

Hong Kong SAR

**Creating Preventive Interventions in
the Community to Meet the Needs of
At-Risk Elders**

Yeates Conwell, M.D.
Professor Of Psychiatry



Center for the Study
and Prevention of Suicide

University of Rochester School of Medicine
Rochester, NY USA

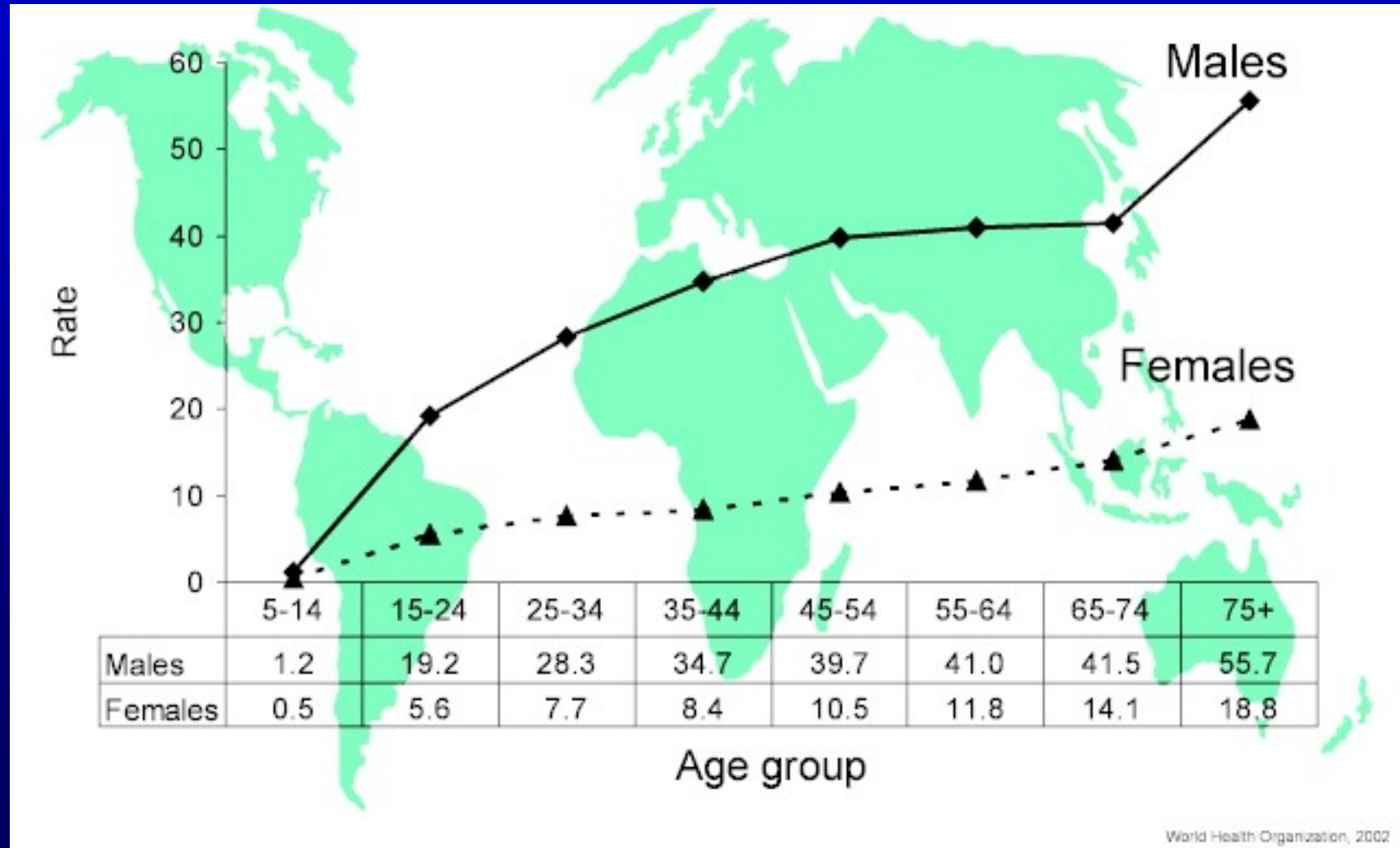


CONSIDERATIONS

- Extent of the problem
- Risk and protective factors
- Sites
- Approaches to prevention

