



## NORTHWEST AIDS EDUCATION AND TRAINING CENTER

# IDSA 2012 Review

Brian R. Wood, MD

Medical Director, NW AETC ECHO

Assistant Professor of Medicine, University of Washington

Presentation prepared by:

Brian R. Wood, MD

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# Hot HIV-Related Topics

- HIV Diagnostics
- New Data from ARV Clinical Trials
- HIV-HCV Co-infection
- New Pneumococcal Vaccine Guidelines
- A Hint at New PEP Guidelines
- Working Towards a Cure

# HIV Diagnostics

# HIV Diagnostics: Data on Home Rapid Test

- JE Myers et al: Acceptability of Home Self Test Kits for HIV in NYC 2006 (Program Choice Award)
  - 1996: FDA approved first home collection HIV kit
  - 2002: FDA approved first rapid HIV test
  - 2006: FDA began to consider in-home rapid tests
  - 2012: FDA approves in-home OraQuick rapid HIV test, cost \$39.99



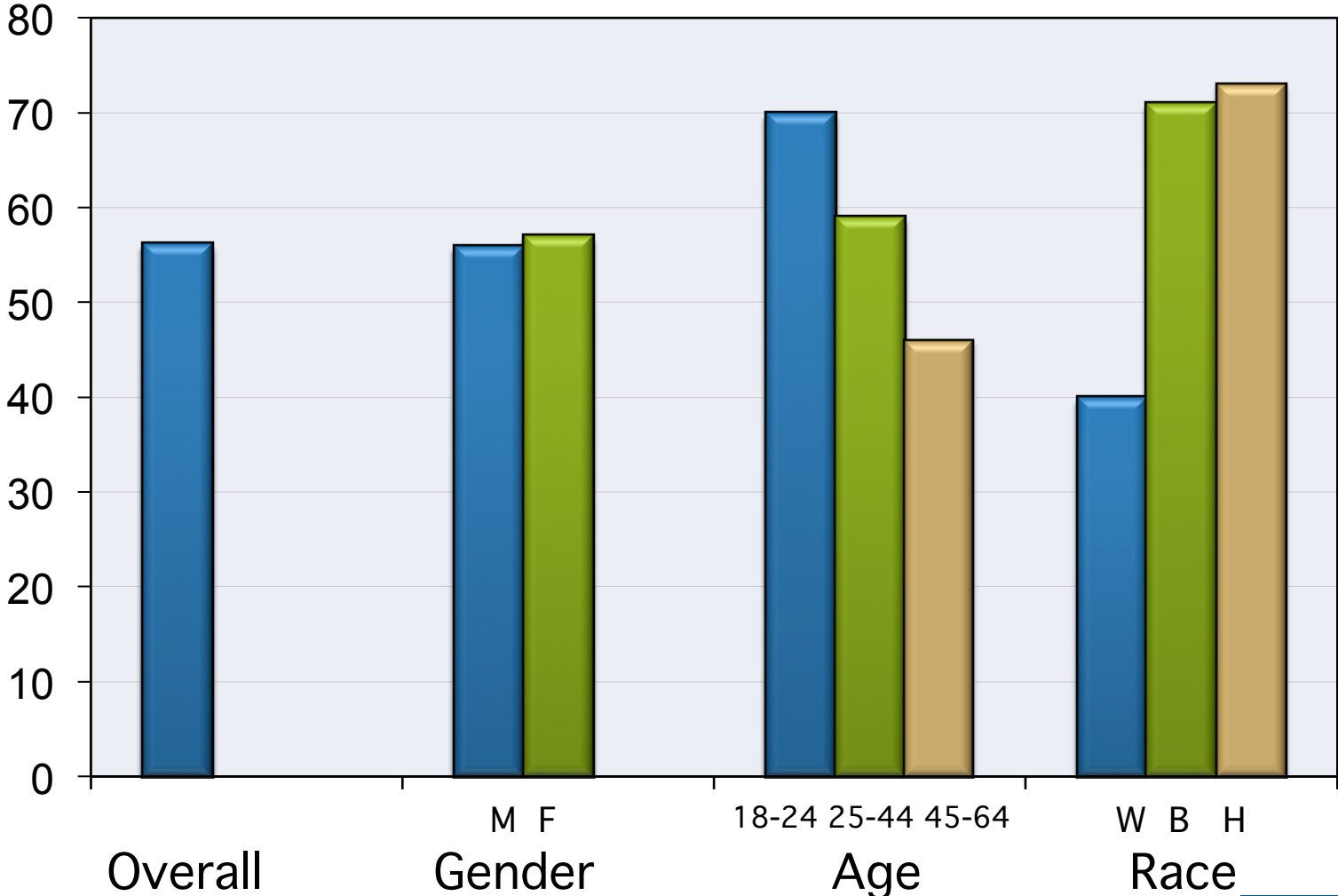
[www.fda.gov](http://www.fda.gov)

