

CONTENT OF SUPPLEMENTARY MATERIAL

Description of Tables or Figure	Page
Supplementary Table S1: Co-morbidities in FD cases and controls based on ICD10 diagnoses from UK Biobank	2
Supplementary Table S2: Replication of GWAS findings in an independent case-control cohort.	25
Supplementary Table S3: Genetic correlation of functional dyspepsia with other traits.	26

Supplementary Table S1: Co-morbidities in FD cases and controls based on ICD10 diagnoses from UK Biobank

Chapter	Block	Condition	Subtype	Chapter code	Block code	3-digit code	4-digit code	FD prevalence (%) (N=5.950)	CTRL prevalence (%) (N=294.202)	P	OR (95% CI)
Diseases of the digestive system	-	-	-	K00-K93	-	-	-	61.01	27.76	1.0E-300	4.0 (3.8 - 4.2)
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	-	-	-	R00-R99	-	-	-	59.28	30.53	1.0E-300	3.2 (3.0 - 3.4)
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	Symptoms and signs involving the digestive system and abdomen	-	-	R00-R99	R10-R19	-	-	35.95	11.014	1.0E-300	4.3 (4.0 - 4.5)
Diseases of the digestive system	Hernia	-	-	K00-K93	K40-K46	-	-	22.084	7.863	1.0E-300	3.5 (3.3 - 3.8)
Diseases of the digestive system	Diseases of oesophagus, stomach and duodenum	-	-	K00-K93	K20-K31	-	-	30.739	4.854	1.0E-300	8.2 (7.7 - 8.7)
Diseases of the digestive system	Hernia	Diaphragmatic hernia	-	K00-K93	K40-K46	K44	-	17.076	3.034	1.0E-300	5.9 (5.5 - 6.4)
Diseases of the digestive system	Diseases of oesophagus, stomach and duodenum	Gastritis and duodenitis	-	K00-K93	K20-K31	K29	-	18.302	3.704	1.0E-300	5.4 (5.1 - 5.8)
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	Symptoms and signs involving the digestive system and abdomen	Abdominal and pelvic pain	-	R00-R99	R10-R19	R10	-	20.084	5.905	1.0E-300	3.9 (3.6 - 4.1)
Diseases of the digestive system	Diseases of oesophagus, stomach and duodenum	Gastritis and duodenitis	Gastritis, unspecified	K00-K93	K20-K31	K29	K29.7	10.37	1.916	1.0E-300	5.4 (5.0 - 5.9)
Diseases of the digestive system	Hernia	Diaphragmatic hernia	Diaphragmatic hernia without obstruction or gangrene	K00-K93	K40-K46	K44	K44.9	17.059	3.027	1.0E-300	5.9 (5.5 - 6.4)
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	Symptoms and signs involving the digestive system and abdomen	Abdominal and pelvic pain	Pain localised to upper abdomen	R00-R99	R10-R19	R10	R10.1	7.798	1.463	2.2E-237	5.4 (4.9 - 5.9)
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	General symptoms and signs	Symptoms and signs concerning food and fluid intake	-	R00-R99	R50-R69	R63	-	6.37	1.058	1.8E-214	5.9 (5.3 - 6.6)
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	Symptoms and signs involving the digestive system and abdomen	Abdominal and pelvic pain	Other and unspecified abdominal pain	R00-R99	R10-R19	R10	R10.4	11.412	3.247	2.5E-210	3.7 (3.4 - 4.0)

laboratory findings, not elsewhere classified												
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	Symptoms and signs involving the digestive system and abdomen	Dysphagia	-	R00-R99	R10-R19	R13	-	5.765	0.934	4.5E-199	6.0 (5.3 - 6.7)	
Factors influencing health status and contact with health services	-	-	-	Z00-Z99	-	-	-	57.6	38.51	1.4E-165	2.1 (2.0 - 2.2)	
Diseases of the digestive system	Disorders of gallbladder, biliary tract and pancreas	-	-	K00-K93	K80-K87	-	-	10.672	3.49	1.0E-136	3.0 (2.7 - 3.2)	
Factors influencing health status and contact with health services	Persons with potential health hazards related to family and personal history and certain conditions influencing health status	-	-	Z00-Z99	Z80-Z99	-	-	43.563	26.831	4.1E-136	2.0 (1.9 - 2.1)	
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	Symptoms and signs involving the circulatory and respiratory systems	-	-	R00-R99	R00-R09	-	-	20.807	10.283	5.0E-131	2.2 (2.1 - 2.4)	
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	General symptoms and signs	-	-	R00-R99	R50-R69	-	-	19.815	9.529	3.8E-130	2.3 (2.1 - 2.4)	
Diseases of the digestive system	Disorders of gallbladder, biliary tract and pancreas	Cholelithiasis	-	K00-K93	K80-K87	K80	-	9.126	2.782	4.5E-129	3.1 (2.8 - 3.4)	
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	Symptoms and signs involving the digestive system and abdomen	Other symptoms and signs involving the digestive system and abdomen	-	R00-R99	R10-R19	R19	-	9.042	2.993	1.6E-115	2.9 (2.7 - 3.2)	
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	Symptoms and signs involving the circulatory and respiratory systems	Pain in throat and chest	-	R00-R99	R00-R09	R07	-	14.235	6.373	4.1E-114	2.4 (2.2 - 2.6)	
Diseases of the circulatory system	-	-	-	I00-I99	-	-	-	43.51	28.24	4.6E-114	1.9 (1.8 - 2.0)	
Diseases of the digestive system	Other diseases of intestines	-	-	K00-K93	K55-K64	-	-	23.815	12.526	4.6E-114	2.0 (1.9 - 2.2)	
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	Symptoms and signs involving the digestive system and abdomen	Nausea and vomiting	-	R00-R99	R10-R19	R11	-	6.975	2.144	2.6E-105	3.2 (2.9 - 3.5)	

Diseases of the digestive system	Diseases of oesophagus, stomach and duodenum	Oesophagitis	-	K00-K93	K20-K31	K20	-	4.655	1.171	2.2E-100	3.9 (3.5 - 4.5)
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	Symptoms and signs involving the circulatory and respiratory systems	Pain in throat and chest	Chest pain, unspecified	R00-R99	R00-R09	R07	R07.4	10.639	4.455	8.7E-98	2.5 (2.3 - 2.7)
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	Symptoms and signs involving the digestive system and abdomen	Other symptoms and signs involving the digestive system and abdomen	Change in bowel habit	R00-R99	R10-R19	R19	R19.4	7.025	2.224	3.5E-97	3.0 (2.7 - 3.3)
Diseases of the musculoskeletal system and connective tissue	-	-	-	M00-M99	-	-	-	37.58	24.35	9.0E-88	1.7 (1.6 - 1.8)
Factors influencing health status and contact with health services	Persons with potential health hazards related to family and personal history and certain conditions influencing health status	Personal history of other diseases and conditions	Personal history of diseases of the digestive system	Z00-Z99	Z80-Z99	Z87	Z87.1	6.504	2.188	1.2E-87	3.0 (2.7 - 3.3)
Factors influencing health status and contact with health services	Persons encountering health services for examination and investigation	-	-	Z00-Z99	Z00-Z13	-	-	16.79	8.882	1.5E-81	2.0 (1.8 - 2.1)
Diseases of the digestive system	Disorders of gallbladder, biliary tract and pancreas	Cholelithiasis	Calculus of gallbladder without cholecystitis	K00-K93	K80-K87	K80	K80.2	5.563	1.651	1.7E-81	3.1 (2.8 - 3.5)
Diseases of the respiratory system	-	-	-	J00-J99	-	-	-	21.66	12.72	5.1E-80	1.8 (1.7 - 2.0)
Endocrine, nutritional and metabolic diseases	-	-	-	E00-E90	-	-	-	26.03	15.49	1.1E-79	1.8 (1.7 - 1.9)
Diseases of the circulatory system	Ischaemic heart diseases	-	-	I00-I99	I20-I25	-	-	12.538	6.35	2.3E-76	2.2 (2.0 - 2.4)
Certain infectious and parasitic diseases	-	-	-	A00-B99	-	-	-	11.53	5.51	1.5E-73	2.1 (2.0 - 2.3)
Factors influencing health status and contact with health services	Persons with potential health hazards related to family and personal history and certain conditions influencing health status	Personal history of other diseases and conditions	-	Z00-Z99	Z80-Z99	Z87	-	9.849	4.419	5.8E-73	2.3 (2.1 - 2.5)
Diseases of the circulatory system	Hypertensive diseases	Essential (primary) hypertension	-	I00-I99	I10-I15	I10	-	27.109	16.63	6.7E-73	1.8 (1.6 - 1.9)

Diseases of the circulatory system	Hypertensive diseases	-	-	I00-I99	I10-I15	-	-	27.126	16.687	4.7E-72	1.7 (1.6 - 1.9)
Factors influencing health status and contact with health services	Persons encountering health services for examination and investigation	Medical observation and evaluation for suspected diseases and conditions	-	Z00-Z99	Z00-Z13	Z03	-	6.135	2.269	6.3E-72	2.7 (2.4 - 3.0)
Diseases of the circulatory system	Ischaemic heart diseases	Angina pectoris	Angina pectoris, unspecified	I00-I99	I20-I25	I20	I20.9	7.529	3.082	1.5E-71	2.5 (2.3 - 2.8)
Diseases of the circulatory system	Ischaemic heart diseases	Angina pectoris	-	I00-I99	I20-I25	I20	-	8.403	3.655	3.7E-70	2.4 (2.2 - 2.6)
Diseases of the circulatory system	Ischaemic heart diseases	Chronic ischaemic heart disease	Chronic ischaemic heart disease, unspecified	I00-I99	I20-I25	I25	I25.9	5.647	2.057	1.6E-68	2.8 (2.5 - 3.2)
Diseases of the respiratory system	Chronic lower respiratory diseases	-	-	J00-J99	J40-J47	-	-	13.311	6.776	1.9E-68	2.0 (1.8 - 2.1)
Factors influencing health status and contact with health services	Persons encountering health services for specific procedures and health care	Persons encountering health services for specific procedures, not carried out	-	Z00-Z99	Z40-Z54	Z53	-	10.891	5.242	2.0E-67	2.1 (1.9 - 2.3)
Diseases of the respiratory system	Chronic lower respiratory diseases	Asthma	Asthma, unspecified	J00-J99	J40-J47	J45	J45.9	10.857	5.304	1.0E-64	2.1 (1.9 - 2.3)
Diseases of the respiratory system	Chronic lower respiratory diseases	Asthma	-	J00-J99	J40-J47	J45	-	10.908	5.354	2.6E-64	2.1 (1.9 - 2.2)
Diseases of the circulatory system	Ischaemic heart diseases	Chronic ischaemic heart disease	-	I00-I99	I20-I25	I25	-	10.303	5.289	4.9E-63	2.1 (2.0 - 2.3)
Diseases of the digestive system	Disorders of gallbladder, biliary tract and pancreas	Cholelithiasis	Calculus of gallbladder with other cholecystitis	K00-K93	K80-K87	K80	K80.1	3.597	1.01	1.9E-58	3.2 (2.8 - 3.7)
Diseases of the digestive system	Other diseases of intestines	Other diseases of anus and rectum	-	K00-K93	K55-K64	K62	-	9.361	4.596	1.7E-56	2.1 (1.9 - 2.3)
Factors influencing health status and contact with health services	Persons encountering health services for specific procedures and health care	-	-	Z00-Z99	Z40-Z54	-	-	21.277	13.207	9.8E-55	1.7 (1.6 - 1.8)
Endocrine, nutritional and metabolic diseases	Metabolic disorders	Disorders of lipoprotein metabolism and other lipidaemias	-	E00-E90	E70-E90	E78	-	13.395	7.497	1.7E-53	1.9 (1.7 - 2.0)
Diseases of the genitourinary system	-	-	-	N00-N99	-	-	-	33.18	22.48	2.6E-53	1.5 (1.5 - 1.6)
Certain infectious and parasitic diseases	Intestinal infectious diseases	-	-	A00-B99	A00-A09	-	-	4.403	1.559	3.0E-52	2.7 (2.4 - 3.1)
Diseases of the digestive system	Other diseases of intestines	Other diseases of anus and rectum	Haemorrhage of anus and rectum	K00-K93	K55-K64	K62	K62.5	6.135	2.64	4.0E-52	2.3 (2.1 - 2.6)
Factors influencing health status and	Persons with potential health hazards related to family and personal	Personal history of certain other diseases	-	Z00-Z99	Z80-Z99	Z86	-	16.857	10.098	2.2E-51	1.7 (1.6 - 1.8)

