THE IMPACT OF COMORBIDITIES, DEPRESSION & SOCIAL ISOLATION ON LINKAGE AND RETENTION TO CARE
Background

• The aging of HIV is a success story, but there are complications to this success:
  • People with HIV on HAART are being treated successfully as evidenced by viral suppression
  • However, those who are aging with the virus are experiencing a variety of non-HIV/AIDS conditions
  • AIDS-defining conditions are becoming less common
  • CD₄ t-cell counts are still related to morbidity and mortality in this population
    • i.e., those with low CD₄ counts and high viral load more likely to experience both AIDS-defining and non-AIDS defining health problems
Prevalence of Co-morbidities

- Data obtained from *Research on Older Adults with HIV (ROAH)*
  - Adults 50 and older living with HIV (n = 914)
  - Average age of 55.5 years
  - Approximately one-third are women
  - Fifty-percent African-American/Black, 33% Latino
- Living with HIV 12.6 years on average
- 85% on HAART
- 51% with AIDS diagnosis
- 67% identified as heterosexual
Comorbidities in ROAH

HIV/STI-related

Age-related

Mental/Neuro/Other

Figure 1: Prevalence of HIV-related, Age-related, Chronic, and Other Comorbidities in Older Adults with HIV
ROAH: Distribution of Comorbidity

Number of Comorbid Illnesses Reported in a Sample of 892 NYC Older Adults with HIV Age 50 and Older (Mean Age 55.5) from ROAH (Mean = 3.1)

Karpiak et al. 2006; Brennan et al. 2009; Havlik et al. 2011
Comparison of Number of Comorbidities in ROAH vs. National Health and Nutrition Examination Survey 2005

- NHANES
- ROAH
The Complications of Success

>50% of Deaths Attributed to Non-AIDS Events

Adapted from ART-CC, Lancet 2008;372:293-99 – Slide Courtesy of A. Justice
More multimorbidity at higher age with HIV

Depression (52%)

- The most frequently reported comorbid condition in ROAH
- Depression is often related to:
  - Prior history of depression
  - Presence of physical illness
  - Comorbid psychiatric and substance use issues
  - Chronic stress
  - History of trauma/abuse
  - HIV stigma
  - Loneliness and Social Isolation
CES-D Symptoms of Depression: ROAH

- Severe (23+): 43%
- Moderate (16-22): 20%
- Not Depressed (1 to 15): 37%
Predictors of Depression

• Grov et al. (2010) examined three main factors with regard to depression using the ROAH study:
  • Loneliness
  • Stigma
  • Health-related Quality of Life (i.e., pain, physical functioning, energy/fatigue, memory/cognition, and social functioning)

• Depression was dichotomized at 23 on the CES-D scale, i.e., severe depressive symptoms
Impact of Loneliness, Stigma and Health on Depression

• Gender, Sexual Orientation, and Race/Ethnicity were not significantly related to depression

• Age was negatively related to depression, with odds of CES-D > 23 decreasing by 4% for each year of age

• Higher levels of cognitive functioning, greater energy/less fatigue, and less pain were related to lower odds of being depressed (1%-3%/unit)

• Both higher perceived HIV stigma and loneliness increased the odds of being depressed (1%-6%/unit)
Loneliness in ROAH vs. Others

![Bar Chart]

Figure 1 Comparison of UCLA Loneliness Scale Scores between Older Adults with HIV and Community Dwelling Elderly as reported in Adams et al. (2004).
A functional network member is someone in at least weekly phone/monthly in-person contact and can be reasonably assumed to provide assistance in times of need (Cantor & Brennan, 2000)
Over 2/3 of the study group had moderate to severe depression. Depression causes non-adherence to all medication, including HIV meds. Although in medical care their depression remains unmanaged.
Are HIV+ Patients in Care?

HIV Continuum of Care for People ≥ 50 and older in the U.S.

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Virally Suppressed</th>
<th>Prescribed ART</th>
<th>Retained in Care</th>
<th>Linked to Care</th>
<th>Diagnosed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ages 45-54</td>
<td>89%</td>
<td>75%</td>
<td>43%</td>
<td>39%</td>
<td>31%</td>
</tr>
<tr>
<td>Ages 55-64</td>
<td>89%</td>
<td>74%</td>
<td>46%</td>
<td>42%</td>
<td>36%</td>
</tr>
<tr>
<td>Ages ≥65</td>
<td>89%</td>
<td>73%</td>
<td>35%</td>
<td>33%</td>
<td>27%</td>
</tr>
</tbody>
</table>

Disclaimer: The original version of this bar graph was taken from the CDC website and modified to display data for the 45 years and older population only.
HIV Care Engagement by Age: New York State

Source: BHAES, New York State Dept. of Health AIDS Institute, 2015
Demographic Retention Factors

• Poorer care retention is associated with:
  • Minority race/ethnicity
  • Younger age
  • Heterosexual identity
  • Low Education/Income
  • Lack of Health Insurance
Clinical Retention Factors:

• Poorer retention is associated with:
  1. Higher CD4 cell counts
  2. Not having an AIDS diagnosis (i.e., CD4 < 200 or presence of opportunistic infection)
  3. Detectable Viral Load and AIDS defining CD4 count