# Data on Home Rapid Test

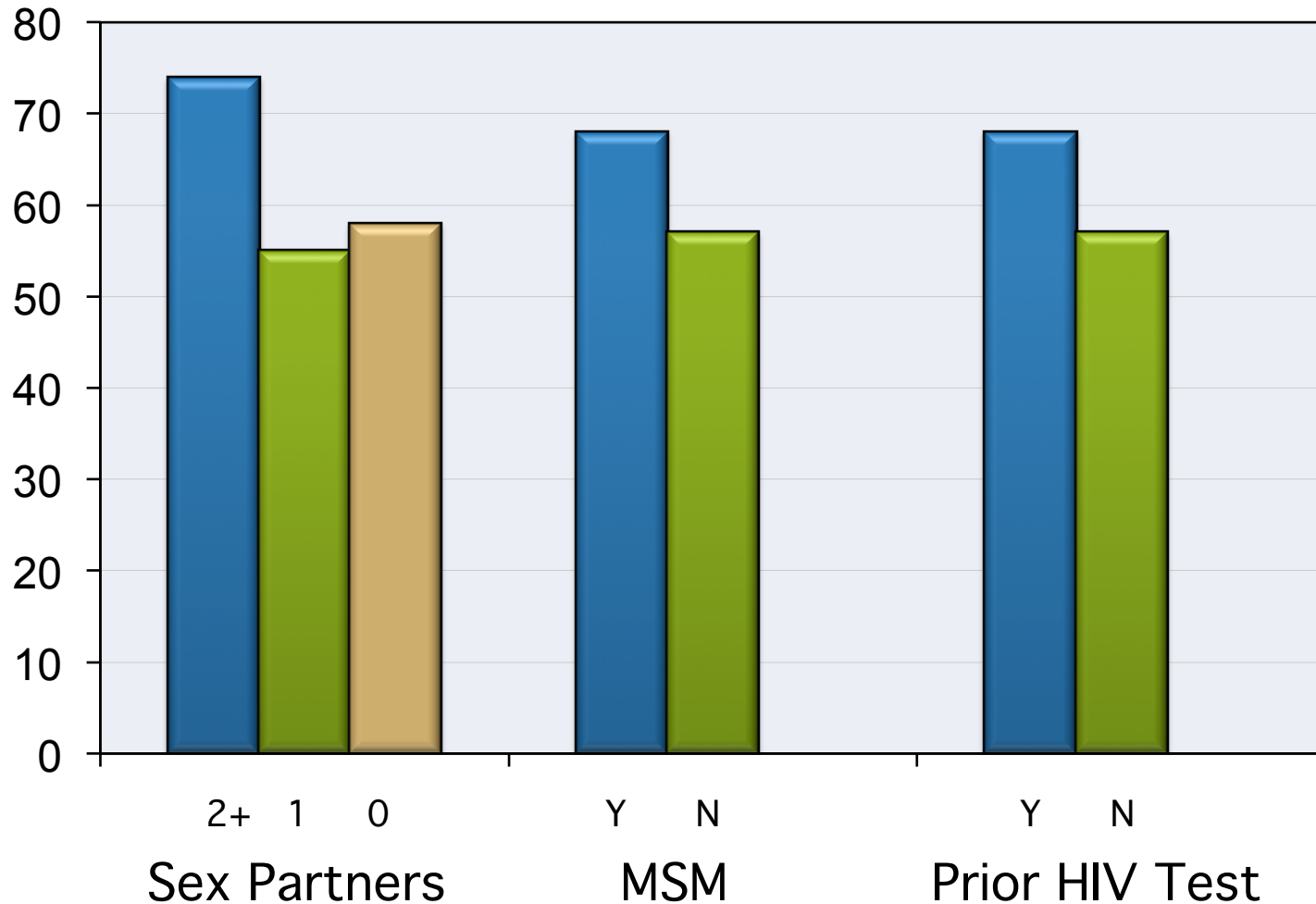
- Goal: examine acceptability and cost barriers to in-home rapid test in adults (18-64 yo)
- 2006 NYC Community Home Survey: called nearly 10,000 adults and asked question-
  - “If a rapid, in-home HIV test were available, would you use it?”
  - Collected behavioral, demographic and economic data
  - **89%** responded to the question with a “Yes” or “No”

