

**Codebook**  
Harmonised ExPoSE England Dataset  
V. 1.1

<b>Dataset name:</b>	DATA_EN
<b>Dataset size:</b>	101.6 Mb
<b>Column count:</b>	111
<b>Row count:</b>	168,296
<b>Updated date:</b>	2024-10-29
<b>Changes from version 1.1</b>	<p>Total cholesterol values in 2017 corrected to eliminate an unwarranted adjustment previously applied.</p> <p>Sampling weights for laboratory in 2005 adjusted to take into account that only subjects 65 years and older had their blood analysed.</p> <p>Description of income quintiles corrected to indicate that they are based on the equivalized income (no change in data).</p> <p>Added new variables: <i>heartmed</i>, <i>heartmed2</i>, <i>exercisefreq_e</i>, <i>glyhb_h</i>, <i>hbA1c</i>.</p>

1	Column name:	country_ISO		
	Column description:	Country ISO code		
	Data type:	Factor		
	Unique non-missing value count:	1		
	Missing value count:	0		
	Categories	Frequency	Cumulative Frequency	Percent
	GBR	168,296	168,296	100.00

<b>2</b>	<b>Column name:</b>	<b>country_name</b>
	Column description:	Country name
	Data type:	Factor
	Unique non-missing value count:	1

Missing value count:	0		
Categories	Frequency	Cumulative Frequency	Percent
England	168,296	168,296	100.00

3	Column name:	source		
	Column description:	Data source		
	Data type:	Factor		
	Unique non-missing value count:	17		
	Missing value count:	0		
	Categories with Smallest Values	Frequency	Categories with Largest Values	Frequency
	HSE 2009	4645	HSE 2006	14142
	HSE 2007	6882	HSE 2003	14836
	HSE 2002	7393	HSE 2008	15098
	HSE 2005	7630	HSE 2001	15634
	HSE 2017	7997	HSE 1998	15802

4	Column name:	year		
	Column description:	Year of data collection - Survey median		
	Data type:	Numeric		
	Unique non-missing value count:	17		
	Missing value count:	0		
	Min	Mean	Median	Max
	1998.00	2007.53	2008.00	2017.00
				SD
				5.66

5	Column name:	pid		
	Data type:	Numeric		
	Source information:	Generated in the harmonised dataset to be unique for each individual in the dataset.		
	Unique non-missing value count:	168,296		
	Missing value count:	0		

Min	Mean	Median	Max	SD
19981.00	45663875.48	20094344.50	200815098.00	65732282.95

6	Column name:	psu
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Column description: Primary Sampling Unit (PSU)

Source information: Generated in the harmonised dataset to be unique. Codes are not linked across sources, i.e. it is possible that different codes are used to indicate the same PSU in two different source datasets.

Data type: Numeric

Unique non-missing value count: 11,162

Missing value count: 0

Min	Mean	Median	Max	SD
19981.00	5308736.71	2007556.00	20101839.00	7105865.99

7	Column name:	stratum
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Column description: Sampling stratum

Source information: It is recommended to use the Government Office Region (GOR) as the stratum for trend analyses over time to ensure that there are at least 2 PSUs per stratum for calculation of variance. Individuals with a missing GOR were dropped from the analysis (106 individuals in 1998)

Data type: Factor

Unique non-missing value count: 9

Missing value count: 0

Categories	Frequency	Cumulative Frequency	Percent
1	11,878	11,878	7.06
2	23,586	35,464	14.01
3	17,038	52,502	10.12
4	16,009	68,511	9.51
5	17,174	85,685	10.20
6	19,068	104,753	11.33

7	19,770	124,523	11.75
8	25,319	149,842	15.04
9	18,454	168,296	10.97

8	Column name:	aweight_en_int		
	Column description:	Sampling weight: Interview		
	Source information:	Interview weights from the original surveys (wt_int). To be used for analyses involving only variables in the individual questionnaire or height, weight and BMI.		
	Data type:	Numeric		
	Unique non-missing value count:	77,021		
	Missing value count:	0		
	Min	Mean	Median	Max
	0.28	1.00	1.00	9.89
				SD
				0.31

9	Column name:	aweight_en_int_cvd		
	Column description:	Sampling weight: Interview, CVD analysis		
	Source information:	Based on the interview weights from the original surveys. However, for 2006, weights are the sample 2 interview weights for those aged 65+ who were asked the CVD questions and exclude those not given the CVD module (sample 1). To be used for analyses of the individual questionnaire that involve CVD module variables such as prior CVD and diabetes diagnoses, etc.		
	Data type:	Numeric		
	Unique non-missing value count:	60,112		
	Missing value count:	64,740		
	Min	Mean	Median	Max
	0.20	1.00	1.00	10.37
				SD
				0.41

10	Column name:	aweight_en_nonlab		
	Column description:	Sampling weight: non-lab risk score		
	Source information:	Nurse interview weight (wt_nurse) from the HSE survey. To be used for analyses involving variables		

from the nurse interview such as blood pressure, waist and hip measurements and prescribed medications, including analyses involving the non-laboratory CVD risk scores.

Data type: Numeric

Unique non-missing value count: 82,493

Missing value count: 39,041

Min	Mean	Median	Max	SD
0.23	1.00	1.00	14.29	0.38

11	Column name:	aweight_en_nonlab_cvd
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Column description: Sampling weight: non-lab risk score, CVD analysis

Source information: To be used in analyses involving non-lab CVD risk score or nurse interview variables that also include questions from the CVD module in 2006 (see note on aweight\_en\_nonlab)

Data type: Numeric

Unique non-missing value count: 81,625

Missing value count: 40,251

Min	Mean	Median	Max	SD
0.23	1.00	1.00	14.29	0.38

12	Column name:	aweight_en_lab
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Column description: Sampling weight: laboratory risk score

Source information: Blood sample weight (wt\_blood) from the HSE survey. To be used for analyses involving variables from the blood sample such as HbA1c and total cholesterol.

Data type: Numeric

Unique non-missing value count: 60,111

Missing value count: 64,740

Min	Mean	Median	Max	SD
0.20	1.00	1.00	10.37	0.41

13	Column name:	aweight_en_lab_cvd
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Column description:	Sampling weight: laboratory risk score, CVD analysis
Source information:	To be used in analyses involving the laboratory CVD risk scores or in analyses of blood sample variables that also include questions from the CVD module in 2006 (see note on <code>aweight_en_lab</code> ).
Data type:	Numeric
Unique non-missing value count:	59,434
Missing value count:	65,635

Min	Mean	Median	Max	SD
0.20	1.00	1.00	10.37	0.41

<b>14</b>	<b>Column name:</b>	<b>geolevel1_name</b>
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Column description:	Administrative level 1 - Name
Source information:	Government office region. Merseyside was merged with North West in 1998.
Data type:	Factor
Unique non-missing value count:	9
Missing value count:	0

Categories	Frequency	Cumulative Frequency	Percent
East Midlands	17,174	17,174	10.20
Eastern	19,068	36,242	11.33
London	19,770	56,012	11.75
North East	11,878	67,890	7.06
North West & Merseyside	23,586	91,476	14.01
South East	25,319	116,795	15.04
South West	18,454	135,249	10.97
West Midlands	16,009	151,258	9.51
Yorkshire & The Humberside	17,038	168,296	10.12

<b>15</b>	<b>Column name:</b>	<b>geolevel1_code</b>
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Column description:	Administrative level 1 - Code
Source information:	Government office region. Merseyside was merged with North West in 1998.
Data type:	Factor
Unique non-missing value count:	9
Missing value count:	0

Categories	Frequency	Cumulative Frequency	Percent
E1	11,878	11,878	7.06
E2	23,586	35,464	14.01
E3	17,038	52,502	10.12
E4	16,009	68,511	9.51
E5	17,174	85,685	10.20
E6	19,068	104,753	11.33
E7	19,770	124,523	11.75
E8	25,319	149,842	15.04
E9	18,454	168,296	10.97

