

# A. rfMRI

## 1. Lifestyle and environment

Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Above moderate/vigorous recommendation ≤ No	0.46	0.38	0.34	9.7e-10	**
Above moderate/vigorous recommendation No (+ve) vs rest	0.46	0.38	0.36	4.8e-10	**
Above moderate/vigorous recommendation rest (+ve) vs Yes	0.46	0.38	0.34	3.7e-11	**
Above moderate/vigorous/walking recommendation ≤ No	0.19	0.00049	0.00012	0.12	
Above moderate/vigorous/walking recommendation No (+ve) vs rest	0.19	0.00013	0.00012	0.96	
Age started smoking in current smokers < 25th percentile	0.19	0.19	0.18	0.48	
Age started smoking in current smokers > 75th percentile	0.19	0.21	0.15	8.8e-05	
Age started smoking in former smokers < 0	0.0041	0.0081	0.0066	0.85	
Age started smoking in former smokers < 25th percentile	0.13	0.039	0.016	1.5e-05	*
Age started smoking in former smokers > 75th percentile	0.19	0.02	0.01	0.0037	
Age stopped smoking < 25th percentile	0.24	0.047	0.029	0.00027	
Age stopped smoking < 50th percentile	0.48	0.5	0.45	5.6e-12	**
Age stopped smoking > 75th percentile	0.23	0.11	0.048	9e-12	**
Age stopped smoking cigarettes (current cigar/pipe or previous cigarette smoker) < 50th percentile	0.44	0.4	0.34	0.047	
Age stopped smoking cigarettes (current cigar/pipe or previous cigarette smoker) > 75th percentile	0.23	0.24	0.074	0.00027	
Age when last ate meat < 50th percentile	0.49	0.58	0.58	0.99	
Age when last ate meat > 75th percentile	0.22	0.21	0.2	0.13	
Alcohol intake frequency. > Once or twice a week	0.28	0.08	0.0081	2.2e-19	**
Alcohol intake frequency. > One to three times a month	0.17	0.0019	0.00024	0.0014	
Alcohol intake frequency. ≤ Daily or almost daily	0.17	0.0049	0.00049	1.5e-05	*
Alcohol intake frequency. ≤ Three or four times a week	0.45	0.48	0.45	1.8e-13	**
Alcohol intake frequency. Daily or almost daily (+ve) vs rest	0.17	0.0039	0.00037	9.3e-05	
Alcohol intake frequency. Once or twice a week (+ve) vs rest	0.27	0.0041	0.0011	1.9e-05	*
Alcohol intake frequency. Special occasions only (+ve) vs rest	0.11	0.00079	0	0.042	
Alcohol intake frequency. Three or four times a week (+ve) vs rest	0.28	0.011	0.0027	5.1e-10	**
Alcohol intake versus 10 years previously > About the same	0.48	0.45	0.43	3.8e-10	**
Alcohol intake versus 10 years previously Less nowadays (+ve) vs rest	0.48	0.45	0.43	2.3e-09	**
Alcohol usually taken with meals ≤ Do not know	0.34	0.059	0.052	0.0076	
Alcohol usually taken with meals ≤ It varies	0.34	0.061	0.051	0.00065	
Alcohol usually taken with meals ≤ Prefer not to answer	0.34	0.059	0.052	0.00027	
Alcohol usually taken with meals It varies (+ve) vs rest	0.34	0.058	0.048	1.5e-05	*
Alcohol usually taken with meals No (+ve) vs rest	0.19	0.0043	0.0019	0.011	
Alcohol usually taken with meals Yes (+ve) vs rest	0.47	0.53	0.52	0.0015	
Average monthly champagne plus white wine intake < 0	0.004	0.005	0	0.33	
Average monthly champagne plus white wine intake < 25th percentile	0.0042	0.0053	0	0.33	
Average monthly champagne plus white wine intake > 75th percentile	0.24	0.055	0.05	0.14	
Average monthly fortified wine intake > 75th percentile	0.078	0.0099	0.0079	0.52	
Average monthly intake of other alcoholic drinks > 75th percentile	0.03	0.031	0.012	0.011	
Average monthly red wine intake > 75th percentile	0.15	0.014	0.0084	0.032	
Average monthly spirits intake < 25th percentile	0.0029	0.02	0	0.33	
Average monthly spirits intake > 75th percentile	0.17	0.028	0.021	0.01	
Average weekly beer plus cider intake > 75th percentile	0.21	0.27	0.21	1.3e-13	**
Average weekly champagne plus white wine intake > 75th percentile	0.21	0.013	0.0038	3.3e-09	**
Average weekly fortified wine intake < 0	0.0022	0.0091	0	0.34	
Average weekly fortified wine intake < 25th percentile	0.0023	0.012	0	0.17	
Average weekly red wine intake < 50th percentile	0.43	0.35	0.31	2.8e-13	**
Average weekly red wine intake > 75th percentile	0.24	0.0083	0.0027	2.8e-07	**
Beef intake > Less than once a week	0.39	0.15	0.095	7.9e-16	**
Beef intake ≤ Never	0.11	0.00017	0	0.33	
Beef intake Less than once a week (+ve) vs rest	0.49	0.49	0.48	9.6e-08	**
Beef intake Never (+ve) vs rest	0.11	0.00071	0	0.042	
Beef intake Once a week (+ve) vs rest	0.3	0.015	0.0033	2.7e-11	**
Bread intake < 25th percentile	0.23	0.018	0.012	5.1e-06	*

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Bread intake > 75th percentile	0.19	0.015	0.0083	6.1e-05	
Bread type White (+ve) vs rest	0.17	0.00085	0.00012	0.013	
Bread type/intake (pilot) > Wholemeal or wholegrain	0.052	0.065	0.027	0.16	
Bread type/intake (pilot) ≤ Brown	0.3	0.28	0.26	0.5	
Bread type/intake (pilot) ≤ White	0.18	0.18	0.13	0.011	
Bread type/intake (pilot) rest (+ve) vs Wholemeal or wholegrain	0.35	0.36	0.35	0.59	
Cereal intake < 25th percentile	0.22	0.0035	0.0012	2.2e-05	
Cereal intake < 50th percentile	0.41	0.3	0.26	1.2e-14	**
Cereal type > Oat cereal (e.g. Ready Brek, porridge)	0.36	0.078	0.045	7.9e-14	**
Cereal type ≤ Biscuit cereal (e.g. Weetabix)	0.29	0.0069	0.00037	2.8e-07	**
Cereal type ≤ Bran cereal (e.g. All Bran, Branflakes)	0.14	0.0003	0	0.16	
Cereal type Muesli (+ve) vs rest	0.24	0.0029	0.0011	0.0017	
Cereal type Oat cereal (e.g. Ready Brek, porridge) (+ve) vs rest	0.35	0.083	0.061	3.7e-10	**
Cereal type Other (e.g. Cornflakes, Frosties) (+ve) vs rest	0.12	0.0019	0	0.0018	
Cereal type Prefer not to answer (+ve) vs rest	0.00059	0.0083	0	0.33	
Cheese intake ≤ Less than once a week	0.17	0.00036	0	0.083	
Cheese intake Once a week (+ve) vs rest	0.21	0.0003	0	0.083	
Coffee intake < 25th percentile	0.25	0.0049	0.0025	0.0014	
Coffee intake < 50th percentile	0.46	0.41	0.4	0.034	
Coffee intake > 75th percentile	0.19	0.00083	0	0.0021	
Coffee type > Instant coffee	0.34	0.082	0.025	6.4e-16	**
Coffee type Ground coffee (include espresso, filter etc) (+ve) vs rest	0.32	0.064	0.013	2.5e-16	**
Coffee type Instant coffee (+ve) vs rest	0.48	0.45	0.41	1.5e-14	**
Coffee type Other type of coffee (+ve) vs rest	0.02	0.0011	0	0.33	
Cooked vegetable intake < 25th percentile	0.17	0.0011	0.00024	0.019	
Cooked vegetable intake < 50th percentile	0.49	0.5	0.5	0.001	
Cooked vegetable intake > 75th percentile	0.22	0.00036	8.9e-05	0.12	
Current tobacco smoking Yes, on most or all days (+ve) vs rest	0.024	0.00079	0	0.33	
Daytime dozing / sleeping (narcolepsy) > Never rarely	0.23	0.045	0.0034	3.6e-13	**
Daytime dozing / sleeping (narcolepsy) Sometimes (+ve) vs rest	0.2	0.018	0.0017	7.5e-10	**
Difficulty not smoking for 1 day > Fairly difficult	0.3	0.35	0.26	2.2e-08	**
Difficulty not smoking for 1 day ≤ Fairly easy	0.37	0.39	0.32	9.9e-06	*
Difficulty not smoking for 1 day ≤ Very easy	0.097	0.11	0.093	0.13	
Difficulty not smoking for 1 day Fairly difficult (+ve) vs rest	0.34	0.36	0.3	0.00051	
Difficulty not smoking for 1 day Fairly easy (+ve) vs rest	0.27	0.27	0.2	1.7e-05	*
Difficulty not smoking for 1 day Very difficult (+ve) vs rest	0.3	0.36	0.31	0.0001	
Dried fruit intake < 25th percentile	0.09	0.00022	0	0.33	
Ever smoked ≤ No	0.46	0.45	0.41	1.3e-14	**
Ever smoked No (+ve) vs rest	0.46	0.45	0.41	1.3e-13	**
Ever smoked rest (+ve) vs Yes	0.46	0.45	0.41	3.8e-16	**
Ever stopped smoking for 6+ months > No	0.41	0.32	0.3	0.0004	
Ever stopped smoking for 6+ months ≤ Do not know	0.022	0.014	0	0.022	
Ever stopped smoking for 6+ months (pilot) > No	0.44	0.34	0.33	0.86	
Ever stopped smoking for 6+ months (pilot) Yes (+ve) vs rest	0.38	0.4	0.32	0.017	
Ever stopped smoking for 6+ months (pilot) rest (+ve) vs No	0.41	0.43	0.29	0.00013	
Ever stopped smoking for 6+ months Do not know (+ve) vs rest	0.024	0.0077	0	0.083	
Ever stopped smoking for 6+ months Yes (+ve) vs rest	0.41	0.32	0.31	0.045	
Ever stopped smoking for 6+ months rest (+ve) vs No	0.43	0.36	0.35	0.022	
Ever tried to stop smoking ≤ No	0.14	0.21	0.16	0.0088	
Ever tried to stop smoking No (+ve) vs rest	0.15	0.19	0.14	0.005	
Ever tried to stop smoking Yes, tried but was not able to stop or stopped for less than 6 months (+ve) vs rest	0.41	0.42	0.41	0.1	
Former alcohol drinker ≤ No	0.5	0.52	0.52	0.55	
Former alcohol drinker No (+ve) vs rest	0.49	0.52	0.51	0.42	
Former alcohol drinker rest (+ve) vs Yes	0.5	0.53	0.5	0.0011	
Fresh fruit intake < 50th percentile	0.35	0.17	0.11	8.2e-14	**
Fresh fruit intake > 75th percentile	0.16	0.00037	0	0.083	
Getting up in morning > Fairly easy	0.37	0.28	0.27	0.00042	
Getting up in morning ≤ Not very easy	0.14	0.0052	0.0023	0.0072	

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Getting up in morning Fairly easy (+ve) vs rest	0.49	0.49	0.49	0.37	
Getting up in morning Not very easy (+ve) vs rest	0.11	0.00037	0	0.16	
Getting up in morning Very easy (+ve) vs rest	0.38	0.28	0.26	4.9e-08	**
Hot drink temperature ≤ Very hot	0.19	0.00043	0	0.042	
Hot drink temperature Very hot (+ve) vs rest	0.18	0.00035	0	0.083	
Hot drink temperature Warm (+ve) vs rest	0.14	0.00014	0	0.33	
Hot drink temperature rest (+ve) vs Hot	0.33	0.025	0.019	3.6e-05	
IPAQ activity group > moderate	0.4	0.17	0.1	6.1e-17	**
IPAQ activity group ≤ low	0.19	0.00049	0	0.042	
IPAQ activity group high (+ve) vs rest	0.4	0.17	0.09	9.3e-18	**
IPAQ activity group low (+ve) vs rest	0.19	0.00051	0.00025	0.27	
IPAQ activity group moderate (+ve) vs rest	0.41	0.17	0.14	1.5e-09	**
Lamb/mutton intake > Less than once a week	0.17	0.0027	0.00058	0.00022	
Lamb/mutton intake ≤ Never	0.19	0.00051	0	0.056	
Lamb/mutton intake Never (+ve) vs rest	0.19	0.00074	0.00031	0.14	
Lamb/mutton intake Once a week (+ve) vs rest	0.16	0.0014	0	0.00063	
Lamb/mutton intake rest (+ve) vs Less than once a week	0.37	0.04	0.027	7.8e-07	**
Light smokers, at least 100 smokes in lifetime (pilot) > No	0.38	0.44	0.32	0.00036	
Light smokers, at least 100 smokes in lifetime (pilot) Yes (+ve) vs rest	0.4	0.41	0.37	0.28	
Light smokers, at least 100 smokes in lifetime (pilot) rest (+ve) vs No	0.38	0.42	0.39	0.31	
Light smokers, at least 100 smokes in lifetime Do not know (+ve) vs rest	0.034	0.0016	0	0.33	
Light smokers, at least 100 smokes in lifetime Yes (+ve) vs rest	0.39	0.22	0.21	0.013	
Light smokers, at least 100 smokes in lifetime rest (+ve) vs No	0.42	0.32	0.32	0.17	
Likelihood of resuming smoking ≤ Do not know	0.012	0.027	0.011	0.085	
Likelihood of resuming smoking ≤ Yes, definitely	0.013	0.022	0.0076	0.054	
Likelihood of resuming smoking ≤ Yes, probably	0.022	0.012	0.0085	0.62	
Likelihood of resuming smoking Yes, probably (+ve) vs rest	0.0081	0.015	0.0095	0.46	
MET minutes per week for moderate activity < 25th percentile	0.22	0.0023	0.00022	0.0028	
MET minutes per week for moderate activity < 50th percentile	0.49	0.52	0.51	0.00011	
MET minutes per week for moderate activity > 75th percentile	0.25	0.014	0.0048	6.5e-07	**
MET minutes per week for vigorous activity < 50th percentile	0.45	0.38	0.32	2e-16	**
MET minutes per week for vigorous activity > 75th percentile	0.22	0.0041	0.00078	1.3e-07	**
MET minutes per week for walking < 50th percentile	0.48	0.47	0.44	1.1e-11	**
MET minutes per week for walking > 75th percentile	0.17	0.00042	0	0.083	
Major dietary changes in the last 5 years > Yes, because of illness	0.3	0.0082	0.0029	0.00023	
Major dietary changes in the last 5 years Yes, because of illness (+ve) vs rest	0.062	0.00066	0	0.16	
Major dietary changes in the last 5 years Yes, because of other reasons (+ve) vs rest	0.3	0.0096	0.0078	0.054	
Major dietary changes in the last 5 years rest (+ve) vs No	0.37	0.089	0.031	4.1e-18	**
Milk type used > Skimmed	0.092	0.00065	0	0.083	
Milk type used > Soya	0.059	0.00067	0	0.16	
Milk type used Other type of milk (+ve) vs rest	0.027	0.00075	0	0.33	
Milk type used Skimmed (+ve) vs rest	0.21	0.00019	0	0.16	
Morning/evening person (chronotype) ≤ Definitely a 'morning' person	0.35	0.031	0.019	2.9e-07	**
Morning/evening person (chronotype) Definitely a 'morning' person (+ve) vs rest	0.26	0.0018	0.00079	0.0022	
Morning/evening person (chronotype) More an 'evening' than a 'morning' person (+ve) vs rest	0.24	0.0005	0.00042	0.66	
Nap during day > Never rarely	0.42	0.42	0.41	3.9e-06	*
Nap during day > Sometimes	0.055	0.00075	0.00074	1	
Nap during day Sometimes (+ve) vs rest	0.37	0.17	0.14	9e-12	**
Nap during day Usually (+ve) vs rest	0.055	0.0015	0	0.042	
Never eat eggs, dairy, wheat, sugar ≤ Sugar or foods drinks containing sugar	0.24	0.014	0.0095	4.4e-05	
Never eat eggs, dairy, wheat, sugar rest (+ve) vs I eat all of the above	0.24	0.016	0.0057	2.4e-08	**
Non-butter spread type details > Olive oil based spread (eg: Bertolli)	0.43	0.27	0.26	0.0083	
Non-butter spread type details ≤ Hard (block) margarine	0.28	0.025	0.02	0.026	
Non-butter spread type details ≤ Soft (tub) margarine	0.28	0.026	0.021	0.0051	

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Non-butter spread type details Other low or reduced fat spread (+ve) vs rest	0.087	0.00041	0	0.33	
Non-oily fish intake $\leq$ Do not know	0.0017	0.013	0	0.16	
Non-oily fish intake $\leq$ Less than once a week	0.34	0.059	0.043	6e-08	**
Non-oily fish intake Do not know (+ve) vs rest	0.0015	0.024	0	0.047	
Non-oily fish intake Less than once a week (+ve) vs rest	0.29	0.01	0.0033	5.4e-08	**
Number of cigarettes currently smoked daily (current cigarette smokers) < 25th percentile	0.25	0.28	0.25	0.026	
Number of cigarettes currently smoked daily (current cigarette smokers) < 50th percentile	0.47	0.52	0.47	1e-06	**
Number of cigarettes currently smoked daily (current cigarette smokers) > 75th percentile	0.28	0.36	0.25	1.4e-05	*
Number of cigarettes previously smoked daily < 25th percentile	0.13	0.03	0.025	0.22	
Number of cigarettes previously smoked daily < 50th percentile	0.36	0.29	0.27	2.9e-06	*
Number of cigarettes previously smoked daily > 75th percentile	0.14	0.036	0.035	0.69	
Number of cigarettes previously smoked daily (current cigar/pipe smokers) > 75th percentile	0.078	0.083	0	0.17	
Number of unsuccessful stop-smoking attempts < 0	0.08	0.0064	0.0029	0.16	
Number of unsuccessful stop-smoking attempts < 25th percentile	0.078	0.0045	0	0.021	
Number of unsuccessful stop-smoking attempts > 75th percentile	0.21	0.044	0.041	0.43	
Oily fish intake $\leq$ Less than once a week	0.38	0.22	0.19	2.3e-09	**
Oily fish intake Once a week (+ve) vs rest	0.42	0.2	0.18	3e-07	**
Pack years adult smoking as proportion of life span exposed to smoking < 25th percentile	0.25	0.084	0.061	8.3e-05	
Pack years adult smoking as proportion of life span exposed to smoking < 50th percentile	0.5	0.56	0.52	1.4e-09	**
Pack years of smoking < 25th percentile	0.25	0.087	0.041	4.9e-10	**
Pack years of smoking < 50th percentile	0.5	0.57	0.52	2.6e-13	**
Pack years of smoking > 75th percentile	0.24	0.12	0.064	5.1e-09	**
Past tobacco smoking > Just tried once or twice	0.47	0.47	0.44	1.3e-16	**
Past tobacco smoking $\leq$ Smoked occasionally	0.37	0.2	0.14	8.2e-16	**
Past tobacco smoking $\leq$ Smoked on most or all days	0.24	0.031	0.0067	9.6e-15	**
Past tobacco smoking I have never smoked (+ve) vs rest	0.47	0.48	0.43	1e-13	**
Past tobacco smoking Smoked on most or all days (+ve) vs rest	0.24	0.031	0.0069	3.7e-16	**
Pork intake > Less than once a week	0.22	0.0022	0.00046	0.0011	
Pork intake $\leq$ Never	0.17	0.00082	0.00011	0.032	
Pork intake Once a week (+ve) vs rest	0.19	0.00021	0	0.16	
Pork intake rest (+ve) vs Less than once a week	0.4	0.1	0.049	2.6e-14	**
Poultry intake $\leq$ Less than once a week	0.16	0.00013	0	0.33	
Poultry intake $\leq$ Once a week	0.48	0.45	0.43	2.5e-09	**
Poultry intake Once a week (+ve) vs rest	0.32	0.027	0.017	9.9e-07	**
Previously smoked cigarettes on most/all days rest (+ve) vs Yes	0.36	0.3	0.24	0.11	
Processed meat intake > Once a week	0.29	0.12	0.084	6.1e-10	**
Processed meat intake $\leq$ Less than once a week	0.43	0.52	0.51	0.026	
Processed meat intake $\leq$ Never	0.099	0.00021	0	0.33	
Processed meat intake Once a week (+ve) vs rest	0.28	0.0016	0.0013	0.37	
Processed meat intake Once or more daily (+ve) vs rest	0.0052	0.0034	0.003	0.9	
Reason for reducing amount of alcohol drunk > Financial reasons	0.43	0.35	0.3	1.3e-10	**
Reason for reducing amount of alcohol drunk > Health precaution	0.45	0.4	0.39	0.019	
Reason for reducing amount of alcohol drunk $\leq$ Doctor's advice	0.16	0.0015	0.00043	0.071	
Reason for reducing amount of alcohol drunk $\leq$ Illness or ill health	0.15	0.0011	0.00045	0.15	
Reason for reducing amount of alcohol drunk (pilot) rest (+ve) vs Other reason	0.16	0.17	0.13	0.22	
Reason for reducing amount of alcohol drunk Do not know (+ve) vs rest	0.11	0.0013	0	0.043	
Reason for reducing amount of alcohol drunk Health precaution (+ve) vs rest	0.39	0.24	0.17	1e-16	**
Reason for reducing amount of alcohol drunk Other reason (+ve) vs rest	0.43	0.35	0.31	3.4e-11	**
Reason former drinker stopped drinking alcohol > Financial reasons	0.49	0.51	0.51	0.35	
Reason former drinker stopped drinking alcohol > Health precaution	0.49	0.51	0.51	0.91	

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Reason former drinker stopped drinking alcohol ≤ Do not know	0.022	0.066	0	0.012	
Reason former drinker stopped drinking alcohol ≤ Illness or ill health	0.21	0.22	0.21	0.37	
Reason former drinker stopped drinking alcohol Do not know (+ve) vs rest	0.021	0.03	0	0.087	
Salad / raw vegetable intake < 50th percentile	0.43	0.37	0.37	0.31	
Salt added to food > Never rarely	0.41	0.13	0.1	4.7e-09	**
Salt added to food Sometimes (+ve) vs rest	0.27	0.0013	0.00022	0.001	
Salt added to food Usually (+ve) vs rest	0.11	0.00019	0	0.33	
Sleep duration < 0	0.0021	0.0053	0	0.33	
Sleep duration < 25th percentile	0.24	0.012	0.00025	8.7e-10	**
Sleep duration > 75th percentile	0.073	0.00029	0	0.33	
Sleeplessness / insomnia ≤ Never rarely	0.22	0.011	0.0035	2.5e-07	**
Sleeplessness / insomnia Usually (+ve) vs rest	0.31	0.016	0.01	0.00017	
Smoking compared to 10 years previous > About the same?	0.47	0.5	0.46	5e-05	
Smoking compared to 10 years previous ≤ More nowadays?	0.13	0.2	0.1	6.1e-05	
Smoking compared to 10 years previous About the same? (+ve) vs rest	0.39	0.37	0.37	0.87	
Smoking compared to 10 years previous More nowadays? (+ve) vs rest	0.14	0.22	0.13	7.1e-05	
Smoking status > Never	0.38	0.23	0.16	2.2e-16	**
Smoking status Current (+ve) vs rest	0.039	0.00057	0	0.33	
Smoking status Previous (+ve) vs rest	0.34	0.13	0.1	1.4e-10	**
Smoking status rest (+ve) vs Never	0.38	0.23	0.15	4.3e-20	**
Smoking/smokers in household > No	0.053	0.00038	0	0.33	
Smoking/smokers in household rest (+ve) vs No	0.054	0.00035	0	0.33	
Snoring ≤ Yes	0.41	0.31	0.28	4.7e-08	**
Snoring Yes (+ve) vs rest	0.34	0.17	0.14	7.7e-13	**
Snoring rest (+ve) vs No	0.41	0.31	0.27	8.4e-11	**
Spread type > Butter spreadable butter	0.35	0.15	0.11	5.9e-12	**
Spread type (pilot) > Low or reduced fat spread	0.14	0.21	0.1	1.1e-05	*
Spread type (pilot) > Olive oil based spread	0.42	0.42	0.39	0.17	
Spread type (pilot) > Other type of spread	0.082	0.091	0.075	0.57	
Spread type (pilot) ≤ Butter spreadable butter	0.34	0.39	0.3	5.6e-05	
Spread type (pilot) Low or reduced fat spread (+ve) vs rest	0.27	0.32	0.23	8.8e-05	
Spread type (pilot) Other type of spread (+ve) vs rest	0.051	0.056	0.046	0.7	
Summed MET minutes per week for all activity < 25th percentile	0.25	0.0038	0.00086	7.9e-05	
Summed MET minutes per week for all activity < 50th percentile	0.5	0.52	0.5	1.4e-11	**
Summed MET minutes per week for all activity > 75th percentile	0.25	0.0066	0.0017	1.1e-06	**
Summed days activity < 25th percentile	0.21	0.00054	0.00022	0.16	
Summed days activity < 50th percentile	0.43	0.3	0.26	1.5e-11	**
Summed days activity > 75th percentile	0.21	0.0011	0.00011	0.00094	
Summed minutes activity < 25th percentile	0.25	0.0039	0.00048	3.8e-05	
Summed minutes activity < 50th percentile	0.49	0.5	0.48	4.4e-11	**
Summed minutes activity > 75th percentile	0.25	0.0071	0.00094	1.9e-06	**
Tea intake < 50th percentile	0.39	0.098	0.075	1.6e-10	**
Time from waking to first cigarette > Between 1 and 2 hours	0.17	0.21	0.2	0.33	
Time from waking to first cigarette Between 1 and 2 hours (+ve) vs rest	0.11	0.13	0.09	0.025	
Time from waking to first cigarette Less than 5 minutes (+ve) vs rest	0.092	0.13	0.079	0.027	
Time from waking to first cigarette Longer than 2 hours (+ve) vs rest	0.17	0.23	0.18	0.0011	
Type of tobacco currently smoked > Manufactured cigarettes	0.31	0.38	0.33	0.0001	
Type of tobacco previously smoked > Manufactured cigarettes	0.11	0.024	0.017	0.058	
Type of tobacco previously smoked rest (+ve) vs Manufactured cigarettes	0.11	0.027	0.015	0.0044	
Variation in diet (pilot) ≤ Never rarely	0.33	0.4	0.31	0.00012	
Variation in diet (pilot) Usually (+ve) vs rest	0.051	0.03	0.022	0.63	
Variation in diet (pilot) rest (+ve) vs Sometimes	0.41	0.44	0.4	0.031	
Variation in diet rest (+ve) vs Sometimes	0.42	0.24	0.23	0.00026	
Wants to stop smoking > No, probably not	0.029	0.014	0	0.17	
Wants to stop smoking Yes, definitely (+ve) vs rest	0.35	0.36	0.35	0.28	
Water intake < 25th percentile	0.16	0.00025	0.00013	0.49	
Water intake < 50th percentile	0.37	0.2	0.16	8.4e-13	**

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Water intake > 75th percentile	0.23	0.018	0.0035	5.8e-10	**
Why reduced smoking ≤ Do not know	0.3	0.31	0.27	0.047	
Why reduced smoking ≤ Doctor's advice	0.33	0.4	0.33	0.00046	
Why reduced smoking ≤ Illness or ill health	0.32	0.34	0.32	0.14	
Why reduced smoking ≤ None of the above	0.29	0.29	0.23	0.064	
Why reduced smoking Health precaution (+ve) vs rest	0.4	0.43	0.39	0.19	
Why reduced smoking None of the above (+ve) vs rest	0.27	0.3	0.28	0.13	
Why stopped smoking ≤ Do not know	0.21	0.042	0.033	0.0098	
Why stopped smoking ≤ Illness or ill health	0.24	0.052	0.03	3.2e-06	*
Why stopped smoking ≤ None of the above	0.2	0.048	0.019	6.5e-07	**
Why stopped smoking ≤ Prefer not to answer	0.2	0.048	0.018	4.7e-07	**
Why stopped smoking Do not know (+ve) vs rest	0.0061	0.036	0.0083	0.042	
Why stopped smoking Illness or ill health (+ve) vs rest	0.038	0.012	0	0.014	
Why stopped smoking None of the above (+ve) vs rest	0.2	0.043	0.019	1.4e-06	**

## 2. Mental health

Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Able to confide ≤ About once a month	0.28	0.013	0.0088	9.9e-05	
Able to confide ≤ About once a week	0.4	0.16	0.13	2e-09	**
Able to confide ≤ Never or almost never	0.16	0.00089	0	0.0047	
Able to confide ≤ Once every few months	0.22	0.0023	0.00098	0.0028	
Able to confide rest (+ve) vs Almost daily	0.5	0.52	0.51	6.7e-05	
Able to pay rent/mortgage as an adult ≤ Rarely true	0.052	0.00046	0	0.33	
Able to pay rent/mortgage as an adult rest (+ve) vs Very often true	0.14	0.00039	0	0.16	
Actions taken following self-harm > See own GP	0.46	0.47	0.43	0.032	
Actions taken following self-harm ≤ Need hospital treatment (eg A	E)	0.31	0.36	0.28	0.00059
Actions taken following self-harm ≤ See anyone from psychiatric or mental health services, including liaison services	0.039	0.025	0	0.17	
Actions taken following self-harm ≤ Use a helpline voluntary organization	0.39	0.4	0.37	0.017	
Actions taken following self-harm Need hospital treatment (eg A	E)	0.28	0.32	0.29	0.11
Actions taken following self-harm See anyone from psychiatric or mental health services, including liaison services (+ve) vs rest	0.034	0.02	0	0.33	
Activities undertaken to treat anxiety > Talking therapies, such as psychotherapy, counselling, group therapy or CBT	0.35	0.29	0.28	0.12	
Activities undertaken to treat anxiety Other therapeutic activities such as mindfulness, yoga or art classes (+ve) vs rest	0.35	0.29	0.28	0.24	
Activities undertaken to treat depression > Talking therapies, such as psychotherapy, counselling, group therapy or CBT	0.31	0.15	0.15	0.2	
Activities undertaken to treat depression Other therapeutic activities such as mindfulness, yoga or art classes (+ve) vs rest	0.31	0.16	0.15	0.12	
Activities undertaken to treat depression rest (+ve) vs Talking therapies, such as psychotherapy, counselling, group therapy or CBT	0.31	0.17	0.17	0.14	
Age at first episode of depression < 25th percentile	0.25	0.017	0.016	0.59	
Age at first episode of depression < 50th percentile	0.5	0.53	0.53	0.92	
Age at last episode of depression < 0	0.1	0.0047	0	0.0013	
Age at last episode of depression < 25th percentile	0.25	0.014	0.0071	4.3e-06	*
Age at last episode of depression < 50th percentile	0.5	0.56	0.56	0.23	
Age at last episode of depression > 75th percentile	0.24	0.21	0.21	0.26	
Age when first had unusual or psychotic experience < 50th percentile	0.48	0.51	0.48	0.0013	
Age when first had unusual or psychotic experience > 75th percentile	0.24	0.24	0.23	0.66	
Age when known person last commented about drinking habits < 0	0.12	0.13	0.12	0.46	

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Age when known person last commented about drinking habits < 25th percentile	0.25	0.32	0.27	0.033	
Age when known person last commented about drinking habits < 50th percentile	0.47	0.55	0.54	0.44	
Age when last took cannabis < 25th percentile	0.24	0.085	0.082	0.64	
Age when last took cannabis > 75th percentile	0.23	0.14	0.11	5.8e-05	
Amount of alcohol drunk on a typical drinking day > 5 or 6	0.099	0.01	0.0021	0.00037	
Amount of alcohol drunk on a typical drinking day > 7, 8 or 9	0.029	0.0081	0.0019	0.014	
Amount of alcohol drunk on a typical drinking day ≤ 1 or 2	0.48	0.57	0.56	9.5e-05	
Amount of alcohol drunk on a typical drinking day 1 or 2 (+ve) vs rest	0.48	0.57	0.56	0.00063	
Amount of alcohol drunk on a typical drinking day 10 or more (+ve) vs rest	0.029	0.0043	0	0.043	
Amount of alcohol drunk on a typical drinking day 3 or 4 (+ve) vs rest	0.29	0.0087	0.0042	4.4e-05	
Amount of alcohol drunk on a typical drinking day 5 or 6 (+ve) vs rest	0.13	0.00092	0.00047	0.3	
Amount of alcohol drunk on a typical drinking day 7, 8 or 9 (+ve) vs rest	0.07	0.0021	0	0.021	
Avoided activities or situations because of previous stressful experience in past month > Not at all	0.19	0.0045	0.0011	6.1e-05	
Avoided activities or situations because of previous stressful experience in past month A little bit (+ve) vs rest	0.15	0.0017	0	0.0035	
Avoided activities or situations because of previous stressful experience in past month Moderately (+ve) vs rest	0.026	0.0011	0	0.33	
Avoided activities or situations because of previous stressful experience in past month rest (+ve) vs Not at all	0.19	0.0052	0.00085	6.4e-05	
Been in a confiding relationship as an adult ≤ Never true	0.099	0.0031	0	0.0021	
Been in a confiding relationship as an adult ≤ Often	0.49	0.47	0.47	0.00012	
Been in a confiding relationship as an adult ≤ Rarely true	0.14	0.0011	0	0.01	
Been in a confiding relationship as an adult ≤ Sometimes true	0.32	0.032	0.0093	1.2e-09	**
Been in a confiding relationship as an adult rest (+ve) vs Very often true	0.49	0.48	0.46	4.4e-06	*
Been in serious accident believed to be life-threatening > Never	0.088	0.0013	0	0.042	
Been in serious accident believed to be life-threatening rest (+ve) vs Never	0.091	0.00059	0.00031	0.49	
Been involved in combat or exposed to war-zone Yes, but not in the last 12 months (+ve) vs rest	0.031	0.0018	0.0017	0.95	
Been involved in combat or exposed to war-zone rest (+ve) vs Never	0.032	0.00083	0	0.33	
Belief that own life is meaningful > Very much	0.13	0.0016	0	0.017	
Belief that own life is meaningful ≤ A moderate amount	0.34	0.098	0.045	4e-16	**
Belief that own life is meaningful ≤ Do not know	0.018	0.0012	0	0.33	
Belief that own life is meaningful A little (+ve) vs rest	0.051	0.00056	0	0.33	
Belief that own life is meaningful A moderate amount (+ve) vs rest	0.26	0.011	0.00095	1e-09	**
Belief that own life is meaningful An extreme amount (+ve) vs rest	0.13	0.0013	0	0.03	
Belief that own life is meaningful rest (+ve) vs Very much	0.47	0.46	0.44	7.8e-07	**
Belittlement by partner or ex-partner as an adult > Never true	0.24	0.032	0.017	1.5e-06	**
Belittlement by partner or ex-partner as an adult > Rarely true	0.14	0.0027	0.0024	0.54	
Belittlement by partner or ex-partner as an adult ≤ Prefer not to answer	0.0022	0.035	0.017	0.17	
Belittlement by partner or ex-partner as an adult Prefer not to answer (+ve) vs rest	0.0024	0.036	0	0.027	
Belittlement by partner or ex-partner as an adult Sometimes true (+ve) vs rest	0.099	0.00056	0	0.16	
Belittlement by partner or ex-partner as an adult rest (+ve) vs Never true	0.24	0.031	0.013	2.3e-09	**
Bipolar and major depression status > Bipolar I Disorder	0.28	0.18	0.13	1.3e-10	**
Bipolar and major depression status > Bipolar II Disorder	0.28	0.18	0.1	2.9e-11	**
Bipolar and major depression status > No Bipolar or Depression	0.29	0.18	0.11	7.2e-11	**
Bipolar and major depression status > Probable Recurrent major depression (severe)	0.22	0.08	0.052	0.00017	
Bipolar and major depression status Bipolar I Disorder (+ve) vs rest	0.005	0.03	0	0.061	
Bipolar and major depression status Bipolar II Disorder (+ve) vs rest	0.0042	0.0097	0	0.17	

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Bipolar and major depression status Probable Recurrent major depression (moderate) (+ve) vs rest	0.14	0.02	0.012	0.013	
Bipolar and major depression status Probable Recurrent major depression (severe) (+ve) vs rest	0.068	0.0031	0	0.083	
Bipolar and major depression status Single Probable major depression episode (+ve) vs rest	0.075	0.0061	0.0031	0.25	
Bipolar and major depression status rest (+ve) vs No Bipolar or Depression	0.29	0.18	0.13	6.5e-11	**
Bipolar disorder status > Bipolar Type I (Mania)	0.49	0.54	0.52	0.62	
Bipolar disorder status rest (+ve) vs Bipolar Type I (Mania)	0.47	0.56	0.51	0.15	
Bipolar disorder status rest (+ve) vs Bipolar Type II (Hypomania)	0.49	0.56	0.44	0.0049	
Contemplated self-harm in past year > No	0.18	0.11	0.099	0.21	
Contemplated self-harm in past year Yes (+ve) vs rest	0.18	0.097	0.082	0.085	
Contemplated self-harm in past year rest (+ve) vs No	0.18	0.11	0.099	0.31	
Depression possibly related to childbirth > No	0.074	0.0024	0.0023	0.94	
Depression possibly related to childbirth No (+ve) vs rest	0.5	0.88	0.88	0.75	
Depression possibly related to childbirth Yes (+ve) vs rest	0.072	0.0064	0.0019	0.15	
Depression possibly related to stressful or traumatic event $\leq$ No	0.27	0.094	0.073	0.00021	
Depression possibly related to stressful or traumatic event $\leq$ Prefer not to answer	0.003	0.0058	0	0.33	
Depression possibly related to stressful or traumatic event No (+ve) vs rest	0.27	0.095	0.075	2.3e-05	
Depression possibly related to stressful or traumatic event rest (+ve) vs Yes	0.27	0.098	0.092	0.099	
Diagnosed with life-threatening illness > Never	0.12	0.0012	0.00024	0.13	
Diagnosed with life-threatening illness $\leq$ Prefer not to answer	0.0025	0.0038	0	0.33	
Diagnosed with life-threatening illness Prefer not to answer (+ve) vs rest	0.0021	0.024	0	0.052	
Diagnosed with life-threatening illness rest (+ve) vs Never	0.12	0.0016	0.00023	0.033	
Did your sleep change? $\leq$ Do not know	0.14	0.0024	0.001	0.082	
Did your sleep change? $\leq$ No	0.3	0.11	0.099	0.0078	
Did your sleep change? Do not know (+ve) vs rest	0.14	0.0037	0.0027	0.41	
Did your sleep change? No (+ve) vs rest	0.16	0.011	0.0086	0.25	
Did your sleep change? rest (+ve) vs Yes	0.3	0.11	0.094	3.4e-06	*
Difficulty concentrating during worst depression $\leq$ Do not know	0.12	0.0041	0	0.0043	
Difficulty concentrating during worst depression Do not know (+ve) vs rest	0.11	0.0038	0.0025	0.42	
Difficulty concentrating during worst depression No (+ve) vs rest	0.17	0.02	0.0049	4.7e-07	**
Difficulty concentrating during worst depression rest (+ve) vs Yes	0.29	0.085	0.081	0.14	
Difficulty concentrating during worst period of anxiety $\leq$ No	0.26	0.12	0.1	0.0015	
Difficulty concentrating during worst period of anxiety Do not know (+ve) vs rest	0.043	0.014	0.0064	0.12	
Difficulty concentrating during worst period of anxiety No (+ve) vs rest	0.22	0.071	0.057	0.00096	
Difficulty concentrating during worst period of anxiety rest (+ve) vs Yes	0.26	0.1	0.088	0.012	
Difficulty stopping worrying during worst period of anxiety $\leq$ No	0.08	0.0093	0.007	0.48	
Difficulty stopping worrying during worst period of anxiety Do not know (+ve) vs rest	0.027	0.014	0.0036	0.083	
Difficulty stopping worrying during worst period of anxiety rest (+ve) vs Yes	0.077	0.016	0.003	0.0039	
Distress caused by unusual or psychotic experiences > Not distressing, a neutral experience	0.4	0.43	0.42	0.21	
Distress caused by unusual or psychotic experiences > Quite distressing	0.12	0.15	0.12	0.022	
Distress caused by unusual or psychotic experiences $\leq$ Not distressing at all, it was a positive experience	0.32	0.37	0.29	7.4e-07	**
Distress caused by unusual or psychotic experiences Not distressing at all, it was a positive experience (+ve) vs rest	0.28	0.35	0.31	0.067	
Distress caused by unusual or psychotic experiences Not distressing, a neutral experience (+ve) vs rest	0.29	0.29	0.28	0.83	
Distress caused by unusual or psychotic experiences Quite distressing (+ve) vs rest	0.095	0.12	0.085	0.083	

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Distress caused by unusual or psychotic experiences Very distressing (+ve) vs rest	0.11	0.16	0.13	0.15	
Duration of worst depression > Over six months, but less than 12 months	0.19	0.0079	0.0038	0.0076	
Duration of worst depression > Over three months, but less than six months	0.34	0.11	0.1	0.00035	
Duration of worst depression ≤ Between one and three months	0.46	0.46	0.44	0.00012	
Duration of worst depression Between one and three months (+ve) vs rest	0.31	0.061	0.043	3e-06	*
Duration of worst depression Over six months, but less than 12 months (+ve) vs rest	0.15	0.0016	0.00034	0.12	
Duration of worst depression Over three months, but less than six months (+ve) vs rest	0.19	0.0035	0.0026	0.32	
Easily tired during worst period of anxiety ≤ Do not know	0.072	0.0048	0.0033	0.59	
Easily tired during worst period of anxiety No (+ve) vs rest	0.26	0.11	0.096	0.049	
Easily tired during worst period of anxiety rest (+ve) vs Yes	0.33	0.2	0.18	0.00017	
Ever addicted to a behaviour or miscellaneous > No	0.25	0.33	0.28	0.0021	
Ever addicted to a behaviour or miscellaneous Yes (+ve) vs rest	0.26	0.31	0.28	0.011	
Ever addicted to a behaviour or miscellaneous rest (+ve) vs No	0.26	0.32	0.27	0.00028	
Ever addicted to alcohol > No	0.37	0.4	0.37	0.024	
Ever addicted to alcohol ≤ Do not know	0.087	0.13	0.12	0.81	
Ever addicted to alcohol Do not know (+ve) vs rest	0.081	0.094	0.067	0.15	
Ever addicted to alcohol Yes (+ve) vs rest	0.36	0.38	0.35	0.021	
Ever addicted to alcohol rest (+ve) vs No	0.44	0.45	0.45	0.96	
Ever addicted to any substance or behaviour rest (+ve) vs No	0.067	0.00038	0	0.33	
Ever addicted to illicit or recreational drugs > No	0.074	0.15	0.091	0.0029	
Ever addicted to illicit or recreational drugs Yes (+ve) vs rest	0.074	0.14	0.11	0.075	
Ever addicted to illicit or recreational drugs rest (+ve) vs No	0.081	0.18	0.15	0.12	
Ever addicted to prescription or over-the-counter medication > No	0.13	0.25	0.18	0.074	
Ever addicted to prescription or over-the-counter medication Yes (+ve) vs rest	0.13	0.19	0.17	0.27	
Ever attempted suicide ≤ No	0.47	0.52	0.46	3.6e-05	
Ever attempted suicide No (+ve) vs rest	0.45	0.49	0.41	4.8e-05	
Ever attempted suicide rest (+ve) vs Yes	0.46	0.53	0.49	0.019	
Ever been injured or injured someone else through drinking alcohol > Yes, but not in the last year	0.0047	0.0045	0	0.33	
Ever believed in an un-real conspiracy against self ≤ Do not know	0.0024	0.0045	0	0.33	
Ever believed in an un-real conspiracy against self rest (+ve) vs No	0.0098	0.0022	0	0.33	
Ever believed in un-real communications or signs ≤ Do not know	0.0031	0.031	0	0.0077	
Ever contemplated self-harm > No	0.15	0.0065	0.00057	0.00014	
Ever contemplated self-harm Prefer not to answer (+ve) vs rest	0.0028	0.027	0	0.0049	
Ever contemplated self-harm Yes, once (+ve) vs rest	0.078	0.00035	0	0.33	
Ever contemplated self-harm rest (+ve) vs No	0.15	0.0065	0.0033	0.0068	
Ever depressed for a whole week ≤ No	0.49	0.54	0.52	1.3e-09	**
Ever depressed for a whole week No (+ve) vs rest	0.47	0.5	0.48	6.5e-09	**
Ever depressed for a whole week rest (+ve) vs Yes	0.49	0.54	0.52	1.5e-08	**
Ever felt worried, tense, or anxious for most of a month or longer > No	0.25	0.017	0.0061	2.4e-09	**
Ever felt worried, tense, or anxious for most of a month or longer ≤ Do not know	0.06	0.00094	0	0.16	
Ever felt worried, tense, or anxious for most of a month or longer ≤ Prefer not to answer	0.0022	0.0034	0	0.33	
Ever felt worried, tense, or anxious for most of a month or longer Yes (+ve) vs rest	0.25	0.015	0.0045	9.9e-09	**
Ever felt worried, tense, or anxious for most of a month or longer rest (+ve) vs No	0.31	0.094	0.045	5.9e-12	**
Ever had known person concerned about, or recommend reduction of, alcohol consumption > No	0.085	0.0026	0	0.0072	
Ever had known person concerned about, or recommend reduction of, alcohol consumption Yes, during the last year (+ve) vs rest	0.039	0.0014	0	0.16	

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Ever had known person concerned about, or recommend reduction of, alcohol consumption rest (+ve) vs No	0.085	0.002	0.0013	0.46	
Ever had prolonged feelings of sadness or depression $\leq$ Prefer not to answer	0.002	0.0089	0.0083	0.95	
Ever had prolonged feelings of sadness or depression No (+ve) vs rest	0.45	0.49	0.49	0.052	
Ever had prolonged feelings of sadness or depression Prefer not to answer (+ve) vs rest	0.0019	0.011	0	0.34	
Ever had prolonged feelings of sadness or depression rest (+ve) vs Yes	0.45	0.49	0.49	0.042	
Ever had prolonged loss of interest in normal activities $>$ No	0.4	0.36	0.33	1.8e-11	**
Ever had prolonged loss of interest in normal activities $\leq$ Prefer not to answer	0.0019	0.0058	0	0.33	
Ever had prolonged loss of interest in normal activities Yes (+ve) vs rest	0.4	0.36	0.34	3.1e-07	**
Ever heard an un-real voice rest (+ve) vs No	0.023	0.0011	0	0.33	
Ever highly irritable/argumentative for 2 days Yes (+ve) vs rest	0.12	0.00017	0	0.33	
Ever highly irritable/argumentative for 2 days rest (+ve) vs No	0.14	0.00015	0	0.33	
Ever physically dependent on alcohol $>$ No	0.2	0.27	0.21	0.017	
Ever physically dependent on alcohol Yes (+ve) vs rest	0.23	0.27	0.24	0.29	
Ever physically dependent on alcohol rest (+ve) vs No	0.27	0.34	0.28	0.00025	
Ever prescribed a medication for unusual or psychotic experiences Yes (+ve) vs rest	0.099	0.15	0.072	4.1e-05	
Ever prescribed a medication for unusual or psychotic experiences rest (+ve) vs No	0.12	0.14	0.11	0.051	
Ever seen an un-real vision rest (+ve) vs No	0.042	0.00061	0	0.33	
Ever sought or received professional help for mental distress $>$ No	0.39	0.35	0.29	6.3e-16	**
Ever sought or received professional help for mental distress $\leq$ Do not know	0.0034	0.0048	0	0.33	
Ever sought or received professional help for mental distress Yes (+ve) vs rest	0.39	0.36	0.32	5.3e-12	**
Ever sought or received professional help for mental distress rest (+ve) vs No	0.39	0.37	0.32	1.1e-11	**
Ever suffered mental distress preventing usual activities $>$ No	0.34	0.22	0.19	1.6e-10	**
Ever suffered mental distress preventing usual activities Yes (+ve) vs rest	0.34	0.22	0.17	5.3e-13	**
Ever suffered mental distress preventing usual activities rest (+ve) vs No	0.35	0.25	0.22	8.4e-10	**
Ever taken cannabis $>$ No	0.21	0.14	0.063	2.2e-13	**
Ever taken cannabis Yes, more than 100 times (+ve) vs rest	0.024	0.019	0.0051	0.0083	
Ever taken cannabis rest (+ve) vs No	0.21	0.14	0.08	2.4e-12	**
Ever talked to a health professional about unusual or psychotic experiences $>$ No	0.19	0.27	0.2	0.00097	
Ever talked to a health professional about unusual or psychotic experiences Yes (+ve) vs rest	0.19	0.22	0.19	0.25	
Ever thought that life not worth living $>$ No	0.3	0.12	0.083	6.2e-12	**
Ever thought that life not worth living $>$ Yes, once	0.17	0.0077	0.0015	2.1e-05	
Ever thought that life not worth living $\leq$ Prefer not to answer	0.0056	0.0059	0	0.33	
Ever thought that life not worth living Yes, more than once (+ve) vs rest	0.17	0.0054	0.0012	5.9e-05	
Ever thought that life not worth living rest (+ve) vs No	0.31	0.13	0.11	2.2e-10	**
Ever unenthusiastic/disinterested for a whole week $>$ No	0.32	0.12	0.08	8.3e-13	**
Ever unenthusiastic/disinterested for a whole week Yes (+ve) vs rest	0.32	0.12	0.081	1.9e-14	**
Ever unenthusiastic/disinterested for a whole week rest (+ve) vs No	0.35	0.21	0.14	2.9e-18	**
Ever worried more than most people would in similar situation $>$ No	0.22	0.0085	0.0034	0.00013	
Ever worried more than most people would in similar situation Do not know (+ve) vs rest	0.15	0.00037	0	0.16	
Ever worried more than most people would in similar situation Yes (+ve) vs rest	0.22	0.012	0.0047	3.7e-07	**
Ever worried more than most people would in similar situation rest (+ve) vs No	0.37	0.21	0.17	2e-12	**
Family relationship satisfaction $>$ Very happy	0.32	0.042	0.018	9.7e-11	**

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Family relationship satisfaction > Very unhappy	0.0039	0.0053	0	0.33	
Family relationship satisfaction ≤ Extremely happy	0.2	0.0006	0.0001	0.063	
Family relationship satisfaction Extremely happy (+ve) vs rest	0.2	0.00062	0	0.03	
Family relationship satisfaction Moderately happy (+ve) vs rest	0.27	0.0023	0.00098	0.014	
Family relationship satisfaction Very happy (+ve) vs rest	0.47	0.41	0.39	7.9e-11	**
Fed-up feelings > No	0.31	0.077	0.051	3.6e-09	**
Fed-up feelings ≤ Prefer not to answer	0.0015	0.0036	0	0.33	
Fed-up feelings Yes (+ve) vs rest	0.31	0.079	0.043	5.3e-16	**
Fed-up feelings rest (+ve) vs No	0.33	0.096	0.083	0.00016	
Feelings of tiredness during worst episode of depression ≤ No	0.27	0.082	0.065	2.9e-05	
Feelings of tiredness during worst episode of depression No (+ve) vs rest	0.16	0.018	0.0083	0.00012	
Feelings of tiredness during worst episode of depression rest (+ve) vs Yes	0.26	0.086	0.061	8.5e-07	**
Feelings of worthlessness during worst period of depression > No	0.49	0.54	0.53	0.015	
Feelings of worthlessness during worst period of depression No (+ve) vs rest	0.45	0.45	0.42	6.9e-09	**
Felt distant from other people in past month > A little bit	0.14	0.011	0.0081	0.18	
Felt distant from other people in past month > Moderately	0.068	0.0046	0.00099	0.063	
Felt distant from other people in past month > Not at all	0.43	0.4	0.39	0.36	
Felt distant from other people in past month > Quite a bit	0.014	0.015	0.0043	0.1	
Felt distant from other people in past month A little bit (+ve) vs rest	0.29	0.068	0.049	0.00024	
Felt distant from other people in past month Extremely (+ve) vs rest	0.013	0.014	0	0.022	
Felt distant from other people in past month Moderately (+ve) vs rest	0.069	0.0024	0	0.18	
Felt distant from other people in past month Quite a bit (+ve) vs rest	0.055	0.0036	0	0.085	
Felt distant from other people in past month rest (+ve) vs Not at all	0.43	0.4	0.39	0.0011	
Felt hated by family member as a child > Never true	0.15	0.0016	0	0.00088	
Felt hated by family member as a child rest (+ve) vs Never true	0.16	0.002	0.00068	0.016	
Felt irritable or had angry outbursts in past month > A little bit	0.078	0.0016	0	0.16	
Felt irritable or had angry outbursts in past month > Moderately	0.03	0.0019	0	0.33	
Felt irritable or had angry outbursts in past month A little bit (+ve) vs rest	0.32	0.11	0.088	0.00076	
Felt irritable or had angry outbursts in past month Extremely (+ve) vs rest	0.0064	0.018	0	0.11	
Felt irritable or had angry outbursts in past month Prefer not to answer (+ve) vs rest	0.0022	0.014	0	0.33	
Felt irritable or had angry outbursts in past month Quite a bit (+ve) vs rest	0.024	0.0052	0	0.16	
Felt loved as a child ≤ Often	0.48	0.46	0.45	3.7e-05	
Felt loved as a child ≤ Rarely true	0.063	0.00049	0	0.33	
Felt loved as a child ≤ Sometimes true	0.22	0.00087	0.00061	0.44	
Felt loved as a child Often (+ve) vs rest	0.26	0.0068	0.0054	0.16	
Felt loved as a child rest (+ve) vs Very often true	0.49	0.46	0.45	0.0019	
Felt very upset when reminded of stressful experience in past month > Not at all	0.36	0.2	0.17	2.1e-08	**
Felt very upset when reminded of stressful experience in past month A little bit (+ve) vs rest	0.27	0.011	0.0051	5.4e-05	
Felt very upset when reminded of stressful experience in past month Quite a bit (+ve) vs rest	0.028	0.0011	0	0.33	
Felt very upset when reminded of stressful experience in past month rest (+ve) vs Not at all	0.36	0.21	0.17	1e-09	**
Financial situation satisfaction > Moderately happy	0.059	0.001	0	0.083	
Financial situation satisfaction > Moderately unhappy	0.017	0.001	0	0.33	
Financial situation satisfaction > Very happy	0.41	0.33	0.3	4.8e-10	**
Financial situation satisfaction ≤ Prefer not to answer	0.00091	0.014	0	0.17	
Financial situation satisfaction Moderately happy (+ve) vs rest	0.35	0.046	0.025	2.6e-09	**
Financial situation satisfaction Prefer not to answer (+ve) vs rest	0.0011	0.021	0	0.091	
Financial situation satisfaction Very happy (+ve) vs rest	0.45	0.36	0.33	1.6e-11	**
Financial situation satisfaction Very unhappy (+ve) vs rest	0.012	0.0045	0	0.17	
Fraction of day affected during worst episode of depression > Most of the day	0.24	0.029	0.0076	1e-10	**

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Fraction of day affected during worst episode of depression $\leq$ About half of the day	0.31	0.098	0.077	2.9e-07	**
Fraction of day affected during worst episode of depression About half of the day (+ve) vs rest	0.13	0.00036	0	0.33	
Fraction of day affected during worst episode of depression All day long (+ve) vs rest	0.24	0.03	0.015	1.3e-06	**
Fraction of day affected during worst episode of depression Do not know (+ve) vs rest	0.058	0.0024	0	0.085	
Fraction of day affected during worst episode of depression Less than half of the day (+ve) vs rest	0.12	0.0057	0.00079	0.0029	
Frequency of consuming six or more units of alcohol $>$ Less than monthly	0.27	0.19	0.16	1.1e-10	**
Frequency of consuming six or more units of alcohol $>$ Monthly	0.18	0.035	0.02	2.7e-07	**
Frequency of consuming six or more units of alcohol $>$ Weekly	0.036	0.0057	0	0.0049	
Frequency of consuming six or more units of alcohol $\leq$ Never	0.47	0.59	0.58	7.8e-06	*
Frequency of consuming six or more units of alcohol Daily or almost daily (+ve) vs rest	0.035	0.0041	0	0.021	
Frequency of consuming six or more units of alcohol Weekly (+ve) vs rest	0.15	0.015	0.0064	7e-06	*
Frequency of depressed days during worst episode of depression $>$ Almost every day	0.38	0.26	0.24	1.1e-06	**
Frequency of depressed days during worst episode of depression Every day (+ve) vs rest	0.38	0.26	0.22	1.6e-09	**
Frequency of depressed days during worst episode of depression Less often (+ve) vs rest	0.09	0.0082	0.0016	0.0023	
Frequency of depressed mood in last 2 weeks $>$ Not at all	0.17	0.0017	0	0.00016	
Frequency of depressed mood in last 2 weeks Nearly every day (+ve) vs rest	0.011	0.0016	0	0.33	
Frequency of depressed mood in last 2 weeks Prefer not to answer (+ve) vs rest	0.0025	0.003	0	0.33	
Frequency of depressed mood in last 2 weeks Several days (+ve) vs rest	0.15	0.00096	0.0004	0.14	
Frequency of depressed mood in last 2 weeks rest (+ve) vs Not at all	0.2	0.0021	0.0008	0.0064	
Frequency of difficulty controlling worry during worst period of anxiety $>$ Sometimes	0.45	0.4	0.39	0.00034	
Frequency of difficulty controlling worry during worst period of anxiety $\leq$ Do not know	0.012	0.0081	0.0053	0.62	
Frequency of difficulty controlling worry during worst period of anxiety $\leq$ Never	0.024	0.0083	0	0.09	
Frequency of difficulty controlling worry during worst period of anxiety $\leq$ Rarely	0.13	0.02	0.018	0.77	
Frequency of difficulty controlling worry during worst period of anxiety Never (+ve) vs rest	0.011	0.035	0.014	0.17	
Frequency of difficulty controlling worry during worst period of anxiety Rarely (+ve) vs rest	0.1	0.012	0.011	0.71	
Frequency of drinking alcohol $>$ 2 to 3 times a week	0.3	0.12	0.07	9e-14	**
Frequency of drinking alcohol $\leq$ 2 to 4 times a month	0.39	0.31	0.24	6.1e-17	**
Frequency of drinking alcohol $\leq$ Monthly or less	0.2	0.019	0.0011	2.2e-09	**
Frequency of drinking alcohol 2 to 3 times a week (+ve) vs rest	0.31	0.022	0.018	0.011	
Frequency of drinking alcohol 2 to 4 times a month (+ve) vs rest	0.19	0.00044	0	0.19	
Frequency of drinking alcohol 4 or more times a week (+ve) vs rest	0.3	0.12	0.061	8.2e-16	**
Frequency of drinking alcohol Monthly or less (+ve) vs rest	0.13	0.0015	0	0.015	
Frequency of failure to fulfil normal expectations due to drinking alcohol in last year $>$ Less than monthly	0.0088	0.015	0	0.092	
Frequency of failure to fulfil normal expectations due to drinking alcohol in last year $>$ Never	0.069	0.0014	0.00075	0.51	
Frequency of failure to fulfil normal expectations due to drinking alcohol in last year Less than monthly (+ve) vs rest	0.059	0.0015	0	0.16	
Frequency of failure to fulfil normal expectations due to drinking alcohol in last year Monthly (+ve) vs rest	0.0061	0.0075	0	0.17	

