

A BRIEF HISTORY OF HIV/AIDS IN THE U.S.

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Learning Objective

At the conclusion of this presentation, participants should be able to:

- Describe major epidemiologic trends during the past three decades of the U.S. HIV epidemic—including the increasing impact of non-AIDS defining illnesses—in order to identify clinical preventive services which can be adopted to reduce the risk of preventable comorbidities among aging populations with HIV/AIDS.

250

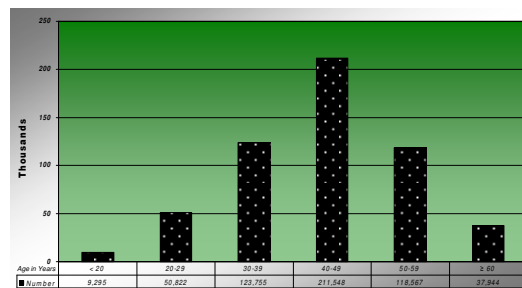
MMWR
Pneumocystis Pneumonia – Los Angeles

June 5, 1981

In the period October 1980-May 1981, 5 young men, all active homosexuals, were treated for biopsy-confirmed *Pneumocystis carinii* pneumonia at 3 different hospitals in Los Angeles, California. Two of the patients died. All 5 patients had laboratory-confirmed previous or current cytomegalovirus (CMV) infection and candidal mucosal infection. Case reports of these patients follow.

ESTIMATED NUMBERS OF PERSONS LIVING WITH HIV/AIDS, 34 STATES AND 5 U.S. TERRITORIES, 2007

(HIV/AIDS SURVEILLANCE REPORT 2007, Vol 19)

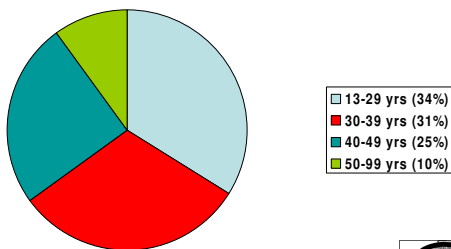


N = 551,931



ESTIMATED INCIDENCE OF HIV INFECTION, 50 US STATES & DISTRICT OF COLUMBIA, BY AGE, 2006

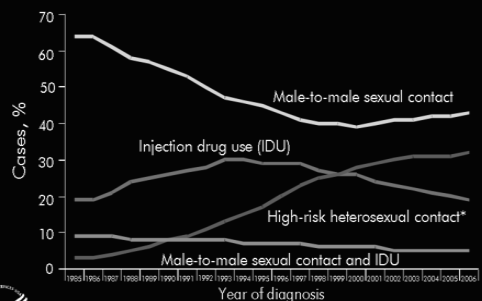
(HALL ET AL. JAMA 2008; 300(5): 520-529)



56,300 Incident Infections



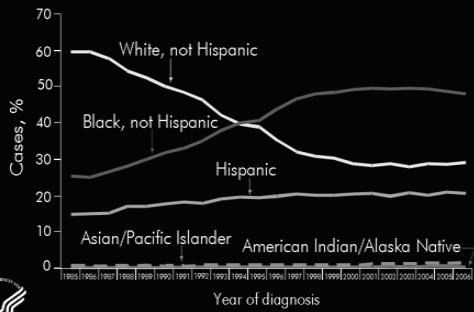
Proportion of AIDS Cases among Adults and Adolescents by Transmission Category and Year of Diagnosis 1985-2006—United States and Dependent Areas



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.



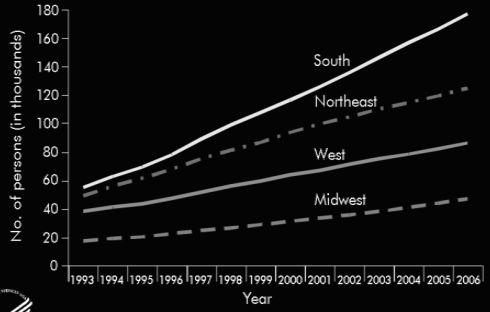
Proportion of AIDS Cases among Adults and Adolescents by Race/Ethnicity and Year of Diagnosis 1985–2006—United States and Dependent Areas



Note. Data have been adjusted for reporting delays.



