HIV testing, prevention, &
the new CDC guidelines:
are you ready to opt-in?

SGIM AIDS Task Force
CDC-RFA-PS06-612: HIV Prevention with National Organizations

Gail Berkenblit
Joseph Cofrancesco
Valerie Stone
James Sosman
Lynn Sullivan
Barbara Turner
September 22, 2006 CDC Recommendations: Routine Testing for HIV

- ROUTINE voluntary screening for patients age 13-64 in health care settings
- OPT-OUT testing
- NO separate consent
- Pre-test counseling NOT required
- Low prevalence areas should stop if < 1:1000 tests positive
<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number HIV infected</td>
<td>1,039,000 – 1,185,000</td>
</tr>
<tr>
<td>Number unaware of their HIV infection</td>
<td>252,000 - 312,000 (24%-27%)</td>
</tr>
<tr>
<td>Estimated new infections annually</td>
<td>40,000</td>
</tr>
</tbody>
</table>

Glynn M, Rhodes P. 2005 HIV Prevention Conference
Awareness of Serostatus Among People with HIV and Estimates of Transmission

- ~25% Unaware of Infection
- ~75% Aware of Infection

People Living with HIV/AIDS: ~1,000,000

New Sexual Infections Each Year: ~32,000

Accounting for:

- ~54% of New Infections
- ~46% of New Infections

Marks, et al
AIDS 2006;20:1447-50
### The Internists Role: Source of HIV Tests and Positive Tests

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>HIV tests*</th>
<th>HIV+ tests**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private doctor/HMO</td>
<td>44%</td>
<td>17%</td>
</tr>
<tr>
<td>Hospital, ED, Outpatient</td>
<td>22%</td>
<td>27%</td>
</tr>
<tr>
<td>Community clinic (public)</td>
<td>9%</td>
<td>21%</td>
</tr>
<tr>
<td>HIV counseling/testing</td>
<td>5%</td>
<td>9%</td>
</tr>
<tr>
<td>Correctional facility</td>
<td>0.6%</td>
<td>5%</td>
</tr>
<tr>
<td>STD clinic</td>
<td>0.1%</td>
<td>6%</td>
</tr>
<tr>
<td>Drug treatment clinic</td>
<td>0.7%</td>
<td>2%</td>
</tr>
</tbody>
</table>

*National Health Interview Survey, 2002  
**Suppl. to HIV/AIDS surveillance, 2000-2003
Percent of Non-Elderly who Report Being Tested for HIV

Percent saying they have ever been tested for HIV among those under age 65...

- Yes, in last 12 months: 55%
- Yes, but not in last 12 months: 34%
- No, never tested: 21%

Think HIV test is part of routine labs: 18%
Doctor told me to get tested: 51%
Asked to be tested: 24%

2006 Kaiser Family Foundation: Survey of Americans on HIV/AIDS
Patient Barriers to Testing

- Lack of perceived risk (61%)
- The doctor never recommended it (21%)
- Concern about confidentiality (13%)
- Don’t know where to get tested (10%)
- Don’t like needles or giving blood (8%)
- Afraid they will test positive (3%)

2006 Kaiser Family Foundation Survey of Americans on HIV/AIDS
Provider Barriers to Testing

- Perception of limited risk
- Time constraints
- Consenting process cumbersome
- Not a “qualified” counselor
- Fear of a positive result
- Tracking patients to get them into care

2006 Kaiser Family Foundation *Survey of Americans on HIV/AIDS*
Estimated Number of Perinatally Acquired AIDS Cases, by Year of Diagnosis, 1985-2004 – United States

- PACTG 076 & USPHS ZDV Recs
- CDC HIV screening Recs
- ~95% reduction

Year of Diagnosis

Number of cases
Routine Opt-Out HIV Screening During Pregnancy

Prenatal HIV testing for pregnant women:

- RCT of 4 counseling models with opt-in consent:
  - 35% accepted testing
  - Some women felt accepting an HIV test indicated high risk behavior

- Testing offered as routine, opportunity to decline
  - 88% accepted testing
  - Significantly less anxious about testing

Earlier Diagnosis with Opt-Out versus Opt-In Testing

- Average CD4 count for newly dx pregnant women (opt-out): 400
- Average CD4 count for all newly dx: 100

- For CD4 > 350 probability of AIDS or death is <5%
- For CD4 <100 probability of AIDS or death is >20%

