Fully-integrated medical home for people with severe and persistent mental illness: A description and outcome analysis of a Medicare Advantage Chronic Special Needs Program

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Abstract
People with severe persistent mental illness pose a significant challenge to managed care organizations and society in general. The financial costs are staggering as is the community impact including homelessness and incarceration. This population also has a high incident of chronic comorbid disorders that not only drives up healthcare costs but also significantly shortens longevity. Traditional case management approaches are not always able to provide the intensive and direct interventions required to adequately address the psychiatric, medical and social needs of this unique population. This article describes a Medicare Advantage Chronic Special Needs Program that provides a Medical Home, Active Community Treatment, and Integrated Care. A comparison of utilization and patient outcome measures of this program with fee for service Medicare found significant reduction in utilization and costs, as well as increased adherence to the management of chronic medical conditions and preventative services.

Introduction
According to the National Institute of Mental Health (NIMH), the severely and persistently mentally ill population (SPMI) represents about 4% of all US adults, which in 2015 represented 9.8 million adults age 18 and older (National Institute of Mental Health, 2015). The cost to society from this population is estimated to have been $317 billion for the year 2002. This estimate includes both the direct costs incurred by medical care, as well as the indirect costs due to loss of earning and disability payments. This appraisal does not take into consideration additional indirect costs due to comorbid medical conditions, homelessness and incarceration.

The impact on the specific individuals comprising this vulnerable population is considerable including a life expectancy of 20 to 30 years less than the general population. They have a significantly higher incidence of comorbid substance abuse. At least 40% of the SPMI population abuses one or more substances including alcohol, cannabis, stimulants, benzodiazepines and narcotics. This group also has a significantly higher use of tobacco than the general population. Lifestyle factors such as the increase in drug, alcohol and tobacco use, along with poor access to primary care and preventive measures, often results in a higher prevalence of serious chronic medical conditions, most notably diabetes, COPD and CHF in this population.2,3

The changing nature of available mental health care has also been a contributing factor in terms of the quality of life for individuals who are SPMI. Following the signing of the Community Mental Health Act by President Kennedy in 1963, large numbers of the SPMI population were released from state psychiatric facilities with the hope that they would receive better care through Community Mental Health Centers (CMHC). Unfortunately, the lack of federal and state funding has resulted in an insufficient number of CMHCs and other community resources to serve this population, thus leading to revolving door admissions to psychiatric facilities, homelessness and higher rates of incarceration.

Today, care is provided from a number of sources including state and local agencies, CMHCs, FQHCs and private hospitals and private practitioners. Funding comes from Medicare, Medicaid, private health insurance, and through federal, state, local and charitable organizations, as well as grants. Care provided is often fragmented and members of this fragile population are left to navigate a system of both public and private medical and behavioral health care providers, numerous welfare and public assistance agencies, housing referral sources as well as educational and employment development agencies.

For over a decade, a number of promising solutions have been put forth for improving the organization of the delivery system for mental health services, and for the integration of behavioral health care within primary and specialty medical care. Research studies assessing the efficacy of these models and other similar approaches have found positive results both in the reduction of the direct costs associated with providing care and services, but also an improvement in health outcomes for the individuals receiving these interventions. While the approaches and funding sources vary among the programs, the overall results are promising.4,9

The purpose of this article is to describe a program that provides comprehensive behavioral health services, along with the integration of primary care and preventive services, fully funded by essentially one funding stream (Medicare or Medicare/Medicaid). This program has been in existence since 2000 and currently serves over 3,000 individuals. The description below includes the model of care along with specific interventions, and also provides outcome data related to both direct costs and improved functioning and health of the plan members.

