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To be or not to be: Education for Clinical Decisions in Risk Assessment of Suicide Behavior

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Megan Johnston

'To be or not to be':
Education for Clinical Practice in Risk Assessment of suicide behavior

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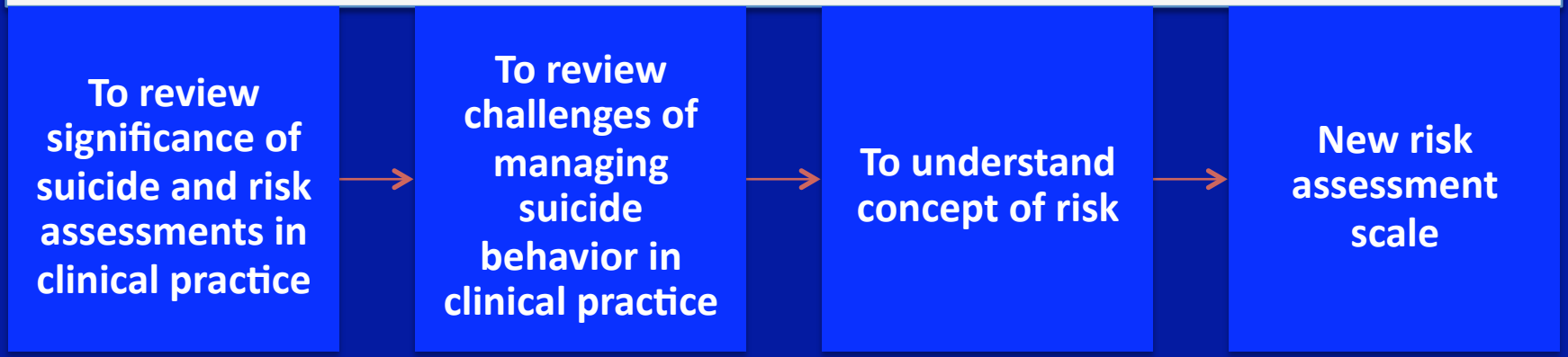
2. University of Toronto

Regional Mental Health Care. St.Thomas, ON, Canada

Program Objectives:

Q1. SCOPE & LIMITATIONS OF CONTEMPORARY RISK-ASSESSMENT PRACTICES.

Q2.MAXIMIZING THE OUTCOME OF RISK – ASSESSMENT PRACTICES IN CLINICAL PSYCHIATRY.



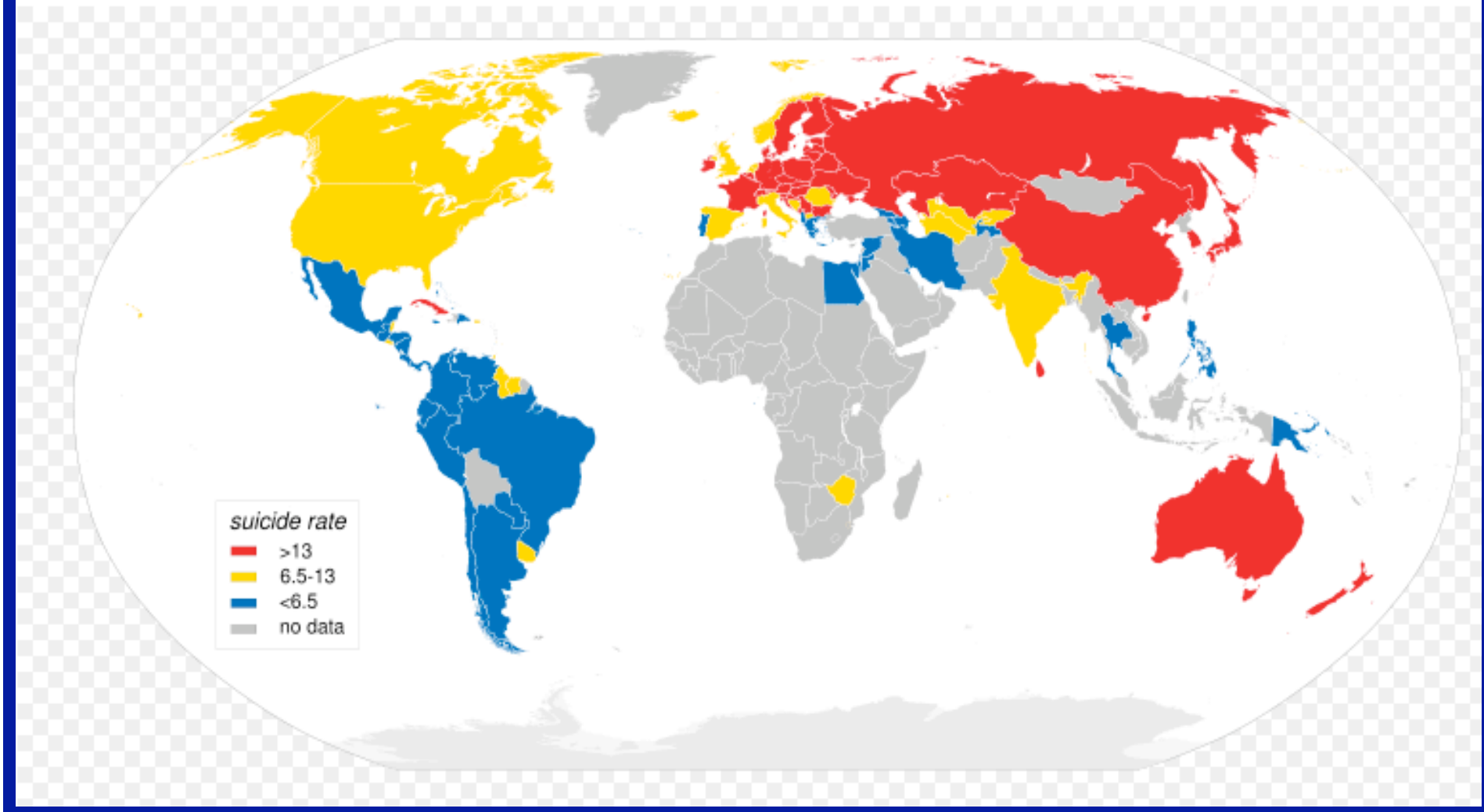
Agenda

- Introduction
- Sharing experiences
- Identifying gaps in risk assessment
- Video based exercise of assessment
- Analysis and discussion
- Presentation 1 for 20 mts
- Video based exercise
- Hands on experience with new scale
- Presentation 2 x 20 minuets
- Q & A
- Volunteer based assessment
- Application of concept of risk
- Discussion & take home message
- Feed back/evaluation

SIGNIFICANCE OF SUICIDE AND RISK ASSESSMENTS IN CLINICAL PRACTICE

Suicide is a global public health problem, affecting more than a million people every year

Image File history Links



Suicide in Canada

High risk groups: Need for new strategies for prevention

General Rick Hillier Chief of the Canadian National Defence staff.

Featured In
News Apr 20, 2008 - Military Police Records Show Canada's Military Suicide Rate Doubled in a Year

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Canada's military suicide rate doubled in a year, documents show

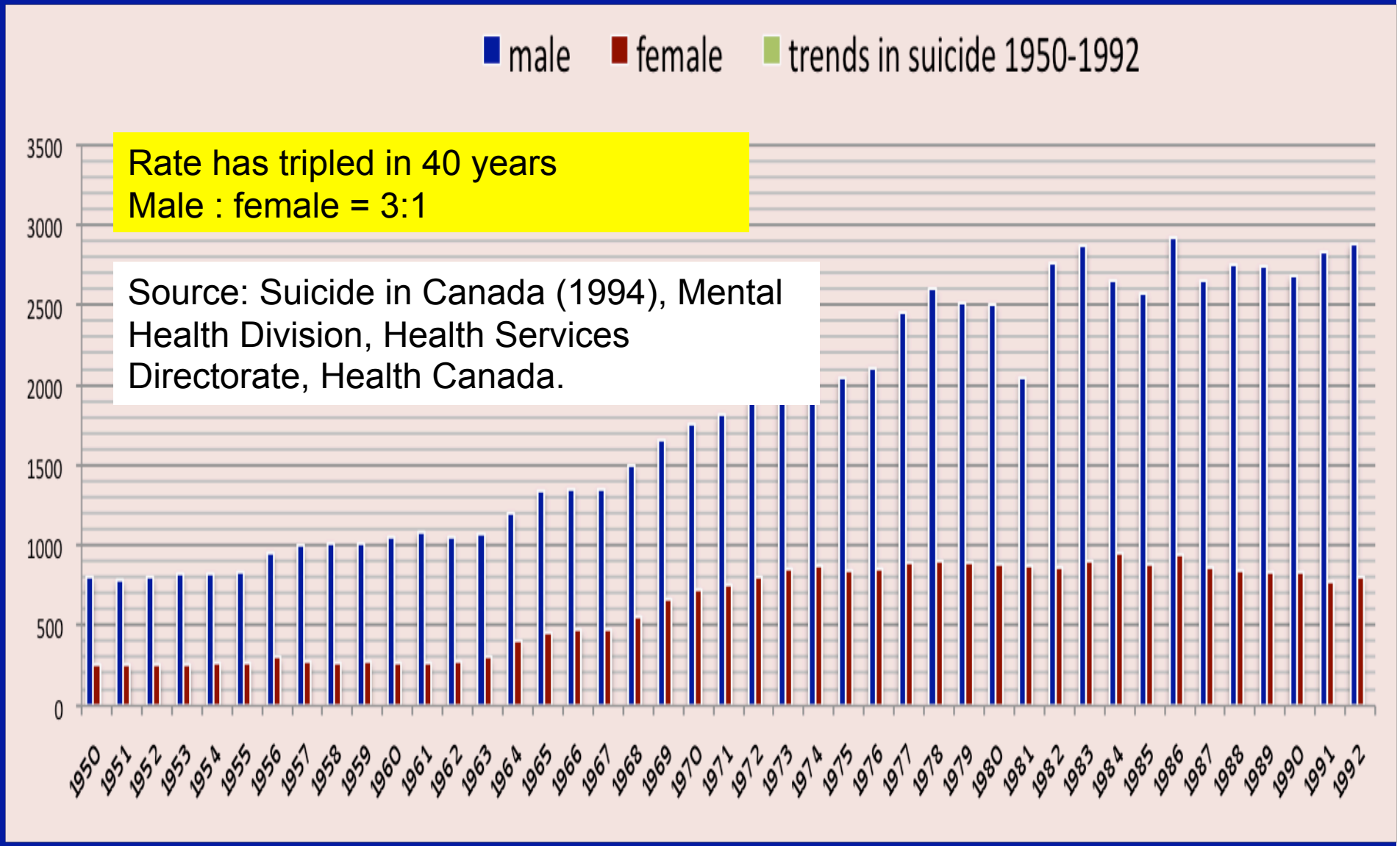
INSIGHT
Wellness News Article

Teen suicide rates in Canada similar to US despite universal health care

Home > Health and Wellness News > Depression News

Jan 11, 2007 - 9:57:28 AM

Canada's Silent Tragedy



Suicide in Canada

High risk groups: Need for new strategies for prevention

54% between 30 to 50 years; & 25% between 55 to 90 years

Source: Statistics Canada

Medical know-how raises doctors' suicide rate

ysicians' access to drugs, stigma of mental illness contribute to problem

Danny Johnston / AP

Dr. Robert Lehmberg of Little Rock, Ark., says he has battled depression and long considered suicide "an exit strategy if absolutely necessary." About 300 or more U.S. doctors kill themselves each year, and the American Medical Association has called physician suicide "an endemic catastrophe."

A communication from the CMA

Association médicale canadienne / Canadian Medical Association

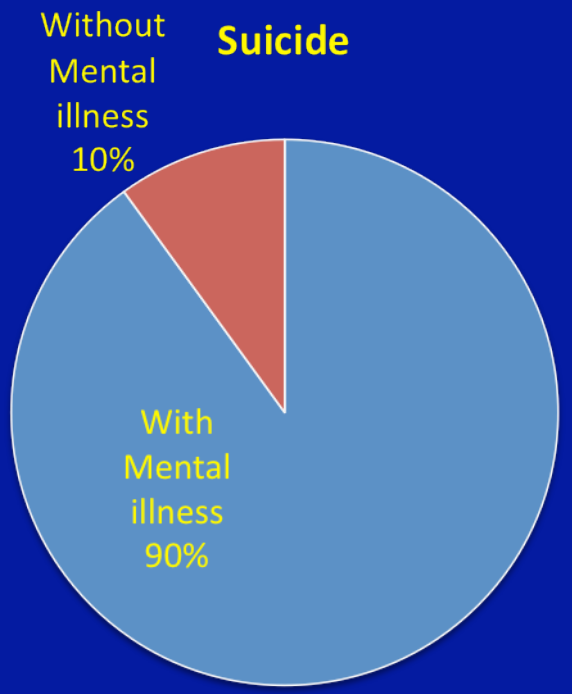
CMA Bulletin

Canada's MD suicide rate remains a mystery

There is evidence of limitations in assessment of suicide for patients coming to services.

Treatment of mental disorder in universally advocated for prevention of suicide as up to 90% suicides arise from mental illnesses.

It is therefore important that patients who seek services are well looked after.



Background

- **WHO estimated that 10.4% of the population seriously considers suicide at some point in their life time while approximately 4.2% actually attempt suicide [1]**

- **In Canada, specifically, the suicide rate is between 8 and 10 per 100, 000, which has been constantly rising in the past 40 years the Canadian suicide rate has tripled [2].**

- **WHO ..reduction in the suicide rate is attainable if appropriate treatment is provided [3].**

1. De Leo, D., Cerin, E., Spathonis, K., & Burgis, S. (2005). Lifetime risk of suicide ideation and attempts in an Australian community: Prevalence, suicidal process, and help-seeking behaviour. Journal of Affective Disorders, 86, 215-224. 2. Health Canada. (1994). Suicide in Canada. Mental Health Division, Health Services Directorate. 3. Rutz, W. (2001). Mental Health: Diversities, possibilities, shortcomings, challenges. The WHO perspective. European Archives of Psychiatric Clinical Neuroscience, 251(Suppl 2), 3-5. 4 Rihmer, Z. (1996). Strategies of Suicide Prevention: Focus on heath care. Journal of Affective Disorders, 39, 83-91

Facts.. About Suicide

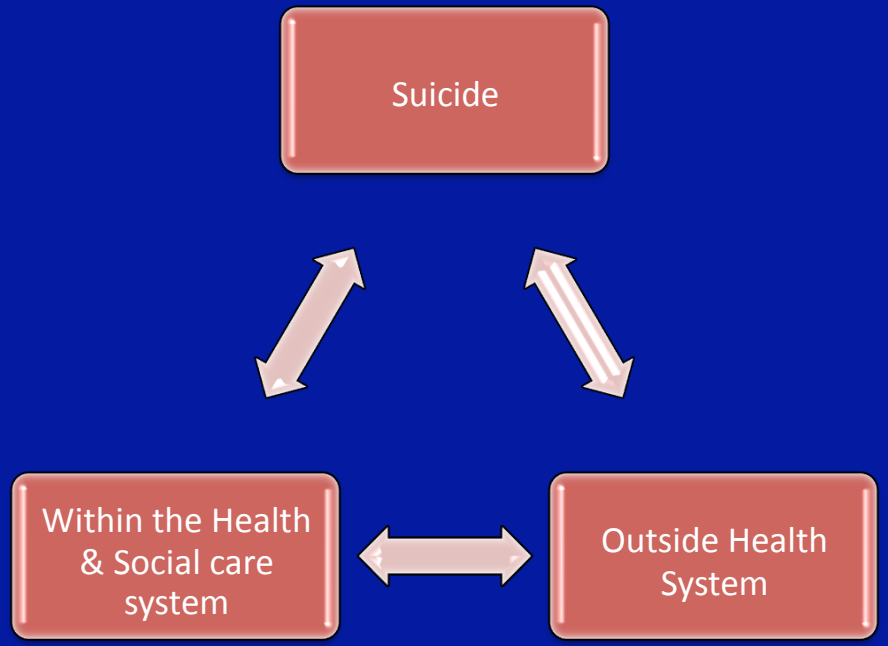
- Suicide happens in people who have not contacted the services ever
- …. happens amongst people who established contact .. ..suicide victims do contact health services some weeks, months or even years before their suicide [4]
- *Recognition of risk as clinical pathological parameter*
- Majority of malpractice litigation are arising from incident of suicide.
- Suicide risk assessment is a key competency required by all mental health professionals.

Rihmer, Z. (1996). Strategies of Suicide Prevention: Focus on heath care. Journal of Affective Disorders, 39, 83-91

Prevention needs to target

1.General Population

2. Health care system



Suicide in Clinical Practice

- 1 in 6 completed suicides are patients in psychotherapy ,
- 50% of completed suicides have had previous experience in psychotherapy
- 1 of every 2 psychiatrists will lose a patient to suicide across (mean) 19.3 years practice
- 30% psychiatric residents across 4 years' residency
- 1 of every 4 psychologists will lose a patient to suicide across (mean) 18.5 years practice
- 17% of psychology interns across 5.2 by internship

What is the purpose of risk assessment?

