UNDERSTANDING THE ALLEGHENY COUNTY HOMELESS POPULATION

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Allegheny County Department of Human Services

The Allegheny County Department of Human Services (DHS) is dedicated to meeting the human services needs of county residents, particularly the county's most vulnerable populations, through an extensive range of prevention, early intervention and crisis management and after-care services.

This report was prepared by the Office of Data Analysis, Research and Evaluation (DARE), an office within DHS. DARE supports and publishes research related to the activities of DHS offices, including: Aging; Behavioral Health; Children, Youth and Families; Community Services and Intellectual Disability.

DHS research products are available for viewing and download at the DHS Research and Evaluation webpage at www.alleghenycounty.us/dhs/research.aspx.

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ABBREVIATIONS

ACJ	Allegheny County Jail
Community Care	Community Care Behavioral Health Organization
CYF	Office of Children, Youth and Families
DA	Bureau of Drug and Alcohol Services
DARE	Office of Data Analysis, Research and Evaluation
DHS	Department of Human Services
DPW	Department of Public Welfare
ES	Emergency Shelter
H&H	Bureau of Hunger and Housing Services
HMIS	Homeless Management Information System
MH	Bureau of Mental Health Services
MR	Mental Retardation
OID	Office of Intellectual Disability
OCS	Office of Community Services

GLOSSARY

Operation Safety Net ®

One of the leading programs in Allegheny County that provides outreach and behavioral health services to the chronic, street homeless. Operation Safety Net is part of the Allegheny Engagement Network, a network of providers of services for the chronic, street homeless population in Allegheny County. Operation Safety Net ® is operated by Mercy Behavioral Health, Pittsburgh Mercy Health System and sponsored by DHS.

Penn-Free Bridge Housing

Families and individuals who are homeless (including living in shelters) and are in recovery from an addiction to drugs and/or alcohol can use Penn-Free Bridge Housing for up to one year while receiving services with the goal of securing permanent housing.

Contributors

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Executive Summary

INTRODUCTION

Homelessness is a complex problem that involves many contributing factors including lack of employment, shortage of affordable housing, substance abuse, mental illness, domestic violence and poverty. The Allegheny County Department of Human Services (DHS) has long been committed to reducing the number of chronically homeless individuals and families in the County by trying to address these factors simultaneously.

The "Continuum of Care" approach used by DHS was developed to address the critical problem of homelessness through a coordinated community-based process of identifying needs and building a system to address those needs. This approach is predicated on the understanding that homelessness is not caused merely by a lack of shelter, but involves a variety of underlying, unmet needs—physical, economic and social. As part of this continuum, DHS provides:

- Temporary housing for street and homeless individuals through 12 emergency shelters
- A wide range of income supports
- Rental assistance to families facing eviction
- Bridge and transitional housing for homeless individuals who need temporary assistance while seeking self-sufficiency
- Penn-Free Bridge Housing for individuals and families who have substance abuse problems
- Behavioral health services
- Permanent housing for those who require more intensive assistance

More than 40 providers operate facilities providing housing options to people who find themselves homeless or at risk of becoming homeless. Other agencies offer support services such as case management, treatment, advocacy and financial assistance.

In this report, DHS examined a cohort of homeless individuals to describe the demographic composition and service utilization of the county's homeless population, as well as to quantify the costs associated with their care. DHS and its partner organizations, having identified the people with the highest level of need, will use this information to more efficiently meet these needs.

Executive Summary

KEY FINDINGS

- Homeless individuals in Allegheny County frequently consume public resources and contribute to a measurable and sizable public expense.
- The consumption of mental health services by the homeless has the most impact on the overall costs calculated in this study.
- The total annual cost per individual to serve the homeless population is lower in Pittsburgh than in comparable cities.
- There is a small high-end user population that has expenses beyond what would be typically anticipated. High-end users access more mental health and substance abuse services, and are incarcerated more frequently than the general homeless population. The number of individuals in this high-end user group is manageable for targeted service (less than 100), and the costs associated with their care are sizable enough to offer opportunities for savings.
- Housing and mental health services seem to be frequent and critical components in the lives of the homeless population.

RECOMMENDATIONS

Programmatic

- Target more programs and services to high-end users.
- Create an integrated team of mental health specialists and homeless service providers to develop programs to reduce the cost of services to high-end users.
- Develop longer-term solutions such as targeted housing interventions to increase residential stability and longevity.
- Design prevention and intervention programs for homeless individuals at specific transition points in the system like those leaving jail or individuals who may already be receiving mental health services.

Future Research

- Continue to assess the needs of the Allegheny County homeless population.
- Add the physical health services and related emergency services costs for the entire homeless population studied (N=2,033) to the data analyzed in this report for a more comprehensive perspective on this population's public impact.
- Evaluate new prevention and intervention programs to determine efficiency, effectiveness and sustainability.

Background

OBJECTIVES

This report looked at a cohort of homeless individuals in Allegheny County to identify their demographic composition and service utilization and assess the costs associated with meeting their needs. Our analysis sought to answer the following questions:

- Who is included in the homeless population?
- What other residential services do homeless individuals use (Jail, mental health, intellectual disability, etc.)?
- What kinds of services do homeless clients access while in these residential programs, and with what intensity?
- In what order do homeless people move through these service systems?
- What are the costs per person for these various programs? What differentiates high-end service users (those receiving the most expensive services) from the overall homeless population?
- How are services utilized? What percentage of homeless individuals are frequent users, long-stayers or transitional users of services?

Methodology

STUDY POPULATION

The cohort for this study included 2,033 individual clients who received services from the DHS Office of Community Services (OCS) Bureau of Hunger and Housing Services. The individuals included in the sample received at least one service from a DHS Severe Weather Emergency Shelter, an emergency shelter or a street outreach program during the one-year period between October 1, 2007 and September 30, 2008.

High-End Users

In addition to the primary population, the study looked at a "high-end user" subset population, which can be defined as the 5 percent of service consumers whose needs are the most expensive to meet. This subset was identified by calculating the mean expense for the target population (N=2,033), and choosing those consumers whose total service costs exceeded two positive standard deviations from the mean cost expectations (N=88). It is important to note that references to the "top 5 percent" of clients describe the theoretical 5 percent that one would expect to find beyond two standard deviations (positive and negative tails). Because the distribution is positively skewed, the number of clients identified as the high-end user subset, 88, is less than 5 percent (total outliers you would expect beyond two standard deviations), of the total population of 2,033 clients and greater than the 2.5 percent you would expect to find exclusively on the positive end of a normal distribution.

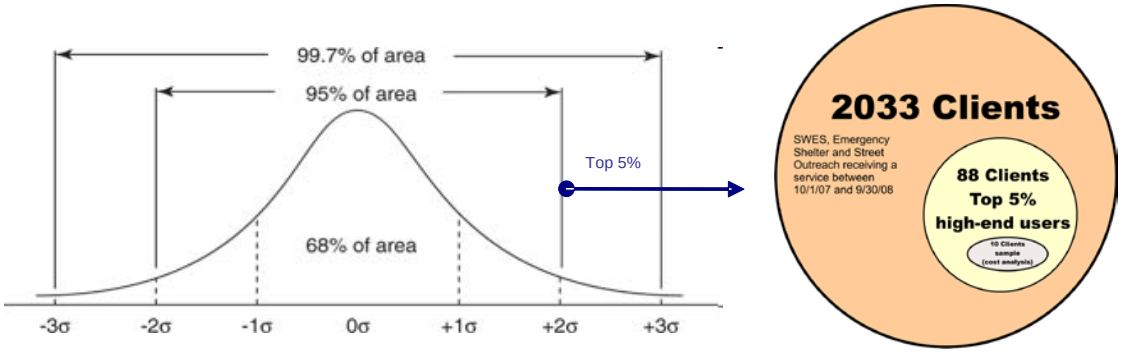

Figure 1: Outlying Five Percent (Blue Arrow) on Normal Curve and Diagram of Subset Population

DATA SOURCES

The data for this study came primarily from the DHS Data Warehouse and the Homeless Management Information System. Data from shelter intake surveys and Operation Safety Net surveys were used to supplement the analysis and further describe the homeless population.

Methodology

Demographic, service activity and cost data were collected from the Data Warehouse. Service and system-involvement data document clients' incarceration in the Allegheny County Jail (ACJ) and use of programs like mental health treatment, substance abuse treatment, mental retardation services, and emergency shelter and child welfare services. The timeframes of these data sets varied by program as outlined below. The data of differing timeframes were averaged to develop normalized, comparable figures such as costs-per-year-per-individual.

- Jail (estimate) — 1988-2008 (20 years)
- Mental Health (MH), Drug and Alcohol (DA), Mental Retardation (MR)— 2001-2009 (8 years)
- Emergency Shelter — 2002-2008 (7 years)
- Children, Youth and Families (CYF) — 1991-2008 (17 years)

The emergency shelter intake survey was included in intake assessments conducted between October 1, 2007 and September 30, 2008. Individuals visiting shelters were asked to self-report on a variety of questions. The results from these intake surveys were matched to the 2,033 clients selected for this study. Of the respondents, 1,558 unduplicated surveys were matched and included in the results of this report.

High-End Users

For the high-end user population, physical health data was obtained from the Community Care Behavioral Health Organization (Community Care), a non-profit behavioral health managed-care organization that manages behavioral health services for members whose health coverage is sponsored through Medicaid, Medicare and commercial plans. Community Care was able to provide de-identified cost summaries for individuals enrolled in the "UPMC for You" physical health coverage plans for a one-year timeframe from September, 2008 to September, 2009. For the high-end user data set (N=88), 37 individuals were enrolled in "UPMC for You." The average total cost and categorical costs for these 37 individuals were calculated and then used to estimate an annual cost for the 88-person high-end user data set. This method assumes that the 37-person data set is representative of the whole high-end user data set. It is also worth noting that the "UPMC for You" plan is one of many health coverage plans available to homeless individuals, but the UPMC plan was the only plan for which data was available.