Funding Source
Brand New Day is a Medicare Advantage (MA) Health Maintenance Organization (HMO). The program, which is specifically designed for the SPMI population, is covered under a Special Needs Plan (SNP). A SNP is a category of Medicare Advantage plan designed to attract and enroll Medicare beneficiaries who fall into a certain special needs of demographic. There are three target populations for SNPs. Brand New Day falls under

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Conflict of interest: Robert Myers serves as a clinical program consultant to Universal Care - Brand New Day under a contract between Brand New Day and the University of California, Irvine. Prior to joining the faculty at UCI in 2008, Robert Myers was employed as Vice President of Behavioral Health by Universal Care/Brand New Day from 2000 to 2008.
the Chronic Conditions category sometimes known as a C-SNP which are designated to serve members who have acquired one or more disabling chronic conditions. The subcategory Brand New Day falls under is mental disorders which is limited to schizophrenia, bipolar disorder, schizoaffective disorder, major depressive disorder and psychotic disorder. A majority of the members of Brand New Day are dual eligible beneficiaries (defined as individuals who are entitled to Medicare Part A and/or Part B and are eligible for some form of Medicaid benefit). The funding is provided by Medicare through monthly premiums (capitation) covering Parts A, B, C and D and vary from one member to another based on demographic factors and their level of risk based on the CMS HCC model. For those who qualify for Medicaid, additional benefits are provided through the California Medicaid program known as MediCal.

Model of Care

Business components

Brand New Day (BND) is a licensed HMO in California. BND provides all of the centralized functions of a health plan including contracting with facilities and providers, paying claims, member services, case management, utilization management, quality assurance and regulatory compliance. BND contracts with provider organizations and individual providers to implement the model of care. Through the provider relations department, BND establishes a collaborative relationship with the medical homes including training on the model of care and holding regular meetings to monitor outcomes and improve the quality of program components, as well as access to services known as JOUMCs (Joint Operation and Utilization Monitoring Committee) meetings.

Medical home components

Each Medical Home is under the direction of a Clinical Program Director who is a Licensed Clinical Social Worker (LCSW) and provides members access to a Primary Care Physician (PCP), Primary Treating Physician (Psychiatrist), Life Coach (Care Manager) who may be a Licensed Vocational Nurse, Psychiatric Technician or a Bachelors Level Case Manager and a Wellness Center. Depending on the various provider and member circumstances, some of the functions and services of a Wellness Center may be provided through a contracted Community-Based Adult Day Healthcare Center (ADHC) or provided on site at a licensed Board and Care facility by members of the Medical Home staff.

A Wellness Center provides access to case management staff and in some locations to primary care physicians and/or psychiatrists. Wellness Centers also provide clinical, recovery and activity groups. They are structured to provide services similar to those provided by partial hospital programs and club houses as well as severe as a drop-in center and/or professional office depending on the need of each individual member.

Case management components

Upon enrollment in the program, each member is scheduled for an initial appointment with their PCP and psychiatrist. They are also seen for an intake by their Life Coach and the Clinical Program Director. During the intake, a Health Risk Assessment (HRA) is completed and used to develop an Individual Care Plan (ICP). The HRA score is used to determine the frequency of contacts provided for the member and the frequency the member’s case is reviewed at weekly Interdisciplinary Care Team (ICT) meetings. The HRA and ICT are reviewed annually but may be reviewed more frequently based on the progress toward goals and following the occurrence of a Transition of Care (TOC) event. All the data is recorded in an electronic case management system. When possible, contacts are face to face either at a facility or in the field. When necessary, telephonic contact and Telehealth may be used as well.

The Life Coach connects with members of the ICT and is the primary team member responsible for assuring that the member is following their ICP. Life Coaches often accompany members to appointments with psychiatrists, primary care physicians and specialists, and are integral in relaying information between care providers. Employment criteria for a Life Coach is one of the following: (1) Licensed Vocational Nurse with psychiatric experience, (2) Licensed Psychiatric Technician, (3) Certified Alcohol or Drug Counselor, or (4) Mental Health Worker (BA in psychology, social work or human services plus 3 years of experience working with the SPMI population) (Figure 1).

A weekly Complex Case Management meeting is held to discuss members who are currently in a psychiatric or medical inpatient facility, as well as cases that require extensive coordination of care. These cases may become complex due to many factors including poor treatment adherence, multiple comorbidities as well as difficult psychosocial issues. The Behavioral Health Director, Medical Director and both medical and behavioral health utilization management staff are all members of the call team and work and aid the individual case managers along the way.

