OXFORD UNIVERSITY PRESS | International Journal of Epidemiology

Data Resource Profile: Adult Psychiatric Morbidity Survey (APMS)

Journal:	*International Journal of Epidemiology*
Manuscript ID	IJE-2019-05-0625.R1
Manuscript Type:	Data Resource Profile
Date Submitted by the Author:	n/a
Complete List of Authors:	McManus, Sally; National Centre for Social Research Bebbington, P; University College London, Division of Psychiatry Jenkins, Rachel; King's College London, Health Services and Population Research Morgan, Zoe; University of Leicester Brown, Laura; National Centre for Social Research, Health and Biosocial Team Collinson, Dan; NHS Digital Brugha, Traolach; University of Leicester, Department of Health Sciences
Key Words:	Mental health, General population survey, Treatment access, Self-harm

Data Resource Profile: Adult Psychiatric Morbidity Survey (APMS)

Sally McManus*[1], Paul E Bebbington[2], Rachel Jenkins[3], Zoe Morgan[4], Laura Brown[1], Dan Collinson[4], Traolach Brugha[5]

[1] National Centre for Social Research, 35 Northampton Square, London, EC1V 0AX, UK
[2] Division of Psychiatry, University College London, UK
[3] Health Services and Population Research, IoPPN, Kings College London, UK
[4] Community and Mental Health, NHS Digital, Leeds, UK
[5] Department of Health Sciences, University of Leicester, UK

*Corresponding author: Sally McManus sally.mcmanus@natcen.ac.uk 020 7549 7045

Key words: Mental health, Self-harm, General population survey, Treatment access

Word count: 2697 (including the nutshell, excluding references)

Data Resource Basics

The Adult Psychiatric Morbidity Survey (APMS) monitors the prevalence of mental illness and access to treatment in the general population for England's National Statistics. The primary aims of the survey series are:

- To estimate the prevalence of different common and rare mental disorders in the general population.
- To measure the gap between presence of disorder and receipt of treatment.
- To produce trends over time in prevalence and treatment use.
- To allow the circumstances of people with mental disorders to be compared with those without disorder.

The series consists of four repeat cross-sectional surveys. The first two were carried out by the Office for National Statistics (ONS) in 1993 [1] and 2000 [2], and covered England, Scotland and Wales. The 2007 [3] and 2014 [4] surveys were carried out by the National Centre for Social Research, covered England only, and had no upper age limit on participation (which was 64 in 1993 and 74 in 2000). A 2021 survey is planned. Each survey consisted of two phases, with the second phase interview being conducted with a sub-sample of phase one participants by clinically trained interviewers. These were coordinated by the University of Leicester. England's Department of Health and Social Care has been the main funder throughout the survey series, with the most recent surveys commissioned via NHS Digital. Each survey underwent the relevant ethical review, most recently with the West London National Research Ethics Committee 14/LO/0411.

The general population surveys are part of a wider series of surveys of the mental health of specific populations. These have included people living in institutions [5], the homeless population [6], prison population [7], carers [8], and minority ethnic groups [9]. There has also been a series of mental health surveys of children and young people in England [10; 11], and these are described in a separate Data Resource Profile [12].

Sample design

Each wave of the APMS used a similar stratified random probability sampling design to produce a sample representative of the population living in private households. The first stage of sampling involved selection of addresses from the Postcode Address File, which covers around 97% of households in England [13]. People living in communal or institutional establishments, temporary housing, or sleeping rough, were not sampled. While mental illness rates may be elevated in these populations [14], they comprise less than 2% of the population and their exclusion should not impact on overall estimates [15].

After the mailing of invitation letters with information about the survey, trained interviewers visited addresses to identify private households with at least one resident aged 16 or more.

One adult was randomly selected in each eligible household. Fieldwork took place April to November 1993, March to September 2000, October 2006 to December 2007, and May 2014 to September 2015. Response rates are given in Table 1. In 1993 10,108 people aged 16-64, and in 2000 8,886 aged 16-74, were interviewed in England, Scotland, and Wales. In 2007 there were 7,461 participants aged 16 and over, and in 2014 7,546, in England only. Weights took account of selection probabilities (such as the under-sampling of those living multi-person households) and non-response, to render results representative of the household population aged 16 or more at the time of each survey. Population control totals were obtained from the ONS mid-year population estimates for age-by-sex and region. The full weighting strategy is described in the survey reports.