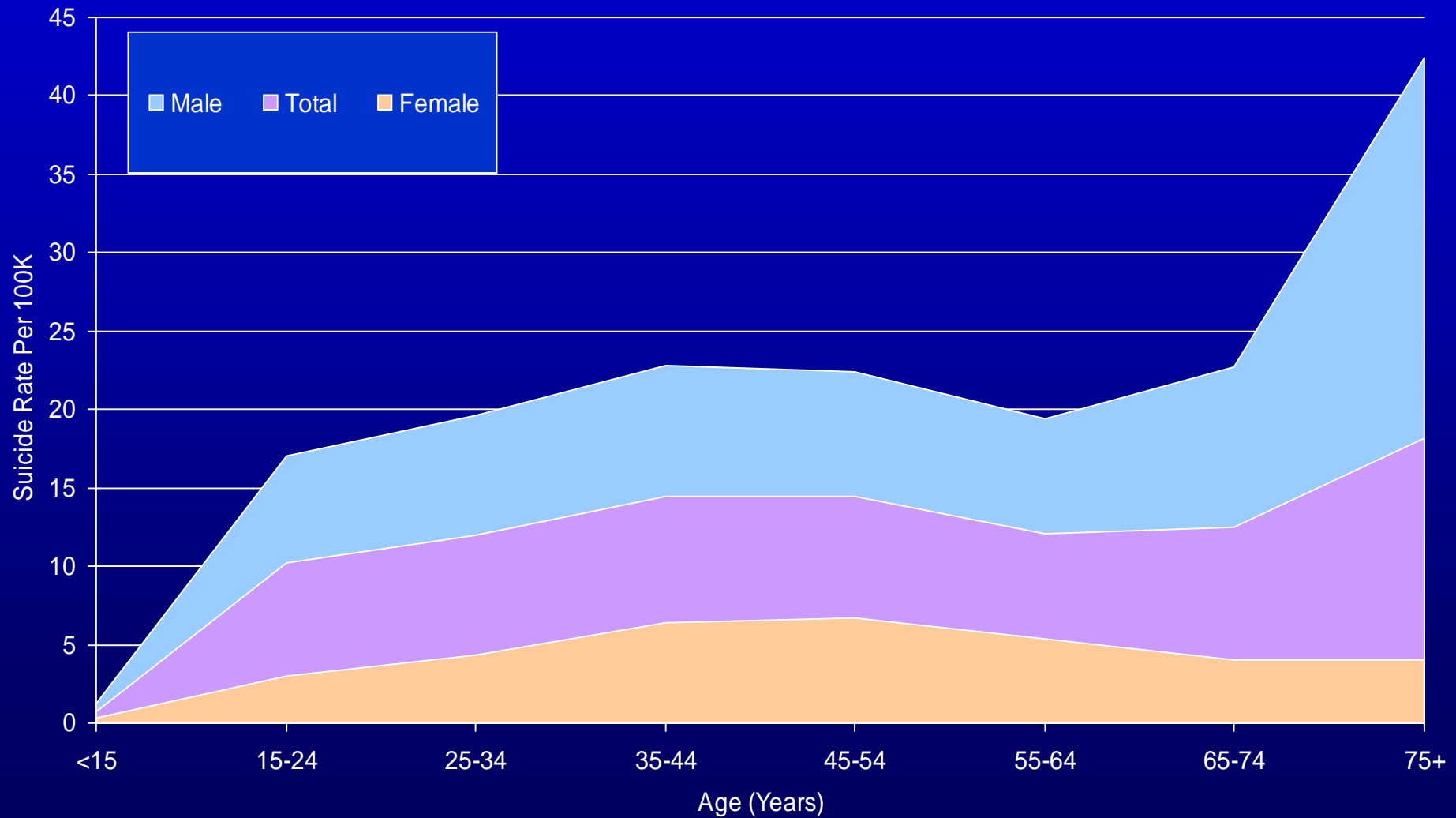


Suicide Rates Worldwide 1998 -- WHO





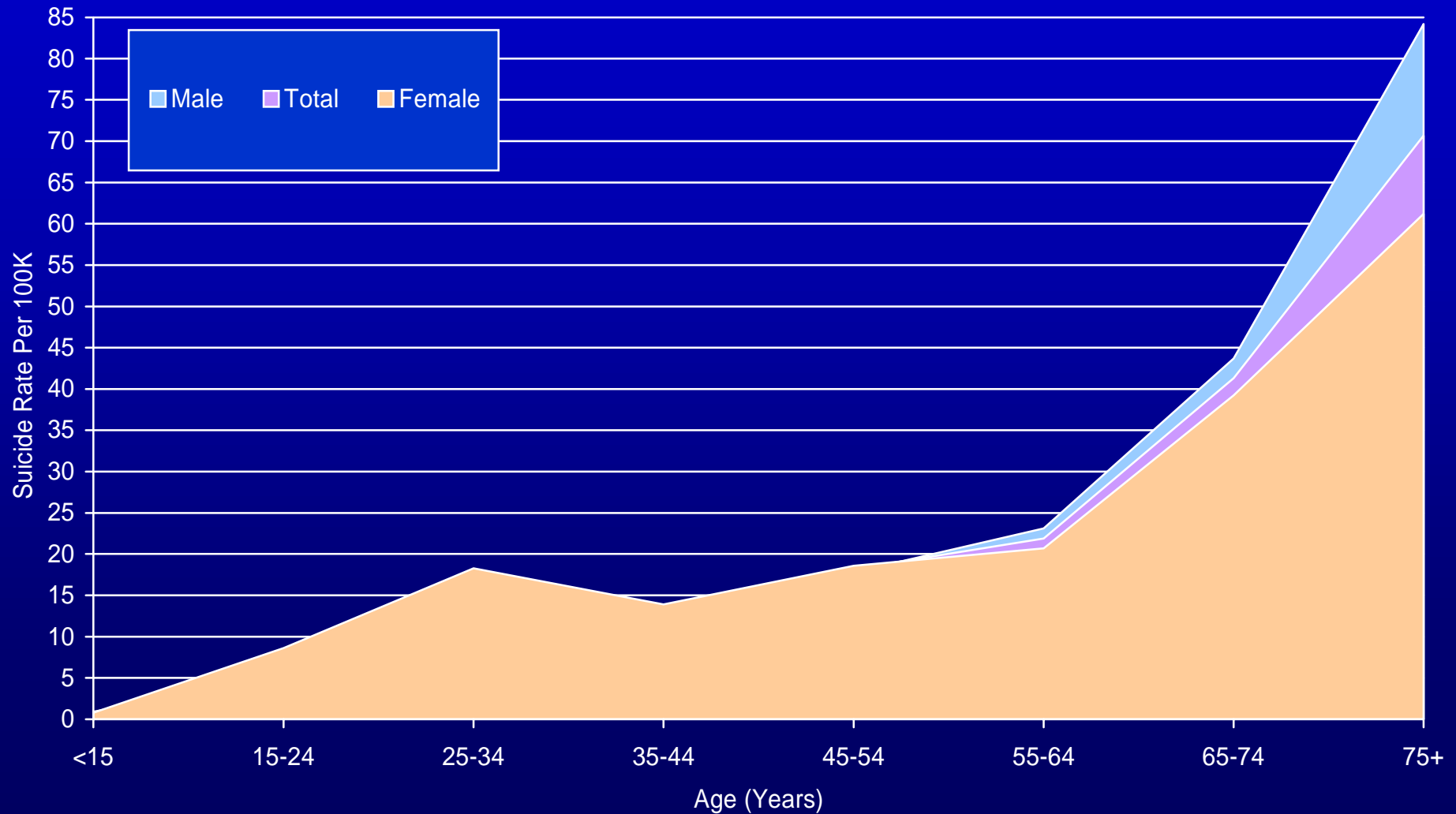
Suicide Rates by Age and Gender United States -- 2000



