

DRUG USERS AGING WITH HIV: TOPICS FOR LONGITUDINAL SOCIO-BEHAVIORAL RESEARCH

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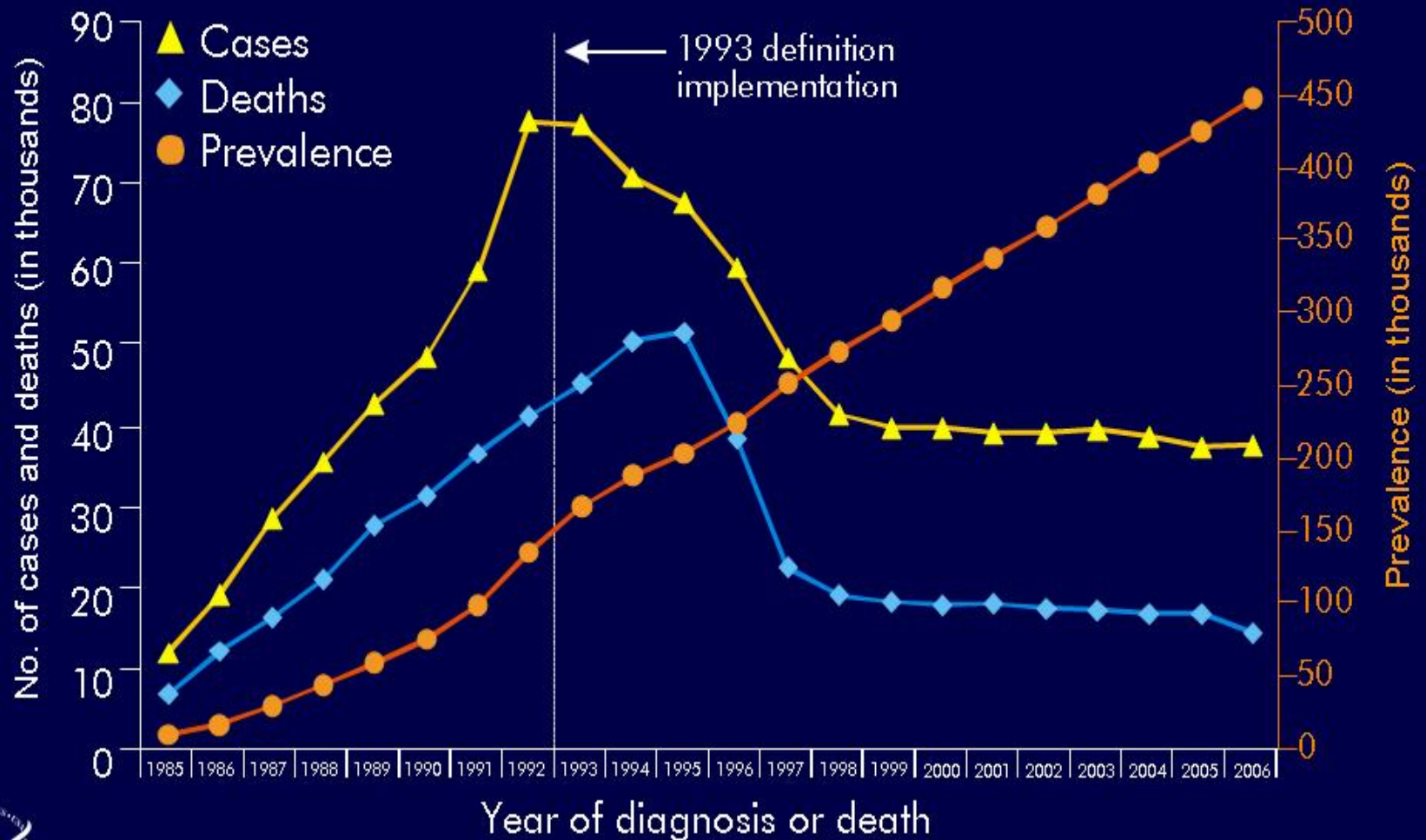
The US Population of People Living with HIV/AIDS (PLWHA) is Aging

This is due to:

- HAART (highly active antiretroviral therapy), widely introduced in 1996
- Newly diagnosed infections in older people (e.g., over the age of 50)

This population is increasingly comprised of minorities (African-Americans and Hispanics)

Estimated Number of AIDS Cases, Deaths, and Persons Living with AIDS, 1985–2006—United States and Dependent Areas



Note. Data have been adjusted for reporting delays.

