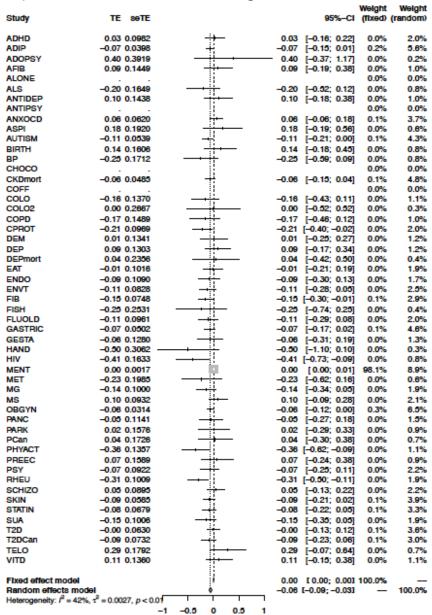
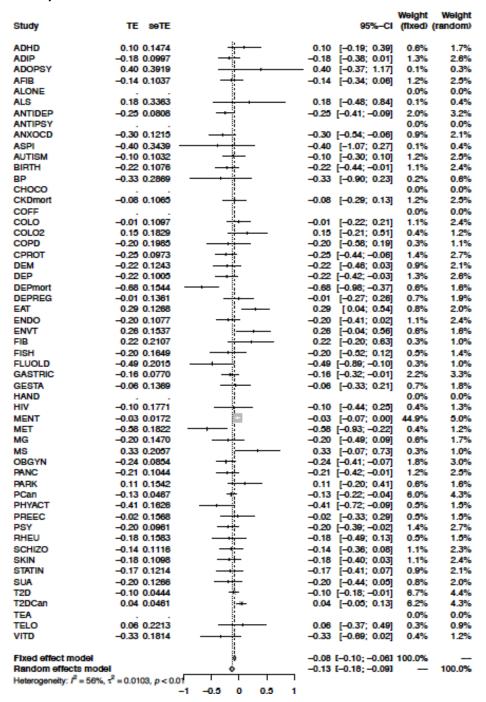
Additional file 6: Figure 16 to 43 Forest plots of the meta-analyses of kappa estimated for each individual association.

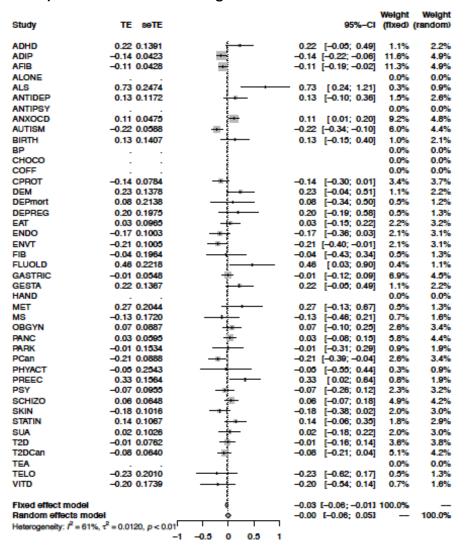
### 16) Number of cases and excess of significance bias



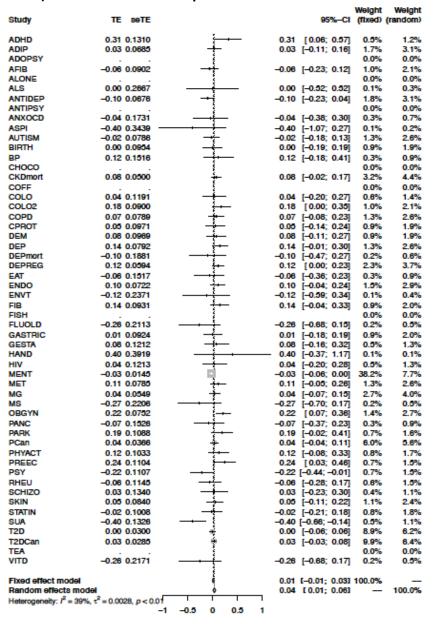
## 17) Number of cases and $I^2 > 50\%$



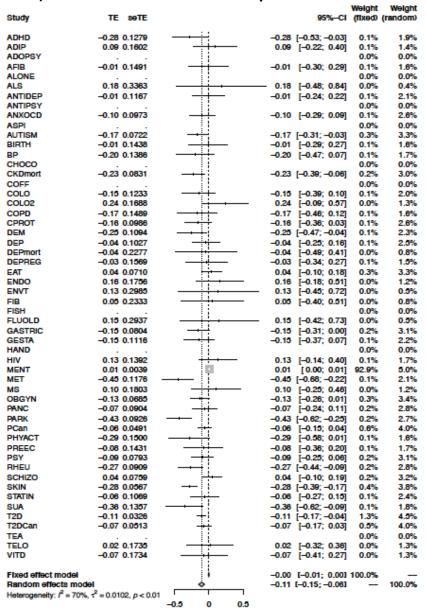
#### 18) Number of cases and largest studies



#### 19) Number of cases and prediction intervals



## 20) Number of cases and small study effects



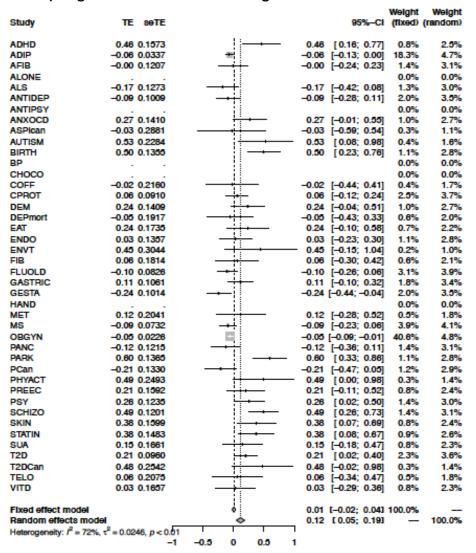
21)  $I^2 > 50\%$  and excess of significance bias

Study	TE SOTE	_	95%-CI	Welght (flxed)	Weight (random)
ADHD	0.00 0.0022		0.00 1.000 0.24	1.20/	2.7%
ADHD ADIP	0.08 0.0823 0.02 0.0689		0.08 [-0.08; 0.24] 0.02 [-0.12; 0.15]		3.1%
ADOPSY	-0.05 0.2616		-0.05 [-0.56; 0.47]		0.5%
AFIB	0.19 0.1418	<u> </u>	0.19 [-0.08; 0.47]		1.4%
ALONE	0.10 0.1410	li i	0.10 [-0.00, 0.41]	0.0%	0.0%
ALS	-0.17 0.1273	<del>!</del>	-0.17 [-0.42; 0.08]		1.7%
ANTIDEP	0.16 0.0817	<del>i.</del> -	0.16 [0.00; 0.32]		2.7%
ANTIPSY				0.0%	0.0%
ANXOCD	0.20 0.1163	<del>- </del>	0.20 [-0.03; 0.43]	0.6%	1.9%
ASPI	-0.07 0.2283	<del>!</del>	-0.07 [-0.52; 0.38]	0.2%	0.7%
ASPican	-0.03 0.2881	<del></del> -	-0.03 [-0.59; 0.54]		0.5%
AUTISM	0.20 0.1245	<del></del>	0.20 [-0.05; 0.44]		1.7%
BIRTH	-0.08 0.1344	<del></del>	-0.08 [-0.34; 0.18]		1.5%
BP	0.29 0.2738	<del>- !:</del>	0.29 [-0.25; 0.82]		0.5%
CHOCO		4		0.0%	0.0%
CKDmort	0.02 0.0240	3	0.02 [-0.02; 0.07]		4.4%
COFF	-0.02 0.2160	<del></del>	-0.02 [-0.44; 0.41]		0.7%
COLO	-0.07 0.1718	<del></del>	-0.07 [-0.41; 0.27]		1.1%
COLO2 COPD	0.25 0.1849		0.25 [-0.11; 0.61]		1.0%
CPROT	-0.08 0.2031 0.51 0.0885		-0.08 [-0.48; 0.31] 0.51 [0.34; 0.68]		0.8% 2.5%
DEM	0.11 0.1273		0.11 [-0.14; 0.36]		1.7%
DEP	0.07 0.0713	<u>- E</u>	0.07 [-0.07; 0.21]		3.0%
DEPmort	0.23 0.2434		0.23 [-0.25; 0.70]		0.6%
EAT	-0.22 0.1495		-0.22 [-0.52; 0.07]		1.3%
ENDO	-0.08 0.1050	<del> !</del>	-0.08 [-0.28; 0.13]		2.1%
ENVT	0.08 0.0783	<del>- Ļ-</del>	0.08 [-0.08; 0.23]		2.8%
FIB	-0.21 0.1273	<b></b>	-0.21 [-0.48; 0.04]		1.7%
FISH	0.06 0.0649	<del>- į .</del>	0.06 [-0.07; 0.19]		3.2%
FLUOLD	0.09 0.0889	<del>- !-</del>	0.09 [-0.08; 0.28]	1.1%	2.5%
GASTRIC	0.06 0.0791	<del>-  -</del>	0.06 [-0.09; 0.22]	1.3%	2.8%
GESTA	0.01 0.1200	<del></del>	0.01 [-0.23; 0.24]		1.8%
HAND		i		0.0%	0.0%
HIV	-0.06 0.1990	<del></del>	-0.06 [-0.45; 0.33]		0.9%
MENT	0.02 0.0150	*	0.02 [-0.01; 0.05]		4.6%
MET	0.40 0.1840	<del>! · · · ·</del>	0.40 [0.04; 0.76]		1.0%
MG	0.73 0.2474		0.73 [0.24; 1.21]		0.6%
MS	0.10 0.0970	3	0.10 [-0.09; 0.29]		2.3%
OBGYN PANC	0.02 0.0336	<u> </u>	0.02 [-0.05; 0.08]		4.2%
PARK	0.31 0.1263 0.48 0.1490		0.31 [0.06; 0.55] 0.48 [0.19; 0.77]		1.7% 1.3%
PCan	-0.18 0.0624	#	-0.18 [-0.30; -0.05]		3.3%
PHYACT	0.83 0.1599		0.83 [0.52; 1.14]		1.2%
PREEC	0.24 0.1449		0.24 [-0.05; 0.52]		1.4%
PSY	0.19 0.1242	<del>-ii</del>	0.19 [-0.08; 0.43]		1.7%
RHEU	0.06 0.0373	#	0.06 [-0.01; 0.13]		4.1%
SCHIZO	0.17 0.0837	<del>i-</del>	0.17 [0.00; 0.33]		2.6%
SKIN	0.12 0.1182	<del>-</del>	0.12 [-0.11; 0.35]	0.6%	1.8%
STATIN	0.15 0.0638	4-	0.15 [0.02; 0.27]		3.2%
SUA	-0.01 0.0840	<del> !</del>	-0.01 [-0.14; 0.11]	2.0%	3.2%
T2D	0.18 0.0705	<del>!</del>	0.18 [ 0.04; 0.31]	1.7%	3.0%
T2DCan	0.19 0.1066	#-	0.19 [-0.02; 0.40]		2.1%
TELO	-0.07 0.1475	<del></del>	-0.07 [-0.38; 0.22]		1.4%
VITD	0.26 0.1326	+ -	0.26 [0.00; 0.52]	0.5%	1.6%
Fixed effect model		4	0.05 [ 0.03; 0.07]	100.0%	
Random effects mode		<u> </u>	0.09 [ 0.05; 0.13]	_	100.0%
Heterogeneity: $I^2 = 64\%$ ,	$t^2 = 0.0088, p < 0.01$				
	-1	-0.5 0 0.5 1			

