

Housing and HIV/AIDS

David Holtgrave, PhD

Professor and Chair, Dept. of Health, Behavior & Society, Johns Hopkins Bloomberg School of Public Health

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NATIONAL HIV/AIDS STRATEGY: UPDATED TO 2020

MONITORING OUR PROGRESS

GOAL 1: REDUCING NEW HIV INFECTIONS

- ✓ Increase knowledge of serostatus
- ✓ Reduce new diagnoses
- ✗ Reduce HIV-risk behaviors among young gay and bisexual males

GOAL 3: REDUCING HIV-RELATED DISPARITIES

Reduce disparities in HIV diagnosis among:

- ✗ Gay and bisexual men
- ✗ Young Black gay and bisexual men
- ✓ Black females
- ✗ Persons living in the Southern US

Increase viral suppression among:

- ✓ Youth
- ✓ Persons who inject drugs

GOAL 2: IMPROVING HEALTH OUTCOMES FOR PEOPLE LIVING WITH HIV

- ✓ Increase linkage to care
- Increase retention in HIV care
- ✓ Increase viral suppression
- ✗ Reduce homelessness
- ✓ Reduce death rate

DEVELOPMENTAL INDICATORS

- Use of pre-exposure prophylaxis (PrEP)
- HIV stigma
- HIV among transgender persons

- ✓ ANNUAL TARGET MET
- ANNUAL TARGET NOT MET
(Progress in the expected direction)
- ✗ ANNUAL TARGET NOT MET
(Moving in the wrong direction)

Learn more about the National HIV/AIDS Strategy: Updated to 2020 at [AIDS.gov/2020](https://aids.gov/2020) #HIV2020

NHAS Indicator Progress

INDICATOR 7

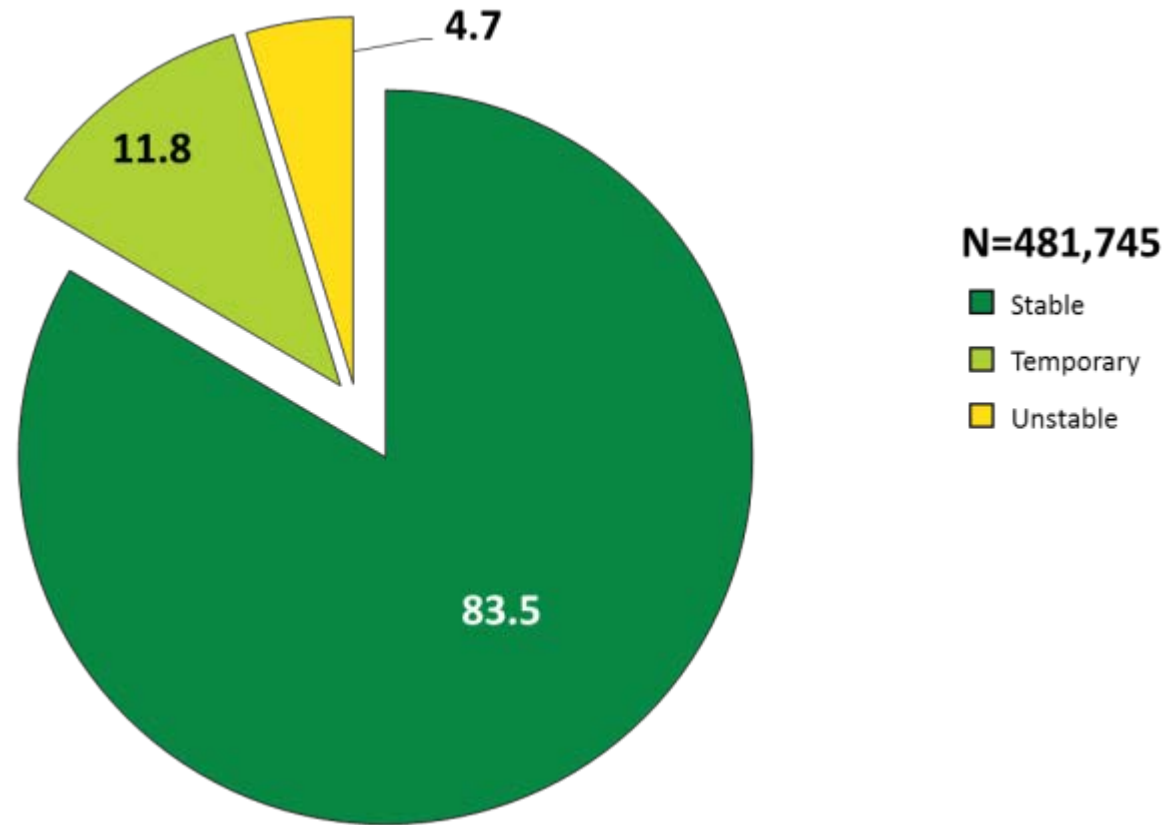
Reduce the percentage of persons in HIV medical care who are homeless to no more than 5 percent, from the baseline of 7.7 percent.

