

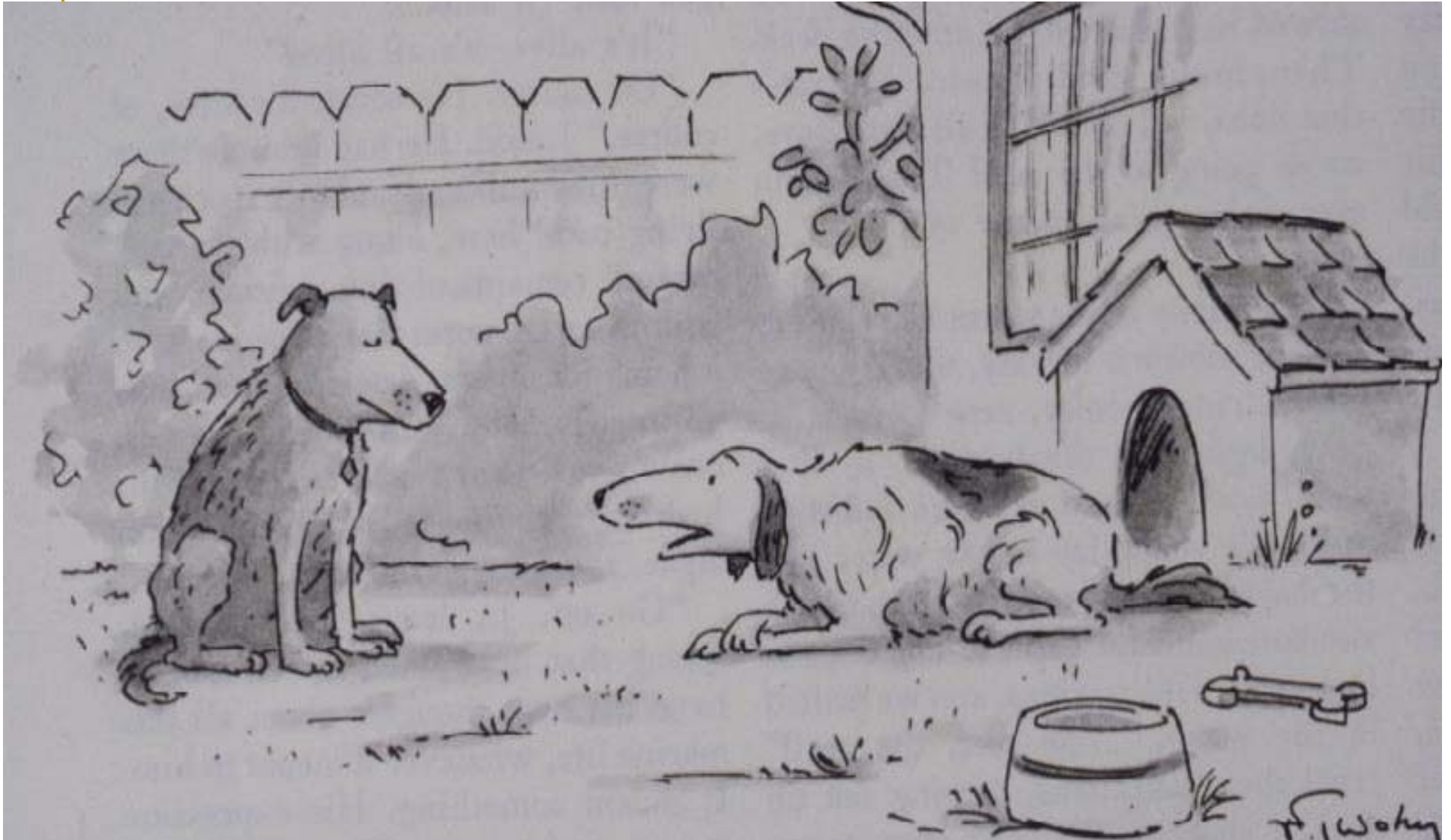
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# DEPRESSION AND MOOD COMORBIDITIES : Culture and Biology-Implications for African Americans

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**“I’ve got the bowl, the bone, the big yard . . .**



**I know I should be happy”**

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# DISCLOSURES

- GRANTS

- NIMH
- ABBOTT
- ASTRAZENECA
- PFIZER

- SPEAKERS BUREAU

- ABBOTT
- SHIRE

- CONSULTANT

- JANSSEN
  - SHIRE
-

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# COMORBIDITIES: impact diagnosis and outcome