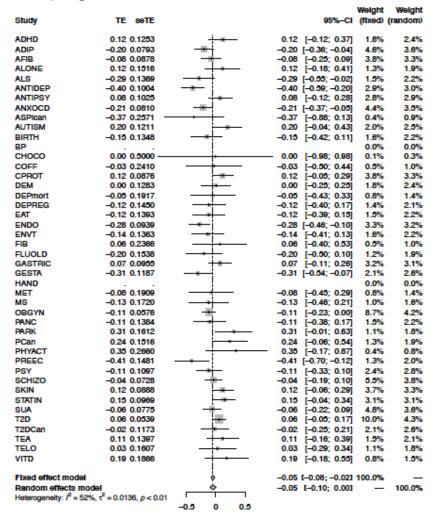
22)  $I^2 > 50\%$  and small study effects

				Weight	Weight
Study	TE SOTE		95%-C	(fixed)	(random)
ADHD	0.10 0.1267	<del>- [-</del>	0.10 [-0.15; 0.35	1.1%	1.9%
ADIP	0.22 0.1234	<del></del>	0.22 [-0.02; 0.46		2.0%
ADOPSY	0.47 0.3227		0.47 [-0.17; 1.10		0.4%
AFIB	0.06 0.1295	<del>-</del>	0.06 [-0.19; 0.32		1.8%
ALONE	-0.38 0.2718 -		-0.38 [-0.90; 0.17		0.8% 0.3%
ALS ANTIDEP	0.36 0.3665 0.07 0.0816		0.36 [-0.36; 1.08 0.07 [-0.09; 0.22		3.0%
ANTIPSY	0.08 0.1025		0.07 [-0.09, 0.22		2.4%
ANXOCD	0.09 0.0799	_ <del>-</del>	0.09 [-0.07; 0.24		3.0%
ASPI			•	0.0%	0.0%
ASPican	0.31 0.2772	<del></del>	0.31 [-0.23; 0.86	0.2%	0.6%
AUTISM	0.23 0.1338	<del>- j</del>	0.23 [-0.03; 0.49	•	1.8%
BIRTH	0.09 0.1288	<del>-1</del>	0.09 [-0.16; 0.34		1.9%
BP CHOCO	0.33 0.2889	<del>-   ·</del>	0.33 [-0.23; 0.90	0.2%	0.5% 0.0%
CKDmort	0.12 0.0960		0.12 [-0.07; 0.30		2.6%
COFF	-0.11 0.2183	<del></del>	-0.11 [-0.54; 0.31		0.9%
COLO	0.05 0.1833	<del></del>	0.05 [-0.31; 0.41		1.1%
COLO2	0.61 0.1427	į ——	0.61 [0.33; 0.89	0.9%	1.6%
COPD	-0.06 0.1759	<del></del>	-0.06 [-0.41; 0.28		1.2%
CPROT	0.53 0.0870	į <del></del>	0.53 [0.38; 0.70		2.8%
DEM DEP	0.34 0.1222		0.34 [0.10; 0.58		2.0% 3.4%
DEPmort	0.06 0.0669 0.03 0.2027		0.06 [-0.08; 0.19 0.03 [-0.37; 0.42		1.0%
DEPREG	0.09 0.1603		0.09 [-0.22; 0.41		1.4%
EAT	-0.32 0.1258	<b></b> - ∦	-0.32 [-0.57; -0.08		1.9%
ENDO	0.10 0.1175	<del> -</del> -	0.10 [-0.13; 0.33	1.3%	2.1%
ENVT	0.22 0.1612	<del>- ;</del>	0.22 [-0.09; 0.54		1.4%
FIB	0.01 0.2291	<del></del>	0.01 [-0.44; 0.46		0.8%
FISH FLUOLD	0.60 0.2319	<del></del>	0.60 [0.15; 1.05		0.8%
GASTRIC	0.19 0.1187 0.23 0.0979	<u> </u>	0.19 [-0.04; 0.42 0.23 [0.03; 0.42		2.0% 2.5%
GESTA	0.04 0.1088	<del></del>	0.04 [-0.17; 0.25		2.3%
HAND				0.0%	0.0%
HIV	0.13 0.1105	<del>-  -</del> -	0.13 [-0.09; 0.35	1.4%	2.2%
MENT	0.03 0.0253	+	0.03 [-0.02; 0.08		4.6%
MET	0.35 0.1391	<del></del>	0.35 [0.08; 0.63	•	1.7%
MS	0.30 0.1694		0.30 [-0.03; 0.63		1.3%
OBGYN PANC	-0.01 0.0655 -0.04 0.1428		-0.01 [-0.14; 0.12 -0.04 [-0.32; 0.24		3.5% 1.6%
PARK	0.16 0.1651		0.16 [-0.16; 0.49		1.3%
PCan	0.35 0.2287		0.35 [-0.10; 0.80		0.8%
PHYACT	0.12 0.2855	<del></del>	0.12 [-0.44; 0.68		0.5%
PREEC	-0.06 0.1332	<del></del>	-0.06 [-0.32; 0.20		1.8%
PSY	0.18 0.1101	<del>-</del>	0.18 [-0.04; 0.39		2.2%
RHEU	0.11 0.0568		0.11 [0.00; 0.22		3.7%
SCHIZO SKIN	0.03 0.0707 0.20 0.0889		0.03 [-0.11; 0.17 0.20 [0.03; 0.38		3.3% 2.8%
STATIN	0.20 0.0809	<u> :                                   </u>	0.20 [0.03, 0.30		2.7%
SUA	0.29 0.0965	<b>.</b>	0.29 [0.10; 0.48	•	2.6%
T2D	0.09 0.0601	<del></del>	0.09 [-0.03; 0.20		3.6%
T2DCan	0.09 0.0691	<del>- ë-</del>	0.09 [-0.04; 0.23		3.3%
TEA	-0.17 0.1931	<del></del>	-0.17 [-0.55; 0.21		1.0%
TELO	0.26 0.1183	<del>    -</del>	0.26 [0.03; 0.49		2.1%
VITD	0.18 0.1502		0.18 [-0.12; 0.47	0.8%	1.5%
Fixed effect model		ė.	0.10 [ 0.08; 0.13	1 100 0%	
Random effects model		ì	0.13 [ 0.09; 0.18		100.0%
Heterogeneity: $I^2 = 50\%$ , $\tau$	_	<del></del>			
	-1	-0.5 0 0.5 1			

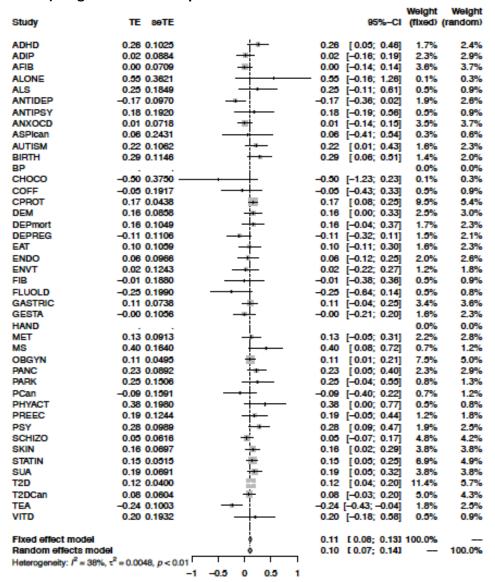
## 23) Largest studies and excess of significance bias



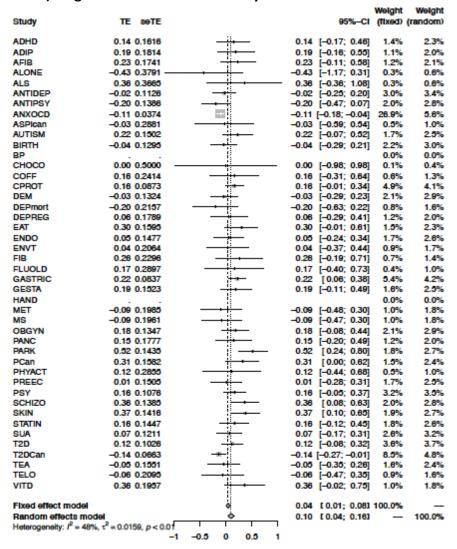
# 24) Largest studies and I<sup>2</sup> > 50%



