Supplementary Material

Supplementary Methods A. Search Strategies

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

Supplementary Figure A. Forest plots of sensitivity and specificity estimates for cut-off 10 of the PHQ-9 for each reference standard category, including participant subgroups based on age and sex

Supplementary Figure B. ROC curves among participants not currently diagnosed or receiving treatment for a mental health problem compared to all participants as well as among participant subgroups based on age and sex for each reference standard category

Supplementary Table A. Reasons for the exclusion of articles excluded at full-text level

Supplementary Table B. Characteristics of included primary studies in the present study and eligible primary studies not included in the present study

Supplementary Table C. Estimates of heterogeneity and prediction intervals at PHQ-9 cut-off score of 10

Supplementary Table D. Meta-regression model coefficients and p-values

Supplementary Table E. 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 as well as among participant subgroups based on age and sex

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

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/4-3133. 3 and 3238. 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=2000-2018

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 ≥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 ≥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., $\geq 2.0\%$ 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 mental health diagnostician administered the clinical interview (e.g., psychiatrist, psychologist, clinician, social worker, general practitioner, psychiatric nurse) or if non-clinicians who have comprehensive diagnostic experience and documented adequate training administered the clinical interview (e.g. trained doctoral student, research assistant, nurse, nurse practitioner, advanced practice nurse). Code "no" if individuals without the required training administered the reference standard (e.g., student, research assistant, nurse without documented extensive training necessary). Code "unclear" if the characteristics of personnel who administered the diagnostic interview cannot be ascertained or if a vague description of training is provided (e.g., trained research assistants with no additional information). 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.

Fully structured: CIDI, DIS, MINI, CIS-R **Semi-structured**: SCID, SCAN, DISH, CIS

- 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. 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 text 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 ≥ 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.</p>
- 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 >=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

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").

Supplementary Figure A1. Forest plots of sensitivity and specificity estimates for cut-off 10 of PHQ-9, among studies that used a semi-structured diagnostic interview as the reference standard (Number of studies = 47; Number of participants = 11,234; Number with major depression = 1,528)

Study	Sensitivity (95% CI)	Sensitivity	Specificity (95% CI)	Specificity
Alamri, 2017 [1] Amoozegar, 2017 [2] Amtmann, 2015 [3] Ayalon, 2010 [4] Beraldi, 2014 [5] Bernstein, 2018 [6] Bhana, 2015 [7] Bombardier, 2012 [8] Chagas, 2013 [9] Chibanda, 2016 [10] Eack, 2006 [11] Fann, 2005 [12] Fiest, 2014 [13] Fischer, 2014 [14] Gjerdingen, 2009 [15] Grafe, 2004 [16] Graen, 2017 [17] Green, 2017 [17] Green, 2018 [18] Haroz, 2017 [20] Khamseh, 2011 [21] Kwan, 2012 [22] Lambert, 2015 [23] Lara, 2015 [24] Liu, 2011 [25] Martin-Subero, 2017 [27] McGuire, 2013 [26] Osorio, 2009 [29] Osorio, 2012 [30] Patten, 2015 [31] Prisnie, 2016 [33] Quinn, Unpublished [34] Richardson, 2010 [35] Rooney, 2013 [36] Shinn, 2017 [37] Sidebottom, 2012 [38] Simning, 2012 [39] Spangenberg, 2015 [40] Turner, unpublished [42] Twist, 2013 [44] Wagner, 2017 [45] Williams, 2012 [46] Wittkampf, 2009 [47]	$\begin{array}{c} 0.54 & (0.33, 0.74) \\ 0.82 & (0.68, 0.91) \\ 0.94 & (0.83, 0.99) \\ 1.00 & (0.54, 1.00) \\ 0.95 & (0.76, 1.00) \\ 0.95 & (0.76, 1.00) \\ 0.41 & (0.30, 0.53) \\ 1.00 & (0.77, 1.00) \\ 1.00 & (0.82, 1.00) \\ 0.87 & (0.80, 0.92) \\ 0.83 & (0.52, 0.98) \\ 0.83 & (0.52, 0.98) \\ 0.83 & (0.76, 0.96) \\ 0.74 & (0.52, 0.90) \\ 1.00 & (0.72, 1.00) \\ 0.74 & (0.52, 0.90) \\ 1.00 & (0.75, 1.00) \\ 0.74 & (0.52, 0.90) \\ 1.00 & (0.75, 1.00) \\ 0.88 & (0.26, 0.95) \\ 0.90 & (0.55, 1.00) \\ 0.38 & (0.21, 0.58) \\ 0.88 & (0.22, 0.88) \\ 0.88 & (0.22, 0.88) \\ 0.88 & (0.62, 0.98) \\ 0.71 & (0.48, 0.99) \\ 0.71 & (0.48, 0.99) \\ 0.75 & (0.38, 0.74) \\ 0.86 & (0.73, 0.94) \\ 0.84 & (0.64, 0.95) \\ 0.95 & (0.88, 0.99) \\ 1.00 & (0.94, 1.00) \\ 0.96 & (0.82, 1.00) \\ 0.95 & (0.75, 0.92) \\ 0.67 & (0.00) \\ 0.95 & (0.73, 0.88) \\ 0.83 & (0.52, 0.98) \\ 0.53 & (0.28, 0.77) \\ 0.82 & (0.73, 0.88) \\ 0.53 & (0.28, 0.77) \\ 0.82 & (0.73, 0.89) \\ 0.79 & (0.49, 0.95) \\ 0.33 & (0.10, 0.66) \\ 1.00 & (0.74, 1.00) \\ 0.80 & (0.44, 0.97) \\ 1.00 & (0.34, 0.93) \\ 0.79 & (0.48, 0.98) \\ 0.53 & (0.28, 0.77) \\ 0.80 & (0.44, 0.97) \\ 1.00 & (0.34, 0.93) \\ 0.71 & (0.39, 0.91) \\ 0.50 & (0.07, 0.93) \\ 0.92 & (0.82, 0.99) \\$		$\begin{array}{c} 0.82 & (0.76 , 0.88) \\ 0.79 & (0.72 , 0.87) \\ 0.94 & (0.89 , 0.98) \\ 0.86 & (0.78 , 0.92) \\ 0.82 & (0.76 , 0.87) \\ 0.97 & (0.95 , 0.98) \\ 0.80 & (0.73 , 0.86) \\ 0.83 & (0.72 , 0.91) \\ 0.63 & (0.74 , 0.87) \\ 0.90 & (0.83 , 0.96) \\ 0.86 & (0.80 , 0.91) \\ 0.86 & (0.80 , 0.91) \\ 0.86 & (0.80 , 0.91) \\ 0.86 & (0.80 , 0.91) \\ 0.91 & (0.88 , 0.94) \\ 0.77 & (0.69 , 0.84) \\ 0.69 & (0.62 , 0.77) \\ 0.50 & (0.43 , 0.57) \\ 0.86 & (0.78 , 0.92) \\ 0.77 & (0.69 , 0.84) \\ 0.68 & (0.74 , 0.88) \\ 0.86 & (0.77 , 0.88) \\ 0.86 & (0.77 , 0.88) \\ 0.86 & (0.77 , 0.88) \\ 0.86 & (0.77 , 0.88) \\ 0.86 & (0.77 , 0.88) \\ 0.86 & (0.77 , 0.88) \\ 0.84 & (0.78 , 0.92) \\ 0.77 & (0.69 , 0.84) \\ 0.66 & (0.76 , 0.82) \\ 0.77 & (0.69 , 0.84) \\ 0.94 & (0.93 , 0.95) \\ 0.76 & (0.77 , 0.92) \\ 0.78 & (0.70 , 0.82) \\ 0.77 & (0.65 , 0.81) \\ 0.86 & (0.77 , 0.92) \\ 0.78 & (0.65 , 0.81) \\ 0.80 & (0.74 , 0.85) \\ 0.91 & (0.85 , 0.94) \\ 0.93 & (0.86 , 0.97) \\ 0.78 & (0.65 , 0.81) \\ 0.93 & (0.86 , 0.97) \\ 0.78 & (0.65 , 0.81) \\ 0.91 & (0.87 , 0.94) \\ 0.77 & (0.70 , 0.85) \\ 0.91 & (0.87 , 0.94) \\ 0.77 & (0.70 , 0.85) \\ 0.97 & (0.89 , 1.00) \\ 0.91 & (0.86 , 0.95) \\ 0.97 & (0.87 , 0.94) \\ 0.97 & (0.82 , 0.91) \\ 0.87 & (0.87 , 0.95) \\ 0.87 & (0.82 , 0.91) \\ 0.87 & (0.87 , 0.95) \\ 0.87 & (0.82 , 0.91) \\ 0.87 & (0.82 , 0.91) \\$	
	0.0	0.2 0.4 0.6 0.8 1.0	0.0	0.2 0.4 0.6 0.8 1.0

Supplementary Figure A2. Forest plots of sensitivity and specificity estimates for cut-off 10 for the PHQ-9 among participants aged <60, among studies that used a semi-structured diagnostic interview as the reference standard (Number of studies = 42; Number of participants = 7, 349; Number with major depression = 1,131)

Study	Sensitivity (95% CI)	Sensitivity	Specificity (95% CI)	Specificity
Amoozegar, 2017 [2] Amtmann, 2015 [3] Beraldi, 2014 [5] Bernstein, 2018 [6] Bhana, 2015 [7] Bombardier, 2012 [8] Chigas, 2013 [9] Chibanda, 2016 [10] Eack, 2006 [11] Fann, 2005 [12] Fiest, 2014 [13] Fischer, 2014 [14] Gjerdingen, 2009 [15] Grafe, 2004 [16] Green, 2017 [17] Green, 2018 [18] Haroz, 2017 [19] Hitchon, 2019 [20] Khamseh, 2011 [21] Kwan, 2012 [22] Lambert, 2015 [23] Lara, 2015 [24] Liu, 2011 [25] Marrie, 2018 [26] Martin-Subero, 2017 [27] McGuire, 2013 [28] Osorio, 2012 [30] Patten, 2015 [31] Picardi, 2005 [32] Prisnie, 2016 [33] Quinn, Unpublished [34] Rooney, 2013 [36] Shinn, 2017 [37] Sidebottom, 2012 [38] Turner, unpublished [42] Twist, 2013 [43] Vohringer, 2013 [44] Wagner, 2017 [45] Williams, 2012 [46] Wittkampf, 2009 [47]	$\begin{array}{c} 0.83 & (0.69 , 0.92) \\ 0.95 & (0.83 , 0.99) \\ 0.80 & (0.28 , 0.99) \\ 0.94 & (0.71 , 1.00) \\ 0.44 & (0.32 , 0.56) \\ 1.00 & (0.74 , 1.00) \\ 1.00 & (0.66 , 1.00) \\ 0.83 & (0.52 , 0.98) \\ 0.73 & (0.50 , 0.89) \\ 1.00 & (0.59 , 1.00) \\ 0.74 & (0.49 , 0.91) \\ 0.73 & (0.50 , 0.89) \\ 1.00 & (0.59 , 1.00) \\ 0.74 & (0.49 , 0.91) \\ 0.97 & (0.89 , 1.00) \\ 0.82 & (0.60 , 0.95) \\ 0.90 & (0.55 , 1.00) \\ 0.41 & (0.21 , 0.64) \\ 0.78 & (0.40 , 0.97) \\ 0.84 & (0.72 , 0.93) \\ 0.50 & (0.01 , 0.99) \\ 0.62 & (0.32 , 0.86) \\ 0.55 & (0.36 , 0.74) \\ 0.89 & (0.74 , 0.97) \\ 0.83 & (0.61 , 0.95) \\ 0.96 & (0.88 , 0.99) \\ 1.00 & (0.48 , 1.00) \\ 1.00 & (0.48 , 1.00) \\ 1.00 & (0.48 , 1.00) \\ 1.00 & (0.48 , 1.00) \\ 1.00 & (0.48 , 1.00) \\ 0.83 & (0.52 , 0.98) \\ 1.00 & (0.74 , 1.00) \\ 0.83 & (0.52 , 0.98) \\ 1.00 & (0.74 , 1.00) \\ 0.83 & (0.52 , 0.98) \\ 1.00 & (0.74 , 1.00) \\ 0.83 & (0.52 , 0.98) \\ 1.00 & (0.74 , 1.00) \\ 0.83 & (0.52 , 0.98) \\ 1.00 & (0.74 , 1.00) \\ 0.83 & (0.52 , 0.93) \\ 0.33 & (0.44 , 0.78) \\ 0.33 & (0.14 , 0.91) \\ 0.33 & (0.11 , 0.91) \\ 0.85 & (0.75 , 0.93) \\ 0.92 & (0.80 , 0.99) \\ 0.41 & (0.15 , 0.95) \\ 0.92 & (0.80 , 0.99) \\$		$\begin{array}{c} 0.78 & (0.71 , 0.86) \\ 0.78 & (0.68 , 0.87) \\ 0.86 & (0.76 , 0.94) \\ 0.79 & (0.72 , 0.85) \\ 0.96 & (0.94 , 0.97) \\ 0.81 & (0.72 , 0.87) \\ 0.77 & (0.59 , 0.90) \\ 0.63 & (0.53 , 0.72) \\ 0.63 & (0.45 , 0.79) \\ 0.87 & (0.77 , 0.94) \\ 0.86 & (0.79 , 0.92) \\ 0.82 & (0.67 , 0.92) \\ 0.81 & (0.69 , 0.79) \\ 0.71 & (0.64 , 0.79) \\ 0.74 & (0.69 , 0.79) \\ 0.71 & (0.64 , 0.79) \\ 0.71 & (0.64 , 0.79) \\ 0.50 & (0.43 , 0.57) \\ 0.85 & (0.75 , 0.92) \\ 0.69 & (0.54 , 0.80) \\ 0.69 & (0.54 , 0.80) \\ 0.69 & (0.54 , 0.80) \\ 0.69 & (0.54 , 0.88) \\ 0.71 & (0.58 , 0.82) \\ 0.84 & (0.78 , 0.88) \\ 0.93 & (0.91 , 0.94) \\ 0.69 & (0.61 , 0.76) \\ 0.76 & (0.63 , 0.88) \\ 0.93 & (0.94 , 1.00) \\ 0.71 & (0.56 , 0.84) \\ 0.88 & (0.78 , 0.92) \\ 0.79 & (0.70 , 0.86) \\ 0.89 & (0.77 , 0.90) \\ 0.84 & (0.73 , 0.92) \\ 0.82 & (0.70 , 0.90) \\ 0.84 & (0.78 , 1.00) \\ 0.88 & (0.83 , 0.93) \\ 0.72 & (0.61 , 0.82) \\ 0.90 & (0.77 , 0.97) \\ 0.87 & (0.81 , 0.92) \\ 0.87 & (0.81 , 0.81) \\$	
	0.0	0.2 0.4 0.6 0.8 1.0	0.0	0.2 0.4 0.6 0.8 1.0

Supplementary Figure A3. Forest plots of sensitivity and specificity estimates for cut-off 10 for the PHQ-9 among participants aged ≥ 60 , among studies that used a semi-structured diagnostic interview as the reference standard (Number of studies = 39; Number of participants = 3,860; Number with major depression = 397)

Study	Sensitivity (95% CI)	Sensitivity	Specificity (95% CI)	Specificity
Alamri, 2017 [1] Amoozegar, 2017 [2] Amtmann, 2015 [3] Ayalon, 2010 [4] Beraldi, 2014 [5]	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	• • • • • • • • • • • • • • • • • • •	$\begin{array}{cccc} 0.82 & (0.76 & 0.88 \\ - & 0.84 & (0.64 & 0.95 \\ - & 0.84 & (0.71 & 0.96 \\ - & 0.94 & (0.89 & 0.98 \\ - & 0.86 & (0.72 & 0.95 \\ \end{array}$	
Bernstein, 2018 [6] Bhana, 2015 [7] Bombardier, 2012 [8] Chagas, 2013 [9] Chibanda, 2016 [10] Fann, 2005 [12]	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		$\begin{array}{cccc} & 0.89 & (0.79 & , 0.96) \\ & 0.99 & (0.96 & , 1.00) \\\bullet & 0.78 & (0.58 & , 0.91) \\\bullet & 0.88 & (0.73 & , 0.97) \\\bullet & 0.67 & (0.40 & , 0.97) \\\bullet & 0.95 & (0.82 & , 1.00) \\ \end{array}$	
Fiest, 2014 [13] Fischer, 2014 [14] Grafe, 2004 [16] Haroz, 2017 [19] Hitchon, 2019 [20] Klamsch, 2011 [21]	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		→ 0.86 (0.64, 0.97) → 0.87 (0.80, 0.92) → 0.86 (0.76, 0.93) 0.92 (0.74, 0.99) → 0.83 (0.73, 0.91) 0.67 (0.62, 0.80)	
Kwan, 2017 [21] Kwan, 2012 [22] Lambert, 2015 [23] Liu, 2011 [25] Marrie, 2018 [26] Martin-Subero, 2017 [27]	1.00 (0.03, (1.00)) 0.88 (0.47, 1.00) 0.79 (0.49, 0.95) 1.00 (0.16, 1.00) 0.90 (0.55, 1.00)	0 0 0	$\begin{array}{cccc} - & 0.07 & (0.32, 0.60) \\ - & 0.82 & (0.70, 0.91) \\ - & 0.91 & (0.82, 0.97) \\ - & 0.95 & (0.94, 0.97) \\ - & 0.91 & (0.82, 0.96) \\ - & 0.82 & (0.74, 0.88) \end{array}$	
McGuire, 2013 [28] Osorio, 2012 [30] Patten, 2015 [31] Prisnie, 2016 [33] Quinn, Unpublished [34] Bichardson, 2010 [35]	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		$\begin{array}{cccc} & 0.82 & (0.70 & , 0.91 \\ \hline \bullet & 0.92 & (0.64 & , 1.00 \\ \hline & 0.86 & (0.68 & , 0.96 \\ \hline & 0.96 & (0.88 & , 1.00 \\ \hline & 0.72 & (0.63 & , 0.81 \\ \hline & 0.86 & (0.82 & 0.90 \\ \hline \end{array}$	
Rooney, 2013 [36] Shinn, 2017 [37] Simning, 2012 [39] Spangenberg, 2015 [40] Turner, 2012 [41]	1.00 (0.43, 0.03) 1.00 (0.44, 0.07) 0.80 (0.44, 0.97) 1.00 (0.03, 1.00) 0.89 (0.52, 1.00)	 	$\begin{array}{cccc} 0.00 & (0.02, 0.030) \\ \hline & 0.88 & (0.75, 0.96) \\ 0.87 & (0.78, 0.95) \\ \hline & 0.91 & (0.86, 0.95) \\ \hline & 0.95 & (0.90, 0.98) \\ \hline & 0.74 & (0.60, 0.86) \\ \hline \end{array}$	
Turner, unpublished [42] Twist, 2013 [43] Vohringer, 2013 [44] Wagner, 2017 [45] Williams, 2012 [46] Wittkampf, 2009 [47]	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	 	$\begin{array}{cccc} & & 0.88 & (0.68 & 0.97) \\ \hline & & 0.95 & (0.90 & 0.99) \\ \hline & & 0.84 & (0.71 & 0.93) \\ \hline & & 0.97 & (0.85 & 1.00) \\ & & 0.92 & (0.86 & 0.96) \\ \hline & & 0.87 & (0.77 & 0.95) \end{array}$	
n egide € di ngenerak k	0.0	0.2 0.4 0.6 0.8		

Supplementary Figure A4. Forest plots of sensitivity and specificity estimates for cut-off 10 for the PHQ-9 among women, among studies that used a semi-structured diagnostic interview as the reference standard (Number of studies = 46; Number of participants = 6, 986; Number with major depression = 1,040)

Study	Sensitivity (95% CI)	Sensitivity	Specificity (95% CI)	Specificity
Alamri, 2017 [1] Amoozegar, 2017 [2] Amtmann, 2015 [3] Ayalon, 2010 [4] Beraldi, 2014 [5] Bernstein, 2018 [6] Bhana, 2015 [7] Bombardier, 2012 [8] Chagas, 2013 [9] Chibanda, 2016 [10] Eack, 2006 [11] Fann, 2005 [12] Fiest, 2014 [14] Gjerdingen, 2009 [15] Grafe, 2004 [16] Green, 2017 [17] Green, 2018 [18] Haroz, 2017 [19] Hitchon, 2019 [20] Khamseh, 2011 [21] Kwan, 2012 [22] Lambert, 2015 [23] Lara, 2015 [24] Liu, 2011 [25] Martin-Subero, 2017 [27] McGuire, 2013 [28] Osorio, 2009 [29] Osorio, 2012 [30] Patten, 2015 [31] Prisnie, 2016 [33] Quinn, Unpublished [34] Richardson, 2010 [35] Rooney, 2013 [36] Shinn, 2017 [37] Sidebottom, 2012 [38] Simning, 2012 [39] Spangenberg, 2015 [41] Turner, 2013 [43] Vohringer, 2013 [44] Wagner, 2017 [45] Williams, 2012 [46] Wittkampf, 2009 [47]	$\begin{array}{c} 0.67 & (0.38 , 0.88) \\ 0.93 & (0.66 , 1.00) \\ 0.93 & (0.80 , 0.98) \\ 1.00 & (0.16 , 1.00) \\ 1.00 & (0.3 , 1.00) \\ 0.39 & (0.86 , 1.00) \\ 0.39 & (0.86 , 1.00) \\ 0.39 & (0.28 , 0.52) \\ 1.00 & (0.74 , 1.00) \\ 1.00 & (0.74 , 1.00) \\ 0.86 & (0.79 , 0.92) \\ 0.83 & (0.52 , 0.98) \\ 0.76 & (0.54 , 0.96) \\ 0.67 & (0.35 , 0.90) \\ 1.00 & (0.40 , 1.00) \\ 1.00 & (0.40 , 1.00) \\ 0.77 & (0.46 , 0.95) \\ 0.90 & (0.55 , 1.00) \\ 0.77 & (0.46 , 0.95) \\ 0.90 & (0.55 , 1.00) \\ 0.75 & (0.43 , 0.95) \\ 0.55 & (0.36 , 0.74) \\ 0.85 & (0.77 , 0.94) \\ 0.85 & (0.77 , 0.94) \\ 0.86 & (0.42 , 1.00) \\ 1.00 & (0.48 , 1.00) \\ 1.00 & (0.48 , 1.00) \\ 1.00 & (0.77 , 1.00) \\ 0.33 & (0.10 & 0.65) \\ -0.78 & (0.66 & 0.87) \\ 0.76 & (0.21 & 0.86) \\ 0.87 & (0.73 & 0.96) \\ 0.97 & (0.83 & 1.00) \\ 0.97 & (0.83 & 1.00) \\ 0.97 & (0.83 & 1.00) \\ 0.97 & (0.83 & 1.00) \\ 0.97 & (0.83 & 1.00) \\ 0.97 & (0.83 & 1.00) \\ 0.97 & (0.83 & 1.00) \\ 0.97 & (0.83 & 1.00) \\ 0.97 & (0.83 & 1.00) \\ 0.97 & (0.83 & 1.00) \\ 0.97 & (0.83 & 1.00) \\ 0.97 & (0.83 & 1.00) \\ 0.97 & (0.83 & 1.00) \\ 0.97 & (0.83 & 1.00) \\ 0.97 & (0.83 & 1.00) \\ 0.97 & (0.83 & 1.00) \\ 0.97 & (0.83 & 1.00) \\$		$\begin{array}{c} 0.83 & (0.75 , 0.90) \\ 0.78 & (0.58 , 0.91) \\ 0.77 & (0.68 , 0.86) \\ 0.93 & (0.84 , 0.98) \\ 0.81 & (0.64 , 0.92) \\ 0.79 & (0.72 , 0.86) \\ 0.96 & (0.94 , 0.98) \\ 0.78 & (0.60 , 0.91) \\ 0.78 & (0.58 , 0.91) \\ 0.78 & (0.56 , 0.91) \\ 0.78 & (0.56 , 0.91) \\ 0.78 & (0.57 , 0.92) \\ 0.61 & (0.51 , 0.72) \\ 0.61 & (0.54 , 0.77) \\ 0.90 & (0.74 , 0.99) \\ 0.85 & (0.75 , 0.92) \\ 0.86 & (0.71 , 0.95) \\ 0.91 & (0.88 , 0.94) \\ 0.74 & (0.69 , 0.79) \\ 0.67 & (0.56 , 0.77) \\ 0.50 & (0.43 , 0.57) \\ 0.85 & (0.75 , 0.92) \\ 0.77 & (0.68 , 0.85) \\ 0.71 & (0.36 , 0.66) \\ 0.83 & (0.66 , 0.93) \\ 0.85 & (0.75 , 0.91) \\ 0.84 & (0.78 , 0.88) \\ 0.94 & (0.73 , 0.96) \\ 0.77 & (0.68 , 0.77) \\ 0.77 & (0.56 , 0.91) \\ 0.98 & (0.94 , 1.00) \\ 0.68 & (0.76 , 0.83) \\ 0.71 & (0.59 , 0.81) \\ 0.99 & (0.84 , 0.78 , 0.93) \\ 0.72 & (0.58 , 0.83) \\ 0.86 & (0.78 , 0.93) \\ 0.72 & (0.58 , 0.83) \\ 0.86 & (0.78 , 0.93) \\ 0.72 & (0.58 , 0.83) \\ 0.86 & (0.78 , 0.93) \\ 0.72 & (0.58 , 0.83) \\ 0.86 & (0.78 , 0.94) \\ 0.84 & (0.77 , 0.86) \\ 0.83 & (0.94 , 1.00) \\ 0.85 & (0.72 , 0.84) \\ 0.84 & (0.77 , 0.86) \\ 0.85 & (0.73 , 0.94) \\ 0.84 & ($	
	0.0	0.2 0.4 0.6 0.8 1.0	0.0	0.2 0.4 0.6 0.8 1.0

Supplementary Figure A5. Forest plots of sensitivity and specificity estimates for cut-off 10 for the PHQ-9 among men, among studies that used a semi-structured diagnostic interview as the reference standard (Number of studies = 39; Number of participants = 4, 168; Number with major depression = 488)

Study	Sensitivity (95% CI)	Sensitivity	Specificity (95% CI)	Specificity
Study Alamri, 2017 [1] Amozegar, 2017 [2] Amtmann, 2015 [3] Ayalon, 2010 [4] Beraldi, 2014 [5] Bernstein, 2018 [6] Bhana, 2015 [7] Bombardier, 2012 [8] Chagas, 2013 [9] Chibanda, 2016 [10] Fann, 2005 [12] Fiest, 2014 [14] Grafe, 2004 [16] Green, 2017 [17] Haroz, 2017 [19] Hitchon, 2019 [20] Khamseh, 2011 [21] Kwan, 2012 [22] Lambert, 2018 [26] Martie, 2018 [26] Martie, 2018 [26] Martin-Subero, 2017 [27] McGuire, 2013 [28] Osorio, 2012 [30] Patten, 2015 [31] Picardi, 2005 [32] Prisnie, 2016 [33] Quinn, Unpublished [34] Richardson, 2010 [35]	Sensitivity (95% CI) 0.33 (0.07, 0.70) 0.77 (0.60, 0.90) 1.00 (0.63, 1.00) 1.00 (0.40, 1.00) 0.83 (0.36, 1.00) 1.00 (0.54, 1.00) 0.57 (0.18, 0.90) 1.00 (0.59, 1.00) 0.87 (0.70, 0.96) 0.94 (0.82, 1.00) 0.82 (0.48, 0.98) 1.00 (0.59, 1.00) 0.89 (0.52, 1.00) 0.95 (0.76, 1.00) 0.95 (0.76, 1.00) 0.25 (0.03, 0.65) 1.00 (0.03, 1.00) 0.72 (0.53, 0.86) 1.00 (0.03, 1.00) 0.72 (0.55, 1.00) 0.83 (0.36, 1.00) 0.93 (0.78, 0.99) 1.00 (0.40, 1.00) 0.93 (0.78, 0.99) 1.00 (0.40, 1.00) 0.93 (0.68, 1.00) 0.50 (0.07, 0.93) 0.75 (0.19, 0.99) 0.67 (0.30, 0.93) 0.93 (0.76, 0.99)	Sensitivity	Specificity (95% CI) 0.81 (0.70, 0.89) 0.80 (0.71, 0.86) 0.86 (0.68, 0.96) 0.95 (0.89, 0.99) 0.89 (0.80, 0.95) 0.87 (0.78, 0.93) 0.97 (0.93, 0.99) 0.81 (0.73, 0.88) 0.87 (0.72, 0.96) 0.72 (0.51, 0.88) 0.90 (0.81, 0.96) 0.89 (0.79, 0.95) 0.86 (0.80, 0.91) 0.81 (0.74, 0.87) 0.72 (0.60, 0.82) 0.89 (0.75, 0.97) 0.78 (0.56, 0.93) 0.79 (0.66, 0.88) 0.79 (0.66, 0.88) 0.79 (0.66, 0.88) 0.93 (0.91, 0.95) 0.80 (0.64, 0.91) 0.81 (0.77, 0.84) 0.85 (0.74, 0.92) 0.81 (0.64, 0.92) 0.85 (0.66, 0.96) 0.86 (0.74, 0.94) 0.91 (0.79, 0.98) 0.75 (0.63, 0.85) 0.87 (0.78, 0.93)	Specificity
Prisnie, 2016 [33] Quinn, Unpublished [34] Richardson, 2010 [35] Rooney, 2013 [36] Simning, 2012 [39] Turner, 2012 [41] Turner, unpublished [42] Twist, 2013 [43]	0.75 (0.19, 0.99) 0.67 (0.30, 0.93) 0.93 (0.76, 0.99) 0.71 (0.29, 0.96) 0.80 (0.28, 0.99) 1.00 (0.40, 1.00) 0.50 (0.07, 0.93)		$\begin{array}{c} 0.91 & (0.79, \ 0.98 \) \\ 0.75 & (0.63, \ 0.85 \) \\ 0.87 & (0.78, \ 0.93 \) \\ 0.86 & (0.75, \ 0.93 \) \\ 0.93 & (0.85, \ 0.98 \) \\ 0.85 & (0.69, \ 0.95 \) \\ 0.90 & (0.76, \ 0.97 \) \\ 0.93 & (0.87, \ 0.96 \) \end{array}$	
Vohringer, 2013 [44] Wagner, 2017 [45] Williams, 2012 [46] Wittkampf, 2009 [47]	0.80 (0.28, 0.99) 1.00 (0.03, 1.00) 0.57 (0.41, 0.73) 0.84 (0.60, 0.98)		0.76 (0.61, 0.88) 0.97 (0.78, 1.00) 0.94 (0.88, 0.98) 0.92 (0.84, 0.98)	

Supplementary Figure A6. Forest plots of sensitivity and specificity estimates for cut-off 10 for the PHQ-9, among studies that used a fully structured diagnostic interview as the reference standard (Number of studies = 20; Number of participants = 17,167; Number with major depression =1,352)

