

COMPdata Monthly Monitor- Montana
August 2005
Obesity

Introduction

In recent years, the rates of both adult and childhood obesity have risen in the U.S. The National Center for Health Statistics reports that measured by Body Mass Index (BMI), 30 percent of adults 20 years and older and 16 percent of children and teens are obese¹. These increasing rates raise concern because of their implications for a number of diseases and health conditions, including:

- ✓ Hypertension
- ✓ High Cholesterol
- ✓ Type II Diabetes
- ✓ Heart Disease
- ✓ Stroke
- ✓ Sleep Apnea
- ✓ Arthritis

The increased incidence of these conditions due to obesity has major implications for hospitals. According to data from the Centers for Disease Control (CDC), 57% of Montana adults are overweight (BMI > 25)¹, and that over \$175 million in health care expenditures in this state are attributable to obesity (BMI > 30)².

COMPDATA STATISTICS ON OBESITY PATIENTS IN MONTANA HOSPITALS

(Note: All of the following inpatient statistics exclude newborns and obstetric cases – Major Diagnostic Categories 14 and 15.)

Table 1 - Total Montana Inpatients

Excludes MDCs 14&15

	2001	2004	% Change 2001 to 2004
	Discharges	Discharges	
Total Montana Inpatients	81,150	82,004	0.6

Table 2– Top Ten DRG’s for Inpatients with Morbid Obesity as a Secondary Diagnosis vs. All Other Inpatients- Montana 2004

ICD-9 other diagnosis, code 278.01 (Excludes MDCs 14 & 15)

	Morbid Obesity	All Other Inpatients
	Total N = 1,266 (%)	Total N = 80,738 (%)
209 Maj Joint/Limb Reattach Proc, Low Extrem	9.8	4.1
127 Heart Failure & Shock	4.2	2.5
143 Chest Pain	3.7	2.1
462 Rehabilitation	3.3	1.6
089 Simple Pneumonia & Pleurisy Age >17 W CC	2.1	2.8
088 Chronic Obstructive Pulmonary Disease	1.9	1.8
277 Cellulitis Age >17 W CC	1.7	0.6
125 Circ Dis Ex Ami W Card Cath Wo Complx Dx	1.6	0.8
500 Back & Neck Proc Exc Spinal Fusion Wo Cc	1.6	1.0
182 Esphgitis,Ge,Misc Dig Dis Age >17 W CC	1.6	2.3

- Table 2 shows a list of the top ten DRG’s for patients with a secondary diagnosis of morbid obesity, demonstrating higher rates of heart disease, chest pain, lower extremity joint replacement surgery, COPD, and cellulitis for patients with a BMI > 40.

Table 3 – Obesity NOS- Montana 2004

ICD-9 diagnosis code 278.00 (Excludes MDCs 14&15)

	2001	2004	% Change 2001 to 2004
All Diagnoses	1,954	2,106	7.8
Principal Diagnosis	3	6	100.0
Other Diagnoses	1,951	2,100	7.6

Table 4 - Morbid Obesity- Montana 2004

ICD-9 diagnosis code 278.01 (Excludes MDCs 14&15)

	2001	2004	% Change 2001 to 2004
All Diagnoses	986	1,542	56.4
Principal Diagnosis	170	276	62.4
Other Diagnoses	816	1,266	55.1

Table 5 - All Obesity- Montana 2004

ICD-9 diagnosis codes 278.00, 278.01 (Excludes MDCs 14&15)

	2001	2004	% Change 2001 to 2004
All Diagnoses	2,940	3,648	24.1
Principal Diagnosis	173	282	63.0
Other Diagnoses	2,767	3,366	21.6

Table 6– Top Three Principal Procedures for Morbid Obesity Patients- Montana 2001, 2004
ICD-9 principal diagnosis, code 278.01 (Excludes MDCs 14 & 15)

	2001		2004		% Change 2001 to 2004
	Cases	%	Cases	%	
4439 Gastroenterostomy NEC	4	2.4	210	76.1	5150.0%
4438 Lapscp Gastroenterostomy	N/A	N/A	47	17.0	N/A
4431 High Gastric Bypass	161	94.7	12	4.4	-92.5%

- As Table 4 illustrates, morbid obesity as an inpatient diagnosis rose sharply from 2001 to 2004. This is reflected in the increase in the frequency of bariatric surgery such as gastroenterostomy, which has become the most frequent procedure performed on patients with a morbid obesity diagnosis (Table 6).
- A closer look at tables 4 and 6 reveals that most patients who have a principal diagnosis of morbid obesity are also having bariatric procedures performed. In 2004, 276 patients (Table 4) received a principal diagnosis of morbid obesity. Of these, 97.5% had one of the four procedures listed in Table 6.

