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THE OPIOID CRISIS:

The impact on the
Medicaid population
is stretching the
state's safety net



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Executive Summary

Despite the increased awareness of the dangers of opioid abuse, the rates of opioid dependence, abuse and overdose among Ohio Medicaid recipients climbed significantly between 2010 and 2016, according to an analysis of Medicaid claims data by the Ohio Auditor of State's office.

Between 2010 and 2016, the number of Ohio Medicaid recipients with an opioid-related diagnosis (dependence, abuse or overdose) grew 430 percent. In 2015 alone, the number of opioids dispensed to Ohio Medicaid patients was almost 100.9 million doses.

While the dosage for Ohio Medicaid recipients is on par with those of the commercially insured, the opioid prescriptions are for a shorter duration. However, the percentage of the Medicaid recipient population needing treatment for opioid abuse, dependence or overdose is more than three times the rate of those on commercial insurance – 26.5 per 1,000 recipients vs. 8.3 per 1,000 in commercially insured.

Because addiction often leads to job loss and with it the loss of private, commercial insurance, many with addictions fall to Medicaid for opioid addiction treatment. The four-fold increase in Medicaid recipients with opioid-related diagnosis is stretching the state's safety net, with a staggering 639 percent increase in the use of medication-assisted treatment over the six-year period.

According to the data:

- The total Medicaid cost for opioid prescriptions in Ohio jumped 255 percent between 2013 and 2016, from just over \$40 million to just under \$240 million.
- The rate of Medicaid recipients with diagnosis of dependence, abuse or overdose increased each year between 2010 and 2016. Over the six-year period, those affected by opioid abuse grew 262 percent.
- The number of unique individuals on Medicaid receiving medication-assisted treatment for addiction jumped from about 6,500 in 2010 to nearly 48,000 in 2016 – an increase of 639 percent. A higher percentage of Medicaid recipients (45 percent increase) received medication-assisted treatment within six months of dependence/abuse/overdose diagnosis in 2016 vs. 2010.
- Between 2010 and 2016, there was a continual increase in the number of male and females who had been diagnosed with opioid dependence, had abused opioids or overdosed. For women, those with opioid-related addiction problems jumped 194 percent and by 366 percent for men.
- Opioid prescriptions for Medicaid recipients in Ohio are shorter in duration than the national trend in commercially insured population. While 99 percent of the dosage for Medicaid recipients was for prescriptions of 30 days or less in duration, only 74 percent of the commercially insured population nationally had durations of 30 days or less.
- The data reveal that there are virtually no long-duration opioid prescriptions for Medicaid recipients (over 90 days) in Ohio while 45 percent of the commercially insured population nationally have prescriptions above 90 days, based on a study by Blue Cross/Blue Shield.
- Almost all opioid prescriptions written for Ohio Medicaid recipients are low dosage (95 percent), while 93 percent of the commercially insured receive low-dosage prescriptions.
- Similar to the commercially insured population, female Medicaid recipients filled more opioid prescriptions across all age groups. And regardless of gender, the data shows the highest rate is found in ages between 40 and 49.
- Counties in the south central section of Ohio continued to experience higher rates of opioid related diagnosis than those in other parts of the state. In 2010, the highest county rate was 25 Medicaid recipients per 1,000. By 2013, the number climbed to 34 per 1,000, and by 2016, the number soared to 62 per 1,000 – or more than twice what it was in 2010.



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Ohio's Opioid Epidemic

An Analysis of Medicaid Claims Data

Background

Opioids are synthetic versions of opium that are used to treat moderate and severe pain. In addition to decreasing the perception of pain, opioids can create a feeling of euphoria, increasing their potential for abuse and dependence and can cause serious harm, including overdose and death. In June 2017, an NBC News article referred to Ohio's Montgomery County being number one per capita in overdose deaths. While the opioid epidemic continues, the Ohio Board of Pharmacy reported that opioid prescribing in Ohio declined for a fourth consecutive year in 2016. Between 2012 and 2016, the total number of opioids dispensed to Ohio patients decreased by 162 million doses or 20.4 percent.¹ As part of the continuing effort to address the opioid epidemic, Ohio implemented new limits on prescriptions for acute pain in August 2017 which is anticipated to further reduce prescribed dosage of opiates.

According to the Center for Disease Control², Medicaid members are more than twice as likely to receive opioid prescriptions, have higher rates of emergency room visits and are at higher risk for opioid-related death than non-Medicaid members. In recent years, Ohio's Medicaid program saw an increase in the number of members with the diagnosis of opioid abuse, dependence or overdose (opioid related diagnosis), and in the numbers receiving Opiate prescriptions.

This report analyzed Medicaid claims data from 2010 through 2016 to identify the prevalence of opioid related diagnosis, the percent receiving an opioid prescription, prescribing patterns including dose and duration, and the percent receiving medication-assisted treatment³. Results of the analysis were compared to the 2017 report issued by Blue Cross Blue Shield (BCBS) referred to in this report as the commercially insured population⁴. Between 2010 and 2016, the percent of Medicaid members with at least one filled opioid prescription increased by 42 percent. In 2015, the number of opioids dispensed to Ohio Medicaid patients was about 100.9 million doses.

In 2014, eligibility for Ohio's Medicaid coverage was extended to adults with an annual income up to 138 percent of the federal poverty level. The trends noted in this report should be viewed within context of this expansion and the resulting increase in the individuals receiving health care through the program. In state fiscal year 2010, Ohio reported approximately 2.4 million⁵ Medicaid members and by 2016 that number grew to over 3 million⁶.

1 2016 Ohio Drug Overdose Data: General Findings – Ohio Department of Health

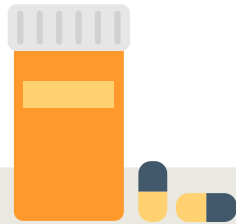
2 Patient Review & Restriction Programs - Lessons learned from state Medicaid programs - CDC Expert Panel Meeting Report 2012

3 Members with a clinical condition of cancer or those who were in hospice care were excluded from the analysis.

4 Blue Cross Blue Shield America's Opioid Epidemic and its effect on the Nation's Commercially-Insured population – June 2017

5 2010 Annual Report of the Ohio Department of Job and Family Services

6 Ohio Department of Medicaid Program Integrity Report, August 1, 2017



By the numbers

262%

Increase in rate of **Medicaid members** with opioid related diagnosis

5x

Rate of opioid diagnosis for **Medicaid members** compared to commercially -insured population

2x

In 2016, Ohio's **south central counties** had, on average, almost twice the rate of members with opioid related diagnosis