Source: World Health Organization



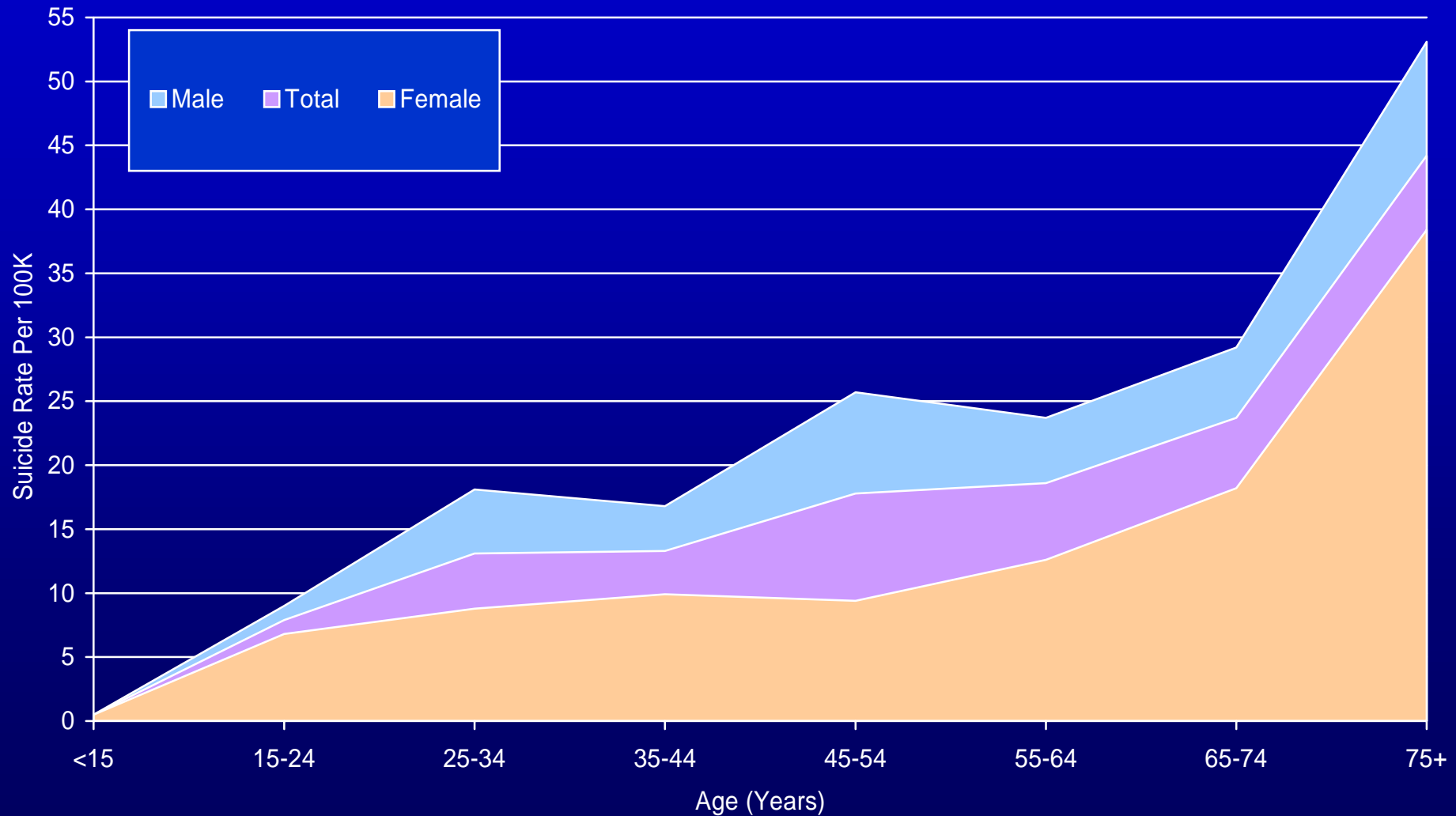
Suicide Rates by Age and Gender China -- 1999