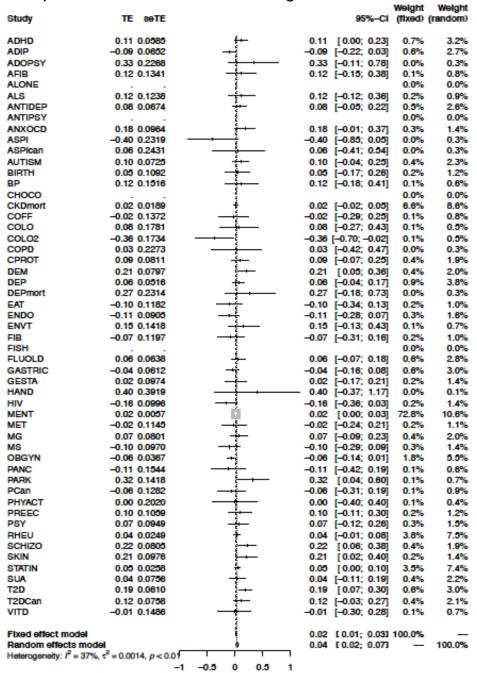
### 25) Largest studies and prediction intervals



## 26) Largest studies and small study effects



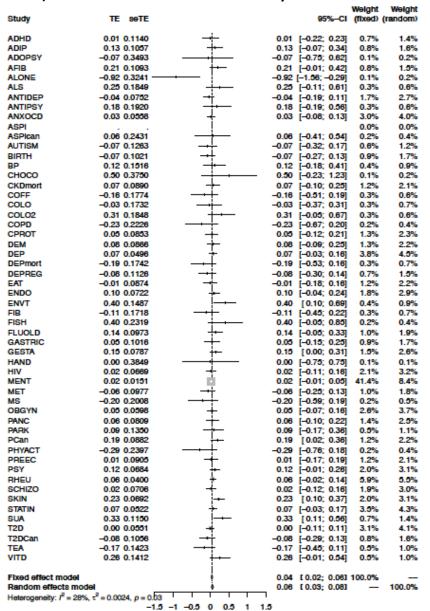
### 27) Prediction intervals and excess of significance bias



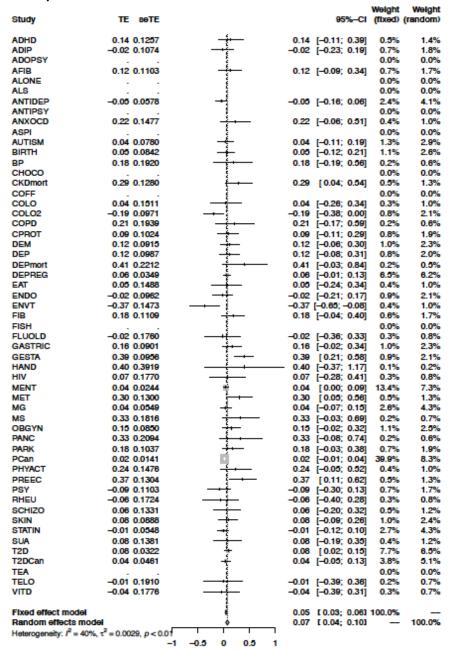
28) Prediction intervals and I<sup>2</sup> > 50%

_0,				Welght	Weight
Study	TE SOTE		95%-CI	(fixed)	(random)
ADHD	0.82 0.1185	ş <del></del>	0.62 [0.39; 0.85]	2.3%	2.2%
ADIP	0.35 0.1397	<del>- ja -</del>	0.35 [0.08; 0.63]	1.6%	2.0%
ADOPSY	0.47 0.3227	- <del></del>	0.47 [-0.17; 1.10]	0.3%	0.7%
AFIB	0.51 0.1490	<del></del>	0.51 [0.22; 0.80]	1.4%	1.9%
ALONE	0.29 0.2738	<del></del>	0.29 [-0.25; 0.82]	0.4%	0.9%
ALS	-0.12 0.2413	<del></del>	-0.12 [-0.80; 0.35]	0.5%	1.1%
ANTIDEP	0.58 0.0988	<u> </u>	0.58 [0.38; 0.77]	3.2%	2.5%
ANTIPSY ANXOCD	0.57 0.3535		- 0.57 [-0.12; 1.26]	0.3% 2.4%	0.6% 2.3%
ASPI	0.51 0.1156 0.82 0.1691	-	0.51 [0.29; 0.74] 0.82 [0.49; 1.15]	1.1%	1.7%
ASPican	0.44 0.2325		0.82 [0.49; 1.15] 0.44 [-0.02; 0.89]	0.6%	1.7%
AUTISM	0.45 0.1271	1	0.45 [0.20; 0.70]	2.0%	2.1%
BIRTH	0.15 0.1275		0.15 [-0.10; 0.40]	1.9%	2.1%
BP	0.55 0.3621		- 0.55 [-0.16; 1.26]	0.2%	0.6%
СНОСО	0.50 0.3750		- 0.50 [-0.23; 1.23]	0.2%	0.6%
CKDmort	0.57 0.1724	-	0.57 [0.23; 0.90]	1.1%	1.7%
COFF	0.16 0.1773		0.16 [-0.19; 0.51]	1.0%	1.6%
COLO	0.58 0.1515		0.58 [0.28; 0.88]	1.4%	1.9%
COLO2	0.23 0.1086		0.23 [0.02; 0.44]	2.7%	2.4%
COPD	0.26 0.3132	<del></del>	0.28 [-0.35; 0.88]	0.3%	0.8%
CPROT	0.17 0.0835		0.17 [0.00; 0.33]	4.6%	2.7%
DEM	0.41 0.1016		0.41 [0.21; 0.61]	3.1%	2.5%
DEP	0.17 0.0993	- <del></del>	0.17 [-0.03; 0.36]	3.2%	2.5%
DEPmort	0.27 0.2314	<del></del>	0.27 [-0.18; 0.73]	0.6%	1.2%
DEPREG	0.29 0.1252	<del></del>	0.29 [0.05; 0.54]	2.0%	2.2%
EAT	-0.35 0.1260	<del></del>	-0.35 [-0.60; -0.11]	2.0%	2.2%
ENDO	0.17 0.1261	<del>-=}</del>	0.17 [-0.08; 0.41]	2.0%	2.2%
ENVT	0.39 0.2059	<del></del>	0.39 [-0.01; 0.80]	0.7%	1.4%
FIB	0.39 0.1608	<del></del>	0.39 [0.08; 0.71]	1.2%	1.8%
FISH	0.19 0.1508	- <del></del> -	0.19 [-0.10; 0.49]	1.4%	1.9%
FLUOLD	0.54 0.2320	1:	0.54 [0.08; 0.99]	0.6%	1.2%
GASTRIC	0.52 0.0808	<u> </u>	0.52 [0.37; 0.68]	4.9%	2.7%
GESTA	0.30 0.1287	<del></del>	0.30 [0.05; 0.55]	2.0%	2.1%
HAND			040 / 033: 044	0.0%	0.0%
HIV MENT	-0.10 0.1210 0.57 0.0870		-0.10 [-0.33; 0.14] 0.57 [0.40; 0.74]	2.2% 4.2%	2.2%
MET	0.06 0.1612		0.06 [-0.25; 0.38]	1.2%	1.8%
MG	0.12 0.1238	- 1	0.12 [-0.12; 0.36]	2.1%	2.2%
MS	-0.20 0.2191		-0.20 [-0.83; 0.23]	0.7%	1.3%
OBGYN	0.11 0.1018		0.11 [-0.09; 0.31]	3.1%	2.4%
PANC	0.32 0.1312		0.32 [0.06; 0.57]	1.8%	2.1%
PARK	0.48 0.1359	<del></del>	0.48 [0.22; 0.75]	1.7%	2.0%
PCan	0.15 0.0780	<u></u> - <u>-</u> -	0.15 [0.00; 0.30]	5.2%	2.7%
PHYACT	0.08 0.2230	<del>-</del> -	0.08 [-0.36; 0.51]	0.6%	1.2%
PREEC	0.16 0.1362	<del>-=}</del>	0.16 [-0.11; 0.42]	1.7%	2.0%
PSY	0.31 0.0960		0.31 [0.12; 0.50]	3.4%	2.5%
RHEU	0.44 0.2313		0.44 [-0.02; 0.89]	0.6%	1.2%
SCHIZO	0.56 0.1239	<del></del>	0.56 [0.32; 0.80]	2.1%	2.2%
SKIN	0.20 0.1306	<del>-=</del> }-	0.20 [-0.06; 0.45]	1.9%	2.1%
STATIN	0.29 0.1108	<del></del>	0.29 [0.07; 0.51]	2.6%	2.3%
SUA	0.01 0.1354	<del></del> - <u>:</u>	0.01 [-0.25; 0.28]	1.7%	2.0%
T2D	0.29 0.0917	-	0.29 [0.11; 0.47]	3.8%	2.6%
T2DCan	0.21 0.2321	<u></u> -	0.21 [-0.24; 0.87]	0.6%	1.2%
TEA	0.12 0.0801	<del></del> }	0.12 [-0.03; 0.28]	4.9%	2.7%
VITD	0.48 0.2177		0.48 [0.05; 0.90]	0.7%	1.3%
Fixed effect model		ě	0.29 [ 0.26; 0.33]		
Random effects mode		<u> </u>	0.30 [ 0.24; 0.38]	_	100.0%
Heterogeneity: $I^2 = 63\%$ ,					
	<del>-</del> -1	-0.5 0 0.5 1			

