also the practical application of the service. Ending homelessness, the goal of the federal plan, requires clear vision and direction; strong partnerships among federal, state, and local agencies; and service provider commitment. To develop the most effective services toward this end, direct service providers must ensure that those programs, developed to move homeless populations to community permanency, are implemented based on deliberate models and research, and also modified and adopted to recognize and accommodate the needs of the homeless individual.

Policy recommendations regarding expansion of services must acknowledge this practical application of intervention, ensuring that all levels of staff are included in an ongoing evaluation

Ending
Homelessness
—Then What?

of service delivery and that feedback from sites continually drives program design adjustments. While an enhanced implementation framework has been successfully used as a model for community-based interventions with homeless veteran populations within a federal funding environment, further research is needed to determine the effectiveness of this framework with other interventions, populations, and settings.

Roger Casey, PhD Colleen Clark, PhD Paul Smits, MSW Roger Peters, PhD

About the Authors

Roger Casey is with the US Department of Veterans Affairs National Center on Homelessness Among Veterans, Tampa, FL. Colleen Clark and Roger Peters are with the Department of Mental Health Law and

Our current Administration has set an ambitious goal of ending chronic and veteran homelessness in 2015.1 To meet this challenge the US Department of Veteran Affairs (VA) launched a comprehensive, evidence-based, dataand outcome-driven strategy. They have coupled this with significant federal and local partnerships and a financial commitment that has greatly increased access to health care benefits and employment and permanent housing for homeless and at-risk veterans. The early results of this transformational effort have been promising, with substantial reductions in both overall numbers of homeless veterans on any given night and reductions in chronically homeless veterans in the point-in-time count. This is especially notable in that progress has occurred during one of the worst recessions our country has ever faced and with a significant influx of new

Policy Institute, University of South Florida, Tampa. Paul Smits is with the National Center on Homelessness Among Veterans, University of South Florida.

Correspondence should be sent to Roger Casey, Director of Education and Dissemination, National Center on Homelessness Among Veterans, 8900 Grand Oak Circle (116H), Tampa, FL 33617 (e-mail: roger.casey@va.gov). Reprints can be ordered at http://www. ajph.org by clicking the "Reprints" link.

This editorial was accepted October 4,

doi:10.2105/AJPH.2013.301729

Contributors

All authors contributed equally to this editorial.

References

- Opening Doors: Federal Strategic Plan to Prevent and End Homelessness.
 Washington, DC: US Interagency Council on Homelessness: 2010.
- 2. Eccles MP, Mittman BS. Welcome to Implementation Science. *Implement Sci.* 2006;1:1.
- 3. Damschroder LJ, Aron DC, Keith RE, Kirsh SR, Alexander JA, Lowery JC.

veterans returning from combat, many with substantial comorbidities that place them at imminent risk for homelessness.

However, what will happen after 2015? Most social scientists and policy experts agree that barring an eradication of an affordable housing crisis, unemployment, poverty, disability, and an elimination of family decomposition and mental illness that often precipitate a descent to homelessness, we will still have veterans and other men, women, and families who spiral down into homeless. The difference now is that we will have a system in place to identify them earlier, often before they actually lose their housing, the capacity to intervene to prevent homelessness through programs like Supportive Services to Veterans and Families, and, if not prevented, then the capacity to minimize the time spent homeless and the consequences from that homelessness

- Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. *Implement Sci.* 2009;4:50.
- 4. Helfrich CD, Damschroder LJ, Hagedorn HJ, et al. A critical synthesis of literature on the promoting action on research implementation in health services (PARIHS) framework. *Implement Sci.* 2010;5:82.
- Thigpen S, Puddy RW, Singer HH, Hall DM. Moving Knowledge into Action: Developing the Rapid Synthesis and Translation Process Within the Interactive Systems Framework. Am J Community Psychol. 2012;50(3-4):285–294.
- Wandersman A, Duffy J, Flaspohler P, et al. Bridging the gap between prevention research and practice: the interactive systems framework for dissemination and implementation. *Am J Community Psychol.* 2008;41:171–181.
- 7. Tsemberis S. Housing First: The Pathways Model to End Homelessness for People With Mental Illness and Addiction. Center City, MN: Hazelden; 2010.

