Primary Medical Care for HIV Positive Women

Comprehensive, Woman-centered, Culturally Competent Treatment and Care

Patricia Gilliam, PhD, MEd, NP, AAHIVS
St. Joseph's Tampa Care Clinic –Tampa, FL
HIV Clinical Specialist
HealthHIV – Washington, D.C.

Disclosures

Patricia Gilliam, PhD, MEd, NP, AAHIVS
Has no financial interest or relationships to disclose.

Learning Objectives

- Discuss gender-specific differences in response and adherence to antiretroviral treatment
- To explain gender-specific aspects of co-morbidities and conditions common in HIV positive women and HIV positive minority women
- Evaluate gender-specific findings in several recent ART clinical trials and discuss the need for increased minority enrollment in clinical trials

Key Points

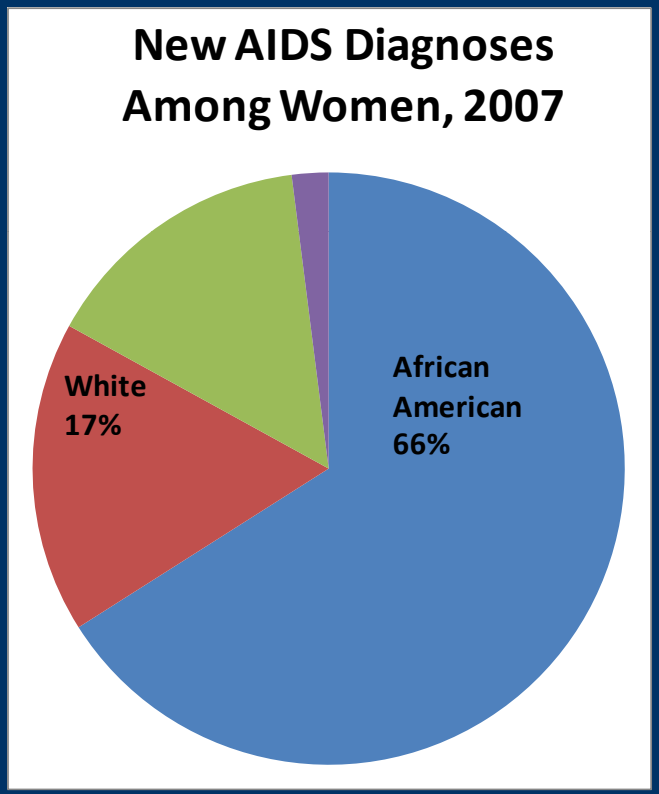
- Disproportionate number of minority women affected by HIV
- Physiological and socio-economic issues affect adherence
- Special considerations exist for care and treatment

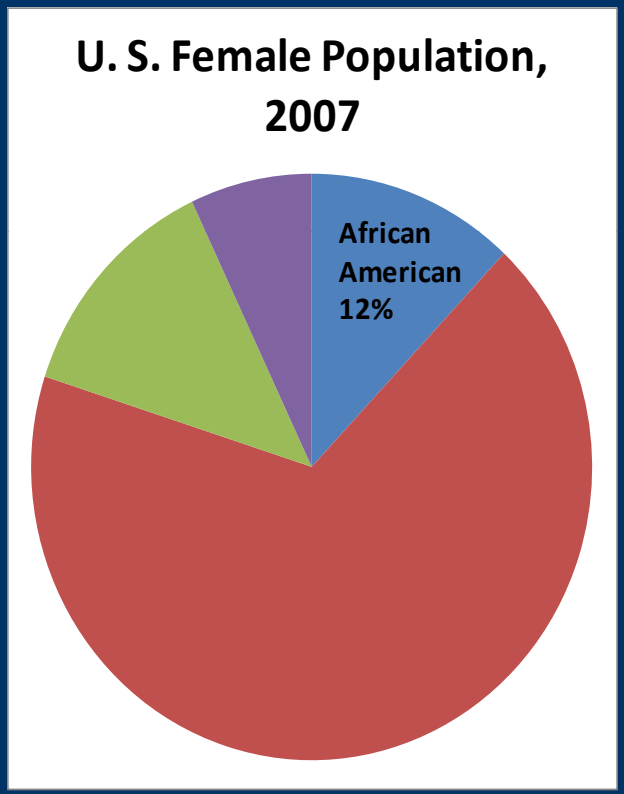
HIV Infection and AIDS Increasing in Women

- In 1992, 14% of **AIDS patients** were women[1]
- In 2007, 23% of **AIDS patients** were women[2]

[1] CDC. HIV/AIDS Surveillance Report 1998; 10 (No.2):1—43.
[2] CDC. HIV Surveillance Report 2007; 19(No. 1): 1-63.