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Frequency of feeling guilt or remorse after drinking alcohol in last year > Less than monthly	0.054	0.00088	0	0.33	
Frequency of feeling guilt or remorse after drinking alcohol in last year > Never	0.19	0.017	0.0046	2e-06	*
Frequency of feeling guilt or remorse after drinking alcohol in last year > Weekly	0.0074	0.0024	0	0.33	
Frequency of feeling guilt or remorse after drinking alcohol in last year Less than monthly (+ve) vs rest	0.14	0.0017	0.001	0.34	
Frequency of feeling guilt or remorse after drinking alcohol in last year rest (+ve) vs Never	0.2	0.017	0.0082	0.00038	
Frequency of friend/family visits > About once a week	0.2	0.0085	0.0009	1.4e-06	**
Frequency of friend/family visits > Never or almost never	0.0016	0.0036	0	0.33	
Frequency of friend/family visits ≤ Almost daily	0.12	0.00017	0	0.33	
Frequency of friend/family visits ≤ Do not know	0.0017	0.0098	0	0.33	
Frequency of friend/family visits (pilot) > About once a month	0.077	0.097	0.042	0.098	
Frequency of friend/family visits (pilot) About once a month (+ve) vs rest	0.091	0.063	0.046	0.44	
Frequency of friend/family visits (pilot) Almost daily (+ve) vs rest	0.11	0.081	0.08	0.95	
Frequency of friend/family visits About once a month (+ve) vs rest	0.13	0.00015	0	0.33	
Frequency of friend/family visits About once a week (+ve) vs rest	0.33	0.026	0.017	1e-06	**
Frequency of friend/family visits Never or almost never (+ve) vs rest	0.013	0.003	0	0.16	
Frequency of inability to cease drinking in last year > Never	0.12	0.0036	0.0033	0.78	
Frequency of inability to cease drinking in last year Weekly (+ve) vs rest	0.018	0.003	0	0.33	
Frequency of inability to cease drinking in last year rest (+ve) vs Never	0.12	0.0039	0.0024	0.17	
Frequency of inability to stop worrying during worst period of anxiety > Sometimes	0.43	0.38	0.35	2.5e-08	**
Frequency of inability to stop worrying during worst period of anxiety ≤ Do not know	0.0093	0.036	0	0.0083	
Frequency of inability to stop worrying during worst period of anxiety ≤ Rarely	0.13	0.018	0.0095	0.037	
Frequency of inability to stop worrying during worst period of anxiety Do not know (+ve) vs rest	0.008	0.013	0.0065	0.53	
Frequency of inability to stop worrying during worst period of anxiety Often (+ve) vs rest	0.43	0.37	0.35	0.00028	
Frequency of inability to stop worrying during worst period of anxiety Rarely (+ve) vs rest	0.11	0.016	0.0017	0.00023	
Frequency of memory loss due to drinking alcohol in last year > Never	0.14	0.01	0.0017	0.00035	
Frequency of memory loss due to drinking alcohol in last year Less than monthly (+ve) vs rest	0.11	0.0053	0.00087	0.017	
Frequency of memory loss due to drinking alcohol in last year Monthly (+ve) vs rest	0.017	0.0026	0	0.33	
Frequency of memory loss due to drinking alcohol in last year rest (+ve) vs Never	0.14	0.0072	0.0013	0.001	
Frequency of needing morning drink of alcohol after heavy drinking session in last year Less than monthly (+ve) vs rest	0.0028	0.0059	0	0.33	
Frequency of needing morning drink of alcohol after heavy drinking session in last year rest (+ve) vs Never	0.0048	0.0083	0	0.16	
Frequency of tenseness / restlessness in last 2 weeks > Not at all	0.2	0.00078	0.00048	0.19	
Frequency of tenseness / restlessness in last 2 weeks rest (+ve) vs Not at all	0.23	0.0011	0.00071	0.33	
Frequency of tiredness / lethargy in last 2 weeks > More than half the days	0.04	0.0019	0	0.042	
Frequency of tiredness / lethargy in last 2 weeks > Not at all	0.46	0.46	0.43	1.5e-11	**
Frequency of tiredness / lethargy in last 2 weeks > Several days	0.085	0.0007	0	0.083	
Frequency of tiredness / lethargy in last 2 weeks Nearly every day (+ve) vs rest	0.039	0.0041	0	0.0021	
Frequency of tiredness / lethargy in last 2 weeks Several days (+ve) vs rest	0.37	0.082	0.056	1.2e-10	**
Frequency of tiredness / lethargy in last 2 weeks rest (+ve) vs Not at all	0.48	0.5	0.48	2e-08	**

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Frequency of unenthusiasm / disinterest in last 2 weeks > Not at all	0.16	0.0009	0	0.0048	
Frequency of unenthusiasm / disinterest in last 2 weeks Nearly every day (+ve) vs rest	0.011	0.002	0	0.33	
Frequency of unenthusiasm / disinterest in last 2 weeks rest (+ve) vs Not at all	0.18	0.001	0.00034	0.064	
Frequency of unusual or psychotic experiences in past year > Less than once a month	0.059	0.074	0.066	0.57	
Frequency of unusual or psychotic experiences in past year > More than once a month	0.015	0.02	0	0.33	
Frequency of unusual or psychotic experiences in past year Less than once a month (+ve) vs rest	0.032	0.0071	0	0.33	
Frequency of unusual or psychotic experiences in past year Nearly every day or daily (+ve) vs rest	0.013	0.034	0	0.17	
Frequency of unusual or psychotic experiences in past year Once or twice (+ve) vs rest	0.19	0.21	0.21	0.94	
Frequency of unusual or psychotic experiences in past year rest (+ve) vs Not at all	0.27	0.3	0.25	0.0028	
Frequent trouble falling or staying asleep during worst period of anxiety ≤ Do not know	0.03	0.0086	0.0051	0.39	
Frequent trouble falling or staying asleep during worst period of anxiety ≤ No	0.19	0.037	0.034	0.31	
Frequent trouble falling or staying asleep during worst period of anxiety Do not know (+ve) vs rest	0.029	0.018	0.0028	0.038	
Frequent trouble falling or staying asleep during worst period of anxiety rest (+ve) vs Yes	0.2	0.048	0.041	0.048	
Friendships satisfaction > Moderately unhappy	0.0042	0.0067	0	0.33	
Friendships satisfaction > Very happy	0.32	0.11	0.066	2.5e-11	**
Friendships satisfaction ≤ Extremely happy	0.15	0.00014	0	0.33	
Friendships satisfaction Moderately happy (+ve) vs rest	0.29	0.027	0.009	1.7e-10	**
Friendships satisfaction rest (+ve) vs Very happy	0.47	0.43	0.41	1.1e-10	**
General happiness > Very happy	0.44	0.39	0.35	4.9e-11	**
General happiness ≤ Do not know	0.0036	0.02	0	0.043	
General happiness Moderately happy (+ve) vs rest	0.39	0.19	0.16	3.9e-09	**
General happiness Very happy (+ve) vs rest	0.45	0.37	0.36	0.0061	
General happiness with own health > Moderately happy	0.1	0.0016	0	0.01	
General happiness with own health > Moderately unhappy	0.027	0.002	0	0.16	
General happiness with own health > Very happy	0.5	0.52	0.49	8.2e-13	**
General happiness with own health ≤ Do not know	0.0019	0.0053	0	0.33	
General happiness with own health Do not know (+ve) vs rest	0.0017	0.0075	0	0.33	
General happiness with own health Moderately happy (+ve) vs rest	0.39	0.14	0.099	5.5e-10	**
General happiness with own health Moderately unhappy (+ve) vs rest	0.076	0.00071	0	0.16	
General happiness with own health Very happy (+ve) vs rest	0.4	0.18	0.12	6.1e-14	**
General happiness with own health Very unhappy (+ve) vs rest	0.019	0.0014	0	0.33	
Guilty feelings > No	0.27	0.015	0.008	9.4e-06	*
Guilty feelings Yes (+ve) vs rest	0.26	0.011	0.0051	2.6e-05	
Guilty feelings rest (+ve) vs No	0.29	0.023	0.0098	2.6e-10	**
Happiness > Very happy	0.5	0.53	0.51	9.4e-12	**
Happiness Do not know (+ve) vs rest	0.0024	0.0043	0	0.33	
Happiness Extremely unhappy (+ve) vs rest	0.0019	0.0092	0	0.18	
Happiness Moderately happy (+ve) vs rest	0.46	0.4	0.37	2.3e-10	**
Happiness Very happy (+ve) vs rest	0.43	0.29	0.25	1.1e-11	**
Health satisfaction > Moderately happy	0.083	0.00025	0	0.33	
Health satisfaction > Moderately unhappy	0.018	0.00097	0	0.33	
Health satisfaction ≤ Very happy	0.47	0.46	0.37	6.6e-21	**
Health satisfaction Moderately happy (+ve) vs rest	0.45	0.31	0.26	1.5e-13	**
Health satisfaction Very happy (+ve) vs rest	0.41	0.2	0.09	1.7e-20	**
Health satisfaction Very unhappy (+ve) vs rest	0.014	0.0059	0	0.043	
Illness, injury, bereavement, stress in last 2 years > Death of a close relative	0.085	0.0012	0.00047	0.25	

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Illness, injury, bereavement, stress in last 2 years > Death of a spouse or partner	0.073	0.00083	0	0.083	
Illness, injury, bereavement, stress in last 2 years > Marital separation divorce	0.062	0.0013	0	0.042	
Illness, injury, bereavement, stress in last 2 years > None of the above	0.39	0.22	0.21	0.001	
Illness, injury, bereavement, stress in last 2 years > Serious illness, injury or assault to yourself	0.35	0.14	0.13	7e-07	**
Illness, injury, bereavement, stress in last 2 years (pilot) > Death of a close relative	0.13	0.25	0.19	0.096	
Illness, injury, bereavement, stress in last 2 years (pilot) > Death of a spouse or partner	0.13	0.2	0.073	0.00019	
Illness, injury, bereavement, stress in last 2 years (pilot) > Do not know	0.48	0.48	0.42	0.0002	
Illness, injury, bereavement, stress in last 2 years (pilot) > Marital separation divorce	0.12	0.16	0.065	0.0047	
Illness, injury, bereavement, stress in last 2 years (pilot) > None of the above	0.46	0.47	0.42	0.0025	
Illness, injury, bereavement, stress in last 2 years (pilot) > Serious illness, injury or assault of a close relative	0.32	0.39	0.31	0.0001	
Illness, injury, bereavement, stress in last 2 years (pilot) Financial difficulties (+ve) vs rest	0.1	0.14	0.081	0.04	
Illness, injury, bereavement, stress in last 2 years (pilot) Serious illness, injury or assault of a close relative (+ve) vs rest	0.14	0.12	0.082	0.063	
Illness, injury, bereavement, stress in last 2 years Death of a close relative (+ve) vs rest	0.19	0.00011	0	0.33	
Illness, injury, bereavement, stress in last 2 years rest (+ve) vs None of the above	0.39	0.22	0.2	2.1e-05	
Impact on normal roles during worst period of anxiety > Somewhat	0.3	0.15	0.086	2.9e-11	**
Impact on normal roles during worst period of anxiety ≤ A little	0.34	0.2	0.16	5.9e-06	*
Impact on normal roles during worst period of anxiety ≤ Not at all	0.072	0.0059	0.0043	0.5	
Impact on normal roles during worst period of anxiety A little (+ve) vs rest	0.27	0.1	0.064	1.2e-08	**
Impact on normal roles during worst period of anxiety Not at all (+ve) vs rest	0.071	0.0055	0.0024	0.26	
Impact on normal roles during worst period of depression > Somewhat	0.33	0.12	0.058	3.3e-13	**
Impact on normal roles during worst period of depression ≤ A little	0.34	0.096	0.093	0.28	
Impact on normal roles during worst period of depression ≤ Not at all	0.062	0.0023	0	0.083	
Impact on normal roles during worst period of depression A little (+ve) vs rest	0.27	0.022	0.01	1.1e-05	*
Impact on normal roles during worst period of depression A lot (+ve) vs rest	0.33	0.11	0.071	3.2e-08	**
Impact on normal roles during worst period of depression Somewhat (+ve) vs rest	0.34	0.08	0.077	0.29	
Irritability > No	0.25	0.0064	0.0025	1.7e-07	**
Irritability Yes (+ve) vs rest	0.25	0.0067	0.0017	6.4e-08	**
Irritability rest (+ve) vs No	0.29	0.0083	0.0046	0.00078	
Keyed up or on edge during worst period of anxiety ≤ No	0.24	0.042	0.035	0.14	
Keyed up or on edge during worst period of anxiety Do not know (+ve) vs rest	0.046	0.0096	0.0023	0.071	
Keyed up or on edge during worst period of anxiety rest (+ve) vs Yes	0.24	0.036	0.025	0.0045	
Leisure/social activities > Adult education class	0.32	0.2	0.19	1.6e-07	**
Leisure/social activities > Pub or social club	0.44	0.52	0.5	6.6e-07	**
Leisure/social activities > Religious group	0.35	0.34	0.31	1.6e-13	**
Leisure/social activities ≤ None of the above	0.24	0.014	0.00074	8.7e-10	**
Leisure/social activities ≤ Prefer not to answer	0.25	0.013	0.0022	2.1e-09	**
Leisure/social activities ≤ Sports club or gym	0.39	0.27	0.24	5.5e-12	**
Leisure/social activities None of the above (+ve) vs rest	0.25	0.01	8.1e-05	2.9e-11	**
Leisure/social activities Other group activity (+ve) vs rest	0.32	0.2	0.2	0.21	
Leisure/social activities Pub or social club (+ve) vs rest	0.16	0.0069	0.00073	1.5e-07	**
Leisure/social activities Sports club or gym (+ve) vs rest	0.15	0.00026	0	0.16	

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Length of longest manic/irritable episode > At least two days, but less than a week	0.3	0.15	0.15	0.62	
Length of longest manic/irritable episode > Less than a week	0.16	0.03	0.01	3.4e-05	
Length of longest manic/irritable episode ≤ Do not know	0.17	0.037	0.026	0.0019	
Length of longest manic/irritable episode A week or more (+ve) vs rest	0.16	0.032	0.0095	6.2e-07	**
Length of longest manic/irritable episode Do not know (+ve) vs rest	0.16	0.032	0.026	0.023	
Length of longest manic/irritable episode Less than a week (+ve) vs rest	0.15	0.042	0.023	0.00036	
Lifetime number of depressed periods < 0	0.18	0.0075	0.0019	0.0004	
Lifetime number of depressed periods < 25th percentile	0.18	0.0061	0.0039	0.17	
Lifetime number of depressed periods < 50th percentile	0.18	0.0085	0.0021	0.00042	
Loneliness, isolation Yes (+ve) vs rest	0.13	0.00016	0	0.33	
Loneliness, isolation rest (+ve) vs No	0.15	0.00082	0	0.01	
Longest period of depression < 0	0.18	0.0083	0.0032	0.0041	
Longest period of depression < 25th percentile	0.18	0.0097	0.0056	0.012	
Longest period of depression < 50th percentile	0.47	0.48	0.45	6.2e-11	**
Longest period of depression > 75th percentile	0.19	0.0038	0.00092	0.0031	
Longest period of unenthusiasm / disinterest < 25th percentile	0.21	0.038	0.023	0.00025	
Longest period of unenthusiasm / disinterest < 50th percentile	0.47	0.44	0.42	2.2e-06	*
Longest period of unenthusiasm / disinterest > 75th percentile	0.24	0.026	0.018	0.0013	
Longest period spent worried or anxious < 0	0.15	0.04	0.022	0.012	
Longest period spent worried or anxious < 25th percentile	0.24	0.091	0.054	3.5e-07	**
Longest period spent worried or anxious < 50th percentile	0.4	0.33	0.32	0.0033	
Longest period spent worried or anxious > 75th percentile	0.17	0.051	0.031	0.00068	
Manic/hyper symptoms > I needed less sleep than usual	0.19	0.058	0.031	6.3e-07	**
Manic/hyper symptoms > I was more active than usual	0.43	0.42	0.4	6.5e-05	
Manic/hyper symptoms > I was more talkative than usual	0.3	0.17	0.14	6.7e-05	
Manic/hyper symptoms ≤ None of the above	0.43	0.42	0.42	0.15	
Manic/hyper symptoms All of the above (+ve) vs rest	0.076	0.015	0.0077	0.021	
Manic/hyper symptoms I needed less sleep than usual (+ve) vs rest	0.11	0.015	0.011	0.18	
Manic/hyper symptoms I was more active than usual (+ve) vs rest	0.13	0.036	0.025	0.016	
Manic/hyper symptoms I was more creative or had more ideas than usual (+ve) vs rest	0.11	0.046	0.032	0.014	
Manic/hyper symptoms I was more talkative than usual (+ve) vs rest	0.14	0.029	0.025	0.26	
Manic/hyper symptoms None of the above (+ve) vs rest	0.43	0.43	0.39	9.2e-10	**
Maximum frequency of taking cannabis > Less than once a month	0.33	0.25	0.21	3.9e-05	
Maximum frequency of taking cannabis > Once a month or more, but not every week	0.2	0.075	0.066	0.11	
Maximum frequency of taking cannabis > Once a week or more, but not every day	0.058	0.041	0.022	0.0082	
Maximum frequency of taking cannabis ≤ Do not know	0.036	0.021	0.015	0.32	
Maximum frequency of taking cannabis ≤ Prefer not to answer	0.013	0.031	0	0.19	
Maximum frequency of taking cannabis Do not know (+ve) vs rest	0.022	0.021	0.016	0.51	
Maximum frequency of taking cannabis Every day (+ve) vs rest	0.061	0.037	0.029	0.41	
Maximum frequency of taking cannabis rest (+ve) vs Less than once a month	0.36	0.28	0.24	2.5e-07	**
Mental health problems ever diagnosed by a professional > Anorexia nervosa	0.0076	0.015	0.0053	0.26	
Mental health problems ever diagnosed by a professional > Bulimia nervosa	0.49	0.48	0.46	0.00018	
Mental health problems ever diagnosed by a professional > Depression	0.49	0.49	0.47	1.8e-05	*
Mental health problems ever diagnosed by a professional ≤ A personality disorder	0.016	0.038	0	0.0041	
Mental health problems ever diagnosed by a professional ≤ Any other phobia (eg disabling fear of heights or spiders)	0.024	0.018	0.0031	0.033	
Mental health problems ever diagnosed by a professional ≤ Any other type of psychosis or psychotic illness	0.014	0.027	0.013	0.16	
Mental health problems ever diagnosed by a professional ≤ Schizophrenia	0.013	0.012	0	0.042	
Mental health problems ever diagnosed by a professional Agoraphobia (+ve) vs rest	0.0064	0.0048	0	0.33	

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Mental health problems ever diagnosed by a professional Anxiety, nerves or generalized anxiety disorder (+ve) vs rest	0.46	0.42	0.41	0.0049	
Mental health problems ever diagnosed by a professional Any other phobia (eg disabling fear of heights or spiders) (+ve) vs rest	0.0089	0.037	0	0.056	
Mental health problems ever diagnosed by a professional Depression (+ve) vs rest	0.45	0.41	0.37	4.3e-10	**
Mental health problems ever diagnosed by a professional Social anxiety or social phobia (+ve) vs rest	0.0073	0.017	0.0059	0.25	
Methods of self-harm used $\leq$ Ingesting a medication in excess of the normal dose	0.46	0.5	0.5	0.6	
Methods of self-harm used $\leq$ Something not listed	0.047	0.077	0.022	0.024	
Methods of self-harm used $\leq$ Stopping prescribed medication	0.056	0.067	0.065	0.94	
Methods of self-harm used $\leq$ Swallowing dangerous objects or products	0.047	0.047	0	0.0067	
Methods of self-harm used Ingesting alcohol or a recreational or illicit drug (+ve) vs rest	0.14	0.15	0.13	0.15	
Methods of self-harm used Something not listed (+ve) vs rest	0.041	0.097	0.034	0.029	
Miserableness $\leq$ Prefer not to answer	0.00094	0.0053	0	0.33	
Miserableness Prefer not to answer (+ve) vs rest	0.00093	0.024	0	0.16	
Miserableness Yes (+ve) vs rest	0.35	0.2	0.19	0.00029	
Miserableness rest (+ve) vs No	0.36	0.23	0.21	6.6e-09	**
Mood swings > No	0.36	0.17	0.14	2.7e-10	**
Mood swings Yes (+ve) vs rest	0.36	0.17	0.12	2e-13	**
Mood swings rest (+ve) vs No	0.37	0.21	0.18	1.1e-13	**
More irritable than usual during worst period of anxiety $\leq$ Do not know	0.087	0.015	0.0054	0.0018	
More irritable than usual during worst period of anxiety $\leq$ No	0.34	0.23	0.2	1.5e-05	*
More irritable than usual during worst period of anxiety Do not know (+ve) vs rest	0.09	0.013	0.0091	0.25	
More irritable than usual during worst period of anxiety No (+ve) vs rest	0.24	0.081	0.075	0.19	
More irritable than usual during worst period of anxiety rest (+ve) vs Yes	0.34	0.22	0.22	0.26	
Multiple worries during worst period of anxiety $\leq$ Do not know	0.038	0.013	0.0045	0.082	
Multiple worries during worst period of anxiety No (+ve) vs rest	0.25	0.11	0.082	0.00052	
Nervous feelings > No	0.18	0.00087	0	0.0075	
Nervous feelings Yes (+ve) vs rest	0.18	0.00055	0	0.057	
Nervous feelings rest (+ve) vs No	0.2	0.002	0	0.00033	
Neuroticism score > 75th percentile	0.22	0.0062	0.0021	2.2e-05	
Number of depression episodes < 0	0.23	0.013	0.011	0.14	
Number of depression episodes < 25th percentile	0.24	0.015	0.0074	1.1e-05	*
Number of depression episodes > 75th percentile	0.19	0.0038	0.0013	0.0018	
Number of things worried about during worst period of anxiety $\leq$ One thing	0.46	0.47	0.46	0.016	
Number of things worried about during worst period of anxiety One thing (+ve) vs rest	0.44	0.4	0.38	6.7e-05	
Number of things worried about during worst period of anxiety rest (+ve) vs More than one thing	0.46	0.46	0.45	0.0011	
Number of times believed in un-real communications or signs < 0	0.36	0.39	0.27	2.5e-05	
Number of times believed in un-real communications or signs < 25th percentile	0.23	0.23	0.11	0.0038	
Number of times believed in un-real communications or signs < 50th percentile	0.36	0.33	0.29	0.12	
Number of times heard an un-real voice < 0	0.42	0.46	0.41	0.028	
Number of times heard an un-real voice < 25th percentile	0.25	0.3	0.26	0.092	
Number of times heard an un-real voice < 50th percentile	0.43	0.43	0.37	0.0052	
Number of times seen an un-real vision < 0	0.29	0.33	0.32	0.82	
Number of times seen an un-real vision < 50th percentile	0.29	0.32	0.21	2.2e-05	
Number of times seen an un-real vision > 75th percentile	0.23	0.29	0.2	0.00014	
Number of times self-harmed > 2	0.3	0.36	0.33	0.13	
Number of times self-harmed 2 (+ve) vs rest	0.17	0.22	0.16	0.085	

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Number of times self-harmed 3 or more (+ve) vs rest	0.32	0.37	0.35	0.45	
Number of unenthusiastic/disinterested episodes < 0	0.25	0.043	0.021	9.4e-09	**
Number of unenthusiastic/disinterested episodes < 25th percentile	0.0099	0.01	0.01	0.97	
Number of unenthusiastic/disinterested episodes < 50th percentile	0.25	0.046	0.027	2.8e-08	**
Number of unenthusiastic/disinterested episodes > 75th percentile	0.21	0.014	0.0066	0.0037	
Ongoing addiction or dependence to over-the-counter medication > No	0.45	0.47	0.4	0.03	
Ongoing addiction or dependence to over-the-counter medication Yes (+ve) vs rest	0.41	0.51	0.38	5.6e-05	
Ongoing addiction or dependence to over-the-counter medication rest (+ve) vs No	0.45	0.52	0.43	0.00034	
Ongoing addiction to alcohol > No	0.46	0.48	0.47	0.77	
Ongoing addiction to alcohol Yes (+ve) vs rest	0.46	0.47	0.45	0.27	
Ongoing addiction to alcohol rest (+ve) vs No	0.44	0.46	0.41	0.011	
Ongoing behavioural or miscellaneous addiction > No	0.5	0.48	0.47	0.83	
Ongoing behavioural or miscellaneous addiction No (+ve) vs rest	0.48	0.5	0.48	0.11	
Physical violence by partner or ex-partner as an adult > Never true	0.13	0.0011	0.00021	0.058	
Physical violence by partner or ex-partner as an adult ≤ Prefer not to answer	0.0025	0.0083	0.005	0.57	
Physical violence by partner or ex-partner as an adult Often (+ve) vs rest	0.0069	0.0032	0	0.33	
Physical violence by partner or ex-partner as an adult Prefer not to answer (+ve) vs rest	0.0028	0.0094	0	0.17	
Physical violence by partner or ex-partner as an adult rest (+ve) vs Never true	0.13	0.0015	0	0.029	
Physically abused by family as a child > Never true	0.2	0.0047	0.00027	5.6e-07	**
Physically abused by family as a child > Often	0.0061	0.0042	0	0.33	
Physically abused by family as a child > Rarely true	0.083	0.00033	0	0.33	
Physically abused by family as a child > Sometimes true	0.013	0.002	0	0.33	
Physically abused by family as a child rest (+ve) vs Never true	0.2	0.0026	0.00067	0.0035	
Professional informed about anxiety ≤ Do not know	0.0057	0.0053	0	0.33	
Professional informed about anxiety No (+ve) vs rest	0.39	0.31	0.26	1.5e-10	**
Professional informed about anxiety rest (+ve) vs Yes	0.4	0.31	0.29	0.0009	
Professional informed about depression ≤ Do not know	0.004	0.034	0	0.023	
Professional informed about depression Do not know (+ve) vs rest	0.0033	0.026	0	0.023	
Professional informed about depression No (+ve) vs rest	0.36	0.23	0.18	8.1e-10	**
Professional informed about depression rest (+ve) vs Yes	0.36	0.24	0.21	3.5e-07	**
Recent changes in speed/amount of moving or speaking > More than half the days	0.003	0.0094	0	0.16	
Recent easy annoyance or irritability > Not at all	0.26	0.025	0.012	4.1e-06	*
Recent easy annoyance or irritability ≤ Prefer not to answer	0.0037	0.0022	0	0.33	
Recent easy annoyance or irritability Several days (+ve) vs rest	0.23	0.0087	0.0036	0.00016	
Recent easy annoyance or irritability rest (+ve) vs Not at all	0.27	0.028	0.019	1.7e-05	*
Recent feelings of depression ≤ Prefer not to answer	0.0027	0.025	0	0.056	
Recent feelings of depression Prefer not to answer (+ve) vs rest	0.0032	0.014	0	0.085	
Recent feelings of depression Several days (+ve) vs rest	0.17	0.00079	0	0.054	
Recent feelings of depression rest (+ve) vs Not at all	0.2	0.0046	0.0032	0.088	
Recent feelings of foreboding > More than half the days	0.016	0.0049	0	0.084	
Recent feelings of foreboding > Not at all	0.16	0.0046	0.001	0.0019	
Recent feelings of foreboding Nearly every day (+ve) vs rest	0.016	0.0014	0	0.33	
Recent feelings of foreboding Several days (+ve) vs rest	0.13	0.0011	0.00022	0.06	
Recent feelings of foreboding rest (+ve) vs Not at all	0.16	0.003	0.00033	0.0026	
Recent feelings of inadequacy > Not at all	0.19	0.007	0.0012	8e-05	
Recent feelings of inadequacy Prefer not to answer (+ve) vs rest	0.0027	0.0078	0	0.33	
Recent feelings of inadequacy Several days (+ve) vs rest	0.15	0.00057	0	0.083	
Recent feelings of inadequacy rest (+ve) vs Not at all	0.19	0.0053	0.0016	0.00039	
Recent feelings of tiredness or low energy > Not at all	0.48	0.51	0.49	1.9e-09	**
Recent feelings of tiredness or low energy > Several days	0.1	0.0011	0.00028	0.12	
Recent feelings of tiredness or low energy Several days (+ve) vs rest	0.37	0.13	0.12	0.001	
Recent feelings of tiredness or low energy rest (+ve) vs Not at all	0.48	0.51	0.49	1e-11	**

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Recent feelings or nervousness or anxiety > Not at all	0.27	0.058	0.035	8.9e-10	**
Recent feelings or nervousness or anxiety Several days (+ve) vs rest	0.23	0.015	0.009	8.3e-05	
Recent feelings or nervousness or anxiety rest (+ve) vs Not at all	0.27	0.058	0.033	1.1e-08	**
Recent inability to stop or control worrying > Not at all	0.22	0.018	0.0032	2.4e-09	**
Recent inability to stop or control worrying Nearly every day (+ve) vs rest	0.023	0.0012	0	0.33	
Recent inability to stop or control worrying Prefer not to answer (+ve) vs rest	0.0033	0.0028	0	0.33	
Recent inability to stop or control worrying Several days (+ve) vs rest	0.18	0.0021	0.00076	0.013	
Recent inability to stop or control worrying rest (+ve) vs Not at all	0.22	0.022	0.0057	1.2e-09	**
Recent lack of interest or pleasure in doing things > Not at all	0.18	0.0036	0.00063	0.00046	
Recent lack of interest or pleasure in doing things rest (+ve) vs Not at all	0.18	0.0036	0.0021	0.0092	
Recent poor appetite or overeating > Not at all	0.18	0.033	0.01	3.6e-09	**
Recent poor appetite or overeating > Several days	0.049	0.0022	0	0.042	
Recent poor appetite or overeating More than half the days (+ve) vs rest	0.025	0.0011	0	0.33	
Recent poor appetite or overeating Nearly every day (+ve) vs rest	0.023	0.0026	0.0011	0.43	
Recent poor appetite or overeating Several days (+ve) vs rest	0.13	0.0022	0.00044	0.0077	
Recent poor appetite or overeating rest (+ve) vs Not at all	0.18	0.035	0.013	1.6e-09	**
Recent restlessness > More than half the days	0.0096	0.0056	0	0.17	
Recent restlessness Nearly every day (+ve) vs rest	0.01	0.0051	0.0027	0.51	
Recent thoughts of suicide or self-harm ≤ Prefer not to answer	0.0062	0.0043	0	0.33	
Recent trouble concentrating on things > Several days	0.034	0.00074	0	0.33	
Recent trouble concentrating on things Several days (+ve) vs rest	0.15	0.0004	0.00019	0.47	
Recent trouble relaxing > Not at all	0.28	0.064	0.054	8.8e-05	
Recent trouble relaxing > Several days	0.056	0.002	0	0.1	
Recent trouble relaxing Several days (+ve) vs rest	0.23	0.0049	0.0029	0.021	
Recent worrying too much about different things > Not at all	0.31	0.11	0.089	5.5e-07	**
Recent worrying too much about different things Nearly every day (+ve) vs rest	0.026	0.0011	0	0.33	
Recent worrying too much about different things Prefer not to answer (+ve) vs rest	0.0028	0.0044	0	0.34	
Recent worrying too much about different things Several days (+ve) vs rest	0.26	0.02	0.0045	1.1e-07	**
Recent worrying too much about different things rest (+ve) vs Not at all	0.31	0.12	0.086	5.2e-10	**
Repeated disturbing thoughts of stressful experience in past month > Not at all	0.26	0.012	0.0079	0.012	
Repeated disturbing thoughts of stressful experience in past month A little bit (+ve) vs rest	0.2	0.00058	0	0.042	
Repeated disturbing thoughts of stressful experience in past month Moderately (+ve) vs rest	0.034	0.00083	0	0.33	
Repeated disturbing thoughts of stressful experience in past month rest (+ve) vs Not at all	0.26	0.01	0.005	0.00013	
Restless during period of worst anxiety ≤ Do not know	0.073	0.01	0.0011	0.0091	
Restless during period of worst anxiety ≤ No	0.42	0.36	0.33	6.3e-09	**
Restless during period of worst anxiety Do not know (+ve) vs rest	0.072	0.011	0.0012	0.0011	
Restless during period of worst anxiety No (+ve) vs rest	0.35	0.18	0.16	0.0012	
Restless during period of worst anxiety rest (+ve) vs Yes	0.42	0.36	0.32	6.7e-08	**
Risk taking > No	0.25	0.033	0.0069	7e-13	**
Risk taking Do not know (+ve) vs rest	0.033	0.00063	0	0.33	
Risk taking Yes (+ve) vs rest	0.25	0.034	0.0053	3.7e-13	**
Risk taking rest (+ve) vs No	0.28	0.065	0.021	1.3e-13	**
Seen a psychiatrist for nerves, anxiety, tension or depression Do not know (+ve) vs rest	0.0025	0.02	0	0.047	
Seen doctor (GP) for nerves, anxiety, tension or depression > No	0.32	0.14	0.1	2.1e-11	**
Seen doctor (GP) for nerves, anxiety, tension or depression Yes (+ve) vs rest	0.32	0.14	0.081	1.6e-12	**

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Seen doctor (GP) for nerves, anxiety, tension or depression rest (+ve) vs No	0.33	0.15	0.08	4.3e-14	**
Self-harmed in past year > No	0.075	0.11	0.1	0.58	
Self-harmed in past year Yes (+ve) vs rest	0.073	0.11	0.087	0.17	
Self-harmed in past year rest (+ve) vs No	0.076	0.12	0.1	0.43	
Sensitivity / hurt feelings > No	0.46	0.51	0.5	0.35	
Sensitivity / hurt feelings Yes (+ve) vs rest	0.47	0.51	0.51	0.26	
Severity of manic/irritable episodes > No problems	0.21	0.051	0.037	0.0089	
Severity of manic/irritable episodes ≤ Do not know	0.11	0.014	0.014	0.98	
Severity of manic/irritable episodes ≤ Prefer not to answer	0.0076	0.02	0	0.091	
Severity of manic/irritable episodes Needed treatment or caused problems with work, relationships, finances, the law or other aspects of life (+ve) vs rest	0.21	0.054	0.047	0.058	
Severity of manic/irritable episodes Prefer not to answer (+ve) vs rest	0.0084	0.012	0	0.17	
Severity of manic/irritable episodes rest (+ve) vs No problems	0.32	0.16	0.14	0.00035	
Sexual interference by partner or ex-partner without consent as an adult > Never true	0.056	0.0044	0	0.008	
Sexual interference by partner or ex-partner without consent as an adult > Often	0.0032	0.0078	0	0.16	
Sexual interference by partner or ex-partner without consent as an adult > Rarely true	0.025	0.002	0	0.16	
Sexual interference by partner or ex-partner without consent as an adult > Sometimes true	0.0064	0.023	0	0.011	
Sexual interference by partner or ex-partner without consent as an adult ≤ Prefer not to answer	0.0027	0.022	0	0.061	
Sexual interference by partner or ex-partner without consent as an adult Prefer not to answer (+ve) vs rest	0.003	0.027	0	0.021	
Sexual interference by partner or ex-partner without consent as an adult Rarely true (+ve) vs rest	0.032	0.001	0	0.33	
Sexual interference by partner or ex-partner without consent as an adult Sometimes true (+ve) vs rest	0.018	0.0047	0	0.083	
Sexual interference by partner or ex-partner without consent as an adult Very often true (+ve) vs rest	0.0034	0.029	0.0044	0.051	
Sexual interference by partner or ex-partner without consent as an adult rest (+ve) vs Never true	0.059	0.0033	0.00044	0.028	
Sexually molested as a child > Never true	0.089	0.00061	0	0.16	
Sexually molested as a child > Often	0.0048	0.0053	0	0.33	
Sexually molested as a child ≤ Prefer not to answer	0.011	0.0023	0	0.33	
Sexually molested as a child rest (+ve) vs Never true	0.1	0.00026	0	0.33	
Sleeping too much > No	0.21	0.044	0.025	6.5e-06	*
Sleeping too much Yes (+ve) vs rest	0.22	0.042	0.03	0.0019	
Sleeping too much rest (+ve) vs No	0.21	0.043	0.028	0.00023	
Someone to take to doctor when needed as a child ≤ Often	0.15	0.0046	0.0018	0.0041	
Someone to take to doctor when needed as a child Never true (+ve) vs rest	0.017	0.0029	0	0.16	
Someone to take to doctor when needed as a child Often (+ve) vs rest	0.097	0.00091	0	0.19	
Someone to take to doctor when needed as a child rest (+ve) vs Very often true	0.15	0.0034	0.00036	0.0018	
Stronger worrying (than other people) during period of worst anxiety ≤ Do not know	0.3	0.097	0.094	0.47	
Stronger worrying (than other people) during period of worst anxiety ≤ No	0.42	0.38	0.37	0.061	
Stronger worrying (than other people) during period of worst anxiety No (+ve) vs rest	0.12	0.029	0.013	0.0001	
Stronger worrying (than other people) during period of worst anxiety rest (+ve) vs Yes	0.42	0.37	0.37	0.2	
Substance of prescription or over-the-counter medication addiction > A painkiller	0.28	0.33	0.31	0.44	

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Substance of prescription or over-the-counter medication addiction A painkiller (+ve) vs rest	0.45	0.7	0.59	8.5e-07	**
Substances taken for anxiety Drugs or alcohol (more than once) (+ve) vs rest	0.32	0.29	0.27	0.003	
Substances taken for anxiety Unprescribed medication (more than once) (+ve) vs rest	0.062	0.027	0.026	0.87	
Substances taken for anxiety rest (+ve) vs Medication prescribed to you (for at least two weeks)	0.38	0.34	0.31	5.4e-06	*
Suffer from 'nerves' rest (+ve) vs No	0.18	0.00055	0.00011	0.057	
Tense / 'highly strung' rest (+ve) vs No	0.15	0.00014	0	0.33	
Tense, sore, or aching muscles during worst period of anxiety > No	0.35	0.27	0.25	4.1e-05	
Tense, sore, or aching muscles during worst period of anxiety Yes (+ve) vs rest	0.35	0.27	0.23	1.8e-07	**
Tense, sore, or aching muscles during worst period of anxiety rest (+ve) vs No	0.43	0.44	0.41	4.9e-07	**
Thoughts of death during worst depression ≤ Prefer not to answer	0.0045	0.0093	0	0.16	
Trouble falling asleep No (+ve) vs rest	0.24	0.026	0.021	0.029	
Trouble falling or staying asleep, or sleeping too much > More than half the days	0.076	0.00037	0	0.33	
Trouble falling or staying asleep, or sleeping too much > Not at all	0.48	0.53	0.53	0.2	
Trouble falling or staying asleep, or sleeping too much > Several days	0.15	0.00039	0	0.16	
Trouble falling or staying asleep, or sleeping too much Nearly every day (+ve) vs rest	0.075	0.00039	0	0.33	
Trouble falling or staying asleep, or sleeping too much Several days (+ve) vs rest	0.33	0.07	0.058	0.00024	
Victim of physically violent crime > Yes, but not in the last 12 months	0.0051	0.0045	0	0.33	
Victim of physically violent crime ≤ Prefer not to answer	0.00095	0.033	0	0.086	
Victim of physically violent crime Yes, but not in the last 12 months (+ve) vs rest	0.18	0.012	0.0064	0.00014	
Victim of physically violent crime rest (+ve) vs Never	0.19	0.017	0.013	0.017	
Victim of sexual assault > Never	0.15	0.006	0.00053	5.8e-06	*
Victim of sexual assault Yes, but not in the last 12 months (+ve) vs rest	0.15	0.0036	0.00056	0.0024	
Victim of sexual assault rest (+ve) vs Never	0.17	0.0063	0.0013	1.2e-05	*
Waking too early ≤ No	0.25	0.05	0.036	0.00016	
Waking too early No (+ve) vs rest	0.26	0.054	0.031	1.9e-06	**
Waking too early rest (+ve) vs Yes	0.26	0.054	0.015	1.4e-11	**
Weight change during worst episode of depression > Gained weight	0.36	0.23	0.2	5.1e-05	
Weight change during worst episode of depression > Lost weight	0.049	0.00095	0	0.33	
Weight change during worst episode of depression ≤ Stayed about the same or was on a diet	0.5	0.57	0.56	0.0048	
Weight change during worst episode of depression Gained weight (+ve) vs rest	0.14	0.016	0.0026	6e-07	**
Weight change during worst episode of depression Lost weight (+ve) vs rest	0.31	0.13	0.092	2.8e-10	**
Weight change during worst episode of depression Stayed about the same or was on a diet (+ve) vs rest	0.35	0.28	0.26	2.2e-08	**
Witnessed sudden violent death > Never	0.14	0.0018	0.0002	0.017	
Witnessed sudden violent death > Yes, but not in the last 12 months	0.0052	0.0076	0	0.17	
Witnessed sudden violent death Yes, but not in the last 12 months (+ve) vs rest	0.13	0.0019	0.0002	0.017	
Witnessed sudden violent death Yes, within the last 12 months (+ve) vs rest	0.0049	0.005	0	0.33	
Witnessed sudden violent death rest (+ve) vs Never	0.14	0.0024	0.0002	0.0021	
Work/job satisfaction > Extremely unhappy	0.41	0.61	0.6	0.0022	
Work/job satisfaction > Moderately happy	0.46	0.61	0.61	0.13	
Work/job satisfaction > Moderately unhappy	0.42	0.61	0.61	0.29	
Work/job satisfaction > Very unhappy	0.41	0.61	0.61	0.00021	
Work/job satisfaction ≤ Prefer not to answer	0.001	0.0053	0	0.33	
Work/job satisfaction ≤ Very happy	0.3	0.035	0.021	3.6e-07	**

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Work/job satisfaction Do not know (+ve) vs rest	0.0021	0.0056	0	0.33	
Work/job satisfaction I am not employed (+ve) vs rest	0.41	0.61	0.6	0.0012	
Work/job satisfaction Moderately happy (+ve) vs rest	0.24	0.14	0.13	0.0024	
Work/job satisfaction Moderately unhappy (+ve) vs rest	0.038	0.0021	0	0.11	
Work/job satisfaction Prefer not to answer (+ve) vs rest	0.0011	0.0075	0	0.33	
Work/job satisfaction Very happy (+ve) vs rest	0.23	0.0026	0.0025	0.87	
Worried most days during period of worst anxiety $\leq$ Do not know	0.036	0.0039	0.002	0.48	
Worried most days during period of worst anxiety $\leq$ No	0.14	0.015	0.0078	0.0034	
Worried most days during period of worst anxiety No (+ve) vs rest	0.1	0.017	0.0073	0.012	
Worrier / anxious feelings $>$ No	0.49	0.57	0.57	0.018	
Worrier / anxious feelings No (+ve) vs rest	0.48	0.54	0.54	0.2	
Worrier / anxious feelings Yes (+ve) vs rest	0.49	0.57	0.57	0.011	
Worry too long after embarrassment $>$ No	0.46	0.48	0.47	6.7e-06	*
Worry too long after embarrassment $\leq$ Do not know	0.041	0.00049	0	0.33	
Worry too long after embarrassment Yes (+ve) vs rest	0.47	0.48	0.46	3e-07	**

### 3. Cognitive function

Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Attempted fluid intelligence (FI) test. $>$ Begin puzzles	0.0089	0.0062	0	0.084	
Attempted fluid intelligence (FI) test. I am unable to try this (+ve) vs rest	0.0087	0.0045	0	0.16	
Attempted fluid intelligence (FI) test. rest (+ve) vs Begin puzzles	0.0083	0.0019	0	0.33	
Completion status of numeric memory test $>$ complete	0.0057	0.0042	0	0.33	
Completion status of numeric memory test $>$ stopped	0.0064	0.0078	0	0.17	
Completion status of numeric memory test abandoned (+ve) vs rest	0.0053	0.014	0	0.046	
Duration screen displayed $<$ 25th percentile	0.27	0.076	0.033	1.1e-16	**
Duration screen displayed $<$ 50th percentile	0.48	0.62	0.61	5.6e-08	**
Duration screen displayed $>$ 75th percentile	0.23	0.049	0.0039	3.3e-17	**
Duration spent answering each puzzle $<$ 25th percentile	0.25	0.038	0.015	9.3e-07	**
Duration spent answering each puzzle $<$ 50th percentile	0.5	0.51	0.5	1.8e-05	*
Duration spent answering each puzzle $>$ 75th percentile	0.25	0.012	0.0077	0.018	
Duration to complete alphanumeric path (trail 2) $<$ 25th percentile	0.26	0.2	0.14	5.2e-14	**
Duration to complete alphanumeric path (trail 2) $<$ 50th percentile	0.49	0.63	0.61	8.5e-07	**
Duration to complete alphanumeric path (trail 2) $<$ 50th percentile	0.48	0.64	0.62	4.9e-06	*
Duration to complete alphanumeric path (trail 2) $>$ 75th percentile	0.24	0.21	0.13	1.4e-16	**
Duration to complete alphanumeric path (trail 2) $>$ 75th percentile	0.23	0.23	0.16	2.2e-10	**
Duration to complete numeric path (trail 1) $<$ 25th percentile	0.26	0.25	0.18	6e-13	**
Duration to complete numeric path (trail 1) $<$ 25th percentile	0.25	0.21	0.18	4.2e-08	**
Duration to complete numeric path (trail 1) $<$ 50th percentile	0.5	0.58	0.58	0.0058	
Duration to complete numeric path (trail 1) $<$ 50th percentile	0.48	0.65	0.64	0.00011	
Duration to complete numeric path (trail 1) $>$ 75th percentile	0.25	0.098	0.069	1.2e-08	**
Duration to complete numeric path (trail 1) $>$ 75th percentile	0.23	0.19	0.13	3.4e-10	**
Duration to entering value $<$ 25th percentile	0.25	0.068	0.06	0.041	
Duration to entering value $<$ 50th percentile	0.5	0.57	0.57	0.28	
Duration to entering value $>$ 75th percentile	0.24	0.069	0.04	3.6e-11	**
Duration to first press of snap-button in each round $<$ 50th percentile	0.48	0.53	0.52	1.6e-06	**
Duration to first press of snap-button in each round $>$ 75th percentile	0.24	0.023	0.0078	1.6e-11	**
Duration to first press of snap-button in each round (pilot) $<$ 25th percentile	0.23	0.27	0.23	0.062	
Duration to first press of snap-button in each round (pilot) $<$ 50th percentile	0.5	0.55	0.46	1.6e-06	**
Errors before selecting correct item in alphanumeric path (trail 2) $>$ 75th percentile	0.18	0.049	0.03	0.0031	
Errors before selecting correct item in alphanumeric path (trail 2) $>$ 75th percentile	0.13	0.044	0.037	0.14	

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Errors before selecting correct item in numeric path (trail 1) > 75th percentile	0.12	0.056	0.034	0.00049	
Errors before selecting correct item in numeric path (trail 1) > 75th percentile	0.22	0.11	0.1	0.087	
FI1 : numeric addition test > 16	0.0033	0.0087	0	0.17	
FI1 : numeric addition test ≤ Prefer not to answer	0.0026	0.0083	0	0.33	
FI1 : numeric addition test 17 (+ve) vs rest	0.0033	0.0056	0	0.33	
FI10 : arithmetic sequence recognition > 94	0.085	0.1	0.059	5.6e-05	
FI10 : arithmetic sequence recognition > 95	0.12	0.095	0.053	0.00088	
FI10 : arithmetic sequence recognition > 95	0.04	0.0088	0	0.031	
FI10 : arithmetic sequence recognition ≤ 92	0.12	0.034	0.015	1.5e-05	*
FI10 : arithmetic sequence recognition ≤ 93	0.18	0.071	0.025	4.8e-09	**
FI10 : arithmetic sequence recognition ≤ 94	0.22	0.13	0.033	5.5e-17	**
FI10 : arithmetic sequence recognition ≤ 96	0.031	0.045	0	0.001	
FI10 : arithmetic sequence recognition ≤ Do not know	0.091	0.023	0.0091	0.00091	
FI10 : arithmetic sequence recognition ≤ Prefer not to answer	0.0089	0.019	0.005	0.078	
FI10 : arithmetic sequence recognition 92 (+ve) vs rest	0.031	0.09	0.056	0.049	
FI10 : arithmetic sequence recognition 93 (+ve) vs rest	0.053	0.069	0.036	0.0062	
FI10 : arithmetic sequence recognition 94 (+ve) vs rest	0.04	0.056	0.043	0.21	
FI10 : arithmetic sequence recognition 96 (+ve) vs rest	0.033	0.05	0.0066	0.036	
FI10 : arithmetic sequence recognition 96 (+ve) vs rest	0.04	0.0046	0.0016	0.25	
FI10 : arithmetic sequence recognition Do not know (+ve) vs rest	0.088	0.014	0.0056	0.033	
FI10 : arithmetic sequence recognition Prefer not to answer (+ve) vs rest	0.0089	0.015	0.011	0.58	
FI10 : arithmetic sequence recognition rest (+ve) vs 95	0.15	0.14	0.091	1.1e-05	*
FI10 : arithmetic sequence recognition rest (+ve) vs 95	0.26	0.19	0.079	7.9e-14	**
FI11 : antonym ≤ Anxious	0.24	0.095	0.078	0.00079	
FI11 : antonym ≤ Calm	0.022	0.0066	0.0053	0.78	
FI11 : antonym ≤ Cool	0.24	0.1	0.068	5.6e-07	**
FI11 : antonym ≤ Worried	0.28	0.18	0.12	1.2e-10	**
FI11 : antonym ≤ worried	0.28	0.27	0.24	0.0053	
FI11 : antonym Calm (+ve) vs rest	0.021	0.022	0.0033	0.015	
FI11 : antonym rest (+ve) vs Tense	0.28	0.19	0.14	4.9e-06	*
FI12 : square sequence recognition > 46	0.44	0.46	0.43	0.01	
FI12 : square sequence recognition > 46	0.33	0.22	0.21	0.2	
FI12 : square sequence recognition > 47	0.3	0.19	0.14	3.4e-06	*
FI12 : square sequence recognition > 49	0.13	0.042	0.037	0.37	
FI12 : square sequence recognition ≤ 50	0.21	0.22	0.21	0.58	
FI12 : square sequence recognition ≤ Do not know	0.39	0.34	0.34	0.14	
FI12 : square sequence recognition ≤ Prefer not to answer	0.025	0.028	0.021	0.54	
FI12 : square sequence recognition 45 (+ve) vs rest	0.24	0.21	0.17	1.1e-05	*
FI12 : square sequence recognition 46 (+ve) vs rest	0.029	0.023	0.0085	0.099	
FI12 : square sequence recognition 48 (+ve) vs rest	0.071	0.034	0.019	0.086	
FI12 : square sequence recognition 49 (+ve) vs rest	0.14	0.18	0.1	0.0097	
FI12 : square sequence recognition 50 (+ve) vs rest	0.13	0.05	0.039	0.036	
FI12 : square sequence recognition Do not know (+ve) vs rest	0.37	0.31	0.31	0.87	
FI12 : square sequence recognition Prefer not to answer (+ve) vs rest	0.023	0.045	0.016	0.026	
FI13 : subset inclusion logic > True	0.18	0.15	0.12	0.015	
FI13 : subset inclusion logic ≤ Do not know	0.25	0.27	0.24	0.026	
FI13 : subset inclusion logic ≤ Not sure	0.066	0.064	0.052	0.4	
FI13 : subset inclusion logic ≤ Prefer not to answer	0.091	0.13	0.13	0.82	
FI13 : subset inclusion logic Do not know (+ve) vs rest	0.16	0.18	0.14	0.001	
FI13 : subset inclusion logic False (+ve) vs rest	0.24	0.29	0.21	1.7e-06	**
FI13 : subset inclusion logic Neither true nor false (+ve) vs rest	0.18	0.18	0.15	0.028	
FI13 : subset inclusion logic Not sure (+ve) vs rest	0.1	0.055	0.025	0.26	
FI13 : subset inclusion logic Prefer not to answer (+ve) vs rest	0.029	0.031	0.0071	0.11	
FI13 : subset inclusion logic True (+ve) vs rest	0.24	0.21	0.17	0.089	
FI13 : subset inclusion logic True (+ve) vs rest	0.31	0.29	0.28	0.3	
FI14 : alphanumeric substitution > 52	0.16	0.26	0.075	0.016	

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
FI14 : alphanumeric substitution 49 (+ve) vs rest	0.15	0.065	0	0.085	
FI14 : alphanumeric substitution 53 (+ve) vs rest	0.23	0.19	0.19	0.97	
FI2 : identify largest number > 987	0.0079	0.0068	0.0037	0.52	
FI2 : identify largest number 714 (+ve) vs rest	0.0081	0.0077	0	0.16	
FI2 : identify largest number rest (+ve) vs 987	0.0086	0.017	0	0.022	
FI3 : word interpolation ≤ Grow	0.069	0.00063	0	0.16	
FI3 : word interpolation ≤ Improve	0.1	0.0015	0	0.015	
FI3 : word interpolation ≤ develop	0.14	0.0018	0.00076	0.083	
FI3 : word interpolation ≤ grow	0.079	0.0032	0.00048	0.033	
FI3 : word interpolation ≤ improve	0.14	0.0031	0	0.00086	
FI3 : word interpolation Grow (+ve) vs rest	0.068	0.00094	0	0.083	
FI3 : word interpolation Old (+ve) vs rest	0.0011	0.014	0	0.16	
FI3 : word interpolation grow (+ve) vs rest	0.08	0.0018	0.00041	0.11	
FI3 : word interpolation rest (+ve) vs Adult	0.1	0.0013	0	0.01	
FI3 : word interpolation rest (+ve) vs adult	0.14	0.0044	0.00076	0.00099	
FI4 : positional arithmetic ≤ 5	0.1	0.00042	0	0.16	
FI4 : positional arithmetic ≤ Do not know	0.065	0.0016	0	0.021	
FI4 : positional arithmetic 5 (+ve) vs rest	0.046	0.00078	0	0.33	
FI4 : positional arithmetic 8 (+ve) vs rest	0.013	0.0031	0	0.17	
FI4 : positional arithmetic Do not know (+ve) vs rest	0.056	0.00036	0	0.33	
FI4 : positional arithmetic rest (+ve) vs 6	0.12	0.0014	0	0.0069	
FI5 : family relationship calculation ≤ Aunt	0.28	0.0032	0.0011	0.00051	
FI5 : family relationship calculation ≤ Do not know	0.18	0.00059	0.00012	0.059	
FI5 : family relationship calculation ≤ Niece	0.47	0.43	0.39	1.9e-12	**
FI5 : family relationship calculation ≤ Sister	0.36	0.035	0.024	1.7e-07	**
FI5 : family relationship calculation ≤ aunt	0.091	0.0004	0	0.33	
FI5 : family relationship calculation ≤ sister	0.19	0.0019	0.00094	0.079	
FI5 : family relationship calculation Cousin (+ve) vs rest	0.48	0.48	0.46	7.3e-14	**
FI5 : family relationship calculation Do not know (+ve) vs rest	0.17	0.00026	0	0.16	
FI5 : family relationship calculation rest (+ve) vs cousin	0.45	0.38	0.32	2e-12	**
FI6 : conditional arithmetic > 69	0.23	0.016	0.0034	2.3e-06	*
FI6 : conditional arithmetic > 69	0.2	0.00023	0	0.16	
FI6 : conditional arithmetic > 70	0.022	0.0042	0	0.18	
FI6 : conditional arithmetic ≤ 68	0.089	0.00048	0	0.16	
FI6 : conditional arithmetic ≤ Do not know	0.084	0.00055	0	0.16	
FI6 : conditional arithmetic 68 (+ve) vs rest	0.0074	0.004	0.0037	0.94	
FI6 : conditional arithmetic 70 (+ve) vs rest	0.19	0.00036	0.00012	0.24	
FI6 : conditional arithmetic 70 (+ve) vs rest	0.21	0.006	0.0024	0.00027	
FI6 : conditional arithmetic 72 (+ve) vs rest	0.011	0.0065	0.0029	0.46	
FI6 : conditional arithmetic Do not know (+ve) vs rest	0.076	0.00033	0	0.33	
FI6 : conditional arithmetic rest (+ve) vs 69	0.28	0.057	0.0072	1.5e-14	**
FI7 : synonym > Break	0.0096	0.0022	0	0.33	
FI7 : synonym > break	0.004	0.0056	0	0.33	
FI7 : synonym > cease	0.0097	0.0025	0	0.33	
FI7 : synonym ≤ pause	0.044	0.0021	0	0.16	
FI7 : synonym break (+ve) vs rest	0.0051	0.0027	0	0.33	
FI7 : synonym close (+ve) vs rest	0.009	0.0063	0	0.16	
FI7 : synonym rest (+ve) vs cease	0.061	0.0024	0.00085	0.26	
FI8 : chained arithmetic > 26	0.12	0.0018	0.00042	0.21	
FI8 : chained arithmetic > 27	0.064	0.0023	0.00086	0.26	
FI8 : chained arithmetic > 28	0.039	0.0068	0.0012	0.12	
FI8 : chained arithmetic ≤ 25	0.25	0.037	0.004	4.1e-13	**
FI8 : chained arithmetic ≤ Do not know	0.15	0.0016	0.00052	0.09	
FI8 : chained arithmetic ≤ Prefer not to answer	0.013	0.0087	0	0.044	
FI8 : chained arithmetic 29 (+ve) vs rest	0.038	0.0035	0	0.083	
FI8 : chained arithmetic Prefer not to answer (+ve) vs rest	0.013	0.0063	0	0.083	
FI8 : chained arithmetic rest (+ve) vs 26	0.36	0.22	0.12	2.9e-19	**
FI8 : chained arithmetic rest (+ve) vs 26	0.23	0.033	0.0067	1.1e-08	**
FI9 : concept interpolation > Metres	0.36	0.26	0.14	4.5e-17	**

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
FI9 : concept interpolation > metres	0.32	0.28	0.15	1.5e-17	**
FI9 : concept interpolation ≤ Deep	0.032	0.0013	0	0.33	
FI9 : concept interpolation ≤ Do not know	0.007	0.049	0.0063	0.0043	
FI9 : concept interpolation ≤ Long	0.03	0.0014	0	0.33	
FI9 : concept interpolation ≤ deep	0.016	0.013	0.0065	0.36	
FI9 : concept interpolation ≤ top	0.021	0.035	0.01	0.046	
FI9 : concept interpolation Do not know (+ve) vs rest	0.0057	0.016	0.0047	0.22	
FI9 : concept interpolation Long (+ve) vs rest	0.021	0.0058	0.0016	0.2	
FI9 : concept interpolation Tall (+ve) vs rest	0.36	0.26	0.12	4.6e-21	**
FI9 : concept interpolation long (+ve) vs rest	0.016	0.023	0.0097	0.11	
FI9 : concept interpolation rest (+ve) vs Metres	0.39	0.37	0.22	1.5e-20	**
FI9 : concept interpolation rest (+ve) vs metres	0.34	0.31	0.21	8.7e-15	**
FI9 : concept interpolation tall (+ve) vs rest	0.31	0.3	0.18	2.3e-14	**
Final attempt correct > yes	0.0049	0.0037	0	0.33	
First code array presented < 25th percentile	0.22	0.0093	0.0062	0.053	
First code array presented < 50th percentile	0.49	0.45	0.44	0.00074	
First code array presented > 75th percentile	0.22	0.005	0.0049	0.88	
Fluid intelligence completion status > Abandoned	0.089	0.0013	0	0.083	
Fluid intelligence completion status Completed with pause (+ve) vs rest	0.089	0.00045	0	0.33	
Fluid intelligence completion status rest (+ve) vs Completed	0.11	0.0016	0	0.053	
Fluid intelligence score < 25th percentile	0.14	0.0045	0	0.0001	
Fluid intelligence score < 25th percentile	0.15	0.0062	0	0.00071	
Fluid intelligence score < 50th percentile	0.45	0.49	0.39	1.2e-21	**
Fluid intelligence score < 50th percentile	0.45	0.49	0.35	1.6e-23	**
Fluid intelligence score > 75th percentile	0.19	0.024	0.00057	9.1e-12	**
Fluid intelligence score > 75th percentile	0.16	0.033	0.0032	3.6e-09	**
Interval between previous point and current one in alphanumeric path (trail 2) < 25th percentile	0.25	0.093	0.075	3.7e-05	
Interval between previous point and current one in alphanumeric path (trail 2) < 25th percentile	0.21	0.038	0.032	0.029	
Interval between previous point and current one in alphanumeric path (trail 2) < 50th percentile	0.5	0.57	0.56	9.6e-06	*
Interval between previous point and current one in alphanumeric path (trail 2) < 50th percentile	0.5	0.57	0.57	0.064	
Interval between previous point and current one in alphanumeric path (trail 2) > 75th percentile	0.24	0.12	0.081	4.1e-11	**
Interval between previous point and current one in alphanumeric path (trail 2) > 75th percentile	0.24	0.079	0.044	3.3e-10	**
Interval between previous point and current one in numeric path (trail 1) < 25th percentile	0.25	0.12	0.11	7.1e-05	
Interval between previous point and current one in numeric path (trail 1) < 25th percentile	0.091	0.0032	0.0025	0.5	
Interval between previous point and current one in numeric path (trail 1) < 50th percentile	0.32	0.24	0.21	0.00064	
Interval between previous point and current one in numeric path (trail 1) < 50th percentile	0.5	0.55	0.55	0.00021	
Interval between previous point and current one in numeric path (trail 1) > 75th percentile	0.25	0.04	0.032	0.00027	
Interval between previous point and current one in numeric path (trail 1) > 75th percentile	0.21	0.059	0.045	0.00017	
Item selected for each puzzle > 5	0.42	0.27	0.27	0.69	
Item selected for each puzzle > 6	0.32	0.068	0.042	1.3e-07	**
Item selected for each puzzle ≤ 1	0.22	0.0076	0.0041	0.016	
Item selected for each puzzle ≤ 2	0.3	0.066	0.024	4.7e-12	**
Item selected for each puzzle ≤ 4	0.44	0.35	0.33	1.2e-05	*
Item selected for each puzzle 1 (+ve) vs rest	0.062	0.0031	0	0.043	
Item selected for each puzzle 4 (+ve) vs rest	0.055	0.00085	0	0.33	
Item selected for each puzzle 5 (+ve) vs rest	0.13	0.0035	0.0019	0.14	
Item selected for each puzzle 7 (+ve) vs rest	0.32	0.067	0.048	2e-06	*