Study	Sensitivity (95% CI)	Sensitivity	Specificity (95% CI)	Specificity
Arroll, 2010 [48]	0.81 (0.74, 0.87)	~~~	0.85 (0.84, 0.87)	Θ
Azah, 2005 [49]	0.57 (0.41, 0.77)		0.78 (0.71, 0.85)	— 0 —
de Man-van Ginkel, 2012 [50]	0.89 (0.77, 0.96)		0.78 (0.73, 0.83)	-0-
Delgadillo, 2011 [51]	0.98 (0.90, 1.00)	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	0.35 (0.22, 0.49)	
Fisher, 2016 [52]	0.50 (0.07, 0.93)		0.92 (0.88, 0.94)	-0-
Gelaye, 2014 [53]	0.67 (0.59, 0.74)		0.68 (0.65, 0.71)	-0-
Grool, 2011 [54]	0.50 (0.28, 0.72)		0.94 (0.91, 0.96)	- 0
Hahn, 2006 [55]	0.94 (0.73, 1.00)		0.43 (0.36, 0.50)	0
Henkel, 2004 [56]	0.86 (0.72, 0.95)		0.68 (0.63, 0.73)	-0-
Hobfoll, 2011 [57]	0.64 (0.50, 0.80)		0.75 (0.66, 0.83)	
Kiely, 2014 [58]	0.85 (0.68, 0.95)		0.86 (0.83, 0.88)	. 0 -
Kim, 2017 [59]	0.36 (0.29, 0.43)	_0_	0.95 (0.95, 0.96)	Θ
Kohrt, 2016 [60]	1.00 (0.80, 1.00)		0.62 (0.52, 0.71)	~~~
Liu, 2015 [61]	0.57 (0.46, 0.67)	0	0.88 (0.87, 0.89)	Θ
Mohd Sidik, 2012 [62]	1.00 (0.89, 1.00)		0.89 (0.82, 0.94)	— 0 —
Patel, 2008 [63]	0.69 (0.39, 0.91)		0.79 (0.74, 0.84)	-0-
Pence, 2012 [64]	0.36 (0.11, 0.69)		0.89 (0.86, 0.92)	-0-
Razykov, 2013 [65]	0.85 (0.55, 0.98)		0.65 (0.60, 0.70)	_0 _
Thombs, 2008 [66]	0.69 (0.63, 0.75)	0	0.84 (0.82, 0.87)	. .
Zuithoff, 2009 [67]	0.63 (0.54, 0.71)	0	0.91 (0.89, 0.93)	
	C	.0 0.2 0.4 0.6 0.8 1.0		0.0 0.2 0.4 0.6 0.8 1.0

Supplementary Figure A7. Forest plots of sensitivity and specificity estimates for cut-off 10 for the PHQ-9 among participants aged <60, among studies that used a fully structured diagnostic interview as the reference standard (Number of studies = 20; Number of participants = 13,784; Number with major depression =1,087)



Supplementary Figure A8. Forest plots of sensitivity and specificity estimates for cut-off 10 for the PHQ-9 among participants aged ≥ 60 , among studies that used a fully structured diagnostic interview as the reference standard (Number of studies = 15; Number of participants = 3,374; Number with major depression = 265)

Study	Sensitivity (95% CI)	Sensitivity	Specificity (95% CI)	Specificity
Arroll, 2010 [48]	0.52 (0.32, 0.71)		0.93 (0.91, 0.95)	\$
Azah, 2005 [49]	0.50 (0.01, 0.99)		0.80 (0.48, 0.98)	
de Man-van Ginkel, 2012 [50]	0.91 (0.76, 0.98)		0.78 (0.72, 0.83)	_0_
Gelaye, 2014 [53]	0.57 (0.18, 0.90)		0.63 (0.42, 0.81)	
Grool, 2011 [54]	0.17 (0.00, 0.64)		0.93 (0.90, 0.96)	-0-
Hahn, 2006 [55]	1.00 (0.16, 1.00)	0	0.56 (0.42, 0.74)	o
Henkel, 2004 [56]	0.71 (0.29, 0.96)		0.76 (0.69, 0.83)	— 0 —
Hobfoll, 2011 [57]	0.71 (0.29, 0.96)		0.88 (0.64, 0.99)	\
Kim, 2017 [59]	0.38 (0.09, 0.76)		0.95 (0.91, 0.98)	-0-
Kohrt, 2016 [60]	1.00 (0.40, 1.00)	0	0.45 (0.17, 0.77)	
Liu, 2015 [61]	0.60 (0.15, 0.95)		0.92 (0.89, 0.95)	-0-
Patel, 2008 [63]	0.67 (0.09, 0.99)		0.68 (0.51, 0.82)	
Razykov, 2013 [65]	0.75 (0.19, 0.99)		0.66 (0.58, 0.74)	~~~
Thombs, 2008 [66]	0.65 (0.56, 0.74)	— 。	0.87 (0.84, 0.89)	-0-
Zuithoff, 2009 [67]	0.64 (0.41, 0.83)	o	0.91 (0.88, 0.94)	-0-
	(0.0 0.2 0.4 0.6 0.8 1.0	Г 0.0	0.2 0.4 0.6 0.8 1.0

Supplementary Figure A9. Forest plots of sensitivity and specificity estimates for cut-off 10 for the PHQ-9 among women, among studies that used a fully structured diagnostic interview as the reference standard (Number of studies = 20; Number of participants = 9,603; Number with major depression =793)



Supplementary Figure A10. Forest plots of sensitivity and specificity estimates for cut-off 10 for the PHQ-9 among men, among studies that used a fully structured diagnostic interview as the reference standard (Number of studies = 18; Number of participants = 7,554; Number with major depression =557)

Study	Sensitivity (95% CI)	Sensitivity	Specificity (95% CI)	Specificity
Arroll, 2010 [48]	0.77 (0.62, 0.88)		0.87 (0.85, 0.89)	
Azah, 2005 [49]	0.52 (0.27, 0.79)	o	0.80 (0.69, 0.91)	—— — ——
de Man-van Ginkel, 2012 [50]	0.88 (0.70, 0.98)		0.83 (0.77, 0.88)	— 0 —
Delgadillo, 2011 [51]	1.00 (0.92, 1.00)	—o	0.49 (0.31, 0.66)	
Gelaye, 2014 [53]	0.63 (0.48, 0.76)		0.70 (0.65, 0.75)	~~
Grool, 2011 [54]	0.41 (0.18, 0.67)		0.94 (0.91, 0.96)	-0-
Hahn, 2006 [55]	1.00 (0.48, 1.00)	O	0.53 (0.43, 0.64)	— • —
Henkel, 2004 [56]	0.92 (0.62, 1.00)		0.64 (0.55, 0.71)	—0 —
Hobfoll, 2011 [57]	0.73 (0.45, 0.92)		0.84 (0.71, 0.94)	o
Kiely, 2014 [58]	0.82 (0.48, 0.98)		0.87 (0.84, 0.91)	-0-
Kim, 2017 [59]	0.28 (0.17, 0.42)		0.96 (0.95, 0.97)	θ
Kohrt, 2016 [60]	1.00 (0.63, 1.00)	Đ	0.75 (0.61, 0.85)	
Liu, 2015 [61]	0.69 (0.50, 0.84)		0.89 (0.88, 0.91)	Ð
Patel, 2008 [63]	0.83 (0.36, 1.00)		0.85 (0.77, 0.91)	~~~
Pence, 2012 [64]	0.75 (0.19, 0.99)		0.92 (0.85, 0.96)	— 0 —
Razykov, 2013 [65]	0.67 (0.09, 0.99)		0.82 (0.67, 0.93)	· · · · · · · · · · · · · · · · · · ·
Thombs, 2008 [66]	0.67 (0.59, 0.74)	— • —	0.85 (0.82, 0.88)	- 0 -
Zuithoff, 2009 [67]	0.69 (0.54, 0.81)		0.91 (0.87, 0.94)	- 0 -
	0.0	0.2 0.4 0.6 0.8 1.0	0.0	0.2 0.4 0.6 0.8 1.0

Supplementary Figure A11. Forest plots of sensitivity and specificity estimates for cut-off 10 for the PHQ-9, among studies that used the MINI as the reference standard (Number of studies = 33; Number of participants = 16,102; Number with major depression =1,661)

Study	Sensitivity (95% CI)	Sensitivity	Specificity (95% CI)	Specificity
Akena, 2013 [68]	1.00 (0.72, 1.00)	0	0.75 (0.64, 0.84)	
Baron, 2017 [69]	0.76 (0.66, 0.85)		0.80 (0.77, 0.83)	- 0 -
Buji, 2018 [70]	1.00 (0.48, 1.00)	o	0.87 (0.80, 0.93)	0_
Cholera, 2014 [71]	0.87 (0.74, 0.95)	o	0.73 (0.68, 0.78)	-0-
Conway, 2016 [72]	1.00 (0.16, 1.00)	0	0.79 (0.58, 0.93)	
de la Torre, 2016 [73]	0.91 (0.82, 0.97)		0.70 (0.63, 0.77)	
Garabiles, Unpublished [74]	0.51 (0.35, 0.68)		0.78 (0.66, 0.88)	o
Gholizadeh, 2019 [75]	0.50 (0.21, 0.79)		0.82 (0.71, 0.90)	-
Hantsoo, 2017 [76]	0.89 (0.67, 0.99)		0.87 (0.82, 0.90)	-0-
Hides, 2007 [77]	0.94 (0.82, 0.99)	-	0.55 (0.41, 0.69)	
Hyphantis, 2011 [78]	0.87 (0.77, 0.94)	~~~~	0.81 (0.74, 0.87)	—0 —
Hyphantis, 2014 [79]	0.94 (0.87, 0.98)	~~~	0.86 (0.81, 0.90)	
Inagaki, 2013 [80]	0.67 (0.48, 0.89)		0.95 (0.90, 0.99)	_0_
Janssen, 2016 [81]	0.65 (0.57, 0.73)	~~~	0.94 (0.93, 0.94)	θ
Lamers, 2008 [82]	0.56 (0.44, 0.70)	-	0.78 (0.63, 0.89)	
Levin-Aspenson, 2017 [83]	0.95 (0.87, 0.99)	~~~	0.76 (0.71, 0.80)	_0_
Liu, 2016 [84]	0.86 (0.77, 0.92)	~~~	0.80 (0.78, 0.82)	\$
Lotrakul, 2008 [85]	0.89 (0.67, 0.99)	O	0.65 (0.59, 0.71)	0
Muramatsu, 2007 [86]	0.97 (0.84, 1.00)	- -	0.70 (0.59, 0.80)	—— •——
Muramatsu, 2018 [87]	0.98 (0.88, 1.00)		0.62 (0.52, 0.71)	
Nakku, 2016 [88]	0.45 (0.34, 0.56)	~~~	0.93 (0.86, 0.98)	~~
Paika, 2017 [89]	0.90 (0.82, 0.95)	~~~	0.85 (0.81, 0.89)	- 0-
Persoons, 2001 [90]	0.96 (0.82, 1.00)	~~~	0.82 (0.75, 0.88)	— 0 —
Rancans, 2018 [91]	0.77 (0.69, 0.83)	~~~	0.82 (0.80, 0.84)	0
Santos, 2013 [92]	0.76 (0.55, 0.91)		0.77 (0.70, 0.83)	—0 —
Stafford, 2007 [93]	0.66 (0.48, 0.81)		0.86 (0.80, 0.91)	~~~
Sung, 2013 [94]	0.75 (0.43, 0.95)		0.84 (0.80, 0.88)	_0_
Suzuki, 2015 [95]	0.88 (0.74, 0.96)		0.68 (0.63, 0.72)	- o -
van Heyningen, 2018 [96]	0.86 (0.77, 0.93)	~~~	0.70 (0.64, 0.75)	0
van Steenbergen-Weijenburg, 2010 [97]	0.92 (0.78, 0.98)		0.60 (0.52, 0.67)	—0 —
Volker, 2016 [98]	0.91 (0.72, 0.99)		0.67 (0.56, 0.79)	~~~~
Wang, 2014 [99]	0.79 (0.59, 0.92)		0.89 (0.87, 0.91)	\$
Zhang, 2013 [100]	0.65 (0.38, 0.86)		0.75 (0.60, 0.86)	
	0.0	0.2 0.4 0.6 0.8 1.0	0.0	0.2 0.4 0.6 0.8 1.0

Supplementary Figure Al2. Forest plots of sensitivity and specificity estimates for cut-off 10 for the PHQ-9 among participants aged <60, among studies that used the MINI as the reference standard (Number of studies = 31; Number of participants = 10,489; Number with major depression =1,119)

Study	Sensitivity (95% CI)	Sensitivity	Specificity (95% CI)	Specificity
Akena, 2013 [68]	1.00 (0.72, 1.00)	Θ	0.74 (0.63, 0.84)	o
Baron, 2017 [69]	0.79 (0.69, 0.87)	~~~~	0.82 (0.79, 0.85)	- 0 -
Buji, 2018 [70]	1.00 (0.40, 1.00)	0	0.87 (0.79, 0.92)	— — ——————————————————————————————————
Cholera, 2014 [71]	0.87 (0.73, 0.95)	—— — —	0.72 (0.67, 0.77)	-0-
Conway, 2016 [72]	1.00 (0.03, 1.00)	0	0.71 (0.29, 0.96)	
de la Torre, 2016 [73]	0.93 (0.81, 0.99)	0	0.75 (0.66, 0.83)	~~~
Garabiles, Unpublished [74]	0.53 (0.36, 0.69)		0.78 (0.66, 0.88)	—— — ——
Gholizadeh, 2019 [75]	0.56 (0.21, 0.86)		0.78 (0.52, 0.94)	
Hantsoo, 2017 [76]	0.89 (0.67, 0.99)		0.87 (0.83, 0.91)	-0-
Hides, 2007 [77]	0.93 (0.82, 0.99)	0	0.56 (0.44, 0.71)	
Hyphantis, 2011 [78]	0.81 (0.66, 0.92)		0.84 (0.76, 0.92)	— 0 —
Hyphantis, 2014 [79]	0.92 (0.75, 0.99)		0.87 (0.72, 0.96)	
Inagaki, 2013 [80]	1.00 (0.03, 1.00)	0	0.61 (0.22, 0.96)	
Janssen, 2016 [81]	0.79 (0.69, 0.87)		0.91 (0.90, 0.92)	θ
Levin-Aspenson, 2017 [83]	0.95 (0.86, 0.99)	- -	0.75 (0.70, 0.80)	
Liu, 2016 [84]	0.85 (0.76, 0.92)	0	0.80 (0.78, 0.82)	
Lotrakul, 2008 [85]	0.88 (0.64, 0.99)		0.61 (0.54, 0.68)	~~
Muramatsu, 2007 [86]	1.00 (0.85, 1.00)	o	0.64 (0.53, 0.77)	- 0
Muramatsu, 2018 [87]	0.98 (0.88, 1.00)	 - 	0.57 (0.47, 0.69)	o
Nakku, 2016 [88]	0.44 (0.33, 0.57)		0.93 (0.86, 0.98)	~~~
Paika, 2017 [89]	0.88 (0.76, 0.95)	o	0.85 (0.80, 0.90)	-0-
Persoons, 2001 [90]	0.96 (0.81, 1.00)	—— — —	0.82 (0.74, 0.89)	— 0 —
Rancans, 2018 [91]	0.81 (0.70, 0.90)	~~~~	0.83 (0.81, 0.86)	-0 -
Stafford, 2007 [93]	0.60 (0.32, 0.84)		0.85 (0.72, 0.94)	
Sung, 2013 [94]	0.75 (0.43, 0.95)		0.84 (0.80, 0.87)	- 0-
Suzuki, 2015 [95]	0.93 (0.78, 0.99)		0.62 (0.56, 0.67)	0
van Heyningen, 2018 [96]	0.86 (0.77, 0.93)	~~~	0.70 (0.64, 0.75)	~~~
van Steenbergen-Weijenburg, 2010 [97]	0.95 (0.75, 1.00)	0	0.58 (0.44, 0.72)	o
Volker, 2016 [98]	0.91 (0.71, 0.99)		0.67 (0.54, 0.79)	o
Wang, 2014 [99]	0.78 (0.52, 0.94)	O	0.88 (0.86, 0.90)	.
Zhang, 2013 [100]	0.64 (0.31, 0.89)		0.79 (0.65, 0.93)	
	C	0.0 0.2 0.4 0.6 0.8 1.0	(0.0 0.2 0.4 0.6 0.8 1.0

Supplementary Figure A13. Forest plots of sensitivity and specificity estimates for cut-off 10 for the PHQ-9 among participants aged ≥60, among studies that used the MINI as the reference standard (Number of studies = 27; Number of participants = 5,585; Number with major depression =533)

Study	Sensitivity (95% CI)	Sensitivity	Specificity (95% CI)	Specificity
Baron, 2017 [69]	0.58 (0.28, 0.85)		0.73 (0.63, 0.81)	o
Buji, 2018 [70]	1.00 (0.03, 1.00)		0.91 (0.59, 1.00)	0
Cholera, 2014 [71]	1.00 (0.16, 1.00)		0.92 (0.64, 1.00)	
Conway, 2016 [72]	1.00 (0.03, 1.00)	Θ	0.82 (0.57, 0.96)	
de la Torre, 2016 [73]	0.88 (0.70, 0.98)	o	0.63 (0.52, 0.74)	
Gholizadeh, 2019 [75]	0.33 (0.01, 0.91)		0.84 (0.70, 0.93)	
Hides, 2007 [77]	1.00 (0.03, 1.00)		0.00 (0.00, 0.97)	0
Hyphantis, 2011 [78]	0.95 (0.83, 1.00)	-	0.76 (0.63, 0.87)	o
Hyphantis, 2014 [79]	0.94 (0.86, 0.98)	~~~~	0.86 (0.80, 0.90)	-0-
Inagaki, 2013 [80]	0.66 (0.46, 0.88)	o	0.96 (0.91, 1.00)	~~~
Janssen, 2016 [81]	0.51 (0.39, 0.62)		0.95 (0.94, 0.96)	θ
Lamers, 2008 [82]	0.56 (0.44, 0.70)	·	0.78 (0.63, 0.89)	o
Levin-Aspenson, 2017 [83]	1.00 (0.54, 1.00)		0.81 (0.67, 0.91)	O
Liu, 2016 [84]	1.00 (0.29, 1.00)		0.82 (0.70, 0.90)	
Lotrakul, 2008 [85]	1.00 (0.16, 1.00)	0	0.85 (0.71, 0.94)	o
Muramatsu, 2007 [86]	0.89 (0.52, 1.00)		0.94 (0.71, 1.00)	
Muramatsu, 2018 [87]	1.00 (0.16, 1.00)	0	0.88 (0.64, 0.99)	
Paika, 2017 [89]	0.93 (0.80, 0.98)	o	0.85 (0.79, 0.90)	— — ——————————————————————————————————
Persoons, 2001 [90]	1.00 (0.03, 1.00)	0	0.81 (0.61, 0.93)	
Rancans, 2018 [91]	0.73 (0.62, 0.82)	—— 0 ——	0.81 (0.77, 0.84)	-0-
Santos, 2013 [92]	0.76 (0.55, 0.91)		0.77 (0.70, 0.83)	~~~
Stafford, 2007 [93]	0.70 (0.46, 0.88)		0.86 (0.79, 0.92)	
Suzuki, 2015 [95]	0.75 (0.43, 0.95)		0.78 (0.71, 0.84)	
van Steenbergen-Weijenburg, 2010 [97]	0.88 (0.64, 0.99)		0.60 (0.50, 0.70)	0
Volker, 2016 [98]	1.00 (0.03, 1.00)		0.67 (0.35, 0.90)	
Wang, 2014 [99]	0.80 (0.44, 0.97)		0.95 (0.91, 0.97)	-0-
Zhang, 2013 [100]	0.67 (0.22, 0.96)	······	0.65 (0.38, 0.86)	0
	1 0.	0 0.2 0.4 0.6 0.8 1.0		0.0 0.2 0.4 0.6 0.8 1.0

Supplementary Figure A14. Forest plots of sensitivity and specificity estimates for cut-off 10 for the PHQ-9 among women, among studies that used the MINI as the reference standard (Number of studies = 32; Number of participants = 9,574; Number with major depression =1,126)

Study	Sensitivity (95% CI)	Sensitivity	Specificity (95% CI)	Specificity
Akena, 2013 [68]	1.00 (0.66, 1.00)		0.65 (0.51, 0.78)	0
Baron, 2017 [69]	0.73 (0.62, 0.83)		0.78 (0.74, 0.82)	-0-
Buji, 2018 [70]	1.00 (0.48, 1.00)	0	0.89 (0.82, 0.94)	~~~
Cholera, 2014 [71]	0.88 (0.73, 0.97)		0.71 (0.65, 0.77)	0
de la Torre, 2016 [73]	0.88 (0.73, 0.96)		0.66 (0.53, 0.77)	
Garabiles, Unpublished [74]	0.51 (0.35, 0.68)		0.78 (0.66, 0.88)	
Gholizadeh, 2019 [75]	0.50 (0.01, 0.99)		0.84 (0.60, 0.97)	
Hantsoo, 2017 [76]	0.93 (0.68, 1.00)		0.88 (0.83, 0.91)	-0-
Hides, 2007 [77]	0.93 (0.68, 1.00)		0.62 (0.32, 0.86)	
Hyphantis, 2011 [78]	0.85 (0.74, 0.93)		0.77 (0.68, 0.85)	— 0 —
Hyphantis, 2014 [79]	0.97 (0.89, 1.00)	- ~-	0.79 (0.71, 0.87)	~~~
Inagaki, 2013 [80]	0.72 (0.49, 0.95)		0.93 (0.83, 0.99)	~~~~
Janssen, 2016 [81]	0.68 (0.57, 0.78)		0.92 (0.91, 0.93)	θ
Lamers, 2008 [82]	0.35 (0.20, 0.59)		0.15 (0.03, 0.38)	
Levin-Aspenson, 2017 [83]	0.96 (0.85, 0.99)	- -	0.74 (0.68, 0.79)	-0
Liu, 2016 [84]	0.84 (0.73, 0.92)	-	0.80 (0.77, 0.82)	. 0 -
Lotrakul, 2008 [85]	0.92 (0.64, 1.00)		0.63 (0.56, 0.70)	
Muramatsu, 2007 [86]	0.96 (0.78, 1.00)	0	0.70 (0.54, 0.82)	
Muramatsu, 2018 [87]	0.97 (0.84, 1.00)	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	0.67 (0.56, 0.79)	
Nakku, 2016 [88]	0.44 (0.33, 0.58)	o	0.92 (0.81, 0.98)	
Paika, 2017 [89]	0.91 (0.81, 0.97)	— — 0 —	0.85 (0.80, 0.90)	- 0 -
Persoons, 2001 [90]	1.00 (0.80, 1.00)	0	0.79 (0.68, 0.87)	
Rancans, 2018 [91]	0.75 (0.66, 0.82)	~~~	0.81 (0.78, 0.83)	- 0 -
Santos, 2013 [92]	0.82 (0.60, 0.95)		0.66 (0.56, 0.77)	-
Stafford, 2007 [93]	0.55 (0.23, 0.83)		0.77 (0.56, 0.91)	
Sung, 2013 [94]	0.71 (0.29, 0.96)		0.82 (0.77, 0.87)	_0_
Suzuki, 2015 [95]	0.89 (0.65, 0.99)		0.67 (0.61, 0.72)	_0_
van Heyningen, 2018 [96]	0.86 (0.77, 0.93)	O	0.70 (0.64, 0.75)	-0
van Steenbergen-Weijenburg, 2010 [97]	0.92 (0.64, 1.00)		0.66 (0.55, 0.76)	o
Volker, 2016 [98]	1.00 (0.72, 1.00)	o	0.64 (0.46, 0.79)	
Wang, 2014 [99]	0.78 (0.56, 0.93)		0.92 (0.90, 0.94)	.
Zhang, 2013 [100]	0.75 (0.43, 0.95)		0.56 (0.39, 0.79)	o
	۲ 0.	0 0.2 0.4 0.6 0.8 1.0		0.0 0.2 0.4 0.6 0.8 1.0

Supplementary Figure A15. Forest plots of sensitivity and specificity estimates for cut-off 10 for the PHQ-9 among men, among studies that used the MINI as the reference standard (Number of studies = 30; Number of participants = 6,511; Number with major depression =534)

Study	Sensitivity (95% CI)	Sensitivity	Specificity (95% CI)	Specificity
Akena, 2013 [68]	1.00 (0.16, 1.00)	0	0.93 (0.76, 0.99)	0
Baron, 2017 [69]	0.89 (0.65, 0.99)		0.86 (0.81, 0.90)	-0-
Cholera, 2014 [71]	0.85 (0.55, 0.98)		0.75 (0.68, 0.82)	~~~
Conway, 2016 [72]	1.00 (0.16, 1.00)	0	0.75 (0.51, 0.91)	
de la Torre, 2016 [73]	0.97 (0.82, 1.00)	0 -	0.72 (0.64, 0.80)	—o —
Gholizadeh, 2019 [75]	0.50 (0.19, 0.81)	O	0.81 (0.67, 0.91)	o
Hantsoo, 2017 [76]	0.75 (0.19, 0.99)		0.83 (0.70, 0.92)	o
Hides, 2007 [77]	0.94 (0.79, 0.99)		0.53 (0.40, 0.71)	o
Hyphantis, 2011 [78]	1.00 (0.63, 1.00)	0	0.91 (0.81, 0.99)	o
Hyphantis, 2014 [79]	0.88 (0.73, 0.97)		0.91 (0.85, 0.95)	— ———
Inagaki, 2013 [80]	0.55 (0.18, 0.90)		0.98 (0.90, 1.00)	~~~~
Janssen, 2016 [81]	0.62 (0.51, 0.73)	o	0.95 (0.94, 0.96)	θ
Lamers, 2008 [82]	1.00 (0.89, 1.00)	0	0.87 (0.69, 0.97)	o
Levin-Aspenson, 2017 [83]	0.95 (0.74, 1.00)		0.80 (0.71, 0.87)	— — —
Liu, 2016 [84]	0.90 (0.73, 0.98)		0.81 (0.78, 0.83)	-0-
Lotrakul, 2008 [85]	0.83 (0.36, 1.00)		0.70 (0.58, 0.81)	
Muramatsu, 2007 [86]	1.00 (0.63, 1.00)	0	0.70 (0.53, 0.84)	o
Muramatsu, 2018 [87]	1.00 (0.75, 1.00)	0	0.54 (0.37, 0.71)	
Nakku, 2016 [88]	0.45 (0.25, 0.75)		0.96 (0.80, 1.00)	
Paika, 2017 [89]	0.88 (0.72, 0.97)		0.85 (0.79, 0.90)	_0_
Persoons, 2001 [90]	0.91 (0.59, 1.00)		0.86 (0.77, 0.94)	— 0 —
Rancans, 2018 [91]	0.85 (0.66, 0.96)	o	0.86 (0.82, 0.89)	-0-
Santos, 2013 [92]	0.33 (0.01, 0.91) —	0	0.88 (0.79, 0.94)	—0 —
Stafford, 2007 [93]	0.71 (0.49, 0.87)		0.88 (0.81, 0.93)	0-
Sung, 2013 [94]	0.80 (0.28, 0.99)		0.88 (0.81, 0.93)	0-
Suzuki, 2015 [95]	0.88 (0.68, 0.97)		0.70 (0.62, 0.76)	—0 —
van Steenbergen-Weijenburg, 2010 [97]	0.92 (0.73, 0.99)		0.53 (0.43, 0.66)	— 。
Volker, 2016 [98]	0.83 (0.52, 0.98)		0.71 (0.53, 0.85)	o
Wang, 2014 [99]	0.80 (0.28, 0.99)		0.84 (0.80, 0.88)	-0-
Zhang, 2013 [100]	0.40 (0.05, 0.85) -	0	0.92 (0.75, 0.99)	
	0.0	0.2 0.4 0.6 0.8 1.0	0.0	0.2 0.4 0.6 0.8 1.0

Supplementary Figure B1. 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 B2. 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 B3. 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 B4. 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 B5. 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 B6. 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 B7. 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 B8. ROC curves comparing PHQ-9 sensitivity and specificity among among participants aged <60 compared to participants aged ≥60, among studies that used the MINI as the reference standard



Supplementary Figure B9. ROC curves comparing PHQ-9 sensitivity and specificity among women compared to men, among studies that used the MINI as the reference



Supplementary	Table A.	Reasons for	r the exclusion	of articles e	excluded a	at full-text	level (N	= 297)
---------------	----------	--------------------	-----------------	---------------	------------	--------------	----------	--------

Reference	Reason for Exclusion	
Shoukri MM, Donner A. Bivariate modeling of interobserver agreement coefficients. Stat Med. 2009;28:430-440.	No original data	
Priyanka P, Boyle LL, Tu XM, et al. 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. Am J Geriatr Psychiatry. 2010;18:S113-S114.	No original data	
Lowe B, Grafe K, Quenter A, Buchholz C, 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. Psychother Psychosom Medizinische Psychol. 2001;51:109-109.	No original data	
Lloyd CE, Sartorius N, Cimino LC, et al. The INTERPRET-DD study of diabetes and depression: a protocol. Diabet Med. 2015;32:925-934.	No original data	
Castro A, García-Palacios A, García-Campayo J, et al. Efficacy of low-intensity psychological intervention applied by ICTs for the treatment of depression in primary care: a controlled trial. BMC Psychiatry. 2015;15:106.	No original data	
Mohamed S, Johnson GR, Vertrees JE, et al. The VA augmentation and switching treatments for improving depression outcomes (VAST-D) study: Rationale and design considerations. Psychiatry Res. 2015;229:760-770.	No original data	
Hackett ML, Farnbach S, Glozier N, et al. Getting it Right: study protocol to determine the diagnostic accuracy of a culturally-specific measure to screen for depression in Aboriginal and/or Torres Strait Islander people. BMJ Open. 2016;6:e015009.	No original data	

Roca M, Kohls E, Gili M, et al. Prevention of depression through nutritional strategies in high-risk persons: rationale and design of the MooDFOOD prevention trial. BMC Psychiatry. 2016;16:192.	No original data
Mitsui N, Asakura S, Shimizu Y, et al. Temperament and character profiles of Japanese university students with depressive episodes and ideas of suicide or self-harm: a PHQ-9 screening study. Compr Psychiatry. 2013;54:1215-1221.	No original data
Sander L, Paganini S, Lin J, et al. Effectiveness and cost-effectiveness of a guided Internet- and mobile-based intervention for the indicated prevention of major depression in patients with chronic back pain-study protocol of the PROD-BP multicenter pragmatic RCT. BMC Psychiatry. 2017;17:36.	No original data
Grover S. Depressive Symptoms in Persons with Epilepsy: Methodological Issues. J Neurosci Rural Pract. 2017;8:S3-S4.	No original data
McDonald K, Shelley A, Jafferany M. The PHQ-2 in Dermatology-Standardized Screening for Depression and Suicidal Ideation. JAMA Dermatol. 2018;154(2):139- 141.	No original data
Montgomery E, Perez A, Baker C, et al. Replacing PHQ-9 with Geriatric-specific Depression Screening in an Academic Geriatric Clinic. J Am Geriatr Soc. 2018;66:S198-S198.	No original data
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. J Affect Disord. 2013;150:1001-1007.	PHQ not administered
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. Eur Psychiatry. 2013;28:442-447.	PHQ not administered
Ryan DA, Gallagher P, Wright S, et al. 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. Psychooncology. 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. J Am Med Dir Assoc. 2012;13:618-625.	PHQ not administered
Salve H, Goswami K, Nongkynrih B, et al. Prevalence of psychiatric morbidity at Mobile Health Clinic in an urban community in North India. Gen Hosp Psychiatry. 2012;34:121-126.	PHQ not administered
Morina N, von Lersner U, Prigerson HG. War and bereavement: consequences for mental and physical distress. PLoS One. 2011;6:e22140.	PHQ not administered
Watson LC, Zimmerman S, Cohen LW, et al. Practical depression screening in residential care/assisted living: five methods compared with gold standard diagnoses. Am J Geriatr Psychiatry. 2009;17:556-564.	PHQ not administered
Mitchell AJ, McGlinchey JB, Young D, et al. Accuracy of specific symptoms in the diagnosis of major depressive disorder in psychiatric out-patients: data from the MIDAS project. Psychol Med. 2009;39:1107-1116.	PHQ not administered
Husain N, Waheed W, Tomenson B, et al. The validation of personal health questionnaire amongst people of Pakistani family origin living in the United Kingdom. J Affect Disord. 2007;97:261-264.	PHQ not administered
Husain N, Gater R, Tomenson B, et al. Comparison of the Personal Health Questionnaire and the Self Reporting Questionnaire in rural Pakistan. J Pak Med Assoc. 2006;56:366-370.	PHQ not administered
Löwe B, Gräfe 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. J Psychosom Res. 2003;55:515-519.	PHQ not administered
Rizzo R, Piccinelli M, Mazzi MA, et al. The Personal Health Questionnaire: a new screening instrument for detection of ICD-10 depressive disorders in primary care. Psychol Med. 2000;30:831-840.	PHQ not administered

Husain N, Creed F, Tomenson B. Depression and social stress in Pakistan. Psychol PHQ not administered Med. 2000;30:395-402.

