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Affiliations of DEPRESSD Collaboration members

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Supplementary methods A. Search strategies

MEDLINE (OvidSP)

1. PHQ*.af.
2. patient health questionnaire*.af.
3. 1 or 2
4. Mass Screening/
5. Psychiatric Status Rating Scales/
6. "Predictive Value of Tests"/
7. "Reproducibility of Results"/
8. exp "Sensitivity and Specificity"/
9. Psychometrics/
10. Prevalence/
11. Reference Values/
- 12.. Reference Standards/
13. exp Diagnostic Errors/
14. Mental Disorders/di, pc [Diagnosis, Prevention & Control]
15. Mood Disorders/di, pc [Diagnosis, Prevention & Control]
16. Depressive Disorder/di, pc [Diagnosis, Prevention & Control]
17. Depressive Disorder, Major/di, pc [Diagnosis, Prevention & Control]
18. Depression, Postpartum/di, pc [Diagnosis, Prevention & Control]
19. Depression/di, pc [Diagnosis, Prevention & Control]
20. validation studies.pt.
21. comparative study.pt.
22. screen*.af.
23. prevalence.af.
24. predictive value*.af.
25. detect*.ti.
26. sensitiv*.ti.
27. valid*.ti.
28. revalid*.ti.
29. predict*.ti.
30. accura*.ti.
31. psychometric*.ti.
32. identif*.ti.
33. specificit*.ab.
34. cut?off*.ab.
35. cut* score*.ab.
36. cut?point*.ab.
37. threshold score*.ab.
38. reference standard*.ab.
39. reference test*.ab.
40. index test*.ab.
41. gold standard.ab.
42. or/4-41
43. 3 and 42

44. limit 43 to yr="2000-Current"

PsycINFO (OvidSP)

1. PHQ*.af.
2. patient health questionnaire*.af.
3. 1 or 2
4. Diagnosis/
5. Medical Diagnosis/
6. Psychodiagnosis/
7. Misdiagnosis/
8. Screening/
9. Health Screening/
10. Screening Tests/
11. Prediction/
12. Cutting Scores/
13. Psychometrics/
14. Test Validity/
15. screen*.af.
16. predictive value*.af.
17. detect*.ti.
18. sensitiv*.ti.
19. valid*.ti.
20. revalid*.ti.
21. accura*.ti.
22. psychometric*.ti.
23. specificit*.ab.
24. cut?off*.ab.
25. cut* score*.ab.
26. cut?point*.ab.
27. threshold score*.ab.
28. reference standard*.ab.
29. reference test*.ab.
30. index test*.ab.
31. gold standard.ab.
32. or/4-31
33. 3 and 32
38. Limit 33 to "2000 to current"

Web of Science (Web of Knowledge)

#1: TS=(PHQ* OR "Patient Health Questionnaire*")

#2: TS=(screen* OR prevalence OR "predictive value*" OR detect* OR sensitiv* OR valid* OR revalid* OR predict* OR accura* OR psychometric* OR identif* OR specificit* OR cutoff* OR "cut off*" OR "cut* score*" OR cutpoint* OR "cut point*" OR "threshold score*" OR "reference standard*" OR "reference test*" OR "index test*" OR "gold standard")

#1 AND #2

Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH Timespan=2000-2014

Supplementary methods B. QUADAS-2 Coding manual for primary studies included in the present study

Domain 1: Participant Selection

1. **Signalling question 1 – Was a consecutive or random sample of patients enrolled?:** Code as “yes” if a consecutive or random sample of participants were recruited for the study and the percentage of eligible participants who participate is $\geq 75\%$. If the study indicates that consecutive or random participants were recruited, but does not give an indication of the total number of eligible participants and how many agreed to participate in the study, this should be rated “unclear”. If the percentage of eligible participants included in the study was between $\geq 50\%$ and $< 75\%$, then this should also be marked as “unclear”. If a very low rate of eligible participants ($< 50\%$) were included in the study, this should be coded “no.” In “Notes”, please provide the relevant numbers and percentages used to make a determination. If a convenience sample of participants was recruited for the study or if the study was a case-control design, code as “no”.
2. **Signalling question 2 – Was a case-control design avoided?:** Code as “yes” if the study did not employ a case-control design. Code as “no” if the study used a case-control design.
3. **Signalling question 3 – Did the study avoid inappropriate exclusions?:** Inappropriate exclusions refer to situations where an important part of the screening population was excluded from the study based on characteristics that could be related to screening results. Code as “yes” if the study does not inappropriately exclude participants. Code as “no” if the study inappropriately excludes participants.
4. **Overall risk of bias:** Rate as “low”, “high”, or “unclear” as described in QUADAS-2. Please indicate factors in decision in “Notes”. NOTE: if signalling question 1 was coded “Unclear” the overall risk of bias is either a) Unclear, in cases where the denominator is not specified, or the percentage cannot be calculated, or method of participant selection is unclear OR b) Low, in cases where the percentage can be calculated, and is between 50-75%. If signalling question 1 is a “no” and signalling questions 2 and 3 are both “yes” then the risk of bias is coded “Unclear”.
5. **Applicability concerns:** Code as “low” if study excluded participants who were already diagnosed or treated for depression or if the study included these patients, but they can be excluded using the individual patient data. Also code as “low” if the study did not exclude participants already diagnosed with depression and the overall percentage of these participants is low (e.g., $\leq 2.0\%$ of total participants), even if there is not a variable to exclude them. Code “unclear” if the study did not exclude participants already diagnosed or treated for depression and it is not known how many diagnosed and treated patients were included or if the percentage is moderate (e.g., $> 2.0\%$ but $\leq 5.0\%$). Code “high” if already diagnosed and treated patients are included and make up $> 5.0\%$ of the total sample and there is not a variable to exclude them. Please see aggregated study information sheet to code this.

Domain 2: Index Test

1. **Signalling question 1 - Were the index test results interpreted without the knowledge of the results of the reference standard?:** Code this item as “N/A” for all studies, as the index test is scored and does not require interpretation.
2. **Signalling question 2 - If a threshold was used, was it pre-specified?:** Code this item as “N/A” for all studies, as individual participant data allows for testing at all thresholds/cut-offs.
3. **Overall risk of bias:** Rate this item as “low” for all studies since the interpretation of the index test is fully automated in scoring self-report depressive symptom questionnaires and the individual participant data allows for testing at all thresholds/cut-offs.

4. **Applicability concerns:** Code “low” if the standard language version of the index test was used or if a translated version was used with an appropriate translation and back-translation process, or a translated version is located online. Code “unclear” if a translated version was used and it is not clear what steps were taken to ensure the quality of the translation or if only forward translation was used.

Domain 3: Reference Standard

1. **Signalling question 1 – Is the reference standard likely to correctly classify the condition?:** This question will be coded as “yes” for all studies because the use of a validated semi- or fully-structured psychiatric interview to assess participants for a DSM or ICD diagnosis of MDD/MDE is an eligibility requirement.
2. **Signalling question 2 – Were the reference standard results interpreted without knowledge of the results of the index test?:** Code as “yes” if the person administering the diagnostic interview was blinded to the participant’s score on the index test, or if the diagnostic interview was administered before the index test. Code as “no” if the person administering the diagnostic interview was not blinded or was aware of the participant’s score on the index test. Code as “unclear” if the study does not indicate whether blinding occurred and we cannot ascertain whether blinding occurred.
3. **Study-specific Signalling question 3 – Did a qualified person administer the reference standard?:** For structured clinical interviews, this will typically be coded “yes” as no specific clinical training is required. For semi-structured interviews, this will be coded “yes” if a trained diagnostician administered the clinical interview (e.g., psychiatrist, psychologist, social worker). Code “no” if individuals without the required training administered the reference standard (e.g., students, research assistants). Code “unclear” if the characteristics of personnel who administered the diagnostic interview cannot be ascertained or if advanced trainees, such as doctoral students, administered the reference standard. If the name of the interviewer is provided in the article, but no credentials are listed, then code based on credentials retrieved online for the interviewer.
4. **Overall risk of bias:** The coding of this item should consider blinding of the person administering the diagnostic interview to the participant’s score on the index test and the qualifications of individuals administering the reference standard interview.
5. **Applicability concerns:** This item will be coded as “low” for most standard language studies, since the use of a validated semi- or fully-structured psychiatric interview to assess participants for a DSM or ICD diagnosis of MDD/MDE is an eligibility requirement. For translated versions of a validated reference standard, code “low” if a translated version was used with an appropriate translation and back-translation process, or a translated version is located online. Code “unclear” if a translated version was used and it is not clear what steps were taken to ensure the quality of the translation or if only forward translation was used.

Domain 4: Flow and Timing

1. **Signalling question 1 – Was there an appropriate interval between index test and reference standard?:** Only patient data with two weeks or less between the index test and reference standard are included. Thus, code “yes” if index test and reference standard were administered within a week of each other. Code “unclear” if the period was greater than one week (but less than two weeks) or if the timing cannot be ascertained beyond knowing that it was < 2 weeks. Note that this item may be coded differently for different patients from the same study. Please see aggregated study information sheet to code this.
2. **Signalling question 2 – Did all patients receive a reference standard?:** This will typically be coded “yes”. If a portion of positive and negative screens receive the reference standard, and the patients selected were chosen randomly, code “yes”. If non-random selection based on clinical factors or the index test determined whether or not patients received a reference standard, then code “unclear” or “no”. An example of all patients not receiving a reference standard would occur, for instance, if patients who

endorsed suicidality on the index test were referred for evaluation and did not receive the reference standard interview.

3. **Signalling question 3 – Did all patients receive the same reference standard?:** This question will typically be coded as “yes” for all studies, since the reference standard is almost always consistent within each study.
4. **Signalling question 4 – Were all patients included in the analysis?:** When coding for this question, compare the number of participants who received the index test to the number of participants who received the reference standard. Code as “yes” if at least 90% of participants who received the index test also received the reference standard, or vice versa, and were included in analyses. Code as “unclear” if this difference is $\geq 80\%$, but $< 90\%$ or if it cannot be determined. Code as “no” if it is $< 80\%$. If the study used randomly selected patients for either the index test or the reference standard, do not count the participants who did not receive the reference standard for that reason as missing. In “Notes”, please provide the relevant numbers and percentages used to make a determination.
5. **Overall risk of bias:** Rate as “low”, “high”, or “unclear” risk of bias. Given that questions 2 and 3 will typically be coded as "yes", use the following rules to code the overall risk of bias:

SQ1 = UNCLEAR and SQ4 = YES: code as UNCLEAR risk of bias

SQ1 = UNCLEAR and SQ4 = UNCLEAR: code as UNCLEAR risk of bias

SQ1 = UNCLEAR and SQ4 = NO: code as HIGH risk of bias if the % in SQ4 is $< 50\%$ and code as UNCLEAR risk of bias if the % in SQ4 is $\geq 50\%$

SQ1 = YES and SQ4 = UNCLEAR: code as UNCLEAR risk of bias

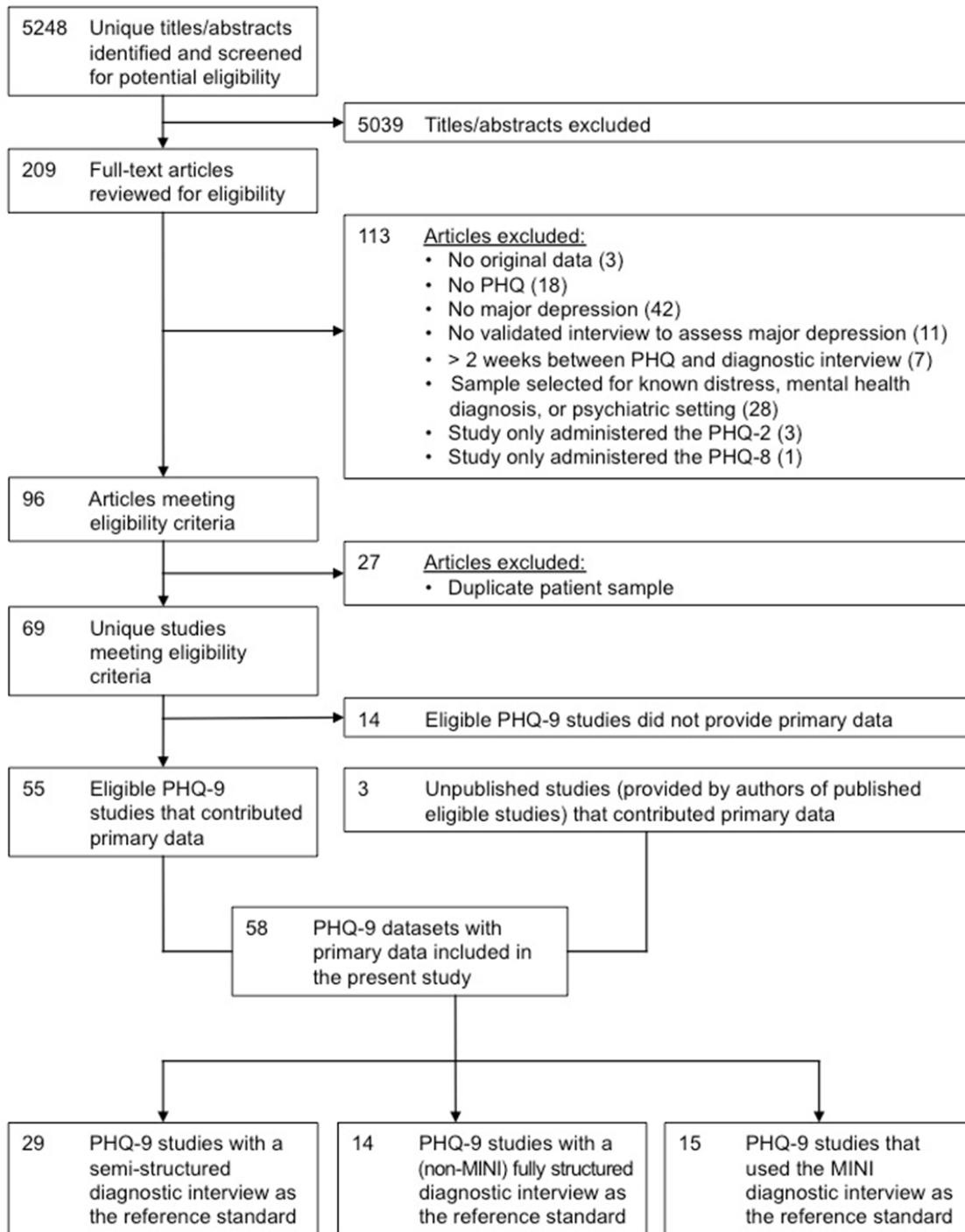
SQ1 = YES and SQ4 = YES: code as LOW risk of bias

SQ1 = YES and SQ4 = NO: code as HIGH risk of bias if the % in SQ4 is $< 50\%$ and code as UNCLEAR risk of bias if the % in SQ4 is $\geq 50\%$

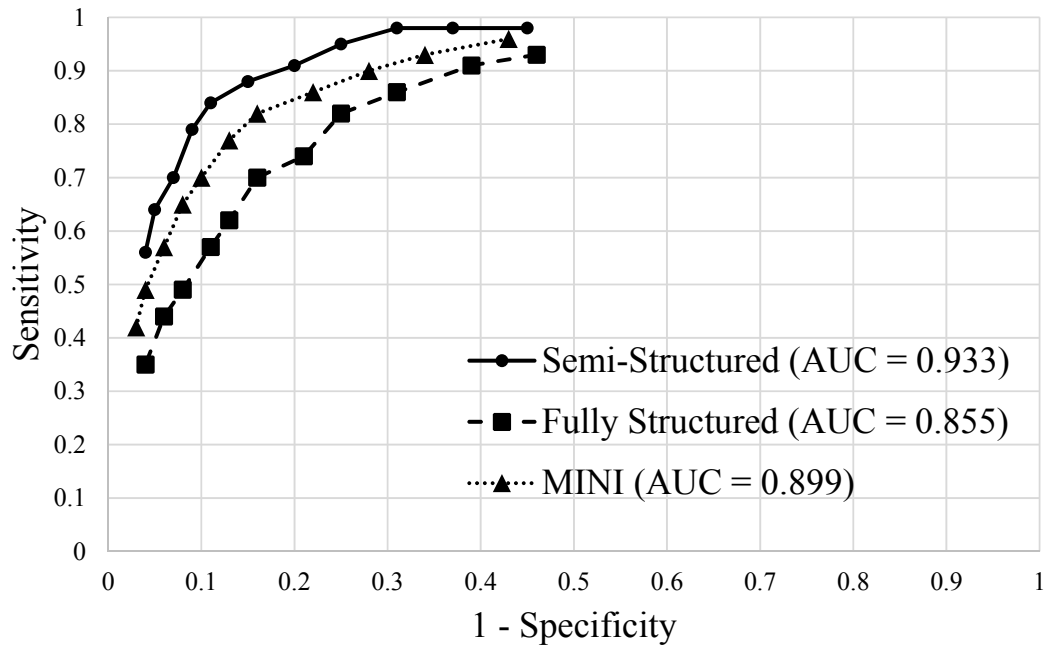
Note: If “IPD” was selected for signalling question 1, and the overall risk of bias rating depends on the individual patient rating in signalling question 1, then rate as “IPD” and indicate which participants should receive which bias rating (for example, participants administered the reference standard within 1 week are rated as “low”, whereas those administered the reference standard within 1-2 weeks are rated as “unclear”).

Please indicate factors in decision in “Notes”.

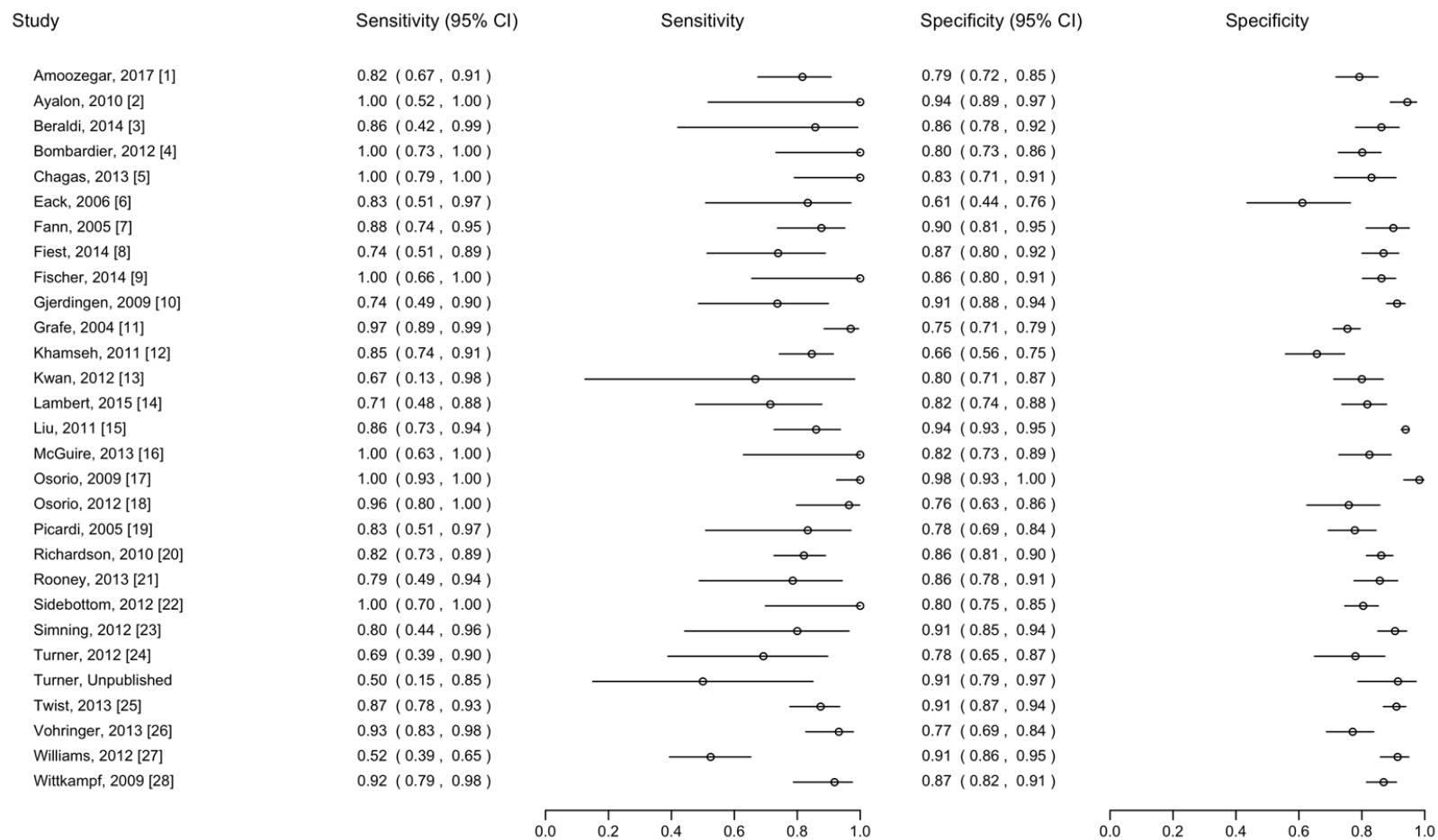
Supplementary figure A. Flow diagram of study selection process



Supplementary figure B. ROC curves comparing sensitivity and specificity estimates for each reference standard category



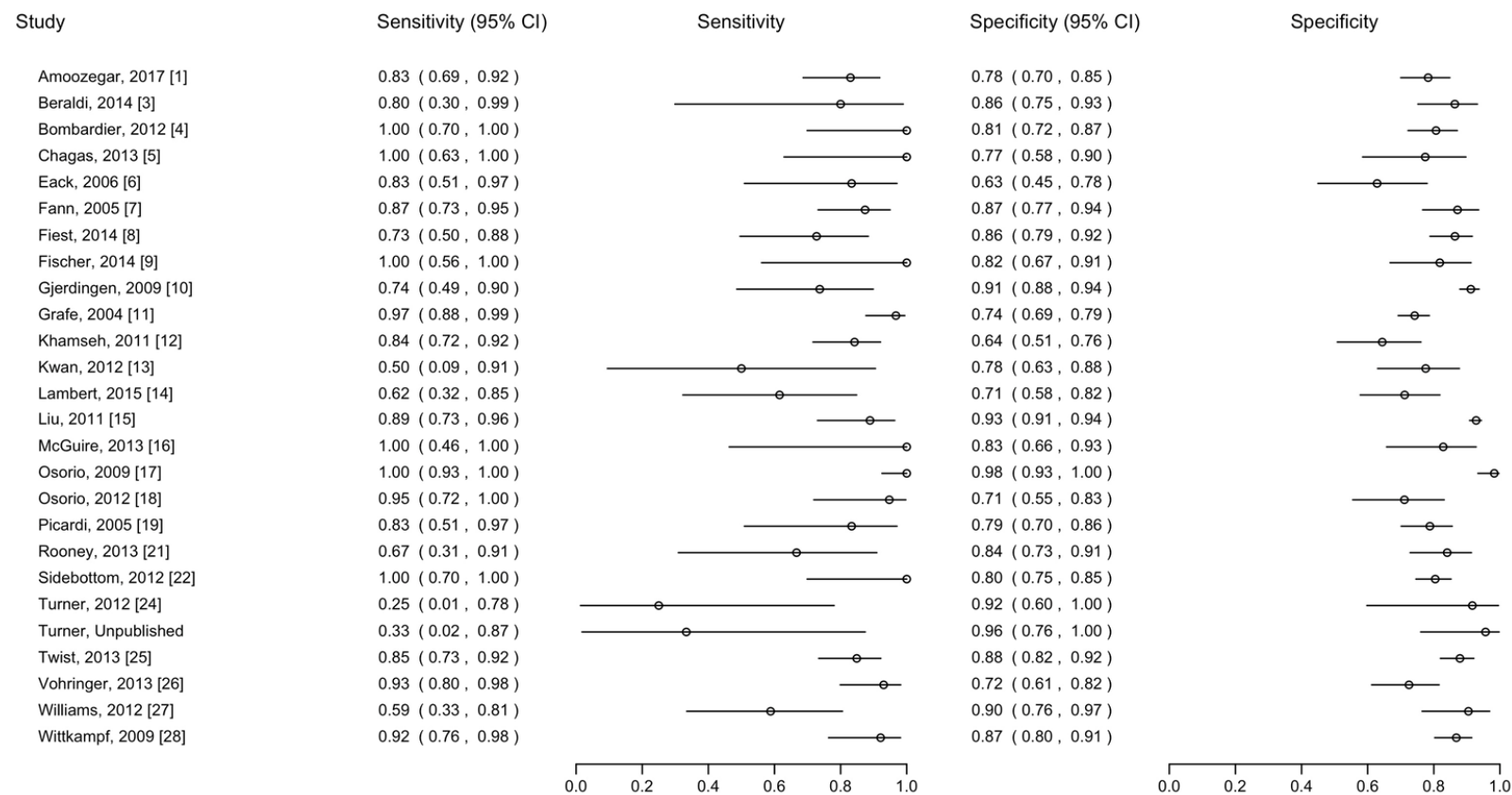
Supplementary figure C1. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9, among studies that used a semi-structured diagnostic interview as the reference standard (N Studies = 29; N Participants = 6,725; N major depression = 924)



Supplementary figure C2. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among participants

aged <60, among studies that used a semi-structured diagnostic interview as the reference standard (N Studies = 26; N

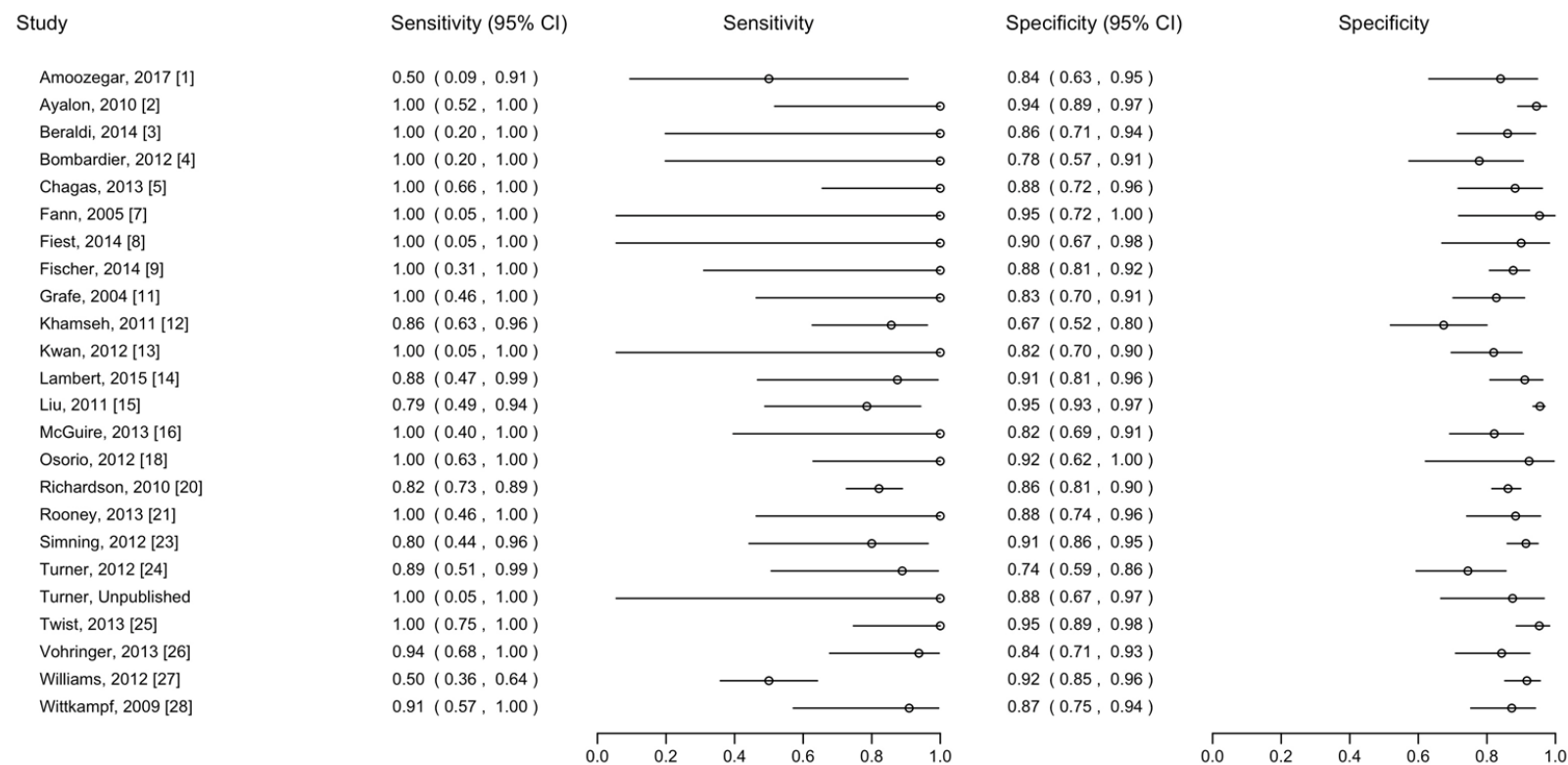
Participants = 4,132; N major depression = 629)



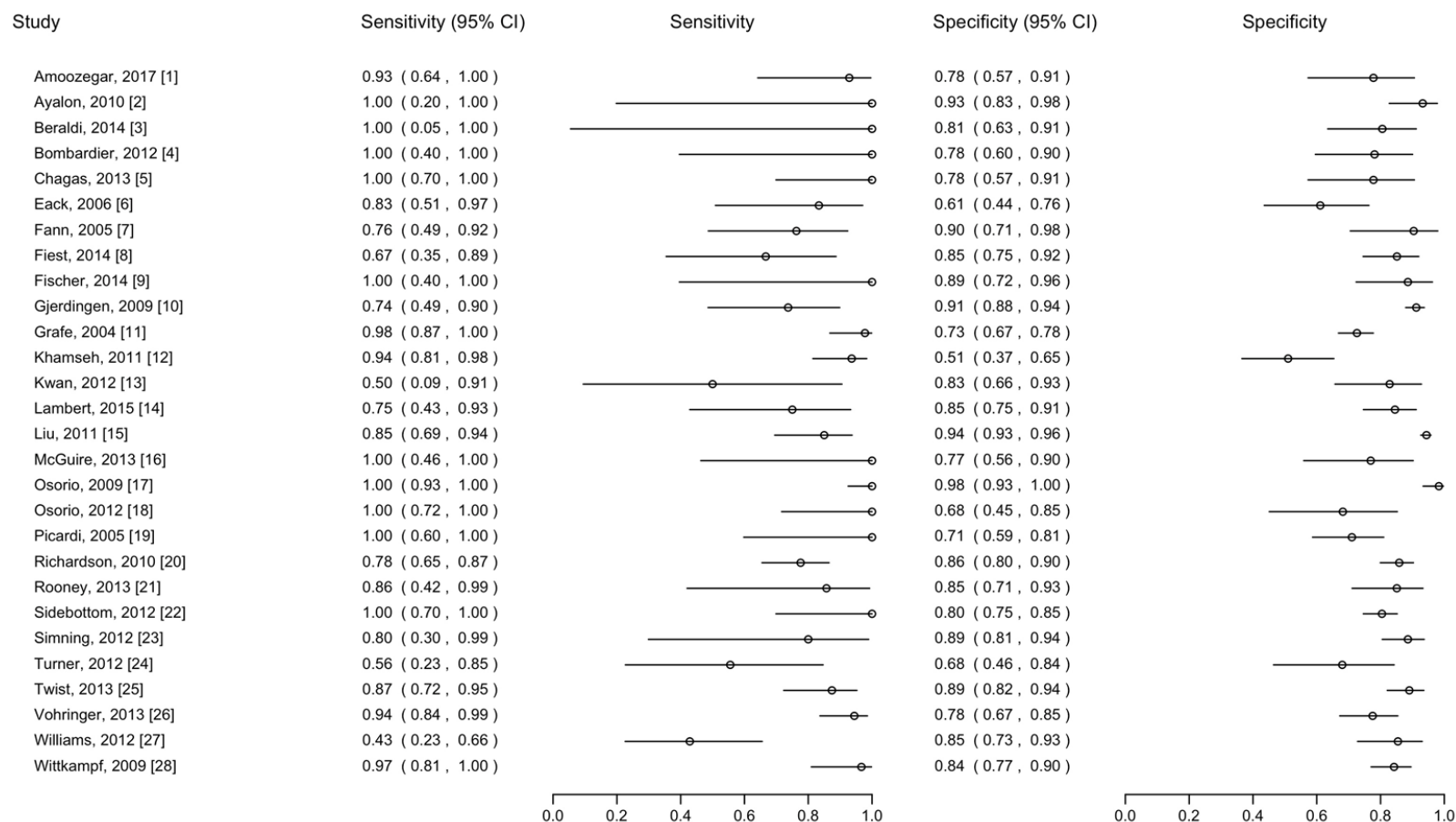
Supplementary figure C3. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among participants

aged ≥ 60 , among studies that used a semi-structured diagnostic interview as the reference standard (N Studies = 24; N

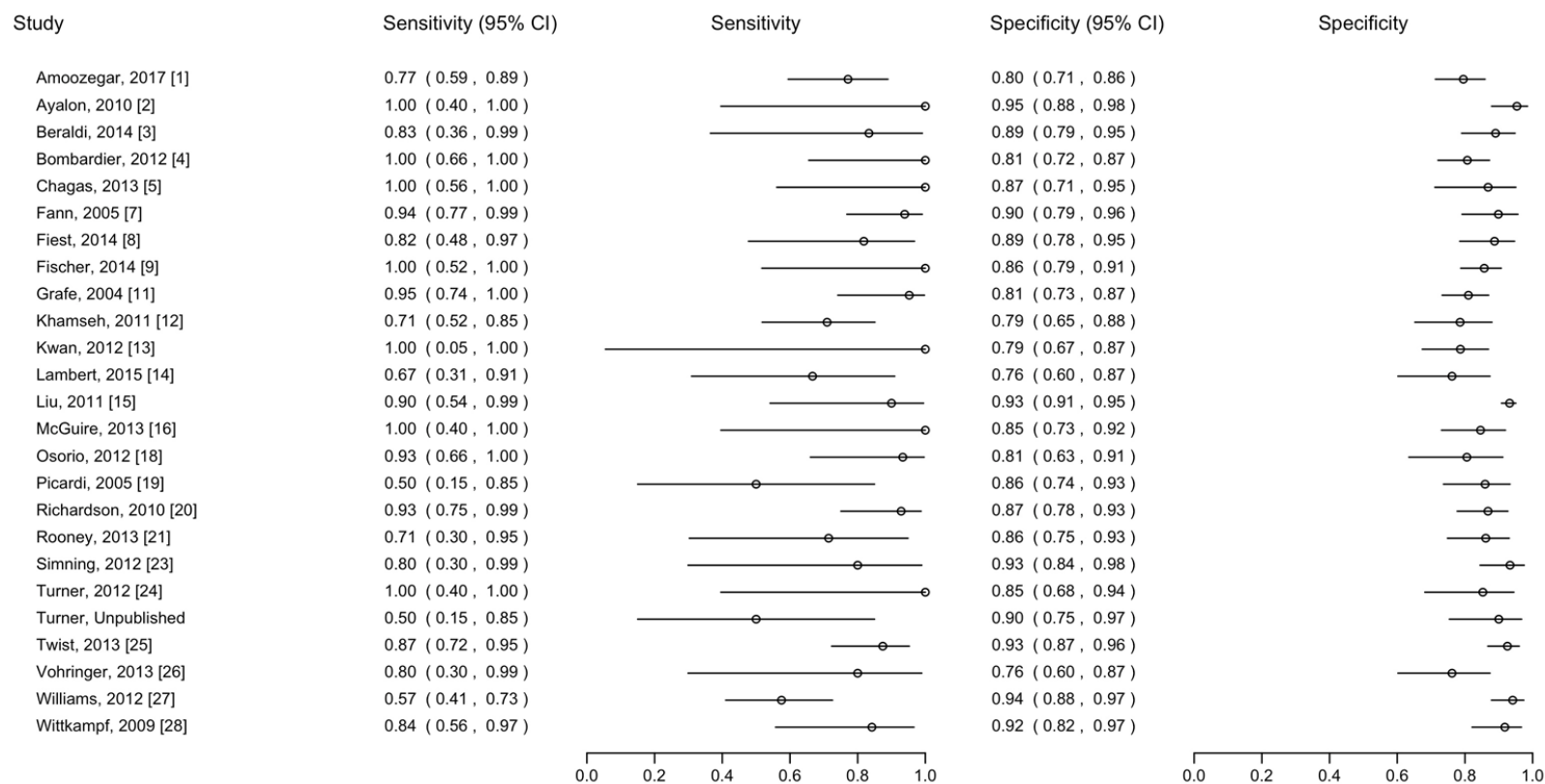
Participants = 2,577; N major depression = 295)