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Maximum digits remembered correctly < 25th percentile	0.11	0.0011	0.00033	0.22	
Maximum digits remembered correctly < 25th percentile	0.13	0.01	0.0039	0.0064	
Maximum digits remembered correctly < 50th percentile	0.4	0.36	0.27	9.9e-20	**
Maximum digits remembered correctly < 50th percentile	0.34	0.19	0.099	5.3e-17	**
Maximum digits remembered correctly > 75th percentile	0.12	0.0045	0.0013	0.0026	
Maximum digits remembered correctly > 75th percentile	0.076	0.0064	0.00053	0.018	
Mean time to correctly identify matches < 25th percentile	0.25	0.14	0.1	1.1e-11	**
Mean time to correctly identify matches < 50th percentile	0.49	0.61	0.6	2.4e-06	*
Mean time to correctly identify matches > 75th percentile	0.23	0.041	0.028	4e-08	**
Number entered by participant < 25th percentile	0.25	0.052	0.013	5e-12	**
Number entered by participant > 75th percentile	0.25	0.089	0.024	1.7e-14	**
Number of attempts > 75th percentile	0.13	0.0014	0.00017	0.0085	
Number of correct matches in round < 50th percentile	0.36	0.15	0.057	1.6e-20	**
Number of correct matches in round < 50th percentile	0.02	0.0047	0	0.083	
Number of digits to be memorised/recalled < 25th percentile	0.13	0.0053	0.00029	0.0027	
Number of digits to be memorised/recalled < 50th percentile	0.4	0.36	0.27	2.3e-18	**
Number of digits to be memorised/recalled > 75th percentile	0.079	0.0048	0.00052	0.0088	
Number of fluid intelligence questions attempted within time limit < 25th percentile	0.19	0.0048	0.00011	4.2e-07	**
Number of fluid intelligence questions attempted within time limit < 50th percentile	0.24	0.023	0.00036	4.5e-12	**
Number of fluid intelligence questions attempted within time limit > 75th percentile	0.17	0.0027	0.00065	0.0012	
Number of incorrect matches in round < 25th percentile	0.2	0.0055	0.0043	0.25	
Number of incorrect matches in round < 50th percentile	0.44	0.31	0.25	2.7e-17	**
Number of incorrect matches in round < 50th percentile	0.4	0.21	0.21	0.08	
Number of incorrect matches in round > 75th percentile	0.22	0.016	0.0043	6.5e-07	**
Number of puzzles attempted < 25th percentile	0.16	0.023	0.018	0.044	
Number of puzzles attempted < 50th percentile	0.4	0.34	0.31	7.7e-12	**
Number of puzzles attempted > 75th percentile	0.24	0.044	0.025	6.7e-06	*
Number of puzzles correct < 25th percentile	0.19	0.05	0.02	5e-07	**
Number of puzzles correct < 25th percentile	0.21	0.064	0.032	6.5e-09	**
Number of puzzles correct < 50th percentile	0.47	0.53	0.51	8.4e-09	**
Number of puzzles correct < 50th percentile	0.4	0.41	0.36	6.2e-11	**
Number of puzzles correct > 75th percentile	0.23	0.1	0.041	1.9e-13	**
Number of puzzles correct > 75th percentile	0.19	0.072	0.026	1e-11	**
Number of puzzles correctly solved < 25th percentile	0.22	0.13	0.031	2.3e-19	**
Number of puzzles correctly solved < 50th percentile	0.37	0.38	0.28	2.3e-17	**
Number of puzzles correctly solved > 75th percentile	0.25	0.15	0.071	2.5e-14	**
Number of puzzles viewed < 25th percentile	0.2	0.041	0.019	4.5e-08	**
Number of puzzles viewed < 50th percentile	0.33	0.21	0.16	5.7e-11	**
Number of rounds of numeric memory test performed < 25th percentile	0.11	0.0038	0	0.0038	
Number of rounds of numeric memory test performed < 50th percentile	0.31	0.14	0.048	1.3e-18	**
Number of rounds of numeric memory test performed > 75th percentile	0.21	0.034	0.0048	4.4e-13	**
Number of rows displayed in round > 75th percentile	0.15	0.0015	0.00078	0.18	
Number of symbol digit matches attempted < 25th percentile	0.23	0.27	0.22	7.8e-11	**
Number of symbol digit matches attempted < 25th percentile	0.14	0.15	0.092	1.1e-09	**
Number of symbol digit matches attempted < 50th percentile	0.45	0.62	0.61	0.29	
Number of symbol digit matches attempted < 50th percentile	0.44	0.6	0.58	1.4e-06	**
Number of symbol digit matches attempted > 75th percentile	0.18	0.21	0.16	1.9e-08	**
Number of symbol digit matches attempted > 75th percentile	0.26	0.31	0.29	7.7e-06	*
Number of symbol digit matches made correctly < 25th percentile	0.22	0.21	0.17	2.5e-09	**
Number of symbol digit matches made correctly < 25th percentile	0.21	0.2	0.16	1.1e-08	**
Number of symbol digit matches made correctly < 50th percentile	0.42	0.56	0.55	0.0073	
Number of symbol digit matches made correctly < 50th percentile	0.49	0.64	0.64	0.017	
Number of symbol digit matches made correctly > 75th percentile	0.23	0.21	0.19	0.00012	
Number of symbol digit matches made correctly > 75th percentile	0.17	0.17	0.13	1.9e-09	**
Number of times snap-button pressed < 50th percentile	0.0047	0.0037	0	0.33	
Number of words beginning with 'S' (pilot) < 25th percentile	0.2	0.25	0.19	0.0085	

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
PM: final answer ≤ Participant skipped abandoned	0.005	0.0033	0	0.33	
PM: initial answer ≤ Blue square	0.13	0.0028	0.00016	0.00026	
PM: initial answer ≤ Grey cross	0.13	0.0028	0	0.0005	
PM: initial answer ≤ Pink star	0.13	0.0029	0	0.00037	
PM: initial answer Blue square (+ve) vs rest	0.13	0.0029	0	6.5e-05	
PM: initial answer rest (+ve) vs Orange circle	0.13	0.0022	0	0.0029	
Pairs matching completion status Abandoned (+ve) vs rest	0.019	0.0036	0	0.16	
Pattern of lights as remembered (pilot) < 50th percentile	0.27	0.25	0.25	0.94	
Prospective memory result > Correct recall on first attempt	0.097	0.00043	0	0.16	
Prospective memory result Correct recall on second attempt (+ve) vs rest	0.099	0.0004	0	0.16	
Prospective memory result rest (+ve) vs Correct recall on first attempt	0.13	0.0044	0	8.8e-06	*
Round of numeric memory test < 25th percentile	0.11	0.0028	0	0.016	
Round of numeric memory test < 50th percentile	0.31	0.14	0.039	8.3e-17	**
Round of numeric memory test > 75th percentile	0.21	0.03	0.0057	2.2e-09	**
Target number to be entered < 25th percentile	0.25	0.052	0.015	5.2e-11	**
Target number to be entered < 50th percentile	0.5	0.56	0.53	3.9e-12	**
Target number to be entered > 75th percentile	0.25	0.088	0.014	1.2e-15	**
Target number to be memorised < 25th percentile	0.25	0.073	0.026	4.1e-11	**
Target number to be memorised < 50th percentile	0.5	0.57	0.53	2.1e-12	**
Target number to be memorised > 75th percentile	0.25	0.092	0.031	4.6e-13	**
Test array presented < 25th percentile	0.24	0.0095	0.0046	0.00063	
Test completion status abandoned (+ve) vs rest	0.0052	0.003	0	0.33	
Time elapsed < 25th percentile	0.26	0.063	0.04	1.5e-07	**
Time elapsed < 50th percentile	0.49	0.58	0.57	0.11	
Time elapsed > 75th percentile	0.24	0.034	0.023	2.7e-05	
Time first key touched < 50th percentile	0.49	0.55	0.53	1.2e-06	**
Time last key touched < 25th percentile	0.26	0.038	0.02	1.1e-06	**
Time last key touched > 75th percentile	0.24	0.032	0.013	1.1e-09	**
Time number displayed for < 25th percentile	0.23	0.047	0.0088	1.5e-08	**
Time number displayed for < 50th percentile	0.43	0.44	0.36	3.8e-15	**
Time number displayed for > 75th percentile	0.12	0.0018	0	0.021	
Time taken to complete lights test (pilot) < 50th percentile	0.49	0.54	0.52	0.084	
Time taken to complete lights test (pilot) > 75th percentile	0.24	0.3	0.23	0.004	
Time to answer < 25th percentile	0.3	0.11	0.0025	9.9e-19	**
Time to answer < 50th percentile	0.4	0.73	0.73	0.03	
Time to answer > 75th percentile	0.19	0.041	0	6.4e-16	**
Time to complete round < 50th percentile	0.47	0.6	0.6	0.16	
Time to complete round < 50th percentile	0.5	0.58	0.57	0.00031	
Time to complete round > 75th percentile	0.23	0.0016	0.00086	0.093	
Time to complete round > 75th percentile	0.25	0.08	0.066	0.00017	
Time to complete round (pilot) < 25th percentile	0.23	0.33	0.28	0.011	
Time to complete round (pilot) < 50th percentile	0.48	0.52	0.49	0.07	
Time to complete test < 25th percentile	0.26	0.043	0.013	2.4e-11	**
Time to complete test < 50th percentile	0.49	0.55	0.54	1.4e-07	**
Time to complete test > 75th percentile	0.24	0.03	0.0089	9e-09	**
Total errors traversing alphanumeric path (trail 2) < 50th percentile	0.45	0.46	0.44	0.00037	
Total errors traversing alphanumeric path (trail 2) > 75th percentile	0.22	0.12	0.08	0.00011	
Total errors traversing numeric path (trail 1) > 75th percentile	0.19	0.094	0.066	0.0036	
Trail making completion status > Abandoned	0.085	0.0018	0	0.11	
Value entered > 4 moves	0.31	0.1	0.071	1.2e-08	**
Value entered ≤ 1 move	0.21	0.0055	0.0048	0.51	
Value entered ≤ 3 moves	0.4	0.31	0.3	0.00083	
Value entered 1 move (+ve) vs rest	0.21	0.0076	0.0063	0.33	
Value entered 2 moves (+ve) vs rest	0.096	0.0027	0.002	0.55	
Value entered 5 moves (+ve) vs rest	0.23	0.016	0.016	0.87	
Values entered < 25th percentile	0.25	0.011	0.0064	0.0044	
Values entered > 75th percentile	0.13	0.0015	0	0.042	
Values wanted < 50th percentile	0.37	0.13	0.12	0.0064	

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Values wanted > 75th percentile	0.13	0.0046	0.00075	0.0067	
Words answer array (pilot) < 25th percentile	0.24	0.29	0.26	0.12	
Words answer array (pilot) > 75th percentile	0.23	0.3	0.22	0.0021	

#### 4. Physical measures

Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Able to walk or cycle unaided for 10 minutes $\leq$ No	0.014	0.0054	0.0024	0.44	
Able to walk or cycle unaided for 10 minutes No (+ve) vs rest	0.015	0.015	0.0065	0.2	
Able to walk or cycle unaided for 10 minutes rest (+ve) vs Yes	0.024	0.015	0	0.014	
Absence of notch position in the pulse waveform > False	0.27	0.18	0.16	1.2e-07	**
Absence of notch position in the pulse waveform True (+ve) vs rest	0.27	0.18	0.16	2.6e-06	*
Acceptability of each blow result < 50th percentile	0.42	0.29	0.24	1.9e-13	**
Acceptability of each blow result > 75th percentile	0.23	0.0008	0.00035	0.12	
Acceptability of each blow result (pilot) > 75th percentile	0.094	0.14	0.083	0.065	
Arm fat mass (left) < 25th percentile	0.17	0.012	0.00013	2e-09	**
Arm fat mass (left) < 50th percentile	0.47	0.56	0.5	4.7e-18	**
Arm fat mass (left) > 75th percentile	0.24	0.19	0.01	1e-23	**
Arm fat mass (right) < 50th percentile	0.42	0.46	0.37	8.3e-21	**
Arm fat mass (right) > 75th percentile	0.2	0.14	0.002	2.1e-21	**
Arm fat percentage (left) < 25th percentile	0.25	0.5	0.41	1.2e-17	**
Arm fat percentage (left) > 75th percentile	0.25	0.5	0.36	1.5e-22	**
Arm fat percentage (right) < 25th percentile	0.24	0.48	0.37	1.9e-20	**
Arm fat percentage (right) > 75th percentile	0.25	0.51	0.37	8.2e-21	**
Arm fat-free mass (left) < 25th percentile	0.21	0.35	0.16	3.9e-20	**
Arm fat-free mass (left) > 75th percentile	0.22	0.5	0.43	8.2e-09	**
Arm fat-free mass (right) < 25th percentile	0.22	0.36	0.19	2e-21	**
Arm fat-free mass (right) > 75th percentile	0.24	0.59	0.57	0.036	
Arm predicted mass (left) < 25th percentile	0.25	0.52	0.4	1.2e-20	**
Arm predicted mass (left) > 75th percentile	0.21	0.47	0.41	1.1e-06	**
Arm predicted mass (right) < 25th percentile	0.18	0.18	0.05	3.3e-13	**
Arm predicted mass (right) > 75th percentile	0.24	0.58	0.55	0.012	
Basal metabolic rate < 25th percentile	0.26	0.56	0.49	4.9e-11	**
Basal metabolic rate > 75th percentile	0.24	0.58	0.55	1e-09	**
Bicycle speed > 75th percentile	0.24	0.042	0.029	0.00031	
Body fat percentage < 25th percentile	0.24	0.51	0.42	2.6e-17	**
Body fat percentage > 75th percentile	0.25	0.52	0.41	1.6e-20	**
Body mass index (BMI) < 25th percentile	0.25	0.17	0.0035	1.6e-23	**
Body mass index (BMI) < 25th percentile	0.24	0.16	0.013	3.4e-26	**
Body mass index (BMI) < 50th percentile	0.5	0.61	0.56	1.7e-17	**
Body mass index (BMI) < 50th percentile	0.5	0.61	0.57	2.2e-14	**
Body mass index (BMI) > 75th percentile	0.25	0.15	0.00074	1.5e-23	**
Body mass index (BMI) > 75th percentile	0.24	0.097	0.00017	6.1e-20	**
Caffeine drink within last hour Yes (+ve) vs rest	0.18	0.00058	0	0.021	
Caffeine drink within last hour rest (+ve) vs No	0.18	0.00033	0	0.083	
Completion status of test > Fully completed	0.058	0.0053	0.0029	0.21	
Completion status of test > Participant wanted to stop early	0.052	0.0049	0.00092	0.055	
Completion status of test Heart rate reached safety level (+ve) vs rest	0.051	0.0051	0.00098	0.058	
Completion status of test Participant wanted to stop early (+ve) vs rest	0.0067	0.036	0	0.42	
Completion status of test rest (+ve) vs Fully completed	0.057	0.0047	0.00083	0.053	
Diastolic blood pressure, automated reading < 25th percentile	0.23	0.06	0.0011	4e-18	**
Diastolic blood pressure, automated reading < 50th percentile	0.5	0.59	0.59	0.016	
Diastolic blood pressure, automated reading > 75th percentile	0.22	0.025	0.0018	1.3e-11	**
Diastolic blood pressure, manual reading < 25th percentile	0.24	0.21	0.11	2.3e-13	**
Diastolic blood pressure, manual reading < 50th percentile	0.48	0.56	0.54	2e-06	*
Diastolic blood pressure, manual reading > 75th percentile	0.23	0.14	0.092	1.4e-07	**
Forced expiratory volume in 1-second (FEV1) < 25th percentile	0.25	0.44	0.43	0.0019	

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Forced expiratory volume in 1-second (FEV1) < 50th percentile	0.49	0.76	0.76	0.72	
Forced expiratory volume in 1-second (FEV1) > 75th percentile	0.25	0.61	0.6	0.0016	
Forced expiratory volume in 1-second (FEV1) (pilot) < 25th percentile	0.22	0.24	0.24	0.87	
Forced expiratory volume in 1-second (FEV1) (pilot) < 50th percentile	0.5	0.6	0.53	8.7e-05	
Forced expiratory volume in 1-second (FEV1) (pilot) > 75th percentile	0.27	0.46	0.32	9.2e-09	**
Forced expiratory volume in 1-second (FEV1), Best measure < 25th percentile	0.25	0.55	0.55	0.29	
Forced expiratory volume in 1-second (FEV1), Best measure < 50th percentile	0.5	0.8	0.8	0.73	
Forced expiratory volume in 1-second (FEV1), predicted > 75th percentile	0.25	0.79	0.77	0.0016	
Forced expiratory volume in 1-second (FEV1), predicted percentage < 25th percentile	0.25	0.055	0.039	0.00022	
Forced expiratory volume in 1-second (FEV1), predicted percentage < 50th percentile	0.5	0.51	0.49	3.7e-10	**
Forced expiratory volume in 1-second (FEV1), predicted percentage > 75th percentile	0.26	0.036	0.024	0.00019	
Forced vital capacity (FVC) < 25th percentile	0.25	0.48	0.47	1e-05	*
Forced vital capacity (FVC) (pilot) < 50th percentile	0.48	0.62	0.56	4.6e-05	
Forced vital capacity (FVC) (pilot) > 75th percentile	0.24	0.4	0.28	1.9e-05	*
Forced vital capacity (FVC), Best measure > 75th percentile	0.25	0.58	0.57	1.3e-05	*
Height < 25th percentile	0.24	0.44	0.41	2.7e-10	**
Height > 75th percentile	0.23	0.48	0.47	9.9e-05	
Hip circumference < 25th percentile	0.24	0.037	0.00025	5.3e-15	**
Hip circumference < 50th percentile	0.45	0.47	0.31	1.7e-27	**
Hip circumference > 75th percentile	0.23	0.087	0	5.5e-21	**
Impedance of arm (left) < 25th percentile	0.24	0.52	0.49	2.8e-09	**
Impedance of arm (left) > 75th percentile	0.24	0.44	0.31	1.8e-23	**
Impedance of arm (right) < 25th percentile	0.25	0.52	0.48	1.7e-09	**
Impedance of arm (right) > 75th percentile	0.24	0.42	0.3	9.5e-20	**
Impedance of leg (left) < 25th percentile	0.23	0.23	0.088	3.5e-20	**
Impedance of leg (left) > 75th percentile	0.25	0.31	0.19	6e-20	**
Impedance of leg (right) < 25th percentile	0.23	0.26	0.1	2.3e-24	**
Impedance of leg (right) > 75th percentile	0.26	0.33	0.19	1.5e-22	**
Impedance of whole body < 25th percentile	0.24	0.46	0.36	7e-19	**
Impedance of whole body > 75th percentile	0.25	0.45	0.36	2.4e-19	**
Leg fat mass (left) < 25th percentile	0.23	0.5	0.36	8.4e-24	**
Leg fat mass (left) > 75th percentile	0.25	0.44	0.22	3.5e-27	**
Leg fat mass (right) < 25th percentile	0.24	0.54	0.43	4.7e-23	**
Leg fat mass (right) > 75th percentile	0.25	0.41	0.17	1.9e-26	**
Leg fat percentage (left) < 25th percentile	0.25	0.62	0.57	2e-06	*
Leg fat percentage (left) > 75th percentile	0.25	0.57	0.5	6.9e-08	**
Leg fat percentage (right) < 25th percentile	0.24	0.61	0.56	6e-07	**
Leg fat-free mass (left) > 75th percentile	0.24	0.59	0.56	3.2e-10	**
Leg fat-free mass (right) < 25th percentile	0.24	0.53	0.49	2.6e-05	
Leg fat-free mass (right) > 75th percentile	0.23	0.58	0.55	2.2e-11	**
Leg predicted mass (left) < 25th percentile	0.24	0.52	0.47	2.8e-06	*
Leg predicted mass (left) > 75th percentile	0.23	0.58	0.55	2.7e-11	**
Leg predicted mass (right) < 25th percentile	0.25	0.54	0.49	0.014	
Leg predicted mass (right) > 75th percentile	0.24	0.6	0.57	1.2e-09	**
Maximum carotid IMT (intima-medial thickness) at 120 degrees < 25th percentile	0.2	0.085	0.069	2.9e-07	**
Maximum carotid IMT (intima-medial thickness) at 120 degrees > 75th percentile	0.21	0.11	0.083	1.9e-08	**
Maximum carotid IMT (intima-medial thickness) at 150 degrees < 25th percentile	0.2	0.12	0.11	0.025	
Maximum carotid IMT (intima-medial thickness) at 150 degrees < 50th percentile	0.49	0.63	0.62	3.1e-05	

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Maximum carotid IMT (intima-medial thickness) at 150 degrees > 75th percentile	0.2	0.074	0.058	0.0002	
Maximum carotid IMT (intima-medial thickness) at 210 degrees < 25th percentile	0.2	0.072	0.067	0.14	
Maximum carotid IMT (intima-medial thickness) at 210 degrees < 50th percentile	0.48	0.6	0.59	6e-05	
Maximum carotid IMT (intima-medial thickness) at 210 degrees > 75th percentile	0.23	0.14	0.12	6.5e-08	**
Maximum carotid IMT (intima-medial thickness) at 240 degrees < 25th percentile	0.2	0.075	0.069	0.044	
Maximum carotid IMT (intima-medial thickness) at 240 degrees < 50th percentile	0.49	0.61	0.6	0.0011	
Maximum carotid IMT (intima-medial thickness) at 240 degrees > 75th percentile	0.23	0.15	0.14	2.4e-06	*
Mean carotid IMT (intima-medial thickness) at 120 degrees < 25th percentile	0.26	0.22	0.21	6.2e-05	
Mean carotid IMT (intima-medial thickness) at 120 degrees < 50th percentile	0.49	0.65	0.64	2.3e-05	
Mean carotid IMT (intima-medial thickness) at 120 degrees > 75th percentile	0.24	0.2	0.19	0.00022	
Mean carotid IMT (intima-medial thickness) at 150 degrees < 25th percentile	0.25	0.25	0.23	1.4e-07	**
Mean carotid IMT (intima-medial thickness) at 150 degrees < 50th percentile	0.49	0.64	0.64	0.021	
Mean carotid IMT (intima-medial thickness) at 210 degrees < 25th percentile	0.26	0.22	0.21	0.087	
Mean carotid IMT (intima-medial thickness) at 210 degrees < 50th percentile	0.49	0.63	0.63	0.65	
Mean carotid IMT (intima-medial thickness) at 210 degrees > 75th percentile	0.24	0.2	0.18	1.8e-06	**
Mean carotid IMT (intima-medial thickness) at 240 degrees < 50th percentile	0.5	0.64	0.63	0.006	
Mean carotid IMT (intima-medial thickness) at 240 degrees > 75th percentile	0.24	0.21	0.17	7.1e-10	**
Method of measuring blood pressure rest (+ve) vs Direct entry	0.14	0.00014	0	0.33	
Minimum carotid IMT (intima-medial thickness) at 120 degrees < 25th percentile	0.23	0.088	0.062	9.4e-09	**
Minimum carotid IMT (intima-medial thickness) at 120 degrees > 75th percentile	0.19	0.075	0.061	2.4e-05	
Minimum carotid IMT (intima-medial thickness) at 150 degrees < 50th percentile	0.39	0.46	0.45	0.01	
Minimum carotid IMT (intima-medial thickness) at 150 degrees > 75th percentile	0.18	0.06	0.054	0.013	
Minimum carotid IMT (intima-medial thickness) at 210 degrees < 50th percentile	0.5	0.61	0.61	0.067	
Minimum carotid IMT (intima-medial thickness) at 210 degrees > 75th percentile	0.22	0.13	0.12	0.0072	
Minimum carotid IMT (intima-medial thickness) at 240 degrees < 50th percentile	0.5	0.61	0.61	0.00071	
Minimum carotid IMT (intima-medial thickness) at 240 degrees > 75th percentile	0.22	0.13	0.11	2.4e-06	*
Number of measurements made < 50th percentile	0.26	0.0022	0.001	0.026	
Ordering of blows > earliest	0.34	0.017	0.013	0.014	
Ordering of blows rest (+ve) vs earliest	0.34	0.02	0.019	0.12	
Peak expiratory flow (PEF) < 25th percentile	0.26	0.16	0.14	1.3e-07	**
Peak expiratory flow (PEF) > 75th percentile	0.24	0.5	0.49	3.3e-06	*
Peak expiratory flow (PEF) (pilot) < 25th percentile	0.24	0.27	0.27	0.93	
Peak expiratory flow (PEF) (pilot) < 50th percentile	0.49	0.56	0.47	1.2e-06	**
Position of pulse wave notch < 25th percentile	0.22	0.014	0.0035	2.4e-08	**

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Position of pulse wave notch > 75th percentile	0.21	0.0018	0.00071	0.016	
Position of the pulse wave peak < 25th percentile	0.22	0.062	0.046	2.3e-10	**
Position of the pulse wave peak < 50th percentile	0.38	0.43	0.4	4.6e-10	**
Position of the pulse wave peak > 75th percentile	0.17	0.016	0.0039	4.8e-07	**
Position of the shoulder on the pulse waveform < 25th percentile	0.2	0.012	0.0024	9.4e-08	**
Position of the shoulder on the pulse waveform < 50th percentile	0.46	0.53	0.52	0.00011	
Position of the shoulder on the pulse waveform > 75th percentile	0.22	0.06	0.047	3.5e-06	*
Pulse rate < 25th percentile	0.22	0.039	0.0013	3.4e-14	**
Pulse rate < 50th percentile	0.45	0.47	0.46	2.3e-06	*
Pulse rate > 75th percentile	0.25	0.041	0.0013	2.6e-16	**
Pulse rate (during blood-pressure measurement) < 25th percentile	0.23	0.14	0.053	8.8e-11	**
Pulse rate (during blood-pressure measurement) < 50th percentile	0.48	0.52	0.48	3.5e-11	**
Pulse rate (during blood-pressure measurement) > 75th percentile	0.26	0.1	0.058	4.4e-11	**
Pulse rate, automated reading < 25th percentile	0.21	0.021	0.00049	1.2e-13	**
Pulse rate, automated reading < 50th percentile	0.44	0.45	0.43	2.3e-12	**
Pulse rate, automated reading > 75th percentile	0.26	0.038	0.002	1e-15	**
Pulse wave Arterial Stiffness index < 50th percentile	0.49	0.56	0.56	0.00044	
Pulse wave Arterial Stiffness index > 75th percentile	0.25	0.024	0.016	1e-05	*
Pulse wave peak to peak time < 25th percentile	0.24	0.0056	0.0021	2.4e-05	
Pulse wave peak to peak time < 50th percentile	0.49	0.56	0.55	6e-07	**
Pulse wave peak to peak time > 75th percentile	0.23	0.0019	0.00027	0.00063	
Pulse wave reflection index < 25th percentile	0.23	0.012	0.0028	8.1e-08	**
Pulse wave reflection index < 50th percentile	0.46	0.5	0.49	0.45	
Pulse wave reflection index > 75th percentile	0.25	0.035	0.017	3.3e-11	**
Quality control indicator for IMT at 120 degrees > Pass	0.079	0.065	0.048	0.11	
Quality control indicator for IMT at 120 degrees rest (+ve) vs Pass	0.075	0.087	0.068	0.087	
Quality control indicator for IMT at 150 degrees > Pass	0.098	0.055	0.047	0.33	
Quality control indicator for IMT at 150 degrees Fail (+ve) vs rest	0.098	0.047	0.029	0.044	
Quality control indicator for IMT at 150 degrees rest (+ve) vs Pass	0.098	0.045	0.036	0.18	
Quality control indicator for IMT at 240 degrees > Pass	0.093	0.09	0.037	1e-05	*
Quality control indicator for IMT at 240 degrees Fail (+ve) vs rest	0.091	0.062	0.057	0.61	
Quality control indicator for IMT at 240 degrees rest (+ve) vs Pass	0.092	0.088	0.042	4.7e-06	*
Reason for skipping spirometry ≤ Other health reason	0.24	0.17	0.14	0.53	
Reason for skipping spirometry Malfunction (+ve) vs rest	0.39	0.43	0.38	0.32	
Reproducibility of spirometry measurement using ERS/ATS criteria ≤ No	0.2	0.0065	0.0047	0.063	
Reproducibility of spirometry measurement using ERS/ATS criteria No (+ve) vs rest	0.2	0.0069	0.0016	2.5e-05	
Reproducibility of spirometry measurement using ERS/ATS criteria rest (+ve) vs Yes	0.2	0.0062	0.0015	0.00017	
Result ranking (pilot) > best	0.45	0.45	0.44	0.32	
Result ranking (pilot) rest (+ve) vs best	0.45	0.44	0.43	0.54	
Result ranking rest (+ve) vs third best (i.e. worst)	0.26	0.0022	0.00016	4.5e-05	
Result ranking second best (+ve) vs rest	0.26	0.0027	0.0016	0.033	
Seated height < 25th percentile	0.2	0.3	0.26	2e-12	**
Seated height > 75th percentile	0.26	0.5	0.48	1.8e-08	**
Seating box height 30cm (+ve) vs rest	0.003	0.0048	0	0.33	
Sitting height < 25th percentile	0.23	0.45	0.41	5e-12	**
Sitting height < 50th percentile	0.47	0.8	0.8	0.75	
Sitting height > 75th percentile	0.24	0.51	0.49	4.1e-07	**
Smoked cigarette or pipe within last hour > No	0.0085	0.0096	0.0034	0.27	
Smoked cigarette or pipe within last hour Yes (+ve) vs rest	0.0086	0.0057	0	0.16	
Smoked cigarette or pipe within last hour rest (+ve) vs No	0.0087	0.011	0	0.043	
Spirometry device serial number < 25th percentile	0.23	0.0024	8.8e-05	3.9e-05	
Spirometry device serial number > 75th percentile	0.22	0.049	0	2.9e-17	**
Spirometry device serial number (pilot) > 699.0	0.49	0.5	0.5	0.58	
Spirometry device serial number (pilot) rest (+ve) vs 699.0	0.47	0.51	0.49	0.19	
Standing height < 25th percentile	0.23	0.41	0.38	4.9e-12	**
Standing height > 75th percentile	0.23	0.48	0.48	0.0079	

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Stiffness method rest (+ve) vs Direct entry	0.013	0.0014	0	0.33	
Systolic blood pressure, automated reading < 25th percentile	0.24	0.23	0.11	6.3e-22	**
Systolic blood pressure, automated reading < 50th percentile	0.49	0.64	0.62	3.6e-10	**
Systolic blood pressure, automated reading > 75th percentile	0.24	0.14	0.055	6e-22	**
Systolic blood pressure, manual reading < 25th percentile	0.24	0.29	0.21	7.2e-10	**
Systolic blood pressure, manual reading < 50th percentile	0.49	0.63	0.6	1.5e-07	**
Systolic blood pressure, manual reading > 75th percentile	0.24	0.21	0.15	8.6e-09	**
Time since interview start at which blood pressure screen(s) shown < 25th percentile	0.26	0.025	0.0068	6e-13	**
Time since interview start at which blood pressure screen(s) shown < 50th percentile	0.47	0.61	0.6	3.8e-06	*
Time since interview start at which blood pressure screen(s) shown > 75th percentile	0.23	0.0056	0.00073	5.8e-07	**
Trunk fat mass < 25th percentile	0.24	0.062	0.0019	1.8e-16	**
Trunk fat mass < 50th percentile	0.5	0.59	0.51	3.6e-21	**
Trunk fat mass > 75th percentile	0.24	0.091	0.00033	1.5e-21	**
Trunk fat percentage < 25th percentile	0.24	0.23	0.11	9.4e-20	**
Trunk fat percentage < 50th percentile	0.49	0.66	0.66	0.017	
Trunk fat percentage > 75th percentile	0.25	0.36	0.18	7.9e-23	**
Trunk fat-free mass < 25th percentile	0.26	0.55	0.51	1.6e-08	**
Trunk fat-free mass > 75th percentile	0.25	0.57	0.54	3.3e-05	
Trunk predicted mass < 25th percentile	0.26	0.55	0.5	5.3e-09	**
Trunk predicted mass > 75th percentile	0.24	0.56	0.54	3.7e-05	
Waist circumference < 25th percentile	0.24	0.4	0.18	7.8e-26	**
Waist circumference > 75th percentile	0.23	0.27	0.034	3.9e-26	**
Weight < 25th percentile	0.25	0.44	0.26	4.1e-26	**
Weight < 25th percentile	0.25	0.44	0.27	8.1e-23	**
Weight > 75th percentile	0.25	0.36	0.18	7e-24	**
Weight (pre-imaging) < 25th percentile	0.25	0.44	0.23	2.9e-26	**
Weight (pre-imaging) > 75th percentile	0.22	0.3	0.11	1.8e-24	**
Weight method Not performed (+ve) vs rest	0.0012	0.012	0	0.33	
Weight, manual entry < 25th percentile	0.22	0.41	0.3	0.00045	
Whole body fat mass < 25th percentile	0.25	0.14	0.021	2.5e-19	**
Whole body fat mass < 50th percentile	0.5	0.61	0.58	3.5e-15	**
Whole body fat mass > 75th percentile	0.25	0.19	0.0064	3.3e-22	**
Whole body fat-free mass < 25th percentile	0.25	0.55	0.51	1.3e-07	**
Whole body fat-free mass > 75th percentile	0.24	0.59	0.56	0.0083	
Whole body water mass > 75th percentile	0.24	0.57	0.57	0.11	

## 5. Health and medical history

Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Age angina diagnosed < 0	0.035	0.017	0	0.33	
Age angina diagnosed < 25th percentile	0.22	0.38	0.3	0.046	
Age asthma diagnosed < 25th percentile	0.25	0.13	0.099	7e-05	
Age asthma diagnosed < 50th percentile	0.49	0.56	0.55	0.061	
Age deep-vein thrombosis (DVT, blood clot in leg) diagnosed < 25th percentile	0.26	0.33	0.19	1.9e-09	**
Age deep-vein thrombosis (DVT, blood clot in leg) diagnosed < 50th percentile	0.49	0.52	0.5	0.028	
Age emphysema/chronic bronchitis diagnosed < 25th percentile	0.26	0.32	0.2	3.6e-06	*
Age emphysema/chronic bronchitis diagnosed > 75th percentile	0.23	0.38	0.34	0.059	
Age hay fever, rhinitis or eczema diagnosed < 0	0.11	0.0047	0.0039	0.65	
Age hay fever, rhinitis or eczema diagnosed > 75th percentile	0.25	0.12	0.11	0.007	
Age heart attack diagnosed < 25th percentile	0.24	0.4	0.38	0.16	
Age heart attack diagnosed < 50th percentile	0.49	0.65	0.64	0.82	
Age high blood pressure diagnosed < 25th percentile	0.25	0.2	0.2	0.89	

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Age high blood pressure diagnosed > 75th percentile	0.18	0.23	0.22	0.058	
Age pulmonary embolism (blood clot in lung) diagnosed < 25th percentile	0.3	0.31	0.27	0.047	
Age pulmonary embolism (blood clot in lung) diagnosed < 50th percentile	0.48	0.6	0.5	6.5e-05	
Age pulmonary embolism (blood clot in lung) diagnosed > 75th percentile	0.2	0.32	0.26	0.13	
Age stroke diagnosed < 25th percentile	0.26	0.52	0.42	9.7e-07	**
Age stroke diagnosed < 50th percentile	0.48	0.66	0.64	0.12	
Blood clot, DVT, bronchitis, emphysema, asthma, rhinitis, eczema, allergy diagnosed by doctor > Asthma	0.24	0.0052	0.00077	5.5e-07	**
Blood clot, DVT, bronchitis, emphysema, asthma, rhinitis, eczema, allergy diagnosed by doctor > Blood clot in the leg (DVT)	0.31	0.022	0.012	6.1e-08	**
Blood clot, DVT, bronchitis, emphysema, asthma, rhinitis, eczema, allergy diagnosed by doctor > Blood clot in the lung	0.3	0.021	0.0056	1.7e-10	**
Blood clot, DVT, bronchitis, emphysema, asthma, rhinitis, eczema, allergy diagnosed by doctor > Emphysema chronic bronchitis	0.3	0.021	0.0099	3.6e-09	**
Blood clot, DVT, bronchitis, emphysema, asthma, rhinitis, eczema, allergy diagnosed by doctor > None of the above	0.32	0.024	0.013	2.3e-06	*
Blood clot, DVT, bronchitis, emphysema, asthma, rhinitis, eczema, allergy diagnosed by doctor > Prefer not to answer	0.31	0.024	0.0089	2.6e-10	**
Blood clot, DVT, bronchitis, emphysema, asthma, rhinitis, eczema, allergy diagnosed by doctor Hayfever, allergic rhinitis or eczema (+ve) vs rest	0.24	0.0049	0.0014	1.4e-06	**
Blood clot, DVT, bronchitis, emphysema, asthma, rhinitis, eczema, allergy diagnosed by doctor rest (+ve) vs None of the above	0.32	0.026	0.01	1e-10	**
Carer support indicators ≤ No	0.23	0.0029	0.0011	0.033	
Carer support indicators No (+ve) vs rest	0.21	0.0012	0.00013	0.017	
Carer support indicators rest (+ve) vs Not known	0.23	0.0018	0.00036	0.0013	
Detention categories > Informal, not formally detained	0.059	0.066	0.037	0.067	
Detention categories Formally detained under Part II, Mental Health Act 1983 (+ve) vs rest	0.063	0.1	0.075	0.16	
Detention categories rest (+ve) vs Informal, not formally detained	0.069	0.086	0.048	0.00091	
Diabetes diagnosed by doctor > No	0.051	0.0019	0	0.021	
Diabetes diagnosed by doctor ≤ Do not know	0.0021	0.0053	0	0.33	
Diabetes diagnosed by doctor Do not know (+ve) vs rest	0.0015	0.0041	0	0.33	
Diabetes diagnosed by doctor Yes (+ve) vs rest	0.05	0.00037	0	0.33	
Fracture resulting from simple fall ≤ No	0.43	0.51	0.5	0.055	
Fracture resulting from simple fall No (+ve) vs rest	0.41	0.5	0.5	0.8	
Fracture resulting from simple fall rest (+ve) vs Yes	0.43	0.5	0.5	0.4	
Fractured bone site(s) ≤ Ankle	0.096	0.053	0.038	0.084	
Fractured bone site(s) ≤ Hip	0.14	0.052	0.037	0.058	
Fractured bone site(s) Ankle (+ve) vs rest	0.094	0.054	0.018	0.00024	
Fractured bone site(s) Arm (+ve) vs rest	0.085	0.04	0.013	7.3e-05	
Fractured bone site(s) Leg (+ve) vs rest	0.048	0.015	0.015	0.99	
Fractured bone site(s) Spine (+ve) vs rest	0.019	0.028	0.023	0.78	
Fractured bone site(s) Wrist (+ve) vs rest	0.18	0.068	0.053	0.017	
Fractured/broken bones in last 5 years ≤ Do not know	0.0048	0.0042	0	0.33	
Gestational diabetes only > No	0.099	0.19	0.15	0.091	
Gestational diabetes only ≤ Do not know	0.095	0.11	0.075	0.19	
Gestational diabetes only ≤ Not applicable	0.079	0.075	0.068	0.71	
Gestational diabetes only Not applicable (+ve) vs rest	0.079	0.1	0.054	0.041	
Gestational diabetes only Yes (+ve) vs rest	0.1	0.2	0.14	0.029	
Gestational diabetes only rest (+ve) vs No	0.19	0.26	0.23	0.17	
Medication for cholesterol, blood pressure or diabetes > Do not know	0.4	0.53	0.51	0.034	
Medication for cholesterol, blood pressure or diabetes > None of the above	0.41	0.52	0.51	0.34	
Medication for cholesterol, blood pressure or diabetes Blood pressure medication (+ve) vs rest	0.28	0.21	0.13	0.062	

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Medication for cholesterol, blood pressure or diabetes Cholesterol lowering medication (+ve) vs rest	0.12	0.0096	0.0028	0.071	
Medication for cholesterol, blood pressure or diabetes Do not know (+ve) vs rest	0.0048	0.022	0	0.18	
Medication for cholesterol, blood pressure or diabetes Insulin (+ve) vs rest	0.0075	0.017	0	0.39	
Medication for cholesterol, blood pressure or diabetes rest (+ve) vs None of the above	0.42	0.52	0.51	0.26	
Other serious medical condition/disability diagnosed by doctor $\leq$ Prefer not to answer	0.0015	0.005	0	0.33	
Other serious medical condition/disability diagnosed by doctor Prefer not to answer (+ve) vs rest	0.0012	0.0045	0	0.33	
Other serious medical condition/disability diagnosed by doctor rest (+ve) vs No	0.15	0.00013	0	0.33	
Source of stroke report rest (+ve) vs Hospital admission	0.45	0.55	0.52	0.14	
Started insulin within one year diagnosis of diabetes rest (+ve) vs No	0.088	0.12	0.1	0.1	
Treatment/medication code < 25th percentile	0.24	0.02	0.012	0.00018	
Treatment/medication code < 50th percentile	0.5	0.51	0.5	0.15	
Vascular/heart problems diagnosed by doctor > Angina	0.23	0.13	0.054	1.7e-18	**
Vascular/heart problems diagnosed by doctor > Heart attack	0.24	0.16	0.073	9e-18	**
Vascular/heart problems diagnosed by doctor > None of the above	0.25	0.19	0.11	2.2e-17	**
Vascular/heart problems diagnosed by doctor > Prefer not to answer	0.25	0.18	0.1	5e-17	**
Vascular/heart problems diagnosed by doctor > Stroke	0.23	0.11	0.03	9.2e-21	**
Vascular/heart problems diagnosed by doctor High blood pressure (+ve) vs rest	0.23	0.11	0.029	1.4e-16	**
Vascular/heart problems diagnosed by doctor rest (+ve) vs None of the above	0.25	0.19	0.1	1.5e-17	**

## 6. Sociodemographics

Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Average total household income before tax > 31,000 to 51,999	0.25	0.31	0.26	2.9e-13	**
Average total household income before tax > 52,000 to 100,000	0.054	0.008	0	0.00029	
Average total household income before tax $\leq$ 18,000 to 30,999	0.47	0.6	0.58	8.6e-10	**
Average total household income before tax $\leq$ Do not know	0.092	0.0024	0.00045	0.00095	
Average total household income before tax $\leq$ Less than 18,000	0.21	0.056	0.014	1e-14	**
Average total household income before tax $\leq$ Prefer not to answer	0.063	0.0019	0	0.01	
Average total household income before tax (pilot) > 31,000 to 52,000	0.29	0.34	0.29	0.0038	
Average total household income before tax (pilot) > 52,000 to 100,000	0.078	0.12	0.034	0.023	
Average total household income before tax (pilot) $\leq$ 18,000 to 31,000	0.39	0.48	0.42	0.0039	
Average total household income before tax (pilot) $\leq$ Do not know	0.099	0.16	0.12	0.086	
Average total household income before tax (pilot) $\leq$ Prefer not to answer	0.076	0.13	0.039	0.0059	
Average total household income before tax (pilot) 18,000 to 31,000 (+ve) vs rest	0.21	0.26	0.18	6.1e-05	
Average total household income before tax (pilot) 31,000 to 52,000 (+ve) vs rest	0.31	0.32	0.32	0.75	
Average total household income before tax (pilot) 52,000 to 100,000 (+ve) vs rest	0.2	0.26	0.18	0.00037	
Average total household income before tax (pilot) Greater than 100,000 (+ve) vs rest	0.077	0.13	0.12	0.78	
Average total household income before tax (pilot) Less than 18,000 (+ve) vs rest	0.081	0.11	0.047	0.012	
Average total household income before tax (pilot) Prefer not to answer (+ve) vs rest	0.073	0.09	0.017	0.017	
Average total household income before tax 18,000 to 30,999 (+ve) vs rest	0.26	0.028	0.023	0.031	

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Average total household income before tax 31,000 to 51,999 (+ve) vs rest	0.28	0.0017	0.00094	0.057	
Average total household income before tax 52,000 to 100,000 (+ve) vs rest	0.2	0.068	0.054	2e-05	
Average total household income before tax Do not know (+ve) vs rest	0.03	0.0019	0	0.083	
Average total household income before tax Greater than 100,000 (+ve) vs rest	0.054	0.0092	0.00078	0.00041	
Average total household income before tax Less than 18,000 (+ve) vs rest	0.12	0.0012	0.00036	0.079	
Average total household income before tax Prefer not to answer (+ve) vs rest	0.062	0.00068	0	0.16	
Ethnic background > Any other Asian background	0.0056	0.05	0	5.4e-05	
Ethnic background > Any other mixed background	0.015	0.043	0	2e-06	*
Ethnic background > Any other white background	0.019	0.02	0	3.9e-05	
Ethnic background > Bangladeshi	0.0063	0.046	0	3.8e-05	
Ethnic background > British	0.065	0.0012	0	0.042	
Ethnic background > Caribbean	0.0021	0.0064	0	0.34	
Ethnic background > Indian	0.0089	0.03	0	0.0004	
Ethnic background > Irish	0.042	0.005	0	0.0017	
Ethnic background > Pakistani	0.0066	0.045	0	4.4e-05	
Ethnic background > White and Asian	0.017	0.033	0	4e-08	**
Ethnic background > White and Black African	0.018	0.024	0	1.6e-05	*
Ethnic background > White and Black Caribbean	0.018	0.02	0	2.7e-05	
Ethnic background ≤ Chinese	0.0055	0.0023	0	0.33	
Ethnic background ≤ Other ethnic group	0.01	0.0041	0	0.17	
Ethnic background African (+ve) vs rest	0.002	0.016	0	0.11	
Ethnic background Any other mixed background (+ve) vs rest	0.0016	0.011	0	0.17	
Ethnic background Caribbean (+ve) vs rest	0.0029	0.0045	0	0.33	
Ethnic background Chinese (+ve) vs rest	0.0028	0.031	0	0.015	
Ethnic background Indian (+ve) vs rest	0.0065	0.029	0	0.0048	
Ethnic background Pakistani (+ve) vs rest	0.0019	0.012	0	0.083	
Ethnic background rest (+ve) vs British	0.074	0.0043	0	0.0012	
Job involves heavy manual or physical work > Never rarely	0.27	0.047	0.007	1.4e-12	**
Job involves heavy manual or physical work Sometimes (+ve) vs rest	0.18	0.0014	0.00016	0.008	
Job involves mainly walking or standing > Sometimes	0.28	0.041	0.0044	1.8e-13	**
Job involves mainly walking or standing > Usually	0.15	0.0027	0.00078	0.0067	
Job involves mainly walking or standing ≤ Never rarely	0.4	0.25	0.16	1.8e-16	**
Job involves mainly walking or standing Always (+ve) vs rest	0.15	0.0023	0	0.00032	
Job involves mainly walking or standing Sometimes (+ve) vs rest	0.31	0.021	0.0098	9.8e-07	**
Qualifications > CSEs or equivalent	0.49	0.47	0.44	1.2e-11	**
Qualifications > NVQ or HND or HNC or equivalent	0.34	0.044	0.014	2.8e-13	**
Qualifications ≤ A levels AS levels or equivalent	0.28	0.012	0.0066	6.1e-07	**
Qualifications ≤ College or University degree	0.24	0.0056	0.0033	0.0004	
Qualifications ≤ None of the above	0.066	0.0089	0.0022	0.00015	
Qualifications ≤ O levels GCSEs or equivalent	0.46	0.41	0.4	3.5e-06	*
Qualifications ≤ Prefer not to answer	0.068	0.0078	0.00091	0.00046	
Qualifications (pilot) > CSEs or equivalent	0.17	0.27	0.17	0.0024	
Qualifications (pilot) ≤ None of the above	0.056	0.05	0.01	0.16	
Qualifications (pilot) CSEs or equivalent (+ve) vs rest	0.095	0.1	0.072	0.24	
Qualifications (pilot) NVQ or HND or HNC or equivalent (+ve) vs rest	0.17	0.24	0.19	0.042	
Qualifications College or University degree (+ve) vs rest	0.17	0.00024	0.00023	0.98	
Qualifications NVQ or HND or HNC or equivalent (+ve) vs rest	0.15	0.00083	0	0.01	
Qualifications None of the above (+ve) vs rest	0.066	0.0084	0.0003	2.7e-05	
Qualifications Other professional qualifications eg: nursing, teaching (+ve) vs rest	0.34	0.043	0.011	4.9e-16	**

## 7. Sex-specific factors

Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Age at bilateral oophorectomy (both ovaries removed) < 0	0.02	0.0077	0	0.33	
Age at bilateral oophorectomy (both ovaries removed) < 50th percentile	0.44	0.5	0.47	0.017	
Age at bilateral oophorectomy (both ovaries removed) > 75th percentile	0.22	0.28	0.28	0.73	
Age at first live birth < 25th percentile	0.22	0.038	0.015	3.5e-07	**
Age at hysterectomy > 75th percentile	0.22	0.21	0.17	0.00021	
Age at last live birth < 25th percentile	0.19	0.041	0.017	8.1e-07	**
Age at last live birth < 50th percentile	0.5	0.57	0.56	0.026	
Age at menopause (last menstrual period) < 25th percentile	0.25	0.022	0.016	0.0095	
Age at menopause (last menstrual period) > 75th percentile	0.22	0.014	0.0098	0.053	
Age last used hormone-replacement therapy (HRT) < 0	0.27	0.17	0.16	0.32	
Age last used hormone-replacement therapy (HRT) > 75th percentile	0.22	0.23	0.18	4.7e-07	**
Age of primiparous women at birth of child < 25th percentile	0.22	0.17	0.14	0.0013	
Age of primiparous women at birth of child < 50th percentile	0.48	0.48	0.46	0.00038	
Age of primiparous women at birth of child > 75th percentile	0.25	0.21	0.18	0.0018	
Age started hormone-replacement therapy (HRT) < 25th percentile	0.23	0.059	0.039	4.6e-05	
Age started hormone-replacement therapy (HRT) < 50th percentile	0.47	0.48	0.45	8.6e-09	**
Age started hormone-replacement therapy (HRT) > 75th percentile	0.23	0.07	0.034	2.5e-08	**
Age started oral contraceptive pill < 25th percentile	0.21	0.22	0.15	1.4e-13	**
Age when last used oral contraceptive pill < 0	0.11	0.00041	0	0.33	
Age when last used oral contraceptive pill < 50th percentile	0.48	0.46	0.44	1.1e-07	**
Age when last used oral contraceptive pill > 75th percentile	0.24	0.011	0.0069	0.00099	
Age when periods started (menarche) < 25th percentile	0.22	0.003	0.0023	0.34	
Age when periods started (menarche) < 50th percentile	0.39	0.19	0.18	0.0087	
Bilateral oophorectomy (both ovaries removed) Yes (+ve) vs rest	0.089	0.0017	0.0013	0.58	
Bilateral oophorectomy (both ovaries removed) rest (+ve) vs No	0.1	0.0015	0	0.042	
Birth weight of first child < 50th percentile	0.27	0.016	0.015	0.85	
Ever had breast cancer screening / mammogram ≤ No	0.043	0.078	0.058	0.0019	
Ever had breast cancer screening / mammogram rest (+ve) vs Yes	0.042	0.095	0.06	0.00052	
Ever had cervical smear test ≤ No	0.022	0.0019	0	0.33	
Ever had hysterectomy (womb removed) > No	0.1	0.014	0.0079	0.022	
Ever had hysterectomy (womb removed) rest (+ve) vs No	0.1	0.013	0.011	0.51	
Ever had stillbirth, spontaneous miscarriage or termination > No	0.31	0.057	0.029	5.3e-09	**
Ever had stillbirth, spontaneous miscarriage or termination Yes (+ve) vs rest	0.31	0.054	0.028	3.4e-08	**
Ever taken oral contraceptive pill ≤ No	0.14	0.0056	0.0055	0.97	
Ever taken oral contraceptive pill rest (+ve) vs Yes	0.14	0.0086	0.0037	0.0002	
Ever used hormone-replacement therapy (HRT) > No	0.37	0.48	0.46	5.8e-05	
Ever used hormone-replacement therapy (HRT) ≤ Do not know	0.0028	0.01	0	0.34	
Ever used hormone-replacement therapy (HRT) Yes (+ve) vs rest	0.37	0.48	0.47	7.7e-05	
Ever used hormone-replacement therapy (HRT) rest (+ve) vs No	0.38	0.49	0.48	0.00087	
Had menopause > Yes	0.15	0.0015	0.00025	0.064	
Had menopause rest (+ve) vs Yes	0.22	0.35	0.34	0.036	
Length of menstrual cycle < 0	0.3	0.17	0.15	0.0017	
Length of menstrual cycle < 25th percentile	0.25	0.11	0.092	0.0012	
Length of menstrual cycle > 75th percentile	0.12	0.02	0.013	0.11	
Menstruating today > No	0.14	0.016	0.011	0.12	
Menstruating today Do not know (+ve) vs rest	0.0099	0.0081	0.0048	0.56	
Menstruating today Prefer not to answer (+ve) vs rest	0.0019	0.025	0	0.33	
Menstruating today Yes (+ve) vs rest	0.13	0.021	0.013	0.053	
Number of live births < 25th percentile	0.2	0.028	0.014	4.6e-06	*
Number of live births < 50th percentile	0.34	0.21	0.16	5.1e-12	**
Number of live births > 75th percentile	0.22	0.016	0.0084	3.5e-05	
Number of pregnancy terminations < 25th percentile	0.0075	0.024	0	0.052	
Number of pregnancy terminations < 50th percentile	0.0063	0.01	0	0.16	
Number of spontaneous miscarriages > 75th percentile	0.16	0.033	0.027	0.19	
Time since last menstrual period < 0	0.12	0.05	0.013	1.2e-07	**
Time since last menstrual period < 25th percentile	0.21	0.086	0.049	6e-07	**
Time since last menstrual period < 50th percentile	0.45	0.44	0.41	4e-06	*
Time since last menstrual period > 75th percentile	0.24	0.092	0.079	0.017	

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Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Years since last breast cancer screening / mammogram < 0	0.25	0.025	0.017	2.3e-06	*
Years since last breast cancer screening / mammogram < 25th percentile	0.25	0.021	0.016	0.035	
Years since last cervical smear test < 0	0.23	0.012	0.0045	3.5e-06	*
Years since last cervical smear test < 25th percentile	0.24	0.013	0.0067	1.8e-05	*
Years since last cervical smear test > 75th percentile	0.23	0.26	0.26	0.21	

## 8. Baseline characteristics

Variable	+ve pct	F1 (Base)	F1 (rfMRI)	pval	sig*
Age when attended assessment centre < 25th percentile	0.24	0.92	0.92	0.0018	
Age when attended assessment centre < 50th percentile	0.48	0.95	0.95	0.017	
Age when attended assessment centre > 75th percentile	0.2	0.86	0.85	0.00045	
Month of birth > August	0.32	0.0031	0.002	0.036	
Month of birth > July	0.4	0.095	0.092	0.17	
Month of birth ≤ May	0.42	0.19	0.17	1.8e-05	*
Month of birth August (+ve) vs rest	0.083	0.00025	0	0.33	
Townsend deprivation index at recruitment < 25th percentile	0.25	0.0015	0.00056	0.0068	
Townsend deprivation index at recruitment < 50th percentile	0.5	0.52	0.52	4e-05	
Townsend deprivation index at recruitment > 75th percentile	0.25	0.012	0.0014	1.9e-09	**
UK Biobank assessment centre > Cheadle (imaging)	0.16	0.25	0.00013	1.3e-24	**
UK Biobank assessment centre > Reading (imaging)	0.16	0.25	0	3e-23	**
UK Biobank assessment centre Newcastle (imaging) (+ve) vs rest	0.16	0.25	0	1.2e-24	**
UK Biobank assessment centre rest (+ve) vs Cheadle (imaging)	0.16	0.25	0	2.2e-23	**
Year of birth < 50th percentile	0.45	0.96	0.96	0.52	

## B. tfMRI

### 1. Mental health

Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Able to confide ≤ About once a week	0.4	0.16	0.13	2e-09	**
Able to confide ≤ Never or almost never	0.16	0.00089	0	0.0047	
Able to confide ≤ Once every few months	0.22	0.0023	0.00098	0.0028	
Able to confide rest (+ve) vs Almost daily	0.5	0.52	0.51	6.7e-05	
Able to pay rent/mortgage as an adult ≤ Rarely true	0.052	0.00046	0	0.33	
Able to pay rent/mortgage as an adult rest (+ve) vs Very often true	0.14	0.00039	0	0.16	
Actions taken following self-harm > See own GP	0.46	0.47	0.43	0.032	
Actions taken following self-harm ≤ Need hospital treatment (eg A E)	E)	0.31	0.36	0.28	0.00059
Actions taken following self-harm ≤ See anyone from psychiatric or mental health services, including liaison services	0.039	0.025	0	0.17	
Actions taken following self-harm ≤ Use a helpline voluntary organization	0.39	0.4	0.37	0.017	
Actions taken following self-harm Need hospital treatment (eg A E) (+ve) vs rest	E) (+ve) vs rest	0.28	0.32	0.29	0.11
Actions taken following self-harm See anyone from psychiatric or mental health services, including liaison services (+ve) vs rest	0.034	0.02	0	0.33	
Activities undertaken to treat anxiety > Talking therapies, such as psychotherapy, counselling, group therapy or CBT	0.35	0.29	0.28	0.12	
Activities undertaken to treat anxiety Other therapeutic activities such as mindfulness, yoga or art classes (+ve) vs rest	0.35	0.29	0.28	0.24	

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Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Activities undertaken to treat depression Other therapeutic activities such as mindfulness, yoga or art classes (+ve) vs rest	0.31	0.16	0.15	0.12	
Activities undertaken to treat depression rest (+ve) vs Talking therapies, such as psychotherapy, counselling, group therapy or CBT	0.31	0.17	0.17	0.14	
Age at last episode of depression < 0	0.1	0.0047	0	0.0013	
Age at last episode of depression < 50th percentile	0.5	0.56	0.56	0.23	
Age at last episode of depression > 75th percentile	0.24	0.21	0.21	0.26	
Age when first had unusual or psychotic experience < 50th percentile	0.48	0.51	0.48	0.0013	
Age when known person last commented about drinking habits < 0	0.12	0.13	0.12	0.46	
Age when known person last commented about drinking habits < 25th percentile	0.25	0.32	0.27	0.033	
Age when last took cannabis < 25th percentile	0.24	0.085	0.082	0.64	
Age when last took cannabis > 75th percentile	0.23	0.14	0.11	5.8e-05	
Amount of alcohol drunk on a typical drinking day > 5 or 6	0.099	0.01	0.0021	0.00037	
Amount of alcohol drunk on a typical drinking day > 7, 8 or 9	0.029	0.0081	0.0019	0.014	
Amount of alcohol drunk on a typical drinking day ≤ 1 or 2	0.48	0.57	0.56	9.5e-05	
Amount of alcohol drunk on a typical drinking day 1 or 2 (+ve) vs rest	0.48	0.57	0.56	0.00063	
Amount of alcohol drunk on a typical drinking day 10 or more (+ve) vs rest	0.029	0.0043	0	0.043	
Amount of alcohol drunk on a typical drinking day 3 or 4 (+ve) vs rest	0.29	0.0087	0.0042	4.4e-05	
Amount of alcohol drunk on a typical drinking day 7, 8 or 9 (+ve) vs rest	0.07	0.0021	0	0.021	
Avoided activities or situations because of previous stressful experience in past month > Not at all	0.19	0.0045	0.0011	6.1e-05	
Avoided activities or situations because of previous stressful experience in past month A little bit (+ve) vs rest	0.15	0.0017	0	0.0035	
Avoided activities or situations because of previous stressful experience in past month Moderately (+ve) vs rest	0.026	0.0011	0	0.33	
Avoided activities or situations because of previous stressful experience in past month rest (+ve) vs Not at all	0.19	0.0052	0.00085	6.4e-05	
Been in a confiding relationship as an adult ≤ Never true	0.099	0.0031	0	0.0021	
Been in a confiding relationship as an adult ≤ Often	0.49	0.47	0.47	0.00012	
Been in a confiding relationship as an adult ≤ Rarely true	0.14	0.0011	0	0.01	
Been in a confiding relationship as an adult ≤ Sometimes true	0.32	0.032	0.0093	1.2e-09	**
Been in a confiding relationship as an adult rest (+ve) vs Very often true	0.49	0.48	0.46	4.4e-06	*
Belief that own life is meaningful > Very much	0.13	0.0016	0	0.017	
Belief that own life is meaningful ≤ A moderate amount	0.34	0.098	0.045	4e-16	**
Belief that own life is meaningful ≤ Do not know	0.018	0.0012	0	0.33	
Belief that own life is meaningful A moderate amount (+ve) vs rest	0.26	0.011	0.00095	1e-09	**
Belief that own life is meaningful An extreme amount (+ve) vs rest	0.13	0.0013	0	0.03	
Belief that own life is meaningful rest (+ve) vs Very much	0.47	0.46	0.44	7.8e-07	**
Belittlement by partner or ex-partner as an adult > Never true	0.24	0.032	0.017	1.5e-06	**
Belittlement by partner or ex-partner as an adult > Rarely true	0.14	0.0027	0.0024	0.54	
Belittlement by partner or ex-partner as an adult ≤ Prefer not to answer	0.0022	0.035	0.017	0.17	
Belittlement by partner or ex-partner as an adult Prefer not to answer (+ve) vs rest	0.0024	0.036	0	0.027	
Belittlement by partner or ex-partner as an adult Sometimes true (+ve) vs rest	0.099	0.00056	0	0.16	
Bipolar and major depression status > Bipolar I Disorder	0.28	0.18	0.13	1.3e-10	**
Bipolar and major depression status > Bipolar II Disorder	0.28	0.18	0.1	2.9e-11	**
Bipolar and major depression status > Probable Recurrent major depression (severe)	0.22	0.08	0.052	0.00017	
Bipolar and major depression status Bipolar I Disorder (+ve) vs rest	0.005	0.03	0	0.061	
Bipolar and major depression status Bipolar II Disorder (+ve) vs rest	0.0042	0.0097	0	0.17	
Bipolar and major depression status Probable Recurrent major depression (moderate) (+ve) vs rest	0.14	0.02	0.012	0.013	
Bipolar and major depression status Probable Recurrent major depression (severe) (+ve) vs rest	0.068	0.0031	0	0.083	

