

UPDATE ON MAKENA UTILIZATION IN MISSISSIPPI MEDICAID

BACKGROUND

According to the Mississippi State Department of Health, preterm birth (delivery before 37 weeks of pregnancy) is the leading cause of infant death in Mississippi. Infants born preterm are at an increased risk of breathing complications, infections and brain injury. Preterm labor and prenatal complications from hypertension and other maternal medical conditions are the leading causes of preterm birth in Mississippi. In 2017, 13.6% of infants were born preterm in Mississippi compared to 9.9% for the United States. The average medical cost for a healthy term baby is \$4,551, while the average medical cost for a preterm baby is \$49,003.¹

Makena® (hydroxyprogesterone caproate) is a progestin indicated to reduce the risk of preterm birth in women with a history of singleton child spontaneous preterm birth.² Makena was approved by the U.S. Food and Drug Administration (FDA) in February 2011.³ Makena was granted orphan drug exclusivity through February 2018. Prior to its approval, a compounded version of the active ingredient, 17-hydroxyprogesterone caproate (17P), was available to Medicaid beneficiaries whose physician requested the drug through compounding pharmacies. In June 2012, following the release of Makena, the FDA released an updated statement on the compounding of 17P.⁴ In its statement, the FDA recommended using an FDA-approved drug product, such as Makena, instead of a compounded drug except when there is a specific medical need (e.g., an allergy) that cannot be met by the approved drug. The FDA is not aware of any scientifically reliable evidence demonstrating that compounding 17P without a preservative or in an oil base different than the one used in Makena produces a significant difference for an identifiable group of patients (aside from the rare patient who is known to be allergic to either the preservative or the oil base). Currently, the MS Division of Medicaid (DOM) does not cover for compounded prescriptions except for hyperalimentation, as defined in DOM's Administrative Code.⁵

From 2011 until early 2018, the only hydroxyprogesterone caproate products commercially available in the U.S. were the Makena 250mg/ml single-dose or multi-dose vials. In February 2018, AMAG pharmaceuticals announced FDA approval of Makena 275mg subcutaneous auto-injector as a ready-to-administer treatment. According to the manufacturer, this new formulation contains a

¹ Mississippi State Department of Health Infant Mortality Report 2018.

https://msdh.ms.gov/msdhsite/_static/resources/8015.pdf Accessed April 2019.

² Makena [package insert]. AMAG Pharmaceuticals, Waltham, MA; Accessed April 2019.

³ U.S. Food and Drug Administration. FDA Statement on Makena. March 2011. Accessed March 2018.

⁴ U.S. Food and Drug Administration. Updated FDA Statement on Compounded Version of Hydroxyprogesterone Caproate (the Active Ingredient in Makena).

<https://www.fda.gov/Drugs/GuidanceComplianceRegulatoryInformation/PharmacyCompounding/ucm402614.htm> June 2012. Accessed March 2018.

⁵ MS-DOM Administrative Code Part 214. <https://medicaid.ms.gov/wp-content/uploads/2014/01/Admin-Code-Part-214.pdf>. Accessed May 2018.

short, thin, non-visible needle for subcutaneous use, offering patients and providers a new administration option.⁶ In June 2018, American Regent Pharmaceuticals announced the launch of hydroxyprogesterone caproate injection, USP, the first preservative free generic alternative to Makena. It is available in a 250mg single-dose vial.⁷ For the purposes of this report and since brand Makena is utilized almost exclusively in Medicaid, the term Makena will be used to refer to all hydroxyprogesterone caproate products.

DOM has taken numerous steps to improve access to Makena. Although Makena has been covered by Medicaid since it was FDA approved, it was listed in the Universal Preferred Drug List (UPDL) starting April 2017 when Makena was added as a preferred product in the Miscellaneous Brand/Generic category to prevent access barriers. Currently brand Makena is still the preferred agent for use on DOM's UPDL. In 2018 DOM took additional steps to improve beneficiary access to Makena and other injectable products by obtaining approval from the Centers for Medicare and Medicaid Services (CMS) to allow certain injectable drugs to be billed and reimbursed as either a medical claim or a point-of-sale (POS) claim. The Clinician Administered Drugs and Implantable Drug System Devices (CADD) list became effective July 1, 2018.