Tschudi-Madsen H, Kjeldsberg M, Natvig B, et al. Multiple symptoms and medically PHQ not administered unexplained symptoms--closely related concepts in general practitioners' evaluations. A linked doctor-patient study. J Psychosom Res. 2013;74:186-190.

Creed F. The relationship between somatic symptoms, health anxiety, and outcome in PHQ not administered medical out-patients. Psychiatr Clin North Am. 2011;34:545-564.

Allgaier AK, Pietsch K, Frühe B, et al. Depression in pediatric care: is the WHO-Five PHQ not administered Well-Being Index a valid screening instrument for children and adolescents?. Gen Hosp Psychiatry. 2012;34:234-241.

Gellis ZD. Depression Screening in Medically III Homecare Elderly. Best Pract Ment PHQ not administered Health. 2010;6:1-16.

Löwe B, Gräfe K, Kroenke K, et al. Predictors of psychiatric comorbidity in medical PHQ not administered outpatients. Psychosom Med. 2003;65:764-770.

Singh SM, Narang T, Dogra S, et al. Screening for depressive disorders in outpatients PHQ not administered with mild to moderate psoriasis: a study from North India. Indian J Dermatol Venereol Leprol. 2015;81:148-150.

Reneses B, Garrido S, Navalón A, et al. Psychiatric morbidity and predisposing factors in a primary care population in Madrid. Int J Soc Psychiatry. 2015;61:275-286. PHQ not administered

Yen CF, Liu TL, Yang P, et al. Risk and Protective Factors of Suicidal Ideation and Attempt among Adolescents with Different Types of School Bullying Involvement. Arch Suicide Res. 2015;19:435-452.

Lahmann C, Henningsen P, Brandt T, et al. Psychiatric comorbidity and psychosocial impairment among patients with vertigo and dizziness. J Neurol Neurosurg Psychiatry. 2015;86:302-8.	PHQ not administered
Klaus K, Rief W, Brähler E, et al. Validating psychological classification criteria in the context of somatoform disorders: A one- and four-year follow-up. J Abnorm Psychol. 2015;124:1092-1101.	PHQ not administered
Inder KJ, Handley TE, Johnston A, et al. Determinants of suicidal ideation and suicide attempts: parallel cross-sectional analyses examining geographical location. BMC Psychiatry. 2014;14:208	PHQ not administered
Bosanquet K, Mitchell N, Gabe R, et al. Diagnostic accuracy of the Whooley depression tool in older adults in UK primary care. J Affect Disord. 2015;182:39-43.	PHQ not administered
Sundaram S, Harman JS, Cook RL. Maternal morbidities and postpartum depression: an analysis using the 2007 and 2008 Pregnancy Risk Assessment Monitoring System. Womens Health Issues. 2014;24:e381-e388.	PHQ not administered
van Eck van der Sluijs J, Ten Have M, Rijnders C, van Marwijk H, et al. Medically unexplained and explained physical symptoms in the general population: association with prevalent and incident mental disorders. PLoS One. 2015;10:e0123274.	PHQ not administered
Tissot H, Favez N, Frascarolo-Moutinot F, et al. Assessing postpartum depression: Evidences for the need of multiple methods. Eur Rev Appl Psychol. 2015;65:61-6.	PHQ not administered
Liao SC, Huang WL, Ma HM, et al. The relation between the patient health questionnaire-15 and DSM somatic diagnoses. BMC Psychiatry. 2016;16:351.	PHQ not administered
Gilliam FG, Barry JJ, Hermann BP, et al. Rapid detection of major depression in epilepsy: a multicentre study. Lancet Neurol. 2006;5:399-405.	PHQ not administered

Indu PS, Anilkumar TV, Pisharody R, et al. Primary care Screening Questionnaire for Depression: reliability and validity of a new four-item tool. BJPsych Open. 2017;3:91-95.	PHQ not administered
Trautmann S, Beesdo-Baum K. The Treatment of Depression in Primary Care. Dtsch Arztebl Int. 2017;114:721-728.	PHQ not administered
Wang J, Guo WJ, Zhang L, et al. The development and validation of Huaxi emotional-distress index (HEI): A Chinese questionnaire for screening depression and anxiety in non-psychiatric clinical settings. Compr Psychiatry. 2017;76:87-97.	PHQ not administered
Dong X, Xu Y, Ding D. Elder Self-neglect and Suicidal Ideation in an U.S. Chinese Aging Population: Findings From the PINE Study. J Gerontol A Biol Sci Med Sci. 2017;72:S76-S81.	PHQ not administered
Laferton JA, Stenzel N, Rief W, et al. Using the phq15 to detect the dsm-5 somatic symptom disorder: sensitivity, specificity, and validity within a german population sample. Int J Behav Med. 2016;23:S50-S50.	PHQ not administered
Müller KW, Beutel ME, Wölfling 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. Compr Psychiatry. 2014;55:770-777.	Major depression not assessed
Ringoir L, Pedersen SS, Widdershoven JW, et al. Prevalence of psychological distress in elderly hypertension patients in primary care. Neth Heart J. 2014;22:71-76.	Major depression not assessed
Gigantesco A, Mirante N, Granchelli C, et al. Psychopathological chronic sequelae of the 2009 earthquake in L'Aquila, Italy. J Affect Disord. 2013;148:265-271.	Major depression not assessed
Londoño 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. Confl Health. 2012;6:12.	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. Women Health. 2013;53:519-535.	Major depression not assessed
--	-------------------------------
Gold KJ, Spangenberg K, Wobil P, et al. Depression and risk factors for depression among mothers of sick infants in Kumasi, Ghana. Int J Gynaecol Obstet. 2013;120:228-231.	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. Fam Pract. 2012;29:16-23.	Major depression not assessed
Stegenga BT, Kamphuis MH, King M, et al. The natural course and outcome of major depressive disorder in primary care: the PREDICT-NL study. Soc Psychiatry Psychiatr Epidemiol. 2012;47:87-95.	Major depression not assessed
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 crosssectional study. BMC Fam Pract. 2010;11:98.	Major depression not assessed
Osório Fde L, de Carvalho AC, Crippa JA, et al. Screening for smoking in a general hospital: scale validation, indicators of prevalence, and comorbidity. Perspect Psychiatr Care. 2013;49:5-12.	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. J Nerv Ment Dis. 2013;201:286-291.	Major depression not assessed
Häuser W, Glaesmer H, Schmutzer G, et al. Widespread pain in older Germans is associated with posttraumatic stress disorder and lifetime employment statusresults of a cross-sectional survey with a representative population sample. Pain. 2012:153:2466-2472	Major depression not assessed
Maneeton B, Maneeton N, Mahathep P. Prevalence of depression and its correlations: a cross-sectional study in Thai cancer patients. Asian Pac J Cancer Prev. 2012;13:2039-2043.	Major depression not assessed

Hauffa R, Rief W, Brähler E, et al. Lifetime traumatic experiences and posttraumatic stress disorder in the German population: results of a representative population survey. J Nerv Ment Dis. 2011;199:934-939.	Major depression not assessed
Hausteiner-Wiehle C, Sokollu F. Magical thinking in somatoform disorders: an exploratory study among patients with suspected allergies. Psychopathology. 2011;44:283-288.	Major depression not assessed
Schmitz-Hübsch T, Coudert M, Tezenas du Montcel S, et al. Depression comorbidity in spinocerebellar ataxia. Mov Disord. 2011;26:870-876.	Major depression not assessed
Löwe B, Kroenke K, Spitzer RL, et al. Trauma exposure and posttraumatic stress disorder in primary care patients: cross-sectional criterion standard study. J Clin Psychiatry. 2011;72:304-312.	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. Nord J Psychiatry. 2010;64:384-390.	Major depression not assessed
Arroll B, Goodyear-Smith F, Kerse N, et al. The prevalence of depression among Maori patients in Auckland general practice. J Prim Health Care. 2009;1:26-29.	Major depression not assessed
Mussell M, Kroenke K, Spitzer RL, et al. Gastrointestinal symptoms in primary care: prevalence and association with depression and anxiety. J Psychosom Res. 2008;64:605-612.	Major depression not assessed
Holzapfel N, Müller-Tasch T, Wild B, et al. Depression profile in patients with and without chronic heart failure. J Affect Disord. 2008;105:53-62.	Major depression not assessed
Cannon DS, Tiffany ST, Coon H, et al. The PHQ-9 as a brief assessment of lifetime major depression. Psychol Assess. 2007;19:247-251.	Major depression not assessed

Li C, Friedman B, Conwell Y, et al. Validity of the Patient Health Questionnaire 2 (PHQ-2) in identifying major depression in older people. J Am Geriatr Soc. 2007;55:596-602.	Major depression not assessed
Kissane DW, Wein S, Love A, et al. The Demoralization Scale: a report of its development and preliminary validation. J Palliat Care. 2004;20:269-276.	Major depression not assessed
Shen Q, Bergquist-Beringer S. Relationship between major depression and insulin resistance: does it vary by sex or race/ethnicity among young adults aged 20-39 years?. J Diabetes. 2013;5:471-481.	Major depression not assessed
Galek A, Erbslöh-Möller B, Köllner V, et al. Psychische Störungen beim Fibromyalgiesyndrom: Screening in Einrichtungen verschiedener Fachrichtungen [Mental disorders in patients with fibromyalgia syndrome: screening in centres of different medical specialties]. Schmerz, 2013;27:296,304	Major depression not assessed
Armstrong G, Nuken A, Samson L, et al. Quality of life, depression, anxiety and suicidal ideation among men who inject drugs in Delhi, India. BMC Psychiatry. 2013;13:151.	Major depression not assessed
Suzuki T, Shiga T, Nishimura K, et al. PHQ-9 screening for depression in hospitalized patients with heart failure. Eur J Heart Fail. 2013;P1234.	Major depression not assessed
Whitlow NR, Ryan GL, Stuart SP. The patient health questionnaire (PHQ) is a poor psychological screening tool in in vitro fertilization (IVF) patients. Fertil Steril. 2011;96:S11.	Major depression not assessed
Karekla M, Pilipenko N, Feldman J. Greek Language Validation of the Patient Health Questionnaire (Phq). Ann Behav Med. 2011;s20.	Major depression not assessed
Pilipenko N, Karekla M, Feldman J. Validation of patient health questionnaire in Greek-language sample. Eur Psychiatry. 2011;26:473.	Major depression not assessed

de Man-van Ginkel J, Floor G, Marieke S, et al. Early detection of post stroke depression: a clinimetric evaluation of the PHQ-9. J Clin Nurs. 2010;19:88.	Major depression not assessed
Ulhaq S, Symeon C, Agius M. Use of the PHQ-9 as a screening tool for post-stroke depression. Eur Psychiatry. 2010;25:1.	Major depression not assessed
Albert NM, Moser DK, Nutter B, et al. Are PHQ-9 and PHQ-2 Depression Score Cutoffs the Best Cutoffs for Determining Significant Depression in Pts with HF and Mild-Moderate Symptoms?. J Card Fail. 2009;15:S114.	Major depression not assessed
Subramanian U, Perkins SM, Kim J, et al. Depressive symptoms in heart failure: Validity and reliability of the PHQ-8. J Intern Med Suppl. 2008;23:276.	Major depression not assessed
Jacobs SR, Jacobsen PB, Donovan K, et al. Utility of the Patient Health Questionnaire-9 (Phq-9) in Identifying Depression among Hematopoietic Stem Cell Transplant (Hsct) Patients. Ann Behav Med. 2007;33:S56.	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. Psychosomatics. 2001;42:182-183.	Major depression not assessed
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. Ment Health Phys Act. 2014;7:42-29.	Major depression not assessed
Howell EA, Bodnar-Deren S, Balbierz A, et al. An intervention to reduce postpartum depressive symptoms: a randomized controlled trial. Arch Womens Ment Health. 2014;17:57-63.	Major depression not assessed
Mulligan K, Fear NT, Jones N, et al. Postdeployment Battlemind training for the U.K. armed forces: a cluster randomized controlled trial. J Consult Clin Psychol. 2012;80:331-341.	Major depression not assessed

Gothwal VK, Bagga DK, Bharani S, et al. The patient health questionnaire-9: validation among patients with glaucoma. PLoS One. 2014;9:e101295.	Major depression not assessed
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. Biomed Res Int. 2014;2014:856543.	Major depression not assessed
Birhanu AM, Alemu FM, Ashenafie TD, et al. Depression in diabetic patients attending University of Gondar Hospital Diabetic Clinic, Northwest Ethiopia. Diabetes Metab Syndr Obes. 2016;9:155-162.	Major depression not assessed
Saipanish R, Hiranyatheb T, Jullagate S, et al. A study of diagnostic accuracy of the Florida Obsessive-Compulsive InventoryThai Version (FOCI-T). BMC Psychiatry. 2015;15:251.	Major depression not assessed
Calvó-Perxas L, Garre-Olmo J, Vilalta-Franch J. Prevalence and sociodemographic correlates of depressive and bipolar disorders in Catalonia (Spain) using DSM-5 criteria. J Affect Disord. 2015;184:97-103.	Major depression not assessed
Siriwardhana C, Adikari A, Pannala G, et al. Changes in mental disorder prevalence among conflict-affected populations: a prospective study in Sri Lanka (COMRAID- R). BMC Psychiatry. 2015;15:41.	Major depression not assessed
Häuser W, Hoffmann EM, Wolfe F, et al. Self-reported childhood maltreatment, lifelong traumatic events and mental disorders in fibromyalgia syndrome: a comparison of US and German outpatients. Clin Exp Rheumatol. 2015;33:S86-S92.	Major depression not assessed
Ashley JM, Harper BD, Arms-Chavez CJ, et al. Estimated prevalence of antenatal depression in the US population. Arch Womens Ment Health. 2016;19:395-400.	Major depression not assessed
Fekadu A, Medhin G, Selamu M, et al. Non-fatal suicidal behaviour in rural Ethiopia: a cross-sectional facility- and population-based study. BMC Psychiatry. 2016;16:75.	Major depression not assessed

Maske UE, Buttery AK, Beesdo-Baum K, et al. Prevalence and correlates of DSM- IV-TR major depressive disorder, self-reported diagnosed depression and current depressive symptoms among adults in Germany. J Affect Disord. 2016;190:167-177.	Major depression not assessed
Secor AM, Wahome E, Micheni M, et al. Depression, substance abuse and stigma among men who have sex with men in coastal Kenya. AIDS. 2015;29:S251-S259.	Major depression not assessed
Lu W, Bian Q, Song YY, et al. Prevalence and related risk factors of anxiety and depression among Chinese college freshmen. J Huazhong Univ Sci Technolog Med Sci. 2015;35:815-822.	Major depression not assessed
Knight AM, Vickery ME, Fiks AG, et al. Barriers and facilitators for mental healthcare in pediatric lupus and mixed connective tissue disease: a qualitative study of youth and parent perspectives. Pediatr Rheumatol Online J. 2015;13:52.	Major depression not assessed
Schueller SM, Kwasny MJ, Dear BF, et al. Cut points on the Patient Health Questionnaire (PHQ-9) that predict response to cognitive-behavioral treatments for depression. Gen Hosp Psychiatry. 2015;37:470-475.	Major depression not assessed
Pfoh ER, Mojtabai R, Bailey J, et al. Conformance to Depression Process Measures of Medicare Part B Beneficiaries in Primary Care Settings. J Am Geriatr Soc. 2015;63:1338-1345.	Major depression not assessed
Gerskowitch C, Norman I, Rimes KA. Patients with medically unexplained physical symptoms experience of receiving treatment in a primary-care psychological therapies service: a qualitative study. Cogn Behav Ther. 2015;8:E12.	Major depression not assessed
Michal M, Schulz A, Coldewey M, et al. PHQ-2 and GAD-2 scores predict mortality in patients undergoing oral anticoagulation. J Psychosom Res. 2015;6:615.	Major depression not assessed
Bächle C, Lange K, Stahl-Pehe A, et al. Associations between HbA1c and depressive symptoms in young adults with early-onset type 1 diabetes. Psychoneuroendocrinology. 2015;55:48-58.	Major depression not assessed

1

Hermanns N, Schmitt A, Gahr A, et al. The effect of a Diabetes-Specific Cognitive Behavioral Treatment Program (DIAMOS) for patients with diabetes and subclinical depression: results of a randomized controlled trial. Diabetes Care. 2015;38:551-560.	Major depression not assessed
Van Orden KA, Chen S, O'Riley A, et al. Course of late-life depression in China is chronic and unremitting. Int J Geriatr Psychiatry. 2015;30:409-415.	Major depression not assessed
Kingori C, Haile ZT, Ngatia P. Depression symptoms, social support and overall health among HIV-positive individuals in Kenya. Int J STD AIDS. 2015;26:165-172.	Major depression not assessed
Häuser W, Hoffmann EM, Wolfe F, et al. Self-reported childhood maltreatment, lifelong traumatic events and mental disorders in fibromyalgia syndrome: a comparison of US and German outpatients. Clin Exp Rheumatol. 2015;33:S86-S92.	Major depression not assessed
Junne F, Zipfel S, Wild B, et al. The relationship of body image with symptoms of depression and anxiety in patients with anorexia nervosa during outpatient psychotherapy: Results of the ANTOP study. Psychotherapy (Chic). 2016;53:141-151	Major depression not assessed
Trainor-O'Malley PA. Fatalism and its role in post cardiac surgery depression (Doctoral dissertation, Teachers College, Columbia University).	Major depression not assessed
Carrillo B. Implementation of a depression screening tool for adults by primary care providers in a community clinic. New Mexico State University; 2015.	Major depression not assessed
Lukaschek K, Baumert J, Kruse J, et al. The Association of Social Inhibition and Posttraumatic Stress Disorder: A Vicious Circle?: Results From the Population-Based KORA F4 Study With 1232 Participants With Trauma Exposure. J Nerv Ment Dis. 2016:204:261-266.	Major depression not assessed
Hallensleben N, Spangenberg L, Kapusta ND, et al. The German version of the Interpersonal Needs Questionnaire (INQ)Dimensionality, psychometric properties and population-based norms. J Affect Disord. 2016;195:191-198.	Major depression not assessed

Annunziato RA, Kim SK, Fussner M, et al. Utilizing correspondence analysis to characterize the mental health of cardiac patients with diabetes. J Health Psychol. 2015;20:1275-1284.	Major depression not assessed
Körner A, Coroiu A, Copeland L, et al. The Role of Self-Compassion in Buffering Symptoms of Depression in the General Population. PLoS One. 2015;10:e0136598.	Major depression not assessed
Köbach A, Schaal S, Elbert T. Combat high or traumatic stress: violent offending is associated with appetitive aggression but not with symptoms of traumatic stress. Front Psychol. 2015;5:1518.	Major depression not assessed
Outcalt SD, Kroenke K, Krebs EE, et al. Chronic pain and comorbid mental health conditions: independent associations of posttraumatic stress disorder and depression with pain, disability, and quality of life. J Behav Med. 2015;38:535-543.	Major depression not assessed
Cerel J, van de Venne JG, Moore MM, et al. Veteran exposure to suicide: Prevalence and correlates. J Affect Disord. 2015;179:82-87.	Major depression not assessed
Holland KJ, Rabelo VC, Cortina LM. Collateral damage: Military sexual trauma and help-seeking barriers. Psychol Violence. 2016;6:253-261.	Major depression not assessed
Campbell G, Nielsen S, Larance B, et al. Pharmaceutical Opioid Use and Dependence among People Living with Chronic Pain: Associations Observed within the Pain and Opioids in Treatment (POINT) Cohort. Pain Med. 2015;16:1745-1758.	Major depression not assessed
Witthöft M, Fischer S, Jasper F, et al. Clarifying the latent structure and correlates of somatic symptom distress: A bifactor model approach. Psychol Assess. 2016;28:109-115.	Major depression not assessed
Keeley T, Al-Janabi H, Nicholls E, et al. A longitudinal assessment of the responsiveness of the ICECAP-A in a randomised controlled trial of a knee pain intervention. Qual Life Res. 2015;24:2319-2331.	Major depression not assessed

Trost Z, Agtarap S, Scott W, et al. Perceived injustice after traumatic injury: Associations with pain, psychological distress, and quality of life outcomes 12 months after injury. Rehabil Psychol. 2015;60:213-221.	Major depression not assessed
Lipson SK, Zhou S, Wagner III B, et al. Major differences: Variations in undergraduate and graduate student mental health and treatment utilization across academic disciplines. J College Stud Psychother. 2016;30:23-41.	Major depression not assessed
Donadon MF, Osório FL. Personality traits and psychiatric comorbidities in alcohol dependence. Braz J Med Biol Res. 2016;49:e5036.	Major depression not assessed
Miller ES, Hoxha D, Wisner KL, et al. Obsessions and Compulsions in Postpartum Women Without Obsessive Compulsive Disorder. J Womens Health (Larchmt). 2015;24:825-830	Major depression not assessed
Lloyd RB, Rosenthal LJ. Acute traumatic and depressive symptoms in family members of hospitalized individuals with delirium. Int J Psychiatry Med. 2015;50:191-202.	Major depression not assessed
Cucciare MA, Weingardt KR, Valencia-Garcia D, et al. Post-traumatic stress disorder and illicit drug use in veterans presenting to primary care with alcohol misuse. Addict Res Theory. 2015;23:287-293.	Major depression not assessed
Zhang H, Chen H, Yang F. A cross-sectional study of anxiety, depression and suicide risk of alcohol abusers in Xinjiang Uygur Autonomous Region. Chinese Mental Health Journal. 2015;7;539-542.	Major depression not assessed
Bryan CJ, Roberge E, Bryan AO, et al. Guilt as a mediator of the relationship between depression and posttraumatic stress with suicide ideation in two samples of military personnel and veterans. Int J Cogn Ther. 2015;8:143-155.	Major depression not assessed
Wild B, Eckl A, Herzog W, et al. Assessing generalized anxiety disorder in elderly people using the GAD-7 and GAD-2 scales: results of a validation study. Am J Geriatr Psychiatry. 2014;22:1029-1038.	Major depression not assessed

Okewole AO, Adewuya AO, Ajuwon AJ, et al. Maternal depression and child psychopathology among Attendees at a Child Neuropsychiatric Clinic in Abeokuta, Nigeria: a cross sectional study. Child Adolesc Psychiatry Ment Health. 2016;10:30.	Major depression not assessed
Psychogiou L, Moberly NJ, Parry E, et al. Does fathers' and mothers' rumination predict emotional symptoms in their children?. Br J Clin Psychol. 2017;56:431-442.	Major depression not assessed
Almeida OP, Marsh K, Flicker L, et al. Depressive symptoms in midlife: the role of reproductive stage. Menopause. 2016;23:669-675.	Major depression not assessed
Bruce DG, Davis WA, Dragovic M, et al. Comorbid Anxiety and Depression and Their Impact on Cardiovascular Disease in Type 2 Diabetes: The Fremantle Diabetes Study Phase II. Depress Anxiety. 2016;33:960-966.	Major depression not assessed
Fekadu A, Medhin G, Selamu M, et al. Recognition of depression by primary care clinicians in rural Ethiopia. BMC Fam Pract. 2017;18:56.	Major depression not assessed
Bombardier CH, Hoekstra T, Dikmen S, et al. Depression Trajectories during the First Year after Traumatic Brain Injury. J Neurotrauma. 2016;33:2115-2124.	Major depression not assessed
Christensen KS, Oernboel E, Zatzick D, et al. Screening for depression: Rasch analysis of the structural validity of the PHQ-9 in acutely injured trauma survivors. J Psychosom Res. 2017;97:18-22.	Major depression not assessed
Lating JM, Moore RA, Sherman MF, et al. Political Affiliation, Probable PTSD, and Symptoms of Depression in Iraq and Afghanistan Combat Veterans: A Pilot Study. J Nerv Ment Dis. 2017;20:809-811.	Major depression not assessed
Lamb RC, Matcham F, Turner MA, et al. Screening for anxiety and depression in people with psoriasis: a cross-sectional study in a tertiary referral setting. Br J Dermatol. 2017;176:1028-1034.	Major depression not assessed

Adam A, Faouzi M, Yersin B, et al. Women and Men Admitted for Alcohol Intoxication at an Emergency Department: Alcohol Use Disorders, Substance Use and Health and Social Status 7 Years Later. Alcohol Alcohol. 2016;51:567-575.	Major depression not assessed
Avalos LA, Raine-Bennett T, Chen H, et al. Improved Perinatal Depression Screening, Treatment, and Outcomes With a Universal Obstetric Program. Obstet Gynecol. 2016;127:917-925.	Major depression not assessed
Gupta S, Goren A, Dong P, et al. Prevalence, awareness, and burden of major depressive disorder in urban China. Expert Rev Pharmacoecon Outcomes Res. 2016;16:393-407.	Major depression not assessed
Khajehei M. Prevalence and Risk Factors of Relationship Dissatisfaction in Women During the First Year After Childbirth: Implications for Family and Relationship Counseling. J Sex Marital Ther. 2016;42:484-493.	Major depression not assessed
Cusimano P, Palermo A, Locascio G. Utilità di questionari di screening ultrabrevi per la stima della prevalenza di sintomi depressivi in pazienti anziani in emodialisi [Screening for depression in hemodialysis]. G Ital Nefrol. 2015;32:gin/32.3.7.	Major depression not assessed
Kaiser M, Kuwert P, Glaesmer H. Aufwachsen als Besatzungskind des Zweiten Weltkrieges in Deutschland - Hintergründe und Vorgehen einer Befragung deutscher Besatzungskinder [Growing up as an occupation child of World War II in Germany: Rationale and methods of a study on German occupation children]. Z Psychosom Med Psychother 2015;61:191-205	Major depression not assessed
DiNapoli EA, Cinna C, Whiteman KL, et al. Mental health treatment preferences and challenges of living with multimorbidity from the veteran perspective. Int J Geriatr Psychiatry. 2016;31:1097-1104.	Major depression not assessed
Georgiadis A, Byng R, Coomber R, et al. The social, relational and mental health characteristics of justice-involved men in the south-west England. J Forensic Psychiatry Psychol. 2016;27:835-852.	Major depression not assessed
Hobden B, Carey M, Bryant J, et al. Clinician identification of elevated symptoms of depression among individuals seeking treatment for substance misuse. Drug Alcohol Depend. 2017;181:71-76.	Major depression not assessed

Lee K, Lee HK, Kim SH. Temperament and character profile of college students who have suicidal ideas or have attempted suicide. J Affect Disord. 2017;221:198-204.	Major depression not assessed
Rogers CR, Robinson CD, Arroyo C, et al. Colorectal Cancer Screening Uptake's Association With Psychosocial and Sociodemographic Factors Among Homeless Blacks and Whites. Health Educ Behav. 2017;44:928-936.	Major depression not assessed
Vazquez K, Sandler J, Interian A, et al. Emotionally triggered asthma and its relationship to panic disorder, ataques de nervios, and asthma-related death of a loved one in Latino adults. J Psychosom Res. 2017;93:76-82.	Major depression not assessed
Wiltink J, Kliem S, Michal M, et al. Mini - social phobia inventory (mini-SPIN): psychometric properties and population based norms of the German version. BMC Psychiatry. 2017;17:377.	Major depression not assessed
Ziobrowski H, Sartor CE, Tsai J, et al. Sex differences in mental and physical health conditions in U.S. veterans: Results from the National Health and Resilience in Veterans Study. J Psychosom Res. 2017;101:110-113.	Major depression not assessed
Chilcot J, Hudson JL, Moss-Morris R, et al. Screening for psychological distress using the Patient Health Questionnaire Anxiety and Depression Scale (PHQ-ADS): Initial validation of structural validity in dialysis patients. Gen Hosp Psychiatry. 2018:50:15-19	Major depression not assessed
Haile K, Awoke T, Ayano G, et al. Suicide ideation and attempts among people with epilepsy in Addis Ababa, Ethiopia. Ann Gen Psychiatry. 2018;17:4.	Major depression not assessed
Adewuya AO, Atilola O, Ola BA, et al. Current prevalence, comorbidity and associated factors for symptoms of depression and generalised anxiety in the Lagos State Mental Health Survey (LSMHS), Nigeria. Compr Psychiatry. 2018;81:60-65.	Major depression not assessed
Barnes D, Willmott LJ, Farley J, et al. Clinic-based Depression Screening in Gynecologic Oncology Patients using the Patient Health Questionnaires-2 (PHQ-2): are we identifying the highest risk patients? Gynecol Oncol. 2017;147:215.	Major depression not assessed

Beratis IN, Andronas N, Kontaxopoulou D, et al. Driving in mild cognitive impairment: The role of depressive symptoms. Traffic Inj Prev. 2017;18(5):470-476.	Major depression not assessed
Conwell Y, Simning A, Driffill N, et al. Validation of telephone-based behavioral assessments in aging services clients. Int Psychogeriatr. 2018;30:95-102.	Major depression not assessed
da Silva AT, Lopes CS, Susser E, et al. Work-Related Depression in Primary Care Teams in Brazil. Am J Public Health. 2016;106:1990-1997.	Major depression not assessed
Das M, Kaur A, Solanki HK, et al. Depression, its Correlates and Effects in Ever Married Urban Women Residing in Kumaon Region of Uttarakhand. J Clin Diagnostic Res. 2018;12.	Major depression not assessed
Gupta S, Witt EA. Application of item response theory in validating the patient health questionnare (phq-9) in the american general population. Value Health. 2016;19:PA91-A92.	Major depression not assessed
Herzog A, Shedden-Mora MC, Jordan P, et al. Duration of untreated illness in patients with somatoform disorders. J Psychosom Res. 2018;107:1-6.	Major depression not assessed
Linnenkamp U, Andrich S, Brune M, et al. Identifying depression among women and men with diabetes using three instruments: health insurance data, CES-D, PHQ-9 depression scales. Diabetologia. 2016;59:S391.	Major depression not assessed
Ormseth S, Draper T, Hernandez E, et al. Reliability and Validity of the Patient Health Questionnaire-9 for Assessment of Depression in Socioeconomically Disadvantaged Latinos with Rheumatoid Arthritis Living in the United States. Arthritis Rheumatol. 2016;68.	Major depression not assessed
Rodríguez-Muñoz MF, Castelao Legazpi PC, Olivares Crespo ME, et al. PHQ-2 como primer instrumento de cribado de la depresión prenatal [PHQ-2 as First Screening Instrument of Prenatal Depression in Primary Health Care, Spain]. Rev Esp Salud Publica. 2017;91:e201701010.	Major depression not assessed

Soria-Saucedo R, Lopez-Ridaura R, Lajous M, et al. The prevalence and correlates of severe depression in a cohort of Mexican teachers. J Affect Disord. 2018;234:109-116.	Major depression not assessed
Suzuki T, Shiga T, Nishimura K, et al. Impact of PHQ-2 screening in outpatients with heart failure: a multicenter prospective observational study. Eur Heart J. 2016;37:1119.	Major depression not assessed
Widmann M, Apondi B, Musau A, et al. Comorbid psychopathology and everyday functioning in a brief intervention study to reduce khat use among Somalis living in Kenya: description of baseline multimorbidity, its effects of intervention and its moderation effects on substance use. Soc Psychiatry Psychiatr Epidemiol. 2017;52:1425-1434.	Major depression not assessed
Yang L, Jiang D, He L, et al. Decision tree based depression classification from audio video and language information. Proceedings of the 6th international workshop on audio/visual emotion challenge. 2016;89-96.	Major depression not assessed
Zhou Y, Cao Z, Yang M, et al. Comorbid generalized anxiety disorder and its association with quality of life in patients with major depressive disorder. Sci Rep. 2017 Jan 18;7:40511.	Major depression not assessed
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. Int J Psychiatry Clin Pract. 2004;8:11-8.	No validated interview to assess major depression
Tavakkoli M, Ferrando SJ, Rabkin J, et al. Depression and fatigue in chronic hepatitis C patients with and without HIV co-infection. Psychosomatics. 2013;54:466-471.	No validated interview to assess major depression
Inoue T, Tanaka T, Nakagawa S, et al. Utility and limitations of PHQ-9 in a clinic specializing in psychiatric care. BMC Psychiatry. 2012;12:73.	No validated interview to assess major depression
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. J Psychosom Res. 2010;69:399-406.	No validated interview to assess major depression

Esler D, Johnston F, Thomas D, et al. The validity of a depression screening tool modified for use with Aboriginal and Torres Strait Islander people. Aust N Z J Public Health. 2008;32:317-321.	No validated interview to assess major depression
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. Psychol Psychother. 2007;80:69-77.	No validated interview to assess major depression
Rentsch D, Dumont P, Borgacci S, et al. Prevalence and treatment of depression in a hospital department of internal medicine. Gen Hosp Psychiatry. 2007;29:25-31.	No validated interview to assess major depression
Kroenke K, Spitzer RL, Williams JB. The Patient Health Questionnaire-2: validity of a two-item depression screener. Med Care. 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. J Gen Intern Med. 2001;16:606-613.	No validated interview to assess major depression
Diez-Quevedo C, Rangil T, Sanchez-Planell L, et al. Validation and utility of the patient health questionnaire in diagnosing mental disorders in 1003 general hospital Spanish inpatients. Psychosom Med. 2001;63:679-686.	No validated interview to assess major depression
Smith GC, Trauer T, Kerr PG, et al. Prospective psychosocial monitoring of living kidney donors using the Short Form-36 health survey: results at 12 months. Transplantation. 2004;78:1384-1389.	No validated interview to assess major depression
Hanlon C, Medhin G, Selamu M, et al. Validity of brief screening questionnaires to detect depression in primary care in Ethiopia. J Affect Disord. 2015;186:32-39.	No validated interview to assess major depression
Oladeji BD, Kola L, Abiona T, et al. A pilot randomized controlled trial of a stepped care intervention package for depression in primary care in Nigeria. BMC Psychiatry. 2015;15:96.	No validated interview to assess major depression

Maske UE, Busch MA, Jacobi F, et al. Current major depressive syndrome measured with the Patient Health Questionnaire-9 (PHQ-9) and the Composite International Diagnostic Interview (CIDI): results from a cross-sectional population-based study of adults in Germany. BMC Psychiatry. 2015;15:77.	No validated interview to assess major depression
Davis TM, Hunt K, Bruce DG, et al. Prevalence of depression and its associations with cardio-metabolic control in Aboriginal and Anglo-Celt patients with type 2 diabetes: the Fremantle Diabetes Study Phase II. Diabetes Res Clin Pract. 2015;107:384-391.	No validated interview to assess major depression
Starkstein SE, Davis WA, Dragovic M, et al. Diagnostic criteria for depression in type 2 diabetes: a data-driven approach. PLoS One. 2014;9:e112049.	No validated interview to assess major depression
O'Connor BC, Lewandowski RE, Rodriguez S, et al. Usual Care for Adolescent Depression From Symptom Identification Through Treatment Initiation. JAMA Pediatr. 2016;170:373-380.	No validated interview to assess major depression
Elbelt U, Ahnis A, Riedl A, et al. Associations of physical activity with depressiveness and coping in subjects with high-grade obesity aiming at bariatric surgery: a cross-sectional study. Biopsychosoc Med. 2015;9:16.	No validated interview to assess major depression
Tsai J, Armour C, Southwick SM, et al. Dissociative subtype of DSM-5 posttraumatic stress disorder in U.S. veterans. J Psychiatr Res. 2015;66-67:67-74.	No validated interview to assess major depression
Klingensmith K, Tsai J, Mota N, et al. Military sexual trauma in US veterans: results from the National Health and Resilience in Veterans Study. J Clin Psychiatry. 2014;75:e1133-e1139.	No validated interview to assess major depression
Mustillo SA, Kysar-Moon A, Douglas SR, et al. Overview of depression, post- traumatic stress disorder, and alcohol misuse among active duty service members returning from Iraq and Afghanistan, self-report and diagnosis. Mil Med. 2015;180:419-427.	No validated interview to assess major depression
Lewandowski RE, O'Connor B, Bertagnolli A, et al. Screening for and Diagnosis of Depression Among Adolescents in a Large Health Maintenance Organization. Psychiatr Serv. 2016;67:636-641.	No validated interview to assess major depression

Garrison GM, Angstman KB, O'Connor SS, et al. Time to Remission for Depression with Collaborative Care Management (CCM) in Primary Care. J Am Board Fam Med. 2016;29:10-17.

