Missouri CMHC Healthcare Homes

Progress Report 2017

TABLE OF CONTENTS

Executive Summary
Section 1: Enrollment and Population
Section 2: Disease Management and Clinical Outcomes
Section 3: Service Utilization and Cost Savings
Section 4: Improvement Steps and System-wide Change
Section 5: Ongoing Statewide Management
Section 6: Implications and Recommendations

EXECUTIVE SUMMARY

As of December 2017, the Community Mental Health Center Healthcare Homes (HCH) completed six years of HCH system change.

HCH services include:

- ❖ Comprehensive care management
- ❖ Care coordination and health promotion
- ❖ Comprehensive transitional care
- ❖ Patient and family support
- ❖ Referral to community and social support services
- ❖ Use of information technology to link services

2017 Population overview

- 24,065 individuals received care in the HCH. Fifteen percent were under 18 years old, 6% between the ages of 18-24, 74% between the ages of 25-64, and 5% were 65 or older.
- Most people enrolled in 2017 (35%) were new to HCH, or had been enrolled in the HCH for less than 12 months.
- Eleven percent of all enrolled have received HCH services for more than 5 years

The HCH population has significantly higher prevalence of chronic health conditions compared to the general population, for example:

- Substance use prevalence is 3.5 times the general population.
- Hypertension prevalence is 2.5 times the general population.
- Diabetes prevalence is 3.5 times the general population.
- Asthma prevalence is 5 times the general population.

HCH Goals

The goals of the HCH are to improve health outcomes, reduce the use of high cost medical services such as the number of emergency department and hospital visits, and reduce the cost of healthcare for the HCH population through HCH services. The following results demonstrate the continued success of the HCH to achieve the goals of the program.

Clinical Improvement

- 24% reduction in cholesterol levels
- 10% reduction in blood pressure levels
- 1% reduction in A1c levels
- 39% of people in the HCH have lost weight

Reductions in utilization

- The number of people who visited emergency department decreased by 35%
- The number of people who went to the hospital decreased by 26%
- The total number of hospitalizations in a year has decreased by 38%
- The total number of emergency department visits in a year has decreased by 43%

Cost Savings

The CMHC Healthcare homes have an average savings of $200 per person per month from 2012 through 2017.

SECTION 1: ENROLLMENT AND POPULATION CHARACTERISTICS

A. Enrollment

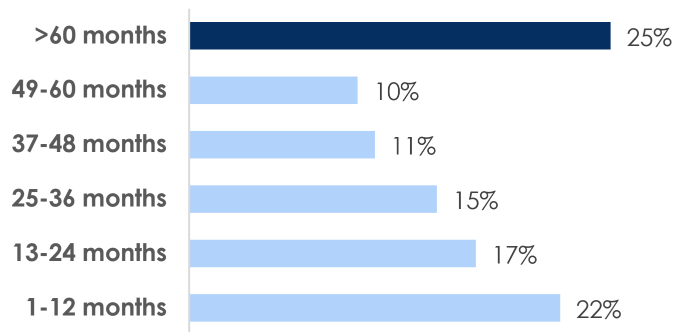
There have been no changes to the eligibility criteria for enrollment in the HCH program since the beginning of Missouri's Health Homes. There are still 26 HCHs operating in Missouri as of December 2017, with total enrollment numbers for each organization listed in the table below.

2017 HCH enrollment by age group and agency

Agency Name	Youth	TAY	Adult	>65 years	Total Enrolled
Adapt of Missouri Inc.*	0	6	394	35	435
BJC Behavioral Health Farmington	84	27	458	49	618
BJC Behavioral Health St Louis	49	78	1,201	126	1,454
Bootheel Counseling Services	200	56	505	40	801
Burrell Behavioral Health Columbia	174	75	636	37	922
Burrell Behavioral Health Springfield	188	102	1,436	76	1,802
Clark Community Mental Health Center	81	28	211	20	340
Community Counseling Center	238	72	620	60	990
Community Treatment Inc.	7	11	379	16	413
Compass Health	965	351	3,777	185	5,278
Comprehensive Health Systems*	0	7	197	19	223
Comprehensive Mental Health Services	34	19	435	31	519
East Central Missouri Behavioral Health	84	30	258	26	398
FCC, Inc.	292	75	998	97	1,462
Family Guidance Center	110	52	505	33	700
Hopewell Center	107	39	581	58	785
Independence Center*	0	8	314	31	353
Mark Twain	53	66	466	27	612
New Horizons*	0	6	296	31	333
North Central Missouri MHC	202	56	379	38	675
Ozark Center	109	55	481	31	676
Ozark Medical Center	150	21	240	16	427
Places For People	1	10	385	23	419
Preferred Family Healthcare Inc.	157	39	407	22	625
ReDiscover	100	107	914	41	1,162
Swope Health Services CMHC	7	23	390	31	451
Tri County Mental Health Services	33	37	410	35	515
Truman Medical Center Behavioral Health	93	35	487	62	677
Total	**3,518**	**1,491**	**17,760**	**1,296**	**24,065**

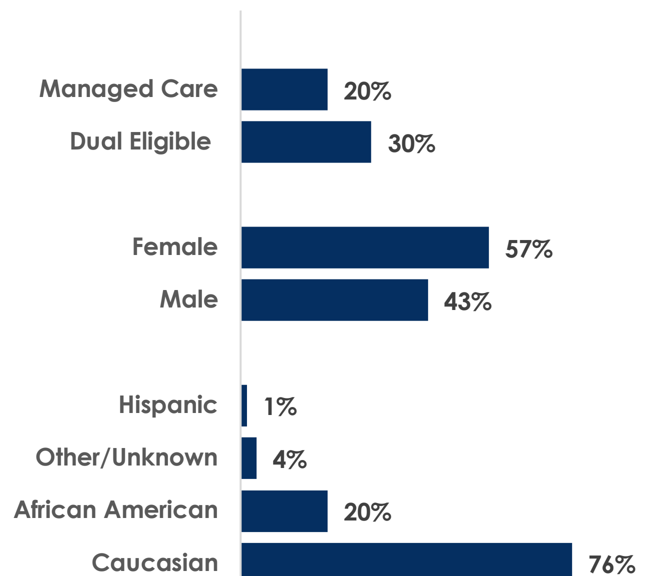
*Agencies serving only adults

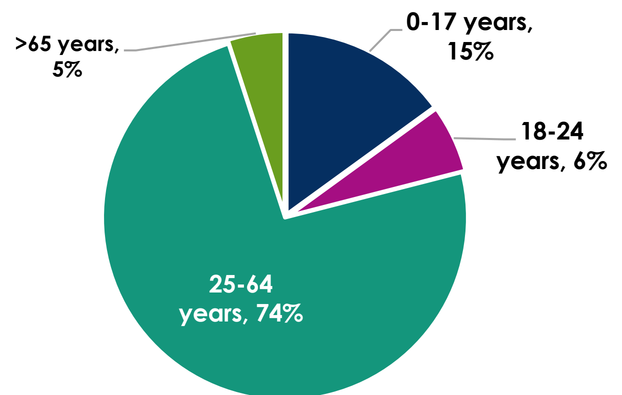
HCH has been serving Medicaid eligible enrollees since January 1, 2012. For 2017, the majority of people enrolled have had at least five years of enrollment.



B. Demographics

Adults and children are eligible for the CMHC HCH program. However, not all of the CMHCs serve children. Seventy-nine percent (79%) of HCH enrollees are between the ages of 18-64. The average age of adult enrollees was 46.4 years. In 2017, youth represented 15% of the population, with 6% of HCH population falling between the ages of 18-24, commonly referred to as transitional aged youth. The average age of the youth population (<18 years old) was 12.1 years in 2017. Adults over the age of 65 are a smaller proportion of the HCH, representing only 5% of the overall enrollment. Females represent 57% of enrollees. Similar to the statewide racial demographics, 76% of all enrollees identified as Caucasian, 20% identified as African American, with the remaining 3.7% of individuals identified as Asian (0.2%), Native American (0.2%), or do not claim a specific racial group (3.3%). Only 1.4% of individuals were identified as Hispanic. Individuals who are dual eligible for Medicaid and Medicare may also be enrolled in a HCH; these dual enrollees account for 30% of the HCH adult population. In 2017, Managed Care was extended statewide, and 20% of HCH enrollees had coverage through a managed care plan as of December 31, 2017.





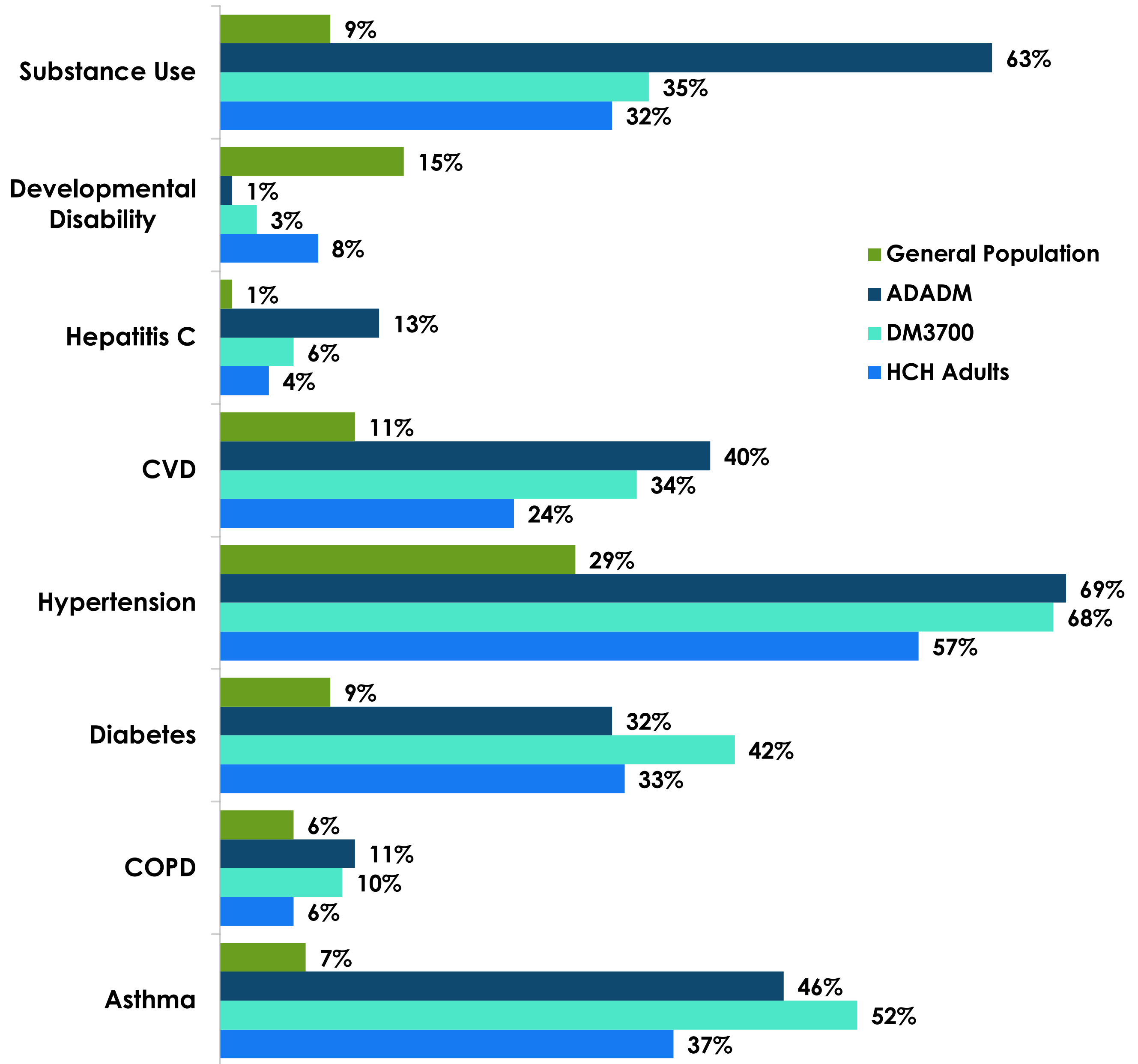
C. DM3700 and ADADM in CMHC HCH

The Disease Management programs have been considered to be an outreach arm for the HCH program. DM3700 is the Disease Management program targeting individuals with serious mental illness (SMI) who have high Medicaid costs. The ADADM program targets individuals with a substance use disorder (SUD) who also have high Medicaid costs with the goal of engaging these individuals into care and improving health outcomes. The table below shows the number of individuals enrolled in DM3700 and ADADM programs, who were also enrolled in the HCH in 2017.

