

# Medications for Opioid Use Disorder (MOUD) Utilization and Retention among New Jersey Medicaid Beneficiaries 2016 – 2019

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# MOUD Utilization and Retention among NJ Medicaid Beneficiaries

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# Executive Summary

The opioid crisis has struck New Jersey particularly hard – an estimated 0.7% of the population meets diagnostic criteria for opioid use disorder (OUD), and the state ranks 8<sup>th</sup> in the nation in overdose deaths. Additionally, synthetic opioids, primarily fentanyl and its analogs, have increasingly contaminated the drug supply in the state, heightening the importance of evidence-based approaches to address the crisis. One approach to meeting the needs of individuals diagnosed with OUD, backed by decades of strong evidence, is through the use of medications for opioid use disorder (MOUD), such as methadone, buprenorphine, and naltrexone.

As part of a suite of policies enacted to address the opioid crisis, New Jersey has taken steps to support access to and utilization of MOUD among Medicaid beneficiaries, including elimination of prior authorization requirements for MOUD prescription, enhanced reimbursement for the provision of buprenorphine through the state’s office-based addiction treatment (OBAT) program, and reimbursement for peer support and patient navigation services from MOUD providers. This chartbook provides preliminary data on the utilization of MOUD in New Jersey between 2016 and 2018, to establish a baseline for understanding the opioid crisis, and the impact of the policies enacted to curb its impact.

The charts in this book are primarily based on Medicaid claims data from 2016 to 2019, and record several measures of MOUD utilization in New Jersey: 1, MOUD utilization among all Medicaid beneficiaries; 2, MOUD utilization among Medicaid beneficiaries with an OUD diagnosis; 3, MOUD initiation after an initial OUD diagnosis; 4, MOUD initiation after an opioid overdose; and 5, MOUD retention. In addition, the chartbook uses data from the Drug Enforcement Agency’s CSA registrants list to show recent trends in the number and characteristics of DATA-waived buprenorphine practitioners in the state.

## Key Findings:

- OUD diagnoses increased from 2016 to 2019, from 48.6 per 1,000 to 60.8 per 1,000 Medicaid enrollees. (*Figure 1*)
- MOUD utilization increased from 2016 to 2019, in the Medicaid population generally and among enrollees diagnosed with OUD. (*Figures 4 & 5*)
- Among those diagnosed with OUD in 2019, 58% of White beneficiaries used any MOUD, compared to 35.2% of Black beneficiaries (*Figure 6*)

## Executive Summary

- Use of particular medications (methadone vs. buprenorphine vs. naltrexone) changed over the study period, with methadone utilization decreasing with respect to the other, newer medications. (*Figure 8*)
- Type of MOUD utilized varied among racial/ethnic groups. Compared to White enrollees, Black and Hispanic enrollees used methadone at much higher rates, and buprenorphine and naltrexone at much lower rates. (*Figure 9*)
- MOUD initiation within 180 days of a new OUD diagnosis or medically treated opioid overdose increased from 2016 – 2019, but remained relatively low. In 2019, 14.7% of beneficiaries initiated MOUD within 180 days of a new OUD diagnosis and 16% initiated MOUD within 180 days of an opioid overdose. (*Figures 10 & 12*)
- 180-day retention in MOUD varied considerably by medication and mode of delivery (methadone – 63.5%; buprenorphine – 41.4%; injectable naltrexone – 21.8%; oral naltrexone – 12.1%). (*Figure 14*)
- Retention in MOUD was higher among White beneficiaries compared to all other racial/ethnic groups. (*Figure 16*)
- The number of DATA-waived buprenorphine practitioners in New Jersey increased by 11.5% from the 4th quarter of 2019 to the third quarter of 2020 (2,190 to 2,442). An increasing share of practitioners are mid-level providers and have higher waiver limits (100 and 275 compared to 30). (*Figures 17, 18, 19, & 20*)

# Introduction

## Background

New Jersey has been among the states hardest hit by the opioid crisis, ranking 8<sup>th</sup> in the nation for drug overdose deaths in 2018 with an overdose mortality rate of 33.1 deaths per 100,000 population.<sup>1</sup> An estimated 0.7% of the New Jersey population aged 12 and older, or 65,000 individuals, have an opioid use disorder.<sup>2</sup> The drug environment has become increasingly dangerous in recent years as fentanyl and related analogs have rapidly penetrated the New Jersey drug supply, resulting in an increase in the percentage of suspected heroin seizures containing fentanyl from 7% in 2015 to 87% in the first quarter of 2020.<sup>3</sup>

High rates of opioid use disorder and overdose mortality, along with increasing contamination of the drug supply with fentanyl, point to the need for greater availability and utilization of evidence-based treatments, particularly medications for opioid use disorder (MOUD). The effectiveness of these medications, which include methadone, buprenorphine, and naltrexone, is supported by decades of research showing them to be the best available treatment for OUD.<sup>4</sup> Compared to other approaches alone or no treatment, patients who use MOUD are retained in services longer;<sup>5</sup> less likely to experience relapse or overdose;<sup>6,7,8</sup> experience a dramatic reduction in mortality;<sup>9</sup> and face lower risk of infections and other medical conditions,<sup>10</sup> among other beneficial outcomes.

## Chartbook Description

This chartbook presents baseline information about the utilization of various pharmacological treatments for OUD. The charts and tables within show how utilization of those treatments has changed over time, can inform policymakers about the potential impacts of what New Jersey has done, and help identify future opportunities to improve the health of individuals with OUD. These data also provide a baseline for future research in this area, to delve more deeply into the effects of the policies enacted by the State on MOUD utilization and outcomes for individuals receiving such treatments.

The tables that follow present an overview of MOUD utilization, initiation, retention, and disparities among New Jersey Medicaid beneficiaries from 2016 – 2019. Understanding MOUD utilization patterns in this population is critical given that Medicaid is the single largest payer of OUD treatment services, covering 38% of those with OUD nationally.<sup>11</sup> In New Jersey, 64% of individuals admitted for SUD treatment in 2018 were insured by Medicaid;<sup>12</sup> understanding the treatment patterns of this population can help identify gaps in care and needs of the largest group of individuals with OUD accessing treatment in the State. Additionally, the state-



# Introduction

administered nature of Medicaid provides powerful and varied policy levers for states to help individuals with OUD, and the Center for Health Services Research utilizes recent Medicaid administrative data to examine the potential effects of some of the most recent policies enacted by the State.

This chartbook is intended to characterize baseline trends in MOUD utilization in the period just before and during the introduction of innovative policies and programs intended to make MOUD more widely available were implemented in New Jersey. These policies include the elimination of the prior authorization for MOUD and initial implementation of Medicaid's Office-Based Addiction Treatment (OBAT) program, which provides enhanced reimbursement for office-based buprenorphine providers and covers patient navigation services that are critical for engaging and retaining patients in care long-term.

# Data Sources and Methodology

## Data

The chartbook utilizes Medicaid claims data from New Jersey, provided to the Rutgers Institute for Health, Center for State Health Policy (CSHP). These data include outpatient, inpatient, and emergency department (ED) services, filled prescriptions, diagnoses associated with each claim, and demographic characteristics. Claims cover services rendered to Medicaid beneficiaries from 2016 – 2019. Analyses are limited to individuals ages 18 – 64 because coverage of SUD treatment services differed for beneficiaries under age 18 until January 2019.<sup>13</sup> Beneficiaries dually eligible for Medicare due to age or disability are excluded because Medicare is the primary payer for those covered by both Medicaid and Medicare. As specified below, additional inclusion criteria may exist for each of the measures presented in this chartbook.

In addition to Medicaid claims data, this chartbook uses data from the Drug Enforcement Agency's (DEA) Controlled Substances Act (CSA) registrants list to show trends in the number and characteristics of practitioners waived to prescribe buprenorphine in New Jersey from late 2019 through mid-2020. Elements of this dataset include practitioners' names, addresses, waiver limits, and provider types. These data represent all DATA-waived practitioners in the state, including those not actively prescribing buprenorphine and those who do not treat Medicaid patients.

## MOUD Episode Calculation

Medication use calendars were created to show if and when individuals were receiving MOUD. We identified daily MOUD coverage by identifying prescriptions or administrations of methadone, buprenorphine, or naltrexone using CPT and HCPCS codes in medical claims and buprenorphine or naltrexone in pharmacy claims. For all unique Medicaid beneficiaries throughout the study period, daily indicators of buprenorphine coverage were created for each day of coverage. Days covered were based on the number of days supply of medication dispensed. For example, a prescription for buprenorphine with a 5-day supply filled on July 1<sup>st</sup> provided coverage for July 1<sup>st</sup> – July 5<sup>th</sup>. Where multiple prescriptions for the same medication were dispensed on the same or different days, with overlapping days supply, the days-supply of the longer prescription was used. Ends of episodes were marked by 30 or more consecutive days without medication coverage. MOUD episodes were identified separately for type of MOUD, categorized as methadone, buprenorphine, oral naltrexone, injectable naltrexone, or more than one type. Oral and injectable buprenorphine were combined because use of injectable buprenorphine in Medicaid was uncommon from 2016 – 2019. Oral naltrexone reflects

# Data Sources and Methodology

episodes that involved oral naltrexone only with no injectable naltrexone use during an episode. Episodes where oral naltrexone preceded, or was concurrent with injectable naltrexone, were categorized as injectable naltrexone. More than one type of MOUD includes one or more of methadone, buprenorphine, or naltrexone, but not more than one form of the same medication (e.g., oral and injectable naltrexone).

## Measures

The measures reported in this chartbook reflect utilization of MOUD and were selected based on prior literature, review of quality measures, and consultation with an expert panel and members of a Stakeholder Advisory Board comprised of health care providers, policymakers, and other stakeholders. The measures are:

### 1. *MOUD Utilization among All Beneficiaries*

This measure reports the percentage of beneficiaries ages 18 – 64 who utilized MOUD in the calendar year. Individuals were coded as utilizing MOUD if they filled at least one prescription or were administered or dispensed MOUD in the same calendar year. This definition was used to show overall change in utilization in Medicaid, while accounting for the estimated 30% of individuals who use MOUD and do not have a claim with an OUD diagnosis.<sup>14</sup>

### 2. *MOUD Utilization among Beneficiaries with OUD*

This measure reports the percentage of beneficiaries ages 18 – 64 with an OUD diagnosis who utilized MOUD in the calendar year. The denominator was restricted to beneficiaries with at least one encounter with a diagnosis of OUD during the year. Individuals were coded as utilizing MOUD if they filled at least one prescription or were administered or dispensed MOUD in the same calendar year. This definition aligns with NQF measure #3400 (Use of Pharmacotherapy for Opioid Use Disorder).<sup>15</sup>

### 3. *MOUD Initiation after New OUD Diagnosis*

This measure reports the percentage of beneficiaries ages 18 – 64 who utilized MOUD within 30, 90, and 180 days of a new OUD diagnosis in the calendar year. We defined new OUD diagnosis as the first diagnosis in the calendar year following at least 60 days without an OUD diagnosis or MOUD supply, consistent with the lookback period used in NQF measure #0004 (Initiation and Engagement of Alcohol and Other Drug Dependence Treatment)<sup>16</sup> and prior literature.<sup>17,18</sup> For beneficiaries with more than one

## Data Sources and Methodology

new OUD diagnosis in the year, only the first was included. Beneficiaries were required to have continuous enrollment in Medicaid for two months before, the month of, and six months after the new OUD diagnosis. New diagnoses had to occur before July 1, 2019 to allow 180-day follow-up. Individuals were coded as initiating MOUD if they filled at least one prescription or were administered or dispensed MOUD within 180 days of the new OUD diagnosis.

### *4. MOUD Initiation after Medically Treated Opioid Overdose*

This measure reports the percentage of beneficiaries ages 18 – 64 who utilized MOUD within 30, 90, and 180 days of medically treated opioid overdose in the calendar year. Opioid overdose was identified by ICD-10-CM diagnostic codes for opioid poisoning on ED, inpatient, and outpatient claims. Beneficiaries with a prior opioid overdose or MOUD supply in the preceding 60 days were excluded from the denominator and only the first overdose in a calendar year was included for individuals with more than one event. This lookback period was based on that used in established quality measures and prior literature.<sup>16,17</sup> Beneficiaries were required to have continuous enrollment in Medicaid for two months before, the month of, and six months after the index opioid overdose. New diagnoses had to occur before July 1, 2019 to allow 180-day follow-up. Individuals were coded as initiating MOUD if they filled at least one prescription or were administered or dispensed MOUD within 180 days of the index opioid overdose.