contact with health services	history and certain conditions influencing health status										
Endocrine, nutritional and metabolic diseases	Metabolic disorders	-	-	E00-E90	E70-E90	-	-	15.479	9.107	1.0E-50	1.8 (1.6 - 1.9)
Diseases of the digestive system	Other diseases of intestines	Diverticular disease of intestine	-	K00-K93	K55-K64	K57	-	10.924	5.459	2.2E-50	1.9 (1.8 - 2.1)
Endocrine, nutritional and metabolic diseases	Metabolic disorders	Disorders of lipoprotein metabolism and other lipidaemias	Pure hypercholesterolaemia	E00-E90	E70-E90	E78	E78.0	12.387	6.917	2.2E-49	1.8 (1.7 - 2.0)
Diseases of the digestive system	Other diseases of intestines	Diverticular disease of intestine	Diverticular disease of large intestine without perforation or abscess	K00-K93	K55-K64	K57	K57.3	9.697	4.718	1.4E-48	1.9 (1.8 - 2.1)
Factors influencing health status and contact with health services	Persons encountering health services for examination and investigation	Medical observation and evaluation for suspected diseases and conditions	Observation for other suspected diseases and conditions	Z00-Z99	Z00-Z13	Z03	Z03.8	3.563	1.224	4.3E-48	2.9 (2.5 - 3.3)
Mental and behavioural disorders	-	-	-	F00-F99	-	-	-	11.04	6.39	2.3E-46	1.8 (1.7 - 2.0)
Factors influencing health status and contact with health services	Persons with potential health hazards related to family and personal history and certain conditions influencing health status	Personal history of allergy to drugs, medicaments and biological substances	-	Z00-Z99	Z80-Z99	Z88	-	10.252	5.244	1.2E-45	1.9 (1.7 - 2.0)
Diseases of the digestive system	Noninfective enteritis and colitis	-	-	K00-K93	K50-K52	-	-	6.387	2.914	2.9E-42	2.1 (1.9 - 2.3)
Diseases of the digestive system	Noninfective enteritis and colitis	Other non-infective gastro-enteritis and colitis	-	K00-K93	K50-K52	K52	-	6.387	2.914	2.9E-42	2.1 (1.9 - 2.3)
Diseases of the digestive system	Noninfective enteritis and colitis	Other non-infective gastro-enteritis and colitis	Non-infective gastro-enteritis and colitis, unspecified	K00-K93	K50-K52	K52	K52.9	6.202	2.807	4.9E-42	2.1 (1.9 - 2.4)
Diseases of the circulatory system	Ischaemic heart diseases	Chronic ischaemic heart disease	Atherosclerotic heart disease	I00-I99	I20-I25	I25	I25.1	7.193	3.893	4.2E-40	2.0 (1.8 - 2.3)
Diseases of the nervous system	-	-	-	G00-G99	-	-	-	14	8.58	1.3E-39	1.7 (1.5 - 1.8)
Diseases of the musculoskeletal system and connective tissue	Spondylopathies	-	-	M00-M99	M45-M49	-	-	5.412	2.316	3.7E-39	2.2 (1.9 - 2.4)
Diseases of the musculoskeletal system and connective tissue	Other dorsopathies	-	-	M00-M99	M50-M54	-	-	7.748	4.112	2.2E-38	1.9 (1.7 - 2.1)

Diseases of the circulatory system	Diseases of veins, lymphatic vessels and lymph nodes, not elsewhere classified	Haemorrhoids	-	I00-I99	I80-I89	I84	-	8.924	4.999	6.1E-38	1.8 (1.7 - 2.0)
Diseases of the circulatory system	Diseases of veins, lymphatic vessels and lymph nodes, not elsewhere classified	-	-	I00-I99	I80-I89	-	-	13.58	8.434	1.0E-36	1.6 (1.5 - 1.8)
Factors influencing health status and contact with health services	Persons with potential health hazards related to family and personal history and certain conditions influencing health status	Family history of certain disabilities and chronic diseases leading to disablement	-	Z00-Z99	Z80-Z99	Z82	-	5.697	2.808	1.4E-36	2.1 (1.9 - 2.3)
Diseases of the musculoskeletal system and connective tissue	Arthrosis	Other arthrosis	Arthrosis, unspecified	M00-M99	M15-M19	M19	M19.9	6.538	2.97	2.0E-35	2.0 (1.8 - 2.2)
Diseases of the musculoskeletal system and connective tissue	Arthrosis	Other arthrosis	-	M00-M99	M15-M19	M19	-	7.008	3.274	2.3E-35	1.9 (1.7 - 2.1)
Diseases of the musculoskeletal system and connective tissue	Spondylopathies	Spondylosis	-	M00-M99	M45-M49	M47	-	3.815	1.452	3.5E-35	2.4 (2.1 - 2.7)
Factors influencing health status and contact with health services	Persons encountering health services for specific procedures and health care	Persons encountering health services for specific procedures, not carried out	Procedure not carried out for other reasons	Z00-Z99	Z40-Z54	Z53	Z53.8	6.303	3.159	4.8E-35	2.0 (1.8 - 2.2)
Diseases of the digestive system	Other diseases of intestines	Other functional intestinal disorders	-	K00-K93	K55-K64	K59	-	4.891	2.118	5.4E-35	2.2 (1.9 - 2.4)
Diseases of the nervous system	Nerve, nerve root and plexus disorders	-	-	G00-G99	G50-G59	-	-	7.479	3.824	1.3E-34	1.9 (1.7 - 2.1)
Diseases of the musculoskeletal system and connective tissue	Other soft tissue disorders	-	-	M00-M99	M70-M79	-	-	10.084	5.878	3.3E-34	1.7 (1.6 - 1.9)
Factors influencing health status and contact with health services	Persons with potential health hazards related to family and personal history and certain conditions influencing health status	Presence of cardiac and vascular implants and grafts	-	Z00-Z99	Z80-Z99	Z95	-	5.143	2.581	4.1E-34	2.1 (1.9 - 2.4)
Factors influencing health status and	Persons with potential health hazards related	Personal history of medical treatment	Personal history of long-term (current)	Z00-Z99	Z80-Z99	Z92	Z92.2	6.218	3.083	1.9E-33	2.0 (1.8 - 2.2)

contact with health services	to family and personal history and certain conditions influencing health status		use of other medicaments								
Factors influencing health status and contact with health services	Persons with potential health hazards related to family and personal history and certain conditions influencing health status	Presence of cardiac and vascular implants and grafts	Presence of coronary angioplasty implant and graft	Z00-Z99	Z80-Z99	Z95	Z95.5	2.908	1.178	2.9E-33	2.6 (2.3 - 3.1)
Diseases of the digestive system	Other diseases of intestines	Other functional intestinal disorders	Constipation	K00-K93	K55-K64	K59	K59.0	4.588	1.982	3.6E-33	2.2 (1.9 - 2.4)
Factors influencing health status and contact with health services	Persons with potential health hazards related to family and personal history and certain conditions influencing health status	Family history of certain disabilities and chronic diseases leading to disablement	Family history of ischaemic heart disease and other diseases of the circulatory system	Z00-Z99	Z80-Z99	Z82	Z82.4	5.294	2.65	9.1E-33	2.0 (1.8 - 2.3)
Diseases of the genitourinary system	Noninflammatory disorders of female genital tract	-	-	N00-N99	N80-N98	-	-	17.95	10.992	1.7E-32	1.6 (1.4 - 1.7)
Diseases of the digestive system	Other diseases of the digestive system	-	-	K00-K93	K90-K93	-	-	4.05	1.819	3.2E-32	2.2 (2.0 - 2.5)
Factors influencing health status and contact with health services	Persons with potential health hazards related to family and personal history and certain conditions influencing health status	Personal history of medical treatment	-	Z00-Z99	Z80-Z99	Z92	-	10.034	5.86	7.3E-32	1.7 (1.6 - 1.9)
Diseases of the musculoskeletal system and connective tissue	Other dorsopathies	Dorsalgia	-	M00-M99	M50-M54	M54	-	5.697	2.877	1.2E-31	2.0 (1.8 - 2.2)
Diseases of the musculoskeletal system and connective tissue	Other joint disorders	-	-	M00-M99	M20-M25	-	-	13.529	8.603	1.4E-31	1.6 (1.5 - 1.7)
Diseases of the circulatory system	Ischaemic heart diseases	Chronic ischaemic heart disease	Other forms of chronic ischaemic heart disease	I00-I99	I20-I25	I25	I25.8	3.277	1.421	1.7E-31	2.4 (2.1 - 2.8)
Diseases of the digestive system	Other diseases of the digestive system	Other diseases of digestive system	-	K00-K93	K90-K93	K92	-	3.58	1.573	2.0E-30	2.3 (2.0 - 2.6)
Factors influencing health status and contact with health services	Persons with potential health hazards related to family and personal history and certain	Personal history of certain other diseases	Personal history of psychoactive substance abuse	Z00-Z99	Z80-Z99	Z86	Z86.4	9.345	5.581	2.4E-30	1.7 (1.6 - 1.9)

