Health Affairs

At the Intersection of Health, Health Care and Policy

Cite this article as:

Shreya Kangovi, Frances K. Barg, Tamala Carter, Judith A. Long, Richard Shannon and David Grande Understanding Why Patients Of Low Socioeconomic Status Prefer Hospitals Over **Ambulatory Care**

Health Affairs, 32, no.7 (2013):1196-1203

doi: 10.1377/hlthaff.2012.0825

The online version of this article, along with updated information and services, is available at:

http://content.healthaffairs.org/content/32/7/1196.full.html

For Reprints, Links & Permissions:

http://healthaffairs.org/1340 reprints.php

E-mail Alerts: http://content.healthaffairs.org/subscriptions/etoc.dtl

To Subscribe: http://content.healthaffairs.org/subscriptions/online.shtml

Health Affairs is published monthly by Project HOPE at 7500 Old Georgetown Road, Suite 600, Bethesda, MD 20814-6133. Copyright © 2013 by Project HOPE - The People-to-People Health Foundation. As provided by United States copyright law (Title 17, U.S. Code), no part of Health Affairs may be reproduced, displayed, or transmitted in any form or by any means, electronic or mechanical, including photocopying or by information storage or retrieval systems, without prior written permission from the Publisher. All rights reserved.

DOI: 10.1377/hlthaff.2012.0825 HEALTH AFFAIRS 32, NO. 7 (2013): 1196-1203 ©2013 Project HOPE— The People-to-People Health Foundation, Inc. By Shreya Kangovi, Frances K. Barg, Tamala Carter, Judith A. Long, Richard Shannon, and David Grande

Understanding Why Patients Of Low Socioeconomic Status Prefer Hospitals Over Ambulatory Care

Shreya Kangovi (kangovi@ upenn.edu) is a Robert Wood Johnson Foundation Clinical Scholar in the Department of Medicine at the Philadelphia Veterans Affairs Medical Center, in Pennsylvania.

Frances K. Barg is an associate professor in the Department of Family Medicine and Community Health, Perelman School of Medicine, University of Pennsylvania, in Philadelphia.

Tamala Carter is a community health worker in the Penn Center for Community Health Workers.

Judith A. Long is an associate professor of medicine at the Philadelphia Veterans Affairs Center for Health Equity Research and Promotion.

Richard Shannon is the Frank Wister Thomas Professor of Medicine in the Department of Medicine, Perelman School of Medicine.

David Grande is an assistant professor of medicine in the Perelman School of Medicine.

ABSTRACT Patients with low socioeconomic status (SES) use more acute hospital care and less primary care than patients with high socioeconomic status. This low-value pattern of care use is harmful to these patients' health and costly to the health care system. Many current policy initiatives, such as the creation of accountable care organizations, aim to improve both health outcomes and the cost-effectiveness of health services. Achieving those goals requires understanding what drives lowvalue health care use. We conducted qualitative interviews with forty urban low-SES patients to explore why they prefer to use hospital care. They perceive it as less expensive, more accessible, and of higher quality than ambulatory care. Efforts that focus solely on improving the quality of hospital care to reduce readmissions could, paradoxically, increase hospital use. Two different profile types emerged from our research. Patients in Profile A (five or more acute care episodes in six months) reported social dysfunction and disability. Those in Profile B (fewer than five acute care episodes in six months) reported social stability but found accessing ambulatory care to be difficult. Interventions to improve outcomes and values need to take these differences into account.

educing avoidable hospitalizations and emergency department (ED) visits is a major target for cost control and quality improvement in the health care system. Hospitalizations for ambulatory care-sensitive conditions¹—that is, acute conditions that could have been prevented or mitigated by effective ambulatory care²—cost approximately \$30.8 billion annually.³ At each stage of care, patients with low socioeconomic status (SES) are at higher risk for being hospitalized for ambulatory care-sensitive conditions than patients of higher socioeconomic status.1-7 Low-SES patients are twice as likely as high-SES patients to require urgent ED visits,4,8 four times more likely to require admission to the hospital, 1-3 and more likely to return to the hospital after dis-

charge^{6,7,9,10} and require multiple hospitalizations for any given illness.¹¹ At the same time, they use 45 percent less ambulatory¹² and preventive care^{13,14} than high-SES patients.