- **Establish clinical needs**
- **Prediction of an attempt**
- **Decide level and quality of care**
- **Management issues**
- **Policy matters**
- **Patient safety**
- **Standard of care**
- **Component of suicide prevention**

Outcomes in Risk Assessment

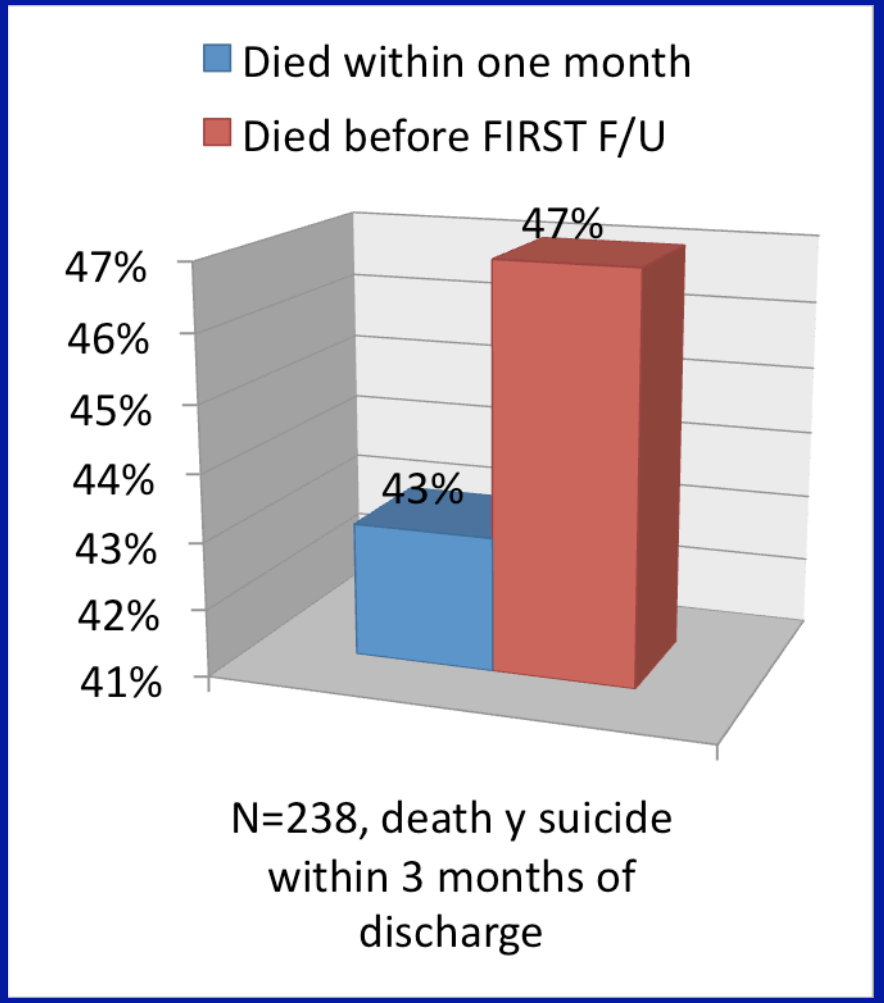
Clinical outcomes in management of suicide behavior depends on:
1. quality of assessment
2. quality of intervention

Risk assessment quality Possible scenario	Intervention & monitoring	Outcome
1. High quality risk assessment	High quality management and monitoring	Still client attempts or commits
2. High quality assessment	Resource constrains, inadequate management	Incident
3. Poor risk assessment	Intervention and monitoring was inadequate	Incident

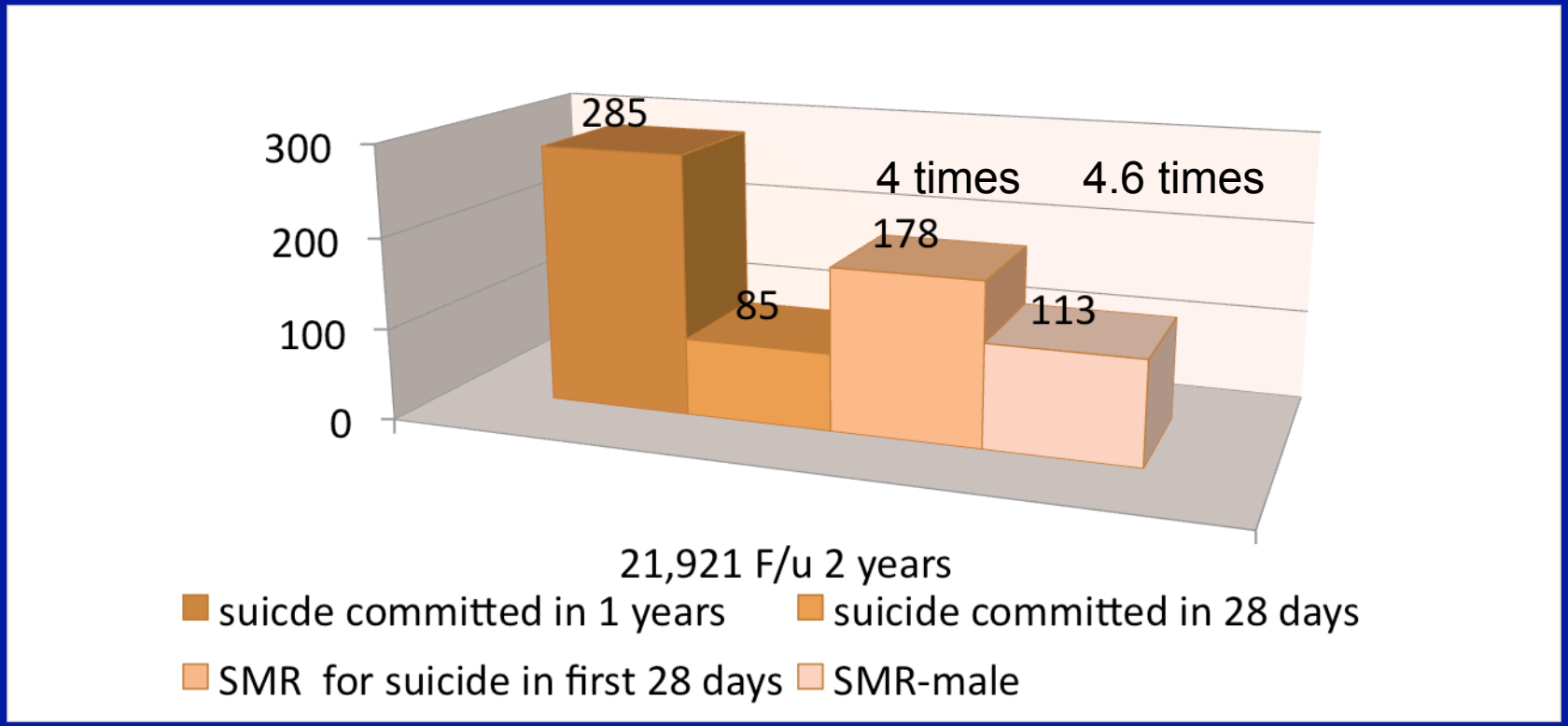
High suicide in recently discharged patients

- The first week and the first day after discharge were particular high-risk periods.
- Risk factors :
  - a history of self-harm,
  - recent last contact with services and expressing clinical symptoms at last contact with staff.
- Suicide cases
  - 1) were more likely to have initiated their own discharge and
  - 2) to have missed their last appointment with services.
- less likely to die by suicide
  - Patients who were detained for compulsory treatment at last admission, or
  - who were subject to enhanced levels of aftercare, were

2008



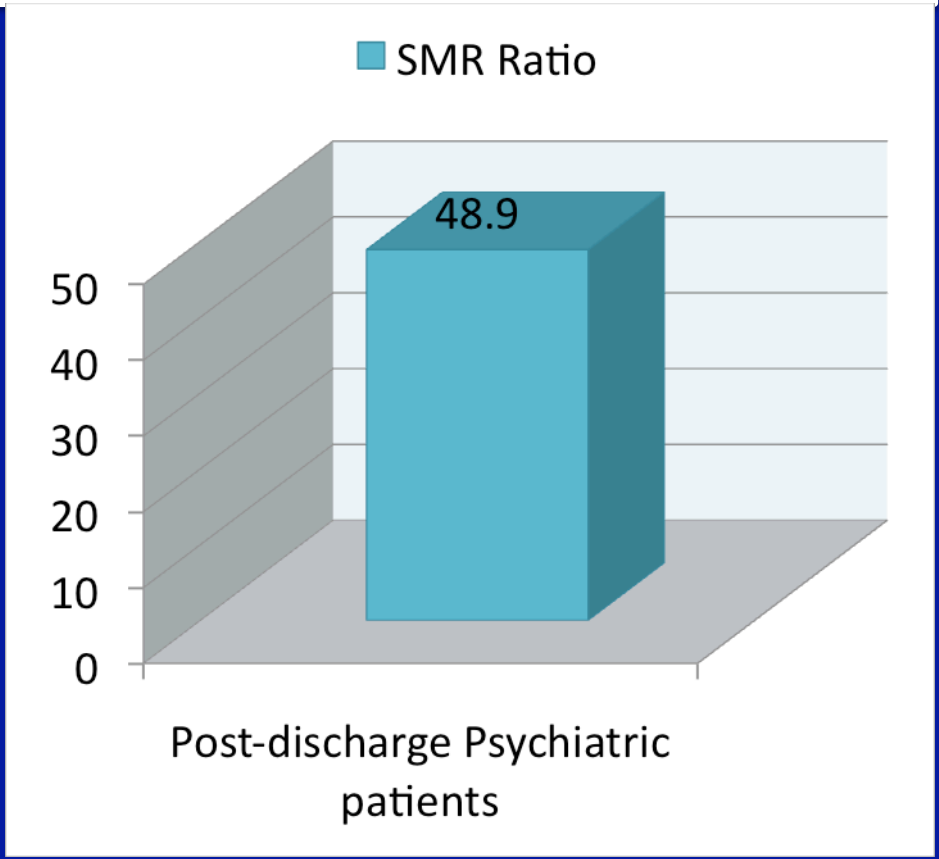
The immediate post-discharge period carries a high risk of suicide for psychiatric patients. Hong Kong



Ho TP. The suicide risk of discharged psychiatric patients. J Clin Psychiatry. 2003 Jun;64(6):702-7

In-patients

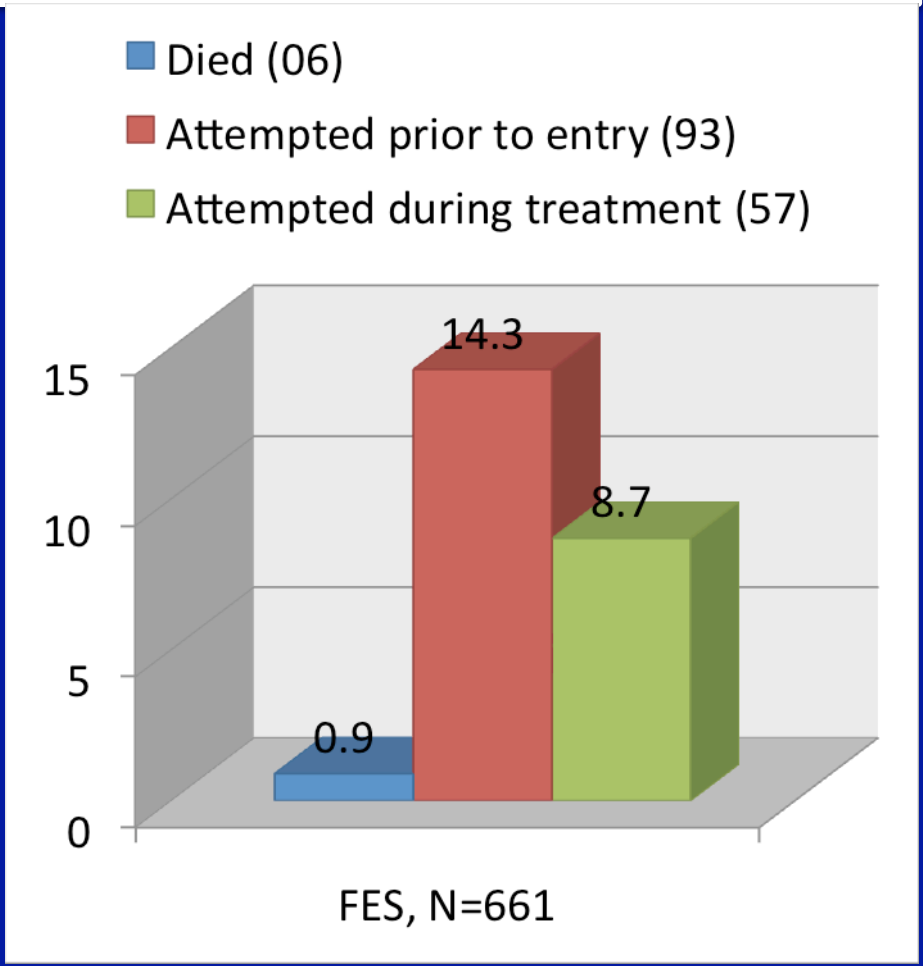
- 13-year follow up period
- The suicide risk of in-patients is distinctly higher than in the general population.
- A better assessment of suicide risk before regular leave periods could lead to a decrease of suicides in in-patient settings,



Ajdacic-Gross V,In-patient suicide - a 13-year assessment. Acta Psychiatr Scand. 2009

Suicide in First episode

- 18-24 years. First Episode Psychosis
- Predictors of suicide attempt were:
  - previous attempt (odds ratio (OR)=45.54,
  - sexual abuse (OR=8.46,
  - comorbid polysubstance (OR=13.63)
  - greater insight (OR=0.17)
  - lower baseline Global Assessment of Functioning (OR=0.96)
  - lower Occupational and Functional Assessment score OR=0.98)
  - longer time in treatment (OR=1.05)



Robinson J Prevalence and predictors of suicide attempt in an incidence cohort of 661 young people with first-episode psychosis. , Aust N Z J Psychiatry. 2009 Feb;43(2):149-57

What do we teach psychiatric residents about suicide? A national survey of chief residents.

- (91%) national programs offered formal teaching on suicide care;
- Grand rounds (85%) and Case conferences (80%) - popular methods for teaching.
- Even the topics most commonly taught, such as
  - risk factors,
  - recognizing early warning signs, and
  - standards of clinical care,

were judged to warrant more attention by many residents.

- Commonly identified barriers to teaching included the lack of audio or video teaching materials and relevant texts.

Skills training for risk assessments needs to find a place in ER medicine

Melton BB, Coverdale JH. What do we teach psychiatric residents about suicide? A national survey of chief residents. Acad Psychiatry. 2009 Jan-Feb;33(1):47-50.

Service provisions for prevention are expensive: An Arbor study, N=100,000 VA patients

High suicide rates:

after psychiatric hospitalization,

antidepressant starts, and dosage changes.

Study assessed

frequency of high-risk periods,

levels of monitoring provided and

estimated costs of providing monitoring (FDA recommendation)

Completed an average of

2.4 monitoring visits during the 12-week period after antidepressant

4.9 visits after psychiatric hospitalization.

Providing intensive monitoring would cost an

- additional $408-$537 &

- $313-$341 for each high-risk period respectively

- During fiscal year 2004 $183-$270 million.

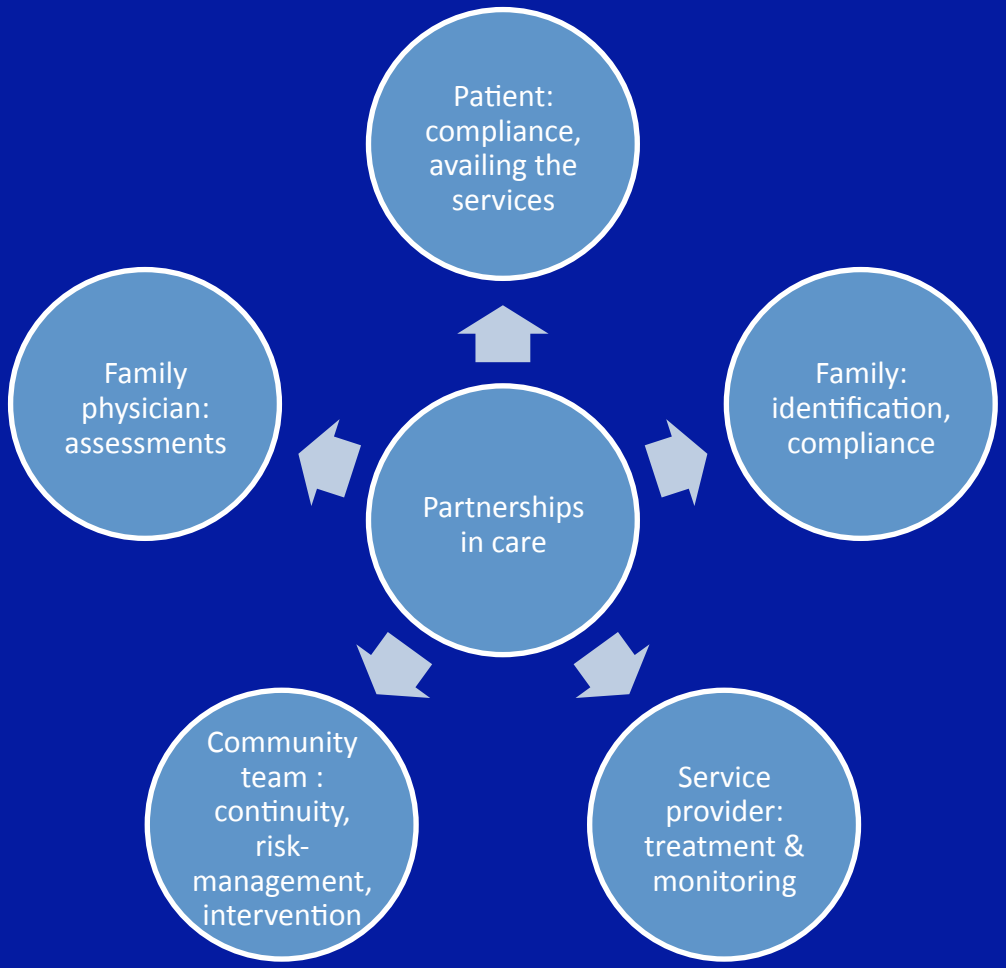
Valenstein M et al, Service implications of providing intensive monitoring during high-risk periods for suicide among VA patients with depression. Psychiatr Serv. 2009 Apr;60(4):439-44

Most people use only clinical judgment

clinical practices for better outcome in management of suicide behavior:

1. Identifying gaps
2. Improving intervention
3. Improving assessment
4. Education for risk assessment

Identifying the gaps



Limitations in Risk Assessment

- There are too many factors and too many variations on the subject.
- Research has highlighted that perhaps a new definition of suicide needs to be found. [5]
- Prediction of suicide behavior has been a core area of research in suicidology.
- Several psychological & biological Markers have been proposed.
- Neither are free from false positive and false negative results
- Conventional method has been a thorough clinical assessment which get enriched by aid of structured interviews.
- Scales are useful: either self-administered, clinician administered or computer-based

5.Soubrier JP.Beyond the scale: toward a new definition of suicide?Crisis. 1990 Nov;11(2):98-103.

Evidence

- Most clinicians combine clinical experience with evidence –based research.
- Substandard suicide risk assessment often relies on clinical experience alone.
- No single source or authority defines the standard of care in suicide risk assessment. [7]
- It is important that clinicians are able to engage such people and identify immediate risk factors and clinical treatment needs. [8]
- Development of an assessment instrument to measure the effectiveness of suicide risk assessment and training is therefore likely to assume importance.
- Training effects do modify quality of assessment. however such attempts have not been able to demonstrate an ideal form of assessment [9,10, 11]

7. Simon RI. Suicide risk assessment: is clinical experience enough? J Am Acad Psychiatry Law. 2006;34(3):276-8; 8. American Psychiatric Association (2003).; Practice Guidelines for the Assessment of Patients with Suicidal Behaviors. (Last accessed 15 May 2006)http:// www.psych.org/psych_pract/treatg/pg/pg_suicidalbehaviors.pdf; 9. Simpson, G., Winstanley, J. & Bertapelle, T. (2003). Suicide prevention training after traumatic brain injury: Evaluation of a staff training workshop. Journal of Head Trauma Rehabilitation, 18, 445-456; 10. Doyle, M. (2003). Developing, delivering and valuating interprofessional clinical risk training in mental health services. Psychiatric Bulletin, 27, 73-76.; 11. Fenwick, C., Vassilas, C.A., Carter, H., & Haque, S. M. (2004). Training health professionals in the recognition, assessment and management of suicide risk. International Journal of Psychiatry, 8, 117-121.