PROGRESS: Of persons in HIV medical care, 9.0 percent were homeless in 2014. This result did not meet the annual target (7.0 percent) and showed an increase from the 2010 baseline, rather than the expected decrease. Additional effort to reduce homelessness among people in HIV medical care is needed in order to reach the target for 2020. It is troubling that homelessness among persons with HIV is not reflecting the same decreases in homelessness seen nationally in the overall population, with a 2 percent decline between 2013 and 2014 and an 11 percent decline since 2007.³

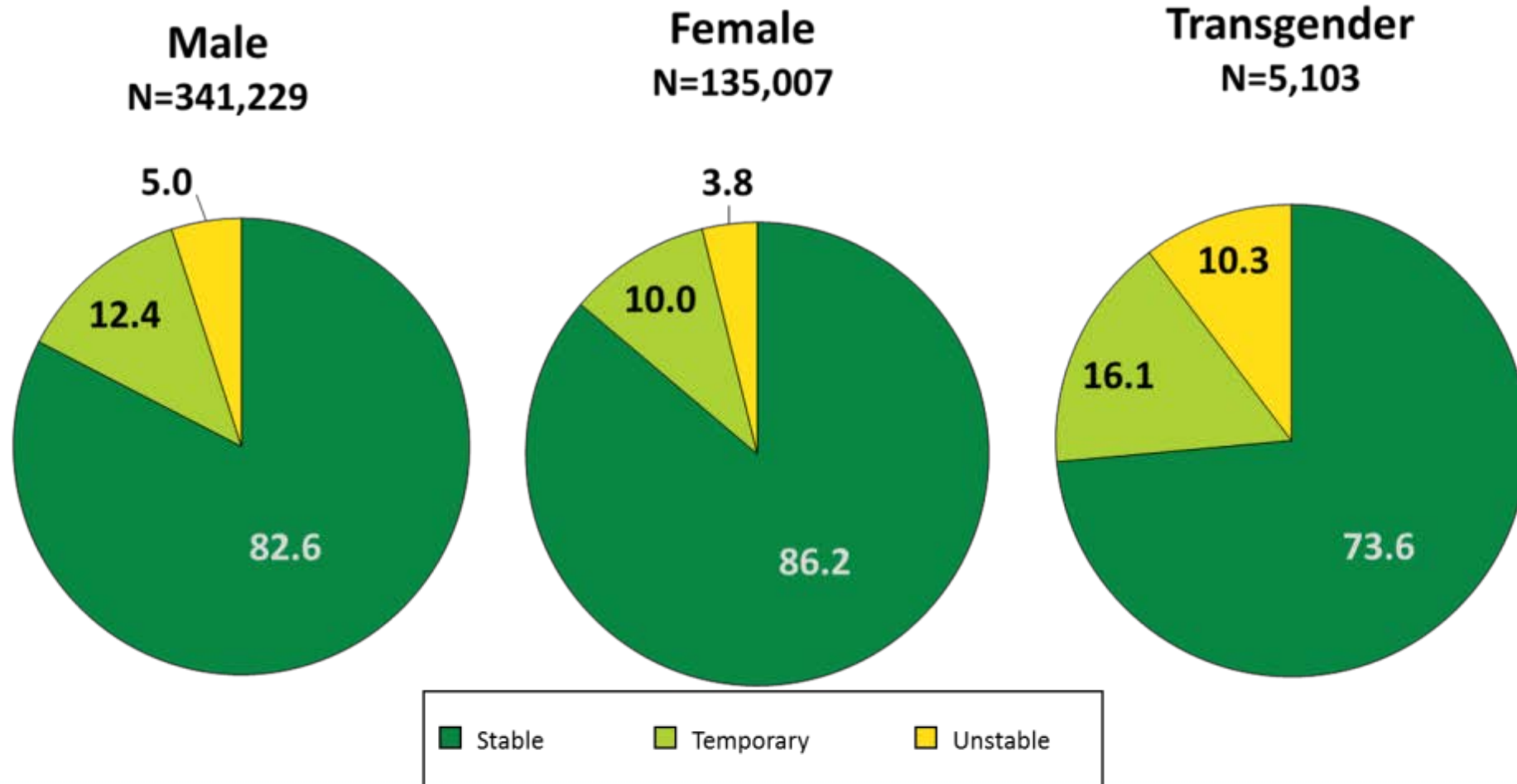
³ US Department of Housing and Urban Development. The 2014 Annual Homeless Assessment Report (AHAR) to Congress. [https://www.hudexchange.info/resources/documents/2014-AHAR-](https://www.hudexchange.info/resources/documents/2014-AHAR-Part1.pdf)