Table 7 – Patients with Morbid Obesity

2004 Inpatient Discharges with Principal Diagnosis 278.01 – (Excludes MDCs 14&15)

Table 7 – Part I		Morbid Obesity	All Others
Admission and Discharge Patterns		Total N = 276 (%)	Total N = 81,728 (%)
Admission Source	Emergency Room	0.4	47.5
	Physician Referral	99.6	43.7
	Other	0.0	8.8
Admission Type	Emergency	0.4	35.0
	Urgent	26.8	34.4
	Elective	72.8	30.2
	Other	0.0	0.4
Discharge Status	Routine to Home	98.9	75.2
	To Skilled Nursing	0.0	9.5
	To Home Health	0.7	4.7
	Expired	0.4	2.3
	Other	0.0	8.3
Hospital Location	Other Urban	72.8	41.5
	Rural	27.2	58.5
	Other	0.0	0.1

Table 7 – Part II Patient Characteristics		Morbid Obesity	All Others
		Total N = 276 (%)	Total N = 81,728 (%)
Gender	Female	83.7	52.8
	Male	16.3	47.2
Primary Payer	Medicare	15.9	48.8
	Commercial Ins	80.4	37.1
	Medicaid	0.4	6.1
	Other	3.3	7.9
Age	Less than 45 years	50.7	23.4
	45 to 64 Years	44.9	27.6
	65 to 84 Years	4.4	38.7
	Over 85 Years	0.0	10.3
	Average Age	45.2	60.0
Avg Length of Stay		2.8	4.1
Avg Total Charge		\$18,405	\$14,449

- Table 7 illustrates some of the characteristics of morbidly obese patients contrasted against non-obese patients. The data show that a typical patient who receives a morbid obesity diagnosis is female, referred by a physician for an elective procedure (see table 6), is less than 65 years of age and is discharged to their home after an average length of stay of less than 3 days. By contrast, the rest of the Montana inpatient population is older and more likely to be admitted through the emergency room for an urgent or emergency procedure.
- Only 27.2% of the patients diagnosed with morbid obesity in Montana were discharged from a rural hospital, while 58.5% of the remaining inpatient discharges were from rural hospitals. This is not surprising, since most patients with morbid obesity diagnoses undergo bariatric procedures (Table 6), and these surgical services are generally not performed in rural hospitals.

MONTANA STATISTICS FROM COMPdata

All of the Montana patient statistics were derived from MHA's COMPdata. We encourage you to use COMPdata to examine your hospital community area(s) regarding obesity patients so that you might better understand the impact of these patients on your care and treatment of your patient population and the resources needed to diagnose, treat, and manage this patient population.

The COMPdata graphing feature can be utilized to examine in a pictorial fashion trends in your state and hospital community area(s) regarding obesity. Click here to obtain a graph that illustrates the frequency distribution of morbid obesity as a secondary diagnosis by gender from 2001-2004: <http://www.ihatoday.org/compdata/mtobesitygraph.pdf>.

ADDITIONAL INFORMATION

If you would like to develop the COMPdata reports that will provide similar statistics for your hospital or community, a training tool is available to guide you through the process. The training tool may be requested by e-mailing compdata@ihastaff.org. For additional assistance on using the COMPdata system, contact the COMPdata Hotline at compdata@ihastaff.org

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APPENDIX

Definition

Obesity is usually quantified by the calculation of a Body Mass Index (BMI). The BMI is calculated by dividing person's weight in pounds by the square of the person's height in inches, then multiplying the result by 703. For example, a person who is 5'9" tall and 169 pounds would have a BMI of 25, which is the current cutoff for the overweight category. At 203 pounds, a person at that same height would have a BMI of 30, which is considered obese. At 271 pounds, the same person would be considered morbidly obese (BMI of 40 or more).³

Obesity Patients

- Patients with a BMI greater than 30 have a 50-100% increased risk of premature death from all causes.⁴
- Hypertension is twice as common among obese patients compared to those at normal weight.⁴
- A weight gain of 11 to 18 pounds doubles an adult's risk of diabetes compared to those that do not gain weight.⁴
- Adolescents who are overweight have a 70% chance of becoming overweight or obese adults.⁴
- The number of Americans having weight-loss surgery more than quadrupled from 1998 to 2002.⁵
- From age seventy on, an obese person has fewer disability-free years and costs Medicare 35 percent more than someone of normal weight.⁶

RESOURCES FOR ADDITIONAL INFORMATION

For Hospitals

The Centers for Disease Control (CDC) has a web site with material devoted to educating patients and professionals about obesity. Included on the site are tabs for obesity trends, health consequences of obesity, and recommendations for keeping a healthy weight from the Surgeon General's report on overweight and obesity. The link is <http://www.cdc.gov/nccdphp/dnpa/obesity/index.htm>.

The National Institute for Health Care Management (NIHCM) is a non-profit, nonpartisan, Washington, D.C.-based organization dedicated to improving the effectiveness, efficiency, and quality of America's health care system. Their web site includes a comprehensive list of their policy research results and links to numerous other health-related sites. The link to their reports on obesity is: <http://www.nihcm.org/obesitypubs.html>.

For Patients and the Community

Childhood and adolescent obesity is a major risk factor for many chronic adult diseases, and the National Association of Children's Hospitals and Related Institutions has a web site that contains useful information about obesity trends in kids and what steps can be taken to address them at <http://www.childrenshospitals.net>.

A program that promotes physical activities for obese patients called the Weight Information Network (WIN) can be found at the web site for the National Institute of Diabetes and Digestive and Kidney Diseases. Included in the program are suggested activities for overweight patients as additional resources aimed at reducing the health effects of obesity. Their web site address is: <http://win.niddk.nih.gov/publications/active.htm>.

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