

# Special Populations: Adolescents

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# Disclosure

Dr. Donna Futterman receives research support and/or grant funding from Gilead Sciences and Inverness.

I do not intend to discuss any non-FDA-approved or investigational uses of any products/devices during this presentation.

# Objectives

- Develop HIV prevention and testing strategies for adolescents served by your practice.
- Modify your management plan for an HIV+ youth based on the unique treatment considerations of this population.

# AIDS is NOT Over for Youth

**35%**

New HIV infections among youth 13-29

**20,000**

Youth infected annually - 1 every hour

54% YMSM; 35% young women; 11% other young men

**>85%**

HIV+ youth sexually infected

**>80%**

HIV+ youth are racial/ethnic minorities

**>50%**

HIV+ youth untested (80% HIV+ gay youth unaware)

**Growing numbers**

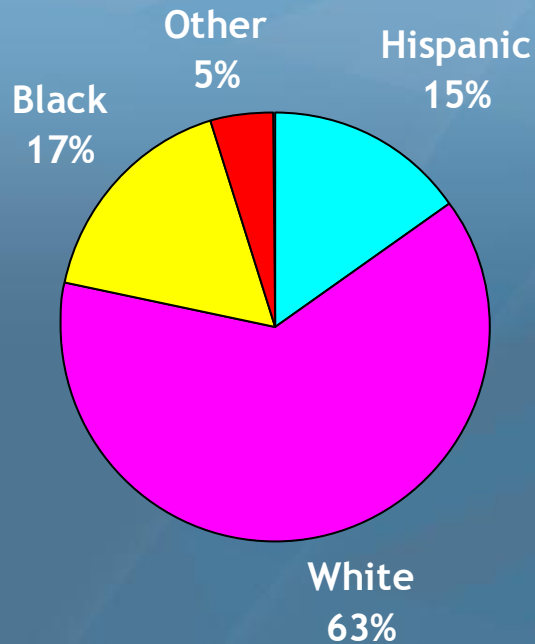
Perinatally-infected reaching adolescence (2,700)

# HIV/AIDS Among Youth

## Youth Population

42,500,000

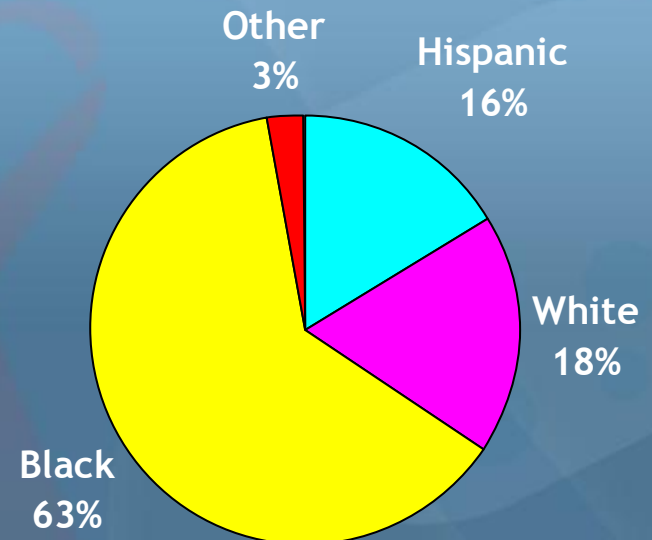
(15-24 yrs)



