

# Update: HIV Screening



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No conflicts of interest to disclose.

# Introduction



# Quick Quiz



Would you offer HIV testing for a patient who:

- Is sexually active w/o previous HIV testing
- Is a 32yo female initiating therapy for TB
- Is an 18yo female being treated for an STD
- Has had more than one sexual partner since their most recent HIV test
- Is a current injection drug user
- Has high risk behaviors and last tested negative for HIV over 1 year ago

# Roadmap



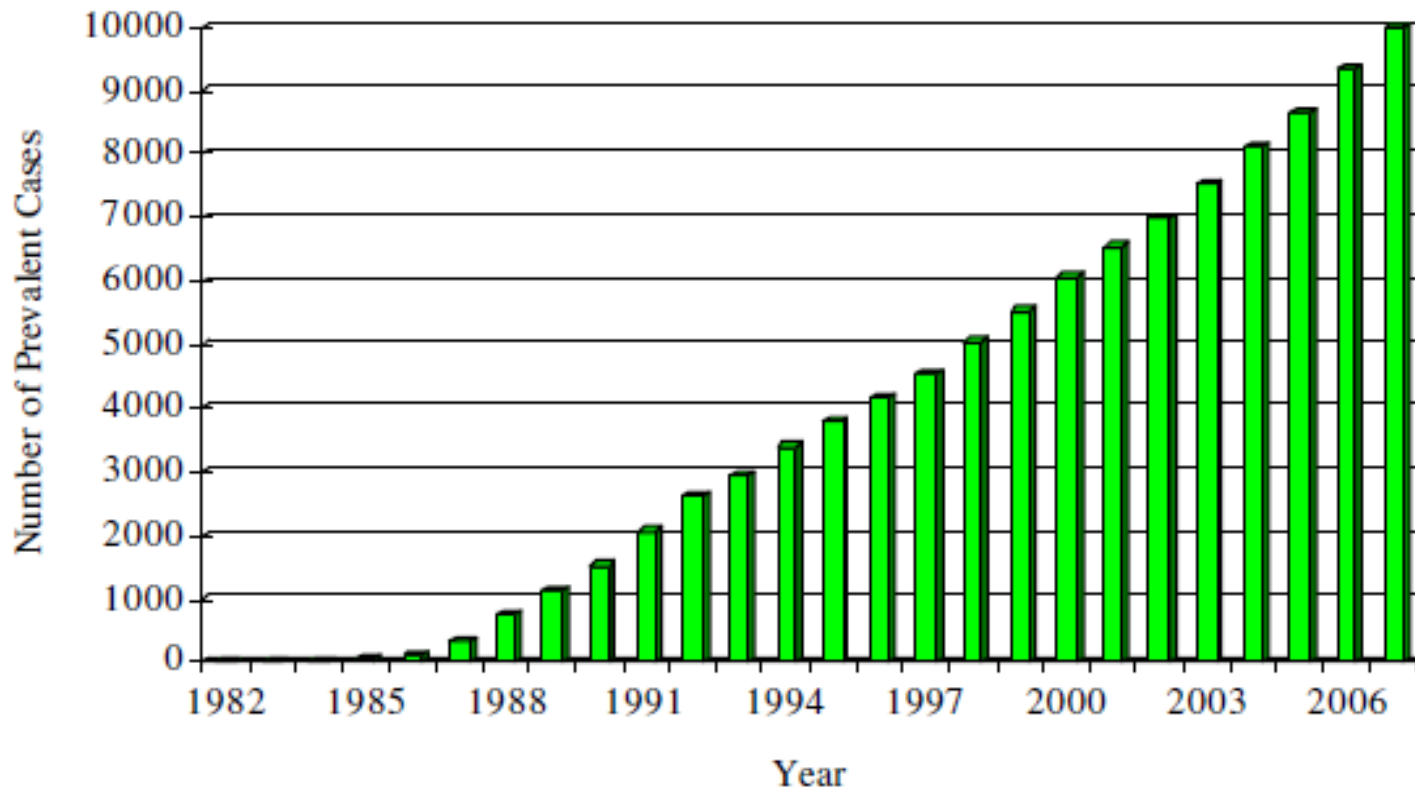
- Why is HIV screening important to a general internist?
- Criteria that justify routine screening
- 2006 CDC Guidelines for HIV Testing
- USPSTF Review of Evidence
- ACP Guidance Statement
- Guidelines in practice – a practical review
- My research project