through programs like rapid rehousing. Through our extensive partnership with the US Department of Housing and Urban Development, we have increased our access to permanent housing to quickly accommodate our most needy and vulnerable homeless veterans. Moreover, with the evidence-based application of Housing First policies within VA, we can place those most at-risk and highest-need homeless veterans in housing without the preconditions or stipulations that historically often created insurmountable barriers to care, services, and housing. Taken together, the VA has demonstrated through these initiatives what is possible within an integrated care system to truly be a safety net for those most vulnerable and disconnected. It has done so by operationalizing and integrating progressive housing policy with clinical care, social services, and support in

EDITORIALS

a way that can serve as a model for other care systems grappling with what it means to be an accountable care organization.^{2,3}

Not typically considered in this context are the needs of those tens of thousands of veterans who will now be enrolled in and receiving care at VA and other health facilities around the country. According to the National Center on Homelessness Among Veterans, there are 599 872 veterans who have experienced homelessness or been at imminent risk since 2006 who are now enrolled in the Veterans Health Administration-almost 10% of the actively enrolled Veterans Health Administration population. This is a group that has been aging significantly faster than their housed counterparts with a disproportionately high rate of several geriatric syndrome conditions (falling, incontinence, cognitive impairment) occurring at a much younger age.4 Driving this accelerated aging is likely a confluence of several pathways and processes including elevated stress hormones associated with chronic illnesses, mental health disorders, and environmental stressors⁵; early cell death associated with cigarette, alcohol, and drug abuse⁶; and micronutrient malnutrition⁷ associated with the food insecurity facing those in homelessness and poverty.8 This cumulative toll from homelessness is likely to be seen within our health care settings long after housing has been achieved.

This is also a population that historically has difficulty accessing care and utilizing health services in ways that optimize receipt of preventive and routine care, reflected in the high rates of unmet, deferred, delayed, and undiagnosed and underdiagnosed conditions when they do present.

While the need for care among homeless and formerly homeless adults is high, past negative experiences seeking care, not knowing where to go, fear, stigma,9 lack of available or accessible care,10 and competing sustenance needs¹¹ all serve as significant barriers to getting much needed help. This need continues for some, long after housing placement, driven by the same challenges of poverty, isolation, disability, limited social support, and high risk behaviors and exposures that precipitated their homelessness initially.

Taken together, these barriers represent the perfect storm that helps drive a mortality rate among homeless persons that is 4.5 times higher than their housed counterparts, with death rates from chronic diseases such as heart disease and cancer among older homeless at rates more than 5 times higher than their agematched, housed counterparts.12 Underscoring this is the anecdotal observation by several Health Care for the Homeless and VA homeless providers that their homeless patients, after years of living on the streets, ironically die soon after getting placed in housing.

The success of the VA Secretary Shinseki's Initiative to End Homelessness Among Veterans in 2015, and Opening Doors, the first ever federal strategic plan to end homelessness, will likely bring with it new public health challenges-namely, how do we provide optimal care to this population of formerly homeless, now defined by their high morbidity and acuity, co-occurring mental and physical health needs, and premature aging? Or more succinctly, how do we manage the dose effect of homelessness and poverty among our veteran and other populations once we get

them housed? Whether this agenda is couched in Social Determinants of Health parlance, health disparities metrics, or homeless care management, the challenge is the same. We have created a substantial liability to the system if we do not maintain those programs and management processes that provide the ongoing clinical support and services needed to meet the continuing housing and health care needs among the homeless population and proactively address risks for recidivism back to homelessness. Predicting who is most at risk for a return to homelessness, employing proactive interventions such as critical time interventions, ¹³ care- and treatment-on-demand models, behavioral interventions, and harm reduction approaches are all paramount to sustaining the gains accrued from these efforts. These are issues and concerns that extend beyond the VA, as many communities struggle with the same issues of poverty, high unemployment rates, care complexity, and having systems in place to address them.