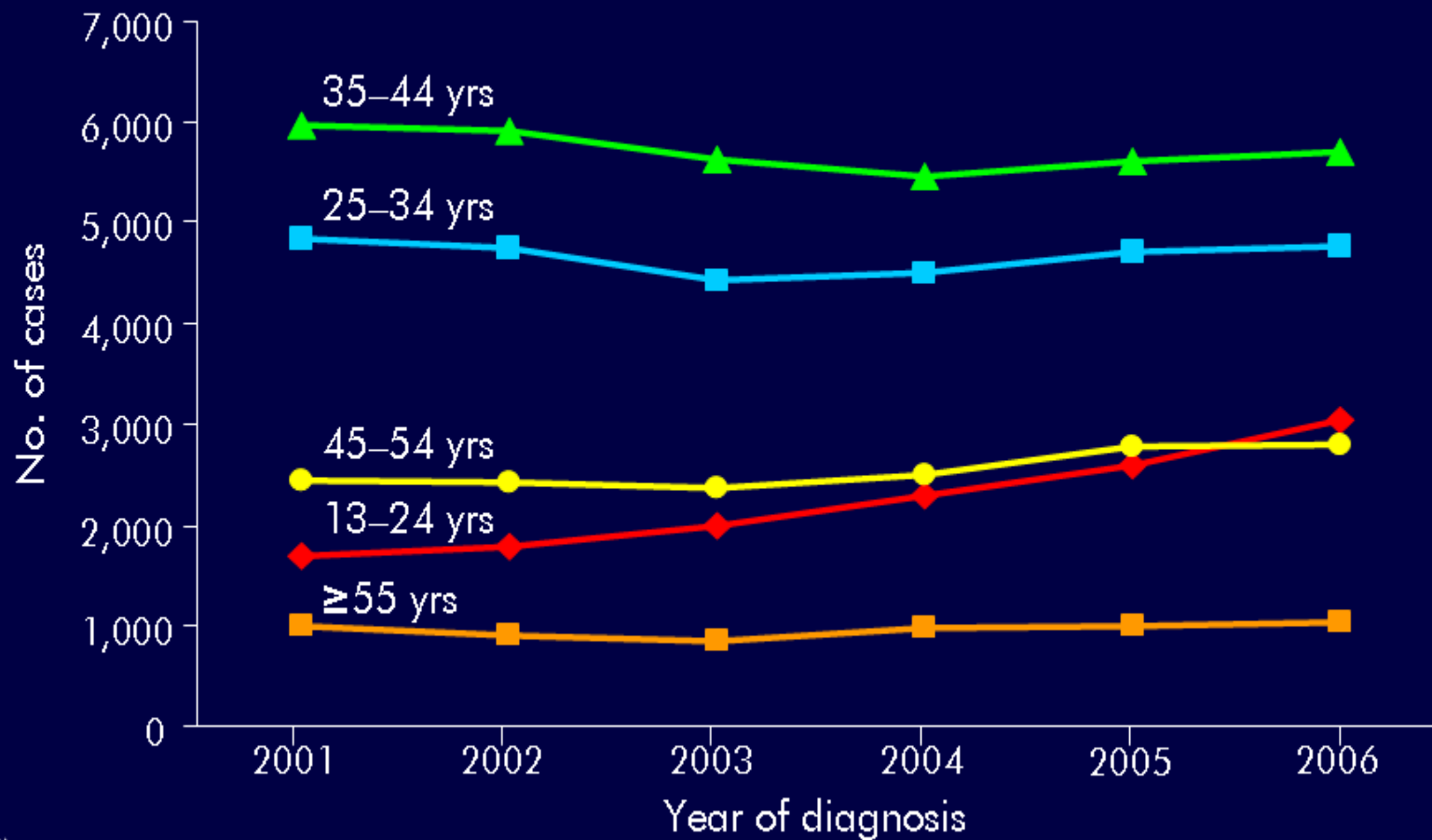
## HIV/AIDS Cases

56,500

(13-24 yrs)



