



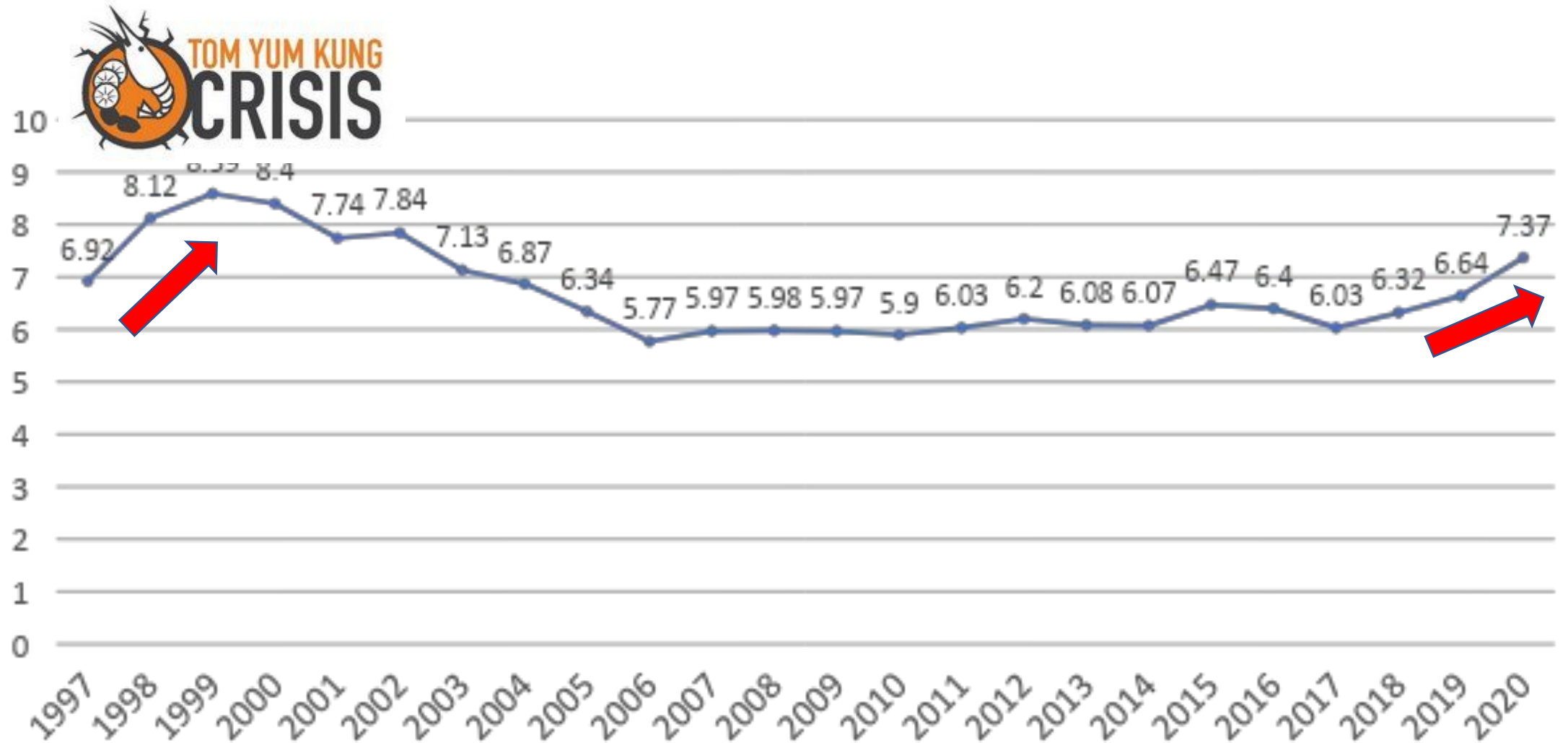
The 22nd Annual International Mental Health Conference 2023

Development of the depression and suicidal ideation screening test.