Eggers, Lancet 2002; 360:119
### Routine Opt-Out HIV Testing
Texas STD Clinics, 1996-97

<table>
<thead>
<tr>
<th></th>
<th>Opt-In</th>
<th>Opt-Out</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>STD Visits</td>
<td>31,558</td>
<td>34,533</td>
<td>+9</td>
</tr>
<tr>
<td>Pre-test counsel</td>
<td>15,038 (78)</td>
<td>11,466 (48)</td>
<td>-24</td>
</tr>
<tr>
<td>Tested</td>
<td>14,927 (78)</td>
<td>23,020 (97)</td>
<td>+54</td>
</tr>
<tr>
<td>HIV-positive</td>
<td>168 (1.1)</td>
<td>268 (1.2)</td>
<td>+59</td>
</tr>
</tbody>
</table>
Routine Opt-out Testing in Denver

<table>
<thead>
<tr>
<th></th>
<th>Opt-In</th>
<th>Rapid Test</th>
<th>Opt-Out</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tested</td>
<td>80%</td>
<td>93%</td>
<td>96%</td>
</tr>
<tr>
<td>Seropositive</td>
<td>0.5%</td>
<td>NR</td>
<td>0.7%</td>
</tr>
</tbody>
</table>

Rietmeijer, C 2006 National STD Prevention Conference
Views on Routine HIV Testing

“HIV testing should be treated just like routine testing for any other disease and should be included as part of regular check ups and exams”

65%

27%

Don’t know
Neither

“HIV testing is different from screening for other diseases and should require special procedures such as written permission from the patient”

2006 Kaiser Family Foundation Survey of Americans on HIV/AIDS
Issues Favoring Routine HIV Testing

- Benefit of HIV care
- 30% Reduction in transmission
- Earlier diagnosis, better prognosis
- Many patients visit healthcare providers, but their HIV goes undiagnosed
- Shown to work in a variety of settings
- Cost effective
Challenges for Opt-Out Testing as Proposed

- Legal barriers
- Operational issues
- Competing Health Priorities
- Civil liberties concerns
- Loss of benefits of counseling
- Financial coverage
- Access to Care
HIV Counseling and Testing: Issues in African Americans
US Population Demographics:
HIV/AIDS & Population by Race/Ethnicity 2001-2005

Total US Population
(n=300,000,000)

- White*: 72%
- Black*: 13%
- Hispanic: 13%
- Other: 2%

HIV/AIDS Cases
(184,991)

- Black*: 50.5%
- Hispanic: 18.2%
- White*: 29.3%
- Other: 2%

MMWR March 9, 2007; 56 (9); 189-93.
Based on data from 33 states.
HIV/AIDS Diagnosed in 2001-2005 by Race/Ethnicity and Gender

**Men**
- White*: 34%
- Black*: 44%
- Hispanic: 20%
- Other: 2%

**Women**
- Black*: 67%
- White*: 16%
- Hispanic: 15%
- Other: 2%

*Not Hispanic.
MMWR March 9, 2007; 56 (9); 189-193. Based on data from 33 states.
HIV/AIDS Cases in 2001-2005: Category of Risk in African Americans

Men (n=58,287)
- MSM 51.7%
- Heterosexual Contact 25.2%
- IDU 17.9%
- MSM + IDU 4.6%
- Other 0.5%

Women (n=35,160)
- Heterosexual Contact 80.4%
- IDU 18.2%
- Other 1.3%

MMWR March 9, 2007; 56 (9); 189-193. Based on data from 33 states.
Reported AIDS Cases among Female Adults and Adolescents, by Region and Race/Ethnicity, 2003
50 States and D.C.

Region

- Northeast N=3,777*
  - White, not Hispanic: 556
  - Black, not Hispanic: 2,246
  - Hispanic: 928

- Midwest N=1,005*
  - White, not Hispanic: 223
  - Black, not Hispanic: 676
  - Hispanic: 88

- South N=5,309*
  - White, not Hispanic: 795
  - Black, not Hispanic: 4,030
  - Hispanic: 407

- West N=1,103*
  - White, not Hispanic: 327
  - Black, not Hispanic: 356
  - Hispanic: 338

Note. Excludes persons from Puerto Rico and US dependencies, possessions and associated nations.
* Region totals include females of unknown race or multiple races.
Age-Adjusted* Average Annual Rate of Death due to HIV Disease by Race / Ethnicity and Geographic Region, USA, 1998–2002

Note: For comparison with data for 1999 and later years, data for 1998 were modified to account for ICD-10 rules instead of ICD-9 rules.

