



**EMBARGOED UNTIL:**

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**NEW STUDY FINDS MOST BARIATRIC SURGERIES PERFORMED IN NORTHEAST,  
AND FEWEST IN SOUTH WHERE OBESITY RATES ARE HIGHEST, AND ECONOMIES ARE WEAKEST**

**NASHVILLE, TN – Nov. 15, 2018** – West Virginia and Mississippi may have the two highest obesity rates in the nation but rank 25th and 45th in the country when it comes to the number of weight-loss surgeries per capita, and have two of the worst state economies, according to a new analysis of factors that may determine utilization of bariatric surgery in the 50 states plus the nation’s capital. The findings\* were presented today at [ObesityWeek<sup>SM</sup> 2018](#), the largest international scientific conference focused on the prevention and treatment of obesity hosted by the [American Society for Metabolic and Bariatric Surgery \(ASMBS\)](#) and [The Obesity Society \(TOS\)](#).

Researchers reviewed the number of bariatric surgeries that were performed in each state in 2016 and correlated it to state obesity rates, economic rankings and whether or not bariatric or weight-loss surgery was covered in the state as an essential health benefit (EHB) under the Affordable Care Act (ACA). They concluded that economic status and insurance coverage played a greater role in determining utilization of bariatric surgery than the prevalence of obesity.

**TOP 5 STATES FOR OBESITY**

	Obesity Rank	Surgery Rank	Economic Rank	EHB
West Virginia	1	25	49	Yes
Mississippi	2	45	48	No
Alabama	3	22	38	No
Arkansas	4	35	40	No
Louisiana	5	36	44	No

“None of the states with the five highest obesity rates crack the top 20 in terms of bariatric surgery and all but one are in the bottom 10 in terms of its economic rank,” said study co-author Eric J. DeMaria, MD, president-elect of ASMBS and professor and chief, Division of General/Bariatric Surgery, Brody School of Medicine at East Carolina University in Greenville, NC. “This suggests that those with the greatest need for bariatric surgery, the standard of care for severe obesity, may have the least access and opportunity to receive treatment.”

Alabama, Arkansas and Louisiana, follow West Virginia and Mississippi as the states with the highest obesity rates, but the top spot for bariatric surgery was in Washington, DC, which also had the lowest obesity rate in the nation. The next four states with the most bariatric surgery per capita can be found in the northeast – Delaware, New Jersey, New York and Massachusetts, which were ranked 23<sup>rd</sup>, 36<sup>th</sup>, 44<sup>th</sup> and 49<sup>th</sup> for obesity. All covered bariatric surgery as an essential health benefit.

**TOP 5 LOCATIONS FOR BARIATRIC SURGERY**

	Surgery Rank	Obesity Rank	Economic Rank	EHB
Washington, D.C.	1	50	N/A	Yes
Delaware	2	23	10	Yes
New Jersey	3	36	41	Yes
New York	4	44	35	Yes
Massachusetts	5	49	9	Yes

The fewest bariatric surgeries per capita occurred in states that were ranked in the bottom half economically and 3 out of 5 did not include bariatric surgery as an essential health benefit. Regardless of economics or coverage, no state had rates of bariatric surgery that exceeded 0.6 percent for its residents with obesity.

**BOTTOM 5 STATES FOR BARIATRIC SURGERY**

	Surgery Rank	Obesity Rank	Economic Rank	EHB
Vermont	46	39	31	Yes
Montana	47	44	26	No
Wisconsin	48	23	27	No
Wyoming	49	32	47	Yes
Alaska	50	20	50	No

In 2017, 228,000 bariatric procedures were performed in the U.S., which is about 1 percent of the population eligible for surgery, which for adults means a body mass index (BMI) of at least 35 with an obesity-related condition such as diabetes or a BMI of at least 40 (severe obesity). This is a small increase from 2016, when an estimated 216,000 procedures were performed. The Centers for Disease Control and Prevention (CDC) reports 93.3 million or 39.8 percent of adults in the U.S. had obesity in 2015-2016, and no state had a prevalence of obesity under 20 percent.<sup>1,2</sup> The ASMBS estimates about 24 million people have severe obesity.