2017 DM3700 and ADADM HCH enrollees by agency				
	DM3700	ADADM	Total	% of Agency HCH enrollees
Adapt of Missouri Inc.	94	10	104	24%
BJC Behavioral Health Farmington	128	5	133	22%
BJC Behavioral Health St. Louis	223	7	230	16%
Bootheel Counseling Services	66	2	68	8%
Burrell Behavioral Health Columbia	79	8	87	9%
Burrell Behavioral Health Springfield	195	35	230	13%
Clark Community Mental Health Center	32	11	43	13%
Community Counseling Center	55	4	59	6%
Community Treatment Inc.	75	15	90	22%
Compass Health	606	76	682	13%
Comprehensive Health Systems	16	0	16	7%
Comprehensive Mental Health Services	58	12	70	13%
East Central Missouri Behavioral Health	21	1	22	6%
Family Guidance Center	104	23	127	18%
FCC, Inc.	269	13	282	19%
Hopewell Center	58	6	64	8%
Independence Center	41	1	42	12%
Mark Twain	39	5	44	7%
New Horizons	33	1	34	10%
North Central Missouri MHC	42	3	45	7%
Ozark Center	39	5	44	7%
Ozark Medical Center	28	1	29	7%
Places For People	65	3	68	16%
Preferred Family Healthcare Inc.	29	13	42	7%
ReDiscover	60	33	93	8%
Swope Health Services CMHC	34	3	37	8%
Tri County Mental Health Services	38	7	45	9%
Truman Medical Center Behavioral Health	49	4	53	8%
Total	**2,576**	**307**	**2,883**	**12%**

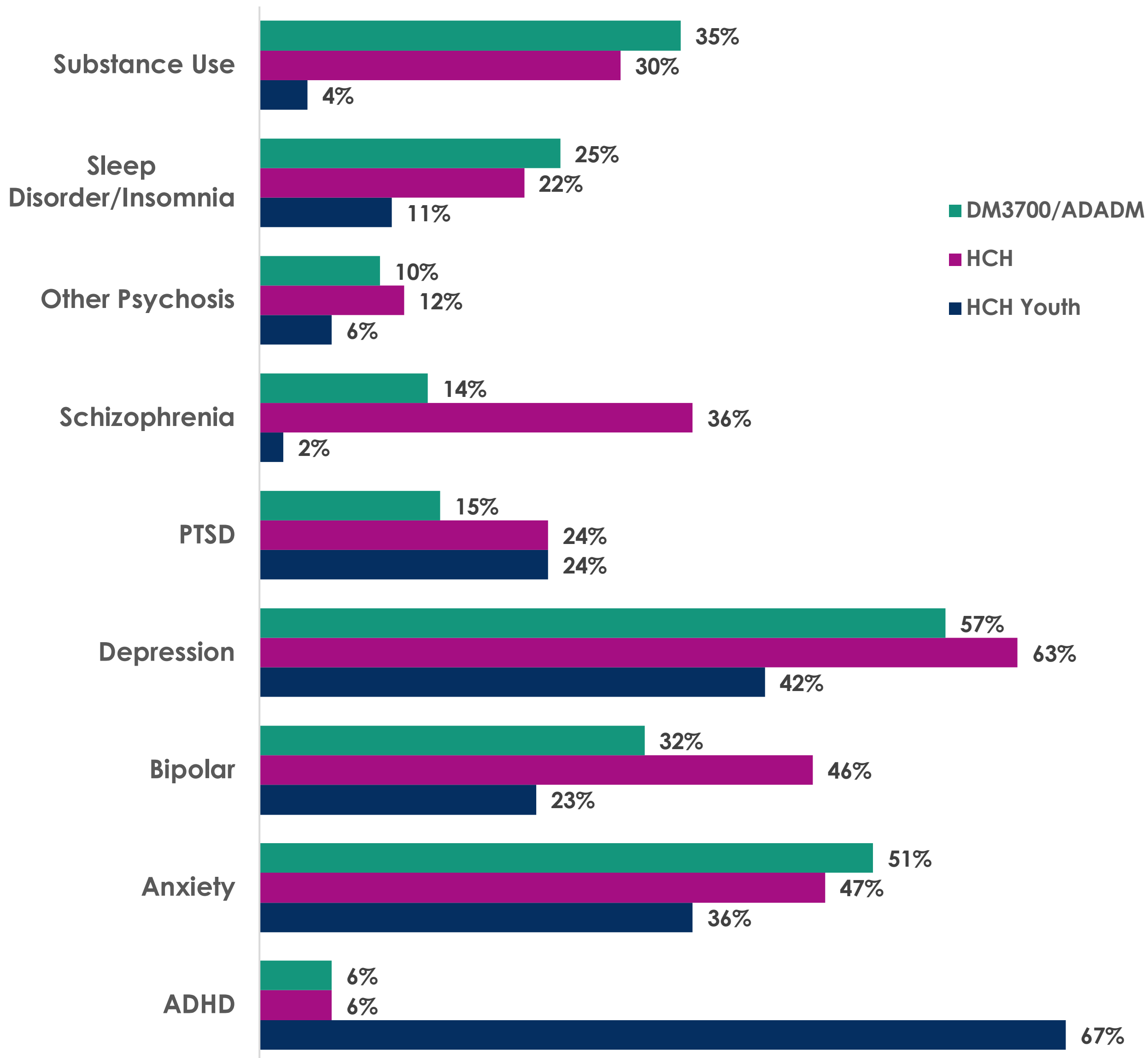
D. Chronic Disease Prevalence

The HCH, ADADM, and DM3700 populations have significantly higher prevalence of chronic health conditions compared to the general population.



The HCH has a primary focus on improving outcomes for individuals with serious mental illness, and cardiovascular disease, diabetes, asthma, COPD, or risk factors for developing those conditions. The chart above demonstrates how the HCH, ADADM, and DM3700 programs compare to the national general population in terms of disease prevalence.

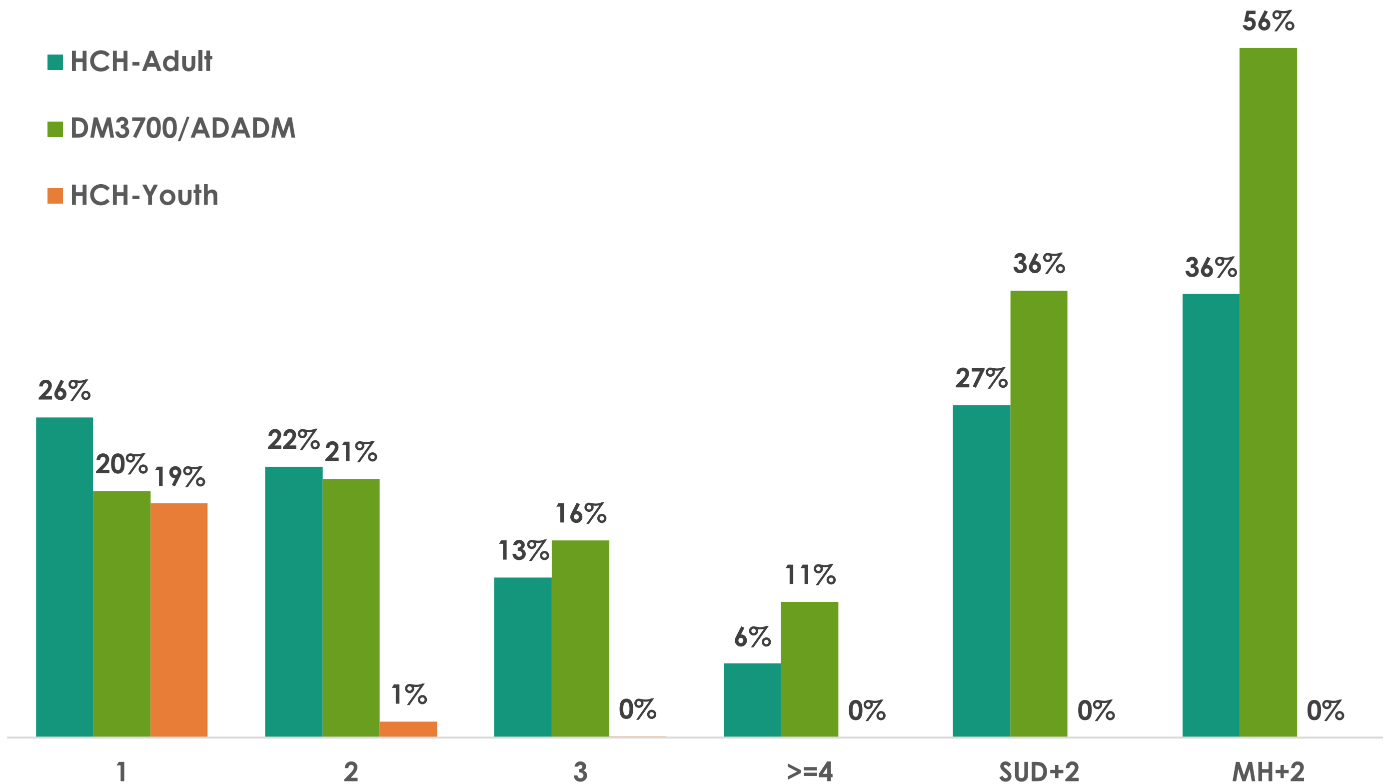
E. Behavioral Health Conditions



Serious mental illnesses (SMI) are stand-alone, qualifying conditions for enrollment in the HCH. Individuals who have mental illness and take psychotropic medications are at increased risk for cardiovascular, metabolic, and respiratory disease. As such, it is critical to monitor these health conditions and engage individuals with SMI in a preventative manner to improve health outcomes related to manageable health concerns. The following chart shows the prevalence of specific behavioral health conditions for the population of HCH enrollees in 2017. The conditions detailed include the diagnoses specified in the state plan amendment for the HCH definition of SMI as well as other common psychiatric diagnoses occurring in Medicaid claims data.

F. Multiple Chronic Conditions

Thirty-six % of enrollees have two or more chronic physical health conditions plus a mental health condition. Of those with substance use disorder, 27% also have two or more chronic conditions.

