



# Hennepin Health

## 2015-2016 Focus Study: Coordination of Medical and Behavioral Care

### *Description*

There is a fundamental link between physical and mental health (Canadian Mental Health Association, Ontario, 2008). Mental health issues often co-occur with many physical health problems such as cancer, HIV/AIDS, diabetes, tuberculosis and others (WHO, 2008). People who live with chronic physical health conditions experience depression and anxiety at twice the rate of the general population (Canadian Mental Health Association, Ontario, 2008). Additionally, people with mental illness and addictions are more likely to die prematurely than the general population. Mental illness can decrease life expectancy for an individual by ten to twenty years (World Psychiatry, 2014). The causal relationship between physical and mental health is complex and is heavily impacted by socioeconomic factors. For example, common mental health disorders are about twice as frequent among the poor as among the affluent, with depression being one and a half to two times more prevalent among low income individuals (WHO, 2007). Furthermore, poverty level living conditions and low social economic status (SES) increase risk for many diseases, including: diabetes, asthma, cardiovascular disease and others (WHO, 2008). For these reasons, individuals with low SES can have extensive health care needs.

Medicaid is a government funded health insurance program available to low income people. Medicaid enrollees with behavioral health diagnoses often have an array of physical health concerns, including conditions associated with tobacco and alcohol use, such as: chronic obstructive pulmonary disease, asthma, chronic liver disease, cirrhosis and diabetes (Herman Soper, 2016). The high rate of smoking among this population is of particular concern since smoking is associated with lung and other cancers, chronic obstructive pulmonary disease (COPD), heart disease, asthma, Type 2 Diabetes and stroke (American Lung Association, 2017). The high rate of mental illness among individuals with low SES impacts rates of tobacco use. Data from the National Survey on Drug Use and Health have shown that the smoking rate is much higher among persons with mental illness, and although people with behavioral health conditions represent about 25 percent of the U.S. adult population, they account for nearly 40 percent of all cigarettes smoked (SAMHSA, 2013).

Furthermore, low SES increases the risk of chronic disease. For example, living in poverty can double or even triple the likelihood of developing diabetes (Health Policy, 2010). Diabetes rates are significantly elevated among people with mental illnesses. Similarly,

people with diabetes have nearly twice the rate of diagnosed mental illnesses as those without diabetes (Canadian Mental Health Association, Ontario, 2008). People living with diabetes often experience significant emotional stress. It has been noted that forty percent of people with diabetes also exhibit elevated symptoms of anxiety (Canadian Mental Health Association, Ontario, 2008).

Obesity is another risk factor for a variety of physical conditions. Low SES is associated with a much higher prevalence of obesity, especially among women (Rabi, 2006). People who are obese are at increased risk for many serious diseases and health conditions, including (CDC, 2015):

- All-causes of death (mortality)
- High blood pressure (Hypertension)
- High LDL cholesterol, low HDL cholesterol, or high levels of triglycerides (Dyslipidemia)
- Type 2 diabetes
- Coronary heart disease
- Stroke
- Gallbladder disease
- Osteoarthritis (a breakdown of cartilage and bone within a joint)
- Sleep apnea and breathing problems
- Some cancers (endometrial, breast, colon, kidney, gallbladder, and liver)
- Low quality of life
- Mental illness such as clinical depression, anxiety, and other mental disorders
- Body pain and difficulty with physical functioning

Although the Medicaid population has a complex array of behavioral and physical needs and high associated costs, many are served in disjointed systems of care with little to no coordination across providers, often resulting in poor health care quality and high costs (Herman Soper, 2016). It is likely that this lack of care integration occurs since behavioral and physical health providers have long operated in separate silos where the sharing of information occurs infrequently (Collins, 2010). Co-existing mental and physical conditions often leads to a diminished quality of life, longer illness duration and unfavorable health outcomes (Canadian Mental Health Association, Ontario, 2008).

Enrollees of Hennepin Health's PMAP and SNBC programs tend to be of low SES and have medical and behavioral health concerns consistent with research related to this population. Hennepin Health's PMAP enrollees have a higher rate of mental health and/or substance

abuse issues when compared to other health plan PMAP programs. Additionally, homelessness is prevalent in this population. Many Hennepin Health enrollees experience co-occurring medical and behavioral health conditions.