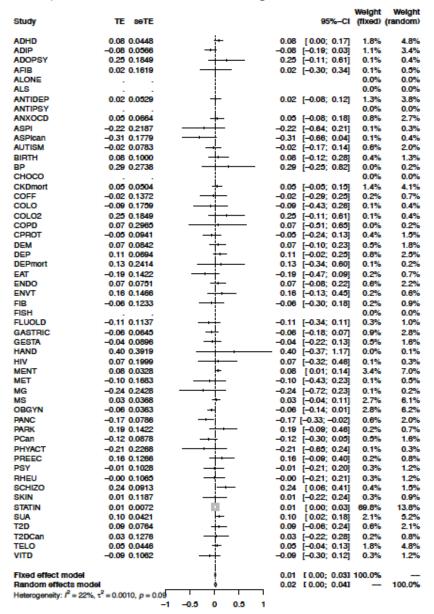
### 29) Prediction intervals and small study effects



30) P-values < 10<sup>-6</sup> and number of cases



# 31) P-values < 10<sup>-6</sup> and excess of significance bias



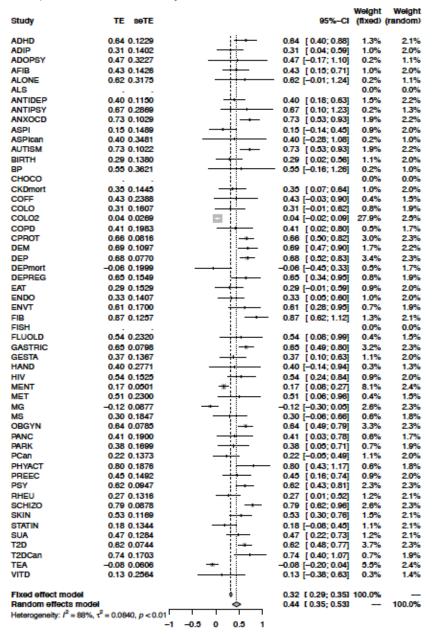
32) P-values  $< 10^{-6}$  and  $I^2 > 50\%$ 

					Welght	Weight
Study	TE SOTE			95%-CI	(пхеа)	(random)
ADHD	0.28 0.1340	<b>├</b>	0.28	[ 0.02; 0.55]	0.7%	1.9%
ADIP	-0.27 0.1389	<del></del> !	-0.27	[-0.54; 0.00]	0.6%	1.8%
ADOPSY	-0.15 0.3153	<del></del>		[-0.77; 0.46]	0.1%	0.4%
AFIB	0.20 0.1608	+		[-0.11; 0.52]	0.5%	1.4%
ALONE	-0.38 0.2716 -	<del>-                                    </del>	-0.36	[-0.90; 0.17]	0.2%	0.6%
ALS		ļ			0.0%	0.0%
ANTIDEP	0.04 0.1024			[-0.16; 0.25]	1.2%	2.7%
ANTIPSY ANXOCD	0.33 0.2889 0.17 0.0885			[-0.23; 0.90]	0.1% 1.5%	0.5% 3.2%
ASPI	-0.18 0.1643			[-0.50; 0.14]	0.4%	1.4%
ASPican	0.06 0.2431			[-0.41; 0.54]	0.2%	0.7%
AUTISM	0.17 0.1256	<del> </del>		[-0.07; 0.42]	0.8%	2.0%
BIRTH	-0.11 0.1294	<del></del>		[-0.36; 0.15]	0.7%	2.0%
BP	0.00 0.3849	<del></del>		[-0.75; 0.75]	0.1%	0.3%
CHOCO					0.0%	0.0%
CKDmort	0.11 0.1616	<del></del>	0.11	[-0.20; 0.43]	0.5%	1.4%
COFF	-0.05 0.1917	<del></del>		[-0.43; 0.33]	0.3%	1.0%
COLO	0.19 0.1568	<del></del>	0.19	[-0.12; 0.50]	0.5%	1.5%
COLO2	0.10 0.1262	<del></del>		[-0.15; 0.35]	0.8%	2.0%
COPD	-0.02 0.1904	<del></del>		[-0.40; 0.35]	0.3%	1.1%
CPROT	-0.01 0.0981	<del></del>		[-0.20; 0.18]	1.3%	2.9%
DEM	0.24 0.1062	<del></del>		[ 0.04; 0.45]	1.1%	2.6%
DEP	0.04 0.1015			[-0.15; 0.24]	1.2%	2.7%
DEPmort	-0.12 0.2353			[-0.58; 0.34]	0.2%	0.7%
DEPREG	0.11 0.0998 -0.00 0.1554			[-0.08; 0.31]	1.2%	2.8% 1.5%
EAT ENDO	-0.28 0.1204			[-0.31; 0.30] [-0.51; -0.04]	0.5% 0.8%	2.2%
ENVT	0.07 0.2097	<u> </u>		[-0.34; 0.48]	0.3%	0.9%
FIB	0.28 0.1870			[-0.09; 0.64]	0.3%	1.1%
FISH	0.20 0.1070		0.20	[-0.00, 0.04]	0.0%	0.0%
FLUOLD	0.23 0.1807	<del></del>	0.23	[-0.12; 0.59]	0.4%	1.2%
GASTRIC	0.34 0.0915	i		[ 0.16; 0.52]	1.5%	3.1%
GESTA	-0.24 0.1211	<del></del>	-0.24	[-0.48; -0.01]	0.8%	2.2%
HAND					0.0%	0.0%
HIV	-0.11 0.1506	<del></del>	-0.11	[-0.41; 0.18]	0.5%	1.6%
MENT	0.12 0.0631	+-		[ 0.00; 0.25]	3.0%	4.5%
MET	-0.19 0.1712	<del></del>		[-0.53; 0.15]	0.4%	1.3%
MG	-0.24 0.2301			[-0.69; 0.22]	0.2%	0.8%
MS	0.14 0.1882	<del></del>		[-0.23; 0.51]	0.3%	1.1%
OBGYN	-0.17 0.0965			[-0.36; 0.02]	1.3%	2.9%
PANC PARK	-0.04 0.0732 0.11 0.1494	Ξ		[-0.18; 0.10] [-0.18; 0.41]	2.3% 0.5%	3.9% 1.6%
PCan	0.02 0.0141	[7]		[-0.01; 0.04]	60.7%	7.2%
PHYACT	-0.13 0.2354			[-0.59; 0.33]	0.2%	0.7%
PREEC	-0.19 0.1513	<del></del>		[-0.48; 0.11]	0.5%	1.5%
PSY	-0.03 0.1019	<del></del>		[-0.23; 0.17]	1.2%	2.7%
RHEU	0.00 0.1435	<del></del>		[-0.28; 0.29]	0.6%	1.7%
SCHIZO	0.38 0.1302	i ——	0.38	[0.13; 0.64]	0.7%	1.9%
SKIN	-0.15 0.1284	<del></del>	-0.15	[-0.39; 0.10]	0.8%	2.0%
STATIN	0.06 0.0607	<del>- </del>	0.06	[-0.05; 0.18]	3.3%	4.6%
SUA	-0.08 0.1322	<del></del>		[-0.34; 0.18]	0.7%	1.9%
T2D	-0.00 0.0927	<del>- †</del> -		[-0.18; 0.18]	1.4%	3.1%
T2DCan	0.05 0.2271			[-0.40; 0.49]	0.2%	0.8%
TEA	-0.10 0.0982			[-0.29; 0.09]	1.3%	2.9%
TELO	0.25 0.2243			[-0.19; 0.69]	0.2%	0.8%
VITD	-0.11 0.1892		-0.11	[-0.48; 0.26]	0.3%	1.1%
Fixed effect model		ė	0.02	[ 0.00; 0.04]	100.0%	
Random effects model	ı	ž.		[-0.02; 0.07]	. 30.076	100.0%
Heterogeneity: $f^2 = 38\%$ , 1			-			
	5.5555) p - 5.61	-0.5 0 0.5				