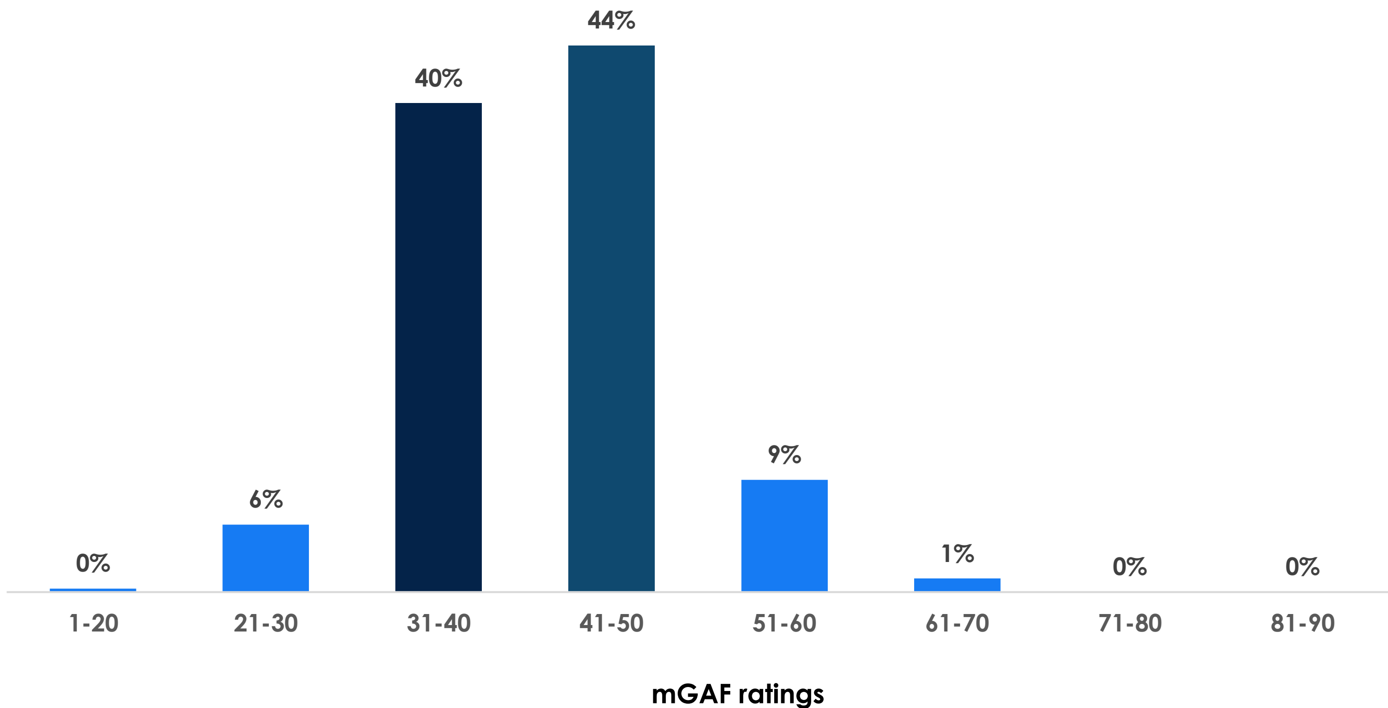


*Conditions included: asthma, cardiovascular disease, diabetes, hypertension, and hepatitis C

The majority of individuals enrolled in the HCH have multiple chronic health conditions that require collaborative self-management. Thirty-nine percent of 2017 HCH enrollees have a diagnosis of more than one chronic disease that qualifies them for HCH enrollment. The DM3700 and ADADM cohorts have a greater prevalence of mulitple chronic health conditions in combination with SUD and mental health diagnoses.

G. Functional Assessment

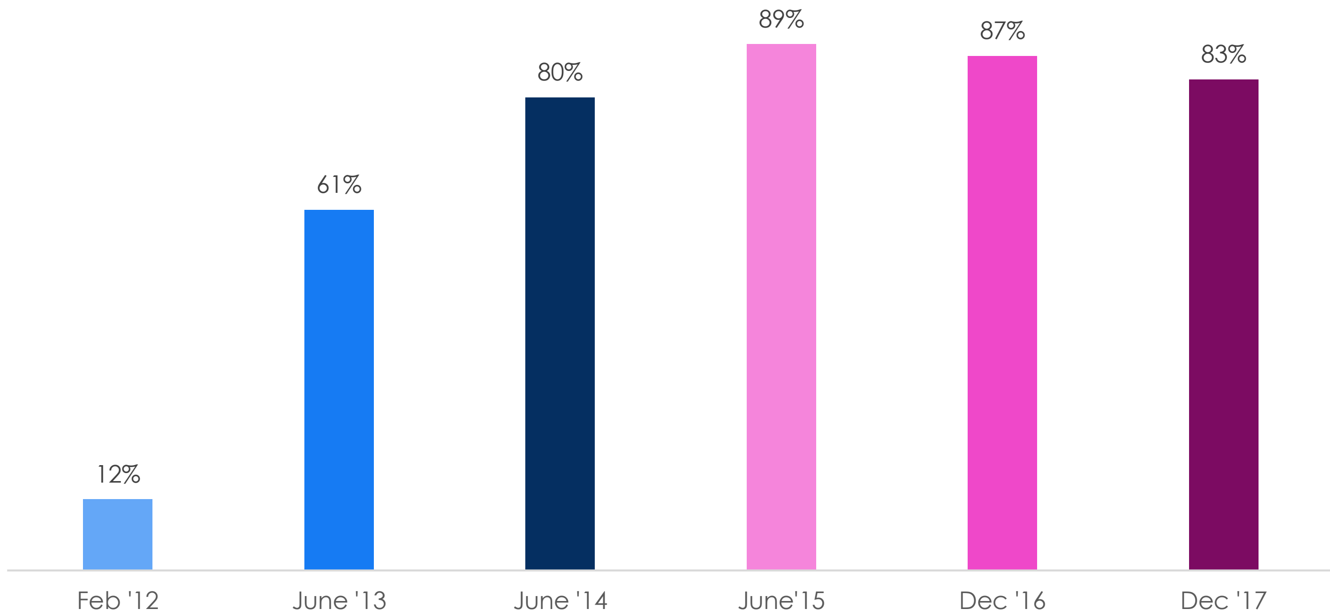
The majority of HCH clients have serious symptoms or serious impairments in functioning or major impairments in several areas of functioning.



The Daily Living Activities© (DLA-20©) assessment is designed to assess daily living areas that are impacted by mental illness, substance use, or disability, as well as the level of impairment. The Modified Global Assessment of Functioning (mGAF) score represents an individual's overall level of functioning: high scores indicate superior functioning while low scores indicate severe impairment. In 2017, 44% of HCH enrollees received a score of 41-50, indicating some serious symptoms or impairment in functioning. Almost half of enrollees (44.3%) had more severe symptoms and major impairments in functioning, indicating a higher level of need. It is important to note that the DLA-20© is not part of the outcomes, and is not assessed by HCH staff. In consideration of the whole picture of health for HCH enrollees, it is important when helping to manage chronic illness to understand how functioning fits into the overall picture of wellness, and helps the HCH team to coordinate care most appropriately with an individual's care team.

mGAF score ratings
1-10= Immediate danger from serious neglect or self-injurious behavior
11-20= Suffering from neglect or in danger of hurting self or others
21-30= Inability to function in almost all areas
31-40= Major impairment in several areas of functioning
41-50= Some serious symptoms or serious impairment in functioning
51-60= Moderate symptoms or moderate impairment in functioning
61-70= Some persistent mild symptoms or persistent mild impairment in functioning
71-80= Some transient mild symptoms or temporary mild impairment in functioning
81-90= Absent or minimal symptoms and no impairment in functioning

A. Metabolic Syndrome Screening (MBS)



Individuals with any mental illness have significantly increased rates of morbidity and mortality compared to those who do not have a mental illness. The increase in morbidity is, in large part, due to cardiometabolic issues that are exacerbated by the side effects of psychotropic medications. Although this has been well-documented for antipsychotic medications, almost all psychotropic medications have an impact on respiratory, and cardiometabolic health. As the entire HCH population may be affected, the ultimate goal is to screen 100% of individuals for blood pressure, cholesterol level, and blood sugar control, and to monitor weight and tobacco use.

Metabolic screening has been a primary focus for cultural and systems change in the HCH. The chart shows the progress of change in metabolic screening from the inception of the HCH program in February of 2012 through December 2017. Readings are still above the statewide goal of 80%, with five agencies having screening rates at or above 90%. Of note, a pilot changing data entry procedures and metabolic screening guidelines at five agencies did affect the overall results for those agencies, and future reports will include the new parameters for metabolic screening and will not be comparable with all metabolic screening data prior to January, 2018.

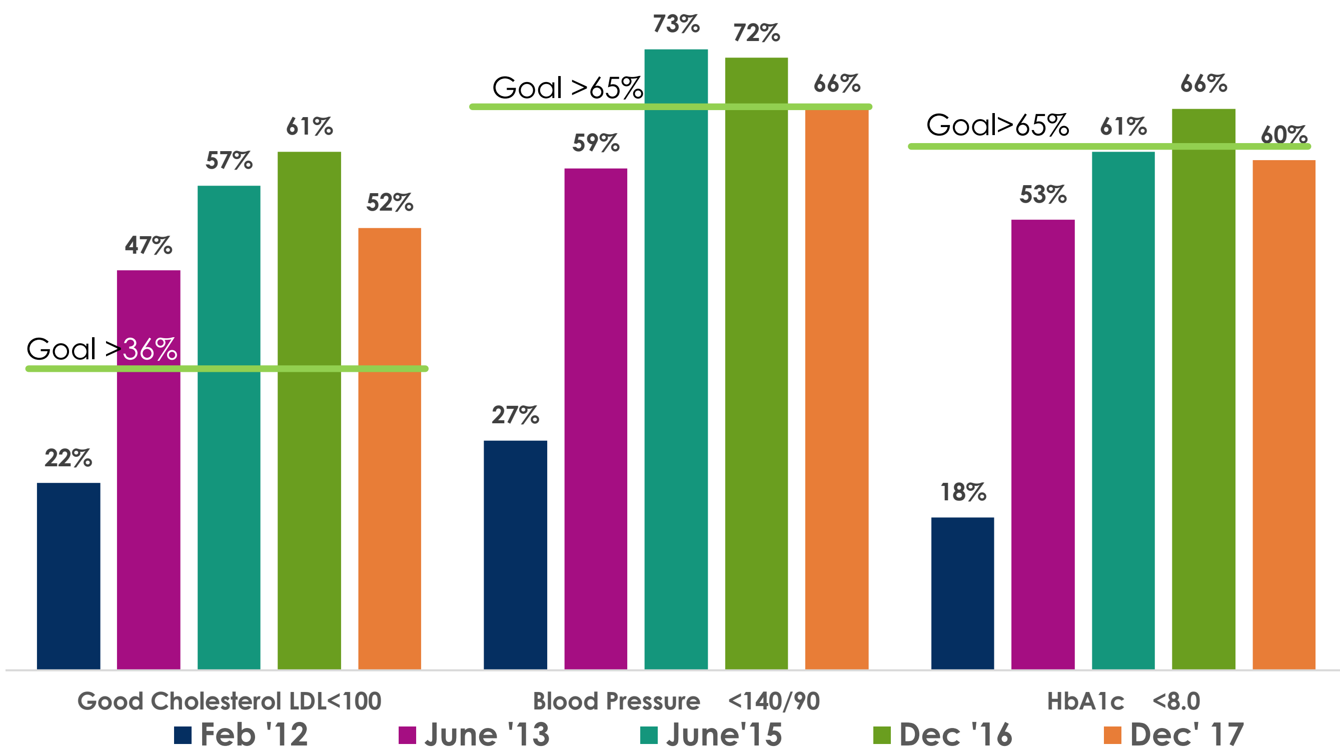
B. Disease Management

The purpose of the metabolic screening is to allow the HCH staff to work with individuals and develop treatment care plans that include goals to manage physical health concerns. Nurse Care Managers discuss screening results with the HCH enrollees, and work with them to develop targeted goals to improve their disease states and overall health.

