

Annex 1: Description of the MINI-V adaptation

Most of the MINI modules administered came directly from the MINI-V. However, for some disorders we made small modifications or use the MINI-Plus module for brevity. For each module administered, we describe the source (MINI-V or MINI-Plus) and any modifications made below.

- Major Depressive Episode, MINI-V
- Dysthymia, MINI-V
- Suicidality, MINI-Plus
- (Hypo) Manic Episode, MINI-V, excluding questions about past episode
- Panic Disorder, MINI-V
- Obsessive-Compulsive Disorder, MINI-V
- PTSD, MINI-Plus, excluding the question “Did you respond with intense fear, helplessness or horror.”
- Alcohol Abuse or Dependence, MINI-V
- Non-Alcohol Psychoactive Substance Use Disorders, MINI-V, with a revised list of drugs to appropriately categorize and include local drugs
- Psychotic Disorders, MINI-V, excluding questions relevant to mood disorder with psychotic features lifetime & current
- Generalized Anxiety Disorder, MINI-V excluding the administrator prompt “Is the patient’s anxiety restricted exclusively to, or better explained by, any disorder prior to this point?”

Annex 2: Mental Wellness Tool-13 (mwTool-13) Questionnaire

Mental Wellness Tool (paper version)

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QUESTIONS	NEGATIVE	POSITIVE			GROUP
1. In the last 2 weeks , how often have you been feeling down, depressed, or hopeless?	Not at all	Several days	More than half the days	Nearly every day	Common Mental Disorder
2. In the last 2 weeks , how often have you been feeling nervous, anxious, or on edge?	Not at all	Several days	More than half the days	Nearly every day	Does not inform a specific disorder
3. In the last 2 weeks , how often have you been so restless that it's hard to sit still?	Not at all	Several days	More than half the days	Nearly every day	Common Mental Disorder

If POSITIVE to questions 1 or 2 or 3, CONTINUE SCREENING. If NEGATIVE for all three, STOP.

If POSITIVE to question 2, but NEGATIVE to questions 4-14, refer to self-help.

4. In the past year , how often do you have a drink containing alcohol?	Never	Monthly or less	Between 2 and 4 times a month	Between 2 and 3 times a week	4 or more times per week	Alcohol Use Disorder
5. In the past year , how many drinks containing alcohol do you have on a typical day when you are drinking? EXPLAIN "STANDARD DRINK"	0	1 or 2	3 or 4 (Women)	5 or 6 (Men)	7 to 9	

6. In the past year , how many times you used a recreational or illegal drug or used a prescription medication for non-medical reasons?	Never	Once or twice	Monthly	Weekly	Daily or almost daily	Substance Use Disorder
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7. In the past year , have you ever felt that your thoughts were being directly interfered with or controlled by some outside force or person in a way that many people would find hard to believe (for instance, through telepathy)?	No	Not Sure	Yes	Severe Mental Disorder
8. In the past year , have there been times when you felt that a group of people was plotting to cause you serious harm or injury?	No	Not Sure	Yes	
9. In the past year , have there been times when you felt that something so strange was going on that other people would find it very hard to believe?	No	Not Sure	Yes	
10. In the past year , did you at any time hear voices saying quite a few words or sentences when there was no one around that might account for it?	No	Not Sure	Yes	

11. In the past month , have you wished you were dead or wished you could go to sleep and not wake up?	No	Yes	Suicide Risk
12. In the past month , have you had any actual thoughts of killing yourself?	No	Yes	
13. In the past 3 months , have you ever done anything, started to do anything, or prepared to do anything to end your life?	No	Yes	

Standard Drinking Sizes

1 standard drink = 10 grams of pure alcohol

Beer (5% alcohol)	Wine (12% alcohol)	Spirits (40% alcohol)	Local Distilled Drinks (60% alcohol)
 Can 330mL (1.3 drinks) Bottle 355mL (1.4 drinks)	 Glass 100mL (1 drink) Bottle 750mL (7 drinks)	 Shot 44mL (1.4 drinks) Bottle 750mL (24 drinks)	 Glass 25mL (1.2 drinks) Bottle 1L (47 drinks)

Annex 3: MwTool-13 restricted and stratified analyses using the original two-step administration and definitions of a positive screen

Note: These are companion tables to table 5.

