

The Costs of Obesity

Overweight and obesity among Vermonters is increasing at an alarming rate. The obesity rate for adult Vermonters rose by 77 percent from 1990 to 2002.

In 2005:

- More than half (56%) of adult Vermonters were overweight or obese.¹
- Among school-age youth in grades 8-12, one quarter (24%) of Vermont students are above a healthy weight.²
- Among low-income children age 2 to 5, 29 percent were overweight or at risk of becoming overweight.³

Cost of Obesity to the Health Care System and Industry

- Annual medical expenses attributable to adult obesity in Vermont total about \$141 million. Of that, \$40 million was spent on the Medicaid population (8.6%).⁴
- Nationally, an estimated \$98 – \$129 billion was spent on U.S. healthcare costs related to obesity, with half of these expenditures financed by Medicare and Medicaid.⁵
- Nearly one-third of total direct healthcare costs in the U.S. are related to 15 diseases related to obesity.⁵
- \$56 billion was lost due to the indirect costs of obesity in 2001. (These are costs lost by workers unable to work because of illness, disability, and value of future earnings lost by premature death).⁶
- Obesity-related hospital costs in the U.S. for youth age 6 to 17 have more than tripled, from \$35 million a year (1979-1981) to \$127 million a year.⁵
- From 1996 to 2002 the use of bariatric surgery has increased seven-fold nationally, and its use has more than tripled among youth.⁷
- In 2002 annual charges for bariatric surgery exceeded \$2 billion (an average of \$29,107 per discharge).
 - Since 2000, private payers have been charged for more than 80% of the national total; annual charges to Medicare and Medicaid are lower, but each exceeded \$100 million by 2002.⁷
- The problem of obesity has even affected American industry. The airline industry, for example, reports spending an additional \$275 million in 2000 for fuel to carry the additional weight of passengers.⁸

The Public Health Costs of Obesity

- The second leading cause of death in the U.S. is poor diet and physical inactivity, causing 365,000 deaths (15.2%) in 2000.⁹
- Overweight and obesity increases the morbidity and prevalence for at least 15 chronic diseases, including: Type II diabetes, osteoarthritis, heart disease, stroke, high blood pressure, gallbladder disease, and certain cancers (breast, colorectal, endometrial).¹⁰

- There are psychosocial effects as well. Overweight teens may have fewer friends than non-overweight teens, have lower self-esteem and suffer higher rates of depression and suicide if teased about being overweight.¹¹
- Indirectly, obesity may harm the environment: An additional 3.8 million tons of carbon dioxide was released into the air due to additional fuel burned by airlines needed to carry the extra weight of passengers.⁸

Reducing the Costs – Reducing the Risks

- For every \$1 spent on nutrition education with older adults, approximately \$5.63 is saved.¹²
- Nutrition education could save Medicare \$11 million within four years, and \$65 million within seven years.¹²
- Men who eat more than 1.4 cups of vegetables a day spend about \$3,239 less on medical bills annually compared to men who eat less than 1/2 cup of vegetables a day.¹³
- One study found that obese Type 2 diabetic persons who lost an average of 33.7 lbs (in 12 weeks) saved an average of \$443 over one year on prescription medications and supplies.¹⁴
- More than \$5 billion a year could be saved if just 10 percent of adults began a regular walking program.¹⁵
- If inactive older adults increased their physical activity to 90 minutes/week, \$2,200 could be saved every year per person.¹⁵
- If 88 million inactive Americans over age 15 increased regular moderate physical activity, \$76.6 billion could be saved annually.¹⁶
- Only 5 percent of total annual healthcare costs are spent on preventing disease and promoting health.⁵
- Employers with physical activity programs have:¹⁷
 - Reduced healthcare costs by 20 to 55 percent.
 - Reduced short-term sick leave by 6 to 32 percent.
 - Increased productivity by 2 to 52 percent.

1. Behavioral Risk Factor Surveillance System (BRFSS) <http://healthvermont.gov/research/brfss/brfss.aspx>

2. Youth Risk Behavior Survey (YRBS) <http://healthvermont.gov/pubs/yrbs2005/2005yrbs.aspx>

3. Pregnancy Nutrition Surveillance System (PNSS)

4. Finkelstein, E.A., Fiebelkorn, I.C., Wang, G. (2004) State-Level Estimates of Annual Medical Expenditures Attributable to Obesity. *Obesity Research*, 12(1): 18-24.

5. Koplan, J.P., Liverman, C.T., Kraak, V.I. (Eds.). (2005) *Preventing Childhood Obesity. Health in the Balance*. Washington, D.C.: The National Academies Press.

6. National Institute of Diabetes and Digestive and Kidney Disorders (NIDDK) Weight Control Information Network (2005) *Statistics Related to Overweight and Obesity*. Bethesda, MD: National Institutes of Health.

7. Davis, M.M., Slush, K., Chao, C., Cabana, M.D. (2006) National Trends in Bariatric Surgery, 1996-2002. *Archives of Surgery*, 141:71-74.

8. Dannenberg, A.L., Burton, D.C., Jackson, R.J. (2004) Economic and Environmental Costs of Obesity: The Impact on Airlines. *American Journal of Preventive Medicine*, 27(3):264

9. Mokdad, A.H., Marks, J.S., Stroup, D.F., Gerberding, J.L. (2004) Actual Causes of Death in the United States, 2000. *JAMA*, 291(10): 1238-1245 (Reprinted)

10. Finkelstein, E.A., Fiebelkorn, I.C., Wang, G. (2003) National Medical Spending Attributable to Overweight and Obesity: How Much, And Who's Paying? *Health Affairs*, W3, 219-226.

11. Stern, Andrew. (2003) Obesity Takes Emotional Toll On Teens Retrieved March 15, 2005 from Reuters Health <http://www.reutershealth.com>

12. National Screening Initiative (NCI) (2005) *Nutrition for Older Adults*. Washington, D.C.

13. Condon, Garret. (2003) Skimping on Fruits and Vegetables is Costly. Retrieved March 28, 2005 from the Sydney Morning Herald. <http://www.smh.com.au/cgi-bin/common/popupPrintArticle.pl?path=/articles/2003/07/17/1058035113156.html>

14. Collins R.W., Anderson, J.W. (1995) Medication Cost Savings Associated with Weight Loss for Obese Non-Insulin-Dependent Diabetic Men and Women. *Preventative Medicine*, 24(4): 369-74.

15. Centers for Disease Control and Prevention (CDC). (2003) *Preventing Obesity and Chronic Diseases Through Good Nutrition and Physical Activity*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.

16. The Cost of Inactivity and Obesity. (2005) Retrieved March 15, 2005 from http://www.activeforlife.info/resources/january_05.html

17. Centers for Disease Control & Prevention (CDC). (2002) *Behavioral Risk Factor Surveillance Survey*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.