# Home HIV Rapid Test Survey

## Results: Percentage Who Responded "Yes"



# Results: Percentage Who Responded “Yes” Based on Behaviors in Last 12 Months



# Data on Home Rapid Test

- Among those who said they would accept the test:
  - **41%**: household income 200% below federal poverty level or less
  - **25%** did not get medical care/fill a script in last 12 mo due to cost
  - **52%** with interest in test kit likely to have cost barrier
- **Conclusion:** test is most acceptable to demographic groups who historically are highest risk for HIV, but cost is restrictive



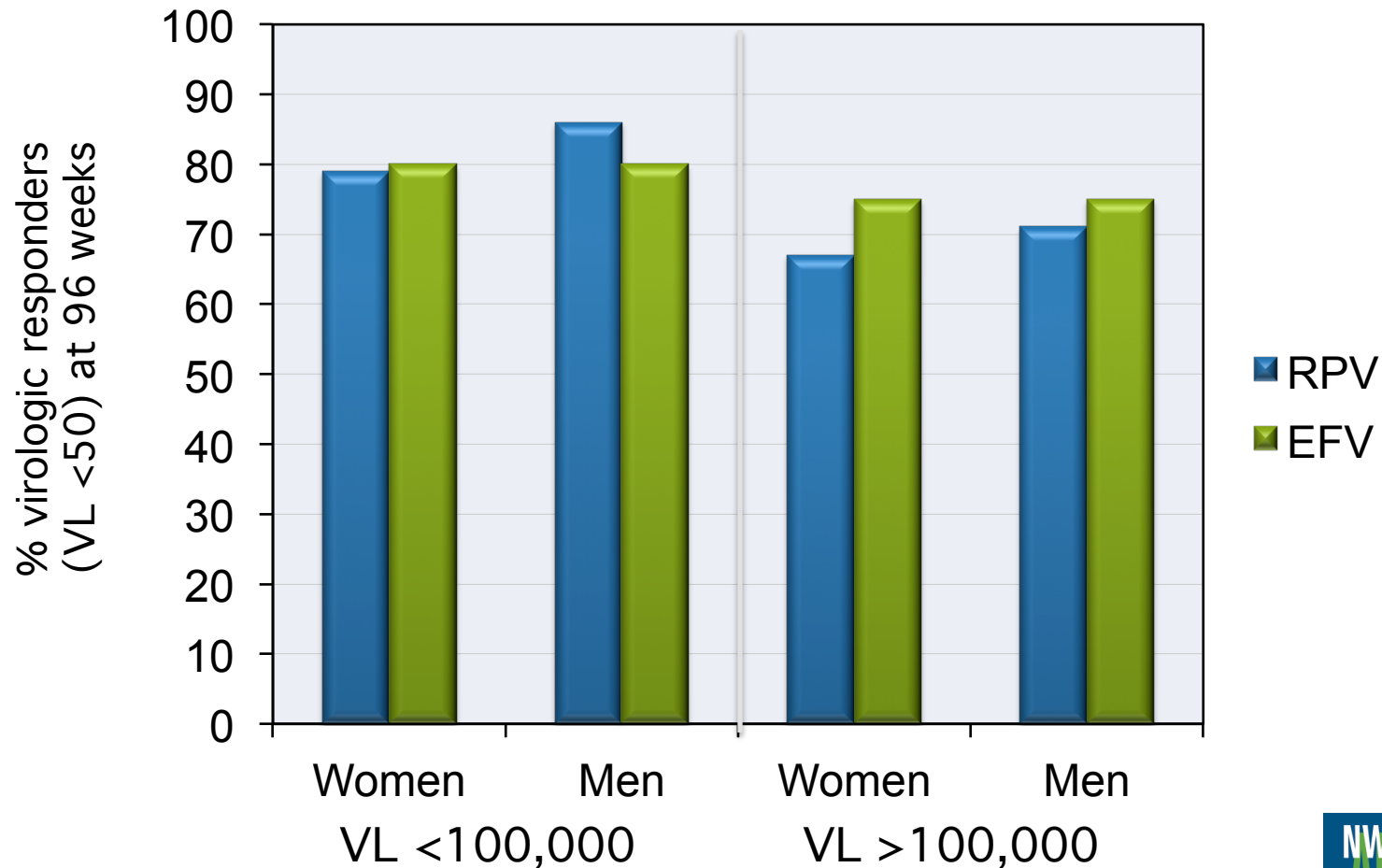
# New Data from ARV Clinical Trials

# New Data from ECHO/THRIVE

- Prior analysis: **Rilpivirine** 25 mg qd vs. **Efavirenz** 600 mg qd
  - Higher VF rate with RPV if VL >100,000
  - Fewer discontinuations due to AE's with RPV
- **Current analysis:** compare data between genders
  - Why? More than 50% of HIV-infected individuals are women, RPV is not teratogenic, and no interactions with OCP's