### *5. MOUD Retention*

This measure reports the number of days until discontinuation following initiation of an episode of care for MOUD. MOUD retention was calculated at the person-episode level, meaning that individuals could have more than one MOUD episode over the study period. Episodes were assigned to the year in which they began, even if they continued into a subsequent year. Episodes began on the day the first prescription was filled following a 30+ day period without medication coverage and ended if more than 30 days elapsed without medication coverage. The mean number of days individuals were retained on MOUD, stratified by type of medication, is presented. It is important to note that means calculated from available data that are shown in the chartbook are likely lower than actual means, because MOUD episodes that continued beyond 2019 were censored, and because episodes may have been cut short due to loss of Medicaid eligibility. We also present the percentage of participants retained 30 or fewer days, 31-179 days, and 180 days or more. For comparisons over time and across subgroups, we show the percentage of beneficiaries retained at least 180 days. This benchmark was selected to align with NQF measure #3175 (Continuity of Pharmacotherapy for OUD),<sup>19</sup> which is based on findings that longer duration of pharmacotherapy is associated with improved patient outcomes.<sup>20,21</sup> Although the quality measure uses a 7-day gap in medication supply to determine discontinuation, this analysis uses 30 days based

## Data Sources and Methodology

on prior studies<sup>22,23</sup> and because brief disruptions in MOUD care are common.<sup>24</sup> For all analyses other than mean days of retention, beneficiaries had to be continuously eligible during the month of the start of the MOUD episode and at least the next six months after the start of the episode to determine new episodes and retention at the defined time periods. Beneficiaries with MOUD episodes that began after June 30, 2019 were therefore excluded in these analyses. MOUD episodes that involved more than one type of medication are excluded from retention analyses. The denominator for these analyses was not restricted to beneficiaries with OUD, because up to 30% of patients receiving MOUD may not have an OUD diagnosis in claims.<sup>14</sup>

### ***Demographic and Clinical Characteristics***

To show disparities in MOUD utilization and outcomes, select measures are stratified by demographic characteristics and the presence of comorbid diagnoses. Demographics (sex, racial/ethnic group, age group) were identified using the Medicaid eligibility file, which included mutually exclusive categories for non-Hispanic Black, non-Hispanic White, Hispanic, and non-Hispanic other/unknown. For measures of MOUD initiation after new diagnosis of OUD, initiation after opioid overdose, and retention, demographics are presented at the person-episode level; that is, individuals could contribute more than one episode if they had a new OUD diagnosis, overdose or MOUD episode in more than one year. For OUD prevalence and utilization measures, demographics reflect persons rather than person-episodes. Comorbid diagnoses include the following medical, mental health, and SUD comorbidities that were identified as being most common and relevant among New Jersey Medicaid beneficiaries with OUD:<sup>25</sup> chronic pain; serious mental illness (schizophrenia, bipolar disorder, major depression); alcohol use disorder; other SUD; hepatitis C; diabetes; and pneumonia.

### ***DATA-Waived Buprenorphine Practitioners and Buprenorphine Patient Capacity***

This chartbook shows trends in the number and characteristics of DATA-waived buprenorphine practitioners in New Jersey from late 2019 through mid-2020. The total number of practitioners, type of practitioner (physician, nurse, or physician's assistant), and patient limit (30, 100, or 275) are presented. Patient capacity was calculated as the maximum number of patients that could have an active buprenorphine prescription if every practitioner prescribed to their limit. The number of practitioners per 100,000 population and patient capacity per 1,000 population in each of New Jersey's 21 counties were calculated using county population estimates from the 2018 American Community Survey single-year estimates.<sup>26</sup>

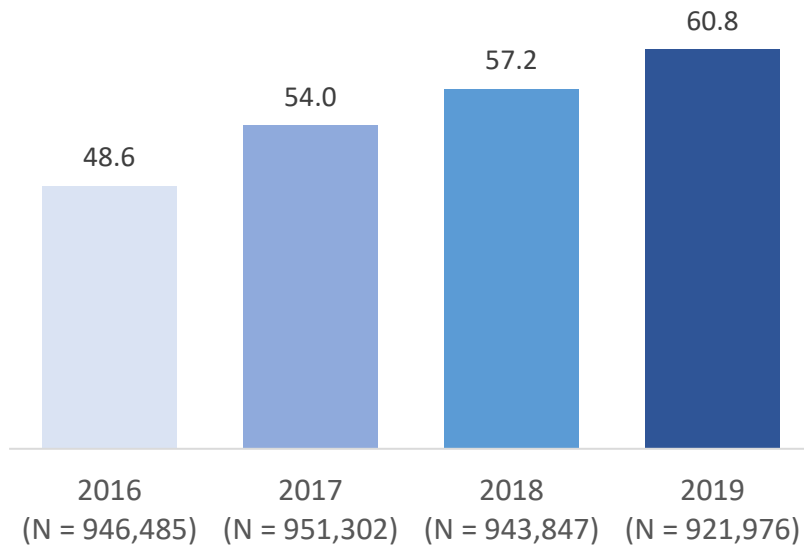
For diagnostic and service codes used to calculate measures, see Appendix A: Methods Supplement.

## **Medicaid beneficiaries with OUD**

The first section of this chartbook presents the prevalence of opioid use disorder (OUD) in the New Jersey Medicaid population; key demographic differences between the full Medicaid population and those diagnosed with OUD; and medical, mental health, and substance use disorder (SUD) diagnoses that are commonly comorbid with OUD.

# Prevalence of OUD among New Jersey Medicaid Beneficiaries

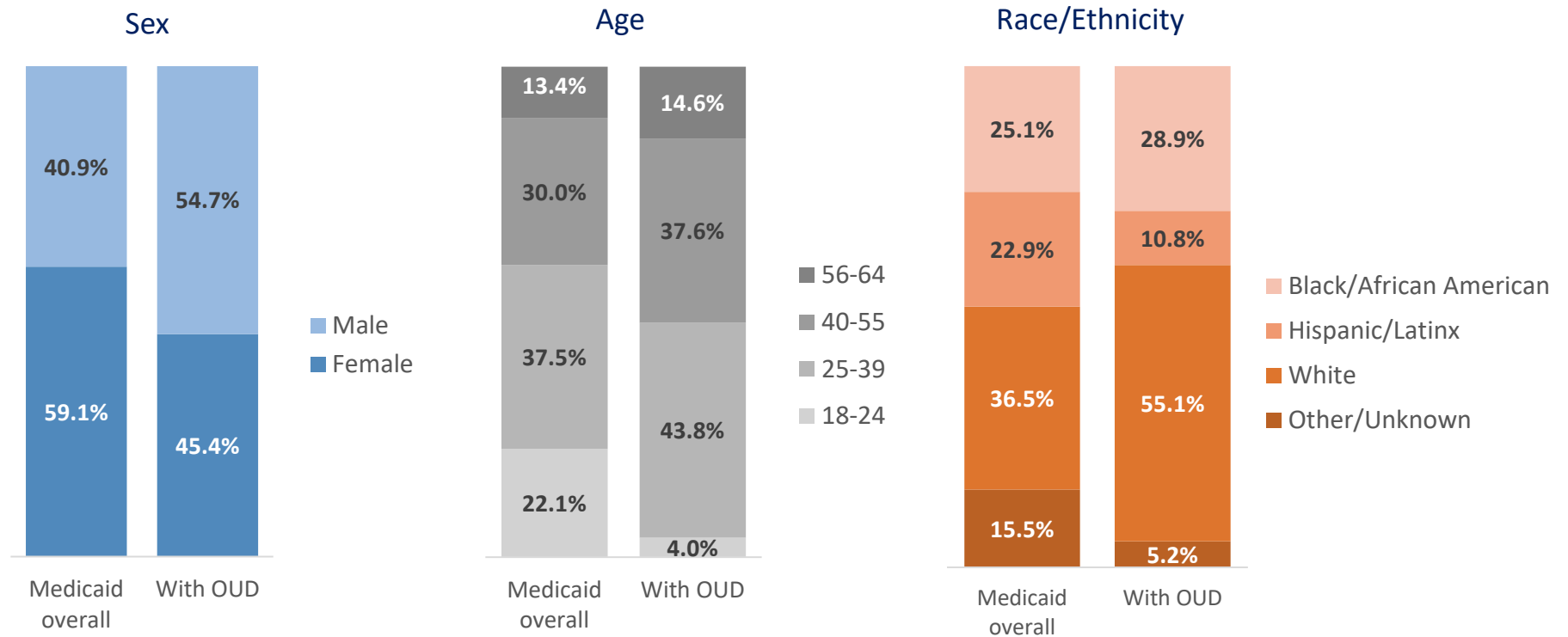
Figure 1: OUD Diagnosis Rate per 1,000 Beneficiaries  
2016 – 2019



*The proportion of New Jersey Medicaid beneficiaries ages 18 – 64 with a diagnosis of OUD in a given calendar year increased from 48.6 per 1,000 in 2016 to 60.8 per 1,000 in 2019, an increase of 25%.*

# Demographic Characteristics of All Adult Medicaid Beneficiaries and Beneficiaries Diagnosed With OUD in 2019

Figure 2: Demographic Characteristics of Overall Medicaid Population (ages 18-64) and Beneficiaries Diagnosed With OUD in 2019

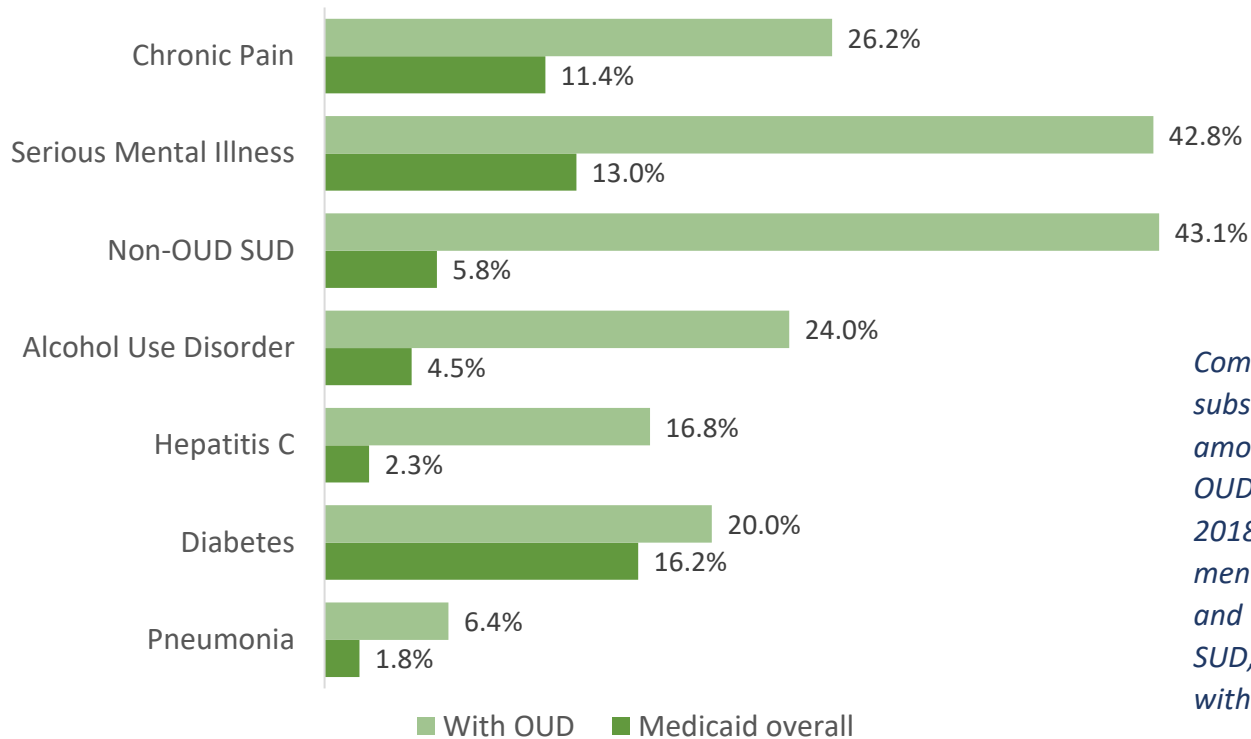


*Males and older individuals are overrepresented among Medicaid beneficiaries diagnosed with OUD. Although White beneficiaries make up 36.5% of the New Jersey Medicaid population, they account for more than half of those diagnosed with OUD.*



# Comorbidity among Adult Medicaid Beneficiaries and Beneficiaries Diagnosed with OUD in 2019

Figure 3: Comorbid Diagnoses in Overall Medicaid Population and Beneficiaries Diagnosed with OUD, ages 18-64, in 2019