- Alcohol and substance abuse

Often comorbid

Alcohol withdrawal and cocaine crash

African Americans: cocaine more likely than alcohol for self medication

- Pain syndromes

Somatization may be more common in African Americans

- Health disparities

- Diabetes

40 % of patients-10% of AA

- Cardiovascular disease

Associated with increased MI mortality

- Stroke

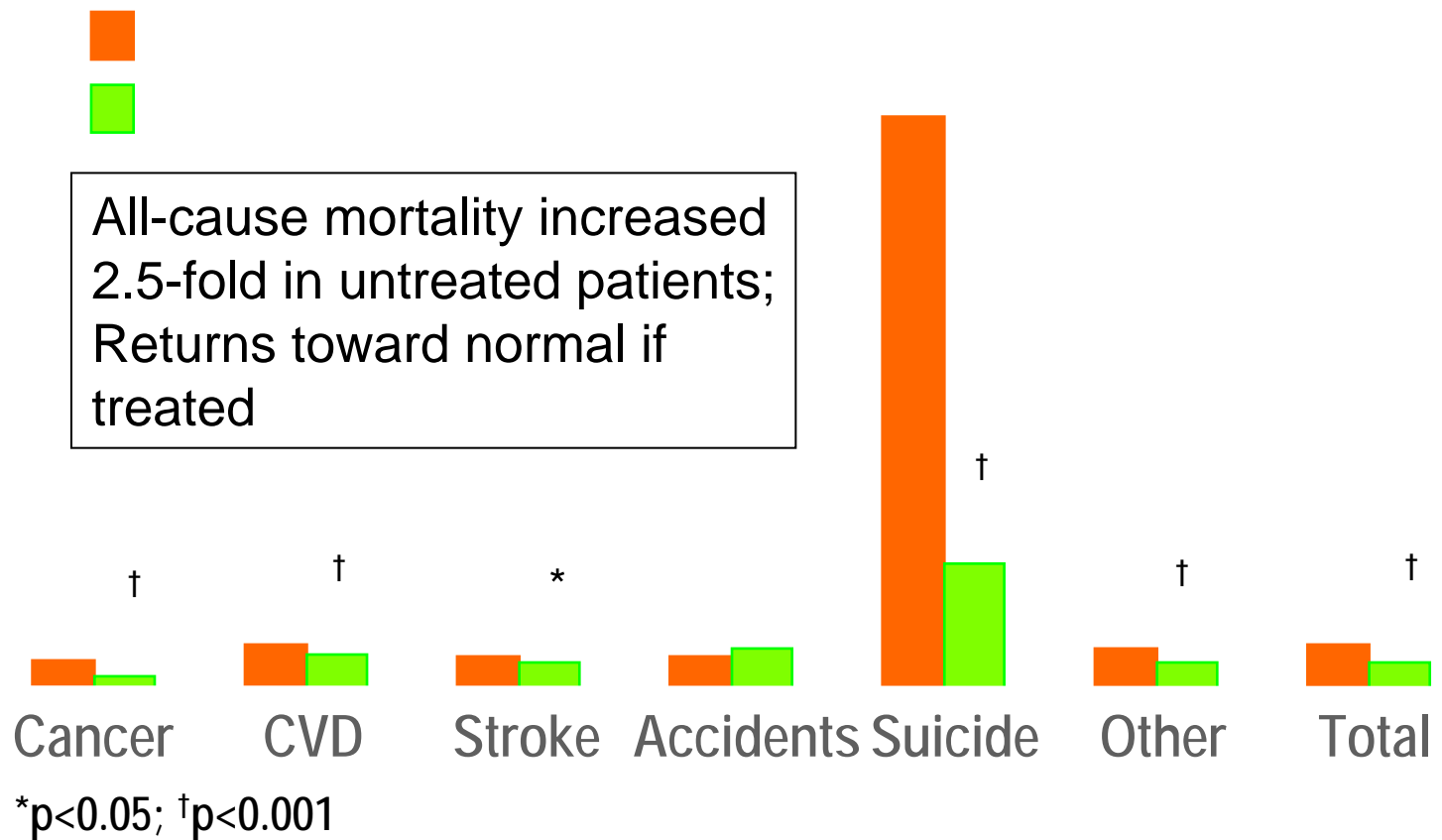
Chicken or egg

- AIDS

Associated with noncompliance

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# Affective Disorders Mortality



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## MISDIAGNOSIS OR UNDERDIAGNOSIS?