Un- and underinsurance drive low-SES patients' preferential use of inpatient health services in part. ^{1,15–18} But even in countries with near-universal health insurance coverage, low-value use persists among low-SES patients. ¹⁹ This suggests that factors beyond insurance shape preferences for inpatient versus ambulatory care.

The relative underuse of primary care and overuse of hospital-based care among low-SES patients, which we call "low-value use," has two negative consequences. First, these patients are less likely to gain the health benefits of primary care, ^{20,21} exacerbating health disparities. ²²⁻²⁴

Second, this pattern of use is costly for the health care system. Many current policy initiatives, including Medicare's Hospital Readmissions Reduction Program and the creation of accountable care organizations, are designed to improve both health outcomes and the cost-effectiveness of the health care system. Advancing those policy goals requires understanding what drives lowvalue use.

In this article we investigate the causes of lowvalue use among a sample of patients of low socioeconomic status; explore variability by frequency of acute care use within this group; and offer recommendations for increasing the value of these patients' health care use, both improving the quality of the care they receive and reducing its cost.

Study Data And Methods

SELECTION OF PARTICIPANTS We conducted our qualitative study between January and June of 2011. Sixty-four patients identified as having low socioeconomic status were approached during hospitalization and asked to participate in the study. Twenty-four refused because they did not feel that participation would benefit them (n = 12), they were too busy (n = 7), or they felt too sick to participate (n = 5). Forty patients participated in interviews.

Low socioeconomic status is commonly measured by race, education, income, and insurance status. 25,26 We used patients' insurance status and place of residence as proxies for low socioeconomic status. Patients were eligible for the study if they were ages 18-64, uninsured or insured by Medicaid, residents of a five-ZIP code region of Philadelphia characterized by more than 30 percent of residents living below the federal poverty level, and hospitalized on the general medicine services of two academically affiliated Philadelphia hospitals that serve a predominantly African American population. The payer mix of study hospitals was 45.4 percent privately insured, 33.5 percent insured by Medicare, and 21.2 percent uninsured or insured by Medicaid. Characteristics of study participants are described in Exhibit 1.

Patients were purposefully selected to achieve a range of ED visits over the prior six months to allow comparison between those with higher and those with lower patterns of acute care use. We developed a semistructured interview guide based on the Integrative Model of Behavior,²⁷ a conceptual framework used by social scientists to understand why a person does or does not perform a behavior. Specifically, it examines a person's attitudes and beliefs about the behavior in question, including the social norms the person holds about it and the person's confidence in his or her ability to perform the behavior. Our interview guide explored patients' health care use as behaviors influenced by their attitudes and preferences. In addition, we explored social norms related to seeking hospital versus primary care and patients' ability to manage illness without having to return to the hospital.

INTERVIEWS A community health worker who was trained in qualitative interviewing by two coauthors of this article—one a medical anthropologist and the other a principal investigator conducted interviews. Community health workers have been shown to have high levels of "empathic understanding"28 and engender trust among low-income and otherwise marginalized populations. The community health worker approached eligible patients while they were hospitalized to explain the study and obtain consent. Interviews were conducted in person either in the hospital or at patients' homes. The interview questionnaire was open-ended, allowing interviewees to respond in their own

ANALYSIS Interviews were recorded, transcribed, and entered into the qualitative data analysis software program NVivo 10.0 for coding and analysis. We used a modified grounded theory approach, ²⁹ developing a coding structure that included major ideas that emerged from a close reading of the patients' responses as well as a set of a priori codes focused on the factors that influence a patient's return to the hospital. Coding was performed by two trained research assistants and discussed at coding meetings. During these meetings, we used NVivo to quantify the interrater reliability, or the degree of agreement among the two coders. We then identified codes for which the interrater reliability

EXHIBIT 1

Characteristics Of Participants In The Study Of The Care Preferences Of Patients With Low Socioeconomic Status

Characteristics $(N = 40)$	Number	Percent		
Male	12.0	30		
Age, mean years ^a	42.2	<u>_</u> b		
African American	36.0	90		
CHARLSON GROUP OF PRIMARY ADMISSION DIAGNOSIS AT ENROLLMENT				
Myocardial	10.0	25		
Infectious disease	7.0	18		
Pulmonary	5.0	13		
Gastrointestinal	4.0	10		
Neurologic	4.0	10		
Number of secondary diagnoses, mean ^c	3.9	b		
Acute care episodes in six months prior, mean ^d	4.1	<u></u> b		

SOURCE Authors' analysis of study data. ^aStandard deviation: 14.5. ^bNot applicable. ^cStandard deviation: 2.7. dStandard deviation: 5.15. Range: 1-13.

was below 70 percent. These codes were discussed by the team, and discrepancies were resolved by consensus. The final interrater reliability between coders was 95 percent.