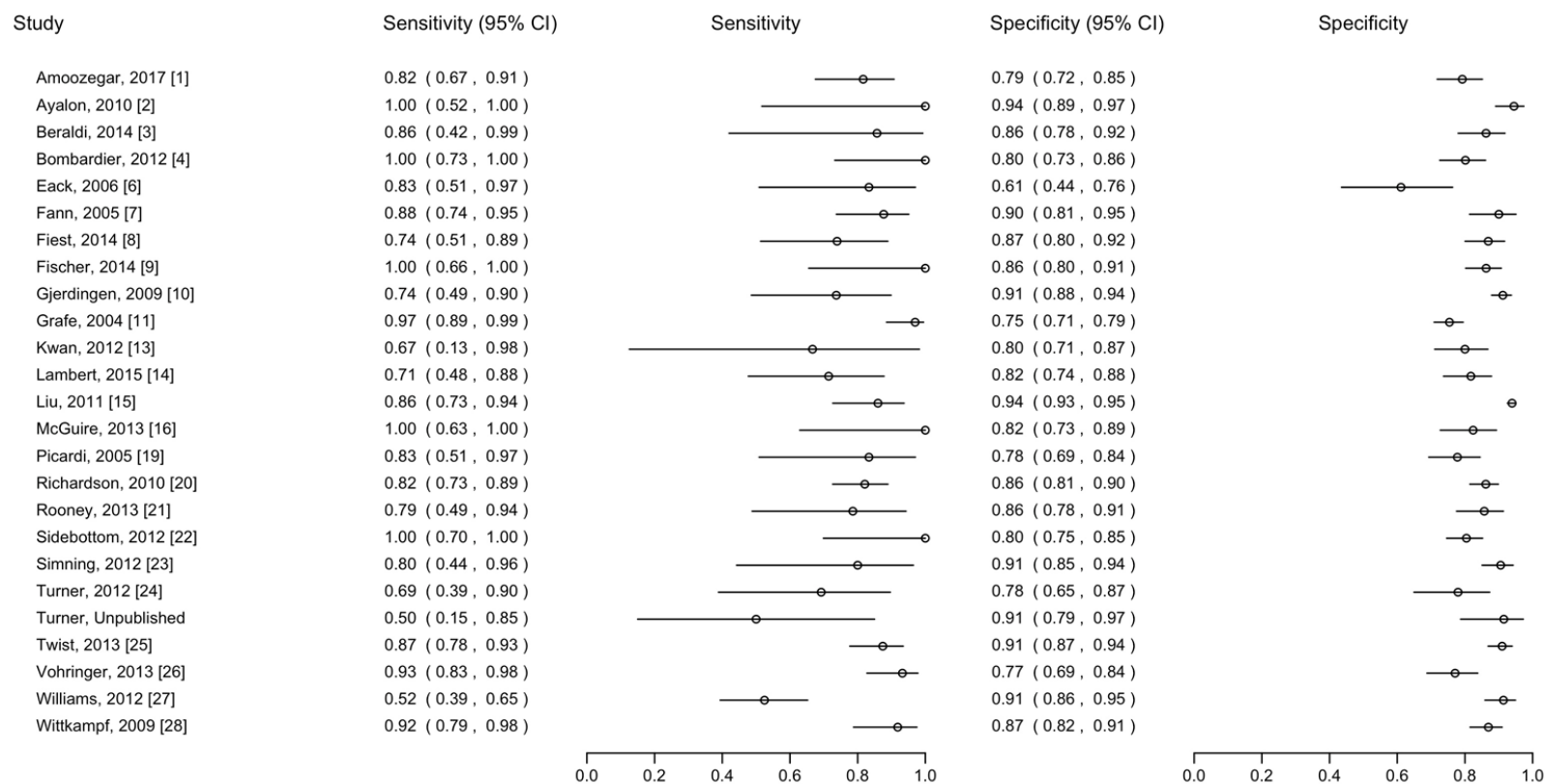
Supplementary figure C4. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among women, among studies that used a semi-structured diagnostic interview as the reference standard (N Studies = 28; N Participants = 3,906; N major depression = 573)



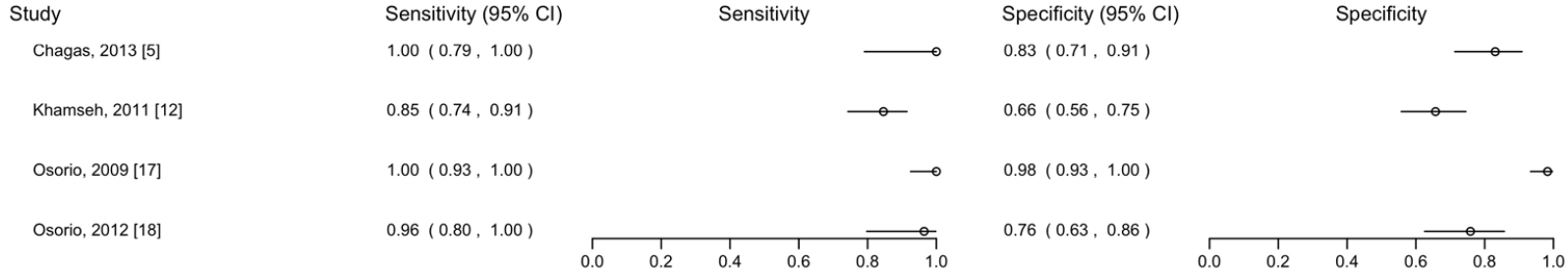
Supplementary figure C5. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among men, among studies that used a semi-structured diagnostic interview as the reference standard (N Studies = 25; N Participants = 2,812; N major depression = 351)



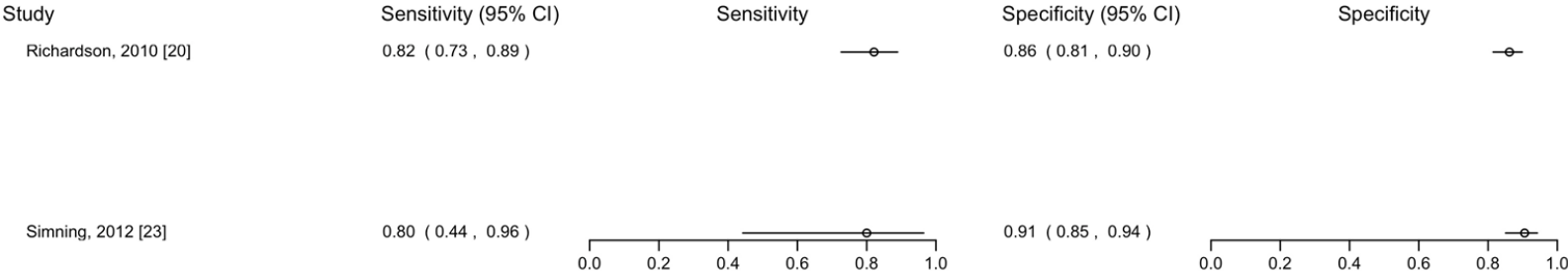
Supplementary figure C6. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among participants from a country with a very high human development index, among studies that used a semi-structured diagnostic interview as the reference standard (N Studies = 25; N Participants = 6,195; N major depression = 739)



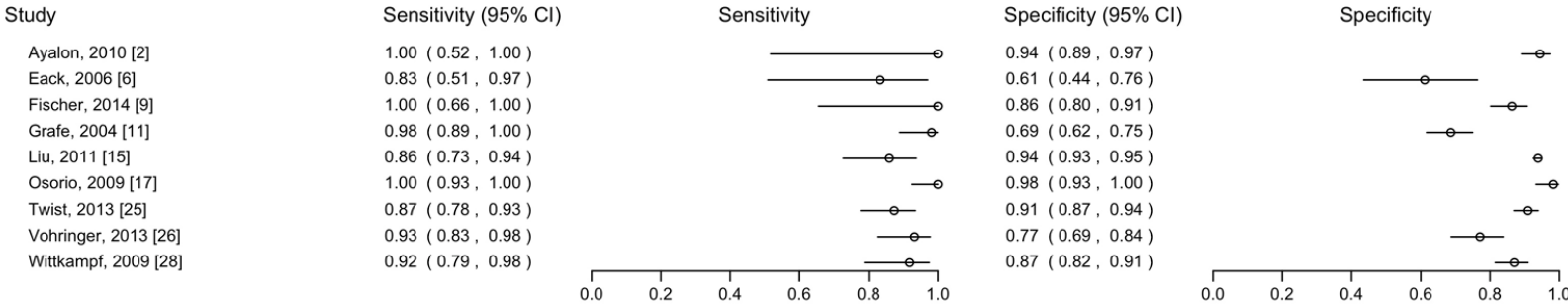
Supplementary figure C7. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among participants from a country with a high human development index, among studies that used a semi-structured diagnostic interview as the reference standard (N Studies = 4; N Participants = 530; N major depression = 185)



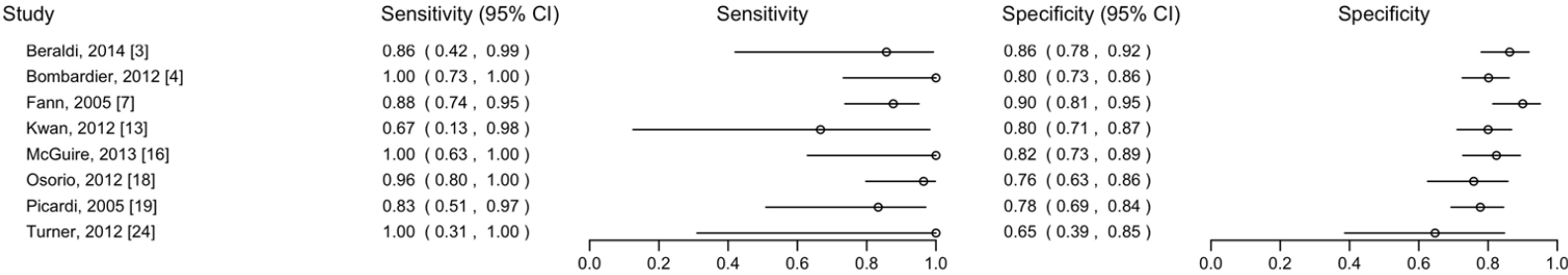
Supplementary figure C8. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among participants from a non-medical setting, among studies that used a semi-structured diagnostic interview as the reference standard (N Studies = 2; N Participants = 567; N major depression = 105)



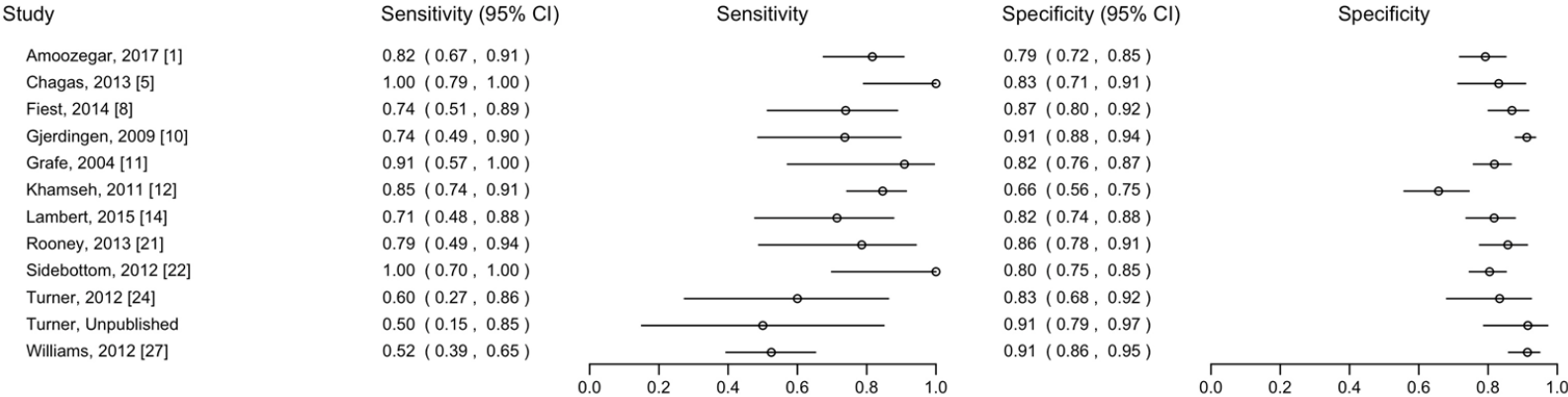
Supplementary figure C9. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among participants from a primary care setting, among studies that used a semi-structured diagnostic interview as the reference standard (N Studies = 9; N Participants = 3,163; N major depression = 377)



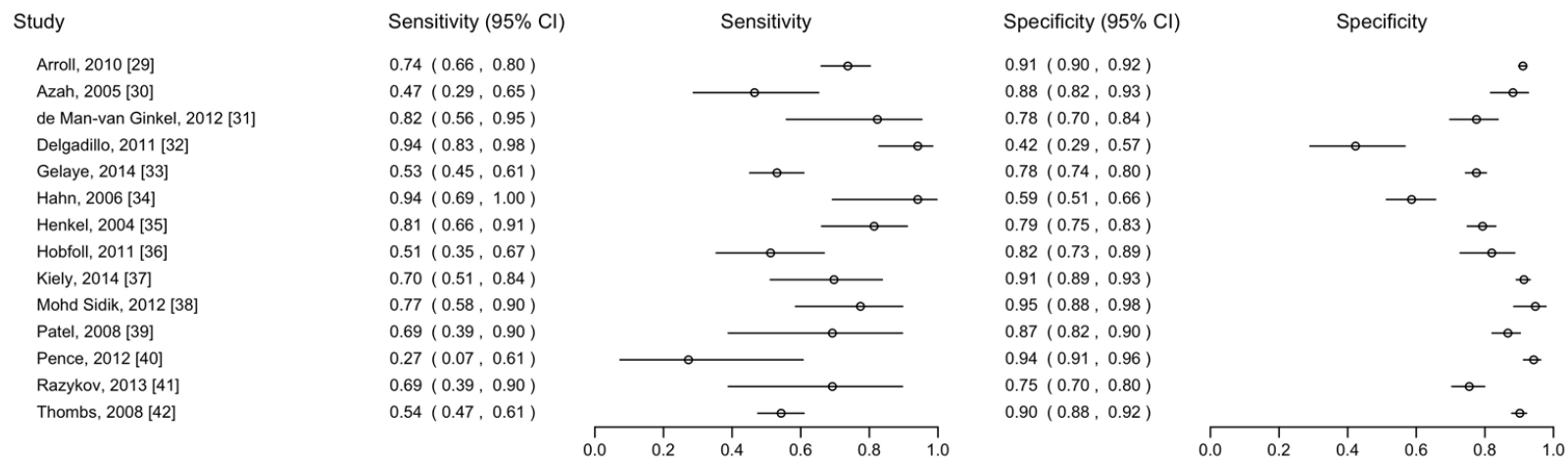
Supplementary figure C10. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among participants from an inpatient specialty care setting, among studies that used a semi-structured diagnostic interview as the reference standard (N Studies = 8; N Participants = 867; N major depression = 121)



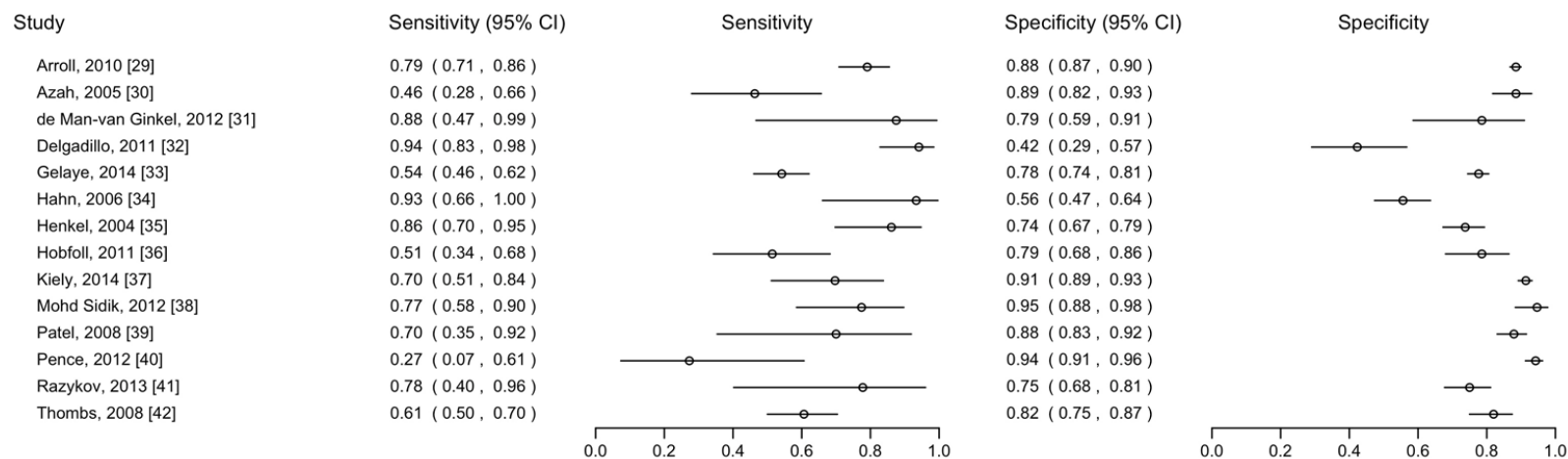
Supplementary figure C11. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among participants from an outpatient specialty care setting, among studies that used a semi-structured diagnostic interview as the reference standard (N Studies = 12; N Participants = 2,128; N major depression = 321)



Supplementary figure 12. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9, among studies that used a fully structured diagnostic interview as the reference standard (N Studies = 14; N Participants = 7,680; N major depression = 839)



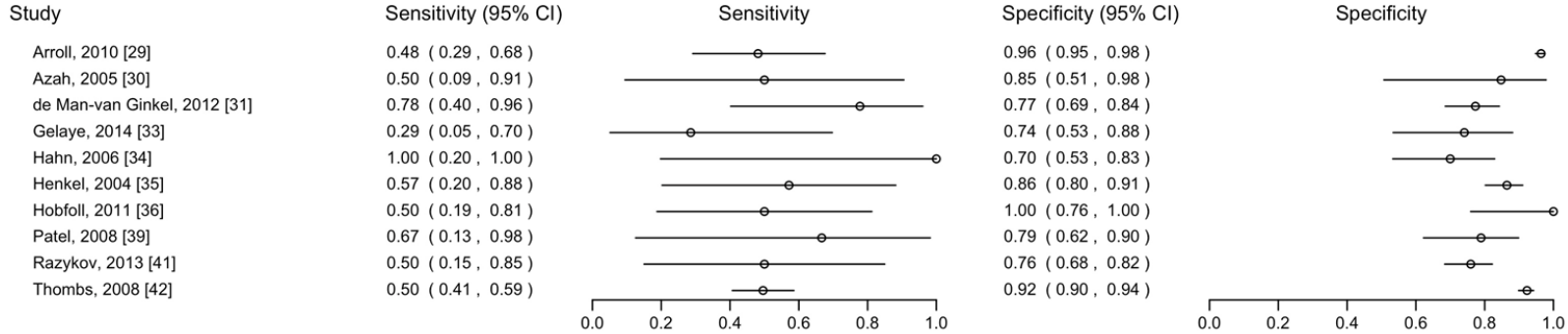
Supplementary figure 13. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among participants aged <60, among studies that used a fully structured diagnostic interview as the reference standard (N Studies = 14; N Participants = 5,504; N major depression = 645)



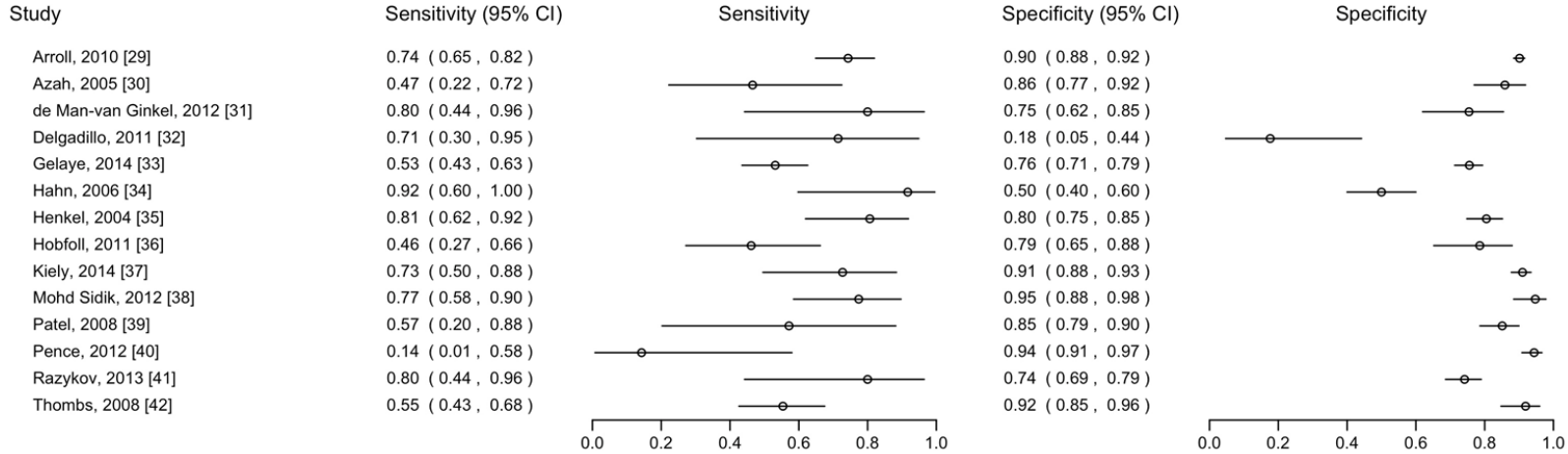
Supplementary figure C14. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among participants

aged ≥60, among studies that used a fully structured diagnostic interview as the reference standard (N Studies = 10; N

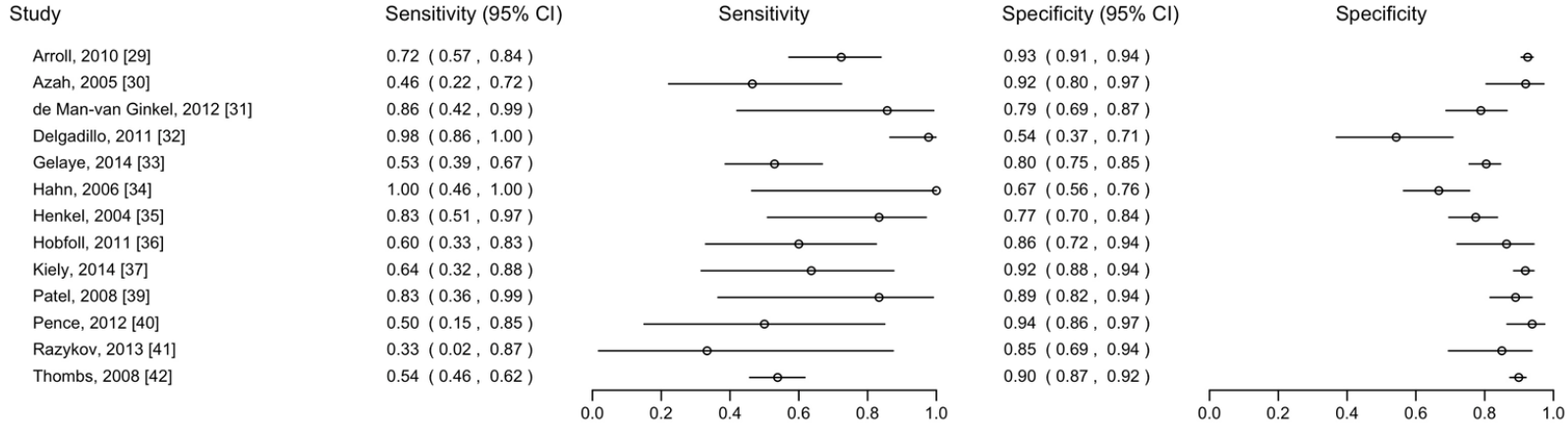
Participants = 2,175; N major depression = 194)



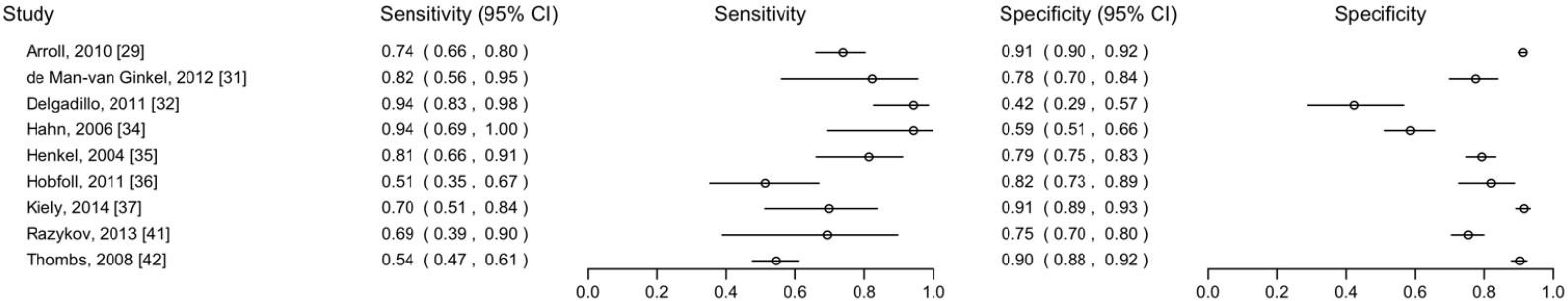
Supplementary figure C15. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among women, among studies that used a fully structured diagnostic interview as the reference standard (N Studies = 14; N Participants = 4,285; N major depression = 463)



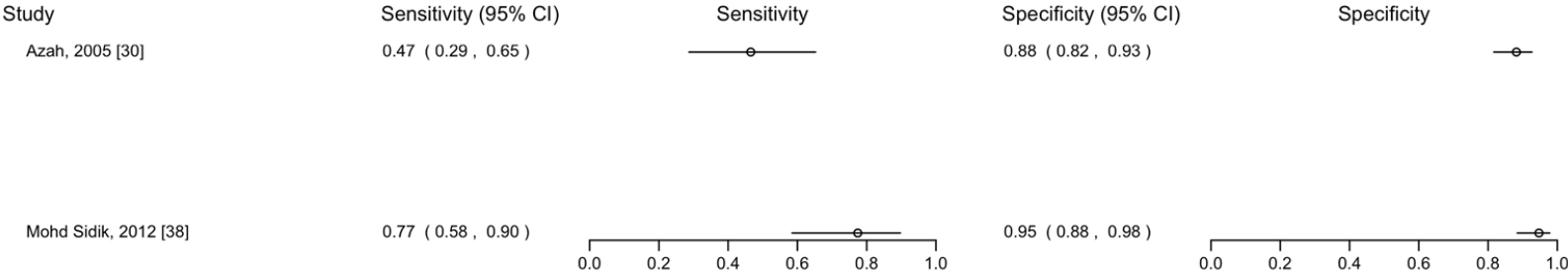
Supplementary figure C16. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among men, among studies that used a fully structured diagnostic interview as the reference standard (N Studies = 13; N Participants = 3,395; N major depression = 376)



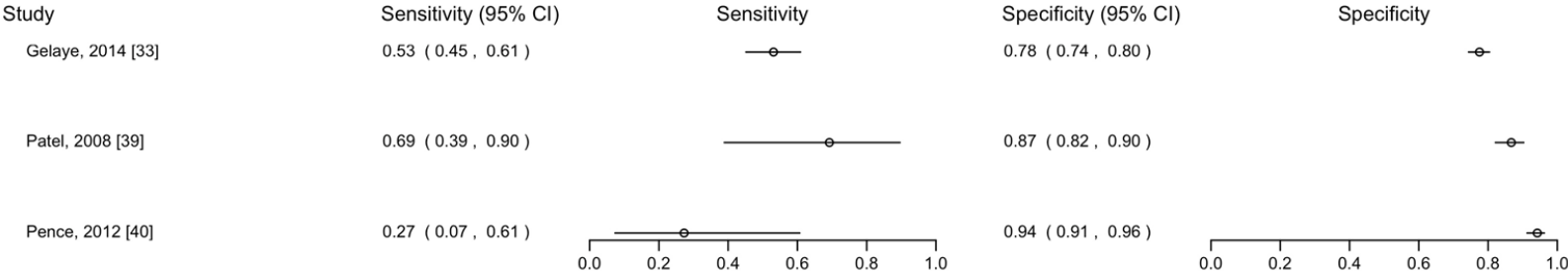
Supplementary figure C17. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among participants from a country with a very high human development index, among studies that used a fully structured diagnostic interview as the reference standard (N Studies = 9; N Participants = 5,740; N major depression = 592)



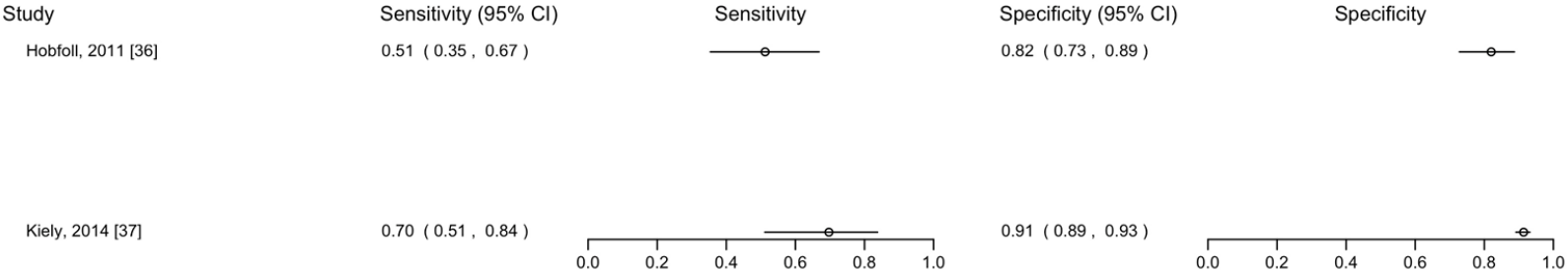
Supplementary figure C18. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among participants from a country with a high human development index, among studies that used a fully structured diagnostic interview as the reference standard (N Studies = 2; N Participants = 326; N major depression = 61)



Supplementary figure C19. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among participants from a country with a low-medium human development index, among studies that used a fully structured diagnostic interview as the reference standard (N Studies = 3; N Participants = 1,614; N major depression = 186)

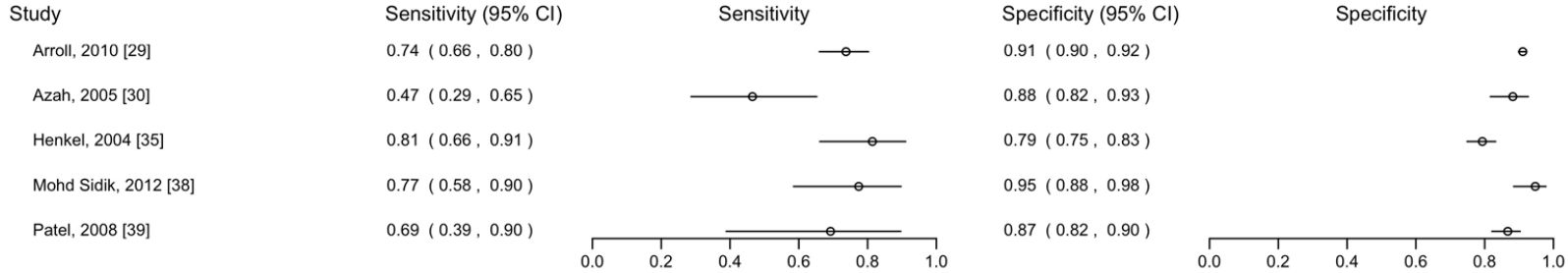


Supplementary figure C20. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among participants from a non-medical setting, among studies that used a fully structured diagnostic interview as the reference standard (N Studies = 2; N Participants = 963; N major depression = 74)

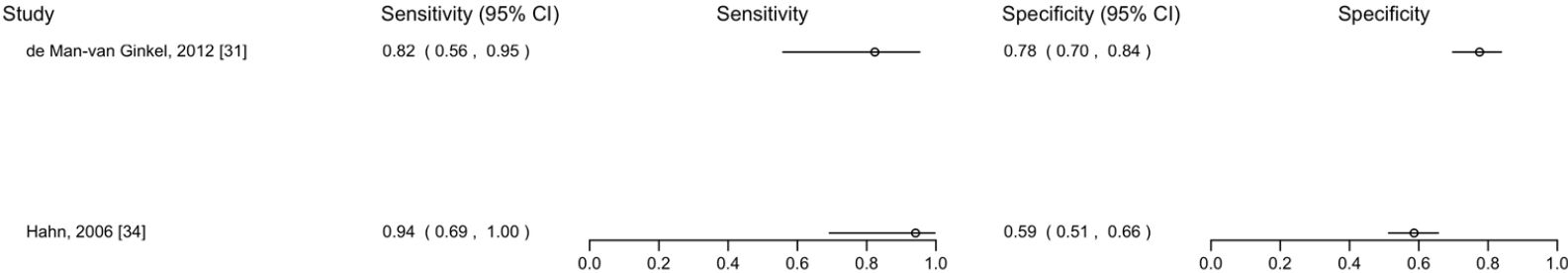


Supplementary figure C21. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among participants

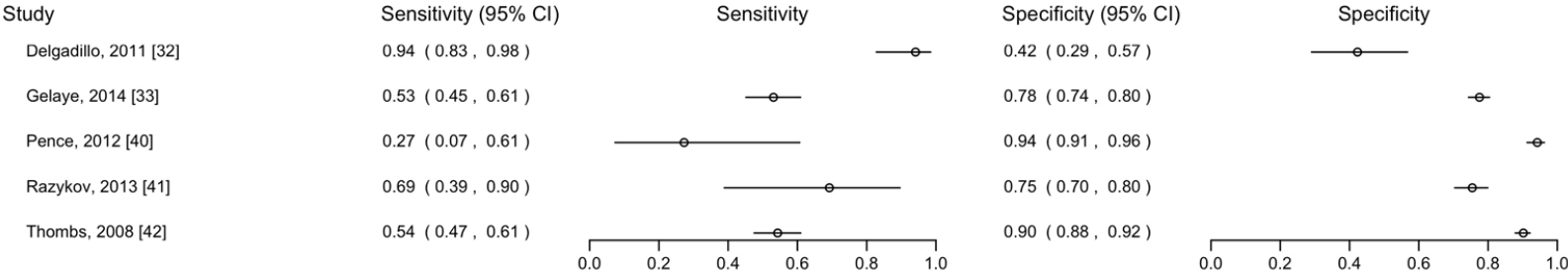
from a primary care setting, among studies that used a fully structured diagnostic interview as the reference standard (N Studies = 5; N Participants = 3,578; N major depression = 273)



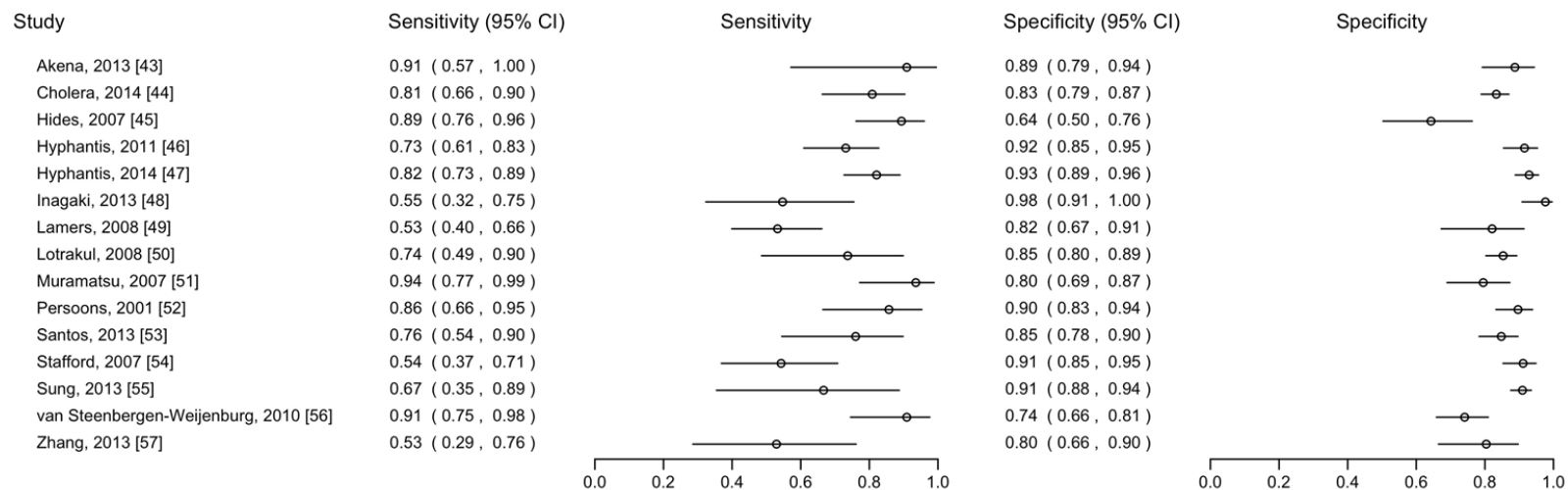
Supplementary figure C22. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among participants from an inpatient specialty care setting, among studies that used a fully structured diagnostic interview as the reference standard (N Studies = 2; N Participants = 372; N major depression = 34)



Supplementary figure C23. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among participants from an outpatient specialty care setting, among studies that used a fully structured diagnostic interview as the reference standard (N Studies = 5; N Participants = 2,767; N major depression = 458)

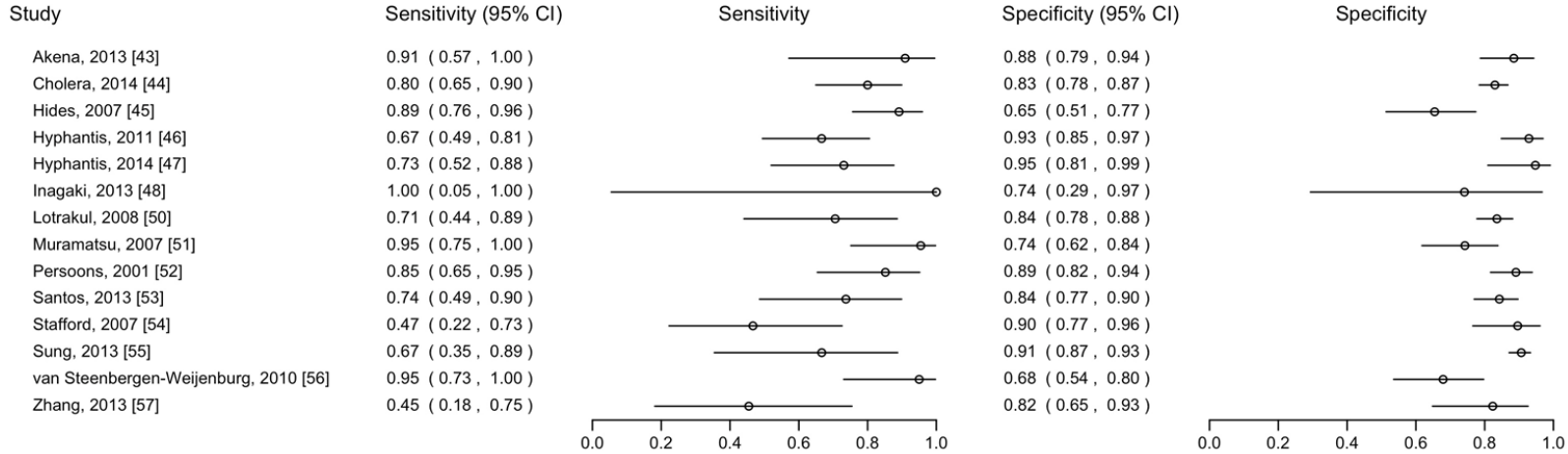


Supplementary figure C24. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9, among studies that used the MINI as the reference standard (N Studies = 15; N Participants = 2,952; N major depression = 549)