Methodology

Cost Estimates

When direct cost information for a program or service was not available, costs were estimated based on the following:

- Penn-Free Bridge Housing - $13.30/day
- Emergency Shelter - $15.00/day
- Innovative Supportive Housing - $0.30/day
- PennFree Bridge Housing – $13.54/day
- Safe Haven/Permanent Housing - $23.76/day
- Shelter Plus - $23.76/day
- Supportive Services - $6.00/day
- Transitional Housing – $23.76/day

The cost of imprisonment in the Allegheny County Jail was estimated at $68.87/day. Importantly, jail costs calculated in this study do not include processing costs which may equal, and even exceed, the daily cost of incarceration. Consequently, the estimated numbers do not accurately represent the total cost.

The costs attributed to each individual involved with CYF do not differentiate between costs incurred by a child within the child welfare system or by a parent of a child within the system. Both expenses are included in the total cost figures.

To better understand the service utilization of high-end users, the study also looked at the most expensive clients to identify service-use patterns. The top ten individuals with the greatest historical costs were chosen and ranked by their total expenses.

Data Analysis

WHO MAKES UP ALLEGHENY COUNTY'S HOMELESS POPULATION?

Demographic Makeup

Males outnumber females in the target population of homeless individuals by nearly two to one (63 percent vs. 36 percent, with 1 percent unidentified). Nearly half of the homeless population considered was African American (48 percent), and 27 percent was white, which suggests that African Americans are significantly over-represented based on their total population within the County (In Allegheny County, African Americans comprise approximately 13 percent of residents, whites make up 85 percent). It should be noted that data was not available for 18 percent of participants.

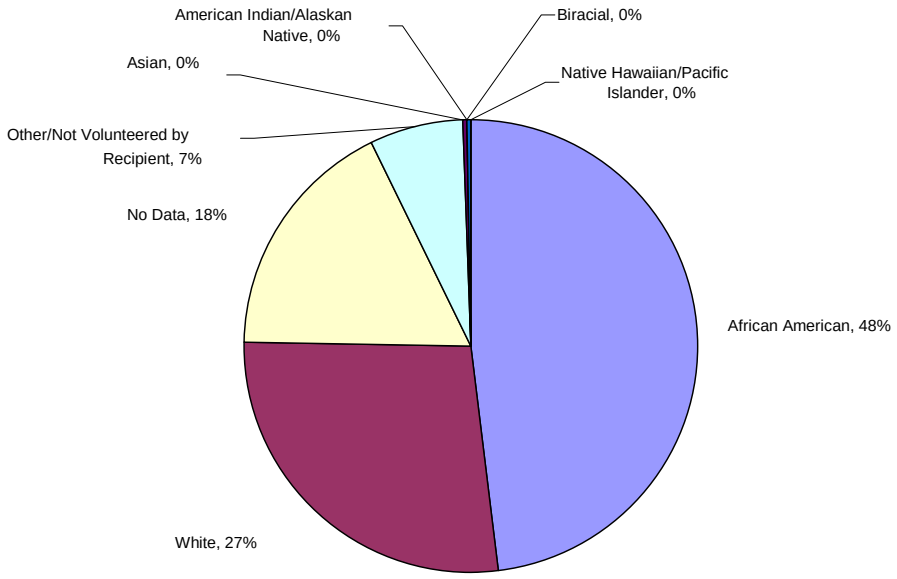

Figure 2: Racial Makeup of Target Population (N=2,033)

The typical homeless individual in this population was 40 years old at the time of the study (mean age), and the median age was 45 years old. The study excluded minors except for a small number of emancipated minors as can be seen in Figure 3.

Data Analysis

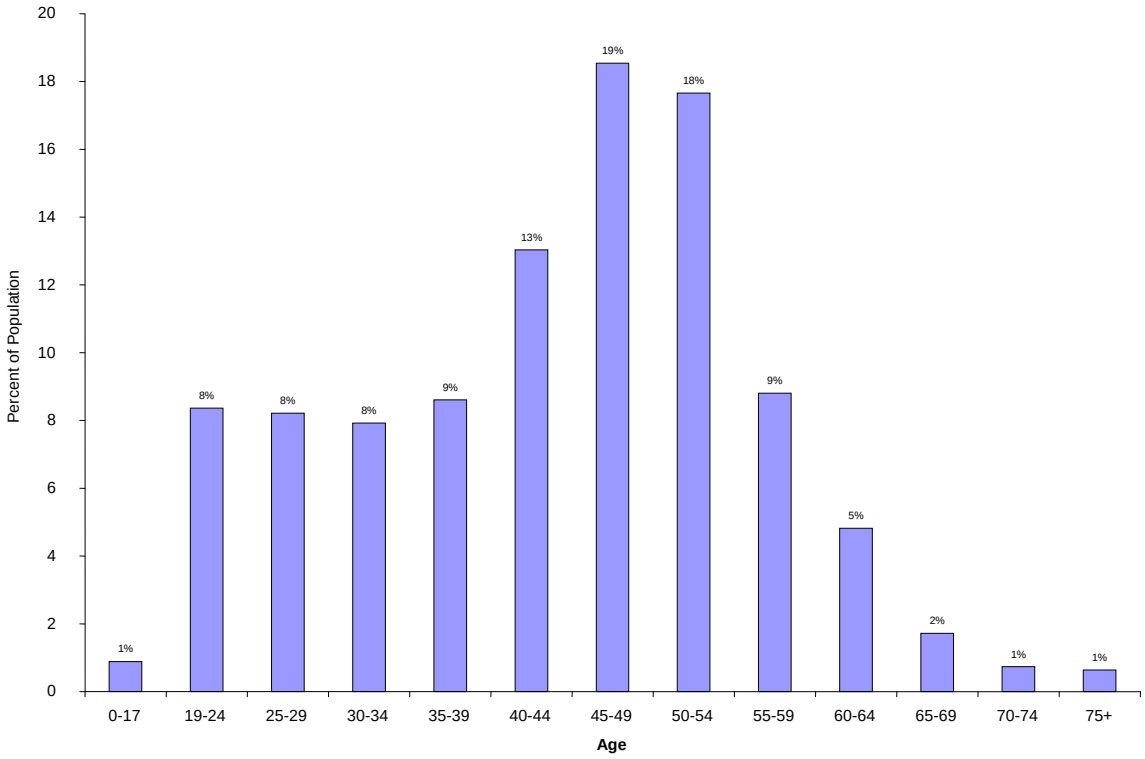

Figure 3: Age Makeup of Target Population (N=2,033)

Housing Services Participation

Seventy-six percent of the total housing services accessed by these identified individuals (N=2,033) were Emergency Shelter Services. Case Management, Bridge Housing, Transitional Housing, Supportive Services, Shelter Plus Care, Safe Haven/Permanent (HUD), Permanent Housing and Penn-Free Bridge Housing comprised the remaining 24 percent of total housing-related service participation. Service participation was determined by episodes, not by duration of service involvement.

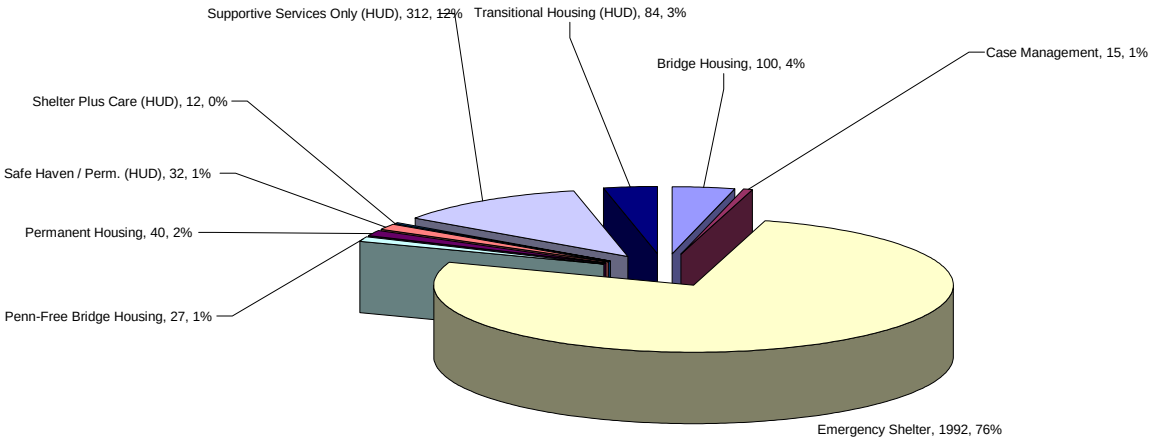

Figure 4: Participation in Housing Services (N=2,614)

Service Frequency

One third of the individuals seeking emergency shelter services were one-time visitors, accessing a shelter only once in the seven-year timeframe from 2002-2008. Seventy percent had five or fewer emergency shelter visits. Only 30 percent were frequent shelter visitors with more than five shelter visits during the designated period. Figure 5 shows a cumulative graph of the proportion of clients by total number of episodes.