Part1.pdf Accessed 7/11/2016.

Ryan White HIV/AIDS Program Clients (non-ADAP), by Housing Status, 2014—United States and 3 Territories



Ryan White HIV/AIDS Program Clients (non-ADAP), by Gender and Housing Status, 2014—United States and 3 Territories



Housing as a Determinant of Health for People with HIV

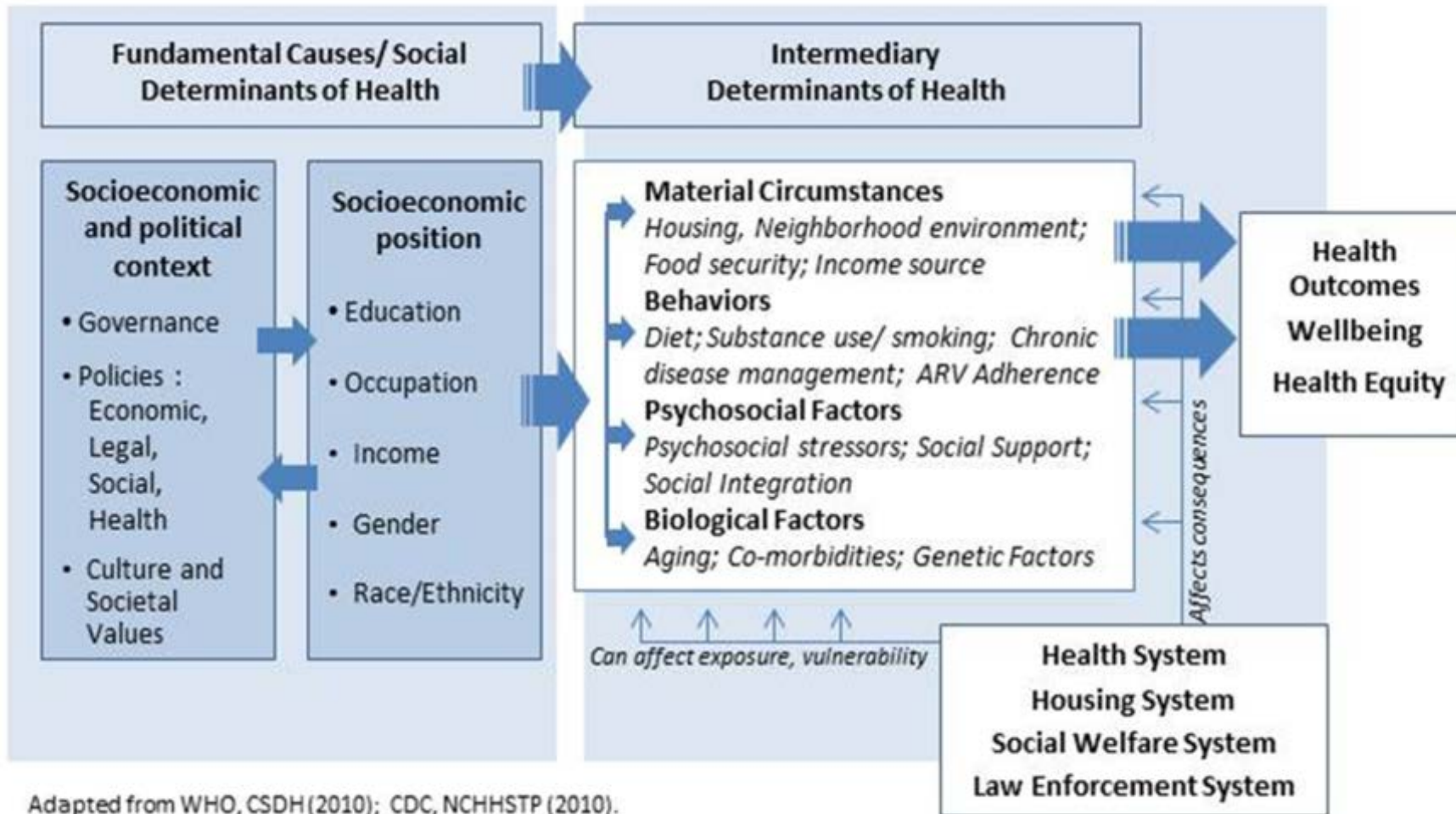
Results from a Systematic Review of Research 1996-2014