HIV in Men Who Have Sex with Men (MSM)

- CDC study to examine HIV prevalence
  - 2004-2005
- Young MSM in 5 cities
  - New York City
  - Baltimore
  - Los Angeles
  - Miami
  - San Francisco
- 48% were unaware of infection

Prevalence HIV Seropositivity Among MSM

<table>
<thead>
<tr>
<th>Prevalence (%)</th>
<th>Black</th>
<th>White</th>
<th>Latino</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>46%</td>
<td>21%</td>
<td>17%</td>
</tr>
</tbody>
</table>

Incidence of HIV among MSM in USA

- Estimated incidence of HIV among US MSM = 1.9% (community-based studies)
- Assuming 8% prevalence in MSM aged 20 years with no mortality due to HIV, over 50% of US MSM will be HIV+ by age 60
- Among African American MSM, nearly 80% are projected to be HIV infected by age 60

van Griensven F, et al. 14th CROI, Los Angeles 2007, #55
Late HIV Testing is Common
Supplement to HIV/AIDS Surveillance, 2000-2003

• Among 4,127 persons with AIDS*, 45% were first diagnosed HIV-positive within 12 months of AIDS diagnosis (“late testers”)

• Late testers compared to early testers (>5 yrs prior to AIDS dx) were more likely to be:
  - Younger (18-29 yrs)
  - Heterosexual
  - Less educated
  - African American or Hispanic

*16 states

MMWR June 27, 2003
Reasons for testing: late versus early testers

Supplement to HIV/AIDS Surveillance, 2000-2003

Late (Tested < 1 yr before AIDS dx)

Early (Tested >5 yrs before AIDS dx)
Barriers to Implementation of Expanded HIV Testing among African Americans

- Stigma of HIV/AIDS
  - African Americans (65%) and Latinos are significantly more likely to believe that there is “a lot” of prejudice and discrimination against those with HIV/AIDS
  - Nearly one third of African Americans would be very concerned if others learned they were tested for HIV
  - Those who have lower levels of HIV knowledge have greater stigmatizing views about the disease

## African American Community Beliefs about HIV/AIDS

<table>
<thead>
<tr>
<th>Belief</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutions are trying to stop HIV</td>
<td>75.4 %</td>
</tr>
<tr>
<td>AIDS is a form of genocide</td>
<td>15.2 %</td>
</tr>
<tr>
<td>AIDS was produced in a government lab.</td>
<td>26.6 %</td>
</tr>
<tr>
<td>Those who take new meds are guinea pigs</td>
<td>43.6 %</td>
</tr>
<tr>
<td>Cure for AIDS exists, but withheld from poor</td>
<td>53.4 %</td>
</tr>
<tr>
<td>Information about AIDS is being withheld</td>
<td>58.8 %</td>
</tr>
</tbody>
</table>

Bogart, Thorburn (2005)
Key Factors That Impede HIV Testing among African Americans

- **Patient issues**
  - Lack of knowledge about HIV/AIDS.
  - Fear of knowing they have the disease
  - HIV-related stigma and discrimination
  - Financial reasons
  - Drug use
  - Mental illness
  - Lack of a traditional “risk factor”

- **Provider issues**
  - Physician complacency
  - Feeling uncomfortable discussing high-risk behaviors such as sex or drug use

- **System issues**
  - CDC testing guidelines: routine screening (ages 13-64)
  - Is there enough financing available?

Overview: CDC National Plan to Address HIV in the African American Community in the US

- Call to action in response to the HIV/AIDS crisis among African Americans
  - Expansion of prevention activities
  - Increased access to HIV testing
  - Enhancement of care and treatment
  - Training (more culturally competent minority clinicians)
  - Mobilization of community action
  - Research (what works and what doesn’t)
  - Open dialogue about sex and sexual behaviors

Possible Strategies to Increase HIV Testing Among African Americans

• Provide incentives
• Provide routine rapid HIV testing in the following settings
  – Emergency room and urgent care clinics
  – Sexually transmitted disease clinics
  – Primary care practice (private and public)
  – Ob/Gyn clinics and practices
  – Public school clinics
  – College campus clinics
  – Prison clinics
  – Mobile health care vans (“street” testing)
Summary: Expanding HIV Testing in the African American Community in the US – Implementing New CDC Guidelines