Source: World Health Organization



Suicide Rates by Age and Gender Hong Kong – 1999



Source: World Health Organization



RISK AND PROTECTIVE FACTORS

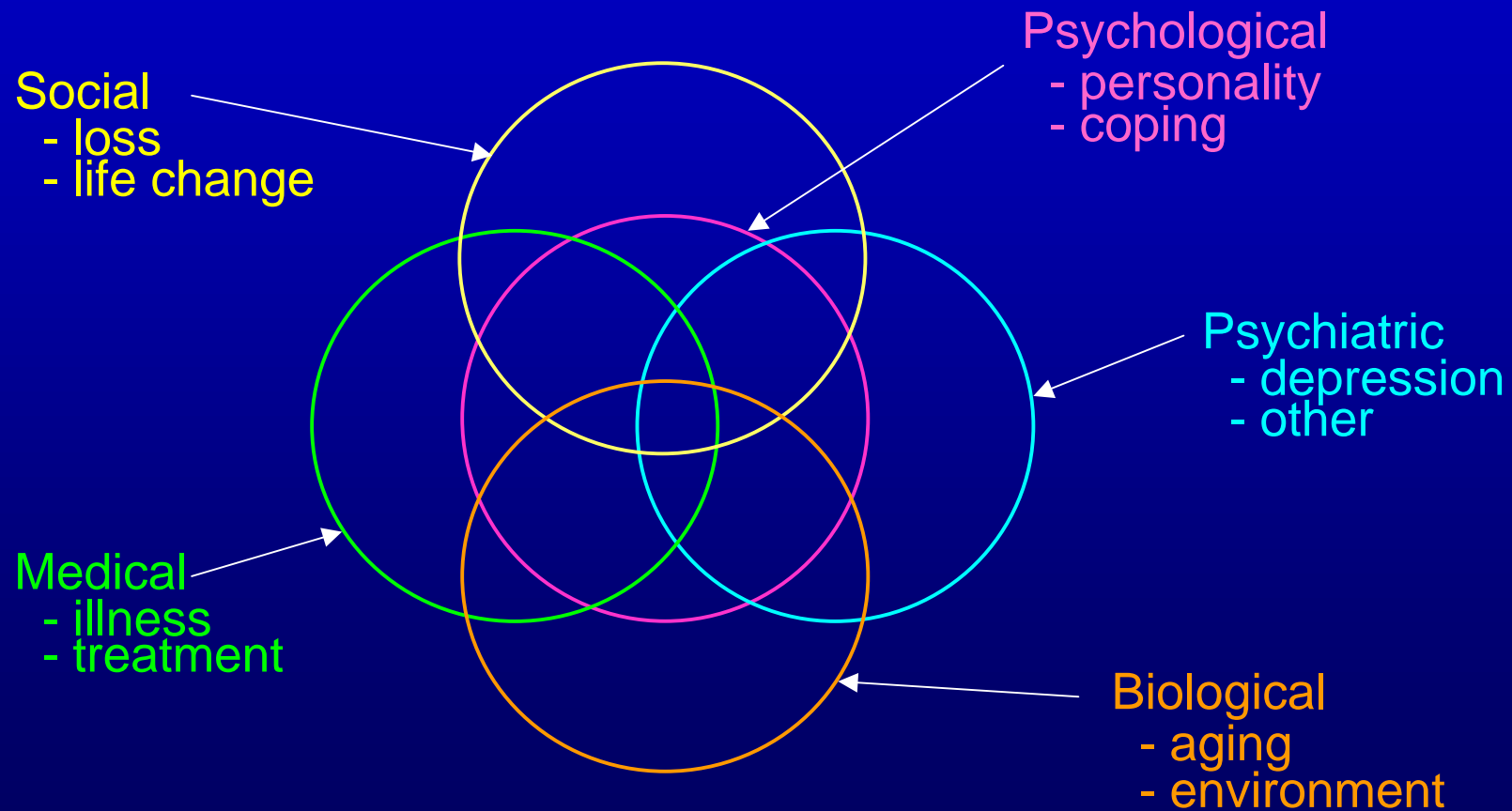


DATA from...

- Psychological autopsy studies:
 - Beautrais AL. *Suicide & Life-Threatening Behavior* 2002; 32(1):1-9
 - Duberstein PR et al, *Psychol Med* 2004; 34(1):137-146
 - Harwood D et al, *Int J Geriatric Psychiatry* 2001; 16(2):155-165
 - Waern M et al, *Am J Psychiatry* 2002; 159(3):450-455.
- Cohort studies:
 - Turvey CL et al, *Am J Geriatr Psychiatry* 2002; 10(4):398-406.



DOMAINS OF SUICIDE RISK IN LATER LIFE



Adapted from Blumenthal SJ, Kupfer DJ. Ann NY Acad Sci 487:327-340, 1986



RISK FACTORS FOR SUICIDE AMONG ELDERS

- Depression – major depression, other
- Prior suicide attempts
- Co-morbid general medical conditions
- Often with pain and role function decline
- Social dependency or isolation
- Family discord, losses
- Personality inflexibility, rigid coping
- Access to firearms



RISK FACTOR: Psychiatric Dx

Odds Ratio for	Harwood et al 2001	Beautrais 2002	Waern et al 2002	Conwell et al 2003
Any Axis I dx	--	43.9	113.1	56.0
Any mood d/o	4.0	184.6	63.1	56.0
Maj dep episode	--		28.6	14.0
Substance use d/o	ns	4.4	43.1	3.0
Anxiety disorder	--	--	3.6	3.0
Schiz spectrum	ns	--	10.7	ns
Dementia/delirium	0.2	--	ns	ns

ns = not significant



Suicide and Medical Illness

- *CNS*
 - Tumors
 - Stroke
 - Multiple sclerosis
 - Huntingtons disease
 - Epilepsy (TLE)
- *Malignant neoplasms*
- HIV/AIDS
- Peptic ulcer
- Renal disease
- Systemic lupus

Harris EC, Barraclough BM. *Medicine* 73:281-296, 1994



RISK FACTOR: Life Events

Event	OR*	95% CI
Severe Physical Illness	9.8	2.9 - 45.8
Family Discord	4.4	1.0 - 27.2

*Model adjusts for education, living arrangements, and mental disorders that developed prior to the last year (Duberstein et al., Psychological Medicine)



Firearm Access

	<u>SC</u> N = 73	<u>NC</u> N = 68	<u>OR</u>	<u>95% CI</u>
%(N) with				
- guns in home	63.1 (41)	42.4 (25)	2.3	1.1-4.8
- kept unlocked	91.2 (31)	62.5 (15)	6.2	1.5-26.3
- ammo w/ gun	68.2 (15)	35.2 (6)	3.9	1.0-15.0



Population Attributable Risk for Suicide in Later Life

Risk Factor	Population Attributable Risk
Major Affective Disorder - last month	73.6
Low social network	26.9



SITES



SITES

- Medical settings
 - Primary care
 - *Not* mental health providers
- Community settings
 - Long term care
 - Home health care
 - Social services



LAST PHYSICIAN CONTACT IN SUICIDES

Study	Age	N	%seen within	
			1 week	1 month
• Miller (1976)	≥ 60	30	33	77
• Barradough (1971)	≥ 65	30	47	70
• Clark (1991)	≥ 65	54	41	70
• Cattell & Jolley (1995)	≥ 65	100	19	43
• Conwell et al (1994)	55-74	24	25	42
	75+	20	35	75



APPROACHES TO PREVENTIVE INTERVENTION



Preventive Medicine Terminology: “Stages” of Preventive Intervention

“**Primary**” – targets causes of suicidal behavior before it occurs.