To validate our findings, we used two forms of member checking, a technique in which qualitative researchers discuss study findings with members of the study sample or the broader population that the study sample is intended to represent. First, the community health worker–interviewer called each study participant and discussed our results. Second, to validate our findings among the broader study population outside of our sample, we presented results at meetings of community-based organizations within the study ZIP codes.

Our findings validated, we explored differences among study participants based on their frequency of acute care use. We created a histogram showing the distribution of number of hospital visits study participants made in the previous six months. We divided the sample into two groups at the inflection point, five visits, and

EXHIBIT 2

Reasons For Preferential Use Of Hospital Over Ambulatory Care Among Patients Of Low Socioeconomic Status

Theme

ACCESS

Affordability: relationship of prices of services to patients' ability to pay Accessibility: relationship of the location of services to the location of patients

Accommodation: patients' perceptions of how health care supply is organized (for example, appointment systems, hours of operation)

Availability: relationship of the volume and types of existing resources to patients' needs

Acceptability: relationship of patients' attitudes about what care should be like to actual characteristics of clinicians and facilities

TRUST IN PROVIDER'S TECHNICAL QUALITY

Trust in the technical competence of clinical care

Representative quote

- "I would like to, but I just don't have the insurance to see a doctor."
- "Transportation is hard. Every time I use the van service, [it] will get me there late, maybe 20 minutes late, and I'm marked as a no-show."
- "You have to call them in the morning to get an appointment the same day, like, whenever they can fit you in, instead of just being about to actually set up an appointment."
- "Sometimes you can't get to a primary...
 you may only be able to leave a message
 for a secretary, so if you have an
 immediate medical issue you better get
 to the nearest ER."
- "Men got to be really, really hurting real bad for us to go [to seek medical care]. If we can medicate ourselves, until we get to a certain point, we have to do it."

"It's a wellness center, which I really think that man is a quack. He never treated my husband or me aggressively to get the blood pressure under control. I went to the hospital, and they had it under control in four days. This guy had more than three years." labeled them Profile A (five or more acute care episodes in six months) and Profile B (fewer than five acute care episodes in six months). We then explored in depth the qualitative differences in the responses given by patients in the two groups, using the NVivo matrix function to identify the number of participants in Profile A versus Profile B who endorsed each main theme.

LIMITATIONS This study has several limitations. First, because of its design and sample size, results might not be generalizable beyond an urban, poor, and predominantly African American patient population. In addition, we cannot determine the prevalence of these findings, such as the relative distribution of profile subtypes, without additional quantitative studies. However, as a first step, we felt it was important to use qualitative methodology to explore the relatively unknown perspectives of this patient population regarding preferential use of hospital care.

Also, without additional studies comparing patients of low and high socioeconomic status, we cannot conclude that our findings are unique to the population we studied. Finally, because this study focused on patient perspectives rather than objective, longitudinal data, the proposed causal sequence of findings may be incorrect. For instance, conclusions drawn about profile subgroups may be misattributed because of the effect of patients' admission diagnoses or other unmeasured variables.

Study Results

Most participants perceived two main benefits of hospital care relative to ambulatory care: better overall access across a variety of domains and higher levels of trust in the technical quality of hospital providers and services (Exhibit 2).

ACCESS We categorized access benefits of hospital care relative to ambulatory care according to the dimensions of a model described by Roy Penchansky and J. William Thomas:30,31 affordability, accessibility, accommodation, availability, and acceptability. Hospital care was viewed by participants as more affordable than ambulatory care. Uninsured participants could not afford fees for regular ambulatory visits, leaving them no choice but to rely on hospital charity care when they became ill. For patients covered by Medicaid, the direct financial cost of an ED visit and physician office visit were similar; however, the overall cost of ambulatory care was higher because of the additional time and expense required for specialty visits or additional testing recommended by the primary care provider. One respondent reported: "When I go to

SOURCE Authors' analysis.

my primary, I don't have a copay. I don't have a copay in the ER either. But my primary may send me to 2 or 3 specialists, and sometimes there is a copay for them. Plus time off from work to go see them. It's cheaper to just go to the ER."