CHALLENGES IN PRACTICE OF SUICIDIDOLOGY

PROBLEMS ARISING FROM INADEQUATE RISK ASSESSMENT

Coping with challenges of legality in suicidology

- Courts have tended to review 3 criteria in determining malpractice negligence in cases of suicide:
  - • failure to determine the imminence of the suicidal behavior
  - • if high risk suicide factors were identified and appropriate steps taken
  - • thoroughness of the treatment plan and its implementation

dignity and liberty---Liberty should not be compromised any more than is essential--even when suicide is a possibility.

Special populations

- Suicide is no longer limited to mental health settings
- Special high-risk populations are clearly becoming newer challenges in the task of suicide prevention. Some of the high-risk groups are: teen age, post-partum, old age, substance abuse, chronic medical illness, trauma & disaster, emotional & sexual abuse, mental disorders.

Risk assessment across treatment settings

- Rising incidence of suicide attempts have been observed in a wide variety of clinical & social settings e.g. schools, universities, prisons, correctional facilities & health services.
- To provide effective intervention & prevention, we require adequate tools and skills for assessment which can be effectively applied by a range of professionals.
- There is a serious lack of skilled professionals with adequate knowledge & expertise in most of the social & non-psychiatric settings.

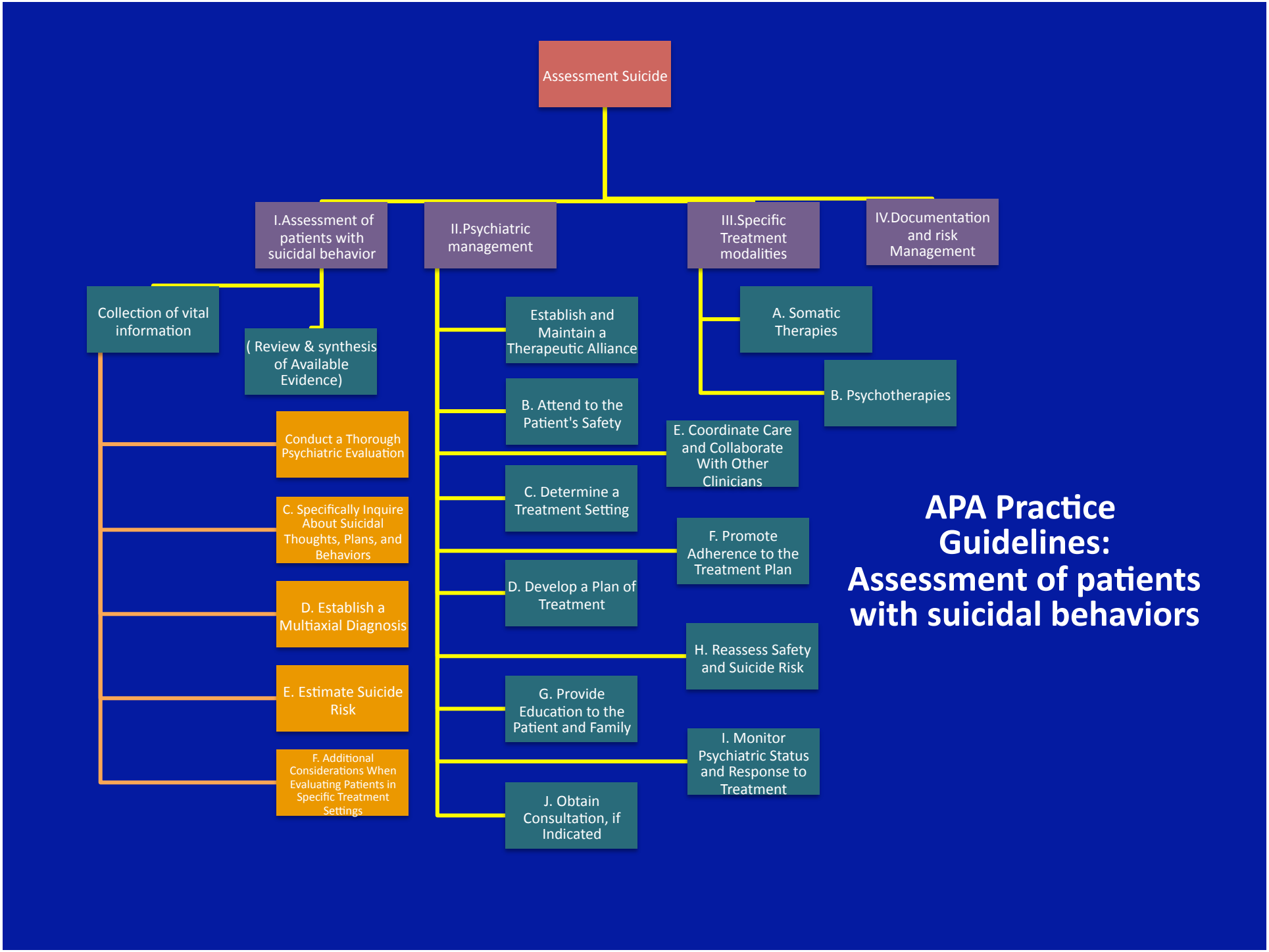
Circumstances in which a suicide assessment may be indicated

- Emergency department or Crisis evaluation
- Intake evaluation
  - inpatient or
  - outpatient)
- Before a change in observation status or treatment setting
  - (discontinuation of one-to-one observation)
- Abrupt change in clinical presentation
  - (either precipitous worsening
  - or sudden, dramatic improvement)
- Anticipation or experience of a significant interpersonal loss or psychosocial stressors
  - e.g. divorce,
  - finance, or
  - humiliation
- Onset of a physical illness
  - particularly life-threatening,
  - disfiguring or
  - associated with severe pain or loss

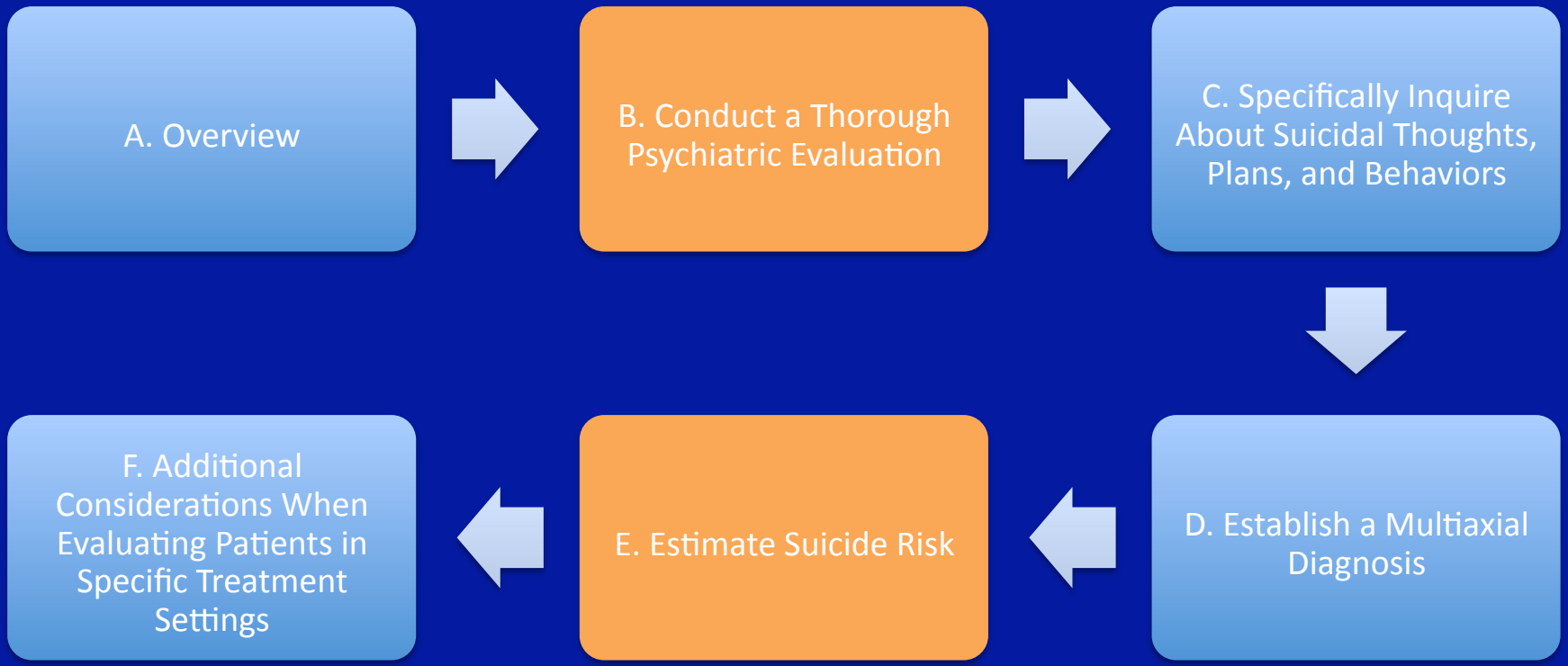
Step-by-Step Model for Assessing and Revising Suicide Policies, Procedures, and Practice

1) Know the relevant laws and ethics around suicide, confidentiality, informed consent, involuntary commitment.
2) Maintain a written policy and procedure statement on risk management with suicidal patients
3) Assure clinical competence
4) Assure adequate documentation of work with suicidal patients
5) Establish the relevant resources for clinical staff
    1) Clinical consultation
    2) Legal consultation
    3) Malpractice insurance coverage
    4) Develop relevant resource library
    5) Maintain list of outpatient, inpatient and emergency resources

Jobes & Berman.(1993). Prof. Psychol.: Res. Prac., 24, 92-99.

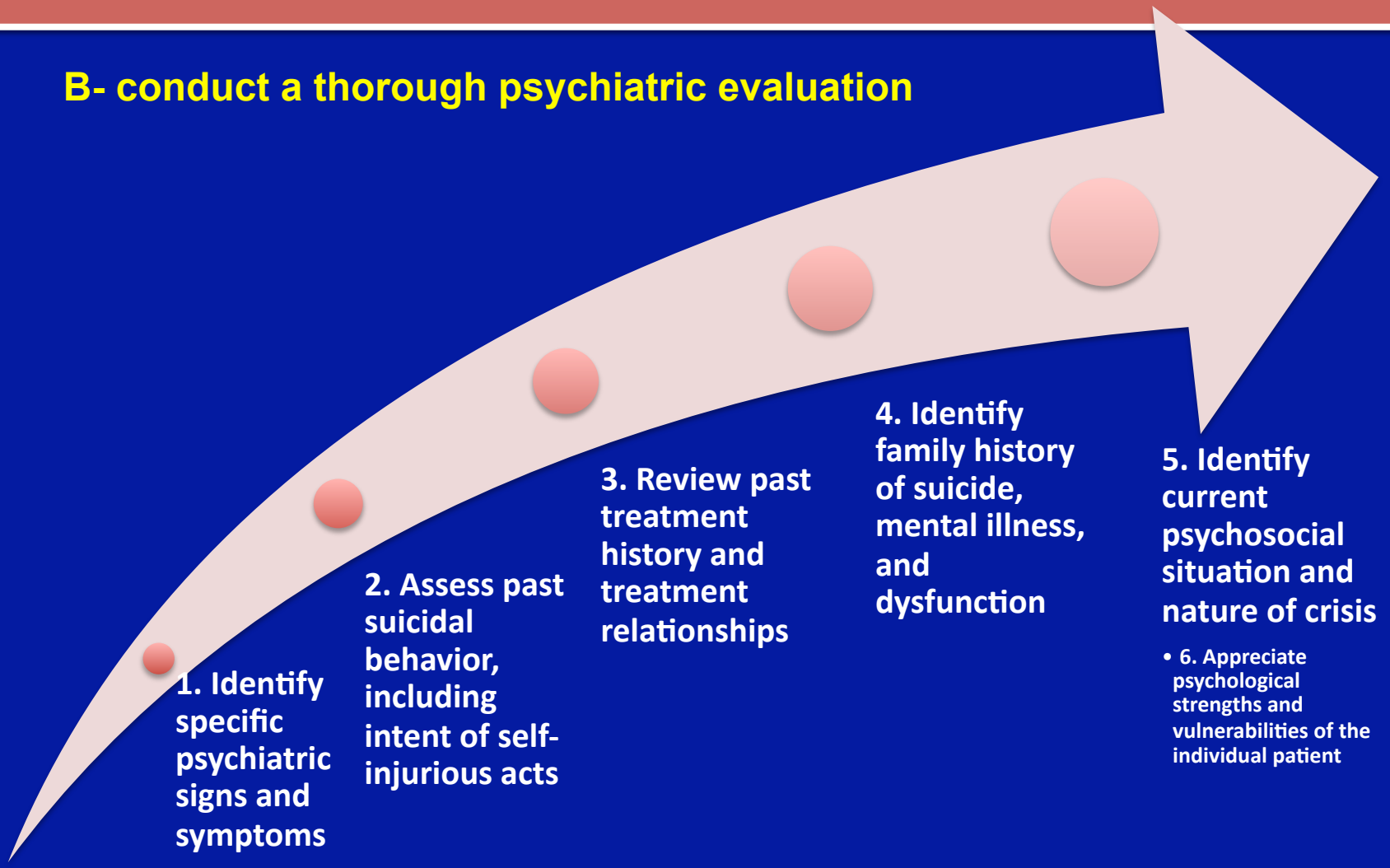

Assessment Suicide
I.Assessment of patients with suicidal behavior
II.Psychiatric management
III.Specific Treatment modalities
IV.Documentation and risk Management
Collection of vital information
(Review & synthesis of Available Evidence)
Conduct a Thorough Psychiatric Evaluation
C. Specifically Inquire About Suicidal Thoughts, Plans, and Behaviors
D. Establish a Multiaxial Diagnosis
E. Estimate Suicide Risk
F. Additional Considerations When Evaluating Patients in Specific Treatment Settings
Establish and Maintain a Therapeutic Alliance
B. Attend to the Patient's Safety
E. Coordinate Care and Collaborate With Other Clinicians
C. Determine a Treatment Setting
F. Promote Adherence to the Treatment Plan
D. Develop a Plan of Treatment
H. Reassess Safety and Suicide Risk
G. Provide Education to the Patient and Family
I. Monitor Psychiatric Status and Response to Treatment
J. Obtain Consultation, if Indicated
A. Somatic Therapies
B. Psychotherapies
APA Practice Guidelines: Assessment of patients with suicidal behaviors

II. Assessment of Patients With Suicidal Behaviors



II- assessment of patients with suicidal behavior

B- conduct a thorough psychiatric evaluation



Estimation of Suicide Risk

Suicide and suicidal behaviors cause severe

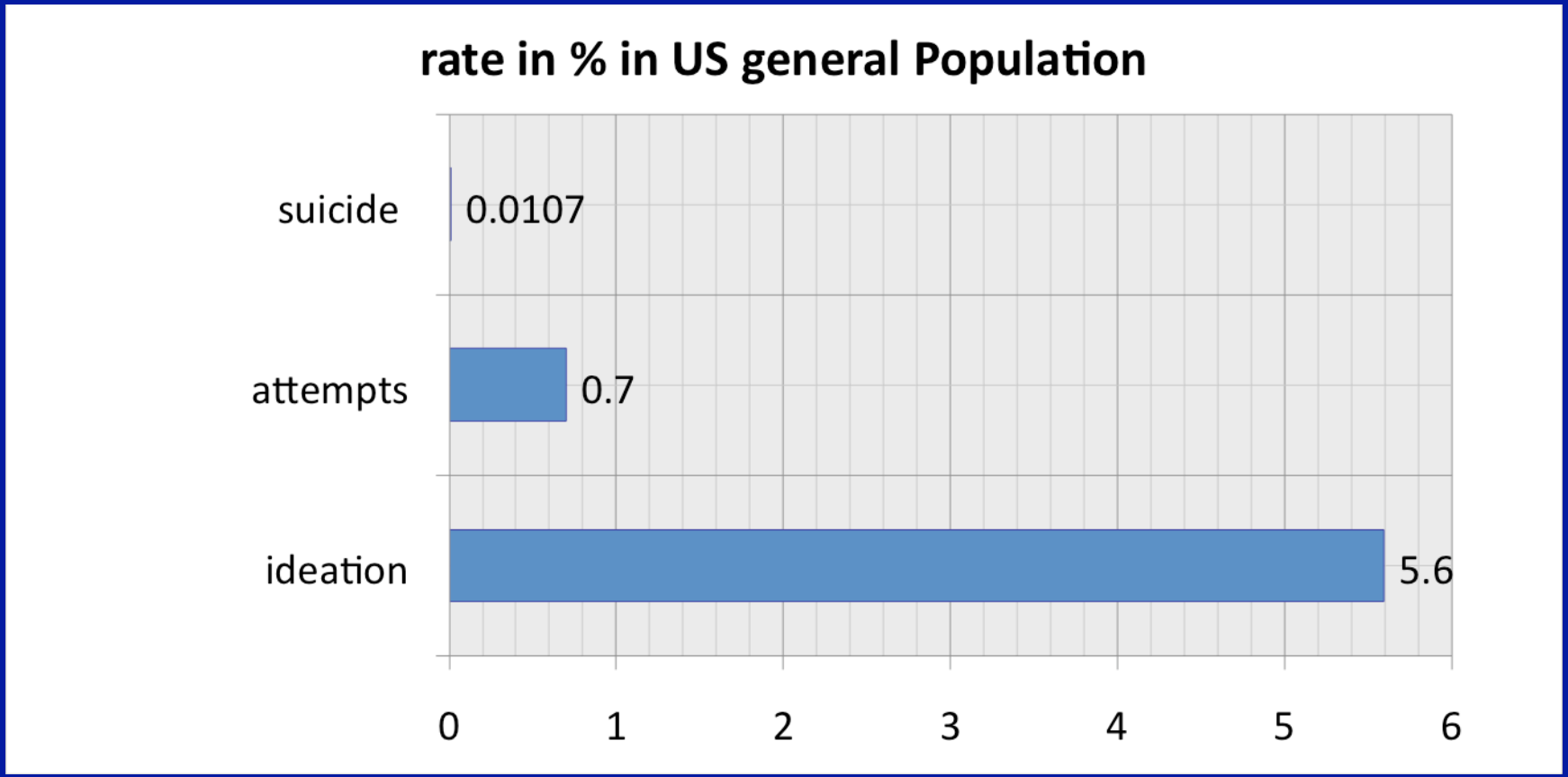
- personal,
- social, and
- economic consequences.

suicide and suicidal behaviors are statistically rare, even in populations at risk.

most individuals with suicidal thoughts or attempts will never die by suicide.