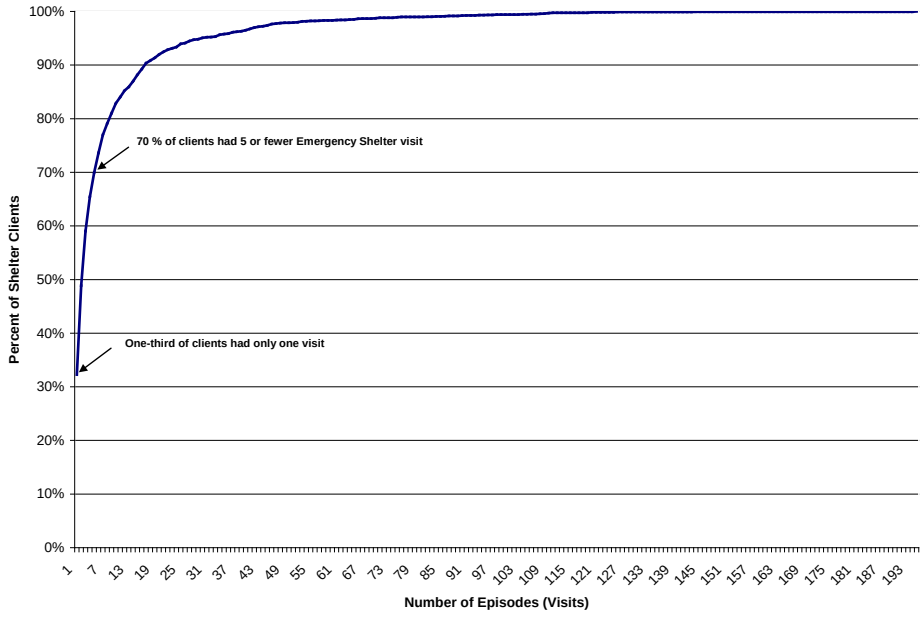

Figure 5: Emergency Shelter Episode Frequency (N=15,172)

Data Analysis

System Involvement

A majority of homeless individuals in the target population received support services beyond the housing services provided by the OCS Bureau of Hunger and Housing. More than two-thirds of the homeless population received mental health services. Sixty percent were eligible for food stamps from the Pennsylvania Department of Public Welfare (DPW), and nearly half (45 percent) received drug and alcohol treatment services. Thirty-eight percent participated in the Medical Assistance Transportation Program and 36 percent were incarcerated at the Allegheny County Jail.

System	Percent of Population
Mental Health	68%
Department of Public Welfare (Food Stamps)	60%
Drug and Alcohol	45%
Medical Assistance Transportation Program	38%
Allegheny County Jail	36%
Department of Public Welfare (Supplemental Security Income)	23%
Department of Public Welfare (Mental Health)	23%
Department of Public Welfare (General Assistance)	23%
Children Youth and Families (Parents)	22%
Children Youth and Families	10%
Mental Health (Jail)	9%
Employment and Training	8%
Justice Related Services	7%
Department of Public Welfare (Temporary Assistance for Needy Families)	7%
Area Agency on Aging	7%
Juvenile Probation Office	6%
Community Services Block Grant	5%
Family Support Center	4%
Mental Retardation	2%
Allegheny County Housing Authority	2%
Housing Authority of the City of Pittsburgh	1%

Table A: System Involvement (N=2,033)

Data Analysis

INTAKE SURVEY: SELF-REPORT RESULTS

Between October 1, 2007 and September 30, 2008 individuals visiting shelters were given a survey during their intake assessment, asking them to self-report on a variety of questions. The results from this intake survey were matched to the 2,033 clients selected for this study. Of the respondents, 1,558 unduplicated surveys were matched and included in this analysis. Forty percent of the survey population reported being homeless for the first time.

Episodes of Homelessness

As previously noted men composed 63 percent of the homeless population; further, they reported first-time homelessness at a less-than-average rate (37 percent). This suggests that men are experiencing homelessness in both greater numbers and for more extended periods of time than women. Data by race is limited beyond whites and African Americans, but between those two groups, the percentage of individuals reporting first-time homelessness reflects the population average of about 40 percent.

Homeless for the First Time		
Gender	**Yes**	**No**
Female	45%	55%
Male	37%	63%
Race		
American Indian/Alaskan Native*	20%	80%
Asian*	33%	67%
African American	41%	59%
Native Hawaiian/Pacific Islander*	0%	100%
Other/Not Volunteered by Recipient	34%	66%
Unknown	45%	55%
White	40%	60%

***n<7**

Table B: Gender and Race Breakdown for Individuals Homeless for First Time (N=1,558)

Data Analysis

In age groups with the greatest numbers of homeless individuals, there are smaller proportions of people who are homeless for the first time. With the exception of the oldest age brackets (70-74 and 75+ years of age), the downward trend for individuals reporting first-time homelessness reflects a cumulative effect, that with each passing year come more challenges that might result in homelessness for an at-risk individual. Among those homeless for the first time, the age distribution resembles the inverse of the distribution of the total homeless population.

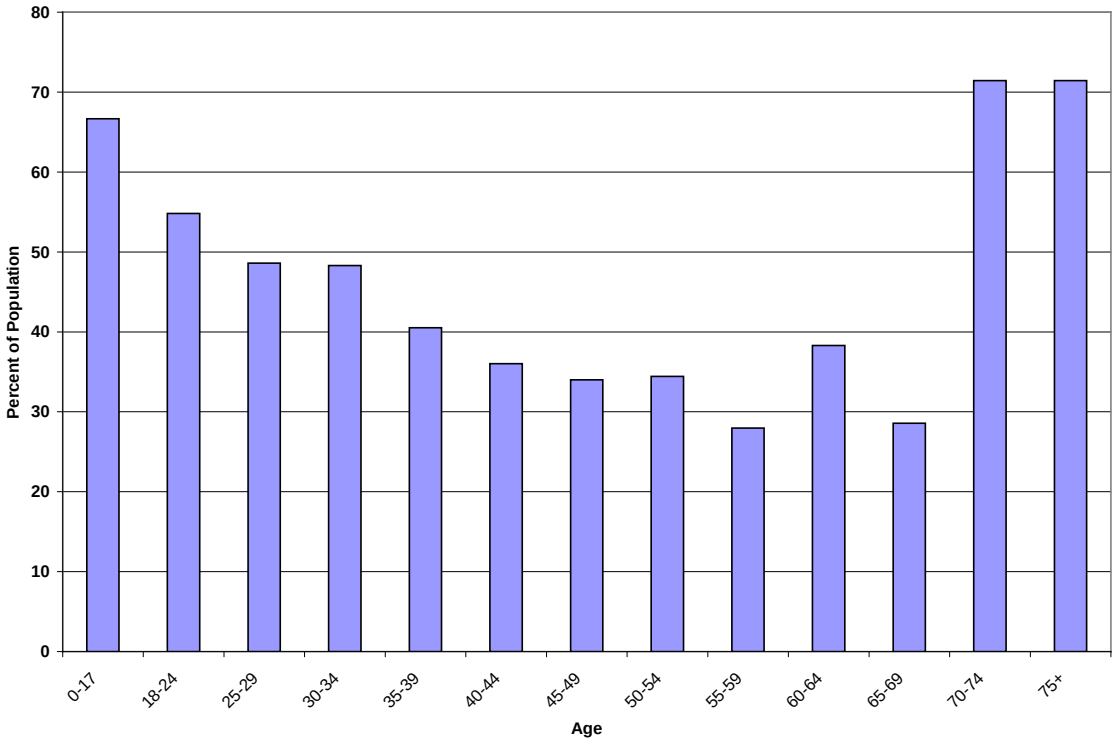

Figure 6: Percent Reporting First-Time Homelessness by Age Group (N=1,558)

According to the intake surveys, almost half of the population was homeless only once in the previous three years, with an additional 24 percent reporting that episode as their second episode of homelessness. While only 6 percent reported four or five episodes of homelessness in the past three years, 9 percent reported being homeless six or more times. This 9 percent represents a group of chronically homeless individuals who are more likely to also report greater durations of homelessness. Eighty percent of individuals with more than five episodes also reported being homeless for longer than one year as can be seen in Figure 7.

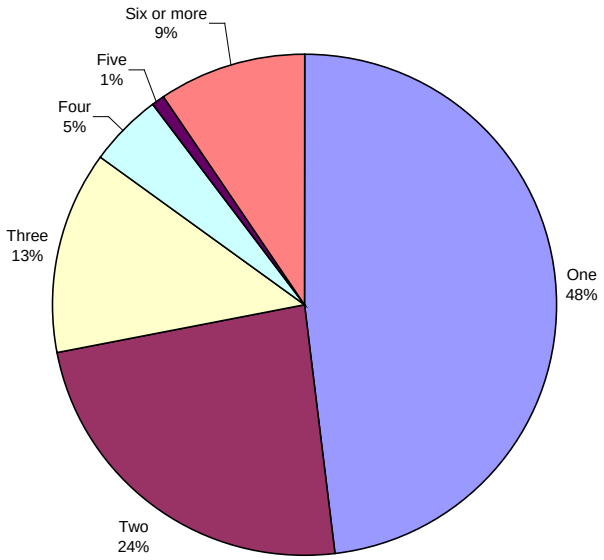

Figure 7: Number of Times Homeless in Past Three Years (N=1,558)

When the frequency of homelessness is broken down by age, some patterns emerge. Figure 8 displays the proportion of individuals within each age group who reported being homeless for the indicated number of times in the past three years. Reports of first-time homelessness decline steadily with age, with the exception of the two highest age brackets. For individuals age 70 and older, the percentage reporting first-time homelessness again increases. The reason for this jump cannot be determined by these data, but it is possible the break in the trend is a function of the small number of individuals in that age group.

The percentage of people experiencing their second, third, or fourth episode of homelessness varies little across age groups. While slight increases occur over time, they are modest. There is a notable upward trend in chronic homelessness (five or more episodes) as age increases; the portion of each age group that reported experiencing sixth or more episodes continually increases with age, from 0 percent in the youngest age group to nearly 30 percent of individuals 70-74 years old.