Ambulatory care was commonly described as less accessible via transportation than hospital care. Although the ED could be accessed via ambulance for urgent complaints and provide "onestop-shop" services in a single location, ambulatory care required a great deal of transportation coordination for participants, most of whom did not have their own car. Many used subsidized door-to-door van services; however, vans were often unreliable, causing patients to miss their scheduled appointments. Medicaid also provided free public transportation passes. However, this required advance notice, which was challenging because many clinics offered only same-day appointments. This system of open-access scheduling was viewed as unaccommodating by patients: "You have to call that same morning, and a lot of times the line is busy with all the other people calling at the same time. By the time I get through, they're booked. And I just wasted a day off from work!" After-hours care was an additional factor that made hospitalbased care more accommodating than ambulatory care, particularly for patients who worked during regular office hours.

Patients commonly described the hospital as being more available to meet their needs than ambulatory care. Patients reported difficulty obtaining timely clinical advice from their physicians, forcing them to use the ED for ambulatory care–sensitive conditions. Many participants explained that when they did reach an ambulatory clinician via telephone, the clinician would likely advise them to "just go to the ER." These patients often simply bypassed ambulatory care altogether: "Since they always say [to go to the ER] anyway, I just go straight to the ER and don't even bother calling [the primary care clinic]."

The combination of these factors created a social norm regarding the acceptability of hospital versus ambulatory care: "The hospital is where you go when you are sick or in pain at all, and the primary is just for check-ups."

TRUST IN THE TECHNICAL QUALITY OF PROVIDERS Many participants described a greater sense of trust in the technical quality of hospital care than in ambulatory care. Participants described hospitals as better able to correctly diagnose and control problems, particularly for any condition they viewed to be diagnostically challenging: "[My primary] didn't help me. I had to go to the emergency room just to get rid of this. She couldn't do it." Patients who distrusted the quality of the care available from their primary

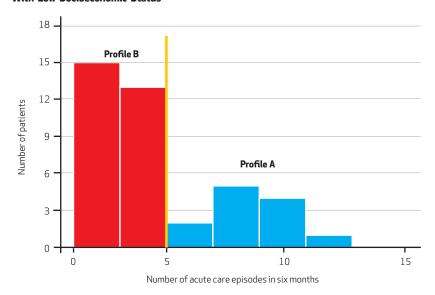
care physician did not switch providers because of difficulty navigating systems and the belief that other ambulatory care providers available to uninsured or Medicaid patients would be no better.

PROFILE SUBTYPES Profile A patients and Profile B patients (Exhibit 3) varied greatly in terms of their psychosocial histories and the factors that influenced the frequency of their hospital visits (Exhibit 4).

Several Profile A patients described experiences with early-life trauma that had profound implications on their sense of well-being throughout adulthood. One patient explained the implications of incest within his family: "Well, basically from birth I'm kind of the black sheep of the family. I come to find out...the reason why I was treated that way. Basically what it boils down to was my father was my mother's brother. That has affected everything... I am still dealing with the effects." Profile A patients were more likely to explain their illnesses as a result of a stepwise progression of family dysfunction, substance abuse, housing instability, and ultimately disability leading to difficulty with activities of daily living. Profile A patients did report some resources that they viewed as promoters of their health: As a result of disability, they were more likely than others to be insured and have

EXHIBIT 3

Distribution In Frequency Of Acute Care Episodes Among Two Profile Groups Of Patients With Low Socioeconomic Status



SOURCE Authors' analysis. **NOTES** This histogram presents the number of acute care episodes over a six-month period prior to study enrollment as self-reported by each participant. The bulk of patients had 1–4 episodes, and a "long tail" of participants had 5–13 episodes over a six-month period. We divided this sample at the inflection point into Profile A (five or more acute care episodes in six months) and Profile B (fewer than five acute care episodes in six months) and explored differences in key themes endorsed by Profile A versus Profile B. See text for details.