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Ministry of Public Health of Thailand

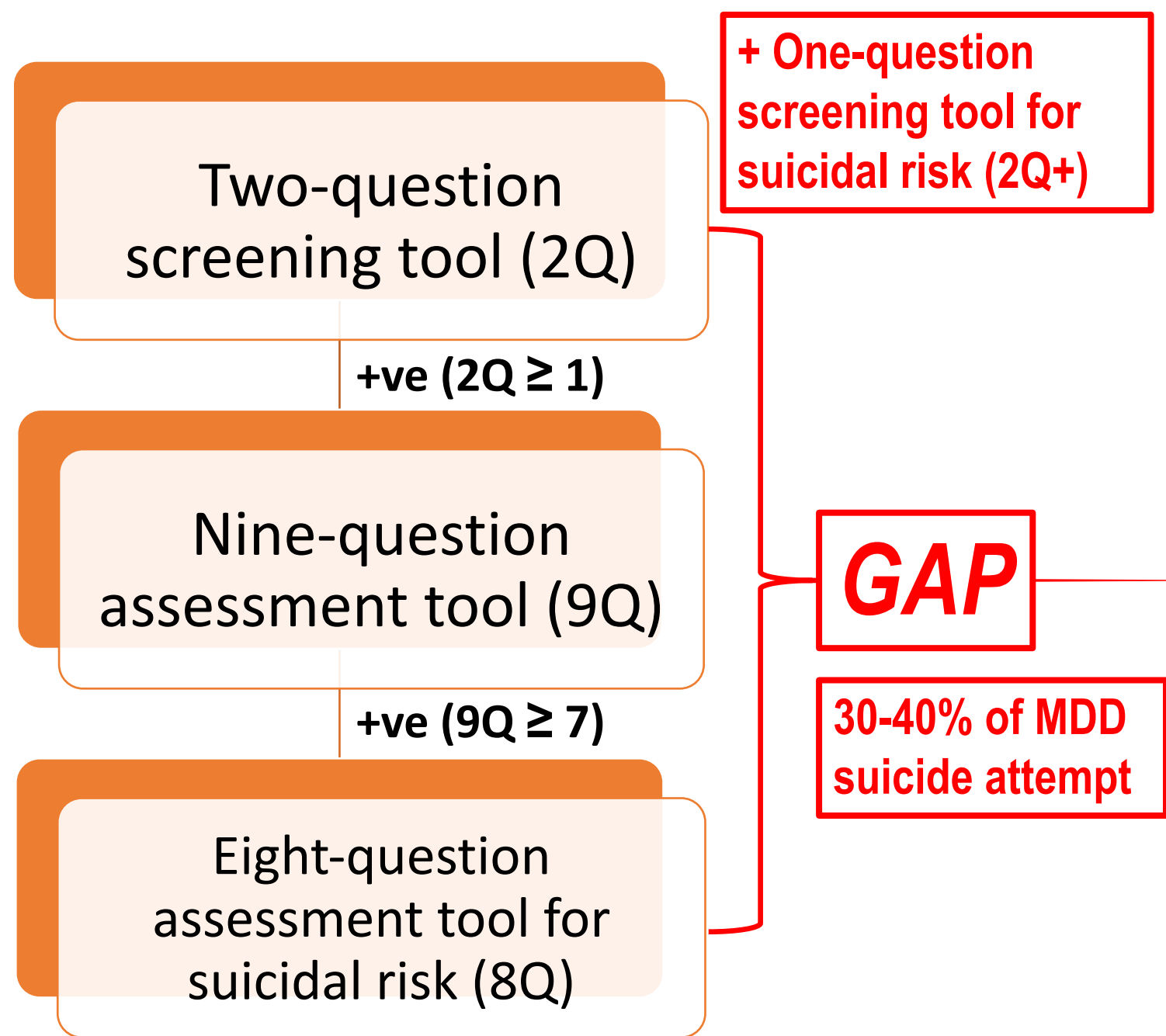
Suicide rate per 100000 populations in Thailand from 1997-2020



Department of Mental Health of Thailand (2022)

<https://www.bangkokpost.com/thailand/general/1279751/1997-meltdown-unheeded-lesson#group=nogroup&photo=0>

The Surveillance system for Depressive disorders in Thailand*



Objective

To test the psychometric properties of the depression and suicidal ideation screening test (2Q plus).

