provide a table for each of three types of cohort study: (1) case-rich population-based cohorts, (2) prodromal population-based cohorts, and, (3) clinical cohorts.

Finally, in *Timelines of specific cognitive domain tests* delivered in population cohorts, we provide graphics for three important cognitive domains that are affected by pathological and non-pathological ageing and that commonly appear longitudinally in DPUK's population cohorts. These include processing speed, verbal episodic memory, and, executive function. So, for example, a researcher wishing to run a study investigating trajectories of processing speed during mid-adulthood, can quickly and easily identify the cohorts that have these data.

1 Bauermeister et al (in submission). Data Resource Profile: The Dementias Platform UK (DPUK) Data Portal. This report includes 47 cohort studies, eight of which do not include cognitive testing.

2 <https://mrc.ukri.org/documents/pdf/biomarkers-of-healthy-ageing/>

Directory of DPUK cohorts

The authors would like to state that whereas the content of this directory list has been validated against the content of datasets for cohorts already uploaded to the DPUK Data Portal, for the remaining cohorts not yet uploaded, content has been extracted from peer-review publications (cohort profiles, and research articles), as well as cohort study websites. Therefore there may be small inconsistencies in the content of this report and the data shared through the DPUK Data Portal.

Airwave

Airwave Health Monitoring Study

Study sample	Prodromal population-based cohort
Country	UK
Baseline N	53,280
Age at baseline	40
Period of study	2004 -
Waves N	1

Test	Domain	Wave
Two-choice reaction time task	Processing speed	1
Paired associates learning test (visual)	Visual episodic memory	1
Digit span (forward)	Verbal episodic memory	1
Stroop test	Executive function Processing speed	1
Fluid IQ test (verbal and numeric reasoning test)	Reasoning General intelligence	1

Resources: Elliott et al (2014) <https://doi.org/10.1016/j.envres.2014.07.025> (supplementary materials)

ALSPAC Children

Avon Longitudinal Study of Parents and Children – Child Cohort

Study sample	Early-life population-based cohort
Country	UK
Baseline N	15 630
Age at baseline	Birth
Period of study	1990/2 -
Waves N*	10

Test	Domain	Wave
Wechsler Objective Reading Dimensions – basic reading	Language	1
Auditory Analysis Test (phoneme deletion)	Language	1
WISC-III - only subtests at wave 10	Reasoning General intelligence	2,10
WISC digit span – forwards and backwards	Working memory	2
TEA-Ch	Attention	2,5
More Word test – reading of words and non-words	Language	3
NARA II	Language	3
Counting span task	Executive function Working memory	4
Tests of reading fluency	Verbal fluency Language	6
Simple and Choice reaction time	Processing speed	7
Digit vigilance	Attention	7
TOWRE task – reading of words and non-words	Verbal fluency Language	7
WASI	Reasoning General intelligence	8
N-Back Task	Working memory Executive function Attention	9,10
Affective Go/No-Go task (or stop signal task)	Processing speed Other	9,10
Probability Learning and Reversal task	Executive function	9,10

*The definition of wave in this context is an in-focus assessment involving cognitive testing, that began annually from 7 years until 13 years, and then at ages 15, 17, and 24 years. This ignores data collected from birth (i.e. 68 data collection points up to 17 years).

ALSPAC Adults

Avon Longitudinal Study of Parents and Children – Mothers

Study sample	Prodromal population-based cohort
Country	UK
Baseline N	13 761
Age at baseline	28
Period of study	1990/2 -
Waves N*	5

Test	Domain	Wave
Logic Memory 1 – immediate and delayed	Verbal episodic memory	1,3-5
Digit Symbol Coding	Processing speed	1,3-5
Digits Backwards	Working memory	1,3-5
Verbal fluency test - letters	Executive function	1,3-5
Spot-the-Word test	Crystallised ability Language	1,3-5

*The definition of wave in this context is an in-focus assessment of mothers taking place at ages 44, 48, 51, 52, and 53. The first of these was an opportunistic assessment when the mothers were accompanying their children for follow-up. This definition ignores the multiple previous data collection points of mothers, i.e. by questionnaire, from the time of baby's delivery.

AMPLE

AMyloid imaging for Phenotyping LEwy body dementia

Study sample	Clinical
Country	UK
Baseline N	80
Age at baseline	76
Period of study	2013 -
Waves N	2 (ongoing annually)

Test	Domain	Wave
ACE-III	Dementia / cognitive impairment screening	2
MMSE	Dementia / cognitive impairment screening	2
Dementia Cognitive Fluctuation Scale (DCFS)	Dementia / cognitive impairment screening	2
Rey AVLT	Verbal learning and memory	2
FAS Test of verbal fluency	Executive function	2
TMT A & B	Executive function Processing speed	2
Graded Naming Test (McKenna & Warrington)	Language	2
Simple reaction time (V)	Processing speed	2
Choice reaction time (< or >)	Processing speed	2
Digit Vigilance Test	Processing speed	2
David Salmon computerised Motor Integration test (Matlab)	Visuospatial function	2
Angle discrimination test (Matlab)	Visuospatial function	2

Resources: Cohort directory:

<http://www.neurodegenerationresearch.eu/cohort/amyloid-imaging-for-phenotyping-lewy-body-dementia/>

BDR

Brains for Dementia Research

Study sample	Clinical
Country	UK
Baseline N	3276
Age at baseline	75
Period of study	2008 -
Waves N	11*

Test	Domain	Wave
MMSE	Dementia / cognitive impairment screening	1-11
MoCA	Dementia / cognitive impairment screening	1-11
ADAS-Cog	Dementia / cognitive impairment screening	1-11
CDR	Dementia / cognitive impairment screening	1-11
CERAD - cognitive battery	Dementia / cognitive impairment screening (controls)	1-11

*Relevant to participants with AD/MCI who are followed annually. Participants with no cognitive impairment are followed at 2 to 5-year intervals.

CaPS

Caerphilly Prospective Study

Study sample	Case-rich population-based (men only)
Country	UK
Baseline N	2512
Age at baseline	57
Period of study	1979 - 2004
Waves N	5

Test	Domain	Wave
MAIN STUDY		
7CAMCOG	Dementia / cognitive impairment screening	3-5
MMSE	Dementia / cognitive impairment screening	3-5
NART	Crystallised ability Language	3-5
AH4, Part 1	Reasoning General intelligence	3-5
4-Choice serial reaction time (ACT System)	Processing speed	3-5
Prospective memory task (Gallacher, 1999)	Prospective memory	3-5
Incidental memory task (Gallacher, 1999)	Memory - other	3-5
Rivermead Behavioural Memory Test; Prose recall (immediate and delayed))	Verbal episodic memory	3-5
Verbal fluency – category naming	Executive function Language	3-5
SUB-SAMPLE OF IMPAIRED GROUPS		
Modified CAMDEX interview of subject and informant	Dementia / cognitive impairment screening	5
Neurological examination	Dementia / cognitive impairment screening	5
Frontal Assessment Battery	Dementia / cognitive impairment screening Executive function	5
CDR	Dementia / cognitive impairment screening	5
IQCODE	Dementia / cognitive impairment screening	5
Medical records “scrutinised for evidence of neuroimaging, dementia diagnosis, functional loss due to cognitive impairment and relevant medical history”.	Dementia / cognitive impairment screening	5

Resources: Fish et al (2008) <https://doi.org/10.1159/000115439>; Gallacher et al (1999) <https://doi.org/10.1023/A:1007576324313>; Gallacher (2005) <https://doi.org/10.1007/s10654-005-2146-9>; Creavin et al (2015) <https://doi.org/10.3399/bjgp15X686053> (wave 5 subsample); Stollery (1996) 4-choice serial reaction time <https://www.ncbi.nlm.nih.gov/pubmed/8866543>

