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- 1. American Academy of Pediatrics Committee on Pediatric Workforce. Financing graduate medical education to meet the needs of children and the future pediatrician workforce. Pediatrics 2008;121:855-61.
- 2. Report to Congress: Children's Hospitals Graduate Medical Education (CHGME) Payment Program. Washington, DC: Health Resources and Services Administration (http://bhpr.hrsa.gov/childrenshospitalgme/pdf/reporttocongress2013.pdf).
- **3.** Fieldston ES, Altschuler SM. Implications of the growing use of freestanding children's hospitals. JAMA Pediatr 2013;167:190-2.
- **4.** Children's Hospitals Graduate Medical Education (CHGME)/Workforce. Alexandria, VA: Children's Hospital Association (http://www.childrenshospitals.net/AM/Template.cfm?Section=CHGME).
- **5.** Newhouse JP, Wilensky GR. Paying for graduate medical education: the debate goes on. Health Aff (Millwood) 2001;20:136-47.

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Housing as Health Care — New York's Boundary-Crossing Experiment

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mong the countries in the AOrganization for Economic Cooperation and Development (OECD), the United States ranks first in health care spending but 25th in spending on social services.1 These are not two unrelated statistics: high spending on the former may result from low spending on the latter. Studies have shown the powerful effects that "social determinants" such as safe housing, healthful food, and opportunities for education and employment have on health. In fact, experts estimate that medical care accounts for only 10% of overall health, with social, environmental, and behavioral factors accounting for the rest.2 Lack of upstream investment in social determinants of health probably contributes to exorbitant downstream spending on medical care in the United States. This neglect has ramifications for health outcomes, and the United States lags stubbornly behind other countries on basic indicators of population health.

The role of social determi-

nants of health, and the business case for addressing them, is immediately clear when it comes to homelessness and housing. The 1.5 million Americans who experience homelessness in any given year face numerous health risks and are disproportionately represented among the highest users of costly hospital-based acute care. Placing people who are homeless in supportive housing - affordable housing paired with supportive services such as on-site case management and referrals to community-based services - can lead to improved health, reduced hospital use, and decreased health care costs, especially when frequent users of health services are targeted.3,4 These benefits add to the undeniable human benefit of moving people from homelessness into housing.

With runaway Medicaid costs crippling states throughout the country, leaders are looking for innovative solutions to bend the cost curve. We in New York State are testing one such innovation: investment in supportive housing for high-risk homeless and unstably housed Medicaid recipients. These recipients include not only people living on the streets or in shelters but also thousands boarding in nursing facilities, not because they need the level of care provided but because they lack homes in the community to which they can return. New York Medicaid payments for nursingfacility stays are \$217 per day, as compared with costs of \$50 to \$70 per day for supportive housing. Furthermore, preventing even a few inpatient hospitalizations, at \$2,219 per day, could pay for many days of supportive housing.

Supportive housing is part of a larger Medicaid Redesign effort that was initiated by Governor Andrew Cuomo in January 2011. An Affordable Housing Work Group including representatives from more than 20 organizations discussed barriers to implementing supportive housing and identified solutions. The group's final recommendations for state government action included providing integrated funds for capital, operating expenses, rent subsidies, and services in new PERSPECTIVE HOUSING AS HEALTH CARE

The New York Medicaid Redesign Team's Supportive-Housing Allocation Plan, Fiscal Year 2012–2013.*		
Project	Description	Funding dollars
NY/NY III acceleration†	Capital funding to leverage unutilized federal housing tax credits to accelerate funding of NY/NY III units for high-cost Medicaid populations.	25,000,000
Coler–Goldwater project	Funding to construct 171 apartments for current residents of a skilled nursing facility who could instead live safely in a community setting.	7,300,000
Homeless Housing and Assistance Program update	Capital funding to construct new supportive housing units for high-cost Medicaid populations.	14,365,000
Expansion of existing rental or service subsidies	Funding directed to multiple New York State agencies (Supportive Housing Program, Office for People with Developmental Disabilities, Office of Mental Health, Office of Alcoholism and Substance Abuse Services, Department of Health AIDS Institute) to provide services to specific subpopulations who are of high cost to Medicaid and are homeless, at risk for homelessness, or living in institutional settings and able to transition to the community.	25,324,000
Office of Temporary and Disability Assistance subsidies	Funding to pay for ongoing rent subsidies for 300 formerly homeless persons with disabilities facing imminent eviction in New York City.	2,600,000
Other	Funding for supportive and permanent housing initiatives in Long Island (Long Island Housing for Persons with Disabilities) and the Bronx ("The Claremont").	411,000
Total		75,000,000

^{*} Details on the Supportive Housing Allocation Plan are available at www.health.ny.gov/health_care/medicaid/redesign/affordable_housing_workgroup.htm.

supportive housing units targeting high-need, high-cost Medicaid recipients (www.health.ny.gov/ health_care/medicaid/redesign/). Supportive housing dovetails with other interventions such as health homes, which will provide coordinated care to high-risk patients. For fiscal year 2012-2013, New York allocated \$75 million from the state's share of Medicaid Redesign funding for supportive housing (see table) that will be provided to 4500 New Yorkers, in the form of both newly constructed supportive housing units and subsidies and service support for use in existing units. The 2013-2014 Medicaid budget includes \$86 million for supportive housing. Though New York hopes to recoup much of this cost by accurately targeting Medicaid patients who have high

health care costs, funding supportive housing still required an up-front investment, which New York provided by reinvesting early savings from other Medicaid reforms and leveraging existing funds from other sources.

