HIV-related health and risk behavior among persons experiencing homelessness

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Disclaimer: The findings and conclusions in this presentation are those of the author and do not necessarily represent the views of the Centers for Disease Control and Prevention.

Learning Objectives

- At the end of this presentation, participants should be able to:
  - Describe key aspects of homelessness in the United States
  - Identify HIV-related health and risk behaviors associated with homelessness/housing instability that may be present in your area
  - Utilize interventions in your area that have improved health outcomes for homeless persons who are living with or at high risk for HIV.

I do not intend to discuss any non-FDA approved or investigational used of any products/devices in this presentation.

Homelessness: definition and scope

(Sources: http://portal.hud.gov/portal/page/portal/HUD/topics/homelessness/definition; HUD AHAR, 2009) [Evidence level B, epidemiological studies]

- McKinney-Vento Act, 1987, defined homelessness for access to federal programs
- From October 2007-Sept 2008, 1.6 million used a shelter or transitional housing program.
- In a single night in January 2008:
  - Nearly 60% were in emergency shelter/transitional housing;
  - 38% were homeless as part of a family
  - About 30% homeless single persons were estimated to experience chronic homelessness

Trends in homelessness

(Sources: US Conference of Mayors, 2009; National Law Center on Homelessness and Poverty, 2010, HUD 2008 AHAR, 2009) [Evidence level B, epidemiological studies]

- Characteristics of sheltered homeless: male (64%), members of minority groups (62%), older than 31 (41%), disabled (43%), and alone (67%).
- Homelessness has been rising over the past 20-25 years due to reduced availability of affordable housing and increases in poverty rates.
- Due to the recent economic downturn and foreclosure crisis, numbers of persons experiencing homelessness is likely to be increasing

Homelessness and health

(Sources: HUD AHAR, 2009; Badiaga et al., 2008, Schanzer et al., 2007) [Evidence level B, epidemiological studies]

- Homeless persons are disproportionately affected by:
  - Substance use
  - Mental illness
  - HIV and other communicable infections, e.g., Hepatitis B and C, active TB.
  - Skin infections, e.g. scabies and lice
  - Chronic medical conditions
  - Dual diagnoses and co-morbid conditions

HIV-related risk behaviors

(Sources: Aidala et al. 2005, Elifson et al., 2007; Friedman et al., 2009; Rotheram-Borus et al., 2003) [Evidence level B, epidemiological and clinical cohort studies]

- HIV risk behavior is associated with homelessness/housing instability
- Compared to stably-housed persons, unstable housing is associated with higher rates of:
  - Injection drug use
  - Alcohol and hard drug use
  - Transactional sex
  - Unprotected sex
  - Greater numbers of sex partners

Health among homeless PLWHA

(Sources: Kidder et al., 2007; Leaver et al., 2007; Schwarcz et al., 2009) [Evidence level B, epidemiological and clinical cohort studies]

- Homeless PLWHA may be less likely to obtain and adhere to recommended medical treatment
- Compared to stably housed PLWHA, homeless or unstably housed fare worse on:
  - Utilization of health care and social services
  - Adherence to anti-retroviral treatment regimens
  - Clinical measures of health (VL, CD4, Hepatitis C co-infection)
- Housing instability increases risk of death among persons with AIDS

Recommendations for clinicians treating HIV-infected homeless persons

[Evidence level C, expert opinions]

- Integration of primary care with substance use treatment and mental health services (McMurray-Avila et al., 1998)
- Further recommendations :
  - Conanan B, London K, Martinez L, Modersbach D, O'Connell J, O'Sullivan M, Raffanti S, Ridolfo A, Post P, Santillan Rabe M, Song J, Treherne L. *Adapting Your Practice: Treatment and Recommendations for Homeless Patients with HIV/AIDS, 62 pages. Nashville: Health Care for the* Homeless Clinicians' Network, National Health Care for the Homeless Council, Inc., 2003.

Interventions to reduce HIV risk behavior and improve health

- A limited number of interventions have targeted HIV prevention interventions to homeless populations and rigorously evaluated effects.
  - Behavioral interventions
    - Targeted to homeless persons
    - Examined as a subset from a larger sample
  - Housing as a structural intervention
  - Housing plus intensive case management

Behavioral HIV interventions

(Sources: Rotheram-Borus et al., 2003, 2009; Slesnick & Kang, 2008) [Evidence level A, RCT]

- *Street Smart* for street-involved youth demonstrated effects on sexual risk, alcohol and drug use among females and reduction in marijuana use among males.
- *Healthy Living* for homeless PLWHA led to:
  - Reduction in unprotected sex, number of serodisconcordant sex partners
  - Reduction in alcohol, marijuana , and hard drug use
- *Community Reinforcement Approach*: intervention for street-involved youth increased condom use among older youth.

Housing (structural) intervention

(Source: Wolitski et al., in press) [Evidence level A, RCT]

- CDC-HUD Housing & Health Study assessed effects of housing assistance on PLWHA:
  - Sexual and drug risk behaviors
  - Access to care, adherence, and health status
- Randomized controlled trial (N = 630) in Baltimore, Chicago, & Los Angeles
  - Immediate HUD housing rental assistance or customary care (provided by local housing agencies)
  - CAPI and A-CASI assessment and blood tests (CD4, viral load) at baseline, 6, 12, and 18 months

Results: CDC - HUD Housing & Health Study

(Source: Wolitski et al., in press)

- Significant differences favoring housing assistance for mental health (depression, perceived stress)
- Housing improvement over time associated with improvements in:
  - Perceived stress
  - One or more ER visits, past 6 months
  - Detectable viral load
- No significant effects for HAART use, adherence to HAART, sexual risk behavior

Housing and case management intervention

(Sources: Buchanan et al., 2009; Sadowski et al., 2009) [Evidence level A, RCT]

- *CHHP*: Housing and case management intervention for homeless chronically ill persons recruited from hospitals in Chicago:
  - Demonstrated reductions in hospitalizations, days spent in hospital, and ER visits at 18-months follow-up.
  - Sub-analysis of outcomes for HIV-positive participants showed intervention :
    - Increased survival with intact immunity
    - Decreased HIV RNA viral load

Summary

- Homeless persons are disproportionately affected by HIV and other health disparities. [Evidence level B, epidemiological studies]
- Lack of stable housing can interfere with behavioral risk reduction, access to care, and treatment adherence, which negatively affect health-related QOL and mortality. [Evidence level B, epidemiological and clinical cohort studies]
- HIV patients with housing needs may have additional treatment needs (e.g., mental illness, substance use) and elevated risk for co-morbid conditions. [Evidence level B, epidemiological and clinical cohort studies]
- Combined interventions (e.g., structural/housing and behavioral or comprehensive case management) may prove more effective than stand-alone approaches. [Evidence level C, expert opinion]

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