

**State of Illinois
2009 – HIV/STD Conference
Springfield – September 2009**

**Impact of Supportive
Housing on
Health Care Service
Utilization**

Arturo V. Bendixen
AIDS Foundation of Chicago



Presentation

- **Description - Research Design**
- **Participants: Who Were They?**
- **Description - Intervention Design**
- **Outcome Results**

Chicago Housing for Health Partnership

- CHHP
- 4 year research and demonstration project
- September 2003 – December 2007
- 405 participants
- First demonstration project of Chicago's Plan to End Homelessness

Research Design

- Random Control Trial
- Recruitment and Consent at hospitals as inpatients
- Random assignment at hospital

Criteria for Participation

- Homeless – no where to go from hospital
- Adult – 18 years or older
- English or Spanish speaking
- Diagnosed with at least one chronic illness most common among the homeless
- Capacity to give consent
- Capacity to self-care in housing program

CHHP Participants

June 30, 2006 – Final Enrollment

- **Intervention: 201**
- **Usual Care: 204**
- **TOTAL: 405**

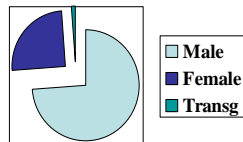


Usual Care

- Usual service and discharge by hospital social work department
- Some go to shelters
- Some to nursing homes since there is no other adequate discharge option
- Others to the streets.....

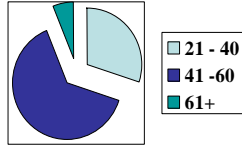
Participant Gender

- Male
76%
- Female
23%
- Transgender
1%



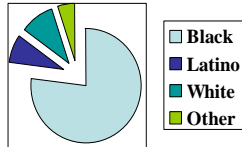
Participant Age

- 21 to 40 years
30%
- 41 to 60 years
64%
- 61+ years
6%
- Median: 46 years



Participant Race / Ethnicity

- AA / Black
78%
- Hispanic / Latino
8%
- Caucasian / White
9%
- Other
5%



Demographics

- Older African American male population – 70% +
- Reflects the single adult homeless population in the City of Chicago

Intervention Group **Top Multiple Diagnoses**

HIV/AIDS		34%
Hypertension		33%
Cardiovascular Diseases		14%
Pulmonary Diseases		18%
Diabetes		14%
Gastrointestinal / Liver		6%
Seizure Disorders		8%

Long-Term Homelessness



- Long-Term Homelessness (HUD)
 - 70%
- Short-Term Homelessness
 - 30%

Substance Use History



- Assessed with Long Term History
 - 71%
- Estimated with Long-Term History
 - 86%

Mental Illness History



- Diagnosed with Long Term History
 - 31%
- Estimated with Long-Term History
 - 46%

CHHP Project Design



- Hospital
- Respite Program
- Permanent Housing



Intervention Design

- Supportive Housing – variety of models
- Intensive Case Management – 15:1 ratio
- “Housing First” approach
- “Harm Reduction” models



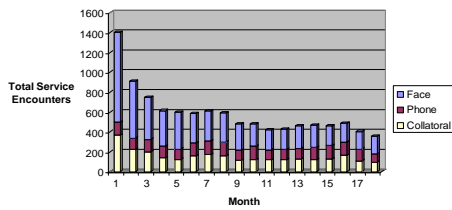
Systems Integration Team of Case Managers

Serving the Intervention Group



- Hospital: 2 case managers
- Respite Programs: 3 case managers
- Housing: 11 case managers
- Coordination: 1 coordinator

Case Management Services



How Many Housed?

18 months / Intervention Group

- Placed in supportive housing: 145 - 72%
 - Disengaged after intake: 26 - 13%
 - Did not reach housing: 30 - 15%
- 201

- Engaged participants housed: 83%

Use of Interfaith House Respite Care Program

- 122 Study participants used Interfaith House:
 - Intervention: 87
 - Usual Care: 35
- Usual care participants stayed an average of 18 days longer

Total Cost for Intervention

1 participant @:

	<u>Annual</u>
• Housing:	\$7,200
• Services:	\$4,715
Total:	\$11,915

Chicago Housing for Health Partnership Findings of a Randomized Controlled Trial of Supportive Housing and Case Management for Homeless Adults with Chronic Medical Illness

Laura Sadowski and Romina Kee,
Collaborative Research Unit
Cook County Hospital (Stroger)
and
David Buchanan,
Erie Family Health, Chicago

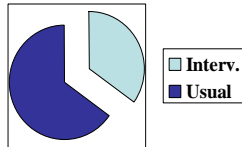
JAMA
May 6, 2009

How did we get the information (data)?

- Interviews at baseline (enrolled in hospital)
- Follow-up interviews at 1,3,6,9,12, and 18 m
- Hospital electronic records (study hospitals)
- Medical records (outside hospitals, 66 hospitals)
- Internet data bases (incarceration, deaths)

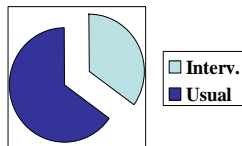
Hospital Days

- Intervention
Group: 2.7 fewer days than the Usual Care Group



Emergency Room Visits

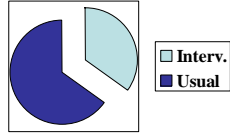
- Intervention
Group: 1.2 fewer visits than the Usual Care Group



Nursing Home Days

- Intervention
Group: 37%

- Usual Care
Group: 63%



Study Results: Nursing Homes

18-month Follow-up:
CHHP Usual Care

Nursing home:	19%	27%
Nursing home days:	5,909	10,044

Difference is NOT statistically significant, yet important

Chicago Housing for Health Partnership: HIV Outcomes

David Buchanan MD MS, Romina Kee MD MPH,
Laura Sadowski MD MPH,
Diana Garcia MPH

HIV Outcomes: Hypothesis

Providing permanent housing and intensive case management to hospitalized HIV+ homeless patients will improve their survival with an intact immune system one year later



HIV Outcomes: Methods

- Inclusion: CHHP enrolled at Stroger Hospital and HIV+
- 1 year later - CD4 count & Viral load
- 1^o Endpoint – Survival with intact immunity
 - Alive with CD4 > 200 and Viral Load < 100K

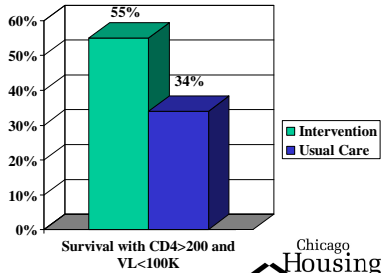


HIV Outcomes Participants

- 105 Eligible in CHHP
- HIV+ Stroger Hospital enrollees

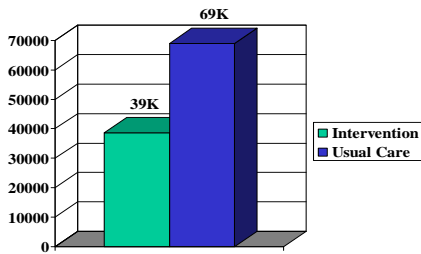


Survival with intact immunity



Chicago Housing for Health Partnership

Viral Load (Mean)



Chicago Housing for Health Partnership

CHHP HIV Outcomes Summary

	Intervention	Usual Care	P-Value
Survival with intact immunity	55%	34%	0.04
CD4 Counts (mean)	271	246	0.23
Viral Loads	39K	69K	0.03
Undetectable VL	40%	21%	0.051