This rarity of suicide, even in groups known to be at higher risk than the general population, contributes to the impossibility of predicting suicide.

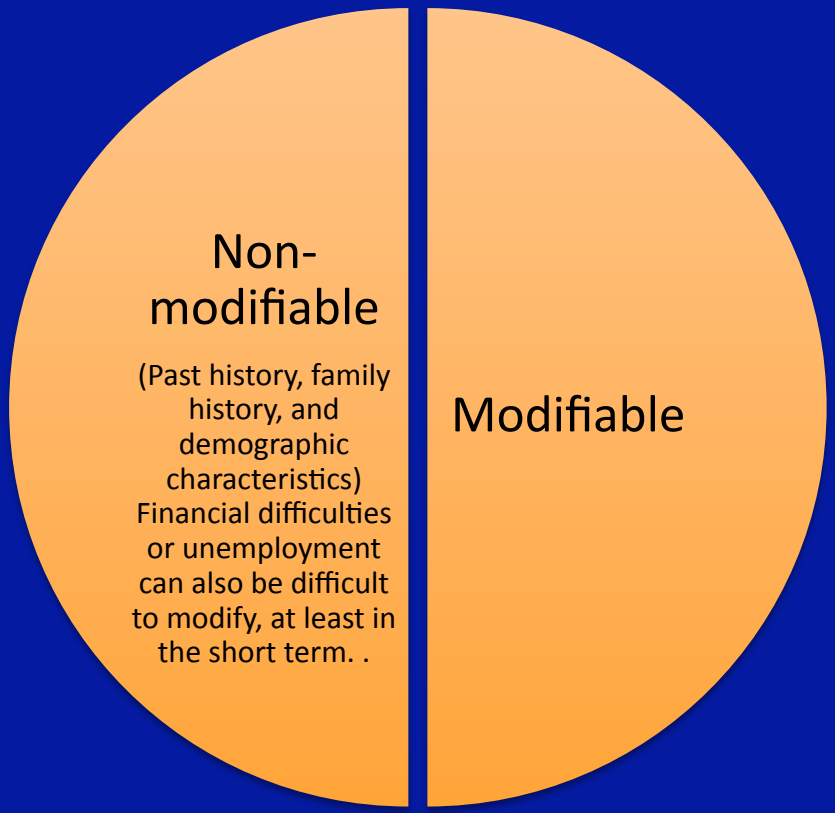
Suicide is a Low Base Rate Behavior



- In the general U.S. population per year, (2).(3).

Estimation of Suicide Risk

the 'factors are not the focus of treatment'



Risk factors are ‘additive’ & ‘synergetic’

While risk factors are typically additive

(i.e., the patient's level of risk increases with the number of risk factors), they may also interact in a synergistic fashion.

- For example, the combined risk associated with comorbid depression and physical illness may be greater than the sum of the risk associated with each in isolation.
- At the same time, certain risk factors, such as
- a recent suicide attempt (especially one of high lethality),
- access to a firearm,
- presence of a suicide note,
- should be considered serious in and of themselves, regardless of whether other risk factors are present.

Weighting of risk factors in suicide prediction
it is impossible to accurately predict suicide.

Statistical models may be valuable in the epidemiological and research arenas

Suggest clinically important risk factors that,

if identified, are potentially amenable to treatment.

However, given the low base rates of suicide in the population, accurate prediction of suicide remains impossible,

Consequently, the psychiatric assessment, in combination with clinical judgment, is still the best tool for assessing suicide risk.

B. Psychiatric Assessment Techniques

- Tools Measure various aspects of suicidal thoughts and behaviors as well as symptoms associated with suicide.
- Reliable and have adequate concurrent validity
- Usefulness and generalizability in clinical practice are questionable.
  - tested in non-representative samples
  - have not been adequately tested in subpopulations
  - Not many have been tested in prospective studies, [have shown very low positive predictive validity and high rates of false positive]
- ***Scales are of value in learning to develop a thorough line of questioning about suicide***

Rating scales for risk

- The Scale for Suicide Ideation
- The Suicide Behavior Questionnaire (SBQ)
- The Suicide Intent Scale
- Reasons for Living Inventory
- Risk-Rescue Rating,
- Suicide Assessment Scale,
- Thematic Apperception Test
- General Health Questionnaire
- Shneidman psychological pain assessment
- Beck Hopelessness Scale
- Hamilton Depression Rating Scale
- Beck Depression Inventory.

Rating scales

- **Because of their**
  - high rates of false positive and
  - false negative findings and
  - their low positive predictive values,
  - these rating scales cannot be recommended for use in clinical practice in estimating suicide risk.

A recent evaluation concluded:

“no single instrument was able to accurately predict suicide risk without a significant amount of error” (Bisconer & Gross, 2007).

Qualities of appropriate and reasonable assessment tools

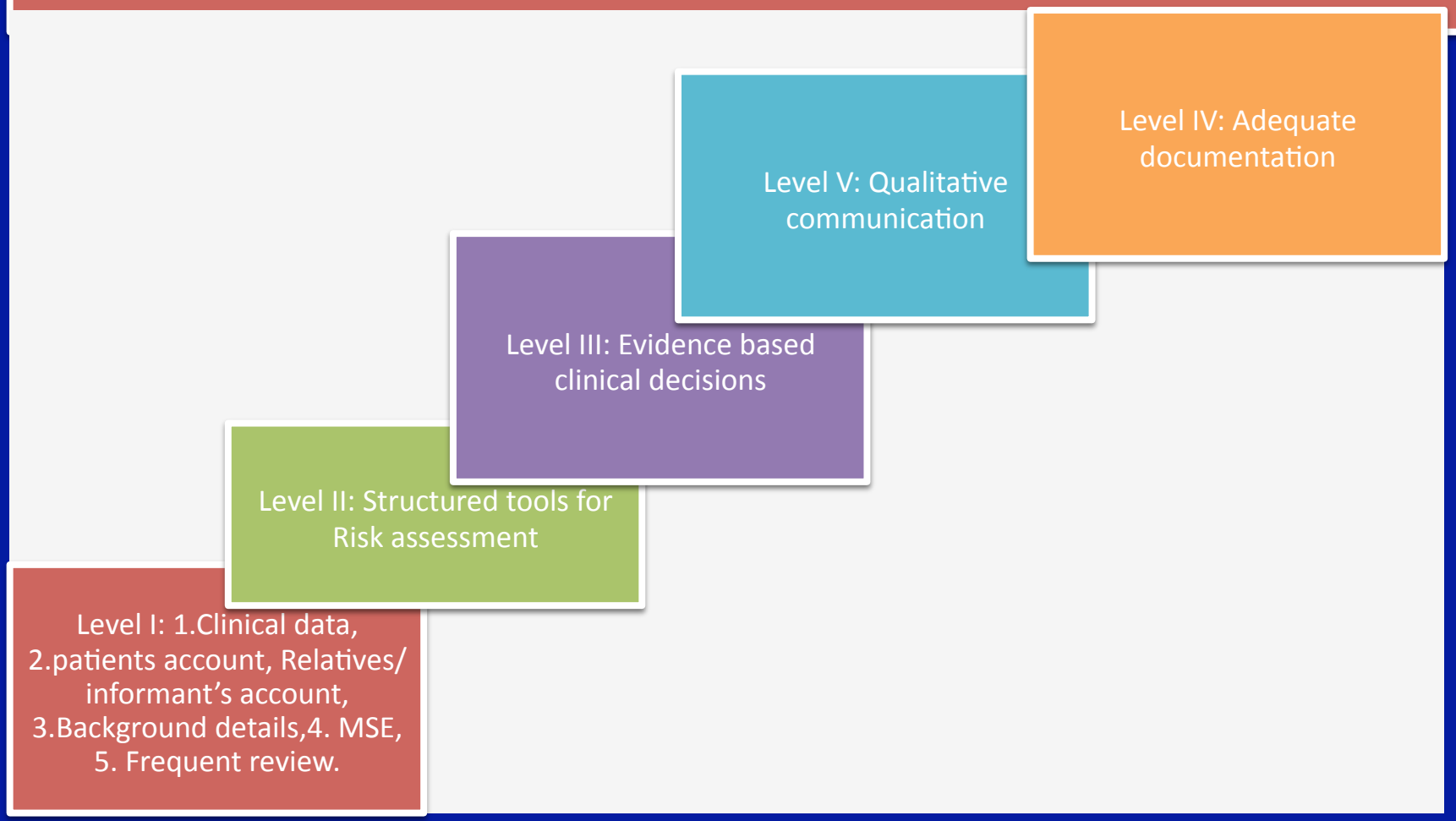
An important part is developing assessment instruments which can successfully differentiate between individuals at serious risk and those who are not.

High validity culture free	Specific, sensitive reliable
Used by all mental health professionals	success in predictability
Applicable Across medical setting	free from bias:
minimum false negative false positive	Conceptually Incorporates available research evidence

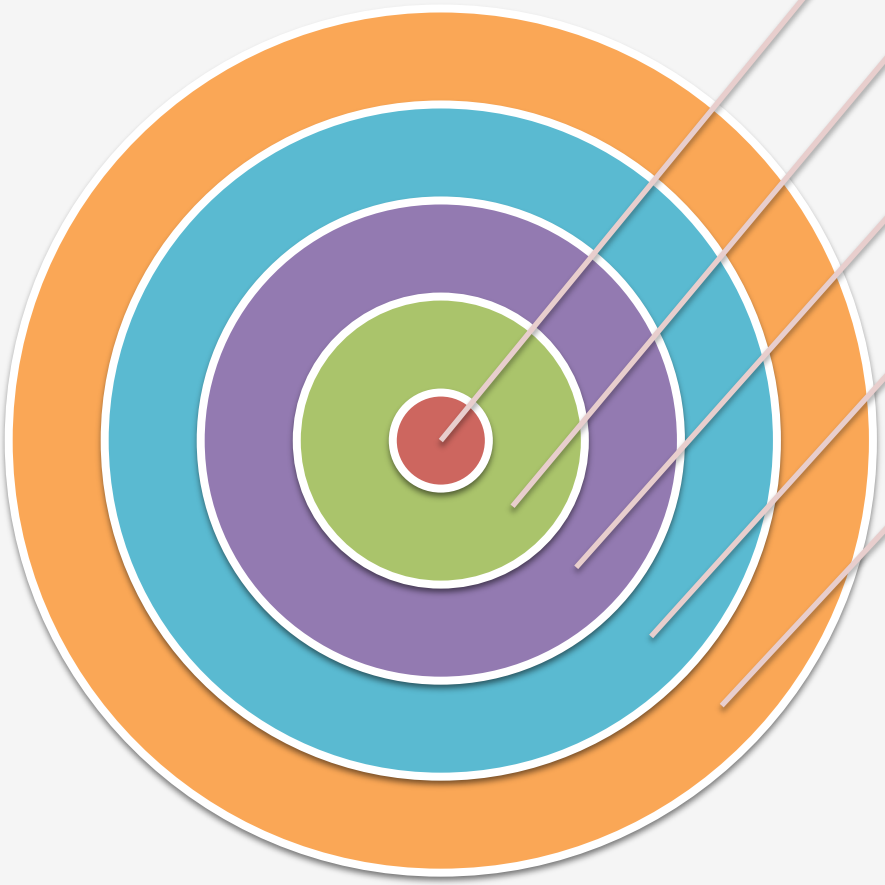
guide for treatment and care planning and appropriate clinical decision

Ducher JL, Dalery J.
[Correlations between Beck's suicidal ideation scale, suicidal risk assessment scale RSD and Hamilton's depression rating scale]
Encephale. 2008 Apr;34(2):132

Comprehensive assessment of suicide



Comprehensive assessment of suicide



Level I: 1.Clinical data, 2.patients account, Relatives/ informant's account, 3.Background details,4. MSE, 5. Frequent review.

Level II: Structured tools for Risk assessment

Level III: Evidence based clinical decisions

Level IV: Adequate documentation

Level V: Qualitative communication

REVIEW OF CONCEPT
&
New Measurement Scale:
SIS-MAP

Construction of new scale

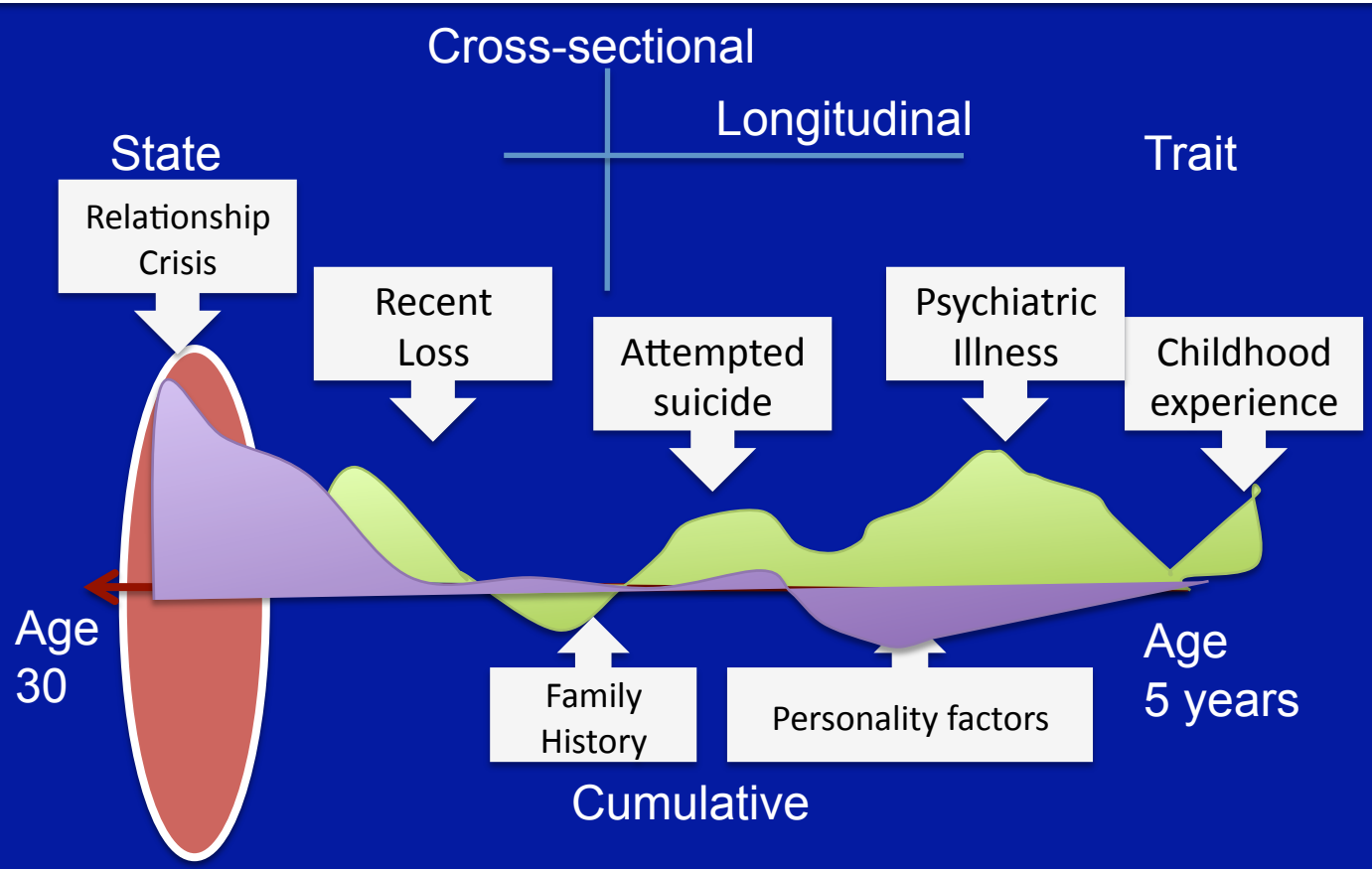
Development of an ‘assessment instrument’ contributes to-

measure the effectiveness of suicide risk assessment

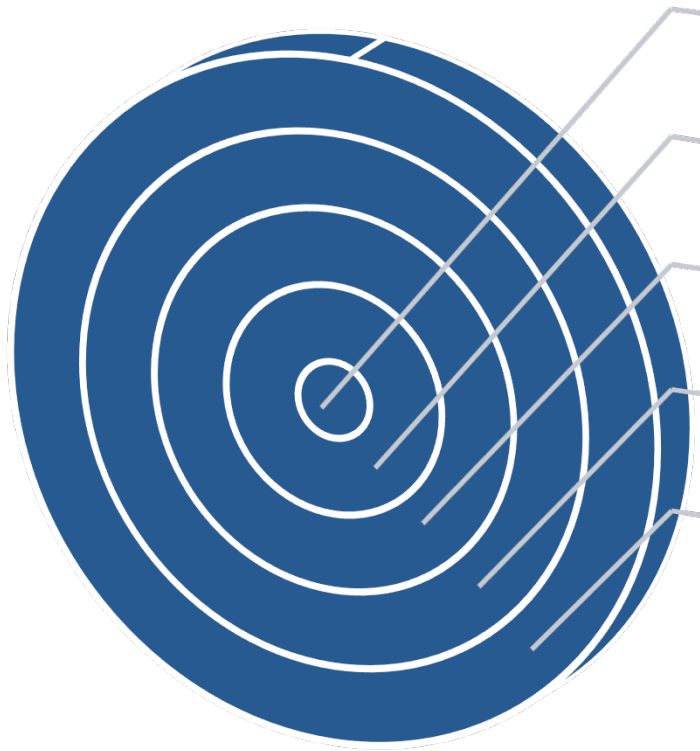
effect of training in skill building.