EXHIBIT 4

Differences Between Profile A And Profile B Subgroups Of Patients With Low Socioeconomic Status

Theme	Representative quote	Percent endorsing theme within Profile A subgroup (n = 12)	Percent endorsing theme within Profile B subgroup (n = 28)
BARRIERS WORSE FOR PRO		A subgroup (II - 12)	b subgroup (II - 20)
Trauma	"When I was 15 my dad had gotten locked up. So while I was living with him,I came home one day, and he wasn't there."	41.7	7.1
Family dysfunction	"My biggest worry is my older daughter. I barely hear from her. I just didn't ever [know] where she was until she called me yesterday."	83.3	53.5
Substance abuse	"I was in the hospital because I was, again, using drugs, because of stuff that happened in my life."	41.7	21.4
Food insecurity	"I rarely eat when I'm out on the streets."	66.7	7.1
Housing instability	"Since getting out of the hospital, it's just been a struggle just to keep a roof over our head."	50.0	14.2
Difficulty with activities of daily living	"I use my commode, because I couldn't sit on the toilet. I can't sit down on nothing low."	33.3	3.6
BARRIERS WORSE FOR PRO	OFILE B		
Employment pressure	"I went back [to work after discharge], becausewe have to work. But it wasn't in my best interest to go back because of my injuries."	25.0	53.6
Lack of insurance	"I don't have any medical insurance, so therefore, when I do go to the hospital, I hope every time that I get lucky and maybe get me some type of low prescription plan, maybe like a \$4 prescription or something like that."	41.7	53.6
Caregiver burden	"My mother is 84 years old, is not in the best of health. My sister was just in the hospital with the overweight My sister next to me, she was in a horrible car crash, smashed both her legs and stuff. My brother is diabetic and sickly and has a sick wife."	16.7	32.0
PROMOTERS			
Self-efficacy	"I know I gotta go [to the doctor], I just go. Me not going means I don't care about my health. So I just go."	0.0	35.7
Social support	"I have a lot of support, and they want to know am I in good health."	41.7	82.1
NARRATIVE			
Metaphor	"I'm trying to pray and meet the hope that my day will go better, and I won'trun into a brick wall."	75.0	42.9

SOURCE Authors' analysis.

access to affordable medications.

Profile B patients had similar income, sex distribution, race, and neighborhood characteristics as Profile A patients. But they differed in important ways. In contrast with Profile A patients, Profile B patients described a functional social network that provided emotional support. When possible, friends and family would also provide instrumental support such as transportation to appointments; however, this help was constrained by their own poverty and ill health. One respondent said: "[My husband] helps me the best he [can]. But he [has] a muscle disease, so he can't really lift me." Although Profile B patients seemed to benefit from the support of friends and family, they were often caregivers within their social networks, making it difficult to prioritize their own health. "I have a special daughter," one reported. "I got hit by a car when

I was pregnant with her. So over my own health, I have to put my girl's first." Profile B patients attributed their illnesses to difficulty obtaining insurance and the resulting barriers to ambulatory care and affordable medications. Their health was also affected by demands from employment, such as pressure to return to work before complete recovery.

The two groups of patients also differed in their explanatory models and approach to coping with their illnesses. Profile A patients were more likely to use metaphor and narrative in their attempts to derive meaning from their illnesses: "Some battles [are] not for us to fight. I wish I could say I know I'm going to make it. But I don't know what God has in store for me." In contrast, Profile B patients described their illnesses in a more concrete manner, speaking with higher levels of certainty and self-efficacy regard-

ing the need for key health behaviors: "[Seeing the primary care doctor] is something that has to be done, so it's something that I have to do."

LOW-VALUE USE BY PROFILE SUBTYPE Both profile subtypes used easier access and higher technical quality as rationales for preferentially using hospital over ambulatory care. However, Profile A patients explained an additional set of drivers uniquely related to the safety-net role that the hospital played in their lives.

Many of these participants, who suffered from family dysfunction, mental illness, disability, and homelessness, found respite in the hospital that was unavailable elsewhere: "In the hospital it was quiet. Come home, it's chaos." In addition, the hospital offered these participants skilled help with activities of daily living. This prompted several participants to return to the hospital for readmission: "[After discharge] I went back out on the streets and still had the same challenges, because of my living conditions, and I don't have much support. So, I got sucked right back to the hospital." The hospital, and particularly the ED, was also described as a relatively easy place for participants to access controlled substances. "[I came to the hospital] because [my primary] wouldn't give me pain medication.... I told him I was in a lot of pain, and I'm tired of begging people for medication."

Perhaps most important, the hospital provided a rare source of demonstrable support to Profile A patients: "People do need people. Some people are lonely. Some people go outside just to have comfort.... People will go to another hospital that [doesn't] know their history [when their blood] pressure is up just so they can get admitted for somebody to talk to."

