What is new in Suicide Prevention In Physicians?

From Primary to Tertiary Prevention

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Medical Safety Officer (MSO)
Codman-Neuro, Craniomaxillofacial and Thorax
DePuy Synthes Companies of Johnson & Johnson

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Disclosure Statement

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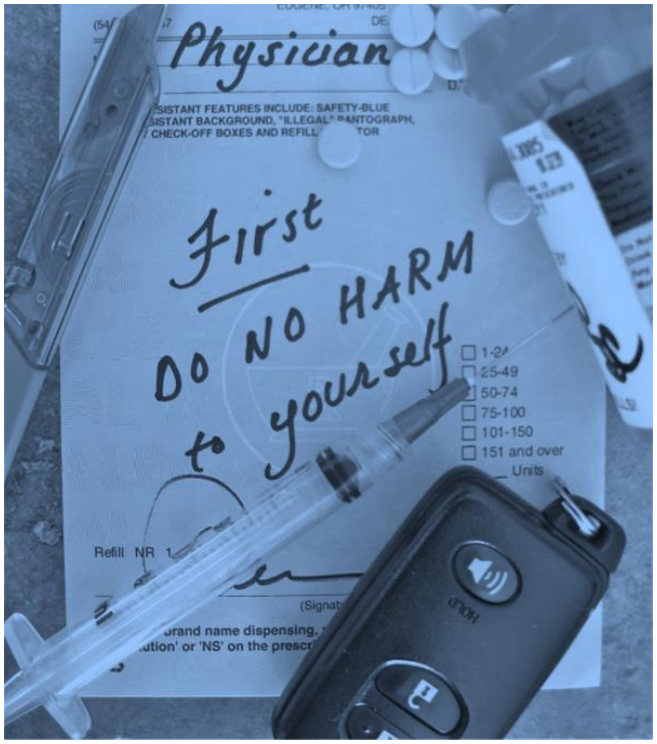
The content of this activity does not relate to any product of a commercial interest as defined by the ACCME; therefore, there are no other relevant financial relationships to disclose at this time

Presentation



- **Background**
- **Epidemiology**
- **Why?**
  - **Medicine –Identity**
  - **Tiers of Secrets**
  - **Stigma**
  - **Mood disorders (other psychiatric conditions)**
  - **Risk factors**
- **PREVENTION**
- **A call for action**

Background

- Studies over the past 4 decades
  - have shown that physicians die by suicide more frequently than nonphysicians.*

*JAMA, September 14, 2005—Vol 294, No. 10 1189

Background

- No one talks about suicide
  - (especially in the medical community)

*JAMA, September 14, 2005—Vol 294, No. 10 1189

Background

- Physicians run an increased risk of committing suicide and better preventive efforts are needed.

Suicidal ideation among medical students and young physicians: a nationwide and prospective study of prevalence and predictors. Journal of Affective Disorders Volume 64, Issue 1, April 2001, Pages 69–79