[TABLE 1 HERE]

The approach taken to selecting phase one participants to invite for a phase two assessment varied between survey waves. In 1993 and 2000, all those screening positive for psychosis or a personality disorder were followed up for phase two. In 2007 and 2014 more granular sampling fractions were applied. Further refinements to the sampling fractions were applied in the 2014 survey, including introducing different sampling fractions for men and women. For each 2014 phase one participant the probability of selection for a phase two assessment was calculated as the highest of two disorder-specific probabilities: psychosis probability and ASD probability. These disorder-specific probabilities of selection to phase two were then corrected for in disorder-specific weights.

Data Collection

Phase one interviews were conducted by trained research interviewers in people's own homes and averaged 1.5 hours. The phase two interviews were also carried out in participants' homes and took a similar amount of time. A small token of appreciation was given to participants in each phase. Since 2000, interviews were conducted using computer-assisted personal interview, whereas in 1993 data collection was by pen and paper. Most of the questionnaire was administered face-to-face, with some sensitive information collected through self-completion.

Assessment of mental disorders

People were assessed or screened for a range of different types of mental disorder, from common conditions like depression and anxiety disorders through to rarer neurological and mental conditions such as psychotic disorder. A summary of the measures used to assess or screen for each of the mental disorders included in the most recent survey (APMS 2014) is provided in Table 2. There was minor variation between surveys in the disorders covered and the methods used: these are summarised in Table 2 and detailed in the 2014 survey report.

[TABLE 2 HERE]

Coverage of risk factors and context

The long questionnaire also covered many aspects of people's lives that are linked to their mental health. This information can be used to profile the circumstances and inequalities experienced by people with mental disorders. Table 3 summarises the topic coverage of the 1993, 2000, 2007 and 2014 APMS phase one questionnaires. The aim has been to have consistent core coverage, with additional modules covered in different years.

[TABLE 3 HERE]

Key variations across the survey series

A primary purpose of the survey series is to assess change in the population prevalence of disorders over time. Comparability with previous surveys was therefore a priority, and both the questionnaire and the approach taken to its administration were largely the same each time. However, some changes in coverage and method were required, as summarised below. They were made following consultation with data users and potential data users.

Area: The 1993 and 2000 surveys covered England, Scotland and Wales, while the 2007 and 2014 surveys covered England only.

Age range: APMS 2007 and 2014 sampled adults aged 16 and over with no upper age limit. APMS 2000 included adults aged 16–74 and APMS 1993 covered adults aged 16–64.

New topics were included for the first time in the 2014 survey:

- Sensory impairment
- Previous diagnosis of mental illness and learning impairment
- Bipolar disorder
- Child neglect
- Menopause
- Sexual behaviour.

Existing modules amended: A detailed list of questionnaire content and changes is provided with the archived dataset, including information about the rationale for changes. In summary, amendments made to modules that were made to the 2014 questionnaire include:

- Mental wellbeing: single item measures were replaced with the validated 14 item Warwick Edinburgh Mental Well-Being Scale (WEMWBS) [28]
- Caring responsibilities: additional questions were asked about the nature of the relationship between the participant and the person they provide care for.
- Medications and service use: an extended list of medications and services were asked about, to reflect changes in prescribing practice and services available; new questions were added on requesting treatment.
- Common mental disorder: questions on social phobia were added (the mini Social Phobia Inventory [17]).

- Work-related stress: the module was extensively revised, including adding additional questions on bullying in the workplace.
- Tobacco: new questions were added on smoking cessation and e-cigarettes.
- Personality disorder*:* the addition of a screen for any personality disorder (SAPAS).
- Suicidal behaviour and self-harm: while some questions were retained in the face-to-face section of the interview, most were moved into the self-completion section.
- Drug use: new questions were added on use of ketamine and mephedrone.
- PTSD: the screening tool changed to the PTSD-Check List (PCL) for better comparability with other surveys.
- Military experience: additional questions on deployment were added.
- Interpersonal violence and abuse: additional questions about the assailant were added.
- Key life events: changes were made to the questions about key life events to make clearer when the events had taken place.
- Religion: questions on spirituality were replaced with questions about belief.
- Poverty: questions were added on material deprivation.