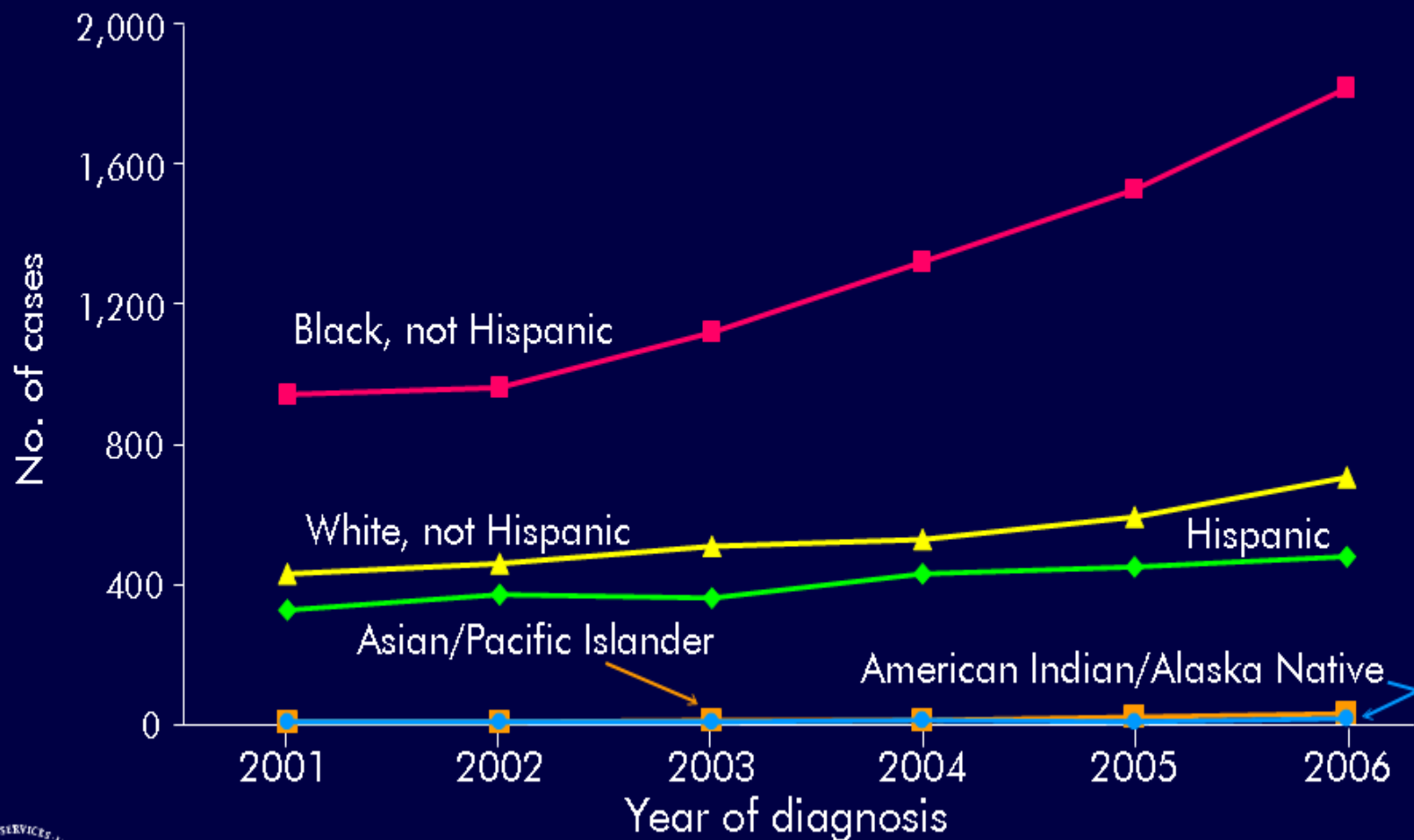
# Estimated Number of HIV/AIDS Cases among Adult and Adolescent Men Who Have Sex with Men, by Age Group, 2001–2006—33 States



Note. The data have been adjusted for reporting delay and cases without risk factor information were proportionally redistributed.



# Estimated Number of HIV/AIDS Cases among Men Who Have Sex with Men, Aged 13–24 years, by Race/Ethnicity 2001–2006—33 States



Note. The data have been adjusted for reporting delay and cases without risk factor information were proportionally redistributed.