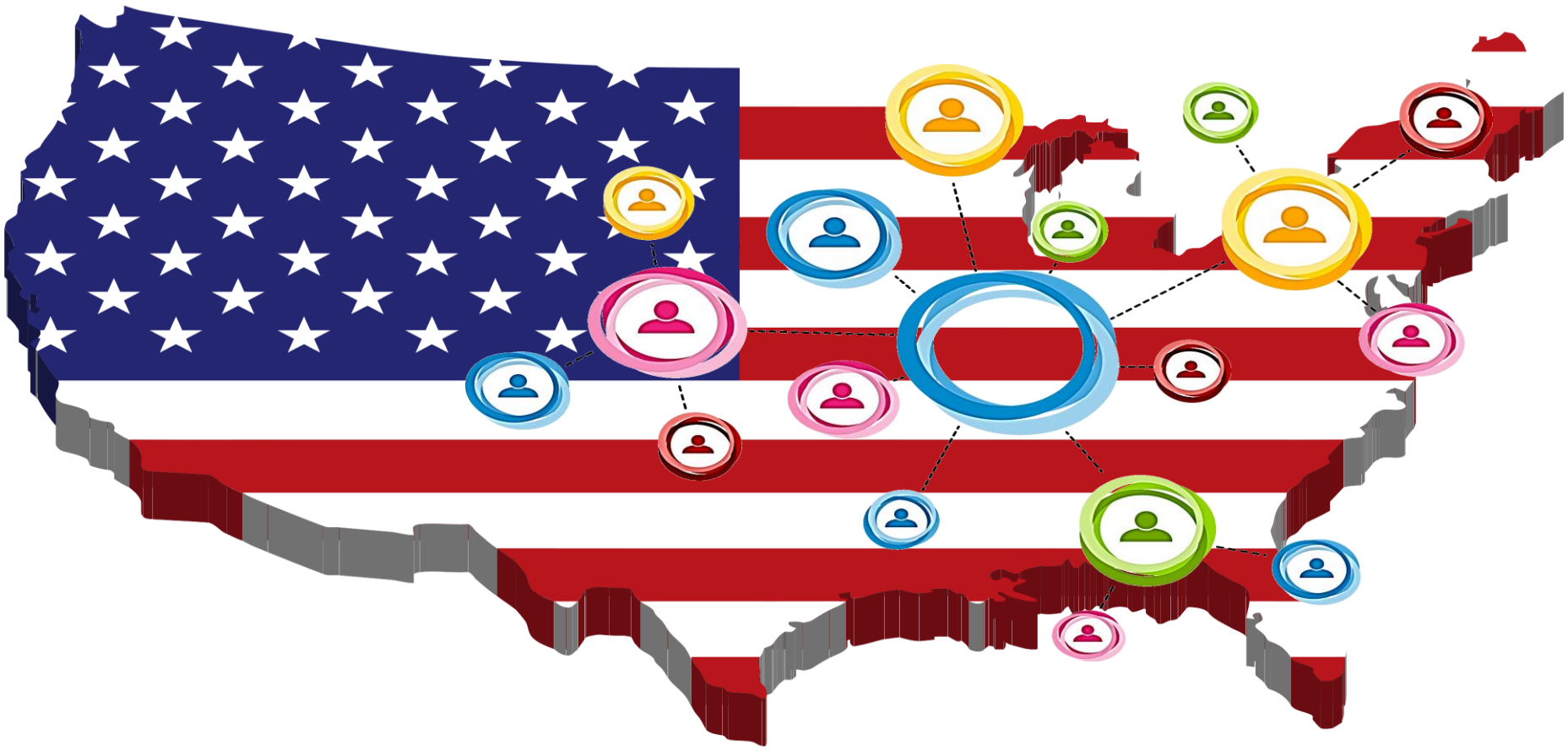
EPIDEMIOLOGY

Definition: Suicide

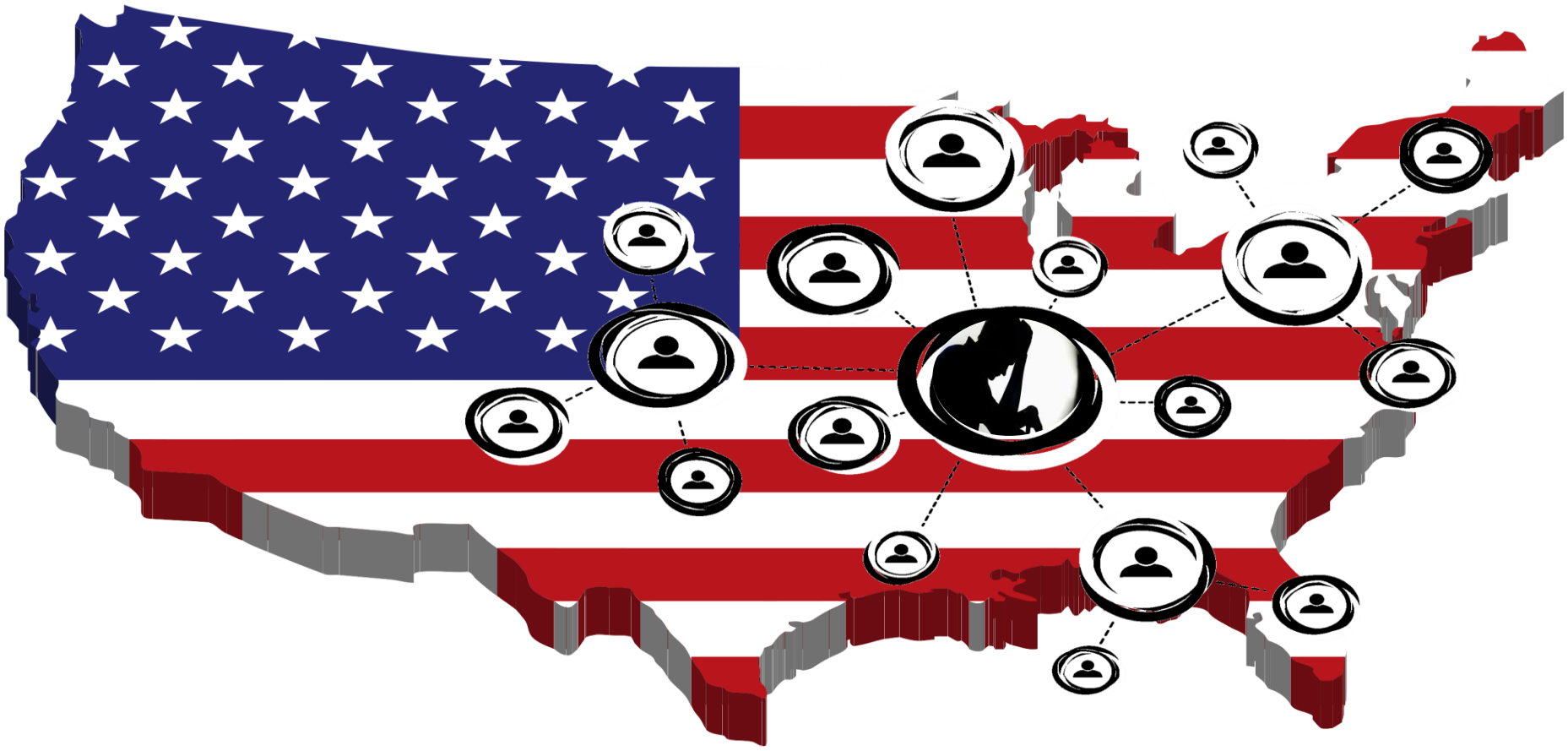
1. **Death** caused by
2. **self-directed injurious behavior** with an
3. **intent to die** as a result of the behavior.

National Vital Statistics System, National Center for Health Statistics, CDC.

According to the American Foundation for Suicide Prevention, between 300 to 400 doctors .....

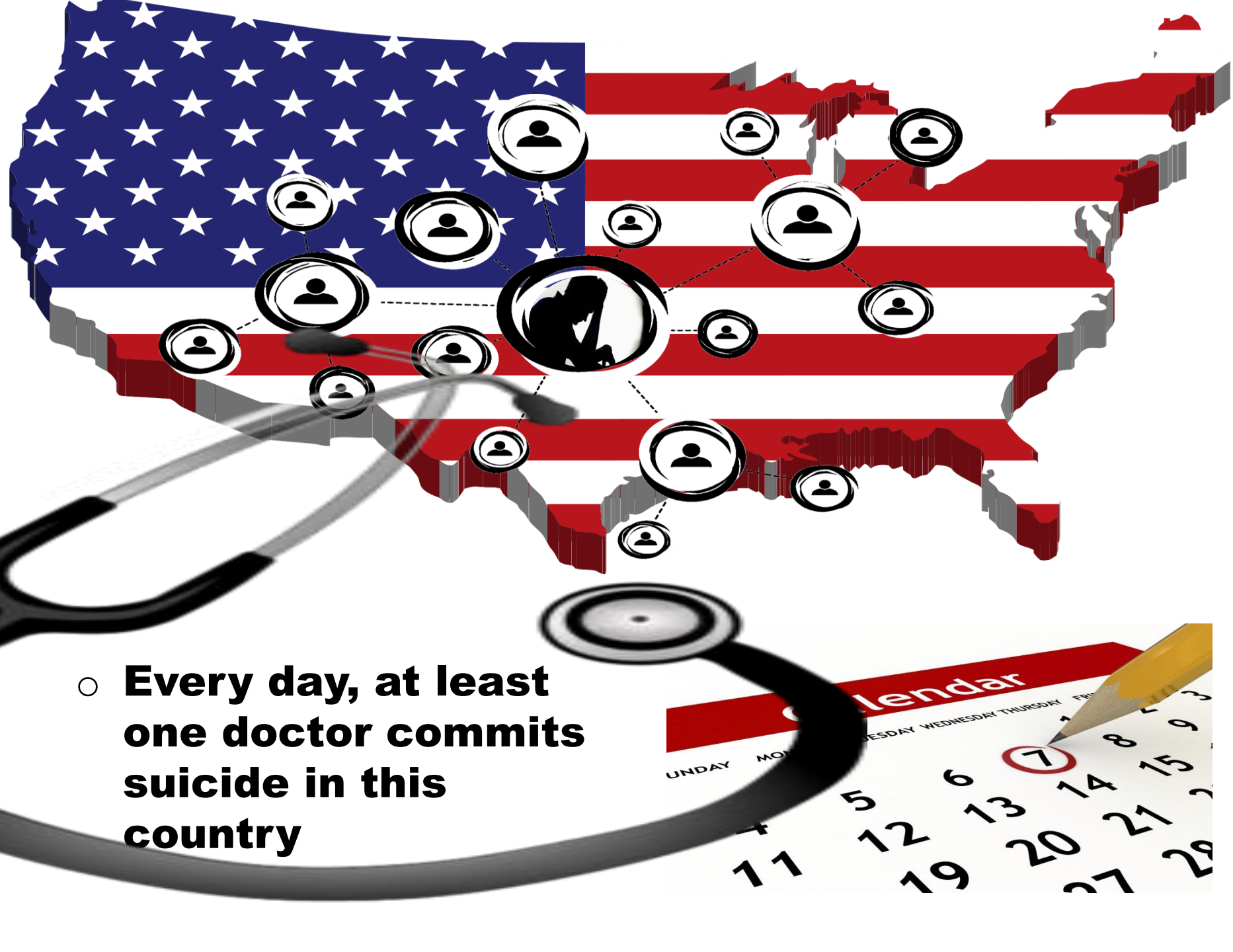


http://afsp.org/our-work/education/physician-medical-student-depression-suicide-prevention/



- **Kill themselves annually in the United States**

http://afsp.org/our-work/education/physician-medical-student-depression-suicide-prevention/



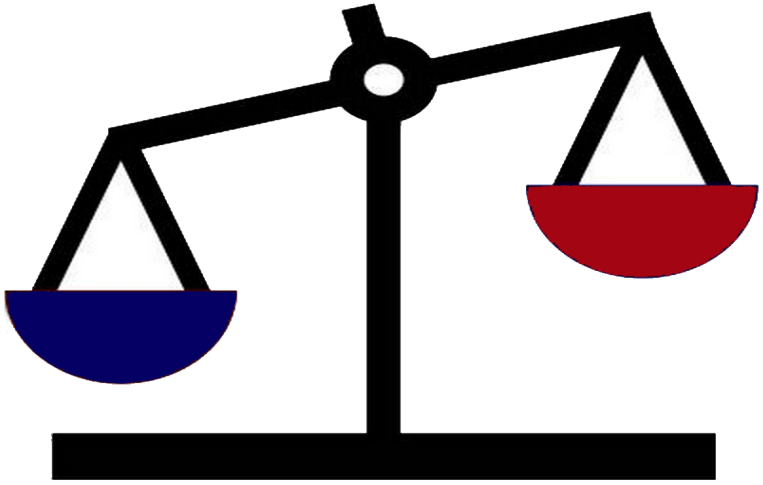
- **Every day, at least one doctor commits suicide in this country**

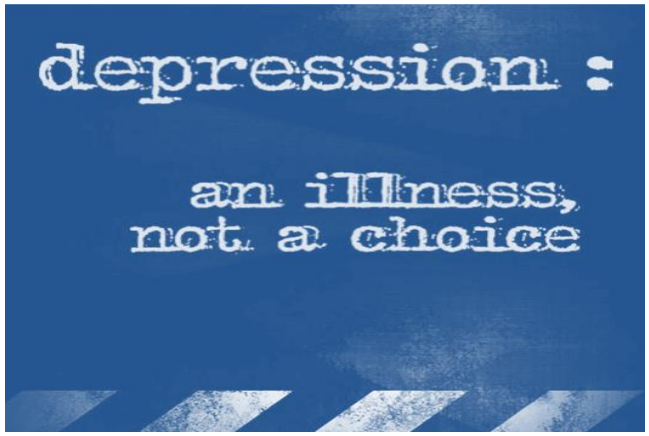
About Suicide

American Foundation for Suicide Prevention

- There is no single cause to suicide.
- It most often occurs when:
  - Stressors exceed current coping abilities of
  - Someone suffering from a mental health condition.

