

**Report to Congress**

**Non-Emergency Medical Transportation in Medicaid, 2018–2020**

**As Required by the Consolidated Appropriations Act, 2021 (Public Law 116-260)**

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**U.S. Department of Health and Human Services**

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## EXECUTIVE SUMMARY

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In December 2020, the Consolidated Appropriations Act, 2021 (Public Law 116-260) was enacted, formally codifying into statute the longstanding regulatory requirement that states assure necessary medical transportation for beneficiaries to and from providers of covered services, either as an administrative activity or as an optional medical benefit. (See Appendix A for a copy of Division CC, Title II, Section 209 of the Consolidated Appropriations Act, 2021 (Section 209).) The required assurance includes non-emergency medical transportation (NEMT), which sets Medicaid apart from other sources of health coverage, including private insurance and Medicare, which generally do not cover non-emergency transportation to or from providers of covered services.<sup>1</sup> Division CC, Title II, Section 209(b)(5) also directs the U.S. Department of Health and Human Services (HHS), through the Centers for Medicare & Medicaid Services (CMS), to conduct an analysis of, and submit to Congress a report on, the nationwide Transformed Medicaid Statistical Information System (T-MSIS) data set, identifying recommendations relating to Medicaid coverage of NEMT to medically necessary services. This report provides an analysis of the following topics:

- Overall, and by a range of beneficiary subgroups:<sup>2</sup>
  - The number and percentage of Medicaid beneficiaries using NEMT
  - The average number of NEMT “ride days” per NEMT user per month enrolled in Medicaid (or “monthly ride days”), a unique count of the number of days the beneficiary received NEMT
- The types of medical services beneficiaries accessed when using NEMT

This report also provides initial recommendations regarding Medicaid coverage of NEMT.

### a. The data

Using data from the T-MSIS Analytic Files (TAF)—the research-optimized version of the T-MSIS data—the report presents data for calendar years 2018, 2019, and 2020.<sup>3</sup> Because the

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<sup>1</sup> The U.S. Department of Veterans Affairs provides non-emergency medical transportation services to certain veterans, and Medicare Advantage plans increasingly offer transportation to enrollees (MACPAC 2021).

<sup>2</sup> This report examines use of NEMT among beneficiaries in each of five major eligibility categories (children, adults, adult expansion beneficiaries, beneficiaries eligible for Medicaid on the basis of a disability, and those eligible on the basis of age [65+]). It also examines the use of NEMT among beneficiaries enrolled in several Medicaid programs that support beneficiaries with substantial health care needs, including section 1915(c) waiver enrollees, Program of All-Inclusive Care for the Elderly (PACE) enrollees, and Money Follows the Person (MFP) participants. For states with usable Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files (TAF) race and ethnicity data, the report examines the use of NEMT among beneficiaries within each major race and ethnicity category. It also examines use of NEMT among beneficiaries with select physical health conditions, mental health conditions, and substance use disorders. Finally, the report examines the extent to which the use of NEMT varies across the urban-rural spectrum and within frontier and remote areas, as well as by the degree of social deprivation in a beneficiary’s area of residence, and presents data on the modes of transportation used and how those modes vary across these geographic areas.

<sup>3</sup> This report is based on the 2018 TAF Release 2, the 2019 TAF Release 1, and the 2020 preliminary TAF (the most recent versions of each year of data available when the analysis was conducted). Under the Ambulance Fee Schedule (AFS), Medicare Part B covers ground (land and water) and air ambulance transports services furnished to

COVID-19 public health emergency (PHE) caused a variety of changes to health care utilization patterns, the report presents 2018 and 2019 data alongside the 2020 data to provide a baseline picture of NEMT use before the COVID-19 PHE.

The results presented in this report are based on beneficiaries enrolled in Medicaid for at least one day and who had full or comprehensive benefits during the calendar year.<sup>4</sup> It excludes beneficiaries only eligible for CHIP during the year and those receiving only a limited set of benefits.

## **b. T-MSIS data limitations relevant to NEMT**

Because the TAF data provide information on the services that Medicaid beneficiaries receive, CMS identified beneficiaries as those using NEMT based on Medicaid fee-for-service claims and encounter records reported by managed care entities.<sup>5</sup> It is important to note that states may claim NEMT as a medical service expenditure, an administrative expenditure, or a combination of the two. However, T-MSIS is designed to capture medical service expenditures but not administrative expenditures. As a result, not all NEMT provided to beneficiaries is captured in the T-MSIS data.<sup>6</sup> Examples of NEMT that may be treated as an administrative expenditure and not reported in the T-MSIS data include qualified reimbursements to beneficiaries who incur out-of-pocket costs when using public transit (e.g., buses or subway rides) or a personal vehicle to get to a medical service. In addition, some states that treat NEMT as an administrative expenditure deliver NEMT through a transportation broker.<sup>7</sup> An analysis of

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a Medicare beneficiary that meet certain requirements. Appropriate destinations include: hospital; critical access hospital (CAH); skilled nursing facility (SNF); beneficiary's home; and dialysis facility for an end stage renal disease (ESRD) patient who requires dialysis. (42 CFR §410.40)

<sup>4</sup> The scope of benefits available to Medicaid beneficiaries can vary depending on factors such as the beneficiary's state of residence, resources, and citizenship or immigration status, among other factors. In general, Medicaid beneficiaries may be entitled to the following types of benefits: (1) full benefits, which include all services covered under the Medicaid state plan; (2) comprehensive but not full-scope benefits, which would cover most medical and pharmacy services but not all benefits included in the state plan; or (3) limited benefits, which cover only a small set of services, such as emergency services only or family planning services only. Generally, full benefits and comprehensive benefits meet the definition of minimum essential coverage (MEC) while limited benefits do not.

<sup>5</sup> States are required to report both fee-for-service claims and encounter records, which represent service use (including for NEMT services) provided by managed care entities under capitated arrangements, into T-MSIS. Essentially, when a provider bills either the state (in a fee-for-service system) or a health plan (in a capitated managed care plan, including transportation brokers) for the provision of NEMT, that billing record should be reflected in the data used for this report.

<sup>6</sup> Each state reports its quarterly Medicaid administrative expenditures and medical service expenditures to CMS on the Form CMS-64. CMS uses the Form CMS-64 data to calculate Medicaid payments to states according to the applicable federal matching rate for each state and expenditure category. The T-MSIS data are not used to determine federal payments to states but may be used to study state payments to providers and managed care plans. In general, T-MSIS was not designed to capture Medicaid administrative expenditures. However, states have not been given formal guidance regarding the reporting of NEMT expenditures that were claimed as administrative expenditures into T-MSIS. Therefore, it is possible that some states report NEMT activities that were claimed as administrative expenditures in the T-MSIS data, and there is some evidence that at least a few states are doing so. For example, several states that reported all NEMT expenditures as administrative expenditures on their Form CMS-64 also reported a substantial number of fee-for-service claims for NEMT services in their T-MSIS data.

<sup>7</sup> Medical service expenditures are equivalent to expenditures states report as Medical Assistance Program expenditures on Form CMS-64. On Form CMS-64, in 2018, Alabama, Massachusetts, Minnesota, and Wyoming

the Medicaid Budget and Expenditure System (MBES) data reported by states on Form CMS-64 shows that, in fiscal years 2018 and 2019, 83 percent and 82 percent, respectively, of all NEMT expenditures were claimed by states as a medical expenditure, and 17 percent and 18 percent, respectively, as an administrative expenditure (for state-level information, see Tables C.3a through C.3c).<sup>8</sup> Additionally, because the collection and reporting of race and ethnicity information is not mandatory, CMS' ability to assess differences by race and ethnicity is limited. Furthermore, because TAF data only provide information on the services that Medicaid beneficiaries receive, data are not available to assess the amount of unmet beneficiary need for NEMT, missed appointments, or on any foregone care due to lack of transportation.

Furthermore, in each year, the TAF data for some states had important data quality issues that precluded their use in this study; CMS excluded data for these states from the national estimates presented in this report. Specifically, Tennessee was not included in most of the analyses of 2020 data due to a very low percentage (3 percent) of NEMT claims and encounter records that linked to an eligibility record.<sup>9</sup> Other states and territories included in the analysis had less severe but still problematic data quality issues. For instance, some states had an unexpectedly low volume of claims and encounter records or high rates of missing information essential to identifying claims for NEMT. CMS presents data for these states and territories in the report but excludes the data from the national-level statistics.<sup>10</sup> For additional information on TAF data quality issues, please see Appendix C. For these reasons, the national data presented in this report are incomplete, as are the results presented for some states.

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reported all NEMT expenditures as administrative expenditures and Connecticut, Michigan, Missouri, New Hampshire, North Carolina, Pennsylvania, South Dakota, and Washington reported some, but not all, NEMT expenditures as administrative expenditures. In 2019, Colorado, Massachusetts, Minnesota, and Wyoming reported all NEMT expenditures as administrative expenditures while Alabama, Connecticut, Kentucky, Michigan, Missouri, New Hampshire, North Carolina, Pennsylvania, and South Dakota reported some, but not all, NEMT expenditures as administrative expenditures. In 2020, Colorado, Minnesota, and Wyoming reported all NEMT expenditures as administrative expenditures while Alabama, Connecticut, Michigan, Missouri, North Carolina, Pennsylvania, and South Dakota reported some, but not all, NEMT expenditures as administrative expenditures.

<sup>8</sup> However, expenditures reported under the NEMT line items on the CMS-64, whether reported as a medical service expenditure or an administrative expenditure, undercount total NEMT expenditures; this is because NEMT provided under capitated arrangements (such as those provided through comprehensive managed care plans or transportation prepaid ambulatory health plans [PAHPs]) are not reported as NEMT expenditures, but these expenditures are incorporated into the capitated payments the state pays to managed care plans. Capitated payments for transportation PAHPs are captured in the T-MSIS data, but when a state has a comprehensive managed care plan administer the NEMT benefit, the capitated payment to these plans cannot be disaggregated to identify the amount of the monthly capitated payment that covers the plan's NEMT payments.

<sup>9</sup> Tennessee's data linkage issue stems from how MSIS beneficiary IDs are created in the state's Medicaid Management Information System. The issue prevents claims from linking to beneficiary enrollment records in the 2020 T-MSIS data and severely affects the ability to conduct analyses on the state's service utilization patterns in 2020.

<sup>10</sup> Specifically, CMS excluded Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands from the 2018 national-level statistics; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands from the 2019 national-level statistics; and Alabama, Puerto Rico, Tennessee, Utah, and the U.S. Virgin Islands from the 2020 national-level statistics.

### **c. Key findings**

**Based on available data, approximately 3 million to 4 million Medicaid beneficiaries used NEMT in 2018, 2019, and 2020.** This is an undercount of beneficiaries using NEMT given that not all NEMT is reported in T-MSIS data (see discussion above) and not all states are included in these national estimates. During this period, state Medicaid programs provided between 51.5 million (in 2020) and 81.3 million (in 2019) ride days, which translates to between 6,677 ride days per 10,000 beneficiaries (in 2020) and approximately 10,500 ride days per 10,000 beneficiaries (in 2019). As noted, these amounts are lower bound estimates of use.

**Based on available data, overall, between 4 percent and 5 percent of Medicaid beneficiaries used NEMT in each year, but subgroups of Medicaid beneficiaries with substantial health care needs used NEMT at higher rates than the average, using the benefit on multiple days in an average month.** In 2018 and 2019, 5 percent of Medicaid beneficiaries used NEMT (between 3.7 million and 3.9 million beneficiaries using NEMT in these years, respectively). Due to the impacts of the COVID-19 PHE, use of NEMT dropped to slightly more than 4 percent in 2020 (or a little more than 3.3 million beneficiaries). Among those using NEMT paid for by Medicaid, across years, NEMT use was for fewer than two days per month enrolled. Certain subgroups of beneficiaries with substantial health care needs used the benefit at much higher rates and, in some cases, frequencies. These subgroups included Money Follows the Person (MFP) participants (41 percent used the benefit in 2019, with an average of 2 monthly ride days per user); section 1915(c) waiver enrollees (29 percent, with an average use of 3.5 monthly ride days per user); beneficiaries dually eligible for Medicare and Medicaid (17 percent, with an average use of 2.3 monthly ride days per user); beneficiaries eligible for Medicaid on the basis of a disability or age (65+) (16 percent of beneficiaries in each group used the benefit in 2019, with an average use of 2.6 and 1.8 monthly ride days per user, respectively); and Program of All-Inclusive Care for the Elderly (PACE) enrollees (14 percent, with an average use of 4 monthly ride days per user).<sup>11</sup>

**NEMT played a key role in enabling access to care for beneficiaries with certain types of physical health conditions, mental health conditions, and substance use disorders (SUDs).** Beneficiaries with certain physical health conditions, mental health conditions, and SUDs also used the benefit at substantially higher rates than the average. Slightly more than half of beneficiaries with chronic kidney disease (CKD) with end-stage renal disease (ESRD) used the benefit in 2019, with an average use of 5.9 monthly ride days per user. Eighteen percent of beneficiaries with intellectual disabilities or developmental delays used the benefit in 2019, with an average use of 4.4 monthly ride days per user. In addition, 19 percent of beneficiaries with any SUD and 20 percent of beneficiaries with opioid use disorder (OUD) used NEMT in 2019, with an average use of 2.0 and 3.1 monthly ride days per user, respectively. Finally, 14 percent of beneficiaries with a mental health condition used the benefit in 2019, with an average use of 1.8 monthly ride days per user. These results suggest that NEMT plays an important role in

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<sup>11</sup> PACE plans include a transportation benefit, and many PACE participants receive services at a PACE center up to five days per week. A PACE center typically includes an adult day facility as well as onsite PT/OT and other medical services. Since adult day services are considered non-medical services, transportation between a beneficiary's home and adult day services are considered non-medical transportation and not NEMT.

enabling beneficiaries with chronic physical and mental health conditions, and substance use disorders to access medically necessary care.

**Beneficiaries most often use NEMT to access preventive health care, behavioral health, and lab and imaging services.** Rides to preventive health care services accounted for a quarter of all NEMT ride days in each year examined. Depending on the year, behavioral health services and lab and imaging services each accounted for between 13 and 15 percent of all NEMT ride days in each year examined.

**Rates of NEMT use changed dramatically during the COVID-19 PHE.** At the start of the COVID-19 PHE, NEMT use dropped sharply. Between February and April 2020, the number of monthly NEMT ride days decreased by 63 percent and the number of beneficiaries using NEMT decreased by 60 percent as many services shifted to telehealth and providers and beneficiaries delayed non-urgent medical care (CMS & 2021b). Use of NEMT gradually increased in May through October 2020, but the total number of ride days remained 33 percent below pre-PHE levels, and the number of beneficiaries using NEMT remained 26 percent below those levels as of October 2020.

**The T-MSIS data show little variation in use of NEMT across major race and ethnicity groups<sup>12</sup> or by degree of an area's level of social deprivation.** Several subgroups of beneficiaries more likely to be living below the federal poverty level, including Black and Hispanic beneficiaries (U.S. Census Bureau 2020) and those residing in an area with a high social deprivation index (SDI), used the benefit at rates and frequencies about the same as or below the respective reference group (White beneficiaries and beneficiaries residing in an area with a low SDI, respectively). However, race and ethnicity data could only be assessed in slightly more than half of states due to data quality concerns. In 2019, 5 percent of beneficiaries living in areas falling within the highest SDI quartile used NEMT, compared to about 4 percent of those living in areas within the lowest SDI quartile. Black beneficiaries used NEMT at higher rates than White beneficiaries in only slightly more than half of states with sufficient data quality in 2019 (16 of 29 states), and Black NEMT users accessed the benefit more frequently than White NEMT users (a higher number of monthly ride days per user) in just 11 states. Hispanic beneficiaries used NEMT at higher rates than White beneficiaries in just 2 states in 2019.

**Across geographies, beneficiaries residing in frontier and remote areas used NEMT at the highest rates but with lower frequency compared to the national average.** In 2019, nearly 9 percent of beneficiaries living in frontier or remote areas (defined as those more than 30 minutes from an urban area of more than 10,000 people) used NEMT, compared to 5 percent of all Medicaid beneficiaries, but they used the benefit slightly less frequently, with just 1.4 monthly ride days per user. Looking across the urban-rural spectrum, beneficiaries residing in

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<sup>12</sup> Race and ethnicity information is self-reported by beneficiaries and includes the following mutually exclusive categories: American Indian and Alaskan Native (AI/AN), non-Hispanic; Asian, non-Hispanic; Black, non-Hispanic; Hawaiian/Pacific Islander, non-Hispanic; White, non-Hispanic; multiracial, non-Hispanic; Hispanic. While state Medicaid agencies ask applicants to self-report their race and ethnicity, it is not mandatory for Medicaid applicants or beneficiaries to provide this information.

more rural areas depended more on private vehicles and those in urban areas used public transit and taxis more often.



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## I. INTRODUCTION

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Since early in their histories, Medicaid programs have assured beneficiaries would be provided with necessary transportation to covered services (Adelberg and Simon 2017). This transportation assurance encompasses both emergency medical transportation and non-emergency medical transportation, or NEMT. NEMT includes a broad array of transportation services, including public transit; taxi and van transport; personal vehicle transport; non-emergency ambulance transport; air transport; and, in a small but growing number of states, transportation network companies (TNCs) such as Uber or Lyft (Medicaid and CHIP Payment and Access Commission [MACPAC] 2021; Ganuza and Davis 2017). NEMT sets Medicaid apart from other sources of coverage, including private insurance and Medicare, which generally do not cover transportation to or from non-emergency medical services.<sup>13</sup>

Medicaid beneficiaries may use NEMT for any medical service covered by Medicaid, including travel to and from a pharmacy (MACPAC 2021). For NEMT to be covered for a Medicaid beneficiary, the beneficiary must have an unmet transportation need (CMS 2016).<sup>14</sup> By connecting beneficiaries who lack affordable or available transportation with medical care, NEMT has been cited as a promising pathway for increasing access to care, improving equity, and reducing health disparities (MACPAC 2021; Silow-Carroll et al. 2021; Musumeci and Rudowitz 2016).

Before the enactment of the Consolidated Appropriations Act, 2021, in December 2020, the Medicaid transportation assurance, including NEMT, was not a statutory requirement and was described only in regulation, *see* 42 C.F.R. § 431.53. This regulation generally requires states to ensure necessary transportation for beneficiaries to and from covered services (CMS 2021[a]). Furthermore, as part of the Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) benefit, states have been required by 42 CFR § 441.62 to offer EPSDT-eligible beneficiaries from birth to age 21 and their families “necessary assistance with transportation” to and from EPSDT visits (Musumeci and Rudowitz 2016).

The Consolidated Appropriations Act, 2021, passed by Congress in December 2020, formally codified the NEMT assurance requirement into statute. This requirement is set forth in Division CC, Title II, Section 209 of that Act (Public Law 116-260) (Section 209). Section 209(b)(5) directs the U.S. Department of Health and Human Services (HHS) through CMS, to conduct an analysis of, and submit to Congress a report on, the nationwide Transformed Medicaid Statistical Information System (T-MSIS) data set, identifying recommendations relating to Medicaid coverage of NEMT to medically necessary services. This document includes the required content set forth in Section 209(b)(5).

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<sup>13</sup> The U.S. Department of Veterans Affairs provides non-emergency medical transportation services to certain veterans, and Medicare Advantage plans increasingly offer transportation to enrollees (MACPAC 2021).

<sup>14</sup> Depending on state law, an unmet transportation need may include (1) lacking a valid driver’s license or a working vehicle; (2) being unable to travel to or wait for services alone; or (3) having a physical, cognitive, mental, or developmental limitation. Most states determine whether beneficiaries have an unmet need for transportation by requiring them to self-attest that they need a ride to medical care and have no other means of transportation, though some states require a medical provider to document this attestation (MACPAC 2021).

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## II. BACKGROUND

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As with most aspects of the Medicaid program, there is substantial state-level variation in NEMT policies and program administration. In most states, all beneficiaries with no other means of transportation are eligible for NEMT. However, several states (for example, Georgia, Indiana, Iowa, Kentucky, and Utah) have Medicaid Section 1115 demonstrations that waive or make not applicable the requirement to assure NEMT for certain low-income adult populations. In Indiana and Iowa, section 1115 demonstrations waive NEMT for adult expansion beneficiaries but provide it as part of EPSDT for EPSDT-eligible beneficiaries ages 19 to 21 in this population, and Iowa also provides it for medically frail individuals in this population. Utah's section 1115 demonstration makes the requirement to assure NEMT for parent and caretaker relatives not applicable, unless they are eligible for EPSDT services. Kentucky's section 1115 demonstration waives transportation to methadone treatment services for all beneficiaries except pregnant individuals, former foster care youth, and beneficiaries eligible for EPSDT services. In October 2020, Georgia received approval to extend Medicaid coverage to adults with incomes up to 95 percent of the federal poverty level who are not otherwise eligible for Medicaid. The state's section 1115 demonstration makes inapplicable the requirement to assure NEMT for these individuals, unless they are eligible for EPSDT services (HHS 2021, MACPAC 2021).

It is important to note that how states claim their matching federal funds for NEMT has implications for the results presented in this report. States may claim NEMT either as a medical service or an administrative expenditure for purposes of federal matching (National Academies of Sciences, Engineering, and Medicine 2018; Musumeci and Rudowitz 2016). This choice has implications for how NEMT may be recorded (or not recorded) in the T-MSIS data.<sup>15</sup> States reporting NEMT spending as an administrative expenditure receive the federal financial participation (or federal match) for general Medicaid administrative activities, which is set at 50 percent (MACPAC n.d.). Claiming NEMT as an administrative expenditure generally gives a state more latitude in program design, but at the cost of a lower federal matching rate. Alternatively, states claiming NEMT as a medical service expenditure receive payment at the state's regular federal medical assistance percentage (FMAP), which ranged from 50.00 to 77.76

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<sup>15</sup> T-MSIS was designed to capture services and payments that correspond to CMS-64 Medical Assistance Program expenditures, but not to CMS-64 administrative expenditures. Therefore, states claiming NEMT as an administrative expenditure may not be reporting NEMT-related payments or service use in their T-MSIS data.

percent for fiscal year (FY) 2021, depending on the state and territory (U.S. Department of Health and Human Services 2019).<sup>16,17,18</sup>

States also vary in how they administer and pay for NEMT. They can choose one of three models of NEMT program administration (or in many cases, a combination of the three models). The first model is to administer the program and contract with NEMT providers directly, typically on a fee-for-service (FFS) basis, which is known as an “in-house management” model. The second model is to contract with a third-party transportation broker to provide rides, which may be reimbursed on a FFS basis or on a capitated basis; the latter are typically reported as services provided under prepaid ambulatory health plans (PAHPs) in the T-MSIS data. The third model includes NEMT in comprehensive managed care contracts, known as “carved-in NEMT” (MACPAC 2021; Musumeci and Rudowitz 2016). States are to report in T-MSIS claims for NEMT provided on a FFS basis, including services provided under an in-house management model or a FFS broker model. Likewise, states are to report encounter records representing services provided under capitated plans, including capitated broker models (transportation PAHPs) and comprehensive managed care plans.<sup>19</sup>

Many states use a combination of these approaches. States may, for example, provide NEMT to comprehensive managed care enrollees through carved-in NEMT but provide the benefit through a transportation broker for those not enrolled in a comprehensive managed care plan. Alternatively, they may reimburse rides on an FFS basis in rural areas but contract with a broker in urban areas (MACPAC 2021). In states that contract with brokers, the latter serves as

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<sup>16</sup> On top of the regular FMAP presented here, the Families First Coronavirus Response Act of 2020 provides a temporary 6.2 percentage point FMAP increase during the COVID-19 PHE, as long as the state meets statutory requirements, including to provide beneficiaries with continuous enrollment until the end of the month in which the PHE ends.

<sup>17</sup> States that have expanded Medicaid to low-income adults under the Affordable Care Act (ACA) are eligible to receive an increased FMAP for medical service expenditures for certain of these beneficiaries; a beneficiary will either qualify for the “newly eligible FMAP” or the “not newly eligible FMAP.” Newly eligible adult expansion beneficiaries are those who would not qualify for full Medicaid benefits, benchmark coverage, or benchmark-equivalent coverage under the state’s program rules in place as of December 1, 2009. A beneficiary is also considered newly eligible if he or she would have been eligible but could not have been enrolled for these benefits or this coverage because the applicable Medicaid waiver or demonstration had limited or capped enrollment as of December 1, 2009. The newly eligible FMAP was set to 94 percent in calendar year 2018, 93 percent in calendar year 2019, and 90 percent in calendar years 2020 and beyond. For “not newly eligible” beneficiaries, those who would not qualify for full Medicaid benefits, benchmark coverage, or benchmark-equivalent coverage under the state’s program rules in place as of December 1, 2009, states receive the expansion state FMAP. The expansion state FMAP is an alternate increased FMAP available to match the expenditures for certain adults in states that previously expanded Medicaid and, as a result, may not qualify for the newly eligible FMAP with respect to some beneficiaries in the new adult group.

<sup>18</sup> If a state chooses to report NEMT as a medical service expenditure, it must meet additional federal requirements for the provision of medical assistance, including statewideness, freedom of choice of provider, and comparability, unless provided under a demonstration project that waives or makes inapplicable some or all of these requirements with respect to the provision of NEMT. States providing NEMT through a third-party transportation broker (such as a transportation PAHP) are statutorily exempt from meeting these requirements.

<sup>19</sup> One exception to this requirement is for PACE and integrated care plans for beneficiaries dually eligible for Medicare and Medicaid. Provided these plans are reporting all encounter records to the Medicare program, they are not required to report encounter records for T-MSIS reporting purposes.

the logistical mediator between beneficiaries, providers, health plans (as applicable), and transportation companies (Ganuza and Davis 2017). States may contract with either regional or statewide brokers, which may be for-profit or not-for-profit. Statewide brokers are typically for-profit national brokers. Not-for-profit brokers may include human services agencies, public transportation agencies, other governmental entities, or not-for-profit organizations (National Academies of Sciences, Engineering, and Medicine 2018). States that contract with brokers typically pay them for NEMT under a capitated payment arrangement, whereas a smaller number of states instead pay brokers a lump-sum payment or on an FFS basis.

The NEMT administration landscape has changed considerably over the past 15 years, with a strong trend toward using brokers and incorporating NEMT into comprehensive managed care contracts. States' use of brokers was accelerated by the Deficit Reduction Act of 2005 (DRA), which allowed states to contract with brokers to provide NEMT as a medical service expenditure (and receive federal matching at the applicable FMAP, typically higher than the 50% general federal administrative matching rate) through a state plan amendment without needing a 1915(b) waiver. Before the DRA, states providing NEMT as a medical service expenditure without a 1915(b) waiver could not restrict beneficiary freedom of choice of provider and were required to provide NEMT uniformly throughout the state (National Academies of Sciences, Engineering, and Medicine 2018). As of June 2021, 35 states had contracted with a transportation broker to provide NEMT to at least some populations or geographic areas (MACPAC 2021).

In addition, including NEMT in comprehensive managed care contracts has accelerated in the last six years, which may be related to the trend in many states of covering high-need populations under comprehensive managed care plans. As of June 2021, 26 states had included NEMT in their comprehensive managed care contracts for at least some populations or geographic areas (MACPAC 2021; Ganuza and Davis 2017). Far fewer states use an in-house management (FFS) model—as of June 2021, 12 states were using this model for at least some beneficiaries; only 5 states do so for all beneficiaries (MACPAC 2021).

States have reported several common challenges related to administering NEMT. One of the most common is maintaining an adequate provider network—specifically, having enough vehicles equipped for high-need beneficiaries (MACPAC 2021; Silow-Carroll et al. 2021). Customer service concerns pose another challenge, including how to handle drivers not showing up or arriving late, which may result in missed appointments (Ganuza and Davis 2017). States also reported inadequate system responsiveness to beneficiary needs. Although NEMT is well suited to handling service needs that recur or can be scheduled well in advance, it is typically less well equipped to handle time-sensitive needs or those difficult to schedule in advance, such as transportation to the beneficiary's home or other care setting after a hospital discharge.

States may also face fraud and abuse concerns in administering NEMT (Ganuza and Davis 2017). The U.S. Government Accountability Office (GAO) has identified NEMT as being at a particularly high risk for fraud and abuse, noting concerns about enrolling providers, program inefficiencies, and verifying eligibility (GAO 2016; MACPAC 2019). However, a recent study noted that although fraud and abuse in NEMT was a concern to program administrators, they did not perceive it as a significant problem, particularly with more states shifting to a broker model and increased use of technology (Silow-Carroll et al. 2021).

State program administrators use a variety of options to address these challenges. For example, they cited technology, such as global positioning system (GPS) tracking, as one way to improve timeliness, efficiency, and beneficiary satisfaction. Many states, brokers, and managed care organization (MCOs) are increasingly including technology requirements in broker and provider contracts (Silow-Carroll et al. 2021). To relieve the strain on NEMT provider networks, states reported using strategies such as promoting mileage reimbursement for beneficiaries, family members, friends, and other volunteers who drive beneficiaries (particularly in rural areas), drawing on public transportation and county transit programs where available, using broker-owned vehicles to handle a surge in demand, and negotiating with NEMT companies for service expansions in shortage areas (Ganuza and Davis 2017).

Many states have also begun to use Transportation Network Companies (TNCs) such as Uber, Lyft, or Veyo (a TNC-like transportation broker) to expand the provider network (MACPAC 2021; Silow-Carroll et al. 2021). Using TNCs may also help reduce beneficiary wait times, and they may be better equipped than other forms of transportation to respond to time-sensitive or unscheduled needs. A study of NEMT users in San Francisco showed that most TNC customers (93 percent) waited less than 10 minutes for their NEMT rides, compared with 35 percent of taxi customers (Rayle et al. 2014). Results from a study of Philadelphia NEMT users showed that a ride-share pilot NEMT program increased show rates at primary care appointments (Chaiyachati et al. 2018); another study showed that ride-share use improved timely arrival at MRI appointments (Whorms et al. 2021). In addition, because TNCs rely on GPS, mobile platforms, and other analytical and predictive software, this technology can be used to prevent fraud and abuse and provide a data source for quality improvement (Medical Transportation Access Coalition n.d.; Ganuza and Davis 2017).

Although using TNCs and TNC-like brokers could help state NEMT programs address some of the challenges of arranging transportation for time-sensitive needs or those that cannot be scheduled in advance, the role they play in delivering NEMT to Medicaid beneficiaries varies by state (MACPAC 2021; Silow-Carroll et al. 2021). At least 14 states and Washington, DC, allow broad use of TNCs as first-choice NEMT providers, but others such as Georgia<sup>20</sup> allow their use only when no other transportation provider is available, an NEMT driver is a no-show, or if the beneficiary specifically requests them and the broker approves them (MACPAC 2021). Use of TNCs in rural states such as Vermont is less feasible than in other states because TNC networks are limited in rural areas. On the other hand, TNC driver networks are increasingly robust in urban areas (Smith et al. 2017).

Using TNCs may help alleviate some challenges in NEMT administration, but it has also introduced new ones. TNC contractors may be poorly equipped to address the complex medical and social needs of Medicaid beneficiaries, including their mobility needs (for example, the need for a wheelchair-accessible vehicle) and behavioral health needs. Use of TNCs may also decrease provider continuity (introducing different drivers for recurring rides, where there may be reason to prefer a customary transportation provider who has gained familiarity with a particular beneficiary). Some states do not subject TNCs and their drivers to the same

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<sup>20</sup> The broker authority granted under 42 CFR § 440.170(a)(4) specifically prohibits a broker from being a transportation provider themselves. In a limited number of cases, such as in the state of Georgia, CMS has granted an exception for a state's broker to also be a transportation provider, pursuant to 42 CFR § 440.170(a)(4)(ii)(B).

requirements as other NEMT providers, such as background checks, insurance, incident reporting, and credentialing, thus raising safety and quality concerns (MACPAC 2021). When its NEMT program first launched, Uber faced several lawsuits from various stakeholders, some notably stemming from the lack of background checks for drivers (Kelly 2016). However, in more recent years, Uber and Lyft have expanded driver requirements to include driving history and criminal background checks. Uber and Lyft have also launched specialized healthcare transportation programs, Uber Health and Lyft Pass for Healthcare, forming partnerships with the healthcare sector, integrating ride scheduling directly into the electronic health record (Wetsman 2022). The San Francisco Health Plan in California addressed the challenging regulatory environment of TNCs by partnering with FlyWheel, an app-based TNC that employs taxis. FlyWheel taxi drivers must undergo background checks, and the app supports requests for wheelchair-accessible taxis (Ganuza and Davis 2017).

Federal guidelines governing the use of TNCs for NEMT are limited. Accordingly, states have taken different approaches to integrate TNCs into their NEMT networks. Because TNCs are relatively new to the transportation marketplace, the regulatory landscape is evolving and varies substantially by jurisdiction (Ganuza and Davis 2017; MACPAC 2021). Until 2021, it was not possible to distinguish rides provided by a TNC in the T-MSIS data, making it difficult to study their use. However, effective January 1, 2021, the National Uniform Claim Committee issued a new provider taxonomy code specific to TNCs, which should allow HHS and other stakeholders to use T-MSIS data to study NEMT rides provided by TNCs in the future.

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### III. DATA

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Each state reports data on Medicaid and Children’s Health Insurance Program (CHIP) enrollment, service use, payment, providers, and other information monthly through T-MSIS. For this report, we used the T-MSIS Analytic File (TAF) data, the research-optimized version of the T-MSIS data. The report reflects data for calendar years 2018, 2019, and 2020.<sup>21</sup> Because the COVID-19 public health emergency (PHE) caused a variety of changes to health care utilization patterns, we present the 2018 and 2019 data alongside the 2020 data to provide a baseline picture of non-emergency medical transport (NEMT) use before the COVID-19 PHE. Specifically, the information in this report used data from the Annual Demographic and Eligibility (DE), Inpatient (IP), Long-Term Care (LT), Other Services (OT), and Pharmacy (RX) files.

T-MSIS data are continually improving in completeness and quality as states receive and respond to known data quality issues. However, as of November 2021 when this report was compiled, Tennessee had particularly severe data quality issues affecting calendar year 2020. The state had a very low percentage of claims and encounter records for NEMT that linked back to an eligibility record (3 percent). This issue stems from a known change in the state’s assignment of Medicaid identification numbers. For this reason, we do not include Tennessee in the analyses of 2020 data presented in this report. In addition, several other states had severe data quality issues that did not prevent their results from being presented in the report but did warrant excluding them from the national totals. These issues include the following, organized by state in Appendix Table C.1:

- The number of individuals eligible for full or comprehensive Medicaid benefits reported in the T-MSIS eligibility data did not align well with a benchmark data source. When present, this issue may result in inaccurate estimates of the number of Medicaid beneficiaries eligible for NEMT.
- There was an unexpectedly low volume of OT claims compared with other states. States report claims for NEMT in the OT file and therefore an unexpectedly low volume of OT claims may signal that OT claims were underreported, which may also mean that NEMT claims were underreported. When present, this issue may result in an underestimate of the number and percentage of beneficiaries using NEMT.
- Some states had an unexpectedly high percentage of OT professional claims with a missing or invalid procedure code—an essential component for identifying NEMT services. When this issue was present, we further examined whether the state had an unexpectedly high rate

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<sup>21</sup> This report is based on the 2018 TAF Release 2, the 2019 TAF Release 1, and the 2020 preliminary TAF (the most recent versions of each year of data when the analysis was conducted). The 2018 TAF Release 2 and 2019 TAF Release 1 are fully mature and include at least 12 months of runout for each month of the year. The 2020 preliminary TAF has at least 6 months of runout for each month of the year. Although the data are not fully mature because states continued to submit records for services delivered in 2020 after the files were produced, the 2020 preliminary TAF includes the vast majority of service use records for 2020.

of missing or invalid<sup>22</sup> procedure codes on all OT transportation claims.<sup>23</sup> When present, this issue may result in an underestimate of the number of Medicaid beneficiaries who used NEMT.

Additional information on the completeness and quality of TAF data is available online in the *DQ Atlas* (<https://www.medicaid.gov/dq-atlas/welcome>).

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<sup>22</sup> Some states reported local or state-specific procedure codes on some claims. This report considers local or state-specific codes as valid procedure codes for transportation claims when there is available documentation that either indicates the description of the code or crosswalks the code to its corresponding national procedure code.

<sup>23</sup> All transportation claims include claims for emergency and non-emergency transportation services and were identified using the Type of Service Code data element in T-MSIS. In order to identify claims for NEMT, it is necessary to use the procedure code data elements in T-MSIS.

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## IV. METHODS

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The results presented in this report include beneficiaries who were enrolled in Medicaid for at least one day and eligible for full or comprehensive benefits in each calendar year of analysis (2018, 2019, and 2020), excluding those only eligible for CHIP during the year and those receiving only a limited set of benefits. Although some states extend non-emergency medical transport (NEMT) to certain limited-benefit Medicaid groups (such as individuals eligible for family planning services only), we found that on a national scale, very few of eligible beneficiaries used NEMT.<sup>24</sup>

We identified a beneficiary as using NEMT if the beneficiary had one or more fee-for-service (FFS) claims or managed care encounter records in the TAF OT file with a procedure code specific to NEMT during the year of analysis (see Appendix C for details about these codes). We excluded those rides meeting these criteria if beneficiaries used them to travel to home- and community-based services (HCBS) because these rides are considered non-medical transportation and not NEMT.<sup>25, 26</sup> However, rides to and from medical services for beneficiaries eligible for home and community-based services (HCBS) qualifies as NEMT and therefore, these rides are included in this report. Among beneficiaries using NEMT during the year, we calculated the number of NEMT “ride days” used per month enrolled. Because of differences in billing practices across states and beneficiaries (for example, some claims in T-MSIS represent a one-way ride, other claims represent a round-trip, and other claims represent a series of rides for recurring scheduled appointments such as dialysis treatment), we assessed the number of ride days instead of the number of rides to allow for a more comparable analysis across states and beneficiaries. To assess the variation in use of NEMT across subgroups, we categorized beneficiaries in several ways, based on (1) enrollment, eligibility, and demographic characteristics; (2) geographic characteristics; and (3) physical health conditions, mental health conditions, and substance use disorders present.<sup>27</sup> Finally, we examined the frequency with which NEMT was used to access various types of medical services.

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<sup>24</sup> Nationally, in 2018 and 2019, only about 1,100 beneficiaries eligible for family planning services only used NEMT; about 900 used the benefit in 2020. There was also extremely limited use of NEMT among beneficiaries eligible for “other” restricted benefits that do not meet the definition of minimum essential coverage (MEC) and, in 2020, among beneficiaries eligible for COVID-19-related services only.

<sup>25</sup> Non-medical transportation includes transportation services offered to enable waiver participants to gain access to waiver and other community services, activities and resources, as specified by the service plan. This service is offered in addition to medical transportation required under 42 CFR §431.53 and transportation services under the state plan, defined at 42 CFR §440.170(a) (if applicable), and does not replace them. Waiver transportation services may not be substituted for the transportation services that a state is obligated to furnish under the requirements of 42 CFR §431.53 (CMS 2019).

<sup>26</sup> Given that the procedure codes for non-emergency transportation are not specific to medical or non-medical transportation, for those states that cover rides to HCBS under their Medicaid state plan or a waiver, it is possible they may use these codes for both types of transit (medical and non-medical). Therefore, to avoid counting rides to and from HCBS as NEMT, for the analyses presented in this report, among T-MSIS claims with procedure codes for non-emergency transportation we examined whether each ride was associated with the receipt of an HCBS service within the same day. If it was, we excluded the claim from being counted as NEMT.

<sup>27</sup> This report examines use of NEMT among beneficiaries in each of five major eligibility categories (children, adults, adult expansion beneficiaries, beneficiaries eligible for Medicaid on the basis of a disability, and those

### a. T-MSIS data limitations relevant to NEMT

Because the T-MSIS data provide information on the services that Medicaid beneficiaries receive, CMS identified beneficiaries as those using NEMT based on Medicaid fee-for-service claims and encounter records reported by managed care entities.<sup>28</sup> It is important to note that some states claim some or all NEMT as an administrative expenditure as opposed to a medical service expenditure. As T-MSIS was not designed to capture administrative expenditures, T-MSIS data do not include records for all NEMT expenditures by states.<sup>29</sup> Examples of NEMT that may be treated as an administrative expenditure and not reported in the T-MSIS data include qualified reimbursements to beneficiaries who incur out-of-pocket costs when using public transit (e.g., buses or subway rides) or a personal vehicle to get to a medical service. In addition, some states that treat NEMT as an administrative activity deliver NEMT through a transportation broker.<sup>30</sup> An analysis of the Medicaid Budget and Expenditure System (MBES) data reported by states on Form CMS-64 shows that in FY 2018 and 2019, 83 and 82 percent, respectively, of all NEMT expenditures were claimed by states as a medical service expenditure, and 17 percent and 18 percent, respectively, as an administrative expenditure.<sup>31</sup> For detailed state-level information

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eligible on the basis of age—65+). It also examines the use of NEMT among beneficiaries in Medicaid programs that support beneficiaries with substantial health care needs, including enrollees in section 1915(c) waivers, Program of All-Inclusive Care for the Elderly (PACE), and Money Follows the Person (MFP) participants. For states with usable race and ethnicity data, the report examines the use of NEMT among beneficiaries within each major race and ethnicity category. The report also examines use of NEMT among beneficiaries with select physical health conditions, mental health conditions, and substance use disorders. Finally, it presents data on the modes of transportation used and how they vary across the urban-rural spectrum, as well as by the degree of social deprivation of beneficiaries' neighborhoods.

<sup>28</sup> States are required to report both fee-for-service claims and encounter records, which represent service use (including for NEMT services) covered by managed care entities under capitated arrangements, into T-MSIS.

<sup>29</sup> Although T-MSIS was not designed to capture administrative expenditures, it is possible that some NEMT treated as administrative expenditures still appear in the T-MSIS data. Several states that reported all NEMT expenditures as administrative expenditures on their Form CMS-64 data also reported FFS claims for NEMT services in their T-MSIS data. Therefore, it is possible that these states reported some claims for NEMT into T-MSIS that are claimed as administrative expenditures on Form CMS-64.

<sup>30</sup> Medical service expenditures are equivalent to expenditures states report as Medical Assistance Program expenditures on Form CMS-64. On Form CMS-64, in 2018, Alabama, Massachusetts, Minnesota, and Wyoming reported all NEMT expenditures as administrative expenditures and Connecticut, Michigan, Missouri, New Hampshire, North Carolina, Pennsylvania, South Dakota, and Washington reported some, but not all, NEMT expenditures as administrative expenditures. In 2019, Colorado, Massachusetts, Minnesota, and Wyoming reported all NEMT expenditures as administrative expenditures while Alabama, Connecticut, Kentucky, Michigan, Missouri, New Hampshire, North Carolina, Pennsylvania, and South Dakota reported some, but not all, NEMT expenditures as administrative expenditures. In 2020, Colorado, Minnesota, and Wyoming reported all NEMT expenditures as administrative expenditures while Alabama, Connecticut, Michigan, Missouri, North Carolina, Pennsylvania, and South Dakota reported some, but not all, NEMT expenditures as administrative expenditures (Mathematica's analysis of MBES data; CMS, n.d.[b])

<sup>31</sup> However, expenditures reported under the NEMT line items on the CMS-64 undercount total NEMT expenditures. The expenditures for NEMT provided under capitated arrangements (such as those provided through comprehensive managed care plans or transportation prepaid ambulatory health plans [PAHPs]) are not captured in the CMS-64 data. The CMS-64 data report the expenditures of a state's Medicaid program whereas NEMT provided through a capitated arrangement are health plan expenditures. What the state pays to the health plan is reported under the capitated payments line item on the CMS-64. Currently the CMS-64 data do not report capitated payments for transportation PAHPs separately from those paid to comprehensive managed care plans that provide the NEMT

on NEMT expenditures reported on Form CMS-64, see Tables C.3a through C.3c. Accordingly, because the statistics presented in this report are based on T-MSIS data, they underestimate the total amount of NEMT use covered by the Medicaid program.

Furthermore, in each year, the TAF data for some states had important data quality issues that precluded their use in this study, and CMS excluded data for these states from the national estimates presented in this report. Specifically, Tennessee was not included in most of the analyses of 2020 data due to a very low percentage (3 percent) of NEMT claims and encounter records that linked to an eligibility record.<sup>32</sup> Other states and territories included in the analysis had less severe but still problematic data quality issues. For instance, some states had an unexpectedly low volume of claims and encounter records or high rates of missing information essential to identifying claims for NEMT. CMS presents data for these states and territories in the report but excludes the data from the national-level statistics.<sup>33</sup> For additional information on TAF data quality issues, please see Appendix C. For these reasons, the national data presented in this report are incomplete, as are the results presented for some states.

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benefit. In addition, for comprehensive managed care plans that cover NEMT, currently it is not possible to determine the proportion of a plan's capitated payments that cover the NEMT benefit provided to plan members.

<sup>32</sup> Tennessee's data linkage issue stems from how the state's information system creates beneficiary IDs. The issue prevents claims from linking to beneficiary enrollment records and severely affects the ability to conduct analyses on service utilization patterns by subgroups of beneficiaries.

<sup>33</sup> Specifically, CMS excluded Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands from the 2018 national-level statistics; Puerto Rico, Rhode Island, Tennessee, Utah, and the U.S. Virgin Islands from the 2019 national-level statistics; and Alabama, Puerto Rico, Tennessee, Utah, and the U.S. Virgin Islands from the 2020 national-level statistics.

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## V. KEY FINDINGS

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- **Overall, between 4 percent and 5 percent of Medicaid beneficiaries used non-emergency medical transport (NEMT) in each year (2018, 2019, and 2020); however, these national estimates undercount utilization because not all NEMT is reported in T-MSIS and not all states are included in the national estimates.**<sup>34</sup> In 2018 and 2019, only 5 percent of Medicaid beneficiaries used NEMT, dropping to slightly more than 4 percent in 2020. Those using the benefit did so on fewer than two days per month enrolled, on average. The percentage of beneficiaries that used NEMT varied across states, from 1 percent in Maryland to nearly 13 percent in Alaska in 2019, whereas the number of monthly ride days per NEMT user ranged from 0.5 in Kentucky to 4.5 in Wisconsin in 2019.
- **Several subgroups of Medicaid beneficiaries with substantial health care needs used NEMT at higher rates than the national average, receiving the benefit on multiple days in an average month.** These groups included Money Follows the Person (MFP) participants (41 percent used NEMT in 2019, with an average of 2 monthly ride days per user); section 1915(c) waiver enrollees (29 percent used NEMT in 2019, with 3.5 monthly ride days per user); dually eligible beneficiaries (17 percent used NEMT in 2019, with 2.3 monthly ride days per user); beneficiaries eligible for Medicaid on the basis of a disability and age (65+) (16 percent of beneficiaries in each group used NEMT in 2019, with 2.6 and 1.8 monthly ride days per user, respectively); and Program of All-Inclusive Care for the Elderly (PACE) enrollees (14 percent used NEMT, with 4 monthly ride days per user).
- **Beneficiaries with certain types of physical and mental health conditions and substance use disorders used NEMT at substantially higher rates and frequencies than the national average.** They included beneficiaries with chronic kidney disease (CKD) with end-stage renal disease (ESRD), who used NEMT at the highest rate (50 percent used the benefit in 2019, with 5.9 monthly ride days per user); opioid use disorder (OUD) (20 percent, with 3.1 monthly ride days per user); any substance use disorder (SUD) (19 percent, with 2 monthly ride days per user); intellectual disabilities or other developmental delays (18 percent, with 4.4 monthly ride days per user); or a mental health condition (14 percent, with 1.8 monthly ride days per user, just below the national average of 1.9).
- **The T-MSIS data show little variation in use of NEMT by race and ethnicity<sup>35</sup> or the social deprivation of a beneficiary's area of residence.** Several subgroups of beneficiaries statistically more likely to live below the federal poverty level, including Black and

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<sup>34</sup> Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2018 national-level statistics presented in this report; Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2019 national-level statistics; and Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the 2020 national-level statistics. Furthermore, due to the severity of data quality issues, Tennessee's state-specific data are excluded from this report (in addition to being excluded from the national-level statistics). For additional information on data quality issues, please see Appendix C.

<sup>35</sup> Race and ethnicity information is self-reported by beneficiaries and includes the following mutually exclusive categories: American Indian and Alaskan Native (AIAN), non-Hispanic; Asian, non-Hispanic; Black, non-Hispanic; Hawaiian/Pacific Islander, non-Hispanic; White, non-Hispanic; multiracial, non-Hispanic; Hispanic. While state Medicaid agencies ask applicants to self-report their race and ethnicity, it is not mandatory for Medicaid applicants or beneficiaries to provide this information.

Hispanic beneficiaries (U.S. Census Bureau 2020) and those residing in an area with a high social deprivation index (SDI), used the benefit at rates and frequencies about the same as or below the respective reference group. For example, in 2019, 5 percent of beneficiaries residing in zip codes within the highest SDI quartile used NEMT, compared to about 4 percent of those residing in zip codes within the lowest SDI quartile. Black beneficiaries used NEMT at higher rates than White beneficiaries in only slightly more than half of states with sufficient data quality in 2019 (16 of 30 states) and used it more frequently than White beneficiaries (a higher number of monthly ride days per user) in just 12 states. Hispanic beneficiaries used NEMT at higher rates than White beneficiaries in just two states in 2019. Race and ethnicity information could only be assessed in slightly more than half of states due to data quality concerns.

- **Due to the COVID-19 public health emergency (PHE), use of NEMT dropped in 2020 compared to 2018 and 2019; by October 2020, the percentage of beneficiaries using NEMT rebounded to within 26 percent of pre-PHE levels.** Both the percentage and the number of beneficiaries who used the benefit annually declined, from 5 percent in 2019 to a little more than 4 percent in 2020 (a decline of 14 percent) and from nearly 3.9 million to a little more than 3.3 million NEMT users (a decline of almost 15 percent). Similarly, the total number of annual NEMT ride days dropped by 37 percent (from 81.3 million in 2019 to 51.5 million in 2020). Even larger declines occurred at the beginning of the COVID-19 PHE; between February and April 2020, monthly NEMT ride days dropped by 63 percent, and the number of beneficiaries using the benefit monthly dropped by 60 percent. Use of NEMT gradually increased in May through October 2020, but the monthly number of ride days stayed at 33 percent below pre-PHE levels and the number of beneficiaries using NEMT at 26 percent below pre-PHE levels as of October 2020.
- **Beneficiaries most often used NEMT to access preventive health care services, behavioral health services, and lab and imaging services.** Depending on the year, NEMT rides to access these service types accounted for 24 to 26 percent, 13 to 15 percent, and 13 to 15 percent of all NEMT ride days in 2018 through 2020, respectively. Across all Medicaid beneficiaries, 2 to 3 percent, 2 percent, and 1 percent used NEMT to access each of these three respective service types at least once during each year.
- **Across geographies, beneficiaries residing in frontier and remote areas used NEMT at the highest rates.** In 2019, nearly 9 percent of beneficiaries living in frontier or remote areas (defined as those more than 30 minutes from an urban area of more than 10,000 people) used NEMT compared to 5 percent of all Medicaid beneficiaries, but they used the benefit slightly less frequently, with just 1.4 monthly ride days per user. This percentage dropped to a little more than 7 percent using the benefit in 2020 compared to 4 percent of all Medicaid beneficiaries. Looking across the broader urban-rural spectrum, those residing in more rural areas depended more on private vehicles, whereas those in urban areas used public transit and taxis more often.

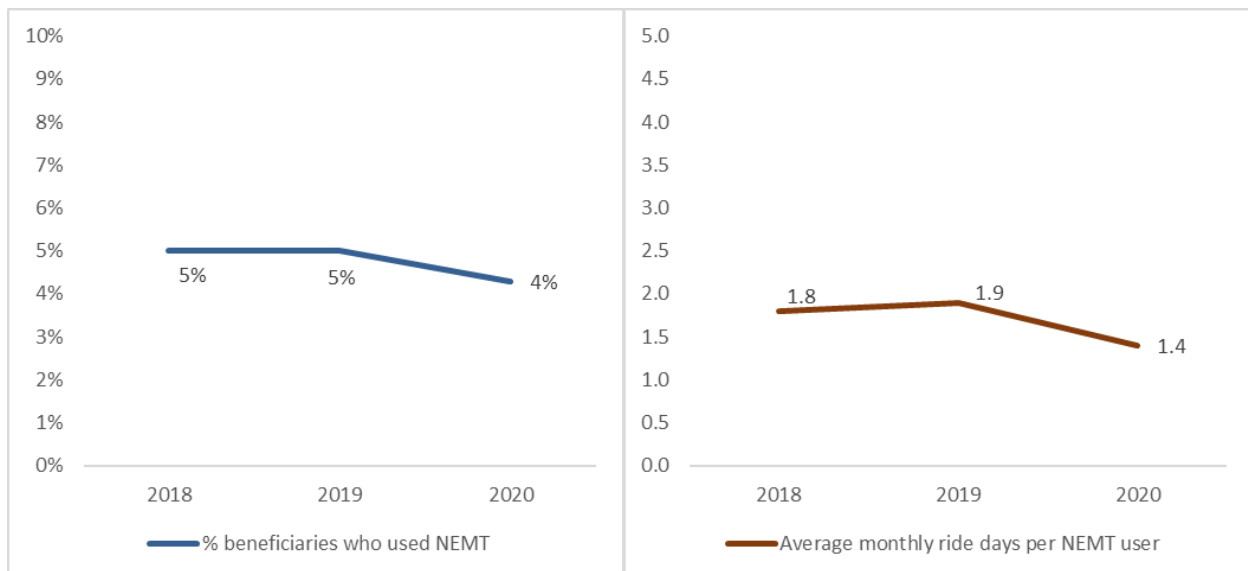


## VI. RESULTS

### a. The number and percentage of Medicaid beneficiaries who used non-emergency medical transport (NEMT), the total number of annual NEMT ride days, the average monthly ride days per NEMT user, and the average number of annual ride days per 10,000 beneficiaries in 2018, 2019, and 2020.

- A relatively small percentage of Medicaid beneficiaries (5 percent in 2018, 5 percent in 2019, and slightly more than 4 percent in 2020) used NEMT (Figure 1). On average, NEMT users accessed the benefit on fewer than 2 days per month enrolled in Medicaid (1.8 days in 2018, 1.9 days in 2019, and 1.4 days in 2020; for state-specific statistics, see Appendix B, Table B1.1b).

**Figure 1. Percentage of Medicaid beneficiaries who used NEMT and average monthly ride days per NEMT user, 2018–2020**



Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file) and 5560-5571 (OT files).

Notes: Includes beneficiaries enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Average monthly ride days per NEMT user is an average number of ride days per user per month enrolled. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C).

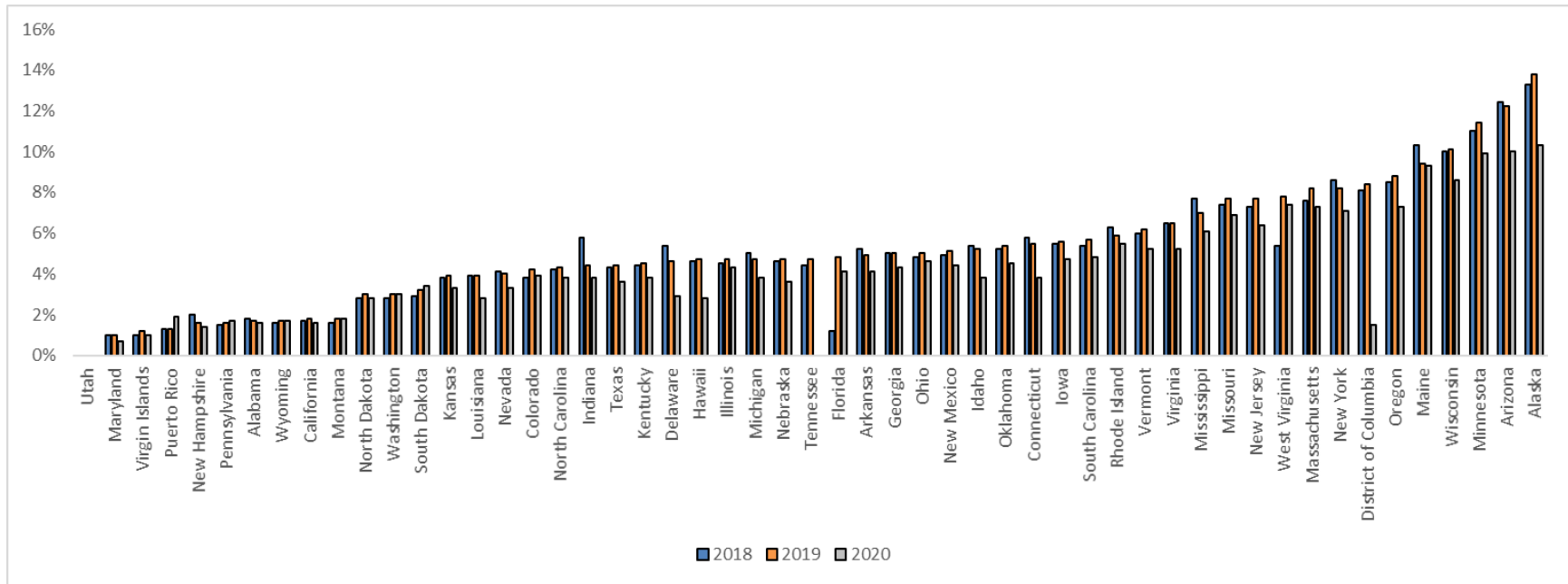
Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2019 data; and Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the 2020 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure. For additional information on data quality issues, please see Appendix C.

- NEMT use varied widely across states. The percentage of beneficiaries who used NEMT ranged from 1 percent in Maryland to nearly 13 percent in Alaska in 2019 (Figure 2). The average number of monthly ride days per user ranged from 0.5 in Kentucky to 4.5 in Wisconsin in 2019 (Table B1.1b). The total number of annual NEMT ride days per 10,000 Medicaid beneficiaries ranged from less than 500 in Maryland to more than 50,000 in Wisconsin in 2019 (Figure 3).<sup>36</sup>

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<sup>36</sup> This report does not list Utah as having the lowest NEMT use rates because of concerns about the quality of the state's data. Specifically, 99.9 percent of Utah's transportation claims and encounter records (indicated by Type of Service 056, which includes both emergency and non-emergency transportation) are reported to a single invalid procedure code, making the types of transportation indicated by these claims indistinguishable. In 2018, 2019, and 2020, Utah reported 100 percent of NEMT expenditures as Medical Assistance Program expenses in its Form CMS-64 data, so CMS would expect all NEMT services to show up in the state's T-MSIS data. As a result of this issue and other T-MSIS data quality issues, Utah's data are excluded from the national statistics for this report (see Appendix C for additional detail).