Cam-CAN

Cambridge Centre for Ageing and Neuroscience data repository

Study sample	Prodromal population-based
Country	UK
Baseline N	2683
Age at baseline	52
Period of study	2010 -
Waves N	1

Test	Domain	Wave
MMSE	Dementia / cognitive impairment screening	1
ACE-R	Dementia / cognitive impairment screening	1
Cambridge 10MQ	Memory impairment screening	1
Spot the Word	Crystallised ability Language	1
Cattell Culture Fair Test, Scale 2 Form A	General intelligence Non-verbal reasoning	1
Simple response time task	Processing speed	1
Choice response time task	Processing speed	1
WMS-III logical memory	Verbal episodic memory	1
Visual short-term memory (colours)	Visual episodic memory (short-term)	1
Motor learning	Memory – other (procedural)	1
Picture-picture priming	Memory – other (priming)	1
Emotion expression recognition	Memory – other	1
Emotional memory (priming, familiarity, recollection)	Memory – other (priming) Visual episodic memory	1
Face recognition: familiar faces	Memory – other (semantic)	1
BFRT - unfamiliar faces	Visual episodic memory	1
Hotel task	Executive function	1
Proverb comprehension	Language Crystallised intelligence	1
Sentence comprehension	Language	1
Tip-of-the-tongue task	Language Other - various	1

Resources: Study protocol by Shafto et al (2014) <https://doi.org/10.1186/s12883-014-0204-1>;
Study website: <http://www.cam-can.org>

CamPaiGN

Cambridgeshire Parkinsons Incidence from GP to Neurologist

Study sample	Clinical
Country	UK
Baseline N	142
Age at baseline	70
Period of study	2000 - 2012
Waves N	5

Test	Domain	Wave
MMSE	Dementia / cognitive impairment screening	1-5
NART	Crystallised ability Language	1-5
FAS Test of verbal fluency	Executive function Language	1-5
Animal naming, verbal fluency	Executive function Language	1-5
CANTAB - Pattern recognition memory - Spatial recognition memory	Visual memory	1-5
TOL test (one touch)	Executive function Working memory	1-5

Resources: Williams-Gray et al (2013) <https://www.ncbi.nlm.nih.gov/pubmed/23781007>; Williams-Gray et al (2007) <https://academic.oup.com/brain/article/130/7/1787/326491>; Foltynie et al (2004) <https://www.ncbi.nlm.nih.gov/pubmed/14691062>

CFAS I and II

Cognitive Function and Ageing Study I & II

Study sample	Case-rich population-based
Country	UK
Baseline N	18 005 (I); 7524 (II)
Age at baseline	75
Period of study	1990 (I); 2008 (II)
Waves N	7 (I); 2 (II)

Test	Domain	Wave
MMSE	Dementia / cognitive impairment screening	1-7 (II: 1-2)
GMS "This interview has been augmented with questions from the CAMDEX including CAMCOG, the longer neuropsychological assessment".	Dementia / cognitive impairment screening	1-7 (II: 1-2)
CAMCOG Subtests include:	Dementia / cognitive impairment screening	1-7 (II: 1-2)
- language comprehension	Language	1-7 (II: 1-2)
- language expression	Language	1-7 (II: 1-2)
- memory (remote)	Episodic memory	1-7 (II: 1-2)
- memory (recent)	Episodic memory	1-7 (II: 1-2)
- memory (learning)	Memory - other	1-7 (II: 1-2)
- abstract thinking (similarities)	Verbal reasoning ability	1-7 (II: 1-2)
- orientation	Other	1-7 (II: 1-2)
- attention / calculation	Other	1-7 (II: 1-2)
- praxis	Other	1-7 (II: 1-2)
- perception	Other	1-7 (II: 1-2)

Resources: Brayne et al (2006) <https://academic.oup.com/ije/article/35/5/1140/762435>; Matthews et al (2016) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4838896/>; MRC CFAS additional data information <http://www.cfas.ac.uk/files/2015/07/MRC-CFAS-additional-data-information.pdf>

CHARIOT-PRO

Cognitive Health in Ageing Register: Investigational, Observational and Trial Studies in Dementia Research: Prospective Readiness Cohort Study

Study sample	Case-rich, population-based
Country	UK
Baseline N	712
Age at baseline	67
Period of study	2014
Waves N	9

Test	Domain	Wave
MAIN STUDY		
MMSE	Dementia / cognitive impairment screening	1-9
CDR	Dementia / cognitive impairment screening	1-9
DKEFS:		1-9
- Trail making test	Executive function Processing speed	1-9
- Verbal fluency test	Executive function Language	1-9
NAB:		1-9
- Mazes	Executive function Visuospatial ability	1-9
- Judgement	Executive function	1-9
- Concept Formation	Executive function	1-9
- Word generation	Executive function Language	1-9
CDR-AS:		1-9
- Immediate verbal recognition	Verbal episodic memory	1-9
- Picture presentation	Other	1-9
- Number vigilance task	Processing speed	1-9
- Simple reaction time	Processing speed	1-9
- Choice reaction time	Processing speed	1-9
- Memory scanning task	Working memory	1-9
- Delayed word recognition	Verbal episodic memory	1-9
- Picture recognition	Verbal episodic memory	1-9
NAB:		1-9
- List Learning (short delay free recall, long delay free recall, long delay forced-choice recognition)	Verbal episodic memory	1-9
- Shape Learning	Verbal episodic memory	1-9
- Story Learning	Verbal episodic memory	1-9

Test	Domain	Wave
- Daily Living Memory	Verbal episodic memory	1-9
CogState Brief Battery:		1-9
- Detection Test (reaction time)	Processing speed	1-9
- Identification Test	Processing speed	1-9
- One Card Learning Test	Visual episodic memory	1-9
- One Back Test	Working memory	1-9
RBANS:		1-9
- List Learning (immediate)	Verbal episodic memory	1-9
- Story Memory (immediate)	Verbal episodic memory	1-9
- Figure Copy	Visuospatial ability	1-9
- Line Orientation	Visuospatial ability	1-9
- Digit Span	Verbal episodic memory	1-9
- Coding	Processing speed	1-9
- Picture Naming	Language	1-9
- List Recall (delayed)	Verbal episodic memory	1-9
- List Recognition	Verbal episodic memory	1-9
- Story Recall (delayed)	Verbal episodic memory	1-9
- Figure Recall (delayed)	Verbal episodic memory	1-9
- Semantic Fluency	Executive function Language	1-9

Resources: ClinicalTrials.gov <https://clinicaltrials.gov/ct2/show/NCT02114372>; CogState Brief Battery <https://www.cogstate.com/clinical-trials/computerized-cognitive-assessment/featured-batteries/>; RBANS Publisher: [http://www.pearsonclinical.co.uk/Psychology/AdultCognitionNeuropsychologyandLanguage/AdultGeneralAbilities/rbans/RepeatableBatteryfortheAssessmentofNeuropsychologicalStatus\(RBANS\).aspx](http://www.pearsonclinical.co.uk/Psychology/AdultCognitionNeuropsychologyandLanguage/AdultGeneralAbilities/rbans/RepeatableBatteryfortheAssessmentofNeuropsychologicalStatus(RBANS).aspx) ; Schatz et al (2011) https://link.springer.com/content/pdf/10.1007/978-0-387-79948-3_210.pdf; Wilk et al (2004) https://ac.els-cdn.com/S0920996403003517/1-s2.0-S0920996403003517-main.pdf?_tid=923b1a88-f533-11e7-a480-00000aab0f6c&acdnat=1515498930_9a2b10e264ecf84a8daad30c0ae0157e; NAB publication: Strauss et al (2006). A compendium of neuropsychological tests: administration, norms, and commentary (third edition). Oxford University Press, 2006. CDR-AS: Nicholl et al (1995) <http://onlinelibrary.wiley.com/doi/10.1002/gps.930100306/epdf>; D-KEFS: Manual.