Depression is the most common condition associated with suicide, and it is often undiagnosed or untreated.





American Foundation fro Suicide Prevention http://afsp.org/about-suicide/

10 Leading Causes of Death by Age Group, United States – 2014

	Age Groups										
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	Total
1	Congenital Anomalies 4,746	Unintentional Injury 1,216	Unintentional Injury 730	Unintentional Injury 750	Unintentional Injury 11,836	Unintentional Injury 17,357	Unintentional Injury 16,048	Malignant Neoplasms 44,834	Malignant Neoplasms 115,282	Heart Disease 489,722	Heart Disease 614,348
2	Short Gestation 4,173	Congenital Anomalies 399	Malignant Neoplasms 436	Suicide 425	Suicide 5,079	Suicide 6,569	Malignant Neoplasms 11,267	Heart Disease 34,791	Heart Disease 74,473	Malignant Neoplasms 413,885	Malignant Neoplasms 591,699
3	Maternal Pregnancy Comp. 1,574	Homicide 364	Congenital Anomalies 192	Malignant Neoplasms 416	Homicide 4,144	Homicide 4,159	Heart Disease 10,368	Unintentional Injury 20,610	Unintentional Injury 18,030	Chronic Low. Respiratory Disease 124,693	Chronic Low. Respiratory Disease 147,101
4	SIDS 1,545	Malignant Neoplasms 321	Homicide 123	Congenital Anomalies 156	Malignant Neoplasms 1,569	Malignant Neoplasms 3,624	Suicide 6,706	Suicide 8,767	Chronic Low. Respiratory Disease 16,492	Cerebro-vascular 113,308	Unintentional Injury 136,053
5	Unintentional Injury 1,161	Heart Disease 149	Heart Disease 69	Homicide 156	Heart Disease 953	Heart Disease 3,341	Homicide 2,588	Liver Disease 8,627	Diabetes Mellitus 13,342	Alzheimer's Disease 92,604	Cerebro-vascular 133,103
6	Placenta Cord. Membranes 965	Influenza & Pneumonia 109	Chronic Low. Respiratory Disease 68	Heart Disease 122	Congenital Anomalies 377	Liver Disease 725	Liver Disease 2,582	Diabetes Mellitus 6,062	Liver Disease 12,792	Diabetes Mellitus 54,161	Alzheimer's Disease 93,541
7	Bacterial Sepsis 544	Chronic Low Respiratory Disease 53	Influenza & Pneumonia 57	Chronic Low Respiratory Disease 71	Influenza & Pneumonia 199	Diabetes Mellitus 709	Diabetes Mellitus 1,999	Cerebro-vascular 5,349	Cerebro-vascular 11,727	Unintentional Injury 48,295	Diabetes Mellitus 76,488
8	Respiratory Distress 460	Septicemia 53	Cerebro-vascular 45	Cerebro-vascular 43	Diabetes Mellitus 181	HIV 583	Cerebro-vascular 1,745	Chronic Low. Respiratory Disease 4,402	Suicide 7,527	Influenza & Pneumonia 44,836	Influenza & Pneumonia 55,227
9	Circulatory System Disease 444	Benign Neoplasms 38	Benign Neoplasms 36	Influenza & Pneumonia 41	Chronic Low Respiratory Disease 178	Cerebro-vascular 579	HIV 1,174	Influenza & Pneumonia 2,731	Septicemia 5,709	Nephritis 39,957	Nephritis 48,146
10	Neonatal Hemorrhage 441	Perinatal Period 38	Septicemia 33	Benign Neoplasms 38	Cerebro-vascular 177	Influenza & Pneumonia 549	Influenza & Pneumonia 1,125	Septicemia 2,514	Influenza & Pneumonia 5,390	Septicemia 29,124	Suicide 42,773

Data Source: National Vital Statistics System, National Center for Health Statistics, CDC.
Produced by: National Center for Injury Prevention and Control, CDC using WISQARS™.

Centers for Disease Control and Prevention
National Center for Injury Prevention and Control

EPIDEMIOLOGY

- **Suicide is the 10 th leading cause of death in the US**

American Foundation fro Suicide Prevention http://afsp.org/about-suicide/

EPIDEMIOLOGY

About Suicide in the US

- The annual age-adjusted suicide rate is **12.93 per 100,000**individuals.
- Men die by suicide **3.5x** more often than women.
- On average, there are **117** suicides per day.
- White males accounted for **7 of 10** suicides in 2014.
- Firearms account for **almost 50%** of all suicides.
- The rate of suicide is **highest in middle age** — white men in particular.

EPIDEMIOLOGY

25 studies

Meta-analysis Based on:

- 24 rate ratios for male physicians
- 13 suicide rate ratios for female physicians.

Am J Psychiatry 2004; 161:2295–2302

Article

Suicide Rates Among Physicians: A Quantitative and Gender Assessment (Meta-Analysis)

Eva S. Schernhammer, M.D., Dr.P.H.

Graham A. Colditz, M.D., D.P.H.

Objective: Physicians' suicide rates have repeatedly been reported to be higher than those of the general population or other academics, but uncertainty remains. In this study, physicians' suicide rate ratios were estimated with a meta-analysis and systematic quality assessment of recent studies.

Method: Studies of physicians' suicide rates were located in MEDLINE, PsycINFO, AARP Ageline, and the EBM Reviews: Cochrane Database of Systematic Reviews with the terms "physicians," "doctors," "suicide," and "mortality." Studies were included if they were published in or after 1960 and gave estimates of age-standardized suicide rates of physicians and their reference population or reported extractable data on physicians' suicide; 25 studies met the criteria. Reviewers extracted data and scored each study for quality. The studies were tested for heterogeneity and publication bias and were stratified by publication year, follow-up, and study quality. Effect sizes were pooled by using fixed-effects (women) and random-effects (men) models.

Results: The aggregate suicide rate ratio for male physicians, compared to the general population, was 1.41, with a 95% confidence interval [CI] of 1.21–1.65. For female physicians the ratio was 2.27 (95% CI=1.90–2.73). Visual inspection of funnel plots from tests of publication bias revealed randomness for men but some indication of bias for women, with a relative, nonsignificant lack of studies in the lower right quadrant.

Conclusions: Studies on physicians' suicide collectively show modestly (men) to highly (women) elevated suicide rate ratios. Larger studies should help clarify whether female physicians' suicide rate is truly elevated or can be explained by publication bias.

(Am J Psychiatry 2004; 161:2295–2302)

Long-standing evidence suggests that those who choose medicine for a career are at greater risk for suicide: the suicide rate among physicians in the United States has been described as nearly twice that seen among white American men (1). In a 2000 national study on causes of death, Frank et al. (2) found a 70% higher rate of mortality due to suicide and self-inflicted injury among white male U.S. physicians than among other professionals. Female physicians' suicide rate, however, far exceeds that of the general population, in the range of three- to fourfold (2, 3). In a systematic review, Lindeman et al. (4) estimated physicians' relative suicide risk at 1.1 to 3.4 for men and 2.5 to 5.7 for women when the rates were compared with those for the general population and at 1.5 to 3.8 for men and 3.7 to 4.5 for women when the rates were compared with those for other professionals. However, the authors did not perform any quantitative summary of the results in their systematic review. Instead, they simply summarized the main results of the studies by presenting the range of the relative risks and their 95% confidence intervals (CIs). Furthermore, they did not perform a quantitative evaluation of publication bias and did not estimate the extent to which quality issues explained potential heterogeneity in the suicide rates in their review.

Despite consistent findings, concerns about methodological limitations of previous studies (5, 6) have made suicide studies subject to considerable controversy. We therefore decided to appraise the evidence concerning physician suicide that has been accumulated to date. We report a quantitative analysis of several independent studies, a meta-analysis, which to our knowledge is the first in the literature. We present overall suicide rate ratios for male and female physicians and describe reasons for variations in study results.

