DESC
opening doors to end homelessness
SINCE 1979

Supportive Housing Reducing Medicaid Costs and Improving Health Outcomes

CSH webinar

June 9, 2011

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Overview of DESC

- emergency shelter
- licensed mental health services
- licensed chemical dependency services
- supportive housing
- high level of integration across programs

DESC Supportive Housing

Union Hotel
1994

Lyon Building
1997

Kerner Scott House
1997

The Morrison
2001

1811 Eastlake
2005

Evans House
2007

Rainier House
2009

Canaday House
2010

and in scattered sites since 1995

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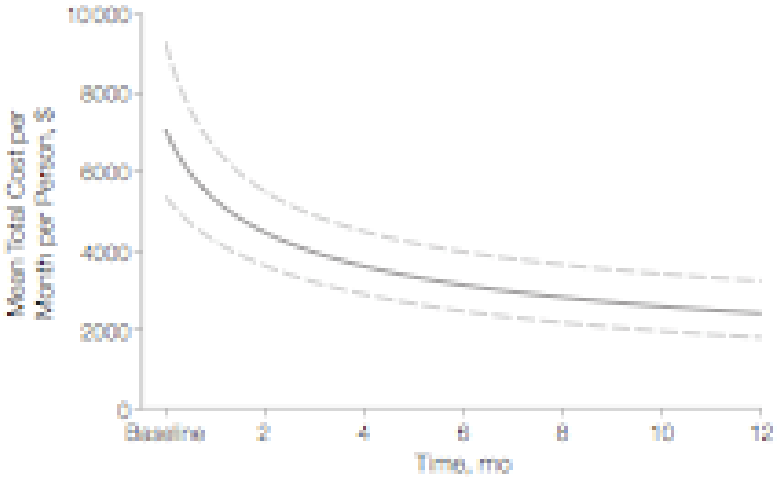
1811 Eastlake Housing First Project

- Uses a project-based housing first approach
- Houses 75 of King County's top utilizers of publicly funded services
- Residents permitted to drink in their units
- Chronically homeless individuals w/ severe alcohol problems

1811 Eastlake Cost Offsets

- Systems costs for prior year:
  - $8,175,922
- Systems costs while housed for 1 yr:
  - $4,081,580
  - Housing:
    - $13,440 per person/year
    - ~$1.1M total

Figure 4. Predicted Mean Total Cost per Participant During Time in Housing



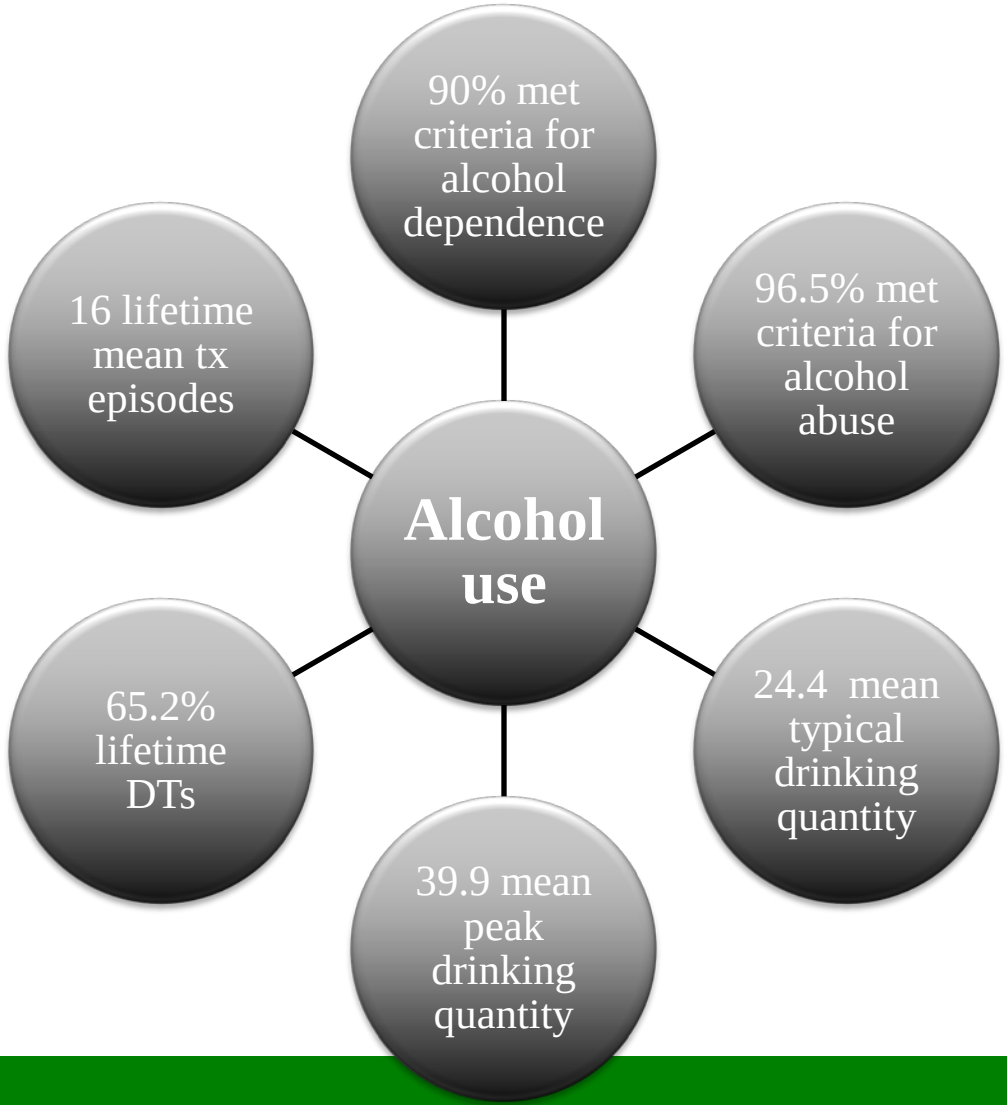
One hundred eleven participants were housed at some point during the study (95 initially assigned to housing and 16 initially assigned to wait-list group). Median time in housing was 17.2 months (interquartile range, 6.4-26.7 months). Solid line indicates predicted mean decrease in total cost per person based on Poisson generalized estimating equation regression. Dashed lines indicate 95% confidence intervals.

1811 Eastlake Cost Offsets

$4M of crisis system costs of residents were eliminated in first 12 months of operation:

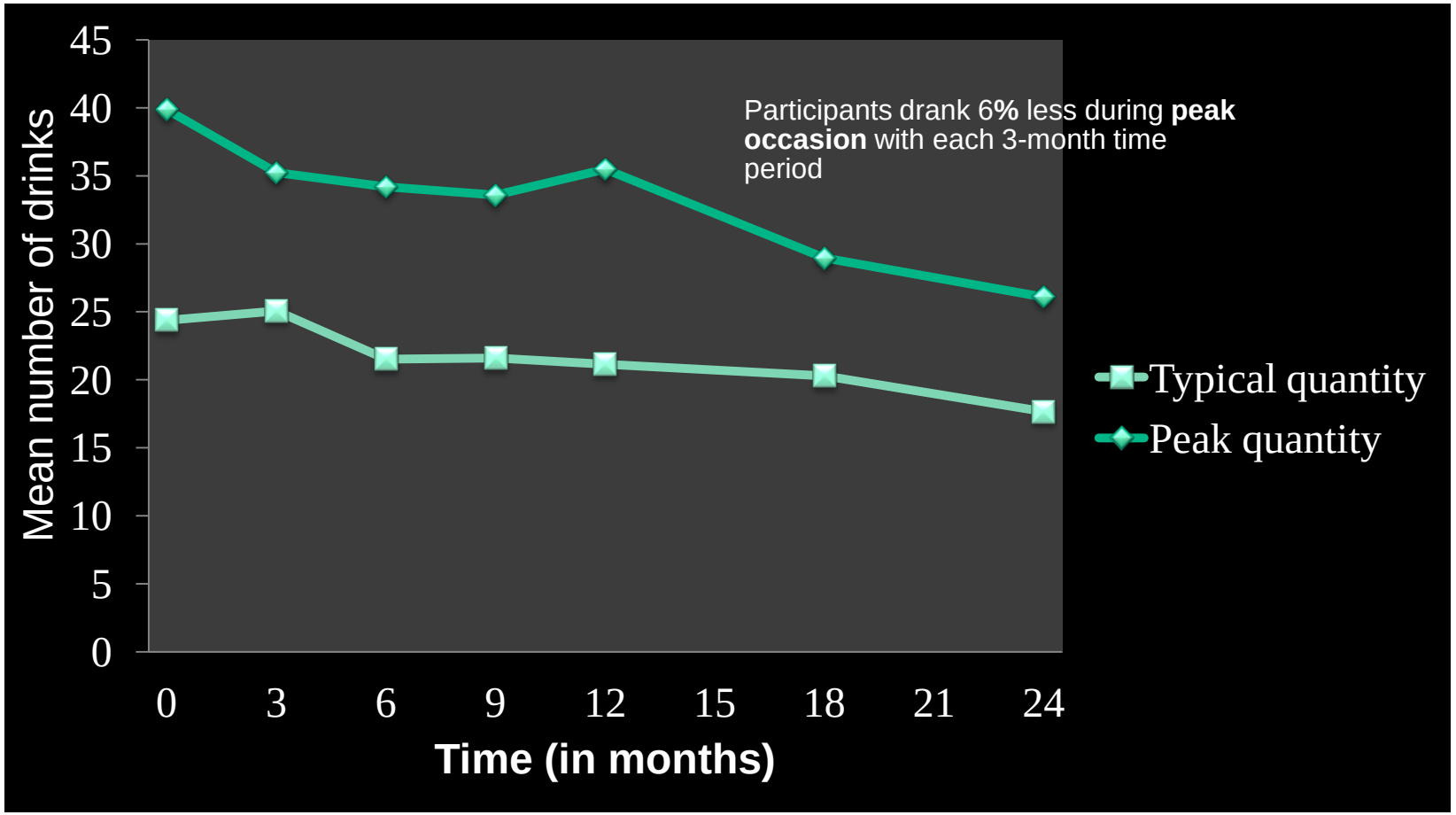
- 56% of this in Medicaid payments
- County jail bookings down 45%
- Jail days down 48%
- Sobering center usage down 91%
- Shelter usage down 93%

1811 Eastlake
Residents' baseline alcohol use



1811 Eastlake

Decreases in drinking over time

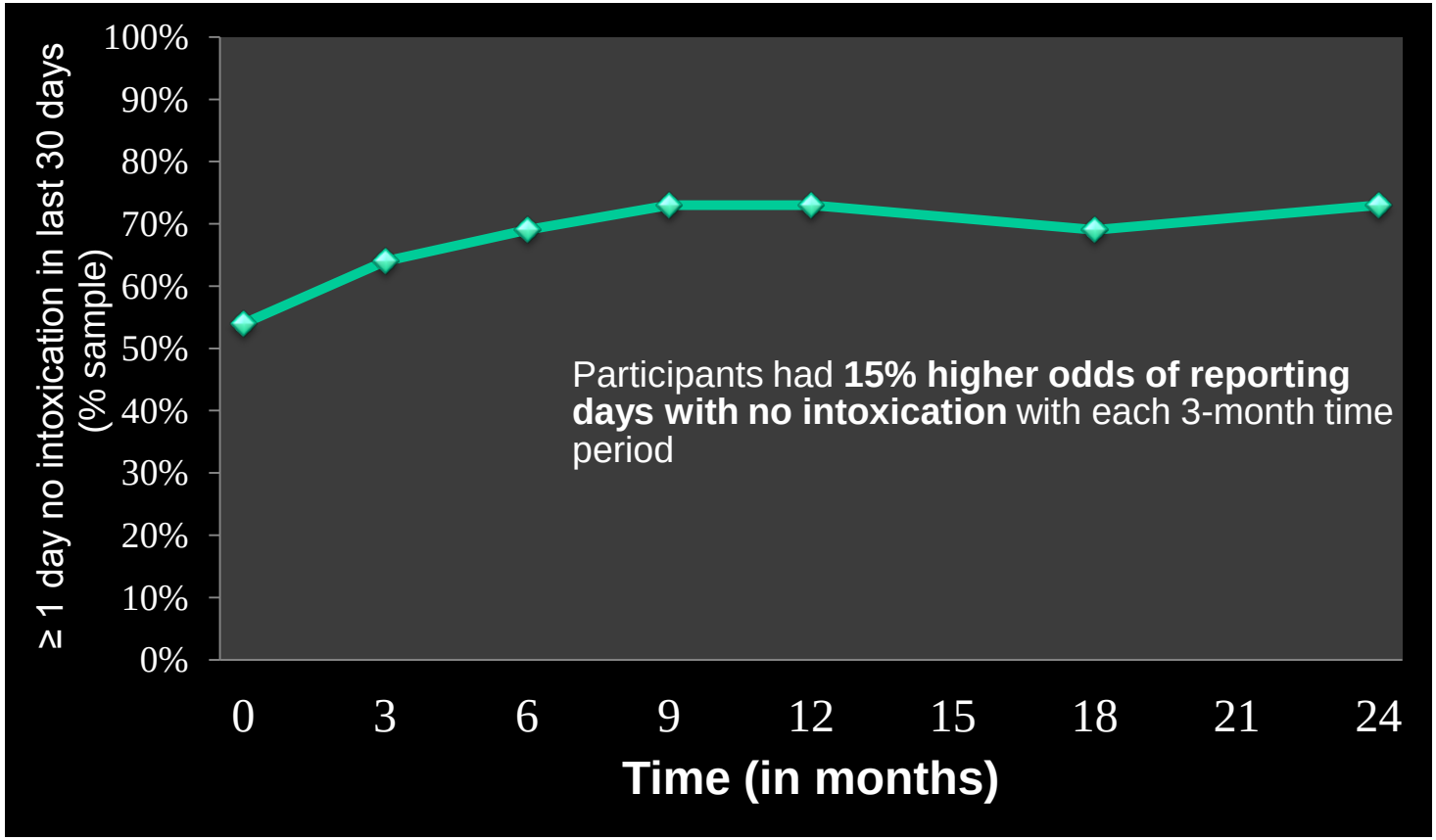


Typical: χ^2 (4, *N* = 95) = 7.22, *p* = .03
Time: IRR=.96, *SE*=.03, *p*=.11
HF exposure (mos): IRR=.97, *SE*=.01, *p*=.01

Peak: χ^2 (4, *N* = 95) = 29.77, *p* < .001
Time: IRR=.94, *SE*=.03, *p*=.03
HF exposure (mos): IRR=.97, *SE*=.01, *p*=.04