Angela A. Aidala, et al. Housing status, medical care, and health outcomes among people living with HIV/AIDS: A systematic review. American Journal of Public Health 2016;106(1):e1-e23

INTRODUCTION 1

- Housing links “upstream” economic, social, and cultural determinants to the more immediate physical and social environments in which we carry out our day-to-day lives
- Housing is where our economic, social, and personal, lives come together
 - *"Our health is determined by resources and supports available in our homes, neighborhoods, and communities" --Healthy People 2020*
- The "housing system" as well as the health system affects exposure and vulnerability to broader social determinants of disease or injury as well as their consequences

Fundamental and Intermediary Social Determinants of Health Conceptual Framework



Adapted from WHO, CSDH (2010); CDC, NCHSTP (2010).

INTRODUCTION 2

Pulling together the evidence

- Increasing number of studies have shown housing is linked with the risk for HIV exposure and transmission, and the care and health of persons living with HIV/AIDS
- Canadian and US researchers conducted a systematic review to examine and summarize available evidence

Why systematic review?

- Synthesizing all of the available research evidence reduces the likelihood of being misled by a single or a few studies and increases confidence in the findings
- Helpful knowledge translation tool - allows knowledge users to go to one source to access research evidence about a particular question

Study Selection Criteria

Sample must include people living with HIV/AIDS

- will do separate review with people at-risk for HIV/AIDS

Studies with analysis of empirical data with at least:

- one measure of housing status as an independent variable
- at least one quantitative health outcome as a dependent variable

Conducted in high resource country

- U.S. Canada, Europe, etc.

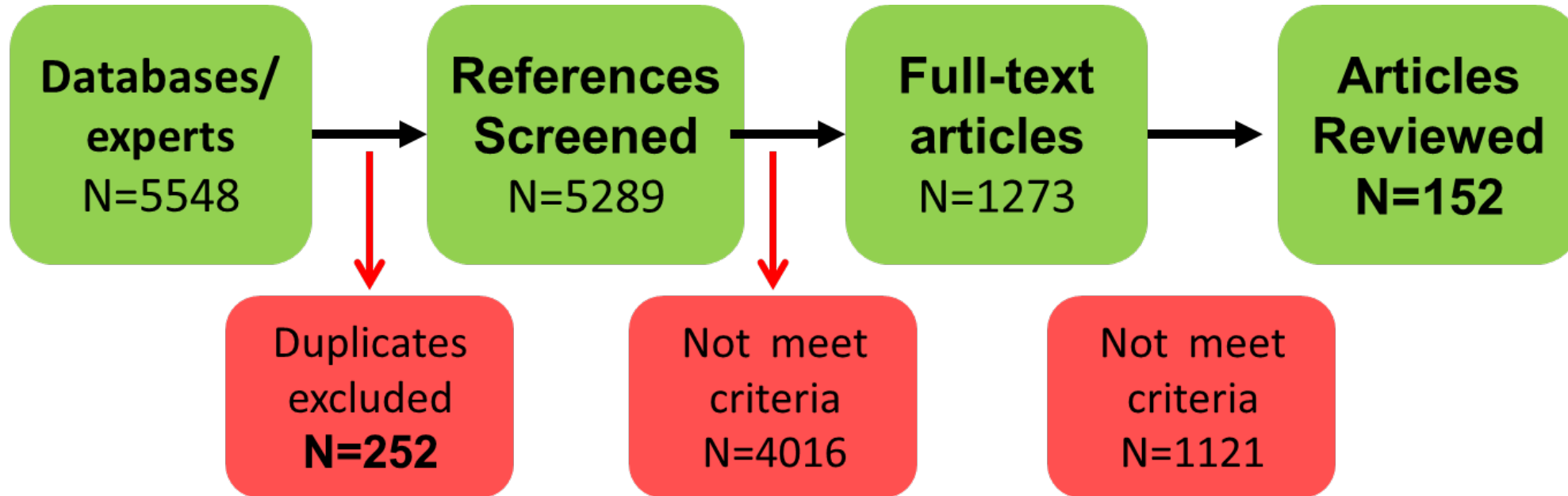
Definitions

Housing status: any measure of homelessness, marginal housing, housing instability, or quality of housing