255%

Increase in **Medicaid cost** for opioid prescriptions since 2013

719%

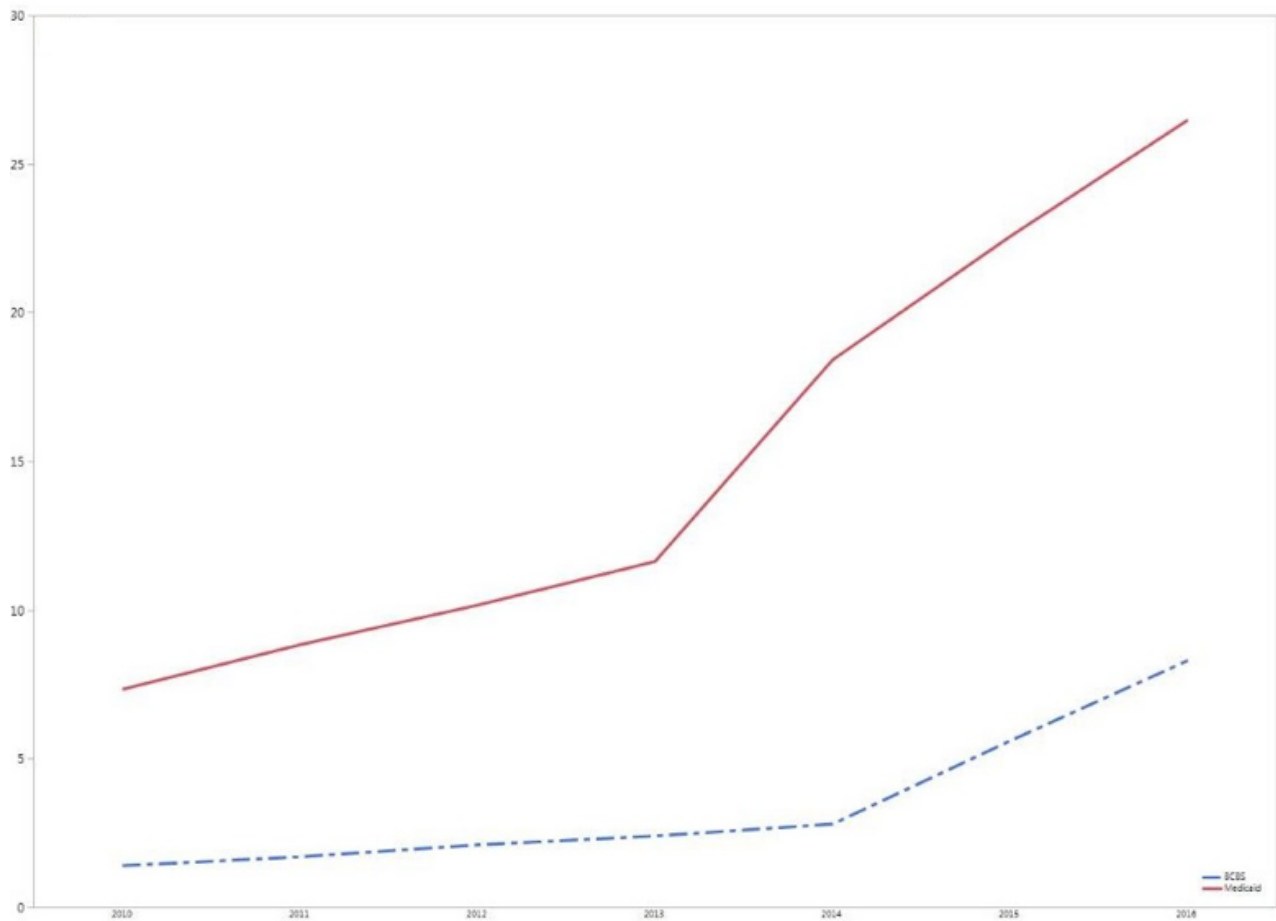
Increase in **Medicaid cost** for medication assisted treatments over six years

Key Findings

- The rate of opioid related diagnosis in the Medicaid population was, on average, nearly five times the rate of the commercially insured population.
- The rate of male Medicaid members with opioid related diagnosis increased by 366 percent during the six year period – compared to 194 percent increase for females.
- The percentage of Medicaid members that filled a least one opioid prescription in 2015 was below the rate found in commercially insured members.
- When analyzed separately, Medicaid opioid prescriptions in 2015 were for low dosage and short duration.
- Counties in the south central section of Ohio continued to experience higher rates of opioid related diagnosis.
- Higher percentage of Medicaid members received medication-assisted treatment within six months of diagnosis in 2016 compared to 2010.

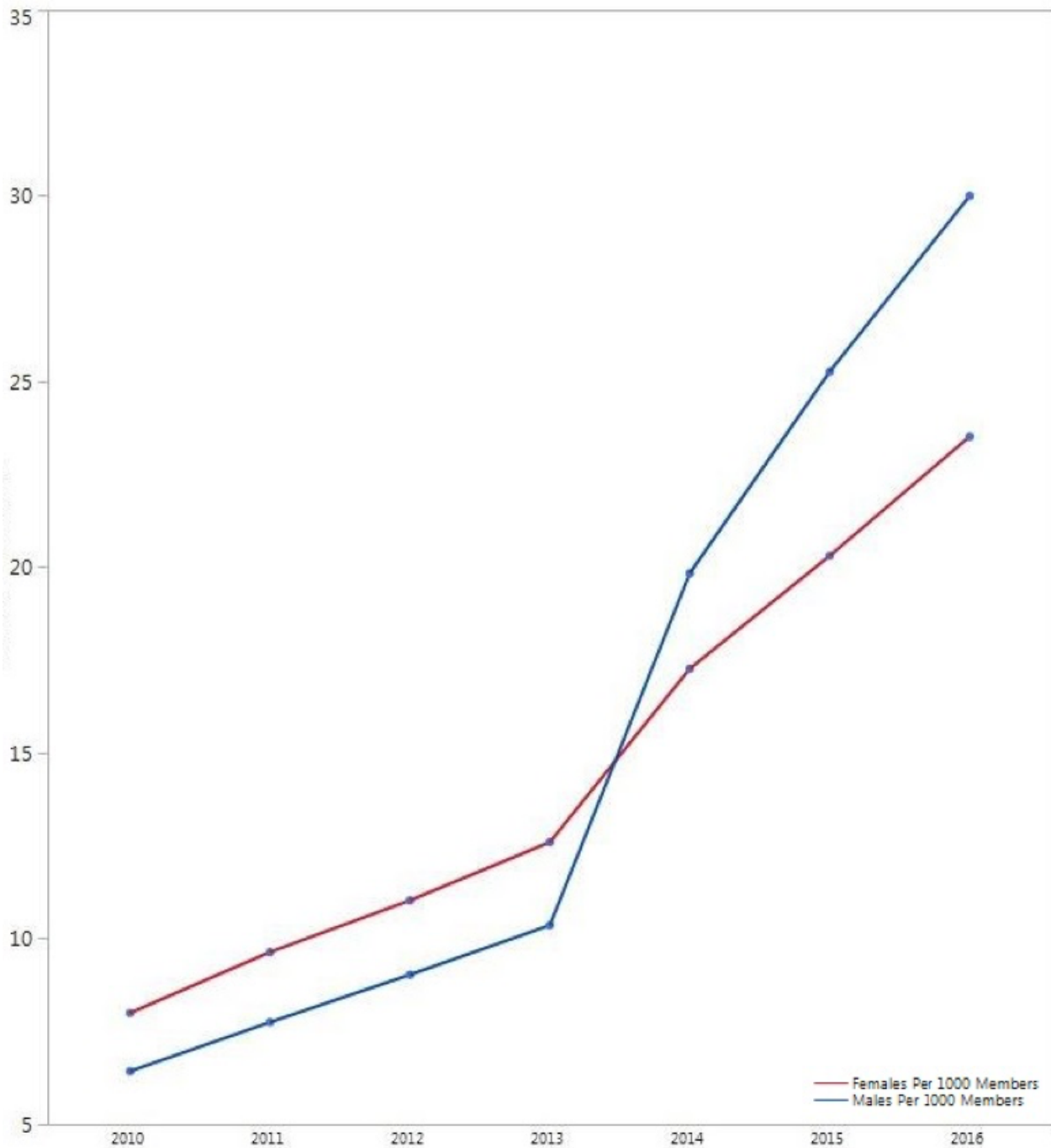
Prevalence of Opioid Related Diagnosis

Chart 1: The rate (per 1,000) of Medicaid and Blue Cross Blue Shield (BCBS) members with an opioid related diagnosis increased between 2010 and 2016, but it was significantly lower than the Ohio Medicaid population, which witnessed an overall increase of 262 percent during the six year period. The largest annual increase (58 percent) for Medicaid occurred in 2014; however this increase is likely tied to the 2014 expansion of the program. As seen in **Chart 1**, the rate of Medicaid members with an opioid related diagnosis was on average five times greater than this commercially insured population.



