

Payer–Provider Patient Registry Utilized in a Behavioral Health Home

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The Affordable Care Act (ACA)¹ provides an opportunity for states to support healthcare coordination within health homes. The core components of a health home are patient-centered whole-person care, integrated physical and behavioral health care, inclusion of family support, and a connection to community support services. Health homes are targeted to individuals with 2 or more chronic health conditions, 1 chronic health condition with an increased health risk for a second chronic condition, or 1 chronic health condition if it is a serious mental illness (SMI). The goal of the health home is to improve the quality of care for publically funded individuals with chronic conditions while reducing unnecessary hospitalizations, readmissions, and emergency department utilization. To accomplish these goals, healthcare providers must develop methods to: 1) identify individuals with chronic conditions, 2) facilitate comprehensive care, and 3) monitor and track health outcomes over time. Utilization of health information technology (IT) to aid in the coordination of services and ongoing monitoring of outcomes can improve health homes and is strongly encouraged by the ACA.

Behavioral health homes, in which behavioral health providers seek to coordinate care, are critically needed to address the premature mortality in individuals with SMI associated with chronic disease and lifestyle factors.^{2,3} Individuals with SMI have higher rates of factors associated with mortality, such as poverty, social isolation, side effects from antipsychotic medication, and poor access to quality healthcare.⁴ These individuals also have high rates of lifestyle factors that may contribute to disease, such as smoking, sedentary lifestyle, and a diet low in fruits and vegetables.⁴⁻⁹ Thus, with the potential to reach those with mental health disorders that may not be connected to physical health, behavioral health care facilities are important settings for health homes. Under the ACA, behavioral health home providers are encouraged to use patient and/or disease registries; however, little guidance is available to define how best to develop and maintain a patient registry and use health IT, especially in smaller community-based health centers with few electronic health resources.

ABSTRACT

OBJECTIVES: As defined by the Affordable Care Act, health homes seek to improve healthcare coordination through data exchange and health information technologies; however, few examples of how to use such technology are available. The present effort describes a payer–provider patient registry for behavioral health home service.

STUDY DESIGN: An observational study design was used to describe characteristics of individuals identified by the payer–provider patient registry.

METHODS: In Pennsylvania, behavioral health agencies serve as health homes, with support by a behavioral health managed care organization (BHMCO) in the absence of a state waiver for health homes. The BHMCO initiates a priority patient registry monthly based on diagnoses for serious mental illness (SMI) and at least 1 chronic physical health condition. Providers contribute health data through a secure Web-based portal that become part of the registry and identify new participants.

RESULTS: We identified 3759 individuals in the priority patient registry; 91% were identified by the payer. Most commonly, individuals with SMI were identified with hypertension (39%), asthma/chronic obstructive pulmonary disease (27%), hyperlipidemia (20%), and diabetes (18%). Annual behavioral health Medicaid expenditures for individuals in the 12 months prior to appearing on the registry averaged \$14,685 per individual. Twelve percent of registry participants had annual behavioral health care expenditures over \$25,000.

CONCLUSIONS: The use of claims data and health assessment information can identify individuals presenting with complex healthcare needs that may benefit from behavioral health home service.

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In Pennsylvania, even though the state has not applied for the Medicaid waiver associated with this model, a behavioral health managed care organization (BHMCO), Community Care Behavioral Health of the UPMC Insurance Services Division, supports behavioral health providers—including community mental health and substance use disorder (SUD) treatment facilities—in the implementation of a behavioral health home model, utilizing electronic patient registries and training in wellness. This BHMCO manages mental health and SUD services for over 950,000 Medicaid-eligible adults and children across the state.

To support behavioral health home services, monthly patient registries are shared between payer and providers. The purpose of the registry is to aid provider staff in identifying and targeting health home services to individuals with SMI and chronic physical health conditions who may benefit most from integrated care. The objective of the present quality improvement effort is to describe a payer–provider process that utilizes behavioral health and pharmacy claims data, as well as health assessment information, to identify individuals for health home services.

Identifying Individuals for Health Home Service

Health homes are embedded within case management, psychiatric rehabilitation, and certified peer specialist services. Although all individuals seen at the participating providers may utilize health home services, individuals with SMI and at least 1 known chronic physical health condition are targeted and prioritized for inclusion. Prioritized individuals are Medicaid-funded adults, aged 18 to 64 years, who reside in a county within the BHMCO network in Pennsylvania. Individuals must also have an SMI diagnosis, which includes schizophrenic disorders, episodic mood disorders, or nonorganic psychoses. Individuals must have current service utilization at the agency, with behavioral health home services defined as having at least 2 claims within 6 months for case management, psychiatric rehabilitation, or a certified peer specialist service. Finally, prioritized individuals must have at least 1 chronic physical health condition. The national drug codes from pharmacy claims were used to identify individuals receiving medications within the prior 180 days as proxy for hypertension, diabetes, hyperlipidemia, chronic obstructive pulmonary disease (COPD), or asthma. Psychotropic medication utilization is also included on the registry with indication of antipsychotics, antidepressants, mood stabilizers, opiates, and benzodiazepines.