# HIV/AIDS in the U.S.

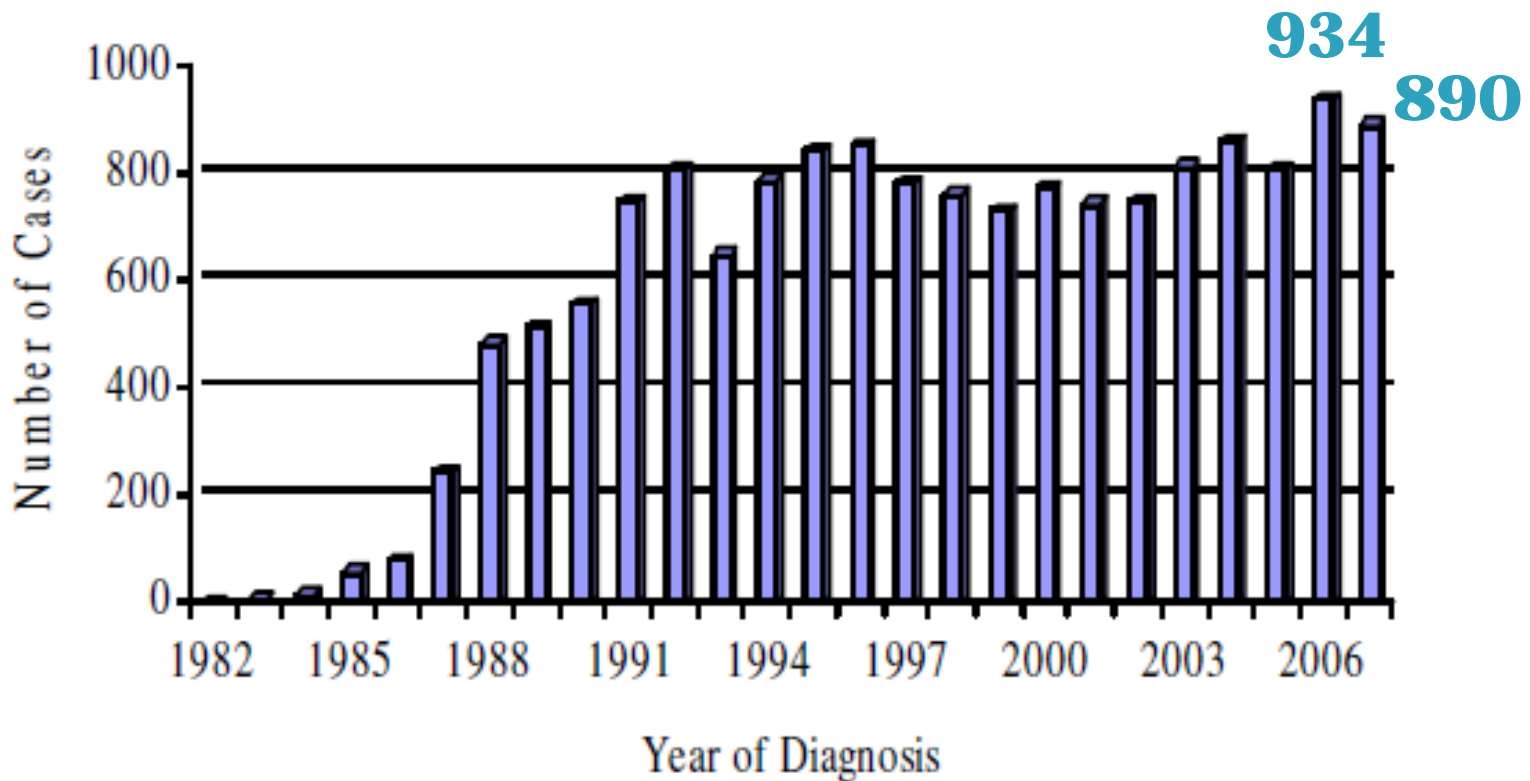


- Latest estimates
  - 1.1 million cases of HIV in the U.S.
  - 21% do not know that they have HIV
  - 56,300 new cases of HIV annually in the U.S.
  - AIDS develops within one year of diagnosis in 38% of HIV positive patients

# Alabama Prevalent HIV/AIDS cases as of December 31, 2007



# HIV/AIDS Cases by Year of Diagnosis, Alabama 1982-2007



# HIV/AIDS in Alabama

## HIV/AIDS Cases by Race/Ethnicity & Gender, Alabama

January 1, 2007 – December 31, 2007

Race/Ethnicity	Female		Male		Total	
	No.	%a	No.	%a	No.	%a
White	52	19	173	28	225	25
Black	202	74	413	67	615	69
Hispanic	12	4	18	3	30	3
Other/Unknown	8	3	12	2	20	2
Total <sup>b</sup>	274		616		890	

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# HIV/AIDS in Alabama

## HIV/AIDS Cases by Exposure Category & Gender in Alabama

January 1, 2007 – December 31, 2007

Race/Ethnicity	Female		Male		Total	
	No.	%a	No.	%a	No.	%a
Male-to-male sexual Contact (MSM)	-	-	343	56	343	38
Injection Drug Use (IDU)	22	8	26	4	48	5
MSM/IDU	-	-	17	3	17	2
Heterosexual Contact	134	49	55	6	189	21
Other	2	<1	2	<1	4	<1
No Risk Reported	116	43	173	28	290	33
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# Source of HIV tests in U.S.



- Over  $\frac{3}{4}$  of HIV tests are done in health care settings (clinics, hospitals, Emergency Departments)

# Criteria that Justify Routine Screening



1. Serious health disorder that can be detected before symptoms develop
2. Treatment is more beneficial when begun before symptoms develop
3. Reliable, inexpensive, acceptable screening test
4. Costs of screening are reasonable in relation to anticipated benefits