	conditions influencing health status										
Diseases of the musculoskeletal system and connective tissue	Disorders of bone density and structure	Osteoporosis without pathological fracture	Osteoporosis, unspecified	M00-M99	M80-M85	M81	M81.9	3.16	1.002	1.1E-29	2.4 (2.1 - 2.8)
Diseases of the musculoskeletal system and connective tissue	Arthrosis	-	-	M00-M99	M15-M19	-	-	15.395	9.565	3.9E-29	1.5 (1.4 - 1.6)
Diseases of the genitourinary system	Other diseases of urinary system	-	-	N00-N99	N30-N39	-	-	10.588	6.281	1.8E-28	1.6 (1.5 - 1.8)
Factors influencing health status and contact with health services	Persons encountering health services in other circumstances	-	-	Z00-Z99	Z70-Z76	-	-	7.261	4.372	1.8E-28	1.8 (1.6 - 2.0)
Factors influencing health status and contact with health services	Persons encountering health services for specific procedures and health care	Other medical care	Other chemotherapy	Z00-Z99	Z40-Z54	Z51	Z51.2	4.958	2.341	3.2E-28	2.0 (1.8 - 2.2)
Factors influencing health status and contact with health services	Persons encountering health services in other circumstances	Problems related to lifestyle	-	Z00-Z99	Z70-Z76	Z72	-	6.42	3.798	6.0E-28	1.8 (1.6 - 2.0)
Diseases of the circulatory system	Ischaemic heart diseases	Angina pectoris	Unstable angina	I00-I99	I20-I25	I20	I20.0	2.571	1.016	6.3E-28	2.6 (2.2 - 3.0)
Mental and behavioural disorders	Neurotic, stress-related and somatoform disorders	-	-	F00-F99	F40-F48	-	-	3.244	1.394	1.4E-27	2.3 (2.0 - 2.6)
Diseases of the circulatory system	Other forms of heart disease	-	-	I00-I99	I30-I52	-	-	9.916	6.13	1.8E-27	1.6 (1.5 - 1.8)
Diseases of the musculoskeletal system and connective tissue	Disorders of bone density and structure	Osteoporosis without pathological fracture	-	M00-M99	M80-M85	M81	-	3.21	1.079	3.0E-27	2.3 (2.0 - 2.7)
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	Symptoms and signs involving the urinary system	-	-	R00-R99	R30-R39	-	-	9.916	6.338	6.5E-26	1.6 (1.5 - 1.8)
Mental and behavioural disorders	Mood [affective] disorders	Depressive episode	-	F00-F99	F30-F39	F32	-	4.403	2.241	1.6E-25	2.0 (1.7 - 2.2)
Mental and behavioural disorders	Mood [affective] disorders	Depressive episode	Depressive episode, unspecified	F00-F99	F30-F39	F32	F32.9	4.269	2.146	1.6E-25	2.0 (1.8 - 2.3)
Mental and behavioural disorders	Mood [affective] disorders	-	-	F00-F99	F30-F39	-	-	4.689	2.454	3.0E-25	1.9 (1.7 - 2.2)

Diseases of the circulatory system	Ischaemic heart diseases	Chronic ischaemic heart disease	Old myocardial infarction	I00-I99	I20-I25	I25	I25.2	2.975	1.373	7.5E-25	2.3 (2.0 - 2.7)
Endocrine, nutritional and metabolic diseases	Disorders of thyroid gland	Other hypothyroidism	-	E00-E90	E00-E07	E03	-	6.235	2.969	1.6E-24	1.8 (1.6 - 2.0)
Endocrine, nutritional and metabolic diseases	Disorders of thyroid gland	Other hypothyroidism	Hypothyroidism, unspecified	E00-E90	E00-E07	E03	E03.9	6.218	2.959	1.6E-24	1.8 (1.6 - 2.0)
Endocrine, nutritional and metabolic diseases	Disorders of thyroid gland	-	-	E00-E90	E00-E07	-	-	7.143	3.589	4.9E-24	1.7 (1.5 - 1.9)
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	Symptoms and signs involving the circulatory and respiratory systems	Pain in throat and chest	Other chest pain	R00-R99	R00-R09	R07	R07.3	3.647	1.79	6.6E-24	2.1 (1.8 - 2.4)
Diseases of the musculoskeletal system and connective tissue	Disorders of bone density and structure	-	-	M00-M99	M80-M85	-	-	4.118	1.737	1.2E-23	2.0 (1.7 - 2.3)
Diseases of the musculoskeletal system and connective tissue	Inflammatory polyarthropathies	-	-	M00-M99	M05-M14	-	-	6.958	3.821	1.6E-23	1.7 (1.5 - 1.9)
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	General symptoms and signs	Headache	-	R00-R99	R50-R69	R51	-	3.294	1.577	1.7E-23	2.1 (1.8 - 2.4)
Factors influencing health status and contact with health services	Persons with potential health hazards related to family and personal history and certain conditions influencing health status	Family history of malignant neoplasm	Family history of malignant neoplasm of digestive organs	Z00-Z99	Z80-Z99	Z80	Z80.0	3.328	1.547	1.9E-23	2.1 (1.8 - 2.4)
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	General symptoms and signs	Unknown and unspecified causes of morbidity	-	R00-R99	R50-R69	R69	-	6.118	3.468	3.3E-23	1.7 (1.6 - 1.9)
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	Symptoms and signs involving the digestive system and abdomen	Abdominal and pelvic pain	Pain localised to other parts of lower abdomen	R00-R99	R10-R19	R10	R10.3	3.193	1.495	3.5E-23	2.1 (1.8 - 2.5)
Diseases of the musculoskeletal system and connective tissue	Inflammatory polyarthropathies	Other arthritis	-	M00-M99	M05-M14	M13	-	4.739	2.263	2.0E-22	1.9 (1.6 - 2.1)

Diseases of the musculoskeletal system and connective tissue	Other soft tissue disorders	Shoulder lesions	-	M00-M99	M70-M79	M75	-	3.899	1.951	3.0E-22	2.0 (1.7 - 2.2)
Certain infectious and parasitic diseases	Bacterial, viral and other infectious agents	Other bacterial agents as the cause of diseases classified to other chapters	-	A00-B99	B95-B98	B96	-	3.244	1.466	7.9E-22	2.1 (1.8 - 2.4)
Diseases of the circulatory system	Diseases of veins, lymphatic vessels and lymph nodes, not elsewhere classified	Haemorrhoids	Unspecified haemorrhoids without complication	I00-I99	I80-I89	I84	I84.9	4.941	2.73	7.9E-22	1.8 (1.6 - 2.0)
Factors influencing health status and contact with health services	Persons with potential health hazards related to family and personal history and certain conditions influencing health status	Personal history of allergy to drugs, medicaments and biological substances	Personal history of allergy to penicillin	Z00-Z99	Z80-Z99	Z88	Z88.0	6	3.326	7.9E-22	1.7 (1.5 - 1.9)
Diseases of the musculoskeletal system and connective tissue	Inflammatory polyarthropathies	Other arthritis	Arthritis, unspecified	M00-M99	M05-M14	M13	M13.9	4.538	2.157	1.1E-21	1.9 (1.6 - 2.1)
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	-	-	-	D50-D89	-	-	-	7.9	4.69	1.6E-21	1.6 (1.5 - 1.8)
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	Symptoms and signs involving the circulatory and respiratory systems	Abnormalities of breathing	-	R00-R99	R00-R09	R06	-	3.647	1.866	2.2E-21	2.0 (1.7 - 2.3)
Diseases of the musculoskeletal system and connective tissue	Other soft tissue disorders	Other soft tissue disorders, not elsewhere classified	-	M00-M99	M70-M79	M79	-	4.739	2.51	9.9E-21	1.8 (1.6 - 2.0)
Factors influencing health status and contact with health services	Persons with potential health hazards related to family and personal history and certain conditions influencing health status	Acquired absence of organs, not elsewhere classified	-	Z00-Z99	Z80-Z99	Z90	-	5.546	2.826	1.1E-20	1.7 (1.5 - 1.9)
Diseases of the genitourinary system	Other diseases of urinary system	Other disorders of urinary system	-	N00-N99	N30-N39	N39	-	7.193	4.026	1.1E-20	1.6 (1.5 - 1.8)
Symptoms, signs and abnormal clinical and	Symptoms and signs involving the	Abnormalities of heart beat	-	R00-R99	R00-R09	R00	-	3.513	1.72	2.3E-20	2.0 (1.7 - 2.3)

laboratory findings, not elsewhere classified	circulatory and respiratory systems										
Factors influencing health status and contact with health services	Persons with potential health hazards related to family and personal history and certain conditions influencing health status	Personal history of certain other diseases	Personal history of diseases of the circulatory system	Z00-Z99	Z80-Z99	Z86	Z86.7	5.714	3.231	3.2E-20	1.7 (1.5 - 1.9)
Diseases of the digestive system	Other diseases of intestines	Other diseases of intestine	-	K00-K93	K55-K64	K63	-	4.975	2.739	4.1E-20	1.8 (1.6 - 2.0)
Diseases of the respiratory system	Chronic lower respiratory diseases	Other chronic obstructive pulmonary disease	Chronic obstructive pulmonary disease, unspecified	J00-J99	J40-J47	J44	J44.9	2.924	1.311	5.9E-20	2.1 (1.8 - 2.4)
Certain infectious and parasitic diseases	Bacterial, viral and other infectious agents	-	-	A00-B99	B95-B98	-	-	4.353	2.305	6.0E-20	1.8 (1.6 - 2.1)
Mental and behavioural disorders	Neurotic, stress-related and somatoform disorders	Other anxiety disorders	-	F00-F99	F40-F48	F41	-	2.521	1.114	7.0E-20	2.2 (1.9 - 2.6)
Diseases of the respiratory system	Other diseases of upper respiratory tract	-	-	J00-J99	J30-J39	-	-	4.908	3.037	8.4E-20	1.8 (1.6 - 2.0)
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	Symptoms and signs involving the circulatory and respiratory systems	Abnormalities of breathing	Dyspnoea	R00-R99	R00-R09	R06	R06.0	2.605	1.157	1.5E-19	2.1 (1.8 - 2.5)
Diseases of the nervous system	Nerve, nerve root and plexus disorders	Mononeuropathies of upper limb	-	G00-G99	G50-G59	G56	-	4.471	2.296	4.9E-19	1.8 (1.6 - 2.0)
Factors influencing health status and contact with health services	Persons with potential health hazards related to family and personal history and certain conditions influencing health status	Family history of malignant neoplasm	-	Z00-Z99	Z80-Z99	Z80	-	4.151	2.22	1.6E-18	1.8 (1.6 - 2.1)
Factors influencing health status and contact with health services	Persons encountering health services for specific procedures and health care	Persons encountering health services for specific procedures, not carried out	Procedure not carried out because of contraindication	Z00-Z99	Z40-Z54	Z53	Z53.0	3.092	1.482	1.6E-18	2.0 (1.7 - 2.3)
Diseases of the digestive system	Other diseases of intestines	Other diseases of intestine	Polyp of colon	K00-K93	K55-K64	K63	K63.5	4.101	2.24	1.0E-17	1.8 (1.6 - 2.0)
Factors influencing health status and contact with health services	Persons encountering health services in other circumstances	Problems related to lifestyle	Alcohol use	Z00-Z99	Z70-Z76	Z72	Z72.1	2.908	1.566	1.5E-17	2.0 (1.7 - 2.3)
Diseases of the blood and blood-forming organs and certain	Aplastic and other anaemias	-	-	D50-D89	D60-D64	-	-	4.286	2.277	3.8E-17	1.7 (1.5 - 2.0)