AIDS Diagnoses & U.S. Female Population by Race/Ethnicity, 2007

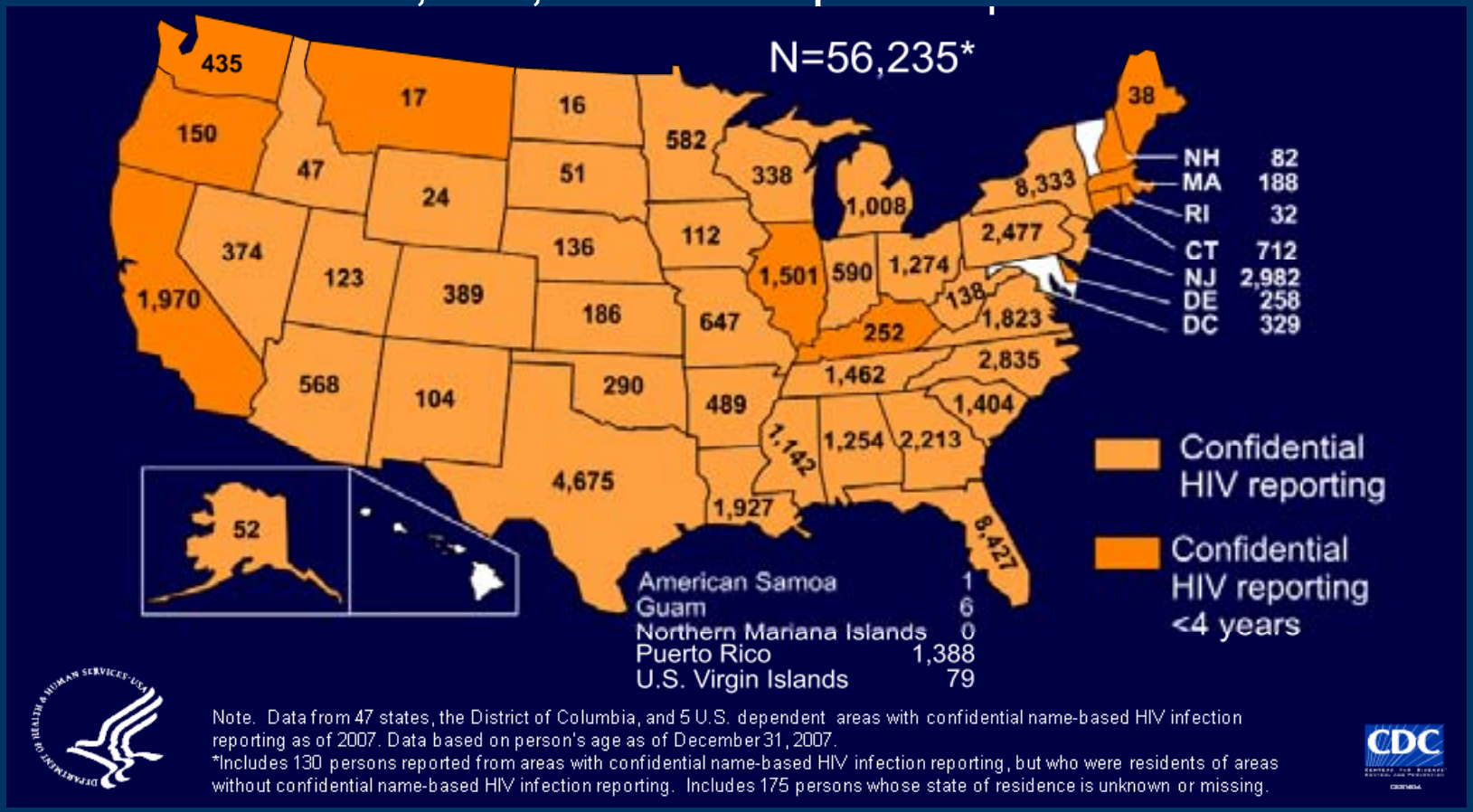




Source: Kaiser Family Foundation Fact Sheet. Women & HIV in the United States, September 2009

20 Years of Leadership
A LEGACY OF CARE

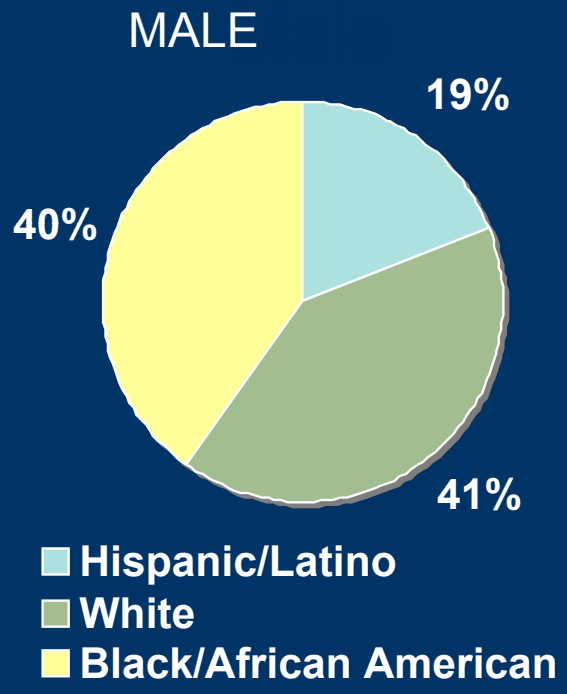
Female Adults and Adolescents 15 to 44 Years of Age Reported to be Living with HIV Infection (not AIDS), 2007 47 States, DC, 5 U.S. Dependent Areas