- We attempted a framework of concept based upon current evidence to construct an instrument to assess risk in order to address the issue of:
  - Current risk
  - Ability to predict suicidality
  - Guide patients disposition seen in crisis
  - Guide in planning and management of care

Quantifying Risk (cumulative)



A conceptual framework for suicide causation



Biological-
Genetic-familial

Psychological,
Developmental

Social-
Environmental

Spiritual

Pathological states: Mental, Physical, Substance abuse morbidity AND

- Protective factors

Bolton JM, Belik SL, Enns MW, Cox BJ, Sareen J.
Exploring the Correlates of Suicide Attempts Among Individuals With Major Depressive Disorder: Findings From the National Epidemiologic Survey on Alcohol and Related Conditions. J Clin Psychiatry. 2008 May 27:e1-e11

Johnson JG, Zhang B, Prigerson HG.
Investigation of a developmental model of risk for depression and suicidality following spousal bereavement.
Suicide Life Threat Behav. 2008 Feb;38(1):1-12

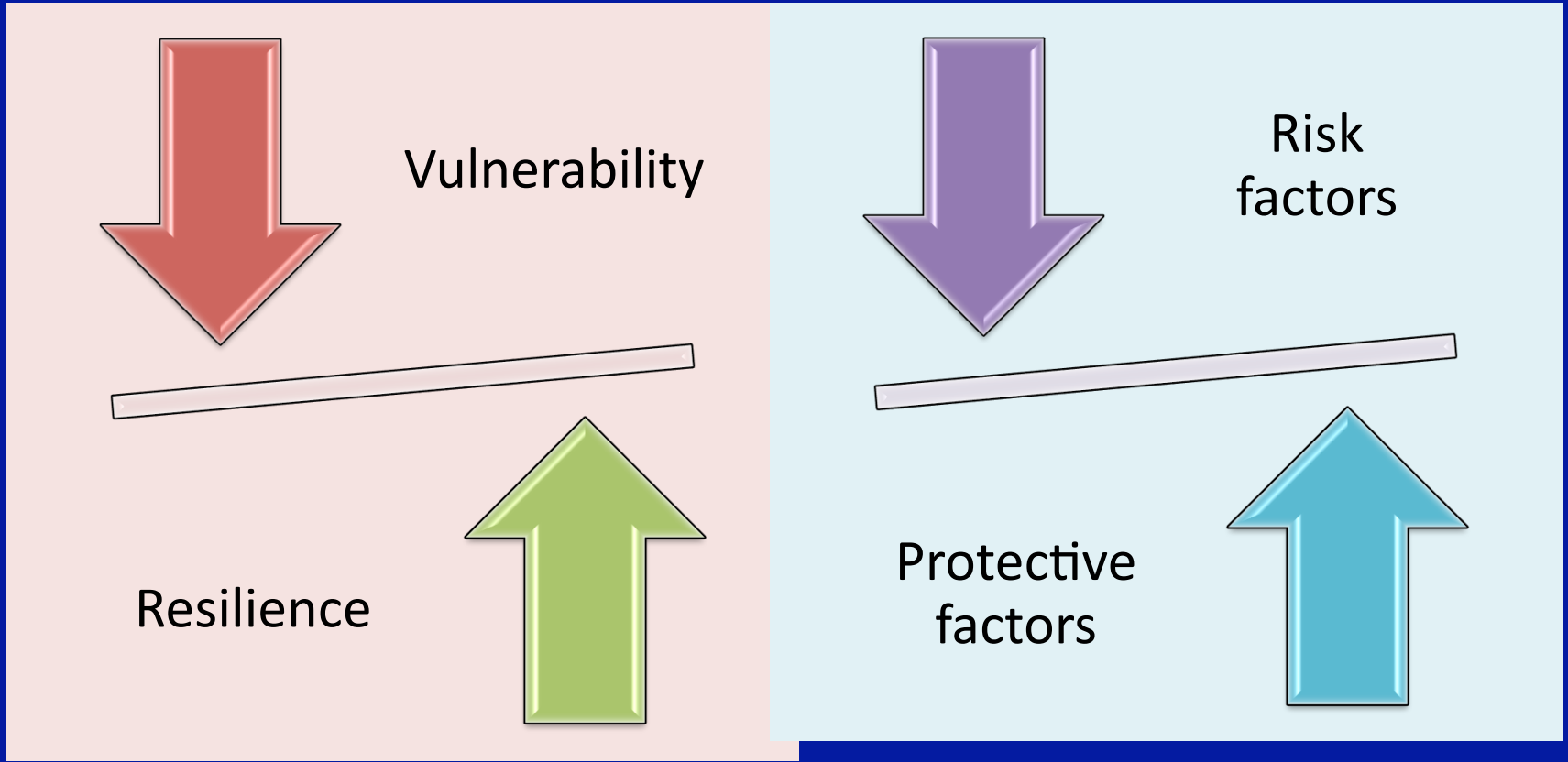
Conceptual framework

- Concept of risk has been questioned since long
- It appears that it is a continuously evolving process.
- Suicide is a multidimensional concomitant of psychiatric diagnoses; especially mood disorders, and is complex in both its causation and in the treatment of those at risk.
- Risk and protective factors tend to be fairly consistent worldwide, with some cultural variation.
- Even with standardized assessment and prediction scales (such as the Hamilton or Beck depression inventories), suicide prediction results in about 30% false positives.[12]
- ***The present work conceptualizes understanding of risk in a new direction. An electronic search about risk factor elicited total 76 factors reported which were from biological, social, psychological, environmental, psychiatric, medical, cultural, spiritual and familial domains.***

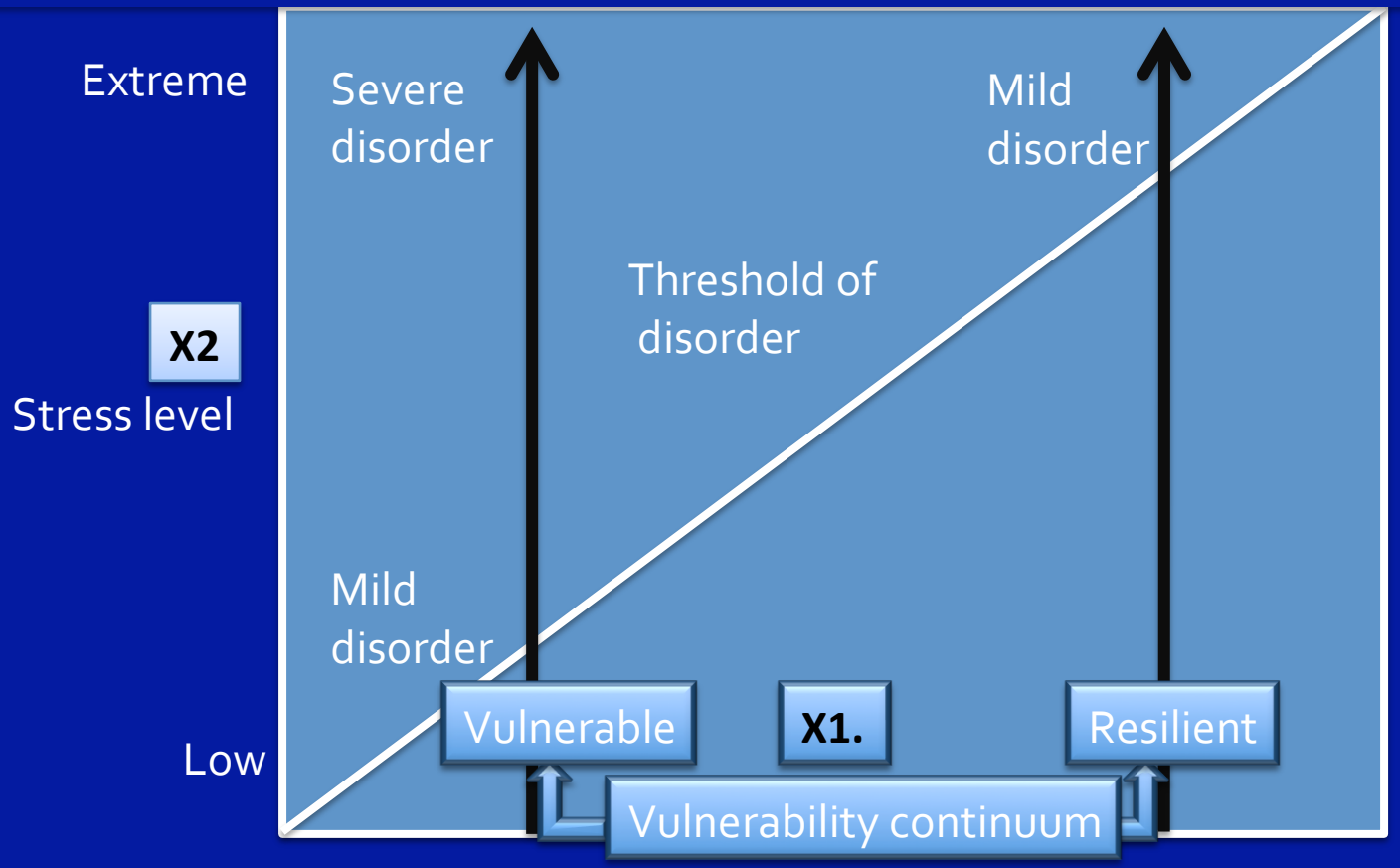
12. Maris RW.Suicide. Lancet. 2002 Jul 27;360(9329):319-26.Lancet. 2004 Oct 9-15;364(9442):1313.

Risk is measured in relation to strength

Proposed concept

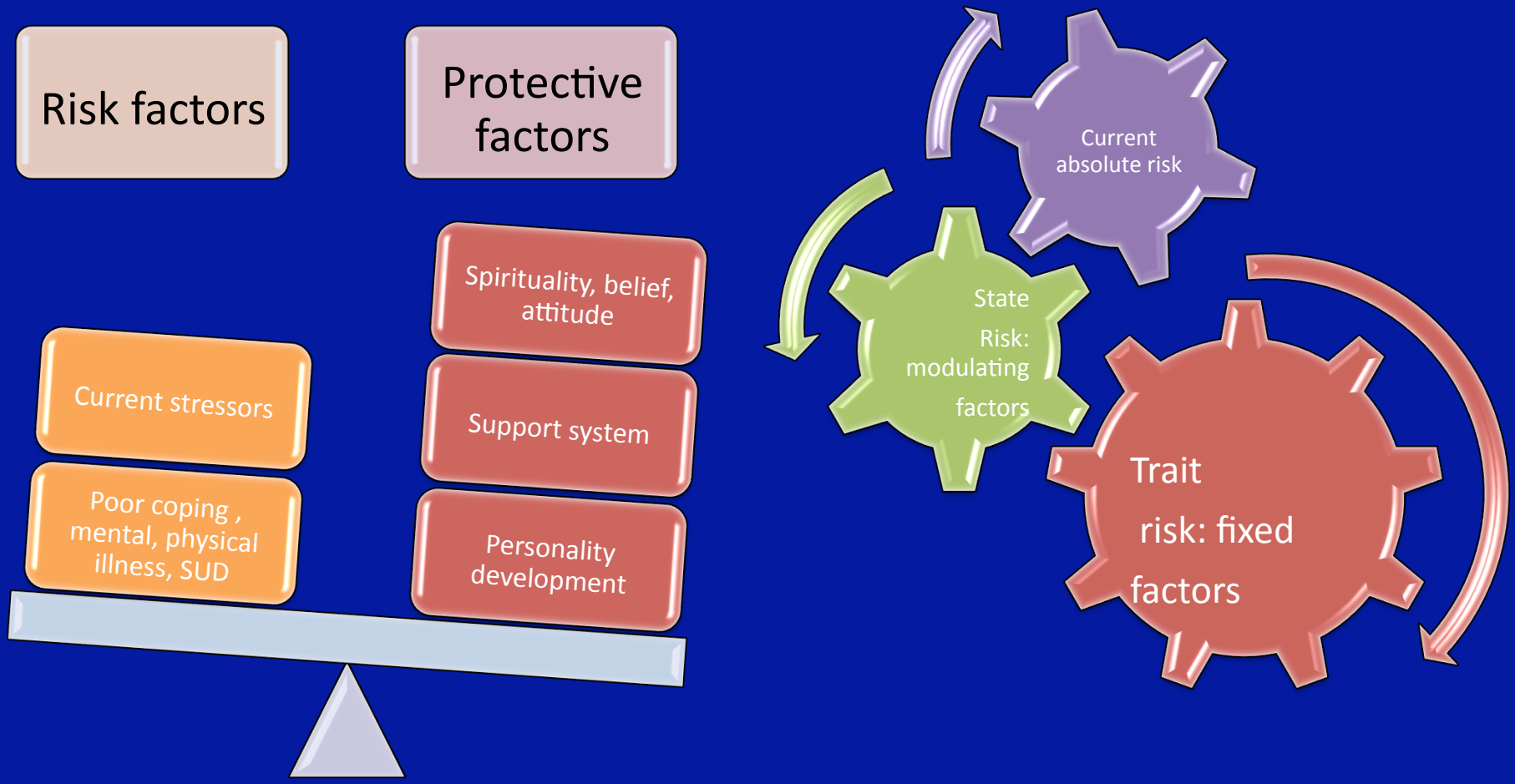


Risk- Vulnerability Spectrum. Its Not a dichotomy

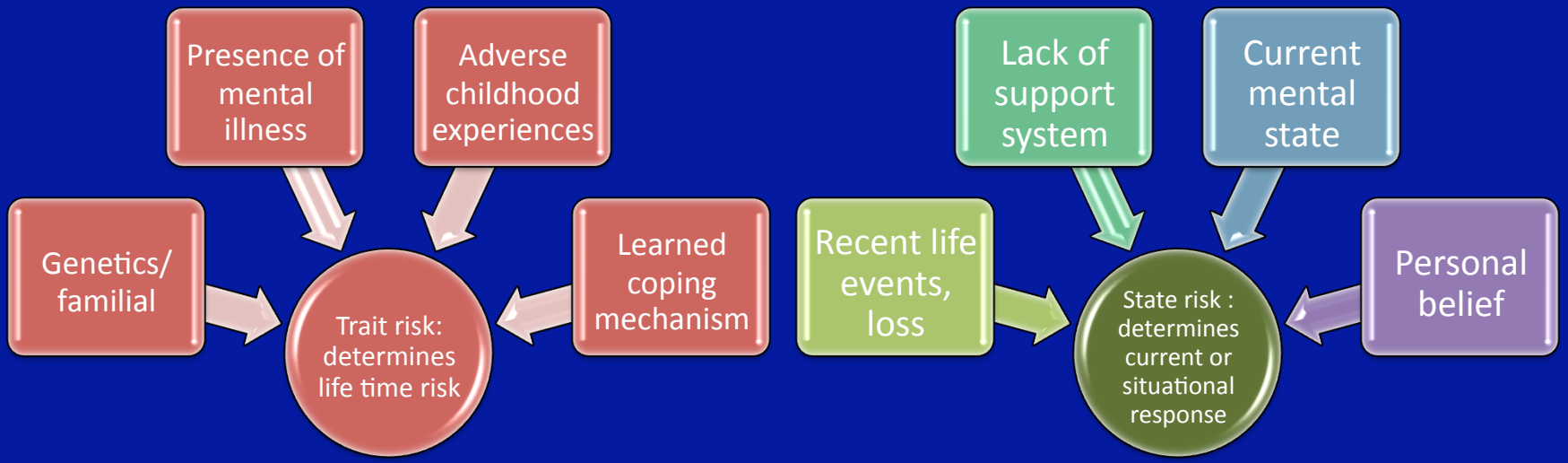


Stress-diathesis model forms the theoretical context of Risk-Vulnerability hypothesis