<b>16</b>	<b>Column name:</b>	<b>geotype2</b>
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Column description:	Urban/rural
Data type:	Factor
Unique non-missing value count:	2
Missing value count:	18

Categories	Frequency	Cumulative Frequency	Percent
Non-urban	39,859	39,859	23.68
Urban	128,419	168,278	76.31
Missing	18	168,296	0.01

<b>17</b>	<b>Column name:</b>	<b>intm</b>
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Column description:	Interview - Month
Data type:	Factor

Unique non-missing value count: 12

Missing value count: 24,042

Categories with Smallest Values	Frequency	Categories with Largest Values	Frequency
December	6877	February	12338
August	11568	March	12733
May	11985	January	13363
June	12026	November	15001
September	12028	Missing	24042

<b>18</b>	<b>Column name:</b>	<b>intq</b>
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Column description: Interview - Quarter

Data type: Factor

Unique non-missing value count: 4

Missing value count: 0

Categories	Frequency	Cumulative Frequency	Percent
First quarter of year	45,147	45,147	26.83
Fourth quarter of year	39,969	85,116	23.75
Second quarter of year	41,792	126,908	24.83
Third quarter of year	41,388	168,296	24.59

<b>19</b>	<b>Column name:</b>	<b>inty</b>
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Data type: Numeric

Source information: Year of interview

Unique non-missing value count: 17

Missing value count: 0

Min	Mean	Median	Max	SD
1998.00	2007.53	2008.00	2017.00	5.66

<b>20</b>	<b>Column name:</b>	<b>Vism</b>
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Column description:	Anthropometry - Month
Source information:	Month of anthropometric measurements (nurse visits).
Data type:	Factor
Unique non-missing value count:	12
Missing value count:	67,136

Categories with Smallest Values	Frequency	Categories with Largest Values	Frequency
December	5088	November	9048
August	7878	February	9113
April	8231	March	9375
July	8374	January	9456
September	8603	Missing	67136

<b>21</b>	<b>Column name:</b>	<b>visq</b>
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Column description:	Anthropometry - Quarter
Source information:	Quarter of anthropometric measurements (nurse visit).
Data type:	Factor
Unique non-missing value count:	4
Missing value count:	46,008

Categories	Frequency	Cumulative Frequency	Percent
I	34,240	34,240	20.35
II	30,759	64,999	18.28
III	29,904	94,903	17.77
IV	27,385	122,288	16.27
Missing	46,008	168,296	27.34

<b>22</b>	<b>Column name:</b>	<b>hh_size</b>
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Column description:	Household size
Data type:	Numeric
Unique non-missing value count:	12

Missing value count:		24,042		
Min	Mean	Median	Max	SD
1.00	2.68	2.00	12.00	1.34

23	Column name:	hh_size_cat		
Column description:		Household size, categorical		
Data type:		Factor		
Unique non-missing value count:		6		
Missing value count:		0		
Categories	Frequency	Cumulative Frequency	Percent	
1	29,388	29,388	17.46	
2	64,558	93,946	38.36	
3	29,872	123,818	17.75	
4	29,173	152,991	17.33	
5	10,338	163,329	6.14	
6+	4,967	168,296	2.95	

24	Column name:	hh_ownhome		
Column description:		Dwelling - Ownership		
Source Information		Mortgage, own outright & shared ownership have been considered as ownership ('Yes' 1). Renting, living rent free or squatting have been considered as not owning ('No' 0).		
Data type:		Factor		
Unique non-missing value count:		2		
Missing value count:		502		
Categories	Frequency	Cumulative Frequency	Percent	
No	47,668	47,668	28.32	
Yes	120,126	167,794	71.38	
Missing	502	168,296	0.30	

<b>25</b>	<b>Column name:</b>	<b>hh_ass_car_truck</b>		
	Column description:	Household assets: Car/Truck		
	Source information:	Derived from HSE variable 'car' indicating whether the household has access to a car. Those with item not applicable were coded as having no car/truck.		
	Data type:	Factor		
	Unique non-missing value count:	2		
	Missing value count:	65		
Categories		Frequency	Cumulative Frequency	Percent
No		32,859	32,859	19.52
Yes		135,372	168,231	80.44
Missing		65	168,296	0.04

  

<b>26</b>	<b>Column name:</b>	<b>hh_carnum</b>		
	Column description:	Number of cars available		
	Source information:	Derived from HSE variable 'numcars'.		
	Data type:	Factor		
	Unique non-missing value count:	4		
	Missing value count:	102		
Categories		Frequency	Cumulative Frequency	Percent
None		32,859	32,859	19.52
One		70,978	103,837	42.17
Three or more		13,769	117,606	8.18
Two		50,588	168,194	30.06
Missing		102	168,296	0.06

  

<b>27</b>	<b>Column name:</b>	<b>hh_recgrant</b>		
	Column description:	Household receives government support.		
	Source Information	Government support includes income from housing benefits, council tax benefits, family credit, child tax credit, other state benefits, job-seekers allowance or employment and support allowance. Those who		

reported receiving at least one of the above benefits in the household were coded as 'Yes'. Missing responses included refusals, 'don't know' responses and where the item was not applicable because the respondent was not the household head or spouse/partner of the household head. All others were coded 'No'.

Data type: Factor

Unique non-missing value count: 2

Missing value count: 6,665

Categories	Frequency	Cumulative Frequency	Percent
No	114,078	114,078	67.78
Yes	47,553	161,631	28.26
Missing	6,665	168,296	3.96

<b>28</b>	<b>Column name:</b>	<b>hh_income</b>
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Column description: Household income

Source information: In British Pounds [GBP]. This was based on the categorical variable 'totinc' in HSE surveys 1998-2015. Following the method used to derive equivalised income in HSE, the midpoint of each category was taken using the lower and upper values of each category as boundaries to give an estimate or average household income; for the lowest category (<£520) a value of £450 was used and for the highest category of income (£150,000+), the value was estimated at £160,000. Refusals, no answer, unknown incomes and cases where the item or schedule was not applicable (e.g. interviewee was not the household head/respondent or spouse), were coded as missing. Incomes have not been deflated or adjusted for purchasing power parity. For 2015, this variable is only available in the Special Licence dataset.

Data type: Numeric

Unique non-missing value count: 31

Missing value count: 54,611

Min	Mean	Median	Max	SD
450.00	32660.70	24700.00	160000.00	29230.48

<b>29</b>	<b>Column name:</b>	<b>hh_income_quint</b>
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Column description:	Household income quintile
Source information	Based on equivalised household income as derived in the HSE. This is a relative measure specific to each year and does not necessarily have the same meaning across time.
Data type:	Factor
Unique non-missing value count:	5
Missing value count:	31,413

Categories	Frequency	Cumulative Frequency	Percent
I (Lowest)	24,819	24,819	14.75
II	26,329	51,148	15.64
III	27,941	79,089	16.60
IV	28,783	107,872	17.10
V (Highest)	29,011	136,883	17.24
Missing	31,413	168,296	18.67

<b>30</b>	<b>Column name:</b>	<b>hh_income_eq</b>		
	Column description:	Household income, equivalised		
	Source information:	In GBP. As defined in the HSE (eqvinc). For 2015, this variable is only available in the Special Licence dataset.		
	Data type:	Numeric		
	Unique non-missing value count:	4,212		
	Missing value count:	50,697		
	Min	Mean	Median	Max
	175.10	28613.91	21017.96	262295.08
				SD
				26197.68

<b>31</b>	<b>Column name:</b>	<b>sex</b>		
	Column description:	Sex		
	Data type:	Factor		
	Unique non-missing value count:	2		
	Missing value count:	0		

Categories	Frequency	Cumulative Frequency	Percent
Female	93,173	93,173	55.36
Male	75,123	168,296	44.64

32	Column name:	age
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Column description:

Age

Source information:

For HSE survey years up to HSE 2014, the actual age in years was used. For 2014, the actual age was used through age 89. For those aged 90+, their age was imputed at age 92 years, which was the nearest integer mean age of all adults aged 90+ years in the previous years of the survey considered (1998, 2001-2003, 2005-2013). For HSE 2015 to 2017, the categorical variable Age16g5 was used to estimate the ages of adults. The midpoint of each category was used to impute age in years. For those ages 16-17 years, their age was estimated at 16.5 years. For those ages 18-19 years, their age was estimated at 18.5 years. For the 5-year age categories beginning at age 20, the midpoint was also taken as the estimated age (e.g., 22 for age group 20-24, 27 for age group 25-29, etc.) For those aged, 90+, their age was imputed at age 92 years.

