Permanent Supportive Housing and Medicaid Utilization and Spending in Pennsylvania | October 2019

Executive Summary

Permanent Supportive Housing (PSH) programs provide long-term housing assistance and support services to individuals with disabling physical and mental health conditions experiencing chronic homelessness. The University of Pittsburgh Medicaid Research Center conducted a comprehensive analysis of 5,859 individuals enrolled in Pennsylvania Medicaid in 54 counties[1] who received PSH between 2011 and 2016. Key findings include:

- **High Chronic Disease Burden**
  - Many individuals receiving PSH suffered from multiple chronic physical and behavioral health conditions: 43% had 7 or more chronic health conditions, 83% had a diagnosed mood disorder, and 53% were diagnosed with a drug use disorder.
- **High Rates of Health Care Use and Spending**
  - In the 7 to 15 months before placement in a PSH program, Medicaid spending among adults averaged over $1,200 per person per month.
- **PSH Associated with Long-Term Medicaid Savings**
  - For the adult population in PSH, total Medicaid spending decreased by $162 per person per month (13% of total spending) by the third year after PSH entry, relative to changes in a matched comparison population with similar characteristics who did not receive PSH. The largest relative declines were for non-behavioral health inpatient care and residential behavioral health care spending.

Overview

To improve population health, states are increasingly focusing on addressing social determinants of health, including housing, transportation, and food security. State Medicaid programs are placing greater emphasis on housing security, in particular, because low-income individuals with disabling physical and behavioral health conditions, many of whom are enrolled in Medicaid, have an elevated risk of homelessness, and unstable housing can make it difficult for these individuals to manage their health care needs.[1-3] Consequently, homelessness and housing instability are associated with very high levels of health care spending and utilization, including visits to emergency departments and potentially avoidable inpatient admissions.[2,4] Historically, federal, state, and local governments paid for housing and health care services through separate programs and funding mechanisms: continuum of care housing programs administered by the Department of Housing and Urban Development (HUD), and health care services paid by Medicaid administered by the Department of Health and Human Services and the states.

Permanent Supportive Housing (PSH) provides community-based housing with "indefinite leasing or rental assistance paired with supportive services to assist homeless persons with a disability or families with an adult or child member with a disability achieve housing stability."[5] In this brief, we 1) discuss Medicaid's role in financing

[1] Counties not included in the analysis due to data availability were Beaver, Berks, Bucks, Chester, Dauphin, Delaware, Erie, Lackawanna, Lancaster, Luzerne, Montgomery, Philadelphia, and York Counties.

health care services for eligible individuals in PSH, and 2) present findings on estimated changes in Medicaid utilization and spending before and after PSH placement relative to a comparison population.

Medicaid and Permanent Supportive Housing

Medicaid provides health care coverage for low-income adults, children, pregnant women, elderly adults, and individuals with disabilities. In Pennsylvania, Medicaid is called Medical Assistance and covers 2.8 million individuals. Historically, Medicaid's role in financing housing services has been limited. Federal law prohibits Medicaid programs from using federal matching funds for room and board, except for nursing facility services. However, Medicaid can cover and finance a wide range of housing-related services and activities for individuals enrolled in Medicaid, and there is growing interest in leveraging Medicaid funds to address the health care needs of homeless and unstably housed populations by integrating health and housing services.[6]

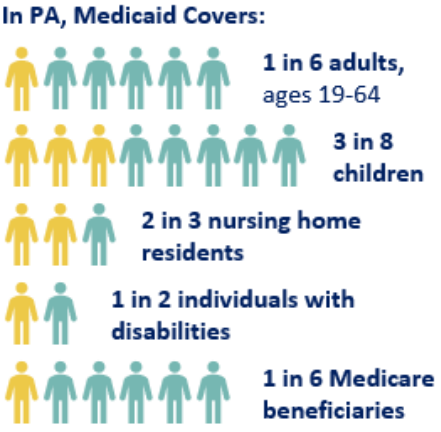


Image: Kaiser Family Foundation. (2018). Medicaid in Pennsylvania. Retrieved from http://files.kff.org/attachment/fact-sheet-medicaid-state-PA