Quality control measures included in-built soft checks and hard checks in the computer questionnaire programme. Telephone checks were carried out with participants living at 10% of phase one productive households, to ensure that the interview had been conducted in a proper manner. There was supervision of the phase two research psychologists by a senior research psychologist.

Data Resource Use

As a wide-ranging survey with data open to researchers from different countries and academic fields, APMS has been used by people working in central and local government, as well as in clinical and academic research. We are aware of more than 250 publications featuring APMS data. A full publication list is available: https://mentalhealthsurveys.org/journal-papers/.

The survey series has been used to establish the prevalence of people living with specific conditions and disorders. For example, Brugha and colleagues used data from the 2007 survey to estimate, for the first time, that the prevalence of autism in adults living in the community in England was 9.8 per 1000 [29]. They showed that the prevalence of ASD in adults and children is similar. The lack of an association with age is consistent with there having been no increase in prevalence and with its causes being temporally constant. Adults

with ASD living in the community were shown to be socially disadvantaged and their autism tends to be unrecognized.

Because the series consists of repeated cross-sectional surveys carried out over many years, it is ideal for examining trends in prevalence and treatment over time. Spiers and colleagues used APMS data to show that prevalence of CMD was consistent (1993: 14.3%; 2000: 16.0%; 2007: 16.0%), as was past-year primary care physician contact for psychological problems (1993: 11.3%; 2000: 12.0%; 2007: 11.7%) [30]. However, they also found that antidepressant receipt in people with CMD more than doubled between 1993 (5.7%) and 2000 (14.5%), with little further increase by 2007 (15.9%) and that psychological treatments increased in successive surveys. The results showed that reduction in prevalence did not follow increased treatment uptake, which may require universal public health measures together with individual pharmacological, psychological and computer-based interventions. Similar trend analyses have focused on related conditions and behaviours, for example showing a steep increase in non-suicidal self-harm in England between 2000 and 2014 [31].

Strengths and Weaknesses

The APMS survey series provides England's National Statistics on the prevalence of treated and untreated mental disorder in the adult population. It has established that at any one time one in six of the adult population in England had a common mental disorder (CMD) such as anxiety or depression, and that women were more likely than men to have symptoms. Including other conditions, such as psychosis and substance dependence, the rate is more like one in four [32]. When assessed in 2014, 39% of adults aged 16-74 with CMD were accessing mental health treatment. This figure had increased substantially, from one in four in the 2007 survey.

A strength of the survey series is that by sampling from the general population rather than from lists of people in contact with mental health services, APMS data can be used to examine the 'treatment gap'. The use of validated mental disorder screens and assessments allows for identification of people with sub-threshold symptoms and those with an undiagnosed disorder.

The questionnaire collects details of social and economic circumstances, information which does not tend to be collected in a consistent or comprehensive way in administrative datasets. The use of a computer assisted self-completion module to cover the most sensitive topics means that the survey includes information that some participants may have never disclosed before.

At the end of the survey a question is asked about permission for follow-up and data linkage. The study therefore presents an opportunity for longitudinal data collection and a sampling frame that allows a random sample of people with very specific experiences, who may not otherwise have been identifiable, to be invited for further research. The datasets are deposited at the UK Data Service, and are designed to be suitable for extensive further analysis.

The survey series has limitations. The sampling frame covers only those living in private households. Those living in institutional settings such as care homes, offender institutions, prisons, or in temporary housing or sleeping rough were not approached for selection. People living in such settings are likely to have worse mental health than those living in private households.

Some people selected could not be contacted or refused to take part. Adults with severe mental health problems who do live in private households may be less available or willing to respond to surveys. Some people selected were not able to tolerate a long interview. These include those with serious physical health conditions or who were staying in hospital, and those with impaired mental capability.

Survey assessments of mental disorder may not be as reliable as a clinical interview. Clinical assessment by a trained psychologist or psychiatrist may take place over many sessions, on the basis of which clinical judgement is applied to reach a diagnosis. Clearly this is not possible in the context of a questionnaire administered by lay interviewers. However, the assessments used have been validated and are among the best available for the purpose at hand. Rather than focus on the prevalence estimated for each disorder, the greater value of the survey is being able to examine how rates vary over time and between groups in the population.