Data type:

Numeric

Unique non-missing value count:

88

Missing value count:

0

Min	Mean	Median	Max	SD
16.00	49.01	48.00	104.00	18.68

33	Column name:	agecat1
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Column description:

Age category (5 years)

Data type:

Factor

Unique non-missing value count:

14

Missing value count:

0

Categories with Smallest Values	Frequency	Categories with Largest Values	Frequency
75-79	8029	30-34	13824
16-19	8273	50-54	14201

20-24	9548	45-49	14498
80+	9575	35-39	15055
70-74	9994	40-44	15277

<b>34</b>	<b>Column name:</b>	<b>agecat2</b>
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Column description: Age category (10 years)

Data type: Factor

Unique non-missing value count: 8

Missing value count: 0

Categories	Frequency	Cumulative Frequency	Percent
16-19	8,273	8,273	4.92
20-29	21,157	29,430	12.57
30-39	28,879	58,309	17.16
40-49	29,775	88,084	17.69
50-59	27,620	115,704	16.41
60-69	24,994	140,698	14.85
70-79	18,023	158,721	10.71
80+	9,575	168,296	5.69

<b>35</b>	<b>Column name:</b>	<b>race_e</b>
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Column description: Ethnicity

Source information: The four categories are based on those used in the HSE and have been recoded to align with the order in the South African dataset.

Data type: Factor

Unique non-missing value count: 5

Missing value count: 534

Categories	Frequency	Cumulative Frequency	Percent
Asian	8,144	8,144	4.84
Black	4,124	12,268	2.45
Mixed	1,574	13,842	0.94

Other	1,523	15,365	0.90
White	152,397	167,762	90.55
Missing	534	168,296	0.32

36	Column name:	marstatus
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Column description: Marital status

Data type: Factor

Unique non-missing value count: 3

Missing value count: 52

Categories	Frequency	Cumulative Frequency	Percent
Married/living with partner	105,394	105,394	62.62
Never married/single	34,150	139,544	20.29
Widowed/divorced/separated	28,700	168,244	17.05
Missing	52	168,296	0.03

37	Column name:	edu3
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Column description: Education: categorisation 3

Source information: Highest level of education. Those for whom the item was not applicable were coded as having no qualification.

Data type: Factor

Unique non-missing value count: 7

Missing value count: 12

Categories	Frequency	Cumulative Frequency	Percent
No qualification	44,499	66,935	26.44
NVQ1/CSE other grade equiv	8,047	74,982	4.78
NVQ2/GCE O Level equiv	36,986	111,968	21.98
NVQ3/GCE A Level equiv	22,533	134,501	13.39



NVQ4/NVQ5/Degree or equiv	33,783	168,284	20.07
Higher ed below degree	18,115	18,115	10.76
Foreign/Other	4,321	22,436	2.57
Missing	12	168,296	0.01

38	Column name:	emp
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Column description: Employment

Data type: Factor

Unique non-missing value count: 2

Missing value count: 17,261

Categories	Frequency	Cumulative Frequency	Percent
Employed	142,564	142,564	84.71
Unemployed	8,471	151,035	5.03
Missing	17,261	168,296	10.26

39	Column name:	occupation
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Source information: Derived from sclass and sclass12 'Armed forces' (sclass) and '6' (sclass12) were grouped with other.

Data type: Factor

Unique non-missing value count: 8

Missing value count: 17,261

Categories	Frequency	Cumulative Frequency	Percent
Unemployed	8,471	143,299	5.03
Unskilled manual	7,736	151,035	4.60
Semi-skilled manual	25,300	76,563	15.03
Skilled manual	25,124	101,687	14.93
Skilled non-manual	33,141	134,828	19.69
Managerial technical	43,268	43,268	25.71
Professional	7,483	51,263	4.45

Other/not fully described	512	43,780	0.30
Missing	17,261	168,296	10.26

40	Column name:	smokstatus		
	Column description:	Smoking status		
	Data type:	Factor		
	Unique non-missing value count:	3		
	Missing value count:	1,092		
	Categories	Frequency	Cumulative Frequency	Percent
	Current smoker	36,493	36,493	21.68
	Former smoker	44,087	80,580	26.20
	Never smoker	86,624	167,204	51.47
	Missing	1,092	168,296	0.65

41	Column name:	currsmok		
	Column description:	Current smoker		
	Source information:	Non-smokers include former smokers.		
	Data type:	Factor		
	Unique non-missing value count:	2		
	Missing value count:	1,092		
	Categories	Frequency	Cumulative Frequency	Percent
	No	130,711	130,711	77.67
	Yes	36,493	167,204	21.68
	Missing	1,092	168,296	0.65

42	Column name:	alcstatus	
	Column description:	Alcohol status	
	Source information:	Current drinkers include those who drink very occasionally. Never drinkers are those reporting never drinking and always being a non-drinker. Former	

drinkers are those who reported never drinking nowadays and that they used to drink but stopped.

Data type: Factor

Unique non-missing value count: 3

Missing value count: 1,091

Categories	Frequency	Cumulative Frequency	Percent
Current drinker	145,726	145,726	86.59
Former drinker	8,730	154,456	5.19
Never drinker	12,749	167,205	7.58
Missing	1,091	168,296	0.65

<b>43</b>	<b>Column name:</b>	<b>currale</b>
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Column description: Current drinker

Source information: Current drinkers include those who drink very occasionally. Never drinkers are those reporting never drinking and always being a non-drinker. Former drinkers are those who reported never drinking nowadays and that they used to drink but stopped.

Data type: Factor

Unique non-missing value count: 2

Missing value count: 1,064

Categories	Frequency	Cumulative Frequency	Percent
Current drinker	145,726	145,726	86.59
Non-drinker	21,506	167,232	12.78
Missing	1,064	168,296	0.63

<b>44</b>	<b>Column name:</b>	<b>alcmax</b>
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Column description: Alcohol consumption on heaviest day [units]

Source information: Number of units of alcohol consumed on heaviest day of drinking in the past 7 days.

Data type: Factor

Unique non-missing value count: 4

Missing value count: 1,673

Categories	Frequency	Cumulative Frequency	Percent
<=4 units/day (men), <=3 units/day (women)	55,248	55,248	32.83
>4 and <=8 units/day (men), >3 and <=6 units/day (women)	25,851	81,099	15.36
>8 units/day (men), >6 units/day (women)	24,623	105,722	14.63
None	60,901	166,623	36.19
Missing	1,673	168,296	0.99

<b>45</b>	<b>Column name:</b>	<b>fruitveg</b>
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Column description: 5+ portions of fruit/vegetables eaten yesterday

Source information: Only available from 2001 onward.