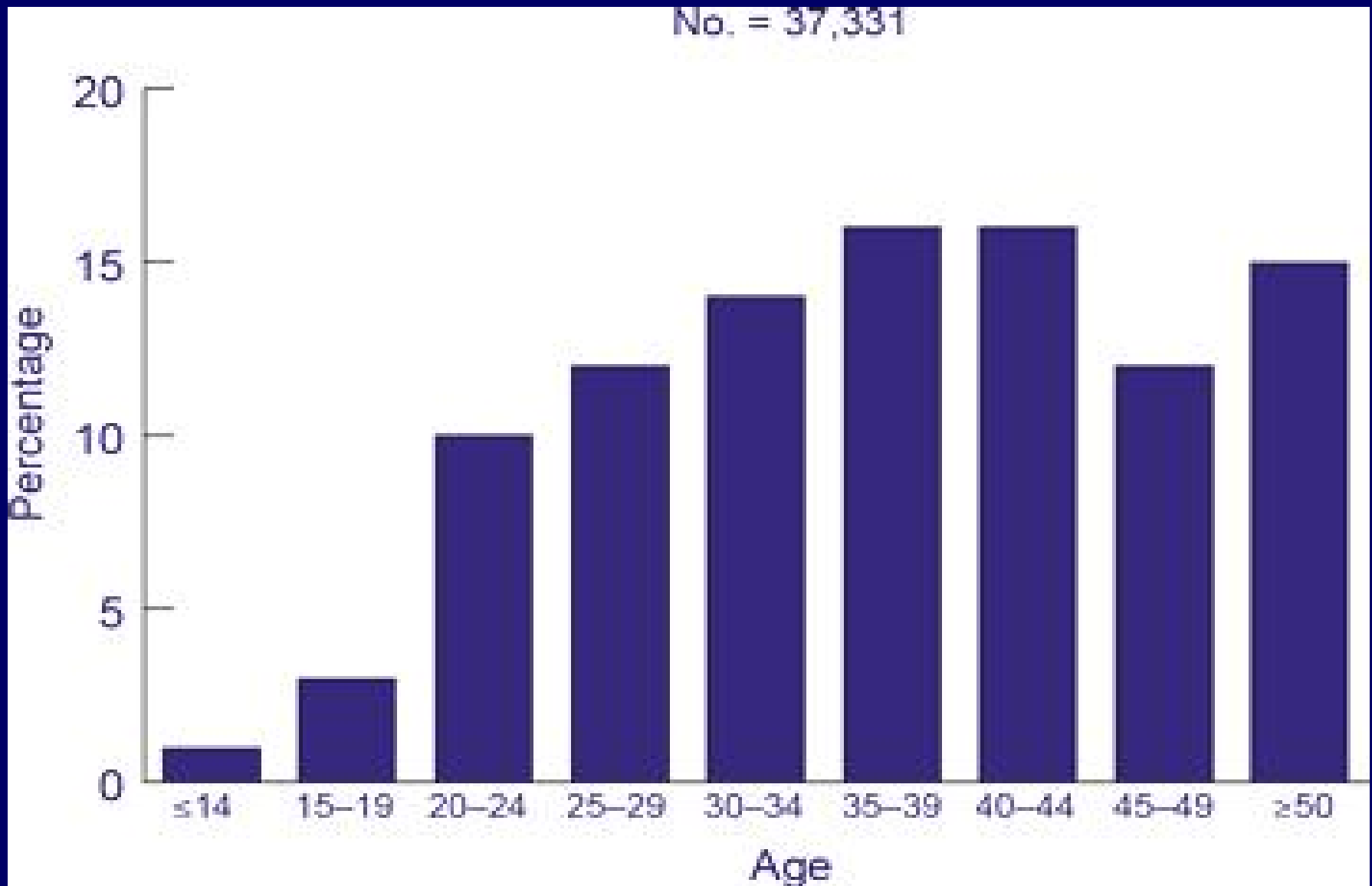


HIV/AIDS in 2005: Those over 50 represent:

- 15% of new diagnoses
- 24% of those living with HIV/AIDS
- 29% of those living with AIDS
- 35% of deaths

CDC, based on data from 33 states with long-term, confidential name-based HIV reporting.

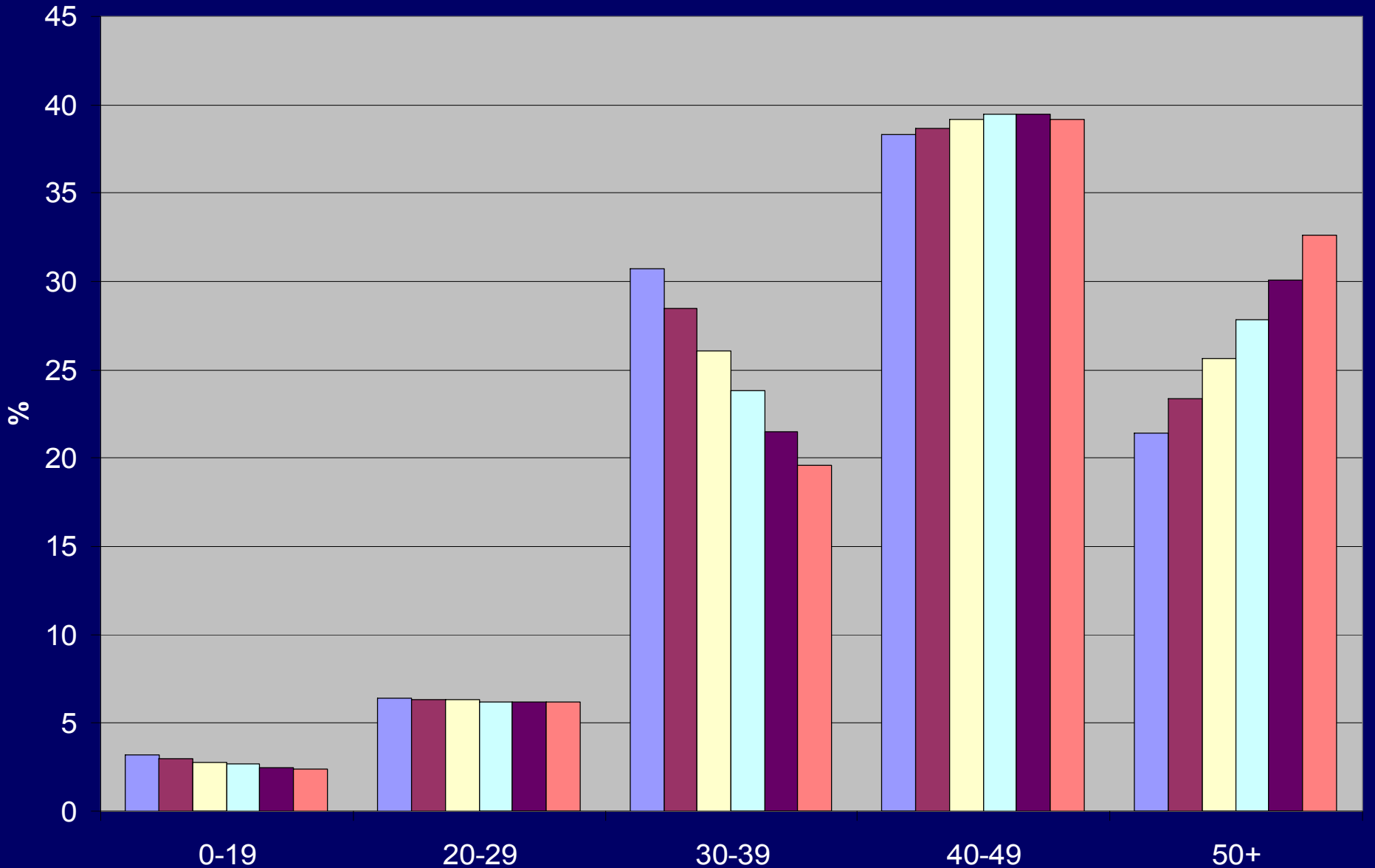
Estimated Numbers of Cases of HIV/AIDS, by Age—2005



