

# Investment in research saves lives and money



facts about:

## Obesity – updated 2013

*“If you think research is expensive, try disease.”*

– Mary Lasker 1901-1994

### Today:

- More than 78 million adults (or 35.7%) and more than 12.5 million children (or 16.9%) in the U.S. are classified as obese.<sup>1</sup>
- Obesity is officially defined as having body fat above 32% for women, 25% for men, 30% for girls and 25% for boys.<sup>2,3</sup>
- By increasing the risk for cardiovascular diseases, Type 2 diabetes and most cancers, obesity contributes to 1 in 10 deaths, making it the second leading cause of preventable death in the U.S.<sup>4</sup>
- Obese individuals with diabetes or high blood pressure have a 26% greater risk of death than healthy-weight individuals.<sup>5</sup>

SOURCES: <sup>1</sup> GOING SB, ET AL. AM J PREV MED. 2011. 41:577.  
<sup>2</sup> AMERICAN COUNCIL ON EXERCISE (WWW.ACEFITNESS.ORG).  
<sup>3</sup> CENTERS FOR DISEASE CONTROL AND PREVENTION (WWW.CDC.GOV).  
<sup>4</sup> DANAEI G, ET AL. PLOS MED. 2009. 28:6(4).  
<sup>5</sup> JERANT A AND FRANKS P. JABFM. 2012. 25:422.

### The Cost:

- Currently, the direct and indirect costs of obesity are more than \$190 billion annually.<sup>1</sup>
- In the U.S., childhood obesity has resulted in 47% higher medical costs compared to medical expenses for children with a healthy weight.<sup>2</sup>

SOURCES: <sup>1</sup> INSTITUTE OF MEDICINE (WWW.IOM.EDU)  
<sup>2</sup> PELONE F, ET AL. OBES REV. 2012. 13:431-440

SAVING LIVES  
SAVING MONEY

### HOW RESEARCH SAVES LIVES:

- According to research cited in The Obesity Task Force Strategic plan from the National Institutes of Health, a 5-10% decrease in body weight can lower blood pressure and prevent Type 2 diabetes.<sup>1</sup>
- Research funded by the National Institutes of Health has shown that surgical treatment of obesity can reduce the long-term risk of mortality by 40%.<sup>2,3</sup>
- Research supported by the CDC, the Robert Wood Johnson Foundation and the Bower Foundation demonstrates that, after implementing strong nutrition and physical activity standards, cities and states reduced their childhood obesity rates. Over a 5-year period, obesity rates dropped in Philadelphia (-4.7%), New York City (-5.5%), California (-1.1%) and Mississippi (-13.3%).<sup>4</sup>

SOURCES: <sup>1</sup> NATIONAL INSTITUTES OF HEALTH (WWW.NIH.GOV).  
<sup>2</sup> JOHNSON R, ET AL. AMERICAN SURGEON. 2012. 78(6):685-692.  
<sup>3</sup> ADAMS TD, ET AL. N ENGL J MED. 2007. 357:753-761.  
<sup>4</sup> ROBERT WOOD JOHNSON FOUNDATION (WWW.RWJF.ORG).

### HOW RESEARCH SAVES MONEY:

- Studies have shown that preventing as few as 5% of new cases of chronic conditions, including obesity and related complications, would reduce Medicare and Medicaid spending by nearly \$5.5 billion a year by 2030.<sup>1</sup>
- Research shows that an obese individual with diabetes who undergoes a surgical procedure to restrict the size of the stomach (with the installation of a gastric band) can decrease medical expenditures by approximately \$34,000 over a 5-year period after the device is implanted.<sup>2</sup>

SOURCES: <sup>1</sup> ROBERT WOOD JOHNSON FOUNDATION (WWW.RWJF.ORG).  
<sup>2</sup> FINKELSTEIN EA, ET AL. JOURNAL OF OCCUPATIONS AND ENVIRONMENTAL MEDICINE. 2011. 53(9):1025-1029.

### survivor:

NAME: Patrick Sauer  
 AGE: 44  
 CONDITION: Obesity



Growing up outside of Seattle, Patrick has been morbidly obese his entire life due to an eating disorder. He didn't date or go to his high school prom; he became complacent with his condition. At times, Patrick has weighed more than 500 pounds. It wasn't until a conversation with his doctor that he recognized his behavior was killing him and he asked for help.

Patrick had great success at the University of Washington's Bariatric Center. Since his Roux-En-Y Gastric Bypass in 2010, he has lost more than 235 pounds. He no longer needs to treat himself for diabetes, thyroid malfunction or edema. Since the surgery, he estimates that he is spending approximately \$2,000 less per month. Those savings come from not purchasing medications, avoiding expenses associated with his conditions and reduced food intake. Since the surgery, Patrick has been able to buy pants off the rack (custom ordered pants with a 68-70 inch waist could cost \$150 a pair) and he is more active than ever. This past holiday season, Patrick took a flight to visit family. He didn't have to purchase two seats on the plane and was able to buckle himself in, both for the first time.

Patrick believes he would not be here today if he hadn't undergone the surgery. He credits the research leading to the gastric bypass technique for saving his life, functionally curing him of diabetes, alleviating fears of heart disease, curing the edema in his legs and correcting his thyroid problems. He is glad to be part of ongoing studies through the University of Washington as well as outreach and education for individuals considering Roux-En-Y Gastric Bypass.