### ***Process and Documentation***

Claims were obtained for all Hennepin Health SNBC and PMAP enrollees who received both behavioral health and primary care services during 2015. From the list of enrollees receiving both types of services in 2015, a random sample of fifty-two enrollees was selected from the SNBC population and a random sample of fifty enrollees was identified from the PMAP group. Each individual selected for the study could have multiple claims for each type of care visit. Visits for both primary and behavioral health care could have occurred at multiple provider locations and networks. Hennepin Health - SNBC enrollees have wide access to most providers in their geographic area. However, Hennepin Health- PMAP enrollees have access to a more defined network of providers. The level of coordination was assessed by evaluating the accessibility of both the behavioral health and medical records for an enrollee by both types of care providers for each enrollee in the study.

The majority of study participants had claims for visits from a variety of different providers with various clinic affiliations. Providers and clinics not affiliated with one another do not have access to patient medical and behavioral health records residing at facilities outside of their organization. However, all of the enrollees randomly selected for this study had medical and/or behavioral health records from visits at Hennepin Health’s partner provider network, Hennepin County Medical Center (HCMC) and its affiliated clinics. For this reason, records from HCMC were used for the purpose of this study. HCMC uses the EPIC medical records system. All HCMC behavioral health and primary care practitioners have access to the EPIC medical records system used by the organization. Behavioral and medical diagnoses and issues are noted on the “Problem List” page within the EPIC medical records system. The “Problem List” can be reviewed by all staff with access to the HCMC EPIC medical records system.

### ***Analysis***

In 2015, a short survey was conducted among 120 Hennepin Health enrollees that queried respondents about their willingness to discuss mental health issues with their primary care practitioner. The survey yielded the following results:

<b>Table 1: Hennepin Health Enrollee Survey</b>	
<b>Issue</b>	<b>Able to Talk to their Primary Care</b>
Substance or Alcohol Abuse	17%
Parenting Skills	7%
Grief or Loss	14%
Teen Nutrition and Body Image	14%
Stress Management	27%

Many of the survey respondents indicated that they would be willing to discuss mental health concerns with their primary care practitioner.

Medical record review for both populations revealed that approximately 73% of the enrollees did discuss their mental health issues with their Primary Care Physician (PCP) during one or more of their clinic visits. Among the SNBC study sample, 100% of enrollees had at least one behavioral issue and at least one physical health issue noted in their "Problem List." For the PMAP study sample, 94% of enrollees had at least one behavioral issue and at least one physical health issue noted in their "Problem List." Medical record review continued to determine if there were any physical and mental health trends with the Hennepin Health SNBC and PMAP populations.

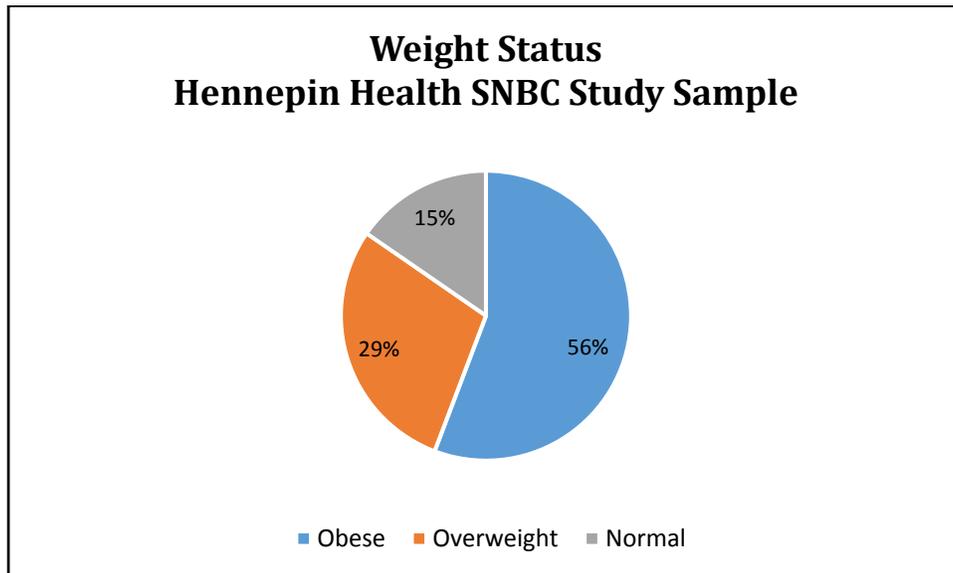
## **Hennepin Health- SNBC Body Mass Index**

