Data supplement to Tsoi et al. Comparison of diagnostic performance of Two-Question Screen and 15 depression screening instruments for older adults: systematic review and meta-analysis. Br J Psychiatry doi: 10.1192/bjp.bp.116.186932

Note: this data supplement was revised in June 2017
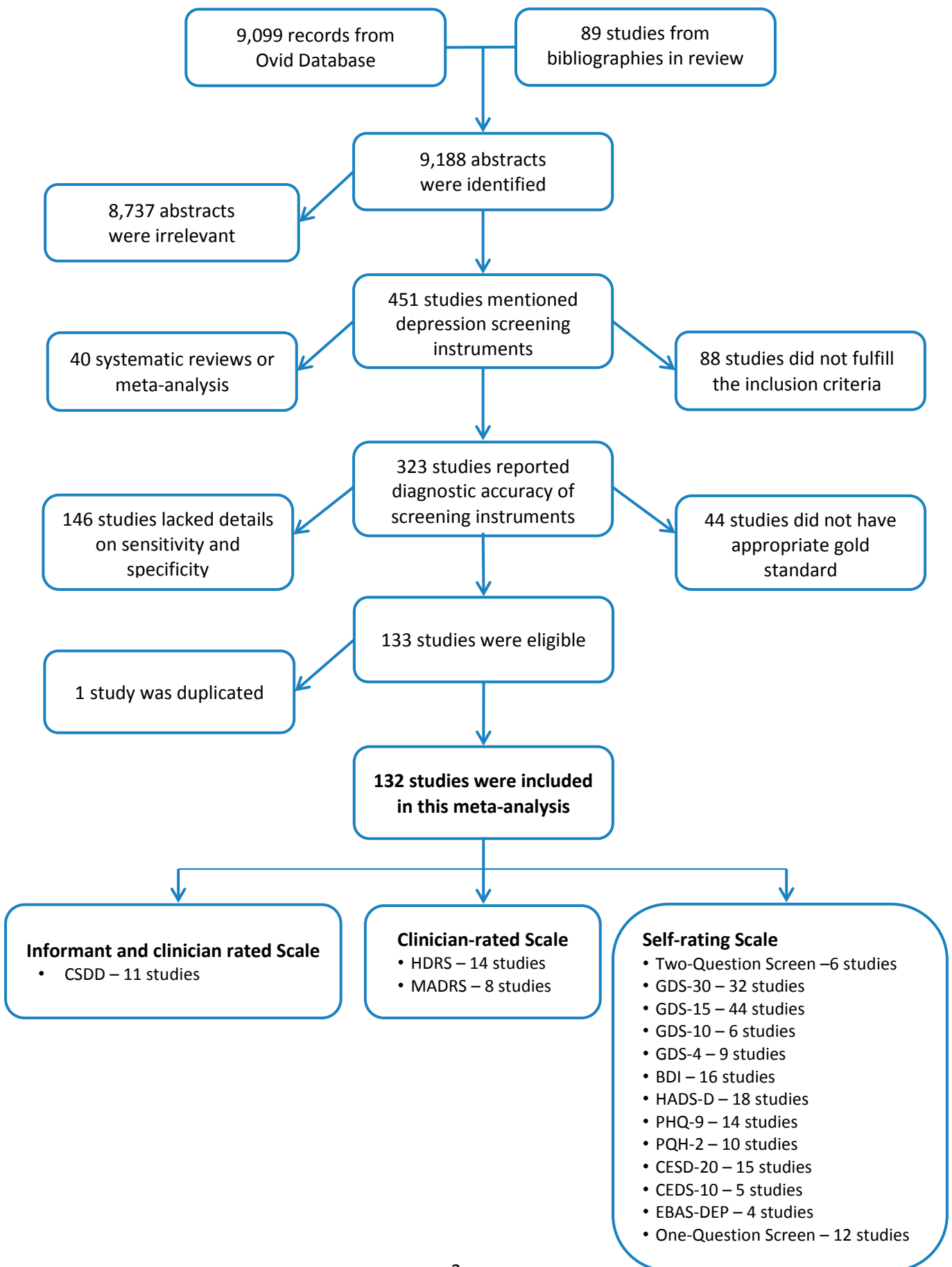
Figure DS1 Summary of literature search