CHARIOT PRO Sub Study

Cognitive Health in Ageing Register: Investigational, Observational and Trial Studies in Dementia Research: Prospective Readiness Cohort Sub Study

Study sample	Case-rich population-based
Country	UK
Baseline N	225
Age at baseline	67
Period of study	2014
Waves N	19

Test	Domain	Wave
CogState Brief Battery:		
- Detection Test (reaction time)	Processing speed	1-19
- Identification Test	Processing speed	1-19
- One Card Learning Test	Visual episodic memory	1-19
- One Back Test	Working memory	1-19
CDR-AS:		1-19
- Immediate verbal recognition	Verbal episodic memory	1-19
- Picture presentation	Other	1-19
- Number vigilance task	Processing speed	1-19
- Simple reaction time	Processing speed	1-19
- Choice reaction time	Processing speed	1-19
- Memory scanning task	Working memory	1-19
- Delayed word recognition	Verbal episodic memory	1-19
- Picture recognition	Visual episodic memory	1-19
DKEFS:		1-19
- Trail making test	Executive function Processing speed	1-19
- Verbal fluency test	Executive function Language	1-19
PACC:		1-19
1. FCSRT (immediate)	Verbal memory	
2. WMS-R Delayed Paragraph Recall of the Logical Memory story	Verbal episodic memory (delayed)	
3. WAIS-R Digit Symbol Substitution Test	Processing speed	
4. MMSE	Dementia / cognitive impairment screening	
RBANS-PACC:		1-19
1. List Learning (immediate)	Verbal memory	
2. Delayed Story Recall (immediate)	Verbal episodic memory	
3. Coding;	Processing speed	

Test	Domain	Wave
4. MMSE 5. Semantic Fluency	Dementia screening Executive function Language	
COGNITO: 1. Reaction time 2. Primary and working memory 3. Visuospatial memory 4. Verbal secondary memory 5. Implicit learning 6. Language skills 7. Functional and semantic categorization of visual data 8. Focused and divided attention 9. Crystallized intelligence.	Processing speed Working memory and other Visual memory Verbal memory Memory - other Fluid intelligence Processing speed Crystallised intelligence	1-19

Resources: COGNITO manual; PACC: ClinicalTrials.gov <https://clinicaltrials.gov/ct2/show/NCT02114372>;
Donohue et al (2014) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4439182/pdf/nihms688836.pdf>

Cygnus

Study sample	Clinical
Country	UK
Baseline N	500
Age at baseline	73
Period of study	2016 -
Waves N	5

Test	Domain	Wave
CDR	Dementia / cognitive impairment screening	1-5
MoCA	Dementia / cognitive impairment screening Visual memory Language Working memory	1-5

DFP Pilot

Deep and Frequent Phenotyping Study – Pilot

Study sample	Clinical
Country	UK
Baseline N	21
Age at baseline	71
Period of study	2015 -
Waves N	4

Test	Domain	Wave
MMSE	Dementia / cognitive impairment screening	1
ADAS-cog	Dementia / cognitive impairment screening	1,4
CANTAB Paired Associates Learning	Visual Episodic Memory	1-4
CANTAB Spatial Working Memory	Working memory	1-4

DELPHIC

The Delirium and Population Health Informatics Cohort

Study sample	Case-rich, population-based
Country	UK
Baseline N	2000
Age at baseline	≥70
Period of study	2017 -
Waves N	1 (ongoing)

Test	Domain	Wave
Telephone Interview for Cognitive Status – modified (TICS-m)	Dementia / cognitive impairment screening	1
Verbal fluency	Executive function	1
ACE-III subtests	Dementia / cognitive impairment screening Language Attention Immediate, prospective + episodic	1

DIAN

Dominantly Inherited Alzheimer Network

Study sample	Clinical
Country	UK
Baseline N	437
Age at baseline	≥18
Period of study	2008 -
Waves N	6

Test	Domain	Wave
MMSE	Dementia / cognitive impairment screening	1+
CDR	Dementia / cognitive impairment screening	1+
WAIS-R digit symbol	Processing speed	1+
TMT, A	Processing speed	1+
TMT, B	Executive function	1+
WMS-R logical memory Story A	Verbal episodic, immediate and delayed	1+
WMS-R digit span (forward + backward)	Working memory	1+
Verbal fluency: - Letters - Animals and vegetables	Executive function Language	1+
Word list recall – immediate and delayed (bespoke)	Verbal episodic memory	1+

Resources: Study website <https://dian.wustl.edu/our-research/observational-study/>; Weintraub et al (2009) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2743984/>

English Longitudinal Study of Ageing

Study sample	Case-rich population-based
Baseline N	11 391
Age at baseline	64
Period of study	2002 -
Waves N	8 (ongoing)

Test	Domain	Wave
Subjective memory questions	Dementia / cognitive impairment screening	1-4,7, 8
IQCODE	Dementia / cognitive impairment screening	2-7, 8
Orientation in time	Dementia / cognitive impairment screening	1-8
Items from a cognitive screen (MOCA) – including: backwards from 20; serial 7s (backwards from 100); naming objects	Dementia / cognitive impairment screening	7, 8
Prospective memory tasks	Prospective memory	1-5, 8
Word list recall (immediate and delayed)	Verbal episodic memory	1-8
Verbal fluency (animals)	Executive function Language	1-5,7
Letter cancellation	Processing speed Visuospatial ability	1-5
Adaptive number series	Fluid intelligence	6, 8
Numeracy	Crystallised ability	1,4-6
Health literacy	Other	2,5

EPIC Norfolk

Study sample	Case-rich population-based
Country	UK
Baseline N	25 639
Age at baseline	60
Period of study	1993 -
Waves N	5

Test	Domain	Wave
Shortened version of the Extended Mental State Exam (SF-EMSE)	Dementia / cognitive impairment screening	3,5
NART (short)	Crystallised ability	3,5
Letter Cancellation	Processing speed Visuospatial ability	3,5
Visual Sensitivity Test (VST) to assess visual impairment deficits contributing to cognitive impairment	Processing speed	3,5
HVLT	Verbal episodic memory	3,5
CANTAB Paired Associates Learning	Visual episodic memory	3,5
Test of prospective memory	Prospective memory	3,5

Resources: Hayat et al (2014) <https://bmcgeriatr.biomedcentral.com/track/pdf/10.1186/1471-2318-14-142?site=bmcgeriatr.biomedcentral.com>

EPINEF

Environmental Pollution Induced Neurological Effect cohort

Study sample	Prodromal population-based
Country	Republic of Korea
Baseline N	2008
Age at baseline	68
Period of study	2014 -
Waves N	3 (ongoing)

Test	Domain	Wave
MMSE	Dementia / cognitive impairment screening	1-3
MoCA	Dementia / cognitive impairment screening	1-3
Seoul Neuropsychological Screening Battery-II (SNSB-II)	Attention Verbal memory Language Latent memory Visuospatial ability Executive function	1-3

Generation Scotland

Scottish Family Health Study

Study sample	Prodromal population-based
Country	UK
Baseline N	23 960
Age at baseline	18 - 98
Period of study	2006 -
Waves N	1

Test	Domain	Wave
MHV	Crystallised ability	1
WAIS logical memory (immediate and delayed)	Verbal episodic memory	1
Verbal fluency (letters)	Executive function Language	1
WAIS digit symbol test	Processing speed	1
Deary-Liewald Choice reaction time test (subsample)	Processing speed	1

GENFI

The GENetic Frontotemporal dementia initiative

Study sample	Clinical
Country	UK
Baseline N	515
Age at baseline	49
Period of study	2012 -
Waves N	1 (ongoing)