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Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Bipolar and major depression status Single Probable major depression episode (+ve) vs rest	0.075	0.0061	0.0031	0.25	
Bipolar and major depression status rest (+ve) vs No Bipolar or Depression	0.29	0.18	0.13	6.5e-11	**
Bipolar disorder status rest (+ve) vs Bipolar Type I (Mania)	0.47	0.56	0.51	0.15	
Bipolar disorder status rest (+ve) vs Bipolar Type II (Hypomania)	0.49	0.56	0.44	0.0049	
Contemplated self-harm in past year > No	0.18	0.11	0.099	0.21	
Contemplated self-harm in past year Yes (+ve) vs rest	0.18	0.097	0.082	0.085	
Depression possibly related to stressful or traumatic event ≤ No	0.27	0.094	0.073	0.00021	
Depression possibly related to stressful or traumatic event ≤ Prefer not to answer	0.003	0.0058	0	0.33	
Depression possibly related to stressful or traumatic event No (+ve) vs rest	0.27	0.095	0.075	2.3e-05	*
Depression possibly related to stressful or traumatic event rest (+ve) vs Yes	0.27	0.098	0.092	0.099	
Diagnosed with life-threatening illness > Never	0.12	0.0012	0.00024	0.13	
Diagnosed with life-threatening illness ≤ Prefer not to answer	0.0025	0.0038	0	0.33	
Diagnosed with life-threatening illness Prefer not to answer (+ve) vs rest	0.0021	0.024	0	0.052	
Diagnosed with life-threatening illness rest (+ve) vs Never	0.12	0.0016	0.00023	0.033	
Did your sleep change? ≤ Do not know	0.14	0.0024	0.001	0.082	
Did your sleep change? ≤ No	0.3	0.11	0.099	0.0078	
Did your sleep change? No (+ve) vs rest	0.16	0.011	0.0086	0.25	
Did your sleep change? rest (+ve) vs Yes	0.3	0.11	0.094	3.4e-06	*
Difficulty concentrating during worst depression ≤ Do not know	0.12	0.0041	0	0.0043	
Difficulty concentrating during worst depression Do not know (+ve) vs rest	0.11	0.0038	0.0025	0.42	
Difficulty concentrating during worst depression No (+ve) vs rest	0.17	0.02	0.0049	4.7e-07	**
Difficulty concentrating during worst depression rest (+ve) vs Yes	0.29	0.085	0.081	0.14	
Difficulty concentrating during worst period of anxiety ≤ No	0.26	0.12	0.1	0.0015	
Difficulty concentrating during worst period of anxiety Do not know (+ve) vs rest	0.043	0.014	0.0064	0.12	
Difficulty concentrating during worst period of anxiety No (+ve) vs rest	0.22	0.071	0.057	0.00096	
Difficulty concentrating during worst period of anxiety rest (+ve) vs Yes	0.26	0.1	0.088	0.012	
Difficulty stopping worrying during worst period of anxiety ≤ No	0.08	0.0093	0.007	0.48	
Difficulty stopping worrying during worst period of anxiety Do not know (+ve) vs rest	0.027	0.014	0.0036	0.083	
Difficulty stopping worrying during worst period of anxiety rest (+ve) vs Yes	0.077	0.016	0.003	0.0039	
Distress caused by unusual or psychotic experiences > Quite distressing	0.12	0.15	0.12	0.022	
Distress caused by unusual or psychotic experiences ≤ Not distressing at all, it was a positive experience	0.32	0.37	0.29	7.4e-07	**
Distress caused by unusual or psychotic experiences Not distressing, a neutral experience (+ve) vs rest	0.29	0.29	0.28	0.83	
Distress caused by unusual or psychotic experiences Quite distressing (+ve) vs rest	0.095	0.12	0.085	0.083	
Distress caused by unusual or psychotic experiences Very distressing (+ve) vs rest	0.11	0.16	0.13	0.15	
Duration of worst depression > Over six months, but less than 12 months	0.19	0.0079	0.0038	0.0076	
Duration of worst depression > Over three months, but less than six months	0.34	0.11	0.1	0.00035	
Duration of worst depression Over six months, but less than 12 months (+ve) vs rest	0.15	0.0016	0.00034	0.12	
Duration of worst depression Over three months, but less than six months (+ve) vs rest	0.19	0.0035	0.0026	0.32	
Easily tired during worst period of anxiety No (+ve) vs rest	0.26	0.11	0.096	0.049	
Easily tired during worst period of anxiety rest (+ve) vs Yes	0.33	0.2	0.18	0.00017	
Ever addicted to a behaviour or miscellaneous > No	0.25	0.33	0.28	0.0021	
Ever addicted to a behaviour or miscellaneous rest (+ve) vs No	0.26	0.32	0.27	0.00028	
Ever addicted to alcohol > No	0.37	0.4	0.37	0.024	

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Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Ever addicted to alcohol Do not know (+ve) vs rest	0.081	0.094	0.067	0.15	
Ever addicted to alcohol Yes (+ve) vs rest	0.36	0.38	0.35	0.021	
Ever addicted to any substance or behaviour rest (+ve) vs No	0.067	0.00038	0	0.33	
Ever addicted to illicit or recreational drugs > No	0.074	0.15	0.091	0.0029	
Ever addicted to illicit or recreational drugs Yes (+ve) vs rest	0.074	0.14	0.11	0.075	
Ever addicted to illicit or recreational drugs rest (+ve) vs No	0.081	0.18	0.15	0.12	
Ever addicted to prescription or over-the-counter medication > No	0.13	0.25	0.18	0.074	
Ever addicted to prescription or over-the-counter medication Yes (+ve) vs rest	0.13	0.19	0.17	0.27	
Ever attempted suicide ≤ No	0.47	0.52	0.46	3.6e-05	
Ever attempted suicide No (+ve) vs rest	0.45	0.49	0.41	4.8e-05	
Ever attempted suicide rest (+ve) vs Yes	0.46	0.53	0.49	0.019	
Ever been injured or injured someone else through drinking alcohol > Yes, but not in the last year	0.0047	0.0045	0	0.33	
Ever believed in an un-real conspiracy against self ≤ Do not know	0.0024	0.0045	0	0.33	
Ever believed in un-real communications or signs ≤ Do not know	0.0031	0.031	0	0.0077	
Ever contemplated self-harm > No	0.15	0.0065	0.00057	0.00014	
Ever contemplated self-harm Prefer not to answer (+ve) vs rest	0.0028	0.027	0	0.0049	
Ever contemplated self-harm rest (+ve) vs No	0.15	0.0065	0.0033	0.0068	
Ever depressed for a whole week ≤ No	0.49	0.54	0.52	1.3e-09	**
Ever depressed for a whole week No (+ve) vs rest	0.47	0.5	0.48	6.5e-09	**
Ever depressed for a whole week rest (+ve) vs Yes	0.49	0.54	0.52	1.5e-08	**
Ever felt worried, tense, or anxious for most of a month or longer > No	0.25	0.017	0.0061	2.4e-09	**
Ever felt worried, tense, or anxious for most of a month or longer Yes (+ve) vs rest	0.25	0.015	0.0045	9.9e-09	**
Ever felt worried, tense, or anxious for most of a month or longer rest (+ve) vs No	0.31	0.094	0.045	5.9e-12	**
Ever had known person concerned about, or recommend reduction of, alcohol consumption > No	0.085	0.0026	0	0.0072	
Ever had known person concerned about, or recommend reduction of, alcohol consumption Yes, during the last year (+ve) vs rest	0.039	0.0014	0	0.16	
Ever had known person concerned about, or recommend reduction of, alcohol consumption rest (+ve) vs No	0.085	0.002	0.0013	0.46	
Ever had prolonged feelings of sadness or depression No (+ve) vs rest	0.45	0.49	0.49	0.052	
Ever had prolonged feelings of sadness or depression Prefer not to answer (+ve) vs rest	0.0019	0.011	0	0.34	
Ever had prolonged feelings of sadness or depression rest (+ve) vs Yes	0.45	0.49	0.49	0.042	
Ever heard an un-real voice rest (+ve) vs No	0.023	0.0011	0	0.33	
Ever highly irritable/argumentative for 2 days rest (+ve) vs No	0.14	0.00015	0	0.33	
Ever physically dependent on alcohol > No	0.2	0.27	0.21	0.017	
Ever physically dependent on alcohol Yes (+ve) vs rest	0.23	0.27	0.24	0.29	
Ever physically dependent on alcohol rest (+ve) vs No	0.27	0.34	0.28	0.00025	
Ever prescribed a medication for unusual or psychotic experiences Yes (+ve) vs rest	0.099	0.15	0.072	4.1e-05	
Ever prescribed a medication for unusual or psychotic experiences rest (+ve) vs No	0.12	0.14	0.11	0.051	
Ever seen an un-real vision rest (+ve) vs No	0.042	0.00061	0	0.33	
Ever sought or received professional help for mental distress > No	0.39	0.35	0.29	6.3e-16	**
Ever sought or received professional help for mental distress Yes (+ve) vs rest	0.39	0.36	0.32	5.3e-12	**
Ever sought or received professional help for mental distress rest (+ve) vs No	0.39	0.37	0.32	1.1e-11	**
Ever suffered mental distress preventing usual activities > No	0.34	0.22	0.19	1.6e-10	**
Ever suffered mental distress preventing usual activities Yes (+ve) vs rest	0.34	0.22	0.17	5.3e-13	**
Ever suffered mental distress preventing usual activities rest (+ve) vs No	0.35	0.25	0.22	8.4e-10	**
Ever taken cannabis > No	0.21	0.14	0.063	2.2e-13	**
Ever taken cannabis Yes, more than 100 times (+ve) vs rest	0.024	0.019	0.0051	0.0083	

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Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Ever talked to a health professional about unusual or psychotic experiences Yes (+ve) vs rest	0.19	0.22	0.19	0.25	
Ever thought that life not worth living > No	0.3	0.12	0.083	6.2e-12	**
Ever thought that life not worth living > Yes, once	0.17	0.0077	0.0015	2.1e-05	*
Ever thought that life not worth living ≤ Prefer not to answer	0.0056	0.0059	0	0.33	
Ever thought that life not worth living Yes, more than once (+ve) vs rest	0.17	0.0054	0.0012	5.9e-05	
Ever thought that life not worth living rest (+ve) vs No	0.31	0.13	0.11	2.2e-10	**
Ever unenthusiastic/disinterested for a whole week > No	0.32	0.12	0.08	8.3e-13	**
Ever unenthusiastic/disinterested for a whole week Yes (+ve) vs rest	0.32	0.12	0.081	1.9e-14	**
Ever unenthusiastic/disinterested for a whole week rest (+ve) vs No	0.35	0.21	0.14	2.9e-18	**
Ever worried more than most people would in similar situation > No	0.22	0.0085	0.0034	0.00013	
Ever worried more than most people would in similar situation rest (+ve) vs No	0.37	0.21	0.17	2e-12	**
Family relationship satisfaction ≤ Extremely happy	0.2	0.0006	0.0001	0.063	
Family relationship satisfaction Moderately happy (+ve) vs rest	0.27	0.0023	0.00098	0.014	
Fed-up feelings ≤ Prefer not to answer	0.0015	0.0036	0	0.33	
Fed-up feelings Yes (+ve) vs rest	0.31	0.079	0.043	5.3e-16	**
Fed-up feelings rest (+ve) vs No	0.33	0.096	0.083	0.00016	
Feelings of tiredness during worst episode of depression ≤ No	0.27	0.082	0.065	2.9e-05	
Feelings of tiredness during worst episode of depression No (+ve) vs rest	0.16	0.018	0.0083	0.00012	
Feelings of tiredness during worst episode of depression rest (+ve) vs Yes	0.26	0.086	0.061	8.5e-07	**
Feelings of worthlessness during worst period of depression > No	0.49	0.54	0.53	0.015	
Feelings of worthlessness during worst period of depression No (+ve) vs rest	0.45	0.45	0.42	6.9e-09	**
Felt distant from other people in past month > Moderately	0.068	0.0046	0.00099	0.063	
Felt distant from other people in past month > Quite a bit	0.014	0.015	0.0043	0.1	
Felt distant from other people in past month A little bit (+ve) vs rest	0.29	0.068	0.049	0.00024	
Felt distant from other people in past month Extremely (+ve) vs rest	0.013	0.014	0	0.022	
Felt distant from other people in past month Moderately (+ve) vs rest	0.069	0.0024	0	0.18	
Felt distant from other people in past month rest (+ve) vs Not at all	0.43	0.4	0.39	0.0011	
Felt hated by family member as a child > Never true	0.15	0.0016	0	0.00088	
Felt irritable or had angry outbursts in past month > A little bit	0.078	0.0016	0	0.16	
Felt irritable or had angry outbursts in past month > Moderately	0.03	0.0019	0	0.33	
Felt irritable or had angry outbursts in past month A little bit (+ve) vs rest	0.32	0.11	0.088	0.00076	
Felt irritable or had angry outbursts in past month Prefer not to answer (+ve) vs rest	0.0022	0.014	0	0.33	
Felt irritable or had angry outbursts in past month Quite a bit (+ve) vs rest	0.024	0.0052	0	0.16	
Felt loved as a child ≤ Often	0.48	0.46	0.45	3.7e-05	
Felt loved as a child ≤ Sometimes true	0.22	0.00087	0.00061	0.44	
Felt loved as a child rest (+ve) vs Very often true	0.49	0.46	0.45	0.0019	
Felt very upset when reminded of stressful experience in past month Quite a bit (+ve) vs rest	0.028	0.0011	0	0.33	
Felt very upset when reminded of stressful experience in past month rest (+ve) vs Not at all	0.36	0.21	0.17	1e-09	**
Financial situation satisfaction > Moderately happy	0.059	0.001	0	0.083	
Financial situation satisfaction > Very happy	0.41	0.33	0.3	4.8e-10	**
Financial situation satisfaction ≤ Prefer not to answer	0.00091	0.014	0	0.17	
Financial situation satisfaction Moderately happy (+ve) vs rest	0.35	0.046	0.025	2.6e-09	**
Financial situation satisfaction Very happy (+ve) vs rest	0.45	0.36	0.33	1.6e-11	**
Financial situation satisfaction Very unhappy (+ve) vs rest	0.012	0.0045	0	0.17	
Fraction of day affected during worst episode of depression > Most of the day	0.24	0.029	0.0076	1e-10	**
Fraction of day affected during worst episode of depression ≤ About half of the day	0.31	0.098	0.077	2.9e-07	**
Fraction of day affected during worst episode of depression All day long (+ve) vs rest	0.24	0.03	0.015	1.3e-06	**

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Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Fraction of day affected during worst episode of depression Do not know (+ve) vs rest	0.058	0.0024	0	0.085	
Fraction of day affected during worst episode of depression Less than half of the day (+ve) vs rest	0.12	0.0057	0.00079	0.0029	
Frequency of consuming six or more units of alcohol > Less than monthly	0.27	0.19	0.16	1.1e-10	**
Frequency of consuming six or more units of alcohol > Monthly	0.18	0.035	0.02	2.7e-07	**
Frequency of consuming six or more units of alcohol ≤ Never	0.47	0.59	0.58	7.8e-06	*
Frequency of consuming six or more units of alcohol Daily or almost daily (+ve) vs rest	0.035	0.0041	0	0.021	
Frequency of consuming six or more units of alcohol Weekly (+ve) vs rest	0.15	0.015	0.0064	7e-06	*
Frequency of depressed days during worst episode of depression > Almost every day	0.38	0.26	0.24	1.1e-06	**
Frequency of depressed days during worst episode of depression Every day (+ve) vs rest	0.38	0.26	0.22	1.6e-09	**
Frequency of depressed days during worst episode of depression Less often (+ve) vs rest	0.09	0.0082	0.0016	0.0023	
Frequency of depressed mood in last 2 weeks > Not at all	0.17	0.0017	0	0.00016	
Frequency of depressed mood in last 2 weeks Several days (+ve) vs rest	0.15	0.00096	0.0004	0.14	
Frequency of depressed mood in last 2 weeks rest (+ve) vs Not at all	0.2	0.0021	0.0008	0.0064	
Frequency of difficulty controlling worry during worst period of anxiety ≤ Do not know	0.012	0.0081	0.0053	0.62	
Frequency of difficulty controlling worry during worst period of anxiety ≤ Never	0.024	0.0083	0	0.09	
Frequency of difficulty controlling worry during worst period of anxiety Never (+ve) vs rest	0.011	0.035	0.014	0.17	
Frequency of difficulty controlling worry during worst period of anxiety Rarely (+ve) vs rest	0.1	0.012	0.011	0.71	
Frequency of drinking alcohol > 2 to 3 times a week	0.3	0.12	0.07	9e-14	**
Frequency of drinking alcohol ≤ 2 to 4 times a month	0.39	0.31	0.24	6.1e-17	**
Frequency of drinking alcohol ≤ Monthly or less	0.2	0.019	0.0011	2.2e-09	**
Frequency of drinking alcohol 2 to 3 times a week (+ve) vs rest	0.31	0.022	0.018	0.011	
Frequency of drinking alcohol 2 to 4 times a month (+ve) vs rest	0.19	0.00044	0	0.19	
Frequency of drinking alcohol Monthly or less (+ve) vs rest	0.13	0.0015	0	0.015	
Frequency of failure to fulfil normal expectations due to drinking alcohol in last year Less than monthly (+ve) vs rest	0.059	0.0015	0	0.16	
Frequency of failure to fulfil normal expectations due to drinking alcohol in last year Monthly (+ve) vs rest	0.0061	0.0075	0	0.17	
Frequency of feeling guilt or remorse after drinking alcohol in last year > Less than monthly	0.054	0.00088	0	0.33	
Frequency of feeling guilt or remorse after drinking alcohol in last year > Never	0.19	0.017	0.0046	2e-06	**
Frequency of feeling guilt or remorse after drinking alcohol in last year > Weekly	0.0074	0.0024	0	0.33	
Frequency of feeling guilt or remorse after drinking alcohol in last year Less than monthly (+ve) vs rest	0.14	0.0017	0.001	0.34	
Frequency of feeling guilt or remorse after drinking alcohol in last year rest (+ve) vs Never	0.2	0.017	0.0082	0.00038	
Frequency of friend/family visits > Never or almost never	0.0016	0.0036	0	0.33	
Frequency of friend/family visits ≤ Almost daily	0.12	0.00017	0	0.33	
Frequency of friend/family visits ≤ Do not know	0.0017	0.0098	0	0.33	
Frequency of friend/family visits (pilot) > About once a month	0.077	0.097	0.042	0.098	
Frequency of friend/family visits (pilot) About once a month (+ve) vs rest	0.091	0.063	0.046	0.44	
Frequency of friend/family visits About once a month (+ve) vs rest	0.13	0.00015	0	0.33	
Frequency of friend/family visits About once a week (+ve) vs rest	0.33	0.026	0.017	1e-06	**
Frequency of friend/family visits Never or almost never (+ve) vs rest	0.013	0.003	0	0.16	
Frequency of inability to cease drinking in last year rest (+ve) vs Never	0.12	0.0039	0.0024	0.17	

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Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Frequency of inability to stop worrying during worst period of anxiety > Sometimes	0.43	0.38	0.35	2.5e-08	**
Frequency of inability to stop worrying during worst period of anxiety ≤ Do not know	0.0093	0.036	0	0.0083	
Frequency of inability to stop worrying during worst period of anxiety ≤ Rarely	0.13	0.018	0.0095	0.037	
Frequency of inability to stop worrying during worst period of anxiety Often (+ve) vs rest	0.43	0.37	0.35	0.00028	
Frequency of inability to stop worrying during worst period of anxiety Rarely (+ve) vs rest	0.11	0.016	0.0017	0.00023	
Frequency of memory loss due to drinking alcohol in last year > Never	0.14	0.01	0.0017	0.00035	
Frequency of memory loss due to drinking alcohol in last year Less than monthly (+ve) vs rest	0.11	0.0053	0.00087	0.017	
Frequency of memory loss due to drinking alcohol in last year Monthly (+ve) vs rest	0.017	0.0026	0	0.33	
Frequency of memory loss due to drinking alcohol in last year rest (+ve) vs Never	0.14	0.0072	0.0013	0.001	
Frequency of needing morning drink of alcohol after heavy drinking session in last year Less than monthly (+ve) vs rest	0.0028	0.0059	0	0.33	
Frequency of tenseness / restlessness in last 2 weeks > Not at all	0.2	0.00078	0.00048	0.19	
Frequency of tenseness / restlessness in last 2 weeks rest (+ve) vs Not at all	0.23	0.0011	0.00071	0.33	
Frequency of tiredness / lethargy in last 2 weeks > More than half the days	0.04	0.0019	0	0.042	
Frequency of tiredness / lethargy in last 2 weeks > Not at all	0.46	0.46	0.43	1.5e-11	**
Frequency of tiredness / lethargy in last 2 weeks > Several days	0.085	0.0007	0	0.083	
Frequency of tiredness / lethargy in last 2 weeks Nearly every day (+ve) vs rest	0.039	0.0041	0	0.0021	
Frequency of tiredness / lethargy in last 2 weeks Several days (+ve) vs rest	0.37	0.082	0.056	1.2e-10	**
Frequency of tiredness / lethargy in last 2 weeks rest (+ve) vs Not at all	0.48	0.5	0.48	2e-08	**
Frequency of unenthusiasm / disinterest in last 2 weeks > Not at all	0.16	0.0009	0	0.0048	
Frequency of unenthusiasm / disinterest in last 2 weeks Nearly every day (+ve) vs rest	0.011	0.002	0	0.33	
Frequency of unusual or psychotic experiences in past year > More than once a month	0.015	0.02	0	0.33	
Frequency of unusual or psychotic experiences in past year Less than once a month (+ve) vs rest	0.032	0.0071	0	0.33	
Frequency of unusual or psychotic experiences in past year Nearly every day or daily (+ve) vs rest	0.013	0.034	0	0.17	
Frequency of unusual or psychotic experiences in past year rest (+ve) vs Not at all	0.27	0.3	0.25	0.0028	
Frequent trouble falling or staying asleep during worst period of anxiety ≤ No	0.19	0.037	0.034	0.31	
Frequent trouble falling or staying asleep during worst period of anxiety rest (+ve) vs Yes	0.2	0.048	0.041	0.048	
Friendships satisfaction > Moderately unhappy	0.0042	0.0067	0	0.33	
Friendships satisfaction > Very happy	0.32	0.11	0.066	2.5e-11	**
Friendships satisfaction ≤ Extremely happy	0.15	0.00014	0	0.33	
Friendships satisfaction Moderately happy (+ve) vs rest	0.29	0.027	0.009	1.7e-10	**
Friendships satisfaction rest (+ve) vs Very happy	0.47	0.43	0.41	1.1e-10	**
General happiness > Very happy	0.44	0.39	0.35	4.9e-11	**
General happiness ≤ Do not know	0.0036	0.02	0	0.043	
General happiness with own health > Moderately happy	0.1	0.0016	0	0.01	
General happiness with own health > Moderately unhappy	0.027	0.002	0	0.16	
General happiness with own health > Very happy	0.5	0.52	0.49	8.2e-13	**
General happiness with own health ≤ Do not know	0.0019	0.0053	0	0.33	
General happiness with own health Do not know (+ve) vs rest	0.0017	0.0075	0	0.33	
General happiness with own health Moderately happy (+ve) vs rest	0.39	0.14	0.099	5.5e-10	**

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Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
General happiness with own health Moderately unhappy (+ve) vs rest	0.076	0.00071	0	0.16	
General happiness with own health Very happy (+ve) vs rest	0.4	0.18	0.12	6.1e-14	**
General happiness with own health Very unhappy (+ve) vs rest	0.019	0.0014	0	0.33	
Guilty feelings > No	0.27	0.015	0.008	9.4e-06	*
Guilty feelings Yes (+ve) vs rest	0.26	0.011	0.0051	2.6e-05	
Guilty feelings rest (+ve) vs No	0.29	0.023	0.0098	2.6e-10	**
Happiness > Very happy	0.5	0.53	0.51	9.4e-12	**
Happiness Do not know (+ve) vs rest	0.0024	0.0043	0	0.33	
Happiness Extremely unhappy (+ve) vs rest	0.0019	0.0092	0	0.18	
Happiness Very happy (+ve) vs rest	0.43	0.29	0.25	1.1e-11	**
Health satisfaction Moderately happy (+ve) vs rest	0.45	0.31	0.26	1.5e-13	**
Health satisfaction Very happy (+ve) vs rest	0.41	0.2	0.09	1.7e-20	**
Health satisfaction Very unhappy (+ve) vs rest	0.014	0.0059	0	0.043	
Illness, injury, bereavement, stress in last 2 years > Death of a close relative	0.085	0.0012	0.00047	0.25	
Illness, injury, bereavement, stress in last 2 years > Death of a spouse or partner	0.073	0.00083	0	0.083	
Illness, injury, bereavement, stress in last 2 years > Marital separation divorce	0.062	0.0013	0	0.042	
Illness, injury, bereavement, stress in last 2 years > None of the above	0.39	0.22	0.21	0.001	
Illness, injury, bereavement, stress in last 2 years > Serious illness, injury or assault to yourself	0.35	0.14	0.13	7e-07	**
Illness, injury, bereavement, stress in last 2 years (pilot) > Death of a close relative	0.13	0.25	0.19	0.096	
Illness, injury, bereavement, stress in last 2 years (pilot) > Death of a spouse or partner	0.13	0.2	0.073	0.00019	
Illness, injury, bereavement, stress in last 2 years (pilot) > Marital separation divorce	0.12	0.16	0.065	0.0047	
Illness, injury, bereavement, stress in last 2 years (pilot) > None of the above	0.46	0.47	0.42	0.0025	
Illness, injury, bereavement, stress in last 2 years (pilot) > Serious illness, injury or assault of a close relative	0.32	0.39	0.31	0.0001	
Illness, injury, bereavement, stress in last 2 years (pilot) Financial difficulties (+ve) vs rest	0.1	0.14	0.081	0.04	
Illness, injury, bereavement, stress in last 2 years (pilot) Serious illness, injury or assault of a close relative (+ve) vs rest	0.14	0.12	0.082	0.063	
Illness, injury, bereavement, stress in last 2 years rest (+ve) vs None of the above	0.39	0.22	0.2	2.1e-05	*
Impact on normal roles during worst period of anxiety > Somewhat	0.3	0.15	0.086	2.9e-11	**
Impact on normal roles during worst period of anxiety A little (+ve) vs rest	0.27	0.1	0.064	1.2e-08	**
Impact on normal roles during worst period of anxiety Not at all (+ve) vs rest	0.071	0.0055	0.0024	0.26	
Impact on normal roles during worst period of depression A little (+ve) vs rest	0.27	0.022	0.01	1.1e-05	*
Impact on normal roles during worst period of depression A lot (+ve) vs rest	0.33	0.11	0.071	3.2e-08	**
Irritability > No	0.25	0.0064	0.0025	1.7e-07	**
Irritability Yes (+ve) vs rest	0.25	0.0067	0.0017	6.4e-08	**
Irritability rest (+ve) vs No	0.29	0.0083	0.0046	0.00078	
Keyed up or on edge during worst period of anxiety $\leq$ No	0.24	0.042	0.035	0.14	
Keyed up or on edge during worst period of anxiety Do not know (+ve) vs rest	0.046	0.0096	0.0023	0.071	
Keyed up or on edge during worst period of anxiety rest (+ve) vs Yes	0.24	0.036	0.025	0.0045	
Leisure/social activities > Adult education class	0.32	0.2	0.19	1.6e-07	**
Leisure/social activities > Pub or social club	0.44	0.52	0.5	6.6e-07	**
Leisure/social activities > Religious group	0.35	0.34	0.31	1.6e-13	**
Leisure/social activities $\leq$ None of the above	0.24	0.014	0.00074	8.7e-10	**
Leisure/social activities $\leq$ Prefer not to answer	0.25	0.013	0.0022	2.1e-09	**

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Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Leisure/social activities ≤ Sports club or gym	0.39	0.27	0.24	5.5e-12	**
Leisure/social activities None of the above (+ve) vs rest	0.25	0.01	8.1e-05	2.9e-11	**
Leisure/social activities Pub or social club (+ve) vs rest	0.16	0.0069	0.00073	1.5e-07	**
Leisure/social activities Sports club or gym (+ve) vs rest	0.15	0.00026	0	0.16	
Length of longest manic/irritable episode > At least two days, but less than a week	0.3	0.15	0.15	0.62	
Length of longest manic/irritable episode Do not know (+ve) vs rest	0.16	0.032	0.026	0.023	
Length of longest manic/irritable episode Less than a week (+ve) vs rest	0.15	0.042	0.023	0.00036	
Lifetime number of depressed periods < 0	0.18	0.0075	0.0019	0.0004	
Lifetime number of depressed periods < 25th percentile	0.18	0.0061	0.0039	0.17	
Lifetime number of depressed periods < 50th percentile	0.18	0.0085	0.0021	0.00042	
Loneliness, isolation Yes (+ve) vs rest	0.13	0.00016	0	0.33	
Loneliness, isolation rest (+ve) vs No	0.15	0.00082	0	0.01	
Longest period of depression < 0	0.18	0.0083	0.0032	0.0041	
Longest period of depression < 25th percentile	0.18	0.0097	0.0056	0.012	
Longest period of depression < 50th percentile	0.47	0.48	0.45	6.2e-11	**
Longest period of depression > 75th percentile	0.19	0.0038	0.00092	0.0031	
Longest period of unenthusiasm / disinterest < 25th percentile	0.21	0.038	0.023	0.00025	
Longest period of unenthusiasm / disinterest < 50th percentile	0.47	0.44	0.42	2.2e-06	**
Longest period of unenthusiasm / disinterest > 75th percentile	0.24	0.026	0.018	0.0013	
Longest period spent worried or anxious < 0	0.15	0.04	0.022	0.012	
Longest period spent worried or anxious < 25th percentile	0.24	0.091	0.054	3.5e-07	**
Longest period spent worried or anxious < 50th percentile	0.4	0.33	0.32	0.0033	
Longest period spent worried or anxious > 75th percentile	0.17	0.051	0.031	0.00068	
Manic/hyper symptoms > I needed less sleep than usual	0.19	0.058	0.031	6.3e-07	**
Manic/hyper symptoms > I was more active than usual	0.43	0.42	0.4	6.5e-05	
Manic/hyper symptoms > I was more talkative than usual	0.3	0.17	0.14	6.7e-05	
Manic/hyper symptoms All of the above (+ve) vs rest	0.076	0.015	0.0077	0.021	
Manic/hyper symptoms I was more creative or had more ideas than usual (+ve) vs rest	0.11	0.046	0.032	0.014	
Manic/hyper symptoms I was more talkative than usual (+ve) vs rest	0.14	0.029	0.025	0.26	
Manic/hyper symptoms None of the above (+ve) vs rest	0.43	0.43	0.39	9.2e-10	**
Maximum frequency of taking cannabis > Less than once a month	0.33	0.25	0.21	3.9e-05	
Maximum frequency of taking cannabis > Once a month or more, but not every week	0.2	0.075	0.066	0.11	
Maximum frequency of taking cannabis > Once a week or more, but not every day	0.058	0.041	0.022	0.0082	
Maximum frequency of taking cannabis ≤ Do not know	0.036	0.021	0.015	0.32	
Maximum frequency of taking cannabis ≤ Prefer not to answer	0.013	0.031	0	0.19	
Maximum frequency of taking cannabis Do not know (+ve) vs rest	0.022	0.021	0.016	0.51	
Maximum frequency of taking cannabis rest (+ve) vs Less than once a month	0.36	0.28	0.24	2.5e-07	**
Mental health problems ever diagnosed by a professional > Bulimia nervosa	0.49	0.48	0.46	0.00018	
Mental health problems ever diagnosed by a professional ≤ A personality disorder	0.016	0.038	0	0.0041	
Mental health problems ever diagnosed by a professional ≤ Any other type of psychosis or psychotic illness	0.014	0.027	0.013	0.16	
Mental health problems ever diagnosed by a professional Agoraphobia (+ve) vs rest	0.0064	0.0048	0	0.33	
Mental health problems ever diagnosed by a professional Anxiety, nerves or generalized anxiety disorder (+ve) vs rest	0.46	0.42	0.41	0.0049	
Mental health problems ever diagnosed by a professional Any other phobia (eg disabling fear of heights or spiders) (+ve) vs rest	0.0089	0.037	0	0.056	
Mental health problems ever diagnosed by a professional Depression (+ve) vs rest	0.45	0.41	0.37	4.3e-10	**
Mental health problems ever diagnosed by a professional Social anxiety or social phobia (+ve) vs rest	0.0073	0.017	0.0059	0.25	
Methods of self-harm used ≤ Something not listed	0.047	0.077	0.022	0.024	

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Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Methods of self-harm used Something not listed (+ve) vs rest	0.041	0.097	0.034	0.029	
Miserableness $\leq$ Prefer not to answer	0.00094	0.0053	0	0.33	
Miserableness Prefer not to answer (+ve) vs rest	0.00093	0.024	0	0.16	
Miserableness Yes (+ve) vs rest	0.35	0.2	0.19	0.00029	
Miserableness rest (+ve) vs No	0.36	0.23	0.21	6.6e-09	**
Mood swings $>$ No	0.36	0.17	0.14	2.7e-10	**
Mood swings Yes (+ve) vs rest	0.36	0.17	0.12	2e-13	**
Mood swings rest (+ve) vs No	0.37	0.21	0.18	1.1e-13	**
More irritable than usual during worst period of anxiety $\leq$ Do not know	0.087	0.015	0.0054	0.0018	
More irritable than usual during worst period of anxiety No (+ve) vs rest	0.24	0.081	0.075	0.19	
More irritable than usual during worst period of anxiety rest (+ve) vs Yes	0.34	0.22	0.22	0.26	
Multiple worries during worst period of anxiety No (+ve) vs rest	0.25	0.11	0.082	0.00052	
Nervous feelings $>$ No	0.18	0.00087	0	0.0075	
Nervous feelings rest (+ve) vs No	0.2	0.002	0	0.00033	
Neuroticism score $>$ 75th percentile	0.22	0.0062	0.0021	2.2e-05	*
Number of depression episodes $<$ 0	0.23	0.013	0.011	0.14	
Number of depression episodes $<$ 25th percentile	0.24	0.015	0.0074	1.1e-05	*
Number of depression episodes $>$ 75th percentile	0.19	0.0038	0.0013	0.0018	
Number of things worried about during worst period of anxiety $\leq$ One thing	0.46	0.47	0.46	0.016	
Number of things worried about during worst period of anxiety One thing (+ve) vs rest	0.44	0.4	0.38	6.7e-05	
Number of things worried about during worst period of anxiety rest (+ve) vs More than one thing	0.46	0.46	0.45	0.0011	
Number of times believed in un-real communications or signs $<$ 0	0.36	0.39	0.27	2.5e-05	
Number of times believed in un-real communications or signs $<$ 25th percentile	0.23	0.23	0.11	0.0038	
Number of times believed in un-real communications or signs $<$ 50th percentile	0.36	0.33	0.29	0.12	
Number of times heard an un-real voice $<$ 0	0.42	0.46	0.41	0.028	
Number of times heard an un-real voice $<$ 25th percentile	0.25	0.3	0.26	0.092	
Number of times seen an un-real vision $<$ 50th percentile	0.29	0.32	0.21	2.2e-05	*
Number of times seen an un-real vision $>$ 75th percentile	0.23	0.29	0.2	0.00014	
Number of times self-harmed $>$ 2	0.3	0.36	0.33	0.13	
Number of times self-harmed 2 (+ve) vs rest	0.17	0.22	0.16	0.085	
Number of times self-harmed 3 or more (+ve) vs rest	0.32	0.37	0.35	0.45	
Number of unenthusiastic/disinterested episodes $<$ 0	0.25	0.043	0.021	9.4e-09	**
Number of unenthusiastic/disinterested episodes $<$ 50th percentile	0.25	0.046	0.027	2.8e-08	**
Number of unenthusiastic/disinterested episodes $>$ 75th percentile	0.21	0.014	0.0066	0.0037	
Ongoing addiction or dependence to over-the-counter medication $>$ No	0.45	0.47	0.4	0.03	
Ongoing addiction or dependence to over-the-counter medication Yes (+ve) vs rest	0.41	0.51	0.38	5.6e-05	
Ongoing addiction or dependence to over-the-counter medication rest (+ve) vs No	0.45	0.52	0.43	0.00034	
Ongoing addiction to alcohol $>$ No	0.46	0.48	0.47	0.77	
Ongoing addiction to alcohol Yes (+ve) vs rest	0.46	0.47	0.45	0.27	
Ongoing behavioural or miscellaneous addiction $>$ No	0.5	0.48	0.47	0.83	
Ongoing behavioural or miscellaneous addiction No (+ve) vs rest	0.48	0.5	0.48	0.11	
Physical violence by partner or ex-partner as an adult $>$ Never true	0.13	0.0011	0.00021	0.058	
Physical violence by partner or ex-partner as an adult Often (+ve) vs rest	0.0069	0.0032	0	0.33	
Physical violence by partner or ex-partner as an adult rest (+ve) vs Never true	0.13	0.0015	0	0.029	
Physically abused by family as a child $>$ Often	0.0061	0.0042	0	0.33	
Physically abused by family as a child $>$ Sometimes true	0.013	0.002	0	0.33	
Professional informed about anxiety No (+ve) vs rest	0.39	0.31	0.26	1.5e-10	**
Professional informed about anxiety rest (+ve) vs Yes	0.4	0.31	0.29	0.0009	

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Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Professional informed about depression Do not know (+ve) vs rest	0.0033	0.026	0	0.023	
Professional informed about depression No (+ve) vs rest	0.36	0.23	0.18	8.1e-10	**
Professional informed about depression rest (+ve) vs Yes	0.36	0.24	0.21	3.5e-07	**
Recent changes in speed/amount of moving or speaking > More than half the days	0.003	0.0094	0	0.16	
Recent easy annoyance or irritability > Not at all	0.26	0.025	0.012	4.1e-06	*
Recent easy annoyance or irritability ≤ Prefer not to answer	0.0037	0.0022	0	0.33	
Recent easy annoyance or irritability Several days (+ve) vs rest	0.23	0.0087	0.0036	0.00016	
Recent easy annoyance or irritability rest (+ve) vs Not at all	0.27	0.028	0.019	1.7e-05	*
Recent feelings of depression ≤ Prefer not to answer	0.0027	0.025	0	0.056	
Recent feelings of depression Prefer not to answer (+ve) vs rest	0.0032	0.014	0	0.085	
Recent feelings of depression Several days (+ve) vs rest	0.17	0.00079	0	0.054	
Recent feelings of depression rest (+ve) vs Not at all	0.2	0.0046	0.0032	0.088	
Recent feelings of foreboding > More than half the days	0.016	0.0049	0	0.084	
Recent feelings of foreboding > Not at all	0.16	0.0046	0.001	0.0019	
Recent feelings of foreboding Nearly every day (+ve) vs rest	0.016	0.0014	0	0.33	
Recent feelings of foreboding Several days (+ve) vs rest	0.13	0.0011	0.00022	0.06	
Recent feelings of foreboding rest (+ve) vs Not at all	0.16	0.003	0.00033	0.0026	
Recent feelings of inadequacy > Not at all	0.19	0.007	0.0012	8e-05	
Recent feelings of inadequacy Prefer not to answer (+ve) vs rest	0.0027	0.0078	0	0.33	
Recent feelings of inadequacy Several days (+ve) vs rest	0.15	0.00057	0	0.083	
Recent feelings of inadequacy rest (+ve) vs Not at all	0.19	0.0053	0.0016	0.00039	
Recent feelings of tiredness or low energy > Not at all	0.48	0.51	0.49	1.9e-09	**
Recent feelings of tiredness or low energy > Several days	0.1	0.0011	0.00028	0.12	
Recent feelings of tiredness or low energy Several days (+ve) vs rest	0.37	0.13	0.12	0.001	
Recent feelings of tiredness or low energy rest (+ve) vs Not at all	0.48	0.51	0.49	1e-11	**
Recent feelings or nervousness or anxiety > Not at all	0.27	0.058	0.035	8.9e-10	**
Recent inability to stop or control worrying > Not at all	0.22	0.018	0.0032	2.4e-09	**
Recent inability to stop or control worrying Prefer not to answer (+ve) vs rest	0.0033	0.0028	0	0.33	
Recent inability to stop or control worrying Several days (+ve) vs rest	0.18	0.0021	0.00076	0.013	
Recent inability to stop or control worrying rest (+ve) vs Not at all	0.22	0.022	0.0057	1.2e-09	**
Recent lack of interest or pleasure in doing things > Not at all	0.18	0.0036	0.00063	0.00046	
Recent lack of interest or pleasure in doing things rest (+ve) vs Not at all	0.18	0.0036	0.0021	0.0092	
Recent poor appetite or overeating > Not at all	0.18	0.033	0.01	3.6e-09	**
Recent poor appetite or overeating > Several days	0.049	0.0022	0	0.042	
Recent poor appetite or overeating More than half the days (+ve) vs rest	0.025	0.0011	0	0.33	
Recent poor appetite or overeating Several days (+ve) vs rest	0.13	0.0022	0.00044	0.0077	
Recent poor appetite or overeating rest (+ve) vs Not at all	0.18	0.035	0.013	1.6e-09	**
Recent thoughts of suicide or self-harm ≤ Prefer not to answer	0.0062	0.0043	0	0.33	
Recent trouble concentrating on things Several days (+ve) vs rest	0.15	0.0004	0.00019	0.47	
Recent trouble relaxing > Not at all	0.28	0.064	0.054	8.8e-05	
Recent trouble relaxing Several days (+ve) vs rest	0.23	0.0049	0.0029	0.021	
Recent worrying too much about different things > Not at all	0.31	0.11	0.089	5.5e-07	**
Recent worrying too much about different things rest (+ve) vs Not at all	0.31	0.12	0.086	5.2e-10	**
Repeated disturbing thoughts of stressful experience in past month > Not at all	0.26	0.012	0.0079	0.012	
Repeated disturbing thoughts of stressful experience in past month A little bit (+ve) vs rest	0.2	0.00058	0	0.042	
Repeated disturbing thoughts of stressful experience in past month rest (+ve) vs Not at all	0.26	0.01	0.005	0.00013	
Restless during period of worst anxiety ≤ Do not know	0.073	0.01	0.0011	0.0091	
Restless during period of worst anxiety ≤ No	0.42	0.36	0.33	6.3e-09	**
Restless during period of worst anxiety Do not know (+ve) vs rest	0.072	0.011	0.0012	0.0011	
Restless during period of worst anxiety No (+ve) vs rest	0.35	0.18	0.16	0.0012	
Restless during period of worst anxiety rest (+ve) vs Yes	0.42	0.36	0.32	6.7e-08	**

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Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Risk taking > No	0.25	0.033	0.0069	7e-13	**
Risk taking Do not know (+ve) vs rest	0.033	0.00063	0	0.33	
Risk taking Yes (+ve) vs rest	0.25	0.034	0.0053	3.7e-13	**
Seen a psychiatrist for nerves, anxiety, tension or depression Do not know (+ve) vs rest	0.0025	0.02	0	0.047	
Seen doctor (GP) for nerves, anxiety, tension or depression > No	0.32	0.14	0.1	2.1e-11	**
Seen doctor (GP) for nerves, anxiety, tension or depression Yes (+ve) vs rest	0.32	0.14	0.081	1.6e-12	**
Seen doctor (GP) for nerves, anxiety, tension or depression rest (+ve) vs No	0.33	0.15	0.08	4.3e-14	**
Self-harmed in past year > No	0.075	0.11	0.1	0.58	
Self-harmed in past year Yes (+ve) vs rest	0.073	0.11	0.087	0.17	
Self-harmed in past year rest (+ve) vs No	0.076	0.12	0.1	0.43	
Sensitivity / hurt feelings > No	0.46	0.51	0.5	0.35	
Sensitivity / hurt feelings Yes (+ve) vs rest	0.47	0.51	0.51	0.26	
Severity of manic/irritable episodes ≤ Prefer not to answer	0.0076	0.02	0	0.091	
Severity of manic/irritable episodes Needed treatment or caused problems with work, relationships, finances, the law or other aspects of life (+ve) vs rest	0.21	0.054	0.047	0.058	
Severity of manic/irritable episodes Prefer not to answer (+ve) vs rest	0.0084	0.012	0	0.17	
Sexual interference by partner or ex-partner without consent as an adult > Never true	0.056	0.0044	0	0.008	
Sexual interference by partner or ex-partner without consent as an adult > Often	0.0032	0.0078	0	0.16	
Sexual interference by partner or ex-partner without consent as an adult > Rarely true	0.025	0.002	0	0.16	
Sexual interference by partner or ex-partner without consent as an adult > Sometimes true	0.0064	0.023	0	0.011	
Sexual interference by partner or ex-partner without consent as an adult ≤ Prefer not to answer	0.0027	0.022	0	0.061	
Sexual interference by partner or ex-partner without consent as an adult Prefer not to answer (+ve) vs rest	0.003	0.027	0	0.021	
Sexual interference by partner or ex-partner without consent as an adult Rarely true (+ve) vs rest	0.032	0.001	0	0.33	
Sexual interference by partner or ex-partner without consent as an adult Sometimes true (+ve) vs rest	0.018	0.0047	0	0.083	
Sexual interference by partner or ex-partner without consent as an adult Very often true (+ve) vs rest	0.0034	0.029	0.0044	0.051	
Sexually molested as a child ≤ Prefer not to answer	0.011	0.0023	0	0.33	
Sleeping too much > No	0.21	0.044	0.025	6.5e-06	*
Sleeping too much Yes (+ve) vs rest	0.22	0.042	0.03	0.0019	
Sleeping too much rest (+ve) vs No	0.21	0.043	0.028	0.00023	
Someone to take to doctor when needed as a child ≤ Often	0.15	0.0046	0.0018	0.0041	
Someone to take to doctor when needed as a child Never true (+ve) vs rest	0.017	0.0029	0	0.16	
Someone to take to doctor when needed as a child Often (+ve) vs rest	0.097	0.00091	0	0.19	
Stronger worrying (than other people) during period of worst anxiety ≤ Do not know	0.3	0.097	0.094	0.47	
Stronger worrying (than other people) during period of worst anxiety ≤ No	0.42	0.38	0.37	0.061	
Stronger worrying (than other people) during period of worst anxiety No (+ve) vs rest	0.12	0.029	0.013	0.0001	
Substance of prescription or over-the-counter medication addiction > A painkiller	0.28	0.33	0.31	0.44	
Substance of prescription or over-the-counter medication addiction A painkiller (+ve) vs rest	0.45	0.7	0.59	8.5e-07	**
Substances taken for anxiety Drugs or alcohol (more than once) (+ve) vs rest	0.32	0.29	0.27	0.003	

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Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Substances taken for anxiety rest (+ve) vs Medication prescribed to you (for at least two weeks)	0.38	0.34	0.31	5.4e-06	*
Suffer from 'nerves' rest (+ve) vs No	0.18	0.00055	0.00011	0.057	
Tense / 'highly strung' rest (+ve) vs No	0.15	0.00014	0	0.33	
Tense, sore, or aching muscles during worst period of anxiety > No	0.35	0.27	0.25	4.1e-05	
Tense, sore, or aching muscles during worst period of anxiety Yes (+ve) vs rest	0.35	0.27	0.23	1.8e-07	**
Tense, sore, or aching muscles during worst period of anxiety rest (+ve) vs No	0.43	0.44	0.41	4.9e-07	**
Thoughts of death during worst depression ≤ Prefer not to answer	0.0045	0.0093	0	0.16	
Trouble falling asleep No (+ve) vs rest	0.24	0.026	0.021	0.029	
Trouble falling or staying asleep, or sleeping too much > More than half the days	0.076	0.00037	0	0.33	
Trouble falling or staying asleep, or sleeping too much > Not at all	0.48	0.53	0.53	0.2	
Trouble falling or staying asleep, or sleeping too much > Several days	0.15	0.00039	0	0.16	
Trouble falling or staying asleep, or sleeping too much Nearly every day (+ve) vs rest	0.075	0.00039	0	0.33	
Trouble falling or staying asleep, or sleeping too much Several days (+ve) vs rest	0.33	0.07	0.058	0.00024	
Victim of physically violent crime > Yes, but not in the last 12 months	0.0051	0.0045	0	0.33	
Victim of physically violent crime ≤ Prefer not to answer	0.00095	0.033	0	0.086	
Victim of physically violent crime Yes, but not in the last 12 months (+ve) vs rest	0.18	0.012	0.0064	0.00014	
Victim of physically violent crime rest (+ve) vs Never	0.19	0.017	0.013	0.017	
Victim of sexual assault > Never	0.15	0.006	0.00053	5.8e-06	*
Victim of sexual assault Yes, but not in the last 12 months (+ve) vs rest	0.15	0.0036	0.00056	0.0024	
Waking too early ≤ No	0.25	0.05	0.036	0.00016	
Waking too early No (+ve) vs rest	0.26	0.054	0.031	1.9e-06	**
Waking too early rest (+ve) vs Yes	0.26	0.054	0.015	1.4e-11	**
Weight change during worst episode of depression > Gained weight	0.36	0.23	0.2	5.1e-05	
Weight change during worst episode of depression Gained weight (+ve) vs rest	0.14	0.016	0.0026	6e-07	**
Weight change during worst episode of depression Lost weight (+ve) vs rest	0.31	0.13	0.092	2.8e-10	**
Weight change during worst episode of depression Stayed about the same or was on a diet (+ve) vs rest	0.35	0.28	0.26	2.2e-08	**
Witnessed sudden violent death > Never	0.14	0.0018	0.0002	0.017	
Witnessed sudden violent death > Yes, but not in the last 12 months	0.0052	0.0076	0	0.17	
Witnessed sudden violent death Yes, but not in the last 12 months (+ve) vs rest	0.13	0.0019	0.0002	0.017	
Witnessed sudden violent death Yes, within the last 12 months (+ve) vs rest	0.0049	0.005	0	0.33	
Witnessed sudden violent death rest (+ve) vs Never	0.14	0.0024	0.0002	0.0021	
Work/job satisfaction > Moderately happy	0.46	0.61	0.61	0.13	
Work/job satisfaction > Moderately unhappy	0.42	0.61	0.61	0.29	
Work/job satisfaction > Very unhappy	0.41	0.61	0.61	0.00021	
Work/job satisfaction ≤ Prefer not to answer	0.001	0.0053	0	0.33	
Work/job satisfaction ≤ Very happy	0.3	0.035	0.021	3.6e-07	**
Work/job satisfaction Do not know (+ve) vs rest	0.0021	0.0056	0	0.33	
Work/job satisfaction I am not employed (+ve) vs rest	0.41	0.61	0.6	0.0012	
Work/job satisfaction Moderately happy (+ve) vs rest	0.24	0.14	0.13	0.0024	
Work/job satisfaction Moderately unhappy (+ve) vs rest	0.038	0.0021	0	0.11	
Work/job satisfaction Prefer not to answer (+ve) vs rest	0.0011	0.0075	0	0.33	
Worried most days during period of worst anxiety ≤ Do not know	0.036	0.0039	0.002	0.48	
Worried most days during period of worst anxiety ≤ No	0.14	0.015	0.0078	0.0034	
Worried most days during period of worst anxiety No (+ve) vs rest	0.1	0.017	0.0073	0.012	
Worrier / anxious feelings > No	0.49	0.57	0.57	0.018	
Worrier / anxious feelings Yes (+ve) vs rest	0.49	0.57	0.57	0.011	
Worry too long after embarrassment > No	0.46	0.48	0.47	6.7e-06	*

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Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Worry too long after embarrassment $\leq$ Do not know	0.041	0.00049	0	0.33	
Worry too long after embarrassment Yes (+ve) vs rest	0.47	0.48	0.46	3e-07	**

## 2. Lifestyle and environment

Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Above moderate/vigorous recommendation $\leq$ No	0.46	0.38	0.34	9.7e-10	**
Above moderate/vigorous recommendation No (+ve) vs rest	0.46	0.38	0.36	4.8e-10	**
Above moderate/vigorous recommendation rest (+ve) vs Yes	0.46	0.38	0.34	3.7e-11	**
Above moderate/vigorous/walking recommendation $\leq$ No	0.19	0.00049	0.00012	0.12	
Age started smoking in former smokers < 25th percentile	0.13	0.039	0.016	1.5e-05	*
Age stopped smoking < 25th percentile	0.24	0.047	0.029	0.00027	
Age stopped smoking < 50th percentile	0.48	0.5	0.45	5.6e-12	**
Age stopped smoking > 75th percentile	0.23	0.11	0.048	9e-12	**
Age stopped smoking cigarettes (current cigar/pipe or previous cigarette smoker) < 50th percentile	0.44	0.4	0.34	0.047	
Age stopped smoking cigarettes (current cigar/pipe or previous cigarette smoker) > 75th percentile	0.23	0.24	0.074	0.00027	
Age when last ate meat > 75th percentile	0.22	0.21	0.2	0.13	
Alcohol intake frequency. > Once or twice a week	0.28	0.08	0.0081	2.2e-19	**
Alcohol intake frequency. > One to three times a month	0.17	0.0019	0.00024	0.0014	
Alcohol intake frequency. $\leq$ Daily or almost daily	0.17	0.0049	0.00049	1.5e-05	*
Alcohol intake frequency. $\leq$ Three or four times a week	0.45	0.48	0.45	1.8e-13	**
Alcohol intake frequency. Daily or almost daily (+ve) vs rest	0.17	0.0039	0.00037	9.3e-05	
Alcohol intake frequency. Once or twice a week (+ve) vs rest	0.27	0.0041	0.0011	1.9e-05	*
Alcohol intake frequency. Special occasions only (+ve) vs rest	0.11	0.00079	0	0.042	
Alcohol intake frequency. Three or four times a week (+ve) vs rest	0.28	0.011	0.0027	5.1e-10	**
Alcohol intake versus 10 years previously > About the same	0.48	0.45	0.43	3.8e-10	**
Alcohol intake versus 10 years previously Less nowadays (+ve) vs rest	0.48	0.45	0.43	2.3e-09	**
Alcohol usually taken with meals $\leq$ Do not know	0.34	0.059	0.052	0.0076	
Alcohol usually taken with meals $\leq$ It varies	0.34	0.061	0.051	0.00065	
Alcohol usually taken with meals $\leq$ Prefer not to answer	0.34	0.059	0.052	0.00027	
Alcohol usually taken with meals It varies (+ve) vs rest	0.34	0.058	0.048	1.5e-05	*
Alcohol usually taken with meals No (+ve) vs rest	0.19	0.0043	0.0019	0.011	
Alcohol usually taken with meals Yes (+ve) vs rest	0.47	0.53	0.52	0.0015	
Average monthly champagne plus white wine intake < 0	0.004	0.005	0	0.33	
Average monthly champagne plus white wine intake < 25th percentile	0.0042	0.0053	0	0.33	
Average monthly champagne plus white wine intake > 75th percentile	0.24	0.055	0.05	0.14	
Average monthly fortified wine intake > 75th percentile	0.078	0.0099	0.0079	0.52	
Average monthly intake of other alcoholic drinks > 75th percentile	0.03	0.031	0.012	0.011	
Average monthly spirits intake > 75th percentile	0.17	0.028	0.021	0.01	
Average weekly beer plus cider intake > 75th percentile	0.21	0.27	0.21	1.3e-13	**
Average weekly champagne plus white wine intake > 75th percentile	0.21	0.013	0.0038	3.3e-09	**
Average weekly fortified wine intake < 25th percentile	0.0023	0.012	0	0.17	
Average weekly red wine intake > 75th percentile	0.24	0.0083	0.0027	2.8e-07	**
Beef intake > Less than once a week	0.39	0.15	0.095	7.9e-16	**
Beef intake Less than once a week (+ve) vs rest	0.49	0.49	0.48	9.6e-08	**
Beef intake Never (+ve) vs rest	0.11	0.00071	0	0.042	
Beef intake Once a week (+ve) vs rest	0.3	0.015	0.0033	2.7e-11	**
Bread intake < 25th percentile	0.23	0.018	0.012	5.1e-06	*
Bread intake > 75th percentile	0.19	0.015	0.0083	6.1e-05	
Bread type White (+ve) vs rest	0.17	0.00085	0.00012	0.013	
Bread type/intake (pilot) > Wholemeal or wholegrain	0.052	0.065	0.027	0.16	
Bread type/intake (pilot) $\leq$ Brown	0.3	0.28	0.26	0.5	
Bread type/intake (pilot) $\leq$ White	0.18	0.18	0.13	0.011	
Bread type/intake (pilot) rest (+ve) vs Wholemeal or wholegrain	0.35	0.36	0.35	0.59	
Cereal intake < 25th percentile	0.22	0.0035	0.0012	2.2e-05	*