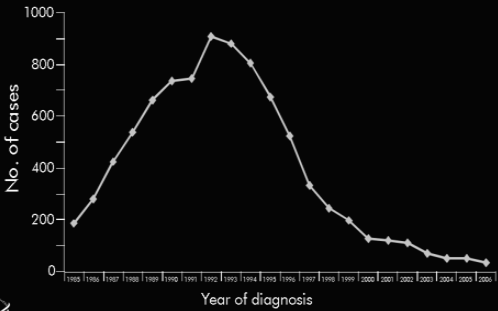
Estimated Number of Adults and Adolescents Living with AIDS by Region, 1993–2006—50 States and DC



Note. Data have been adjusted for reporting delays.



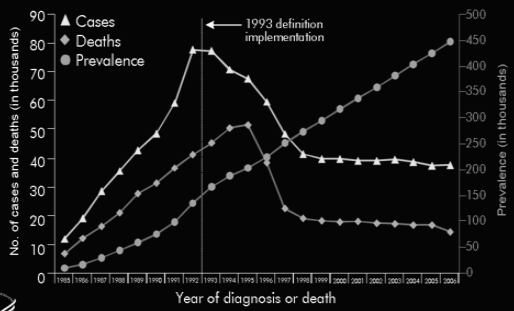
Estimated Number of Perinatally Acquired AIDS Cases, by Year of Diagnosis, 1985–2006—United States and Dependent Areas



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



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.



INCREASED LONGEVITY 2° TO HAART

MEANS

EMERGING IMPORTANCE OF OTHER COMORBIDITIES



CONSEQUENCES OF IMPROVED LONG-TERM MANAGEMENT OF HIV INFECTION

(PALELLA ET AL. JAIDS 2006; 43(1): 27-34)

- Improved viral suppression and immunological status
- Prolonged disease-free survival
- Decreased hospitalization rates
- Increased focus on HAART treatment side effects: lipotrophy, lipoaccumulations, insulin resistance, hyperlipidemia, cardiovascular disease, etc.
- Increasing awareness of need to provide treatment for chronic HBV and HCV coinfections
- Shift in causes of death among PLWAs in HAART era



COMPARISON OF CAUSES OF DEATH IN PERSONS WITH HIV: PRE-, EARLY, AND LATE HAART ERA (1)

(NANCY CRUM ET AL. JAIDS 2006; 41: 194-200)

- Longitudinal cohort of 4241 HIV infected DoD beneficiaries**
- pre-HAART ('90-'96), HAART ('97-'99), last HAART ('00-'03)
- 1224 deaths: death rate peaked in '95 and declined thereafter
- 80% decrease in deaths from 1990 to 2003
- No changes in gender/race of deaths over study period
- Patients less likely to die of an AIDS-defining illness over the study period

** San Diego, Washington, DC, Bethesda, Portsmouth, San Antonio, Honolulu



COMPARISON OF CAUSES OF DEATH IN PERSONS WITH HIV: PRE-, EARLY, AND LATE HAART ERA (2)

(NANCY CRUM ET AL. JAIDS 2006; 41: 194-200)

- Decrease in deaths due to OI (59% pre-HAART vs 24% late HAART)**
- Increase in deaths due to liver disease (0.2% pre-HAART vs 3.7% post-HAART)**
- HCV more common among those dying (7% pre-HAART vs 12% post-HAART)^{^^}
- Increase in deaths due to cardiac disease (8% pre-HAART vs 22% post-HAART)**

** p < 0.01
^^ p < 0.05



CANCER TRENDS AMONG HIV INFECTED PERSONS COMPARED TO GENERAL U.S. POPULATION, 1992-2003

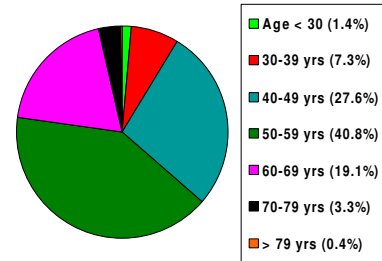
(PATEL ET AL. ANN INT MED 2008; 148: 728-736)