**Figure 1. The Brand New Day Model of Integrated Care for The SPMI Population.** The Life Coach is the primary point of contact and links the member to other members of the care team as needed. All members are linked and have interaction with PCP, Psychiatrist, Social Worker (Clinical Program Director), and Wellness Center. Family members and other supportive individuals are included based on availability. Other services are included based on the needs of the individual member.

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Behavioral health interventions

In addition to the case management functions described above, the Life Coach also helps the member develop a personal recovery plan based on the member’s personal goals and enables the member to develop the skills and ability to move through the BND three Phases of Recovery: Wellness, Community Integration, and Successful Living.

The Behavioral Health Interventions used as part of this process, are derived from the recommendations provided by what is known as the PORT (Patient Outcomes Research Team) study. In 1992, the Agency for Health Care Policy and Research (now the Agency for Healthcare Research and Quality [AHRQ]) and the National Institute of Mental Health (NIMH) funded the Schizophrenia Patient Outcomes Research Team (PORT) Study. The PORT program sought to reduce variations in care by promoting the adoption of treatments supported by strong scientific evidence or “evidence-based practices” as determined by systematic literature reviews. The most recent version of the PORT study was published in 2009.10 This publication provides eight recommendations for psychosocial interventions: Assertive Community Treatment, Supported Employment, Skills Training, Cognitive Behavioral Therapy, Token Economy Interventions, Family Based Services, Psychosocial Interventions for Alcohol and Substance Use Disorders, Psychosocial Interventions for Weight Management. Below, I will briefly describe how BND implements each of these recommendations.

Assertive Community Treatment

Members of the care team (Clinical Program Director (LCSW), Life Coach, Field Intervention Nurse (FIN) occasionally PCP or PTP) provide necessary contact and interventions wherever necessary. This contact may occur either in person, by phone or telehealth, at various locations including member residences, shelters, provider offices, hospitals, outside agencies (welfare, Social Security, legal, etc.). Some members receive injectable psychotropic medications and if a member misses an injection appointment, an attempt is made to locate the member and provide the injection in the field. Each Medical Home also has access to a “Patient Assistance Fund” that can be used to provide housing assistance, transportation or other items that may benefit the member in maintaining stability.

Skills Training

BND provides a number of skills groups and members are encouraged to attend those groups that would be most beneficial with regards to their personal recovery plan. When necessary, supplemental materials are provided individually by the Life Coach. Topics include weekly Goal Setting, Personal Recovery & Relapse Prevention, Health Education and Nutrition, Adult Daily Living Skills, Social Skills, Anger Management and Transportation Training. The transportation training includes monthly group field trips by public transportation. The group meets with the leader(s) prior to the trip in order to plan the route to take, based on the bus time tables and route map. While on the trip, members are given feedback regarding the appropriateness of their social interactions. Member benefits include a monthly bus pass and a gym membership.

Cognitive Behavioral Therapy

BND provides CBT through some of the groups mentioned above. The behavioral health may provide brief CBT, yet if further treatment is required, the member is referred to a psychologist or LCSW for longer term treatment. Also, if indicated, members with a comorbid personality disorder such as Borderline Personality Disorder may be referred to an Intensive Outpatient Program.

Supported Employment

This component is made available to members who have reached the Successful Living stage of recovery. This may consist of a referral for local part-time employment, with additional brief on-site support from a Life Coach. BND wellness centers offer monthly job club meetings to encourage members to seek a more active and involved life in the community. Many wellness centers have a computer lab for development of basic skills. Wellness centers also collaborate with local agencies including vocational rehabilitation, regional occupational programs, community colleges, Goodwill, etc. About one third of our members are either in part-time employment, training programs or serving as a volunteer.

Token Economy Interventions

BND uses gift cards usually in small denominations ($10) as rewards as part of short-term (usually 12 week) behavior contracts. The contracts may be used to improve adherence to an element of a member’s ICT or to modify inappropriate behavior observed in the wellness center, home or community. They may also be used as one-time incentives to motivate members to complete preventative health activities such as immunizations or periodic testing.

Family-Based Services

BND encourages family members to attend case management meetings and psychiatrist appointments. Telephone contact and home visits are initiated when indicated. Family members are also provided with opportunities to participate in educational activities. When necessary, the member and/or family members may be referred for family therapy with a licensed Clinical Program Director provider.

