

# LDI *Issue Brief*

Volume 7, Number 5  
February 2002

Leonard Davis Institute of Health Economics

*Dennis P. Culhane, PhD*  
LDI Senior Fellow,  
Associate Professor of Social Welfare  
Policy, Associate Professor of  
Psychology in Psychiatry  
University of Pennsylvania

*Stephen Metreaux, PhD*  
Senior Research Coordinator  
University of Pennsylvania

*Trevor Hadley, PhD*  
LDI Senior Fellow,  
Director, Center of Mental Health  
Policy & Services Research, Professor  
of Psychology in Psychiatry  
University of Pennsylvania

## *Supportive Housing for Homeless People with Severe Mental Illness*

Editor's Note: Research suggests that as many as 110,000 single adults with severe mental illness (SMI) are homeless on any given day in the United States. The combination of mental illness and homelessness make this population especially hard to reach through either housing or mental health programs alone. Supportive housing programs, which provide independent housing along with health and social services, hold great promise for this population, but are costly to launch and maintain. This Issue Brief highlights a landmark study that examines the extent to which supportive housing costs are offset by reductions in the use of public services for health, corrections, and shelter.

## *Cost-effectiveness of supportive housing has not been determined*

Policy makers have begun to experiment with supportive housing programs to address the multiple needs of the homeless population with SMI. However, the cost-effectiveness of such programs is not known and the impact of the programs on multiple social service systems has not been examined.

- Supportive housing generally takes two forms: Supportive Housing units, which are subsidized, scattered housing with community-based psychosocial services, and Community Residences, which provide psychosocial services on-site. Of the two, housing linked to community-based services is cheaper to provide.
- In 1990, New York State and New York City agreed to jointly fund and develop 3,600 housing units for homeless individuals with SMI under a program known as the New York-New York (NY/NY) initiative. The NY/NY program was designed to target those homeless persons who were among the most chronic and difficult to serve, and to ease demand on public shelter and psychiatric treatment services.
- Supportive housing programs have been successful in retaining tenants and improving housing stability among participants. The NY/NY program reports that after one, two and five years, 75%, 64% and 50% of participants have retained their placement.

---

***Study compares cost of providing supportive housing to cost of leaving homeless mentally ill on the streets***

Culhane and colleagues studied participants in NY/NY housing and tracked their use of public services across seven public service systems. The goal of the study was to determine whether the costs of providing supportive housing to homeless individuals with SMI are greater than the costs of services they would use if they remained on the streets.

- The study tracked 4,679 homeless people with SMI who were placed in supportive housing in New York City between 1989 and 1997. The investigators examined the participants' use of other social service systems, including public shelters, city public hospitals, Medicaid-funded services, VA hospitals, state psychiatric hospitals, state prisons, and city jails.
- Participants' service use before and after placement in NY/NY was compared to control groups of homeless individuals with similar characteristics who were not placed in supportive housing. The control group in each service system was matched to the study participants in terms of gender, race, age, and indicators of mental illness and substance abuse.
- The investigators examined services used two years before and two years following each participant's placement in NY/NY housing. Because this four-year period is dependent upon an individual's date of placement in the program, the time periods for studying each service system varied.

---

***Prior to placement, homeless people with SMI use \$40,500 worth of public services each year***

The study documents the amount of public services that homeless people with SMI use prior to placement in supportive housing. The investigators calculated the cost of these services (in 1999 dollars) to estimate the amount of money being spent on this population in its state of homelessness.

- Almost three-quarters of all people in NY/NY housing had stayed in a city shelter at some point between 1987 and 1999. In the two years prior to placement, participants spent an average of 69 days per year in a city shelter.
  - Psychiatric hospitalizations were common and may have served as a short-term housing arrangement. Participants spent an average of 29 days per year in state psychiatric hospitals.
  - Participants were frequent users of the health care system. Each year participants spent an average of 18 days in acute care hospitals (paid by Medicaid), 8 days in city public hospitals, and 4 days in VA hospitals. Medicaid also paid for an average of 31 outpatient visits per person per year.
  - Although few participants had been incarcerated, on average the group spent 5 days in state prison and 5 days in city jails each year.
  - Totaling these services, the investigators estimate that each homeless person used an average of \$40,500 per year in publicly-supported services. The vast majority (86%) of these costs accrue within the health care system; 11% are spent on emergency shelter; and 3% are spent in corrections.
-

---

***After placement in supportive housing, service use drops significantly***

The study documents the actual changes in use of services for two years after each individual was placed in NY/NY housing.