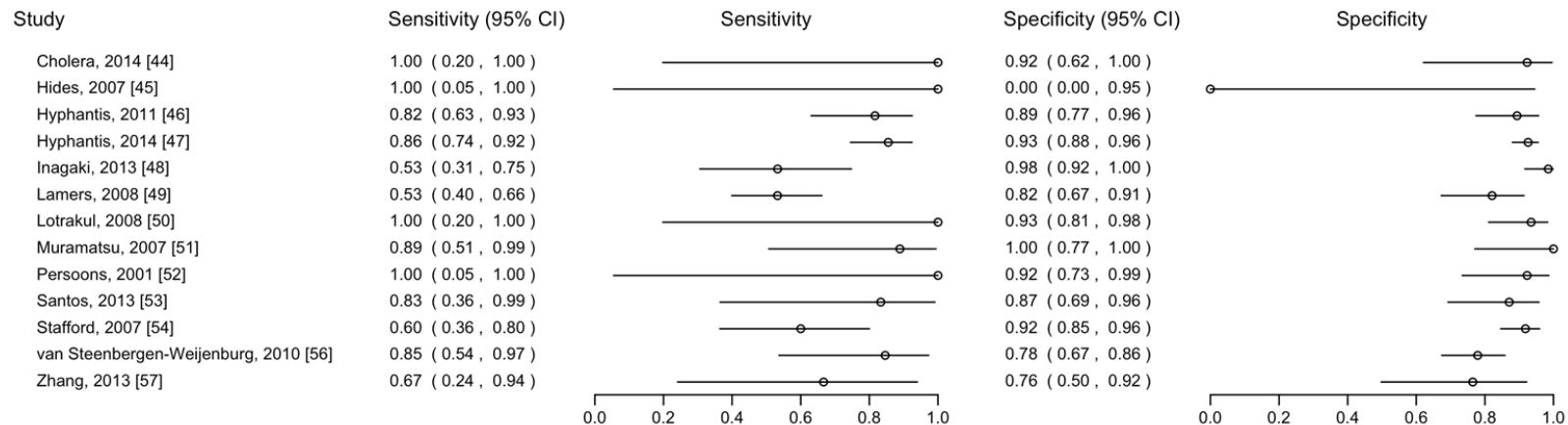
Supplementary figure C25. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among participants

aged <60, among studies that used the MINI as the reference standard (N Studies = 14; N Participants = 1,958; N major depression = 310)

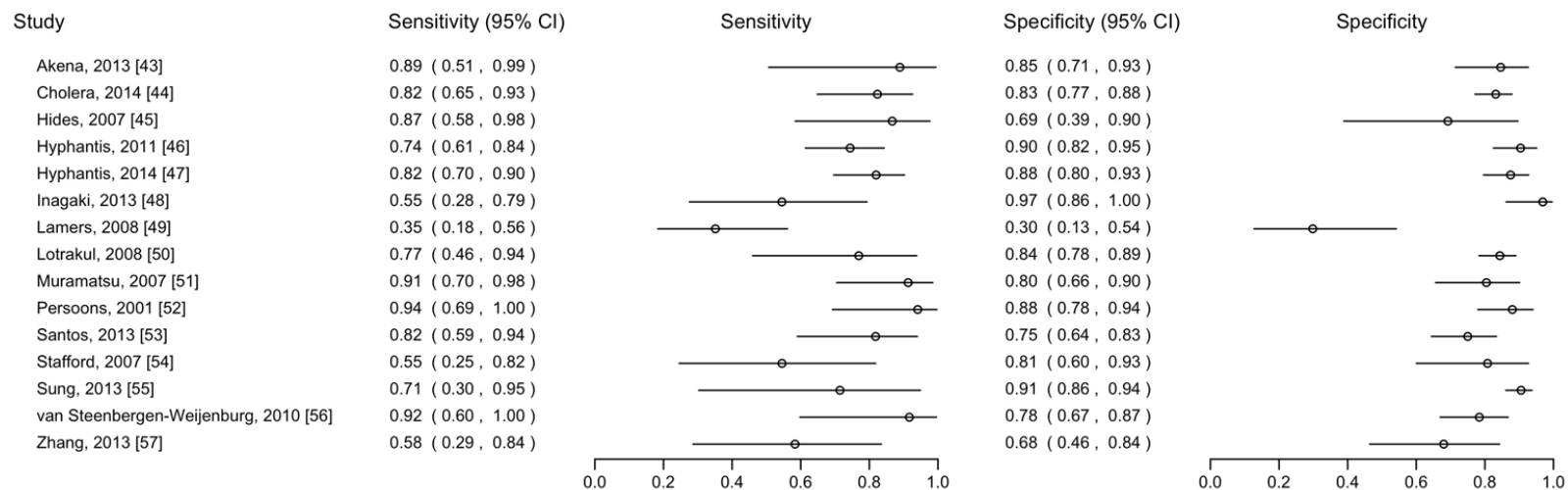


Supplementary figure C26. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among participants

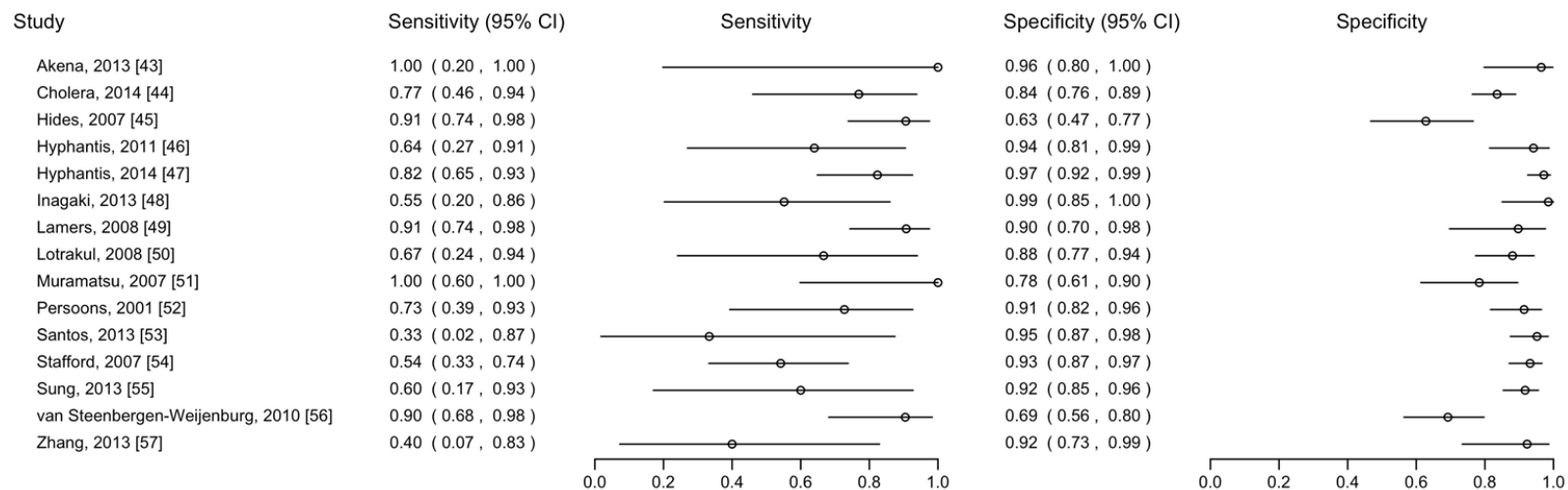
aged ≥ 60 , among studies that used the MINI as the reference standard (N Studies = 13; N Participants = 979; N major depression = 239)



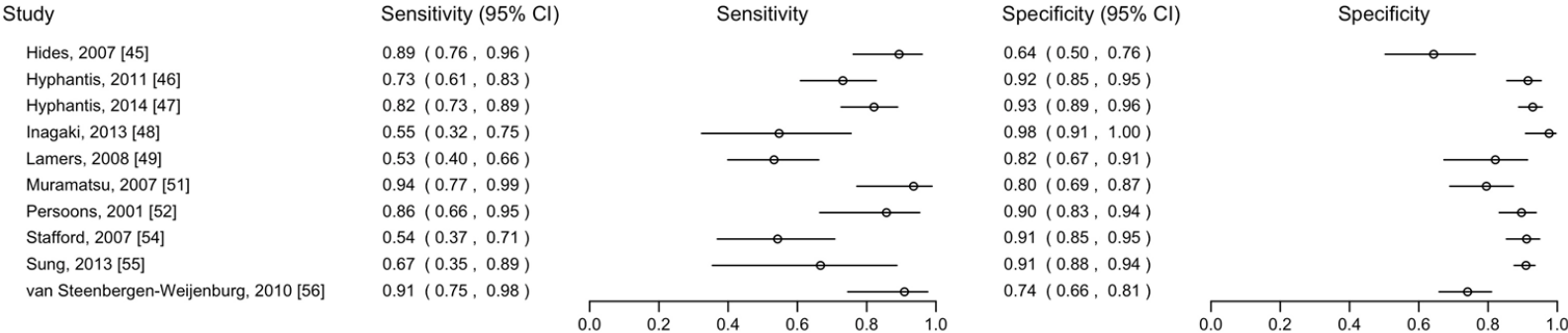
Supplementary figure C27. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among women, among studies that used the MINI as the reference standard (N Studies = 15; N Participants = 1,666; N major depression = 337)



Supplementary figure C28. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among men, among studies that used the MINI as the reference standard (N Studies = 15; N Participants = 1,286; N major depression = 212)

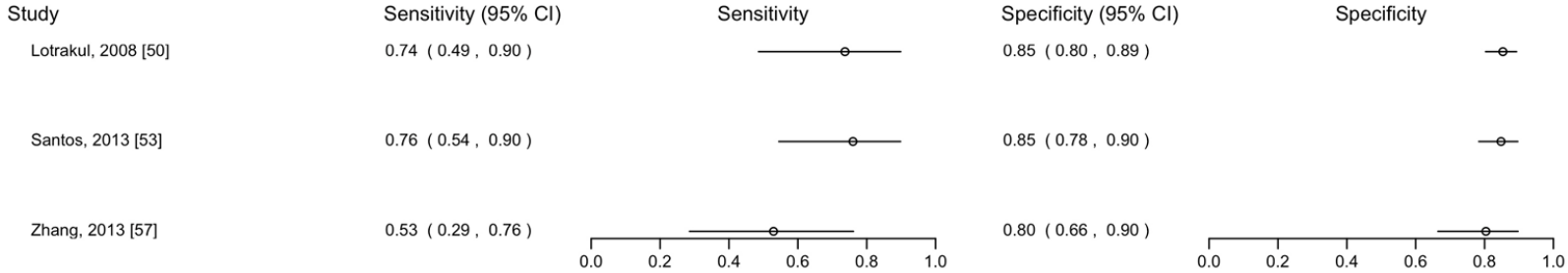


Supplementary figure C29. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among participants from a country with a very high human development index, among studies that used the MINI as the reference standard (N Studies = 10; N Participants = 1,924; N major depression = 430)

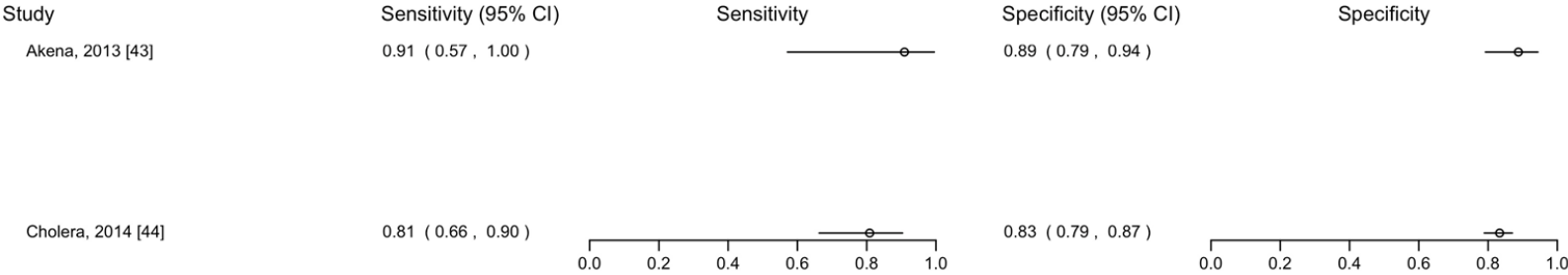


Supplementary figure C30. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among participants

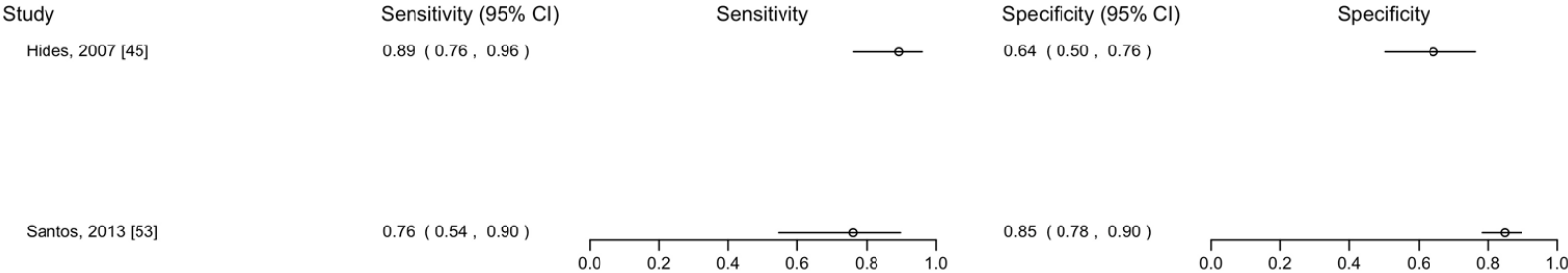
from a country with a high human development index, among studies that used the MINI as the reference standard (N Studies = 3; N Participants = 542; N major depression = 61)



Supplementary figure C31. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among participants from a country with a low-medium human development index, among studies that used the MINI as the reference standard (N Studies = 2; N Participants = 486; N major depression = 58)



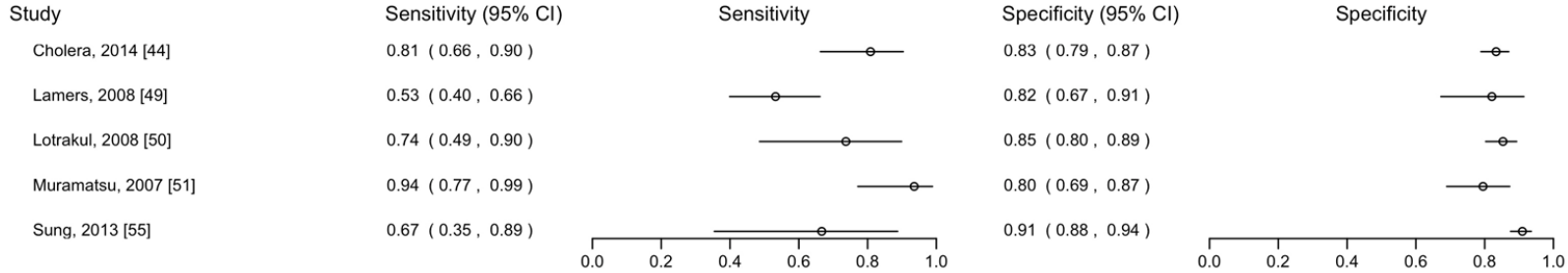
Supplementary figure C32. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among participants from a non-medical setting, among studies that used the MINI as the reference standard (N Studies = 2; N Participants = 299; N major depression = 72)



Supplementary figure C32. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among participants

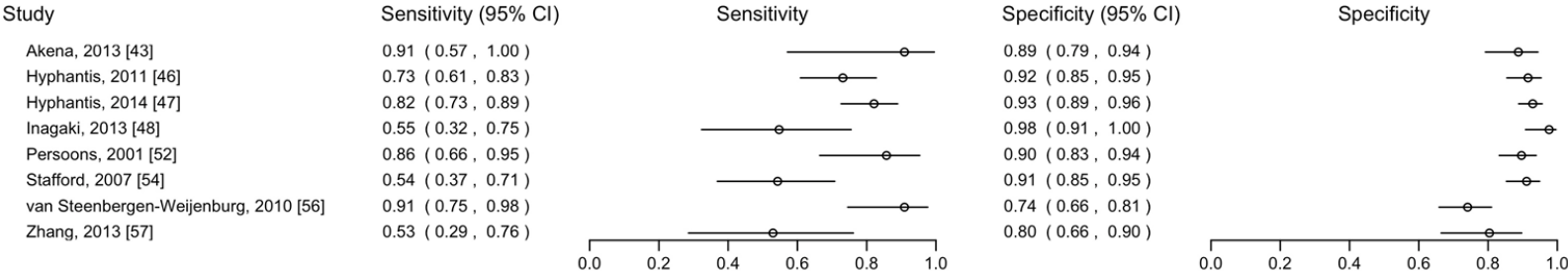
from a primary care setting, among studies that used the MINI as the reference standard (N Studies = 5; N Participants = 1,290;

N major depression = 168)

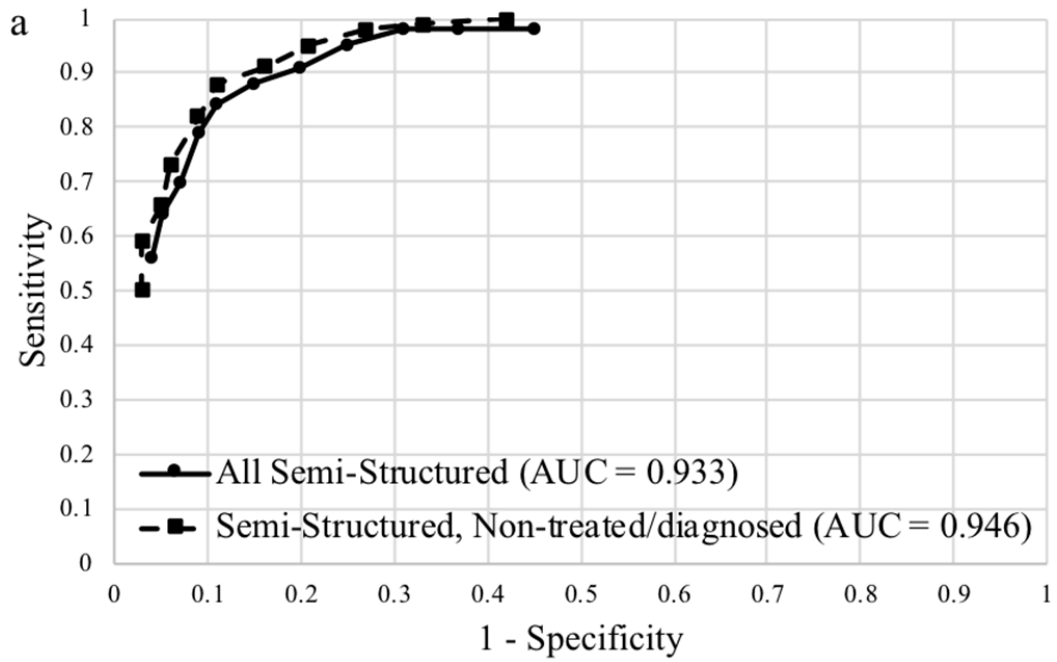


Supplementary figure C33. Forest plots of sensitivity and specificity estimates for cutoff 10 of the PHQ-9 among participants

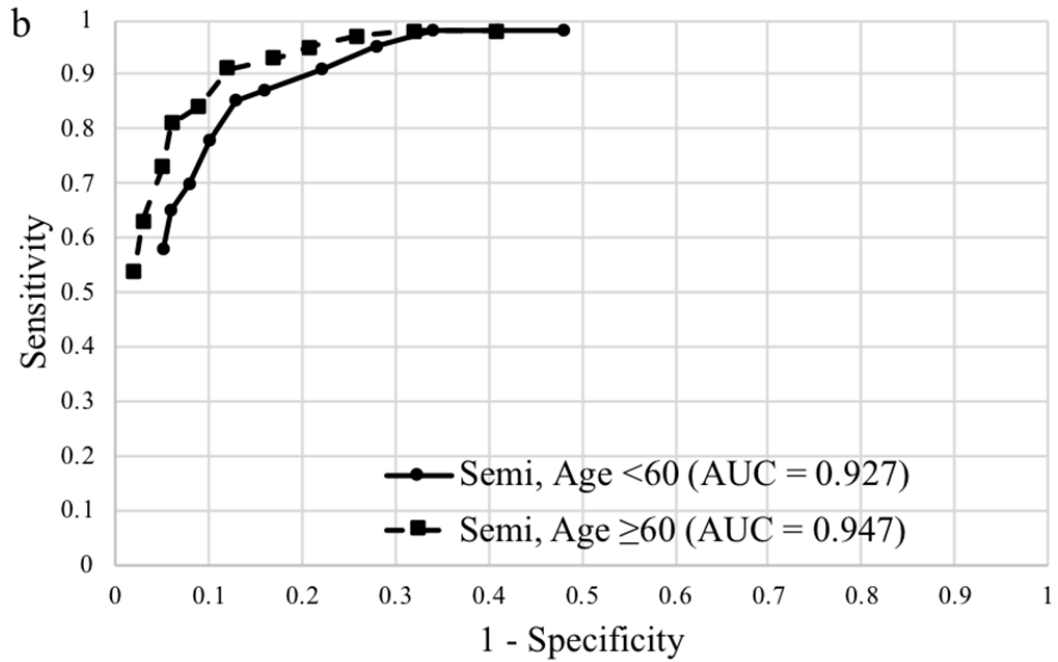
from a specialty care setting, among studies that used the MINI as the reference standard (N Studies = 8; N Participants = 1363; N major depression = 309)



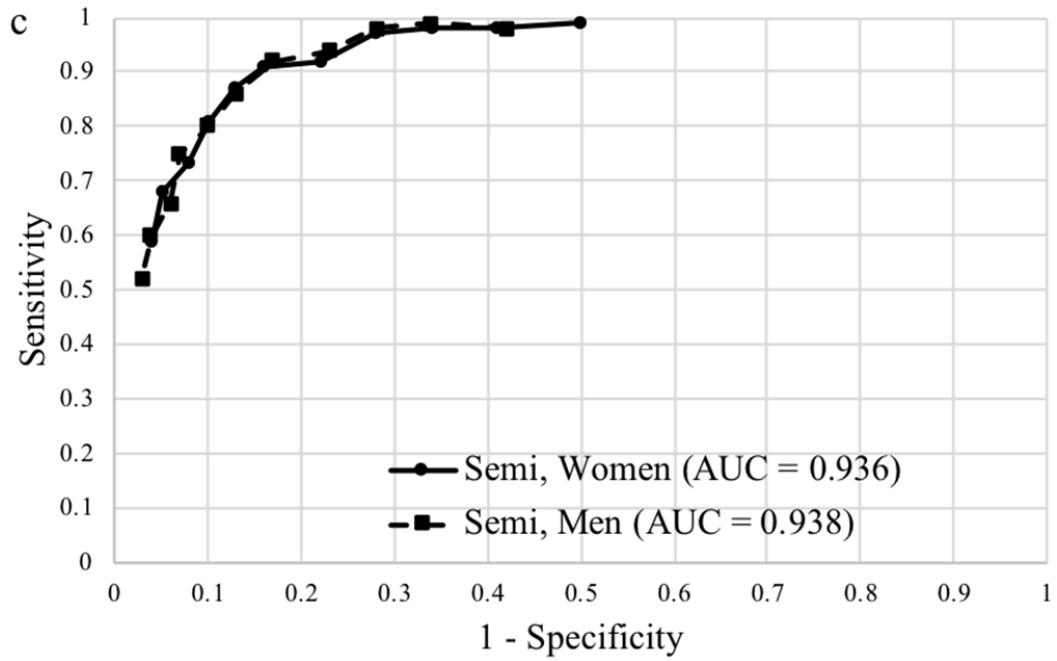
Supplementary figure D1. ROC curves comparing PHQ-9 sensitivity and specificity among all participants compared to participants not currently diagnosed or receiving treatment for a mental health problem, among studies that used a semi-structured diagnostic interview as the reference standard



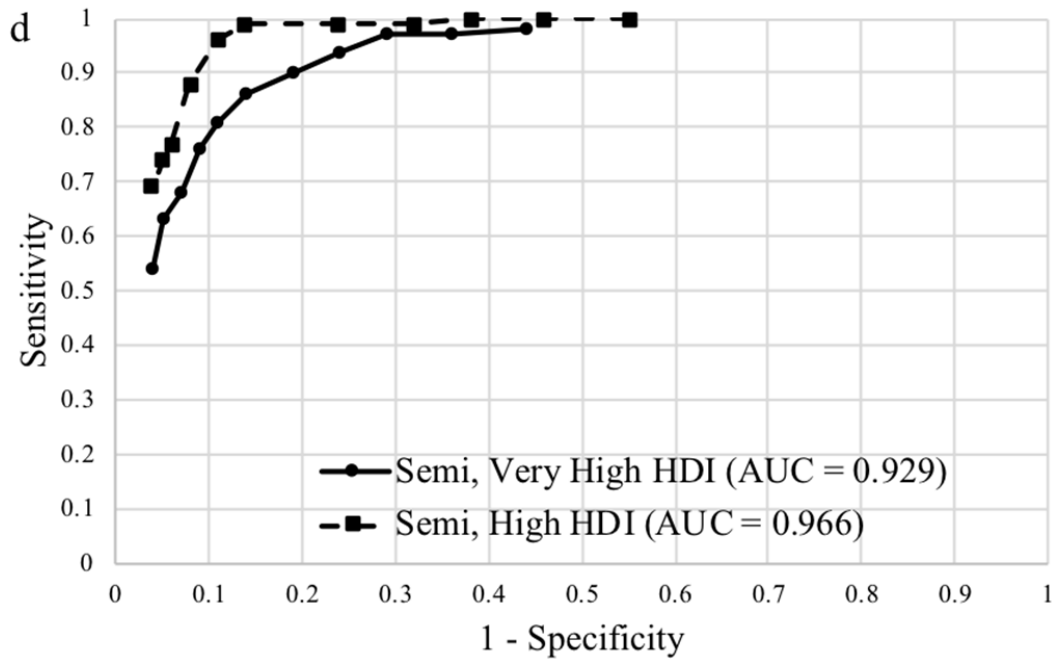
Supplementary figure D2. ROC curves comparing PHQ-9 sensitivity and specificity among participants aged <60 compared to participants aged ≥ 60 , among studies that used a semi-structured diagnostic interview as the reference standard



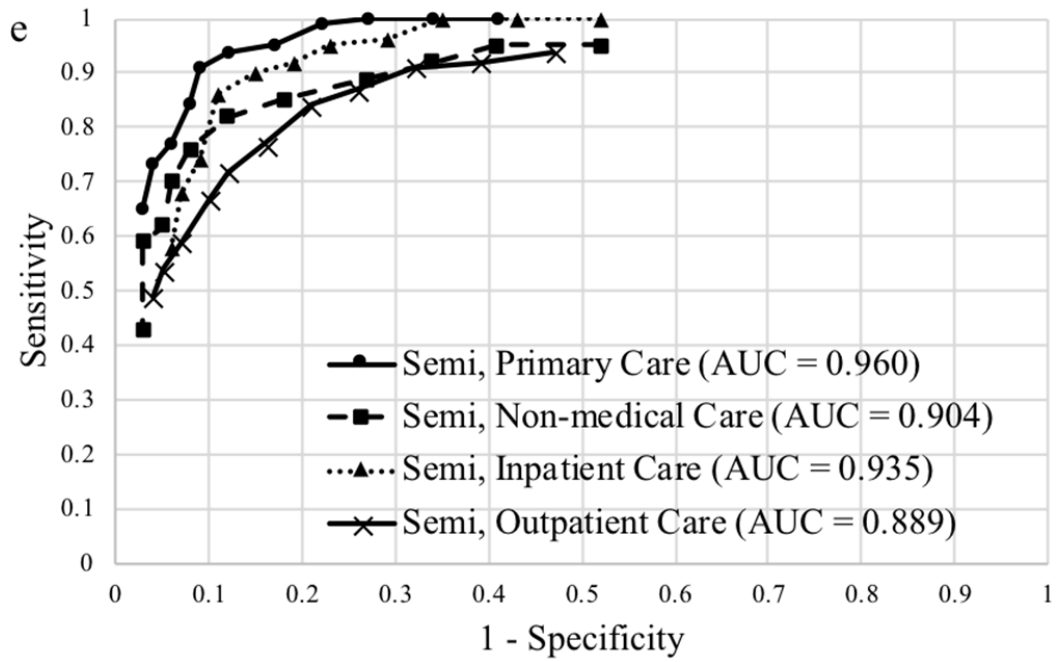
Supplementary figure D3. ROC curves comparing PHQ-9 sensitivity and specificity among women compared to men, among studies that used a semi-structured diagnostic interview as the reference standard



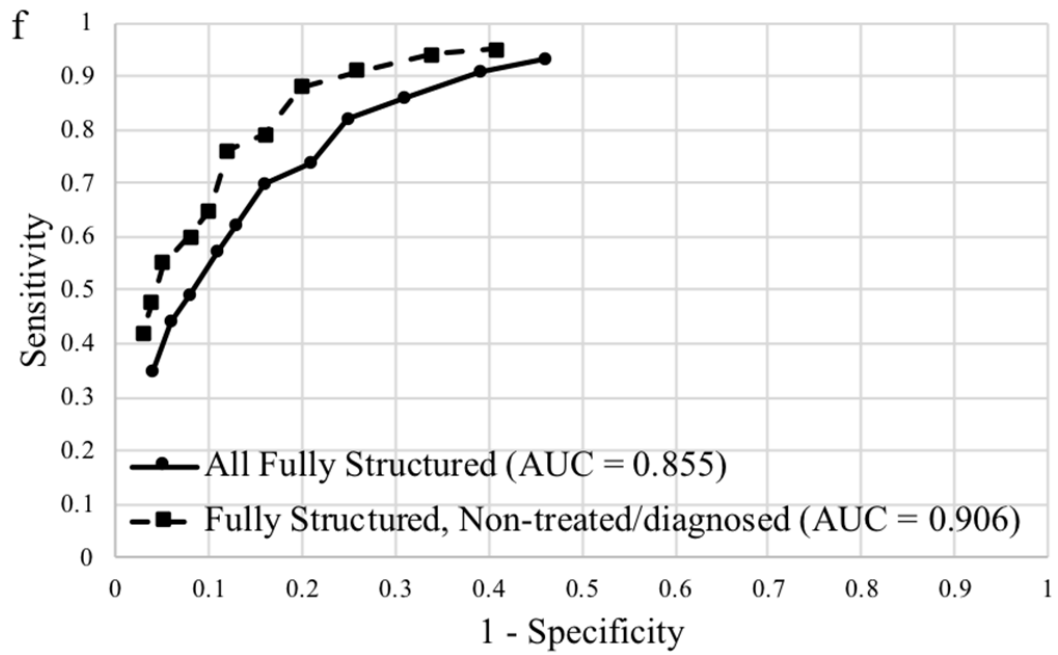
Supplementary figure D4. ROC curves comparing PHQ-9 sensitivity and specificity among participants from countries with a very high human development index compared to a high human development index, among studies that used a semi-structured diagnostic interview as the reference standard



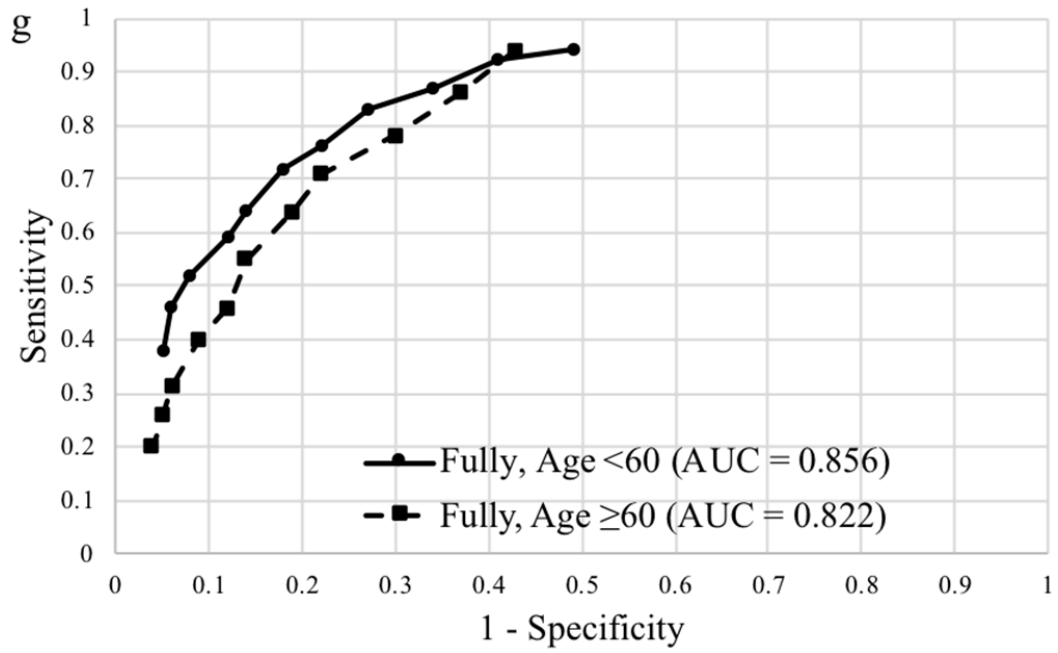
Supplementary figure D5. ROC curves comparing PHQ-9 sensitivity and specificity among participants from non-medical, primary care, inpatient speciality care and outpatient specialty care, among studies that used a semi-structured diagnostic interview as the reference standard



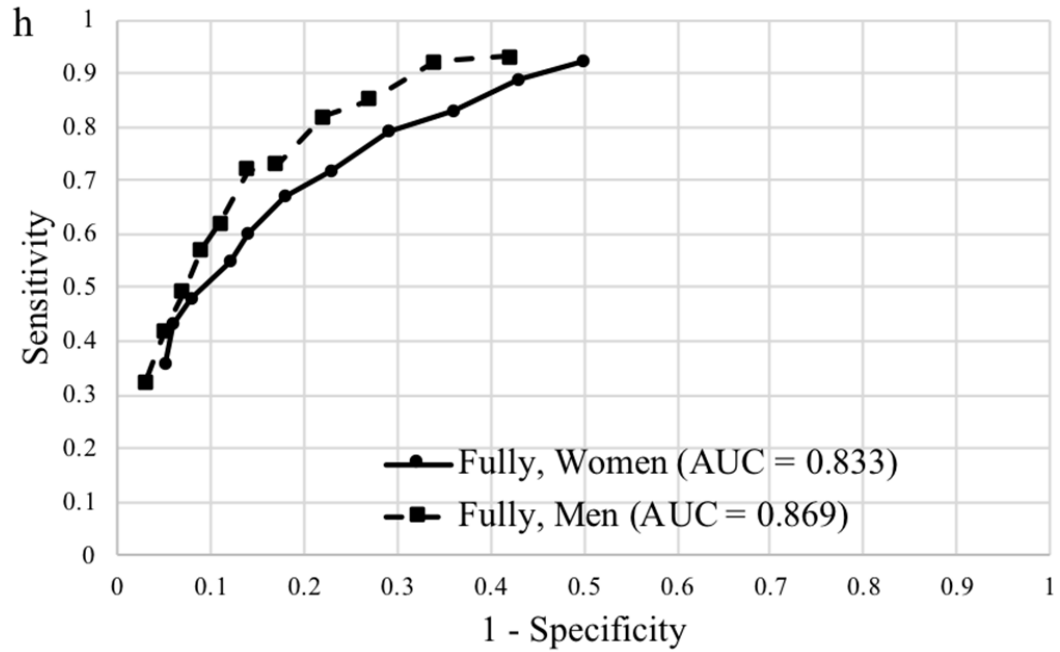
Supplementary figure D6. ROC curves comparing PHQ-9 sensitivity and specificity among all participants compared to participants not currently diagnosed or receiving treatment for a mental health problem, among studies that used a fully structured diagnostic interview as the reference standard