Test	Domain	Wave
Frontotemporal Dementia Rating Scale	Dementia / cognitive impairment screening	1
MMSE	Dementia / cognitive impairment screening	1
Free and Cued Selective Reminding	Dementia / cognitive impairment screening	1
WMS logical memory (immediate, delayed)	Verbal episodic memory	1
WMS digit span (forwards, backwards)	Working memory	1
WASI Block Design	Visuospatial ability	1
Colour-Word Interference Test	Reaction time	1
Verbal fluency (category, letter)	Language Executive function	1
Digit symbol	Processing speed	1
TMT, A & B	Executive function Processing speed	1
Boston Naming Test	Language Other – lexical retrieval	1

GERAD LOAD / EOAD

Genetic and Environmental Risk in (late-onset) AD consortium

Study sample	Clinic; case-control
Country	UK
Baseline N	10 454 / 4397
Age at baseline	75 / 62
Period of study	2007
Waves N	1

Test	Domain	Wave
MMSE - control participants only	Dementia / cognitive impairment screening	1
ADAS-cog - control participants only	Dementia / cognitive impairment screening	1
CERAD - AD participants only	Dementia / cognitive impairment screening	1

Resources: Hollingworth et al (2012) <https://www.nature.com/articles/mp2011125>

HKU-NCDC

The University of Hong Kong Neurocognitive Disorder Cohort

Study sample	Clinical
Country	Hong Kong
Baseline N	500
Age at baseline	≥64
Period of study	2014
Waves N	1 (ongoing, annually)

Test	Domain	Wave
MMSE	Dementia / cognitive impairment screening	1+
Abbreviated mental test (AMT, Chinese)	Dementia / cognitive impairment screening	1+
MoCA	Dementia / cognitive impairment screening Verbal memory Language Vigilance	1+
Benson's complex figure copy and recall	Visuospatial ability Visual memory	1+

ICICLE-PD

The Incidence of Cognitive Impairment in Cohorts with Longitudinal Evaluation-PD

Study sample	Clinical
Country	UK
Baseline N	318
Age at baseline	67
Period of study	2009
Waves N	2 (ongoing)

Test	Domain	Wave
MMSE	Dementia / cognitive impairment screening	1-2+
MoCA - Pentagon copying - Naming and sentence subtests	Dementia / cognitive impairment screening Visuospatial ability Language	1-2+
Cognitive Drug Research Computerised Battery: - Simple reaction time - Choice reaction time - Digit vigilance (speed and accuracy)	Processing speed	1-2+
CANTAB subtests:		1-2+
- Pattern recognition memory (immediate)	Visual memory	1-2+
- Spatial recognition memory (immediate)	Visual memory	1-2+
- Paired associates learning	Memory Visuospatial ability	1-2+
- TOL test (one touch)	Executive function	1-2+
Phonemic fluency (letter 'F')	Executive function	1-2+
Semantic fluency (animals)	Executive function	1-2+

Resources: Yarnall et al (2014) <http://n.neurology.org/content/82/4/308>

LEWY-PRO

Identifying Predictors of dementia with Lewy bodies in People with Mild Cognitive Impairment

Study sample	Clinical
Country	UK
Baseline N	100
Age at baseline	≥60
Period of study	2013
Waves N	2

Test	Domain	Wave
Rey Auditory Verbal Learning	Executive function	1-2
David Salmon Motor Integration Test baseline version only (Matlab)	Visuospatial function	1-2
TMT, A & B	Executive function Processing speed	1-2
Simple reaction time (V) Choice reaction time (< or >) (Matlab)	Processing speed	1-2
Graded Naming Test (McKenna and Warrington)	Language	1-2
FAS verbal fluency	Executive function	1-2
Digit vigilance (Matlab)	Processing speed	1-2
Angle discrimination test – computerised (Matlab)	Visuospatial ability	1-2

LBC1936

Lothian Birth Cohort 1936

Study sample	Case-rich population-based
Country	UK
Baseline N	1091
Age at baseline	70
Period of study*	2006 -
Waves N	5

Test	Domain	Wave
MMSE	Dementia / cognitive impairment screening	1-5
Moray House Test no. 12 (age 11)	General intelligence Crystallised ability	0
Moray House Test no. 12 (age 70 & 76)	General intelligence Crystallised ability	1,3-4
Raven's Standardised Progressive Matrices	Reasoning	4
NART	Crystallised ability Language	1-5
WTAR	Crystallised ability Language	1-5
Wechsler Test of Premorbid Functioning	Crystallised ability Language	3-5
WMS III Logical memory (immediate and delayed)	Verbal episodic memory	1-5
WMS III Verbal Paired Associated	Verbal episodic memory	1-5
WMS III Spatial Span (forward and backward)	Working memory (visual)	1-5
WAIS III Letter-number sequencing	Working memory	1-5
WAIS III Digit span backwards	Working memory (verbal)	1-5
WAIS III Symbol Search	Processing speed	1-5
WAIS III Digit Symbol coding	Processing speed	1-5
WAIS III Block Design	Visuospatial ability	1-5
WAIS-III Matrix reasoning	Reasoning	1-5
Simple RT	Processing speed	1-5
4-Choice RT	Processing speed	1-5
Inspection time	Processing speed	1-5
Verbal fluency (letters)	Executive function Language	1-5
TMT Part B	Executive function	3-5

*For the current purposes we define the waves (1-5) as those contacted and recruitment into the follow-up study at age 70. However, this cohort also completed intelligence tests at age 11 as part of the Scottish Mental Surveys 1947.

Resources: Deary et al (2007) <https://doi.org/10.1186/1471-2318-7-28>; Taylor et al (2018) <https://doi.org/10.1093/ije/dyy022>. Data dictionary provided by cohort owners.

Memento

Study sample	Clinical
Country	France
Baseline N	2323
Age at baseline	71
Period of study	2011 -
Waves N	11

Test	Domain	Wave
MMSE	Dementia / cognitive impairment screening	1-11
CDR	Dementia / cognitive impairment screening	1-11
DMS48 (immediate and 1 hour delay)	Visual memory	1-11
Verbal fluency (letter P)	Executive function Language	1-11
Semantic fluency (semantics – animals)	Executive function	1-11
Free and cued selective reminding test (FCSRT) - Immediate and 20 min delay	Verbal memory	1-11
TMT, A & B	Processing speed Executive function	1-11
Digit span recall – forwards and backwards	Verbal episodic memory Working memory	1-11
Rey complex figure test – copy, 3 mins, 30 mins (optional)	Visual episodic memory Visuospatial ability?	1-11
Frontal Assessment Battery (FAB)	Dementia / cognitive impairment screening Executive function	1-11
Oral image naming test (DO80)	Language	1-11
Optional: Visuospatial span – forwards and backwards	Visual Memory Visuospatial ability	1-11

Resources: Data dictionary provided by cohort owners. Dufouil et al (2017)
<https://www.ncbi.nlm.nih.gov/pubmed/28851447>

National Survey of Health and Development 1946

Study sample	Prodromal population-based
Country	UK
Baseline N	5362
Age at baseline	Birth
Period of study	1946 -
Waves N	25