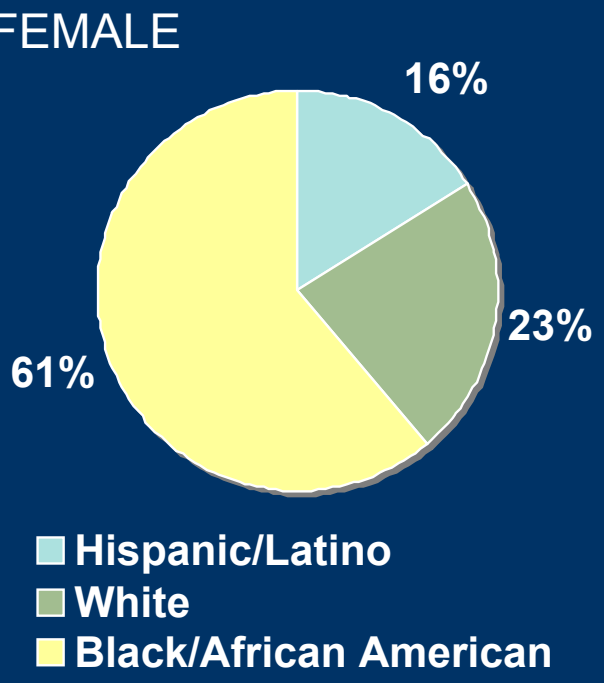


Note. Data from 47 states, the District of Columbia, and 5 U.S. dependent areas with confidential name-based HIV infection reporting as of 2007. Data based on person's age as of December 31, 2007.
*Includes 130 persons reported from areas with confidential name-based HIV infection reporting, but who were residents of areas without confidential name-based HIV infection reporting. Includes 175 persons whose state of residence is unknown or missing.

Estimated Percentage of New HIV Infections by Sex and Race/Ethnicity—United States, 2006

N = 54,230





Americans, Hispanics/Latinos and whites only. The small number of new infections in Asians/Pacific Islanders and American Indians/Alaska Natives precludes further stratification.

Behavioral Issues that Impact Women at risk for and living with HIV disease

- **Personal Relationships**
  - Lack of knowledge about HIV transmission
  - Sex without condoms
  - Lack of power within a relationship
  - Non-consensual sex
- **Substance Use**
  - Exchange sex for drugs
  - Sexual activity while using drugs
- **Socioeconomic Issues**
  - Exchange sex for money, shelter, or drugs
  - Limited access to quality health care
- **Violence**
- **Mental Health Issues**
- **Poverty**