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Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Cereal intake < 50th percentile	0.41	0.3	0.26	1.2e-14	**
Cereal type > Oat cereal (e.g. Ready Brek, porridge)	0.36	0.078	0.045	7.9e-14	**
Cereal type ≤ Biscuit cereal (e.g. Weetabix)	0.29	0.0069	0.00037	2.8e-07	**
Cereal type ≤ Bran cereal (e.g. All Bran, Branflakes)	0.14	0.0003	0	0.16	
Cereal type Muesli (+ve) vs rest	0.24	0.0029	0.0011	0.0017	
Cereal type Oat cereal (e.g. Ready Brek, porridge) (+ve) vs rest	0.35	0.083	0.061	3.7e-10	**
Cereal type Other (e.g. Cornflakes, Frosties) (+ve) vs rest	0.12	0.0019	0	0.0018	
Cheese intake ≤ Less than once a week	0.17	0.00036	0	0.083	
Cheese intake Once a week (+ve) vs rest	0.21	0.0003	0	0.083	
Coffee intake < 25th percentile	0.25	0.0049	0.0025	0.0014	
Coffee intake < 50th percentile	0.46	0.41	0.4	0.034	
Coffee intake > 75th percentile	0.19	0.00083	0	0.0021	
Coffee type > Instant coffee	0.34	0.082	0.025	6.4e-16	**
Coffee type Ground coffee (include espresso, filter etc) (+ve) vs rest	0.32	0.064	0.013	2.5e-16	**
Coffee type Instant coffee (+ve) vs rest	0.48	0.45	0.41	1.5e-14	**
Coffee type Other type of coffee (+ve) vs rest	0.02	0.0011	0	0.33	
Cooked vegetable intake < 25th percentile	0.17	0.0011	0.00024	0.019	
Cooked vegetable intake < 50th percentile	0.49	0.5	0.5	0.001	
Daytime dozing / sleeping (narcolepsy) > Never rarely	0.23	0.045	0.0034	3.6e-13	**
Daytime dozing / sleeping (narcolepsy) Sometimes (+ve) vs rest	0.2	0.018	0.0017	7.5e-10	**
Difficulty not smoking for 1 day > Fairly difficult	0.3	0.35	0.26	2.2e-08	**
Difficulty not smoking for 1 day ≤ Fairly easy	0.37	0.39	0.32	9.9e-06	*
Difficulty not smoking for 1 day ≤ Very easy	0.097	0.11	0.093	0.13	
Difficulty not smoking for 1 day Fairly difficult (+ve) vs rest	0.34	0.36	0.3	0.00051	
Difficulty not smoking for 1 day Very difficult (+ve) vs rest	0.3	0.36	0.31	0.0001	
Ever smoked ≤ No	0.46	0.45	0.41	1.3e-14	**
Ever smoked No (+ve) vs rest	0.46	0.45	0.41	1.3e-13	**
Ever smoked rest (+ve) vs Yes	0.46	0.45	0.41	3.8e-16	**
Ever stopped smoking for 6+ months > No	0.41	0.32	0.3	0.0004	
Ever stopped smoking for 6+ months Yes (+ve) vs rest	0.41	0.32	0.31	0.045	
Ever stopped smoking for 6+ months rest (+ve) vs No	0.43	0.36	0.35	0.022	
Ever tried to stop smoking ≤ No	0.14	0.21	0.16	0.0088	
Ever tried to stop smoking No (+ve) vs rest	0.15	0.19	0.14	0.005	
Ever tried to stop smoking Yes, tried but was not able to stop or stopped for less than 6 months (+ve) vs rest	0.41	0.42	0.41	0.1	
Former alcohol drinker ≤ No	0.5	0.52	0.52	0.55	
Former alcohol drinker No (+ve) vs rest	0.49	0.52	0.51	0.42	
Former alcohol drinker rest (+ve) vs Yes	0.5	0.53	0.5	0.0011	
Fresh fruit intake < 50th percentile	0.35	0.17	0.11	8.2e-14	**
Fresh fruit intake > 75th percentile	0.16	0.00037	0	0.083	
Getting up in morning > Fairly easy	0.37	0.28	0.27	0.00042	
Getting up in morning ≤ Not very easy	0.14	0.0052	0.0023	0.0072	
Getting up in morning Fairly easy (+ve) vs rest	0.49	0.49	0.49	0.37	
Getting up in morning Not very easy (+ve) vs rest	0.11	0.00037	0	0.16	
Hot drink temperature ≤ Very hot	0.19	0.00043	0	0.042	
Hot drink temperature Very hot (+ve) vs rest	0.18	0.00035	0	0.083	
Hot drink temperature Warm (+ve) vs rest	0.14	0.00014	0	0.33	
Hot drink temperature rest (+ve) vs Hot	0.33	0.025	0.019	3.6e-05	
IPAQ activity group > moderate	0.4	0.17	0.1	6.1e-17	**
IPAQ activity group ≤ low	0.19	0.00049	0	0.042	
IPAQ activity group high (+ve) vs rest	0.4	0.17	0.09	9.3e-18	**
IPAQ activity group low (+ve) vs rest	0.19	0.00051	0.00025	0.27	
IPAQ activity group moderate (+ve) vs rest	0.41	0.17	0.14	1.5e-09	**
Lamb/mutton intake ≤ Never	0.19	0.00051	0	0.056	
Lamb/mutton intake Never (+ve) vs rest	0.19	0.00074	0.00031	0.14	
Lamb/mutton intake Once a week (+ve) vs rest	0.16	0.0014	0	0.00063	
Lamb/mutton intake rest (+ve) vs Less than once a week	0.37	0.04	0.027	7.8e-07	**
Light smokers, at least 100 smokes in lifetime (pilot) > No	0.38	0.44	0.32	0.00036	
Light smokers, at least 100 smokes in lifetime (pilot) rest (+ve) vs No	0.38	0.42	0.39	0.31	

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Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Light smokers, at least 100 smokes in lifetime Yes (+ve) vs rest	0.39	0.22	0.21	0.013	
Light smokers, at least 100 smokes in lifetime rest (+ve) vs No	0.42	0.32	0.32	0.17	
Likelihood of resuming smoking $\leq$ Yes, definitely	0.013	0.022	0.0076	0.054	
Likelihood of resuming smoking $\leq$ Yes, probably	0.022	0.012	0.0085	0.62	
MET minutes per week for moderate activity < 25th percentile	0.22	0.0023	0.00022	0.0028	
MET minutes per week for moderate activity < 50th percentile	0.49	0.52	0.51	0.00011	
MET minutes per week for moderate activity > 75th percentile	0.25	0.014	0.0048	6.5e-07	**
MET minutes per week for vigorous activity < 50th percentile	0.45	0.38	0.32	2e-16	**
MET minutes per week for vigorous activity > 75th percentile	0.22	0.0041	0.00078	1.3e-07	**
Major dietary changes in the last 5 years > Yes, because of illness	0.3	0.0082	0.0029	0.00023	
Major dietary changes in the last 5 years Yes, because of illness (+ve) vs rest	0.062	0.00066	0	0.16	
Major dietary changes in the last 5 years rest (+ve) vs No	0.37	0.089	0.031	4.1e-18	**
Milk type used > Skimmed	0.092	0.00065	0	0.083	
Milk type used Other type of milk (+ve) vs rest	0.027	0.00075	0	0.33	
Milk type used Skimmed (+ve) vs rest	0.21	0.00019	0	0.16	
Morning/evening person (chronotype) $\leq$ Definitely a 'morning' person	0.35	0.031	0.019	2.9e-07	**
Morning/evening person (chronotype) Definitely a 'morning' person (+ve) vs rest	0.26	0.0018	0.00079	0.0022	
Morning/evening person (chronotype) More an 'evening' than a 'morning' person (+ve) vs rest	0.24	0.0005	0.00042	0.66	
Nap during day Sometimes (+ve) vs rest	0.37	0.17	0.14	9e-12	**
Nap during day Usually (+ve) vs rest	0.055	0.0015	0	0.042	
Never eat eggs, dairy, wheat, sugar $\leq$ Sugar or foods drinks containing sugar	0.24	0.014	0.0095	4.4e-05	
Never eat eggs, dairy, wheat, sugar rest (+ve) vs I eat all of the above	0.24	0.016	0.0057	2.4e-08	**
Non-butter spread type details > Olive oil based spread (eg: Bertolli)	0.43	0.27	0.26	0.0083	
Non-butter spread type details $\leq$ Hard (block) margarine	0.28	0.025	0.02	0.026	
Non-butter spread type details $\leq$ Soft (tub) margarine	0.28	0.026	0.021	0.0051	
Non-butter spread type details Other low or reduced fat spread (+ve) vs rest	0.087	0.00041	0	0.33	
Non-oily fish intake $\leq$ Less than once a week	0.34	0.059	0.043	6e-08	**
Non-oily fish intake Do not know (+ve) vs rest	0.0015	0.024	0	0.047	
Number of cigarettes currently smoked daily (current cigarette smokers) < 25th percentile	0.25	0.28	0.25	0.026	
Number of cigarettes currently smoked daily (current cigarette smokers) < 50th percentile	0.47	0.52	0.47	1e-06	**
Number of cigarettes previously smoked daily < 50th percentile	0.36	0.29	0.27	2.9e-06	*
Number of cigarettes previously smoked daily (current cigar/pipe smokers) > 75th percentile	0.078	0.083	0	0.17	
Number of unsuccessful stop-smoking attempts < 0	0.08	0.0064	0.0029	0.16	
Number of unsuccessful stop-smoking attempts < 25th percentile	0.078	0.0045	0	0.021	
Number of unsuccessful stop-smoking attempts > 75th percentile	0.21	0.044	0.041	0.43	
Oily fish intake $\leq$ Less than once a week	0.38	0.22	0.19	2.3e-09	**
Oily fish intake Once a week (+ve) vs rest	0.42	0.2	0.18	3e-07	**
Pack years adult smoking as proportion of life span exposed to smoking < 50th percentile	0.5	0.56	0.52	1.4e-09	**
Pack years of smoking < 25th percentile	0.25	0.087	0.041	4.9e-10	**
Pack years of smoking < 50th percentile	0.5	0.57	0.52	2.6e-13	**
Pack years of smoking > 75th percentile	0.24	0.12	0.064	5.1e-09	**
Past tobacco smoking > Just tried once or twice	0.47	0.47	0.44	1.3e-16	**
Past tobacco smoking $\leq$ Smoked occasionally	0.37	0.2	0.14	8.2e-16	**
Past tobacco smoking $\leq$ Smoked on most or all days	0.24	0.031	0.0067	9.6e-15	**
Past tobacco smoking I have never smoked (+ve) vs rest	0.47	0.48	0.43	1e-13	**
Past tobacco smoking Smoked on most or all days (+ve) vs rest	0.24	0.031	0.0069	3.7e-16	**
Pork intake $\leq$ Never	0.17	0.00082	0.00011	0.032	
Pork intake Once a week (+ve) vs rest	0.19	0.00021	0	0.16	
Pork intake rest (+ve) vs Less than once a week	0.4	0.1	0.049	2.6e-14	**
Poultry intake $\leq$ Less than once a week	0.16	0.00013	0	0.33	

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Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Poultry intake $\leq$ Once a week	0.48	0.45	0.43	2.5e-09	**
Poultry intake Once a week (+ve) vs rest	0.32	0.027	0.017	9.9e-07	**
Previously smoked cigarettes on most/all days rest (+ve) vs Yes	0.36	0.3	0.24	0.11	
Processed meat intake $>$ Once a week	0.29	0.12	0.084	6.1e-10	**
Processed meat intake $\leq$ Less than once a week	0.43	0.52	0.51	0.026	
Processed meat intake $\leq$ Never	0.099	0.00021	0	0.33	
Processed meat intake Once a week (+ve) vs rest	0.28	0.0016	0.0013	0.37	
Reason for reducing amount of alcohol drunk $>$ Financial reasons	0.43	0.35	0.3	1.3e-10	**
Reason for reducing amount of alcohol drunk $>$ Health precaution	0.45	0.4	0.39	0.019	
Reason for reducing amount of alcohol drunk $\leq$ Doctor's advice	0.16	0.0015	0.00043	0.071	
Reason for reducing amount of alcohol drunk $\leq$ Illness or ill health	0.15	0.0011	0.00045	0.15	
Reason for reducing amount of alcohol drunk (pilot) rest (+ve) vs Other reason	0.16	0.17	0.13	0.22	
Reason for reducing amount of alcohol drunk Do not know (+ve) vs rest	0.11	0.0013	0	0.043	
Reason for reducing amount of alcohol drunk Health precaution (+ve) vs rest	0.39	0.24	0.17	1e-16	**
Reason former drinker stopped drinking alcohol $>$ Financial reasons	0.49	0.51	0.51	0.35	
Reason former drinker stopped drinking alcohol $>$ Health precaution	0.49	0.51	0.51	0.91	
Reason former drinker stopped drinking alcohol $\leq$ Do not know	0.022	0.066	0	0.012	
Reason former drinker stopped drinking alcohol $\leq$ Illness or ill health	0.21	0.22	0.21	0.37	
Salad / raw vegetable intake $<$ 50th percentile	0.43	0.37	0.37	0.31	
Salt added to food $>$ Never rarely	0.41	0.13	0.1	4.7e-09	**
Salt added to food Sometimes (+ve) vs rest	0.27	0.0013	0.00022	0.001	
Salt added to food Usually (+ve) vs rest	0.11	0.00019	0	0.33	
Sleep duration $<$ 0	0.0021	0.0053	0	0.33	
Sleeplessness / insomnia $\leq$ Never rarely	0.22	0.011	0.0035	2.5e-07	**
Sleeplessness / insomnia Usually (+ve) vs rest	0.31	0.016	0.01	0.00017	
Smoking compared to 10 years previous $>$ About the same?	0.47	0.5	0.46	5e-05	
Smoking compared to 10 years previous $\leq$ More nowadays?	0.13	0.2	0.1	6.1e-05	
Smoking compared to 10 years previous More nowadays? (+ve) vs rest	0.14	0.22	0.13	7.1e-05	
Smoking status $>$ Never	0.38	0.23	0.16	2.2e-16	**
Smoking status Previous (+ve) vs rest	0.34	0.13	0.1	1.4e-10	**
Smoking status rest (+ve) vs Never	0.38	0.23	0.15	4.3e-20	**
Smoking/smokers in household $>$ No	0.053	0.00038	0	0.33	
Snoring Yes (+ve) vs rest	0.34	0.17	0.14	7.7e-13	**
Snoring rest (+ve) vs No	0.41	0.31	0.27	8.4e-11	**
Spread type $>$ Butter spreadable butter	0.35	0.15	0.11	5.9e-12	**
Spread type (pilot) $>$ Low or reduced fat spread	0.14	0.21	0.1	1.1e-05	*
Spread type (pilot) $>$ Other type of spread	0.082	0.091	0.075	0.57	
Spread type (pilot) $\leq$ Butter spreadable butter	0.34	0.39	0.3	5.6e-05	
Spread type (pilot) Low or reduced fat spread (+ve) vs rest	0.27	0.32	0.23	8.8e-05	
Summed MET minutes per week for all activity $<$ 25th percentile	0.25	0.0038	0.00086	7.9e-05	
Summed MET minutes per week for all activity $<$ 50th percentile	0.5	0.52	0.5	1.4e-11	**
Summed MET minutes per week for all activity $>$ 75th percentile	0.25	0.0066	0.0017	1.1e-06	**
Summed days activity $<$ 25th percentile	0.21	0.00054	0.00022	0.16	
Summed days activity $<$ 50th percentile	0.43	0.3	0.26	1.5e-11	**
Summed days activity $>$ 75th percentile	0.21	0.0011	0.00011	0.00094	
Summed minutes activity $<$ 25th percentile	0.25	0.0039	0.00048	3.8e-05	
Summed minutes activity $<$ 50th percentile	0.49	0.5	0.48	4.4e-11	**
Summed minutes activity $>$ 75th percentile	0.25	0.0071	0.00094	1.9e-06	**
Tea intake $<$ 50th percentile	0.39	0.098	0.075	1.6e-10	**
Time from waking to first cigarette $>$ Between 1 and 2 hours	0.17	0.21	0.2	0.33	
Time from waking to first cigarette Between 1 and 2 hours (+ve) vs rest	0.11	0.13	0.09	0.025	
Time from waking to first cigarette Longer than 2 hours (+ve) vs rest	0.17	0.23	0.18	0.0011	
Type of tobacco currently smoked $>$ Manufactured cigarettes	0.31	0.38	0.33	0.0001	
Type of tobacco previously smoked $>$ Manufactured cigarettes	0.11	0.024	0.017	0.058	
Type of tobacco previously smoked rest (+ve) vs Manufactured cigarettes	0.11	0.027	0.015	0.0044	
Variation in diet (pilot) $\leq$ Never rarely	0.33	0.4	0.31	0.00012	

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Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Variation in diet (pilot) rest (+ve) vs Sometimes	0.41	0.44	0.4	0.031	
Variation in diet rest (+ve) vs Sometimes	0.42	0.24	0.23	0.00026	
Wants to stop smoking > No, probably not	0.029	0.014	0	0.17	
Water intake < 25th percentile	0.16	0.00025	0.00013	0.49	
Water intake < 50th percentile	0.37	0.2	0.16	8.4e-13	**
Water intake > 75th percentile	0.23	0.018	0.0035	5.8e-10	**
Why reduced smoking ≤ Do not know	0.3	0.31	0.27	0.047	
Why reduced smoking ≤ Doctor's advice	0.33	0.4	0.33	0.00046	
Why reduced smoking ≤ Illness or ill health	0.32	0.34	0.32	0.14	
Why reduced smoking ≤ None of the above	0.29	0.29	0.23	0.064	
Why reduced smoking None of the above (+ve) vs rest	0.27	0.3	0.28	0.13	
Why stopped smoking ≤ Do not know	0.21	0.042	0.033	0.0098	
Why stopped smoking ≤ Illness or ill health	0.24	0.052	0.03	3.2e-06	*
Why stopped smoking ≤ None of the above	0.2	0.048	0.019	6.5e-07	**
Why stopped smoking ≤ Prefer not to answer	0.2	0.048	0.018	4.7e-07	**
Why stopped smoking Do not know (+ve) vs rest	0.0061	0.036	0.0083	0.042	
Why stopped smoking Illness or ill health (+ve) vs rest	0.038	0.012	0	0.014	
Why stopped smoking None of the above (+ve) vs rest	0.2	0.043	0.019	1.4e-06	**

### 3. Physical measures

Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Able to walk or cycle unaided for 10 minutes No (+ve) vs rest	0.015	0.015	0.0065	0.2	
Able to walk or cycle unaided for 10 minutes rest (+ve) vs Yes	0.024	0.015	0	0.014	
Absence of notch position in the pulse waveform True (+ve) vs rest	0.27	0.18	0.16	2.6e-06	*
Acceptability of each blow result < 50th percentile	0.42	0.29	0.24	1.9e-13	**
Acceptability of each blow result > 75th percentile	0.23	0.0008	0.00035	0.12	
Acceptability of each blow result (pilot) > 75th percentile	0.094	0.14	0.083	0.065	
Arm fat mass (left) < 25th percentile	0.17	0.012	0.00013	2e-09	**
Arm fat mass (left) < 50th percentile	0.47	0.56	0.5	4.7e-18	**
Arm fat mass (left) > 75th percentile	0.24	0.19	0.01	1e-23	**
Arm fat mass (right) > 75th percentile	0.2	0.14	0.002	2.1e-21	**
Arm fat percentage (left) < 25th percentile	0.25	0.5	0.41	1.2e-17	**
Arm fat percentage (left) > 75th percentile	0.25	0.5	0.36	1.5e-22	**
Arm fat percentage (right) < 25th percentile	0.24	0.48	0.37	1.9e-20	**
Arm fat percentage (right) > 75th percentile	0.25	0.51	0.37	8.2e-21	**
Arm fat-free mass (left) < 25th percentile	0.21	0.35	0.16	3.9e-20	**
Arm fat-free mass (left) > 75th percentile	0.22	0.5	0.43	8.2e-09	**
Arm predicted mass (left) < 25th percentile	0.25	0.52	0.4	1.2e-20	**
Arm predicted mass (left) > 75th percentile	0.21	0.47	0.41	1.1e-06	**
Arm predicted mass (right) < 25th percentile	0.18	0.18	0.05	3.3e-13	**
Arm predicted mass (right) > 75th percentile	0.24	0.58	0.55	0.012	
Basal metabolic rate < 25th percentile	0.26	0.56	0.49	4.9e-11	**
Basal metabolic rate > 75th percentile	0.24	0.58	0.55	1e-09	**
Bicycle speed > 75th percentile	0.24	0.042	0.029	0.00031	
Body fat percentage < 25th percentile	0.24	0.51	0.42	2.6e-17	**
Body fat percentage > 75th percentile	0.25	0.52	0.41	1.6e-20	**
Body mass index (BMI) < 25th percentile	0.25	0.17	0.0035	1.6e-23	**
Body mass index (BMI) < 50th percentile	0.5	0.61	0.57	2.2e-14	**
Body mass index (BMI) > 75th percentile	0.25	0.15	0.00074	1.5e-23	**
Caffeine drink within last hour Yes (+ve) vs rest	0.18	0.00058	0	0.021	
Completion status of test > Fully completed	0.058	0.0053	0.0029	0.21	
Completion status of test > Participant wanted to stop early	0.052	0.0049	0.00092	0.055	
Completion status of test Heart rate reached safety level (+ve) vs rest	0.051	0.0051	0.00098	0.058	
Completion status of test Participant wanted to stop early (+ve) vs rest	0.0067	0.036	0	0.42	
Completion status of test rest (+ve) vs Fully completed	0.057	0.0047	0.00083	0.053	
Diastolic blood pressure, automated reading < 25th percentile	0.23	0.06	0.0011	4e-18	**

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Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Diastolic blood pressure, automated reading < 50th percentile	0.5	0.59	0.59	0.016	
Diastolic blood pressure, automated reading > 75th percentile	0.22	0.025	0.0018	1.3e-11	**
Diastolic blood pressure, manual reading < 25th percentile	0.24	0.21	0.11	2.3e-13	**
Diastolic blood pressure, manual reading < 50th percentile	0.48	0.56	0.54	2e-06	**
Diastolic blood pressure, manual reading > 75th percentile	0.23	0.14	0.092	1.4e-07	**
Forced expiratory volume in 1-second (FEV1) < 25th percentile	0.25	0.44	0.43	0.0019	
Forced expiratory volume in 1-second (FEV1) > 75th percentile	0.25	0.61	0.6	0.0016	
Forced expiratory volume in 1-second (FEV1) (pilot) < 25th percentile	0.22	0.24	0.24	0.87	
Forced expiratory volume in 1-second (FEV1) (pilot) < 50th percentile	0.5	0.6	0.53	8.7e-05	
Forced expiratory volume in 1-second (FEV1), Best measure < 25th percentile	0.25	0.55	0.55	0.29	
Forced expiratory volume in 1-second (FEV1), predicted > 75th percentile	0.25	0.79	0.77	0.0016	
Forced expiratory volume in 1-second (FEV1), predicted percentage < 25th percentile	0.25	0.055	0.039	0.00022	
Forced expiratory volume in 1-second (FEV1), predicted percentage < 50th percentile	0.5	0.51	0.49	3.7e-10	**
Forced vital capacity (FVC) < 25th percentile	0.25	0.48	0.47	1e-05	*
Forced vital capacity (FVC) (pilot) < 50th percentile	0.48	0.62	0.56	4.6e-05	
Forced vital capacity (FVC) (pilot) > 75th percentile	0.24	0.4	0.28	1.9e-05	*
Height < 25th percentile	0.24	0.44	0.41	2.7e-10	**
Height > 75th percentile	0.23	0.48	0.47	9.9e-05	
Hip circumference < 50th percentile	0.45	0.47	0.31	1.7e-27	**
Hip circumference > 75th percentile	0.23	0.087	0	5.5e-21	**
Impedance of arm (left) < 25th percentile	0.24	0.52	0.49	2.8e-09	**
Impedance of arm (right) < 25th percentile	0.25	0.52	0.48	1.7e-09	**
Impedance of arm (right) > 75th percentile	0.24	0.42	0.3	9.5e-20	**
Impedance of leg (left) < 25th percentile	0.23	0.23	0.088	3.5e-20	**
Impedance of leg (left) > 75th percentile	0.25	0.31	0.19	6e-20	**
Impedance of leg (right) < 25th percentile	0.23	0.26	0.1	2.3e-24	**
Impedance of leg (right) > 75th percentile	0.26	0.33	0.19	1.5e-22	**
Impedance of whole body < 25th percentile	0.24	0.46	0.36	7e-19	**
Impedance of whole body > 75th percentile	0.25	0.45	0.36	2.4e-19	**
Leg fat mass (left) < 25th percentile	0.23	0.5	0.36	8.4e-24	**
Leg fat mass (left) > 75th percentile	0.25	0.44	0.22	3.5e-27	**
Leg fat mass (right) > 75th percentile	0.25	0.41	0.17	1.9e-26	**
Leg fat percentage (left) < 25th percentile	0.25	0.62	0.57	2e-06	**
Leg fat percentage (right) < 25th percentile	0.24	0.61	0.56	6e-07	**
Leg fat-free mass (left) > 75th percentile	0.24	0.59	0.56	3.2e-10	**
Leg fat-free mass (right) < 25th percentile	0.24	0.53	0.49	2.6e-05	
Leg fat-free mass (right) > 75th percentile	0.23	0.58	0.55	2.2e-11	**
Leg predicted mass (left) < 25th percentile	0.24	0.52	0.47	2.8e-06	*
Leg predicted mass (left) > 75th percentile	0.23	0.58	0.55	2.7e-11	**
Leg predicted mass (right) < 25th percentile	0.25	0.54	0.49	0.014	
Leg predicted mass (right) > 75th percentile	0.24	0.6	0.57	1.2e-09	**
Maximum carotid IMT (intima-medial thickness) at 120 degrees > 75th percentile	0.21	0.11	0.083	1.9e-08	**
Maximum carotid IMT (intima-medial thickness) at 150 degrees < 25th percentile	0.2	0.12	0.11	0.025	
Maximum carotid IMT (intima-medial thickness) at 150 degrees < 50th percentile	0.49	0.63	0.62	3.1e-05	
Maximum carotid IMT (intima-medial thickness) at 210 degrees < 25th percentile	0.2	0.072	0.067	0.14	
Maximum carotid IMT (intima-medial thickness) at 210 degrees < 50th percentile	0.48	0.6	0.59	6e-05	
Maximum carotid IMT (intima-medial thickness) at 210 degrees > 75th percentile	0.23	0.14	0.12	6.5e-08	**
Maximum carotid IMT (intima-medial thickness) at 240 degrees < 25th percentile	0.2	0.075	0.069	0.044	

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Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Maximum carotid IMT (intima-medial thickness) at 240 degrees < 50th percentile	0.49	0.61	0.6	0.0011	
Maximum carotid IMT (intima-medial thickness) at 240 degrees > 75th percentile	0.23	0.15	0.14	2.4e-06	*
Mean carotid IMT (intima-medial thickness) at 120 degrees < 50th percentile	0.49	0.65	0.64	2.3e-05	*
Mean carotid IMT (intima-medial thickness) at 120 degrees > 75th percentile	0.24	0.2	0.19	0.00022	
Mean carotid IMT (intima-medial thickness) at 150 degrees < 25th percentile	0.25	0.25	0.23	1.4e-07	**
Mean carotid IMT (intima-medial thickness) at 210 degrees < 25th percentile	0.26	0.22	0.21	0.087	
Mean carotid IMT (intima-medial thickness) at 210 degrees < 50th percentile	0.49	0.63	0.63	0.65	
Mean carotid IMT (intima-medial thickness) at 210 degrees > 75th percentile	0.24	0.2	0.18	1.8e-06	**
Mean carotid IMT (intima-medial thickness) at 240 degrees > 75th percentile	0.24	0.21	0.17	7.1e-10	**
Method of measuring blood pressure rest (+ve) vs Direct entry	0.14	0.00014	0	0.33	
Minimum carotid IMT (intima-medial thickness) at 120 degrees < 25th percentile	0.23	0.088	0.062	9.4e-09	**
Minimum carotid IMT (intima-medial thickness) at 120 degrees > 75th percentile	0.19	0.075	0.061	2.4e-05	
Minimum carotid IMT (intima-medial thickness) at 150 degrees < 50th percentile	0.39	0.46	0.45	0.01	
Minimum carotid IMT (intima-medial thickness) at 210 degrees < 50th percentile	0.5	0.61	0.61	0.067	
Minimum carotid IMT (intima-medial thickness) at 210 degrees > 75th percentile	0.22	0.13	0.12	0.0072	
Minimum carotid IMT (intima-medial thickness) at 240 degrees < 50th percentile	0.5	0.61	0.61	0.00071	
Minimum carotid IMT (intima-medial thickness) at 240 degrees > 75th percentile	0.22	0.13	0.11	2.4e-06	**
Number of measurements made < 50th percentile	0.26	0.0022	0.001	0.026	
Ordering of blows > earliest	0.34	0.017	0.013	0.014	
Ordering of blows rest (+ve) vs earliest	0.34	0.02	0.019	0.12	
Peak expiratory flow (PEF) < 25th percentile	0.26	0.16	0.14	1.3e-07	**
Peak expiratory flow (PEF) > 75th percentile	0.24	0.5	0.49	3.3e-06	*
Peak expiratory flow (PEF) (pilot) < 50th percentile	0.49	0.56	0.47	1.2e-06	**
Position of the pulse wave peak < 25th percentile	0.22	0.062	0.046	2.3e-10	**
Position of the pulse wave peak < 50th percentile	0.38	0.43	0.4	4.6e-10	**
Position of the shoulder on the pulse waveform < 25th percentile	0.2	0.012	0.0024	9.4e-08	**
Position of the shoulder on the pulse waveform < 50th percentile	0.46	0.53	0.52	0.00011	
Position of the shoulder on the pulse waveform > 75th percentile	0.22	0.06	0.047	3.5e-06	*
Pulse rate < 25th percentile	0.22	0.039	0.0013	3.4e-14	**
Pulse rate > 75th percentile	0.25	0.041	0.0013	2.6e-16	**
Pulse rate (during blood-pressure measurement) < 25th percentile	0.23	0.14	0.053	8.8e-11	**
Pulse rate (during blood-pressure measurement) < 50th percentile	0.48	0.52	0.48	3.5e-11	**
Pulse rate, automated reading < 25th percentile	0.21	0.021	0.00049	1.2e-13	**
Pulse rate, automated reading < 50th percentile	0.44	0.45	0.43	2.3e-12	**
Pulse rate, automated reading > 75th percentile	0.26	0.038	0.002	1e-15	**
Pulse wave peak to peak time < 25th percentile	0.24	0.0056	0.0021	2.4e-05	*
Pulse wave reflection index < 25th percentile	0.23	0.012	0.0028	8.1e-08	**
Pulse wave reflection index > 75th percentile	0.25	0.035	0.017	3.3e-11	**
Quality control indicator for IMT at 120 degrees > Pass	0.079	0.065	0.048	0.11	
Quality control indicator for IMT at 120 degrees rest (+ve) vs Pass	0.075	0.087	0.068	0.087	
Quality control indicator for IMT at 150 degrees > Pass	0.098	0.055	0.047	0.33	
Quality control indicator for IMT at 150 degrees Fail (+ve) vs rest	0.098	0.047	0.029	0.044	
Quality control indicator for IMT at 150 degrees rest (+ve) vs Pass	0.098	0.045	0.036	0.18	

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Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Quality control indicator for IMT at 240 degrees > Pass	0.093	0.09	0.037	1e-05	*
Quality control indicator for IMT at 240 degrees rest (+ve) vs Pass	0.092	0.088	0.042	4.7e-06	*
Reason for skipping spirometry Malfunction (+ve) vs rest	0.39	0.43	0.38	0.32	
Reproducibility of spirometry measurement using ERS/ATS criteria No (+ve) vs rest	0.2	0.0069	0.0016	2.5e-05	
Reproducibility of spirometry measurement using ERS/ATS criteria rest (+ve) vs Yes	0.2	0.0062	0.0015	0.00017	
Result ranking (pilot) > best	0.45	0.45	0.44	0.32	
Result ranking (pilot) rest (+ve) vs best	0.45	0.44	0.43	0.54	
Result ranking rest (+ve) vs third best (i.e. worst)	0.26	0.0022	0.00016	4.5e-05	
Result ranking second best (+ve) vs rest	0.26	0.0027	0.0016	0.033	
Seated height < 25th percentile	0.2	0.3	0.26	2e-12	**
Seated height > 75th percentile	0.26	0.5	0.48	1.8e-08	**
Seating box height 30cm (+ve) vs rest	0.003	0.0048	0	0.33	
Sitting height < 25th percentile	0.23	0.45	0.41	5e-12	**
Sitting height < 50th percentile	0.47	0.8	0.8	0.75	
Sitting height > 75th percentile	0.24	0.51	0.49	4.1e-07	**
Smoked cigarette or pipe within last hour > No	0.0085	0.0096	0.0034	0.27	
Smoked cigarette or pipe within last hour Yes (+ve) vs rest	0.0086	0.0057	0	0.16	
Smoked cigarette or pipe within last hour rest (+ve) vs No	0.0087	0.011	0	0.043	
Spirometry device serial number < 25th percentile	0.23	0.0024	8.8e-05	3.9e-05	
Spirometry device serial number > 75th percentile	0.22	0.049	0	2.9e-17	**
Spirometry device serial number (pilot) rest (+ve) vs 699.0	0.47	0.51	0.49	0.19	
Standing height > 75th percentile	0.23	0.48	0.48	0.0079	
Stiffness method rest (+ve) vs Direct entry	0.013	0.0014	0	0.33	
Systolic blood pressure, automated reading < 50th percentile	0.49	0.64	0.62	3.6e-10	**
Systolic blood pressure, automated reading > 75th percentile	0.24	0.14	0.055	6e-22	**
Systolic blood pressure, manual reading < 50th percentile	0.49	0.63	0.6	1.5e-07	**
Time since interview start at which blood pressure screen(s) shown < 25th percentile	0.26	0.025	0.0068	6e-13	**
Time since interview start at which blood pressure screen(s) shown < 50th percentile	0.47	0.61	0.6	3.8e-06	*
Time since interview start at which blood pressure screen(s) shown > 75th percentile	0.23	0.0056	0.00073	5.8e-07	**
Trunk fat mass < 25th percentile	0.24	0.062	0.0019	1.8e-16	**
Trunk fat mass < 50th percentile	0.5	0.59	0.51	3.6e-21	**
Trunk fat mass > 75th percentile	0.24	0.091	0.00033	1.5e-21	**
Trunk fat percentage < 25th percentile	0.24	0.23	0.11	9.4e-20	**
Trunk fat percentage < 50th percentile	0.49	0.66	0.66	0.017	
Trunk fat percentage > 75th percentile	0.25	0.36	0.18	7.9e-23	**
Trunk fat-free mass < 25th percentile	0.26	0.55	0.51	1.6e-08	**
Trunk fat-free mass > 75th percentile	0.25	0.57	0.54	3.3e-05	
Trunk predicted mass < 25th percentile	0.26	0.55	0.5	5.3e-09	**
Waist circumference > 75th percentile	0.23	0.27	0.034	3.9e-26	**
Weight < 25th percentile	0.25	0.44	0.27	8.1e-23	**
Weight < 25th percentile	0.25	0.44	0.26	4.1e-26	**
Weight > 75th percentile	0.25	0.36	0.18	7e-24	**
Weight (pre-imaging) < 25th percentile	0.25	0.44	0.23	2.9e-26	**
Weight (pre-imaging) > 75th percentile	0.22	0.3	0.11	1.8e-24	**
Weight method Not performed (+ve) vs rest	0.0012	0.012	0	0.33	
Weight, manual entry < 25th percentile	0.22	0.41	0.3	0.00045	
Whole body fat mass < 25th percentile	0.25	0.14	0.021	2.5e-19	**
Whole body fat mass < 50th percentile	0.5	0.61	0.58	3.5e-15	**
Whole body fat mass > 75th percentile	0.25	0.19	0.0064	3.3e-22	**
Whole body fat-free mass > 75th percentile	0.24	0.59	0.56	0.0083	
Whole body water mass > 75th percentile	0.24	0.57	0.57	0.11	

#### 4. Health and medical history

Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Age angina diagnosed < 0	0.035	0.017	0	0.33	
Age angina diagnosed < 25th percentile	0.22	0.38	0.3	0.046	
Age asthma diagnosed < 25th percentile	0.25	0.13	0.099	7e-05	
Age asthma diagnosed < 50th percentile	0.49	0.56	0.55	0.061	
Age deep-vein thrombosis (DVT, blood clot in leg) diagnosed < 25th percentile	0.26	0.33	0.19	1.9e-09	**
Age deep-vein thrombosis (DVT, blood clot in leg) diagnosed < 50th percentile	0.49	0.52	0.5	0.028	
Age emphysema/chronic bronchitis diagnosed < 25th percentile	0.26	0.32	0.2	3.6e-06	*
Age emphysema/chronic bronchitis diagnosed > 75th percentile	0.23	0.38	0.34	0.059	
Age hay fever, rhinitis or eczema diagnosed > 75th percentile	0.25	0.12	0.11	0.007	
Age high blood pressure diagnosed < 25th percentile	0.25	0.2	0.2	0.89	
Age high blood pressure diagnosed > 75th percentile	0.18	0.23	0.22	0.058	
Age pulmonary embolism (blood clot in lung) diagnosed < 25th percentile	0.3	0.31	0.27	0.047	
Age pulmonary embolism (blood clot in lung) diagnosed < 50th percentile	0.48	0.6	0.5	6.5e-05	
Age pulmonary embolism (blood clot in lung) diagnosed > 75th percentile	0.2	0.32	0.26	0.13	
Age stroke diagnosed < 25th percentile	0.26	0.52	0.42	9.7e-07	**
Blood clot, DVT, bronchitis, emphysema, asthma, rhinitis, eczema, allergy diagnosed by doctor > Asthma	0.24	0.0052	0.00077	5.5e-07	**
Blood clot, DVT, bronchitis, emphysema, asthma, rhinitis, eczema, allergy diagnosed by doctor > Blood clot in the leg (DVT)	0.31	0.022	0.012	6.1e-08	**
Blood clot, DVT, bronchitis, emphysema, asthma, rhinitis, eczema, allergy diagnosed by doctor > Blood clot in the lung	0.3	0.021	0.0056	1.7e-10	**
Blood clot, DVT, bronchitis, emphysema, asthma, rhinitis, eczema, allergy diagnosed by doctor > None of the above	0.32	0.024	0.013	2.3e-06	**
Blood clot, DVT, bronchitis, emphysema, asthma, rhinitis, eczema, allergy diagnosed by doctor > Prefer not to answer	0.31	0.024	0.0089	2.6e-10	**
Blood clot, DVT, bronchitis, emphysema, asthma, rhinitis, eczema, allergy diagnosed by doctor Hayfever, allergic rhinitis or eczema (+ve) vs rest	0.24	0.0049	0.0014	1.4e-06	**
Blood clot, DVT, bronchitis, emphysema, asthma, rhinitis, eczema, allergy diagnosed by doctor rest (+ve) vs None of the above	0.32	0.026	0.01	1e-10	**
Carer support indicators ≤ No	0.23	0.0029	0.0011	0.033	
Carer support indicators No (+ve) vs rest	0.21	0.0012	0.00013	0.017	
Carer support indicators rest (+ve) vs Not known	0.23	0.0018	0.00036	0.0013	
Detention categories > Informal, not formally detained	0.059	0.066	0.037	0.067	
Detention categories Formally detained under Part II, Mental Health Act 1983 (+ve) vs rest	0.063	0.1	0.075	0.16	
Detention categories rest (+ve) vs Informal, not formally detained	0.069	0.086	0.048	0.00091	
Diabetes diagnosed by doctor > No	0.051	0.0019	0	0.021	
Diabetes diagnosed by doctor ≤ Do not know	0.0021	0.0053	0	0.33	
Diabetes diagnosed by doctor Do not know (+ve) vs rest	0.0015	0.0041	0	0.33	
Diabetes diagnosed by doctor Yes (+ve) vs rest	0.05	0.00037	0	0.33	
Fracture resulting from simple fall No (+ve) vs rest	0.41	0.5	0.5	0.8	
Fracture resulting from simple fall rest (+ve) vs Yes	0.43	0.5	0.5	0.4	
Fractured bone site(s) ≤ Ankle	0.096	0.053	0.038	0.084	
Fractured bone site(s) ≤ Hip	0.14	0.052	0.037	0.058	
Fractured bone site(s) Ankle (+ve) vs rest	0.094	0.054	0.018	0.00024	
Fractured bone site(s) Arm (+ve) vs rest	0.085	0.04	0.013	7.3e-05	
Fractured bone site(s) Wrist (+ve) vs rest	0.18	0.068	0.053	0.017	
Fractured/broken bones in last 5 years ≤ Do not know	0.0048	0.0042	0	0.33	
Gestational diabetes only > No	0.099	0.19	0.15	0.091	
Gestational diabetes only ≤ Do not know	0.095	0.11	0.075	0.19	
Gestational diabetes only Yes (+ve) vs rest	0.1	0.2	0.14	0.029	
Gestational diabetes only rest (+ve) vs No	0.19	0.26	0.23	0.17	

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Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Medication for cholesterol, blood pressure or diabetes > None of the above	0.41	0.52	0.51	0.34	
Medication for cholesterol, blood pressure or diabetes Blood pressure medication (+ve) vs rest	0.28	0.21	0.13	0.062	
Medication for cholesterol, blood pressure or diabetes Cholesterol lowering medication (+ve) vs rest	0.12	0.0096	0.0028	0.071	
Medication for cholesterol, blood pressure or diabetes Do not know (+ve) vs rest	0.0048	0.022	0	0.18	
Medication for cholesterol, blood pressure or diabetes rest (+ve) vs None of the above	0.42	0.52	0.51	0.26	
Other serious medical condition/disability diagnosed by doctor ≤ Prefer not to answer	0.0015	0.005	0	0.33	
Other serious medical condition/disability diagnosed by doctor Prefer not to answer (+ve) vs rest	0.0012	0.0045	0	0.33	
Other serious medical condition/disability diagnosed by doctor rest (+ve) vs No	0.15	0.00013	0	0.33	
Started insulin within one year diagnosis of diabetes rest (+ve) vs No	0.088	0.12	0.1	0.1	
Treatment/medication code < 25th percentile	0.24	0.02	0.012	0.00018	
Treatment/medication code < 50th percentile	0.5	0.51	0.5	0.15	
Vascular/heart problems diagnosed by doctor > Angina	0.23	0.13	0.054	1.7e-18	**
Vascular/heart problems diagnosed by doctor > Heart attack	0.24	0.16	0.073	9e-18	**
Vascular/heart problems diagnosed by doctor > None of the above	0.25	0.19	0.11	2.2e-17	**
Vascular/heart problems diagnosed by doctor > Prefer not to answer	0.25	0.18	0.1	5e-17	**
Vascular/heart problems diagnosed by doctor > Stroke	0.23	0.11	0.03	9.2e-21	**
Vascular/heart problems diagnosed by doctor High blood pressure (+ve) vs rest	0.23	0.11	0.029	1.4e-16	**
Vascular/heart problems diagnosed by doctor rest (+ve) vs None of the above	0.25	0.19	0.1	1.5e-17	**

## 5. Sociodemographics

Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Average total household income before tax > 31,000 to 51,999	0.25	0.31	0.26	2.9e-13	**
Average total household income before tax > 52,000 to 100,000	0.054	0.008	0	0.00029	**
Average total household income before tax ≤ 18,000 to 30,999	0.47	0.6	0.58	8.6e-10	**
Average total household income before tax ≤ Do not know	0.092	0.0024	0.00045	0.00095	**
Average total household income before tax ≤ Less than 18,000	0.21	0.056	0.014	1e-14	**
Average total household income before tax ≤ Prefer not to answer	0.063	0.0019	0	0.01	
Average total household income before tax (pilot) > 31,000 to 52,000	0.29	0.34	0.29	0.0038	
Average total household income before tax (pilot) > 52,000 to 100,000	0.078	0.12	0.034	0.023	
Average total household income before tax (pilot) ≤ 18,000 to 31,000	0.39	0.48	0.42	0.0039	
Average total household income before tax (pilot) ≤ Do not know	0.099	0.16	0.12	0.086	
Average total household income before tax (pilot) ≤ Prefer not to answer	0.076	0.13	0.039	0.0059	
Average total household income before tax (pilot) 18,000 to 31,000 (+ve) vs rest	0.21	0.26	0.18	6.1e-05	
Average total household income before tax (pilot) 31,000 to 52,000 (+ve) vs rest	0.31	0.32	0.32	0.75	
Average total household income before tax (pilot) 52,000 to 100,000 (+ve) vs rest	0.2	0.26	0.18	0.00037	
Average total household income before tax (pilot) Prefer not to answer (+ve) vs rest	0.073	0.09	0.017	0.017	
Average total household income before tax 52,000 to 100,000 (+ve) vs rest	0.2	0.068	0.054	2e-05	*
Average total household income before tax Do not know (+ve) vs rest	0.03	0.0019	0	0.083	
Average total household income before tax Less than 18,000 (+ve) vs rest	0.12	0.0012	0.00036	0.079	

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Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Average total household income before tax Prefer not to answer (+ve) vs rest	0.062	0.00068	0	0.16	
Ethnic background > Any other Asian background	0.0056	0.05	0	5.4e-05	
Ethnic background > Any other white background	0.019	0.02	0	3.9e-05	
Ethnic background > Bangladeshi	0.0063	0.046	0	3.8e-05	
Ethnic background > British	0.065	0.0012	0	0.042	
Ethnic background > Caribbean	0.0021	0.0064	0	0.34	
Ethnic background > Indian	0.0089	0.03	0	0.0004	
Ethnic background > Irish	0.042	0.005	0	0.0017	
Ethnic background > Pakistani	0.0066	0.045	0	4.4e-05	
Ethnic background > White and Asian	0.017	0.033	0	4e-08	**
Ethnic background > White and Black African	0.018	0.024	0	1.6e-05	*
Ethnic background > White and Black Caribbean	0.018	0.02	0	2.7e-05	
Ethnic background ≤ Chinese	0.0055	0.0023	0	0.33	
Ethnic background ≤ Other ethnic group	0.01	0.0041	0	0.17	
Ethnic background African (+ve) vs rest	0.002	0.016	0	0.11	
Ethnic background Any other mixed background (+ve) vs rest	0.0016	0.011	0	0.17	
Ethnic background Indian (+ve) vs rest	0.0065	0.029	0	0.0048	
Ethnic background Pakistani (+ve) vs rest	0.0019	0.012	0	0.083	
Ethnic background rest (+ve) vs British	0.074	0.0043	0	0.0012	
Job involves heavy manual or physical work > Never rarely	0.27	0.047	0.007	1.4e-12	**
Job involves heavy manual or physical work Sometimes (+ve) vs rest	0.18	0.0014	0.00016	0.008	
Job involves mainly walking or standing > Usually	0.15	0.0027	0.00078	0.0067	
Job involves mainly walking or standing ≤ Never rarely	0.4	0.25	0.16	1.8e-16	**
Job involves mainly walking or standing Always (+ve) vs rest	0.15	0.0023	0	0.00032	
Job involves mainly walking or standing Sometimes (+ve) vs rest	0.31	0.021	0.0098	9.8e-07	**
Qualifications > CSEs or equivalent	0.49	0.47	0.44	1.2e-11	**
Qualifications > NVQ or HND or HNC or equivalent	0.34	0.044	0.014	2.8e-13	**
Qualifications ≤ A levels AS levels or equivalent	0.28	0.012	0.0066	6.1e-07	**
Qualifications ≤ College or University degree	0.24	0.0056	0.0033	0.0004	
Qualifications ≤ None of the above	0.066	0.0089	0.0022	0.00015	
Qualifications ≤ O levels GCSEs or equivalent	0.46	0.41	0.4	3.5e-06	*
Qualifications (pilot) > CSEs or equivalent	0.17	0.27	0.17	0.0024	
Qualifications (pilot) ≤ None of the above	0.056	0.05	0.01	0.16	
Qualifications (pilot) CSEs or equivalent (+ve) vs rest	0.095	0.1	0.072	0.24	
Qualifications NVQ or HND or HNC or equivalent (+ve) vs rest	0.15	0.00083	0	0.01	
Qualifications None of the above (+ve) vs rest	0.066	0.0084	0.0003	2.7e-05	
Qualifications Other professional qualifications eg: nursing, teaching (+ve) vs rest	0.34	0.043	0.011	4.9e-16	**

## 6. Cognitive function

Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Attempted fluid intelligence (FI) test. I am unable to try this (+ve) vs rest	0.0087	0.0045	0	0.16	
Attempted fluid intelligence (FI) test. rest (+ve) vs Begin puzzles	0.0083	0.0019	0	0.33	
Completion status of numeric memory test > stopped	0.0064	0.0078	0	0.17	
Completion status of numeric memory test abandoned (+ve) vs rest	0.0053	0.014	0	0.046	
Duration screen displayed < 25th percentile	0.27	0.076	0.033	1.1e-16	**
Duration screen displayed < 50th percentile	0.48	0.62	0.61	5.6e-08	**
Duration spent answering each puzzle < 50th percentile	0.5	0.51	0.5	1.8e-05	*
Duration spent answering each puzzle > 75th percentile	0.25	0.012	0.0077	0.018	
Duration to complete alphanumeric path (trail 2) < 25th percentile	0.26	0.2	0.14	5.2e-14	**
Duration to complete alphanumeric path (trail 2) < 50th percentile	0.48	0.64	0.62	4.9e-06	*
Duration to complete alphanumeric path (trail 2) < 50th percentile	0.49	0.63	0.61	8.5e-07	**
Duration to complete alphanumeric path (trail 2) > 75th percentile	0.23	0.23	0.16	2.2e-10	**
Duration to complete alphanumeric path (trail 2) > 75th percentile	0.24	0.21	0.13	1.4e-16	**

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Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Duration to complete numeric path (trail 1) < 25th percentile	0.25	0.21	0.18	4.2e-08	**
Duration to complete numeric path (trail 1) < 25th percentile	0.26	0.25	0.18	6e-13	**
Duration to complete numeric path (trail 1) < 50th percentile	0.5	0.58	0.58	0.0058	
Duration to complete numeric path (trail 1) > 75th percentile	0.25	0.098	0.069	1.2e-08	**
Duration to complete numeric path (trail 1) > 75th percentile	0.23	0.19	0.13	3.4e-10	**
Duration to entering value < 25th percentile	0.25	0.068	0.06	0.041	
Duration to entering value > 75th percentile	0.24	0.069	0.04	3.6e-11	**
Duration to first press of snap-button in each round < 50th percentile	0.48	0.53	0.52	1.6e-06	**
Duration to first press of snap-button in each round > 75th percentile	0.24	0.023	0.0078	1.6e-11	**
Duration to first press of snap-button in each round (pilot) < 25th percentile	0.23	0.27	0.23	0.062	
Duration to first press of snap-button in each round (pilot) < 50th percentile	0.5	0.55	0.46	1.6e-06	**
Errors before selecting correct item in numeric path (trail 1) > 75th percentile	0.22	0.11	0.1	0.087	
Errors before selecting correct item in numeric path (trail 1) > 75th percentile	0.12	0.056	0.034	0.00049	
FI1 : numeric addition test > 16	0.0033	0.0087	0	0.17	
FI1 : numeric addition test ≤ Prefer not to answer	0.0026	0.0083	0	0.33	
FI10 : arithmetic sequence recognition > 94	0.085	0.1	0.059	5.6e-05	
FI10 : arithmetic sequence recognition > 95	0.04	0.0088	0	0.031	
FI10 : arithmetic sequence recognition > 95	0.12	0.095	0.053	0.00088	
FI10 : arithmetic sequence recognition ≤ 92	0.12	0.034	0.015	1.5e-05	*
FI10 : arithmetic sequence recognition ≤ 96	0.031	0.045	0	0.001	
FI10 : arithmetic sequence recognition ≤ Do not know	0.091	0.023	0.0091	0.00091	
FI10 : arithmetic sequence recognition ≤ Prefer not to answer	0.0089	0.019	0.005	0.078	
FI10 : arithmetic sequence recognition 92 (+ve) vs rest	0.031	0.09	0.056	0.049	
FI10 : arithmetic sequence recognition 93 (+ve) vs rest	0.053	0.069	0.036	0.0062	
FI10 : arithmetic sequence recognition 94 (+ve) vs rest	0.04	0.056	0.043	0.21	
FI10 : arithmetic sequence recognition 96 (+ve) vs rest	0.04	0.0046	0.0016	0.25	
FI10 : arithmetic sequence recognition Do not know (+ve) vs rest	0.088	0.014	0.0056	0.033	
FI10 : arithmetic sequence recognition rest (+ve) vs 95	0.15	0.14	0.091	1.1e-05	*
FI11 : antonym ≤ Anxious	0.24	0.095	0.078	0.00079	
FI11 : antonym ≤ Calm	0.022	0.0066	0.0053	0.78	
FI11 : antonym ≤ Cool	0.24	0.1	0.068	5.6e-07	**
FI11 : antonym ≤ Worried	0.28	0.18	0.12	1.2e-10	**
FI11 : antonym ≤ worried	0.28	0.27	0.24	0.0053	
FI11 : antonym Calm (+ve) vs rest	0.021	0.022	0.0033	0.015	
FI11 : antonym rest (+ve) vs Tense	0.28	0.19	0.14	4.9e-06	*
FI12 : square sequence recognition > 46	0.44	0.46	0.43	0.01	
FI12 : square sequence recognition > 47	0.3	0.19	0.14	3.4e-06	*
FI12 : square sequence recognition > 49	0.13	0.042	0.037	0.37	
FI12 : square sequence recognition ≤ Do not know	0.39	0.34	0.34	0.14	
FI12 : square sequence recognition 45 (+ve) vs rest	0.24	0.21	0.17	1.1e-05	*
FI12 : square sequence recognition 46 (+ve) vs rest	0.029	0.023	0.0085	0.099	
FI12 : square sequence recognition 48 (+ve) vs rest	0.071	0.034	0.019	0.086	
FI12 : square sequence recognition 49 (+ve) vs rest	0.14	0.18	0.1	0.0097	
FI13 : subset inclusion logic > True	0.18	0.15	0.12	0.015	
FI13 : subset inclusion logic ≤ Do not know	0.25	0.27	0.24	0.026	
FI13 : subset inclusion logic ≤ Not sure	0.066	0.064	0.052	0.4	
FI13 : subset inclusion logic ≤ Prefer not to answer	0.091	0.13	0.13	0.82	
FI13 : subset inclusion logic Do not know (+ve) vs rest	0.16	0.18	0.14	0.001	
FI13 : subset inclusion logic False (+ve) vs rest	0.24	0.29	0.21	1.7e-06	**
FI13 : subset inclusion logic Neither true nor false (+ve) vs rest	0.18	0.18	0.15	0.028	
FI13 : subset inclusion logic True (+ve) vs rest	0.31	0.29	0.28	0.3	
FI13 : subset inclusion logic True (+ve) vs rest	0.24	0.21	0.17	0.089	
FI14 : alphanumeric substitution > 52	0.16	0.26	0.075	0.016	
FI14 : alphanumeric substitution 49 (+ve) vs rest	0.15	0.065	0	0.085	
FI2 : identify largest number 714 (+ve) vs rest	0.0081	0.0077	0	0.16	

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Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
FI2 : identify largest number rest (+ve) vs 987	0.0086	0.017	0	0.022	
FI3 : word interpolation $\leq$ Grow	0.069	0.00063	0	0.16	
FI3 : word interpolation $\leq$ grow	0.079	0.0032	0.00048	0.033	
FI3 : word interpolation $\leq$ improve	0.14	0.0031	0	0.00086	
FI3 : word interpolation Grow (+ve) vs rest	0.068	0.00094	0	0.083	
FI3 : word interpolation Old (+ve) vs rest	0.0011	0.014	0	0.16	
FI3 : word interpolation grow (+ve) vs rest	0.08	0.0018	0.00041	0.11	
FI3 : word interpolation rest (+ve) vs Adult	0.1	0.0013	0	0.01	
FI3 : word interpolation rest (+ve) vs adult	0.14	0.0044	0.00076	0.00099	
FI4 : positional arithmetic $\leq$ Do not know	0.065	0.0016	0	0.021	
FI4 : positional arithmetic 5 (+ve) vs rest	0.046	0.00078	0	0.33	
FI4 : positional arithmetic 8 (+ve) vs rest	0.013	0.0031	0	0.17	
FI4 : positional arithmetic Do not know (+ve) vs rest	0.056	0.00036	0	0.33	
FI4 : positional arithmetic rest (+ve) vs 6	0.12	0.0014	0	0.0069	
FI5 : family relationship calculation $\leq$ Aunt	0.28	0.0032	0.0011	0.00051	
FI5 : family relationship calculation $\leq$ Do not know	0.18	0.00059	0.00012	0.059	
FI5 : family relationship calculation $\leq$ Niece	0.47	0.43	0.39	1.9e-12	**
FI5 : family relationship calculation $\leq$ aunt	0.091	0.0004	0	0.33	
FI5 : family relationship calculation $\leq$ sister	0.19	0.0019	0.00094	0.079	
FI5 : family relationship calculation Cousin (+ve) vs rest	0.48	0.48	0.46	7.3e-14	**
FI5 : family relationship calculation Do not know (+ve) vs rest	0.17	0.00026	0	0.16	
FI5 : family relationship calculation rest (+ve) vs cousin	0.45	0.38	0.32	2e-12	**
FI6 : conditional arithmetic > 69	0.2	0.00023	0	0.16	
FI6 : conditional arithmetic > 69	0.23	0.016	0.0034	2.3e-06	**
FI6 : conditional arithmetic > 70	0.022	0.0042	0	0.18	
FI6 : conditional arithmetic $\leq$ 68	0.089	0.00048	0	0.16	
FI6 : conditional arithmetic $\leq$ Do not know	0.084	0.00055	0	0.16	
FI6 : conditional arithmetic 68 (+ve) vs rest	0.0074	0.004	0.0037	0.94	
FI6 : conditional arithmetic 70 (+ve) vs rest	0.21	0.006	0.0024	0.00027	
FI6 : conditional arithmetic 72 (+ve) vs rest	0.011	0.0065	0.0029	0.46	
FI6 : conditional arithmetic Do not know (+ve) vs rest	0.076	0.00033	0	0.33	
FI6 : conditional arithmetic rest (+ve) vs 69	0.28	0.057	0.0072	1.5e-14	**
FI7 : synonym > Break	0.0096	0.0022	0	0.33	
FI7 : synonym > break	0.004	0.0056	0	0.33	
FI7 : synonym > cease	0.0097	0.0025	0	0.33	
FI7 : synonym $\leq$ pause	0.044	0.0021	0	0.16	
FI7 : synonym break (+ve) vs rest	0.0051	0.0027	0	0.33	
FI7 : synonym close (+ve) vs rest	0.009	0.0063	0	0.16	
FI7 : synonym rest (+ve) vs cease	0.061	0.0024	0.00085	0.26	
FI8 : chained arithmetic > 26	0.12	0.0018	0.00042	0.21	
FI8 : chained arithmetic > 27	0.064	0.0023	0.00086	0.26	
FI8 : chained arithmetic > 28	0.039	0.0068	0.0012	0.12	
FI8 : chained arithmetic $\leq$ Do not know	0.15	0.0016	0.00052	0.09	
FI8 : chained arithmetic $\leq$ Prefer not to answer	0.013	0.0087	0	0.044	
FI8 : chained arithmetic Prefer not to answer (+ve) vs rest	0.013	0.0063	0	0.083	
FI8 : chained arithmetic rest (+ve) vs 26	0.23	0.033	0.0067	1.1e-08	**
FI9 : concept interpolation $\leq$ Do not know	0.007	0.049	0.0063	0.0043	
FI9 : concept interpolation $\leq$ Long	0.03	0.0014	0	0.33	
FI9 : concept interpolation $\leq$ top	0.021	0.035	0.01	0.046	
FI9 : concept interpolation Do not know (+ve) vs rest	0.0057	0.016	0.0047	0.22	
FI9 : concept interpolation Long (+ve) vs rest	0.021	0.0058	0.0016	0.2	
FI9 : concept interpolation Tall (+ve) vs rest	0.36	0.26	0.12	4.6e-21	**
FI9 : concept interpolation long (+ve) vs rest	0.016	0.023	0.0097	0.11	
FI9 : concept interpolation rest (+ve) vs Metres	0.39	0.37	0.22	1.5e-20	**
FI9 : concept interpolation tall (+ve) vs rest	0.31	0.3	0.18	2.3e-14	**
Final attempt correct > yes	0.0049	0.0037	0	0.33	
First code array presented < 25th percentile	0.22	0.0093	0.0062	0.053	
First code array presented < 50th percentile	0.49	0.45	0.44	0.00074	
Fluid intelligence completion status > Abandoned	0.089	0.0013	0	0.083	