In spring 2018 MS-DUR conducted an evaluation of Makena utilization and potential issues related to access. This analysis was reported at the DUR Board's May 31, 2018 meeting. The report concluded that access delays or difficulties experienced most often occurred during the ordering process. At that time Makena was a limited-distribution specialty pharmaceutical product with a specific process in place for obtaining the product. The manufacturer's program, Makena Care Connection, provides patient support and helps ensure timely access to Makena therapy. One potential barrier to access noted in the report was provider unfamiliarity with the manufacturer's process for obtaining Makena. Another barrier noted by the manufacturer and specialty pharmacies which dispensed Makena was difficulty contacting beneficiaries before approving product shipment. Following the May 2018 Board meeting, the DUR Board Report has been shared both within DOM and externally with the MS State Department of Health. Multiple groups are working to assess and improve beneficiary access to Makena.

For this report, MS-DUR updated the analyses presented in the May 2018 Board report to also include additional data examining the impact of the CADD list on Makena prescribing.

METHODS

MS-DUR conducted a retrospective analysis of Makena utilization among Mississippi Medicaid beneficiaries using Mississippi Medicaid FFS and CCO pharmacy and medical claims from January 1, 2017 through December 31, 2018. This analysis updates the report presented at the May 2018 DUR Board Meeting, and it also specifically examines the impact on Makena access after the July 1, 2018 CADD list implementation.

⁶ AMAG Pharmaceuticals Press Release February 14, 2018. Accessed April 2019.

⁷ American Regent Press Release June 25, 2018. Accessed April 2019.

RESULTS

Table 1 displays the total number of paid claims for Makena by billing type from January 2017 – December 2018.

- Although Makena claims were allowed to be billed as either Medical or POS claims prior to implementation of the CADD List, promotion of the CADD List likely increased awareness surrounding the billing of Makena.
- Average number of monthly paid claims for Makena increased from an average **199** claims monthly before implementation of the CADD List to an average **240** claims monthly after implementation, a **20.6%** increase.
- As expected, there has also been a shift in billing type. While Medical claims are still being paid for Makena, average monthly POS claims have increased **50%** since implementation of the CADD list.

TABLE 1: Number of Paid Claims for Makena by Billing Type										
Claim Month	TOTAL		Medicaid Program							
			FFS		UHC		MAG		MOL	
	Medical	POS	Medical	POS	Medical	POS	Medical	POS	Medical	POS
Jan 17	121	26	10	0	23	0	88	26	0	0
Feb 17	119	24	7	0	27	0	85	24	0	0
Mar 17	143	26	11	0	51	0	81	26	0	0
Apr 17	101	42	20	1	13	17	68	24	0	0
May 17	98	87	12	5	19	35	67	47	0	0
Jun 17	77	91	10	10	15	42	52	39	0	0
Jul 17	82	90	11	12	13	38	58	40	0	0
Aug 17	84	115	15	20	13	50	56	45	0	0
Sep 17	72	105	12	12	10	55	50	38	0	0
Oct 17	72	116	3	16	5	55	64	45	0	0
Nov 17	88	101	17	16	4	47	67	38	0	0
Dec 17	94	97	9	16	16	43	69	38	0	0
Jan 18	145	95	11	12	57	35	77	48	0	0
Feb 18	136	115	15	17	54	50	67	48	0	0
Mar 18	130	145	17	15	48	63	65	67	0	0
Apr 18	128	148	9	13	52	77	67	58	0	0
May 18	112	141	8	9	40	68	64	64	0	0
Jun 18	103	110	10	14	34	47	59	49	0	0
Jul 18	111	149	20	26	34	60	57	63	0	0
Aug 18	106	145	9	21	40	72	57	52	0	0
Sep 18	104	125	6	11	47	54	51	60	0	0
Oct 18	111	149	15	17	59	61	32	56	5	15
Nov 18	69	139	5	19	38	51	18	47	8	22
Dec 18	99	131	0	9	54	42	29	48	16	32
TOTAL	2505	2512	262	291	766	1062	1448	1090	29	69

* Due to lag in medical claims submission by providers and reporting of medical claims by CCOs, data for November and December may be incomplete.

MS-DUR specifically analyzed new prescriptions written for Makena initiation (new starts) in pregnant women. Table 2 shows the number of beneficiaries initiating Makena therapy since January 2017.