Fuehrlein BS, Mota N, Arias AJ, et al. The burden of alcohol use disorders in US military veterans: results from the National Health and Resilience in Veterans Study. Addiction. 2016;111:1786-1794.

Taft CT, Creech SK, Gallagher MW, et al. Strength at Home Couples program to prevent military partner violence: A randomized controlled trial. J Consult Clin Psychol. 2016;84:935-945.

Choi Y, Mayer TG, Williams MJ, et al. What is the best screening test for depression in chronic spinal pain patients?. Spine J. 2014;14:1175-1182.

Prescott MR, Tamburrino M, Calabrese JR, et al. Validation of lay-administered mental health assessments in a large Army National Guard cohort. Int J Methods Psychiatr Res. 2014;23:109-119.

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. Psychosomatics. 2013;54:352-358.

Liu LT, Chen SL, Jin T, et al. [Natural outcome and risk-prediction model of late-life depression]. Zhejiang Da Xue Xue Bao Yi Xue Ban. 2012 Nov;41:653-8.

Chen S, Chiu H, Xu B, et al. Reliability and validity of the PHQ-9 for screening latelife depression in Chinese primary care. Int J Geriatr Psychiatry. 2010;25:1127-1133.

Rief W, Mewes R, Martin Aet al. Are psychological features useful in classifying patients with somatic symptoms? Psychosom Med. 2010;72:648-655.

No validated interview to assess major depression

No validated interview to assess major depression

No validated interview to assess major depression

> 2 weeks between PHQ and diagnostic interview

Yeung A, Fung F, Yu SC, et al. Validation of the Patient Health Questionnaire-9 for depression screening among Chinese Americans. Compr Psychiatry. 2008;49:211-217.

Mehnert A, Brähler E, Faller H, et al. Four-week prevalence of mental disorders in patients with cancer across major tumor entities. J Clin Oncol. 2014;32:3540-3546.

Kulathilaka S, Hanwella R, de Silva VA. Depressive disorder and grief following spontaneous abortion. BMC Psychiatry. 2016;16:100.

Asih S, Mayer TG, Bradford EM, et al. The potential utility of the patient health questionnaire as a screener for psychiatric comorbidity in a chronic disabling occupational musculoskeletal disorder population. 2016;16:168-74.

Faller H, Weis J, Koch U, et al. Perceived need for psychosocial support depending on emotional distress and mental comorbidity in men and women with cancer. J Psychosom Res. 2016;81:24-30.

Brünahl C, Dybowski C, Albrecht R, et al. Mental disorders in patients with chronic pelvic pain syndrome (CPPS). J Psychosom Res. 2017;98:19-26.

Hartung TJ, Friedrich M, Johansen C, et al. The Hospital Anxiety and Depression Scale (HADS) and the 9-item Patient Health Questionnaire (PHQ-9) as screening instruments for depression in patients with cancer. Cancer. 2017;123:4236-4243.

Vehling S, Kissane DW, Lo C, et al. The association of demoralization with mental disorders and suicidal ideation in patients with cancer. Cancer. 2017;123:3394-3401.

Gholizadeh L, Ali Khan S, Vahedi F, et al. Sensitivity and specificity of Urdu version of the PHQ-9 to screen depression in patients with coronary artery disease. Contemp Nurse. 2017;53:75-81.

> 2 weeks between PHQ and diagnostic interview

Angermann CE, Gelbrich G, Störk S, et al. Effect of Escitalopram on All-Cause Mortality and Hospitalization in Patients With Heart Failure and Depression: The MOOD-HF Randomized Clinical Trial. JAMA. 2016;315:2683-2693.

Faller H, Weis J, Koch U, et al. Perceived need for psychosocial support depending on emotional distress and mental comorbidity in men and women with cancer. J Psychosom Res. 2016;81:24-30.

Kuhnt S, Brähler E, Faller H, et al. Twelve-Month and Lifetime Prevalence of Mental Disorders in Cancer Patients. Psychother Psychosom. 2016;85:289-296.

Faller H, Weis J, Koch U, et al. Utilization of professional psychological care in a large German sample of cancer patients. Psychooncology. 2017;26:537-543.

Golden SH, Shah N, Naqibuddin M, et al. The Prevalence and Specificity of Depression Diagnosis in a Clinic-Based Population of Adults With Type 2 Diabetes Mellitus. Psychosomatics. 2017;58:28-37.

Maske UE, Hapke U, Riedel-Heller SG, et al. Respondents' report of a cliniciandiagnosed depression in health surveys: comparison with DSM-IV mental disorders in the general adult population in Germany. BMC Psychiatry. 2017;17:39.

Sockalingam S, Hawa R, Wnuk S, et al. Psychosocial predictors of quality of life and weight loss two years after bariatric surgery: Results from the Toronto Bari-PSYCH study. Gen Hosp Psychiatry. 2017;47:7-13.

Geue K, Brähler E, Faller H, et al. Prevalence of mental disorders and psychosocial distress in German adolescent and young adult cancer patients (AYA). Psychooncology. 2018;27:1802-1809.

Angermann CE, Gelbrich G, Störk S, et al. Effect of Escitalopram on All-Cause Mortality and Hospitalization in Patients With Heart Failure and Depression: The MOOD-HF Randomized Clinical Trial. JAMA. 2016;315:2683-2693. > 2 weeks between PHQ and diagnostic interview

Greenhalgh T, Symonds P, Mitchell A. Validation of the PHQ2 and PHQ9 for depression and mood disorder using semi-structured interview in breast cancer. Psychooncology. 2016;25:151.

Hartung TJ, Friedrich M, Johansen C, et al. Depression screening in cancer patients: diagnostic accuracy of HADS and PHQ-9. Psychooncology. 2017;26:39-40.

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. Depress Res Treat. 2014;2014:768978.

Thapar A, Hammerton G, Collishaw S, et al. Detecting recurrent major depressive disorder within primary care rapidly and reliably using short questionnaire measures. Br J Gen Pract. 2014;64:e31-e37.

Uebelacker LA, German NM, Gaudiano BA, et al. Patient health questionnaire depression scale as a suicide screening instrument in depressed primary care patients: a cross-sectional study. Prim Care Companion CNS Disord. 2011;13:PCC.10m01027.

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. Int J Gen Med. 2011;4:197-205.

Gibbons RD, Hooker G, Finkelman MD, et al. The computerized adaptive diagnostic test for major depressive disorder (CAD-MDD): a screening tool for depression. J Clin Psychiatry. 2013;74:669-674.

Smith AB, Rush R, Wright P, et al. Validation of an item bank for detecting and assessing psychological distress in cancer patients. Psychooncology. 2009;18:195-199.

> 2 weeks between PHQ and diagnostic interview

> 2 weeks between PHQ and diagnostic interview

Sample selected for known distress, mental health diagnosis, or psychiatric setting Sample selected for known distress, mental health diagnosis, or psychiatric setting Sample selected for known distress, mental health diagnosis, or psychiatric setting Sample selected for known distress, mental health diagnosis, or psychiatric setting Sample selected for known distress, mental health diagnosis, or psychiatric setting 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. Cancer. 2011;117:218-227.

Gibbons RD, Weiss DJ, Pilkonis PA, et al. Development of a computerized adaptive test for depression. Arch Gen Psychiatry. 2012;69:1104-1112.

Davis K, Pearlstein T, Stuart S, et al. Analysis of brief screening tools for the detection of postpartum depression: comparisons of the PRAMS 6-item instrument, PHQ-9, and structured interviews. Arch Womens Ment Health. 2013;16:271-277.

Berghöfer A, Hartwich A, Bauer M, et al. Efficacy of a systematic depression management program in high utilizers of primary care: a randomized trial. BMC Health Serv Res. 2012;12:298.

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. Contemp Clin Trials. 2012;33:1150-1158.

Mao HJ, Li HJ, Chiu H, et al. Effectiveness of antenatal emotional self-management training program in prevention of postnatal depression in Chinese women. Perspect Psychiatr Care. 2012;48:218-224.

Mittal D, Fortney JC, Pyne JM, et al. Predictors of persistence of comorbid generalized anxiety disorder among veterans with major depressive disorder. J Clin Psychiatry. 2010 Dec 14;72:1445-51.

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. Psychosomatics. 2011;52:433-440.

Lossnitzer N, Müller-Tasch T, Löwe B, et al. Exploring potential associations of suicidal ideation and ideas of self-harm in patients with congestive heart failure. Depress Anxiety. 2009;26:764-768.

Sayers SL, Farrow VA, Ross J, et al. Family problems among recently returned military veterans referred for a mental health evaluation. J Clin Psychiatry. 2009;70:163-170.

Reck C, Stehle E, Reinig K, et al. Maternity blues as a predictor of DSM-IV depression and anxiety disorders in the first three months postpartum. J Affect Disord. 2009;113:77-87.

Gilbody S, Richards D, Barkham M. Diagnosing depression in primary care using self-completed instruments: UK validation of PHQ-9 and CORE-OM. Br J Gen Pract. 2007;57:650-652.

Yeung A, Yu SC, Fung F, et al. Recognizing and engaging depressed Chinese Americans in treatment in a primary care setting. Int J Geriatr Psychiatry. 2006;21:819-823.

Williams LS, Brizendine EJ, Plue L, et al. Performance of the PHQ-9 as a screening tool for depression after stroke. Stroke. 2005;36:635-638.

Bühler B, Kocalevent R, Berger R, et al. Versorgungssituation von Langzeitarbeitslosen mit psychischen Störungen [Treatment situation of long-term unemployed with psychological disorders]. Nervenarzt. 2013;84:603-607.

Gawlik S, Waldeier L, Müller M, et al. Subclinical depressive symptoms during pregnancy and birth outcome--a pilot study in a healthy German sample. Arch Womens Ment Health. 2013;16:93-100.

Pibernik-Okanović M, Grgurević M, Dea A, et al. Screening performance of a short versus long version of the Patient Health Questionnaire-Depression in outpatients with diabetes. Diabetologia. 2009;S392.

Mahajan S, Avasthi A, Grover S, et al. Role of baseline depressive symptoms in the development of depressive episode in patients receiving antiviral therapy for hepatitis C infection. J Psychosom Res. 2014;77:109-115.

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. Contemp Clin Trials. 2014;39:34-49.

Krause S, Rydall A, Hales S, et al. Initial validation of the Death and Dying Distress Scale for the assessment of death anxiety in patients with advanced cancer. J Pain Symptom Manage. 2015;49:126-134.

Olariu E, Castro-Rodriguez JI, Álvarez P, et al. Validation of clinical symptom IRT scores for diagnosis and severity assessment of common mental disorders. Qual Life Res. 2015;24:979-992.

Hu A, Xue Z, Mwansisya TE, et al. Major depressive disorder in hemodialysis patients in China. Asia Pac Psychiatry. 2015;7:78-84.

Sawaya H, Atoui M, Hamadeh A, et al. Adaptation and initial validation of the Patient Health Questionnaire - 9 (PHQ-9) and the Generalized Anxiety Disorder - 7 Questionnaire (GAD-7) in an Arabic speaking Lebanese psychiatric outpatient sample. Psychiatry Res. 2016;239:245-252.

Niemi M, Kiel S, Allebeck P, et al. Community-based intervention for depression management at the primary care level in Ha Nam Province, Vietnam: a cluster-randomised controlled trial. Trop Med Int Health. 2016;21:654-661.

Ishikawa M, Yamanaka G, Yamamoto N, et al. Depression and Altitude: Cross-Sectional Community-Based Study Among Elderly High-Altitude Residents in the Himalayan Regions. Cult Med Psychiatry. 2016;40:1-11.

van der Zwaan GL, van Dijk SEM, Adriaanse MC, et al. Diagnostic accuracy of the Patient Health Questionnaire-9 for assessment of depression in type II diabetes mellitus and/or coronary heart disease in primary care. J Affect Disord. 2016;190:68-74.

Achtyes ED, Halstead S, Smart L, et al. Validation of Computerized Adaptive Testing in an Outpatient Nonacademic Setting: The VOCATIONS Trial. Psychiatr Serv. 2015;66:1091-1096.

Herzog A, Voigt K, Meyer B, et al. Psychological and interactional characteristics of patients with somatoform disorders: Validation of the Somatic Symptoms Experiences Questionnaire (SSEQ) in a clinical psychosomatic population. J Psychosom Res. 2015;78:553-562.

Helgadóttir B, Forsell Y, Ekblom Ö. Physical activity patterns of people affected by depressive and anxiety disorders as measured by accelerometers: a cross-sectional study. PLoS One. 2015;10:e0115894.

Fogliati VJ, Terides MD, Gandy M, et al. Psychometric properties of the Mini-Social Phobia Inventory (Mini-SPIN) in a large online treatment-seeking sample. Cogn Behav Ther. 2016;45:236-257.

Chang ET, Wells KB, Gilmore J, et al. Comorbid depression and substance abuse among safety-net clients in Los Angeles: a community participatory study. Psychiatr Serv. 2015;66:285-294.

Serfaty M, Ridgewell A, Drennan V, et al. Helping Aged Victims of Crime (the HAVoC Study): Common Crime, Older People and Mental Illness. Behav Cogn Psychother. 2016;44:140-155.

Gaynes BN, O'Donnell J, Nelson E, et al. Psychiatric comorbidity in depressed HIVinfected individuals: common and clinically consequential. Gen Hosp Psychiatry. 2015;37:277-282.

Tarolla E, Caredda M, Tarsitani L, et al. [Predictive factors for further suicide attempts in individuals presenting to an emergency service for an attempted suicide. A one-year longitudinal study]. Riv Psichiatr. 2015;50:28-33.

Battle CL, Uebelacker LA, Magee SR, et al. Potential for prenatal yoga to serve as an intervention to treat depression during pregnancy. Womens Health Issues. 2015;25:134-141.

Muñoz-Navarro R, Cano-Vindel A, Medrano LA, et al. Utility of the PHQ-9 to identify major depressive disorder in adult patients in Spanish primary care centres. BMC Psychiatry. 2017;17:291.

Karp JF, Dew MA, Wahed AS, et al. Challenges and Solutions for Depression Prevention Research: Methodology for a Depression Prevention Trial for Older Adults with Knee Arthritis and Emotional Distress. Am J Geriatr Psychiatry. 2016;24:433-443.

Quinlivan EB, Gaynes BN, Lee JS, et al. Suicidal Ideation is Associated with Limited Engagement in HIV Care. AIDS Behav. 2017;21:1699-1708.

Stolzenburg S, Freitag S, Evans-Lacko S, et al. The Stigma of Mental Illness as a Barrier to Self Labeling as Having a Mental Illness. J Nerv Ment Dis. 2017;205:903-909.

Pols AD, van Dijk SE, Bosmans JE, et al. Effectiveness of a stepped-care intervention to prevent major depression in patients with type 2 diabetes mellitus and/or coronary heart disease and subthreshold depression: A pragmatic cluster randomized controlled trial. PLoS One. 2017;12:e0181023.

Obindo J, Abdulmalik J, Nwefoh E, et al. Prevalence of depression and associated clinical and socio-demographic factors in people living with lymphatic filariasis in Plateau State, Nigeria. PLoS Negl Trop Dis. 2017;11:e0005567.

Cholera R, Pence BW, Bengtson AM, et al. Mind the Gap: Gaps in Antidepressant Treatment, Treatment Adjustments, and Outcomes among Patients in Routine HIV Care in a Multisite U.S. Clinical Cohort. PLoS One. 2017;12:e0166435

Almeida OP, Marsh K, Murray K, et al. Reducing depression during the menopausal transition with health coaching: Results from the healthy menopausal transition randomised controlled trial. Maturitas. 2016;92:41-48.

Muñoz-Navarro R, Cano-Vindel A, Wood CM, et al. The PHQ-PD as a Screening Tool for Panic Disorder in the Primary Care Setting in Spain. PLoS One. 2016;11:e0161145.

Costa MV, Diniz MF, Nascimento KK, et al. Accuracy of three depression screening scales to diagnose major depressive episodes in older adults without neurocognitive disorders. Braz J Psychiatry. 2016;38:154-156.

Milgrom J, Danaher BG, Gemmill AW, et al. Internet Cognitive Behavioral Therapy for Women With Postnatal Depression: A Randomized Controlled Trial of MumMoodBooster. J Med Internet Res. 2016;18:e54.

Sirey JA, Banerjee S, Marino P, et al. Improving Mental Health Treatment Initiation among Depressed Community Dwelling Older Adults. Am J Geriatr Psychiatry. 2016;24:310-319.

Gutnick D, Siegel C, Laska E, et al. Making the cut: Depression screening in urban general hospital clinics for culturally diverse Latino populations. Gen Hosp Psychiatry. 2017;45:85-90.

Maust DT, Sirey JA, Kales HC. Antidepressant Prescribing in Primary Care to Older Adults Without Major Depression. Psychiatr Serv. 2017;68:449-455.

Smith R, Shepard C, Wiltgen A, et al. Treatment outcomes for inpatients with obsessive-compulsive personality disorder: An open comparison trial. J Affect Disord. 2017;209:273-278.

Ambrosi E, Arciniegas DB, Madan A, et al. Insula and amygdala resting-state functional connectivity differentiate bipolar from unipolar depression. Acta Psychiatr Scand. 2017;136:129-139.

Arjadi R, Nauta MH, Scholte WF, et al. Guided Act and Feel Indonesia (GAF-ID) -Internet-based behavioral activation intervention for depression in Indonesia: study protocol for a randomized controlled trial. Trials. 2016;17:455.

Byrne G, Rosenfeld G, Leung Y, et al. Prevalence of Anxiety and Depression in Patients with Inflammatory Bowel Disease. Can J Gastroenterol Hepatol. 2017;2017:6496727.

Doherty K, Ismail MF, Lavelle C, et al. A two-item depression screen (Patient Health Questionnaire-2) with a 'help' question in cancer patients referred to a Psycho-Oncology service. Psychooncology. 2016;25:70.

Guiraud V, Gallarda T, Calvet D, et al. Depression predictors within six months of ischemic stroke: The DEPRESS Study. Int J Stroke. 2016;11:519-525.

Kananian S, Ayoughi S, Farugie A, et al. Transdiagnostic culturally adapted CBT with Farsi-speaking refugees: a pilot study. Eur J Psychotraumatol. 2017;8:1390362.

Li H, Luo X, Ke X, et al. Major depressive disorder and suicide risk among adult outpatients at several general hospitals in a Chinese Han population. PLoS One. 2017;12:e0186143.

Williams RT, Heinemann AW, Neumann HD, et al. Evaluating the psychometric properties and responsiveness to change of 3 depression measures in a sample of persons with traumatic spinal cord injury and major depressive disorder. Arch Phys Med Rehabil. 2016;9:929-37.

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. PLoS One. 2014;9:e113778.

Osório FL, Lima MP, Chagas MH. Screening tools for psychiatry disorders in cancer setting: Caution when using. Psychiatry Res. 2015;229:739-742.

Roch S, Fydrich T, Kuech D, et al. Measurement of Depression and Anxiety in Multidisciplinary Inpatient Orthopedic Rehabilitation-A Questionnaire Validation with the SCID. Phys Medizin Rehabilitationsmedizin Kurortmedizin. 2016;26:130-6.

Swartz RH, Cayley ML, Lanctôt KL, et al. The "DOC" screen: Feasible and valid screening for depression, Obstructive Sleep Apnea (OSA) and cognitive impairment in stroke prevention clinics. PLoS One. 2017;12:e0174451.

Park H, Kim JH, Hahm BJ. The Distress Thermometer and The PHQ-2 for Ultra-Brief Screening Depression Of Cancer Patients In Korea: P3-41. Pscyho-oncology. 2013;22:303-4.

Margrove K, Mensah S, Thapar A, et al. 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. Epilepsy Behav. 2011;21:387-390.

Fisher L, Hessler DM, Polonsky WH, et al. Prevalence of depression in Type 1 diabetes and the problem of over-diagnosis. Diabet Med. 2016;33:1590-1597.

Sample selected for known distress, mental health diagnosis, or psychiatric setting Sample selected for known distress, mental health diagnosis, or psychiatric setting Study only administered the PHQ-2

Study only administered the PHQ-8

Smith MV, Gotman N, Lin H, et al. Do the PHQ-8 and the PHQ-2 accurately screen
for depressive disorders in a sample of pregnant women?. Gen Hosp Psychiatry.Study only administered the
PHQ-82010;32:544-548.Study only administered the
PHQ-8Study only administered the
PHQ-8

First Author, Year	Country	Recruited Population	Diagnostic	Classification	Total N	Major Depression
			Inter view	System		N (%)
Semi-structured Interviews						
Alamri, 2017 ¹	Saudi Arabia	Hospitalized elderly in medical and surgical wards	SCID	DSM-IV	199	24 (12)
Amoozegar, 2017 ²	Canada	Migraine patients	SCID	DSM-IV	203	49 (24)
Amtmann, 2015 ³	USA	Multiple sclerosis patients	SCID	DSM-IV	164	48 (29)
Ayalon, 2010 ⁴	Israel	Elderly primary care patients	SCID	DSM-IV	151	6 (4)
Beraldi, 2014 ⁵	Germany	Cancer inpatients	SCID	DSM-IV	116	7 (6)
Bernstein, 20186	Canada	IBD patients	SCID	DSM-IV	240	21 (9)
Bhana, 2015 ⁷	South Africa	Chronic care patients	SCID	DSM-IV	679	78 (11)
Bombardier, 2012 ⁸	USA	Inpatients with spinal cord injuries	SCID	DSM-IV	160	14 (9)
Chagas, 2013 ⁹	Brazil	Outpatients with Parkinson's Disease	SCID	DSM-IV	84	19 (23)
Chibanda, 2016 ¹⁰	Zimbabwe	A primary care population with high HIV prevalence	SCID	DSM-IV	264	149 (56)
Eack, 2006 ¹¹	USA	Women seeking psychiatric services for their children at two mental health centers	SCID	DSM-IV	48	12 (25)
Fann, 2005 ¹²	USA	Inpatients with traumatic brain injury	SCID	DSM-IV	135	45 (33)
Fiest, 2014 ¹³	Canada	Epilepsy outpatients	SCID	DSM-IV	169	23 (14)
Fischer, 2014 ¹⁴	Germany	Heart failure patients	SCID	DSM-IV	194	11 (6)

Supplementary Table B1. Characteristics of included primary studies

Gjerdingen, 2009 ¹⁵	USA	Mothers registering their newborns for well-child visits at medical or pediatric clinics	SCID	DSM-IV	419	19 (5)
Gräfe, 2004 ¹⁶	Germany	Medical and psychosomatic outpatients	SCID	DSM-IV	494	67 (14)
Green, 2017 ¹⁷	USA	Returning veterans	SCID	DSM-V	176	22 (13)
Green, 2018 ¹⁸	Kenya	Pregnant women and new mothers	SCID	DSM-V	192	10 (5)
Haroz, 2017 ¹⁹	Myanmar	Primary care patients	SCID	DSM-IV	132	29 (22)
Hitchon, 2019 ^{20a}	Canada	Rheumatoid arthritis patients	SCID	DSM-IV	148	16 (11)
Khamseh, 2011 ²¹	Iran	Type 2 diabetes patients	SCID	DSM-IV	184	79 (43)
Kwan, 2012 ²²	Singapore	Post-stroke inpatients undergoing rehabilitation	SCID	DSM-IV-TR	113	3 (3)
Lambert, 2015 ²³	Australia	Cancer patients	SCID	DSM-IV	147	21 (14)
Lara, 2015 ²⁴	Mexico	Pregnant women during the third trimester of pregnancy	SCID	DSM-IV	280	29 (10)
Liu, 2011 ²⁵	Taiwan	Primary care patients	SCAN	DSM-IV	1532	50 (3)
Marrie, 2018 ²⁶	Canada	Multiple sclerosis patients	SCID	DSM-IV	244	25 (10)
Martin-Subero, 2017 ²⁷	Spain	Medical inpatients	SCID	DSM-III	1003	83 (8)
McGuire, 2013 ²⁸	USA	Acute coronary syndrome inpatients	DISH	DSM-IV	100	9 (9)
Osório, 2009 ²⁹	Brazil	Women in primary care	SCID	DSM-IV	177	60 (34)
Osório, 2012 ³⁰	Brazil	Inpatients from various clinical wards	SCID	DSM-IV	86	28 (33)
Patten, 2015 ³¹	Canada	Multiple sclerosis patients	SCID	DSM-IV	143	20 (14)
Picardi, 2005 ³²	Italy	Inpatients with skin diseases	SCID	DSM-IV	138	12 (9)
Prisnie, 2016 ³³	Canada	Stroke and transient ischemic attack patients	SCID	DSM-IV	114	11 (10)

Quinn, Unpublished ^a	UK	Stroke patients	SCID	DSM-V	146	17 (12)
Richardson, 2010 ³⁴	USA	Older adults undergoing in- home aging services care management assessment	SCID	DSM-IV	377	95 (25)
Rooney, 2013 ³⁵	UK	Patients with cerebral glioma	SCID	DSM-IV	126	14 (11)
Shinn, 2017 ³⁶	USA	Cancer patients	SCID	DSM-IV	139	12 (9)
Sidebottom, 2012 ³⁷	USA	Pregnant women	SCID	DSM-IV	246	12 (5)
Simning, 2012 ³⁸	USA	Older adults living in public housing	SCID	DSM-IV	190	10 (5)
Spangenberg, 2015 ³⁹	Germany	Primary care patients	SCID	DSM-IV	160	1 (1)
Turner, 2012 ⁴⁰	Australia	Stroke patients	SCID	DSM-IV	72	13 (18)
Turner, Unpublished ^a	Australia	Cardiac rehabilitation patients	SCID	DSM-IV	51	4 (8)
Twist, 2013 ⁴¹	UK	Type 2 diabetes outpatients	SCAN	DSM-IV	360	80 (22)
Vöhringer, 201342	Chile	Primary care patients	SCID	DSM-IV	190	59 (31)
Wagner, 2017 ⁴³	USA	Patients starting radiotherapy for the first diagnosis of any tumor	SCID	DSM-IV	54	6 (11)
Williams, 2012 ⁴⁴	USA	Parkinson's Disease patients	SCID	DSM-IV	235	61 (26)
Wittkampf, 2009 ⁴⁵	The Netherlands	Primary care patients at risk for depression	SCID	DSM-IV	260	45 (17)
Fully-structured Interviews						
Arroll, 2010 ⁴⁶	New Zealand	Primary care patients	CIDI	DSM-IV	2528	156 (6)
Azah, 2005 ⁴⁷	Malaysia	Adults attending family medicine clinics	CIDI	ICD-10	180	30 (17)
de Man-van Ginkel, 2012 ⁴⁸	The Netherlands	Stroke patients	CIDI	DSM-IV	382	54 (14)
Delgadillo, 2011 ⁴⁹	UK	Injecting drug users	CIS-R	ICD-10	103	51 (50)