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Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Fluid intelligence completion status Completed with pause (+ve) vs rest	0.089	0.00045	0	0.33	
Fluid intelligence completion status rest (+ve) vs Completed	0.11	0.0016	0	0.053	
Fluid intelligence score < 25th percentile	0.14	0.0045	0	0.0001	
Fluid intelligence score < 50th percentile	0.45	0.49	0.35	1.6e-23	**
Fluid intelligence score > 75th percentile	0.16	0.033	0.0032	3.6e-09	**
Interval between previous point and current one in alphanumeric path (trail 2) < 25th percentile	0.25	0.093	0.075	3.7e-05	
Interval between previous point and current one in alphanumeric path (trail 2) < 50th percentile	0.5	0.57	0.57	0.064	
Interval between previous point and current one in alphanumeric path (trail 2) < 50th percentile	0.5	0.57	0.56	9.6e-06	*
Interval between previous point and current one in alphanumeric path (trail 2) > 75th percentile	0.24	0.079	0.044	3.3e-10	**
Interval between previous point and current one in alphanumeric path (trail 2) > 75th percentile	0.24	0.12	0.081	4.1e-11	**
Interval between previous point and current one in numeric path (trail 1) < 25th percentile	0.091	0.0032	0.0025	0.5	
Interval between previous point and current one in numeric path (trail 1) < 25th percentile	0.25	0.12	0.11	7.1e-05	
Interval between previous point and current one in numeric path (trail 1) < 50th percentile	0.5	0.55	0.55	0.00021	
Interval between previous point and current one in numeric path (trail 1) > 75th percentile	0.21	0.059	0.045	0.00017	
Interval between previous point and current one in numeric path (trail 1) > 75th percentile	0.25	0.04	0.032	0.00027	
Item selected for each puzzle > 6	0.32	0.068	0.042	1.3e-07	**
Item selected for each puzzle ≤ 1	0.22	0.0076	0.0041	0.016	
Item selected for each puzzle ≤ 2	0.3	0.066	0.024	4.7e-12	**
Item selected for each puzzle ≤ 4	0.44	0.35	0.33	1.2e-05	*
Item selected for each puzzle 1 (+ve) vs rest	0.062	0.0031	0	0.043	
Item selected for each puzzle 4 (+ve) vs rest	0.055	0.00085	0	0.33	
Item selected for each puzzle 5 (+ve) vs rest	0.13	0.0035	0.0019	0.14	
Item selected for each puzzle 7 (+ve) vs rest	0.32	0.067	0.048	2e-06	**
Maximum digits remembered correctly < 25th percentile	0.11	0.0011	0.00033	0.22	
Maximum digits remembered correctly < 25th percentile	0.13	0.01	0.0039	0.0064	
Maximum digits remembered correctly < 50th percentile	0.34	0.19	0.099	5.3e-17	**
Maximum digits remembered correctly > 75th percentile	0.12	0.0045	0.0013	0.0026	
Maximum digits remembered correctly > 75th percentile	0.076	0.0064	0.00053	0.018	
Mean time to correctly identify matches < 25th percentile	0.25	0.14	0.1	1.1e-11	**
Mean time to correctly identify matches < 50th percentile	0.49	0.61	0.6	2.4e-06	**
Mean time to correctly identify matches > 75th percentile	0.23	0.041	0.028	4e-08	**
Number entered by participant < 25th percentile	0.25	0.052	0.013	5e-12	**
Number entered by participant > 75th percentile	0.25	0.089	0.024	1.7e-14	**
Number of attempts > 75th percentile	0.13	0.0014	0.00017	0.0085	
Number of correct matches in round < 50th percentile	0.02	0.0047	0	0.083	
Number of correct matches in round < 50th percentile	0.36	0.15	0.057	1.6e-20	**
Number of digits to be memorised/recalled < 25th percentile	0.13	0.0053	0.00029	0.0027	
Number of digits to be memorised/recalled < 50th percentile	0.4	0.36	0.27	2.3e-18	**
Number of fluid intelligence questions attempted within time limit < 25th percentile	0.19	0.0048	0.00011	4.2e-07	**
Number of fluid intelligence questions attempted within time limit < 50th percentile	0.24	0.023	0.00036	4.5e-12	**
Number of fluid intelligence questions attempted within time limit > 75th percentile	0.17	0.0027	0.00065	0.0012	
Number of incorrect matches in round < 25th percentile	0.2	0.0055	0.0043	0.25	
Number of incorrect matches in round < 50th percentile	0.4	0.21	0.21	0.08	
Number of incorrect matches in round < 50th percentile	0.44	0.31	0.25	2.7e-17	**
Number of incorrect matches in round > 75th percentile	0.22	0.016	0.0043	6.5e-07	**
Number of puzzles attempted < 25th percentile	0.16	0.023	0.018	0.044	

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Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Number of puzzles attempted < 50th percentile	0.4	0.34	0.31	7.7e-12	**
Number of puzzles attempted > 75th percentile	0.24	0.044	0.025	6.7e-06	*
Number of puzzles correct < 25th percentile	0.19	0.05	0.02	5e-07	**
Number of puzzles correct < 50th percentile	0.4	0.41	0.36	6.2e-11	**
Number of puzzles correct > 75th percentile	0.19	0.072	0.026	1e-11	**
Number of puzzles correctly solved < 50th percentile	0.37	0.38	0.28	2.3e-17	**
Number of puzzles viewed < 25th percentile	0.2	0.041	0.019	4.5e-08	**
Number of puzzles viewed < 50th percentile	0.33	0.21	0.16	5.7e-11	**
Number of rounds of numeric memory test performed < 25th percentile	0.11	0.0038	0	0.0038	
Number of rounds of numeric memory test performed < 50th percentile	0.31	0.14	0.048	1.3e-18	**
Number of rounds of numeric memory test performed > 75th percentile	0.21	0.034	0.0048	4.4e-13	**
Number of rows displayed in round > 75th percentile	0.15	0.0015	0.00078	0.18	
Number of symbol digit matches attempted < 25th percentile	0.14	0.15	0.092	1.1e-09	**
Number of symbol digit matches attempted < 50th percentile	0.44	0.6	0.58	1.4e-06	**
Number of symbol digit matches attempted < 50th percentile	0.45	0.62	0.61	0.29	
Number of symbol digit matches attempted > 75th percentile	0.18	0.21	0.16	1.9e-08	**
Number of symbol digit matches attempted > 75th percentile	0.26	0.31	0.29	7.7e-06	*
Number of symbol digit matches made correctly < 50th percentile	0.42	0.56	0.55	0.0073	
Number of symbol digit matches made correctly > 75th percentile	0.17	0.17	0.13	1.9e-09	**
Number of words beginning with 'S' (pilot) < 25th percentile	0.2	0.25	0.19	0.0085	
PM: final answer ≤ Participant skipped abandoned	0.005	0.0033	0	0.33	
PM: initial answer ≤ Blue square	0.13	0.0028	0.00016	0.00026	
PM: initial answer ≤ Grey cross	0.13	0.0028	0	0.0005	
PM: initial answer ≤ Pink star	0.13	0.0029	0	0.00037	
PM: initial answer rest (+ve) vs Orange circle	0.13	0.0022	0	0.0029	
Pairs matching completion status Abandoned (+ve) vs rest	0.019	0.0036	0	0.16	
Pattern of lights as remembered (pilot) < 50th percentile	0.27	0.25	0.25	0.94	
Prospective memory result > Correct recall on first attempt	0.097	0.00043	0	0.16	
Prospective memory result Correct recall on second attempt (+ve) vs rest	0.099	0.0004	0	0.16	
Prospective memory result rest (+ve) vs Correct recall on first attempt	0.13	0.0044	0	8.8e-06	*
Round of numeric memory test < 25th percentile	0.11	0.0028	0	0.016	
Round of numeric memory test < 50th percentile	0.31	0.14	0.039	8.3e-17	**
Round of numeric memory test > 75th percentile	0.21	0.03	0.0057	2.2e-09	**
Target number to be entered < 25th percentile	0.25	0.052	0.015	5.2e-11	**
Target number to be entered < 50th percentile	0.5	0.56	0.53	3.9e-12	**
Target number to be entered > 75th percentile	0.25	0.088	0.014	1.2e-15	**
Target number to be memorised < 25th percentile	0.25	0.073	0.026	4.1e-11	**
Target number to be memorised < 50th percentile	0.5	0.57	0.53	2.1e-12	**
Target number to be memorised > 75th percentile	0.25	0.092	0.031	4.6e-13	**
Test completion status abandoned (+ve) vs rest	0.0052	0.003	0	0.33	
Time elapsed < 50th percentile	0.49	0.58	0.57	0.11	
Time elapsed > 75th percentile	0.24	0.034	0.023	2.7e-05	
Time last key touched < 25th percentile	0.26	0.038	0.02	1.1e-06	**
Time last key touched > 75th percentile	0.24	0.032	0.013	1.1e-09	**
Time number displayed for < 25th percentile	0.23	0.047	0.0088	1.5e-08	**
Time number displayed for < 50th percentile	0.43	0.44	0.36	3.8e-15	**
Time number displayed for > 75th percentile	0.12	0.0018	0	0.021	
Time taken to complete lights test (pilot) < 50th percentile	0.49	0.54	0.52	0.084	
Time taken to complete lights test (pilot) > 75th percentile	0.24	0.3	0.23	0.004	
Time to answer > 75th percentile	0.19	0.041	0	6.4e-16	**
Time to complete round < 50th percentile	0.47	0.6	0.6	0.16	
Time to complete round > 75th percentile	0.23	0.0016	0.00086	0.093	
Time to complete round > 75th percentile	0.25	0.08	0.066	0.00017	
Time to complete round (pilot) < 25th percentile	0.23	0.33	0.28	0.011	
Time to complete test < 50th percentile	0.49	0.55	0.54	1.4e-07	**
Time to complete test > 75th percentile	0.24	0.03	0.0089	9e-09	**
Total errors traversing alphanumeric path (trail 2) < 50th percentile	0.45	0.46	0.44	0.00037	
Total errors traversing numeric path (trail 1) > 75th percentile	0.19	0.094	0.066	0.0036	

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Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Value entered > 4 moves	0.31	0.1	0.071	1.2e-08	**
Value entered ≤ 3 moves	0.4	0.31	0.3	0.00083	
Value entered 1 move (+ve) vs rest	0.21	0.0076	0.0063	0.33	
Value entered 2 moves (+ve) vs rest	0.096	0.0027	0.002	0.55	
Values entered < 25th percentile	0.25	0.011	0.0064	0.0044	
Values entered > 75th percentile	0.13	0.0015	0	0.042	
Values wanted < 50th percentile	0.37	0.13	0.12	0.0064	
Values wanted > 75th percentile	0.13	0.0046	0.00075	0.0067	
Words answer array (pilot) < 25th percentile	0.24	0.29	0.26	0.12	
Words answer array (pilot) > 75th percentile	0.23	0.3	0.22	0.0021	

## 7. Sex-specific factors

Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Age at bilateral oophorectomy (both ovaries removed) < 0	0.02	0.0077	0	0.33	
Age at bilateral oophorectomy (both ovaries removed) < 50th percentile	0.44	0.5	0.47	0.017	
Age at bilateral oophorectomy (both ovaries removed) > 75th percentile	0.22	0.28	0.28	0.73	
Age at first live birth < 25th percentile	0.22	0.038	0.015	3.5e-07	**
Age at hysterectomy > 75th percentile	0.22	0.21	0.17	0.00021	
Age at last live birth < 50th percentile	0.5	0.57	0.56	0.026	
Age at menopause (last menstrual period) < 25th percentile	0.25	0.022	0.016	0.0095	
Age at menopause (last menstrual period) > 75th percentile	0.22	0.014	0.0098	0.053	
Age last used hormone-replacement therapy (HRT) > 75th percentile	0.22	0.23	0.18	4.7e-07	**
Age of primiparous women at birth of child < 25th percentile	0.22	0.17	0.14	0.0013	
Age of primiparous women at birth of child < 50th percentile	0.48	0.48	0.46	0.00038	
Age started hormone-replacement therapy (HRT) < 25th percentile	0.23	0.059	0.039	4.6e-05	**
Age started hormone-replacement therapy (HRT) < 50th percentile	0.47	0.48	0.45	8.6e-09	**
Age started hormone-replacement therapy (HRT) > 75th percentile	0.23	0.07	0.034	2.5e-08	**
Age when periods started (menarche) < 50th percentile	0.39	0.19	0.18	0.0087	
Bilateral oophorectomy (both ovaries removed) Yes (+ve) vs rest	0.089	0.0017	0.0013	0.58	
Bilateral oophorectomy (both ovaries removed) rest (+ve) vs No	0.1	0.0015	0	0.042	
Ever had breast cancer screening / mammogram rest (+ve) vs Yes	0.042	0.095	0.06	0.00052	
Ever had hysterectomy (womb removed) > No	0.1	0.014	0.0079	0.022	
Ever had stillbirth, spontaneous miscarriage or termination > No	0.31	0.057	0.029	5.3e-09	**
Ever had stillbirth, spontaneous miscarriage or termination Yes (+ve) vs rest	0.31	0.054	0.028	3.4e-08	**
Ever taken oral contraceptive pill rest (+ve) vs Yes	0.14	0.0086	0.0037	0.0002	
Ever used hormone-replacement therapy (HRT) Yes (+ve) vs rest	0.37	0.48	0.47	7.7e-05	
Ever used hormone-replacement therapy (HRT) rest (+ve) vs No	0.38	0.49	0.48	0.00087	
Had menopause rest (+ve) vs Yes	0.22	0.35	0.34	0.036	
Length of menstrual cycle < 0	0.3	0.17	0.15	0.0017	
Length of menstrual cycle < 25th percentile	0.25	0.11	0.092	0.0012	
Menstruating today > No	0.14	0.016	0.011	0.12	
Menstruating today Prefer not to answer (+ve) vs rest	0.0019	0.025	0	0.33	
Menstruating today Yes (+ve) vs rest	0.13	0.021	0.013	0.053	
Number of live births < 50th percentile	0.34	0.21	0.16	5.1e-12	**
Number of live births > 75th percentile	0.22	0.016	0.0084	3.5e-05	
Number of pregnancy terminations < 25th percentile	0.0075	0.024	0	0.052	
Number of pregnancy terminations < 50th percentile	0.0063	0.01	0	0.16	
Time since last menstrual period < 0	0.12	0.05	0.013	1.2e-07	**
Time since last menstrual period < 50th percentile	0.45	0.44	0.41	4e-06	*
Time since last menstrual period > 75th percentile	0.24	0.092	0.079	0.017	
Years since last breast cancer screening / mammogram < 0	0.25	0.025	0.017	2.3e-06	**
Years since last cervical smear test < 0	0.23	0.012	0.0045	3.5e-06	*
Years since last cervical smear test < 25th percentile	0.24	0.013	0.0067	1.8e-05	*
Years since last cervical smear test > 75th percentile	0.23	0.26	0.26	0.21	

## 8. Baseline characteristics

Variable	+ve pct	F1 (Base)	F1 (tfMRI)	pval	sig*
Age when attended assessment centre < 25th percentile	0.24	0.92	0.92	0.0018	
Age when attended assessment centre < 50th percentile	0.48	0.95	0.95	0.017	
Age when attended assessment centre > 75th percentile	0.2	0.86	0.85	0.00045	
Month of birth > August	0.32	0.0031	0.002	0.036	
Month of birth > July	0.4	0.095	0.092	0.17	
Month of birth ≤ May	0.42	0.19	0.17	1.8e-05	*
Month of birth August (+ve) vs rest	0.083	0.00025	0	0.33	
Townsend deprivation index at recruitment < 25th percentile	0.25	0.0015	0.00056	0.0068	
Townsend deprivation index at recruitment < 50th percentile	0.5	0.52	0.52	4e-05	
Townsend deprivation index at recruitment > 75th percentile	0.25	0.012	0.0014	1.9e-09	**
UK Biobank assessment centre > Cheadle (imaging)	0.16	0.25	0.00013	1.3e-24	**
UK Biobank assessment centre > Reading (imaging)	0.16	0.25	0	3e-23	**
UK Biobank assessment centre Newcastle (imaging) (+ve) vs rest	0.16	0.25	0	1.2e-24	**
UK Biobank assessment centre rest (+ve) vs Cheadle (imaging)	0.16	0.25	0	2.2e-23	**
Year of birth < 50th percentile	0.45	0.96	0.96	0.52	

## C. T1

### 1. Mental health

Variable	+ve pct	F1 (Base)	F1 (T1)	pval	sig*
Able to confide ≤ About once a week	0.4	0.16	0.13	2e-09	**
Able to confide ≤ Never or almost never	0.16	0.00089	0	0.0047	
Able to confide rest (+ve) vs Almost daily	0.5	0.52	0.51	6.7e-05	
Actions taken following self-harm ≤ See anyone from psychiatric or mental health services, including liaison services	0.039	0.025	0	0.17	
Actions taken following self-harm ≤ Use a helpline voluntary organization	0.39	0.4	0.37	0.017	
Activities undertaken to treat depression > Talking therapies, such as psychotherapy, counselling, group therapy or CBT	0.31	0.15	0.15	0.2	
Age at last episode of depression < 0	0.1	0.0047	0	0.0013	
Age at last episode of depression < 25th percentile	0.25	0.014	0.0071	4.3e-06	**
Age at last episode of depression < 50th percentile	0.5	0.56	0.56	0.23	
Age when known person last commented about drinking habits < 0	0.12	0.13	0.12	0.46	
Age when known person last commented about drinking habits < 50th percentile	0.47	0.55	0.54	0.44	
Age when last took cannabis < 25th percentile	0.24	0.085	0.082	0.64	
Amount of alcohol drunk on a typical drinking day ≤ 1 or 2	0.48	0.57	0.56	9.5e-05	
Amount of alcohol drunk on a typical drinking day 10 or more (+ve) vs rest	0.029	0.0043	0	0.043	
Amount of alcohol drunk on a typical drinking day 7, 8 or 9 (+ve) vs rest	0.07	0.0021	0	0.021	
Avoided activities or situations because of previous stressful experience in past month A little bit (+ve) vs rest	0.15	0.0017	0	0.0035	
Avoided activities or situations because of previous stressful experience in past month rest (+ve) vs Not at all	0.19	0.0052	0.00085	6.4e-05	
Been in a confiding relationship as an adult ≤ Sometimes true	0.32	0.032	0.0093	1.2e-09	**
Been in serious accident believed to be life-threatening > Never	0.088	0.0013	0	0.042	
Belief that own life is meaningful ≤ A moderate amount	0.34	0.098	0.045	4e-16	**
Belief that own life is meaningful rest (+ve) vs Very much	0.47	0.46	0.44	7.8e-07	**
Belittlement by partner or ex-partner as an adult ≤ Prefer not to answer	0.0022	0.035	0.017	0.17	
Bipolar and major depression status > No Bipolar or Depression	0.29	0.18	0.11	7.2e-11	**
Bipolar and major depression status > Probable Recurrent major depression (severe)	0.22	0.08	0.052	0.00017	

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Variable	+ve pct	F1 (Base)	F1 (T1)	pval	sig*
Bipolar and major depression status Bipolar II Disorder (+ve) vs rest	0.0042	0.0097	0	0.17	
Bipolar and major depression status Probable Recurrent major depression (moderate) (+ve) vs rest	0.14	0.02	0.012	0.013	
Bipolar and major depression status Probable Recurrent major depression (severe) (+ve) vs rest	0.068	0.0031	0	0.083	
Bipolar disorder status > Bipolar Type I (Mania)	0.49	0.54	0.52	0.62	
Contemplated self-harm in past year Yes (+ve) vs rest	0.18	0.097	0.082	0.085	
Contemplated self-harm in past year rest (+ve) vs No	0.18	0.11	0.099	0.31	
Depression possibly related to stressful or traumatic event ≤ No	0.27	0.094	0.073	0.00021	
Depression possibly related to stressful or traumatic event No (+ve) vs rest	0.27	0.095	0.075	2.3e-05	*
Depression possibly related to stressful or traumatic event rest (+ve) vs Yes	0.27	0.098	0.092	0.099	
Diagnosed with life-threatening illness ≤ Prefer not to answer	0.0025	0.0038	0	0.33	
Diagnosed with life-threatening illness rest (+ve) vs Never	0.12	0.0016	0.00023	0.033	
Did your sleep change? ≤ Do not know	0.14	0.0024	0.001	0.082	
Did your sleep change? ≤ No	0.3	0.11	0.099	0.0078	
Did your sleep change? rest (+ve) vs Yes	0.3	0.11	0.094	3.4e-06	**
Difficulty concentrating during worst depression No (+ve) vs rest	0.17	0.02	0.0049	4.7e-07	**
Difficulty stopping worrying during worst period of anxiety ≤ No	0.08	0.0093	0.007	0.48	
Difficulty stopping worrying during worst period of anxiety Do not know (+ve) vs rest	0.027	0.014	0.0036	0.083	
Distress caused by unusual or psychotic experiences > Not distressing, a neutral experience	0.4	0.43	0.42	0.21	
Distress caused by unusual or psychotic experiences > Quite distressing	0.12	0.15	0.12	0.022	
Duration of worst depression > Over six months, but less than 12 months	0.19	0.0079	0.0038	0.0076	
Duration of worst depression ≤ Between one and three months	0.46	0.46	0.44	0.00012	
Duration of worst depression Between one and three months (+ve) vs rest	0.31	0.061	0.043	3e-06	**
Duration of worst depression Over six months, but less than 12 months (+ve) vs rest	0.15	0.0016	0.00034	0.12	
Easily tired during worst period of anxiety ≤ Do not know	0.072	0.0048	0.0033	0.59	
Easily tired during worst period of anxiety No (+ve) vs rest	0.26	0.11	0.096	0.049	
Ever addicted to a behaviour or miscellaneous Yes (+ve) vs rest	0.26	0.31	0.28	0.011	
Ever addicted to alcohol Do not know (+ve) vs rest	0.081	0.094	0.067	0.15	
Ever addicted to illicit or recreational drugs > No	0.074	0.15	0.091	0.0029	
Ever addicted to illicit or recreational drugs rest (+ve) vs No	0.081	0.18	0.15	0.12	
Ever attempted suicide rest (+ve) vs Yes	0.46	0.53	0.49	0.019	
Ever believed in an un-real conspiracy against self rest (+ve) vs No	0.0098	0.0022	0	0.33	
Ever depressed for a whole week ≤ No	0.49	0.54	0.52	1.3e-09	**
Ever depressed for a whole week No (+ve) vs rest	0.47	0.5	0.48	6.5e-09	**
Ever depressed for a whole week rest (+ve) vs Yes	0.49	0.54	0.52	1.5e-08	**
Ever felt worried, tense, or anxious for most of a month or longer ≤ Do not know	0.06	0.00094	0	0.16	
Ever felt worried, tense, or anxious for most of a month or longer Yes (+ve) vs rest	0.25	0.015	0.0045	9.9e-09	**
Ever had prolonged feelings of sadness or depression Prefer not to answer (+ve) vs rest	0.0019	0.011	0	0.34	
Ever had prolonged loss of interest in normal activities > No	0.4	0.36	0.33	1.8e-11	**
Ever had prolonged loss of interest in normal activities ≤ Prefer not to answer	0.0019	0.0058	0	0.33	
Ever had prolonged loss of interest in normal activities Yes (+ve) vs rest	0.4	0.36	0.34	3.1e-07	**
Ever highly irritable/argumentative for 2 days Yes (+ve) vs rest	0.12	0.00017	0	0.33	
Ever highly irritable/argumentative for 2 days rest (+ve) vs No	0.14	0.00015	0	0.33	
Ever physically dependent on alcohol Yes (+ve) vs rest	0.23	0.27	0.24	0.29	
Ever suffered mental distress preventing usual activities Yes (+ve) vs rest	0.34	0.22	0.17	5.3e-13	**
Ever taken cannabis Yes, more than 100 times (+ve) vs rest	0.024	0.019	0.0051	0.0083	

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Variable	+ve pct	F1 (Base)	F1 (T1)	pval	sig*
Ever talked to a health professional about unusual or psychotic experiences Yes (+ve) vs rest	0.19	0.22	0.19	0.25	
Ever thought that life not worth living > No	0.3	0.12	0.083	6.2e-12	**
Ever thought that life not worth living > Yes, once	0.17	0.0077	0.0015	2.1e-05	*
Ever thought that life not worth living Yes, more than once (+ve) vs rest	0.17	0.0054	0.0012	5.9e-05	
Ever unenthusiastic/disinterested for a whole week Yes (+ve) vs rest	0.32	0.12	0.081	1.9e-14	**
Ever worried more than most people would in similar situation Yes (+ve) vs rest	0.22	0.012	0.0047	3.7e-07	**
Family relationship satisfaction > Very happy	0.32	0.042	0.018	9.7e-11	**
Family relationship satisfaction Extremely happy (+ve) vs rest	0.2	0.00062	0	0.03	
Family relationship satisfaction Moderately happy (+ve) vs rest	0.27	0.0023	0.00098	0.014	
Family relationship satisfaction Very happy (+ve) vs rest	0.47	0.41	0.39	7.9e-11	**
Fed-up feelings > No	0.31	0.077	0.051	3.6e-09	**
Fed-up feelings Yes (+ve) vs rest	0.31	0.079	0.043	5.3e-16	**
Feelings of worthlessness during worst period of depression > No	0.49	0.54	0.53	0.015	
Felt distant from other people in past month > A little bit	0.14	0.011	0.0081	0.18	
Felt distant from other people in past month > Quite a bit	0.014	0.015	0.0043	0.1	
Felt distant from other people in past month A little bit (+ve) vs rest	0.29	0.068	0.049	0.00024	
Felt distant from other people in past month Extremely (+ve) vs rest	0.013	0.014	0	0.022	
Felt irritable or had angry outbursts in past month > Moderately	0.03	0.0019	0	0.33	
Felt loved as a child ≤ Often	0.48	0.46	0.45	3.7e-05	*
Felt loved as a child ≤ Sometimes true	0.22	0.00087	0.00061	0.44	
Felt very upset when reminded of stressful experience in past month > Not at all	0.36	0.2	0.17	2.1e-08	**
Felt very upset when reminded of stressful experience in past month A little bit (+ve) vs rest	0.27	0.011	0.0051	5.4e-05	
Felt very upset when reminded of stressful experience in past month Quite a bit (+ve) vs rest	0.028	0.0011	0	0.33	
Financial situation satisfaction ≤ Prefer not to answer	0.00091	0.014	0	0.17	
Financial situation satisfaction Moderately happy (+ve) vs rest	0.35	0.046	0.025	2.6e-09	**
Financial situation satisfaction Prefer not to answer (+ve) vs rest	0.0011	0.021	0	0.091	
Financial situation satisfaction Very unhappy (+ve) vs rest	0.012	0.0045	0	0.17	
Fraction of day affected during worst episode of depression ≤ About half of the day	0.31	0.098	0.077	2.9e-07	**
Fraction of day affected during worst episode of depression About half of the day (+ve) vs rest	0.13	0.00036	0	0.33	
Frequency of consuming six or more units of alcohol > Less than monthly	0.27	0.19	0.16	1.1e-10	**
Frequency of consuming six or more units of alcohol Weekly (+ve) vs rest	0.15	0.015	0.0064	7e-06	*
Frequency of depressed days during worst episode of depression Every day (+ve) vs rest	0.38	0.26	0.22	1.6e-09	**
Frequency of depressed days during worst episode of depression Less often (+ve) vs rest	0.09	0.0082	0.0016	0.0023	
Frequency of depressed mood in last 2 weeks > Not at all	0.17	0.0017	0	0.00016	
Frequency of difficulty controlling worry during worst period of anxiety > Sometimes	0.45	0.4	0.39	0.00034	
Frequency of difficulty controlling worry during worst period of anxiety Never (+ve) vs rest	0.011	0.035	0.014	0.17	
Frequency of difficulty controlling worry during worst period of anxiety Rarely (+ve) vs rest	0.1	0.012	0.011	0.71	
Frequency of drinking alcohol ≤ Monthly or less	0.2	0.019	0.0011	2.2e-09	**
Frequency of drinking alcohol 2 to 3 times a week (+ve) vs rest	0.31	0.022	0.018	0.011	
Frequency of drinking alcohol 4 or more times a week (+ve) vs rest	0.3	0.12	0.061	8.2e-16	**
Frequency of failure to fulfil normal expectations due to drinking alcohol in last year > Less than monthly	0.0088	0.015	0	0.092	
Frequency of failure to fulfil normal expectations due to drinking alcohol in last year > Never	0.069	0.0014	0.00075	0.51	

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Variable	+ve pct	F1 (Base)	F1 (T1)	pval	sig*
Frequency of feeling guilt or remorse after drinking alcohol in last year > Less than monthly	0.054	0.00088	0	0.33	
Frequency of feeling guilt or remorse after drinking alcohol in last year Less than monthly (+ve) vs rest	0.14	0.0017	0.001	0.34	
Frequency of feeling guilt or remorse after drinking alcohol in last year rest (+ve) vs Never	0.2	0.017	0.0082	0.00038	
Frequency of friend/family visits > About once a week	0.2	0.0085	0.0009	1.4e-06	**
Frequency of friend/family visits (pilot) About once a month (+ve) vs rest	0.091	0.063	0.046	0.44	
Frequency of friend/family visits (pilot) Almost daily (+ve) vs rest	0.11	0.081	0.08	0.95	
Frequency of friend/family visits About once a month (+ve) vs rest	0.13	0.00015	0	0.33	
Frequency of friend/family visits About once a week (+ve) vs rest	0.33	0.026	0.017	1e-06	**
Frequency of inability to cease drinking in last year > Never	0.12	0.0036	0.0033	0.78	
Frequency of inability to stop worrying during worst period of anxiety Often (+ve) vs rest	0.43	0.37	0.35	0.00028	
Frequency of memory loss due to drinking alcohol in last year Less than monthly (+ve) vs rest	0.11	0.0053	0.00087	0.017	
Frequency of memory loss due to drinking alcohol in last year rest (+ve) vs Never	0.14	0.0072	0.0013	0.001	
Frequency of tenseness / restlessness in last 2 weeks > Not at all	0.2	0.00078	0.00048	0.19	
Frequency of tenseness / restlessness in last 2 weeks rest (+ve) vs Not at all	0.23	0.0011	0.00071	0.33	
Frequency of tiredness / lethargy in last 2 weeks > Not at all	0.46	0.46	0.43	1.5e-11	**
Frequency of tiredness / lethargy in last 2 weeks Several days (+ve) vs rest	0.37	0.082	0.056	1.2e-10	**
Frequency of unenthusiasm / disinterest in last 2 weeks > Not at all	0.16	0.0009	0	0.0048	
Frequency of unenthusiasm / disinterest in last 2 weeks Nearly every day (+ve) vs rest	0.011	0.002	0	0.33	
Frequency of unusual or psychotic experiences in past year Nearly every day or daily (+ve) vs rest	0.013	0.034	0	0.17	
Frequent trouble falling or staying asleep during worst period of anxiety ≤ Do not know	0.03	0.0086	0.0051	0.39	
Friendships satisfaction Moderately happy (+ve) vs rest	0.29	0.027	0.009	1.7e-10	**
Friendships satisfaction rest (+ve) vs Very happy	0.47	0.43	0.41	1.1e-10	**
General happiness > Very happy	0.44	0.39	0.35	4.9e-11	**
General happiness ≤ Do not know	0.0036	0.02	0	0.043	
General happiness Moderately happy (+ve) vs rest	0.39	0.19	0.16	3.9e-09	**
General happiness with own health > Very happy	0.5	0.52	0.49	8.2e-13	**
General happiness with own health Do not know (+ve) vs rest	0.0017	0.0075	0	0.33	
Guilty feelings > No	0.27	0.015	0.008	9.4e-06	*
Guilty feelings rest (+ve) vs No	0.29	0.023	0.0098	2.6e-10	**
Happiness > Very happy	0.5	0.53	0.51	9.4e-12	**
Happiness Extremely unhappy (+ve) vs rest	0.0019	0.0092	0	0.18	
Happiness Moderately happy (+ve) vs rest	0.46	0.4	0.37	2.3e-10	**
Health satisfaction > Moderately unhappy	0.018	0.00097	0	0.33	
Health satisfaction ≤ Very happy	0.47	0.46	0.37	6.6e-21	**
Health satisfaction Moderately happy (+ve) vs rest	0.45	0.31	0.26	1.5e-13	**
Health satisfaction Very happy (+ve) vs rest	0.41	0.2	0.09	1.7e-20	**
Illness, injury, bereavement, stress in last 2 years > Marital separation divorce	0.062	0.0013	0	0.042	
Illness, injury, bereavement, stress in last 2 years > None of the above	0.39	0.22	0.21	0.001	
Illness, injury, bereavement, stress in last 2 years > Serious illness, injury or assault to yourself	0.35	0.14	0.13	7e-07	**
Illness, injury, bereavement, stress in last 2 years (pilot) > Death of a close relative	0.13	0.25	0.19	0.096	
Illness, injury, bereavement, stress in last 2 years (pilot) > Death of a spouse or partner	0.13	0.2	0.073	0.00019	
Illness, injury, bereavement, stress in last 2 years (pilot) > Do not know	0.48	0.48	0.42	0.0002	

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Variable	+ve pct	F1 (Base)	F1 (T1)	pval	sig*
Illness, injury, bereavement, stress in last 2 years (pilot) > Marital separation divorce	0.12	0.16	0.065	0.0047	
Illness, injury, bereavement, stress in last 2 years (pilot) > Serious illness, injury or assault of a close relative	0.32	0.39	0.31	0.0001	
Illness, injury, bereavement, stress in last 2 years (pilot) Serious illness, injury or assault of a close relative (+ve) vs rest	0.14	0.12	0.082	0.063	
Impact on normal roles during worst period of anxiety > Somewhat	0.3	0.15	0.086	2.9e-11	**
Impact on normal roles during worst period of anxiety A little (+ve) vs rest	0.27	0.1	0.064	1.2e-08	**
Impact on normal roles during worst period of depression Somewhat (+ve) vs rest	0.34	0.08	0.077	0.29	
Irritability Yes (+ve) vs rest	0.25	0.0067	0.0017	6.4e-08	**
Leisure/social activities > Adult education class	0.32	0.2	0.19	1.6e-07	**
Length of longest manic/irritable episode ≤ Do not know	0.17	0.037	0.026	0.0019	
Length of longest manic/irritable episode Less than a week (+ve) vs rest	0.15	0.042	0.023	0.00036	
Longest period of depression < 0	0.18	0.0083	0.0032	0.0041	
Longest period of unenthusiasm / disinterest < 25th percentile	0.21	0.038	0.023	0.00025	
Longest period of unenthusiasm / disinterest < 50th percentile	0.47	0.44	0.42	2.2e-06	**
Longest period spent worried or anxious > 75th percentile	0.17	0.051	0.031	0.00068	
Manic/hyper symptoms > I needed less sleep than usual	0.19	0.058	0.031	6.3e-07	**
Manic/hyper symptoms ≤ None of the above	0.43	0.42	0.42	0.15	
Manic/hyper symptoms None of the above (+ve) vs rest	0.43	0.43	0.39	9.2e-10	**
Maximum frequency of taking cannabis > Once a month or more, but not every week	0.2	0.075	0.066	0.11	
Maximum frequency of taking cannabis Every day (+ve) vs rest	0.061	0.037	0.029	0.41	
Maximum frequency of taking cannabis rest (+ve) vs Less than once a month	0.36	0.28	0.24	2.5e-07	**
Mental health problems ever diagnosed by a professional > Anorexia nervosa	0.0076	0.015	0.0053	0.26	
Mental health problems ever diagnosed by a professional > Bulimia nervosa	0.49	0.48	0.46	0.00018	
Mental health problems ever diagnosed by a professional > Depression	0.49	0.49	0.47	1.8e-05	*
Mental health problems ever diagnosed by a professional ≤ A personality disorder	0.016	0.038	0	0.0041	
Mental health problems ever diagnosed by a professional ≤ Any other type of psychosis or psychotic illness	0.014	0.027	0.013	0.16	
Mental health problems ever diagnosed by a professional ≤ Schizophrenia	0.013	0.012	0	0.042	
Mental health problems ever diagnosed by a professional Anxiety, nerves or generalized anxiety disorder (+ve) vs rest	0.46	0.42	0.41	0.0049	
Mental health problems ever diagnosed by a professional Any other phobia (eg disabling fear of heights or spiders) (+ve) vs rest	0.0089	0.037	0	0.056	
Methods of self-harm used ≤ Swallowing dangerous objects or products	0.047	0.047	0	0.0067	
Methods of self-harm used Ingesting alcohol or a recreational or illicit drug (+ve) vs rest	0.14	0.15	0.13	0.15	
Miserableness ≤ Prefer not to answer	0.00094	0.0053	0	0.33	
Miserableness Prefer not to answer (+ve) vs rest	0.00093	0.024	0	0.16	
Miserableness rest (+ve) vs No	0.36	0.23	0.21	6.6e-09	**
Mood swings > No	0.36	0.17	0.14	2.7e-10	**
Mood swings rest (+ve) vs No	0.37	0.21	0.18	1.1e-13	**
More irritable than usual during worst period of anxiety ≤ Do not know	0.087	0.015	0.0054	0.0018	
More irritable than usual during worst period of anxiety rest (+ve) vs Yes	0.34	0.22	0.22	0.26	
Multiple worries during worst period of anxiety ≤ Do not know	0.038	0.013	0.0045	0.082	
Nervous feelings > No	0.18	0.00087	0	0.0075	
Neuroticism score > 75th percentile	0.22	0.0062	0.0021	2.2e-05	*
Number of depression episodes < 0	0.23	0.013	0.011	0.14	
Number of times believed in un-real communications or signs < 0	0.36	0.39	0.27	2.5e-05	*
Number of times believed in un-real communications or signs < 25th percentile	0.23	0.23	0.11	0.0038	

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Variable	+ve pct	F1 (Base)	F1 (T1)	pval	sig*
Number of times believed in un-real communications or signs < 50th percentile	0.36	0.33	0.29	0.12	
Number of times heard an un-real voice < 25th percentile	0.25	0.3	0.26	0.092	
Number of times heard an un-real voice < 50th percentile	0.43	0.43	0.37	0.0052	
Number of times seen an un-real vision > 75th percentile	0.23	0.29	0.2	0.00014	
Ongoing addiction or dependence to over-the-counter medication > No	0.45	0.47	0.4	0.03	
Ongoing addiction to alcohol Yes (+ve) vs rest	0.46	0.47	0.45	0.27	
Ongoing addiction to alcohol rest (+ve) vs No	0.44	0.46	0.41	0.011	
Physical violence by partner or ex-partner as an adult rest (+ve) vs Never true	0.13	0.0015	0	0.029	
Physically abused by family as a child > Rarely true	0.083	0.00033	0	0.33	
Physically abused by family as a child > Sometimes true	0.013	0.002	0	0.33	
Professional informed about anxiety rest (+ve) vs Yes	0.4	0.31	0.29	0.0009	
Professional informed about depression Do not know (+ve) vs rest	0.0033	0.026	0	0.023	
Recent easy annoyance or irritability rest (+ve) vs Not at all	0.27	0.028	0.019	1.7e-05	*
Recent feelings of depression Prefer not to answer (+ve) vs rest	0.0032	0.014	0	0.085	
Recent feelings of depression rest (+ve) vs Not at all	0.2	0.0046	0.0032	0.088	
Recent feelings of inadequacy > Not at all	0.19	0.007	0.0012	8e-05	
Recent feelings of inadequacy Prefer not to answer (+ve) vs rest	0.0027	0.0078	0	0.33	
Recent feelings of inadequacy rest (+ve) vs Not at all	0.19	0.0053	0.0016	0.00039	
Recent feelings of tiredness or low energy Several days (+ve) vs rest	0.37	0.13	0.12	0.001	
Recent feelings of tiredness or low energy rest (+ve) vs Not at all	0.48	0.51	0.49	1e-11	**
Recent feelings or nervousness or anxiety Several days (+ve) vs rest	0.23	0.015	0.009	8.3e-05	
Recent feelings or nervousness or anxiety rest (+ve) vs Not at all	0.27	0.058	0.033	1.1e-08	**
Recent inability to stop or control worrying > Not at all	0.22	0.018	0.0032	2.4e-09	**
Recent lack of interest or pleasure in doing things > Not at all	0.18	0.0036	0.00063	0.00046	
Recent poor appetite or overeating > Several days	0.049	0.0022	0	0.042	
Recent poor appetite or overeating Nearly every day (+ve) vs rest	0.023	0.0026	0.0011	0.43	
Recent poor appetite or overeating Several days (+ve) vs rest	0.13	0.0022	0.00044	0.0077	
Recent trouble concentrating on things > Several days	0.034	0.00074	0	0.33	
Recent trouble relaxing > Not at all	0.28	0.064	0.054	8.8e-05	
Recent trouble relaxing > Several days	0.056	0.002	0	0.1	
Recent worrying too much about different things > Not at all	0.31	0.11	0.089	5.5e-07	**
Recent worrying too much about different things Several days (+ve) vs rest	0.26	0.02	0.0045	1.1e-07	**
Recent worrying too much about different things rest (+ve) vs Not at all	0.31	0.12	0.086	5.2e-10	**
Repeated disturbing thoughts of stressful experience in past month > Not at all	0.26	0.012	0.0079	0.012	
Repeated disturbing thoughts of stressful experience in past month rest (+ve) vs Not at all	0.26	0.01	0.005	0.00013	
Restless during period of worst anxiety ≤ Do not know	0.073	0.01	0.0011	0.0091	
Restless during period of worst anxiety ≤ No	0.42	0.36	0.33	6.3e-09	**
Restless during period of worst anxiety rest (+ve) vs Yes	0.42	0.36	0.32	6.7e-08	**
Risk taking > No	0.25	0.033	0.0069	7e-13	**
Risk taking rest (+ve) vs No	0.28	0.065	0.021	1.3e-13	**
Seen doctor (GP) for nerves, anxiety, tension or depression > No	0.32	0.14	0.1	2.1e-11	**
Seen doctor (GP) for nerves, anxiety, tension or depression Yes (+ve) vs rest	0.32	0.14	0.081	1.6e-12	**
Self-harmed in past year Yes (+ve) vs rest	0.073	0.11	0.087	0.17	
Sensitivity / hurt feelings Yes (+ve) vs rest	0.47	0.51	0.51	0.26	
Severity of manic/irritable episodes ≤ Prefer not to answer	0.0076	0.02	0	0.091	
Sexual interference by partner or ex-partner without consent as an adult > Rarely true	0.025	0.002	0	0.16	
Sexual interference by partner or ex-partner without consent as an adult > Sometimes true	0.0064	0.023	0	0.011	
Sexual interference by partner or ex-partner without consent as an adult > Often true (+ve) vs rest	0.0034	0.029	0.0044	0.051	
Sexually molested as a child > Often	0.0048	0.0053	0	0.33	

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Variable	+ve pct	F1 (Base)	F1 (T1)	pval	sig*
Sleeping too much > No	0.21	0.044	0.025	6.5e-06	*
Sleeping too much Yes (+ve) vs rest	0.22	0.042	0.03	0.0019	
Substance of prescription or over-the-counter medication addiction A painkiller (+ve) vs rest	0.45	0.7	0.59	8.5e-07	**
Trouble falling or staying asleep, or sleeping too much > More than half the days	0.076	0.00037	0	0.33	
Victim of physically violent crime ≤ Prefer not to answer	0.00095	0.033	0	0.086	
Victim of physically violent crime rest (+ve) vs Never	0.19	0.017	0.013	0.017	
Victim of sexual assault > Never	0.15	0.006	0.00053	5.8e-06	*
Victim of sexual assault Yes, but not in the last 12 months (+ve) vs rest	0.15	0.0036	0.00056	0.0024	
Weight change during worst episode of depression > Gained weight	0.36	0.23	0.2	5.1e-05	
Weight change during worst episode of depression Lost weight (+ve) vs rest	0.31	0.13	0.092	2.8e-10	**
Weight change during worst episode of depression Stayed about the same or was on a diet (+ve) vs rest	0.35	0.28	0.26	2.2e-08	**
Witnessed sudden violent death > Yes, but not in the last 12 months	0.0052	0.0076	0	0.17	
Witnessed sudden violent death Yes, but not in the last 12 months (+ve) vs rest	0.13	0.0019	0.0002	0.017	
Witnessed sudden violent death Yes, within the last 12 months (+ve) vs rest	0.0049	0.005	0	0.33	
Work/job satisfaction > Moderately unhappy	0.42	0.61	0.61	0.29	
Work/job satisfaction > Very unhappy	0.41	0.61	0.61	0.00021	
Work/job satisfaction ≤ Prefer not to answer	0.001	0.0053	0	0.33	
Work/job satisfaction ≤ Very happy	0.3	0.035	0.021	3.6e-07	**
Work/job satisfaction I am not employed (+ve) vs rest	0.41	0.61	0.6	0.0012	
Worried most days during period of worst anxiety No (+ve) vs rest	0.1	0.017	0.0073	0.012	
Worrier / anxious feelings > No	0.49	0.57	0.57	0.018	
Worry too long after embarrassment Yes (+ve) vs rest	0.47	0.48	0.46	3e-07	**

## 2. Cognitive function

Variable	+ve pct	F1 (Base)	F1 (T1)	pval	sig*
Attempted fluid intelligence (FI) test. > Begin puzzles	0.0089	0.0062	0	0.084	
Attempted fluid intelligence (FI) test. I am unable to try this (+ve) vs rest	0.0087	0.0045	0	0.16	
Duration screen displayed < 50th percentile	0.48	0.62	0.61	5.6e-08	**
Duration spent answering each puzzle < 25th percentile	0.25	0.038	0.015	9.3e-07	**
Duration spent answering each puzzle > 75th percentile	0.25	0.012	0.0077	0.018	
Duration to complete alphanumeric path (trail 2) < 25th percentile	0.26	0.2	0.14	5.2e-14	**
Duration to complete alphanumeric path (trail 2) < 50th percentile	0.49	0.63	0.61	8.5e-07	**
Duration to complete alphanumeric path (trail 2) > 75th percentile	0.24	0.21	0.13	1.4e-16	**
Duration to complete numeric path (trail 1) > 75th percentile	0.25	0.098	0.069	1.2e-08	**
Duration to first press of snap-button in each round > 75th percentile	0.24	0.023	0.0078	1.6e-11	**
Duration to first press of snap-button in each round (pilot) < 25th percentile	0.23	0.27	0.23	0.062	
Errors before selecting correct item in alphanumeric path (trail 2) > 75th percentile	0.18	0.049	0.03	0.0031	
Errors before selecting correct item in numeric path (trail 1) > 75th percentile	0.12	0.056	0.034	0.00049	
FI1 : numeric addition test > 16	0.0033	0.0087	0	0.17	
FI10 : arithmetic sequence recognition > 95	0.04	0.0088	0	0.031	
FI10 : arithmetic sequence recognition > 95	0.12	0.095	0.053	0.00088	
FI10 : arithmetic sequence recognition ≤ 92	0.12	0.034	0.015	1.5e-05	*
FI10 : arithmetic sequence recognition ≤ 93	0.18	0.071	0.025	4.8e-09	**
FI10 : arithmetic sequence recognition ≤ 96	0.031	0.045	0	0.001	
FI10 : arithmetic sequence recognition 92 (+ve) vs rest	0.031	0.09	0.056	0.049	
FI10 : arithmetic sequence recognition 93 (+ve) vs rest	0.053	0.069	0.036	0.0062	

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Variable	+ve pct	F1 (Base)	F1 (T1)	pval	sig*
FI10 : arithmetic sequence recognition 96 (+ve) vs rest	0.033	0.05	0.0066	0.036	
FI11 : antonym $\leq$ Calm	0.022	0.0066	0.0053	0.78	
FI11 : antonym $\leq$ Worried	0.28	0.18	0.12	1.2e-10	**
FI11 : antonym $\leq$ worried	0.28	0.27	0.24	0.0053	
FI11 : antonym Calm (+ve) vs rest	0.021	0.022	0.0033	0.015	
FI11 : antonym rest (+ve) vs Tense	0.28	0.19	0.14	4.9e-06	*
FI12 : square sequence recognition > 46	0.44	0.46	0.43	0.01	
FI12 : square sequence recognition > 47	0.3	0.19	0.14	3.4e-06	**
FI12 : square sequence recognition > 49	0.13	0.042	0.037	0.37	
FI12 : square sequence recognition 46 (+ve) vs rest	0.029	0.023	0.0085	0.099	
FI12 : square sequence recognition 48 (+ve) vs rest	0.071	0.034	0.019	0.086	
FI12 : square sequence recognition 49 (+ve) vs rest	0.14	0.18	0.1	0.0097	
FI13 : subset inclusion logic $\leq$ Not sure	0.066	0.064	0.052	0.4	
FI13 : subset inclusion logic False (+ve) vs rest	0.24	0.29	0.21	1.7e-06	**
FI13 : subset inclusion logic True (+ve) vs rest	0.24	0.21	0.17	0.089	
FI14 : alphanumeric substitution 49 (+ve) vs rest	0.15	0.065	0	0.085	
FI2 : identify largest number 714 (+ve) vs rest	0.0081	0.0077	0	0.16	
FI3 : word interpolation $\leq$ Improve	0.1	0.0015	0	0.015	
FI3 : word interpolation $\leq$ grow	0.079	0.0032	0.00048	0.033	
FI3 : word interpolation $\leq$ improve	0.14	0.0031	0	0.00086	
FI3 : word interpolation grow (+ve) vs rest	0.08	0.0018	0.00041	0.11	
FI3 : word interpolation rest (+ve) vs Adult	0.1	0.0013	0	0.01	
FI3 : word interpolation rest (+ve) vs adult	0.14	0.0044	0.00076	0.00099	
FI4 : positional arithmetic $\leq$ 5	0.1	0.00042	0	0.16	
FI5 : family relationship calculation $\leq$ Aunt	0.28	0.0032	0.0011	0.00051	
FI5 : family relationship calculation $\leq$ Do not know	0.18	0.00059	0.00012	0.059	
FI5 : family relationship calculation $\leq$ Sister	0.36	0.035	0.024	1.7e-07	**
FI5 : family relationship calculation $\leq$ aunt	0.091	0.0004	0	0.33	
FI6 : conditional arithmetic > 69	0.2	0.00023	0	0.16	
FI6 : conditional arithmetic > 69	0.23	0.016	0.0034	2.3e-06	**
FI6 : conditional arithmetic rest (+ve) vs 69	0.28	0.057	0.0072	1.5e-14	**
FI7 : synonym break (+ve) vs rest	0.0051	0.0027	0	0.33	
FI7 : synonym close (+ve) vs rest	0.009	0.0063	0	0.16	
FI8 : chained arithmetic > 27	0.064	0.0023	0.00086	0.26	
FI8 : chained arithmetic $\leq$ Prefer not to answer	0.013	0.0087	0	0.044	
FI8 : chained arithmetic rest (+ve) vs 26	0.23	0.033	0.0067	1.1e-08	**
FI8 : chained arithmetic rest (+ve) vs 26	0.36	0.22	0.12	2.9e-19	**
FI9 : concept interpolation > Metres	0.36	0.26	0.14	4.5e-17	**
FI9 : concept interpolation $\leq$ Deep	0.032	0.0013	0	0.33	
FI9 : concept interpolation $\leq$ Do not know	0.007	0.049	0.0063	0.0043	
FI9 : concept interpolation $\leq$ top	0.021	0.035	0.01	0.046	
FI9 : concept interpolation rest (+ve) vs Metres	0.39	0.37	0.22	1.5e-20	**
Final attempt correct > yes	0.0049	0.0037	0	0.33	
Fluid intelligence completion status > Abandoned	0.089	0.0013	0	0.083	
Fluid intelligence score > 75th percentile	0.16	0.033	0.0032	3.6e-09	**
Interval between previous point and current one in alphanumeric path (trail 2) < 25th percentile	0.25	0.093	0.075	3.7e-05	*
Interval between previous point and current one in alphanumeric path (trail 2) > 75th percentile	0.24	0.079	0.044	3.3e-10	**
Interval between previous point and current one in numeric path (trail 1) < 25th percentile	0.25	0.12	0.11	7.1e-05	
Interval between previous point and current one in numeric path (trail 1) < 50th percentile	0.5	0.55	0.55	0.00021	
Item selected for each puzzle 4 (+ve) vs rest	0.055	0.00085	0	0.33	
Maximum digits remembered correctly < 50th percentile	0.4	0.36	0.27	9.9e-20	**
Maximum digits remembered correctly > 75th percentile	0.12	0.0045	0.0013	0.0026	
Mean time to correctly identify matches < 25th percentile	0.25	0.14	0.1	1.1e-11	**
Number entered by participant < 25th percentile	0.25	0.052	0.013	5e-12	**
Number entered by participant > 75th percentile	0.25	0.089	0.024	1.7e-14	**

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Variable	+ve pct	F1 (Base)	F1 (T1)	pval	sig*
Number of correct matches in round < 50th percentile	0.36	0.15	0.057	1.6e-20	**
Number of digits to be memorised/recalled < 25th percentile	0.13	0.0053	0.00029	0.0027	
Number of digits to be memorised/recalled < 50th percentile	0.4	0.36	0.27	2.3e-18	**
Number of digits to be memorised/recalled > 75th percentile	0.079	0.0048	0.00052	0.0088	
Number of fluid intelligence questions attempted within time limit < 50th percentile	0.24	0.023	0.00036	4.5e-12	**
Number of fluid intelligence questions attempted within time limit > 75th percentile	0.17	0.0027	0.00065	0.0012	
Number of incorrect matches in round < 25th percentile	0.2	0.0055	0.0043	0.25	
Number of incorrect matches in round < 50th percentile	0.4	0.21	0.21	0.08	
Number of incorrect matches in round > 75th percentile	0.22	0.016	0.0043	6.5e-07	**
Number of puzzles attempted < 25th percentile	0.16	0.023	0.018	0.044	
Number of puzzles attempted < 50th percentile	0.4	0.34	0.31	7.7e-12	**
Number of puzzles attempted > 75th percentile	0.24	0.044	0.025	6.7e-06	*
Number of puzzles correct < 50th percentile	0.4	0.41	0.36	6.2e-11	**
Number of puzzles correctly solved < 25th percentile	0.22	0.13	0.031	2.3e-19	**
Number of puzzles correctly solved > 75th percentile	0.25	0.15	0.071	2.5e-14	**
Number of puzzles viewed < 25th percentile	0.2	0.041	0.019	4.5e-08	**
Number of rounds of numeric memory test performed < 25th percentile	0.11	0.0038	0	0.0038	
Number of rounds of numeric memory test performed > 75th percentile	0.21	0.034	0.0048	4.4e-13	**
Number of rows displayed in round > 75th percentile	0.15	0.0015	0.00078	0.18	
Number of symbol digit matches attempted < 50th percentile	0.45	0.62	0.61	0.29	
Number of symbol digit matches made correctly < 25th percentile	0.22	0.21	0.17	2.5e-09	**
Number of symbol digit matches made correctly > 75th percentile	0.17	0.17	0.13	1.9e-09	**
Number of times snap-button pressed < 50th percentile	0.0047	0.0037	0	0.33	
PM: initial answer ≤ Grey cross	0.13	0.0028	0	0.0005	
PM: initial answer Blue square (+ve) vs rest	0.13	0.0029	0	6.5e-05	
PM: initial answer rest (+ve) vs Orange circle	0.13	0.0022	0	0.0029	
Pairs matching completion status Abandoned (+ve) vs rest	0.019	0.0036	0	0.16	
Prospective memory result rest (+ve) vs Correct recall on first attempt	0.13	0.0044	0	8.8e-06	*
Round of numeric memory test < 50th percentile	0.31	0.14	0.039	8.3e-17	**
Target number to be memorised < 50th percentile	0.5	0.57	0.53	2.1e-12	**
Test completion status abandoned (+ve) vs rest	0.0052	0.003	0	0.33	
Time elapsed < 25th percentile	0.26	0.063	0.04	1.5e-07	**
Time last key touched < 25th percentile	0.26	0.038	0.02	1.1e-06	**
Time last key touched > 75th percentile	0.24	0.032	0.013	1.1e-09	**
Time number displayed for < 50th percentile	0.43	0.44	0.36	3.8e-15	**
Time to answer < 25th percentile	0.3	0.11	0.0025	9.9e-19	**
Time to answer < 50th percentile	0.4	0.73	0.73	0.03	
Time to complete round < 50th percentile	0.5	0.58	0.57	0.00031	
Time to complete round > 75th percentile	0.25	0.08	0.066	0.00017	
Time to complete round (pilot) < 25th percentile	0.23	0.33	0.28	0.011	
Time to complete test < 25th percentile	0.26	0.043	0.013	2.4e-11	**
Total errors traversing numeric path (trail 1) > 75th percentile	0.19	0.094	0.066	0.0036	
Trail making completion status > Abandoned	0.085	0.0018	0	0.11	
Value entered 5 moves (+ve) vs rest	0.23	0.016	0.016	0.87	
Values entered > 75th percentile	0.13	0.0015	0	0.042	
Values wanted < 50th percentile	0.37	0.13	0.12	0.0064	
Words answer array (pilot) < 25th percentile	0.24	0.29	0.26	0.12	
Words answer array (pilot) > 75th percentile	0.23	0.3	0.22	0.0021	

### 3. Physical measures

Variable	+ve pct	F1 (Base)	F1 (T1)	pval	sig*
Absence of notch position in the pulse waveform > False	0.27	0.18	0.16	1.2e-07	**
Absence of notch position in the pulse waveform True (+ve) vs rest	0.27	0.18	0.16	2.6e-06	**
Acceptability of each blow result < 50th percentile	0.42	0.29	0.24	1.9e-13	**

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Variable	+ve pct	F1 (Base)	F1 (T1)	pval	sig*
Acceptability of each blow result > 75th percentile	0.23	0.0008	0.00035	0.12	
Arm fat mass (right) > 75th percentile	0.2	0.14	0.002	2.1e-21	**
Arm fat percentage (left) > 75th percentile	0.25	0.5	0.36	1.5e-22	**
Arm fat-free mass (left) < 25th percentile	0.21	0.35	0.16	3.9e-20	**
Arm fat-free mass (right) < 25th percentile	0.22	0.36	0.19	2e-21	**
Arm predicted mass (right) > 75th percentile	0.24	0.58	0.55	0.012	
Basal metabolic rate < 25th percentile	0.26	0.56	0.49	4.9e-11	**
Basal metabolic rate > 75th percentile	0.24	0.58	0.55	1e-09	**
Bicycle speed > 75th percentile	0.24	0.042	0.029	0.00031	
Body fat percentage > 75th percentile	0.25	0.52	0.41	1.6e-20	**
Body mass index (BMI) < 25th percentile	0.24	0.16	0.013	3.4e-26	**
Body mass index (BMI) < 25th percentile	0.25	0.17	0.0035	1.6e-23	**
Body mass index (BMI) > 75th percentile	0.25	0.15	0.00074	1.5e-23	**
Caffeine drink within last hour Yes (+ve) vs rest	0.18	0.00058	0	0.021	
Completion status of test rest (+ve) vs Fully completed	0.057	0.0047	0.00083	0.053	
Diastolic blood pressure, automated reading < 50th percentile	0.5	0.59	0.59	0.016	
Forced vital capacity (FVC) (pilot) < 50th percentile	0.48	0.62	0.56	4.6e-05	*
Forced vital capacity (FVC) (pilot) > 75th percentile	0.24	0.4	0.28	1.9e-05	*
Forced vital capacity (FVC), Best measure > 75th percentile	0.25	0.58	0.57	1.3e-05	*
Height > 75th percentile	0.23	0.48	0.47	9.9e-05	
Impedance of arm (left) > 75th percentile	0.24	0.44	0.31	1.8e-23	**
Impedance of leg (left) < 25th percentile	0.23	0.23	0.088	3.5e-20	**
Impedance of leg (right) > 75th percentile	0.26	0.33	0.19	1.5e-22	**
Leg fat mass (left) < 25th percentile	0.23	0.5	0.36	8.4e-24	**
Leg fat mass (right) < 25th percentile	0.24	0.54	0.43	4.7e-23	**
Leg fat mass (right) > 75th percentile	0.25	0.41	0.17	1.9e-26	**
Leg fat percentage (left) < 25th percentile	0.25	0.62	0.57	2e-06	**
Leg fat-free mass (right) < 25th percentile	0.24	0.53	0.49	2.6e-05	*
Leg predicted mass (left) < 25th percentile	0.24	0.52	0.47	2.8e-06	**
Leg predicted mass (right) < 25th percentile	0.25	0.54	0.49	0.014	
Leg predicted mass (right) > 75th percentile	0.24	0.6	0.57	1.2e-09	**
Maximum carotid IMT (intima-medial thickness) at 120 degrees < 25th percentile	0.2	0.085	0.069	2.9e-07	**
Maximum carotid IMT (intima-medial thickness) at 150 degrees < 25th percentile	0.2	0.12	0.11	0.025	
Maximum carotid IMT (intima-medial thickness) at 150 degrees < 50th percentile	0.49	0.63	0.62	3.1e-05	*
Mean carotid IMT (intima-medial thickness) at 120 degrees < 50th percentile	0.49	0.65	0.64	2.3e-05	*
Mean carotid IMT (intima-medial thickness) at 120 degrees > 75th percentile	0.24	0.2	0.19	0.00022	
Mean carotid IMT (intima-medial thickness) at 150 degrees < 50th percentile	0.49	0.64	0.64	0.021	
Minimum carotid IMT (intima-medial thickness) at 210 degrees > 75th percentile	0.22	0.13	0.12	0.0072	
Minimum carotid IMT (intima-medial thickness) at 240 degrees > 75th percentile	0.22	0.13	0.11	2.4e-06	**
Ordering of blows > earliest	0.34	0.017	0.013	0.014	
Peak expiratory flow (PEF) < 25th percentile	0.26	0.16	0.14	1.3e-07	**
Peak expiratory flow (PEF) > 75th percentile	0.24	0.5	0.49	3.3e-06	**
Peak expiratory flow (PEF) (pilot) < 50th percentile	0.49	0.56	0.47	1.2e-06	**
Position of pulse wave notch > 75th percentile	0.21	0.0018	0.00071	0.016	
Position of the pulse wave peak > 75th percentile	0.17	0.016	0.0039	4.8e-07	**
Position of the shoulder on the pulse waveform > 75th percentile	0.22	0.06	0.047	3.5e-06	**
Pulse rate < 50th percentile	0.45	0.47	0.46	2.3e-06	**
Pulse rate (during blood-pressure measurement) < 50th percentile	0.48	0.52	0.48	3.5e-11	**
Pulse rate (during blood-pressure measurement) > 75th percentile	0.26	0.1	0.058	4.4e-11	**
Pulse wave Arterial Stiffness index > 75th percentile	0.25	0.024	0.016	1e-05	*
Pulse wave reflection index < 50th percentile	0.46	0.5	0.49	0.45	

