# 2018 Ohio Medicaid Released Enrollees Study

## A Report for the Ohio Department of Medicaid

**The Ohio Department of Medicaid**

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# Table of Contents

Executive Summary: The Ohio Medicaid Released Enrollees Study ..... 3
I. Introduction ..... 10
II. Population Characteristics ..... 11
III. Experiences with the MPRE Program ..... 15
IV. Access to Care ..... 13
V. Physical and Behavioral Health ..... 15
VI. Employment ..... 21
VII. Housing and Financial Hardship ..... 27
VIII. Family Stability and Community Support ..... 29
IX. Reentry into the Community ..... 31
X: Summary and Conclusion ..... 34

# List of Maps, Tables, and Figures

Figure 1: Depiction of the OMRES Design and Population....4

Map 1: Number of Medicaid Participants Enrolled through the MPRE Program, July 2018, by County....8

Map 2: Number of Medicaid Participants Enrolled through the MPRE Program, 2014-2018, by County....9

Table 1: Demographic Characteristics, OMRES and Group VIII 2018....12

Figure 2: Percentage of OMRES Respondents Reporting Their Managed Care Plan Helped Find a Provider, Schedule an Appointment, Arrange Transportation, or with Other Needs....15

Figure 3: OMRES: Would Losing Medicaid Would Make It Easier or Harder to Get the Health Care You Need?....14

Table 2 : Prevalence of Chronic Diseases/Conditions (OMRES versus Group VIII 2018)....17

Figure 4: OMRES Survey Respondents Medicaid Benefits Physical and Mental Health....18

Table 3: Health Risk Behaviors....18

Figure 5: Individuals Receiving Substance Use Treatment: Medicaid Makes it Easier to Receive Treatment for Substance Use....20

Figure 6: Labor Force Status, OMRES and Group VIII, 2018....22

Figure 7: Effects of Medicaid Enrollment on Employment: OMRES versus Group VIII, 2018....24

Figure 8: Estimated Percentages of Individuals Exempt from the 1115 Waiver Work Requirement Overall and by Exemption Reason, 2018 OMRES and Group VIII....26

Table 4: Financial Status, OMRES Population....27

Figure 9: Percentage Reporting that Losing Medicaid Would Make it More Difficult to Buy Food, Pay for Housing and Pay Off Debt....28

Figure 10: OMRES: Percentage Who Agree Having Medicaid Makes It Easier to Care for Family....29

Figure 11: OMRES: Does Having Medicaid Reduce Your Chances of Going Back to Jail or Prison?....32

Figure 12: OMRES: How Does Having Medicaid Reduce Your Chances of Going Back to Jail or Prison?....33

## Executive Summary: The Ohio Medicaid Released Enrollees Study

### a. What is the 2018 Ohio Medicaid Released Enrollees Study?

In 2014, the Ohio Department of Medicaid (ODM), in collaboration with the Ohio Department of Rehabilitation and Correction, initiated Ohio's Medicaid Pre-Release Enrollment (MPRE) program, which enrolls incarcerated individuals in Medicaid prior to release. Difficulties navigating the Medicaid enrollment process can be a major obstacle for enrollees to receive needed care,[i] and the MPRE program corresponded with efforts across many states following the passage of the Affordable Care Act (ACA) to streamline and improve enrollment for returning citizens.[ii]

The 2018 Ohio Medicaid Released Enrollees Study (OMRES) is an evaluation of the MPRE program. The goal of the evaluation is to obtain a general profile of MPRE-associated Medicaid enrollees to assess the extent to which the MPRE program: 1) improved access to care; 2) improved health outcomes for enrollees; and 3) improved reentry outcomes, including employment, family stability, and the reduced risk of re-offense.

### b. How was the Ohio Medicaid Released Enrollees Study Conducted?

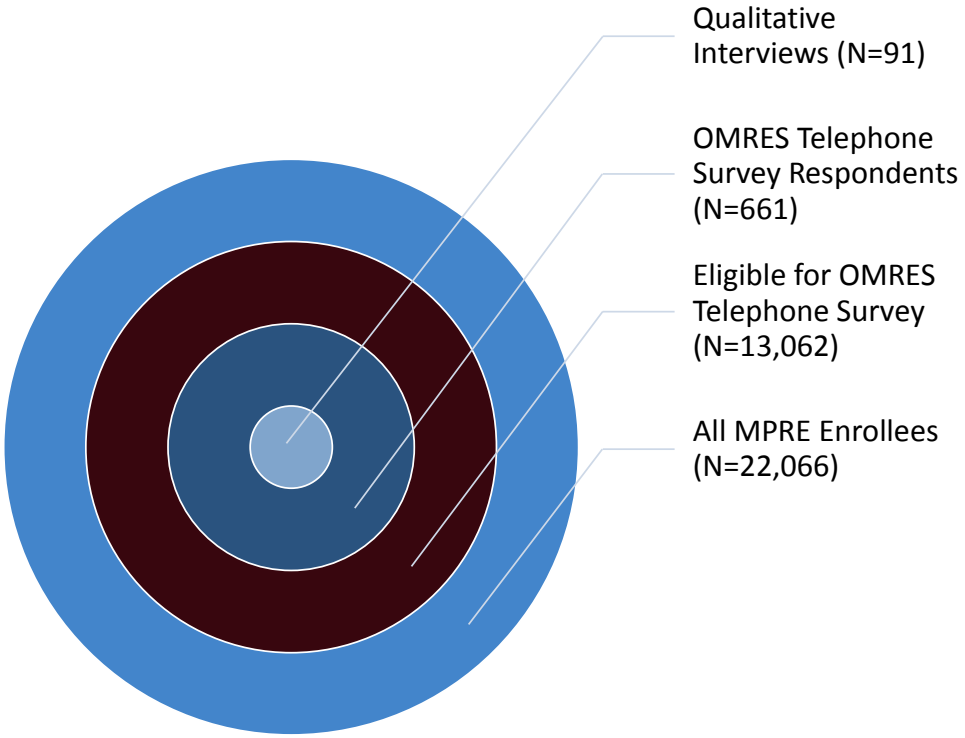
Between November 2014 and March 2018, about 22,000 unique individuals participated in the MPRE program. This figure was obtained by deduplicating Medicaid administrative records because a small number of individuals had enrolled in Medicaid through MPRE more than once. The full population of MPRE participants is used in this report to map the geographic distribution of MPRE enrollees (see Map 1 and Map 2).

Of the 22,000 MPRE participants, 13,062 individuals met the criteria for the OMRES telephone survey, i.e. being continuously enrolled in Medicaid for at least 4 months prior to the study date (Figure 1). The OMRES telephone survey (661 completed interviews) was conducted from May through July 2018 and asked participants enrolled in Medicaid through the MPRE program about their experiences with Medicaid, health status, utilization of health care services, employment, demographic characteristics, living situation, and risk of re-offense.

[i] Grodensky, Catherine A. David L. Rosen, Colleen M. Blue, Anna R. Miller, Steve Bradley-Bull, Wizdom A. Powell, Marisa E. Domino, Carol E. Golin, David A Wohl. 2018. "Medicaid Enrollment among Prison Inmates in a Non-Expansion State: Exploring Predisposing, Enabling, and Need Factors Related to Enrollment Pre-Incarceration and Post-Release." Journal of Rural Health 95:454-466.

[ii] Bandara, Sachini N., Huskamp A. Haiden, Lauren E. Riedel, Emma E. McGinty, Daniel Webster, Robert E. Toone, and Colleen L. Barry. 2015. "Leveraging the Affordable Care Act to Enroll Justice-Involved Populations in Medicaid: State and Local Efforts." Health Affairs 34 no. 12:2044-2051.

**Figure 1: Depiction of the OMRES Design and Population, 2018 OMRES**




To provide interpretative assistance to quantitative results, a subsample of OMRES survey respondents from select counties (Cuyahoga, Franklin, Hamilton, Lucas, Mahoning, Montgomery, Portage, Scioto, Stark, and Summit) were asked to participate in qualitative interviews (91 individual participants in 19 sessions).

In addition to data gathered from MPRE enrollees, this evaluation used data from the 2018 Ohio Medicaid Group VIII Assessment (Group VIII), which evaluated Ohio's Medicaid expansion, to serve as a comparison to the OMRES study population. Please note that most (82.2%) MPRE-associated enrollees were enrolled in the Group VIII program. *Unless stated otherwise, this report compares the OMRES population to the Continuous Group VIII population from the 2018 Ohio Medicaid Group VIII Assessment because the focus is on the effects of continuous enrollment in the Medicaid program*.

### c. What Are the Key Findings of the Ohio Medicaid Released Enrollees Study?

***Population Characteristics (Section II of the Report)***

- Compared to the general Medicaid Group VIII population, OMRES survey respondents were more likely to be male (67.3% versus 46.7%), black (30.3% versus 11.5%), younger (78.8% ages 19-44 versus 62.2% ages 19-44), and to have low levels of educational attainment (78.6% had high school education or less versus 60.5% in Group VIII).

- About one fifth (21.0%) of OMRES survey respondents were parents living with children and 19.3% were caregivers for a household member with a physical or mental health condition.

***Access to Care (Section III of the Report)***

- Nearly one third (29.4%) of OMRES survey respondents reported having an unmet medical need. When asked about the reasons for unmet need, 14.5% of overall respondents reported the inability to find a provider who

took Medicaid, 11.6% thought that care would cost too much, 11.5% said their provider was not available when the respondent needed to be seen, and 11.3% lacked access to transportation.

- Most OMRES survey respondents had limited health care options outside of the Medicaid program, with more than nine in ten (93.7%) reporting that losing Medicaid would make it harder to get the health care they needed.
    - In the words of one focus group respondent: *"I give Medicaid kudos. [MCP plan] has done tremendous with me…They've been prompt about the surgery coming up, saying everything has been approved…If I get really bad in a mental health crisis, I can go back and see my psychologist…It's been a godsend to me. It really has."*

***Experiences with Managed Care (Section IV of the Report)***

- Although Managed Care Plans are only required to contact individuals with serious chronic conditions after release, MCPs were able to reach more than half (51.4%) of OMRES survey respondents within 30 days after release regarding their Medicaid coverage.

- Slightly less than half of OMRES survey respondents (43.6%) stated that they received one or more types of assistance from their MCP, including finding a provider (38.1%), scheduling an appointment or arranging transportation (28.2%), and/or getting assistance with other needs (27.6%).

***Physical and Behavioral Health (Section V of the Report)***

- OMRES survey respondents had similar or lower rates of chronic conditions than the general Group VIII population (28.0% versus 30.5% for hypertension, 15.9% versus 24.5% for high cholesterol, and 5.1% versus 13.0% for diabetes).

- Compared to the general Medicaid expansion population (Group VIII enrollees), OMRES survey respondents reported greater mental health needs: 29.1% reported 7 or more days of incapacity within the past 30 days (prior to interview) due to mental health issues, compared to 17.9% for the general Medicaid expansion population.

- Nearly all OMRES survey respondents stated that being enrolled in Medicaid was beneficial to their physical (93.8%) and mental (84.6%) health.

- Two thirds (66.6%) of OMRES survey respondents reported being a smoker, while 23.3% reported binge drinking in the last 30 days. By comparison, 39.0% of Group VIII enrollees reported being a smoker and 18.2% reported binge drinking in the last 30 days.

- Nearly one third (29.3%) of all OMRES survey respondents reported receiving some kind of substance use treatment since their release.
    - Among those who received treatment, 87.6% reported that having Medicaid made it easier for them to get treatment. According to one telephone survey respondent: *"Medicaid helps me stay out of trouble and stay in treatment, and pays for counseling and groups. If I didn't have it, I wouldn't be clean right now."*
    - In the words of one focus group participant: "*[Without it] My quality of life wouldn't be as good…. I go to counseling for my trauma history. I was in hospice grief counseling and they covered that. And my IOP [intensive outpatient addiction treatment], and my detox before that. I take anti-depressants, and I wouldn't be sober if I weren't doing all that. They covered a lot of stuff for me. I wouldn't be sober [without it]."*

***Employment (Section VI of the Report)***

- A majority (55.1%) of OMRES survey respondents were working or actively looking for work, similar to the Group VIII population (60.3%), although OMRES respondents reported much more difficulty finding work (33.8% were currently employed versus 49.6% for Group VIII). Most (82.6%) OMRES survey respondents who were not working or actively looking for work reported having a disability that prevented them from working.

- The three most common reasons for not working among non-disabled individuals were: 1) having a criminal record, which made it difficult to find a job (34.1%); 2) taking care of other family members, which prevented the individual from obtaining work (15.7%); and 3) transportation issues that limited the ability to look for or maintain employment (13.2%).

- Among those who were employed, most (89.9%) of OMRES survey respondents felt that having Medicaid helped them to keep their job, while 63.3% who were unemployed but actively looking for work reported that Medicaid made it easier to look for a job.

    - In the words of one focus group participant: "*My main priority was getting back to work once I got out. [With Medicaid] My medications help, especially with my hypertension and the [stressful] nature of my work. If I don't take them I get light-headed and working where I do [with heavy machinery] could be very dangerous*."

    - In the words of one OMRES survey respondent: *"[Medicaid] makes me not be in the streets, it makes me not sell drugs, not commit any crimes anymore. [Medicaid] makes me think positive instead of negative and allows me to work a steady job."*

- A large majority (82.1%) of OMRES survey respondents were likely exempt from the *Work Requirement and Community Engagement 1115 Demonstration Waiver* (1115 waiver) work requirement. The most common exemptions were having a disability, being employed already, or caring for a disabled or incapacitated household member.

***Housing and Financial Hardship (Section VII of the Report)***

- OMRES survey respondents reported high rates of economic stress: 11.1% reported being homeless, and more than one third (39.6%) said they did not have a vehicle.

- Large majorities of OMRES survey respondents reported that if they did not have Medicaid, they would have more difficulty buying food (71.3%), securing shelter (65.3%), or paying off debt (70.7%).

    - In the words of one focus group participant: "*Well, if it wasn't for Medicaid, I'd have one hell of a bill. One hell of a bill. Multiple operations. You know, doctors don't come cheap. My antidepressant medications don't come cheap*."

***Family Stability and Community Support (Section VIII of the Report)***

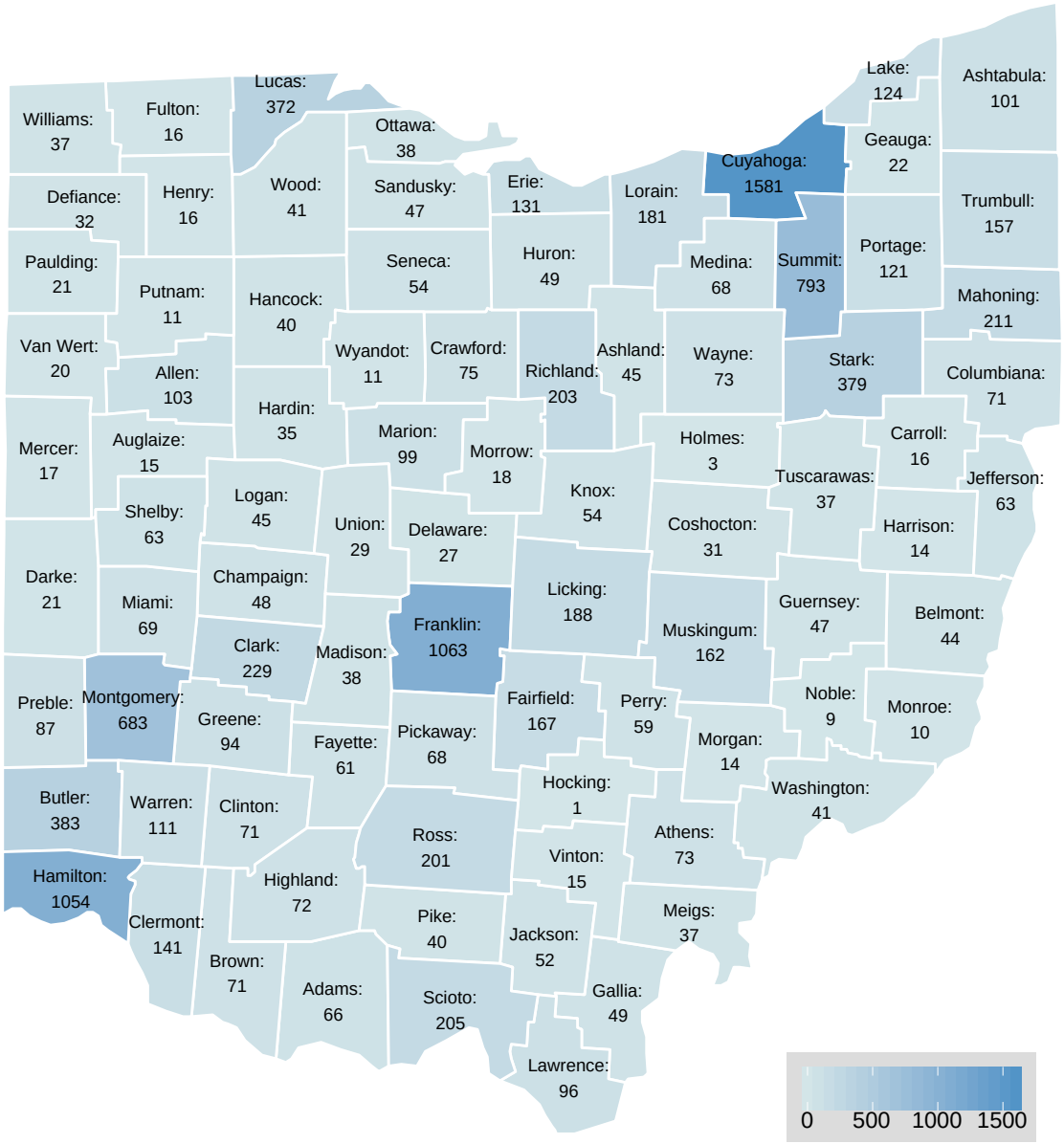
- More than two thirds (71.4%) of OMRES survey respondents said having Medicaid made it easier to care for other family members, including 88.0% of survey respondents who were caregivers and 77.3% of survey respondents who were parents.

    - In the words of one focus group participant: "*My mom and dad are both disabled. My dad is getting around better than my mom. My mom has had mini-strokes. Seizures. She's been in and out of the hospital, so [I'm] just trying to maintain the house, and my grandparents, and help them out. So, I stay busy*."

***Reentry into the Community (Section IX of the Report)***

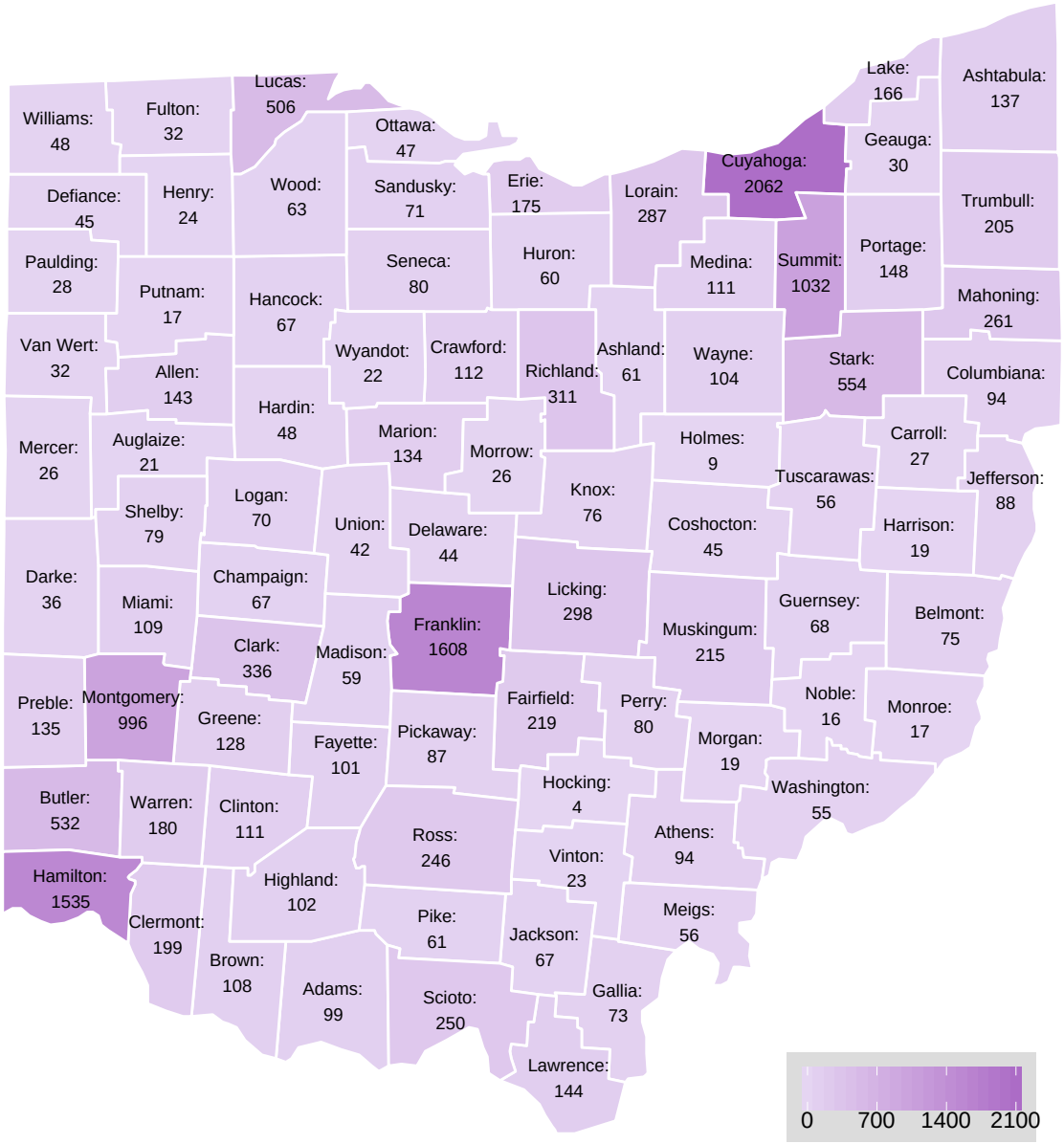
- Two-thirds (66.6%) of OMRES survey respondents reported that Medicaid reduced their chances of going back to jail or prison.
    - When asked how Medicaid reduced their chances of going back to jail or prison, the most common response was cost relief – that is, having their care covered (paid) reduced the risk of re-offense to make ends meet (37.7%). The next most common response was access to care (29.3%), which allowed respondents to better manage their physical and mental health, impacting their social behavior.
    - In the words of one focus group participant: "*I am proud to say that I have been out of the system for close to 3 years now. I've accomplished a lot [during that time]. I haven't had a drink for over 18 years. Of everything else, it's pretty much going into line*."
    - In the words of one focus group participant: "*Now I have balance and stability. My therapist sees it. My case manager sees it. My pastor sees it. And everyone I associate with sees it. And I'm still getting better. This is the first time I've been out for over a year and half, in 10 years. I've hit my mile marker and I have no intent on going back*."

## Map 1: Number of Medicaid Participants Enrolled through the MPRE Program, July 2018, by County




Source: Medicaid Administrative Data

## Map 2: Number of Medicaid Participants Enrolled through the MPRE Program, 2014-2018, by County




Source: Medicaid Administrative Data
Counts are the total number of individuals ever enrolled as of July 2018

## I. Introduction

As part of the Patient Protection and Affordable Care Act (ACA) Medicaid expansion, several states have initiated programs designed to streamline enrollment and improve access to care for recently incarcerated citizens returning to the community.[iii] Ohio's initiative for this population is the Medicaid Pre-Release Enrollment Program (MPRE), which provides individuals whose release is pending with education, direct enrollment into a selected Managed Care Plan (MCP), and, for those with extensive health needs, pre-release care management from their selected MCP. As of March 2018, about 22,000 individuals had participated in the MPRE program, which means that the MPRE population makes up about 1.8% of the 1.26 million overall participants in Ohio's Medicaid expansion. This percentage is substantially lower than prior projections of the relative size of the returning citizen population compared to the broader Medicaid expansion population.[iv,v] MPRE participants reside in all 88 Ohio counties; those with most participants were Cuyahoga (3,075), Franklin (2,597), Hamilton (2,170), Montgomery (1,447) and Summit (1,224). According to Medicaid administrative data, most (82.2%) MPRE participants who were enrolled in Medicaid as of July 31, 2018 were enrolled in the Group VIII program.

The analyses that follow examine the benefit of MPRE-associated Medicaid enrollment for those released from incarceration. The topics examined include: 1) access to health care; 2) physical and behavioral health status and services; 3) experiences with employment; 4) housing stability; 5) levels of financial stress; 6) family stability; 7) experiences of community support; and 7) community reentry. These analyses use quantitative statistics and qualitative thematic predominance to provide an overview of health system access and utilization, behavioral risk, and nuances of the value Medicaid has for those released into the community.

**In the Words of OMRES Participants:**

"To me, it gives me a reason to get up. I am a member of society and it gives me purpose."

"Medicaid is a lifesaver."

"[Medicaid] makes me not want to go back [to jail] and pursue better things in life."

"[Because of Medicaid] I know that I have a little something I can rely on in case I get sick…it makes me feel like a human."

"[Medicaid's] doing a good job. CareSource is the best thing that y'all providing out here. Please do not get rid of it."