Psychosocial Interventions for Alcohol and Substance Abuse Disorders

All new members are screened for a substance abuse disorder upon entering the program and are re-screened annually. The BND wellness centers offer groups based on materials available from Substance Abuse & Mental Health Administration (SAMSHA) and provide individual counseling including Motivational Interviewing. Members with significant addictions are referred to a psychiatric addictionologist and placed on appropriate medications both for their addiction and psychiatric disorder. When recommended by the addictionologist, a member will be referred to an appropriate residential program for a minimum of 60 days. BND coordinates with the rehabilitation center to assure that the member continues on the medications as prescribed by the addictionologist. Upon completion of the program, appropriate medical and behavioral follow-up services are provided in addition to community-based programs. Thus, the member is monitored closely by the case management team to prevent relapse.

Psychosocial Interventions for Weight Management

Brand New Day encourages members to attend weekly teaching sessions on Health and Nutrition. The Life Coach works closely with the member’s physicians and can provide individual counseling, weekly weight monitoring and the implementation of a positive reinforcement program to encourage and assist the member in managing his or her weight. Each member is also eligible to receive a free monthly gym membership. Some wellness centers include group field trips to the gym and offer regular physical activity groups, others provide access to exercise equipment at the center.

Medical Care and Preventive Health Interventions

The Life Coach and Clinical Program
Financial and Health Outcomes

Population Demographics

The membership is comprised of 43% females and 57% males. The age distribution is as follows: 12% are under 35 years of age, 19% are between 35-44, 28% are between 45-54, 11% are between 65-74, 2% are between 75-84, and 1% are over 85 years of age. The primary psychiatric diagnoses for the population are Bipolar Disorder (47%), Major Depressive Disorder (37%), Schizoaffective Disorder (43%), and Schizophrenia (50%). The primary comorbid diagnoses for the population include Substance Abuse (42%), COPD (30%), Diabetes (25%), and Chronic Heart Failure (7%).

Utilization and Financial Outcomes

The following data analysis was provided for Universal Care – Brand New Day as part of the 2016 Medicare Advantage Bid Development by Milliman, LLC. The data provides a comparison of the BND utilization of health care services as a percentage of the Medicare Fee for Service (Medicare divided by BND). The Medicare population used as the comparator was the Medicare FFS 5% Sample Data for California (less than 75 years of age), Claims Incurred 1/2012 through 12/2013, Schizophrenia Members - Blended (Dual = 78%). The Universal Care data included 100% of the Universal Care members enrolled in the Mental Health Special Needs Program for 2015.

The utilization for Psychiatric Inpatient services showed a 50% reduction in utilization for psychiatric inpatient services and a 26% reduction for medical inpatient services. Utilization of Primary Care office visits was 124% of Medicare indicating that the BND population had better access to primary care. The utilization of Home Health Services was 343% while the cost for these services was only 36% of Medicare which indicates that BND members had the benefit of more in-home contact with nurses but with a cost reduction due to the use of the Field Intervention Nurses as the providers rather than Registered Nurses.

Health Outcomes

Using the same data and comparison method as above, the Milliman, LLC data indicates a significantly higher utilization of preventive services for the BND population with the Medicare population including: 237% Immunization, 890% Initial Physical and Annual Wellness Exams, 155% Pap Smear/Pelvic Exams, 225% Prostate Cancer Screening, and 847% Colorectal Screening.

Conclusions

The Brand New Day Chronic Special Needs Plan delivers an evidence-based approach for providing and managing medical, psychiatric and social services for the SPMI population through a Medical Home model. Outcome data indicates that this approach produces a reduction in the utilization of both medical and psychiatric inpatient services. On the other hand, it also improves integration and coordination of care, thus yielding increased access to mental health and primary care along with improved adherence to disease management and preventive services.

This system of care is fully funded by Medicare and Medicaid funds. One of the factors limiting the implementation of this program for the entire SPMI population is that many of these individuals do not qualify for Medicare benefits. The early onset of many of the disorders that the SPMI population suffer from, often results in the inability to accrue the necessary 40 quarters of employment necessary to qualify for SSI and Medicare benefits.

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