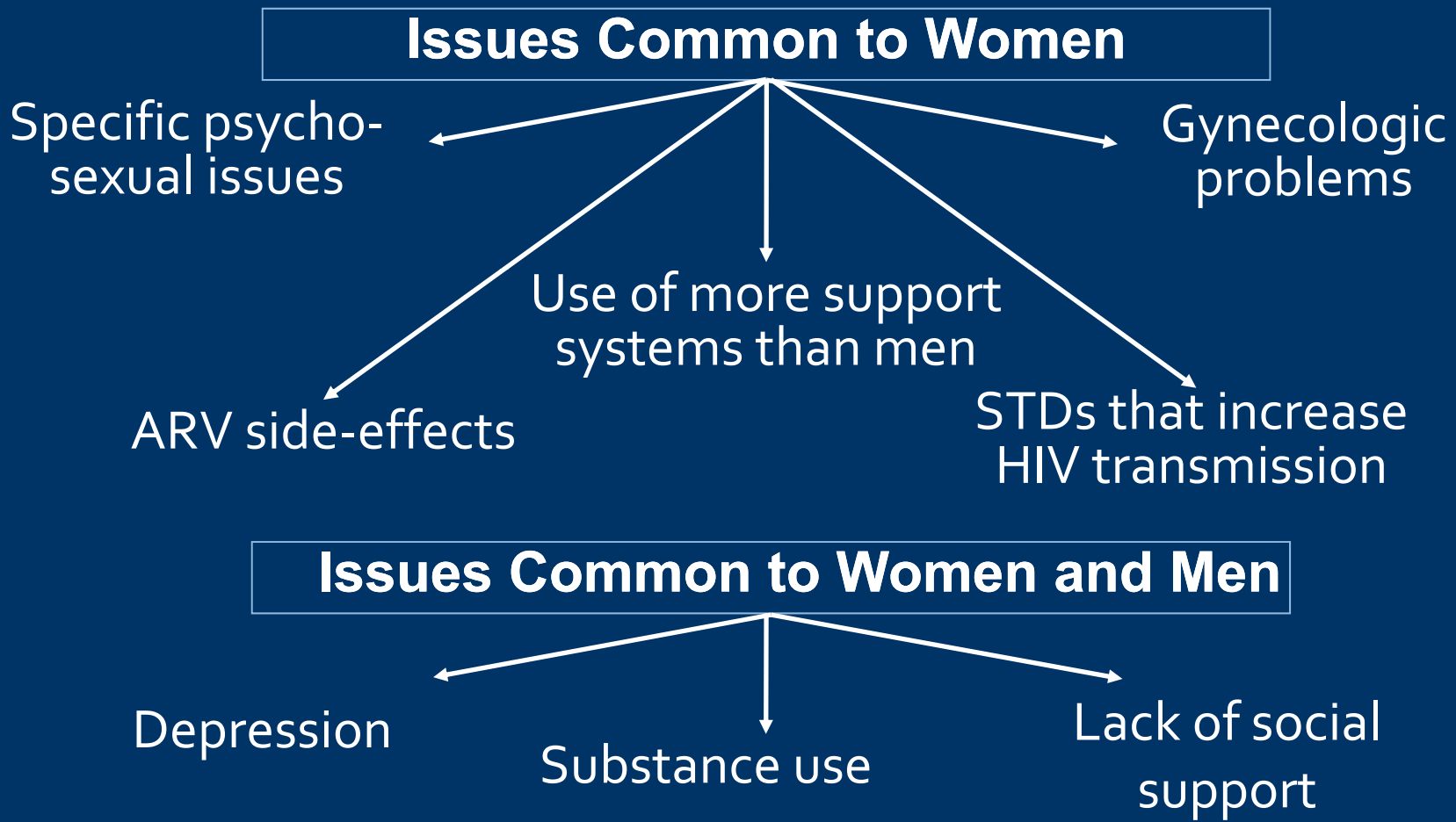
Galvan, F., Bing, Fleishman, J.A., et al. (2002).
Feldman, J., Minkoff, H.,Schneider, M., et al. (2006).

Increased HIV Risk in Women of Color

- Socioeconomic disadvantages
- High rates of incarceration among men in their communities
- Instability of partnerships due to high rates of incarceration among men in their communities may lead women to engage in concurrent relationships or serial monogamy
- They may be unaware of their partner's HIV status
- They may be involved in abusive or economically dependent relationships
- They may be unable to negotiate safer sex with their partners

El-Sadr, W.M., Mayer, K.H., & Hodder, S.L. (2010)

