

Childhood Obesity: Costs, Treatment Patterns, Disparities in Care, and Prevalent Medical Conditions

The obesity epidemic in America has hit children hard. Recent research indicates that 16 percent of U.S. children could be considered obese.¹ Furthermore, there are growing concerns that obesity disproportionately affects those who are least able to afford care: children covered by public health insurance such as Medicaid. To shed light on this problem, Thomson Medstat investigated the prevalence, cost, and treatment of obesity among children covered by Medicaid compared to those covered by private health insurance. We found substantial disparities associated with different insurance coverage and health status.

Key Findings

- Children covered by Medicaid are nearly six times more likely to be treated for a diagnosis of obesity than children covered by private insurance.
- Children treated for obesity are roughly three times more expensive for the health system than the average insured child.
- Annual healthcare costs are about \$6,700 for children treated for obesity covered by Medicaid and about \$3,700 for obese children with private insurance.
- The national cost of childhood obesity is estimated at approximately \$11 billion for children with private insurance and \$3 billion for those with Medicaid.²
- Children diagnosed with obesity are two to three times more likely to be hospitalized.
- Children who receive Medicaid are less likely to visit the doctor and more likely to enter the hospital than comparable children with private insurance.
- Children treated for obesity are far more likely to be diagnosed with mental health disorders or bone and joint disorders than non-obese children.

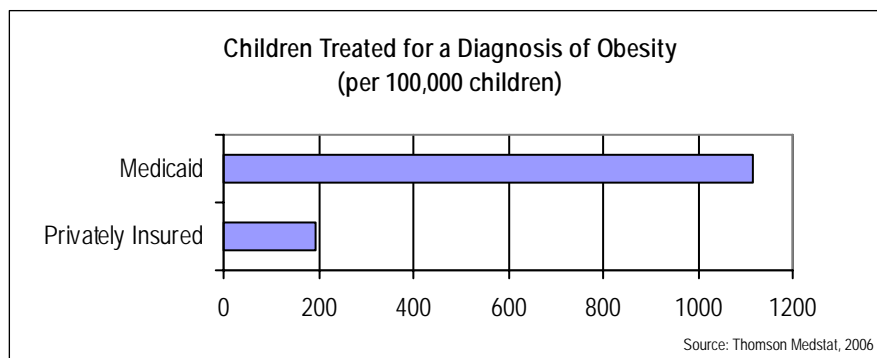
Method

We examined the subset of children treated for obesity as captured by medical claims from a national database of individuals with private health insurance (MarketScan[®] Commercial Claims and Encounters) and a database of individuals in eight states with Medicaid coverage (MarketScan Medicaid). Data are from 2004, the most recent complete year available, and refer to children age 17 and under who have been treated at least once for a diagnosis of obesity. (This analysis represents a small fraction of obese children, because most do not receive a formal diagnosis of obesity on medical claims. It sheds light, however, on their medical conditions, the care they receive, and its cost.) National totals are estimated with data from the Medical Expenditure Panel Survey conducted by the U.S. Agency for Healthcare Research and Quality.

Observations and Conclusions

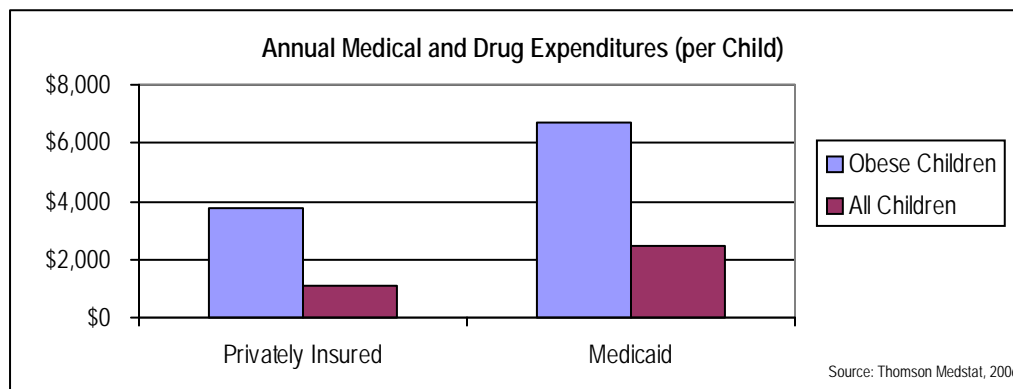
Disparity in the rate of children diagnosed as obese

In 2004, 195 of every 100,000 privately insured children were treated for a diagnosis of obesity. That is 0.2 percent of children, which represents a small fraction of the 16 percent of kids who are obese. For children covered by Medicaid, the rate was 1,115 per 100,000 — nearly six times higher than the rate for those with private insurance. We speculate that this six-fold difference underestimates the differential in untreated obesity given the problems that children with Medicaid have accessing the health system. For both populations, the groups we studied are likely to be the more severely affected children.