5. Treatment is accessible and available

# Definitions (CDC)



- Diagnostic testing – performing an HIV test for persons with clinical signs or symptoms consistent with HIV
- Screening – performing an HIV test for all persons in a defined population.
- Targeted Screening – performing an HIV test for subpopulations of persons at higher risk, typically defined on the basis of behavior, clinical, or demographic characteristics.

# 2006 CDC Recommendations for HIV Testing



## Objectives

- Increase HIV screening in health-care settings
- Foster earlier detection of HIV infection
- Identify & counsel persons with unrecognized HIV infection & link them to clinical/preventive services
- Further reduce perinatal transmission of HIV

# 2006 CDC Recommendations for HIV Testing



- Routine, voluntary HIV screening for all patients 13-64 in health-care settings, not based on risk
- Repeat HIV screening for persons with known risk factors at least annually
- Opt-out HIV screening with the opportunity to ask questions and the option to decline

# 2006 CDC Recommendations for HIV Testing



- Include HIV consent with general consent; separate signed informed consent should not be required
- Prevention counseling in conjunction with HIV screening in health care settings should not be required

# 2006 CDC Recommendations for HIV Testing



Bottom line:

- Routine voluntary HIV screening as a normal part of medical care similar to screening for other treatable conditions

# 2006 CDC Recommendations for HIV Testing



## Who should be screened?

- All patients 13-64 years (unless prevalence of undiagnosed HIV <0.1%)
- All patients initiating treatment for TB
- All patients seeking treatment for STDs