“**Secondary**” – targets behavior as it is occurring (in the suicidal state), minimizing injury that results.

“**Tertiary**” – following self-injury, interventions designed to minimize its impact and reduce recurrence.



Institute of Medicine Terminology: “Levels” of Preventive Intervention

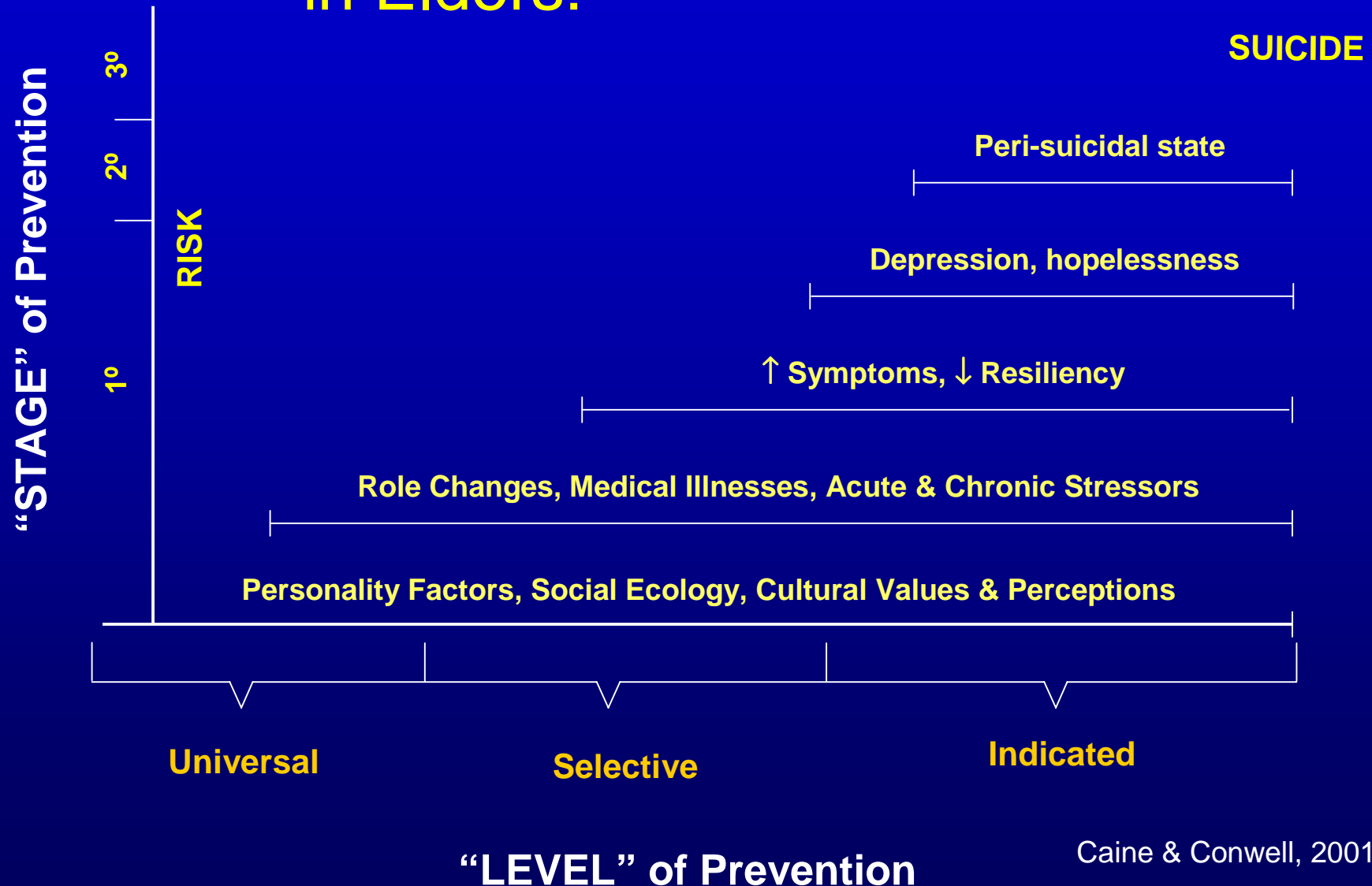
“**Universal**” – focused on the entire population as the target – prevention through reducing risk and enhancing health.

“**Selective**” – high-risk groups, though not all members bear risks – prevention through reducing risks.

“**Indicated**” – symptomatic and ‘marked’ high risk individuals – interventions to prevent full-blown disorders or adverse outcomes.



The Stairway Model of Suicide in Elders:





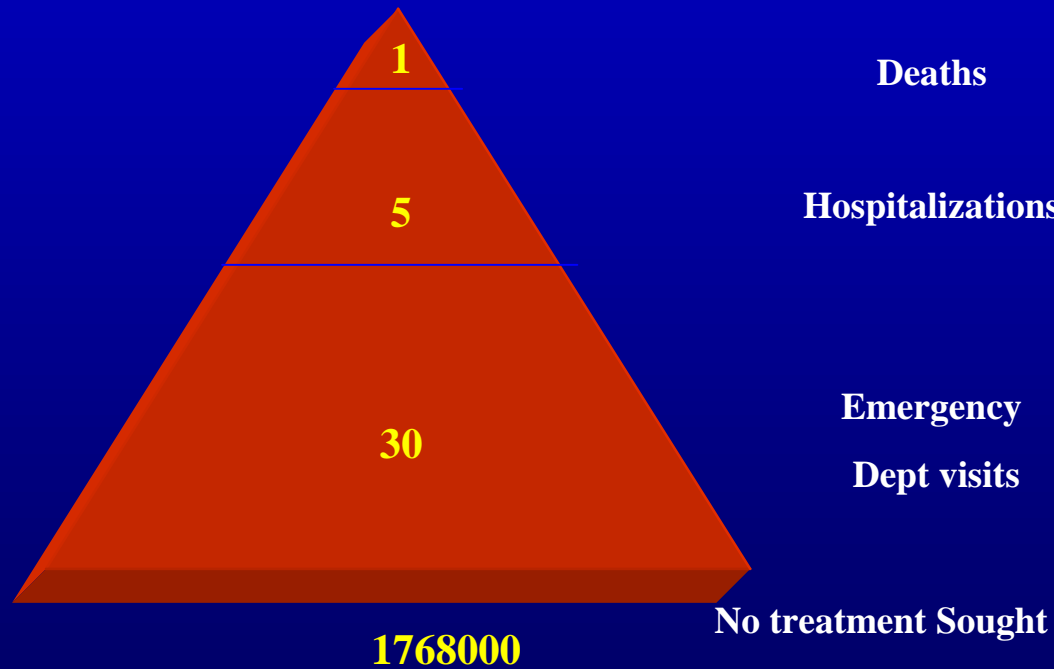
A COMPREHENSIVE ELDER SUICIDE PREVENTION PROGRAM

	Universal	Selective	Indicated
3° (Tertiary)			
2° (Secondary)			
1° (Primary)			

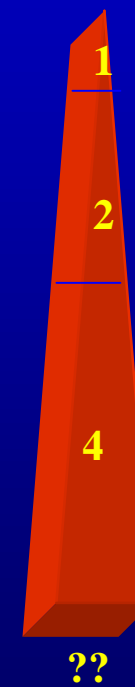


Attempted:Completed Suicide

General population



Older adults





Lethality of Late Life Suicide

- Older people are
 - more frail (more likely to die)
 - more isolated (less likely to be rescued)
 - more planful and determined
- **Implying**
 - **interventions must be aggressive**
 - **primary and secondary prevention are key**



A COMPREHENSIVE ELDER SUICIDE PREVENTION PROGRAM

	Universal	Selective	Indicated
3° (Tertiary)			
2° (Secondary)			
1° (Primary)			



A COMPREHENSIVE ELDER SUICIDE PREVENTION PROGRAM

	Universal	Selective	Indicated
3° (Tertiary)			
2° (Secondary)			
1° (Primary)			A



A – 1^o INDICATED

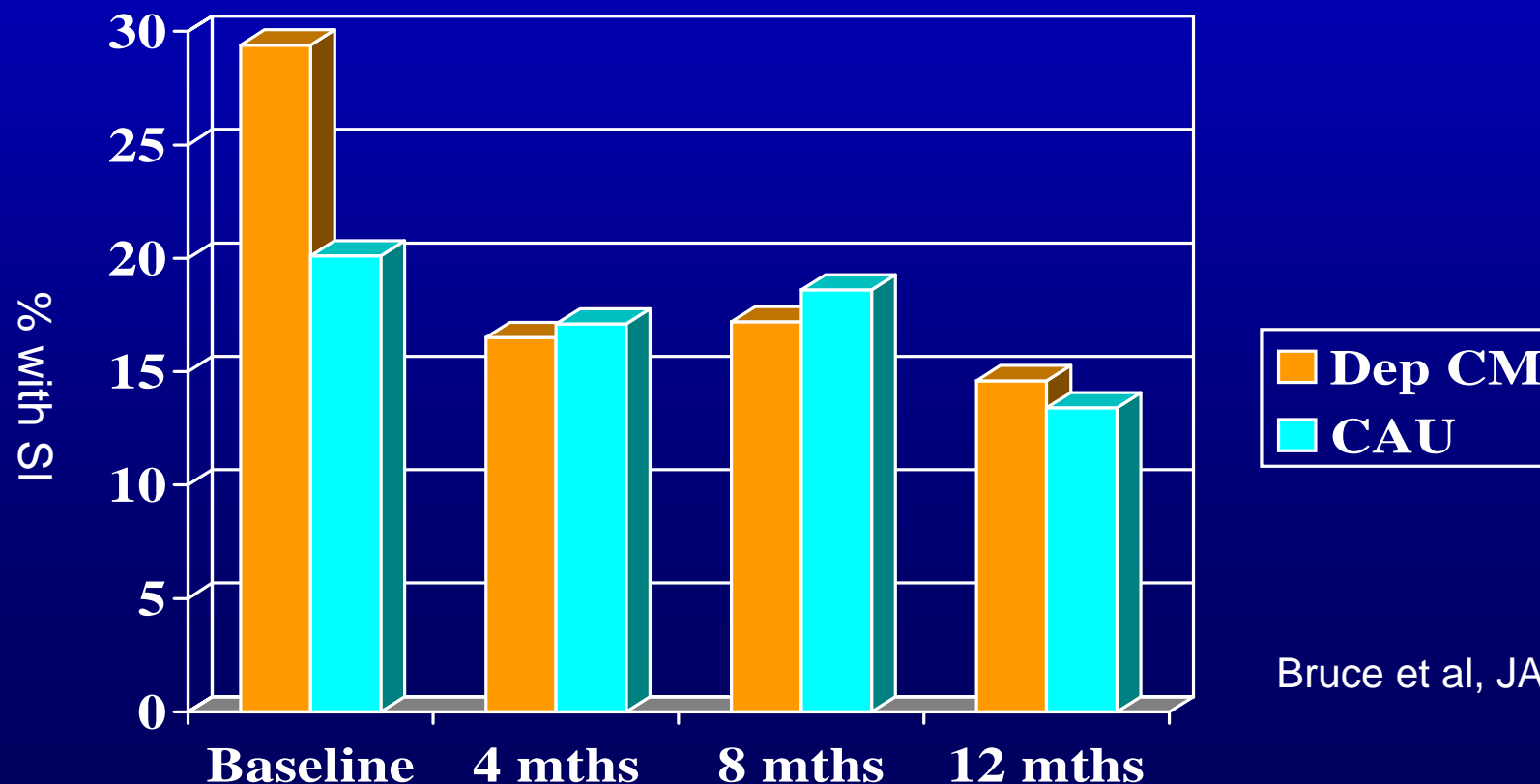
INTERVENTION	Setting	
	Medical	Community
Depression detection	<ol style="list-style-type: none">1. Education of primary care providers2. Office-based screening & dx	<ol style="list-style-type: none">1. Gatekeepers2. Screening by social services and home health care providers
Treatment	Collaborative depression care management – stepped care, treatment algorithms, disease management models	