# New Data from ECHO/THRIVE

- 24% overall in all studies were women

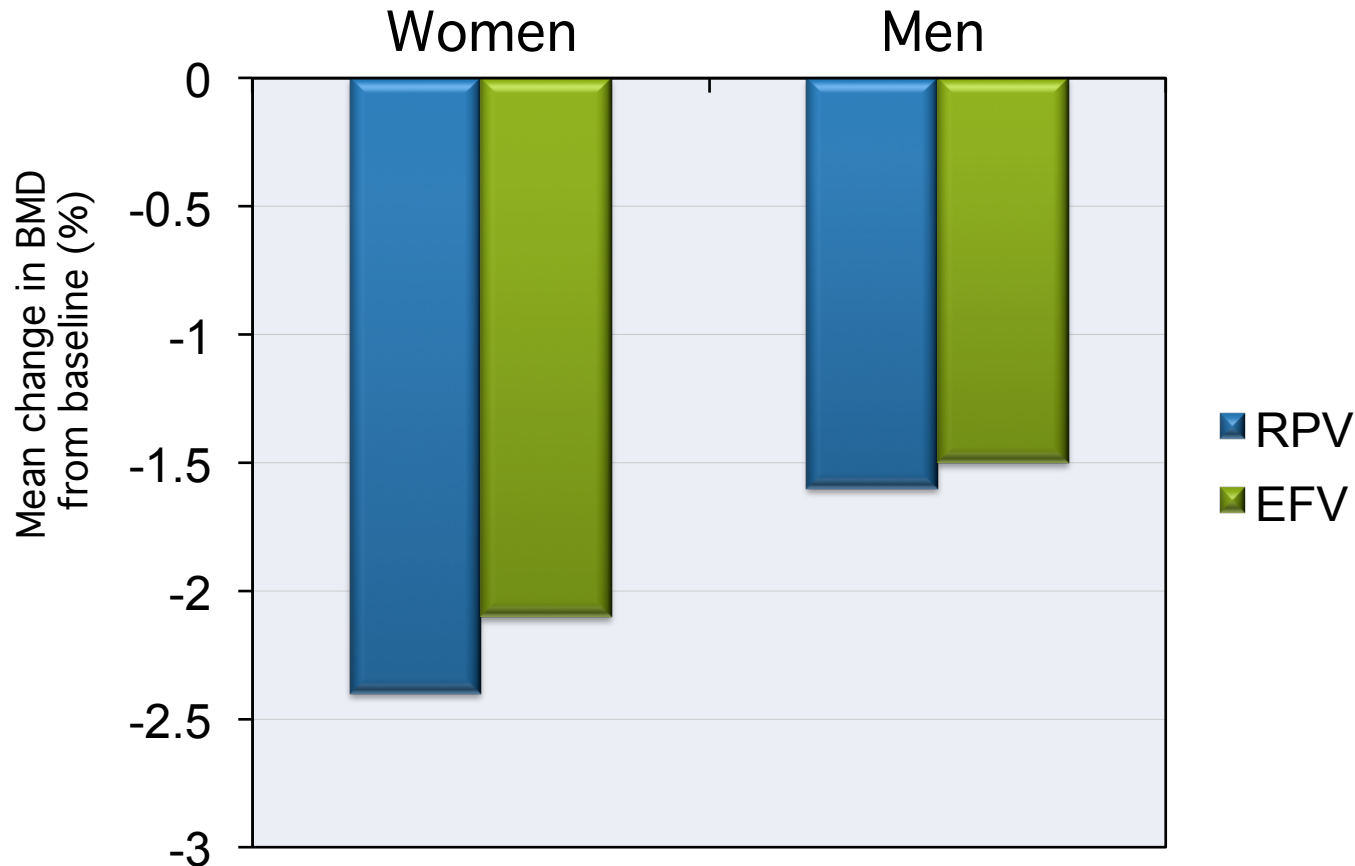


# New Data from ECHO/THRIVE

- VL response similar between men and women in those reporting >95% adherence
  - Response slightly lower in men in those reporting <95% adherence
- Those with VF who developed NNRTI RAM's equivalent (E138K most common)
  - Those with NRTI RAM's lower in women (42%) than men (61%)
- Changes in lipids consistent by gender – both better with RPV compared to EFV

# New Data from ECHO/THRIVE

- Decreases in BMD were small on average (below 2.5%), and mostly in first 48 weeks, and worse in women



# HIV-HCV Co-infection

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New HCV PI for co-infection - **Simeprevir** (TMC 435)

- a) PK drug-drug interaction study with various ARV's
- b) No dose-adjustment needed with **RPV, RAL or TDF**
- c) \*\*Cannot co-administer with EFV (decreases simeprevir levels) or DRV/rtv (increases simeprevir levels)
- d) Final phase 3 co-infection data pending!

# New Vaccine Guidelines



## Pneumococcal Immunization in Immunocompromised Adults

- **Pneumococcal Vaccine Naïve**
  - Administer PCV13 first
  - Give PPSV23 vaccine (at least 8 weeks after PCV13)
  - Give 2<sup>nd</sup> dose of PPSV23 vaccine 5 years later
- **Previously Received PPSV23**
  - Give PCV13 (at least 1 year after last dose of PPSV23)
  - Give 2<sup>nd</sup> dose of PPSV23 vaccine 5 years after 1<sup>st</sup> dose