- The number of monthly “new starts” has increased from an average of 44 beneficiaries monthly to an average of 52 beneficiaries monthly since the implementation of the CADD list, representing an **18%** increase in new starts monthly.
- Although during the first 2 months following implementation of the CADD List there was a substantial increase in new starts, numbers appear to have leveled off in later months.
- Due to the lag time in receiving medical claims data, numbers reported for November and December 2018 may be incomplete.

TABLE 2: Number of Beneficiaries Initiating Makena Therapy (January 2017 - December 2018)					
Month Initiating Therapy	Medicaid Program				
	Total	FFS	UHC	MAG	MOL
Jan-17	74	5	19	50	0
Feb-17	33	5	12	16	0
Mar-17	40	4	16	20	0
Apr-17	30	8	12	10	0
May-17	44	4	16	24	0
Jun-17	42	14	13	15	0
Jul-17	41	12	11	18	0
Aug-17	53	19	19	15	0
Sep-17	41	10	17	14	0
Oct-17	43	13	10	20	0
Nov-17	49	19	15	15	0
Dec-17	52	12	20	20	0
Jan-18	49	11	17	21	0
Feb-18	50	11	24	15	0
Mar-18	52	13	16	23	0
Apr-18	50	13	26	11	0
May-18	40	8	13	19	0
Jun-18	40	12	14	14	0
Jul-18	60	18	17	25	0
Aug-18	65	19	26	20	0
Sep-18	43	9	15	19	0
Oct-18	57	20	15	14	8
Nov-18	45	10	14	13	8
Dec-18	42	7	6	18	11
Total	1135	276	383	449	27

Notes:
 - There was no look-back into 2016, therefore initiation values for Jan-17 represent all claims for Makena that month.
 - Due to the lag time in receiving medical claims data, numbers reported for November and December 2018 may be incomplete.

Table 3 provides utilization data for beneficiaries initiating Makena from June 2017 – August 2018. If treatment is started at the earliest time indicated in Makena labeling (16 weeks) and given for the maximum recommended period of time (through 37weeks), a beneficiary could receive up to 21 doses. As shown in Table 3, women treated with Makena averaged 12.6 weeks of treatment.

TABLE 3: Utilization Summary of Beneficiaries Initiating Treatment in POS With Makena (Initiated from June 2017-August 2018)						
		Pharmacy Program				
		FFS	UHC	MAG	MOL	Total
TOTAL number of beneficiaries		33	205	198	1	437
Number of Prescription Fills	1	21	26	43	0	90
	2	7	43	30	0	80
	3	2	44	27	1	74
	4	1	47	52	0	100
	5	2	38	45	0	85
	6+	0	7	1	0	8
Number of Doses Dispensed	3 - 5	21	26	43	0	90
	6 - 10	7	44	30	0	81
	11 - 15	2	47	28	1	78
	16 - 21	3	76	90	0	169
	22 or more	0	12	7	0	19
	Mean	6.8	13.3	12.8	13.2	12.6
Age At Initiation of Makena Therapy	16 - 20 years old	3	14	11	0	28
	21 - 25 years old	16	79	60	0	155
	26 - 30 years old	8	62	70	0	140
	31 - 35 years old	3	37	45	1	86
	36 - 40 years old	2	12	11	0	25
	41 or more years old	1	1	1	0	3

Note: 1. Initiation of Makena was analyzed between June 2017 to August 2018 in order to ensure no Makena use occurred outside of the observation period.
2. The maximum duration for Makena utilization for each beneficiary was 21 weeks after initiation..
3. Beneficiaries with Medical claims for Makena were excluded. Beneficiaries who had dual Medical and POS claims for Makena were also excluded.
4. Pharmacy program was assigned based on program beneficiary was in at the time of the last fill.

Table 4 shows the dollars paid for Makena claims by payment type from January 2017 – December 2018 and is broken down into 6 month increments.

- Paid claims totals have increased every 6 month period since January 2017.
- Increases in POS paid claims accounted for the majority of total spend increases over the 2 year period.

TABLE 4: Total Paid for Makena Claims by Payment Type			
Period	Payment Type		Total
	Medical	POS	
Jan-Jun 2017	\$258,419	\$908,633	\$1,167,052
Jul-Dec 2017	\$292,678	\$1,924,321	\$2,216,998
Jan-Jun 2018	\$359,065	\$2,397,654	\$2,756,720
Jul-Dec 2018	\$232,428	\$2,678,303	\$2,910,731

*Due to the lag time in receiving medical claims data, numbers reported for November and December 2018 may be incomplete.