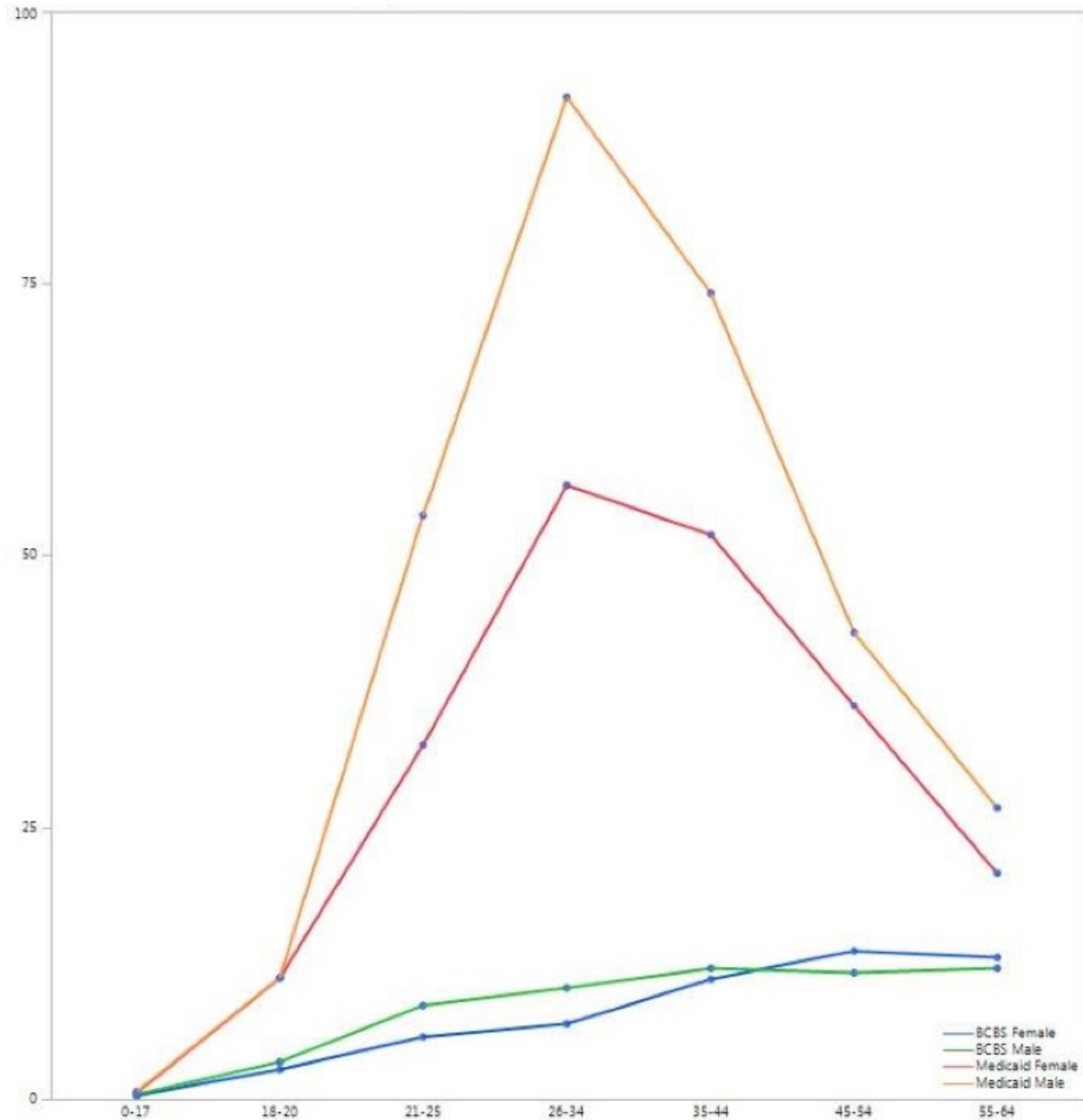
Rate of Members with Opioid Related Diagnosis

Chart 2 shows rates (per 1,000) of male and female members with an opioid-related diagnosis by year. The data shows a continual increase in males and females over the six year period with females increasing by 194 percent and males by 366 percent. Beginning in 2014, the rate in males exceeded that of females.



Rate of Opioid Related Diagnosis by Gender

Chart 3 shows rates (per 1,000) by gender of both Medicaid and BCBS members with an opioid related diagnosis in 2016. The data shows an increase with each older age group for both genders of the commercially insured population. In comparison, the Medicaid rates are higher than the BCBS population in every age group; however, there is a decline starting with the 35 to 44 age group.