Data type: Factor

Unique non-missing value count: 2

Missing value count: 32,212

Categories	Frequency	Cumulative Frequency	Percent
No	99,166	99,166	58.92
Yes	36,918	136,084	21.94
Missing	32,212	168,296	19.14

<b>46</b>	<b>Column name:</b>	<b>Exercisefreq_e</b>
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Column description: Weekly frequency of 30+ min moderate or more activity

Data type: Factor

Unique non-missing value count:

Missing value count:

Categories	Frequency	Cumulative Frequency	Percent
Never			
Less than once per week			
Once or twice per week			

Three of four times per  
week

Five or more times per  
week

Missing

<b>47</b>	<b>Column name:</b>	<b>self_health</b>
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Column description: Self-rated health

Source information: This was originally coded as: very good, good, fair, bad, very bad. It was recoded and categories renamed to align with the categories created for the harmonized South African dataset.

Data type: Factor

Unique non-missing value count: 4

Missing value count: 63

Categories	Frequency	Cumulative Frequency	Percent
Poor/bad	12,448	114,038	7.40
Average/fair	31,361	31,361	18.63
Good	70,229	101,590	41.73
Very good/excellent	54,195	168,233	32.20
Missing	63	168,296	0.04

<b>48</b>	<b>Column name:</b>	<b>diag_hbp</b>
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Column description: Diagnosis: Hypertension

Source information: Available all years except 2001, 2002, 2007 & 2008. Based on 2 questions, whether you have ever had the condition and whether it was diagnosed by a doctor/(nurse). Those who responded 'no', 'don't know' or 'refused' to ever having were not asked about doctor diagnosis. Those who responded 'don't know' or 'refused' to ever having had the condition were coded as missing here. Those under age 65 in 2005 and those not receiving the CVD module in 2006 were coded as missing.

Data type: Factor

Unique non-missing value count: 2

Missing value count: 53,051

Categories	Frequency	Cumulative Frequency	Percent
No	83,630	83,630	49.69
Yes	31,615	115,245	18.79
Missing	53,051	168,296	31.52

<b>49</b>	<b>Column name:</b>	<b>diag_isch</b>
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Column description: Diagnosis: Heart attack/angina

Source information: Only available for the CVD years [1998, 2003, 2005 (65+), 2006 (CVD module) 2011, 2013, 2017]. Based on 2 questions, whether you have ever had the condition and whether it was diagnosed by a doctor/(nurse). Those who responded 'no', 'don't know' or 'refused' to ever having were not asked about doctor diagnosis. Those who responded 'don't know' or 'refused' to ever having had the condition were coded as missing here. Those under age 65 in 2005 and those not receiving the CVD module in 2006 were coded as missing.

Data type: Factor

Unique non-missing value count: 2

Missing value count: 107,054

Categories	Frequency	Cumulative Frequency	Percent
No	57,720	57,720	34.30
Yes	3,522	61,242	2.09
Missing	107,054	168,296	63.61

<b>50</b>	<b>Column name:</b>	<b>diag_stroke</b>
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Column description: Diagnosis: Stroke

Source information: Only available for the CVD years [1998, 2003, 2005 (65+), 2006 (CVD module) 2011, 2013, 2017]. Based on 2 questions, whether you have ever had the condition and whether it was diagnosed by a doctor/(nurse). Those who responded 'no', 'don't know' or 'refused' to ever having were not asked about doctor diagnosis. Those who responded 'don't know' or 'refused' to ever having had the condition were coded as missing here. Those under age 65 in 2005 and those not receiving the CVD module in 2006 were coded as missing.

Data type: Factor

Unique non-missing value count: 2

Missing value count: 106,987

Categories	Frequency	Cumulative Frequency	Percent
No	59,754	59,754	35.51
Yes	1,555	61,309	0.92
Missing	106,987	168,296	63.57

<b>51</b>	<b>Column name:</b>	<b>diag_diab</b>
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Column description: Diagnosis: Diabetes/hyperglycaemia

Source information: Available all years except 2001, 2002, 2007 & 2008. Based on 2 questions, whether you have ever had the condition and whether it was diagnosed by a doctor/(nurse). Those who responded 'no', 'don't know' or 'refused' to ever having were not asked about doctor diagnosis. Those who responded 'don't know' or 'refused' to ever having had the condition were coded as missing here. Those under age 65 in 2005 and those not receiving the CVD module in 2006 were coded as missing.

Data type: Factor

Unique non-missing value count: 2

Missing value count: 52,746

Categories	Frequency	Cumulative Frequency	Percent
No	108,404	108,404	64.41
Yes	7,146	115,550	4.25
Missing	52,746	168,296	31.34

<b>52</b>	<b>Column name:</b>	<b>diag_cancer</b>
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Column description: Diagnosis: Cancer

Source information: Derived from the list of complaints from the limiting longstanding illnesses reported according to ICD categories. They are available for all years until 2014. For 2015, they are only available in the Special Licence dataset. However, they do not necessarily specify whether they were diagnosed by a doctor/nurse or not, so it is assumed that most were diagnosed by a

doctor/nurse. In addition, respondents are only able to report up to 6 conditions. Therefore, those who have more conditions would only have the first 6 recorded.

Data type: Factor

Unique non-missing value count: 2

Missing value count: 8,101

Categories	Frequency	Cumulative Frequency	Percent
No	156,931	156,931	93.25
Yes	3,264	160,195	1.94
Missing	8,101	168,296	4.81

<b>53</b>	<b>Column name:</b>	<b>diag_heart</b>
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Column description: Diagnosis: Heart problems

Source information: Heart and circulatory conditions. Derived from the list of complaints from the limiting longstanding illnesses reported according to ICD categories. They are available for all years until 2014. For 2015, they are only available in the Special Licence dataset. However, they do not necessarily specify whether they were diagnosed by a doctor/nurse or not, so it is assumed that most were diagnosed by a doctor/nurse. In addition, respondents are only able to report up to 6 conditions. Therefore, those who have more conditions would only have the first 6 recorded.

Data type: Factor

Unique non-missing value count: 2

Missing value count: 8,101

Categories	Frequency	Cumulative Frequency	Percent
No	139,659	139,659	82.98
Yes	20,536	160,195	12.20
Missing	8,101	168,296	4.81

<b>54</b>	<b>Column name:</b>	<b>diag_diab2</b>
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Column description: Diagnosis: diabetes, excluding pregnancy

Source information: Based on the derived HSE variable diabete2. Those who responded 'no', 'don't know' or 'refused' to ever having were not asked about doctor diagnosis. Those



who responded 'don't know' or 'refused' to ever having had the condition were coded as not having a doctor diagnosis, following the method of HSE. This differs from our derived variables above of diagnosis including in pregnancy.

Data type: Factor

Unique non-missing value count: 2

Missing value count: 52,644

Categories	Frequency	Cumulative Frequency	Percent
No	108,990	108,990	64.76
Yes	6,662	115,652	3.96
Missing	52,644	168,296	31.28

<b>55</b>	<b>Column name:</b>	<b>diag_hbp2</b>
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Column description: Diagnosis: hypertension, excluding pregnancy

Source information: Based on the derived HSE variable bp1. Those who responded 'no', 'don't know' or 'refused' to ever having were not asked about doctor diagnosis. Those who responded 'don't know' or 'refused' to ever having had the condition were coded as not having a doctor diagnosis, following the method of HSE. This differs from our derived variables above of diagnosis including in pregnancy.

Data type: Factor

Unique non-missing value count: 2

Missing value count: 52,712

Categories	Frequency	Cumulative Frequency	Percent
No	86,925	86,925	51.65
Yes	28,659	115,584	17.03
Missing	52,712	168,296	31.32

<b>56</b>	<b>Column name:</b>	<b>diag_angi</b>
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Column description: Diagnosis: angina

Source information: Only available for the CVD years [1998, 2003, 2005 (65+), 2006 (CVD module) 2011, 2013, 2017]. Based on 2 questions, whether you have ever had the condition and whether it was diagnosed by a doctor/(nurse). Those

who responded 'no', 'don't know' or 'refused' to ever having were not asked about doctor diagnosis. Those who responded 'don't know' or 'refused' to ever having had the condition were coded as missing here. Those under age 65 in 2005 and those not receiving the CVD module in 2006 were coded as missing.