Test	Domain	Wave
Reading comprehension (age 8)	Crystallised/prior Language	6
Word reading (age 8)	Crystallised/prior Language	6
Vocabulary (age 8)	Crystallised/prior Language	6
Picture intelligence (age 8)	Reasoning Crystallised/prior	6
NSHD-specific tests of verbal and non-verbal ability (age 11)	General intelligence	9
AH4, including verbal and non-verbal sections (age 15)	General intelligence measures Crystallised/prior Reasoning	11
Watts-Vernon Reading Test (age 15 and 26) At age 26 the version included 10 additional items of increased difficulty to avoid ceiling effects.	Crystallised/prior Language	11,18
Mathematics test, including arithmetic, geometry, trigonometry, and algebra (age 15)	Crystallised/prior	11
Verbal memory: 15 word list learning task (age 43, 53, 60-64, 69)	Verbal episodic memory	21-23, 25
Letter cancellation (age 43, 53, 60-64, 69)	Processing speed	21-23, 25
Picture recognition (age 43)	Visual memory	21
Peg placement (age 43)	Other - timed manual dexterity	21
NART (age 53)	Crystallised ability Language	22
Prospective memory (age 53)	Prospective memory	22
Simple and Choice Reaction time (age 60-64)	Processing Speed	23
ACE-III subtests (age 69)	Dementia / cognitive impairment screening Language Attention Immediate, prospective + episodic	25

Resources: Richards & Wadsworth (2004) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1719683/pdf/v089p00922.pdf>;
Wadsworth (2016) <https://academic.oup.com/ije/article/35/1/49/849772>

NICOLA

Northern Ireland Cohort for the Longitudinal study of Ageing

Study sample	Prodromal, population-based
Country	UK
Baseline N	8504
Age at baseline	≥
Period of study	2013
Waves N	1 (ongoing, every two years)

Cognitive function is being completed as part of the health assessment – no information is currently available online or in publications.

NIMROD Study

Neuroimaging of Inflammation in MemoRy and Other Disorders

Study sample	Clinical
Country	UK
Baseline N	276
Age at baseline	70
Period of study	2013 - 2017
Waves N	4

Test	Domain	Wave
MMSE	Dementia / cognitive impairment screening	1-4
CDR	Dementia / cognitive impairment screening	1-4
ACE-R	Dementia / cognitive impairment screening	1-4
INECO frontal screening	Executive function in dementia	1-4
TMT, A & B	Executive function Processing speed	1-4
Rey auditory verbal learning test	Verbal memory	1-4
Pyramids and palm trees	Semantic memory Language	1-4
CANTAB tests:		
- Simple reaction time	Processing speed	1-4
- Paired associate learning	Visuospatial ability Memory	1-4
- Stockings of Cambridge	Executive function Working memory	1-4

Resources: Bevan-Jones (2016) <http://bmjopen.bmj.com/content/7/1/e013187>

OPDC Discovery

Oxford Parkinson's Disease Centre Discovery cohort

Study sample	Clinical
Country	UK
Baseline N	1589
Age at baseline	66
Period of study	2009 -
Waves N	1 (ongoing)

Test	Domain	Wave
MoCA	Dementia / cognitive impairment screening	1
MMSE	Dementia / cognitive impairment screening	1
Phonemic fluency	Executive function	1
Semantic fluency	Executive function	1

PICNICS

Parkinsonism: Incidence and Cognitive heterogeneity in CambridgeShire

Study sample	Clinical
Country	UK
Baseline N	282
Age at baseline	67
Period of study	2008 -
Waves N	1 (ongoing)

Test	Domain	Wave
MMSE	Dementia / cognitive impairment screening	1
CANTAB tests:		
- Pattern recognition memory	Visual memory	1
- Paired associates learning	Visual memory	1
- TOL (Stockings of Cambridge One Touch)	Executive function	1
- Spatial Recognition Memory	Visual episodic memory	1
Pentagon Copying Test	Visuospatial ability	1
Design Organisation Test (Killgore et al., 2005)	Visuospatial ability	1
Semantic verbal fluency	Executive function	1
Phonemic verbal fluency (FAS)	Executive function	1

Resources: Study Centre website: <http://thebarkerlab.co.uk/parkinsons-disease/current-studies-pd/>; DPUK directory

PREVENT

Study sample	Prodromal population-based
Country	UK
Baseline N	700
Age at baseline	40-59
Period of study	2014 -
Waves N	2

Test	Domain	Wave
COGNITO:		
- Auditory and visual attention	Other – attention	1-2
- Simple reaction time	Processing speed	1-2
- Stroop test (colour)	Executive function	1-2
- Articulation and immediate recall	Verbal episodic memory	1-2
- Face recall	Verbal episodic memory	1-2
- Working memory	Working memory	1-2
- Visuospatial associative learning	Visuospatial ability	1-2
- Reading	Language	1-2
- Comprehension	Verbal reasoning Language	1-2
Visual Short-Term Memory Binding Paradigm (Parra et al., 2010)	Other – visual short-term memory binding	1-2

Resources: Ritchie et al (2014) <http://www.tandfonline.com/doi/pdf/10.3109/09540261.2013.869195?needAccess=true>;
 Ritchie & Ritchie (2012) <http://bmjopen.bmj.com/content/2/6/e001893>; COGNITO manual http://www.inserm-neuropsychiatrie.fr/sites/default/files/documents/COGNITO_MANUAL.pdf; Parra et al (2010) <https://link.springer.com/article/10.1007/s00415-010-5484-9>

PRIME

Etude PROspective sur l'Infarctus du Myocarde

Study sample	Prodromal population-based
Country	UK
Baseline N	2745
Age at baseline	50-60
Period of study	1991 - 2016
Waves N*	2

Test	Domain	Wave
MMSE	Dementia / cognitive impairment screening	1
ACE-R	Dementia / cognitive impairment screening, including cognitive domains: <ul style="list-style-type: none">- Orientation- Attention- Memory- Verbal fluency- Language- Visuospatial ability	2

*Definition of wave includes follow-up waves (2001-2004; 2016) of subsample from original healthy cohort in 1991-3.

PROTECT

Study sample	Case-rich population-based
Country	UK
Baseline N	14 000
Age at baseline	72
Period of study	2014 -
Waves N	1 (ongoing)

Test	Domain	Wave
CogTrack Picture presentation	-	1
CogTrack Simple reaction time	Processing speed	1
CogTrack Digit vigilance	Processing speed	1
CogTrack Choice reaction time	Processing speed	1
CogTrack Picture recognition	Verbal episodic memory	1

Resources: Wesnes et al. (2017) <http://onlinelibrary.wiley.com/doi/10.1002/gps.4659/pdf>; Study website <http://www.protectstudy.org.uk/cognitivetesting.aspx>; Publisher's website <https://www.wesnes.com/kings-college-london>

DPUK directory.

SABRE

Southall and Brent Revisited

Study sample	Prodromal population-based
Country	UK
Baseline N	4858
Age at baseline	55
Period of study	1988
Waves N	3

Test	Domain	Wave
CSI 'D'	Dementia / cognitive impairment screening	2, 3
10-word list learning task – immediate and delayed	Verbal episodic memory	2, 3
Animal naming	Executive function Language	2, 3
CTT, A & B	Executive function Processing speed	2, 3
Digit span - forward and background	Working memory	2, 3
Delayed visual recall (WHO gnostic assessments)	Visual episodic memory	2, 3

Resources: Study website: <https://www.sabrestudy.org/>; Park et al (2017) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5533007/pdf/JAH3-6-e004898.pdf>; Taylor et al (2013) <http://onlinelibrary.wiley.com/doi/10.1111/jgs.12416/abstract>

SMC Amyloid

Samsung Medical Center PET Amyloid cohort

Study sample	Clinical
Country	Republic of Korea
Baseline N	120
Age at baseline	70
Period of study	2016 -
Waves N	5 (incomplete)*

Test	Domain	Wave
MMSE	Dementia / cognitive impairment screening	1-2+
Seoul Neuropsychological Screening Battery-II (SNSB-II)	Attention Verbal memory Language Latent memory Visuospatial ability Executive function	1-2+

*This is a five year follow-up study with annual assessments.