disorders involving the immune mechanism											
Diseases of the respiratory system	Chronic lower respiratory diseases	Other chronic obstructive pulmonary disease	-	J00-J99	J40-J47	J44	-	3.16	1.539	4.1E-17	1.9 (1.6 - 2.2)
Diseases of the musculoskeletal system and connective tissue	Other joint disorders	Other joint disorders, not elsewhere classified	-	M00-M99	M20-M25	M25	-	4.84	2.807	7.7E-17	1.7 (1.5 - 1.9)
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	Aplastic and other anaemias	Other anaemias	-	D50-D89	D60-D64	D64	-	3.966	2.082	1.7E-16	1.8 (1.5 - 2.0)
Diseases of the nervous system	Nerve, nerve root and plexus disorders	Mononeuropathies of upper limb	Carpal tunnel syndrome	G00-G99	G50-G59	G56	G56.0	4.067	2.096	1.8E-16	1.8 (1.5 - 2.0)
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	Aplastic and other anaemias	Other anaemias	Anaemia, unspecified	D50-D89	D60-D64	D64	D64.9	3.95	2.075	2.3E-16	1.8 (1.5 - 2.0)
Endocrine, nutritional and metabolic diseases	Metabolic disorders	Disorders of lipoprotein metabolism and other lipidaemias	Hyperlipidaemia, unspecified	E00-E90	E70-E90	E78	E78.5	2.168	1.008	3.7E-16	2.1 (1.8 - 2.5)
Diseases of the musculoskeletal system and connective tissue	Other joint disorders	Other joint disorders, not elsewhere classified	Pain in joint	M00-M99	M20-M25	M25	M25.5	3.126	1.631	8.1E-16	1.9 (1.6 - 2.2)
Endocrine, nutritional and metabolic diseases	Diabetes mellitus	-	-	E00-E90	E10-E14	-	-	6.42	4.153	1.1E-15	1.6 (1.4 - 1.7)
Neoplasm	Benign neoplasms	-	-	C00-D48	D10-D36	-	-	14.084	10.059	3.6E-15	1.4 (1.3 - 1.5)
Endocrine, nutritional and metabolic diseases	Diabetes mellitus	Non-insulin-dependent diabetes mellitus	-	E00-E90	E10-E14	E11	-	5.983	3.824	4.7E-15	1.6 (1.4 - 1.7)
External causes of morbidity and mortality	-	-	-	V01-Y98	-	-	-	17.78	13.9	4.9E-15	1.3 (1.2 - 1.4)
Endocrine, nutritional and metabolic diseases	Diabetes mellitus	Non-insulin-dependent diabetes mellitus	Without complications	E00-E90	E10-E14	E11	E11.9	5.899	3.759	5.2E-15	1.6 (1.4 - 1.7)
Diseases of the musculoskeletal system and connective tissue	Other soft tissue disorders	Shoulder lesions	Impingement syndrome of shoulder	M00-M99	M70-M79	M75	M75.4	2.168	1.036	6.9E-15	2.0 (1.7 - 2.4)

Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	Abnormal findings on diagnostic imaging and in function studies, without diagnosis	-	-	R00-R99	R90-R94	-	-	3.613	1.967	1.5E-14	1.7 (1.5 - 2.0)
Diseases of the musculoskeletal system and connective tissue	Other dorsopathies	Dorsalgia	Low back pain	M00-M99	M50-M54	M54	M54.5	2.941	1.57	1.8E-14	1.8 (1.6 - 2.1)
Diseases of the skin and subcutaneous tissue	-	-	-	L00-L99	-	-	-	12.32	9.05	3.2E-14	1.4 (1.3 - 1.5)
Factors influencing health status and contact with health services	Persons encountering health services in other circumstances	Problems related to lifestyle	Tobacco use	Z00-Z99	Z70-Z76	Z72	Z72.0	3.849	2.431	6.2E-14	1.7 (1.5 - 1.9)
Diseases of the genitourinary system	Other diseases of urinary system	Other disorders of urinary system	Stress incontinence	N00-N99	N30-N39	N39	N39.3	2.672	1.214	3.4E-13	1.8 (1.6 - 2.2)
Diseases of the digestive system	Other diseases of the digestive system	Other diseases of digestive system	Gastro-intestinal haemorrhage, unspecified	K00-K93	K90-K93	K92	K92.2	2	0.999	6.6E-13	2.0 (1.7 - 2.4)
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	Symptoms and signs involving the urinary system	Other symptoms and signs involving the urinary system	-	R00-R99	R30-R39	R39	-	2.017	1.046	7.1E-13	2.0 (1.7 - 2.4)
Diseases of the ear and mastoid process	-	-	-	H60-H95	-	-	-	3.58	2.08	7.7E-13	1.7 (1.5 - 1.9)
Diseases of the nervous system	Episodic and paroxysmal disorders	-	-	G00-G99	G40-G47	-	-	4.571	3.014	2.1E-12	1.6 (1.4 - 1.8)
Factors influencing health status and contact with health services	Persons encountering health services for examination and investigation	Special screening examination for other diseases and disorders	-	Z00-Z99	Z00-Z13	Z13	-	3.311	1.896	2.2E-12	1.7 (1.5 - 2.0)
Diseases of the musculoskeletal system and connective tissue	Other soft tissue disorders	Other soft tissue disorders, not elsewhere classified	Pain in limb	M00-M99	M70-M79	M79	M79.6	2.487	1.29	3.1E-12	1.8 (1.5 - 2.2)
Diseases of the genitourinary system	Diseases of male genital organs	-	-	N00-N99	N40-N51	-	-	5.328	4.382	3.3E-12	1.6 (1.4 - 1.8)
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	Nutritional anaemias	-	-	D50-D89	D50-D53	-	-	2.79	1.458	3.5E-12	1.8 (1.5 - 2.1)

Diseases of the respiratory system	Other diseases of upper respiratory tract	Other disorders of nose and nasal sinuses	-	J00-J99	J30-J39	J34	-	2.336	1.407	3.6E-12	1.9 (1.6 - 2.2)
Factors influencing health status and contact with health services	Persons encountering health services for specific procedures and health care	Other medical care	-	Z00-Z99	Z40-Z54	Z51	-	8.471	5.631	4.1E-12	1.4 (1.3 - 1.5)
Neoplasm	-	-	-	C00-D48	-	-	-	25.19	19.63	5.0E-12	1.2 (1.2 - 1.3)
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	General symptoms and signs	Syncope and collapse	-	R00-R99	R50-R69	R55	-	3.277	1.907	5.7E-12	1.7 (1.5 - 1.9)
Diseases of the genitourinary system	Noninflammatory disorders of female genital tract	Female genital prolapse	-	N00-N99	N80-N98	N81	-	4.941	2.497	6.0E-12	1.5 (1.4 - 1.7)
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	Symptoms and signs involving the urinary system	Unspecified haematuria	-	R00-R99	R30-R39	R31	-	5.261	3.472	6.8E-12	1.5 (1.3 - 1.7)
Factors influencing health status and contact with health services	Persons encountering health services for examination and investigation	Follow-up examination after treatment for conditions other than malignant neoplasms	-	Z00-Z99	Z00-Z13	Z09	-	3.076	1.719	7.7E-12	1.7 (1.5 - 2.0)
Diseases of the musculoskeletal system and connective tissue	Other dorsopathies	Other intervertebral disk disorders	-	M00-M99	M50-M54	M51	-	2.706	1.547	1.3E-11	1.7 (1.5 - 2.1)
Certain infectious and parasitic diseases	Intestinal infectious diseases	Diarrhoea and gastro-enteritis of presumed infectious origin	-	A00-B99	A00-A09	A09	-	2.067	1.023	1.5E-11	1.9 (1.6 - 2.3)
External causes of morbidity and mortality	Surgical and other medical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure	-	-	V01-Y98	Y83-Y84	-	-	6.168	4.117	1.9E-11	1.5 (1.3 - 1.6)
Injury, poisoning and certain other consequences of external causes	-	-	-	S00-T98	-	-	-	16.94	13.7	2.5E-11	1.3 (1.2 - 1.4)
Diseases of the blood and blood-forming	Nutritional anaemias	Iron deficiency anaemia	-	D50-D89	D50-D53	D50	-	2.487	1.294	2.6E-11	1.8 (1.5 - 2.1)

organs and certain disorders involving the immune mechanism											
Mental and behavioural disorders	Mental and behavioural disorders due to psychoactive substance use	Mental and behavioural disorders due to use of tobacco	Harmful use	F00-F99	F10-F19	F17	F17.1	3.311	2.17	1.0E-10	1.6 (1.4 - 1.9)
Injury, poisoning and certain other consequences of external causes	Complications of surgical and medical care, not elsewhere classified	-	-	S00-T98	T80-T88	-	-	6.924	4.737	1.1E-10	1.4 (1.3 - 1.6)
Diseases of the respiratory system	Other acute lower respiratory infections	-	-	J00-J99	J20-J22	-	-	2.723	1.542	1.3E-10	1.7 (1.4 - 2.0)
Diseases of the genitourinary system	Diseases of male genital organs	Hyperplasia of prostate	-	N00-N99	N40-N51	N40	-	3.395	2.485	1.4E-10	1.6 (1.4 - 1.9)
Diseases of the respiratory system	Other acute lower respiratory infections	Unspecified acute lower respiratory infection	-	J00-J99	J20-J22	J22	-	2.672	1.51	1.7E-10	1.7 (1.4 - 2.0)
External causes of morbidity and mortality	Surgical and other medical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure	Surgical operation and other surgical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure	Other surgical procedures	V01-Y98	Y83-Y84	Y83	Y83.8	2.168	1.198	1.9E-10	1.8 (1.5 - 2.1)
External causes of morbidity and mortality	Surgical and other medical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure	Surgical operation and other surgical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure	-	V01-Y98	Y83-Y84	Y83	-	5.647	3.772	2.0E-10	1.4 (1.3 - 1.6)
Mental and behavioural disorders	Mental and behavioural disorders due to psychoactive substance use	-	-	F00-F99	F10-F19	-	-	4.319	3.098	2.1E-10	1.5 (1.3 - 1.7)
Diseases of the circulatory system	Ischaemic heart diseases	Acute myocardial infarction	-	I00-I99	I20-I25	I21	-	2.706	1.718	2.4E-10	1.7 (1.4 - 2.0)