"With me overall, everything is better…My physical appearance is better. My stomach interior problems are addressed…and when forgoing Medicaid, it's years, if not decades of foregoing doctors. But now I see one about every 3 months."

Source: 2018 OMRES telephone survey and focus groups

[iii] Bandara, Sachini N., Haiden A. Huskamp, Lauren E. Riedel, Emma E. Mcginty, Daniel Webster, Robert E. Toone, and Colleen L Barry. 2015. "Leveraging the Affordable Acre Act to Enroll Justice-Involved Populations in Medicaid: State and Local Efforts." Health Affairs 12:2044-2051.

[iv] Somers, Stephen A., Elena Nicolella, Allison Hamblin, Shannon M. McMahon, Christian Heiss, and Bradley W. Brockmann. 2014. "Medicaid Expansion: Considerations for States Regarding Newly Eligible Jail-Involved Individuals." Health Affairs 3:455-461.

[v] Regenstein, Marsha, and Sara Rosenbaum. 2014. "What the Affordable Care Act Means for People with Jail Stays" Health Affairs 3:448-454.

## II. Population Characteristics

"*If you have a criminal background, they [people who interact with the respondent] look at you through a magnifying glass. Some people [accept] it, and they give you a second chance, but some [do] not.*" [Source: Female focus group]

Compared to the general Medicaid Group VIII expansion population, OMRES study participants were more likely to be male (79.5% versus 46.7%), black (30.3% versus 11.5%), younger (78.8% ages 19-44 versus 62.2% ages 19-44), and to have lower levels of educational attainment (78.6% had high school education or less versus 60.5% with high school education or less). This is consistent with national comparisons between returning citizens and the general Medicaid expansion population.[vi] OMRES participants were also less likely to be married or living with their children than the general Group VIII population (8.9% versus 20.5% for marriage, 21.0% versus 29.5% for living with at least one child). Nearly one third of OMRES enrollees (30.3%) lived with someone else who was formerly incarcerated. About 3.0% of OMRES study participants were veterans. See Table 1 for details.

[vi] Somers, Stephen A., Elena Nicolella, Allison Hamblin, Shannon M. McMahon, Christian Heiss, and Bradley W. Brockmann. 2014. "Medicaid Expansion: Considerations for States Regarding Newly Eligible Jail-Involved Individuals." Health Affairs 3:455-461.

**Table 1: Demographic Characteristics, OMRES and Group VIII 2018**

| | OMRES | | | Group VIII 2018 | | |
|---|---|---|---|---|---|---|
| | Weighted % | Std. Err. | Unweighted N | Weighted % | Std. Err. | Unweighted N |
| **Male** | 79.5% | 0.02 | 445 | 46.9% | 0.00 | 718 |
| **Age** | | | | | | |
| **19-44 years** | 78.8% | 0.01 | 401 | 62.2% | 0.00 | 802 |
| **45-64 years** | 21.2% | 0.01 | 260 | 37.8% | 0.00 | 908 |
| **Race** | | | | | | |
| **White** | 66.1% | 0.02 | 433 | 84.1% | 0.01 | 1278 |
| **Black** | 30.3% | 0.02 | 195 | 11.5% | 0.01 | 351 |
| **Other** | 3.5% | 0.01 | 32 | 4.4% | 0.01 | 81 |
| **Hispanic** | 4.1% | 0.01 | 33 | 2.8% | 0.01 | 57 |
| **Educational Attainment** | | | | | | |
| **High school or Less** | 78.6% | 0.02 | 505 | 60.5% | 0.02 | 1019 |
| **Some college** | 19.3% | 0.02 | 136 | 29.1% | 0.01 | 515 |
| **4-year degree or more** | 2.1% | 0.01 | 20 | 10.1% | 0.01 | 170 |
| **Marital Status** | | | | | | |
| **Married** | 8.9% | 0.01 | 60 | 20.5% | 0.01 | 353 |
| **Divorced** | 25.4% | 0.02 | 217 | 27.4% | 0.01 | 518 |
| **Widowed** | 1.4% | 0.00 | 16 | 3.1% | 0.00 | 75 |
| **Never married** | 56.6% | 0.02 | 321 | 41.9% | 0.02 | 673 |
| **Domestic partner** | 7.8% | 0.01 | 47 | 6.8% | 0.01 | 87 |
| **Parent of child in household** | 21.0% | 0.02 | 144 | 29.5% | 0.01 | 460 |
| **Living with formerly incarcerated person** | 30.3% | 0.02 | 164 | NA* | NA* | NA* |
| **Living alone** | 16.9% | 0.02 | 128 | NA* | NA* | NA* |

Sources: OMRES telephone survey, Group VIII 2018 telephone survey
Group VIII 2018 is continuously enrolled Group VIII
*Questions were not asked in the 2018 Group VIII telephone survey

## III. Access to Care

Compared to Group VIII enrollees, OMRES respondents were much less likely to have a non-emergency department usual source of care such as a specific doctor, nurse, or clinic (44.8% versus 78.7%). This finding is not surprising since many study participants had only recently reentered the community and finding and establishing a relationship with a primary care provider often takes time. The OMRES study population is also difficult to integrate into the primary care system for a variety of reasons, including high rates of homelessness and lack of access to transportation[vii] (also see section VII: Housing and Financial Hardship). Nearly one third (29.4%) of OMRES survey respondents reported having an unmet medical need, defined as being unable to obtain care for a specific medical issue such as dental care, vision care/eye glasses, or mental health care. When asked about the reasons for unmet need, 14.5% of overall respondents reported inability to find a provider who took Medicaid, 11.6% thought that care would cost too much, 11.5% said their provider was not available when the respondent needed to be seen, and 11.3% lacked access to transportation. Additionally, 13.9% of OMRES respondents reported difficulty filling a prescription their provider gave them.

**In the Words of OMRES Participants:**

"Medicaid provides mental health care, and without [Medicaid] it is impossible to survive."

"[Medicaid] enables me to get my mental health care, medication, primary care treatment, and emotional treatment."

"If it wasn't for [Medicaid] giving me this knee replacement God knows what I'd be doing – I'd be getting drugs off the street or something."

"[Medicaid] had a case manager and between the case manager and [hospital] it's been pretty seamless to get everything covered…now I don't have to jump through hoops now because [Medicaid] takes care of most of that."

"I need that colonoscopy. I'm at that age. It's an extra problem, but its time. I've got an appointment on [date] and that going to be raised. That's what I need [Medicaid] for. To keep me healthy…for the next 15 or 20 years of my life."

Source: 2018 OMRES telephone survey and focus groups

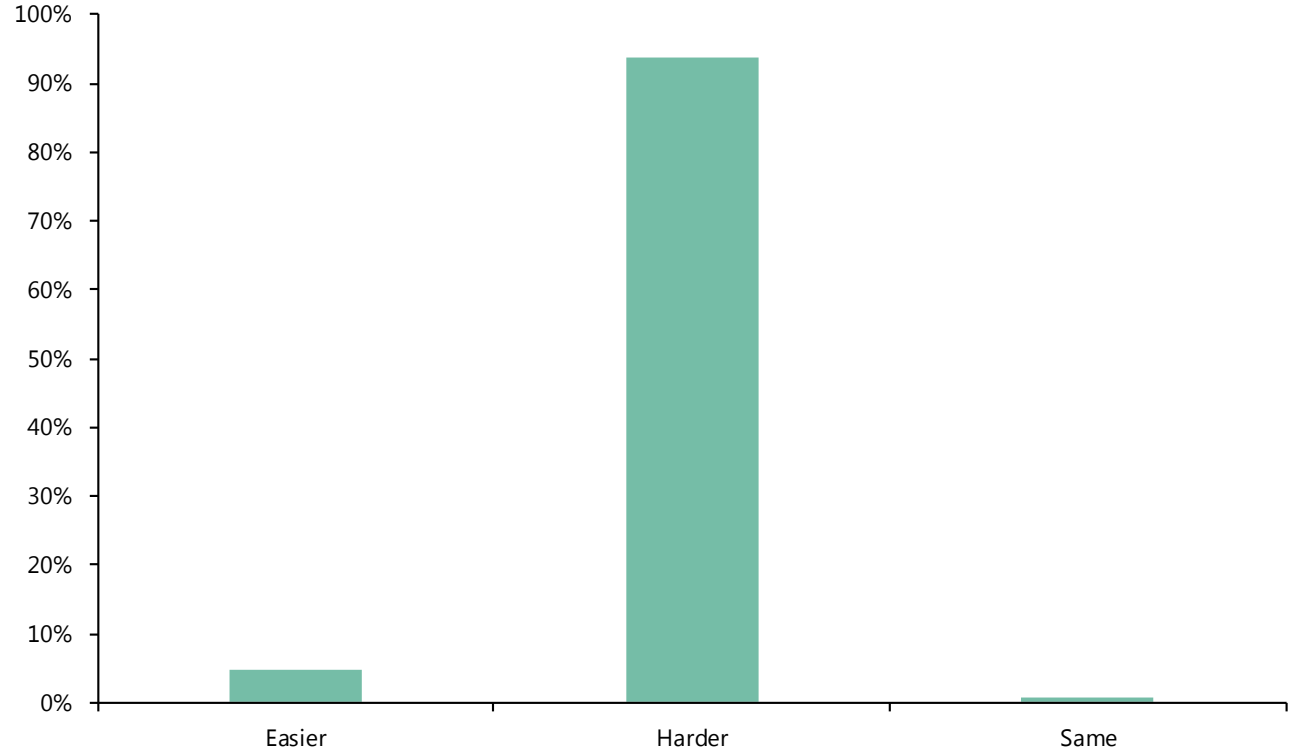
Overall, responses relating to transportation as a barrier to care were mixed. Many qualitative interview respondents noted that transportation was a barrier to accessing care because they did not have reliable personal transportation (e.g., a car, truck, or other vehicle). Transportation to access care was also difficult for those in rural areas who did not live near bus lines or have ready access to public transportation. However, many qualitative interview participants also stated that Medicaid's transportation benefit helped them to get necessary medical appointments when personal vehicles and/or transportation from family or friends was not available. *"The transportation assistance is excellent. They give you the opportunity if you don't have a ride, they will make sure you get to your doctor's appointments. That's one excellent thing they've put in place [and] I'll give them a thumbs up on that"* (Dayton focus group).

OMRES respondents reported few health care options outside of Medicaid. More than nine in ten (93.7%) reported that losing Medicaid would make it harder to get the health care they needed, including preventive care, similar to estimates

[vii] Tsai, Jack, Robert A. Rosenheck, Dennis P. Culhane, and Samantha Artiga. 2014. "Medicaid Expansion: Chronically Homeless Adults Will Need Targeted Enrollment and Access to a Broad Range of Services." Health Affairs 9:1552-1559.

of the uninsured rate for returning citizens prior to the Medicaid expansion (see Figure 3).[viii,ix] In the words of one focus group participant: *"I will say that Medicaid helps with a lot of preventive care. You can actually go get checked out if something is wrong as opposed to ignoring it…I know statistically proven, for a fact that preventive care saves a lot in the front end…Preventive care goes a long way*." (Participant in men's focus group)

**Figure 3: OMRES: Would Losing Medicaid Would Make It Easier or Harder to Get the Health Care You Need?**




Source: 2018 OMRES telephone survey

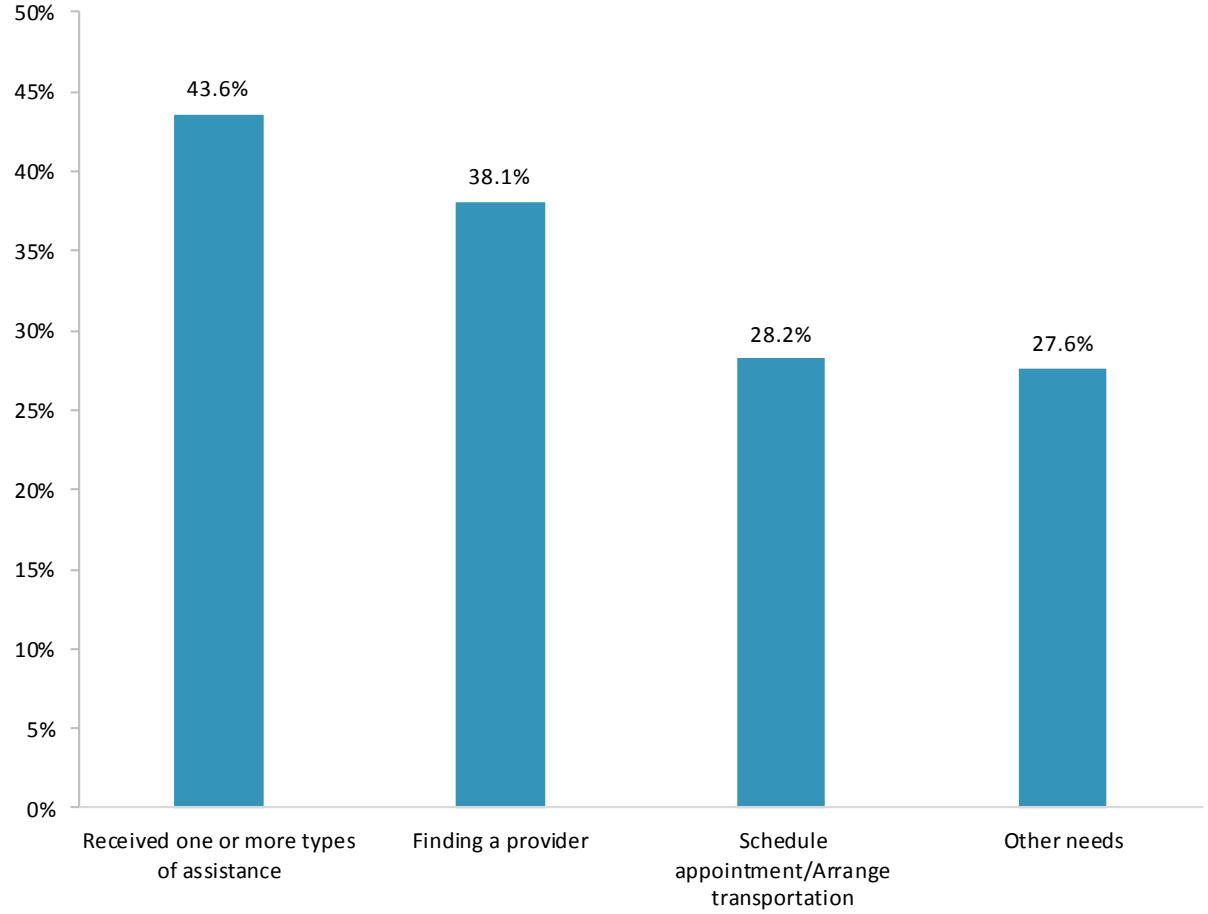
[viii] Wang EA, White MC, Jamison R, Goldenson J, Estes M, Tulsky JP. Discharge planning and continuity of health care: findings from the San Francisco County Jail. Am J Public Health. 2008 98(12):2182–4.

[ix] Rich, Josiah D., Redonna Chandler, Brie A. Williams, Dora Dumont, Emily A. Wang, Faye S. Taxman, Scott A. Allen, Jennifer G Clarke, Robert B. Greifinger, Christopher Wildeman, Fred C. Osher, Steven Rosenberg, Craig Haney, Marc Mauer, and Bruce Western. 2014. "How Health Care Reform Can Transform the Health of Criminal Justice-Involved Individuals." Health Affairs 3:462-467.

## IV. Experiences with Managed Care

The first step in the MPRE program is connecting individuals who are about to be released with a peer navigator who provides information about the importance of Medicaid and guides them though the application process. After release, managed care plans (MCPs) are critical for ensuring that enrollees get the care they need. Although MCPs are only required to contact individuals with serious chronic conditions immediately after release, more than half (51.4%) of respondents were individually contacted by their MCP within 30 days after release. Overall, slightly less than half of respondents (43.6%) stated that they received one or more types of assistance, including finding a provider (38.1%), scheduling an appointment or arranging transportation (28.2%), and/or getting assistance with other needs (27.6%) (see Figure 2). These proportions represent those who received services among the entire surveyed population. Issues with the mobility of this population as well as difficulties in maintaining a consistent phone number likely reduced the percentage of individuals MCPs contacted.

**Figure 2: Percentage of OMRES Respondents Reporting Their Managed Care Plan Helped Find a Provider, Schedule an Appointment, Arrange Transportation, or with Other Needs, 2018 OMRES**




Source: 2018 OMRES telephone survey

## V. Physical and Behavioral Health

OMRES participants had similar or lower rates of chronic conditions than the general Group VIII population (28.0% versus 30.5% for hypertension, 15.9% versus 24.5% for high cholesterol, and 5.1% versus 13.0% for diabetes), partly because OMRES survey respondents tended to be younger than the general Group VIII population. However, some OMRES respondents had elevated special health needs in other areas: 1.7% reporting having HIV/AIDS and 22.4% reporting having Hepatitis C. Additionally, OMRES respondents were almost twice as likely as the general Group VIII population to report being incapacitated for at least 7 days out of the last 30 days due to mental health issues (29.1% for OMRES versus 17.9% for Group VIII) (see Table 2 and Figure 4).

> *I think once you come into the system, you should be psychiatrically evaluated. Because you have to ask yourself a question: 'what is the problem with me to keep making decisions to be a criminal?' There are a lot of hurt people out there, scared and afraid. And it's trickling down, and the people are getting younger and younger. You got 12- and 13-year-olds and they're not even going to school anymore. Perfectly good kids, and I'm going to be honest, there are so many Lebron Jameses in the institution, you would not believe. (several murmurs of agreement) There are so many Picassos and Rembrandts in the penitentiary that you would not believe. But the masquerade - when the lights go off, that's when the monsters come out.* [Source: Men's focus group]

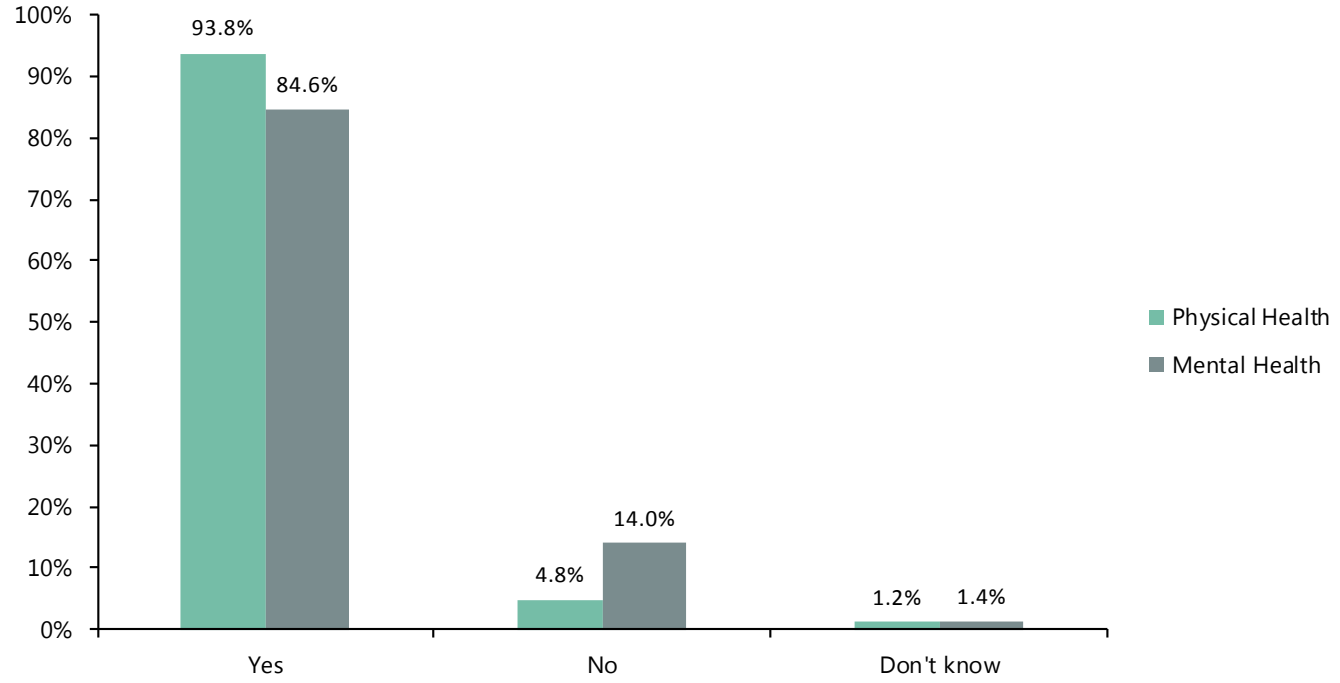
**Table 2 : Prevalence of Chronic Diseases/Conditions (OMRES versus Group VIII 2018)**

| OMRES | | | | Group VIII 2018 | | |
|---|---|---|---|---|---|---|
| Chronic Disease/Condition | Weighted % | Std. Err | Unweighted N | Weighted % | Std. Err. | Unweighted N |
| Fair/poor health | 32.5% | 0.02 | 244 | 30.4% | 0.01 | 577 |
| Hypertension diagnosis | 28.0% | 0.02 | 224 | 30.5% | 0.01 | 635 |
| Hypertension medication (among those with diagnosis) | 53.2% | 0.04 | 138 | 73.2% | 0.02 | 494 |
| High cholesterol diagnosis | 15.9% | 0.02 | 141 | 24.5% | 0.01 | 505 |
| High cholesterol medication (among those with diagnosis) | 43.8% | 0.05 | 76 | 66.2% | 0.03 | 341 |
| Diabetes diagnosis | 5.1% | 0.05 | 54 | 13.0% | 0.01 | 254 |
| Diabetes medication (among those with diagnosis) | 75.4% | 0.08 | 43 | 85.8% | 0.03 | 217 |
| Coronary heart disease | 2.3% | 0.01 | 22 | 4.1% | 0.01 | 90 |
| Heart attack | 3.0% | 0.01 | 32 | 4.2% | 0.01 | 94 |
| Congestive heart failure | 2.3% | 0.01 | 23 | 2.2% | 0.00 | 48 |
| Stroke | 2.1% | 0.01 | 18 | 3.5% | 0.01 | 71 |
| Emphysema | 3.1% | 0.01 | 28 | 4.3% | 0.01 | 83 |
| COPD | 6.2% | 0.01 | 61 | 8.5% | 0.01 | 196 |
| Cancer | 2.5% | 0.01 | 28 | 6.1% | 0.01 | 118 |
| Hepatitis C | 22.4% | 0.02 | 150 | NA* | NA* | NA* |
| HIV/AIDS | 1.7% | 0.01 | 10 | NA* | NA* | NA* |
| 7 or more days of incapacity in the last 30 due to physical health | 26.3% | 0.02 | 201 | 25.5% | 0.01 | 506 |
| 7 or more days of incapacity in the last 30 due to mental health | 29.1% | 0.02 | 212 | 17.9% | 0.12 | 331 |

Source: 2018 OMRES telephone survey, Group VIII 2018 telephone survey
Group VIII 2018 is continuously enrolled Group VIII
*Not asked in the 2018 Group VIII telephone survey

Over nine out of ten (93.8%) OMRES respondents reported that Medicaid had a positive impact on their physical health, and nearly as many (84.6%) stated that Medicaid improved their mental health. In the words of one focus group participant: *" [MCP] has helped with me handling and understanding [my mental health]… instead of hiding it and letting everything build up inside of me."*

**Figure 4: OMRES Survey Respondents Medicaid Benefits Physical and Mental Health , 2018 OMRES**




Source: 2018 OMRES telephone survey

Smoking among OMRES survey respondents was much higher than either state or national rates. An estimated two in three respondents (66.6%) reported smoking cigarettes most days. The rate observed in this study is similar to the rates of smoking among incarcerated and released citizens.[x] About 23.3% of respondents reported binge drinking, and 23.7% of respondents used marijuana, while 9.4% of OMRES respondents reported using presciption pain medicines or opioids. One third (29.3%) of OMRES respondents stated that they had previously been enrolled in or were currently participating in a substance use treatment program since reentering the community (see Table 3).

**Table 3: Health Risk Behaviors**

| | Overall | | |
|---|---|---|---|
| | Weighted % | Std. Err. | Unweighted N |
| **Smoking** | 66.6% | 0.02 | 437 |
| **Binge drinking** | 23.3% | 0.02 | 143 |
| **Marijuana** | 23.7% | 0.02 | 144 |
| **Pain relievers or opiates** | 9.4% | 0.01 | 58 |
| **Receiving substance use treatment** | 29.3% | 0.02 | 202 |

Source: 2018 OMRES telephone survey

Nearly 30% of OMRES respondents who had Medicaid coverage were receiving substance use treatment. According to recent national estimates, just 10% of people with substance use disorder receive any treatment.[xi xii] The number

[x] Lincoln, Thomas, Robert W. Tuthill, Cheryl A. Roberts, Sofia Kennedy, Theodore M. Hammett, Elizabeth Langmore-Avila, and Thomas J. Conklin. 2009. "Resumption of Smoking after Release from a Tobacco-Free Correctional Facility." Journal of Correctional Health Care. 15:3. 190-196.

[xi] Wagner, Peter and Bernadette Rabuy. 2017. "Mass Incarceration: The Whole Pie 2017." Northampton, MA: Prison Policy Initiative. https://www.prisonpolicy.org/reports/pie2017.html

of those receiving treatment via Medicaid enrollment through expansion nearly tripled, when compared to all persons in need.