**Figure 2. State variation in the percentage of Medicaid beneficiaries who used NEMT, 2018–2020**

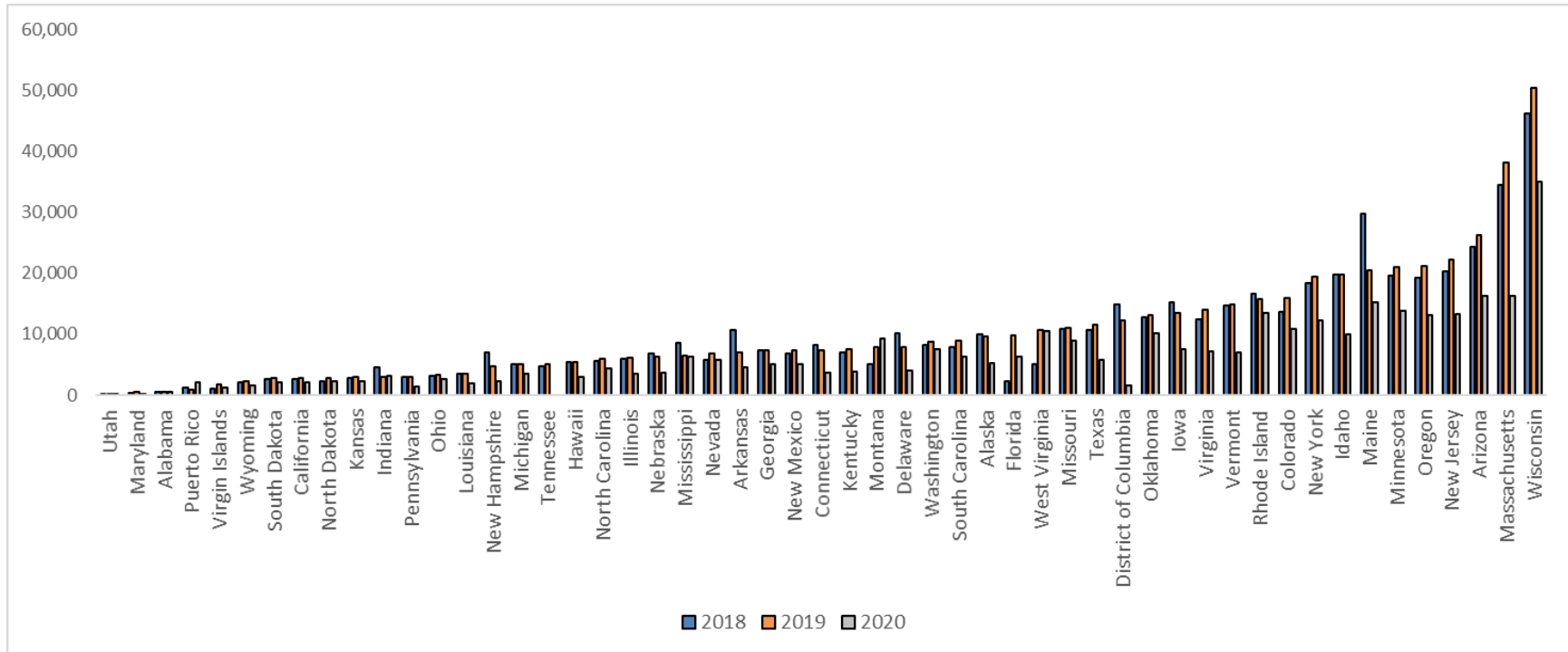


Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file) and 5560-5571 (OT files).

Notes: Includes beneficiaries enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). States are ordered from lowest percentage of beneficiaries who used NEMT in 2019 (left side of figure) to highest percentage of beneficiaries who used NEMT in 2019 (right side of figure).

Tennessee had such a severe data quality issue in 2020 that the state's data for that year are not included in the figure. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure. For additional information on data quality issues, please see Appendix C.

**Figure 3. State variation in the average number of annual NEMT ride days per 10,000 Medicaid beneficiaries, 2018–2020**



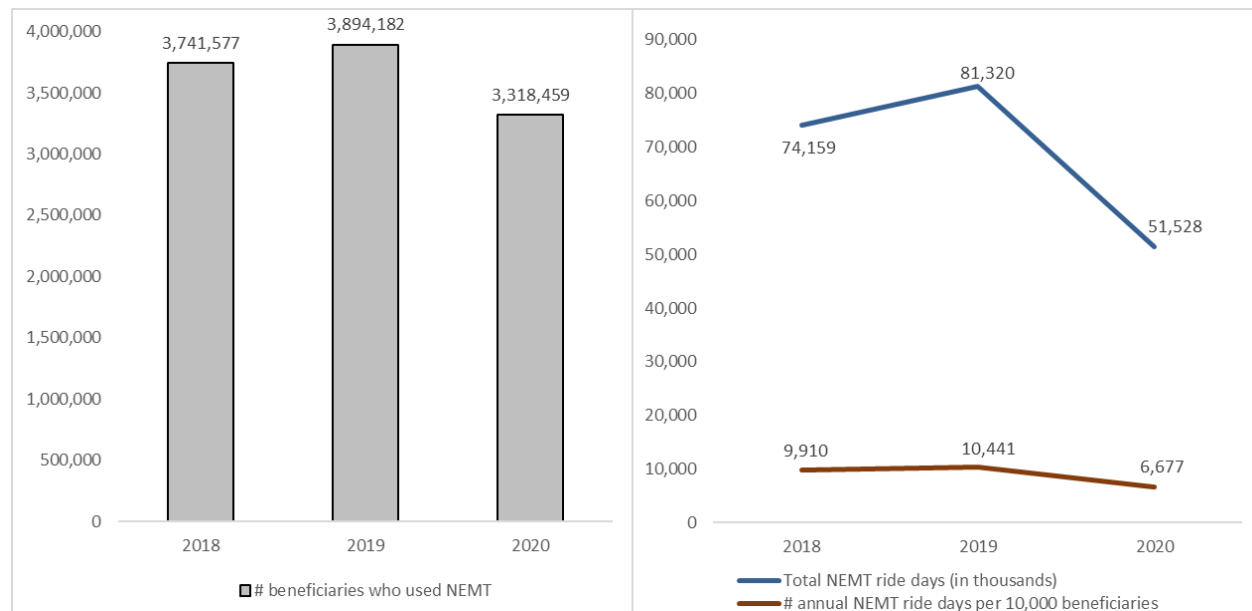
Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file) and 5560-5571 (OT files).

Notes: Includes beneficiaries enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. We identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). States are ordered from lowest number of ride days per 10,000 beneficiaries in 2019 (left side of figure) to the highest number of ride days per 10,000 beneficiaries in 2019 (right side of figure).

Tennessee had such a severe data quality issue in 2020 that the state's data for that year are not included in the figure. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure. For additional information on data quality issues, please see Appendix C.

- The annual number of Medicaid beneficiaries using NEMT decreased by 15 percent (from 3.9 million in 2019 to 3.3 million) in 2020 (Figure 4). Meanwhile, the annual number of NEMT ride days also declined by 37 percent (from 81.3 million in 2019 to 51.1 million in 2020). Consequently, the average number of ride days per 10,000 beneficiaries decreased by 36 percent (from 10,441 to 6,677) in 2020. (For state-specific statistics, see Tables B1.1a and B1.1b.) The decrease in NEMT use between 2019 and 2020 is largely attributable to the COVID-19 PHE, which caused a sudden shift in certain types of medical service delivery from in-person to telehealth and prompted some providers and beneficiaries to forego or delay non-urgent medical care (CMS 2021b).

**Figure 4. Trends in Medicaid NEMT use, 2018–2020**



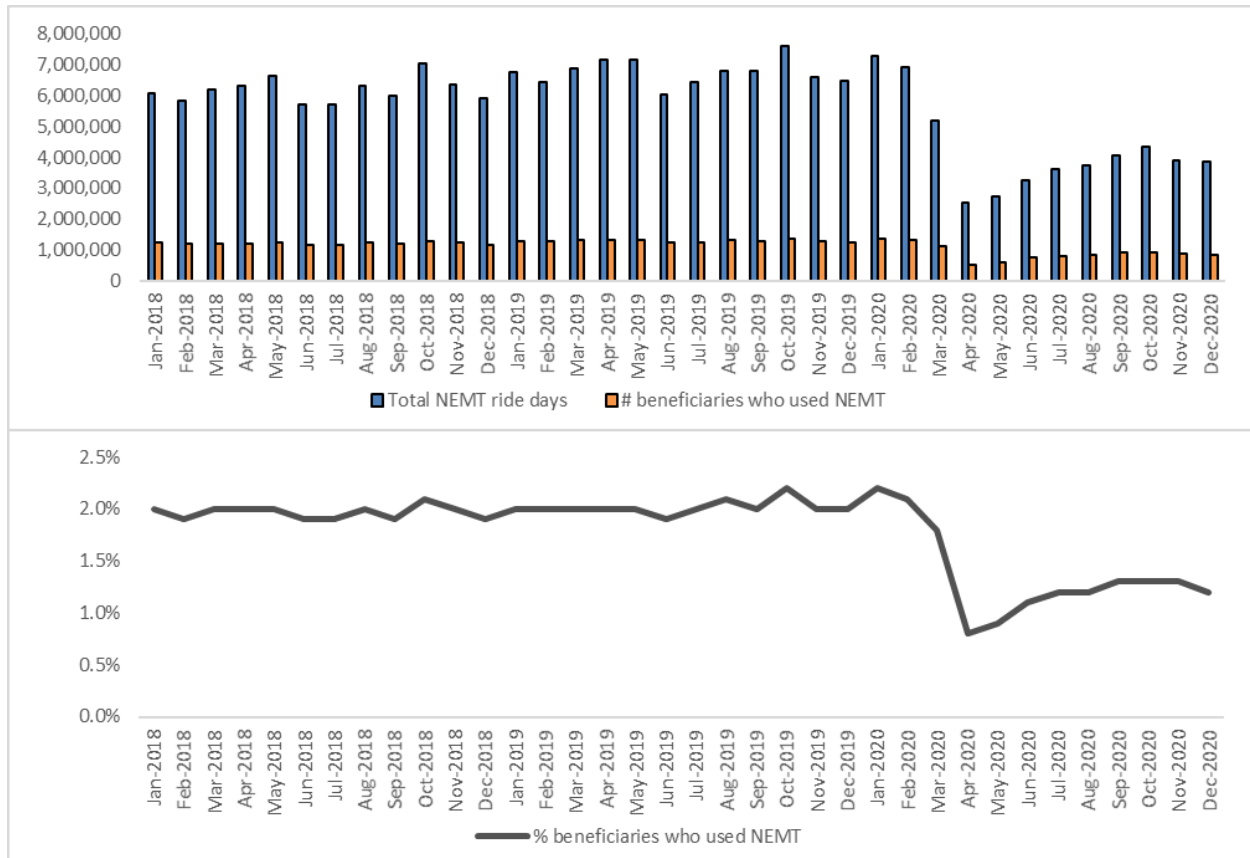
Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file) and 5560-5571 (OT files).

Notes: Includes beneficiaries enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Number of beneficiaries who used NEMT includes those who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Annual NEMT ride days per 10,000 beneficiaries reflects the average number of ride days per user during the year per 10,000 Medicaid beneficiaries. We identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2019 data; and Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the 2020 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure. For additional information on data quality issues, please see Appendix C.

- NEMT use before onset of the COVID-19 PHE showed some seasonal trends, with the highest number of NEMT ride days occurring in October of 2018 and 2019, the lowest number of ride days in June of each year and declines in the number of ride days occurring in October through December of each year (Figure 5).

**Figure 5. Monthly trends in NEMT use, 2018–2020**



Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file) and 5560-5571 (OT files).

Notes: Includes beneficiaries enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries who used NEMT includes those who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. We identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2019 data; and Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the 2020 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure. For additional information on data quality issues, please see Appendix C.

**b. The number and percentage of Medicaid beneficiaries who used NEMT, the average number of monthly ride days per NEMT user, and the average number of annual ride days per 10,000 beneficiaries, by beneficiary characteristic in 2018, 2019, and 2020**

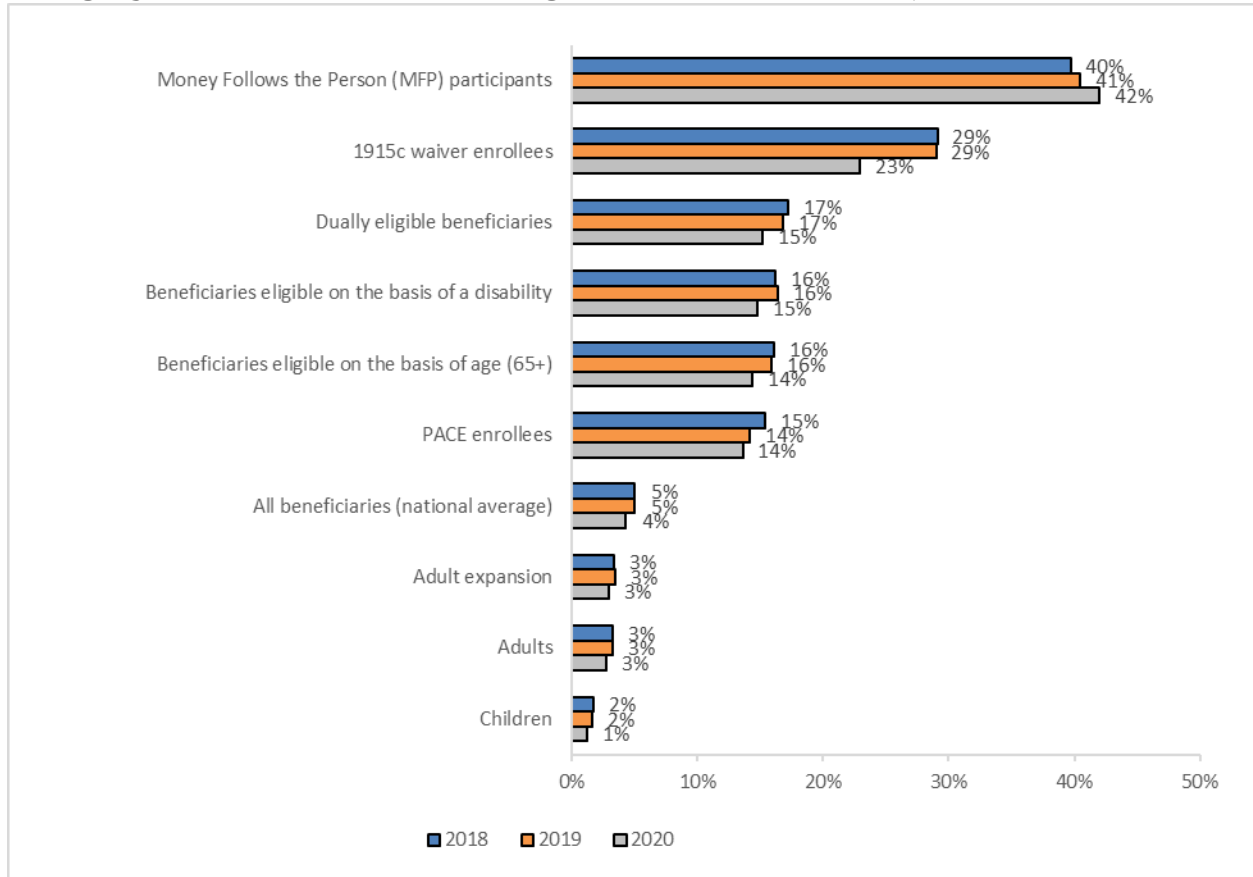
For this analysis, we examined use of NEMT among each of five major eligibility categories, including (1) children, (2) adults, (3) adult expansion beneficiaries, (4) beneficiaries eligible on the basis of a disability, and (5) beneficiaries eligible on the basis of age (65+). We also examined its use among dually eligible beneficiaries and beneficiaries participating in programs enrolling beneficiaries with substantial health care needs, such as section 1915(c) waivers, MFP, and PACE.<sup>37</sup> Finally, for states with useable race and ethnicity data, we examined use of NEMT by each major race and ethnicity group.

- Several subgroups of beneficiaries with substantial health care needs used NEMT at higher rates than the average (Figures 6 and 8). According to the data analyzed in this report, MFP participants and section 1915(c) waiver enrollees used NEMT at the highest rates among all subgroups examined in 2018, 2019, and 2020. For example, nearly 41 percent (5,847) and 29 percent (467,200), respectively, used NEMT in 2019, yet beneficiaries in these programs made up a very small share (less than 0.5 percent (14,436) and 2 percent (1.6 million), respectively) of all Medicaid beneficiaries (Figures 7 and 8). Dually eligible beneficiaries and beneficiaries eligible for Medicaid on the basis of a disability or on the basis of age (65+) also used NEMT at rates higher than the average in 2019 (17 percent of dually eligible beneficiaries (1.5 million) and 16 percent of each of the latter two groups [1.4 million and 1 million, respectively]), although these beneficiaries made up slightly more than 11 percent (8.9 million), 11 percent (8.6 million), and nearly 8 percent (6.1 million), respectively, of all Medicaid beneficiaries in 2019. Finally, 14 percent (8,776) of PACE enrollees used NEMT in 2019, but those beneficiaries made up less than 0.5 percent (61,804) of all Medicaid beneficiaries. (For state-level detail, see Tables B1.2, B1.3d–e and B1.9a–c.)
- Conversely, several subgroups of Medicaid beneficiaries used NEMT at lower rates than the average. According to the data analyzed in this report, children used the benefit at the lowest rates (less than 2 percent (529,291) used NEMT in 2019) (Figures 6 and 8), yet they made up over 42 percent (33.1 million) of all Medicaid beneficiaries (Figures 7 and 8). Adults and adult expansion beneficiaries also used NEMT at rates somewhat lower than the average across all Medicaid beneficiaries; 3 percent (346,664 and 656,042, respectively) of beneficiaries in each group used NEMT in 2019, but they constituted 14 percent (10.8 million) and 25 percent (19.3 million), respectively, of all Medicaid beneficiaries in 2019. (For state-level detail, see Tables B1.3a–c.)
- Among NEMT users, PACE enrollees used the benefit most frequently according to the data analyzed in this report, with an average of 4 monthly ride days per user in 2019, followed by section 1915(c) waiver enrollees (3.5 monthly ride days), beneficiaries eligible on the basis of a disability (2.6 monthly ride days), dually eligible beneficiaries (2.3 monthly ride days), and MFP participants (2.0 monthly ride days) (Figure 9). NEMT users who accessed the benefit least frequently included children (0.8 monthly ride days), adults (1.3 monthly ride

<sup>37</sup> Beneficiaries were classified as being section 1915(c) waiver participants, MFP participants, or PACE enrollees if they had at least one month of enrollment in one of these programs, respectively, during the year.

days), adult expansion beneficiaries (1.4 monthly ride days), and beneficiaries eligible on the basis of age (65 and older: 1.8 monthly ride days).

**Figure 6. Percentage of Medicaid beneficiaries in each major eligibility category and select Medicaid programs who used NEMT, 2018–2020**



Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file) and 5560-5571 (OT files).

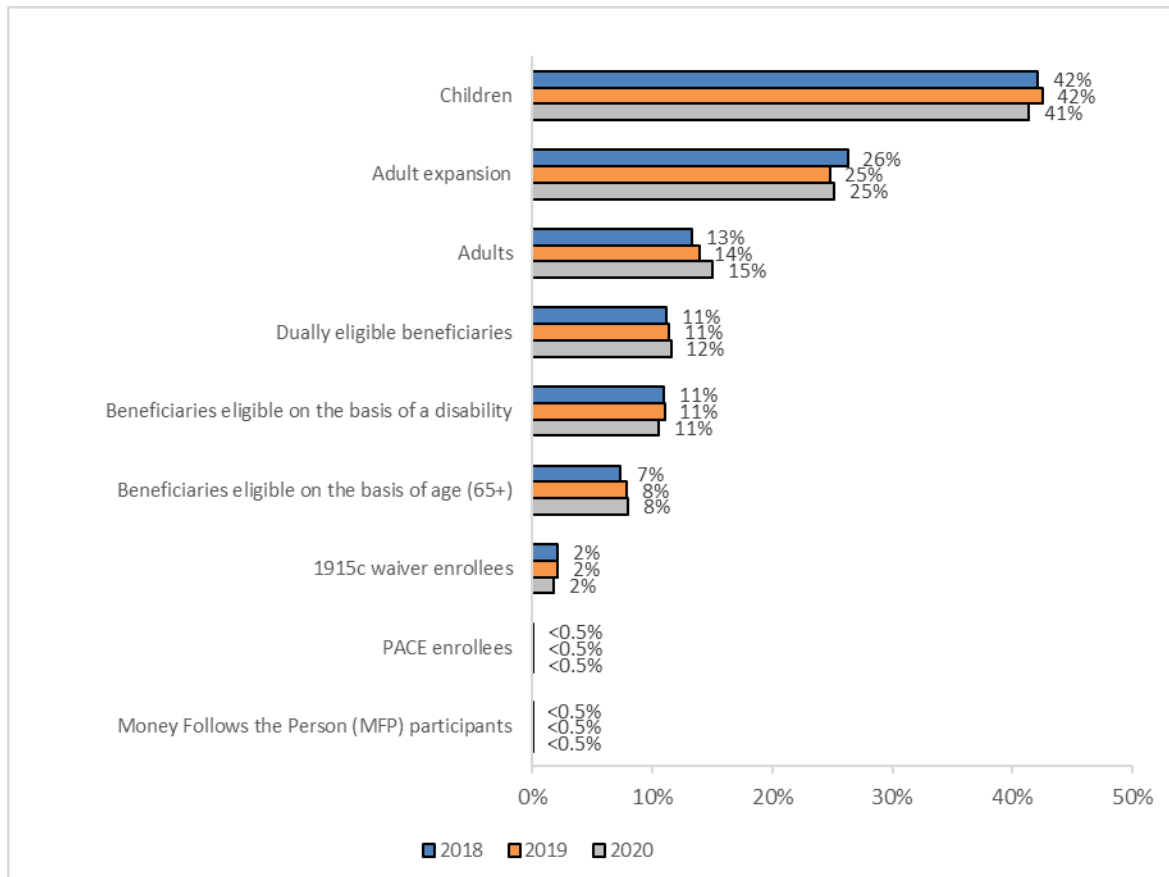
Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries who used NEMT includes those who used NEMT on at least one day during the year. Beneficiaries may qualify for inclusion in more than one category. We identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2019 data; and Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the 2020 data.

Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure. For additional information on data quality issues, please see Appendix C.



**Figure 7. Percentage of Medicaid beneficiaries in each major eligibility category and in select Medicaid programs, 2018–2020**

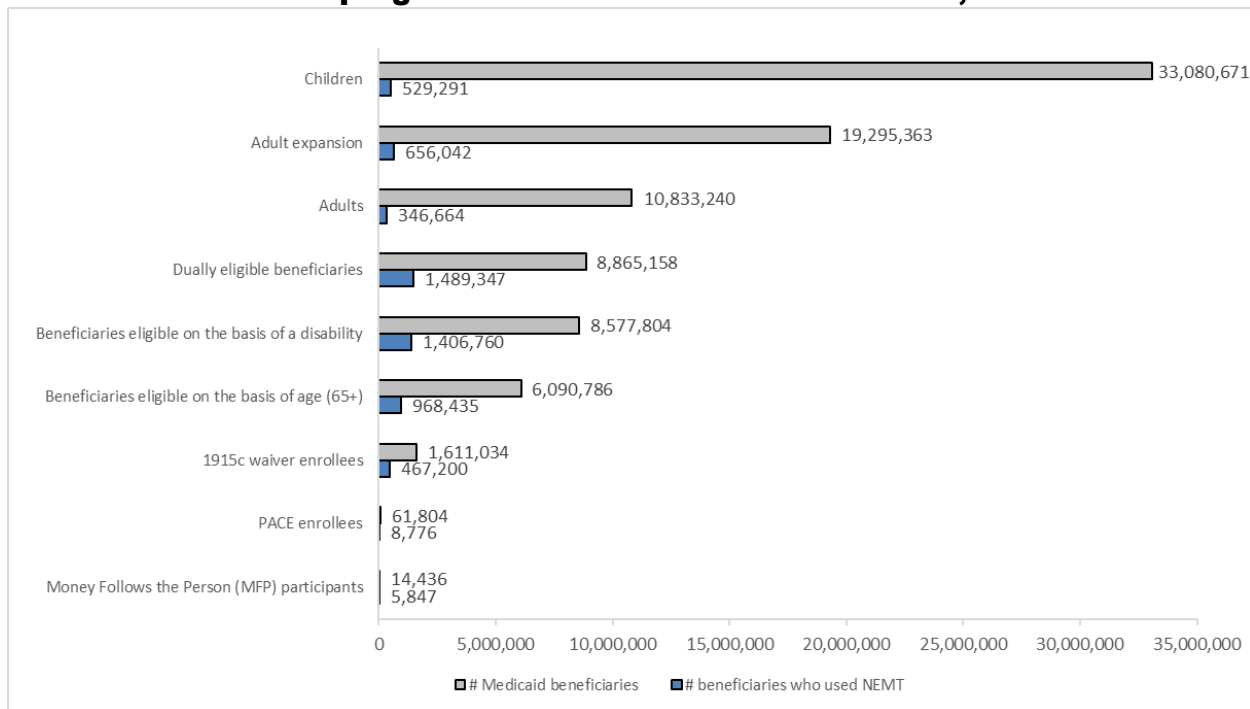


Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file) and 5560-5571 (OT files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries may qualify for inclusion in more than one category.

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2019 data; and Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the 2020 data. For additional information on data quality issues, please see Appendix C.

**Figure 8. Number of Medicaid beneficiaries in each major eligibility category and select Medicaid programs and number who used NEMT, 2019**

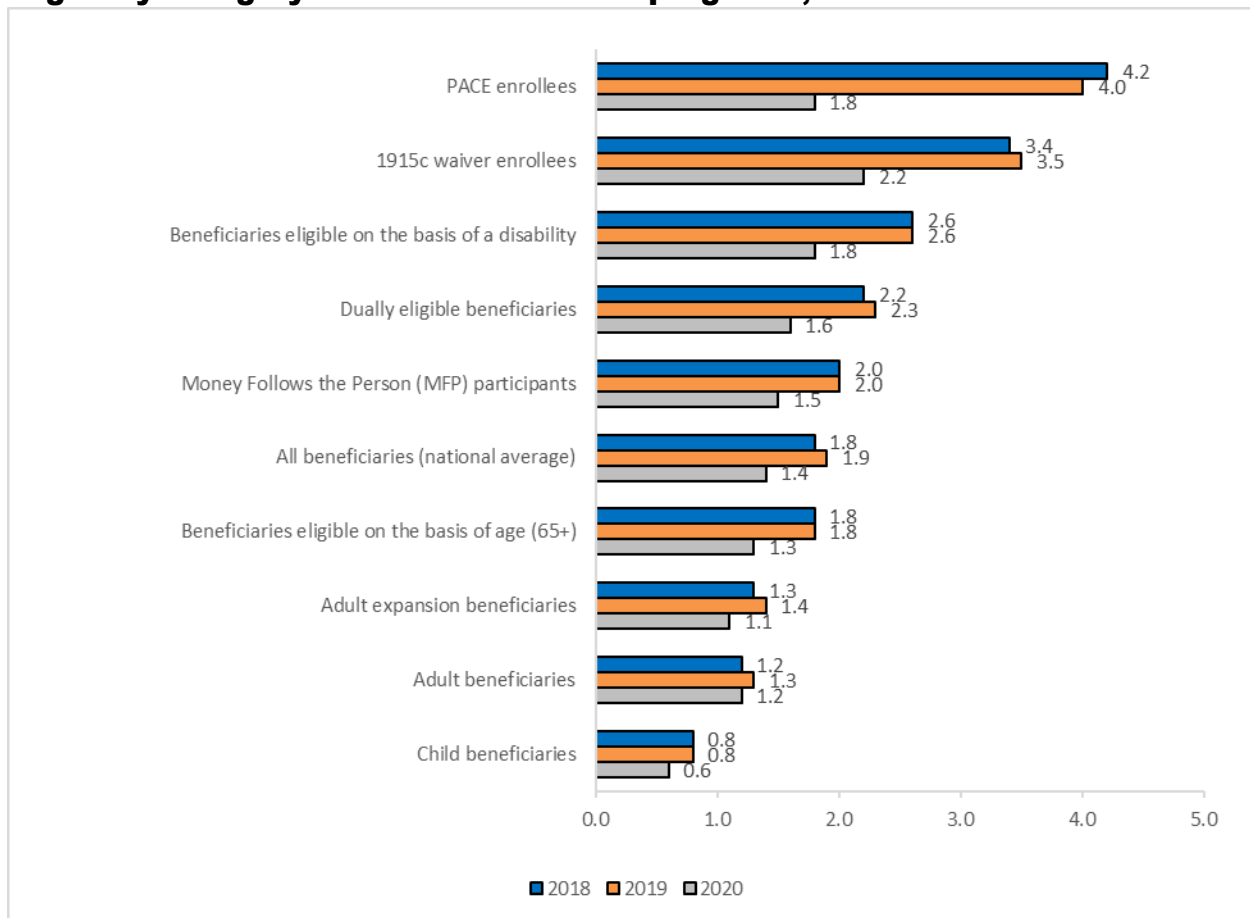


Source: Mathematica's analysis of the TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files)

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries who used NEMT includes those who used NEMT on at least one day during the year. Beneficiaries may qualify for inclusion in more than one category. We identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Beneficiary eligibility and program categories are ordered from highest total number of beneficiaries in 2019 (top of figure) to the lowest total number of beneficiaries in 2019 (bottom of figure).

Due to data quality issues, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2019 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure. For additional information on data quality issues, please see Appendix C.

**Figure 9. Average monthly ride days among NEMT users in each major eligibility category and select Medicaid programs, 2018–2020**



Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file) and 5560-5571 (OT files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users includes those who used NEMT on at least one day during the year. Average monthly ride days are a count of the unique number of days on which a beneficiary used NEMT per month enrolled. Months enrolled includes months eligible for full or comprehensive benefits during the year. Beneficiaries may qualify for inclusion in more than one category. We identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2019 data; and Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the 2020 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure. For additional information on data quality issues, please see Appendix C.

- Section 1915(c) waiver enrollees averaged the highest number of annual NEMT ride days per 10,000 beneficiaries (which ranged from 57,836 in 2020 to 118,028 in 2019) along with MFP participants (72,438 in 2020 to 93,349 in 2019), followed by PACE enrollees (27,193 in 2020 to 64,686 in 2019), beneficiaries eligible on the basis of a disability (31,715 in 2020 to 49,353 in 2019), dually eligible beneficiaries (27,656 in 2020 to 43,109 in 2019), beneficiaries eligible on the basis of age (65 and older: 20,287 in 2020 to 31,954 in 2019), adult expansion beneficiaries (3,400 in 2020 to 5,061 in 2019), adults (3,770 in 2020 to 4,608 in 2019) and children (728 in 2020 to 1,441 in 2019) (data not shown).

- Because only 31 states and territories met our data quality thresholds for their race and ethnicity information in the TAF, this report presents state- but not national-level results on use of NEMT within each major race and ethnicity group. Readers should note that these results are not nationally representative. Furthermore, the 2020 benchmark data used to assess the quality of the TAF race/ethnicity data element were unavailable as of November 2021 when this report was compiled, so we present only the results for 2018 and 2019. For all states that met our data quality thresholds for the race/ethnicity data element in 2018 and 2019, we present state-level results in Tables B1.8a–g. In 2018, a higher percentage of Black than White beneficiaries used NEMT in 16 of the 29 states with enough beneficiaries to present data for both groups. However, in just 12 states, Black NEMT users accessed the benefit more frequently than White users (a higher number of monthly ride days per user). Likewise, in 2019, a higher percentage of Black than White beneficiaries used NEMT in 16 of the 30 states with enough beneficiaries to present data for both groups; Black NEMT users utilized the benefit more frequently than White users in 11 states.<sup>38</sup> In 2019, between less than 1 percent and 16 percent of Black beneficiaries used NEMT, with a frequency of 0.6 to 2.9 monthly ride days per user, depending on the state. In the same year, between 1 and 11 percent of White beneficiaries used NEMT, with a frequency of 0.6 to 5 monthly ride days per NEMT user, depending on the state. Among White beneficiaries, the number of annual NEMT ride days per 10,000 beneficiaries ranged from 1,275 to 52,853 in 2019, depending on the state, whereas for Black beneficiaries this number ranged from 1,018 to 40,812 (data not shown).
- In 2018 and 2019, a higher percentage of Hispanic than White beneficiaries used NEMT in only 2 of 31 states. Anywhere from less than 1 percent to 10 percent of Hispanic beneficiaries used NEMT in 2019, with a frequency of 0.4 to 3.7 monthly ride days per user, depending on the state. Among Hispanic beneficiaries, the total number of NEMT ride days per 10,000 beneficiaries ranged from 546 to 23,131 in 2019 depending on the state (data not shown).
- Certain states showed particularly high rates of NEMT use among certain racial and ethnic groups. For example, in Alaska, 29 percent of American Indian and Alaskan Native beneficiaries used NEMT in 2019—a considerably higher rate compared to all other major race and ethnicity groups in the state (which ranged from 3 percent of Hawaiian/Pacific Islander, non-Hispanic beneficiaries to less than 8 percent of multiracial, non-Hispanic beneficiaries). However, these beneficiaries used NEMT at a relatively low frequency, with just 0.5 monthly ride days per NEMT user in 2019 (compared to a range of 0.6 to 1.4 among all other race and ethnicity groups in the state).

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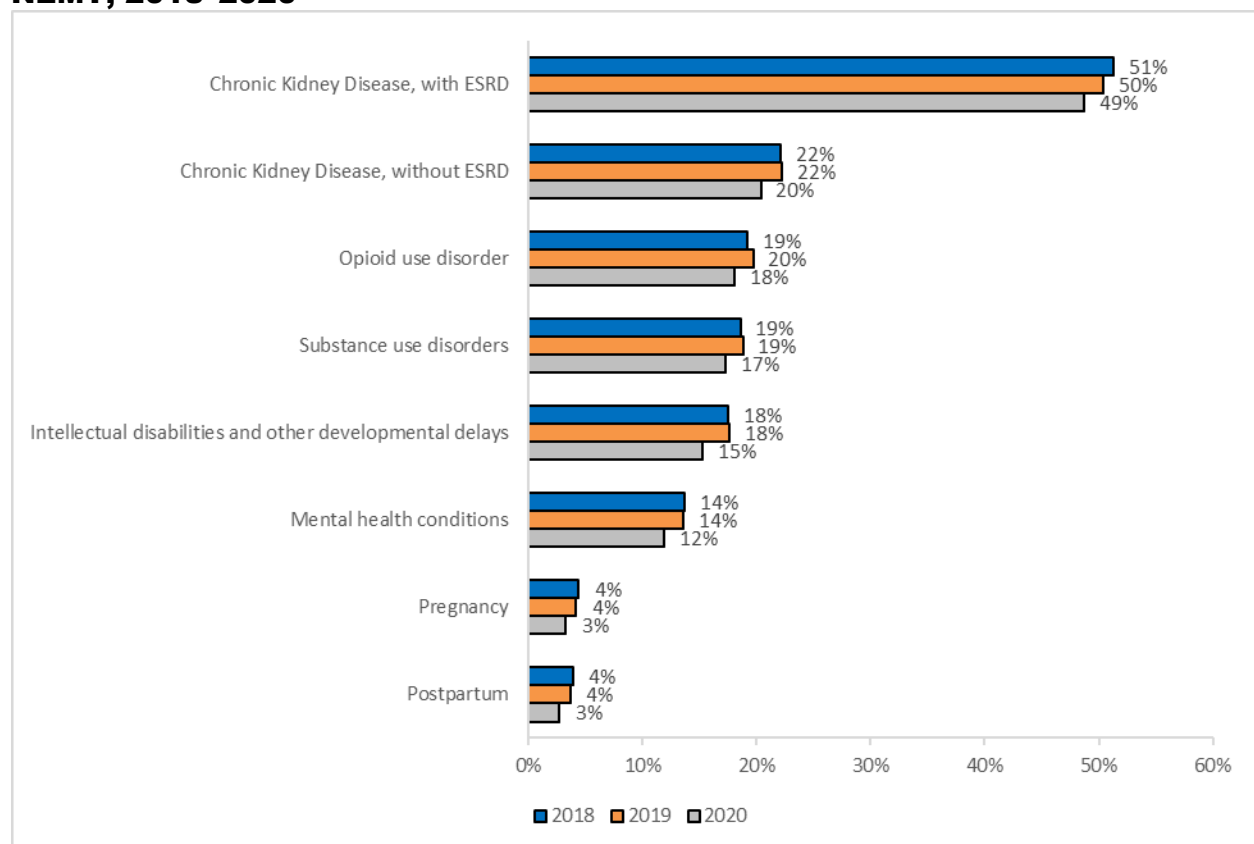
<sup>38</sup> CMS did not include Idaho in this specific analysis because the number of Black beneficiaries was too small; CMS had to suppress the data for this group to protect their privacy.

**c. The number and percentage of Medicaid beneficiaries who used NEMT, the average number of monthly ride days per NEMT user, and the average number of annual ride days per 10,000 beneficiaries, by health condition in 2018, 2019, and 2020.**

For this analysis, CMS examined use of NEMT among beneficiaries with CKD with ESRD, beneficiaries with CKD without ESRD, and among beneficiaries with intellectual disabilities and other developmental delays. CMS also examined its use among beneficiaries with mental health conditions, any SUD, and OUD specifically. Finally, CMS examined use of NEMT among pregnant and postpartum beneficiaries.

- Beneficiaries with CKD with ESRD used NEMT at the highest rate and frequency of all condition types examined. Slightly more than 50 percent (161,297) of beneficiaries with this condition used NEMT in 2019, and among NEMT users, beneficiaries with CKD with ESRD accessed the benefit using an average of 5.9 monthly ride days per user in 2019. However, these beneficiaries made up a very small percentage of all Medicaid beneficiaries (less than 0.5 percent (320,034) in 2019) (Figures 10, 11, 12, and 13). Beneficiaries with ESRD typically require frequent dialysis (often at a dialysis facility) to maintain life. (For state-specific detail, see Table B1.6a–c.)

**Figure 10. Percentage of Medicaid beneficiaries with select physical health conditions, mental health conditions, and substance use disorders who used NEMT, 2018–2020**

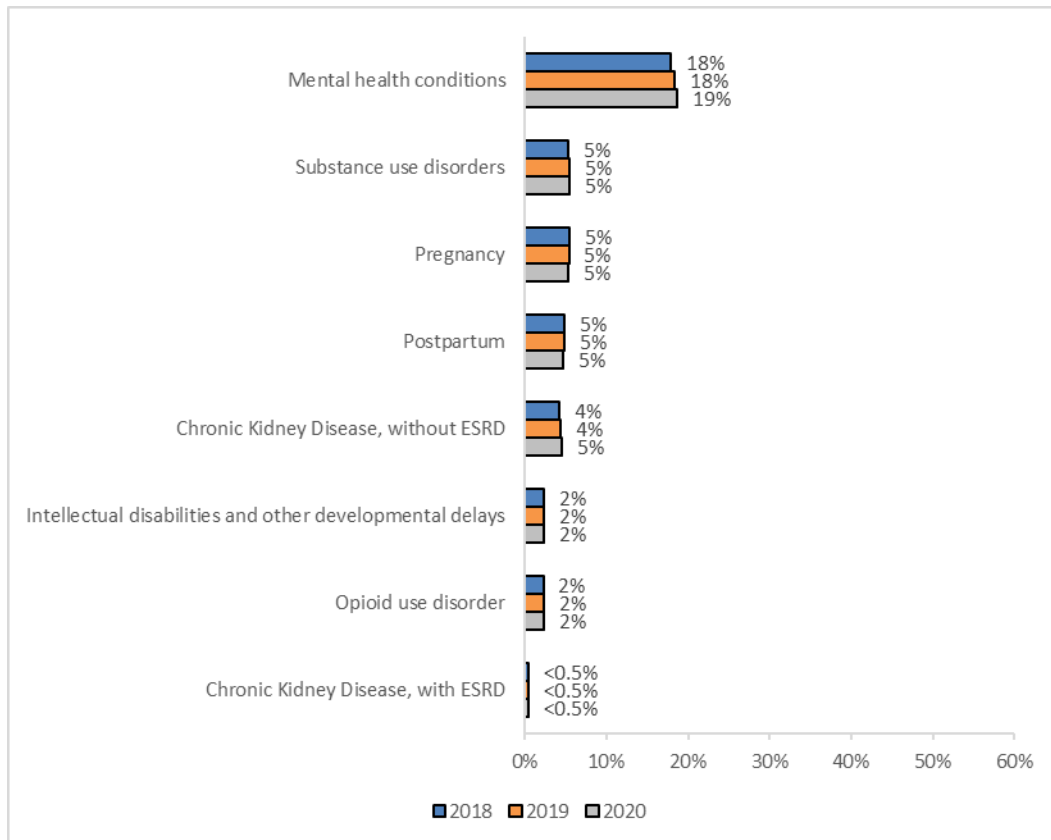


Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file) and 5560-5571 (OT files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries who used NEMT includes those who used NEMT on at least one day during the year. Beneficiaries may qualify for inclusion in more than one of the condition categories. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2019 data; and Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the 2020 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure. For additional information on data quality issues, please see Appendix C.

**Figure 11. Percentage of all Medicaid beneficiaries with select physical health conditions, mental health conditions, and substance use disorders, 2018–2020**

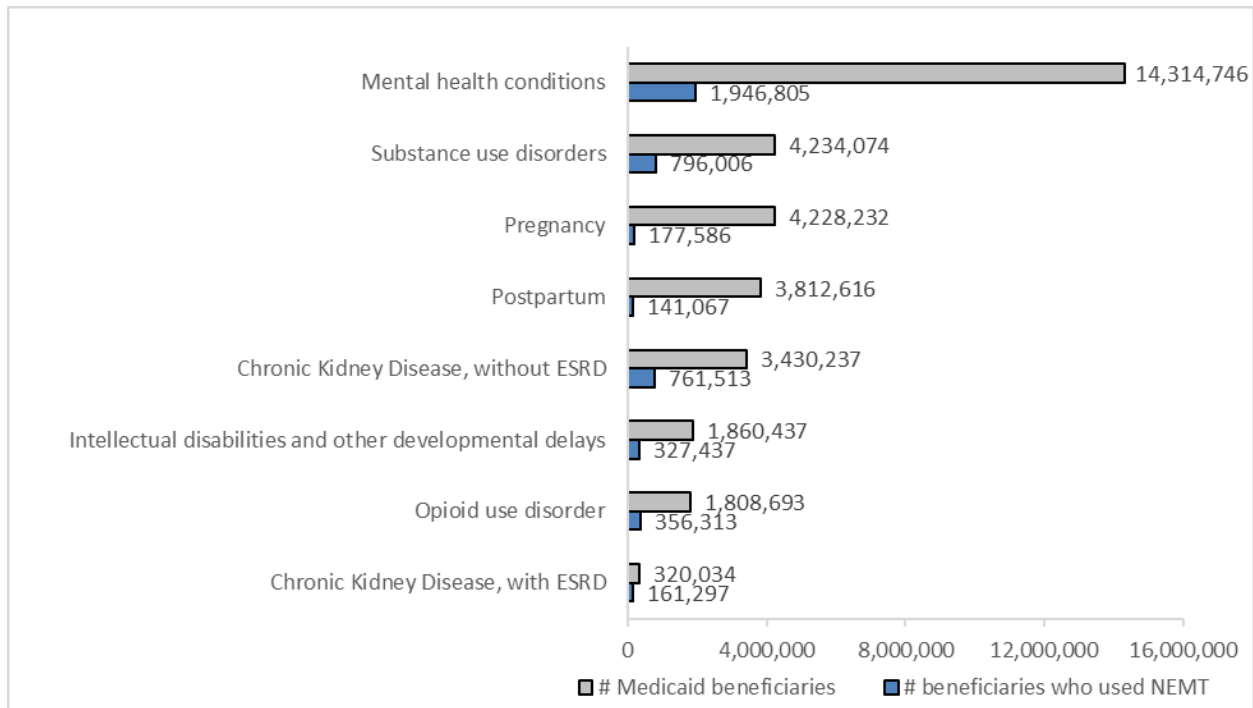


Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file) and 5560-5571 (OT files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries may qualify for inclusion in more than one of the condition categories.

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2019 data; and Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the 2020 data. For additional information on data quality issues, please see Appendix C.

**Figure 12. Number of Medicaid beneficiaries with select physical health conditions, mental health conditions, and substance use disorders and number who used NEMT, 2019**

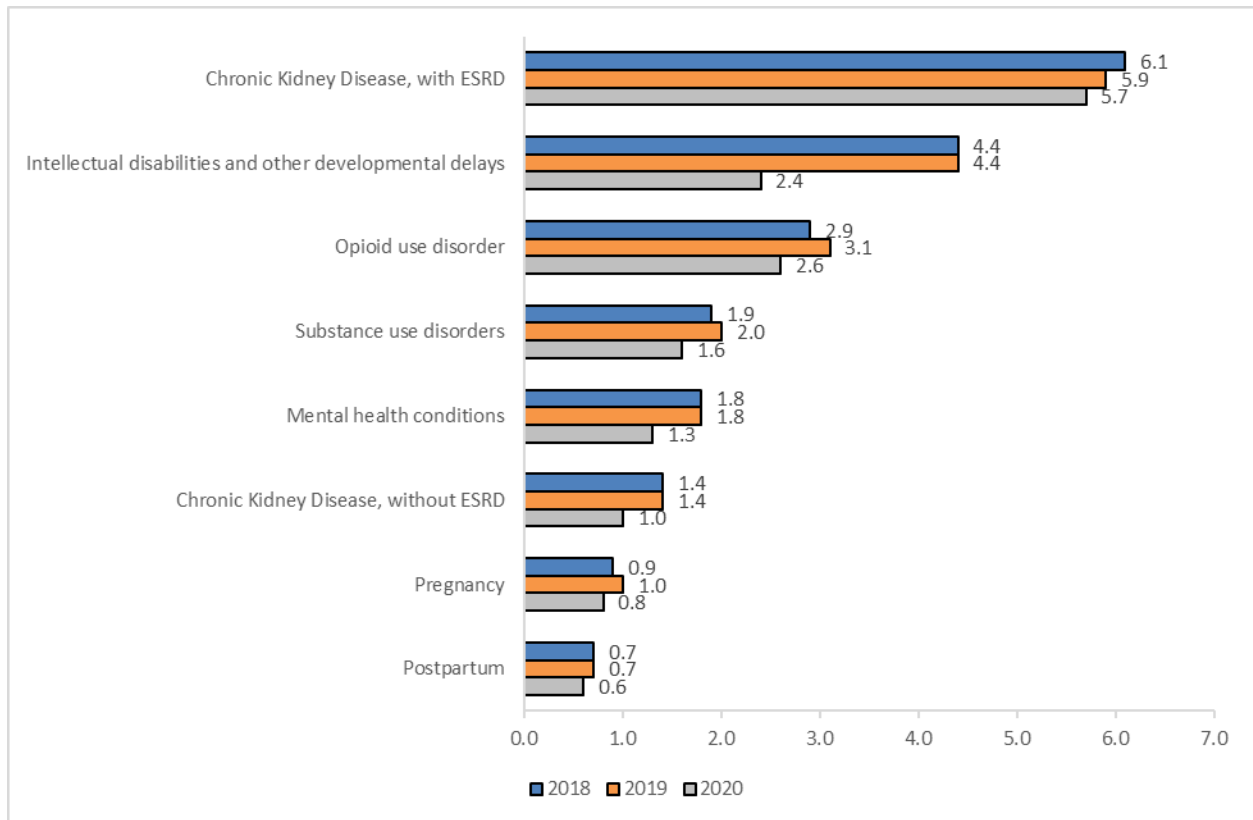


Source: Mathematica's analysis of the TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files)

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries who used NEMT includes those who used NEMT on at least one day during the year. Beneficiaries may qualify for inclusion in more than one of the condition categories. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Beneficiary condition categories are ordered from highest total number of beneficiaries in 2019 (top of figure) to the lowest total number of beneficiaries in 2019 (bottom of figure).

Due to data quality issues, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2019 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure. For additional information on data quality issues, please see Appendix C.

**Figure 13. Among NEMT users, average number of ride days per month enrolled, beneficiaries with select physical health conditions, mental health conditions, and substance use disorders, 2018–2020**



Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file) and 5560-5571 (OT files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users includes those who used NEMT on at least one day during the year. Average monthly ride days are a count of the unique number of days on which a beneficiary used NEMT per month enrolled. Months enrolled includes months eligible for full or comprehensive benefits during the year. Beneficiaries may qualify for inclusion in more than one of the condition categories. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2019 data; and Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the 2020 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure. For additional information on data quality issues, please see Appendix C.

- More than 22 percent (761,513) of beneficiaries with CKD without ESRD used NEMT in 2019, but they did so less frequently (in 2019, using 1.4 monthly ride days per month enrolled) than the national average of 1.9 monthly ride days per user. Beneficiaries with this condition made up 4 percent (3.4 million) of all Medicaid beneficiaries in 2019.
- Eighteen percent (327,437) of beneficiaries with intellectual disabilities or other developmental delays used the benefit in 2019 and the frequency of their NEMT use was relatively high at 4.4 monthly ride days per user. Beneficiaries with these conditions constituted just 2 percent (1.9 million) of all Medicaid beneficiaries in 2019.



- Beneficiaries with mental health conditions and those with SUDs also used the benefit at substantially higher rates than the average. Twenty percent (356,313) of beneficiaries with OUD, 19 percent (796,006) of beneficiaries with any SUD, and 14 percent (1.9 million) of beneficiaries with a mental health condition used NEMT in 2019; the frequency of NEMT use for beneficiaries with OUD, any SUD, and mental health conditions was 3.1, 2, and 1.8 monthly ride days per user, respectively. Beneficiaries with OUD, any SUD, and mental health conditions accounted for 2 percent (1.8 million), 5 percent (4.2 million), and 18 percent (14.3 million) of all Medicaid beneficiaries, respectively, in 2019.<sup>39</sup> (For state-specific detail, see table B1.7a–c.)
- Pregnant and postpartum beneficiaries used NEMT at rates and frequencies that were below the national average. In 2019, just 4 percent (177,586 and 141,067, respectively) of pregnant and postpartum beneficiaries used NEMT; NEMT users who were pregnant or postpartum used an average of 1 and 0.7 ride days per month, respectively. Pregnant and postpartum beneficiaries each made up 5 percent (4.2 million and 3.8 million, respectively) of all Medicaid beneficiaries in 2019. (For state-specific detail, see Tables B1.4 and B1.5.) Data quality variations for race and ethnicity amongst states does not support an analysis of pregnancy and race/ethnicity.
- Beneficiaries with CKD with ESRD had the highest number of annual ride days per 10,000 beneficiaries (316,475 in 2019) followed by beneficiaries with intellectual disabilities and other developmental delays (89,447), beneficiaries with OUD (68,849), beneficiaries with any SUD (42,706), beneficiaries with CKD without ESRD (35,268), beneficiaries with mental health conditions (28,128), pregnant beneficiaries (4,533), and postpartum beneficiaries (2,802) (data not shown).
- With the onset of the COVID-19 PHE, the percentage of beneficiaries using NEMT declined between 2019 and 2020 across beneficiaries with all condition types examined (Tables B1.4, B1.5, B1.6a–c, and B1.7a–c).

**d. Percentage of Medicaid beneficiaries using NEMT to access select physical health, behavioral health, and SUD treatment services, percentage of NEMT ride days used to access each service type, and average monthly ride days used to access each service type per user in 2018, 2019, and 2020.**

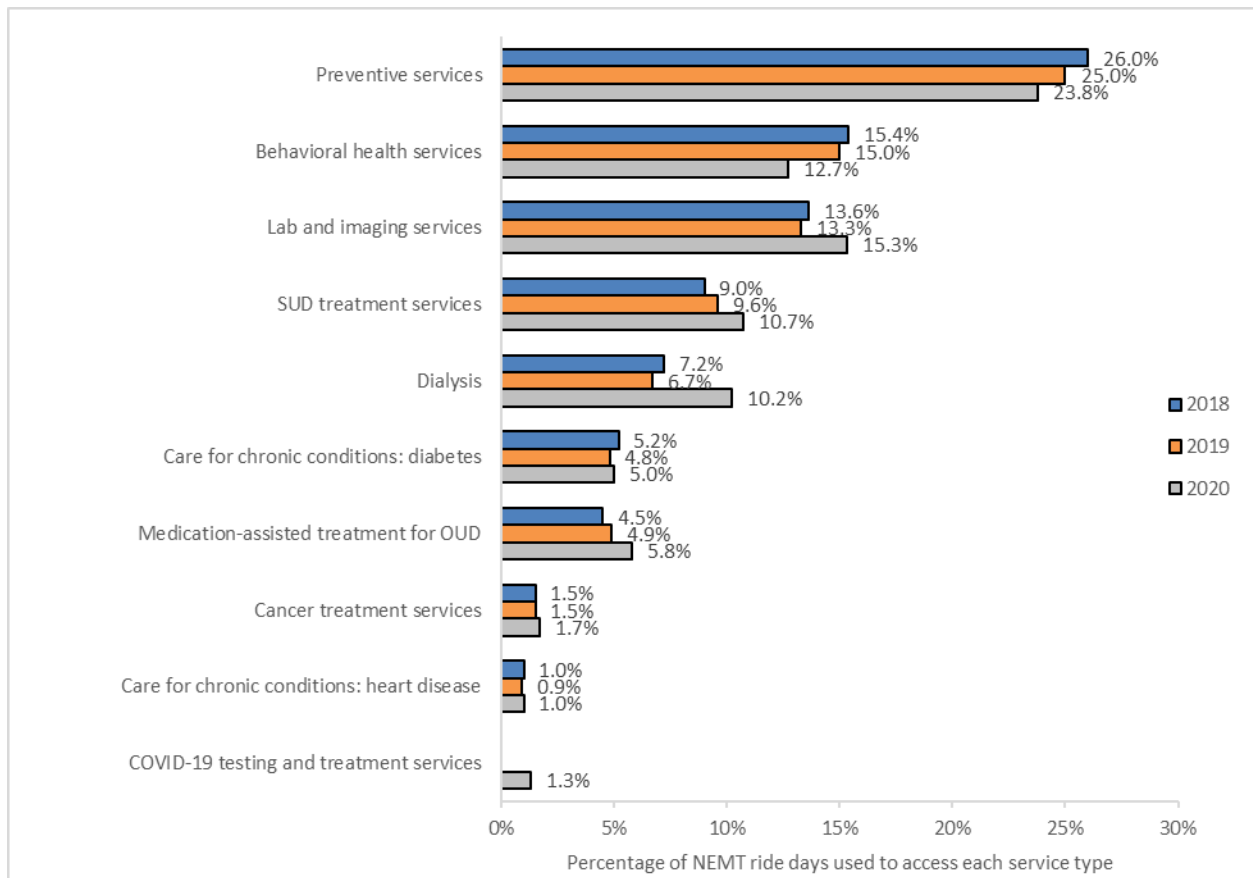
For this analysis, CMS examined (1) the percentage of all Medicaid beneficiaries using NEMT to access each of 10 different physical health, behavioral health, and SUD treatment service types; (2) the percentage of all NEMT ride days used to access each service type, and (3) the average number of monthly ride days used to access each service type among beneficiaries who used NEMT to access the service. The service types examined do not include every service

<sup>39</sup> By contrast, the 2019 SUD Databook (U.S. Department of Health and Human Services forthcoming) found that 3 percent of all Medicaid beneficiaries ages 12 and older had an OUD, whereas 8 percent had any SUD. This report shows somewhat lower percentages of beneficiaries with each condition because it includes children ages 11 and under, and these conditions are uncommon in that age group.

type covered by Medicaid and, conversely, are not always mutually exclusive. CMS presents state-level results in Tables B2.1a-c, B2.2a-c, and B2.3a-c.

- Beneficiaries commonly used NEMT to access preventive care services, with a quarter of all NEMT ride days used to access such services in all years examined (Figure 14). Nearly 3 percent of all Medicaid beneficiaries used NEMT to access this service type in 2018 and 2019, and 2 percent in 2020 (Figure 15), which represents about half of all beneficiaries who used NEMT during each year. However, beneficiaries who used NEMT to access preventive services did so relatively infrequently, using just 0.8 monthly ride days to access this service type in 2018 and 2019 and 0.6 in 2020 (Figure 16).

**Figure 14. Percent of total NEMT ride days used to access select physical health, behavioral health, and substance use disorder (SUD) treatment services, 2018–2020**



Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file), 4390-4401 (Inpatient [IP] files), 4426-4437 (Pharmacy [RX] files), and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file), 4943 – 4954 (IP files), 4979 – 4990 (RX files), and 4967 – 4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file), 5524 – 5535 (IP files), 5578 – 5589 (RX files), and 5560 – 5571 (OT files).

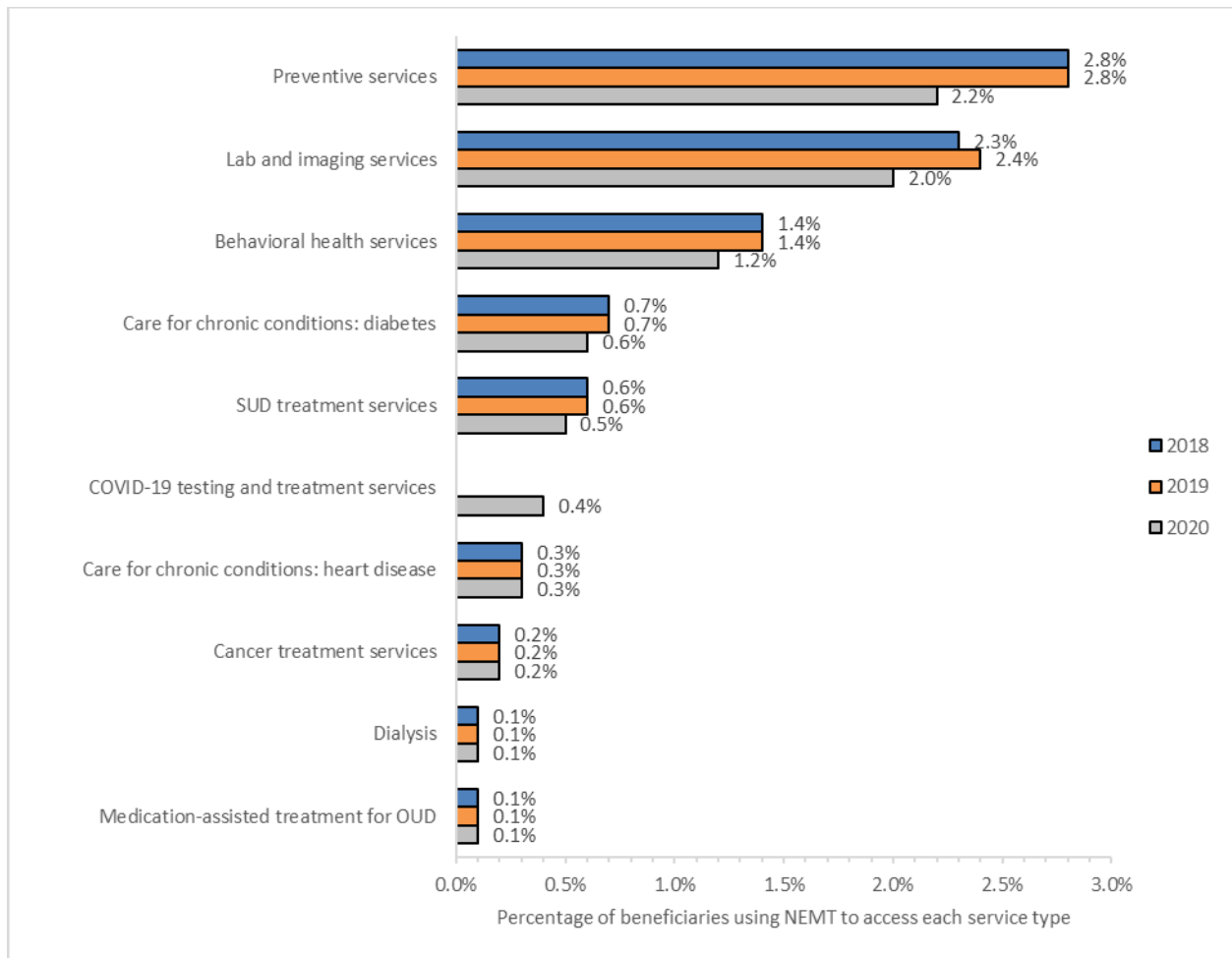
Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. The service types presented in this table do not include all Medicaid-covered services, and some service categories overlap with one another. NEMT may be used to access multiple types of services on a single day. As a result, percentages of ride days use to access each service are not expected to sum to 100. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). COVID-19 testing

and treatment services are limited to those paid for by Medicaid; non-Medicaid covered services are not included in the TAF.

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2019 data; and Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the 2020 data.

Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure. For additional information on data quality issues, please see Appendix C.