Tables 5-a/b show the number of prescription claims filled by each pharmacy for 2017 and 2018.

- Noble Health Services, formerly Transcript Pharmacy, filled the vast majority of Makena claims in both years. Noble Health Services has been designated by the manufacturer of Makena, AMAG Pharmaceuticals, as the preferred pharmacy for distributing Makena in Mississippi.
- Comparing pharmacy claims from 2017 to 2018, there were a total of 701 more paid pharmacy claims in 2018, a **75%** increase from the prior year.
- **91%** of paid pharmacy claims during 2017 and 2018 can be attributed to 4 pharmacies (Noble Health Services, BrivoRx, Acariahealth Pharmacy, and F&M Specialty Pharmacy)

TABLE 5-a: Number of Makena Claims Filled by Pharmacies (2017)					
Pharmacy	Pharmacy Program				Total
	FFS	UHC	MAG	MOL	
Noble Health Services Inc - Flowood, Ms	85	150	158	0	393
Acariahealth Pharmacy Inc - Slidell, La	3	0	208	0	211
BrivoRx Llc - Columbus, Ms	3	197	10	0	210
Caremark Inc - Bartlett, Tn	4	2	17	0	23
Accredo Health Group Inc - Memphis, Tn	4	2	14	0	20
Picayune Drug Co Inc - Picayune, Ms	1	8	0	0	9
Walgreens # 11599 - Columbus, Ms	0	3	6	0	9
Freds Westside Pharmacy Inc - Picayune, Ms	3	1	4	0	8
Walgreens Specialty Pharmacy L - Pittsburgh, Pa	1	0	5	0	6
Medicaid Provider Number 01370783	5	0	0	0	5
Freds Stores Of Tennessee Inc - Poplarville, Ms	0	0	5	0	5
Loves Pharmacy Inc - Ocean Springs, Ms	0	4	0	0	4
Proxsys Rx-Rush, Llc - Ocean Springs, Ms	0	4	0	0	4
Reeves Sain Drug Store Inc - Columbus, Ms	0	3	0	0	3
Polks Crossgates Discounts Dru - Biloxi, Ms	0	2	0	0	2
Wal Mart Pharmacy 10-1346 - Ocean Springs, Ms	0	0	2	0	2
Walgreens Specialty Pharmacy - Frisco, Tx	0	2	0	0	2
Bioscrip Pharmacy Inc - Memphis, Tn	0	1	0	0	1
Wal-Mart Stores East Lp - Picayune, Ms	0	0	1	0	1
Pharmacy ID missing on claim	0	5	11	0	16

TABLE 5-b: Number of Makena Claims Filled by Pharmacies (2018)					
Pharmacy	Pharmacy Program				Total
	FFS	UHC	MAG	MOL	
Noble Health Services Inc - Flowood, Ms	170	362	622	70	1224
F And M Specialty Pharmacy, In - Flowood, Ms	2	182	0	0	184
BrivoRx Llc - Columbus, Ms	2	120	6	0	128
Freds Westside Pharmacy Inc - Picayune, Ms	2	6	10	0	18
Caremark Inc - Bartlett, Tn	8	3	4	0	15
Walgreens # 11599 - Columbus, Ms	2	5	4	1	12
Acariahealth Pharmacy Inc - Slidell, La	0	0	11	0	11
Medicaid Provider Number 00034747	0	0	5	0	5
Thrift Drugs Inc - Mccomb, Ms	0	5	0	0	5
Accredo Health Group Inc - Memphis, Tn	0	4	0	0	4
Picayune Drug Co Inc - Picayune, Ms	0	0	0	3	3
Wal-Mart Stores East Lp - Picayune, Ms	0	2	1	0	3
Wal-Mart Stores East, Lp - Gulfport, Ms	0	0	3	0	3
Walgreens Specialty Pharmacy - Frisco, Tx	0	3	0	0	3
Magic Mart Pharmacy Inc - Indianola, Ms	0	0	2	0	2
Reeves Sain Drug Store Inc - Columbus, Ms	0	2	0	0	2
Sartin Discount Drug's Inc - Gulfport, Ms	0	2	0	0	2
Fred's Pharmacy #1136 - Batesville, Ms	0	1	0	0	1
Gunn Drug Co Inc - Corinth, Ms	0	1	0	0	1
Polks Crossgates Discounts Dru - Biloxi, Ms	0	1	0	0	1
Wal Mart Pharmacy 10-1346 - Ocean Springs, Ms	0	1	0	0	1
Walgreens #07517 - Jackson, Ms	0	0	1	0	1
Walmart Pharmacy 10-903 - Jackson, Ms	1	0	0	0	1
Pharmacy ID missing on claim	0	0	0	0	5

Figures 1-4 provide a geographical representation of preterm births in MS and Makena utilization.