# 2006 CDC Recommendations for HIV Testing



## Repeat screening:

- High risk patients screened at least annually
  - injection drug users and their sex partners
  - persons who exchange sex for drugs/money
  - sex partners of HIV-infected persons
  - MSM or heterosexual persons exposed to >1 partner since most recent HIV test (exposed by themselves or by partner)

# 2006 CDC Recommendations for HIV Testing



## Repeat screening:

- High risk patients screened at least annually
- Patients and sex partners before initiating new sexual relationship
- Patients as source of occupational exposure to healthcare worker
- Use clinical judgment to determine re-screening of patients not thought to be at high risk

# Question



**If the CDC says  
to screen everyone...  
why aren't we doing it?**

# US Preventive Services Task Force



## Recommendations:

- Screen all adolescents and adults at increased risk for HIV infection (Grade A)
  - Persons seeking treatment for STDs
  - MSM after 1975
  - Injection drug users (past or present)
  - Persons who exchange sex for drugs/money and their partners
  - Persons whose past or present partners were HIV+, bisexual, or injection drug users
  - Persons with history of transfusion between 1978-1985

Chou R, Huffman LH, Fu R, Smits AK, Korthuis PT. Screening for human immunodeficiency virus in adolescents and adults (Evidence synthesis number 38). 2005.

# US Preventive Services Task Force



## Recommendations:

- Screen all adolescents and adults at increased risk for HIV infection (Grade A)
- Screen all pregnant women for HIV (Grade A)
- No recommendation for or against routinely screening for HIV in adolescents and adults not at increased risk of HIV infection (Grade C)

# CDC vs. USPSTF



## Timeline

- July 2005 - USPSTF releases recommendations
- Sept 2006 - CDC releases revised recommendations
- April 2007 - USPSTF upholds previous recommendations

# CDC vs. USPSTF



- Both agree with screening for HIV in high risk groups and settings
- “The major difference...appears related to conflicting interpretations...[of the] effects of screening on HIV transmission.”