The number of positive cases in the sample is inevitably small for low prevalence disorders, limiting the scope for subgroup analysis. Confidence intervals for low prevalence estimates can be wide. Given methods have remained consistent across the surveys however, this limitation can be addressed by pooling sample from more than one wave for analysis.

Data Resource Access

The dataset undergoes a review process to ensure it can be shared with minimal disclosure risk. Variables and topics are assessed for their disclosure risk in conjunction with guidance on the external release of survey data. Some raw variables are adjusted via top coding or re-grouping. Other variables or sets of questions are removed entirely: for example, the individual medication codes are not available in the archive version of the 2014 dataset.

The 1993, 2000, and 2007 datasets can be accessed directly from the UK Data Service website under End User License. Once registered, members of research institutions and non-profit organisations can download these datasets immediately and without charge. The datasets are available in a variety of formats, including SPSS and Stata. The links in Table 4 will direct readers to where the data and documentation can be accessed, including variable lists and data dictionaries.

[TABLE 4 HERE]

NHS Digital approval is required before the 2014 dataset can be downloaded from the UK Data Service archive. Users need to inform NHS Digital what the data will be used for and what outputs will be produced, and they will need to meet certain security standards for data storage. To apply for NHS Digital approval to use APMS 2014, applications can be submitted via the NHS Digital Data Access Request Service (**DARS**). For further information about this process: Contact NHS-Digital

APMS in a nutshell

• The APMS series is commissioned by NHS Digital, with funds from the Department of Health and Social Care in England, to estimate the prevalence of treated and untreated mental disorders in England, and to examine inequalities in disorder rates and treatment use.

• The series consists of repeated cross-sectional probability sample surveys of adults living the general population, carried out in Britain in 1993 (with 16 to 64 year olds) and 2000 (16 to 74 year olds), and with adults aged 16 or more in England-only in 2007 and 2014. The next survey is planned for 2021.

• Each survey involved a phase one structured interview with the total sample (7-8,000 adults), and a phase two semi-structured interview with a subsample of participants (around 6-700 adults).

• Participants were assessed or screened for a range of mental disorders and conditions, including depression and anxiety disorders, autism and psychotic disorder, using diagnostic criteria. Contextual social, economic and health information was also collected.

• Data from the 1993, 2000 and 2007 surveys can be downloaded directly from the UK Data Service archive: https://beta.ukdataservice.ac.uk/datacatalogue/series/series?id=2000044#!/access
NHS Digital approval is needed to use APMS 2014, which can be applied for online: Contact NHS-Digital.

References

[1] Meltzer H, Gill B, Petticrew M and Hinds K (1995) *OPCS Surveys of Psychiatric Morbidity in Great Britain, Report 1: the prevalence of psychiatric morbidity among adults living in private households*, HMSO: London. http://doi.org/10.5255/UKDA-SN-3560-1

[2] Singleton N, Bumpstead R, O'Brien M, Lee A, Meltzer H. *Psychiatric morbidity among adults living in private households, 2000.* HMSO: London 2001.

[3] McManus S, Meltzer H, Brugha T, Bebbington P, Jenkins R. *Adult Psychiatric Morbidity in England, 2007: results of a household survey*. Leeds: HSCIC 2009.

[4] McManus S, Bebbington P, Jenkins R, Brugha T. (eds) (2016) *Mental health and wellbeing in England: Adult Psychiatric Morbidity Survey 2014*. Leeds: NHS Digital 2016.

[5] Meltzer H, Gill B, Hinds K and Petticrew M (1996) *OPCS Surveys of Psychiatric Morbidity in Great Britain, Report 4: The prevalence of psychiatric morbidity among adults living in institutions*. HMSO: London.

[6] Gill B, Meltzer H, Hinds K and Petticrew M (1996) *OPCS Surveys of Psychiatric Morbidity in Great Britain, Report 7: Psychiatric morbidity among homeless people*, HMSO: London.

[7] Melzer D, Tom B, Brugha T, Fryers T, Grounds A, Johnson A, Meltzer H and Singleton N (2000) *The longitudinal study of psychiatric morbidity among prisoners in England and Wales*. Report to the Department of Health Policy Research Programme.