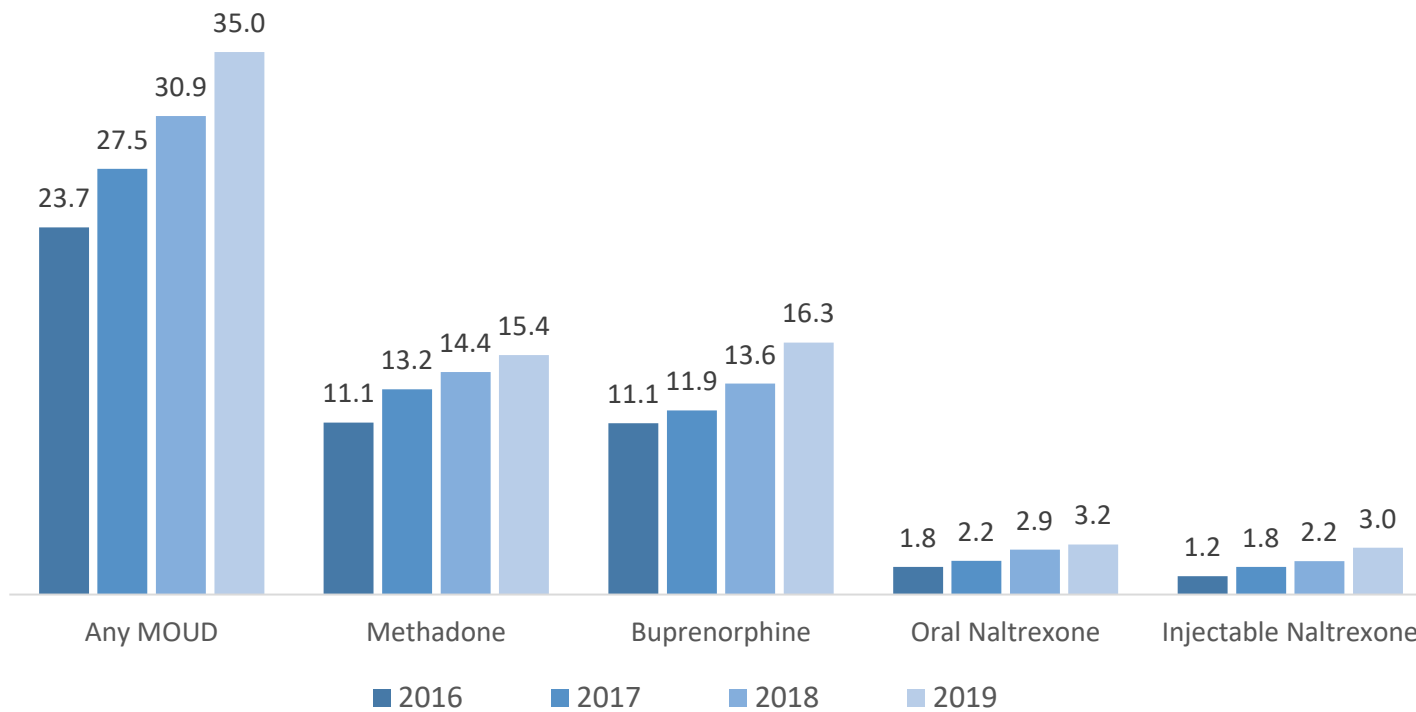
*Comorbid medical, mental health, and substance use disorder diagnoses are common among Medicaid beneficiaries diagnosed with OUD. Of beneficiaries diagnosed with OUD in 2018, 42.8% were diagnosed with serious mental illness (schizophrenia, bipolar disorder, and major depression), 43.1% with a non-OUD SUD, 24% with alcohol use disorder, and 26.2% with chronic pain.*

## MOUD Utilization

The following section of this chartbook shows trends in utilization of MOUD from 2016 – 2019, overall and by type of medication. The first figure on the following page presents utilization among all Medicaid beneficiaries, including those without an OUD diagnosis, given that as many as 30% of individuals receiving MOUD do not have a diagnosis of OUD in claims data.<sup>14</sup> In subsequent figures, the population is limited to beneficiaries with a diagnosis of OUD in the calendar year.

# MOUD Utilization among all Medicaid Beneficiaries, 2016 – 2019

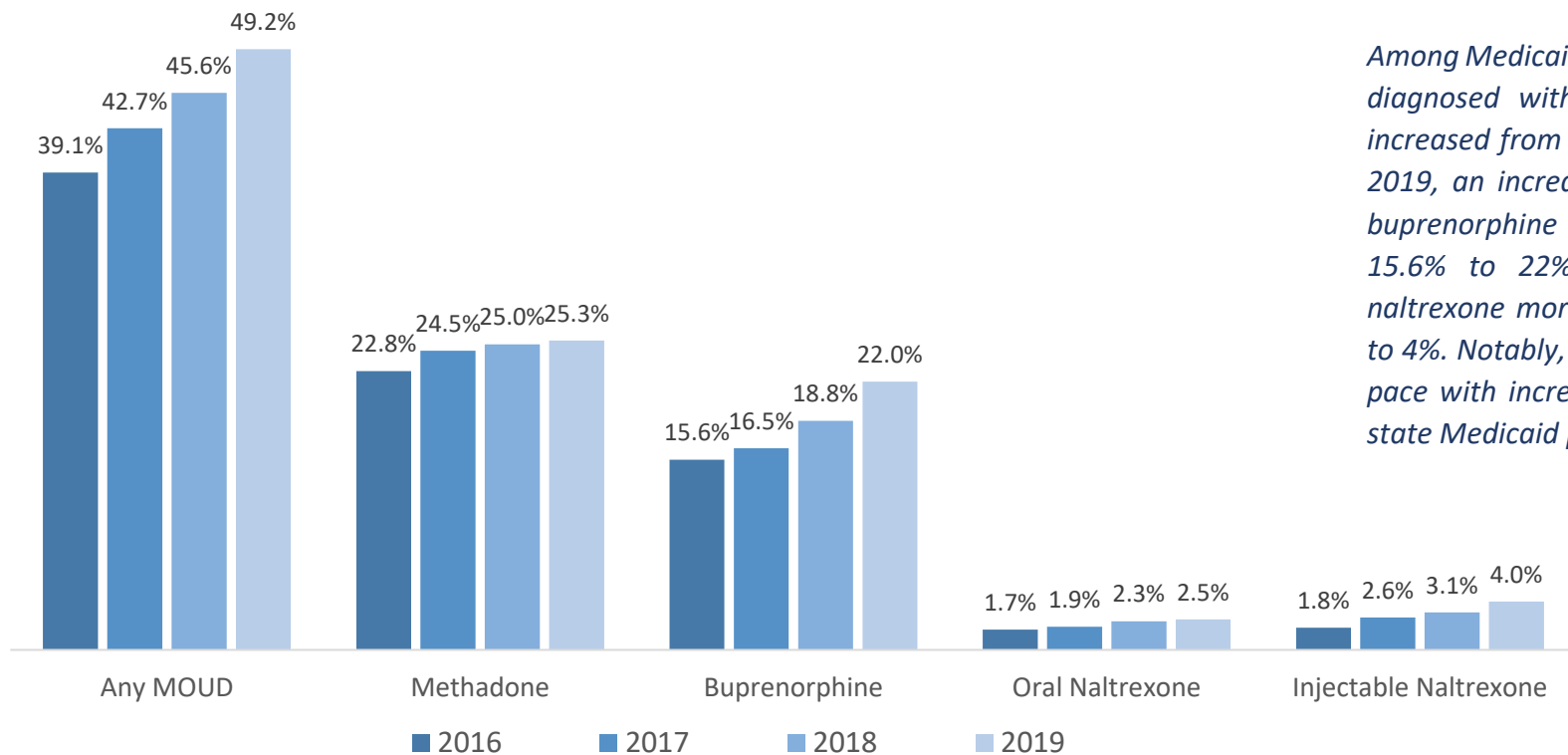
Figure 4: MOUD Utilization among NJ Medicaid Beneficiaries in 2016 – 2019  
Rates per 1,000



*Among all Medicaid beneficiaries ages 18-64, including those without an OUD diagnosis, MOUD utilization increased from 23.7 per 1,000 in 2016 to 35 per 1,000 in 2019, an increase of 48%.*

# MOUD Utilization among Beneficiaries Diagnosed with OUD, 2016 – 2019

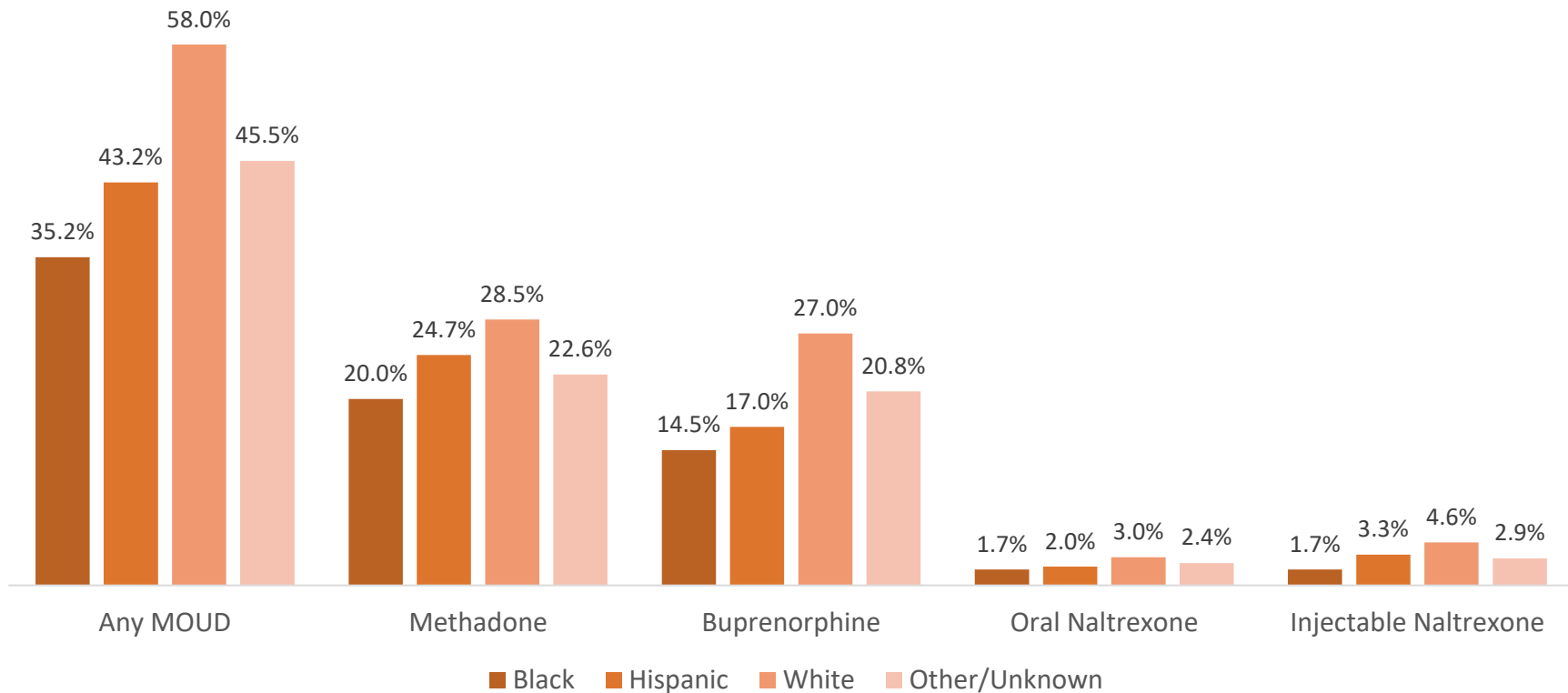
Figure 5: Percentage of NJ Medicaid Beneficiaries with OUD who Utilized MOUD, 2016 - 2019



*Among Medicaid beneficiaries ages 18–64 diagnosed with OUD, MOUD utilization increased from 39.1% in 2016 to 49.2% in 2019, an increase of 26%. Utilization of buprenorphine increased by 41% from 15.6% to 22%, and use of injectable naltrexone more than doubled from 1.8% to 4%. Notably, MOUD utilization has kept pace with increasing rates of OUD in the state Medicaid population.*