Australia	Primiparous women less than 6 weeks postpartum	CIDI	DSM-IV	357	4 (1)
Ethiopia	Outpatients at a general hospital	CIDI	DSM-IV	923	162 (18)
The Netherlands	Non-demented patients with symptomatic atherosclerotic disease	CIDI	DSM-IV	477	22 (5)
Germany	Patients with chronic illnesses from rehabilitation centers	CIDI	DSM-IV	211	18 (9)
Germany	Primary care patients	CIDI	ICD-10	430	43 (10)
Israel	Jewish and Palestinian residents of Jerusalem exposed to war	CIDI	DSM-IV	144	42 (29)
Australia	Community sample of adults	CIDI	ICD-10	822	33 (4)
South Korea	Randomly selected adults	CIDI	DSM-IV	3071	205 (7)
Nepal	Primary care patients	CIDI	DSM-IV	125	17 (14)
Canada	Working population	CIDI	DSM-IV	4182	91 (2)
Malaysia	Primary care patients	CIDI	DSM-IV	146	31 (21)
India	Primary care patients	CIS-R	ICD-10	299	13 (4)
Cameroon	HIV-infected patients	CIDI	DSM-IV	398	11 (3)
Canada	Patients with systemic sclerosis	CIDI	DSM-IV	345	13 (4)
USA	Outpatients with coronary artery disease	C-DIS	DSM-IV	1006	221 (22)
The Netherlands	General practice patients	CIDI	DSM-IV	1038	135 (13)
hiatric Interviews ((MINI)				
Uganda	HIV/AIDS patients	MINI	DSM-IV	91	11 (12)
	Australia Ethiopia The Netherlands Germany Germany Israel Australia South Korea Nepal Canada Malaysia India Cameroon Canada Walaysia India Cameroon USA The Netherlands Hutric Interviews (Uganda)	AustraliaPrimiparous women less than 6 weeks postpartumEthiopiaOutpatients at a general hospitalThe NetherlandsNon-demented patients with symptomatic atherosclerotic diseaseGermanyPatients with chronic illnesses from rehabilitation centersGermanyPrimary care patientsIsraelJewish and Palestinian residents of Jerusalem exposed to warAustraliaCommunity sample of adultsSouth KoreaRandomly selected adultsNepalPrimary care patientsIndiaPrimary care patientsIndiaPrimary care patientsIndiaPrimary care patientsCanadaWorking populationMalaysiaPatients with systemic sclerosisUSAOutpatients with coronary artery diseaseThe NetherlandsGeneral practice patientsHUV/AIDS patientsHIV/AIDS patients	AustraliaPrimiparous women less than 6 weeks postpartumCIDIEthiopiaOutpatients at a general hospitalCIDIThe NetherlandsNon-demented patients with symptomatic atherosclerotic diseaseCIDIGermanyPatients with chronic illnesses from rehabilitation centersCIDIGermanyPrimary care patientsCIDIIsraelCommunity sample of adultsCIDISouth KoreaRandomly selected adultsCIDINepalPrimary care patientsCIDIMalaysiaPrimary care patientsCIDIIndiaPrimary care patientsCIDICanadaWorking populationCIDIIndiaPrimary care patientsCIDICanadaOutpatients with systemic sclerosisCIDIUSAOutpatients with coronary artery diseaseCIDIThe NetherlandsGeneral practice patientsCIDIUgandaHIV/AIDS patientsMINI	AustraliaPrimiparous women less than 6 weeks postpartumCIDIDSM-IVEthiopiaOutpatients at a general hospitalCIDIDSM-IVThe NetherlandsNon-demented patients with symptomatic atherosclerotic diseaseCIDIDSM-IVThe NetherlandsNon-demented patients with symptomatic atherosclerotic cliseaseCIDIDSM-IVGermanyPatients with chronic illnesses from rehabilitation centersCIDIDSM-IVGermanyPrimary care patientsCIDIICD-10Javish and Palestinian residents of Jerusalem exposed to warCIDIDSM-IVAustraliaCommunity sample of adultsCIDIDSM-IVNepalPrimary care patientsCIDIDSM-IVKoreaRandomly selected adultsCIDIDSM-IVMalaysiaPrimary care patientsCIDIDSM-IVIndiaPrimary care patientsCIDIDSM-IVIndiaPrimary care patientsCIDIDSM-IVIndiaPrimary care patientsCIDIDSM-IVIndiaPrimary care patientsCIDIDSM-IVIndiaPrimary care patientsCIDIDSM-IVUSAQuitpatients with coronary artery diseaseCIDIDSM-IVUSAGeneral practice patientsCIDIDSM-IVIndiaPatients with coronary artery diseaseCIDIDSM-IVUgandaHIV/AIDS patientsMINIDSM-IV	AustraliaPrimiparous women less than 6 weeks postpartumCIDIDSM-IV357EthiopiaOutpatients at a general hospitalCIDIDSM-IV923The NetherlandsNon-demented patients with symptomatic atherosclerotic diseaseCIDIDSM-IV927GermanyPatients with chronic illnesses from rehabilitation centersCIDIDSM-IV477GermanyPatients with chronic illnesses from rehabilitation centersCIDIDSM-IV211GermanyPrimary care patientsCIDIICD-10430IsraelJewish and Palestinian residents of Jerusalem exposed to warCIDIDSM-IV144AustraliaCommunity sample of adultsCIDIDSM-IV3071NepalPrimary care patientsCIDIDSM-IV3071NepalPrimary care patientsCIDIDSM-IV4182MalaysiaPrimary care patientsCIDIDSM-IV4182MalaysiaPrimary care patientsCIDIDSM-IV4182MalaysiaPrimary care patientsCIDIDSM-IV436IndiaPrimary care patientsCIDIDSM-IV398CanadaPatients with coronary artery diseaseCIDIDSM-IV306USAOutpatients with coronary artery diseaseCIDIDSM-IV306The NetherlandsGeneral practice patientsCIDIDSM-IV306USAOutpatients with coronary artery diseaseCIDIDSM-IV306

Baron, 2017 ⁶⁷	South Africa	Xhosa, Afrikaans and Zulu- speaking general population	MINI	DSM-IV	851	93 (11)
Buji, 2018 ⁶⁸	Malaysia	Patients with systemic lupus erythematosus	MINI	DSM-IV	130	5 (4)
Cholera, 2014 ⁶⁹	South Africa	Patients undergoing routine HIV counseling and testing at a primary health care clinic	MINI	DSM-IV	397	47 (12)
Conway, 2016 ⁷⁰	Australia	Heart transplant recipients	MINI	DSM-IV	26	2 (8)
de la Torre, 2016 ⁷¹	Argentina	Hospitalized general medical patients	MINI	DSM-IV	257	69 (27)
Garabiles, Unpublished ^a	China	Female Filipino domestic workers in Macao	MINI	DSM-IV	99	39 (39)
Gholizadeh, 2019 ^{72a}	Iran	Coronary artery disease patients	MINI	DSM-IV	79	12 (15)
Hantsoo, 2017 ⁷³	USA	General population	MINI	DSM-IV	321	19 (6)
Hides, 2007 ⁷⁴	Australia	Injection drug users accessing a needle and syringe program	MINI	DSM-IV	103	47 (46)
Hyphantis, 2011 ⁷⁵	Greece	Patients with various rheumatologic disorders	MINI	DSM-IV	213	69 (32)
Hyphantis, 2014 ⁷⁶	Greece	Patients with chronic illnesses presenting at the emergency department	MINI	DSM-IV	349	95 (27)
Inagaki, 2013 ⁷⁷	Japan	Internal medicine outpatients	MINI	DSM-III-R	104	21 (20)
Janssen, 2016 ⁷⁸	The Netherlands	General population and Type 2 diabetes patients	MINI	DSM-IV	4695	156 (3)

Lamers, 2008 ⁷⁹	The Netherlands	Elderly primary care patients with diabetes mellitus or chronic obstructive pulmonary disease	MINI	DSM-IV	104	59 (57)
Levin-Aspenson, 2017 ⁸⁰	USA	General population	MINI	DSM-V	408	66 (16)
Liu, 2016 ⁸¹	China	Primary care patients	MINI	DSM-IV	1997	97 (5)
Lotrakul, 2008 ⁸²	Thailand	Outpatients	MINI	DSM-IV	278	19 (7)
Muramatsu, 2007 ⁸³	Japan	Primary care patients	MINI	DSM-IV	116	32 (28)
Muramatsu, 2018 ⁸⁴	Japan	Primary care patients	MINI	DSM-IV	152	46 (30)
Nakku, 2016 ⁸⁵	Uganda	Primary patients and hospital outpatients	MINI	DSM-IV	153	84 (55)
Paika, 2017 ⁸⁶	Greece	Patients with long term medical conditions	MINI	DSM-IV	474	98 (21)
Persoons, 2001 ⁸⁷	Belgium	Inpatients and patients at gastroenterological and hepatology wards	MINI	DSM-IV	173	28 (16)
Rancans, 2018 ⁸⁸	Latvia	Primary care patients	MINI	DSM-IV	1467	147 (10)
Santos, 201389	Brazil	General population	MINI	DSM-IV	196	25 (13)
Stafford, 2007 ⁹⁰	Australia	Inpatients with coronary artery disease who had undergone surgery	MINI	DSM-IV	193	35 (18)
Sung, 2013 ⁹¹	Singapore	Primary care patients	MINI	DSM-IV	399	12 (3)
Suzuki, 2015 ⁹²	Japan	Outpatients in general medicine department	MINI	DSM-IV	511	42 (8)
van Heyningen, 201893	South Africa	Pregnant women	MINI	DSM-IV	373	81 (22)
van Steenbergen-Weijenburg, 2010 ⁹⁴	The Netherlands	Diabetes patients	MINI	DSM-IV	196	37 (19)
Volker, 2016 ⁹⁵	The Netherlands	Employees on sickness leave	MINI	DSM-IV	93	23 (25)
Wang, 2014 ⁹⁶	China	General population	MINI	DSM-IV	1036	28 (3)

Zhang, 201397	Hong Kong, 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; 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
First Author, Year	Country	Recruited Population	Diagnostic Interview	Classificatio n System	Total N	Major Depression N (%)	Could study have been added as a published dataset? (Reason)
Semi-structured Int	erviews						
Bailer, 2016 ⁹⁸	Germany	Healthy participants and cognitive behaviour therapy outpatients	SCID	DSM-IV	200	68 (34)	No (Primary study did not report accuracy results for any PHQ-9 cutoff)
Becker, 2002 ⁹⁹	Saudi Arabia	Primary care patients	SCID	DSM-III-R	173	NR	No (Primary study did not report accuracy results for any PHQ-9 cutoff)
Brodey, 2016 ¹⁰⁰	USA	Perinatal women	SCID	DSM-IV	879	NR	Yes (Published accuracy results for PHO-9 cutoff 7)
Chen, 2013 ¹⁰¹	China	Primary care populations	SCID	DSM-IV	280	NR	Yes (Published accuracy results for PHQ-9 cutoffs 6-15)
Chen, 2012 ¹⁰²	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)
Irmak, 2017 ¹⁰³	Turkey	Battered women	SCID	DSM-V	150	63 (42)	No (Primary study did not report accuracy results for any PHQ-9 cutoff)
Lai, 2010 ¹⁰⁴	China	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)
Limon, 2016 ¹⁰⁵	USA	Latino farmworkers	SCID	DSM-IV	99	NR	Yes (Published accuracy results for PHO-9 cutoff 10)
Liu, 2016 ¹⁰⁶	China	Rural elderly population	SCID	DSM-IV	839	57 (7)	Yes (Published accuracy results for PHQ-9 cutoffs 5-15)
Nacak, 2017 ¹⁰⁷	Germany	Patients with somatoform pain disorder	SCID	DSM-IV	130	36 (28)	No (Primary study did not report accuracy results for any PHQ-9 cutoff)
Navinés, 2012 ¹⁰⁸	Spain	Chronic hepatitis C patients	SCID	DSM-IV	500	32 (6)	Yes (Published accuracy results for PHQ-9 cutoff 9)
Phelan, 2010 ¹⁰⁹	USA	Elderly primary care patients	SCID	DSM-IV	69	8 (12)	Yes (Published accuracy results for PHQ-9 cutoffs 8-12)

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

Thompson, 2011 ¹¹⁰	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 ¹¹¹	USA	Long term dialysis patients	SCID	DSM-IV	62	12 (19)	reported accuracy estimates were not for major depression, they were for a broader definition of depression)
Fully Structured In	terviews						
Al-Ghafri, 2014 ¹¹²	Oman	Medical trainees	CIDI	NR	131	NR	No (Primary study did not report sample size or number of participants with major depression)
Haddad, 2013 ¹¹³	UK	Coronary heart disease patients	CIS-R	ICD-10	730	32 (4)	Yes (Published accuracy results for PHQ-9 cutoffs 7-10)
Ikin, 2016 ¹¹⁴	Australia	Veterans of the Gulf War	CIDI	DSM-IV	1356	NR	No (Primary study did not report accuracy results for any PHQ-9 cutoff)
Valencia-Garcia, 2017 ¹¹⁵	USA	Mexican american women	CIDI	DSM-IV	205	40 (20)	No (Primary study did not report accuracy results for any PHQ-9 cutoff)
Wang, 2015 ¹¹⁶	China	Cardiovascular outpatients	CIDI	DSM-IV	201	42 (21)	Yes (Published accuracy results for PHQ-9 cutoffs 7-13)
Mini International	Neuropsychiati	ric Interviews (MINI)					
Choi, 2015 ¹¹⁷	Canada	HIV patients	MINI	DSM-IV	190	29 (15)	Yes (Published accuracy results for PHQ-9 cutoffs 8-11)
Griffith, 2015 ¹¹⁸	USA	Patients with epilepsy	MINI	DSM-IV and ICD-10	114	20 (18)	No (Published data ineligible: some participants had a current depression diagnosis or antidepressant prescription)
Persoons, 2003 ¹¹⁹	Belgium	Otorhinolaryngology outpatients	MINI	DSM-IV	97	16 (16)	No (Primary study did not report accuracy results for any PHQ-9 cutoff)
Rathore, 2014 ¹²⁰	USA	Patients with epilepsy	MINI	DSM-IV	158	36 (23)	Yes (Published accuracy results for PHQ-9 cutoffs 10-15)
Scott, 2011 ¹²¹	USA	Chronic hepatitis C patients	MINI	DSM-IV and ICD-10	30	NR	No (Primary study did not report the number of participants with major depression)
Seo, 2015 ¹²²	South Korea	Migrane patients	MINI	DSM-IV	132	39 (30)	Yes (Published accuracy results for PHQ-9 cutoffs 5-9)

Woldetensay, 2018 ¹²³	Ethiopia	Pregnant women	MINI	DSM-IV	216	28 (13)	Yes (Published accuracy results for PHQ-9 cutoffs 5-14)
Xiong, 2014 ¹²⁴	China	Outpatients with multiple somatic symptoms	MINI	DSM-IV	398	116 (29)	Yes (Published accuracy results for PHQ-9 cutoffs 5-15)

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.

Supplementary Table C1. Estimates of the impact (R) and extent (τ^2) of heterogeneity in sensitivity and specificity of PHQ-9 at cut-off score of 10

	Semi-struct	ured Diagnos	tic Interviews		Fully Struct	tured Diagnos	tic Interviews		Mini Intern	ational Neuro	psychiatric In	terviews
Participant Subgroup	R ^a		$ au^2$		R ^a		$ au^2$		R ^a		$ au^2$	
	Sensitivity	Specificity	Sensitivity	Specificity	Sensitivity	Specificity	Sensitivity	Specificity	Sensitivity	Specificity	Sensitivity	Specificity
All participants	2.94	3.75	1.21	0.46	4.35	7.96	0.96	0.95	3.04	4.51	0.67	0.49
Participants not currently diagnosed or receiving treatment for a mental health problem	0.02	0.05	1.51	0.61	3.57	7.4	0.81	0.98	2.21	3.51	0.34	0.34
Age <60	2.75	3.42	1.30	0.44	3.97	7.55	0.96	1.03	2.60	4.06	0.66	0.48
Age ≥60	3.38	2.13	2.46	0.33	1.90	4.13	0.43	0.95	2.33	3.31	0.52	0.64
Women	3.42	5.20	1.18	0.89	3.03	6.69	0.66	1.08	2.69	4.08	0.65	0.59
Men	1.85	2.01	0.74	0.22	3.42	5.20	1.18	0.89	1.95	3.43	0.64	0.67
Very high human development index	2.2	2.98	0.77	0.26	4.48	8.58	0.99	1.07	2.86	4.75	0.58	0.60
High human development index	7.33	4.45	6.97	1.03					1.90	3.22	0.29	0.16
Low or medium human development index	4.64	7.7	1.32	1.65	4.55	4.49	1.28	0.35	4.01	3.54	0.94	0.28
Non-medical care	1.00	1.00	0.00	0.00	2.91	7.86	0.32	0.56	2.98	5.87	0.56	0.71
Primary care	4.71	5.04	2.18	0.92	2.91	4.38	0.44	0.32	4.71	3.76	1.44	0.26
Inpatient specialty care	2.92	1.55	1.85	0.02	2.22	5.10	0.46	0.52	1.60	1.67	0.21	0.07
Outpatient specialty care	1.96	3.22	0.51	0.37	4.71	8.86	1.12	1.48	1.93	4.16	0.28	0.62

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

Particinant Subgroun	Semi-structured Diagnos	tic Interviews	Fully Structured Diagnos	tic Interviews	Mini International Neuro	psychiatric Interviews
Turteipunt Subgroup	Sensitivity (95% PI)	Specificity (95% PI)	Sensitivity (95% PI)	Specificity (95% PI)	Sensitivity (95% PI)	Specificity (95% PI)
All participants	0.85 (0.37, 0.98)	0.85 (0.58, 0.96)	0.64 (0.18, 0.94)	0.88 (0.48, 0.98)	0.74 (0.34, 0.94)	0.89 (0.65, 0.97)
Participants not currently diagnosed or receiving treatment for a mental health problem	0.85 (0.29, 0.99)	0.89 (0.61, 0.98)	0.74 (0.10, 0.99)	0.89 (0.20, 1.00)	0.70 (0.38, 0.90)	0.92 (0.75, 0.98)
Age <60	0.85 (0.36, 0.98)	0.82 (0.55, 0.95)	0.66 (0.18, 0.94)	0.88 (0.45, 0.98)	0.75 (0.36, 0.94)	0.88 (0.64, 0.97)
Age ≥60	0.88 (0.22, 1.00)	0.88 (0.70, 0.96)	0.58 (0.23, 0.86)	0.90 (0.50, 0.99)	0.73 (0.36, 0.93)	0.90 (0.62, 0.98)
Women	0.86 (0.32, 0.99)	0.83 (0.53, 0.96)	0.63 (0.23, 0.91)	0.87 (0.41, 0.98)	0.73 (0.34, 0.94)	0.87 (0.57, 0.97)
Men	0.84 (0.47, 0.97)	0.87 (0.71, 0.94)	0.65 (0.14, 0.95)	0.90 (0.53, 0.99)	0.77 (0.38, 0.95)	0.90 (0.63, 0.98)
Very high human development index	0.85 (0.47, 0.97)	0.85 (0.66, 0.94)	0.65 (0.17, 0.94)	0.89 (0.45, 0.99)	0.78 (0.40, 0.95)	0.88 (0.59, 0.98)
High human development index	0.97 (0.00, 1.00)	0.85 (0.14, 1.00)	a	^a	0.63 (0.27, 0.89)	0.89 (0.72, 0.96)
Low or medium human development index	0.70 (0.01, 1.00)	0.81 (0.01, 1.00)	0.62 (0.01, 1.00)	0.86 (0.26, 0.99)	0.66 (0.06, 0.98)	0.88 (0.53, 0.98)
Non-medical care	0.82 (,) ^b	0.88 (,) ^b	0.47 (0.05, 0.93)	0.93 (0.27, 1.00)	0.71 (0.27, 0.94)	0.89 (0.50, 0.99)
Primary care	0.91 (0.25, 1.00)	0.88 (0.45, 0.98)	0.72 (0.28, 0.94)	0.89 (0.63, 0.97)	0.75 (0.13, 0.98)	0.89 (0.68, 0.97)
Inpatient specialty care	0.86 (0.20, 0.99)	0.80 (0.73, 0.86)	0.89 (,) ^b	0.75 (,) ^b	0.76 (0.00, 1.00)	0.85 (0.06, 1.00)
Outpatient specialty care	0.80 (0.46, 0.95)	0.83 (0.57, 0.95)	0.55 (0.06, 0.96)	0.87 (0.19, 0.99)	0.75 (0.46, 0.91)	0.90 (0.57, 0.98)

Supplementary Table C2. Estimates of sensitivity, specificity, and their corresponding 95% prediction interval (PI) at cut-off score of 10

^aThere were no studies available.

^bThere were not enough studies to compute the degrees of freedom to get the 95% quantile of the t-distribution.

Supplementary Table D1. Multiple meta-regression model coefficients and p-values assessing interactions between reference standard category and logit(sensitivity) and logit(1-specificity)

Cut-off		5		6		7		8		9		10		11		12		13		14	1	15
	Estir	mate p-	Estima	te p-	Estima	ate p-	Estima	ate p-	Estima	ate p-	Estimat	te p-	Estima	ite p-	Estima	te p-	Estim	ate p-	Estima	te p-	Estima	te p-
Factors		value	val	lue	v	alue	va	alue	v	alue	va	alue	v	alue	v	alue	,	value	v	alue	V	alue
d0ª	-0.154	0.108	-0.467	< 0.001	-0.766	<0.001	-1.050	< 0.001	-1.372	< 0.001	-1.731	< 0.001	-2.013	< 0.001	-2.266	< 0.001	-2.553	< 0.001	-2.839	< 0.001	-3.143	< 0.001
d0fully	-0.285	0.106	-0.325	0.058	-0.360	0.045	-0.398	0.034	-0.365	0.056	-0.312	0.142	-0.322	0.151	-0.322	0.147	-0.389	0.119	-0.413	0.100	-0.411	0.126
d0mini	-0.250	0.089	-0.283	0.051	-0.303	0.049	-0.336	0.033	-0.347	0.037	-0.327	0.076	-0.332	0.079	-0.379	0.053	-0.416	0.049	-0.397	0.075	-0.495	0.039
d1 ^b	3.457	< 0.001	3.091	< 0.001	2.787	< 0.001	2.390	< 0.001	1.966	< 0.001	1.666	< 0.001	1.404	< 0.001	1.076	< 0.001	0.710	< 0.001	0.471	< 0.001	0.105	0.395
d1fully	-0.973	0.022	-0.981	0.010	-1.133	0.001	-1.085	0.003	-1.128	< 0.001	-1.054	< 0.001	-1.099	< 0.001	-0.989	< 0.001	-0.884	< 0.001	-0.894	< 0.001	-0.859	< 0.001
d1mini	-0.201	0.568	-0.526	0.098	-0.693	0.020	-0.635	0.029	-0.584	0.031	-0.618	0.013	-0.695	0.002	-0.610	0.005	-0.510	0.012	-0.589	0.002	-0.500	0.007

^ad0 corresponds to the model coefficient for logit(1-specificity)

Cut-off		5	(6		7		8		9	1	0		11		12	1	13	1	4		15
Factors	Estin	nate p-	Estima	te p-	Estima	ate p-	Estima	ite p-	Estima	te p-	Estimate	р-	Estima	te p-	Estimat	e p-	Estima	te p-	Estimat	e p-	Estima	ite p-
d0	-0.201	0.238	-0.492	0.002	-0.741	< 0.001	-1.046	< 0.001	-1.405	< 0.001	-1.646	< 0.001	-1.908	< 0.001	-2.168	< 0.001	-2.486	< 0.001	-2.831	< 0.001	-3.170	< 0.001
d0age	-0.349	< 0.001	-0.332	< 0.001	-0.366	< 0.001	-0.298	< 0.001	-0.270	< 0.001	-0.268	< 0.001	-0.313	< 0.001	-0.293	< 0.001	-0.280	< 0.001	-0.230	0.003	-0.256	0.004
d0hdi.h	0.334	0.258	0.291	0.306	0.239	0.421	0.273	0.358	0.205	0.490	0.077	0.830	0.042	0.910	-0.030	0.937	0.092	0.816	0.109	0.795	0.301	0.517
d0hdi.lm	0.485	0.142	0.391	0.217	0.273	0.408	0.250	0.449	0.218	0.508	0.171	0.665	0.153	0.712	0.323	0.438	0.403	0.341	0.538	0.226	0.551	0.272
d0sex.m	-0.376	< 0.001	-0.358	< 0.001	-0.315	< 0.001	-0.310	< 0.001	-0.315	< 0.001	-0.323	< 0.001	-0.343	< 0.001	-0.345	< 0.001	-0.341	< 0.001	-0.355	< 0.001	-0.374	0.001
d0ps.nm	0.710	0.112	0.547	0.203	0.490	0.276	0.380	0.398	0.167	0.712	-0.097	0.858	-0.208	0.717	-0.219	0.708	-0.248	0.680	-0.401	0.534	-0.192	0.790
d0ps.ip	0.371	0.104	0.338	0.123	0.234	0.305	0.305	0.183	0.310	0.180	0.353	0.193	0.410	0.152	0.426	0.147	0.449	0.138	0.464	0.150	0.613	0.091
d0ps.op	0.025	0.872	0.019	0.898	-0.035	0.824	-0.056	0.727	-0.031	0.850	-0.218	0.242	-0.199	0.313	-0.132	0.520	-0.153	0.482	-0.082	0.727	-0.099	0.708
d1	5.205	< 0.001	4.768	< 0.001	4.453	< 0.001	3.853	< 0.001	3.304	< 0.001	2.986	< 0.001	2.422	< 0.001	1.641	< 0.001	1.318	< 0.001	1.203	< 0.001	0.581	0.074
d1age	-0.317	0.109	-0.292	0.093	-0.314	0.039	-0.282	0.035	-0.381	0.001	-0.322	0.003	-0.291	0.005	-0.190	0.042	-0.232	0.007	-0.257	0.002	-0.199	0.013
d1hdi.h	0.240	0.791	0.607	0.536	0.564	0.508	0.435	0.535	0.465	0.401	0.689	0.187	0.633	0.197	0.438	0.291	0.125	0.716	0.161	0.623	0.290	0.383
d1hdi.lm	-1.825	0.078	-1.840	0.090	-2.290	0.014	-2.109	0.007	-1.694	0.005	-1.884	0.001	-1.621	0.003	-1.353	0.004	-1.217	0.002	-1.073	0.005	-0.961	0.014
d1sex.m	0.128	0.677	0.051	0.850	0.155	0.512	0.060	0.773	0.201	0.277	-0.036	0.826	-0.160	0.302	-0.133	0.353	-0.145	0.275	-0.148	0.249	-0.138	0.272
d1ps.nm	-1.651	0.251	-1.421	0.345	-1.530	0.244	-1.260	0.254	-0.831	0.332	-0.794	0.323	-0.641	0.403	-0.448	0.504	-0.268	0.636	-0.257	0.633	-0.601	0.272
d1ps.ip	-1.744	0.052	-1.289	0.163	-1.342	0.096	-1.139	0.082	-0.838	0.102	-0.897	0.059	-0.536	0.233	-0.356	0.359	-0.248	0.445	-0.231	0.453	-0.251	0.419
d1ps.op	-1.841	0.023	-1.869	0.021	-2.016	0.004	-1.813	0.001	-1.397	0.001	-1.486	< 0.001	-1.305	< 0.001	-0.956	0.003	-0.804	0.002	-0.783	0.002	-0.628	0.012

Supplementary Table D2. Multiple meta-regression model coefficients and p-values assessing interactions between subgrouping variables and logit(sensitivity) and logit(1-specificity), among participants administered semi-structured diagnostic interviews

^ad0 corresponds to the model coefficient for logit(1-specificity) ^bd1 corresponds to the model coefficient for logit(sensitivity)

Cut-off		5	(5		7		8		9	1	0	1	11		12	1	13	1	14	1	15
Factors	Estin	nate p-	Estima	te p-	Estima	ate p-	Estima	te p-	Estima	te p-	Estimate	р-	Estimat	te p-	Estimat	e p-	Estima	te p-	Estimat	e p-	Estima	te p-
d0ª	-0.280	0.346	-0.740	0.018	-1.082	0.001	-1.446	< 0.001	-1.789	< 0.001	-2.147	< 0.001	-2.406	< 0.001	-2.647	< 0.001	-3.162	< 0.001	-3.590	< 0.001	-3.703	< 0.001
d0age	-0.305	< 0.001	-0.275	< 0.001	-0.291	< 0.001	-0.288	< 0.001	-0.271	< 0.001	-0.282	< 0.001	-0.266	< 0.001	-0.308	< 0.001	-0.341	< 0.001	-0.304	< 0.001	-0.276	< 0.001
d0hdi.h°	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
d0hdi.lm	-0.046	0.915	-0.022	0.961	0.129	0.782	0.160	0.743	0.222	0.668	0.149	0.779	0.217	0.689	0.197	0.724	0.372	0.542	0.466	0.461	0.207	0.739
d0sex.m	-0.283	< 0.001	-0.300	< 0.001	-0.263	< 0.001	-0.285	< 0.001	-0.303	< 0.001	-0.259	< 0.001	-0.318	< 0.001	-0.356	< 0.001	-0.315	< 0.001	-0.197	0.04	-0.377	0.001
d0ps.nm	-0.732	0.114	-0.543	0.264	-0.530	0.292	-0.497	0.345	-0.417	0.454	-0.389	0.497	-0.406	0.490	-0.354	0.554	-0.119	0.857	-0.014	0.984	-0.059	0.930
d0ps.ip	1.225	0.039	1.381	0.026	1.358	0.034	1.298	0.054	1.409	0.048	1.400	0.055	1.480	0.047	1.443	0.059	1.624	0.053	1.743	0.044	1.555	0.066
d0ps.op	-0.016	0.966	0.135	0.739	0.034	0.936	0.143	0.746	0.210	0.653	0.325	0.496	0.229	0.641	0.247	0.623	0.369	0.505	0.432	0.452	0.363	0.518
d1	2.760	< 0.001	2.395	< 0.001	1.904	< 0.001	1.637	0.001	1.011	0.011	0.720	0.073	0.468	0.197	0.037	0.919	-0.276	0.461	-0.542	0.154	-0.923	0.011
d1age	-0.181	0.027	-0.163	0.031	-0.150	0.030	-0.153	0.020	-0.129	0.034	-0.127	0.033	-0.145	0.013	-0.113	0.053	-0.102	0.089	-0.068	0.267	-0.031	0.627
d1hdi.h°	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
d1hdi.lm	-0.406	0.586	-0.556	0.443	-0.814	0.23	-0.432	0.540	-0.268	0.616	-0.219	0.687	-0.185	0.698	-0.169	0.727	-0.130	0.790	-0.208	0.664	-0.273	0.534
d1sex.m	-0.088	0.599	-0.008	0.958	-0.106	0.456	-0.066	0.624	-0.056	0.667	-0.024	0.852	-0.011	0.928	0.010	0.935	-0.045	0.727	-0.163	0.223	-0.186	0.178
d1ps.nm	-1.511	0.029	-1.443	0.040	-1.347	0.046	-1.320	0.060	-1.082	0.040	-1.016	0.060	-1.016	0.031	-0.967	0.043	-1.028	0.031	-1.006	0.033	-0.940	0.027
d1ps.ip	1.199	0.303	1.125	0.306	1.326	0.200	1.023	0.313	1.158	0.129	1.197	0.117	1.219	0.066	1.405	0.037	1.118	0.090	1.153	0.074	1.168	0.041
d1ps.op	-0.565	0.387	-0.585	0.363	-0.466	0.442	-0.739	0.239	-0.635	0.180	-0.680	0.156	-0.637	0.129	-0.693	0.106	-0.614	0.153	-0.464	0.273	-0.417	0.282

Supplementary Table D3. Multiple meta-regression model coefficients and p-values assessing interactions between subgrouping variables and logit(sensitivity) and logit(1-specificity), among participants administered fully structured diagnostic interviews

^ad0 corresponds to the model coefficient for logit(1-specificity)

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

°No study from a country with high human development index (HDI) among studies that administered fully structured diagnostic interview

