Additional file 4: Figures 8 to Forest plots of the proportions of associations fulfilling each criteria

Study	Events T	otal	Proportion	95%-CI	Weight (fixed)	Weight (random)
ADHD	14	45		[0.18; 0.47]	2.0%	2.1%
ADIP	26	48		[0.39; 0.69]	2.1%	2.1%
ADOPSY	3	9		[0.07; 0.70]	0.4%	1.1%
AFIB	18	35		[0.34; 0.69]	1.5%	1.9%
ALONE	2	5		0.05; 0.85]	0.2%	0.7%
ALS	ō	9		[0.00; 0.34]	0.4%	1.1%
ANTIDEP	16	73		[0.13; 0.33]	3.2%	2.3%
ANTIPSY	3	6		0.12; 0.88]	0.3%	0.8%
ANXOCD	20	69		0.19: 0.41]	3.0%	2.2%
ASPI	1	11		0.00; 0.41]	0.5%	1.2%
ASPIcan	2	12		[0.02; 0.48]	0.5%	1.3%
AUTISM	18	52		6 [0.22; 0.49]	2.3%	2.1%
BIRTH	19	50	0.38	[0.25; 0.53]	2.2%	2.1%
BP	2	6	0.33	[0.04; 0.78]	0.3%	0.8%
CHOCO	0	4	0.00	0.00; 0.60]	0.2%	0.6%
CKDmort	15	33	.4	5 [0.28; 0.64]	1.4%	1.9%
COFF	5	17		0.10; 0.56]	0.7%	1.5%
COLO	14	31		5 [0.27; 0.64]	1.4%	1.9%
COLO2	3	29		[0.02; 0.27]	1.3%	1.8%
COPD	7	13		[0.25; 0.81]	0.6%	1.3%
CPROT	34	95		6 [0.26; 0.46]	4.2%	2.3%
DEM	15	55		[0.16; 0.41]	2.4%	2.2%
DEP	37	98		[0.28; 0.48]	4.3%	2.4%
DEPmort	7	17		[0.18; 0.67]	0.7%	1.5%
DEPREG	5	34		5 [0.05; 0.31]	1.5%	1.9%
EAT	16	41		0.24; 0.55]	1.8%	2.0%
ENDO ENVT	22 10	56 22		0.26; 0.53]	2.4% 1.0%	2.2% 1.7%
FIB	6	18		5 [0.24; 0.68] 5 [0.13; 0.59]	0.8%	1.5%
FISH	0	12		0.13, 0.39]	0.5%	1.3%
FLUOLD	6	25		[0.09; 0.45]	1.1%	1.7%
GASTRIC	40	95		[0.32; 0.53]	4.2%	2.3%
GESTA	14	51		[0.16; 0.42]	2.2%	2.1%
HAND	4	6		[0.22; 0.96]	0.3%	0.8%
HIV	11	39		0.15; 0.45]	1.7%	2.0%
MENT	78	178		[0.36; 0.51]	7.8%	2.5%
MET	5	23		[0.07; 0.44]	1.0%	1.7%
MG	1	9		[0.00; 0.48]	0.4%	1.1%
MS	5	23		[0.07; 0.44]	1.0%	1.7%
OBGYN	50	104	0.48	[0.38; 0.58]	4.5%	2.4%
PANC	4	44	0.09	0.03; 0.22]	1.9%	2.1%
PARK	11	35	0.3	[0.17; 0.49]	1.5%	1.9%
PCan	2	34		§ [0.01; 0.20]	1.5%	1.9%
PHYACT	4	13		[0.09; 0.61]	0.6%	1.3%
PHYAF	0	3		0 [0.00; 0.71]	0.1%	0.5%
PREEC	14	39		6 [0.21; 0.53]	1.7%	2.0%
PSY	33	78		[0.31; 0.54]	3.4%	2.3%
RHEU	13	33		0.23; 0.58]	1.4%	1.9%
SCHIZO	18	62		0.18; 0.42]	2.7%	2.2%
SKIN STATIN	21 4	58 65		6 [0.24; 0.50] 6 [0.02; 0.15]	2.5% 2.8%	2.2% 2.2%
SUA	15	57		6 [0.02; 0.15] 6 [0.16: 0.40]	2.6%	2.2%
T2D	46	116		0.16; 0.40] [0.31; 0.49]	2.5%	2.2%
T2DCan	40	20		0.31, 0.49]	0.9%	1.6%
TEA	1	20		5 [0.12, 0.34] 5 [0.00; 0.24]	0.9%	1.6%
TELO	4	24		[0.05; 0.24]	1.0%	1.7%
VITD	12	29		[0.24; 0.61]	1.3%	1.8%
Fixed effect model		2289		[0.30; 0.34]	100.0%	
Random effects mo				[0.25; 0.33]		100.0%
Heterogeneity: I ² = 75	%, τ~ = 0.0187,	p < 0.	0.2 0.4 0.6 0.8			
			0.2 0.4 0.0 0.0			