# MOUD Utilization among Beneficiaries Diagnosed with OUD in 2019, by Race/Ethnicity

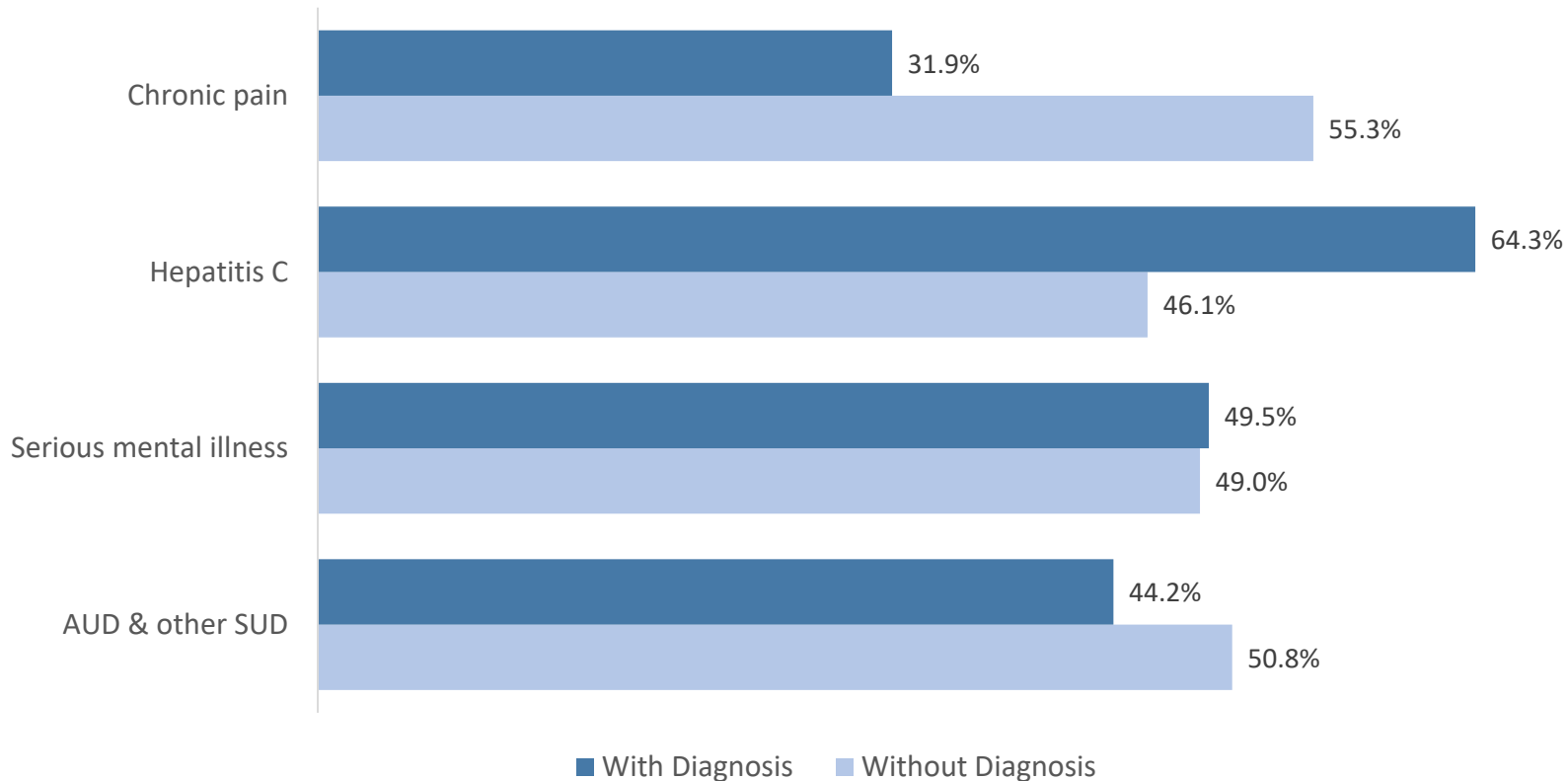
Figure 6: Racial/Ethnic Differences in MOUD Utilization ages 18-64, 2019



*MOUD utilization was higher for White beneficiaries with OUD (58%) than Black (35.2%), Hispanic (43.2%), and beneficiaries with other or unknown race/ethnicity (45.5%). Disparities existed across medication types but were greatest for buprenorphine and naltrexone.*

# MOUD Utilization among Beneficiaries Diagnosed with OUD in 2019, by Comorbid Diagnosis

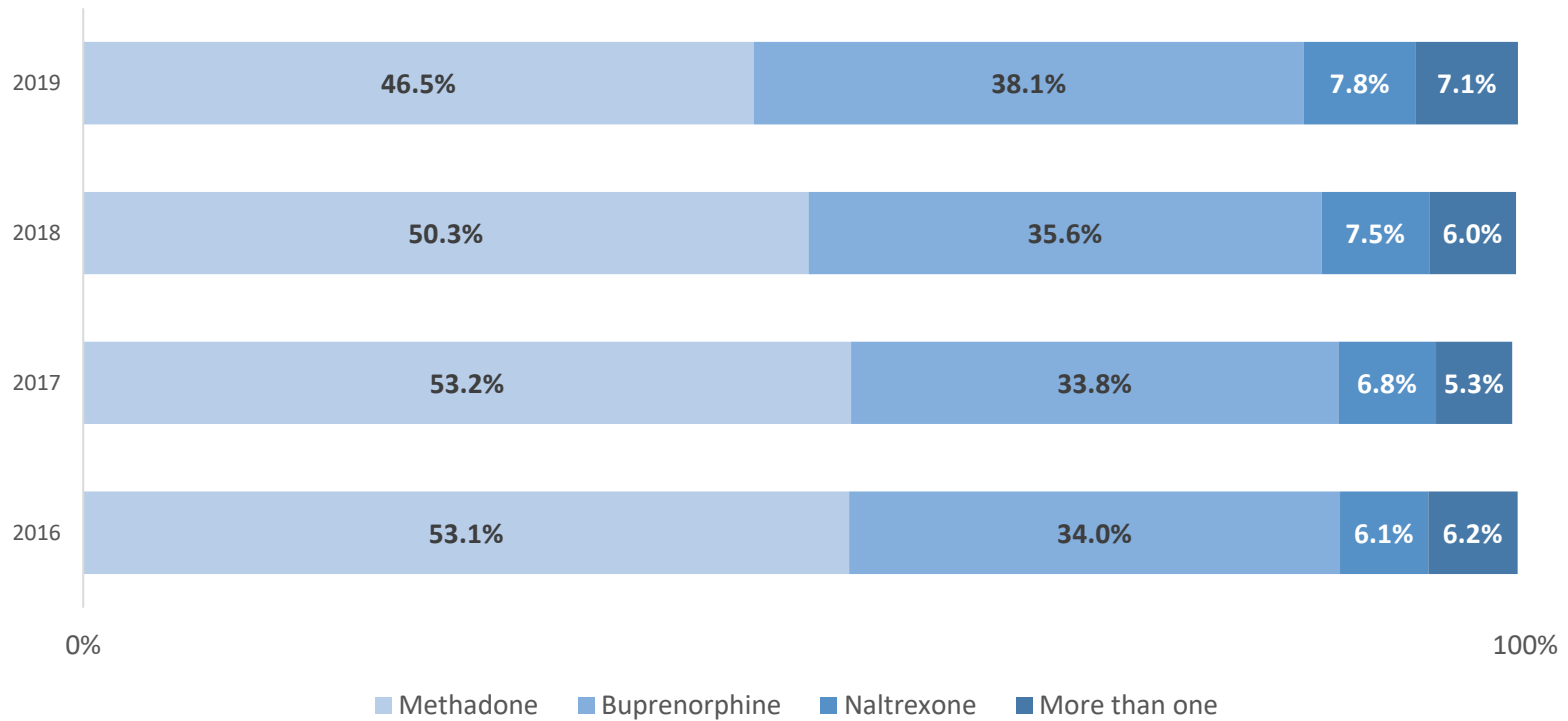
Figure 7: MOUD Utilization in 2019 among Beneficiaries with OUD and Comorbid Diagnoses



Medicaid enrollees ages 18-64 with and without select comorbid diagnoses utilized MOUD at different rates. Beneficiaries with pain diagnoses were less likely to use MOUD than those without a pain diagnosis (31.9% vs. 55.2%). Beneficiaries with hepatitis C were more likely than those without the diagnosis to utilize MOUD (64.3% vs. 46.1%). Utilization rates were comparable for those with and without serious mental illness (schizophrenia, bipolar disorder, major depression) diagnoses.

# Type of MOUD Utilized by Beneficiaries with OUD who Used MOUD During the Year

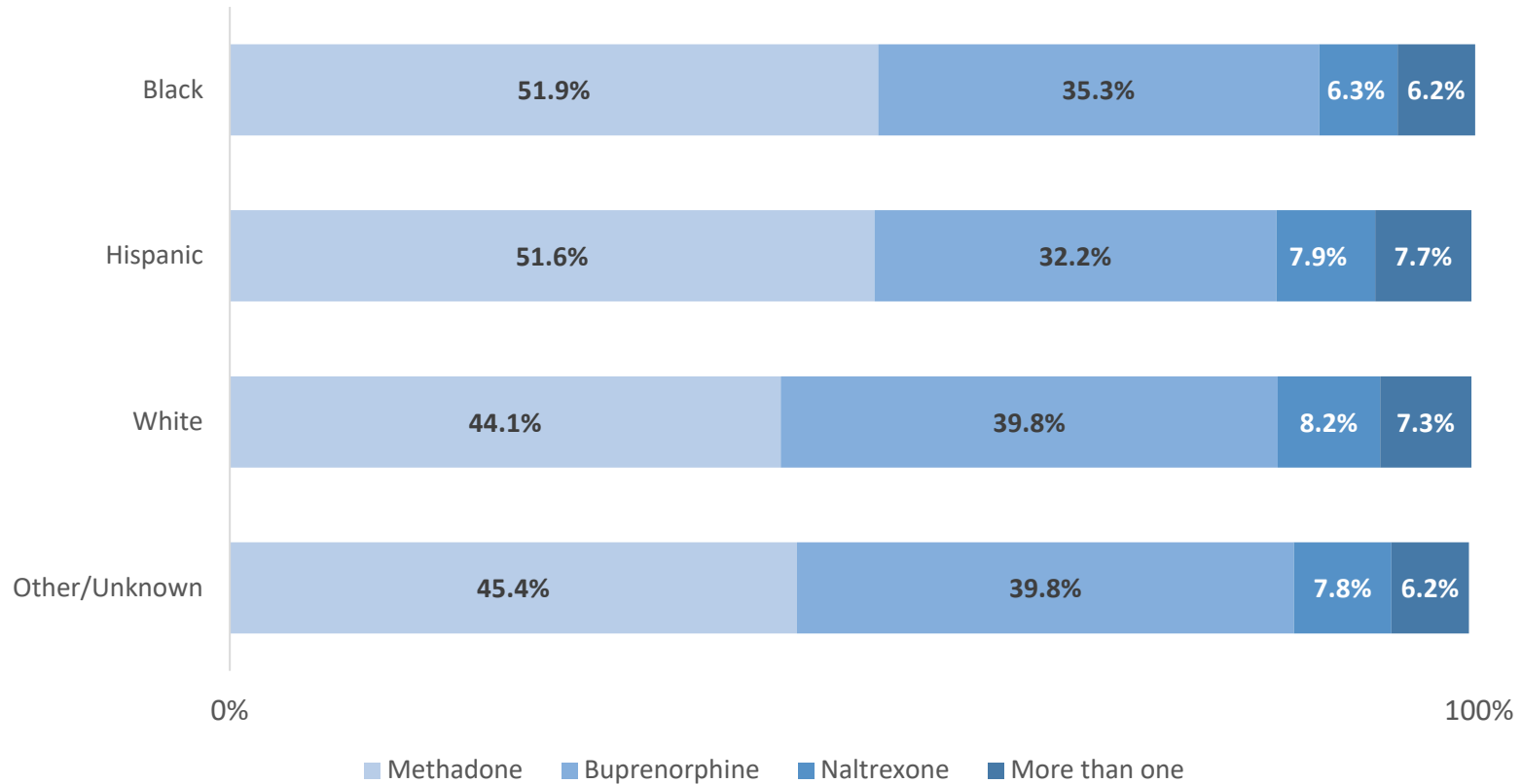
Figure 8: MOUD Utilization among Beneficiaries with OUD, by Type and Year



*This figure shows a breakdown of the type of MOUD used among beneficiaries ages 18-64 who used any MOUD in the calendar year. From 2016 – 2019, the proportion of Medicaid enrollees with OUD who used methadone decreased while the proportion who used buprenorphine, naltrexone, or more than one type increased. In 2019, among beneficiaries with OUD who used any MOUD, 46.5% used methadone, 38.1% used buprenorphine, 7.8% used naltrexone, and 7.1% used more than one type of medication.*

# Type of Medication Utilized by Beneficiaries Diagnosed with OUD in 2019, by Race/Ethnicity

Figure 9: MOUD Utilization among Beneficiaries with OUD in 2019, by Race/Ethnicity



*Among beneficiaries ages 18-64 with OUD who used any MOUD in 2019, Black and Hispanic beneficiaries used methadone at substantially higher rates, and buprenorphine and naltrexone at substantially lower rates, than White and other/unknown beneficiaries.*