Data Analysis

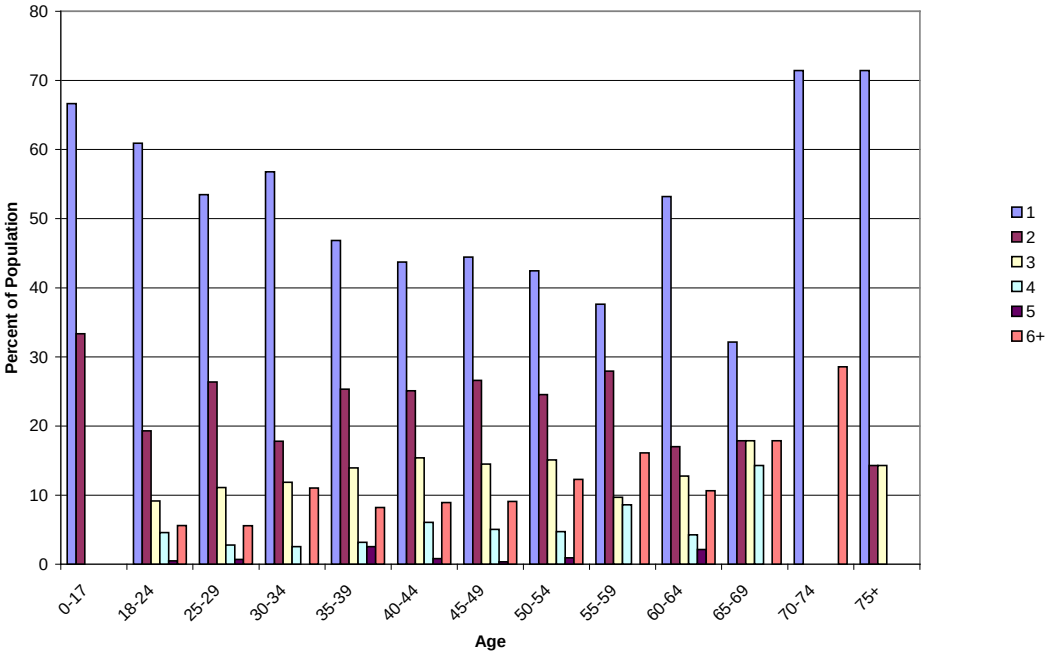

Figure 8: Number of Times Homeless in Past Three Years by Age (N=1,558)

Reasons for Homelessness

Individuals were asked to self-report why they were homeless, but the data collected provide only limited information regarding the causes of homelessness for this population. Thirty-three percent of respondents did not report a cause, while an additional 35 percent reported "Other." From the 32 percent remaining, the two main reasons were eviction and moving in with a friend or family member. Aging out of foster care and release from jail were responsible for less than 3 percent of the responses.

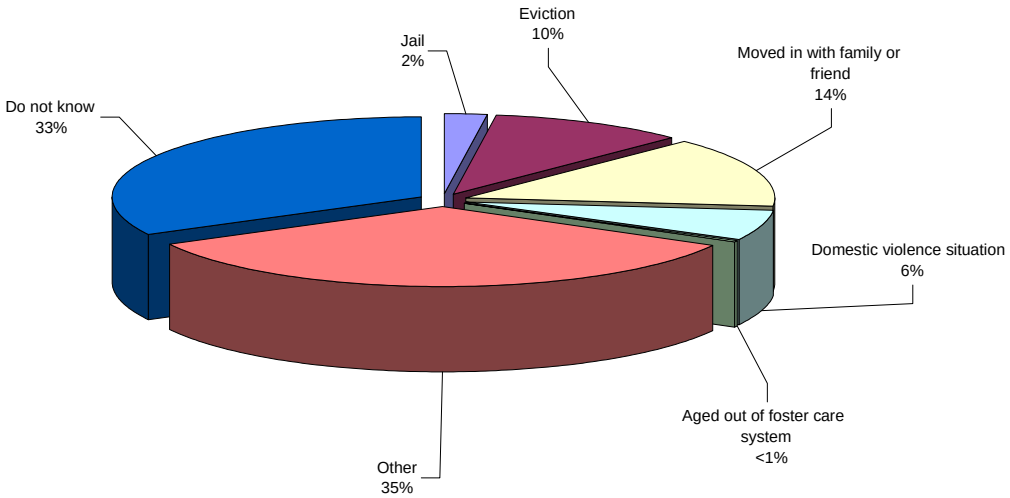

Figure 9: Reasons for Homelessness (N=1,558)

Of the 158 individuals citing eviction as their reason for homelessness, arrearages, or late payments, of rent accounted for nearly two-thirds of evictions, and drug activity for another 27 percent.

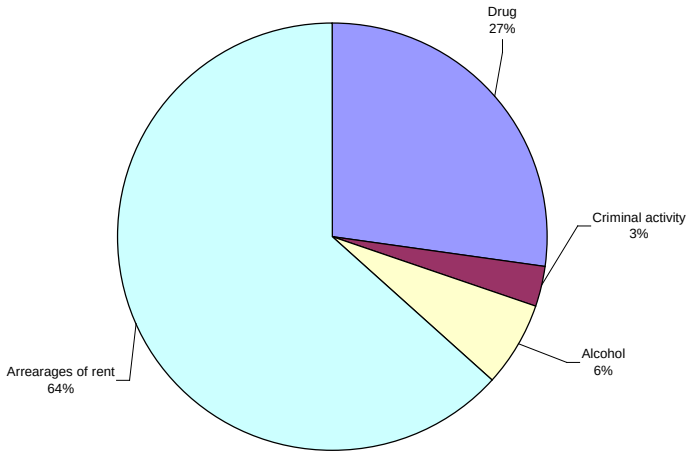

Figure 10: Reasons for Eviction (N=1,558)

Duration of Homeless Episodes

Half of the population had been homeless for less than one month at the time of the survey, and a total of 79 percent were homeless for six months or less. However, 18 percent were homeless for longer than 18 months. These figures suggest the presence of two segments of the homeless population – the chronically homeless and the temporarily homeless. There is little middle ground in terms of duration of homelessness. The presence of these two groups is also reflected in the figures for the number of times people report being homeless. Eighty-five percent were homeless three times or less in the past three years, but 9 percent were homeless six times or more.

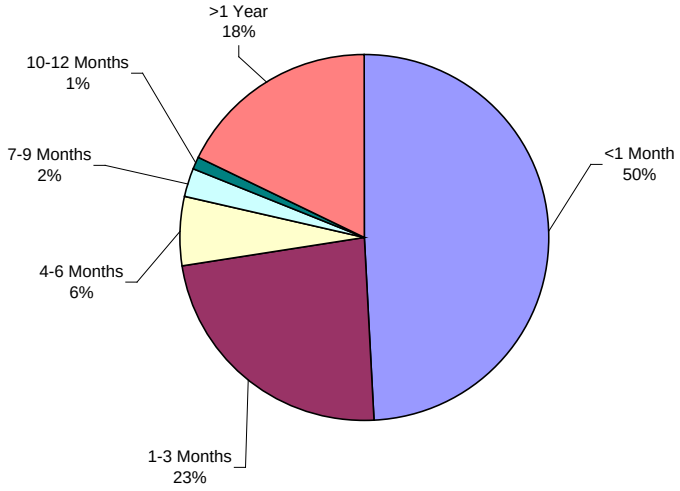

Figure 11: Length of Time Homeless (N=1,558)

Data Analysis

Veteran Status

Twenty-nine percent of the homeless population reported being a veteran. About 70 percent of veterans fall between the ages of 40 and 60, and only 29 percent were homeless for the first time (compared to 40 percent of total population).

Income

Forty-two percent of individuals reported having a source of income. Those with income identified domestic violence (10.7 percent) and moving in with a friend or relative (20.9 percent) as reasons for homeless at higher frequencies than those not reporting income (3 percent and 9.4 percent, respectively). This suggests that those with incomes are more likely to face homelessness due to inconsistent support systems rather than other issues, such as eviction.

Mental Health Service Access and Hospitalization

Fourteen percent of respondents indicated that they had been hospitalized for a mental health problem at one time. Matching these individuals with their records in the DHS Data Warehouse, 91 percent of those indicating that they had been hospitalized for MH problems had accessed mental health services from DHS. For those who answered that they had never been hospitalized for mental health reasons, 65 percent had accessed mental health services from DHS. Of those who failed to answer, 80 percent had accessed such services.

Drug and Alcohol Problems

Twenty-five percent of respondents indicated that they had had an alcohol problem at some point. Of those, 53 percent had accessed substance abuse services from DHS. Of respondents who answered no, 45 percent had accessed substance abuse services from DHS, and of those who did not answer the question, 43 percent had accessed such services from DHS. These discrepancies may suggest a hesitancy to answer (or answer truthfully) questions about substance abuse when seeking admission to an emergency shelter.

A similar trend is seen in the responses to questions about drug problems. Twenty-seven percent of respondents indicated that they had had a drug problem; of those, 56 percent had accessed substance abuse services from DHS. Of those who answered no, 43 percent had accessed substance abuse services from DHS, and of those who did not answer, 43 percent had accessed such services. Once again, this may point to inconsistencies in self-reporting and stigmas associated with drug and alcohol dependency.

Data Analysis

WHAT DOES IT COST TO SERVE THE HOMELESS POPULATION?

Total Annual Cost

The total annual cost to serve the homeless population identified in this study was $10.3 million, averaged over the timeframe of each data set. Mental health services represented 60 percent of total annual costs, by far the largest portion of costs. Drug and alcohol treatment represented 17 percent of total costs and incarceration at the jail another 12 percent.

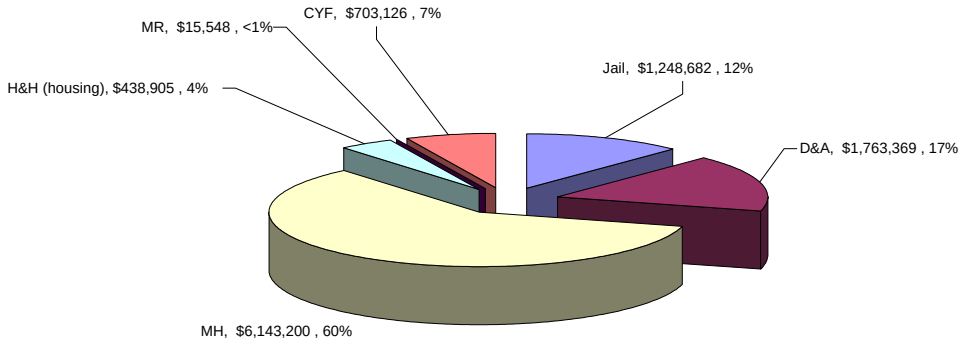

Figure 12: Total Estimated Annual Costs to Serve Homeless Population by Service (N=2,033)

Housing Services

The individuals in this population used Emergency Shelter, Severe Weather Emergency Shelter and Street Outreach services. In addition to these services, they utilized other DHS housing services including Supportive Services (33 percent of total costs), Safe Haven/Permanent Housing (6 percent), Shelter Plus Care (6 percent) and Transitional Housing (less than 1 percent). Of all of the housing services, emergency shelter costs were the greatest, making up more than 55 percent of the total housing-related expenses.