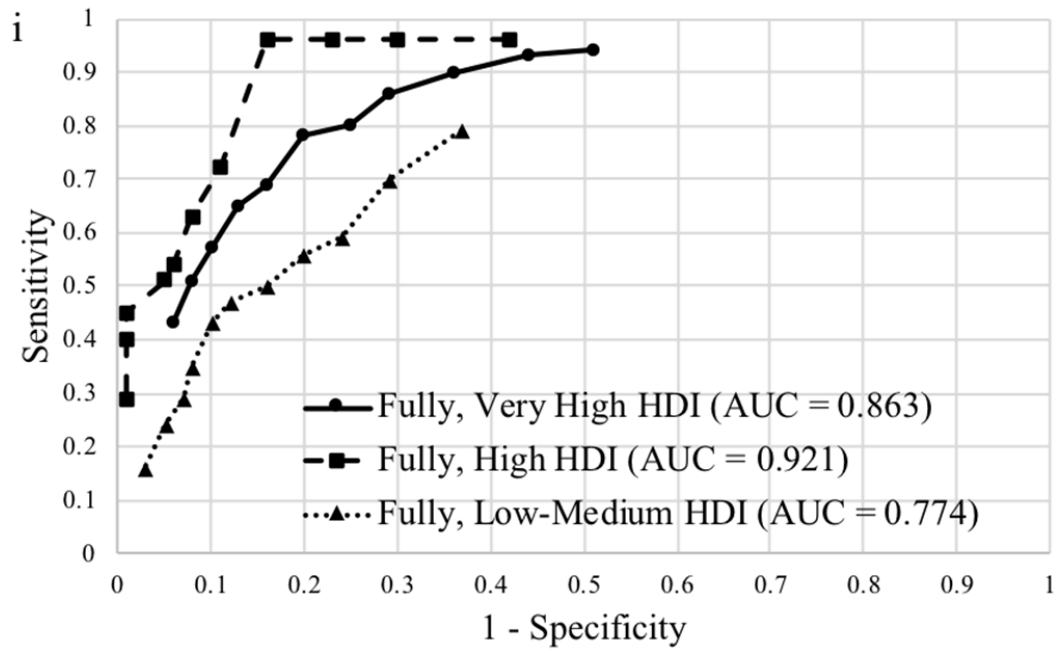
Supplementary figure D7. ROC curves comparing PHQ-9 sensitivity and specificity among participants aged <60 compared to participants aged ≥ 60 , among studies that used a fully structured diagnostic interview as the reference standard



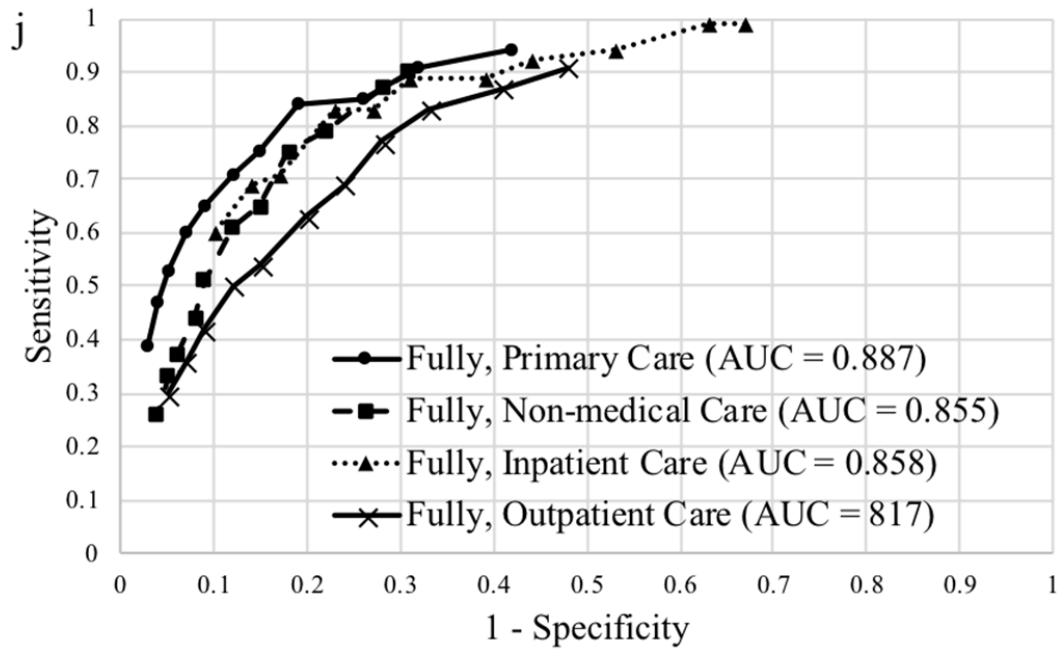
Supplementary figure D8. ROC curves comparing PHQ-9 sensitivity and specificity among women compared to men, among studies that used a fully structured diagnostic interview as the reference standard



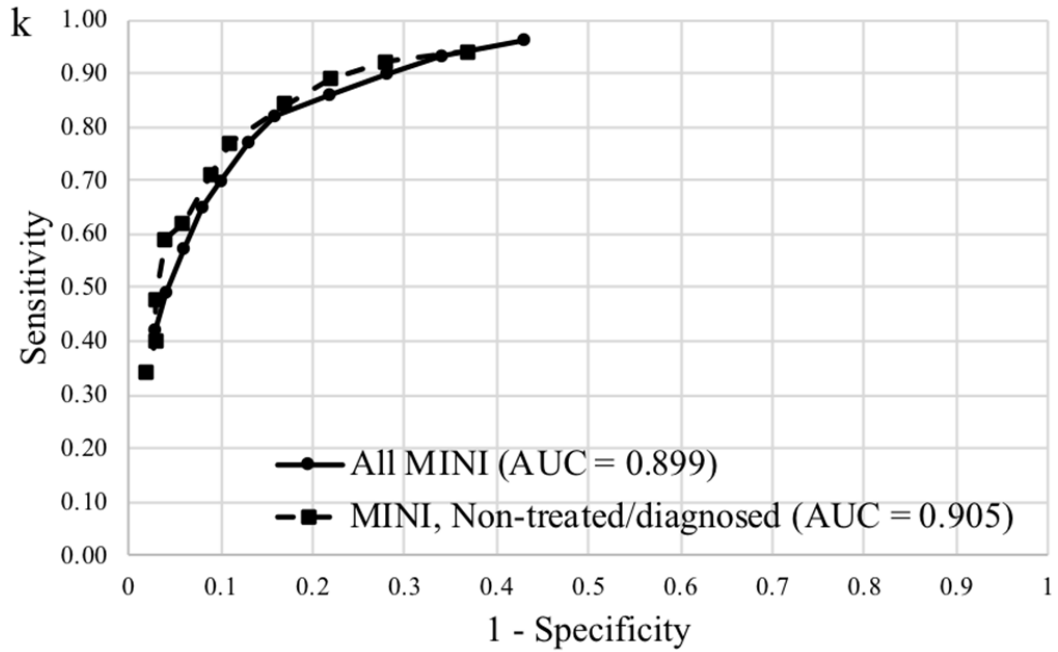
Supplementary figure D9. ROC curves comparing PHQ-9 sensitivity and specificity among participants from countries with a very high human development index, a high human development index and a low-medium human development index, among studies that used a fully structured diagnostic interview as the reference standard



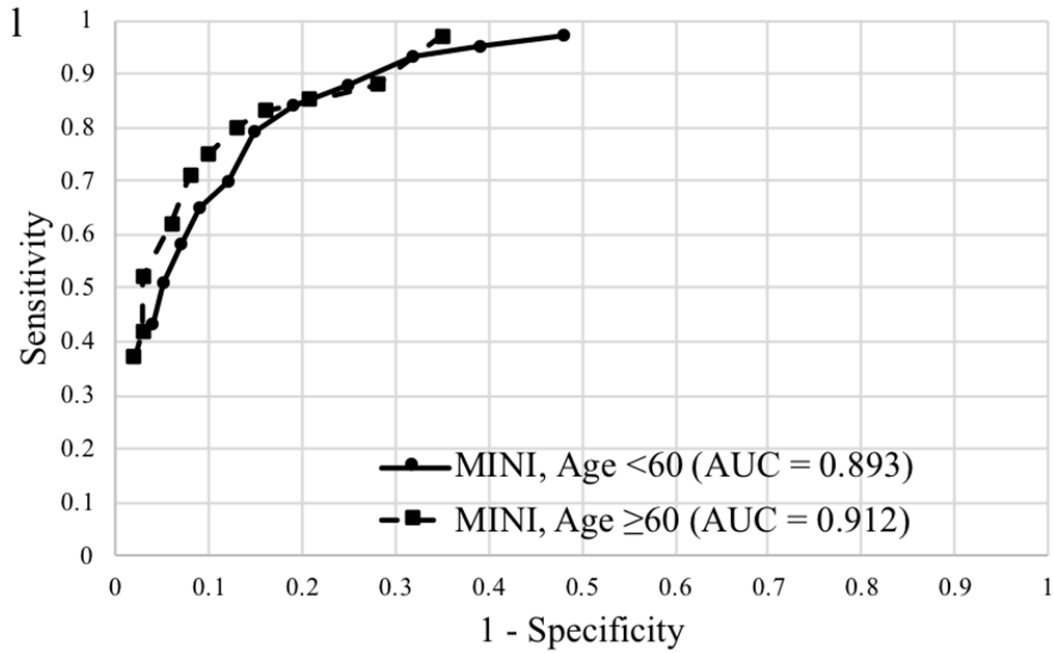
Supplementary figure D10. ROC curves comparing PHQ-9 sensitivity and specificity among participants from non-medical, primary care, inpatient speciality care and outpatient specialty care, among studies that used a fully structured diagnostic interview as the reference standard



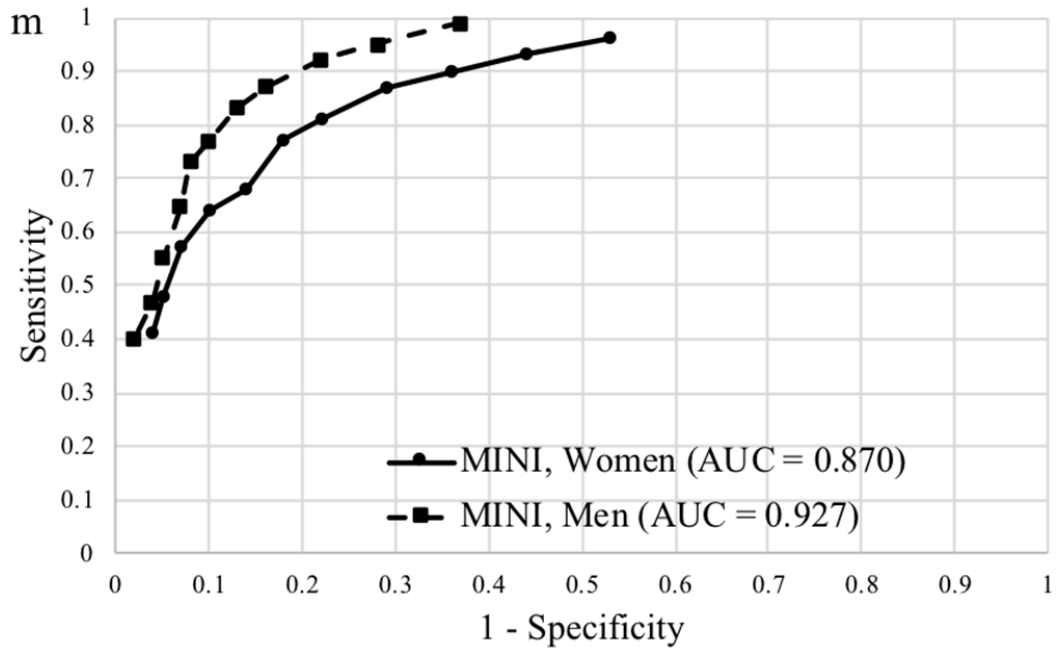
Supplementary figure D11. ROC curves comparing PHQ-9 sensitivity and specificity among all participants compared to participants not currently diagnosed or receiving treatment for a mental health problem, among studies that used the MINI as the reference standard



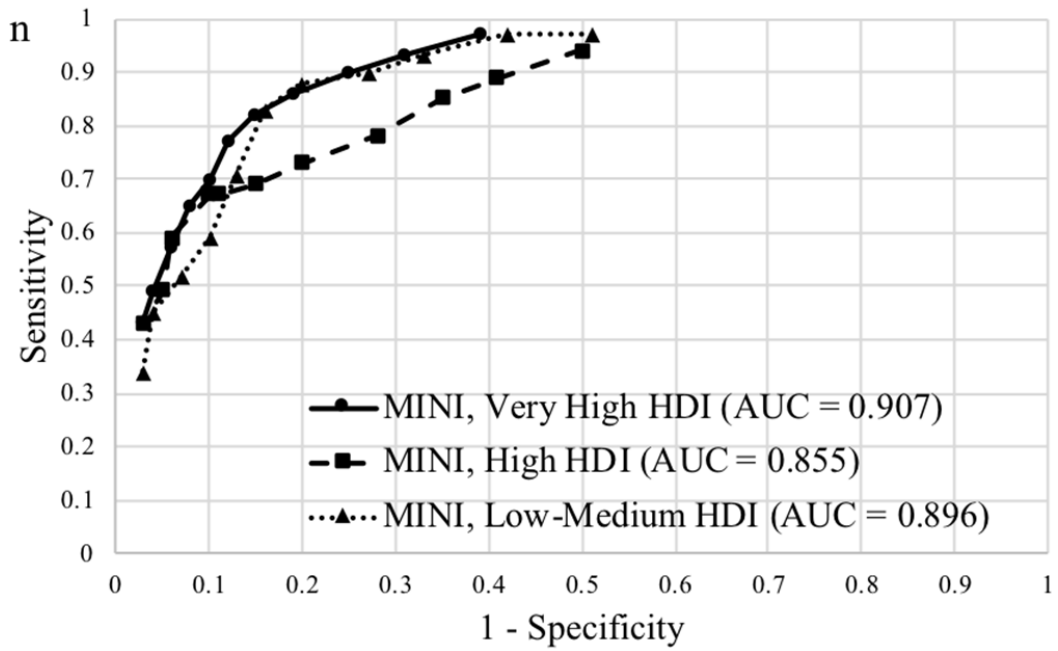
Supplementary figure D12. ROC curves comparing PHQ-9 sensitivity and specificity among participants aged <60 compared to participants aged ≥ 60 , among studies that used the MINI as the reference standard



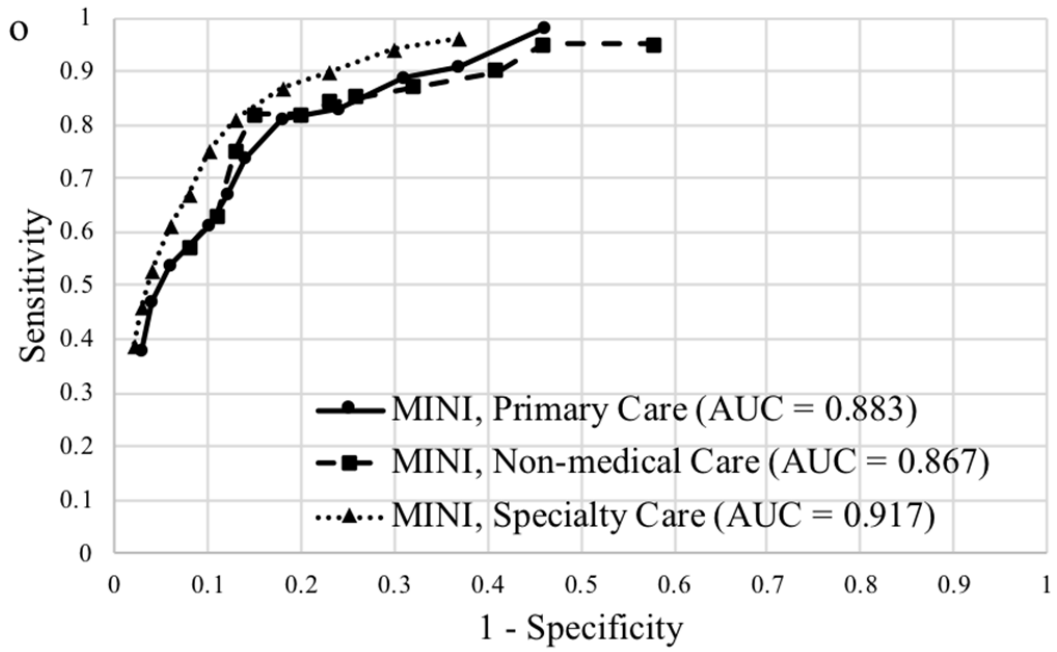
Supplementary figure D13. ROC curves comparing PHQ-9 sensitivity and specificity among women compared to men, among studies that used the MINI as the reference standard



Supplementary figure D14. ROC curves comparing PHQ-9 sensitivity and specificity among participants from countries with a very high human development index, a high human development index and a low-medium human development index, among studies that used the MINI as the reference standard



Supplementary figure D15. ROC curves comparing PHQ-9 sensitivity and specificity among participants from non-medical, primary care, and specialty care, among studies that used the MINI as the reference standard



Supplementary table A. Reasons for exclusion for all articles excluded at full-text level (N = 113)

Reference	Reason for Exclusion
Albert NM, Moser DK, Nutter B, Pozuelo L. Are PHQ-9 and PHQ-2 Depression score cutoffs the best cutoffs for determining significant depression in Pts with HF and Mild-Moderate Symptoms? <i>Journal of Cardiac Failure</i> . 2009; 15 :S114-S114.	Major depression not assessed
Allgaier AK, Pietsch K, Fruhe B, et al. Depression in pediatric care: Is the WHO-Five Well-Being Index a valid screening instrument for children and adolescents? <i>General Hospital Psychiatry</i> . 2012; 34 :234-241.	PHQ not administered
Armstrong G, Nuken A, Samson L, et al. Quality of life, depression, anxiety and suicidal ideation among men who inject drugs in Delhi, India. <i>BMC Psychiatry</i> . 2013; 13 :151-151.	Major depression not assessed
Arroll B, Goodyear-Smith F, Kerse N, et al. The prevalence of depression among Maori patients in Auckland general practice. <i>Journal of Primary Health Care</i> . 2009; 1 :26-29.	Major depression not assessed
Berghofer A, Hartwich A, Bauer M, et al. Efficacy of a systematic depression management program in high utilizers of primary care: a randomized trial. <i>BMC Health Services Research</i> . 2012; 12 :298.	Sample selected for known distress, mental health diagnosis, or psychiatric setting
Buehler B, Kocalevent R, Berger R, et al. Treatment situation of long-term unemployed with psychological disorders. <i>Nervenarzt</i> . 2013; 84 :603-607.	Sample selected for known distress, mental health diagnosis, or psychiatric setting
Cannon DS, Tiffany ST, Coon H, et al. The PHQ-9 as a brief assessment of lifetime major depression. <i>Psychological Assessment</i> . 2007; 19 :247-251.	Major depression not assessed
Carballeira Y, Dumont P, Borgacci S, et al. Criterion validity of the French version of Patient Health Questionnaire (PHQ) in a hospital department of internal medicine. <i>Psychology & Psychotherapy: Theory, Research & Practice</i> . 2007; 80 :69-77.	No validated interview to assess major depression
Cassin S, Sockalingam S, Hawa R, et al. Psychometric properties of the Patient Health Questionnaire (PHQ-9) as a depression screening tool for bariatric surgery candidates. <i>Psychosomatics</i> . 2013; 54 :352-358.	> 2 weeks between PHQ and diagnostic interview
Chen S, Chiu H, Xu B, et al. Reliability and validity of the PHQ-9 for screening late-life depression in Chinese primary care. <i>International Journal of Geriatric Psychiatry</i> . 2010; 25 :1127-1133.	> 2 weeks between PHQ and diagnostic interview
Choi Y, Mayer TG, Williams MJ, Gatchel RJ. What is the best screening test for depression in chronic spinal pain patients? <i>Spine Journal: Official Journal of the North American Spine Society</i> . 2014; 14 :1175-1182.	> 2 weeks between PHQ and diagnostic interview
Corapcioglu A, Ozer GU. Adaptation of revised Brief PHQ (Brief-PHQ-r) for diagnosis of depression, panic disorder and somatoform disorder in primary healthcare settings. <i>International Journal of Psychiatry in Clinical Practice</i> . 2004; 8 :11-18.	No validated interview to assess major depression
Creed F. The relationship between somatic symptoms, health anxiety, and outcome in medical out-patients. <i>Psychiatric Clinics of North America</i> . 2011; 34 :545-564.	PHQ not administered
Davis K, Pearlstein T, Stuart S, O'Hara M, Zlotnick C. Analysis of brief screening tools for the detection of	Sample selected for known distress,

postpartum depression: comparisons of the PRAMS 6-item instrument, PHQ-9, and structured interviews. <i>Archives of Women's Mental Health</i> . 2013; 16 :271-277.	mental health diagnosis, or psychiatric setting Major depression not assessed
de Man-van Ginkel J, Floor G, Marieke S, Eline L, Thora H. Early detection of post stroke depression: a clinimetric evaluation of the PHQ-9. <i>Journal of Clinical Nursing</i> . 2010; 19 :88-88.	
Diez-Quevedo C, Rangil T, Sanchez-Planell L, Kroenke K, Spitzer RL. Validation and utility of the Patient Health Questionnaire in diagnosing mental disorders in 1003 general hospital Spanish inpatients. <i>Psychosomatic Medicine</i> . 2001; 63 :679-686.	No validated interview to assess major depression
Esler D, Johnston F, Thomas D, Davis B. The validity of a depression screening tool modified for use with Aboriginal and Torres Strait Islander people. <i>Australian & New Zealand Journal of Public Health</i> . 2008; 32 :317-321.	No validated interview to assess major depression
Fine TH, Contractor AA, Tamburrino M, et al. Validation of the telephone-administered PHQ-9 against the in-person administered SCID-I major depression module. <i>Journal of Affective Disorders</i> . 2013; 150 :1001-1007.	PHQ not administered
Galek A, Erbsloeh-Moeller B, Koellner V, et al. Mental disorders in patients with fibromyalgia syndrome. Screening in centres of different medical specialties. <i>Schmerz</i> . 2013; 27 :296-304.	Major depression not assessed
Gawlik S, Waldeier L, Mueller M, et al. Subclinical depressive symptoms during pregnancy and birth outcome-a pilot study in a healthy German sample. <i>Archives of Womens Mental Health</i> . 2013; 16 :93-100.	Sample selected for known distress, mental health diagnosis, or psychiatric setting PHQ not administered
Gellis ZD. Depression screening in medically ill homecare elderly. <i>Best Practices in Mental Health: An International Journal</i> . 2010; 6 :1-16.	
Gibbons RD, Hooker G, Finkelman MD, et al. The computerized adaptive diagnostic test for major depressive disorder (CAD-MDD): a screening tool for depression. <i>Journal of Clinical Psychiatry</i> . 2013; 74 :669-674.	Sample selected for known distress, mental health diagnosis, or psychiatric setting
Gibbons RD, Weiss DJ, Pilkonis PA, et al. Development of a computerized adaptive test for depression. <i>Archives of General Psychiatry</i> . 2012; 69 :1104-1112.	Sample selected for known distress, mental health diagnosis, or psychiatric setting Major depression not assessed
Gigantesco A, Mirante N, Granchelli C, et al. Psychopathological chronic sequelae of the 2009 earthquake in L'Aquila, Italy. <i>Journal of Affective disorders</i> . 2013; 148 :265-271.	
Gilbody S, Richards D, Barkham M. Diagnosing depression in primary care using self-completed instruments: UK validation of PHQ-9 and CORE-OM. <i>British Journal of General Practice</i> . 2007; 57 :650-652.	Sample selected for known distress, mental health diagnosis, or psychiatric setting Major depression not assessed
Gold KJ, Spangenberg K, Wobil P, Schwenk TL. Depression and risk factors for depression among mothers of sick infants in Kumasi, Ghana. <i>International Journal of Gynaecology & Obstetrics</i> . 2013; 120 :228-231.	
Gothwal VK, Bagga DK, Bharani S, Sumalini R, Reddy SP. The Patient Health Questionnaire-9: Validation among patients with glaucoma. <i>PLoS ONE</i> . 2014; 9 :Art e101295-8.	Major depression not assessed
Grote NK, Katon WJ, Lohr MJ, et al. Culturally relevant treatment services for perinatal depression in socio-economically disadvantaged women: The design of the MOMCare study. <i>Contemporary Clinical Trials</i> . 2014; 39 :34-49.	Sample selected for known distress, mental health diagnosis, or psychiatric setting
Hanwella R, Ekanayake S, de Silva VA. The validity and reliability of the Sinhala translation of the Patient Health Questionnaire (PHQ-9) and PHQ-2 screener. <i>Depression Research and Treatment</i> . 2014; 2014 :768978.	Sample selected for known distress, mental health diagnosis, or psychiatric setting

Hauffa R, Rief W, Brahler E, et al. Lifetime traumatic experiences and posttraumatic stress disorder in the German population: results of a representative population survey. <i>Journal of Nervous & Mental Disease</i> . 2011; 199 :934-939.	Major depression not assessed
Hauser W, Glaesmer H, Schmutzer G, Brahler E. Widespread pain in older Germans is associated with posttraumatic stress disorder and lifetime employment status--results of a cross-sectional survey with a representative population sample. <i>Pain</i> . 2012; 153 :2466-2472.	Major depression not assessed
Hausteiner-Wiehle C, Sokollu F. Magical thinking in somatoform disorders: an exploratory study among patients with suspected allergies. <i>Psychopathology</i> . 2011; 44 :283-288.	Major depression not assessed
Holzapfel N, Muller-Tasch T, Wild B, et al. Depression profile in patients with and without chronic heart failure. <i>Journal of Affective Disorders</i> . 2008; 105 :53-62.	Major depression not assessed
Howell EA, Bodnar-Deren S, Balbierz A, et al. An intervention to reduce postpartum depressive symptoms: A randomized controlled trial. <i>Archives of Women's Mental Health</i> . 2014; 17 :57-63.	Major depression not assessed
Husain N, Creed F, Tomenson B. Depression and social stress in Pakistan. <i>Psychological Medicine</i> . 2000; 30 :395-402.	PHQ not administered
Husain N, Gater R, Tomenson B, Creed F. Comparison of the Personal Health Questionnaire and the Self Reporting Questionnaire in rural Pakistan. <i>JPMA - Journal of the Pakistan Medical Association</i> . 2006; 56 :366-370.	PHQ not administered
Husain N, Waheed W, Tomenson B, Creed F. The validation of personal health questionnaire amongst people of Pakistani family origin living in the United Kingdom. <i>Journal of Affective Disorders</i> . 2007; 97 :261-264.	PHQ not administered
Inoue T, Tanaka T, Nakagawa S. Utility and limitations of PHQ-9 in a clinic specializing in psychiatric care. <i>BMC Psychiatry</i> . 2012; 12 :73.	No validated interview to assess major depression
Jacobs SR, Jacobsen PB, Donovan K, Booth-Jones M. Utility of the Patient Health Questionnaire-9 (Phq-9) in identifying depression among hematopoietic stem cell transplant (HSCT) patients. <i>Annals of Behavioral Medicine</i> . 2007; 33 :S56-S56.	Major depression not assessed
Jeon HJ, Park JH, Shim EJ. Permissive attitude toward suicide and future intent in individuals with and without depression: results from a nationwide survey in Korea. <i>Journal of Nervous & Mental Disease</i> . 2013; 201 :286-291.	Major depression not assessed
Kamphuis MH, Stegenga BT, Zuithoff NP, et al. Does recognition of depression in primary care affect outcome? The PREDICT-NL study. <i>Family Practice</i> . 2012; 29 :16-23.	Major depression not assessed
Karekla M, Pilipenko N, Feldman J. Greek language validation of the Patient Health Questionnaire (PHQ). <i>Annals of Behavioral Medicine</i> . 2011; 41 :S20-S20.	Major depression not assessed
Kissane DW, Wein S, Love A, et al. The Demoralization Scale: a report of its development and preliminary validation. <i>Journal of Palliative Care</i> . 2004; 20 :269-276.	Major depression not assessed
Krause S, Rydall A, Hales S, Rodin G, Lo C. Initial validation of the Death and Dying Distress Scale for the assessment of death anxiety in patients with advanced cancer. <i>Journal of Pain and Symptom Management</i> . 2015; 49 :127-135.	Sample selected for known distress, mental health diagnosis, or psychiatric setting
Kroenke K, Spitzer RL, Williams JB. The Patient Health Questionnaire-2: validity of a two-item depression screener. <i>Medical Care</i> . 2003; 41 :1284-1292.	No validated interview to assess major depression
Kroenke K, Spitzer RL, Williams JB. The PHQ-9: validity of a brief depression severity measure. <i>Journal of General Internal Medicine</i> . 2001; 16 :606-613.	No validated interview to assess major depression

<p>Lewis BA, Gjerdingen DK, Avery MD, et al. Examination of a telephone-based exercise intervention for the prevention of postpartum depression: design, methodology, and baseline data from The Healthy Mom study. <i>Contemporary Clinical Trials</i>. 2012;33:1150-1158.</p> <p>Lewis BA, Gjerdingen DK, Avery MD, et al. A randomized trial examining a physical activity intervention for the prevention of postpartum depression: The healthy mom trial. <i>Mental Health and Physical Activity</i>. 2014;7:42-49.</p> <p>Li C, Friedman B, Conwell Y, Fiscella K. Validity of the Patient Health Questionnaire 2 (PHQ-2) in identifying major depression in older people. <i>Journal of the American Geriatrics Society</i>. 2007;55:596-602.</p> <p>Lino VT, Portela MC, Camacho LA, et al. Screening for depression in low-income elderly patients at the primary care level: use of the Patient Health Questionnaire-2. <i>PLoS One</i>. 2014;9:e113778-e113778.</p> <p>Liu LT, Chen SL, Jin T, et al. Natural outcome and risk-prediction model of late-life depression. <i>Zhejiang da Xue Xue Bao Yi Xue Ban/Journal of Zhejiang University Medical Sciences</i>. 2012;41:653-658.</p> <p>Londono A, Romero P, Casas G. The association between armed conflict, violence and mental health: a cross sectional study comparing two populations in Cundinamarca department, Colombia. <i>Conflict & Health</i>. 2012;6:12.</p> <p>Lossnitzer N, Muller-Tasch T, Lowe B, et al. Exploring potential associations of suicidal ideation and ideas of self-harm in patients with congestive heart failure. <i>Depression & Anxiety</i>. 2009;26:764-768.</p> <p>Lowe B, Grafe K, Kroenke K, et al. Predictors of psychiatric comorbidity in medical outpatients. <i>Psychosomatic Medicine</i>. 2003;65:764-770.</p> <p>Lowe B, Grafe K, Quenter A, et al. The Patient Health Questionnaire D as a self-rating instrument for screening mental disorders in internal medicine and in general medicine - Preliminary validation results with 1000 outpatients. <i>Psychotherapie Psychosomatik Medizinische Psychologie</i>. 2001;51:109-109.</p> <p>Lowe B, Grafe K, Zipfel S, et al. Detecting panic disorder in medical and psychosomatic outpatients: comparative validation of the Hospital Anxiety and Depression Scale, the Patient Health Questionnaire, a screening question, and physicians' diagnosis. <i>Journal of Psychosomatic Research</i>. 2003;55:515-519.</p> <p>Lowe B, Kroenke K, Spitzer RL, et al. Trauma exposure and posttraumatic stress disorder in primary care patients: cross-sectional criterion standard study. <i>Journal of Clinical Psychiatry</i>. 2011;72:304-312.</p> <p>Mahajan S, Avasthi A, Grover S, Chawla YK. Role of baseline depressive symptoms in the development of depressive episode in patients receiving antiviral therapy for hepatitis C infection. <i>Journal of Psychosomatic Research</i>. 2014.</p> <p>Maneeton B, Maneeton N, Mahathep P. Prevalence of depression and its correlations: a cross-sectional study in Thai cancer patients. <i>Asian Pacific Journal of Cancer Prevention: APJCP</i>. 2012;13:2039-2043.</p> <p>Mao HJ, Li HJ, Chiu H, Chan WC, Chen SL. Effectiveness of antenatal emotional self-management training program in prevention of postnatal depression in Chinese women. <i>Perspectives in Psychiatric Care</i>. 2012;48:218-224.</p> <p>Margrove K, Mensah S, Thapar A, Kerr M. Depression screening for patients with epilepsy in a primary care setting using the Patient Health Questionnaire-2 and the Neurological Disorders Depression Inventory for Epilepsy. <i>Epilepsy & Behavior</i>. 2011;21:387-390.</p> <p>Mautner E, Ashida C, Greimel E, et al. Are there differences in the health outcomes of mothers in Europe and East-Asia? A cross-cultural health Survey. <i>Biomed Research International</i>. 2014;856543-856543.</p>	<p>Sample selected for known distress, mental health diagnosis, or psychiatric setting</p> <p>Sample selected for known distress, mental health diagnosis, or psychiatric setting</p> <p>Major depression not assessed</p> <p>Study only administered the PHQ-2</p> <p>> 2 weeks between PHQ and diagnostic interview</p> <p>Major depression not assessed</p> <p>Sample selected for known distress, mental health diagnosis, or psychiatric setting</p> <p>PHQ not administered</p> <p>No original data</p> <p>PHQ not administered</p> <p>Major depression not assessed</p> <p>Sample selected for known distress, mental health diagnosis, or psychiatric setting</p> <p>Major depression not assessed</p> <p>Sample selected for known distress, mental health diagnosis, or psychiatric setting</p> <p>Study only administered the PHQ-2</p> <p>Major depression not assessed</p>
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Mitchell AJ, McGlinchey JB, Young D, Chelminski I, Zimmerman M. Accuracy of specific symptoms in the diagnosis of major depressive disorder in psychiatric out-patients: data from the MIDAS project. <i>Psychological Medicine</i> . 2009; 39 :1107-1116.	PHQ not administered
Mittal D, Fortney JC, Pyne JM, Wetherell JL. Predictors of persistence of comorbid generalized anxiety disorder among veterans with major depressive disorder. <i>Journal of Clinical Psychiatry</i> . 2011; 72 :1445-1451.	Sample selected for known distress, mental health diagnosis, or psychiatric setting PHQ not administered
Morina N, von Lersner U, Prigerson HG. War and bereavement: consequences for mental and physical distress. <i>PLoS ONE</i> . 2011; 6 :e22140.	
Muller KW, Beutel ME, Wolfling K. A contribution to the clinical characterization of Internet addiction in a sample of treatment seekers: validity of assessment, severity of psychopathology and type of co-morbidity. <i>Comprehensive Psychiatry</i> . 2014; 55 :770-777.	Major depression not assessed
Mulligan L, Fear NT, Jones N, et al. Postdeployment Battlemind training for the U.K. armed forces: A cluster randomized controlled trial. <i>Journal of Consulting and Clinical Psychology</i> . 2012; 80 :331-341.	Major depression not assessed
Mussell M, Kroenke K, Spitzer RL, et al. Gastrointestinal symptoms in primary care: prevalence and association with depression and anxiety. <i>Journal of Psychosomatic Research</i> . 2008; 64 :605-612.	Major depression not assessed
Olariu E, Castro-Rodriguez JI, Alvarez P, et al. Validation of clinical symptom irt scores for diagnosis and severity assessment of common mental disorders. <i>Quality of Life Research: An International Journal of Quality of Life Aspects of Treatment, Care & Rehabilitation</i> . 2014.	Sample selected for known distress, mental health diagnosis, or psychiatric setting
Orive M, Padierna JA, Quintana JM, et al. Detecting depression in medically ill patients: Comparative accuracy of four screening questionnaires and physicians' diagnoses in Spanish population. <i>Journal of Psychosomatic Research</i> . 2010; 69 :399-406.	No validated interview to assess major depression
Osorio FL, de Carvalho AC, Crippa JA, Loureiro SR. Screening for smoking in a general hospital: scale validation, indicators of prevalence, and comorbidity. <i>Perspectives in Psychiatric Care</i> . 2013; 49 :5-12.	Major depression not assessed
Park H, Kim J, Hahm B. The Distress Thermometer and the PHQ-2 for ultra-brief screening depression of cancer patients In Korea. <i>Psycho-oncology</i> . 2013; 22 :303-304.	Study only administered the PHQ-2
Pibernik-Okanovic M, Grgurevic M, Ajdukovic D, Novak B, Begic D, Metelko Z. Screening performance of a short versus long version of the Patient Health Questionnaire-depression in outpatients with diabetes. <i>Diabetologia</i> . 2009; 52 :S392-S393.	Sample selected for known distress, mental health diagnosis, or psychiatric setting
Pilipenko N, Karekla M, Feldman J. Validation of Patient Health Questionnaire in Greek-language sample. <i>European Psychiatry</i> . 2011; 26 .	Major depression not assessed
Poutanen O, Koivisto AM, Salokangas RK. Applicability of the DEPS Depression Scale: assessing format and individual items in subgroups of patients. <i>Nordic Journal of Psychiatry</i> . 2010; 64 :384-390.	Major depression not assessed
Prescott MR, Tamburrino M, Calabrese JR, et al. Validation of lay-administered mental health assessments in a large Army National Guard cohort. <i>International Journal of Methods in Psychiatric Research</i> . 2014; 23 :109-119.	> 2 weeks between PHQ and diagnostic interview
Priyanka P, Boyle LL, Tu XM, Conwell Y. Inter-rater reliability and validity of the PHQ-9 and GAD-7 to identify depression and anxiety in older adults receiving aging services care management. <i>American Journal of Geriatric Psychiatry</i> . 2010; 18 :S113-S114.	No original data
Reck C, Stehle E, Reinig K, Mundt C. Maternity blues as a predictor of DSM-IV depression and anxiety disorders in the first three months postpartum. <i>Journal of Affective Disorders</i> . 2009; 113 :77-87.	Sample selected for known distress, mental health diagnosis, or psychiatric setting