8) Associations with a statistical significance of P<10-6

9) Associations with a statistical significance of P<0.001

Study	Events	Total		Proportion	95%-CI	Weight (fixed)	Weight (random)
ADHD	29	45		0.64	[0.49; 0.78]	2.0%	2.1%
ADIP	41	48		0.85		2.1%	2.1%
ADOPSY	6	9		0.67		0.4%	1.1%
AFIB	27	35			[0.60; 0.90]	1.5%	1.9%
ALONE	4	5		0.80	[0.28; 0.99]	0.2%	0.7%
ALS	5	9		0.56	[0.21; 0.86]	0.4%	1.1%
ANTIDEP	44	73		0.60	[0.48; 0.72]	3.2%	2.3%
ANTIPSY	6	6		 1.00 	[0.54; 1.00]	0.3%	0.8%
ANXOCD	41	69			[0.47; 0.71]	3.0%	2.3%
ASPI	2	11 -		0.18	[0.02; 0.52]	0.5%	1.2%
ASPIcan	4	12		0.33		0.5%	1.2%
AUTISM	33	52			[0.49; 0.76]	2.3%	2.1%
BIRTH	31	50			[0.47; 0.75]	2.2%	2.1%
BP	4	6		0.67	[0.22; 0.96]	0.3%	0.8%
CHOCO	0	4 ⊷		0.00		0.2%	0.6%
CKDmort	22	33			[0.48; 0.82]	1.4%	1.9%
COFF COLO	10	17 31			[0.33; 0.82]	0.7%	1.5%
COLO2	18 7	29		0.58	[0.39; 0.75]	1.4% 1.3%	1.9% 1.8%
COLOZ	11	13			[0.10; 0.44] [0.55; 0.98]	0.6%	1.3%
CPROT	67	95			[0.60; 0.79]	4.2%	2.4%
DEM	30	55		0.55	[0.41; 0.68]	2.4%	2.2%
DEP	66	98		0.67		4.3%	2.4%
DEPmort	10	17			[0.33; 0.82]	0.7%	1.5%
DEPREG	18	34			[0.35; 0.70]	1.5%	1.9%
EAT	27	41			[0.49; 0.80]	1.8%	2.0%
ENDO	35	56			[0.49; 0.75]	2.4%	2.2%
ENVT	15	22			[0.45; 0.86]	1.0%	1.7%
FIB	14	18			[0.52; 0.94]	0.8%	1.5%
FISH	3	12		0.25	[0.05; 0.57]	0.5%	1.2%
FLUOLD	15	25		0.60	[0.39; 0.79]	1.1%	1.7%
GASTRIC	68	95			[0.61; 0.80]	4.2%	2.4%
GESTA	29	51			[0.42; 0.71]	2.2%	2.1%
HAND	5	6		0.83		0.3%	0.8%
HIV	30	39		0.77		1.7%	2.0%
MENT	78	178			[0.36; 0.51]	7.8%	2.5%
MET	11	23			[0.27; 0.69]	1.0%	1.7%
MG	2	9 -			[0.03; 0.60]	0.4%	1.1%
MS	11	23			[0.27; 0.69]	1.0%	1.7%
OBGYN PANC	78 24	104 44			[0.66; 0.83]	4.5% 1.9%	2.4% 2.1%
PARK	24	35		0.55	[0.39; 0.70] [0.42; 0.76]	1.5%	1.9%
PCan	21	34			[0.42, 0.76]	1.5%	1.9%
PHYACT	8	13			[0.32; 0.86]	0.6%	1.3%
PHYAF	ŏ	3 ⊢			[0.00; 0.71]	0.1%	0.5%
PREEC	23	39			[0.42; 0.74]	1.7%	2.0%
PSY	47	78			[0.49; 0.71]	3.4%	2.3%
RHEU	21	33			[0.45; 0.80]	1.4%	1.9%
SCHIZO	37	62			[0.46: 0.72]	2.7%	2.2%
SKIN	35	58		0.60	[0.47; 0.73]	2.5%	2.2%
STATIN	35	65		0.54	[0.41; 0.66]	2.8%	2.2%
SUA	37	57			[0.51; 0.77]	2.5%	2.2%
T2D	78	116	-	0.67		5.1%	2.4%
T2DCan	11	20		0.55		0.9%	1.6%
TEA	3	21 -		0.14		0.9%	1.6%
TELO	9	24			[0.19; 0.59]	1.0%	1.7%
VITD	22	29		0.76	[0.56; 0.90]	1.3%	1.8%
Fixed effect model Random effects mode		2289	•		[0.58; 0.62] [0.54; 0.63]	100.0%	 100.0%
Heterogeneity: / ² = 73%, 1				1 0.39	[0.04, 0.03]		100.0%
		0		1			