The PROSPECT Study

N=598 subjects >60 yrs with major or minor depression

- Enhanced CAU (10 practices; n=278)
- Stepped, collaborative care model (10 practices; n=320)



Bruce et al, JAMA 2004



A COMPREHENSIVE ELDER SUICIDE PREVENTION PROGRAM

	Universal	Selective	Indicated
3° (Tertiary)			
2° (Secondary)			
1° (Primary)		B	Depression screening & treatment



B – 1^o SELECTIVE

INTERVENTION	Setting	
	Medical	Community
Optimize function, minimize pain	Geriatric assessment and treatment teams	Home health care
↓ Social isolation ↑ Social support		Outreach, senior centers, home visits, caregiver support, in-home technology



Tele-Help/Tele-Check Service for the Elderly

- 18,641 service users in Padua, Italy
- January 1, 1988 thru December 31, 1998
- Mean age = 80.0 years
- 84% women, 73% lived alone
- Suicides observed = 6

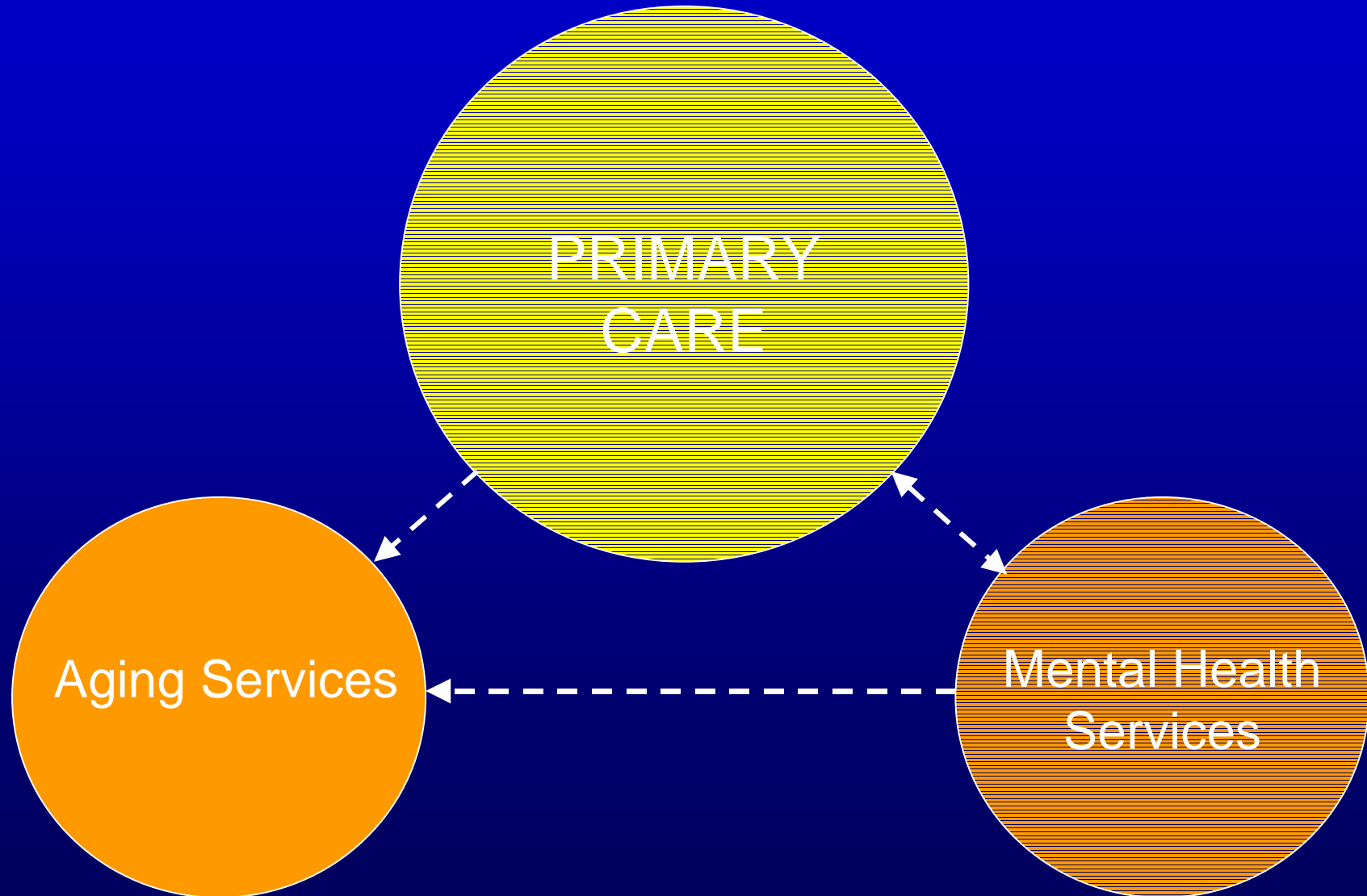
expected = 20.9

SMR = 28.8% ($p < .0001$)

