## Editorial

## Increasing Treatment Engagement for Persons With Serious Mental Illness Using Personal Health Records

Individuals living with serious mental illnesses experience a number of challenges to achieving optimal health outcomes. This population has high rates of problematic health behaviors, such as tobacco use (1), as well as high rates of medical comorbidities, including obesity, diabetes, and cardiovascular disease (2–4). Partly because of these factors, persons with serious mental illnesses are likely to die prematurely compared with the general population (5, 6). The excess morbidity and mortality associated with serious mental illnesses also result from disparities in health care due to problems with health care access, continuity of care, and coordination among mental health, primary care, and specialty physical health providers (5–7).

Few randomized trials have successfully improved the quality of medical care delivered to individuals with serious mental illnesses (8–10). Druss et al. have been at the forefront of this important area of research for a number of years and have

been able to effectively improve the physical health services delivered to patients with serious mental illnesses using a variety of approaches, including peer support (11) and care management (12, 13). In their article in this issue of the *Journal*, Druss et al. (14) report the results of a technology-based patient-activation approach to improv-

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ing physical health service delivery that builds upon their earlier achievements. Patients with serious mental illnesses were recruited from a community mental health center, and one-half were randomly assigned to be given access to a community-based personal health record. Theoretically, improving "digital access" (i.e., connectivity that enables patients to interact with providers, caregivers, peers, and computer applications such as personal health records) should improve treatment engagement, just as online shopping (e.g., Amazon) has increased market share in the retail industry (15). And in fact, patients given access to the personal health record received nearly twice the number of preventive services during the intervention period than they did the year before. These findings represent a major victory in the war against health disparities among individuals with serious mental illnesses. Importantly, a post hoc mediation analysis found that improvements in the quality of medical care were achieved through a substantial increase in the number of physical health outpatient encounters (14.9 visits) in the personal health record group. This finding suggests that increasing digital access to care can substantially improve patients' engagement in physical health services, even for those with limited resources, computer skills, and health literacy.

This is a timely study given the rapid development and deployment of personal health records in large health systems and in the context of health care reform. For example, the personal health record evaluated in this study has many of the same features as the "My HealtheVet" personal health record. My HealtheVet was introduced 10 years ago by the Veterans Health Administration, but its impact has not been rigorously evaluated (16). My HealtheVet includes fields for self-entered health information and self-management goals, information from the Veterans Health Administration electronic health record, health education materials, and other resources, as well as the capability for secure messaging between patients and providers (16). My HealtheVet was also adapted specifically for persons with serious mental illnesses (e.g., adding a mental health advance directive section). It is encouraging to note that veterans receiving mental health services are equally as likely to use My HealtheVet as those using only physical health services, although personal health record use is low in both groups (17).

While continued research and development will be needed to guide improvements in personal health records for patients with serious mental illnesses, based on the results of the Druss et al. study, implementation researchers should begin to examine how personal health records can best be deployed, especially in the context of behavioral health homes. The behavioral health home model rapidly being adopted by community mental health centers across the country is a patientcentered approach to care and focuses on providing integrated and coordinated health care. One of the core components of the behavioral health home is to ensure access to and coordination of care across the prevention, primary care, and specialty health care service sectors. The Druss et al. study clearly indicates that the deployment of a personal health record can facilitate the implementation of this core behavioral health home component.

Currently, there is a paucity of information reported in the scientific literature about the uptake of personal health records among persons with serious mental illnesses (18). And there may be strong headwinds impeding large numbers of patients with these illnesses using personal health records in routine care. Inclusion criteria for the Druss et al. trial included having both a regular mental health provider and a regular primary care provider, and only about one-half of those patients approached for the study met these two criteria. This suggests that up to one-half of patients with serious mental illnesses may not benefit from using a personal health record, although future research might prove otherwise. In addition, patients in this trial received 4 hours of initial training to use the personal health record and 14.8 technical support visits. This represents a substantial investment in manpower for under-resourced mental health clinics and may present a barrier to adoption. However, this high level of support is likely necessary because previous studies relying on less technical support found significantly lower levels of personal health record use (18, 19). Thus, there appears to be a dose-response relationship between technical support and use that should not be ignored during the rollout of a personal health record. Moreover, because most personal health records are linked with electronic health records, another barrier to implementing a personal health record for patients with serious mental illnesses is that mental health clinics lag in the adoption of electronic health records compared with physical health clinics (20). Despite these headwinds, the highly promising results of the trial presented in this issue suggest that the field should be poised to move forward with implementation trials, demonstration projects, and quality improvement pilot studies. Community mental health centers in the process of obtaining recognition as a behavioral health home may particularly benefit from investing in a personal health record for their clients.