**Figure 15. Percentage of Medicaid beneficiaries who used NEMT to access select physical health, behavioral health, and substance use disorder (SUD) treatment services, 2018–2020**



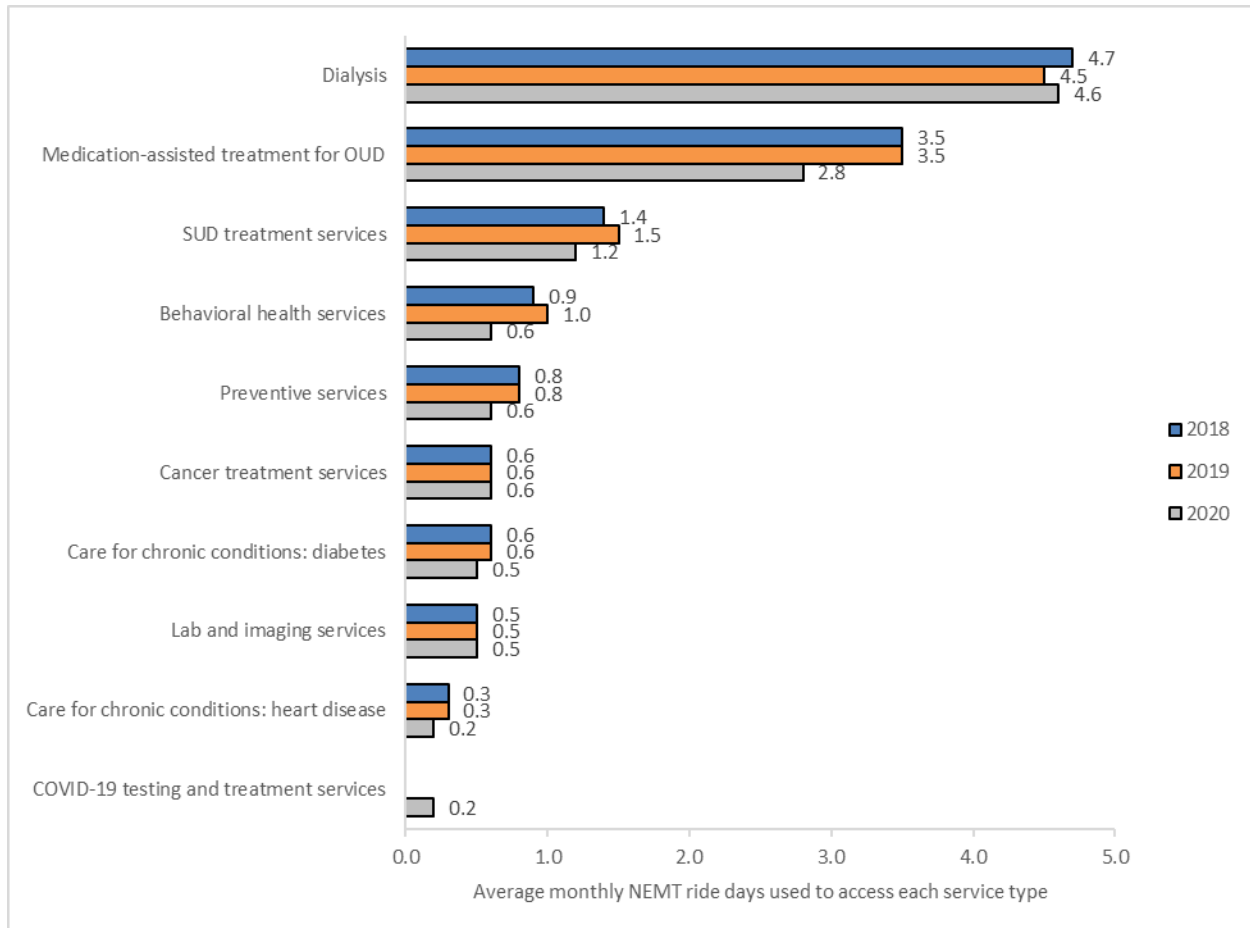
Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file), 4390-4401 (Inpatient [IP] files), 4426-4437 (Pharmacy [RX] files), and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file), 4943 – 4954 (IP files), 4979 – 4990 (RX files), and 4967 – 4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file), 5524 – 5535 (IP files), 5578 – 5589 (RX files), and 5560 – 5571 (OT files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. The service types presented in this table do not include all Medicaid-covered services and some service categories overlap with one another. COVID-19 testing and treatment services are limited to those paid for by Medicaid; non-Medicaid covered services are not included in the TAF. NEMT may be used to access multiple types of services on a single day. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2019 data; and Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the 2020 data.

Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure. For additional information on data quality issues, please see Appendix C.

**Figure 16. Average monthly number of NEMT ride days used to access select physical health, behavioral health, and substance use disorder (SUD) treatment services among beneficiaries who used NEMT to access each service type, 2018–2020**



Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file), 4390-4401 (Inpatient [IP] files), 4426-4437 (Pharmacy [RX] files), and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file), 4943 – 4954 (IP files), 4979 – 4990 (RX files), and 4967 – 4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file), 5524 – 5535 (IP files), 5578 – 5589 (RX files), and 5560 – 5571 (OT files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. The service types presented in this table do not include all Medicaid-covered services, and furthermore, some service categories overlap with one another (for example, Medication-assisted treatment for OUD is a subset of substance use disorder treatment services). NEMT may be used to access multiple types of services on a single day. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). COVID-19 testing and treatment services are limited to those paid for by Medicaid; non-Medicaid covered services are not included in the TAF.

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2019 data; and Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the 2020 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure. For additional information on data quality issues, please see Appendix C.

- Behavioral health services were the second most accessed type of service using NEMT, with 15 percent, 15 percent, and 13 percent of all ride days used to access these services in 2018, 2019, and 2020, respectively. Although rides to behavioral health services made up a relatively large proportion of the total volume of ride days, only 1 percent of all Medicaid beneficiaries used NEMT to access these services in any given year, with only 0.6 to 1.0 monthly rides used to access the service type, depending on the year.
- Beneficiaries used NEMT to access lab and imaging services at the third-highest rate; 14 percent, 13 percent, and 15 percent of all NEMT ride days were used to access these services in 2018, 2019, and 2020, respectively. In each year, approximately 2 percent of beneficiaries used NEMT to access lab and imaging services, with only 0.5 monthly ride day used to access the service type.
- Beneficiaries used between 7 percent and 10 percent of all NEMT ride days to access dialysis services, depending on the year examined, using 4.5 monthly ride days per user to access the service type in 2019, the highest of all service types examined. However, in each year, less than 0.5 percent of Medicaid beneficiaries used NEMT to access dialysis services.
- Beneficiaries used between 9 percent and 11 percent of all NEMT ride days to access all types of SUD treatment services, with 5 percent to 6 percent of all ride days used to access medication-assisted treatment (MAT) for OUD, which is a subset of all SUD treatment services. Those who used NEMT to access MAT for OUD did so with the second-highest frequency of all service types examined, using 3.5 monthly ride days to access the service. However, less than 0.5 percent of all Medicaid beneficiaries used NEMT to access this service type. The average number of monthly ride days to access MAT for OUD decreased in 2020 relative to 2018 and 2019, potentially because of increased flexibilities in OUD service delivery methods, such as telehealth, related to the COVID-19 PHE, which could allow for service delivery without beneficiary transportation. Although only 1 percent of Medicaid beneficiaries used NEMT to access all types of SUD treatment services, users did so with the third-highest frequency among all service types; they used 1.5 monthly ride days to access this service type in 2019.
- Beneficiaries used a relatively small proportion of all NEMT ride days to access care or treatment for three of the most common physical health conditions affecting Medicaid beneficiaries (Chapel et al. 2017): heart disease, diabetes, and cancer. In each year, beneficiaries used 5 percent of all NEMT ride days to access care for diabetes, whereas they used 2 percent to access care for heart disease and 1 percent to access cancer treatment services, respectively. Less than 1 percent of Medicaid beneficiaries used NEMT to access each service type annually, and they used less than 1 ride day per month to access each service type.
- In 2020 only, beneficiaries used 1 percent of all NEMT ride days to access COVID-19 testing and treatment services. Less than 0.5 percent of beneficiaries used NEMT to access these services.
- Except for COVID-19 testing and treatment services, the total number of NEMT ride days used to access each service type decreased in 2020 compared to 2019; among them, the share of total ride days used to access each service type shifted. The percentage of total NEMT ride days used to access preventive care and behavioral health services decreased in

2020, potentially due to an uptick in telehealth availability and use. Conversely, the percentage of total NEMT ride days used to access services for lab and imaging, SUD treatment, MAT for OUD, and dialysis—services that almost always require an in-person visit—increased in 2020 compared to 2018 and 2019. The percentage of all NEMT ride days used to access dialysis services increased the most between 2019 and 2020, from 7 percent to 10 percent.

**e. Percentage of Medicaid beneficiaries using NEMT, average number of monthly NEMT ride days per user, the average number of annual ride days per 10,000 beneficiaries, and modes of transportation used, by geography in 2018, 2019, and 2020**

For this analysis, CMS examined the use of NEMT and modes of transportation used among beneficiaries residing in different geographic areas. The literature suggests that beneficiaries residing in frontier and remote geographies face unique transportation challenges (Adelberg et al. 2020, MACPAC 2021), so CMS started by examining NEMT use and modes of transportation in such areas, using the USDA’s Frontier and Remote (FAR) area codes.<sup>40</sup> CMS also examined use of NEMT and modes of transportation across six urban-rural classification areas based on the Centers for Disease Control and Prevention’s (CDC’s) National Center for Health Statistics (NCHS) urban-rural classification scheme.<sup>41</sup> Finally, CMS examined NEMT use and modes of transportation among beneficiaries living in areas falling within each Social Deprivation Index (SDI) quartile; the SDI measures a geographic area’s level of social deprivation.<sup>42, 43</sup> State-level

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<sup>40</sup> For purposes of this analysis, frontier and remote areas include zip codes with the USDA’s FAR codes 3 and 4, which include zip code areas where the majority of residences are at least 60 minutes from urban areas of 50,000 or more people, at least 45 minutes from urban areas of 25,000–49,999 people, and at least 30 minutes from urban areas of 10,000–24,999 people (USDA 2019).

<sup>41</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas, ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metropolitan areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metropolitan areas include counties in MSAs with a population of at least 1 million but that do not otherwise qualify as a large central metropolitan area. Medium metropolitan areas include counties in MSAs with a population of 250,000–999,999. Small metropolitan areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Non-core areas include counties outside of MSAs and micropolitan statistical areas.

<sup>42</sup> Using seven demographic characteristics collected in the American Community Survey, the SDI provides a measure of area-level social deprivation by zip code tabulation areas (ZCTAs). The demographic characteristics encompassed in this index are (1) percentage living in poverty, (2) percentage with fewer than 12 years of education, (3) percentage of single parent households, (4) percentage living in a rented housing unit, (5) percentage living in overcrowded housing units, (6) percentage of households without a car, and (7) percentage of non-employed adults under 65 years of age (Robert Graham Center n.d.). In our analyses, we separated this continuous measure into quartiles, with the highest quartile representing the greatest degree of deprivation. The highest SDI quartile corresponds to SDI scores of greater than 75 to 100, the second-highest quartile corresponds to SDI scores of greater than 50 to 75, the second-lowest SDI quartile corresponds to SDI scores of greater than 25 to 50, and the lowest SDI quartile corresponds to SDI scores of up to 25.

<sup>43</sup> All states and the District of Columbia included in the national totals had Medicaid beneficiaries residing in each of the four SDI quartiles. The percentage of each state’s beneficiaries residing in the lowest SDI quartile ranged from

information about the rate, frequency, and modes of NEMT used by beneficiaries residing in each geographic area is available in Tables B3.1a–b, 3.2a–b, and 3.3a–b.

There may be important differences in the way states make payment for NEMT across geographic areas that could influence the results presented in this section. For instance, states may be more likely to claim public transit NEMT in urban areas as an administrative expenditure (which CMS would not expect to appear in the T-MSIS data), resulting in the use of public transit, and NEMT use in urban areas more generally, being undercounted. Furthermore, claims for NEMT are reported with a procedure code that often specifies the mode of transportation used, but not always. It is important to note that claims for 28 percent of all NEMT ride days in 2018 and 2019, and 21 percent of all ride days in 2020, did not specify a particular mode of transit; furthermore, this rate of missing information varied across geographic areas. Readers should take note of this rate of missing information, and the extent to which it varies by geography, when interpreting the results on modes of transit presented in this section.

- In each study year, the percentage of beneficiaries using NEMT in frontier and remote areas (between 7 percent and 9 percent, depending on the year) was higher than the national average (4 percent to 5 percent) (Figure 17).<sup>44</sup> Although beneficiaries in these areas were more likely on average to use NEMT, their frequency of use was slightly less. In frontier and remote areas, the average number of monthly ride days per NEMT user ranged from 1.2 to 1.4 (depending on the year), compared to 1.4 to 1.9 nationwide (Figure 18). The annual number of NEMT ride days for beneficiaries living in frontier and remote areas was higher than the national average: 13,995 per 10,000 beneficiaries in 2019, compared to 10,441 nationwide (data not shown). Beneficiaries living in frontier and remote areas made up a relatively small share of Medicaid beneficiaries, less than 2 percent in each study year (data not shown).
- Taxis, public transit, and non-emergency ambulance transit accounted for a smaller percentage, and vans, private vehicles, and air transit accounted for a greater percentage of ride days in frontier and remote areas than the national average (Figure 19).

When the full spectrum of urban and rural areas is considered, beneficiaries residing outside of metropolitan statistical areas (MSAs), which include those in micropolitan (9 percent of all beneficiaries) and non-core areas (6 percent of all beneficiaries), were more likely to use NEMT in compared to those residing within MSAs (Figures 20 and 21). (Those beneficiaries residing within an MSA include those in large metropolitan areas, large fringe metropolitan areas, and medium and small metropolitan areas). The difference was not large; across study years, between 6 and 7 percent residing outside of an MSA used NEMT, whereas between 4 and 5 percent residing within an MSA did so. However, beneficiaries residing within MSAs used NEMT more frequently (1.3 to 2.2 monthly ride days per user) across study years compared to those residing outside of an MSA (1.2 to 1.5 monthly ride days per user). As noted previously, public transit NEMT in urban areas may be more likely to be provided by states on an administrative basis

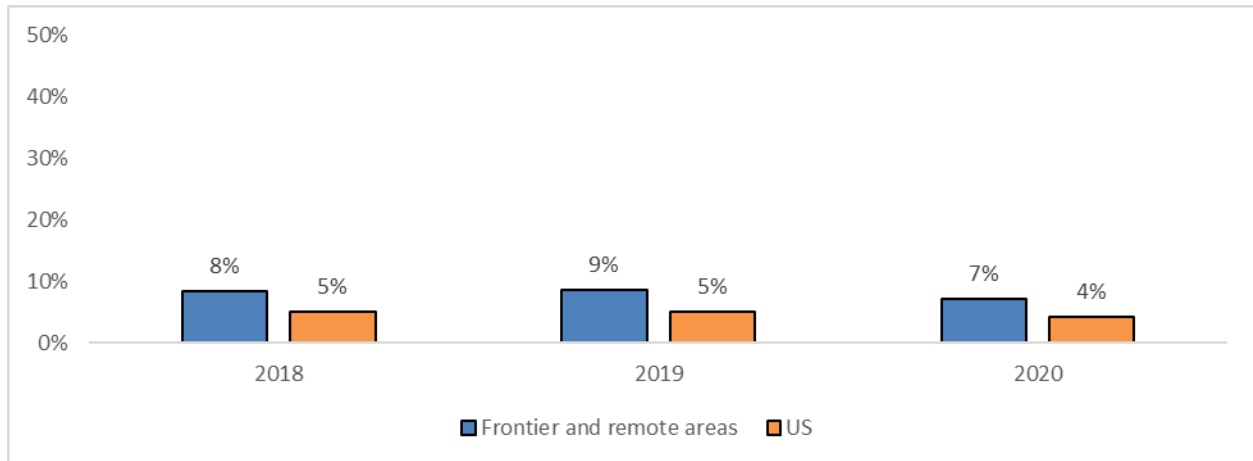
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0.6% in the District of Columbia to 35.7% in New Hampshire. The percentage of each state's beneficiaries residing in the highest SDI quartile ranged from 3.9% in Wyoming to 81.8% in the District of Columbia.

<sup>44</sup> In 2010, the latest year for which data are available, all states had populations in frontier and remote areas except Connecticut, Delaware, the District of Columbia, Indiana, New Jersey, Ohio, and Rhode Island.

(and therefore would be missing from the T-MSIS data), which may result in an undercount in NEMT use in these areas.

**Figure 17. Percentage of beneficiaries who used NEMT in frontier and remote areas compared to the US, 2018–2020**

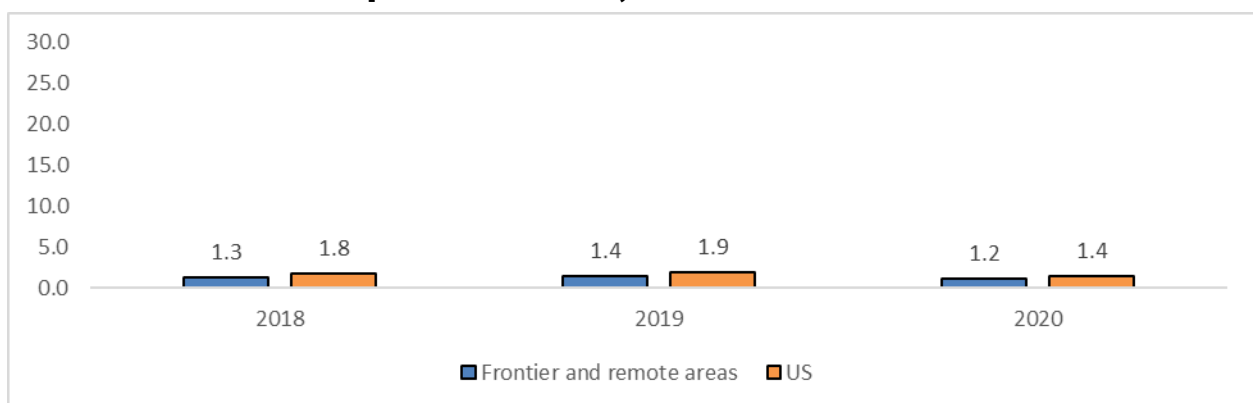


Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file) and 5560-5571 (OT files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries who used NEMT include those who used NEMT on at least one day during the year. CMS identified NEMT rides and modes of transit based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. US percentages include all geographic areas, including frontier and remote areas.

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2019 data; and Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the 2020 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure. For additional information on data quality issues, please see Appendix C.

**Figure 18. Average monthly number of ride days per NEMT user in frontier and remote areas compared to the US, 2018–2020**



Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file) and 5560-5571 (OT files).

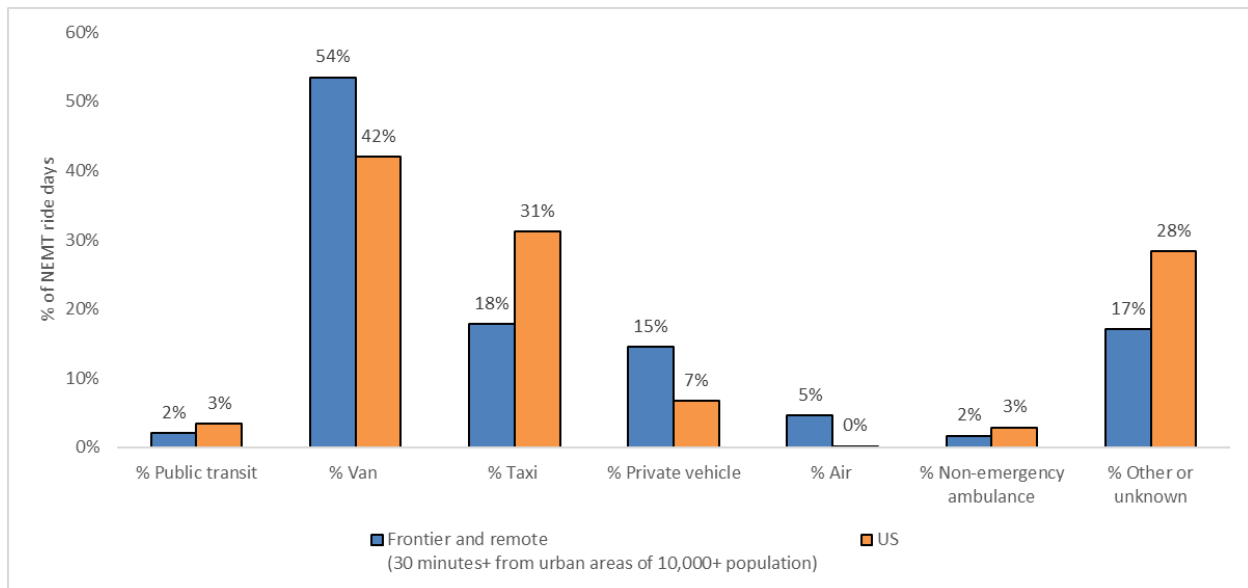
Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include those who used NEMT on at least one day during the year. Ride days are a count



of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides and modes of transit based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file.

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2019 data; and Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the 2020 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure. For additional information on data quality issues, please see Appendix C.

**Figure 19. Modes of NEMT used as a percentage of total NEMT ride days in frontier and remote areas compared to the US, 2019**

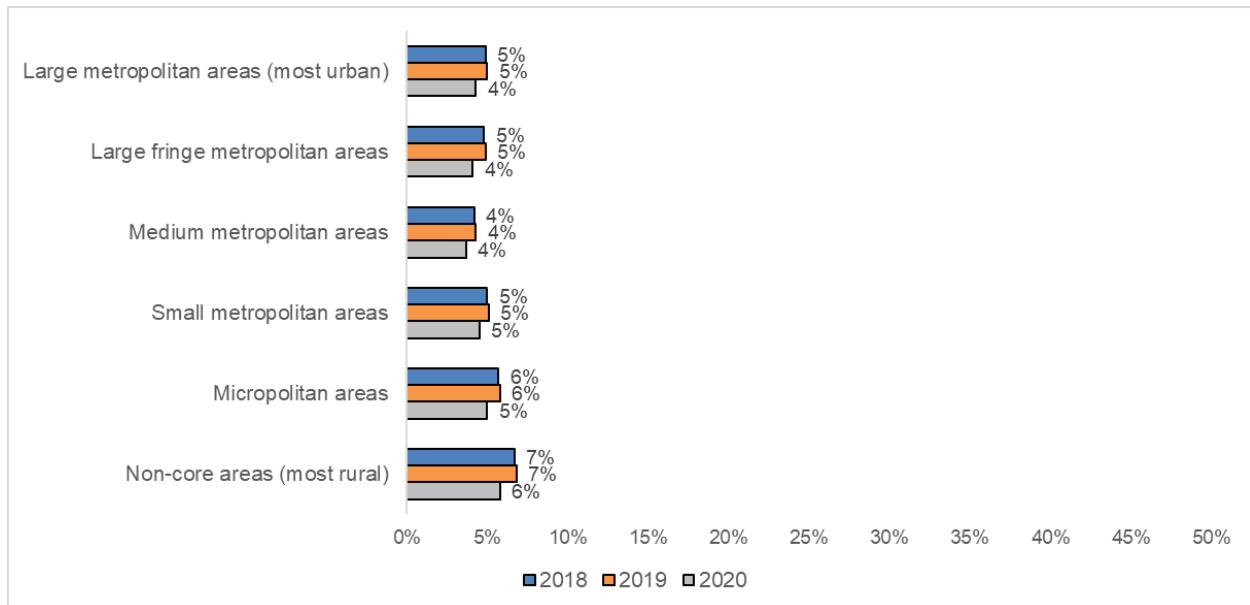


Source: Mathematica's analysis of the TAF 2019 Release 1, Run ID 4991 (Demographics and Eligibility file) and 4967 – 4978 (Other Services files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries who used NEMT include those who used NEMT on at least one day during the year. CMS identified NEMT rides and modes of transit based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because beneficiaries may use more than one mode of transit on a single day, percentages of ride days by mode of transit are not expected to sum to 100. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file.

Due to data quality issues, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2019 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure. For additional information on data quality issues, please see Appendix C.

**Figure 20. Percentage of beneficiaries residing in each urban-rural classification area who used NEMT, 2018–2020**

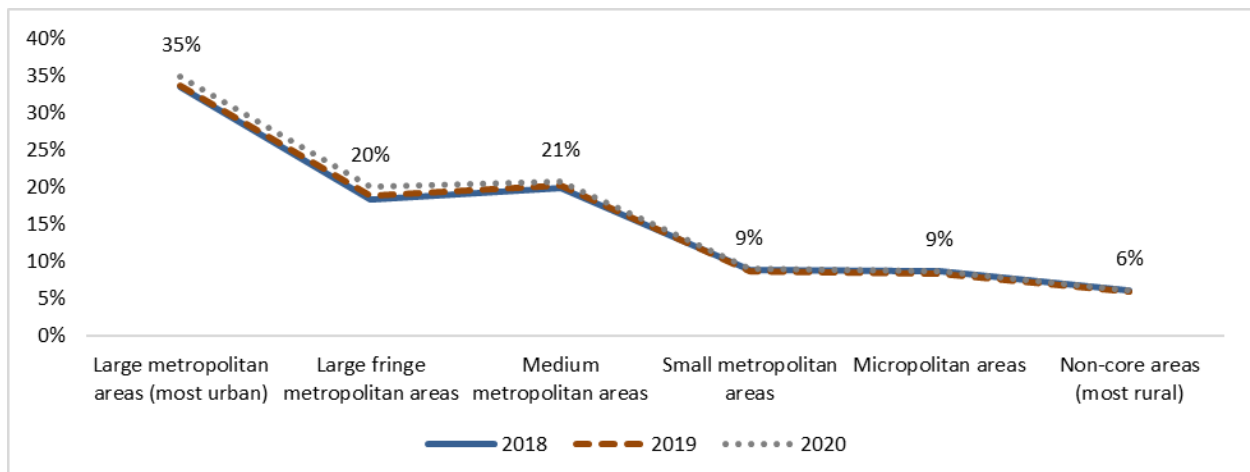


Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file) and 5560-5571 (OT files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries who used NEMT include those who used NEMT on at least one day during the year. CMS identified NEMT rides and modes of transit based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. Classifications are based on the National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme, which groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2019 data; and Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the 2020 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure. For additional information on data quality issues, please see Appendix C.

**Figure 21. Percentage of beneficiaries residing in each urban-rural classification area, 2018–2020**



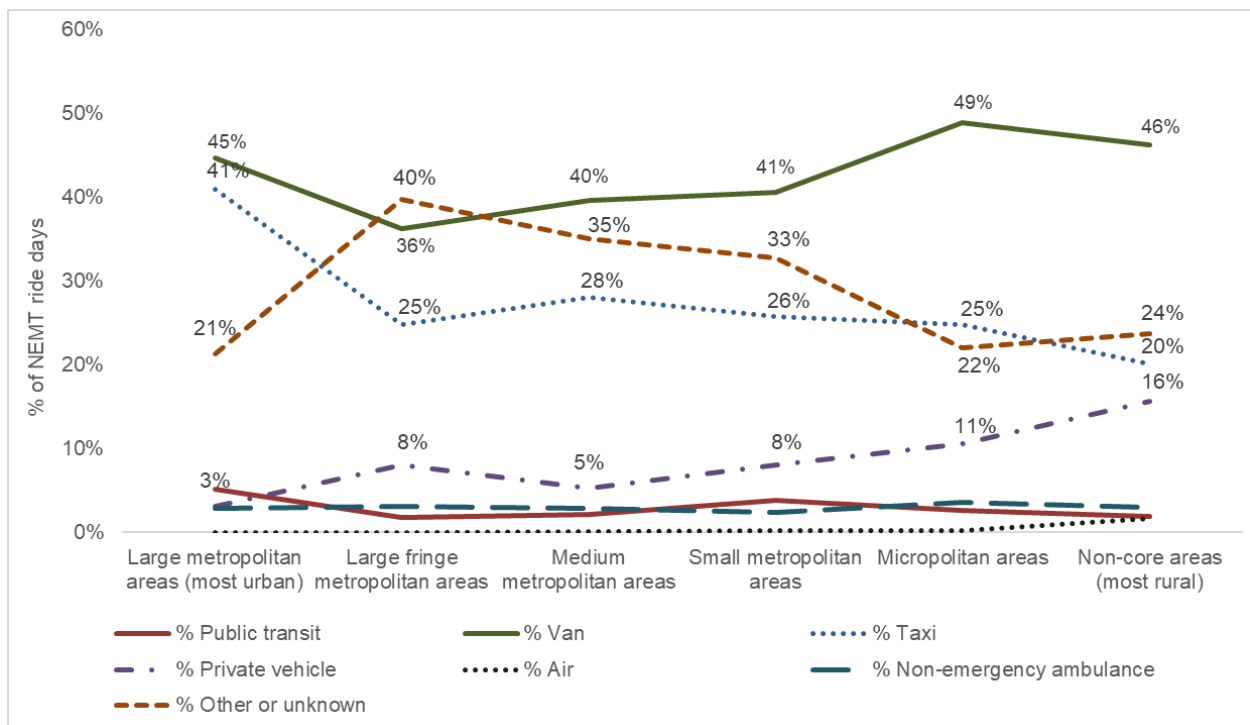
Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file) and 5560-5571 (OT files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. Classifications are based on the National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme, which groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017).

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2019 data; and Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the 2020 data. For additional information on data quality issues, please see Appendix C.

- Van transportation accounted for the largest share of total NEMT ride days—between 36 percent and 49 percent, depending on the year and geographic area (Figures 22 and 23), followed by taxi (20 to 45 percent) and private vehicle transit (3 to 19 percent). Public transit accounted for less than 6 percent, non-emergency ambulance transit less than 5 percent, and air transit less than 2 percent of all NEMT ride days across all urban-rural classification areas and years.
- Public transit and taxis were increasingly likely to be used for NEMT in more urban areas; conversely, private vehicles were increasingly likely to be used for NEMT in more rural areas (Figures 22 and 23).

**Figure 22. Modes of NEMT used as a percentage of total NEMT ride days among beneficiaries living in each urban-rural classification area, 2019**



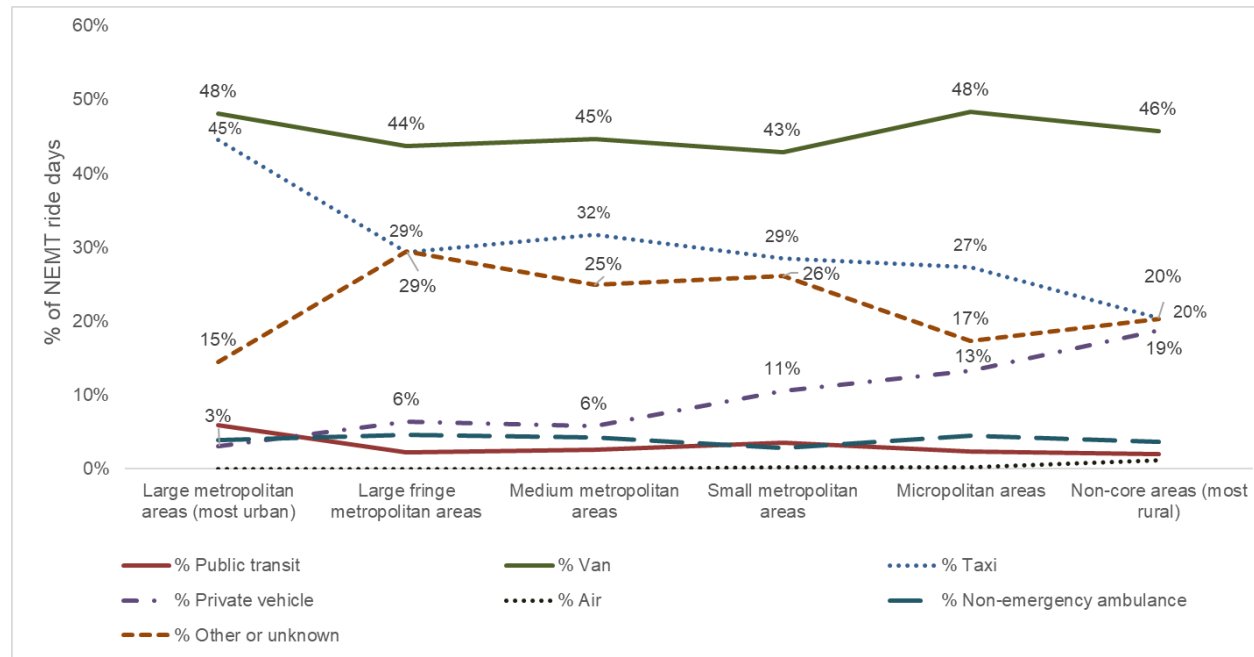
Source: Mathematica's analysis of the TAF 2019 Release 1, Run ID 4991 (Demographics and Eligibility file) and 4967-4978 (Other Services files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries who used NEMT includes those who used NEMT on at least one day during the year. CMS identified NEMT rides and modes of transit based on procedure codes reported on Medicaid claims and encounter

records (for the list of procedure codes, see Appendix C). Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. Classifications are based on the National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme, which groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017).

Due to data quality issues, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2019 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure. For additional information on data quality issues, please see Appendix C.

**Figure 23. Modes of NEMT used as a percentage of total NEMT ride days among beneficiaries living in each urban-rural classification area, 2020**



Source: Mathematica's analysis of the 2020 preliminary TAF, Run ID 5596 (Demographics and Eligibility file) and 5560 – 5571 (Other Services files)

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries who used NEMT includes those who used NEMT on at least one day during the year. CMS identified NEMT rides and modes of transit based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because beneficiaries may use more than one mode of transit on a single day, percentages of ride days by mode of transit are not expected to sum to 100. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. Classifications are based on the National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme, which groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017).

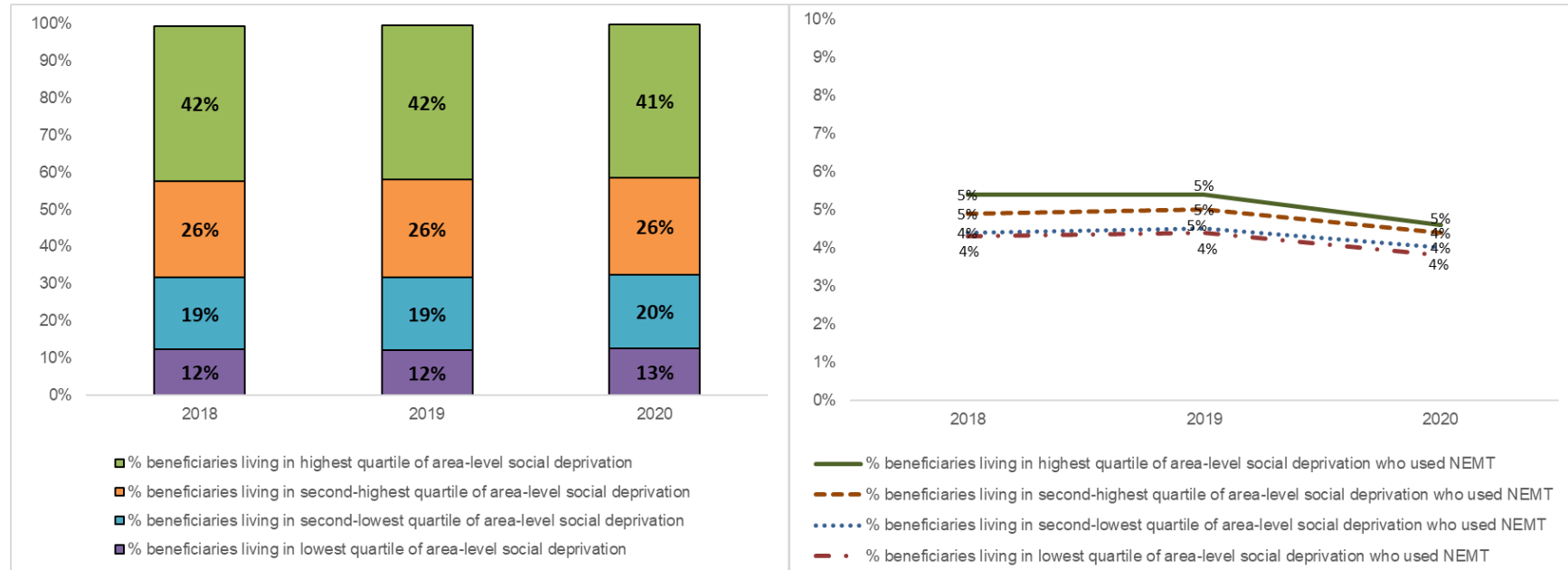
Due to data quality issues, Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the 2020 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure. For additional information on data quality issues, please see Appendix C.

- Beneficiaries living in geographic areas within the highest social deprivation index (SDI) quartile (representing areas with the highest degree of social deprivation) used NEMT at only slightly higher rates (5 percent in each study year) but lower frequencies (1.3 to 1.7 monthly ride days per user) compared to those living in geographic areas within the lowest SDI quartile (4 percent in each study year, with 1.6 to 2.5 monthly ride days per user) (Figure 24). Beneficiaries living in geographic areas within the highest SDI quartile used 10,543 ride days per 10,000 beneficiaries in 2019, compared with 12,367 in areas within the lowest SDI quartile (data not shown). In each study year, over 40 percent of all Medicaid

beneficiaries lived in areas within the highest SDI quartile while 12 to 13 percent lived in areas within the lowest SDI quartile.

- Beneficiaries used private vehicles as the mode of transit for a larger proportion of NEMT ride days in areas within the lowest SDI quartile than in areas within the highest SDI quartile. Conversely, beneficiaries used public transit, van transport, and taxis for a smaller percentage of ride days in areas within the lowest SDI quartile than in areas within the highest SDI quartile (Figures 25, 26).

**Figure 24. Percentage of beneficiaries living in each area-level social deprivation quartile and percentage of beneficiaries living in each area who used NEMT, 2018–2020**

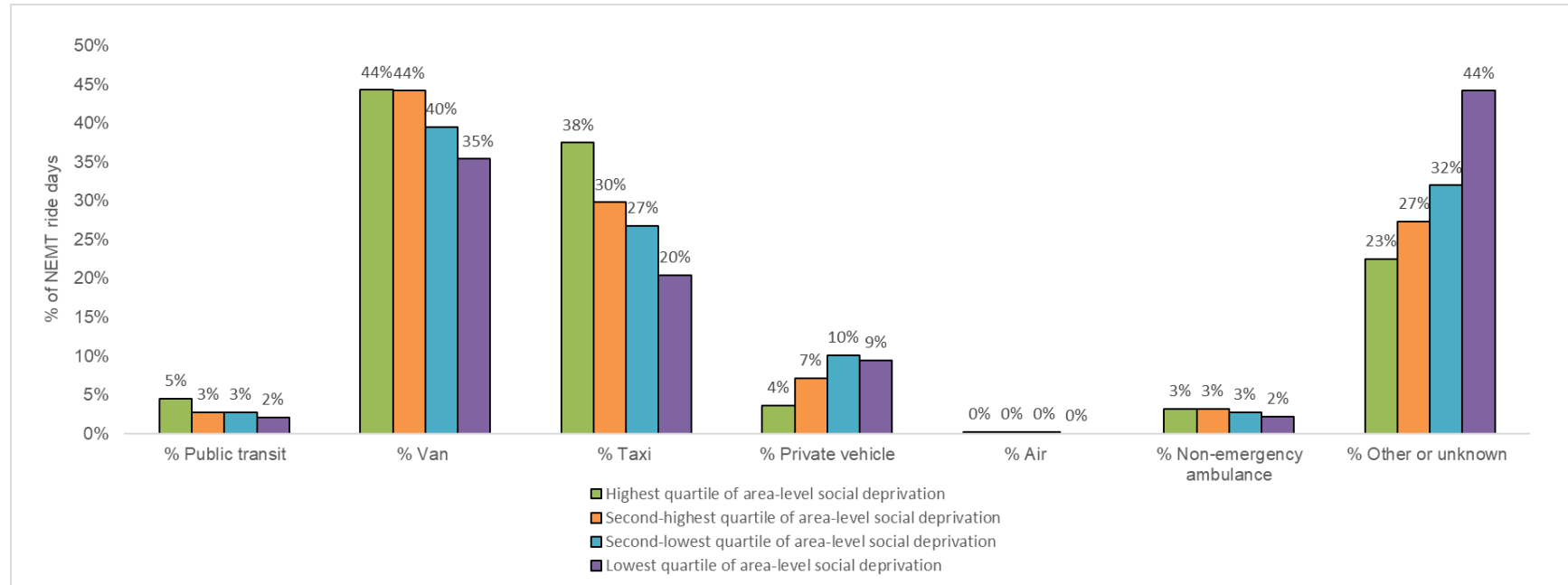


Source: Mathematica’s analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file) and 5560-5571 (OT files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries who used NEMT includes those who used NEMT on at least one day during the year. CMS identified NEMT rides and modes of transit based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Geographic areas reflect beneficiaries’ zip code or county of residence as indicated in the TAF DE file.

Due to data quality issues, Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2018 data; Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2019 data; and Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the 2020 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure. For additional information on data quality issues, please see Appendix C.

**Figure 25. Modes of NEMT used as a percentage of total NEMT ride days by quartile of area-level social deprivation, 2019**

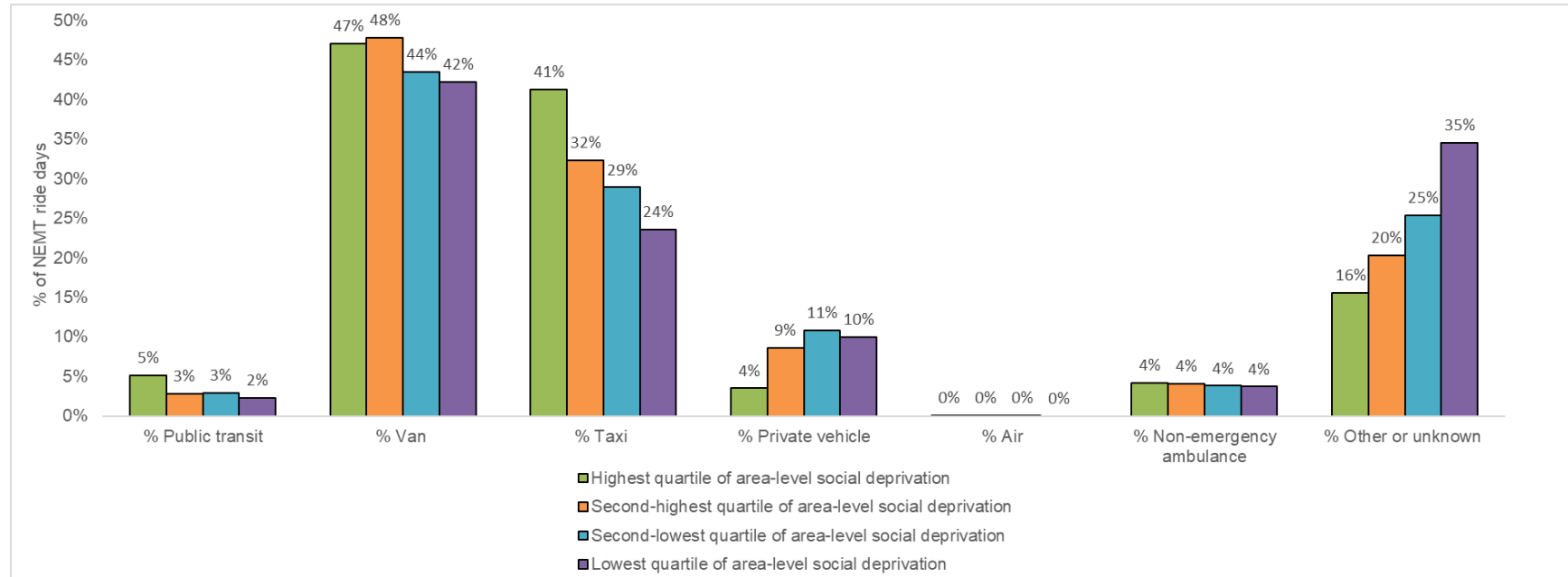


Source: Mathematica's analysis of the TAF 2019 Release 1, Run ID 4991 (Demographics and Eligibility file) and 4967-4978 (Other Services files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries who used NEMT includes those who used NEMT on at least one day during the year. CMS identified NEMT rides and modes of transit based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because beneficiaries may use more than one mode of transit on a single day, percentages of ride days by mode of transit are not expected to sum to 100. Geographic areas reflect beneficiaries' zip code or county of residence as indicated in the TAF DE file.

Due to data quality issues, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the 2019 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure. For additional information on data quality issues, please see Appendix C.

**Figure 26. Modes of NEMT used as a percentage of total NEMT ride days by quartile of area-level social deprivation, 2020**



Source: Mathematica's analysis of the 2020 preliminary TAF, Run ID 5596 (Demographics and Eligibility file) and 5560-5571 (Other Services files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Beneficiaries who used NEMT includes those who used NEMT on at least one day during the year. CMS identified NEMT rides and modes of transit based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because beneficiaries may use more than one mode of transit on a single day, percentages of ride days by mode of transit are not expected to sum to 100. Geographic areas reflect beneficiaries' zip code or county of residence as indicated in the TAF DE file.

Due to data quality issues, Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the 2020 data. Furthermore, because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in this figure. For additional information on data quality issues, please see Appendix C.



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## VII. INITIAL RECOMMENDATIONS

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As specified by the requirements set forth in the Consolidated Appropriations Act, 2021, Division CC, Title II, Section 209(b)(5), this section of the report includes initial recommendations regarding Medicaid coverage of NEMT. CMS will include the final set of recommendations in an expanded report to Congress, to be compiled in 2022, which will reflect T-MSIS data for 2018 through 2021 and examine additional NEMT topics. CMS' initial recommendations include:

- 1. Communicating with states about leveraging existing NEMT networks and informing beneficiaries of the availability of NEMT.**
  - a. **Communicating with states about utilizing existing public transit networks more widely for NEMT.** More than one-third of beneficiaries reside in large urban metropolitan areas, where robust public transportation networks are more likely to be found, yet the T-MSIS data indicate that public transit is not commonly used for NEMT. States may be more likely to claim public transit NEMT as an administrative expenditure, which would not be reflected in the T-MSIS data. However, while public transit is not a viable means of transportation for all beneficiaries or in all circumstances, working with states to leverage existing public transit networks more widely for NEMT may represent an opportunity to increase access to this benefit in a cost-efficient manner.
  - b. **Increasing uptake of NEMT may improve the use of timely preventive care.** NEMT provides a critical link to lifesaving services for certain higher-need beneficiaries and, among beneficiaries more generally, a link to preventive care, behavioral health services, and lab and imaging services. In 2018, 2019, and 2020, beneficiaries used NEMT to access preventive services at the highest rate of all service types examined, suggesting that increasing uptake of NEMT may improve the use of timely preventive care. As a result, states should take further action to inform beneficiaries of NEMT availability and work with transportation providers to share information about how to arrange for necessary NEMT.
- 2. Additional research is needed to determine whether there are disparities in access to NEMT across subgroups.** The analyses presented in this report represent a first step toward assessing the extent to which different subgroups of beneficiaries use NEMT. However, additional research is needed to determine whether there are disparities in access to it across these subgroups, particularly across subgroups with differing characteristics but equivalent health care needs (for instance, beneficiaries with similar health conditions but different race and ethnicity identity).
- 3. As a result of data-related nuances, key questions about Medicaid coverage of NEMT are difficult to study. CMS recommends several data-related advances to allow HHS and other stakeholders to study these questions in the future:**
  - a. **Streamline state NEMT reporting into a single, comprehensive data source.** Currently, states do not report information about Medicaid NEMT utilization into

a single administrative data source; as a result, any analysis of NEMT based on T-MSIS data will be incomplete. Streamlining state NEMT reporting into a single, comprehensive source would allow benefit use to be tracked at a more complete and granular level. For example, CMS could issue guidance for states claiming NEMT as an administrative expenditure to report each use of NEMT covered by Medicaid in the T-MSIS data. In addition to allowing NEMT use to be tracked at a more complete and granular level in T-MSIS, this approach would also enable the data source to be used more effectively to monitor for potential fraud and abuse.

- b. **Provide states with incentives and benchmarks for improving collection and reporting of race and ethnicity information.** NEMT has been cited as a promising pathway to improving access to care and reducing health disparities. However, it is not possible to study its effect on access to care and health disparities accurately or comprehensively on a national scale because about 40 percent of states report race and ethnicity information in T-MSIS that is incomplete or otherwise of inadequate quality for analysis. States may collect and report more complete race and ethnicity information from beneficiaries when they enroll in Medicaid if they are provided incentives and benchmarks for doing so. For example, the completeness of this data element could be classified as “high priority” in the new data quality scoring system for T-MSIS. Without better race and ethnicity data on a national scale, critical questions related to NEMT and equity will remain unanswered.

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**APPENDIX A:**

**THE CONSOLIDATED APPROPRIATIONS ACT, 2021 (PUBLIC LAW 116-260),  
DIVISION CC, TITLE II, SECTION 209**

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**SEC. 209. MEDICAID COVERAGE OF CERTAIN MEDICAL TRANSPORTATION.**

(a) CONTINUING REQUIREMENT OF MEDICAID COVERAGE OF NECESSARY TRANSPORTATION.—

(1) REQUIREMENT.—Section 1902(a)(4) of the Social Security Act (42 U.S.C. 1396a(a)(4)) is amended—

(A) by striking “and including provision for utilization” and inserting “including provision for utilization”; and

(B) by inserting after “supervision of administration of the plan” the following: “, and, subject to section 1903(i), including a specification that the single State agency described in paragraph (5) will ensure necessary transportation for beneficiaries under the State plan to and from providers and a description of the methods that such agency will use to ensure such transportation”.

(2) APPLICATION WITH RESPECT TO BENCHMARK BENEFIT PACKAGES AND BENCHMARK EQUIVALENT COVERAGE.—Section 1937(a)(1) of the Social Security Act (42 U.S.C. 1396u-7(a)(1)) is amended—

(A) in subparagraph (A), by striking “subsection (E)” and inserting “subparagraphs (E) and (F)”; and

(B) by adding at the end the following new subparagraph:

“(F) NECESSARY TRANSPORTATION.—Notwithstanding the preceding provisions of this paragraph, a State may not provide medical assistance through the enrollment of an individual with benchmark coverage or benchmark equivalent coverage described in subparagraph (A)(i) unless, subject to section 1903(i)(9) and in accordance with section 1902(a)(4), the benchmark benefit package or benchmark equivalent coverage (or the State)—

“(i) ensures necessary transportation for individuals enrolled under such package or coverage to and from providers; and

“(ii) provides a description of the methods that will be used to ensure such transportation.”.

(3) LIMITATION ON FEDERAL FINANCIAL PARTICIPATION.—Section 1903(i) of the Social Security Act (42 U.S.C. 1396b(i)) is amended by inserting after paragraph (8) the following new paragraph:

“(9) with respect to any amount expended for non-emergency transportation authorized under section 1902(a)(4), unless the State plan provides for the methods and procedures required under section 1902(a)(30)(A); or”.

(4) EFFECTIVE DATE.—The amendments made by this subsection shall take effect on the date of the enactment of this Act and shall apply to transportation furnished on or after such date.



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Act (42 U.S.C. 1396a(a)(70)(B)), providers (including transportation network companies), Medicaid patient advocates, and such other individuals specified by the Secretary.

(3) GUIDANCE REVIEW.—Not later than 24 months after the date of the enactment of this Act, the Secretary of Health and Human Services, through the Centers for Medicare & Medicaid Services, shall assess guidance issued to States by the Centers for Medicare & Medicaid Services relating to Federal requirements for nonemergency transportation to medically necessary services under the Medicaid program under title XIX of the Social Security Act and update such guidance as necessary to ensure States have appropriate and current guidance in designing and administering coverage under the Medicaid program of nonemergency transportation to medically necessary services.

(4) NEMT TRANSPORTATION PROVIDER AND DRIVER REQUIREMENTS.—

(A) STATE PLAN REQUIREMENT.—Section 1902(a) of the Social Security Act (42 U.S.C. 1396a(a)) is amended—

- (i) by striking “and” at the end of paragraph (85);
- (ii) by striking the period at the end of paragraph (86) and inserting “; and”; and
- (iii) by inserting after paragraph (86) the following

new paragraph:

“(87) provide for a mechanism, which may include attestation, that ensures that, with respect to any provider (including a transportation network company) or individual driver of non-emergency transportation to medically necessary services receiving payments under such plan (but excluding any public transit authority), at a minimum—

“(A) each such provider and individual driver is not excluded from participation in any Federal health care program (as defined in section 1128B(f)) and is not listed on the exclusion list of the Inspector General of the Department of Health and Human Services;

“(B) each such individual driver has a valid driver’s license;

“(C) each such provider has in place a process to address any violation of a State drug law; and

“(D) each such provider has in place a process to disclose to the State Medicaid program the driving history, including any traffic violations, of each such individual driver employed by such provider, including any traffic violations.”.

(B) EFFECTIVE DATE.—

(i) IN GENERAL.—Except as provided in clause (ii), the amendments made by subparagraph (A) shall take effect on the date of the enactment of this Act and shall apply to services furnished on or after the date that is one year after the date of the enactment of this Act.

(ii) EXCEPTION.—In the case of a State plan under title XIX of the Social Security Act (42 U.S.C. 1396 et seq.), or waiver of such plan, that the Secretary of Health and Human Services determines requires State legislation in order for the respective plan to meet any requirement imposed by amendments made

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by this section, the respective plan shall not be regarded as failing to comply with the requirements of such title solely on the basis of its failure to meet such an additional requirement before the first day of the first calendar quarter beginning after the close of the first regular session of the State legislature that begins after the date of the enactment of this Act. For purposes of the previous sentence, in the case of a State that has a 2-year legislative session, each year of the session shall be considered to be a separate regular session of the State legislature.

(5) ANALYSIS OF T-MSIS DATA.—Not later than one year after the date of the enactment of this Act, the Secretary of Health and Human Services, through the Centers for Medicare & Medicaid Services, shall analyze, and submit to Congress a report on, the nation-wide data set under the Transformed Medicaid Statistical Information System to identify recommendations relating to coverage under the Medicaid program under title XIX of the Social Security Act of nonemergency transportation to medically necessary services.

(c) CONSULTATION RELATING TO NONEMERGENCY MEDICAL TRANSPORTATION.—In the case of a State that exercises the option described in section 1902(a)(70) of the Social Security Act (42 U.S.C. 1396a(a)(7)), in establishing a non-emergency medical transportation brokerage program under such section, a State Medicaid agency may consult relevant stakeholders, including stakeholders representing patients, medical providers, Medicaid managed care organizations, brokers for non-emergency medical transportation, and transportation providers (including public transportation providers).

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**APPENDIX B:**  
**STATE- AND NATIONAL-LEVEL TABLES**

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**Table B1.1a. Number of annual NEMT ride days per 10,000 Medicaid beneficiaries, 2018, 2019, and 2020**

State	2018		2019		2020	
	Number of beneficiaries	# annual NEMT ride days per 10,000 beneficiaries	Number of beneficiaries	# annual NEMT ride days per 10,000 beneficiaries	Number of beneficiaries	# annual NEMT ride days per 10,000 beneficiaries
<b>United States<sup>a</sup></b>	<b>74,831,540</b>	<b>9,910</b>	<b>77,883,646</b>	<b>10,441</b>	<b>77,173,473</b>	<b>6,677</b>
Alabama	943,121	605	934,959	615	920,952	532
Alaska	235,173	9,922	245,199	9,591	251,991	5,262
Arizona	2,043,417	24,288	2,012,302	26,286	2,018,541	16,330
Arkansas	1,000,221	10,669	963,149	6,961	946,848	4,646
California	13,057,698	2,692	12,745,324	2,838	12,477,957	2,159
Colorado	1,486,585	13,707	1,437,138	15,965	1,454,092	10,907
Connecticut	961,337	8,196	974,096	7,350	983,708	3,760
Delaware	256,764	10,080	255,830	7,963	250,157	3,977
District of Columbia	269,396	14,929	263,203	12,203	264,969	1,547
Florida	4,262,235	2,317	4,094,374	9,743	4,085,045	6,247
Georgia	2,134,062	7,441	2,083,484	7,326	2,070,970	5,125
Hawaii	384,094	5,416	371,609	5,470	391,119	3,033
Idaho	316,076	19,759	301,648	19,855	382,453	10,017
Illinois	3,383,999	5,897	3,204,702	6,125	3,196,795	3,471
Indiana	1,604,987	4,483	1,580,649	2,980	1,693,684	3,130
Iowa	717,703	15,216	731,086	13,425	728,946	7,497
Kansas	428,545	2,870	416,318	2,958	402,383	2,317
Kentucky	1,504,402	6,993	1,477,255	7,549	1,593,518	3,950
Louisiana	1,638,165	3,528	1,687,920	3,510	1,694,051	1,912
Maine	246,401	29,710	275,770	20,421	321,192	15,149
Maryland	1,394,401	456	1,378,394	472	1,400,992	208
Massachusetts	1,845,150	34,456	1,754,117	38,104	1,702,856	16,277
Michigan	2,857,271	5,159	2,855,965	5,088	2,852,571	3,494
Minnesota	1,299,440	19,652	1,282,705	20,975	1,254,820	13,761
Mississippi	696,690	8,575	671,092	6,565	644,957	6,232
Missouri	1,174,634	10,845	1,121,039	11,085	1,075,412	9,018
Montana	289,095	5,161	292,707	7,935	275,593	9,339
Nebraska	276,437	6,798	274,482	6,252	305,099	3,645
Nevada	788,296	5,854	774,732	6,873	787,208	5,717
New Hampshire	222,290	6,948	220,733	4,699	220,864	2,378
New Jersey	1,814,383	20,221	1,799,271	22,304	1,809,564	13,284



State	2018		2019		2020	
	Number of beneficiaries	# annual NEMT ride days per 10,000 beneficiaries	Number of beneficiaries	# annual NEMT ride days per 10,000 beneficiaries	Number of beneficiaries	# annual NEMT ride days per 10,000 beneficiaries
New Mexico	836,072	6,828	820,733	7,349	840,160	5,087
New York	6,892,006	18,461	6,896,251	19,512	6,893,375	12,241
North Carolina	2,057,216	5,536	1,980,625	6,048	1,915,957	4,358
North Dakota	118,436	2,315	115,900	2,860	115,977	2,284
Ohio	3,069,768	3,131	2,960,424	3,371	2,947,313	2,586
Oklahoma	836,884	12,826	829,015	13,106	877,670	10,144
Oregon	1,060,739	19,237	1,066,877	21,233	1,106,204	13,051
Pennsylvania	3,258,631	2,961	3,150,590	3,012	3,120,313	1,366
Puerto Rico	1,438,531	1,325	1,424,443	982	1,408,333	2,118
Rhode Island	344,020	16,559	260,563	15,817	296,062	13,518
South Carolina	1,172,848	7,948	1,156,466	8,913	1,119,096	6,361
South Dakota	128,540	2,662	125,657	2,759	121,841	2,126
Tennessee	1,673,580	4,772	1,574,316	5,124	DQ	DQ
Texas	4,907,155	10,734	4,746,947	11,589	4,614,289	5,715
Utah	385,303	1	395,605	7	406,189	10
Vermont	184,228	14,708	177,906	14,944	177,089	7,089
Virgin Islands	19,145	1,058	20,217	1,845	21,830	1,296
Virginia	1,122,768	12,513	1,522,989	13,985	1,613,518	7,114
Washington	2,033,978	8,223	1,987,376	8,743	1,989,630	7,586
West Virginia	551,191	5,158	550,203	10,718	535,593	10,528
Wisconsin	1,256,170	46,160	1,242,617	50,405	1,281,394	34,977
Wyoming	74,677	2,128	71,818	2,291	69,637	1,604

Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file) and 5560-5571 (OT files).