The call for evidence-based, outcome-driven initiatives and programs to proactively predict the needs and manage the care of formerly homeless people is our next great challenge and provides the basis for articulating the next generation of public health and population-based research, study, and model development questions and opportunities. What is the optimal supportive and clinical service package and what is the best way to provide it to those homeless veterans and nonveterans participating in Housing First, permanent supportive housing? Are there measures or monitors that can be effectively used to match those homeless and formerly homeless persons to the

right intensity of care and services during their recovery continuum? Can we validate the accelerated biologic aging pathways postulated earlier as at least a partial explanation for the premature morbidity and mortality? Are these pathways correlated with biologic or genetic markers such as telomere length or DNA methylation that may provide biologic markers for enhanced or longterm risk? In parallel, are there clinical, behavioral, environmental or case management interventions that can effectively address this homeless dose effect risk that will reduce recidivism and improve health and well-being once housed?

We are in the midst of one of the most substantial efforts to affect the consequences of poverty and illness in our society with an investment in intellectual capital, programming support, and political leadership unmatched since Great Society legislation in the 1960s. Whether another opportunity to undertake this level of social engineering will present itself again within the next 50 years will depend on how we take advantage of this current opportunity to codify the policy of sustainable homeless prevention solutions in good science, evidence-based programs and real results.

Thomas O'Toole, MD Lisa Pape, LISW Vincent Kane, MSS, Guest Editor

About the Authors

Thomas O'Toole and Vincent Kane are with the National Center on Homelessness Among Veterans, Department of Veterans Affairs, Philadelphia, PA. Thomas O'Toole is also with the Alpert Medical School, Brown University, Providence, RI. Lisa Pape is with the Veteran Health Administration Department, Department of Veterans Affairs, Washington DC.

All correspondence should be sent to Thomas P. O'Toole, MD Providence VA Medical Center 830 Chalkstone Avenue

EDITORIALS

Providence, RI 02908 (e-mail: Thomas. otoole@va.gov). Reprints can be ordered at http://www.ajph.org by clicking the "Reprints" link.

This editorial was accepted October 4, 2013.

doi:10.2105/AJPH.2013.301730

Contributors

All authors contributed equally to this article.

References

- Opening Doors: Federal Strategic Plan to Prevent and End Homelessness. Washington, DC: US Interagency Council on Homelessness; 2010.
- 2. Lewis VA, Larson BK, McClurg AB, Boswell RG, Fisher ES. The promise and peril of accountable care for vulnerable populations: a framework for overcoming obstacles. *Health Aff.* 2012;31(8):1777–1785.
- 3. Correia EW. Accountable care organizations: the proposed regulations and the prospects for success. *Am J Manag Care*. 2011;17(8):560–568.
- 4. Brown RT, Kiely DK, Bharel M, Mitchell SL. Geriatric syndromes in older homeless adults. *J Gen Intern Med*. 2011;27(1):16–22.
- 5. Epel ES. Psychological and metabolic stress: a recipe for accelerated cellular aging? *Hormones (Athens)*. 2009;8(1):7–22.
- 6. Fyhrquist F, Saijonmaa O. Telomere length and cardiovascular aging. *Ann Med.* 2012;44(suppl 1):S138–S142.
- Ames BN, Atamna H, Killilea DW. Mineral and vitamin deficiencies can accelerate the mitochondrial decay of aging. Mol Aspects Med. 2005;26(4-5): 363–378.
- 8. Kushel MB, Gupta R, Gee L, Haas JS. Housing instability and food insecurity as barriers to health care among low-income Americans. *J Gen Intern Med.* 2006;21 (1):71–77.
- 9. Hwang SW, Ueng JJ, Chiu S, et al. Universal health insurance and health care access for homeless persons. *Am J Public Health*. 2010;100(8):1454–1461.
- 10. Wen CK, Hudak PL, Hwang SW. Homeless people's perceptions of welcomeness and unwelcomeness in healthcare encounters. *J Gen Intern Med.* 2007;22(7):1011–1017.
- 11. Gelberg L, Gallagher TC, Andersen RM, Koegl P. Competing priorities as a barrier to medical care among homeless adults in Los Angeles. *Am J Public Health*. 1997;87:217–220.
- 12. Baggett TP, Hwang SW, O'Connell JJ, et al. Mortality among homeless adults in boston: shifts in causes of death

over a 15-year period. *JAMA Intern Med.* 2013;173(3):189–195.

13. Herman D, Conover S, Felix A, Nakagawa A, Mills D. Critical Time Intervention: an empirically supported model for preventing homelessness in high risk groups. *J Prim Prev.* 2007;28 (3-4):295–312.