33) P-values  $< 10^{-6}$  and largest studies

		,		Weight	Weight
Study	TE SOTE		95%-CI	_	(random)
ADHD	0.18 0.0873	<del>- ji-</del>	0.18 [0.01; 0.35]	1.4%	2.5%
ADIP	0.24 0.0963	<del>  -</del>	0.24 [ 0.05; 0.43]	1.1%	2.2%
AFIB	0.18 0.0972	<del>-!i-</del>	0.18 [-0.01; 0.37]	1.1%	2.2%
ALONE	0.29 0.2738	<del>-   </del>	0.29 [-0.25; 0.82]	0.1%	0.4%
ALS		i i		0.0%	0.0%
ANTIDEP	0.12 0.0627	<del>- ii</del> -	0.12 [-0.01; 0.24]	2.7%	3.7%
ANTIPSY	0.33 0.2869	<del>- ii -</del>	0.33 [-0.23; 0.90]	0.1%	0.3%
ANXOCD	0.10 0.0523		0.10 [ 0.00; 0.20]	3.9%	4.3%
ASPican	0.44 0.2325		0.44 [-0.02; 0.89]	0.2%	0.5%
AUTISM	0.21 0.0842		0.21 [ 0.04; 0.37]	1.5%	2.7%
BIRTH	0.26 0.1126		0.26 [ 0.04; 0.48]	0.8%	1.8%
BP		i.		0.0%	0.0%
CHOCO		i		0.0%	0.0%
COFF	-0.05 0.1917	<del></del>	-0.05 [-0.43; 0.33]	0.3%	0.7%
CPROT	0.19 0.0613	<del>!!*</del> -	0.19 [ 0.07; 0.31]	2.8%	3.8%
DEM	0.21 0.0797	<del>-  </del>	0.21 [ 0.05; 0.38]	1.7%	2.9%
DEPmort	0.23 0.1908	<del>-    •</del>	0.23 [-0.14; 0.61]	0.3%	0.7%
DEPREG	0.09 0.0469	<del>- 4  </del>	0.09 [-0.01; 0.18]	4.8%	4.7%
EAT	0.28 0.1210	+	0.28 [ 0.04; 0.51]	0.7%	1.6%
ENDO	0.24 0.0858	<del>!!•</del>	0.24 [ 0.07; 0.40]	1.4%	2.6%
ENVT	0.23 0.1261		0.23 [-0.01; 0.48]	0.7%	1.5%
FIB	-0.14 0.2061	<del></del>	-0.14 [-0.54; 0.27]	0.2%	0.6%
FLUOLD	0.01 0.1047	<del></del>	0.01 [-0.20; 0.21]	1.0%	2.0%
GASTRIC	0.20 0.0772	<del>-!!•</del>	0.20 [ 0.05; 0.35]	1.8%	3.0%
GESTA	0.25 0.0767	<del></del>	0.25 [ 0.10; 0.40]	1.8%	3.0%
HAND		i i		0.0%	0.0%
MET	0.15 0.1402	<del>- !!</del>	0.15 [-0.13; 0.42]	0.5%	1.3%
MS	0.14 0.0808	<del>-i:-</del>	0.14 [-0.02; 0.30]	1.6%	2.8%
OBGYN	0.14 0.0543	<del>- *</del> -	0.14 [ 0.04; 0.25]	3.6%	4.2%
PANC	0.06 0.0358	-	0.06 [-0.01; 0.13]	8.3%	5.5%
PARK	0.34 0.1404	++	0.34 [ 0.06; 0.61]	0.5%	1.3%
PCan	0.07 0.0479	<del>- 1</del>	0.07 [-0.03; 0.16]	4.6%	4.6%
PHYACT	0.15 0.2194		0.15 [-0.28; 0.58]	0.2%	0.6%
PREEC	0.53 0.1274	<u> </u>	0.53 [ 0.28; 0.78]	0.7%	1.5%
PSY	0.26 0.0988	<del>1</del> :	0.26 [ 0.07; 0.45]	1.1%	2.2%
SCHIZO	0.09 0.0681	<del>-11-</del>	0.09 [-0.04; 0.23]	2.3%	3.4%
SKIN	0.10 0.0864	<b>=</b>	0.10 [-0.07; 0.27]	1.4%	2.6%
STATIN	0.03 0.0180	===	0.03 [ 0.00; 0.07]	32.8%	6.6%
SUA	0.12 0.0484	7	0.12 [ 0.03; 0.21]	4.5%	4.6%
T2D	0.20 0.0524	<del>!"-</del>	0.20 [ 0.10; 0.30]	3.9%	4.3%
T2DCan	0.14 0.0889	<del>- 1</del>	0.14 [-0.03; 0.31]	1.3%	2.5%
TEA	0.22 0.1908	- !:-	0.22 [-0.15; 0.60]	0.3%	0.7%
TELO	0.17 0.0980	<del></del>	0.17 [-0.03; 0.38]	1.1%	2.2%
VITD	0.46 0.1356		0.46 [ 0.20; 0.73]	0.6%	1.3%
Fixed effect model		ó	0.11 [ 0.09; 0.13]	100.0%	
Random effects model		<b>.</b>	0.16 [ 0.12; 0.19]		100.0%
Heterogeneity: $I^2 = 47\%$ , $\tau$	$r^2 = 0.0042, p < 0.01$	1 1			
		-0.5 0 0.5			

34) P-values < 10<sup>-6</sup> and prediction intervals



35) P-values < 10<sup>-6</sup> and p-values < 0.001

-				Welght	Welght
Study	TE SOTE		95%-CI	(Dexu)	(random)
ADHD	0.40 0.1013	<del></del>	0.40 [0.20; 0.60]	2.2%	2.4%
ADIP	0.34 0.1063	<del>- = -</del>	0.34 [0.13; 0.54]	2.0%	2.3%
ADOPSY	0.40 0.2263		0.40 [-0.04; 0.84]	0.4%	0.8%
AFIB	0.48 0.1280	- <del>L</del> a	0.48 [0.23; 0.73]	1.4%	1.9%
ALONE	0.29 0.2738	<del></del>	0.29 [-0.25; 0.82]	0.3%	0.6%
ALS		_		0.0%	0.0%
ANTIDEP	0.31 0.0741		0.31 [0.17; 0.48]	4.0%	3.1%
ANTIPSY ANXOCD	0.44 0.0848	<u> </u>	0.44 [0.27; 0.60]	0.0% 3.1%	0.0% 2.8%
ASPI	0.62 0.3346	<u>.</u>	- 0.62 [-0.04; 1.28]	0.2%	0.4%
ASPican	0.57 0.2499		0.57 [0.08; 1.06]	0.4%	0.7%
AUTISM	0.47 0.0982		0.47 [0.27; 0.68]	2.3%	2.5%
BIRTH	0.55 0.1018		0.55 [0.35; 0.75]	2.1%	2.4%
BP	0.40 0.2771		0.40 [-0.14; 0.94]	0.3%	0.6%
CHOCO		Ē,		0.0%	0.0%
CKDmort	0.59 0.1259	<del>! -</del>	0.59 [0.34; 0.83]	1.4%	1.9%
COFF	0.45 0.1723	<del></del>	0.45 [0.11; 0.79]	0.7%	1.3%
COLO	0.75 0.1147	} <del></del>	0.75 [0.52; 0.97]	1.7%	2.1%
COLO2	0.53 0.1919	- <del></del>	0.53 [0.16; 0.91]	0.6%	1.1%
COPD	0.35 0.2055	<del></del>	0.35 [-0.05; 0.75]	0.5%	1.0%
CPROT	0.38 0.0685	-	0.38 [0.24; 0.51]	4.7%	3.2%
DEM	0.48 0.0982	<del>- 2-</del>	0.48 [0.28; 0.67]	2.3%	2.5%
DEP	0.45 0.0712	₹.	0.45 [0.31; 0.59]	4.4%	3.2%
DEPmort	0.66 0.1685	_ ; *	0.66 [0.33; 0.99]	0.8%	1.3%
DEPREG	0.27 0.1087		0.27 [0.05; 0.48]	1.9%	2.2%
EAT ENDO	0.50 0.1119 0.56 0.0961		0.50 [0.28; 0.72]	1.8%	2.2% 2.5%
ENVT	0.56 0.1553	1	0.56 [0.37; 0.75] 0.56 [0.26; 0.86]	0.9%	1.5%
FIB	0.25 0.1307	- 1	0.25 [-0.01; 0.51]	1.3%	1.8%
FISH	0.20 0.1007	- 8	0.20 [-0.01, 0.01]	0.0%	0.0%
FLUOLD	0.35 0.1318		0.35 [0.09; 0.61]	1.3%	1.8%
GASTRIC	0.45 0.0730	<del>- (-</del>	0.45 [0.30; 0.59]	4.2%	3.1%
GESTA	0.45 0.1000	<del>- }-</del>	0.45 [0.25; 0.64]	2.2%	2.4%
HAND	0.57 0.3535		- 0.57 [-0.12; 1.28]	0.2%	0.4%
HIV	0.21 0.0796	<del></del> -	0.21 [0.05; 0.37]	3.5%	2.9%
MENT		į		0.0%	0.0%
MET	0.47 0.1588	<del></del>	0.47 [0.15; 0.78]	0.9%	1.4%
MG	0.61 0.3395		- 0.61 [-0.06; 1.27]	0.2%	0.4%
MS	0.47 0.1588		0.47 [0.15; 0.78]	0.9%	1.4%
OBGYN	0.47 0.0725	- 7	0.47 [0.33; 0.61]	4.2%	3.1%
PANC PARK	0.15 0.0745 0.47 0.1204	<del>-</del>	0.15 [0.01; 0.30]	4.0%	3.1% 2.0%
PCan	0.30 0.1684		0.47 [ 0.23; 0.70] 0.30 [-0.03; 0.63]	0.8%	1.3%
PHYACT	0.43 0.1940		0.43 [ 0.05; 0.81]	0.8%	1.1%
PREEC	0.56 0.1154		0.56 [0.33; 0.79]	1.7%	2.1%
PSY	0.65 0.0790	ž <del></del>	0.65 [0.50; 0.81]	3.6%	3.0%
RHEU	0.54 0.1254		0.54 [0.30; 0.79]	1.4%	1.9%
SCHIZO	0.43 0.0892	<del>- b-</del>	0.43 [ 0.26; 0.61]	2.8%	2.7%
SKIN	0.54 0.0946	<del>}</del> =-	0.54 [ 0.36; 0.73]	2.5%	2.6%
STATIN	0.11 0.0521	<b>+</b> }	0.11 [0.00; 0.21]	8.2%	3.7%
SUA	0.32 0.0832		0.32 [ 0.16; 0.49]	3.2%	2.8%
T2D	0.49 0.0664	<del>[=</del>	0.49 [0.35; 0.62]	5.0%	3.3%
T2DCan	0.52 0.1633		0.52 [0.20; 0.84]	0.8%	1.4%
TEA	0.48 0.3052		0.46 [-0.14; 1.06]	0.2%	0.5%
TELO	0.50 0.1723	<del></del>	0.50 [0.16; 0.84]	0.7%	1.3%
VITD	0.37 0.1254		0.37 [0.12; 0.61]	1.4%	1.9%
Fixed effect model		à	0.41 [ 0.38: 0.44]	100.0%	
Random effects mode	ı	è	0.43 [ 0.39; 0.48]	_	100.0%
Heterogeneity: $I^2 = 50\%$ ,	2 = 0.0114, p < 0.01	<del>                                      </del>			
		0.5 0 0.5 1			