10) More than 1000 cases included (or more than 20 000 participants for continuous outcomes)

Study	Events Total		Proportion	95%-CI	Weight (fixed)	Weight (random)
ADHD	25 44		0.57	[0.41; 0.72]	2.1%	1.9%
ADIP	41 48		0.85	[0.72; 0.94]	2.3%	2.0%
ADOPSY	1 3 —			[0.01; 0.91]	0.1%	1.2%
AFIB	31 35			[0.73; 0.97]	1.7%	1.9%
ALONE	1 2 — 6 9			[0.01; 0.99] [0.30; 0.93]	0.1% 0.4%	1.0% 1.7%
ANTIDEP	57 65			[0.30, 0.93]	3.1%	2.0%
ANTIPSY	6 6			[0.54; 1.00]	0.3%	1.5%
ANXOCD	11 46			[0.13; 0.39]	2.2%	2.0%
ASPI	3 7			[0.10; 0.82]	0.3%	1.6%
AUTISM	42 49			[0.73; 0.94]	2.3%	2.0%
BIRTH	37 45			[0.68; 0.92]	2.1%	2.0%
BP CHOCO	56 11-			[0.36; 1.00] [0.03; 1.00]	0.3% 0.0%	1.5% 0.7%
CKDmort	25 29			[0.68; 0.96]	1.4%	1.9%
COFF	17 17			[0.80; 1.00]	0.8%	1.8%
COLO	6 31 -			[0.07; 0.37]	1.5%	1.9%
COLO2	11 29		0.38	[0.21; 0.58]	1.4%	1.9%
COPD	10 11			[0.59; 1.00]	0.5%	1.7%
CPROT	39 95			[0.31; 0.52]	4.5%	2.0%
DEM DEP	37 55 49 68			[0.53; 0.79]	2.6% 3.2%	2.0% 2.0%
DEP	49 68 8 17			[0.60; 0.82] [0.23; 0.72]	0.8%	1.8%
DEPREG	29 34			[0.69; 0.95]	1.6%	1.9%
EAT	7 38 -			[0.08; 0.34]	1.8%	1.9%
ENDO	44 56			[0.66; 0.88]	2.7%	2.0%
ENVT	11 14			[0.49; 0.95]	0.7%	1.8%
FIB	15 18			[0.59; 0.96]	0.9%	1.8%
FISH FLUOLD	8 9 13 19			[0.52; 1.00]	0.4%	1.7%
GASTRIC	13 19			[0.43; 0.87] [0.12; 0.28]	0.9% 4.5%	1.8% 2.0%
GESTA	31 51			[0.46; 0.74]	2.4%	2.0%
HAND	2 3			[0.09: 0.99]	0.1%	1.2%
HIV	11 30		0.37	[0.20; 0.56]	1.4%	1.9%
MENT	3 178 -			[0.00; 0.05]	8.4%	2.0%
MET	14 23			[0.39; 0.80]	1.1%	1.9%
MG MS	7 8 10 22			[0.47; 1.00]	0.4% 1.0%	1.6%
OBGYN	75 104			[0.24; 0.68] [0.62; 0.80]	4.9%	1.9% 2.0%
PANC	6 44 -	-		[0.05; 0.27]	2.1%	1.9%
PARK	26 35			[0.57; 0.88]	1.7%	1.9%
PCan	30 34			[0.73; 0.97]	1.6%	1.9%
PHYACT	10 13		0.77	[0.46; 0.95]	0.6%	1.8%
PREEC	23 39			[0.42; 0.74]	1.9%	1.9%
PSY	23 75			[0.21; 0.42]	3.6%	2.0%
RHEU SCHIZO	15 19 15 59			[0.54; 0.94] [0.15; 0.38]	0.9% 2.8%	1.8% 2.0%
SKIN	41 54			[0.13, 0.38]	2.6%	2.0%
STATIN	36 65			[0.43; 0.68]	3.1%	2.0%
SUA	21 48	<u> </u>		[0.29; 0.59]	2.3%	2.0%
T2D	107 114		0.94	[0.88; 0.97]	5.4%	2.0%
T2DCan	19 20			[0.75; 1.00]	0.9%	1.9%
TEA	20 20			[0.83; 1.00]	0.9%	1.9%
TELO	7 20			[0.15; 0.59]	0.9%	1.9%
VITD	16 28		0.37	[0.37; 0.76]	1.3%	1.9%
Fixed effect model Random effects model Heterogeneity: <i>I</i> ² = 95%, τ			0.65	[0.54; 0.59] [0.56; 0.74]	100.0% 	 100.0%
		0.2 0.4 0.6 0.8 1	1			