Health-related outcomes

- HIV medical care (e.g. access to treatment and care, service utilization, adherence to treatment)
- Clinical health outcomes (e.g. CD4 count, viral load, mortality)
- Other health outcomes (e.g. co-morbidities, mental health, physical health functioning, quality of life)
- HIV drug and sex risk-behaviors

Flow Chart for Included Articles



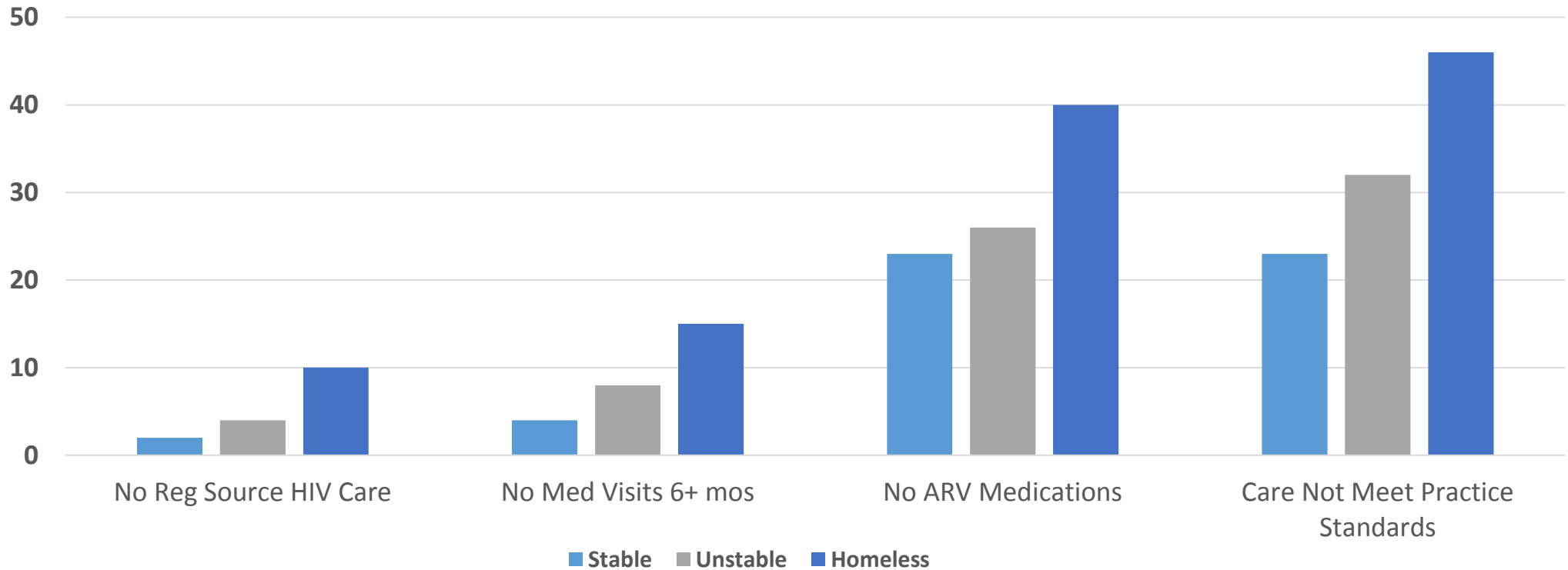
- From 5289 studies screened, 152 meet review criteria
- 112 in USA, 27 in Canada, 12 in Europe, 1 S Korea
- Represents 139,757 HIV seropositive study participants



Health Care Outcomes

- 35 papers examined access to HIV medical care and medications, service utilization
- 33 (94%) found worse HIV medical care outcomes among those who were homeless/ unstable/ inadequately housed compared to PLWH 'better' housing
- 29 (83%) reported statistically significant differences comparing homeless/ unstable/ inadequate housed PLW and those with stable, appropriate housing

Housing & Connection to Medical Care: NYC PLWHA (from the CHAIN study)



Adherence

- 30 papers examined housing status and adherence to ARV treatment regimens
- 28 (93%) found worse adherence among those who were homeless or unstably housed
- 24 (80%) reported statistically significant differences in adherence comparing homeless/ unstable PLW and those with stable housing