Cut-off		5	(6		7		8		9	:	10		11		12		13	1	14	1	15
Factors	Estin	nate p-	Estima	te p-	Estima	ate p-	Estima	ite p-	Estima	ite p-	Estimat	e p-	Estima	te p-	Estimat	e p-	Estima	ite p-	Estimat	e p-	Estima	te p-
d0	-0.168	0.398	-0.464	0.027	-0.800	< 0.001	-1.121	< 0.001	-1.439	< 0.001	-1.774	< 0.001	-1.996	< 0.001	-2.301	< 0.001	-2.595	< 0.001	-2.968	< 0.001	-3.318	< 0.001
d0age	-0.200	< 0.001	-0.160	< 0.001	-0.195	< 0.001	-0.214	< 0.001	-0.182	< 0.001	-0.184	< 0.001	-0.167	0.002	-0.169	0.005	-0.228	0.001	-0.203	0.007	-0.320	< 0.001
d0hdi.h	-0.059	0.817	-0.125	0.643	-0.094	0.741	-0.124	0.679	-0.248	0.424	-0.363	0.305	-0.483	0.205	-0.527	0.206	-0.798	0.097	-0.702	0.157	-0.736	0.164
d0hdi.lm	-0.020	0.939	-0.095	0.734	-0.201	0.497	-0.217	0.485	-0.224	0.486	-0.311	0.398	-0.329	0.402	-0.398	0.352	-0.503	0.300	-0.533	0.290	-0.749	0.161
d0sex.m	-0.290	< 0.001	-0.298	< 0.001	-0.279	< 0.001	-0.266	< 0.001	-0.260	< 0.001	-0.263	< 0.001	-0.239	0.001	-0.223	0.006	-0.203	0.029	-0.164	0.112	-0.095	0.424
d0ps.nm	-0.275	0.277	-0.256	0.343	-0.252	0.378	-0.253	0.395	-0.236	0.442	-0.181	0.605	-0.219	0.560	-0.274	0.503	-0.355	0.448	-0.235	0.626	-0.214	0.670
d0ps.ip	0.284	0.370	0.306	0.361	0.357	0.318	0.303	0.428	0.466	0.244	0.630	0.174	0.506	0.307	0.602	0.263	0.780	0.196	0.620	0.335	0.565	0.411
d0ps.op	-0.091	0.697	-0.107	0.666	-0.116	0.659	-0.124	0.652	-0.169	0.554	-0.201	0.540	-0.261	0.457	-0.224	0.556	-0.203	0.640	-0.041	0.927	-0.072	0.880
d1	3.128	< 0.001	1.684	0.001	1.483	0.002	1.379	0.001	1.307	0.002	1.039	0.007	0.637	0.085	0.530	0.151	0.345	0.353	-0.013	0.971	-0.496	0.144
d1age	-0.027	0.806	0.074	0.432	0.006	0.941	-0.035	0.654	-0.071	0.327	-0.105	0.127	-0.061	0.360	-0.100	0.121	-0.178	0.006	-0.191	0.002	-0.195	0.002
d1hdi.h	-0.683	0.243	-0.602	0.311	-0.727	0.175	-0.901	0.056	-0.913	0.046	-0.804	0.051	-0.662	0.092	-0.634	0.105	-0.671	0.083	-0.504	0.141	-0.455	0.146
d1hdi.lm	-0.576	0.330	-0.102	0.868	-0.321	0.571	-0.461	0.355	-0.465	0.334	-0.572	0.184	-0.717	0.077	-0.788	0.050	-0.905	0.023	-0.817	0.019	-0.907	0.004
d1sex.m	-0.050	0.807	0.419	0.011	0.514	0.001	0.397	0.004	0.371	0.004	0.307	0.012	0.337	0.004	0.253	0.027	0.202	0.076	0.153	0.174	0.108	0.341
d1ps.nm	-0.007	0.990	0.549	0.350	0.224	0.678	0.072	0.879	-0.040	0.930	-0.083	0.838	-0.053	0.891	-0.118	0.758	-0.009	0.982	0.135	0.683	0.212	0.477
d1ps.ip	0.074	0.929	0.655	0.426	0.197	0.789	0.238	0.720	0.491	0.446	0.412	0.470	0.158	0.767	0.211	0.689	0.199	0.700	0.300	0.515	0.191	0.649
d1ps.op	-0.175	0.744	0.195	0.723	0.238	0.642	0.137	0.761	-0.119	0.785	0.031	0.936	-0.037	0.921	-0.020	0.956	0.080	0.823	0.235	0.450	0.238	0.398

Supplementary Table D4. Multiple meta-regression model coefficients and p-values assessing interactions between subgrouping variables and logit(sensitivity) and logit(1-specificity), among participants administered the MINI

Supplementary Table D5. Meta-regression model coefficients and p-values assessing interactions between older age (≥60) and logit(sensitivity) and logit(1-specificity), among participants administered a semi-structured diagnostic interview

Cut-off		5		6		7	:	8		9	1	.0	1	1	-	12	-	13	1	4		15
Factors	Estin	nate p-	Estima	te p-	Estima	te p-	Estimat	te p-	Estima	te p-	Estimate	e p-	Estimat	e p-	Estimat	e p-	Estima	ite p-	Estimate	e p-	Estima	ate p-
d0	0.033	0.717	-0.26	0.003	-0.543	< 0.001	-0.865	< 0.001	-1.205	< 0.001	-1.540	< 0.001	-1.803	< 0.001	-2.051	< 0.001	-2.349	< 0.001	-2.643	< 0.001	-2.984	< 0.001
d0age	-0.474	< 0.001	-0.531	< 0.001	-0.581	< 0.001	-0.488	< 0.001	-0.440	< 0.001	-0.522	< 0.001	-0.585	< 0.001	-0.604	< 0.001	-0.553	< 0.001	-0.536	< 0.001	-0.460	< 0.001
d1	4.040	< 0.001	3.584	< 0.001	3.197	< 0.001	2.616	< 0.001	2.149	< 0.001	1.762	< 0.001	1.494	< 0.001	1.103	< 0.001	0.753	< 0.001	0.504	< 0.001	0.130	0.325
d1age	-0.769	0.026	-0.492	0.091	-0.426	0.114	-0.267	0.276	-0.330	0.126	-0.061	0.765	-0.110	0.564	-0.003	0.989	-0.127	0.439	-0.109	0.492	-0.094	0.549

Supplementary Table D6. Meta-regression model coefficients and p-values assessing interactions between older age (≥60) and logit(sensitivity) and logit(1-specificity), among participants administered a fully structured diagnostic interview

Cut-off		5		6		7		8		9	1	10		11		12		13	:	14	-	15
Factors	Estin	nate p-	Estima	te p-	Estima	ite p-	Estima	te p-	Estima	te p-	Estimate	e p-	Estima	te p-	Estimat	e p-	Estima	ite p-	Estimat	e p-	Estima	te p-
d0	-0.323	0.093	-0.689	0.001	-1.020	< 0.001	-1.340	< 0.001	-1.639	< 0.001	-1.940	< 0.001	-2.244	< 0.001	-2.474	< 0.001	-2.815	< 0.001	-3.144	< 0.001	-3.437	< 0.001
d0age	-0.486	< 0.001	-0.429	< 0.001	-0.473	< 0.001	-0.497	< 0.001	-0.455	< 0.001	-0.508	< 0.001	-0.463	< 0.001	-0.611	< 0.001	-0.742	< 0.001	-0.667	< 0.001	-0.656	< 0.001
d1	2.551	< 0.001	2.176	< 0.001	1.693	< 0.001	1.389	< 0.001	0.906	< 0.001	0.696	0.005	0.387	0.083	0.155	0.504	-0.097	0.663	-0.369	0.094	-0.725	< 0.001
d1age	-0.654	0.005	-0.639	0.003	-0.396	0.037	-0.519	0.004	-0.437	0.010	-0.507	0.003	-0.547	0.001	-0.461	0.006	-0.498	0.004	-0.356	0.043	-0.249	0.165

Supplementary Table D7. Meta-regression model coefficients and p-values assessing interactions between older age (≥60) and logit(sensitivity) and logit(1-specificity), among participants administered the MINI

Cut-off		5		6		7		8		9		10		11		12		13		14		15
Factors	Estin	nate p-	Estima	te p-	Estima	te p-	Estima	te p-	Estima	te p-	Estimat	e p-	Estima	te p-	Estimat	e p-	Estima	ate p-	Estimat	e p-	Estima	ate p-
d0	-0.321	0.001	-0.678	< 0.001	-1.003	< 0.001	-1.315	< 0.001	-1.652	< 0.001	-2.013	< 0.001	-2.298	< 0.001	-2.628	< 0.001	-2.937	< 0.001	-3.227	< 0.001	-3.587	< 0.001
d0age	-0.328	< 0.001	-0.293	< 0.001	-0.294	< 0.001	-0.318	< 0.001	-0.297	< 0.001	-0.245	0.002	-0.232	0.009	-0.134	0.174	-0.170	0.134	-0.098	0.433	-0.232	0.117
d1	3.335	< 0.001	2.583	< 0.001	2.139	< 0.001	1.803	< 0.001	1.451	< 0.001	1.100	< 0.001	0.720	< 0.001	0.487	0.003	0.272	0.095	-0.015	0.919	-0.306	0.024
d1age	-0.424	0.058	-0.397	0.031	-0.367	0.028	-0.333	0.030	-0.322	0.023	-0.308	0.022	-0.161	0.211	-0.203	0.108	-0.313	0.013	-0.401	0.002	-0.350	0.006

Supplementary Table D8. Meta-regression model coefficients and p-values assessing interactions between sex and logit(sensitivity) and logit(1-specificity), among participants administered a semi-structured diagnostic interview

Cut-off		5		6		7		8		9	1	0	1	11	1	12	-	13	1	4		15
Factors	Estin	nate p-	Estima	te p-	Estima	te p-	Estima	te p-	Estima	te p-	Estimate	p-	Estimat	te p-	Estimat	e p-	Estima	te p-	Estimat	e p-	Estima	te p-
d0	0.007	0.944	-0.316	< 0.001	-0.631	< 0.001	-0.920	< 0.001	-1.241	< 0.001	-1.601	< 0.001	-1.873	< 0.001	-2.127	< 0.001	-2.408	< 0.001	-2.687	< 0.001	-2.99	< 0.001
d0sex.m	-0.394	< 0.001	-0.377	< 0.001	-0.335	< 0.001	-0.326	< 0.001	-0.330	< 0.001	-0.332	< 0.001	-0.355	< 0.001	-0.358	< 0.001	-0.355	< 0.001	-0.366	< 0.001	-0.382	< 0.001
d1	3.800	< 0.001	3.438	< 0.001	3.031	< 0.001	2.523	< 0.001	1.998	< 0.001	1.764	< 0.001	1.525	< 0.001	1.158	< 0.001	0.778	< 0.001	0.536	< 0.001	0.163	0.216
d1sex.m	0.106	0.734	0.030	0.907	0.140	0.552	0.037	0.856	0.166	0.370	-0.064	0.701	-0.183	0.236	-0.173	0.225	-0.185	0.165	-0.188	0.145	-0.176	0.162

Supplementary Table D9. Meta-regression model coefficients and p-values assessing interactions between sex and logit(sensitivity) and logit(1-specificity), among participants administered a fully structured diagnostic interview

Cut-off		5		6		7		8		9	1	10	:	11		12		13	-	14	1	15
Factors	Estin	nate p-	Estima	te p-	Estima	ite p-	Estima	te p-	Estima	te p-	Estimate	e p-	Estima	te p-	Estimat	e p-	Estima	ite p-	Estimat	e p-	Estima	te p-
d0	-0.306	0.116	-0.654	0.001	-1.005	< 0.001	-1.321	< 0.001	-1.607	< 0.001	-1.935	< 0.001	-2.204	< 0.001	-2.445	< 0.001	-2.820	< 0.001	-3.185	< 0.001	-3.411	< 0.001
d0sex.m	-0.299	< 0.001	-0.314	< 0.001	-0.281	< 0.001	-0.304	< 0.001	-0.320	< 0.001	-0.276	< 0.001	-0.335	< 0.001	-0.376	< 0.001	-0.338	< 0.001	-0.217	0.023	-0.394	< 0.001
d1	2.453	< 0.001	2.052	< 0.001	1.666	< 0.001	1.330	< 0.001	0.854	< 0.001	0.623	0.011	0.305	0.170	0.08	0.730	-0.157	0.485	-0.362	0.106	-0.688	0.001
d1sex.m	-0.111	0.503	-0.029	0.847	-0.121	0.390	-0.090	0.502	-0.074	0.566	-0.048	0.704	-0.042	0.737	-0.014	0.908	-0.071	0.580	-0.182	0.174	-0.201	0.145

Supplementary Table D10. Meta-regression model coefficients and p-values assessing interactions between sex and logit(sensitivity) and logit(1-specificity), among participants administered the MINI

Cut-off		5		6		7		8		9	1	10	1	11		12		13	1	4	:	15
Factors	Estin	nate p-	Estima	te p-	Estima	te p-	Estima	te p-	Estima	te p-	Estimate	e p-	Estimat	te p-	Estimat	e p-	Estima	ite p-	Estimat	e p-	Estima	te p-
d0	-0.285	0.005	-0.630	< 0.001	-0.958	< 0.001	-1.278	< 0.001	-1.61	< 0.001	-1.946	< 0.001	-2.242	< 0.001	-2.544	< 0.001	-2.871	< 0.001	-3.152	< 0.001	-3.591	< 0.001
d0sex.m	-0.291	< 0.001	-0.300	< 0.001	-0.282	< 0.001	-0.273	< 0.001	-0.271	< 0.001	-0.283	< 0.001	-0.257	< 0.001	-0.253	0.002	-0.249	0.007	-0.205	0.044	-0.121	0.304
d1	3.142	< 0.001	2.334	< 0.001	1.866	< 0.001	1.575	< 0.001	1.245	< 0.001	0.925	< 0.001	0.587	< 0.001	0.369	0.019	0.120	0.454	-0.184	0.197	-0.448	0.001
d1sex.m	0.003	0.990	0.431	0.008	0.508	0.001	0.384	0.005	0.361	0.005	0.300	0.013	0.332	0.004	0.254	0.025	0.216	0.054	0.168	0.130	0.130	0.246

Cut-off		5		6		7		8		9		10		11		12		13		14		15
Factors	Estir	nate p-	Estima	te p-	Estima	ate p-	Estima	ate p-	Estima	ite p-	Estimat	e p-	Estima	te p-	Estimat	te p-	Estima	ate p-	Estimat	e p-	Estima	ite p-
d0 ^a	-1.650	0.020	-1.890	0.010	-2.050	< 0.001	-2.410	< 0.001	-2.810	< 0.001	-4.690	< 0.001	-4.670	< 0.001	-4.960	< 0.001	-5.450	< 0.001	-5.610	< 0.001	-6.770	< 0.001
d0.d1.s1	0.230	0.230	0.220	0.230	0.240	< 0.001	0.240	0.220	0.240	0.230	0.330	0.150	0.300	0.230	0.260	0.300	0.300	0.250	0.450	0.100	0.520	0.080
d0.d3.s2	1.290	< 0.001	1.250	< 0.001	1.220	< 0.001	1.070	0.010	0.870	0.050	0.980	0.050	0.850	0.110	0.830	0.140	0.740	0.190	0.740	0.210	0.660	0.300
d0.d4.s2	-0.050	0.930	-0.060	0.920	-0.180	< 0.001	< 0.001	0.990	0.320	0.590	1.700	0.020	1.530	0.040	1.600	0.040	1.870	0.020	1.600	0.050	2.420	0.020
d0.d4.s4	0.180	0.410	0.150	0.460	0.130	< 0.001	0.190	0.390	0.160	0.500	0.140	0.560	0.180	0.520	0.200	0.470	0.210	0.470	0.230	0.450	0.330	0.320
d1 ^b	30.89	0.980	7.590	0.730	3.760	< 0.001	8.120	0.580	0.750	0.540	0.590	0.690	0.890	0.570	0.930	0.450	0.580	0.580	0.500	0.620	0.280	0.780
d1.d1.s1	-0.360	0.590	-0.290	0.660	-0.360	< 0.001	-0.180	0.710	-0.020	0.970	-0.150	0.730	-0.270	0.500	-0.250	0.470	-0.250	0.390	-0.240	0.380	-0.270	0.320
d1.d3.s2	-13.54	0.980	-7.440	0.730	-3.890	< 0.001	-8.090	0.580	-0.880	0.300	-0.590	0.510	-0.760	0.380	-0.820	0.260	-0.870	0.140	-0.790	0.160	-0.990	0.070
d1.d4.s2	-12.77	0.990	4.260	0.010	4.410	< 0.001	2.920	0.030	2.620	0.010	2.240	0.060	1.650	0.180	1.310	0.190	1.330	0.120	1.050	0.210	1.160	0.170
d1.d4.s4	-1.020	0.220	-1.160	0.160	-1.380	< 0.001	-0.580	0.300	-0.580	0.220	-0.500	0.290	-0.160	0.710	-0.200	0.600	-0.210	0.510	-0.160	0.590	-0.220	0.460

Supplementary Table D11. Multiple meta-regression model coefficients and p-values for assessing interactions between QUADAS-2 signalling questions and logit(sensitivity) and logit(1-specificity), among participants administered a semi-structured diagnostic interview

Supplementary Table D12. Multiple meta-regression model coefficients and p-values for assessing interactions between QUADAS-2 signalling questions and logit(sensitivity) and logit(1-specificity), among participants administered a fully structured diagnostic interview

Cut-off	1	5	(5		7		8		9	1	10		11		12	1	13	-	14	1	15
Factors	Estin	nate p-	Estima	te p-	Estimate	e p-	Estima	te p-	Estimat	e p-	Estima	te p-	Estimat	e p-	Estima	te p-						
d0 ^a	-1.100	0.110	-1.560	0.010	-1.970	0.020	-2.280	0.010	-2.650	< 0.001	-3.030	< 0.001	-3.220	< 0.001	-3.540	< 0.001	-3.810	< 0.001	-4.180	< 0.001	-4.260	< 0.001
d0.d1.s1	-0.460	0.260	-0.550	0.180	-0.460	0.290	-0.510	0.270	-0.610	0.200	-0.680	0.130	-0.720	0.140	-0.690	0.150	-0.640	0.220	-0.760	0.170	-0.720	0.170
d0.d4.s4	1.050	0.160	1.220	0.070	1.230	0.160	1.260	0.170	1.410	0.100	1.540	0.040	1.460	0.100	1.500	0.070	1.370	0.110	1.520	0.150	1.260	0.200
d1 ^b	1.830	0.060	1.500	0.050	0.940	0.470	0.540	0.620	0.290	0.730	-0.070	0.920	-0.290	0.720	-0.530	0.470	-0.770	0.330	-1.060	0.180	-1.260	0.090
d1.d1.s1	-0.760	0.260	-0.770	0.240	-0.900	0.200	-0.570	0.420	-0.530	0.310	-0.530	0.290	-0.360	0.450	-0.510	0.290	-0.360	0.440	-0.220	0.650	-0.260	0.560
d1.d4.s4	1.180	0.280	1.140	0.180	1.380	0.340	1.230	0.300	0.960	0.290	1.110	0.170	0.880	0.310	1.030	0.200	0.890	0.300	0.830	0.340	0.720	0.390

^ad0 corresponds to the model coefficient for logit(1-specificity)

| | 5 | | 6 | | 7 |

 | 8 |

 | 9 | | 10 |
 | 11 |
 | 12 | | 13
 | | 14 | 1 | 15 |
|--------|--|--|---|--|---
--
--
---|--
--
--|--|---|---
--
---|--
--
--|---|--|--|---------
---|--|
| Estin | nate p- | Estima | te p- | Estima | ate p- | Estima

 | ate p- | Estima

 | ite p- | Estimat | e p- | Estima
 | te p- | Estimat
 | e p- | Estima | nte p-
 | Estimat | e p- | Estima | te p- |
| -0.170 | 0.750 | -0.320 | 0.520 | -0.680 | 0.200 | -0.840

 | 0.140 | -0.980

 | 0.100 | -1.230 | 0.060 | -1.690
 | 0.010 | -1.840
 | 0.020 | -2.300 | 0.010
 | -2.610 | < 0.001 | -2.680 | < 0.001 |
| -0.370 | 0.180 | -0.290 | 0.290 | -0.310 | 0.300 | -0.320

 | 0.300 | -0.240

 | 0.470 | -0.210 | 0.560 | -0.210
 | 0.600 | 0.030
 | 0.950 | 0.050 | 0.920
 | 0.020 | 0.970 | -0.060 | 0.900 |
| -0.910 | 0.130 | -1.160 | 0.040 | -1.130 | 0.060 | -1.150

 | 0.070 | -1.250

 | 0.050 | -1.440 | 0.050 | -1.240
 | 0.100 | -1.520
 | 0.070 | -1.360 | 0.160
 | -1.340 | 0.130 | -1.610 | 0.090 |
| 0.230 | 0.420 | 0.290 | 0.320 | 0.390 | 0.210 | 0.440

 | 0.170 | 0.470

 | 0.160 | 0.620 | 0.100 | 0.660
 | 0.100 | 0.600
 | 0.180 | 0.740 | 0.140
 | 0.860 | 0.080 | 0.830 | 0.120 |
| 0.820 | 0.030 | 0.750 | 0.040 | 0.670 | 0.090 | 0.490

 | 0.240 | 0.280

 | 0.520 | 0.220 | 0.640 | 0.150
 | 0.770 | 0.140
 | 0.810 | -0.040 | 0.950
 | -0.100 | 0.870 | -0.070 | 0.920 |
| 2.090 | 0.020 | 2.780 | < 0.001 | 2.950 | < 0.001 | 2.510

 | < 0.001 | 2.370

 | < 0.001 | 2.320 | < 0.001 | 0.920
 | 0.150 | 0.190
 | 0.800 | -0.390 | 0.580
 | -0.920 | 0.120 | -1.420 | 0.010 |
| 0.130 | 0.820 | -0.090 | 0.840 | 0.410 | 0.310 | 0.460

 | 0.240 | 0.450

 | 0.240 | 0.520 | 0.120 | 0.460
 | 0.160 | 0.420
 | 0.260 | 0.370 | 0.310
 | 0.380 | 0.210 | 0.220 | 0.440 |
| 0.100 | 0.920 | -2.510 | < 0.001 | -3.100 | < 0.001 | -2.710

 | < 0.001 | -2.830

 | < 0.001 | -3.160 | < 0.001 | -2.120
 | < 0.001 | -1.510
 | 0.060 | -1.330 | 0.080
 | -1.090 | 0.090 | -0.740 | 0.220 |
| 0.880 | 0.120 | 0.140 | 0.750 | -0.010 | 0.970 | -0.020

 | 0.970 | 0.120

 | 0.780 | 0.140 | 0.720 | 0.390
 | 0.270 | 0.430
 | 0.270 | 0.550 | 0.160
 | 0.650 | 0.050 | 0.800 | 0.010 |
| 0.040 | 0.950 | 2.220 | < 0.001 | 1.900 | < 0.001 | 1.580

 | < 0.001 | 1.370

 | 0.010 | 1.330 | < 0.001 | 1.230
 | < 0.001 | 1.110
 | 0.020 | 1.190 | 0.010
 | 1.060 | 0.010 | 0.940 | 0.010 |
| | Estin
-0.170
-0.370
-0.910
0.230
0.820
2.090
0.130
0.100
0.880
0.040 | 5 Estimate p- -0.170 0.750 -0.370 0.180 -0.910 0.130 0.230 0.420 0.820 0.030 2.090 0.020 0.130 0.820 0.130 0.820 0.130 0.820 0.100 0.920 0.880 0.120 0.880 0.120 | 5 Estimate p. Estimate -0.170 0.750 -0.320 -0.370 0.180 -0.290 -0.910 0.130 -1.160 0.230 0.420 0.290 0.820 0.030 0.750 0.130 0.420 2.780 0.130 0.820 -0.090 0.130 0.820 2.780 0.130 0.820 2.090 0.130 0.820 0.030 0.130 0.820 0.100 0.880 0.120 2.510 0.880 0.120 2.220 | 5 6 Estimate p. Estimate p. -0.170 0.750 -0.320 0.520 -0.370 0.180 -0.290 0.290 -0.910 0.130 -1.160 0.040 0.230 0.420 0.290 0.320 0.820 0.030 0.750 0.040 0.820 0.020 2.780 <0.001 | 5 6 Estimate p. Estimate p. Estimate -0.170 0.750 -0.320 0.520 -0.680 -0.370 0.180 -0.290 0.290 -0.310 -0.910 0.130 -1.160 0.040 -1.130 0.230 0.420 0.290 0.320 0.390 0.820 0.030 0.750 0.040 0.670 0.130 0.2780 0.040 2.950 0.130 0.820 2.780 <0.001 | F F <td>5 6 7 Estimate p- Estimate</td> <td>f f f<td>5 6 7 8 Estimate p Estimate p p Estimate p p Estimate p p Estimate p p</td><td>${\bf F}$ ${\bf F}$ <</td><td>5 6 7 8 9 Estimate p. Estimate p.</td><td>5 6 7 8 9 Estimate p Estimate p p Estimate p p Estimate p p Estimate p p<td>5 6 7 8 9 Estimate p Estim Estimate</td><td>5 6 7 8 9 Id I Id Id<!--</td--><td>5 6 7 8 9 Estimate p Estimate p</td><td>5 6 7 8 9 10 1 12 Estimate p Esti</td><td>5 6 7 8 9 10 1 12 12 8 <th< td=""><td>Image: box f <th< td=""><td></td><td>Image: series image: series</td><td>Image: box Image: box<!--</td--></td></th<></td></th<></td></td></td></td> | 5 6 7 Estimate p- Estimate | f f <td>5 6 7 8 Estimate p Estimate p p Estimate p p Estimate p p Estimate p p</td> <td>${\bf F}$ ${\bf F}$ <</td> <td>5 6 7 8 9 Estimate p. Estimate p.</td> <td>5 6 7 8 9 Estimate p Estimate p p Estimate p p Estimate p p Estimate p p<td>5 6 7 8 9 Estimate p Estim Estimate</td><td>5 6 7 8 9 Id I Id Id<!--</td--><td>5 6 7 8 9 Estimate p Estimate p</td><td>5 6 7 8 9 10 1 12 Estimate p Esti</td><td>5 6 7 8 9 10 1 12 12 8 <th< td=""><td>Image: box f <th< td=""><td></td><td>Image: series image: series</td><td>Image: box Image: box<!--</td--></td></th<></td></th<></td></td></td> | 5 6 7 8 Estimate p p Estimate p p Estimate p p Estimate p | ${\bf F}$ < | 5 6 7 8 9 Estimate p. Estimate p. | 5 6 7 8 9 Estimate p p Estimate p p Estimate p p Estimate p <td>5 6 7 8 9 Estimate p Estim Estimate</td> <td>5 6 7 8 9 Id I Id Id<!--</td--><td>5 6 7 8 9 Estimate p Estimate p</td><td>5 6 7 8 9 10 1 12 Estimate p Esti</td><td>5 6 7 8 9 10 1 12 12 8 <th< td=""><td>Image: box f <th< td=""><td></td><td>Image: series image: series</td><td>Image: box Image: box<!--</td--></td></th<></td></th<></td></td> | 5 6 7 8 9 Estimate p Estim Estimate | 5 6 7 8 9 Id I Id Id </td <td>5 6 7 8 9 Estimate p Estimate p</td> <td>5 6 7 8 9 10 1 12 Estimate p Esti</td> <td>5 6 7 8 9 10 1 12 12 8 <th< td=""><td>Image: box f <th< td=""><td></td><td>Image: series image: series</td><td>Image: box Image: box<!--</td--></td></th<></td></th<></td> | 5 6 7 8 9 Estimate p | 5 6 7 8 9 10 1 12 Estimate p Esti | 5 $ 6 $ $ 7 $ $ 8 $ $ 9 $ $ 10 $ $ 1 $ $ 12 $ $ 12 $ $ 8 $ <th< td=""><td>Image: box f <th< td=""><td></td><td>Image: series image: series</td><td>Image: box Image: box<!--</td--></td></th<></td></th<> | Image: box f <th< td=""><td></td><td>Image: series image: series</td><td>Image: box Image: box<!--</td--></td></th<> | | Image: series image: series | Image: box Image: box </td |

Supplementary Table D13. Multiple meta-regression model coefficients and p-values for assessing interactions between QUADAS-2 signalling questions and logit(sensitivity) and logit(1-specificity), among participants administered the MINI

^ad0 corresponds to the model coefficient for logit(1-specificity) ^bd1 corresponds to the model coefficient for logit(sensitivity)

		IPD (Dnly ^a				IPD + Publis	hed Accuracy I	Results ^b		
					Ν	Ν	N Major				
Cutoff	Sensitivity	95% CI	Specificity	95% CI	Studies	Participants	Depression	Sensitivity	95% CI	Specificity	95% CI
5	0.98	(0.95, 0.99)	0.53	(0.49, 0.58)	48	12,073	1,585	0.98	(0.96, 0.99)	0.53	(0.48, 0.57)
6	0.97	(0.94, 0.98)	0.61	(0.57, 0.65)	48	12,073	1,585	0.97	(0.94, 0.99)	0.60	(0.56, 0.64)
7	0.95	(0.92, 0.98)	0.68	(0.64, 0.72)	48	12,073	1,585	0.95	(0.92, 0.98)	0.67	(0.62, 0.71)
8	0.92	(0.88, 0.95)	0.74	(0.70, 0.77)	49	12,142	1,593	0.92	(0.88, 0.95)	0.72	(0.67, 0.76)
9	0.89	(0.84, 0.92)	0.80	(0.76, 0.82)	50	12,642	1,625	0.89	(0.84, 0.92)	0.76	(0.71, 0.81)
10	0.85	(0.79, 0.89)	0.85	(0.82, 0.87)	50	12,241	1,605	0.85	(0.80, 0.89)	0.82	(0.77, 0.86)
11	0.81	(0.75, 0.86)	0.88	(0.85, 0.90)	49	12,142	1,593	0.81	(0.75, 0.86)	0.86	(0.82, 0.90)
12	0.75	(0.69, 0.80)	0.90	(0.88, 0.92)	49	12,142	1,593	0.75	(0.69, 0.80)	0.89	(0.85, 0.92)
13	0.67	(0.61, 0.72)	0.93	(0.91, 0.94)	48	12,073	1,585	0.67	(0.61, 0.72)	0.92	(0.89, 0.94)
14	0.61	(0.55, 0.67)	0.94	(0.93, 0.96)	48	12,073	1,585	0.61	(0.55, 0.67)	0.94	(0.91, 0.96)
15	0.52	(0.46, 0.58)	0.96	(0.94, 0.97)	48	12,073	1,585	0.53	(0.47, 0.58)	0.95	(0.93, 0.97)

Supplementary Table D14. Estimates of PHQ-9 sensitivity and specificity for semi-structured interviews based on IPD alone and

after including published eligible accuracy results from studies that did not contribute primary data

^aN Studies = 47; N Participants = 11,234; N major depression = 1,528

^bAmong 4 studies that administered semi-structured interviews and did not contribute primary data but published eligible accuracy results, the most commonly reported cut-offs were ≥ 9 and ≥ 10 (in 3 studies each); followed by cut-offs ≥ 8 , ≥ 11 and ≥ 12 (in 2 studies each); cut-offs ≥ 5 to ≥ 7 and ≥ 13 to ≥ 15 were reported by a single study each. Abbreviations: CI: confidence interval; IPD: individual participant data

		IPD C	Dnly ^a				IPD + Publis	shed Accuracy I	Results ^b		
					Ν	Ν	N Major				
Cutoff	Sensitivity	95% CI	Specificity	95% CI	Studies	Participants	Depression	Sensitivity	95% CI	Specificity	95% CI
7	0.82	(0.73, 0.89)	0.75	(0.67, 0.82)	22	18,098	1,426	0.84	(0.75, 0.90)	0.72	(0.63, 0.80)
8	0.77	(0.66, 0.86)	0.81	(0.74, 0.86)	22	18,098	1,426	0.79	(0.69, 0.87)	0.77	(0.67, 0.84)
9	0.69	(0.59, 0.78)	0.85	(0.79, 0.90)	22	18,098	1,426	0.71	(0.62, 0.79)	0.81	(0.71, 0.88)
10	0.64	(0.53, 0.74)	0.88	(0.83, 0.92)	22	18,098	1,426	0.67	(0.56, 0.76)	0.84	(0.74, 0.91)
11	0.57	(0.46, 0.67)	0.91	(0.87, 0.94)	21	17,368	1,394	0.57	(0.48, 0.67)	0.89	(0.83, 0.94)
12	0.52	(0.41, 0.63)	0.93	(0.89, 0.95)	21	17,368	1,394	0.52	(0.42, 0.63)	0.92	(0.86, 0.95)
13	0.45	(0.35, 0.56)	0.95	(0.92, 0.97)	21	17,368	1,394	0.45	(0.36, 0.55)	0.94	(0.88, 0.97)

Supplementary Table D15. Estimates of PHQ-9 sensitivity and specificity for fully structured interviews based on IPD alone and

after including published eligible accuracy results from studies that did not contribute primary data

^aN Studies = 20; N Participants = 17,167; N major depression = 1,352

^bAmong 2 studies that administered fully structured interviews and did not contribute primary data but published eligible accuracy results, 2 studies reported results for cut-offs \geq 7 to \geq 10; 1 study reported results for cut-offs \geq 11 to \geq 13.