TRACK-HD

Study sample	Clinical
Country	UK
Baseline N	366
Age at baseline	45
Period of study	2008 - 2011
Waves N	4

Test	Domain	Wave
“The cognitive battery lasted approximately 60 minutes and included a broad range of tests known to be sensitive in HD. The tests were administered to all subjects by paper and pencil in the case of standard clinical neuropsychological tasks, or by using identical model tablet PCs with custom-designed software, and a standardised stylus and mouse input device.” (Tabrizi et al., 2012)		
Symbol Digit Modalities Test (SDMT)	Processing speed	1-4
Stroop Test - word reading condition	Processing speed	1-4
Circle Tracing	Visuospatial ability	1-4
Spot the change (HD-CAB)	Visual memory	1-4
Map search test (CANTAB)	Visual memory	1-4
Mental rotation, map search (CANTAB)	Visuospatial ability	1-4

Resources: Tabrizi et al (2012) <https://www.ncbi.nlm.nih.gov/pubmed/22137354>; DPUK directory

UK Biobank

Study sample	Prodromal population-based
Country	UK
Baseline N	502 655
Age at baseline	57
Period of study	2006 -
Waves N*	4 (ongoing)

Test	Domain	Wave
Reaction time test	Processing speed	1-4
Pairs matching test	Visual episodic memory	1-4
Verbal-numerical reasoning test (13 items)	Reasoning (verbal and numerical) Crystallised ability	1-4
Prospective memory test	Prospective memory	1-4
Numeric memory test	Working memory	1
Symbol digit substitution test	Processing speed	4
Trail Making test	Executive function Processing speed	4
TOL test (one touch)	Executive function	4
Matrices test	Reasoning	4
Picture vocabulary test	Crystallised ability Language	4
Paired associate learning test	Verbal episodic memory	4

*Waves include baseline (wave 1), repeat assessment subsample for estimating regression dilution (wave 2), online follow-up (wave 3), and imaging subsample (wave 4)

Resources: Study data showcase: <http://biobank.ctsu.ox.ac.uk/crystal/>; Lyall et al (2016) <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0154222>

Whitehall II

The Stress and Health Study

Study sample	Case-rich population-based
Country	UK
Baseline N	10 308
Age at baseline	45
Period of study	1985 -
Waves N	12 (ongoing)

Test	Domain	Wave
MAIN STUDY		
MMSE	Dementia / cognitive impairment screening	5,7,9,11
AH4-I	Reasoning General intelligence	3,5,7,9,11
Word recall (20 words)	Verbal episodic memory	3,5,7,9,11
Verbal fluency (phonemic and animal)	Executive function Language	3,5,7,9,11
MHV	Crystallised ability Language	3,5,7,9,11
IMAGING SUB-STUDY		
MoCA	Dementia / cognitive impairment screening	12
TMT, A & B	Executive function Processing speed	12
Rey Complex Figure test and Recognition Trial	Visual episodic memory Visuospatial ability?	12
Verbal fluency (animal)	Executive function Language	12
Hopkins Verbal Learning Test Revised	Verbal episodic memory	12
Boston Naming Test	Other – lexical retrieval Language	12
Digit Span WAIS IV	Working memory	12
Digit Coding WAIS IV	Processing speed	12
Test of Premorbid Functioning	Crystallised ability Language	12
Dots and letters (adapted from ACE III)	Visuospatial ability	12
CLOX (clock drawing task)	Visuospatial ability	12
CANTAB Reaction time test	Processing speed	12
Purdue Pegboard Test	Dexterity (not cog)	12

Resources: Singh-Manoux et al (2012) <http://www.bmj.com/content/bmj/344/bmj.d7622.full.pdf> - main study; Filippini et al (2014) <https://bmcp psychiatry.biomedcentral.com/track/pdf/10.1186/1471-244X-14-159?site=bmcp psychiatry.biomedcentral.com> – imaging sub study

Directory of cognitive tests and tools

Test acronym	Full name	Resource hyperlink*
ACE-III	Addenbrooke's Cognitive Examination - English (2012)	Noone (2015)
ACE-R	Addenbrooke's Cognitive Examination - Revised	Mioshi et al (2006)
ADAS-Cog	Alzheimer's disease Assessment Scale cognitive subscale	test form
AH4	Alice Heim Group Ability Test	Web resource
-	Baddeley's Grammatical Reasoning Test	Baddeley (1968)
BFRT	Benton Facial Recognition Test	Duchaine & Weidenfeld (2003)
-	Boston Naming Test	Web resource
CAMCOG	Cambridge Cognitive Examination	Huppert et al (1995)
Cambridge 10MQ	The Cambridge Memory Questionnaire	Shafto et al (2014)
CANTAB	Cambridge Neuropsychological Test Automated Battery	Robbins et al (1994)
CERAD	Consortium to Establish a Registry for Alzheimer's Disease	Fillenbaum et a (2008)
CDR	Clinical Dementia Rating scale	Hughes et al (1982)
CDR-AS	Clinical Drug Research Assessment System	Simpson et al (1991)
CLOX	Executive clock drawing task	Royall et al (1998)
COGNITO	Computerized Assessment of Information Processing	Ritchie et al (2014)
-	CogState	Hammers et al (2011)
CSI 'D'	Community Screening Interview for Dementia	Hall et al (2000)
CTT	Color Trails Test	Lee et al (2010)
DKEFS	Delis-Kaplan Executive Function System	Homack et al (2007)
EMSE	Extended mental status examination	Publisher protocol
-	E-Prime inspection time	Provider website
-	FAS test of verbal fluency	Tombaugh et al (1999)
FCSRT	Free and Cued Selective Reminding Test	Grober et al (2000)
GMS	Geriatric Mental Status interview	Gurland et al (1976)
HVLT	Hopkins Verbal Learning Test	Test form and protocol
HVLT-R	Hopkins Verbal Learning Test - Revised	Belkonen (2011)
IQCODE	Informant Questionnaire on Cognitive Decline in the Elderly	Online test form
MHV	Mill Hill Vocabulary scale	Raven et al (1958)
MMSE	Mini Mental State Examination	Folstein et al (1975)
MoCA	Montreal Cognitive Assessment	Nasreddine et al (2005)
MHT	Moray House Test No. 12	Web resource

Test acronym	Full name	Resource hyperlink*
NAB	Neuropsychological Assessment Battery	Gavett et al (2012)
NARA II	Neale Analysis of Reading Ability	Publisher
NART	National Adult Reading Test	Nelson (1982)
TOL	Tower of London test	Phillips et al (2001)
PACC	Preclinical Alzheimer Cognitive Composite	Donohue et al (2014)
-	Raven's Standardised Matrices	Raven (1938)
RBANS	Repeatable Battery for the Assessment of Neuropsychological Status	Randolph et al (2010)
Rey AVLT	Rey Auditory Verbal Learning Test	Bean (2011)
RBMT	Rivermead Behavioural Memory Test	Johansson & Wressle (2009)
-	Schonell and Adams Essential Intelligence Tests A & B	Schonell & Adams (1940)
-	Stroop	Stroop (1935)
TEA-Ch	Tests of Everyday Attention for Children	Manly et al (2002)
TICS-m	Telephone Interview for Cognitive Status modified	Van den Berg et al (2012)
TOPF UK	Test of Premorbid Functioning	McDonald (2015)
TOWRE	Test of Word Reading Efficiency	Tarar et al (2015)
TMT (A&B)	Trail Making Test A & B Forms	Online protocol
WAIS-III	Wechsler Adult Intelligence Scale - Third edition	Ryan & Lopez (2001)
WAIS-R	Wechsler Adult Intelligence Scale - Revised	Sattler (1982)
WASI	Wechsler Abbreviated Scale of Intelligence	Ryan et al (2010)
-	Watts-Vernon Reading test	Richards et al (2004)
WISC-III	Wechsler Intelligence Scale for Children – Third edition	Woolger (2001)
WMS-III	Wechsler Memory Scale - Third edition	Tulsky et al (2003)
WTAR	Wechsler Test of Adult Reading	Venegas & Clark (2011)

*Links to resources are generally of reputable scientific publisher websites or are direct DOI links. If unsure, please check before clicking. Resources vary between test protocols, published studies using the tests, or the original publication by the test creator, and have been selected as a starting point in finding out more detailed information on the individual tests.