Figure 1 depicts the number of preterm births in Mississippi for 2017 according to the county level live birth statistics reported by the Mississippi State Department of Health.⁸ Exact figures can be found in Appendix A.

- As expected, the most populated counties in Mississippi (Hinds, Rankin, Jackson, Harrison, and Desoto) had the highest total numbers of preterm births.

Figure 2 depicts preterm birth rates by percent of total births for each county.

- The Mississippi average preterm birth rate is 13.6% compared to 9.9% nationally. It should be noted the counties with the highest preterm birth rates, Issaquena (33.3%) and Jefferson (21.65%), both had very low numbers of total births.
- There appears to be clusters in the South-Central, Delta, and Northeast regions with higher preterm birth rates.

Figure 1. Number of Preterm Births in Mississippi in 2017

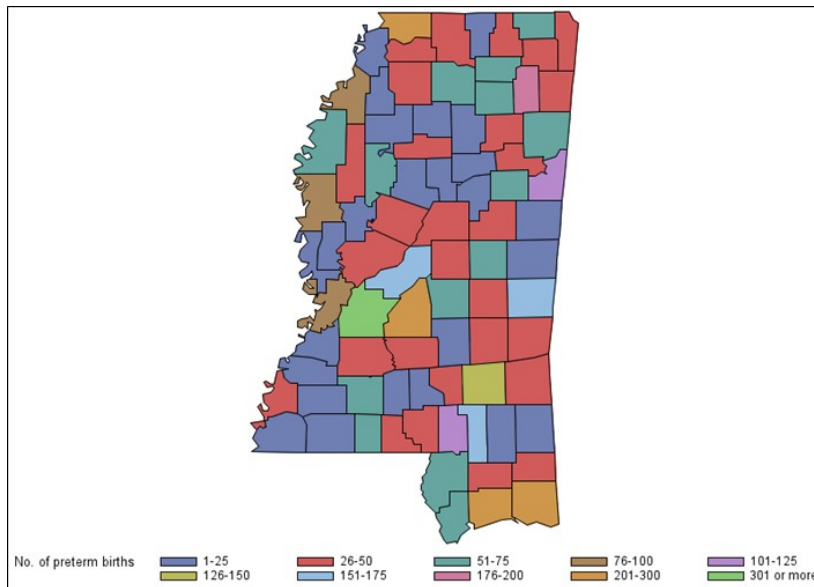
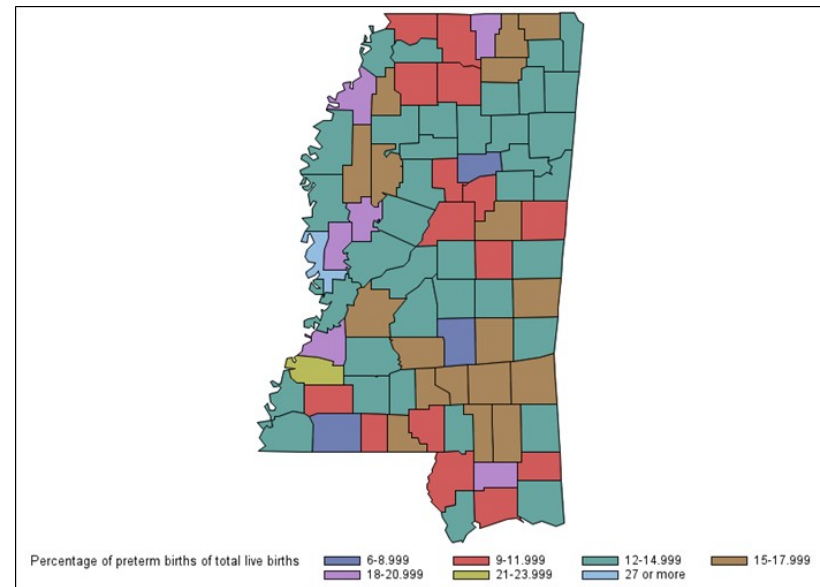


Figure 2. Percent Preterm Births Compared to Total Births in Mississippi in 2017

* No county had a preterm birth rate below 6%



⁸ Mississippi State Department of Health. Live Birth Statistics 2017. https://msdh.ms.gov/phs/2017/Summary/bthsumm_cnty_2017.pdf. Accessed April 2019

Figure 3 depicts the number of beneficiaries by county with paid Makena claims between January 2017 and December 2018. This data is taken from Table 1 presented on page ____ . These claims include both medical and POS claims. The location of each beneficiary was assigned according the county of residence listed for each beneficiary in claims data.