Abbreviations: CI: confidence interval; IPD: individual participant data

		IPD (Dnly ^a				IPD + Publis	shed Accuracy I	Results ^b		
					Ν	Ν	N Major				
Cutoff	Sensitivity	95% CI	Specificity	95% CI	Studies	Participants	Depression	Sensitivity	95% CI	Specificity	95% CI
5	0.96	(0.93, 0.97)	0.60	(0.55, 0.64)	36	16,854	1,844	0.95	(0.93, 0.97)	0.58	(0.54, 0.63)
6	0.92	(0.89, 0.95)	0.68	(0.63, 0.72)	36	16,854	1,844	0.92	(0.88, 0.94)	0.65	(0.60, 0.70)
7	0.88	(0.83, 0.92)	0.74	(0.70, 0.78)	36	16,854	1,844	0.88	(0.83, 0.91)	0.71	(0.65, 0.76)
8	0.85	(0.79, 0.89)	0.80	(0.76, 0.83)	37	17,033	1,873	0.84	(0.79, 0.88)	0.75	(0.68, 0.81)
9	0.80	(0.73, 0.85)	0.85	(0.82, 0.88)	37	17,033	1,873	0.79	(0.73, 0.84)	0.79	(0.72, 0.85)
10	0.74	(0.67, 0.79)	0.89	(0.86, 0.91)	37	17,059	1,864	0.74	(0.68, 0.80)	0.84	(0.78, 0.89)
11	0.67	(0.60, 0.73)	0.91	(0.89, 0.93)	37	17,059	1,864	0.67	(0.61, 0.73)	0.87	(0.80, 0.92)
12	0.61	(0.54, 0.68)	0.93	(0.91, 0.95)	36	16,880	1,835	0.62	(0.55, 0.68)	0.90	(0.85, 0.94)
13	0.55	(0.47, 0.62)	0.95	(0.93, 0.96)	36	16,880	1,835	0.55	(0.48, 0.62)	0.93	(0.88, 0.96)
14	0.47	(0.41, 0.54)	0.96	(0.95, 0.97)	36	16,880	1,835	0.48	(0.42, 0.54)	0.94	(0.89, 0.97)
15	0.40	(0.35, 0.46)	0.97	(0.96, 0.98)	35	16,658	1,807	0.41	(0.36, 0.47)	0.97	(0.94, 0.98)

Supplementary Table D16. Estimates of PHQ-9 sensitivity and specificity for the MINI based on IPD alone and after including

published eligible accuracy results from studies that did not contribute primary data

^aN Studies = 33; N Participants = 16,102; N major depression = 1,661

^bAmong 5 studies that administered the MINI interview and did not contribute primary data but published eligible accuracy results, the most commonly reported cut-offs were ≥ 8 to ≥ 11 (in 4 studies); 3 studies each reported results for cut-offs ≥ 5 to ≥ 7 and ≥ 12 to ≥ 14 ; 2 studies reported results for cut-off ≥ 15 . **Abbreviations**: CI: confidence interval; IPD: individual participant data Supplementary Table E1. Estimates of PHQ-9 sensitivity and specificity at cut-off 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

	Semi-strue	ctured Diagnost	ic Interview	S	Fully Stru	ctured Diagnos	tic Interview	'S	Mini Interi	national Neurops	ychiatric Int	erviews
Participant Subgroup	Sensitivity	,	Specificity	7	Sensitivity	7	Specificity	,	Sensitivity		Specificity	
	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
All participants	0.85	(0.79, 0.89)	0.85	(0.82, 0.87)	0.64	(0.53, 0.74)	0.88	(0.83, 0.92)	0.74	(0.67, 0.79)	0.89	(0.86, 0.91)
Participants not currently diagnosed or receiving treatment for a mental health problem	0.85	(0.75, 0.91)	0.89	(0.85, 0.92)	0.74	(0.54, 0.87)	0.89	(0.77, 0.95)	0.70	(0.62, 0.77)	0.92	(0.89, 0.94)
Age <60	0.85	(0.79, 0.90)	0.82	(0.79, 0.85)	0.66	(0.54, 0.75)	0.88	(0.82, 0.92)	0.75	(0.69, 0.81)	0.88	(0.85, 0.91)
Age ≥60	0.88	(0.77, 0.94)	0.88	(0.86, 0.91)	0.58	(0.47, 0.69)	0.90	(0.84, 0.94)	0.73	(0.64, 0.80)	0.90	(0.86, 0.93)
Women	0.86	(0.80, 0.91)	0.83	(0.79, 0.86)	0.63	(0.53, 0.72)	0.87	(0.81, 0.91)	0.73	(0.66, 0.79)	0.87	(0.83, 0.90)
Men	0.84	(0.78, 0.89)	0.87	(0.84, 0.89)	0.65	(0.51, 0.76)	0.90	(0.85, 0.93)	0.77	(0.70, 0.83)	0.90	(0.87, 0.93)
Very high human development index	0.85	(0.79, 0.89)	0.85	(0.82, 0.87)	0.65	(0.53, 0.76)	0.89	(0.83, 0.93)	0.78	(0.70, 0.83)	0.88	(0.84, 0.91)
High human development index	0.97	(0.62, 1.00)	0.85	(0.70, 0.94)					0.63	(0.51, 0.74)	0.89	(0.85, 0.92)
Low or medium human development index	0.70	(0.41, 0.88)	0.81	(0.55, 0.94)	0.62	(0.32, 0.85)	0.86	(0.77, 0.92)	0.66	(0.44, 0.83)	0.88	(0.82, 0.93)
Non-medical care	0.82	(0.73, 0.88)	0.88	(0.85, 0.91)	0.47	(0.33, 0.62)	0.93	(0.87, 0.97)	0.71	(0.59, 0.81)	0.89	(0.82, 0.94)
Primary care	0.91	(0.80, 0.96)	0.88	(0.81, 0.93)	0.72	(0.59, 0.82)	0.89	(0.84, 0.93)	0.75	(0.57, 0.87)	0.89	(0.84, 0.92)
Inpatient specialty care	0.86	(0.70, 0.94)	0.80	(0.78, 0.83)	0.89	(0.66, 0.97)	0.75	(0.51, 0.89)	0.76	(0.60, 0.87)	0.85	(0.78, 0.90)
Outpatient specialty care	0.80	(0.73, 0.86)	0.83	(0.79, 0.87)	0.55	(0.34, 0.74)	0.87	(0.73, 0.94)	0.75	(0.67, 0.81)	0.90	(0.84, 0.93)

Abbreviations: CI: confidence interval

Supplementary Table E2. Estimates of PHQ-9 sensitivity and specificity 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

	All part	icipants ^a	Participants not current treatment for a me	tly diagnosed or receiving ntal health problem ^b	Difference a (All participants – participa or receiving treatment for	cross groups ants not currently diagnosed r a mental health problem)
Cut-off	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)	0.53 (0.49, 0.58)	0.99 (0.92, 1.00)	0.57 (0.50, 0.63)	-0.01 (-0.02, 0.01)	-0.04 (-0.09, 0.01)
6	0.97 (0.94, 0.98)	0.61 (0.57, 0.65)	0.98 (0.91, 1.00)	0.65 (0.59, 0.71)	-0.01 (-0.03, 0.02)	-0.04 (-0.09, 0.00)
7	0.95 (0.92, 0.98)	0.68 (0.64, 0.72)	0.96 (0.88, 0.99)	0.72 (0.66, 0.77)	-0.01 (-0.03, 0.04)	-0.04 (-0.08, 0.00)
8	0.92 (0.88, 0.95)	0.74 (0.70, 0.77)	0.93 (0.85, 0.97)	0.78 (0.73, 0.82)	-0.01 (-0.05, 0.05)	-0.04 (-0.08, -0.01)
9	0.89 (0.84, 0.92)	0.80 (0.76, 0.82)	0.89 (0.82, 0.94)	0.84 (0.80, 0.87)	0.00 (-0.06, 0.06)	-0.04 (-0.08, -0.02)
10	0.85 (0.79, 0.89)	0.85 (0.82, 0.87)	0.85 (0.75, 0.91)	0.89 (0.85, 0.92)	0.00 (-0.07, 0.09)	-0.04 (-0.07, -0.02)
11	0.81 (0.75, 0.86)	0.88 (0.85, 0.90)	0.80 (0.70, 0.88)	0.91 (0.88, 0.94)	0.01 (-0.08, 0.10)	-0.03 (-0.06, -0.01)
12	0.75 (0.69, 0.80)	0.90 (0.88, 0.92)	0.72 (0.63, 0.79)	0.93 (0.91, 0.95)	0.03 (-0.05, 0.15)	-0.03 (-0.05, -0.01)
13	0.67 (0.61, 0.72)	0.93 (0.91, 0.94)	0.65 (0.57, 0.72)	0.95 (0.93, 0.97)	0.02 (-0.04, 0.14)	-0.02 (-0.04, -0.01)
14	0.61 (0.55, 0.67)	0.94 (0.93, 0.96)	0.58 (0.49, 0.66)	0.97 (0.95, 0.98)	0.03 (-0.05, 0.16)	-0.03 (-0.04, -0.01)
15	0.52 (0.46, 0.58)	0.96 (0.94, 0.97)	0.50 (0.41, 0.59)	0.97 (0.96, 0.98)	0.02 (-0.06, 0.15)	-0.01 (-0.03, 0.00)

^a Number of Studies = 47; Number of Participants = 11,234; Number with major depression = 1,528

^b Number of Studies = 26; Number of Participants = 3,687; Number with major depression = 603

	Age	<60 ^a	Age	≥60 ^b
Cut-off score	Sensitivity (95% CI)	Specificity (95% CI)	Sensitivity (95% CI)	Specificity (95% CI)
5	0.98 (0.96, 0.99)	0.50 (0.45, 0.54)	0.98 (0.89, 1.00)	0.60 (0.55, 0.64)
6	0.98 (0.95, 0.99)	0.57 (0.53, 0.62)	0.97 (0.89, 0.99)	0.68 (0.64, 0.71)
7	0.96 (0.93, 0.98)	0.64 (0.59, 0.68)	0.95 (0.86, 0.98)	0.75 (0.71, 0.78)
8	0.93 (0.89, 0.96)	0.71 (0.67, 0.75)	0.94 (0.84, 0.98)	0.79 (0.76, 0.82)
9	0.89 (0.85, 0.93)	0.77 (0.73, 0.80)	0.90 (0.80, 0.95)	0.84 (0.81, 0.86)
10	0.85 (0.79, 0.90)	0.82 (0.79, 0.85)	0.88 (0.77, 0.94)	0.88 (0.86, 0.91)
11	0.83 (0.76, 0.88)	0.86 (0.83, 0.89)	0.80 (0.71, 0.88)	0.91 (0.89, 0.93)
12	0.76 (0.69, 0.81)	0.89 (0.86, 0.91)	0.76 (0.66, 0.83)	0.94 (0.92, 0.95)
13	0.68 (0.61, 0.74)	0.91 (0.89, 0.93)	0.66 (0.56, 0.75)	0.95 (0.94, 0.96)
14	0.62 (0.56, 0.69)	0.93 (0.91, 0.95)	0.59 (0.49, 0.68)	0.97 (0.95, 0.98)
15	0.54 (0.47, 0.61)	0.95 (0.93, 0.96)	0.51 (0.41, 0.60)	0.97 (0.96, 0.98)

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

^a Number of Studies = 42; Number of Participants = 7,349; Number with major depression = 1,131

^b Number of Studies = 39; Number of Participants = 3,860; Number with major depression = 397

	Wor	men ^a	Μ	len ^b
Cut-off score	Sensitivity (95% CI)	Specificity (95% CI)	Sensitivity (95% CI)	Specificity (95% CI)
5	0.98 (0.95, 0.99)	0.49 (0.45, 0.54)	0.99 (0.94, 1.00)	0.58 (0.54, 0.62)
6	0.97 (0.93, 0.99)	0.58 (0.53, 0.62)	0.98 (0.93, 1.00)	0.66 (0.61, 0.70)
7	0.95 (0.91, 0.98)	0.65 (0.61, 0.70)	0.97 (0.91, 0.99)	0.71 (0.67, 0.75)
8	0.93 (0.88, 0.96)	0.71 (0.67, 0.75)	0.93 (0.87, 0.96)	0.77 (0.73, 0.80)
9	0.89 (0.83, 0.93)	0.77 (0.74, 0.81)	0.89 (0.83, 0.93)	0.82 (0.79, 0.84)
10	0.86 (0.80, 0.91)	0.83 (0.79, 0.86)	0.84 (0.78, 0.89)	0.87 (0.84, 0.89)
11	0.83 (0.76, 0.88)	0.87 (0.83, 0.89)	0.80 (0.73, 0.85)	0.90 (0.87, 0.91)
12	0.76 (0.69, 0.82)	0.89 (0.87, 0.91)	0.75 (0.67, 0.81)	0.92 (0.90, 0.93)
13	0.69 (0.62, 0.75)	0.92 (0.89, 0.93)	0.66 (0.59, 0.72)	0.93 (0.92, 0.95)
14	0.64 (0.57, 0.71)	0.94 (0.92, 0.95)	0.59 (0.52, 0.66)	0.95 (0.94, 0.96)
15	0.54 (0.54, 0.54)	0.95 (0.95, 0.95)	0.52 (0.45, 0.58)	0.96 (0.95, 0.97)

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

^a Number of Studies = 46; Number of Participants = 6,986; Number with major depression = 1,040 ^b Number of Studies = 39; Number of Participants = 4,168; Number with major depression = 488

Supplementary Table E5. Estimates of PHQ-9 sensitivity and specificity 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

	All part	icipants ^a	Participants not current treatment for a me	tly diagnosed or receiving ntal health problem ^b	Difference across groups (All participants – participants not currently diagnosed or receiving treatment for a mental health problem)						
Cut-off	Sensitivity (95% CI)	Specificity (95% CI)	Sensitivity (95% CI)	Specificity (95% CI)	Sensitivity (95% CI)	Specificity (95% CI)					
5	0.91 (0.85, 0.95)	0.61 (0.51, 0.69)	0.95 (0.88, 0.98)	0.60 (0.44, 0.74)	-0.04 (-0.10, 0.03)	0.01 (-0.10, 0.17)					
6	0.88 (0.80, 0.93)	0.69 (0.60, 0.76)	0.94 (0.85, 0.97)	0.68 (0.51, 0.81)	-0.06 (-0.14, 0.01)	0.01 (-0.09, 0.17)					
7	0.82 (0.73, 0.89)	0.75 (0.67, 0.82)	0.91 (0.79, 0.97)	0.76 (0.63, 0.85)	-0.09 (-0.19, 0.01)	-0.01 (-0.08, 0.12)					
8	0.77 (0.66, 0.86)	0.81 (0.74, 0.86)	0.88 (0.74, 0.95)	0.81 (0.70, 0.89)	-0.11 (-0.23, 0.01)	0.00 (-0.08, 0.10)					
9	0.69 (0.59, 0.78)	0.85 (0.79, 0.90)	0.79 (0.65, 0.89)	0.85 (0.74, 0.92)	-0.10 (-0.24, 0.02)	0.00 (-0.06, 0.08)					
10	0.64 (0.53, 0.74)	0.88 (0.83, 0.92)	0.75 (0.59, 0.86)	0.89 (0.79, 0.94)	-0.11 (-0.26, 0.02)	-0.01 (-0.05, 0.07)					
11	0.57 (0.46, 0.67)	0.91 (0.87, 0.94)	0.66 (0.52, 0.78)	0.91 (0.82, 0.96)	-0.09 (-0.23, 0.04)	0.00 (-0.04, 0.08)					
12	0.52 (0.41, 0.63)	0.93 (0.89, 0.95)	0.62 (0.48, 0.75)	0.93 (0.86, 0.96)	-0.10 (-0.26, 0.03)	0.00 (-0.03, 0.05)					
13	0.45 (0.35, 0.56)	0.95 (0.92, 0.97)	0.57 (0.44, 0.69)	0.95 (0.91, 0.98)	-0.12 (-0.27, 0.01)	0.00 (-0.03, 0.03)					
14	0.39 (0.30, 0.50)	0.96 (0.94, 0.97)	0.50 (0.38, 0.62)	0.97 (0.93, 0.98)	-0.11 (-0.26, 0.03)	-0.01 (-0.03, 0.02)					
15	0.32 (0.24, 0.41)	0.97 (0.95, 0.98)	0.44 (0.32, 0.56)	0.98 (0.96, 0.99)	-0.12 (-0.29, -0.01)	-0.01 (-0.02, 0.02)					

^a Number of Studies = 20; Number of Participants = 17,167; Number with major depression = 1,352

^b Number of Studies = 6; Number of Participants = 4,383; Number with major depression = 343

	Age	<60 ^a	Age ≥60 ^b							
Cut-off score	Sensitivity (95% CI)	Specificity (95% CI)	Sensitivity (95% CI)	Specificity (95% CI)						
5	0.92 (0.85, 0.96)	0.59 (0.50, 0.68)	0.92 (0.81, 0.97)	0.65 (0.53, 0.75)						
6	0.89 (0.81, 0.94)	0.67 (0.58, 0.75)	0.85 (0.75, 0.91)	0.71 (0.61, 0.80)						
7	0.83 (0.73, 0.90)	0.74 (0.66, 0.81)	0.79 (0.69, 0.87)	0.78 (0.68, 0.85)						
8	0.78 (0.67, 0.86)	0.80 (0.72, 0.86)	0.72 (0.60, 0.82)	0.83 (0.76, 0.89)						
9	0.70 (0.59, 0.79)	0.84 (0.77, 0.89)	0.67 (0.54, 0.78)	0.86 (0.79, 0.91)						
10	0.66 (0.54, 0.75)	0.88 (0.82, 0.92)	0.58 (0.47, 0.69)	0.90 (0.84, 0.94)						
11	0.58 (0.48, 0.68)	0.91 (0.86, 0.94)	0.51 (0.38, 0.63)	0.92 (0.87, 0.95)						
12	0.53 (0.42, 0.64)	0.93 (0.89, 0.95)	0.45 (0.34, 0.58)	0.94 (0.91, 0.97)						
13	0.46 (0.36, 0.57)	0.94 (0.91, 0.96)	0.39 (0.28, 0.50)	0.96 (0.93, 0.98)						
14	0.40 (0.30, 0.50)	0.96 (0.93, 0.97)	0.35 (0.24, 0.47)	0.97 (0.94, 0.99)						
15	0.32 (0.25, 0.41)	0.97 (0.95, 0.98)	0.27 (0.16, 0.42)	0.98 (0.95, 0.99)						

Supplementary Table E6. Estimates of PHQ-9 sensitivity and specificity among participants aged <60 compared to ≥60, among participants administered a fully structured diagnostic interview

^a Number of Studies = 20; Number of Participants = 13,784; Number with major depression = 1,087 ^b Number of Studies = 15; Number of Participants = 3,374; Number with major depression = 265

	Wor	men ^a	Μ	en ^b
Cut-off score	Sensitivity (95% CI)	Specificity (95% CI)	Sensitivity (95% CI)	Specificity (95% CI)
5	0.91 (0.84, 0.96)	0.57 (0.47, 0.66)	0.90 (0.83, 0.95)	0.65 (0.55, 0.73)
6	0.87 (0.78, 0.93)	0.64 (0.54, 0.73)	0.88 (0.78, 0.94)	0.73 (0.64, 0.80)
7	0.82 (0.71, 0.89)	0.71 (0.61, 0.80)	0.81 (0.71, 0.89)	0.79 (0.71, 0.84)
8	0.76 (0.65, 0.85)	0.77 (0.68, 0.85)	0.77 (0.64, 0.86)	0.84 (0.77, 0.88)
9	0.69 (0.58, 0.77)	0.82 (0.75, 0.88)	0.68 (0.56, 0.78)	0.87 (0.82, 0.91)
10	0.63 (0.53, 0.72)	0.87 (0.81, 0.91)	0.65 (0.51, 0.76)	0.90 (0.85, 0.93)
11	0.56 (0.45, 0.66)	0.90 (0.85, 0.93)	0.57 (0.45, 0.69)	0.92 (0.88, 0.95)
12	0.50 (0.40, 0.61)	0.92 (0.88, 0.95)	0.53 (0.40, 0.65)	0.94 (0.91, 0.96)
13	0.44 (0.34, 0.55)	0.94 (0.91, 0.96)	0.44 (0.33, 0.57)	0.96 (0.93, 0.97)
14	0.40 (0.30, 0.50)	0.95 (0.93, 0.97)	0.36 (0.26, 0.48)	0.97 (0.95, 0.98)
15	0.33 (0.25, 0.43)	0.96 (0.95, 0.98)	0.29 (0.20, 0.39)	0.98 (0.97, 0.99)

Supplementary Table E7. Estimates of PHQ-9 sensitivity and specificity among women compared to men, among participants administered a fully structured diagnostic interview

^a Number of Studies = 20; Number of Participants = 9,603; Number with major depression = 793

^b Number of Studies = 18; Number of Participants = 7,554; Number with major depression = 557

	All part	icipants ^a	Participants not current treatment for a me	tly diagnosed or receiving ntal health problem ^b	Difference across groups (All participants – participants not currently diagnosed or receiving treatment for a mental health problem)						
Cut-off	Sensitivity (95% CI)	Specificity (95% CI)	Sensitivity (95% CI)	Specificity (95% CI)	Sensitivity (95% CI)	Specificity (95% CI)					
5	0.96 (0.93, 0.97)	0.60 (0.55, 0.64)	0.94 (0.89, 0.97)	0.66 (0.60, 0.71)	0.02 (-0.02, 0.06)	-0.06 (-0.11, -0.01)					
6	0.92 (0.89, 0.95)	0.68 (0.63, 0.72)	0.91 (0.85, 0.95)	0.73 (0.68, 0.78)	0.01 (-0.03, 0.07)	-0.05 (-0.10, -0.01)					
7	0.88 (0.83, 0.92)	0.74 (0.70, 0.78)	0.88 (0.80, 0.93)	0.79 (0.75, 0.83)	0.00 (-0.06, 0.07)	-0.05 (-0.09, -0.01)					
8	0.85 (0.79, 0.89)	0.80 (0.76, 0.83)	0.83 (0.75, 0.89)	0.84 (0.80, 0.88)	0.02 (-0.05, 0.10)	-0.04 (-0.08, -0.01)					
9	0.80 (0.73, 0.85)	0.85 (0.82, 0.88)	0.77 (0.67, 0.85)	0.89 (0.85, 0.91)	0.03 (-0.05, 0.10)	-0.04 (-0.07, -0.01)					
10	0.74 (0.67, 0.79)	0.89 (0.86, 0.91)	0.70 (0.62, 0.77)	0.92 (0.89, 0.94)	0.04 (-0.05, 0.12)	-0.03 (-0.06, -0.01)					
11	0.67 (0.60, 0.73)	0.91 (0.89, 0.93)	0.62 (0.54, 0.70)	0.94 (0.91, 0.96)	0.05 (-0.05, 0.14)	-0.03 (-0.05, -0.01)					
12	0.61 (0.54, 0.68)	0.93 (0.91, 0.95)	0.56 (0.47, 0.64)	0.95 (0.93, 0.97)	0.05 (-0.05, 0.15)	-0.02 (-0.04, 0.00)					
13	0.55 (0.47, 0.62)	0.95 (0.93, 0.96)	0.49 (0.41, 0.57)	0.96 (0.95, 0.98)	0.06 (-0.07, 0.16)	-0.01 (-0.03, 0.00)					
14	0.47 (0.41, 0.54)	0.96 (0.95, 0.97)	0.40 (0.34, 0.47)	0.97 (0.96, 0.98)	0.07 (-0.04, 0.16)	-0.01 (-0.02, 0.00)					
15	0.40 (0.35, 0.46)	0.97 (0.96, 0.98)	0.35 (0.28, 0.42)	0.98 (0.97, 0.99)	0.05 (-0.05, 0.14)	-0.01 (-0.02, 0.00)					

Supplementary Table E8. Estimates of PHQ-9 sensitivity and specificity among participants not currently diagnosed or receiving treatment for a mental health problem compared to all participants, among participants administered the MINI

^a Number of Studies = 33; Number of Participants = 16,102; Number with major depression = 1,661

^b Number of Studies = 15; Number of Participants = 8,365; Number with major depression = 587

	Age	<60 ^a	$Age \ge 60^{b}$							
Cut-off score	Sensitivity (95% CI)	Specificity (95% CI)	Sensitivity (95% CI)	Specificity (95% CI)						
5	0.96 (0.94, 0.98)	0.58 (0.53, 0.63)	0.95 (0.90, 0.97)	0.65 (0.59, 0.70)						
6	0.94 (0.90, 0.96)	0.66 (0.61, 0.71)	0.90 (0.83, 0.94)	0.72 (0.67, 0.77)						
7	0.91 (0.86, 0.94)	0.73 (0.69, 0.77)	0.84 (0.77, 0.89)	0.78 (0.73, 0.82)						
8	0.87 (0.82, 0.91)	0.79 (0.75, 0.82)	0.81 (0.73, 0.87)	0.83 (0.79, 0.87)						
9	0.82 (0.75, 0.86)	0.84 (0.80, 0.87)	0.77 (0.68, 0.84)	0.87 (0.83, 0.90)						
10	0.75 (0.69, 0.81)	0.88 (0.85, 0.91)	0.73 (0.64, 0.80)	0.90 (0.86, 0.93)						
11	0.68 (0.61, 0.74)	0.91 (0.88, 0.93)	0.68 (0.59, 0.76)	0.92 (0.89, 0.95)						
12	0.62 (0.54, 0.70)	0.93 (0.91, 0.95)	0.60 (0.51, 0.68)	0.94 (0.91, 0.96)						
13	0.57 (0.49, 0.64)	0.95 (0.93, 0.97)	0.51 (0.43, 0.60)	0.96 (0.93, 0.97)						
14	0.49 (0.42, 0.56)	0.96 (0.95, 0.97)	0.42 (0.35, 0.50)	0.96 (0.94, 0.98)						
15	0.42 (0.36, 0.49)	0.97 (0.96, 0.98)	0.37 (0.30, 0.43)	0.98 (0.96, 0.99)						

Supplementary Table E9. Estimates of PHQ-9 sensitivity and specificity among participants aged <60 compared to ≥60, among participants administered the MINI

^a Number of Studies = 31; Number of Participants = 10,489; Number with major depression = 1,119 ^b Number of Studies = 27; Number of Participants = 5,585; Number with major depression = 533

	Wor	men ^a	Μ	Men ^b				
Cut-off score	Sensitivity (95% CI)	Specificity (95% CI)	Sensitivity (95% CI)	Specificity (95% CI)				
5	0.95 (0.93, 0.97)	0.55 (0.49, 0.61)	0.97 (0.93, 0.99)	0.64 (0.58, 0.69)				
6	0.92 (0.88, 0.95)	0.63 (0.57, 0.68)	0.94 (0.89, 0.96)	0.72 (0.67, 0.77)				
7	0.89 (0.83, 0.93)	0.70 (0.65, 0.75)	0.90 (0.85, 0.93)	0.78 (0.73, 0.82)				
8	0.85 (0.79, 0.90)	0.77 (0.72, 0.81)	0.86 (0.80, 0.91)	0.83 (0.79, 0.87)				
9	0.79 (0.72, 0.85)	0.82 (0.78, 0.86)	0.83 (0.76, 0.88)	0.87 (0.83, 0.90)				
10	0.73 (0.66, 0.79)	0.87 (0.83, 0.90)	0.77 (0.70, 0.83)	0.90 (0.87, 0.93)				
11	0.65 (0.58, 0.72)	0.90 (0.87, 0.92)	0.72 (0.64, 0.78)	0.92 (0.90, 0.95)				
12	0.60 (0.52, 0.68)	0.92 (0.90, 0.94)	0.65 (0.57, 0.72)	0.94 (0.92, 0.96)				
13	0.54 (0.46, 0.62)	0.95 (0.92, 0.96)	0.57 (0.50, 0.64)	0.96 (0.94, 0.97)				
14	0.46 (0.39, 0.53)	0.96 (0.94, 0.97)	0.49 (0.42, 0.56)	0.96 (0.95, 0.98)				
15	0.40 (0.34, 0.46)	0.97 (0.96, 0.98)	0.42 (0.35, 0.49)	0.97 (0.96, 0.98)				

Supplementary Table E10. Estimates of PHQ-9 sensitivity and specificity among women compared to men, among participants administered the MINI

^a Number of Studies = 32; Number of Participants = 9,574; Number with major depression = 1,126 ^b Number of Studies = 30; Number of Participants = 6,511; Number with major depression = 534

First Author Voor	Dom	Domain 1: Participant Selection					Domain 2: Index Text				Domain 3: Reference Standard					Domain 4: FLow and Timing					
rirst Author, Tear	SQ1	SQ2	SQ3	RoB	AC	SQ1	SQ2	RoB	AC	SQ1	SQ2	SQ3	RoB	AC	SQ1	SQ2	SQ3	SQ4	RoB		
Semi-Structured Interview	S																				
Alamri, 2017 ¹	U/C	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	U/C	U/C	U/C	U/C	Yes	Yes	Yes	Yes	Low		
Amoozegar, 2017 ²	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		
Amtmann, 2015 ³	No	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low		
Ayalon, 2010 ⁴	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		
Beraldi, 2014 ⁵	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		
Bernstein, 2018 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		
Bhana, 2015 ⁷	U/C	Yes	Yes	Low	Low	N/A	N/A	Low	Low	Yes	U/C	Yes	U/C	Low	U/C	Yes	Yes	Yes	U/C		
Bombardier, 2012 ⁸	U/C	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	IPD^{b}	Yes	Yes	U/C	U/C		
Chagas, 2013 ⁹	Yes	Yes	Yes	Low	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	No	U/C		
Chibanda, 2016 ¹⁰	U/C	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low		
Eack, 2006 ¹¹	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 ¹²	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 ¹³	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 ¹⁴	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 ¹⁵	No	No	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	U/C	Yes	U/C	Low	U/C	Yes	Yes	U/C	U/C		
Gräfe, 2004 ¹⁶	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		
Green, 2017 ¹⁷	No	Yes	No	High	U/C	N/A	N/A	Low	Low	Yes	U/C	Yes	U/C	Low	IPD^{b}	Yes	Yes	No	U/C		
Green, 2018 ¹⁸	U/C	Yes	Yes	Low	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low		
Haroz, 2017 ¹⁹	Yes	Yes	Yes	Low	U/C	N/A	N/A	Low	Low	Yes	U/C	Yes	U/C	Low	Yes	Yes	Yes	Yes	Low		
Hitchon, 2019 ^{20a}	U/C	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	U/C	Yes	Yes	Yes	U/C		
Khamseh, 2011 ²¹	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 ²²	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 ²³	No	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low		
Lara, 2015 ²⁴	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		
Liu, 2011 ²⁵	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		
Marrie, 2018 ²⁶	U/C	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low		
Martin-Subero, 2017 ²⁷	No	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	U/C	Yes	Yes	Yes	Yes	Low		