Data type: Factor

Unique non-missing value count: 2

Missing value count: 107,053

Categories	Frequency	Cumulative Frequency	Percent
No	58,582	58,582	34.81
Yes	2,661	61,243	1.58
Missing	107,053	168,296	63.61

<b>57</b>	<b>Column name:</b>	<b>diag_mi</b>
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Column description: Diagnosis: heart attack (myocardial infarction)

Source information: Only available for the CVD years [1998, 2003, 2005 (65+), 2006 (CVD module) 2011, 2013, 2017]. Based on 2 questions, whether you have ever had the condition and whether it was diagnosed by a doctor/(nurse). Those who responded 'no', 'don't know' or 'refused' to ever having were not asked about doctor diagnosis. Those who responded 'don't know' or 'refused' to ever having had the condition were coded as missing here. Those under age 65 in 2005 and those not receiving the CVD module in 2006 were coded as missing.

Data type: Factor

Unique non-missing value count: 2

Missing value count: 106,981

Categories	Frequency	Cumulative Frequency	Percent
No	59,408	59,408	35.30
Yes	1,907	61,315	1.13
Missing	106,981	168,296	63.57

<b>58</b>	<b>Column name:</b>	<b>diag_lung</b>
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Column description: Diagnosis: Respiratory condition

Source information:

Derived from the list of complaints from the limiting longstanding illnesses reported according to ICD categories. They are available for all years until 2014. For 2015, they are only available in the Special Licence dataset. However, they do not necessarily specify whether they were diagnosed by a doctor/nurse or not, so it is assumed that most were diagnosed by a doctor/nurse. In addition, respondents are only able to report up to 6 conditions. Therefore, those who have more conditions would only have the first 6 recorded.

Data type:

Factor

Unique non-missing value count:

2

Missing value count:

8,101

Categories	Frequency	Cumulative Frequency	Percent
No	146,194	146,194	86.87
Yes	14,001	160,195	8.32
Missing	8,101	168,296	4.81

**59**

**Column name:**

**diag\_mental**

Column description:

Diagnosis: Mental disorder

Source information:

Derived from the list of complaints from the limiting longstanding illnesses reported according to ICD categories. They are available for all years until 2014. For 2015, they are only available in the Special Licence dataset. However, they do not necessarily specify whether they were diagnosed by a doctor/nurse or not, so it is assumed that most were diagnosed by a doctor/nurse. In addition, respondents are only able to report up to 6 conditions. Therefore, those who have more conditions would only have the first 6 recorded.

Data type:

Factor

Unique non-missing value count:

2

Missing value count:

8,101

Categories	Frequency	Cumulative Frequency	Percent
No	153,269	153,269	91.07
Yes	6,926	160,195	4.12
Missing	8,101	168,296	4.81

<b>60</b>	<b>Column name:</b>	<b>diag_infectious</b>
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Column description: Diagnosis: Infectious disorder

Source information: Derived from the list of complaints from the limiting longstanding illnesses reported according to ICD categories. They are available for all years until 2014. For 2015, they are only available in the Special Licence dataset. However, they do not necessarily specify whether they were diagnosed by a doctor/nurse or not, so it is assumed that most were diagnosed by a doctor/nurse. In addition, respondents are only able to report up to 6 conditions. Therefore, those who have more conditions would only have the first 6 recorded.

Data type: Factor

Unique non-missing value count: 2

Missing value count: 8,101

Categories	Frequency	Cumulative Frequency	Percent
No	159,892	159,892	95.01
Yes	303	160,195	0.18
Missing	8,101	168,296	4.81

<b>61</b>	<b>Column name:</b>	<b>diag_metabolic</b>
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Column description: Diagnosis: Endocrine/metabolic disorder

Source information: Derived from the list of complaints from the limiting longstanding illnesses reported according to ICD categories. They are available for all years until 2014. For 2015, they are only available in the Special Licence dataset. However, they do not necessarily specify whether they were diagnosed by a doctor/nurse or not, so it is assumed that most were diagnosed by a doctor/nurse. In addition, respondents are only able to report up to 6 conditions. Therefore, those who have more conditions would only have the first 6 recorded.

Data type: Factor

Unique non-missing value count: 2

Missing value count: 8,101

Categories	Frequency	Cumulative Frequency	Percent
No	147,445	147,445	87.61
Yes	12,750	160,195	7.58

Missing	8,101	168,296	4.81
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62	Column name:	diag_nerve
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Column description:	Diagnosis: Nervous system disorder
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Source information:	Derived from the list of complaints from the limiting longstanding illnesses reported according to ICD categories. They are available for all years until 2014. For 2015, they are only available in the Special Licence dataset. However, they do not necessarily specify whether they were diagnosed by a doctor/nurse or not, so it is assumed that most were diagnosed by a doctor/nurse. In addition, respondents are only able to report up to 6 conditions. Therefore, those who have more conditions would only have the first 6 recorded.
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Data type:	Factor
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Unique non-missing value count:	2
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Missing value count:	8,101
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Categories	Frequency	Cumulative Frequency	Percent
No	153,707	153,707	91.33
Yes	6,488	160,195	3.86
Missing	8,101	168,296	4.81

63	Column name:	diag_blood
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Column description:	Diagnosis: Blood disorder
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Source information:	Derived from the list of complaints from the limiting longstanding illnesses reported according to ICD categories. They are available for all years until 2014. For 2015, they are only available in the Special Licence dataset. However, they do not necessarily specify whether they were diagnosed by a doctor/nurse or not, so it is assumed that most were diagnosed by a doctor/nurse. In addition, respondents are only able to report up to 6 conditions. Therefore, those who have more conditions would only have the first 6 recorded.
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Data type:	Factor
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Unique non-missing value count:	2
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Missing value count:	8,101
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Categories	Frequency	Cumulative Frequency	Percent
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No	158,869	158,869	94.40
Yes	1,326	160,195	0.79
Missing	8,101	168,296	4.81

<b>64</b>	<b>Column name:</b>	<b>bpmed</b>
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Column description: Medication: Hypertension

Source information: Based on only those diagnosed with high BP apart from when pregnant. Not available for 2001, 2002 and 2016.

Data type: Factor

Unique non-missing value count: 2

Missing value count: 60,699

Categories	Frequency	Cumulative Frequency	Percent
No	89,594	89,594	53.24
Yes	18,003	107,597	10.70
Missing	60,699	168,296	36.07

<b>65</b>	<b>Column name:</b>	<b>bpmed_coded</b>
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Column description: Medication: Hypertension, coded

Source information: Those with no answer/refused/unable to code (331) are coded as missing.