Rentsch D, Dumont P, Borgacci S, et al. Prevalence and treatment of depression in a hospital department of internal medicine. <i>General Hospital Psychiatry</i> . 2007; 29 :25-31.	No validated interview to assess major depression
Rief W, Mewes R, Martin A, Glaesmer H, Braehler E. Are psychological features useful in classifying patients with somatic symptoms? <i>Psychosomatic Medicine</i> . 2010; 72 :648-655.	> 2 weeks between PHQ and diagnostic interview
Ringoir L, Pedersen SS, Widdershoven JW, Pop VJ. Prevalence of psychological distress in elderly hypertension patients in primary care. <i>Netherlands Heart Journal</i> . 2014; 22 :71-76.	Major depression not assessed
Rizzo R, Piccinelli M, Mazzi MA, Bellantuono C, Tansella M. The Personal Health Questionnaire: a new screening instrument for detection of ICD-10 depressive disorders in primary care. <i>Psychological Medicine</i> . 2000; 30 :831-840.	PHQ not administered
Ryan DA, Gallagher P, Wright S, Cassidy EM. Sensitivity and specificity of the Distress Thermometer and a two-item depression screen (Patient Health Questionnaire-2) with a 'help' question for psychological distress and psychiatric morbidity in patients with advanced cancer. <i>Psycho-oncology</i> . 2012; 21 :1275-1284.	PHQ not administered
Saliba D, DiFilippo S, Edelen MO, et al. Testing the PHQ-9 interview and observational versions (PHQ-9 OV) for MDS 3.0. <i>Journal of the American Medical Directors Association</i> . 2012; 13 :618-625.	PHQ not administered
Salve H, Goswami K, Nongkynrih B, Sagar R, Sreenivas V. Prevalence of psychiatric morbidity at Mobile Health Clinic in an urban community in North India. <i>General Hospital Psychiatry</i> . 2012; 34 :121-126.	PHQ not administered
Sayers SL, Farrow VA, Ross J, Oslin DW. Family problems among recently returned military veterans referred for a mental health evaluation. <i>Journal of Clinical Psychiatry</i> . 2009; 70 :163-170.	Sample selected for known distress, mental health diagnosis, or psychiatric setting
Schmitz-Hubsch T, Coudert M, Tezenas du Montcel S, et al. Depression comorbidity in spinocerebellar ataxia. <i>Movement Disorders</i> . 2011; 26 :870-876.	Major depression not assessed
Shen Q, Bergquist-Beringer S. Relationship between major depression and insulin resistance: Does it vary by gender or race/ethnicity among young adults aged 20-39 years? <i>Journal of Diabetes</i> . 2013; 5 :471-481.	Major depression not assessed
Shoukri MM, Donner A. Bivariate modeling of interobserver agreement coefficients. <i>Statistics in medicine</i> . 2009; 28 :430-440.	No original data
Smith AB, Rush R, Wright P, et al. Validation of an item bank for detecting and assessing psychological distress in cancer patients. <i>Psycho-oncology</i> . 2009; 18 :195-199.	Sample selected for known distress, mental health diagnosis, or psychiatric setting
Smith GC, McAsey P, Trauer T. Screening and monitoring in renal dialysis and transplant patients using the SF36 and Patient Health Questionnaire. <i>Australian and New Zealand Journal of Psychiatry</i> . 2000; 34 :A62-A62.	Major depression not assessed
Smith GC, McAsey P, Trauer T. Screening and monitoring in renal analysis and transplant patients using the SF36 and Patient Health Questionnaire. <i>Psychosomatics</i> . 2001; 42 :182-183.	Major depression not assessed
Smith GC, Trauer T, Kerr PG, Chadban SJ. Prospective psychosocial monitoring of living kidney donors using the Short Form-36 Health Survey: Results at 12 months. <i>Transplantation</i> . 2004; 78 :1384-1389.	No validated interview to assess major depression
Smith MV, Gotman N, Lin H, Yonkers KA. Do the PHQ-8 and the PHQ-2 accurately screen for depressive disorders in a sample of pregnant women? <i>General Hospital Psychiatry</i> . 2010; 32 :544-548.	Study only administered the PHQ-8
Sockalingam S, Blank D, Al Jarad A, et al. A comparison of depression screening instruments in hepatitis C and the impact of depression on somatic symptoms. <i>Psychosomatics</i> . 2011; 52 :433-440.	Sample selected for known distress, mental health diagnosis, or psychiatric setting
Stegenga BT, Kamphuis MH, King M, Nazareth I, Geerlings MI. The natural course and outcome of major	Major depression not assessed

depressive disorder in primary care: the PREDICT-NL study. <i>Social Psychiatry & Psychiatric Epidemiology</i> . 2012; 47 :87-95.	
Subramanian U, Perkins SM, Kim J, Ding Y, Pressler SJ. Depressive symptoms in heart failure: Validity and reliability of the PHQ-8. <i>Journal of General Internal Medicine</i> . 2008; 23 :276-276.	Major depression not assessed
Suzuki T, Shiga T, Nishimura K, Ishigooka J, Hagiwara N. PHQ-9 screening for depression in hospitalized patients with heart failure. <i>European Journal of Heart Failure</i> . 2013; S242 -S242.	Major depression not assessed
Tabb KM, Gavin AR, Guo Y, et al. Views and experiences of suicidal ideation during pregnancy and the postpartum: findings from interviews with maternal care clinic patients. <i>Women & Health</i> . 2013; 53 :519-535.	Major depression not assessed
Tavakkoli M, Ferrando SJ, Rabkin J, Marks K, Talal AH. Depression and fatigue in chronic hepatitis C patients with and without HIV co-infection. <i>Psychosomatics</i> . 2013; 54 :466-471.	No validated interview to assess major depression
Thapar A, Hammerton G, Collishaw S, et al. Detecting recurrent major depressive disorder within primary care rapidly and reliably using short questionnaire measures. <i>British Journal of General Practice</i> . 2014; 64 :e31-7.	Sample selected for known distress, mental health diagnosis, or psychiatric setting
Thekkumpurath P, Walker J, Butcher I, et al. Screening for major depression in cancer outpatients: the diagnostic accuracy of the 9-item Patient Health Questionnaire. <i>Cancer</i> . 2011; 117 :218-227.	Sample selected for known distress, mental health diagnosis, or psychiatric setting
Tilli V, Suominen K, Karlsson H. The Autonomic Nervous System Questionnaire and the Brief Patient Health Questionnaire as screening instruments for panic disorder in Finnish primary care. <i>European Psychiatry: the Journal of the Association of European Psychiatrists</i> . 2013; 28 :442-447.	PHQ not administered
Tschudi-Madsen H, Kjeldsberg M, Natvig B, et al. Multiple symptoms and medically unexplained symptoms-Closely related concepts in general practitioners' evaluations. A linked doctor-patient study. <i>Journal of Psychosomatic Research</i> . 2013; 74 :186-190.	PHQ not administered
Uebelacker LA, German NM, Gaudiano BA, Miller IW. Patient Health Questionnaire depression scale as a suicide screening instrument in depressed primary care patients: a cross-sectional study. <i>The Primary Care Companion to CNS Disorders</i> . 2011; 13 .	Sample selected for known distress, mental health diagnosis, or psychiatric setting
Ulhaq S, Symeon C, Agius M. Use of the PHQ-9 as a screening tool for post-stroke depression. <i>European Psychiatry</i> . 2010; 25 .	Major depression not assessed
Vera M, Reyes-Rabanillo ML, Huertas S, et al. Suicide ideation, plans, and attempts among general practice patients with chronic health conditions in Puerto Rico. <i>International Journal of General Medicine</i> . 2011; 4 :197-205.	Sample selected for known distress, mental health diagnosis, or psychiatric setting
Watson LC, Zimmerman S, Cohen LW, Dominik R. Practical depression screening in residential care/assisted living: five methods compared with gold standard diagnoses. <i>American Journal of Geriatric Psychiatry</i> . 2009; 17 :556-564.	PHQ not administered
Whitlow NR, Ryan GL, Stuart SP. The Patient Health Questionnaire (PHQ) is a poor psychological screening tool in in vitro fertilization (IVF) Patients. <i>Fertility and Sterility</i> . 2011; 96 :S11-S11.	Major depression not assessed
Williams LS, Brizendine EJ, Plue L, et al. Performance of the PHQ-9 as a screening tool for depression after stroke. <i>Stroke</i> . 2005; 36 :635-638.	Sample selected for known distress, mental health diagnosis, or psychiatric setting
Yeung A, Fung F, Yu SC, et al. Validation of the Patient Health Questionnaire-9 for depression screening among Chinese Americans. <i>Comprehensive Psychiatry</i> . 2008; 49 :211-217.	> 2 weeks between PHQ and diagnostic interview

Yeung A, Yu SC, Fung F, Vorono S, Fava M. Recognizing and engaging depressed Chinese Americans in treatment in a primary care setting. *International Journal of Geriatric Psychiatry*. 2006;**21**:819-823.

Zuithoff NP, Vergouwe Y, King M, et al. The Patient Health Questionnaire-9 for detection of major depressive disorder in primary care: consequences of current thresholds in a cross-sectional study. *BMC Family Practice*. 2010;**11**:98.

Sample selected for known distress,
mental health diagnosis, or
psychiatric setting
Major depression not assessed

Supplementary table B1. Characteristics of included primary studies

First Author, Year	Country	Recruited Population	Diagnostic Interview	Classification System	Total N	Major Depression N (%)
Semi-structured Interviews						
Amoozegar, 2017^{1a}	Canada	Migraine patients	SCID	DSM-IV	203	49 (24)
Ayalon, 2010²	Israel	Elderly primary care patients	SCID	DSM-IV	151	6 (4)
Beraldi, 2014³	Germany	Cancer inpatients	SCID	DSM-IV	116	7 (6)
Bombardier, 2012⁴	USA	Inpatients with spinal cord injuries	SCID	DSM-IV	160	14 (9)
Chagas, 2013⁵	Brazil	Outpatients with Parkinson's Disease	SCID	DSM-IV	84	19 (23)
Eack, 2006⁶	USA	Women seeking psychiatric services for their children at two mental health centers	SCID	DSM-IV	48	12 (25)
Fann, 2005⁷	USA	Inpatients with traumatic brain injury	SCID	DSM-IV	134	45 (34)
Fiest, 2014⁸	Canada	Epilepsy outpatients	SCID	DSM-IV	168	23 (14)
Fischer, 2014⁹	Germany	Heart failure patients	SCID	DSM-IV	192	10 (5)
Gjerdingen, 2009¹⁰	USA	Mothers registering their newborns for well-child visits at medical or pediatric clinics	SCID	DSM-IV	417	19 (5)
Gräfe, 2004¹¹	Germany	Medical and psychosomatic outpatients	SCID	DSM-IV	473	66 (14)
Khamseh, 2011¹²	Iran	Type 2 diabetes patients	SCID	DSM-IV	183	78 (43)
Kwan, 2012¹³	Singapore	Post-stroke inpatients undergoing rehabilitation	SCID	DSM-IV-TR	113	3 (3)
Lambert, 2015^{14a}	Australia	Cancer patients	SCID	DSM-IV	147	21 (14)
Liu, 2011¹⁵	Taiwan	Primary care patients	SCAN	DSM-IV	1532	50 (3)
McGuire, 2013¹⁶	USA	Acute coronary syndrome inpatients	DISH	DSM-IV	100	9 (9)
Osório, 2009¹⁷	Brazil	Women in primary care	SCID	DSM-IV	177	60 (34)
Osório, 2012¹⁸	Brazil	Inpatients from various clinical wards	SCID	DSM-IV	86	28 (33)
Picardi, 2005¹⁹	Italy	Inpatients with skin diseases	SCID	DSM-IV	138	12 (9)
Richardson, 2010²⁰	USA	Older adults undergoing in-home aging services care management	SCID	DSM-IV	377	95 (25)

		assessment				
Rooney, 2013 ²¹	UK	Adults with cerebral glioma	SCID	DSM-IV	126	14 (11)
Sidebottom, 2012 ²²	USA	Pregnant women	SCID	DSM-IV	242	12 (5)
Simming, 2012 ²³	USA	Older adults living in public housing	SCID	DSM-IV	190	10 (5)
Turner, Unpublished	Australia	Cardiac rehabilitation patients	SCID	DSM-IV	51	4 (8)
Turner, 2012 ²⁴	Australia	Stroke patients	SCID	DSM-IV	72	13 (18)
Twist, 2013 ²⁵	UK	Type 2 diabetes outpatients	SCAN	DSM-IV	360	80 (22)
Vöhringer, 2013 ²⁶	Chile	Primary care patients	SCID	DSM-IV	190	59 (31)
Williams, 2012 ²⁷	USA	Parkinson's Disease patients	SCID	DSM-IV	235	61 (26)
Wittkamp, 2009 ²⁸	The Netherlands	Primary care patients at risk for depression	SCID	DSM-IV	260	45 (17)
Fully Structured Interviews						
Arroll, 2010 ²⁹	New Zealand	Primary care patients	CIDI	DSM-IV	2523	156 (6)
Azah, 2005 ³⁰	Malaysia	Adults attending family medicine clinics	CIDI	ICD-10	180	30 (17)
de Man-van Ginkel, 2012 ³¹	The Netherlands	Stroke patients	CIDI	DSM-IV	164	17 (10)
Delgadillo, 2011 ³²	UK	Outpatients in drug addiction treatment	CIS-R	ICD-10	103	51 (50)
Gelaye, 2014 ³³	Ethiopia	Outpatients at a general hospital	CIDI	DSM-IV	923	162 (18)
Hahn, 2006 ³⁴	Germany	Patients with chronic illnesses from rehabilitation centers	CIDI	DSM-IV	208	17 (8)
Henkel, 2004 ³⁵	Germany	Primary care patients	CIDI	ICD-10	430	43 (10)
Hobfoll, 2011 ³⁶	Israel	Jewish and Palestinian residents of Jerusalem exposed to war	CIDI	DSM-IV	141	41 (29)
Kiely, 2014 ³⁷	Australia	Community sample of adults	CIDI	ICD-10	822	33 (4)
Mohd Sidik, 2012 ³⁸	Malaysia	Primary care patients	CIDI	DSM-IV	146	31 (21)
Patel, 2008 ³⁹	India	Primary care patients	CIS-R	ICD-10	299	13 (4)
Pence, 2012 ⁴⁰	Cameroon	HIV-infected patients	CIDI	DSM-IV	392	11 (3)
Razykov, 2013 ⁴¹	Canada	Patients with systemic sclerosis	CIDI	DSM-IV	343	13 (4)
Thombs, 2008 ⁴²	USA	Outpatients with coronary artery disease	C-DIS	DSM-IV	1006	221 (22)
Mini International Neuropsychiatric Interviews (MINI)						
Akena, 2013 ⁴³	Uganda	HIV/AIDS patients	MINI	DSM-IV	91	11 (12)
Cholera, 2014 ⁴⁴	South Africa	Patients undergoing routine HIV counseling and testing at a primary health care clinic	MINI	DSM-IV	395	47 (12)

Hides, 2007 ⁴⁵	Australia	Injection drug users accessing a needle and syringe program	MINI	DSM-IV	103	47 (46)
Hyphantis, 2011 ⁴⁶	Greece	Patients with various rheumatologic disorders	MINI	DSM-IV	213	69 (32)
Hyphantis, 2014 ⁴⁷	Greece	Patients with chronic illnesses presenting at the emergency department	MINI	DSM-IV	349	95 (27)
Inagaki, 2013 ⁴⁸	Japan	Internal medicine outpatients	MINI	DSM-III-R	104	21 (20)
Lamers, 2008 ⁴⁹	The Netherlands	Elderly primary care patients with diabetes mellitus or chronic obstructive pulmonary disease	MINI	DSM-IV	104	59 (57)
Lotrakul, 2008 ⁵⁰	Thailand	Outpatients	MINI	DSM-IV	278	19 (7)
Muramatsu, 2007 ⁵¹	Japan	Primary care patients	MINI	DSM-IV	114	31 (27)
Persoons, 2001 ⁵²	Belgium	Inpatients and patients at gastroenterological and hepatology wards	MINI	DSM-IV	173	28 (16)
Santos, 2013 ⁵³	Brazil	General population	MINI	DSM-IV	196	25 (13)
Stafford, 2007 ⁵⁴	Australia	Inpatients with coronary artery disease who had undergone surgery	MINI	DSM-IV	193	35 (18)
Sung, 2013 ⁵⁵	Singapore	Primary care patients	MINI	DSM-IV	399	12 (3)
van Steenberg-Weijnenburg, 2010 ⁵⁶	The Netherlands	Diabetes patients	MINI	DSM-IV	172	33 (19)
Zhang, 2013 ⁵⁷	China	Type 2 diabetes patients	MINI	DSM-IV	68	17 (25)

Abbreviations: C-DIS: Computerized Diagnostic Interview Schedule; CIDI: Composite International Diagnostic Interview; CIS-R: Clinical Interview Schedule Revised; DISH: Depression Interview and Structured Hamilton; DSM: Diagnostic and Statistical Manual of Mental Disorders; ICD: International Classification of Diseases; MINI: Mini Neurospsychiatric Diagnostic Interview; PHQ-9: Patient Health Questionnaire-9; SCAN: Schedules for Clinical Assessment in Neuropsychiatry; SCID: Structured Clinical Interview for DSM Disorders; UK: United Kingdom; USA: United States of America.

^aWas unpublished at the time of electronic database search

Supplementary table B2. Characteristics of eligible primary studies not included in the present study

First Author, Year	Country	Recruited Population	Diagnostic Interview	Classification System	Total N	Major Depression N (%)	Could study have been added as a published dataset? (Reason)
Semi-structured Interviews							
Becker, 2002 ⁵⁸	Saudi Arabia	Primary care patients	SCID	DSM-III-R	173	NR	No (Primary study did not report accuracy results for any PHQ-9 cutoff)
Chen, 2013 ⁵⁹	China	Primary care populations	SCID	DSM-IV	280	NR ^a	No (Primary study did not report the number of participants with major depression)
Chen, 2012 ⁶⁰	China	Adults over 60 in primary care	SCID	DSM-IV	262	97 (37)	No (Primary study did not report accuracy results for any PHQ-9 cutoff)
Lai, 2010 ⁶¹	Hong Kong	Men with postpartum wives	SCID	DSM-IV	551	8 (1)	No (Published data ineligible: some participants had time intervals between PHQ-9 administration and diagnostic interview that were greater than 2 weeks)
Navinés, 2012 ⁶²	Spain	Chronic hepatitis C patients	SCID	DSM-IV	104	21 (20)	Yes (Published accuracy results for PHQ-9 cutoff 9)
Phelan, 2010 ⁶³	USA	Elderly primary care patients	SCID	DSM-IV	69	8 (12)	Yes (Published accuracy results for PHQ-9 cutoffs 8-12)
Thompson, 2011 ⁶⁴	USA	Parkinson's patients	SCID	DSM-IV	214	30 (14)	No (Primary study did not report accuracy results for any PHQ-9 cutoff)
Watnick, 2005 ⁶⁵	USA	Long term dialysis patients	SCID	DSM-IV	62	12 (19)	No (Published data ineligible: reported accuracy estimates were not for major depression, they were for a broader definition of depression)
Fully Structured Interviews							
				NR	131	NR ^a	No (Primary study did not report sample size or number of participants with major depression)
Al-Ghafri, 2014 ⁶⁶	Oman	Medical trainees	CIDI				
Haddad, 2013 ⁶⁷	UK	Coronary heart disease patients	CIS-R	ICD-10	730	32 (4)	Yes (Published accuracy results for PHQ-9 cutoffs 0-24)

Mini International Neuropsychiatric Interviews (MINI)							
Persoons, 2003 ⁶⁸	Belgium	Otorhinolaryngology outpatients	MINI	DSM-IV	97	16 (16)	No (Primary study did not report accuracy results for any PHQ-9 cutoff)
Rathore, 2014 ⁶⁹	USA	Adults with epilepsy	MINI	DSM-IV	172	33 (19)	Yes (Published accuracy results for PHQ-9 cutoffs 10-15)
Scott, 2011 ⁷⁰	USA	Chronic hepatitis C patients	MINI	DSM-IV and ICD-10	30	NR ^a	No (Primary study did not report the number of participants with major depression)
Wang, 2014 ⁷¹	China	General population	MINI	DSM-IV	1045	28 (3)	No (Published data ineligible: some participants were under the age of 18)

Abbreviations: CIDI: Composite International Diagnostic Interview; CIS-R: Clinical Interview Schedule Revised; DSM: Diagnostic and Statistical Manual of Mental Disorders; ICD: International Classification of Diseases; MINI: Mini International Neuropsychiatric Interview; NR: Not Reported; PHQ-9: Patient Health Questionnaire-9; SCID: Structured Clinical Interview for DSM Disorders; UK: United Kingdom; USA: United States of America.

^aReported numbers implausible

Supplementary table C. Estimates of heterogeneity at PHQ-9 cutoff score of 10

Participant Subgroup	Semi-structured Diagnostic Interviews				Fully Structured Diagnostic Interviews				Mini International Neuropsychiatric Interviews			
	R ^a		τ ²		R ^a		τ ²		R ^a		τ ²	
	Sensitivity	Specificity	Sensitivity	Specificity	Sensitivity	Specificity	Sensitivity	Specificity	Sensitivity	Specificity	Sensitivity	Specificity
All participants	2.33	2.99	0.78	0.33	3.64	6.42	0.76	0.68	2.20	2.68	0.50	0.31
Participants not currently diagnosed or receiving treatment for a mental health problem	2.58	2.95	1.49	0.50	3.23	6.84	0.71	0.91	1.60	1.53	0.20	0.13
Age <60	2.11	2.78	0.93	0.34	3.31	5.74	0.84	0.68	1.68	2.37	0.40	0.27
Age ≥60	2.78	1.90	0.98	0.24	1.56	3.60	0.04	0.59	1.93	1.84	0.35	0.33
Women	2.48	2.83	1.35	0.43	2.29	6.06	0.41	0.99	1.76	2.60	0.40	0.45
Men	1.70	1.73	0.45	0.16	3.13	3.78	0.97	0.50	1.62	2.45	0.53	0.62
Very high country human development index	1.96	2.64	0.48	0.23	3.59	6.94	0.67	0.71	2.69	3.05	0.71	0.50
High country human development index	7.07	4.44	7.72	1.38	1.97	1.72	0.38	0.16	1.00	1.00	0.00	0.00
Low-medium country human development index	--	--	--	--	2.10	5.23	0.07	0.40	1.00	1.00	0.00	0.00
Non-medical care	1.00	1.00	0.00	0.00	1.47	2.67	0.12	0.14	1.41	2.47	0.20	0.27
Primary care	2.07	5.34	0.62	0.92	1.87	3.74	0.18	0.18	2.38	1.86	0.61	0.09
Inpatient specialty care^b	1.24	1.21	0.11	0.03	1.33	2.75	0.30	0.17	--	--	--	--
Outpatient specialty care^b	1.86	2.26	0.30	0.19	5.67	8.54	1.29	1.11	2.24	2.39	0.49	0.33

^aR is the ratio of the estimated standard deviation of the pooled sensitivity (or specificity) from the random-effects model to the estimated standard deviation of the pooled sensitivity (or specificity) from the corresponding fixed-effects model

^bAmong studies that used the MINI as the reference standard, only 1 study included participants from an inpatient specialty care setting. These participants were combined with participants from outpatient specialty care settings for all subgroup analyses

Supplementary table D1. Coefficients and p-values for one-stage meta-regressions assessing interactions between reference standard category and logit(sensitivity) and logit(specificity)

Cutoff	5		6		7		8		9		10		11		12		13		14		15	
	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value
d0^a	-0.215	0.083	-0.553	<0.001	-0.850	<0.001	-1.123	<0.001	-1.437	<0.001	-1.793	<0.001	-2.083	<0.001	-2.361	<0.001	-2.665	<0.001	-2.997	<0.001	-3.236	<0.001
d0fully	0.058	0.786	0.072	0.737	0.045	0.830	0.010	0.961	0.061	0.769	0.133	0.564	0.153	0.520	0.199	0.413	0.106	0.708	0.102	0.738	0.038	0.905
d0mini	-0.096	0.651	-0.098	0.642	-0.122	0.560	-0.179	0.387	-0.206	0.322	-0.127	0.582	-0.111	0.641	-0.112	0.646	-0.146	0.608	-0.145	0.638	-0.304	0.345
d1^b	3.910	<0.001	3.741	<0.001	3.493	<0.001	2.920	<0.001	2.374	<0.001	2.010	<0.001	1.666	<0.001	1.307	<0.001	0.883	<0.001	0.624	<0.001	0.263	0.056
d1fully	-1.198	0.014	-1.327	0.011	-1.586	0.001	-1.345	0.001	-1.296	<0.001	-1.145	<0.001	-1.171	<0.001	-1.026	<0.001	-0.902	<0.001	-0.878	<0.001	-0.857	<0.001
d1mini	-0.453	0.364	-1.116	0.028	-1.275	0.009	-1.083	0.008	-0.898	0.007	-0.814	0.008	-0.846	0.002	-0.711	0.005	-0.597	0.009	-0.678	0.003	-0.615	0.006

^ad0 corresponds to the model coefficient for logit(specificity)

^bd1 corresponds to the model coefficient for logit(sensitivity)

Supplementary table D2. Coefficients and p-values for one-stage meta-regressions assessing interactions between subgrouping variables and logit(sensitivity) and logit(specificity), among participants administered a semi-structured diagnostic interview

Cutoff	5		6		7		8		9		10		11		12		13		14		15	
	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value
d0^a	0.552	0.007	0.195	0.333	0.002	0.992	-0.399	0.050	-0.792	<0.001	-1.268	<0.001	-1.525	<0.001	-1.891	<0.001	-2.333	<0.001	-2.790	<0.001	-3.131	<0.001
d0sex	-0.342	<0.001	-0.283	<0.001	-0.285	<0.001	-0.298	<0.001	-0.319	<0.001	-0.308	<0.001	-0.358	<0.001	-0.378	<0.001	-0.337	0.003	-0.342	0.007	-0.380	0.007
d0age	-0.015	<0.001	-0.015	<0.001	-0.016	<0.001	-0.013	<0.001	-0.010	<0.001	-0.006	0.030	-0.006	0.033	-0.005	0.135	-0.002	0.423	<0.001	0.939	0.001	0.732
d0hdi.h	0.477	0.183	0.487	0.158	0.447	0.190	0.469	0.152	0.371	<0.001	0.172	0.644	0.192	0.615	0.126	0.747	0.220	0.624	0.347	0.482	0.491	0.340
d0nonmed	0.734	0.131	0.614	0.188	0.517	0.262	0.369	0.404	0.109	0.781	-0.250	0.618	-0.381	0.461	-0.408	0.435	-0.461	0.443	-0.617	0.356	-0.495	0.482
d0inpt	0.459	0.102	0.396	0.152	0.242	0.373	0.250	0.343	0.193	<0.001	0.218	0.460	0.276	0.366	0.266	0.396	0.393	0.269	0.414	0.291	0.486	0.245
d0outpt	-0.093	0.583	-0.106	0.526	-0.170	0.316	-0.197	0.256	-0.158	<0.001	-0.332	0.095	-0.305	0.149	-0.232	0.292	-0.328	0.181	-0.335	0.215	-0.281	0.341
d1^b	5.932	<0.001	6.100	<0.001	6.140	<0.001	4.861	<0.001	4.292	<0.001	3.752	<0.001	3.195	<0.001	2.417	<0.001	1.845	<0.001	1.671	<0.001	1.257	<0.001
d1sex	0.093	0.821	-0.086	0.813	-0.042	0.897	0.120	0.667	0.327	<0.001	-0.142	0.485	-0.226	0.226	-0.210	0.218	-0.199	0.209	-0.172	0.264	-0.180	0.228
d1age	-0.028	0.042	-0.029	0.023	-0.032	0.006	-0.023	0.044	-0.030	<0.001	-0.025	<0.001	-0.023	0.001	-0.016	0.008	-0.011	0.038	-0.013	0.015	-0.011	0.026
d1hdi.h	1.025	0.109	0.660	0.235	0.649	0.237	0.858	0.132	0.881	<0.001	1.128	0.001	1.089	0.001	0.860	0.004	0.497	0.056	0.503	0.066	0.581	0.027
d1nonmed	-0.647	0.996	-0.993	0.679	-1.489	0.538	-1.247	0.997	-0.515	<0.001	-0.396	0.726	-0.356	0.311	-0.382	0.302	-0.481	0.883	-0.322	0.857	-0.692	0.566
d1inpt	16.185	0.996	4.883	0.679	3.490	0.538	-0.003	0.997	0.273	<0.001	0.180	0.726	0.477	0.311	0.405	0.302	0.047	0.883	-0.057	0.857	-0.170	0.566
d1outpt	-1.980	0.001	-2.367	<0.001	-2.680	<0.001	-2.112	<0.001	-1.696	<0.001	-1.598	<0.001	-1.334	<0.001	-1.137	<0.001	-1.050	<0.001	-1.015	<0.001	-0.897	<0.001

^ad0 corresponds to the model coefficient for logit(specificity)

^bd1 corresponds to the model coefficient for logit(sensitivity)

Supplementary table D3. Coefficients and p-values for one-stage meta-regressions assessing interactions between subgrouping variables and logit(sensitivity) and logit(specificity), among participants administered a fully structured diagnostic interview

Cutoff	5		6		7		8		9		10		11		12		13		14		15	
	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value
d0^a	1.001	0.006	0.560	0.119	0.277	0.423	0.024	0.944	-0.255	0.481	-0.561	0.135	-0.867	0.017	-1.007	0.005	-1.156	0.005	-1.634	<0.001	-1.801	<0.001
d0sex	-0.256	<0.001	-0.270	<0.001	-0.251	<0.001	-0.258	<0.001	-0.284	<0.001	-0.220	0.006	-0.298	0.001	-0.336	<0.001	-0.315	0.003	-0.263	0.029	-0.476	0.001
d0age	-0.019	<0.001	-0.019	<0.001	-0.019	<0.001	-0.020	<0.001	-0.019	<0.001	-0.020	<0.001	-0.019	<0.001	-0.020	<0.001	-0.022	<0.001	-0.019	<0.001	-0.017	<0.001
d0hdi.h	-0.629	0.236	-0.743	0.156	-0.806	0.109	-0.993	0.046	-1.218	0.020	-1.214	0.026	-1.240	0.018	-1.370	0.007	-2.208	<0.001	-2.548	<0.001	-2.743	<0.001
d0hdi.lm	-0.923	0.027	-0.935	0.023	-0.843	0.033	-0.893	0.022	-0.888	0.029	-0.939	0.027	-0.886	0.029	-0.921	0.019	-0.853	0.064	-0.820	0.077	-0.925	0.039
d0nonmed	-0.719	0.180	-0.524	0.322	-0.501	0.324	-0.514	0.307	-0.482	0.360	-0.461	0.399	-0.477	0.363	-0.430	0.397	-0.453	0.447	-0.466	0.436	-0.557	0.334
d0inpt	1.061	0.049	1.252	0.018	1.165	0.022	1.121	0.025	1.129	0.031	1.098	0.043	1.149	0.026	1.128	0.024	1.011	0.084	1.070	0.067	0.850	0.129
d0outpt	0.295	0.477	0.425	0.299	0.335	0.393	0.442	0.253	0.445	0.270	0.545	0.193	0.502	0.208	0.494	0.201	0.361	0.426	0.344	0.449	0.164	0.705
d1^b	4.323	<0.001	3.752	<0.001	3.125	<0.001	2.896	<0.001	2.505	<0.001	2.388	<0.001	2.015	<0.001	1.671	<0.001	1.326	0.002	1.017	0.026	0.607	0.151
d1sex	-0.068	0.785	0.089	0.684	-0.129	0.501	-0.078	0.664	-0.037	0.828	0.097	0.557	0.025	0.878	0.005	0.974	0.042	0.794	-0.041	0.804	-0.083	0.624
d1age	-0.020	0.032	-0.018	0.025	-0.019	0.007	-0.021	0.002	-0.019	0.002	-0.021	0.001	-0.020	0.001	-0.019	0.001	-0.018	0.002	-0.017	0.004	-0.015	0.014
d1hdi.h	-0.931	0.397	-0.707	0.511	-0.072	0.937	0.009	0.993	-0.852	0.152	-1.065	0.049	-1.014	0.033	-0.845	0.066	-0.847	0.110	-0.813	0.149	-0.856	0.086
d1hdi.lm	-1.401	0.117	-1.687	0.052	-2.032	0.006	-1.685	0.023	-1.350	0.008	-1.313	0.005	-1.118	0.007	-1.250	0.002	-1.119	0.016	-1.119	0.022	-1.141	0.011
d1nonmed	-1.122	0.302	-0.988	0.349	-0.819	0.347	-0.810	0.370	-1.048	0.080	-1.088	0.046	-1.111	0.022	-1.083	0.022	-1.090	0.045	-0.976	0.090	-0.987	0.057
d1inpt	-1.122	0.686	-0.988	0.473	-0.819	0.373	-0.810	0.440	-1.048	0.367	-1.088	0.255	-1.111	0.396	-1.083	0.181	-1.090	0.478	-0.976	0.347	-0.987	0.290
d1outpt	-0.508	0.573	-0.302	0.724	0.233	0.745	-0.007	0.993	-0.295	0.544	-0.445	0.313	-0.482	0.215	-0.320	0.395	-0.375	0.389	-0.308	0.505	-0.295	0.480

^ad0 corresponds to the model coefficient for logit(specificity)

^bd1 corresponds to the model coefficient for logit(sensitivity)

Supplementary table D4. Coefficients and p-values for one-stage meta-regressions assessing interactions between subgrouping variables and logit(sensitivity) and logit(specificity), among participants administered the MINI

Cutoff	5		6		7		8		9		10		11		12		13		14		15	
	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value
d0^a	0.381	0.138	0.112	0.671	0.032	0.907	-0.099	0.746	-0.578	0.071	-0.804	0.039	-1.093	0.008	-1.222	0.006	-1.366	0.008	-1.787	0.002	-1.948	0.002
d0sex	-0.610	<0.001	-0.615	<0.001	-0.609	<0.001	-0.716	<0.001	-0.586	<0.001	-0.619	<0.001	-0.613	<0.001	-0.531	0.001	-0.523	0.003	-0.406	0.038	-0.554	0.017
d0age	-0.010	0.001	-0.010	0.001	-0.013	<0.001	-0.016	<0.001	-0.013	0.001	-0.015	0.001	-0.013	0.011	-0.017	0.002	-0.020	0.002	-0.021	0.004	-0.024	0.005
d0hdi.h	0.270	0.377	0.262	0.402	0.309	0.336	0.324	0.369	0.097	0.796	0.134	0.773	-0.066	0.892	0.119	0.818	-0.074	0.904	0.054	0.934	-0.159	0.831
d0hdi.lm	0.414	0.219	0.308	0.371	0.149	0.673	0.056	0.888	-0.031	0.940	-0.080	0.878	0.005	0.993	-0.036	0.950	-0.253	0.716	-0.387	0.610	-0.362	0.664
d0nonmed	0.792	0.042	0.607	0.124	0.704	0.080	0.738	0.101	0.732	0.113	0.898	0.117	0.935	0.114	0.895	0.158	1.152	0.121	1.289	0.103	1.376	0.117
d0inpt	0.301	0.440	0.214	0.593	0.107	0.802	0.065	0.895	0.176	0.732	0.477	0.470	0.195	0.779	0.224	0.765	0.365	0.671	-0.311	0.757	-0.492	0.668
d0outpt	-0.192	0.437	-0.263	0.300	-0.340	0.194	-0.315	0.287	-0.398	0.194	-0.429	0.265	-0.553	0.167	-0.550	0.201	-0.608	0.234	-0.420	0.444	-0.426	0.486
d1^b	3.213	0.001	1.074	0.213	0.670	0.430	0.492	0.506	0.358	0.608	0.489	0.378	-0.087	0.867	0.271	0.531	0.473	0.177	0.221	0.501	-0.196	0.568
d1sex	-0.115	0.787	1.613	<0.001	1.317	<0.001	0.947	<0.001	0.698	0.002	0.514	0.012	0.620	0.001	0.440	0.014	0.281	0.101	0.239	0.158	0.156	0.370
d1age	0.023	0.055	0.008	0.481	0.014	0.221	0.015	0.169	0.016	0.101	0.007	0.414	0.012	0.119	<0.001	0.942	-0.010	0.077	-0.010	0.036	-0.007	0.175
d1hdi.h	-1.087	0.161	-0.157	0.867	-0.254	0.785	-0.543	0.485	-0.614	0.415	-0.506	0.370	-0.329	0.535	-0.029	0.943	0.071	0.830	0.050	0.870	-0.012	0.970
d1hdi.lm	-0.085	0.933	2.102	0.111	1.695	0.162	1.402	0.167	1.481	0.128	0.921	0.185	0.541	0.377	0.092	0.842	-0.071	0.837	-0.244	0.445	-0.349	0.329
d1nonmed	-1.282	0.204	1.053	0.389	0.424	0.718	0.454	0.644	0.499	0.600	0.824	0.242	0.822	0.211	1.127	0.024	1.128	0.003	0.870	0.007	0.921	0.007
d1inpt	-1.282	0.996	1.053	0.973	0.424	0.338	0.454	0.267	0.499	0.108	0.824	0.199	0.822	0.327	1.127	0.174	1.128	0.037	0.870	0.046	0.921	0.100
d1outpt	-1.585	0.029	0.385	0.626	0.165	0.836	0.049	0.941	-0.323	0.620	-0.101	0.832	-0.308	0.488	-0.173	0.593	-0.007	0.977	0.002	0.992	0.001	0.995

^ad0 corresponds to the model coefficient for logit(specificity)

^bd1 corresponds to the model coefficient for logit(sensitivity)

Supplementary table D5. Coefficients and p-values for one-stage meta-regressions assessing interactions between age and logit(sensitivity) and logit(specificity), among participants administered a semi-structured diagnostic interview

Cutoff	5		6		7		8		9		10		11		12		13		14		15	
	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value
d0^a	0.012	<0.001	-0.305	0.009	-0.601	<0.001	-0.895	<0.001	-1.221	<0.001	-1.598	<0.001	-1.862	<0.001	-2.121	<0.001	-2.440	<0.001	-2.776	<0.001	-3.041	<0.001
d0age	-0.552	<0.001	-0.595	<0.001	-0.614	<0.001	-0.572	<0.001	-0.550	<0.001	-0.497	<0.001	-0.569	<0.001	-0.624	<0.001	-0.543	<0.001	-0.531	<0.001	-0.473	0.003
d1^b	4.056	<0.001	3.961	<0.001	3.917	<0.001	3.012	<0.001	2.418	<0.001	1.987	<0.001	1.687	<0.001	1.286	<0.001	0.880	<0.001	0.649	<0.001	0.306	0.034
d1age	-0.186	<0.001	-0.179	0.691	-0.359	0.386	-0.103	0.760	-0.085	0.765	-0.274	0.313	0.089	0.711	0.107	0.629	-0.003	0.988	-0.073	0.701	-0.117	0.536