- Issaquena and Greene counties were the only two counties with no Medicaid beneficiaries having claims for Makena in 2017 and 2018.
- The counties with the highest number of beneficiaries with Makena claims were: Coahoma, Forrest, Harrison, Hinds, and Lee.

Figure 3. Number of Beneficiaries by County with Makena Claims between Jan 2017 - Dec 2018

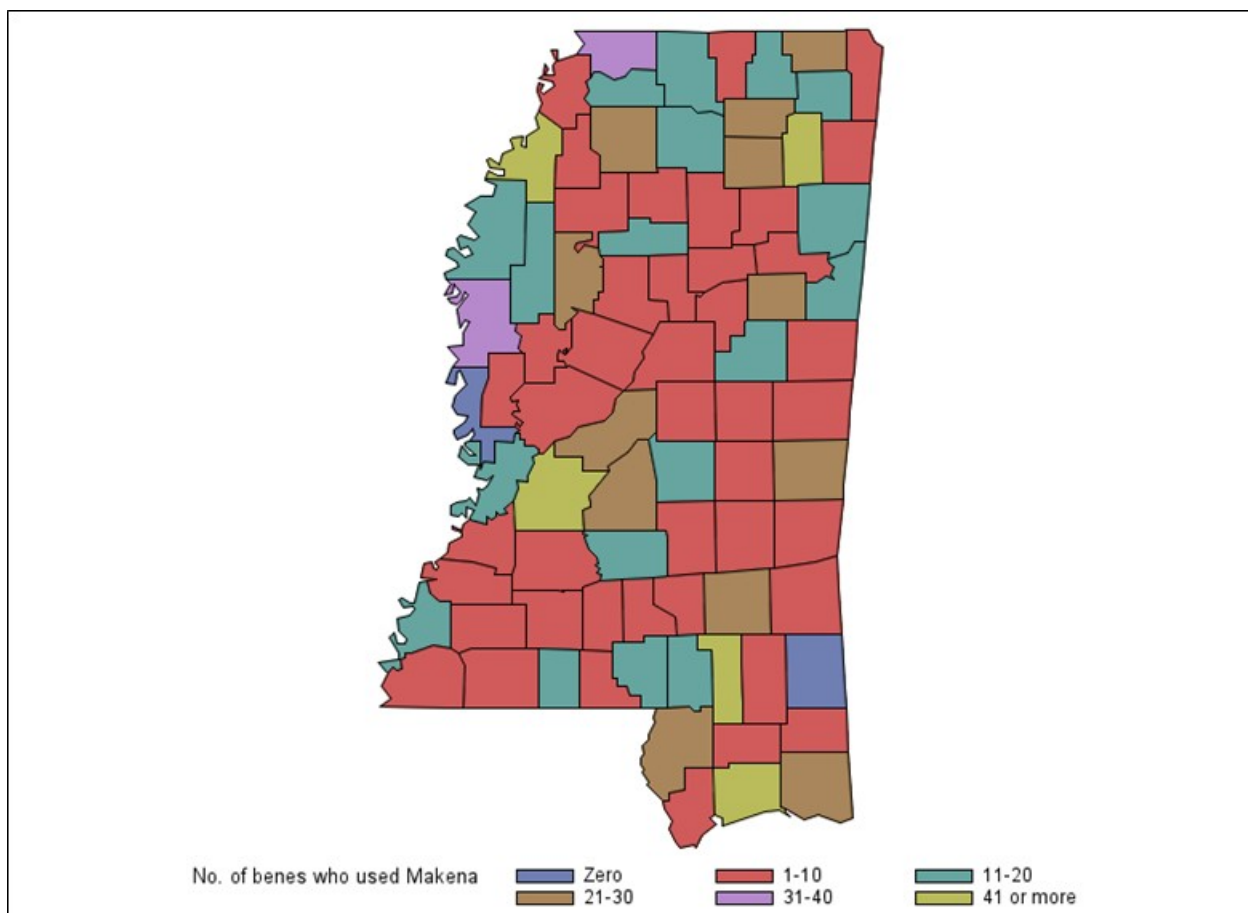


Figure 4 shows the number of beneficiaries initiated on Makena therapy by the county location of their providers between January 2017 and December 2018. This figure does not show where beneficiaries live, but the location of providers who are prescribing Makena. Exact figures are shown in Table 6.