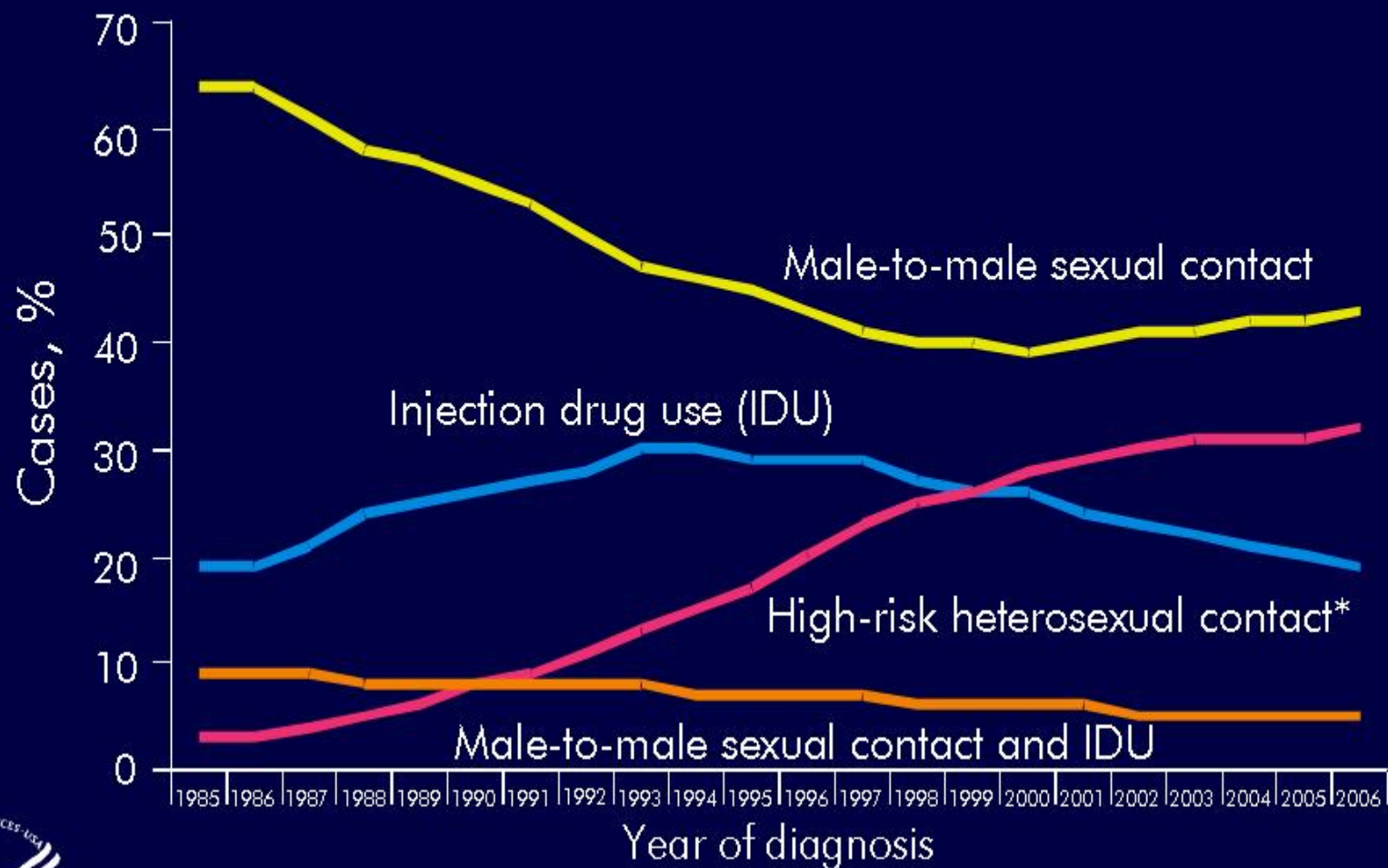
CDC, Based on data from 33 states with long-term, confidential name-based HIV reporting.