**In the Words of OMRES Participants:**

"I have a lot of mental health issues, [and] without Medicaid I wouldn't be able to afford my medicine that keeps me stable."

"Medicaid allows me to be able to go to the doctors and get the appropriate prescriptions instead of going to the 'street pharmacist' and doing illegal activities."

"[Medicaid has] kept me sober going on 3.5 years now. Seeing that therapist really helped me get over that shame and I was depressed. Seeing a psychiatrist…I never thought about going to the doctor and worrying about my heath; I was too busy doing drugs."

"I used to go to a dentist, and he would pull a tooth, and he would give me 30 perks (Percocet). Just take it out. 'Cause I wanted those pain pills. And I didn't realize [the consequences]. I used to have really nice teeth….without Medicaid, I wouldn't have these teeth. And with recovery [also]. Just makes you feel better, having all your teeth in your mouth. Without Medicaid I don't know where I'd be."

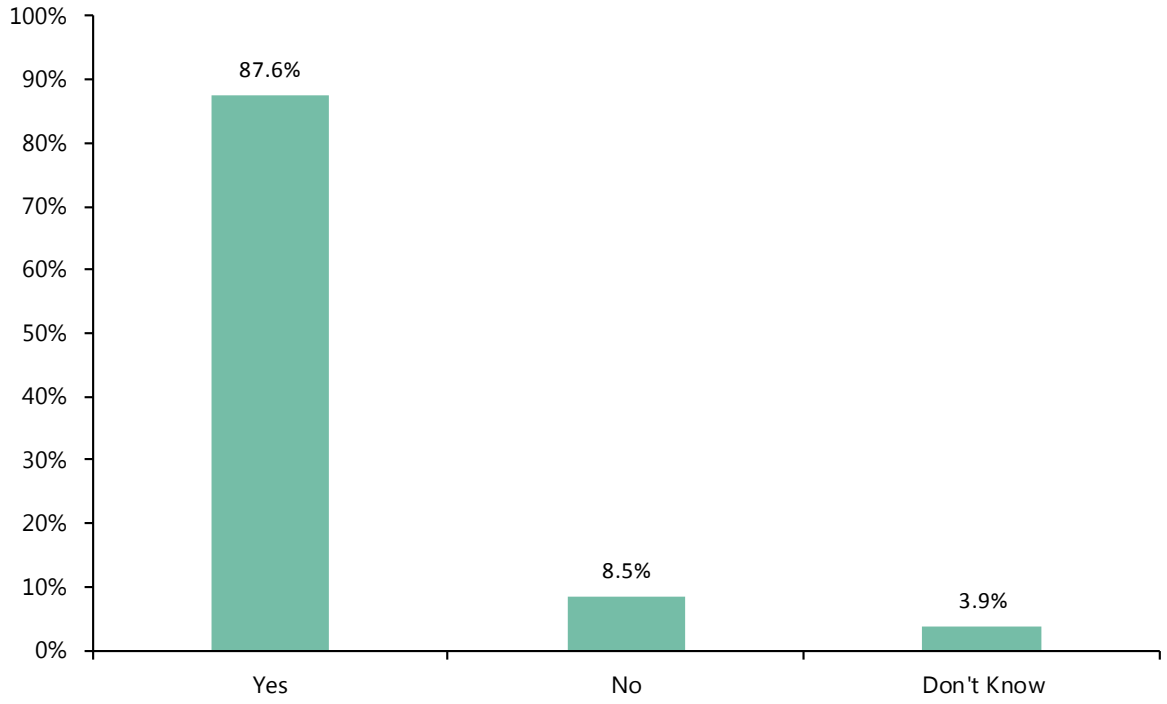
"[With Medicaid] Life is beautiful. Keep it simple. Work. Build a home…I'm blessed to keep those [other] bills paid…I'm living today."

Source: 2018 OMRES telephone survey and focus groups

Most (87.6%) individuals who received substance use treatment reported that having Medicaid facilitated receiving treatment for substance use (see Figure 5). With one in five incarcerated people in prison for drug offenses,[xiii] this overrepresentation of MPRE participants in some form of post-release treatment likely contributed to improved reentry outcomes.

[xii] U.S. Surgeon General, 2016
[xiii] Wagner and Rabuy, 2017.

**Figure 5: Individuals Receiving Substance Use Treatment: Medicaid Makes it Easier to Receive Treatment for Substance Use, 2018 OMRES**




Source: 2018 OMRES telephone survey
Note: Analyses limited to those with substance use issues only

# VI. Employment

## Employment status

A majority (55.1%) of OMRES respondents were working or actively looking for work, similar to the Group VIII population (60.3%), although OMRES respondents reported much more difficulty finding work (33.8% were employed versus 49.6% for Group VIII). Most (82.6%) OMRES survey respondents who were not working or actively looking for work reported they had a disability that prevented them from working. OMRES respondents working part-time were also more likely than Group VIII respondents to report only being able to find part-time work (62.8% for OMRES versus 52.9% for Group VIII).

In pre- and post-survey qualitative interviews, many OMRES participants expressed difficult experiences in securing full-time consistent work and difficult experiences relating to stressful or manipulative work conditions. About 40% of respondents reported challenges with low-paying, piecemeal work (e.g., payment strictly associated with per-unit production, day-work) and irregular hours (see Figure 6). These jobs included construction, warehouse, cleaning, restaurant, and production positions. Mental stress associated with work included:

1) stigma relating to knowledge of prior incarceration;
2) lack of technical skills, computer skills, reading skills, physical endurance, and social skills that were considered work-associated burdens;
3) insecure living environments (e.g., transitional homelessness) and personal lives (e.g., disrupted families) hindered the ability to perform at work; and
4) transportation and work appearance (respondents felt that [lack of appropriate] clothing and inappropriate behaviors affected their ability to fully integrate into a work environment).

Additionally, some OMRES participants indicated that payment for work could be manipulative: some respondents reported high employer fees for renting tools to do contract work, fees for transportation assistance to and from work, payment in bitcoin currency, a lack of agreed-to hourly payment, insistence on cash-only payment, and non-payment for work performed.

**In the Words of OMRES Participants:**

"When you go to apply for a job with a felony on your record, 9 out of 10 times if you have something with drugs or violence nobody wants to hire you, period."

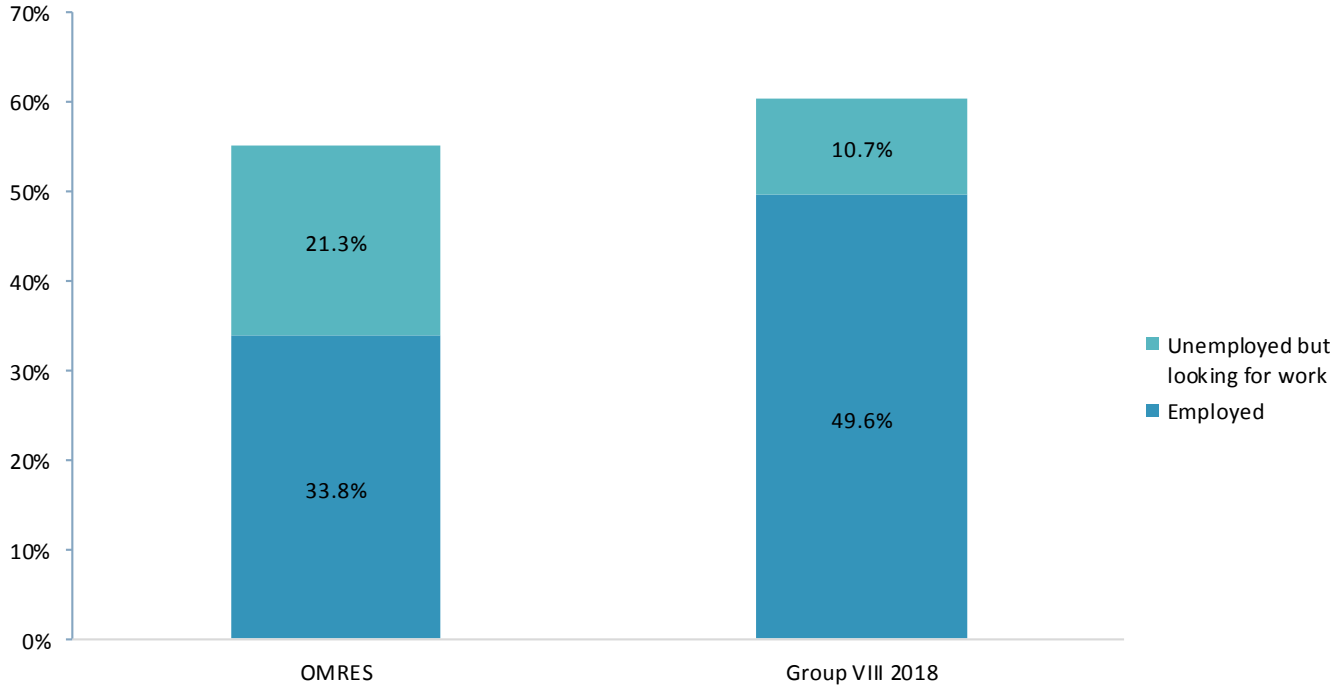
"I think a challenge is when you're on the search for employment, just getting by day-by-day, as far as your resources, take care of yourself. When you first get out, you ain't got nowhere to go but the halfway house. Nowhere to lay your head. Try to think that while you're working—even when you start working, you have to figure out how to get by day-by-day. So I think that's the biggest challenge."

"The biggest challenge in the search for work is getting past the interview. They talk like you got a chance… right, like they're going to give you something…but they don't even give you a call back so you call them back and then they tell you the position has already been filled or somebody will reach back out and nobody ever reach back out."

"Nobody at my work knows that I've been incarcerated because I don't think I would even be able to get a job where they do a background check."

Source: OMRES focus groups

**Figure 6: Labor Force Status, OMRES and Group VIII, 2018**




Source: 2018 OMRES telephone survey, Group VIII 2018 telephone survey
Group VIII 2018 is continuously enrolled Group VIII

In both the OMRES and Group VIII telephone surveys, respondents who were not working and were not disabled were asked an open-ended question about why they did not work. The answers to this question were manually

coded by multiple researchers using the same coding scheme for both surveys with high levels of intercoder reliability (details on the methodology are available in the OMRES and Group VIII methodology reports). Respondents' answers included: caring for family members, having few or no job qualifications, having a job that started soon. Non-disabled respondents cited the following most common reasons for lack of a job: 1) having a criminal record made it difficult to find a job (34.1%); 2) caring for other family members prevented them from obtaining work (15.7%); and 3) having transportation issues limited the ability to look for or maintain employment (13.2%). By contrast, Group VIII respondents gave the following most common reasons: 1) need to care for family members (33.8%); 2) clarification that the respondent was actively looking for work but had not found a job yet (15.7%); and 3) health issues that limited the ability to work (14.9%).

Among respondents who had a job or were looking for work, most indicated that having Medicaid made it easier to remain on the job (88.8%) and look for work (60.0%), similar to the general Group VIII expansion population (83.5% of Group VIII respondents reported that Medicaid made it easier to remain on the job and 60.0% reported that Medicaid made it easier to work) (see Figure 7). Many survey and focus group respondents reported that Medicaid fostered hope for secure employment.

**In the Words of OMRES Participants:**

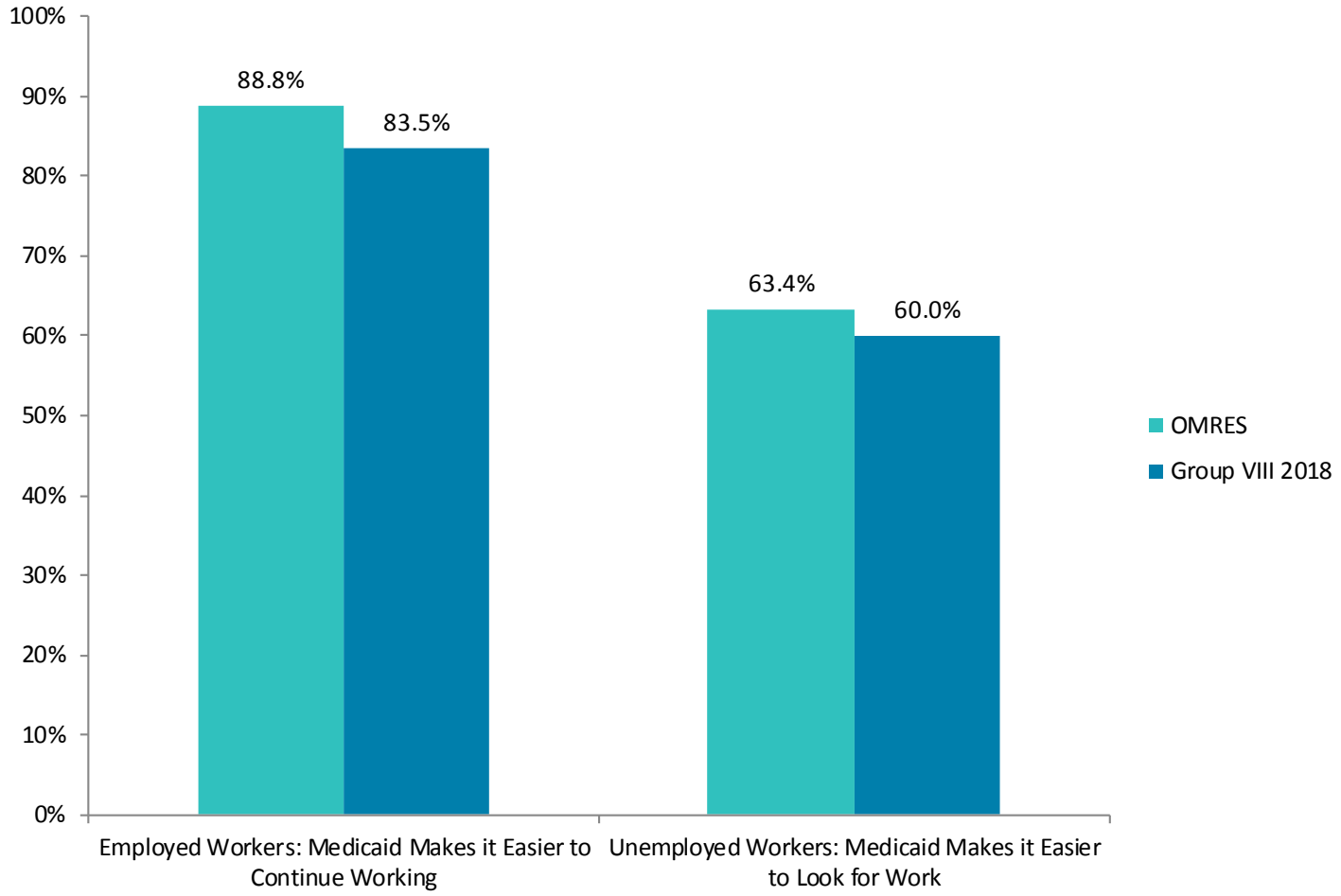
"[Medicaid] is a stepping stone."

"[Medicaid] makes me not be in the streets, it makes me not sell drugs, not commit crimes anymore. [Medicaid] makes me think positive instead of negative and allows me to work a steady job."

"[Medicaid] keeps me working and staying busy and doing things for family."

Source: 2018 OMRES telephone survey

**Figure 7: Effects of Medicaid Enrollment on Employment: OMRES versus Group VIII, 2018**




Source: 2018 OMRES telephone survey, Group VIII 2018 telephone survey
Group VIII 2018 is continuously enrolled Group VIII

## Ohio Work Requirement and Community Engagement 1115 Demonstration Waiver, Work Requirement

In the summer of 2017, the Ohio General Assembly enacted House Bill 49 (HB 49), which included Ohio Revised Code section 5166.37, requiring Ohio to seek a waiver to establish new employment eligibility conditions for the Group VIII Medicaid expansion population. This new eligibility rule requires Group VIII Medicaid enrollees to be employed unless they meet one of the listed exemptions (below). To implement this section of HB 49, the Ohio Department of Medicaid submitted the *Work Requirement and Community Engagement 1115 Demonstration Waiver* (1115 waiver) to the Centers for Medicare and Medicaid Services (CMS) to enable it to develop a work and community engagement requirement for the Medicaid Group VIII population.[xiv]

[xiv] http://www.healthtransformation.ohio.gov/Portals/0/Ohio%20Medicaid%20Work%20Requirements%20Final.pdf

In order to comply with CMS 1115 waiver guidance, ODM has proposed aligning the Work and Community Engagement Requirement with existing Supplemental Nutrition Assistance Program (SNAP) work requirements (including the Able-Bodied Adults without Dependents (ABAWD) requirements). The proposed Work and Community Engagement Requirement, therefore, utilizes the following ABAWD exemptions for Group VIII adults:

- 55 years of age or older
- Physically or mentally inhibited from employment
- Caring for a disabled/incapacitated household member for at least 20 hours per week
- Pregnant woman
- Parent/caretaker/individual residing in same house with minor child
- Applied for or receiving unemployment compensation
- In school at least half-time
- Participating in drug or alcohol treatment
- An assistance group member subject to and complying with any work requirement under the Ohio Works First program
- Applicant for or recipient of Supplemental Security Income

In addition, the following Medicaid-specific exemptions are appended to the Work and Community Engagement Requirement:

- Participant in the Specialized Recovery Services Program
- Eligible incarcerated individual

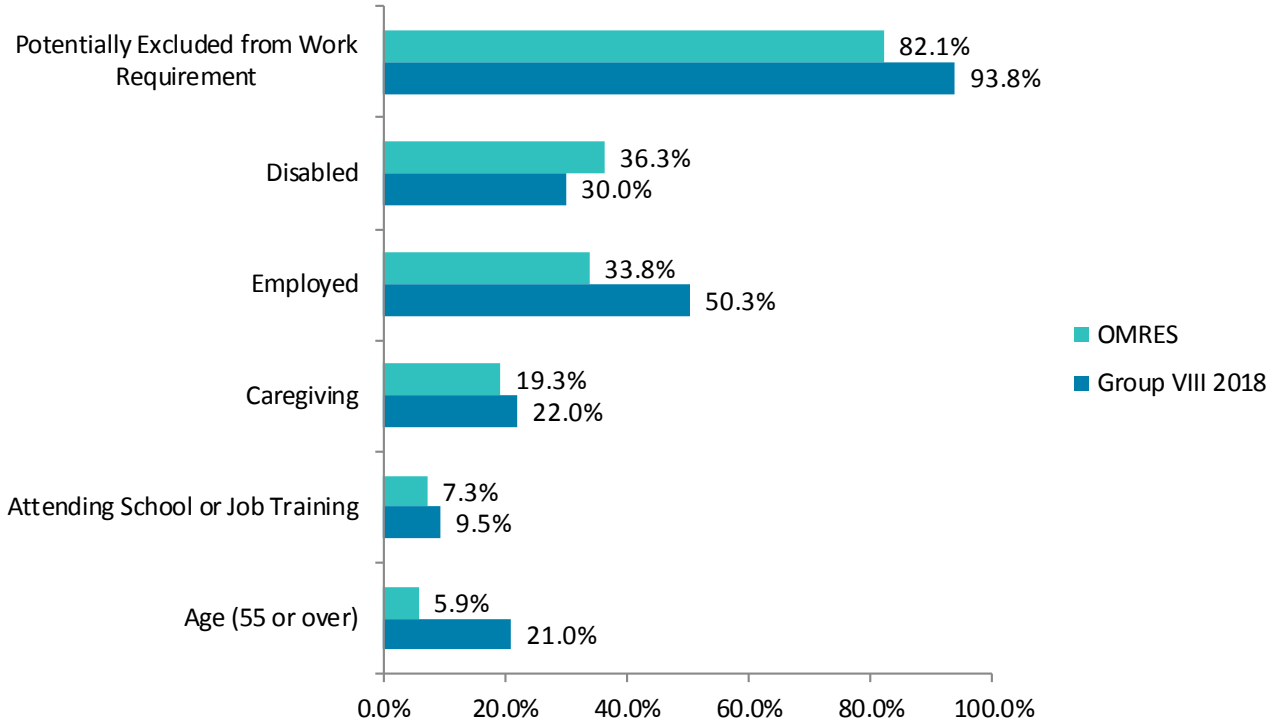
Individuals who are not exempt from the Work and Community Engagement Requirement must work, participate in a community engagement activity, or do some combination of the two for at least 20 hours per week (80 hours averaged monthly). Community engagement activities include SNAP education and training activities, job search/job readiness programs (for no more than 30 days), and the Work Experience Program.

In the waiver application, ODM determined that of the estimated 702,000 individuals expected to participate in Group VIII during State Fiscal Year (SFY) 2019, about 36,000 individuals will be considered not exempt from the work requirement and not working, about 5.1% of Group VIII enrollees.[xv] The 2018 Ohio Medicaid Group VIII Assessment used a telephone survey rather than administrative data but reached a similar estimate.

As a subset of the Group VIII population, the OMRES population likely contained a higher percentage of individuals who are subject to the work requirement: about eight in ten (82.1%) will likely be exempt, compared to 93.8% for the general Group VIII population. Although OMRES respondents reported higher levels of disability than Group VIII overall (36.3% versus 30.0%), they were less likely to be employed (33.8% versus 50.3%) or age 55 or over (5.9% versus 21.0%) (see Figure 8).

[xv] http://www.healthtransformation.ohio.gov/Portals/0/Ohio%20Medicaid%20Work%20Requirements%20Final.pdf

**Figure 8: Estimated Percentages of Individuals Exempt from the 1115 Waiver Work Requirement Overall and by Exemption Reason, 2018 OMRES and Group VIII**




Source: OMRES telephone survey, Group VIII 2018 telephone survey
Group VIII 2018 is Continuous and Churn Group VIII (this includes all current Group VIII enrollees)
Exemptions from the work requirement are not mutually exclusive

## VII. Housing and Financial Hardship

OMRES respondents reported high rates of economic disadvantage. Housing was a major source of economic strain: 11.1% reported being homeless. This number likely underestimates the actual level of homelessness because this value is specific to "the time of the survey," rather than an "any time" measure of the past 6 months to a year. Additionally,the difficulty to reach the homeless population underestimates housing stress.

In a series of questions about whether respondents had various basic household items, a majority (58.4%) reported they did not have a computer and more than one third (39.6%) did not have a car or truck, while smaller percentages reported they did not have seasonal clothing such as a jacket (8.0%). The majority also said their households did not have: a television (6.7%), home heating (5.7%), a stove for cooking (5.3%) a refrigerator (3.0%), or running water (2.0%). In addition, 62.6% reported using SNAP (food stamps) in the last 4 months, compared to 48.5% of Group VIII enrollees (see Table 4). The widespread lack of stable housing, easy access to a computer (and internet), and reliable transportation are serious barriers to workforce readiness and improved health.

**Table 4: Financial Status, OMRES Population**

| | Overall | | |
|---|---|---|---|
| | Weighted % | Std. Err. | Unweighted N |
| **Overall homeless** | **11.1%** | **0.02** | **68** |
| **Employed and homeless** | **5.8%** | **0.02** | **11** |
| **Receiving SNAP benefits in past 4 months** | **62.6%** | **0.02** | **454** |
| **Household does not have:** | | | |
| **Computer** | **58.4%** | **0.02** | **396** |
| **Car or truck** | **39.6%** | **0.02** | **281** |
| **Seasonal clothing such as a coat for winter** | **8.0%** | **0.01** | **51** |
| **Television** | **6.7%** | **0.01** | **46** |
| **Home heating such as a furnace** | **5.7%** | **0.01** | **34** |
| **Stove for cooking food** | **5.3%** | **0.01** | **32** |
| **Refrigerator** | **3.0%** | **0.01** | **20** |
| **Running water in the home** | **2.0%** | **0.01** | **12** |

Source: 2018 OMRES telephone survey

Perhaps because many OMRES respondents reported experiencing economic difficulties, large majorities reported that Medicaid plays a critical role in stabilizing their finances and facilitating access to basic needs. More than two thirds (71.3%) of respondents reported that paying for food would become more difficult if they did not have Medicaid, with similar percentages reporting that losing Medicaid would hinder their ability to pay for housing (65.3%) or pay off any debts (70.7%); see Figure 9.

**In the Words of OMRES Participants:**

"Without Medicaid I would not have health care coverage at all, and that would just be another list of bills I wouldn't be able to pay, which would contribute to me getting further away from a regular life that I could maintain."