The Centers for Disease Control (CDC) Guidelines for Body Mass Index (BMI) were used to determine the weight status of study participants:

<b>Table 2: CDC BMI Guidelines</b>	
<b>BMI Range</b>	<b>Weight Status</b>
18.5 – 24.9	Normal or Healthy Weight
25.0 – 29.9	Overweight
30.0 and Above	Obese

According to EPIC records, 85% of the SNBC study participants had BMI's that met the CDC criteria for being either Overweight or Obese. Only 15% of SNBC study participants BMI's fell within the CDC Guidelines range for Normal.

**Figure 1: Weight Status Hennepin Health SNBC Study Sample**

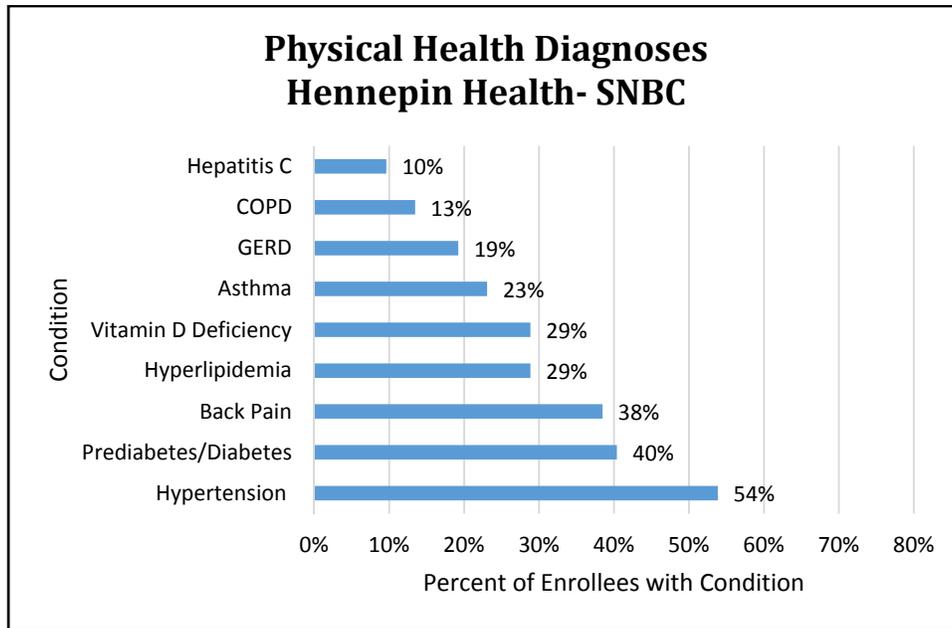


<b>Weight Status</b>	<b>Count</b>
Normal	8
Overweight	15
Obese	29
<b>Total</b>	<b>52</b>

**Hennepin Health- SNBC Physical Health Conditions**

The majority of SNBC study participants have multiple physical health related conditions noted in their EPIC “Problem List.” The most common physical conditions noted in EPIC Problem Lists among the 52 SNBC study participants were Hypertension, followed by Pre-diabetes/Diabetes, Back Pain, Hyperlipidemia, Vitamin D Deficiency and GERD.