% People Living with HIV/AIDS in NYC by AGE

NYCDOH 2006



Proportion of AIDS Cases among Adults and Adolescents by Transmission Category and Year of Diagnosis 1985–2006—United States and Dependent Areas

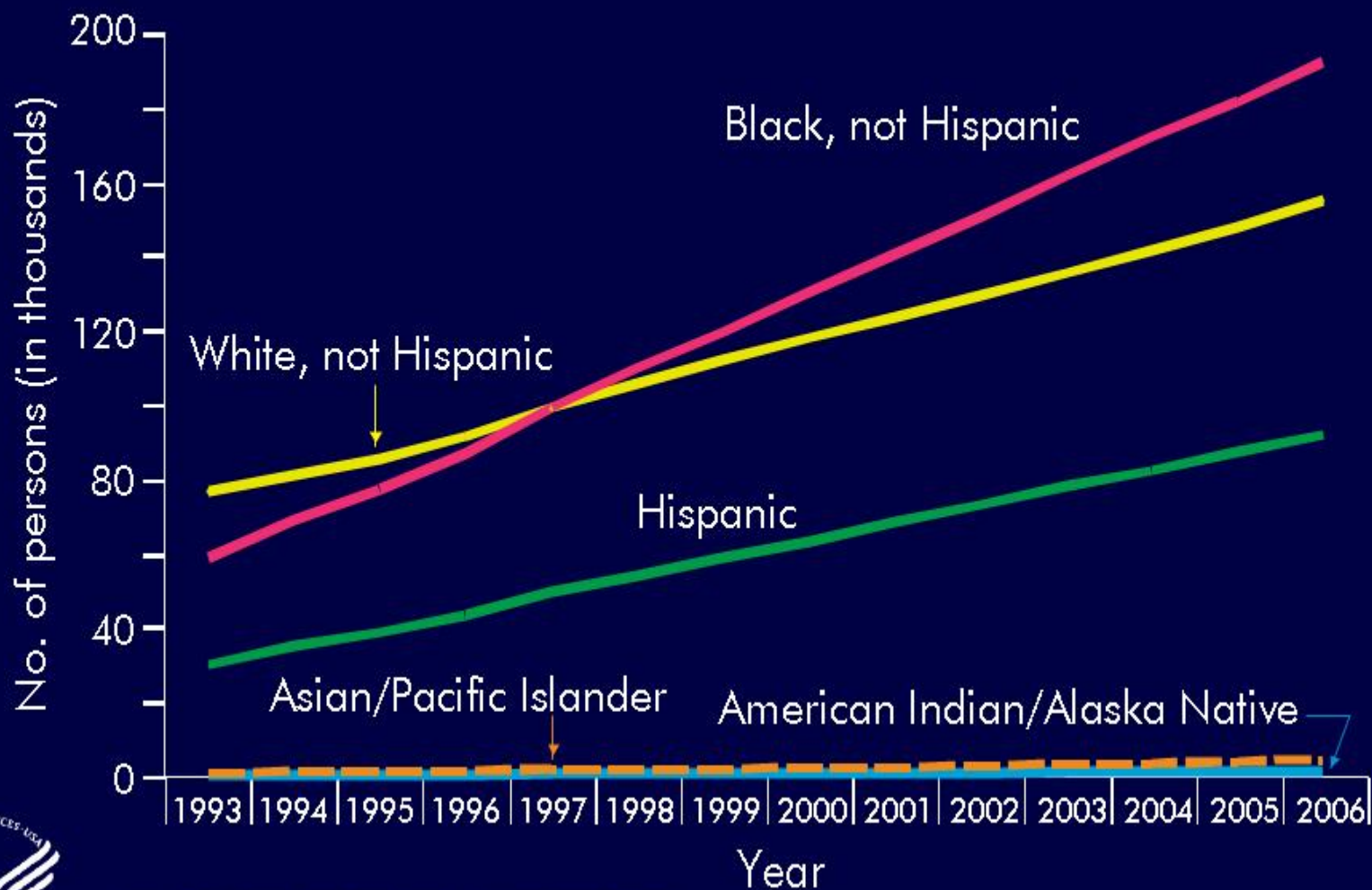


Note. Data have been adjusted for reporting delays and cases without risk factor information were proportionally redistributed.

* Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.



Estimated Number of Persons Living with AIDS, by Race/Ethnicity 1993–2006—United States and Dependent Areas



Note. Data have been adjusted for reporting delays.



Drug Use Among MSM in 17 MSAs (CDC NHBS Survey, n=10,030)

	<u>Percent Reporting</u>
Injection drug use (ever)	6
Non-injection drug use (12 months)	42
Among those reporting NIDU	
Marijuana	77
Cocaine	37
Ecstasy	29
Poppers (amyl nitrate)	28
Methamphetamine	27
74 % of NIDUs reported being under the influence of a drug during sex	
CDC, 2006	

Socio-behavioral Issues in Aging with HIV

What issues emerge as requiring further research ?