^ad0 corresponds to the model coefficient for logit(specificity)

^bd1 corresponds to the model coefficient for logit(sensitivity)

Supplementary table D6. Coefficients and p-values for one-stage meta-regressions assessing interactions between age and logit(sensitivity) and logit(specificity), among participants administered a fully structured diagnostic interview

Cutoff	5		6		7		8		9		10		11		12		13		14		15	
	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value
d0^a	<0.001	0.999	-0.336	0.140	-0.654	0.003	-0.952	<0.001	-1.223	<0.001	-1.503	<0.001	-1.792	<0.001	-2.005	<0.001	-2.386	<0.001	-2.762	<0.001	-3.063	<0.001
d0age	-0.586	<0.001	-0.545	<0.001	-0.597	<0.001	-0.657	<0.001	-0.631	<0.001	-0.681	<0.001	-0.600	<0.001	-0.712	<0.001	-0.854	<0.001	-0.721	<0.001	-0.686	<0.001
d1^b	2.967	<0.001	2.626	<0.001	2.036	<0.001	1.734	<0.001	1.190	<0.001	1.006	<0.001	0.623	0.007	0.406	0.090	0.100	0.672	-0.149	0.539	-0.526	0.025
d1age	-0.945	0.002	-0.933	0.001	-0.664	0.004	-0.741	0.001	-0.622	0.002	-0.723	<0.001	-0.723	<0.001	-0.690	<0.001	-0.743	<0.001	-0.697	0.001	-0.623	0.004

^ad0 corresponds to the model coefficient for logit(specificity)

^bd1 corresponds to the model coefficient for logit(sensitivity)

Supplementary table D7. Coefficients and p-values for one-stage meta-regressions assessing interactions between age and logit(sensitivity) and logit(specificity), among participants administered the MINI

Cutoff	5		6		7		8		9		10		11		12		13		14		15	
	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value
d0^a	-0.229	0.138	-0.551	<0.001	-0.819	<0.001	-1.138	<0.001	-1.498	<0.001	-1.764	<0.001	-2.054	<0.001	-2.338	<0.001	-2.635	<0.001	-2.995	<0.001	-3.382	<0.001
d0age	-0.228	0.047	-0.286	0.013	-0.423	0.001	-0.451	0.001	-0.396	0.008	-0.427	0.011	-0.379	0.042	-0.378	0.068	-0.494	0.043	-0.420	0.115	-0.485	0.114
d1^b	3.217	<0.001	2.751	<0.001	2.207	<0.001	1.713	<0.001	1.344	<0.001	1.060	<0.001	0.599	0.011	0.511	0.013	0.283	0.129	0.039	0.801	-0.290	0.072
d1age	0.473	0.355	-0.423	0.266	-0.143	0.666	0.222	0.476	0.435	0.122	0.337	0.193	0.575	0.018	0.187	0.397	-0.038	0.859	-0.302	0.131	-0.206	0.316

^ad0 corresponds to the model coefficient for logit(specificity)

^bd1 corresponds to the model coefficient for logit(sensitivity)

Supplementary table E1. Comparison of PHQ-9 sensitivity and specificity estimates at cutoff 10 among all participants, among participants not currently diagnosed or receiving treatment for a mental health problem, and among participant subgroups based on age, sex, human development index, and care setting

Participant Subgroup	Semi-structured Diagnostic Interviews				Fully Structured Diagnostic Interviews				Mini International Neuropsychiatric Interviews			
	Sensitivity		Specificity		Sensitivity		Specificity		Sensitivity		Specificity	
	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
All participants	0.88	(0.83, 0.92)	0.85	(0.82, 0.88)	0.70	(0.59, 0.80)	0.84	(0.77, 0.89)	0.77	(0.68, 0.83)	0.87	(0.83, 0.90)
Participants not currently diagnosed or receiving treatment for a mental health problem	0.88	(0.77, 0.94)	0.89	(0.85, 0.92)	0.76	(0.59, 0.87)	0.88	(0.76, 0.94)	0.71	(0.59, 0.81)	0.91	(0.88, 0.94)
Age <60	0.87	(0.81, 0.92)	0.84	(0.80, 0.87)	0.72	(0.60, 0.82)	0.82	(0.75, 0.88)	0.79	(0.70, 0.85)	0.85	(0.80, 0.88)
Age ≥60	0.91	(0.82, 0.96)	0.88	(0.85, 0.91)	0.55	(0.44, 0.65)	0.86	(0.78, 0.91)	0.75	(0.64, 0.84)	0.90	(0.86, 0.94)
Women	0.91	(0.84, 0.95)	0.84	(0.79, 0.87)	0.67	(0.57, 0.76)	0.82	(0.73, 0.89)	0.77	(0.68, 0.84)	0.82	(0.76, 0.87)
Men	0.86	(0.79, 0.90)	0.87	(0.85, 0.89)	0.72	(0.57, 0.83)	0.86	(0.80, 0.90)	0.77	(0.66, 0.85)	0.90	(0.85, 0.94)
Very high country human development index	0.86	(0.80, 0.90)	0.86	(0.83, 0.88)	0.78	(0.65, 0.87)	0.80	(0.70, 0.88)	0.77	(0.65, 0.86)	0.88	(0.82, 0.92)
High country human development index	0.99	(0.64, 1.00)	0.86	(0.65, 0.95)	0.63	(0.38, 0.83)	0.92	(0.84, 0.96)	0.69	(0.56, 0.79)	0.85	(0.81, 0.88)
Low-medium country human development index	--	--	--	--	0.47	(0.32, 0.62)	0.88	(0.77, 0.94)	0.83	(0.71, 0.90)	0.84	(0.81, 0.87)
Non-medical care	0.82	(0.73, 0.88)	0.88	(0.85, 0.91)	0.61	(0.44, 0.75)	0.88	(0.80, 0.93)	0.84	(0.68, 0.93)	0.77	(0.60, 0.88)
Primary care	0.94	(0.88, 0.97)	0.88	(0.79, 0.93)	0.71	(0.60, 0.80)	0.88	(0.84, 0.92)	0.74	(0.56, 0.86)	0.86	(0.82, 0.89)
Inpatient specialty care ^a	0.92	(0.84, 0.96)	0.81	(0.78, 0.85)	0.89	(0.68, 0.97)	0.69	(0.54, 0.80)	--	--	--	--
Outpatient specialty care ^a	0.77	(0.67, 0.84)	0.84	(0.80, 0.88)	0.63	(0.38, 0.83)	0.80	(0.62, 0.91)	0.75	(0.63, 0.84)	0.90	(0.85, 0.93)

Abbreviations: CI: confidence interval

^aAmong studies that used the MINI as the reference standard, only 1 study included participants from an inpatient specialty care setting. These participants were combined with participants from outpatient specialty care settings for all subgroup analyses

Supplementary table E2. Comparison of PHQ-9 sensitivity and specificity estimates among participants not currently diagnosed or receiving treatment for a mental health problem compared to all participants, among participants administered a semi-structured diagnostic interview

Cutoff	All participants ^a				Participants not currently diagnosed or receiving treatment for a mental health problem ^b				Difference across groups ^c (All participants – participants not currently diagnosed or receiving treatment for a mental health problem)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.98	(0.96, 0.99)	0.55	(0.49, 0.60)	1.00	(0.75, 1.00)	0.58	(0.51, 0.65)	-0.02	(-0.03, 0.01)	-0.03	(-0.10, 0.02)
6	0.98	(0.95, 0.99)	0.63	(0.58, 0.67)	0.99	(0.92, 1.00)	0.67	(0.60, 0.73)	-0.01	(-0.03, 0.03)	-0.04	(-0.10, 0.02)
7	0.98	(0.94, 0.99)	0.69	(0.65, 0.74)	0.98	(0.89, 1.00)	0.73	(0.67, 0.79)	0.00	(-0.03, 0.06)	-0.04	(-0.09, 0.01)
8	0.95	(0.91, 0.97)	0.75	(0.71, 0.79)	0.95	(0.88, 0.98)	0.79	(0.74, 0.84)	0.00	(-0.05, 0.06)	-0.04	(-0.09, 0.00)
9	0.91	(0.87, 0.94)	0.8	(0.77, 0.83)	0.91	(0.84, 0.95)	0.84	(0.80, 0.88)	0.00	(-0.05, 0.08)	-0.04	(-0.07, -0.00)
10	0.88	(0.83, 0.92)	0.85	(0.82, 0.88)	0.88	(0.77, 0.94)	0.89	(0.85, 0.92)	0.00	(-0.06, 0.12)	-0.04	(-0.07, -0.00)
11	0.84	(0.78, 0.89)	0.89	(0.86, 0.91)	0.82	(0.71, 0.90)	0.91	(0.88, 0.94)	0.02	(-0.07, 0.15)	-0.02	(-0.06, 0.00)
12	0.79	(0.73, 0.83)	0.91	(0.89, 0.93)	0.73	(0.63, 0.81)	0.94	(0.91, 0.95)	0.06	(-0.04, 0.19)	-0.03	(-0.05, 0.00)
13	0.70	(0.65, 0.75)	0.93	(0.91, 0.95)	0.66	(0.57, 0.73)	0.95	(0.93, 0.97)	0.04	(-0.04, 0.16)	-0.02	(-0.04, 0.00)
14	0.64	(0.58, 0.70)	0.95	(0.93, 0.96)	0.59	(0.49, 0.68)	0.97	(0.95, 0.98)	0.05	(-0.04, 0.20)	-0.02	(-0.03, -0.00)
15	0.56	(0.50, 0.62)	0.96	(0.95, 0.97)	0.50	(0.39, 0.60)	0.97	(0.96, 0.98)	0.06	(-0.05, 0.22)	-0.01	(-0.03, 0.00)

^aN Studies = 29; N Participants = 6,725; N major depression = 924

^bN Studies = 20; N Participants = 2,942; N major depression = 421

^c20 bootstrap iterations (2%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CI.

Abbreviations: CI: confidence interval

Supplementary table E3. Comparison of PHQ-9 sensitivity and specificity estimates among participants aged <60 compared to ≥60, among participants administered a semi-structured diagnostic interview

Cutoff	Age <60 ^a				Age ≥60 ^b				Difference across groups ^c (Age <60 – Age ≥60)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.98	(0.96, 0.99)	0.52	(0.46, 0.57)	0.98	(0.91, 1.00)	0.59	(0.53, 0.65)	0.00	(-0.02, 0.05)	-0.07	(-0.15, 0.01)
6	0.98	(0.95, 0.99)	0.59	(0.54, 0.65)	0.98	(0.90, 1.00)	0.68	(0.62, 0.73)	0.00	(-0.03, 0.05)	-0.09	(-0.16, 0.01)
7	0.98	(0.93, 0.99)	0.66	(0.61, 0.71)	0.97	(0.89, 0.99)	0.74	(0.69, 0.79)	0.01	(-0.03, 0.07)	-0.08	(-0.16, 0.01)
8	0.95	(0.90, 0.97)	0.72	(0.68, 0.77)	0.95	(0.87, 0.98)	0.79	(0.74, 0.82)	0.00	(-0.07, 0.07)	-0.07	(-0.13, 0.01)
9	0.91	(0.87, 0.94)	0.78	(0.74, 0.82)	0.93	(0.84, 0.97)	0.83	(0.80, 0.87)	-0.02	(-0.10, 0.08)	-0.05	(-0.11, 0.00)
10	0.87	(0.81, 0.92)	0.84	(0.80, 0.87)	0.91	(0.82, 0.96)	0.88	(0.85, 0.91)	-0.04	(-0.16, 0.07)	-0.04	(-0.10, 0.01)
11	0.85	-- ^d	0.87	-- ^d	0.84	(0.75, 0.90)	0.91	(0.89, 0.93)	0.01	(-0.15, 0.15)	-0.04	(-0.09, 0.01)
12	0.78	(0.72, 0.84)	0.90	(0.87, 0.92)	0.81	(0.71, 0.88)	0.94	(0.92, 0.95)	-0.03	(-0.19, 0.11)	-0.04	(-0.08, -0.00)
13	0.70	(0.65, 0.76)	0.92	(0.90, 0.94)	0.73	(0.62, 0.82)	0.95	(0.94, 0.97)	-0.03	(-0.24, 0.10)	-0.03	(-0.07, 0.00)
14	0.65	(0.58, 0.71)	0.94	(0.92, 0.96)	0.63	(0.51, 0.74)	0.97	(0.95, 0.98)	0.02	(-0.22, 0.20)	-0.03	(-0.06, -0.00)
15	0.58	(0.51, 0.65)	0.95	(0.93, 0.97)	0.54	(0.43, 0.65)	0.98	(0.96, 0.98)	0.04	(-0.21, 0.20)	-0.03	(-0.05, 0.00)

^aN Studies = 26; N Participants = 4,132; N major depression = 629

^bN Studies = 24; N Participants = 2,577; N major depression = 295

^c10 bootstrap iterations (1%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CIs.

^dModel for this cutoff did not converge.

Abbreviations: CI: confidence interval

Supplementary table E4. Comparison of PHQ-9 sensitivity and specificity estimates among women compared to men, among participants administered a semi-structured diagnostic interview

Cutoff	Women ^a				Men ^b				Difference across groups ^c (Women – Men)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.99	(0.95, 1.00)	0.50	(0.43, 0.56)	0.98	(0.93, 1.00)	0.58	(0.53, 0.63)	0.01	(-0.03, 0.04)	-0.08	(-0.17, -0.01)
6	0.98	(0.95, 0.99)	0.59	(0.53, 0.65)	0.99	(0.92, 1.00)	0.66	(0.61, 0.70)	-0.01	(-0.04, 0.04)	-0.07	(-0.15, 0.01)
7	0.98	(0.94, 1.00)	0.66	(0.60, 0.72)	0.98	(0.91, 0.99)	0.72	(0.67, 0.76)	0.00	(-0.04, 0.07)	-0.06	(-0.13, 0.01)
8	0.97	(0.91, 0.99)	0.72	(0.67, 0.77)	0.94	(0.88, 0.97)	0.77	(0.74, 0.80)	0.03	(-0.06, 0.09)	-0.05	(-0.11, 0.01)
9	0.92	(0.86, 0.96)	0.78	(0.74, 0.82)	0.92	(0.86, 0.95)	0.83	(0.80, 0.85)	0.00	(-0.09, 0.10)	-0.05	(-0.10, 0.01)
10	0.91	(0.84, 0.95)	0.84	(0.79, 0.87)	0.86	(0.79, 0.90)	0.87	(0.85, 0.89)	0.05	(-0.07, 0.17)	-0.03	(-0.09, 0.01)
11	0.87	(0.80, 0.92)	0.87	(0.84, 0.90)	0.80	(0.73, 0.86)	0.90	(0.88, 0.92)	0.07	(-0.07, 0.21)	-0.03	(-0.08, 0.01)
12	0.81	(0.73, 0.87)	0.90	(0.87, 0.92)	0.75	(0.68, 0.82)	0.93	(0.91, 0.94)	0.06	(-0.11, 0.21)	-0.03	(-0.06, 0.01)
13	0.73	(0.66, 0.80)	0.92	(0.90, 0.94)	0.66	(0.59, 0.73)	0.94	(0.93, 0.96)	0.07	(-0.10, 0.23)	-0.02	(-0.06, 0.01)
14	0.68	(0.59, 0.76)	0.95	(0.92, 0.96)	0.60	(0.52, 0.67)	0.96	(0.94, 0.97)	0.08	(-0.09, 0.27)	-0.01	(-0.04, 0.01)
15	0.59	(0.50, 0.67)	0.96	(0.94, 0.97)	0.52	(0.44, 0.59)	0.97	(0.95, 0.98)	0.07	(-0.11, 0.25)	-0.01	(-0.04, 0.01)

^aN Studies = 28; N Participants = 3,906; N major depression = 573

^bN Studies = 25; N Participants = 2,812; N major depression = 351

^c9 bootstrap iterations (0.9%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CIs.

Abbreviations: CI: confidence interval

Supplementary table E5. Comparison of PHQ-9 sensitivity and specificity estimates among participants from countries with a very high human development index compared to a high human development index, among participants administered a semi-structured diagnostic interview

Cutoff	Very high human development index ^a				High human development index ^b				Difference across groups ^c (Very high human development index – high human development index)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.98	(0.95, 0.99)	0.56	(0.51, 0.61)	1.00	(0.68, 1.00)	0.45	(0.30, 0.62)	-0.02	(-0.04, 0.03)	0.11	(-0.05, 0.28)
6	0.97	(0.94, 0.99)	0.64	(0.59, 0.69)	1.00	(0.37, 1.00)	0.54	(0.36, 0.70)	-0.03	(-0.05, 0.04)	0.10	(-0.06, 0.30)
7	0.97	(0.92, 0.99)	0.71	(0.66, 0.75)	1.00	(0.23, 1.00)	0.62	(0.43, 0.78)	-0.03	(-0.07, 0.04)	0.09	(-0.07, 0.29)
8	0.94	(0.89, 0.97)	0.76	(0.73, 0.79)	0.99	(0.74, 1.00)	0.68	(0.48, 0.83)	-0.05	(-0.10, 0.05)	0.08	(-0.06, 0.28)
9	0.90	(0.85, 0.93)	0.81	(0.78, 0.84)	0.99	(0.75, 1.00)	0.76	(0.58, 0.88)	-0.09	(-0.15, 0.03)	0.05	(-0.08, 0.24)
10	0.86	(0.80, 0.90)	0.86	(0.83, 0.88)	0.99	(0.64, 1.00)	0.86	(0.65, 0.95)	-0.13	(-0.20, 0.00)	0.00	(-0.12, 0.19)
11	0.81	(0.75, 0.86)	0.89	(0.86, 0.91)	0.96	(0.80, 0.99)	0.89	(0.71, 0.96)	-0.15	(-0.24, 0.01)	0.00	(-0.09, 0.16)
12	0.76	(0.70, 0.81)	0.91	(0.89, 0.93)	0.88	(0.81, 0.92)	0.92	(0.77, 0.97)	-0.12	(-0.24, -0.01)	-0.01	(-0.08, 0.13)
13	0.68	(0.62, 0.74)	0.93	(0.92, 0.95)	0.77	-- ^d	0.94	-- ^d	-0.09	(-0.22, 0.05)	-0.01	(-0.07, 0.13)
14	0.63	(0.56, 0.69)	0.95	(0.94, 0.97)	0.74	(0.67, 0.80)	0.95	(0.79, 0.99)	-0.11	(-0.25, 0.04)	0.00	(-0.05, 0.13)
15	0.54	-- ^d	0.96	-- ^d	0.69	-- ^d	0.96	-- ^d	-0.15	(-0.31, -0.01)	0.00	(-0.04, 0.12)

^aN Studies = 25; N Participants = 6,195; N major depression = 739

^bN Studies = 4; N Participants = 530; N major depression = 185

^c152 bootstrap iterations (15%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CIs.

^dModel for this cutoff did not converge.

Abbreviations: CI: confidence interval

Supplementary table E6i. Comparison of PHQ-9 sensitivity and specificity estimates among participants from primary care and non-medical care settings, among participants administered a semi-structured diagnostic interview

Cutoff	Primary care ^a				Non-medical care ^b				Difference across groups ^c (Primary care – non-medical care)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	1.00	(0.38, 1.00)	0.59	(0.48, 0.69)	0.95	(0.84, 0.99)	0.48	(0.40, 0.56)	0.05	(-0.01, 0.10)	0.11	(-0.04, 0.24)
6	1.00	(0.30, 1.00)	0.66	(0.56, 0.75)	0.95	(0.85, 0.98)	0.59	(0.52, 0.65)	0.05	(0.00, 0.11)	0.07	(-0.07, 0.19)
7	1.00	(0.64, 1.00)	0.73	(0.63, 0.81)	0.92	(0.82, 0.97)	0.66	(0.58, 0.73)	0.08	(0.01, 0.14)	0.07	(-0.06, 0.17)
8	0.99	(0.82, 1.00)	0.78	(0.69, 0.85)	0.89	(0.78, 0.95)	0.73	(0.66, 0.80)	0.10	(0.01, 0.17)	0.05	(-0.07, 0.14)
9	0.95	(0.90, 0.98)	0.83	(0.75, 0.89)	0.85	(0.77, 0.90)	0.82	(0.78, 0.85)	0.10	(0.02, 0.21)	0.01	(-0.08, 0.09)
10	0.94	(0.88, 0.97)	0.88	(0.79, 0.93)	0.82	(0.73, 0.88)	0.88	(0.85, 0.91)	0.12	(0.02, 0.23)	0.00	(-0.10, 0.07)
11	0.91	(0.82, 0.96)	0.91	(0.84, 0.95)	0.76	(0.67, 0.83)	0.92	(0.89, 0.94)	0.15	(0.00, 0.27)	-0.01	(-0.09, 0.04)
12	0.84	(0.78, 0.89)	0.92	(0.87, 0.96)	0.70	(0.60, 0.78)	0.94	(0.91, 0.96)	0.14	(-0.03, 0.26)	-0.02	(-0.08, 0.03)
13	0.77	(0.72, 0.82)	0.94	(0.89, 0.97)	0.62	(0.52, 0.71)	0.95	(0.93, 0.97)	0.15	(-0.11, 0.27)	-0.01	(-0.07, 0.03)
14	0.73	(0.66, 0.78)	0.96	(0.92, 0.98)	0.59	(0.49, 0.68)	0.97	(0.95, 0.98)	0.14	(-0.04, 0.27)	-0.01	(-0.06, 0.02)
15	0.65	(0.58, 0.72)	0.97	(0.93, 0.99)	0.43	(0.34, 0.52)	0.97	(0.95, 0.99)	0.22	(0.04, 0.37)	0.00	(-0.05, 0.02)

^aN Studies = 9; N Participants = 3,163; N major depression = 377

^bN Studies = 2; N Participants = 567; N major depression = 105

^c212 bootstrap iterations (21.2%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CIs.

Abbreviations: CI: confidence interval

Supplementary table E6ii. Comparison of PHQ-9 sensitivity and specificity estimates among participants from primary care and inpatient speciality care settings, among participants administered a semi-structured diagnostic interview

Cutoff	Primary care ^a				Inpatient specialty care ^b				Difference across groups ^c (Primary care – inpatient specialty care)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	1.00	(0.38, 1.00)	0.59	(0.48, 0.69)	1.00	(0.00, 1.00)	0.48	(0.36, 0.60)	0.00	(-0.03, 0.00)	0.11	(-0.08, 0.38)
6	1.00	(0.30, 1.00)	0.66	(0.56, 0.75)	1.00	(0.55, 1.00)	0.57	(0.45, 0.68)	0.00	(-0.03, 0.01)	0.09	(-0.08, 0.32)
7	1.00	(0.64, 1.00)	0.73	(0.63, 0.81)	1.00	(0.72, 1.00)	0.65	(0.58, 0.73)	0.00	(-0.03, 0.03)	0.08	(-0.08, 0.22)
8	0.99	(0.82, 1.00)	0.78	(0.69, 0.85)	0.96	(0.88, 0.99)	0.71	(0.64, 0.77)	0.03	(-0.06, 0.08)	0.07	(-0.06, 0.20)
9	0.95	(0.90, 0.98)	0.83	(0.75, 0.89)	0.95	(0.87, 0.98)	0.77	(0.73, 0.81)	0.00	(-0.08, 0.09)	0.06	(-0.05, 0.16)
10	0.94	(0.88, 0.97)	0.88	(0.79, 0.93)	0.92	(0.84, 0.96)	0.81	(0.78, 0.85)	0.02	(-0.10, 0.14)	0.07	(-0.04, 0.16)
11	0.91	(0.82, 0.96)	0.91	(0.84, 0.95)	0.90	(0.82, 0.95)	0.85	(0.81, 0.88)	0.01	(-0.14, 0.14)	0.06	(-0.04, 0.14)
12	0.84	(0.78, 0.89)	0.92	(0.87, 0.96)	0.86	(0.78, 0.92)	0.89	(0.85, 0.92)	-0.02	(-0.17, 0.15)	0.03	(-0.05, 0.11)
13	0.77	(0.72, 0.82)	0.94	(0.89, 0.97)	0.74	(0.65, 0.82)	0.91	(0.87, 0.94)	0.03	(-0.14, 0.25)	0.03	(-0.04, 0.10)
14	0.73	(0.66, 0.78)	0.96	(0.92, 0.98)	0.68	-- ^d	0.93	-- ^d	0.05	(-0.17, 0.38)	0.03	(-0.03, 0.09)
15	0.65	(0.58, 0.72)	0.97	(0.93, 0.99)	0.58	(0.35, 0.77)	0.94	(0.91, 0.97)	0.07	(-0.23, 0.60)	0.03	(-0.03, 0.07)

^aN Studies = 9; N Participants = 3,163; N major depression = 377

^bN Studies = 8; N Participants = 867; N major depression = 121

^c407 bootstrap iterations (40.7%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CIs.

^dModel for this cutoff did not converge.

Abbreviations: CI: confidence interval

Supplementary table E6iii. Comparison of PHQ-9 sensitivity and specificity estimates among participants from primary care and outpatient speciality care settings, among participants administered a semi-structured diagnostic interview

Cutoff	Primary care ^a				Outpatient specialty care ^b				Difference across groups ^c (Primary care – outpatient specialty care)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	1.00	(0.38, 1.00)	0.59	(0.48, 0.69)	0.94	(0.89, 0.97)	0.53	(0.46, 0.60)	0.06	(-0.01, 0.09)	0.06	(-0.11, 0.21)
6	1.00	(0.30, 1.00)	0.66	(0.56, 0.75)	0.92	(0.86, 0.96)	0.61	(0.54, 0.68)	0.08	(-0.01, 0.12)	0.05	(-0.10, 0.19)
7	1.00	(0.64, 1.00)	0.73	(0.63, 0.81)	0.91	(0.83, 0.95)	0.68	(0.61, 0.74)	0.09	(-0.01, 0.15)	0.05	(-0.10, 0.17)
8	0.99	(0.82, 1.00)	0.78	(0.69, 0.85)	0.87	(0.79, 0.93)	0.74	(0.68, 0.79)	0.12	(-0.01, 0.20)	0.04	(-0.09, 0.14)
9	0.95	(0.90, 0.98)	0.83	(0.75, 0.89)	0.84	(0.75, 0.90)	0.79	(0.74, 0.83)	0.11	(-0.01, 0.22)	0.04	(-0.07, 0.13)
10	0.94	(0.88, 0.97)	0.88	(0.79, 0.93)	0.77	(0.67, 0.84)	0.84	(0.80, 0.88)	0.17	(0.00, 0.28)	0.04	(-0.08, 0.12)
11	0.91	(0.82, 0.96)	0.91	(0.84, 0.95)	0.72	(0.64, 0.79)	0.88	(0.84, 0.91)	0.19	(0.00, 0.33)	0.03	(-0.06, 0.10)
12	0.84	(0.78, 0.89)	0.92	(0.87, 0.96)	0.67	(0.58, 0.76)	0.90	(0.87, 0.93)	0.17	(-0.03, 0.31)	0.02	(-0.05, 0.08)
13	0.77	(0.72, 0.82)	0.94	(0.89, 0.97)	0.59	(0.49, 0.68)	0.93	(0.90, 0.95)	0.18	(0.02, 0.34)	0.01	(-0.06, 0.07)
14	0.73	(0.66, 0.78)	0.96	(0.92, 0.98)	0.54	(0.44, 0.64)	0.95	(0.92, 0.97)	0.19	(-0.02, 0.33)	0.01	(-0.05, 0.06)
15	0.65	(0.58, 0.72)	0.97	(0.93, 0.99)	0.49	(0.40, 0.58)	0.96	(0.93, 0.97)	0.16	(-0.04, 0.30)	0.01	(-0.03, 0.05)

^aN Studies = 9; N Participants = 3,163; N major depression = 377

^bN Studies = 12; N Participants = 2,128; N major depression = 321

^c214 bootstrap iterations (21.4%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CIs.

Abbreviations: CI: confidence interval

Supplementary table E7. Comparison of PHQ-9 sensitivity and specificity estimates among studies and participants categorized as having “low” risk of bias compared to “high” or “unclear” risk of bias for QUADAS-2 Domain 3 (Reference Standard) - Signalling Question 2 (Were the reference standard results interpreted without knowledge of the results of the index test?) , among participants administered a semi-structured diagnostic interview

Cutoff	Low risk of bias ^a				Unclear or high risk of bias ^b				Difference across groups ^c (Low risk of bias – unclear or high risk of bias)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.98	(0.94, 0.99)	0.50	(0.43, 0.56)	0.98	(0.96, 0.99)	0.60	(0.53, 0.67)	0.00	(-0.04, 0.06)	-0.10	(-0.22, 0.01)
6	0.98	(0.93, 1.00)	0.58	(0.52, 0.64)	0.97	(0.93, 0.99)	0.68	(0.62, 0.74)	0.01	(-0.05, 0.07)	-0.10	(-0.21, 0.01)
7	0.98	(0.92, 1.00)	0.65	(0.59, 0.71)	0.96	(0.89, 0.99)	0.74	(0.69, 0.79)	0.02	(-0.06, 0.11)	-0.09	(-0.19, 0.00)
8	0.94	(0.90, 0.97)	0.71	(0.66, 0.76)	0.96	(0.85, 0.99)	0.79	(0.75, 0.83)	-0.02	(-0.09, 0.11)	-0.08	(-0.17, 0.00)
9	0.92	(0.87, 0.95)	0.77	(0.72, 0.81)	0.9	(0.83, 0.94)	0.84	(0.81, 0.87)	0.02	(-0.09, 0.14)	-0.07	(-0.15, 0.00)
10	0.90	(0.83, 0.94)	0.82	(0.77, 0.86)	0.86	(0.78, 0.91)	0.89	(0.86, 0.92)	0.04	(-0.11, 0.18)	-0.07	(-0.15, -0.01)
11	0.85	(0.78, 0.90)	0.85	(0.81, 0.89)	0.83	(0.73, 0.89)	0.92	(0.90, 0.94)	0.02	(-0.13, 0.20)	-0.07	(-0.14, -0.01)
12	0.80	(0.71, 0.86)	0.88	(0.85, 0.91)	0.77	(0.69, 0.83)	0.94	(0.92, 0.95)	0.03	(-0.12, 0.19)	-0.06	(-0.11, -0.01)
13	0.71	(0.63, 0.77)	0.91	(0.88, 0.94)	0.70	(0.63, 0.76)	0.95	(0.94, 0.97)	0.01	(-0.15, 0.16)	-0.04	(-0.10, 0.00)
14	0.65	(0.57, 0.73)	0.93	(0.90, 0.96)	0.65	(0.59, 0.70)	0.96	(0.96, 0.97)	0.00	(-0.15, 0.18)	-0.03	(-0.08, 0.00)
15	0.58	(0.49, 0.66)	0.95	(0.92, 0.97)	0.55	(0.45, 0.64)	0.97	(0.96, 0.98)	0.03	(-0.14, 0.28)	-0.02	(-0.07, 0.00)

^aN Studies = 16; N Participants = 4,249; N major depression = 558

^bN Studies = 13; N Participants = 2,476; N major depression = 366

^c14 bootstrap iterations (1.4%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CIs.

Abbreviations: CI: confidence interval

Supplementary table E8. Comparison of PHQ-9 sensitivity and specificity estimates among studies and participants categorized as having “low” risk of bias compared to “high” or “unclear” risk of bias for QUADAS-2 Domain 3 (Reference Standard) - Signalling Question 3 (Did a qualified person administer the reference standard?), among participants administered a semi-structured diagnostic interview

Cutoff	Low risk of bias ^a				Unclear or high risk of bias ^b				Difference across groups ^c (Low risk of bias – unclear or high risk of bias)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.97	(0.92, 0.99)	0.55	(0.47, 0.62)	0.99	(0.96, 1.00)	0.54	(0.47, 0.61)	-0.02	(-0.08, 0.02)	0.01	(-0.12, 0.13)
6	0.96	(0.91, 0.98)	0.63	(0.56, 0.70)	0.99	(0.94, 1.00)	0.62	(0.55, 0.68)	-0.03	(-0.09, 0.02)	0.01	(-0.11, 0.13)
7	0.95	(0.88, 0.98)	0.69	(0.63, 0.76)	0.99	(0.90, 1.00)	0.69	(0.63, 0.75)	-0.04	(-0.12, 0.03)	0.00	(-0.11, 0.11)
8	0.93	(0.85, 0.97)	0.75	(0.69, 0.80)	0.96	(0.92, 0.98)	0.75	(0.70, 0.80)	-0.03	(-0.13, 0.06)	0.00	(-0.10, 0.09)
9	0.89	(0.81, 0.93)	0.80	(0.74, 0.84)	0.93	(0.88, 0.96)	0.81	(0.77, 0.84)	-0.04	(-0.15, 0.07)	-0.01	(-0.10, 0.06)
10	0.84	(0.76, 0.90)	0.85	(0.80, 0.89)	0.92	(0.85, 0.95)	0.86	(0.82, 0.89)	-0.08	(-0.20, 0.07)	-0.01	(-0.10, 0.06)
11	0.80	(0.73, 0.86)	0.88	(0.84, 0.92)	0.88	(0.79, 0.93)	0.89	(0.86, 0.92)	-0.08	(-0.22, 0.10)	-0.01	(-0.09, 0.05)
12	0.76	(0.68, 0.82)	0.90	(0.87, 0.93)	0.81	(0.73, 0.87)	0.92	(0.89, 0.94)	-0.05	(-0.21, 0.11)	-0.02	(-0.08, 0.04)
13	0.66	(0.58, 0.73)	0.93	(0.89, 0.95)	0.73	(0.67, 0.79)	0.94	(0.91, 0.95)	-0.07	(-0.24, 0.07)	-0.01	(-0.07, 0.03)
14	0.60	(0.51, 0.68)	0.95	(0.91, 0.97)	0.69	(0.61, 0.75)	0.95	(0.94, 0.97)	-0.09	(-0.26, 0.07)	0.00	(-0.06, 0.03)
15	0.54	-- ^d	0.96	-- ^d	0.58	(0.49, 0.67)	0.96	(0.95, 0.97)	-0.04	(-0.22, 0.18)	0.00	(-0.05, 0.02)

^aN Studies = 14; N Participants = 3,462; N major depression = 433

^bN Studies = 15; N Participants = 3,263; N major depression = 491

^c30 bootstrap iterations (3%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CIs.

^dModel for this cutoff did not converge.

Abbreviations: CI: confidence interval

Supplementary table E9. Comparison of PHQ-9 sensitivity and specificity estimates among studies and participants categorized as having “low” risk of bias compared to “high” or “unclear” risk of bias for QUADAS-2 Domain 4 (Flow and Timing) - Signalling Question 4

(Were all patients included in the analysis?), among participants administered a semi-structured diagnostic interview

Cutoff	Low risk of bias ^a				Unclear or high risk of bias ^b				Difference across groups ^c (Low risk of bias – unclear or high risk of bias)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.97	(0.92, 0.99)	0.52	(0.45, 0.58)	0.99	(0.96, 1.00)	0.59	(0.51, 0.65)	-0.02	(-0.08, 0.01)	-0.07	(-0.19, 0.07)
6	0.96	(0.91, 0.99)	0.6	(0.53, 0.67)	0.99	(0.95, 1.00)	0.66	(0.60, 0.72)	-0.03	(-0.09, 0.02)	-0.06	(-0.17, 0.07)
7	0.96	(0.89, 0.99)	0.67	(0.61, 0.73)	0.99	(0.92, 1.00)	0.72	(0.66, 0.77)	-0.03	(-0.12, 0.04)	-0.05	(-0.16, 0.07)
8	0.94	(0.87, 0.98)	0.73	(0.67, 0.78)	0.96	(0.91, 0.98)	0.77	(0.73, 0.82)	-0.02	(-0.13, 0.07)	-0.04	(-0.14, 0.05)
9	0.9	(0.83, 0.95)	0.80	(0.75, 0.84)	0.93	(0.89, 0.96)	0.81	(0.77, 0.85)	-0.03	(-0.16, 0.07)	-0.01	(-0.10, 0.06)
10	0.88	(0.78, 0.93)	0.85	(0.80, 0.89)	0.90	(0.84, 0.94)	0.86	(0.82, 0.89)	-0.02	(-0.18, 0.10)	-0.01	(-0.09, 0.07)
11	0.84	(0.75, 0.90)	0.89	(0.85, 0.92)	0.85	(0.77, 0.91)	0.89	(0.85, 0.92)	-0.01	(-0.19, 0.14)	0.00	(-0.07, 0.07)
12	0.78	(0.70, 0.85)	0.91	(0.88, 0.94)	0.79	(0.72, 0.86)	0.91	(0.88, 0.93)	-0.01	(-0.19, 0.14)	0.00	(-0.06, 0.06)
13	0.70	(0.61, 0.77)	0.94	(0.90, 0.96)	0.71	(0.65, 0.77)	0.93	(0.91, 0.95)	-0.01	(-0.17, 0.15)	0.01	(-0.05, 0.06)
14	0.64	-- ^d	0.95	-- ^d	0.66	(0.59, 0.72)	0.95	(0.93, 0.96)	-0.02	(-0.20, 0.15)	0.00	(-0.04, 0.05)
15	0.54	-- ^d	0.96	-- ^d	0.59	(0.51, 0.66)	0.96	(0.94, 0.97)	-0.05	(-0.25, 0.15)	0.00	(-0.04, 0.04)

^aN Studies = 17; N Participants = 2,579; N major depression = 499

^bN Studies = 12; N Participants = 4,146; N major depression = 425

^c49 bootstrap iterations (4.9%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CIs.

^dModel for this cutoff did not converge.