- Increased acceptance in the African American community will be linked to:
  - Non-judgmental, matter of fact approach
  - Obviating the need for risk factor interrogation component of HIV testing
  - Making it truly “Routine” -- like Paps, Flu shots, etc.
  - Decreasing the stigma of the test and the diagnosis

HIV Counseling Basics

SGIM Workshop
Toronto, 2007
A.C.T.S.
Assess, Consent, Test, Support

• New approach to HIV counseling and testing
• ACTS is a concise, comprehensive, clinician-delivered HIV testing that is feasible in clinical care settings
• Meets local department of health and specific legal testing requirements; i.e. opt out, opt in, or written informed consent
• Condenses >15-minute process to < 5 minutes
• Allows for better allocation of counseling resources/time
• Empowers & engages clinicians in HIV counseling and
The “A” in ACTS

Assess

• Explain it is now standard practice to discuss HIV with all patients
  – Explain benefits of testing for patient’s health and prevention
  – Describe HIV transmission: sex/needles/perinatal
• Review risk screen or explain that HIV testing is advisable if:
  – You have ever had sex
  – You have ever used IV drugs
• If yes, recommend testing and assess testing readiness
Clinician Talking Points: Assess

- “…I talk about HIV testing with all my patients.”

- “HIV screening is something that I recommend to everyone who has ever had sex…”

- “It is important for every person to understand his/her status including if they have HIV…”

- “If you test HIV-negative, you can learn ways to stay healthy. If you test HIV-positive, you can get good medical care and learn how to keep you and your partner safe…”

- “In most screening programs, the vast majority of patients will test negative…”
The “C” in ACTS

**Consent**

- Review Dept of Health consent form: meaning of positive and negative results, confidential vs. anonymous testing, names reporting, partner notification and domestic violence screening
- Obtain consent
“…The test we are doing is an **HIV antibody test.**”

“A **negative result** means that there is no current evidence that you are infected with HIV, but it may not show a very recent infection.”

“A **positive result** means that you are infected with HIV and you can infect others…If you are HIV-positive, you will need more tests and a check-up to learn more about your health and to see if you need to start any medicines.”

“**Confidential Testing** requires your name, and the test will be part of your medical record so it can be used in your medical care. All information about HIV is confidential, which means that your test results can only be given to people with your written approval…”
The “T” in ACTS

Test

- Describe/provide HIV test (blood, oral, urine or rapid)
- Make plan to deliver results or have patient wait for rapid results
Clinic Talking Points: Test

• “For this test we will draw some blood from your arm (Rapid: or we will do a finger prick)”

• “…Results are usually available in two to seven days. Let’s make an appointment for you to return for your results (or you can call to get your results)…”

• **Rapid:** “We are using a rapid test today. Your results will be ready in 30 minutes. If you test negative, your results are final today. However, if your results on this test are preliminary positive, you will need to take a second test to make sure you are actually infected…”
The “S” in ACTS

Support

Give results and allow time to process

• **HIV-negative:**
  – Clarify if need to retest in three months (window period)
  – HIV testing by itself is not prevention: discuss prevention

• **HIV-positive:**
  – Provide support and link to care and prevention
  – Review HIV reporting, partner notification and domestic/partner violence issues
• “Thank you for coming back (calling or waiting) for your HIV test results. Your HIV test came back negative, which means you do not currently have antibodies to HIV and there is no sign you are infected.”

• “If you have had unprotected sex (or shared needles) with anyone in the past three months, we recommend that you stay safe and repeat this test in three months. (This is called the window period.)”

• “Even though this test is negative, you can get HIV in the future if you do not protect yourself during sex by using condoms and discussing HIV risks with your partner(s).”
Case

- Brenda is a 48 year old woman
- Clinic visit for routine PAP smear
- Divorced mother of 3 grown children, dating 1 man exclusively for the past 2 years
- No history of recent STDs
- Never HIV tested
ASSess
  – Explain why they should test
  – Brief risk assess

CConsent
  – Confidential vs anonymous testing

TTest
  – Blood test will be performed today
  – Test results will be available in 2 to 7 days
  – Would you like to call back or can I call you with the results

SSupport
  – Discuss result
  – HIV testing by itself is not prevention
Linkage to Care after A Positive HIV Test: Issues and Solutions