- DEPRESSION AND SUICIDE THOUGHT TO BE RARE AMONG ETHNIC MINORITIES
  - (SCHIZOPHRENIA BELIEVED TO BE FAR MORE COMMON)
  - BUT DEPRESSION IS COMMON!!!!!!
    - EPIDEMIOLOGICAL CATCHMENT AREA STUDY
    - NATIONAL COMORBIDITY STUDIES ONE AND TWO
    - SURVEY OF PRIMARY CARE CLINICS
-

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# Question 1

- 1 Who are likely to get depressed?
  - A. The Wealthy
  - B. The Poor
  - C. African Americans
  - D. Every socioeconomic group
  - D.
-

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# DEPRESSION AND SUICIDE

- 50-80% OF COMPLETED SUICIDES ARE DEPRESSED
  - 25% OF DEPRESSED INDIVIDUALS ATTEMPT SUICIDE
  - 15% WITH MAJOR DEPRESSION DIE BY SUICIDE (30X THE RATE OF THE GENERAL POPULATION)
  - 1% SUICIDE DURING YEAR OF DEPRESSIVE EPISODE
  - EMERGENCE FROM DEPRESSIVE EPISODE ESPECIALLY RISKY PERIOD
  - HIGHEST RATES AMONG ELDERLY
  - AFRICAN AMERICAN AND HISPANICS- HIGHEST RATES AMONG YOUNG MALES
  - OVER FIFTY YEARS STEADY INCREASE IN THE RATE OF SUICIDE FOR 15-19 Y.O. MALES
  - RATE FOR AFRICAN AMERICAN MALES TRIPLED
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# IM DOING GREAT

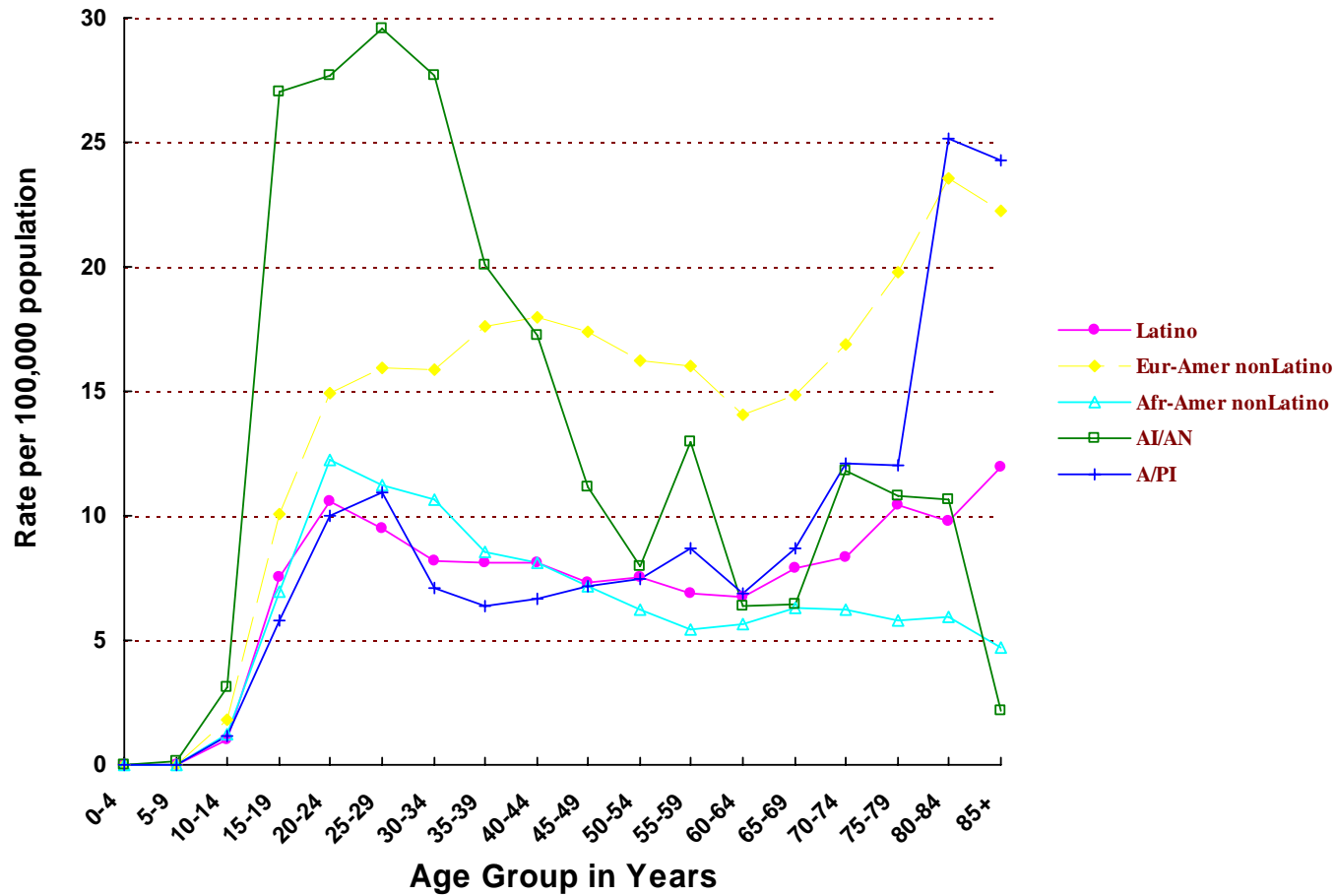
- An African American legislature claws his way to the top to become chair of the city council in a major city. He is found dead by his hand. The community is surprised. Some say it's a murder coverup. It is later learned that he has been under treatment for years for depression and was once hospitalized.
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# AT THE CORONER