HIV Clinical Health Outcomes

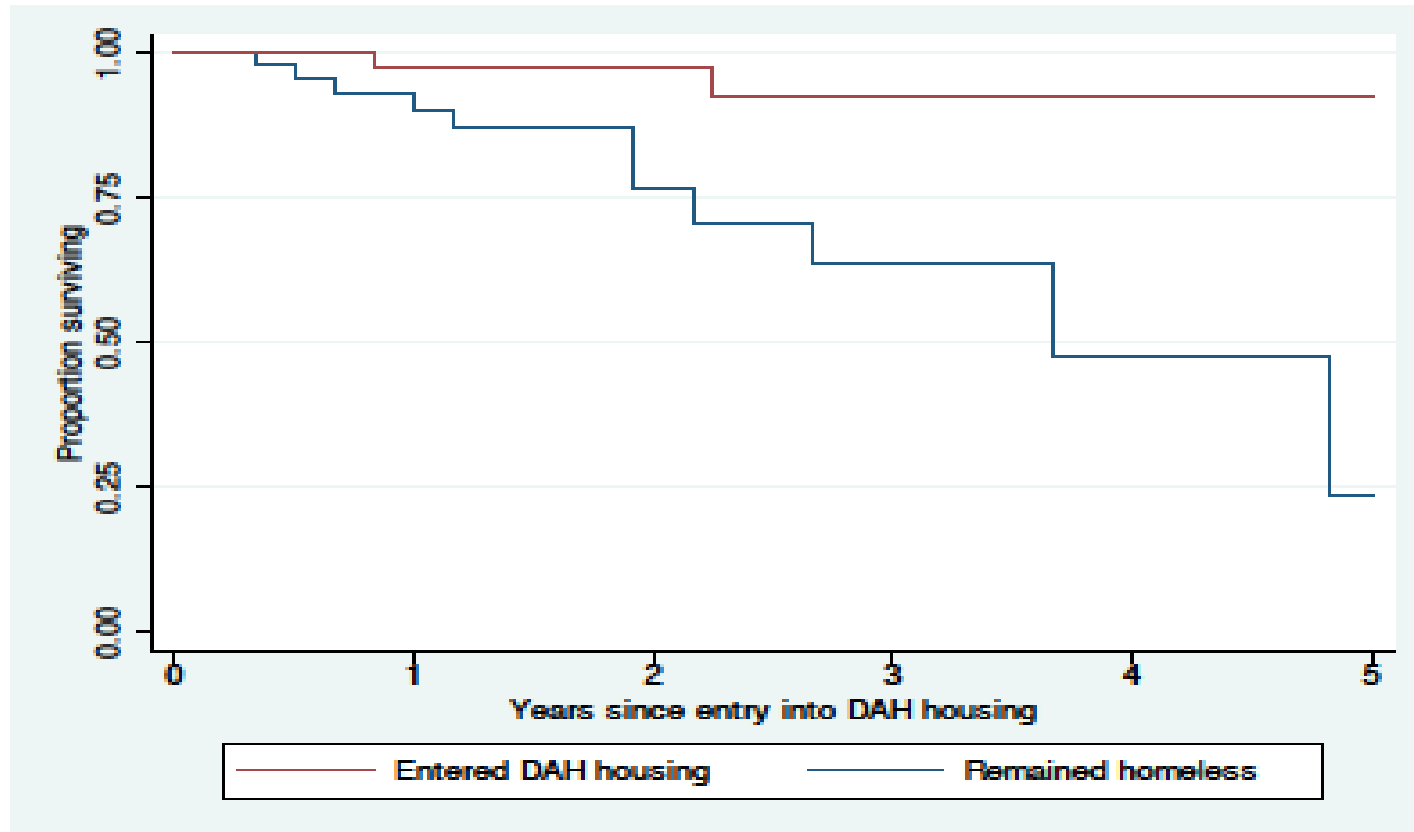
- 27 papers looked at HIV-related health outcomes CD4 counts, viral load, opportunistic infections, mortality
- 24 (89%) found worse HIV-related health outcomes among those who were homeless or unstably housed
- 20 (74%) reported statistically significant differences comparing homeless/ unstable PLW and those with stable housing
- 5 of 8 mortality studies found housing status associated with HIV mortality risk - studies that assessed lifetime homelessness or poor housing at diagnosis less likely show association with mortality

Survival of People with AIDS: Housed vs. Homeless (San Francisco)

Schwarcz, S. K., Hsu, L. C., Vittinghoff, E., Vu, A., Bamberger, J. D., & Katz, M. H. (2009).