Current concept of risk



Components of RISK

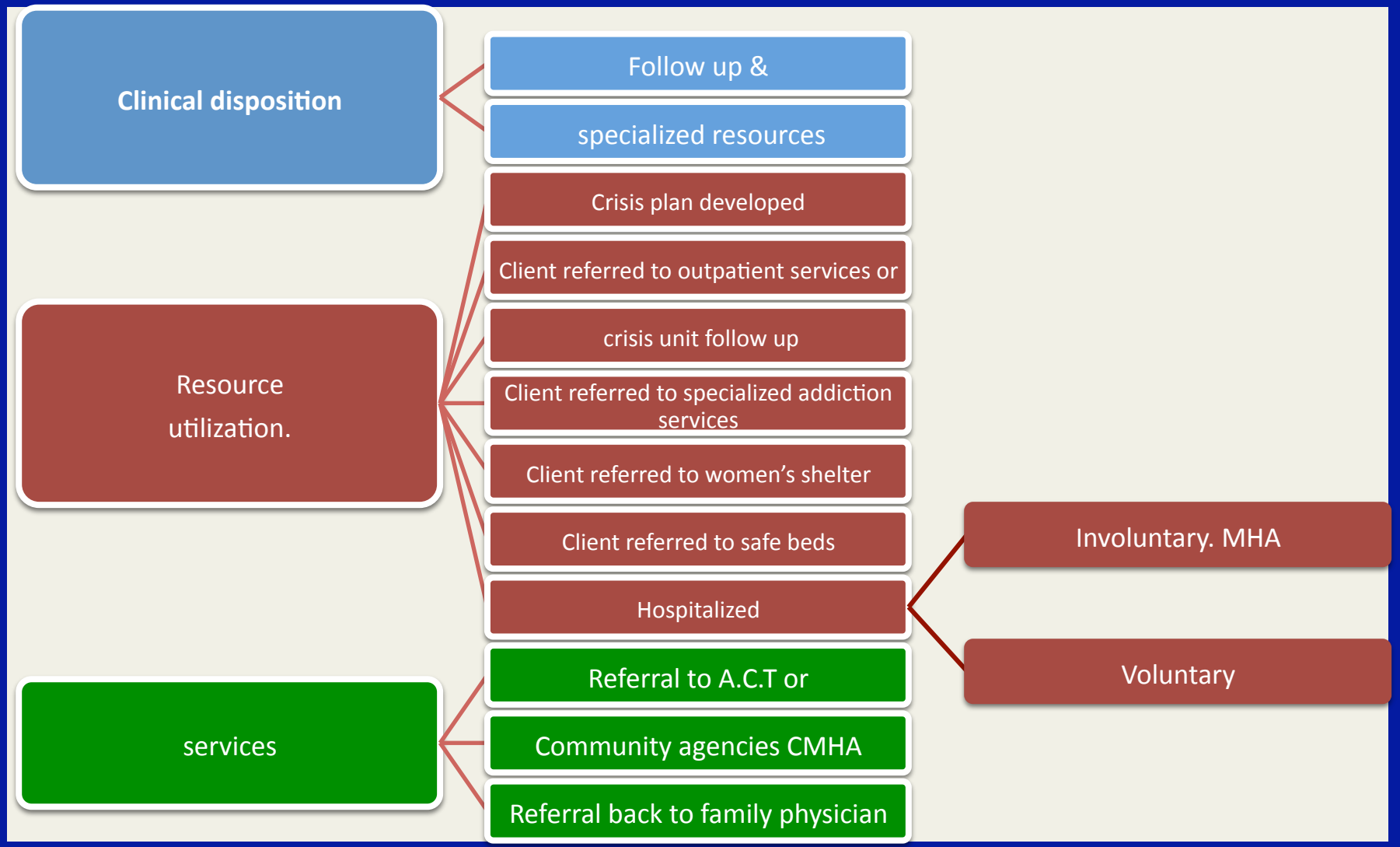


Development of scale

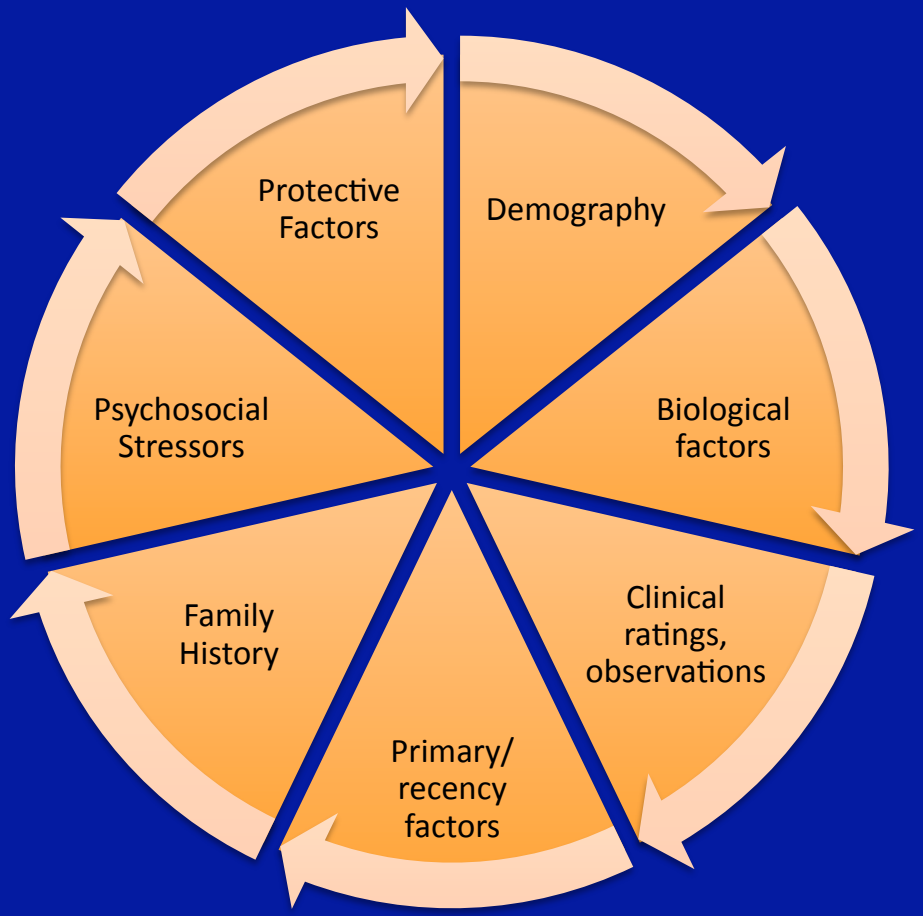
- consideration of the most prominent risk and resilience factors identified by 16 experts in the field
- Twenty one commonly mentioned indicators,
- incorporate most of known risk factor
- The SIS-MAP measures an individual's current level of risk in five different domains:
- assessment of protective factors: self-esteem , stability of the home environment.

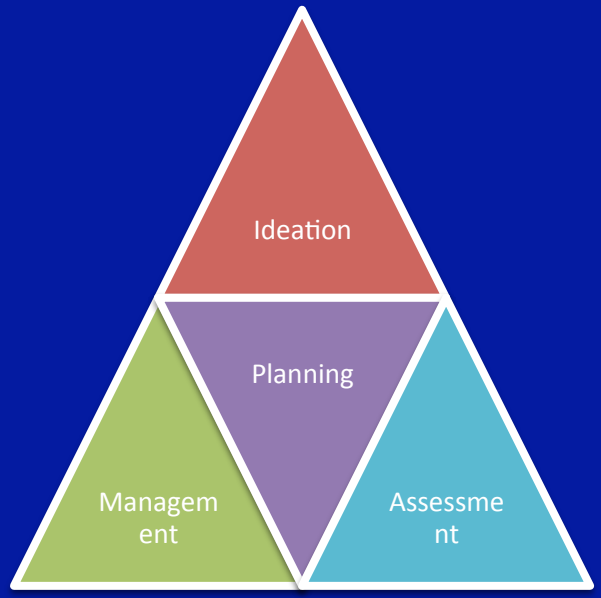
(Pope & Vasquez, 2007).

Disposition

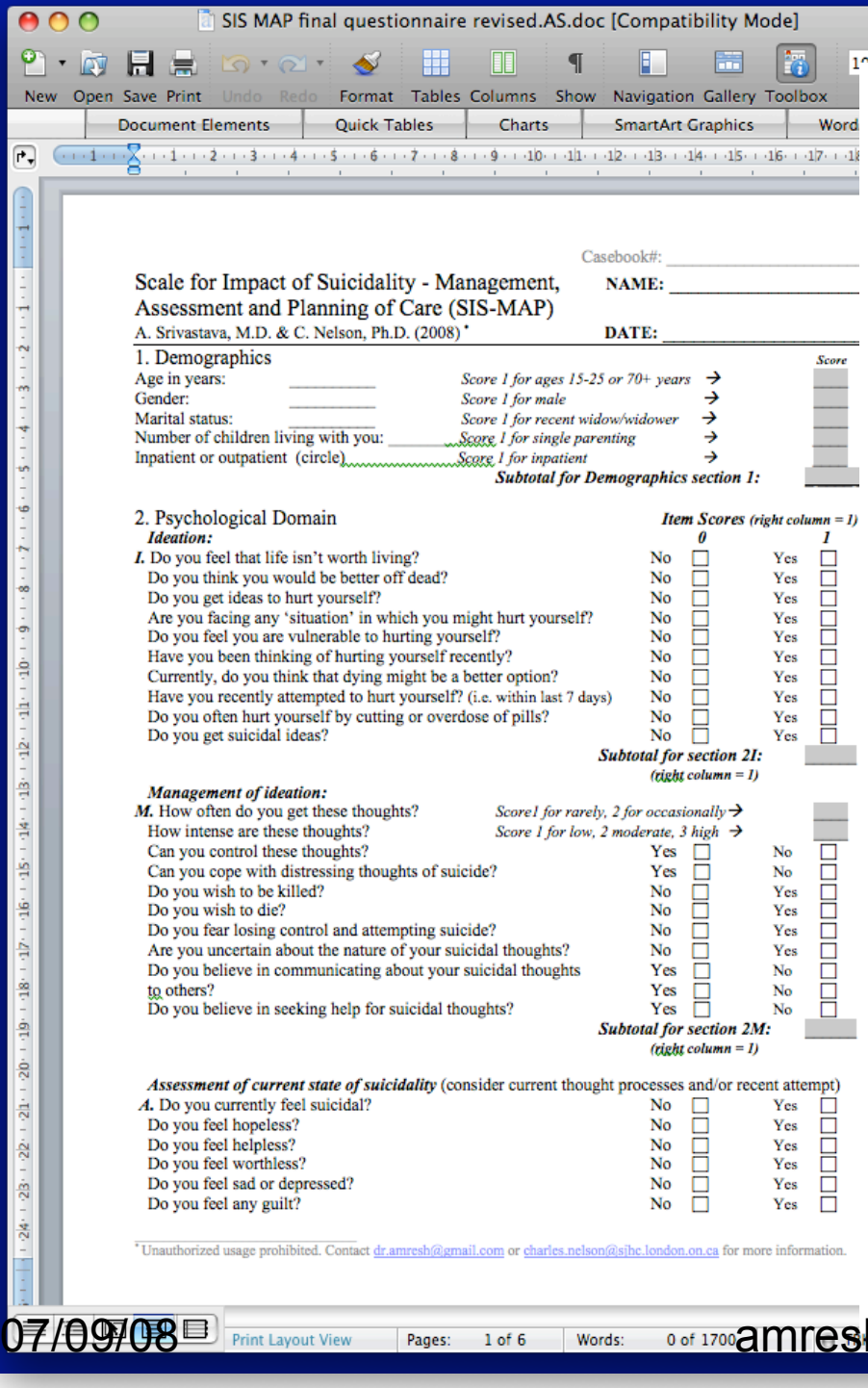


Contents & measurements of the new scale





The scale: SIS-MAP



SIS MAP final questionnaire revised.AS.doc [Compatibility Mode]

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Casebook#: _____

Scale for Impact of Suicidality - Management, Assessment and Planning of Care (SIS-MAP)

NAME: _____

A. Srivastava, M.D. & C. Nelson, Ph.D. (2008) * **DATE:** _____

1. Demographics

		Score
Age in years: _____	*Score 1 for ages 15-25 or 70+ years* →	
Gender: _____	*Score 1 for male* →	
Marital status: _____	*Score 1 for recent widow/widower* →	
Number of children living with you: _____	*Score 1 for single parenting* →	
Inpatient or outpatient (circle)	*Score 1 for inpatient* →	
	Subtotal for Demographics section 1:	

2. Psychological Domain

Ideation:		***Item Scores*** *(right column = 1)* ***0***		***1***
I. Do you feel that life isn't worth living?	No ☐		Yes ☐	
Do you think you would be better off dead?	No ☐		Yes ☐	
Do you get ideas to hurt yourself?	No ☐		Yes ☐	
Are you facing any 'situation' in which you might hurt yourself?	No ☐		Yes ☐	
Do you feel you are vulnerable to hurting yourself?	No ☐		Yes ☐	
Have you been thinking of hurting yourself recently?	No ☐		Yes ☐	
Currently, do you think that dying might be a better option?	No ☐		Yes ☐	
Have you recently attempted to hurt yourself? (i.e. within last 7 days)	No ☐		Yes ☐	
Do you often hurt yourself by cutting or overdose of pills?	No ☐		Yes ☐	
Do you get suicidal ideas?	No ☐		Yes ☐	
	Subtotal for section 2I: *(right column = 1)*			

Management of ideation:				
M. How often do you get these thoughts?	*Score1 for rarely, 2 for occasionally* →			
How intense are these thoughts?	*Score 1 for low, 2 moderate, 3 high* →			
Can you control these thoughts?	Yes ☐		No ☐	
Can you cope with distressing thoughts of suicide?	Yes ☐		No ☐	
Do you wish to be killed?	No ☐		Yes ☐	
Do you wish to die?	No ☐		Yes ☐	
Do you fear losing control and attempting suicide?	No ☐		Yes ☐	
Are you uncertain about the nature of your suicidal thoughts?	No ☐		Yes ☐	
Do you believe in communicating about your suicidal thoughts to others?	Yes ☐		No ☐	
Do you believe in seeking help for suicidal thoughts?	Yes ☐		No ☐	
	Subtotal for section 2M: *(right column = 1)*			

Assessment of current state of suicidality (consider current thought processes and/or recent attempt)

A. Do you currently feel suicidal?	No ☐		Yes ☐	
Do you feel hopeless?	No ☐		Yes ☐	
Do you feel helpless?	No ☐		Yes ☐	
Do you feel worthless?	No ☐		Yes ☐	
Do you feel sad or depressed?	No ☐		Yes ☐	
Do you feel any guilt?	No ☐		Yes ☐	

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Psychological Domain, continued

Casebook#: _____

Have you attempted to kill yourself?	***If no, skip to question P…***	No ☐	Yes ☐	
Did you want to die[1]?		No ☐	Yes ☐	
Were you certain that you wanted to die?		No ☐	Yes ☐	
Did you want attention from someone?		No ☐	Yes ☐	
At the time of your attempt, were you depressed?		No ☐	Yes ☐	
At the time of your attempt, were you angry with yourself?		No ☐	Yes ☐	
Do you want to attempt again?		No ☐	Yes ☐	
Was the method damaging to your body?		No ☐	Yes ☐	
Do you regret it?		Yes ☐	No ☐	
Did you speak to someone before making the attempt?		No ☐	Yes ☐	
Did you inform anyone afterwards?		Yes ☐	No ☐	
Did you leave a suicide note?		No ☐	Yes ☐	
Are you still stressed about it?		No ☐	Yes ☐	
Are you feeling relieved?		Yes ☐	No ☐	
Are you feeling safe in the hospital? (if applicable)		Yes ☐	No ☐	
Do you feel safe in your house?		Yes ☐	No ☐	
Do you feel guilt or shame?		No ☐	Yes ☐	
Was your attempt because of your mental illness?		No ☐	Yes ☐	
Is it because of your social or psychological situation?		No ☐	Yes ☐	
Who do you hold responsible for the attempt?	*Score 1 if client mentions family; score 1 if client says self; score 2 if client mentions both* →			
Do you still have suicidal ideas?		No ☐	Yes ☐	
Do you want to seek help?		Yes ☐	No ☐	
Do you think you can deal with it yourself?		Yes ☐	No ☐	
	Subtotal for section 2A: *(right column = 1)*			

Planning for subsequent attempt:			
P. Do you think you will get suicidal ideas in the future?	No ☐	Yes ☐	
Will you be able to cope with these thoughts?	Yes ☐	No ☐	
Do you think you will attempt suicide in the future?	No ☐	Yes ☐	
Do you think you need treatment and help?	Yes ☐	No ☐	
Do you think your illness needs treatment?	Yes ☐	No ☐	
	Subtotal for section 2P: *(right column = 1)*		
	Subtotal of all Psychological Domain sections (2I, 2M, 2A, 2P):		

3. Comorbidities (check all that apply)

Alcohol abuse or dependence	☐	History of ☐	Current
Drug abuse	☐	History of ☐	Cu
Sexual abuse	☐	History of ☐	Cu
Physical abuse	☐	History of ☐	Cu
Emotional abuse/exploitation	☐	History of ☐	Cu
	Subtotal for Primacy/Recency section (count a		

[1] Client should be instructed to answer these questions with reference to the most recent atten

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Western

SIS-MAP

Casebook#: _____

4. Family History (including parents or grandparents)

Suicide attempt	*(family member)* _____	No ☐	Yes ☐
Death due to suicide	*(family member)* _____	No ☐	Yes ☐
Mental illness	*(family member)* _____	No ☐	Yes ☐
Addictions or alcoholism	*(family member)* _____	No ☐	Yes ☐

Subtotal for Family History (Score 1 for each Yes in this section): ____

5. Biological Domain

Do you currently have any psychiatric illness? *(specify)* _____	No ☐	Yes ☐
Do you have any chronic medical illnesses? *(specify)* _____	No ☐	Yes ☐
Do you suffer from frequent mood swings?	No ☐	Yes ☐
Do you think you are suffering from an 'undiagnosed psychological disorder like anxiety, depression, psychosis, memory loss, lack of drive or motivation or getting easily stressed? ***if no, section is finished***	No ☐	Yes ☐
Do you think it is affecting your life in terms of functioning and day to day living?	No ☐	Yes ☐

Subtotal for this Biological Domain (Score 1 for each Yes in this section): ____

6. Protective factors for suicide risk

Do you benefit from community or outpatient support/counseling?	No ☐	Yes ☐
Is you family practically supportive of your problems and your recovery?	No ☐	Yes ☐
Does you faith or spirituality help you in dealing with your problems?	No ☐	Yes ☐
Do you have children that rely on you, and depend on your well-being?	No ☐	Yes ☐
Do you live in impoverished conditions? (difficulty paying for food and shelter)	Yes ☐	No ☐
Do you think you are worthy of living?	No ☐	Yes ☐
Do you have good self-esteem? (believe that you are a worthwhile person)	No ☐	Yes ☐
Have you succeeded when faced with similar life challenges?	No ☐	Yes ☐
Is your home environment safe and stable?	No ☐	Yes ☐
Do you savour life's satisfying moments?	No ☐	Yes ☐
Do you have additional reasons for not committing suicide? *(specify:)*	No ☐	Yes ☐

Subtotal for Protective factors: ____
(right column = 1)

7. Clinical ratings/observations

Does client lack insight?	No ☐	Yes ☐
Is there evidence of a personality disorder or issues related to personality?	No ☐	Yes ☐
Is there presence of psychosis?	No ☐	Yes ☐
Is there evidence of impulsivity? (i.e. behavioral dyscontrol)	No ☐	Yes ☐
Would you consider client vulnerable due to any of the following?		
Personal crisis (i.e. extremely adverse situational event)	No ☐	Yes ☐
A dysfunctional or chaotic home environment	No ☐	Yes ☐
Recent childbirth or abortion	No ☐	Yes ☐
Existential issues (i.e. no meaning in life)	No ☐	Yes ☐

Casebook#: _____

For attempters only:

Was the method used capable of causing death?	No ☐	Yes ☐
Was the attempt planned?	No ☐	Yes ☐

Subtotal for Clinical ratings/observations (Score 1 for each Yes in this section): ____

8. Psychosocial and Environmental Problems[2]

Score 1 for every problem named in this section

Check:

__ Problems with primary support group *(specify):* _____
__ Problems related to the social environment *(specify):* _____
__ Educational problems *(specify):* _____
__ Occupational problems *(specify):* _____
__ Housing problems *(specify):* _____
__ Economic problems *(specify):* _____

__ Problems with access to health care services *(specify):* _____
__ Problems related to interaction with the legal system/crime *(specify):* _____
__ Other psychosocial and environmental problems *(specify):* _____

Subtotal for Psychosocial/Environmental (count all check marks): ____

[2] A psychosocial or environmental problem may be a negative life event, an environmental difficulty or deficiency, a familial or other interpersonal stress, an inadequacy of social support or personal resources, or other problem relating to the context in which a person's difficulties have developed. So-called positive stressors, such as job promotion, should be listed only if they constitute or lead to a problem, as when a person has difficulty adapting to the new situation. In addition to playing a role in the initiation or exacerbation of a mental disorder, psychosocial problems may also develop as a consequence of a person's psychopathology or may constitute problems that should be considered in the overall management plan.