Each month, the BHMCO identifies priority individuals for behavioral health home service using the above criteria and a 6-month look-back period. All individuals who meet the criteria each month are added to the registry, which is sent to the provider using a secure file transfer protocol that encrypts data. Addition-

TAKE-AWAY POINTS

Behavioral health homes seek to improve healthcare coordination for individuals with serious mental illness and chronic physical health conditions by using data exchange and health information technologies.

- ▶ Monthly registries initiated by a behavioral health managed care organization utilizing behavioral health and pharmacy claims identify individuals that may benefit most from health homes.
- ▶ Behavioral health providers contribute health data securely that become part of the registry in an ongoing manner.
- ▶ The behavioral health organization identified patients at a rate 10 times higher than providers.
- ▶ Health data revealed high rates of hypertension medication in individuals with serious mental illness.

ally, the file is password protected and the provider is alerted to the password by a separate mechanism. The registry is produced in Microsoft Excel for ease of manipulation by the receiving agency staff to sort the registry by individual and/or date, as needed.

Data on the registry include name, date of birth, date/month appearing on the registry, behavioral health medication, and physical health medication category. Providers can add information to the registry using a shared health online tool (SHOT) via an authenticated session on a secure Web portal that utilizes 128-bit encryption. Information that can be added to the registry on behalf of a provider includes number of wellness contacts, height, weight and body mass index (BMI), smoking status, existence of an SUD, and pregnancy. Information added to the registry by a provider through the secure Web portal is merged with data from the BHMCO and appears on the registry for that individual the following month. Behavioral health home providers are also trained in wellness coaching based on the 8 domains of wellness¹⁰ and may engage individuals in wellness planning. In addition, a provider can add and remove individuals from the behavioral health home registry based on eligibility. Providers are expected to include priority individuals in health home service and improve healthcare coordination, but individuals ultimately chose the level of engagement for wellness activities.

Activities conducted to provide identified registry information to providers for the purpose of targeting appropriate services were approved as quality improvement by the University of Pittsburgh's Total Quality Council. The BHMCO has other case management and service initiatives to address Medicaid-funded children and adults that may be at higher risk for inpatient hospitalization and readmission where behavioral health homes are not yet available.¹¹

Information from calendar years 2014 and 2015 were summarized to define the population on the priority patient registry and process described above. Demographic and pharmacy data were derived from administrative data from the Pennsylvania Department of Human Services. Behavioral health diagnoses, service utilization, and expenditures were derived from the BHMCO's administrative claims data. Health assessment information (BMI, smoking status) was derived from information that providers added to the registry from the SHOT.

TRENDS FROM THE FIELD

TABLE. Characteristics of Individuals Identified on the Priority Patient Registry

Characteristic	N	%
BHMCO-identified (n = 3430)		
Mental health diagnoses		
Major depressive disorder	1130	32.9
Bipolar disorder	1010	29.4
Schizoaffective disorder	412	12.0
Schizophrenia	295	8.6
Behavioral health medication		
Antidepressants	2370	69.1
Antipsychotics	1830	53.4
Mood stabilizers	1725	50.3
Opiates	1188	34.6
Benzodiazepines	1135	33.1
Physical health conditions ^a		
Hypertension	1330	38.8
Asthma/COPD	924	26.9
Hyperlipidemia	676	19.7
Diabetes	632	18.4
Provider-identified (n = 329)		
Mental health diagnoses		
Major depressive disorder	108	32.8
Bipolar disorder	94	28.6
Schizoaffective disorder	34	10.3
Schizophrenia	30	9.1
Behavioral health medications		
Antidepressants	212	64.4
Antipsychotics	153	46.5
Mood stabilizers	145	44.1
Opiates	113	34.3
Benzodiazepines	91	27.7
Physical health conditions ^a		
Hypertension	134	40.7
Asthma/COPD	93	28.3
Hyperlipidemia	78	23.7
Diabetes	61	18.5

ADHD indicates attention deficit/hyperactivity disorder; BHMCO, behavioral health managed care organization; COPD, chronic obstructive pulmonary disease.

^aPhysical health conditions as indicated by medications utilized.

Registry Characteristics

Twenty-nine providers offered behavioral health home services. The majority of providers (90%) offered behavioral health home services in case management, in certified peer specialist service (52%), and in psychiatric rehabilitation (24%). We identified 3759 unique individuals on the priority patient registry; the majority

of the individuals on the registry were female (64%). Almost all (99%) were non-Hispanic; 79% were European American, 17% were African American, and 4% were other or more than 1 race. The average age was 41.9 years (standard deviation, 12.9). The majority of the individuals on the registry were identified by the BHMCO (91%; n = 3430) versus the provider (9%; n = 329).