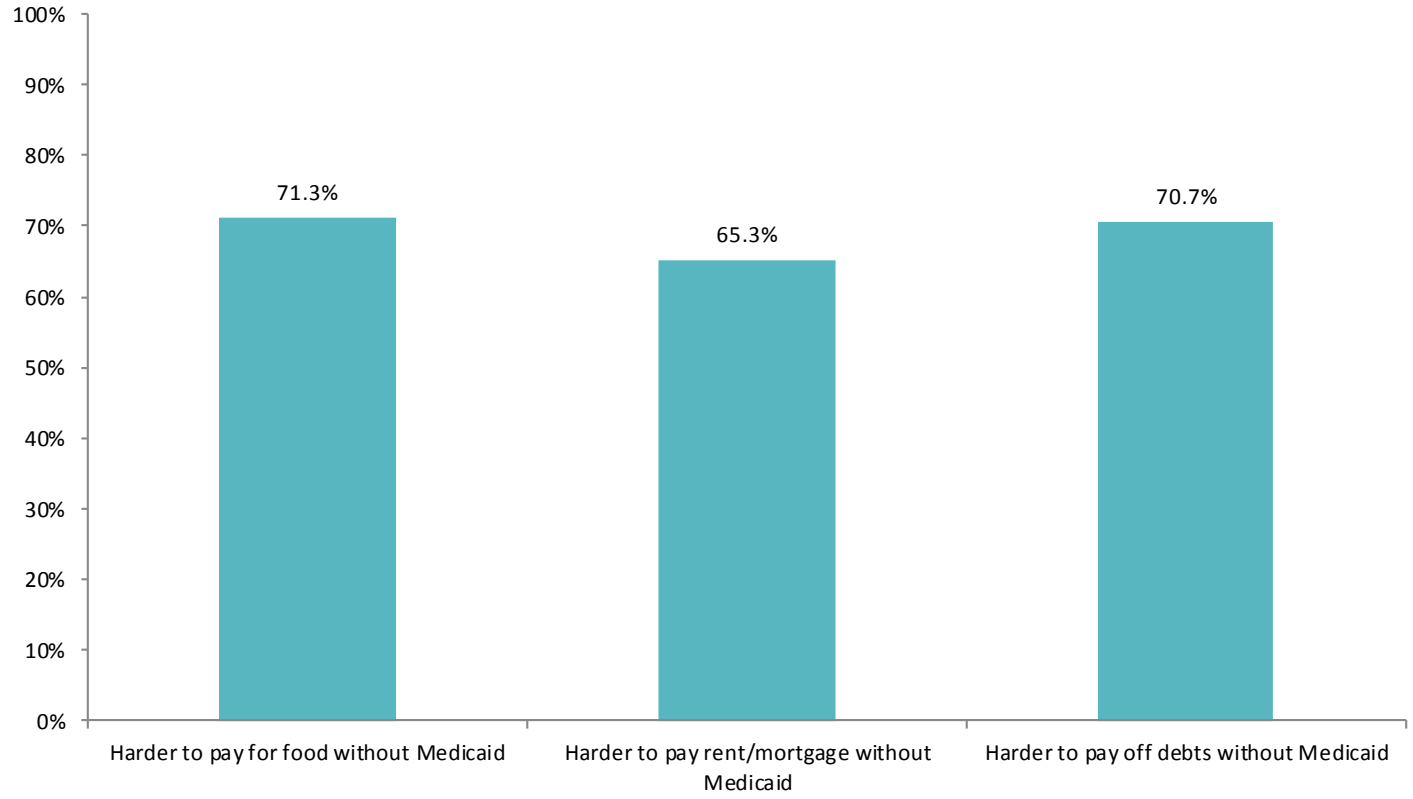
"[Because of Medicaid] I can pay for rent and other things I need without having to rob somebody to get something to eat."

"I only make like $600 every 2 weeks; that's hardly a living wage."

"Finance is always a reason [for stress]. You ain't making no money, you ain't doing nothing in there, you away from the outside. You lose a little bit of everybody when you go to prison."

Source: 2018 OMRES telephone survey and focus groups

**Figure 9: Percentage Reporting that Losing Medicaid Would Make it More Difficult to Buy Food, Pay for Housing and Pay Off Debt, 2018 OMRES**

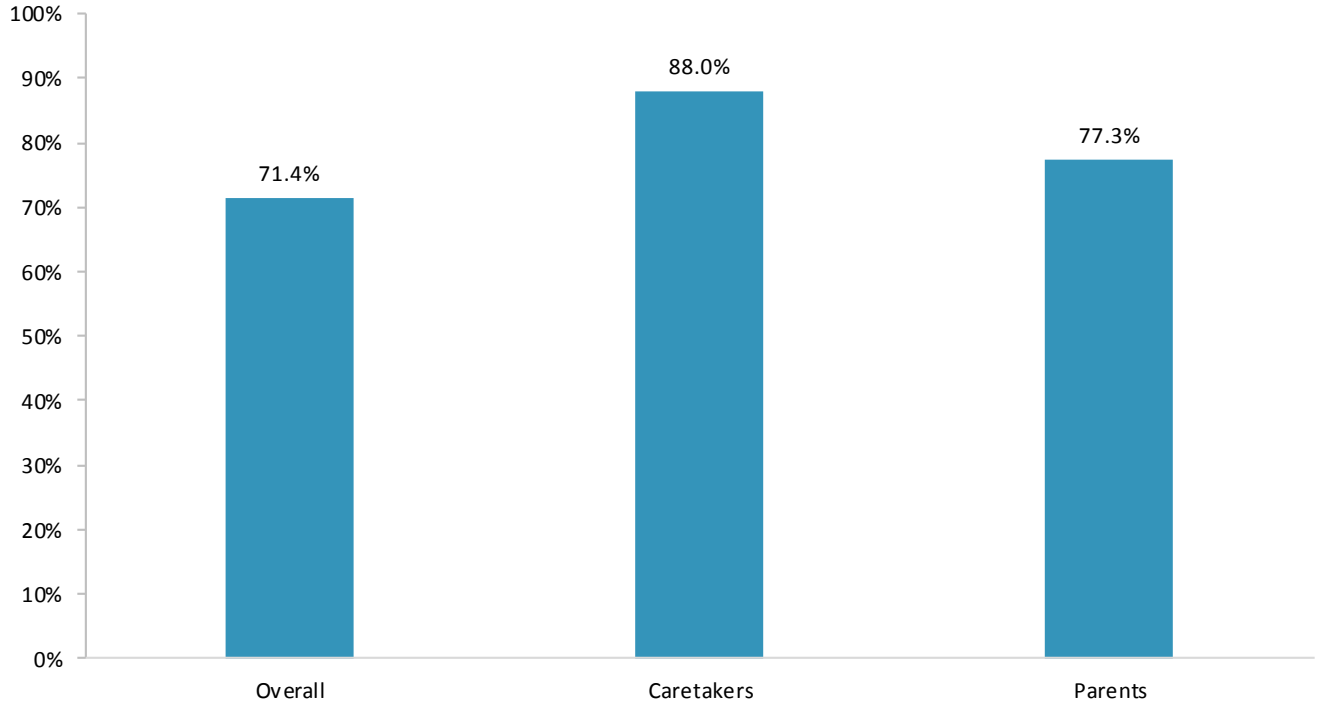



Source: 2018 OMRES telephone survey

## VIII. Family Stability and Community Support

As documented in Section II, many OMRES respondents were critical supports for other family members. About one fifth (21.0%) of OMRES respondents were parents living with their children and 19.3% were caregivers for a household member with a physical or mental health condition. A large majority of respondents (71.4%) reported that having Medicaid made it easier to care for family members, while 88.0% of respondents who were caretakers reported that Medicaid made it easier to care for family members, as did 77.3% of respondents who were parents (see Figure 10).

**Figure 10: OMRES: Percentage Who Agree Having Medicaid Makes It Easier to Care for Family**




Source: 2018 OMRES telephone survey

**In the Words of OMRES Participants:**

"[Medicaid] makes it so that I can have money to care for my kids and I don't have to go out and do stupid things to provide for my kids."

"[Medicaid] gave me a chance to not worry about my personal life so I can help out my family members."

"Medicaid has made our home life more stable."

"Medicaid is helping me…my wife, my case worker, my kids, my mother…I really do appreciate it."

Source: 2018 OMRES telephone survey and focus groups

Many OMRES respondents, in turn, relied on assistance from family and the broader community. More than two thirds (69.7%) received help paying bills from family, friends, or community organizations; parents (42.1%) and spouses or partners (26.2%) were the most common source of support. About one third (32.1%) received support from two or more sources. Nine in ten (89.7%) reported having someone they could talk to when they were feeling sad or upset (see Table 5).

**Table 5: OMRES Participants' Family and Community Support**

| | Weighted % | Std. Err. | Unweighted N |
|---|---|---|---|
| **Have someone to talk to if feeling sad or upset?** | **89.7%** | **0.02** | **592** |
| **Received help for bills?** | **69.7%** | **0.02** | **445** |
| **From spouse/partner?** | **26.2%** | **0.02** | **164** |
| **From parents?** | **42.1%** | **0.02** | **238** |
| **From children?** | **4.6%** | **0.01** | **38** |
| **From other family?** | **20.4%** | **0.02** | **124** |
| **From friends?** | **10.1%** | **0.01** | **73** |
| **From community organizations?** | **11.6%** | **0.02** | **93** |

Source: 2018 OMRES telephone survey

## IX. Reentry into the Community

Many OMRES survey respondents made a direct connection between participation in the Medicaid program and successful reentry into the community: two-thirds (66.6%) reported that having Medicaid made it less likely for them to return to jail or prison (see Figure 11). This finding is consistent with prior research, which showed that similar programs for providing returning citizens with access to health care improved public safety and reduced the risk of re-offense.[xvi]

**In the Words of OMRES Participants:**

"[Because of Medicaid] I don't have to sell drugs, I don't have to risk my life or put anyone else's life in danger. I can go to the hospital and get help."

"[Life was] a rollercoaster ride but now [because of Medicaid] I have balance and stability. My therapist sees it, my case manager sees it, my pastor sees it, and everyone I associate sees it. And I'm still getting better, this is the first time I've been out over a year and a half in 10 years, I've hit my mile marker and I have no intent on going back."

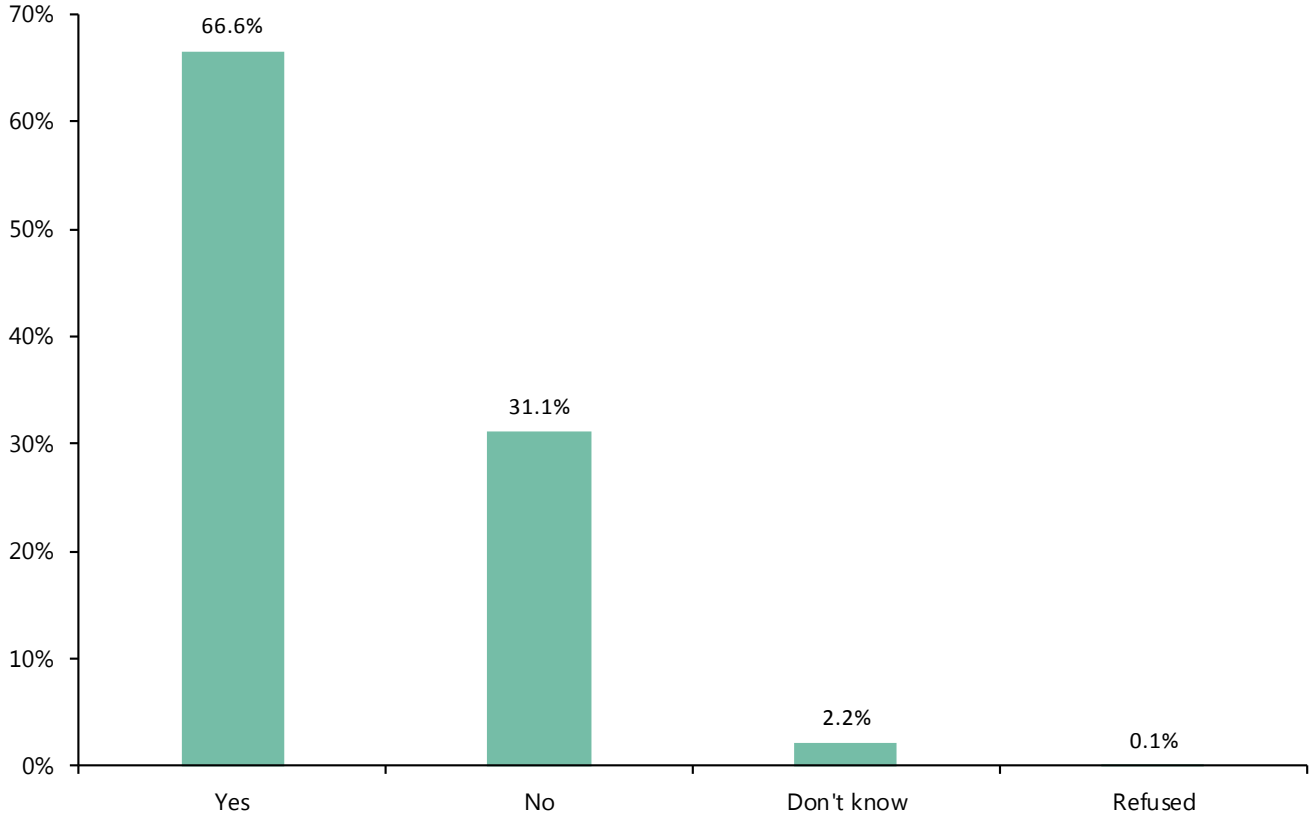
"I don't think [people] realize that giving people access to services saves you tenfold as compared to the people that you locked up."

"If I had to pay into something that's taking away from my living, I'd be forced into doing criminal activity again to make ends meet. If I'm paying this money and I'm already suffering from trying to get housing…I think it would take away and force me into that dark life of crime."

Source: 2018 OMRES telephone survey and focus groups

[xvi] Bichelli, Matthew J., Michael Caudy, Tracie M Gardner, Alice Huber, David Mancuso, Paul Samuels, Tanya Shah, and Homer D. Venters. 2014. "Case Studies from Three States: Breaking Down Silos between Health Care and Criminal Justice." Health Affairs 3:474-481.

**Figure 11: OMRES: Does Having Medicaid Reduce Your Chances of Going Back to Jail or Prison?**

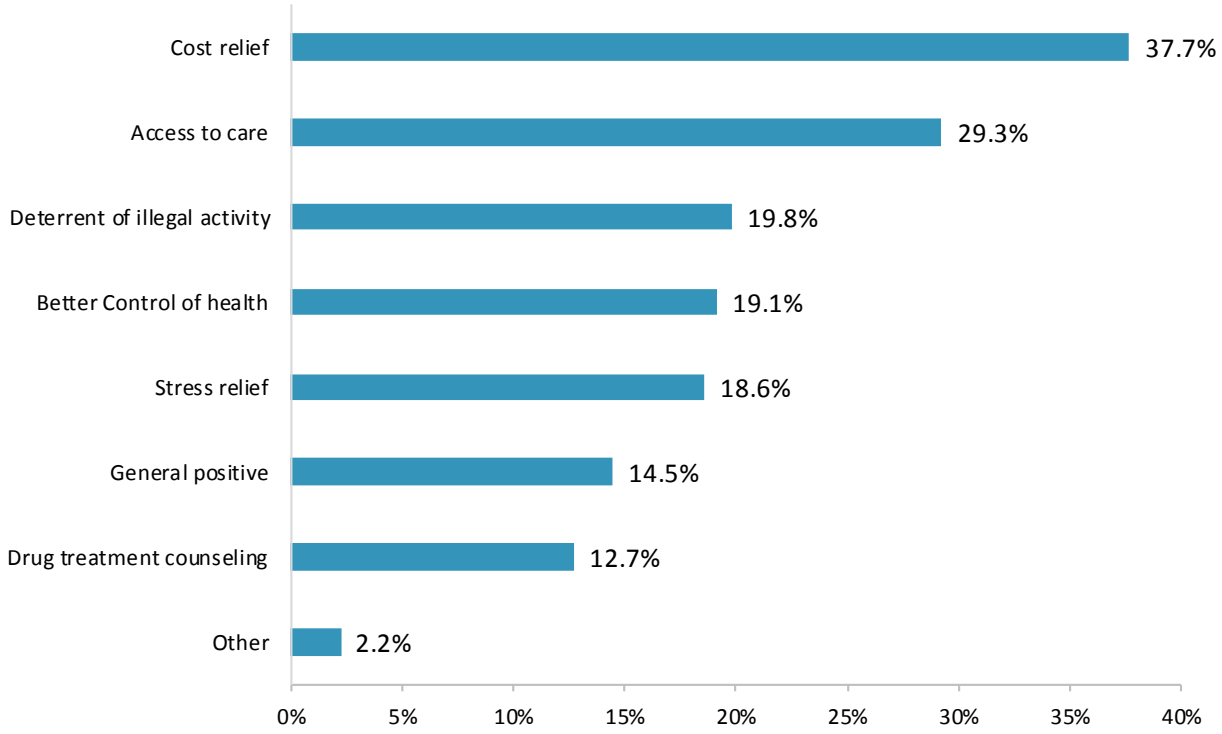



Source: 2018 OMRES telephone survey

Respondents reporting that Medicaid reduced their chances of going back to jail or prison were asked to explain in their own words why this was the case. Their most common response was cost relief – that is, not having to pay for health care reduced the incentive to engage in criminal activity to make ends meet (37.7%). The next most common response was access to care, which allowed respondents to better manage their health and social behavior (29.3%). Other reasons given included the threat of losing Medicaid as a direct deterrent of criminal activity (19.8%), stress relief (18.6%), and the benefits of drug treatment (12.7%) (see Figure 12).

> *I have a big one for you, I've had seven prison numbers over 10 years, the longest in the past that I've stayed out was a year or a year and a half. Next month I hit my 2-year mark. And this is only because I'm on Medicaid.*

**Figure 12: OMRES: How Does Having Medicaid Reduce Your Chances of Going Back to Jail or Prison?**




Source: 2018 OMRES telephone survey
Question limited to individuals who reported that Medicaid lowered the risk of going back to jail or prison
Methodology for coding open-ended questions is available in the OMRES methodology report

## X: Summary and Conclusion

Consistent with project goals, the OMRES results indicate that Medicaid enrollment for prior incarcerated individuals benefits physical and mental health (93.8% and 84.6%, respectively), that losing Medicaid increases difficulty in getting needed health care (93.7%), and that improved access to health care services, initiated by the MPRE program,has many beneficial effects. In the words of a focus group respondent, *"Medicaid allows me to be able to go to the doctor and get the appropriate prescription instead of going to the 'street pharmacist' and doing illegal activities."* The OMRES findings demonstrate that Medicaid stabilizes health and facilitates successful reentry into the community; many respondents shared similar comments in qualitative interviews and survey responses.

Although some health risk behaviors such as substance use among respondents are cause for concern (e.g., two-thirds of respondents smoke, suggesting the potential value for continued cessation support), many MPRE Medicaid enrollees want to change their health risks profile. Numerous individuals in the MPRE population participate in substance use recovery; the treatment participation rate of 29.3% is especially noteworthy, given consistent reports of unmet need for substance use treatment in the U.S. as a whole. While work participation levels are strong but challenging, the vast majority of survey respondents currently not working or looking for work reported having a disability that prevents them from working (82.6% of those currently not working). Among those in the workforce, large majorities reported that Medicaid helps them to remain on the job or look for work.

Despite a high level of housing vulnerability and its related challenges, OMRES survey respondents report many improvements in their quality of life. These improved outcomes include psychosocial well-being (e.g., having someone to speak to when upset, angry, or depressed); material well-being (e.g., food, shelter, and paying off debt were more difficult without coverage); and contributing to the well-being of others, with 71.4% noting that Medicaid makes it easier to care for a loved one or family member. Medicaid access is a vital resource for MPRE participants to improve their decision-making and life choices, to understand themselves differently, and to share these and other related benefits with others. And it shows. As one focus group respondent with MPRE noted: *"Now I have balance and stability. My therapist sees it. My case manager sees it. My pastor sees it. And everyone I associate with sees it. And I'm still getting better…and have no intent on going back."*

Overall, the MPRE population characteristics indicate that the prior incarcerated have an elevated health risk profile, fewer opportunities for meaningful employment, elevated rates of substance use and health risk behaviors, and less household and economic stability than the the Group VIII population or other Medicaid eligibility populations. Given these higher risk factors, the consensus of this research is that, for the MPRE population, Medicaid results in greater health care stability, a higher probability of workforce participation, a lessening of socioeconomic stress, a more positive outlook for mental health improvement, and better integration back into the community.

# 2018 Ohio Medicaid Released Enrollees Study:

## Administrative Review

# Table of Contents

I. Introduction ..... 3
II. Enrollment Patterns ..... 4
III. Emergency Department and Inpatient Services Utilization ..... 6
IV. Behavioral Health and Chronic Condition Comorbidity ..... 11
V. Behavioral Health Utilization ..... 13
VI. Chronic Condition Utilization ..... 19
Appendix: Notes on Research Methods ..... 28

# I. Introduction

In 2014, the Ohio Department of Medicaid (ODM), in collaboration with the Ohio Department of Rehabilitation and Correction, initiated Ohio's Medicaid Pre-Release Enrollment (MPRE) program, which enrolls incarcerated individuals in Medicaid prior to release. The MPRE program was piloted in the state's three female facilities beginning in fall 2014 while the remaining twenty-five male facilities were brought on-line gradually over the subsequent two years with full implementation completed by the end of 2016.

The 2018 Ohio Medicaid Released Enrollees Study (OMRES) is an evaluation of the MPRE program, and the analyses in this administrative review were requested by ODM as a supplement to the OMRES final report. The goals of the administrative review were as follows: 1) Assess enrollment patterns of MPRE enrollees, including enrollment churn and program participation; 2) Compare the Emergency Department (ED) and inpatient services utilization of MPRE enrollees with other adult full-benefit non-Dual Medicaid enrollees; 3) Compare the prevalence of behavioral health and chronic conditions among MPRE enrollees with other adult full-benefit enrollees; and 4) Compare the utilization of services for behavioral health and chronic conditions among MPRE enrollees and other adult full-benefit non-Dual Medicaid enrollees. In order to allow for a more nuanced comparison with MPRE enrollees, results for Group VIII, Aged, Blind and Disabled (ABD), and Covered Families and Children (CFC) enrollees who were not enrolled through the MPRE program are reported separately in most analyses.

The universe for this administrative review is all adults 19-64, excluding dual-eligibles, who received full-benefit Medicaid coverage since the onset of the MPRE program in 2014. Various subsets of this group are analysed depending on the goals of a particular analysis. Some analyses are limited to all individuals who ever enrolled in the MPRE program (2014 to 2018) as of March 2018 (N=20,066), while others are limited to all adults who had full-benefit coverage, not necessarily continuous coverage, between 2016-2017 (N=17,242 for MPRE enrollees, N=169,136 for ABD enrollees not enrolled through MPRE, N=661,379 for CFC enrollees not enrolled through MPRE, N=970,608 for Group VIII enrollees not enrolled through MPRE). These different analytical frames were used because: 1) They replicate the methodology used in the 2018 Group VIII Assessment; 2) 2016 and 2017 are the most recent years with full data available.

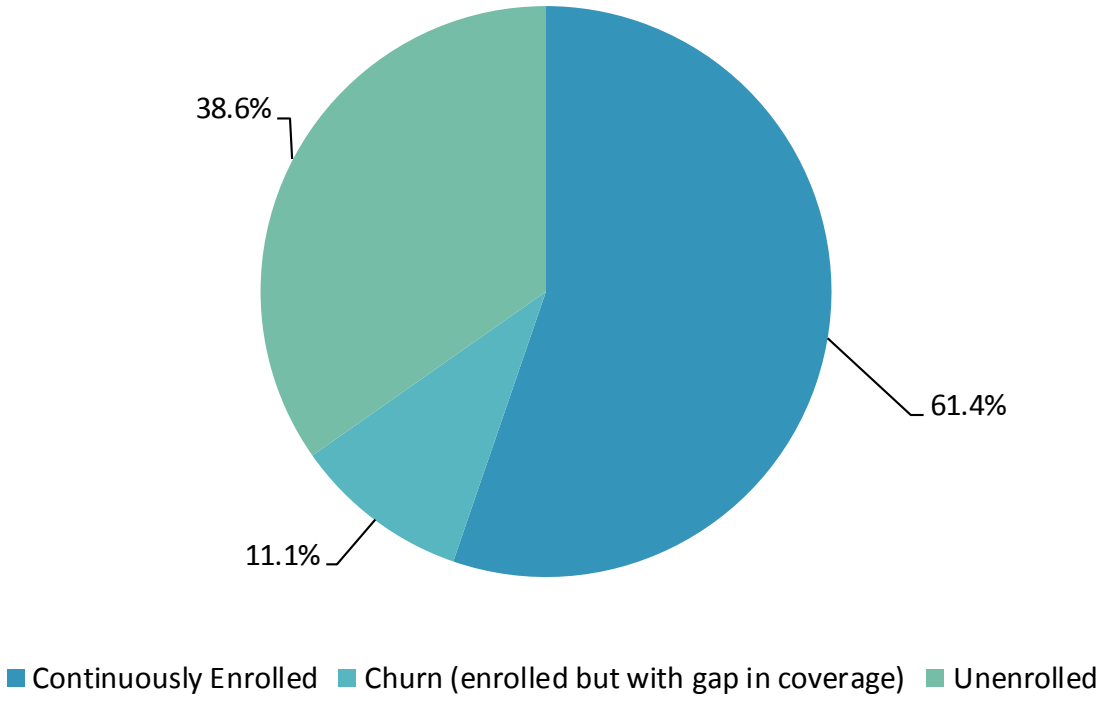
Although the results presented here are limited to Medicaid adinistrative data, the substantive findings are consistent with OMRES Assessment and the 2018 Group VIII Assessment[i] which relied on telephone survey data. In particular, both the OMRES telephone survey and Medicaid data indicate that MPRE enrollees: 1) Have relatively high rates of substance use disorders (SUDs) compared to other adult Medicaid enrollees; 2) Have relatively high rates of behavioral health conditions compared to other adult Medicaid enrollees (except for ABD enrollees); and 3) Receive appropriate treatments for most chronic conditions.

