RTI INTERNATIONAL

Research & Policy Brief

Purpose and Scope

Researchers at RTI International compared the incidence of injury of more than 40,000 people to correlate body mass index (BMI) with likelihood of injury.

The study was published in the May/June issue of the *American Journal of Health Promotion*.

Key Findings

- Injury rates are positively correlated with increased BMI. To the extent that the number of overweight and obese Americans continues to increase, an associated increase in the number of injuries among this population should be expected.
- Overweight adults (BMI between 26 and 29) had a 15 percent increased risk of injury compared to normal-weight adults. Morbidly obese adults (BMI of 40 and higher) had the highest risk of injury, a 48 percent greater risk than normal-weight adults.
- Having a higher BMI did not signal an increase in the cost of medical treatment per incident.

Report Sponsor

The study was funded by the Centers for Disease Control and Prevention. The analyzed data was from a large survey of medical expenditures administered by the federal Agency for Healthcare Research and Quality.

About RTI International

RTI International is an independent nonprofit research organization based in Research Triangle Park, North Carolina, that provides research and technical solutions to governments and businesses worldwide in the areas of health and pharmaceuticals, education and training, surveys and statistics, advanced technology, democratic governance, economic and social development, energy, and the environment. For more information, visit www.rti.org.

RTI International is a trade name of Research Triangle Institute.

Overweight Adults at Higher Risk of Injury

What the Study Found

Overweight adults are significantly more likely to sustain injuries that require medical treatment than their normal-weight peers. Results of a new study compared the incidence of injury of more than 40,000 people, correlating body mass index (BMI) with likelihood of injury.

The study identified a clear association between increased BMI and the increased probability in the incidence of injuries, including those related to falls, sprains/strains, lower extremity fractures and joint dislocations. Among those categorized as extremely obese, the risk is nearly twice as high.

The study results suggest that injury rates are positively correlated with increased body mass index. The authors reported that to the extent that the number of overweight and obese Americans continues to increase, an associated increase in the number of injuries among this population is expected.

The analyzed data was from a large survey of medical expenditures administered by the federal Agency for Healthcare Research and Quality.

The 42,304 adults who participated noted all medical conditions, injuries and health care expenditures that occurred between 1999 and 2002, as well as their heights and weights, which researchers used to calculate BMI.

Overweight adults (BMI between 26 and 29) had a 15 percent increased risk of injury compared to normal-weight adults. Morbidly obese adults (BMI of 40 and higher) had the highest risk of injury, a 48 percent greater risk than normal-weight adults.

However, having a higher BMI did not signal an increase in the cost of medical treatment per incident. Treatment costs per injury were not significantly higher for overweight and obese patients.

The authors suggested that the future total cost of injuries might still be substantial due to the burgeoning overweight and obese population in the United States.