[8] Singleton S, Aye Maung N, Cowie A, Sparks J, Bumpstead R and Meltzer H (2002) *Mental Health of Carers*, London: TSO.

[9] Sproston K, Nazroo J, (eds). *Ethnic Minority Psychiatric Illness Rates in the Community (EMPIRIC)*. London: TSO, 2002.

[10] Sadler K, Vizard T, Ford T, Marcheselli F, Pearce N, Mandalia D, Davis J, Brodie E, Forbes N, Goodman A, Goodman R, McManus S. (2018) *Summary report: Mental Health of Children and Young People in England 2017*. Leeds: NHS Digital. https://files.digital.nhs.uk/F6/A5706C/MHCYP 2017 Summary.pdf

[11] Meltzer H, Lader D, Corbin T, Goodman R and Ford T (2004) *The mental health of young people looked after by local authorities in England*, London: TSO. http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsStatistics/DH_4019442

[12] Ford T (submitted) Data Resource Profile: Mental Health of Children and Young People Survey. *International Journal of Epidemiology.*

[13] ONS (2014) *The Coverage of the Postcode Address File and Address Base for Sampling*.

[14] Jenkins R, Meltzer H, Bebbington P, Brugha T, Farrell M, McManus S, Singleton N. The British Mental Health Survey Programme: achievements and latest findings. *Social Psychiatry and Psychiatric Epidemiology*. 2009: 44: 899-904.

[15] ONS (2015) *2011 Census Analysis: What Does the 2011 Census Tell Us About People Living in Communal Establishments?*

[16] Lewis G, Pelosi AJ, Araya R, Dunn G. Measuring psychiatric disorder in the community; a standardised assessment for use by lay interviewers. *Psychological Medicine, 1992;* 22: 465–486.

[17] Weeks J, Spokas M, Heimberg RG. Psychometric evaluation of the mini-social phobia inventory (Mini-SPIN) in a treatment-seeking sample. *Depression and Anxiety,* 2007; 24(6): 382–392.

[18] Saunders JB, Aasland OG, Babor TF, Dela Fuente JR, Grant M. Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO collaborative project on early detection of persons with harmful alcohol consumption, part II. *Addiction*, 1993; 88: 791–804.

[19] Stockwell T, Sitharan T, McGrath D, Lang. The measurement of alcohol dependence and impaired control in community samples. *Addiction*, 1994; 89: 167–174.

[20] Malgady RG, Rogler LH, Tryon WW (1992). Issues of validity in the Diagnostic Interview Schedule. *Journal of Psychiatric Research,* 26: 59–67.

[21] World Health Organisation (1999) *SCAN Schedules for Clinical Assessment in Neuropsychiatry Version 2.1*, World Health Organisation: Geneva.

[22] Moran P, Leese M, Lee T, Walters P, Thornicroft G, Mann A. Standardised Assessment of Personality – Abbreviated Scale (SAPAS): preliminary validation of a brief screen for personality disorder. *British Journal of Psychiatry,* 2003; 183: 228–32.

[23] First MB, Gibbon M, Spitzer RL, William JBW and Benjamin L (1997) *Structured Clinical Interview for DSM – IV Axis II Personality Disorders,* American Psychiatric Press: Washington.

[24] Blanchard EB, Jones-Alexander J, Buckley TC, Forneris CA. Psychometric properties of the PTSD checklist (PCL). *Behaviour Research and Therapy,* 1996; 34: 669–673.

[25] World Health Organisation (2003) *Adult ADHD Self-Report Scale-V1.1 (ASRS-V1.1) Screen.* WHO Composite International Diagnostic Interview. World Health Organization.

[26] Hirschfeld RM, Williams JB, Spitzer RL, et al. Development and validation of a screening instrument for bipolar spectrum disorder: the Mood Disorder Questionnaire. *American Journal of Psychiatry*, 2000; 157(11): 1873–5.

[27] Lord C, Risi S, Lambrecht L, Cook EH Jr, Leventhal BL, DiLavore PC, Pickles A, Rutter M. The autism diagnostic observation schedule-generic: a standard measure of social and communication deficits associated with the spectrum of autism. *Journal of Autism and Developmental Disorders*, 2002; 30: 205–223.