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Variable	+ve pct	F1 (Base)	F1 (T1)	pval	sig*
Pulse wave reflection index > 75th percentile	0.25	0.035	0.017	3.3e-11	**
Quality control indicator for IMT at 120 degrees rest (+ve) vs Pass	0.075	0.087	0.068	0.087	
Quality control indicator for IMT at 150 degrees > Pass	0.098	0.055	0.047	0.33	
Quality control indicator for IMT at 150 degrees Fail (+ve) vs rest	0.098	0.047	0.029	0.044	
Reproducibility of spirometry measurement using ERS/ATS criteria ≤ No	0.2	0.0065	0.0047	0.063	
Reproducibility of spirometry measurement using ERS/ATS criteria No (+ve) vs rest	0.2	0.0069	0.0016	2.5e-05	*
Reproducibility of spirometry measurement using ERS/ATS criteria rest (+ve) vs Yes	0.2	0.0062	0.0015	0.00017	
Result ranking (pilot) rest (+ve) vs best	0.45	0.44	0.43	0.54	
Result ranking second best (+ve) vs rest	0.26	0.0027	0.0016	0.033	
Seated height < 25th percentile	0.2	0.3	0.26	2e-12	**
Sitting height > 75th percentile	0.24	0.51	0.49	4.1e-07	**
Smoked cigarette or pipe within last hour > No	0.0085	0.0096	0.0034	0.27	
Smoked cigarette or pipe within last hour Yes (+ve) vs rest	0.0086	0.0057	0	0.16	
Spirometry device serial number < 25th percentile	0.23	0.0024	8.8e-05	3.9e-05	*
Spirometry device serial number (pilot) rest (+ve) vs 699.0	0.47	0.51	0.49	0.19	
Standing height < 25th percentile	0.23	0.41	0.38	4.9e-12	**
Standing height > 75th percentile	0.23	0.48	0.48	0.0079	
Systolic blood pressure, manual reading < 25th percentile	0.24	0.29	0.21	7.2e-10	**
Systolic blood pressure, manual reading < 50th percentile	0.49	0.63	0.6	1.5e-07	**
Systolic blood pressure, manual reading > 75th percentile	0.24	0.21	0.15	8.6e-09	**
Time since interview start at which blood pressure screen(s) shown < 25th percentile	0.26	0.025	0.0068	6e-13	**
Trunk fat mass < 25th percentile	0.24	0.062	0.0019	1.8e-16	**
Trunk fat mass < 50th percentile	0.5	0.59	0.51	3.6e-21	**
Trunk fat mass > 75th percentile	0.24	0.091	0.00033	1.5e-21	**
Trunk fat percentage < 50th percentile	0.49	0.66	0.66	0.017	
Trunk fat-free mass > 75th percentile	0.25	0.57	0.54	3.3e-05	*
Waist circumference > 75th percentile	0.23	0.27	0.034	3.9e-26	**
Weight > 75th percentile	0.25	0.36	0.18	7e-24	**
Whole body fat mass < 25th percentile	0.25	0.14	0.021	2.5e-19	**
Whole body fat-free mass > 75th percentile	0.24	0.59	0.56	0.0083	
Whole body water mass > 75th percentile	0.24	0.57	0.57	0.11	

#### 4. Lifestyle and environment

Variable	+ve pct	F1 (Base)	F1 (T1)	pval	sig*
Age started smoking in former smokers < 25th percentile	0.13	0.039	0.016	1.5e-05	*
Age started smoking in former smokers > 75th percentile	0.19	0.02	0.01	0.0037	
Age stopped smoking > 75th percentile	0.23	0.11	0.048	9e-12	**
Age stopped smoking cigarettes (current cigar/pipe or previous cigarette smoker) < 50th percentile	0.44	0.4	0.34	0.047	
Age stopped smoking cigarettes (current cigar/pipe or previous cigarette smoker) > 75th percentile	0.23	0.24	0.074	0.00027	
Alcohol intake frequency. ≤ Daily or almost daily	0.17	0.0049	0.00049	1.5e-05	*
Alcohol intake frequency. ≤ Three or four times a week	0.45	0.48	0.45	1.8e-13	**
Alcohol intake frequency. Daily or almost daily (+ve) vs rest	0.17	0.0039	0.00037	9.3e-05	
Alcohol intake frequency. Special occasions only (+ve) vs rest	0.11	0.00079	0	0.042	
Alcohol intake versus 10 years previously Less nowadays (+ve) vs rest	0.48	0.45	0.43	2.3e-09	**
Alcohol usually taken with meals ≤ Do not know	0.34	0.059	0.052	0.0076	
Alcohol usually taken with meals No (+ve) vs rest	0.19	0.0043	0.0019	0.011	
Average monthly champagne plus white wine intake < 25th percentile	0.0042	0.0053	0	0.33	
Average monthly champagne plus white wine intake > 75th percentile	0.24	0.055	0.05	0.14	
Average monthly intake of other alcoholic drinks > 75th percentile	0.03	0.031	0.012	0.011	
Average weekly champagne plus white wine intake > 75th percentile	0.21	0.013	0.0038	3.3e-09	**

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Variable	+ve pct	F1 (Base)	F1 (T1)	pval	sig*
Average weekly fortified wine intake < 25th percentile	0.0023	0.012	0	0.17	
Average weekly red wine intake < 50th percentile	0.43	0.35	0.31	2.8e-13	**
Average weekly red wine intake > 75th percentile	0.24	0.0083	0.0027	2.8e-07	**
Beef intake > Less than once a week	0.39	0.15	0.095	7.9e-16	**
Beef intake Less than once a week (+ve) vs rest	0.49	0.49	0.48	9.6e-08	**
Beef intake Never (+ve) vs rest	0.11	0.00071	0	0.042	
Bread intake < 25th percentile	0.23	0.018	0.012	5.1e-06	*
Bread type White (+ve) vs rest	0.17	0.00085	0.00012	0.013	
Bread type/intake (pilot) ≤ White	0.18	0.18	0.13	0.011	
Cereal intake < 25th percentile	0.22	0.0035	0.0012	2.2e-05	*
Cereal type > Oat cereal (e.g. Ready Brek, porridge)	0.36	0.078	0.045	7.9e-14	**
Cereal type ≤ Biscuit cereal (e.g. Weetabix)	0.29	0.0069	0.00037	2.8e-07	**
Cheese intake ≤ Less than once a week	0.17	0.00036	0	0.083	
Cheese intake Once a week (+ve) vs rest	0.21	0.0003	0	0.083	
Coffee type Ground coffee (include espresso, filter etc) (+ve) vs rest	0.32	0.064	0.013	2.5e-16	**
Coffee type Instant coffee (+ve) vs rest	0.48	0.45	0.41	1.5e-14	**
Coffee type Other type of coffee (+ve) vs rest	0.02	0.0011	0	0.33	
Cooked vegetable intake < 50th percentile	0.49	0.5	0.5	0.001	
Daytime dozing / sleeping (narcolepsy) > Never rarely	0.23	0.045	0.0034	3.6e-13	**
Difficulty not smoking for 1 day > Fairly difficult	0.3	0.35	0.26	2.2e-08	**
Difficulty not smoking for 1 day ≤ Very easy	0.097	0.11	0.093	0.13	
Difficulty not smoking for 1 day Fairly difficult (+ve) vs rest	0.34	0.36	0.3	0.00051	
Difficulty not smoking for 1 day Very difficult (+ve) vs rest	0.3	0.36	0.31	0.0001	
Dried fruit intake < 25th percentile	0.09	0.00022	0	0.33	
Ever smoked No (+ve) vs rest	0.46	0.45	0.41	1.3e-13	**
Ever smoked rest (+ve) vs Yes	0.46	0.45	0.41	3.8e-16	**
Ever stopped smoking for 6+ months Yes (+ve) vs rest	0.41	0.32	0.31	0.045	
Ever stopped smoking for 6+ months rest (+ve) vs No	0.43	0.36	0.35	0.022	
Ever tried to stop smoking ≤ No	0.14	0.21	0.16	0.0088	
Ever tried to stop smoking Yes, tried but was not able to stop or stopped for less than 6 months (+ve) vs rest	0.41	0.42	0.41	0.1	
Former alcohol drinker No (+ve) vs rest	0.49	0.52	0.51	0.42	
Fresh fruit intake < 50th percentile	0.35	0.17	0.11	8.2e-14	**
Getting up in morning > Fairly easy	0.37	0.28	0.27	0.00042	
Getting up in morning ≤ Not very easy	0.14	0.0052	0.0023	0.0072	
Getting up in morning Not very easy (+ve) vs rest	0.11	0.00037	0	0.16	
Hot drink temperature ≤ Very hot	0.19	0.00043	0	0.042	
Hot drink temperature Warm (+ve) vs rest	0.14	0.00014	0	0.33	
Hot drink temperature rest (+ve) vs Hot	0.33	0.025	0.019	3.6e-05	*
IPAQ activity group > moderate	0.4	0.17	0.1	6.1e-17	**
IPAQ activity group high (+ve) vs rest	0.4	0.17	0.09	9.3e-18	**
IPAQ activity group low (+ve) vs rest	0.19	0.00051	0.00025	0.27	
Lamb/mutton intake > Less than once a week	0.17	0.0027	0.00058	0.00022	
Lamb/mutton intake ≤ Never	0.19	0.00051	0	0.056	
Lamb/mutton intake Once a week (+ve) vs rest	0.16	0.0014	0	0.00063	
Light smokers, at least 100 smokes in lifetime (pilot) > No	0.38	0.44	0.32	0.00036	
Light smokers, at least 100 smokes in lifetime Yes (+ve) vs rest	0.39	0.22	0.21	0.013	
Likelihood of resuming smoking ≤ Do not know	0.012	0.027	0.011	0.085	
Likelihood of resuming smoking ≤ Yes, definitely	0.013	0.022	0.0076	0.054	
MET minutes per week for walking > 75th percentile	0.17	0.00042	0	0.083	
Milk type used > Soya	0.059	0.00067	0	0.16	
Morning/evening person (chronotype) ≤ Definitely a 'morning' person	0.35	0.031	0.019	2.9e-07	**
Nap during day > Never rarely	0.42	0.42	0.41	3.9e-06	**
Nap during day Sometimes (+ve) vs rest	0.37	0.17	0.14	9e-12	**
Nap during day Usually (+ve) vs rest	0.055	0.0015	0	0.042	
Never eat eggs, dairy, wheat, sugar rest (+ve) vs I eat all of the above	0.24	0.016	0.0057	2.4e-08	**
Non-oily fish intake Do not know (+ve) vs rest	0.0015	0.024	0	0.047	
Number of cigarettes currently smoked daily (current cigarette smokers) < 25th percentile	0.25	0.28	0.25	0.026	

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Variable	+ve pct	F1 (Base)	F1 (T1)	pval	sig*
Number of cigarettes currently smoked daily (current cigarette smokers) < 50th percentile	0.47	0.52	0.47	1e-06	**
Number of cigarettes previously smoked daily < 25th percentile	0.13	0.03	0.025	0.22	
Number of cigarettes previously smoked daily < 50th percentile	0.36	0.29	0.27	2.9e-06	**
Number of cigarettes previously smoked daily (current cigar/pipe smokers) > 75th percentile	0.078	0.083	0	0.17	
Pack years adult smoking as proportion of life span exposed to smoking < 50th percentile	0.5	0.56	0.52	1.4e-09	**
Pack years of smoking < 25th percentile	0.25	0.087	0.041	4.9e-10	**
Pack years of smoking < 50th percentile	0.5	0.57	0.52	2.6e-13	**
Pack years of smoking > 75th percentile	0.24	0.12	0.064	5.1e-09	**
Past tobacco smoking > Just tried once or twice	0.47	0.47	0.44	1.3e-16	**
Past tobacco smoking ≤ Smoked on most or all days	0.24	0.031	0.0067	9.6e-15	**
Past tobacco smoking I have never smoked (+ve) vs rest	0.47	0.48	0.43	1e-13	**
Past tobacco smoking Smoked on most or all days (+ve) vs rest	0.24	0.031	0.0069	3.7e-16	**
Pork intake ≤ Never	0.17	0.00082	0.00011	0.032	
Poultry intake ≤ Less than once a week	0.16	0.00013	0	0.33	
Poultry intake Once a week (+ve) vs rest	0.32	0.027	0.017	9.9e-07	**
Reason for reducing amount of alcohol drunk > Financial reasons	0.43	0.35	0.3	1.3e-10	**
Reason for reducing amount of alcohol drunk > Health precaution	0.45	0.4	0.39	0.019	
Reason for reducing amount of alcohol drunk ≤ Illness or ill health	0.15	0.0011	0.00045	0.15	
Reason former drinker stopped drinking alcohol Do not know (+ve) vs rest	0.021	0.03	0	0.087	
Salt added to food > Never rarely	0.41	0.13	0.1	4.7e-09	**
Salt added to food Sometimes (+ve) vs rest	0.27	0.0013	0.00022	0.001	
Sleep duration < 25th percentile	0.24	0.012	0.00025	8.7e-10	**
Smoking status > Never	0.38	0.23	0.16	2.2e-16	**
Smoking/smokers in household rest (+ve) vs No	0.054	0.00035	0	0.33	
Snoring ≤ Yes	0.41	0.31	0.28	4.7e-08	**
Snoring rest (+ve) vs No	0.41	0.31	0.27	8.4e-11	**
Spread type (pilot) > Olive oil based spread	0.42	0.42	0.39	0.17	
Spread type (pilot) ≤ Butter spreadable butter	0.34	0.39	0.3	5.6e-05	
Spread type (pilot) Low or reduced fat spread (+ve) vs rest	0.27	0.32	0.23	8.8e-05	
Summed days activity < 25th percentile	0.21	0.00054	0.00022	0.16	
Summed days activity > 75th percentile	0.21	0.0011	0.00011	0.00094	
Time from waking to first cigarette > Between 1 and 2 hours	0.17	0.21	0.2	0.33	
Time from waking to first cigarette Between 1 and 2 hours (+ve) vs rest	0.11	0.13	0.09	0.025	
Time from waking to first cigarette Longer than 2 hours (+ve) vs rest	0.17	0.23	0.18	0.0011	
Type of tobacco currently smoked > Manufactured cigarettes	0.31	0.38	0.33	0.0001	
Variation in diet (pilot) Usually (+ve) vs rest	0.051	0.03	0.022	0.63	
Variation in diet rest (+ve) vs Sometimes	0.42	0.24	0.23	0.00026	
Wants to stop smoking > No, probably not	0.029	0.014	0	0.17	
Wants to stop smoking Yes, definitely (+ve) vs rest	0.35	0.36	0.35	0.28	
Water intake < 25th percentile	0.16	0.00025	0.00013	0.49	
Water intake < 50th percentile	0.37	0.2	0.16	8.4e-13	**
Water intake > 75th percentile	0.23	0.018	0.0035	5.8e-10	**
Why reduced smoking ≤ Doctor's advice	0.33	0.4	0.33	0.00046	
Why reduced smoking ≤ Illness or ill health	0.32	0.34	0.32	0.14	
Why reduced smoking ≤ None of the above	0.29	0.29	0.23	0.064	
Why stopped smoking ≤ Prefer not to answer	0.2	0.048	0.018	4.7e-07	**
Why stopped smoking Do not know (+ve) vs rest	0.0061	0.036	0.0083	0.042	
Why stopped smoking Illness or ill health (+ve) vs rest	0.038	0.012	0	0.014	

## 5. Sociodemographics

Variable	+ve pct	F1 (Base)	F1 (T1)	pval	sig*
Average total household income before tax $\leq$ Prefer not to answer	0.063	0.0019	0	0.01	
Average total household income before tax (pilot) $\leq$ 18,000 to 31,000	0.39	0.48	0.42	0.0039	
Average total household income before tax (pilot) $\leq$ Do not know	0.099	0.16	0.12	0.086	
Average total household income before tax (pilot) Prefer not to answer (+ve) vs rest	0.073	0.09	0.017	0.017	
Average total household income before tax 52,000 to 100,000 (+ve) vs rest	0.2	0.068	0.054	2e-05	*
Average total household income before tax Do not know (+ve) vs rest	0.03	0.0019	0	0.083	
Average total household income before tax Greater than 100,000 (+ve) vs rest	0.054	0.0092	0.00078	0.00041	
Average total household income before tax Less than 18,000 (+ve) vs rest	0.12	0.0012	0.00036	0.079	
Ethnic background > Any other white background	0.019	0.02	0	3.9e-05	*
Ethnic background > British	0.065	0.0012	0	0.042	
Ethnic background > Irish	0.042	0.005	0	0.0017	
Ethnic background > White and Asian	0.017	0.033	0	4e-08	**
Ethnic background $\leq$ Other ethnic group	0.01	0.0041	0	0.17	
Ethnic background Caribbean (+ve) vs rest	0.0029	0.0045	0	0.33	
Ethnic background rest (+ve) vs British	0.074	0.0043	0	0.0012	
Job involves heavy manual or physical work > Never rarely	0.27	0.047	0.007	1.4e-12	**
Job involves heavy manual or physical work Sometimes (+ve) vs rest	0.18	0.0014	0.00016	0.008	
Job involves mainly walking or standing > Sometimes	0.28	0.041	0.0044	1.8e-13	**
Job involves mainly walking or standing > Usually	0.15	0.0027	0.00078	0.0067	
Job involves mainly walking or standing $\leq$ Never rarely	0.4	0.25	0.16	1.8e-16	**
Job involves mainly walking or standing Always (+ve) vs rest	0.15	0.0023	0	0.00032	
Qualifications > NVQ or HND or HNC or equivalent	0.34	0.044	0.014	2.8e-13	**
Qualifications $\leq$ None of the above	0.066	0.0089	0.0022	0.00015	
Qualifications (pilot) CSEs or equivalent (+ve) vs rest	0.095	0.1	0.072	0.24	
Qualifications (pilot) NVQ or HND or HNC or equivalent (+ve) vs rest	0.17	0.24	0.19	0.042	
Qualifications None of the above (+ve) vs rest	0.066	0.0084	0.0003	2.7e-05	*

## 6. Sex-specific factors

Variable	+ve pct	F1 (Base)	F1 (T1)	pval	sig*
Age at bilateral oophorectomy (both ovaries removed) < 50th percentile	0.44	0.5	0.47	0.017	
Age at first live birth < 25th percentile	0.22	0.038	0.015	3.5e-07	**
Age at hysterectomy > 75th percentile	0.22	0.21	0.17	0.00021	
Age at last live birth < 50th percentile	0.5	0.57	0.56	0.026	
Age at menopause (last menstrual period) < 25th percentile	0.25	0.022	0.016	0.0095	
Age at menopause (last menstrual period) > 75th percentile	0.22	0.014	0.0098	0.053	
Age last used hormone-replacement therapy (HRT) < 0	0.27	0.17	0.16	0.32	
Age started hormone-replacement therapy (HRT) < 50th percentile	0.47	0.48	0.45	8.6e-09	**
Age started oral contraceptive pill < 25th percentile	0.21	0.22	0.15	1.4e-13	**
Age when last used oral contraceptive pill < 50th percentile	0.48	0.46	0.44	1.1e-07	**
Age when periods started (menarche) < 25th percentile	0.22	0.003	0.0023	0.34	
Age when periods started (menarche) < 50th percentile	0.39	0.19	0.18	0.0087	
Bilateral oophorectomy (both ovaries removed) rest (+ve) vs No	0.1	0.0015	0	0.042	
Ever had breast cancer screening / mammogram rest (+ve) vs Yes	0.042	0.095	0.06	0.00052	
Ever had cervical smear test $\leq$ No	0.022	0.0019	0	0.33	
Ever had hysterectomy (womb removed) > No	0.1	0.014	0.0079	0.022	
Ever taken oral contraceptive pill rest (+ve) vs Yes	0.14	0.0086	0.0037	0.0002	
Ever used hormone-replacement therapy (HRT) rest (+ve) vs No	0.38	0.49	0.48	0.00087	
Had menopause > Yes	0.15	0.0015	0.00025	0.064	
Had menopause rest (+ve) vs Yes	0.22	0.35	0.34	0.036	
Menstruating today > No	0.14	0.016	0.011	0.12	
Menstruating today Yes (+ve) vs rest	0.13	0.021	0.013	0.053	

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Variable	+ve pct	F1 (Base)	F1 (T1)	pval	sig*
Number of live births > 75th percentile	0.22	0.016	0.0084	3.5e-05	*
Years since last breast cancer screening / mammogram < 25th percentile	0.25	0.021	0.016	0.035	
Years since last cervical smear test < 0	0.23	0.012	0.0045	3.5e-06	**
Years since last cervical smear test < 25th percentile	0.24	0.013	0.0067	1.8e-05	*

## 7. Health and medical history

Variable	+ve pct	F1 (Base)	F1 (T1)	pval	sig*
Age angina diagnosed < 0	0.035	0.017	0	0.33	
Age asthma diagnosed < 50th percentile	0.49	0.56	0.55	0.061	
Age emphysema/chronic bronchitis diagnosed < 25th percentile	0.26	0.32	0.2	3.6e-06	**
Age emphysema/chronic bronchitis diagnosed > 75th percentile	0.23	0.38	0.34	0.059	
Age hay fever, rhinitis or eczema diagnosed < 0	0.11	0.0047	0.0039	0.65	
Age hay fever, rhinitis or eczema diagnosed > 75th percentile	0.25	0.12	0.11	0.007	
Age heart attack diagnosed < 25th percentile	0.24	0.4	0.38	0.16	
Age pulmonary embolism (blood clot in lung) diagnosed < 25th percentile	0.3	0.31	0.27	0.047	
Age pulmonary embolism (blood clot in lung) diagnosed < 50th percentile	0.48	0.6	0.5	6.5e-05	
Age stroke diagnosed < 50th percentile	0.48	0.66	0.64	0.12	
Blood clot, DVT, bronchitis, emphysema, asthma, rhinitis, eczema, allergy diagnosed by doctor > Asthma	0.24	0.0052	0.00077	5.5e-07	**
Blood clot, DVT, bronchitis, emphysema, asthma, rhinitis, eczema, allergy diagnosed by doctor > Prefer not to answer	0.31	0.024	0.0089	2.6e-10	**
Blood clot, DVT, bronchitis, emphysema, asthma, rhinitis, eczema, allergy diagnosed by doctor Hayfever, allergic rhinitis or eczema (+ve) vs rest	0.24	0.0049	0.0014	1.4e-06	**
Blood clot, DVT, bronchitis, emphysema, asthma, rhinitis, eczema, allergy diagnosed by doctor rest (+ve) vs None of the above	0.32	0.026	0.01	1e-10	**
Detention categories > Informal, not formally detained	0.059	0.066	0.037	0.067	
Detention categories rest (+ve) vs Informal, not formally detained	0.069	0.086	0.048	0.00091	
Fractured/broken bones in last 5 years ≤ Do not know	0.0048	0.0042	0	0.33	
Gestational diabetes only Not applicable (+ve) vs rest	0.079	0.1	0.054	0.041	
Gestational diabetes only rest (+ve) vs No	0.19	0.26	0.23	0.17	
Medication for cholesterol, blood pressure or diabetes Cholesterol lowering medication (+ve) vs rest	0.12	0.0096	0.0028	0.071	
Medication for cholesterol, blood pressure or diabetes Do not know (+ve) vs rest	0.0048	0.022	0	0.18	
Medication for cholesterol, blood pressure or diabetes rest (+ve) vs None of the above	0.42	0.52	0.51	0.26	
Other serious medical condition/disability diagnosed by doctor Prefer not to answer (+ve) vs rest	0.0012	0.0045	0	0.33	
Other serious medical condition/disability diagnosed by doctor rest (+ve) vs No	0.15	0.00013	0	0.33	
Treatment/medication code < 25th percentile	0.24	0.02	0.012	0.00018	
Vascular/heart problems diagnosed by doctor High blood pressure (+ve) vs rest	0.23	0.11	0.029	1.4e-16	**

## 8. Baseline characteristics

Variable	+ve pct	F1 (Base)	F1 (T1)	pval	sig*
Age when attended assessment centre < 25th percentile	0.24	0.92	0.92	0.0018	*
Townsend deprivation index at recruitment < 50th percentile	0.5	0.52	0.52	4e-05	*
UK Biobank assessment centre > Cheadle (imaging)	0.16	0.25	0.00013	1.3e-24	**



## D. DTI

### 1. Mental health

Variable	+ve pct	F1 (Base)	F1 (DTI)	pval	sig*
Able to confide $\leq$ Once every few months	0.22	0.0023	0.00098	0.0028	
Able to pay rent/mortgage as an adult $\leq$ Rarely true	0.052	0.00046	0	0.33	
Able to pay rent/mortgage as an adult rest (+ve) vs Very often true	0.14	0.00039	0	0.16	
Actions taken following self-harm $\leq$ Use a helpline voluntary organization	0.39	0.4	0.37	0.017	
Actions taken following self-harm Need hospital treatment (eg A E) (+ve) vs rest	E)	0.28	0.32	0.29	0.11
Actions taken following self-harm See anyone from psychiatric or mental health services, including liaison services (+ve) vs rest	0.034	0.02	0	0.33	
Activities undertaken to treat anxiety $>$ Talking therapies, such as psychotherapy, counselling, group therapy or CBT	0.35	0.29	0.28	0.12	
Activities undertaken to treat anxiety Other therapeutic activities such as mindfulness, yoga or art classes (+ve) vs rest	0.35	0.29	0.28	0.24	
Activities undertaken to treat depression $>$ Talking therapies, such as psychotherapy, counselling, group therapy or CBT	0.31	0.15	0.15	0.2	
Activities undertaken to treat depression Other therapeutic activities such as mindfulness, yoga or art classes (+ve) vs rest	0.31	0.16	0.15	0.12	
Age at first episode of depression $<$ 25th percentile	0.25	0.017	0.016	0.59	
Age at last episode of depression $<$ 0	0.1	0.0047	0	0.0013	
Age at last episode of depression $<$ 50th percentile	0.5	0.56	0.56	0.23	
Age when first had unusual or psychotic experience $<$ 50th percentile	0.48	0.51	0.48	0.0013	
Age when first had unusual or psychotic experience $>$ 75th percentile	0.24	0.24	0.23	0.66	
Age when known person last commented about drinking habits $<$ 25th percentile	0.25	0.32	0.27	0.033	
Age when last took cannabis $>$ 75th percentile	0.23	0.14	0.11	5.8e-05	
Amount of alcohol drunk on a typical drinking day $>$ 5 or 6	0.099	0.01	0.0021	0.00037	
Amount of alcohol drunk on a typical drinking day 5 or 6 (+ve) vs rest	0.13	0.00092	0.00047	0.3	
Been in a confiding relationship as an adult $\leq$ Never true	0.099	0.0031	0	0.0021	
Been in a confiding relationship as an adult $\leq$ Rarely true	0.14	0.0011	0	0.01	
Been in a confiding relationship as an adult rest (+ve) vs Very often true	0.49	0.48	0.46	4.4e-06	*
Been involved in combat or exposed to war-zone rest (+ve) vs Never	0.032	0.00083	0	0.33	
Belief that own life is meaningful $>$ Very much	0.13	0.0016	0	0.017	
Belief that own life is meaningful $\leq$ A moderate amount	0.34	0.098	0.045	4e-16	**
Belief that own life is meaningful A little (+ve) vs rest	0.051	0.00056	0	0.33	
Belief that own life is meaningful An extreme amount (+ve) vs rest	0.13	0.0013	0	0.03	
Belittlement by partner or ex-partner as an adult $>$ Rarely true	0.14	0.0027	0.0024	0.54	
Belittlement by partner or ex-partner as an adult Prefer not to answer (+ve) vs rest	0.0024	0.036	0	0.027	
Belittlement by partner or ex-partner as an adult rest (+ve) vs Never true	0.24	0.031	0.013	2.3e-09	**
Bipolar and major depression status $>$ No Bipolar or Depression	0.29	0.18	0.11	7.2e-11	**
Bipolar and major depression status Bipolar II Disorder (+ve) vs rest	0.0042	0.0097	0	0.17	
Bipolar and major depression status Probable Recurrent major depression (severe) (+ve) vs rest	0.068	0.0031	0	0.083	
Bipolar and major depression status Single Probable major depression episode (+ve) vs rest	0.075	0.0061	0.0031	0.25	
Bipolar disorder status rest (+ve) vs Bipolar Type II (Hypomania)	0.49	0.56	0.44	0.0049	
Depression possibly related to childbirth $>$ No	0.074	0.0024	0.0023	0.94	
Depression possibly related to childbirth Yes (+ve) vs rest	0.072	0.0064	0.0019	0.15	
Depression possibly related to stressful or traumatic event $\leq$ No	0.27	0.094	0.073	0.00021	
Depression possibly related to stressful or traumatic event $\leq$ Prefer not to answer	0.003	0.0058	0	0.33	

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Variable	+ve pct	F1 (Base)	F1 (DTI)	pval	sig*
Depression possibly related to stressful or traumatic event rest (+ve) vs Yes	0.27	0.098	0.092	0.099	
Diagnosed with life-threatening illness > Never	0.12	0.0012	0.00024	0.13	
Diagnosed with life-threatening illness rest (+ve) vs Never	0.12	0.0016	0.00023	0.033	
Did your sleep change? ≤ No	0.3	0.11	0.099	0.0078	
Did your sleep change? Do not know (+ve) vs rest	0.14	0.0037	0.0027	0.41	
Did your sleep change? No (+ve) vs rest	0.16	0.011	0.0086	0.25	
Did your sleep change? rest (+ve) vs Yes	0.3	0.11	0.094	3.4e-06	**
Difficulty concentrating during worst depression Do not know (+ve) vs rest	0.11	0.0038	0.0025	0.42	
Difficulty concentrating during worst period of anxiety ≤ No	0.26	0.12	0.1	0.0015	
Difficulty concentrating during worst period of anxiety Do not know (+ve) vs rest	0.043	0.014	0.0064	0.12	
Difficulty stopping worrying during worst period of anxiety ≤ No	0.08	0.0093	0.007	0.48	
Difficulty stopping worrying during worst period of anxiety Do not know (+ve) vs rest	0.027	0.014	0.0036	0.083	
Difficulty stopping worrying during worst period of anxiety rest (+ve) vs Yes	0.077	0.016	0.003	0.0039	
Distress caused by unusual or psychotic experiences > Not distressing, a neutral experience	0.4	0.43	0.42	0.21	
Distress caused by unusual or psychotic experiences > Quite distressing	0.12	0.15	0.12	0.022	
Distress caused by unusual or psychotic experiences ≤ Not distressing at all, it was a positive experience	0.32	0.37	0.29	7.4e-07	**
Distress caused by unusual or psychotic experiences Quite distressing (+ve) vs rest	0.095	0.12	0.085	0.083	
Duration of worst depression > Over three months, but less than six months	0.34	0.11	0.1	0.00035	
Duration of worst depression Over three months, but less than six months (+ve) vs rest	0.19	0.0035	0.0026	0.32	
Easily tired during worst period of anxiety rest (+ve) vs Yes	0.33	0.2	0.18	0.00017	
Ever addicted to a behaviour or miscellaneous rest (+ve) vs No	0.26	0.32	0.27	0.00028	
Ever addicted to alcohol > No	0.37	0.4	0.37	0.024	
Ever addicted to alcohol Yes (+ve) vs rest	0.36	0.38	0.35	0.021	
Ever addicted to illicit or recreational drugs > No	0.074	0.15	0.091	0.0029	
Ever addicted to illicit or recreational drugs Yes (+ve) vs rest	0.074	0.14	0.11	0.075	
Ever addicted to prescription or over-the-counter medication Yes (+ve) vs rest	0.13	0.19	0.17	0.27	
Ever attempted suicide ≤ No	0.47	0.52	0.46	3.6e-05	
Ever attempted suicide No (+ve) vs rest	0.45	0.49	0.41	4.8e-05	
Ever believed in an un-real conspiracy against self ≤ Do not know	0.0024	0.0045	0	0.33	
Ever believed in un-real communications or signs ≤ Do not know	0.0031	0.031	0	0.0077	
Ever contemplated self-harm Prefer not to answer (+ve) vs rest	0.0028	0.027	0	0.0049	
Ever depressed for a whole week No (+ve) vs rest	0.47	0.5	0.48	6.5e-09	**
Ever depressed for a whole week rest (+ve) vs Yes	0.49	0.54	0.52	1.5e-08	**
Ever felt worried, tense, or anxious for most of a month or longer > No	0.25	0.017	0.0061	2.4e-09	**
Ever felt worried, tense, or anxious for most of a month or longer ≤ Do not know	0.06	0.00094	0	0.16	
Ever had known person concerned about, or recommend reduction of, alcohol consumption > No	0.085	0.0026	0	0.0072	
Ever had prolonged feelings of sadness or depression Prefer not to answer (+ve) vs rest	0.0019	0.011	0	0.34	
Ever had prolonged feelings of sadness or depression rest (+ve) vs Yes	0.45	0.49	0.49	0.042	
Ever had prolonged loss of interest in normal activities > No	0.4	0.36	0.33	1.8e-11	**
Ever physically dependent on alcohol > No	0.2	0.27	0.21	0.017	
Ever prescribed a medication for unusual or psychotic experiences Yes (+ve) vs rest	0.099	0.15	0.072	4.1e-05	
Ever prescribed a medication for unusual or psychotic experiences rest (+ve) vs No	0.12	0.14	0.11	0.051	

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Variable	+ve pct	F1 (Base)	F1 (DTI)	pval	sig*
Ever sought or received professional help for mental distress ≤ Do not know	0.0034	0.0048	0	0.33	
Ever sought or received professional help for mental distress Yes (+ve) vs rest	0.39	0.36	0.32	5.3e-12	**
Ever sought or received professional help for mental distress rest (+ve) vs No	0.39	0.37	0.32	1.1e-11	**
Ever suffered mental distress preventing usual activities > No	0.34	0.22	0.19	1.6e-10	**
Ever taken cannabis rest (+ve) vs No	0.21	0.14	0.08	2.4e-12	**
Ever talked to a health professional about unusual or psychotic experiences > No	0.19	0.27	0.2	0.00097	
Ever thought that life not worth living > No	0.3	0.12	0.083	6.2e-12	**
Ever thought that life not worth living > Yes, once	0.17	0.0077	0.0015	2.1e-05	*
Ever thought that life not worth living ≤ Prefer not to answer	0.0056	0.0059	0	0.33	
Ever unenthusiastic/disinterested for a whole week > No	0.32	0.12	0.08	8.3e-13	**
Ever unenthusiastic/disinterested for a whole week Yes (+ve) vs rest	0.32	0.12	0.081	1.9e-14	**
Ever unenthusiastic/disinterested for a whole week rest (+ve) vs No	0.35	0.21	0.14	2.9e-18	**
Ever worried more than most people would in similar situation > No	0.22	0.0085	0.0034	0.00013	
Ever worried more than most people would in similar situation Yes (+ve) vs rest	0.22	0.012	0.0047	3.7e-07	**
Ever worried more than most people would in similar situation rest (+ve) vs No	0.37	0.21	0.17	2e-12	**
Family relationship satisfaction ≤ Extremely happy	0.2	0.0006	0.0001	0.063	
Fed-up feelings > No	0.31	0.077	0.051	3.6e-09	**
Fed-up feelings Yes (+ve) vs rest	0.31	0.079	0.043	5.3e-16	**
Feelings of tiredness during worst episode of depression No (+ve) vs rest	0.16	0.018	0.0083	0.00012	
Feelings of worthlessness during worst period of depression > No	0.49	0.54	0.53	0.015	
Felt distant from other people in past month A little bit (+ve) vs rest	0.29	0.068	0.049	0.00024	
Felt hated by family member as a child > Never true	0.15	0.0016	0	0.00088	
Felt irritable or had angry outbursts in past month > Moderately	0.03	0.0019	0	0.33	
Felt irritable or had angry outbursts in past month A little bit (+ve) vs rest	0.32	0.11	0.088	0.00076	
Felt loved as a child ≤ Often	0.48	0.46	0.45	3.7e-05	
Felt loved as a child ≤ Sometimes true	0.22	0.00087	0.00061	0.44	
Felt loved as a child Often (+ve) vs rest	0.26	0.0068	0.0054	0.16	
Felt very upset when reminded of stressful experience in past month A little bit (+ve) vs rest	0.27	0.011	0.0051	5.4e-05	
Felt very upset when reminded of stressful experience in past month rest (+ve) vs Not at all	0.36	0.21	0.17	1e-09	**
Financial situation satisfaction ≤ Prefer not to answer	0.00091	0.014	0	0.17	
Financial situation satisfaction Prefer not to answer (+ve) vs rest	0.0011	0.021	0	0.091	
Financial situation satisfaction Very unhappy (+ve) vs rest	0.012	0.0045	0	0.17	
Fraction of day affected during worst episode of depression ≤ About half of the day	0.31	0.098	0.077	2.9e-07	**
Fraction of day affected during worst episode of depression About half of the day (+ve) vs rest	0.13	0.00036	0	0.33	
Fraction of day affected during worst episode of depression All day long (+ve) vs rest	0.24	0.03	0.015	1.3e-06	**
Fraction of day affected during worst episode of depression Less than half of the day (+ve) vs rest	0.12	0.0057	0.00079	0.0029	
Frequency of depressed days during worst episode of depression Every day (+ve) vs rest	0.38	0.26	0.22	1.6e-09	**
Frequency of depressed days during worst episode of depression Less often (+ve) vs rest	0.09	0.0082	0.0016	0.0023	
Frequency of depressed mood in last 2 weeks Nearly every day (+ve) vs rest	0.011	0.0016	0	0.33	
Frequency of depressed mood in last 2 weeks Several days (+ve) vs rest	0.15	0.00096	0.0004	0.14	
Frequency of difficulty controlling worry during worst period of anxiety ≤ Do not know	0.012	0.0081	0.0053	0.62	

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Variable	+ve pct	F1 (Base)	F1 (DTI)	pval	sig*
Frequency of difficulty controlling worry during worst period of anxiety Never (+ve) vs rest	0.011	0.035	0.014	0.17	
Frequency of drinking alcohol $\leq$ Monthly or less	0.2	0.019	0.0011	2.2e-09	**
Frequency of drinking alcohol 2 to 3 times a week (+ve) vs rest	0.31	0.022	0.018	0.011	
Frequency of drinking alcohol 2 to 4 times a month (+ve) vs rest	0.19	0.00044	0	0.19	
Frequency of drinking alcohol 4 or more times a week (+ve) vs rest	0.3	0.12	0.061	8.2e-16	**
Frequency of drinking alcohol Monthly or less (+ve) vs rest	0.13	0.0015	0	0.015	
Frequency of failure to fulfil normal expectations due to drinking alcohol in last year $>$ Less than monthly	0.0088	0.015	0	0.092	
Frequency of failure to fulfil normal expectations due to drinking alcohol in last year Less than monthly (+ve) vs rest	0.059	0.0015	0	0.16	
Frequency of feeling guilt or remorse after drinking alcohol in last year $>$ Less than monthly	0.054	0.00088	0	0.33	
Frequency of feeling guilt or remorse after drinking alcohol in last year $>$ Weekly	0.0074	0.0024	0	0.33	
Frequency of feeling guilt or remorse after drinking alcohol in last year Less than monthly (+ve) vs rest	0.14	0.0017	0.001	0.34	
Frequency of feeling guilt or remorse after drinking alcohol in last year rest (+ve) vs Never	0.2	0.017	0.0082	0.00038	
Frequency of friend/family visits $>$ Never or almost never	0.0016	0.0036	0	0.33	
Frequency of friend/family visits (pilot) $>$ About once a month	0.077	0.097	0.042	0.098	
Frequency of friend/family visits (pilot) About once a month (+ve) vs rest	0.091	0.063	0.046	0.44	
Frequency of inability to stop worrying during worst period of anxiety $>$ Sometimes	0.43	0.38	0.35	2.5e-08	**
Frequency of inability to stop worrying during worst period of anxiety $\leq$ Do not know	0.0093	0.036	0	0.0083	
Frequency of inability to stop worrying during worst period of anxiety Do not know (+ve) vs rest	0.008	0.013	0.0065	0.53	
Frequency of inability to stop worrying during worst period of anxiety Often (+ve) vs rest	0.43	0.37	0.35	0.00028	
Frequency of memory loss due to drinking alcohol in last year Monthly (+ve) vs rest	0.017	0.0026	0	0.33	
Frequency of memory loss due to drinking alcohol in last year rest (+ve) vs Never	0.14	0.0072	0.0013	0.001	
Frequency of needing morning drink of alcohol after heavy drinking ses- sion in last year rest (+ve) vs Never	0.0048	0.0083	0	0.16	
Frequency of tenseness / restlessness in last 2 weeks $>$ Not at all	0.2	0.00078	0.00048	0.19	
Frequency of tenseness / restlessness in last 2 weeks rest (+ve) vs Not at all	0.23	0.0011	0.00071	0.33	
Frequency of tiredness / lethargy in last 2 weeks Several days (+ve) vs rest	0.37	0.082	0.056	1.2e-10	**
Frequency of unenthusiasm / disinterest in last 2 weeks rest (+ve) vs Not at all	0.18	0.001	0.00034	0.064	
Frequency of unusual or psychotic experiences in past year Nearly every day or daily (+ve) vs rest	0.013	0.034	0	0.17	
Frequent trouble falling or staying asleep during worst period of anxiety Do not know (+ve) vs rest	0.029	0.018	0.0028	0.038	
Frequent trouble falling or staying asleep during worst period of anxiety rest (+ve) vs Yes	0.2	0.048	0.041	0.048	
Friendships satisfaction $>$ Very happy	0.32	0.11	0.066	2.5e-11	**
Friendships satisfaction rest (+ve) vs Very happy	0.47	0.43	0.41	1.1e-10	**
General happiness $>$ Very happy	0.44	0.39	0.35	4.9e-11	**
General happiness $\leq$ Do not know	0.0036	0.02	0	0.043	
General happiness Moderately happy (+ve) vs rest	0.39	0.19	0.16	3.9e-09	**
General happiness Very happy (+ve) vs rest	0.45	0.37	0.36	0.0061	
General happiness with own health $>$ Moderately happy	0.1	0.0016	0	0.01	
General happiness with own health $>$ Very happy	0.5	0.52	0.49	8.2e-13	**
General happiness with own health Very happy (+ve) vs rest	0.4	0.18	0.12	6.1e-14	**

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Variable	+ve pct	F1 (Base)	F1 (DTI)	pval	sig*
Guilty feelings Yes (+ve) vs rest	0.26	0.011	0.0051	2.6e-05	*
Guilty feelings rest (+ve) vs No	0.29	0.023	0.0098	2.6e-10	**
Happiness > Very happy	0.5	0.53	0.51	9.4e-12	**
Happiness Do not know (+ve) vs rest	0.0024	0.0043	0	0.33	
Happiness Extremely unhappy (+ve) vs rest	0.0019	0.0092	0	0.18	
Happiness Very happy (+ve) vs rest	0.43	0.29	0.25	1.1e-11	**
Health satisfaction ≤ Very happy	0.47	0.46	0.37	6.6e-21	**
Health satisfaction Very happy (+ve) vs rest	0.41	0.2	0.09	1.7e-20	**
Illness, injury, bereavement, stress in last 2 years > Death of a close relative	0.085	0.0012	0.00047	0.25	
Illness, injury, bereavement, stress in last 2 years > Marital separation divorce	0.062	0.0013	0	0.042	
Illness, injury, bereavement, stress in last 2 years > None of the above	0.39	0.22	0.21	0.001	
Illness, injury, bereavement, stress in last 2 years > Serious illness, injury or assault to yourself	0.35	0.14	0.13	7e-07	**
Illness, injury, bereavement, stress in last 2 years (pilot) > Serious illness, injury or assault of a close relative	0.32	0.39	0.31	0.0001	
Illness, injury, bereavement, stress in last 2 years (pilot) Serious illness, injury or assault of a close relative (+ve) vs rest	0.14	0.12	0.082	0.063	
Illness, injury, bereavement, stress in last 2 years rest (+ve) vs None of the above	0.39	0.22	0.2	2.1e-05	*
Impact on normal roles during worst period of anxiety > Somewhat	0.3	0.15	0.086	2.9e-11	**
Impact on normal roles during worst period of anxiety A little (+ve) vs rest	0.27	0.1	0.064	1.2e-08	**
Impact on normal roles during worst period of depression A little (+ve) vs rest	0.27	0.022	0.01	1.1e-05	*
Impact on normal roles during worst period of depression Somewhat (+ve) vs rest	0.34	0.08	0.077	0.29	
Irritability rest (+ve) vs No	0.29	0.0083	0.0046	0.00078	
Keyed up or on edge during worst period of anxiety ≤ No	0.24	0.042	0.035	0.14	
Keyed up or on edge during worst period of anxiety rest (+ve) vs Yes	0.24	0.036	0.025	0.0045	
Leisure/social activities > Adult education class	0.32	0.2	0.19	1.6e-07	**
Leisure/social activities > Pub or social club	0.44	0.52	0.5	6.6e-07	**
Leisure/social activities > Religious group	0.35	0.34	0.31	1.6e-13	**
Leisure/social activities ≤ None of the above	0.24	0.014	0.00074	8.7e-10	**
Leisure/social activities Other group activity (+ve) vs rest	0.32	0.2	0.2	0.21	
Leisure/social activities Pub or social club (+ve) vs rest	0.16	0.0069	0.00073	1.5e-07	**
Leisure/social activities Sports club or gym (+ve) vs rest	0.15	0.00026	0	0.16	
Length of longest manic/irritable episode > At least two days, but less than a week	0.3	0.15	0.15	0.62	
Length of longest manic/irritable episode ≤ Do not know	0.17	0.037	0.026	0.0019	
Length of longest manic/irritable episode Do not know (+ve) vs rest	0.16	0.032	0.026	0.023	
Length of longest manic/irritable episode Less than a week (+ve) vs rest	0.15	0.042	0.023	0.00036	
Loneliness, isolation rest (+ve) vs No	0.15	0.00082	0	0.01	
Longest period of depression < 0	0.18	0.0083	0.0032	0.0041	
Longest period of depression < 25th percentile	0.18	0.0097	0.0056	0.012	
Longest period of unenthusiasm / disinterest < 25th percentile	0.21	0.038	0.023	0.00025	
Longest period of unenthusiasm / disinterest < 50th percentile	0.47	0.44	0.42	2.2e-06	**
Longest period of unenthusiasm / disinterest > 75th percentile	0.24	0.026	0.018	0.0013	
Longest period spent worried or anxious < 0	0.15	0.04	0.022	0.012	
Longest period spent worried or anxious < 25th percentile	0.24	0.091	0.054	3.5e-07	**
Manic/hyper symptoms > I needed less sleep than usual	0.19	0.058	0.031	6.3e-07	**
Manic/hyper symptoms > I was more active than usual	0.43	0.42	0.4	6.5e-05	
Manic/hyper symptoms I was more active than usual (+ve) vs rest	0.13	0.036	0.025	0.016	
Manic/hyper symptoms I was more creative or had more ideas than usual (+ve) vs rest	0.11	0.046	0.032	0.014	
Manic/hyper symptoms I was more talkative than usual (+ve) vs rest	0.14	0.029	0.025	0.26	
Maximum frequency of taking cannabis > Once a month or more, but not every week	0.2	0.075	0.066	0.11	

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Variable	+ve pct	F1 (Base)	F1 (DTI)	pval	sig*
Maximum frequency of taking cannabis rest (+ve) vs Less than once a month	0.36	0.28	0.24	2.5e-07	**
Mental health problems ever diagnosed by a professional > Anorexia nervosa	0.0076	0.015	0.0053	0.26	
Mental health problems ever diagnosed by a professional > Bulimia nervosa	0.49	0.48	0.46	0.00018	
Mental health problems ever diagnosed by a professional > Depression	0.49	0.49	0.47	1.8e-05	*
Mental health problems ever diagnosed by a professional ≤ A personality disorder	0.016	0.038	0	0.0041	
Mental health problems ever diagnosed by a professional ≤ Any other phobia (eg disabling fear of heights or spiders)	0.024	0.018	0.0031	0.033	
Mental health problems ever diagnosed by a professional ≤ Any other type of psychosis or psychotic illness	0.014	0.027	0.013	0.16	
Mental health problems ever diagnosed by a professional ≤ Schizophrenia	0.013	0.012	0	0.042	
Mental health problems ever diagnosed by a professional Agoraphobia (+ve) vs rest	0.0064	0.0048	0	0.33	
Mental health problems ever diagnosed by a professional Anxiety, nerves or generalized anxiety disorder (+ve) vs rest	0.46	0.42	0.41	0.0049	
Methods of self-harm used ≤ Swallowing dangerous objects or products	0.047	0.047	0	0.0067	
Methods of self-harm used Ingesting alcohol or a recreational or illicit drug (+ve) vs rest	0.14	0.15	0.13	0.15	
Methods of self-harm used Something not listed (+ve) vs rest	0.041	0.097	0.034	0.029	
Mood swings > No	0.36	0.17	0.14	2.7e-10	**
Mood swings Yes (+ve) vs rest	0.36	0.17	0.12	2e-13	**
Mood swings rest (+ve) vs No	0.37	0.21	0.18	1.1e-13	**
More irritable than usual during worst period of anxiety ≤ Do not know	0.087	0.015	0.0054	0.0018	
More irritable than usual during worst period of anxiety ≤ No	0.34	0.23	0.2	1.5e-05	*
More irritable than usual during worst period of anxiety Do not know (+ve) vs rest	0.09	0.013	0.0091	0.25	
More irritable than usual during worst period of anxiety No (+ve) vs rest	0.24	0.081	0.075	0.19	
Nervous feelings Yes (+ve) vs rest	0.18	0.00055	0	0.057	
Nervous feelings rest (+ve) vs No	0.2	0.002	0	0.00033	
Neuroticism score > 75th percentile	0.22	0.0062	0.0021	2.2e-05	*
Number of depression episodes > 75th percentile	0.19	0.0038	0.0013	0.0018	
Number of times believed in un-real communications or signs < 0	0.36	0.39	0.27	2.5e-05	*
Number of times believed in un-real communications or signs < 25th percentile	0.23	0.23	0.11	0.0038	
Number of times believed in un-real communications or signs < 50th percentile	0.36	0.33	0.29	0.12	
Number of times seen an un-real vision < 0	0.29	0.33	0.32	0.82	
Number of times seen an un-real vision > 75th percentile	0.23	0.29	0.2	0.00014	
Number of times self-harmed 2 (+ve) vs rest	0.17	0.22	0.16	0.085	
Number of unenthusiastic/disinterested episodes < 0	0.25	0.043	0.021	9.4e-09	**
Number of unenthusiastic/disinterested episodes < 50th percentile	0.25	0.046	0.027	2.8e-08	**
Number of unenthusiastic/disinterested episodes > 75th percentile	0.21	0.014	0.0066	0.0037	
Ongoing addiction or dependence to over-the-counter medication rest (+ve) vs No	0.45	0.52	0.43	0.00034	
Ongoing behavioural or miscellaneous addiction No (+ve) vs rest	0.48	0.5	0.48	0.11	
Physical violence by partner or ex-partner as an adult > Never true	0.13	0.0011	0.00021	0.058	
Physical violence by partner or ex-partner as an adult Prefer not to answer (+ve) vs rest	0.0028	0.0094	0	0.17	
Physical violence by partner or ex-partner as an adult rest (+ve) vs Never true	0.13	0.0015	0	0.029	
Physically abused by family as a child > Never true	0.2	0.0047	0.00027	5.6e-07	**
Physically abused by family as a child > Often	0.0061	0.0042	0	0.33	
Professional informed about anxiety ≤ Do not know	0.0057	0.0053	0	0.33	
Professional informed about anxiety No (+ve) vs rest	0.39	0.31	0.26	1.5e-10	**
Professional informed about anxiety rest (+ve) vs Yes	0.4	0.31	0.29	0.0009	

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Variable	+ve pct	F1 (Base)	F1 (DTI)	pval	sig*
Professional informed about depression ≤ Do not know	0.004	0.034	0	0.023	
Professional informed about depression Do not know (+ve) vs rest	0.0033	0.026	0	0.023	
Professional informed about depression No (+ve) vs rest	0.36	0.23	0.18	8.1e-10	**
Professional informed about depression rest (+ve) vs Yes	0.36	0.24	0.21	3.5e-07	**
Recent changes in speed/amount of moving or speaking > More than half the days	0.003	0.0094	0	0.16	
Recent easy annoyance or irritability > Not at all	0.26	0.025	0.012	4.1e-06	*
Recent easy annoyance or irritability Several days (+ve) vs rest	0.23	0.0087	0.0036	0.00016	
Recent easy annoyance or irritability rest (+ve) vs Not at all	0.27	0.028	0.019	1.7e-05	*
Recent feelings of depression Prefer not to answer (+ve) vs rest	0.0032	0.014	0	0.085	
Recent feelings of depression Several days (+ve) vs rest	0.17	0.00079	0	0.054	
Recent feelings of foreboding > More than half the days	0.016	0.0049	0	0.084	
Recent feelings of foreboding rest (+ve) vs Not at all	0.16	0.003	0.00033	0.0026	
Recent feelings of inadequacy Prefer not to answer (+ve) vs rest	0.0027	0.0078	0	0.33	
Recent feelings of inadequacy rest (+ve) vs Not at all	0.19	0.0053	0.0016	0.00039	
Recent feelings of tiredness or low energy > Not at all	0.48	0.51	0.49	1.9e-09	**
Recent feelings of tiredness or low energy Several days (+ve) vs rest	0.37	0.13	0.12	0.001	
Recent feelings of tiredness or low energy rest (+ve) vs Not at all	0.48	0.51	0.49	1e-11	**
Recent feelings or nervousness or anxiety rest (+ve) vs Not at all	0.27	0.058	0.033	1.1e-08	**
Recent inability to stop or control worrying > Not at all	0.22	0.018	0.0032	2.4e-09	**
Recent lack of interest or pleasure in doing things > Not at all	0.18	0.0036	0.00063	0.00046	
Recent poor appetite or overeating > Several days	0.049	0.0022	0	0.042	
Recent poor appetite or overeating Nearly every day (+ve) vs rest	0.023	0.0026	0.0011	0.43	
Recent poor appetite or overeating Several days (+ve) vs rest	0.13	0.0022	0.00044	0.0077	
Recent poor appetite or overeating rest (+ve) vs Not at all	0.18	0.035	0.013	1.6e-09	**
Recent restlessness > More than half the days	0.0096	0.0056	0	0.17	
Recent restlessness Nearly every day (+ve) vs rest	0.01	0.0051	0.0027	0.51	
Recent trouble concentrating on things > Several days	0.034	0.00074	0	0.33	
Recent trouble relaxing > Several days	0.056	0.002	0	0.1	
Recent trouble relaxing Several days (+ve) vs rest	0.23	0.0049	0.0029	0.021	
Recent worrying too much about different things > Not at all	0.31	0.11	0.089	5.5e-07	**
Recent worrying too much about different things Several days (+ve) vs rest	0.26	0.02	0.0045	1.1e-07	**
Recent worrying too much about different things rest (+ve) vs Not at all	0.31	0.12	0.086	5.2e-10	**
Repeated disturbing thoughts of stressful experience in past month > Not at all	0.26	0.012	0.0079	0.012	
Repeated disturbing thoughts of stressful experience in past month rest (+ve) vs Not at all	0.26	0.01	0.005	0.00013	
Restless during period of worst anxiety ≤ Do not know	0.073	0.01	0.0011	0.0091	
Restless during period of worst anxiety No (+ve) vs rest	0.35	0.18	0.16	0.0012	
Risk taking Do not know (+ve) vs rest	0.033	0.00063	0	0.33	
Risk taking Yes (+ve) vs rest	0.25	0.034	0.0053	3.7e-13	**
Risk taking rest (+ve) vs No	0.28	0.065	0.021	1.3e-13	**
Seen doctor (GP) for nerves, anxiety, tension or depression > No	0.32	0.14	0.1	2.1e-11	**
Seen doctor (GP) for nerves, anxiety, tension or depression Yes (+ve) vs rest	0.32	0.14	0.081	1.6e-12	**
Self-harmed in past year > No	0.075	0.11	0.1	0.58	
Self-harmed in past year Yes (+ve) vs rest	0.073	0.11	0.087	0.17	
Sensitivity / hurt feelings > No	0.46	0.51	0.5	0.35	
Sensitivity / hurt feelings Yes (+ve) vs rest	0.47	0.51	0.51	0.26	
Severity of manic/irritable episodes Prefer not to answer (+ve) vs rest	0.0084	0.012	0	0.17	
Severity of manic/irritable episodes rest (+ve) vs No problems	0.32	0.16	0.14	0.00035	
Sexual interference by partner or ex-partner without consent as an adult > Never true	0.056	0.0044	0	0.008	
Sexual interference by partner or ex-partner without consent as an adult > Often	0.0032	0.0078	0	0.16	
Sexual interference by partner or ex-partner without consent as an adult > Rarely true	0.025	0.002	0	0.16	

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Variable	+ve pct	F1 (Base)	F1 (DTI)	pval	sig*
Sexual interference by partner or ex-partner without consent as an adult ≤ Prefer not to answer	0.0027	0.022	0	0.061	
Sexual interference by partner or ex-partner without consent as an adult Prefer not to answer (+ve) vs rest	0.003	0.027	0	0.021	
Sexual interference by partner or ex-partner without consent as an adult Sometimes true (+ve) vs rest	0.018	0.0047	0	0.083	
Sexual interference by partner or ex-partner without consent as an adult Very often true (+ve) vs rest	0.0034	0.029	0.0044	0.051	
Sexual interference by partner or ex-partner without consent as an adult rest (+ve) vs Never true	0.059	0.0033	0.00044	0.028	
Sexually molested as a child > Never true	0.089	0.00061	0	0.16	
Sleeping too much > No	0.21	0.044	0.025	6.5e-06	*
Someone to take to doctor when needed as a child ≤ Often	0.15	0.0046	0.0018	0.0041	
Someone to take to doctor when needed as a child Often (+ve) vs rest	0.097	0.00091	0	0.19	
Stronger worrying (than other people) during period of worst anxiety ≤ No	0.42	0.38	0.37	0.061	
Stronger worrying (than other people) during period of worst anxiety No (+ve) vs rest	0.12	0.029	0.013	0.0001	
Stronger worrying (than other people) during period of worst anxiety rest (+ve) vs Yes	0.42	0.37	0.37	0.2	
Substance of prescription or over-the-counter medication addiction A painkiller (+ve) vs rest	0.45	0.7	0.59	8.5e-07	**
Suffer from 'nerves' rest (+ve) vs No	0.18	0.00055	0.00011	0.057	
Tense / 'highly strung' rest (+ve) vs No	0.15	0.00014	0	0.33	
Tense, sore, or aching muscles during worst period of anxiety > No	0.35	0.27	0.25	4.1e-05	
Tense, sore, or aching muscles during worst period of anxiety Yes (+ve) vs rest	0.35	0.27	0.23	1.8e-07	**
Tense, sore, or aching muscles during worst period of anxiety rest (+ve) vs No	0.43	0.44	0.41	4.9e-07	**
Thoughts of death during worst depression ≤ Prefer not to answer	0.0045	0.0093	0	0.16	
Trouble falling or staying asleep, or sleeping too much > More than half the days	0.076	0.00037	0	0.33	
Trouble falling or staying asleep, or sleeping too much > Several days	0.15	0.00039	0	0.16	
Trouble falling or staying asleep, or sleeping too much Nearly every day (+ve) vs rest	0.075	0.00039	0	0.33	
Victim of physically violent crime > Yes, but not in the last 12 months	0.0051	0.0045	0	0.33	
Victim of physically violent crime Yes, but not in the last 12 months (+ve) vs rest	0.18	0.012	0.0064	0.00014	
Victim of sexual assault > Never	0.15	0.006	0.00053	5.8e-06	*
Victim of sexual assault Yes, but not in the last 12 months (+ve) vs rest	0.15	0.0036	0.00056	0.0024	
Victim of sexual assault rest (+ve) vs Never	0.17	0.0063	0.0013	1.2e-05	*
Waking too early ≤ No	0.25	0.05	0.036	0.00016	
Weight change during worst episode of depression > Gained weight	0.36	0.23	0.2	5.1e-05	
Weight change during worst episode of depression > Lost weight	0.049	0.00095	0	0.33	
Weight change during worst episode of depression ≤ Stayed about the same or was on a diet	0.5	0.57	0.56	0.0048	
Weight change during worst episode of depression Gained weight (+ve) vs rest	0.14	0.016	0.0026	6e-07	**
Weight change during worst episode of depression Stayed about the same or was on a diet (+ve) vs rest	0.35	0.28	0.26	2.2e-08	**
Witnessed sudden violent death > Yes, but not in the last 12 months	0.0052	0.0076	0	0.17	
Witnessed sudden violent death Yes, but not in the last 12 months (+ve) vs rest	0.13	0.0019	0.0002	0.017	
Witnessed sudden violent death rest (+ve) vs Never	0.14	0.0024	0.0002	0.0021	
Work/job satisfaction > Extremely unhappy	0.41	0.61	0.6	0.0022	
Work/job satisfaction > Moderately happy	0.46	0.61	0.61	0.13	
Work/job satisfaction ≤ Prefer not to answer	0.001	0.0053	0	0.33	
Work/job satisfaction ≤ Very happy	0.3	0.035	0.021	3.6e-07	**
Work/job satisfaction Do not know (+ve) vs rest	0.0021	0.0056	0	0.33	