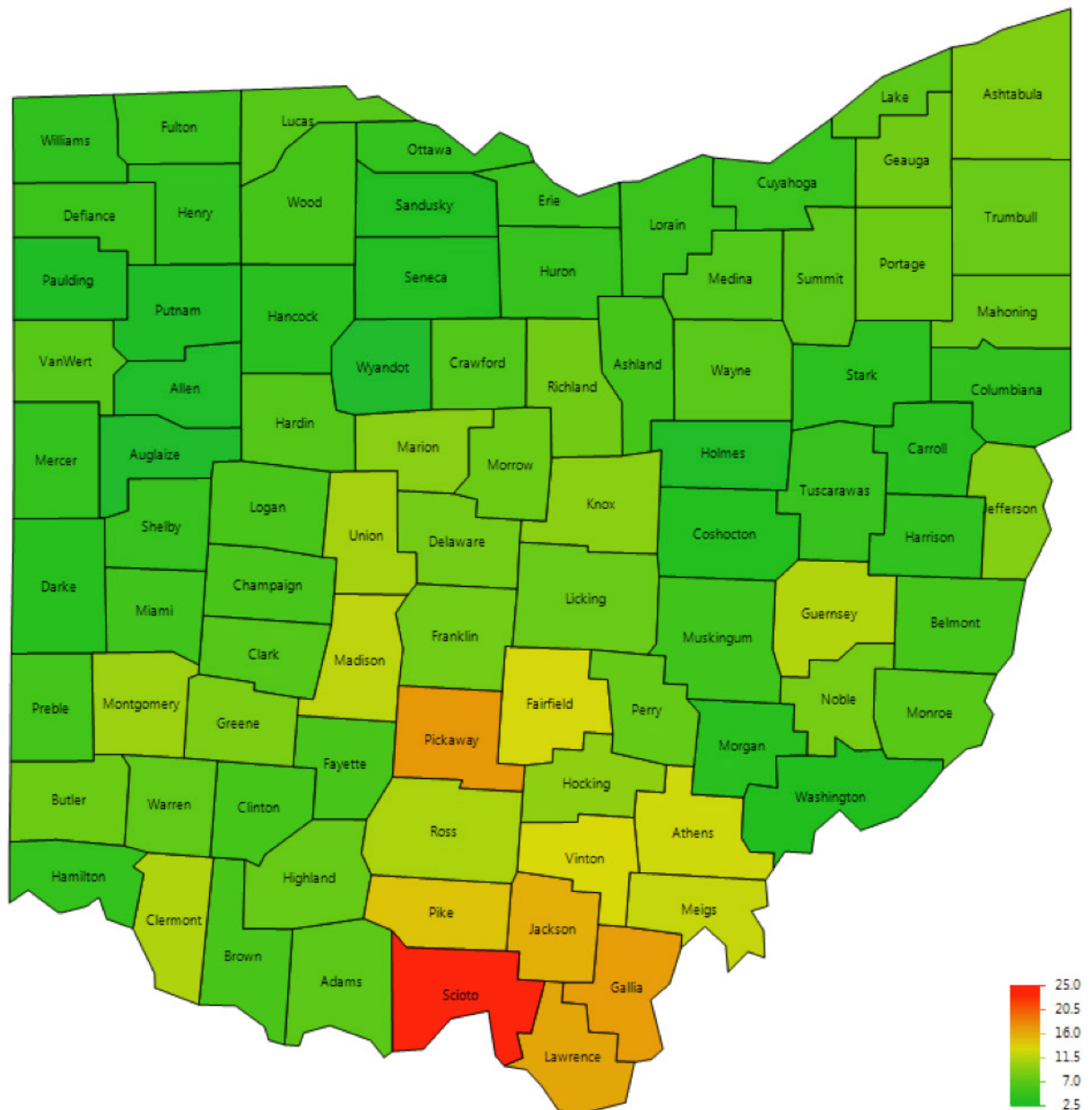


2016 Rate of Opioid Related Diagnosis by Gender and Age Group

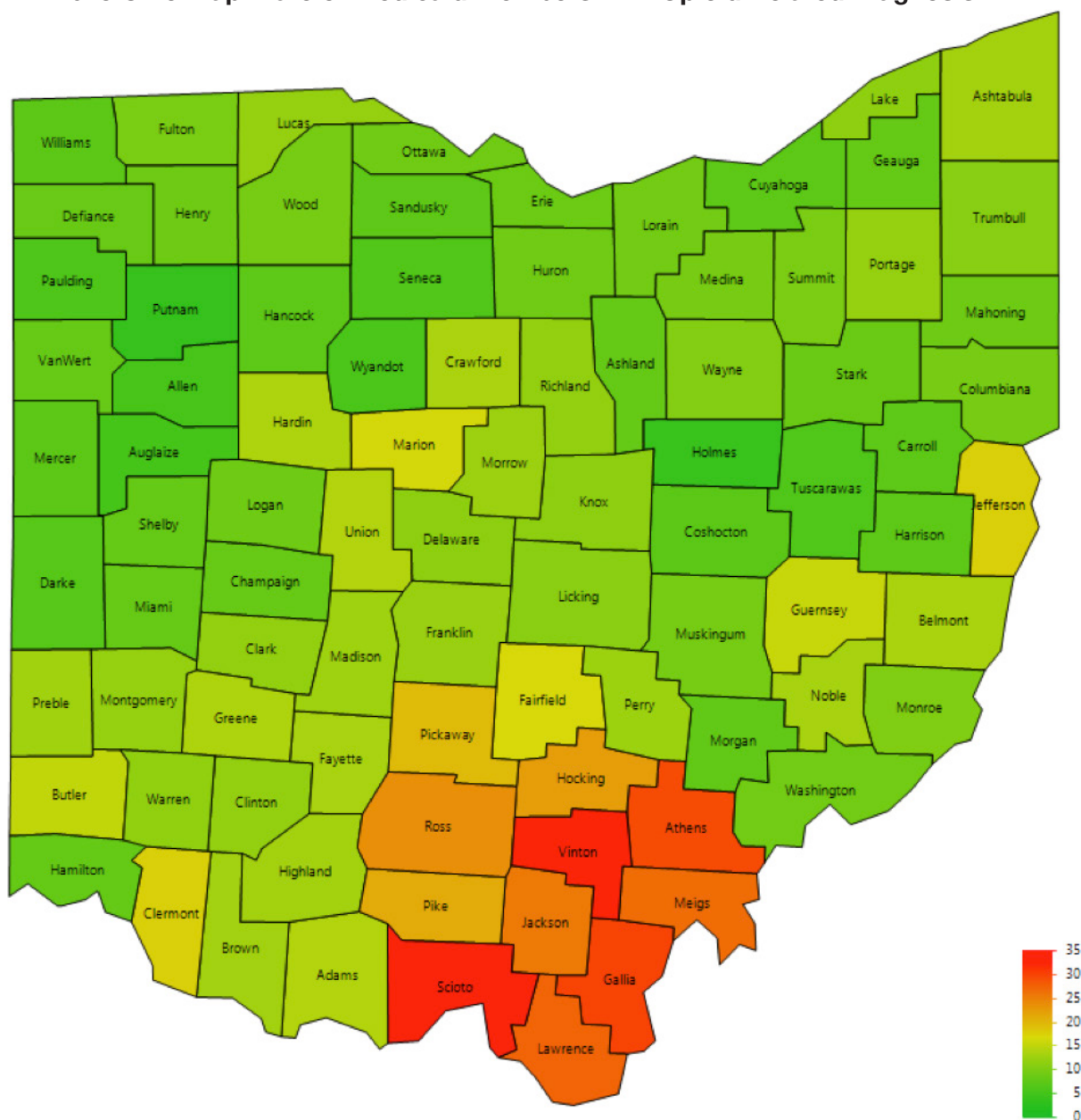
The following maps show the rate of Medicaid members (per 1,000) with an opioid related diagnosis by county in 2010, 2013 and 2016. All three maps show a higher prevalence to be in the central southern counties; however, by 2016 an increase is seen in many additional counties. In 2016, the 13 central southern counties have on average nearly twice the number of Medicaid members with an opioid related diagnosis.

In 2010, the highest county rate was 25 members per 1,000. In 2013 that rate increased to 34 per 1,000 and, in 2016, it had increased to 62 per 1,000.

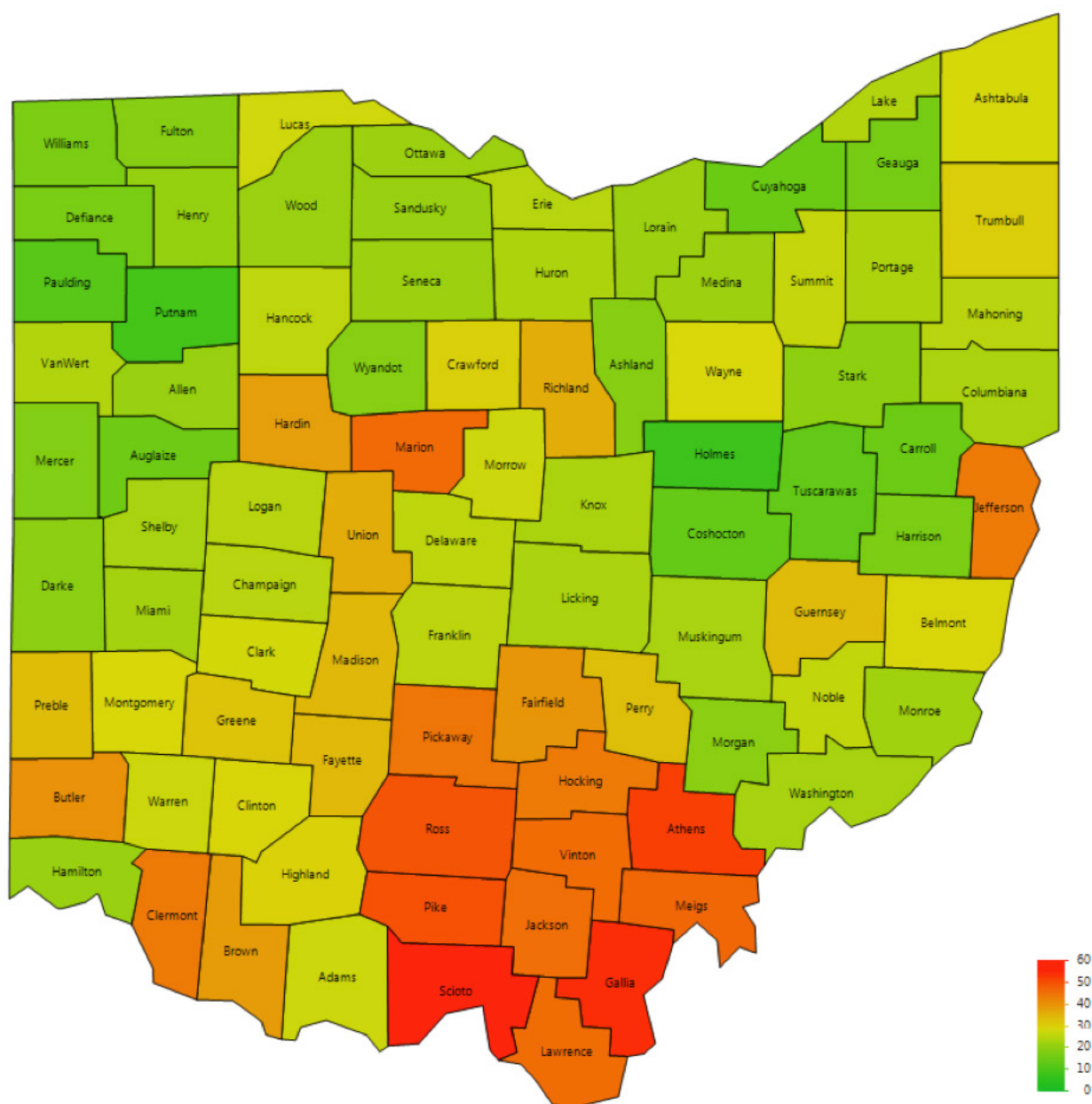
2010 Ohio Map: Rate of Medicaid Members with Opioid Related Diagnosis