- An African American youth's body is in the morgue. He was found with a gun in his hand and he has a single gunshot wound to his head. The coroner does not call it a suicide and assumes someone planted the gun. "Black men don't kill themselves"
-

# Suicide rates by ethnicity and age group-- United States, 1996-98



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# *Recognizing Depression:*

## PROVIDER ISSUES

- Stereotypes:
    - “Aunt Jemima “
    - “Uncle Ben”
  - Lack mental apparatus
  - Relative deprivation
  - Social, economic, cultural, ethnic distance
  - Failure to get sufficient information
  - Failure to talk to family and network supporters
-

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# *Recognizing Depression:*

## Cultural issues

- In many West African countries
    - No single word for depression
    - Guilt is rare, shame is common
  
  - IN U.S. rather than sadness people report:
    - Somaticization
    - Denial
    - Irritability
    - “Falling out”
    - Failure to disclose inner feelings
    - Healthy paranoia
  
  - Inconsistent with African American resilience
  - John Henryism
  - Angry Black Woman
  - Religious views
-

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## QUESTION 2

- 1. Symptoms of depression include
  - A. Feelings
  - B. Thoughts
  - C. Physical distress
  - D. All of the above
  - D.
-

# Treatment Seeking by African Americans

- Despite symptoms of distress, treatment is delayed or not sought <sup>1</sup>
- Treatment sought from non-mental health professionals <sup>1</sup>
  - Primary care providers, friends, family, church, traditional healers

## *Use of Mental Health Services by African Americans (N = 1011) <sup>2</sup>*

<i>12-Month Disorder</i>	<i>Mental Health Specialist* (%)</i>	<i>Any Provider† (%)</i>
Mood Disorder	15.6 (3.5)	28.7 (4.5)
Anxiety Disorder	12.6 (2.4)	25.6 (5.3)

1. Neighbors, HW. The distribution of psychiatric morbidity in black Americans: a review and suggestion for research. *Comm. Mental Health J.* 20:169-181, 1984.

2. \*Psychologist, psychiatrist, or social worker.

†Mental health specialist, general medical provider, other professional (nurse, occupational therapist, other health professional, minister, priest, rabbi, counselor), spiritualist, herbalist, natural therapist, or faith healer.

Source: Kessler RC, et al. *Arch Gen Psychiatry.* 1994;51:8-19.

## Slide 15

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w2

Please provide reference for this data as source does not match up with information provided on slide  
I checked and this was from the NCS study and that is the reference. Do you mean the other bullet point? I added reference.  
wblawson, 4/11/2006

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# QUESTIONS 3 & 4

- 3.. Major depression is
  - A. Rarely seen in people of color
  - B. Always associated with sadness and guilt
  - C. May be expressed as physical pain
  - D. Rarely associated with suicide
  - C.
  