## References

- Substance Abuse and Mental Health Services Administration: Results from the 2011 National Survey on Drug Use and Health: Mental Health Findings (NSDUH Series H-45, HHS publication number, 12-4725). Rockville, Md, Substance Abuse and Mental Health Services Administration, 2012
- Jones DR, Macias C, Barreira PJ, Fisher WH, Hargreaves WA, Harding CM: Prevalence, severity, and cooccurrence of chronic physical health problems of persons with serious mental illness. Psychiatr Serv 2004; 55:1250–1257
- 3. Dalmau A, Bergman B, Brismar B: Somatic morbidity in schizophrenia: a case control study. Public Health 1997; 111:393–397
- 4. Newcomer JW, Hennekens CH: Severe mental illness and risk of cardiovascular disease. JAMA 2007; 298: 1794–1796
- 5. Druss BG, Zhao L, von Esenwein S, Morrato EH, Marcus SC: Understanding excess mortality in persons with mental illness: 17-year follow up of a nationally representative US survey. Med Care 2011; 49:599–604
- 6. Kilbourne AM, Welsh D, McCarthy JF, Post EP, Blow FC: Quality of care for cardiovascular disease-related conditions in patients with and without mental disorders. J Gen Intern Med 2008; 23:1628–1633
- 7. Druss BG, Bornemann TH: Improving health and health care for persons with serious mental illness: the window for US federal policy change. JAMA 2010; 303:1972–1973
- 8. Druss BG, von Esenwein SA: Improving general medical care for persons with mental and addictive disorders: systematic review. Gen Hosp Psychiatry 2006; 28:145–153
- 9. Bradford DW, Slubicki MN, McDuffie J, Kilbourne A, Willams JW: Effects of Care Models to Improve General Medical Outcomes for Individuals With Serious Mental Illness. Washington, DC, Department of Veterans Affairs, 2011
- 10. Cohen AN, Chinman MJ, Hamilton AB, Whelan F, Young AS: Using patient-facing kiosks to support quality improvement at mental health clinics. Med Care 2013; 51(suppl 1):S13–S20
- 11. Druss BG, Zhao L, von Esenwein SA, Bona JR, Fricks L, Jenkins-Tucker S, Sterling E, Diclemente R, Lorig K: The Health and Recovery Peer (HARP) Program: a peer-led intervention to improve medical self-management for persons with serious mental illness. Schizophr Res 2010; 118:264–270
- 12. Druss BG, von Esenwein SA, Compton MT, Rask KJ, Zhao L, Parker RM: A randomized trial of medical care management for community mental health settings: the Primary Care Access, Referral, and Evaluation (PCARE) study. Am J Psychiatry 2010; 167:151–159
- 13. Druss BG, Rohrbaugh RM, Levinson CM, Rosenheck RA: Integrated medical care for patients with serious psychiatric illness: a randomized trial. Arch Gen Psychiatry 2001; 58:861–868
- 14. Druss BG, Ji X, Glick G, von Esenwein SA: Randomized trial of an electronic personal health record for patients with serious mental illnesses. Am J Psychiatry 2014; 171:360–368
- 15. Fortney JC, Burgess JF, Bosworth HB, Booth BM, Kaboli PJ: A re-conceptualization of access for 21st century healthcare. J Gen Intern Med 2011; 26(suppl 2):639–647
- Nazi KM, Hogan TP, Wagner TH, McInnes DK, Smith BM, Haggstrom D, Chumbler NR, Gifford AL, Charters KG, Saleem JJ, Weingardt KR, Fischetti LF, Weaver FM: Embracing a health services research perspective on personal health records: lessons learned from the VA My HealtheVet system. J Gen Intern Med 2010; 25(suppl 1):62–67
- 17. Tsai J, Rosenheck RA: Use of the Internet and an online personal health record system by US veterans: comparison of Veterans Affairs mental health service users and other veterans nationally. J Am Med Inform Assoc 2012; 19:1089–1094
- 18. Druss BG, Dimitropoulos L: Advancing the adoption, integration and testing of technological advancements within existing care systems. Gen Hosp Psychiatry 2013; 35:345–348
- 19. Warner JP, King M, Blizard R, McClenahan Z, Tang S: Patient-held shared care records for individuals with mental illness: randomised controlled evaluation. Br J Psychiatry 2000; 177:319–324
- 20. Rosenberg L: HIT: time to end behavioral health discrimination. J Behav Health Serv Res 2012; 39:336-338

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