[i] http://medicaid.ohio.gov/Portals/0/Resources/Reports/Annual/Group-VIII-Final-Report.pdf

## II. Enrollment Patterns

MPRE enrollees were more likely to be continuously enrolled than Group VIII, which may be partly due to the fact that most MPRE enrollees began Medicaid coverage in 2016 or thereafter. As the program matures, MPRE enrollment patterns may converge with the Group VIII population.

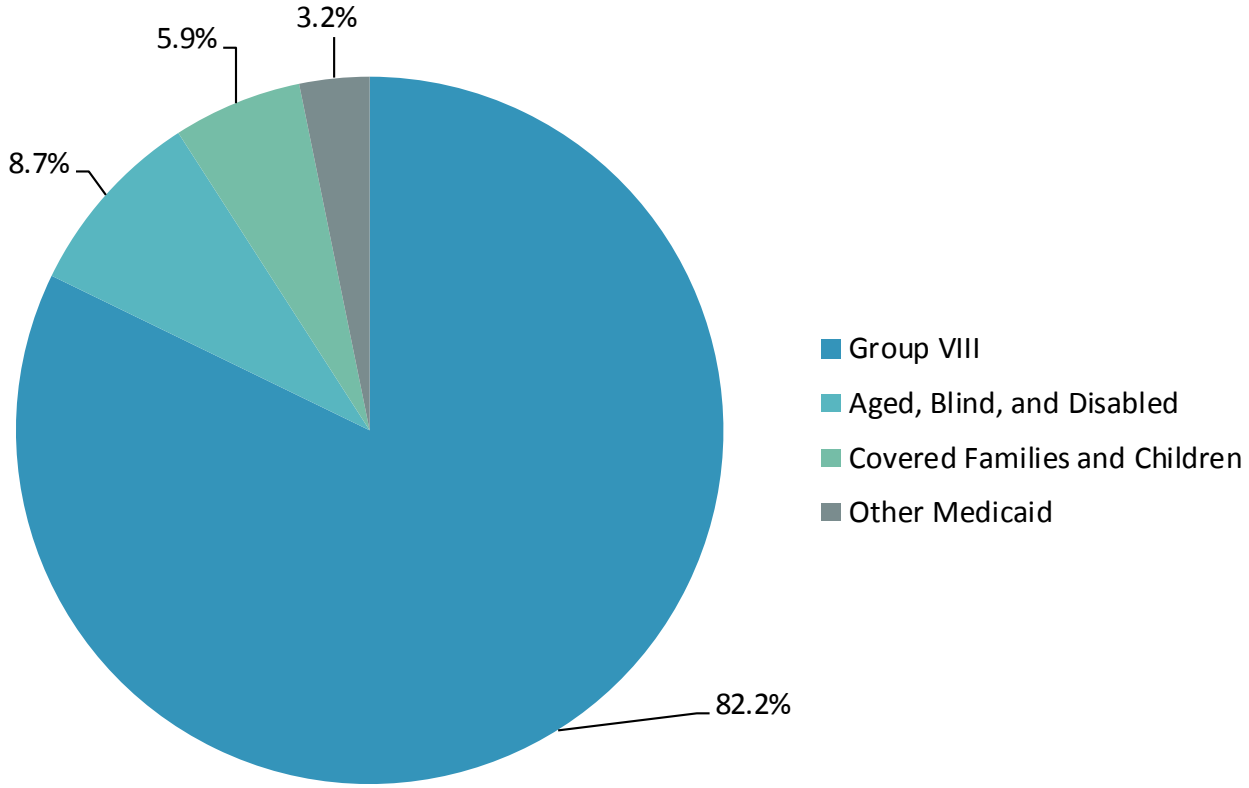
**Figure 1: Current enrollment status* for individuals who participated in the MPRE program**




Source: Medicaid administrative data
*Enrollment status as of July 2018.
Analysis of enrollment continuity begins upon reentry into the community.

Most MPRE enrollees (82.2%) participated in the Group VIII program, while 8.7% participated in the Aged, Blind, or Disabled (ABD) program, 5.9% participated in the Covered Families and Children (CFC) program, and 3.2% participated in some other Medicaid program.

**Figure 2: Current* Medicaid program for MPRE participants**

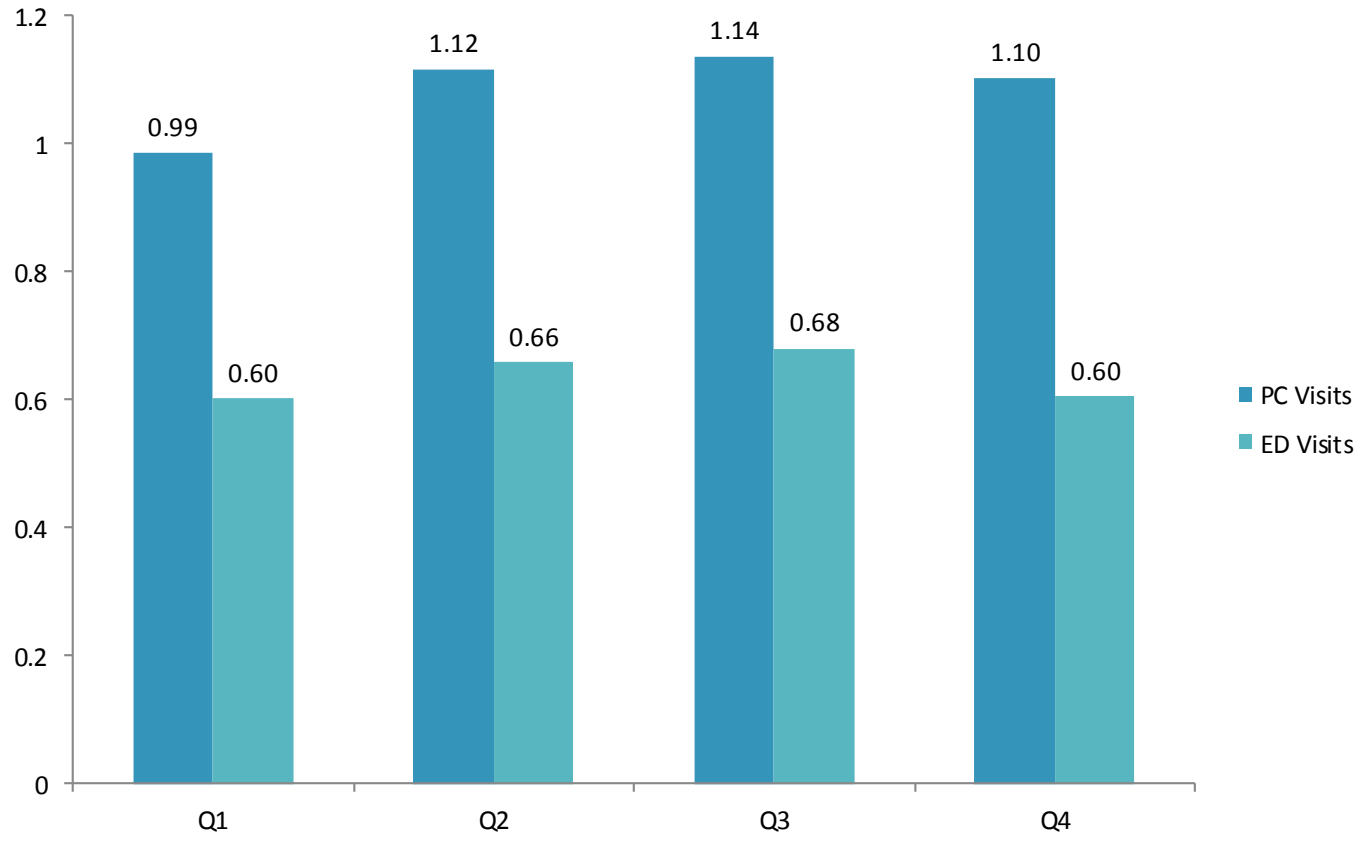



Source: Medicaid administrative data
*Enrollment status as of July 2018.

## III. Emergency Department and Inpatient Services Utilization

MPRE enrollees had relatively high and sustained rates of Emergency Department (ED) utilization and primary care utilization during the first year of enrollment compared to Group VIII enrollees overall[ii]. This may be due to the fact that MPRE enrollees have high rates of behavioral health needs, as documented in Section IV of this administrative review. Because the MPRE program is relatively new, it was not possible to analyze utilization patterns beyond the first year of enrollment for a sufficient number of enrollees; it is possible that as the program matures, utilization will shift from ED settings to primary care settings such as with the Group VIII population.

**Figure 3: MPRE enrollees: Number of Emergency Department and Primary Care visits per quarter since onset of enrollment, 2014-2018 (Q1 is the first quarter of enrollment)**




Source: Medicaid administrative data
Analysis limited to individuals with one or more years of continuous enrollment (N=3,908)

Tables 1, 2 and 3 are extensions of the analysis depicted in figure 3, indicating that poisoning and adverse effects related to substance use is the most common reason for ED visits among MPRE enrollees but is

[ii] http://medicaid.ohio.gov/Portals/0/Resources/Reports/Annual/Group-VIII-Final-Report.pdf

relatively uncommon for Group VIII, ABD, and CFC enrollees who were not enrolled through the MPRE program.

**Table 1: Prevalence of primary ED diagnoses by detailed ICD-10 code and Medicaid program, 2016-2017**

| MPRE (N=29,407 claims) | Percent |
|---|---|
| Poisoning and adverse effect of heroin | 3.61% |
| Chest pain, unspecified | 1.87% |
| Other chest pain | 1.86% |
| Low back pain | 1.65% |
| Unspecified abdominal pain | 1.52% |
| Acute upper respiratory infection, unspecified | 1.29% |
| Suicidal ideations | 1.19% |
| Headache | 1.11% |
| Strain of muscle, fascia and tendon of lower back, initial encounter | 1.07% |
| Nausea with vomiting, unspecified | 1.06% |
| **Group VIII (N=1,608,308 claims)** | **Percent** |
| Pleurisy | 4.91% |
| Hypoxemia | 4.80% |
| Asphyxia | 4.79% |
| Chest pain, unspecified | 4.79% |
| Dorsalgia, unspecified | 3.48% |
| Right upper quadrant abdominal tendemess | 3.34% |
| Periumbilical pain | 3.34% |
| Other dorsalgia | 3.07% |
| Pain in thoracic spine | 3.04% |
| Right lower quadrant pain | 2.85% |
| **ABD (N=565,847 claims)** | **Percent** |
| Occipital neuralgia | 2.40% |
| Urge incontinence | 1.81% |
| Chronic pain syndrome | 1.24% |
| Neoplasm related pain (acute) (chronic) | 1.12% |
| Other chronic pain | 1.10% |
| Other obsessive-compulsive disorder | 1.09% |
| Obsessive-compulsive disorder | 1.09% |
| Chronic sialoadenitis | 1.05% |
| Other cysts of oral region, not elsewhere classified | 1.02% |
| Strain of muscle, fascia and tendon of lower back, subsequent encounter | 0.92% |
| **CFC (N=1,380,570 claims)** | **Percent** |
| Unspecified abdominal pain | 2.69% |
| Acute upper respiratory infection, unspecified | 2.21% |
| Other specified pregnancy related conditions, first trimester | 1.17% |
| Pain in left ankle and joints of left foot | 1.10% |
| Threatened abortion | 1.02% |
| Other specified pregnancy related conditions, second trimester | 1.01% |

| | |
|---|---|
| Abnormal uterine and vaginal bleeding, unspecified | 0.89% |
| Tinea corporis | 0.79% |
| Other specified diseases and conditions complicating pregnancy, childbirth and the puerperium | 0.76% |
| Tinea pedis | 0.75% |

**Table 2: Prevalence of primary ED diagnoses by diagnosis category and Medicaid program, 2016-2017**

| MPRE (N=29,407 claims) | Percent |
|---|---|
| Injury, poisoning, other external causes | 24.37% |
| Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified | 18.90% |
| Diseases of the musculoskeletal system and connective tissue | 9.83% |
| Mental, Behavioral and Neurodevelopmental disorders | 7.50% |
| Diseases of the respiratory system | 7.25% |
| Diseases of the skin and subcutaneous tissue | 7.20% |
| Diseases of the digestive system | 5.26% |
| Diseases of the genitourinary system | 5.00% |
| Factors influencing health status and contact with health services | 3.70% |
| Diseases of the nervous system | 2.60% |
| **Group VIII (N=1,608,308 claims)** | **Percent** |
| Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified | 21.80% |
| Injury, poisoning, other external causes | 19.40% |
| Diseases of the musculoskeletal system and connective tissue | 11.28% |
| Diseases of the respiratory system | 10.34% |
| Diseases of the digestive system | 7.03% |
| Diseases of the genitourinary system | 5.87% |
| Diseases of the skin and subcutaneous tissue | 5.16% |
| Mental, Behavioral and Neurodevelopmental disorders | 4.55% |
| Diseases of the nervous system | 3.10% |
| Diseases of the eye and adnexa / Diseases of the ear and mastoid process | 2.54% |
| **ABD (N=565,847 claims)** | **Percent** |
| Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified | 24.70% |
| Injury, poisoning, other external causes | 16.32% |
| Diseases of the musculoskeletal system and connective tissue | 12.05% |
| Diseases of the respiratory system | 10.03% |
| Diseases of the digestive system | 5.87% |
| Mental, Behavioral and Neurodevelopmental disorders | 5.80% |
| Diseases of the genitourinary system | 4.82% |
| Diseases of the nervous system | 4.18% |
| Diseases of the skin and subcutaneous tissue | 4.06% |
| Diseases of the circulatory system | 2.17% |
| **CFC (N=1,380,570 claims)** | **Percent** |
| Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified | 20.11% |
| Injury, poisoning, other external causes | 15.88% |
| Diseases of the respiratory system | 11.11% |
| Pregnancy, childbirth and the puerperium | 11.01% |
| Diseases of the musculoskeletal system and connective tissue | 8.71% |

| | |
|---|---|
| Diseases of the genitourinary system | 8.66% |
| Diseases of the digestive system | 6.55% |
| Diseases of the skin and subcutaneous tissue | 4.21% |
| Diseases of the nervous system | 2.94% |
| Diseases of the eye and adnexa / Diseases of the ear and mastoid process | 2.76% |

**Table 3: Prevalence of inpatient DRG codes (diagnoses and conditions associated with inpatient stays) by diagnosis category and Medicaid program, 2016-2017**

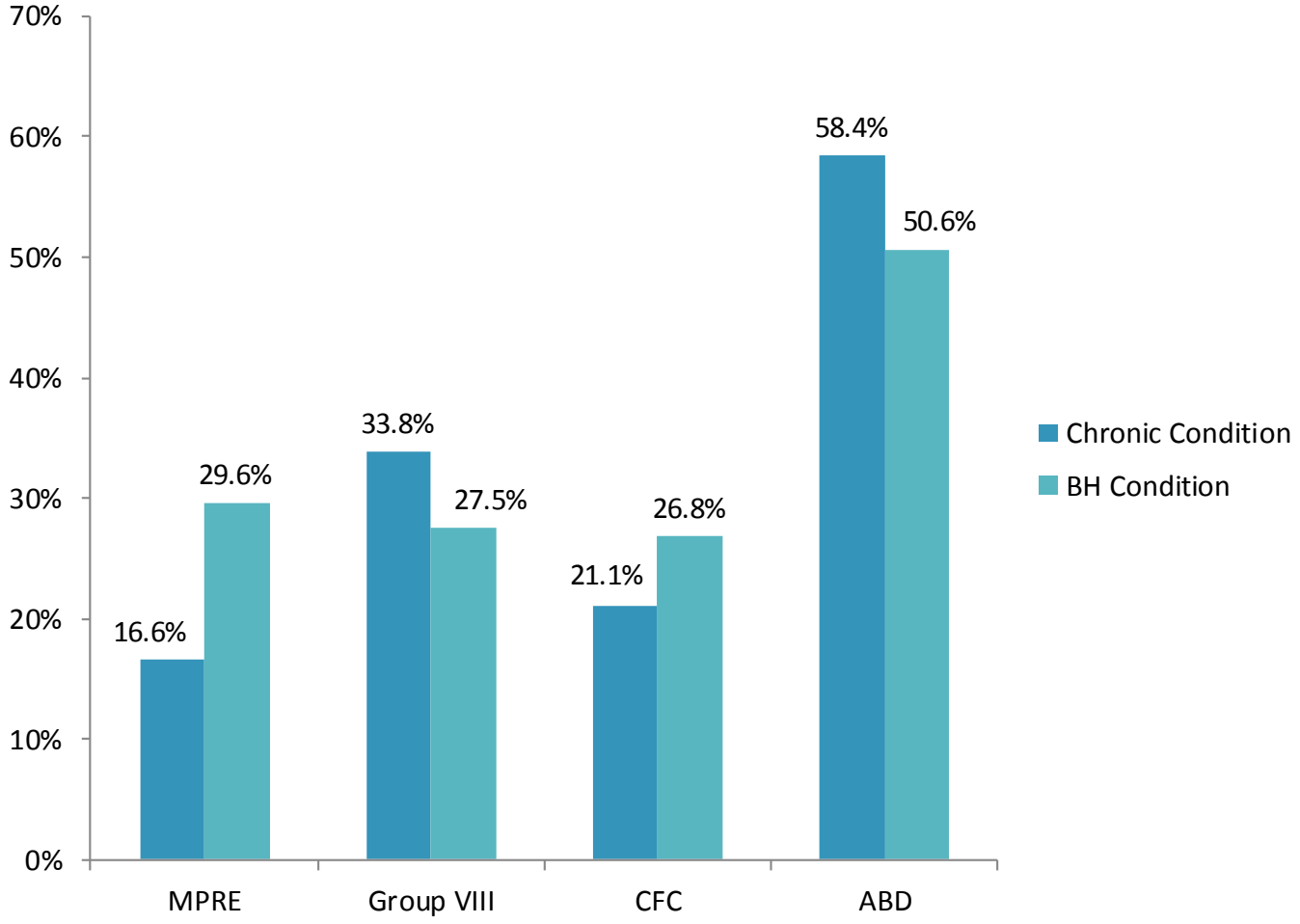
| MPRE (N=4,349 claims) | Percent |
|---|---|
| Opioid Abuse Dependence | 7.63% |
| Bipolar Disorders | 6.99% |
| Major Depressive Disorders / Other Unspecified Psychoses | 5.70% |
| Septicemia Disseminated Infections | 4.83% |
| Schizophrenia | 4.02% |
| Vaginal Delivery | 3.75% |
| Cellulitis / Other Bacterial Skin Infections | 2.92% |
| Toxic Effects of Non-Medicinal Substances | 2.83% |
| Alcohol Abuse or Dependence, Left Against Medical Advice | 2.62% |
| Poisoning of Medicinal Agents | 2.62% |
| **Group VIII (N=212,583 claims)** | **Percent** |
| Vaginal Delivery | 5.21% |
| Major Depressive Disorders / Other Unspecified Psychoses | 4.81% |
| Septicemia Disseminated Infections | 3.88% |
| Bipolar Disorders | 3.47% |
| Opioid Abuse Dependence | 3.41% |
| Alcohol Abuse Dependence | 2.67% |
| Cesarean Delivery | 2.32% |
| Other Antepartum Diagnoses W Medical Complications | 2.28% |
| Diabetes | 2.21% |
| Disorders of Pancreas Except Malignancy | 1.87% |
| **ABD (N=125,834 claims)** | **Percent** |
| Schizophrenia | 6.18% |
| Chronic Obstructive Pulmonary Disease | 5.17% |
| Septicemia Disseminated Infections | 4.91% |
| Bipolar Disorders | 3.58% |
| Biliary Trac Proc Except Only Cholecyst W or W/O CDE | 2.96% |
| Major Depressive Disorders / Other Unspecified Psychoses | 2.90% |
| Pulmonary Edema Respiratory Failure | 2.78% |
| Diabetes | 2.11% |
| Other Antepartum Diagnoses W Medical Compilations | 1.80% |
| Sickle Cell Anemia Crisis | 1.79% |
| **CFC (N=177,264 claims)** | **Percent** |
| Vaginal Delivery | 37.37% |
| Cesarean Delivery | 16.67% |

| | |
|---|---|
| Other | 2.73% |
| Major Depressive Disorders / Other Unspecified Psychoses | 2.32% |
| Septicemia Disseminated Infections | 1.62% |
| Bipolar Disorders | 1.54% |
| Vaginal Delivery W Sterilization Or DC | 1.51% |
| Opioid Abuse Dependence | 1.40% |
| Diabetes | 1.27% |
| Principal Diagnosis Invalid as Discharge Diagnosis | 1.16% |

## IV. Behavioral Health and Chronic Condition Comorbidity

Preliminary administrative data indicates that MPRE enrollees are less likely to have a chronic condition than other adult Medicaid enrollees. This is in part due to the fact that MPRE enrollees tend to be younger than enrollees in other programs, but may also be due to the fact that many MPRE enrollees were only recently enrolled and therefore have a shorter Medicaid claims history. MPRE enrollees are slightly more likely to have behavioral health diagnoses than Group VIII and CFC enrollees but are much less likely to have behavioral health diagnoses than ABD enrollees. In fact, MPRE enrollees are unusual among adult full-benefit Medicaid enrollees in that the prevalence of chronic conditions is much lower than the prevalence of behavioral health conditions.

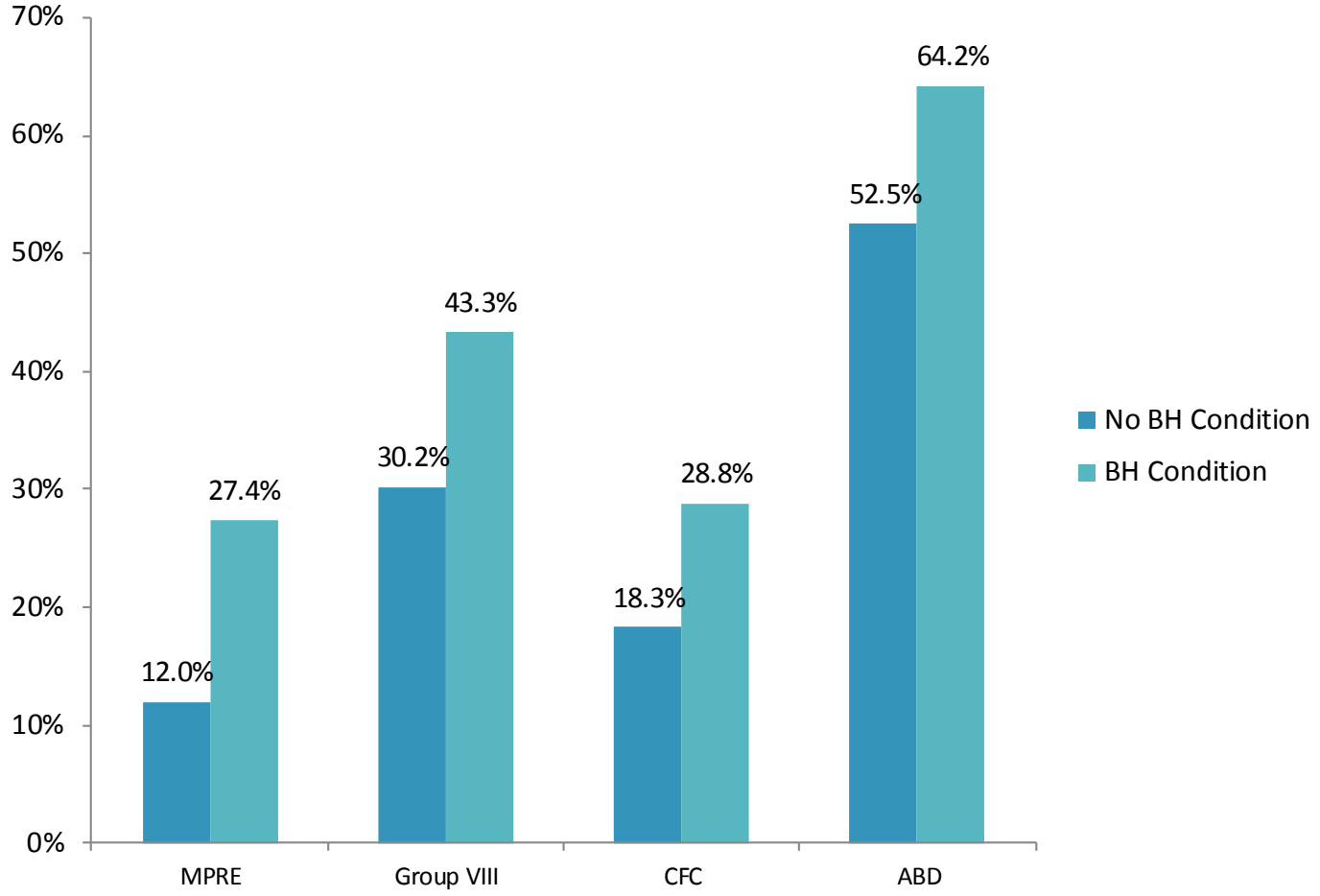
**Figure 4: Prevalence of behavioral health and chronic condition diagnoses by Medicaid program, 2016-2017**




Source: Medicaid administrative data
Analysis limited to individuals continuously enrolled for six or more months 2016-2017.
Diagnoses include all diagnoses in Medicaid administrative data and are not limited to a primary diagnosis.
Categories are mutually exclusive; the Group VIII, CFC and ABD tabulations do not include individuals who enrolled through the MPRE program. MPRE enrollees comprise less than 2% of individuals in the Group VIII, CFC, and ABD programs.
Analysis of CFC and ABD enrollees limited to individuals age 19-64

As with all other Medicaid populations, chronic conditions are positively correlated with behavioral health conditions among MPRE enrollees; that is, individuals with a behavioral health condition are more likely to have a chronic condition and vice versa.