- Forrest county and Hinds county providers initiated the most beneficiaries on Makena.
- **51** counties had no providers initiate Makena therapy.
- Majority of Makena prescribing is associated with larger population counties where specialized healthcare is available.

Figure 4. Number of Beneficiaries Initiated on Makena by County of Provider

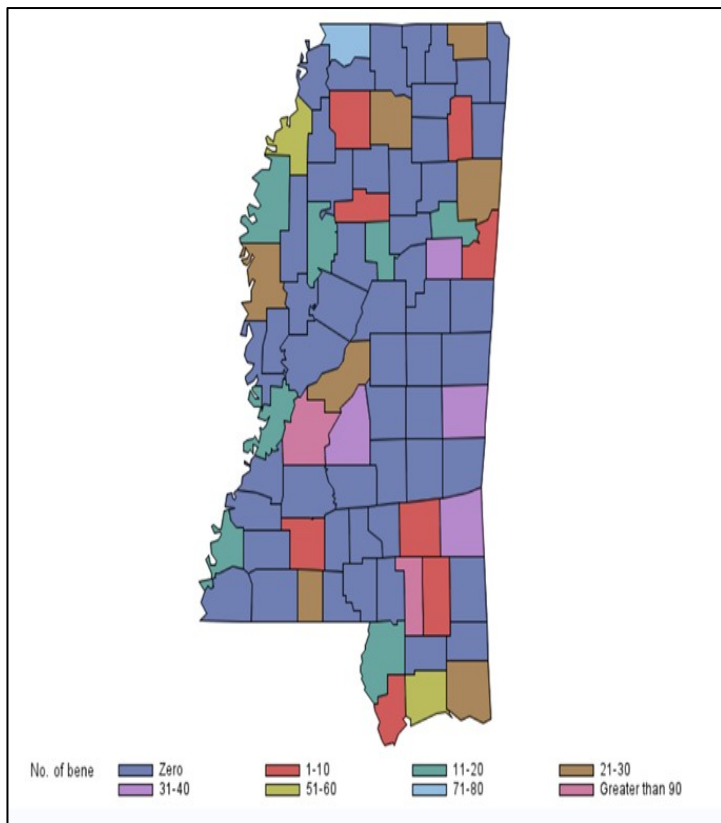


TABLE 6: Total Number of Beneficiaries Initiating Makena by County of Provider (January 1, 2017 – December 31, 2018)

County	Total number of beneficiaries initiating Makena
Hancock	2
Perry	2
Panola	3
Grenada	4
Jones	7
Lowndes	7
Lincoln	8
Lee	9
Pearl river	11
Clay	13
Montgomery	15
Adams	17
Alcorn	17
Bolivar	19
Monroe	19
Warren	19
Leflore	20
Madison	21
Pike	21
Washington	24
Jackson	26
Lafayette	29
Oktibbeha	37
Rankin	37
Lauderdale	38
Wayne	40
Harrison	54
Coahoma	58
Desoto	73
Hinds	97
Forrest	100

**Only POS claims for providers in Mississippi are represented.*

CONCLUSIONS AND RECOMMENDATIONS

Results from this project indicate that the utilization of Makena has increased over the past two years. DOM, the Mississippi State Department of Health, and multiple other agencies continue to work to improve access to Makena. Specifically, DOM initiated the CADD List in 2018 to help increase access to Makena.

With Mississippi leading the nation in preterm birth rates, there is more work that needs to be done. Educating providers and beneficiaries on the potential benefits of Makena is of paramount importance. Data shows all counties in Mississippi have individuals (women) who have experienced a preterm birth in the last 2 years and every county, with the exception of two, have Medicaid beneficiaries who have been prescribed Makena during 2017-2018. However, 51 counties in Mississippi did not have a provider initiate Makena during 2017-2018. This could indicate a potential barrier to Makena access. Another potential barrier to access could be the limited number of pharmacies which account for dispensing the majority of Makena in Mississippi. For providers who may not be familiar with the ordering process for Makena, not having a local pharmacy available to assist the provider in obtaining Makena may pose an additional hurdle.