Table 1: Performance of the mwTool-13 using the two-step administration method and the original definitions of a positive screen for each disorder category among the Total population and restrict to those who received the tool in isiXhosa

Disorder	Total Population (n=1885)		isiXhosa (n=1,792)	
	Sensitivity (95%CI)	Specificity (95%CI)	Sensitivity (95%CI)	Specificity (95%CI)
<i>Step Two Questions</i>				
Any Disorder	83.36 (80.32-86.1)	46.45 (43.61-49.31)	83.1 (79.96-85.92)	46.31 (43.4-49.24)
CMD	91.48 (88.54-93.87)	44.57 (41.97-47.19)	91.84 (88.84-94.25)	44.53 (41.87-47.22)
CMD	88.86 (85.62-91.6)	47.72 (45.1-50.35)	89.28 (85.96-92.04)	47.69 (45.01-50.38)
Major Depressive Episode	90.89 (87.66-93.5)	46.99 (44.42-49.57)	91.34 (88.05-93.96)	46.99 (44.36-49.63)
Generalized Anxiety Disorder	90.08 (83.32-94.77)	40.82 (38.51-43.15)	90.68 (83.93-95.25)	40.92 (38.55-43.32)
PTSD	89.57 (83.83-93.81)	41.52 (39.18-43.89)	90.38 (84.64-94.52)	41.63 (39.22-44.06)
<i>Step One Questions</i>				
AUD	56.67 (49.09-64.02)	84.50 (82.69-86.19)	55.23 (47.48-62.81)	84.43 (82.57-86.16)
SUD	64.52 (45.37-80.77)	93.42 (92.19-94.51)	64.52 (45.37-80.77)	93.98 (92.77-95.05)
SMD	71.71 (63.84-78.71)	61.92 (59.58-64.21)	71.92 (63.89-79.03)	61.6 (59.2-63.96)
Psychotic Disorder	67.37 (56.98-76.64)	60.61 (58.31-62.89)	67.03 (56.39-76.53)	60.26 (57.89-62.59)
Manic or hypomanic episode	77.61 (65.78-86.89)	60.56 (58.27-62.82)	78.46 (66.51-87.69)	60.28 (57.93-62.6)
SR	86.84 (79.23-92.44)	80.24 (78.3-82.07)	85.85 (77.74-91.86)	80.55 (78.57-82.41)

Table 2: Performance of the mwTool-13 using the two-step administration method and the original definitions of a positive screen for each disorder category, by gender

Disorder	Men (n=651)		Women (n=1,232)	
	Sensitivity (95%CI)	Specificity (95%CI)	Sensitivity (95%CI)	Specificity (95%CI)
<i>Step One Questions</i>				
Any Disorder	72.80 (66.69-78.34)	53.64 (48.69-58.54)	89.15 (85.83-91.91)	42.80 (39.34-46.32)
CMD	82.24 (73.67-88.96)	49.08 (44.8-53.37)	94.29 (91.31-96.47)	41.84 (38.56-45.17)
CMD	78.5 (69.51-85.86)	52.21 (47.91-56.47)	92 (88.65-94.62)	45.01 (41.69-48.36)
Major Depressive Episode	80.65 (71.15-88.11)	51.79 (47.56-56.01)	93.91 (90.65-96.29)	44.13 (40.89-47.41)
Generalized Anxiety Disorder	86.96 (66.41-97.22)	48.41 (44.43-52.4)	90.72 (83.12-95.67)	36.65 (33.84-39.53)
PTSD	83.33 (65.28-94.36)	48.63 (44.63-52.64)	90.91 (84.66-95.21)	37.55 (34.67-40.48)
<i>Step Two Questions</i>				
AUD	41.33 (30.08-53.3)	85.59 (82.45-88.36)	67.62 (57.79-76.43)	83.94 (81.66-86.04)
SUD	69.23 (48.21-85.67)	93.92 (91.75-95.66)	40 (5.27-85.34)	93.15 (91.59-94.5)
SMD	67.95 (56.42-78.07)	69.11 (65.15-72.87)	75.68 (64.31-84.9)	58.46 (55.56-61.32)
Psychotic Disorder	71.21 (58.75-81.7)	68.72 (64.79-72.46)	58.62 (38.94-76.48)	56.77 (53.92-59.6)
Manic or hypomanic episode	60 (36.05-80.88)	65.45 (61.6-69.16)	85.11 (71.69-93.8)	58.06 (55.19-60.89)
SR	80.00 (56.34-94.27)	84.47 (81.40-87.21)	88.30 (80.03-94.01)	77.94 (75.42-80.32)