Women and Men: Issues that Impact HIV treatment



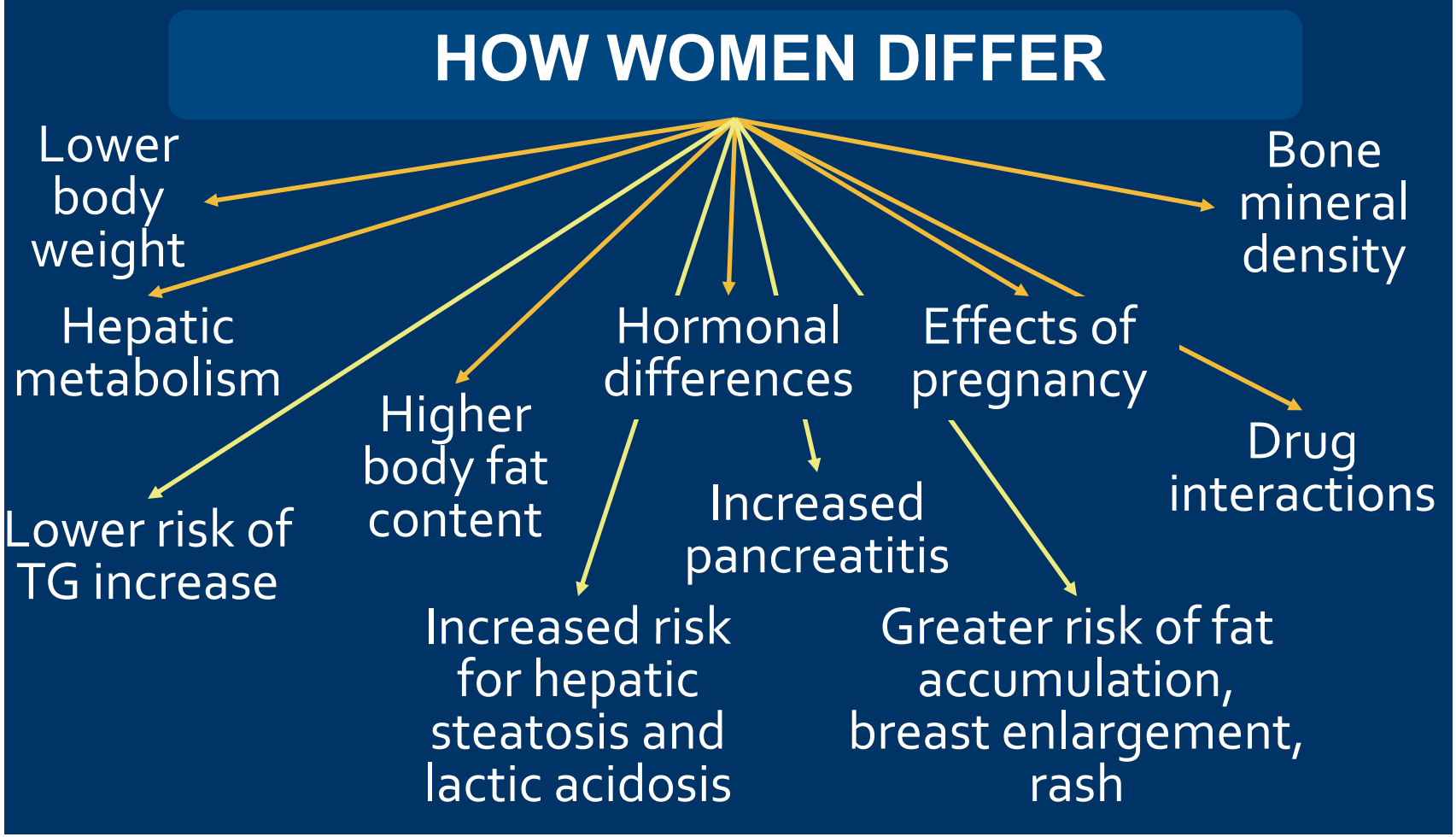
Physiological Female Risk Factors

- Biologic vulnerability and STIs
  - Women at higher risk of becoming infected during vaginal intercourse than men due to mucosal exposure to seminal fluids with high levels of virus for prolonged periods
  - Presence of an STI greatly increases the likelihood of acquiring or transmitting HIV
  - Recurrent yeast and other genital infections
  - Delicate vaginal environment relative to pH (acid/base) requirements

Gender Differences with ART and Response to Treatment

- Women enter treatment with lower viral loads and higher T cells compared to men
- Morbidity and mortality in HIV positive women may be higher than historically reported due to access issues
- HAART response is similar between sexes
- Several studies indicate that rates of progression to AIDS death is the same in men and women.

Factors That May Affect Treatment in Women



Arnsten et al. 9th Conference on Retroviruses and Opportunistic Infections; No. 717-T; DHHS guidelines. November 3, 2008; Garcia et al. *N Engl J Med*. 1999;341:394-402. Hader et al. *JAMA*. 2001;285:1186-1192; Mirochnick. *Ann NY Acad Sci*., 2000.

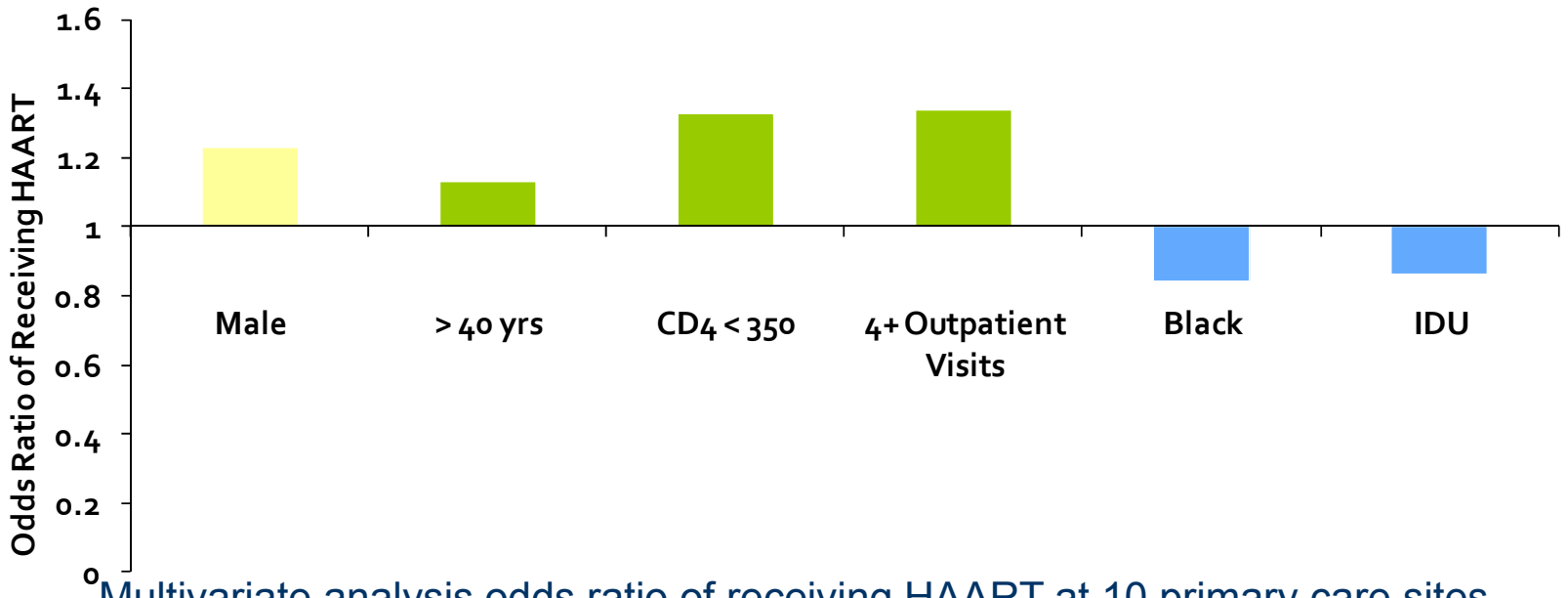
Clinical issues in HIV care for Minority Women