Cognitive domains in DPUK's cohorts

Case-rich population cohorts

Case-rich cohorts have followed adults into their 70s, 80s, and sometimes 90s – a stage in life when the population risk of dementia substantially increases. These studies provide sufficient case numbers of dementia with which to characterise risk factors of onset, and, study trajectories of disease progression.

Cohort name	Baseline N	Fluid IQ	Crystallised IQ	Processing speed	Executive function	Visuospatial ability	Language	Memory
EPIC Norfolk	25 639		✓	✓		✓		✓
CFAS I	18 005		✓			✓	✓	✓
PROTECT	14 000			✓				✓
ELSA	11 391	✓	✓	✓	✓	✓	✓	✓
Whitehall II	10 308	✓	✓	✓	✓	✓	✓	✓
CFAS II	7524		✓			✓	✓	✓
CaPS	2512		✓	✓	✓		✓	✓
DELPHIC	2000		✓		✓		✓	✓
LBC1936	1091	✓	✓	✓	✓	✓	✓	✓
CHARIOT-PRO	712			✓	✓		✓	✓
CHARIOT-PRO sub-study	225		✓	✓	✓		✓	✓

Prodromal population cohorts

Prodromal cohorts are following adults in their 40s and 50s, before clinical symptoms of dementia appear in the majority of cases. This stage of life is critical for studying the multiple risk and protective factors that contribute to dementia, given the long prodromal phase of the disease.

Cohort name	Baseline N	Fluid IQ	Crystallised IQ	Processing speed	Executive function	Visuospatial ability	Language	Memory
UK Biobank	502 655	✓	✓	✓	✓		✓	✓
Airwave	53 280	✓	✓	✓	✓			✓
Generation Scotland	23 960		✓	✓	✓		✓	✓
ALSPAC mothers	13 761		✓	✓	✓		✓	✓
NSHD	5362	✓	✓	✓		✓	✓	✓
SABRE	4858			✓	✓		✓	✓
PRIME	2745				✓	✓	✓	✓
Cam-CAN	2683	✓	✓	✓	✓		✓	✓
EPINEF	2008				✓	✓	✓	✓
PREVENT	700		✓	✓	✓		✓	✓

Clinical cohorts

Clinical cohorts include observational studies of patients with a diagnosis of dementia or related neurodegenerative disease, or, of individuals who carry genetic mutations that put them at increased risk.

Cohort name*	Baseline N	Crystallised IQ	Processing speed	Executive function	Visuospatial ability	Language	Memory
CHARIOT-PRO	700		✓	✓	✓	✓	✓
DIAN	437	✓	✓	✓		✓	✓
CHARIOT-PRO sub-study	225	✓	✓	✓		✓	✓
SMC Amyloid	120			✓	✓	✓	✓
DFP pilot	21						✓
Memento	2323		✓	✓	✓	✓	✓
Cygnus	500					✓	✓
HKU-NCDC	500				✓	✓	✓
GENFI	515	✓	✓	✓	✓	✓	✓
NIMROD	276		✓	✓	✓		✓
LEWY-PRO	100		✓	✓	✓	✓	
AMPLE	80		✓	✓	✓	✓	
TRACK-HD	366		✓		✓		✓
OPDC Discovery	1589			✓			
ICICLE-PD	318		✓	✓	✓	✓	✓
PICNICS	282			✓	✓		✓
Campaign	142	✓		✓		✓	✓

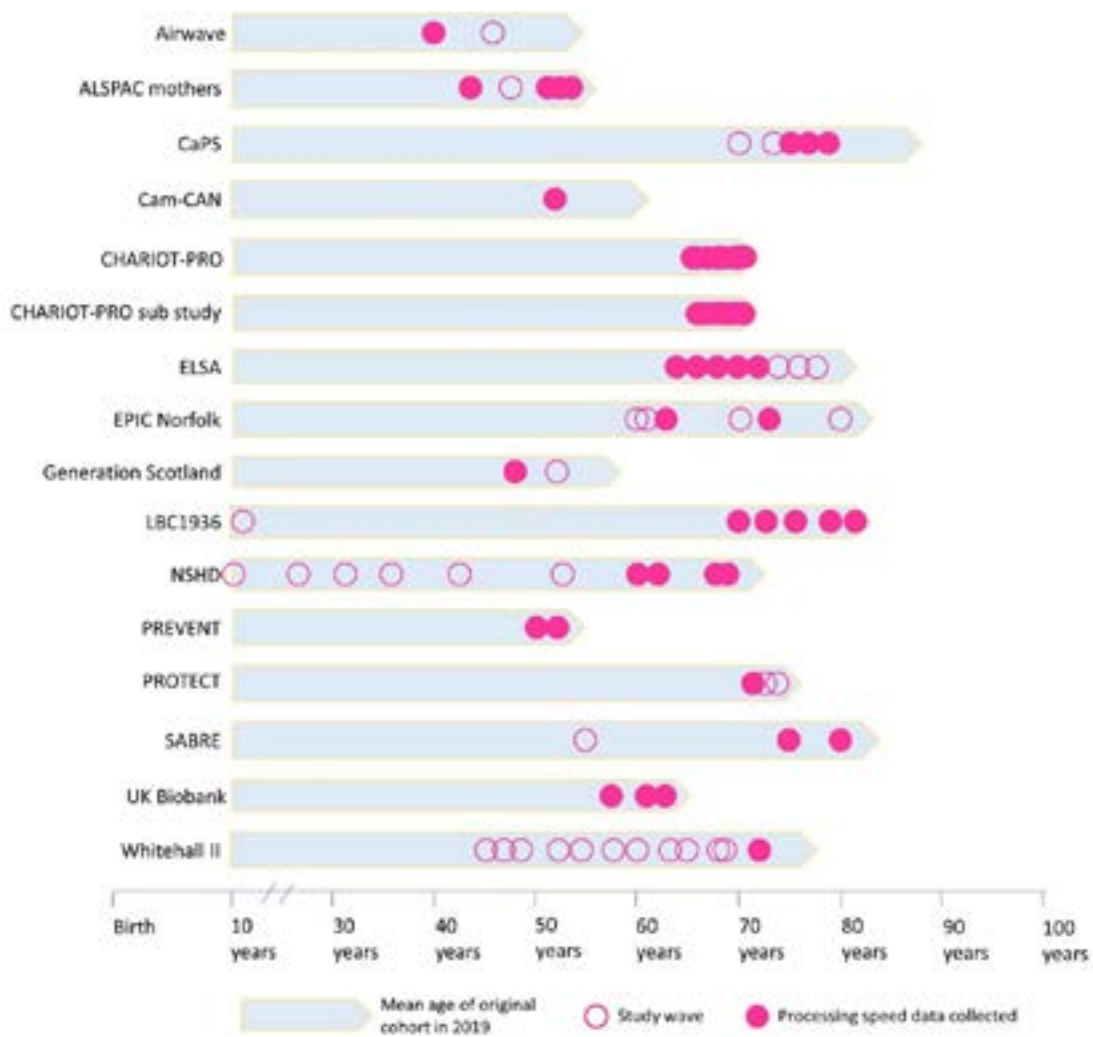
Alzheimer's cohorts
 Mild cognitive impairment
 Dementia subtypes