*Excludes the two individuals who responded “Transgender” and “Non-binary”

Table 3: Performance of the mwTool-13 using the two-step administration method and the original definitions of a positive screen for each disorder category, by self-reported HIV status

Disorder	HIV Positive (n=487)		HIV Negative (n=1,195)	
	Sensitivity (95%CI)	Specificity (95%CI)	Sensitivity (95%CI)	Specificity (95%CI)
<i>Step One Questions</i>				
Any Disorder	85.22 (79.58-89.80)	43.31 (37.47-49.29)	83.63 (79.58-87.16)	49.75 (46.24-53.27)
CMD	94.81 (90.02-97.73)	43.54 (38.15-49.06)	91.57 (87.4-94.7)	46.83 (43.61-50.07)
CMD	91.56 (86-95.43)	46.85 (41.39-52.36)	89.56 (85.08-93.06)	49.89 (46.66-53.13)
Major Depressive Episode	93.53 (88.06-97)	45.98 (40.65-51.37)	91.32 (86.78-94.7)	49.08 (45.9-52.26)
Generalized Anxiety Disorder	95.35 (84.19-99.43)	37.61 (33.09-42.3)	89.55 (79.65-95.7)	43.53 (40.61-46.48)
PTSD	89.66 (78.83-96.11)	38 (33.38-42.77)	90.59 (82.29-95.85)	44.14 (41.2-47.12)
<i>Step Two Questions</i>				
AUD	60.00 (47.59-71.53)	81.45 (77.37-85.07)	52.17 (41.50-62.70)	85.31 (83.08-87.35)
SUD	57.14 (18.41-90.1)	93.75 (91.2-95.74)	73.68 (48.8-90.85)	94.13 (92.63-95.41)
SMD	70.00 (50.60-85.27)	53.83 (49.14-58.47)	72.82 (63.16-81.12)	64.01 (61.08-66.86)
Psychotic Disorder	54.55 (23.38-83.25)	52.52 (47.93-57.08)	68.57 (56.37-79.15)	62.67 (59.77-65.50)
Manic or hypomanic episode	76.19 (52.83-91.78)	53.65 (49-58.25)	80.00 (64.35-90.95)	62.25 (59.38-65.06)
SR	89.13 (76.43-96.38)	79.82 (75.76-83.47)	84.75 (73.01-92.78)	81.51 (79.13-83.73)

*Excludes those who “didn’t know” and “refused to answer.”

Table 4: Performance of the mwTool-13 using the two-step administration method and the original definitions of a positive screen for each disorder category, by self-reported lifetime TB history

Disorder	Ever had TB (n=284)		Never had TB (n=1,601)	
	Sensitivity (95%CI)	Specificity (95%CI)	Sensitivity (95%CI)	Specificity (95%CI)
<i>Step One Questions</i>				
Any Disorder	75.00 (65.93-82.70)	52.91 (45.16-60.55)	85.03 (81.80-87.88)	45.38 (42.33-48.47)
CMD	89.04 (79.54-95.15)	52.61 (45.64-59.5)	91.95 (88.77-94.46)	43.17 (40.37-46.01)
CMD	84.93 (74.64-92.23)	55.92 (48.95-62.73)	89.61 (86.12-92.47)	46.30 (43.47-49.15)
Major Depressive Episode	85.29 (74.61-92.72)	55.09 (48.2-61.85)	92.01 (88.59-94.67)	45.61 (42.83-48.40)
Generalized Anxiety Disorder	92.31 (63.97-99.81)	47.23 (41.16-53.36)	89.81 (82.51-94.8)	39.65 (37.16-42.18)
PTSD	94.12 (71.31-99.85)	47.94 (41.81-54.11)	89.04 (82.81-93.6)	40.34 (37.81-42.92)
<i>Step Two Questions</i>				
AUD	45.65 (30.9-60.99)	85.71 (80.61-89.9)	60.45 (51.64-68.78)	84.30 (82.33-86.13)
SUD	63.64 (30.79-89.07)	93.77 (90.22-96.33)	65 (40.78-84.61)	93.36 (92.02-94.54)
SMD	78.57 (49.2-95.34)	64.44 (58.42-70.15)	71.01 (62.69-78.42)	61.45 (58.9-63.95)
Psychotic Disorder	71.43 (29.04-96.33)	63.18 (57.2-68.87)	67.05 (56.21-76.7)	60.15 (57.63-62.62)
Manic or hypomanic episode	87.5 (47.35-99.68)	63.77 (57.79-69.44)	76.27 (63.41-86.38)	59.99 (57.49-62.44)
SR	94.12 (71.31-99.85)	82.4 (77.29-86.77)	85.57 (76.97-91.88)	79.85 (77.74-81.85)