SGIM Workshop
Toronto
April 2007
Overview

- Delay in accessing/linking care
  - Major points of delay from infection to testing and from testing to HIV care
  - Studies of the delay until care received
  - Factors associated with delayed care
- Factors associated with improved linkage to care
- Interventions to reduce delay
Overall Delay

- 203 consecutive outpatients at initial HIV primary care presentation (cohort from early 90s)
- Mean 8.1 years from acquiring HIV to first HIV primary care
- Mean 2.5 years from awareness of infection until HIV primary care
- Longer for heterosexual sex as risk factor (also observed by another CDC study)
- Take advantage of patient contacts with health care to decrease time until care received

Delay in First Receipt of HIV Care

- HCSUS (population-based sample of HIV-infected persons in care from early-mid 90s).
- Nearly 1/3 of the sample delayed > 3 months and 20% delayed > 6 months before getting first HIV care and
- Among those who delayed >3 months, average delay was one year; among those who delayed >6 months the average was 2 years

<table>
<thead>
<tr>
<th>Factor</th>
<th>Adjusted Odds Ratio (AOR)</th>
<th>Confidence Interval (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American or Latino</td>
<td>1.53</td>
<td>1.14-2.00</td>
</tr>
<tr>
<td>HIV symptoms</td>
<td>0.45</td>
<td>0.34-0.89</td>
</tr>
<tr>
<td>Medicaid insured</td>
<td>0.52</td>
<td>0.30-0.92</td>
</tr>
<tr>
<td>Usual source of care at the time of diagnosis</td>
<td>0.60</td>
<td>0.47-0.77</td>
</tr>
<tr>
<td>High trust in medical provider</td>
<td>0.78</td>
<td>0.72-0.99</td>
</tr>
<tr>
<td>Test Site</td>
<td>AOR</td>
<td>CI</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>---------</td>
<td>-----------</td>
</tr>
<tr>
<td>Physicians Office</td>
<td>1.00</td>
<td>(reference)</td>
</tr>
<tr>
<td>Hospital</td>
<td>1.03</td>
<td>[0.69-1.52]</td>
</tr>
<tr>
<td>Anonymous testing center</td>
<td>1.25</td>
<td>[0.97-1.61]</td>
</tr>
<tr>
<td>Non-Medical site*</td>
<td>1.15</td>
<td>[0.57-2.02]</td>
</tr>
<tr>
<td>Other sites</td>
<td>0.62</td>
<td>[0.39-0.99]</td>
</tr>
</tbody>
</table>

(Non-medical site: Prison, military, blood donation center)
Effect of Gender and Caregiving on Delay in Care (HCSUS)

- Women AOR 1.6 [CI 1.2, 2.2]
- Uninsured AOR 2.1 [1.3, 3.4]
- CD4 >500 AOR 2.0 [1.4, 2.9]
- Child in the household AOR 1.8 [1.2, 2.6]

Implication that physicians need to be attentive to social circumstances in promoting HIV care

Reference groups: men, private insurance, CD4 count <50, no child in household

Linkage to HIV Care

- Antiretroviral Treatment Access Study (ARTAS)
- Recently diagnosed HIV-infected persons in Atlanta, Baltimore, Los Angeles and Miami
- RCT of passive referral (PR) or case management (CM) to HIV care
- More 136 CM subjects had HIV care within 6 months (78%) vs 137 passively referred subjects (60%); adjusted relative risk 1.36; $P < 0.001$.
- US$ 600–1200 per client

Special Focus for Linkage to HIV Care

- HIV Outreach and Intervention Initiative (Outreach) study of >1,200 underserved persons
- Cohort received supportive outreach services
- Heavy alcohol users at increased risk of receiving little or no care

Cunningham WE et al. Medical Care. 2006:44(11):1038-47
## Interventions to Reduce Delay

- Rapid testing – more patients get results
- Case management
- Improve physician training in post-test counseling – attention to social situation and need for support
- Immediate referral and specifics about accessible HIV provider
- “No show” follow-up by HIV providers
- Address drug, alcohol use, and mood disorders
Summary

- CDC guidelines recommend expanding HIV testing through routine opt-out testing
- The guidelines have raised challenges and provide opportunities
- Minorities are at increased risk for HIV and are more vulnerable to testing abuses
- Counseling can be performed in a rapid concise manner
- Access to care is IMPERATIVE