Individuals in the HCH have 2-3 times the prevalence of diabetes, cardiovascular disease and hypertension compared to the general population. As such, it is critical that they receive regular monitoring to ensure that indicators of risk for cardiovascular events (hypertension, hyperlipidemia, elevated hemoglobin A1c/ HbA1c) are in control. The following disease management measures are based on the Healthcare Effectiveness Data and Information Set (HEDIS)[1] which are a set of measures for organizations to measure optimal care and service for their clients. The benchmark goals were identified from Healthy2020[2] goals at the start of the Health Homes initiative.

DIABETES

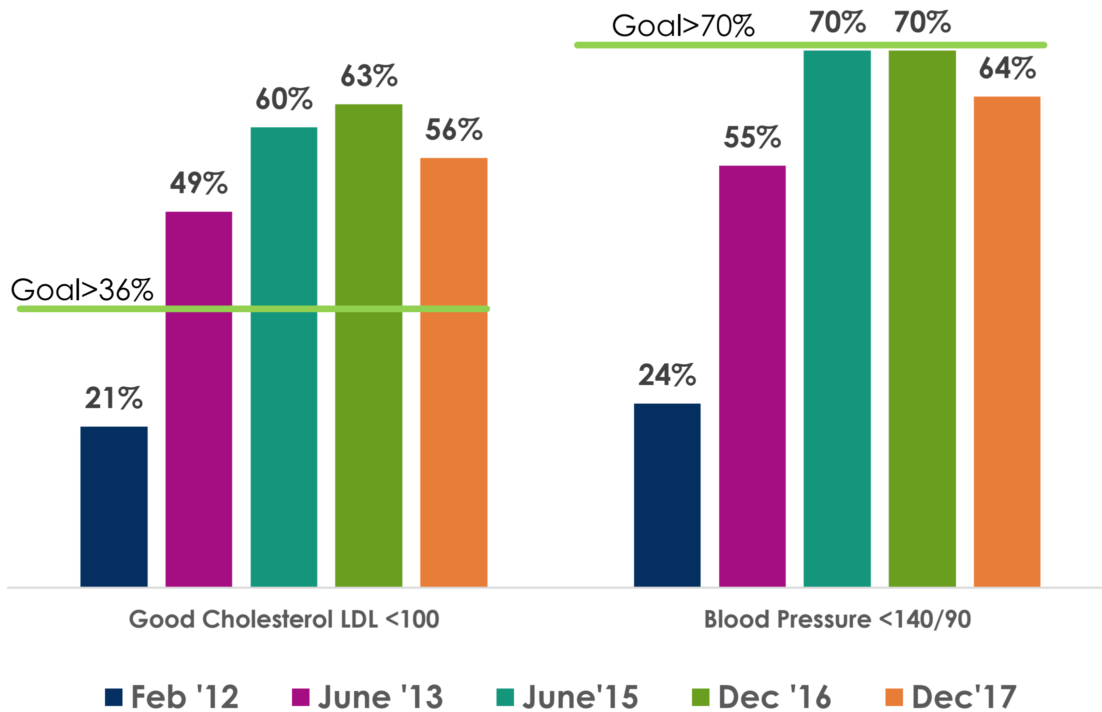
Percent of HCH enrollees with controlled LDL, Blood Pressure, and A1c values



Not only have HCHs made Metabolic Screening data collection a priority, but they have also developed clinical protocols to connect clients to proper treatment and interventions to manage their chronic conditions and have been successful at improving health metrics for their population of enrollees with diabetes. Although there appears to be a slight decrease in December 2017, this is likely due to minor changes in the criteria and population included in the measures. The changes present an opportunity to focus more closely on health of individuals, who might not previously been identified as needing additional care using the previous measures.

HYPERTENSION AND CARDIOVASCULAR DISEASE

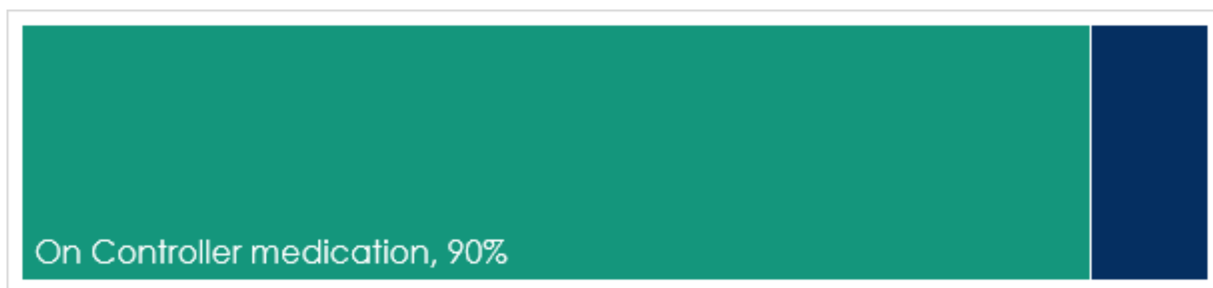
Percent of HCH enrollees with controlled LDL and blood pressure levels



The percent of those in control has steadily improved since the inception of the program, with a slight decrease in 2017. The decrease is likely due to the minor changes in the metrics as described previously with regard to diabetes metrics (page 12).

ASTHMA/COPD

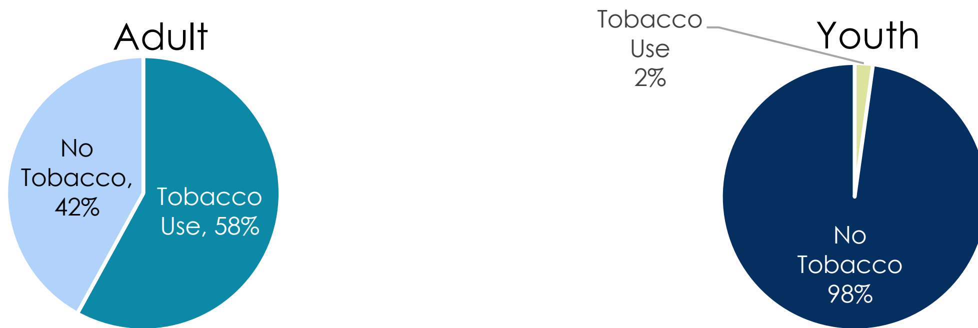
Percent of enrollees with asthma or COPD on a controller medication



The benchmark goal for the CMHC HCH was to ensure that individuals with asthma/COPD were appropriately prescribed an oral controller medication. As of our first report, the benchmark goal had been met, with 90% of individuals with asthma/COPD prescribed a controller medication. This goal has been maintained from 2012 through December 2017.

C. Risk factors for developing chronic health conditions

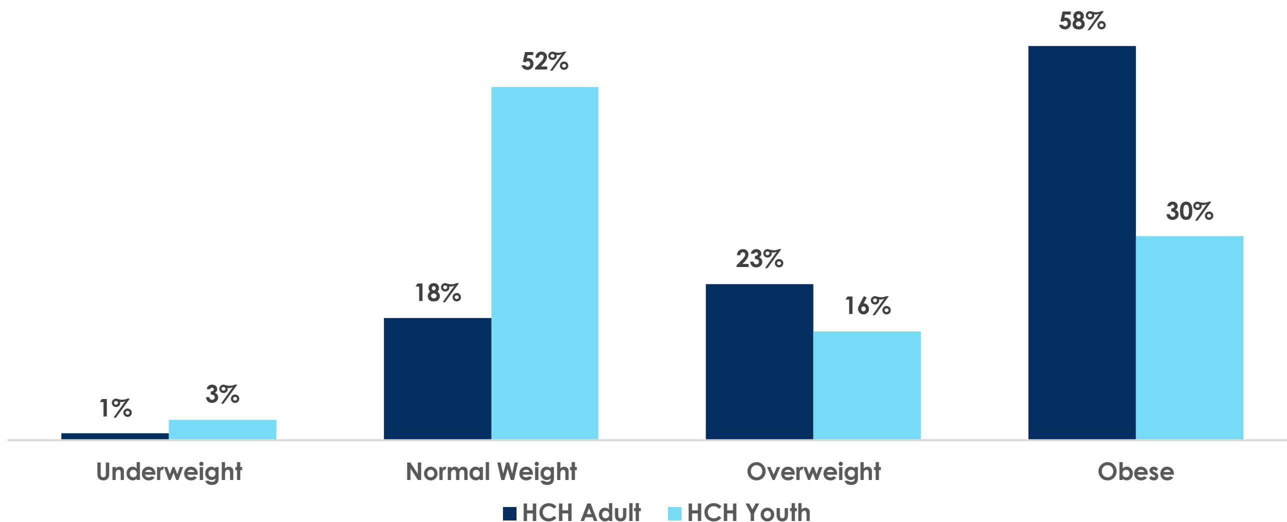
TOBACCO USE



The benchmark goal for the HCH was to promote smoking cessation and increase the percent of enrollees who are tobacco free to 56%. Currently, only 42% of the enrollees report that they are tobacco free. This does not meet the benchmark goal; however, efforts to decrease tobacco use continue. Agencies have used the Freedom from Smoking program, implemented smoke-free agencies, and many have a Tobacco Treatment Specialist to help reduce the prevalence of smoking in the CMHC populations.

OBESITY

Fifty-eight percent of HCH adults, and 30% of HCH youth are obese.



In terms of obesity, defined as having a BMI greater than 30, the prevalence in the United States has increased as of 2015 to 32%. Individuals in the CMHC HCH are still well above that at 58%. The chart shows the body mass index (BMI) distribution of CMHC HCH adults. HCH youth also have higher rates of overweight/obesity than the general population of 18 year and younger individuals. The youth chart shows the distribution of under, normal, overweight and obese children, based on body weight percentiles. Children whose body weight falls into the 95th percentile for their age, gender, and height are represented in the obese column.