*Ever had TB includes those who responded “Currently,” “Yes, in the last two years,” and “Yes, more than two years ago.”

Annex 4: Considerations for modifying the MwTool-13 to improve the performance of the AUD and SUD questions

Step 1: Assess changing the definition of a positive screen for AUD

To examine changing the definition of a positive screen, we considered the AUD questions' performance using less-stringent cut-offs for frequency (Q4, "at least monthly or less" or "2-4 times a month," regardless of gender) and/or amount (Q5, at least "1-2 drinks" or "3-4 drinks", regardless of gender) for both questions together and individually. (Annex 4, Table 1) Ultimately, these changes failed to adequately improve the sensitivity, which remained less than 70%.

Annex 4, Table 1: Comparing the performance of the AUD questions using different definitions of a positive screen when included in the step two questions

AUD Questions (Definition of Positive Screen)	Sensitivity (95%CI)	Specificity (95%CI)
Q4 & Q5 (Frequency and Amount, Original ^a)	56.67 (49.09-64.02)	84.5 (82.69-86.19)
Q4 – (Frequency, ≥ Monthly or Less) or Q5 (Amount, ≥1 or 2)	66.11 (58.7-72.99)	76.01 (73.91-78.02)
Q4 – (Frequency, ≥ Monthly or Less)	66.11 (58.7-72.99)	76.48 (74.39-78.48)
Q4 – (Frequency, ≥ 2-4 times a month)	30 (23.41-37.26)	93.61 (92.34-94.72)
Q5 – (Amount, ≥1 or 2, everyone)	66.11 (58.7-72.99)	76.6 (74.51-78.59)
Q5 – (Amount, ≥3 or 4, everyone)	52.78 (45.21-60.25)	83.75 (81.92-85.47)
Q5 – (Amount, ≥3 or 4, women; ≥5 or 6, men ^a)	50 (42.47-57.53)	86.04 (84.3-87.65)

AUD=Alcohol Use Disorder

Q4 – Drinking Frequency: In the past year, how often do you have a drink containing alcohol?

Q5 – Drinking Amount: In the past year, how many drinks containing alcohol do you have on a typical day when you are drinking?

^aThose who did not self-identify as male or female are treated as missing (n=2).

The original definition of a positive screen:

- anyone (regardless of gender) who reported drinking more often than "monthly or less" over the past year on Q4 (Drinking Frequency);
- women who reported both drinking "monthly or less" over the past year on Q4 (Drinking Frequency) and drinking 3 or more drinks on a typical drinking day on Q5 (Drinking Amount)
- men who reported both drinking at least "monthly or less" over the past year on Q4 (Drinking Frequency) and reported drinking 5 or more drinks on a typical drinking day on Q5 (Drinking Amount).

Step 2: Assess changing the administration by including the AUD questions in the step one question set

We then examined whether adding the AUD questions to the step one question set would improve performance. When added to the initial question set, using the original definitions for a positive screen yielded a sensitivity of 76.67% (95% CIs: 73.77-85.67) for AUD (Annex 4, Table 2), significantly higher

than in the original two-step administration which yielded 56.67 (95% CIs: 49.09-64.02). (**Annex 4, Table 1**) However, using a single item (either Q4 or Q5 for drinking frequency or amount) added to the initial question set with less stringent definition of a positive screen yielded similar or improved sensitivity. Ultimately, using only Q5 (Drinking Amount) with a cut-off of ≥ 3 or 4 regardless of gender yielded comparably high sensitivity [74.44% (95% CIs: 67.42-80.64)] to the original definition [76.67% (95% CIs: 69.8-82.64)], enhancing face-validity without compromising sensitivity.