Notes: Includes beneficiaries enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Annual NEMT ride days per 10,000 beneficiaries reflects the average number of ride days per user during the year per 10,000 Medicaid beneficiaries. We identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> 2018 data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2019 data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, and 2020 data for Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the United States total for each respective year due to data quality issues. For additional information on data quality issues, please see Appendix C.

DQ = Not reported because of a severe data quality issue. Tennessee had such a severe data quality issue in 2020 that the state was not included in the table. For additional information on data quality issues, please see Appendix C.



**Table B1.1b. Rate and frequency of NEMT utilization: Medicaid beneficiaries, 2018, 2019, and 2020**

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States<sup>a</sup></b>	<b>74,831,540</b>	<b>5.0</b>	<b>1.8</b>	<b>77,883,646</b>	<b>5.0</b>	<b>1.9</b>	<b>77,173,473</b>	<b>4.3</b>	<b>1.4</b>
Alabama	943,121	1.8	0.3	934,959	1.7	0.3	920,952	1.6	0.3
Alaska	235,173	13.3	0.7	245,199	13.8	0.6	251,991	10.3	0.4
Arizona	2,043,417	12.4	1.8	2,012,302	12.2	1.9	2,018,541	10.0	1.4
Arkansas	1,000,221	5.2	1.8	963,149	4.9	1.3	946,848	4.1	1.0
California	13,057,698	1.7	1.4	12,745,324	1.8	1.4	12,477,957	1.6	1.2
Colorado	1,486,585	3.8	3.2	1,437,138	4.2	3.4	1,454,092	3.9	2.4
Connecticut	961,337	5.8	1.3	974,096	5.5	1.2	983,708	3.8	0.9
Delaware	256,764	5.4	1.7	255,830	4.6	1.5	250,157	2.9	1.2
District of Columbia	269,396	8.1	1.6	263,203	8.4	1.3	264,969	1.5	0.9
Florida	4,262,235	1.2	1.7	4,094,374	4.8	1.8	4,085,045	4.1	1.4
Georgia	2,134,062	5.0	1.4	2,083,484	5.0	1.3	2,070,970	4.3	1.1
Hawaii	384,094	4.6	1.1	371,609	4.7	1.0	391,119	2.8	1.0
Idaho	316,076	5.4	3.3	301,648	5.2	3.4	382,453	3.8	2.3
Illinois	3,383,999	4.5	1.2	3,204,702	4.7	1.2	3,196,795	4.3	0.7
Indiana	1,604,987	5.8	0.7	1,580,649	4.4	0.6	1,693,684	3.8	0.7
Iowa	717,703	5.5	2.4	731,086	5.6	2.1	728,946	4.7	1.4
Kansas	428,545	3.8	0.7	416,318	3.9	0.7	402,383	3.3	0.6
Kentucky	1,504,402	4.4	1.4	1,477,255	4.5	1.5	1,593,518	3.8	0.9
Louisiana	1,638,165	3.9	0.8	1,687,920	3.9	0.8	1,694,051	2.8	0.6
Maine	246,401	10.3	2.6	275,770	9.4	2.0	321,192	9.3	1.4
Maryland	1,394,401	1.0	0.4	1,378,394	1.0	0.5	1,400,992	0.7	0.3
Massachusetts	1,845,150	7.6	4.0	1,754,117	8.2	4.0	1,702,856	7.3	1.9
Michigan	2,857,271	5.0	0.9	2,855,965	4.7	1.0	2,852,571	3.8	0.8
Minnesota	1,299,440	11.0	1.6	1,282,705	11.4	1.7	1,254,820	9.9	1.2
Mississippi	696,690	7.7	1.0	671,092	7.0	0.8	644,957	6.1	0.9
Missouri	1,174,634	7.4	1.3	1,121,039	7.7	1.3	1,075,412	6.9	1.2
Montana	289,095	1.6	2.8	292,707	1.8	3.8	275,593	1.8	4.5
Nebraska	276,437	4.6	1.3	274,482	4.7	1.2	305,099	3.6	0.9
Nevada	788,296	4.1	1.3	774,732	4.0	1.6	787,208	3.3	1.6

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
New Hampshire	222,290	2.0	3.3	220,733	1.6	2.9	220,864	1.4	1.5
New Jersey	1,814,383	7.3	2.5	1,799,271	7.7	2.6	1,809,564	6.4	1.9
New Mexico	836,072	4.9	1.3	820,733	5.1	1.3	840,160	4.4	1.0
New York	6,892,006	8.6	1.9	6,896,251	8.2	2.1	6,893,375	7.1	1.5
North Carolina	2,057,216	4.2	1.2	1,980,625	4.3	1.3	1,915,957	3.8	1.0
North Dakota	118,436	2.8	0.8	115,900	3.0	0.9	115,977	2.8	0.7
Ohio	3,069,768	4.8	0.6	2,960,424	5.0	0.6	2,947,313	4.6	0.5
Oklahoma	836,884	5.2	2.3	829,015	5.4	2.2	877,670	4.5	2.0
Oregon	1,060,739	8.5	2.1	1,066,877	8.8	2.2	1,106,204	7.3	1.6
Pennsylvania	3,258,631	1.5	1.8	3,150,590	1.6	1.7	3,120,313	1.7	0.7
Puerto Rico	1,438,531	1.3	0.9	1,424,443	1.3	0.7	1,408,333	1.9	1.0
Rhode Island	344,020	6.3	3.1	260,563	5.9	2.6	296,062	5.5	2.2
South Carolina	1,172,848	5.4	1.3	1,156,466	5.7	1.4	1,119,096	4.8	1.1
South Dakota	128,540	2.9	0.9	125,657	3.2	0.8	121,841	3.4	0.6
Tennessee	1,673,580	4.4	1.0	1,574,316	4.7	1.0	DQ	DQ	DQ
Texas	4,907,155	4.3	2.3	4,746,947	4.4	2.4	4,614,289	3.6	1.4
Utah	385,303	DS	DS	395,605	0.0	0.6	406,189	0.0	0.9
Vermont	184,228	6.0	2.2	177,906	6.2	2.1	177,089	5.2	1.2
Virgin Islands	19,145	1.0	1.0	20,217	1.2	1.4	21,830	1.0	1.2
Virginia	1,122,768	6.5	1.7	1,522,989	6.5	1.9	1,613,518	5.2	1.2
Washington	2,033,978	2.8	2.6	1,987,376	3.0	2.6	1,989,630	3.0	2.2
West Virginia	551,191	5.4	0.9	550,203	7.8	1.3	535,593	7.4	1.3
Wisconsin	1,256,170	10.0	4.1	1,242,617	10.1	4.5	1,281,394	8.6	3.6
Wyoming	74,677	1.6	1.3	71,818	1.7	1.3	69,637	1.7	0.9

Source: Mathematica’s analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file) and 5560-5571 (OT files).

Notes: Includes beneficiaries enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup>2018 data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2019 data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, and 2020 data for Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the United States total for each respective year due to data quality issues. For additional information on data quality issues, please see Appendix C.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

DQ = Not reported because of a severe data quality issue. Tennessee had such a severe data quality issue in 2020 that the state was not included in the table. For additional information on data quality issues, please see Appendix C.

**Table B1.2. Rate and frequency of NEMT utilization: dually eligible beneficiaries, 2018, 2019, and 2020**

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States <sup>a</sup></b>	<b>8,347,571</b>	<b>17.2</b>	<b>2.2</b>	<b>8,865,158</b>	<b>16.8</b>	<b>2.3</b>	<b>8,934,756</b>	<b>15.2</b>	<b>1.6</b>
Alabama	97,890	9.4	0.4	96,498	8.8	0.4	95,809	7.4	0.5
Alaska	21,645	27.4	1.1	21,239	28.8	1.0	20,953	23.2	0.8
Arizona	231,709	28.3	2.3	224,605	27.7	2.3	219,596	24.3	1.7
Arkansas	81,001	21.6	1.7	79,113	20.2	1.4	81,637	17.2	1.1
California	1,671,042	5.1	1.9	1,679,342	5.3	1.8	1,683,904	4.4	1.6
Colorado	95,896	18.6	4.1	100,017	20.0	4.2	104,540	18.4	3.2
Connecticut	81,362	23.6	1.3	77,968	22.9	1.3	79,896	16.3	1
Delaware	16,538	24.6	1.3	16,931	21.9	1.0	16,914	13.2	0.8
District of Columbia	26,145	16.5	2.9	26,534	14.8	2.2	26,346	2.7	1.2
Florida	568,642	4.0	1.4	559,164	13.1	2.1	566,346	11.5	1.3
Georgia	171,100	23.7	2.0	169,742	24.2	1.9	169,182	22.8	1.4
Hawaii	46,880	15.9	1.6	44,824	15.9	1.6	43,994	11.1	1.4
Idaho	32,448	21.2	4.4	32,473	20.4	4.4	33,285	17.7	3.1
Illinois	369,663	11.6	1.0	363,738	11.0	0.9	374,384	11.1	0.8
Indiana	172,757	22.5	0.8	171,837	15.9	0.6	184,090	12.7	0.9
Iowa	79,468	20.5	2.8	78,731	21.4	2.2	79,727	18.9	1.5
Kansas	47,922	10.0	0.7	47,606	10.2	0.8	47,805	8.7	0.7
Kentucky	138,165	20.6	1.7	130,570	21.4	1.7	141,823	17.8	1
Louisiana	153,856	8.3	1.3	154,400	8.4	1.3	155,840	6.5	1.1
Maine	30,991	27.4	2.9	29,279	25.5	2.4	59,207	23.9	1.5
Maryland	98,043	7.8	0.2	100,271	8.0	0.2	103,622	7.2	0.2
Massachusetts	384,278	24.9	4.3	362,464	26.5	4.4	344,929	24.1	2
Michigan	250,710	7.2	1.8	278,867	7.2	1.8	297,109	5.9	1.5
Minnesota	142,344	37.7	2.2	106,972	40.0	2.5	139,503	37.2	1.5
Mississippi	101,037	24.2	1.4	96,489	22.5	1.1	93,240	21.2	1.2
Missouri	168,407	25.3	1.7	166,152	25.2	1.7	175,064	21.9	1.5
Montana	23,707	8.5	4.2	23,575	10.5	4.9	23,585	10.6	5.6
Nebraska	40,167	15.5	1.7	40,143	16.2	1.5	40,669	14.3	1.1
Nevada	40,107	17.3	2.5	40,001	16.4	2.7	41,223	14.2	2.3

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
New Hampshire	24,104	4.8	0.6	24,126	3.6	0.6	25,366	4.3	0.3
New Jersey	260,440	24.8	2.3	250,651	26.1	2.4	241,692	23.3	1.6
New Mexico	47,849	18.7	1.6	46,741	19.6	1.6	49,894	17.4	1.3
New York	909,970	31.1	2.3	928,515	30.9	2.4	955,465	27.7	1.6
North Carolina	285,281	15.2	1.5	277,255	15.1	1.6	278,463	13.2	1.3
North Dakota	15,354	9.2	1.1	15,380	9.6	1.1	15,654	9.1	0.9
Ohio	269,094	22.4	0.9	278,596	21.2	0.9	279,685	19.0	0.7
Oklahoma	107,477	20.9	3.1	107,956	21.5	3.0	106,898	20.1	2.7
Oregon	85,836	32.4	2.0	84,648	33.0	2.1	93,272	30.4	1.8
Pennsylvania	357,683	1.8	6.2	368,176	2.8	4.0	377,598	3.8	1.3
Puerto Rico	376,571	4.2	0.9	367,805	4.4	0.6	358,469	7.0	0.9
Rhode Island	45,074	19.2	2.9	37,118	17.9	2.6	41,815	17.8	2.1
South Carolina	174,912	15.0	1.6	177,092	14.9	1.6	176,900	13.2	1.4
South Dakota	13,493	13.3	1.1	14,825	14.8	1.1	14,671	13.1	0.9
Tennessee	175,176	19.3	1.2	169,618	19.8	1.2	DQ	DQ	DQ
Texas	422,645	15.5	1.4	417,825	15.5	1.5	412,735	14.0	1.4
Utah	36,504	DS	DS	34,720	0.0	0.5	36,240	DS	DS
Vermont	22,605	20.7	2.3	22,417	21.6	2.3	22,498	19.2	1.1
Virgin Islands	3,444	1.9	1.3	3,772	2.6	1.8	4,131	2.2	1.6
Virginia	153,850	20.4	2.0	148,367	21.3	2.7	147,332	19.2	1.4
Washington	156,537	18.4	2.7	155,882	19.6	2.6	158,556	19.3	2.2
West Virginia	52,483	18.6	1.4	47,707	22.1	1.7	217	7.4	1.1
Wisconsin	165,802	33.1	5.1	172,412	32.4	5.6	180,445	29.1	4.3
Wyoming	6,878	6.0	2.2	7,042	6.6	2.0	7,187	6.7	1.2

Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file) and 5560-5571 (OT files).

Notes: Includes full-benefit dually eligible beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> 2018 data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2019 data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, and 2020 data for Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the United States total for each respective year due to data quality issues. For additional information on data quality issues, please see Appendix C.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

DQ = Not reported because of a severe data quality issue. Tennessee had such a severe data quality issue in 2020 that the state was not included in the table. For additional information on data quality issues, please see Appendix C.

**Table B1.3a. Rate and frequency of NEMT utilization, by major eligibility category: children, 2018, 2019, and 2020**

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States <sup>a</sup></b>	<b>31,496,074</b>	<b>1.7</b>	<b>0.8</b>	<b>33,080,671</b>	<b>1.6</b>	<b>0.8</b>	<b>31,892,972</b>	<b>1.2</b>	<b>0.6</b>
Alabama	584,216	0.3	0.1	576,907	0.3	0.1	573,514	0.4	0.1
Alaska	100,691	10.6	0.4	104,190	10.3	0.4	103,490	6.3	0.3
Arizona	835,530	6.5	0.9	813,684	6.0	1.0	797,845	4.1	0.7
Arkansas	461,206	3.2	2.1	451,008	2.8	1.1	444,477	2.1	0.9
California	4,471,968	0.3	0.5	4,337,252	0.4	0.5	4,084,802	0.3	0.3
Colorado	563,342	1.1	1.2	543,732	1.1	1.2	556,787	0.9	0.9
Connecticut	360,670	1.8	0.6	361,524	1.7	0.5	361,463	1.0	0.3
Delaware	105,334	1.8	0.3	104,189	1.4	0.2	102,241	0.7	0.2
District of Columbia	82,464	5.2	0.4	81,878	5.5	0.4	80,327	0.5	0.6
Florida	2,438,584	0.3	1.6	2,346,200	1.4	0.8	2,300,681	1.0	0.7
Georgia	1,355,072	1.6	0.3	1,321,747	1.6	0.3	1,334,238	1.1	0.2
Hawaii	141,076	1.9	0.2	137,509	1.8	0.2	138,099	0.7	0.2
Idaho	204,936	1.8	1.1	192,747	1.6	1.2	181,481	1.3	1.0
Illinois	885,668	2.1	1.7	829,301	2.2	1.7	744,364	1.6	0.7
Indiana	689,619	1.6	0.3	683,795	1.3	0.3	711,955	1.1	0.3
Iowa	303,008	1.8	1.3	303,996	1.9	1.3	300,976	1.4	0.9
Kansas	267,963	1.4	0.4	258,003	1.4	0.4	246,177	1.0	0.4
Kentucky	460,572	1.0	0.3	470,923	1.0	0.3	498,357	0.7	0.2
Louisiana	669,453	1.2	0.3	676,909	1.1	0.2	667,134	0.6	0.1
Maine	116,121	4.7	0.9	108,179	4.3	0.7	107,370	3.1	0.6
Maryland	567,716	0.4	0.7	567,099	0.3	0.9	574,584	0.2	0.5
Massachusetts	556,800	0.9	0.5	527,474	0.9	0.5	502,995	0.6	0.3
Michigan	1,058,975	2.2	0.3	1,057,668	1.9	0.3	1,037,211	1.3	0.2
Minnesota	606,960	5.0	0.6	606,712	5.0	0.6	597,450	3.6	0.5
Mississippi	415,534	2.2	0.3	395,431	2.0	0.3	380,223	1.4	0.3
Missouri	713,124	2.2	0.4	674,232	2.3	0.5	640,945	1.7	0.4
Montana	113,441	0.5	0.6	112,752	0.4	0.8	105,460	0.3	0.4

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Nebraska	168,517	1.2	0.3	167,431	1.1	0.3	167,798	0.7	0.2
Nevada	339,827	1.0	0.4	332,033	0.9	0.5	331,056	0.7	0.4
New Hampshire	94,817	0.1	0.1	92,301	0.0	0.1	91,485	0.1	0.1
New Jersey	689,176	1.7	0.8	673,754	1.8	0.9	658,843	1.1	0.5
New Mexico	343,364	1.9	0.3	332,536	2.0	0.3	340,232	1.5	0.3
New York	2,145,801	2.8	0.5	2,100,231	2.5	0.5	2,013,179	1.7	0.4
North Carolina	1,175,441	1.0	0.4	1,134,426	1.0	0.4	1,091,751	0.8	0.3
North Dakota	51,672	1.1	0.3	51,025	1.2	0.3	51,207	1.1	0.2
Ohio	1,165,524	1.2	0.2	1,145,317	1.3	0.3	1,132,988	1.0	0.3
Oklahoma	525,297	1.4	0.5	522,117	1.5	0.6	554,446	1.1	0.5
Oregon	362,970	3.3	0.6	359,068	3.4	0.7	387,849	2.1	0.4
Pennsylvania	1,128,892	0.7	0.1	1,046,025	0.8	0.1	1,035,480	0.6	0.1
Puerto Rico	373,262	0.1	0.3	343,493	0.1	0.2	291,405	0.0	0.2
Rhode Island	116,364	2.7	1.3	66,681	1.2	1.9	87,779	2.3	0.7
South Carolina	666,597	1.8	0.6	654,812	2.1	0.7	632,649	1.5	0.6
South Dakota	81,255	0.7	0.1	79,188	0.9	0.2	76,804	0.9	0.1
Tennessee	929,981	1.0	0.3	881,641	1.1	0.3	DQ	DQ	DQ
Texas	3,535,280	1.6	1.9	3,409,373	1.6	2.1	3,313,331	1.1	1.1
Utah	228,042	DS	DS	221,095	DS	DS	205,389	DS	DS
Vermont	70,126	2.4	0.3	68,391	2.4	0.4	67,463	1.5	0.3
Virgin Islands	785	DS	DS	549	DS	DS	501	DS	DS
Virginia	643,028	1.8	0.7	682,657	2.1	0.6	685,432	1.1	0.5
Washington	865,088	0.4	0.2	845,095	0.4	0.2	831,073	0.4	0.2
West Virginia	185,359	1.7	0.2	186,212	3.2	0.3	186,253	2.6	0.3
Wisconsin	521,355	3.0	1.5	510,512	2.9	1.6	512,743	2.1	1.2
Wyoming	45,229	0.4	0.1	43,126	0.5	0.1	41,999	0.4	0.1

Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file) and 5560-5571 (OT files).

Notes: Includes children enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year, excluding children eligible for Medicaid on the basis of a disability. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes



reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> 2018 data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2019 data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, and 2020 data for Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the United States total for each respective year due to data quality issues. For additional information on data quality issues, please see Appendix C.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

DQ = Not reported because of a severe data quality issue. Tennessee had such a severe data quality issue in 2020 that the state was not included in the table. For additional information on data quality issues, please see Appendix C.

**Table B1.3b. Rate and frequency of NEMT utilization, by major eligibility category: adults, 2018, 2019, and 2020**

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States <sup>a</sup></b>	<b>9,922,143</b>	<b>3.2</b>	<b>1.2</b>	<b>10,833,240</b>	<b>3.2</b>	<b>1.3</b>	<b>11,583,198</b>	<b>2.7</b>	<b>1.2</b>
Alabama	139,413	0.4	0.1	142,353	0.4	0.1	138,717	0.8	0.1
Alaska	48,820	13.3	0.6	49,521	13.4	0.5	49,334	10.4	0.4
Arizona	370,033	8.5	1.1	357,960	8.2	1.3	347,748	6.6	1.1
Arkansas	2,115	2.7	0.8	1,987	3.6	0.4	1,571	2.3	0.2
California	1,930,996	0.7	0.9	1,852,006	0.8	1.0	1,842,276	0.6	0.9
Colorado	236,438	1.7	1.4	226,466	1.9	1.7	218,144	1.8	1.4
Connecticut	189,495	2.6	1.0	188,223	2.4	1.0	195,952	1.5	0.7
Delaware	41,654	4.9	2.8	41,171	4.2	2.5	39,956	2.8	1.7
District of Columbia	56,298	6.2	0.7	55,969	7.4	0.7	56,169	0.3	0.4
Florida	861,170	0.3	0.3	795,200	2.3	2.1	839,184	1.8	1.7
Georgia	355,552	2.8	0.5	351,768	2.7	0.5	339,464	2.3	0.5
Hawaii	49,461	2.8	0.5	46,640	2.8	0.5	48,722	1.3	0.5
Idaho	48,222	1.9	1.0	46,151	1.9	0.9	138,549	1.6	0.7
Illinois	134,654	2.0	0.5	120,773	2.3	0.5	88,223	2.0	0.4
Indiana	99,203	5.4	0.8	107,621	4.9	0.6	162,419	6.9	0.8
Iowa	93,589	4.3	0.8	91,826	4.3	0.8	92,785	3.5	0.7
Kansas	85,050	5.8	0.8	81,542	5.7	0.7	77,386	4.8	0.6
Kentucky	136,617	2.0	0.6	138,369	2.2	0.7	142,598	1.8	0.5
Louisiana	113,435	4.0	0.4	116,826	3.6	0.5	100,733	2.4	0.4
Maine	62,469	5.2	3.1	55,696	4.7	2.1	53,720	4.3	1.7
Maryland	253,426	0.2	0.1	244,831	0.1	0.1	253,219	0.1	0.1
Massachusetts	308,954	1.5	1.8	275,549	1.7	1.9	281,704	1.6	1.4
Michigan	380,109	4.9	0.7	363,760	4.3	0.7	352,331	3.1	0.6
Minnesota	223,675	7.1	0.9	218,041	7.1	0.8	210,024	5.7	0.8
Mississippi	94,827	5.1	0.5	91,686	4.3	0.5	88,357	3.3	0.4
Missouri	184,921	3.8	0.7	171,358	3.8	0.8	160,683	3.2	0.6
Montana	19,988	0.7	0.2	22,282	0.5	0.2	23,972	0.4	0.3

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Nebraska	44,997	2.5	0.6	44,268	2.6	0.5	42,373	1.8	0.4
Nevada	74,385	3.5	0.7	72,982	3.1	1	81,779	2.2	0.9
New Hampshire	22,052	1.1	2.3	20,731	0.9	1.6	17,615	0.5	1.3
New Jersey	112,994	5.3	2.3	110,094	5.3	2.4	126,335	4.0	1.8
New Mexico	106,401	4.0	1.4	99,755	4.3	1.4	109,441	3.8	1.1
New York	937,923	4.5	1.5	983,894	3.8	1.6	1,010,125	2.8	1.6
North Carolina	378,275	1.9	0.8	345,538	2	0.9	336,393	1.7	0.6
North Dakota	14,701	2.0	0.3	13,657	2.4	0.4	15,072	2.2	0.4
Ohio	505,210	2.4	0.4	482,088	2.6	0.3	489,862	2.3	0.3
Oklahoma	142,854	2.4	0.4	138,271	2.5	0.4	158,342	2.0	0.4
Oregon	155,938	14.5	2.4	161,778	14.3	2.5	646,546	8.0	1.7
Pennsylvania	313,095	1.1	0.1	301,205	1.0	0.1	282,348	1.0	0.1
Puerto Rico	238,950	0.2	1.6	194,175	0.2	1.1	201,237	0.1	1.8
Rhode Island	56,158	3.8	1.7	42,544	1.8	1.1	47,437	1.6	1.8
South Carolina	231,713	2.8	0.6	224,756	2.9	0.7	215,161	2.4	0.7
South Dakota	21,272	1.5	0.3	20,678	1.9	0.2	19,737	3.4	0.2
Tennessee	427,831	1.8	0.5	391,137	2.1	0.6	DQ	DQ	DQ
Texas	463,468	2.5	0.9	450,773	2.6	0.9	439,189	2.0	0.8
Utah	89,483	DS	DS	107,695	0.0	0.4	48,146	0.0	1.2
Vermont	11,060	5.3	3.4	8,649	5.3	3.4	8,826	3.4	1.9
Virgin Islands	6,484	0.4	0.8	6,504	0.4	0.9	6,771	0.4	0.7
Virginia	199,141	3.9	1.3	582,786	4.9	1.2	671,915	3.9	1.0
Washington	46,591	0.5	0.4	45,296	0.7	0.3	157,302	1.0	0.6
West Virginia	48,667	2.6	0.6	46,320	4.9	1.7	44,992	4.6	2.0
Wisconsin	418,951	5.9	2.7	411,969	5.8	2.7	445,353	4.6	2.7
Wyoming	13,041	1.0	0.2	12,177	0.9	0.2	11,832	0.9	0.1

Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file) and 5560-5571 (OT files).

Notes: Includes adults enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year, excluding adults eligible for Medicaid on the basis of a disability, on the basis of age (65+), and those eligible for the adult expansion population (VIII group). NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of

procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> 2018 data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2019 data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, and 2020 data for Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the United States total for each respective year due to data quality issues. For additional information on data quality issues, please see Appendix C.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

DQ = Not reported because of a severe data quality issue. Tennessee had such a severe data quality issue in 2020 that the state was not included in the table. For additional information on data quality issues, please see Appendix C.

**Table B1.3c. Rate and frequency of NEMT utilization, by major eligibility category: adult expansion beneficiaries, 2018, 2019, and 2020**

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States <sup>a</sup></b>	<b>19,668,033</b>	<b>3.3</b>	<b>1.3</b>	<b>19,295,363</b>	<b>3.4</b>	<b>1.4</b>	<b>19,430,263</b>	<b>2.9</b>	<b>1.1</b>
Alabama	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alaska	55,898	11.4	0.6	61,481	13	0.5	68,964	10.8	0.4
Arizona	533,018	12.8	1.3	530,217	12.8	1.6	562,776	10.7	1.3
Arkansas	366,619	1.2	0.4	342,061	1.4	0.4	338,974	1.2	0.3
California	4,289,653	1.2	1.0	4,192,250	1.3	1.1	4,238,478	1.1	1.0
Colorado	523,918	2.6	1.5	503,546	2.9	1.8	519,246	2.9	1.4
Connecticut	302,491	5.9	1.3	318,944	5.7	1.2	330,454	4.0	0.8
Delaware	80,911	5.0	2.2	80,910	4.1	2.2	78,976	2.7	1.7
District of Columbia	77,852	4.7	0.9	73,045	5.1	0.9	78,576	0.5	0.4
Florida	NA	NA	NA	NA	NA	NA	NA	NA	NA
Georgia	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hawaii	138,485	3.2	0.6	132,291	3.4	0.7	148,772	1.8	0.6
Idaho	NA	NA	NA	NA	NA	NA	DS	DS	DS
Illinois	1,887,996	3.6	0.9	1,786,631	4.0	1.0	1,900,032	3.5	0.7
Indiana	549,399	4.1	0.7	529,593	3.2	0.7	579,255	3.1	0.8
Iowa	207,786	2.6	0.7	219,956	2.6	0.7	222,495	2.1	0.6
Kansas	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kentucky	663,465	2.2	0.6	632,072	2.5	0.8	722,939	2.1	0.7
Louisiana	577,964	3.5	0.5	596,677	3.4	0.6	621,514	2.2	0.4
Maine	7,841	2.3	1.4	54,552	7.1	1.2	76,051	5.9	1.3
Maryland	383,620	0.3	0.1	376,710	0.2	0.1	388,297	0.1	0.1
Massachusetts	413,795	2.4	1.8	389,713	2.8	1.8	377,973	2.7	1.5
Michigan	891,643	4.5	0.8	895,612	4.3	0.8	929,353	3.5	0.6
Minnesota	267,303	8.5	1.2	256,936	9.1	1.2	249,528	8.0	1.1
Mississippi	NA	NA	NA	NA	NA	NA	NA	NA	NA
Missouri	NA	NA	NA	NA	NA	NA	NA	NA	NA
Montana	121,603	0.9	0.4	123,451	0.8	0.6	112,873	0.8	0.4

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Nebraska	NA	NA	NA	NA	NA	NA	32,682	1.6	0.7
Nevada	299,582	4.5	0.8	294,786	4.5	1.1	302,444	3.6	1.3
New Hampshire	75,814	3.8	4.6	78,077	3.1	3.7	78,840	2.5	2.2
New Jersey	684,437	4.3	2.8	681,107	4.7	2.9	685,065	4.0	2.3
New Mexico	299,016	4.5	1.3	302,010	4.7	1.4	305,464	4.2	1.0
New York	2,491,359	4.5	1.7	2,484,956	4.1	2.0	2,548,589	3.5	1.6
North Carolina	NA	NA	NA	NA	NA	NA	NA	NA	NA
North Dakota	30,930	1.7	0.4	30,548	1.4	1.0	29,048	1.5	0.8
Ohio	868,103	3.4	0.4	795,048	3.9	0.4	797,714	4.0	0.3
Oklahoma	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oregon	459,057	6.6	2.5	460,651	7.1	2.6	4,580	6.3	1.6
Pennsylvania	981,598	1.4	0.1	964,089	1.4	0.1	994,059	1.4	0.1
Puerto Rico	446,744	0.3	1.4	505,061	0.3	1.2	542,487	0.3	1.6
Rhode Island	91,422	3.5	3.7	79,879	3.6	1.1	91,077	3.5	1.9
South Carolina	NA	NA	NA	NA	NA	NA	NA	NA	NA
South Dakota	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tennessee	NA	NA	NA	NA	NA	NA	NA	NA	NA
Texas	NA	NA	NA	NA	NA	NA	NA	NA	NA
Utah	NA	NA	NA	NA	NA	NA	87,114	DS	DS
Vermont	70,931	3.8	2.8	68,989	3.9	2.7	70,016	3.4	1.7
Virgin Islands	8,234	1.1	1.0	9,381	1.2	1.2	10,425	0.8	1.0
Virginia	NA	NA	NA	36	DS	DS	36	DS	DS
Washington	860,246	1.1	0.8	835,725	1.3	0.8	741,909	1.4	0.8
West Virginia	205,700	3.7	0.5	202,693	6.0	1.2	203,214	6.6	1.4
Wisconsin	NA	NA	NA	NA	NA	NA	NA	NA	NA
Wyoming	NA	NA	NA	NA	NA	NA	NA	NA	NA

Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file) and 5560-5571 (OT files).

Notes: Includes beneficiaries in the adult expansion population (VIII Group) who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes

reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> 2018 data for Puerto Rico, Rhode Island, and the US Virgin Islands, 2019 data for Puerto Rico, Rhode Island, and the US Virgin Islands, and 2020 data for Puerto Rico, Utah, and the US Virgin Islands are excluded from the United States total for each respective year due to data quality issues. For additional information on data quality issues, please see Appendix C.

NA = State did not have an adult Medicaid expansion program during the calendar year.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B1.3d. rate and frequency of NEMT utilization, by major eligibility category: beneficiaries eligible on the basis of a disability, 2018, 2019, and 2020**

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States <sup>a</sup></b>	<b>8,214,252</b>	<b>16.2</b>	<b>2.6</b>	<b>8,577,804</b>	<b>16.4</b>	<b>2.6</b>	<b>8,131,442</b>	<b>14.8</b>	<b>1.8</b>
Alabama	167,077	4.7	0.3	162,586	4.5	0.4	155,686	3.7	0.4
Alaska	17,322	24.1	1.2	17,027	26.6	1.2	16,563	22.2	0.9
Arizona	170,314	40.0	3.3	169,274	39.1	3.5	165,319	34.3	2.3
Arkansas	123,240	19.2	2.3	120,436	17.8	1.7	115,007	15.2	1.3
California	1,022,150	7.7	1.6	983,541	8.3	1.6	922,439	7.3	1.3
Colorado	105,116	23.5	4.8	105,356	25.0	4.9	102,465	23.6	3.4
Connecticut	49,264	26.2	1.9	46,192	25.6	1.9	40,792	21.8	1.4
Delaware	19,556	17.5	1.7	19,856	14.8	1.5	19,502	10.0	1.1
District of Columbia	33,841	23.2	2.8	32,931	22.0	2.1	30,573	8.4	1.1
Florida	540,265	5.3	2.2	527,754	16.7	2.2	512,434	15.1	1.6
Georgia	310,894	15.1	1.8	298,168	15.2	1.8	284,066	14.0	1.4
Hawaii	23,297	20.2	1.7	22,566	20.5	1.6	21,217	14.6	1.4
Idaho	44,998	20.5	4.6	44,456	19.5	4.7	43,627	17.1	3.2
Illinois	209,682	13.2	1.5	198,991	13.1	1.6	190,493	12.5	0.9
Indiana	182,314	17.7	0.9	171,561	13.6	0.7	141,817	10.5	0.9
Iowa	77,878	23.2	3.9	79,402	23.5	3.3	78,301	20.9	2.0
Kansas	48,224	12.7	0.7	48,723	12.7	0.8	49,949	10.8	0.7
Kentucky	182,299	15.2	2.2	174,447	15.5	2.3	167,855	14.0	1.3
Louisiana	198,240	13.8	1.1	208,150	13.9	1.1	216,655	10.5	0.8
Maine	46,710	28.9	3.4	43,412	27.7	2.8	54,164	25.0	1.8
Maryland	126,904	3.8	0.6	126,348	3.7	0.7	122,656	2.8	0.3
Massachusetts	388,414	16.3	4.9	382,692	17.1	4.9	359,620	15.5	2.3
Michigan	347,898	14.4	1.3	354,754	13.6	1.3	349,075	11.6	1.1
Minnesota	121,243	35.2	2.0	119,481	37.5	2.1	115,546	35.0	1.4
Mississippi	135,976	19.3	1.3	133,061	17.5	1.1	126,513	15.3	1.2
Missouri	189,607	23.0	1.9	186,901	22.8	1.8	182,952	20.5	1.6
Montana	22,319	9.2	4.2	22,209	12.7	5.4	21,282	12.8	6.5
Nebraska	39,921	17.4	1.8	39,544	17.6	1.6	38,943	14.5	1.2



State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Nevada	49,959	19.5	1.9	49,584	19.1	2.1	47,594	16.9	2.0
New Hampshire	17,030	2.6	0.8	16,922	2.1	0.9	20,507	2.2	0.4
New Jersey	172,579	27.0	3.7	173,880	27.3	3.9	171,094	23.8	2.4
New Mexico	57,192	20.0	1.6	56,423	20.0	1.7	56,130	17.4	1.3
New York	629,117	26.6	2.4	616,299	26.2	2.6	596,784	23.5	1.8
North Carolina	345,970	12.3	1.6	339,734	12.6	1.7	327,013	11.2	1.3
North Dakota	11,939	10.7	1.1	11,526	11.2	1.3	11,617	10.3	1.1
Ohio	358,249	12.7	0.7	360,901	12.8	0.7	349,217	12.0	0.6
Oklahoma	108,820	19.3	3.6	107,219	20.1	3.5	103,117	18.7	3.2
Oregon	22,971	27.8	2.6	22,870	27.5	2.7	2,186	26.5	2.0
Pennsylvania	589,694	3.5	3.9	586,520	3.6	3.7	553,598	3.8	1.5
Puerto Rico	104,178	3.5	1.4	105,015	3.9	1.0	99,701	5.9	1.3
Rhode Island	52,335	16.1	4.4	46,455	15.1	3.7	48,433	14.7	2.9
South Carolina	176,110	18.7	1.7	175,796	19.4	1.7	170,376	17.0	1.4
South Dakota	17,270	7.8	1.2	17,030	8.4	1.1	16,617	8.8	0.8
Tennessee	234,273	15.6	1.3	219,418	16.3	1.3	DQ	DQ	DQ
Texas	598,174	17.1	3.0	576,883	17.6	3.1	558,668	14.7	1.8
Utah	48,102	DS	DS	46,709	0.0	0.9	45,064	0.0	0.9
Vermont	20,306	18.1	2.5	19,960	18.5	2.4	19,074	16.3	1.3
Virgin Islands	968	2.8	1.5	584	5.1	1.9	541	3.1	2.2
Virginia	186,571	20.4	2.2	159,504	24.7	2.9	155,404	21.8	1.6
Washington	164,187	14.8	4.4	161,080	15.8	4.4	156,665	15.8	3.8
West Virginia	81,120	13.9	1.5	82,063	18.3	1.8	72,656	18.9	1.5
Wisconsin	192,106	31.6	5.6	193,610	31.6	6.1	194,804	28.1	4.6
Wyoming	10,190	5.2	1.8	10,181	5.2	1.8	10,063	5.1	1.3

Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file) and 5560-5571 (OT files).

Notes: Includes beneficiaries eligible for Medicaid on the basis of a disability who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> 2018 data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2019 data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, and 2020 data for Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the United States total for each respective year due to data quality issues. For additional information on data quality issues, please see Appendix C.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

DQ = Not reported because of a severe data quality issue. Tennessee had such a severe data quality issue in 2020 that the state was not included in the table. For additional information on data quality issues, please see Appendix C.

**Table B1.3e. Rate and frequency of NEMT utilization, by major eligibility category: beneficiaries eligible on the basis of age (65+), 2018, 2019, and 2020**

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States <sup>a</sup></b>	<b>5,523,030</b>	<b>16.1</b>	<b>1.8</b>	<b>6,090,786</b>	<b>15.9</b>	<b>1.8</b>	<b>6,133,230</b>	<b>14.4</b>	<b>1.3</b>
Alabama	52,415	12.9	0.4	53,113	11.9	0.4	53,035	9.8	0.4
Alaska	12,442	29.1	1.0	12,980	30.3	0.9	13,640	24.3	0.6
Arizona	134,522	23.6	1.5	141,167	23.4	1.5	144,853	20.1	1.2
Arkansas	47,040	18.9	0.9	47,655	17.6	0.9	46,817	16.4	0.7
California	1,342,931	4.9	1.7	1,380,275	5.0	1.6	1,389,962	4.2	1.5
Colorado	57,771	14.3	3.5	58,038	16.0	3.5	57,450	15.1	2.8
Connecticut	59,417	22.4	0.9	59,213	21.4	0.9	55,047	15.9	0.7
Delaware	9,309	26.3	0.9	9,704	23.5	0.8	9,482	13.7	0.7
District of Columbia	18,941	13.5	2.1	19,380	12.5	1.8	19,324	2.4	0.7
Florida	422,216	3.4	0.8	425,220	13.0	1.9	432,746	11.6	1.1
Georgia	112,544	23.8	1.7	111,801	24.7	1.6	113,202	23.4	1.1
Hawaii	31,775	14.1	1.4	32,603	13.9	1.4	34,309	9.7	1.1
Idaho	17,920	17.6	2.7	18,294	17.2	2.5	18,796	14.9	2.0
Illinois	265,998	13.0	1.1	269,006	12.3	1.0	273,683	12.2	0.7
Indiana	84,452	25.6	0.7	88,079	17.5	0.6	98,238	13.7	0.7
Iowa	35,442	18.3	1.8	35,906	19.0	1.4	34,389	17.5	1.0
Kansas	27,308	6.1	0.7	28,050	6.6	0.7	28,871	6.0	0.7
Kentucky	61,449	26.9	1.1	61,444	27.4	1.1	61,769	25.1	0.8
Louisiana	79,073	5.4	1.1	89,358	5.6	1.0	88,015	5.0	0.8
Maine	13,260	22.2	1.4	13,931	20.7	1.3	29,887	20.8	0.9
Maryland	62,735	8.9	0.2	63,406	9.1	0.2	62,236	8.4	0.2
Massachusetts	177,187	32.4	3.8	178,689	32.7	3.9	180,564	28.4	1.8
Michigan	178,646	5.9	1.6	184,171	6.2	1.6	184,601	5.7	1.3
Minnesota	80,259	39.2	2.7	81,535	39.9	2.8	82,272	36.9	1.7
Mississippi	50,353	26.3	1.1	50,914	23.9	0.8	49,864	23.1	0.9
Missouri	86,982	24.2	1.0	88,548	24.5	1.0	90,832	21.9	0.9
Montana	11,744	8.2	3.7	12,013	8.8	3.8	12,006	8.5	4

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Nebraska	23,002	11.8	1.1	23,239	12.5	1.0	23,303	12.1	0.8
Nevada	24,543	13.1	3.0	25,347	11.9	3.3	24,335	11.0	2.6
New Hampshire	12,577	6.8	0.7	12,702	4.5	0.9	12,417	5.4	0.4
New Jersey	155,197	24.6	1.4	160,436	25.1	1.5	168,227	21.2	1.1
New Mexico	30,099	16.9	1.2	30,009	18.3	1.2	28,893	17.6	1.1
New York	687,709	30.0	2.1	710,775	30.0	2.3	724,620	27.3	1.5
North Carolina	157,529	15.5	1.0	160,927	15.1	1.1	160,800	13.5	1
North Dakota	9,194	7.4	1.0	9,144	8.1	0.9	9,033	7.9	0.7
Ohio	172,682	26.5	0.8	177,070	25.0	0.8	177,532	22.5	0.6
Oklahoma	59,913	19.1	1.3	61,408	19.8	1.3	61,765	18.5	1.2
Oregon	59,803	31.0	1.8	62,510	31.4	1.9	65,043	30.5	1.7
Pennsylvania	245,352	1.4	1.0	252,751	2.5	0.6	254,828	3.7	0.3
Puerto Rico	275,397	4.6	0.7	276,699	4.4	0.5	273,503	7.0	0.8
Rhode Island	27,740	17.4	2.1	25,004	15.2	1.9	21,336	14.6	1.9
South Carolina	90,520	12.2	1.3	95,420	12.3	1.3	98,625	11.0	1.2
South Dakota	8,743	17.1	0.9	8,761	17.1	1.0	8,683	15.4	0.7
Tennessee	81,495	24.1	0.9	82,120	24.1	1.0	DQ	DQ	DQ
Texas	310,233	13.6	1.1	309,917	13.7	1.2	303,099	12.7	1.1
Utah	19,676	DS	DS	20,106	DS	DS	20,475	DS	DS
Vermont	11,805	20.4	2.0	11,917	21.8	2.1	11,710	20.3	0.9
Virgin Islands	2,674	1.6	0.8	3,199	2.5	1.6	3,592	2.4	1.2
Virginia	94,028	17.0	1.3	98,005	17.5	1.7	100,730	15.8	0.9
Washington	97,866	19.8	1.7	100,180	20.3	1.6	102,681	20.0	1.4
West Virginia	30,345	20.5	0.6	32,915	22.3	0.8	28,478	20.3	0.9
Wisconsin	123,758	20.1	3.5	126,526	20.3	3.7	128,494	19.0	2.9
Wyoming	6,217	5.8	1.4	6,334	5.8	1.4	5,743	6.8	0.8

Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file) and 5560-5571 (OT files).

Notes: Includes beneficiaries eligible for Medicaid on the basis of age (65+) who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes

reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> 2018 data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2019 data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, and 2020 data for Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the United States total for each respective year due to data quality issues. For additional information on data quality issues, please see Appendix C.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

DQ = Not reported because of a severe data quality issue. Tennessee had such a severe data quality issue in 2020 that the state was not included in the table. For additional information on data quality issues, please see Appendix C.

**Table B1.4. Rate and frequency of NEMT utilization: pregnant beneficiaries, 2018, 2019, and 2020**

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States <sup>a</sup></b>	<b>4,091,238</b>	<b>4.4</b>	<b>0.9</b>	<b>4,228,232</b>	<b>4.2</b>	<b>1.0</b>	<b>4,093,991</b>	<b>3.3</b>	<b>0.8</b>
Alabama	38,576	1.1	0.1	43,276	0.9	0.1	60,716	1.1	0.1
Alaska	13,182	22.0	0.7	12,807	23.7	0.6	12,374	20.8	0.4
Arizona	103,617	13.4	1.1	100,476	12.2	1.3	97,818	9.5	1.0
Arkansas	40,443	4.2	0.4	42,775	4.0	0.3	40,030	3.1	0.3
California	624,149	1.4	1.0	599,129	1.2	0.9	586,347	1.1	0.8
Colorado	73,376	2.9	1.4	69,515	3.1	1.7	67,991	2.9	1.4
Connecticut	49,349	4.4	1.0	49,095	4.1	0.9	48,590	2.5	0.7
Delaware	13,679	5.9	2.5	13,379	5.1	2.1	12,619	3.1	1.3
District of Columbia	12,990	12.8	0.7	12,378	15.7	0.6	11,709	1.5	0.4
Florida	228,681	0.3	0.4	242,912	3.5	1.5	244,478	3.0	1.2
Georgia	159,873	4.1	0.5	156,515	4.0	0.5	150,004	3.2	0.5
Hawaii	18,688	4.5	0.4	17,739	4.3	0.5	17,613	2.7	0.4
Idaho	20,154	2.5	1.1	19,447	2.2	1.0	21,501	1.8	0.5
Illinois	173,043	3.4	0.5	162,713	3.6	0.5	157,281	3.2	0.4
Indiana	96,773	5.1	0.5	91,739	3.6	0.5	94,783	3.0	0.5
Iowa	45,448	4.1	0.6	44,600	4.1	0.7	42,586	3.4	0.5
Kansas	29,943	3.6	0.5	29,392	3.3	0.5	27,963	2.6	0.4
Kentucky	80,361	3.1	0.6	77,832	3.2	0.7	78,130	2.5	0.6
Louisiana	96,457	4.6	0.4	96,249	4.5	0.4	94,879	2.7	0.3
Maine	13,783	9.3	2.0	13,741	9.4	1.2	13,812	7.3	1.1
Maryland	80,280	0.2	0.1	81,511	0.2	0.2	78,273	0.1	0.1
Massachusetts	78,464	3.6	1.9	73,877	3.8	2.0	70,163	3.1	1.5
Michigan	149,819	7.7	0.6	145,650	7.0	0.6	140,701	5.1	0.5
Minnesota	70,633	10.8	0.8	69,042	10.8	0.8	65,604	8.8	0.7
Mississippi	49,673	6.1	0.6	48,559	4.9	0.5	46,350	4.0	0.5
Missouri	76,053	6.0	0.6	72,558	6.0	0.6	70,802	4.8	0.5
Montana	15,247	1.2	0.4	14,740	0.9	0.3	13,609	0.8	0.5
Nebraska	21,058	3.3	0.6	20,462	3.3	0.5	20,684	2.4	0.4

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Nevada	43,476	4.4	0.6	42,700	3.9	0.8	42,153	3.0	0.9
New Hampshire	8,910	2.0	2.9	9,119	1.8	2.9	9,451	1.3	2.2
New Jersey	88,789	5.9	1.9	90,135	5.6	2.1	92,920	4.0	1.6
New Mexico	44,436	4.9	1.0	44,241	5.2	1.4	43,339	4.6	1.1
New York	352,457	8.9	1.3	339,241	7.6	1.3	319,164	5.7	1.1
North Carolina	147,937	2.7	0.6	141,587	2.8	0.7	137,256	2.2	0.4
North Dakota	7,159	2.3	0.3	6,757	2.6	0.4	6,435	2.3	0.4
Ohio	183,874	3.8	0.4	177,267	4.1	0.3	171,664	3.5	0.3
Oklahoma	52,247	4.1	0.5	50,950	4.2	0.5	51,907	3.6	0.4
Oregon	58,176	7.4	1.9	55,345	7.9	2.0	53,956	5.9	1.2
Pennsylvania	165,996	1.9	0.2	161,219	1.8	0.1	154,117	1.7	0.1
Puerto Rico	39,309	0.1	1.3	33,070	0.2	1.0	30,414	0.2	0.4
Rhode Island	13,283	6.5	1.8	8,720	3.7	0.9	10,305	3.1	1.6
South Carolina	76,929	4.2	0.5	75,393	4.1	0.6	72,671	3.2	0.5
South Dakota	8,999	1.8	0.2	8,566	2.3	0.2	7,884	3.7	0.1
Tennessee	74,900	5.8	0.7	79,568	5.6	0.7	DQ	DQ	DQ
Texas	324,178	2.9	0.8	322,075	2.8	0.8	317,777	2.0	0.6
Utah	25,063	DS	DS	24,102	DS	DS	23,538	0.1	0.8
Vermont	7,981	5.1	2.8	7,427	5.3	2.0	7,034	4.1	1.3
Virgin Islands	1,673	DS	DS	1,766	0.6	1.3	1,771	DS	DS
Virginia	76,497	5.2	0.9	84,087	6.0	1.0	86,166	4.2	0.7
Washington	100,150	1.4	0.7	95,415	1.6	0.7	92,330	1.4	0.5
West Virginia	25,200	2.9	0.5	23,827	5.6	1.1	21,209	5.2	1.2
Wisconsin	67,129	7.9	1.7	65,690	7.5	1.5	64,683	5.7	1.7
Wyoming	5,607	1.1	0.2	5,083	1.4	0.3	4,876	1.2	0.1

Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file), 4390-4401 (Inpatient [IP] files), and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file), 4943 – 4954 (IP files), and 4967-4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file) 5524-5535 (IP files), and 5560-5571 (OT files).

Notes: Includes beneficiaries who received pregnancy-related medical services during the year who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified pregnancy-related services based on diagnosis and procedure codes reported on Medicaid claims and encounter records. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on

Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> 2018 data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2019 data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, and 2020 data for Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the United States total for each respective year due to data quality issues. For additional information on data quality issues, please see Appendix C.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

DQ = Not reported because of a severe data quality issue. Tennessee had such a severe data quality issue in 2020 that the state was not included in the table. For additional information on data quality issues, please see Appendix C.



**Table B1.5. Rate and frequency of NEMT utilization: postpartum beneficiaries, 2018, 2019, and 2020**

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States <sup>a</sup></b>	<b>3,601,420</b>	<b>3.9</b>	<b>0.7</b>	<b>3,812,616</b>	<b>3.7</b>	<b>0.7</b>	<b>3,661,853</b>	<b>2.7</b>	<b>0.6</b>
Alabama	53,538	1.1	0.1	56,101	1.0	0.1	70,403	1.0	0.1
Alaska	10,586	20.7	0.8	10,186	22.5	0.6	9,891	18.9	0.4
Arizona	99,617	11.0	0.9	97,170	10.2	1.0	93,279	7.4	0.8
Arkansas	46,600	4.3	0.4	45,517	4.7	0.3	43,637	3.4	0.2
California	308,839	1.5	0.9	296,693	1.4	0.8	289,046	1.1	0.7
Colorado	52,631	2.5	1.2	51,635	2.6	1.3	55,722	2.2	1.2
Connecticut	42,506	3.5	0.7	42,433	3.4	0.7	41,249	1.9	0.6
Delaware	12,269	4.3	1.8	11,864	4.1	1.7	11,179	2.3	1.2
District of Columbia	10,112	14.1	0.6	9,976	15.1	0.6	9,316	1.1	0.4
Florida	268,318	0.3	0.4	272,621	3.1	1.1	258,712	2.4	0.9
Georgia	166,367	3.6	0.4	166,804	3.6	0.4	163,528	2.5	0.4
Hawaii	17,917	4.4	0.3	17,322	4.1	0.4	17,112	2.7	0.3
Idaho	21,658	2.1	0.6	21,584	1.8	0.6	20,853	1.5	0.3
Illinois	149,622	3.0	0.3	143,173	3.2	0.3	142,597	2.7	0.3
Indiana	80,424	4.7	0.4	75,178	3.4	0.4	82,033	2.6	0.4
Iowa	43,406	3.4	0.5	42,636	3.7	0.4	40,671	3.0	0.4
Kansas	32,257	2.6	0.4	31,363	2.3	0.4	30,753	1.7	0.3
Kentucky	67,258	2.6	0.4	66,319	2.7	0.6	66,882	2.0	0.5
Louisiana	88,851	3.7	0.4	87,450	3.6	0.4	86,464	1.9	0.3
Maine	11,447	6.6	0.9	10,913	6.7	0.8	11,402	5.8	0.7
Maryland	73,057	0.3	0.1	74,913	0.3	0.1	71,706	0.2	0.1
Massachusetts	68,319	2.3	1.4	67,225	2.4	1.4	63,553	2.0	1.0
Michigan	126,129	7.3	0.5	120,834	6.9	0.5	115,812	4.6	0.4
Minnesota	60,446	8.3	0.6	59,329	8.3	0.6	57,166	6.3	0.5
Mississippi	58,812	5.0	0.5	57,736	3.8	0.5	55,110	3.0	0.4
Missouri	76,863	5.2	0.4	74,644	5.5	0.5	73,180	4.1	0.4
Montana	13,286	1.2	0.1	12,531	0.9	0.2	11,620	0.8	0.3
Nebraska	22,704	2.5	0.5	22,483	2.5	0.4	22,805	1.7	0.4

State	2018			2019			2020		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Nevada	41,149	3.4	0.5	39,680	2.9	0.7	38,416	2.0	0.7
New Hampshire	6,129	1.1	1.7	6,406	1.1	2.9	7,580	0.8	1.5
New Jersey	49,761	5.5	1.6	63,427	4.5	1.6	67,710	3.0	1.4
New Mexico	38,047	4.0	0.8	38,585	4.4	0.9	37,501	3.6	0.6
New York	306,432	7.1	1.0	303,173	5.9	1.0	283,264	4.4	0.8
North Carolina	151,607	2.9	0.4	149,646	2.9	0.4	143,652	2.2	0.3
North Dakota	6,651	2.2	0.3	6,340	1.9	0.4	6,175	1.8	0.3
Ohio	153,810	3.3	0.3	153,553	3.5	0.3	148,805	2.8	0.2
Oklahoma	60,821	3.4	0.3	60,505	3.6	0.3	59,587	2.9	0.3
Oregon	50,985	6.2	1.3	48,031	6.3	1.4	46,142	4.5	0.9
Pennsylvania	144,754	2.0	0.1	141,480	2.0	0.1	134,872	1.7	0.1
Puerto Rico	14,724	0.1	0.8	12,056	0.2	0.7	11,208	0.2	0.3
Rhode Island	6,976	5.1	1.6	3,837	2.7	0.8	5,605	2.2	1.1
South Carolina	75,661	3.7	0.4	75,442	3.6	0.5	71,904	2.7	0.4
South Dakota	10,015	1.3	0.2	9,452	1.8	0.2	8,742	2.3	0.1
Tennessee	62,945	3.5	0.4	61,724	3.6	0.4	DQ	DQ	DQ
Texas	450,579	2.2	0.6	434,919	2.2	0.6	428,304	1.5	0.5
Utah	30,856	DS	DS	28,918	DS	DS	27,248	DS	DS
Vermont	6,123	4.5	1.9	5,831	4.4	1.7	5,476	3.7	1.1
Virgin Islands	563	DS	DS	671	DS	DS	620	DS	DS
Virginia	75,924	3.7	0.8	80,292	4.6	0.8	78,025	3.0	0.6
Washington	79,377	1.5	0.3	76,144	1.7	0.3	71,563	1.4	0.2
West Virginia	16,730	2.8	0.4	13,465	5.3	0.8	15,709	4.4	0.9
Wisconsin	55,589	6.8	1.2	54,329	6.5	1.1	52,519	4.7	1.2
Wyoming	5,755	1.4	0.2	5,283	1.9	0.1	5,024	1.4	0.1

Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file), 4390-4401 (Inpatient [IP] files), and 4414-4425 (Other Services [OT] files), TAF 2019 Release 1, Run ID 4991 (DE file), 4943 – 4954 (IP files), and 4967-4978 (OT files), and 2020 preliminary TAF, Run ID 5596 (DE file) 5524-5535 (IP files), and 5560-5571 (OT files).

Notes: Includes beneficiaries who were within a 60-day postpartum period during the year who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified postpartum beneficiaries as those who were within 60 days of a birth outcome during the year, which was identified based on diagnosis and procedure codes reported on Medicaid claims and encounter records. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during

the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup>2018 data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, 2019 data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands, and 2020 data for Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the United States total for each respective year due to data quality issues. For additional information on data quality issues, please see Appendix C.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

DQ = Not reported because of a severe data quality issue. Tennessee had such a severe data quality issue in 2020 that the state was not included in the table. For additional information on data quality issues, please see Appendix C.