[28] Tennant R, Hiller L, Fishwick R, et al. The Warwick-Edinburgh Mental Well-being Scale (WEMWBS): development and UK validation. *Health and Quality of Life Outcomes*. 2007; 5: 63.

[29] Brugha TS, McManus S, Bankart J, Scott F, Purdon S, Smith J, Bebbington P, Jenkins R, Meltzer H. The epidemiology of autism spectrum disorders in adults in the community in England. *Archives of General Psychiatry*, 2011; 68: 459-465.

[30] Spiers N, Qassem T, Bebbington PE, McManus S, King M, Jenkins R, Brugha TS. Increasing treatment, continuing burden: the prevalence and treatment of common mental disorders in the English national population, 1993 to 2007. *British Journal of Psychiatry* 2016 209, 150-6.

[31] McManus S, Gunnell D, Cooper C, Bebbington PE, Howard L, Brugha TS, Jenkins R, Hassiotis A, Weich S, Appleby L. Trends in non-suicidal self-harm prevalence, motivations, methods, and service contact in England 2000-2014: repeated cross-sectional surveys of the general population. *Lancet Psychiatry.* 2019 6 (7) 573-581.

[32] Bebbington P and McManus S (in press). Revisiting the 1-in-4: the prevalence of psychiatric disorder in the population of England 2000-2014. *BJPsych*

Table 1. APMS response rate

	1993	2000	2007	2014
Target households	12730	12792	13171	13313
Interviewed adults	10108	8886	7461	7546
Response rate	79%	69%	57%	57%

Table 2. Mental disorder assessment on APMS

Condition	Diagnostic status	Classification system	Assessment tool	Survey phase	Reference period
Generalised anxiety disorder (GAD)	Present to diagnostic criteria	ICD-10	Clinical Interview Schedule revised CIS-R [16]	One	Past week
CMD not otherwise specified (NOS)	Present to diagnostic criteria	ICD-10	CIS-R	One	Past week
Obsessive and compulsive disorder (OCD)	Present to diagnostic criteria	ICD-10	CIS-R	One	Past week
Depressive episode	Present to diagnostic criteria	ICD-10	CIS-R	One	Past week
Panic disorder	Present to diagnostic criteria	ICD-10	CIS-R	One	Past week
Phobia	Present to diagnostic criteria	ICD-10	CIS-R; Mini-SPIN [17]	One	Past week
Alcohol use disorders	Screen positive	ICD-10	Alcohol Use disorders Identification Test (AUDIT) [18]; Severity of Alcohol Dependence Questionnaire (SADQ) [19]	One	Past six months/ year
Drug dependence	Screen positive	–	Based on Diagnostic Interview Schedule [20]	One	Past year
Psychotic disorder	Present to diagnostic criteria	ICD-10	Schedule for Clinical Assessment in Neuropsychiatry (SCAN) [21]	One/ two	Past year
Any personality disorder	Screen positive	-	Standardised Assessment of Personality – Abbreviated Scale (SAPAS) [22]	One	Lifetime
Borderline personality disorder (BPD)	Present to diagnostic criteria	DSM-IV	Self-report Structured Clinical Interview for DSM for Personality disorder (SCID-II) [23]	One	Lifetime
Antisocial personality disorder (ASPD)	Present to diagnostic criteria	DSM-IV	Self-report SCID-II	One	Lifetime

Post-traumatic stress disorder (PTSD)	Screen positive	DSM-IV	PTSD-Check List [24]	One	Past week
Attention-deficit/hyper-activity disorder (ADHD)	Screen positive	DSM-IV	Adult Self-Report Scale-v1.1 [25]	One/ two	Past six months
Bipolar Disorder (BD)	Screen positive:	DSM-IV	Mood Disorder Questionnaire [26]	One	Lifetime
Attempted suicide	Occurrence of behaviour	–	Self-completion	One	Past year
Autism spectrum disorders	Present to diagnostic criteria	DSM-IV	Autism Diagnostic Observation Schedule (ADOS) [27]	One/ two	Lifetime