1811

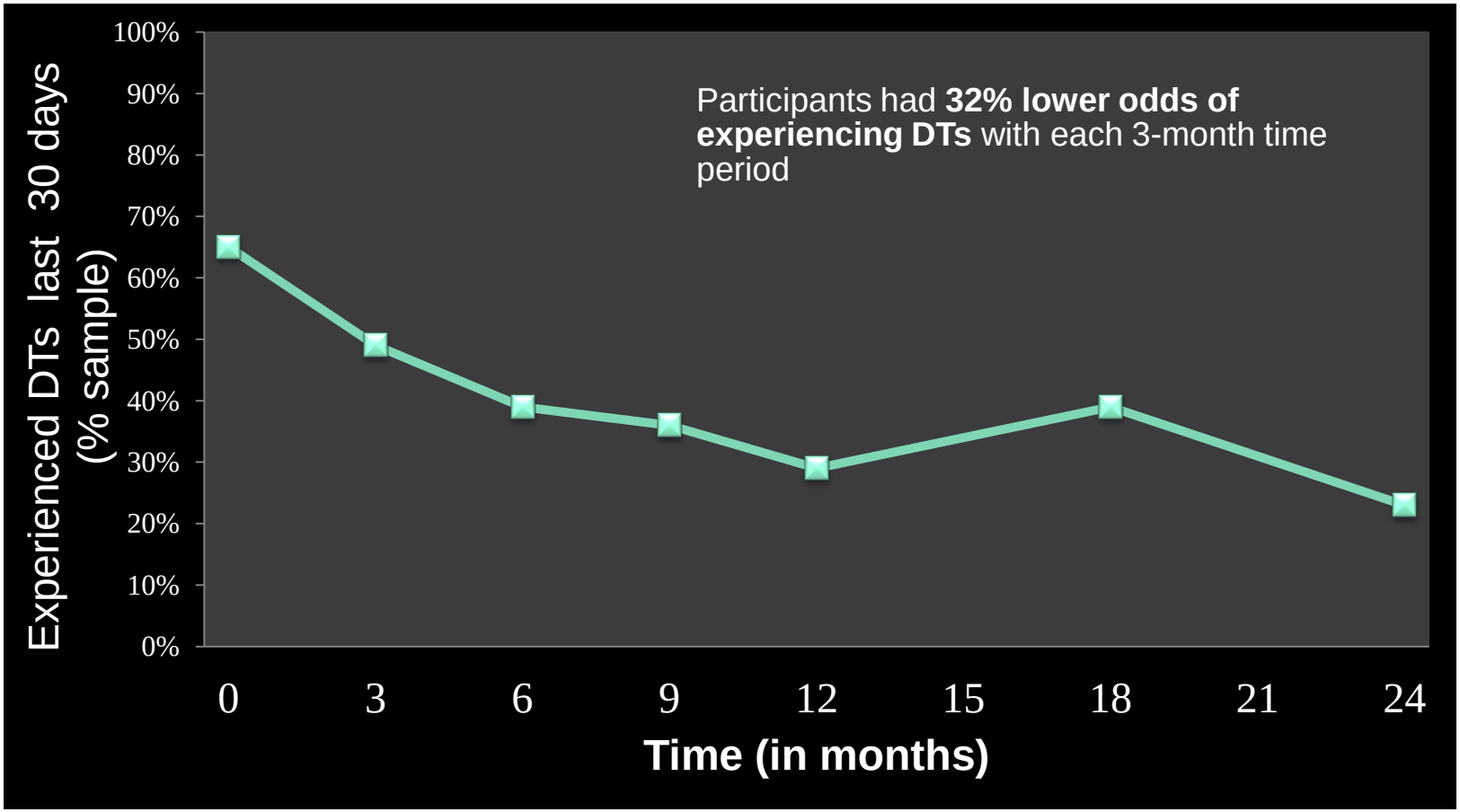
Increases in non-intoxication days



χ^2 (4, *N* = 95) = 15.29, *p* = .004
Time: OR=1.15, *SE*=.08, *p*=.04
HF exposure (mos): OR=1.07, *SE*=.03, *p*=.01

1811 Eastlake

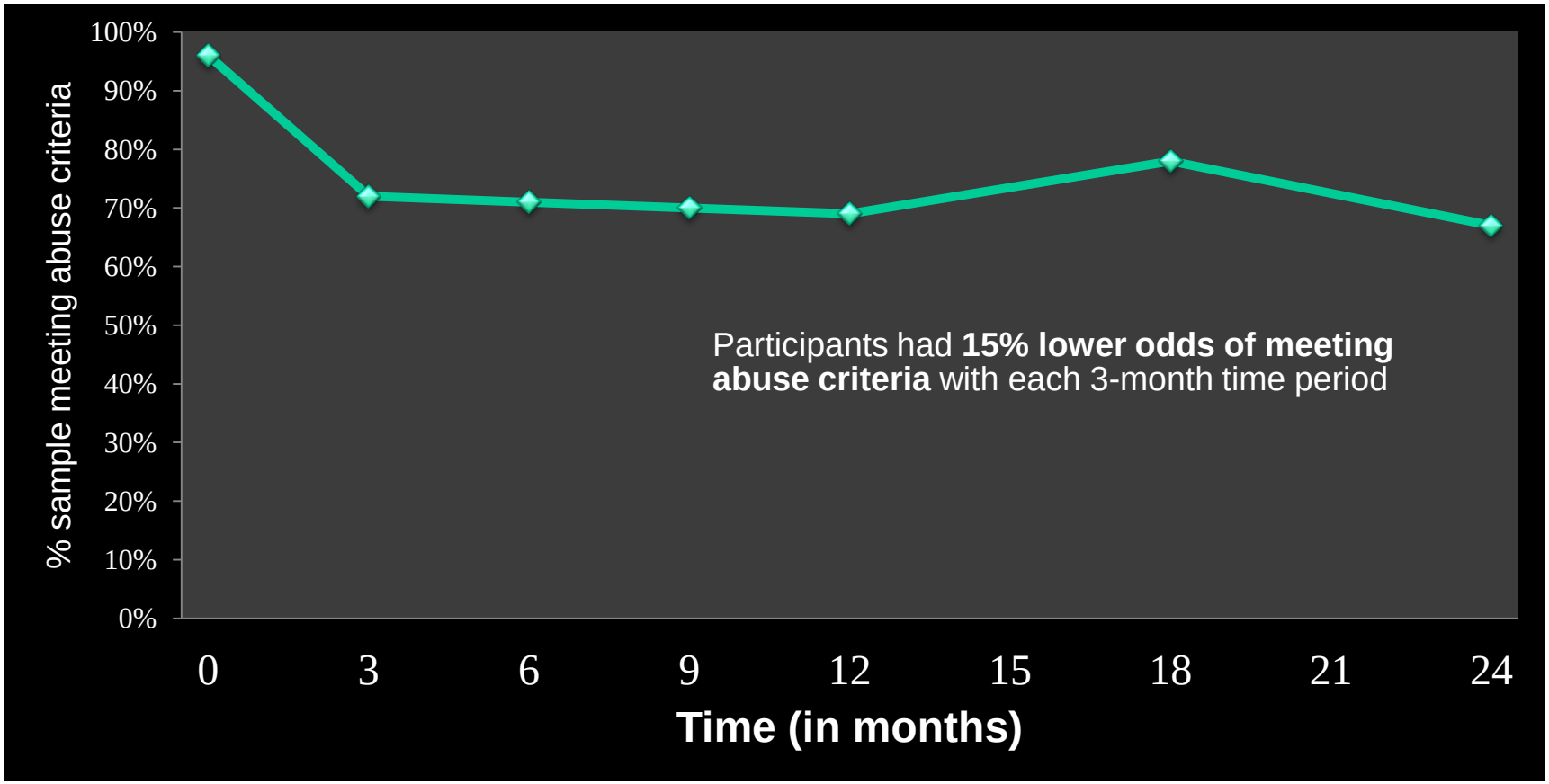
Decreases in DTs



$\chi^2(4, N = 95) = 37.91, p < .001$
Time: OR=.68, *SE*=.05, *p*<.001
HF exposure (mos): OR=.89, *SE*=.04, *p*=.006