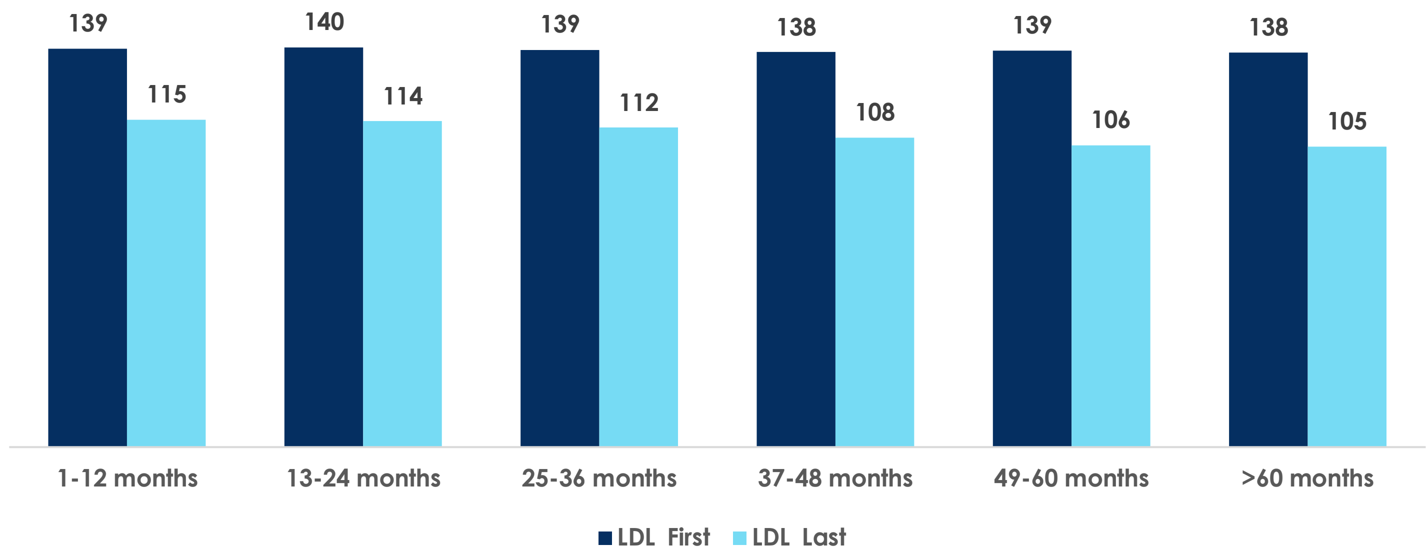
D. CMHC HCH Clinical Improvement

Even if some of the HCH enrollees do not meet criteria for inclusion in the HEDIS metrics (see page 12 for description), it is valuable to track clinical outcomes for all HCH enrollees. The following charts show clinical improvement for any HCH enrollee who had a "high" initial reading of blood pressure, LDL, or A1c recorded. The results are shown based on the number of months enrolled in the HCH. Even small changes can mean significant clinical improvement.

The time between first and last readings vary based on an individual's time in the HCH. The average time between readings varied from 30-33 months for all of the measures. Results are shown for individuals who had at least two readings available for comparison.

Dyslipidemia

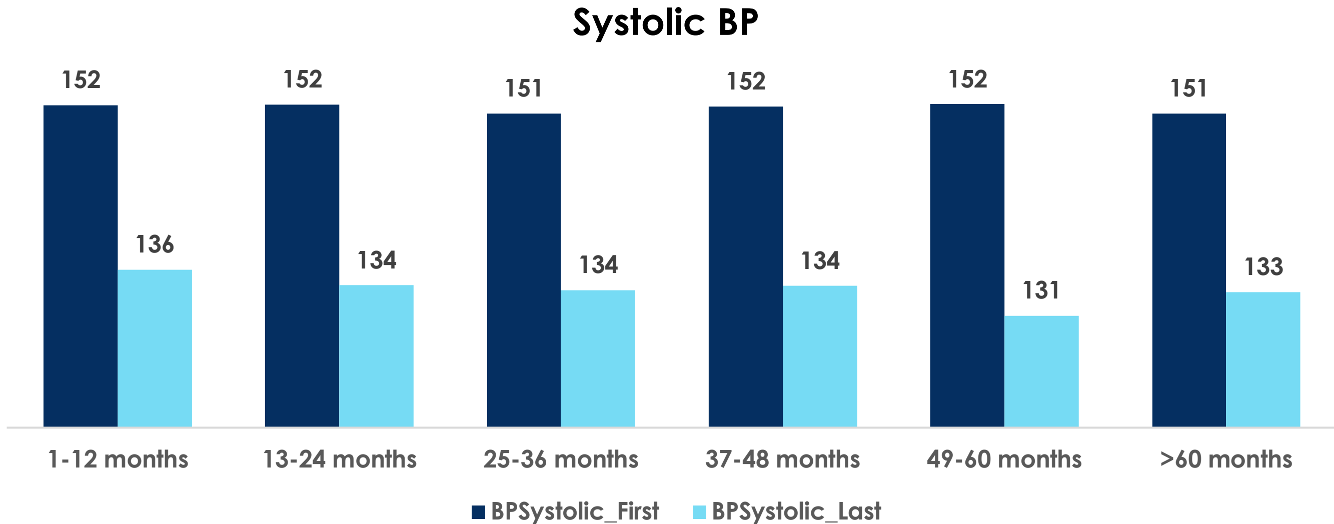
Persons who have been enrolled more than 48 months have decreased LDL values by 24%.

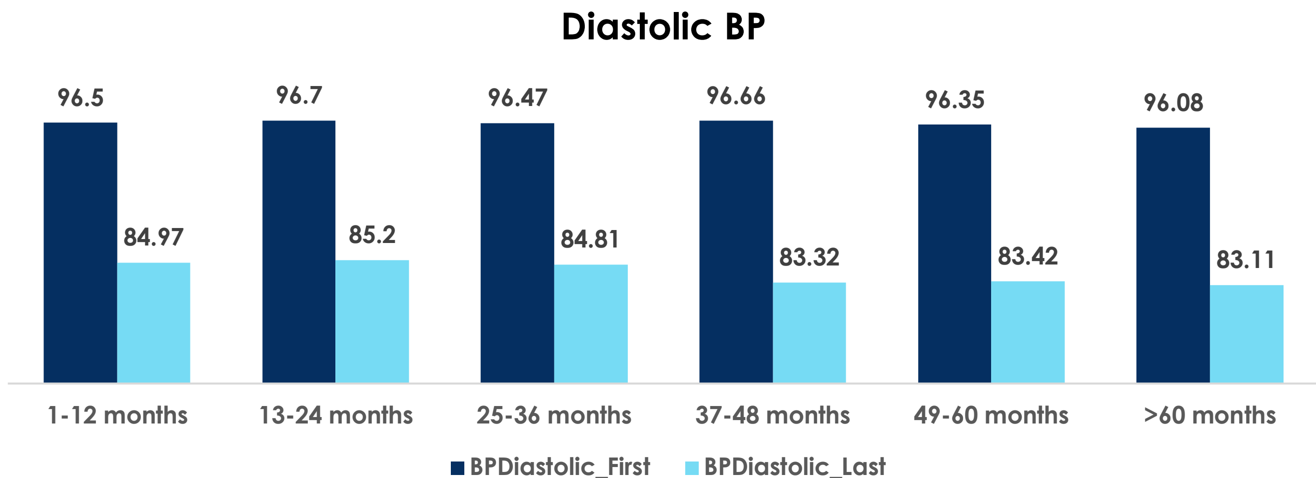


The chart shows the average cholesterol levels of HCH enrollees whose levels were considered elevated (an LDL above 100 mg/dL) at their first recorded reading once enrolled in the HCH compared to their most recent reading. Research indicates that a 10% reduction in LDL values is clinically meaningful and can reduce the risk of cardiovascular disease by 20%[3]. On average, all groups have had clinically meaningful decreases in LDL levels, with the greatest decrease observed in persons who have spent more than 48 months in the HCH (24% decrease).

Blood Pressure

HCH enrollees have had clinically significant decreases in blood pressure levels, reducing their risk for developing cardiovascular disease or having a stroke.

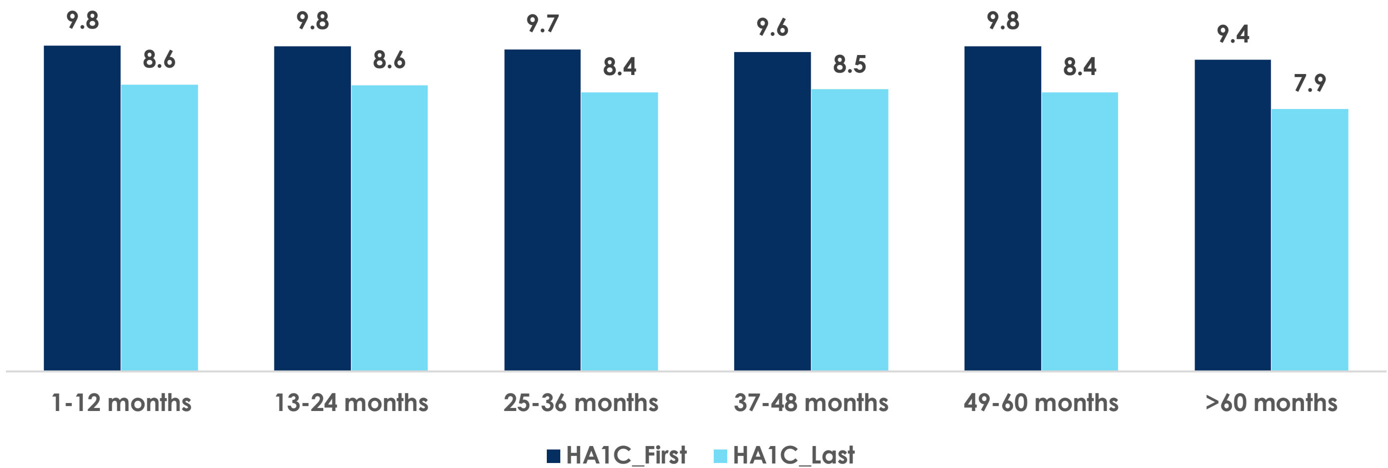




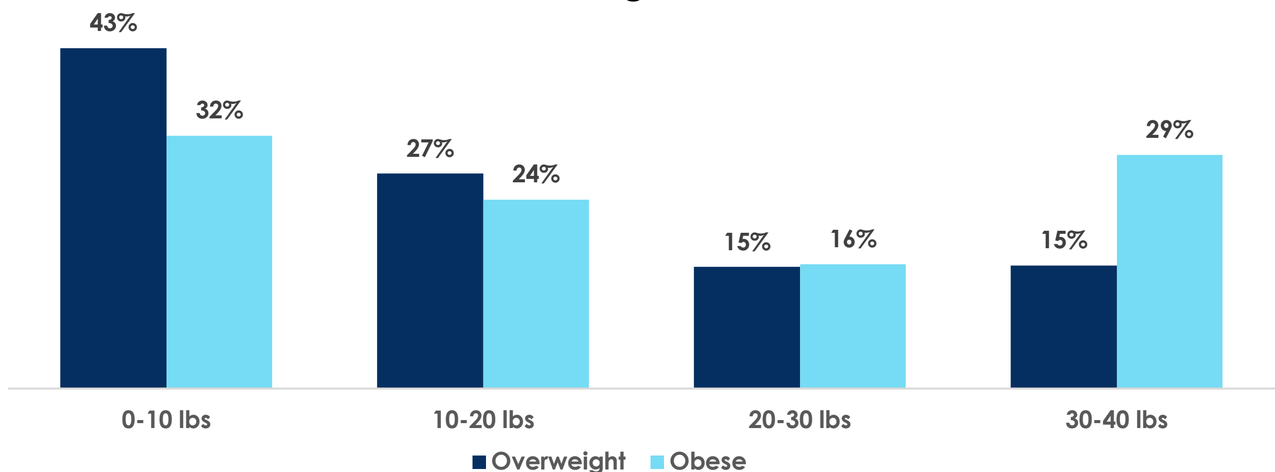
The charts show the average systolic and diastolic blood pressure levels of HCH adult enrollees whose readings were considered high (greater than 140/90) at their first recorded reading after they were enrolled in the HCH compared to their most recent reading. Systolic (SBP) and diastolic (DBP) blood pressures show clinically meaningful reductions (under 140/90 mmHg) across all groups. Importantly, the average decrease in blood pressure dropped from 152/97 to 133/83 bringing the values into a normal range. Research has indicated that a 6mm/Hg drop in blood pressure can reduce the risk of cardiovascular disease by 16%, and the risk of stroke by 42%[4].