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

McGuire, 2013 ²⁸	U/C	Yes	Yes	Low	Low	N/A	N/A	Low	Low	Yes	Yes	No	High	Low	Yes	Yes	Yes	Yes	Low
Osório, 2009 ²⁹	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 ³⁰	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
Patten, 2015 ³¹	U/C	Yes	Yes	Low	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	U/C	Yes	Yes	Yes	U/C
Picardi, 2005 ³²	Yes	Yes	Yes	Low	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Prisnie, 2016 ³³	Yes	Yes	Yes	Low	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	U/C	Yes	Yes	No	U/C
Quinn, Unpublished ^a	U/C	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Richardson, 2010 ³⁴	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 ³⁵	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
Shinn, 2017 ³⁶	U/C	Yes	Yes	Low	High	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Sidebottom, 2012 ³⁷	No	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	IPD^{b}	Yes	Yes	No	U/C
Simning, 2012 ³⁸	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
Spangenberg, 2015 ³⁹	No	Yes	Yes	U/C	U/C	N/A	N/A	Low	U/C	Yes	U/C	No	High	U/C	Yes	Yes	Yes	Yes	Low
Turner, 2012 ⁴⁰	U/C	Yes	Yes	Low	Low	N/A	N/A	Low	Low	Yes	U/C	Yes	U/C	Low	Yes	Yes	Yes	Yes	Low
Turner, Unpublished ^a	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
Twist, 2013 ⁴¹	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 ⁴²	U/C	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Wagner, 2017 ⁴³	U/C	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	U/C	Yes	U/C	Low	IPD^{b}	No	Yes	No	High
Williams, 2012 ⁴⁴	No	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	IPD^{b}	Yes	Yes	Yes	IPD^{b}
Wittkampf, 200945	No	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	No	U/C
Fully-structured Interviews	6																		
Arroll, 2010 ⁴⁶	Yes	Yes	Yes	Low	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Azah, 2005 ⁴⁷	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 ⁴⁸	No	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Delgadillo, 2011 ⁴⁹	No	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	U/C	Yes	U/C	Low	Yes	Yes	Yes	Yes	Low
Fisher, 2016 ⁵⁰	U/C	Yes	Yes	Low	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Gelaye, 2014 ⁵¹	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
Grool, 2011 ⁵²	U/C	Yes	Yes	Low	Low	N/A	N/A	Low	U/C	Yes	U/C	Yes	U/C	Low	U/C	Yes	Yes	Yes	U/C
Hahn, 2006 ⁵³	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 ⁵⁴	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 ⁵⁵	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 ⁵⁶	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
Kim, 2017 ⁵⁷	U/C	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low

Kohrt, 2016 ⁵⁸	Yes	Yes	Yes	Low	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Liu, 2015 ⁵⁹	No	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
Mohd Sidik, 2012 ⁶⁰	Yes	Yes	Yes	Low	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	U/C	Yes	Yes	Yes	Yes	Low
Patel, 2008 ⁶¹	Yes	Yes	Yes	Low	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Pence, 2012 ⁶²	Yes	Yes	Yes	Low	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Razykov, 2013 ⁶³	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 ⁶⁴	No	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Zuithoff, 2009 ⁶⁵	No	Yes	Yes	U/C	U/C	N/A	N/A	Low	U/C	Yes	Yes	Yes	Low	U/C	IPD^{b}	Yes	Yes	No	U/C
Mini International Neuro	psychiatr	ic Inter	views (MINI)															
Akena, 2013 ⁶⁶	U/C	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Baron, 2017 ⁶⁷	Yes	Yes	Yes	Low	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Buji, 2018 ⁶⁸	Yes	Yes	Yes	Low	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Cholera, 2014 ⁶⁹	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	High
Conway, 2016 ⁷⁰	U/C	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	IPD^{b}	Yes	Yes	Yes	IPD ^b
de la Torre, 2016 ⁷¹	Yes	Yes	Yes	Low	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Garabiles, Unpublished ^a	No	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Gholizadeh, 201972a	U/C	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	IPD^{b}	Yes	Yes	Yes	IPD ^b
Hantsoo, 2017 ⁷³	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
Hides, 2007 ⁷⁴	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, 201175	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, 201476	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 ⁷⁷	Yes	Yes	Yes	Low	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	No	Yes	Yes	High
Janssen, 2016 ⁷⁸	Yes	Yes	Yes	Low	Low	N/A	N/A	Low	Low	Yes	U/C	Yes	U/C	Low	IPD^{b}	Yes	Yes	U/C	U/C
Lamers, 200879	U/C	Yes	Yes	Low	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	IPD^{b}	Yes	Yes	No	U/C
Levin-Aspenson, 2017 ⁸⁰	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
Liu, 2016 ⁸¹	Yes	Yes	Yes	Low	U/C	N/A	N/A	Low	Low	Yes	U/C	Yes	U/C	Low	Yes	Yes	Yes	Yes	Low
Lotrakul, 2008 ⁸²	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 ⁸³	U/C	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Muramatsu, 2018 ⁸⁴	Yes	Yes	Yes	Low	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Nakku, 2016 ⁸⁵	No	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	No	Yes	No	High
Paika, 2017 ⁸⁶	Yes	Yes	Yes	Low	U/C	N/A	N/A	Low	U/C	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Persoons, 2001 ⁸⁷	Yes	Yes	Yes	Low	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Rancans, 201888	Yes	Yes	Yes	Low	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low

Santos, 201389	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 ⁹⁰	No	Yes	Yes	U/C	Low	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	U/C	U/C
Sung, 2013 ⁹¹	Yes	Yes	Yes	Low	U/C	N/A	N/A	Low	Low	Yes	Yes	Yes	Low	Low	Yes	Yes	Yes	Yes	Low
Suzuki, 2015 ⁹²	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
van Heyningen, 201893	U/C	Yes	Yes	Low	U/C	N/A	N/A	Low	Low	Yes	U/C	Yes	U/C	Low	Yes	Yes	Yes	Yes	Low
van Steenbergen- Weijenburg, 2010 ⁹⁴	No	Yes	Yes	U/C	U/C	N/A	N/A	Low	Low	Yes	No	Yes	High	Low	$\operatorname{IPD}^{\mathrm{b}}$	Yes	Yes	No	U/C
Volker, 2016 ⁹⁵	Yes	Yes	Yes	Low	U/C	N/A	N/A	Low	U/C	Yes	Yes	Yes	Low	U/C	IPD^{b}	Yes	Yes	Yes	IPD^{b}
Wang, 2014 ⁹⁶	Yes	Yes	Yes	Low	U/C	N/A	N/A	Low	Low	Yes	U/C	Yes	U/C	Low	Yes	Yes	Yes	Yes	Low
Zhang, 201397	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

SUPPLEMENTARY MATERIAL REFERENCES

- 1. Alamri SH, Bari AI, Ali AT. Depression and associated factors in hospitalized elderly: a cross-sectional study in a Saudi teaching hospital. Ann. Saudi Med. 2017;37:122-129.
- 2. Amoozegar F, Patten SB, Becker WJ, et al. The prevalence of depression and the accuracy of depression screening tools in migraine patients. Gen Hosp Psychiatry. 2017;48:25-31.
- 3. Amtmann D, Bamer AM, Johnson KL, et al. A comparison of multiple patient reported outcome measures in identifying major depressive disorder in people with multiple sclerosis. J Psychosom Res. 2015;79:550-557.
- 4. Ayalon L, Goldfracht M, Bech P. 'Do you think you suffer from depression?' Re-evaluating the use of a single item question for the screening of depression in older primary care patients. Int J Geriatr Psychiatry. 2010;25:497-502.
- 5. Beraldi A, Baklayan A, Hoster E, et al. Which questionnaire is most suitable for the detection of depressive disorders in haemato-oncological patients? Comparison between HADS, CES-D and PHQ-9. Oncol Res Treat. 2014;37:108–109.
- 6. Bernstein CN, Zhang L, Lix LM, et al. The validity and reliability of screening measures for depression and anxiety disorders in inflammatory bowel disease. Inflamm Bowel Dis. 2018;24:1867-1875.
- 7. Bhana A, Rathod SD, Selohilwe O, et al. The validity of the Patient Health Questionnaire for screening depression in chronic care patients in primary health care in South Africa. BMC psychiatry. 2015;15:118.
- 8. Bombardier CH, Kalpakjian CZ, Graves DE, et al. Validity of the Patient Health Questionnaire-9 in assessing major depressive disorder during inpatient spinal cord injury rehabilitation. Arch Phys Med Rehabil. 2012;93:1838-1845.
- 9. Chagas MH, Tumas V, Rodrigues GR, et al. Validation and internal consistency of Patient Health Questionnaire-9 for major depression in Parkinson's disease. Age Ageing. 2013;42:645-49.
- 10. Chibanda D, Verhey R, Gibson LJ, et al. Validation of screening tools for depression and anxiety disorders in a primary care population with high HIV prevalence in Zimbabwe. J Affect Disord. 2016;198:50-55.
- 11. Eack SM, Greeno CG, Lee BJ. Limitations of the Patient Health Questionnaire in identifying anxiety and depression in community mental health: Many cases are undetected. Res Soc Work Pract. 2006;16:625-631.
- 12. Fann JR, Bombardier CH, Dikmen S, et al. Validity of the Patient Health Questionnaire-9 in assessing depression following traumatic brain injury. J Head Trauma Rehabil. 2005;20:501-511.
- 13. Fiest KM, Patten SB, Wiebe S, et al. Validating screening tools for depression in epilepsy. Epilepsia. 2014;55:1642-1650.
- 14. Fischer HF, Klug C, Roeper K, et al. Screening for mental disorders in heart failure patients using computer-adaptive tests. Qual Life Res. 2014;23:1609-1618.
- 15. Gjerdingen D, Crow S, McGovern P, et al. Postpartum depression screening at well-child visits: validity of a 2-question screen and the PHQ-9. Ann Fam Med. 2009;7:63-70.
- 16. Gräfe K, Zipfel S, Herzog W, et al. Screening for psychiatric disorders with the Patient Health Questionnaire (PHQ). Results from the German validation study. Diagnostica. 2004;50:171-181.
- 17. Green JD, Annunziata A, Kleiman SE, et al. Examining the diagnostic utility of the DSM-5 PTSD symptoms among male and female returning veterans. Depress Anxiety. 2017;34:752-760.
- 18. Green EP, Tuli H, Kwobah E, et al. Developing and validating a perinatal depression screening tool in Kenya blending Western criteria with local idioms: A mixed methods study. J Affect Disord. 2018;228:49-59.
- 19. Haroz EE, Bass J, Lee C, et al. Development and cross-cultural testing of the International Depression Symptom Scale (IDSS): a measurement instrument designed to represent global presentations of depression. Glob Ment Health. 2017;4.
- 20. Hitchon CA, Zhang L, Peschken CA, et al. The validity and reliability of screening measures for depression and anxiety disorders in rheumatoid arthritis. Arthritis Care Res. 2019.
- 21. Khamseh ME, Baradaran HR, Javanbakht A, et al. Comparison of the CES-D and PHQ-9 depression scales in people with type 2 diabetes in Tehran, Iran. BMC Psychiatry. 2011;11:61.
- 22. Kwan Y, Tham WY, Ang A. Validity of the Patient Health Questionnaire-9 (PHQ-9) in the screening of post-stroke depression in a multi-ethnic population. Biol Psychiatry. 2012;71:141S-141S.
- 23. Lambert SD, Clover K, Pallant JF, et al. Making sense of variations in prevalence estimates of depression in cancer: A cocalibration of commonly used depression scales using Rasch analysis. Natl Compr Canc Netw. 2015;13:1203-1211.
- 24. Lara MA, Navarrete L, Nieto L, et al. Prevalence and incidence of perinatal depression and depressive symptoms among Mexican women. J Affect Disord. 2015;175:18-24.
- 25. Liu SI, Yeh ZT, Huang HC, et al. Validation of Patient Health Questionnaire for depression screening among primary care patients in Taiwan. Compr Psychiatry. 2011;52:96-101.
- 26. Marrie RA, Zhang L, Lix LM, et al. The validity and reliability of screening measures for depression and anxiety disorders in multiple sclerosis. Mult Scler Relat Dis. 2018;20:9-15.
- 27. Martin-Subero M, Kroenke K, Diez-Quevedo C, et al. Depression as measured by PHQ-9 versus clinical diagnosis as an independent predictor of long-term mortality in a prospective cohort of medical inpatients. Psychosom Med. 2017;79:273-282.
- 28. McGuire AW, Eastwood JA, Macabasco-O'Connell A, et al. Depression screening: utility of the Patient Health Questionnaire in patients with acute coronary syndrome. Am J Crit Care. 2013;22:12-19.
- 29. Osório FL, Vilela Mendes A, Crippa JA, et al. Study of the discriminative validity of the PHQ-9 and PHQ-2 in a sample of Brazilian women in the context of primary health care. Perspect Psychiatr Care. 2009;45:216-227.
- 30. Osório FL, Carvalho AC, Fracalossi TA, et al. Are two items sufficient to screen for depression within the hospital context? Int J Psychiatry Med. 2012;44:141-148.
- 31. Patten SB, Burton JM, Fiest KM, et al. Validity of four screening scales for major depression in MS. Mult. Scler. 2015;21:1064-1071.
- 32. Picardi A, Adler DA, Abeni D, et al. Screening for depressive disorders in patients with skin diseases: a comparison of three screeners. Acta Derm Venereol. 2005;85:414-419.

- 33. Prisnie JC, Fiest KM, Coutts SB, et al. Validating screening tools for depression in stroke and transient ischemic attack patients. Int J Psychiatry Med. 2016;51:262-277.
- 34. Richardson TM, He H, Podgorski C, et al. Screening depression aging services clients. Am J Geriatr Psychiatry. 2010;18:1116-1123.
- 35. Rooney AG, McNamara S, Mackinnon M, et al. Screening for major depressive disorder in adults with cerebral glioma: an initial validation of 3 self-report instruments. Neuro Oncol. 2013;15:122-129.
- 36. Shinn EH, Valentine A, Baum G, et al. Comparison of four brief depression screening instruments in ovarian cancer patients: Diagnostic accuracy using traditional versus alternative cutpoints. Gynecol Oncol. 2017;145:562-568.
- 37. Sidebottom AC, Harrison PA, Godecker A, et al. Validation of the Patient Health Questionnaire (PHQ)-9 for prenatal depression screening. Arch Womens Ment Health. 2012;15:367-374.
- 38. Simning A, van Wijngaarden E, Fisher SG, et al. Mental healthcare need and service utilization in older adults living in public housing. Am J Geriatr Psychiatry. 2012;20:441-451.
- 39. Spangenberg L, Glaesmer H, Boecker M, et al. Differences in Patient Health Questionnaire and Aachen Depression Item Bank scores between tablet versus paper-and-pencil administration. Qual Life Res. 2015;24:3023-3032.
- 40. Turner A, Hambridge J, White J, et al. Depression screening in stroke: a comparison of alternative measures with the structured diagnostic interview for the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (major depressive episode) as criterion standard. Stroke. 2012;43:1000-1005.
- 41. Twist K, Stahl D, Amiel SA, et al. Comparison of depressive symptoms in type 2 diabetes using a two-stage survey design. Psychosom Med. 2013;75:791-797.
- 42. Vöhringer PA, Jimenez MI, Igor MA, et al. Detecting mood disorder in resource-limited primary care settings: comparison of a self-administered screening tool to general practitioner assessment. J Med Screen. 2013;20:118-124.
- 43. Wagner LI, Pugh SL, Small Jr W, et al. Screening for depression in cancer patients receiving radiotherapy: Feasibility and identification of effective tools in the NRG Oncology RTOG 0841 trial. Cancer. 2017;123:485-93.
- 44. Williams JR, Hirsch ES, Anderson K, et al. A comparison of nine scales to detect depression in Parkinson disease: which scale to use? Neurology. 2012;78:998-1006.
- 45. Wittkampf K, van Ravesteijn H, Baas K, et al. The accuracy of Patient Health Questionnaire-9 in detecting depression and measuring depression severity in high-risk groups in primary care. Gen Hosp Psychiatry. 2009;31:451-459.
- 46. Arroll B, Goodyear-Smith F, Crengle S, et al. Validation of PHQ-2 and PHQ-9 to screen for major depression in the primary care population. Ann Fam Med. 2010;8:348-53.
- 47. Azah MN, Shah ME, Shaaban J, et al. Validation of the Malay version brief Patient Health Questionnaire (PHQ-9) among adult attending family medicine clinics. MedPulse. 2005;12:259-63.
- 48. De Man-van Ginkel JM, Hafsteinsdóttir T, Lindeman E, et al. An efficient way to detect poststroke depression by subsequent administration of a 9-item and a 2-item Patient Health Questionnaire. Stroke. 2012;43:854-56.

- 49. Delgadillo J, Payne S, Gilbody S, et al. How reliable is depression screening in alcohol and drug users? A validation of brief and ultra-brief questionnaires. J Affect Disord. 2011;134:266-71.
- 50. Fisher J, Rowe H, Wynter K, et al. Sex-informed, psychoeducational programme for couples to prevent postnatal common mental disorders among primiparous women: cluster randomised controlled trial. BMJ open. 2016;6:e009396.
- 51. Gelaye B, Tadesse MG, Williams MA, et al. Assessing validity of a depression screening instrument in the absence of a gold standard. Ann Epidemiol. 2014;24:527-31.
- 52. Grool AM, van der Graaf Y, Mali WP, et al. Location of cerebrovascular and degenerative changes, depressive symptoms and cognitive functioning in later life: the SMART-Medea study. J. Neurol. Neurosurg. Psychiatry. 2011;82:1093-1100.
- 53. Hahn D, Reuter K, Harter M. Screening for affective and anxiety disorders in medical patients comparison of HADS, GHQ-12 and Brief-PHQ. Psychsoc Med. 2006;3.
- 54. Henkel V, Mergl R, Kohnen R, et al. Use of brief depression screening tools in primary care: consideration of heterogeneity in performance in different patient groups. Gen Hosp Psychiatry. 2004;26:190-98.
- 55. Hobfoll SE, Canetti D, Hall BJ, et al. Are community studies of psychological trauma's impact accurate? A study among Jews and Palestinians. Psychol Assess. 2011;23:599-605.
- 56. Kiely KM, Butterworth P. Validation of four measures of mental health against depression and generalized anxiety in a community based sample. Psychiatry Res. 2014;225:291-98.
- 57. Kim DJ, Kim K, Lee HW, et al. Internet game addiction, depression, and escape from negative emotions in adulthood: a nationwide community sample of Korea. J Nerv Ment Dis. 2017;205:568-73.
- 58. Kohrt BA, Luitel NP, Acharya P, et al. Detection of depression in low resource settings: validation of the Patient Health Questionnaire (PHQ-9) and cultural concepts of distress in Nepal. BMC psychiatry. 2016;16:58.
- 59. Liu Y, Wang J. Validity of the patient health questionnaire-9 for DSM-IV major depressive disorder in a sample of Canadian working population. J Affect Disord. 2015;187:122-26.
- 60. Mohd Sidik S, Arroll B, Goodyear-Smith F. Criterion validity of the PHQ-9 (Malay version) in a primary care clinic in Malaysia. Med J Malaysia. 2012;67:309-15.
- 61. Patel V, Araya R, Chowdhary N, et al. Detecting common mental disorders in primary care in India: a comparison of five screening questionnaires. Psychol Med. 2008;38:221-28.
- 62. Pence BW, Gaynes BN, Atashili J, et al. Validity of an interviewer-administered Patient Health Questionnaire-9 to screen for depression in HIV-infected patients in Cameroon. J Affect Disord. 2012;143:208-13.
- 63. Razykov I, Hudson M, Baron M, et al. Utility of the Patient Health Questionnaire-9 to assess suicide risk in patients with systemic sclerosis. Arth Care Res. 2013;65:753-58.
- 64. Thombs BD, Ziegelstein RC, Whooley MA. Optimizing detection of major depression among patients with coronary artery disease using the Patient Health Questionnaire: data from the heart and soul study. J Gen Intern Med. 2008;23:2014-17.

- 65. Zuithoff NP, Vergouwe Y, King M, et al. A clinical prediction rule for detecting major depressive disorder in primary care: the PREDICT-NL study. Fam Pract. 2009;26:241-50.
- 66. Akena D, Joska J, Obuku EA, et al. Sensitivity and specificity of clinician administered screening instruments in detecting depression among HIV-positive individuals in Uganda. AIDS Care. 2013;25:1245-52.
- 67. Baron EC, Davies T, Lund C. Validation of the 10-item centre for epidemiological studies depression scale (CES-D-10) in Zulu, Xhosa and Afrikaans populations in South Africa. BMC psychiatry. 2017;17:6.
- 68. Buji RI, Abdul Murad NA, Chan LF, et al. Suicidal ideation in systemic lupus erythematosus: NR2A gene polymorphism, clinical and psychosocial factors. Lupus. 2018;27:744-52.
- 69. Cholera R, Gaynes BN, Pence BW, et al. Validity of the Patient Health Questionnaire-9 to screen for depression in a high-HIV burden primary healthcare clinic in Johannesburg, South Africa. J Affect Disord. 2014;167:160-66.
- 70. Conway A, Sheridan J, Maddicks-Law J, et al. Accuracy of anxiety and depression screening tools in heart transplant recipients. Appl Nurs Res. 2016;32:177-81.
- 71. de la Torre AY, Oliva N, Echevarrieta PL, et al. Major depression in hospitalized Argentine general medical patients: Prevalence and risk factors. J Affect Disord. 2016;197:36-42.
- 72. Gholizadeh L, Shahmansouri N, Heydari M, et al. Assessment and detection of depression in patients with coronary artery disease: validation of the Persian version of the PHQ-9. Contemp Nurse. 2019;55:185-94.
- 73. Hantsoo L, Podcasy J, Sammel M, et al. Pregnancy and the acceptability of computer-based versus traditional mental health treatments. J Womens Health. 2017;26:1106-13.
- 74. Hides L, Lubman DI, Devlin H, et al. Reliability and validity of the Kessler 10 and Patient Health Questionnaire among injecting drug users. Aust N Z Psychiatry. 2007;41:166-68.
- 75. Hyphantis T, Kotsis K, Voulgari PV, et al. Diagnostic accuracy, internal consistency, and convergent validity of the Greek version of the Patient Health Questionnaire 9 in diagnosing depression in rheumatologic disorders. Arthritis Care Res. 2011;63:1313-21.
- 76. Hyphantis T, Kroenke K, Papatheodorou E, et al. Validity of the Greek version of the PHQ 15-item Somatic Symptom Severity Scale in patients with chronic medical conditions and correlations with emergency department use and illness perceptions. Compr Psychiatry. 2014;55:1950-59.
- 77. Inagaki M, Ohtsuki T, Yonemoto N, et al. Validity of the Patient Health Questionnaire (PHQ)-9 and PHQ-2 in general internal medicine primary care at a Japanese rural hospital: a cross-sectional study. Gen Hosp Psychiatry. 2013;35:592-97.
- 78. Janssen EP, Köhler S, Stehouwer CD, et al. The Patient Health Questionnaire-9 as a screening tool for depression in individuals with type 2 diabetes mellitus: The Maastricht study. J Am Geriatr Soc. 2016;64:e201-06.
- 79. Lamers F, Jonkers CC, Bosma H, et al. Summed score of the Patient Health Questionnaire-9 was a reliable and valid method for depression screening in chronically ill elderly patients. J Clin Epidemiol. 2008;61:679-87.

- 80. Levin-Aspenson HF, Watson D. Mode of administration effects in psychopathology assessment: Analyses of sex, age, and education differences in self-rated versus interview-based depression. Psychol. Assess. 2018;30:287.
- 81. Liu h, He YL, Miao JM, et al. Validity and reliability of the 12-item Short Form Health Survey in outpatients from traditional Chinese internal department. Chinese Mental Health Journal. 2016;30:6-12
- 82. Lotrakul M, Sumrithe S, Saipanish R. Reliability and validity of the Thai version of the PHQ-9. BMC Psychiatry. 2008;8:46.
- 83. Muramatsu K, Miyaoka H, Kamijima K, et al. The Patient Health Questionnaire, Japanese version: validity according to the Mini-International Neuropsychiatric Interview-Plus. Psychol Rep. 2007;101:952-60.
- 84. Muramatsu K, Miyaoka H, Kamijima K, et al. Performance of the Japanese version of the Patient Health Questionnaire-9 (J-PHQ-9) for depression in primary care. Gen Hosp Psychiatry. 2018;52:64-9.
- 85. Nakku JE, Rathod SD, Kizza D, et al. Validity and diagnostic accuracy of the Luganda version of the 9-item and 2-item patient health questionnaire for detecting major depressive disorder in rural Uganda. GMH. 2016;3.
- 86. Paika V, Andreoulakis E, Ntountoulaki E, et al. The Greek-Orthodox version of the Brief Religious Coping (B-RCOPE) instrument: psychometric properties in three samples and associations with mental disorders, suicidality, illness perceptions, and quality of life. Ann. Gen. Psychiatry. 2017;16:13.
- 87. Persoons P, Luyckx K, Fischler B. Psychiatric diagnoses in Gastroenterolgy: Validation of a self-report instrument (PRIME-MD Patient Health Questionnaire), epidemiology and recognition. Gastroenterology. 2001;120:A114-A114.
- 88. Rancans E, Trapencieris M, Ivanovs R, et al. Validity of the PHQ-9 and PHQ-2 to screen for depression in nationwide primary care population in Latvia. Ann Gen Psychiatry. 2018;17:33.
- 89. Santos IS, Tavares BF, Munhoz TN, et al. [Sensitivity and specificity of the Patient Health Questionnaire-9 (PHQ-9) among adults from the general population.] Cad Saude Publica. 2013;29:1533-43.
- 90. Stafford L, Berk M, Jackson HJ. Validity of the Hospital Anxiety and Depression Scale and Patient Health Questionnaire-9 to screen for depression in patients with coronary artery disease. Gen Hosp Psychiatry. 2007;29:417-24.
- 91. Sung SC, Low CC, Fung DS, et al. Screening for major and minor depression in a multiethnic sample of Asian primary care patients: a comparison of the nine-item Patient Health Questionnaire (PHQ-9) and the 16-item Quick Inventory of Depressive Symptomatology Self-Report (QIDS-SR16). Asia Pac Psychiatry. 2013;5:249-58.
- 92. Suzuki K, Kumei S, Ohhira M, et al. Screening for major depressive disorder with the Patient Health Questionnaire (PHQ-9 and PHQ-2) in an outpatient clinic staffed by primary care physicians in Japan: a case control study. PloS one. 2015;10:e0119147.
- 93. van Heyningen T, Honikman S, Tomlinson M, et al. Comparison of mental health screening tools for detecting antenatal depression and anxiety disorders in South African women. PloS one. 2018;13:e0193697.
- 94. van Steenbergen-Weijenburg KM, de Vroege L, Ploeger RR, et al. Validation of the PHQ-9 as a screening instrument for depression in diabetes patients in specialized outpatient clinics. BMC Health Serv Res. 2010;10:235.

- 95. Volker D, Zijlstra-Vlasveld MC, Brouwers EP, et al. Validation of the patient health questionnaire-9 for major depressive disorder in the occupational health setting. J. Occup. Rehabil. 2016;26:237-44.
- 96. Wang W, Bian Q, Zhao Y, et al. Reliability and validity of the Chinese version of the Patient Health Questionnaire (PHQ-9) in the general population. Gen Hosp Psychiatry. 2014;36:539-44.
- 97. Zhang Y, Ting R, Lam M, et al. Measuring depressive symptoms using the Patient Health Questionnaire-9 in Hong Kong Chinese subjects with type 2 diabetes. J Affect Disord. 2013;151:660-66.
- 98. Bailer J, Kerstner T, Witthöft M, et al. Health anxiety and hypochondriasis in the light of DSM-5. Anxiety Stress Copin. 2016;29:219-39.
- 99. Becker S, Al Zaid K, Al Faris E. Screening for somatization and depression in Saudi Arabia: a validation study of the PHQ in primary care. Int J Psychiatry Med. 2002;32:271-83.
- 100. Brodey BB, Goodman SH, Baldasaro RE, et al. Development of the Perinatal Depression Inventory (PDI)-14 using item response theory: a comparison of the BDI-II, EPDS, PDI, and PHQ-9. Arch Womens Ment Health. 2016;19:307-16.
- 101. Chen S, Fang Y, Chiu H, et al. Validation of the nine-item Patient Health Questionnaire to screen for major depression in a Chinese primary care population. Asia Pac Psychiatry. 2013;5:61-68.
- 102. Chen S, Conwell Y, Vanorden K, et al. Prevalence and natural course of late-life depression in China primary care: a population based study from an urban community. J Affect Disord. 2012;141:86-93.
- 103. Irmak C, Altıntaş M. The resilience, attachment, coping, and psychopathology of battered women: comparison of sheltered versus in-home women. Ansdolu Psikiyatr De. 2017;18:561-70.
- 104. Lai BP, Tang AK, Lee DT, et al. Detecting postnatal depression in Chinese men: a comparison of three instruments. Psychiatry Res. 2010;180:80-85.
- 105. Limon FJ. Screening Latino Farmworkers for Depression in Primary Care. Dissertation Abstracts International: Section B: The Sciences and Engineering. 2016.
- 106. Liu ZW, Yu Y, Hu M, et al. PHQ-9 and PHQ-2 for screening depression in Chinese rural elderly. PloS one. 2016;11:e0151042.
- 107. Nacak Y, Morawa E, Tuffner D, et al. Insecure attachment style and cumulative traumatic life events in patients with somatoform pain disorder: A cross-sectional study. J Psychosom Res. 2017;103:77-82.
- 108. Navines R, Castellvi P, Moreno-Espana J, et al. Depressive and anxiety disorders in chronic hepatitis C patients: reliability and validity of the Patient Health Questionnaire. J Affect Disord. 2012;138:343-51.
- 109. Phelan E, Williams B, Meeker K, et al. A study of the diagnostic accuracy of the PHQ-9 in primary care elderly. BMC Fam Pract. 2010;11:63.
- 110. Thompson AW, Liu H, Hays RD, et al. Diagnostic accuracy and agreement across three depression assessment measures for Parkinson's disease. Parkinsonism Relat Disord. 2011;17:40-45.

- 111. Watnick S, Wang PL, Demadura T, et al. Validation of 2 depression screening tools in dialysis patients. Am J Kid Dis. 2005;46:919-24.
- 112. Al-Ghafri G, Al-Sinawi H, Al-Muniri A, et al. Prevalence of depressive symptoms as elicited by Patient Health Questionnaire (PHQ-9) among medical trainees in Oman. Asian J Psychiatr. 2014;8:59-62.
- 113. Haddad M, Walters P, Phillips R, et al. Detecting depression in patients with coronary heart disease: a diagnostic evaluation of the PHQ-9 and HADS-D in primary care, findings from the UPBEAT-UK study. PLoS ONE. 2013;8:e78493.
- 114. Ikin JF, McKenzie DP, Gwini SM, et al. Major depression and depressive symptoms in Australian Gulf War veterans 20 years after the Gulf War. J Affect Disord. 2016;189:77-84.
- 115. Valencia-Garcia D, Bi X, Ayón C. Sensitivity and Specificity in Three Measures of Depression Among Mexican American Women. J Immigr Minor Healt. 2017;19:562-71.
- 116. Wang L, Lu K, Li J, et al. Value of patient health questionnaires (PHQ)-9 and PHQ-2 for screening depression disorders in cardiovascular outpatients. Zhonghua xin xue guan bing za zhi. 2015;43:428-31.
- 117. Choi SK, Boyle E, Burchell AN, et al. Validation of six short and ultra-short screening instruments for depression for people living with HIV in Ontario: results from the Ontario HIV treatment network cohort study. PLoS One. 2015;10:e0142706.
- 118. Griffith SD, Thompson NR, Rathore JS, et al. Incorporating patient-reported outcome measures into the electronic health record for research: application using the Patient Health Questionnaire (PHQ-9). Qual Life Res. 2015;24:295-303.
- 119. Persoons P, Luyckx K, Desloovere C, et al. Anxiety and mood disorders in otorhinolaryngology outpatients presenting with dizziness: validation of the self-administered PRIME-MD Patient Health Questionnaire and epidemiology. Gen Hosp Psychiatry. 2003;25:316-23.
- 120. Rathore JS, Jehi LE, Fan Y, et al. Validation of the Patient Health Questionnaire-9 (PHQ-9) for depression screening in adults with epilepsy. Epilepsy Behav. 2014;37:215-20.
- 121. Scott JD, Wang CC, Coppel E, et al. Diagnosis of depression in former injection drug users with chronic hepatitis C. J Clin Gastroenterol. 2011;45:462-67.
- 122. Seo JG, Park SP. Validation of the Patient Health Questionnaire-9 (PHQ-9) and PHQ-2 in patients with migraine. J Headache Pain. 2015;16:65.
- 123. Woldetensay YK, Belachew T, Tesfaye M, et al. Validation of the Patient Health Questionnaire (PHQ-9) as a screening tool for depression in pregnant women: Afaan Oromo version. PloS one. 2018;13:e0191782.
- 124. Xiong N, Fritzsche K, Wei J, et al. Validation of patient health questionnaire (PHQ) for major depression in Chinese outpatients with multiple somatic symptoms: a multicenter cross-sectional study. J Affect Disord. 2015;174:636-43.