**Figure 2: Physical Health Diagnoses Hennepin Health SNBC Study Sample**

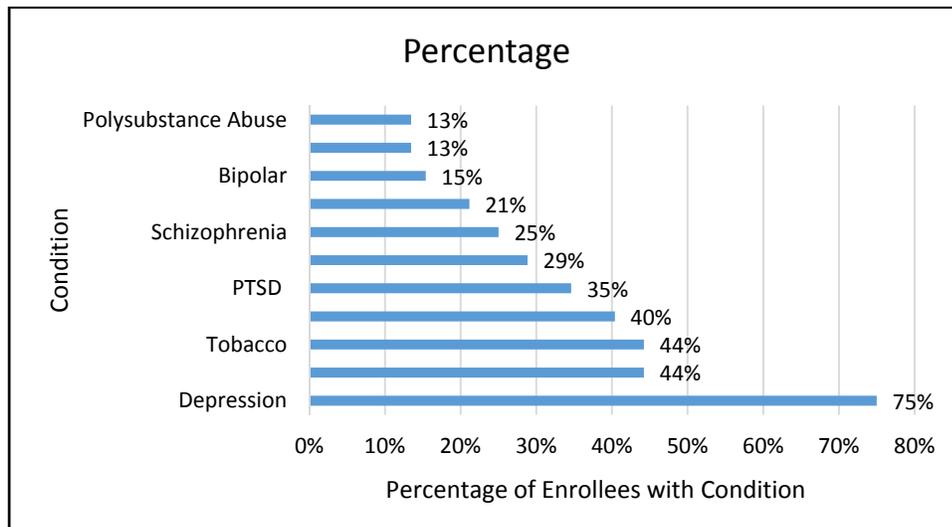


Condition	Count
Hepatitis C	5
COPD	7
GERD	10
Asthma	12
Hyperlipidemia	15
Vitamin D Deficiency	15
Back Pain	20
Prediabetes/Diabetes	21
Hypertension	28

### **Hennepin Health- SNBC Mental Health Conditions**

Similarly, the majority of SNBC study participants have multiple behavioral health conditions noted in their EPIC “Problem List.” The most common mental health issue listed in EPIC Problem Lists for SNBC enrollees is Depression (75%).

**Figure 3: Mental Health Conditions Hennepin Health SNBC Sample**



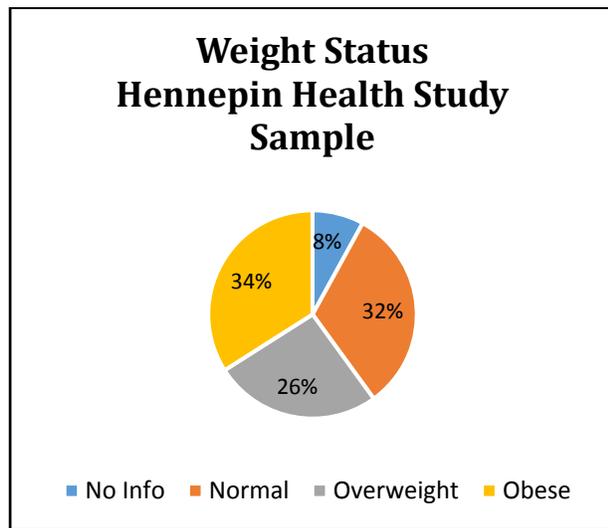
<b>Condition</b>	<b>Count</b>
Polysubstance Abuse	7
Cognitive Impairment	7
Bipolar	8
Mood Disorder	11
Schizophrenia	13
Cocaine Use	15
PTSD	18
Anxiety	21
Tobacco	23
Alcohol Dependence	23
Depression	39

### Hennepin Health- PMAP Body Mass Index

The percentage of Hennepin Health - PMAP study participants with a BMI in the Normal range was more than twice the rate of SNBC study enrollees in this range (32%). However, more than half of PMAP study participants were either Overweight or Obese (60%).

<b>Table 3: CDC BMI Guidelines</b>	
<b>BMI Range</b>	<b>Weight Status</b>
18.5 – 24.9	Normal or Healthy Weight
25.0 – 29.9	Overweight
30.0 and Above	Obese