**Table B1.6a. Rate and frequency of NEMT utilization: beneficiaries with select physical health conditions, 2018**

State	Beneficiaries with chronic kidney disease (CKD) with end stage renal disease (ESRD)			Beneficiaries with CKD without ESRD			Beneficiaries with intellectual disabilities or other developmental delays		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States <sup>a</sup></b>	<b>297,762</b>	<b>51.3</b>	<b>6.1</b>	<b>3,187,483</b>	<b>22.1</b>	<b>1.4</b>	<b>1,737,798</b>	<b>17.5</b>	<b>4.4</b>
Alabama	3,420	29.3	2.3	34,365	16.8	0.2	17,374	7.8	0.3
Alaska	527	62.8	4.8	7,459	33.3	1.0	4,222	19.6	0.8
Arizona	7,521	65.6	6.6	98,655	34.8	1.6	50,463	44.4	5.0
Arkansas	2,534	53.2	5.3	27,923	27.0	0.8	37,321	26.5	4.6
California	64,772	44.0	5.8	542,727	8.9	0.7	187,489	5.7	1.3
Colorado	3,183	45.9	8.0	50,647	17.7	2.7	20,765	30.1	6.2
Connecticut	2,895	63.2	6.0	47,996	25.2	0.9	21,816	18.0	2.1
Delaware	800	63.6	5.0.0	10,699	24.0	1.0	9,202	7.6	1.8
District of Columbia	1,776	49.9	5.7	13,067	24.1	1.5	5,032	33.4	3.2
Florida	15,242	14.5	1.2	119,410	5.9	0.8	65,967	16.3	3.3
Georgia	9,282	59.0	6.6	61,567	26.8	1.2	32,596	11.5	2.1
Hawaii	1,727	57.8	7.1	20,238	19.2	0.8	5,603	12.2	1.0
Idaho	809	55.0	7.6	11,223	24.5	2.3	14,378	23.8	7.6
Illinois	13,359	47.5	4.5	144,144	20.4	0.7	121,990	18.0	2.4
Indiana	5,542	58.8	4.3	56,386	26.3	0.6	22,141	16.2	0.9
Iowa	1,879	53.9	5.7	32,565	23.2	1.4	16,234	30.0	6.4
Kansas	1,496	35.8	2.6	17,157	15.9	0.7	7,591	17.1	0.8
Kentucky	3,326	57.6	5.9	69,108	22.3	1.2	35,976	19.1	4.5
Louisiana	6,302	35.6	4.3	77,157	13.5	0.8	29,009	9.3	2.1
Maine	404	66.8	6.6	8,161	33.4	1.7	10,261	36.3	5.6
Maryland	4,813	18.5	0.3	48,092	8.4	0.2	42,115	5.7	1.1
Massachusetts	7,278	62.0	5.9	115,590	32.3	3.1	70,103	28.6	11.7
Michigan	7,791	44.2	5.7	114,738	19.5	1.0	48,449	9.4	1.0
Minnesota	3,784	67.1	5.5	60,262	40.0	1.8	49,034	26.1	2.3
Mississippi	4,821	68.5	7.6	34,881	32.5	0.7	14,040	15.8	0.9

State	Beneficiaries with chronic kidney disease (CKD) with end stage renal disease (ESRD)			Beneficiaries with CKD without ESRD			Beneficiaries with intellectual disabilities or other developmental delays		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Missouri	5,784	63.2	6.8	58,088	33.5	0.8	34,192	25.0	4.7
Montana	515	25.8	4.4	9,169	10.9	2.4	4,068	9.4	6.4
Nebraska	1,016	49.7	6.7	10,663	22.9	1.2	3,455	10.7	1.1
Nevada	2,302	45.0	4.8	30,988	20.7	1.2	11,513	24.3	2.9
New Hampshire	339	17.7	1.2	5,696	10.0	0.7	15,518	0.7	1.0
New Jersey	7,791	71.7	7.5	84,520	30.2	1.7	38,209	19.2	3.9
New Mexico	2,259	55.4	5.7	31,737	21.1	0.9	22,670	8.3	0.8
New York	30,152	74.5	7.7	342,135	34.1	1.8	190,497	14.7	1.6
North Carolina	10,666	47.4	5.9	102,028	22.3	0.8	57,429	7.1	1.8
North Dakota	397	35.0	4.1	5,329	12.4	0.7	3,526	5.6	1.0
Ohio	14,379	48.3	3.8	152,628	23.2	0.6	97,967	9.7	0.5
Oklahoma	3,510	64.0	6.6	37,325	28.3	1.1	20,276	24.3	11.6
Oregon	2,484	64.9	8.3	45,117	33.7	2.0	9,680	22.3	1.4
Pennsylvania	11,796	9.2	1.1	128,175	5.8	0.5	75,447	8.5	11.9
Puerto Rico	7,744	33.0	5.5	123,096	4.9	0.2	8,353	2.0	0.3
Rhode Island	634	61.0	7.5	10,379	20.8	2.1	6,431	33.6	8.7
South Carolina	5,217	56.1	6.6	42,302	20.8	1.1	37,923	22.1	1.8
South Dakota	578	42.6	4.5	4,729	19.1	0.9	4,416	8.4	1.1
Tennessee	5,258	61.1	6.4	52,949	28.6	0.8	25,037	13.5	1.3
Texas	20,503	51.2	6.2	168,423	21.3	0.9	135,694	29.2	5.2
Utah	1,047	DS	DS	11,677	DS	DS	12,875	DS	DS
Vermont	251	55.4	6.8	6,715	25.0	1.8	7,839	8.2	2.8
Virgin Islands	125	DS	DS	524	5.0	0.8	36	DS	DS
Virginia	6,491	52.1	3.5	50,886	25.1	1.1	33,999	32.0	4.7
Washington	4,682	33.2	3.2	74,786	16.5	1.9	23,008	12.7	5.1
West Virginia	1,604	55.3	2.3	29,377	23.5	0.6	9,164	23.4	5.6
Wisconsin	4,796	67.8	9.5	60,037	36.7	3.4	24,666	39.8	7.6
Wyoming	209	31.6	1.9	1,823	12.5	1.4	3,438	7.4	2.8

Source: Mathematica’s analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file), 4390-4401 (Inpatient [IP] files), 4402-4413 (Long-term care [LT] files), and 4414-4425 (Other Services [OT] files) and TAF 2017 Release 2, Run ID 4299-4310 (IP files), 4311-4322 (LT files), and 4323-4334 (OT files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with CKD with ESRD, beneficiaries with CKD without ESRD, and beneficiaries with intellectual disabilities or other developmental delays based on diagnosis codes on Medicaid claims for calendar years 2017 and 2018. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Beneficiaries may qualify for inclusion in more than one condition category shown in this table. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix C.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B1.6b. Rate and frequency of NEMT utilization: beneficiaries with select physical health conditions, 2019**

State	Beneficiaries with chronic kidney disease (CKD) with end stage renal disease (ESRD)			Beneficiaries with CKD without ESRD			Beneficiaries with intellectual disabilities or other developmental delays		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States<sup>a</sup></b>	<b>320,034</b>	<b>50.4</b>	<b>5.9</b>	<b>3,430,237</b>	<b>22.2</b>	<b>1.4</b>	<b>1,860,437</b>	<b>17.6</b>	<b>4.4</b>
Alabama	3,435	28.7	2.0	34,316	15.9	0.2	16,129	8.3	0.7
Alaska	543	63.7	4.2	7,876	37.3	0.9	4,487	21.1	0.8
Arizona	7,709	65.4	6.6	98,774	34.3	1.6	58,063	41.2	5.0
Arkansas	2,593	51.9	5.0	31,379	24.8	0.7	38,814	22.5	3.2
California	66,140	43.2	5.3	557,624	9.2	0.8	196,779	6.7	1.4
Colorado	3,164	47.3	7.8	51,722	18.9	2.7	22,637	31.0	6.1
Connecticut	2,924	63.4	5.8	49,504	24.2	0.9	21,909	17.0	2.3
Delaware	852	56.7	3.4	11,401	20.7	0.9	9,842	5.9	1.8
District of Columbia	1,744	46.6	4.5	12,996	23.4	1.3	5,472	28.7	2.4
Florida	16,119	44.6	6.0	137,061	25.0	1.3	74,493	21.3	3.6
Georgia	9,287	60.1	6.3	61,226	27.8	1.1	33,100	11.7	2.1
Hawaii	1,694	57.4	6.8	20,174	20.0	0.8	5,173	11.5	1.0
Idaho	825	53.9	7.6	11,471	22.5	2.2	14,745	21.9	7.8
Illinois	13,189	45.7	4.2	141,726	20.5	0.7	121,396	18.4	2.4
Indiana	5,537	52.2	2.8	55,078	20.7	0.5	23,336	11.6	0.7
Iowa	1,936	58.0	5.6	34,188	23.2	1.2	15,501	28.5	4.9
Kansas	1,551	36.9	3.5	17,833	15.8	0.7	8,058	16.6	0.7
Kentucky	3,366	56.1	6.1	70,590	22.5	1.2	37,560	18.4	4.5
Louisiana	6,615	33.8	4.2	82,215	13.7	0.8	30,008	9.1	1.9
Maine	423	64.1	5.7	8,928	31.3	1.4	10,321	34.0	4.9
Maryland	5,145	16.9	0.3	62,761	6.9	0.2	47,961	5.6	1.1
Massachusetts	7,138	62.7	6.1	118,234	33.2	3.2	65,938	30.1	12.0
Michigan	7,803	44.2	5.2	115,580	18.7	1.0	49,096	9.1	1.0
Minnesota	3,817	67.7	5.7	62,493	40.4	1.9	50,635	29.7	2.4
Mississippi	4,844	64.7	5.1	35,846	29.3	0.6	14,346	13.6	0.8

State	Beneficiaries with chronic kidney disease (CKD) with end stage renal disease (ESRD)			Beneficiaries with CKD without ESRD			Beneficiaries with intellectual disabilities or other developmental delays		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Missouri	5,880	62.4	6.7	57,924	33.2	0.8	34,069	22.7	4.6
Montana	521	24.8	3.8	9,597	11.5	2.9	5,468	23.9	7.3
Nebraska	1,027	51.6	6.0	11,207	23.0	1.0	3,420	11.5	1.1
Nevada	2,408	43.1	4.8	32,109	18.9	1.4	11,809	24.4	3.0
New Hampshire	344	14.5	1.5	6,351	8.1	1.1	14,791	0.5	0.9
New Jersey	8,320	69.4	7.6	94,011	29.9	1.8	41,780	19.7	4.6
New Mexico	2,276	55.7	5.8	32,437	22.4	0.9	22,740	8.6	0.9
New York	31,059	73.8	7.8	355,568	33.8	1.9	192,731	14.1	1.6
North Carolina	10,937	47.6	6.0	102,433	22.2	0.8	58,924	7.4	1.9
North Dakota	401	32.4	4.8	5,437	12.6	0.8	3,693	5.6	0.7
Ohio	15,187	46.6	3.5	161,202	24.3	0.5	102,575	9.8	0.7
Oklahoma	3,536	65.1	6.5	38,133	28.9	1.2	20,913	24.1	11.1
Oregon	2,565	65.1	8.4	46,768	34.5	2.0	10,180	21.7	1.4
Pennsylvania	12,095	11.8	0.9	133,867	6.6	0.4	76,215	8.8	11.4
Puerto Rico	6,391	31.6	4.5	107,513	5.7	0.2	4,956	2.7	0.4
Rhode Island	536	58.2	4.8	8,769	18.6	1.4	5,527	34.8	8.6
South Carolina	5,212	55.3	6.5	41,618	20.7	1.2	43,509	26.2	2.0
South Dakota	559	40.6	4.9	4,904	18.9	0.8	4,538	9.2	0.9
Tennessee	5,126	60.5	6.5	50,510	28.9	0.8	25,789	13.4	1.3
Texas	20,368	51.0	6.5	165,633	21.5	1.0	133,069	27.4	5.3
Utah	1,086	DS	DS	13,289	DS	DS	12,750	DS	DS
Vermont	259	56.0	7.1	6,803	26.6	1.8	7,962	8.6	2.6
Virgin Islands	122	18.0	4.6	712	6.5	1.0	39	DS	DS
Virginia	7,122	53.0	3.7	65,527	25.0	1.3	35,146	33.6	6.9
Washington	4,793	35.2	3.0	75,257	17.4	1.8	24,057	13.0	5.0
West Virginia	1,588	62.0	3.5	28,830	29.3	1.0	9,007	28.5	5.5
Wisconsin	4,983	68.0	9.6	61,815	36.4	3.6	24,690	39.9	8.1
Wyoming	201	25.9	2.6	1,810	12.0	1.1	3,352	8.2	2.0

Source: Mathematica’s analysis of the TAF 2019 Release 1, Run ID 4991 (Demographics and Eligibility [DE] file), 4943 – 4954 (Inpatient [IP] files), 4955 – 4966 (Long-term care [LT] files), and 4967 – 4978 (Other Services [OT] files), and TAF 2018 Release 2, Run ID 4390 – 4401 (IP files), 4402-4413 (LT files), and 4414–4425 (OT files).



Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with CKD with ESRD, beneficiaries with CKD without ESRD, and beneficiaries with intellectual disabilities or other developmental delays based on diagnosis codes on Medicaid claims for calendar years 2018 and 2019. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Beneficiaries may qualify for inclusion in more than one condition category shown in this table. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix C.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B1.6c. Rate and frequency of NEMT utilization: beneficiaries with select physical health conditions, 2020**

State	Beneficiaries with chronic kidney disease (CKD) with end stage renal disease (ESRD)			Beneficiaries with CKD without ESRD			Beneficiaries with intellectual disabilities or other developmental delays		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States<sup>a</sup></b>	<b>319,544</b>	<b>48.7</b>	<b>5.7</b>	<b>3,507,361</b>	<b>20.4</b>	<b>1.0</b>	<b>1,813,971</b>	<b>15.3</b>	<b>2.4</b>
Alabama	3,145	26.8	1.8	34,128	13.7	0.2	15,604	6.6	1.1
Alaska	548	56.9	5.0	8,178	34.8	0.6	4,342	15.4	0.5
Arizona	7,882	63.1	6.1	105,602	30.5	1.2	60,305	34.2	2.8
Arkansas	2,556	50.8	4.7	32,101	23.2	0.5	37,177	18.6	2.3
California	66,587	39.9	5.1	559,796	8.2	0.6	186,658	4.8	0.7
Colorado	3,194	47.0	7.4	53,828	17.5	2.0	23,534	27.7	3.8
Connecticut	2,902	57.4	4.8	50,240	18.6	0.5	21,256	15.7	1.8
Delaware	810	46.5	2.5	11,595	12.7	0.7	9,378	3.9	0.9
District of Columbia	1,697	11.0	0.6	12,570	6.3	0.5	5,244	8.8	0.8
Florida	16,743	44.1	5.7	157,186	22.9	0.9	77,660	18.4	2.5
Georgia	9,323	58.8	6.6	60,022	26.7	0.8	32,573	11.0	1.4
Hawaii	1,700	48.8	6.0	20,002	13.8	0.6	4,062	7.1	1.0
Idaho	888	52.5	6.4	14,515	17.3	1.5	14,253	19.7	5.0
Illinois	13,604	45.8	3.8	143,649	20.1	0.5	107,901	14.7	0.9
Indiana	5,771	50.8	4.6	57,721	19.3	0.5	23,813	11.0	0.6
Iowa	1,855	56.7	6.1	34,435	20.3	0.8	14,932	25.0	2.5
Kansas	1,621	35.1	3.4	18,123	13.6	0.6	7,891	12.6	0.5
Kentucky	3,678	52.8	5.6	73,961	20.9	0.7	36,642	16.8	1.8
Louisiana	6,702	30.8	3.9	83,930	11.3	0.5	28,732	6.8	1.1
Maine	745	64.0	6.3	16,201	30.7	1.0	12,117	33.8	2.6
Maryland	4,885	15.7	0.4	63,518	6.0	0.2	47,241	4.0	0.5
Massachusetts	6,860	60.5	5.6	119,826	29.9	1.5	56,836	31.4	3.8
Michigan	7,595	42.8	5.3	115,939	16.6	0.8	47,534	7.6	0.7
Minnesota	3,910	65.7	5.5	63,497	38.3	1.2	50,084	27.7	1.6
Mississippi	4,739	59.7	6.4	35,378	26.8	0.6	14,015	11.9	0.8
Missouri	6,044	61.3	6.5	57,118	30.2	0.6	33,350	20.0	4.0

State	Beneficiaries with chronic kidney disease (CKD) with end stage renal disease (ESRD)			Beneficiaries with CKD without ESRD			Beneficiaries with intellectual disabilities or other developmental delays		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Montana	528	21.8	3.5	9,176	10.2	3.1	5,419	26.3	9.3
Nebraska	1,091	46.7	5.8	12,278	20.2	0.7	3,785	11.2	0.8
Nevada	2,443	38.8	5.1	33,660	16.4	1.2	11,604	23.4	2.3
New Hampshire	362	14.6	1.9	7,119	8.6	0.7	13,356	0.7	0.4
New Jersey	8,676	66.0	6.8	104,365	26.3	1.2	42,232	17.4	2.3
New Mexico	2,365	56.2	5.3	34,159	21.0	0.7	21,090	7.6	0.6
New York	30,888	72.6	7.5	361,769	31.1	1.2	181,353	12.8	1.0
North Carolina	10,973	45.1	5.8	101,048	20.1	0.6	56,513	6.6	1.2
North Dakota	429	29.6	4.4	5,535	12.6	0.7	3,718	5.5	0.5
Ohio	15,652	44.7	3.3	172,900	22.8	0.4	103,238	8.9	0.5
Oklahoma	3,489	65.0	6.3	38,783	27.2	1.0	20,952	23.3	9.5
Oregon	2,721	65.3	7.6	48,821	33.1	1.5	10,625	17.5	0.8
Pennsylvania	12,002	15.5	0.7	137,881	7.8	0.3	72,895	8.5	4.9
Puerto Rico	6,127	49.0	6.5	105,390	9.1	0.3	4,603	3.2	0.4
Rhode Island	647	58.7	7.2	11,206	19.9	1.3	5,919	30.0	5.7
South Carolina	5,223	51.7	6.5	41,392	19.0	0.9	44,100	19.9	1.3
South Dakota	527	44.6	3.9	5,190	19.8	0.6	4,560	7.9	0.6
Tennessee	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Texas	19,442	50.6	6.2	158,559	19.8	0.7	153,141	19.0	2.2
Utah	1,165	DS	DS	15,000	DS	DS	12,532	DS	DS
Vermont	245	66.1	5.9	6,839	24.9	0.9	7,673	7.1	1.0
Virgin Islands	140	20.7	3.6	837	4.2	0.7	49	DS	DS
Virginia	7,320	52.5	3.4	76,275	21.8	0.8	34,888	28.5	2.9
Washington	4,794	33.9	2.8	76,258	17.1	1.6	23,465	12.7	4.2
West Virginia	1,596	60.7	4.8	29,558	26.5	0.9	9,356	23.9	3.5
Wisconsin	5,089	65.4	9.1	63,828	33.2	2.8	23,335	36.4	4.9
Wyoming	203	30.5	1.3	1,831	13.1	0.9	3,224	7.9	1.4

Source: Mathematica's analysis of the 2020 preliminary TAF, Run ID 5596 (Demographics and Eligibility [DE] file), 5524 – 5535 (Inpatient [IP] files), 5542-5553 (Long-term care [LT] files), 4955 – 4966 (LT files), and 5560 – 5571 (Other Services [OT] files) and the TAF 2019 Release 1, Run ID 4943 – 4954 (IP files), and 4967 – 4978 (OT files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with CKD with ESRD, beneficiaries with CKD without ESRD, and beneficiaries with intellectual disabilities or other developmental delays based on diagnosis codes on Medicaid claims for calendar years 2019 and 2020. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Beneficiaries may qualify for inclusion in more than one condition category shown in this table. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix C.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

DQ = Not reported because of a severe data quality issue. Tennessee had such a severe data quality issue in 2020 that the state was not included in the table. For additional information on data quality issues, please see Appendix C.

**Table B1.7a. Rate and frequency of NEMT utilization: beneficiaries with a mental health condition or substance use disorder, 2018**

State	Any mental health condition			Any substance use disorder			Opioid use disorder		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States<sup>a</sup></b>	<b>13,410,399</b>	<b>13.7</b>	<b>1.8</b>	<b>4,008,159</b>	<b>18.6</b>	<b>1.9</b>	<b>1,698,360</b>	<b>19.2</b>	<b>2.9</b>
Alabama	138,856	7.4	0.3	31,334	10.9	0.3	12,210	9.8	0.3
Alaska	33,974	21.9	0.8	20,497	26.5	0.7	7,290	20.2	0.8
Arizona	351,612	35.0	1.9	144,220	45.4	1.9	50,452	46.8	2.5
Arkansas	160,642	14.4	1.4	22,854	22.6	0.8	5,434	22.7	0.7
California	1,446,704	6.7	1.1	440,588	10.0	1.3	145,719	10.9	2.0
Colorado	179,745	14.7	3.1	77,287	16.7	2.4	30,669	16.5	3.6
Connecticut	240,971	14.2	1.3	89,578	20.7	1.8	43,857	22.9	2.6
Delaware	54,344	12.9	1.7	22,200	20.8	3.3	14,785	22.7	4.2
District of Columbia	41,802	21.1	2.4	14,427	19.8	1.9	5,574	18.9	2.5
Florida	372,936	4.7	1.5	101,851	3.1	0.6	33,866	3.8	0.6
Georgia	324,392	13.3	1.5	46,375	22.9	1.5	13,649	23.0	1.9
Hawaii	49,498	14.2	1.1	19,623	17.6	1.2	5,098	22.1	1.6
Idaho	59,715	16.5	2.7	11,839	21.2	2.2	4,478	24.7	2.9
Illinois	525,676	14.3	1.0	163,778	18.0	1.1	57,140	19.0	1.8
Indiana	336,073	14.1	0.7	91,309	18.9	0.9	41,780	18.4	1.4
Iowa	197,571	12.1	2.0	44,738	15.4	1.0	7,941	21.1	1.7
Kansas	112,296	9.0	0.7	17,257	16.2	0.8	3,608	21.5	1.3
Kentucky	358,498	10.8	1.5	130,345	12.0	1.0	79,340	11.8	1.0
Louisiana	359,619	9.4	0.8	92,139	17.3	0.7	32,277	17.0	0.8
Maine	81,032	20.8	2.4	18,132	29.8	4.5	11,470	32.2	6.0
Maryland	242,740	3.0	0.3	102,609	2.0	0.2	71,500	1.6	0.1
Massachusetts	518,437	17.2	3.5	164,210	20.2	2.6	97,408	20.7	3.4
Michigan	578,015	12.4	0.9	165,669	19.7	1.2	64,012	20.3	2.0
Minnesota	344,284	23.1	1.7	95,275	31.2	1.7	29,637	39.3	3.0
Mississippi	138,812	16.7	0.9	22,683	27.0	0.9	7,419	27.1	1.1
Missouri	248,217	18.9	1.2	57,981	24.2	0.7	17,186	27.1	1.0

State	Any mental health condition			Any substance use disorder			Opioid use disorder		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Montana	73,768	3.7	2.5	22,792	5.4	1.1	6,954	5.9	1.4
Nebraska	59,555	11.5	1.6	7,322	21.9	1.5	1,540	28.4	1.7
Nevada	128,410	15.0	1.2	47,714	22.5	0.9	15,985	23.0	1.3
New Hampshire	50,296	3.8	1.4	15,451	11.0	4.7	10,191	13.3	5.7
New Jersey	267,466	23.7	3.1	110,461	31.6	4.3	61,748	35.3	5.4
New Mexico	162,132	12.8	1.3	61,789	20.9	2.1	24,603	24.3	3.8
New York	1,104,499	24.0	2.2	390,428	27.9	2.8	159,027	31.7	3.8
North Carolina	403,863	9.9	1.4	99,176	14.7	1.5	39,453	14.7	2.3
North Dakota	27,072	6.9	0.8	7,455	11.3	0.6	1,735	11.7	0.8
Ohio	866,116	10.9	0.6	296,358	12.8	0.5	138,997	11.1	0.6
Oklahoma	191,483	12.5	2.2	31,487	20.7	1.1	11,882	22.8	1.4
Oregon	237,678	19.6	2.3	92,859	30.2	3.6	32,640	39.1	5.8
Pennsylvania	762,912	4.0	0.7	261,935	6.6	0.2	140,796	6.0	0.2
Puerto Rico	194,682	2.8	0.5	17,764	4.6	0.5	6,535	3.6	0.5
Rhode Island	75,212	13.8	3.1	21,062	22.7	4.8	11,798	28.1	6.4
South Carolina	196,692	12.0	1.4	35,080	19.0	1.0	10,787	17.5	1.0
South Dakota	26,324	6.3	1.0	4,600	10.3	0.8	591	11.7	1.6
Tennessee	266,374	14.5	1.1	46,100	23.5	0.9	19,514	21.5	0.9
Texas	653,220	13.0	2.0	91,197	19.5	1.8	22,089	26.6	3.0
Utah	72,228	DS	DS	16,626	DS	DS	8,364	DS	DS
Vermont	61,692	11.4	2.2	18,788	18.9	3.8	11,273	20.0	5.4
Virgin Islands	726	3.4	1.3	241	DS	DS	22	DS	DS
Virginia	197,284	17.2	1.8	40,891	22.3	1.6	20,322	22.3	2.3
Washington	390,852	6.4	2.0	140,509	7.6	0.9	64,854	7.4	1.2
West Virginia	131,886	12.3	0.9	48,136	14.7	0.6	31,113	15.1	0.7
Wisconsin	275,563	22.3	3.8	73,748	32.0	4.0	31,085	36.8	6.2
Wyoming	18,111	3.6	1.5	3,036	7.8	1.3	762	11.3	1.4

Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file), 4390-4401 (Inpatient [IP] files), 4402-4413 (Long-term care [LT] files), 4426-4437 (Pharmacy [RX] files), and 4414-4425 (Other Services [OT] files) and TAF 2017 Release 2, Run ID 4299-4310 (IP files), 4311-4322 (LT files), 4335-4346 (RX files), and 4323-4334 (OT files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with a mental health condition using diagnosis codes on Medicaid claims and encounter records for 2017 and 2018. CMS identified beneficiaries with any substance use disorder and with opioid use disorder using diagnosis codes, procedure codes, and National Drug Codes on Medicaid claims and encounter records for 2017 and 2018. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Beneficiaries may qualify for inclusion in more than one condition category shown in this table. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix C.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B1.7b. Rate and frequency of NEMT utilization: beneficiaries with a mental health condition or substance use disorder, 2019**

State	Any mental health condition			Any substance use disorder			Opioid use disorder		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States<sup>a</sup></b>	<b>14,314,746</b>	<b>13.6</b>	<b>1.8</b>	<b>4,234,074</b>	<b>18.8</b>	<b>2.0</b>	<b>1,808,693</b>	<b>19.7</b>	<b>3.1</b>
Alabama	128,116	7.5	0.3	30,794	10.2	0.2	11,889	8.6	0.3
Alaska	35,678	24.5	0.7	21,756	31.8	0.6	8,337	23.8	0.7
Arizona	376,847	33.6	2.1	153,925	43.3	2.1	56,327	45.0	2.9
Arkansas	171,637	12.7	1.1	26,132	22.0	0.7	6,149	21.9	0.6
California	1,558,400	6.7	1.1	463,601	10.3	1.4	152,432	11.8	2.4
Colorado	204,856	14.5	3.2	81,464	18.0	2.8	33,576	18.3	4.2
Connecticut	249,982	13.7	1.2	89,699	20.5	1.6	44,883	22.4	2.3
Delaware	57,668	11.0	1.6	22,717	17.2	3.2	14,952	18.9	4.2
District of Columbia	43,034	20.3	1.9	14,304	20.0	1.8	5,757	19.2	2.3
Florida	525,861	14.7	1.8	112,772	19.6	2.7	38,054	25.3	4.7
Georgia	315,619	13.4	1.4	41,136	24.2	1.5	12,817	22.8	1.9
Hawaii	46,173	14.9	1.1	19,026	18.8	1.2	4,859	21.4	1.7
Idaho	60,515	15.4	2.8	11,955	19.3	2.4	4,803	22.2	2.9
Illinois	518,909	14.5	1.0	163,311	19.0	1.1	58,289	20.1	2.0
Indiana	321,062	11.3	0.6	92,360	14.7	0.9	44,153	14.6	1.5
Iowa	203,577	12.3	1.8	46,530	15.6	1.1	8,783	21.4	2.2
Kansas	111,015	8.9	0.7	17,364	15.6	0.9	3,515	20.1	1.4
Kentucky	367,885	10.9	1.6	136,432	12.8	1.2	82,151	12.7	1.3
Louisiana	369,597	9.5	0.8	98,301	17.6	0.8	35,329	17.4	0.9
Maine	87,656	19.4	1.8	22,847	27.8	2.7	15,292	29.2	3.5
Maryland	308,085	2.5	0.4	120,055	1.6	0.2	77,903	1.4	0.2
Massachusetts	505,274	18.1	3.5	158,232	22.0	2.7	94,916	22.7	3.4
Michigan	583,562	11.7	1.0	166,223	18.8	1.4	64,146	19.5	2.6
Minnesota	346,681	23.7	1.8	95,449	32.2	1.7	30,908	39.7	2.6
Mississippi	136,781	14.8	0.7	21,929	25.2	0.8	7,303	25.7	1.0
Missouri	245,123	18.9	1.1	56,089	24.6	0.8	16,833	27.0	1.1



State	Any mental health condition			Any substance use disorder			Opioid use disorder		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Montana	77,825	4.0	3.5	24,814	4.4	1.4	7,762	5.0	1.7
Nebraska	60,884	11.4	1.4	7,333	21.7	1.3	1,555	26.6	1.5
Nevada	132,457	14.3	1.4	49,947	21.3	1.3	16,232	22.5	1.9
New Hampshire	56,237	3.6	2.0	18,609	8.8	4.3	12,333	9.9	5.5
New Jersey	289,896	23.8	3.1	118,849	32.0	4.3	66,992	36.3	5.5
New Mexico	165,836	12.9	1.3	64,160	21.5	2.2	26,047	23.9	4.0
New York	1,131,894	23.0	2.3	388,945	27.2	3.1	160,253	31.3	4.3
North Carolina	403,909	9.9	1.5	99,539	15.0	1.6	39,534	14.6	2.4
North Dakota	27,393	7.2	1.0	7,782	11.1	1.0	1,942	11.7	2.0
Ohio	877,196	11.2	0.6	294,542	13.9	0.5	137,585	12.2	0.6
Oklahoma	188,251	13.0	2.2	30,996	21.1	1.1	11,884	23.2	1.5
Oregon	249,835	19.7	2.4	95,084	31.2	3.8	34,947	39.4	6.1
Pennsylvania	757,845	4.2	0.7	261,081	6.6	0.2	141,630	5.9	0.2
Puerto Rico	140,888	3.7	0.4	14,125	4.4	0.4	5,571	2.5	0.3
Rhode Island	60,811	13.9	2.3	18,021	24.0	1.8	10,531	30.1	2.2
South Carolina	200,249	12.2	1.5	35,996	18.8	1.1	12,350	17.3	1.3
South Dakota	27,039	6.4	1.0	4,931	11.1	0.8	631	10.8	2.0
Tennessee	258,923	14.5	1.1	45,355	23.8	0.9	19,524	21.8	0.9
Texas	655,078	13.1	2.1	89,894	20.0	1.9	21,362	27.7	3.5
Utah	79,195	0.0	0.7	23,543	0.1	0.5	12,251	DS	DS
Vermont	61,339	11.5	2.1	18,602	19.3	3.5	11,302	20.0	5.1
Virgin Islands	834	3.4	0.9	268	DS	DS	19	DS	DS
Virginia	250,145	18.3	2.0	67,053	26.4	1.7	34,009	28.8	2.4
Washington	400,619	6.8	1.9	145,987	8.1	0.9	70,611	7.4	1.1
West Virginia	124,877	17.2	1.3	48,385	22.1	1.8	32,950	23.6	2.2
Wisconsin	279,050	21.9	4.0	74,347	31.2	4.2	31,746	35.6	6.3
Wyoming	17,299	3.8	1.4	2,795	7.3	1.3	680	9.6	1.5

Source: Mathematica's analysis of the TAF 2019 Release 1, Run ID 4991 (Demographics and Eligibility [DE] file), 4943 – 4954 (Inpatient [IP] files), 4955 – 4966 (Long-term care [LT] files), 4979 – 4990 (Pharmacy [RX] files), and 4967 – 4978 (Other Services [OT] files), and TAF 2018 Release 2, Run ID 4390 – 4401 (IP files), 4402-4413 (LT files), xx (RX files), and 4414–4425 (OT files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with a mental health condition using diagnosis codes on Medicaid claims and encounter records for 2018 and 2019. CMS identified beneficiaries with any substance use disorder and with opioid use disorder using diagnosis codes, procedure codes, and National Drug Codes on Medicaid claims and encounter records for 2018 and 2019. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Beneficiaries may qualify for inclusion in more than one condition category shown in this table. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix C.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B1.7c. Rate and frequency of NEMT utilization: beneficiaries with a mental health condition or substance use disorder, 2020**

State	Any mental health condition			Any substance use disorder			Opioid use disorder		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
<b>United States <sup>a</sup></b>	<b>14,355,262</b>	<b>11.9</b>	<b>1.3</b>	<b>4,210,612</b>	<b>17.3</b>	<b>1.6</b>	<b>1,848,057</b>	<b>18.1</b>	<b>2.6</b>
Alabama	149,736	5.9	0.3	33,114	8.6	0.2	13,303	6.6	0.2
Alaska	35,499	21.2	0.5	21,487	30.3	0.4	8,668	22.8	0.4
Arizona	398,955	28.2	1.5	159,741	38.6	1.6	62,340	40.7	2.4
Arkansas	165,713	11.1	0.9	26,786	19.1	0.6	6,304	17.7	0.7
California	1,558,110	5.7	0.9	446,504	9.5	1.2	150,142	10.7	1.9
Colorado	230,207	12.5	2.4	86,335	17.5	2.1	35,376	18.7	2.9
Connecticut	249,516	9.9	0.8	85,078	15.8	1.0	43,797	16.8	1.5
Delaware	57,253	6.8	1.2	21,898	11.6	2.4	14,337	12.9	3.2
District of Columbia	42,448	4.9	1.2	13,528	6.1	1.1	5,619	5.8	1.4
Florida	638,880	12.1	1.3	124,579	17.7	2.2	42,014	23.0	3.8
Georgia	298,405	12.3	1.1	34,337	25.1	1.3	12,862	21.1	1.9
Hawaii	42,585	10.5	0.8	17,284	14.9	0.9	4,463	16.4	1.7
Idaho	77,804	11.2	1.9	19,305	12.8	1.5	7,206	13.6	2.0
Illinois	514,062	13.7	0.6	160,466	19.5	0.9	58,040	20.4	1.6
Indiana	326,012	10.4	0.6	100,664	14.4	1.2	51,496	14.0	1.9
Iowa	200,460	10.3	1.2	45,112	13.8	0.9	8,685	18.5	1.8
Kansas	106,770	7.6	0.6	16,545	13.6	0.8	3,305	17.9	1.4
Kentucky	373,339	9.7	0.9	142,216	11.0	0.9	88,324	10.4	1.0
Louisiana	357,311	7.3	0.5	101,712	13.9	0.5	39,950	13.7	0.6
Maine	107,391	18.2	1.3	30,683	25.0	2.1	19,375	25.0	2.9
Maryland	307,449	2.0	0.2	117,593	1.2	0.2	76,042	0.9	0.2
Massachusetts	488,292	16.3	1.8	151,336	20.3	2.2	91,107	21.4	2.9
Michigan	569,894	9.9	0.8	161,346	16.7	1.1	61,862	16.8	2.0
Minnesota	341,728	21.0	1.3	91,857	29.8	1.4	31,279	36.3	2.5
Mississippi	130,520	13.1	0.7	20,518	22.2	0.8	7,068	22.0	1.0
Missouri	238,819	16.6	0.9	54,217	22.8	0.6	16,237	23.9	0.8

State	Any mental health condition			Any substance use disorder			Opioid use disorder		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Montana	75,381	3.8	4.2	24,383	4.4	1.4	7,958	4.5	1.8
Nebraska	64,970	9.4	1.0	9,379	17.8	0.9	1,831	21.1	1.2
Nevada	133,947	12.0	1.4	49,183	18.5	1.5	16,276	19.8	2.2
New Hampshire	61,277	3.2	1.2	20,397	7.2	2.7	13,558	8.0	3.5
New Jersey	301,972	20.0	1.9	122,087	27.9	3.2	69,943	32.0	4.2
New Mexico	166,945	11.3	0.9	65,792	19.5	1.6	26,734	21.3	2.9
New York	1,117,829	20.3	1.6	370,641	25.4	2.3	155,703	29.3	3.4
North Carolina	388,716	8.8	1.0	96,291	13.5	1.3	40,389	12.9	1.9
North Dakota	27,687	7.1	0.8	8,132	12.0	0.8	2,306	13.4	1.7
Ohio	881,237	10.5	0.5	294,597	13.9	0.4	138,934	12.2	0.5
Oklahoma	188,531	11.3	2.0	30,679	18.6	0.9	11,267	20.0	1.2
Oregon	260,229	16.6	1.6	94,406	27.6	2.5	36,521	34.3	3.9
Pennsylvania	732,142	4.4	0.4	251,273	6.9	0.2	138,973	5.9	0.2
Puerto Rico	143,464	5.3	0.6	12,895	6.0	0.4	5,417	4.1	0.4
Rhode Island	71,903	13.2	2.1	20,330	25.2	2.7	11,804	31.9	3.3
South Carolina	195,642	10.2	1.1	34,938	17.7	1.2	12,773	16.5	1.9
South Dakota	26,664	6.6	0.7	5,195	13.9	0.4	689	10.9	0.6
Tennessee	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Texas	634,366	11.0	1.3	85,754	17.1	1.7	19,430	24.3	3.2
Utah	87,260	0.0	0.9	29,198	0.1	1.0	15,465	0.1	1.1
Vermont	60,525	9.7	1.1	17,973	16.8	2.1	11,291	16.8	3.0
Virgin Islands	985	2.1	0.7	298	DS	DS	20	DS	DS
Virginia	285,006	14.4	1.2	86,898	21.8	1.5	44,242	23.9	2.1
Washington	397,818	6.9	1.7	143,739	8.4	0.7	73,163	7.4	1.0
West Virginia	126,550	15.9	1.2	49,624	23.7	2.0	35,352	25.3	2.5
Wisconsin	281,505	18.9	3.3	75,063	27.8	4.1	32,390	31.5	6.7
Wyoming	16,998	3.8	0.9	2,731	7.8	0.7	632	11.6	0.8

Source: Mathematica's analysis of the 2020 preliminary TAF, Run ID 5596 (Demographics and Eligibility [DE] file), 5524 – 5535 (Inpatient [IP] files), 5542-5553 (Long-term care [LT] files), 5578-5589 (Pharmacy [RX] files), and 5560 – 5571 (Other Services [OT] files) and the TAF 2019 Release 1, Run ID 4943 – 4954 (IP files), 4979 – 4990 (RX files), and 4967 – 4978 (OT files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. CMS identified beneficiaries with a mental health condition using diagnosis codes on Medicaid claims and encounter records for 2019 and 2020. CMS identified beneficiaries with any substance use disorder and with opioid use disorder using diagnosis codes, procedure codes, and National Drug Codes on Medicaid claims and encounter records for 2019 and 2020. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Beneficiaries may qualify for inclusion in more than one condition category shown in this table. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix C.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

DQ = Not reported because of a severe data quality issue. Tennessee had such a severe data quality issue in 2020 that the state was not included in the table. For additional information on data quality issues, please see Appendix C.

**Table B1.8a. Rate and frequency of NEMT utilization by major race and ethnicity group: White, non-Hispanic beneficiaries, 2018 and 2019**

State	2018			2019		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Alabama	DQ	DQ	DQ	DQ	DQ	DQ
Alaska	91,747	6.7	0.8	96,143	7.3	0.8
Arizona	DQ	DQ	DQ	DQ	DQ	DQ
Arkansas	DQ	DQ	DQ	DQ	DQ	DQ
California	2,871,450	2.6	1.0	2,771,349	2.8	1.1
Colorado	DQ	DQ	DQ	DQ	DQ	DQ
Connecticut	DQ	DQ	DQ	DQ	DQ	DQ
Delaware	110,096	5.8	2.3	108,774	5.0	2.1
District of Columbia	DQ	DQ	DQ	DQ	DQ	DQ
Florida	1,173,862	1.1	1.8	1,116,354	4.8	1.7
Georgia	813,136	3.2	1.0	760,757	3.3	1.0
Hawaii	DQ	DQ	DQ	DQ	DQ	DQ
Idaho	308,035	5.4	3.3	293,578	5.3	3.4
Illinois	1,500,536	4.3	1.1	1,441,279	4.5	1.1
Indiana	997,547	5.7	0.7	968,221	4.3	0.6
Iowa	DQ	DQ	DQ	DQ	DQ	DQ
Kansas	DQ	DQ	DQ	DQ	DQ	DQ
Kentucky	1,021,522	4.4	1.2	999,195	4.5	1.3
Louisiana	DQ	DQ	DQ	DQ	DQ	DQ
Maine	200,357	11.1	2.7	222,339	10.2	2.0
Maryland	343,166	1.5	0.4	DQ	DQ	DQ
Massachusetts	DQ	DQ	DQ	DQ	DQ	DQ
Michigan	DQ	DQ	DQ	1,601,043	3.8	1.0
Minnesota	604,275	11.2	1.5	639,121	11.3	1.5
Mississippi	221,998	5.8	0.7	208,907	5.2	0.6
Missouri	DQ	DQ	DQ	DQ	DQ	DQ
Montana	DQ	DQ	DQ	DQ	DQ	DQ
Nebraska	145,136	5.0	1.4	143,047	5.2	1.2
Nevada	272,475	5.8	1.2	262,020	5.8	1.5
New Hampshire	173,536	2.2	3.4	169,158	1.8	2.9

State	2018			2019		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
New Jersey	653,670	8.5	2.5	651,293	8.9	2.7
New Mexico	222,114	6.5	1.2	216,431	6.7	1.2
New York	DQ	DQ	DQ	DQ	DQ	DQ
North Carolina	870,025	4.2	1.0	829,107	4.4	1.1
North Dakota	71,854	2.7	0.9	69,769	2.9	1.0
Ohio	1,748,136	5.2	0.5	1,689,682	5.4	0.6
Oklahoma	403,191	6.7	2.5	397,486	7.0	2.4
Oregon	DQ	DQ	DQ	DQ	DQ	DQ
Pennsylvania	1,741,128	1.6	2.6	1,650,906	1.8	2.4
Puerto Rico	6,465	0.9	0.8	7,171	1.3	0.9
Rhode Island	DQ	DQ	DQ	DQ	DQ	DQ
South Carolina	DQ	DQ	DQ	DQ	DQ	DQ
South Dakota	66,171	3.0	1.1	63,999	3.1	1.0
Tennessee	DQ	DQ	DQ	DQ	DQ	DQ
Texas	916,276	4.6	1.7	844,754	4.9	1.8
Utah	DQ	DQ	DQ	DQ	DQ	DQ
Vermont	145,628	6.6	2.3	139,580	6.8	2.3
Virgin Islands	677	2.1	1.6	727	DS	DS
Virginia	586,331	5.8	1.8	783,301	5.9	2.1
Washington	1,041,775	3.2	2.7	1,009,492	3.6	2.6
West Virginia	DQ	DQ	DQ	DQ	DQ	DQ
Wisconsin	641,997	10.2	4.7	626,923	10.5	5.0
Wyoming	DQ	DQ	DQ	DQ	DQ	DQ

Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files) and TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files).

Notes: Includes white, non-Hispanic beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Due to the high number of states with severe data quality issues related to the TAF race/ethnicity data element, national-level data are not presented in this table. Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries.

DQ = Not reported because of a severe data quality issue related to the TAF race/ethnicity data element. Many states have high rates of missing information reported in this data element because states are not required to collect race and ethnicity information from beneficiaries at program enrollment.

**Table B1.8b. Rate and frequency of NEMT utilization by major race and ethnicity group: Black, non-Hispanic beneficiaries, 2018 and 2019**

State	2018			2019		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Alabama	DQ	DQ	DQ	DQ	DQ	DQ
Alaska	8,923	5.0	1.2	9,280	6.6	1.0
Arizona	DQ	DQ	DQ	DQ	DQ	DQ
Arkansas	DQ	DQ	DQ	DQ	DQ	DQ
California	1,169,979	3.1	1.3	1,151,996	3.3	1.2
Colorado	DQ	DQ	DQ	DQ	DQ	DQ
Connecticut	DQ	DQ	DQ	DQ	DQ	DQ
Delaware	101,522	6.2	1.1	101,638	5.3	1.0
District of Columbia	DQ	DQ	DQ	DQ	DQ	DQ
Florida	1,047,494	0.9	1.6	1,012,265	4.4	1.5
Georgia	965,703	5.6	1.3	941,225	5.5	1.3
Hawaii	DQ	DQ	DQ	DQ	DQ	DQ
Idaho	DS	DS	DS	DS	DS	DS
Illinois	1,052,966	6.0	1.1	1,001,548	6.3	1.1
Indiana	320,400	7.1	0.8	315,610	5.2	0.6
Iowa	DQ	DQ	DQ	DQ	DQ	DQ
Kansas	DQ	DQ	DQ	DQ	DQ	DQ
Kentucky	169,668	4.1	1.7	166,917	4.4	1.8
Louisiana	DQ	DQ	DQ	DQ	DQ	DQ
Maine	11,624	7.0	1.3	12,502	6.7	1.2
Maryland	523,552	1.1	0.4	DQ	DQ	DQ
Massachusetts	DQ	DQ	DQ	DQ	DQ	DQ
Michigan	DQ	DQ	DQ	789,973	7.8	1.0
Minnesota	234,138	16.4	1.6	270,220	16.4	1.7
Mississippi	375,926	9.5	1.1	356,384	8.7	0.9
Missouri	DQ	DQ	DQ	DQ	DQ	DQ
Montana	DQ	DQ	DQ	DQ	DQ	DQ
Nebraska	37,204	8.8	1.5	37,141	8.6	1.3
Nevada	173,441	5.1	1.1	174,418	4.8	1.4
New Hampshire	5,261	1.9	1.8	5,293	1.7	1.9



State	2018			2019		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
New Jersey	437,102	10.2	2.8	435,317	10.5	2.9
New Mexico	18,865	7.0	0.8	18,892	7.1	0.8
New York	DQ	DQ	DQ	DQ	DQ	DQ
North Carolina	753,757	5.5	1.4	727,354	5.7	1.5
North Dakota	10,381	1.5	0.8	10,046	1.8	1.0
Ohio	848,438	5.1	0.8	835,062	5.3	0.7
Oklahoma	115,039	6.8	2.1	115,798	7.0	2.1
Oregon	DQ	DQ	DQ	DQ	DQ	DQ
Pennsylvania	789,857	1.6	0.6	770,425	1.8	0.6
Puerto Rico	268	DS	DS	298	DS	DS
Rhode Island	DQ	DQ	DQ	DQ	DQ	DQ
South Carolina	DQ	DQ	DQ	DQ	DQ	DQ
South Dakota	4,958	0.6	1.6	4,900	0.5	1.9
Tennessee	DQ	DQ	DQ	DQ	DQ	DQ
Texas	715,194	6.5	1.5	697,235	6.7	1.6
Utah	DQ	DQ	DQ	DQ	DQ	DQ
Vermont	4,403	9.1	0.9	4,294	9.9	1.0
Virgin Islands	13,807	0.9	1.0	14,984	1.1	1.5
Virginia	426,376	8.4	1.5	547,467	8.9	1.6
Washington	146,120	2.7	2.3	146,923	3.0	2.3
West Virginia	DQ	DQ	DQ	DQ	DQ	DQ
Wisconsin	212,355	13.1	2.7	211,260	12.7	2.9
Wyoming	DQ	DQ	DQ	DQ	DQ	DQ

Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files) and TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files).

Notes: Includes Black, non-Hispanic beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Due to the high number of states with severe data quality issues related to the TAF race/ethnicity data element, national-level data are not presented in this table. Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries.

DQ = Not reported because of a severe data quality issue related to the TAF race/ethnicity data element. Many states have high rates of missing information reported in this data element because states are not required to collect race and ethnicity information from beneficiaries at program enrollment.

**Table B1.8c. Rate and frequency of NEMT utilization by major race and ethnicity group: Asian, non-Hispanic beneficiaries, 2018 and 2019**

State	2018			2019		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Alabama	DQ	DQ	DQ	DQ	DQ	DQ
Alaska	11,827	3.3	1.4	12,408	3.8	1.0
Arizona	DQ	DQ	DQ	DQ	DQ	DQ
Arkansas	DQ	DQ	DQ	DQ	DQ	DQ
California	1,397,367	1.3	2.0	1,368,156	1.4	1.8
Colorado	DQ	DQ	DQ	DQ	DQ	DQ
Connecticut	DQ	DQ	DQ	DQ	DQ	DQ
Delaware	5,758	1.5	1.5	5,950	1.5	1.4
District of Columbia	DQ	DQ	DQ	DQ	DQ	DQ
Florida	48,383	0.7	1.8	45,839	2.5	1.7
Georgia	38,316	2.6	4.2	35,805	2.9	3.9
Hawaii	DQ	DQ	DQ	DQ	DQ	DQ
Idaho	DS	DS	DS	DS	DS	DS
Illinois	121,994	3.3	2.1	113,566	3.9	1.9
Indiana	30	DS	DS	16	DS	DS
Iowa	DQ	DQ	DQ	DQ	DQ	DQ
Kansas	DQ	DQ	DQ	DQ	DQ	DQ
Kentucky	13,587	1.5	1.8	13,664	1.7	2.8
Louisiana	DQ	DQ	DQ	DQ	DQ	DQ
Maine	2,332	4.2	3.3	2,561	3.6	2.7
Maryland	69,233	0.9	0.3	DQ	DQ	DQ
Massachusetts	DQ	DQ	DQ	DQ	DQ	DQ
Michigan	DQ	DQ	DQ	15,812	1.8	0.8
Minnesota	81,246	12.3	3.1	91,876	11.8	3.1
Mississippi	3,666	1.9	1.1	3,518	2.0	1.0
Missouri	DQ	DQ	DQ	DQ	DQ	DQ
Montana	DQ	DQ	DQ	DQ	DQ	DQ
Nebraska	8,564	2.0	1.2	8,557	2.1	1.1
Nevada	30,887	3.1	4.2	31,235	3.0	4.7
New Hampshire	3,303	1.8	4.2	3,236	1.4	5.0

State	2018			2019		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
New Jersey	73,890	2.9	1.6	74,186	3.2	1.7
New Mexico	6,666	3.0	1.3	6,417	3.3	1.2
New York	DQ	DQ	DQ	DQ	DQ	DQ
North Carolina	34,044	1.3	1.6	32,139	1.4	1.7
North Dakota	2,610	3.3	0.4	2,286	1.1	0.8
Ohio	DS	DS	DS	DS	DS	DS
Oklahoma	14,268	1.8	2.5	14,639	1.8	2.7
Oregon	DQ	DQ	DQ	DQ	DQ	DQ
Pennsylvania	102,884	0.6	2.3	101,562	0.7	2.2
Puerto Rico	64	DS	DS	77	DS	DS
Rhode Island	DQ	DQ	DQ	DQ	DQ	DQ
South Carolina	DQ	DQ	DQ	DQ	DQ	DQ
South Dakota	1,902	DS	DS	1,690	DS	DS
Tennessee	DQ	DQ	DQ	DQ	DQ	DQ
Texas	87,775	3.0	2.0	81,979	3.2	2.1
Utah	DQ	DQ	DQ	DQ	DQ	DQ
Vermont	2,807	6.8	1.1	2,635	6.8	1.3
Virgin Islands	DS	DS	DS	DS	DS	DS
Virginia	42,764	4.1	3.2	61,084	3.7	4.1
Washington	94,463	4.8	2.7	92,204	5.3	2.7
West Virginia	DQ	DQ	DQ	DQ	DQ	DQ
Wisconsin	38,869	3.2	5.1	38,390	3.2	5.5
Wyoming	DQ	DQ	DQ	DQ	DQ	DQ

Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files) and TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files).

Notes: Includes Asian, non-Hispanic beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Due to the high number of states with severe data quality issues related to the TAF race/ethnicity data element, national-level data are not presented in this table. Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries.

DQ = Not reported because of a severe data quality issue related to the TAF race/ethnicity data element. Many states have high rates of missing information reported in this data element because states are not required to collect race and ethnicity information from beneficiaries at program enrollment.

**Table B1.8d. Rate and frequency of NEMT utilization by major race and ethnicity group: American Indian and Alaska Native (AIAN), non-Hispanic beneficiaries, 2018 and 2019**

State	2018			2019		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Alabama	DQ	DQ	DQ	DQ	DQ	DQ
Alaska	78,435	28.2	0.6	81,024	28.7	0.5
Arizona	DQ	DQ	DQ	DQ	DQ	DQ
Arkansas	DQ	DQ	DQ	DQ	DQ	DQ
California	63,202	2.8	1.2	61,452	3.5	1.2
Colorado	DQ	DQ	DQ	DQ	DQ	DQ
Connecticut	DQ	DQ	DQ	DQ	DQ	DQ
Delaware	561	7.3	2.2	542	5.4	1.7
District of Columbia	DQ	DQ	DQ	DQ	DQ	DQ
Florida	8,191	0.7	1.6	7,835	4.1	1.5
Georgia	3,192	3.4	1.2	3,328	3.4	1.1
Hawaii	DQ	DQ	DQ	DQ	DQ	DQ
Idaho	6,870	4.6	2.4	6,698	4.7	2.2
Illinois	12,068	2.1	1.0	13,595	2.3	0.9
Indiana	2,554	6.7	0.7	2,530	5.7	0.7
Iowa	DQ	DQ	DQ	DQ	DQ	DQ
Kansas	DQ	DQ	DQ	DQ	DQ	DQ
Kentucky	873	3.8	0.9	841	2.6	1.0
Louisiana	DQ	DQ	DQ	DQ	DQ	DQ
Maine	2,473	16.2	1.7	2,889	17.3	1.2
Maryland	5,917	1.1	0.2	DQ	DQ	DQ
Massachusetts	DQ	DQ	DQ	DQ	DQ	DQ
Michigan	DQ	DQ	DQ	30,178	3.6	0.9
Minnesota	49,086	13.0	1.6	51,444	13.2	1.3
Mississippi	4,076	3.0	0.7	3,809	2.9	0.5
Missouri	DQ	DQ	DQ	DQ	DQ	DQ
Montana	DQ	DQ	DQ	DQ	DQ	DQ
Nebraska	7,732	5.2	1.2	7,950	5.3	1.0
Nevada	11,816	7.2	0.9	11,460	7.4	0.9
New Hampshire	1,078	1.9	2.3	1,059	1.5	1.9

State	2018			2019		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
New Jersey	5,592	6.4	1.6	5,481	6.6	2.1
New Mexico	127,736	6.4	1.0	126,299	6.8	1.0
New York	DQ	DQ	DQ	DQ	DQ	DQ
North Carolina	28,609	3.6	0.8	27,990	3.6	0.9
North Dakota	20,080	4.6	0.6	20,075	4.8	0.6
Ohio	12,199	4.0	0.4	12,089	4.4	0.5
Oklahoma	125,217	4.2	1.9	124,619	4.5	1.9
Oregon	DQ	DQ	DQ	DQ	DQ	DQ
Pennsylvania	6,389	1.3	1.2	6,475	1.6	1.3
Puerto Rico	14	DS	DS	15	DS	DS
Rhode Island	DQ	DQ	DQ	DQ	DQ	DQ
South Carolina	DQ	DQ	DQ	DQ	DQ	DQ
South Dakota	48,545	3.5	0.6	48,267	4.1	0.6
Tennessee	DQ	DQ	DQ	DQ	DQ	DQ
Texas	9,580	2.9	2.2	9,018	3.2	2.2
Utah	DQ	DQ	DQ	DQ	DQ	DQ
Vermont	761	8.4	1.3	733	8.5	1.5
Virgin Islands	30	DS	DS	32	DS	DS
Virginia	4,934	5.8	1.4	7,564	5.7	1.4
Washington	64,828	2.4	1.3	66,211	2.5	1.4
West Virginia	DQ	DQ	DQ	DQ	DQ	DQ
Wisconsin	21,465	9.3	3.7	21,457	9.3	4.1
Wyoming	DQ	DQ	DQ	DQ	DQ	DQ

Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files) and TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files).

Notes: Includes American Indian and Alaskan Native, non-Hispanic beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Due to the high number of states with severe data quality issues related to the TAF race/ethnicity data element, national-level data are not presented in this table. Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries.

DQ = Not reported because of a severe data quality issue related to the TAF race/ethnicity data element. Many states have high rates of missing information reported in this data element because states are not required to collect race and ethnicity information from beneficiaries at program enrollment.

**Table B1.8e. Rate and frequency of NEMT utilization by major race and ethnicity group: Hawaiian/Pacific Islander, non-Hispanic beneficiaries, 2018 and 2019**

State	2018			2019		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Alabama	DQ	DQ	DQ	DQ	DQ	DQ
Alaska	9,671	3.0	2.1	10,058	3.4	1.4
Arizona	DQ	DQ	DQ	DQ	DQ	DQ
Arkansas	DQ	DQ	DQ	DQ	DQ	DQ
California	64,935	1.4	2.6	63,142	1.5	2.4
Colorado	DQ	DQ	DQ	DQ	DQ	DQ
Connecticut	DQ	DQ	DQ	DQ	DQ	DQ
Delaware	623	14.4	1.0	630	12.2	0.9
District of Columbia	DQ	DQ	DQ	DQ	DQ	DQ
Florida	DS	DS	DS	DS	DS	DS
Georgia	1,693	1.1	0.2	1,642	1.4	0.4
Hawaii	DQ	DQ	DQ	DQ	DQ	DQ
Idaho	DS	DS	DS	DS	DS	DS
Illinois	3,357	3.1	1.4	2,718	3.8	1.6
Indiana	33,365	1.9	0.7	33,823	1.3	0.4
Iowa	DQ	DQ	DQ	DQ	DQ	DQ
Kansas	DQ	DQ	DQ	DQ	DQ	DQ
Kentucky	743	2.0	0.8	729	2.2	1.5
Louisiana	DQ	DQ	DQ	DQ	DQ	DQ
Maine	153	8.5	3.4	194	8.8	2.3
Maryland	1,927	0.8	0.2	DQ	DQ	DQ
Massachusetts	DQ	DQ	DQ	DQ	DQ	DQ
Michigan	DQ	DQ	DQ	2,813	4.3	1.1
Minnesota	3,323	4.8	1.4	3,267	5.4	1.4
Mississippi	219	DS	DS	267	DS	DS
Missouri	DQ	DQ	DQ	DQ	DQ	DQ
Montana	DQ	DQ	DQ	DQ	DQ	DQ
Nebraska	442	3.4	1.2	439	4.6	1.2
Nevada	11,098	2.5	1.4	12,588	2.3	2.1
New Hampshire	167	DS	DS	160	DS	DS

State	2018			2019		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
New Jersey	DS	DS	DS	DS	DS	DS
New Mexico	DS	DS	DS	DS	DS	DS
New York	DQ	DQ	DQ	DQ	DQ	DQ
North Carolina	1,324	1.1	0.7	1,353	1.5	1.0
North Dakota	163	DS	DS	233	DS	DS
Ohio	59,508	2.5	0.5	60,743	2.6	0.6
Oklahoma	2,920	2.5	1.1	3,112	2.6	0.9
Oregon	DQ	DQ	DQ	DQ	DQ	DQ
Pennsylvania	2,620	0.8	1.6	3,068	0.7	1.6
Puerto Rico	27	DS	DS	27	DS	DS
Rhode Island	DQ	DQ	DQ	DQ	DQ	DQ
South Carolina	DQ	DQ	DQ	DQ	DQ	DQ
South Dakota	255	DS	DS	257	0.0	DS
Tennessee	DQ	DQ	DQ	DQ	DQ	DQ
Texas	7,112	5.4	1.4	6,993	5.4	1.5
Utah	DQ	DQ	DQ	DQ	DQ	DQ
Vermont	DS	DS	DS	DS	DS	DS
Virgin Islands	118	DS	DS	34	DS	DS
Virginia	7,323	1.9	1.3	8,687	2.7	1.3
Washington	57,720	2.7	2.7	58,933	2.7	2.7
West Virginia	DQ	DQ	DQ	DQ	DQ	DQ
Wisconsin	940	8.6	4.3	925	7.6	4.8
Wyoming	DQ	DQ	DQ	DQ	DQ	DQ

Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files) and TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files).

Notes: Includes Hawaiian/Pacific Islander, non-Hispanic beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Due to the high number of states with severe data quality issues related to the TAF race/ethnicity data element, national-level data are not presented in this table. Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries.

DQ = Not reported because of a severe data quality issue related to the TAF race/ethnicity data element. Many states have high rates of missing information reported in this data element because states are not required to collect race and ethnicity information from beneficiaries at program enrollment.

**Table B1.8f. Rate and frequency of NEMT utilization by major race and ethnicity group: multiracial, non-Hispanic beneficiaries, 2018 and 2019**

State	2018			2019		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Alabama	DQ	DQ	DQ	DQ	DQ	DQ
Alaska	12,508	7.2	0.5	12,932	7.5	0.6
Arizona	DQ	DQ	DQ	DQ	DQ	DQ
Arkansas	DQ	DQ	DQ	DQ	DQ	DQ
California	DS	DS	DS	DS	DS	DS
Colorado	DQ	DQ	DQ	DQ	DQ	DQ
Connecticut	DQ	DQ	DQ	DQ	DQ	DQ
Delaware	DS	DS	DS	DS	DS	DS
District of Columbia	DQ	DQ	DQ	DQ	DQ	DQ
Florida	DS	DS	DS	DS	DS	DS
Georgia	DS	DS	DS	DS	DS	DS
Hawaii	DQ	DQ	DQ	DQ	DQ	DQ
Idaho	DS	DS	DS	DS	DS	DS
Illinois	3,696	1.3	1.6	2,949	1.0	0.5
Indiana	DS	DS	DS	DS	DS	DS
Iowa	DQ	DQ	DQ	DQ	DQ	DQ
Kansas	DQ	DQ	DQ	DQ	DQ	DQ
Kentucky	DS	DS	DS	DS	DS	DS
Louisiana	DQ	DQ	DQ	DQ	DQ	DQ
Maine	DS	DS	DS	DS	DS	DS
Maryland	DS	DS	DS	DQ	DQ	DQ
Massachusetts	DQ	DQ	DQ	DQ	DQ	DQ
Michigan	DQ	DQ	DQ	DS	DS	DS
Minnesota	35	DS	DS	22	DS	DS
Mississippi	DS	DS	DS	DS	DS	DS
Missouri	DQ	DQ	DQ	DQ	DQ	DQ
Montana	DQ	DQ	DQ	DQ	DQ	DQ
Nebraska	DS	DS	DS	DS	DS	DS
Nevada	170	DS	DS	DS	DS	DS
New Hampshire	2,951	1.6	3.1	2,957	0.9	1.6



State	2018			2019		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
New Jersey	DS	DS	DS	DS	DS	DS
New Mexico	DS	DS	DS	DS	DS	DS
New York	DQ	DQ	DQ	DQ	DQ	DQ
North Carolina	71,583	3.4	1.1	69,425	3.6	1.2
North Dakota	6,681	2.2	0.6	6,716	2.7	1.2
Ohio	DS	DS	DS	DS	DS	DS
Oklahoma	DS	DS	DS	DS	DS	DS
Oregon	DQ	DQ	DQ	DQ	DQ	DQ
Pennsylvania	701	1.7	1.2	700	DS	DS
Puerto Rico	DS	DS	DS	DS	DS	DS
Rhode Island	DQ	DQ	DQ	DQ	DQ	DQ
South Carolina	DQ	DQ	DQ	DQ	DQ	DQ
South Dakota	DS	DS	DS	DS	DS	DS
Tennessee	DQ	DQ	DQ	DQ	DQ	DQ
Texas	27,188	2.4	1.5	26,739	2.5	1.7
Utah	DQ	DQ	DQ	DQ	DQ	DQ
Vermont	DS	DS	DS	DS	DS	DS
Virgin Islands	DS	DS	DS	DS	DS	DS
Virginia	DS	DS	DS	DS	DS	DS
Washington	31,274	1.5	1.6	32,685	1.7	1.7
West Virginia	DQ	DQ	DQ	DQ	DQ	DQ
Wisconsin	79	20.3	3.0	71	16.9	6.5
Wyoming	DQ	DQ	DQ	DQ	DQ	DQ

Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files) and TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files).