36) P-values  $< 10^{-6}$  and small study effects

Study	TE SOTE		95%-CI	Weight (fixed)	Weight (random)
-		3			
ADHD ADIP	-0.05 0.1084	<u> </u>	-0.05 [-0.26; 0.16]	1.2%	1.9%
ADOPSY	-0.05 0.1253 -0.07 0.3493		-0.05 [-0.30; 0.19] -0.07 [-0.75; 0.62]	0.9% 0.1%	1.5% 0.2%
AFIB	0.19 0.1478		0.19 [-0.10; 0.48]	0.1%	1.1%
ALONE	-0.67 0.2485		-0.67 [-1.15; -0.18]	0.0%	0.4%
ALS	0.07 0.2400	3	-0.07 [-1.10, -0.10]	0.0%	0.0%
ANTIDEP	-0.10 0.0695	<u>→</u> ‡	-0.10 [-0.24; 0.03]	2.8%	3.5%
ANTIPSY	-0.33 0.2869	<del></del>	-0.33 [-0.90; 0.23]	0.2%	0.3%
ANXOCD	0.03 0.0558	<del></del>	0.03 [-0.08; 0.13]	4.3%	4.4%
ASPI		3		0.0%	0.0%
ASPican	0.06 0.2431	<del>}</del>	0.06 [-0.41; 0.54]	0.2%	0.4%
AUTISM	-0.20 0.1248	<del></del> i	-0.20 [-0.44; 0.05]	0.9%	1.5%
BIRTH	-0.29 0.1132	<b>→</b>	-0.29 [-0.52; -0.07]	1.0%	1.7%
BP	0.18 0.1920	<del></del>	0.18 [-0.19; 0.56]	0.4%	0.7%
CHOCO		3		0.0%	0.0%
CKDmort	-0.27 0.1442	<del>;</del>	-0.27 [-0.56; 0.01]	0.6%	1.2%
COFF	-0.35 0.2106	<del></del>	-0.35 [-0.77; 0.06]	0.3%	0.6%
COLO	-0.42 0.1516	<del></del> ;	-0.42 [-0.72; -0.13]	0.6%	1.1%
COLO2	0.01 0.1015	<del>-3</del>	0.01 [-0.19; 0.21]	1.3%	2.1%
COPD	-0.10 0.2715	<del></del>	-0.10 [-0.63; 0.44]	0.2%	0.4%
CPROT	-0.09 0.0962	<del></del>	-0.09 [-0.28; 0.10]	1.4%	2.2%
DEM	0.01 0.0883	<del></del>	0.01 [-0.17; 0.18]	1.7%	2.5%
DEP	0.06 0.0669	<del>1</del> *	0.08 [-0.08; 0.19]	3.0%	3.6%
DEPmort	-0.12 0.2191	<del></del> -	-0.12 [-0.55; 0.31]	0.3%	0.5%
DEPREG	-0.07 0.0900	<del></del>	-0.07 [-0.25; 0.11]	1.7%	2.5%
EAT	-0.07 0.1179	<del> </del>	-0.07 [-0.30; 0.16]	1.0%	1.6%
ENDO	0.04 0.0806	<del>*</del>	0.04 [-0.11; 0.20]	2.1%	2.9%
ENVT	0.16 0.1893	. 1	0.16 [-0.21; 0.53]	0.4%	0.7%
FIB FISH	-0.26 0.1964	<del></del>	-0.26 [-0.64; 0.13]	0.3%	0.7%
FLUOLD	-0.01 0.1486		-0.01 [-0.30; 0.28]	0.0%	0.0% 1.1%
GASTRIC	0.09 0.1018	<u> </u>	0.09 [-0.11; 0.29]	1.3%	2.0%
GESTA	0.03 0.0724	3.	0.03 [-0.11; 0.17]	2.6%	3.3%
HAND	0.67 0.2869	ī	- 0.67 [0.10; 1.23]	0.2%	0.3%
HIV	-0.01 0.1088	-1	-0.01 [-0.22; 0.20]	1.1%	1.8%
MENT	-0.06 0.0509	4	-0.06 [-0.16; 0.04]	5.2%	4.8%
MET	-0.38 0.1917		-0.38 [-0.76; -0.01]	0.4%	0.7%
MS	-0.09 0.1413	<del></del>	-0.09 [-0.37; 0.18]	0.7%	1.2%
OBGYN	0.03 0.0651	<del>- 2</del> -	0.03 [-0.10; 0.16]	3.2%	3.7%
PANC	-0.10 0.0881	<del>‡</del> -	-0.10 [-0.27; 0.08]	1.7%	2.5%
PARK	0.06 0.1306	<del>-</del>	0.06 [-0.20; 0.31]	0.8%	1.4%
PCan	0.03 0.0215	<b>+</b>	0.03 [-0.02; 0.07]	29.0%	7.6%
PHYACT	-0.50 0.2669	<del></del>	-0.50 [-1.02; 0.02]	0.2%	0.4%
PREEC	-0.16 0.1224	<del></del>	-0.16 [-0.40; 0.08]	0.9%	1.5%
PSY	0.00 0.0796	<del></del>	0.00 [-0.15; 0.16]	2.1%	2.9%
RHEU	-0.09 0.1356	<del>{-</del>	-0.09 [-0.38; 0.17]	0.7%	1.3%
SCHIZO	0.02 0.0799	<del></del>	0.02 [-0.14; 0.18]	2.1%	2.9%
SKIN	-0.12 0.1000	<del>1</del>	-0.12 [-0.31; 0.08]	1.3%	2.1%
STATIN	-0.02 0.0359	Ŧ	-0.02 [-0.09; 0.05]	10.4%	6.2%
SUA	-0.01 0.1147	7	-0.01 [-0.23; 0.22]	1.0%	1.7%
T2D	-0.05 0.0689	-	-0.05 [-0.18; 0.09]	3.0%	3.6%
T2DCan	-0.21 0.1488		-0.21 [-0.50; 0.08]	0.6%	1.1%
TEA	-0.10 0.0982		-0.10 [-0.29; 0.09]	1.4%	2.2%
TELO	-0.09 0.1382	<del></del> -	-0.09 [-0.36; 0.18]	0.7%	1.3%
VITD	0.19 0.0993	-	0.19 [0.00; 0.39]	1.4%	2.1%
Fixed effect model		á	-0.02 [-0.04; 0.01]	100.0%	_
Random effects mode		•	-0.04 [-0.07; 0.00]	-	100.0%
Heterogeneity: $I^2 = 30\%$ ,	$t^2 = 0.0032, p = 0.0$				
		-1 -0.5 0 0.5 1			

37) P-values < 0.001 and number of cases

Study	TE SOTE		95%-CI	Weight (fixed)	Weight (random)
ADHD	0.29 0.1449	<del>!</del>	0.29 [0.01; 0.58]	0.9%	1.8%
ADIP	0.33 0.1845	- 1:	0.33 [-0.03; 0.69]	0.6%	1.2%
ADOPSY				0.0%	0.0%
AFIB	0.21 0.1882	<del>-  </del>	0.21 [-0.16; 0.58]	0.5%	1.2%
ALONE				0.0%	0.0%
ALS	-0.15 0.3153	<del></del>	-0.15 [-0.77; 0.46]		0.5%
ANTIDEP ANTIPSY	-0.07 0.0912		-0.07 [-0.25; 0.11]	2.3% 0.0%	3.0% 0.0%
ANXOCD	0.12 0.0924	<u> </u>	0.12 [-0.06; 0.30]	2.2%	2.9%
ASPI	0.12 0.0024	[	0.12 [ 0.00, 0.00]	0.0%	0.0%
AUTISM	-0.15 0.1015		-0.15 [-0.35; 0.05]	1.8%	2.7%
BIRTH	-0.04 0.1235	<del>∔</del>	-0.04 [-0.28; 0.20]	1.2%	2.2%
BP	0.57 0.3535	<del>-   </del>	- 0.57 [ <del>-</del> 0.12; 1.26]	0.2%	0.4%
CHOCO				0.0%	0.0%
CKDmort	0.67 0.1707		0.87 [0.33; 1.00]	0.6%	1.4%
COFF	0.06 0.1247	<u>_</u> <u></u>	0.00 1.040-0.201	0.0%	0.0%
COLO2	0.21 0.1806	<u> </u>	0.06 [-0.18; 0.30] 0.21 [-0.14; 0.57]	1.2% 0.8%	2.1% 1.3%
COPD	-0.14 0.1004		-0.14 [-0.33; 0.06]	1.9%	2.7%
CPROT	0.02 0.0854	<b>¦</b> -	0.02 [-0.15; 0.19]	2.6%	3.1%
DEM	0.14 0.1299	<del>- ji</del>	0.14 [-0.12; 0.39]	1.1%	2.0%
DEP	0.32 0.1271	<del></del>	0.32 [0.07; 0.57]	1.2%	2.1%
DEPmort	0.30 0.2239	<del> </del>	0.30 [-0.14; 0.74]	0.4%	0.9%
DEPREG	0.08 0.1275	<del></del>	0.08 [-0.17; 0.33]	1.2%	2.1%
EAT	0.14 0.0944		0.14 [-0.04; 0.33]	2.1%	2.9%
ENDO ENVT	0.21 0.1282 -0.32 0.1240		0.21 [-0.04; 0.46] -0.32 [-0.57; -0.08]	1.2% 1.2%	2.1% 2.2%
FIB	0.12 0.2566		0.12 [-0.39; 0.62]	0.3%	0.7%
FISH	0.07 0.0801		0.07 [-0.09; 0.23]	3.0%	3.3%
FLUOLD	0.11 0.2350	<del>ii</del>	0.11 [-0.35; 0.57]	0.3%	0.8%
GASTRIC	0.00 0.0569	<del>- 4</del>	0.00 [-0.11; 0.12]	5.8%	4.1%
GESTA	0.43 0.1275	<b></b>	0.43 [0.18; 0.68]	1.2%	2.1%
HAND				0.0%	0.0%
HIV	0.16 0.1384		0.16 [-0.11; 0.43]	1.0%	1.9%
MENT MET	0.04 0.0244 0.40 0.1840	ling .	0.04 [0.00; 0.09] 0.40 [0.04; 0.76]	31.8% 0.6%	5.1% 1.2%
MG	0.09 0.1037		0.09 [-0.11; 0.29]	1.8%	2.6%
MS	0.27 0.2061		0.27 [-0.14; 0.67]	0.4%	1.0%
OBGYN	0.28 0.1034	<del></del>	0.28 [0.08; 0.49]	1.8%	2.6%
PANC	-0.02 0.0973	<b>→</b> ‡	-0.02 [-0.21; 0.17]	2.0%	2.8%
PARK	0.18 0.1629	<del>-  </del>	0.18 [-0.14; 0.50]	0.7%	1.5%
PCan	0.09 0.0512	す	0.09 [-0.01; 0.19]	7.2%	4.3%
PHYACT	0.65 0.2140		0.65 [0.23; 1.07]	0.4%	1.0%
PREEC PSY	0.36 0.1513 0.03 0.0978		0.36 [0.07; 0.66]	0.8% 2.0%	1.7% 2.8%
RHEU	-0.19 0.1845		0.03 [-0.17; 0.22] -0.19 [-0.56; 0.17]	0.6%	1.2%
SCHIZO	0.09 0.1021		0.09 [-0.11; 0.29]	1.8%	2.7%
SKIN	0.04 0.1254	<del></del> ;	0.04 [-0.21; 0.28]	1.2%	2.1%
STATIN	0.22 0.1211	<del>!</del>	0.22 [-0.01; 0.46]	1.3%	2.2%
SUA	0.16 0.1263	<del>- </del>	0.16 [-0.09; 0.41]	1.2%	2.1%
T2D	0.04 0.0651	<del>- ‡</del>	0.04 [-0.09; 0.16]	4.5%	3.8%
T2DCan	-0.10 0.0948	<del>  </del>	-0.10 [-0.28; 0.09]	2.1%	2.9%
TEA	0.25.0.1015		0.05 ( 0.03: 0.13)	0.0%	0.0%
TELO VITD	-0.25 0.1915 0.15 0.1762		-0.25 [-0.63; 0.13] 0.15 [-0.19; 0.50]	0.5% 0.6%	1.2% 1.3%
	3.10 U.17UE		J. 10 [-0.16, 0.30]	0.076	1.070
Fixed effect model		•	0.07 [ 0.04; 0.10]	100.0%	
Random effects mode	ı	•	0.10 [ 0.05; 0.14]		100.0%
Heterogeneity: $I^2 = 51\%$ ,	t <sup>2</sup> = 0.0102, p < 0.01				
	-1	-0.5 0 0.5 1			