 Huntington's
 Parkinson's

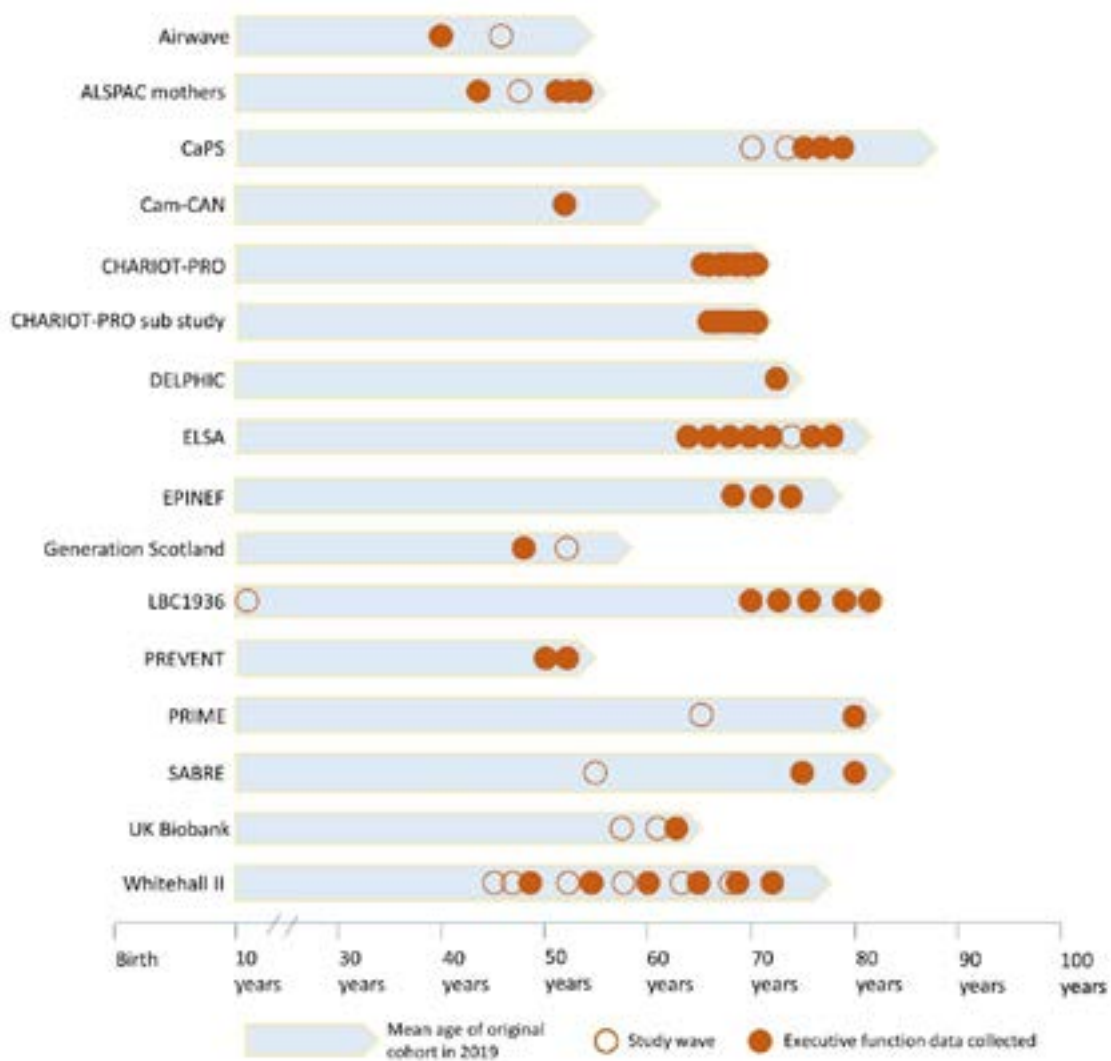
*Clinical cohorts not in this table are BDR and GERAD, which included no cognitive domain-specific tests.

Timelines of specific cognitive domain tests delivered in population cohorts

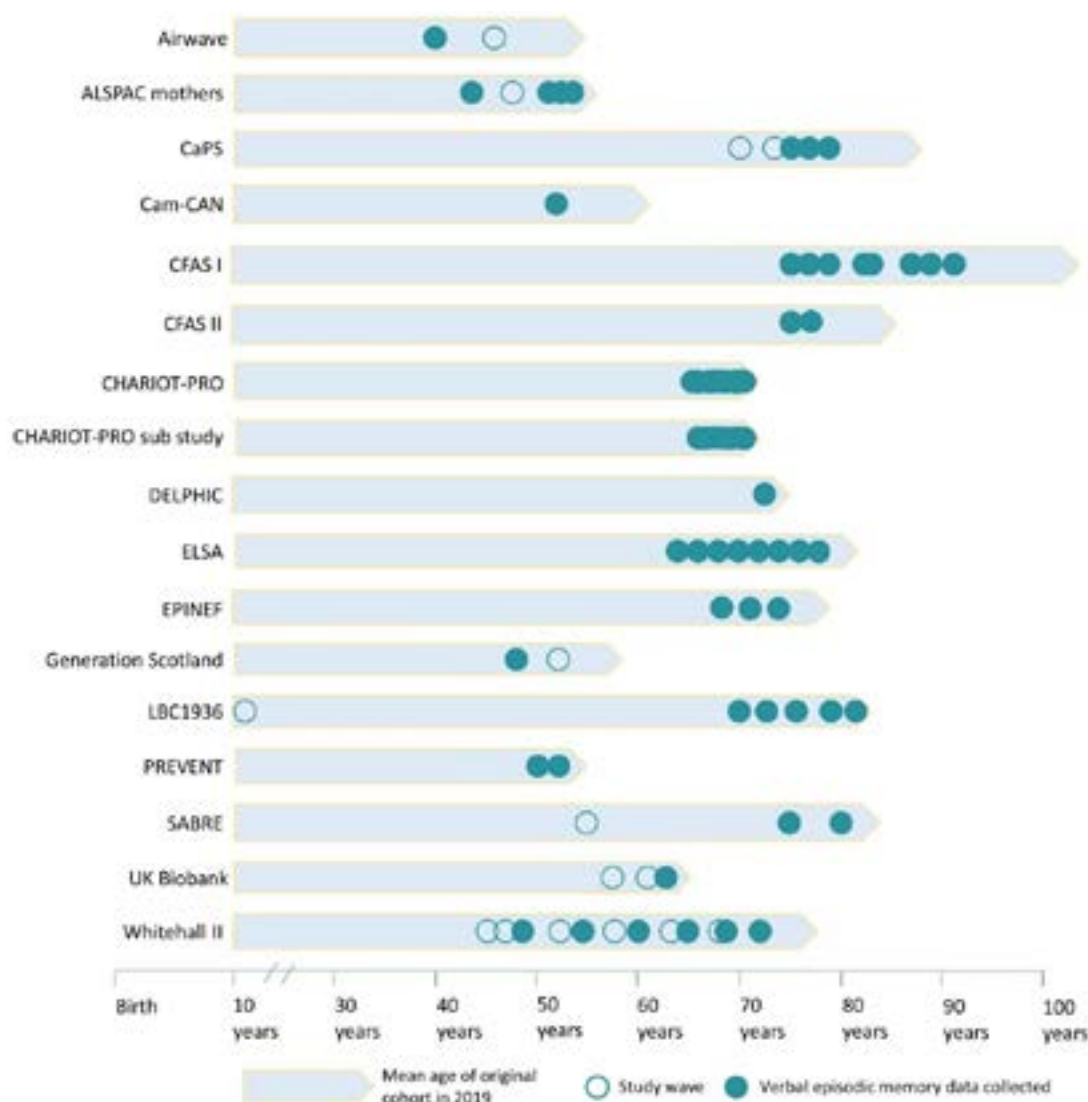
Processing speed data collection by age of population cohort



Executive function data collection by age of population cohort



Verbal episodic memory data collection by age of population cohorts





Dementias
Platform^{UK}
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