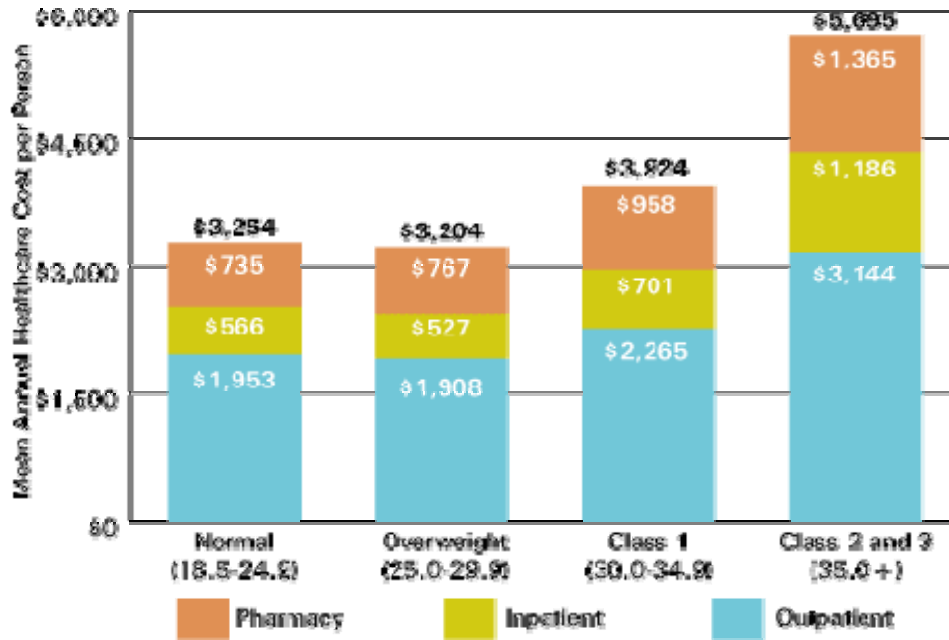


Engaging and Empowering Consumers: Lifestyle

Relationship Between BMI and Healthcare Costs, 2007

Moderate (class 1) and severe (class 2) obesity is associated with 21 percent and 75 percent higher healthcare costs, respectively, per person.



Source: Muse, D. (2007) Obesity in the Workforce: Health Effects and Healthcare Costs. Thomson Healthcare

Disease	Direct Cost of Obesity	Direct Cost of Disease	Direct Cost of Obesity as a Percentage of Total Direct Cost of Disease
Arthritis	\$7.4	\$23.1	32%
Breast Cancer	\$2.1	\$10.2	21%
Heart Disease	\$30.6	\$101.8	30%
Colorectal Cancer	\$2.0	\$10.0	20%
Diabetes (Type 2)	\$20.5	\$47.2	43%
Endometrial Cancer	\$0.6	\$2.5	24%
ESRD	\$3.0	\$14.9	20%

Gallstones	\$3.5	\$7.7	45%
Hypertension	\$9.6	\$24.5	39%
Liver Disease	\$3.4	\$9.7	35%
Low Back Pain	\$3.5	\$19.2	18%
Renal Cell Cancer	\$0.5	\$1.6	31%
Obstructive Sleep Apnea	\$0.2	\$0.4	50%
Stroke	\$8.1	\$29.5	27%
Urinary Incontinence	\$7.6	\$29.2	26%
Total Direct Cost	\$102.2	\$331.4	31%

Source: The Lewin Group, 1999.

The Lewin study confirmed results from other studies in finding a direct correlation between increases in Body Mass Index (BMI) and increases in the prevalence of comorbid conditions, especially type 2 diabetes, hypertension, heart disease, stroke and arthritis. See Table 2.

Disease	BMI of 25 or less	BMI between 25 and 30	BMI between 30 and 35	BMI of 35 or more
Arthritis	1.00	1.56	1.87	2.39
Heart Disease	1.00	1.39	1.86	1.67
Diabetes (Type 2)	1.00	2.42	3.35	6.16
Gallstones	1.00	1.97	3.30	5.48
Hypertension	1.00	1.92	2.82	3.77
Stroke	1.00	1.53	1.59	1.75

Source: Centers for Disease Control. Third National Health and Nutrition Examination Survey. Analysis by The Lewin Group, 1999.