38) P-values < 0.001 and excess of significance bias

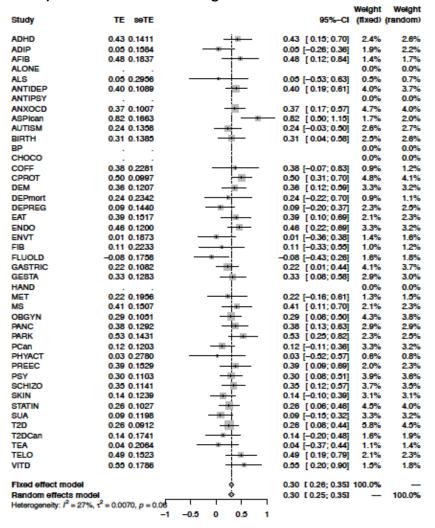
Weight Weight

				Welght	Weight
Study	TE SOTE		95%-CI	(fixed)	(random)
ADHD	0.18 0.1214	<del></del>	0.18 [-0.05; 0.42]	1.2%	2.0%
ADIP	-0.07 0.0398	<del>=</del>	-0.07 [-0.15; 0.01]	11.0%	5.0%
ADOPSY	0.18 0.3383	<del></del>	0.18 [-0.48; 0.84]	0.2%	0.4%
AFIB	-0.10 0.1528	<del></del>	-0.10 [-0.40; 0.20]	0.7%	1.5%
ALONE				0.0%	0.0%
ALS	-0.22 0.1930	<del></del>	-0.22 [-0.59; 0.16]	0.5%	1.0%
ANTIDEP	-0.05 0.1012	<del>-1</del>	-0.05 [-0.25; 0.15]	1.7%	2.6%
ANTIPSY		i		0.0%	0.0%
ANXOCD	0.09 0.1092	1.	0.09 [-0.13; 0.30]	1.5%	2.3%
ASPI	-0.18 0.2130		-0.18 [-0.59; 0.24]	0.4%	0.9%
ASPIcan AUTISM	-0.24 0.2644 0.04 0.1119		-0.24 [-0.75; 0.28] 0.04 [-0.18; 0.26]	0.2% 1.4%	0.6% 2.3%
BIRTH	-0.08 0.1344			1.0%	1.8%
BP	-0.38 0.2718		-0.08 [-0.34; 0.18] -0.36 [-0.90; 0.17]	0.2%	0.6%
CHOCO	-0.30 0.2710		-0.30 [-0.80, 0.17]	0.0%	0.0%
CKDmort	-0.06 0.0561	4	-0.06 [-0.17; 0.05]	5.5%	4.3%
COFF	-0.06 0.1999	<del></del>	-0.06 [-0.45; 0.33]	0.4%	1.0%
COLO	-0.11 0.1773	<del></del>	-0.11 [-0.48; 0.23]	0.6%	1.2%
COLO2	0.25 0.1849	+	0.25 [-0.11; 0.61]	0.5%	1.1%
COPD	0.12 0.2825	<del></del>	0.12 [-0.43; 0.67]	0.2%	0.5%
CPROT	-0.00 0.0981	<del></del>	-0.00 [-0.20; 0.19]	1.8%	2.7%
DEM	0.01 0.1249	<del></del> -	0.01 [-0.23; 0.26]	1.1%	2.0%
DEP	0.25 0.1181	<del></del>	0.25 [0.01; 0.48]	1.2%	2.1%
DEPmort	0.33 0.1995	<del> </del>	0.33 [-0.06; 0.72]	0.4%	1.0%
EAT	-0.07 0.1641	<del></del> -	-0.07 [-0.39; 0.25]	0.6%	1.3%
ENDO	0.09 0.1151	<del> -</del>	0.09 [-0.14; 0.31]	1.3%	2.2%
ENVT	0.26 0.2152	<del></del>	0.26 [-0.17; 0.68]	0.4%	0.8%
FIB	-0.17 0.0900		-0.17 [-0.35; 0.00]	2.1%	2.9%
FISH	-0.14 0.1154	<del></del>	-0.14 [-0.37; 0.08]	1.3%	2.2%
FLUOLD	-0.10 0.0903		-0.10 [-0.28; 0.07]	2.1%	2.9%
GASTRIC GESTA	-0.17 0.0659 -0.18 0.1187		-0.17 [-0.29; -0.04] -0.18 [-0.42; 0.05]	4.0% 1.2%	3.8% 2.1%
HAND	-0.50 0.3062		-0.50 [-1.10; 0.10]	0.2%	0.4%
HIV	0.10 0.1580	·	0.10 [-0.21; 0.41]	0.7%	1.4%
MENT	0.08 0.0328		0.08 [0.01; 0.14]	16.2%	5.3%
MET	0.05 0.2075	— <del></del>	0.05 [-0.38; 0.45]	0.4%	0.9%
MG	-0.19 0.2359		-0.19 [-0.65; 0.27]	0.3%	0.7%
MS	-0.10 0.0970		-0.10 [-0.29; 0.09]	1.9%	2.7%
OBGYN	-0.06 0.0310	<del>-</del>	-0.06 [-0.12; 0.00]	18.1%	5.4%
PANC	-0.25 0.1424	<del></del>	-0.25 [-0.53; 0.03]	0.9%	1.6%
PARK	0.24 0.1656	<del>† • -</del>	0.24 [-0.09; 0.56]	0.6%	1.3%
PCan	-0.20 0.1244	<del></del>	-0.20 [-0.44; 0.05]	1.1%	2.0%
PHYACT	-0.52 0.1574	<del></del> !	-0.52 [-0.83; -0.21]	0.7%	1.4%
PREEC	-0.15 0.1525	<del></del>	-0.15 [-0.44; 0.15]	0.7%	1.5%
PSY	0.04 0.1218	<del>-i</del>	0.04 [-0.20; 0.28]	1.2%	2.0%
RHEU	0.18 0.1584	<del>                                      </del>	0.18 [-0.13; 0.49]	0.7%	1.4%
SCHIZO SKIN	0.39 0.1215	—	0.39 [0.15; 0.63]	1.2%	2.0%
	-0.21 0.1403	<del></del>	-0.21 [-0.48; 0.07]	0.9%	1.7%
STATIN SUA	0.11 0.0729 0.05 0.1115		0.11 [-0.03; 0.25]	3.3% 1.4%	3.5% 2.3%
T2D	-0.08 0.0902		0.05 [-0.17; 0.26] -0.08 [-0.26; 0.09]	2.1%	2.3%
T2DCan	0.04 0.1905		0.04 [-0.33; 0.42]	0.5%	1.0%
TELO	0.14 0.1066	<del> </del>	0.14 [-0.07; 0.35]	1.5%	2.4%
VITD	0.06 0.1801	<del></del>	0.06 [-0.29; 0.42]	0.5%	1.1%
			,		
Fixed effect model		ģ.	-0.02 [-0.05; 0.00]	100.0%	
Random effects mode		ò	-0.02 [-0.06; 0.02]	_	100.0%
Heterogeneity: $I^2 = 44\%$ ,		1 1	I		
	-1	-0.5 0 0.5 1	I		