  - 4. Suicide rates are highest among
  - A. African American Women
  - B. Caucasian Men
  - C. Asian American women
  - D..Native American Men
  - D..
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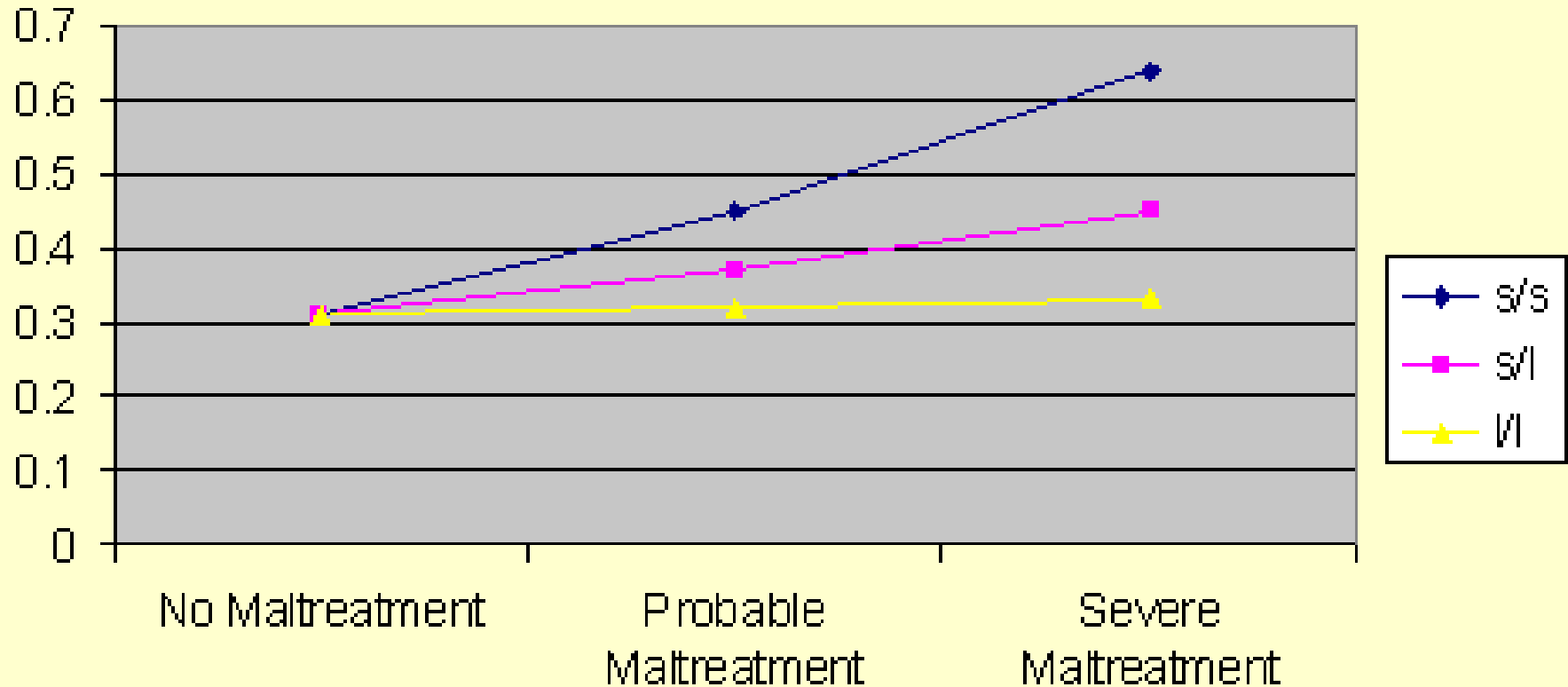
# HUMAN GENOME PROJECT