Mental and behavioural disorders	Mental and behavioural disorders due to psychoactive substance use	Mental and behavioural disorders due to use of tobacco	-	F00-F99	F10-F19	F17	-	3.395	2.265	3.0E-10	1.6 (1.4 - 1.8)
Endocrine, nutritional and metabolic diseases	Obesity and other hyperalimentation	Obesity	Obesity, unspecified	E00-E90	E65-E68	E66	E66.9	3.328	2.037	3.8E-10	1.6 (1.4 - 1.8)
Diseases of the musculoskeletal system and connective tissue	Other joint disorders	Internal derangement of knee	-	M00-M99	M20-M25	M23	-	4.739	3.455	4.9E-10	1.5 (1.3 - 1.7)
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	Symptoms and signs involving cognition, perception, emotional state and behaviour	-	-	R00-R99	R40-R46	-	-	3.042	1.83	7.4E-10	1.6 (1.4 - 1.9)
Endocrine, nutritional and metabolic diseases	Obesity and other hyperalimentation	Obesity	-	E00-E90	E65-E68	E66	-	3.496	2.18	7.5E-10	1.6 (1.4 - 1.8)
Endocrine, nutritional and metabolic diseases	Obesity and other hyperalimentation	-	-	E00-E90	E65-E68	-	-	3.496	2.197	1.5E-09	1.6 (1.3 - 1.8)
Diseases of the respiratory system	Influenza and pneumonia	-	-	J00-J99	J09-J18	-	-	3.26	2.006	2.0E-09	1.6 (1.4 - 1.8)
Diseases of the digestive system	Other diseases of intestines	Diverticular disease of intestine	Diverticular disease of intestine, part unspecified, without perforation or abscess	K00-K93	K55-K64	K57	K57.9	2.235	1.154	3.2E-09	1.7 (1.4 - 2.0)
Factors influencing health status and contact with health services	Persons with potential health hazards related to family and personal history and certain conditions influencing health status	Personal history of certain other diseases	Personal history of diseases of the nervous system and sense organs	Z00-Z99	Z80-Z99	Z86	Z86.6	2.336	1.288	3.3E-09	1.7 (1.4 - 2.0)
Diseases of the musculoskeletal system and connective tissue	Arthrosis	Gonarthrosis [arthrosis of knee]	-	M00-M99	M15-M19	M17	-	6.37	4.361	6.8E-09	1.4 (1.2 - 1.5)
Diseases of the skin and subcutaneous tissue	Other disorders of the skin and subcutaneous tissue	-	-	L00-L99	L80-L99	-	-	5.294	3.525	1.0E-08	1.4 (1.3 - 1.6)
Factors influencing health status and contact with health services	Persons with potential health hazards related to family and personal history and certain conditions influencing health status	Personal history of other diseases and conditions	Personal history of diseases of the genitourinary system	Z00-Z99	Z80-Z99	Z87	Z87.4	2.487	1.45	1.3E-08	1.6 (1.4 - 1.9)

Diseases of the genitourinary system	Noninflammatory disorders of female genital tract	Excessive, frequent and irregular menstruation	-	N00-N99	N80-N98	N92	-	4.252	3.046	1.7E-08	1.5 (1.3 - 1.7)
Diseases of the genitourinary system	Other diseases of urinary system	Other disorders of bladder	-	N00-N99	N30-N39	N32	-	2.908	1.902	3.3E-08	1.6 (1.3 - 1.8)
Diseases of the circulatory system	Other and unspecified disorders of the circulatory system	-	-	I00-I99	I95-I99	-	-	1.95	1.067	3.7E-08	1.7 (1.4 - 2.1)
Factors influencing health status and contact with health services	Persons with potential health hazards related to family and personal history and certain conditions influencing health status	Personal history of medical treatment	Personal history of long-term (current) use of anticoagulants	Z00-Z99	Z80-Z99	Z92	Z92.1	3.277	2.118	3.9E-08	1.5 (1.3 - 1.8)
Diseases of the respiratory system	Influenza and pneumonia	Pneumonia, organism unspecified	-	J00-J99	J09-J18	J18	-	2.908	1.821	7.8E-08	1.5 (1.3 - 1.8)
Diseases of the musculoskeletal system and connective tissue	Disorders of synovium and tendon	-	-	M00-M99	M65-M68	-	-	3.244	2.056	8.6E-08	1.5 (1.3 - 1.7)
Diseases of the genitourinary system	Other diseases of urinary system	Other disorders of urinary system	Urinary tract infection, site not specified	N00-N99	N30-N39	N39	N39.0	4.017	2.558	8.6E-08	1.4 (1.3 - 1.6)
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	Symptoms and signs involving the skin and subcutaneous tissue	-	-	R00-R99	R20-R23	-	-	2.42	1.52	2.0E-07	1.6 (1.3 - 1.9)
Diseases of the digestive system	Other diseases of intestines	Other diseases of anus and rectum	Rectal polyp	K00-K93	K55-K64	K62	K62.1	2.084	1.254	2.0E-07	1.6 (1.4 - 2.0)
Diseases of the musculoskeletal system and connective tissue	Arthrosis	Gonarthrosis [arthrosis of knee]	Gonarthrosis, unspecified	M00-M99	M15-M19	M17	M17.9	4.941	3.376	2.2E-07	1.4 (1.2 - 1.6)
Diseases of the circulatory system	Diseases of arteries, arterioles and capillaries	-	-	I00-I99	I70-I79	-	-	2.437	1.508	3.1E-07	1.6 (1.3 - 1.8)
Diseases of the digestive system	Diseases of oral cavity, salivary glands and jaws	-	-	K00-K93	K00-K14	-	-	4.756	3.502	3.3E-07	1.4 (1.2 - 1.6)
Factors influencing health status and contact with health services	Persons with potential health hazards related to family and personal history and certain conditions influencing health status	Acquired absence of organs, not elsewhere classified	Acquired absence of genital organ(s)	Z00-Z99	Z80-Z99	Z90	Z90.7	2.084	1.082	5.8E-07	1.6 (1.3 - 1.9)
Diseases of the circulatory system	Other forms of heart disease	Atrial fibrillation and flutter	-	I00-I99	I30-I52	I48	-	4.555	3.236	7.9E-07	1.4 (1.2 - 1.6)

Neoplasm	Benign neoplasms	Benign neoplasm of colon, rectum, anus and anal canal	-	C00-D48	D10-D36	D12	-	3.815	2.603	1.5E-06	1.4 (1.2 - 1.6)
External causes of morbidity and mortality	Drugs, medicaments and biological substances causing adverse effects in therapeutic use	-	-	V01-Y98	Y40-Y59	-	-	2.437	1.456	1.9E-06	1.5 (1.3 - 1.8)
Diseases of the musculoskeletal system and connective tissue	Disorders of synovium and tendon	Synovitis and tenosynovitis	-	M00-M99	M65-M68	M65	-	1.916	1.127	2.1E-06	1.6 (1.3 - 1.9)
Diseases of the musculoskeletal system and connective tissue	Other joint disorders	Internal derangement of knee	Derangement of meniscus due to old tear or injury	M00-M99	M20-M25	M23	M23.2	3.193	2.424	2.5E-06	1.4 (1.2 - 1.7)
Diseases of the digestive system	Hernia	Inguinal hernia	Unilateral or unspecified inguinal hernia, without obstruction or gangrene	K00-K93	K40-K46	K40	K40.9	3.916	3.362	2.8E-06	1.4 (1.2 - 1.6)
Injury, poisoning and certain other consequences of external causes	Complications of surgical and medical care, not elsewhere classified	Complications of procedures, not elsewhere classified	-	S00-T98	T80-T88	T81	-	3.865	2.677	3.3E-06	1.4 (1.2 - 1.6)
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	Symptoms and signs involving the nervous and musculoskeletal systems	-	-	R00-R99	R25-R29	-	-	1.798	1.06	3.7E-06	1.6 (1.3 - 1.9)
Diseases of the genitourinary system	Other diseases of urinary system	Other disorders of bladder	Other specified disorders of bladder	N00-N99	N30-N39	N32	N32.8	2.118	1.355	4.2E-06	1.5 (1.3 - 1.8)
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	Abnormal findings on examination of blood, without diagnosis	-	-	R00-R99	R70-R79	-	-	2.454	1.721	6.8E-06	1.5 (1.3 - 1.8)
Diseases of the genitourinary system	Noninflammatory disorders of female genital tract	Menopausal and other perimenopausal disorders	-	N00-N99	N80-N98	N95	-	4.168	2.307	7.9E-06	1.4 (1.2 - 1.5)
Diseases of the genitourinary system	Noninflammatory disorders of female genital tract	Noninflammatory disorders of ovary, Fallopian tube and broad ligament	-	N00-N99	N80-N98	N83	-	1.899	1.146	9.4E-06	1.6 (1.3 - 1.9)
Diseases of the eye and adnexa	-	-	-	H00-H59	-	-	-	11.73	8.83	1.1E-05	1.2 (1.1 - 1.3)
Diseases of the digestive system	Hernia	Inguinal hernia	-	K00-K93	K40-K46	K40	-	4.168	3.697	1.3E-05	1.4 (1.2 - 1.5)