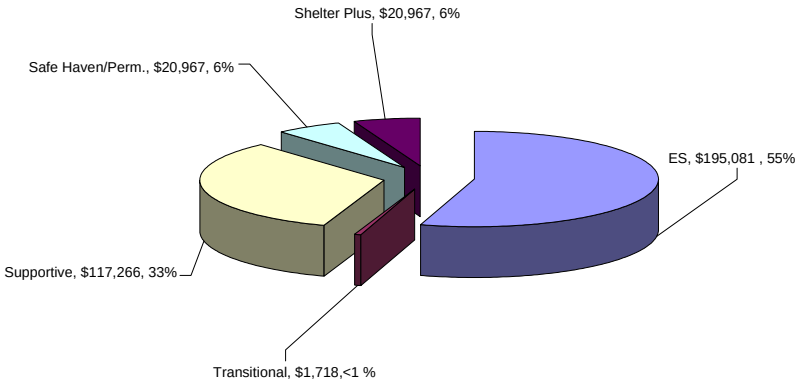

Figure 13: Total Estimated Annual Housing Services Costs to Serve Homeless Population (N=2,033)

System Cost

The annual cost of mental health services ($6.1 million) for the homeless exceeded all other costs combined by nearly $2 million each year. Drug and alcohol treatment services and jail incarceration costs were the next largest expenses, although jail costs do not include processing costs that may equal, or even exceed, the daily cost of incarceration. The $10.3 million total costs can be loosely compared to the aggregate costs reported in research conducted in other cities nationwide, including Santa Barbara, CA; Waco, TX; and Gainesville, FL although some of the costs included in those studies are not included in this one.

System	Annual Cost
Mental Health	$6,143,200
Drug and Alcohol	$1,763,369
Allegheny County Jail	$1,248,682
Children Youth and Families	$703,126
Hunger and Housing	$438,905
Intellectual Disability	$15,548
TOTAL	**$10,312,830**

Table C: Annual Costs by System (N=2,033)

Location	Data Sources	Aggregate Costs Per Year
Santa Barbara, CA	Police, public works, parks and recreation, library, fire department, shelters, county departments, jail, ambulance and hospitals.	$36M
Waco, TX	City and non-profit spending, charitable contributions, jail, police, emergency response records and hospitals.	$7.6M
Gainesville, FL	Fire department calls, jail, sheriff's department and police emergency response calls to homeless shelters, response calls to homeless shelters and hospitals.	$3.8M

Table D: Cost Comparisons by Study Location

Looking beyond annual costs, the total historic cost for each data set shows a significant aggregate expense across all of the available timeframes. Cost data date as far back as 20 years for the jail, 17 years for child welfare/CYF and seven years for housing services.

System	Time Frame	Total Cost	Annual Cost
Jail	20 years	$24,973,639	$1,248,682
Children Youth and Families	17 years	$11,953,140	$703,126
Drug and Alcohol	8 years	$14,106,952	$1,763,369
Mental Health	8 years	$49,178,056	$6,143,200
Mental Retardation	8 years	$124,388	15,548
Housing and Hunger	7 years	$3,072,334	$438,905
TOTAL		**$103,408,509**	**$10,312,830**

Table E: Total Historic Costs for Homeless Population (N=2,033)

Individual Costs

The annual and historic cost for the entire population can be broken down further to approximate the cost to serve a single individual. This per capital annual cost was $5,073. As previously mentioned, the largest costs typically were incurred for mental health services. In this case, $3,022 (60 percent) of the total costs were associated with mental health services, $867 for drug/alcohol treatment, $614 for jail incarceration, $216 for housing and $8 for mental retardation services.

System	Annual Cost
Mental Health	$3,022
Drug and Alcohol	$867
Allegheny County Jail	$614
Children Youth and Families	$346
Hunger and Housing	$216
Mental Retardation	$8
TOTAL	**$5,073**

Table F: Annual Cost Per Person by System (N=2,033)

Data Analysis

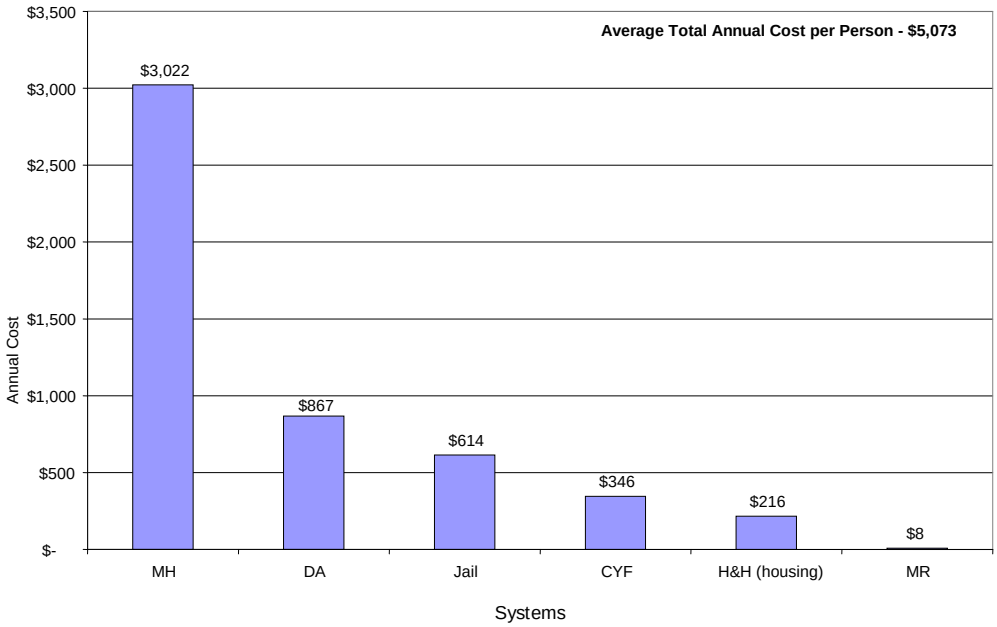

Figure 14: Average Annual Cost Per Homeless Individual (N=2,033)

Looking at the housing costs specifically, the average total annual cost per person was $216. Predictably, costs for emergency shelter stays constituted the largest per individual cost at $96 per year, followed by Transitional Housing ($58), Supportive Housing ($28), Safe Haven/Permanent Housing ($10) and Shelter Plus Housing ($1).

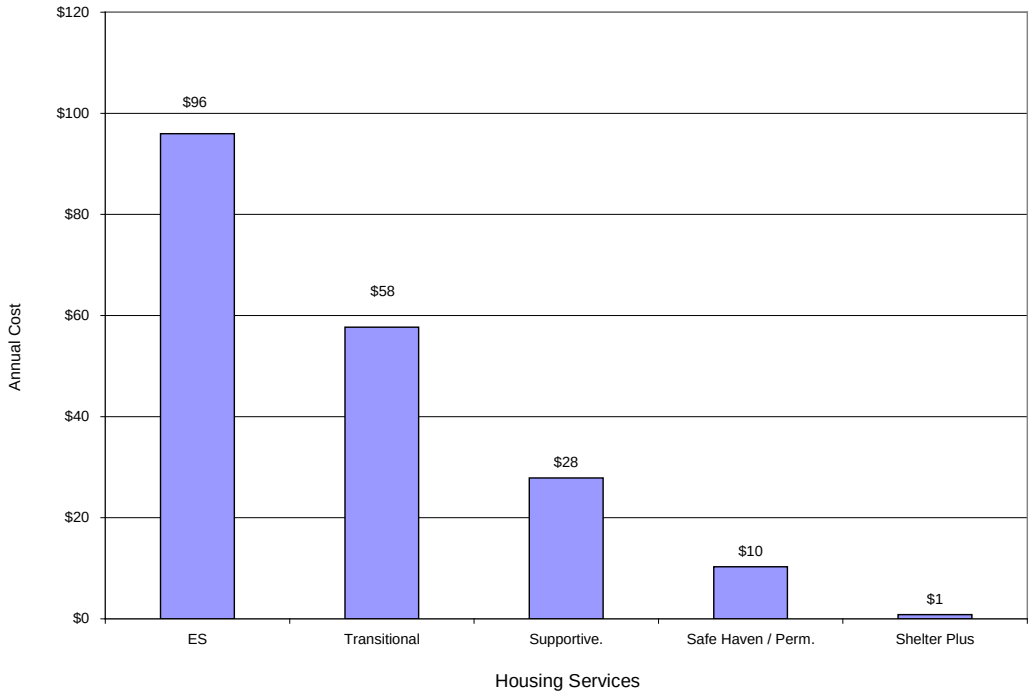

Figure 15: Average Annual H&H Cost Per Homeless Individual (N=2,033)

Data Analysis

The average total annual cost per person ($5,073) can be loosely compared to the aggregate costs reported by research conducted in other cities nationwide including Asheville, NC; Boston, MA; Durham, NC, Minneapolis, MN; Reno, NV, San Diego, CA; and Seattle WA. Many of the costs included in these studies are not included in this one (see Table G), although it is hoped that additional sources of cost data can be added to this study in the future.