Data type: Factor

Unique non-missing value count: 2

Missing value count: 46,853

Categories	Frequency	Cumulative Frequency	Percent
No	102,597	102,597	60.96
Yes	18,846	121,443	11.20
Missing	46,853	168,296	27.84

<b>66</b>	<b>Column name:</b>	<b>diabmed</b>
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Column description: Medication: Diabetes/hyperglycaemia

Data type: Factor

Unique non-missing value count: 2

Missing value count: 46,611

Categories	Frequency	Cumulative Frequency	Percent
No	117,113	117,113	69.59
Yes	4,572	121,685	2.72
Missing	46,611	168,296	27.70

<b>67</b>	<b>Column name:</b>	<b>cholmed</b>
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Column description: Medication: Hypercholesterolaemia

Data type: Factor

Unique non-missing value count: 2

Missing value count: 47,457

Categories	Frequency	Cumulative Frequency	Percent
No	106,423	106,423	63.24
Yes	14,416	120,839	8.57
Missing	47,457	168,296	28.20

<b>68</b>	<b>Column name:</b>	<b>heartmed</b>
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Column description: Medication: Cardiovascular

Source information: Cardiovascular medications taken

Data type: Factor

Unique non-missing value count: 2

Missing value count: 46079

Categories	Frequency	Cumulative Frequency	Percent
No	91387	91,387	54.3%
Yes	30830	122,217	18.3%
Missing	46079	168,296	27.4%

<b>69</b>	<b>Column name:</b>	<b>heartmed2</b>
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Column description:	Medication: Heart condition or stroke
Source information:	Only available in CVD years (1998, 2003, 2005 (65+), 2006, 2011, 2013, 2017)
Data type:	Factor
Unique non-missing value count:	2
Missing value count:	

Categories	Frequency	Cumulative Frequency	Percent
No	62,436	62,436	37.1%
Yes	4947	67,383	2.9%
Missing	100,886	168,269	59.9%

<b>70</b>	<b>Column name:</b>	<b>contraceptives</b>
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Column description:	Medication: Contraceptives
Source information:	Females only. Item not applicable coded as 'No' (0), Schedule not obtained coded as missing.
Data type:	Factor
Unique non-missing value count:	2
Missing value count:	115,924

Categories	Frequency	Cumulative Frequency	Percent
No	44,923	44,923	26.69
Yes	7,449	52,372	4.43
Missing	115,924	168,296	68.88

<b>71</b>	<b>Column name:</b>	<b>currpreg</b>
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Column description:	Currently pregnant
Source information:	This refers to pregnancy at the time of the nurse interview and is valid for females only. Females over age 49 were not asked this question and were given a response of 'No' (0). Females under age 50 who did not participate in the nurse schedule would have a missing



response. Item not applicable coded as 'No' (0),  
Schedule not obtained coded as missing.

Data type: Factor

Unique non-missing value count: 2

Missing value count: 79,096

Categories	Frequency	Cumulative Frequency	Percent
No/don't know	87,938	87,938	52.25
Yes	1,262	89,200	0.75
Missing	79,096	168,296	47.00

<b>72</b>	<b>Column name:</b>	<b>height1</b>
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Column description: Height [cm] - First reading

Source Information Implausible values: Height<120 cm or height > 220 cm

Data type: Numeric

Unique non-missing value count: 706

Missing value count: 19,576

Min	Mean	Median	Max	SD
121.00	167.45	167.00	210.30	9.68

<b>73</b>	<b>Column name:</b>	<b>height</b>
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Column description: Height [cm] - Average of available readings

Data type: Numeric

Unique non-missing value count: 706

Missing value count: 19,576

Min	Mean	Median	Max	SD
121.00	167.45	167.00	210.30	9.68

<b>74</b>	<b>Column name:</b>	<b>weight1</b>
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Column description: Weight [Kg] - First reading

Source Information	Weights above 130 kg were estimated (self-reported) in the HSE as the scales did not go above those values. From 2014, weights above 200 kg were estimated (self-reported).			
	Implausible values: Females: Weight<25 Kg; Weight > 250 Kg Males: Weight <35 Kg; Weight > 250 Kg [From the 2 <sup>nd</sup> South African Comparative Risk Assessment (SACRA) study]			
Data type:	Numeric			
Unique non-missing value count:	1,240			
Missing value count:	21,586			

Min	Mean	Median	Max	SD
26.00	76.46	74.60	205.00	16.84

75	Column name:	Weight
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Column description:	Weight [Kg] - Average of available readings			
Data type:	Numeric			
Unique non-missing value count:	1,240			
Missing value count:	21,586			

Min	Mean	Median	Max	SD
26.00	76.46	74.60	205.00	16.84

76	Column name:	waist1
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Column description:	Waist circumference [cm] - First reading			
Source Information	Implausible values considered: waist < 30 cm or waist > 220 cm.			
Data type:	Numeric			
Unique non-missing value count:	969			
Missing value count:	49,628			

Min	Mean	Median	Max	SD
34.00	92.04	91.40	172.20	14.33

77	Column name:	waist2			
	Column description:	Waist circumference [cm] - Second reading			
	Data type:	Numeric			
	Unique non-missing value count:	972			
	Missing value count:	49,842			
	Min	Mean	Median	Max	SD
	34.10	92.14	91.50	173.50	14.34

78	Column name:	waist3			
	Column description:	Waist circumference [cm] - Third reading			
	Data type:	Numeric			
	Unique non-missing value count:	297			
	Missing value count:	167,870			
	Min	Mean	Median	Max	SD
	64.80	97.37	95.85	153.50	15.02

79	Column name:	waist			
	Column description:	Waist circumference [cm] - Average of available readings			
	Data type:	Numeric			
	Unique non-missing value count:	2,082			
	Missing value count:	49,627			
	Min	Mean	Median	Max	SD
	34.05	92.10	91.50	172.85	14.33

80	Column name:	hip1
	Column description:	Hip circumference [cm] - First reading
		Implausible values:
	Source Information	(Based on the distribution in the sample) Hip circumference < 40 cm or hip circumference > 230 cm

Data type:	Numeric			
Unique non-missing value count:	890			
Missing value count:	49,712			
Min	Mean	Median	Max	SD
50.00	105.44	104.20	181.20	10.20

81	Column name:	hip2			
	Column description:	Hip circumference [cm] - Second reading			
	Data type:	Numeric			
	Unique non-missing value count:	887			
	Missing value count:	49,924			
	Min	Mean	Median	Max	SD
	50.10	105.46	104.20	190.00	10.21

82	Column name:	hip3			
	Column description:	Hip circumference [cm] - Third reading			
	Data type:	Numeric			
	Unique non-missing value count:	140			
	Missing value count:	168,123			
	Min	Mean	Median	Max	SD
	84.80	111.10	109.90	190.00	14.34

83	Column name:	hip			
	Column description:	Hip circumference [cm] - Average of available readings			
	Data type:	Numeric			
	Unique non-missing value count:	1,711			
	Missing value count:	49,710			
	Min	Mean	Median	Max	SD
	50.05	105.46	104.25	181.25	10.21

<b>84</b>	<b>Column name:</b>	<b>sbp1</b>
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Column description:	Systolic Blood Pressure [mmHg] - First reading Based on the original HSE readings (including invalid measurements)
Source Information	Implausible values excluded: SBP < 60 mmHg or SBP > 270 mmHg SBP readings were set to missing if they were less than 15 mmHg greater than the corresponding DBP reading.
Data type:	Numeric
Unique non-missing value count:	314
Missing value count:	52,791

Min	Mean	Median	Max	SD
61.00	130.69	128.11	246.00	18.84

<b>85</b>	<b>Column name:</b>	<b>sbp2</b>
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Column description:	Systolic Blood Pressure [mmHg] - Second reading Based on the original HSE readings (including invalid measurements)
Source Information	Implausible values excluded: SBP < 60 mmHg or SBP > 270 mmHg SBP readings were set to missing if they were less than 15 mmHg greater than the corresponding DBP reading.
Data type:	Numeric
Unique non-missing value count:	323
Missing value count:	53,113

Min	Mean	Median	Max	SD
60.00	128.35	126.00	247.00	18.23

<b>86</b>	<b>Column name:</b>	<b>sbp3</b>
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Column description:	Systolic Blood Pressure [mmHg] - Third reading Based on the original HSE readings (including invalid measurements)
Source Information	Implausible values excluded: SBP < 60 mmHg or SBP > 270 mmHg

SBP readings were set to missing if they were less than 15 mmHg greater than the corresponding DBP reading.