- Co-occurring disorders
- Drug-related risk behaviors
- Sex-related risk behaviors
- Adherence to HIV medications
- Stigma, disclosure, and social support
- Health disparities

Sources for Longitudinal Data on Drug Users Aging with HIV

Examples of large cohort studies:

- MACS - MSM
- WIHS - Women
- VACS- Veterans
- ALIVE - IDUs

WIHS: Women's Interagency HIV Study

- Established in 1993 to study impact of HIV infection on US women
 - 6 sites:
 - Bronx, NY; Brooklyn, NY; Chicago, IL; Los Angeles, CA; Northern California; Washington, DC.
 - Data Coordination: Johns Hopkins University, MD
 - Structured interview, physical and gynecologic examinations and laboratory testing; semi-annual assessments
 - Sample 2623 recruited in 1994-1995, 1143 recruited in 2001-2002

MACS: Multicenter AIDS Cohort Study

- Study of the natural and treated histories of HIV infection in homosexual and bisexual men
 - 4 sites:
Baltimore, Chicago, Los Angeles, Pittsburgh
 - Center for the Analysis and Management of MACS data: Johns Hopkins School of Public Health, MD
 - Interview data and specimens are collected at semi-annual visits
 - Total sample: 6,973; 4954 recruited in 1984; 668 in 1987-1991; 1350 recruited in 2001-2003

VACS: Veterans Aging Cohort Study

- Study of HIV-positive veterans and an age/race/site matched control group of HIV-negative veterans in care
- Aim is to understand the role of comorbid medical and psychiatric disease in determining clinical outcomes of HIV infection
 - 2 cohorts: (1) administrative data or “virtual cohort” of >40,000 HIV-positive veterans and a similar number of matched controls, updated at the end of each year; and a “living” cohort, currently in care at 8 medical centers: Atlanta, Baltimore, Bronx, Manhattan, Houston, Los Angeles, Pittsburgh, Washington, DC,
 - Enrollment is ongoing, currently consists of >6,000 patients (half HIV+)
 - Data includes medical records, surveys, telephone interviews, and banked biological samples

ALIVE: AIDS Link to Intravenous Experience

- Study of the natural history of HIV infection among IDUs in Baltimore
 - Over 4000, of whom 2921 were recruited in 1988-1989, 439 in 1994, 246 in 1998, and over 600 in 2005-2008 (recruitment currently underway). (PI: Gregory Kirk, Johns Hopkins School of Public Health, MD)
 - Semi-annual assessments, including interview, physical examinations, laboratory testing

Co-occurring Disorders

- Coronary heart disease
- Certain types of cancer
- Bone density loss
- Neurocognitive impairment
- Depression
- Hepatitis C (30-50% of HIV+ IDUs infected)

Challenges: to differentiate impact on co-occurring disorders of HIV disease progression, substance use (current and former), HAART medication and aging itself; treatment interactions