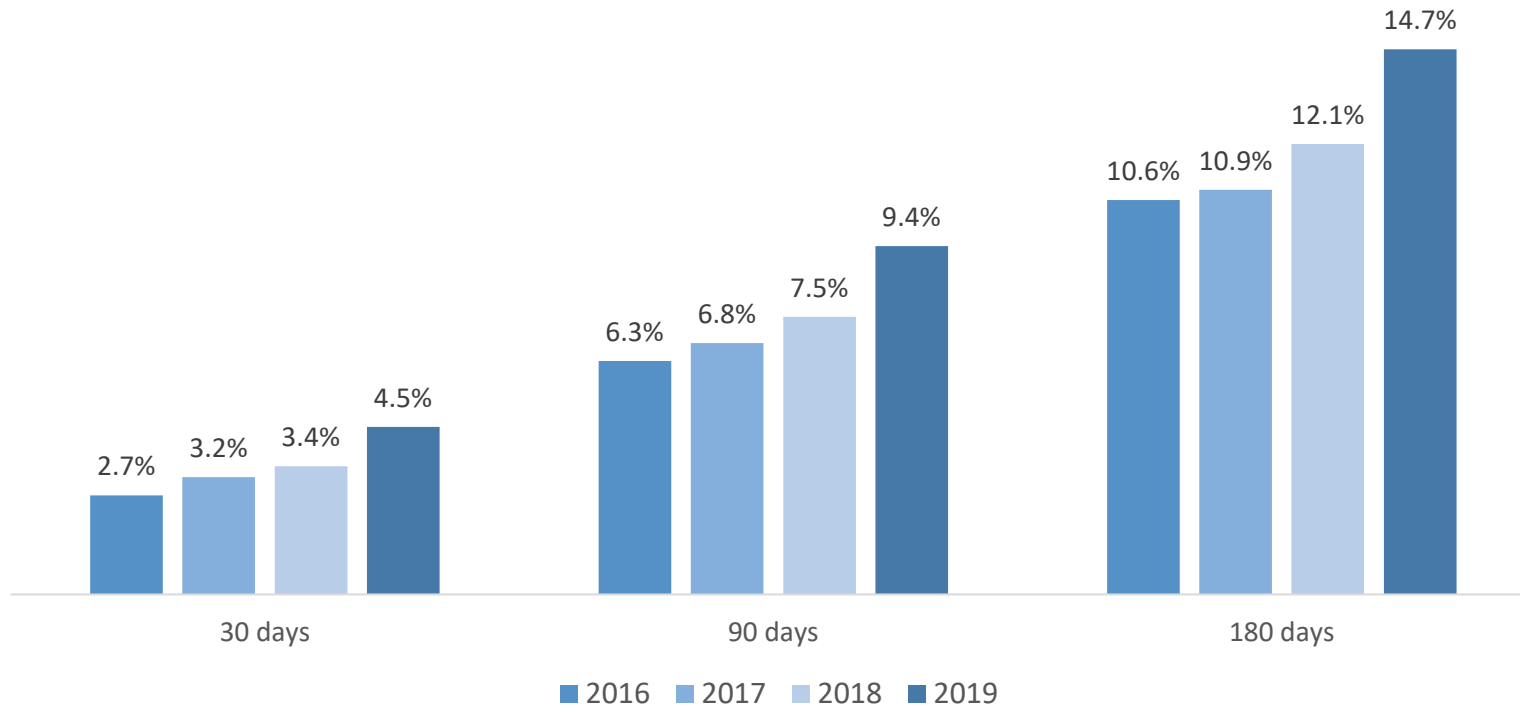


## MOUD Initiation after New OUD Diagnosis

This section of this chartbook shows trends in initiation of MOUD after new OUD diagnosis from 2016 – 2019. The figures present the percentage of beneficiaries initiating MOUD within 30, 90, and 180 days of a new diagnosis, and differences in time to initiation according to type of medication. Figures only present data for beneficiaries continuously enrolled for six months after new OUD diagnosis; as a result, 2019 figures only reflect episodes starting on or before June 30, 2019. Definitions of new OUD diagnosis and MOUD initiation are provided in the Data and Methods section.

## MOUD Initiation after New OUD Diagnosis, 2016 – 2019

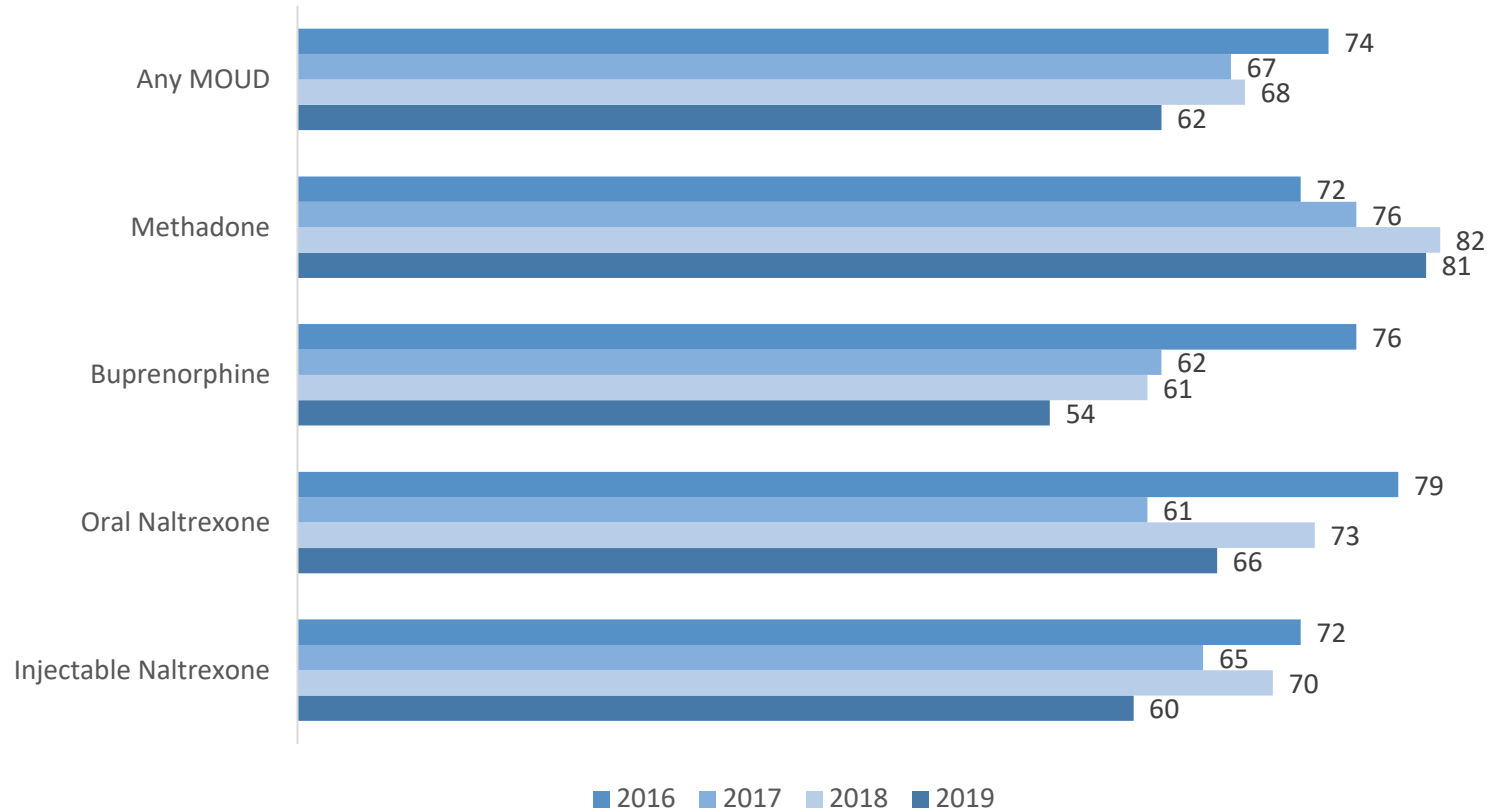
Figure 10: Percentage of Beneficiaries Initiating MOUD within 30, 90, and 180 Days of New OUD diagnosis, 2016 - 2019



*The percentage of beneficiaries ages 18-64 who initiated treatment within 30, 90, and 180 days of a new OUD diagnosis increased from 2016 – 2019 but remained relatively low. In 2019, 10.6% of beneficiaries with a new OUD diagnosis initiated MOUD within 30 days and 14.7% initiated within 180 days.*

## Time to MOUD Initiation after New OUD Diagnosis, 2016 – 2019

Figure 11: Among Beneficiaries Initiating MOUD within 180 days, Median Days from New OUD Diagnosis to MOUD Initiation, 2016 – 2019



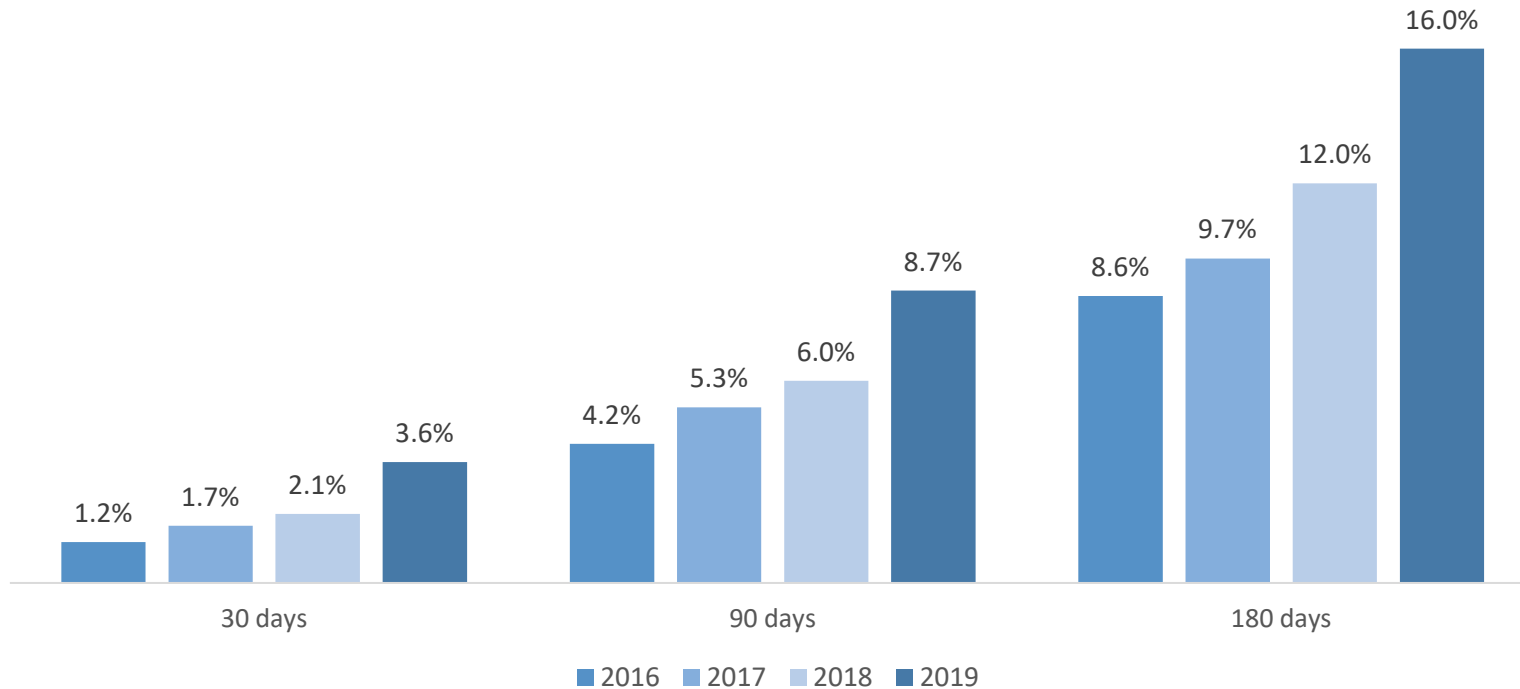
*Among beneficiaries ages 18-64 who initiated MOUD within 180 days following a new OUD diagnosis, the median number of days until initiation decreased from 74 to 62 over the four years of data. Median days until MOUD initiation increased from 2016 – 2019 for methadone and decreased for buprenorphine and naltrexone during the same time period.*

## **MOUD Initiation after Medically Treated Opioid Overdose**

The following section shows trends in initiation of MOUD after medically treated opioid overdose from 2016 – 2019. The figures present the percentage of beneficiaries initiating MOUD within 30, 90, and 180 days of medically treated opioid overdose, and differences in time to initiation according to type of medication. Figures only present data for beneficiaries continuously enrolled for six months after opioid overdose; as a result, 2019 figures only reflect episodes starting on or before June 30, 2019. Definitions of medically treated opioid overdose and MOUD initiation are provided in the Data and Methods section.