Annex 4, Table 2: Comparing the performance of the AUD questions using different definitions of a positive screen when included in the step one question set

AUD Questions (Definition of Positive Screen)	Sensitivity (95%CI)	Specificity (95%CI)
Q4 & Q5 (Frequency and Amount, Original ^a)	76.67 (69.80-82.64)	76.16 (74.06-78.17)
Q4 – (Frequency, \geq Monthly or Less) or Q5 (Amount, ≥ 1 or 2)	94.44 (90.02-97.3)	62.17 (59.82-64.48)
Q4 – (Frequency, \geq Monthly or Less)	92.22 (87.29-95.68)	63.17 (60.83-65.46)
Q4 – (Frequency, ≥ 2 -4 times a month)	45.56 (38.13-53.13)	88.62 (87.02-90.09)
Q5 – (Amount, ≥ 1 or 2, everyone)	94.44 (90.02-97.30)	62.87 (60.53-65.17)
Q5 – (Amount, ≥ 3 or 4, everyone)	74.44 (67.42-80.64)	75.54 (73.43-77.57)
Q5 – (Amount, ≥ 3 or 4, women; ≥ 5 or 6, men ^a)	68.33 (61.00-75.05)	78.94 (76.93-80.86)

AUD=Alcohol Use Disorder

Q4 – Drinking Frequency: In the past year, how often do you have a drink containing alcohol?

Q5 – Drinking Amount: In the past year, how many drinks containing alcohol do you have on a typical day when you are drinking?

^aThose who did not self-identify as male or female are treated as missing (n=2).

The original definition of a positive screen:

- anyone (regardless of gender) who reported drinking more often than “monthly or less” over the past year on Q4 (Drinking Frequency);
- women who reported both drinking “monthly or less” over the past year on Q4 (Drinking Frequency) and drinking 3 or more drinks on a typical drinking day on Q5 (Drinking Amount)

men who reported both drinking at least “monthly or less” over the past year on Q4 (Drinking Frequency) and reported drinking 5 or more drinks on a typical drinking day on Q5 (Drinking Amount).

Step 3: Assess changing the administration by including the SUD question in the step one question set

Given the original definition of a positive screen for SUD considered any endorsement of the SUD question (Q6) as indicative of SUD, we could only improve the question’s performance by including it in the step one question set. When included in the initial question set, the SUD question yielded a sensitivity of 80.65% (95% CIs: 62.53-92.550), a substantial improvement over 64.52% (95% CIs: 45.37-80.77) when included in the step two questions. Given the small prevalence of SUD (1.6%) and the potential decrease in brevity

to the first step, we ultimately decided it would be imprudent to change the administration of SUD question based on the available data.

Step 4: Assess the impact of including a single AUD question (Q5) in the step one question set on the performance of the questions for identifying any disorder, SUD, SMD, and SR

To promote the brevity of the first step and simplicity in administration, we assessed how including the drinking amount question (Q5) in the step one question set would impact the performance of the step two questions. Including Q5 in the initial question set modestly improved the sensitivity of the tool identifying any disorder, SMD, SUD, and SR, yielding sensitivities >70%. (**Annex 4, Table 3**). Of note, while an endorsement of the original step one question set (Q1-Q3) yielded similar sensitivity to the modified step one question set (Q1-Q3, Q5), the original step one question set yielded higher specificity [46.56% (95%CI: 43.72-49.42)] than the modified [38.08% (95%CI: 35.33-40.89)].

Annex 4, Table 3: Comparing the performance of the original and modified mwTool in identifying any disorder, SUD, SMD, and SR

Disorder	Questions	Mini Prev.	Sensitivity (95% CIs)	Specificity (95% CIs)
Original mwTool-13				
<i>Step One Questions</i>				
Any Disorder	Q1-Q3	36%	83.36 (80.32-86.10)	46.45 (43.61-49.31)
<i>Step Two Questions</i>				
SUD	Q6	2%	64.52 (45.37-80.77)	93.42 (92.19-94.51)
SMD	Q7-Q10	8%	71.71 (63.84-78.71)	61.92 (59.58-64.21)
SR	Q11-Q13	6%	86.84 (79.23-92.44)	80.24 (78.3-82.07)
SA-mwTool-12				
<i>Modified Step One Questions</i>				
Any Disorder	Q1-Q3, Q5*	36%	89.75 (87.20-91.93)	38.03 (35.29-40.83)
<i>Modified Step Two Questions</i>				
SUD	Q6	2%	74.19 (55.39-88.14)	91.69 (90.34-92.91)
SMD	Q7-Q10	8%	75.94 (69.16-81.87)	62.01 (59.66-64.33)
SR	Q11-Q13	6%	88.60 (81.29-93.79)	79.39 (77.43-81.25)