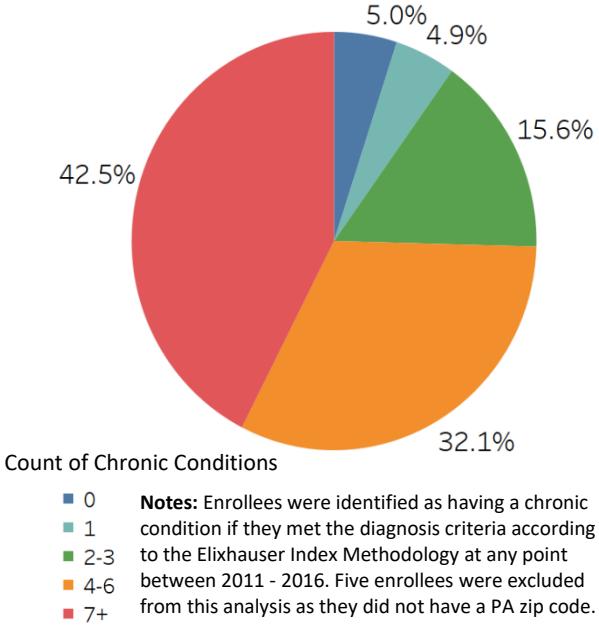
Analysis

We analyzed data from Pennsylvania Medicaid and the Homeless Management Information Systems (HMIS) to describe the Medicaid-enrolled population that receives PSH, and to estimate changes in Medicaid utilization and spending associated with receiving PSH. To estimate these changes, we identified a comparison population of Pennsylvania Medicaid enrollees with similar demographic and clinical characteristics who did not receive PSH, but who received at least one other housing service during the study period (e.g., emergency shelter). We assessed changes in spending and utilization among PSH recipients versus the comparison population, adjusting for individuals' demographic and health characteristics, geographic factors, and secular trends. Among PSH recipients, we analyzed changes from a baseline period (7-15 months prior to PSH entry) to up to three years after PSH entry, allowing us to examine long-term changes in outcomes associated with PSH. We omitted the 6 months prior to PSH entry from our analysis, as this period included large increases in Medicaid spending that were likely associated with the process of PSH entry. Had we included the 6 months prior to PSH placement – and associated increases in health spending – we would have overstated subsequent reductions in spending relative to expected changes had individuals not been placed into PSH. Thus, our exclusion of these two quarters immediately preceding PSH placement likely made our estimates conservative. All analyses were stratified by ages 0 – 20 for youth, and ages 21 and older for adults. Our analyses encompassed 54 of 67 Pennsylvania counties whose housing service data could be linked to Medicaid enrollment and claims files for our study period (2011-2016).

Who receives PSH?

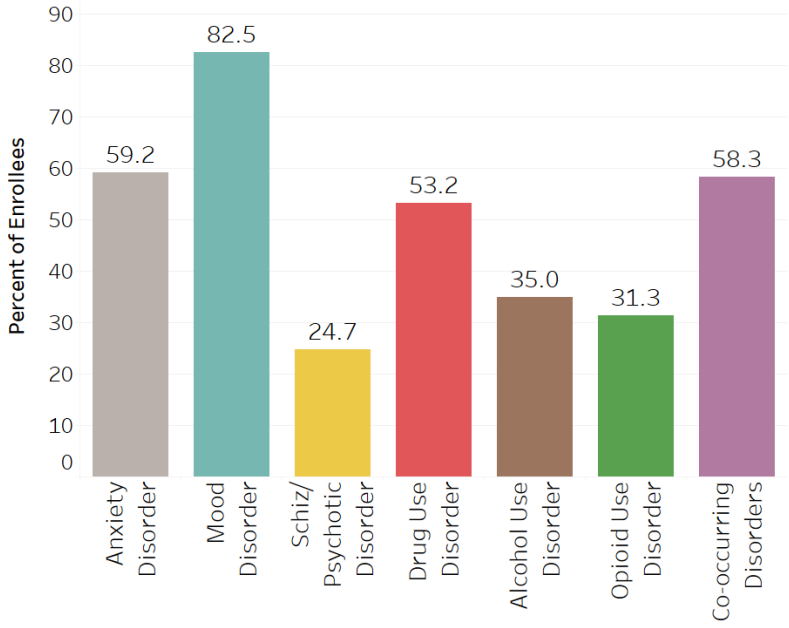
Our sample included 5,859 individuals enrolled in Pennsylvania Medicaid who received PSH between 2011 and 2016. Over 36% of PSH recipients were under age 21, and 80% lived in a metropolitan area. The prevalence of diagnosed chronic conditions was high – almost 43% of adults had 7 or more diagnosed chronic conditions (Figure 1). The prevalence of behavioral health conditions was high with 83% having a diagnosed mood disorder, and nearly one-third having diagnoses of opioid use disorder (Figure 2).

Figure 1: Count of Chronic Conditions among Adult PSH Recipients, 2011-2016 (N=2,733)



Notes: Enrollees were identified as having a chronic condition if they met the diagnosis criteria according to the Elixhauser Index Methodology at any point between 2011 - 2016. Five enrollees were excluded from this analysis as they did not have a PA zip code.

Figure 2: Prevalence of Behavioral Health Conditions among Adult PSH Recipients, 2011 - 2016 (N=2,738)



Notes: Enrollees were identified as having the given condition if they met diagnosis criteria at any point between 2011-2016. Enrollees with co-occurring disorders include those who were diagnosed with at least one of the three mental health conditions (anxiety, mood, schizophrenia/psychotic disorders) and at least one of the three substance use disorders (drug, alcohol, or opioid use disorders).

What changes in utilization and spending are associated with PSH?