Factors influencing health status and contact with health services	Persons with potential health hazards related to family and personal history and certain conditions influencing health status	Presence of other functional implants	Presence of orthopaedic joint implants	Z00-Z99	Z80-Z99	Z96	Z96.6	3.361	2.092	1.6E-05	1.4 (1.2 - 1.6)
Injury, poisoning and certain other consequences of external causes	Complications of surgical and medical care, not elsewhere classified	Complications of internal orthopaedic prosthetic devices, implants and grafts	-	S00-T98	T80-T88	T84	-	1.731	1.018	2.1E-05	1.6 (1.3 - 1.9)
Diseases of the respiratory system	Other diseases of the respiratory system	-	-	J00-J99	J95-J99	-	-	1.698	1.057	4.5E-05	1.5 (1.3 - 1.9)
Diseases of the circulatory system	Other forms of heart disease	Heart failure	-	I00-I99	I30-I52	I50	-	1.714	1.114	4.7E-05	1.5 (1.3 - 1.9)
Injury, poisoning and certain other consequences of external causes	Complications of surgical and medical care, not elsewhere classified	Complications of procedures, not elsewhere classified	Haemorrhage and haematoma complicating a procedure, not elsewhere classified	S00-T98	T80-T88	T81	T81.0	1.731	1.095	8.1E-05	1.5 (1.2 - 1.8)
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	Abnormal findings on examination of blood, without diagnosis	Other abnormal findings of blood chemistry	-	R00-R99	R70-R79	R79	-	1.916	1.381	1.2E-04	1.5 (1.2 - 1.8)
Diseases of the skin and subcutaneous tissue	Infections of the skin and subcutaneous tissue	Cellulitis	-	L00-L99	L00-L08	L03	-	2.185	1.556	1.2E-04	1.4 (1.2 - 1.7)
Diseases of the musculoskeletal system and connective tissue	Arthrosis	Gonarthrosis [arthrosis of knee]	Other primary gonarthrosis	M00-M99	M15-M19	M17	M17.1	1.765	1.094	1.3E-04	1.5 (1.2 - 1.8)
Factors influencing health status and contact with health services	Persons with potential health hazards related to family and personal history and certain conditions influencing health status	Presence of other functional implants	-	Z00-Z99	Z80-Z99	Z96	-	5.193	3.599	1.4E-04	1.3 (1.1 - 1.4)
Diseases of the musculoskeletal system and connective tissue	Other joint disorders	Acquired deformities of fingers and toes	-	M00-M99	M20-M25	M20	-	3.462	2.135	1.4E-04	1.3 (1.1 - 1.5)
Diseases of the skin and subcutaneous tissue	Infections of the skin and subcutaneous tissue	Cellulitis	Cellulitis of other parts of limb	L00-L99	L00-L08	L03	L03.1	1.714	1.199	1.8E-04	1.5 (1.2 - 1.8)
Symptoms, signs and abnormal clinical and	Abnormal findings on examination of blood, without diagnosis	Other abnormal findings of blood chemistry	Other specified abnormal findings of blood chemistry	R00-R99	R70-R79	R79	R79.8	1.782	1.298	2.3E-04	1.5 (1.2 - 1.8)

laboratory findings, not elsewhere classified											
Neoplasm	Melanoma and other malignant neoplasms of skin	Other malignant neoplasms of skin	Skin of other and unspecified parts of face	C00-D48	C43-C44	C44	C44.3	2.101	1.35	3.3E-04	1.4 (1.2 - 1.7)
Diseases of the musculoskeletal system and connective tissue	Other joint disorders	Acquired deformities of fingers and toes	Hallux valgus (acquired)	M00-M99	M20-M25	M20	M20.1	2.487	1.453	3.5E-04	1.4 (1.2 - 1.6)
Diseases of the skin and subcutaneous tissue	Disorders of skin appendages	-	-	L00-L99	L60-L75	-	-	3.109	2.367	4.6E-04	1.3 (1.1 - 1.5)
Factors influencing health status and contact with health services	Persons with potential health hazards related to family and personal history and certain conditions influencing health status	Personal history of risk-factors, not elsewhere classified	-	Z00-Z99	Z80-Z99	Z91	-	1.647	1.102	4.7E-04	1.4 (1.2 - 1.8)
Diseases of the genitourinary system	Renal failure	-	-	N00-N99	N17-N19	-	-	2.437	1.687	4.9E-04	1.4 (1.1 - 1.6)
Diseases of the skin and subcutaneous tissue	Other disorders of the skin and subcutaneous tissue	Other disorders of skin and subcutaneous tissue, not elsewhere classified	-	L00-L99	L80-L99	L98	-	1.865	1.247	5.0E-04	1.4 (1.2 - 1.7)
Congenital malformations, deformations and chromosomal abnormalities	-	-	-	Q00-Q99	-	-	-	1.66	1.17	5.6E-04	1.4 (1.2 - 1.8)
Diseases of the circulatory system	Diseases of veins, lymphatic vessels and lymph nodes, not elsewhere classified	Varicose veins of lower extremities	-	I00-I99	I80-I89	I83	-	3.513	2.518	6.5E-04	1.3 (1.1 - 1.5)
Neoplasm	Melanoma and other malignant neoplasms of skin	-	-	C00-D48	C43-C44	-	-	4.118	3.012	8.9E-04	1.3 (1.1 - 1.4)
Diseases of the genitourinary system	Inflammatory diseases of female pelvic organs	-	-	N00-N99	N70-N77	-	-	1.966	1.336	9.3E-04	1.4 (1.1 - 1.7)
Neoplasm	Melanoma and other malignant neoplasms of skin	Other malignant neoplasms of skin	-	C00-D48	C43-C44	C44	-	3.597	2.59	1.1E-03	1.3 (1.1 - 1.5)
Diseases of the genitourinary system	Urolithiasis	-	-	N00-N99	N20-N23	-	-	1.832	1.45	1.1E-03	1.4 (1.1 - 1.7)

External causes of morbidity and mortality	Surgical and other medical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure	Surgical operation and other surgical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure	Surgical operation with implant of artificial internal device	V01-Y98	Y83-Y84	Y83	Y83.1	1.933	1.286	1.2E-03	1.4 (1.1 - 1.7)
Diseases of the genitourinary system	Noninflammatory disorders of female genital tract	Menopausal and other perimenopausal disorders	Postmenopausal bleeding	N00-N99	N80-N98	N95	N95.0	3.462	2.034	1.5E-03	1.3 (1.1 - 1.5)
Diseases of the eye and adnexa	Disorders of eyelid, lacrimal system and orbit	-	-	H00-H59	H00-H06	-	-	3.042	2.167	1.5E-03	1.3 (1.1 - 1.5)
Diseases of the genitourinary system	Noninflammatory disorders of female genital tract	Polyp of female genital tract	-	N00-N99	N80-N98	N84	-	3.781	2.48	1.6E-03	1.3 (1.1 - 1.4)
Neoplasm	Benign neoplasms	Benign lipomatous neoplasm	-	C00-D48	D10-D36	D17	-	1.95	1.464	1.6E-03	1.4 (1.1 - 1.6)
Diseases of the circulatory system	Diseases of veins, lymphatic vessels and lymph nodes, not elsewhere classified	Varicose veins of lower extremities	Varicose veins of lower extremities without ulcer or inflammation	I00-I99	I80-I89	I83	I83.9	3.328	2.415	1.7E-03	1.3 (1.1 - 1.5)
External causes of morbidity and mortality	Falls	Unspecified fall	-	V01-Y98	W00-W19	W19	-	1.782	1.183	2.4E-03	1.4 (1.1 - 1.7)
Diseases of the genitourinary system	Noninflammatory disorders of female genital tract	Excessive, frequent and irregular menstruation	Excessive and frequent menstruation with regular cycle	N00-N99	N80-N98	N92	N92.0	2.454	2.011	2.5E-03	1.3 (1.1 - 1.5)
Factors influencing health status and contact with health services	Persons encountering health services for examination and investigation	Special screening examination for neoplasms	Special screening examination for neoplasm of intestinal tract	Z00-Z99	Z00-Z13	Z12	Z12.1	1.731	1.216	2.7E-03	1.4 (1.1 - 1.7)
Diseases of the nervous system	Episodic and paroxysmal disorders	Sleep disorders	-	G00-G99	G40-G47	G47	-	1.412	1.132	3.7E-03	1.4 (1.1 - 1.7)
Mental and behavioural disorders	Mental and behavioural disorders due to psychoactive substance use	Mental and behavioural disorders due to use of alcohol	-	F00-F99	F10-F19	F10	-	1.244	1.016	4.0E-03	1.4 (1.1 - 1.8)
Factors influencing health status and contact with health services	Persons encountering health services in circumstances related to reproduction	Contraceptive management	-	Z00-Z99	Z30-Z39	Z30	-	2.101	2.239	4.0E-03	1.3 (1.1 - 1.6)
Factors influencing health status and	Persons with potential health hazards related	Personal history of malignant neoplasm	-	Z00-Z99	Z80-Z99	Z85	-	6.857	5.265	4.7E-03	1.2 (1.1 - 1.3)

contact with health services	to family and personal history and certain conditions influencing health status										
Factors influencing health status and contact with health services	Persons encountering health services for examination and investigation	Special screening examination for neoplasms	-	Z00-Z99	Z00-Z13	Z12	-	1.849	1.337	5.0E-03	1.3 (1.1 - 1.6)
Diseases of the genitourinary system	Urolithiasis	Calculus of kidney and ureter	-	N00-N99	N20-N23	N20	-	1.345	1.065	5.1E-03	1.4 (1.1 - 1.7)
Diseases of the skin and subcutaneous tissue	Infections of the skin and subcutaneous tissue	-	-	L00-L99	L00-L08	-	-	2.807	2.312	6.0E-03	1.3 (1.1 - 1.5)
Diseases of the respiratory system	Influenza and pneumonia	Pneumonia, organism unspecified	Lobar pneumonia, unspecified	J00-J99	J09-J18	J18	J18.1	1.63	1.16	6.6E-03	1.3 (1.1 - 1.6)
Diseases of the genitourinary system	Noninflammatory disorders of female genital tract	Polyp of female genital tract	Polyp of corpus uteri	N00-N99	N80-N98	N84	N84.0	2.79	1.823	7.1E-03	1.2 (1.1 - 1.5)
External causes of morbidity and mortality	Falls	-	-	V01-Y98	W00-W19	-	-	5.731	4.526	8.8E-03	1.2 (1.0 - 1.3)
Pregnancy, childbirth and the puerperium	Complications of labour and delivery	-	-	O00-O99	O60-O75	-	-	1.16	2.317	1.1E-02	0.7 (0.5 - 0.9)
Neoplasm	Malignant neoplasms of digestive organs	-	-	C00-D48	C15-C26	-	-	1.832	1.324	1.2E-02	1.3 (1.1 - 1.6)
Diseases of the genitourinary system	Noninflammatory disorders of female genital tract	Female genital prolapse	Cystocele	N00-N99	N80-N98	N81	N81.1	1.782	1.042	1.5E-02	1.3 (1.1 - 1.6)
Diseases of the skin and subcutaneous tissue	Disorders of skin appendages	Follicular cysts of skin and subcutaneous tissue	-	L00-L99	L60-L75	L72	-	2.387	1.936	2.1E-02	1.2 (1.0 - 1.5)
Diseases of the skin and subcutaneous tissue	Disorders of skin appendages	Follicular cysts of skin and subcutaneous tissue	Trichilemmal cyst	L00-L99	L60-L75	L72	L72.1	1.479	1.168	2.2E-02	1.3 (1.0 - 1.6)
Factors influencing health status and contact with health services	Persons with potential health hazards related to family and personal history and certain conditions influencing health status	Personal history of certain other diseases	Personal history of other neoplasms	Z00-Z99	Z80-Z99	Z86	Z86.0	1.597	1.151	2.5E-02	1.3 (1.0 - 1.6)
Diseases of the respiratory system	Other diseases of pleura	-	-	J00-J99	J90-J94	-	-	1.782	1.359	2.6E-02	1.3 (1.0 - 1.5)
Pregnancy, childbirth and the puerperium	Complications of labour and delivery	Perineal laceration during delivery	-	O00-O99	O60-O75	O70	-	0.639	1.361	3.2E-02	0.7 (0.5 - 1.0)
Neoplasm	Benign neoplasms	Melanocytic naevi	-	C00-D48	D10-D36	D22	-	1.445	1.121	3.8E-02	1.3 (1.0 - 1.6)

Factors influencing health status and contact with health services	Persons encountering health services in circumstances related to reproduction	Outcome of delivery	-	Z00-Z99	Z30-Z39	Z37	-	1.58	2.863	4.2E-02	0.8 (0.6 - 1.0)
Factors influencing health status and contact with health services	Persons with potential health hazards related to family and personal history and certain conditions influencing health status	Personal history of malignant neoplasm	Personal history of malignant neoplasm of digestive organs	Z00-Z99	Z80-Z99	Z85	Z85.0	1.445	1.057	4.4E-02	1.3 (1.0 - 1.6)
Diseases of the genitourinary system	Noninflammatory disorders of female genital tract	Other noninflammatory disorders of uterus, except cervix	-	N00-N99	N80-N98	N85	-	1.748	1.185	4.6E-02	1.2 (1.0 - 1.5)

P-value, False Discovery Rate corrected P-values. P-values of 1E-300 means $P < 1E-300$. Terms showed are significant after False Discovery Rate correction.