2Q plus

During the past two weeks until today, do you feel...*		
1. worried, down, depressed, or distressful?	No 0	Yes 1
2. boring, loss of interest, or unhappy to doing things?	No 0	Yes 1
During the past month until today...Do you feel Suffering to the point of not wanting to live?	No 0	Yes 1

M.I.N.I.

Mini International Neuropsychiatric Interview

Thai version 5.0.0-Revised 2007

Gold standard: MDE and Suicidality Modules

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Study settings: Thirteen

psychiatric hospitals

Study subjects: Psychiatric

patients who visited the

outpatient department

between 28 March 2022 and

18 April 2022

INCLUSION CRITERIA	EXCLUSION CRITERIA
<ul style="list-style-type: none">• 18 years and above• Can communicate in Thai	<ul style="list-style-type: none">• Individuals with aggressive behavior

Sample size

Sensitivity

$$\frac{Z_{1-\alpha/2}^2 \times S_N \times (1 - S_N)}{L^2 \times \text{Prevalence}}$$

Specificity

$$\frac{Z_{1-\alpha/2}^2 \times S_P \times (1 - S_P)}{L^2 \times (1 - \text{Prevalence})}$$

โดย

S_N = anticipated sensitivity = 97.6*

S_P = anticipated specificity = 59.2*

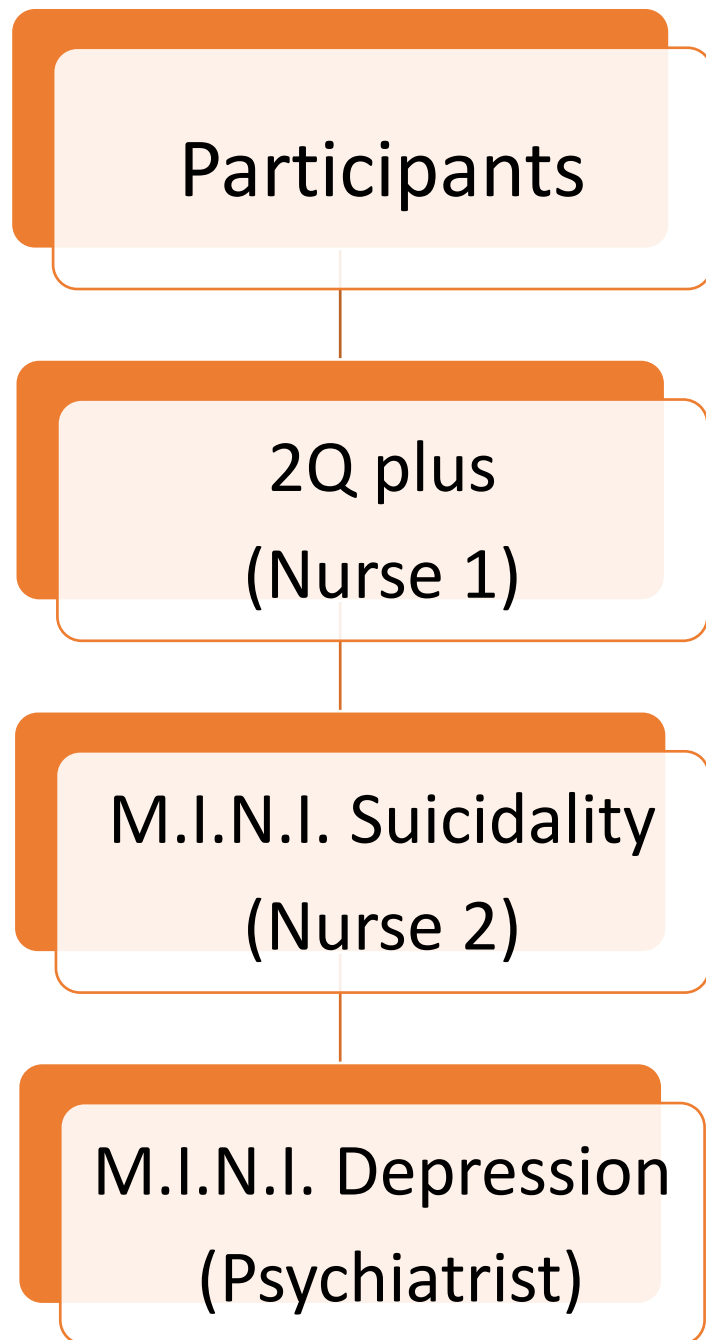
Prevalence depression = 9.36%**

Nonresponse rate = 40%

Total sample size = 280

*<https://www.hiv.uw.edu/page/mental-health-screening/phq-2>

****Department of Mental Health (2021)**



		MINI (Depression)	
		Positive	Negative
2Q	Positive	TP	FP
	Negative	FN	TN

		MINI (Suicidality)	
		Positive	Negative