11) The largest component study reporting a significant result P<0.05

Study	Events Total		Proportion	95%-CI	Weight (fixed)	Weight (random)
ADHD	34 45		0.76	[0.60; 0.87]	2.5%	2.7%
ADIP	43 48		0.90	[0.77; 0.97]	2.7%	2.7%
AFIB	32 35			[0.77; 0.98]	2.0%	2.4%
ALONE	4 5		0.80	[0.28; 0.99]	0.3%	0.7%
ALS	7 9	i*	0.78	[0.40; 0.97]	0.5%	1.1%
ANTIDEP	52 73		0.71	[0.59; 0.81]	4.1%	3.1%
ANTIPSY	5 6		0.83	[0.36; 1.00]	0.3%	0.8%
ANXOCD	58 69	÷	0.84	[0.73; 0.92]	3.9%	3.0%
ASPIcan	5 12		0.42	[0.15; 0.72]	0.7%	1.4%
AUTISM	40 52		0.77	[0.63; 0.87]	2.9%	2.8%
BIRTH	33 50			[0.51; 0.79]	2.8%	2.8%
BP	5 5			[0.48; 1.00]	0.3%	0.7%
CHOCO	2 4			[0.07; 0.93]	0.2%	0.6%
COFF	11 17			[0.38; 0.86]	1.0%	1.7%
CPROT	75 95			[0.69; 0.87]	5.3%	3.2%
DEM	39 55			[0.57; 0.82]	3.1%	2.8%
DEPmort	12 17			[0.44; 0.90]	1.0%	1.7%
DEPREG	27 34			[0.62; 0.91]	1.9%	2.4%
EAT	28 41			[0.52; 0.82]	2.3%	2.6%
ENDO	44 56			[0.66; 0.88]	3.1%	2.9%
ENVT	19 22			[0.65; 0.97]	1.2%	2.0%
FIB	11 18			[0.36; 0.83]	1.0%	1.8%
FLUOLD	19 23 71 95			[0.61; 0.95]	1.3%	2.0% 3.2%
GASTRIC GESTA	71 95 37 51			[0.65; 0.83] [0.58; 0.84]	5.3% 2.9%	2.8%
HAND	6 6			[0.58, 0.84]	0.3%	0.8%
MET	14 23			[0.39; 0.80]	1.3%	2.0%
MS	18 23			[0.56; 0.93]	1.3%	2.0%
OBGYN	94 104			[0.83; 0.95]	5.8%	3.3%
PANC	33 44			[0.60; 0.87]	2.5%	2.6%
PARK	19 35			[0.37; 0.71]	2.0%	2.4%
PCan	22 34			[0.46; 0.80]	1.9%	2.4%
PHYACT	8 13			[0.32; 0.86]	0.7%	1.5%
PHYAF	1 2 -			[0.01; 0.99]	0.1%	0.3%
PREEC	21 37			[0.39; 0.73]	2.1%	2.5%
PSY	49 78			[0.51; 0.74]	4.4%	3.1%
SCHIZO	49 62		0.79	[0.67; 0.88]	3.5%	2.9%
SKIN	45 58	<u>ie</u>	0.78	[0.65; 0.87]	3.3%	2.9%
STATIN	52 65		0.80	[0.68; 0.89]	3.6%	3.0%
SUA	45 53	- 1	0.85	[0.72; 0.93]	3.0%	2.8%
T2D	97 116	1	0.84	[0.76; 0.90]	6.5%	3.3%
T2DCan	17 20		0.85	[0.62; 0.97]	1.1%	1.9%
TEA	6 21			[0.11; 0.52]	1.2%	1.9%
TELO	14 22			[0.41; 0.83]	1.2%	2.0%
VITD	20 28		0.71	[0.51; 0.87]	1.6%	2.2%
Fixed effect model Random effects model Heterogeneity: <i>I</i> ² = 64%, τ			0.75	[0.74; 0.78] [0.71; 0.78]		 100.0%
		0.2 0.4 0.6 0.8 1				