-USPSTF

# CDC vs. USPSTF

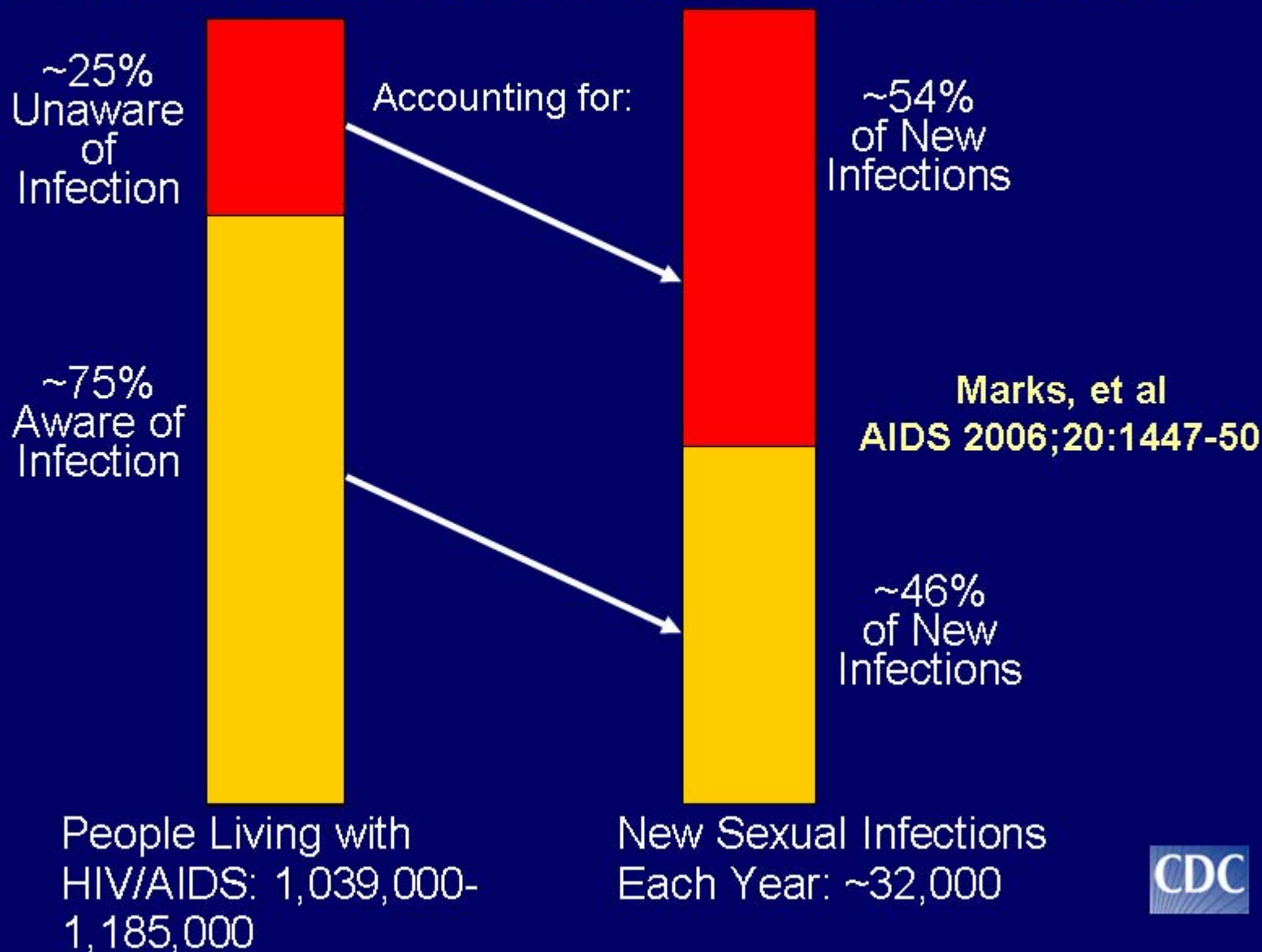


## Knowledge of HIV infection and high risk behavior:

- Meta-analysis examining high risk sexual behavior in those aware of HIV infection vs. those unaware
- 68% reduction in unprotected anal or vaginal intercourse in those who were aware of HIV infection

Marks G, Crepaz N, Senterfitt JW, Janssen RS. Meta-analysis of high-risk sexual behavior in persons aware and unaware they are infected with HIV in the United States. *JAIDS*. 2005;39:446-53.

# Awareness of Serostatus Among People with HIV and Estimates of Transmission



# CDC vs. USPSTF



Is routine HIV screening cost-effective?

- Cost-effectiveness of screening for HIV in the era of HAART. Sanders, et al.
  - 1% HIV prevalence: \$15,078 QALY
  - >0.05% prevalence: < \$50,000 QALY

**Included benefits of reduced transmission**
- Expanded screening for HIV in the United States - an analysis of cost-effectiveness. Paltiel, et al.
  - 1% HIV prevalence: \$38,000 QALY
  - 0.1% prevalence: \$113,000

**Excluded transmission benefits**



**Confused?**

# American College of Physicians (ACP)



## Guidance Statements:

1. ACP recommends that clinicians adopt routine screening for HIV and encourages patients to be tested.
  2. ACP recommends that clinicians determine the need for repeat screening on an individual basis.
- Encourage clinicians to counsel patients to reduce risky behaviors when such counseling is feasible.

# American College of Physicians (ACP)



## Rationale/Evidence:

1. Early identification and treatment is beneficial.
2. Risk-based screening has failed to identify a substantial proportion of people with HIV early in disease.
3. Routine opt-out screening has been very successful for prenatal HIV screening.
4. Strong evidence that screening is cost-effective.



# HIV Consent in Alabama



- HIV testing requirements vary by state
- ‘Before any HIV test is performed, the health care provider or testing facility shall obtain from the person a voluntary informed consent to administer the test.’
- ‘A general consent form should be signed for medical or surgical treatment which specifies the testing for HIV infection...’
- Post-test counseling and post-test prevention counseling required for HIV positive results

# UAB



- Consent for HIV testing is included in the general consent form signed by patients upon admission to UAB hospital or prior to being seen in UAB/TKC clinic.