Abbreviations: CI: confidence interval

Supplementary table E10. Comparison of PHQ-9 sensitivity and specificity estimates among participants not currently diagnosed or receiving treatment for a mental health problem compared to all participants, among participants administered a fully structured diagnostic interview

Cutoff	All participants ^a				Participants not currently diagnosed or receiving treatment for a mental health problem ^b				Difference across groups ^c (All participants – participants not currently diagnosed or receiving treatment for a mental health problem)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.93	(0.87, 0.97)	0.54	(0.43, 0.64)	0.95	(0.87, 0.98)	0.59	(0.42, 0.74)	-0.02	(-0.11, 0.05)	-0.05	(-0.20, 0.13)
6	0.91	(0.83, 0.95)	0.61	(0.51, 0.71)	0.94	(0.84, 0.98)	0.66	(0.48, 0.80)	-0.03	(-0.15, 0.04)	-0.05	(-0.18, 0.14)
7	0.86	(0.75, 0.92)	0.69	(0.59, 0.77)	0.91	(0.79, 0.97)	0.74	(0.60, 0.85)	-0.05	(-0.19, 0.05)	-0.05	(-0.17, 0.09)
8	0.82	(0.71, 0.89)	0.75	(0.66, 0.82)	0.88	(0.74, 0.95)	0.8	(0.67, 0.89)	-0.06	(-0.22, 0.06)	-0.05	(-0.15, 0.08)
9	0.74	(0.63, 0.83)	0.79	(0.72, 0.86)	0.79	(0.65, 0.89)	0.84	(0.71, 0.92)	-0.05	(-0.21, 0.09)	-0.05	(-0.13, 0.08)
10	0.70	(0.59, 0.80)	0.84	(0.77, 0.89)	0.76	(0.59, 0.87)	0.88	(0.76, 0.94)	-0.06	(-0.23, 0.11)	-0.04	(-0.11, 0.07)
11	0.62	(0.51, 0.72)	0.87	(0.81, 0.91)	0.65	(0.51, 0.77)	0.9	(0.80, 0.95)	-0.03	(-0.21, 0.15)	-0.03	(-0.09, 0.07)
12	0.57	(0.45, 0.68)	0.89	(0.85, 0.93)	0.60	(0.46, 0.73)	0.92	(0.84, 0.96)	-0.03	(-0.23, 0.14)	-0.03	(-0.07, 0.05)
13	0.49	(0.38, 0.61)	0.92	(0.89, 0.95)	0.55	(0.42, 0.67)	0.95	(0.89, 0.98)	-0.06	(-0.25, 0.12)	-0.03	(-0.07, 0.02)
14	0.44	(0.32, 0.56)	0.94	(0.91, 0.96)	0.48	(0.36, 0.61)	0.96	(0.92, 0.98)	-0.04	(-0.24, 0.14)	-0.02	(-0.06, 0.02)
15	0.35	(0.25, 0.46)	0.96	(0.93, 0.97)	0.42	(0.31, 0.53)	0.97	(0.94, 0.99)	-0.07	(-0.26, 0.09)	-0.01	(-0.04, 0.01)

^aN Studies = 14; N Participants = 7,680; N major depression = 839

^bN Studies = 6; N Participants = 4,161; N major depression = 306

^c19 bootstrap iterations (2%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CI.

Abbreviations: CI: confidence interval

Supplementary table E11. Comparison of PHQ-9 sensitivity and specificity estimates among participants aged <60 compared to ≥60, among participants administered a fully structured diagnostic interview

Cutoff	Age <60 ^a				Age ≥60 ^b				Difference across groups ^c (Age <60 – Age ≥60)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.94	(0.88, 0.97)	0.51	(0.41, 0.61)	0.94	(0.81, 0.98)	0.57	(0.43, 0.69)	0.00	(-0.08, 0.16)	-0.06	(-0.21, 0.12)
6	0.92	(0.84, 0.96)	0.59	(0.48, 0.69)	0.86	(0.74, 0.93)	0.63	(0.51, 0.74)	0.06	(-0.09, 0.23)	-0.04	(-0.18, 0.14)
7	0.87	(0.77, 0.93)	0.66	(0.57, 0.75)	0.78	(0.66, 0.87)	0.70	(0.60, 0.79)	0.09	(-0.13, 0.25)	-0.04	(-0.16, 0.12)
8	0.83	(0.72, 0.91)	0.73	(0.64, 0.80)	0.71	(0.60, 0.81)	0.78	(0.69, 0.85)	0.12	(-0.09, 0.32)	-0.05	(-0.16, 0.10)
9	0.76	(0.64, 0.85)	0.78	(0.69, 0.84)	0.64	(0.52, 0.75)	0.81	(0.73, 0.88)	0.12	(-0.12, 0.30)	-0.03	(-0.14, 0.10)
10	0.72	(0.60, 0.82)	0.82	(0.75, 0.88)	0.55	(0.44, 0.65)	0.86	(0.78, 0.91)	0.17	(-0.10, 0.37)	-0.04	(-0.13, 0.09)
11	0.64	(0.53, 0.74)	0.86	(0.80, 0.91)	0.46	(0.35, 0.56)	0.88	(0.81, 0.93)	0.18	(-0.12, 0.36)	-0.02	(-0.09, 0.08)
12	0.59	(0.47, 0.71)	0.88	(0.83, 0.92)	0.40	(0.31, 0.49)	0.91	(0.85, 0.95)	0.19	(-0.09, 0.38)	-0.03	(-0.09, 0.07)
13	0.52	(0.40, 0.64)	0.92	(0.87, 0.94)	0.31	(0.24, 0.40)	0.94	(0.89, 0.97)	0.21	(-0.08, 0.38)	-0.02	(-0.07, 0.05)
14	0.46	(0.34, 0.57)	0.94	(0.91, 0.96)	0.26	(0.19, 0.34)	0.95	(0.91, 0.97)	0.20	(-0.11, 0.41)	-0.01	(-0.05, 0.05)
15	0.38	(0.28, 0.49)	0.95	(0.93, 0.97)	0.20	(0.13, 0.30)	0.96	(0.93, 0.98)	0.18	(-0.10, 0.43)	-0.01	(-0.04, 0.04)

^aN Studies = 14; N Participants = 5,504; N major depression = 645

^bN Studies = 10; N Participants = 2,175; N major depression = 194

^c4 bootstrap iterations (0.4%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CI.

Abbreviations: CI: confidence interval

Supplementary table E12. Comparison of PHQ-9 sensitivity and specificity estimates among women compared to men, among participants administered a fully structured diagnostic interview

Cutoff	Women ^a				Men ^b				Difference across groups ^c (Women – Men)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.92	(0.84, 0.97)	0.50	(0.39, 0.61)	0.93	(0.83, 0.97)	0.58	(0.48, 0.68)	-0.01	(-0.12, 0.10)	-0.08	(-0.19, -0.02)
6	0.89	(0.78, 0.95)	0.57	(0.44, 0.69)	0.92	(0.79, 0.97)	0.66	(0.56, 0.75)	-0.03	(-0.19, 0.09)	-0.09	(-0.22, -0.02)
7	0.83	(0.72, 0.91)	0.64	(0.51, 0.75)	0.85	(0.72, 0.92)	0.73	(0.65, 0.80)	-0.02	(-0.18, 0.13)	-0.09	(-0.28, -0.01)
8	0.79	(0.68, 0.87)	0.71	(0.59, 0.80)	0.82	(0.68, 0.91)	0.78	(0.71, 0.84)	-0.03	(-0.22, 0.15)	-0.07	(-0.21, -0.00)
9	0.72	(0.62, 0.80)	0.77	(0.66, 0.84)	0.73	(0.59, 0.83)	0.83	(0.76, 0.88)	-0.01	(-0.18, 0.16)	-0.06	(-0.14, -0.00)
10	0.67	(0.57, 0.76)	0.82	(0.73, 0.89)	0.72	(0.57, 0.83)	0.86	(0.80, 0.90)	-0.05	(-0.22, 0.13)	-0.04	(-0.12, 0.02)
11	0.60	(0.48, 0.70)	0.86	(0.78, 0.91)	0.62	(0.50, 0.73)	0.89	(0.84, 0.92)	-0.02	(-0.21, 0.14)	-0.03	(-0.09, 0.02)
12	0.55	(0.43, 0.66)	0.88	(0.82, 0.92)	0.57	(0.44, 0.68)	0.91	(0.87, 0.94)	-0.02	(-0.20, 0.16)	-0.03	(-0.08, 0.02)
13	0.48	(0.36, 0.59)	0.92	(0.87, 0.95)	0.49	(0.37, 0.61)	0.93	(0.90, 0.96)	-0.01	(-0.24, 0.17)	-0.01	(-0.07, 0.03)
14	0.43	(0.31, 0.55)	0.94	(0.90, 0.96)	0.42	(0.30, 0.55)	0.95	(0.92, 0.96)	0.01	(-0.21, 0.19)	-0.01	(-0.05, 0.02)
15	0.36	(0.26, 0.46)	0.95	(0.92, 0.97)	0.32	(0.21, 0.46)	0.97	(0.95, 0.98)	0.04	(-0.17, 0.22)	-0.02	(-0.05, 0.01)

^aN Studies = 14; N Participants = 4,285; N major depression = 463

^bN Studies = 13; N Participants = 3,395; N major depression = 376

^c5 bootstrap iterations (0.5%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CI.

Abbreviations: CI: confidence interval

Supplementary table E13i. Comparison of PHQ-9 sensitivity and specificity estimates among participants from countries with a very high human development index compared to a high human development index, among participants administered a fully structured diagnostic interview

Cutoff	Very high human development index ^a				High human development index ^b				Difference across groups ^c (Very high human development index – high human development index)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.94	(0.90, 0.97)	0.49	(0.35, 0.64)	0.96	(0.28, 1.00)	0.58	(0.46, 0.70)	-0.02	(-0.08, 0.04)	-0.09	(-0.29, 0.08)
6	0.93	(0.87, 0.96)	0.56	(0.41, 0.70)	0.96	(0.17, 1.00)	0.70	(0.60, 0.79)	-0.03	(-0.11, 0.03)	-0.14	(-0.35, 0.01)
7	0.90	(0.81, 0.94)	0.64	(0.51, 0.76)	0.96	(0.16, 1.00)	0.77	(0.67, 0.84)	-0.06	(-0.17, 0.02)	-0.13	(-0.31, 0.01)
8	0.86	(0.76, 0.92)	0.71	(0.58, 0.81)	0.96	(0.10, 1.00)	0.84	(0.73, 0.91)	-0.10	(-0.24, -0.00)	-0.13	(-0.31, -0.02)
9	0.80	(0.69, 0.88)	0.75	(0.63, 0.84)	0.72	(0.39, 0.91)	0.89	(0.82, 0.94)	0.08	(-0.11, 0.24)	-0.14	(-0.31, -0.04)
10	0.78	(0.65, 0.87)	0.80	(0.70, 0.88)	0.63	(0.38, 0.83)	0.92	(0.84, 0.96)	0.15	(-0.07, 0.32)	-0.12	(-0.27, -0.03)
11	0.69	(0.56, 0.79)	0.84	(0.76, 0.90)	0.54	(0.30, 0.77)	0.94	(0.88, 0.97)	0.15	(-0.08, 0.32)	-0.10	(-0.22, -0.03)
12	0.65	(0.51, 0.76)	0.87	(0.80, 0.92)	0.51	(0.31, 0.70)	0.95	(0.91, 0.98)	0.14	(-0.09, 0.33)	-0.08	(-0.18, -0.03)
13	0.57	(0.43, 0.69)	0.90	(0.85, 0.94)	0.45	(0.23, 0.69)	0.99	(0.84, 1.00)	0.12	(-0.09, 0.33)	-0.09	(-0.16, -0.04)
14	0.51	(0.37, 0.65)	0.92	(0.88, 0.95)	0.40	(0.18, 0.67)	0.99	(0.87, 1.00)	0.11	(-0.09, 0.37)	-0.07	(-0.13, -0.04)
15	0.43	(0.31, 0.55)	0.94	(0.91, 0.96)	0.29	(0.13, 0.54)	0.99	(0.93, 1.00)	0.14	(-0.06, 0.35)	-0.05	(-0.10, -0.03)

^aN Studies = 9; N Participants = 5,740; N major depression = 592

^bN Studies = 2; N Participants = 326; N major depression = 61

^c738 bootstrap iterations (74%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CI.

Abbreviations: CI: confidence interval

Supplementary table E13ii. Comparison of PHQ-9 sensitivity and specificity estimates among participants from countries with a very high human development index compared to a low-medium human development index, among participants administered a fully structured diagnostic interview

Cutoff	Very high human development index ^a				Low-medium human development index ^b				Difference across groups ^c (Very high human development index – low-medium human development index)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.94	(0.90, 0.97)	0.49	(0.35, 0.64)	0.79	(0.58, 0.91)	0.63	(0.46, 0.77)	0.15	(-0.04, 0.33)	-0.14	(-0.38, 0.06)
6	0.93	(0.87, 0.96)	0.56	(0.41, 0.70)	0.70	(0.50, 0.84)	0.71	(0.55, 0.83)	0.23	(-0.02, 0.46)	-0.15	(-0.39, 0.05)
7	0.90	(0.81, 0.94)	0.64	(0.51, 0.76)	0.59	(0.38, 0.76)	0.76	(0.61, 0.86)	0.31	(0.11, 0.56)	-0.12	(-0.33, 0.06)
8	0.86	(0.76, 0.92)	0.71	(0.58, 0.81)	0.56	(0.39, 0.72)	0.80	(0.68, 0.89)	0.30	(0.09, 0.53)	-0.09	(-0.31, 0.05)
9	0.80	(0.69, 0.88)	0.75	(0.63, 0.84)	0.50	(0.32, 0.68)	0.84	(0.73, 0.91)	0.30	(0.05, 0.55)	-0.09	(-0.29, 0.04)
10	0.78	(0.65, 0.87)	0.80	(0.70, 0.88)	0.47	(0.32, 0.62)	0.88	(0.77, 0.94)	0.31	(0.03, 0.57)	-0.08	(-0.27, 0.04)
11	0.69	(0.56, 0.79)	0.84	(0.76, 0.90)	0.43	(0.30, 0.57)	0.90	(0.81, 0.95)	0.26	(0.02, 0.52)	-0.06	(-0.20, 0.03)
12	0.65	(0.51, 0.76)	0.87	(0.80, 0.92)	0.35	(0.22, 0.51)	0.92	(0.84, 0.96)	0.30	(0.06, 0.65)	-0.05	(-0.17, 0.03)
13	0.57	(0.43, 0.69)	0.90	(0.85, 0.94)	0.29	(0.17, 0.44)	0.93	(0.88, 0.97)	0.28	(0.01, 0.58)	-0.03	(-0.12, 0.02)
14	0.51	(0.37, 0.65)	0.92	(0.88, 0.95)	0.24	(0.14, 0.37)	0.95	(0.92, 0.97)	0.27	(0.04, 0.54)	-0.03	(-0.09, 0.01)
15	0.43	(0.31, 0.55)	0.94	(0.91, 0.96)	0.16	(0.05, 0.42)	0.97	(0.94, 0.98)	0.27	(0.05, 0.50)	-0.03	(-0.08, 0.01)

^aN Studies = 9; N Participants = 5,740; N major depression = 592

^bN Studies = 3; N Participants = 1,614; N major depression = 186

^c738 bootstrap iterations (74%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CI.

Abbreviations: CI: confidence interval

Supplementary table E14i. Comparison of PHQ-9 sensitivity and specificity estimates among participants from primary care and non-medical care settings, among participants administered a fully structured diagnostic interview

Cutoff	Primary care ^a				Non-medical care ^b				Difference across groups ^c (Primary care – non-medical care)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.94	(0.80, 0.99)	0.58	(0.49, 0.66)	0.90	(0.69, 0.97)	0.69	(0.65, 0.71)	0.04	(-0.10, 0.12)	-0.11	(-0.20, -0.00)
6	0.91	(0.77, 0.97)	0.68	(0.61, 0.75)	0.87	(0.69, 0.95)	0.72	(0.65, 0.79)	0.04	(-0.14, 0.15)	-0.04	(-0.15, 0.04)
7	0.85	(0.70, 0.93)	0.74	(0.67, 0.80)	0.79	(0.65, 0.88)	0.78	(0.70, 0.84)	0.06	(-0.18, 0.22)	-0.04	(-0.13, 0.06)
8	0.84	(0.63, 0.94)	0.81	(0.73, 0.86)	0.75	(0.55, 0.88)	0.82	(0.74, 0.88)	0.09	(-0.17, 0.25)	-0.01	(-0.09, 0.06)
9	0.75	(0.63, 0.84)	0.85	(0.79, 0.90)	0.65	(0.48, 0.78)	0.85	(0.76, 0.91)	0.10	(-0.07, 0.28)	0.00	(-0.07, 0.07)
10	0.71	(0.60, 0.80)	0.88	(0.84, 0.92)	0.61	(0.44, 0.75)	0.88	(0.80, 0.93)	0.10	(-0.07, 0.31)	0.00	(-0.06, 0.06)
11	0.65	(0.52, 0.76)	0.91	(0.87, 0.94)	0.51	(0.35, 0.67)	0.91	(0.83, 0.95)	0.14	(-0.07, 0.29)	0.00	(-0.05, 0.04)
12	0.60	(0.52, 0.68)	0.93	(0.89, 0.95)	0.44	(0.28, 0.62)	0.92	(0.84, 0.96)	0.16	(-0.03, 0.32)	0.01	(-0.04, 0.05)
13	0.53	(0.44, 0.63)	0.95	(0.90, 0.98)	0.37	(0.19, 0.59)	0.94	(0.89, 0.97)	0.16	(-0.04, 0.36)	0.01	(-0.04, 0.06)
14	0.47	(0.37, 0.57)	0.96	(0.93, 0.98)	0.33	(0.17, 0.53)	0.95	(0.91, 0.98)	0.14	(-0.06, 0.34)	0.01	(-0.03, 0.05)
15	0.39	(0.29, 0.50)	0.97	(0.94, 0.99)	0.26	(0.13, 0.44)	0.96	(0.93, 0.98)	0.13	(-0.11, 0.29)	0.01	(-0.03, 0.03)

^aN Studies = 5; N Participants = 3,578; N major depression = 273

^bN Studies = 2; N Participants = 963; N major depression = 74

^c901 bootstrap iterations (90%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CI.

Abbreviations: CI: confidence interval

Supplementary table E14ii. Comparison of PHQ-9 sensitivity and specificity estimates among participants from primary care and inpatient speciality care settings, among participants administered a fully structured diagnostic interview

Cutoff	Primary care ^a				Inpatient specialty care ^b				Difference across groups ^c (Primary care – inpatient specialty care)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.94	(0.80, 0.99)	0.58	(0.49, 0.66)	0.99	(0.40, 1.00)	0.33	(0.18, 0.51)	-0.05	(-0.19, 0.02)	0.25	(0.16, 0.35)
6	0.91	(0.77, 0.97)	0.68	(0.61, 0.75)	0.99	(0.44, 1.00)	0.37	(0.24, 0.54)	-0.08	(-0.23, 0.01)	0.31	(0.23, 0.39)
7	0.85	(0.70, 0.93)	0.74	(0.67, 0.80)	0.94	(0.79, 0.99)	0.47	(0.28, 0.66)	-0.09	(-0.29, 0.05)	0.27	(0.19, 0.37)
8	0.84	(0.63, 0.94)	0.81	(0.73, 0.86)	0.92	(0.74, 0.98)	0.56	(0.38, 0.72)	-0.08	(0.29, 0.10)	0.25	(0.17, 0.33)
9	0.75	(0.63, 0.84)	0.85	(0.79, 0.90)	0.89	(0.68, 0.97)	0.61	(0.45, 0.75)	-0.14	(-0.29, 0.03)	0.24	(0.17, 0.31)
10	0.71	(0.60, 0.80)	0.88	(0.84, 0.92)	0.89	(0.68, 0.97)	0.69	(0.54, 0.80)	-0.18	(-0.03, -0.02)	0.19	(0.14, 0.26)
11	0.65	(0.52, 0.76)	0.91	(0.87, 0.94)	0.83	(0.48, 0.97)	0.73	(0.60, 0.83)	-0.18	(-0.36, 0.03)	0.18	(0.12, 0.23)
12	0.60	(0.52, 0.68)	0.93	(0.89, 0.95)	0.83	(0.48, 0.96)	0.77	(0.68, 0.85)	-0.23	(-0.41, -0.07)	0.16	(0.09, 0.20)
13	0.53	(0.44, 0.63)	0.95	(0.90, 0.98)	0.71	(0.33, 0.93)	0.83	(0.70, 0.92)	-0.18	(-0.39, 0.05)	0.12	(0.05, 0.17)
14	0.47	(0.37, 0.57)	0.96	(0.93, 0.98)	0.69	(0.27, 0.93)	0.86	(0.75, 0.93)	-0.22	(-0.48, -0.00)	0.10	(0.05, 0.15)
15	0.39	(0.29, 0.50)	0.97	(0.94, 0.99)	0.6	(0.31, 0.83)	0.90	(0.81, 0.95)	-0.21	(-0.43, 0.04)	0.07	(0.03, 0.11)

^aN Studies = 5; N Participants = 3,578; N major depression = 273

^bN Studies = 2; N Participants = 372; N major depression = 34

^c901 bootstrap iterations (90%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CI.

Abbreviations: CI: confidence interval

Supplementary table E14iii. Comparison of PHQ-9 sensitivity and specificity estimates among participants from primary care and outpatient speciality care settings, among participants administered a fully structured diagnostic interview

Cutoff	Primary care ^a				Outpatient specialty care ^b				Difference across groups ^c (Primary care – outpatient specialty care)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.94	(0.80, 0.99)	0.58	(0.49, 0.66)	0.91	(0.76, 0.97)	0.52	(0.29, 0.74)	0.03	(-0.15, 0.27)	0.06	(-0.14, 0.29)
6	0.91	(0.77, 0.97)	0.68	(0.61, 0.75)	0.87	(0.66, 0.96)	0.59	(0.35, 0.79)	0.04	(-0.18, 0.33)	0.09	(-0.08, 0.31)
7	0.85	(0.70, 0.93)	0.74	(0.67, 0.80)	0.83	(0.54, 0.96)	0.67	(0.46, 0.83)	0.02	(-0.27, 0.40)	0.07	(-0.07, 0.24)
8	0.84	(0.63, 0.94)	0.81	(0.73, 0.86)	0.77	(0.50, 0.92)	0.72	(0.52, 0.86)	0.07	(-0.21, 0.42)	0.09	(-0.04, 0.26)
9	0.75	(0.63, 0.84)	0.85	(0.79, 0.90)	0.69	(0.46, 0.86)	0.76	(0.57, 0.89)	0.06	(-0.21, 0.40)	0.09	(-0.03, 0.24)
10	0.71	(0.60, 0.80)	0.88	(0.84, 0.92)	0.63	(0.38, 0.83)	0.80	(0.62, 0.91)	0.08	(-0.20, 0.38)	0.08	(-0.02, 0.22)
11	0.65	(0.52, 0.76)	0.91	(0.87, 0.94)	0.54	(0.34, 0.73)	0.85	(0.70, 0.93)	0.11	(-0.16, 0.35)	0.06	(-0.02, 0.17)
12	0.60	(0.52, 0.68)	0.93	(0.89, 0.95)	0.50	(0.28, 0.71)	0.88	(0.75, 0.94)	0.10	(-0.19, 0.43)	0.05	(-0.02, 0.15)
13	0.53	(0.44, 0.63)	0.95	(0.90, 0.98)	0.42	(0.22, 0.65)	0.91	(0.83, 0.95)	0.11	(-0.20, 0.41)	0.04	(-0.01, 0.12)
14	0.47	(0.37, 0.57)	0.96	(0.93, 0.98)	0.36	(0.18, 0.59)	0.93	(0.87, 0.96)	0.11	(-0.22, 0.36)	0.03	(-0.01, 0.09)
15	0.39	(0.29, 0.50)	0.97	(0.94, 0.99)	0.30	(0.14, 0.52)	0.95	(0.90, 0.98)	0.09	(-0.16, 0.41)	0.02	(-0.02, 0.06)

^aN Studies = 5; N Participants = 3,578; N major depression = 273

^bN Studies = 5; N Participants = 2,767; N major depression = 458

^c901 bootstrap iterations (90%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CI.

Abbreviations: CI: confidence interval

Supplementary table E15. Comparison of PHQ-9 sensitivity and specificity estimates among studies and participants categorized as having “low” risk of bias compared to “high” or “unclear” risk of bias for QUADAS-2 Domain 1 (Participant Selection) - Signalling Question 1 (*Was a consecutive or random sample of participants enrolled?*), among participants administered a fully structured diagnostic interview

Cutoff	Low risk of bias ^a				Unclear or high risk of bias ^b				Difference across groups ^c (Low risk of bias – unclear or high risk of bias)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.95	(0.70, 0.99)	0.68	(0.58, 0.76)	0.93	(0.86, 0.96)	0.47	(0.35, 0.59)	0.02	(-0.16, 0.12)	0.21	(0.05, 0.39)
6	0.92	(0.67, 0.98)	0.76	(0.68, 0.82)	0.91	(0.82, 0.96)	0.55	(0.42, 0.66)	0.01	(-0.25, 0.15)	0.21	(0.07, 0.39)
7	0.83	(0.46, 0.97)	0.81	(0.75, 0.86)	0.86	(0.76, 0.92)	0.63	(0.51, 0.73)	-0.03	(-0.41, 0.19)	0.18	(0.06, 0.34)
8	0.82	(0.43, 0.97)	0.86	(0.82, 0.89)	0.82	(0.70, 0.90)	0.69	(0.59, 0.78)	0.00	(-0.39, 0.25)	0.17	(0.06, 0.31)
9	0.70	(0.47, 0.86)	0.89	(0.85, 0.92)	0.75	(0.63, 0.84)	0.74	(0.64, 0.82)	-0.05	(-0.39, 0.16)	0.15	(0.05, 0.28)
10	0.69	(0.51, 0.83)	0.92	(0.89, 0.94)	0.72	(0.58, 0.83)	0.79	(0.70, 0.86)	-0.03	(-0.38, 0.17)	0.13	(0.05, 0.25)
11	0.63	(0.49, 0.76)	0.93	(0.91, 0.95)	0.63	(0.49, 0.75)	0.83	(0.76, 0.89)	0.00	(-0.35, 0.20)	0.10	(0.04, 0.20)
12	0.55	(0.38, 0.70)	0.95	(0.93, 0.96)	0.59	(0.45, 0.72)	0.86	(0.80, 0.91)	-0.04	(-0.42, 0.17)	0.09	(0.03, 0.16)
13	0.48	(0.30, 0.67)	0.96	(0.93, 0.98)	0.50	(0.37, 0.64)	0.90	(0.85, 0.93)	-0.02	(-0.43, 0.21)	0.06	(0.02, 0.13)
14	0.48	(0.40, 0.55)	0.97	(0.95, 0.99)	0.45	(0.31, 0.59)	0.92	(0.89, 0.95)	0.03	(-0.40, 0.22)	0.05	(0.01, 0.10)
15	0.32	(0.14, 0.58)	0.98	(0.97, 0.98)	0.37	(0.26, 0.49)	0.94	(0.91, 0.96)	-0.05	(-0.49, 0.18)	0.04	(0.01, 0.08)

^aN Studies = 4; N Participants = 3,360; N major depression = 211

^bN Studies = 10; N Participants = 4,320; N major depression = 628

^c102 bootstrap iterations (10%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CI.

Abbreviations: CI: confidence interval

Supplementary table E16. Comparison of PHQ-9 sensitivity and specificity estimates among studies and participants categorized as having “low” risk of bias compared to “high” or “unclear” risk of bias for QUADAS-2 Domain 3 (Reference Standard) - Signalling Question 2 (Were the reference standard results interpreted without knowledge of the results of the index test?), among participants administered a fully structured diagnostic interview

Cutoff	Low risk of bias ^a				Unclear or high risk of bias ^b				Difference across groups ^c (Low risk of bias – unclear or high risk of bias)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.93	(0.81, 0.98)	0.62	(0.52, 0.70)	0.93	-- ^d	0.42	-- ^d	0.00	(-0.14, 0.12)	0.20	(-0.03, 0.41)
6	0.90	-- ^d	0.70	-- ^d	0.92	(0.80, 0.97)	0.49	(0.31, 0.67)	-0.02	(-0.20, 0.14)	0.21	(-0.00, 0.43)
7	0.82	(0.67, 0.91)	0.76	(0.69, 0.82)	0.89	(0.74, 0.96)	0.57	(0.41, 0.72)	-0.07	(-0.28, 0.13)	0.19	(0.00, 0.39)
8	0.78	(0.62, 0.89)	0.81	(0.75, 0.86)	0.86	(0.68, 0.94)	0.64	(0.48, 0.78)	-0.08	(-0.28, 0.18)	0.17	(0.01, 0.36)
9	0.71	(0.57, 0.81)	0.85	(0.80, 0.89)	0.78	(0.61, 0.89)	0.69	(0.53, 0.82)	-0.07	(-0.31, 0.14)	0.16	(0.01, 0.35)
10	0.67	(0.54, 0.78)	0.89	(0.85, 0.92)	0.75	(0.55, 0.88)	0.74	(0.59, 0.85)	-0.08	(-0.32, 0.16)	0.15	(0.02, 0.32)
11	0.59	(0.46, 0.70)	0.91	(0.87, 0.94)	0.67	(0.47, 0.82)	0.80	(0.67, 0.88)	-0.08	(-0.35, 0.18)	0.11	(0.01, 0.25)
12	0.53	(0.42, 0.64)	0.93	(0.89, 0.95)	0.64	(0.42, 0.81)	0.83	(0.73, 0.90)	-0.11	(-0.41, 0.16)	0.10	(0.01, 0.20)
13	0.46	(0.36, 0.57)	0.95	(0.92, 0.97)	0.56	(0.34, 0.75)	0.87	(0.80, 0.92)	-0.10	(-0.41, 0.18)	0.08	(0.01, 0.17)
14	0.40	(0.30, 0.51)	0.96	(0.94, 0.97)	0.51	(0.29, 0.72)	0.91	(0.85, 0.95)	-0.11	(-0.42, 0.17)	0.05	(0.00, 0.13)
15	0.33	(0.24, 0.44)	0.97	(0.95, 0.98)	0.40	(0.23, 0.59)	0.93	(0.89, 0.96)	-0.07	(-0.39, 0.16)	0.04	(-0.00, 0.10)

^aN Studies = 8; N Participants = 5,140; N major depression = 522

^bN Studies = 6; N Participants = 2,540; N major depression = 317

^c19 bootstrap iterations (2%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CI.

^dModel for this cutoff did not converge.

Abbreviations: CI: confidence interval

Supplementary table E17. Comparison of PHQ-9 sensitivity and specificity estimates among participants not currently diagnosed or receiving treatment for a mental health problem compared to all participants, among participants administered the MINI

Cutoff	All participants ^a				Participants not currently diagnosed or receiving treatment for a mental health problem ^b				Difference across groups ^c (All participants – participants not currently diagnosed or receiving treatment for a mental health problem)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.96	(0.93, 0.98)	0.57	(0.50, 0.64)	0.94	(0.86, 0.98)	0.63	(0.54, 0.70)	0.02	(-0.03, 0.12)	-0.06	(-0.18, 0.06)
6	0.93	(0.87, 0.97)	0.66	(0.59, 0.72)	0.92	(0.82, 0.96)	0.72	(0.64, 0.78)	0.01	(-0.06, 0.15)	-0.06	(-0.17, 0.04)
7	0.90	(0.82, 0.94)	0.72	(0.66, 0.78)	0.89	(0.73, 0.96)	0.78	(0.72, 0.83)	0.01	(-0.09, 0.20)	-0.06	(-0.16, 0.03)
8	0.86	(0.78, 0.91)	0.78	(0.73, 0.83)	0.84	(0.68, 0.93)	0.83	(0.78, 0.87)	0.02	(-0.09, 0.23)	-0.05	(-0.13, 0.03)
9	0.82	(0.72, 0.88)	0.84	(0.79, 0.87)	0.77	(0.58, 0.89)	0.89	(0.85, 0.92)	0.05	(-0.11, 0.27)	-0.05	(-0.12, 0.00)
10	0.77	(0.68, 0.83)	0.87	(0.83, 0.90)	0.71	(0.59, 0.81)	0.91	(0.88, 0.94)	0.06	(-0.09, 0.24)	-0.04	(-0.11, 0.01)
11	0.70	(0.62, 0.77)	0.90	(0.86, 0.92)	0.62	(0.55, 0.70)	0.94	(0.92, 0.95)	0.08	(-0.08, 0.23)	-0.04	(-0.10, -0.00)
12	0.65	(0.56, 0.72)	0.92	(0.89, 0.94)	0.59	(0.47, 0.69)	0.96	(0.94, 0.97)	0.06	(-0.11, 0.24)	-0.04	(-0.08, -0.00)
13	0.57	(0.49, 0.65)	0.94	(0.91, 0.96)	0.48	(0.39, 0.58)	0.97	(0.95, 0.98)	0.09	(-0.11, 0.23)	-0.03	(-0.07, 0.00)
14 ^d	0.49	(0.42, 0.56)	0.96	(0.93, 0.97)	0.4	(0.31, 0.50)	0.97	(0.96, 0.98)	0.09	(-0.11, 0.22)	-0.01	(-0.05, 0.01)
15 ^d	0.42	(0.35, 0.49)	0.97	(0.95, 0.98)	0.34	(0.25, 0.46)	0.98	(0.97, 0.99)	0.08	(-0.12, 0.22)	-0.01	(-0.04, 0.01)

^aN Studies = 15; N Participants = 2,952; N major depression = 549

^bN Studies = 6; N Participants = 927; N major depression = 168

^c4 bootstrap iterations (0.4%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CI.

^dFor these cutoffs, among all participants, the default optimizer in glmer failed, thus bobyqa was used instead.

Abbreviations: CI: confidence interval

Supplementary table E18. Comparison of PHQ-9 sensitivity and specificity estimates among participants aged <60 compared to ≥60, among participants administered the MINI

Cutoff	Age <60 ^a				Age ≥60 ^b				Difference across groups ^c (Age <60 – Age ≥60)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.97	(0.93, 0.98)	0.52	(0.45, 0.59)	0.97	(0.88, 0.99)	0.65	(0.58, 0.72)	0.00	(-0.06, 0.12)	-0.13	(-0.27, 0.04)
6	0.95	(0.92, 0.98)	0.61	(0.54, 0.67)	0.88	(0.76, 0.95)	0.72	(0.66, 0.78)	0.07	(-0.05, 0.24)	-0.11	(-0.23, 0.03)
7	0.93	(0.86, 0.96)	0.68	(0.62, 0.74)	0.85	(0.73, 0.93)	0.79	(0.73, 0.83)	0.08	(-0.07, 0.24)	-0.11	(-0.21, 0.02)
8	0.88	(0.81, 0.93)	0.75	(0.69, 0.80)	0.83	(0.71, 0.91)	0.84	(0.79, 0.88)	0.05	(-0.12, 0.21)	-0.09	(-0.21, 0.02)
9	0.84	(0.74, 0.90)	0.81	(0.76, 0.85)	0.80	(0.67, 0.88)	0.87	(0.83, 0.91)	0.04	(-0.16, 0.24)	-0.06	(-0.15, 0.02)
10	0.79	(0.70, 0.85)	0.85	(0.80, 0.88)	0.75	(0.64, 0.84)	0.90	(0.86, 0.94)	0.04	(-0.17, 0.18)	-0.05	(-0.14, 0.02)
11	0.70	(0.61, 0.77)	0.88	(0.84, 0.91)	0.71	(0.59, 0.81)	0.92	(0.89, 0.95)	-0.01	(-0.24, 0.15)	-0.04	(-0.12, 0.02)
12	0.65	(0.55, 0.74)	0.91	(0.87, 0.93)	0.62	(0.52, 0.70)	0.94	(0.90, 0.96)	0.03	(-0.19, 0.22)	-0.03	(-0.10, 0.03)
13	0.58	(0.49, 0.67)	0.93	(0.90, 0.95)	0.52	(0.43, 0.60)	0.97	(0.92, 0.98)	0.06	(-0.21, 0.23)	-0.04	(-0.09, 0.02)
14	0.51	(0.44, 0.59)	0.95	(0.93, 0.97)	0.42	(0.35, 0.50)	0.97	(0.93, 0.99)	0.09	(-0.15, 0.23)	-0.02	(-0.06, 0.03)
15	0.43	(0.35, 0.51)	0.96	(0.94, 0.98)	0.37	(0.30, 0.44)	0.98	(0.95, 0.99)	0.06	(-0.11, 0.22)	-0.02	(-0.05, 0.01)

^aN Studies = 14; N Participants = 1,958; N major depression =310

^bN Studies = 13; N Participants =979; N major depression =239

^c8 bootstrap iterations (0.8%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CI.