12) A 95% prediction interval that excluded the null

Study	Events Total		Proportion	95%-CI	Weight (fixed)	Weight (random)
ADHD	16 43		0.37	[0.23; 0.53]	2.0%	2.1%
ADIP	19 43	<u>i</u>		[0.29; 0.60]	2.0%	2.1%
ADOPSY	3 8			[0.09; 0.76]	0.4%	1.0%
AFIB	12 35			[0.19; 0.52]	1.6%	2.0%
ALONE ALS	35 39			[0.15; 0.95]	0.2% 0.4%	0.7% 1.1%
ALS	24 69			[0.07; 0.70] [0.24; 0.47]	3.2%	2.4%
ANTIPSY	2 6			[0.04; 0.78]	0.3%	0.8%
ANXOCD	17 49	<u></u>		[0.22; 0.50]	2.3%	2.2%
ASPI	6 11		0.55	[0.23; 0.83]	0.5%	1.2%
ASPIcan	2 12 -			[0.02; 0.48]	0.6%	1.3%
AUTISM	19 47			[0.26; 0.56]	2.2%	2.2%
BIRTH BP	20 50 1 5 -			[0.26; 0.55] [0.01; 0.72]	2.3% 0.2%	2.2% 0.7%
CHOCO	1 4 -			[0.01; 0.81]	0.2%	0.6%
CKDmort	7 32			[0.09; 0.40]	1.5%	2.0%
COFF	5 17		0.29	[0.10; 0.56]	0.8%	1.5%
COLO	19 31	·		[0.42; 0.78]	1.5%	1.9%
COLO2	25 29			[0.68; 0.96]	1.4%	1.9%
COPD CPROT	3 13 24 95			[0.05; 0.54] [0.17; 0.35]	0.6% 4.4%	1.3% 2.5%
DEM	24 95 16 55			[0.17; 0.35]	2.6%	2.3%
DEP	25 98			[0.17; 0.35]	4.6%	2.5%
DEPmort	3 17			[0.04; 0.43]	0.8%	1.5%
DEPREG	9 34			[0.13; 0.44]	1.6%	2.0%
EAT	9 38			[0.11; 0.40]	1.8%	2.1%
ENDO	17 48			[0.22; 0.51]	2.2%	2.2%
ENVT FIB	8 21 5 18			[0.18; 0.62] [0.10; 0.53]	1.0% 0.8%	1.7% 1.6%
FISH	2 10			[0.03; 0.55]	0.8%	1.1%
FLUOLD	4 16			[0.07; 0.52]	0.7%	1.5%
GASTRIC	36 94	÷		[0.28; 0.49]	4.4%	2.5%
GESTA	18 51			[0.22; 0.50]	2.4%	2.2%
HAND	2 6			[0.04; 0.78]	0.3%	0.8%
HIV MENT	5 38 16 178	-		[0.04; 0.28] [0.05; 0.14]	1.8% 8.3%	2.1% 2.7%
MET	2 22 -	-		[0.03, 0.14]	1.0%	1.7%
MG	1 9 -			[0.00; 0.48]	0.4%	1.1%
MS	10 20			[0.27; 0.73]	0.9%	1.6%
OBGYN	41 95			[0.33; 0.54]	4.4%	2.5%
PANC	8 34			[0.11; 0.41]	1.6%	2.0%
PARK PCan	11 34			[0.17; 0.51]	1.6%	2.0%
PCan PHYACT	11 31 3 12			[0.19; 0.55] [0.05; 0.57]	1.5% 0.6%	1.9% 1.3%
PREEC	9 38			[0.03, 0.37]	1.8%	2.1%
PSY	27 71	÷		[0.27; 0.50]	3.3%	2.4%
RHEU	3 33 -	- * }	0.09	[0.02; 0.24]	1.5%	2.0%
SCHIZO	15 61			[0.14; 0.37]	2.9%	2.3%
SKIN	17 58			[0.18; 0.43]	2.7%	2.3%
STATIN SUA	13 59 19 51			[0.12; 0.35] [0.24; 0.52]	2.8% 2.4%	2.3% 2.2%
T2D	34 116			[0.24; 0.52]	2.4% 5.4%	2.2%
T2DCan	4 20			[0.06; 0.44]	0.9%	1.6%
TEA	3 21		0.14	[0.03; 0.36]	1.0%	1.7%
VITD	5 16		0.31	[0.11; 0.59]	0.7%	1.5%
Fixed effect model	2136			[0.27; 0.31]	100.0%	
Random effects model Heterogeneity: I ² = 71%, τ			0.30	[0.26; 0.34]		100.0%
		0.2 0.4 0.6 0.8				