Q plus	Positive	TP	FP
	Negative	FN	TN

TP = True positive Sensitivity = $TP / (TP + FN)$
FP = False positive Specificity = $TN / (TN + FP)$
FN = False negative
TN = True negative

Statistical analysis

Sensitivity

Specificity

Accuracy

Positive predictive value (PPV)

Negative predictive value (NPV)

Positive likelihood ratio (LR+)

Negative likelihood ratio (LR-)

N
283

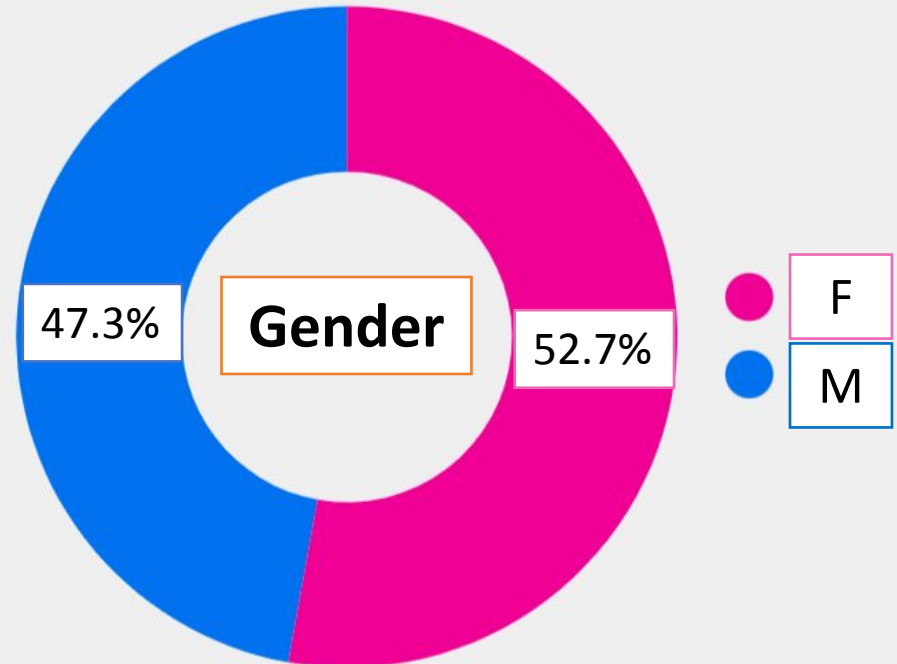
Age and gender

Male

Female



Gender



Results

Psychometric properties

2Q	Sensitivity	Specificity	Accuracy	PPV	NPV	LR+	LR-
1	93.4%	50.2%	61.8%	40.8%	95.4%	1.88	0.13
2	89.5%	72%	79.8%	57%	94.3%	3.20	0.15
Q Plus	Sensitivity	Specificity	Accuracy	PPV	NPV	LR+	LR-
1	83.7%	94.7%	91.1%	88.5%	92.3%	15.79	0.17

Implementation - Online active screening



<https://checkin.dmh.go.th>

Resilience

Stress

Depression

Suicidal idea

Burnout

2Q+

Present

4,260,000 screened

504,323 screened positive for depression

- Depression only 375,449 (74.4%)
- Depression with suicidal risk 128,874 (25.6%)

137,795 screened positive for suicidal risk

- ***Suicidal risk only 8,921 (6.5%)***
- Suicidal risk with depression 128,874 (93.5%)

Conclusion

- The 2Q plus screening test was practical and easy to administer to screen the risk for depression and suicidality. It suits community health workers to screen people in the community for further treatments.
- Patients who screen positive should be further evaluated with the 9Q and 8Q questionnaires to detect the clinical severity.