Abbreviations: CI: confidence interval

Supplementary table E19. Comparison of PHQ-9 sensitivity and specificity estimates among women compared to men, among participants administered the MINI

Cutoff	Women ^a				Men ^b				Difference across groups ^c (Women – Men)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.96	(0.92, 0.98)	0.47	(0.37, 0.57)	0.99	(0.91, 1.00)	0.63	(0.54, 0.72)	-0.03	(-0.08, 0.03)	-0.16	(-0.43, -0.03)
6	0.93	(0.84, 0.97)	0.56	(0.45, 0.66)	0.95	(0.89, 0.98)	0.72	(0.63, 0.79)	-0.02	(-0.14, 0.06)	-0.16	(-0.42, -0.01)
7	0.90	(0.80, 0.96)	0.64	(0.54, 0.72)	0.92	(0.84, 0.96)	0.78	(0.71, 0.84)	-0.02	(-0.14, 0.11)	-0.14	(-0.32, -0.03)
8	0.87	(0.77, 0.93)	0.71	(0.63, 0.78)	0.87	(0.77, 0.93)	0.84	(0.78, 0.89)	0.00	(-0.17, 0.15)	-0.13	(-0.28, -0.04)
9	0.81	(0.71, 0.89)	0.78	(0.72, 0.83)	0.83	(0.71, 0.90)	0.87	(0.82, 0.91)	-0.02	(-0.19, 0.15)	-0.09	(-0.21, -0.01)
10	0.77	(0.68, 0.84)	0.82	(0.76, 0.87)	0.77	(0.66, 0.85)	0.90	(0.85, 0.94)	0.00	(-0.16, 0.20)	-0.08	(-0.17, -0.00)
11	0.68	(0.59, 0.76)	0.86	(0.81, 0.90)	0.73	-- ^d	0.92	-- ^d	-0.05	(-0.21, 0.17)	-0.06	(-0.14, 0.00)
12	0.64	(0.54, 0.72)	0.9	(0.85, 0.93)	0.65	(0.53, 0.75)	0.93	(0.90, 0.96)	-0.01	(-0.21, 0.21)	-0.03	(-0.10, 0.01)
13	0.57	-- ^d	0.93	-- ^d	0.55	(0.44, 0.65)	0.95	(0.92, 0.97)	0.02	(-0.17, 0.23)	-0.02	(-0.08, 0.02)
14	0.48	(0.40, 0.57)	0.95	(0.91, 0.97)	0.47	(0.38, 0.56)	0.96	(0.93, 0.97)	0.01	(-0.20, 0.23)	-0.01	(-0.06, 0.02)
15	0.41	(0.34, 0.48)	0.96	(0.93, 0.98)	0.40	(0.30, 0.50)	0.98	(0.95, 0.99)	0.01	(-0.16, 0.20)	-0.02	(-0.05, 0.01)

^aN Studies = 15; N Participants = 1,666; N major depression = 337

^bN Studies = 15; N Participants = 1,286; N major depression = 212

^c20 bootstrap iterations (0.2%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CI.

^dModel for this cutoff did not converge.

Abbreviations: CI: confidence interval

Supplementary table E20i. Comparison of PHQ-9 sensitivity and specificity estimates among participants from countries with a very high human development index compared to a high human development index, among participants administered the MINI

Cutoff	Very high human development index ^a				High human development index ^b				Difference across groups ^c (Very high human development index – high human development index)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.97	(0.93, 0.99)	0.61	(0.51, 0.70)	0.94	(0.75, 0.99)	0.50	(0.40, 0.61)	0.03	(-0.04, 0.17)	0.11	(-0.12, 0.24)
6	0.93	(0.83, 0.97)	0.69	(0.60, 0.77)	0.89	(0.77, 0.95)	0.59	(0.48, 0.69)	0.04	(-0.08, 0.17)	0.10	(-0.10, 0.24)
7	0.90	(0.79, 0.95)	0.75	(0.67, 0.82)	0.85	(0.69, 0.94)	0.65	(0.55, 0.74)	0.05	(-0.10, 0.23)	0.10	(-0.07, 0.22)
8	0.86	(0.76, 0.93)	0.81	(0.74, 0.86)	0.78	(0.62, 0.89)	0.72	(0.64, 0.79)	0.08	(-0.07, 0.30)	0.09	(-0.06, 0.18)
9	0.82	(0.69, 0.90)	0.85	(0.79, 0.90)	0.73	(0.56, 0.85)	0.80	(0.75, 0.84)	0.09	(-0.09, 0.34)	0.05	(-0.07, 0.12)
10	0.77	(0.65, 0.86)	0.88	(0.82, 0.92)	0.69	(0.56, 0.79)	0.85	(0.81, 0.88)	0.08	(-0.08, 0.30)	0.03	(-0.07, 0.10)
11	0.70	(0.58, 0.79)	0.90	(0.85, 0.94)	0.67	(0.55, 0.78)	0.89	(0.85, 0.91)	0.03	(-0.16, 0.26)	0.01	(-0.07, 0.08)
12	0.65	(0.53, 0.75)	0.92	(0.88, 0.95)	0.67	(0.55, 0.78)	0.90	(0.87, 0.93)	-0.02	(-0.22, 0.22)	0.02	(-0.05, 0.08)
13	0.57	-- ^d	0.94	-- ^d	0.59	(0.46, 0.71)	0.94	(0.91, 0.95)	-0.02	(-0.20, 0.21)	0.00	(-0.07, 0.06)
14	0.49	-- ^d	0.96	-- ^d	0.49	(0.37, 0.62)	0.95	(0.93, 0.97)	0.00	(-0.16, 0.22)	0.01	(-0.05, 0.06)
15	0.43	(0.34, 0.52)	0.97	(0.94, 0.99)	0.43	(0.31, 0.55)	0.97	(0.95, 0.98)	0.00	(-0.17, 0.24)	0.00	(-0.04, 0.03)

^aN Studies = 10; N Participants = 1,924; N major depression = 430

^bN Studies = 3; N Participants = 542; N major depression = 61

^c708 bootstrap iterations (71%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CI.

^dModel for this cutoff did not converge.

Abbreviations: CI: confidence interval

Supplementary table E20ii. Comparison of PHQ-9 sensitivity and specificity estimates among participants from countries with a very high human development index compared to a low-medium human development index, among participants administered the MINI

Cutoff	Very high human development index ^a				Low-medium human development index ^b				Difference across groups ^c (Very high human development index – low-medium human development index)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.97	(0.93, 0.99)	0.61	(0.51, 0.70)	0.97	(0.87, 0.99)	0.49	(0.44, 0.53)	0.00	(-0.05, 0.06)	0.12	(-0.06, 0.25)
6	0.93	(0.83, 0.97)	0.69	(0.60, 0.77)	0.97	(0.87, 0.99)	0.58	(0.53, 0.63)	-0.04	(-0.13, 0.05)	0.11	(-0.04, 0.21)
7	0.90	(0.79, 0.95)	0.75	(0.67, 0.82)	0.93	(0.83, 0.97)	0.67	(0.62, 0.71)	-0.03	(-0.16, 0.07)	0.08	(-0.06, 0.17)
8	0.86	(0.76, 0.93)	0.81	(0.74, 0.86)	0.90	(0.79, 0.95)	0.73	(0.69, 0.77)	-0.04	(-0.16, 0.09)	0.08	(-0.05, 0.15)
9	0.82	(0.69, 0.90)	0.85	(0.79, 0.90)	0.88	(0.77, 0.94)	0.80	(0.76, 0.84)	-0.06	(-0.23, 0.08)	0.05	(-0.08, 0.10)
10	0.77	(0.65, 0.86)	0.88	(0.82, 0.92)	0.83	(0.71, 0.90)	0.84	(0.81, 0.87)	-0.06	(-0.21, 0.11)	0.04	(-0.10, 0.09)
11	0.70	(0.58, 0.79)	0.9	(0.85, 0.94)	0.71	(0.58, 0.81)	0.87	(0.83, 0.90)	-0.01	(-0.18, 0.19)	0.03	(-0.09, 0.09)
12	0.65	(0.53, 0.75)	0.92	(0.88, 0.95)	0.59	(0.46, 0.70)	0.90	(0.86, 0.92)	0.06	(-0.16, 0.27)	0.02	(-0.06, 0.07)
13	0.57	-- ^d	0.94	-- ^d	0.52	(0.39, 0.64)	0.93	(0.91, 0.95)	0.05	(-0.19, 0.26)	0.01	(-0.09, 0.05)
14	0.49	-- ^d	0.96	-- ^d	0.45	(0.25, 0.67)	0.96	(0.91, 0.98)	0.04	(-0.16, 0.26)	0.00	(-0.07, 0.04)
15	0.43	(0.34, 0.52)	0.97	(0.94, 0.99)	0.34	(0.17, 0.56)	0.97	(0.94, 0.98)	0.09	(-0.14, 0.29)	0.00	(-0.05, 0.03)

^aN Studies = 10; N Participants = 1,924; N major depression = 430

^bN Studies = 2; N Participants = 486; N major depression = 58

^c708 bootstrap iterations (71%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CI.

^dModel for this cutoff did not converge.

Abbreviations: CI: confidence interval

Supplementary table E21i. Comparison of PHQ-9 sensitivity and specificity estimates among participants from primary care and non-medical care settings, among participants administered the MINI

Cutoff	Primary care ^a				Non-medical care ^b				Difference across groups ^c (Primary care – non-medical care)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.98	(0.93, 0.99)	0.54	(0.43, 0.64)	0.95	(0.77, 0.99)	0.42	(0.22, 0.65)	0.03	(-0.04, 0.10)	0.12	(-0.09, 0.27)
6	0.91	(0.73, 0.98)	0.63	(0.52, 0.73)	0.95	(0.78, 0.99)	0.54	(0.35, 0.72)	-0.04	(-0.20, 0.07)	0.09	(-0.10, 0.21)
7	0.89	(0.69, 0.96)	0.69	(0.59, 0.77)	0.90	(0.69, 0.98)	0.59	(0.40, 0.76)	-0.01	(-0.22, 0.12)	0.10	(-0.08, 0.20)
8	0.83	(0.64, 0.93)	0.76	(0.68, 0.82)	0.87	(0.66, 0.96)	0.68	(0.51, 0.81)	-0.04	(-0.29, 0.14)	0.08	(-0.08, 0.16)
9	0.81	(0.63, 0.91)	0.82	(0.77, 0.85)	0.85	(0.67, 0.94)	0.74	(0.56, 0.87)	-0.04	(-0.29, 0.14)	0.08	(-0.05, 0.15)
10	0.74	(0.56, 0.86)	0.86	(0.82, 0.89)	0.84	(0.68, 0.93)	0.77	(0.60, 0.88)	-0.10	(-0.31, 0.11)	0.09	(-0.02, 0.16)
11	0.67	(0.48, 0.82)	0.88	(0.84, 0.91)	0.82	(0.68, 0.91)	0.80	(0.60, 0.92)	-0.15	(-0.37, 0.09)	0.08	(-0.02, 0.15)
12	0.61	(0.42, 0.78)	0.90	(0.87, 0.93)	0.82	(0.68, 0.91)	0.85	(0.68, 0.93)	-0.21	(-0.46, 0.05)	0.05	(-0.03, 0.12)
13	0.54	(0.38, 0.68)	0.94	(0.91, 0.95)	0.75	(0.56, 0.88)	0.87	(0.66, 0.95)	-0.21	(-0.42, 0.05)	0.07	(-0.01, 0.12)
14	0.47	(0.35, 0.59)	0.96	(0.94, 0.97)	0.63	(0.45, 0.78)	0.89	(0.73, 0.96)	-0.16	(-0.38, 0.09)	0.07	(0.01, 0.11)
15	0.38	(0.27, 0.50)	0.97	(0.96, 0.98)	0.57	(0.37, 0.75)	0.92	(0.79, 0.98)	-0.19	(-0.38, 0.04)	0.05	(-0.00, 0.08)

^aN Studies = 5; N Participants = 1,290; N major depression = 168

^bN Studies = 2; N Participants = 299; N major depression = 72

^c589 bootstrap iterations (59%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CI.

Abbreviations: CI: confidence interval

Supplementary table E21ii. Comparison of PHQ-9 sensitivity and specificity estimates among participants from primary care and inpatient or outpatient speciality care settings, among participants administered the MINI

Cutoff	Primary care ^a				Inpatient or outpatient specialty care ^b				Difference across groups ^c (Primary care – inpatient or outpatient specialty care)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.98	(0.93, 0.99)	0.54	(0.43, 0.64)	0.96	(0.90, 0.98)	0.63	(0.53, 0.71)	0.02	(-0.05, 0.10)	-0.09	(-0.32, 0.08)
6	0.91	(0.73, 0.98)	0.63	(0.52, 0.73)	0.94	(0.85, 0.97)	0.70	(0.62, 0.77)	-0.03	(-0.19, 0.14)	-0.07	(-0.28, 0.05)
7	0.89	(0.69, 0.96)	0.69	(0.59, 0.77)	0.90	(0.79, 0.96)	0.77	(0.70, 0.83)	-0.01	(-0.24, 0.17)	-0.08	(-0.27, 0.03)
8	0.83	(0.64, 0.93)	0.76	(0.68, 0.82)	0.87	(0.75, 0.93)	0.82	(0.76, 0.87)	-0.04	(-0.24, 0.18)	-0.06	(-0.23, 0.03)
9	0.81	(0.63, 0.91)	0.82	(0.77, 0.85)	0.81	(0.65, 0.90)	0.87	(0.82, 0.91)	0.00	(-0.23, 0.26)	-0.05	(-0.17, 0.02)
10	0.74	(0.56, 0.86)	0.86	(0.82, 0.89)	0.75	(0.63, 0.84)	0.90	(0.85, 0.93)	-0.01	(-0.25, 0.25)	-0.04	(-0.15, 0.03)
11	0.67	(0.48, 0.82)	0.88	(0.84, 0.91)	0.67	(0.58, 0.74)	0.92	(0.88, 0.95)	0.00	(-0.22, 0.29)	-0.04	(-0.13, 0.02)
12	0.61	(0.42, 0.78)	0.90	(0.87, 0.93)	0.61	(0.54, 0.67)	0.94	(0.90, 0.96)	0.00	(-0.27, 0.30)	-0.04	(-0.11, 0.02)
13	0.54	(0.38, 0.68)	0.94	(0.91, 0.95)	0.53	(0.46, 0.60)	0.96	(0.92, 0.98)	0.01	(-0.25, 0.25)	-0.02	(-0.08, 0.03)
14	0.47	(0.35, 0.59)	0.96	(0.94, 0.97)	0.46	(0.39, 0.54)	0.97	(0.94, 0.98)	0.01	(-0.25, 0.21)	-0.01	(-0.06, 0.02)
15	0.38	(0.27, 0.50)	0.97	(0.96, 0.98)	0.39	(0.32, 0.47)	0.98	(0.95, 0.99)	-0.01	(-0.25, 0.19)	-0.01	(-0.04, 0.02)

^aN Studies = 5; N Participants = 1,290; N major depression = 168

^bN Studies = 8; N Participants = 1,363; N major depression = 309

^c589 bootstrap iterations (59%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CI.

Abbreviations: CI: confidence interval

Supplementary table E22. Comparison of PHQ-9 sensitivity and specificity estimates among studies and participants categorized as having “low” risk of bias compared to “high” or “unclear” risk of bias for QUADAS-2 Domain 1 (Participant Selection) - Signalling Question 1 (*Was a consecutive or random sample of participants enrolled?*), among participants administered the MINI

Cutoff	Low risk of bias ^a				Unclear or high risk of bias ^b				Difference across groups ^c (Low risk of bias – unclear or high risk of bias)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.92	(0.85, 0.96)	0.64	(0.53, 0.74)	0.98	(0.94, 0.99)	0.53	(0.44, 0.62)	-0.06	(-0.15, 0.03)	0.11	(-0.04, 0.29)
6	0.89	(0.78, 0.95)	0.72	(0.63, 0.80)	0.94	(0.87, 0.98)	0.62	(0.53, 0.69)	-0.05	(-0.20, 0.07)	0.10	(-0.02, 0.27)
7	0.85	(0.75, 0.91)	0.79	(0.71, 0.85)	0.92	(0.82, 0.96)	0.68	(0.61, 0.75)	-0.07	(-0.24, 0.08)	0.11	(-0.01, 0.24)
8	0.83	(0.72, 0.90)	0.84	(0.78, 0.89)	0.88	(0.77, 0.94)	0.74	(0.68, 0.80)	-0.05	(-0.24, 0.12)	0.10	(0.01, 0.21)
9	0.76	(0.63, 0.86)	0.88	(0.83, 0.91)	0.84	(0.72, 0.92)	0.81	(0.75, 0.85)	-0.08	(-0.28, 0.12)	0.07	(-0.00, 0.17)
10	0.73	(0.62, 0.81)	0.91	(0.87, 0.94)	0.79	(0.68, 0.87)	0.84	(0.79, 0.88)	-0.06	(-0.26, 0.13)	0.07	(0.00, 0.16)
11	0.66	(0.55, 0.76)	0.93	(0.90, 0.96)	0.72	(0.61, 0.80)	0.87	(0.82, 0.91)	-0.06	(-0.28, 0.12)	0.06	(0.01, 0.15)
12	0.62	(0.49, 0.74)	0.95	(0.92, 0.96)	0.66	(0.56, 0.75)	0.90	(0.85, 0.93)	-0.04	(-0.28, 0.17)	0.05	(0.00, 0.12)
13	0.55	(0.41, 0.69)	0.97	(0.94, 0.98)	0.59	(0.49, 0.68)	0.92	(0.88, 0.95)	-0.04	(-0.27, 0.18)	0.05	(0.00, 0.11)
14	0.47	(0.35, 0.60)	0.98	(0.95, 0.99)	0.50	(0.41, 0.58)	0.94	(0.91, 0.96)	-0.03	(-0.23, 0.19)	0.04	(0.00, 0.09)
15	0.40	(0.28, 0.52)	0.98	(0.97, 0.99)	0.43	(0.34, 0.52)	0.96	(0.93, 0.97)	-0.03	(-0.23, 0.17)	0.02	(-0.00, 0.07)

^aN Studies = 5; N Participants = 1,085; N major depression = 155

^bN Studies = 10; N Participants = 1,867; N major depression = 394

^c55 bootstrap iterations (6%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CI.

Abbreviations: CI: confidence interval

Supplementary table E23. Comparison of PHQ-9 sensitivity and specificity estimates among studies and participants categorized as having “low” risk of bias compared to “high” or “unclear” risk of bias for QUADAS-2 Domain 3 (Reference Standard) - Signalling Question 2 (Were the reference standard results interpreted without knowledge of the results of the index test?), among participants administered the MINI

Cutoff	Low risk of bias ^a				Unclear or high risk of bias ^b				Difference across groups ^c (Low risk of bias – unclear or high risk of bias)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.98	(0.93, 0.99)	0.60	(0.51, 0.68)	0.93	(0.84, 0.97)	0.49	(0.37, 0.62)	0.05	(-0.03, 0.14)	0.11	(-0.06, 0.28)
6	0.94	(0.85, 0.98)	0.68	(0.60, 0.75)	0.93	(0.82, 0.97)	0.58	(0.47, 0.68)	0.01	(-0.10, 0.14)	0.10	(-0.04, 0.25)
7	0.90	(0.80, 0.96)	0.75	(0.68, 0.81)	0.89	(0.77, 0.95)	0.64	(0.54, 0.73)	0.01	(-0.13, 0.18)	0.11	(-0.02, 0.24)
8	0.87	(0.77, 0.93)	0.81	(0.75, 0.85)	0.85	(0.70, 0.93)	0.70	(0.62, 0.78)	0.02	(-0.13, 0.22)	0.11	(-0.01, 0.21)
9	0.82	(0.70, 0.90)	0.86	(0.82, 0.89)	0.82	(0.64, 0.92)	0.76	(0.66, 0.84)	0.00	(-0.17, 0.24)	0.10	(0.00, 0.20)
10	0.75	(0.65, 0.83)	0.89	(0.86, 0.92)	0.81	(0.65, 0.91)	0.78	(0.70, 0.85)	-0.06	(-0.23, 0.19)	0.11	(0.03, 0.21)
11	0.67	(0.58, 0.76)	0.91	(0.89, 0.94)	0.75	(0.62, 0.85)	0.82	(0.72, 0.89)	-0.08	(-0.26, 0.15)	0.09	(0.01, 0.20)
12	0.62	(0.53, 0.70)	0.93	(0.91, 0.95)	0.71	(0.56, 0.83)	0.85	(0.77, 0.91)	-0.09	(-0.30, 0.15)	0.08	(0.01, 0.17)
13	0.55	(0.46, 0.63)	0.95	(0.93, 0.96)	0.64	(0.48, 0.77)	0.88	(0.78, 0.93)	-0.09	(-0.30, 0.16)	0.07	(0.00, 0.17)
14	0.47	(0.39, 0.55)	0.97	(0.96, 0.97)	0.55	(0.42, 0.67)	0.89	(0.82, 0.93)	-0.08	(-0.27, 0.14)	0.08	(0.02, 0.15)
15	0.39	(0.32, 0.46)	0.98	(0.97, 0.98)	0.49	(0.36, 0.63)	0.92	(0.85, 0.96)	-0.10	(-0.29, 0.10)	0.06	(-0.00, 0.13)

^aN Studies = 11; N Participants = 2,413; N major depression = 427

^bN Studies = 4; N Participants = 539; N major depression = 122

^c82 bootstrap iterations (8%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CI.

Abbreviations: CI: confidence interval

Supplementary table E24. Comparison of PHQ-9 sensitivity and specificity estimates among studies and participants categorized as having “low” risk of bias compared to “unclear” risk of bias for QUADAS-2 Domain 4 (Flow and Timing) - Signalling Question 1 (*Was there an appropriate interval between index test and reference standard?*), among participants administered the MINI

Cutoff	Low risk of bias ^a				Unclear risk of bias ^b				Difference across groups ^c (Low risk of bias – unclear risk of bias)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.97	(0.93, 0.98)	0.53	(0.43, 0.63)	0.97	(0.83, 1.00)	0.63	(0.56, 0.70)	0.00	(-0.05, 0.11)	-0.10	(-0.26, 0.15)
6	0.95	(0.90, 0.98)	0.62	(0.52, 0.71)	0.85	-- ^d	0.69	-- ^d	0.10	(-0.07, 0.28)	-0.07	(-0.23, 0.13)
7	0.93	(0.86, 0.96)	0.69	(0.59, 0.77)	0.82	(0.62, 0.93)	0.75	(0.71, 0.79)	0.11	(-0.11, 0.31)	-0.06	(-0.22, 0.10)
8	0.89	(0.81, 0.94)	0.75	(0.66, 0.83)	0.77	(0.59, 0.88)	0.80	(0.76, 0.83)	0.12	(-0.12, 0.37)	-0.05	(-0.20, 0.09)
9	0.86	(0.86, 0.86)	0.81	(0.81, 0.81)	0.71	(0.57, 0.81)	0.86	(0.82, 0.89)	0.15	(-0.16, 0.35)	-0.05	(-0.20, 0.06)
10	0.80	(0.70, 0.87)	0.85	(0.76, 0.90)	0.69	(0.55, 0.80)	0.89	(0.83, 0.92)	0.11	(-0.22, 0.28)	-0.04	(-0.19, 0.07)
11	0.72	(0.63, 0.80)	0.88	(0.81, 0.92)	0.64	(0.53, 0.74)	0.93	(0.88, 0.96)	0.08	(-0.25, 0.21)	-0.05	(-0.17, 0.04)
12	0.67	(0.57, 0.76)	0.90	(0.84, 0.94)	0.59	(0.46, 0.71)	0.94	(0.91, 0.97)	0.08	(-0.30, 0.29)	-0.04	(-0.13, 0.04)
13	0.61	(0.51, 0.70)	0.92	(0.87, 0.96)	0.48	(0.36, 0.60)	0.97	(0.92, 0.99)	0.13	(-0.38, 0.38)	-0.05	(-0.13, 0.02)
14	0.52	(0.43, 0.60)	0.95	(0.90, 0.97)	0.39	(0.31, 0.47)	0.97	(0.93, 0.99)	0.13	(-0.47, 0.45)	-0.02	(-0.10, 0.03)
15	0.44	(0.36, 0.52)	0.96	(0.93, 0.98)	0.33	-- ^d	0.98	-- ^d	0.11	(-0.56, 0.36)	-0.02	(-0.06, 0.02)

^aN Studies = 13; N Participants = 2,346; N major depression = 394

^bN Studies = 5; N Participants = 606; N major depression = 155

^c41 bootstrap iterations (4%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CI.

^dModel for this cutoff did not converge.

Abbreviations: CI: confidence interval

Supplementary table E25. Comparison of PHQ-9 sensitivity and specificity estimates among studies and participants categorized as having “low” risk of bias compared to “high” or “unclear” risk of bias for QUADAS-2 Domain 4 (Flow and Timing) - Signalling Question 2 (*Did all patients receive a reference standard?*), among participants administered the MINI

Cutoff	Low risk of bias ^a				Unclear or high risk of bias ^b				Difference across groups ^c (Low risk of bias – unclear or high risk of bias)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.97	(0.93, 0.99)	0.57	(0.49, 0.64)	0.94	(0.86, 0.98)	0.59	(0.40, 0.76)	0.03	(-0.05, 0.13)	-0.02	(-0.23, 0.16)
6	0.94	(0.86, 0.98)	0.65	(0.59, 0.72)	0.91	(0.77, 0.97)	0.67	(0.49, 0.82)	0.03	(-0.06, 0.18)	-0.02	(-0.20, 0.15)
7	0.91	(0.81, 0.96)	0.72	(0.65, 0.77)	0.88	(0.75, 0.95)	0.75	(0.57, 0.87)	0.03	(-0.11, 0.17)	-0.03	(-0.19, 0.13)
8	0.87	(0.76, 0.93)	0.78	(0.72, 0.82)	0.85	(0.74, 0.92)	0.81	(0.65, 0.91)	0.02	(-0.13, 0.19)	-0.03	(-0.16, 0.11)
9	0.84	(0.72, 0.91)	0.82	(0.78, 0.86)	0.77	(0.61, 0.87)	0.87	(0.76, 0.93)	0.07	(-0.11, 0.26)	-0.05	(-0.14, 0.06)
10	0.79	(0.68, 0.87)	0.86	(0.81, 0.89)	0.72	(0.60, 0.82)	0.90	(0.82, 0.95)	0.07	(-0.11, 0.24)	-0.04	(-0.13, 0.03)
11	0.72	(0.61, 0.80)	0.88	(0.84, 0.92)	0.64	-- ^d	0.93	-- ^d	0.08	(-0.09, 0.29)	-0.05	(-0.12, 0.03)
12	0.68	(0.57, 0.77)	0.91	(0.87, 0.94)	0.56	(0.47, 0.64)	0.94	(0.88, 0.97)	0.12	(-0.07, 0.31)	-0.03	(-0.11, 0.03)
13	0.61	(0.51, 0.70)	0.93	(0.89, 0.95)	0.47	(0.38, 0.56)	0.97	(0.91, 0.99)	0.14	(-0.07, 0.33)	-0.04	(-0.10, 0.01)
14	0.53	(0.45, 0.61)	0.95	(0.92, 0.97)	0.37	(0.30, 0.45)	0.97	(0.93, 0.99)	0.16	(-0.02, 0.33)	-0.02	(-0.07, 0.01)
15	0.47	-- ^d	0.96	-- ^d	0.28	(0.22, 0.36)	0.98	(0.95, 0.99)	0.19	(0.03, 0.36)	-0.02	(-0.06, 0.01)

^aN Studies = 11; N Participants = 1,962; N major depression = 393

^bN Studies = 4; N Participants = 990; N major depression = 156

^c115 bootstrap iterations (12%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CI.

^dModel for this cutoff did not converge.

Abbreviations: CI: confidence interval

Supplementary table E26. Comparison of PHQ-9 sensitivity and specificity estimates among studies and participants categorized as having “low” risk of bias compared to “high” or “unclear” risk of bias for QUADAS-2 Domain 4 (Flow and Timing) - Signalling Question 4 (Were all patients included in the analysis?), among participants administered the MINI

Cutoff	Low risk of bias ^a				Unclear or high risk of bias ^b				Difference across groups ^c (Low risk of bias – unclear or high risk of bias)			
	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI	Sensitivity	95% CI	Specificity	95% CI
5	0.97	(0.93, 0.99)	0.54	(0.45, 0.63)	0.95	(0.90, 0.98)	0.66	(0.56, 0.75)	0.02	(-0.06, 0.09)	-0.12	(-0.27, 0.23)
6	0.95	(0.90, 0.98)	0.64	(0.55, 0.71)	0.85	(0.66, 0.94)	0.72	(0.61, 0.80)	0.10	(-0.06, 0.29)	-0.08	(-0.21, 0.17)
7	0.92	(0.86, 0.96)	0.71	(0.62, 0.78)	0.81	(0.60, 0.92)	0.77	(0.69, 0.83)	0.11	(-0.09, 0.33)	-0.06	(-0.17, 0.17)
8	0.89	(0.81, 0.93)	0.78	(0.71, 0.83)	0.78	(0.59, 0.90)	0.80	(0.72, 0.86)	0.11	(-0.11, 0.32)	-0.02	(-0.12, 0.17)
9	0.85	(0.76, 0.91)	0.83	(0.78, 0.87)	0.72	(0.52, 0.85)	0.85	(0.76, 0.91)	0.13	(-0.12, 0.34)	-0.02	(-0.11, 0.15)
10	0.79	(0.71, 0.86)	0.87	(0.82, 0.91)	0.70	(0.50, 0.84)	0.87	(0.79, 0.92)	0.09	(-0.15, 0.30)	0.00	(-0.08, 0.16)
11	0.73	(0.65, 0.81)	0.90	(0.85, 0.93)	0.61	(0.50, 0.70)	0.90	(0.82, 0.94)	0.12	(-0.14, 0.29)	0.00	(-0.08, 0.13)
12	0.69	(0.59, 0.78)	0.92	(0.88, 0.94)	0.54	(0.47, 0.61)	0.92	(0.85, 0.96)	0.15	(-0.14, 0.32)	0.00	(-0.07, 0.11)
13	0.62	(0.51, 0.71)	0.94	(0.91, 0.96)	0.46	(0.39, 0.53)	0.94	(0.86, 0.98)	0.16	(-0.09, 0.32)	0.00	(-0.06, 0.10)
14	0.53	(0.44, 0.62)	0.96	(0.93, 0.97)	0.39	(0.32, 0.47)	0.95	(0.88, 0.98)	0.14	(-0.08, 0.29)	0.01	(-0.04, 0.10)
15	0.46	(0.37, 0.55)	0.97	(0.95, 0.98)	0.33	(0.26, 0.40)	0.96	(0.89, 0.99)	0.13	(-0.08, 0.28)	0.01	(-0.03, 0.09)

^aN Studies = 11; N Participants = 2,270; N major depression = 353

^bN Studies = 4; N Participants = 682; N major depression = 196

^c121 bootstrap iterations (12%) did not produce a difference estimate for all cutoffs (5-15). These iterations were removed prior to determining the bootstrapped CI.

Abbreviations: CI: confidence interval

Supplementary table F. QUADAS-2 ratings for each primary study included in the present study

First Author, Year	Domain 1: Participant Selection					Domain 2: Index Test				Domain 3: Reference Standard					Domain 4: Flow and Timing				
	SQ1	SQ2	SQ3	RoB	AC	SQ 1	SQ2	RoB	AC	SQ1	SQ2	SQ3	RoB	AC	SQ1	SQ2	SQ3	SQ4	RoB
Semi-structured Interviews																			
Amoozegar, 2017 ^{1a}	U/C	Yes	Yes	Low	Low	N/A	N/A	Low	Low	Yes	Yes	U/C	U/C	Low	U/C	Yes	Yes	No	U/C
Ayalon, 2010 ²	U/C	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	U/C	U/C	U/C	Low	Yes	Yes	Yes	Yes	Low
Beraldi, 2014 ³	U/C	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	U/C	U/C	U/C	Low	Yes	Yes	Yes	Yes	Low
Bombardier, 2012 ⁴	U/C	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	IPD ^b	Yes	Yes	U/C	IPD ^b
Chagas, 2013 ⁵	Yes	Yes	Yes	Low	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	No	U/C
Eack, 2006 ⁶	U/C	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Fann, 2005 ⁷	U/C	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	No	Yes	High	Low	Yes	U/C	Yes	No	High
Fiest, 2014 ⁸	U/C	Yes	Yes	Low	Low	N/A	N/A	Low	Low	Yes	Yes	U/C	U/C	Low	U/C	Yes	Yes	No	U/C
Fischer, 2014 ⁹	U/C	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	U/C	Yes	U/C	Low	Yes	Yes	Yes	Yes	Low
Gjerdingen, 2009 ¹⁰	No	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	U/C	U/C	U/C	Low	U/C	Yes	Yes	U/C	U/C
Gräfe, 2004 ¹¹	Yes	Yes	Yes	Low	Low	N/A	N/A	Low	Low	Yes	Yes	U/C	U/C	Low	Yes	Yes	Yes	U/C	U/C
Khamseh, 2011 ¹²	U/C	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Kwan, 2012 ¹³	U/C	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	U/C	U/C	U/C	U/C	Yes	Yes	Yes	U/C	U/C
Lambert, 2015 ^{14a}	No	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Liu, 2011 ¹⁵	U/C	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	No	U/C
McGuire, 2013 ¹⁶	U/C	Yes	Yes	Low	Low	N/A	N/A	Low	Low	Yes	Yes	U/C	U/C	Low	Yes	Yes	Yes	Yes	Low
Osório, 2009 ¹⁷	No	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	U/C	U/C	U/C	Low	Yes	Yes	Yes	Yes	Low
Osório, 2012 ¹⁸	U/C	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	Yes	U/C	U/C	Low	Yes	Yes	Yes	Yes	Low
Picardi, 2005 ¹⁹	Yes	Yes	Yes	Low	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Richardson, 2010 ²⁰	U/C	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	U/C	U/C	U/C	Low	Yes	Yes	Yes	Yes	Low
Rooney, 2013 ²¹	U/C	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	U/C	Yes	U/C	Low	Yes	Yes	Yes	Yes	Low
Sidebottom, 2012 ²²	No	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	Yes	No	High	Low	IPD ^b	Yes	Yes	No	U/C
Simning, 2012 ²³	No	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	U/C	No	High	Low	Yes	Yes	Yes	Yes	Low
Turner, Unpublished	U/C	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	U/C	Yes	U/C	Low	Yes	Yes	Yes	Yes	Low
Turner, 2012 ²⁴	U/C	Yes	Yes	Low	Low	N/A	N/A	Low	Low	Yes	U/C	Yes	U/C	Low	Yes	Yes	Yes	Yes	Low
Twist, 2013 ²⁵	U/C	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	No	Yes	High	Low	Yes	Yes	Yes	U/C	U/C
Vöhringer, 2013 ²⁶	U/C	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	Yes	U/C	U/C	Low	Yes	Yes	Yes	Yes	Low
Williams, 2012 ²⁷	No	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	IPD ^b	Yes	Yes	Yes	IPD ^b
Wittkamp, 2009 ²⁸	No	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	Yes	U/C	U/C	Low	Yes	Yes	Yes	No	U/C

First Author, Year	Domain 1: Participant Selection					Domain 2: Index Test				Domain 3: Reference Standard					Domain 4: Flow and Timing				
	SQ1	SQ2	SQ3	RoB	AC	SQ 1	SQ2	RoB	AC	SQ1	SQ2	SQ3	RoB	AC	SQ1	SQ2	SQ3	SQ4	RoB
Fully Structured Interviews																			
Arroll, 2010 ²⁹	Yes	Yes	Yes	Low	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Azah, 2005 ³⁰	U/C	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	U/C	Yes	U/C	Yes	U/C	U/C
de Man-van Ginkel, 2012 ³¹	No	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Delgadillo, 2011 ³²	No	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	U/C	Yes	U/C	Low	Yes	Yes	Yes	Yes	Low
Gelaye, 2014 ³³	U/C	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	U/C	Yes	U/C	Low	Yes	Yes	Yes	Yes	Low
Hahn, 2006 ³⁴	U/C	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	U/C	Yes	U/C	Low	U/C	Yes	Yes	Yes	U/C
Henkel, 2004 ³⁵	U/C	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Hobfoll, 2011 ³⁶	U/C	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	U/C	Yes	U/C	Low	U/C	Yes	Yes	Yes	U/C
Kiely, 2014 ³⁷	U/C	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	U/C	Yes	U/C	Low	U/C	U/C	Yes	U/C	U/C
Mohd Sidik, 2012 ³⁸	Yes	Yes	Yes	Low	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	U/C	Yes	Yes	Yes	Yes	Low
Patel, 2008 ³⁹	Yes	Yes	Yes	Low	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Pence, 2012 ⁴⁰	Yes	Yes	Yes	Low	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Razykov, 2013 ⁴¹	No	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	U/C	Yes	U/C	Low	Yes	Yes	Yes	Yes	Low
Thombs, 2008 ⁴²	No	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Mini International Neuropsychiatric Interviews (MINI)																			
Akena, 2013 ⁴³	U/C	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Cholera, 2014 ⁴⁴	U/C	Yes	Yes	U/C	U/C	N/A	N/A	Low	U/C	Yes	Yes	Yes	Low	U/C	Yes	No	Yes	Yes	Low
Hides, 2007 ⁴⁵	No	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	U/C	Yes	U/C	Low	Yes	Yes	Yes	Yes	Low
Hyphantis, 2011 ⁴⁶	Yes	Yes	Yes	Low	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	U/C	U/C	Yes	U/C	U/C
Hyphantis, 2014 ⁴⁷	U/C	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Inagaki, 2013 ⁴⁸	Yes	Yes	Yes	Low	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	No	Yes	Yes	High
Lamers, 2008 ⁴⁹	U/C	Yes	Yes	Low	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	IPD ^b	Yes	Yes	No	U/C
Lotrakul, 2008 ⁵⁰	No	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	No	Yes	Yes	High
Muramatsu, 2007 ⁵¹	U/C	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Persoons, 2001 ⁵²	Yes	Yes	Yes	Low	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Santos, 2013 ⁵³	Yes	Yes	Yes	Low	Low	N/A	N/A	Low	Low	Yes	U/C	Yes	U/C	Low	U/C	Yes	Yes	Yes	U/C
Stafford, 2007 ⁵⁴	No	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	U/C	Low
Sung, 2013 ⁵⁵	Yes	Yes	Yes	Low	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
van Steenberg-Weijnenburg, 2010 ⁵⁶	No	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	No	Yes	High	Low	IPD ^b	Yes	Yes	No	High
Zhang, 2013 ⁵⁷	U/C	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	U/C	Yes	U/C	Low	IPD ^b	Yes	Yes	Yes	IPD ^b

Abbreviations: AC: acceptability concern, RoB: risk of bias, SQ: signalling question, N/A: not applicable; U/C: Unclear

^aWas unpublished at the time of electronic database search

^bRating varies at the individual participant level

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