Location	Data Sources	Costs Per Person Per Year
Asheville, NC	Jail, EMS, county health center, hospitals, MH facility and shelters.	$39,444
Boston, MA	Medicaid records	$27,563
Durham, NC	Hospitals, public health department, VA, EMS, shelter, police, Sheriff's Department, corrections, courts, prison and social services.	$10,334
Minneapolis, MN	Jail, prison, courts, SA facilities, MH, hospitals and clinics.	$112,967
Reno, NV	Hospitalization records	$50,000-$100,000
San Diego, CA	USCD Medical Center (hospital admissions, paramedic runs) and police.	$133,333
Seattle, WA	Jail, county hospital, detox and Sobering Center.	$54,542

Table G: Per Person Cost Comparisons by Study Location[1]

[1] Dennis P. Culhane, University of Pennsylvania, Emerging Research on the Costs of Homelessness

WHO MAKES UP THE HIGH-END HOMELESS POPULATION?

Demographic Makeup

Race

In addition to the primary population, the study looked at a "high-end user" subset population, defined as the most expensive 5 percent of service consumers (individuals whose annual costs exceeded two standard deviations from the mean annual-per-capita cost). Eighty-eight individuals were identified as high-end users. To better understand the service utilization of these clients, the study also looked at the top ten most expensive clients in more detail. These individuals had the greatest historical costs and were chosen and ranked by their total expenses.

As shown in Figure 16, the high-end user population tended to have greater African American (17 percent difference) and white (4 percent difference) representation than the general homeless population. While not typical, the simultaneous increase of the proportions of both African American and white individuals may reflect that these individuals were less likely to have incomplete or lacking race data because of their extensive involvement with multiple service systems.

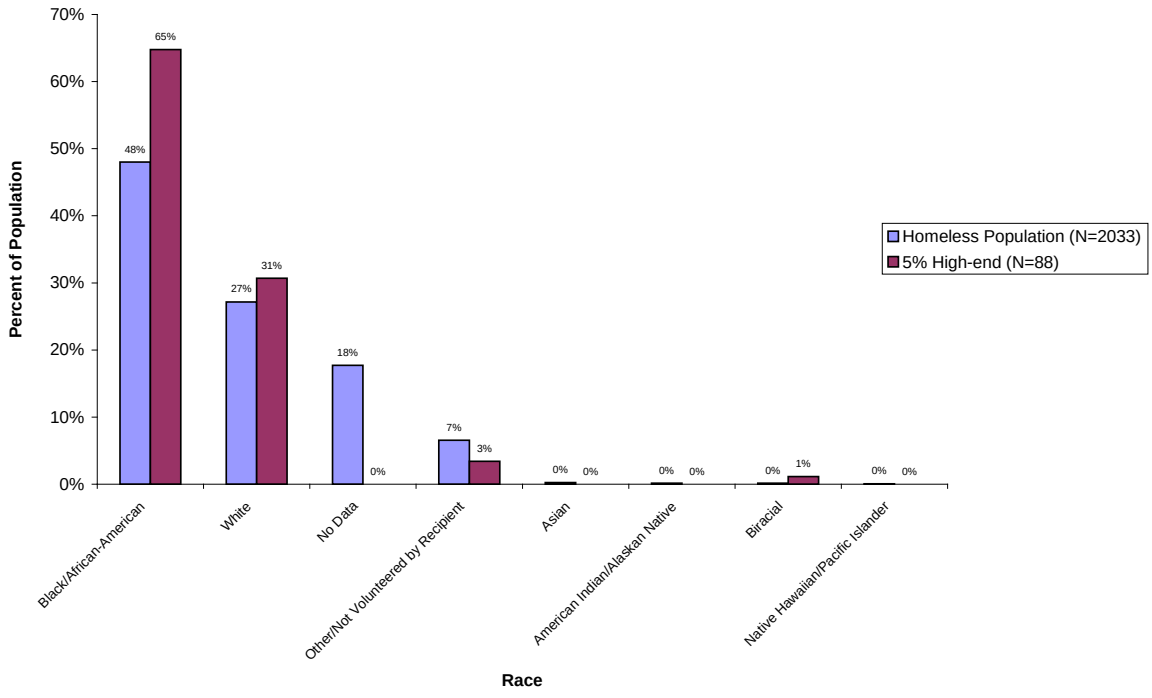

Figure 16: Race Comparison of Primary Homeless Population (N=2,033) and High-End User Population (N=88)

Data Analysis

Age

The majority of the high-end population clustered around 40 to 54 years of age (59 percent), with an additional 29 percent who were young adults ages 19 to 34 years. Certainly, age distribution and lifetime service costs are inextricably linked: older adults have had a longer life span in which to accrue services. Similarly, the costs of younger adults may reflect rising healthcare costs and inflation, thus leading to their increased inclusion in this sample. Mental health utilization trends also may impact this distribution.

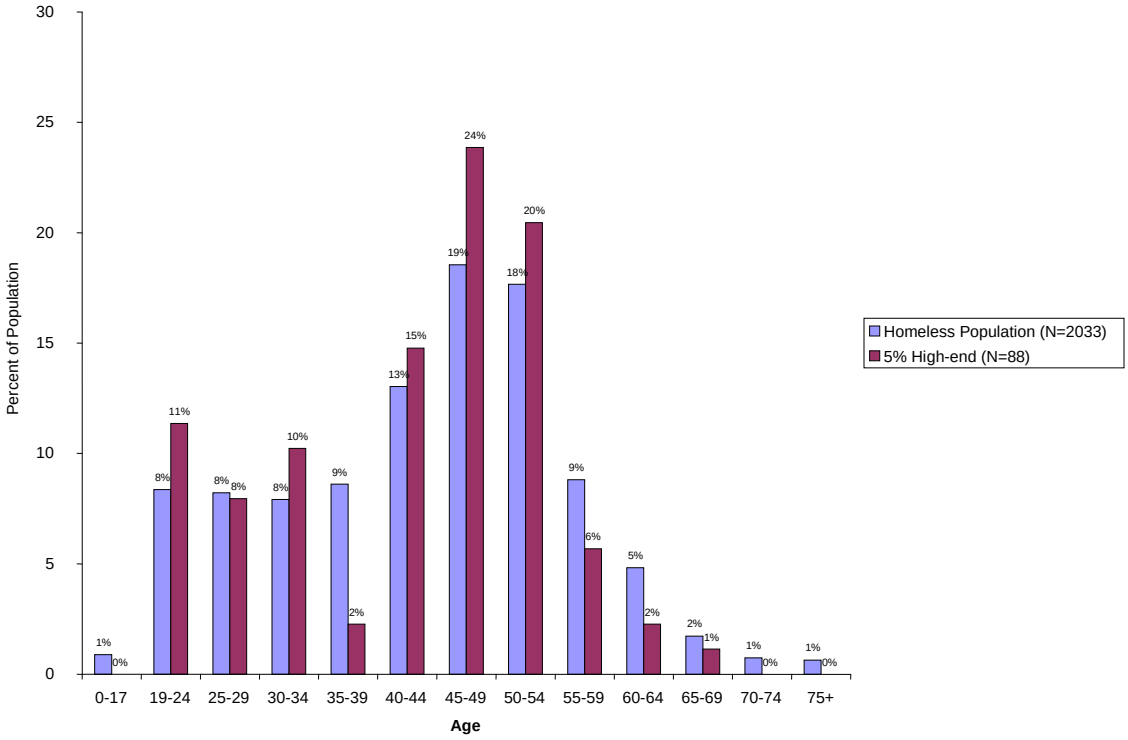

Figure 17: Age Comparison of Primary Homeless Population (N=2,033) and High-End User Population (N=88)

WHAT SERVICES DOES THE HIGH-END HOMELESS POPULATION UTILIZE?

System Involvement

The high-end population had a 100 percent participation rate in the most expensive service area, mental health services. This reflects the bias in the selection criteria towards the most expensive users, who tend to utilize highly expensive emergency mental health services. The study selected individuals for the high-end user grouping based on the high costs of their care; consequently it makes sense that the identified dominant cost expense (MH) is represented in each client's service history because the high costs of these services makes each individual receiving them more likely to be selected. Eighty-five percent of high-end users also had received some drug and alcohol treatment services, suggesting that this sub-population tends to receive treatment for both mental health and substance abuse problems. Many high-end users were eligible for public welfare services such as Supplemental Nutrition Assistance (85 percent), Supplemental Security Income (75 percent), other medical and Medical Assistance Transportation Program (23 percent) and General Assistance (19 percent), and received services through the Medical Assistance Transportation Project (84 percent). Figures 19 and 20 compare these utilization rates to the rates of the overall survey population, illustrating how these services are used much more frequently by high-end users.