- TEASE OUT THE HUMAN GENOME
- IDENTIFY ALL GENES
- DETERMINE THEIR FUNCTION



# SEROTONIN TRANSPORTER AND DEPRESSION

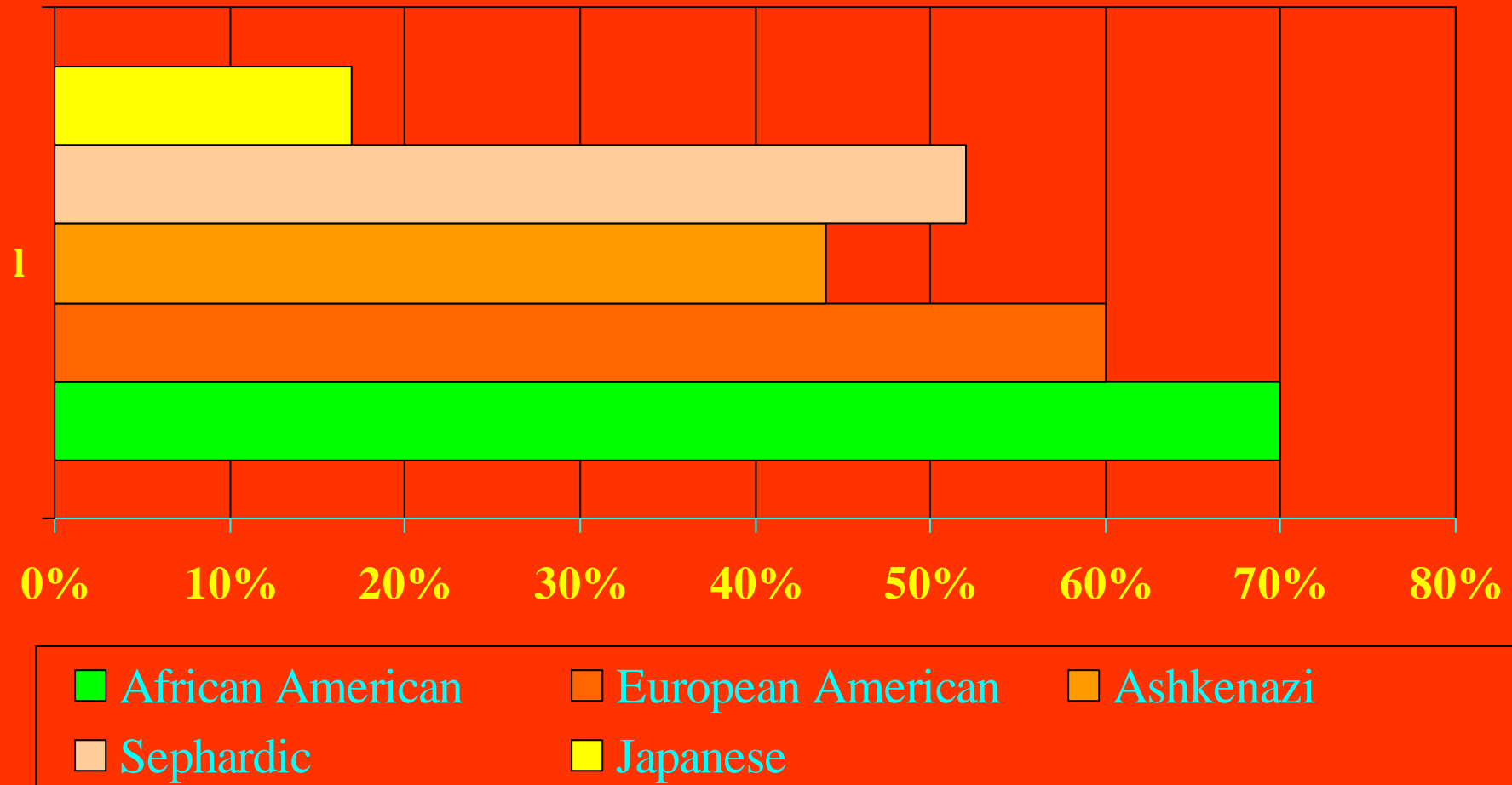
## Probability of major depressive episode



(p= .02 for s/s)

Caspi et al 2003

# Serotonin Transporter Gene (SLC6A4) Polymorphism



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# Pharmacotherapy of Depression

- **Monoamine oxidase inhibitors (MAOIs)**

- Phenzelzine (Nardil)
- Tranylcypramine (Parnate)
- Isocarboxazid (Marplan)

- **Tricyclic antidepressants (TCAs)**

- Amitriptyline
- Desipramine (Norpramin)
- Doxepin (Sinequan)
- Imipramine (Tofranil)
- Nortriptyline (Aventyl, Pamelor)
- Protriptyline (Vivactil)
- Trimipramine (Surmontil)

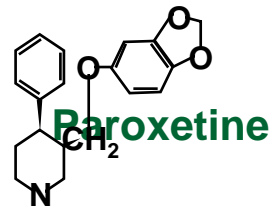
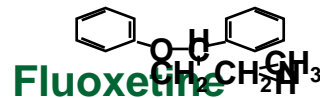
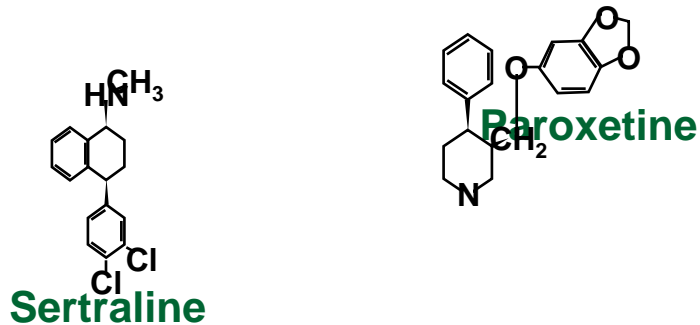
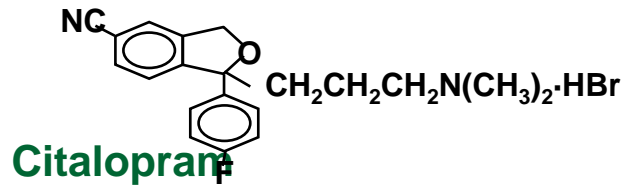
- **Clinical Findings Tricyclic Antidepressants**

- **Lower doses of antidepressants in Asians and Latinos Lin, 1999**
- **More side effects in African Americans Ziegler, Biggs 1977**
- **Higher plasma levels African Americans, Asians, some Latinos Lin, 1999**

- **Genotypical Differences**

- **Shift to the right for African Americans and Asians for CYP2D6 for antipsychotics and tricyclic antidepressants**
    - Fewer rapid metabolizers
    - Fewer poor metabolizers
    - More slow metabolizers
-

# SSRI'S and SNRI'S



- BETTER SIDE EFFECT PROFILES
- OFTEN NOT METABOLIZED THROUGH CYP2D6
- LESS TOXICITY
- LESS SUICIDE RISK
- LESS LIKELY TO INDUCE MANIA OR RAPID CYLCING IN BIPOLAR PATIENTS.
- BUT NOT AVAILABLE
- ***In a Medicaid population: whites were more likely than African Americans to receive SSRIs versus TCAs even after controlling for other covariates.***  
Melfi et al 2000.