# MOUD Initiation after Medically Treated Opioid Overdose

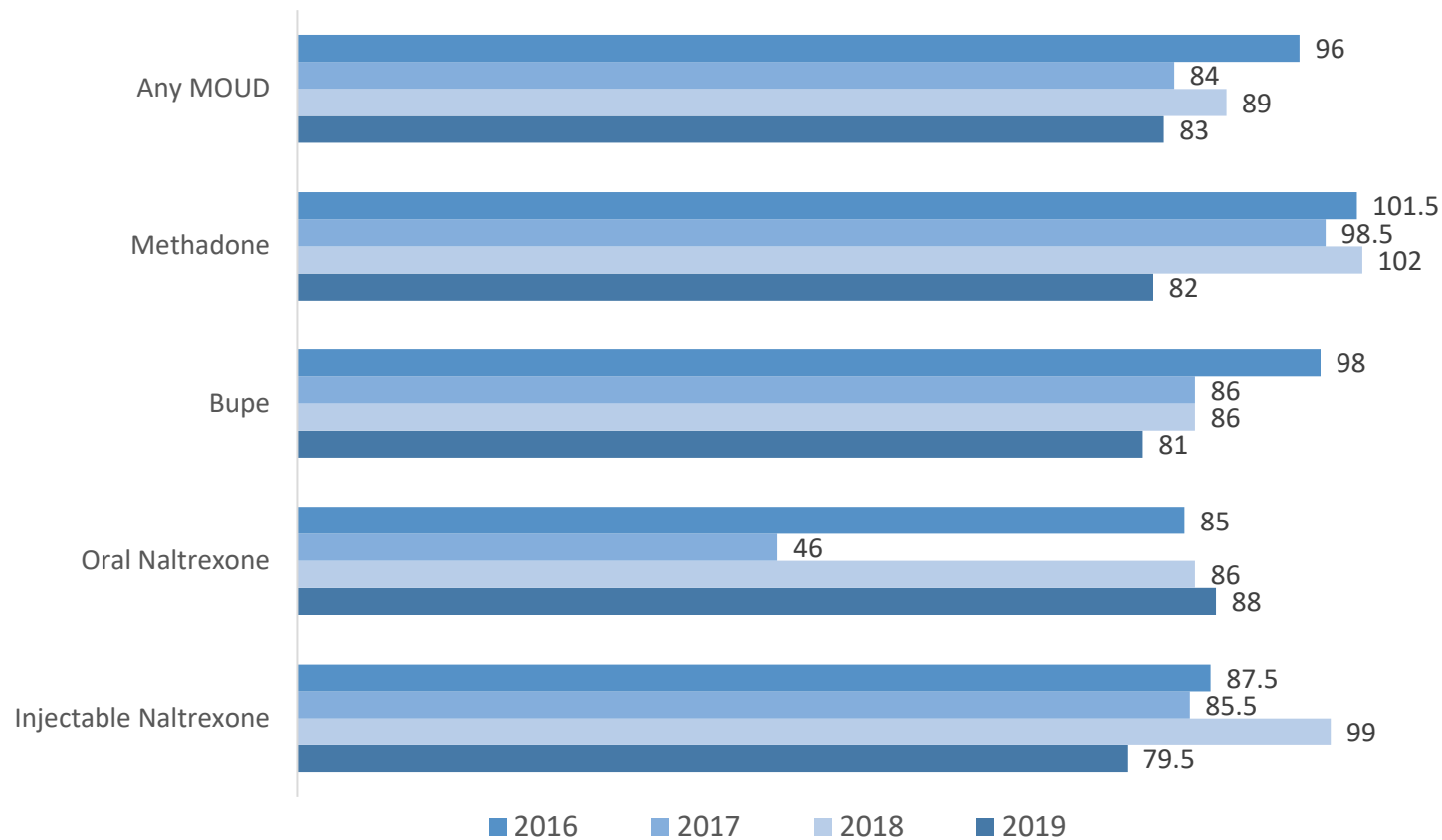
Figure 12: Percentage of Beneficiaries Initiating MOUD within 30, 90, and 180 Days of Medically Treated Opioid Overdose, 2016 – 2019



*The percentage of Medicaid beneficiaries ages 18-64 who initiated treatment within 30, 90, and 180 days of a medically treated opioid overdose increased from 2016 – 2019 but remained relatively low. From 2016 – 2019 the percentage of beneficiaries initiating MOUD within 180 days of opioid overdose increased by 86% from 8.6% to 16%. During the same period, the percentage initiating MOUD within 30 days tripled from 1.2% to 3.6%.*

# Time to MOUD Initiation after Medically Treated Opioid Overdose

Figure 13: Among Beneficiaries Initiating MOUD within 180 days, Median Days from Medically Treated Opioid Overdose to MOUD Initiation, 2016 – 2019



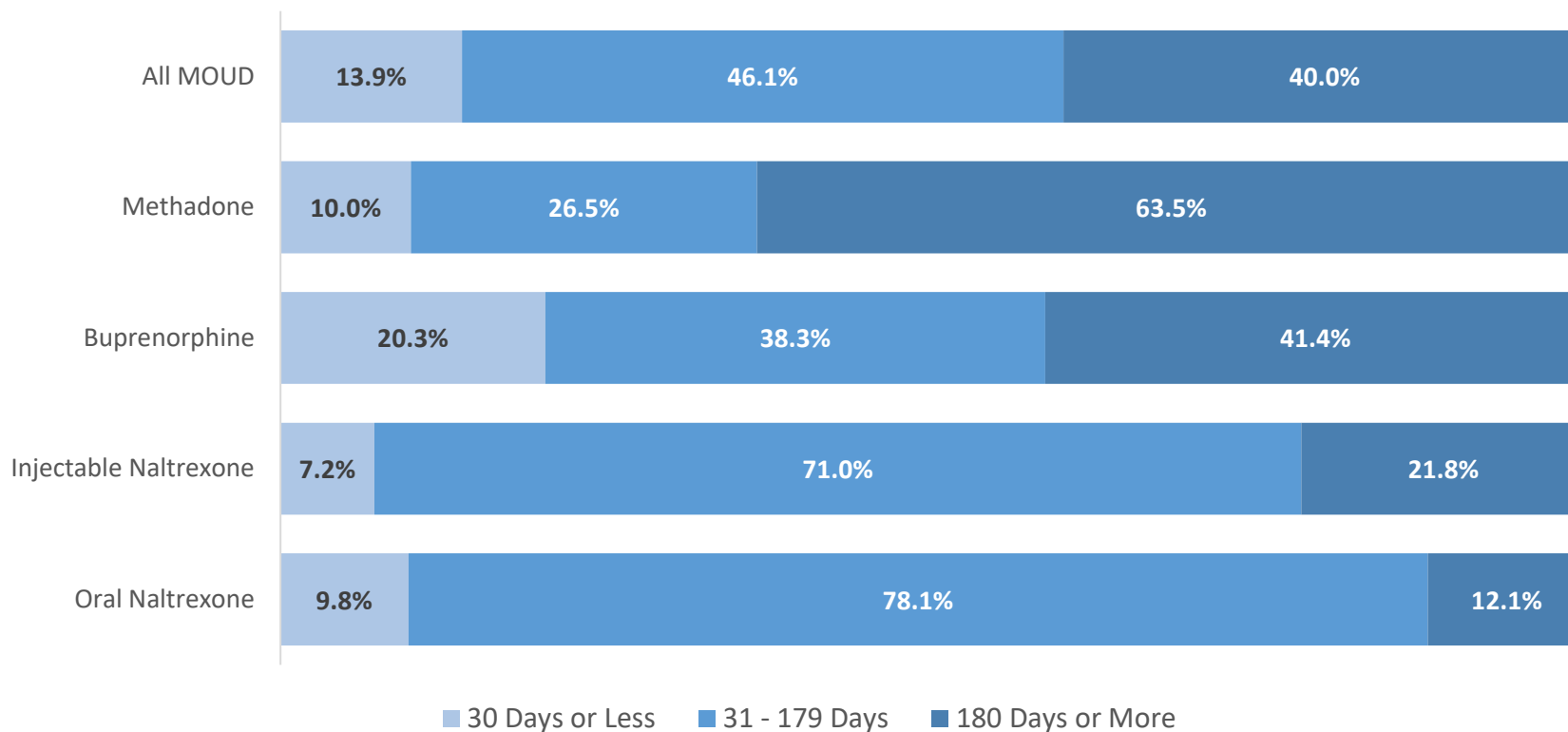
*Among Medicaid beneficiaries ages 18-64 who initiated MOUD within 180 days of medically treated opioid overdose, the median number of days until initiation decreased from 96 to 83 from 2016 – 2019.*

## MOUD Retention

The following section presents trends in MOUD retention from 2016 – 2019. Unless otherwise noted, trends are presented at the episode level, meaning that individuals could contribute more than one episode. Figures present average length in days of MOUD episodes; percentage of beneficiaries retained 30 or fewer days, 31 – 179 days, and 180 or more days; and trends in the percentage of beneficiaries retained 180 or more days. Figures only present data for beneficiaries continuously enrolled for six months after the MOUD episode start date; as a result, 2019 figures only reflect episodes starting on or before June 30, 2019. Additional definitions for retention and MOUD utilization are provided in the Data and Methods section.

# MOUD Retention for 30 Days or Less, 31 – 79 Days, and 180 or More Days, 2016 – 2019

Figure 14: Retention in MOUD for 30 Days or Less; 31 – 79 Days; and 180 or More Days, 2016 – 2019

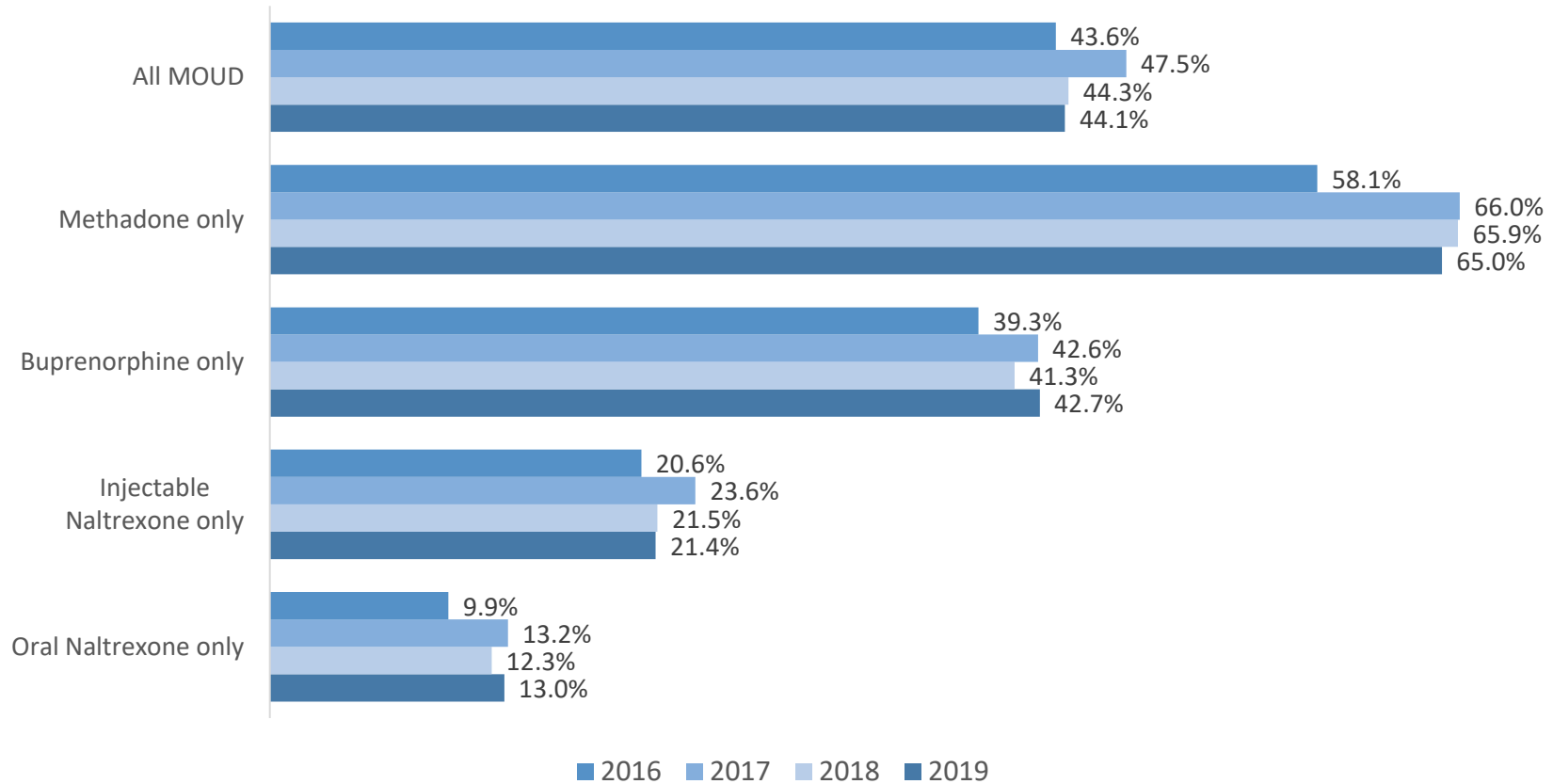


*This figure presents the percentage of Medicaid beneficiaries ages 18-64 retained on MOUD 30 days or less, 31 – 179 days, and 180 days or more. Only beneficiaries continuously eligible for Medicaid during the month of MOUD initiation and the following 6 months are included. In this subset, 40% of beneficiaries were retained 180 or more days for all types of MOUD. The percentage retained 180 or more days was greatest for methadone and least for oral naltrexone (63.5% vs. 12.1%).*