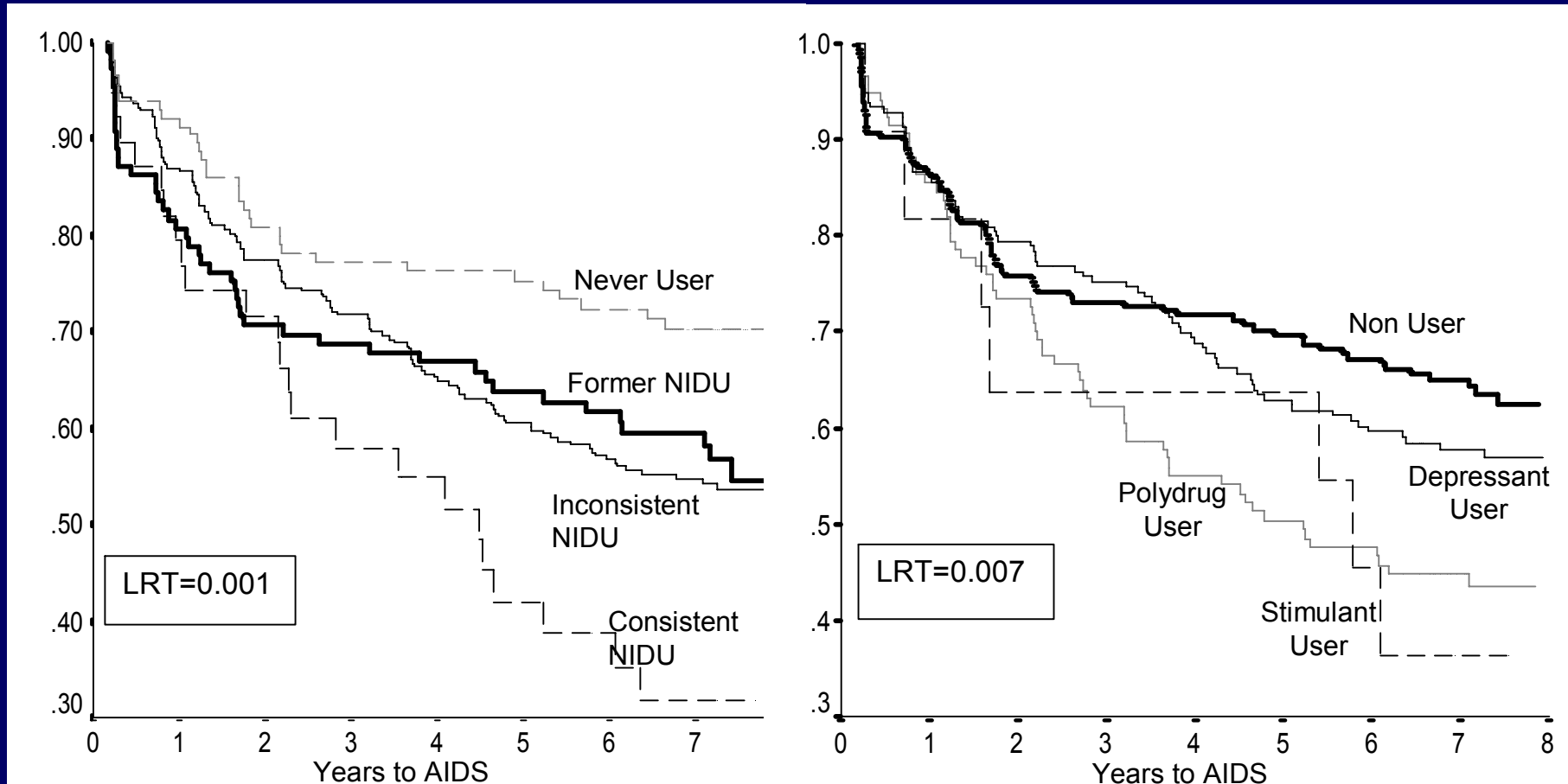
Depression

- Up to half of HIV+ persons report depressive symptoms and depression is more prevalent in HIV+ persons than in the general population
- Depression has been linked to non-adherence to HIV medications, poorer health status, and social factors (e.g., social support, homelessness)
- A recent review of longitudinal studies from 1990-2007 found that chronic depression, stressful events and trauma influence HIV disease progression in terms of CD4T lymphocytes, increase in viral load, and greater risk for mortality (Leserman, 2008)

Drug-related Risks

- Continued use (never stopped)
- Relapse
- New drug abuse, including prescription drugs
- Sexual performance-enhancing drugs
- Role of alcohol
 - Current substance use is related to lower adherence and poorer clinical outcomes
 - Some recent studies of older HIV+ patients reported that over one-third used illicit substances (primarily marijuana and cocaine) and over one-third used alcohol

AIDS Progression for HAART Users



Kapadia et al., 2005 (WIHS)

Sex Risks

- Important for transmission and health (e.g., avoidance of new STDs)
- Perception of not being infectious. Kalichman et al., (2006) reported that missing medications and treatment-related beliefs (e.g., undetectable viral load makes transmission less likely) were associated with engaging in unprotected sex with discordant partners
- Some recent studies indicate that among older (over 45) HIV+ patients, 30-50% reported recently engaging in sex, and about one-third of them reported risky sex

Adherence

- Some studies have found adherence rates for former IDUs similar to those who never used
- Barriers include: lack of social support, instability (homelessness), lack of belief in medications or trust in health system
- Hierarchy of adherence or differential adherence for medications needed for multiple disorders
- Care coordination-drug abuse treatment, ID treatment, other conditions

Stigma, Disclosure, and Social Support

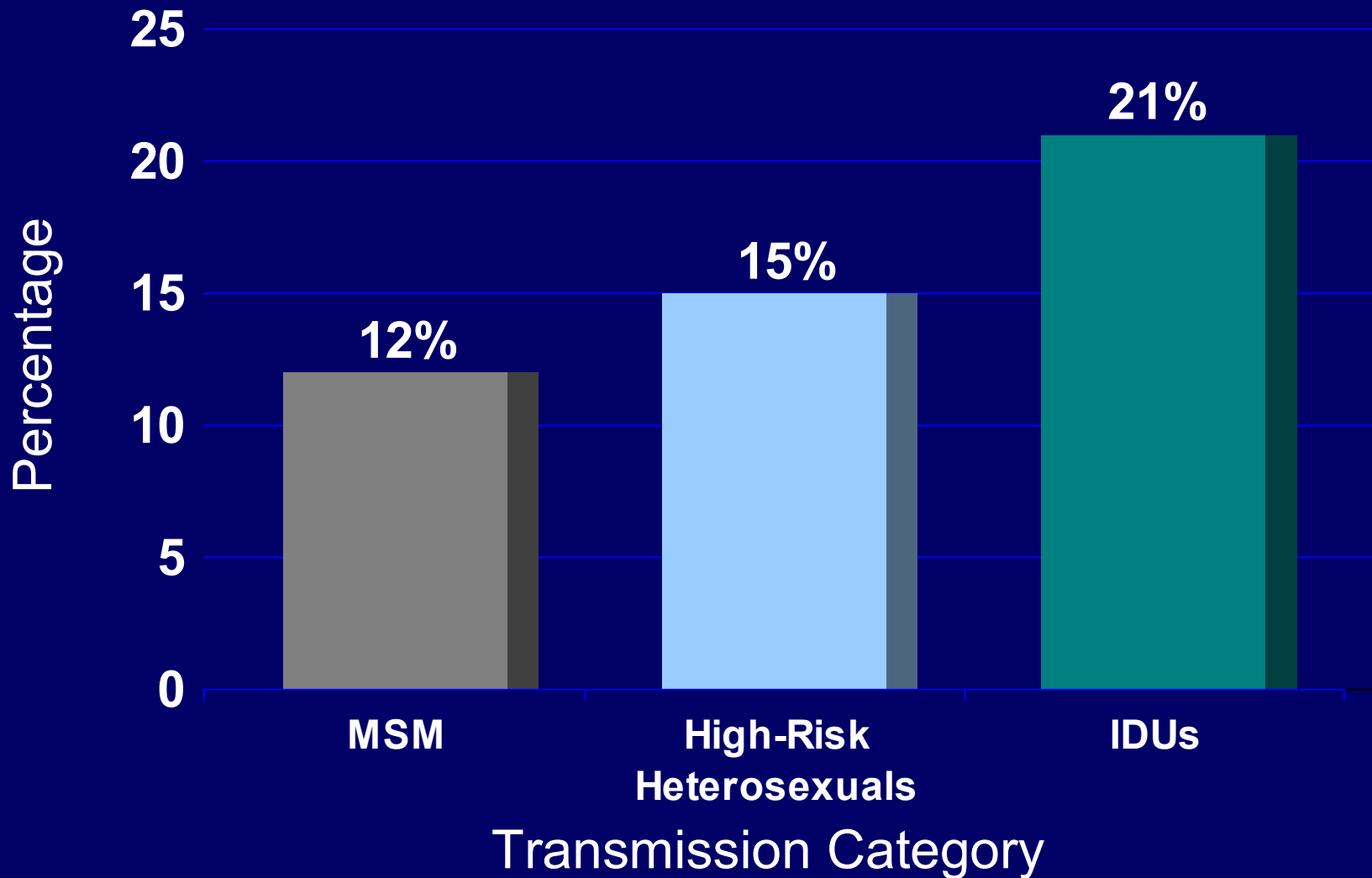
- Multiple stigma: drug use, minority, HIV+, aging
- Older adults have been found less willing to disclose status to others
- Older adults may have less social support