- Data indicates that survival in women is better when HAART is initiated at CD4> 350.
- Gender specific issues including choice of HAART agent, GI side effects and bone loss need to be considered.
- Guidelines for HIV treatment are too often not followed in HIV positive women.

Race and Gender Disparities in the Use of HAART

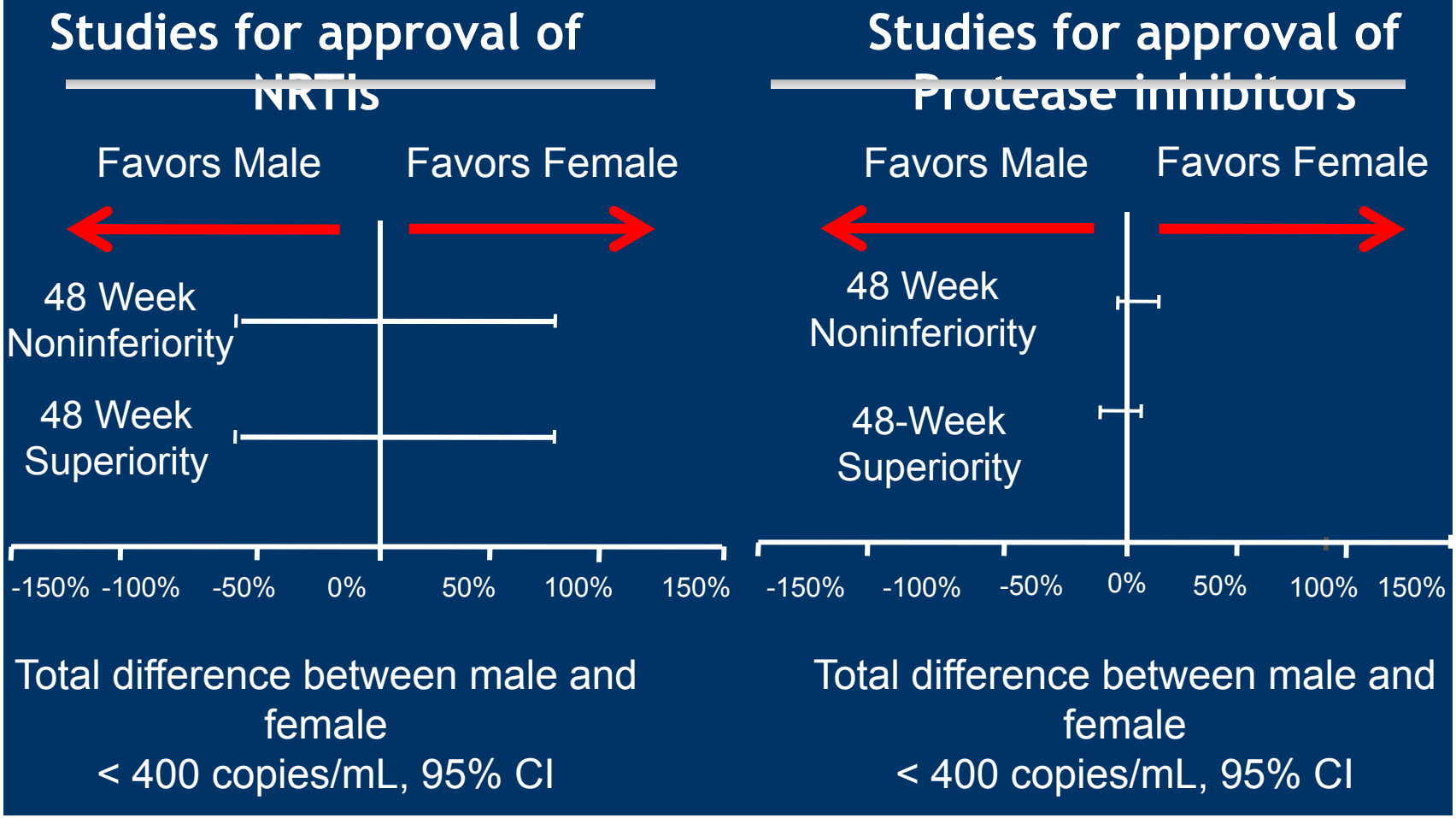
HIV Research Network (HIVRN)

Persistent differences exist in access to HAART by gender, race, and use of injection drugs



Multivariate analysis odds ratio of receiving HAART at 10 primary care sites.