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# Dual Action Agents

- **Serotonin and norepinephrine reuptake inhibitors (SNRIs)**
  - Duloxetine (Cymbalta)
  - Venlafaxine (Effexor, Effexor XR)
  - **Alpha-2 receptor blockers**
  - Mirtazapine (Remeron, Remeron Soltab)
  - **Combined reuptake inhibitors and receptor blocker**
  - Nefazodone (Serzone)
  - Improved efficacy?
  - Effective treatment for pain syndromes and depression broadly defined.
  - BUT:
  - Additional side effects
  - Do not abruptly stop!
-

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# The “Race” Drug

- VA trial - no benefit for the two congestive heart failure medications
  - Post analysis of data - benefit for African Americans
  - Trial in African Americans - effective
  - FDA approves for African Americans
  - NitroMed markets BiDi
  - [BlackNews.com - Wrong Debate On "Race Drug"](#)
  - ... BlackPR.com Press Release
  - Wrong Debate on "**Race Drug**"  
By Earl Ofari Hutchinson,  
BlackNews.com Columnist  
Months before ...
  - [RaceSci: History of Race in Science: In Media](#)
  - New **Drug** Combo Intensifies **Race**-Based Medicine Debate  
SUSAN J. LANDERS AMNews,  
12/06/2004 Washington -- When it comes to health care access, outcomes and even treatment issues, it is clear that ...
  - [NPR: Race-Specific Drug Comes in at High Cost](#)
-

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# STAR\* D and African Americans

- Head to head comparisons SSRI's
  - Blinded study in a naturalistic setting
  - 40% African Americans
  - Serotonin 2A receptor predictive of response
  - Clinicians had claimed AA not as responsive to SSRI'S
  - AA not as responsive to citalopram in STAR\* D
  - Polymorphism of serotonin 2A related to treatment response is not as common in African Americans
  - McMahon et al, 2006
-

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## OTHER TREATMENTS

- **Electroconvulsive therapy (and insulin therapy)**
  - Proven
  - Most Effective
  - Relatively low risk
  - memory problems
  - physical effects
  - maintenance
  - **Light Therapy**
  - Melatonin and the third eye
  - Proven
  - Effective
  - Very low risk
  - **TRANSCRANIAL STIMULATION**
  - Few side effects. Efficacy vs. antidepressants yet to be demonstrated
  - **VAGAL NERVE STIMULATION**
  - Proven effective in seizure disorders
  - FDA approved for intractable depression
  - Improvement in depression continues across time of treatment
  - **Psychotherapy**
  - *Analytical*
  - *Interpersonal*
  - *Cognitive-behavioral*
  - Treatment response equivalent to medication
  - No physical side effects
  - Requires training not routinely provided in medical school
  - Requires patient cooperation and adherence
-

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## Improving Depression Care has Long-lasting Benefits for African Americans and Hispanics

Press Release Date: April 5, 2004

- Quality improvement programs that encouraged depressed patients to undergo standard treatments for depression (psychotherapy or antidepressant medication) and gave them and their doctors up-to-date information and resources to increase access to treatments reduced depression rates among African Americans and Hispanics 5 years after the start of the 6 to 12 month programs. The study, supported by the National Institute of Mental Health and the Agency for Healthcare Research and Quality, is published in the April issue of the *Archives of General Psychiatry*.
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# Alternative medicine

- St. John's Wort (*hypericum perforatum*)
    - Works for mild depression
  - SAM-e (S adenosylmethionine)
    - Really same action as medication
  - Omega 3 fatty acids
    - Can't get it to work
  - Exercise
    - Great as an adjunct treatment
  - Spirituality
    - Often demonstrated to be effective
    - Contributes to resilience
    - Not just church going
-