13) Absence of large heterogeneity I2<50%

Study	Events Total		Proportion	95%-CI	Weight (fixed)	Weight (random)
ADHD	22 45		0.49	[0.34; 0.64]	2.0%	2.0%
ADIP	28 48			[0.43; 0.72]	2.1%	2.1%
ADOPSY	4 9			[0.14; 0.79]	0.4%	1.2%
AFIB	14 35			[0.24; 0.58]	1.5%	1.9%
ALONE	1 5			[0.01; 0.72]	0.2%	0.8%
ALS	7 9	<u>.</u>		[0.40; 0.97]	0.4%	1.2%
ANTIDEP ANTIPSY	33 73 1 6 —			[0.34; 0.57]	3.2% 0.3%	2.2% 0.9%
ANXOCD	44 69	· · · · ·		[0.00; 0.64] [0.51; 0.75]	3.0%	2.2%
ASPI	5 11			[0.17; 0.77]	0.5%	1.3%
ASPIcan	5 12			[0.15; 0.72]	0.5%	1.3%
AUTISM	28 52	- <u></u>		[0.39; 0.68]	2.3%	2.1%
BIRTH	30 50	<u>í </u>		[0.45; 0.74]	2.2%	2.1%
BP	3 6		0.50	[0.12; 0.88]	0.3%	0.9%
CHOCO	2 4 ·	i•		[0.07; 0.93]	0.2%	0.7%
CKDmort	9 33			[0.13; 0.46]	1.4%	1.9%
COFF	11 17			[0.38; 0.86]	0.7%	1.6%
COLO	21 31			[0.49; 0.83]	1.4%	1.9%
COLO2 COPD	13 29 2 13 —			[0.26; 0.64]	1.3% 0.6%	1.8% 1.4%
COPD	51 95			[0.02; 0.45] [0.43; 0.64]	4.2%	2.3%
DEM	31 55			[0.42; 0.70]	2.4%	2.3%
DEP	37 98			[0.28; 0.48]	4.3%	2.3%
DEPmort	6 17			[0.14; 0.62]	0.7%	1.6%
DEPREG	20 34			[0.41; 0.75]	1.5%	1.9%
EAT	18 41			[0.28; 0.60]	1.8%	2.0%
ENDO	36 56		0.64	[0.50; 0.77]	2.5%	2.1%
ENVT	8 22			[0.17; 0.59]	1.0%	1.7%
FIB	11 18			[0.36; 0.83]	0.8%	1.6%
FISH	9 12	+ + + + + + + + + + + + + + + + + + + +		[0.43; 0.95]	0.5%	1.3%
FLUOLD GASTRIC	11 25 54 95			[0.24; 0.65]	1.1% 4.2%	1.8% 2.3%
GESTA	54 95 26 51			[0.46; 0.67] [0.37; 0.65]	4.2%	2.3%
HAND	0 6⊷			[0.00; 0.46]	0.3%	0.9%
HIV	14 39			[0.21; 0.53]	1.7%	2.0%
MENT	32 178	-		[0.13; 0.24]	7.8%	2.4%
MET	9 23			[0.20; 0.61]	1.0%	1.7%
MG	6 9			[0.30; 0.93]	0.4%	1.2%
MS	10 22			[0.24; 0.68]	1.0%	1.7%
OBGYN	53 104	- ;		[0.41; 0.61]	4.6%	2.3%
PANC	28 44			[0.48; 0.78]	1.9%	2.0%
PARK	19 35			[0.37; 0.71]	1.5%	1.9%
PCan PHYACT	30 34 8 13			[0.73; 0.97]	1.5%	1.9% 1.4%
PHYACI PHYAF	0 2 ⊷		0.02	[0.32; 0.86] [0.00; 0.84]	0.6% 0.1%	0.4%
PREEC	19 39			[0.32; 0.65]	1.7%	2.0%
PSY	51 78			[0.54: 0.76]	3.4%	2.2%
RHEU	5 33 -			[0.05; 0.32]	1.4%	1.9%
SCHIZO	15 62			[0.14; 0.37]	2.7%	2.1%
SKIN	22 58		0.38	[0.26; 0.52]	2.5%	2.1%
STATIN	32 65		0.49	[0.37; 0.62]	2.9%	2.2%
SUA	13 51			[0.14; 0.40]	2.2%	2.1%
T2D	43 116			[0.28; 0.47]	5.1%	2.3%
T2DCan	6 20			[0.12; 0.54]	0.9%	1.7%
TEA TELO	15 21 6 24			[0.48; 0.89]	0.9% 1.1%	1.7% 1.8%
VITD	13 25			[0.10; 0.47] [0.31; 0.72]	1.1%	1.8%
Fixed effect model	2277	•		[0.44; 0.48]		
Random effects model Heterogeneity: $I^2 = 80\%$, τ		0.2 0.4 0.6 0.8		[0.42; 0.51]	-	100.0%

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14) No evidence of small study effect P>0.10