When an individual has multiple psychosocial or environmental problems, the clinician may note as many as are judged to be relevant. In general, the clinician should note only those psychosocial and environmental problems that have been present during the year preceding the current evaluation. However, the clinician may choose to note psychosocial and environmental problems occurring prior to the previous year if these clearly contribute to the mental disorder or have become a focus of treatment—for example, previous combat experiences leading to Posttraumatic Stress Disorder. For convenience, the problems are grouped together in the following categories:

- **Problems with primary support group**—e.g., death of a family member; health problems in family; disruption of family by separation, divorce, or estrangement; removal from the home; remarriage of parent; sexual or physical abuse; parental overprotection; neglect of child; inadequate discipline; discord with siblings; birth of a sibling;
- **Problems related to the social environment**—e.g., death or loss of friend; inadequate social support; living alone; difficulty with acculturation; discrimination; adjustment to life-cycle transition (such as retirement)
- **Educational problems**—e.g., illiteracy; academic problems; discord with teachers or classmates; inadequate school environment
- **Occupational problems**—e.g., unemployment; threat of job loss; stressful work schedule; difficult work conditions; job dissatisfaction; job change; discord with boss or co-workers
- **Housing problems**—e.g., homelessness; inadequate housing; unsafe neighborhood; discord with neighbors or landlord
- **Economic problems**—e.g., extreme poverty; inadequate finances; insufficient welfare support
- **Problems with access to health care services**—e.g., inadequate health care services; transportation to health care facilities unavailable; inadequate health insurance
- **Problems related to interaction with the legal system/crime**—e.g. criminal charges; probation or parole.
- **Other psychosocial and environmental problems**—e.g., exposure to disasters, war, other hostilities; discord with nonfamily caregivers such as counselor, social worker, or physician; unavailability of social service agencies

The clinician should identify the relevant categories of psychosocial and environmental problems and indicate the specific factors involved.

2. Psychological Domain

Ideation:

		Item Scores *(right column = 1)*		
		0		***1***
I.	Do you feel that life isn't worth living?	No ☐	Yes	☐
	Do you think you would be better off dead?	No ☐	Yes	☐
	Do you get ideas to hurt yourself?	No ☐	Yes	☐
	Are you facing any 'situation' in which you might hurt yourself?	No ☐	Yes	☐
	Do you feel you are vulnerable to hurting yourself?	No ☐	Yes	☐
	Have you been thinking of hurting yourself recently?	No ☐	Yes	☐
	Currently, do you think that dying might be a better option?	No ☐	Yes	☐
	Have you recently attempted to hurt yourself? (i.e. within last 7 days)	No ☐	Yes	☐
	Do you often hurt yourself by cutting or overdose of pills?	No ☐	Yes	☐
	Do you get suicidal ideas?	No ☐	Yes	☐
			Subtotal for section 2I: *(right column = 1)*	

Management of ideation:

M.	How often do you get these thoughts?	*Score1 for rarely, 2 for occasionally* →			
	How intense are these thoughts?	*Score 1 for low, 2 moderate, 3 high* →			
	Can you control these thoughts?	Yes	☐	No	☐
	Can you cope with distressing thoughts of suicide?	Yes	☐	No	☐
	Do you wish to be killed?	No	☐	Yes	☐
	Do you wish to die?	No	☐	Yes	☐
	Do you fear losing control and attempting suicide?	No	☐	Yes	☐
	Are you uncertain about the nature of your suicidal thoughts?	No	☐	Yes	☐
	Do you believe in communicating about your suicidal thoughts to others?	Yes	☐	No	☐
	Do you believe in seeking help for suicidal thoughts?	Yes	☐	No	☐
				Subtotal for section 2M: *(right column = 1)*	

Assessment of current state of suicidality (consider current thought processes and/or recent attempt)

A. Do you currently feel suicidal?	No ☐	Yes ☐
Do you feel hopeless?	No ☐	Yes ☐
Do you feel helpless?	No ☐	Yes ☐
Do you feel worthless?	No ☐	Yes ☐
Do you feel sad or depressed?	No ☐	Yes ☐
Do you feel any guilt?	No ☐	Yes ☐

Psychological Domain, continued

Have you attempted to kill yourself? ***If no, skip to question P…***	No ☐	Yes ☐
Did you want to die[1]?	No ☐	Yes ☐
Were you certain that you wanted to die?	No ☐	Yes ☐
Did you want attention from someone?	No ☐	Yes ☐
At the time of your attempt, were you depressed?	No ☐	Yes ☐
At the time of your attempt, were you angry with yourself?	No ☐	Yes ☐
Do you want to attempt again?	No ☐	Yes ☐
Was the method damaging to your body? *(specify)*_____	No ☐	Yes ☐
Do you regret it?	Yes ☐	No ☐
Did you speak to someone before making the attempt?	Yes ☐	No ☐
Did you inform anyone afterwards?	Yes ☐	No ☐
Did you leave a suicide note?	No ☐	Yes ☐
Are you still stressed about it?	No ☐	Yes ☐
Are you feeling relieved?	Yes ☐	No ☐
Are you feeling safe in the hospital? (if applicable)	Yes ☐	No ☐
Do you feel safe in your house?	Yes ☐	No ☐
Do you feel guilt or shame?	No ☐	Yes ☐
Was your attempt because of your mental illness?	No ☐	Yes ☐
Is it because of your social situation or due to psychological distress?	No ☐	Yes ☐
Who do you hold responsible for the attempt? *Score 1 if client mentions family; score 1 if client says self; score 2 if client mentions both* →		____
Do you still have suicidal ideas?	No ☐	Yes ☐
Do you want to seek help?	Yes ☐	No ☐
Do you think you can deal with it yourself?	Yes ☐	No ☐
Subtotal for section 2A: ***(right column = 1)***		

says self; score 2 if client mentions both →

Do you still have suicidal ideas?	No ☐	Yes ☐	
Do you want to seek help?	Yes ☐	No ☐	
Do you think you can deal with it yourself?	Yes ☐	No ☐	

Subtotal for section 2A: ____

(right column = 1)

Planning for subsequent attempt:

P. Do you think you will get suicidal ideas in the future?	No ☐	Yes ☐	
Will you be able to cope with these thoughts?	Yes ☐	No ☐	
Do you think you will attempt suicide in the future?	No ☐	Yes ☐	
Do you think you need treatment and help?	Yes ☐	No ☐	
Do you think your illness needs treatment?	Yes ☐	No ☐	

Subtotal for section 2P: ____

(right column = 1)

Subtotal of all Psychological Domain sections (2I, 2M, 2A, 2P): ____

3. Comorbidities (check all that apply)

Alcohol abuse or dependence	☐	History of	☐	Current
Drug abuse	☐	History of	☐	Current
Sexual abuse	☐	History of	☐	Current
Physical abuse	☐	History of	☐	Current
Emotional abuse/exploitation	☐	History of	☐	Current

Subtotal for Comorbidities section (count all check marks): ____

Casebook#: _____

4. Family History (including siblings, parents, or grandparents)

Suicide attempt	(*family member*) _____	No	☐	Yes	☐
Death due to suicide	(*family member*) _____	No	☐	Yes	☐
Mental illness	(*family member*) _____	No	☐	Yes	☐
Addictions or alcoholism	(*family member*) _____	No	☐	Yes	☐

Subtotal for Family History (Score 1 for each Yes in this section): _____

5. Biological Domain

Do you currently have any psychiatric illness? (*specify*) _____		No	☐	Yes	☐
Do you have any chronic medical illnesses? (*specify*) _____		No	☐	Yes	☐
Do you suffer from frequent mood swings?		No	☐	Yes	☐
Do you think you are suffering from an 'undiagnosed psychological disorder' like anxiety, depression, psychosis, memory loss, lack of drive or motivation or getting easily stressed? ***if no, section is finished***		No	☐	Yes	☐
Do you think it is affecting your life in terms of functioning and day to day living?		No	☐	Yes	☐

Subtotal for this Biological Domain (Score 1 for each Yes in this section): _____

6. Protective factors for suicide risk

Do you benefit from community or outpatient support/counseling?	No	☐	Yes	☐
Is your family practically supportive of your problems and your recovery?	No	☐	Yes	☐
Does your faith or spirituality help you in dealing with your problems?	No	☐	Yes	☐
Do you have children that rely on you, and depend on your well-being?	No	☐	Yes	☐
Do you live in impoverished conditions? (difficulty paying for food and shelter)	Yes	☐	No	☐
Do you think you are worthy of living?	No	☐	Yes	☐
Do you have good self-esteem? (believe that you are a worthwhile person)	No	☐	Yes	☐
Have you succeeded when faced with similar life challenges?	No	☐	Yes	☐
Is your home environment safe and stable?	No	☐	Yes	☐
Do you savour life's satisfying moments?	No	☐	Yes	☐
Do you have additional reasons for not committing suicide? *(specify:)*	No	☐	Yes	☐

Subtotal for Protective factors: _____
(right column = 1)

(right column = 1)

7. Clinical ratings/observations

Does client lack insight?	No	☐	Yes	☐
Is there evidence of a personality disorder or issues related to personality?	No	☐	Yes	☐
Is there presence of psychosis?	No	☐	Yes	☐
Is there evidence of impulsivity? (i.e. behavioral dyscontrol)	No	☐	Yes	☐
Would you consider client vulnerable due to any of the following?				
Personal crisis (i.e. extremely adverse situational event)	No	☐	Yes	☐
A dysfunctional or chaotic home environment	No	☐	Yes	☐
Recent childbirth or abortion	No	☐	Yes	☐
Existential issues (i.e. no meaning in life)	No	☐	Yes	☐

Casebook#: _____

For attempters only:

Was the method used capable of causing death?	No	☐	Yes	☐
Was the attempt planned?	No	☐	Yes	☐

Subtotal for Clinical ratings/observations (Score 1 for each Yes in this section): _____

8. Psychosocial and Environmental Problems[2]

Score 1 for every problem named in this section

Check:

__ Problems with primary support group (*specify):* _____
__ Problems related to the social environment (*specify):* _____
__ Educational problems (*specify):* _____
__ Occupational problems (*specify):* _____
__ Housing problems (*specify):* _____
__ Economic problems (*specify):* _____

__ Problems with access to health care services (*specify):* _____
__ Problems related to interaction with the legal system/crime (*specify):* _____
__ Other psychosocial and environmental problems (*specify):* _____

Subtotal for Psychosocial/Environmental (count all check marks): _____

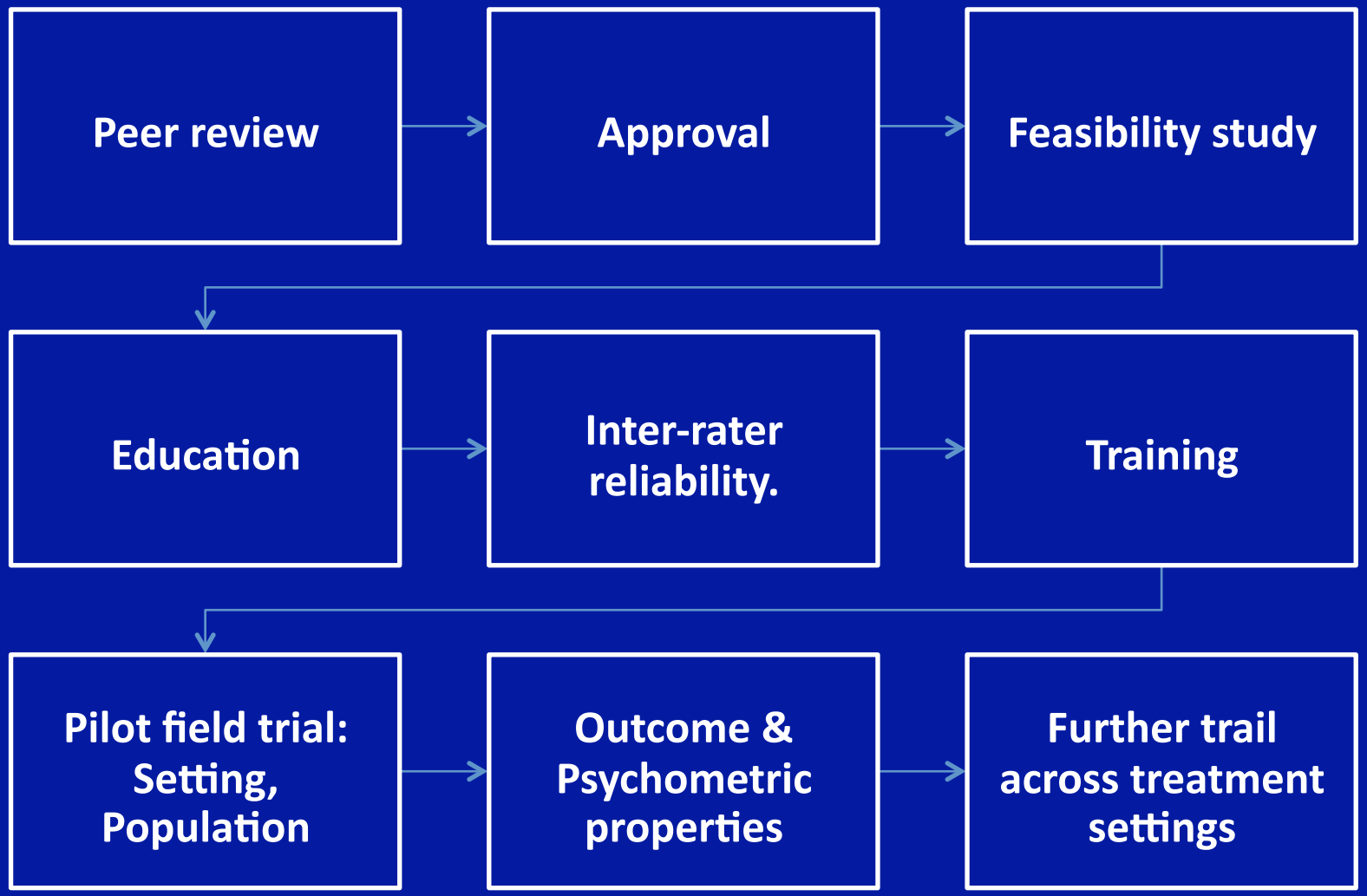
SIS-MAP Clinical Profile:

I-MAP subscales

2I- Ideation:	
2M- Management	
2A- Assessment	
2P- Planning	

Demographics:		
Psychological Domain:		
Comorbidities:		
Family History:		
Biological Domain:		
Clinical ratings/observations:		
Psychosocial/Environmental:		
Total of all above sections:		
Protective Factors: (subtract):	-	
SIS-MAP Risk Index:		[3]

Methods


Peer review
Approval
Feasibility study
Education
Inter-rater reliability.
Training
Pilot field trial: Setting, Population
Outcome & Psychometric properties
Further trail across treatment settings

Psychometric Properties

- Inter-rater reliability
- The inter-rater reliability of the scale was assessed by videotaping a case vignette in which a therapist administers the structured interview to a mock client.
- Twenty clinicians were then familiarized with the SIS-MAP and were asked to score the mock client using this scale according to what they observed in the videotaped interview.
- The twenty clinicians included registered nurses, social workers, occupational therapists, and psychometrists.
- SIS-MAP has shown an inter-rater reliability between 0.71 and 0.81 (x=. 76) N=20, p<. 001.
- In the field trial it has demonstrated a specificity of 78.1%, sensitivity of 66.7% and validity of correctly classifying 74%. On comparison with other popular scales SIS-MAP comes out as parallel on all parameters.

Comparison of SIS-MAP to other suicide risk assessment scales

	SIS-MAP	SPS	**SPS-clinical scales**	ASIQ	BDI-II
Specificity	78.1%	65.9%	81.3%	71.4%	70.3%
Sensitivity	66.7%	58.3%	63.6%	64.0%	72.0%
Correctly Classified	74.0%	63.1%	74.1%	71.0%	68.7%

SPS = Suicide Probability Scale (Cull & McGill, 1988); ASIQ = Adult Suicidal Ideation Questionnaire (Reynolds, 1991); BDI-II = Beck Depression Inventory II (Beck, Steer, & Brown, 1996)

Results:

Correlations among Variables and Admission Status

- Whether individuals were admitted or not was correlated with various outcome measures.

Analyses demonstrated that admission status was correlated with subtotals in the protective domain (r = -.333, p <. 05), suggesting that individuals with higher levels of resilience factors were less likely to be admitted, a key assumption of the SIS-MAP.

Additionally, the individual items of previous suicide attempts and the presence of psychosis were correlated with admission status (r = .368, p<. 05, and r = .321, p<.05 respectively).

Classifying Individuals Using the SIS-MAP

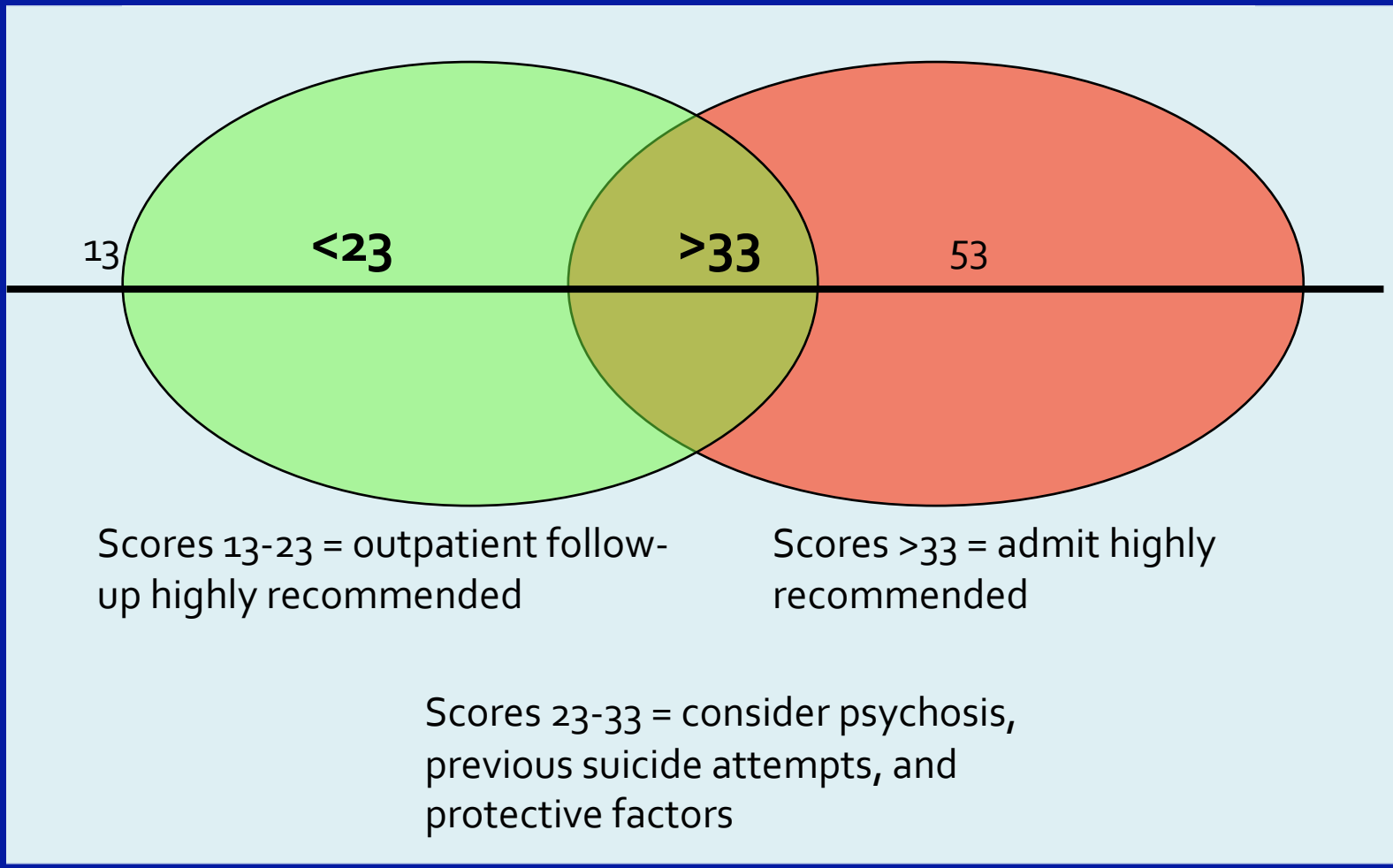
The specificity of the scale (correctly identifying individuals who did not require admission) was 78.1%

while the sensitivity of the scale (correctly identifying individuals who required admission) was 66.7%.