Supplementary Table S2: Replication of GWAS findings in an independent case-control cohort.

Locus – lead SNP	EA	OA	P-value in meta-analysis	P-value in case/control	OR (95% CI)	EAF cases	EAF controls
Locus 1 - rs2595968 (lead)	A	G	2.0E-06	5.6E-02	1.3 (0.9-1.9)	0.315	0.254
Locus 2 - rs6719560 (lead)	T	C	8.4E-07	1.9E-01	0.8 (0.6-1.3)	0.108	0.116
Locus 3 - rs144885331 (lead)	C	T	8.2E-07	1.3E-01	0.3 (0.1-2.1)	0.006	0.010
Locus 4 - rs9868674 (lead)	T	C	2.5E-06	3.5E-01	0.9 (0.7-1.23)	0.378	0.412
Locus 5 - rs80062354 (lead)	T	C	1.7E-06	1.2E-01	1.3 (0.8-2)	0.197	0.167
Locus 6 - rs961136 (lead)	T	C	4.7E-06	1.7E-01	1.6 (0.6-4.6)	0.023	0.014
Locus 7 - rs67375755 (lead)	T	C	1.0E-06	1.2E-01	0.6 (0.2-1.4)	0.028	0.038
Locus 8 - rs17245411 (lead)	C	T	3.3E-06	3.9E-01	0.9 (0.4-1.8)	0.034	0.045
Locus 9 - rs2189730 (R ² =0.5035 with rs6463848)	G	A	5.2E-07	4.7E-02	0.8 (0.6-1)	0.527	0.569
Locus 10 - rs9696092 (lead)	C	T	4.7E-06	2.5E-01	0.9 (0.6-1.3)	0.417	0.447
Locus 11 - rs184132620 (lead)	C	A	3.5E-06	9.3E-02	2.4 (0.7-8.7)	0.016	0.008
Locus 12 - rs17597505 (lead)	T	C	3.8E-06	1.4E-01	0.7 (0.3-1.4)	0.033	0.039
Locus 13 - rs2093045 (lead)	C	T	1.8E-06	2.5E-02	0.7 (0.5-1)	0.310	0.351

Logistic regression using sex, age and first 10 Principal Components as covariates. P-values are 1-tailed. EA, effect allele; OA, other allele; OR, odds.ratio; EAF, effect allele frequency.

Supplementary Table S3: Genetic correlation of functional dyspepsia with other traits.

Trait	RG	SE	P	h2	Cohort	URL
Certain infectious and parasitic diseases	1.246	0.432	4.8E-02	0.003	UK Biobank	http://www.nealelab.is/uk-biobank/
Non-cancer illness code, self-reported: irritable bowel syndrome	1.191	0.381	3.1E-02	0.006	UK Biobank	http://www.nealelab.is/uk-biobank/
Diagnoses - main ICD10: M25 Other joint disorders, not elsewhere classified	1.106	0.381	4.7E-02	0.003	UK Biobank	http://www.nealelab.is/uk-biobank/
Treatment/medication code: amitriptyline	1.042	0.306	1.7E-02	0.007	UK Biobank	http://www.nealelab.is/uk-biobank/
Treatment/medication code: ranitidine	0.951	0.305	3.1E-02	0.005	UK Biobank	http://www.nealelab.is/uk-biobank/
Other pulmonary diagnosis	0.921	0.244	9.1E-03	0.013	UK Biobank	http://www.nealelab.is/uk-biobank/
Diseases of the respiratory system	0.921	0.244	9.1E-03	0.013	UK Biobank	http://www.nealelab.is/uk-biobank/
Diagnoses - main ICD10: N39 Other disorders of urinary system	0.915	0.267	1.7E-02	0.007	UK Biobank	http://www.nealelab.is/uk-biobank/
Detention categories: Informal, not formally detained	0.914	0.263	1.6E-02	0.005	UK Biobank	http://www.nealelab.is/uk-biobank/
Diagnoses - main ICD10: K44 Diaphragmatic hernia	0.905	0.288	3.1E-02	0.007	UK Biobank	http://www.nealelab.is/uk-biobank/
COPD differential diagnosis	0.894	0.238	9.1E-03	0.014	UK Biobank	https://journals.plos.org/plosgenetics/article?id=10.1371/journal.pgen.1008164
ILD differential diagnosis	0.894	0.238	9.1E-03	0.014	UK Biobank	http://www.nealelab.is/uk-biobank/
Diagnoses - main ICD10: K29 Gastritis and duodenitis	0.889	0.250	1.3E-02	0.010	UK Biobank	http://www.nealelab.is/uk-biobank/
Other gastritis (incl. Duodenitis)	0.864	0.263	2.1E-02	0.008	UK Biobank	http://www.nealelab.is/uk-biobank/
Diagnoses - main ICD10: R10 Abdominal and pelvic pain	0.843	0.229	1.1E-02	0.014	UK Biobank	http://www.nealelab.is/uk-biobank/
Back pain	0.825	0.270	3.4E-02	0.042	UK Biobank	http://www.nealelab.is/uk-biobank/
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	0.824	0.185	5.6E-03	0.030	UK Biobank	http://www.nealelab.is/uk-biobank/
Diagnoses - main ICD10: K21 Gastro-oesophageal reflux disease	0.823	0.232	1.3E-02	0.010	UK Biobank	http://www.nealelab.is/uk-biobank/
Diagnoses - main ICD10: R07 Pain in throat and chest	0.820	0.196	5.6E-03	0.021	UK Biobank	http://www.nealelab.is/uk-biobank/
Destinations on discharge from hospital (recoded): Usual Place of residence	0.804	0.195	5.6E-03	0.023	UK Biobank	http://www.nealelab.is/uk-biobank/
Mental health problems ever diagnosed by a professional: Panic attacks	0.797	0.236	1.8E-02	0.022	UK Biobank	http://www.nealelab.is/uk-biobank/
Treatment/medication code: omeprazole	0.793	0.211	9.1E-03	0.015	UK Biobank	http://www.nealelab.is/uk-biobank/
Treatment/medication code: lansoprazole	0.780	0.220	1.3E-02	0.012	UK Biobank	http://www.nealelab.is/uk-biobank/
Medication for pain relief, constipation, heartburn: Omeprazole (e.g. Zanprol)	0.759	0.194	7.9E-03	0.018	UK Biobank	http://www.nealelab.is/uk-biobank/
Pain type(s) experienced in last month: Back pain	0.745	0.188	7.0E-03	0.038	UK Biobank	http://www.nealelab.is/uk-biobank/
Workplace full of chemical or other fumes: Sometimes	0.744	0.257	4.7E-02	0.025	UK Biobank	http://www.nealelab.is/uk-biobank/
Pain type(s) experienced in last month: Stomach or abdominal pain	0.736	0.202	1.2E-02	0.020	UK Biobank	http://www.nealelab.is/uk-biobank/
Pain type(s) experienced in last month: Pain all over the body	0.718	0.206	1.6E-02	0.010	UK Biobank	http://www.nealelab.is/uk-biobank/
Non-cancer illness code, self-reported: gastro-oesophageal reflux (gord) / gastric reflux	0.709	0.208	1.7E-02	0.011	UK Biobank	http://www.nealelab.is/uk-biobank/
Diagnoses - main ICD10: J44 Other chronic obstructive pulmonary disease	0.709	0.230	3.3E-02	0.007	UK Biobank	http://www.nealelab.is/uk-biobank/
Diagnoses - main ICD10: K30 Dyspepsia	0.702	0.136	3.2E-04	0.004	UK Biobank	http://www.nealelab.is/uk-biobank/
Any ICDMAIN event in hilmo or causes of death	0.688	0.165	5.6E-03	0.027	UK Biobank	http://www.nealelab.is/uk-biobank/
COPD, early/late onset	0.677	0.226	3.7E-02	0.007	UK Biobank	http://www.nealelab.is/uk-biobank/
Hospital episode type: General episode	0.662	0.184	1.3E-02	0.020	UK Biobank	http://www.nealelab.is/uk-biobank/
Ever used hormone-replacement therapy (HRT)	0.661	0.162	5.6E-03	0.048	UK Biobank	http://www.nealelab.is/uk-biobank/
Non-cancer illness code, self-reported: depression	0.659	0.187	1.4E-02	0.018	UK Biobank	http://www.nealelab.is/uk-biobank/
Ever had bowel cancer screening	0.631	0.190	2.0E-02	0.014	UK Biobank	http://www.nealelab.is/uk-biobank/
Treatment/medication code: paracetamol	0.628	0.153	5.6E-03	0.033	UK Biobank	http://www.nealelab.is/uk-biobank/
Seen a psychiatrist for nerves, anxiety, tension or depression	0.627	0.154	5.6E-03	0.031	SSGAC	https://www.nature.com/articles/s41588-018-0147-3

