**Attachment 1: Supplemental Narrative Reporting on DY1Q1-DY1Q3 Monthly Metrics**

<table>
<thead>
<tr>
<th>State</th>
<th>Ohio</th>
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<tr>
<td>Demonstration name</td>
<td>Section 1115 Substance Use Disorder Waiver Demonstration</td>
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<tr>
<td>Approval period for section 1115 demonstration</td>
<td>10/01/2019 – 09/30/2024</td>
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<tr>
<td>SUD demonstration year and quarter</td>
<td>SUD DY2Q1</td>
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| Period covered by Monitoring | DY1Q1 (10/01/2019 – 12/31/2019)  
DY1Q2 (01/01/2020 – 03/31/2020)  
DY1Q3 (03/01/2020 – 06/30/2020) |

This Attachment contains additional narrative information on Monitoring Metric trends, organized by milestone and reporting topic, to supplement Ohio’s formal reporting in Parts A and B of the 1115 SUD DY2Q1 Monitoring Report.

1. **Assessment of need and qualification for SUD services (Metric #3)**

**Metric #3** reports the count of beneficiaries enrolled in the measurement period (month) who received MAT and/or a SUD-related treatment service with an associated SUD diagnosis during the month or in the 11 months prior. For this metric, subpopulations OUD and Criminal Justice Involved (CJI) were the only groups to have no quarter-over-quarter changes exceeding ± 2% over the 9-month period. Overall, there is an upward trend in the number of individuals with SUD diagnoses and services across the general population and for most of the subpopulations. Adult, non-dual, non-pregnant, and non-CJI subpopulations followed the overall Medicaid population trend of a non-significant increase between Q1-Q2, followed by an increase of more than +2% in Q3 (see Fig. 1 below).

![Figure 1. SUD Diagnosis with SUD Service for the overall Medicaid population (current month or within 11 months prior) (Metric #3), with a linear trend line fitted.](image)
Older adult, dual, and pregnant subpopulation averages increased by more than +2% between Q1 and Q2, followed by non-significant changes in Q3 (Fig. 2). The average count of youth under the age of 18 with an SUD diagnosis rose by more than +2% between Q1-Q2, and then decreased by more than -2% in Q3.

![Figure 2. SUD Diagnosis with Service for select subpopulations (current month or within 11 months prior) (Metric #3), with fitted linear trend lines for each group.](image)

2. Access to Critical Levels of Care for OUD and other SUDs (Milestone 1) (Metrics #6-12)

**Metrics #6–12** report the count of members by month receiving specific types of services. Although monthly counts often vary substantially in Ohio by more than ±2%, and certain metrics have very small counts for specific subpopulations, some trends are apparent.

**Metric #6** reports the count of beneficiaries by month receiving services at various levels of care. For the entire Medicaid population, counts of beneficiaries receiving any SUD treatment generally increased over the 9-month period. The average count of beneficiaries with any SUD treatment increased by more than +2% between Q1-Q2 for most groups, which was consistent with a typical seasonal trend of reduced service utilization in November and December. No significant difference existed between the Q2 and Q3 averages for most groups, but Figures 3 and 4 below indicate impacts on service utilization related to COVID-19.

Adult, non-dual, non-pregnant, and non-CJI subpopulations closely tracked with the overall Medicaid population and averaged counts did not change significantly between Q2 and Q3. However, older adult, dual, youth, and CJI averaged counts decreased by more than -2% in Q3, most likely due to the COVID-19 pandemic. The largest changes in Q3 occurred in the youth and older adult subpopulations (Fig. 4).
Although Metric #6 service utilization among older adults had nearly recovered by June 2020 to pre-pandemic levels, it remained low for youth.

Figure 3. Monthly SUD treatment services (Metric #6) for the overall Medicaid population, with a linear trend line.

Figure 4. Monthly SUD treatment services (Metric #6) for youth and older adult subpopulations, with linear trend lines.

**Metric #7** reports the count of individuals receiving Early Intervention (EI) services (with no other SUD service) on a given day from a unique billing provider. The number of individuals receiving EI services has trended downward since the start of the demonstration, decreasing by more than -2% each quarter for the overall Medicaid population and the adult, older adult, dual, non-dual, non-pregnant, and non-CJI subpopulations. Figure 5 below shows the monthly trend for the entire Medicaid full-benefit population during the reported quarters. Counts are very small (< 6 individuals per month) for the youth, pregnant, and CJI subpopulations so the State does not consider those trends significant at this time. The primary
cause appears to be decreased utilization of code G0397, without a corresponding increase in utilization of other early intervention procedure or HCPCS codes.

Figure 5. Monthly Early Intervention services (Metric #7) for the overall Medicaid population, with a linear trend line.