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Variable	+ve pct	F1 (Base)	F1 (DTI)	pval	sig*
Work/job satisfaction I am not employed (+ve) vs rest	0.41	0.61	0.6	0.0012	
Work/job satisfaction Moderately happy (+ve) vs rest	0.24	0.14	0.13	0.0024	
Worrier / anxious feelings Yes (+ve) vs rest	0.49	0.57	0.57	0.011	
Worry too long after embarrassment $\leq$ Do not know	0.041	0.00049	0	0.33	
Worry too long after embarrassment Yes (+ve) vs rest	0.47	0.48	0.46	3e-07	**

## 2. Cognitive function

Variable	+ve pct	F1 (Base)	F1 (DTI)	pval	sig*
Attempted fluid intelligence (FI) test. I am unable to try this (+ve) vs rest	0.0087	0.0045	0	0.16	
Attempted fluid intelligence (FI) test. rest (+ve) vs Begin puzzles	0.0083	0.0019	0	0.33	
Completion status of numeric memory test > complete	0.0057	0.0042	0	0.33	
Completion status of numeric memory test > stopped	0.0064	0.0078	0	0.17	
Duration screen displayed < 25th percentile	0.27	0.076	0.033	1.1e-16	**
Duration spent answering each puzzle < 25th percentile	0.25	0.038	0.015	9.3e-07	**
Duration spent answering each puzzle > 75th percentile	0.25	0.012	0.0077	0.018	
Duration to complete alphanumeric path (trail 2) < 50th percentile	0.49	0.63	0.61	8.5e-07	**
Duration to complete numeric path (trail 1) < 25th percentile	0.25	0.21	0.18	4.2e-08	**
Duration to complete numeric path (trail 1) > 75th percentile	0.23	0.19	0.13	3.4e-10	**
Duration to entering value < 25th percentile	0.25	0.068	0.06	0.041	
Duration to entering value > 75th percentile	0.24	0.069	0.04	3.6e-11	**
Duration to first press of snap-button in each round (pilot) < 25th percentile	0.23	0.27	0.23	0.062	
Duration to first press of snap-button in each round (pilot) < 50th percentile	0.5	0.55	0.46	1.6e-06	**
Errors before selecting correct item in alphanumeric path (trail 2) > 75th percentile	0.18	0.049	0.03	0.0031	
FI1 : numeric addition test > 16	0.0033	0.0087	0	0.17	
FI1 : numeric addition test 17 (+ve) vs rest	0.0033	0.0056	0	0.33	
FI10 : arithmetic sequence recognition > 94	0.085	0.1	0.059	5.6e-05	
FI10 : arithmetic sequence recognition > 95	0.12	0.095	0.053	0.00088	
FI10 : arithmetic sequence recognition > 95	0.04	0.0088	0	0.031	
FI10 : arithmetic sequence recognition $\leq$ 92	0.12	0.034	0.015	1.5e-05	*
FI10 : arithmetic sequence recognition $\leq$ 93	0.18	0.071	0.025	4.8e-09	**
FI10 : arithmetic sequence recognition $\leq$ 96	0.031	0.045	0	0.001	
FI10 : arithmetic sequence recognition $\leq$ Do not know	0.091	0.023	0.0091	0.00091	
FI10 : arithmetic sequence recognition 92 (+ve) vs rest	0.031	0.09	0.056	0.049	
FI10 : arithmetic sequence recognition 93 (+ve) vs rest	0.053	0.069	0.036	0.0062	
FI10 : arithmetic sequence recognition 94 (+ve) vs rest	0.04	0.056	0.043	0.21	
FI10 : arithmetic sequence recognition 96 (+ve) vs rest	0.04	0.0046	0.0016	0.25	
FI10 : arithmetic sequence recognition 96 (+ve) vs rest	0.033	0.05	0.0066	0.036	
FI10 : arithmetic sequence recognition rest (+ve) vs 95	0.26	0.19	0.079	7.9e-14	**
FI11 : antonym $\leq$ Worried	0.28	0.18	0.12	1.2e-10	**
FI11 : antonym $\leq$ worried	0.28	0.27	0.24	0.0053	
FI11 : antonym Calm (+ve) vs rest	0.021	0.022	0.0033	0.015	
FI11 : antonym rest (+ve) vs Tense	0.28	0.19	0.14	4.9e-06	*
FI12 : square sequence recognition > 46	0.44	0.46	0.43	0.01	
FI12 : square sequence recognition > 47	0.3	0.19	0.14	3.4e-06	**
FI12 : square sequence recognition $\leq$ Prefer not to answer	0.025	0.028	0.021	0.54	
FI12 : square sequence recognition 45 (+ve) vs rest	0.24	0.21	0.17	1.1e-05	*
FI12 : square sequence recognition 46 (+ve) vs rest	0.029	0.023	0.0085	0.099	
FI12 : square sequence recognition 48 (+ve) vs rest	0.071	0.034	0.019	0.086	
FI12 : square sequence recognition Prefer not to answer (+ve) vs rest	0.023	0.045	0.016	0.026	
FI13 : subset inclusion logic > True	0.18	0.15	0.12	0.015	
FI13 : subset inclusion logic $\leq$ Do not know	0.25	0.27	0.24	0.026	
FI13 : subset inclusion logic False (+ve) vs rest	0.24	0.29	0.21	1.7e-06	**

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Variable	+ve pct	F1 (Base)	F1 (DTI)	pval	sig*
FI14 : alphanumeric substitution 49 (+ve) vs rest	0.15	0.065	0	0.085	
FI2 : identify largest number 714 (+ve) vs rest	0.0081	0.0077	0	0.16	
FI2 : identify largest number rest (+ve) vs 987	0.0086	0.017	0	0.022	
FI3 : word interpolation ≤ Grow	0.069	0.00063	0	0.16	
FI3 : word interpolation ≤ improve	0.14	0.0031	0	0.00086	
FI3 : word interpolation Old (+ve) vs rest	0.0011	0.014	0	0.16	
FI3 : word interpolation rest (+ve) vs Adult	0.1	0.0013	0	0.01	
FI4 : positional arithmetic ≤ Do not know	0.065	0.0016	0	0.021	
FI4 : positional arithmetic 8 (+ve) vs rest	0.013	0.0031	0	0.17	
FI4 : positional arithmetic Do not know (+ve) vs rest	0.056	0.00036	0	0.33	
FI4 : positional arithmetic rest (+ve) vs 6	0.12	0.0014	0	0.0069	
FI5 : family relationship calculation ≤ Aunt	0.28	0.0032	0.0011	0.00051	
FI5 : family relationship calculation ≤ Do not know	0.18	0.00059	0.00012	0.059	
FI5 : family relationship calculation ≤ aunt	0.091	0.0004	0	0.33	
FI5 : family relationship calculation Cousin (+ve) vs rest	0.48	0.48	0.46	7.3e-14	**
FI6 : conditional arithmetic > 69	0.2	0.00023	0	0.16	
FI6 : conditional arithmetic 70 (+ve) vs rest	0.19	0.00036	0.00012	0.24	
FI6 : conditional arithmetic 72 (+ve) vs rest	0.011	0.0065	0.0029	0.46	
FI6 : conditional arithmetic Do not know (+ve) vs rest	0.076	0.00033	0	0.33	
FI6 : conditional arithmetic rest (+ve) vs 69	0.28	0.057	0.0072	1.5e-14	**
FI7 : synonym > Break	0.0096	0.0022	0	0.33	
FI7 : synonym ≤ pause	0.044	0.0021	0	0.16	
FI7 : synonym close (+ve) vs rest	0.009	0.0063	0	0.16	
FI8 : chained arithmetic > 26	0.12	0.0018	0.00042	0.21	
FI8 : chained arithmetic ≤ 25	0.25	0.037	0.004	4.1e-13	**
FI8 : chained arithmetic ≤ Do not know	0.15	0.0016	0.00052	0.09	
FI8 : chained arithmetic ≤ Prefer not to answer	0.013	0.0087	0	0.044	
FI8 : chained arithmetic 29 (+ve) vs rest	0.038	0.0035	0	0.083	
FI8 : chained arithmetic rest (+ve) vs 26	0.36	0.22	0.12	2.9e-19	**
FI9 : concept interpolation > Metres	0.36	0.26	0.14	4.5e-17	**
FI9 : concept interpolation > metres	0.32	0.28	0.15	1.5e-17	**
FI9 : concept interpolation ≤ Deep	0.032	0.0013	0	0.33	
FI9 : concept interpolation ≤ Do not know	0.007	0.049	0.0063	0.0043	
FI9 : concept interpolation ≤ Long	0.03	0.0014	0	0.33	
FI9 : concept interpolation ≤ top	0.021	0.035	0.01	0.046	
FI9 : concept interpolation Do not know (+ve) vs rest	0.0057	0.016	0.0047	0.22	
FI9 : concept interpolation Long (+ve) vs rest	0.021	0.0058	0.0016	0.2	
FI9 : concept interpolation rest (+ve) vs Metres	0.39	0.37	0.22	1.5e-20	**
FI9 : concept interpolation rest (+ve) vs metres	0.34	0.31	0.21	8.7e-15	**
FI9 : concept interpolation tall (+ve) vs rest	0.31	0.3	0.18	2.3e-14	**
First code array presented < 50th percentile	0.49	0.45	0.44	0.00074	
Fluid intelligence completion status > Abandoned	0.089	0.0013	0	0.083	
Fluid intelligence completion status Completed with pause (+ve) vs rest	0.089	0.00045	0	0.33	
Fluid intelligence score < 25th percentile	0.14	0.0045	0	0.0001	
Fluid intelligence score < 25th percentile	0.15	0.0062	0	0.00071	
Fluid intelligence score < 50th percentile	0.45	0.49	0.39	1.2e-21	**
Interval between previous point and current one in alphanumeric path (trail 2) < 25th percentile	0.25	0.093	0.075	3.7e-05	
Interval between previous point and current one in alphanumeric path (trail 2) < 25th percentile	0.21	0.038	0.032	0.029	
Interval between previous point and current one in alphanumeric path (trail 2) < 50th percentile	0.5	0.57	0.57	0.064	
Interval between previous point and current one in alphanumeric path (trail 2) > 75th percentile	0.24	0.12	0.081	4.1e-11	**
Interval between previous point and current one in alphanumeric path (trail 2) > 75th percentile	0.24	0.079	0.044	3.3e-10	**
Interval between previous point and current one in numeric path (trail 1) < 25th percentile	0.25	0.12	0.11	7.1e-05	

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Variable	+ve pct	F1 (Base)	F1 (DTI)	pval	sig*
Interval between previous point and current one in numeric path (trail 1) < 50th percentile	0.5	0.55	0.55	0.00021	
Interval between previous point and current one in numeric path (trail 1) > 75th percentile	0.21	0.059	0.045	0.00017	
Item selected for each puzzle $\leq 2$	0.3	0.066	0.024	4.7e-12	**
Item selected for each puzzle $\leq 4$	0.44	0.35	0.33	1.2e-05	*
Item selected for each puzzle 1 (+ve) vs rest	0.062	0.0031	0	0.043	
Item selected for each puzzle 5 (+ve) vs rest	0.13	0.0035	0.0019	0.14	
Maximum digits remembered correctly < 25th percentile	0.13	0.01	0.0039	0.0064	
Maximum digits remembered correctly < 50th percentile	0.4	0.36	0.27	9.9e-20	**
Maximum digits remembered correctly < 50th percentile	0.34	0.19	0.099	5.3e-17	**
Maximum digits remembered correctly > 75th percentile	0.12	0.0045	0.0013	0.0026	
Maximum digits remembered correctly > 75th percentile	0.076	0.0064	0.00053	0.018	
Mean time to correctly identify matches < 25th percentile	0.25	0.14	0.1	1.1e-11	**
Mean time to correctly identify matches > 75th percentile	0.23	0.041	0.028	4e-08	**
Number entered by participant > 75th percentile	0.25	0.089	0.024	1.7e-14	**
Number of attempts > 75th percentile	0.13	0.0014	0.00017	0.0085	
Number of correct matches in round < 50th percentile	0.02	0.0047	0	0.083	
Number of correct matches in round < 50th percentile	0.36	0.15	0.057	1.6e-20	**
Number of fluid intelligence questions attempted within time limit < 25th percentile	0.19	0.0048	0.00011	4.2e-07	**
Number of fluid intelligence questions attempted within time limit < 50th percentile	0.24	0.023	0.00036	4.5e-12	**
Number of incorrect matches in round < 50th percentile	0.44	0.31	0.25	2.7e-17	**
Number of incorrect matches in round > 75th percentile	0.22	0.016	0.0043	6.5e-07	**
Number of puzzles attempted > 75th percentile	0.24	0.044	0.025	6.7e-06	*
Number of puzzles correct < 25th percentile	0.19	0.05	0.02	5e-07	**
Number of puzzles correct < 50th percentile	0.4	0.41	0.36	6.2e-11	**
Number of puzzles correct < 50th percentile	0.47	0.53	0.51	8.4e-09	**
Number of puzzles correct > 75th percentile	0.23	0.1	0.041	1.9e-13	**
Number of puzzles correctly solved < 25th percentile	0.22	0.13	0.031	2.3e-19	**
Number of puzzles correctly solved < 50th percentile	0.37	0.38	0.28	2.3e-17	**
Number of puzzles correctly solved > 75th percentile	0.25	0.15	0.071	2.5e-14	**
Number of puzzles viewed < 25th percentile	0.2	0.041	0.019	4.5e-08	**
Number of puzzles viewed < 50th percentile	0.33	0.21	0.16	5.7e-11	**
Number of rounds of numeric memory test performed > 75th percentile	0.21	0.034	0.0048	4.4e-13	**
Number of rows displayed in round > 75th percentile	0.15	0.0015	0.00078	0.18	
Number of symbol digit matches attempted < 25th percentile	0.14	0.15	0.092	1.1e-09	**
Number of symbol digit matches attempted < 50th percentile	0.44	0.6	0.58	1.4e-06	**
Number of symbol digit matches attempted > 75th percentile	0.18	0.21	0.16	1.9e-08	**
Number of symbol digit matches made correctly < 25th percentile	0.22	0.21	0.17	2.5e-09	**
Number of symbol digit matches made correctly < 25th percentile	0.21	0.2	0.16	1.1e-08	**
Number of symbol digit matches made correctly < 50th percentile	0.49	0.64	0.64	0.017	
Number of symbol digit matches made correctly > 75th percentile	0.23	0.21	0.19	0.00012	
Number of symbol digit matches made correctly > 75th percentile	0.17	0.17	0.13	1.9e-09	**
Number of times snap-button pressed < 50th percentile	0.0047	0.0037	0	0.33	
Number of words beginning with 'S' (pilot) < 25th percentile	0.2	0.25	0.19	0.0085	
PM: initial answer $\leq$ Blue square	0.13	0.0028	0.00016	0.00026	
PM: initial answer $\leq$ Grey cross	0.13	0.0028	0	0.0005	
PM: initial answer $\leq$ Pink star	0.13	0.0029	0	0.00037	
PM: initial answer Blue square (+ve) vs rest	0.13	0.0029	0	6.5e-05	
PM: initial answer rest (+ve) vs Orange circle	0.13	0.0022	0	0.0029	
Pairs matching completion status Abandoned (+ve) vs rest	0.019	0.0036	0	0.16	
Prospective memory result > Correct recall on first attempt	0.097	0.00043	0	0.16	
Prospective memory result rest (+ve) vs Correct recall on first attempt	0.13	0.0044	0	8.8e-06	*
Round of numeric memory test < 50th percentile	0.31	0.14	0.039	8.3e-17	**
Round of numeric memory test > 75th percentile	0.21	0.03	0.0057	2.2e-09	**
Target number to be memorised > 75th percentile	0.25	0.092	0.031	4.6e-13	**
Test array presented < 25th percentile	0.24	0.0095	0.0046	0.00063	

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Variable	+ve pct	F1 (Base)	F1 (DTI)	pval	sig*
Time last key touched < 25th percentile	0.26	0.038	0.02	1.1e-06	**
Time last key touched > 75th percentile	0.24	0.032	0.013	1.1e-09	**
Time number displayed for < 50th percentile	0.43	0.44	0.36	3.8e-15	**
Time taken to complete lights test (pilot) > 75th percentile	0.24	0.3	0.23	0.004	
Time to answer < 25th percentile	0.3	0.11	0.0025	9.9e-19	**
Time to answer < 50th percentile	0.4	0.73	0.73	0.03	
Time to answer > 75th percentile	0.19	0.041	0	6.4e-16	**
Time to complete round < 50th percentile	0.47	0.6	0.6	0.16	
Time to complete round < 50th percentile	0.5	0.58	0.57	0.00031	
Time to complete round (pilot) < 25th percentile	0.23	0.33	0.28	0.011	
Time to complete round (pilot) < 50th percentile	0.48	0.52	0.49	0.07	
Value entered $\leq$ 3 moves	0.4	0.31	0.3	0.00083	
Values entered < 25th percentile	0.25	0.011	0.0064	0.0044	
Values entered > 75th percentile	0.13	0.0015	0	0.042	
Values wanted > 75th percentile	0.13	0.0046	0.00075	0.0067	
Words answer array (pilot) > 75th percentile	0.23	0.3	0.22	0.0021	

### 3. Physical measures

Variable	+ve pct	F1 (Base)	F1 (DTI)	pval	sig*
Able to walk or cycle unaided for 10 minutes $\leq$ No	0.014	0.0054	0.0024	0.44	
Able to walk or cycle unaided for 10 minutes rest (+ve) vs Yes	0.024	0.015	0	0.014	
Absence of notch position in the pulse waveform > False	0.27	0.18	0.16	1.2e-07	**
Acceptability of each blow result < 50th percentile	0.42	0.29	0.24	1.9e-13	**
Acceptability of each blow result > 75th percentile	0.23	0.0008	0.00035	0.12	
Arm fat mass (left) < 50th percentile	0.47	0.56	0.5	4.7e-18	**
Arm fat mass (left) > 75th percentile	0.24	0.19	0.01	1e-23	**
Arm fat mass (right) > 75th percentile	0.2	0.14	0.002	2.1e-21	**
Arm fat percentage (left) < 25th percentile	0.25	0.5	0.41	1.2e-17	**
Arm fat percentage (left) > 75th percentile	0.25	0.5	0.36	1.5e-22	**
Arm fat percentage (right) < 25th percentile	0.24	0.48	0.37	1.9e-20	**
Arm fat percentage (right) > 75th percentile	0.25	0.51	0.37	8.2e-21	**
Arm fat-free mass (left) > 75th percentile	0.22	0.5	0.43	8.2e-09	**
Arm fat-free mass (right) < 25th percentile	0.22	0.36	0.19	2e-21	**
Arm predicted mass (left) > 75th percentile	0.21	0.47	0.41	1.1e-06	**
Basal metabolic rate > 75th percentile	0.24	0.58	0.55	1e-09	**
Bicycle speed > 75th percentile	0.24	0.042	0.029	0.00031	
Body fat percentage > 75th percentile	0.25	0.52	0.41	1.6e-20	**
Body mass index (BMI) < 25th percentile	0.24	0.16	0.013	3.4e-26	**
Body mass index (BMI) < 50th percentile	0.5	0.61	0.57	2.2e-14	**
Body mass index (BMI) < 50th percentile	0.5	0.61	0.56	1.7e-17	**
Body mass index (BMI) > 75th percentile	0.25	0.15	0.00074	1.5e-23	**
Caffeine drink within last hour rest (+ve) vs No	0.18	0.00033	0	0.083	
Completion status of test > Fully completed	0.058	0.0053	0.0029	0.21	
Completion status of test Participant wanted to stop early (+ve) vs rest	0.0067	0.036	0	0.42	
Completion status of test rest (+ve) vs Fully completed	0.057	0.0047	0.00083	0.053	
Diastolic blood pressure, automated reading < 50th percentile	0.5	0.59	0.59	0.016	
Diastolic blood pressure, manual reading < 25th percentile	0.24	0.21	0.11	2.3e-13	**
Diastolic blood pressure, manual reading < 50th percentile	0.48	0.56	0.54	2e-06	**
Forced expiratory volume in 1-second (FEV1) < 25th percentile	0.25	0.44	0.43	0.0019	
Forced expiratory volume in 1-second (FEV1) > 75th percentile	0.25	0.61	0.6	0.0016	
Forced expiratory volume in 1-second (FEV1), Best measure < 25th percentile	0.25	0.55	0.55	0.29	
Forced expiratory volume in 1-second (FEV1), predicted > 75th percentile	0.25	0.79	0.77	0.0016	
Forced expiratory volume in 1-second (FEV1), predicted percentage < 25th percentile	0.25	0.055	0.039	0.00022	

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Variable	+ve pct	F1 (Base)	F1 (DTI)	pval	sig*
Forced vital capacity (FVC) < 25th percentile	0.25	0.48	0.47	1e-05	*
Forced vital capacity (FVC) (pilot) > 75th percentile	0.24	0.4	0.28	1.9e-05	*
Height > 75th percentile	0.23	0.48	0.47	9.9e-05	
Hip circumference < 50th percentile	0.45	0.47	0.31	1.7e-27	**
Hip circumference > 75th percentile	0.23	0.087	0	5.5e-21	**
Impedance of arm (left) < 25th percentile	0.24	0.52	0.49	2.8e-09	**
Impedance of leg (right) < 25th percentile	0.23	0.26	0.1	2.3e-24	**
Impedance of whole body > 75th percentile	0.25	0.45	0.36	2.4e-19	**
Leg fat mass (left) < 25th percentile	0.23	0.5	0.36	8.4e-24	**
Leg fat mass (left) > 75th percentile	0.25	0.44	0.22	3.5e-27	**
Leg fat mass (right) < 25th percentile	0.24	0.54	0.43	4.7e-23	**
Leg fat mass (right) > 75th percentile	0.25	0.41	0.17	1.9e-26	**
Leg fat percentage (left) < 25th percentile	0.25	0.62	0.57	2e-06	**
Leg fat percentage (left) > 75th percentile	0.25	0.57	0.5	6.9e-08	**
Leg fat percentage (right) < 25th percentile	0.24	0.61	0.56	6e-07	**
Leg fat-free mass (left) > 75th percentile	0.24	0.59	0.56	3.2e-10	**
Leg fat-free mass (right) > 75th percentile	0.23	0.58	0.55	2.2e-11	**
Leg predicted mass (left) < 25th percentile	0.24	0.52	0.47	2.8e-06	**
Leg predicted mass (left) > 75th percentile	0.23	0.58	0.55	2.7e-11	**
Leg predicted mass (right) < 25th percentile	0.25	0.54	0.49	0.014	
Maximum carotid IMT (intima-medial thickness) at 120 degrees < 25th percentile	0.2	0.085	0.069	2.9e-07	**
Maximum carotid IMT (intima-medial thickness) at 120 degrees > 75th percentile	0.21	0.11	0.083	1.9e-08	**
Maximum carotid IMT (intima-medial thickness) at 150 degrees < 50th percentile	0.49	0.63	0.62	3.1e-05	*
Maximum carotid IMT (intima-medial thickness) at 150 degrees > 75th percentile	0.2	0.074	0.058	0.0002	
Maximum carotid IMT (intima-medial thickness) at 210 degrees < 25th percentile	0.2	0.072	0.067	0.14	
Maximum carotid IMT (intima-medial thickness) at 210 degrees < 50th percentile	0.48	0.6	0.59	6e-05	
Maximum carotid IMT (intima-medial thickness) at 210 degrees > 75th percentile	0.23	0.14	0.12	6.5e-08	**
Maximum carotid IMT (intima-medial thickness) at 240 degrees < 25th percentile	0.2	0.075	0.069	0.044	
Maximum carotid IMT (intima-medial thickness) at 240 degrees > 75th percentile	0.23	0.15	0.14	2.4e-06	**
Mean carotid IMT (intima-medial thickness) at 120 degrees < 50th percentile	0.49	0.65	0.64	2.3e-05	*
Mean carotid IMT (intima-medial thickness) at 150 degrees < 25th percentile	0.25	0.25	0.23	1.4e-07	**
Mean carotid IMT (intima-medial thickness) at 150 degrees < 50th percentile	0.49	0.64	0.64	0.021	
Mean carotid IMT (intima-medial thickness) at 210 degrees < 25th percentile	0.26	0.22	0.21	0.087	
Mean carotid IMT (intima-medial thickness) at 210 degrees > 75th percentile	0.24	0.2	0.18	1.8e-06	**
Mean carotid IMT (intima-medial thickness) at 240 degrees < 50th percentile	0.5	0.64	0.63	0.006	
Minimum carotid IMT (intima-medial thickness) at 120 degrees < 25th percentile	0.23	0.088	0.062	9.4e-09	**
Minimum carotid IMT (intima-medial thickness) at 120 degrees > 75th percentile	0.19	0.075	0.061	2.4e-05	*
Minimum carotid IMT (intima-medial thickness) at 150 degrees < 50th percentile	0.39	0.46	0.45	0.01	
Minimum carotid IMT (intima-medial thickness) at 150 degrees > 75th percentile	0.18	0.06	0.054	0.013	

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Variable	+ve pct	F1 (Base)	F1 (DTI)	pval	sig*
Minimum carotid IMT (intima-medial thickness) at 210 degrees < 50th percentile	0.5	0.61	0.61	0.067	
Minimum carotid IMT (intima-medial thickness) at 210 degrees > 75th percentile	0.22	0.13	0.12	0.0072	
Minimum carotid IMT (intima-medial thickness) at 240 degrees < 50th percentile	0.5	0.61	0.61	0.00071	
Number of measurements made < 50th percentile	0.26	0.0022	0.001	0.026	
Ordering of blows > earliest	0.34	0.017	0.013	0.014	
Ordering of blows rest (+ve) vs earliest	0.34	0.02	0.019	0.12	
Position of pulse wave notch < 25th percentile	0.22	0.014	0.0035	2.4e-08	**
Position of pulse wave notch > 75th percentile	0.21	0.0018	0.00071	0.016	
Position of the pulse wave peak < 25th percentile	0.22	0.062	0.046	2.3e-10	**
Position of the pulse wave peak < 50th percentile	0.38	0.43	0.4	4.6e-10	**
Position of the pulse wave peak > 75th percentile	0.17	0.016	0.0039	4.8e-07	**
Position of the shoulder on the pulse waveform < 25th percentile	0.2	0.012	0.0024	9.4e-08	**
Position of the shoulder on the pulse waveform < 50th percentile	0.46	0.53	0.52	0.00011	
Position of the shoulder on the pulse waveform > 75th percentile	0.22	0.06	0.047	3.5e-06	*
Pulse rate < 25th percentile	0.22	0.039	0.0013	3.4e-14	**
Pulse rate < 50th percentile	0.45	0.47	0.46	2.3e-06	**
Pulse rate > 75th percentile	0.25	0.041	0.0013	2.6e-16	**
Pulse rate (during blood-pressure measurement) < 50th percentile	0.48	0.52	0.48	3.5e-11	**
Pulse rate, automated reading < 25th percentile	0.21	0.021	0.00049	1.2e-13	**
Pulse rate, automated reading < 50th percentile	0.44	0.45	0.43	2.3e-12	**
Pulse wave peak to peak time < 25th percentile	0.24	0.0056	0.0021	2.4e-05	*
Pulse wave reflection index < 25th percentile	0.23	0.012	0.0028	8.1e-08	**
Pulse wave reflection index > 75th percentile	0.25	0.035	0.017	3.3e-11	**
Quality control indicator for IMT at 120 degrees rest (+ve) vs Pass	0.075	0.087	0.068	0.087	
Quality control indicator for IMT at 150 degrees > Pass	0.098	0.055	0.047	0.33	
Quality control indicator for IMT at 150 degrees Fail (+ve) vs rest	0.098	0.047	0.029	0.044	
Quality control indicator for IMT at 240 degrees Fail (+ve) vs rest	0.091	0.062	0.057	0.61	
Quality control indicator for IMT at 240 degrees rest (+ve) vs Pass	0.092	0.088	0.042	4.7e-06	*
Reason for skipping spirometry Malfunction (+ve) vs rest	0.39	0.43	0.38	0.32	
Reproducibility of spirometry measurement using ERS/ATS criteria ≤ No	0.2	0.0065	0.0047	0.063	
Reproducibility of spirometry measurement using ERS/ATS criteria No (+ve) vs rest	0.2	0.0069	0.0016	2.5e-05	*
Reproducibility of spirometry measurement using ERS/ATS criteria rest (+ve) vs Yes	0.2	0.0062	0.0015	0.00017	
Result ranking rest (+ve) vs third best (i.e. worst)	0.26	0.0022	0.00016	4.5e-05	
Seated height < 25th percentile	0.2	0.3	0.26	2e-12	**
Seated height > 75th percentile	0.26	0.5	0.48	1.8e-08	**
Seating box height 30cm (+ve) vs rest	0.003	0.0048	0	0.33	
Sitting height < 25th percentile	0.23	0.45	0.41	5e-12	**
Sitting height > 75th percentile	0.24	0.51	0.49	4.1e-07	**
Smoked cigarette or pipe within last hour rest (+ve) vs No	0.0087	0.011	0	0.043	
Spirometry device serial number > 75th percentile	0.22	0.049	0	2.9e-17	**
Spirometry device serial number (pilot) > 699.0	0.49	0.5	0.5	0.58	
Spirometry device serial number (pilot) rest (+ve) vs 699.0	0.47	0.51	0.49	0.19	
Systolic blood pressure, automated reading < 25th percentile	0.24	0.23	0.11	6.3e-22	**
Systolic blood pressure, automated reading < 50th percentile	0.49	0.64	0.62	3.6e-10	**
Systolic blood pressure, manual reading < 25th percentile	0.24	0.29	0.21	7.2e-10	**
Systolic blood pressure, manual reading < 50th percentile	0.49	0.63	0.6	1.5e-07	**
Time since interview start at which blood pressure screen(s) shown < 25th percentile	0.26	0.025	0.0068	6e-13	**
Time since interview start at which blood pressure screen(s) shown < 50th percentile	0.47	0.61	0.6	3.8e-06	*
Trunk fat mass < 25th percentile	0.24	0.062	0.0019	1.8e-16	**
Trunk fat percentage < 25th percentile	0.24	0.23	0.11	9.4e-20	**
Trunk fat percentage < 50th percentile	0.49	0.66	0.66	0.017	

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Variable	+ve pct	F1 (Base)	F1 (DTI)	pval	sig*
Trunk fat percentage > 75th percentile	0.25	0.36	0.18	7.9e-23	**
Trunk fat-free mass > 75th percentile	0.25	0.57	0.54	3.3e-05	*
Trunk predicted mass < 25th percentile	0.26	0.55	0.5	5.3e-09	**
Waist circumference < 25th percentile	0.24	0.4	0.18	7.8e-26	**
Waist circumference > 75th percentile	0.23	0.27	0.034	3.9e-26	**
Weight < 25th percentile	0.25	0.44	0.27	8.1e-23	**
Weight < 25th percentile	0.25	0.44	0.26	4.1e-26	**
Weight > 75th percentile	0.25	0.36	0.18	7e-24	**
Weight method Not performed (+ve) vs rest	0.0012	0.012	0	0.33	
Whole body fat mass < 25th percentile	0.25	0.14	0.021	2.5e-19	**
Whole body fat mass < 50th percentile	0.5	0.61	0.58	3.5e-15	**
Whole body fat-free mass < 25th percentile	0.25	0.55	0.51	1.3e-07	**
Whole body fat-free mass > 75th percentile	0.24	0.59	0.56	0.0083	
Whole body water mass > 75th percentile	0.24	0.57	0.57	0.11	

#### 4. Lifestyle and environment

Variable	+ve pct	F1 (Base)	F1 (DTI)	pval	sig*
Above moderate/vigorous recommendation No (+ve) vs rest	0.46	0.38	0.36	4.8e-10	**
Age started smoking in current smokers < 25th percentile	0.19	0.19	0.18	0.48	
Age started smoking in current smokers > 75th percentile	0.19	0.21	0.15	8.8e-05	*
Age started smoking in former smokers < 25th percentile	0.13	0.039	0.016	1.5e-05	**
Age stopped smoking < 25th percentile	0.24	0.047	0.029	0.00027	**
Age stopped smoking < 50th percentile	0.48	0.5	0.45	5.6e-12	**
Age stopped smoking cigarettes (current cigar/pipe or previous cigarette smoker) < 50th percentile	0.44	0.4	0.34	0.047	
Age stopped smoking cigarettes (current cigar/pipe or previous cigarette smoker) > 75th percentile	0.23	0.24	0.074	0.00027	
Alcohol intake frequency. > One to three times a month	0.17	0.0019	0.00024	0.0014	**
Alcohol intake frequency. ≤ Three or four times a week	0.45	0.48	0.45	1.8e-13	**
Alcohol intake frequency. Three or four times a week (+ve) vs rest	0.28	0.011	0.0027	5.1e-10	**
Alcohol intake versus 10 years previously Less nowadays (+ve) vs rest	0.48	0.45	0.43	2.3e-09	**
Alcohol usually taken with meals ≤ Prefer not to answer	0.34	0.059	0.052	0.00027	*
Alcohol usually taken with meals It varies (+ve) vs rest	0.34	0.058	0.048	1.5e-05	*
Alcohol usually taken with meals No (+ve) vs rest	0.19	0.0043	0.0019	0.011	
Alcohol usually taken with meals Yes (+ve) vs rest	0.47	0.53	0.52	0.0015	
Average monthly champagne plus white wine intake < 25th percentile	0.0042	0.0053	0	0.33	
Average monthly champagne plus white wine intake > 75th percentile	0.24	0.055	0.05	0.14	
Average monthly fortified wine intake > 75th percentile	0.078	0.0099	0.0079	0.52	
Average monthly intake of other alcoholic drinks > 75th percentile	0.03	0.031	0.012	0.011	
Average monthly red wine intake > 75th percentile	0.15	0.014	0.0084	0.032	
Average monthly spirits intake < 25th percentile	0.0029	0.02	0	0.33	
Average monthly spirits intake > 75th percentile	0.17	0.028	0.021	0.01	
Average weekly beer plus cider intake > 75th percentile	0.21	0.27	0.21	1.3e-13	**
Average weekly red wine intake < 50th percentile	0.43	0.35	0.31	2.8e-13	**
Beef intake > Less than once a week	0.39	0.15	0.095	7.9e-16	**
Beef intake Less than once a week (+ve) vs rest	0.49	0.49	0.48	9.6e-08	**
Bread intake > 75th percentile	0.19	0.015	0.0083	6.1e-05	
Bread type/intake (pilot) ≤ Brown	0.3	0.28	0.26	0.5	
Bread type/intake (pilot) ≤ White	0.18	0.18	0.13	0.011	
Cereal intake < 25th percentile	0.22	0.0035	0.0012	2.2e-05	*
Cereal type ≤ Biscuit cereal (e.g. Weetabix)	0.29	0.0069	0.00037	2.8e-07	**
Cereal type ≤ Bran cereal (e.g. All Bran, Branflakes)	0.14	0.0003	0	0.16	
Cereal type Other (e.g. Cornflakes, Frosties) (+ve) vs rest	0.12	0.0019	0	0.0018	
Coffee intake < 50th percentile	0.46	0.41	0.4	0.034	
Coffee intake > 75th percentile	0.19	0.00083	0	0.0021	
Coffee type Ground coffee (include espresso, filter etc) (+ve) vs rest	0.32	0.064	0.013	2.5e-16	**

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Variable	+ve pct	F1 (Base)	F1 (DTI)	pval	sig*
Coffee type Instant coffee (+ve) vs rest	0.48	0.45	0.41	1.5e-14	**
Coffee type Other type of coffee (+ve) vs rest	0.02	0.0011	0	0.33	
Cooked vegetable intake < 25th percentile	0.17	0.0011	0.00024	0.019	
Cooked vegetable intake > 75th percentile	0.22	0.00036	8.9e-05	0.12	
Current tobacco smoking Yes, on most or all days (+ve) vs rest	0.024	0.00079	0	0.33	
Daytime dozing / sleeping (narcolepsy) Sometimes (+ve) vs rest	0.2	0.018	0.0017	7.5e-10	**
Difficulty not smoking for 1 day > Fairly difficult	0.3	0.35	0.26	2.2e-08	**
Difficulty not smoking for 1 day ≤ Fairly easy	0.37	0.39	0.32	9.9e-06	*
Difficulty not smoking for 1 day ≤ Very easy	0.097	0.11	0.093	0.13	
Difficulty not smoking for 1 day Fairly difficult (+ve) vs rest	0.34	0.36	0.3	0.00051	
Difficulty not smoking for 1 day Fairly easy (+ve) vs rest	0.27	0.27	0.2	1.7e-05	*
Dried fruit intake < 25th percentile	0.09	0.00022	0	0.33	
Ever smoked ≤ No	0.46	0.45	0.41	1.3e-14	**
Ever stopped smoking for 6+ months > No	0.41	0.32	0.3	0.0004	
Ever stopped smoking for 6+ months (pilot) Yes (+ve) vs rest	0.38	0.4	0.32	0.017	
Ever stopped smoking for 6+ months (pilot) rest (+ve) vs No	0.41	0.43	0.29	0.00013	
Ever stopped smoking for 6+ months Do not know (+ve) vs rest	0.024	0.0077	0	0.083	
Ever tried to stop smoking ≤ No	0.14	0.21	0.16	0.0088	
Ever tried to stop smoking Yes, tried but was not able to stop or stopped for less than 6 months (+ve) vs rest	0.41	0.42	0.41	0.1	
Former alcohol drinker No (+ve) vs rest	0.49	0.52	0.51	0.42	
Fresh fruit intake < 50th percentile	0.35	0.17	0.11	8.2e-14	**
Getting up in morning > Fairly easy	0.37	0.28	0.27	0.00042	
Getting up in morning ≤ Not very easy	0.14	0.0052	0.0023	0.0072	
Getting up in morning Fairly easy (+ve) vs rest	0.49	0.49	0.49	0.37	
Getting up in morning Not very easy (+ve) vs rest	0.11	0.00037	0	0.16	
Getting up in morning Very easy (+ve) vs rest	0.38	0.28	0.26	4.9e-08	**
Hot drink temperature ≤ Very hot	0.19	0.00043	0	0.042	
Hot drink temperature Very hot (+ve) vs rest	0.18	0.00035	0	0.083	
Hot drink temperature Warm (+ve) vs rest	0.14	0.00014	0	0.33	
Hot drink temperature rest (+ve) vs Hot	0.33	0.025	0.019	3.6e-05	
IPAQ activity group ≤ low	0.19	0.00049	0	0.042	
Lamb/mutton intake Never (+ve) vs rest	0.19	0.00074	0.00031	0.14	
Lamb/mutton intake rest (+ve) vs Less than once a week	0.37	0.04	0.027	7.8e-07	**
Light smokers, at least 100 smokes in lifetime (pilot) > No	0.38	0.44	0.32	0.00036	
Light smokers, at least 100 smokes in lifetime (pilot) Yes (+ve) vs rest	0.4	0.41	0.37	0.28	
Light smokers, at least 100 smokes in lifetime Yes (+ve) vs rest	0.39	0.22	0.21	0.013	
Light smokers, at least 100 smokes in lifetime rest (+ve) vs No	0.42	0.32	0.32	0.17	
Likelihood of resuming smoking ≤ Yes, probably	0.022	0.012	0.0085	0.62	
MET minutes per week for moderate activity < 25th percentile	0.22	0.0023	0.00022	0.0028	
MET minutes per week for vigorous activity < 50th percentile	0.45	0.38	0.32	2e-16	**
MET minutes per week for vigorous activity > 75th percentile	0.22	0.0041	0.00078	1.3e-07	**
MET minutes per week for walking < 50th percentile	0.48	0.47	0.44	1.1e-11	**
MET minutes per week for walking > 75th percentile	0.17	0.00042	0	0.083	
Major dietary changes in the last 5 years Yes, because of illness (+ve) vs rest	0.062	0.00066	0	0.16	
Major dietary changes in the last 5 years rest (+ve) vs No	0.37	0.089	0.031	4.1e-18	**
Milk type used > Soya	0.059	0.00067	0	0.16	
Milk type used Other type of milk (+ve) vs rest	0.027	0.00075	0	0.33	
Morning/evening person (chronotype) ≤ Definitely a 'morning' person	0.35	0.031	0.019	2.9e-07	**
Nap during day > Never rarely	0.42	0.42	0.41	3.9e-06	*
Nap during day Sometimes (+ve) vs rest	0.37	0.17	0.14	9e-12	**
Nap during day Usually (+ve) vs rest	0.055	0.0015	0	0.042	
Never eat eggs, dairy, wheat, sugar ≤ Sugar or foods drinks containing sugar	0.24	0.014	0.0095	4.4e-05	
Never eat eggs, dairy, wheat, sugar rest (+ve) vs I eat all of the above	0.24	0.016	0.0057	2.4e-08	**
Non-butter spread type details ≤ Soft (tub) margarine	0.28	0.026	0.021	0.0051	
Non-oily fish intake Do not know (+ve) vs rest	0.0015	0.024	0	0.047	
Non-oily fish intake Less than once a week (+ve) vs rest	0.29	0.01	0.0033	5.4e-08	**

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Variable	+ve pct	F1 (Base)	F1 (DTI)	pval	sig*
Number of cigarettes currently smoked daily (current cigarette smokers) > 75th percentile	0.28	0.36	0.25	1.4e-05	*
Number of cigarettes previously smoked daily < 25th percentile	0.13	0.03	0.025	0.22	
Number of cigarettes previously smoked daily < 50th percentile	0.36	0.29	0.27	2.9e-06	**
Oily fish intake ≤ Less than once a week	0.38	0.22	0.19	2.3e-09	**
Oily fish intake Once a week (+ve) vs rest	0.42	0.2	0.18	3e-07	**
Pack years adult smoking as proportion of life span exposed to smoking < 50th percentile	0.5	0.56	0.52	1.4e-09	**
Pack years of smoking < 25th percentile	0.25	0.087	0.041	4.9e-10	**
Pack years of smoking < 50th percentile	0.5	0.57	0.52	2.6e-13	**
Past tobacco smoking ≤ Smoked occasionally	0.37	0.2	0.14	8.2e-16	**
Past tobacco smoking ≤ Smoked on most or all days	0.24	0.031	0.0067	9.6e-15	**
Pork intake > Less than once a week	0.22	0.0022	0.00046	0.0011	
Pork intake Once a week (+ve) vs rest	0.19	0.00021	0	0.16	
Pork intake rest (+ve) vs Less than once a week	0.4	0.1	0.049	2.6e-14	**
Poultry intake ≤ Once a week	0.48	0.45	0.43	2.5e-09	**
Processed meat intake Once a week (+ve) vs rest	0.28	0.0016	0.0013	0.37	
Processed meat intake Once or more daily (+ve) vs rest	0.0052	0.0034	0.003	0.9	
Reason for reducing amount of alcohol drunk > Financial reasons	0.43	0.35	0.3	1.3e-10	**
Reason for reducing amount of alcohol drunk ≤ Illness or ill health	0.15	0.0011	0.00045	0.15	
Reason for reducing amount of alcohol drunk (pilot) rest (+ve) vs Other reason	0.16	0.17	0.13	0.22	
Reason for reducing amount of alcohol drunk Do not know (+ve) vs rest	0.11	0.0013	0	0.043	
Reason for reducing amount of alcohol drunk Health precaution (+ve) vs rest	0.39	0.24	0.17	1e-16	**
Reason for reducing amount of alcohol drunk Other reason (+ve) vs rest	0.43	0.35	0.31	3.4e-11	**
Reason former drinker stopped drinking alcohol ≤ Do not know	0.022	0.066	0	0.012	
Salt added to food > Never rarely	0.41	0.13	0.1	4.7e-09	**
Sleeplessness / insomnia ≤ Never rarely	0.22	0.011	0.0035	2.5e-07	**
Smoking compared to 10 years previous > About the same?	0.47	0.5	0.46	5e-05	
Smoking compared to 10 years previous More nowadays? (+ve) vs rest	0.14	0.22	0.13	7.1e-05	
Smoking status Current (+ve) vs rest	0.039	0.00057	0	0.33	
Smoking status Previous (+ve) vs rest	0.34	0.13	0.1	1.4e-10	**
Snoring Yes (+ve) vs rest	0.34	0.17	0.14	7.7e-13	**
Snoring rest (+ve) vs No	0.41	0.31	0.27	8.4e-11	**
Spread type > Butter spreadable butter	0.35	0.15	0.11	5.9e-12	**
Spread type (pilot) > Low or reduced fat spread	0.14	0.21	0.1	1.1e-05	*
Spread type (pilot) > Olive oil based spread	0.42	0.42	0.39	0.17	
Spread type (pilot) ≤ Butter spreadable butter	0.34	0.39	0.3	5.6e-05	
Summed MET minutes per week for all activity < 50th percentile	0.5	0.52	0.5	1.4e-11	**
Summed MET minutes per week for all activity > 75th percentile	0.25	0.0066	0.0017	1.1e-06	**
Summed days activity < 25th percentile	0.21	0.00054	0.00022	0.16	
Summed days activity < 50th percentile	0.43	0.3	0.26	1.5e-11	**
Summed minutes activity < 25th percentile	0.25	0.0039	0.00048	3.8e-05	
Summed minutes activity < 50th percentile	0.49	0.5	0.48	4.4e-11	**
Tea intake < 50th percentile	0.39	0.098	0.075	1.6e-10	**
Time from waking to first cigarette Between 1 and 2 hours (+ve) vs rest	0.11	0.13	0.09	0.025	
Time from waking to first cigarette Less than 5 minutes (+ve) vs rest	0.092	0.13	0.079	0.027	
Variation in diet (pilot) ≤ Never rarely	0.33	0.4	0.31	0.00012	
Variation in diet rest (+ve) vs Sometimes	0.42	0.24	0.23	0.00026	
Wants to stop smoking > No, probably not	0.029	0.014	0	0.17	
Water intake < 25th percentile	0.16	0.00025	0.00013	0.49	
Water intake < 50th percentile	0.37	0.2	0.16	8.4e-13	**
Water intake > 75th percentile	0.23	0.018	0.0035	5.8e-10	**
Why reduced smoking ≤ Doctor's advice	0.33	0.4	0.33	0.00046	
Why reduced smoking ≤ None of the above	0.29	0.29	0.23	0.064	
Why reduced smoking None of the above (+ve) vs rest	0.27	0.3	0.28	0.13	
Why stopped smoking ≤ Illness or ill health	0.24	0.052	0.03	3.2e-06	**
Why stopped smoking ≤ None of the above	0.2	0.048	0.019	6.5e-07	**

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Variable	+ve pct	F1 (Base)	F1 (DTI)	pval	sig*
Why stopped smoking $\leq$ Prefer not to answer	0.2	0.048	0.018	4.7e-07	**
Why stopped smoking None of the above (+ve) vs rest	0.2	0.043	0.019	1.4e-06	**

## 5. Health and medical history

Variable	+ve pct	F1 (Base)	F1 (DTI)	pval	sig*
Age angina diagnosed $< 0$	0.035	0.017	0	0.33	
Age angina diagnosed $< 25$ th percentile	0.22	0.38	0.3	0.046	
Age asthma diagnosed $< 25$ th percentile	0.25	0.13	0.099	7e-05	
Age deep-vein thrombosis (DVT, blood clot in leg) diagnosed $< 25$ th percentile	0.26	0.33	0.19	1.9e-09	**
Age deep-vein thrombosis (DVT, blood clot in leg) diagnosed $< 50$ th percentile	0.49	0.52	0.5	0.028	
Age emphysema/chronic bronchitis diagnosed $< 25$ th percentile	0.26	0.32	0.2	3.6e-06	*
Age hay fever, rhinitis or eczema diagnosed $< 0$	0.11	0.0047	0.0039	0.65	
Age high blood pressure diagnosed $> 75$ th percentile	0.18	0.23	0.22	0.058	
Age pulmonary embolism (blood clot in lung) diagnosed $< 25$ th percentile	0.3	0.31	0.27	0.047	
Age pulmonary embolism (blood clot in lung) diagnosed $< 50$ th percentile	0.48	0.6	0.5	6.5e-05	
Age stroke diagnosed $< 25$ th percentile	0.26	0.52	0.42	9.7e-07	**
Blood clot, DVT, bronchitis, emphysema, asthma, rhinitis, eczema, allergy diagnosed by doctor $> 0$	0.24	0.0052	0.00077	5.5e-07	**
Blood clot, DVT, bronchitis, emphysema, asthma, rhinitis, eczema, allergy diagnosed by doctor $> 0$ Asthma	0.31	0.022	0.012	6.1e-08	**
Blood clot, DVT, bronchitis, emphysema, asthma, rhinitis, eczema, allergy diagnosed by doctor $> 0$ Blood clot in the leg (DVT)	0.3	0.021	0.0056	1.7e-10	**
Blood clot, DVT, bronchitis, emphysema, asthma, rhinitis, eczema, allergy diagnosed by doctor $> 0$ Blood clot in the lung	0.3	0.021	0.0099	3.6e-09	**
Blood clot, DVT, bronchitis, emphysema, asthma, rhinitis, eczema, allergy diagnosed by doctor $> 0$ Emphysema chronic bronchitis	0.31	0.024	0.0089	2.6e-10	**
Blood clot, DVT, bronchitis, emphysema, asthma, rhinitis, eczema, allergy diagnosed by doctor $> 0$ Prefer not to answer	0.24	0.0049	0.0014	1.4e-06	**
Blood clot, DVT, bronchitis, emphysema, asthma, rhinitis, eczema, allergy diagnosed by doctor Hayfever, allergic rhinitis or eczema (+ve) vs rest	0.21	0.0012	0.00013	0.017	
Carer support indicators No (+ve) vs rest	0.23	0.0018	0.00036	0.0013	
Carer support indicators rest (+ve) vs Not known	0.069	0.086	0.048	0.00091	
Diabetes diagnosed by doctor $> 0$ No	0.051	0.0019	0	0.021	
Diabetes diagnosed by doctor Do not know (+ve) vs rest	0.0015	0.0041	0	0.33	
Diabetes diagnosed by doctor Yes (+ve) vs rest	0.05	0.00037	0	0.33	
Fracture resulting from simple fall $\leq 0$	0.43	0.51	0.5	0.055	
Fractured bone site(s) Ankle (+ve) vs rest	0.094	0.054	0.018	0.00024	
Fractured bone site(s) Arm (+ve) vs rest	0.085	0.04	0.013	7.3e-05	
Fractured bone site(s) Spine (+ve) vs rest	0.019	0.028	0.023	0.78	
Fractured bone site(s) Wrist (+ve) vs rest	0.18	0.068	0.053	0.017	
Gestational diabetes only $> 0$ No	0.099	0.19	0.15	0.091	
Gestational diabetes only $\leq 0$ Not applicable	0.079	0.075	0.068	0.71	
Gestational diabetes only Yes (+ve) vs rest	0.1	0.2	0.14	0.029	
Medication for cholesterol, blood pressure or diabetes $> 0$ None of the above	0.41	0.52	0.51	0.34	
Medication for cholesterol, blood pressure or diabetes Blood pressure medication (+ve) vs rest	0.28	0.21	0.13	0.062	
Medication for cholesterol, blood pressure or diabetes Insulin (+ve) vs rest	0.0075	0.017	0	0.39	
Medication for cholesterol, blood pressure or diabetes rest (+ve) vs None of the above	0.42	0.52	0.51	0.26	

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Variable	+ve pct	F1 (Base)	F1 (DTI)	pval	sig*
Other serious medical condition/disability diagnosed by doctor Prefer not to answer (+ve) vs rest	0.0012	0.0045	0	0.33	
Other serious medical condition/disability diagnosed by doctor rest (+ve) vs No	0.15	0.00013	0	0.33	
Started insulin within one year diagnosis of diabetes rest (+ve) vs No	0.088	0.12	0.1	0.1	
Vascular/heart problems diagnosed by doctor > Angina	0.23	0.13	0.054	1.7e-18	**
Vascular/heart problems diagnosed by doctor > None of the above	0.25	0.19	0.11	2.2e-17	**
Vascular/heart problems diagnosed by doctor > Prefer not to answer	0.25	0.18	0.1	5e-17	**
Vascular/heart problems diagnosed by doctor rest (+ve) vs None of the above	0.25	0.19	0.1	1.5e-17	**

## 6. Sociodemographics

Variable	+ve pct	F1 (Base)	F1 (DTI)	pval	sig*
Average total household income before tax > 52,000 to 100,000	0.054	0.008	0	0.00029	
Average total household income before tax ≤ Do not know	0.092	0.0024	0.00045	0.00095	
Average total household income before tax ≤ Less than 18,000	0.21	0.056	0.014	1e-14	**
Average total household income before tax ≤ Prefer not to answer	0.063	0.0019	0	0.01	
Average total household income before tax (pilot) > 31,000 to 52,000	0.29	0.34	0.29	0.0038	
Average total household income before tax (pilot) > 52,000 to 100,000	0.078	0.12	0.034	0.023	
Average total household income before tax (pilot) ≤ 18,000 to 31,000	0.39	0.48	0.42	0.0039	
Average total household income before tax (pilot) ≤ Prefer not to answer	0.076	0.13	0.039	0.0059	
Average total household income before tax (pilot) Less than 18,000 (+ve) vs rest	0.081	0.11	0.047	0.012	
Average total household income before tax 18,000 to 30,999 (+ve) vs rest	0.26	0.028	0.023	0.031	
Average total household income before tax 31,000 to 51,999 (+ve) vs rest	0.28	0.0017	0.00094	0.057	
Average total household income before tax 52,000 to 100,000 (+ve) vs rest	0.2	0.068	0.054	2e-05	*
Average total household income before tax Greater than 100,000 (+ve) vs rest	0.054	0.0092	0.00078	0.00041	
Average total household income before tax Less than 18,000 (+ve) vs rest	0.12	0.0012	0.00036	0.079	
Ethnic background > Any other Asian background	0.0056	0.05	0	5.4e-05	**
Ethnic background > Any other mixed background	0.015	0.043	0	2e-06	**
Ethnic background > Any other white background	0.019	0.02	0	3.9e-05	
Ethnic background > British	0.065	0.0012	0	0.042	
Ethnic background > Caribbean	0.0021	0.0064	0	0.34	
Ethnic background > Indian	0.0089	0.03	0	0.0004	
Ethnic background > Irish	0.042	0.005	0	0.0017	
Ethnic background > White and Black African	0.018	0.024	0	1.6e-05	*
Ethnic background ≤ Chinese	0.0055	0.0023	0	0.33	
Ethnic background African (+ve) vs rest	0.002	0.016	0	0.11	
Ethnic background Chinese (+ve) vs rest	0.0028	0.031	0	0.015	
Ethnic background Pakistani (+ve) vs rest	0.0019	0.012	0	0.083	
Ethnic background rest (+ve) vs British	0.074	0.0043	0	0.0012	
Job involves heavy manual or physical work Sometimes (+ve) vs rest	0.18	0.0014	0.00016	0.008	
Job involves mainly walking or standing > Usually	0.15	0.0027	0.00078	0.0067	
Job involves mainly walking or standing Sometimes (+ve) vs rest	0.31	0.021	0.0098	9.8e-07	**
Qualifications > CSEs or equivalent	0.49	0.47	0.44	1.2e-11	**
Qualifications > NVQ or HND or HNC or equivalent	0.34	0.044	0.014	2.8e-13	**
Qualifications ≤ College or University degree	0.24	0.0056	0.0033	0.0004	
Qualifications ≤ None of the above	0.066	0.0089	0.0022	0.00015	
Qualifications ≤ O levels GCSEs or equivalent	0.46	0.41	0.4	3.5e-06	**
Qualifications ≤ Prefer not to answer	0.068	0.0078	0.00091	0.00046	
Qualifications (pilot) > CSEs or equivalent	0.17	0.27	0.17	0.0024	

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Variable	+ve pct	F1 (Base)	F1 (DTI)	pval	sig*
Qualifications (pilot) $\leq$ None of the above	0.056	0.05	0.01	0.16	
Qualifications None of the above (+ve) vs rest	0.066	0.0084	0.0003	2.7e-05	*
Qualifications Other professional qualifications eg: nursing, teaching (+ve) vs rest	0.34	0.043	0.011	4.9e-16	**

## 7. Sex-specific factors

Variable	+ve pct	F1 (Base)	F1 (DTI)	pval	sig*
Age at menopause (last menstrual period) $<$ 25th percentile	0.25	0.022	0.016	0.0095	
Age at menopause (last menstrual period) $>$ 75th percentile	0.22	0.014	0.0098	0.053	
Age last used hormone-replacement therapy (HRT) $<$ 0	0.27	0.17	0.16	0.32	
Age of primiparous women at birth of child $<$ 25th percentile	0.22	0.17	0.14	0.0013	
Age of primiparous women at birth of child $<$ 50th percentile	0.48	0.48	0.46	0.00038	
Age of primiparous women at birth of child $>$ 75th percentile	0.25	0.21	0.18	0.0018	
Age started hormone-replacement therapy (HRT) $<$ 50th percentile	0.47	0.48	0.45	8.6e-09	**
Age started oral contraceptive pill $<$ 25th percentile	0.21	0.22	0.15	1.4e-13	**
Age when last used oral contraceptive pill $>$ 75th percentile	0.24	0.011	0.0069	0.00099	
Bilateral oophorectomy (both ovaries removed) rest (+ve) vs No	0.1	0.0015	0	0.042	
Ever had breast cancer screening / mammogram rest (+ve) vs Yes	0.042	0.095	0.06	0.00052	
Ever had hysterectomy (womb removed) $>$ No	0.1	0.014	0.0079	0.022	
Ever had stillbirth, spontaneous miscarriage or termination Yes (+ve) vs rest	0.31	0.054	0.028	3.4e-08	**
Ever taken oral contraceptive pill $\leq$ No	0.14	0.0056	0.0055	0.97	
Ever used hormone-replacement therapy (HRT) Yes (+ve) vs rest	0.37	0.48	0.47	7.7e-05	
Ever used hormone-replacement therapy (HRT) rest (+ve) vs No	0.38	0.49	0.48	0.00087	
Had menopause $>$ Yes	0.15	0.0015	0.00025	0.064	
Had menopause rest (+ve) vs Yes	0.22	0.35	0.34	0.036	
Length of menstrual cycle $<$ 25th percentile	0.25	0.11	0.092	0.0012	
Length of menstrual cycle $>$ 75th percentile	0.12	0.02	0.013	0.11	
Menstruating today $>$ No	0.14	0.016	0.011	0.12	
Menstruating today Do not know (+ve) vs rest	0.0099	0.0081	0.0048	0.56	
Number of live births $<$ 50th percentile	0.34	0.21	0.16	5.1e-12	**
Number of pregnancy terminations $<$ 25th percentile	0.0075	0.024	0	0.052	
Time since last menstrual period $<$ 0	0.12	0.05	0.013	1.2e-07	**
Time since last menstrual period $<$ 25th percentile	0.21	0.086	0.049	6e-07	**
Years since last breast cancer screening / mammogram $<$ 25th percentile	0.25	0.021	0.016	0.035	
Years since last cervical smear test $<$ 25th percentile	0.24	0.013	0.0067	1.8e-05	*
Years since last cervical smear test $>$ 75th percentile	0.23	0.26	0.26	0.21	

## 8. Baseline characteristics

Variable	+ve pct	F1 (Base)	F1 (DTI)	pval	sig*
Age when attended assessment centre $<$ 25th percentile	0.24	0.92	0.92	0.0018	
Age when attended assessment centre $<$ 50th percentile	0.48	0.95	0.95	0.017	
Month of birth $>$ August	0.32	0.0031	0.002	0.036	
Month of birth August (+ve) vs rest	0.083	0.00025	0	0.33	
Townsend deprivation index at recruitment $<$ 25th percentile	0.25	0.0015	0.00056	0.0068	
Townsend deprivation index at recruitment $<$ 50th percentile	0.5	0.52	0.52	4e-05	
Townsend deprivation index at recruitment $>$ 75th percentile	0.25	0.012	0.0014	1.9e-09	**
UK Biobank assessment centre $>$ Cheadle (imaging)	0.16	0.25	0.00013	1.3e-24	**
UK Biobank assessment centre Newcastle (imaging) (+ve) vs rest	0.16	0.25	0	1.2e-24	**
UK Biobank assessment centre rest (+ve) vs Cheadle (imaging)	0.16	0.25	0	2.2e-23	**