2013 Ohio Map: Rate of Medicaid Members with Opioid Related Diagnosis

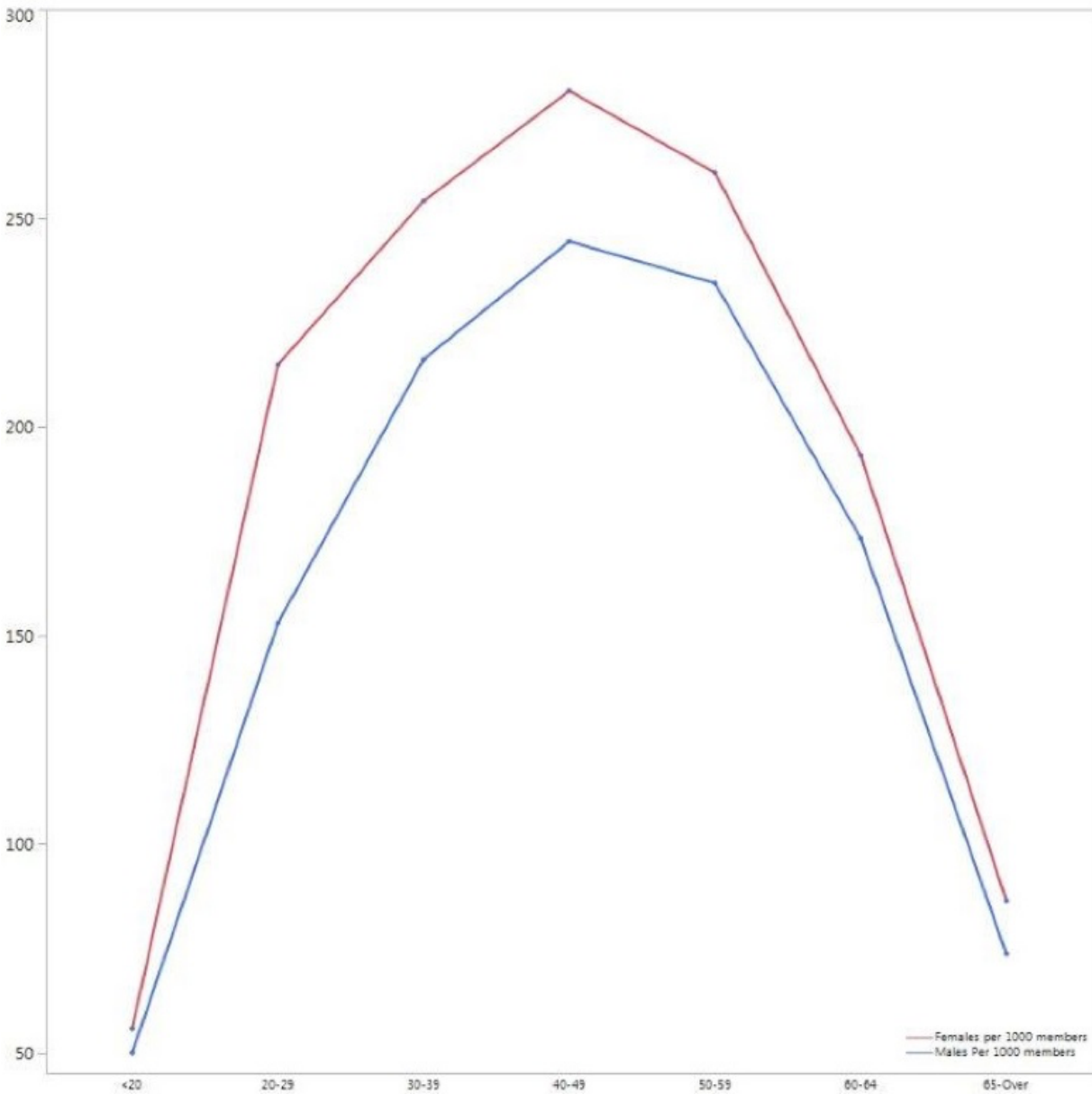


2016 Ohio Map: Rate of Medicaid Members with Opioid Related Diagnosis



Opioid Prescriptions in Ohio's Medicaid Program

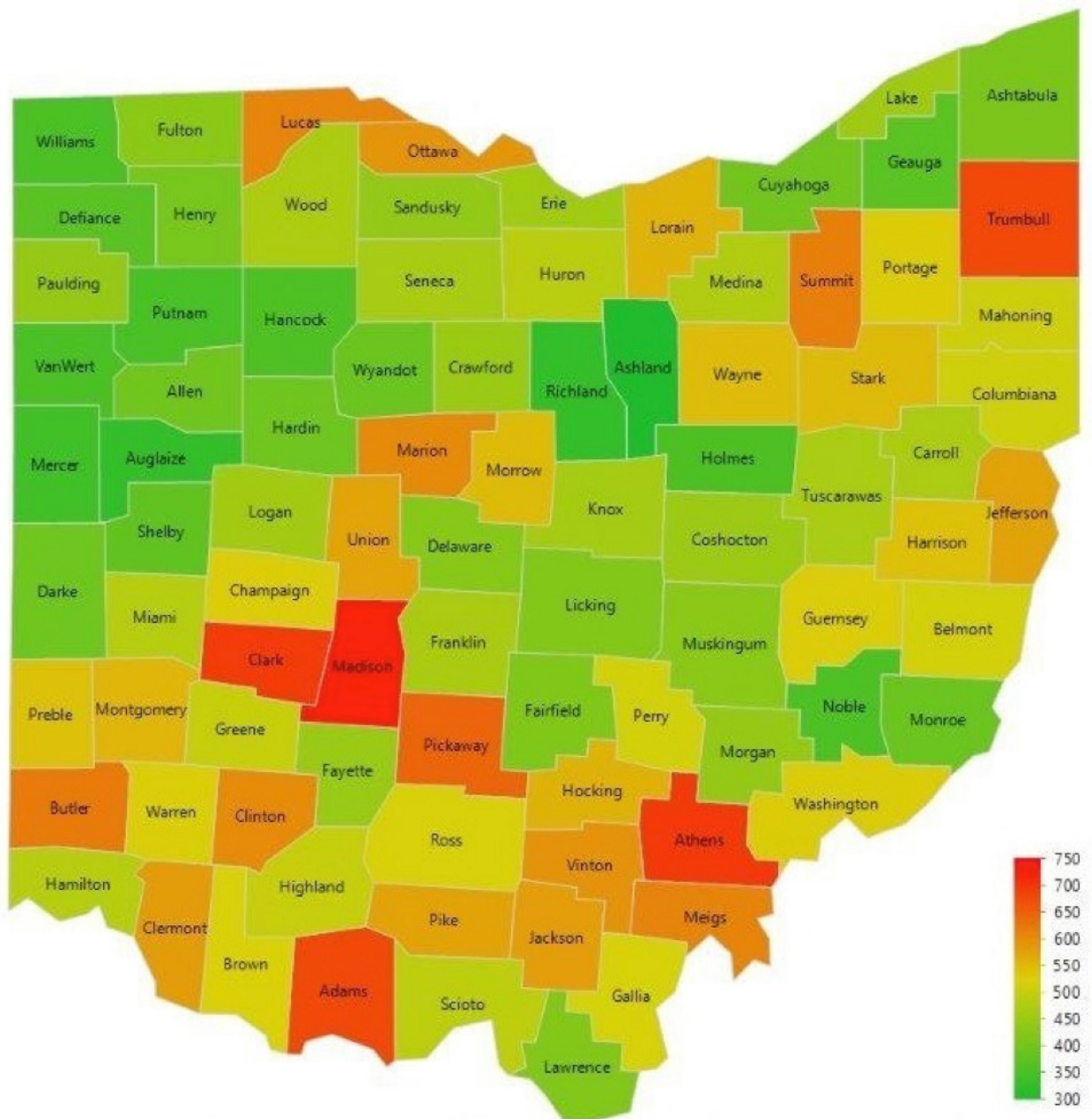
Chart 4 shows the 2016 rate of male and female Medicaid members (per 1,000) receiving prescriptions by age group. The chart shows the highest rate is found in ages 40 to 49 for both genders. While females have higher rates, both genders show a similar pattern across age groups. In 2015, BCBS reported that 21 percent of its members filled at least one opioid prescription. In comparison, 15 percent of Medicaid members filled at least one opioid prescription in the same year.