# Annual Trends in Retention in MOUD for 180 or More Days, 2016 – 2019

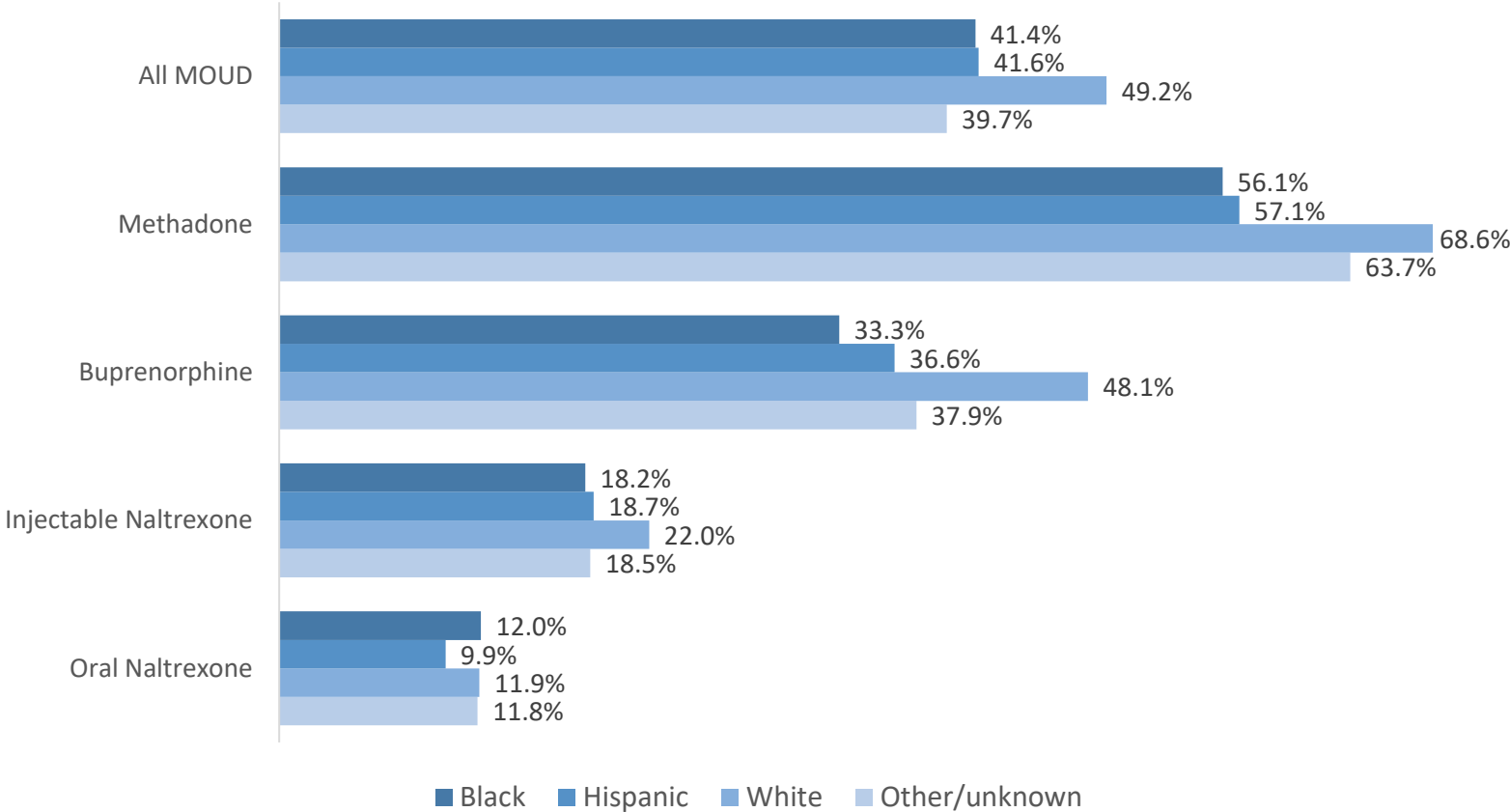
Figure 15: Percentage of Beneficiaries Retained 180 or More Days



*The percentage of Medicaid beneficiaries ages 18-64 retained in MOUD for 180 or more days increased modestly from 2016 – 2019. The percentage of beneficiaries retained in buprenorphine treatment for at least 180 days increased from 39.3% in 2016 to 42.7% in 2019.*

# Beneficiaries Retained in MOUD 180 or More Days by Race/Ethnicity, 2016 – 2019

Figure 16: Percentage of Beneficiaries Retained 180+ Days by Race/Ethnicity, 2016 – 2019



Overall, 180-day retention in MOUD was higher for White (49.2%) compared to Black (41.4%), Hispanic (41.6%), and other/unknown (39.7%) Medicaid beneficiaries ages 18-64. Disparities in buprenorphine retention were particularly stark, with 48.1% of White beneficiaries retained 180 or more days compared to 33.3% of Black and 36.6% of Hispanic beneficiaries.

## **DATA-Waived Buprenorphine Practitioners and Buprenorphine Patient Capacity**

Using data from the Drug Enforcement Agency's (DEA) Controlled Substances Act (CSA) registrants list, this section of the chartbook presents trends in the number of practitioners waived to prescribe buprenorphine across New Jersey from late 2019 through mid-2020. Figures reflect all DATA-waived providers in the state, including those who are not actively prescribing buprenorphine and those who do not treat Medicaid patients.

# DATA-Waived Buprenorphine Practitioners and Buprenorphine Patient Capacity, 2019 – 2020

Figure 17: Number of NJ DATA-2000 Waived Practitioners by Quarter

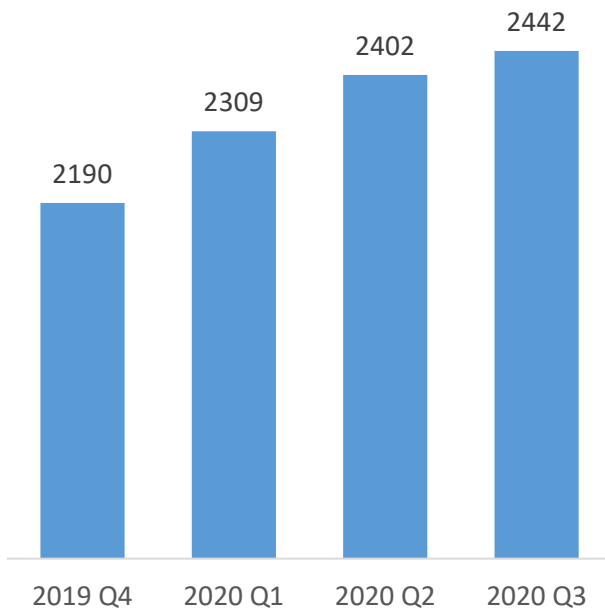
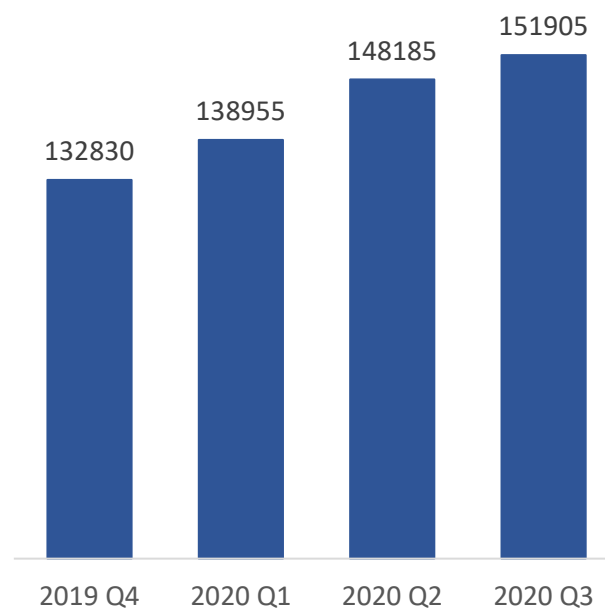


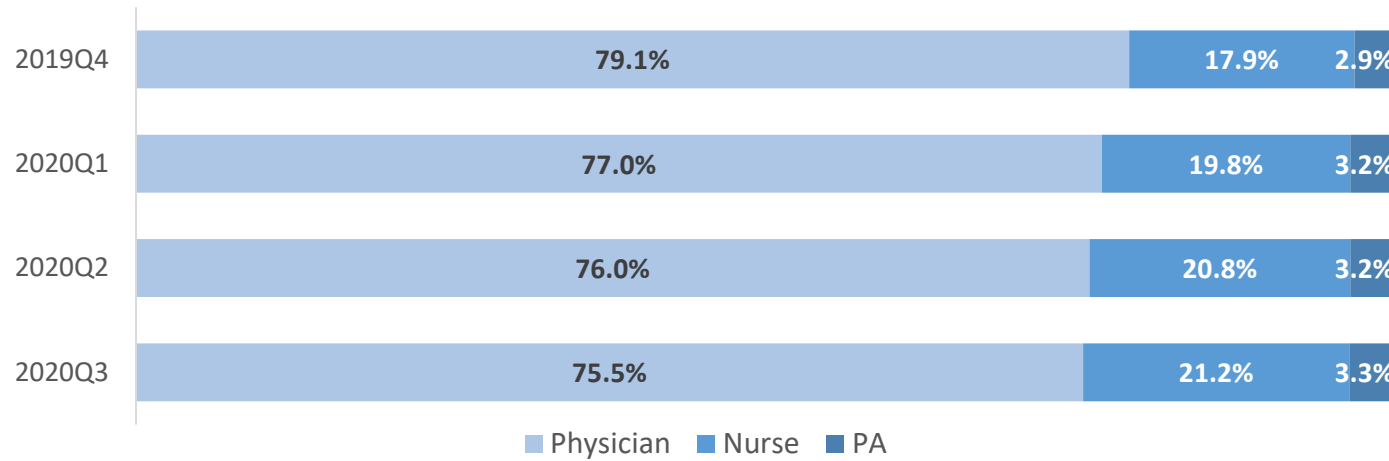
Figure 18: NJ Buprenorphine Patient Capacity by Quarter



*The number of DATA-waived buprenorphine practitioners in New Jersey increased by 11.5% from the 4<sup>th</sup> quarter of 2019 to the third quarter of 2020 (2,190 to 2,442). During the same period, buprenorphine patient capacity increased by 14.4% (132,830 to 151,905).*

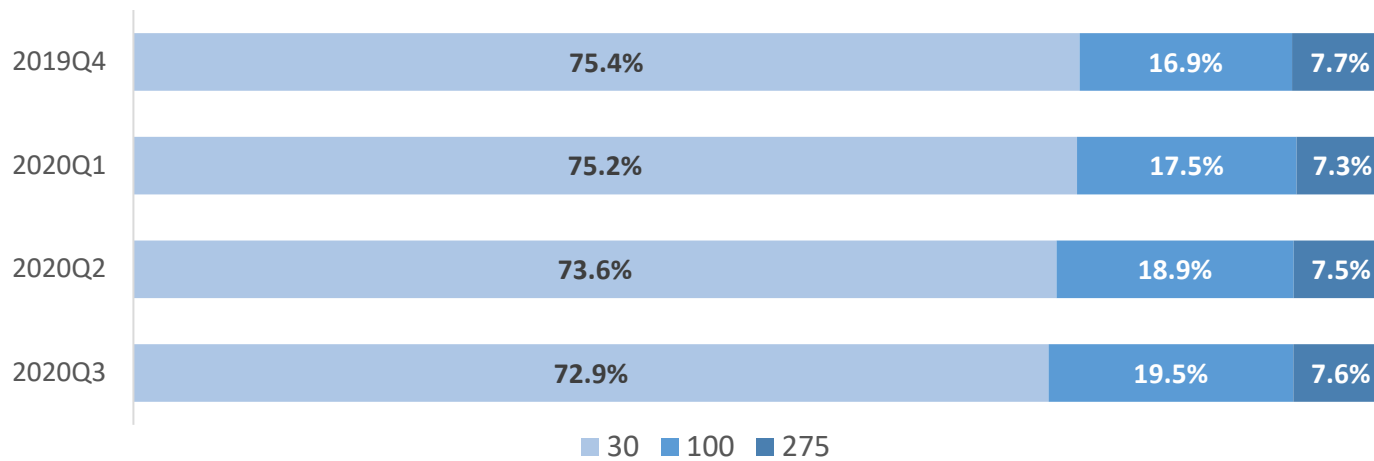
# Buprenorphine Practitioner Types and Waiver Limits

Figure 19: DATA-Waived Practitioner Types, 2019 – 2020



*The proportion of DATA-waived practitioners comprised of mid-level providers (nurses, physician’s assistants) increased from 20.9% in the 4<sup>th</sup> quarter of 2019 to 24.5% in the 3<sup>rd</sup> quarter of 2020. During the same period, the proportion of practitioners with waiver limits of 100 or 275 patients increased from 24.6% to 27.1%.*

Figure 20: DATA-Waived Practitioner Patient Limits, 2019-2020



# Waivered Practitioners and Patient Capacity by County, 3<sup>rd</sup> Quarter of 2020

Figure 21: DATA-Waived Buprenorphine Practitioners per 100,000 Residents, Q3 2020