Women in Clinical Trials 2000-2008
Respond as well as men virologically



Struble et al. 16th CROI; 2006; Montreal, Canada. Abstract 987b.

Treatment Considerations in Women
NNRTIs (non-nukes)

- Efavirenz (EFV):
  - Not for women who may become pregnant. EFV is in the triple drug combination (EFV/FTC/TDF).
- Nevirapine (NVP)
  - Risk of severe hepatotoxicity; not recommended for women with CD4 counts greater than 250 cells/mm^3 at initiation of or switching to NVP
  - Higher incidence of hepatotoxicity and rash[3] among women
  - Adjusted risk of NVP-related hepatotoxicity higher among HIV+ pregnant women than HIV- (OR 4.31, CI 95% 1.29-14.40, *P*=0.02)[4]

[1]DHHS. *Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents;* November 3, 2008. http://aidsinfo.nih.gov./Guidelines/GuidelineDetail.aspx?MenuItem=Guidelines&Search=Off&GuidelineID=7& ClassID=1. Accessed February 18, 2009; [2]Martin AM, et al. *Antiretroviral Therapy: Metabolic Complications and Cardiovascular Risk*. 15th International AIDS Conference. 2004; Bangkok, Thailand. Abstract LbOrB13; [3]Bersoff-Matcha SJ, et al. *Clin Infect Dis.* 2001;32:124–129. [4]Snidjewind et al. 16th CROI; 2006; Montreal, Canada. Abstract 948.

Preferred First Line PI-Based Regimens GI Side-Effects Are Variable

Clinical Trial	AEs
MO5-730[1] (N=664): LPV/RTV QD vs LPV/RTV BID	▪ Nonsignificant trend toward ↑ diarrhea in men vs women: 17.1% vs 11.1% (P=0.093) ▪ Triglyceride ↑ significantly greater in men vs women: 36.3 vs 58.7 mg/dL (P=0.026) ▪ HDL ↑ significantly greater in women vs men: 9.05 vs 6.90 mg/dL (P=0.041)
CASTLE[2] (N=883): ATV/RTV vs LPV/RTV	▪ Women on LPV/RTV experienced more nausea vs men (14% vs 5%), but less diarrhea (9% vs 12%) ▪ Triglyceride ↑ on LPV/RTV greater in men vs women: 34 vs 64 mg/dL
ARTEMIS[3] (N=343): DRV/RTV vs LPV/RTV	▪ Women experienced more vomiting vs men (11% vs 4%), but less diarrhea (26% vs 37%)

[1]da Silva B et al. IAC 2008. Abstract TUPE0069. [2]Absalon J et al. IAC 2008. Abstract TUPE0062.
[3]Andrade-Villanueva J et al. IAC 2008. Abstract TUPE0064.

Treatment of Women With HIV/AIDS
Side Effects and Toxicities

- Certain commonly observed ART medication side effects are more prevalent in women than men (eg, ritonavir-associated nausea and vomiting [66% vs 27%]). Women are also ~ 3 times as likely to have AEs when treated with ddI[1]
- Rates of Adverse Events (neuropathy, pancreatitis, lactic acidosis) and regimen changes due to toxicity are higher in women taking NRTIs than in men.[2-5]
- Women discontinue ART frequently because of side effects.
- Side effect-related ART discontinuation occurs twice as frequently in women compared with men.

[1]Squires K. 13th IAC; 2000; Durban, South Africa. Abstract TuOr54. [2]Currier JS et al. *J Acquir Immune Defic Syndr*. 2000;24:316-24. [3]Moore RD et al. *Am J Med*. 1996;101:34-40. [4]Huffam S. 14th CROI; 2007; Los Angeles, CA. Abstract 797. [5]Gras L. 14th CROI; 2007; Los Angeles, CA. Abstract 799. [6]Stone VE et al. 12th World AIDS Conference; 1998; Geneva, Switzerland. Abstract 12443.

Clinical Trials: Not Enough Women

- Review of 49 randomized, controlled trials 1990-2000
  - 15,612 participants
- 46 papers provided info on gender of subjects
- Mean proportion of women in trials was 12.25%
- No outcome analysis done by sex for any of these trials.