Table 3. Summary of APMS coverage in 1993, 2000, 2007 and 2014

Face to face interview	**1993**	**2000**	**2007**	**2014**
General health and wellbeing	–	•	•	•
Activities of daily living	–	–	•	•
Caring responsibilities	–	–	•	•
Service use and medication	•[a]	•	•	•
Self-perceived height and weight	–	–	•	–
Common mental disorders	•	•	•	•
Suicidal behaviour and self-harm	•[b]	•	•	•
Psychosis screening questionnaire	•	•	•	•
Attention-deficit/hyperactivity disorder	–	–	•	•
Work-related stress	–	–	•	•
Smoking	•	•	•	•
Drinking	•	•	•	•
Self-completion				
Problem drinking	•[c]	•	•	•
Drug use	•	•	•	•
Personality disorder	–	•	•	•
Social functioning	–	–	•	•
Problem gambling	–	–	•	–
Autism spectrum disorders	–	–	•	•
Posttraumatic stress disorder	–	–	•	•
Military experience	–	–	•	•
Bipolar disorder	–	–	–	•
Domestic violence, abuse and neglect	–	–	•	•
Suicidal behaviour and self-harm (repeated)	–	–	•	•
Eating disorder	–	–	•	–
Discrimination	–	–	•	•
Face to face interview				
Intellectual functioning:				
Modified Telephone Interview for Cognitive Status (TICS-M)	–	•	•	•
National Adult Reading Test (NART)	–	•	•	•
Animal naming test	–	•	•	•
Key life events	•	•	•	•
Social support networks	•	•	•	•
Religion	–	–	•	•
Social capital and participation	–	–	•	•
Socio-demographics	•	•	•	•

[a] In APMS 1993, only participants who screened positive for CMD were asked about use of services and receipt of treatment.

[b] In APMS 1993, only participants with depression in the past week were asked about suicidal behaviour.

[c] APMS 1993 data on problem drinking was not compatible with that collected in 2000, 2007 and 2014.

Table 4. Data access links and data origin identifiers

	DOI	Link
1993	http://doi.org/10.5255/UKDA-SN-3560-1	https://beta.ukdataservice.ac.uk/datacatalogue/studies/study?id=3560
2000	http://doi.org/10.5255/UKDA-SN-4653-1	https://beta.ukdataservice.ac.uk/datacatalogue/studies/study?id=4653
2007	http://doi.org/10.5255/UKDA-SN-6379-2	https://beta.ukdataservice.ac.uk/datacatalogue/studies/study?id=6379
2014	http://doi.org/10.5255/UKDA-SN-8203-1	https://beta.ukdataservice.ac.uk/datacatalogue/studies/study?id=8203

Pocket Profile template for Data Resources

Title: **Data Resource Profile: Adult Psychiatric Morbidity Survey (APMS)**

Authors: Sally McManus[1], Paul E Bebbington[2], Rachel Jenkins[3], Zoe Morgan[4], Laura Brown[1], Dan Collinson[4], Traolach Brugha[5]

Keywords: Mental health, Self-harm, General population survey, Treatment access

Corresponding author: Sally McManus sally.mcmanus@natcen.ac.uk

Cite this as: The full version of this profile is available at IJE online and should be used when citing this profile

Data Resource Basics: The Adult Psychiatric Morbidity Survey (APMS) series monitors the prevalence of mental illness and access to treatment in the general population in England. The series consists of repeated cross-sectional surveys. The first two were carried out in 1993 (10,108 participants) and 2000 (8,580), and covered England, Scotland and Wales. The 2007 (7,461) and 2014 (7,546) surveys covered England only, and had no upper age limit on participation (which was 64 in 1993 and 74 in 2000). A 2021 survey is planned.

Data Collected: Each APMS used a similar stratified random probability sampling design to produce a sample representative of the population living in private households. Trained interviewers visited addresses. One adult was randomly selected in each eligible household. Interviews were conducted face to face, with some sensitive information self-completed. Each survey involved two phases; the second phase interview being conducted with a sub-sample of phase one participants by clinically trained interviewers. A wide range of mental disorders and conditions were screened for or assessed.