Discussion

The results of this study are synthesized in a conceptual framework for low-value use (see the online Appendix), ³² which incorporates the theory of social conditions as fundamental causes of disease and the Andersen model of medical care use. ¹⁸ The framework highlights the fact that low-SES patients who share intrinsic characteristics, such as race and language, can be differentiated into unique subpopulations by their experience of psychosocial or economic factors, such as trauma, family dysfunction, or employment.

Profile A patients emerge from these experiences with higher levels of social dysfunction and substance abuse, which are associated with worse physical health and higher levels of disability.³³ Both Profile A and B patients preferentially choose hospital-based care for its relative ease of access and perceived technical quality.

Profile A patients also come to the hospital because of its secondary benefits. This pattern of use has potential consequences for health outcomes. Frequent care transitions expose them to higher levels of medical error^{34,35} and loss of the benefits of continuous primary and preventive care.²⁰ By these mechanisms, low-value use increases the burden of disease for patients of low socioeconomic status and further strains their personal circumstances.^{36,37}

This article offers three insights. First, preferential use of hospital instead of ambulatory care may be driven in part by perceptions that hospitals offer better access and technical quality. Therefore, efforts to reduce preventable hospital use, such as unplanned hospital readmissions, solely by improving hospital quality may have the paradoxical effect of increasing readmissions. Equalizing access and perceived quality across inpatient and ambulatory settings may be more effective.

Second, our findings suggest that patients of low socioeconomic status do not face a homogenous set of challenges; rather, we describe distinct profiles of patients with different needs and targets for intervention. Third, although preferential use of hospital care by these patients is low value, it is not irrational. The patients in our study articulated clear, logical reasons for preferring hospital to ambulatory care. The reasons provided cannot be attributed to a cultural tendency or ignorance remediable by education on the appropriate use of the ED.

Implications

This article raises conflicts inherent between patient- and system-centered perspectives on health care. Although low-SES patients may prefer inpatient care as a way of meeting various needs, the health system view suggests that care should be provided in the most cost-effective setting possible. The health policy landscape has several developments that may help to reconcile this tension and, in so doing, correct low-value use.

Accountable care organizations, which encompass both ambulatory and inpatient care, may save money if they can make ambulatory care more responsive to low-SES patients' needs by addressing barriers raised in this article. In doing this, accountable care organizations may be able to tap into primary care redesign efforts that have been stimulated by the national movement toward patient-centered medical homes. At the same time, accountable care organizations should be cautious about some patient-centered medical home strategies that could present challenges to low-SES patients, such as

open-access scheduling. Accountable care organizations may instead focus on making ambulatory care more of a convenient, "one-stop-shop" experience for patients by physically co-locating services and coordinating access (for instance, scheduling or arranging transportation) whenever possible. Accountable care organizations will also have the ability to facilitate better communication between ambulatory care and ED providers regarding the prescription of controlled substances, ensuring that patients receive consistent care plans across settings.

Finally, accountable care organizations may want to avoid traditional measures intended to restrain ambulatory care use, such as prior authorization and complicated referral systems. These measures may backfire by fragmenting care and driving patients to the higher-cost hospital setting. Valuable tools that might guide accountable care organizations in the overall process of primary care redesign are patient-reported measures of primary care access and quality, such as the Consumer Assessment of Healthcare Providers and Systems Patient-Centered Medical Home Survey.³⁸

In addition to making ambulatory care more focused on the needs and preferences of the low-SES patient, policy leaders should seek less costly alternatives for the secondary benefits that Profile A patients receive from the hospital. Respite care has modest evidence supporting its cost-effectiveness relative to inpatient care³⁹ and can be explored as a substitute for shelter and care services sought by Profile A patients in the hospital. Developing countries have invested in community health workers to replace some of the instrumental and emotional social support Profile A patients receive within the hospital. Finally, better linkages between hospitals and outpatient mental health and substance abuse services may help Profile A patients break the pattern of repeated rehospitalizations for underlying mental health issues. 40,41

Both low-SES patients and society at large have a stake in addressing health disparities and low-value use. The shifting health policy landscape might offer the opportunity to use workforce, delivery, and payment innovations to address the fundamental causes of health disparities and costly hospital use among this population.