Data type: Numeric

Unique non-missing value count: 321

Missing value count: 53,559

Min	Mean	Median	Max	SD
62.00	127.50	125.38	240.00	17.77

87	Column name:	sbp_mean1
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Column description: Systolic Blood Pressure [mmHg] - Average of available readings

Data type: Numeric

Unique non-missing value count: 1,096

Missing value count: 52,737

Min	Mean	Median	Max	SD
70.00	128.87	126.67	243.67	17.81

88	Column name:	sbp_mean2
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Column description: Systolic Blood Pressure [mmHg] - Average of available readings excluding the first

Data type: Numeric

Unique non-missing value count: 688

Missing value count: 53,069

Min	Mean	Median	Max	SD
69.50	127.93	125.83	242.50	17.70

89	Column name:	dbp1
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Column description: Diastolic Blood Pressure [mmHg] - First reading

Source Information: Based on the original HSE readings (including invalid measurements)

Implausible values excluded:  
DBP < 30 mmHg; DBP > 150 mmHg.

DBP readings were set to missing if they were less than 15 mmHg lower than the corresponding SBP reading.

Data type: Numeric

Unique non-missing value count: 168

Missing value count: 61,999

Min	Mean	Median	Max	SD
60.00	76.27	75.00	160.00	9.99

90	Column name:	dbp2
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Column description: Diastolic Blood Pressure [mmHg] - Second reading

Based on the original HSE readings (including invalid measurements)

Source Information

Implausible values excluded:

DBP < 30 mmHg; DBP > 150 mmHg.

DBP readings were set to missing if they were less than 15 mmHg lower than the corresponding SBP reading.

Data type: Numeric

Unique non-missing value count: 160

Missing value count: 63,468

Min	Mean	Median	Max	SD
60.00	75.34	74.00	162.00	9.58

91	Column name:	dbp3
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Column description: Diastolic Blood Pressure [mmHg] - Third reading

Based on the original HSE readings (including invalid measurements)

Source Information

Implausible values excluded:

DBP < 30 mmHg; DBP > 150 mmHg.

DBP readings were set to missing if they were less than 15 mmHg lower than the corresponding SBP reading.

Data type: Numeric

Unique non-missing value count: 161

Missing value count: 64,701

Min	Mean	Median	Max	SD
60.00	75.01	74.00	158.00	9.49

92	Column name:	dbp_mean1
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Column description: Diastolic Blood Pressure [mmHg] - Average of available readings

Data type: Numeric

Unique non-missing value count: 595

Missing value count: 58,383

Min	Mean	Median	Max	SD
60.00	75.07	74.00	160.00	9.42

93	Column name:	dbp_mean2
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Column description: Diastolic Blood Pressure [mmHg] - Average of available readings excluding the first

Data type: Numeric

Unique non-missing value count: 353

Missing value count: 60,714

Min	Mean	Median	Max	SD
60.00	74.86	73.80	160.00	9.37

94	Column name:	rhr1
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Column description: Resting Heart Rate [ppm] - First reading

Source Information: Biologically implausible values: RHR < 20 bpm; RHR > 250 bpm. (Informed by clinical opinion)

Data type: Numeric

Unique non-missing value count: 112

Missing value count: 48,855

Min	Mean	Median	Max	SD
31.00	70.13	69.00	160.00	11.59



95	Column name:	rhr2			
	Column description:	Resting Heart Rate [ppm] - Second reading			
	Data type:	Numeric			
	Unique non-missing value count:	109			
	Missing value count:	49,249			
	Min	Mean	Median	Max	SD
	32.00	70.36	70.00	159.00	11.41

96	Column name:	rhr3			
	Column description:	Resting Heart Rate [ppm] - Third reading			
	Data type:	Numeric			
	Unique non-missing value count:	108			
	Missing value count:	59,880			
	Min	Mean	Median	Max	SD
	31.00	70.66	70.00	148.00	11.33

97	Column name:	rhr_mean1			
	Column description:	Resting Heart Rate [ppm] - Average of available readings			
	Data type:	Numeric			
	Unique non-missing value count:	369			
	Missing value count:	48,792			
	Min	Mean	Median	Max	SD
	34.00	70.39	69.67	147.67	11.15

98	Column name:	rhr_mean2
	Column description:	Resting Heart Rate [ppm] - Average of available readings excluding the first
	Data type:	Numeric
	Unique non-missing value count:	203

Missing value count:		49,212		
Min	Mean	Median	Max	SD
32.00	70.52	70.00	146.50	11.20

<b>99</b>	<b>Column name:</b>	<b>Airtemp</b>
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Column description:		Air temperature during blood pressure measurement [Degrees Celsius]		
Data type:		Numeric		
Unique non-missing value count:		265		
Missing value count:		53,547		
Min	Mean	Median	Max	SD
0.00	20.70	20.60	38.70	2.38

<b>100</b>	<b>Column name:</b>	<b>bmi</b>
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Column description:		BMI [kg/m <sup>2</sup> ]		
Source information:		<p>Calculated using the height and weight measurements. Implausible values removed from the dataset: BMI &lt; 10 kg/m<sup>2</sup> or BMI &gt; 131 kg/m<sup>2</sup>. Ref: Iyen, B., Weng, S., Vinogradova, Y. et al. Long-term body mass index changes in overweight and obese adults and the risk of heart failure, cardiovascular disease and mortality: a cohort study of over 260,000 adults in the UK. BMC Public Health 21, 576 (2021). <a href="https://doi.org/10.1186/s12889-021-10606-1">https://doi.org/10.1186/s12889-021-10606-1</a>.</p>		
Data type:		Numeric		
Unique non-missing value count:		96,331		
Missing value count:		24,757		
Min	Mean	Median	Max	SD
11.81	27.17	26.47	69.14	5.23

<b>101</b>	<b>Column name:</b>	<b>bmicat</b>
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Column description:		BMI category		
Source information:		<p>Underweight = BMI &lt; 18.5 kg/m<sup>2</sup>. Healthy weight = 18.5 kg/m<sup>2</sup> &lt; BMI &lt; 25 kg/m<sup>2</sup>. Overweight = 25 kg/m<sup>2</sup> &lt; BMI &lt; 30 kg/m<sup>2</sup>. Obesity I = 30 kg/m<sup>2</sup> &lt; BMI &lt; 35</p>		

kg/m<sup>2</sup>. Obesity II = 35 kg/m<sup>2</sup> < BMI < 40 kg/m<sup>2</sup>.  
Obesity III = 40 kg/m<sup>2</sup> < BMI

Data type: Factor  
Unique non-missing value count: 6  
Missing value count: 24,757

Categories	Frequency	Cumulative Frequency	Percent
Healthy weight	51,413	51,413	30.55
Obesity I	24,345	75,758	14.47
Obesity II	7,915	83,673	4.70
Obesity III	3,271	86,944	1.94
Overweight	54,383	141,327	32.31
Underweight	2,212	143,539	1.31
Missing	24,757	168,296	14.71

102	Column name:	chol_tot
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Column description: Total cholesterol [mmol/l]  
Includes those on lipid lowering drugs.

Source information: Implausible values were considered to be those with total cholesterol <1.75 mmol/L (7 individuals), >20 mmol/L (0 individuals), or where total cholesterol was lower than HDL cholesterol (0 individuals), following the method used by the NCD Risk Factor Collaboration.

NCD Risk Factor Collaboration (NCD-RisC). (2020). Repositioning of the global epicentre of non-optimal cholesterol. Nature, 582(7810), 73–77.  
<https://doi.org/10.1038/s41586-020-2338-1>.