# facts about: } Obesity

## Screening for Obesity:

For research purposes, individuals are classified as obese based on the Body Mass Index (BMI). BMI is calculated from a person's weight and height and correlates to direct measures of body fat.<sup>1,2</sup> BMI is useful as a population-level assessment of obesity because it is inexpensive, easy to obtain, and is the same for both sexes and all ages of adults. However, another measure of obesity that has been shown to better predict health risk is waist-to-height ratio to assess abdominal fat.<sup>3</sup> Excess abdominal fat is a significant risk factor for Type 2 diabetes and cardiovascular disease. For children and adults, health risks increase when waist size is more than half of their height.

SOURCES: <sup>1</sup> MEI Z, ET AL. AM J CLIN NUTR. 2002. 75(6): 978-985.  
<sup>2</sup> GARROW JS, ET AL. INT J OBES. 1985. 9:147-153.  
<sup>3</sup> BROWNING LM, ET AL. NUTR RES REV. 2010. 23(2):247.

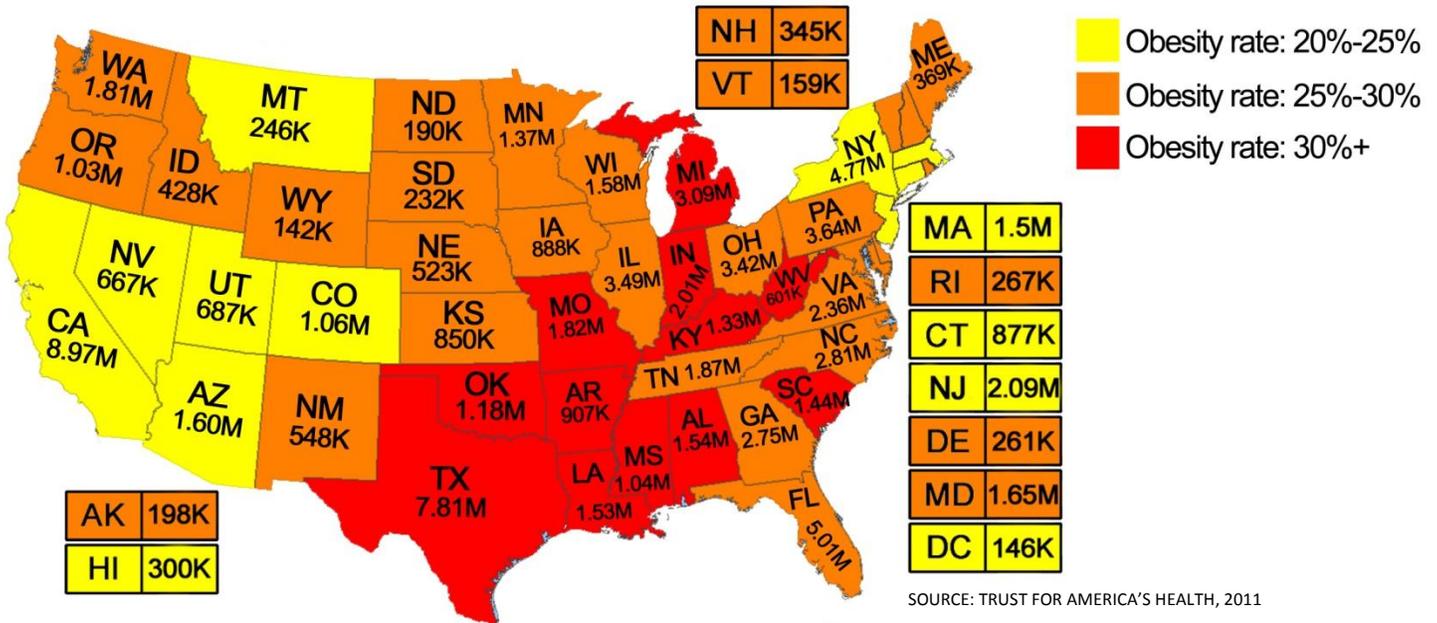
## National Poll: Obesity is the Second Most Critical Health Issue in America:

*"What would you say is the single most important health issue facing the nation?"*

Rank	Concern	Response
1-	Cost of Health Care	61%
2-	Obesity	18%
3-	Cancer	6%
4-	Mental Health	3%
5-	Heart Disease	2%
6-	Diabetes	2%
	Other	4%
	Not Sure	5%

SOURCE: A NATIONAL RESEARCH!AMERICA POLL OF LIKELY VOTERS CONDUCTED IN PARTNERSHIP WITH JZ ANALYTICS IN AUGUST 2012

## Adult Obesity Rates in America, 2011



## Hope for the Future:

- In 2012, two new appetite suppressant drugs (Qsymia and Lorcaserin) were approved by the Food and Drug Administration. These medicines, the first such drugs approved in 13 years, can help reduce obesity and resulting complications.<sup>1</sup>
- Researchers at the University of Mississippi recently found in preliminary studies that Sunitinib, normally used to treat cancer, is also able to block blood delivery to fat tissue, causing a 70% loss of fat in mice. In addition to the weight loss, Sunitinib also seemed to cause a reduction in appetite, possibly a side effect due to hormonal changes.<sup>2</sup>

SOURCES: <sup>1</sup> FOOD AND DRUG ADMINISTRATION (WWW.FDA.GOV).  
<sup>2</sup> AMERICAN PHYSIO SOC. (2013, APRIL 23). DRUG REDUCES FAT BY BLOCKING BLOOD VESSELS. SCIENCEDAILY.

## The Bottom Line:

*Biomedical and health research has shed light on the significant disease burden associated with obesity, revealed factors that influence obesity rates, and produced new interventions to help bring these rates down; however, the fight is far from over. Further investment in research is urgently needed to address our nation's obesity epidemic.*

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