This study was supported by the Leonard Davis Institute of Health Economics at the University of Pennsylvania. David Grande has received honoraria from the Johns Hopkins University Continuing Medical Education Program; had a consultancy with the National Nursing Centers Consortium; and has received grant support from or

has grants pending with the HealthWell Foundation, the National Human Genome Research Institute, and the Agency for Healthcare Research and Quality. Richard Shannon is the founder of a biotech company, Ventrigen; is a senior fellow at the Institute for Healthcare Improvement; and is on the scientific advisory boards for GlaxoSmithKline,

Pfizer, Merck, and Value Capture. He also is a member of the board of directors of the American Board of Internal Medicine. The authors thank the Mixed Methods Research Laboratory at the University of Pennsylvania for its guidance and technical assistance with this study.

NOTES

- 1 Billings J, Zeitel L, Lukomnik J, Carey TS, Blank AE, Newman L. Impact of socioeconomic status on hospital use in New York City. Health Aff (Millwood). 1993;12(1):162–73.
- 2 Caper P. The microanatomy of health care. Health Aff (Millwood). 1993; 12(1):174–7.
- 3 Jiang HJ, Russo CA, Barrett ML.
 Nationwide frequency and costs of
 potentially preventable hospitalizations, 2006 [Internet]. Rockville
 (MD): Agency for Healthcare
 Research and Quality; 2009 Apr [last
 updated 2011 Feb 1; cited 2013
 May 29]. (Statistical Brief No. 72).
 Available from: http://www.hcupus.ahrq.gov/reports/statbriefs/
 sb72.jsp
- 4 Tang N, Stein J, Hsia RY, Maselli JH, Gonzales R. Trends and characteristics of US emergency department visits, 1997–2007. JAMA. 2010; 304(6):664–70.
- 5 Jiang HJ, Wier LM, Potter DEB, Burgess J. Potentially preventable hospitalizations among Medicare-Medicaid dual eligibles, 2008

- [Internet]. Rockville (MD): Agency for Healthcare Research and Quality; [last updated 2010 Sep 28; cited 2013 May 29]. (Statistical Brief No. 96). Available from: http:// www.hcup-us.ahrq.gov/reports/ statbriefs/sb96.jsp
- 6 Elixhauser A, Au DH, Podulka J. Readmissions for chronic obstructive pulmonary disease, 2008 [Internet]. Rockville (MD): Agency for Healthcare Research and Quality; [last updated 2011 Sep 16; cited 2013 May 29]. (Statistical Brief No. 121). Available from: http://www.hcup-us.ahrq.gov/reports/statbriefs/sb121.jsp
- 7 Forsythe S, Chetty VK, Anthony D, Johnson A, Greenwald J, Paasche-Orlow M, et al. Risk score to predict readmission after discharge. Paper presented at: North American Primary Care Research Group Conference; 2006 Oct 15–18; Tucson, AZ.
- **8** Sommers AS, Boukus ER, Carrier E. Dispelling myths about emergency department use: majority of

- Medicaid visits are for urgent or more serious symptoms. Res Brief. 2012;(23):1–10, 1–3.
- **9** Ladha KS, Young JH, Ng DK, Efron DT, Haider AH. Factors affecting the likelihood of presentation to the emergency department of trauma patients after discharge. Ann Emerg Med. 2011;58(5):431–7.
- 10 Bradbury RC, Golec JH, Steen PM. Comparing uninsured and privately insured hospital patients: admission severity, health outcomes, and resource use. Health Serv Manage Res. 2001;14(3):203–10.
- 11 Weissman JS, Stern RS, Epstein AM. The impact of patient socioeconomic status and other social factors on readmission: a prospective study in four Massachusetts hospitals. Inquiry. 1994;31(2):163–72.
- 12 Kleinman JC, Gold M, Makuc D. Use of ambulatory medical care by the poor: another look at equity. Med Care. 1981;19(10):1011–29.
- 13 Aday LA, Andersen RM. The national profile of access to medical care: where do we stand? Am J Public