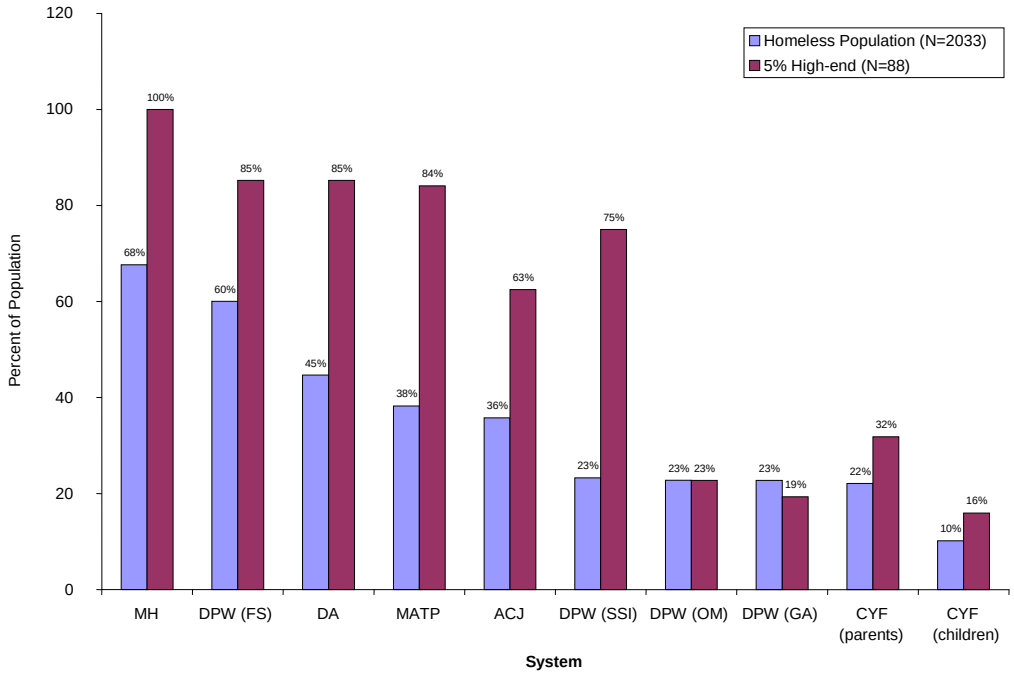

Figure 18: Comparison of System Involvement of Primary Homeless Population (N=2,033) and High-End User Population (N=88)

Data Analysis

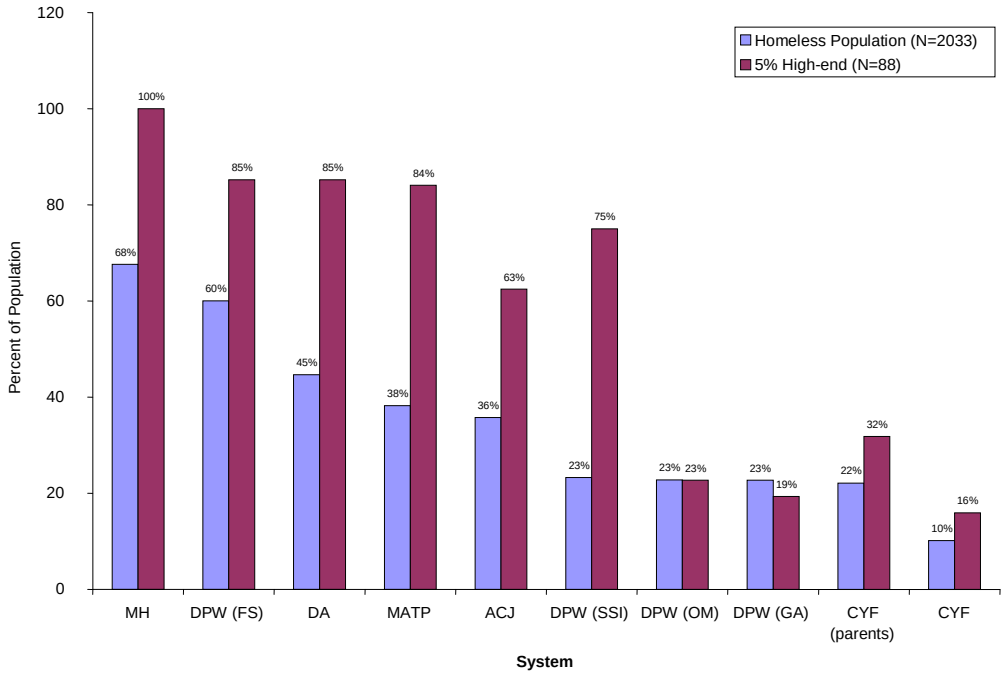

Figure 19: Comparison of System Involvement of Primary Homeless Population (N=2,033) and High-End User Population (N=88)

High-end users were involved in more systems on average than the primary population (eight systems vs. five, respectively). They were actively receiving services in more systems, and more had been incarcerated at the county jail than the primary population (63 percent vs. 36 percent). Twice as many high-end users had received both drug/alcohol treatment and mental health services than the primary homeless population (85 percent vs. 42 percent).

System	Homeless Population	5% High-End User Population
Average System Involvement	5	8
Average Active Systems	3	6
Average Emergency Shelter Days/Person	45	43
Jail Involvement	36%	63%
Mental Health Services	68%	100%
Drug and Alcohol Services	42%	85%
Dual Drug and Alcohol/Mental Health Services	42%	85%

Table I: Service Highlights Primary Homeless Population (N=2,033) and High-End User Population (N=88)

Data Analysis

WHAT DOES IT COST TO SERVE THE HIGH-END HOMELESS POPULATION?

The total annual cost to serve the high-end user population (N=88) was approximately $3.8 million, which suggests that this small group is responsible for 37 percent of total spending on services for the homeless in Allegheny County (N=2,033). At 83 percent of the annual costs, mental health services represent an even larger proportion of costs for high-end users than for the general homeless population.

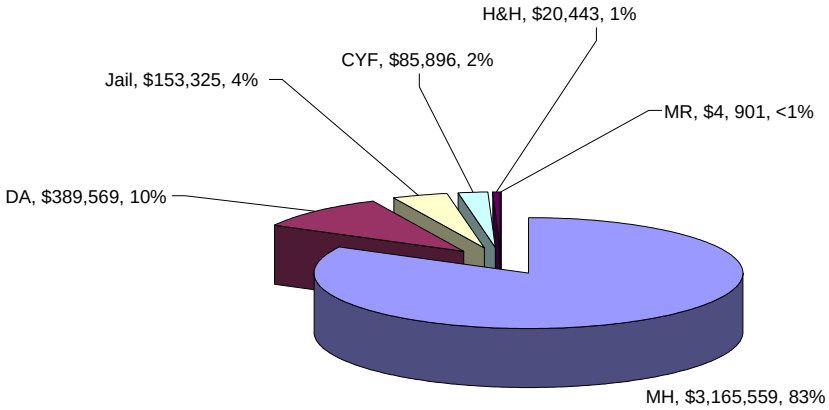

Figure 20: Total Estimated Annual Cost to Serve High-End User Population (N=88)

The high-end users had a total estimated physical health cost of $820,000 for the one-year period, averaging approximately $9,321 per person per year. Inpatient physical health costs represented the largest proportion of the cost ($389,758, or 49 percent of total costs), followed by Pharmacy (28 percent), Emergency Room (9 percent), Specialist (6 percent), Diagnostics (4 percent), Ambulance (2 percent), and Primary Care Physician (2 percent) costs.

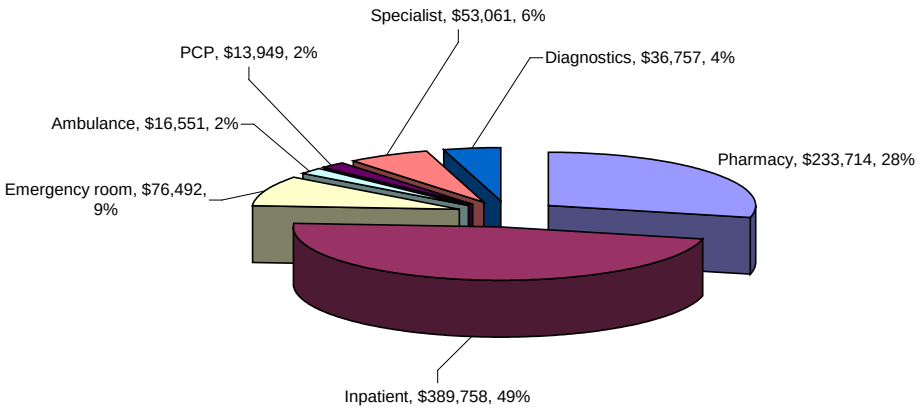

Figure 21: Total Estimated Annual Physical Health Cost to Serve High-End Population (N=88)

Data Analysis

Combined, the human services, jail, and physical health costs total $4.6 million, or more than $52,000 per high-end user per year. More than three-quarters (85 percent) of these costs for high-end users are from mental health (68 percent) and physical health services (17 percent).

The study also examined a subset of the 10 most expensive users taken from the high-end user population (see Table J). The most expensive user, Mary, had received an estimated $134,547 in annual services, and historically had received more than $1 million in services. These top 10 individuals account for more than $880,000 in annual costs and have accumulated nearly $7 million in total costs over their service history for the years examined. Using these figures and assuming that conditions remain the same, it is estimated that in five years, Mary alone would incur another $672,735 in service costs; the ten-person sample would cost $4.4 million to serve. Further, the 88-person high-end sample would cost $19.1 million and the entire population of 2,033 individuals would cost $52.3 million to serve over the next five years.

Name	Age	Jail	CYF	DA	MH	MR	H&H	Total Annual Cost
Mary	22	$-	$6,560	$-	$127,790	$-	$197	$134,547
John	53	$344	$-	$-	$105,408	$-	$13	$105,765
Jennifer	20	$-	$7,072	$-	$86,157	$198	$28	$93,455
Katherine	33	$1,278	$-	$9,527	$74,091	$-	$19	$84,915
Tyler	21	$-	$7,456	$-	$84,767	$-	$19	$92,242
Jeffrey	26	$-	$-	$-	$77,287	$-	$56	$77,343
Lisa	49	$2,607	$-	$10,204	$62,100	$-	$262	$75,173
Earl	46	$262	$-	$15,530	$53,723	$-	$903	$70,417
Tony	27	$2,779	$13,400	$-	$67,162	$-	$15	$83,355
Trisha	47	$-	$-	$-	$66,360	$-	$6	$66,366
TOTALS		**$7,269**	**$34,488**	**$35,260**	**$804,845**	**$198**	**$1,519**	**$833,579**

Table J: Ten Most Costly High-End Users (N=88)

HOW DO HOMELESS INDIVIDUALS MOVE THROUGH SYSTEMS?

It is important to assess the chronology of services when considering the costs associated with serving the homeless population. As an initial inquiry into how the homeless population moves from systems and programs, we examined the transitions at each service step to determine what subsequent service step is most likely.