Table DS1 Characteristics of included studies

Screening Instrument	Country (No. of Study)	Gold standard* (No. of Study)	Total no. Studies (cohorts)	Total no. of subject (with depression)	Cut-off for depression Mode (% of Study)	Quality Score Median (Range)
Two-Question Screen	Ireland (1), UK (2), US (3)	DSM (6), ICD (1)	6 (7)	1,670 / 240	1 (100%)	8 (6-8)
GDS-30	Australia (3), Canada (1), Demark (1), Hong Kong (1), Korea (2), Mexico (1), Netherlands (3), Spain (2), Turkey (2), UK (4), US (10), not mention (2)	DSM (25), ICD (3), PDC-dAD (1), GMS-AGECAT (2)	32 (37)	8,430 / 2,105	10 (28%)	7 (6-8)
GDS-15	Australia (2), Brazil (1), Demark (1), Germany (1), Hong Kong (3), India (1), Italy (2), Japan (1), Korea (2), Netherlands (4), Singapore (3), UK (9), US (13), not known (1)	DSM (35), ICD (8), PDC-dAD (1), GMS-AGECAT (4)	44 (49)	16,968 / 2034	5 (23%)	7 (6-8)
GDS-10	Demark (1), Netherlands (3), Australia (2)	DSM (5), ICD (1), PDC-dAD (1)	6 (6)	1,605 / 295	3 (66%)	7 (6-8)
GDS-4	Australia (2), Demark (1), Hong Kong (1), Italy (1), Netherlands (2), UK (2)	DSM (7), ICD (3), PDC-dAD (1)	9 (12)	1,714 / 408	1 (92%)	7 (6-8)
BDI	Australia (1), Canada (2), Korea (2), Netherlands (3), Poland (1), UK (3), US (4)	DSM (16)	16 (16)	4,570 / 574	9 (56%)	7 (6-8)
HADS-D	Australia (2), Canada (2), Japan (2), Korea (1), Netherlands (1), Norway (1), Switzerland (2), UK (7)	DSM (14), ICD (2), GMS-AGECAT (2)	18 (18)	2,934 / 547	4 (22%)	7 (7-8)
PHQ-9	Australia (2), Brazil (1), China (1), Israel (1), Japan (1), Korea (1), Netherlands (1), Poland (1), UK (1), US (4)	DSM (14)	14 (14)	3,036 / 667	10 (36%)	7 (6-9)
PHQ-2	Australia (1), Brazil (2), China (1), Japan (1), US (5)	DSM (10)	10 (11)	9,792 / 720	3 (73%)	7.5 (6-8)
CEDS-20	Canada (1), Germany (1), Hong Kong (1), Italy (1), Korea (1), Netherlands (3), Spain (1), US (6)	DSM (16), ICD (1)	15 (16)	4,597 / 1,064	None	7 (6-8)
CEDS-10	US (5)	DSM (5)	5 (5)	1,320 / 406	4 (40%)	7 (6-8)
EBAS-DEP	Australia (1), UK (1), Singapore (2)	DSM (4)	4 (4)	625 / 185	3 (50%)	7.5 (6-8)
One-Question Screen	Ireland (1), Italy (1), Japan (2), Netherlands (1), Singapore (2), UK (2), US (3)	DSM (12), ICD (1)	12 (12)	1,962 / 358	1 (100%)	7.5 (6-8)
HRSD	Korea (2), Dutch (1), Israel (1), UK (2), US (3), Netherlands (3), Italy (1), US (1)	DSM (15), ICD (1), PDC-dAD (1)	14 (16)	3,564 / 780	10 (31%)	7 (6-8)
MADRS	Netherlands (2), Brazil (1), US (1), Norway (2), Korea (1), Sweden (1)	DSM (7), PDC-dAD (1)	8 (8)	1,226 / 275	None	8 (6-8)
CSDD	Brazil (1), Australia (1), Demark (1), US (2), Korea (1), Thailand (1), Singapore (1), Norway (2), Japan (1)	DSM (8), ICD (1), PDC-dAD (3)	11 (11)	1,301 / 444	6 (45%)	8 (6-8)