- Health. 1984;74(12):1331-9.
- **14** Bloom B. Use of selected preventive care procedures. United States, 1982. Vital Health Stat 10. 1986;(157):1–43.
- 15 Bindman AB, Grumbach K, Osmond D, Komaromy M, Vranizan K, Lurie N, et al. Preventable hospitalizations and access to health care. JAMA. 1995;274(4):305-11.
- 16 Kennedy J, Rhodes K, Walls CA, Asplin BR. Access to emergency care: restricted by long waiting times and cost and coverage concerns. Ann Emerg Med. 2004;43(5):567-73.
- 17 Aday LA, Andersen R. A framework for the study of access to medical care. Health Serv Res. 1974;9(3): 208–20.
- 18 Andersen R, Newman JF. Societal and individual determinants of medical care utilization in the United States. Milbank Mem Fund Q Health Soc. 1973;51(1):95–124.
- 19 Billings J, Anderson GM, Newman LS. Recent findings on preventable hospitalizations. Health Aff (Millwood). 1996;15(3):239–49.
- 20 Starfield B, Shi L, Macinko J. Contribution of primary care to health systems and health. Milbank Q. 2005;83(3):457–502.
- 21 Starfield B. Primary care: an increasingly important contributor to effectiveness, equity, and efficiency of health services. SESPAS report 2012. Gac Sanit. 2012;26(1 Suppl): 20–6.
- 22 Sorlie PD, Backlund E, Keller JB. US mortality by economic, demographic, and social characteristics: the National Longitudinal Mortality Study. Am J Public Health. 1995; 85(7):949–56.
- 23 Feinstein JS. The relationship

- between socioeconomic status and health: a review of the literature. Milbank Q. 1993;71(2):279–322.
- 24 Aiken LH, Mechanic D. Applications of social science to clinical medicine and health policy. New Brunswick (NJ): Rutgers University Press; 1986.
- 25 Shen JJ, Wan TT, Perlin JB. An exploration of the complex relationship of socioecologic factors in the treatment and outcomes of acute myocardial infarction in disadvantaged populations. Health Serv Res. 2001;36(4):711–32.
- 26 Williams DR, Collins C. U.S. socioeconomic and racial differences in health: patterns and explanations. Annu Rev Sociol. 1995;21:349–86.
- 27 Fishbein M, editor. Factors influencing behavior and behavior change. Final report: Theorists Workshop. Bethesda (MD): National Institute of Mental Health; 1992.
- 28 Thoits PA. Stress, coping, and social support processes: where are we? What next? J Health Soc Behav. 1995;Spec No:53-79.
- 29 Charmaz K. Grounded theory: objectivist and constructivist methods. Chapter 20 in: Denzin NK, Lincoln YS, editors. Handbook of qualitative research. Thousand Oaks (CA): SAGE Publications; 2000. p. 509–35.
- **30** Penchansky R, Thomas JW. The concept of access: definition and relationship to consumer satisfaction. Med Care. 1981;19(2):127–40.
- **31** Thomas JW, Penchansky R. Relating satisfaction with access to utilization of services. Med Care. 1984;22(6): 553–68.
- **32** To access the Appendix, click on the Appendix link in the box to the right of the article online.

- 33 Link BG, Phelan J. Social conditions as fundamental causes of disease. J Health Soc Behav. 1995;Spec No:80–94.
- **34** Felker B, Yazel JJ, Short D. Mortality and medical comorbidity among psychiatric patients: a review. Psychiatr Serv. 1996;47(12): 1356–63.
- **35** Van Walraven C, Jennings A, Taljaard M, Dhalla I, English S, Mulpuru S, et al. Incidence of potentially avoidable urgent readmissions and their relation to allcause urgent readmissions. CMAJ. 2011;183(14):E1067-72.
- **36** Kohn LT, Corrigan JM, Donaldson MS, editors. To err is human: building a safer health system. Washington (DC): National Academies Press; 2000.
- **37** Chirikos TN, Nestel G. Further evidence on the economic effects of poor health. Rev Econ Stat. 1985; 67(1):61–9.
- **38** Scholle SH, Vuong O, Ding L, Fry S, Gallagher P, Brown JA, et al. Development of and field test results for the CAHPS PCMH Survey. Med Care. 2012;(50 Suppl):S2–10.
- **39** Sledge WH, Tebes J, Wolff N, Helminiak TW. Day hospital/crisis respite care versus inpatient care, Part II: service utilization and costs. Am J Psychiatry. 1996;153(8): 1074–83
- **40** Mechanic D. Emerging trends in mental health policy and practice. Health Aff (Millwood). 1998;17(6): 82–98.
- **41** Boyer CA, Mechanic D. Psychiatric reimbursement reform in New York State: lessons in implementing change. Milbank Q. 1994;72(4): 621–51.