Blood Sugar

Research has indicated that a one percent decrease in HbA1c levels translates to a 21% decrease in diabetes related deaths, a 14% decrease in heart attacks, and a 37% decrease in microvascular complications[5].



The chart above shows the average A1c levels of HCH adult enrollees whose levels were considered high (above 8%) at their first recorded reading once enrolled in the HCH compared to their most recent reading. Every group shows a clinically meaningful reduction in A1c levels. On average, for individuals who have been in the HCH more than 5 years, A1c levels have decreased to a normal range.



Weight Loss

Thirty-eight percent of overweight or obese HCH adults have lost weight. Although it has been difficult to reduce overall BMI, there have been a number of individuals in the HCH who were overweight or obese who have been able to lose weight since they were enrolled in the HCH. In total, 38.7% of HCH adults have lost weight from their first recorded weight, to their most recent weight recording. Although there is still room for improvement, it is important to acknowledge successful weight loss efforts. The chart details the percentage of HCH enrollees who were overweight or obese and who lost anywhere

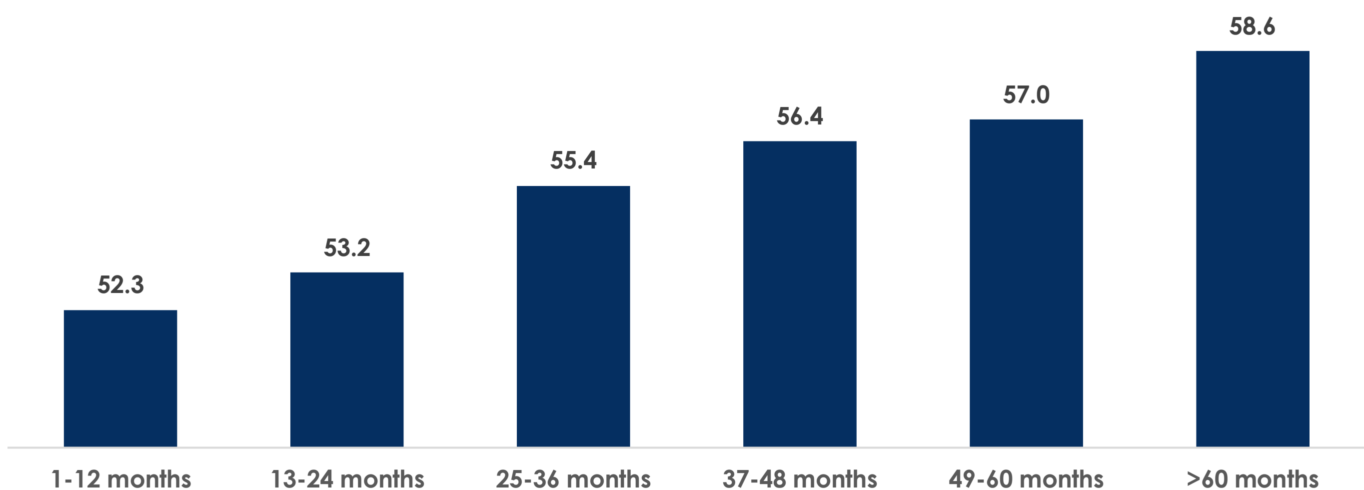
from zero to greater than 30 pounds. Percentages indicate the percent of individuals who lost weight for each category (i.e. 0-10 lbs., 10-20 lbs., etc.). The readings are for all HCH adults enrolled as of December 31, 2017 who had at least two weight readings available and lost weight between their first and last readings.

Mortality

On average, persons with serious and persistent mental illness (SMI) have a loss of 20 potential life years compared to a general population. Programs like HCH may help to reduce the disparity in life-years for persons with SMI; however, it is expected that this will take time. An initial look at mortality rates of HCH enrollees indicates that persons who stay in HCH longer are likely to have more life years. Additionally, the mortality rate for individuals who have remained in HCH at least 60 months is only 2%, whereas the mortality rates for all other cohorts was 6-7%.

Although life years appear to be extended with more time enrolled in HCH, the lifespan of these individuals with SMI and chronic health conditions still falls far below the national average lifespan of 78.6 years (National Center for Health Statistics, 2016), and at this point, there has not been a reduction in overall life years.

Mean age at death-by time in HCH

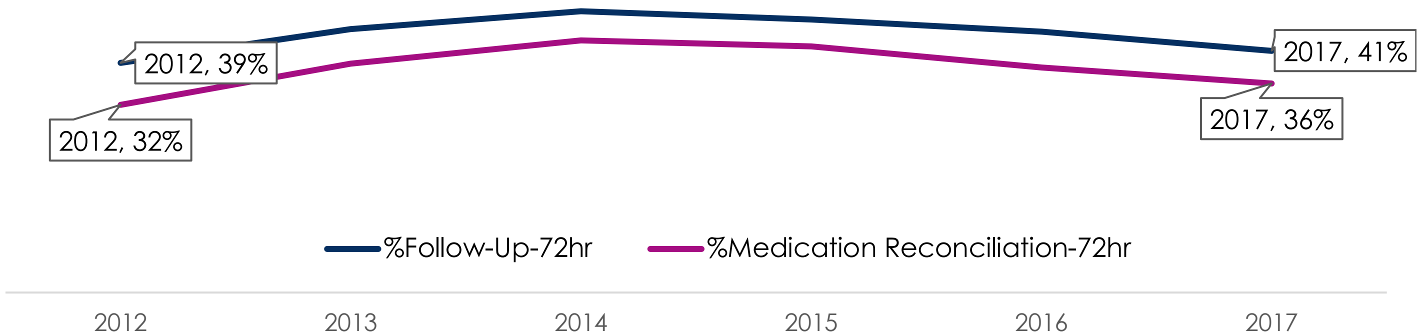


E. Hospital Follow-Up and Medication Reconciliation

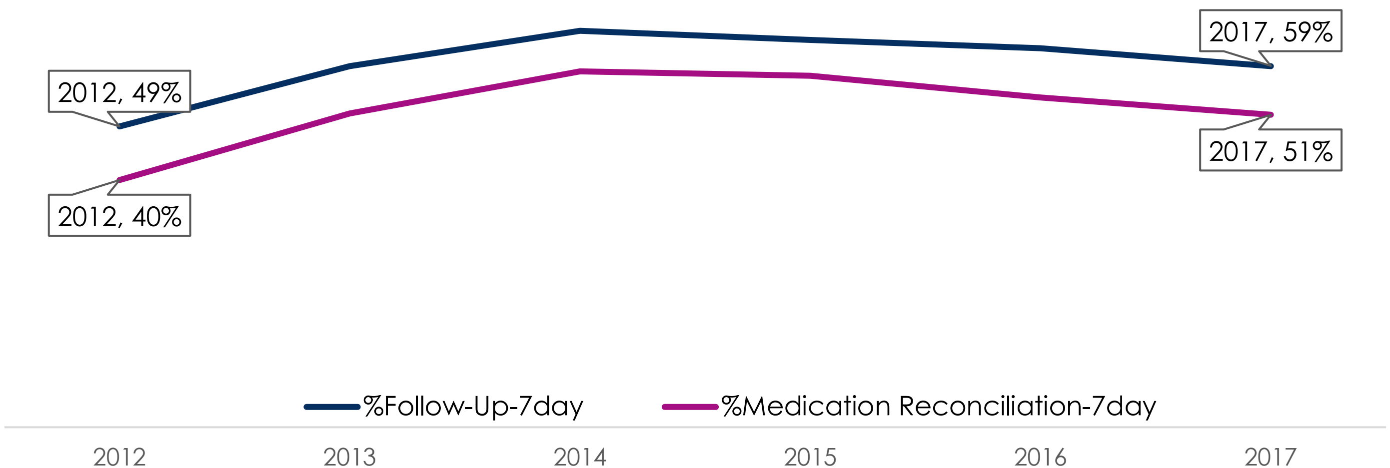
CMHCs have a history of monitoring psychiatric hospital admissions and participating in discharge planning for individuals enrolled in their Community Psychiatric Rehabilitation (CPR) programs. Now, in addition to psychiatric admissions, HCHs are responsible for participating in discharge planning and following up within 72 hours of discharge for enrollees who have been hospitalized for any reason. Nurse Care Managers (NCM) are also responsible for completing medication reconciliations within 72 hours of the hospital discharge. The goal of the HCH is to follow up and complete medication reconciliations within 72 hours for 80% of enrollees discharged from hospitalization.

Hospital Follow-up and Medication Reconciliation

On average, 36% of HCH enrollees who have a hospitalization receive a follow-up and medication reconciliation within 72 hours of hospital discharge.



Fifty-one percent of HCH enrollees who are hospitalized receive a follow-up and medication reconciliation within 7 days.