1811 Eastlak

Decreases in alcohol abuse



$\chi^2(4, N = 94) = 24.53, p < .001$
Time: OR=.85, *SE*=.05, *p*=.002
HF exposure (mos): OR=.94, *SE*=.02, *p*<.001

Access to housing: Who gets in?

Methods:

- **Wait-list with standard rule-outs**
- **“Readiness” approach**
- **Targeted recruitment:**
  - **High utilizers**
  - **Most vulnerable**

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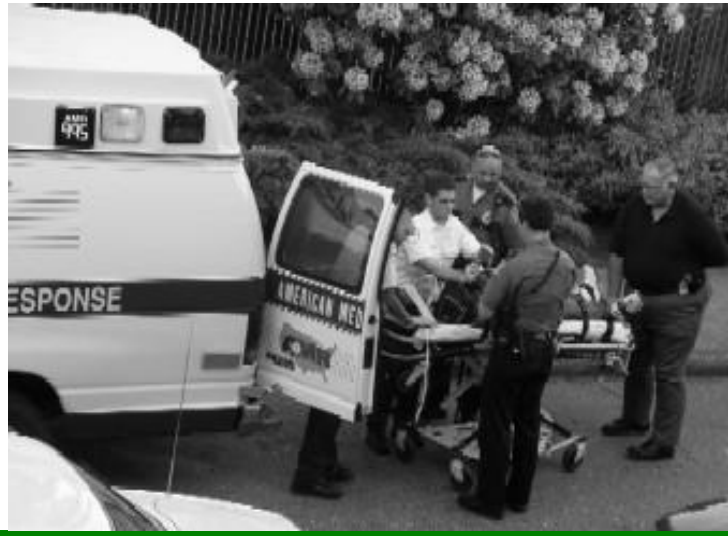
High utilization approach

- frequent use of hospital, jail, other institutions
- "Million Dollar Murray" (2006)
- DESC's 1811 Eastlake
- Political power in using this method
- Flaws
  - diminishing return
  - ignores vulnerability
  - privacy rules



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Vulnerability Approach

- some individuals with high needs don't use crisis systems much

- intent: determine an objective rating of an individual's vulnerability to continued instability

- developed Vulnerability Assessment Tool in 2003 to allocate limited shelter beds

- began using as primary method for housing selection in 2005

Housing is Prevention and Healthcare: The Case of HIV/AIDS

Angela A. Aidala, PhD

Columbia University Mailman School of Public Health
Columbia Homelessness Prevention Center

CSH Health Care Webinar Series
June 9, 2011

INTRODUCTION

The goals of this presentation are to:

- Examine the role of housing – or lack of housing – as a source of ill health and health disparities
- Consider the relationship between housing and HIV/AIDS as a case in point
- Review findings from NYC and national studies for evidence of the potential of providing housing as a health promoting and cost saving intervention
- Discuss implications for housing as a structural intervention to improve the health of individuals and communities

Housing as Structural Factor

- Increasing evidence directs attention to the role of housing – or lack of housing - for the continuing HIV epidemic and associated health disparities
- **Housing is a structural factor** - an environmental or contextual influence that affects an individual's ability to avoid exposure to health risks, or avail of health promoting resources
- Housing is unique as a contextual factor within which we live our lives – but also manifestation of broader, antecedent, structural processes of inequality and marginalization that are fundamental drivers of HIV vulnerability and poor outcomes among the infected

Examining the Evidence

- **Review findings from NYC and national studies conducted by Columbia researchers**
- **National Housing and HIV/AIDS Research Summit Series**
- **Search of published research literature**
  - Pubmed and Medline – major data bases for medical / public health research
  - Search terms: (Housing or homelessness) and (HIV or AIDS)
  - Peer-reviewed research articles published 2005 to present

Housing & HIV Epidemiology

The patterns of disease and risk for disease and death in a population

Homelessness - a major risk factor for HIV infection

- Rates of HIV infection are 3 - 16 x higher among persons who are homeless or unstably housed compared to similar persons with stable housing
- 3% to 14% of all homeless persons are HIV positive (10 x the rate in the general population)
- Over time studies show that among persons at high risk for HIV infection due to injecting drug use or risky sex, those without a stable home are more likely than others to become infected

HIV- a major risk factor for homelessness

- 50% to 70% of all PLWHA report a lifetime experience of homelessness or housing instability
- 10% to 16% of all diagnosed PLWHA are literally homeless - sleeping in shelters, on the street, in a car, or in an encampment
- Twice as many are unstably housed, have housing problems, experience threat of housing loss
- In general, medical conditions and medical costs are associated with housing problems – can't pay rent, foreclosure

Rates of Housing Need Remain High

As some persons get their housing needs met others develop housing problems

-- Loss of income due to progressive inability to maintain employment

-- Growing disparities between income and rent requirements

-- Relationship breakup including leaving abusive situations

-- Loss of spouse/partner to HIV related death or disability

-- Loss of shared housing options with disclosure of HIV

-- Disease progression requiring accessible facilities

-- Policy requirements that limit residency in publicly funded housing

Housing & HIV Prevention

Factors increasing or decreasing risk for disease

Housing status predicts HIV risk

- Multiple studies have shown a strong and consistent relationship between housing status and sex and drug risk behaviors
- Ex: Homeless or unstably housed PLWHA are 2 to 6 x more likely to use hard drugs, share needles or exchange sex than stably housed persons with the same personal characteristics and service use patterns
- Prevention interventions are much less effective for participants who are struggling with housing issues
- Studies show a ‘dose-relationship’ with the homeless at greater risk than the unstably housed, and both of these at greater risk than those with stable secure housing

Example:

ODDS OF RECENT HARD DRUG USE

	NYC SAMPLE		NAT'L SAMPLE	
	Rate	Adjusted Odds Ratio[1]	Rate	Adjusted Odds Ratio[1]
STABLE HOUSING	21%		16%	
UNSTABLE HOUSING	37%	1.60	35%	2.05
HOMELESS	53%	3.45	64%	5.54

[1]Odds of needle use past 6 mos by current housing status controlling for demographics, economic factors, risk group, health status, mental health, and receipt of health and supportive services

Note: All relationships statistically significant $p \leq .01$

Housing is HIV Prevention

- Overtime studies show a strong association between change in housing status and risk behavior change
- Ex: PLWHA who improved housing status reduced sex and drug risk behaviors by half while persons whose housing status worsened are 2- 4 x as likely to exchange sex, have multiple partners
- Risk reduction associated with housing controlling for socio-demographics, drug use, mental health, health status, and receipt of health and supportive services
- Access to housing also increases access to appropriate care and antiretroviral medications which lowers viral load and reduces risk of transmission