Figure 22 depicts where the homeless individuals in this study entered the human services system—ACJ, Hunger & Housing, Drug & Alcohol, Intellectual Disability, Children, Youth and Families—and how they transitioned through the different programs and services. The arrows in the graphic highlight the most common path, namely, individuals moving from their initial system entry point into mental health services. This is critical to note because mental health services make up a significant portion of overall cost.

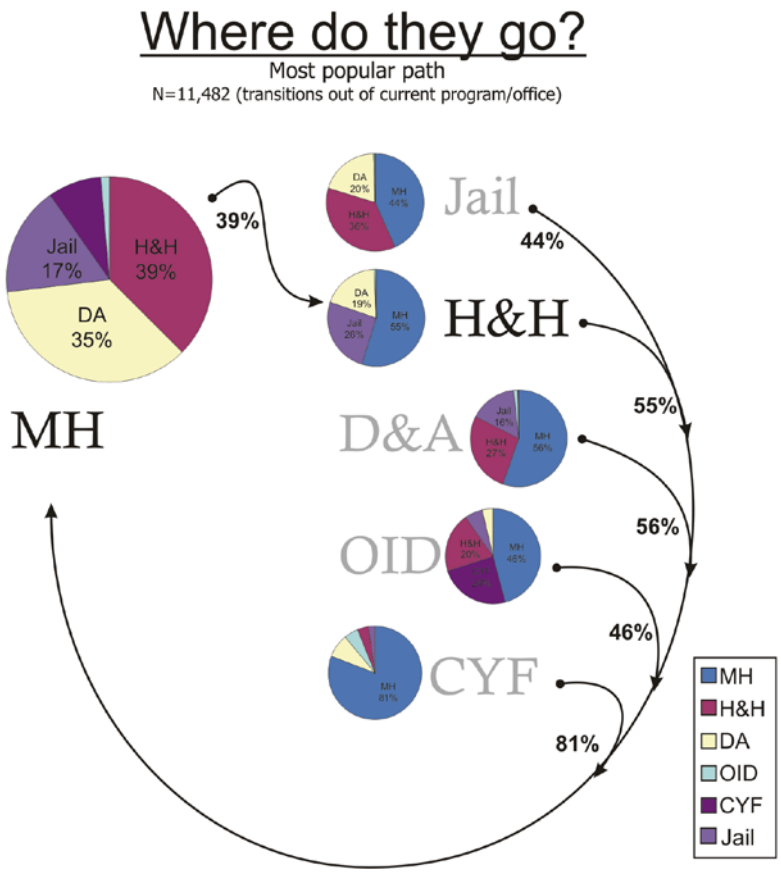

Figure 22: How Homeless Individuals Transition (N=11,482)

Data Analysis

Intervention and prevention initiatives could lower costs if they reduced the frequency of service usage or deescalated the magnitude of required services from urgent/crisis to more routine (and less expensive) services. In half or more cases, individuals received a mental health service as their next service after leaving the jail, housing services, drug/alcohol treatment, mental retardation services, or the child welfare system. For those already receiving a mental health service, 39 percent typically received housing services as their next service. This suggests that a program to increase housing longevity and the associated benefits to service stabilization could reduce the costs outlined above while improving the quality of life for program participants.

Figure 23 shows the specific type of services utilized by homeless individuals prior to entering shelters. It shows that jail is the most common transition (12 percent), followed by behavioral health services, including both mental health and substance abuse treatment.

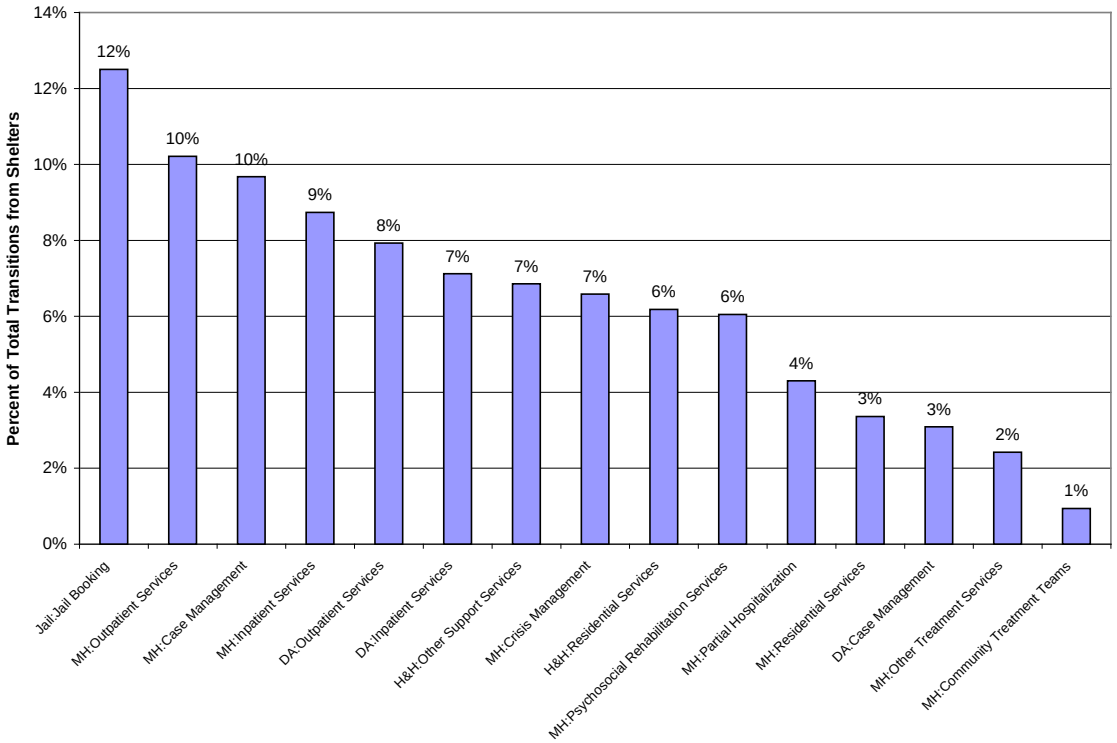

Figure 23: Individuals Entering Emergency Shelters Came from these Service Areas (N=8,781)

Figure 24 shows that, in addition to coming from jail, many homeless individuals enter jail after their departure from shelters (12 percent). Again, behavioral health services are highly represented as next stops for those individuals leaving shelters.

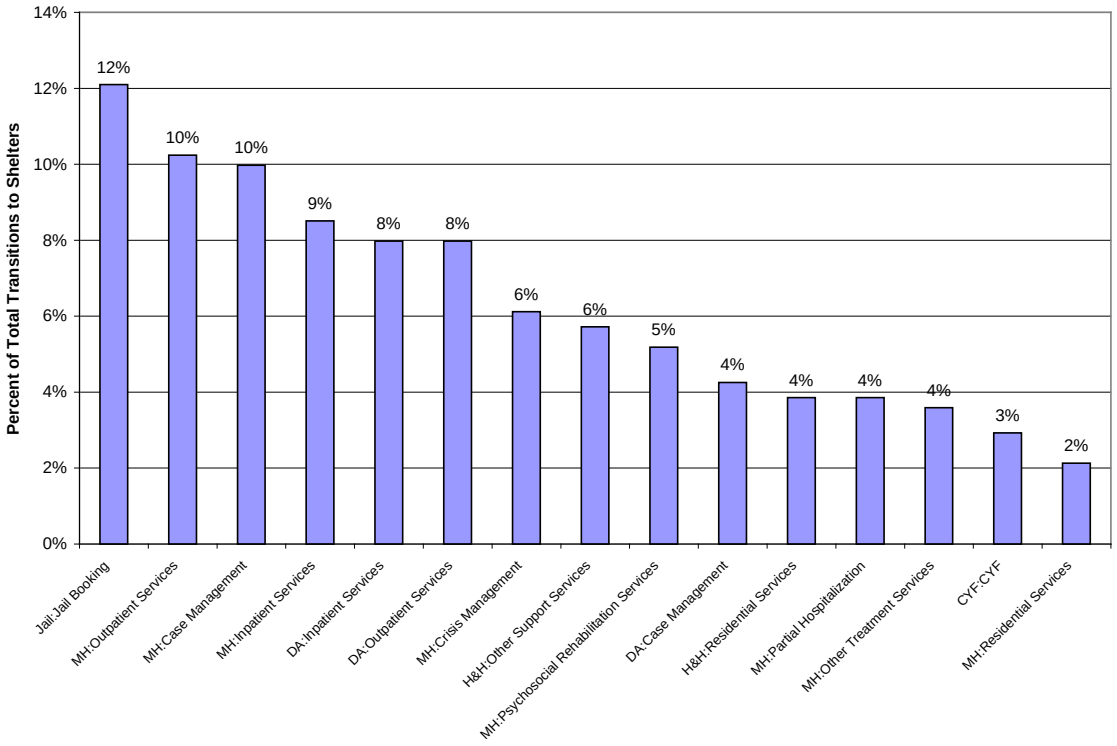

Figure 24: Individuals Leaving Emergency Shelters Went to these Service Areas (N=8,781)

Conclusions & Recommendations

The purpose of this report was to assess the demographics and service utilization patterns of Allegheny County's homeless population. DHS and its partner organizations, having identified both high-end users of services and the services accessed most often, will use this information to more efficiently meet their needs.

RECOMMENDATIONS

Programmatic

- Target more programs and services to high-end users.
- Create an integrated team of mental health specialists and and homeless service providers to develop programs to reduce the cost of services to high-end users.
- Develop longer-term solutions such as targeted housing interventions to increase residential stability and longevity.
- Design prevention and intervention programs for homeless individuals at specific transition points in the system like those leaving jail or individuals who may already be receiving mental health services.

Future Research

- Continue to assess the needs of the Allegheny County homeless population.
- Add the physical health services and related emergency services costs for the entire homeless population studied (N=2,033) to the data analyzed in this report for a more comprehensive perspective on this population's public impact.
- Evaluate new prevention and intervention programs to determine efficiency, effectiveness and sustainability.