Data type: Numeric  
Unique non-missing value count: 105  
Missing value count: 99,947

Min	Mean	Median	Max	SD
1.80	5.35	5.30	15.30	1.16

103	Column name:	chol_hdl
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Column description:		High-density lipoprotein (HDL) cholesterol [mmol/l]		
		Includes those on lipid lowering drugs.		
Source information:		<p>Implausible values were considered to be those with HDL cholesterol &lt;0.40 mmol/L (9 individuals), &gt;5.00 mmol/L (0 individuals), or where total cholesterol was lower than HDL cholesterol (0 individuals) following the method used by NCD- RisC.</p> <p>NCD Risk Factor Collaboration (NCD-RisC). (2020). Repositioning of the global epicentre of non-optimal cholesterol. Nature, 582(7810), 73–77.  <a href="https://doi.org/10.1038/s41586-020-2338-1">https://doi.org/10.1038/s41586-020-2338-1</a></p>		
Data type:		Numeric		
Unique non-missing value count:		44		
Missing value count:		99,970		
Min	Mean	Median	Max	SD
0.40	1.56	1.50	4.90	0.43

<b>104</b>	<b>Column name:</b>	<b>glyhb_h</b>		
Column description:		<p>Glycated haemoglobin (HbA1c) (%)</p> <p>Based on the valid glycated haemoglobin variables in the HSE.</p>		
Source information:		<p>HbA1c&lt; 2.5% or &gt; 25% (none) were considered implausible (Nicholas et al., 2013:  <a href="https://doi.org/10.1371/journal.pone.0068008">https://doi.org/10.1371/journal.pone.0068008</a>)</p>		
Data type:		Numeric		
Unique non-missing value count:		147		
Missing value count:		110,980		
Min	Mean	Median	Max	SD
2.90	5.63	5.50	16.90	0.74

<b>105</b>	<b>Column name:</b>	<b>hbA1c</b>		
Column description:		HbA1c (mmol/mol)		

Source information:	<p>Glycated haemoglobin in mmol/mol are only available from 2012 onward (variables iffcvala IFCCA1, harmonised in the present dataset as glyhb2_h).</p> <p>For consistency across years, HbA1c was derived for all years from plausible values of the glyhb variable above and converted to mmol/mol using the following equation:</p> $\text{mmol/mol} = 10.93 * \% - 23.5 \text{ mmol/mol}$ <p>Australian Diabetes Society. 2023. HbA1c Conversion Table. Available online: <a href="https://diabetessociety.com.au/documents/HbA1cConversionTable.pdf">https://diabetessociety.com.au/documents/HbA1cConversionTable.pdf</a> (Accessed 25 Oct 2024)</p>
Data type:	Numeric
Unique non-missing value count:	
Missing value count:	

Min	Mean	Median	Max	SD
8.20	38.02	36.62	161.22	8.14

106	Column name:	globorisk_nonlab		
	Column description:	Globorisk CVD non laboratory risk score		
	Source information:	10 years risk of developing a fatal or non-fatal cardiovascular event. Function of age, sex, smoking status, systolic blood pressure and BMI. Ref: Ueda P et al. Laboratory-Based and Office-Based Risk Scores and Charts to Predict 10-Year Risk of Cardiovascular Disease in 182 Countries: A Pooled Analysis of Prospective Cohorts and Health Surveys. The Lancet Diabetes & Endocrinology 5, no. 3 (March 1, 2017): 196–213. Calculated using sbp_mean2 variable for systolic blood pressure. Defined for age between 40 and 74 years.		
	Data type:	Numeric		
	Unique non-missing value count:	61,593		
	Missing value count:	106,703		
Min	Mean	Median	Max	SD
0.27	8.11	6.03	85.64	7.26
107	Column name:	globorisk_lab		

Column description:	Globorisk CVD laboratory risk score
Source information:	10-year risk of developing a fatal or non-fatal cardiovascular event. Function of age, sex, smoking status, systolic blood pressure, total cholesterol and diabetes mellitus status. Ref: Ueda P et al. Laboratory-Based and Office-Based Risk Scores and Charts to Predict 10-Year Risk of Cardiovascular Disease in 182 Countries: A Pooled Analysis of Prospective Cohorts and Health Surveys. The Lancet Diabetes & Endocrinology 5, no. 3 (March 1, 2017): 196–213. Calculated using sbp_mean2 variable for systolic blood pressure. Defined for age between 40 and 74 years.
Data type:	Numeric
Unique non-missing value count:	35,625
Missing value count:	132,443

Min	Mean	Median	Max	SD
0.24	7.49	5.33	89.64	7.22

<b>108</b>	<b>Column name:</b>	<b>globorisk_lab_fatal</b>
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Column description:	Globorisk CVD fatal risk score
Source information:	10 years risk of dying from a cardiovascular event. Function of age, sex, smoking status, systolic blood pressure, total cholesterol and diabetes mellitus status. Ref: Ueda P et al. Laboratory-Based and Office-Based Risk Scores and Charts to Predict 10-Year Risk of Cardiovascular Disease in 182 Countries: A Pooled Analysis of Prospective Cohorts and Health Surveys. The Lancet Diabetes & Endocrinology 5, no. 3 (March 1, 2017): 196–213. Calculated using sbp_mean2 variable for systolic blood pressure. Defined for age between 40 and 74 years.
Data type:	Numeric
Unique non-missing value count:	35,413
Missing value count:	132,443

Min	Mean	Median	Max	SD
0.03	2.86	1.38	59.85	4.05

<b>109</b>	<b>Column name:</b>	<b>who_nonlab</b>
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Column description:	WHO/ISH CVD non-laboratory risk score
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Source information: 10 years risk of developing a fatal or non-fatal cardiovascular event. Function of age, sex, smoking status, systolic blood pressure and BMI. Ref: Kaptoge S et Al. (2019). World Health Organization cardiovascular disease risk charts: Revised models to estimate risk in 21 global regions. The Lancet Global Health, 7(10), e1332–e1345. [https://doi.org/10.1016/S2214-109X\(19\)30318-3](https://doi.org/10.1016/S2214-109X(19)30318-3). Calculated using sbp\_mean2 variable for systolic blood pressure. Defined for age between 40 and 80 years.

Data type: Numeric

Unique non-missing value count: 66,439

Missing value count: 101,812

Min	Mean	Median	Max	SD
0.19	8.55	5.97	63.36	7.82

110	Column name:	who_lab
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Column description: WHO/ISH CVD non-laboratory risk score

Source information: 10-year risk of developing a fatal or non-fatal cardiovascular event. Function of age, sex, smoking status, systolic blood pressure, total cholesterol and diabetes mellitus status. Ref: Kaptoge S et Al. (2019). World Health Organization cardiovascular disease risk charts: Revised models to estimate risk in 21 global regions. The Lancet Global Health, 7(10), e1332–e1345. [https://doi.org/10.1016/S2214-109X\(19\)30318-3](https://doi.org/10.1016/S2214-109X(19)30318-3). Calculated using sbp\_mean2 variable for systolic blood pressure. Defined for age between 40 and 80 years.

Data type: Numeric

Unique non-missing value count: 37,219

Missing value count: 129,637

Min	Mean	Median	Max	SD
0.20	8.27	5.83	85.05	7.69

111	Column name:	fhs_nonlab
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Column description: Framingham CVD non-laboratory risk score

Source information: 10-year risk of developing a fatal or non-fatal cardiovascular event. Function of age, sex, smoking

status, systolic blood pressure, BMI, diabetes status and use of antihypertensive medication. Ref. D’Agostino R et Al. General Cardiovascular Risk Profile for Use in Primary Care. Circulation 117(6);2008:743–53.. Calculated using sbp\_mean2 variable for systolic blood pressure. Defined for age between 30 and 74 years.

Data type: Numeric

Unique non-missing value count: 2,895

Missing value count: 117,028

Min	Mean	Median	Max	SD
1.00	11.53	8.16	30.00	9.53