# HIV Prevalence: MSM

1994-98 Baltimore/Dallas/LA/Miami/NYC/SF/Seattle

MSM ages 15-22y	n = 3449
Overall HIV-positive	7%
African American	14%
15-19 years old	6%
Unaware HIV-positive	82%
Risk behaviors common	
Ever anal sex with a man	87%
Unprot. anal receptive	31%
Ever sex with a woman	61%



# HIV+ Bronx Young MSM

## 2006-2009

<b>Age 16-23</b>	<b>Total N=58</b>	<b>Latino 31(53%)</b>	<b>Black 27(47%)</b>
<b>No medical insurance</b>	<b>41%</b>	<b>39%</b>	<b>44%</b>
<b>Sexual Identity</b>			
<b>Gay/Homosexual</b>	<b>67%</b>	<b>71%</b>	<b>63%</b>
<b>Bisexual/two spirited</b>	<b>29%</b>	<b>29%</b>	<b>30%</b>
<b>Sex with Women ever</b>	<b>62%</b>	<b>61%</b>	<b>63%</b>
<b>Insertive anal sex with men</b>	<b>47%</b>	<b>55%</b>	<b>37%</b>
<b>Condom Use</b>	<b>70%</b>	<b>71%</b>	<b>70%</b>
<b>Daily Marijuana Use</b>	<b>40%</b>	<b>48%</b>	<b>30%</b>
<b>Number of prior (-) HIV Tests mean (range)</b>	<b>5.5 (1-20)</b>	<b>5.8 (1-20)</b>	<b>5 (1-12)</b>

# Youth Susceptibility to STDs/HIV

## Behavioral vulnerability

- The age of experimentation (65% sex 12th gr)
- Gender power imbalance

## Biological vulnerability of females

- Immature cervix
- STDs often asymptomatic
- More efficient: male to female

## Socioeconomic vulnerability

- Lack health care coverage (25%)
- Inadequate sex education
- Lack of confidentiality

# HIV Transmission in Youth

- Sexual Infection (highest mode of transmission)
- Many at-risk women unaware of risk
- Many YMSM don't identify with "gay" prevention
- Transgender youth avoid or don't get care
- STD, sexual/substance abuse, mental illness increase risk
- Children of HIV+ parents at increased risk

# Stages of Coping with HIV

- Learning HIV status
- Disclosure to family/partners (“my situation”)
- CD4 and Viral Load (“numbers game”)
- Becoming symptomatic
- Taking medications
- Terminal care and death

# Treatment Issues

## Perinatally Infected Adolescents

- Decreasing options for therapy
- Puberty and body shape changes
- Consequences of lifelong HIV and its treatment

## Sexually Infected Adolescents

- Diagnosis and engagement in care

## Common Issues

- Adherence
- Disclosure
- Ongoing risk of transmission
- Reproductive Health
- Behavioral and psychological concerns
- Transition to Adult Care

# Summary of Adolescent Cohorts

<b>COHORT</b>	<b>% with 1 year Virologic Suppression</b>
PACTG 381 (age 13-21)	52
South African (age 11-19)	46
South African (age 20-20)	56
COHERE (European, 13-17)	46
COHERE (European, 18-29)	50
Haiti (age 13-25)	49

# Antiretroviral Therapy: When to Start

- HHS guidelines for adults appropriate for youth (B)
  - thymic volume and function favors youth
  - slower progression to AIDS than adults
  - adherence with youth more difficult
- Be aware of resistance issues with perinatally-infected and other heavily treated youth
- Controversy on when to start; if healthy consider delay until adherence chances improve (C)

# Decreasing Options for Therapy in Perinatally-Infected Adolescents

- Most perinatally infected adolescents have received each generation of ART
  - Often have multiple resistance mutations, especially to NRTIs
  - Not unlike adults on therapy for over 10 years
- Dose by pediatric or adult doses?
  - Must balance potential toxicity with higher pediatric doses vs chance for drug resistance and virologic failure with lower adult doses
- Interactions with puberty and concomitant medications, including illicit agents



# Antiretroviral Therapy: Youth Considerations

- Check for pubertal development (C)
  - Tanner stage I or II: pediatric dosages
  - Tanner stage V: adult dosages
- Resistance testing before therapy initiation (A)
- Avoid efavirenz-based regimens with females who might be or become pregnant (A)
- Simplest regimens and attention to lifestyle improve adherence (C)

# Antiretroviral Therapy: Barriers to Adherence

- Developmental issues key
  - Denial of need for treatment
  - Concrete and present-oriented thinking
  - Adverse events may seem intolerable
  - Meds rebellion as a form of independence
- Low self-esteem, depression, hopelessness
- Mistrust providers & trust misinformation from peers
- Socioeconomic: chaotic lifestyles, insurance, housing & transportation challenges
- Lack of support / disclosure