• While seemingly contradictory, patients may skip appointments if they are feeling well (1 & 2) or if they are ill (3)

• Poor health may be due to missed appointments in a reciprocal manner
Other Retention Factors

- Other factors related to poor retention:
  - History or current injection drug use
  - Low perceived social support
  - Less engagement with health care provider
  - Shorter follow-up after initial appointment
  - Unemployment
  - Mental/psychiatric illness
  - Child care
  - Transportation
  - Hospitalization
  - “Other” (i.e., forgot, last minute social engagement, etc.)
CARE RETENTION STRATEGIES
Care Coordination Model

- Uses “navigators” to help individuals negotiate the structural barriers of the health care system such as:
  - Difficulty making appointments
  - Difficulties with transportation
  - Inconvenient appointment times
  - Long waits for appointments
  - Conflicts with work or family responsibilities
Supportive Services

Numerous supportive services have been associated with better retention in care including:

- Case management
- Mental health/Substance abuse
- Transportation
- Advocacy
- Drug assistance programs
- Food/nutrition
Care Engagement and Retention is CRITICAL for Older Adults with HIV

- Average rate of retention in New York State was 72%, ranging from 20% to 100% in ambulatory clinics based on self-report (NYS DOH)

- Care Retention may be even more critical for Older Adults with HIV:
  - Greater risk for concurrent AIDS diagnosis
  - Greater prevalence for multiple co-morbid conditions requiring treatment in addition to HIV
  - Potential for multimorbidity warrants regular screening for high incidence non-AIDS related conditions
TESTING AND PREVENTION FOR OLDER ADULTS

Older Adults are Sexually Active but Sexual Health and Risks are Often Neglected in Clinical Settings!
National Social Life, Health and Aging Project (NSHAP) 2005-2006


Sex in Later Life

Age 57 - 64
Age 65 - 74
Age 75 - 85

Sexually Active

- Age 57 - 64: 73%
- Age 65 - 74: 53%
- Age 75 - 85: 26%
Men’s aging and sexual health...

- Older widowers who recently lost wives are more likely to have an STD compared to married peers:
  - Within six months-1 year: 16% more likely to have an STD
  - Since 1998, STDs among widowed men increased 83%!!! (ED drugs released in 1998—coincidence???)
  - Most common STD among widowers: Gonorrhea

- Approximately ½ of men over the age of 40 experience erectile dysfunction (ED)
  - ED can make proper condom use problematic
Women’s aging and sexual risk....

• Many older women don’t use protection during sex after menopause because there is no risk of pregnancy

• With age, natural lubricant decreases and vaginal walls become thinner... putting women at greater risk for STDs

• HIV/STDs have easier entry to the bloodstream of women compared to men during vaginal intercourse
Doctors Don’t Discuss Sex with Older Adults: NSHAP

![Bar graph showing percentage of men and women who have ever discussed sex with a MD after age 50.]

- **Women**: 22%
- **Men**: 38%
Older Adults are Not Being Tested in a Timely Manner for HIV: New York State 2013

Percent Concurrent HIV/AIDS Diagnosis

- 13 to 19: 7%
- 20 to 24: 12%
- 25 to 29: 16%
- 30 to 39: 22%
- 40 to 49: 35%
- 50 to 59: 32%
- 60 and older: 43%

Health Disparities in Concurrent AIDS Diagnoses by Age and Race/Ethnicity: NYC

Proportion of Concurrent Diagnoses by Age and Race/Ethnicity

- **Black**
- **Hispanic**
- **White**
- **Asian/Pacific Islander**

Age Groups:
- **13-29**
- **30-49**
- **≥ 50**

Bar chart showing the proportion of concurrent AIDS diagnoses across different age groups and racial/ethnic categories.
Vaginal Intercourse: Condom Use


Gay & Bisexual Men: Anal Sex Used a Condom

- Always: 42%
- Usually: 7%
- Sometimes: 12%
- Rarely: 4%
- Never: 35%


acria
Gay & Bisexual Men:
Reasons NOT to Use a Condom

- With Older Person
- With Younger Person
- Drunk or High
- Feel Depressed
- Think STD Risk Low
- Think Partner Doesn't Want To
- Partner Doesn't Want To
- Person Very Attractive
- Need Affection
- Want Sex

Treatment as Prevention

- An undetectable viral load in the blood significantly reduces the chance of HIV transmission
- However, there is still a small risk of sexual HIV transmission
- The link between viral load in blood and semen/vaginal fluid is not conclusive
- Most studies done in heterosexuals, not taking into account risks of anal sex
- For those who are HIV-negative, Pre-Exposure Prophylaxis (PrEP) is available to prevent HIV infection and Post-Exposure Prophylaxis (PEP) is available after exposure to HIV
- PrEP is a good alternative to condoms for men with erectile dysfunction (which makes condom use difficult)
ACRIA’s HIV Older Adults Materials
Social Messaging Campaign on Facebook:

http://www.facebook.com/pages/Age-is-not-a-condom/321362084583364
Thank You!

For further information please contact:

Mark Brennan-Ing, PhD
Director for Research and Evaluation
ACRIA: Center on HIV and Aging
575 Eighth Avenue, Suite 502
New York, NY 10018
(212) 924-3934 ext 131
mbrennan@acria.org

www.acria.org