VA



- New policy as of 08/17/09
- **verbal** informed consent for HIV testing
- scripted pre-test and post-test counseling will no longer be mandated
- new policy reminds providers that HIV testing should not be limited to only those Veterans who have a demonstrable risk factor for HIV.

[www.hiv.va.gov](http://www.hiv.va.gov)

<http://edocket.access.gpo.gov/2009/E9-16898.htm>

VA



- “Testing for Human Immunodeficiency Virus in Veterans Health Administration Facilities.”
  - ‘In short, this new Directive will state that HIV testing is part of routine medical care and that HIV testing should be provided to all Veterans, if they consent.’

[www.hiv.va.gov](http://www.hiv.va.gov)

<http://edocket.access.gpo.gov/2009/E9-16898.htm>

# Cooper Green Mercy Hospital



- Requires separate written HIV consent form

# Birmingham HealthCare



# Billing



## **ICD-9-CM diagnosis codes**

- V73.89 Special screening for other specified viral diseases
- V69.8 Other problems related to lifestyle (if patient is asymptomatic but in a known high risk group)
- V65.44 HIV Counseling (if counseling is provided during the encounter for the test or after the results are available)



# HAART Workgroup

## (HIV/AIDS Analysis of Routine Testing)



- Matt Blackwell, MD - Carolinas Medical Center
- Kamau Crawford, MD - Moses Cone Health System
- Scott Holliday, MD - The Ohio State University Medical Center
- Michael Landry, MD - Tulane University School of Medicine
- Nathan Lurfald, MD - West Virginia University
- Nancy LaVine, MD - St. Vincent's Medical Center
- Johanna Martinez, MD – Weill Cornell University
- Isitri Modak, MD – Methodist Dallas Medical Center
- Jason Morris, MD - University of Alabama at Birmingham
- Mihaela Stefan, MD - Baystate Medical Center
- Sung Wu Sun, MD - Mt. Vernon Hospital

# HAART - Purpose



- Assess physicians' knowledge of the HIV screening guidelines
- Assess patient & physician attitudes toward HIV screening
- Determine barriers to HIV screening
  
- Assess the impact of patient education on HIV screening rates

# Methods



- Design: Cross sectional, multi-institutional
- Setting: IM resident continuity clinics
- Participants: IM and Med/Peds residents and attendings
- Instrument
  - 90 item questionnaire
  - 11 items related to physician knowledge

# Back to your quiz...



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# Results



- Are you familiar with new CDC guidelines for HIV screening?
  - 36% 'Yes'
  - 64% 'No'
- Knowledge score
  - Median = 7 (range 0-11)
  - 28% of physicians scored  $\geq 9$

\*Cronbach's alpha = 0.86

# Results – Linear Regression



Variable	p-value
Gender	<0.001
U.S./Int'l Graduate	0.179
Study Site	0.77
Resident/Attending	<0.001
Knowledge of CDC Guidelines	0.008

# Conclusions



- Limited knowledge of the 2006 CDC guidelines for HIV screening
- Knowledge gap between attending physicians and resident physicians

# HAART – other interesting findings



- In a similar patient survey, 54% of patients say that they have asked to be tested for HIV.
- Meanwhile, the majority of physicians surveyed said that <5% of patients have requested HIV testing
- Despite the call for opt-out testing, physicians still cite many barriers to HIV screening

# Take Home Points



- A guideline is a guideline and does not replace clinical judgment
- Everyone agrees with targeted screening of high risk populations
- Both patients and physicians are notoriously inaccurate at determining who is at risk
- Whatever approach you use, be sure that you have an adequate system for follow-up of test results, referral, etc

# References



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- [www.nccc.ucsf.edu/StateLaws/Index.html](http://www.nccc.ucsf.edu/StateLaws/Index.html)

# Questions?