Any disorder includes CMD, AUD, SUD, SMD, and/or SR; SUD=Substance Use Disorder; SMD=Severe Mental Disorder; SR=Suicide Risk *Positive screen is defined as endorsing any of Q1-Q3 or responding ≥3 or 4 to Q5

Annex 3: SA-mwTool-12 restricted and stratified analyses using the original two-step administration and definitions of a positive screen

Note: These are companion tables to table 6.

Annex 3, Table 1: Performance of the SA-mwTool-12 using the two-step administration method and the original definitions of a positive screen for each disorder category among the Total population and restrict to those who received the tool in isiXhosa

Disorder	Total Population (n=1885)		isiXhosa (n=1,792)	
	Sensitivity (95%CI)	Specificity (95%CI)	Sensitivity (95%CI)	Specificity (95%CI)
<i>Step One Questions</i>				
Any Disorder	89.75 (87.20-91.93)	38.03 (35.29-40.83)	89.67 (87.04-91.92)	37.90 (35.09-40.77)
CMD	91.48 (88.54-93.87)	44.57 (41.97-47.19)	91.84 (88.84-94.25)	44.53 (41.87-47.22)
CMD	88.86 (85.62-91.6)	47.72 (45.1-50.35)	89.28 (85.96-92.04)	47.69 (45.01-50.38)
Major Depressive Episode	90.89 (87.66-93.5)	46.99 (44.42-49.57)	91.34 (88.05-93.96)	46.99 (44.36-49.63)
Generalized Anxiety Disorder	90.08 (83.32-94.77)	40.82 (38.51-43.15)	90.68 (83.93-95.25)	40.92 (38.55-43.32)
PTSD	89.57 (83.83-93.81)	41.52 (39.18-43.89)	90.38 (84.64-94.52)	41.63 (39.22-44.06)
AUD	74.44 (67.42-80.64)	75.54 (73.43-77.57)	73.84 (66.6-80.23)	75.43 (73.26-77.51)
<i>Step Two Questio</i>				
SUD	74.19 (55.39-88.14)	91.69 (90.34-92.91)	74.19 (55.39-88.14)	92.39 (91.05-93.59)
SMD	75.94 (69.16-81.87)	62.01 (59.66-64.33)	73.33 (65.34-80.26)	60.75 (58.35-63.12)
Psychotic Disorder	68.42 (58.08-77.58)	59.66 (57.35-61.95)	68.13 (57.53-77.51)	59.38 (57.00-61.72)
Manic or hypomanic episode	79.10 (67.43-88.08)	59.63 (57.32-61.89)	80.00 (68.23-88.89)	59.41 (57.05-61.73)
SR	88.6 (81.29-93.79)	79.39 (77.43-81.25)	87.74 (79.94-93.31)	79.72 (77.72-81.61)

Table 2: Performance of the SA-mwTool-12 using the two-step administration method and the original definitions of a positive screen for each disorder category, by gender