Current federal Medicaid rules do not allow capital funding for supportive housing. Medicaid already pays for housing in the form of nursing homes; so far, New York has been unable to advance a request that the Centers for Medicare and Medicaid Services (CMS) allow capital funding for supportive housing — a less restrictive, more cost-effective housing option for a subgroup of patients. New York remains committed to recognizing housing as a critical health intervention and will still invest state-share Medicaid dollars, but the state will face

a struggle to expand access to the model at a scale that matches the need.

Studies have shown that the costs of supportive housing are largely offset by resultant savings in services used, mostly from reduced use of the health care system.3 Some studies of high-risk patients have found that savings exceeded the costs of providing housing, thus yielding a net positive return on investment.3,4 The degree of cost offsets or savings depends in part on how effectively programs target patients with high and modifiable costs. Such targeting is challenging because people who are high users of services in one year do not always remain so in the next. Furthermore, most people who experience homelessness do so only transiently and will not become

[†] NY/NY III was a joint agreement by New York State and New York City signed in 2005 to provide 9000 supportive-housing units to specific target populations of homeless people in New York City (http://shnny.org/budget-policy/nyc/ny-ny/ny-ny-iii).

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high-cost health care users. Targeting interventions to patients whom predictive modeling identifies as high-risk, or to chronically homeless patients or those in institutional settings with consistent patterns of high use, is more likely to lead to savings.5 Although supportive housing is most likely to be embraced if cost savings can be shown, most other medical interventions are measured in the quality of lifeyears gained rather than according to their ability to achieve cost neutrality.

The New York experiment will become even more relevant in 2014, when nearly all homeless people will become Medicaidhave yet to generate evidence that it will achieve its intended outcomes, we hope it may serve as a model for other states seeking to provide better, more cost-efficient care for Medicaid recipients who are homeless, unstably housed, or institutionalized. Measurement and evaluation will be important components of the experiment, and a robust New York Medicaid database will enable tracking of cost, health services utilization, and quality metrics for patients before and after placement in supportive housing.

Time and again, taking a narrow view of health care has proven ineffective in producing meaningful change. Yet the current

The role of social determinants of health, and the business case for addressing them, is immediately clear when it comes to homelessness and housing.

The 1.5 million Americans who experience homelessness in any given year face numerous health risks and are disproportionately represented among the highest users of costly hospital-based acute care.

eligible in states that expand eligibility. Many of these people may join the ranks of the 5% of Medicaid recipients who account for 50% of Medicaid costs. In addition, the homeless population is steadily aging and will have corresponding increases in health costs. Though it's still early in the New York experiment's implementation process, and we

thrust of health care reform remains firmly focused on traditional health care services. Navigating, coordinating, enhancing, and changing payment models for what are essentially the same services may simply be rearranging the proverbial deck chairs on the Titanic — and, in any case, surely won't be the answer for all people. Reforms such as care co-

ordination models and patientcentered medical homes are necessary but insufficient for homeless populations with complex problems. Pairing such reforms with supportive housing is more likely to result in lasting health improvements and reduced costs.

To truly reform U.S. health care and lower costs, we suggest that it's time to broaden our thinking and spending to reach outside conventional health care silos. Social determinants of health should be central to mainstream discussions and funding decisions about health care. For many patients, a prescription for housing or food is the most powerful one that a physician could write, with health effects far exceeding those of most medications. We envision a Medicaid system in which spending on social determinants of health such as housing is not only allowable, but recognized as a best practice. Work toward this goal could begin through state Medicaid waivers and demonstration projects, which would produce evidence to guide best practices that could then be expanded through federal law and incentives. New York's plan to use Medicaid for supportive housing represents one such experiment that crosses traditional boundaries to improve care for high-need, high-cost Medicaid recipients.

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PERSPECTIVE HOUSING AS HEALTH CARE

- 1. Bradley EH, Elkins BR, Herrin J, Elbel B. Health and social services expenditures: associations with health outcomes. BMJ Qual Saf 2011;20:826-31.
- 2. Asch DA, Volpp KG. What business are we in? The emergence of health as the business of health care. N Engl J Med 2012;367: 888-9
- **3.** Burt MR, Wilkins C, Mauch D. Medicaid and permanent supportive housing for chron-

ically homeless individuals: literature synthesis and environmental scan. Washington, DC: Office of Disability, Aging and Long-Term Care Policy, Office of the Assistant Secretary for Planning and Evaluation, Department of Health and Human Services, 2011 (http://aspe.hhs.gov/daltcp/reports/2011/ChrHomlr.pdf).

4. Larimer ME, Malone DK, Garner MD, et al. Health care and public service use and costs before and after provision of housing

for chronically homeless persons with severe alcohol problems. JAMA 2009;301:1349-57.

5. Raven MC, Billings JC, Goldfrank LR, Manheimer ED, Gourevitch MN. Medicaid patients at high risk for frequent hospital admission: real-time identification and remediable risks. J Urban Health 2009;86:230-

DOI: 10.1056/NEJMp1310121
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