“Bariatric surgery remains one of the most underutilized treatments in America and there is great variability in its application because of barriers to access including insurance coverage, economic conditions and other factors,” said Wayne J. English, MD, FACS, study co-author and associate professor of surgery at Vanderbilt University in Nashville. “There is a great need to offer universal coverage for bariatric surgery so that treatment for a life-threatening disease is not determined by where you happen to live.”

The research team used data from the Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP) for the number of bariatric procedures, the Behavioral Risk Factor Surveillance System database for state obesity rates, and U.S. News & World Report’s 2016 economic rankings of states.

Obesity is associated with an increased risk of many serious diseases and health conditions, including type 2 diabetes, heart disease, stroke, sleep apnea, and certain cancers. The medical care costs of obesity in the United States are high and estimated to be \$147 billion in 2008 dollars. Additionally, the annual nationwide productivity costs of obesity-related absenteeism range between \$3.38 billion and \$6.38 billion.<sup>3</sup>

Metabolic/bariatric surgery has been shown to be the most effective and long-lasting treatment for severe obesity and many related conditions and results in significant weight loss.<sup>4</sup> The Agency for Healthcare Research and Quality (AHRQ) reported significant improvements in the safety of metabolic/bariatric surgery due in large part to improved laparoscopic techniques.<sup>5</sup> The risk of death is about 0.1 percent<sup>6</sup> and the overall likelihood of major complications is about 4 percent.<sup>7</sup> According to a study from the Cleveland Clinic's Bariatric and Metabolic Institute, laparoscopic bariatric surgery has complication and mortality rates comparable to some of the safest and most commonly performed surgeries in the U.S., including gallbladder surgery, appendectomy and knee replacement.<sup>8</sup>

### **About the ASMBS**

The ASMBS is the largest organization for bariatric surgeons in the nation. It is a non-profit organization that works to advance the art and science of bariatric surgery and is committed to educating medical professionals and the lay public about bariatric surgery as an option for the treatment of severe obesity, as well as the associated risks and benefits. It encourages its members to investigate and discover new advances in bariatric surgery, while maintaining a steady exchange of experiences and ideas that may lead to improved surgical outcomes for patients with severe obesity. For more information, visit [www.asmb.org](http://www.asmb.org).

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### **\*State Variation in Obesity, Bariatric Surgery, and Economic Ranks - A Tale of Two Americas (A198)**

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<sup>1</sup> <https://www.cdc.gov/obesity/data/adult.html>

<sup>2</sup> <https://www.cdc.gov/obesity/data/prevalence-maps.html>

<sup>3</sup> <https://www.cdc.gov/obesity/adult/causes.html>

<sup>4</sup> Weiner, R. A., et al. (2010). Indications and principles of metabolic surgery. U.S. National Library of Medicine. 81(4) pp.379-394. Accessed October 2018 from <https://www.ncbi.nlm.nih.gov/pubmed/20361370>

<sup>5</sup> Encinosa, W. E., et al. (2009). Recent improvements in bariatric surgery outcomes. Medical Care. 47(5) pp. 531-535. Accessed October 2018 from <http://www.ncbi.nlm.nih.gov/pubmed/19318997>

<sup>6</sup> Agency for Healthcare Research and Quality (AHRQ). (2007). Statistical Brief #23. Bariatric Surgery Utilization and Outcomes in 1998 and 2004. Accessed October 2018 from <http://www.hcup-us.ahrq.gov/reports/statbriefs/sb23.jsp>

<sup>7</sup> Flum, D. R., et al. (2009). Perioperative safety in the longitudinal assessment of bariatric surgery. New England Journal of Medicine. 361 pp.445-454. Accessed October 2018 from <http://content.nejm.org/cgi/content/full/361/5/445>

<sup>8</sup> Gastric Bypass is as Safe as Commonly Performed Surgeries. Health Essentials. Cleveland Clinic. Nov. 6, 2014. Accessed October 2018 <https://health.clevelandclinic.org/2014/11/gastric-bypass-is-as-safe-as-commonly-performed-surgeries/>