**Figure 4: Weight Status Hennepin Health Study Sample**

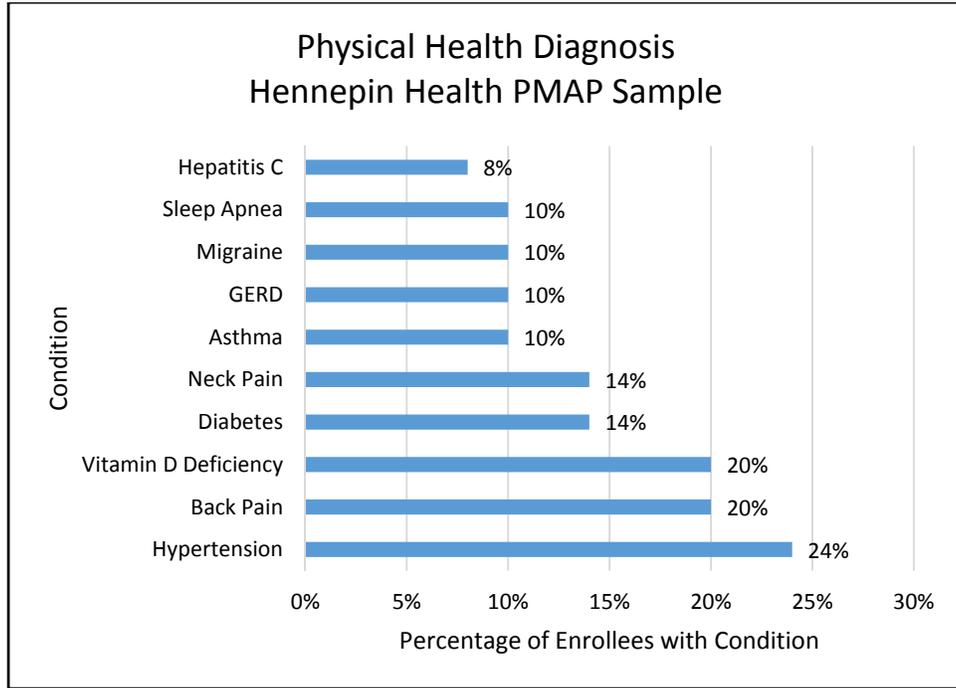


<b>Weight Status</b>	<b>Count</b>
No BMI Info	4
Normal	16
Overweight	13
Obese	17
<b>Total</b>	<b>50</b>

**Hennepin Health- PMAP Physical Health Conditions**

Many of the Hennepin Health- PMAP study participants have multiple physical health conditions listed on their EPIC Problem List. The most common conditions included: Hypertension, Back Pain and Vitamin D Deficiency.