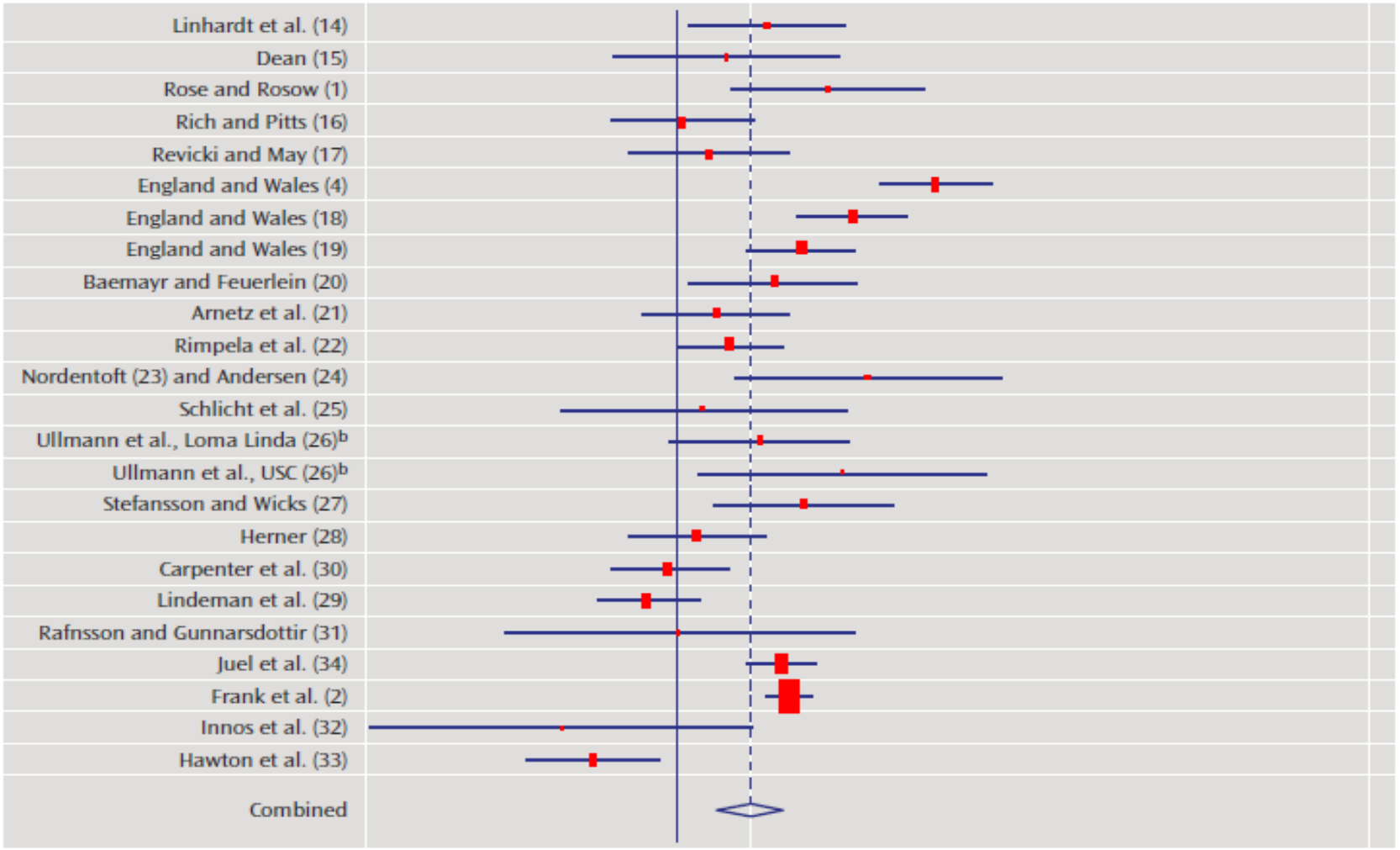
Method

Identification of Studies

We searched for studies on the rates of physicians' mortality and suicide using electronic searches of MEDLINE (from 1966 to July 2003), PsycINFO (from 1984 to July 2003), the AARP Ageline (from 1978 to July 2003), and the EBM (Evidence-Based Medicine) Reviews: Cochrane Database of Systematic Reviews. "Physicians," "doctors," "mortality," and "suicide" were entered as medical subject heading terms and text words and then connected through Boolean operators. We also manually searched reviews and the reference list of each article to locate additional reports published before 1966. We placed no constraints on the language in which the reports were written, the region of the study subjects' residence, or their age group. We were careful, however, to minimize

Suicide Rates Among Physicians: A Meta-Analysis- MALE PHYSICIANS

FIGURE 1. Meta-Analysis of Male Physicians' Suicide Rate Ratios in 24 Studies[a]



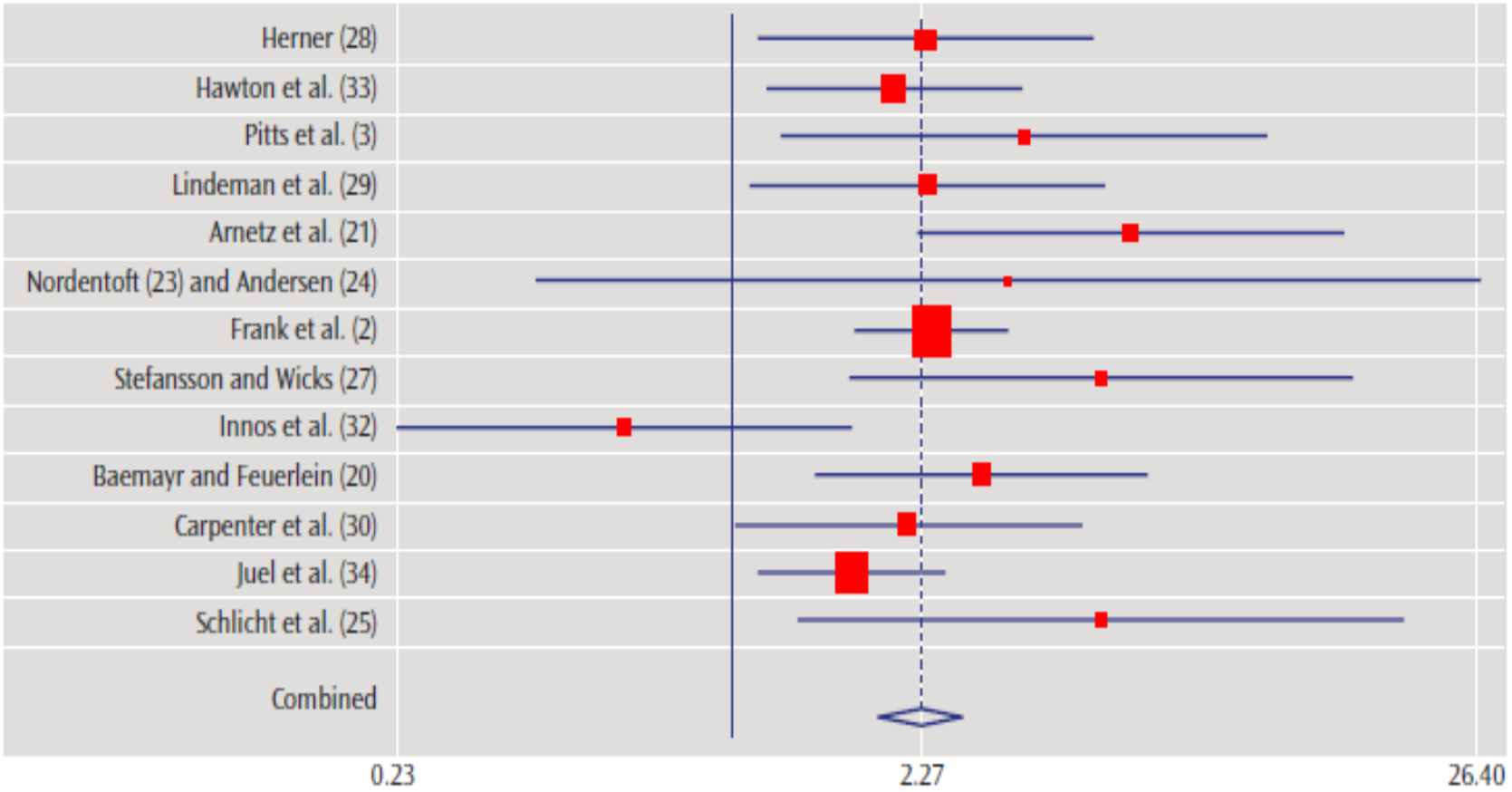
[a] The dashed vertical line represents the combined estimate, and the diamond-shaped box represents the confidence interval from the random-effects model. The estimates are plotted with boxes; the area of each box is inversely proportional to the estimated effect's variance in the study, hence giving more visual prominence to studies where the effect is more precisely estimated.

[b] Loma Linda University or University of Southern California.