Notes: Includes multiracial, non-Hispanic beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Due to the high number of states with severe data quality issues related to the TAF race/ethnicity data element, national-level data are not presented in this table. Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries.

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**Table B1.8g. Rate and frequency of NEMT utilization, by race and ethnicity group: Hispanic beneficiaries, 2018 and 2019**

State	2018			2019		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
Alabama	DQ	DQ	DQ	DQ	DQ	DQ
Alaska	6,529	4.3	1.0	6,790	5.3	0.8
Arizona	DQ	DQ	DQ	DQ	DQ	DQ
Arkansas	DQ	DQ	DQ	DQ	DQ	DQ
California	6,092,175	1.2	1.7	5,980,752	1.3	1.6
Colorado	DQ	DQ	DQ	DQ	DQ	DQ
Connecticut	DQ	DQ	DQ	DQ	DQ	DQ
Delaware	38,183	2.4	1.2	38,278	1.8	1.3
District of Columbia	DQ	DQ	DQ	DQ	DQ	DQ
Florida	1,348,786	1.1	1.3	1,283,126	3.6	2.1
Georgia	32,916	2.0	0.7	39,360	1.9	0.8
Hawaii	DQ	DQ	DQ	DQ	DQ	DQ
Idaho	89	DS	DS	52	DS	DS
Illinois	533,270	2.6	1.5	452,179	2.9	1.4
Indiana	91,800	1.7	0.7	84,714	1.2	0.6
Iowa	DQ	DQ	DQ	DQ	DQ	DQ
Kansas	DQ	DQ	DQ	DQ	DQ	DQ
Kentucky	45,414	1.3	1.1	45,934	1.3	1.2
Louisiana	DQ	DQ	DQ	DQ	DQ	DQ
Maine	5,548	7.6	1.6	6,029	7.3	1.3
Maryland	166,841	0.4	0.6	DQ	DQ	DQ
Massachusetts	DQ	DQ	DQ	DQ	DQ	DQ
Michigan	DQ	DQ	DQ	183,231	2.0	0.8
Minnesota	76,594	6.4	1.5	95,987	6.4	1.4
Mississippi	3,855	1.2	0.4	4,173	1.3	0.4
Missouri	DQ	DQ	DQ	DQ	DQ	DQ
Montana	DQ	DQ	DQ	DQ	DQ	DQ
Nebraska	56,730	1.8	1.1	56,767	1.8	1.0
Nevada	259,195	1.9	1.5	258,238	1.8	1.7
New Hampshire	12,642	1.2	3.4	12,691	0.9	3.5

State	2018			2019		
	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT users: # ride days per month enrolled
New Jersey	432,894	3.7	1.9	432,255	4.0	1.9
New Mexico	446,561	3.6	1.5	439,520	3.8	1.6
New York	DQ	DQ	DQ	DQ	DQ	DQ
North Carolina	281,021	1.2	1.0	276,464	1.2	1.0
North Dakota	5,791	1.1	0.8	5,950	1.2	1.0
Ohio	128,631	2.6	0.5	127,675	2.7	0.5
Oklahoma	137,517	1.8	1.4	138,501	1.8	1.4
Oregon	DQ	DQ	DQ	DQ	DQ	DQ
Pennsylvania	439,123	1.2	0.6	432,627	1.2	0.6
Puerto Rico	973,846	1.1	1.0	1,026,453	1.2	0.7
Rhode Island	DQ	DQ	DQ	DQ	DQ	DQ
South Carolina	DQ	DQ	DQ	DQ	DQ	DQ
South Dakota	6,690	0.5	1.2	6,525	0.6	1.4
Tennessee	DQ	DQ	DQ	DQ	DQ	DQ
Texas	2,412,338	3.0	2.7	2,321,456	3.1	2.9
Utah	DQ	DQ	DQ	DQ	DQ	DQ
Vermont	994	8.8	2.5	987	10.1	2.0
Virgin Islands	20	DS	DS	DS	DS	DS
Virginia	38,662	2.1	1.0	46,715	2.7	1.2
Washington	416,027	1.4	2.3	416,834	1.6	2.1
West Virginia	DQ	DQ	DQ	DQ	DQ	DQ
Wisconsin	140,108	4.6	3.5	137,042	4.7	3.7
Wyoming	DQ	DQ	DQ	DQ	DQ	DQ

Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility [DE] file) and 4414-4425 (Other Services [OT] files) and TAF 2019 Release 1, Run ID 4991 (DE file) and 4967-4978 (OT files).

Notes: Includes multiracial, non-Hispanic beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Due to the high number of states with severe data quality issues related to the TAF race/ethnicity data element, national-level data are not presented in this table. Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries.

DQ = Not reported because of a severe data quality issue related to the TAF race/ethnicity data element. Many states have high rates of missing information reported in this data element because states are not required to collect race and ethnicity information from beneficiaries at program enrollment.

**Table B1.9a. Rate and frequency of NEMT utilization: beneficiaries enrolled in 1915c Waivers, Program of All-Inclusive Care for the Elderly (PACE), or Money Follows the Person (MFP), 2018**

State	1915c waiver enrollees <sup>b</sup>			PACE enrollees <sup>c</sup>			MFP participants <sup>d</sup>		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT Users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT Users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT Users: # ride days per month enrolled
<b>United States <sup>a</sup></b>	<b>1,573,272</b>	<b>29.1</b>	<b>3.4</b>	<b>54,312</b>	<b>15.4</b>	<b>4.2</b>	<b>16,995</b>	<b>39.7</b>	<b>2.0</b>
Alabama	14,648	10.9	0.6	208	DS	DS	156	40.4	0.6
Alaska	4,739	35.5	2.2	DS	DS	DS	DS	DS	DS
Arizona	DS	DS	DS	DS	DS	DS	DS	DS	DS
Arkansas	9,846	30.5	3.5	333	5.7	0.2	183	41.5	1.4
California	152,615	7.6	1.4	9,434	7.8	1.7	893	30.5	1.4
Colorado	53,768	40.0	5.7	5,134	3.5	1.9	198	67.7	3.7
Connecticut	30,144	27.7	1.6	DS	DS	DS	1,043	68.4	1.7
Delaware	1,208	5.7	4.3	290	DS	DS	41	63.4	0.9
District of Columbia	5,987	27.2	3.2	DS	DS	DS	DS	DS	DS
Florida	1,732	4.6	2.7	2,309	0.5	0.4	DS	DS	DS
Georgia	46,739	33.8	3.2	DS	DS	DS	98	56.1	1.2
Hawaii	3,132	9.6	1.3	DS	DS	DS	DS	DS	DS
Idaho	22,639	33.9	5.5	DS	DS	DS	DS	DS	DS
Illinois	155,096	19.8	1.5	DS	DS	DS	28	50.0	1.0
Indiana	51,218	21.9	1.1	420	11.4	0.7	218	52.8	0.9
Iowa	23,933	33.9	6.9	602	5.0	1.4	204	38.2	7.2
Kansas	DS	DS	DS	656	3.7	0.5	DS	DS	DS
Kentucky	24,957	35.5	4.4	DS	DS	DS	26	84.6	2.6
Louisiana	18,868	12.3	2.9	583	DS	DS	724	16.9	1.7
Maine	DS	DS	DS	DS	DS	DS	40	80.0	2.1
Maryland	26,972	6.8	0.4	176	1.1	DS	518	26.6	0.2
Massachusetts	33,951	63.2	10.0	5,536	3.9	1.7	DS	DS	DS
Michigan	10,560	4.9	1.2	3,197	2.6	0.9	605	33.6	2.2
Minnesota	81,206	50.1	2.8	DS	DS	DS	DS	DS	DS
Mississippi	26,873	32.8	1.7	DS	DS	DS	520	31.2	2.0
Missouri	DS	DS	DS	DS	DS	DS	935	58.5	2.3

State	1915c waiver enrollees <sup>b</sup>			PACE enrollees <sup>c</sup>			MFP participants <sup>d</sup>		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT Users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT Users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT Users: # ride days per month enrolled
Montana	5,635	26.7	5.7	DS	DS	DS	131	26.0	2.7
Nebraska	83	DS	DS	235	6.4	0.7	74	37.8	1.0
Nevada	6,248	47.3	2.7	DS	DS	DS	95	51.6	1.5
New Hampshire	10,559	4.9	0.7	DS	DS	DS	63	DS	DS
New Jersey	10,578	21.5	6.1	1,330	10.2	1.9	628	18.2	4.1
New Mexico	4,917	11.0	1.3	DS	DS	DS	DS	DS	DS
New York	310,222	42.7	2.7	6,869	83.8	5.0	1,224	64.9	2.6
North Carolina	2,735	31.7	2.1	2,678	3.3	0.6	276	34.1	1.8
North Dakota	6,378	4.0	0.9	218	9.2	0.7	40	DS	DS
Ohio	80,419	18.5	0.7	559	5.5	0.4	538	54.5	1.1
Oklahoma	26,478	41.2	6.5	614	7.3	1.0	60	73.3	1.2
Oregon	55,753	37.2	2.2	1,682	10.7	1.3	DS	DS	DS
Pennsylvania	42,612	9.4	13.6	8,167	0.5	0.2	273	8.8	0.2
Puerto Rico	DS	DS	DS	DS	DS	DS	DS	DS	DS
Rhode Island	DS	DS	DS	331	5.1	0.7	129	70.5	2.3
South Carolina	45,131	27.5	1.7	561	4.8	0.7	148	36.5	1.1
South Dakota	4,942	12.5	1.7	DS	DS	DS	DS	DS	DS
Tennessee	DS	DS	DS	422	64.2	3.3	1,699	49.3	1.1
Texas	65,882	18.7	3.4	1,397	DS	DS	4,179	28.3	1.5
Utah	8,713	DS	DS	DS	DS	DS	DS	DS	DS
Vermont	DS	DS	DS	DS	DS	DS	251	54.2	3.1
Virgin Islands	DS	DS	DS	DS	DS	DS	DS	DS	DS
Virginia	58,293	30.7	3.5	1,770	5.8	0.5	DS	DS	DS
Washington	DS	DS	DS	832	3.2	0.5	1,628	31.0	1.2
West Virginia	12,633	DS	DS	DS	DS	DS	541	57.5	1.1
Wisconsin	19,464	52.7	6.9	667	79.8	7.0	416	71.9	4.5
Wyoming	5,211	9.8	2.6	164	DS	DS	DS	DS	DS

Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility file) and 4414-4425 (Other Services files).

Notes: Includes beneficiaries enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months

eligible for full or comprehensive benefits during the year. Beneficiaries may qualify for inclusion in more than one category. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C).

<sup>a</sup> Data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table. For additional information on data quality issues, please see Appendix C.

<sup>b</sup> Includes individuals enrolled in a 1915c waiver in at least one month in the year.

<sup>c</sup> Includes individuals enrolled in a PACE plan in at least one month in the year.

<sup>d</sup> Includes individuals who participated in the MFP program in at least one month in the year.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B1.9b. Rate and frequency of NEMT utilization: beneficiaries enrolled in 1915c Waivers, Program of All-Inclusive Care for the Elderly (PACE), or Money Follows the Person (MFP), 2019**

State	1915c waiver enrollees <sup>b</sup>			PACE enrollees <sup>c</sup>			MFP participants <sup>d</sup>		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT Users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT Users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT Users: # ride days per month enrolled
<b>United States <sup>a</sup></b>	<b>1,611,034</b>	<b>29.0</b>	<b>3.5</b>	<b>61,804</b>	<b>14.2</b>	<b>4.0</b>	<b>14,436</b>	<b>40.5</b>	<b>2.0</b>
Alabama	15,441	10.0	0.9	200	DS	DS	100	36.0	0.5
Alaska	4,923	36.0	1.9	DS	DS	DS	DS	DS	DS
Arizona	DS	DS	DS	DS	DS	DS	DS	DS	DS
Arkansas	10,404	27.2	2.5	379	3.7	0.3	102	31.4	1.2
California	157,442	8.1	1.5	11,203	12.0	5.0	646	31.9	1.3
Colorado	50,133	43.5	6.0	5,430	4.0	1.7	301	70.4	3.2
Connecticut	30,697	25.9	1.8	DS	DS	DS	941	68.4	1.7
Delaware	1,373	5.9	4.6	307	DS	DS	28	42.9	0.6
District of Columbia	6,471	22.3	2.4	DS	DS	DS	DS	DS	DS
Florida	2,212	6.1	1.8	2,655	1.4	0.8	DS	DS	DS
Georgia	49,684	33.8	2.9	DS	DS	DS	150	66.7	1.7
Hawaii	3,108	9.2	1.0	DS	DS	DS	DS	DS	DS
Idaho	23,396	31.6	5.4	DS	DS	DS	DS	DS	DS
Illinois	157,413	19.0	1.4	DS	DS	DS	DS	DS	DS
Indiana	57,216	16.4	0.9	544	4.0	0.8	134	38.1	0.7
Iowa	25,398	34.3	5.4	685	3.2	1.2	127	28.3	5.4
Kansas	DS	DS	DS	789	4.6	0.8	DS	DS	DS
Kentucky	26,183	34.3	4.5	DS	DS	DS	20	85.0	3.9
Louisiana	19,826	12.8	2.6	602	DS	DS	576	22.2	1.4
Maine	DS	DS	DS	DS	DS	DS	20	80.0	2.2
Maryland	27,616	7.2	0.4	184	DS	DS	417	23.3	0.3
Massachusetts	33,927	62.8	10.4	5,769	4.3	1.4	DS	DS	DS
Michigan	10,228	4.4	0.5	4,009	2.6	1.1	472	30.3	2.3
Minnesota	85,713	52.4	2.9	DS	DS	DS	DS	DS	DS
Mississippi	27,019	31.0	1.4	DS	DS	DS	481	24.5	1.5
Missouri	DS	DS	DS	DS	DS	DS	875	55.0	1.7

State	1915c waiver enrollees <sup>b</sup>			PACE enrollees <sup>c</sup>			MFP participants <sup>d</sup>		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT Users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT Users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT Users: # ride days per month enrolled
Montana	5,520	42.8	6.6	DS	DS	DS	122	42.6	4.8
Nebraska	57	DS	DS	250	4.8	1.2	39	DS	DS
Nevada	6,507	47.8	2.6	DS	DS	DS	98	55.1	1.5
New Hampshire	10,765	3.2	0.6	DS	DS	DS	50	DS	DS
New Jersey	11,538	25.0	7.5	1,423	10.8	1.9	671	19.7	6.0
New Mexico	5,069	11.9	1.3	DS	DS	DS	DS	DS	DS
New York	324,850	41.7	2.8	6,910	77.9	4.3	1,227	65.2	2.7
North Carolina	1,148	30.1	1.9	2,840	3.5	0.7	282	30.5	1.7
North Dakota	6,605	3.8	0.7	226	7.1	0.8	33	DS	DS
Ohio	80,500	18.0	0.7	669	6.3	0.5	601	64.9	1.0
Oklahoma	26,908	42.2	6.3	707	7.4	1.3	32	62.5	1.0
Oregon	57,792	37.0	2.3	1,847	11.5	1.4	DS	DS	DS
Pennsylvania	34,380	10.3	15.0	8,598	0.5	0.1	372	11.3	0.2
Puerto Rico	DS	DS	DS	DS	DS	DS	DS	DS	DS
Rhode Island	DS	DS	DS	323	3.7	0.4	207	54.6	1.6
South Carolina	44,827	27.8	1.8	536	4.9	0.7	126	45.2	1.4
South Dakota	5,594	12.9	1.3	DS	DS	DS	DS	DS	DS
Tennessee	DS	DS	DS	420	81.7	7.6	1,466	44.9	1.3
Texas	65,169	17.4	3.2	1,370	1.1	1.7	3,304	27.1	1.6
Utah	8,932	DS	DS	DS	DS	DS	DS	DS	DS
Vermont	DS	DS	DS	DS	DS	DS	231	60.6	3.1
Virgin Islands	DS	DS	DS	DS	DS	DS	DS	DS	DS
Virginia	59,937	31.7	5.1	1,829	6.3	0.8	DS	DS	DS
Washington	DS	DS	DS	1,038	4.9	1.5	1,081	28.8	1.7
West Virginia	12,913	38.8	3.5	DS	DS	DS	504	63.1	1.1
Wisconsin	19,832	51.1	8.3	646	78.8	7.2	273	73.3	5.4
Wyoming	5,300	9.1	2.8	159	DS	DS	DS	DS	DS

Source: Mathematica's analysis of the TAF 2019 Release 1, Run ID 4991 (Demographics and Eligibility file) and 4967-4978 (Other Services files).

Notes: Includes beneficiaries enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Beneficiaries may qualify for inclusion in more than one category. CMS identified NEMT rides based on procedure



codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix C.

<sup>b</sup> Includes individuals enrolled in a 1915c waiver in at least one month in the year.

<sup>c</sup> Includes individuals enrolled in a PACE plan in at least one month in the year.

<sup>d</sup> Includes individuals who participated in the MFP program in at least one month in the year.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B1.9c. Rate and frequency of NEMT utilization: beneficiaries enrolled in 1915c Waivers, Program of All-Inclusive Care for the Elderly (PACE), or Money Follows the Person (MFP), 2020**

State	1915c waiver enrollees <sup>b</sup>			PACE enrollees <sup>c</sup>			MFP participants <sup>d</sup>		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT Users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT Users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT Users: # ride days per month enrolled
<b>United States <sup>a</sup></b>	<b>1,346,109</b>	<b>22.9</b>	<b>2.2</b>	<b>65,426</b>	<b>13.6</b>	<b>1.8</b>	<b>13,911</b>	<b>42</b>	<b>1.5</b>
Alabama	16,043	6.4	1.3	204	DS	DS	68	17.6	0.4
Alaska	4,963	30.8	1.2	DS	DS	DS	DS	DS	DS
Arizona	DS	DS	DS	DS	DS	DS	DS	DS	DS
Arkansas	11,153	23.1	1.8	451	3.8	1.1	47	34.0	0.8
California	159,549	6.3	1.0	13,282	10.8	3.1	498	40.0	1.0
Colorado	27,522	39.0	4.2	5,766	7.4	0.9	139	69.1	3.3
Connecticut	30,703	21.4	1.5	DS	DS	DS	998	63.8	1.3
Delaware	1,492	3.4	1.6	310	DS	DS	11	DS	DS
District of Columbia	7,304	4.3	0.6	DS	DS	DS	DS	DS	DS
Florida	2,850	4.7	1.4	2,860	1.6	0.7	DS	DS	DS
Georgia	52,952	30.7	1.7	DS	DS	DS	273	60.1	1.5
Hawaii	3,098	5.3	1.0	DS	DS	DS	DS	DS	DS
Idaho	23,549	27.9	3.7	DS	DS	DS	DS	DS	DS
Illinois	161,014	18.4	0.9	DS	DS	DS	DS	DS	DS
Indiana	64,116	15.1	1.0	550	3.6	0.5	219	40.6	0.8
Iowa	26,219	31.1	2.7	683	2.5	0.6	98	22.4	2.5
Kansas	DS	DS	DS	847	3.5	0.7	DS	DS	DS
Kentucky	27,523	30.5	1.8	DS	DS	DS	23	60.9	2.1
Louisiana	19,783	9.8	1.6	569	DS	DS	394	22.1	0.9
Maine	DS	DS	DS	DS	DS	DS	DS	DS	DS
Maryland	27,201	6.5	0.2	175	DS	DS	329	25.5	0.2
Massachusetts	32,669	60.0	3.4	5,739	3.6	1.1	DS	DS	DS
Michigan	7,891	3.3	0.5	4,455	1.5	1.3	384	29.9	1.4
Minnesota	88,792	49.2	1.8	DS	DS	DS	190	82.1	1.5
Mississippi	25,951	28.6	1.6	DS	DS	DS	452	21.9	1.7
Missouri	DS	DS	DS	DS	DS	DS	845	49.6	1.7

State	1915c waiver enrollees <sup>b</sup>			PACE enrollees <sup>c</sup>			MFP participants <sup>d</sup>		
	Number of beneficiaries	% beneficiaries who used NEMT ("NEMT users")	NEMT Users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT Users: # ride days per month enrolled	Number of beneficiaries	% beneficiaries who used NEMT	NEMT Users: # ride days per month enrolled
Montana	5,529	43.6	7.6	DS	DS	DS	113	41.6	7.2
Nebraska	48	DS	DS	243	DS	DS	DS	DS	DS
Nevada	7,234	42.8	2.0	DS	DS	DS	62	41.9	2.8
New Hampshire	10,448	3.7	0.3	DS	DS	DS	36	DS	DS
New Jersey	11,973	23.4	2.8	1,400	5.9	1.4	1,312	51.8	1.7
New Mexico	5,298	10.8	1.0	DS	DS	DS	DS	DS	DS
New York	74,190	15.8	1.1	6,760	80.2	1.5	918	74.3	1.8
North Carolina	DS	DS	DS	2,627	2.2	0.7	297	29	1.3
North Dakota	6,207	3.4	0.7	208	5.3	0.7	32	DS	DS
Ohio	81,580	16.6	0.6	734	5.7	0.5	614	64.7	0.8
Oklahoma	27,290	40.0	5.4	769	3.8	1.2	22	63.6	0.6
Oregon	61,695	33.4	2.1	1,967	8.8	1.7	DS	DS	DS
Pennsylvania	31,939	10.1	6.7	8,808	0.8	0.2	272	9.6	0.3
Puerto Rico	DS	DS	DS	DS	DS	DS	DS	DS	DS
Rhode Island	DS	DS	DS	411	6.1	1.8	233	57.5	1.4
South Carolina	45,276	23.9	1.4	534	4.5	0.4	102	37.3	1.0
South Dakota	6,071	11.7	1.0	DS	DS	DS	DS	DS	DS
Tennessee	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Texas	61,740	14.4	1.4	1,359	1.3	0.6	2,951	22.3	1.2
Utah	8,827	DS	DS	DS	DS	DS	DS	DS	DS
Vermont	DS	DS	DS	DS	DS	DS	232	51.7	1.3
Virgin Islands	DS	DS	DS	DS	DS	DS	DS	DS	DS
Virginia	61,247	29.0	2.2	1,924	5.8	0.7	DS	DS	DS
Washington	DS	DS	DS	1,195	4.4	0.9	1,043	30.8	1.3
West Virginia	15,039	32.1	2.3	DS	DS	DS	552	45.3	0.8
Wisconsin	21,516	45.3	6.4	646	72.6	4.1	206	74.8	3.5
Wyoming	5,495	8.9	1.8	154	9.7	0.3	DS	DS	DS

Source: Mathematica's analysis of the 2020 preliminary TAF, Run ID 5596 (Demographics and Eligibility file) and 5560-5571 (Other Services files).

Notes: Includes beneficiaries enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Beneficiaries may qualify for inclusion in more than one category. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix C.

<sup>b</sup> Includes individuals enrolled in a 1915c waiver in at least one month in the year.

<sup>c</sup> Includes individuals enrolled in a PACE plan in at least one month in the year.

<sup>d</sup> Includes individuals who participated in the MFP program in at least one month in the year.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

DQ = Not reported because of a severe data quality issue. Tennessee had such a severe data quality issue in 2020 that the state was not included in the table. For additional information on data quality issues, please see Appendix C.

**Table B2.1a. Percentage of beneficiaries who used NEMT to access select physical health, behavioral health, and substance use disorder (SUD) treatment services, 2018**

State	Number of beneficiaries	% beneficiaries who used NEMT to access:									
		Behavioral health services	SUD treatment services	Medication-assisted treatment for OUD	Preventive services	Lab and imaging services	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
<b>United States<sup>a</sup></b>	<b>74,831,540</b>	<b>1.4</b>	<b>0.6</b>	<b>0.1</b>	<b>2.8</b>	<b>2.3</b>	<b>NA</b>	<b>0.7</b>	<b>0.3</b>	<b>0.1</b>	<b>0.2</b>
Alabama	943,121	0.7	0.2	0.0	0.3	1.2	NA	0.5	0.3	0.1	0.1
Alaska	235,173	1.5	1.1	0.1	8.3	6.6	NA	0.6	0.3	0.1	0.4
Arizona	2,043,417	4.3	2.2	0.2	7.4	5.3	NA	1.3	0.4	0.2	0.3
Arkansas	1,000,221	1.4	0.3	0.0	3.1	2.5	NA	0.6	0.3	0.1	0.2
California	13,057,698	0.4	0.1	0.0	0.9	0.8	NA	0.3	0.1	0.2	0.1
Colorado	1,486,585	0.9	0.5	0.0	1.9	1.9	NA	0.4	0.1	0.1	0.1
Connecticut	961,337	1.9	1.2	0.5	3.2	2.8	NA	0.8	0.3	0.1	0.2
Delaware	256,764	1.3	1.1	0.7	3.3	2.4	NA	0.6	0.2	0.1	0.2
District of Columbia	269,396	1.8	0.4	0.1	5.4	3.9	NA	0.9	0.2	0.2	0.3
Florida	4,262,235	0.2	0.0	0.0	0.2	0.2	NA	0.1	0.0	0.0	0.0
Georgia	2,134,062	1.3	0.3	0.0	2.8	2.0	NA	0.8	0.3	0.2	0.2
Hawaii	384,094	0.9	0.4	0.0	2.9	2.2	NA	0.6	0.3	0.2	0.3
Idaho	316,076	1.9	0.4	0.0	3.4	2.4	NA	0.7	0.2	0.1	0.2
Illinois	3,383,999	1.3	0.4	0.0	2.2	1.9	NA	0.6	0.3	0.1	0.2
Indiana	1,604,987	1.5	0.6	0.1	3.2	3.1	NA	0.7	0.3	0.1	0.2
Iowa	717,703	2.0	0.5	0.0	3.6	2.9	NA	0.8	0.3	0.1	0.2
Kansas	428,545	1.1	0.2	0.0	2.3	1.5	NA	0.4	0.1	0.0	0.1
Kentucky	1,504,402	1.5	0.6	0.2	2.6	2.6	NA	0.7	0.3	0.1	0.2
Louisiana	1,638,165	0.9	0.3	0.0	2.0	1.6	NA	0.4	0.1	0.0	0.1
Maine	246,401	4.7	1.3	0.5	6.6	5.2	NA	1.0	0.3	0.1	0.4
Maryland	1,394,401	0.2	0.0	0.0	0.1	0.3	NA	0.1	0.1	0.0	0.0
Massachusetts	1,845,150	3.0	1.1	0.5	5.0	4.2	NA	1.5	0.7	0.2	0.5
Michigan	2,857,271	1.5	0.6	0.1	3.0	2.6	NA	0.6	0.2	0.0	0.2
Minnesota	1,299,440	4.0	1.4	0.3	7.8	5.8	NA	1.5	0.4	0.1	0.4
Mississippi	696,690	1.7	0.4	0.0	5.2	4.6	NA	1.3	0.5	0.4	0.4
Missouri	1,174,634	2.4	0.6	0.0	4.2	4.1	NA	1.1	0.4	0.2	0.4
Montana	289,095	0.5	0.2	0.0	0.6	0.8	NA	0.2	0.1	0.0	0.1

State	Number of beneficiaries	% beneficiaries who used NEMT to access:									
		Behavioral health services	SUD treatment services	Medication-assisted treatment for OUD	Preventive services	Lab and imaging services	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
Nebraska	276,437	1.6	0.2	0.0	3.0	2.7	NA	0.7	0.2	0.1	0.2
Nevada	788,296	1.5	0.8	0.0	1.9	2.1	NA	0.5	0.2	0.1	0.1
New Hampshire	222,290	0.4	0.4	0.2	0.5	0.6	NA	0.1	0.1	0.0	0.0
New Jersey	1,814,383	2.1	1.3	0.3	4.3	3.5	NA	1.1	0.5	0.2	0.4
New Mexico	836,072	1.4	1.0	0.3	2.9	2.5	NA	0.6	0.2	0.1	0.2
New York	6,892,006	2.3	1.0	0.1	5.2	3.8	NA	1.5	0.8	0.3	0.5
North Carolina	2,057,216	1.0	0.3	0.1	2.3	2.4	NA	0.8	0.3	0.2	0.2
North Dakota	118,436	1.1	0.5	DS	1.5	1.5	NA	0.4	0.1	0.1	0.1
Ohio	3,069,768	1.9	0.8	0.1	2.2	2.8	NA	1.0	0.6	0.1	0.3
Oklahoma	836,884	1.5	0.3	0.0	3.1	2.7	NA	0.9	0.5	0.2	0.2
Oregon	1,060,739	2.8	1.8	0.5	5.6	4.7	NA	1.1	0.4	0.1	0.4
Pennsylvania	3,258,631	0.6	0.4	0.0	0.2	0.5	NA	0.2	0.1	0.0	0.1
Puerto Rico	1,438,531	0.1	0.0	0.0	0.4	0.3	NA	0.2	0.1	0.1	0.1
Rhode Island	344,020	1.4	0.9	0.5	2.4	1.5	NA	0.4	0.1	0.1	0.1
South Carolina	1,172,848	1.2	0.2	0.0	3.3	2.2	NA	0.6	0.2	0.1	0.2
South Dakota	128,540	0.5	0.2	DS	1.4	1.0	NA	0.5	0.2	0.1	0.1
Tennessee	1,673,580	1.2	0.3	0.0	2.5	2.4	NA	0.6	0.2	0.1	0.2
Texas	4,907,155	0.9	0.2	0.0	2.4	1.6	NA	0.6	0.2	0.2	0.1
Utah	385,303	DS	DS	DS	DS	DS	NA	DS	DS	DS	DS
Vermont	184,228	2.3	1.1	0.3	3.4	2.5	NA	0.8	0.4	0.0	0.2
Virgin Islands	19,145	DS	DS	DS	0.5	0.5	NA	0.1	0.1	DS	0.2
Virginia	1,122,768	0.9	0.3	0.1	2.0	1.5	NA	0.5	0.1	0.1	0.1
Washington	2,033,978	0.8	0.3	0.0	1.3	1.5	NA	0.5	0.2	0.0	0.1
West Virginia	551,191	1.4	0.8	0.4	2.5	2.9	NA	0.8	0.5	0.1	0.3
Wisconsin	1,256,170	3.0	1.2	0.5	6.2	5.0	NA	1.3	0.4	0.2	0.4
Wyoming	74,677	0.4	0.2	DS	0.5	1.1	NA	0.3	0.1	0.0	0.1

Source: Mathematica’s analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility file), 4390-4401 (Inpatient files), 4426-4437 (Pharmacy files), and 4414-4425 (Other Services files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. The service types presented in this table do not include all Medicaid-covered services, and furthermore, some service categories overlap with one another (for example, Medication-assisted treatment for OUD is a subset of substance use disorder treatment services). NEMT may be used to access multiple types of services on a single day. To identify behavioral health services CMS used diagnosis codes on Medicaid claims and encounter records. To identify substance use disorder treatment services and medication-assisted treatment for OUD,

CMS used National Drug Codes, diagnosis codes, and select procedure codes on Medicaid claims and encounter records. To identify preventive services and lab and imaging services, CMS used procedure codes on Medicaid claims and encounter records. To identify care for diabetes, heart disease, and cancer treatment services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify dialysis services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and type of bill codes on Medicaid claims and encounter records. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix C.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

NA = service type was not available in 2018.

**Table B2.1b. Average monthly number of NEMT ride days used to access select physical health, behavioral health, and substance use disorder (SUD) treatment services among beneficiaries who used NEMT to access each service type, 2018**

State	Average monthly # of NEMT ride days used to access each service type:									
	Behavioral health services	SUD treatment services	Medication-assisted treatment for OUD	Preventive services	Lab and imaging services	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
<b>United States <sup>a</sup></b>	<b>0.9</b>	<b>1.4</b>	<b>3.5</b>	<b>0.8</b>	<b>0.5</b>	<b>NA</b>	<b>0.6</b>	<b>0.3</b>	<b>4.7</b>	<b>0.6</b>
Alabama	0.1	0.1	0.1	0.2	0.2	NA	0.2	0.1	3.0	0.2
Alaska	0.4	0.3	0.4	0.5	0.4	NA	0.4	0.3	5.5	0.8
Arizona	1.2	1.3	1.0	0.6	0.4	NA	0.5	0.2	5.8	0.6
Arkansas	1.0	0.2	0.3	1.5	0.3	NA	0.4	0.2	6.4	0.5
California	0.4	1.1	3.9	0.8	0.4	NA	0.4	0.2	4.8	0.5
Colorado	1.6	1.3	3.7	1.9	1.4	NA	1.9	1.1	7.5	1.6
Connecticut	0.8	1.8	3.7	0.6	0.4	NA	0.5	0.2	6.2	0.6
Delaware	1.0	3.5	5.4	1.0	1.0	NA	0.3	0.2	1.1	0.4
District of Columbia	2.0	1.0	3.4	0.5	0.4	NA	0.5	0.3	4.4	0.6
Florida	0.8	0.3	0.8	0.3	0.2	NA	0.3	0.1	1.1	0.3
Georgia	1.1	0.7	6.3	0.5	0.3	NA	0.4	0.2	7.1	0.5
Hawaii	0.6	0.5	4.1	0.5	0.4	NA	0.4	0.3	4.3	0.5
Idaho	1.4	1.3	1.1	1.1	0.8	NA	0.9	0.4	8.4	0.8
Illinois	0.5	0.4	0.4	0.3	0.2	NA	0.3	0.2	0.4	0.4
Indiana	0.4	0.6	1.5	0.4	0.3	NA	0.3	0.2	4.7	0.3
Iowa	1.3	0.6	2.2	1.1	0.7	NA	0.7	0.3	2.1	0.7
Kansas	0.5	0.4	0.3	0.4	0.3	NA	0.3	0.2	2.7	0.4
Kentucky	0.8	0.6	0.9	0.7	0.4	NA	0.5	0.2	0.5	0.5
Louisiana	0.3	0.2	0.5	0.3	0.3	NA	0.3	0.2	2.9	0.5
Maine	1.1	1.3	1.9	0.7	0.5	NA	0.5	0.3	6.8	0.8
Maryland	0.2	0.1	0.1	0.3	0.1	NA	0.1	0.1	0.2	0.1
Massachusetts	1.7	2.3	4.2	1.8	0.9	NA	1.6	0.6	6.9	1.0
Michigan	0.4	1.3	5.5	0.5	0.3	NA	0.4	0.2	0.5	0.5
Minnesota	1.0	1.8	5.6	0.8	0.5	NA	1.0	0.4	6.0	0.7
Mississippi	0.3	0.2	0.3	0.4	0.5	NA	0.4	0.2	8.0	0.6
Missouri	0.9	0.3	0.5	1.1	0.9	NA	0.8	0.3	6.9	0.8



State	Average monthly # of NEMT ride days used to access each service type:									
	Behavioral health services	SUD treatment services	Medication-assisted treatment for OUD	Preventive services	Lab and imaging services	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
Montana	1.5	0.3	0.9	1.0	0.4	NA	1.6	0.5	1.9	1.3
Nebraska	1.3	0.3	0.6	0.8	0.4	NA	0.4	0.2	0.6	0.4
Nevada	0.5	0.3	0.5	0.7	0.3	NA	0.4	0.2	5.5	0.6
New Hampshire	0.5	1.4	2.2	0.7	0.4	NA	0.4	0.1	1.1	0.4
New Jersey	2.4	2.1	3.2	0.7	0.8	NA	0.5	0.3	7.3	0.6
New Mexico	0.6	2.0	5.2	0.5	0.4	NA	0.3	0.2	6.0	0.5
New York	0.8	1.7	1.1	0.8	0.4	NA	0.6	0.3	1.7	0.7
North Carolina	1.0	1.2	4.6	0.5	0.4	NA	0.5	0.2	5.9	0.5
North Dakota	0.3	0.2	0.8	0.5	0.3	NA	0.3	0.2	5.0	0.5
Ohio	0.2	0.3	1.2	0.4	0.3	NA	0.4	0.2	4.8	0.4
Oklahoma	2.4	0.6	5.5	2.1	1.1	NA	1.2	0.3	7.6	1.1
Oregon	0.9	3.0	5.4	0.8	0.6	NA	0.6	0.3	7.2	0.7
Pennsylvania	0.5	0.1	0.3	3.5	0.8	NA	0.5	0.2	2.1	0.4
Puerto Rico	0.1	0.1	0.4	0.2	0.2	NA	0.2	0.1	4.2	0.4
Rhode Island	1.5	2.3	2.9	0.9	0.6	NA	0.8	0.3	2.9	0.7
South Carolina	1.0	0.5	0.5	0.5	0.3	NA	0.3	0.2	1.8	0.5
South Dakota	0.4	0.2		0.5	0.3	NA	0.4	0.2	1.7	0.3
Tennessee	0.7	0.4	0.4	0.5	0.3	NA	0.3	0.2	0.4	0.4
Texas	0.6	1.5	6.9	0.6	0.3	NA	0.5	0.2	6.4	0.5
Utah	DS	DS	DS	DS	DS	NA	DS	DS	DS	DS
Vermont	0.6	0.8	1.5	0.8	0.4	NA	0.3	0.2	0.4	0.5
Virgin Islands	0.5			0.4	0.4	NA	0.9	0.2	4.5	0.7
Virginia	0.7	0.9	1.4	0.4	0.3	NA	0.3	0.2	1.9	0.4
Washington	0.7	0.3	1.8	1.2	0.6	NA	0.6	0.3	3.8	0.6
West Virginia	0.6	0.4	0.6	0.4	0.3	NA	0.3	0.2	2.0	0.3
Wisconsin	1.8	4.0	8.6	1.8	1.4	NA	1.9	1.2	9.5	1.5
Wyoming	1.4	0.9	3.3	1.6	0.6	NA	1.0	0.6	3.6	0.7

Source: Mathematica’s analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility file), 4390-4401 (Inpatient files), 4426-4437 (Pharmacy files), and 4414-4425 (Other Services files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users who accessed each service type includes beneficiaries with at least one ride day during the year that was used to access the service type. Ride days are a count of the unique number of days on which a beneficiary used NEMT to access the service type. The service types presented in this table do not include all Medicaid-covered services, and furthermore,

some service categories overlap with one another (for example, medication-assisted treatment for OUD is a subset of SUD treatment services). NEMT may be used to access multiple types of services on a single day. To identify behavioral health services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify substance use disorder treatment services and medication-assisted treatment for OUD, CMS used National Drug Codes, diagnosis codes, and select procedure codes on Medicaid claims and encounter records. To identify preventive services and lab and imaging services, CMS used procedure codes on Medicaid claims and encounter records. To identify care for diabetes, heart disease, and cancer treatment services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify dialysis services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and type of bill codes on Medicaid claims and encounter records. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix C.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

NA = service type was not available in 2018.

**Table B2.1c. Percentage of total NEMT ride days used to access select physical health, behavioral health, and substance use disorder (SUD) treatment services, 2018**

State	Total number of NEMT ride days	% of total NEMT ride days used to access:									
		Behavioral health services	SUD treatment services	Medication-assisted treatment for OUD	Preventive services	Lab and imaging services	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
<b>United States<sup>a</sup></b>	<b>74,158,614</b>	<b>15.4</b>	<b>9.0</b>	<b>4.5</b>	<b>26.0</b>	<b>13.6</b>	<b>NA</b>	<b>5.2</b>	<b>1.0</b>	<b>7.2</b>	<b>1.5</b>
Alabama	57,046	17.3	4.1	0.0	9.1	38.8	NA	21.2	6.6	28.7	3.3
Alaska	233,336	6.8	3.8	0.5	42.9	30.1	NA	2.9	1.0	6.4	3.6
Arizona	4,963,151	24.5	12.4	1.1	19.0	10.1	NA	2.9	0.4	4.6	0.7
Arkansas	1,067,144	14.9	0.6	0.0	50.1	8.2	NA	2.5	0.6	5.8	0.7
California	3,515,173	5.8	6.9	5.6	30.6	13.0	NA	5.2	0.9	32.0	1.5
Colorado	2,037,629	11.9	4.9	1.3	28.6	21.7	NA	6.3	0.9	4.1	1.6
Connecticut	787,883	21.6	29.8	25.0	29.4	16.5	NA	5.2	0.7	11.7	1.8
Delaware	258,815	14.5	43.9	40.8	35.8	27.1	NA	1.9	0.5	1.5	0.7
District of Columbia	402,179	27.5	3.2	2.1	21.2	11.6	NA	3.4	0.5	7.1	1.2
Florida	987,523	7.9	0.3	0.1	3.9	2.4	NA	1.2	0.2	1.4	0.3
Georgia	1,587,894	21.7	3.5	1.5	19.3	9.7	NA	4.0	0.9	19.4	1.5
Hawaii	208,009	10.8	4.8	2.2	27.6	18.4	NA	5.3	1.4	16.5	2.9
Idaho	624,533	15.8	2.7	0.1	21.7	10.7	NA	3.4	0.4	5.0	0.6
Illinois	1,995,591	12.5	3.4	0.2	15.0	8.8	NA	3.1	0.8	0.8	1.5
Indiana	719,595	13.0	7.0	3.5	31.5	24.3	NA	4.8	1.0	16.1	1.6
Iowa	1,092,041	19.7	2.1	0.7	30.3	16.0	NA	4.1	0.6	1.4	1.0
Kansas	122,978	21.2	3.7	0.2	37.6	16.4	NA	3.9	0.8	5.0	1.8
Kentucky	1,052,032	20.5	6.0	2.3	30.4	16.0	NA	5.6	1.1	0.5	1.3
Louisiana	577,997	8.3	2.5	0.6	22.5	13.2	NA	3.3	0.7	3.6	1.8
Maine	732,067	19.9	6.2	3.5	18.2	10.4	NA	2.0	0.3	1.9	1.0
Maryland	63,592	10.7	1.0	0.1	10.1	10.0	NA	4.1	2.1	0.7	1.2
Massachusetts	6,357,729	17.5	8.6	7.5	29.8	12.8	NA	8.0	1.4	3.4	1.6
Michigan	1,473,935	14.0	15.7	13.2	34.9	17.0	NA	4.5	0.9	0.5	2.0
Minnesota	2,553,600	24.0	13.8	10.4	34.2	17.2	NA	8.8	1.1	4.6	1.6
Mississippi	597,418	7.3	1.3	0.1	30.7	28.7	NA	6.4	1.4	37.5	3.3
Missouri	1,273,920	22.6	1.7	0.2	49.8	35.7	NA	9.2	1.3	16.1	2.7
Montana	149,203	17.4	1.3	0.2	14.2	7.1	NA	8.2	0.7	0.9	1.5

State	Total number of NEMT ride days	% of total NEMT ride days used to access:									
		Behavioral health services	SUD treatment services	Medication-assisted treatment for OUD	Preventive services	Lab and imaging services	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
Nebraska	187,921	33.9	1.3	0.1	39.3	17.1	NA	4.4	0.5	1.1	1.0
Nevada	461,443	14.6	4.0	0.3	23.4	13.7	NA	3.8	0.8	8.3	1.4
New Hampshire	154,442	3.0	8.2	6.9	4.9	3.6	NA	0.8	0.2	0.2	0.2
New Jersey	3,668,846	27.6	14.4	6.1	18.2	14.9	NA	3.3	0.7	8.7	1.2
New Mexico	570,871	13.5	33.1	28.9	24.9	17.1	NA	3.2	0.5	10.4	1.3
New York	12,723,371	12.0	10.3	1.0	26.2	10.3	NA	5.6	1.4	2.6	2.0
North Carolina	1,138,810	22.2	7.7	5.2	26.5	17.9	NA	7.8	1.2	21.1	2.0
North Dakota	27,414	17.1	4.0	0.2	38.8	21.9	NA	6.6	1.0	17.8	2.7
Ohio	961,024	15.4	7.8	3.2	29.3	27.9	NA	14.5	4.0	21.5	3.2
Oklahoma	1,073,404	32.1	1.6	0.7	56.7	26.3	NA	10.1	1.2	12.7	2.1
Oregon	2,040,582	14.4	30.4	16.8	25.3	15.5	NA	3.9	0.6	4.5	1.4
Pennsylvania	964,986	11.5	1.8	0.2	28.8	13.8	NA	3.0	0.5	0.7	0.7
Puerto Rico	190,662	1.5	0.2	0.0	7.8	4.2	NA	3.7	1.2	46.6	2.1
Rhode Island	569,675	11.3	10.2	7.0	11.2	5.0	NA	1.7	0.1	0.9	0.5
South Carolina	932,151	17.2	1.7	0.1	22.9	9.5	NA	2.6	0.4	1.8	1.3
South Dakota	34,219	9.5	1.0	0.0	27.9	12.0	NA	7.4	1.4	6.2	1.2
Tennessee	798,625	20.4	2.8	0.2	29.0	16.9	NA	4.6	0.9	1.3	1.5
Texas	5,267,533	6.3	2.4	1.9	14.1	5.4	NA	3.0	0.5	9.9	0.7
Utah	39	89.7	2.6	0.0	82.1	89.7	NA	2.6	0.0	0.0	0.0
Vermont	270,956	11.0	7.4	3.4	19.8	6.8	NA	2.0	0.5	0.1	0.8
Virgin Islands	2,026	1.5	0.0	0.0	19.7	20.1	NA	12.2	1.4	21.5	12.4
Virginia	1,404,937	6.5	2.1	1.5	8.2	4.9	NA	1.2	0.2	1.7	0.4
Washington	1,672,509	8.0	1.3	0.5	22.5	13.0	NA	3.6	0.6	2.3	1.0
West Virginia	284,326	18.7	7.2	4.9	20.4	17.3	NA	4.1	1.6	3.5	1.6
Wisconsin	5,798,491	13.5	11.6	9.8	27.6	17.1	NA	5.9	1.3	4.5	1.5
Wyoming	15,888	25.4	6.0	0.5	37.6	33.3	NA	12.4	3.7	6.4	2.1

Source: Mathematica’s analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility file), 4390-4401 (Inpatient files), 4426-4437 (Pharmacy files), and 4414-4425 (Other Services files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. The service types presented in this table do not include all Medicaid-covered services, and furthermore, some service categories overlap with one another (for example, Medication-assisted treatment for OUD is a subset of substance use disorder treatment services). NEMT may be used to access multiple types of services on a single day. As a result, percentages of ride days use to access each service are not expected to sum to 100. To identify behavioral

health services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify substance use disorder treatment services and medication-assisted treatment for OUD, CMS used National Drug Codes, diagnosis codes, and select procedure codes on Medicaid claims and encounter records. To identify preventive services and lab and imaging services, CMS used procedure codes on Medicaid claims and encounter records. To identify care for diabetes, heart disease, and cancer treatment services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify dialysis services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and type of bill codes on Medicaid claims and encounter records. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix C.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

NA = service type was not available in 2018.

**Table B2.2a. Percentage of beneficiaries who used NEMT to access select physical health, behavioral health, and substance use disorder (SUD) treatment services, 2019**

State	Number of beneficiaries	% beneficiaries who used NEMT to access:									
		Behavioral health services	SUD treatment services	Medication-assisted treatment for OUD	Preventive services	Lab and imaging services	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
<b>United States<sup>a</sup></b>	<b>77,883,646</b>	<b>1.4</b>	<b>0.6</b>	<b>0.1</b>	<b>2.8</b>	<b>2.4</b>	<b>NA</b>	<b>0.7</b>	<b>0.3</b>	<b>0.1</b>	<b>0.2</b>
Alabama	934,959	0.6	0.2	0.0	0.3	1.0	NA	0.5	0.2	0.1	0.1
Alaska	245,199	1.6	1.6	0.1	8.3	7.2	NA	0.6	0.3	0.1	0.4
Arizona	2,012,302	4.2	2.3	0.3	6.7	5.3	NA	1.3	0.4	0.2	0.3
Arkansas	963,149	1.3	0.3	0.0	2.7	2.4	NA	0.6	0.3	0.1	0.1
California	12,745,324	0.4	0.2	0.0	0.9	0.8	NA	0.3	0.1	0.2	0.1
Colorado	1,437,138	1.1	0.6	0.1	2.2	2.1	NA	0.4	0.1	0.1	0.1
Connecticut	974,096	1.9	1.2	0.5	3.1	2.7	NA	0.8	0.3	0.1	0.2
Delaware	255,830	1.1	0.9	0.6	2.8	2.0	NA	0.5	0.2	0.1	0.1
District of Columbia	263,203	1.8	0.4	0.1	5.6	3.9	NA	0.9	0.2	0.2	0.3
Florida	4,094,374	1.0	0.2	0.1	2.3	1.9	NA	0.5	0.2	0.1	0.2
Georgia	2,083,484	1.3	0.3	0.0	2.8	2.4	NA	0.8	0.3	0.2	0.2
Hawaii	371,609	0.9	0.5	0.0	2.9	2.3	NA	0.6	0.3	0.2	0.3
Idaho	301,648	1.9	0.4	0.0	3.4	2.4	NA	0.6	0.2	0.1	0.2
Illinois	3,204,702	1.3	0.5	0.0	2.2	2.0	NA	0.7	0.3	0.1	0.2
Indiana	1,580,649	1.0	0.4	0.1	2.2	2.2	NA	0.5	0.2	0.1	0.1
Iowa	731,086	2.0	0.5	0.1	3.7	2.9	NA	0.8	0.3	0.1	0.2
Kansas	416,318	1.1	0.2	0.0	2.2	1.5	NA	0.4	0.1	0.1	0.1
Kentucky	1,477,255	1.6	0.7	0.2	2.8	2.7	NA	0.8	0.4	0.1	0.2
Louisiana	1,687,920	0.9	0.3	0.1	2.0	1.6	NA	0.4	0.1	0.0	0.1
Maine	275,770	4.2	1.4	0.6	5.9	4.6	NA	0.9	0.3	0.1	0.3
Maryland	1,378,394	0.2	0.0	0.0	0.1	0.3	NA	0.2	0.1	0.0	0.0
Massachusetts	1,754,117	3.3	1.3	0.6	5.5	4.7	NA	1.6	0.7	0.2	0.6
Michigan	2,855,965	1.5	0.6	0.1	2.7	2.3	NA	0.5	0.2	0.0	0.2
Minnesota	1,282,705	4.2	1.5	0.4	8.1	6.0	NA	1.6	0.5	0.2	0.5
Mississippi	671,092	1.5	0.4	0.0	4.6	4.2	NA	1.2	0.5	0.4	0.4
Missouri	1,121,039	2.4	0.6	0.1	4.4	4.2	NA	1.1	0.5	0.2	0.4
Montana	292,707	0.5	0.2	0.0	0.7	0.8	NA	0.2	0.1	0.0	0.1

State	Number of beneficiaries	% beneficiaries who used NEMT to access:									
		Behavioral health services	SUD treatment services	Medication-assisted treatment for OUD	Preventive services	Lab and imaging services	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
Nebraska	274,482	1.6	0.2	0.0	3.0	2.7	NA	0.7	0.2	0.1	0.2
Nevada	774,732	1.5	0.8	0.0	1.9	2.0	NA	0.5	0.2	0.1	0.1
New Hampshire	220,733	0.5	0.5	0.2	0.7	0.7	NA	0.1	0.1	0.0	0.1
New Jersey	1,799,271	2.3	1.4	0.4	4.7	3.8	NA	1.2	0.5	0.2	0.4
New Mexico	820,733	1.5	1.1	0.3	3.0	2.7	NA	0.6	0.2	0.1	0.2
New York	6,896,251	2.2	1.0	0.1	5.0	3.6	NA	1.5	0.8	0.3	0.5
North Carolina	1,980,625	1.1	0.3	0.1	2.4	2.5	NA	0.9	0.3	0.2	0.2
North Dakota	115,900	1.1	0.4	DS	1.6	1.6	NA	0.5	0.2	0.1	0.1
Ohio	2,960,424	2.0	0.9	0.1	2.4	3.0	NA	1.1	0.6	0.1	0.3
Oklahoma	829,015	1.6	0.3	0.0	3.2	2.8	NA	1.0	0.5	0.2	0.3
Oregon	1,066,877	3.0	1.9	0.6	6.0	5.0	NA	1.2	0.4	0.1	0.4
Pennsylvania	3,150,590	0.6	0.4	0.0	0.2	0.5	NA	0.2	0.1	0.0	0.1
Puerto Rico	1,424,443	0.1	0.0	DS	0.6	0.2	NA	0.2	0.1	0.1	0.1
Rhode Island	260,563	1.6	0.8	0.3	2.3	1.6	NA	0.4	0.1	0.1	0.1
South Carolina	1,156,466	1.2	0.2	0.0	3.5	2.2	NA	0.6	0.1	0.1	0.2
South Dakota	125,657	0.6	0.2	DS	1.4	1.1	NA	0.5	0.2	0.1	0.1
Tennessee	1,574,316	1.3	0.3	0.0	2.6	2.5	NA	0.6	0.2	0.1	0.2
Texas	4,746,947	1.0	0.2	0.0	2.5	1.6	NA	0.6	0.2	0.2	0.1
Utah	395,605	0.0	0.0	DS	0.0	DS	NA	DS	DS	DS	DS
Vermont	177,906	2.4	1.3	0.5	3.6	2.6	NA	0.8	0.3	0.0	0.3
Virgin Islands	20,217	DS	DS	DS	0.5	0.5	NA	0.2	0.1	0.1	0.2
Virginia	1,522,989	1.2	0.6	0.3	2.6	2.1	NA	0.6	0.1	0.1	0.1
Washington	1,987,376	0.9	0.3	0.0	1.4	1.6	NA	0.5	0.2	0.0	0.1
West Virginia	550,203	2.2	1.3	0.7	4.4	4.3	NA	1.1	0.7	0.1	0.4
Wisconsin	1,242,617	3.0	1.2	0.5	6.2	5.1	NA	1.3	0.4	0.2	0.4
Wyoming	71,818	0.4	0.1	DS	0.5	1.1	NA	0.3	0.1	0.0	0.1

Source: Mathematica’s analysis of the TAF 2019 Release 1, Run ID 4991 (Demographics and Eligibility file), 4943 – 4954 (Inpatient files), 4979 – 4990 (Pharmacy files), and 4967 – 4978 (Other Services files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. The service types presented in this table do not include all Medicaid-covered services, and furthermore, some service categories overlap with one another (for example, Medication-assisted treatment for OUD is a subset of substance use disorder treatment services). NEMT may be used to access multiple types of services on a single day. To identify behavioral health services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify substance use disorder treatment services and medication-assisted treatment for OUD,

CMS used National Drug Codes, diagnosis codes, and select procedure codes on Medicaid claims and encounter records. To identify preventive services and lab and imaging services, CMS used procedure codes on Medicaid claims and encounter records. To identify care for diabetes, heart disease, and cancer treatment services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify dialysis services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and type of bill codes on Medicaid claims and encounter records. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix C.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

NA = service type was not available in 2019.



**Table B2.2b. Average monthly number of NEMT ride days used to access select physical health, behavioral health, and substance use disorder (SUD) treatment services among beneficiaries who used NEMT to access each service type, 2019**

State	Average monthly # of NEMT ride days used to access each service type:									
	Behavioral health services	SUD treatment services	Medication-assisted treatment for OUD	Preventive services	Lab and imaging services	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
<b>United States <sup>a</sup></b>	<b>1.0</b>	<b>1.5</b>	<b>3.5</b>	<b>0.8</b>	<b>0.5</b>	<b>NA</b>	<b>0.6</b>	<b>0.3</b>	<b>4.5</b>	<b>0.6</b>
Alabama	0.1	0.1	0.1	0.2	0.2	NA	0.2	0.1	3.2	0.2
Alaska	0.4	0.3	0.4	0.4	0.3	NA	0.4	0.3	4.9	0.8
Arizona	1.2	1.5	1.2	0.6	0.4	NA	0.5	0.2	5.9	0.6
Arkansas	0.8	0.2	0.4	1.2	0.3	NA	0.3	0.2	6.0	0.4
California	0.4	1.3	4.1	0.9	0.4	NA	0.4	0.2	4.4	0.5
Colorado	1.8	1.7	4.0	1.9	1.4	NA	1.8	1.1	7.3	1.6
Connecticut	0.7	1.7	3.6	0.6	0.4	NA	0.4	0.2	6.2	0.6
Delaware	0.9	3.6	5.5	0.9	1.0	NA	0.3	0.2	0.8	0.4
District of Columbia	1.5	1.2	3.7	0.4	0.3	NA	0.4	0.2	3.7	0.6
Florida	0.9	1.6	3.5	0.5	0.4	NA	0.4	0.2	4.2	0.6
Georgia	1.1	0.8	5.9	0.4	0.4	NA	0.3	0.2	6.9	0.5
Hawaii	0.5	0.6	4.8	0.4	0.4	NA	0.4	0.2	4.5	0.6
Idaho	1.5	1.1	1.0	1.1	0.7	NA	0.7	0.4	7.1	0.9
Illinois	0.5	0.5	0.4	0.4	0.3	NA	0.3	0.2	0.4	0.4
Indiana	0.3	1.1	3.3	0.3	0.3	NA	0.2	0.1	3.0	0.3
Iowa	1.1	0.9	3.6	0.9	0.6	NA	0.6	0.3	1.8	0.6
Kansas	0.4	0.4	0.4	0.4	0.3	NA	0.3	0.2	2.6	0.5
Kentucky	0.8	0.8	0.9	0.7	0.4	NA	0.5	0.2	0.5	0.5
Louisiana	0.3	0.3	0.5	0.3	0.3	NA	0.3	0.2	2.9	0.5
Maine	0.8	0.8	1.1	0.5	0.4	NA	0.4	0.2	5.7	0.7
Maryland	0.2	0.1	0.1	0.3	0.1	NA	0.1	0.1	0.2	0.1
Massachusetts	1.7	2.4	4.2	1.8	0.9	NA	1.6	0.7	7.1	0.9
Michigan	0.4	1.6	6.4	0.5	0.3	NA	0.4	0.2	0.5	0.5
Minnesota	1.0	1.6	4.4	0.7	0.4	NA	1.0	0.4	6.2	0.7
Mississippi	0.3	0.2	0.4	0.4	0.4	NA	0.3	0.2	5.6	0.5
Missouri	0.8	0.3	0.5	1.0	0.8	NA	0.7	0.3	7.0	0.7

State	Average monthly # of NEMT ride days used to access each service type:									
	Behavioral health services	SUD treatment services	Medication-assisted treatment for OUD	Preventive services	Lab and imaging services	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
Montana	2.1	0.6	2.7	1.8	0.8	NA	1.9	0.5	1.9	1.2
Nebraska	1.1	0.3	0.4	0.7	0.3	NA	0.3	0.2	0.6	0.3
Nevada	0.6	0.4	1.1	0.7	0.4	NA	0.4	0.2	6.0	0.6
New Hampshire	0.7	1.3	1.9	0.8	0.5	NA	0.5	0.2	2.2	0.6
New Jersey	2.4	2.2	3.3	0.8	0.8	NA	0.5	0.3	7.8	0.6
New Mexico	0.5	2.0	5.7	0.6	0.5	NA	0.3	0.2	6.2	0.5
New York	0.9	1.9	0.8	0.9	0.5	NA	0.6	0.3	1.7	0.7
North Carolina	1.2	1.2	5.4	0.6	0.4	NA	0.5	0.2	5.8	0.5
North Dakota	0.4	0.3	0.5	0.5	0.3	NA	0.3	0.2	6.0	0.4
Ohio	0.3	0.3	1.1	0.4	0.3	NA	0.4	0.2	4.7	0.4
Oklahoma	2.3	0.4	3.1	2.0	1.1	NA	1.1	0.3	7.2	1.1
Oregon	0.9	3.2	6.5	0.8	0.6	NA	0.6	0.3	7.0	0.7
Pennsylvania	0.5	0.1	0.3	3.3	0.7	NA	0.5	0.1	1.5	0.4
Puerto Rico	0.1	0.1	0.2	0.2	0.1	NA	0.2	0.1	3.8	0.3
Rhode Island	1.3	0.9	1.3	0.6	0.4	NA	0.6	0.2	2.5	0.5
South Carolina	1.1	0.5	0.6	0.5	0.3	NA	0.3	0.2	1.6	0.5
South Dakota	0.4	0.2	0.3	0.5	0.3	NA	0.4	0.2	2.0	0.5
Tennessee	0.7	0.4	0.5	0.5	0.3	NA	0.3	0.2	0.5	0.4
Texas	0.7	1.8	7.9	0.6	0.3	NA	0.5	0.2	6.5	0.6
Utah	0.8	0.5	0.3	0.7	0.1	NA	0.1	0.0	0.0	0.0
Vermont	0.7	1.0	1.5	0.8	0.4	NA	0.4	0.2	0.4	0.5
Virgin Islands	0.3	0.5	0.0	0.5	0.5	NA	0.6	0.2	5.5	1.0
Virginia	0.9	1.2	1.8	0.5	0.4	NA	0.3	0.2	2.5	0.4
Washington	0.7	0.3	1.7	1.3	0.7	NA	0.6	0.3	3.6	0.6
West Virginia	0.7	0.9	1.1	0.6	0.4	NA	0.3	0.2	3.0	0.5
Wisconsin	2.1	4.0	8.2	2.1	1.7	NA	2.2	1.3	9.5	1.7
Wyoming	1.2	0.8	4.1	1.6	0.7	NA	0.9	0.3	4.4	0.4

Source: Mathematica’s analysis of the TAF 2019 Release 1, Run ID 4991 (Demographics and Eligibility file), 4943 – 4954 (Inpatient files), 4979 – 4990 (Pharmacy files), and 4967 – 4978 (Other Services files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users who accessed each service type includes beneficiaries with at least one ride day during the year that was used to access the service type. Ride days are a count of the unique number of days on which a beneficiary used NEMT to access the service type. The service types presented in this table do not include all Medicaid-covered services, and furthermore,

some service categories overlap with one another (for example, Medication-assisted treatment for OUD is a subset of SUD treatment services). NEMT may be used to access multiple types of services on a single day. To identify behavioral health services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify substance use disorder treatment services and medication-assisted treatment for OUD, CMS used National Drug Codes, diagnosis codes, and select procedure codes on Medicaid claims and encounter records. To identify preventive services and lab and imaging services, CMS used procedure codes on Medicaid claims and encounter records. To identify care for diabetes, heart disease, and cancer treatment services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify dialysis services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and type of bill codes on Medicaid claims and encounter records. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix C.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

NA = service type was not available in 2019.