**Figure 5: Percentage of Medicaid enrollees which a chronic condition by behavioral health status and program type**

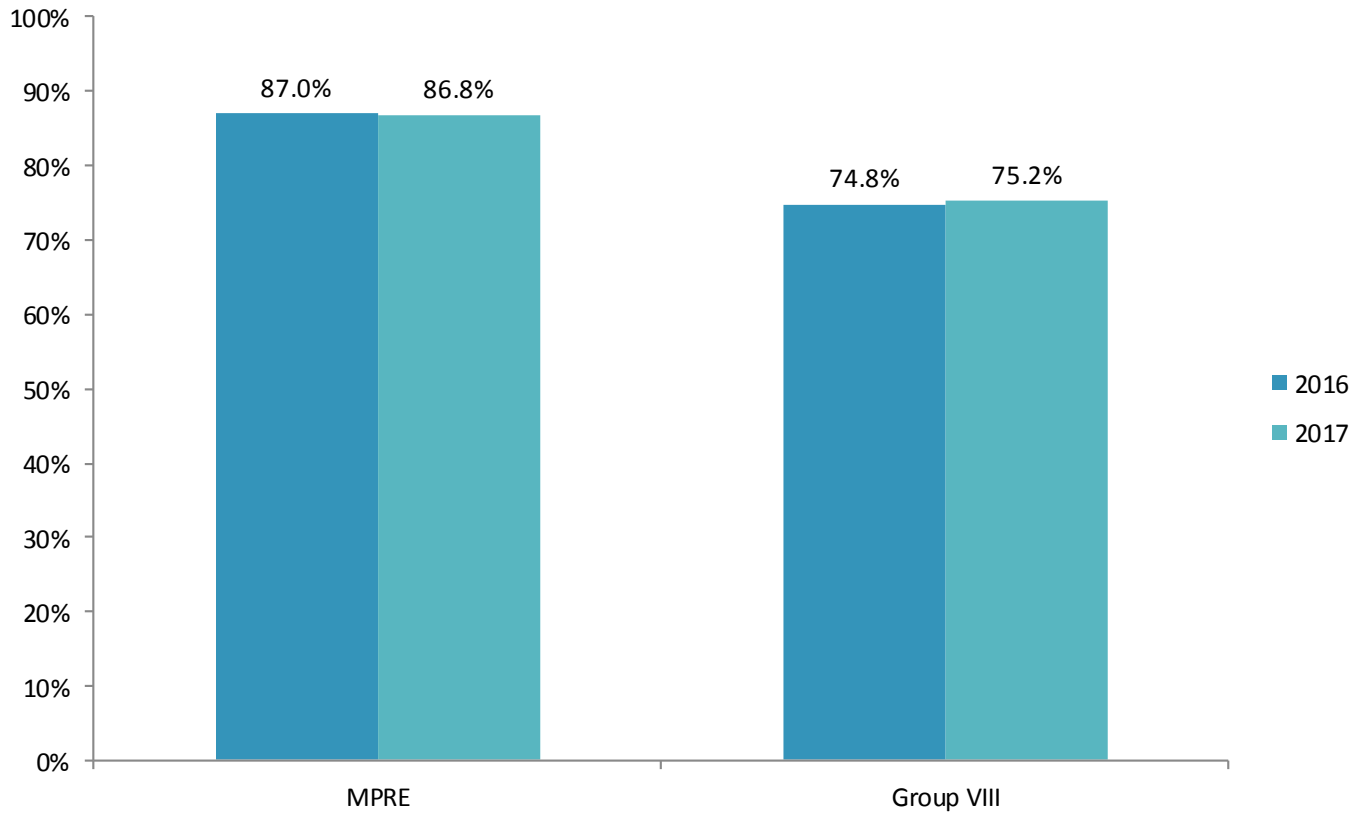



Source: Medicaid administrative data
Analysis limited to individuals continuously enrolled for six or more months 2016-2017.
Diagnoses include all diagnoses in Medicaid administrative data and are not limited to a primary diagnosis.
Categories are mutually exclusive; the Group VIII, CFC and ABD tabulations do not include individuals who enrolled through the MPRE program. MPRE enrollees comprise less than 2% of individuals in the Group VIII, CFC, and ABD programs.
Analysis of CFC and ABD enrollees limited to individuals age 19-64

## V. Behavioral Health Utilization

As documented in tables 1, 2 and 3 of this administrative review, MPRE enrollees are more likely than other adult full-benefit enrollees to require acute care for substance use disorders (SUDs). Figures 6 and 7 depict the treatment rates for SUDs among MPRE enrollees and non-MPRE Group VIII enrollees focused on psychosocial treatment given the many types of SUDs for which evidence-based treatment may not recommend medication assisted treatments (MATs). These figures are extensions of the opioid use disorder (OUD) analysis presented in the 2018 Group VIII Assessment[iii]. MPRE enrollees have somewhat higher rates of treatment for SUDs than Group VIII enrollees not enrolled through the MPRE program (Figure 6), and both groups have very similar treatment rates for OUD (Figure 7). Over 94% of MPRE enrollees with a primary opioid use disorder (OUD) diagnosis received one or more types of treatment (including psychosocial and/or MATs) in 2016-2017; rates of treatment for MPRE enrollees were very similar to Group VIII.

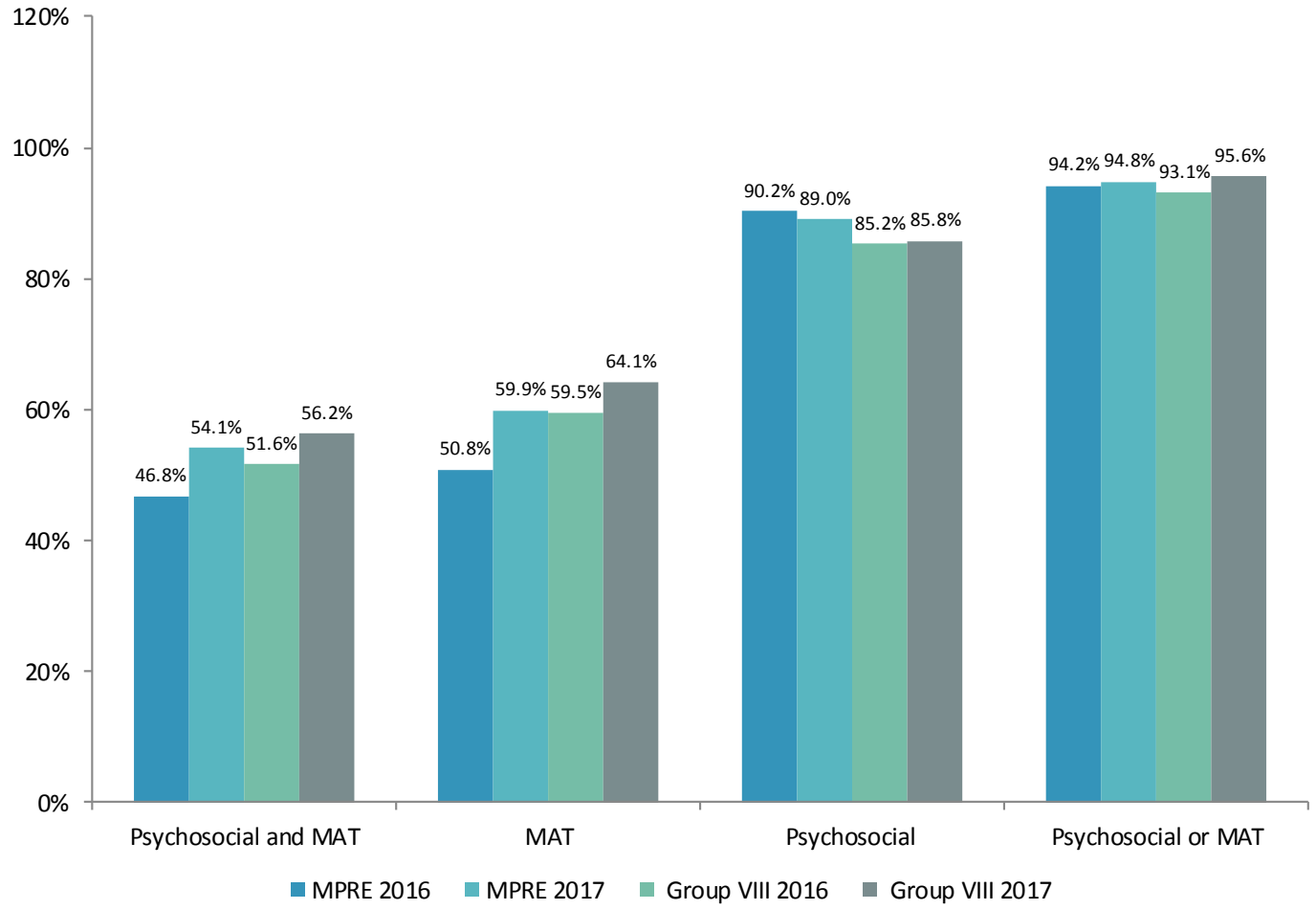
**Figure 6: Percent of MPRE and Group VIII enrollees with one or more primary substance use disorder (SUD) diagnoses (excluding opioid use disorder diagnoses) receiving psychosocial treatment, 2016-2017**




Source: Medicaid administrative data

[iii] http://medicaid.ohio.gov/Portals/0/Resources/Reports/Annual/Group-VIII-Final-Report.pdf

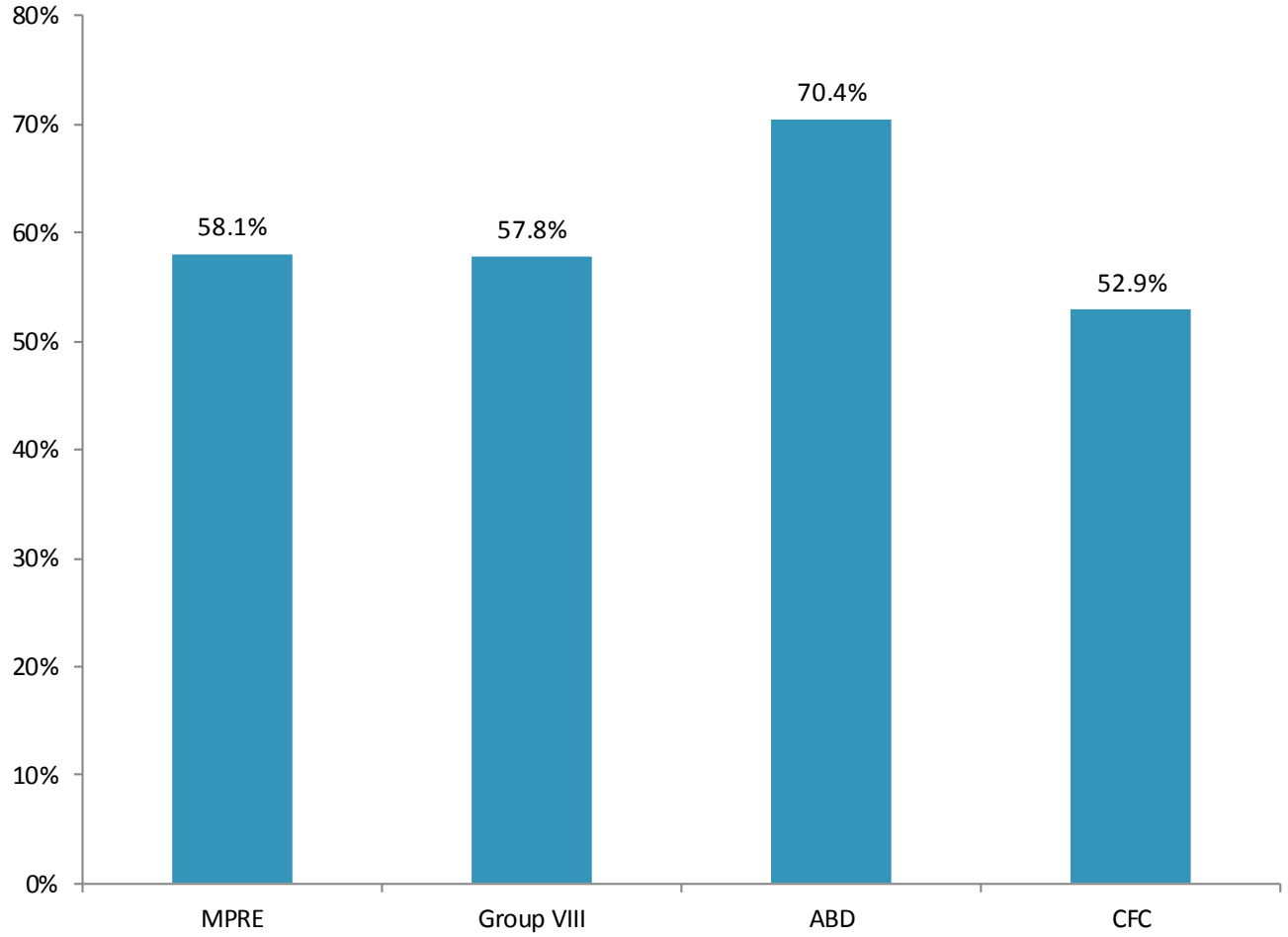
**Figure 7: Percent of MPRE and Group VIII enrollees with a primary OUD diagnosis receiving treatment by program, 2016-2017**




Source: Medicaid administrative data

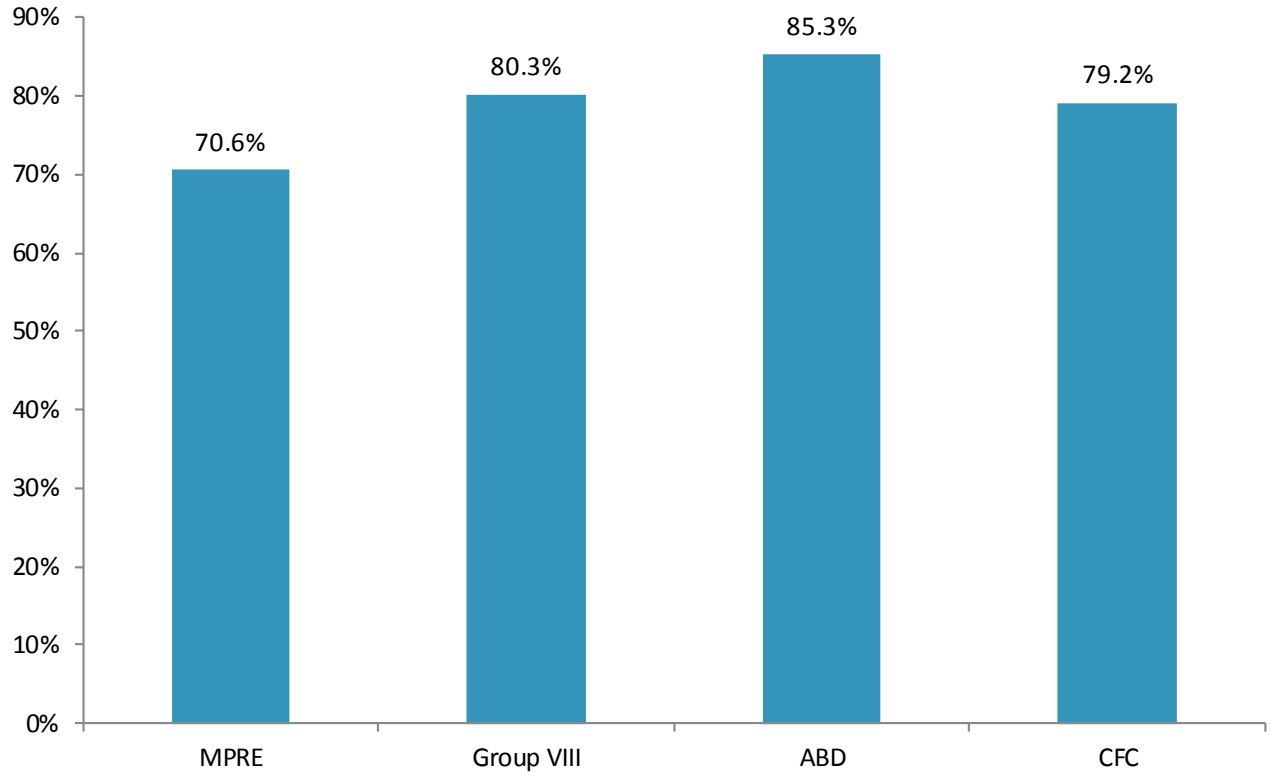
Figures 8-11 depict the percent of enrollees receiving medication for bipolar disorder (Figure 8), depression (figure 9), schizophrenia/psychosis (figure 10), and receiving any medication for any behavioral health condition (figure 10). Compared to Group VIII enrollees not enrolled through the MPRE program, medication rates were very similar for bipolar disorder and schizophrenia/psychosis among MPRE enrollees, but somewhat lower for depression (70.6% vs. 80.3%), and any treatment for any behavioral health condition (77.4 vs. 83.5%).

**Figure 8: Percent of Medicaid enrollees with a primary bipolar diagnosis receiving bipolar medication by program, 2016-2017**




Source: Medicaid administrative data
Categories are mutually exclusive; the Group VIII, CFC and ABD tabulations do not include individuals who enrolled through the MPRE program. MPRE enrollees comprise less than 2% of individuals in the Group VIII, CFC, and ABD programs.
Analysis of CFC and ABD enrollees limited to individuals age 19-64

**Figure 9: Percent of Medicaid enrollees with a primary depression diagnosis receiving depression medication by program, 2016-2017**

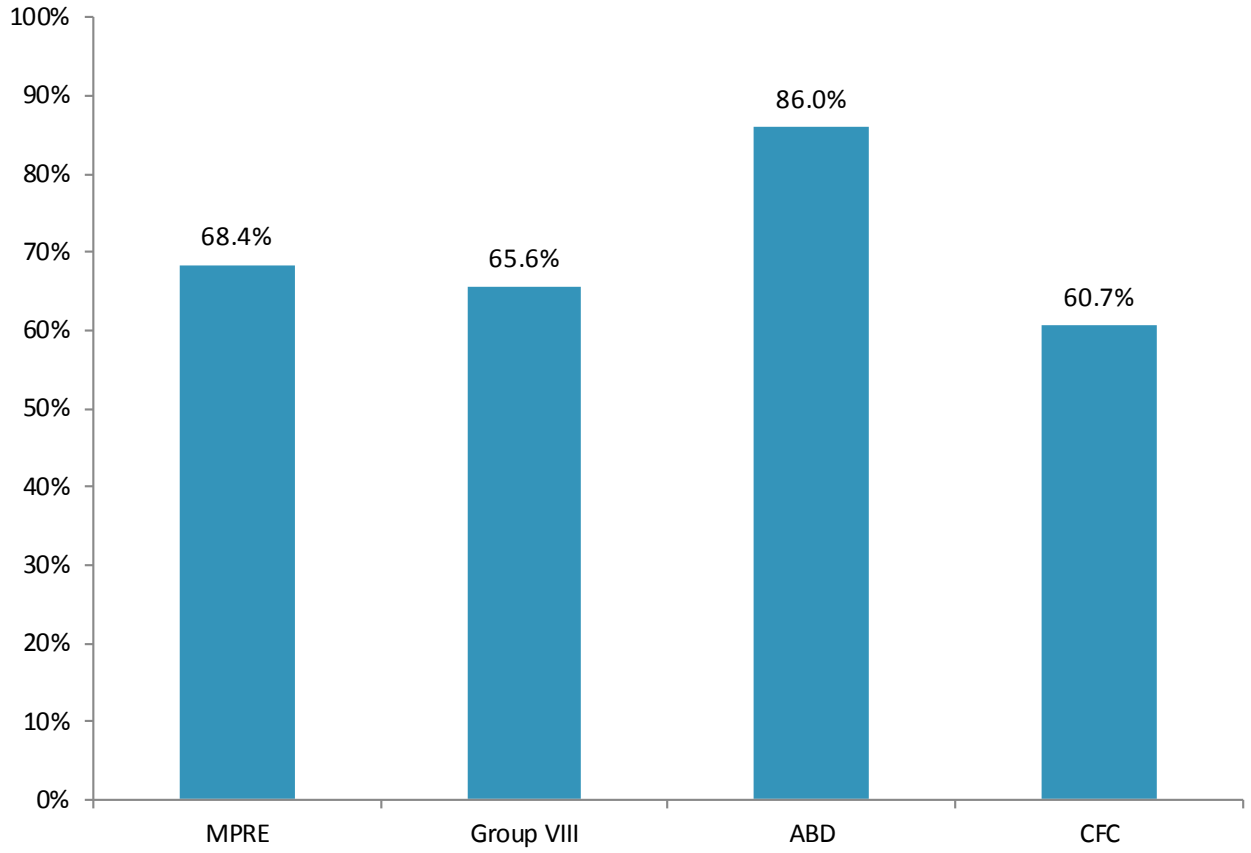



Source: Medicaid administrative data

Categories are mutually exclusive; the Group VIII, CFC and ABD tabulations do not include individuals who enrolled through the MPRE program. MPRE enrollees comprise less than 2% of individuals in the Group VIII, CFC, and ABD programs.

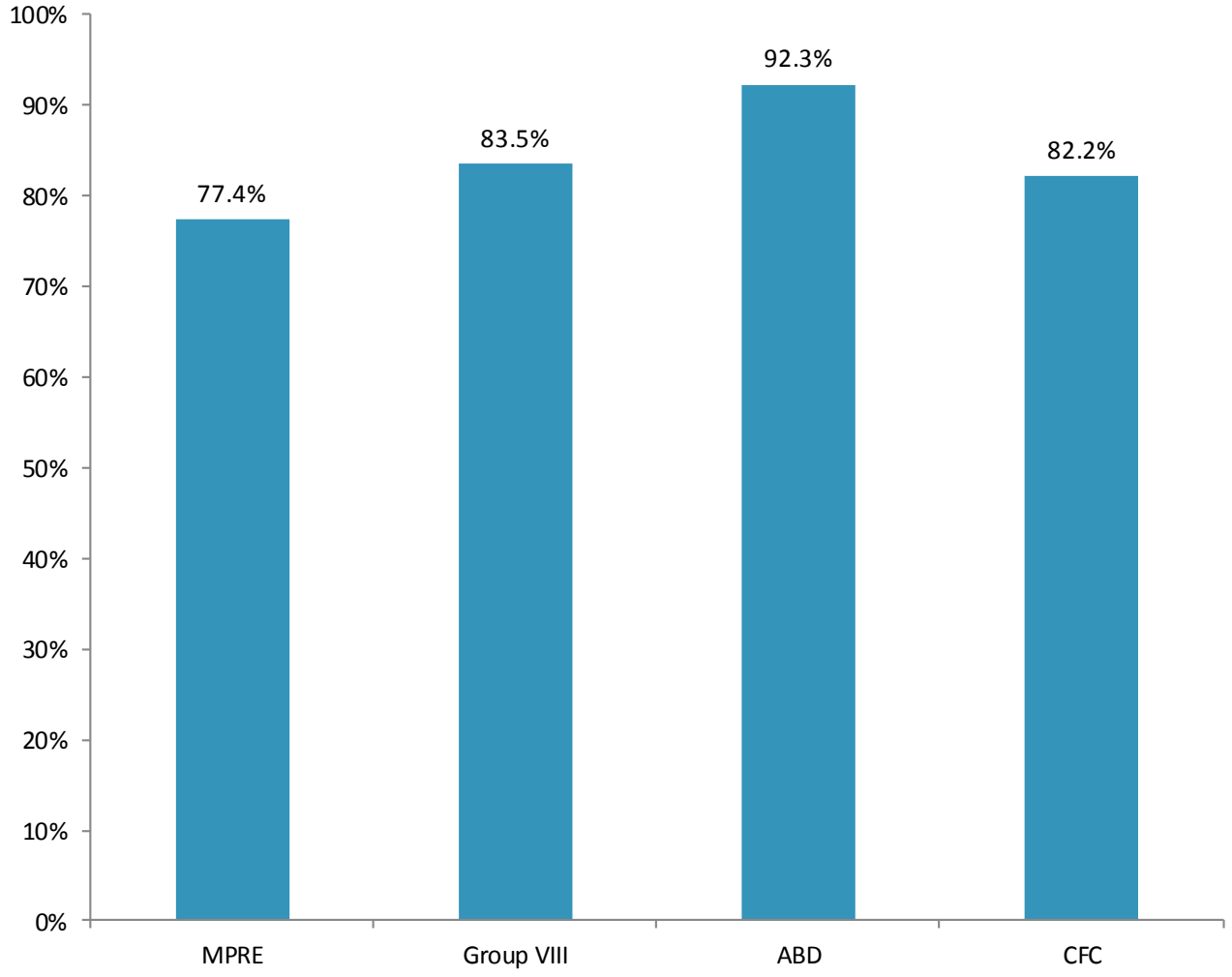
Analysis of CFC and ABD enrollees limited to individuals age 19-64

**Figure 10: Percent of Medicaid enrollees with a primary schizophrenia/psychosis diagnosis receiving schizophrenia/psychosis medication by program, 2016-2017**