E. Schernhammer, *Am J Psychiatry 2004; 161:2295–2302*

Suicide Rates Among Physicians: A Meta-Analysis-FEMALE PHYSICIANS

FIGURE 2. Meta-Analysis of Female Physicians' Suicide Rate Ratios in 13 Studies[a]

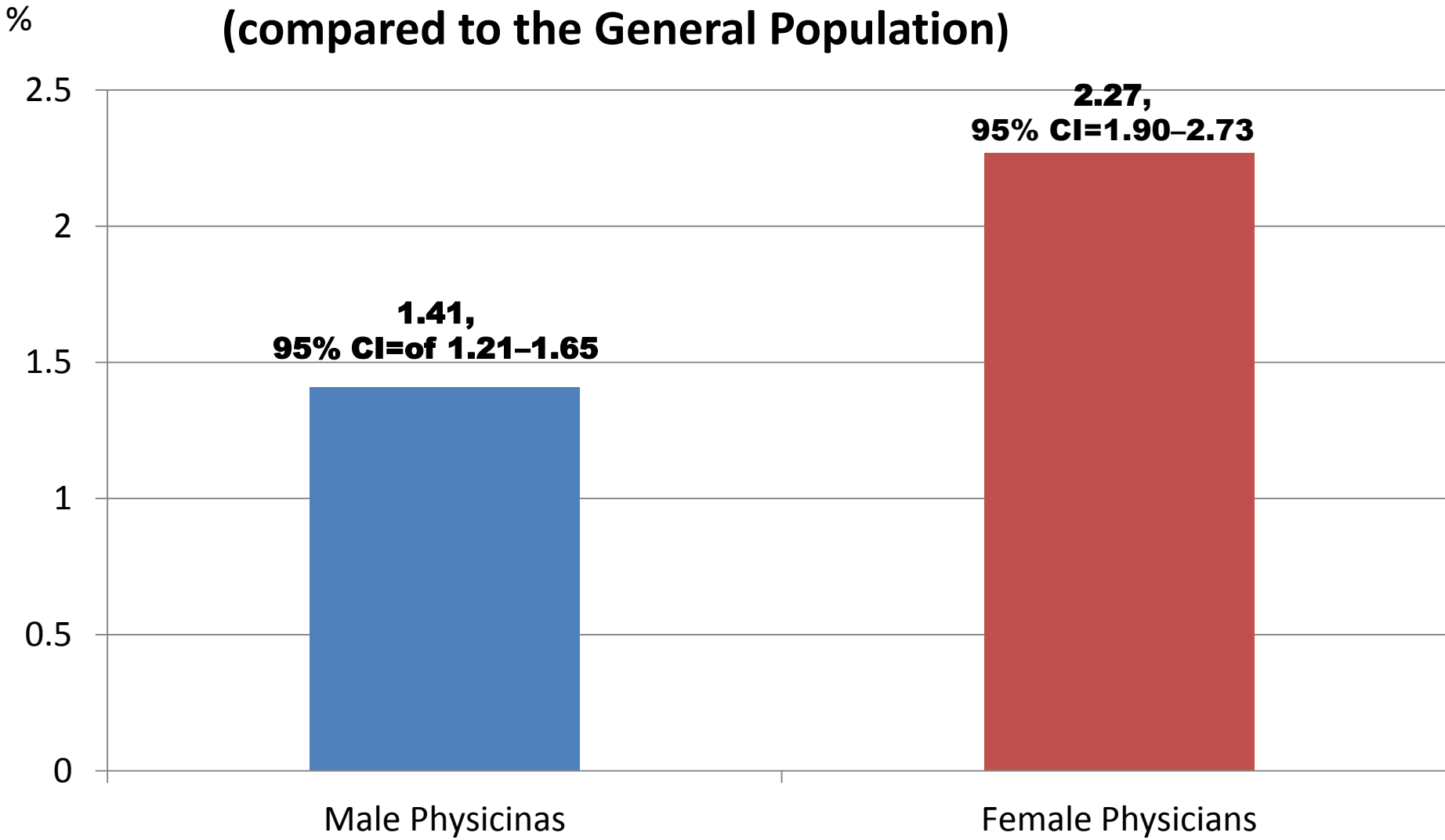


[a] The dashed vertical line represents the combined estimate, and the diamond-shaped box represents the confidence interval from the fixed-effects model. The estimates are plotted with boxes; the area of each box is inversely proportional to the estimated effect's variance in the study, hence giving more visual prominence to studies where the effect is more precisely estimated.

E. Schernhammer, *Am J Psychiatry 2004; 161:2295–2302*

Aggregate Suicide Rate Radio

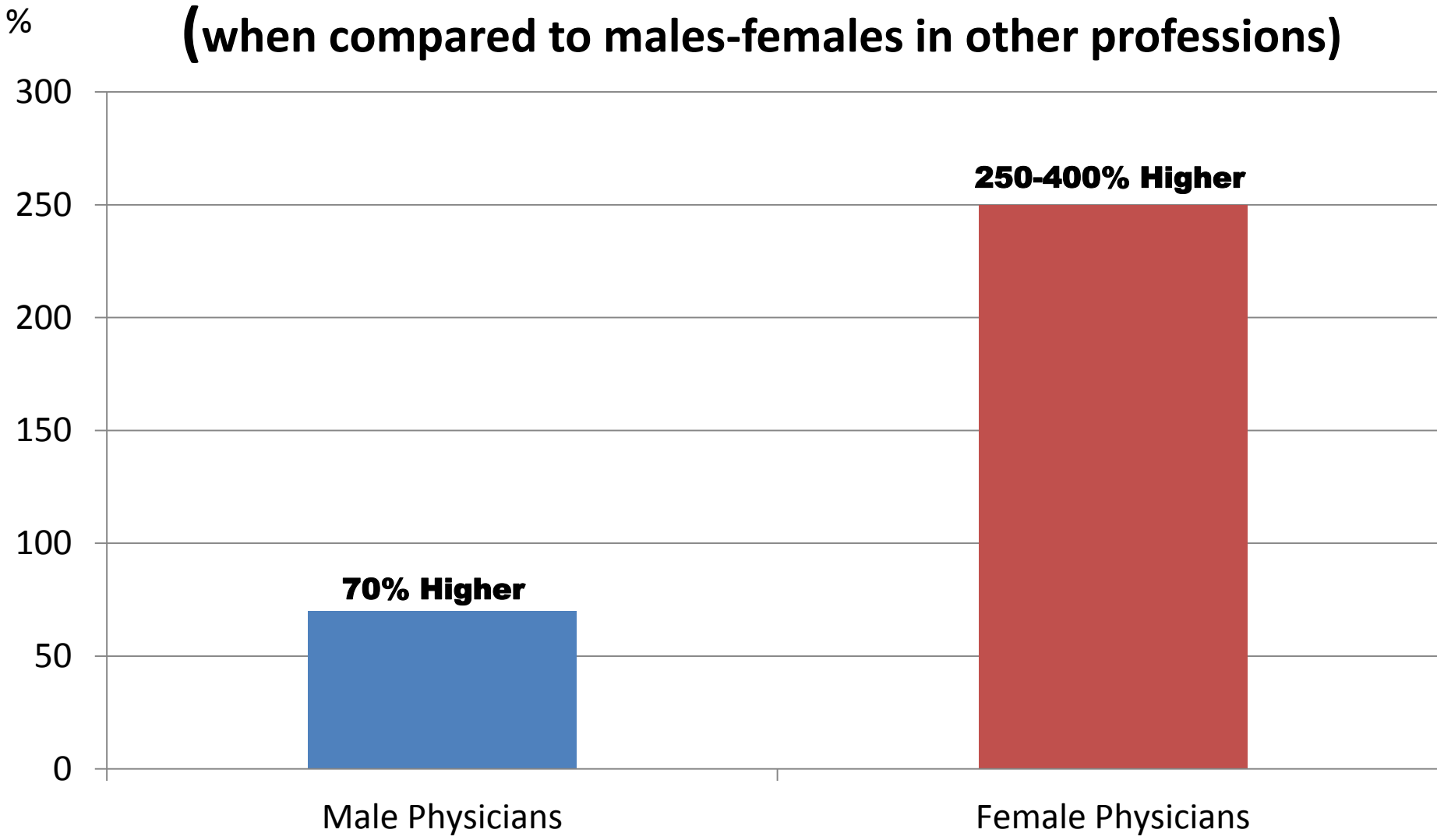
(compared to the General Population)