Rate of Medicaid Prescriptions by Age and Gender in 2016

The following map shows the 2016 number of opioid prescriptions filled by Medicaid members (per 1,000) in each county. The map shows higher rates are more predominant in the southern and eastern counties. The five counties with the highest rates of prescriptions include: Adams, Athens, Clark, Madison and Trumbull.

2016 Ohio Map – Rate of Opioid Prescriptions Filled



Medicaid Prescription Regimens by Dose and Duration

Chart 5 compares 2015 patterns of short term opioid use of Medicaid members to the commercially insured population⁷. Prescriptions with durations of 0-3 and 15-30 days made up the largest percentage of the Medicaid population; however, they were among the smallest in comparison with the commercially insured population. Over 99 percent of Medicaid prescriptions were 30 days or under compared to approximately 74 percent of the commercially insured population. This shows that opioid prescriptions for Ohio Medicaid recipients are shorter duration than the trend for this commercially insured population.

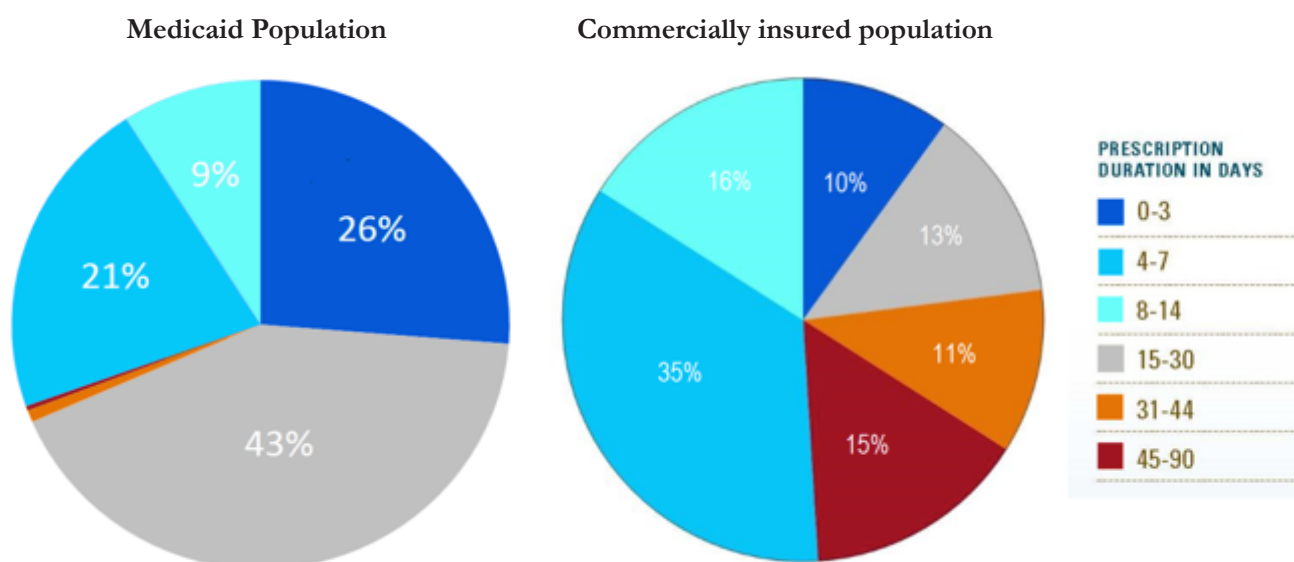
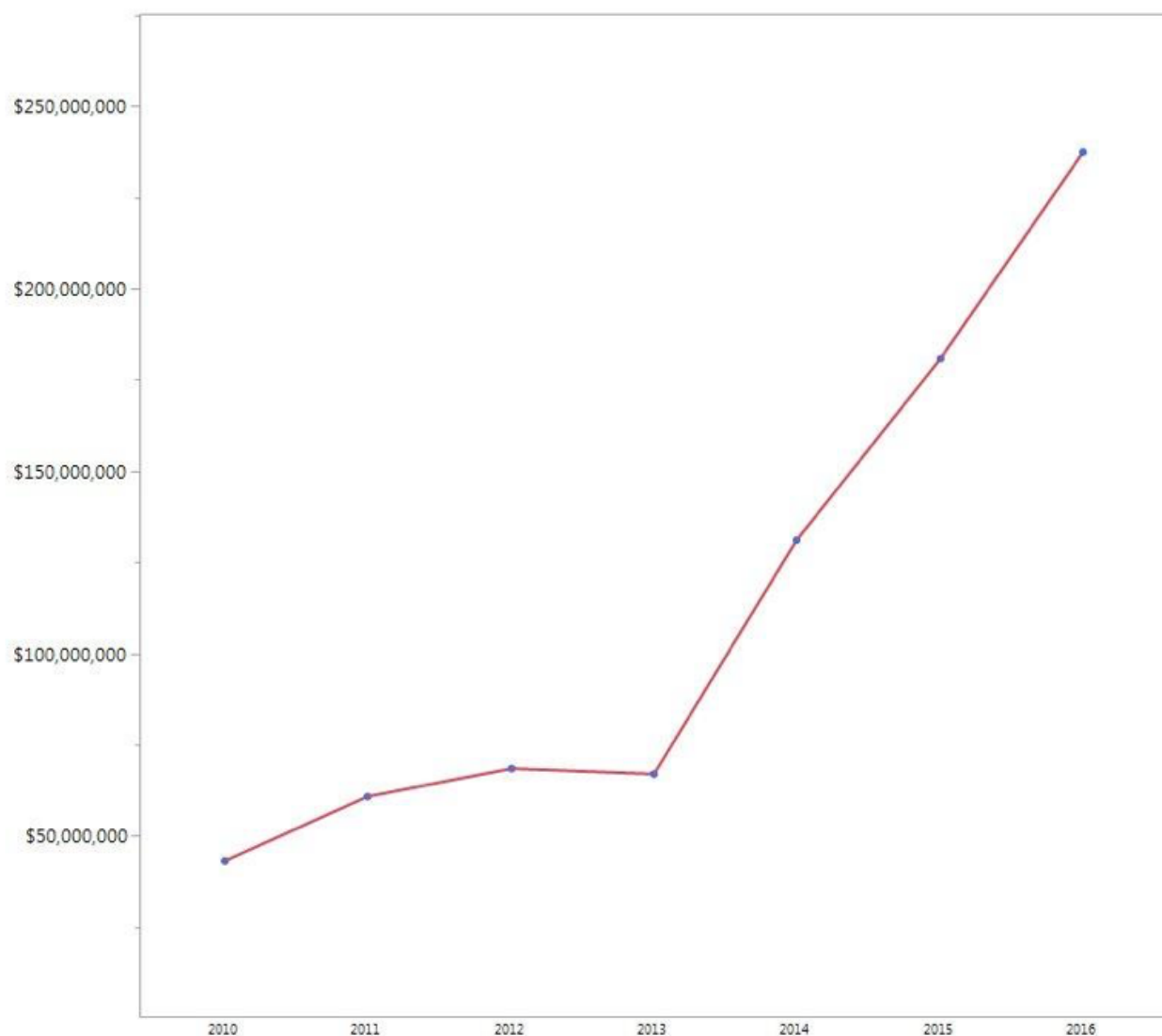


Chart 6 compares Medicaid prescription regimens by morphine-equivalent daily dose (MEDD) and days of duration to patterns for the commercially insured population. The pattern reveals that the Medicaid population has virtually no prescriptions over 90 days compared to 45 percent for the commercially insured population, while high dosage (over 100 MEDD) remained relatively consistent between the two populations. In October of 2013, Ohio issued guidelines for prescribing opioids for treatment of chronic non-terminal pain. These guidelines may be contributing to the differences noted.