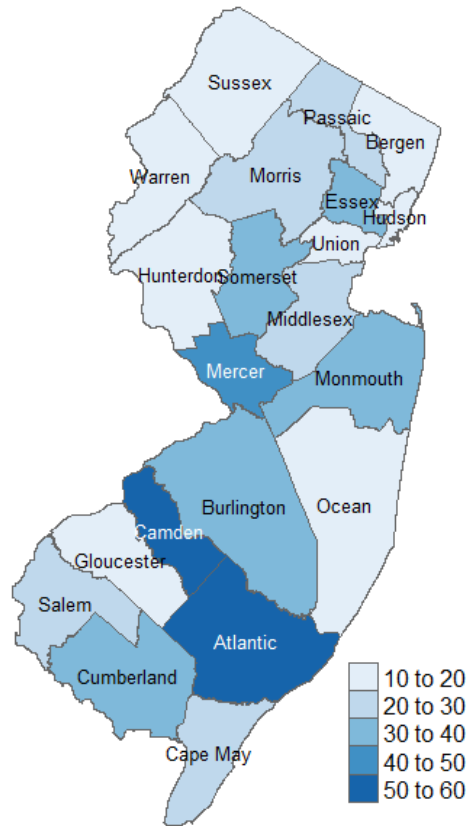
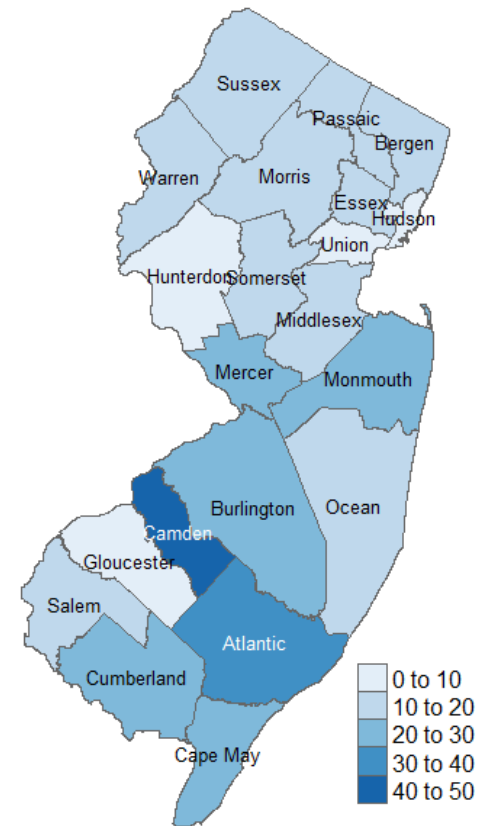


Figure 22: Buprenorphine Patient Capacity per 1,000 residents, Q3 2020



*There are differences among New Jersey counties in the number of DATA-waived buprenorphine practitioners and in patient capacity. In the 3<sup>rd</sup> Quarter of 2020, Camden County had the highest number of practitioners per 100,000 population and the greatest capacity to treat patients with buprenorphine.*

# Appendix A: Methods Supplement

## Appendix A: Methods Supplement

The following tables present diagnostic and service codes used to calculate measures presented in this chartbook.

Table A1. ICD-10-CM Codes for Chartbook Measures	
Disease or Disease Category	ICD-10-CM codes
Opioid overdose	T40.1, T40.2, T40.3, T40.4, T40.6
Opioid use disorder	F11.10, F11.120, F11.129, F11.20, F11.21, F11.220, F11.221, F11.222, F11.229, F11.23, F11.24, F11.250, F11.251, F11.259, F11.281, F11.282, F11.288, F11.29, F11.90
Alcohol use disorder	F1010, F10120, F10121, F10129, F1014, F10150, F10151, F10159, F10180, F10181, F10182, F10188, F1019, F1020, F1021, F10220, F10221, F10229, F10230, F10231, F10232, F10239, F1024, F10250, F10251, F10259, F1026, F1027, F10280, F10281, F10282, F10288, F1029, F10920, F10921, F10929, F1094, F10950, F10951, F10959, F1096, F1097, F10980, F10981, F10982, F10988, F1099
Non-ODU substance use disorder	F12.10, F12.120, F12.121, F12.122, F12.129, F12.150, F12.151, F12.159, F12.180, F12.188, F12.19, F12.20, F12.220, F12.221, F12.222, F12.229, F12.250, F12.251, F12.259, F12.280, F12.288, F12.29, F13.10, F13.120, F13.121, F13.129, F13.14, F13.150, F13.151, F13.159, F13.180, F13.181, F13.182, F13.188, F13.19, F13.20, F13.220, F13.221, F13.229, F13.230, F13.231, F13.232, F13.239, F13.24, F13.250, F13.251, F13.259, F13.26, F13.27, F13.280, F13.281, F13.282, F13.288, F13.29, F14.10, F14.120, F14.121, F14.122, F14.129, F14.150, F14.151, F14.159, F14.180, F14.181, F14.182, F14.188, F14.19, F14.20, F14.220, F14.221, F14.222, F14.229, F14.23, F14.24, F14.250, F14.251, F14.259, F14.280, F14.281, F14.282, F14.288, F14.29, F15.10, F15.120, F15.121, F15.122, F15.129, F15.14, F15.150, F15.151, F15.159, F15.180, F15.181, F15.182, F15.188, F15.19, F15.20, F15.220, F15.221, F15.222, F15.229, F15.23, F15.24, F15.250, F15.251, F15.259, F15.280, F15.281, F15.282, F15.288, F15.29, F16.10, F16.120, F16.121, F16.122, F16.129, F16.14, F16.150, F16.151, F16.159, F16.180, F16.183, F16.188, F16.19, F16.20, F16.220, F16.221, F16.229, F16.24, F16.250, F16.251, F16.259, F16.280, F16.283, F16.288, F16.29, F18.10, F18.120, F18.121, F18.129, F18.14, F18.150, F18.151, F18.159, F18.17, F18.180, F18.188, F18.19, F18.20, F18.220, F18.221, F18.229, F18.24, F18.250, F18.251, F18.259, F18.27, F18.280, F18.288, F18.29, F19.10, F19.120, F19.121, F19.122, F19.129, F19.14, F19.150, F19.151, F19.159, F19.16, F19.17, F19.180, F19.181, F19.182, F19.188, F19.19, F19.20, F19.220, F19.221, F19.222, F19.229, F19.230, F19.231, F19.232, F19.239, F19.24, F19.250, F19.251, F19.259, F19.26, F19.27, F19.280, F19.281, F19.282, F19.288, F19.29
Serious mental illness (schizophrenia, bipolar)	F20.0, F20.1, F20.2, F20.3, F20.5, F20.81, F20.89, F20.9, F25.0, F25.1, F25.8, F25.9, F3010, F3011, F3012, F3013, F302, F303, F304, F308, F309, F310, F3110, F3111, F3112, F3113, F312, F3130, F3131, F3132, F314, F315, F3160, F3161, F3162, F3163, F3164, F3170, F3171, F3172, F3173, F3174, F3175, F3176, F3177,

## Appendix A: Methods Supplement

disorder, major depressive disorder)	F3178, F3181, F3189, F319, F328, F441, F32.0, F32.1, F32.2, F32.3, F32.4, F32.5, F32.9, F33.0, F33.1, F33.2, F33.3, F33.40, F33.41, F33.42, F33.9
Hepatitis C	B18.2, B19.20, B19.21, Z22.52, Z86.19
Diabetes	E08.311, E08.319, E08.321, E08.329, E08.331, E08.339, E08.341, E08.349, E08.351, E08.359, E08.36, E08.40, E08.42, E09.311, E09.319, E09.321, E09.329, E09.331, E09.339, E09.341, E09.349, E09.351, E09.359, E09.36, E09.40, E09.42, E10.10, E10.11, E10.21, E10.22, E10.29, E10.311, E10.319, E10.321, E10.329, E10.331, E10.339, E10.341, E10.349, E10.351, E10.359, E10.36, E10.39, E10.40, E10.41, E10.42, E10.43, E10.44, E10.49, E10.51, E10.52, E10.59, E10.610, E10.618, E10.620, E10.621, E10.622, E10.628, E10.630, E10.638, E10.641, E10.649, E10.65, E10.69, E10.8, E10.9, E11.00, E11.01, E11.21, E11.22, E11.29, E11.311, E11.319, E11.321, E11.329, E11.331, E11.339, E11.341, E11.349, E11.351, E11.359, E11.36, E11.39, E11.40, E11.41, E11.42, E11.43, E11.44, E11.49, E11.51, E11.52, E11.59, E11.610, E11.618, E11.620, E11.621, E11.622, E11.628, E11.630, E11.638, E11.641, E11.649, E11.65, E11.69, E11.8, E11.9, E13.00, E13.01, E13.10, E13.11, E13.21, E13.22, E13.29, E13.311, E13.319, E13.321, E13.329, E13.331, E13.339, E13.341, E13.349, E13.351, E13.359, E13.36, E13.39, E13.40, E13.41, E13.42, E13.43, E13.44, E13.49, E13.51, E13.52, E13.59, E13.610, E13.618, E13.620, E13.621, E13.622, E13.628, E13.630, E13.638, E13.641, E13.649, E13.65, E13.69, E13.8, E13.9, G45.3, H31.101, H31.102, H31.103, H31.109, H31.111, H31.112, H31.113, H31.119, H31.121, H31.122, H31.123, H31.129, H34.00, H34.01, H34.02, H34.03, H34.10, H34.11, H34.12, H34.13, H34.211, H34.212, H34.213, H34.219, H34.231, H34.232, H34.233, H34.239, H34.811, H34.812, H34.813, H34.819, H34.821, H34.822, H34.823, H34.829, H34.831, H34.832, H34.833, H34.839, H34.9, H35.00, H35.011, H35.012, H35.013, H35.019, H35.021, H35.022, H35.023, H35.029, H35.031, H35.032, H35.033, H35.039, H35.041, H35.042, H35.043, H35.049, H35.051, H35.052, H35.053, H35.059, H35.061, H35.062, H35.063, H35.069, H35.071, H35.072, H35.073, H35.079, H35.09, H35.101, H35.102, H35.103, H35.109, H35.111, H35.112, H35.113, H35.119, H35.121, H35.122, H35.123, H35.129, H35.131, H35.132, H35.133, H35.139, H35.141, H35.142, H35.143, H35.149, H35.151, H35.152, H35.153, H35.159, H35.161, H35.162, H35.163, H35.169, H35.171, H35.172, H35.173, H35.179, H35.20, H35.21, H35.22, H35.23, H35.30, H35.31, H35.32, H35.341, H35.342, H35.343, H35.349, H35.351, H35.352, H35.353, H35.359, H35.361, H35.362, H35.363, H35.369, H35.371, H35.372, H35.373, H35.379, H35.381, H35.382, H35.383, H35.389, H35.40, H35.411, H35.412, H35.413, H35.419, H35.421, H35.422, H35.423, H35.429, H35.431, H35.432, H35.433, H35.439, H35.441, H35.442, H35.443, H35.449, H35.451, H35.452, H35.453, H35.459, H35.461, H35.462, H35.463, H35.469, H35.50, H35.51, H35.52, H35.53, H35.54, H35.60, H35.61, H35.62, H35.63, H35.70, H35.711, H35.712, H35.713, H35.719, H35.721, H35.722, H35.723, H35.729, H35.731, H35.732, H35.733, H35.739, H35.81, H35.82, H35.89, H35.9, H36., O24.03, O24.13, O24.33, O24.83, O24.93, R73.01, R73.02, R73.09, R73.9



## Appendix A: Methods Supplement

Pneumonia	J12, J12.0, J12.1, J12.2, J12.3, J12.8, J12.81, J12.89, J12.9, J13, J14, J15, J15.0, J15.1, J15.2, J15.20, J15.21, J15.211, J15.212, J15.29, J15.3, J15.4, J15.5, J15.6, J15.7, J15.8, J15.9, J16, J16.0, J16.8, J17, J18, J18.0, J18.1, J18.2, J18.8, J18.9
Chronic pain	E0842, E0942, E1042, E1142, E1342, G43–G44, G50.1, G56.0, G56.4, G57, G58.9, G60–G65, G89.0, G89.2, G89.4, G90.0, G99.0, H46–H47, M00–M02, M05–M08, M11–M25, M30–M99, R26.2, R29.4, R29.898, R51

**Table A2: Drug Names and Service Codes Used to Define MOUD Utilization in Pharmacy and Medical Claims**

Buprenorphine	Drug names in pharmacy claims: Buprenorphine Hydrochloride, Buprenorphine/naloxone, and their name brand equivalents (excluding Butrans, Belbuca, and Buprenex); HCPCS codes in medical claims: H0020HF26 (before July 1, 2016), H0033HF, H0033HF26, H0033HH, Q9991, Q9992
Naltrexone	Drug names in pharmacy claims: Naltrexone Hydrochloride, Naltrexone microspheres, Naltrexone-Bupropion, and their name brand equivalents; HCPCS codes in medical claims: J2315
Methadone maintenance	Methadone dispensed for OUD in opioid treatment programs identified through HCPCS codes H0020HF, H0020HF26, Z2006, Z3357

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