E. Schernhammer, Suicide Rates Among Physicians: A Meta-Analysis *Am J Psychiatry 2004; 161:2295–2302*

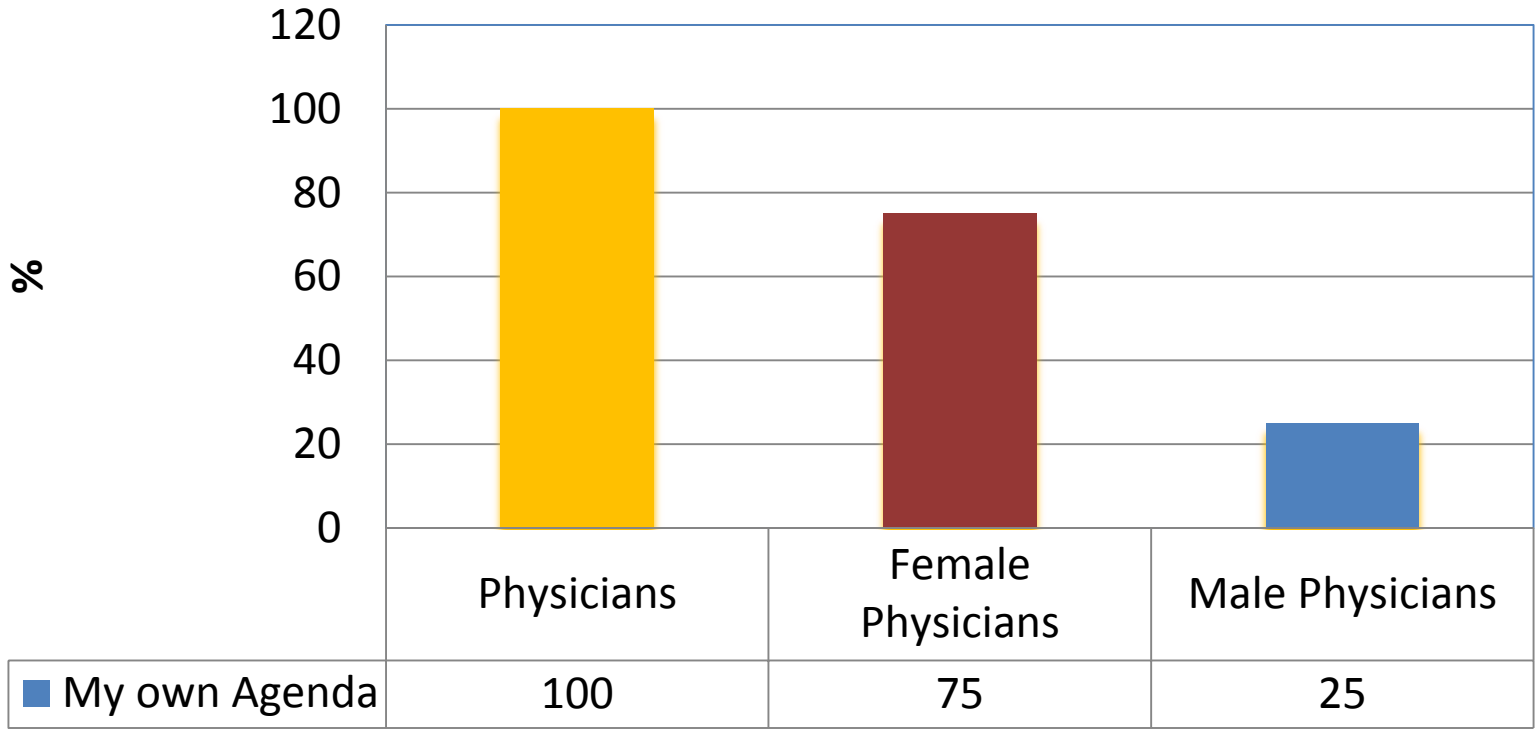
Suicide rates among male-female doctors

(when compared to males-females in other professions)



E. Schernhammer, Suicide Rates Among Physicians: A Meta-Analysis *Am J Psychiatry 2004; 161:2295–2302*

My own Agenda



WHY

- **Physicians' medical knowledge does not make them immune from the stigma of suicide.**

.

Medicine as Identity

For most of us the practice of medicine is more a calling than a job.

Being a physician is often at the core of who we are.

Depression/Suicidal may be equated with losing one's sense of purpose or even one's sense of self.

A Paradox

The psychological characteristics that make for a good physician also make it hard to stop working (e.g. to receive any treatment).

We have a need to be needed

The stigma attached to mental illness is greater in the house of medicine than in the general public

Myers MF. New century: overcoming stigma, respecting differences. Can J Psychiatry. 2001;46:907914.

Stigma

When physicians do kill themselves

the conspiracy of silence surrounding their deaths

Aggravate feelings of isolation

Shame in their survivors

Thwart our public health efforts at prevention

Myers MF. When physicians become our patients. Psychiatric Times. August 2000: 4546.

Stigma, contributes to

- Delay in getting medical care
- Compounds suffering
- Confuses and frustrates doctors' families
- Drives selfmedicating
- and Dangerously heightens the risk of death by suicide

Myers MF. When physicians become our patients. Psychiatric Times. August 2000: 4546.

Tiers of Secrets

Victim	Family and Physicians	Medical Profession
The secrets start with victims who are ashamed.	Families remain silent to safeguard their reputations.	Physicians hide suicides from patients and medical community

Myers MF. When physicians become our patients. Psychiatric Times. August 2000: 4546.

Truths and lies

A suicidal hanging	Becomes	**Asphyxia**
A suicidal overdose	Becomes	**An accidental overdose**
A self-inflicted gunshot wound	Becomes	**An accidental gunshot wound**
A suicidal motor vehicle accidents	Becomes	**A motor vehicle accidents**

PSYCHIATRIC CONDITIONS

The psychiatric disorders most associated with suicide in physicians are:

- Major depression
- Bipolar illness
- Alcohol and other drug abuse and dependence
- Anxiety disorders, and
- Personality disorders

Doctors with a dual diagnosis of a mood disorder and substance use are most at risk.

Myers MF. New century: overcoming stigma, respecting differences. Can J Psychiatry. 2001;46:907914.

Compulsiveness and Perfectionism vs OCD

"The most important quality of a physician is compulsiveness."*

A psychological vulnerability?

Symptoms of OCD?

***Physicians and other high-achieving professionals**

Compulsive Traits

Excessive devotion to work and productivity

to the exclusion of leisure activities and friendships

Physicians are vulnerable to mood disorders (1)

Many physicians are "wounded healers"

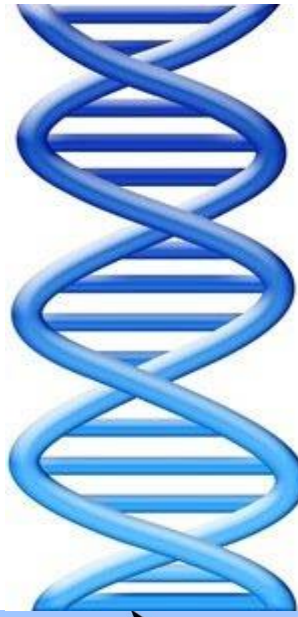
Their personal experience with

- Loss
- Abuse
- Trauma
- and family conflict while growing up

has attracted them to a helping profession.

Physicians are vulnerable to mood disorders (2)

- Some are genetically predisposed because there is mental illness in their families.
  - Some physicians have suffered psychiatric illness in adolescence, college, or medical school they may have another episode later.



Center C, Davis M, Detre T, et al. JAMA. 2003;289:31613166.

Physicians are vulnerable to mood disorders (3)

Many physicians are hardworking and driven perfectionists.

They are prone to undue guilt, self recriminations, and despondency.

Center C, Davis M, Detre T, et al. JAMA. 2003;289:31613166.