*DSM (Diagnostic and Statistical Manual of Mental Disorder, included DSM-III, DSM-III-R, DSM-IV, DSM-IV-TR); ICD (International Classification of Diseases, included ICD-10); PDC-dAD (Provisional Diagnostic Criteria for Depression in Alzheimer Disease); GMS-AGECAT (Geriatric Mental State-AGECAT program

Table DS2 Subgroup analysis for different recruitment settings

Screening Instruments	Number of Cohorts	Pooled Sensitivity (95% CI)	Pooled Specificity (95% CI)	Pooled Positive LR (95% CI)	Pooled Negative LR (95% CI)	DOR (95% CI)
Recruitment in specialized out-patient clinic or nursing home						
Two-Question Screen	6	88.9% (82.7% - 93.1%)	73.6% (65.3% - 80.5%)	3.37 (2.46 – 4.62)	0.15 (0.09 – 0.25)	22.41 (10.37 - 48.42)
GDS-30	6	82.6% (72.2% - 89.7%)	76.6% (67.0% - 84.1%)	3.53 (2.64 – 4.71)	0.23 (0.15 – 0.34)	15.55 (10.53 - 22.31)
GDS-15	32	83.4% (79.3% - 86.9%)	78.9% (72.9% - 83.9%)	3.90 (3.10 –5.06)	0.20 (0.17 - 0.26)	18.89 (13.63 - 26.17)
GDS-4	8	89.2% (82.0% - 93.8%)	77.2% (63.6% - 86.7%)	3.90 (2.41 – 6.33)	0.41 (0.09 – 0.22)	28.05 (18.54 - 54.11)
BDI	15	84.8% (75.2% - 91.2%)	72.0% (50.2% - 86.6%)	3.03 (1.60 – 5.73)	0.21 (0.13 – 0.33)	14.41 (6.20 - 33.46)
PHQ-9	8	88.8% (71.3% - 96.2%)	74.8% (43.5% - 93.0%)	3.50 (1.36 – 9.10)	0.15 (0.06 – 0.37)	23.46 (6.74 - 81.66)
PHQ-2	5	85.4% (53.5% - 96.7%)	66.8% (11.8% - 96.8%)	2.57 (0.51 – 12.89)	0.22 (0.09 – 0.49)	11.70 (2.30 - 59.56)
CEDS-20	6	84.3% (77.2% - 89.4%)	73.2% (59.8% - 83.4%)	3.14 (2.08 – 4.73)	0.21 (0.15 – 0.30)	14.60 (8.63 - 24.74)
One-Question screen	5	67.2% (53.0% - 78.8%)	86.7% (76.2% - 93.0%)	5.07 (2.97 – 8,65)	0.38 (0.26 – 0.54)	13.41 (7.22 - 24.90)
HRSD	15	87.7% (80.6% - 92.5%)	84.3% (79.7% - 88.0%)	5.59 (4.30 –7.26)	0.15 (0.09 – 0.24)	38.43 (21.48 - 68.76)
MADRS	8	81.3% (71.2% - 88.8%)	83.9% (79.4% - 87.6%)	5.41 (2.79 - 6.95)	0.23 (0.18 – 0.30)	19.17 (10.94 - 33.56)
CSDD	9	88.9% (76.3% - 95.1%)	78.8% (62.2% - 89.4%)	4.20 (2.16–8.16)	0.14 (0.06 – 0.33)	29.80 (8.22 – 108.00)
Recruitment in community or primary care						
GDS-30	7	82.6% (71.9% - 89.8%)	68.6% (49.9% - 82.7%)	2.60 (1.67 – 4.15)	0.25 (0.18 – 0.36)	22.41 (10.37 - 48.42)
GDS-15	15	81.4% (74.6% - 66.7%)	66.7% (58.8% - 73.8%)	2.45 (1.93 – 3.11)	0.28 (0.20 – 0.39)	15.55 (10.53 - 22.31)
PHQ-2	4	94.1% (53.9% - 99.5%)	76.5% (74.1% - 78.1%)	4.00 (3.30 – 4.87)	0.08 (0.01 – 0.91)	52.37 (3.72 - 737.71)
CEDS-20	11	77.1% (71.0% - 82.3%)	77.8% (69.0% - 84.6%)	3.46 (2.42 – 4.94)	0.29 (0.23 – 0.38)	11.77 (6.84 - 20.27)