Study	Events Total		Proportion	95%-CI	Weight (fixed)	Weight (random)
ADHD	32 43		0.74	[0.59; 0.86]	2.0%	2.2%
ADIP	35 43			[0.67; 0.92]	2.0%	2.2%
ADOPSY	3 8 -	•		[0.09; 0.76]	0.4%	0.9%
AFIB ALONE	26 35 2 5			[0.57; 0.88]	1.6% 0.2%	2.0% 0.6%
ALONE	2 5 - 7 9			[0.05; 0.85] [0.40; 0.97]	0.2%	0.6%
ANTIDEP	57 69			[0.72; 0.91]	3.2%	2.5%
ANTIPSY	5 6	i •		[0.36; 1.00]	0.3%	0.7%
ANXOCD	45 49			[0.80; 0.98]	2.3%	2.2%
ASPI	10 10			[0.69; 1.00]	0.5%	1.0%
ASPIcan AUTISM	5 12 32 47			[0.15; 0.72] [0.53; 0.81]	0.6% 2.2%	1.1% 2.2%
BIRTH	40 50			[0.66; 0.90]	2.2%	2.2%
BP	5 6			[0.36; 1.00]	0.3%	0.7%
CHOCO	2 4 -			[0.07; 0.93]	0.2%	0.5%
CKDmort	25 33			[0.58; 0.89]	1.5%	2.0%
COFF	13 17			[0.50; 0.93]	0.8%	1.4%
COLO COLO2	22 30 16 25			[0.54; 0.88]	1.4%	1.9%
COLOZ	8 13			[0.43; 0.82] [0.32; 0.86]	1.2% 0.6%	1.7% 1.2%
CPROT	51 95			[0.43; 0.64]	4.4%	2.6%
DEM	40 55	<u>_</u>		[0.59; 0.84]	2.5%	2.3%
DEP	78 98		0.80	[0.70; 0.87]	4.5%	2.7%
DEPmort	11 17			[0.38; 0.86]	0.8%	1.4%
DEPREG	26 34			[0.59; 0.89]	1.6%	2.0%
EAT ENDO	31 39 41 48			[0.64; 0.91] [0.72; 0.94]	1.8% 2.2%	2.1% 2.2%
ENVT	15 21			[0.48; 0.89]	1.0%	1.6%
FIB	13 18			[0.47: 0.90]	0.8%	1.5%
FISH	5 10		0.50	[0.19; 0.81]	0.5%	1.0%
FLUOLD	13 16			[0.54; 0.96]	0.7%	1.4%
GASTRIC	45 95			[0.37; 0.58]	4.4%	2.6%
GESTA HAND	41 50 3 6			[0.69; 0.91] [0.12; 0.88]	2.3% 0.3%	2.3% 0.7%
HIV	28 38			[0.12, 0.88]	1.8%	2.1%
MENT	150 178			[0.78; 0.89]	8.2%	2.9%
MET	16 22			[0.50; 0.89]	1.0%	1.6%
MS	16 22			[0.50; 0.89]	1.0%	1.6%
OBGYN	84 96 27 34			[0.79; 0.93]	4.4%	2.7%
PANC PARK	27 34 22 34			[0.62; 0.91] [0.46; 0.80]	1.6% 1.6%	2.0% 2.0%
PCan	26 31			[0.46; 0.80]	1.4%	1.9%
PHYACT	8 12			[0.35; 0.90]	0.6%	1.1%
PHYAF	3 3		• 1.00	[0.29; 1.00]	0.1%	0.4%
PREEC	30 39			[0.61; 0.89]	1.8%	2.1%
PSY	59 71			[0.72; 0.91]	3.3%	2.5%
RHEU SCHIZO	25 33 47 62			[0.58; 0.89] [0.63; 0.86]	1.5% 2.9%	2.0% 2.4%
SKIN	44 58			[0.63; 0.86]	2.7%	2.4%
STATIN	48 59			[0.69; 0.90]	2.7%	2.4%
SUA	31 51			[0.46; 0.74]	2.4%	2.3%
T2D	92 116			[0.71; 0.86]	5.4%	2.7%
T2DCan	18 20			[0.68; 0.99]	0.9%	1.5%
TEA TELO	15 21 15 23		0.71	[0.48; 0.89] [0.43; 0.84]	1.0% 1.1%	1.6% 1.7%
VITD	21 25			[0.43; 0.84]	1.1%	1.7%
Fixed effect model	21 23	· · · · · · · · · · · · · · · · · · ·		[0.74; 0.78]		
Random effects model Heterogeneity: $I^2 = 63\%$, τ^2		÷		[0.72; 0.78]	-	100.0%