Impact of housing on the survival of persons with AIDS. *BMC Public Health*, 9:220.

Available at <http://www.biomedcentral.com/content/pdf/1471-2458-9-220.pdf>



ER visits / Hospital stays

- 13 papers examined housing status emergency room visits and/or hospital inpatient stays among PLWH
- 13/13 (100%) found higher rates of ER visit or inpatient stays among those who were homeless or unstably housed
- 12/13 (92%) reported statistically significant differences comparing homeless/ unstable PLW and those with stable housing
- ER/ Inpatient service utilization indicator of poor engagement with HIV primary care with implications for health of PLWH and health care cost savings

HIV Risk Behaviors

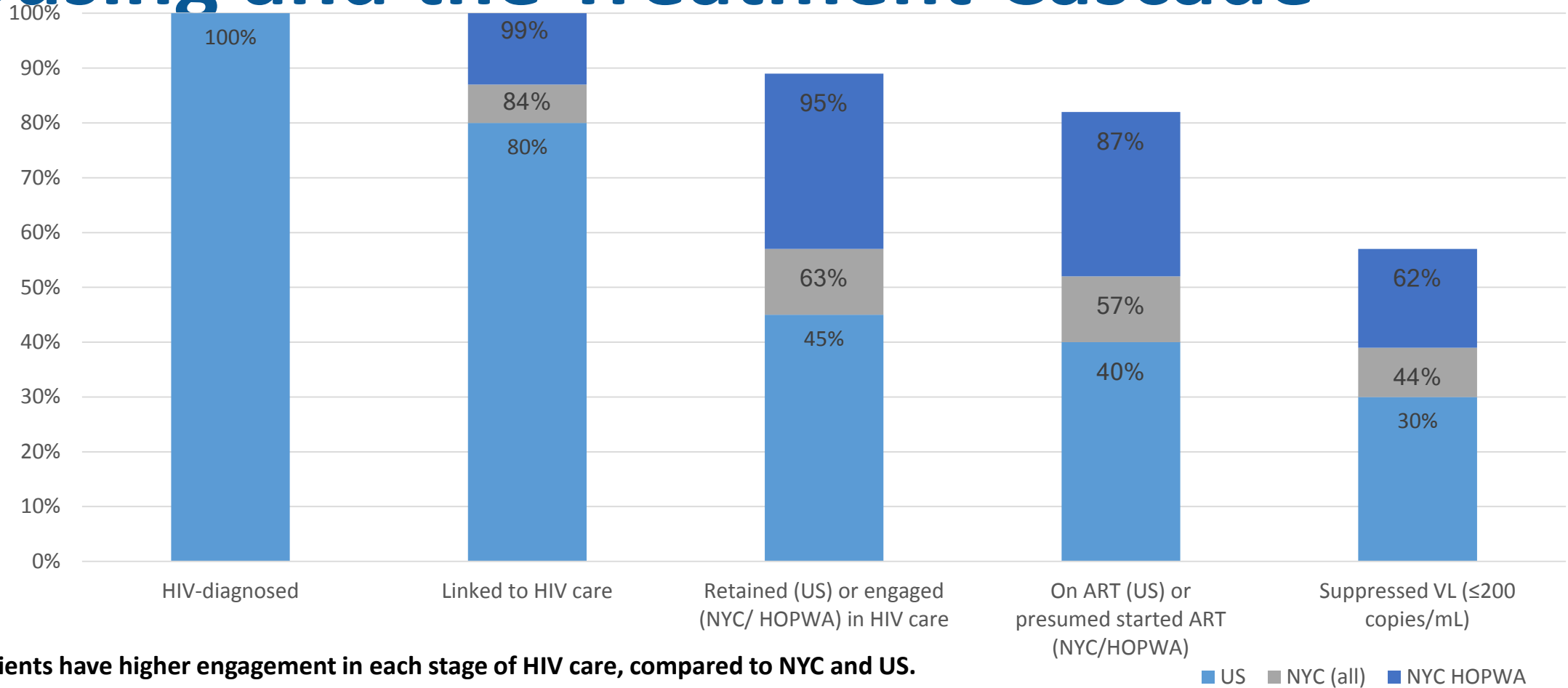
- 20 papers examined HIV sex and drug risk behaviors – needle using and sharing, unprotected sex, sex exchange etc
- 20 (100%) found higher rates of risk behavior among those who were homeless or unstably housed
- 16 (80%) reported statistically significant differences comparing homeless/ unstably housed PLW and those with stable housing