Pardo MA, Ruiz MT, Gimeno A, Navarro L, Garcia A, Tarazona MV, Aznar MT; International Conference on AIDS.*Int Conf AIDS. 2002 Jul 7-14: abstract no. WePeB5964.*

GRACE Study

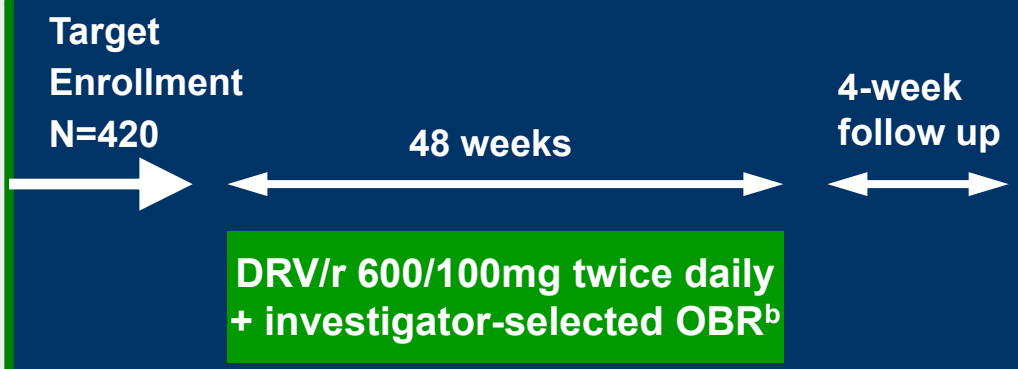
- Gender, Race and Clinical Experience
- Largest study in N.A. to include adult women with HIV who had previously taken HIV meds
- 67% of the participants were women
- And 66% of these women were Women of Color

GRACE Study Design and Treatment

- GRACE was designed to enroll a high proportion of treatment-experienced women and people of color
  - The study investigated sex- and race-based differences in the efficacy and safety of darunavir/ritonavir (DRV/r)-based therapy
- Open-label, single-arm, Phase IIIb study

Study criteria

- **≥18 years of age**
- **Viral load ≥1000 copies/mL**
- **Previous therapy consisting of a PI- or NNRTI-based HAART regimen of ≥12 weeks[a]**
- **No prior use of DRV/r, ETR, ENF or TPV**



- Each study site required to enroll three women before enrolling a man and the number of Caucasian men enrolled was limited

Factors Predictive of Improved Virologic Response

Covariate	Adjusted OR	*P* value	95% CI
Adherence ≥95%	2.98	<.0001	1.92, 4.65
Lower baseline viral load	1.81	<.0001	1.39, 2.34
Race/ethnicity other than black	1.79	.0093	1.15, 2.76
Older age	1.03	.0184	1.00, 1.05
No GI medical history	1.65	.0252	1.06, 2.55
Participation at a study site with limited clinical trial experience	1.89	.0358	1.04, 3.44
Use of Etraverine in OBR	1.56	.0424	1.02, 2.38

- Adherence ≥95% was the greatest predictor of response
  - A lower proportion of black and Hispanic patients were ≥95% adherent (63.3% and 66.7%, respectively) compared with Caucasian patients (73.8%)
  - Women and men reported similar rates of adherence (64.2% and 68.6%, respectively)
- Being of a non-black race was significantly associated with better response
- Sex was not a predictor of response in GRACE

Adherence:
It's not just about the "meds"

- Adherence also relates to:
  - Follow-up appointments
  - Preventive health care needs
  - Diet recommendations
  - Healthy lifestyle recommendations

Predictors of Poor Adherence

Adherence to Care

- Low levels of literacy *
- Active substance abuse *
- Asymptomatic status
- Psychosocial issues*

Adherence to Meds

- Low levels of literacy
- Active substance abuse*
- Asymptomatic status
- Psychosocial issues*
- Complex regimens*
- Adverse drug effects*
- Difficulty with taking medications, general*

* Modifiable

Challenges to Comprehensive, Women-centered, Culturally Competent Care

- Language barriers
- Vocabulary differences
- Different belief systems
  - Reproduction
  - Family size
  - Family Composition

Communication is Key

- Establish an educational and language baseline
- Appropriate written instructions
- Understandable medication instructions
- Continually ask for feed-back of understanding
- Return demonstration for skill-based self-care

Strategies for Improving Adherence "THE TEAM"

- Multidisciplinary
  - Includes Nurses, Social Workers, Pharmacists and Medication/Adherence Specialists & Providers
- Provide consistent, culturally appropriate information
- Accessible and enthusiastic
- Work to build a trusting relationship with the patient

Provider-Patient Partnership

- Listen to the patient
- Talk about adherence (to all aspects of their health) at every visit
- Use Positive Reinforcement
- Maintain close follow-up at initiation of a regime or any changes to plan of care
- Incorporate the adherence message throughout the medical practice

Suggested Best Practice Recommendations

- Antiretroviral Treatment for HIV positive women should be in accordance with DHHS or IAS USA guidelines.
- Emphasis should be placed on the importance of adherence to care rather than focusing solely on adherence to medications (BII).
- HIV positive women on HAART should always be asked about side effects of medications.
- Facilities treating women with HIV should have programs in place to improve access and adherence to care.
- HIV positive women, especially minorities should have access to clinical trials

Contact Information

- Patricia Gilliam, PhD, MEd, NP, AAHIVS

  HealthHIV
  2000 S Street, N.W.
  Washington, DC, 20009
  patricia@healthhiv.org