PREDICTING T2 HARD DRUG USE

NATIONAL MDI SAMPLE

	Started Drug use	Stopped Drug use	Adjusted Odds Ratio T2 Drug Use[1]
NO CHANGE	7%	6%	
IMPROVED HOUSING	2%	12%	0.47
WORSE HOUSING	9%	5%	1.38

[1] Odds of Time 2 drug use by change in housing status controlling for Time 1 drug use, Time 1 housing status, demographics, economic factors, risk group, health, mental health, and receipt of health and supportive services

Note: All relationships statistically significant $p \leq .01$

Housing & Health Care Outcomes for PLWHA

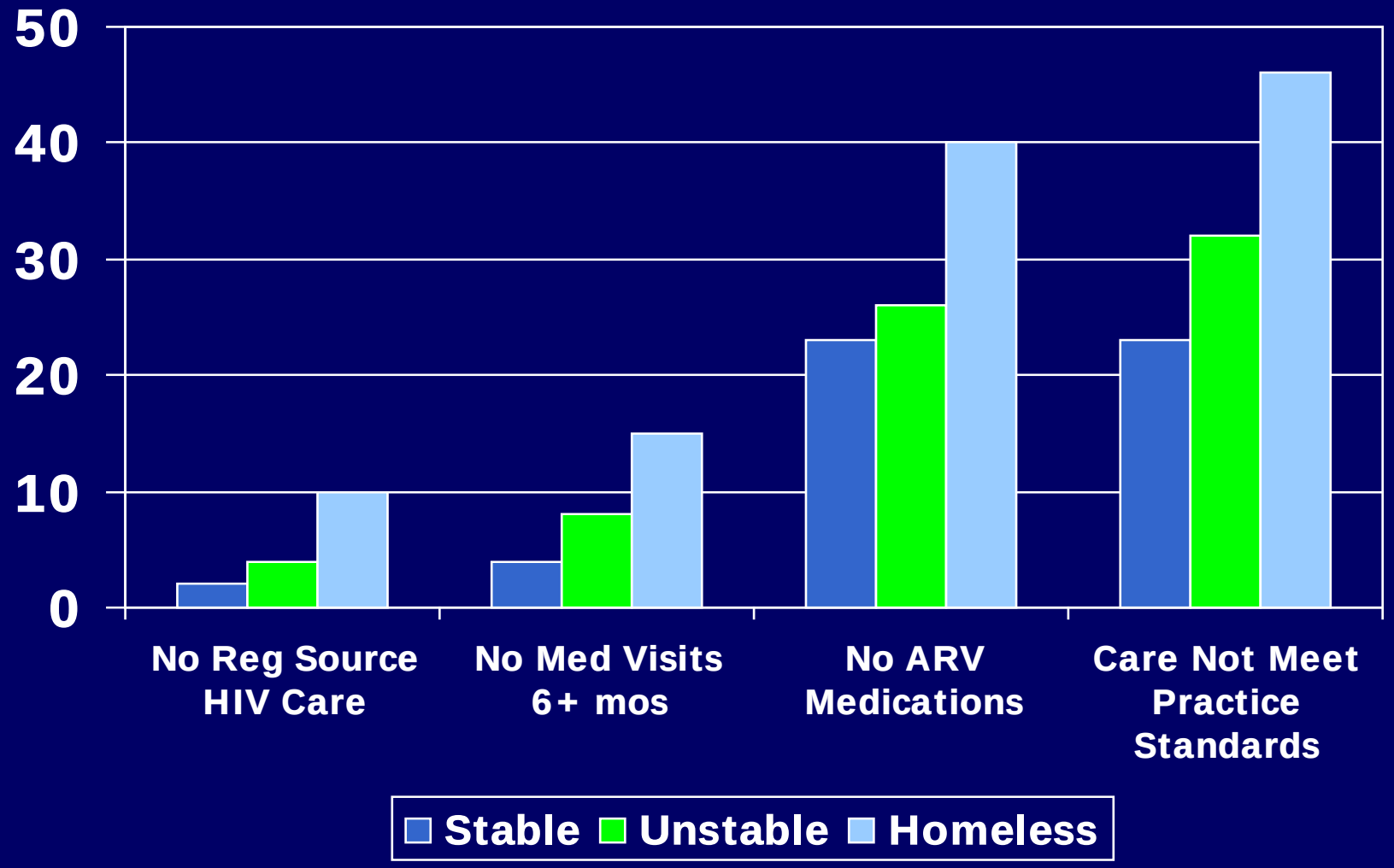
Lack of stable housing = lack of treatment success

- Homeless PLWHA compared to stably housed:
  - More likely to delay entry into care and to remain outside or marginal to HIV medical care
  - Worse mental, physical & overall health
  - More likely to be hospitalized & use ER
  - Lower CD4 counts & less likely to have undetectable viral load
  - Fewer on recommended ARV medications
  - Less adherent to treatment regimen

Housing Status Predicts Access and Maintenance in Health Care

- Homeless/unstably housed PLWHA whose housing status improves over time are:
  - more likely to report HIV primary care visits, continuous care, care that meets clinical practice standards
  - more likely to return to care after drop out
  - more likely to be receiving HAART
- Housing status more significant predictor of health care access & outcomes than individual characteristics, insurance status, substance abuse and mental health co-morbidities, or service utilization

Housing & Connection to Medical Care:
NYC PLWHA



Access to Medical Care: NYC PLWH

	Any Medical Care	Appropriate Clinical Care
HOUSING NEED	(0.78)	**0.74 *****
HOUSING ASSISTANCE	**2.20 *****	**1.45 *****
Low mental health functioning	(0.86)	**0.80 ****
Current problem drug use	(0. 84)	**0.77 *****
Mental health services	**1.94*****	**1.38 *****
Substance abuse treatment	(0.91)	**1.25 ***
Medical case management	(1.40)	(1.10)
Social services case management	**2.30*****	**1.66 *****

Adjust odds ratios also controlling for age, ethnicity income, poverty neighborhood, risk exposure group, date of HIV diagnosis, date of cohort enrollment, t-cell count, insurance status.