- 54,780 HIV infected persons (2 cohorts) vs SEER program**
- Decrease in Kaposi's sarcoma and non-Hodgkin lymphoma among HIV infected
- Incidence of several non-AIDS defining "cancers" higher among HIV infected:
 - anal (42.9 SRR⁺)
 - vaginal (21.0 SRR)
 - Hodgkin lymphoma (14.7 SRR)
 - liver (7.7 SRR)
 - melanoma (2.6 SRR)
 - oropharyngeal (2.6 SRR)
 - leukemia (2.5 SRR)
 - colorectal (2.3 SRR)
 - renal (1.8 SRR)

** ongoing active & passive surveillance system collecting population-based data from 13 US cancer registries
+ standardized rate ratio, i.e. comparison of standardized incidence rates, HIV vs general population



AGE DISTRIBUTION OF HIV INFECTED VETERANS IN VHA CARE, 2008**



TOTAL NUMBER IN CARE: 23,463
Mean Age: 53 years

** data are from the VA Clinical Case Registry, CQM, PHSHG



SELECTED CLINICAL FEATURES OF 23,463 HIV INFECTED VETERANS IN CARE, 2008**

- 12,010 (51%) "ever" diagnosed with Depression
- 11,464 (49%) "ever" diagnosed with Hypertension
- 10,368 (44%) "ever" diagnosed with Tobacco Use
- 10,152 (43%) "ever" diagnosed with Dyslipidemia
- 7,182 (31%) "ever" diagnosed with Drug Use
- 6,753 (29%) "ever" diagnosed with HCV

** data are from the VA Clinical Case Registry, CQM, PHSHG



FREQUENCY OF SELECTED RECOMMENDED CLINICAL PREVENTIVE SERVICES, VETERANS WITH HIV IN CARE, 2008**

- 96%...HCV test, "ever"
- 65%...LDL or triglyceride test, July-Dec. 2008
- 59%...Influenza vaccine, 2007-2008 Flu season
- 48%...syphilis test, 2008

** data are from the VA Clinical Case Registry, CQM, PHSHG



**TIME TO AN AIDS DIAGNOSIS AFTER A DIAGNOSIS OF HIV,
34 STATES AND 5 US DEPENDENT AREAS WITH
CONFIDENTIAL NAME-BASED HIV REPORTING, 2006**

(CDC, HIV/AIDS SURVEILLANCE REPORT, 2007 v 19 TABLE 2, PG. 13)

- 36% (13,823) developed AIDS < 12 months after HIV diagnosis
- Late diagnosis is more frequent among:
 - persons aged 35 years and older
 - Hispanics/Latinos
 - male IDUs
 - high risk heterosexual males



FREQUENCY OF HIV SCREENING IN THE VHA

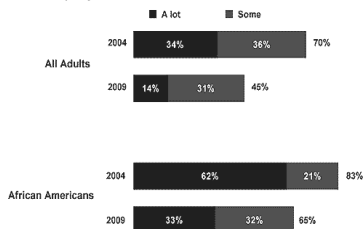
(VALDISERRI ET AL., AIDS EDUC & PREV 2008; 20:258-264)

- Electronic survey of VA laboratories (self reported), 10/05-09/06
- Response rate approx. 90%, n=135 labs
- 112,033 HIV screening tests reported (81% OP and 19% IP)
- Overall HIV(+): 1.49%, range 0.2% - 3.8%
- No sig difference in HIV(+) OP vs. IP
- Estimate that < 10% of IP and < 5% of OP tested during survey period
- Substantial opportunities for increasing rates of routine HIV testing



**Percent Who Say They Have Heard A Lot About AIDS in the U.S. Has
Fallen Since 2004**

Percent saying they have seen, heard, or read a lot/some about the problem of AIDS in the U.S. in the past year...



Source: 2004 Kaiser Family Foundation Survey of Americans on HIV/AIDS (conducted March 10 - May 11, 2004)
2009 Kaiser Family Foundation Survey of Americans on HIV/AIDS (Spring)