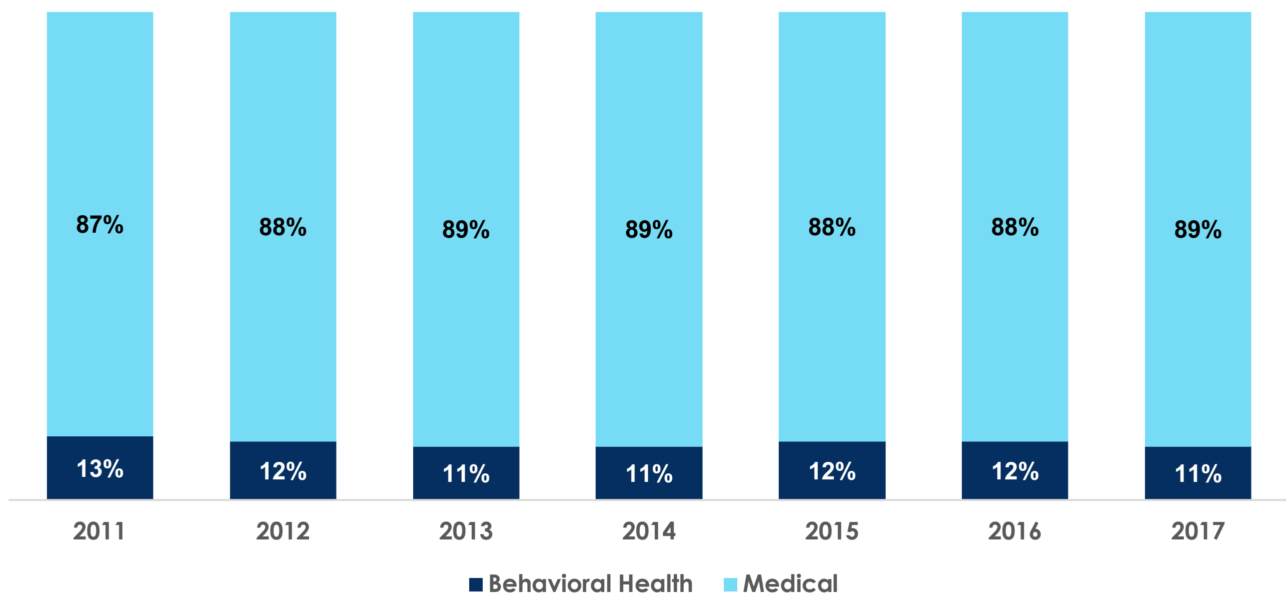


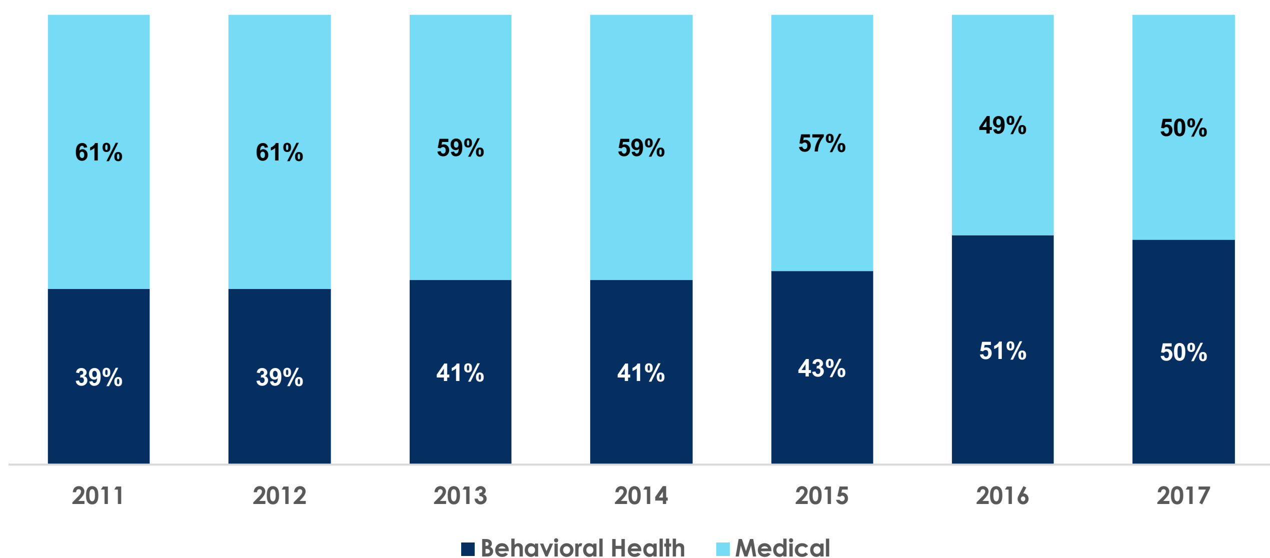
Discharge follow-up increased from 29% during quarter 1 of 2012 to an average of 39% for 2017. There has been improvement, though the average 72 hour follow-up for 2017 was just slightly higher than 2012 at 41%. Data entry methods for follow-up are changing for 2018 to more accurately capture follow-up and medication reconciliation rates. For seven day follow-up, there has been steady and consistent improvement, with an average of 59% of all hospital discharge follow-ups completed in seven days by the end of 2017.

A. Hospital and Emergency Department Utilization

Reductions in emergency department (ED) use, avoidable hospitalizations, and readmission to the hospital within 30 days of discharge can have a dramatic impact on the cost of care for HCH enrollees. The following figures illustrate the change in these utilization measures for the enrollees.

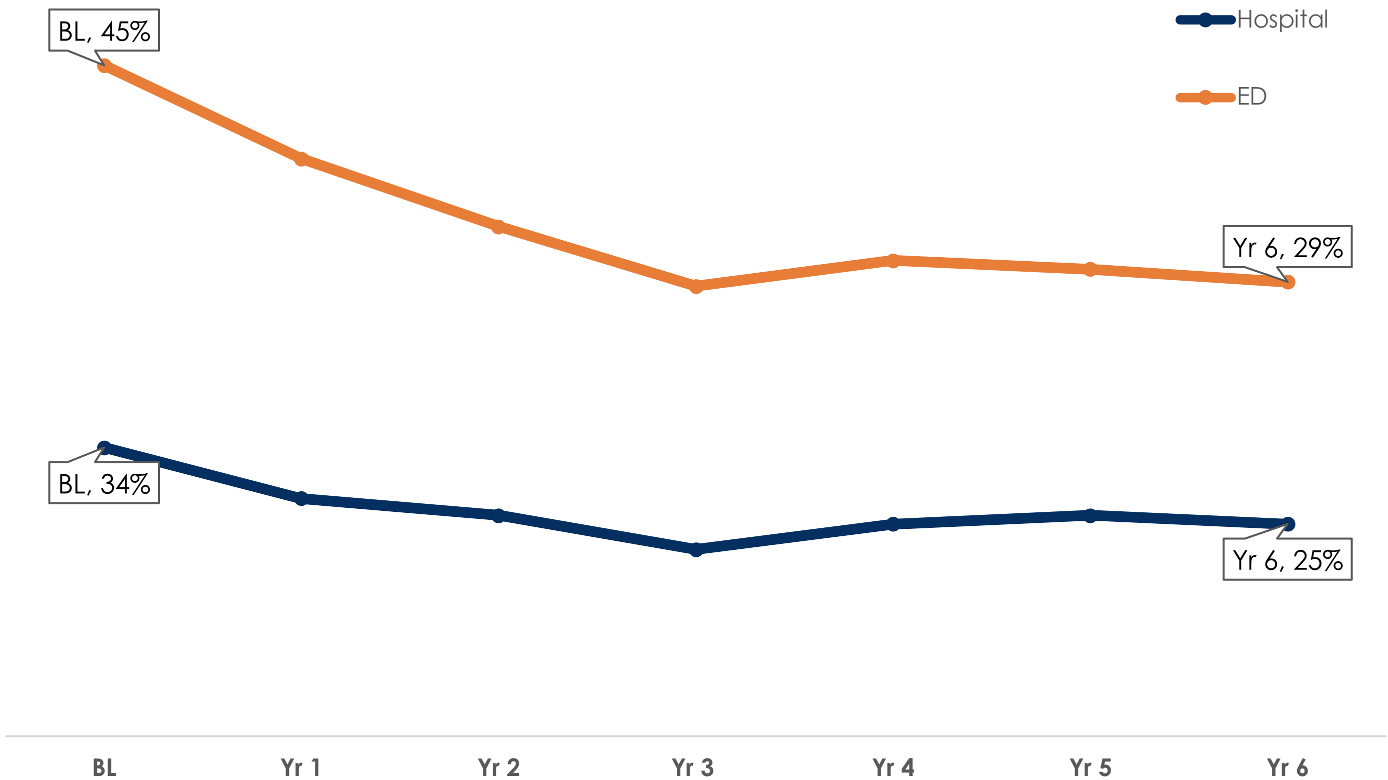
The majority (88%) of ED visits by HCH enrollees are for medical issues. Hospitalizations are more often due to medical issues (57%), than for mental health or substance use (43%).





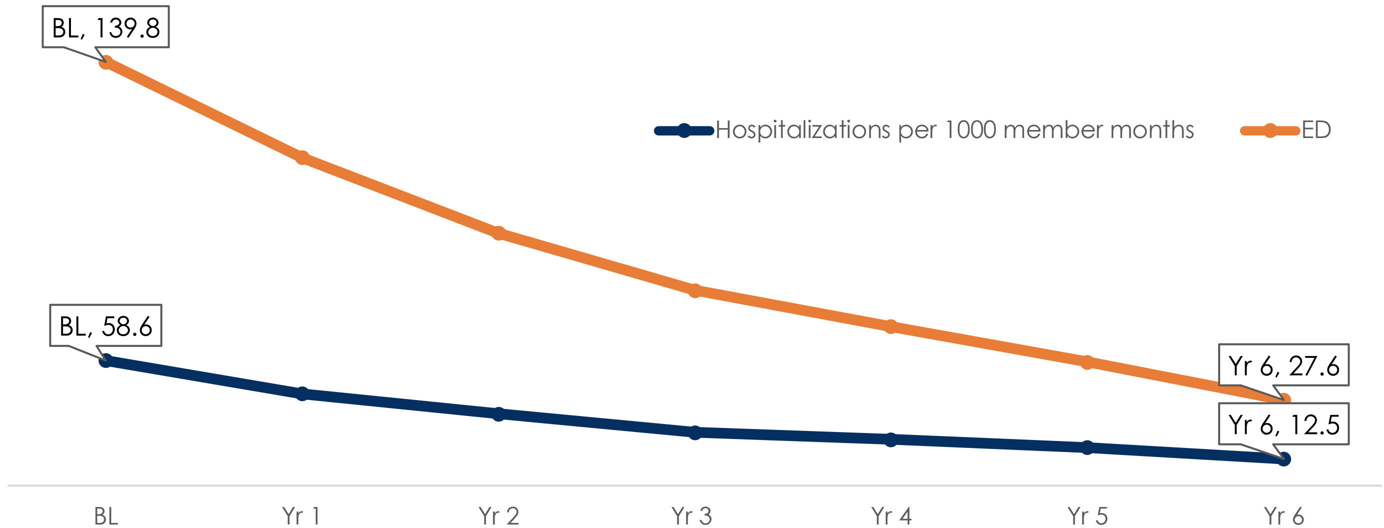
Hospital and Emergency Room Utilization- Continued

The number of HCH enrollees who visit the ED at least once a year decreased by 35% and the number of HCH enrollees who have a hospital visit at least once a year has decreased by 26%.



If the HCH can help enrollees successfully manage their chronic illnesses, then there should be a corresponding decrease in the need for costly hospital admissions and ED visits for this population. The chart above shows the percentage of individuals who had at least one hospitalization in the 12 months prior to their enrollment at baseline and for each year they were enrolled in the HCH program and had at least 12 months of MO HealthNet coverage. Baseline year is equal to the 12-month time frame before an individual's first enrollment date in the HCH. Each year period beyond the enrollment date is calculated in 12 month intervals. Not all enrollees have completed a full 6 years of the HCH program, and if they did not have HCH enrollment in any defined year period they were not included in the calculation for those time points.

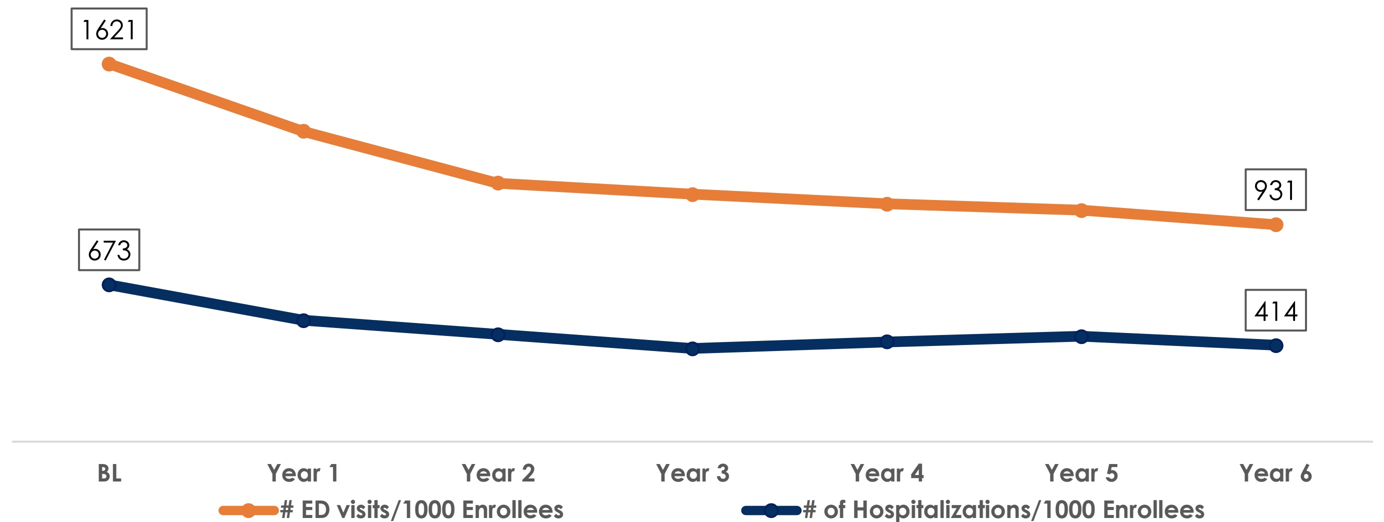
Population Health Measures—for Hospital and Emergency Department Use
The rates of hospital visits and ED visits have decreased continuously for the HCH population.