Source: Medicaid administrative data
Categories are mutually exclusive; the Group VIII, CFC and ABD tabulations do not include individuals who enrolled through the MPRE program. MPRE enrollees comprise less than 2% of individuals in the Group VIII, CFC, and ABD programs.
Analysis of CFC and ABD enrollees limited to individuals age 19-64

**Figure 11: Percent of Medicaid enrollees with any primary behavioral health diagnosis receiving behavioral health medication by program, 2016-2017**

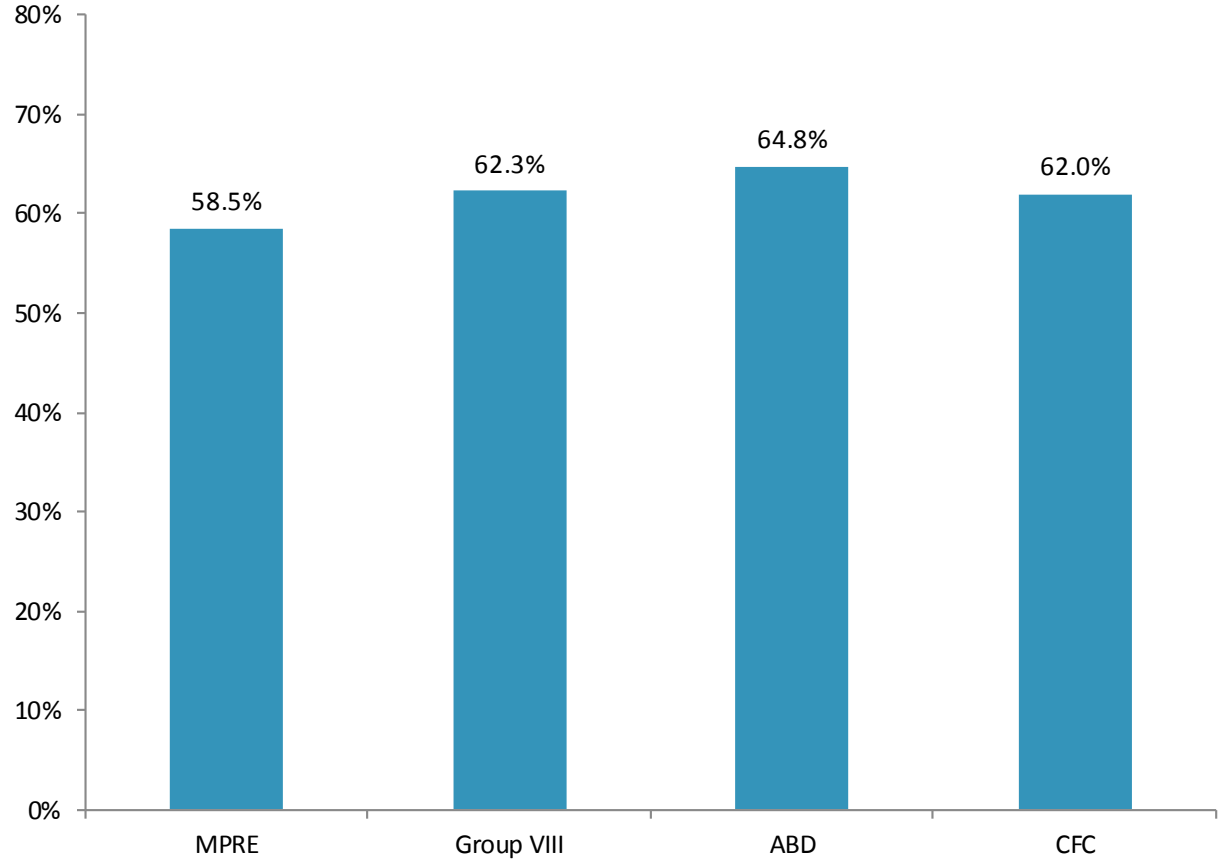



Source: Medicaid administrative data
Categories are mutually exclusive; the Group VIII, CFC and ABD tabulations do not include individuals who enrolled through the MPRE program. MPRE enrollees comprise less than 2% of individuals in the Group VIII, CFC, and ABD programs.
Analysis of CFC and ABD enrollees limited to individuals age 19-64
Behavioral health diagnosis in this analysis is defined as bipolar disorder, depression, and schizophrenia/psychosis.

## VI. Chronic Condition Utilization

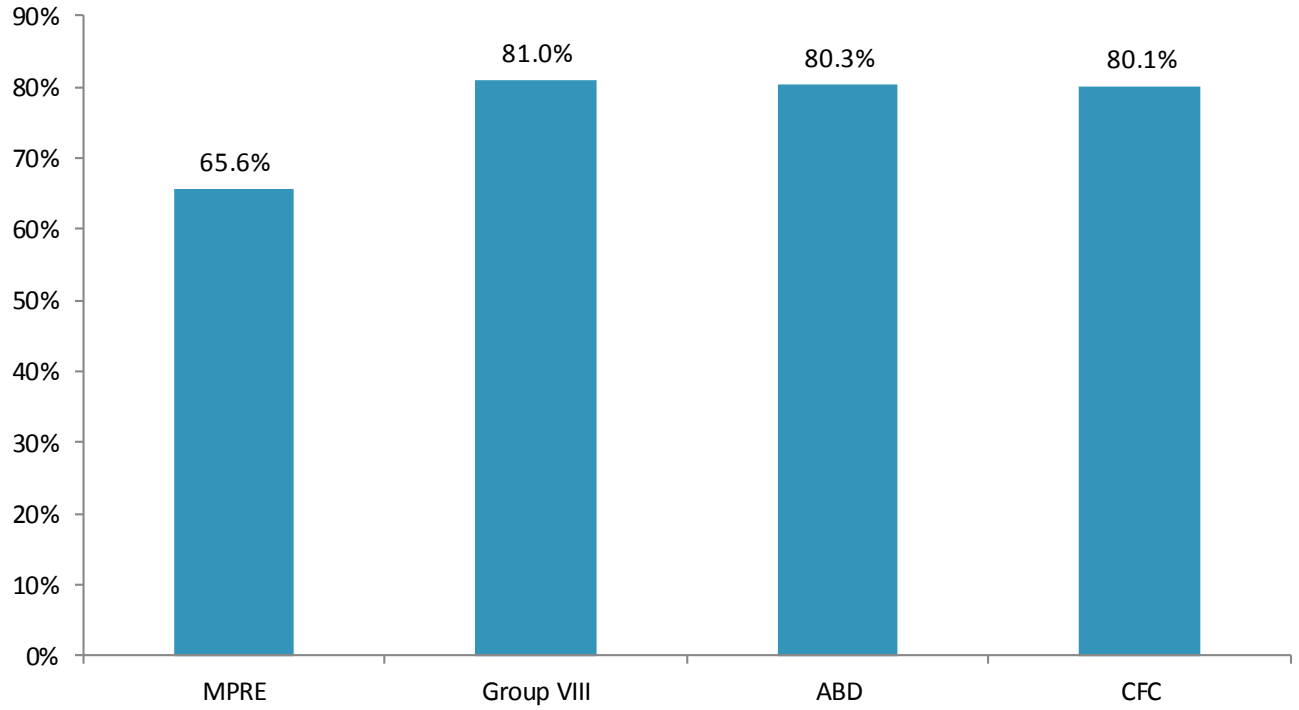
Chronic conditions, such as diabetes and cardiovascular disease, can lower life expectancy and increase the cost of care, particularly if not properly treated. Evidence-based treatment for Medicaid enrollees with chronic conditions thus promotes population health and improves the efficiency of the Medicaid program. Figures 12-20 depict the results of analyses comparing screening and medication treatment rates for MPRE enrollees and other adult full-benefit enrollees for diabetes, hypertension, coronary artery disease, high cholesterol, congestive heart failure, and myocardial infarction.

**Figure 12: Percent of Medicaid enrollees with a primary diabetes diagnosis receiving diabetes medication by program, 2016-2017**



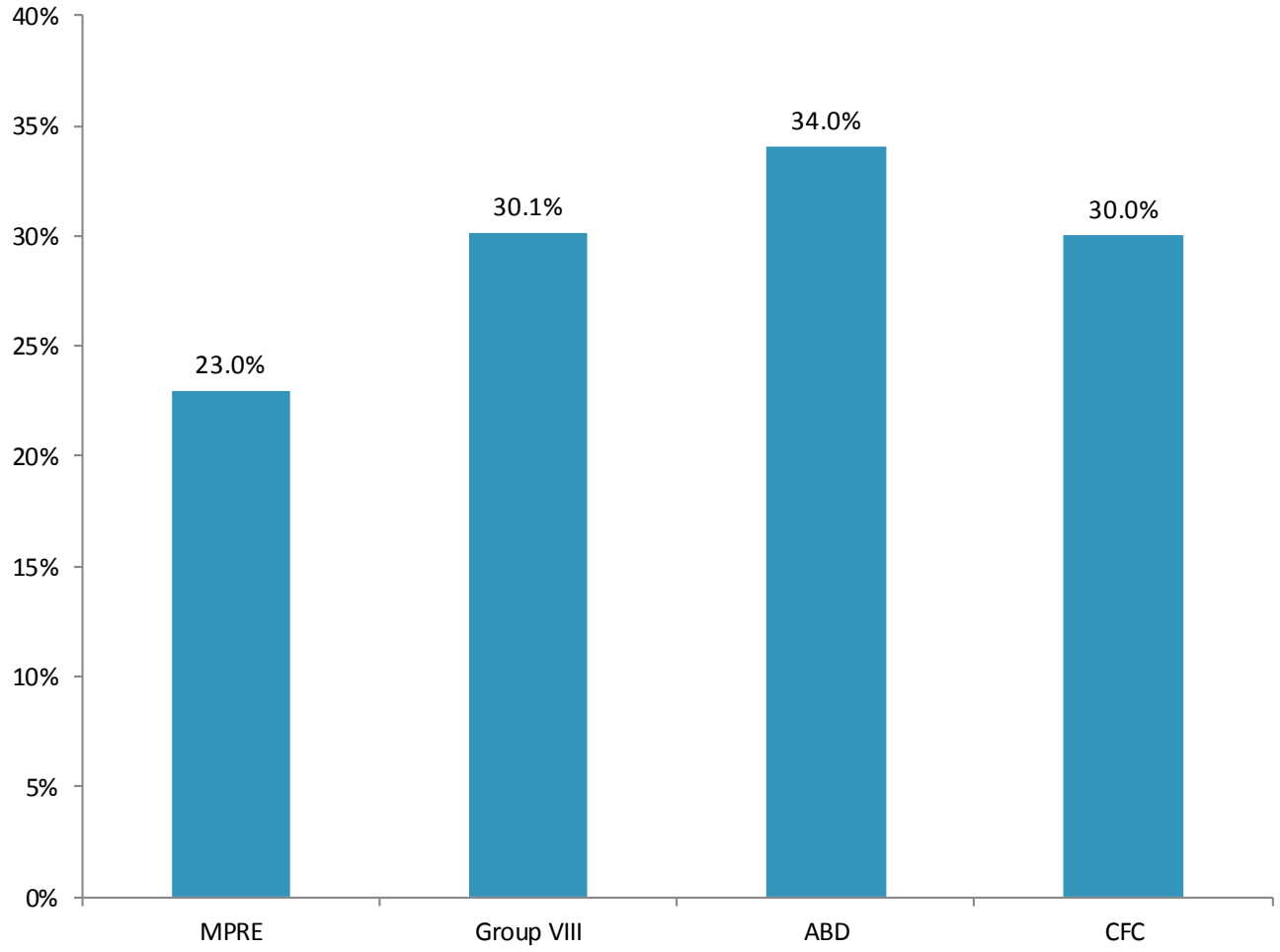

Source: Medicaid administrative data
Categories are mutually exclusive; the Group VIII, CFC and ABD tabulations do not include individuals who enrolled through the MPRE program. MPRE enrollees comprise less than 2% of individuals in the Group VIII, CFC, and ABD programs.
Analysis of CFC and ABD enrollees limited to individuals age 19-64

**Figure 13: Percent of Medicaid enrollees with a primary diabetes diagnosis receiving retinal screening by program, 2016-2017**



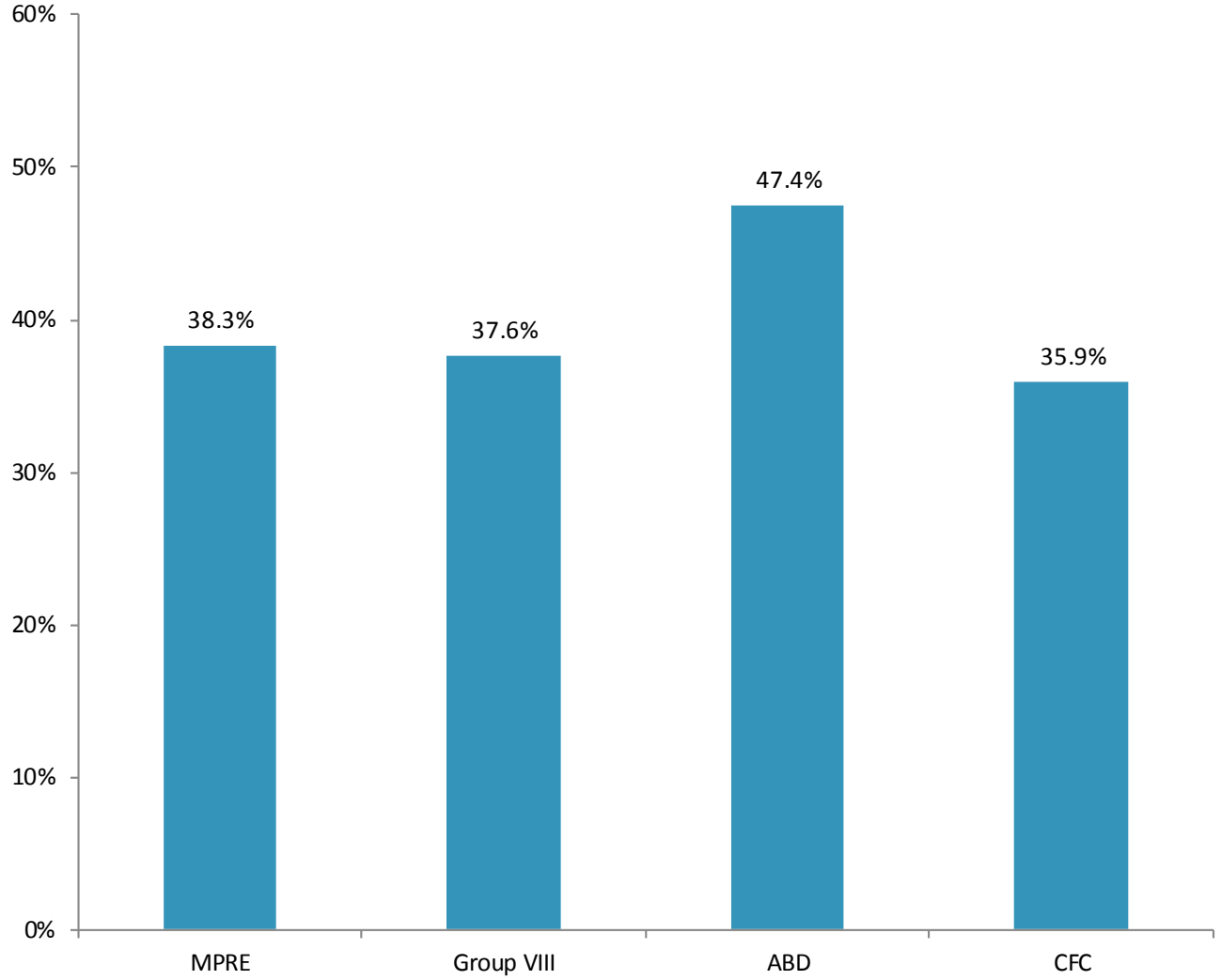

Source: Medicaid administrative data
Categories are mutually exclusive; the Group VIII, CFC and ABD tabulations do not include individuals who enrolled through the MPRE program. MPRE enrollees comprise less than 2% of individuals in the Group VIII, CFC, and ABD programs.
Analysis of CFC and ABD enrollees limited to individuals age 19-64

**Figure 14: Percent of Medicaid enrollees with a primary diabetes diagnosis receiving HbA1c by program, 2016-2017**




Source: Medicaid administrative data
Categories are mutually exclusive; the Group VIII, CFC and ABD tabulations do not include individuals who enrolled through the MPRE program. MPRE enrollees comprise less than 2% of individuals in the Group VIII, CFC, and ABD programs.
Analysis of CFC and ABD enrollees limited to individuals age 19-64

**Figure 15: Percent of Medicaid enrollees with a primary hypertension diagnosis receiving hypertension medication by program, 2016-2017**

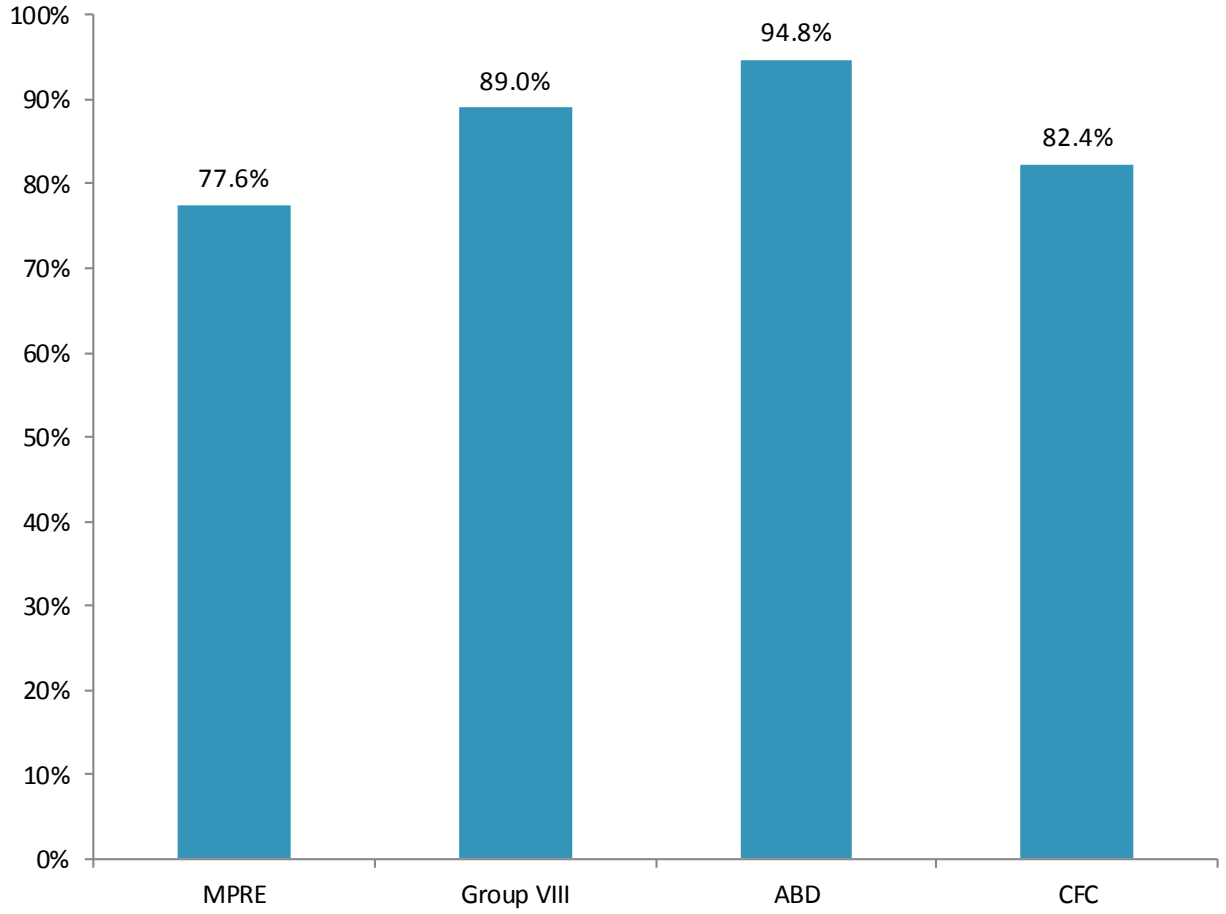



Source: Medicaid administrative data

Categories are mutually exclusive; the Group VIII, CFC and ABD tabulations do not include individuals who enrolled through the MPRE program. MPRE enrollees comprise less than 2% of individuals in the Group VIII, CFC, and ABD programs.

Analysis of CFC and ABD enrollees limited to individuals age 19-64

**Figure 16: Percent of Medicaid enrollees with a primary coronary artery disease diagnosis receiving coronary artery disease medication by program, 2016-2017**

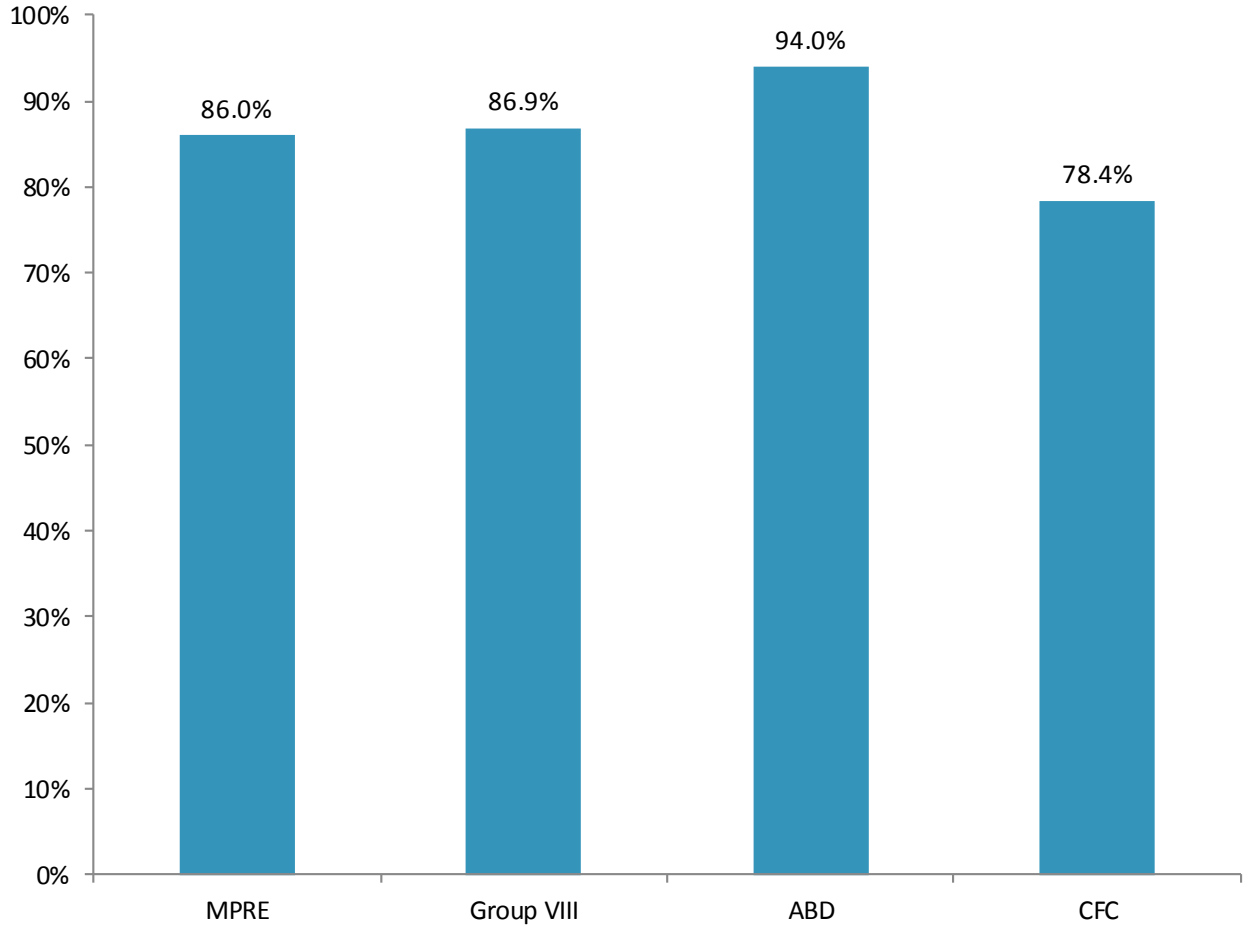



Source: Medicaid administrative data

Categories are mutually exclusive; the Group VIII, CFC and ABD tabulations do not include individuals who enrolled through the MPRE program. MPRE enrollees comprise less than 2% of individuals in the Group VIII, CFC, and ABD programs.