Housing and the Treatment Cascade

PLWH who are homeless or unstably housed:

- More likely to have a delay in entry into care
- Experience discontinuous care – lack of retention
- Not be receiving medical care that meets minimal clinical practice guidelines
- Less likely to be on ARVs or adherent to regimen
- Less likely achieve sustained viral suppression

Housing and the Treatment Cascade



NYC HOPWA clients have higher engagement in each stage of HIV care, compared to NYC and US.

NOTE: Different cascade methods/definitions used for US compared to overall NYC and NYC HOPWA.

Sources: Centers for Disease Control and Prevention. CDC Fact Sheet: HIV in the United States: The Stages of Care. July 2012; New York City HIV/AIDS Surveillance Slide Sets. New York: New York City Department of Health and Mental Hygiene, 2011. Updated February 2013.

Promising findings but relatively fewer intervention studies

- Few housing intervention studies testing outcomes of providing housing assistance
- 2 RCTs but more work would serve to increase generalizability

Two key interventional studies

The Housing & Health (H&H) Study, a 3-city randomized controlled trial (RCT) examining the impact of HOPWA vouchers:

Participants who remained homeless, substantially more likely to have a detectable viral load (79.1% vs 61.4%)

Increased housing resulted in a substantial reduction in ER visits over the past six months (48.6% vs 28.9%)

Wolitski et al. AIDS Behav 2010;14(3):493-503

The Chicago Housing for Health Program (CHHP) study, a RCT examining supportive housing for chronically ill persons leaving the hospital:

PLWHA who received a housing placement were more likely to be alive and have 'intact immunity' at one year (55% vs 34%) *Buchanan et al. American Journal of Public Health 2009;99 Suppl 3:S675-80*

Cost-effectiveness of housing

H&H results have made it possible to evaluate the “cost-utility” of housing as an HIV risk reduction & treatment intervention - measured as the “cost per quality adjusted life year (QALY) saved”

“Cost per QALY saved” is the measure used by health economists to compare the “value for money” of health care interventions - to ensure that health care dollars are being spent wisely, on treatments that work, and in a way that maximizes health benefits for limited resources

H&H findings confirm that housing is a cost effective health care intervention for PLWH, with a cost per QALY saved (\$62,493) that is well within generally accepted standards to label an intervention as “cost-effective”

Holtgrave et al. AIDS Behav 2013;17(5):1626-31

Additional sources of cost research on housing

“The first study to quantify the public costs associated with homeless people before and after supportive housing placement was published in 2001. It is often referred to in shorthand as “The Culhane Report.” More than a dozen studies have since quantified the ways homeless people with disabilities utilize various public systems, including hospitals, emergency rooms, psychiatric hospitals, shelters, jails and prisons. Some studies explore the “targeting” of resources. These interventions place individuals who typically overuse specific systems into supportive housing and track their use of those systems before and after housing. Other studies quantify tenants’ use of multiple systems before and after placement. All studies, however, point to the same conclusion: 1) Leaving vulnerable individuals and families homeless costs a surprising amount of public dollars and 2) Providing these same people with supportive housing saves enough money to pay for their housing at the very least. Supportive housing helped save area taxpayers millions of dollars in several of the below studies.”

-- Supportive Housing Network of NY website:

<http://shnny.org/research-reports/research/cost-savings>

Summary

Findings show homelessness/ unstable/ inadequate housing is consistently associated with worse engagement with HIV health care - poor retention in care, lack of ART uptake, lack of adherence to treatment

Homelessness/unstable/inadequate housing associated with poor HIV clinical outcomes - failure to achieve viral suppression

Homelessness/ unstable housing also associated with increased sex and drug risk behaviors

Better/ Improved housing associated with retention in care, ART uptake, treatment success

POLICY IMPLICATIONS

Housing status is strongly associated with HIV medical care and outcomes

Homelessness/ unstable/ adequate housing can contribute to continued HIV transmission

Housing is a promising structural intervention to stop the spread of HIV and improve the health of individuals and communities most affected by the epidemic

Housing can be a cost savings/ cost effective prevention and treatment intervention

As President Obama said on July 13, 2010....

- *“The question is not whether we know what to do, but whether we will do it.”*