N=1651 individuals, 5865 observations, 1994 - 2007

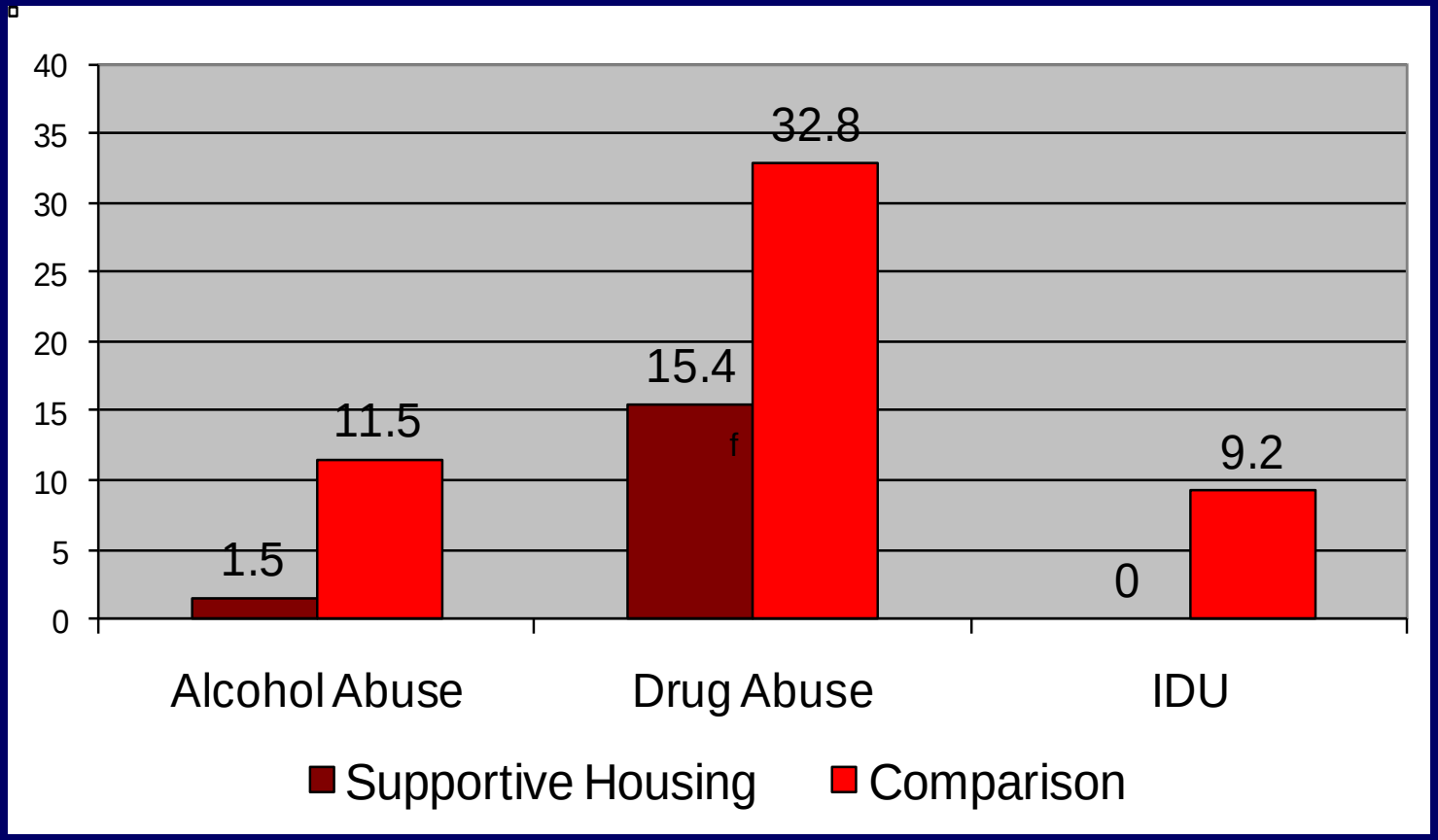
Health of Frequent Users of Jail & Shelter

	%
Physical health conditions	
Hypertension	36%
Asthma	27%
Hepatitis C	27%
Diabetes	15%
Epilepsy	9%
CVD, heart condition	8%
Sickle call anemia	1%
Any chronic condition	71%
Early onset chronic condition	32%
Substance use - mental health	
History of alcohol/ drug abuse	85%
Any mental health diagnosis	66%

NYC CHS FUSE Project, n=162

Reduction in Substance Abuse

Substance Abuse Six months After Baseline*

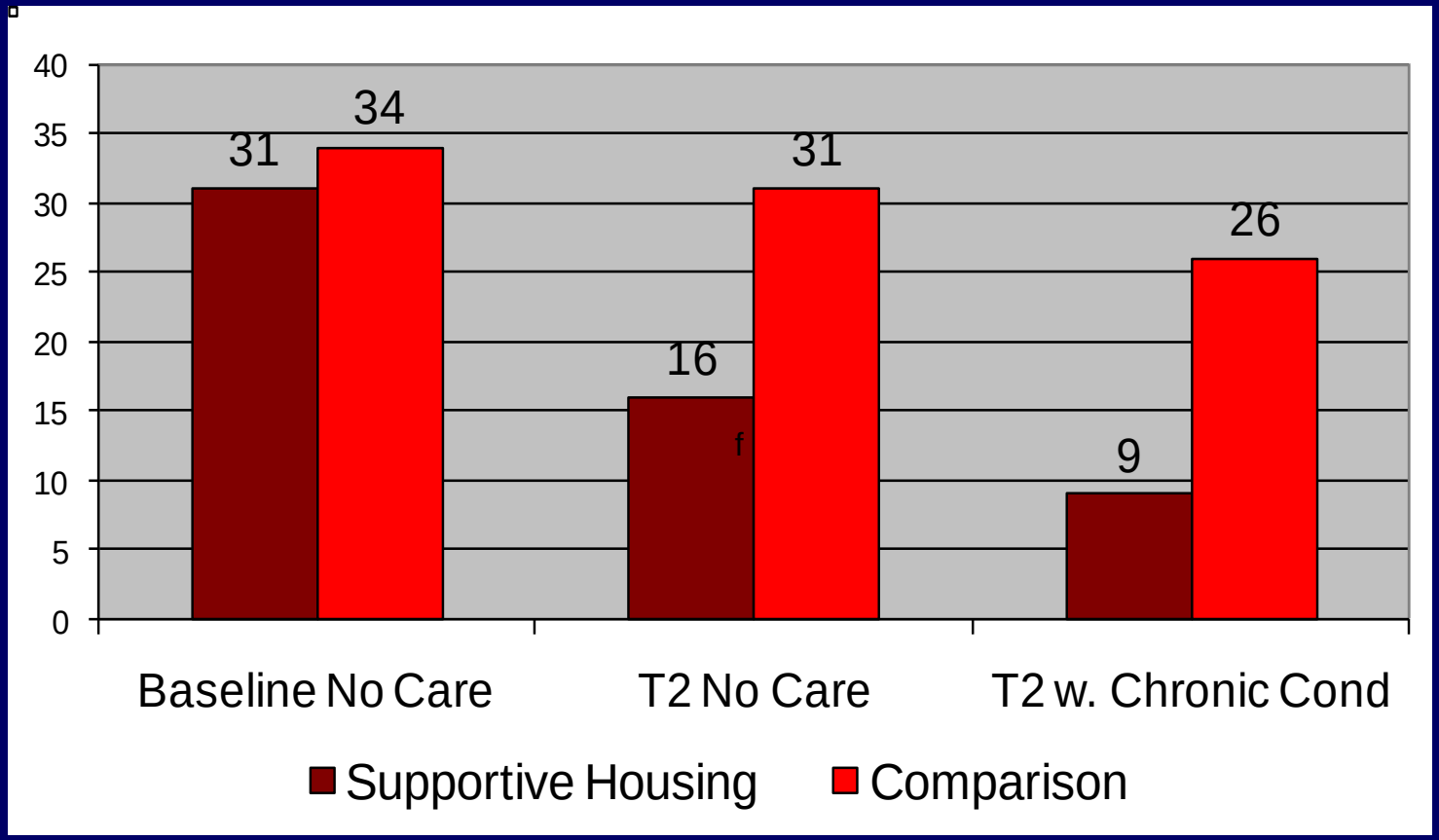


Note: No differences in baseline regarding drug use patterns

* Preliminary findings - Do not quote or cite without express permission.