Analysis of CFC and ABD enrollees limited to individuals age 19-64

**Figure 17: Percent of Medicaid enrollees with a primary congestive heart failure diagnosis receiving congestive heart failure medication by program, 2016-2017**

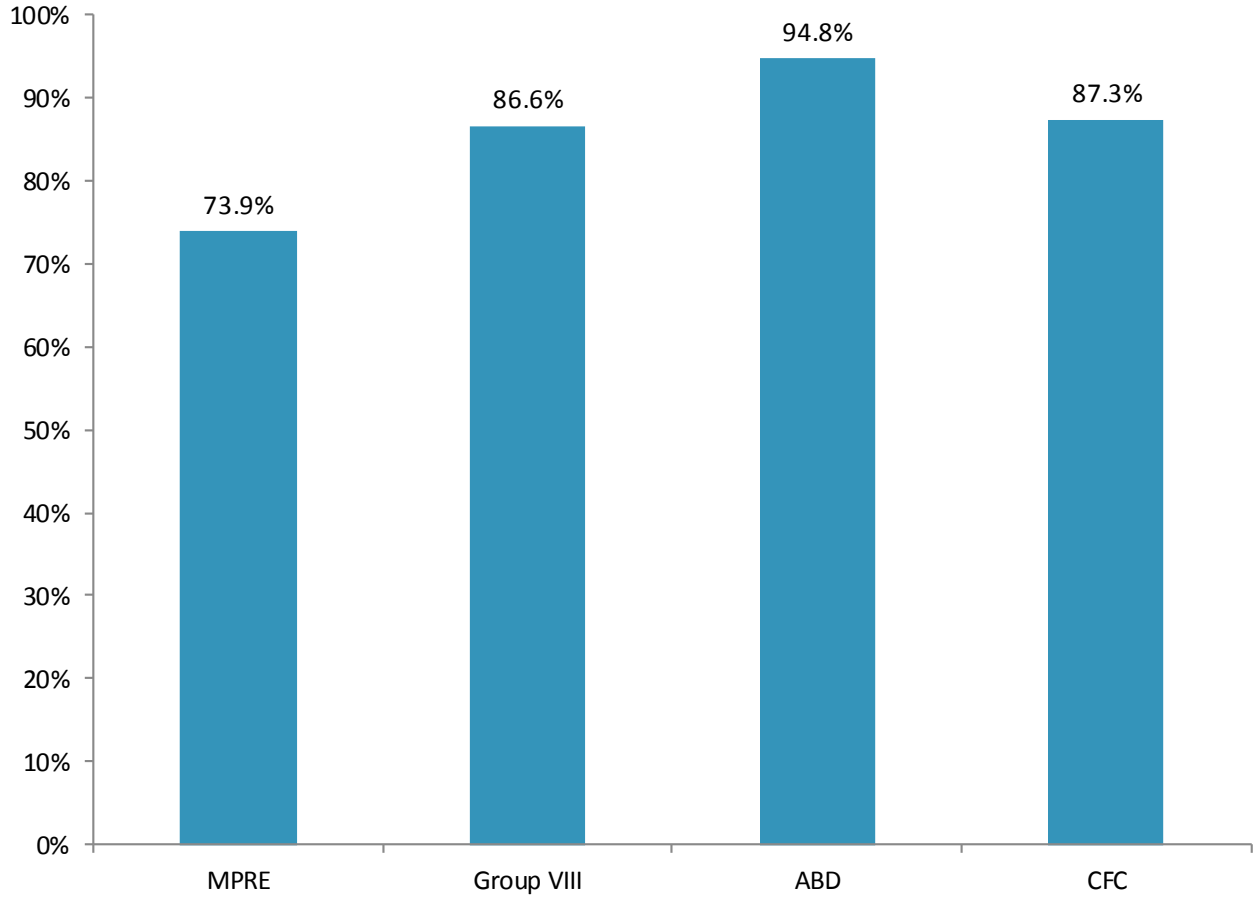



Source: Medicaid administrative data

Categories are mutually exclusive; the Group VIII, CFC and ABD tabulations do not include individuals who enrolled through the MPRE program. MPRE enrollees comprise less than 2% of individuals in the Group VIII, CFC, and ABD programs.

Analysis of CFC and ABD enrollees limited to individuals age 19-64

**Figure 18: Percent of Medicaid enrollees with a primary myocardial infarction diagnosis receiving appropriate medication by program, 2016-2017**

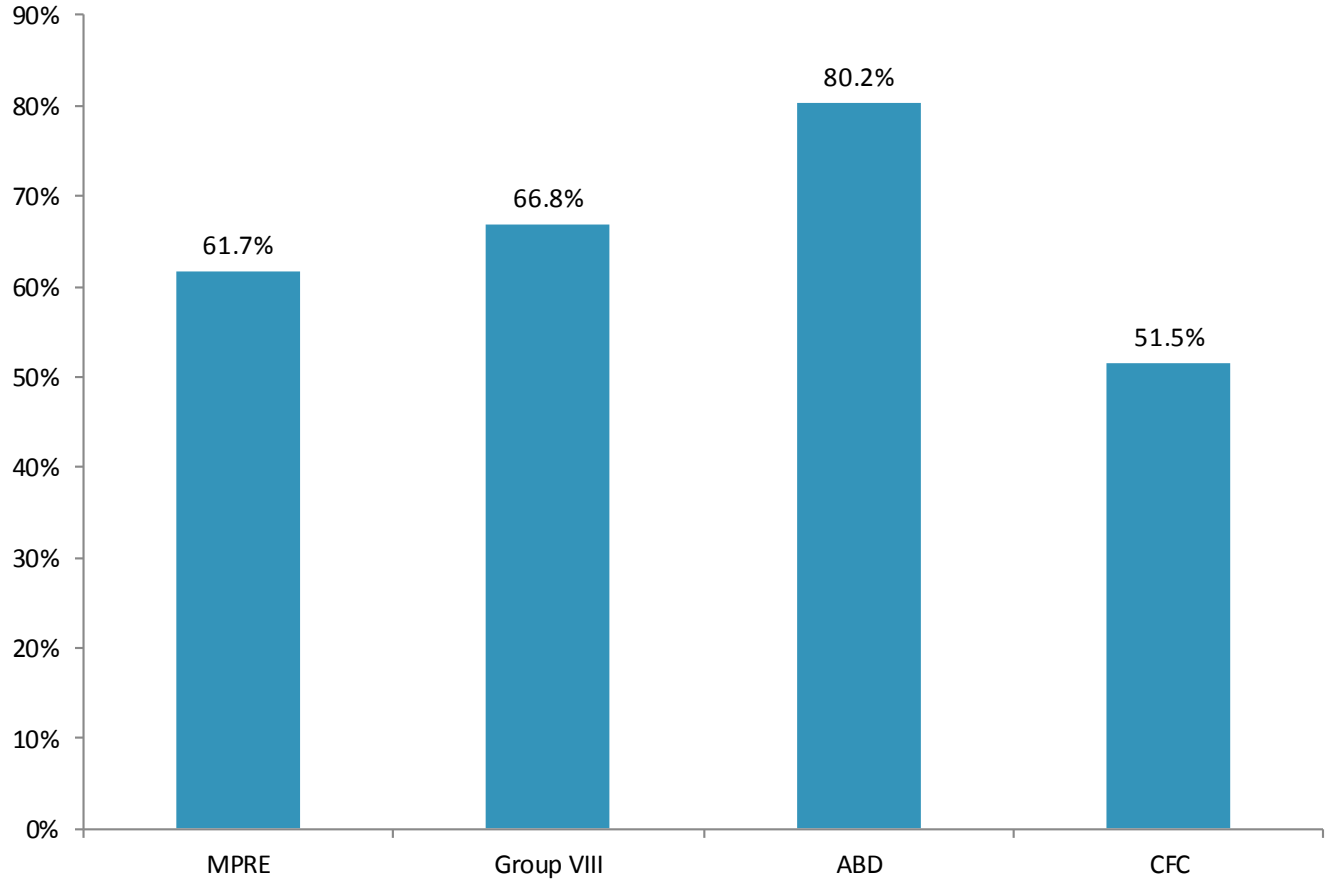



Source: Medicaid administrative data

Categories are mutually exclusive; the Group VIII, CFC and ABD tabulations do not include individuals who enrolled through the MPRE program. MPRE enrollees comprise less than 2% of individuals in the Group VIII, CFC, and ABD programs.

Analysis of CFC and ABD enrollees limited to individuals age 19-64

**Figure 19: Percent of Medicaid enrollees with any high cholesterol diagnosis receiving medication for high cholesterol by program, 2016-2017**

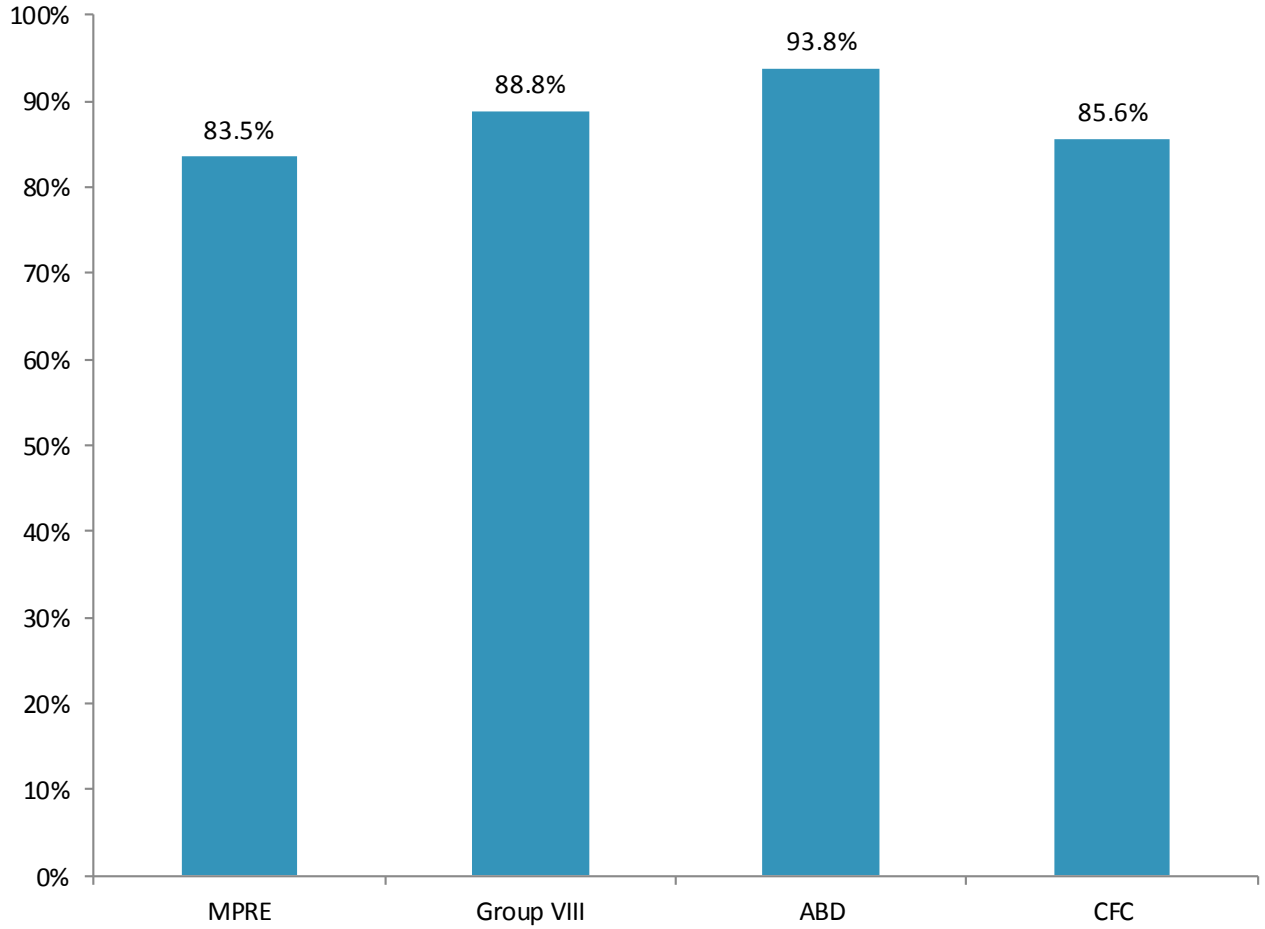



Source: Medicaid administrative data

Categories are mutually exclusive; the Group VIII, CFC and ABD tabulations do not include individuals who enrolled through the MPRE program. MPRE enrollees comprise less than 2% of individuals in the Group VIII, CFC, and ABD programs.

Analysis of CFC and ABD enrollees limited to individuals age 19-64.

**Figure 20: Percent of Medicaid enrollees with any cardiovascular disease diagnosis receiving medication for cardiovascular disease by program, 2016-2017**




Source: Medicaid administrative data
Categories are mutually exclusive; the Group VIII, CFC and ABD tabulations do not include individuals who enrolled through the MPRE program. MPRE enrollees comprise less than 2% of individuals in the Group VIII, CFC, and ABD programs.
Analysis of CFC and ABD enrollees limited to individuals age 19-64.
Analysis includes the combined results for figure 15-19.

## Appendix: Notes on Research Methods

This appendix provides additional information regarding the methodology and medical billing codes used to conduct the OMRES Administrative Review. Please direct any additional questions about the analyses and methodology to Michael Nau at the Ohio Colleges of Medicine Government Resource Center (614-688-6923, michael.nau@osumc.edu).

**Inclusion and Attribution of Enrollees to Medicaid Programs**

For analyses using only enrollment data (i.e. Figures 1 and 2), all participants in the Aged, Blind, and Disabled (ABD) program are included. For all analyses which used Medicaid claims, individuals who were dual eligible, Qualified Medicare Beneficiary (QMB), or Specified Low-Income Medicare Beneficiary (SLMB) are excluded. Program attribution is based on the most recent enrollment status; for analyses of enrollment patterns this is July 2018, and for analyses of utilization patterns this is December 2017.

*Group VIII (Aid Category Code):*

4112,4113,4114,4115,4145,4146,4147,4148,4149,4150,4151,4152,4153,4154,4155,
4156,4157,4158,4159,4160,4161,4162,4163,4164,4165,4166,4167,4168,6209,6210,
6211,6212,6213,6214,6215,6216,6217,6218,6219,6220

*Full ABD (Aid Category Code):*

1001,1002,1003,1004,1005,1006,1007,1008,1009,1010,1011,1012,1013,1014,1015,
1016,1017,1018,1019,1020,1021,1022,1023,1102,1103,1104,1108,1110,1116,1117,
1118,1120,1121,1122,1123,1124,1601,1602,1603,1604,1605,1606,1607,1608,1609,
1610,1611,1612,1613,1614,1615,1616,1617,1618,1619,1620,1621,1622,1623,1624,
1625,1626,1627,1628,1629,1630,1631,1632,1633,1634,1635,1636,1637,1638,1639,
1640,1641,1642,2001,2002,2003,2004,2005,2006,2007,2008,2009,2010,2011,2012,
2013,2014,2015,2016,2017,2018,2019,2020,2021,2022,2023,2024,2102,2103,2104,
2108,2110,2116,2117,2118,2120,2121,2122,2123,2124,2601,2602,2603,2604,2605,
2606,2607,2608,2609,2610,2611,2612,2613,2614,2615,2616,2617,2618,2619,2620,
2621,2622,2623,2624,2625,2626,2627,2628,2629,2630,2631,2632,2633,2634,2635,
2636,2637,2638,2639,2640,2641,2642,3001,3002,3003,3004,3005,3006,3007,3008,
3009,3010,3011,3012,3013,3014,3015,3016,3017,3018,3019,3020,3021,3022,3023,
3024,3025,3026,3027,3053,3054,3055,3056,3057,3102,3103,3104,3108,3110,3116,
3117,3118,3120,3121,3122,3123,3124,3601,3602,3603,3604,3605,3606,3607,3608,
3609,3610,3611,3612,3613,3614,3615,3616,3617,3618,3619,3620,3621,3622,3623,
3624,3625,3626,3627,3628,3629,3630,3631,3632,3633,3634,3635,3636,3637,3638,
3639,3640,3641,3642,3643,3644,3645,3646,3647,4001,4002,4003,4004,4005,4006,
4007,4008,4009,4601,4602,4603,4604,4605,4606,4607,4608,4609,4610,4611,4612,
4613,4614,4615,4616,4617,4618,4619,4620,4621,4622,4623,4624,4625,4626,4627,
4628,4629,4630,4631,4632,4633,4634,4635,4636,4637,4638,4639,4640,4641,4642,
4643,4644,4645,4646,4647,6401,6402,6403,6404,6405,6406,6407,6408,6409,6410,
6411,6412,6413,6414,6415,6416,6417,6418.

*ABD excluding Duals, QMB, SLMB (Aid Category Code):*

4001,4002,4003,4004,4005,4006,4007,4008,4009,4601,4602,4603,4604,4605,4606,
4607,4608,4609,4610,4611,4612,4613,4614,4615,4616,4617,4618,4619,4620,4621,
4622,4623,4624,4625,4626,4627,4628,4629,4630,4631,4632,4633,4634,4635,4636,
4637,4638,4639,4640,4641,4642,4643,4644,4645,4646,4647,6401,6402,6403,6404,
6405,6406,6407,6408,6409,6410,6411,6412,6413,6414,6415,6416,6417,6418.

*CFC (Aid Category Code):*

4011,4012,4013,4014,4015,4016,4017,4018,4019,4020,4021,4022,4023,4024,4025,
4026,4027,4051,4052,4053,4054,4055,4056,4057,4102,4103,4104,4108,4110,4116,
4117,4118,4120,4121,4122,4123,4124,4143,4144,5013,6201,6202,6203,6204,6205,
6206,6207,6208,6255,6256.

**Identification of ED and Inpatient Claims**

Emergency Department claims were identified by the following revenue codes: 0450, 0451, 0456, 0459, 0981. Inpatient claims were identified by the following claim type code: "I".

**Comorbidity Analyses**

Having a chronic condition was defined as having a hypertension, diabetes, or high cholesterol diagnosis, and having a mental health condition was defined as having a diagnosis for bipolar disorder, ADHD, Depression, or Schizophrenia/psychosis. The value sets for these analyses are listed below in the sections "Diabetes Utilization Analyses", "Mental and Behavioral Health Utilization Analyses", and "Cardiovascular Disease Utilization Analyses".

**Opioid Use Disorder (OUD) and Substance Use Disorder (SUD) Utilization Analyses**

The substance use disorder analyses in this administrative review utilized standardized International Classification of Diseases (ICD), Healthcare Common Procedure Coding System (HCPCS), National Drug Code (NDC) and Current Procedural Terminology (CPT) code value sets produced through Ohio Medicaid's Behavioral Health Redesign process. The value sets for constructing the measures are as follows (Note that "x" means all sub-codes under the parent code, e.g. 304.0x is 304.00, 304.01, etc.):

1) Substance Use Disorder Diagnosis (SUD)
    - ICD-9: 291.x, 292.x, 303.x, 304.1x, 304.2x, 304.3x, 304.4x, 304.5x, 304.6x, 304.8x, 304.9x, 305.0x, 305.1, 305.2x, 305.3x, 305.4x, 305.6x, 305.7x, 305.8x, 305.9x
    - ICD-10: F10.x, F12.x, F13.x, F14.x, F15.x, F16.x, F17.x, F18.x, F19.x

2) Opioid Use Disorder Diagnosis (OUD)
    - ICD-9: 304.0x, 305.5x, 304.7x
    - ICD-10: F11.x

3) Medication-Assisted Treatment (MAT):
    - Pharmacy: NDCs for methadone, buprenorphine, buprenorphine/naloxone, and naltrexone
    - Office-based administrations at community mental health centers and SUD treatment centers (HCPCS): J0571, J0572, J0573, J0574, J0575, J2315, J8499, H0020, S5000, S5001

4) Psychosocial Treatment for Depression
    - CPT & HCPCS codes: H0004, H0006, H0036, H0047, S0201, S0281, S9484, 90792, 90801, 90863, 90785, 90791, 90804, 90806, 90808, 90810, 90812, 90814,90832, 90833, 90834, 90837, 90839, 90840, 90846, 90847, 90849, 90853, 90899, H0040, H2012, H2015, H2017, H2019, H2020, 90836, 90838

5) Psychosocial Treatment for OUD
    - CPT & HCPCS codes: H0001, H0004, H0005, H0006, H0007, H0014, H0015, H0036, H0047, S0201, S0281, S9484, 90792, 90801, 90863, 90785, 90791, 90804, 90806, 90808, 90810, 90812, 90814,90832, 90833, 90834, 90837, 90839, 90840, 90846, 90847, 90849, 90853, 90899, H0010, H0011, H0012, H0038, H0040, H2012, H2015, H2017, H2019, H2020, H2034, H2036, 90836, 90838

**Diabetes Utilization Analyses**

The following ICD, CPT and HCPCS codes were used for the Diabetes utilization analyses:

*Diabetes Diagnosis (ICD-10):*

E1010,E1011,E1021,E1022,E1029,E10311,E10319,E10321,E10329,E10331,E10339,E10341,E10349, E10351,E10359,E1036,E1039,E1040,E1041,E1042,E1043,E1044,E1049,E1051,E1052,E1059,E10610, E10618,E10620,E10621,E10622,E10628,E10630,E10638,E10641,E10649,E1065,E1069,E108,E109, E1100,E1101,E1121,E1122,E1129,E11311,E11319,E11321,E11329,E11331,E11339,E11341,E11349, E11351,E11359,E1136,E1139,E1140,E1141,E1142,E1143,E1144,E1149,E1151,E1152,E1159,E11610, E11618,E11620,E11621,E11622,E11628,E11630,E11638,E11641,E11649,E1165,E1169,E118,E119, E1300,E1301,E1310,E1311,E1321,E1322,E1329,E13311,E13319,E13321,E13329,E13331,E13339, E13341,E13349,E13351,E13359,E1336,E1339,E1340,E1341,E1342,E1343,E1344,E1349,E1351,E1352, E1359,E13610,E13618,E13620,E13621,E13622,E13628,E13630,E13638,E13641,E13649,E1365,E1369, E138,E139,E10649,E1065,E11649,E1165,25002,25003.

*Retinal Screening (CPT & HCPCS Codes):*

67028,67030,67031,67036,67039,67040,67041,67042,67043,67101,67105,67107,67108,67110,67112, 67113,67121,67141,67145,67208,67210,67218,67220,67221,67227,67228,92002,92004,92012,92014, 92018,92019,92134,92226,92226,92227,92228,92230,92235,92240,92250,92260,99203,92204,92205, 99213,99214,99215,99242,99243,99244,99245,S0620,S0621,S3000.

*HbA1c Testing (CPT codes):*

83036,83037,3044F,3045F,3046F.

**Behavioral Health Utilization Analyses**

The following ICD, HCPCS, and therapeutic class codes were used in the behavioral health utilization analyses:

*Bipolar Diagnosis (ICD 9 & 10):*

2960,2961,2964,2965,2966,2967,2968,2969,30113,F30,F31,F34,F39.

*ADHD Diagnosis (ICD 9 & 10, value set consists of code stems, not full codes):*

31400,31401,3142,F90.

*Depression Diagnosis (ICD 9 & 10, value set consists of code stems, not full codes):*

2962,2963,3004,311,F32,F33.

*Schizophrenia/Psychosis Diagnosis (ICD 9 & 10, value set consists of code stems, not full codes):*

29510,2952,29530,29560,29570,29590,2970,2971,2972,2973,2983,2984,2988,2989,30122,F2.

*Therapeutic class codes for bipolar, antidepressants, and antipsychotic medications:*

*Bipolar Medication:*

H2M,H4B.

*Antidepressant Medication:*

H2H,H2S,H2U,H7B,H7C,H7D,H7E,H7J,H7Z,H8P,H8T.

*Antipsychotic Medication:*

H2G,H7O,H7P,H7R,H7S,H7T,H7U,H7W,H7X,H8W,H8Y.

*Schizophrenia Medication (HCPCS codes):*

J0400,J0401,J1630,J1631,J2358,J2426,J2680,J2794.

**Cardiovascular Disease Utilization Analyses**

The following ICD and therapeutic class codes were used in the cardiovascular disease utilization analyses:

*Essential Hypertension Diagnosis (ICD-10):*

I10

*High Cholesterol Diagnosis (ICD-10):*

2720,E780,E7800,E7801

*Coronary Artery Disease Diagnosis (ICD-10):*

I200,I201,I208,I209,I209,I237,I240,I241,I248,I249,I2510,I25110,I25118,I25119,I252,I255,I256,I25750,I25751,I25758,I25759,I25811,I2582,I2583,I2584,I2589,I259,Z951,Z955,Z9861.

*Congestive Heart Failure Diagnosis (ICD-10):*

I509,I5043,I5042,I5041,I5040,I5033,I5032,I5031,I5030,I5023,I5023,I5020,I501,I0981.

*Myocardial Infarction Diagnosis (ICD-10):*

I2101,I2102,I2109,I2111,I2119,I2121,I2129,I213,I214,I220,I221,I222,I228,I229.

*Therapeutic class codes for Hypertension, Cholesterol, and Coronary Artery Disease medication*

*Hypertension Medication:*

A4A,A4B,A4C,A4D,A4F,A4H,A4I,A4J,A4K,A4L,A4T,A4U,A4W,A4X,A4Y,A4Z,A7B,A7J,A9A,J7A,J7B,J7C,J7H,R1F,R1H,R1L,R1M.

*High Cholesterol Medication*[iv]*:*

M4D,M4E,M4I,M4L,M4M,M4Q,M4T.

*Coronary Artery Disease:*

A2B,A2C,A4A,A4B,A4C,A4D,A4F,A4H,A4I,A4J,A4K,A4L,A4T,A4U,A4W,A4X,A4Y,A4Z,A7B,A7J,A9A,D7L,J7A,J7C,J7H,M4D,M4E,M4I,M4L,M4M,M9L,M9P.

[iv] Note: Statin Therapy and Dyslipidemia NDC codes were also used to identify cholesterol medication. These value sets are not included in this document in order to conserve space but are available upon request (please contact Michael Nau, michael.nau@osumc.edu).