Health Disparities: Issues for Drug Users

- Late diagnosis
- Access to care
- Physician concerns about adherence, resistance, interactions
- Engagement in clinical trials

Challenges: Incorporating structural factors in research to enhance understanding of health disparities.

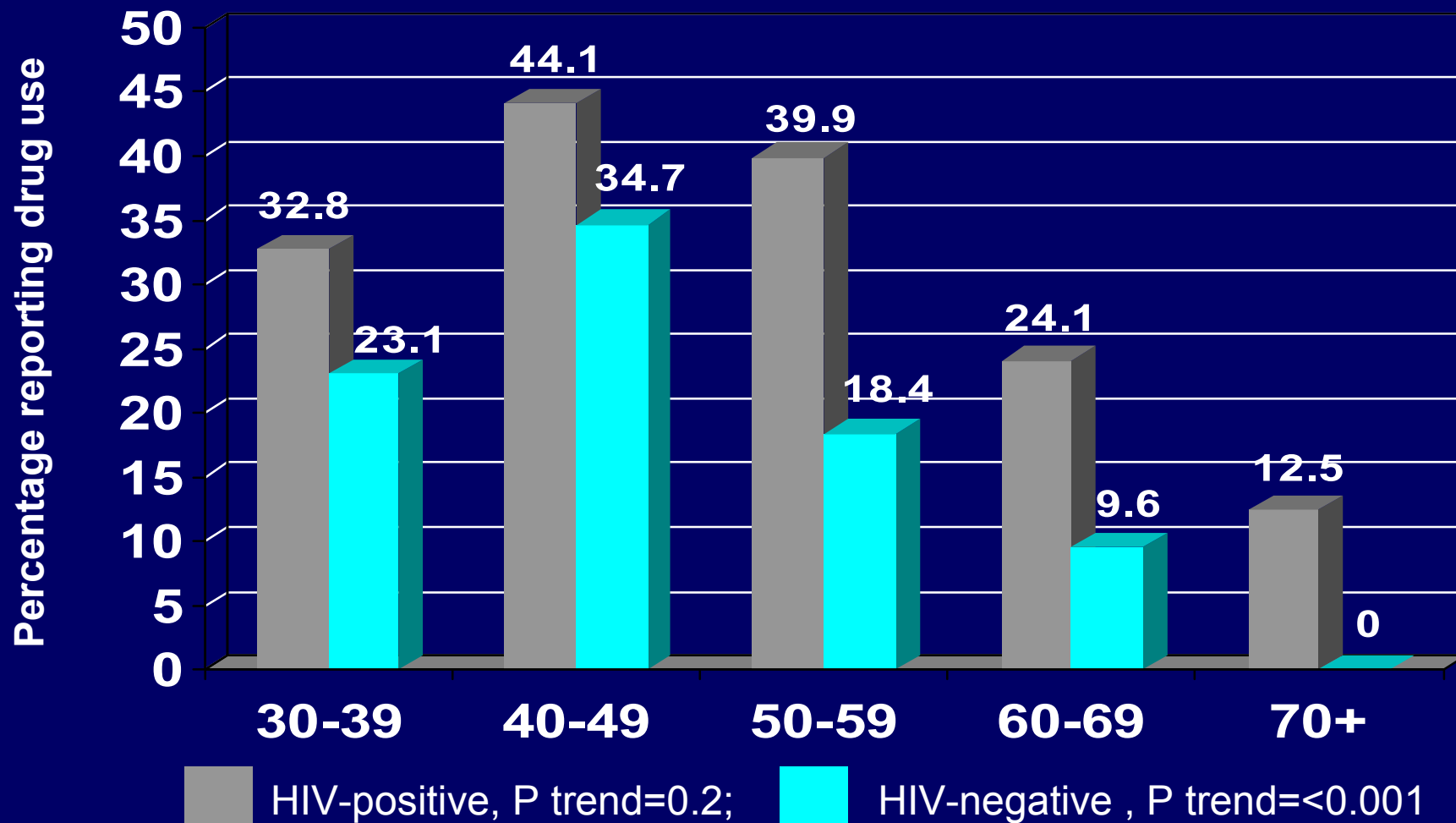
Percentage of Persons Dying within 36 Months of AIDS Diagnosis in 2001, United States (CDC, 2007)