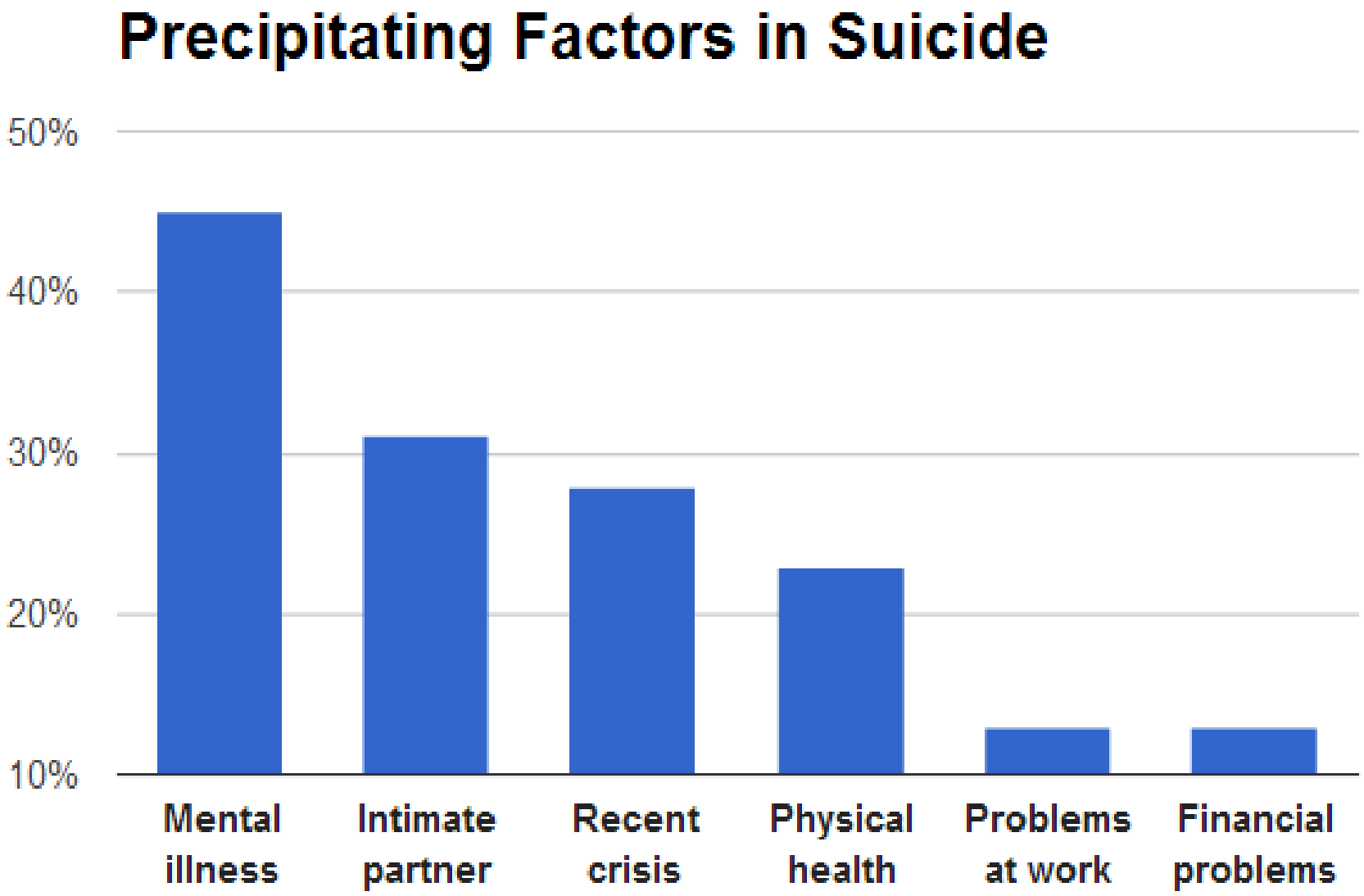
Physicians are vulnerable to mood disorders (4)

- Medical work is often rigorous
- Long and/or irregular hours
- Frequent on call time
- Night and emergency work
- Sleep interruption

Tending to very sick and dying patients can affect health and a positive outlook on life

And a high percentage of physicians have alcoholism in their family histories it is genes or modeled behavior or both, doctors have to watch for chemical dependency in themselves

Center C, Davis M, Detre T, et al. JAMA. 2003;289:31613166.



Center C, Davis M, Detre T, et al. JAMA. 2003;289:31613166.

The profile of a physician at high risk for suicide

includes these variables

Silverman MM. Physician suicide.
In: Goldman LS, Myers MF, Dickstein LJ, eds.
The Handbook of Physician Health. Chicago, Ill: American Medical Association; 2000.

RISK FACTORS

Obvious Risk factors to consider

- Acute stress
- Social isolation
- Pre-existing mental illness

Other aspects of medical culture that might push troubled physicians beyond their reserves of emotional resilience.

RISK FACTORS

Contributing to the higher suicide rate among physicians is:

- Their higher completion to attempt ratio
  - which may result from greater knowledge of lethality of drugs and easy access to means.

There is an immediate need for:

Increased discussion and preventive measures for physicians about the topic of suicide

- beginning in medical school
- and continuing through their entire professional career.

The doctor may already be very symptomatic

- weak, despairing, and suicidal.

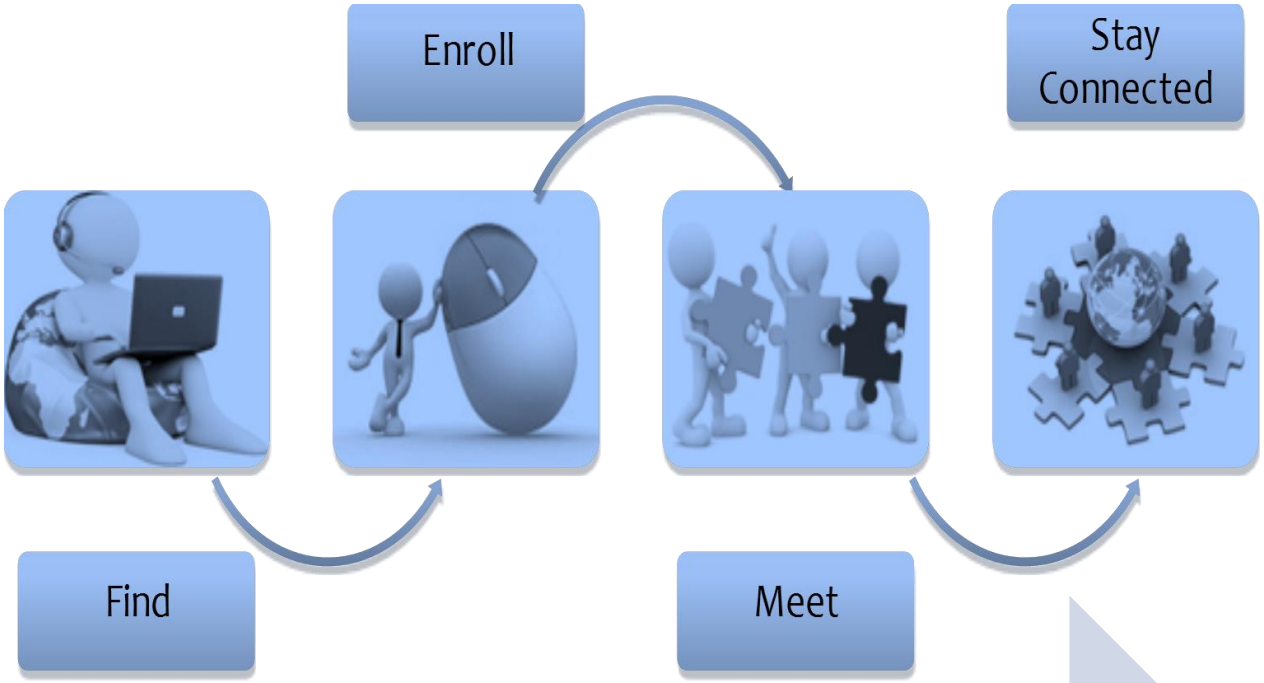
A thorough biopsychosocial assessment is imperative

- preferably with collaborative information from a loved one

There is essential in instituting an immediate, shortterm, and longerterm treatment plan.

Myers MF, Dickstein LJ. Treating medical students and physicians. Dir Psychiatry. 2003;23:277290.

- **Mental Health Professionals Must respond quickly**



Must respond quickly when a physician calls

Because physicians are notorious at avoiding getting help when they are ill

PREVENTION

It's easier to say accident
than suicide.

Doctors can say HIV, diabetes and carcinoma.
Why not suicide?
Maybe we can't face our own wounds.

Studies confirm most doctors are overworked, exhausted, or depressed.

The tragedy: Few seek help.