Disorder	Men (n=651)		Women (n=1,232)	
	Sensitivity (95%CI)	Specificity (95%CI)	Sensitivity (95%CI)	Specificity (95%CI)
<i>Step One Questions</i>				
Any Disorder	86.19 (81.16-90.30)	39.81 (35.05-44.71)	91.68 (88.67-94.11)	37.17 (33.81-40.63)
CMD	82.24 (73.67-88.96)	49.08 (44.8-53.37)	94.29 (91.31-96.47)	41.84 (38.56-45.17)
CMD	78.5 (69.51-85.86)	52.21 (47.91-56.47)	92 (88.65-94.62)	45.01 (41.69-48.36)
Major Depressive Episode	80.65 (71.15-88.11)	51.79 (47.56-56.01)	93.91 (90.65-96.29)	44.13 (40.89-47.41)
Generalized Anxiety Disorder	86.96 (66.41-97.22)	48.41 (44.43-52.4)	90.72 (83.12-95.67)	36.65 (33.84-39.53)
PTSD	83.33 (65.28-94.36)	48.63 (44.63-52.64)	90.91 (84.66-95.21)	37.55 (34.67-40.48)
AUD	76 (64.75-85.11)	100 (99.36-100)	73.33 (63.81-81.49)	78.70 (76.20-81.06)
<i>Step Two Questions</i>				
SUD	80.77 (60.65-93.45)	91.52 (89.05-93.58)	40.00 (5.27-85.34)	91.77 (90.09-93.25)
SMD	69.23 (57.76-79.19)	68.59 (64.61-72.37)	77.03 (65.79-86.01)	57.34 (54.43-60.21)
Psychotic Disorder	72.73 (60.36-82.97)	68.21 (64.26-71.96)	58.62 (38.94-76.48)	55.61 (52.75-58.44)
Manic or hypomanic episode	60.00 (36.05-80.88)	64.82 (60.95-68.55)	87.23 (67.42-95.17)	56.96 (54.08-59.80)
SR	85 (62.11-96.79)	83.20 (80.05-86.04)	89.36 (81.3-94.78)	77.33 (74.78-79.73)

*Excludes the two individuals who responded “Transgender” and “Non-binary”

Table 3: Performance of the SA-mwTool-12 using the two-step administration method and the original definitions of a positive screen for each disorder category, by self-reported HIV status

Disorder	HIV Positive (n=487)		HIV Negative (n=1,195)	
	Sensitivity (95%CI)	Specificity (95%CI)	Sensitivity (95%CI)	Specificity (95%CI)
<i>Step One Questions</i>				
Any Disorder	90.64 (85.77-94.27)	31.34 (25.99-37.08)	90.54 (87.20-93.25)	41.92 (38.48-45.41)
CMD	94.81 (90.02-97.73)	43.54 (38.15-49.06)	91.57 (87.40-94.70)	46.83 (43.61-50.07)
CMD	91.56 (86-95.43)	46.85 (41.39-52.36)	89.56 (85.08-93.06)	49.89 (46.66-53.13)
Major Depressive Episode	93.53 (88.06-97)	45.98 (40.65-51.37)	91.32 (86.78-94.7)	49.08 (45.9-52.26)
Generalized Anxiety Disorder	95.35 (84.19-99.43)	37.61 (33.09-42.3)	89.55 (79.65-95.7)	43.53 (40.61-46.48)
PTSD	89.66 (78.83-96.11)	38 (33.38-42.77)	90.59 (82.29-95.85)	44.14 (41.2-47.12)
AUD	74.29 (62.44-83.99)	71.22 (66.62-75.52)	71.74 (61.39-80.64)	76.79 (74.18-79.25)
<i>Step Two Questions</i>				
SUD	57.14 (18.41-90.1)	91.67 (88.83-93.98)	84.21 (60.42-96.62)	92.52 (90.86-93.96)
SMD	76.67 (57.71-90.01)	52.95 (48.26-57.61)	72.82 (63.16-81.12)	72.81 (63.16-81.12)
Psychotic Disorder	63.64 (30.79-89.07)	51.47 (46.88-56.04)	68.57 (56.37-79.15)	61.69 (58.78-64.54)
Manic or hypomanic episode	80.95 (58.09-94.55)	52.57 (47.93-55.19)	80.00 (6.32-90.94)	61.30 (58.42-64.12)
SR	89.13 (76.43-96.38)	79.37 (75.28-83.05)	88.14 (77.07-95.09)	80.55 (78.12-82.81)

*Excludes those who “didn’t know” and “refused to answer.”