**Figure 5: Physical Health Diagnoses Hennepin Health PMAP Sample**

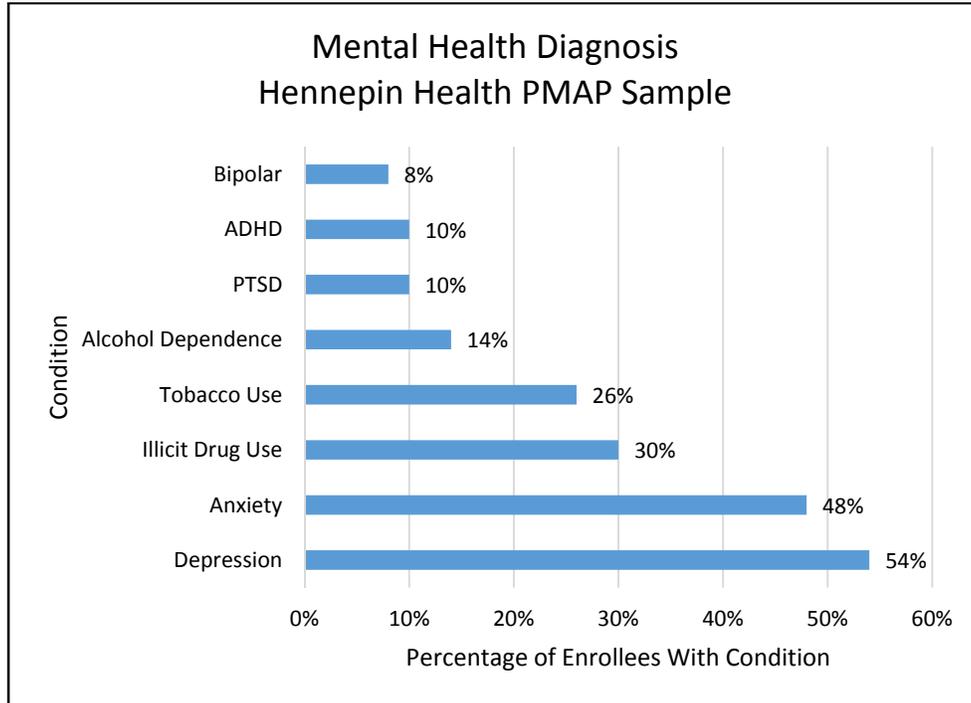


Condition	Count
Hepatitis C	4
Sleep Apnea	5
Migraine	5
GERD	5
Asthma	5
Neck Pain	7
Diabetes	7
Vitamin D Deficiency	10
Back Pain	10
Hypertension	12

## **Hennepin Health- PMAP Mental Health Conditions**

More than half of Hennepin Health PMAP study participants have been diagnosed with depression (54%) and almost half of the enrollees in the study sample experience anxiety (48%). Many of these enrollees use illicit drugs and tobacco.

**Figure 6: Mental Health Diagnoses Hennepin Health PMAP Sample**



Condition	Count
Bipolar	4
PTSD	5
ADHD	5
Alcohol Dependence	7
Illicit Drug Use	9
Tobacco Use	13
Anxiety	24
Depression	27

## **Discussion**

Enrollees of both the Hennepin Health - SNBC and Hennepin Health - PMAP plans have complex co-occurring behavioral and physical health conditions. Individuals with co-occurring medical and mental health issues have been shown to benefit from an approach that integrates mental health and physical health care (ACAP, 2016). Many of the participants in this study received mental health care services at provider clinics unaffiliated with their primary care provider, thus inhibiting the sharing of health information and increasing the risk of fragmented care delivery. However, almost all of the study participants also received both mental health care and primary care services at some point through clinics affiliated with HCMC, a provider partner of Hennepin Health plan. As a result, all but three study participants had both mental health and physical health conditions noted in their “Problem List” within the EPIC medical records system. The EPIC “Problem List” attached to the patient medical record is accessible by all HCMC staff who have access to this system. Although HCMC practitioners are able to access all EPIC medical records related to their patients for HCMC behavioral and physical health visits, there is limited evidence of coordination of services between behavioral and physical health care within the EPIC record for enrollees of the study sample.

## ***Recommendations and Next Steps***

Through its medical records system, HCMC has a platform for multidisciplinary teams to employ a holistic approach when delivering care to this high need population. To more fully exploit this opportunity, Hennepin Health should direct its highest need enrollees with co-occurring medical and behavioral health conditions to HCMC for care. Increased management of care for enrollees with co-occurring conditions would inhibit these individuals from seeking care at unaffiliated locations that are unable to consider the scope of both medical and behavioral needs of the patient. As a partner with HCMC, Hennepin Health is able to consult with clinic and hospital staff to ensure that behavioral and medical care is integrated for enrollees having complex health conditions.

According to the results, most Hennepin Health enrollees in the study are overweight or obese and suffer from physical conditions associated with excess body mass, such as Hypertension and/or diabetes. Additionally, many Hennepin Health enrollees experience depression and anxiety and are dependent upon tobacco, alcohol and/or illicit drugs. The relationship between these mental health issues, excess weight and physical health conditions has been established, though the causal relationship is not fully understood. However, since these factors are related, providers should consider BMI, diet, physical activity and substance use when treating for both medical and behavioral concerns. Enrollees of Hennepin Health would benefit from increased awareness of the importance of weight management and decreasing tobacco and substance use. Hennepin Health is able to educate both providers and enrollees on these issues through a Performance Improvement Project (PIP) that could address both the integration of medical and behavioral care as well

as the adoption of a healthy lifestyle PIP proposals. Prior to the implementation of this focus study, the purpose and goals were reviewed and approved by Tamiko Morgan, MD, Medical Director and Director of Quality. Marc Manley, MD, CMO reviewed and approved the final focus study report with the recommendation that this be reviewed by the Hennepin Health Quality Management Committee and Medical Administration department to determine the next steps.

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