Figure 1: Mental disorders and conditions covered on APMS 2014

Generalised anxiety disorder	Clinical Interview Schedule revised (CIS-R) [16]
CMD not otherwise specified	CIS-R
Obsessive and compulsive disorder	CIS-R
Depressive episode	CIS-R
Panic disorder	CIS-R
Phobias	CIS-R; Mini Social Phobia Inventory [17]
Alcohol use disorders	Alcohol Use disorders Identification Test [18]
Drug dependence	Based on Diagnostic Interview Schedule [20]
Psychotic disorder	Schedule for Clinical Assessment in Neuropsychiatry [21]
Any personality disorder	Standardised Assessment of Personality – Abbreviated Scale [22]
Borderline personality disorder	Self-report Structured Clinical Interview for DSM for Personality disorder (SCID-II) [23]

Antisocial personality disorder	Self-report SCID-II
Post-traumatic stress disorder	PTSD-Check List [24]
Attention-deficit/hyper-activity disorder	Adult Self-Report Scale-v1.1 [25]
Bipolar Disorder	Mood Disorder Questionnaire [26]
Attempted suicide	Self-completion
Autism Spectrum Disorder	Autism Diagnostic Observation Schedule [27]

Data Resource Use: The series has been used to establish the prevalence of people living with specific conditions and disorders. For example, Brugha and colleagues used weighted data from the 2007 survey to estimate, for the first time, that the prevalence of autism in adults living in the community in England was 9.8 per 1000 [1]. Because the series consists of repeated cross-sectional surveys, it is ideal for examining trends in prevalence and treatment over time. Spiers and colleagues used APMS data to show that prevalence of CMD was consistent (1993: 14.3%; 2000: 16.0%; 2007: 16.0%), as was past-year primary care physician contact for psychological problems (1993: 11.3%; 2000: 12.0%; 2007: 11.7%) [2]. Similar trend analyses have focused on related conditions and behaviours, identifying steep increases in non-suicidal self-harm in England [3]. A publication list is available: https://mentalhealthsurveys.org/journal-papers/.

Reasons to be cautious: The sampling frame covers only those living in private households. Those living in institutional settings such as care homes, offender institutions, prisons, or in temporary housing or sleeping rough were not approached for selection. Adults with severe mental health problems who do live in private households may be less available or willing to respond to surveys. Survey assessments of mental illness may not be as reliable as a clinical interview. The number of positive cases in the samples was inevitably small for low prevalence disorders, limiting the scope for subgroup analysis. Confidence intervals for low prevalence estimates can be wide. Combining sample across waves improves the power for such analyses.

Collaboration and data access: The 1993, 2000, and 2007 datasets can be accessed directly and without charge from the UK Data Service website (https://www.ukdataservice.ac.uk/). NHS Digital approval is required before the 2014 dataset can be downloaded: applications can be submitted via the NHS Digital Data Access Request Service (**DARS**). For further information about this process: Contact NHS-Digital .

Funding and competing interests: England's Department of Health and Social Care has been the main funder throughout the survey series, with the most recent surveys commissioned via NHS Digital. The authors have no competing interests.

Author affiliations: [1]National Centre for Social Research, 35 Northampton Square, London, EC1V 0AX, UK; [2]Division of Psychiatry, University College London, UK; [3]Health Services

and Population Research, IoPPN, Kings College London, UK; [4]Community and Mental Health, NHS Digital, Leeds, UK; [5]Department of Health Sciences, University of Leicester, UK.

References:

[1] Brugha TS, McManus S, Bankart J, Scott F, Purdon S, Smith J, Bebbington P, Jenkins R, Meltzer H. The epidemiology of autism spectrum disorders in adults in the community in England. *Archives of General Psychiatry*, 2011; 68: 459-465.

[2] Spiers N, Qassem T, Bebbington PE, McManus S, King M, Jenkins R, Brugha TS. Increasing treatment, continuing burden: the prevalence and treatment of common mental disorders in the English national population, 1993 to 2007. *British Journal of Psychiatry* 2016; 209, 150-6.

[3] McManus S, Gunnell D, Cooper C, Bebbington PE, Howard L, Brugha TS, Jenkins R, Hassiotis A, Weich S, Appleby L. Trends in non-suicidal self-harm prevalence, motivations, methods, and service contact in England 2000-2014: repeated cross-sectional surveys of the general population. *Lancet Psychiatry*. 2019; 6 (7) 573-581.