**Metric #8** reports the count of individuals receiving outpatient services. Similar to Metric #6, counts for this metric generally increased over the period (Fig. 6). Across subpopulations, the State noted mixed trends, but for all groups a ± 2% change in the average counts was noted at least once. There is a seasonal trend of reduced service utilization in November and December, which results in the Q2 increase over Q1. Average counts for the overall Medicaid population and subpopulations OUD, adult, non-dual, pregnant, non-pregnant, CJI, and non-CJI increased by more than +2% between Q1-Q2, but did not reach the threshold in Q3. Average counts for the dual population increased by more than +2% between Q1-Q2, then decreased in Q3 (likely due to pandemic impacts). The counts for youth and older adult subpopulations decreased by more than -2% in Q3, again most likely due to pandemic impacts (Fig. 7).

Figure 6. Monthly Outpatient services (Metric #8) for the overall Medicaid population, with a linear trend line.
Metric #9 reports the count of individuals receiving Intensive Outpatient (IOP) and Partial Hospitalization (PH) services. The State noted mixed trends in Metric #9 (IOP/PH services) across the 9-month period, but all groups had at least one quarter where a ± 2% change was noted. Average counts for the metric generally increased between Q1-Q2, then decreased in Q3, likely due to the pandemic (Fig. 8). Counts for the overall Medicaid population and OUD, adult, older adult, non-dual, non-pregnant, CJI, and non-CJI increased by more than +2% between Q1-Q2, and then decreased by more than -2% in Q3. Counts among youth did not change significantly between Q1-Q2, then decreased by more than -2% in Q3. Counts for the older adult, dual and pregnant subpopulations decreased by more than -2% per quarter over the entire 9-month period (Fig. 9). However, these counts were smaller than most other subpopulations and monthly counts increased in June 2020, so more time is needed to assess whether there is a long-term decrease in services for these groups.
Metric #10 reports the monthly count of individuals discharged from residential and inpatient services. The State noted similar patterns for the overall Medicaid population and all but two subpopulations: in this most common pattern, average counts increased by more than +2% between Q1-Q2, and then decreased by more than -2% in Q3, most likely due to the COVID-19 pandemic (Fig. 10). For the OUD and adult subpopulations, there was no significant change in average counts between Q1 and Q2, followed by a decrease of more than -2% in Q3. Figure 11 shows three subpopulations (youth, older adults, and CJI) for which the quarterly changes were exceptionally large (more than ±10%). However, the monthly counts were highly varied, and only the CJI subpopulation appears to have a long-term trend overall.
Metric #11 reports the monthly count of individuals discharged from withdrawal management (WM) services. The State noted similar patterns for the overall Medicaid population and all subpopulations except youth and CJI: counts increased by more than +2% between Q1-Q2, and then decreased by more than -2% between Q2-Q3 (Fig. 12). For the CJI subpopulation, there was no significant change in average count between the first two quarters, and a decrease of more than -2% in Q3. Counts for the Youth subpopulation were very small (< 3 per month) so those trends were not considered significant at this time.

Metric #12 reports the monthly count of individuals receiving Medication Assisted Treatment (MAT). Counts for this metric generally increased over the period, although trends across subpopulations were mixed. All groups except older adults had at least one quarter where a change greater than ±2% was
Counts for the overall Medicaid population and subpopulations OUD, adult, non-dual, non-pregnant, and non-CJI increased over the entire 9-month period (Fig. 13). However, counts of youth receiving MAT increased by more than 2% between Q1-Q2, and then decreased by more than 2% in Q3 (Fig. 14). This trend in MAT receipt among youth is consistent with metrics #3, #6, and #8. Counts of duals receiving MAT decreased by more than 2% between Q1-Q2, and then increased by more than 2% in Q3. Counts of pregnant individuals receiving MAT did not change significantly between Q1-Q2, and then decreased by more than 2% in Q3. Counts of CJI individuals receiving MAT increased by more than 2% between Q1-Q2, and then did not change significantly in Q3.

Figure 13. Monthly Medication Assisted Treatment services (Metric #12) for the overall Medicaid population, with a linear trend line.

Figure 14. Monthly Medication Assisted Treatment services (Metric #12) for the youth subpopulation population, with a linear trend line.
The final set of plots in this section takes a different view of the Milestone 1 metrics by showing the distribution of services across levels of care. The following plots use stacked areas to show the relative counts of beneficiaries receiving services for Metrics #6 and #8-#12. [The State omitted Metric #7 / Early Intervention in these plots because counts are consistently too small to appear relative to other service types.] Subpopulations adult, non-dual, non-pregnant, and non-CJI are not shown because they closely follow the overall Medicaid pattern.

Figure 15 below shows five key types of SUD treatment as stacked areas. The solid black line indicates unique beneficiaries for Metric #6. Stacked areas represent counts of beneficiaries in Metrics #8 (Outpatient), #9 (IOP/PH), #10 (Residential Treatment and Inpatient), #11 (Withdrawal Management), and #12 (Medication Assisted Treatment). Outpatient care represents the largest fraction of services, followed by MAT, and then IOP/PH.