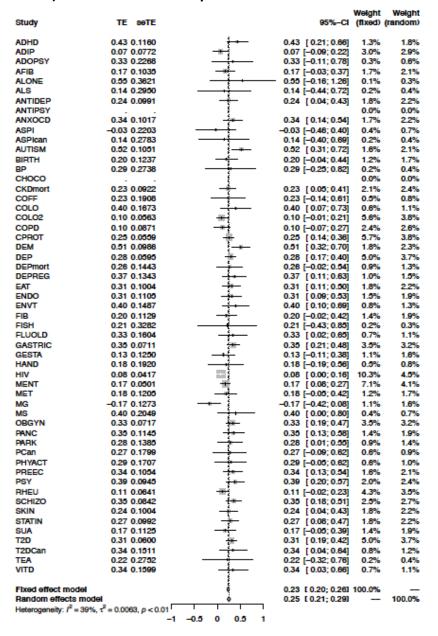
39) P-values < 0.001 and  $I^2 > 50\%$ 

					Welght	Weight
Study	TE SOTE			95%-CI	(ffixed)	(random)
ABUB	0.74.04774	1 -				0.00/
ADHD	0.34 0.1331	_ =		[0.08; 0.60]	1.5%	2.0%
ADIP	-0.18 0.0997	<del></del> -		[-0.38; 0.01]	2.7%	2.7%
ADOPSY AFIB	0.14 0.2950 -0.08 0.1291	3		[-0.44; 0.72]	0.3% 1.6%	0.6% 2.0%
ALONE	0.12 0.1518	<del></del>		[-0.34; 0.17]	1.2%	1.6%
ALS	0.05 0.2956			[-0.18; 0.41] [-0.53; 0.63]	0.3%	0.6%
ANTIDEP	0.03 0.2836			[-0.21; 0.22]	2.2%	2.4%
ANTIPSY	0.01 0.1110		0.01	[-0.21, 0.22]	0.0%	0.0%
ANXOCD	0.11 0.1204	<u>i.                                    </u>	0.11	[-0.12; 0.35]	1.9%	2.2%
ASPI	-0.35 0.2014 -			[-0.75; 0.04]	0.7%	1.1%
ASPican	-0.24 0.2644			[-0.75; 0.28]	0.4%	0.7%
AUTISM	0.25 0.1325	<del>1</del>		[-0.01; 0.51]	1.5%	2.0%
BIRTH	0.03 0.1417			[-0.24; 0.31]	1.3%	1.8%
BP	0.00 0.3849 -			[-0.75; 0.75]	0.2%	0.4%
CHOCO		ş		[,]	0.0%	0.0%
CKDmort	-0.00 0.1270	<del></del>	-0.00	[-0.25; 0.25]	1.7%	2.1%
COFF	-0.12 0.2353	<del></del>		[-0.58; 0.34]	0.5%	0.8%
COLO	0.38 0.1688	<del>-</del>		[ 0.06; 0.71]	1.0%	1.4%
COLO2	0.13 0.1681	<del></del>		[-0.20; 0.46]	1.0%	1.4%
COPD	0.08 0.0809	<del></del>		[-0.06; 0.18]	7.3%	3.8%
CPROT	0.13 0.0961	<del>- } = -</del>		[-0.06; 0.32]	2.9%	2.8%
DEM	0.15 0.1335	<del></del>		[-0.11; 0.42]	1.5%	1.9%
DEP	-0.07 0.0859	<del>- = 3</del>	-0.07	[-0.24; 0.10]	3.7%	3.0%
DEPmort	0.11 0.2133	<del></del>	0.11	[-0.31; 0.52]	0.6%	1.0%
DEPREG	0.17 0.1683	<del></del>	0.17	[-0.16; 0.50]	1.0%	1.4%
EAT	-0.08 0.1422	<del></del>		[-0.36; 0.20]	1.3%	1.8%
ENDO	-0.19 0.1257	<del> ;</del>		[-0.44; 0.05]	1.7%	2.1%
ENVT	0.26 0.1598	<del>3 ·</del>	0.26	[-0.06; 0.57]	1.1%	1.5%
FIB	-0.14 0.2030	<del></del>		[-0.54; 0.26]	0.7%	1.1%
FISH	0.20 0.1388	<del></del>		[-0.07; 0.47]	1.4%	1.9%
FLUOLD	0.06 0.1890	<del></del>		[-0.31; 0.43]	0.8%	1.2%
GASTRIC	0.33 0.0948	3		[0.14; 0.51]	3.0%	2.8%
GESTA	-0.06 0.1387	<del></del>	-0.06	[-0.33; 0.21]	1.4%	1.9%
HAND		_ }			0.0%	0.0%
HIV	-0.16 0.1224			[-0.40; 0.08]	1.8%	2.2%
MENT MET	0.12 0.0631 -0.05 0.2047	3		[0.00; 0.25]	6.8% 0.6%	3.7% 1.1%
MG	-0.12 0.2413			[-0.45; 0.35] [-0.60; 0.35]	0.5%	0.8%
MS	-0.12 0.2413			[-0.68; 0.11]	0.5%	1.1%
OBGYN	-0.11 0.0850			[-0.27; 0.06]	3.7%	3.1%
PANC	0.16 0.1472			[-0.13; 0.45]	1.2%	1.7%
PARK	0.19 0.1658			[-0.14; 0.51]	1.0%	1.5%
PCan	0.09 0.0512	<u> </u>		[-0.01; 0.19]	10.3%	4.1%
PHYACT	-0.62 0.1543	·- [		[-0.93; -0.32]	1.1%	1.8%
PREEC	-0.23 0.1532	<del></del>		[-0.53; 0.08]	1.2%	1.6%
PSY	-0.15 0.1084	<del>i</del>		[-0.38; 0.08]	2.3%	2.5%
RHEU	-0.02 0.1027	<del></del> -		[-0.22; 0.18]	2.6%	2.6%
SCHIZO	0.18 0.0913	<del>\$ = -</del>		[0.00; 0.36]	3.2%	2.9%
SKIN	0.05 0.1180	<del></del>		[-0.18; 0.28]	1.9%	2.2%
STATIN	0.11 0.1227	<del></del>	0.11	[-0.13; 0.35]	1.8%	2.1%
SUA	0.02 0.0977	<del></del>	0.02	[-0.17; 0.21]	2.8%	2.7%
T2D	0.03 0.0767		0.03	[-0.12; 0.18]	4.6%	3.3%
T2DCan	0.13 0.1921			[-0.24; 0.51]	0.7%	1.2%
TEA	-0.17 0.1423	<del>}</del>		[-0.45; 0.11]	1.3%	1.8%
TELO	0.33 0.1960			[-0.05; 0.72]	0.7%	1.1%
VITD	0.10 0.1824	<del></del>	0.10	[-0.25; 0.46]	0.8%	1.3%
		ž				
Fixed effect model		•		[ 0.01; 0.07]	100.0%	405
Random effects model		<u> </u>	0.03	[-0.02; 0.08]	_	100.0%
Heterogeneity: $I^2 = 43\%$ , t	C = 0.0111, p < 0.01					
		-0.5 0 0.5				

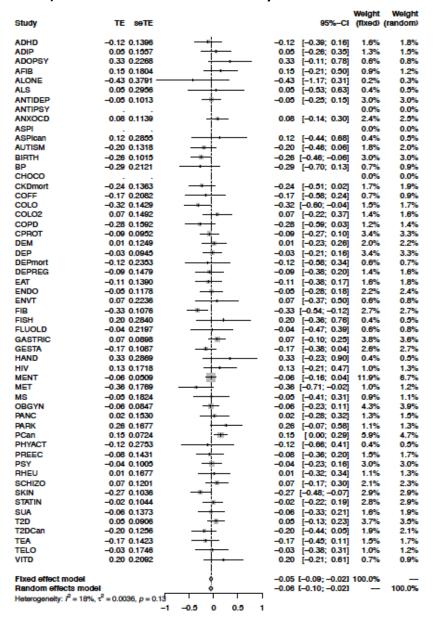
## 40) P-values < 0.001 and largest studies



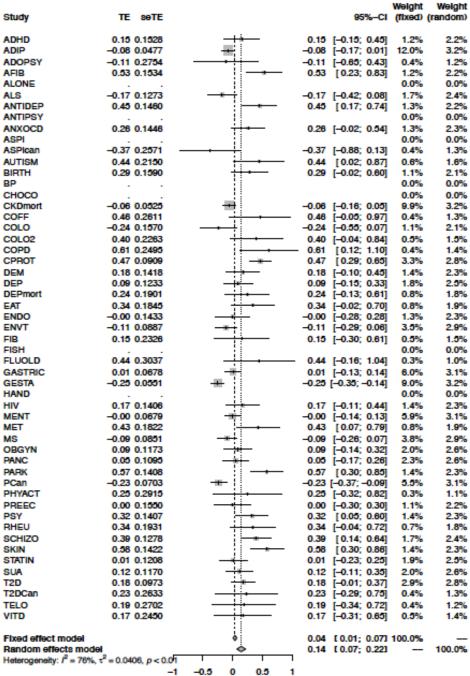
#### 41) P-values < 0.001 and prediction intervals



### 42) P-values < 0.001 and small study effects



# 43) Small study effects and excess of significance bias



ADHD: Risk factor for attention deficit hyperactivity disorder; ADIP: Adiposity and cancer outcomes; ADOPSY: Risk and protective factors for mental disorders with onset in childhood/adolescence; AFIB: Environmental factors and serum biomarkers for atrial fibrillation; ALONE: Factors associated to loneliness; ALS: Risk factor for amyotrophic lateral sclerosis; ANTIDEP: Antidepressant and adverse events; ANTIPSY: Antipsychotics and life-threatening events; ANXOCD: Risk and protective factors for anxiety and obsessive compulsive disorders; ASPI: Low-dose aspirin and health outcomes; ASPIcan: Aspirin and cancer outcomes; AUTISM: Environmental risk factors and biomarkers for autism spectrum disorder; BIRTH: Birth weight and later life events; BP: Environmental risk factors for bipolar disorder; CHOCO: Chocolate and health outcomes; CKDmort: Chronic kidney disease and mortality; COFF: Coffee and cancer risk; COLO: Risk factors for colorectal cancer metastasis and recurrence; COLO2: Non-genetic biomarkers and colorectal cancer risk; COPD: Risk factors for chronic obstructive pulmonary disease; CPROT: Creactive protein and health outcomes; DEM: Environmental risk factors for dementia; DEP: Risk factors for depression; DEPmort: Depression and mortality; DEPPREG: Antidepressants during pregnancy and neonatal outcomes; EAT: Risk factors for eating

disorders; ENDO: Risk factors for endometrial cancer; ENVT: Environmental risk factors for obesity; FIB: Dietary Fiber and health outcomes; FISH: Fish and \_-3 Fatty Acids consumptions and cancer outcomes; FLOOLD: 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