⁷ Blue Cross Blue Shield *America's Opioid Epidemic and its effect on the Nation's Commercially-Insured population – June 2017*

Chart 7 shows an increase in the Medicaid cost of opioid prescriptions in Ohio for the seven year period. The data shows a 255 percent increase in these costs since 2013.

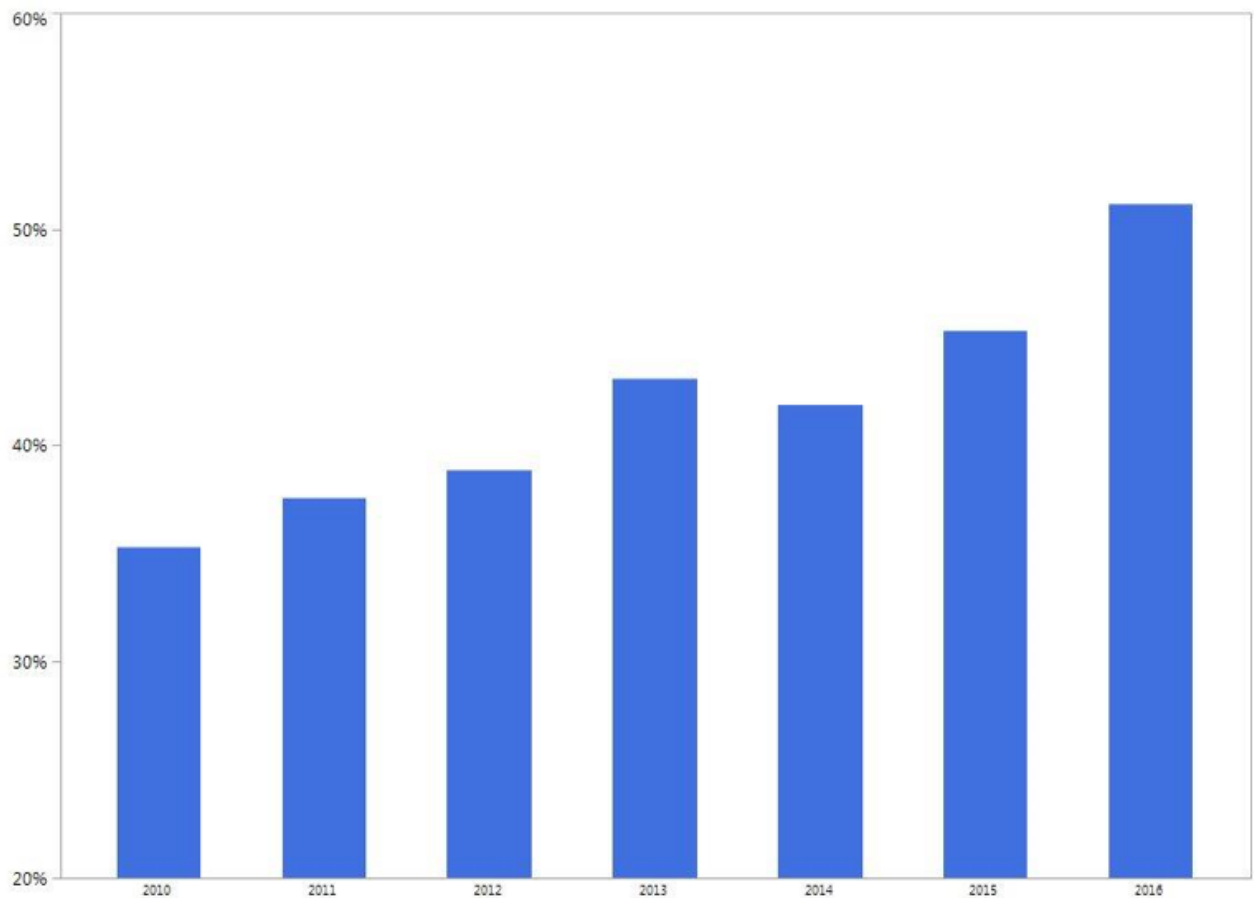


Ohio's Medicaid Cost for Opioid Prescriptions

Medication-Assisted Treatment Trends

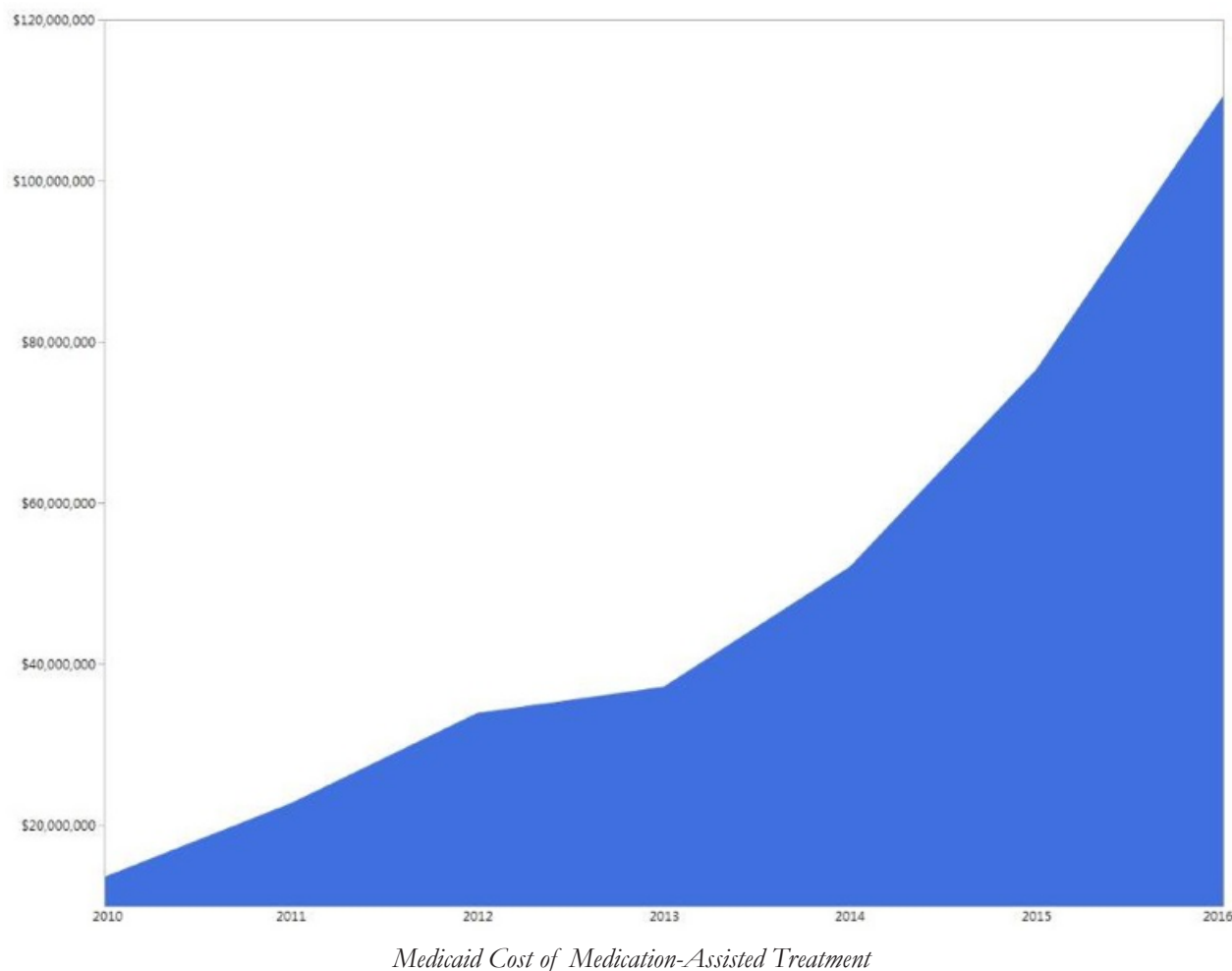
There are three types of medications used to treat opioid addiction: agonists, partial agonists and antagonists. An agonist, such as Methadone, mimics the action of another drug and produces a biological response. A partial agonist, such as Suboxone or Buprenorphine, also activates the opioid receptor but produces a diminished response. An antagonist, such as Naltrexone, blocks the effects and interferes with the rewarding effects of opioids.