Table 4: Performance of the SA-mwTool-12 using the two-step administration method and the original definitions of a positive screen for each disorder category, by self-reported lifetime TB history

Disorder	Ever had TB (n=284)		Never had TB (n=1,601)	
	Sensitivity (95%CI)	Specificity (95%CI)	Sensitivity (95%CI)	Specificity (95%CI)
<i>Step One Questions</i>				
Any Disorder	88.39 (80.97-93.67)	30.23 (23.47-37.69)	90.01 (87.23-92.37)	39.32 (36.34-42.37)
CMD	89.04 (79.54-95.15)	52.61 (45.64-59.5)	91.95 (88.77-94.46)	43.17 (40.37-46.01)
CMD	84.93 (74.64-92.23)	55.92 (48.95-62.73)	89.61 (86.12-92.47)	46.30 (43.47-49.15)
Major Depressive Episode	85.29 (74.61-92.72)	55.09 (48.2-61.85)	92.01 (88.59-94.67)	45.61 (42.83-48.4)
Generalized Anxiety Disorder	92.31 (63.97-99.81)	47.23 (41.16-53.36)	89.81 (82.51-94.8)	39.65 (37.16-42.18)
PTSD	94.12 (71.31-99.85)	47.94 (41.81-54.11)	89.04 (82.81-93.6)	40.34 (37.81-42.92)
AUD	78.26 (63.64-89.05)	66.39 (60-72.36)	73.88 (65.59-81.08)	77.03 (74.79-79.16)
<i>Step Two Questions</i>				
SUD	72.73 (39.03-93.98)	90.11 (85.94-93.38)	75.00 (50.9-91.34)	91.97 (90.52-93.26)
SMD	85.71 (57.19-98.22)	63.33 (57.28-69.09)	71.74 (63.45-79.07)	56.69 (54.19-59.16)
Psychotic Disorder	85.71 (42.13-99.64)	62.09 (56.10-67.83)	67.05 (56.21-76.7)	59.22 (56.69-61.71)
Manic or hypomanic episode	87.50 (47.35-99.68)	62.32 (56.31-68.06)	77.97 (65.27-87.71)	59.14 (56.64-61.61)
SR	94.12 (71.31-99.85)	80.15 (74.85-84.76)	87.63 (79.39-93.44)	79.26 (77.12-81.28)

*Ever had TB includes those who responded “Currently,” “Yes, in the last two years,” and “Yes, more than two years ago.”

Annex 6: Modified South African Mental Wellness Tool: SA-mwTool-12

	Updated Numbering, Questions and Administration Instructions	Definition of a Positive Screen	Disorder
Step One Questions	1. <u>In the last 2 weeks</u> , how often have you been feeling down, depressed, or hopeless?		CMD
	2. <u>In the last 2 weeks</u> , how often have you been feeling nervous, anxious, or on edge?	Reporting “several days” or more to Q1, Q2, or Q3	Does not inform a specific disorder*
	3. <u>In the last 2 weeks</u> , how often have you been so restless that it's hard to sit still?		CMD
	4. <u>In the past year</u> , how many drinks containing alcohol do you have on a typical day when you are drinking?	Reporting “3 or 4,” regardless of gender	AUD
POSITIVE to questions 1, 2, 3, and/or 4 CONTINUE SCREENING. If NEGATIVE for all four, STOP. If POSITIVE to question 2, but NEGATIVE to questions 5-12, refer to self-help.			
Step Two Questions	5. <u>In the past year</u> , how many times have you used a recreational or illegal drug or used a prescription medication for non-medical reasons?	≥ “Once or twice”	SUD
	6. <u>In the past year</u> , have you ever felt that your thoughts were being directly interfered with or controlled by some outside force or person in a way that many people would find hard to believe (for instance, through telepathy)?	Reporting “yes” to any of the four questions	SMD
	7. <u>In the past year</u> , have there been times when you felt that a group of people was plotting to cause you serious harm or injury?		
	8. <u>In the past year</u> , have there been times when you felt that something so strange was going on that other people would find it very hard to believe?		
	9. <u>In the past year</u> , did you at any time hear voices saying quite a few words or sentences when there was no one around that might account for it?		
10. <u>In the past month</u> , have you wished you were dead or wished you could go to sleep and not wake up?	Reporting “yes” any of the three questions	SR	
11. <u>In the past month</u> , have you had any actual thoughts of killing yourself?			
12. <u>In the past 3 months</u> , have you ever done anything, started to do anything, or prepared to do anything to end your life?			

CMD=Common Mental Disorder; AUD=Alcohol Use Disorder, SUD=Substance Use Disorder; SMD=Severe Mental Disorder; SR=Suicide Risk; *While Q1-4 are used indicate continuing on to the step two questions, only Q1 and Q3 are used to identify CMD. Of note, endorsing only Q2 and none of the other questions is not indicative of a specific disorder.