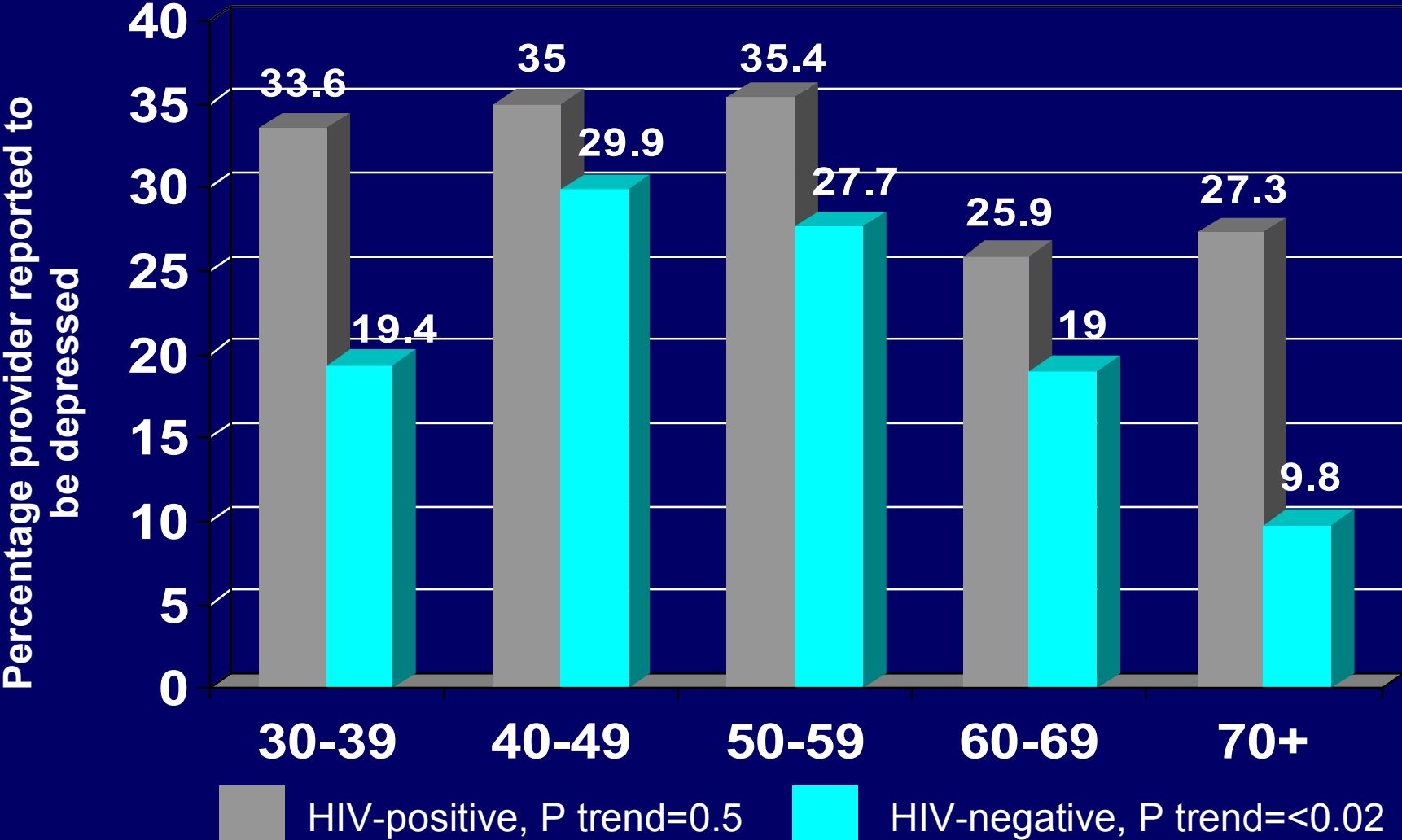
Methodological Challenges in Research on Aging with HIV

- Sampling biases
- Follow-up and attrition
- Neurocognitive issues, accuracy of self-report
- Appropriate comparison groups
- Assessment techniques-respondent burden

Drug Abuse: Comparison of HIV+ and HIV- Veterans (Patient Report: DAST)



Lifetime Depression: Comparison of HIV+ and HIV- Veterans (provider report)



Recommendations Regarding Research on Drug Use and Aging with HIV

- Interdisciplinary research, with socio-behavioral and bio-medical researchers, is needed to identify the biological and behavioral factors that impact disease progression for HIV+ drug users
- Qualitative and quantitative multi-level research methods are needed
- Socio-behavioral influences on drug use and HIV risk may change with aging (e.g., changes in social support, emergence of co-occurring disorders) Longitudinal research along the life course of HIV disease in drug users is needed

Implications

- Longitudinal studies of drug use and HIV continue to be priorities for drug abuse research
- As chronic conditions, drug abuse and HIV infection can lead to new models for research and provide opportunities to study initiation and maintenance of behavior change
- The aging population of HIV+ drug users may provide new opportunities for using older populations as change agents