Characteristics of individuals identified on the priority patient registry are presented in the **Table**. The most common SMI diagnoses were major depressive disorder, bipolar disorder, schizoaffective disorder, and schizophrenia. The most common behavioral health medications for individuals with SMI were antidepressants, antipsychotics, mood stabilizers, opiates, and benzodiazepines. The medications most commonly utilized for physical health conditions indicated hypertension, asthma/COPD, hyperlipidemia, and diabetes. Characteristics were similar for individuals identified as priority by providers.

There was variation in behavioral health care expenditures: on average, annual Medicaid behavioral health expenditures were \$14,685 per individual in the year prior to appearing on the registry. Twelve percent of registry participants had annual behavioral health care expenditures over \$25,000, and 4% had over \$50,000. Two years prior to appearing on the registry (13-24 months prior), annual expenditures averaged \$10,513 per individual; 7% of individuals on the registry had annual behavioral health expenditures over \$25,000; and 2% had over \$50,000. In the year prior, the highest behavioral health care costs were spent, on average, for inpatient mental health (\$14,705), with \$11,267 for nonhospital SUD; \$8036 for assertive community treatment; and \$5743 for peer specialist service. In the 2 years prior to appearing on the registry, the highest average costs were paid for assertive community treatment (\$18,045), inpatient mental health (\$12,762), nonhospital SUD (\$7598), and peer specialist services (\$6978).

Providers reported health data for 1331 individuals receiving health home services. Sixty-five percent were indicated as overweight (BMI >25), and 54% used tobacco. Of tobacco users, 70% engaged in or discussed a tobacco cessation plan. Sixty-nine percent of individuals engaged with staff for a wellness assessment including wellness planning.

Discussion

Through administrative claims and health assessment data, a resulting priority patient registry identified 3759 individuals for targeted intervention. A benefit of the registry is the ability to quickly and systematically identify individuals with SMI and chronic physical health conditions; however, more information is needed to determine if access to data by the payer across care settings, and pharmacy data not otherwise available to the provider, resulted in a larger number of priority individuals being identified for intervention by the BHMCO than could have been determined by providers otherwise. Also, the average annual behavioral health expenditures for individuals on the priority patient registry were moderate, but a substantial

proportion of individuals on the registry had expenditures in the highest tier. The use of claims data and health assessment information can identify individuals presenting with complex healthcare needs that may benefit from behavioral health home services.

The ACA encourages utilization of health IT as “feasible and appropriate”; however, few examples are available. In the Missouri model for health homes within community mental health centers for Medicaid-funded individuals, similar, timely reports of psychotropic medications and medication adherence are shared with provider staff.¹² Health information from providers through metabolic monitoring and health assessments is exchanged, which enhances the ability to monitor health outcomes. In the current process, claims-based reporting from the BHMCO serves a dual purpose to provide health information to providers, and to help staff identify and target individuals for health home service. It is expected that health data will be added to the registry in an ongoing manner in order to track and monitor health outcomes for these individuals; however, this process varies across providers and is assessed separately by the BHMCO through fidelity monitoring of the behavioral health home model. The current registry could be enhanced through incorporation of additional health outcomes, such as glycated hemoglobin and blood pressure.

Integration of physical and behavioral health data is difficult, especially by smaller, community-based providers with limited technological resources. Common barriers to maintaining disease registries include the need for double documentation and freestanding tracking systems.¹³ Until electronic health records are updated with ways to monitor healthcare integration processes implemented by providers, interim steps can be helpful, including electronic worksheets.¹⁴ Resources shared with providers, such as secure Web-based portals and exchange protocols for the purpose of data sharing, are also valuable.

The current priority patient registry identifies individuals that have both SMI and chronic physical health conditions, and this population would be considered a subset of those eligible for home health service, as defined by the ACA. These criteria were adopted to prioritize service to those with the highest need. Individuals meeting health home criteria without SMI were still identified and included in health home service by provider staff, albeit at a much lower rate. In the current registry, the resulting population was found to have large variability in behavioral health expenditures. Identifying and including individuals based on healthcare expenditure would likely result in different individuals targeted for health home services. Physical health expenditures and outcomes for this population will be addressed in an investigation of behavioral health homes, made possible through additional funding from the Patient-Centered Outcomes Research Institute.

Conclusions

The BHMCO has developed a payer–provider process utilizing service claims and health assessment information to identify

individuals through a patient registry that may benefit from behavioral health home service. This registry can inform processes to improve engagement and support for individuals eligible for health home services. ■

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