- Not surprisingly, city shelter use dropped 86%, to an average of 10 days per year.
- The number of people experiencing a state psychiatric hospital admission dropped 44%, and for those admitted, length-of-stay decreased by 28%. After two years, total inpatient psychiatric days dropped 57%, to an average of 12 days per year.
- Days spent in municipal hospitals decreased by 80%, to an average of 2 days per year; inpatient days paid by Medicaid dropped 40%, to 11 days per year; and days in VA hospitals decreased by 59%, to 2 days per year. However, outpatient visits paid by Medicaid increased 95%, to 61 per year.
- Days spent in prison and jail dropped 74% and 40%, to an average of 1 day and 3 days, respectively.

---

***Supportive housing is associated with large drops in shelter use and psychiatric admissions***

Culhane and colleagues used comparisons with the control group to adjust for other factors that could contribute to reductions in service use. This analysis reveals that NY/NY placement, after controlling for other factors, was associated with:

- 41 fewer days per year in a city shelter.
- 14 fewer days per year in a state psychiatric hospital, 4 fewer days in an acute care hospital paid by Medicaid, 2 fewer days in municipal hospitals, and 1 day less in VA hospitals.
- 24 more outpatient visits per year by Medicaid (presumably, because health needs were addressed more efficiently than by hospitalization).
- 4 fewer days spent in state prisons and 2 fewer days in city jails per year.

---

***Service use reductions cover 90% of the costs of supportive housing***

How do the savings accrued from reductions in service use compare to the cost of providing supportive housing?

- The NY/NY housing program costs about \$13,570 per person per year. The study found that placement in NY/NY housing is associated with a \$12,145 reduction in annual health, corrections, and shelter service use per person. Thus, from a societal perspective, the net cost of the NY/NY housing program, providing housing and services to a homeless person with SMI, is \$1,425 per year.
  - Savings from reduced use of public resources offset nearly 90% of the costs of all housing in the NY/NY program, and 95% of the most common type of housing—Supportive Housing units (scattered sites linked to community-based social services).
  - These results represent a conservative assessment of the impact of the initiative on service use and costs. The study did not track other public services used by homeless people, such as street outreach services, soup kitchens, and drop-in centers, nor did it include the costs of crime to victims, courts, and the police. Had these costs been taken into consideration, the net benefit and potential cost savings of the NY/NY initiative would almost certainly have been even greater.
-

---

## ***POLICY IMPLICATIONS***

Based strictly on the direct cost reductions measured by this study, and compared with the annual cost of supportive housing, the NY/NY program was a sound investment of public resources.

- The results indicate that policy makers could substantially reduce homelessness for a large and visible segment of the homeless population—often thought to be stubbornly beyond the reach of the social welfare safety net—at a very modest cost to the public.
- The social value of reduced homelessness, and of providing greater social protection for the disabled, while difficult to translate into economic terms, constitutes an important additional benefit to society.
- The challenge facing proponents of a national strategy to increase the supply of supportive housing will be to determine how costs can be paid in one area (for housing or housing support services), when the bulk of the savings from the intervention will accrue elsewhere (state mental health services, Medicaid, etc.). In New York, a complex package of federal, state, and city resources was required to pay for the operating, service and debt service costs of the NY/NY program. Similarly, a national strategy will require the participation of various levels of government, and multiple agencies within each level of government.

---

*This Issue Brief is based on the following article: D.P. Culhane, S. Metraux, T. Hadley. The Impact of Supportive Housing for Homeless People with Severe Mental Illness on the Utilization of the Public Health, Corrections, and Emergency Shelter Systems: The New York-New York Initiative. Housing Policy Debate, 2002, vol. 13, Issue 1.*

---

*Published by the Leonard Davis Institute of Health Economics, University of Pennsylvania, 3641 Locust Walk, Philadelphia, PA 19104-6218, 215-898-5611.  
Janet Weiner, MPH, Associate Director for Health Policy, Editor  
Heather Klusaritz, Intern  
David A. Asch, MD, MBA, Executive Director*

Visit us on the web at [www.upenn.edu/ldi](http://www.upenn.edu/ldi)

---

*Issue Briefs synthesize the results of research by LDI's Senior Fellows, a consortium of Penn scholars studying medical, economic, and social and ethical issues that influence how health care is organized, financed, managed, and delivered in the United States and internationally. The LDI is a cooperative venture among Penn schools including Dental Medicine, Medicine, Nursing and Wharton. For additional information on this or other Issue Briefs, contact Janet Weiner (e-mail: [weinerja@mail.med.upenn.edu](mailto:weinerja@mail.med.upenn.edu); 215-573-9374).*

---

© 2001 Leonard Davis Institute

Published by the  
Leonard Davis Institute  
of Health Economics  
University of Pennsylvania

***Issue Brief***



3641 Locust Walk  
Philadelphia, PA 19104-6218  
215.898.5611  
fax 215.898.0229  
ADDRESS CORRECTION REQUESTED

Nonprofit Organization  
U.S. Postage  
**PAID**  
Permit No. 2563  
Philadelphia, PA 19104