The false positive rate was 33.3% while 21.9% of cases resulted in a false negative.

SIS-MAP

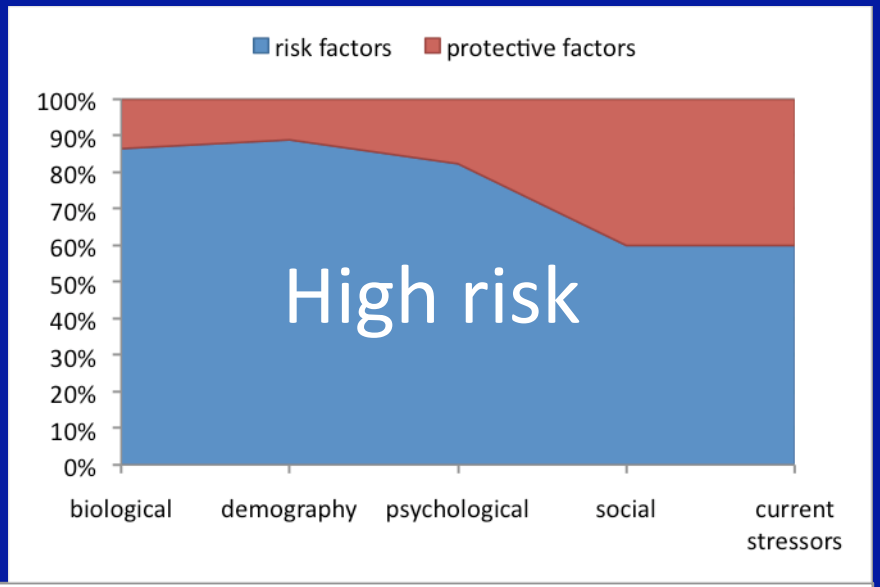
Clinical Cut-Offs for Level of Care Needed



Scores 13-23 = outpatient follow-up highly recommended

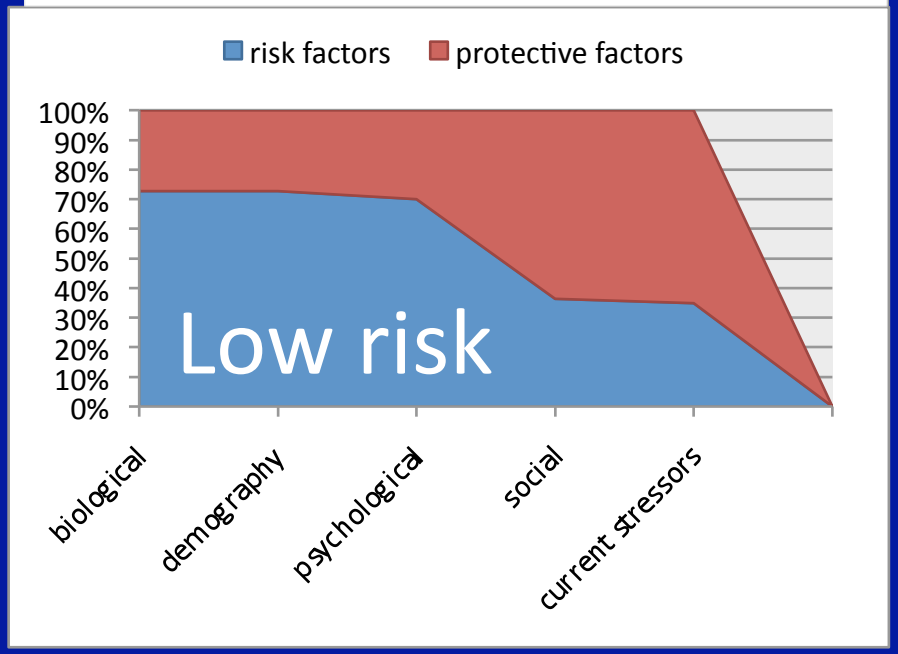
Scores >33 = admit highly recommended

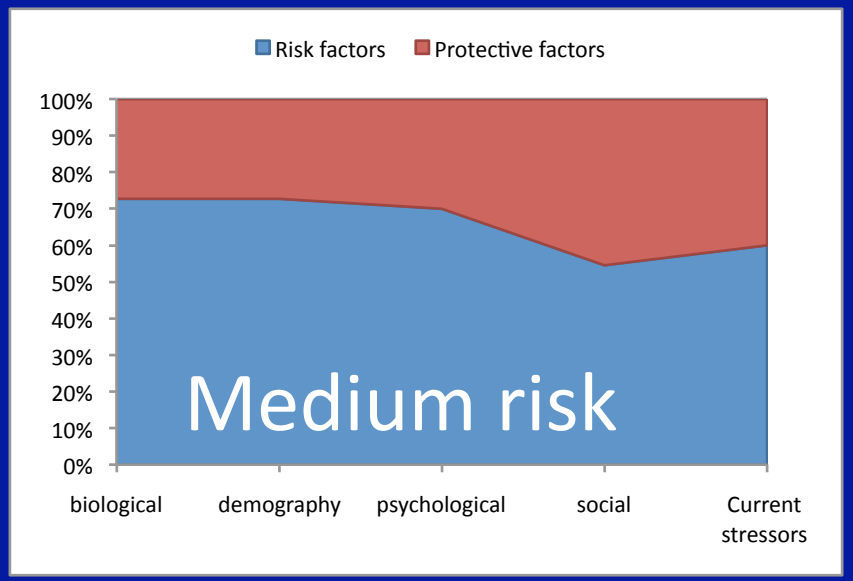
Scores 23-33 = consider psychosis, previous suicide attempts, and protective factors



Future directions

We hope to generate a quotient ratio of risk and protective factor giving visual expression on graphic representation of absolute risk for easy applicability. The concept and data needs to be validated





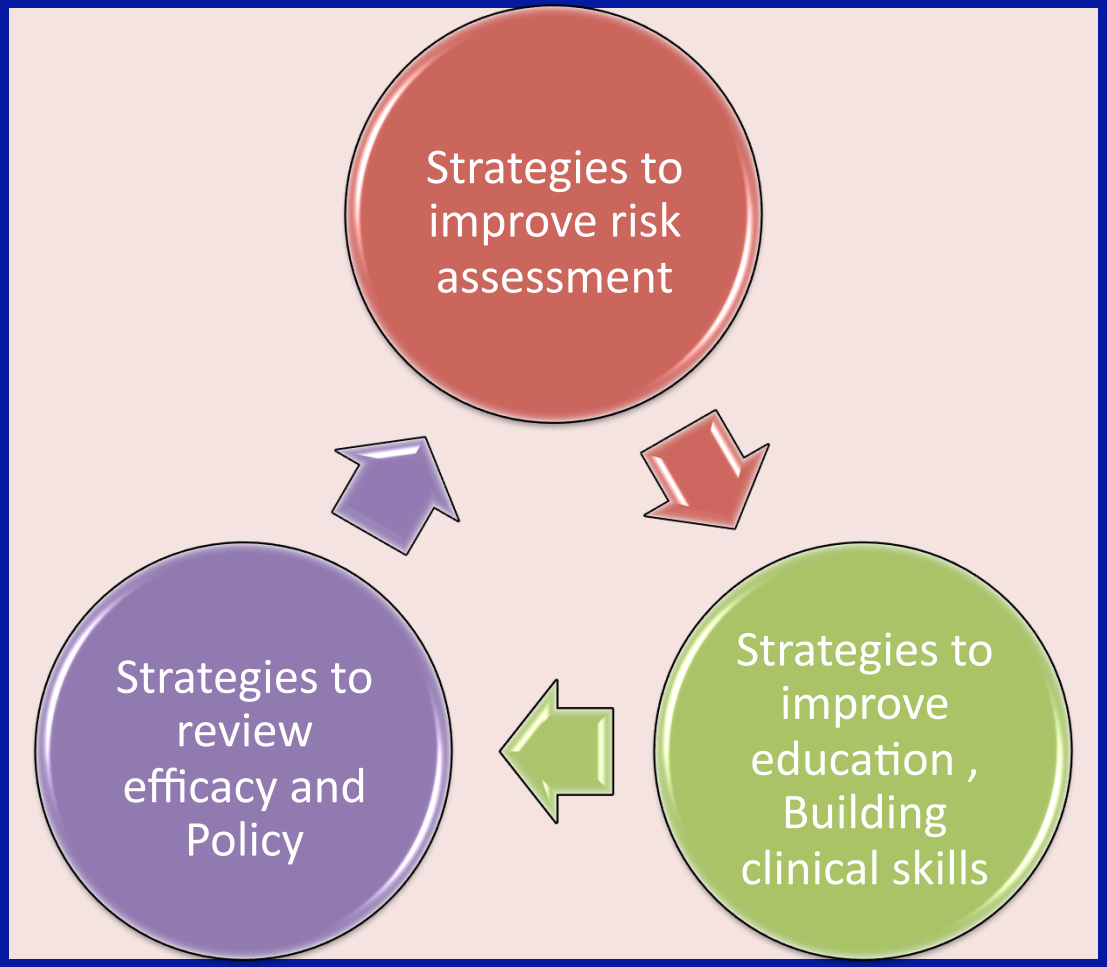
Strategies to improve quality of risk assessment: WHO Recommendations

1. Requires a public health approach.
2. The burden of suicide is so large that prevention could be considered the responsibility of an entire government, under the leadership of the health ministry.
3. Suicide-prevention programmes are needed and should consider specific interventions for different groups at risk
4. Health-care professionals, especially in the emergency services, should be trained in the effective identification of suicide risk and proactive collaboration with mental health services.
5. Both health professionals and the general public should be educated about suicide as early as possible, with a focus on both risk and protective factors.
6. Policy-oriented research on and evaluation of suicide prevention programmes is needed.
7. The mass media should be involved in suicide prevention via training, and use of the WHO guidance on media treatment of suicide

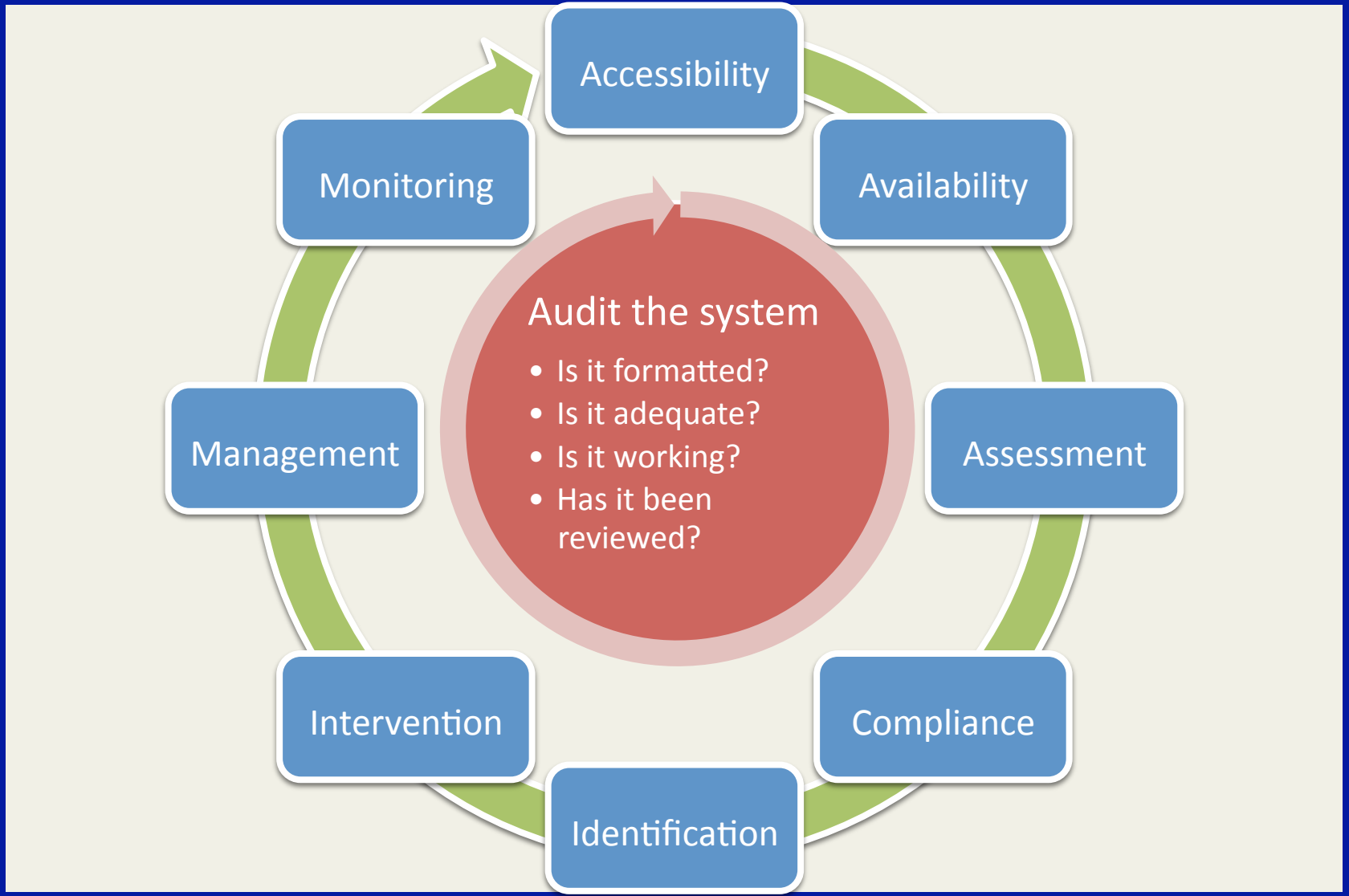
Recommendation for clinical governance

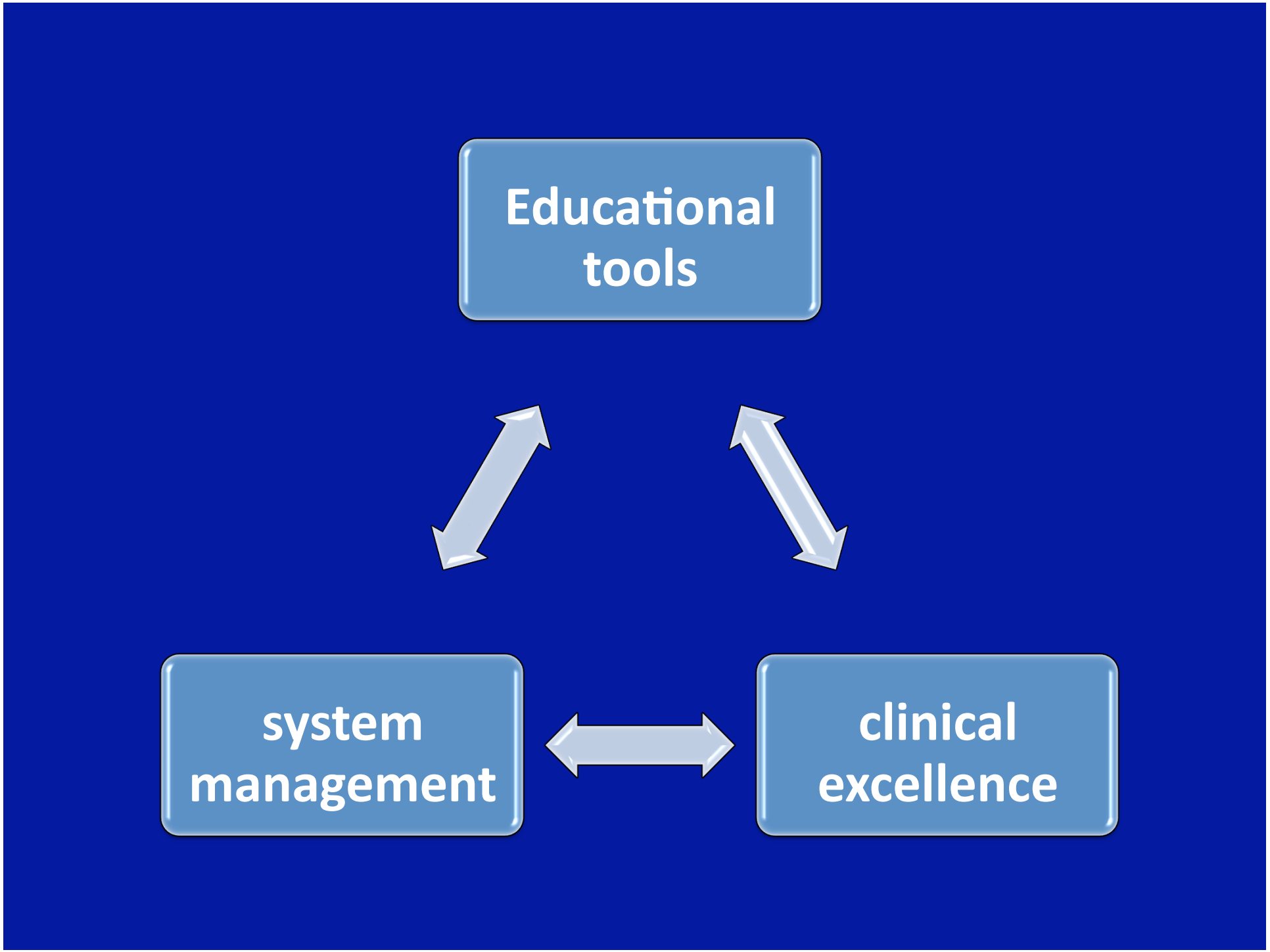
Continuing medical education

- **Psychiatrists**
- **Mental health professionals**
- **Family physicians**
- **Law enforcement personnel**
- **Correctional officers**



Not one but ALL of these: Requirements in care




Educational tools
system management
clinical excellence