# A Hint at New PEP Guidelines

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- NY State Dept. of Health updated occupational PEP guidelines: [www.hivguidelines.org](http://www.hivguidelines.org)
  - **Truvada/Raltegravir first line!**
- CDC guidelines eagerly awaited...

# Working Towards a Cure

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- Current Strategies:

- 1) Cure (Viral Eradication):

- a) Bone Marrow Transplant

- Kill all latently infected cells and repopulate immune system with cells immune to HIV

- b) Activate Lymphocytes or Transcription

- HDAC inhibitors (SAHA/Vorinostat)

- Add antigen-stimulation of cytotoxic T lymphocytes?

# Working Towards a Cure

2) Functional Cure (No viremia, no immunologic progression, and no advanced aging when stop ART)

a) Can we boost innate immunity, turn all into elite controllers?

b) APOBEC3 protein, protective against HIV- how to amplify it?

# AIDS research renews hope for a 'functional cure'

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## Scientists make curing HIV a priority

*Once seen as impossible, a cure is now viewed as a realistic goal by more and more researchers, who argue the epidemic cannot be contained through treatment and prevention alone.*

July 23, 2012 | By Erin Loury, Los Angeles Times

## A cure for Aids?

Scientists today launch a strategy to co-ordinate efforts focused on a cure for Aids, which they say they believe is feasible and the only way to end the epidemic

## Science sets its sights again on an AIDS cure

By Liz Szabo, USA TODAY

Updated 7/19/2012 5:50 PM

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