**Table B2.2c. Percentage of total NEMT ride days used to access select physical health, behavioral health, and substance use disorder (SUD) treatment services, 2019**

State	Total number of NEMT ride days	% of total NEMT ride days used to access:									
		Behavioral health services	SUD treatment services	Medication-assisted treatment for OUD	Preventive services	Lab and imaging services	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
<b>United States<sup>a</sup></b>	<b>81,320,465</b>	<b>15.0</b>	<b>9.6</b>	<b>4.9</b>	<b>25.0</b>	<b>13.3</b>	<b>NA</b>	<b>4.8</b>	<b>0.9</b>	<b>6.7</b>	<b>1.5</b>
Alabama	57,482	15.7	3.7	0.0	8.6	35.3	NA	19.0	5.8	27.3	3.0
Alaska	235,169	7.3	5.2	0.7	41.8	28.6	NA	2.9	1.0	5.7	3.8
Arizona	5,289,466	21.5	14.7	1.6	16.1	9.9	NA	2.6	0.4	4.5	0.7
Arkansas	670,445	17.6	1.1	0.0	54.3	11.5	NA	3.2	0.8	8.9	0.9
California	3,617,737	7.3	9.0	6.8	34.0	13.1	NA	5.2	0.9	28.7	1.6
Colorado	2,294,408	13.8	6.6	2.7	29.8	21.2	NA	5.9	0.9	3.8	1.5
Connecticut	715,977	21.9	32.1	27.5	29.2	17.4	NA	5.0	0.8	13.0	1.9
Delaware	203,718	14.5	48.3	45.1	36.3	28.2	NA	2.4	0.4	1.2	0.8
District of Columbia	321,183	25.5	4.3	3.1	24.1	12.2	NA	3.4	0.5	6.5	1.4
Florida	3,989,229	10.6	3.9	2.9	13.4	8.2	NA	2.5	0.5	5.8	1.0
Georgia	1,526,360	22.1	3.9	1.8	19.6	14.0	NA	3.9	0.9	20.0	1.5
Hawaii	203,272	8.8	5.3	2.6	25.0	18.6	NA	4.6	1.2	17.5	3.3
Idaho	598,928	16.9	2.1	0.2	21.9	9.6	NA	2.7	0.3	4.3	0.7
Illinois	1,963,017	12.9	4.4	0.2	15.0	9.6	NA	3.1	0.8	0.7	1.5
Indiana	471,024	10.6	15.7	13.2	26.3	21.1	NA	4.1	0.9	14.6	1.3
Iowa	981,475	19.6	3.6	2.0	28.5	13.6	NA	3.5	0.6	1.5	1.1
Kansas	123,142	18.4	3.0	0.2	34.2	15.9	NA	3.9	0.8	5.1	2.0
Kentucky	1,115,225	19.6	8.5	2.4	31.5	16.6	NA	5.5	1.1	0.5	1.3
Louisiana	592,481	8.0	3.1	0.9	21.9	13.4	NA	3.3	0.6	3.5	1.8
Maine	563,145	18.6	6.2	3.6	17.4	10.0	NA	2.0	0.3	2.1	1.2
Maryland	65,022	10.9	1.1	0.1	11.0	9.2	NA	4.4	2.1	0.6	1.2
Massachusetts	6,683,919	17.3	9.1	8.0	30.1	12.6	NA	7.9	1.4	3.4	1.5
Michigan	1,453,190	14.2	20.4	17.9	33.2	15.6	NA	4.3	0.9	0.5	1.8
Minnesota	2,690,470	23.1	11.9	8.4	31.4	14.2	NA	8.3	1.0	4.8	1.5
Mississippi	440,599	8.2	1.6	0.2	32.6	29.3	NA	6.9	1.6	33.3	3.3
Missouri	1,242,638	20.7	1.8	0.3	46.8	33.7	NA	8.4	1.2	16.7	2.6
Montana	232,265	16.0	1.4	0.5	17.3	8.4	NA	6.0	0.5	0.5	1.0

State	Total number of NEMT ride days	% of total NEMT ride days used to access:									
		Behavioral health services	SUD treatment services	Medication-assisted treatment for OUD	Preventive services	Lab and imaging services	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
Nebraska	171,618	32.4	1.1	0.1	36.4	16.5	NA	4.1	0.5	1.3	1.0
Nevada	532,466	15.0	5.3	0.7	22.8	12.6	NA	3.2	0.6	7.7	1.2
New Hampshire	103,733	7.7	13.6	9.4	13.6	8.8	NA	1.4	0.3	0.4	0.7
New Jersey	4,013,105	26.7	15.2	6.3	18.4	15.9	NA	3.2	0.7	8.9	1.1
New Mexico	603,189	12.6	33.2	28.4	25.6	19.1	NA	3.1	0.5	10.0	1.2
New York	13,455,939	11.7	10.8	0.6	25.9	9.7	NA	5.2	1.4	2.5	2.1
North Carolina	1,197,915	23.7	7.8	5.2	25.7	16.9	NA	7.5	1.1	20.3	2.0
North Dakota	33,153	16.7	4.6	0.2	33.1	17.8	NA	5.8	1.0	17.2	2.1
Ohio	998,034	18.2	8.4	3.1	30.3	26.4	NA	13.3	3.6	20.7	3.1
Oklahoma	1,086,526	31.9	1.2	0.4	56.5	26.2	NA	9.4	1.1	12.5	2.3
Oregon	2,265,353	14.3	32.3	21.2	25.6	16.3	NA	3.8	0.7	4.0	1.3
Pennsylvania	949,006	11.1	1.8	0.1	27.0	12.4	NA	3.0	0.5	0.7	0.9
Puerto Rico	139,823	1.9	0.2	0.0	13.1	4.1	NA	4.8	1.1	35.7	2.6
Rhode Island	412,141	13.9	4.9	2.4	9.6	4.4	NA	1.7	0.2	0.9	0.4
South Carolina	1,030,785	18.1	1.6	0.2	22.0	8.3	NA	2.4	0.3	1.8	1.1
South Dakota	34,668	10.4	1.1	0.0	28.8	11.8	NA	7.4	1.4	8.3	1.8
Tennessee	806,716	19.8	3.2	0.4	28.9	16.2	NA	4.5	0.9	1.4	1.4
Texas	5,501,087	6.4	2.7	2.3	13.9	5.3	NA	3.0	0.5	9.4	0.7
Utah	289	71.6	19.0	5.2	69.9	3.8	NA	0.3	0.0	0.0	0.0
Vermont	265,861	12.7	10.1	6.2	20.6	7.0	NA	2.2	0.4	0.1	0.9
Virgin Islands	3,730	0.4	0.2	0.0	14.3	16.0	NA	4.8	1.0	22.3	10.0
Virginia	2,129,923	8.5	5.5	4.5	11.2	7.5	NA	1.4	0.2	2.0	0.5
Washington	1,737,498	8.4	1.4	0.6	23.3	13.8	NA	3.7	0.6	2.2	1.0
West Virginia	589,724	15.0	11.2	8.0	25.8	17.8	NA	3.6	1.2	3.0	1.6
Wisconsin	6,263,445	14.1	10.7	8.9	28.9	19.4	NA	6.2	1.3	4.4	1.6
Wyoming	16,451	23.8	4.1	0.9	39.9	36.3	NA	10.9	1.9	5.3	1.0

Source: Mathematica’s analysis of the TAF 2019 Release 1, Run ID 4991 (Demographics and Eligibility file), 4943 – 4954 (Inpatient files), 4979 – 4990 (Pharmacy files), and 4967 – 4978 (Other Services files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. The service types presented in this table do not include all Medicaid-covered services, and furthermore, some service categories overlap with one another (for example, Medication-assisted treatment for OUD is a subset of substance use disorder treatment services). NEMT may be used to access multiple types of services on a single day. As a result, percentages of ride days use to access each service are not expected to sum to 100. To identify behavioral

health services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify substance use disorder treatment services and medication-assisted treatment for OUD, CMS used National Drug Codes, diagnosis codes, and select procedure codes on Medicaid claims and encounter records. To identify preventive services and lab and imaging services, CMS used procedure codes on Medicaid claims and encounter records. To identify care for diabetes, heart disease, and cancer treatment services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify dialysis services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and type of bill codes on Medicaid claims and encounter records. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix C.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

NA = service type was not available in 2019.

**Table B2.3a. Percentage of beneficiaries who used NEMT to access select physical health, behavioral health, and substance use disorder (SUD) treatment services, 2020**

State	Number of beneficiaries	% beneficiaries who used NEMT to access:									
		Behavioral health services	SUD treatment services	Medication-assisted treatment for OUD	Preventive services	Lab and imaging services	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
<b>United States<sup>a</sup></b>	<b>77,173,473</b>	<b>1.2</b>	<b>0.5</b>	<b>0.1</b>	<b>2.2</b>	<b>2.0</b>	<b>0.4</b>	<b>0.6</b>	<b>0.3</b>	<b>0.1</b>	<b>0.2</b>
Alabama	920,952	0.6	0.2	0.0	0.2	0.9	0.2	0.4	0.2	0.0	0.1
Alaska	251,991	1.3	1.5	0.1	5.0	5.8	1.6	0.5	0.2	0.1	0.4
Arizona	2,018,541	3.5	2.1	0.3	5.2	4.3	0.8	1.1	0.3	0.2	0.2
Arkansas	946,848	1.0	0.3	0.0	2.1	1.9	0.4	0.5	0.3	0.1	0.1
California	12,477,957	0.3	0.1	0.0	0.8	0.7	0.1	0.3	0.1	0.2	0.1
Colorado	1,454,092	1.0	0.6	0.1	1.9	1.8	0.2	0.4	0.1	0.1	0.1
Connecticut	983,708	1.3	0.8	0.3	1.8	1.7	0.3	0.5	0.2	0.1	0.2
Delaware	250,157	0.6	0.6	0.5	1.7	1.2	0.1	0.3	0.1	0.1	0.1
District of Columbia	264,969	0.4	0.1	0.0	0.6	0.5	0.2	0.2	0.1	0.0	0.0
Florida	4,085,045	0.8	0.2	0.1	1.8	1.6	0.3	0.5	0.2	0.1	0.2
Georgia	2,070,970	1.1	0.3	0.0	2.3	2.2	0.3	0.7	0.3	0.2	0.2
Hawaii	391,119	0.5	0.3	0.0	1.4	1.3	0.2	0.4	0.2	0.2	0.2
Idaho	382,453	1.2	0.3	0.0	2.2	1.6	0.2	0.4	0.1	0.1	0.1
Illinois	3,196,795	1.3	0.5	0.0	1.6	1.8	0.3	0.6	0.3	0.1	0.2
Indiana	1,693,684	0.9	0.5	0.1	1.8	2.0	0.3	0.4	0.2	0.1	0.1
Iowa	728,946	1.5	0.4	0.1	2.9	2.3	0.3	0.6	0.2	0.1	0.2
Kansas	402,383	0.8	0.2	0.0	1.8	1.3	0.1	0.3	0.1	0.1	0.1
Kentucky	1,593,518	1.2	0.6	0.1	2.0	2.1	0.3	0.6	0.3	0.1	0.2
Louisiana	1,694,051	0.6	0.3	0.1	1.2	1.0	0.2	0.3	0.1	0.0	0.1
Maine	321,192	3.8	1.4	0.5	5.3	4.6	0.6	1.2	0.5	0.1	0.4
Maryland	1,400,992	0.1	0.0	0.0	0.1	0.2	0.1	0.1	0.1	0.0	0.0
Massachusetts	1,702,856	2.6	1.1	0.6	4.3	3.6	0.8	1.4	0.6	0.2	0.4
Michigan	2,852,571	1.2	0.5	0.1	2.0	1.8	0.3	0.4	0.2	0.0	0.1
Minnesota	1,254,820	3.4	1.3	0.3	6.4	5.0	1.1	1.4	0.4	0.2	0.4
Mississippi	644,957	1.3	0.3	0.0	3.7	3.6	0.6	1.1	0.4	0.3	0.3
Missouri	1,075,412	2.0	0.5	0.0	3.4	3.6	0.6	1.0	0.4	0.3	0.3
Montana	275,593	0.5	0.2	0.0	0.7	0.7	0.1	0.2	0.1	0.0	0.1

State	Number of beneficiaries	% beneficiaries who used NEMT to access:									
		Behavioral health services	SUD treatment services	Medication-assisted treatment for OUD	Preventive services	Lab and imaging services	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
Nebraska	305,099	1.2	0.3	0.0	2.0	2.0	0.3	0.6	0.2	0.1	0.1
Nevada	787,208	1.2	0.6	0.0	1.6	1.6	0.2	0.4	0.1	0.1	0.1
New Hampshire	220,864	0.4	0.4	0.3	0.6	0.7	0.1	0.1	0.1	0.0	0.1
New Jersey	1,809,564	1.8	1.2	0.4	3.6	3.1	0.8	1.1	0.5	0.2	0.3
New Mexico	840,160	1.2	1.0	0.3	2.3	2.3	0.5	0.6	0.2	0.1	0.1
New York	6,893,375	1.8	0.8	0.1	4.0	2.8	0.4	1.3	0.6	0.2	0.5
North Carolina	1,915,957	0.8	0.3	0.1	1.9	2.1	0.3	0.7	0.3	0.2	0.2
North Dakota	115,977	1.1	0.5	0.0	1.4	1.5	0.3	0.4	0.2	0.1	0.1
Ohio	2,947,313	1.9	0.9	0.1	2.0	2.7	0.7	1.0	0.5	0.1	0.3
Oklahoma	877,670	1.2	0.3	0.0	2.4	2.2	0.3	0.8	0.4	0.2	0.2
Oregon	1,106,204	2.2	1.6	0.5	4.4	4.0	0.6	1.0	0.4	0.1	0.3
Pennsylvania	3,120,313	0.6	0.4	0.0	0.2	0.8	0.2	0.2	0.1	0.0	0.1
Puerto Rico	1,408,333	0.2	0.0	DS	0.9	0.5	0.0	0.4	0.1	0.1	0.1
Rhode Island	296,062	1.6	0.9	0.3	2.2	1.6	0.3	0.5	0.2	0.1	0.2
South Carolina	1,119,096	1.0	0.2	0.0	2.7	1.8	0.1	0.5	0.1	0.1	0.2
South Dakota	121,841	0.5	0.3	DS	1.2	1.2	0.2	0.5	0.2	0.1	0.1
Tennessee	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Texas	4,614,289	0.7	0.1	0.0	1.7	1.3	0.2	0.5	0.2	0.1	0.1
Utah	406,189	0.0	0.0	0.0	0.0	DS	DS	DS	DS	DS	DS
Vermont	177,089	1.8	1.0	0.4	2.7	2.1	0.1	0.7	0.3	0.0	0.2
Virgin Islands	21,830	DS	DS	DS	0.4	0.4	0.1	0.2	0.1	0.1	0.2
Virginia	1,613,518	0.9	0.6	0.3	2.0	1.8	0.1	0.5	0.1	0.1	0.2
Washington	1,989,630	0.9	0.4	0.0	1.3	1.5	0.3	0.4	0.2	0.0	0.1
West Virginia	535,593	2.0	1.5	0.8	4.2	4.4	0.5	1.0	0.6	0.1	0.4
Wisconsin	1,281,394	2.3	1.0	0.4	4.6	4.2	0.7	1.0	0.4	0.2	0.3
Wyoming	69,637	0.4	0.1	DS	0.4	1.1	0.3	0.3	0.1	0.0	0.1

Source: Mathematica’s analysis of the 2020 preliminary TAF, Run ID 5596 (Demographics and Eligibility file), 5524 – 5535 (Inpatient files), 5578 –5589 (Pharmacy files), and 5560 – 5571 (Other Services files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. The service types presented in this table do not include all Medicaid-covered services, and furthermore, some service categories overlap with one another (for example, Medication-assisted treatment for OUD is a subset of substance use disorder treatment services). NEMT may be used to access multiple types of services on a single day. To identify behavioral health services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify substance use disorder treatment services and medication-assisted treatment for OUD,



CMS used National Drug Codes, diagnosis codes, and select procedure codes on Medicaid claims and encounter records. To identify preventive services and lab and imaging services, CMS used procedure codes on Medicaid claims and encounter records. To identify COVID-19 testing and treatment services CMS used procedure codes and select diagnosis codes on Medicaid claims and encounter records. To identify care for diabetes, heart disease, and cancer treatment services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify dialysis services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and type of bill codes on Medicaid claims and encounter records. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix C.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

DQ = Not reported because of a severe data quality issue. Tennessee had such a severe data quality issue in 2020 that the state was not included in the table. For additional information on data quality issues, please see Appendix C.

**Table B2.3b. Average monthly number of NEMT ride days used to access select physical health, behavioral health, and substance use disorder (SUD) treatment services among beneficiaries who used NEMT to access each service type, 2020**

State	Average monthly # of NEMT ride days used to access each service type:									
	Behavioral health services	SUD treatment services	Medication-assisted treatment for OUD	Preventive services	Lab and imaging services	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
<b>United States <sup>a</sup></b>	<b>0.6</b>	<b>1.2</b>	<b>2.8</b>	<b>0.6</b>	<b>0.5</b>	<b>0.2</b>	<b>0.5</b>	<b>0.2</b>	<b>4.6</b>	<b>0.6</b>
Alabama	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1	2.7	0.2
Alaska	0.2	0.2	0.3	0.3	0.3	0.2	0.3	0.2	5.8	0.7
Arizona	0.8	1.3	1.1	0.5	0.4	0.2	0.4	0.2	5.8	0.5
Arkansas	0.6	0.2	0.3	1.0	0.3	0.2	0.3	0.2	5.5	0.4
California	0.3	0.8	2.4	0.8	0.4	0.2	0.4	0.2	4.5	0.5
Colorado	1.3	1.4	3.8	1.4	1.1	0.7	1.4	0.8	7.1	1.3
Connecticut	0.5	1.1	2.3	0.4	0.3	0.1	0.3	0.2	5.1	0.4
Delaware	0.8	2.7	3.5	0.7	0.6	0.2	0.3	0.1	0.6	0.4
District of Columbia	0.9	0.7	3.9	0.3	0.2	0.1	0.2	0.1	0.3	0.2
Florida	0.6	1.3	2.8	0.4	0.4	0.2	0.3	0.2	5.0	0.5
Georgia	0.8	0.7	5.3	0.4	0.4	0.2	0.3	0.2	7.2	0.5
Hawaii	0.3	0.5	3.8	0.4	0.4	0.1	0.3	0.2	4.5	0.5
Idaho	1.0	0.8	0.8	0.8	0.5	0.2	0.7	0.3	4.9	0.7
Illinois	0.3	0.3	0.3	0.3	0.2	0.1	0.2	0.1	0.3	0.3
Indiana	0.3	1.3	3.8	0.4	0.3	0.2	0.3	0.1	5.1	0.3
Iowa	0.6	0.7	3.4	0.5	0.3	0.1	0.3	0.2	1.2	0.5
Kansas	0.4	0.3	0.5	0.3	0.3	0.1	0.2	0.2	2.4	0.4
Kentucky	0.5	0.6	0.7	0.5	0.3	0.1	0.3	0.2	0.4	0.4
Louisiana	0.2	0.3	0.6	0.3	0.2	0.1	0.2	0.2	2.6	0.4
Maine	0.6	0.6	1.0	0.5	0.4	0.1	0.4	0.2	6.8	0.7
Maryland	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1
Massachusetts	0.9	1.9	3.4	1.0	0.6	0.3	0.8	0.4	6.5	0.6
Michigan	0.3	1.2	4.8	0.4	0.3	0.1	0.3	0.2	0.5	0.5
Minnesota	0.8	1.5	4.2	0.5	0.4	0.2	0.7	0.3	6.2	0.6
Mississippi	0.3	0.2	0.4	0.4	0.5	0.1	0.4	0.2	6.9	0.6
Missouri	0.7	0.2	0.4	0.9	0.6	0.5	0.6	0.2	6.9	0.6

State	Average monthly # of NEMT ride days used to access each service type:									
	Behavioral health services	SUD treatment services	Medication-assisted treatment for OUD	Preventive services	Lab and imaging services	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
Montana	2.2	0.5	2.1	2.3	1.1	0.9	1.9	0.6	1.7	1.3
Nebraska	0.7	0.2	0.5	0.5	0.3	0.1	0.2	0.1	2.6	0.3
Nevada	0.6	0.6	1.7	0.7	0.4	0.2	0.4	0.2	6.3	0.6
New Hampshire	0.4	1.3	1.7	0.6	0.4	0.1	0.3	0.1	1.7	0.4
New Jersey	1.0	1.6	2.5	0.6	0.8	0.2	0.4	0.2	7.2	0.5
New Mexico	0.3	1.3	3.9	0.4	0.4	0.1	0.3	0.2	6.1	0.5
New York	0.5	1.3	0.6	0.6	0.4	0.2	0.4	0.2	1.6	0.6
North Carolina	0.7	0.9	3.4	0.4	0.3	0.1	0.4	0.2	5.5	0.4
North Dakota	0.3	0.3	1.7	0.4	0.3	0.1	0.3	0.2	6.0	0.4
Ohio	0.2	0.3	1.0	0.3	0.2	0.1	0.3	0.2	4.4	0.3
Oklahoma	2.2	0.4	2.3	1.9	1.0	1.1	1.0	0.3	6.9	1.0
Oregon	0.5	2.1	4.3	0.6	0.6	0.2	0.6	0.4	6.6	0.7
Pennsylvania	0.2	0.1	0.1	1.1	0.2	0.1	0.2	0.1	1.4	0.2
Puerto Rico	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1	4.5	0.3
Rhode Island	1.0	1.0	1.3	0.6	0.4	0.3	0.5	0.2	3.4	0.7
South Carolina	0.6	0.3	0.6	0.4	0.3	0.1	0.3	0.1	1.6	0.5
South Dakota	0.2	0.2	0.4	0.4	0.2	0.1	0.3	0.2	1.9	0.3
Tennessee	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Texas	0.4	1.6	6.4	0.4	0.3	0.2	0.5	0.2	6.2	0.5
Utah	0.6	1.3	0.7	0.9	0.2	DS	0.1	0.1	DS	DS
Vermont	0.4	0.6	0.9	0.5	0.3	0.1	0.3	0.2	0.5	0.4
Virgin Islands	0.2	DS	DS	0.4	0.5	0.2	0.9	0.2	3.3	0.9
Virginia	0.5	1.1	1.7	0.4	0.4	0.2	0.3	0.2	2.4	0.4
Washington	0.7	0.3	1.5	1.0	0.5	0.3	0.6	0.2	3.4	0.6
West Virginia	0.6	0.8	1.0	0.6	0.4	0.2	0.3	0.2	4.0	0.6
Wisconsin	1.7	4.2	8.5	1.7	1.7	1.0	1.8	1.1	9.2	1.5
Wyoming	0.6	0.1	0.1	0.9	0.3	0.3	0.4	0.1	1.9	0.2

Source: Mathematica’s analysis of the 2020 preliminary TAF, Run ID 5596 (Demographics and Eligibility file), 5524 – 5535 (Inpatient files), 5578 –5589 (Pharmacy files), and 5560 – 5571 (Other Services files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users who accessed each service type includes beneficiaries with at least one ride day during the year that was used to access the service type. Ride days are a count of the unique number of days on which a beneficiary used NEMT. The service types presented in this table do not include all Medicaid-covered services, and furthermore, some service categories

overlap with one another (for example, Medication-assisted treatment for OUD is a subset of SUD treatment services). NEMT may be used to access multiple types of services on a single day. To identify behavioral health services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify substance use disorder treatment services and medication-assisted treatment for OUD, CMS used National Drug Codes, diagnosis codes, and select procedure codes on Medicaid claims and encounter records. To identify preventive services and lab and imaging services, CMS used procedure codes on Medicaid claims and encounter records. To identify COVID-19 testing and treatment services CMS used procedure codes and select diagnosis codes on Medicaid claims and encounter records. To identify care for diabetes, heart disease, and cancer treatment services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify dialysis services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and type of bill codes on Medicaid claims and encounter records. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix C.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

DQ = Not reported because of a severe data quality issue. Tennessee had such a severe data quality issue in 2020 that the state was not included in the table. For additional information on data quality issues, please see Appendix C.

**Table B2.3c. Percentage of total NEMT ride days used to access select physical health, behavioral health, and substance use disorder (SUD) treatment services, 2020**

State	Total number of NEMT ride days	% of total NEMT ride days used to access:									
		Behavioral health services	SUD treatment services	Medication-assisted treatment for OUD	Preventive services	Lab and imaging services	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
<b>United States <sup>a</sup></b>	<b>51,528,444</b>	<b>12.7</b>	<b>10.7</b>	<b>5.8</b>	<b>23.8</b>	<b>15.3</b>	<b>1.3</b>	<b>5.0</b>	<b>1.0</b>	<b>10.2</b>	<b>1.7</b>
Alabama	48,973	16.1	4.1	0.1	6.5	32.7	5.4	15.8	5.2	24.0	2.8
Alaska	132,609	5.9	7.1	0.9	33.5	37.0	7.2	3.5	0.9	11.5	5.0
Arizona	3,296,371	20.6	18.8	2.4	17.0	12.3	0.8	3.0	0.4	7.0	0.9
Arkansas	439,931	15.6	1.3	0.0	52.1	12.7	1.4	3.7	0.9	11.7	1.1
California	2,693,747	5.0	5.4	3.7	35.5	14.3	1.2	5.3	0.9	37.7	1.9
Colorado	1,585,909	13.5	8.6	4.7	27.3	20.6	1.7	5.6	0.8	5.4	1.5
Connecticut	369,922	17.9	28.3	24.4	22.5	16.6	1.4	5.1	0.8	18.5	1.9
Delaware	99,487	13.2	49.9	46.9	32.0	22.2	0.4	2.1	0.3	1.0	0.7
District of Columbia	41,000	28.0	6.9	5.1	13.2	7.3	1.4	1.7	0.7	0.5	0.6
Florida	2,552,060	9.1	4.9	3.6	14.2	10.7	1.0	2.9	0.7	10.7	1.3
Georgia	1,061,297	18.2	4.4	2.5	19.8	20.1	1.2	4.5	1.0	28.8	1.9
Hawaii	118,624	5.2	5.2	3.0	18.4	20.0	1.0	3.9	1.0	25.1	2.9
Idaho	383,114	14.3	2.6	0.3	19.3	9.7	0.6	3.2	0.3	4.4	0.9
Illinois	1,109,520	11.1	5.6	0.3	13.9	12.2	1.4	4.2	1.2	0.9	2.0
Indiana	530,157	9.3	20.4	16.8	24.1	24.2	1.9	3.8	0.9	22.7	1.5
Iowa	546,506	14.0	4.4	3.3	21.1	10.2	0.7	2.8	0.5	1.8	1.2
Kansas	93,252	15.2	2.5	0.3	29.5	16.1	0.9	3.9	0.8	5.9	2.4
Kentucky	629,506	15.6	9.2	3.0	30.4	18.9	1.3	5.5	1.2	0.7	1.7
Louisiana	323,965	7.6	5.0	2.9	19.1	13.4	1.3	3.5	0.7	5.3	1.9
Maine	486,588	15.9	5.9	3.7	18.3	12.9	0.7	3.2	0.6	5.3	2.1
Maryland	29,122	12.5	2.1	0.1	9.2	15.1	6.3	8.3	4.0	1.1	2.2
Massachusetts	2,771,753	17.3	15.5	14.1	30.6	14.6	1.5	7.9	1.5	7.1	1.9
Michigan	996,570	11.5	17.8	15.4	26.6	15.4	1.2	4.4	0.9	0.6	2.0
Minnesota	1,726,735	21.9	15.9	12.2	29.4	17.8	2.1	8.2	1.0	7.5	1.8
Mississippi	401,917	6.3	1.3	0.2	26.6	29.6	1.4	7.2	1.5	40.0	3.5
Missouri	969,787	17.6	1.7	0.2	37.6	29.0	4.3	7.8	0.9	21.5	2.3
Montana	257,376	14.4	1.2	0.5	18.7	8.9	1.3	4.8	0.5	0.3	0.9

State	Total number of NEMT ride days	% of total NEMT ride days used to access:									
		Behavioral health services	SUD treatment services	Medication-assisted treatment for OUD	Preventive services	Lab and imaging services	COVID-19 testing and treatment services	Care for chronic conditions: diabetes	Care for chronic conditions: heart disease	Recurring treatment services: dialysis	Recurring treatment services: cancer treatment
Nebraska	111,203	24.3	1.7	0.2	29.3	17.6	1.0	4.3	0.7	8.9	1.3
Nevada	450,074	15.5	7.2	1.6	21.1	12.0	0.8	2.9	0.7	9.3	1.2
New Hampshire	52,523	8.7	26.2	20.6	14.8	11.4	0.6	1.6	0.4	0.9	1.0
New Jersey	2,403,819	16.1	17.3	8.0	18.5	19.8	1.6	3.9	0.9	13.4	1.3
New Mexico	427,415	9.5	29.6	25.3	21.7	21.0	1.5	3.4	0.6	14.3	1.4
New York	8,438,112	8.5	10.2	0.6	23.5	9.5	0.7	4.8	1.3	3.6	2.5
North Carolina	834,914	15.6	6.7	4.6	21.1	16.9	1.0	7.5	1.1	26.8	2.1
North Dakota	26,486	13.8	7.4	2.2	29.2	19.3	1.3	6.6	1.2	20.2	2.5
Ohio	762,062	17.1	11.0	4.7	27.5	28.6	3.5	13.3	3.5	26.0	3.3
Oklahoma	890,324	30.0	1.1	0.3	52.4	24.1	3.9	9.0	1.1	14.7	2.4
Oregon	1,443,669	10.7	28.8	20.0	23.7	19.4	1.4	5.3	1.1	6.5	1.8
Pennsylvania	426,344	12.5	3.8	0.2	17.9	13.4	1.9	3.6	1.2	1.9	0.9
Puerto Rico	298,240	1.4	0.1	0.0	11.2	4.1	0.2	3.8	0.7	34.7	1.9
Rhode Island	400,211	13.6	7.6	3.7	10.9	5.8	0.7	1.8	0.3	2.0	0.8
South Carolina	711,862	11.6	1.2	0.2	18.4	8.8	0.2	2.5	0.3	2.8	1.4
South Dakota	25,899	6.9	2.4	0.0	23.9	13.2	1.6	8.0	1.7	9.6	1.7
Tennessee	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Texas	2,636,945	6.0	3.8	3.4	14.5	8.8	0.7	5.1	0.7	17.3	1.1
Utah	419	32.7	73.3	21.5	82.1	4.8	0.0	0.2	0.2	0.0	0.0
Vermont	125,545	11.3	10.0	6.3	20.2	8.8	0.2	2.9	0.7	0.3	1.4
Virgin Islands	2,830	0.4	0.0	0.0	13.1	20.4	1.9	14.7	1.4	32.2	13.3
Virginia	1,147,816	8.3	10.3	9.0	13.6	11.5	0.3	2.1	0.4	5.1	1.0
Washington	1,509,391	9.0	1.6	0.7	19.4	11.8	1.5	3.8	0.6	2.3	1.0
West Virginia	563,854	12.3	12.7	8.5	26.0	19.8	0.9	3.5	1.1	4.3	2.1
Wisconsin	4,481,983	13.4	14.2	12.6	26.7	23.5	2.2	6.0	1.3	5.8	1.6
Wyoming	11,168	17.3	1.2	0.0	24.6	24.8	5.4	7.6	1.3	4.0	0.8

Source: Mathematica’s analysis of the 2020 preliminary TAF, Run ID 5596 (Demographics and Eligibility file), 5524 – 5535 (Inpatient files), 5578 –5589 (Pharmacy files), and 5560 – 5571 (Other Services files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. The service types presented in this table do not include all Medicaid-covered services, and furthermore, some service categories overlap with one another (for example, Medication-assisted treatment for OUD is a subset of substance use disorder treatment services). NEMT may be used to access multiple types of services on a single day. As a result, percentages of ride days use to access each service are not expected to sum to 100. To identify behavioral

health services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify substance use disorder treatment services and medication-assisted treatment for OUD, CMS used National Drug Codes, diagnosis codes, and select procedure codes on Medicaid claims and encounter records. To identify preventive services and lab and imaging services, CMS used procedure codes on Medicaid claims and encounter records. To identify COVID-19 testing and treatment services CMS used procedure codes and select diagnosis codes on Medicaid claims and encounter records. To identify care for diabetes, heart disease, and cancer treatment services, CMS used diagnosis codes on Medicaid claims and encounter records. To identify dialysis services, CMS used procedure codes and select procedure code modifiers, revenue center codes, and type of bill codes on Medicaid claims and encounter records. CMS identified NEMT rides based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Alabama, Puerto Rico, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix C.

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

DQ = Not reported because of a severe data quality issue. Tennessee had such a severe data quality issue in 2020 that the state was not included in the table. For additional information on data quality issues, please see Appendix C.

**Table B3.1a. Rate and frequency of NEMT utilization and modes of NEMT used, by geographic area, 2018**

State	Number of beneficiaries	% beneficiaries NEMT users: #		% beneficiaries who used NEMT, by mode of transit:						
		who used NEMT (NEMT users)	ride days per month enrolled	Public transit	Van	Taxi	Private vehicle	Airplane	Ambulance	Other or unknown
<b>United States<sup>a</sup></b>	<b>74,831,540</b>	<b>5.0</b>	<b>1.8</b>	<b>0.1</b>	<b>2.3</b>	<b>2.0</b>	<b>0.3</b>	<b>0.0</b>	<b>1.2</b>	<b>0.8</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	25,124,082	4.9	1.9	0.2	2.4	2.5	0.1	0.0	1.1	0.6
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	13,689,194	4.8	2.1	0.1	2.3	1.6	0.2	0.0	1.3	0.9
United States, <sup>a</sup> medium metro areas <sup>b</sup>	14,930,760	4.2	1.8	0.1	1.9	1.5	0.2	0.0	1.0	0.8
United States, <sup>a</sup> small metro areas <sup>b</sup>	6,584,028	5.0	1.9	0.1	2.3	1.7	0.5	0.0	1.1	1.0
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	6,514,651	5.7	1.5	0.1	2.6	1.8	0.6	0.1	1.5	0.8
United States, <sup>a</sup> non-core areas <sup>b</sup>	4,571,702	6.7	1.4	0.1	2.8	1.9	1.2	0.4	1.6	0.9
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	1,172,678	8.4	1.3	0.1	3.6	2.6	1.6	1.5	1.3	0.8
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	31,245,389	5.4	1.7	0.2	2.5	2.4	0.2	0.1	1.1	0.8
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	19,480,656	4.9	1.7	0.1	2.3	1.8	0.4	0.0	1.3	0.8
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	14,464,670	4.4	1.9	0.1	1.9	1.5	0.4	0.0	1.2	0.8
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	9,193,249	4.3	2.4	0.1	1.9	1.3	0.4	0.0	1.3	0.9
Alabama	943,121	1.8	0.3	0.0	0.0	0.0	0.0	0.0	1.8	0.0
Alaska	235,173	13.3	0.7	0.0	0.7	9.4	0.0	10.4	1.8	0.3
Arizona	2,043,417	12.4	1.8	0.9	11.2	6.4	0.0	0.0	1.8	0.0
Arkansas	1,000,221	5.2	1.8	0.0	0.7	0.0	0.0	0.0	1.7	3.2
California	13,057,698	1.7	1.4	0.0	0.5	0.5	0.0	0.0	0.7	0.3
Colorado	1,486,585	3.8	3.2	0.1	1.6	1.4	0.4	0.0	0.6	0.6
Connecticut	961,337	5.8	1.3	0.0	2.0	3.9	0.0	0.0	1.2	0.1
Delaware	256,764	5.4	1.7	0.1	1.6	0.0	0.0	0.0	0.8	4.2
District of Columbia	269,396	8.1	1.6	0.6	2.0	5.6	0.1	0.0	0.7	0.6
Florida	4,262,235	1.2	1.7	0.0	0.1	0.3	0.0	0.0	0.3	0.6
Georgia	2,134,062	5.0	1.4	0.0	3.8	1.2	0.3	0.0	1.2	0.0
Hawaii	384,094	4.6	1.1	0.0	4.0	1.7	0.0	0.7	0.4	1.3
Idaho	316,076	5.4	3.3	0.1	2.7	3.3	1.1	0.0	0.6	0.0
Illinois	3,383,999	4.5	1.2	0.0	2.7	0.2	0.0	0.0	1.4	0.8
Indiana	1,604,987	5.8	0.7	0.0	1.0	0.8	0.0	0.0	2.4	3.1
Iowa	717,703	5.5	2.4	0.5	0.8	3.0	0.8	0.0	1.2	0.3
Kansas	428,545	3.8	0.7	0.0	0.3	1.0	1.2	0.0	0.2	1.5



State	Number of beneficiaries	% beneficiaries NEMT users: #		% beneficiaries who used NEMT, by mode of transit:						
		who used NEMT (NEMT users)	ride days per month enrolled	Public transit	Van	Taxi	Private vehicle	Airplane	Ambulance	Other or unknown
Kentucky	1,504,402	4.4	1.4	0.1	2.9	1.3	0.0	0.0	0.8	0.0
Louisiana	1,638,165	3.9	0.8	0.0	1.4	0.0	0.3	0.0	0.4	3.4
Maine	246,401	10.3	2.6	1.2	5.1	2.4	5.4	0.0	2.1	8.2
Maryland	1,394,401	1.0	0.4	0.0	0.0	0.0	0.0	0.0	0.8	0.2
Massachusetts	1,845,150	7.6	4.0	0.0	2.5	0.8	0.0	0.0	2.2	4.6
Michigan	2,857,271	5.0	0.9	0.2	1.5	1.8	0.4	0.0	1.3	1.1
Minnesota	1,299,440	11.0	1.6	0.2	6.2	4.1	3.6	0.0	1.4	4.6
Mississippi	696,690	7.7	1.0	0.0	1.6	4.6	1.3	0.0	1.8	0.9
Missouri	1,174,634	7.4	1.3	0.2	4.1	1.8	0.8	0.0	2.2	0.0
Montana	289,095	1.6	2.8	0.0	0.3	0.0	0.6	0.2	0.7	0.1
Nebraska	276,437	4.6	1.3	0.0	1.7	0.0	0.0	0.0	1.2	3.3
Nevada	788,296	4.1	1.3	1.1	1.1	1.4	0.4	0.0	0.9	0.2
New Hampshire	222,290	2.0	3.3	0.0	0.9	1.0	0.3	0.0	0.7	0.3
New Jersey	1,814,383	7.3	2.5	0.6	2.5	4.0	0.8	0.0	1.3	0.0
New Mexico	836,072	4.9	1.3	0.0	0.2	2.8	1.1	0.0	1.3	0.0
New York	6,892,006	8.6	1.9	0.1	6.4	6.5	0.0	0.0	1.2	0.2
North Carolina	2,057,216	4.2	1.2	0.0	2.5	0.2	0.0	0.0	1.7	0.1
North Dakota	118,436	2.8	0.8	0.0	1.1	0.3	0.4	0.0	1.2	0.0
Ohio	3,069,768	4.8	0.6	0.1	1.3	1.2	0.1	0.0	3.0	0.2
Oklahoma	836,884	5.2	2.3	0.1	1.7	2.3	0.9	0.0	1.6	0.0
Oregon	1,060,739	8.5	2.1	0.4	3.8	5.8	1.5	0.0	0.6	0.1
Pennsylvania	3,258,631	1.5	1.8	0.0	0.2	0.0	0.0	0.0	1.3	0.1
Puerto Rico	1,438,531	1.3	0.9	0.2	0.1	0.3	0.0	0.0	0.8	0.0
Rhode Island	344,020	6.3	3.1	1.7	0.4	0.7	0.0	0.0	1.2	3.6
South Carolina	1,172,848	5.4	1.3	0.1	4.8	0.0	0.0	0.0	0.3	0.4
South Dakota	128,540	2.9	0.9	0.0	2.7	0.0	0.0	0.0	0.3	0.0
Tennessee	1,673,580	4.4	1.0	1.6	1.8	0.1	0.0	0.0	1.5	0.1
Texas	4,907,155	4.3	2.3	0.0	0.0	2.3	0.3	0.0	0.8	1.1
Utah	385,303	DS	DS	DS	DS	DS	DS	DS	DS	DS
Vermont	184,228	6.0	2.2	2.5	0.0	0.5	3.2	0.0	1.7	0.0
Virgin Islands	19,145	1.0	1.0	0.0	0.2	0.7	0.0	0.0	0.0	0.0
Virginia	1,122,768	6.5	1.7	0.0	3.7	2.6	0.5	0.1	0.4	1.7
Washington	2,033,978	2.8	2.6	0.0	1.7	0.0	0.0	0.0	1.2	0.0
West Virginia	551,191	5.4	0.9	0.0	1.4	0.2	1.6	0.0	2.5	0.0

State	Number of beneficiaries	% beneficiaries NEMT users: #		% beneficiaries who used NEMT, by mode of transit:						
		who used NEMT (NEMT users)	ride days per month enrolled	Public transit	Van	Taxi	Private vehicle	Airplane	Ambulance	Other or unknown
Wisconsin	1,256,170	10.0	4.1	1.3	2.7	4.5	1.4	0.0	1.1	2.6
Wyoming	74,677	1.6	1.3	0.1	0.2	0.2	0.1	0.0	1.1	0.2

Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility file) and 4414-4425 (Other Services files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Geographic areas reflect beneficiaries' zip code or county of residence as indicated in the TAF DE file. CMS identified NEMT rides and modes of transit based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

- <sup>a</sup> Data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix C.
- <sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.
- <sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000- 24,999 people (USDA 2019).
- <sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B3.1b. Modes of NEMT used as a percentage of total ride days in 2018, by geographic area**

State	Total number of NEMT ride days	Modes of NEMT used, as a % of total ride days:						
		Public transit	Van	Taxi	Private Vehicle	Airplane	Ambulance	Other or unknown
<b>United States<sup>a</sup></b>	<b>74,158,614</b>	<b>3.8</b>	<b>42.9</b>	<b>29.5</b>	<b>6.5</b>	<b>0.2</b>	<b>3.4</b>	<b>28.4</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	26,187,617	5.6	45.3	39.4	2.7	0.0	3.5	21.0
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	15,343,139	2.3	37.9	22.5	7.7	0.0	4.0	39.8
United States, <sup>a</sup> medium metro areas <sup>b</sup>	12,530,606	2.8	41.1	25.9	5.1	0.1	2.9	35.0
United States, <sup>a</sup> small metro areas <sup>b</sup>	6,869,177	4.0	41.3	24.8	8.5	0.2	2.4	32.5
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	6,005,014	2.6	49.1	24.3	10.1	0.2	3.8	22.1
United States, <sup>a</sup> non-core areas <sup>b</sup>	4,888,688	1.4	46.7	20.5	15.3	1.8	3.2	24.1
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	1,440,270	1.6	50.3	19.7	16.3	5.4	1.8	17.9
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	31,220,700	4.8	44.6	35.8	3.5	0.2	3.8	22.5
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	17,721,118	3.2	45.7	27.5	6.9	0.2	3.6	27.7
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	13,662,286	3.2	40.9	25.3	9.9	0.2	3.0	31.6
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	10,719,678	2.3	36.3	19.4	9.1	0.0	2.5	44.2
Alabama	57,046	0.0	2.3	0.0	0.0	0.0	97.7	0.0
Alaska	233,336	0.0	7.8	58.0	0.0	44.3	2.5	9.6
Arizona	4,963,151	2.2	96.2	34.0	0.2	0.0	1.1	0.0
Arkansas	1,067,144	0.0	30.9	0.0	0.0	0.0	2.7	66.5
California	3,515,173	0.3	40.4	26.6	1.4	0.0	16.2	16.9
Colorado	2,037,629	3.5	27.7	27.9	4.5	0.0	0.6	36.8
Connecticut	787,883	0.0	23.6	71.2	0.0	0.0	4.0	3.8
Delaware	258,815	0.2	17.6	0.0	0.0	0.0	3.0	87.2
District of Columbia	402,179	18.0	13.5	64.1	0.7	0.0	0.8	3.2
Florida	987,523	0.3	13.4	11.8	0.4	0.0	1.9	73.2
Georgia	1,587,894	1.2	81.6	8.3	2.5	0.0	6.3	0.7
Hawaii	208,009	2.2	90.7	18.7	0.0	3.1	1.4	30.5
Idaho	624,533	0.5	22.0	59.3	18.7	0.0	0.4	0.0
Illinois	1,995,591	0.0	47.9	2.8	0.1	0.0	4.8	44.4
Indiana	719,595	0.1	20.0	7.3	0.2	0.0	11.4	61.6
Iowa	1,092,041	12.0	27.7	29.4	7.2	0.0	1.1	23.8
Kansas	122,978	1.5	7.7	24.3	30.4	0.0	1.0	35.1

State	Total number of NEMT ride days	Modes of NEMT used, as a % of total ride days:						
		Public transit	Van	Taxi	Private Vehicle	Airplane	Ambulance	Other or unknown
Kentucky	1,052,032	5.4	56.0	36.3	0.1	0.0	3.0	0.0
Louisiana	577,997	3.5	26.9	0.0	7.3	0.0	1.9	82.9
Maine	732,067	7.2	45.3	13.4	38.2	0.0	1.3	77.6
Maryland	63,592	0.0	0.0	0.0	0.0	0.0	30.9	69.0
Massachusetts	6,357,729	0.0	11.0	5.2	0.1	0.0	2.2	87.1
Michigan	1,473,935	3.8	41.0	27.6	10.4	0.0	4.2	16.4
Minnesota	2,553,600	3.3	40.3	19.3	17.8	0.0	1.1	59.7
Mississippi	597,418	0.1	23.2	54.6	16.6	0.0	5.7	6.2
Missouri	1,273,920	0.9	80.7	6.4	9.1	0.0	3.2	0.0
Montana	149,203	0.0	24.3	0.1	69.0	7.2	1.8	8.3
Nebraska	187,921	0.0	32.3	0.0	0.8	0.0	2.8	80.2
Nevada	461,443	13.5	7.1	59.3	16.7	0.0	2.0	2.5
New Hampshire	154,442	0.0	35.5	45.8	47.5	0.0	1.8	6.2
New Jersey	3,668,846	21.1	13.8	30.7	32.3	0.0	2.6	0.0
New Mexico	570,871	0.4	6.8	58.7	31.4	0.3	2.5	0.0
New York	12,723,371	2.2	65.5	68.2	0.0	0.0	1.7	4.9
North Carolina	1,138,810	0.0	87.3	4.9	0.0	0.0	7.0	0.9
North Dakota	27,414	0.2	59.8	16.8	16.9	0.0	6.5	0.0
Ohio	961,024	2.3	35.7	27.3	6.4	0.0	24.2	5.2
Oklahoma	1,073,404	0.3	74.3	16.3	6.9	0.0	2.0	0.3
Oregon	2,040,582	8.2	31.1	44.0	21.8	0.0	0.5	0.4
Pennsylvania	964,986	0.0	1.0	0.0	0.0	0.0	6.9	92.0
Puerto Rico	190,662	62.7	11.5	8.1	0.1	0.0	20.5	0.0
Rhode Island	569,675	20.2	2.7	1.2	0.0	0.0	1.5	74.7
South Carolina	932,151	0.4	90.4	0.0	0.0	0.0	1.3	7.9
South Dakota	34,219	0.0	98.3	0.0	0.0	0.0	1.6	0.1
Tennessee	798,625	41.4	45.2	0.3	0.0	0.0	12.0	1.7
Texas	5,267,533	1.0	0.1	26.8	5.1	0.0	3.4	63.8
Utah	39	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Vermont	270,956	47.7	0.0	4.0	48.1	0.0	1.9	0.0
Virgin Islands	2,026	0.0	43.4	56.3	0.0	0.0	0.3	0.0
Virginia	1,404,937	0.5	40.0	18.5	6.3	0.4	0.8	43.5
Washington	1,672,509	0.0	97.7	0.0	0.0	0.0	2.2	0.2
West Virginia	284,326	0.1	65.2	0.9	17.6	0.0	16.2	0.0

State	Total number of NEMT ride days	Modes of NEMT used, as a % of total ride days:						
		Public transit	Van	Taxi	Private Vehicle	Airplane	Ambulance	Other or unknown
Wisconsin	5,798,491	10.8	28.9	17.8	8.7	0.0	0.5	46.8
Wyoming	15,888	5.2	14.9	15.9	1.6	0.0	7.0	72.5

Source: Mathematica's analysis of the TAF 2018 Release 2, Run ID 4901 (Demographics and Eligibility file) and 4414-4425 (Other services files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Because beneficiaries may use more than one mode of transit on a single day, percentages of ride days by mode of transit are not expected to sum to 100. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides and modes of transit based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix C.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000- 24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B3.2a. Rate and frequency of NEMT utilization and modes of NEMT used, by geographic area, 2019**

State	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	% beneficiaries who used NEMT, by mode of transit:						
				Public transit	Van	Taxi	Private vehicle	Airplane	Ambulance	Other or unknown
<b>United States<sup>a</sup></b>	<b>77,883,646</b>	<b>5.0</b>	<b>1.9</b>	<b>0.1</b>	<b>2.2</b>	<b>2.0</b>	<b>0.3</b>	<b>0.0</b>	<b>1.2</b>	<b>0.8</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	26,261,451	5.0	2.0	0.2	2.4	2.6	0.1	0.0	1.1	0.7
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	14,635,217	4.9	2.2	0.0	2.2	1.8	0.2	0.0	1.3	1.0
United States, <sup>a</sup> medium metro areas <sup>b</sup>	15,798,872	4.3	1.8	0.1	1.8	1.6	0.2	0.0	1.0	0.8
United States, <sup>a</sup> small metro areas <sup>b</sup>	6,738,385	5.1	1.9	0.1	2.3	1.8	0.4	0.0	1.1	1.0
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	6,522,629	5.8	1.5	0.1	2.5	1.8	0.6	0.1	1.5	0.8
United States, <sup>a</sup> non-core areas <sup>b</sup>	4,655,152	6.8	1.5	0.1	2.8	2.0	1.2	0.4	1.5	1.0
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	1,176,442	8.6	1.4	0.1	3.6	2.6	1.6	1.6	1.4	0.9
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	32,409,315	5.4	1.7	0.2	2.5	2.5	0.2	0.0	1.1	0.8
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	20,454,201	5.0	1.7	0.1	2.3	1.9	0.4	0.0	1.2	0.8
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	15,178,933	4.5	2.0	0.1	1.9	1.6	0.4	0.0	1.2	0.8
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	9,505,502	4.4	2.5	0.1	1.9	1.4	0.4	0.0	1.3	0.9
Alabama	934,959	1.7	0.3	0.0	0.0	0.0	0.0	0.0	1.7	0.0
Alaska	245,199	13.8	0.6	0.0	0.6	9.1	0.0	10.0	3.0	0.3
Arizona	2,012,302	12.2	1.9	0.6	11.1	6.4	0.0	0.0	2.0	0.0
Arkansas	963,149	4.9	1.3	0.0	0.8	0.0	0.0	0.0	1.8	2.7
California	12,745,324	1.8	1.4	0.0	0.5	0.7	0.1	0.0	0.6	0.3
Colorado	1,437,138	4.2	3.4	0.1	2.0	1.3	0.4	0.0	0.5	0.7
Connecticut	974,096	5.5	1.2	0.0	2.0	3.6	0.0	0.0	1.3	0.1
Delaware	255,830	4.6	1.5	0.1	1.4	0.0	0.0	0.0	0.7	3.5
District of Columbia	263,203	8.4	1.3	0.4	2.1	5.8	0.1	0.0	0.7	0.6
Florida	4,094,374	4.8	1.8	0.0	1.1	2.7	0.1	0.0	0.8	0.9
Georgia	2,083,484	5.0	1.3	0.0	3.7	1.3	0.3	0.0	1.3	0.0
Hawaii	371,609	4.7	1.0	0.0	4.0	1.8	0.0	0.8	0.5	1.2
Idaho	301,648	5.2	3.4	0.1	0.4	3.7	1.1	0.0	0.5	0.0
Illinois	3,204,702	4.7	1.2	0.0	2.7	0.3	0.0	0.0	1.5	0.8
Indiana	1,580,649	4.4	0.6	0.0	0.6	0.6	0.0	0.0	1.6	2.4
Iowa	731,086	5.6	2.1	0.4	0.8	3.1	0.9	0.0	1.1	0.4

State	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	% beneficiaries who used NEMT, by mode of transit:						
				Public transit	Van	Taxi	Private vehicle	Airplane	Ambulance	Other or unknown
Kansas	416,318	3.9	0.7	0.1	0.3	1.2	1.1	0.0	0.3	1.4
Kentucky	1,477,255	4.5	1.5	0.2	2.9	1.5	0.0	0.0	0.8	0.0
Louisiana	1,687,920	3.9	0.8	0.0	1.2	0.0	0.2	0.0	0.5	3.3
Maine	275,770	9.4	2.0	1.1	4.6	2.5	4.8	0.0	2.1	7.4
Maryland	1,378,394	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.8	0.2
Massachusetts	1,754,117	8.2	4.0	0.0	2.5	1.3	0.0	0.0	2.3	4.9
Michigan	2,855,965	4.7	1.0	0.2	1.5	1.6	0.4	0.0	1.3	0.8
Minnesota	1,282,705	11.4	1.7	0.2	6.4	4.3	2.0	0.0	1.3	5.1
Mississippi	671,092	7.0	0.8	0.0	1.4	4.2	0.8	0.0	1.7	0.8
Missouri	1,121,039	7.7	1.3	0.2	4.2	2.3	0.9	0.0	2.3	0.0
Montana	292,707	1.8	3.8	0.0	0.3	0.0	0.6	0.2	0.6	0.4
Nebraska	274,482	4.7	1.2	0.1	2.0	0.8	0.0	0.0	1.2	3.1
Nevada	774,732	4.0	1.6	1.2	1.1	1.3	0.5	0.0	0.6	0.2
New Hampshire	220,733	1.6	2.9	0.0	0.7	0.9	0.2	0.0	0.5	0.3
New Jersey	1,799,271	7.7	2.6	0.5	2.6	4.3	0.9	0.0	1.4	0.0
New Mexico	820,733	5.1	1.3	0.0	0.3	3.0	0.8	0.1	1.6	0.0
New York	6,896,251	8.2	2.1	0.1	6.4	6.2	0.0	0.0	1.1	0.2
North Carolina	1,980,625	4.3	1.3	0.0	2.6	0.2	0.0	0.0	1.7	0.2
North Dakota	115,900	3.0	0.9	0.0	1.1	0.4	0.4	0.0	1.2	0.0
Ohio	2,960,424	5.0	0.6	0.1	1.2	1.2	0.1	0.0	3.0	0.4
Oklahoma	829,015	5.4	2.2	0.1	1.7	2.4	0.9	0.0	1.7	0.0
Oregon	1,066,877	8.8	2.2	0.0	3.4	5.8	1.6	0.0	0.5	0.0
Pennsylvania	3,150,590	1.6	1.7	0.0	0.2	0.0	0.0	0.0	1.4	0.1
Puerto Rico	1,424,443	1.3	0.7	0.3	0.1	0.5	0.0	0.0	0.5	0.0
Rhode Island	260,563	5.9	2.6	0.8	0.4	2.8	0.0	0.0	1.6	1.0
South Carolina	1,156,466	5.7	1.4	0.1	4.8	0.0	0.0	0.0	0.3	0.7
South Dakota	125,657	3.2	0.8	0.0	2.9	0.0	0.0	0.0	0.5	0.0
Tennessee	1,574,316	4.7	1.0	1.7	1.9	0.1	0.0	0.0	1.7	0.1
Texas	4,746,947	4.4	2.4	0.0	0.0	2.4	0.3	0.0	0.8	1.1
Utah	395,605	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vermont	177,906	6.2	2.1	3.5	0.0	0.3	3.0	0.2	1.7	0.0
Virgin Islands	20,217	1.2	1.4	0.0	0.2	0.8	0.0	0.0	0.2	0.0
Virginia	1,522,989	6.5	1.9	0.0	3.8	2.8	0.4	0.0	0.4	1.9

State	% beneficiaries NEMT users: # who used NEMT (NEMT users) ride days per month enrolled			% beneficiaries who used NEMT, by mode of transit:						
	Number of beneficiaries	NEMT (NEMT users)	ride days per month enrolled	Public transit	Van	Taxi	Private vehicle	Airplane	Ambulance	Other or unknown
Washington	1,987,376	3.0	2.6	0.0	1.8	0.0	0.0	0.0	1.3	0.0
West Virginia	550,203	7.8	1.3	0.1	2.3	0.3	3.4	0.0	2.8	0.0
Wisconsin	1,242,617	10.1	4.5	1.2	2.7	4.5	1.4	0.0	1.1	2.7
Wyoming	71,818	1.7	1.3	0.1	0.2	0.2	0.0	0.0	1.2	0.2

Source: Mathematica's analysis of the TAF 2019 Release 1, Run ID 4991 (Demographics and Eligibility file) and 4967 – 4978 (Other Services files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides and modes of transit based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix C.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000- 24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.