Engagement with Medical Care

No Regular Source of Medical Care - Baseline and Six Months*



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Explanation of Findings

Direct and Indirect Effects of Housing

- **Lack of stable, secure, adequate housing:**
  - -- Lack of protected space to maintain physical and psychological well-being
  - -- Constant stress producing environments and experiences
  - -- Neighborhoods of disadvantage and disorder
  - -- Compromised identity and agency
  - -- Press of daily needs - barrier to service use when available
  - -- Transiency - barrier to stable sources of social support
  - -- Structuring the private sphere – lack of housing is barrier to forming stable intimate relationships

Policy & Practice Implications

- Data show strong relationship between housing and health risk and medical care outcomes, regardless of other personal characteristics, health status, or service use variables
- Improving access to housing is a promising structural intervention to reduce the spread of HIV as well as improve the lives of persons with HIV and the communities in which they live – likely effect on other health challenges as well
- Housing is a strategic target for intervention by addressing more proximal consequences of broader economic, social, political or policy barriers that affect prevention and health care
- Expensive but offset by social and economic costs of poor health, inappropriate medical treatment, and treatment failure among growing numbers of persons with serious health concerns who also struggle with housing issues

HOUSING IS PREVENTION AND CARE

SIXTH FLOOR BATHROOM, ARANDA HOTEL, SAN FRANCISCO, Richard Ranaldi, 1999

Special thanks to The Bridge Project, Lutheran Social Services of Northern California, San Francisco, in recognition of its efforts to bring housing and medical care to people living with HIV/AIDS.

ACKNOWLEDGEMENTS

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- The national, multi-site research project is an inter-agency collaboration between the U.S. Health Resources and Services Administration (HRSA), Special Projects of National Significance (SPNS) Program, and the U.S. Department of Housing and Urban Development (HUD), Housing Opportunities for Persons with AIDS (HOPWA) Program of the Division of HIV/AIDS Housing.

- Additional funding for risk behavior analysis, and the Housing & Health Study was provided by the Behavioral Intervention Research Branch, Division of HIV/AIDS Prevention, National Center for HIV, STD, and TB Prevention; U.S. Centers for Disease and Prevention (CDC)

- The FUSE study is funded by Corporation for Supportive Housing (CSH) with grants from the JEHT and Langeloth Foundations.

- The contents are solely the responsibility of the Researchers and do not necessarily represent the official views of the U.S. Health Resources and Services Administration, HUD, CDC, the City of New York, PHS or CHS.

Supportive Housing Reducing Medicaid Costs and Improving Health Outcomes:

A Review and Update of the Evidence

CSH Health Care Webinar Series
June 9, 2011
www.csh.org

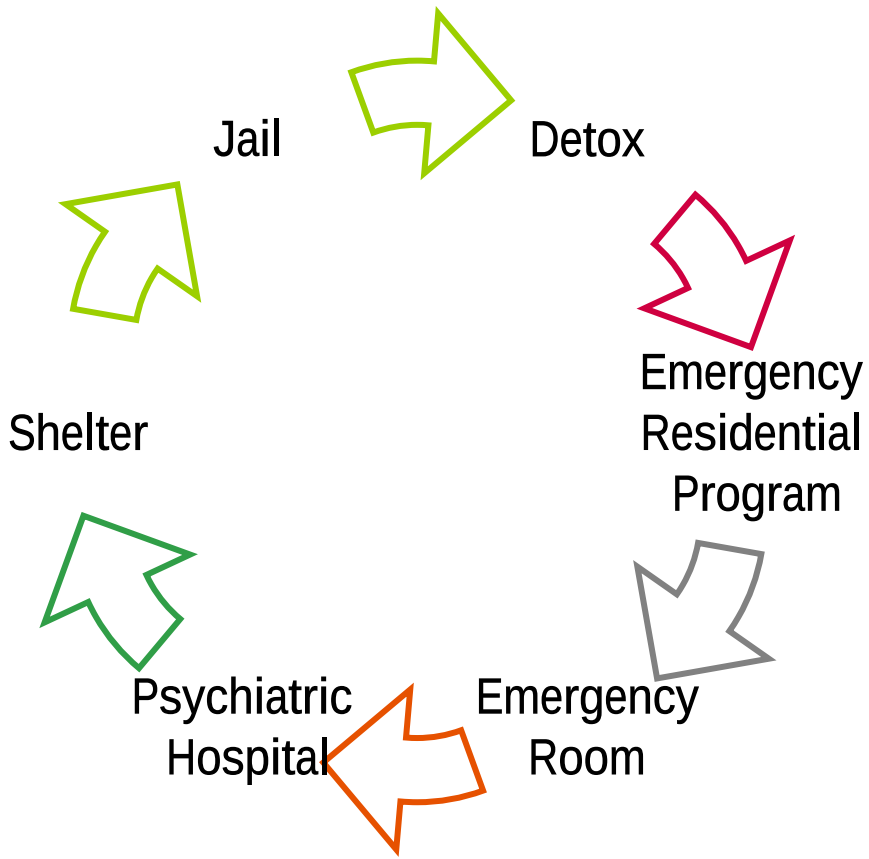
What Is Supportive Housing?

A cost-effective combination of permanent, affordable housing with services that helps people live more stable, productive lives.

Who does Supportive Housing Serve?

- Supportive housing serves people with long histories of homelessness, serious mental illness, substance abuse issues, and chronic health conditions.
- While homeless, these individuals often cycle through costly services in the homeless, health care, and criminal justice systems.
- Health care for this population is crisis-driven, without connection to ongoing preventative care, resulting in poor health outcomes at a high price.

The Institutional Circuit of Homelessness and Crisis Health Care



- The “institutional circuit”:
  - Indicates complex, co-occurring social, health and behavioral health problems
  - Reflects failure of mainstream systems of care to adequately address needs
  - Demands more comprehensive intervention encompassing housing, intensive case management, and access to responsive health care

Supportive Housing Reduces Use of Crisis Health Services

Percentage Reduction in ER Visits and Hospitalizations

	ER Visits	Hospital (Admissions/Days)	Time Horizon of Study
San Francisco, CA	56%	44% (admissions)	1 year pre/post
Denver, CO	34%	40% (days)	2 years pre/post
Portland, ME	62%	38% (admissions)	1 year pre/post
Portland, OR	87%	58% (days)	1 year pre/post