What is a member month?

The chart above shows the rate of hospitalizations and ED visits per 1,000 member months. Member months count the number of months within a calendar year that a person has MO HealthNet coverage. Most HCH enrollees have 12 member months in a year. In the chart above, we are counting the member months for each person enrolled in HCH for each time period.

The rate of hospital visits and ED visits have decreased continuously for the HCH population. The rate of hospital visits has decreased 38%, and the rate of ED visits has decreased 43%.

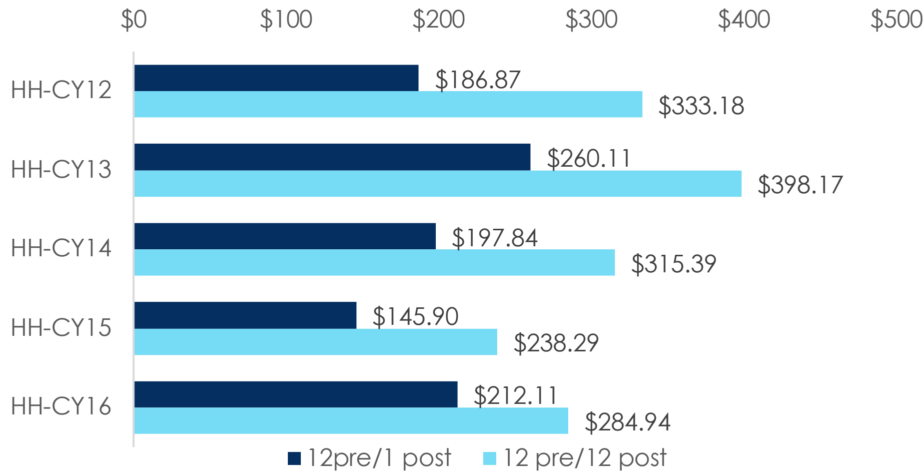


The chart above shows the rate of hospitalizations and ED visits per 1,000 HCH enrollees.

B. Cost Savings

In 2017, MO HealthNet reported cost savings to Centers for Medicare and Medicaid with regard to cost savings for individuals served in the HCH.

The CMHC HCH has saved an average of $200 per member per month from 2012 through 2016.



The numbers are based on all CMHC HCH enrollees who had at least one month of HCH services in the year measured (e.g. 2016). The savings were calculated by subtracting the calendar year savings from the calendar year prior to HCH enrollment. For example, an individual who was enrolled in the CMHC HCH in 2013, would have a baseline year of 2012. As long as that person had 12 months of MO HealthNet eligibility in 2012, their 2012 cost would be calculated, and subtracted from their 2013 costs. The per member per month payments paid in 2013 for all persons included in the calculation were counted against the gross savings numbers to produce the net savings of $200 per member per month. Costs for 2017 have not yet been calculated, and will be presented in the 2018 annual report.

Data collection, reporting, and care management for CMHC HCHs

In 2016, the MO Coalition for Community Behavioral Healthcare (Mo Coalition) and MO Department of Mental Health (DMH) began a pilot project with NetSmart, an electronic health record company that has designed a platform to help integrate key health data for improved care management. Five CMHC agencies served as pilot sites to test a newly developed tool, CareManager, built specifically to improve care coordination and management for the HCH and other care providers who work with the CMHC client population. At the end of 2017, decisions were made to implement the CareManager tool throughout the HCH and to all agencies served by the MO Coalition. As indicated in other sections of this report, the pilot did change data entry procedures for the five pilot sites in 2017, and the transition did require a number of data quality checks for both new data entry and historical data. Importantly, the new system will allow information to be pulled from electronic health records, which should improve data accuracy and improve workflows for the HCH staff. CareManager was released to all agencies in January 2018.

Certified Community Behavioral Health Clinics

Missouri was chosen as one of the eight states to implement a 2-year demonstration project for Certified Community Behavioral Health Clinics (CCBHCs). In July of 2017, fifteen of the CMHC agencies that serve as HCHs became CCBHCs. Although this change does not impact the way the HCH staff provide services to HCH enrollees, there are some additional measures that are required of CCBHCs that will affect some changes to the way outcome metrics are calculated for HCH enrollees. As such, data reported through 2017 will not be comparable with data reported in future annual reports.

The changes should benefit overall outcomes for individuals enrolled in HCH services.

SECTION 5: ONGOING STATEWIDE MANAGEMENT

It is important to address the ongoing efforts to maintain and improve the HCH program through statewide management. From the beginning of the HCH programs in Missouri, there have been weekly, bi-weekly, and monthly meetings including individuals from DMH, MO Coalition, MO HealthNet, Missouri Primary Care Association, and program partners such as Relias, Netsmart, and UMSL-MIMH to discuss the needs and opportunities for continuous quality improvement of the HCH program. The table below provides a brief look at the topics discussed at these meetings and how they impact the overall working of the HCH.

Topics discussed at statewide management meetings

Staffing policies	Review staffing reports, caseload sizes, and overall use of staff covered by the PMPM, Director and NCM changes, turnover.
Cost Savings	Calculations, inclusions, exclusions, areas of success, areas of continued opportunity or adjustment, savings by agency.
Training	Updates on site specific activities, needs as determined through site visits, NCM learning collaborative, issues as they arise, review of new trainings available or opportunities to provide additional resources to sites/ HCH staff.
Policies and Procedures	Review of current policies and determination of adjustments to policies as needed for quality improvement and clarification of operating procedures. Discuss agency specific issues.
Data Analysis/Reporting	Review of reports created by sites, partners, discuss need to change, review, implement new policies based on review of data. Discuss new analyses and reports for quality improvement.
Outreach and Expansion	Review of policies, how agencies work to outreach individuals who are appropriate for DM3700 and HCH programs.
Regional and Statewide Meeting Planning	Review of materials, information, data, training, and updates to provide at various training events, stakeholder meetings, conferences, and CMHC HCH regional meetings.
Process Improvement	Discuss current processes for system-wide reporting, data integration, population health management, programs, and risk stratification. Discuss effects of state and national level policy changes that may affect the functions and policies of the HCH.

SECTION 6: IMPLICATIONS AND RECOMMENDATIONS

The Missouri CMHC HCH has consistently met and exceeded program goals and improved population health outcomes for enrollees. There is constant process and program development taking place in order to find additional ways to improve the health and lives of Missourians in a cost-effective manner. It is essential to continue to track these individuals over time, and continue to provide support and ensure the HCH agencies remain engaged in both their physical and behavioral health care in order to sustain the outcomes shown to date. Implications of the current outcomes are detailed below.

A. Target Populations

i. Serious Mental Illness and Serious Emotional Disturbance:

Individuals with serious mental illness are at greater risk for developing chronic health conditions than the general population. As such, it is critical that mental health providers help to monitor chronic conditions within the mental health setting, particularly since most of these conditions can be managed through behavioral change. With that in mind, it is important to consider that the population served in the CMHC setting often have a different level of functioning compared to a general population. As seen in the results from the DLA-20© measure (page 10), over 80% of enrollees have moderate to severe impairments in their daily functioning. This requires additional insight and understanding about how to best address a person's strengths and challenges to create an optimal care plan.

ii. Obesity and Tobacco Use

As observed in previous reports there remains little to no progress towards the goals for reductions in obesity and tobacco use in the CMHC HCH. However, in this report, we were able to show successes in terms of weight loss for approximately 38% of individuals who had BMIs indicating they were overweight or obese. That is an increase from the numbers we saw last year, where we only had recorded weight loss for about 20% of the HCH population. Hopefully, this information will encourage agencies and HCH staff to find ways to continue to help enrollees lose weight.

Tobacco cessation, and the ability to report harm reduction, or the reduction in number of cigarettes smoked in a day or week, is still not available. There are new interventions and strategies being used by the HCHs to reduce the number of tobacco users and reduce BMI; however, in order to understand the impact of any intervention, the measurements need to be more sensitive than the data currently available.

iii. Harm Reduction

Tracking movement and exercise, positive diet change, and reduction in tobacco use may all improve long term health and may provide some additional information about the success of the care team to impact those behaviors.

iv. Substance Use

Treating and coordinating care for individuals with co-occurring mental health and substance use disorders have become an increasing focus for the HCHs. The DMH and MO Coalition have been providing opportunities for training and Practice Coaching assistance to identify barriers and opportunities for better collaboration with substance use treatment teams. With a number of agencies operating as CCBHCs, where treatment for substance

use has become an integral piece in care provision, it is hoped that a reduction in the prevalence of substance use disorders will be observed over time.

v. Children and Youth

Parents and caregivers need help understanding the benefit of having their child enrolled in the HCH. Thirty percent of HCH youth are obese, and addressing weight early is important to reduce long-term health consequences. Youth also need different outcome measures, as their needs are different than those of adults. However, because the interactions between HCH staff and youth and the families of youth need to happen in different ways, the model that works with adults will need to be modified in order to work as effectively with children.

B. Staffing

Staffing has stabilized for many of the HCH teams. Whereas previously we have reported a lot of transition in the nurse care manager (NCM) position, there has not been a notable amount of transition in the nurse, or director positions for 2017. Many of the HCHs have made efforts to reduce NCM caseloads. The statewide average caseload size was 229 at the end of 2014 and was 209 in 2017. Turnover remains an issue for agency staff, such as Community Support Specialists, who interact with the HCH team and HCH enrollees. The DMH and the MO Coalition have invested in ongoing training tools and resources for the agencies to minimize the impact of staff turnover on HCH program outcomes.

C. Ongoing Process Improvement

In the last year, The DMH and the MO Coalition have embarked on efforts to refine and improve the data analytic tools available to the HCH. In addition, Practice Coaches worked throughout 2017 to help agencies assess the level of integration at their agencies and continuing challenges to help plan training and support for future years. The continued oversight and support of the Health Homes program is critical to ensure the long-term success of the program in Missouri. Even with demonstrated success over the last six years, there are continued efforts to develop improved infrastructure to integrate additional data sources and tools available to the HCH staff. The main infrastructure change will be the roll-out of a new care coordination/population health management tool to provide information to NCMs that can help them target specific subgroups or health concerns within their population to drive stronger health outcomes. 2018 will be the first year HCH staff have access to this tool.

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