Diseases of the genitourinary system	0.608	0.177	1.7E-02	0.018	SSGAC	https://www.nature.com/articles/s41588-018-0147-3
Medication for cholesterol, blood pressure, diabetes, or take exogenous hormones: Hormone replacement therapy	0.603	0.196	3.3E-02	0.015	UK Biobank	http://www.nealelab.is/uk-biobank/
Ever highly irritable/argumentative for 2 days	0.589	0.194	3.4E-02	0.051	UK Biobank	http://www.nealelab.is/uk-biobank/
Medication for pain relief, constipation, heartburn: Paracetamol	0.589	0.147	6.5E-03	0.042	UK Biobank	http://www.nealelab.is/uk-biobank/
Multisite chronic pain	0.585	0.139	5.6E-03	0.074	UK Biobank	http://www.nealelab.is/uk-biobank/
Diseases of the nervous system	0.582	0.181	2.7E-02	0.015	UK Biobank	http://www.nealelab.is/uk-biobank/
Taking other prescription medications	0.577	0.152	9.1E-03	0.046	UK Biobank	http://www.nealelab.is/uk-biobank/
Illnesses of siblings: Heart disease	0.574	0.187	3.3E-02	0.017	UK Biobank	http://www.nealelab.is/uk-biobank/
Attendance/disability/mobility allowance: Disability living allowance	0.572	0.177	2.4E-02	0.028	UK Biobank	http://www.nealelab.is/uk-biobank/
Diagnoses - main ICD10: K57 Diverticular disease of intestine	0.569	0.165	1.6E-02	0.023	UK Biobank	http://www.nealelab.is/uk-biobank/
Chest pain or discomfort	0.566	0.147	9.1E-03	0.034	UK Biobank	http://www.nealelab.is/uk-biobank/
Had major operations	0.565	0.195	4.7E-02	0.025	UK Biobank	http://www.nealelab.is/uk-biobank/
Treatment/medication code: ibuprofen	0.563	0.164	1.7E-02	0.015	UK Biobank	http://www.nealelab.is/uk-biobank/
Dorsalgia	0.552	0.178	3.1E-02	0.014	UK Biobank	http://www.nealelab.is/uk-biobank/
Diagnoses - main ICD10: M54 Dorsalgia	0.552	0.178	3.1E-02	0.014	UK Biobank	http://www.nealelab.is/uk-biobank/
Medication for pain relief, constipation, heartburn: Laxatives (e.g. Dulcolax, Senokot)	0.549	0.190	4.8E-02	0.011	UK Biobank	http://www.nealelab.is/uk-biobank/
Tense / 'highly strung'	0.542	0.143	9.1E-03	0.055	UK Biobank	http://www.nealelab.is/uk-biobank/
Own or rent accommodation lived in: Rent - from local authority, local council, housing association	0.540	0.148	1.2E-02	0.036	UK Biobank	http://www.nealelab.is/uk-biobank/
Seen doctor (GP) for nerves, anxiety, tension or depression	0.528	0.131	5.8E-03	0.061	UK Biobank	http://www.nealelab.is/uk-biobank/
Medication for pain relief, constipation, heartburn: Ibuprofen (e.g. Nurofen)	0.528	0.151	1.5E-02	0.020	UK Biobank	http://www.nealelab.is/uk-biobank/
Injury, poisoning and certain other consequences of external causes	0.527	0.181	4.6E-02	0.016	UK Biobank	http://www.nealelab.is/uk-biobank/
Diseases of the circulatory system	0.526	0.146	1.3E-02	0.027	UK Biobank	http://www.nealelab.is/uk-biobank/
Suffer from 'nerves'	0.516	0.141	1.2E-02	0.045	UK Biobank	http://www.nealelab.is/uk-biobank/
Illness, injury, bereavement, stress in last 2 years: Financial difficulties	0.513	0.148	1.6E-02	0.031	UK Biobank	http://www.nealelab.is/uk-biobank/
#Other joint disorders	0.513	0.165	3.1E-02	0.020	UK Biobank	http://www.nealelab.is/uk-biobank/
Wheeze or whistling in the chest in last year	0.512	0.144	1.3E-02	0.060	UK Biobank	http://www.nealelab.is/uk-biobank/
Diseases of the musculoskeletal system and connective tissue	0.510	0.154	2.1E-02	0.043	UK Biobank	http://www.nealelab.is/uk-biobank/
ADHD	0.505	0.164	3.3E-02	0.233	UK Biobank	http://www.nealelab.is/uk-biobank/
Mood swings	0.504	0.129	7.9E-03	0.070	UK Biobank	http://www.nealelab.is/uk-biobank/
Long-standing illness, disability or infirmity	0.504	0.133	9.1E-03	0.052	UK Biobank	http://www.nealelab.is/uk-biobank/
Treatment/medication code: atenolol	0.500	0.160	3.1E-02	0.016	UK Biobank	http://www.nealelab.is/uk-biobank/
Non-cancer illness code, self-reported: osteoarthritis	0.498	0.159	3.1E-02	0.020	UK Biobank	http://www.nealelab.is/uk-biobank/
Hernia	0.496	0.162	3.4E-02	0.017	UK Biobank	http://www.nealelab.is/uk-biobank/
Attendance/disability/mobility allowance: Blue badge	0.491	0.158	3.1E-02	0.023	UK Biobank	http://www.nealelab.is/uk-biobank/
Loneliness, isolation	0.490	0.145	1.8E-02	0.037	UK Biobank	http://www.nealelab.is/uk-biobank/
Guilty feelings	0.479	0.141	1.7E-02	0.051	UK Biobank	http://www.nealelab.is/uk-biobank/
Neuroticism score	0.478	0.128	9.3E-03	0.116	UK Biobank	http://www.nealelab.is/uk-biobank/
Fed-up feelings	0.470	0.125	9.1E-03	0.071	UK Biobank	http://www.nealelab.is/uk-biobank/
Other serious medical condition/disability diagnosed by doctor	0.460	0.144	2.7E-02	0.025	UK Biobank	http://www.nealelab.is/uk-biobank/
Vascular/heart problems diagnosed by doctor: Angina	0.454	0.143	2.8E-02	0.023	UK Biobank	http://www.nealelab.is/uk-biobank/
Major dietary changes in the last 5 years: Yes, because of illness	0.447	0.144	3.1E-02	0.027	UK Biobank	http://www.nealelab.is/uk-biobank/
Ever suffered mental distress preventing usual activities	0.425	0.136	3.1E-02	0.063	UK Biobank	http://www.nealelab.is/uk-biobank/

Pain type(s) experienced in last month: Hip pain	0.418	0.139	3.7E-02	0.023	UK Biobank	http://www.nealelab.is/uk-biobank/
Smoking status: Current	0.406	0.134	3.5E-02	0.050	UK Biobank	http://www.nealelab.is/uk-biobank/
Miserableness	0.404	0.121	1.9E-02	0.063	PGC	https://www.sciencedirect.com/science/article/pii/S000632231732245X?via%3Dihub
Diagnoses - main ICD10: I25 Chronic ischaemic heart disease	0.393	0.136	4.7E-02	0.028	UK Biobank	http://www.nealelab.is/uk-biobank/
Townsend deprivation index at recruitment	0.388	0.129	3.7E-02	0.035	UK Biobank	http://www.nealelab.is/uk-biobank/
Ischaemic heart disease, wide definition	0.386	0.132	4.6E-02	0.034	UK Biobank	http://www.nealelab.is/uk-biobank/
Pain type(s) experienced in last month: Knee pain	0.381	0.117	2.4E-02	0.041	UK Biobank + CHARGE	https://journals.lww.com/pain/Abstract/publish-ahead/Insight_into_the_genetic_architecture_of_back_pain.98745.aspx
Worrier / anxious feelings	0.368	0.118	3.1E-02	0.078	UK Biobank	http://www.nealelab.is/uk-biobank/
Irritability	0.344	0.115	3.7E-02	0.068	UK Biobank	http://www.nealelab.is/uk-biobank/
Vascular/heart problems diagnosed by doctor: None of the above	-0.278	0.091	3.4E-02	0.119	UK Biobank	http://www.nealelab.is/uk-biobank/
Educational Attainment	-0.328	0.093	1.3E-02	0.112	UK Biobank	http://www.nealelab.is/uk-biobank/
Fluid intelligence score	-0.339	0.113	3.7E-02	0.228	UK Biobank	http://www.nealelab.is/uk-biobank/
Never eat eggs, dairy, wheat, sugar: I eat all of the above	-0.342	0.117	4.6E-02	0.046	UK Biobank	http://www.nealelab.is/uk-biobank/
Age first had sexual intercourse	-0.351	0.104	1.8E-02	0.127	UK Biobank	http://www.nealelab.is/uk-biobank/
Year ended full time education	-0.362	0.118	3.4E-02	0.146	UK Biobank	http://www.nealelab.is/uk-biobank/
Medication for cholesterol, blood pressure or diabetes: None of the above	-0.368	0.116	2.8E-02	0.099	UK Biobank	http://www.nealelab.is/uk-biobank/
Qualifications: College or University degree	-0.374	0.103	1.2E-02	0.168	UK Biobank	http://www.nealelab.is/uk-biobank/
Cognitive Performance	-0.385	0.108	1.3E-02	0.199	UK Biobank	http://www.nealelab.is/uk-biobank/
Qualifications: Other professional qualifications eg: nursing, teaching	-0.400	0.121	2.1E-02	0.044	UK Biobank	http://www.nealelab.is/uk-biobank/
Illnesses of siblings: None of the above (group 1)	-0.433	0.131	2.1E-02	0.037	UK Biobank	http://www.nealelab.is/uk-biobank/
Frequency of solarium/sunlamp use	-0.476	0.156	3.4E-02	0.021	UK Biobank	http://www.nealelab.is/uk-biobank/
Own or rent accommodation lived in: Own outright (by you or someone in your household)	-0.477	0.143	1.9E-02	0.033	UK Biobank	http://www.nealelab.is/uk-biobank/
Major dietary changes in the last 5 years: No	-0.481	0.140	1.7E-02	0.038	UK Biobank	http://www.nealelab.is/uk-biobank/
Age started oral contraceptive pill	-0.496	0.160	3.1E-02	0.048	UK Biobank	http://www.nealelab.is/uk-biobank/
Transport type for commuting to job workplace: Cycle	-0.512	0.175	4.6E-02	0.032	UK Biobank	http://www.nealelab.is/uk-biobank/
Attendance/disability/mobility allowance: None of the above	-0.542	0.161	1.8E-02	0.034	UK Biobank	http://www.nealelab.is/uk-biobank/
Medication for pain relief, constipation, heartburn: None of the above	-0.620	0.151	5.6E-03	0.055	UK Biobank	http://www.nealelab.is/uk-biobank/
Why stopped smoking: Health precaution	-0.622	0.206	3.6E-02	0.053	UK Biobank	http://www.nealelab.is/uk-biobank/
Pain type(s) experienced in last month: None of the above	-0.684	0.161	5.6E-03	0.054	UK Biobank	http://www.nealelab.is/uk-biobank/

Significant results after False Discovery Rate correction are showed. RG, regression coefficient; SE, standard error of regression coefficient; P-value, P-value of False Discovery Rate correction; h2, heritability of the trait.