PREVENTION

- Perceived job stress (time pressure/interruptions) and personality
  - independently related to suicidal ideation during the first postgraduate year

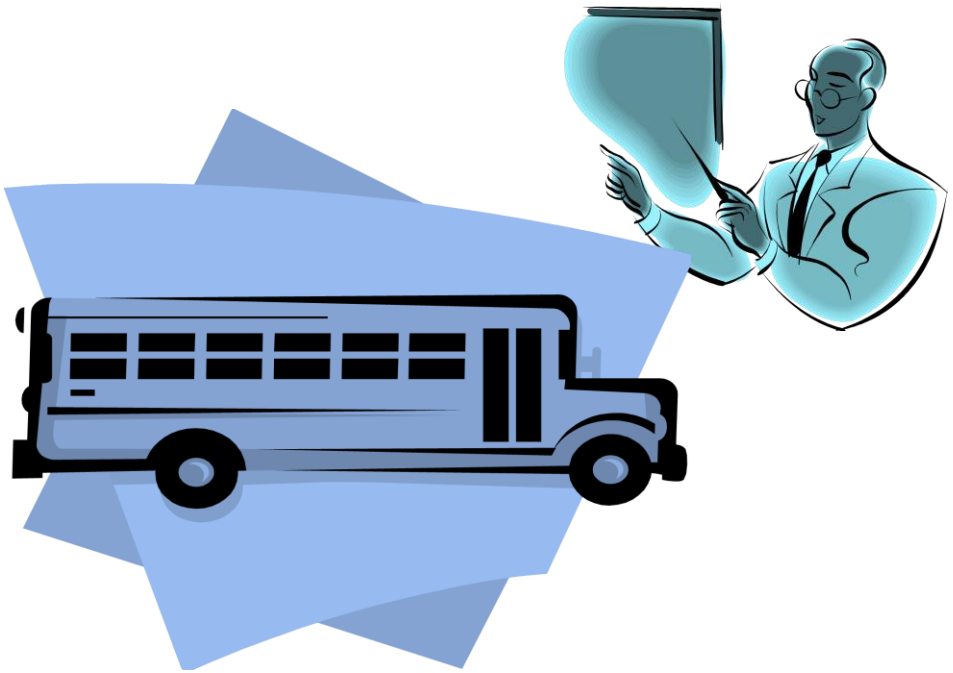
Suicidal ideation among medical students and young physicians: a nationwide and prospective study of prevalence and predictors. Journal of Affective Disorders Volume 64, Issue 1, April 2001, Pages 69–79

PREVENTION

- Suicidal thoughts and vulnerability in medical school predicted postgraduate suicidal ideation.

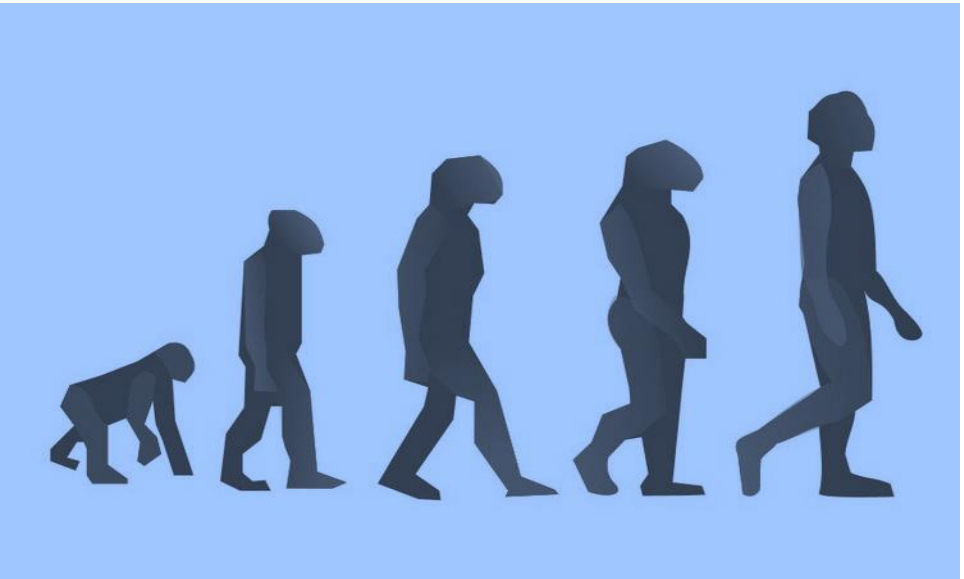
PREVENTION

- Prevention should preferably start already in medical school.



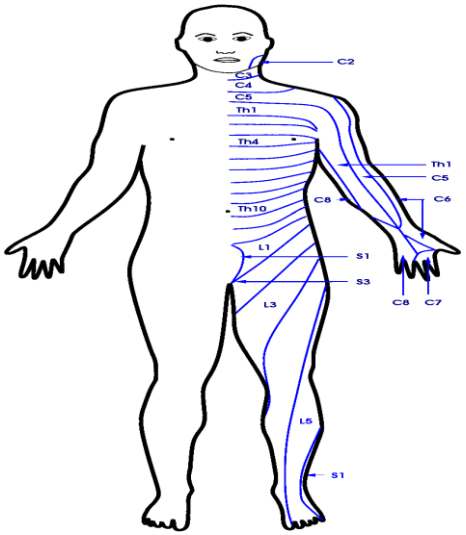
PREVENTION

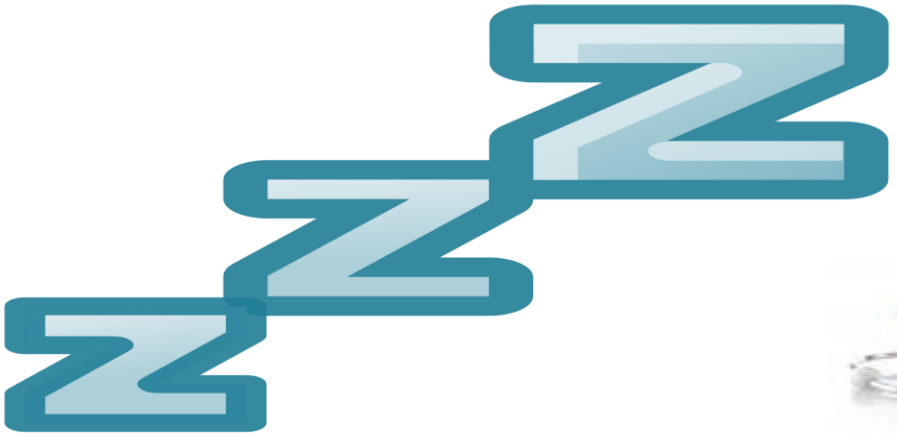
- **Primary prevention strategies**
  - Holistic and more humane medical education that de-stigmatizes mental illness.



PREVENTION

- **Primary prevention strategies**
  - Follow Maslow's Hierarchy of Needs.
    - Simple. Basic.
    - Begin by meeting physiologic needs with adequate sleep, time to eat and bathroom breaks.





PREVENTION

- **Primary prevention strategies**
  - Meet safety and social needs with a safe workplace without bullying or abuse.
    - Allowing students to feel part of a community
    - Feel honored and respected for their contributions and level of mastery in medicine.

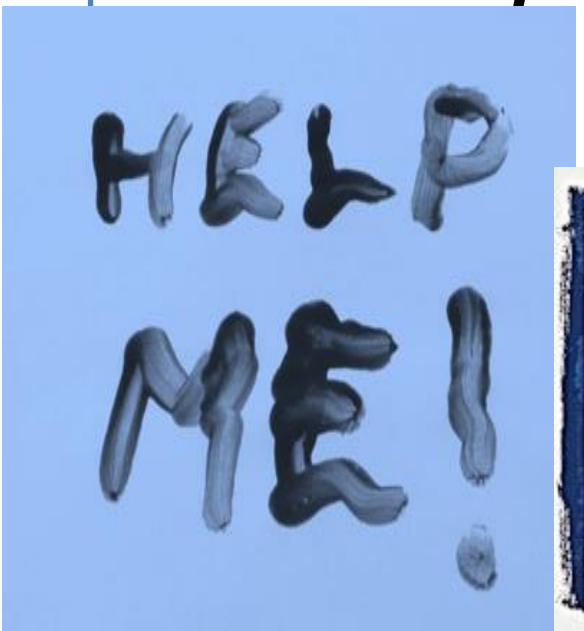
PREVENTION

- **Primary prevention strategies**
  - Meet social needs with matched mentorship programs.
    - Use match.com technology
    - Match Day should be the first week of medical school. Don't wait until fourth year for Match Day.
    - Friends. Now.
    - Extreme loneliness is a risk for suicide!

PREVENTION

Primary prevention strategies

Meet safety and self-esteem needs using nonviolent communication (NVC) which is based on the premise that: *"**every behavior is an attempt to meet a need.** "*



PREVENTION

Secondary prevention strategies

- Early intervention begins with a yearly physical

- Build in support for transitions, traumatic cases, and medical errors

PREVENTION

Tertiary prevention strategies

Physician-specific rehabilitation for substance use, physical, and mental health issues that are unique to physicians and medical students.

PREVENTION

Tertiary prevention strategies

- Rehab should be flexible
  - In town, with part-time work options.
- Personal physician oversight vulnerable colleagues
  - So they are not abused and traumatized when they need help.

Prevention

Preventive efforts towards suicide among doctors should be directed at

(1) Reducing the experience of time pressure and interruptions at work,

(2) Strengthening competence in coping with stress, and

(3) Ensuring proper mental health services.

We need you to take action.

We need you to take action.
I hope this presentation helps!