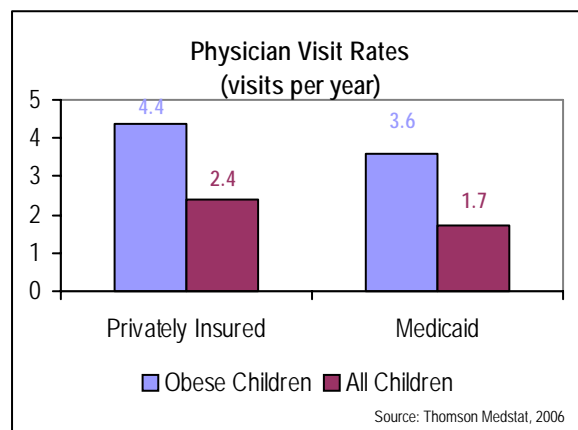
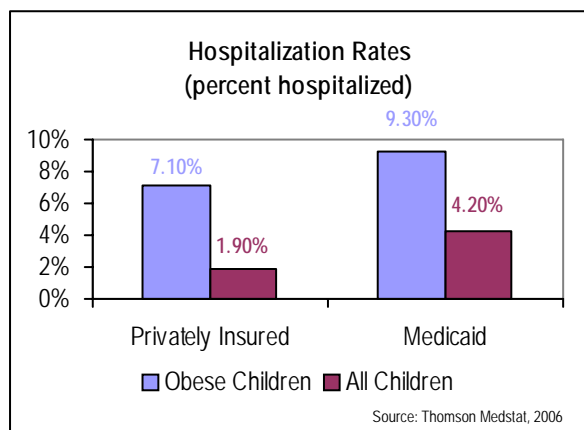
Disparity in cost of care

Children treated for obesity are roughly three times more expensive for the health system than the average insured child. In addition, healthcare costs are far higher for obese children covered by Medicaid than they are for obese children with private insurance. The mean covered healthcare expenses for a child treated for obesity under private insurance were \$3,743, compared with \$6,730 under Medicaid. In contrast, the same databases estimated the mean expenditures for all privately insured children at \$1,108 and all Medicaid children at \$2,446.



Disparity in treatment patterns

Children with obesity experience higher rates of hospitalization and greater use of physician services. For both insurance groups, children with obesity are two to three times more likely than all children to have a hospital stay during the year. It is important to note that children who receive Medicaid (whether or not they are treated for obesity) are less likely to visit the doctor and more likely to enter the hospital than comparable children with private insurance. This may suggest that inadequate outpatient services for children with Medicaid allow their health to deteriorate until urgent medical care is required.



Co-morbid medical conditions

Obese children are far more likely to be diagnosed with mental health disorders or bone and joint disorders than non-obese children. Treatment for these and other conditions contribute to the higher-than-average short-term medical costs cited above. Other conditions, such as diabetes and heart disease, are likely to surface as these children age, causing medical costs associated with obesity to continue rising.

Comparison of Co-Morbid Conditions in Children with and without Obesity

	Privately Insured		Medicaid	
	Obese %	Non-Obese %	Obese %	Non-Obese %
Muscle and Joint Disorders				
MUS83-Other Arthropathies, Bone and Joint Disorders	13.2	2.6	4.2	1.5
MUS85-Other Spinal and Back Disorders	4.3	0.7	4.7	0.5
Mental Health Disorders				
PSY82-Other Neuroses	10.7	2.0	9.1	3.2
PSY04-Depression	9.9	1.4	4.1	1.4
Other Conditions				
CVS13-Essential Hypertension	3.7	0.1	3.4	0.8
GIS87-Other Gastrointestinal or Abdominal Symptoms	10.3	2.2	6.6	2.2
GIS81-Gastroenteritis	3.6	1.4	5.0	1.4
NEU09-Headache	5.6	0.8	2.1	0.7

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Find Out More

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¹ Hedley et al., "Prevalence of Overweight and Obesity Among US Children, Adolescents, and Adults, 1999-2002," *JAMA*, June 16, 2004—Vol 291, No. 23, pp 2847-50.

² Total healthcare spending for children who receive a diagnosis of obesity (a small subset of the 16 percent of U.S. children who are considered obese) is approximately \$280 million per year for those with private insurance and \$470 million for those with Medicaid. If the cost differential between obese and non-obese children is half what we observe for these children who are diagnosed with obesity, then the national costs for obese children (including those who never get a diagnosis for obesity) are approximately \$11 billion for private insurance and \$3 billion for those with Medicaid.