# Transitioning: Youth aging into / out of adolescent care

- Facilitate transition from supportive to independent and responsibilities from parent/provider to patient
- Promote growth, self-expression and personal decision making
- Choose adult clinic with multidisciplinary services
- Traumatic for youth to leave trusted providers
- Uncomfortable in the presence of adult patients
- Consider phased transition (case manager, GYN)

# YOUTH & THE HIV/AIDS EPIDEMIC

A photograph of three young people walking on a rooftop in a city at sunset. The person on the left is a young woman with dark hair, wearing a dark hoodie and jeans, looking down. The person in the middle is a young man wearing a dark beanie, a dark jacket, and dark pants, looking down. The person on the right is a young man wearing a dark hoodie, a dark cap, and jeans, with his right arm raised in a gesture. The background shows a city skyline with tall buildings under a bright, hazy sky.

**“I don’t think I have anything to worry about. I assume they are negative. If they are positive, they wouldn’t put you at risk. You can tell a lot by appearance.”**


# Prevention

## **US prevention leaves youth vulnerable**

- Mass media promotes sex but not safer sex
- Abstinence “only” sex education shown ineffective
- Comprehensive sex education offers better foundation and is wanted by most parents
- Homophobia prevents programming for highest risk

## **Behavior change is very difficult**

- Prolonged interventions more successful
- Successful programs combine skill and knowledge

A young Black woman with her hair in braids is smiling broadly, looking slightly to the right. In the background, a young man with a beard is also smiling, looking towards the woman. The scene is lit with warm, golden light, suggesting an indoor setting like a restaurant or cafe.

**“Unless you speak to teens  
in our own words,  
we won’t get it.”**

# Barriers to HIV Testing in Youth: Medical

- Most providers don't see testing as part of routine care
  - Prevention counseling still assumed integral to HIV testing so think they don't have the time or training needed to test
- Provider's fear delivering a positive diagnosis
- Youth diagnosed late (CD4 = 378/mm<sup>3</sup>)
- Not all insurance companies reimburse for testing
- Confidentiality and consent a problem for youth
- Youth friendly health care not widely available

# Barriers to HIV Testing in Youth: Legal and Culture

- Youth among the least insured (25% lack insurance)
- Vulnerable youth not well served
  - Economic, racial, gender, and sexual orientation disparities
- Confidentiality & Consent: State laws vary and many unaware of local laws
- Youth feel invincible, not afraid of HIV
- Fear of disclosure to parents; HIV, sex and sexual orientation
- New generation every 5 years, so need ongoing and updated programming and social marketing



# Key Elements of Routine Testing

- Routine testing = fewer missed HIV diagnoses
- Simplified counseling shown to improve HIV offering & testing uptake but “Opt-out” has an even greater effect
- Logistics preparation/problem-solving crucial
- Diffusion of Innovation theory predictive of challenges/success: early & late adopters
- Routinization depends on new thinking & leadership of providers



**HIV  
TESTING IS FOR  
EVERYONE**

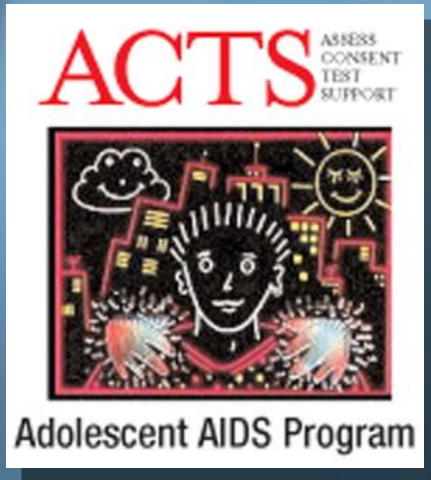
## **Routine Testing**

- Increases access to hard-to-engage vulnerable youth
- Earlier diagnosis for better treatment outcomes
- Prevention through behavior change and ARVs in HIV+ youth

# Contact

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