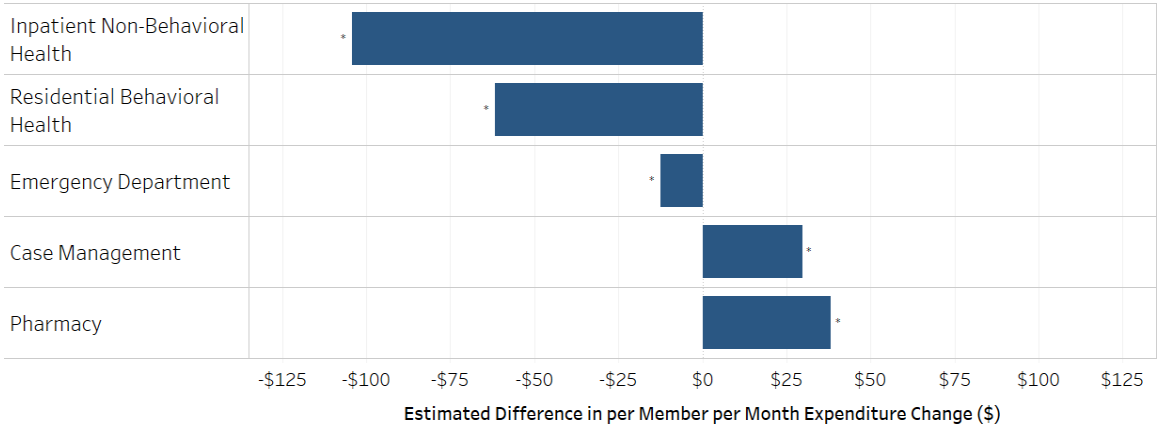
Adults

- **There were high rates of health care use and spending leading up to PSH entry.**
    - Medicaid expenditures for adults in the 7-15 months before PSH entry were over $1,200 per person-month, 25% of which was due to ED and inpatient utilization.
- **PSH was associated with a 13% reduction in Medicaid spending by the third year following PSH entry, compared to changes among homeless adults not receiving PSH.**
    - Figure 3 shows adjusted estimates of changes in Medicaid spending relative to the comparison population by select utilization categories three years after PSH entry. Overall, spending was $162 lower per person-month three years after PSH entry among PSH enrollees relative to comparison group enrollees. We observed increases in spending for both case management and pharmaceuticals which may indicate improved management of chronic conditions.
    - Changes in spending were driven by reductions in inpatient care for non-behavioral health conditions and by residential behavioral health spending**.** PSH was associated with a 48% reduction in non-behavioral health inpatient services, a 38% decline in inpatient mental health utilization, and a 22% decline in emergency department use.

Youth

- **In adjusted analyses, we found no significant change in spending from baseline to after PSH entry among youth PSH recipients, relative to the comparison group, in most spending categories.** However, youth PSH recipients had a statistically significant (30%) decrease in ED visits vs. comparison enrollees.

Figure 3: Adjusted Change in Adult PMPM Spending from Baseline to 3 Years after PSH Entry, PSH vs. Comparison Group



Notes: Positive and negative dollar amounts represent the estimated change in spending for PSH recipients for the given year per person per month relative to the change in spending in the comparison group, after adjusting for relevant covariates.
Asterisks indicate changes that are statistically significant at the 0.05 level.
Expenditures from the long-term care file are not included in any of the estimates.

Post-PSH Medicaid Costs and Housing

We also measured spending and housing service utilization after individuals left PSH to understand if health care utilization and expenditures increased when enrollees no longer received permanent housing support. We identified 446 adults (53.3%) from our cohort who exited PSH and for whom we had a sufficient number of months to measure their health care expenditures after PSH exit. We found that over 75% of these enrollees moved into their own home or with family and friends between 2011 and 2017, and approximately 10% used another housing service after leaving PSH. After adjusting for relevant person-level characteristics, we did not measure a statistically significant change in Medicaid expenditures in the year after exiting PSH relative to the year before. This suggests that the estimated savings in our analysis persist in the year after PSH exit.

Conclusion

Housing is a key social determinant of health. In a recent review of the scientific literature, the Institute of Medicine noted that lack of housing can cause or exacerbate health problems which can contribute to housing instability.[7] In our analysis of chronically homeless Pennsylvania Medicaid enrollees, we found that entry into PSH was associated with long-term decreases in inpatient and ED utilization, as well as reduced Medicaid expenditures relative to enrollees who did not receive PSH.

There is a growing consensus among policy makers that PSH can help homeless individuals with disabling physical or mental health conditions better manage their health needs and reduce medical expenditures. In addition, evidence suggests that PSH may also lead to reduced burdens on the criminal justice and child welfare systems.[8-16] Thus, states are increasingly interested in testing policies that enhance housing services for Medicaid enrollees.[17]

Our findings demonstrate the potential for the Pennsylvania Medicaid program to realize long-term savings when adults experiencing homelessness are placed into PSH. Thus, our findings illustrate a “business case” for payers to invest in services that address the social determinants of health of their enrollees, including homelessness and housing instability.

References

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