**Table B3.2b. Modes of NEMT used as a percentage of total ride days in 2019, by geographic area**

State	Total number of NEMT ride days	Modes of NEMT used, as a % of total ride days:						
		Public transit	Van	Taxi	Private vehicle	Airplane	Ambulance	Other or unknown
<b>United States<sup>a</sup></b>	<b>81,320,465</b>	<b>3.4</b>	<b>42.0</b>	<b>31.2</b>	<b>6.7</b>	<b>0.2</b>	<b>2.9</b>	<b>28.4</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	29,583,518	5.1	44.7	41.0	3.1	0.0	2.8	21.3
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	17,278,683	1.7	36.3	24.8	8.0	0.0	3.1	39.7
United States, <sup>a</sup> medium metro areas <sup>b</sup>	13,410,713	2.1	39.6	28.1	5.3	0.1	2.8	35.0
United States, <sup>a</sup> small metro areas <sup>b</sup>	7,372,856	3.8	40.6	25.8	8.0	0.2	2.3	32.8
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	6,265,864	2.6	48.9	24.8	10.5	0.2	3.6	22.0
United States, <sup>a</sup> non-core areas <sup>b</sup>	5,251,252	1.9	46.3	20.1	15.6	1.6	2.9	23.7
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	1,646,412	2.1	53.5	17.8	14.5	4.6	1.7	17.1
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	34,168,306	4.5	44.3	37.5	3.6	0.2	3.2	22.5
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	19,541,944	2.7	44.2	29.8	7.1	0.2	3.2	27.3
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	15,175,090	2.7	39.5	26.8	10.1	0.2	2.7	32.0
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	11,755,132	2.1	35.4	20.4	9.4	0.0	2.2	44.2
Alabama	57,482	0.0	13.1	0.0	0.0	0.0	86.9	0.0
Alaska	235,169	0.0	6.4	58.1	0.0	41.8	5.0	8.5
Arizona	5,289,466	1.5	96.5	32.0	0.1	0.0	1.2	0.0
Arkansas	670,445	0.0	47.3	0.0	0.0	0.0	4.4	48.4
California	3,617,737	0.6	37.6	35.8	4.8	0.0	10.5	15.9
Colorado	2,294,408	4.7	28.7	25.3	4.8	0.0	0.5	37.0
Connecticut	715,977	0.0	24.1	67.8	0.0	0.0	5.0	5.9
Delaware	203,718	0.1	14.7	0.0	0.0	0.0	2.5	87.9
District of Columbia	321,183	15.4	15.9	63.7	0.7	0.0	0.9	3.8
Florida	3,989,229	0.8	23.5	51.9	2.9	0.0	2.3	27.5
Georgia	1,526,360	0.8	78.8	10.0	2.6	0.0	7.6	0.8
Hawaii	203,272	2.8	91.3	21.2	0.0	3.6	1.3	29.3
Idaho	598,928	0.2	7.2	73.8	19.5	0.0	0.3	0.0
Illinois	1,963,017	0.0	46.9	4.0	0.1	0.0	5.0	44.1
Indiana	471,024	0.0	21.8	6.6	0.0	0.0	9.8	62.4
Iowa	981,475	12.9	28.3	31.3	8.9	0.0	1.1	18.6
Kansas	123,142	1.3	8.7	28.0	29.0	0.0	1.2	32.0

State	Total number of NEMT ride days	Modes of NEMT used, as a % of total ride days:						
		Public transit	Van	Taxi	Private vehicle	Airplane	Ambulance	Other or unknown
Kentucky	1,115,225	6.8	53.8	37.6	0.0	0.0	2.6	0.0
Louisiana	592,481	3.2	28.4	0.0	6.3	0.0	2.2	83.8
Maine	563,145	7.1	49.9	11.6	34.9	0.0	1.7	82.0
Maryland	65,022	0.0	0.1	0.0	0.0	0.0	29.0	71.0
Massachusetts	6,683,919	0.0	9.1	6.7	0.0	0.0	1.9	87.3
Michigan	1,453,190	4.7	42.9	27.4	11.5	0.0	4.3	11.3
Minnesota	2,690,470	0.6	39.2	21.1	12.1	0.0	0.9	62.5
Mississippi	440,599	0.0	19.7	61.7	11.3	0.0	7.0	6.9
Missouri	1,242,638	0.7	77.5	8.6	10.1	0.0	3.2	0.0
Montana	232,265	0.0	19.6	0.0	44.9	5.0	1.0	39.6
Nebraska	171,618	0.3	40.6	13.3	0.5	0.0	3.0	69.5
Nevada	532,466	22.4	6.1	50.3	18.4	0.0	1.1	2.5
New Hampshire	103,733	0.0	37.8	51.8	41.4	0.0	1.9	7.2
New Jersey	4,013,105	18.9	13.1	31.6	34.3	0.0	2.5	0.0
New Mexico	603,189	0.3	6.8	61.2	28.4	0.3	3.1	0.0
New York	13,455,939	2.6	67.0	68.2	0.0	0.0	1.5	5.6
North Carolina	1,197,915	0.0	88.1	4.9	0.0	0.0	6.1	1.0
North Dakota	33,153	0.1	52.0	29.1	13.9	0.0	5.3	0.0
Ohio	998,034	1.7	33.2	24.6	7.6	0.0	21.5	14.0
Oklahoma	1,086,526	0.3	72.6	17.1	7.7	0.0	2.1	0.3
Oregon	2,265,353	0.3	36.8	40.5	26.4	0.0	0.3	0.2
Pennsylvania	949,006	0.0	0.9	0.0	0.0	0.0	7.5	91.6
Puerto Rico	139,823	57.0	10.2	15.6	0.1	0.0	18.4	0.0
Rhode Island	412,141	1.8	2.2	36.2	0.3	0.0	1.9	57.6
South Carolina	1,030,785	0.4	82.1	0.0	0.0	0.0	1.1	16.4
South Dakota	34,668	0.0	97.9	0.0	0.0	0.0	2.2	0.0
Tennessee	806,716	39.3	45.4	0.4	0.0	0.0	12.2	3.7
Texas	5,501,087	1.0	0.1	27.1	5.0	0.0	3.4	63.6
Utah	289	0.0	0.0	0.0	0.0	0.0	2.8	97.2
Vermont	265,861	63.7	0.0	2.3	33.5	1.6	1.8	0.0
Virgin Islands	3,730	0.0	53.2	45.3	0.0	0.0	1.6	0.0
Virginia	2,129,923	0.1	38.5	19.9	6.0	0.0	0.7	46.1
Washington	1,737,498	0.0	97.5	0.0	0.0	0.0	2.4	0.1
West Virginia	589,724	1.3	46.3	0.7	43.7	0.0	8.1	0.0

State	Total number of NEMT ride days	Modes of NEMT used, as a % of total ride days:						
		Public transit	Van	Taxi	Private vehicle	Airplane	Ambulance	Other or unknown
Wisconsin	6,263,445	10.0	29.9	16.4	8.1	0.0	0.5	50.4
Wyoming	16,451	4.2	12.7	12.6	2.2	0.0	7.1	75.4

Source: Mathematica's analysis of the TAF 2019 Release 1, Run ID 4991 (Demographics and Eligibility file) and 4967 – 4978 (Other Services files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Because beneficiaries may use more than one mode of transit on a single day, percentages of ride days by mode of transit are not expected to sum to 100. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides and modes of transit based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix C.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000- 24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

**Table B3.3a. Rate and frequency of NEMT utilization and modes of NEMT used, by geographic area, 2020**

State	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	% beneficiaries who used NEMT, by mode of transit:						
				Public transit	Van	Taxi	Private vehicle	Airplane	Ambulance	Other or unknown
<b>United States<sup>a</sup></b>	<b>77,173,473</b>	<b>4.3</b>	<b>1.4</b>	<b>0.1</b>	<b>1.9</b>	<b>1.7</b>	<b>0.3</b>	<b>0.0</b>	<b>1.1</b>	<b>0.6</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	26,993,262	4.3	1.4	0.1	2.1	2.1	0.1	0.0	1.1	0.5
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	15,504,826	4.1	1.4	0.0	1.8	1.5	0.2	0.0	1.2	0.8
United States, <sup>a</sup> medium metro areas <sup>b</sup>	16,026,067	3.7	1.3	0.1	1.5	1.3	0.1	0.0	1.0	0.6
United States, <sup>a</sup> small metro areas <sup>b</sup>	6,899,584	4.5	1.5	0.1	2.0	1.6	0.4	0.0	1.1	0.8
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	6,739,950	5.0	1.2	0.1	2.0	1.5	0.6	0.0	1.5	0.6
United States, <sup>a</sup> non-core areas <sup>b</sup>										
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	1,180,292	7.2	1.2	0.1	3.0	1.7	1.3	1.0	1.5	0.8
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	31,760,590	4.6	1.3	0.1	2.1	2.1	0.1	0.0	1.1	0.6
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	20,274,595	4.4	1.3	0.1	2.0	1.6	0.3	0.0	1.2	0.6
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	15,241,333	4.0	1.5	0.1	1.6	1.3	0.4	0.0	1.2	0.7
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	9,711,881	3.8	1.6	0.0	1.6	1.1	0.3	0.0	1.2	0.8
Alabama	920,952	1.6	0.3	0.0	0.0	0.0	0.0	0.0	1.6	0.0
Alaska	251,991	10.3	0.4	0.0	0.4	5.0	0.0	6.3	3.4	0.2
Arizona	2,018,541	10.0	1.4	0.4	9.0	5.3	0.0	0.0	1.8	0.0
Arkansas	946,848	4.1	1.0	0.0	0.6	0.0	0.0	0.0	1.6	2.1
California	12,477,957	1.6	1.2	0.0	0.5	0.6	0.1	0.0	0.5	0.2
Colorado	1,454,092	3.9	2.4	0.1	2.2	0.6	0.3	0.0	0.5	0.7
Connecticut	983,708	3.8	0.9	0.0	1.6	2.1	0.0	0.0	1.2	0.1
Delaware	250,157	2.9	1.2	0.0	0.7	0.0	0.0	0.0	0.3	2.3
District of Columbia	264,969	1.5	0.9	0.2	0.5	0.0	0.0	0.0	0.7	0.1
Florida	4,085,045	4.1	1.4	0.0	0.8	2.2	0.1	0.0	0.9	0.7
Georgia	2,070,970	4.3	1.1	0.0	3.1	1.1	0.2	0.0	1.3	0.0
Hawaii	391,119	2.8	1.0	0.0	2.2	0.6	0.0	0.3	0.5	0.8
Idaho	382,453	3.8	2.3	0.0	0.3	2.7	0.8	0.0	0.4	0.0
Illinois	3,196,795	4.3	0.7	0.0	2.4	0.3	0.0	0.0	1.7	0.6
Indiana	1,693,684	3.8	0.7	0.0	0.5	0.4	0.0	0.0	1.5	2.1

State	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)	NEMT users: # ride days per month enrolled	% beneficiaries who used NEMT, by mode of transit:						
				Public transit	Van	Taxi	Private vehicle	Airplane	Ambulance	Other or unknown
Iowa	728,946	4.7	1.4	0.3	0.8	2.6	0.8	0.0	1.0	0.2
Kansas	402,383	3.3	0.6	0.1	0.3	1.0	1.0	0.0	0.3	1.1
Kentucky	1,593,518	3.8	0.9	0.1	2.4	1.1	0.0	0.0	0.7	0.0
Louisiana	1,694,051	2.8	0.6	0.0	0.9	0.0	0.1	0.0	0.5	2.3
Maine	321,192	9.3	1.4	0.7	4.7	1.8	4.3	0.0	2.5	6.9
Maryland	1,400,992	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.6	0.1
Massachusetts	1,702,856	7.3	1.9	0.0	2.2	1.1	0.0	0.0	2.2	4.2
Michigan	2,852,571	3.8	0.8	0.1	1.1	1.3	0.3	0.0	1.2	0.3
Minnesota	1,254,820	9.9	1.2	0.1	5.7	3.3	2.3	0.0	1.4	4.6
Mississippi	644,957	6.1	0.9	0.0	0.6	3.8	0.6	0.0	1.7	0.0
Missouri	1,075,412	6.9	1.2	0.1	3.7	1.9	0.7	0.0	2.3	0.0
Montana	275,593	1.8	4.5	0.0	0.3	0.0	0.6	0.2	0.6	0.4
Nebraska	305,099	3.6	0.9	0.1	1.4	0.8	0.0	0.0	1.3	1.5
Nevada	787,208	3.3	1.6	0.8	0.8	1.2	0.4	0.0	0.4	0.2
New Hampshire	220,864	1.4	1.5	0.0	0.6	0.7	0.2	0.0	0.6	0.2
New Jersey	1,809,564	6.4	1.9	0.5	2.0	3.4	0.7	0.0	1.4	0.0
New Mexico	840,160	4.4	1.0	0.0	0.2	2.3	0.8	0.0	1.6	0.0
New York	6,893,375	7.1	1.5	0.1	5.3	5.2	0.0	0.0	1.1	0.2
North Carolina	1,915,957	3.8	1.0	0.0	2.3	0.2	0.0	0.0	1.5	0.1
North Dakota	115,977	2.8	0.7	0.0	0.9	0.6	0.3	0.0	1.2	0.0
Ohio	2,947,313	4.6	0.5	0.0	1.0	1.2	0.1	0.0	2.8	0.3
Oklahoma	877,670	4.5	2.0	0.1	1.6	1.9	0.7	0.0	1.6	0.0
Oregon	1,106,204	7.3	1.6	0.0	3.7	4.9	1.1	0.0	0.5	0.0
Pennsylvania	3,120,313	1.7	0.7	0.0	0.2	0.0	0.0	0.0	1.5	0.1
Puerto Rico	1,408,333	1.9	1.0	0.7	0.4	0.6	0.0	0.0	0.7	0.1
Rhode Island	296,062	5.5	2.2	0.8	0.5	2.7	0.0	0.0	1.5	0.7
South Carolina	1,119,096	4.8	1.1	0.0	4.1	0.0	0.0	0.0	0.4	0.5
South Dakota	121,841	3.4	0.6	0.0	2.4	0.0	0.0	0.0	1.3	0.0
Tennessee	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Texas	4,614,289	3.6	1.4	0.0	0.0	1.9	0.3	0.0	0.8	0.8
Utah	406,189	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vermont	177,089	5.2	1.2	2.9	0.0	0.1	1.9	0.1	1.6	0.0

State	Number of beneficiaries	% beneficiaries who used NEMT (NEMT users)		% beneficiaries who used NEMT, by mode of transit:						
		NEMT (NEMT users)	NEMT users: # ride days per month enrolled	Public transit	Van	Taxi	Private vehicle	Airplane	Ambulance	Other or unknown
Virgin Islands	21,830	1.0	1.2	0.0	0.3	0.5	0.0	0.0	0.2	0.0
Virginia	1,613,518	5.2	1.2	0.0	2.9	2.2	0.3	0.0	0.5	1.4
Washington	1,989,630	3.0	2.2	0.0	1.8	0.0	0.0	0.0	1.3	0.0
West Virginia	535,593	7.4	1.3	0.1	2.7	0.0	3.2	0.0	2.3	0.0
Wisconsin	1,281,394	8.6	3.6	0.8	2.5	3.6	1.1	0.0	1.1	2.4
Wyoming	69,637	1.7	0.9	0.0	0.2	0.2	0.0	0.0	1.3	0.2

Source: Mathematica's analysis of the 2020 preliminary TAF, Run ID 5596 (Demographics and Eligibility file) and 5560 – 5571 (Other Services files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides and modes of transit based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix C.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000- 24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

DQ = Not reported because of a severe data quality issue. Tennessee had such a severe data quality issue in 2020 that the state was not included in the table. For additional information on data quality issues, please see Appendix C.

**Table B3.3b. Modes of NEMT used as a percentage of total ride days in 2020, by geographic area**

State	Total number of NEMT ride days	Modes of NEMT used, as a % of total ride days:						
		Public transit	Van	Taxi	Private Vehicle	Airplane	Ambulance	Other or unknown
<b>United States<sup>a</sup></b>	<b>51,528,444</b>	<b>3.8</b>	<b>45.9</b>	<b>34.3</b>	<b>7.1</b>	<b>0.1</b>	<b>4.0</b>	<b>21.1</b>
United States, <sup>a</sup> large central metro areas <sup>b</sup>	18,896,524	5.9	48.1	44.5	3.1	0.0	3.9	14.5
United States, <sup>a</sup> large fringe metro areas <sup>b</sup>	10,310,715	2.2	43.7	29.3	6.4	0.0	4.6	29.4
United States, <sup>a</sup> medium metro areas <sup>b</sup>	8,532,813	2.6	44.7	31.7	5.8	0.0	4.2	24.9
United States, <sup>a</sup> small metro areas <sup>b</sup>	5,310,790	3.5	42.9	28.5	10.6	0.2	2.8	26.1
United States, <sup>a</sup> micropolitan areas <sup>b</sup>	4,587,523	2.4	48.4	27.3	13.3	0.2	4.5	17.3
United States, <sup>a</sup> non-core areas <sup>b</sup>	3,789,174	2.0	45.7	20.4	18.7	1.1	3.7	20.3
United States, <sup>a</sup> frontier and remote areas <sup>c</sup>	1,132,704	2.6	52.5	16.8	16.1	3.2	2.5	18.2
United States, <sup>a</sup> areas in highest quartile of social deprivation <sup>d</sup>	22,037,507	5.1	47.1	41.3	3.5	0.1	4.2	15.6
United States, <sup>a</sup> areas in second-highest quartile of social deprivation <sup>d</sup>	12,824,133	2.8	47.8	32.3	8.6	0.1	4.1	20.3
United States, <sup>a</sup> areas in second-lowest quartile of social deprivation <sup>d</sup>	9,945,385	2.9	43.5	28.9	10.8	0.1	3.8	25.4
United States, <sup>a</sup> areas in lowest quartile of social deprivation <sup>d</sup>	6,639,333	2.3	42.2	23.6	10.0	0.0	3.7	34.5
Alabama	48,973	0.0	21.0	0.0	0.0	0.0	79.0	0.0
Alaska	132,609	0.0	10.1	47.9	0.0	36.7	11.4	5.8
Arizona	3,296,371	0.9	97.5	41.7	0.1	0.0	1.7	0.0
Arkansas	439,931	0.0	44.6	0.0	0.0	0.0	6.1	49.3
California	2,693,747	0.5	42.7	38.1	5.7	0.0	8.3	11.0
Colorado	1,585,909	2.1	36.3	26.4	3.9	0.0	0.7	31.3
Connecticut	369,922	0.0	31.2	54.4	0.0	0.0	9.8	9.8
Delaware	99,487	0.0	12.3	0.0	0.0	0.0	1.3	89.7
District of Columbia	41,000	54.3	34.2	0.0	0.0	0.0	6.0	5.7
Florida	2,552,060	0.7	24.6	56.7	3.2	0.0	3.7	17.9
Georgia	1,061,297	0.7	74.8	10.4	2.7	0.0	11.0	1.0
Hawaii	118,624	3.6	92.3	19.7	0.0	2.3	2.2	30.0
Idaho	383,114	0.1	7.0	72.0	20.6	0.0	1.0	0.0
Illinois	1,109,520	0.0	64.4	4.7	0.1	0.0	10.2	20.7
Indiana	530,157	0.0	17.0	4.1	0.0	0.0	8.2	71.2
Iowa	546,506	10.6	26.7	37.1	14.4	0.0	1.8	10.2
Kansas	93,252	1.1	9.3	27.8	28.8	0.0	1.5	31.7

State	Total number of NEMT ride days	Modes of NEMT used, as a % of total ride days:						
		Public transit	Van	Taxi	Private Vehicle	Airplane	Ambulance	Other or unknown
Kentucky	629,506	7.5	53.0	36.2	0.1	0.0	4.3	0.0
Louisiana	323,965	1.6	27.5	0.0	3.7	0.0	4.3	84.8
Maine	486,588	1.7	46.6	14.1	40.8	0.0	2.8	74.4
Maryland	29,122	0.0	0.0	0.0	0.0	0.0	54.0	46.0
Massachusetts	2,771,753	0.0	14.1	9.0	0.1	0.0	3.8	81.1
Michigan	996,570	1.3	42.1	32.5	13.2	0.0	6.0	7.1
Minnesota	1,726,735	2.8	42.6	21.3	15.5	0.0	1.5	57.6
Mississippi	401,917	0.0	14.7	68.7	9.3	0.0	7.3	0.0
Missouri	969,787	0.6	78.0	8.6	9.3	0.0	4.0	0.0
Montana	257,376	0.0	15.7	0.0	36.3	2.5	0.9	53.7
Nebraska	111,203	0.4	47.2	31.0	0.3	0.0	5.1	53.9
Nevada	450,074	31.6	4.2	44.9	15.4	0.0	0.9	3.4
New Hampshire	52,523	0.0	40.7	56.8	35.1	0.0	4.1	8.2
New Jersey	2,403,819	29.1	14.2	31.8	20.9	0.0	4.3	0.0
New Mexico	427,415	0.1	8.5	54.7	32.1	0.3	4.5	0.1
New York	8,438,112	2.0	68.1	72.6	0.0	0.0	2.2	2.6
North Carolina	834,914	0.0	87.2	4.6	0.0	0.0	7.2	1.1
North Dakota	26,486	0.3	47.1	36.8	9.6	0.0	7.2	0.0
Ohio	762,062	1.6	30.6	28.5	4.7	0.0	25.6	10.6
Oklahoma	890,324	0.4	73.3	15.3	8.5	0.0	2.5	0.2
Oregon	1,443,669	0.1	45.4	39.5	27.7	0.0	0.6	0.1
Pennsylvania	426,344	0.0	2.4	0.1	0.0	0.0	17.8	79.8
Puerto Rico	298,240	58.0	15.1	17.8	0.0	0.0	14.6	1.1
Rhode Island	400,211	3.5	3.7	55.1	0.5	0.0	2.3	35.1
South Carolina	711,862	0.5	87.7	0.0	0.0	0.0	1.7	10.1
South Dakota	25,899	0.0	91.0	0.0	0.0	0.0	9.0	0.0
Tennessee	DQ	DQ	DQ	DQ	DQ	DQ	DQ	DQ
Texas	2,636,945	1.7	0.1	42.6	6.7	0.0	6.2	42.8
Utah	419	0.0	0.0	0.0	0.0	0.0	0.5	99.5
Vermont	125,545	60.6	0.0	0.8	36.3	0.6	3.5	0.0
Virgin Islands	2,830	0.0	53.6	40.8	0.0	0.0	5.6	0.0
Virginia	1,147,816	0.2	39.3	28.3	7.0	0.0	1.5	37.2
Washington	1,509,391	0.0	97.3	0.0	0.0	0.0	2.7	0.0
West Virginia	563,854	2.9	38.7	0.0	52.9	0.0	5.6	0.0



State	Total number of NEMT ride days	Modes of NEMT used, as a % of total ride days:						
		Public transit	Van	Taxi	Private Vehicle	Airplane	Ambulance	Other or unknown
Wisconsin	4,481,983	9.9	33.3	18.4	9.9	0.0	0.7	42.5
Wyoming	11,168	4.7	10.5	10.3	1.7	0.0	10.7	73.6

Source: Mathematica's analysis of the 2020 preliminary TAF, Run ID 5596 (Demographics and Eligibility file) and 5560 – 5571 (Other Services files).

Notes: Includes beneficiaries who were enrolled in Medicaid and eligible for full or comprehensive benefits for at least one day during the year. NEMT users include beneficiaries who used NEMT on at least one day during the year. Ride days are a count of the unique number of days on which a beneficiary used NEMT. Months enrolled includes months eligible for full or comprehensive benefits during the year. Geographic areas reflect beneficiaries' zip code or county of residence as indicated on the TAF DE file. CMS identified NEMT rides and modes of transit based on procedure codes reported on Medicaid claims and encounter records (for the list of procedure codes, see Appendix C). Because T-MSIS was not designed to capture administrative expenditures, NEMT provided by states as an administrative expenditure is not captured in the TAF data reflected in this table.

<sup>a</sup> Data for Florida, Puerto Rico, Rhode Island, Tennessee, Utah, and the US Virgin Islands are excluded from the United States totals due to data quality issues. For additional information on data quality issues, please see Appendix C.

<sup>b</sup> The National Center for Health Statistics Urban-Rural (NCHSUR) classification scheme groups counties into six geographical areas ranging from the most urban (large metropolitan areas) to the most rural (non-core areas) (CDC 2017). Large central metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million that contain the entire population of the largest principal city of the MSA, are completely contained within the largest principal city of the MSA, or contain at least 250,000 residents of any principal city in the MSA. Large fringe metro areas include counties in metropolitan statistical areas (MSAs) with a population of at least 1 million, but that do not otherwise qualify as a large central metro area. Medium metro areas include counties in MSAs with a population of 250,000-999,999. Small metro areas include counties in MSAs with a population of less than 250,000. Micropolitan areas include counties outside of MSAs in micropolitan statistical areas. Noncore areas include counties that are outside of MSAs and outside of micropolitan statistical areas.

<sup>c</sup> Frontier and remote areas are those in the USDA's Frontier and Remote Area (FAR) codes 3 and 4, which include ZIP codes in areas in which the majority of residents are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999 people, and 30 minutes or more from urban areas of 10,000- 24,999 people (USDA 2019).

<sup>d</sup> Areas in the highest quartile of social deprivation are those with a Social Deprivation Index (SDI) above the 75th percentile. The SDI is a measure of area-level deprivation developed by the Robert Graham Center, with a higher score indicating a higher degree of deprivation. Areas in the second-highest quartile of social deprivation are those scoring above the 50th percentile through the 75th percentile of the SDI. Areas in the second-lowest quartile of social deprivation are those scoring above the 25th percentile through the 50th percentile of the SDI. Areas in the lowest quartile of social deprivation are those scoring at or below the 25th percentile of the SDI. The SDI encompasses seven area-level demographic characteristics collected in the American Community Survey: (1) percent living in poverty, (2) percent with less than 12 years of education, (3) percent single parent households, (4) percent living in a rented housing unit, (5) percent living in overcrowded housing units, (6) percent of households without a car, and (7) percent non-employed adults under 65 years of age (Robert Graham Center n.d.).

DS = Data suppressed for confidentiality reasons because the group included fewer than 11 beneficiaries; these data are, however, reflected in the United States total.

DQ = Not reported because of a severe data quality issue. Tennessee had such a severe data quality issue in 2020 that the state was not included in the table. For additional information on data quality issues, please see Appendix C

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**APPENDIX C:**  
**SUPPLEMENTARY TECHNICAL INFORMATION**

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## a. Data source

Since 1999, the federal government has required Medicaid state agencies to report Medicaid claims and eligibility data through the Medicaid Statistical Information System (MSIS), the first national, uniform, and comprehensive Medicaid data collection system. In 2015,<sup>45</sup> MSIS was replaced by T-MSIS, or “Transformed” MSIS, representing the next generation of national Medicaid data. T-MSIS enhanced and expanded on MSIS in a number of ways. The data are more detailed (more files and data elements), and states submit data files more frequently, among other enhancements. The T-MSIS Analytic Files (TAF) are built directly from the T-MSIS data files submitted by states. The TAF are more appropriate than the T-MSIS source data for analytic tasks because of the size, complexity, and frequency of updates to the T-MSIS data, which makes them very challenging to use for analytic purposes. Most important, TAF reorganizes enrollment, claims, and managed care encounter records from their date of submission by the state to the dates of enrollment and service. This reorganization facilitates the identification of beneficiaries during a specific time period, such as a calendar year, and aligns service provision with a beneficiary’s enrollment in Medicaid.

To create the tables in this report, CMS relied on the following files in the TAF:

**Annual Demographic and Eligibility (DE) File:** This file contains demographic, eligibility, and enrollment information for all Medicaid- or CHIP-eligible beneficiaries who were enrolled for at least one day during the calendar year.

**Inpatient (IP) File:** This file contains inpatient hospital claims and encounters.

**Long-Term (LT) File:** This file contains long-term care institutional claims and encounters, including claims from nursing facilities, intermediate care facilities that provide services for individuals with intellectual or developmental disabilities, mental health facilities, and independent (freestanding) psychiatric wings of acute care hospitals.

**Other Services (OT) File:** This file contains all claims and encounters for services that are not from an inpatient facility, long-term care facility, or pharmacy. These services include but are not limited to physician services; outpatient hospital services; dental services; other physician services, such as those provided by chiropractors, podiatrists, psychologists, optometrists, and so on; clinic services; laboratory services; radiology services; home health services; and personal assistance services. The file also includes managed care capitation payments.

**Pharmacy (RX) File:** This file contains claims for drugs or other services provided by an outpatient pharmacy.

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<sup>45</sup> States began transitioning their reporting to T-MSIS as early as 2011; all states and the District of Columbia completed the transition to T-MSIS by 2015. T-MSIS cutover dates for each state are available in the Resources section of the *DQ Atlas* under the overview and availability of TAF data section (CMS n.d.[a]). Available at <https://www.medicaid.gov/medicaid/data-and-systems/downloads/macbis/taf-rif-availability-chart.pdf>.

## **b. Excluded states and data quality issues**

The TAF was designed to present a comprehensive, current, and reliable picture of the Medicaid program across the United States. Our analyses included the 50 states, the District of Columbia, Puerto Rico, and the Virgin Islands. One state (Tennessee) had severe data quality issues in its 2020 data, which resulted in only 3 percent of NEMT claims linking back to a beneficiary eligibility record. Therefore, CMS did not include Tennessee in most of the 2020 data tables presented in this report. Several other states had data quality issues that did not prevent them from being included in the analyses but may have affected the validity of the results. CMS show results for these states in the tables presented in this report but exclude from the U.S. calculations. Appendix Table B.1 lists these less severe but still problematic data quality issues by state. CMS assessed four measures of data quality:

- 1. Number of Medicaid beneficiaries in the DE file.** To assess this number, CMS compared the TAF-based counts of Medicaid beneficiaries who had full or comprehensive benefits with the states' reports from the Eligibility and Enrollment Performance Indicator (PI) data set.<sup>46</sup> To examine enrollment information in the DE file, CMS compared monthly counts of Medicaid beneficiaries who had comprehensive benefits according to the 2018, 2019, and 2020 DE files to monthly counts from the PI data. CMS evaluated the percentage of difference between the TAF-based enrollment counts and the PI data, averaged across all 12 months. When the difference between these two data sets was greater than 20 percent and less than or equal to 50 percent, CMS had a high concern about the quality of the state's TAF data. States are considered to have unusable data when the difference between the TAF-based count and the benchmark is greater than 50 percent.
- 2. Volume of claims in the OT file.** To assess claims in this file, CMS examined the volume of OT claims compared with other states and the national median. To examine unexpected claim volumes, CMS computed the total volume of header records, total volume of line records, and average number of lines per header. CMS deemed states in which any of the three measures fell below 10 percent of the national median to have incomplete data unusable for analysis. CMS had a high level of concern about the data in states in which any of these measures were between 10 and 50 percent of the national median. Although an unexpectedly high volume of OT may in some cases also signal a data quality issue, for the subset of states displaying an unusually high volume of OT claims in 2018, 2019, and 2020, CMS determined that this pattern did not represent a quality issue but stemmed from the structure of these states' data systems and submission processes.

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<sup>46</sup> PI data represent enrollment in full or comprehensive benefits in Medicaid by state at a single point in time during the enrollment period. More information is available at <https://www.medicaid.gov/medicaid/program-information/medicaid-and-chip-enrollment-data/report-highlights/index.html>.

- 3. Missing or invalid procedure and diagnosis codes in the OT file.** To assess this issue, CMS evaluated missingness in the procedure code field on professional claims in the OT file. Procedure codes are an essential component for identifying NEMT services. To examine the severity of data quality issues related to procedure codes, as a starting point, CMS examined whether a state had an unexpectedly high rate of missing or invalid procedure codes on all OT professional claims in the OT file. States were categorized as high concern if only 50 to 80 percent of OT professional claims had a valid procedure code. CMS considered states in which less than 50 percent of the OT professional claims had a valid procedure code to have unusable data. For the subset of states with unusable data or a high concern about the quality of the procedure code data element on all OT professional claims, CMS further examined the rates of missing or invalid procedure codes on OT transportation claims (those with a Type of Service code of 056, which includes both emergency and non-emergency transportation services). High rates of missing or invalid procedure codes on transportations claims can result in an underestimate of the number of Medicaid beneficiaries using NEMT services. CMS excluded states with more than 20 percent of OT transportation claims with a missing or invalid procedure code from the U.S. totals.
- Data quality note:* Missing or invalid procedure codes make it difficult to identify Medicaid beneficiaries who use NEMT or have any specific type of medical condition. Additionally, a low volume of claims in TAF may have resulted in an underestimate of the number of Medicaid beneficiaries who use NEMT.
- 4. Proportion of NEMT claims and encounters that linked back to an eligibility record.** To assess this measure of data quality, CMS evaluated the proportion of NEMT claims and encounters that linked back to an eligibility record in the DE file. CMS excluded states with less than 90 percent of NEMT claims and encounters linking to an eligibility record from the U.S. totals in this report. (Essentially, CMS required that at least 90 percent of NEMT claims link to an eligibility record.)

More information on these and other data quality measures is available in the *DQ Atlas* (<https://www.medicaid.gov/dq-atlas/welcome>).

**c. Analysis of NEMT Medical Assistance Program expenditures and administrative expenditures reported by states on Form CMS-64 data**

Tables C3.a, C3.b, and C3.c provide detailed information about the amount and percentages of NEMT expenditures states reported as Medical Assistance Program expenditures versus administrative expenditures on their form CMS-64 data for FY 2018, FY 2019, and 2020. This information is not submitted by states as part of T-MSIS but is submitted separately by states through the Medicaid Budget and Expenditure System. However, it is important to note that expenditures reported under the NEMT line items on the Form CMS-64 undercount total NEMT expenditures; this is because NEMT services provided under capitated arrangements (such as those provided through comprehensive managed care plans or transportation prepaid ambulatory health plans [PAHPs]) are reported under the managed care line items instead of the NEMT line items in this data source.

**Table C.1. TAF data quality issues by state, CY 2018–2020**

State	TAF Data Quality 2018			TAF Data Quality 2019			TAF Data Quality 2020		
	Total Medicaid enrollment	Volume of claims—OT File	Missing HCPCS code—OT prof. claims	Total Medicaid enrollment	Volume of claims—OT File	Missing HCPCS code—OT prof. claims	Total Medicaid enrollment	Volume of claims—OT File	Missing HCPCS code—OT prof. claims
Alabama	---	---	---	---	---	---	---	---	---
Alaska	---	---	---	---	---	---	---	---	---
Arizona	---	---	---	---	---	---	---	---	---
Arkansas	---	---	---	---	---	---	---	---	Unusable (but OK for OT transportation claims)
California	---	---	---	---	---	---	---	---	---
Colorado	---	---	---	---	---	---	---	---	---
Connecticut	---	---	---	---	---	---	---	---	---
Delaware	---	---	---	---	---	---	---	---	---
District of Columbia	---	---	---	---	---	---	---	---	---
Florida	---	High concern (low volume)	---	---	---	---	---	---	---
Georgia	---	---	---	---	---	---	---	---	---
Hawaii	---	---	---	---	---	---	---	---	---
Idaho	---	---	---	---	---	---	---	---	---
Illinois	---	---	---	---	---	---	---	---	---
Indiana	---	---	---	---	---	---	---	---	---
Iowa	---	---	---	---	---	---	---	---	---
Kansas	---	---	---	---	---	---	---	---	---
Kentucky	---	---	---	---	---	---	---	---	---
Louisiana	---	---	---	---	---	---	---	---	---
Maine	---	---	---	---	---	---	---	---	---
Maryland	---	---	---	---	---	---	---	---	---
Massachusetts	---	High concern (high volume)	---	---	High concern (high volume)	---	---	High concern (high volume)	---
Michigan	---	---	---	---	---	---	---	---	---
Minnesota	---	High concern (high volume)	---	---	High concern (high volume)	---	---	High concern (high volume)	---
Mississippi	---	---	---	---	---	---	---	---	---
Missouri	---	---	---	---	---	---	---	---	---
Montana	---	---	---	---	---	---	---	---	---
Nebraska	---	---	---	---	---	---	---	---	---



State	TAF Data Quality 2018			TAF Data Quality 2019			TAF Data Quality 2020		
	Total Medicaid enrollment	Volume of claims—OT File	Missing HCPCS code—OT prof. claims	Total Medicaid enrollment	Volume of claims—OT File	Missing HCPCS code—OT prof. claims	Total Medicaid enrollment	Volume of claims—OT File	Missing HCPCS code—OT prof. claims
Nevada	---	---	---	---	---	---	---	---	---
New Hampshire	---	---	---	---	---	---	---	---	---
New Jersey	---	High concern (high volume)	---	---	High concern (high volume)	---	---	High concern (high volume)	---
New Mexico	---	---	---	---	---	---	---	---	---
New York	---	---	---	---	---	---	---	---	---
North Carolina	---	---	---	---	---	---	---	---	---
North Dakota	---	---	---	---	---	---	---	---	Unusable (but OK for OT transportation claims)
Ohio	---	---	---	---	---	---	---	---	---
Oklahoma	---	---	---	---	---	---	---	---	---
Oregon	---	---	---	---	---	---	---	---	---
Pennsylvania	---	---	---	---	---	---	---	---	---
Puerto Rico	Unclassified	High concern (low volume)	---	Unclassified	High concern (low volume)	---	Unclassified	High concern (low volume)	---
Rhode Island	High concern	High concern (high volume)	---	High concern	High concern (high volume)	---	---	---	---
South Carolina	---	---	---	---	---	---	---	---	---
South Dakota	---	---	---	---	---	---	---	---	---
Tennessee	---	---	---	---	---	---	---	---	---
Texas	---	---	---	---	---	---	---	---	---
Utah	---	---	Unusable	---	---	Unusable	---	---	Unusable
Vermont	---	---	---	---	---	---	---	---	---
Virgin Islands	Unclassified	High concern (low volume)	---	Unclassified	High concern (low volume)	---	Unclassified	High concern (low volume)	---
Virginia	---	---	---	---	---	---	---	---	---
Washington	---	---	---	---	---	---	---	---	---
West Virginia	---	---	---	---	---	---	---	---	---
Wisconsin	---	---	---	---	---	---	---	---	---
Wyoming	---	---	---	---	---	---	---	---	---

Source: *DQ Atlas* and Mathematica analysis of 2018, 2019, 2020 TAF DE and OT files.

Note: Dashes represent a low or medium level of concern about the quality of the data; “unclassified” = measure could not be calculated because the benchmark data were not available for the state or territory.

**Table C.2. Percentage of NEMT claims and encounters linking back to an eligibility record**

State	2018	2019	2020
Alabama	97.1%	96.4%	<b>85.7%*</b>
Alaska	100.0%	99.9%	100.0%
Arizona	99.9%	100.0%	100.0%
Arkansas	99.4%	99.7%	99.8%
California	99.9%	99.9%	99.9%
Colorado	99.8%	99.9%	100.0%
Connecticut	100.0%	100.0%	100.0%
Delaware	100.0%	100.0%	100.0%
District of Columbia	99.9%	99.9%	99.9%
Florida	99.9%	99.9%	100.0%
Georgia	100.0%	100.0%	100.0%
Hawaii	91.7%	99.3%	99.9%
Idaho	99.9%	100.0%	100.0%
Illinois	99.9%	99.9%	99.9%
Indiana	100.0%	100.0%	100.0%
Iowa	100.0%	100.0%	100.0%
Kansas	100.0%	100.0%	100.0%
Kentucky	99.8%	99.9%	99.9%
Louisiana	100.0%	100.0%	100.0%
Maine	100.0%	100.0%	99.9%
Maryland	100.0%	100.0%	100.0%
Massachusetts	99.9%	99.9%	99.9%
Michigan	100.0%	100.0%	100.0%
Minnesota	98.3%	99.9%	99.9%
Mississippi	100.0%	100.0%	100.0%
Missouri	100.0%	100.0%	100.0%
Montana	100.0%	100.0%	100.0%
Nebraska	100.0%	100.0%	100.0%
Nevada	100.0%	100.0%	100.0%
New Hampshire	100.0%	100.0%	100.0%
New Jersey	94.8%	98.5%	99.4%
New Mexico	100.0%	100.0%	100.0%
New York	100.0%	100.0%	100.0%
North Carolina	100.0%	100.0%	100.0%
North Dakota	99.9%	100.0%	100.0%

State	2018	2019	2020
Ohio	99.8%	99.9%	99.9%
Oklahoma	96.2%	96.1%	96.6%
Oregon	100.0%	100.0%	100.0%
Pennsylvania	98.8%	98.7%	96.8%
Puerto Rico	100.0%	100.0%	100.0%
Rhode Island	99.8%	82.8%	99.9%
South Carolina	99.8%	99.9%	99.9%
South Dakota	100.0%	99.7%	100.0%
Tennessee	<b>89.5%*</b>	<b>88.5%*</b>	<b>3.4%*</b>
Texas	99.9%	99.9%	99.9%
Utah	100.0%	100.0%	100.0%
Vermont	99.7%	100.0%	100.0%
Virgin Islands	99.9%	99.5%	100.0%
Virginia	100.0%	100.0%	100.0%
Washington	100.0%	100.0%	100.0%
West Virginia	99.9%	99.9%	99.9%
Wisconsin	99.9%	99.8%	99.9%
Wyoming	100.0%	99.9%	100.0%

Source: *DQ Atlas* and Mathematica analysis of 2019 TAF DE and OT files.

Note: We exclude states with <90 percent of NEMT claims and encounters that linked to an eligibility record (indicated in bold with an asterisk) from the national totals in this report for most tables for the year(s) affected. Furthermore, Tennessee's percentage of NEMT claims and encounters that linked to an eligibility record was so low in 2020 that we do not show the state's results in most 2020 tables in this report. The exception is Table A1.1a, which includes these states because the calculations presented in this table do not require direct linkage of claims to eligibility information.

**Table C.3a. State NEMT expenditures claimed as Medical Assistance Program expenditures versus administrative expenditures reported on Form CMS-64, FY 2018**

State	Medical assistance program expenditures	Administrative expenditures	Total expenditures	% NEMT expenditures claimed as medical assistance program expenditures	% NEMT expenditures claimed as administrative expenditures
Alabama	\$0	\$10,178,956	\$10,178,956	0.0%	100.0%
Alaska	\$87,445,828	\$0	\$87,445,828	100.0%	0.0%
Arizona	\$97,227,134	\$0	\$97,227,134	100.0%	0.0%
Arkansas	\$54,072,256	\$0	\$54,072,256	100.0%	0.0%
California	\$35,128,075	\$0	\$35,128,075	100.0%	0.0%
Colorado	\$0	\$0	\$0	--	--
Connecticut	\$58,679,891	\$10,599,146	\$69,279,037	84.7%	15.3%
Delaware	\$19,127,923	\$0	\$19,127,923	100.0%	0.0%
District of Columbia	\$27,877,523	\$0	\$27,877,523	100.0%	0.0%
Florida	\$12,556,920	\$0	\$12,556,920	100.0%	0.0%
Georgia	\$100,801,923	\$328,979	\$101,130,902	99.7%	0.3%
Hawaii	\$113,077	\$0	\$113,077	100.0%	0.0%
Idaho	\$19,834,505	\$0	\$19,834,505	100.0%	0.0%
Illinois	\$26,289,871	\$0	\$26,289,871	100.0%	0.0%
Indiana	\$26,628,540	\$64,382	\$26,692,922	99.8%	0.2%
Iowa	\$501,434	\$0	\$501,434	100.0%	0.0%
Kansas	(\$1,968)	\$0	(\$1,968)	100.0%	0.0%
Kentucky	\$114,907,523	\$560,000	\$115,467,523	99.5%	0.5%
Louisiana	\$770,111	\$0	\$770,111	100.0%	0.0%
Maine	\$40,456,710	\$0	\$40,456,710	100.0%	0.0%
Maryland	\$3,942	\$0	\$3,942	100.0%	0.0%
Massachusetts	\$0	\$207,270,368	\$207,270,368	0.0%	100.0%
Michigan	\$21,022,948	\$3,852,405	\$24,875,353	84.5%	15.5%
Minnesota	\$0	\$26,667,249	\$26,667,249	0.0%	100.0%
Mississippi	\$32,903,412	\$0	\$32,903,412	100.0%	0.0%
Missouri	\$40,178,558	\$4,998,084	\$45,176,642	88.9%	11.1%
Montana	\$4,291,090	\$0	\$4,291,090	100.0%	0.0%
Nebraska	\$9,532,252	\$0	\$9,532,252	100.0%	0.0%
Nevada	\$14,597,187	\$0	\$14,597,187	100.0%	0.0%
New Hampshire	\$7,013,663	\$1,224,806	\$8,238,469	85.1%	14.9%
New Jersey	\$155,153,061	\$0	\$155,153,061	100.0%	0.0%

State	Medical assistance program expenditures	Administrative expenditures	Total expenditures	% NEMT expenditures claimed as medical assistance program expenditures	% NEMT expenditures claimed as administrative expenditures
New Mexico	\$4,119,601	\$0	\$4,119,601	100.0%	0.0%
New York	\$5,827,092	\$0	\$5,827,092	100.0%	0.0%
North Carolina	\$177,205,434	\$7,581,718	\$184,787,152	95.9%	4.1%
North Dakota	\$814,710	\$0	\$814,710	100.0%	0.0%
Ohio	\$24,613,048	\$0	\$24,613,048	100.0%	0.0%
Oklahoma	\$40,588,605	\$0	\$40,588,605	100.0%	0.0%
Oregon	\$13,580,915	\$0	\$13,580,915	100.0%	0.0%
Pennsylvania	\$42,146,650	\$98,067,189	\$140,213,839	30.1%	69.9%
Puerto Rico	\$0	\$0	\$0	--	--
Rhode Island	\$186,651	\$0	\$186,651	100.0%	0.0%
South Carolina	\$81,563,697	\$0	\$81,563,697	100.0%	0.0%
South Dakota	\$1,149,379	\$2,963,373	\$4,112,752	27.9%	72.1%
Tennessee	\$0	\$0	\$0	--	--
Texas	\$166,055,208	\$352,540	\$166,407,748	99.8%	0.2%
Utah	\$8,226,667	\$0	\$8,226,667	100.0%	0.0%
Vermont	\$0	\$0	\$0	--	--
Virgin Islands	\$2,630,371	\$0	\$2,630,371	100.0%	0.0%
Virginia	\$58,787,930	\$0	\$58,787,930	100.0%	0.0%
Washington	\$96,303,440	\$6,452,783	\$102,756,223	93.7%	6.3%
West Virginia	\$33,155,949	\$0	\$33,155,949	100.0%	0.0%
Wisconsin	\$86,402,529	\$0	\$86,402,529	100.0%	0.0%
Wyoming	\$0	\$538,573	\$538,573	0.0%	100.0%

Source: Mathematica analysis of FY 2018 Form CMS-64 data.

Note: Numbers in parenthesis constitute negative values.

**Table C.3b. State NEMT expenditures claimed as Medical Assistance Program expenditures versus administrative expenditures reported on Form CMS-64, FY 2019**

State	Medical Assistance Program expenditures	Administrative expenditures	Total expenditures	% NEMT expenditures claimed as Medical Assistance Program expenditures	% NEMT expenditures claimed as administrative expenditures
Alabama	\$2,306,713	\$10,687,766	\$12,994,479	17.8%	82.2%
Alaska	\$110,658,368	\$0	\$110,658,368	100.0%	0.0%
Arizona	\$144,918,588	\$0	\$144,918,588	100.0%	0.0%
Arkansas	\$40,740,107	\$0	\$40,740,107	100.0%	0.0%
California	\$33,713,408	\$0	\$33,713,408	100.0%	0.0%
Colorado	\$0	\$33,654,368	\$33,654,368	0.0%	100.0%
Connecticut	\$57,599,206	\$7,594,231	\$65,193,437	88.4%	11.6%
Delaware	\$19,643,986	\$0	\$19,643,986	100.0%	0.0%
District of Columbia	\$31,161,921	\$0	\$31,161,921	100.0%	0.0%
Florida	\$9,381,262	\$0	\$9,381,262	100.0%	0.0%
Georgia	\$101,385,929	\$327,515	\$101,713,444	99.7%	0.3%
Hawaii	\$180,528	\$0	\$180,528	100.0%	0.0%
Idaho	\$22,019,793	\$0	\$22,019,793	100.0%	0.0%
Illinois	\$15,703,116	\$0	\$15,703,116	100.0%	0.0%
Indiana	\$34,421,189	\$1,595	\$34,422,784	100.0%	0.0%
Iowa	\$426,988	\$0	\$426,988	100.0%	0.0%
Kansas	(\$24)	\$0	(\$24)	100.0%	0.0%
Kentucky	\$95,195,477	\$560,000	\$95,755,477	99.4%	0.6%
Louisiana	\$396,562	\$0	\$396,562	100.0%	0.0%
Maine	\$39,765,094	\$0	\$39,765,094	100.0%	0.0%
Maryland	\$0	\$0	\$0	--	--
Massachusetts	\$0	\$210,078,167	\$210,078,167	0.0%	100.0%
Michigan	\$20,437,899	\$3,015,248	\$23,453,147	87.1%	12.9%
Minnesota	\$0	\$29,498,054	\$29,498,054	0.0%	100.0%
Mississippi	\$39,163,386	\$0	\$39,163,386	100.0%	0.0%
Missouri	\$41,140,999	\$5,283,933	\$46,424,932	88.6%	11.4%
Montana	\$5,015,385	\$0	\$5,015,385	100.0%	0.0%
Nebraska	\$7,413,064	\$0	\$7,413,064	100.0%	0.0%
Nevada	\$17,566,741	\$0	\$17,566,741	100.0%	0.0%
New Hampshire	\$2,401,423	\$1,047,888	\$3,449,311	69.6%	30.4%
New Jersey	\$149,505,863	\$0	\$149,505,863	100.0%	0.0%

State	Medical Assistance Program expenditures	Administrative expenditures	Total expenditures	% NEMT expenditures claimed as Medical Assistance Program expenditures	% NEMT expenditures claimed as administrative expenditures
New Mexico	\$4,572,971	\$0	\$4,572,971	100.0%	0.0%
New York	\$11,585,726	\$0	\$11,585,726	100.0%	0.0%
North Carolina	\$138,460,902	\$9,287,860	\$147,748,762	93.7%	6.3%
North Dakota	\$1,075,442	\$0	\$1,075,442	100.0%	0.0%
Ohio	\$22,239,510	\$0	\$22,239,510	100.0%	0.0%
Oklahoma	\$40,523,306	\$0	\$40,523,306	100.0%	0.0%
Oregon	\$17,264,053	\$0	\$17,264,053	100.0%	0.0%
Pennsylvania	\$40,305,820	\$87,254,977	\$127,560,797	31.6%	68.4%
Puerto Rico	\$0	\$0	\$0	--	--
Rhode Island	\$273,252	\$0	\$273,252	100.0%	0.0%
South Carolina	\$82,687,871	\$0	\$82,687,871	100.0%	0.0%
South Dakota	\$1,144,700	\$2,675,484	\$3,820,184	30.0%	70.0%
Tennessee	\$0	\$0	\$0	--	--
Texas	\$161,686,371	\$285,324	\$161,971,695	99.8%	0.2%
Utah	\$8,464,206	\$0	\$8,464,206	100.0%	0.0%
Vermont	\$0	\$0	\$0	--	--
Virgin Islands	\$4,891,612	\$0	\$4,891,612	100.0%	0.0%
Virginia	\$55,373,661	\$204	\$55,373,865	100.0%	0.0%
Washington	\$101,609,874	\$0	\$101,609,874	100.0%	0.0%
West Virginia	\$32,258,664	\$0	\$32,258,664	100.0%	0.0%
Wisconsin	\$86,013,489	\$0	\$86,013,489	100.0%	0.0%
Wyoming	\$0	\$555,423	\$555,423	0.0%	100.0%

Source: Mathematica analysis of FY 2019 Form CMS-64 data.

Note: Numbers in parenthesis constitute negative values.

**Table C.3c. State NEMT expenditures claimed as Medical Assistance Program expenditures versus administrative expenditures reported on Form CMS-64, FY 2020**

State	Medical Assistance Program expenditures	Administrative expenditures	Total expenditures	% NEMT expenditures claimed as Medical Assistance Program expenditures	% NEMT expenditures claimed as administrative expenditures
Alabama	\$2,901,730	\$9,894,387	\$12,796,117	22.7%	77.3%
Alaska	\$82,912,679	\$0	\$82,912,679	100.0%	0.0%
Arizona	\$138,481,040	\$0	\$138,481,040	100.0%	0.0%
Arkansas	\$43,665,374	\$0	\$43,665,374	100.0%	0.0%
California	\$28,412,776	\$0	\$28,412,776	100.0%	0.0%
Colorado	\$0	\$48,551,586	\$48,551,586	0.0%	100.0%
Connecticut	\$57,664,838	\$8,420,153	\$66,084,991	87.3%	12.7%
Delaware	\$22,650,580	\$0	\$22,650,580	100.0%	0.0%
District of Columbia	\$31,566,965	\$0	\$31,566,965	100.0%	0.0%
Florida	\$11,579,943	\$0	\$11,579,943	100.0%	0.0%
Georgia	\$106,054,738	\$337,589	\$106,392,327	99.7%	0.3%
Hawaii	\$71,269	\$0	\$71,269	100.0%	0.0%
Idaho	\$34,301,697	\$0	\$34,301,697	100.0%	0.0%
Illinois	\$13,171,120	\$0	\$13,171,120	100.0%	0.0%
Indiana	\$34,711,440	\$0	\$34,711,440	100.0%	0.0%
Iowa	\$258,841	\$0	\$258,841	100.0%	0.0%
Kansas	\$0	\$0	\$0	--	--
Kentucky	\$112,585,338	\$559,999	\$113,145,337	99.5%	0.5%
Louisiana	\$922,465	\$0	\$922,465	100.0%	0.0%
Maine	\$48,766,525	\$0	\$48,766,525	100.0%	0.0%
Maryland	\$0	\$0	\$0	--	--
Massachusetts	\$315	(\$27,456,285)	(\$27,455,970)	0.0%	100.0%
Michigan	\$16,713,457	\$2,858,350	\$19,571,807	85.4%	14.6%
Minnesota	\$0	\$24,293,487	\$24,293,487	0.0%	100.0%
Mississippi	\$32,941,232	\$0	\$32,941,232	100.0%	0.0%
Missouri	\$45,874,430	\$3,278,017	\$49,152,447	93.3%	6.7%
Montana	\$4,443,945	\$0	\$4,443,945	100.0%	0.0%
Nebraska	\$10,688	\$0	\$10,688	100.0%	0.0%
Nevada	\$71,647,792	\$0	\$71,647,792	100.0%	0.0%
New Hampshire	\$155,809	(\$1,986,521)	(\$1,830,712)	-8.5%	108.5%
New Jersey	\$178,105,012	\$0	\$178,105,012	100.0%	0.0%



State	Medical Assistance Program expenditures	Administrative expenditures	Total expenditures	% NEMT expenditures claimed as Medical Assistance Program expenditures	% NEMT expenditures claimed as administrative expenditures
New Mexico	\$4,311,633	\$0	\$4,311,633	100.0%	0.0%
New York	\$6,844,333	\$0	\$6,844,333	100.0%	0.0%
North Carolina	\$210,749,734	\$8,382,329	\$219,132,063	96.2%	3.8%
North Dakota	\$1,095,519	\$0	\$1,095,519	100.0%	0.0%
Ohio	\$19,824,608	\$0	\$19,824,608	100.0%	0.0%
Oklahoma	\$39,823,415	\$0	\$39,823,415	100.0%	0.0%
Oregon	\$1,195,203	\$0	\$1,195,203	100.0%	0.0%
Pennsylvania	\$35,976,935	\$80,060,753	\$116,037,688	31.0%	69.0%
Puerto Rico	\$0	\$0	\$0	--	--
Rhode Island	\$204,865	\$0	\$204,865	100.0%	0.0%
South Carolina	\$84,614,616	\$0	\$84,614,616	100.0%	0.0%
South Dakota	\$996,141	\$2,689,396	\$3,685,537	27.0%	73.0%
Tennessee	\$0	\$0	\$0	--	--
Texas	\$175,376,135	\$265,656	\$175,641,791	99.8%	0.2%
Utah	\$8,303,774	\$0	\$8,303,774	100.0%	0.0%
Vermont	\$0	\$0	\$0	--	--
Virgin Islands	\$4,274,434	\$0	\$4,274,434	100.0%	0.0%
Virginia	\$54,906,202	\$0	\$54,906,202	100.0%	0.0%
Washington	\$89,862,327	\$0	\$89,862,327	100.0%	0.0%
West Virginia	\$38,395,382	\$0	\$38,395,382	100.0%	0.0%
Wisconsin	\$93,389,983	\$11	\$93,389,994	100.0%	0.0%
Wyoming	\$0	\$468,709	\$468,709	0.0%	100.0%

Source: Mathematica analysis of FY 2020 Form CMS-64 data.

Note: Numbers in parenthesis constitute negative values.

#### d. Identifying claims and encounters for NEMT services

To identify beneficiaries who use NEMT, CMS identified claims and encounters that had NEMT procedure codes by using the codes in Appendix Table B.3. NEMT providers in most states use national procedure codes when they submit NEMT claims, but providers in some states use local or state-specific procedure codes on some claims. This report considers local or state-specific codes as valid procedure codes for transportation claims when documentation was available from the state or other sources that indicated the description of the code or crosswalked the code to its corresponding national procedure code.

**Table C.4. Procedure codes used to identify claims and encounters for NEMT services**

Procedure code	Procedure code description	Procedure code type
A0080	Volunteer vehicle mileage	HCPCS
A0090	Individual vehicle mileage	HCPCS
A0100	Non-emergency transport: taxi	HCPCS
A0110	Public or mass transportation	HCPCS
A0120	Non-emergency transport: minibus	HCPCS
A0130	Non-emergency transport: wheelchair van	HCPCS
A0140	Non-emergency transport: air	HCPCS
A0426	Ambulance service, advanced life support, non-emergency transport	HCPCS
A0428	Ambulance service, basic life support, non-emergency transport, (BLS)	HCPCS
S0209	Wheelchair van mileage	HCPCS
S0215	Non-emergency transportation mileage	HCPCS
T2003	Non-emergency transportation: encounter or trip	HCPCS
T2004	Non-emergency transportation: commercial carrier pass	HCPCS
T2005	Non-emergency transportation: stretcher van	HCPCS
T2049	Non-emergency transportation: stretcher van, mileage	HCPCS
Z2713	Non-emergency transportation	State-specific - Arkansas
X0200	Non-emergency transport: wheelchair van	State-specific - California
X0202	Non-emergency transport: wheelchair van	State-specific - California
X0204	Non-emergency transport: wheelchair van	State-specific - California
X0206	Non-emergency transport: wheelchair van	State-specific - California
X0406	Non-emergency transport: wheelchair van	State-specific - California
X0400	Ambulance service, basic life support, non-emergency transport, (BLS)	State-specific - California
X0032	Ambulance service, basic life support, non-emergency transport, (BLS)	State-specific - California
Z5424	Non-emergency transportation mileage	State-specific - California
Z8597	Non-emergency transportation: encounter or trip	State-specific - California
Z5410	Non-emergency transportation: encounter or trip	State-specific - California
Z5412	Non-emergency transportation: encounter or trip	State-specific - California
X0210	Non-emergency transportation: stretcher van	State-specific - California
X0404	Non-emergency transportation: stretcher van	State-specific - California
A0999	Transportation broker	State-specific - Oregon
W7274	Transportation (non-emergency trip): 0–20 miles	State-specific - Pennsylvania
W7275	Transportation (non-emergency trip): 20–40 miles	State-specific - Pennsylvania
W7276	Transportation (non-emergency trip): 40–60 miles	State-specific - Pennsylvania