Recommendations:

1. Results should be shared with other health service office directors within Mississippi Medicaid who are currently working to improve access to Makena and an active task force should be developed to address barriers. The results of this analysis should be presented to the MS State Department of Health's Infant Mortality Committee, other outside agencies, professional associations and healthcare organizations by DOM / MS-DUR.
2. MS-DUR should continue assisting in educating providers and beneficiaries about Makena. The ordering process can be confusing, particularly for those providers who may not routinely prescribe this medication. Provider education should highlight the ordering process and stress the need for patient education. Feedback from the DUR Board is recommended for the types of impactful education.
3. MS-DUR will work with DOM to assess health outcomes associated with beneficiaries who have received Makena. Specifically, beneficiary gestational weeks at delivery will be compared for pregnancy(s) prior to Makena use and pregnancy(s) with Makena use. Healthcare costs associated with each pregnancy will also be compared.
4. CCOs will be invited to present at the next DUR meeting their case management services for Mississippi Medicaid beneficiaries identified as high risk for preterm birth.

APPENDIX A

Mississippi Department of Health - Live Birth Statistics, 2017			
County	Preterm Births (<37 wks)	Total Births	Percent Preterm
Adams	48	358	13.41
Alcorn	65	423	15.37
Amite	8	133	6.02
Attala	28	236	11.86
Benton	20	109	18.35
Bolivar	67	451	14.86
Calhoun	22	159	13.84
Carroll	12	95	12.63
Chickasaw	34	239	14.23
Choctaw	9	92	9.78
Claiborne	23	111	20.72
Clarke	28	201	13.93
Clay	27	220	12.27
Coahoma	76	393	19.34
Copiah	49	333	14.71
Covington	41	261	15.71
Desoto	224	2,130	10.52
Forrest	155	1,014	15.29
Franklin	9	87	10.34
George	38	337	11.28
Greene	19	153	12.42
Grenada	38	261	14.56
Hancock	57	451	12.64
Harrison	285	2,679	10.64
Hinds	505	3,127	16.15
Holmes	31	236	13.14
Humphreys	18	96	18.75
Issaquena	5	15	33.33
Itawamba	30	245	12.24
Jackson	201	1,660	12.11
Jasper	30	188	15.96
Jefferson	21	97	21.65
Jeff Davis	21	127	16.54
Jones	150	863	17.38
Kemper	14	96	14.58
Lafayette	51	539	9.46
Lamar	105	834	12.59
Lauderdale	156	979	15.93
Lawrence	23	170	13.53
Leake	36	286	12.59
Lee	176	1,181	14.90

Mississippi Department of Health - Live Birth Statistics, 2017			
County	Preterm Births (<37 wks)	Total Births	Percent Preterm
Leflore	74	476	15.55
Lincoln	59	422	13.98
Lowndes	110	758	14.51
Madison	166	1,277	13.00
Marion	31	274	11.31
Marshall	45	388	11.60
Monroe	59	419	14.08
Montgomery	14	131	10.69
Neshoba	54	451	11.97
Newton	45	312	14.42
Noxubee	20	192	10.42
Oktibbeha	71	591	12.01
Panola	50	493	10.14
Pearl	65	633	10.27
Perry	22	131	16.79
Pike	61	560	10.89
Pontotoc	56	419	13.37
Prentiss	43	295	14.58
Quitman	16	95	16.84
Rankin	232	1,733	13.39
Scott	66	489	13.50
Sharkey	14	72	19.44
Simpson	47	304	15.46
Smith	16	182	8.79
Stone	40	212	18.87
Sunflower	50	298	16.78
Tallahatchi	24	168	14.29
Tate	45	353	12.75
Tippah	46	278	16.55
Tishomingo	26	215	12.09
Tunica	25	181	13.81
Union	60	375	16.00
Walthall	29	178	16.29
Warren	89	610	14.59
Washington	80	627	12.76
Wayne	41	268	15.30
Webster	9	110	8.18
Wilkinson	12	93	12.90
Winston	30	175	17.14
Yalobusha	23	154	14.94
Yazoo	44	313	14.06
TOTAL	2,955	21,665	13.64

APPENDIX B