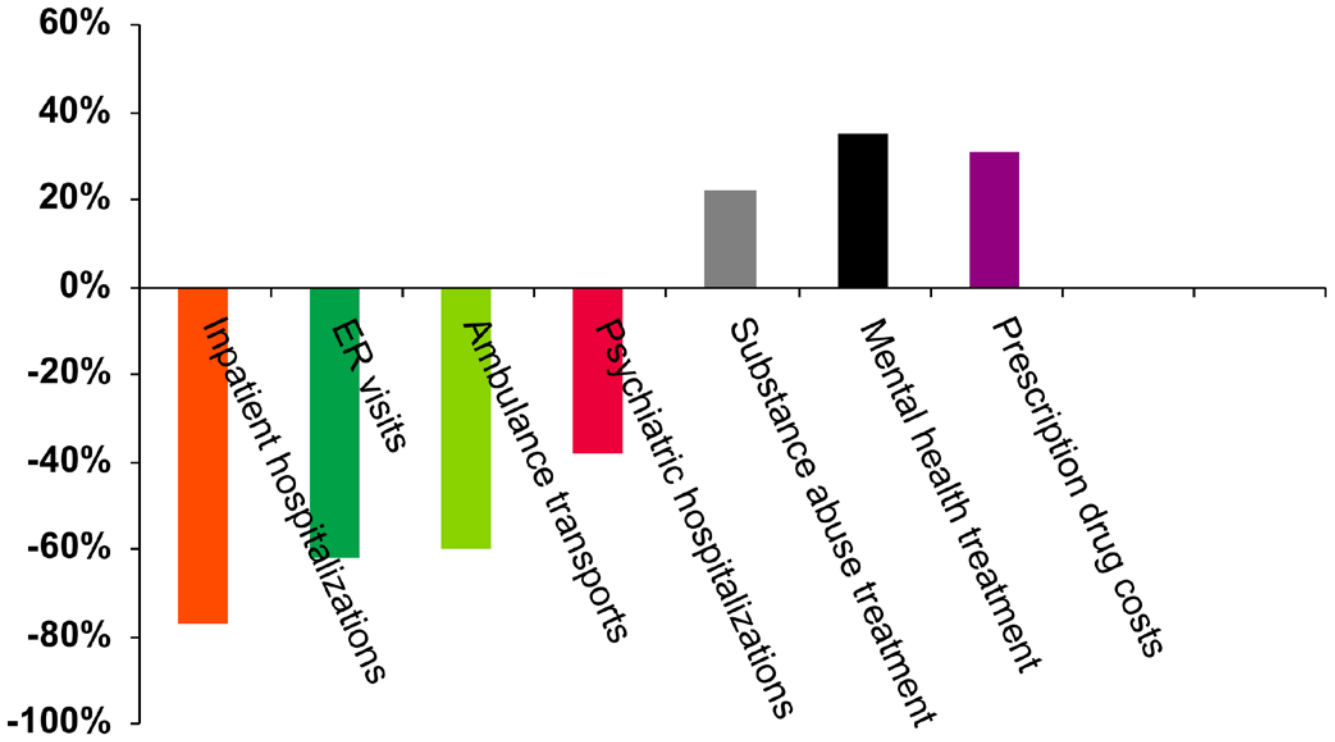
Supportive Housing Reduces Use of Crisis Health Services, cont.

Studies show reductions in other types of health services:

- 82% fewer detox visits (Denver)
- 87% fewer sobering center admissions (Seattle)
- 45% fewer nursing homes days (Chicago)

Supportive Housing Increases the Use of Routine and Preventative Care

Impact on Health Services Utilization in Portland, ME
(% change after 1 year)



Supportive Housing Reduces Health Care Costs

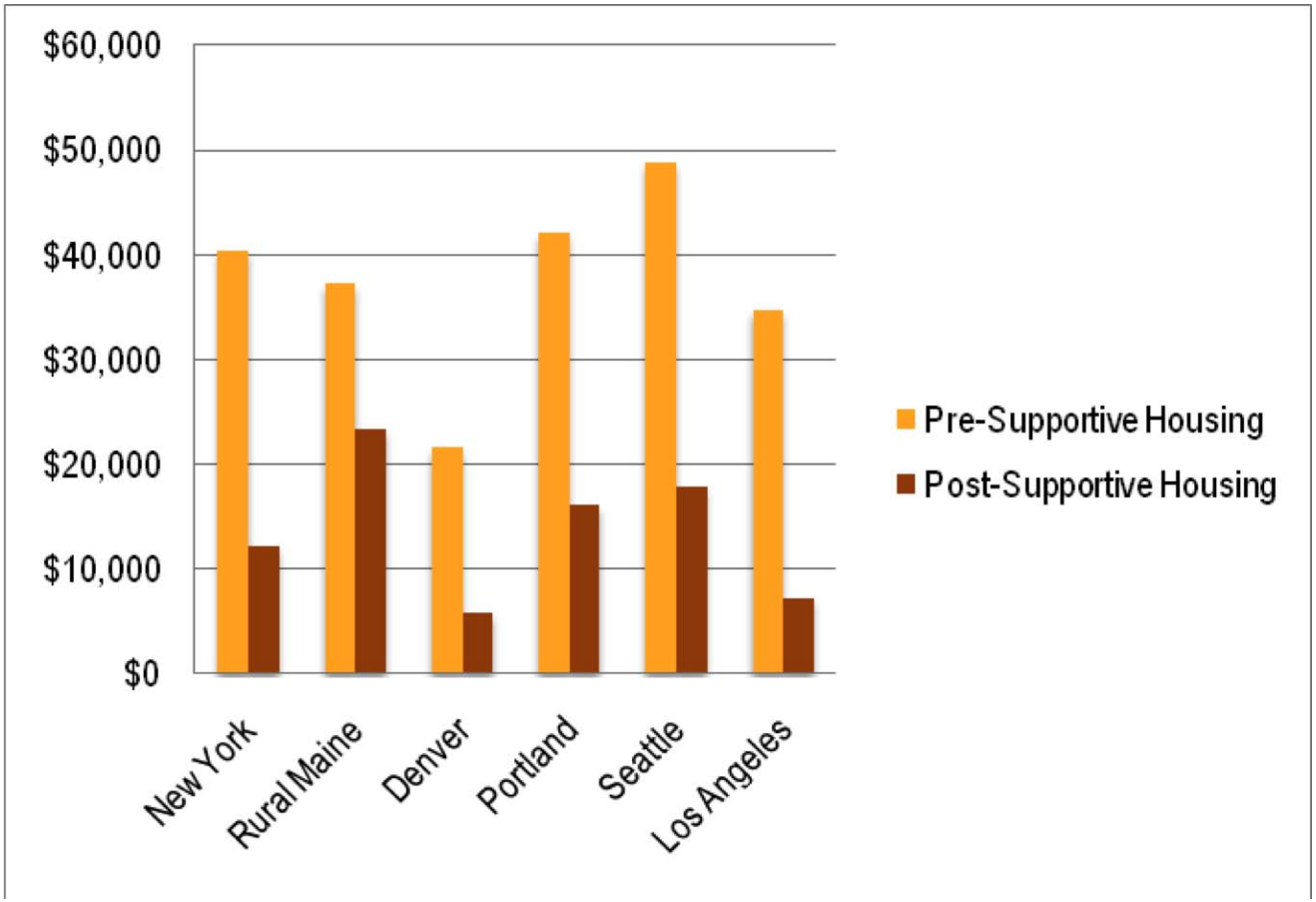
- In Massachusetts, mean per person Medicaid costs went from $26,124 before entering supportive housing to $8,499 afterward. Including the cost of the intervention, the intervention saved $8,949 per person (6 mos pre/post).
- In Los Angeles, a study comparing supportive housing residents to a similar group of homeless individuals found that supportive housing reduced public service costs by 79 percent.

Supportive Housing Reduces Health Care Costs, cont.

- In the Chicago Housing for Health Partnership study, fewer nursing home days (5,900 days for program group compared to over 10,000 for control group) resulted in **reduced costs of over $500,000**.

Supportive Housing Reduces Costs to Other Systems

Per-Person Annualized Cost of Public Services Before and After Entering Supportive Housing



Supportive Housing Ends Homelessness

Supportive Housing greatly increases housing stability for formerly homeless people.

Studies show that between 75-85% of those that enter supportive housing are still housed one year later.

The Bottom Line

- “Standard care” emergency responses to chronic homelessness are very costly
- Investments in supportive housing will significantly reduce the use of crisis health services and improve access to routine and preventative care.
- The net cost of achieving much better outcomes is relatively small

To learn more about supportive housing

visit www.csh.org