

# A Comparison of Health Care Use by People Experiencing Sheltered and Unsheltered Homelessness



Centered in Care  
Powered by Pride

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# Research Questions

- How do individuals sleeping rough compare to those using shelters?
- How do these two subgroups differ based on:
  - Any use of JPS health services
  - Use of individual JPS service sectors (emergency, urgent care, outpatient, inpatient)
- Identify predictors of service utilization using Behavioral Model for Vulnerable Populations<sup>4</sup>

# Background

- Previous research has examined the use of health services by people experiencing homelessness
- Many rely on people sleeping in shelters or retrospective studies of individuals residing in housing
- Few examine the service use of people sleeping rough (unsheltered) and fewer compare unsheltered and sheltered subgroups<sup>2</sup>
- Findings indicate that these groups use services similarly<sup>1-3</sup>
- However, as expected, these studies possess limitation<sup>2,3</sup>

# Study Setting

- North Central Texas
- Dallas Fort Worth (DFW) Metroplex (4<sup>th</sup>) – 7.1 million
- Fort Worth (16<sup>th</sup>) – 854,000<sup>5</sup>
- Tarrant County (16<sup>th</sup>) – 2 million<sup>6</sup>
- Point In Time Count 2018<sup>7</sup>
  - Tarrant County – 2,015 (678 unsheltered)
- 3 Emergency Shelters – only 2 using HMIS database

# JPS Health Network

## Health Network Hospital System

- Publicly Funded
- Only Level 1 Trauma Center
- Only Psychiatric Emergency Center
- Comprehensive Level 1 Stroke Center
- 17 Residency & Fellowship Programs
- 40+ Primary & Specialty Health Centers
- 6,500 Team Members
- Licensed for 589 beds
- 196,454 Unique Patients

# JPS Health Network

## Homeless Health Care Services

- True Worth Medical Home – *PCMH*
- Care Connections Outreach – *Street Medicine*
- Pathways To Housing – *Collaborative housing model for high ED utilizers with Medicaid*
- Recuperative Care Program – *Respite care*
- Academics – *Family Medicine Residency Street Medicine Track with 4<sup>th</sup> Year option as well as elective rotations; Students*
- Research – *Collaborative research efforts with JPS, TCU, & UNT*

# JPS Health Network

## JPS Connection Homeless Program

- Financial assistance for medical care for people experiencing documented homelessness and without any income
- Payer of last resort
- Good for one year
- Only covers costs at JPS
- No copayments
- Near total access to all health care at JPS
- 5 free prescriptions/month

# Methods

- Retrospective, community-based study
- Approved by JPS and TCU IRB's
- Identified participants using 2015 annual Point-In-Time count of homelessness using HUD & VI-SPDAT
- Local CoC agency conducting count furnished personal identifying information for individuals identified through count to JPS Research Institute
- JPS then linked count records to JPS health records using iterative, deterministic method<sup>8</sup>
- Evaluated official health records for the 24 months prior to the homeless count (January 2013 – January 2015)



# Methods – Data Sources

- Point-In-Time count
  - Name
  - Birthdate
  - Social Security Number
  - Times homeless in last year
  - Months of current episode
  - Assessment of chronic homelessness
  - Chronic health problem
  - Mental health problem
  - Substance use disorder
  - Veteran status
- JPS Health Records
  - ED, Urgent Care, and outpatient visits
  - Inpatient admissions
  - Length of stay
  - Health service charges
  - Payer information
  - Age
  - Gender
  - Race
  - Ethnicity

# Methods

- Logistic regression models using IBM SPSS ver. 22
  - Dichotomous dependent (yes/no) variables – any service use, ED use, urgent care use, outpatient use, and inpatient use
  - Independent variables conceptualized using literature and Behavioral Model

| Need Factors             | Enabling Factors | Predisposing Factors |
|--------------------------|------------------|----------------------|
| Chronic health condition | Insurance        | Age                  |
| Mental health condition  |                  | Gender               |
| Substance use disorder   |                  | Race                 |
|                          |                  | Chronically Homeless |
|                          |                  | Sheltered status     |

- Used step-wise and simultaneous approaches for regression analyses
- Chi-square, t-test, and Mann-Whitney *U* tests
- Results did not differ, presenting simultaneous results

# Results

740 total unduplicated individuals:

- 91%/9% sheltered/unsheltered
- 66% predominantly male
- 53% African-American & 39% Caucasian
- Mean age 50 years old
- 5% report prior military service
- 32% report chronic health condition
- 38% report mental health problem
- 7% report substance use disorder
- Mean current homelessness episode = 33.8 months
- Mean times homeless in last three years = 2.8

# Results

|   | SHELTERED | UNSHELTERED |
|---|-----------|-------------|
| AGE*                                      | 49.1      | 45.9        |
| MALE*                                     | 63.6%     | 75.4%       |
| AFRICAN AMERICAN                          | 55.4%     | 27.5%       |
| CAUCASIAN**                               | 36.6%     | 63.7%       |
| REPORTED A SUD***                         | 5.5%      | 17.4%       |
| EPISODES OF HOMELESSNESS***               | 32 months | 51.5 months |
| EPISODES OF HOMELESSNESS IN LAST 3 YEARS* | 2.4yrs    | 3yrs        |
| CHRONIC HOMELESSNESS                      | 36.4%     | 64.1%       |
| HEALTH CARE COVERAGE*                     | 64.1%     | 50.7%       |

\* $P < .05$  \*\* $P < .01$  \*\*\* $P < .001$

# Results

- 84% of all participants accessed JPS services in prior 24 months
  - 61% ED
  - 66% outpatient
  - 48% urgent care
  - 30% inpatient
- Unsheltered significantly ( $P<.05$ ) more likely to access any service (**94.2%, 83.5%**) and ED services (**72.5%, 59.8%**)
- Unsheltered rates significantly higher for ED (**4.41, 3.03**  $P<.05$ ) and outpatient (**13.46, 5.7**  $P<.01$ ) over 2yrs
- 11% were identified as high ED utilizers (>8 visits in 24month)
  - Accounted for 32% of all services used and 35% of all charges

# Results

|                            | Any Use | ED Use | UC Use | OP Use | IP Use |
|----------------------------|---------|--------|--------|--------|--------|
| Age (P)                    |         |        |        |        |        |
| Gender (P)                 |         |        |        |        |        |
| Race (P)                   | X       |        |        |        |        |
| Chronic Homelessness (P)   | X       |        |        | X      | X      |
| Unsheltered (P)            |         |        |        |        |        |
| Insurance (E)              |         | X      |        | X      |        |
| Chronic Health Problem (N) | X       | X      | X      | X      | X      |
| Mental Health Problem (N)  |         | X      | X      |        |        |
| Substance Use Disorder (N) |         |        |        |        |        |

P = Predisposing Factor   E = Enabling Factor   N = Need Factor

# Discussion

- Our findings confirm that people experiencing homelessness are frequent users of health services:
  - ED – 3.5 times higher than GP (158 per 100 versus 45.1 in GP)<sup>10</sup>
  - Outpatient – 2.2 times higher than GP (321 per 100 versus 147.2 in GP)<sup>11</sup>
- Service use differences were found between sheltered and unsheltered participants in our study:
  - Unsheltered visited ED (*4.41, 3.03*) and OP (*13.46, 5.7*) significantly more often
- Jail-based services should also be examined separately

# Discussion

- Substance use did not predict any service use
  - Did not include substance specific services
  - Substance use reported as low by sample (Unsheltered – 17%, Sheltered – 5%)
  - Possibly underreported due to sheltered intake surveys being administered by staff and unsheltered surveys being administered by unfamiliar volunteers
- Being sheltered or unsheltered was not predictive of service use
- Frequent ED utilizers, consuming a disproportionate amount of services should be studied further



# Strengths

- Community level perspective
- Included sheltered and unsheltered
- Used objective administrative and medical records
- 24 month observation period

# Limitations

- Specific geographical area in North Texas
- Point-In-Time Count – missing data, under/over reporting, etc
- Self-report information collection
- Health service data not collected from other hospitals in area

# Big Take Aways

- Promotes creation or continuation of public health policy and program initiatives that facilitate access to care
- High ED use by unsheltered subgroup indicates need for community-based care with follow-up
- Chronic homelessness should remain a priority population
- JPS Connection is an important resource for non-Medicaid/Medicare eligible individuals
- JPS should evaluate integration of out-patient behavioral health services with ED and Urgent Care

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**THANK YOU!**

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