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# Questions 5&6

- 5. The best way to describe the role of genetics in depression is:
    - A. The short allele of the serotonin transporter gene contributes to depression irregardless of stress
    - B. The gene for the serotonin receptor predicts psychotherapy response
    - C. Serotonin is the only neurotransmitter involved in depressive response
    - D. An association was seen between the serotonin receptor gene and ethnicity
    - D
  - 6. Which of these has been shown to be effective treatment of **major depression** in controlled studies?
    - A. Cognitive psychotherapy and light therapy
    - B. St. Johns Wort and electroconvulsive therapy
    - C. Dual action antidepressants and omega three fatty acids
    - D. MAOI and suicide hotlines
    - Ans. A.
-

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# CASE HISTORY

- A woman of 32 years had been treated for several years for bipolar depression with a mood stabilizer and antidepressant, then with an antidepressant alone. She suddenly announced that she had married someone who was impressed with her energy and enthusiasm. She stopped her treatment claiming she no longer needed it. He later called her psychiatrist because she was throwing the furniture out the window. She accused him of taking her virginity, then of depriving her of sex.
-

## DSM IV Criteria for Mania

- Distinct period of abnormal Mood:
  - Euphoric, Expansive, Irritable
- 3 (or 4) Associated Features present to a significant degree during 1 week

•↑ Self Esteem

•↓ Need for Sleep

•↑ Talking

•FOI/ Racing Thoughts

•Distractible

•↑ Goal Directed Activity

•↑ *Participation in pleasurable activities with potentially painful consequences/ Risk taking:*

**Buying sprees, multiple unwise sexual liasons,  
frequent altercations**

# Treatment Complexity

- Multiple Medications – polypharmacy- is often necessary to effectively treat all stages of the disease
- The different therapies: lithium, anticonvulsants, antipsychotics, antidepressants often have very different mechanisms of action and side effects
- Most treatments require regular monitoring.

## The Antidepressant Problem

- 30%-60% induction of acute mania or rapid cycling if antidepressant is used with no concurrent mood stabilizers
- Worsening of the course of the illness:
  - 26% of patients with treatment-resistant bipolar disorder - 44% bipolar II c/w 26% of the larger sample (Altshuler 1995)
  - Half of 51 patients had rapid-cycling bipolar disorder due to antidepressants (Goodwin 1990)

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# Bipolar Disorder in Primary Care Settings

- Bipolar disorders (bipolar II, bipolar depression) are likely to be common in primary care clinics but likely to be misdiagnosed
  - Often not referred or have consultation with a mental health provider
  - Bipolar disorders likely to be treated with antidepressants alone, increasing risk of manic breakthrough or rapid cycling
-

# Bipolar Disorder in Primary Care Settings

	<i>Columbia University<sub>1</sub></i> <i>(New York City)</i>	<i>Howard University<sub>2</sub></i> <i>(Washington, D.C.)</i>
% Positive screen for bipolar disorder	With MDQ 9.8%	With MDQ 34.7% With SCID 10.4%
Diagnosed with bipolar disorder	8.4% of those with positive screen	
Received Mood stabilizer	6.5%	11.1%

Das et al. *JAMA*. 2005;293:956-963<sup>1</sup>

Graves, et al In *J Bipolar Dis* 2006 in press <sup>2</sup>

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# DIAGNOSING AND TREATING BIPOLAR DISORDER

- SUSPECT BIPOLAR DISORDER IF:
    - Depressive episodes: frequent, early onset, poor or idiosyncratic responses to antidepressants
    - Depression or anxiety combined with substance use problems and/or impulsivity
    - Family with many mood, anxiety, and substance use–related problems
  - Screening instruments: Mood Disorder Questionnaire in combination with the PHQ-9 or other depression screens
    - Useful in clinic populations to decide who needs further evaluation
    - In evaluating a patient, administer to as many relatives as possible
  - TREATING WITH ANTIDEPRESSANTS ALONE IS RISKY
  - COMBINATION THERAPY IS OFTEN REQUIRED
  - CONSULTATION OR REFERRAL SHOULD BE SOUGHT WHEN POSSIBLE
-

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## Questions 7

- 7. Bipolar disorder
  - A. Is commonly treated with no more than one pharmaceutical agent
  - B. Rare in primary care clinics
  - C. Much of morbidity due to depressive symptoms
  - D. Rarely confused with schizophrenia or depression by most clinicians
  - C
-

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# CONCLUSION

- DEPRESSION IS COMMON
  - DEPRESSION IS TREATABLE
  - DEPRESSION IS OFTEN NOT DIAGNOSED
  - CULTURE IS IMPORTANT
  - DEPRESSION IS ALSO A BRAIN DISEASE
  - BIPOLAR DISORDER AND UNIPOLAR DEPRESSION ARE OFTEN CONFUSED AND REQUIRE DIFFERENT TREATMENT
-

# MUCH NEEDS TO BE DONE



- BUT THE PROMISED LAND IS IN SIGHT!