Chart 8 below shows the percentage of opioid dependent Medicaid members who received medication-assisted treatment within six months of diagnosis. The data shows an increase of almost 45 percent between 2010 and 2016. In terms of total numbers, the unique individuals receiving medication-assisted treatment increased from about 6,500 to almost 48,000 during this period – an increase of 639 percent; however, data from 2016 indicates that almost 50 percent are not receiving this type of treatment.



Members Receiving Medication-Assisted Treatment

Chart 9 shows the total Medicaid cost of medication-assisted treatment by year has increased by over 719 percent since 2010. In 2016, the total cost was about \$110.4 million.



Conclusion

Substance abuse disorder has a significant impact on the Medicaid population. Even with the increased awareness of the opioid epidemic, the rates of opioid dependence, abuse and overdose continue to climb to record levels as does the cost of prescriptions. The prescription data does show that Medicaid population receives lower doses and for shorter durations than commercially insured population. The increases in 2014 data should be reviewed in context of Ohio's expansion of the Medicaid program at the beginning of 2014.

Methodology Notes: This report examines the medical and prescription claims of more than half a million Medicaid members from 2010 to 2016. The analysis used the number of Medicaid members with an International Classification of Disease (ICD) or Diagnosis related group (DRG) code of opioid abuse or dependence. Prescriptions opioid claims were identified by therapeutic class detail code and included all opiate class drugs. Members with a clinical condition of cancer or those who were in hospice care were excluded from this analysis. Dosage of opioid regimens was calculated separately for each member's prescription using the morphine equivalent dosage per unit which was multiplied by the prescribed units per day (dispensed quantity divided by days' supply). Medication-assisted treatment includes all antagonists under therapeutic class intermediate code 63, all partial agonists under code 61, and the detailed code for Methadone.

Appendix

2016 Rate of Opioid Prescriptions Filled (per 1,000 members) by County

Adams	679	Hamilton	482	Noble	355
Allen	398	Hancock	357	Ottawa	593
Ashland	289	Hardin	396	Paulding	441
Ashtabula	411	Harrison	543	Perry	515
Athens	697	Henry	407	Pickaway	647
Auglaize	324	Highland	502	Pike	577
Belmont	516	Hocking	561	Portage	531
Brown	525	Holmes	354	Preble	544
Butler	623	Huron	486	Putnam	350
Carroll	468	Jackson	583	Richland	324
Champaign	530	Jefferson	578	Ross	522
Clark	694	Knox	460	Sandusky	440
Clermont	584	Lake	455	Scioto	490
Clinton	605	Lawrence	419	Seneca	464
Columbiana	511	Licking	418	Shelby	379
Coshocton	450	Logan	459	Stark	551
Crawford	448	Lorain	559	Summit	618
Cuyahoga	400	Lucas	610	Trumbull	681
Darke	396	Madison	727	Tuscarawas	467
Defiance	369	Mahoning	509	Union	576
Delaware	424	Marion	605	VanWert	352
Erie	456	Medina	475	Vinton	596
Fairfield	416	Meigs	611	Warren	528
Fayette	447	Mercer	339	Washington	531
Franklin	466	Miami	482	Wayne	547
Fulton	430	Monroe	391	Williams	353
Gallia	522	Montgomery	556	Wood	469
Geauga	371	Morgan	442	Wyandot	392
Greene	502	Morrow	551		
Guernsey	530	Muskingum	430		

2010, 2013, 2016 Rate of Medicaid Members (per 1,000) with Opioid Related Diagnosis by County

County	2010	2013	2016	County	2010	2013	2016	County	2010	2013	2016
Adams	7.2	14.2	27.5	Hamilton	4.8	8.1	21.2	Noble	8.6	13.3	26.2
Allen	2.7	5.4	20.9	Hancock	3.9	7.4	25.8	Ottawa	4.6	9.1	21.4
Ashland	5.9	8.0	18.6	Hardin	6.6	13.8	38.5	Paulding	3.0	6.0	12.0
Ashtabula	9.0	13.1	28.6	Harrison	4.5	7.5	17.0	Perry	7.8	12.6	33.2
Athens	12.9	29.7	52.6	Henry	4.5	8.9	20.7	Pickaway	17.4	19.8	44.9
Auglaize	2.0	5.3	15.3	Highland	7.8	13.1	29.9	Pike	14.6	21.4	50.0
Belmont	5.8	13.6	29.3	Hocking	9.9	22.6	44.2	Portage	8.0	12.1	23.6
Brown	6.1	13.0	39.1	Holmes	2.8	3.9	7.5	Preble	5.7	13.0	33.7
Butler	8.0	15.2	40.6	Huron	4.8	9.1	23.6	Putnam	2.9	3.7	9.0
Carroll	3.9	7.4	14.8	Jackson	15.9	25.9	45.9	Richland	8.3	11.8	36.3
Champaign	6.0	8.3	25.1	Jefferson	9.4	17.6	44.2	Ross	11.3	23.9	49.7
Clark	6.7	11.8	28.0	Knox	9.7	11.4	23.4	Sandusky	3.2	7.6	21.2
Clermont	11.5	17.6	44.4	Lake	7.2	11.5	24.2	Scioto	25.1	33.7	62.1
Clinton	5.9	11.9	29.4	Lawrence	16.6	27.6	46.2	Seneca	3.2	6.4	21.5
Columbiana	4.4	9.7	23.5	Licking	8.0	11.2	23.5	Shelby	4.9	8.2	23.1
Coshocton	3.6	7.3	13.8	Logan	6.0	8.9	24.9	Stark	4.1	8.5	19.7
Crawford	6.6	13.7	30.1	Lorain	5.1	9.3	21.5	Summit	7.1	9.9	26.5
Cuyahoga	5.1	7.4	14.7	Lucas	6.8	12.1	27.8	Trumbull	8.0	11.0	30.6
Darke	3.8	6.9	19.5	Madison	12.1	12.7	34.4	Tuscarawas	4.9	6.3	13.6
Defiance	5.3	8.4	16.9	Mahoning	7.9	8.8	25.1	Union	10.9	14.2	36.4
Delaware	8.5	11.5	25.7	Marion	9.6	16.5	46.5	VanWert	6.8	8.3	24.2
Erie	5.1	8.6	24.9	Medina	6.5	9.7	21.6	Vinton	13.3	32.8	46.3
Fairfield	13.2	16.7	40.0	Meigs	12.4	27.0	46.9	Warren	7.4	11.7	27.3
Fayette	6.1	13.5	34.3	Mercer	4.7	7.3	18.1	Washington	3.4	9.2	22.8
Franklin	8.4	12.3	25.5	Miami	5.5	8.2	22.6	Wayne	7.1	10.6	29.0
Fulton	5.1	9.8	18.5	Monroe	7.0	10.4	22.3	Williams	4.5	7.3	17.0
Gallia	17.0	30.2	54.9	Montgomery	10.5	12.1	29.1	Wood	5.8	9.6	21.4
Geauga	8.3	8.1	16.4	Morgan	3.9	7.8	19.3	Wyandot	1.7	5.8	18.7
Greene	8.9	13.8	32.5	Morrow	8.0	12.5	27.4				
Guernsey	11.5	15.6	33.9	Muskingum	5.5	9.6	23.2				