15) No evidence of excess significance P>0.10

Study	Events Total		Proportion	95%-CI	Weight (fixed)	Weight (random)
ADHD	41 45	:1	0.91	[0.79; 0.98]	2.2%	2.1%
ADIP	46 48			[0.86; 0.99]	2.3%	2.2%
ADOPSY	7 9			[0.40; 0.97]	0.4%	1.4%
AFIB	23 35		0.66	[0.48; 0.81]	1.7%	2.1%
ALONE	1 2 -		0.50	[0.01; 0.99]	0.1%	0.5%
ALS	8 9			[0.52; 1.00]	0.4%	1.4%
ANTIDEP	56 66	- <u></u>		[0.74; 0.92]	3.2%	2.2%
ANTIPSY	6 6			[0.54; 1.00]	0.3%	1.1%
ANXOCD ASPI	55 69 8 10			[0.68; 0.88]	3.4% 0.5%	2.3% 1.4%
ASPIcan	5 12			[0.44; 0.97] [0.15; 0.72]	0.5%	1.5%
AUTISM	29 31			[0.79; 0.99]	1.5%	2.0%
BIRTH	35 47			[0.60; 0.86]	2.3%	2.2%
BP	4 5			[0.28; 0.99]	0.2%	1.0%
CHOCO	1 1 -		1.00	[0.03; 1.00]	0.0%	0.3%
CKDmort	32 33			[0.84; 1.00]	1.6%	2.0%
COFF	14 17			[0.57; 0.96]	0.8%	1.7%
COLO	17 31			[0.36; 0.73]	1.5%	2.0%
COLO2 COPD	6 9 7 11		0.67		0.4%	1.4%
CPROT	54 95			[0.31; 0.89] [0.46; 0.67]	0.5% 4.6%	1.5% 2.3%
DEM	40 55			[0.46, 0.67]	2.7%	2.3%
DEP	63 78			[0.70; 0.89]	3.8%	2.3%
DEPmort	6 17	-		[0.14; 0.62]	0.8%	1.7%
EAT	24 33			[0.54; 0.87]	1.6%	2.0%
ENDO	48 56		0.86	[0.74; 0.94]	2.7%	2.2%
ENVT	15 16		0.94	[0.70; 1.00]	0.8%	1.7%
FIB	16 18		0.89		0.9%	1.8%
FISH	1 12 -			[0.00; 0.38]	0.6%	1.5%
FLUOLD GASTRIC	17 18 82 95			[0.73; 1.00]	0.9% 4.6%	1.8% 2.3%
GESTA	39 51			[0.78; 0.93] [0.63; 0.87]	2.5%	2.3%
HAND	2 3			[0.09; 0.99]	0.1%	0.7%
HIV	8 24		0.33		1.2%	1.9%
MENT	165 178	-		[0.88; 0.96]	8.7%	2.4%
MET	12 23		0.52	[0.31; 0.73]	1.1%	1.9%
MG	7 9		0.78	[0.40; 0.97]	0.4%	1.4%
MS	19 20			[0.75; 1.00]	1.0%	1.8%
OBGYN	91 94			[0.91; 0.99]	4.6%	2.3%
PANC PARK	18 44			[0.26; 0.57]	2.1%	2.1%
PARK	20 35 27 34			[0.39; 0.74] [0.62; 0.91]	1.7% 1.7%	2.1% 2.0%
PHYACT	9 13			[0.39; 0.91]	0.6%	1.6%
PHYAF	2 2			[0.16; 1.00]	0.1%	0.5%
PREEC	26 39			[0.50; 0.81]	1.9%	2.1%
PSY	48 63			[0.64; 0.86]	3.1%	2.2%
RHEU	28 33		0.85	[0.68; 0.95]	1.6%	2.0%
SCHIZO	38 58			[0.52; 0.78]	2.8%	2.2%
SKIN	29 41		0.71		2.0%	2.1%
STATIN	60 65 49 56			[0.83; 0.97]	3.2%	2.2%
SUA T2D	49 56 80 114		0.88	[0.76; 0.95] [0.61; 0.78]	2.7% 5.6%	2.2% 2.3%
T2DCan	16 20			[0.56; 0.94]	1.0%	1.8%
TELO	13 15		0.87		0.7%	1.7%
VITD	26 29		0.90	[0.73; 0.98]	1.4%	2.0%
Fixed effect model	2052	۵		[0.78; 0.82]	100.0%	-
Random effects mode Heterogeneity: I ² = 83%,			0.78	[0.73; 0.82]		100.0%
rieterogeneity: /~ = 83%,	ι – 0.0333, p < 0.0		1			
		0.2 0.4 0.0 0.0				

outcomes; FISH: Fish and _-3 Fatty Acids consumptions and cancer outcomes; FLUOLD: Influenza vaccine in elderly and health outcomes; GASTRIC: Prognostic biomarkers for gastric cancer; GESTA: Risk factors for gestational diabetes; HAND: Handgrip strength and health outcomes; HIV: Human immunodeficiency virus infections and health outcomes; MENT: Peripheral biomarkers and major mental disorders; MET: Metformin and cancer outcomes; MG: Magnesium and health outcomes; MS: Environmental risk factors for multiple sclerosis; OBGYN: Obesity and gynecology/obstetric outcomes; PANC: Prognostic biomarkers for pancreatic ductal adenocarcinoma; PARK: Environmental risk factors and Parkinson's; PCan: Risk and protective factors for prostate cancer; PHYACT: Physical activity and cancer outcomes; PHYAF: Physical activity and atrial fibrillation outcomes; PREEC: Non-genetic risk factors for pre-eclampsia; PSY: Risk and protective factors for psychosis; RHEU: Environmental risk factors for rheumatic diseases; SCHIZO: Risk factors and peripheral biomarkers for schizophrenia spectrum disorders; SKIN: Non-genetic risk factors for skin cancer; STATIN: Statins and multiple non-cardiovascular outcomes; SUA: Serum uric acid and health outcomes; T2D: Risk factors for type 2 diabetes mellitus; T2DCan: Type 2 diabetes mellitus and cancer; TEA: Tea consumption and cancer; TELO: Telomere length and health outcomes; VITD: Vitamin D and health outcome