![Figure 15. Level of care distribution for all Medicaid beneficiaries receiving SUD treatment identified in Metrics #6 and #8-#12.](image)

For beneficiaries with OUD (Fig. 16), most beneficiaries received outpatient services. However, a large fraction of beneficiaries received some form of MAT. Greater proportions of beneficiaries with OUD also received services at higher ASAM levels than the general Medicaid population. The position of the black line, roughly between the M9 and M10 boundary, also suggests that beneficiaries in this subpopulation receive multiple types of services each month.
The youth subpopulation is shown in Figure 17. Metric #11 / Withdrawal Management is excluded because the monthly counts were consistently very small (< 3 per month). Most services received are outpatient, with relatively little utilization of the higher levels of care or MAT. This group also appears to receive more services counted in Metric #6 but not Metrics #8-#10 and #12 (position of black line above stacked bar chart).

Figure 16. Level of care distribution for individuals in the OUD subpopulation receiving SUD treatment identified in Metrics #6 and #8-#12.

Figure 17. Level of care distribution for individuals in the youth subpopulation receiving SUD treatment identified in Metrics #6, #8-#10, and #12.
For beneficiaries over age 64 (older adult subpopulation), most services were outpatient based, followed by some MAT (Fig. 18). Relatively few beneficiaries received services at the higher levels of care. Compared to duals (Fig. 19), older adults appear to receive slightly more MAT and slightly less IOP/PH.

Figure 18. Level of care distribution for individuals in the older adult subpopulation receiving SUD treatment identified in Metrics #6 and #8-#12.

Figure 19. Level of care distribution for individuals in the dual subpopulation receiving SUD treatment identified in Metrics #6 and #8-#12.
For pregnant beneficiaries, most services were outpatient or MAT based (Fig. 20). However, IOP and PH utilization was relatively larger for this sub-population in comparison to duals and older adults.

For beneficiaries with recent Criminal Justice involvement (Fig. 21), most services were outpatient based, although the State noted relatively higher proportions of IOP/PH, Residential Tx/IP, and Withdrawal Management in comparison to the overall Medicaid population receiving SUD services. The position of the black line is also significant, suggesting that beneficiaries receive multiple categories of service each month.

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**Figure 20.** Level of care distribution for individuals in the pregnant subpopulation receiving SUD treatment identified in Metrics #6 and #8-#12.

**Figure 21.** Level of care distribution for individuals in the pregnant subpopulation receiving SUD treatment identified in Metrics #6 and #8-#12.
3. Implementation of Comprehensive Treatment and Prevention Strategies to Address Opioid Abuse and OUD (Milestone 5) (Metric #23)

**Metric #23** reports the number of emergency room visits for SUD per 1,000 beneficiaries. Rates for this metric generally decreased over the 9-month period reported here, though May and June 2020 increased again from a pandemic-related April 2020 low. The rate among the OUD subpopulation decreased by more than -2% between Q1-Q2 (Fig. 22), while rates among youth and older adults increased by more than +2% between Q1-Q2 (Fig. 23). The State observed a decrease in rates of more than -2% for all five reported groups for the metric in Q3. The State notes that the observed rate of ED visits for SUD for the OUD subpopulation is much higher than for the other groups due to the OUD diagnosis requirement for inclusion in the denominator.

![Figure 22. Monthly ED visits for SUD per 1,000 beneficiaries with an OUD diagnosis in the month (Metric #23), with linear trend line.](image)

![Figure 23. Monthly ED visits for SUD per 1,000 beneficiaries in the youth subpopulation (Metric #23), with linear trend line.](image)
4. Other SUD-related metrics (Metric #24, UDS)

**Metric #24** reports the number of inpatient stays for SUD per 1,000 beneficiaries. Overall, rates for Metric #24 generally decreased slightly over the 9-month period reported here; the Metric #24 OUD subpopulation plot shown below in Figure 24 represents the general time trend across the 9-month period. The State observed a decrease in rates of more than -2% for all five reported groups in Q3, most likely due to COVID-19 impacts. The State notes that the observed rate of inpatient stays for the OUD subpopulation is much higher than for the other groups due to the OUD diagnosis requirement for inclusion in the denominator. However, rates among youth and older adults increased by more than +2% initially between Q1-Q2 before decreasing in Q3 (Fig. 25).

![Figure 24. Monthly IP stays for SUD per 1,000 beneficiaries with an OUD diagnosis in the month (Metric #24), with linear trend line.](image)

![Figure 25. Monthly IP stays for SUD per 1,000 beneficiaries in the youth subpopulation (Metric #24), with linear trend line.](image)
**Metric S2** (state-defined monthly metric) is the number of urine drug screens per 1,000 beneficiaries with SUD (any SUD diagnosis, no treatment required). The rate for this metric declined by more than -2% per quarter across the 9 months reported here for nearly all subpopulations (Fig. 26). For the CJI subpopulation (Fig. 27), the rate increased by more than +2% between Q1-Q2, and then decreased by more than -2% in Q3.

![Figure 26. Number of urine drug screens per 1,000 beneficiaries with SUD (Metric S2), with linear trend line.](image1)

![Figure 27. Number of urine drug screens per 1,000 CJI beneficiaries with SUD (Metric S2), with linear trend line.](image2)