DeLeo et al., Br J Psychiatry 181:226-229, 2002

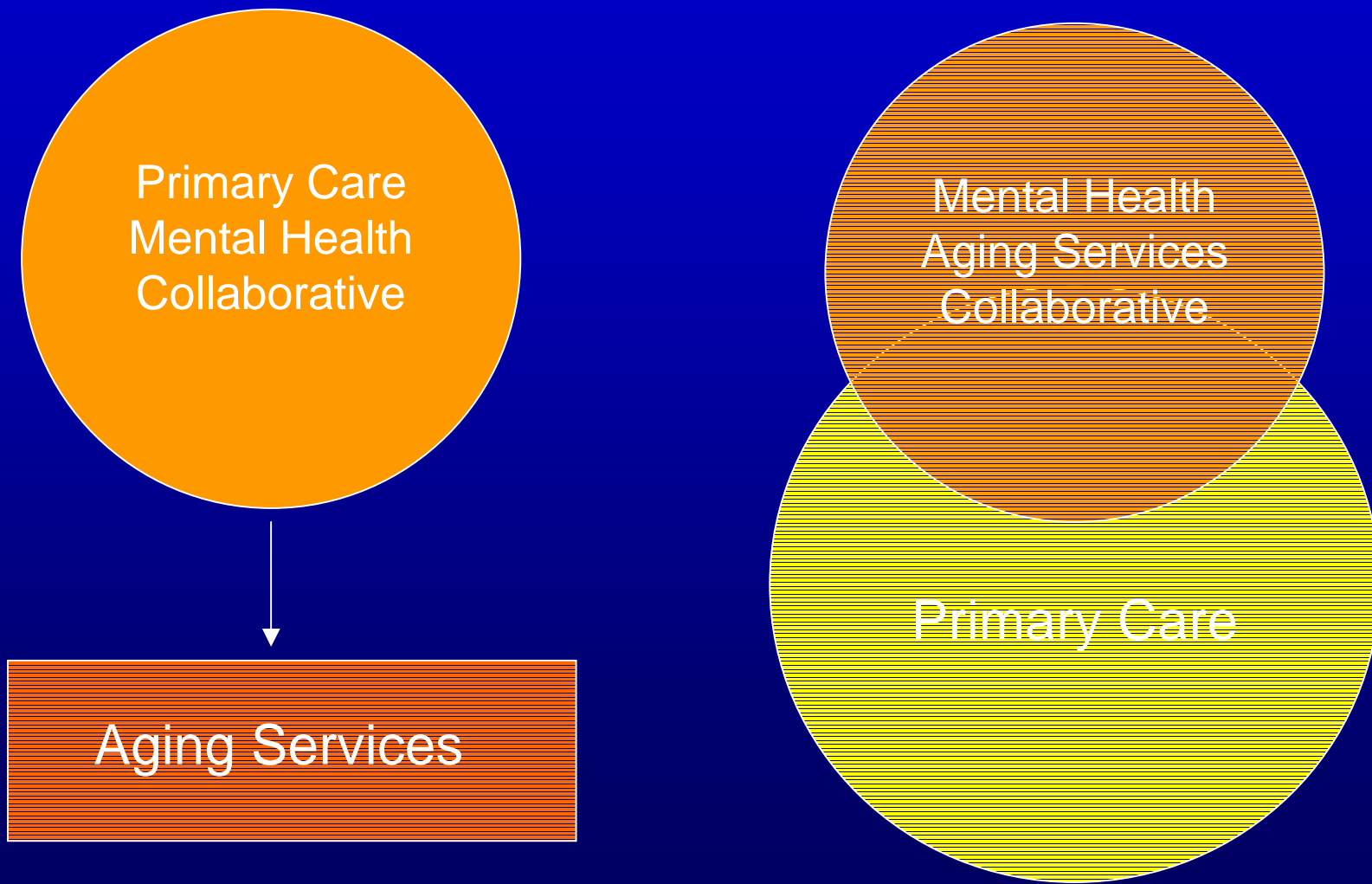


CURRENT MODEL OF CARE





NEW MODELS OF CARE





A COMPREHENSIVE ELDER SUICIDE PREVENTION PROGRAM

	Universal	Selective	Indicated
3° (Tertiary)			
2° (Secondary)			
1° (Primary)	C	Outreach to ↓ social isolation; optimal care for pain, function	Depression screening & treatment



C – 1º UNIVERSAL

INTERVENTION	Setting	
	Medical	Community
↓ Ageism	Professional education re: aging	Public education
↑ Access to care and social services		Legislation: Social, medical policy reform



A COMPREHENSIVE ELDER SUICIDE PREVENTION PROGRAM

	Universal	Selective	Indicated
3° (Tertiary)			
2° (Secondary)	D		
1° (Primary)	Education to ↓ ageism; social, medical policy reform	Outreach to ↓ social isolation; optimal care for pain, function	Depression screening & treatment



D – 2^o UNIVERSAL

INTERVENTION	Setting	
	Medical	Community
↓ Stigma	Professional educ re: mental illness, suicide	Public education re: mental illness, suicide
Restrict access to lethal mean	Screening for access in primary care	Public education re: safe storage Legislation (e.g., gun control)



Brady Handgun Violence Prevention Act -- 1994

- Nationwide requirement for waiting period and background checks for handgun sales
- 18 states met requirements = controls
- 32 states instituted new laws = tx
- No difference between tx and control states in
 - homicide rates for ≥ 21 or ≥ 55 y.o.
 - suicide rates for ≥ 21 y.o.
- Significantly greater reduction in tx states in firearm suicides for ≥ 55 y.o.



A COMPREHENSIVE ELDER SUICIDE PREVENTION PROGRAM

	Universal	Selective	Indicated
3° (Tertiary)			
2° (Secondary)	↓ Stigma; Restrict access to lethal means		
1° (Primary)	Education to ↓ ageism; social, medical policy reform	Outreach to ↓ social isolation; optimal care for pain, function	Depression screening & treatment



The Stairway Model of Suicide in Elders:

