

Investment in research saves lives and money



facts about:

Diabetes

"If you think research is expensive, try disease."

- Mary Lasker 1901-1994

Today:

- ❑ A 2012 survey found 9.1 million Americans (9.3 percent of the population) have diabetes. Of these, at least 208,000 are under the age of 20.**
- ❑ The soaring rate of childhood obesity is an important factor in the rising incidence of type 2 diabetes in American youth.*
- ❑ Diabetes was the 7th leading cause of death in the United States in 2013, killing over 75,000 Americans that year.**
- ❑ Rates of adult diabetes vary significantly by race/ethnicity: 16 percent of American Indians and Alaska Natives; 9 percent of Asian Americans; 13 percent of Hispanics; 13 percent of African Americans; and 7.6 percent of Caucasian Americans live with the disease.**
- ❑ People with diabetes are more likely to suffer from heart disease, stroke, high blood pressure, blindness, kidney failure, gum disease, depression and other conditions.***

SOURCES: *AMERICAN DIABETES ASSOCIATION
 **CENTERS FOR DISEASE CONTROL AND PREVENTION
 ***NATIONAL INSTITUTE OF DIABETES AND DIGESTIVE AND KIDNEY DISEASES

Cost:

- ❑ Diabetes costs the United States \$245 billion annually; \$176 billion for direct health care costs and \$69 billion for lost productivity and premature death.*
- ❑ More than \$1 out of every \$5 spent on health care in the United States is used to care for someone with diabetes.*
- ❑ Individuals with diabetes, on average, have medical expenditures approximately 2.3 times higher than individuals without diabetes.*
- ❑ The average diabetes patient incurs \$8,500 of excess medical expenditures per year due to the disease.**

SOURCES: *AMERICAN DIABETES ASSOCIATION
 **ZHOU ET AL., DIABETES CARE 2014, 37(9):2557-2564

SAVING LIVES
 SAVING MONEY

HOW RESEARCH SAVES LIVES AND PROTECTS HEALTH:

- ❑ Recent research revealed that those who lost 15 pounds in one year through consistent lifestyle changes reduced their risk of developing type 2 diabetes by 58 percent over three years.*
- ❑ Studies have shown that conditions seemingly unrelated to diabetes, such as sleep apnea, can increase the risk of developing type 2 diabetes. Correcting these co-morbidities can aid in the prevention of the disease.**
- ❑ Studies have shown that careful control of blood sugar levels reduces the risk of eye, kidney and nerve disease by 40 percent for people with type 1 or type 2 diabetes.*

SOURCES: *CENTERS FOR DISEASE CONTROL AND PREVENTION
 **AGENCY FOR HEALTHCARE RESEARCH AND QUALITY

HOW RESEARCH SAVES MONEY:

- ❑ A 2013 survey found that 28% of Americans have several pre-diabetic risk factors, but just 1 in 6 of those know they do. Diabetes prevention programs can create costs savings over the lifetimes of these persons.*
- ❑ In Ohio, community partners coordinated health care and support inside and outside the doctor's office for patients with type 2 diabetes. In just 18 months, the average cost per month of care for individuals with type 2 diabetes fell by more than 10 percent per month with an estimated program savings of \$3,185 per person per year.**
- ❑ A 2012 study by CDC and RTI International found that well-designed community-based lifestyle intervention programs could prevent nearly 885,000 cases of type 2 diabetes and save \$5.7 billion over the next 25 years.***

SOURCES: * AMERICAN INSTITUTE FOR RESEARCH/BIPARTISAN POLICY CENTER
 ** TRUST FOR AMERICA'S HEALTH
 *** RTI INTERNATIONAL/CENTERS FOR DISEASE CONTROL AND PREVENTION

survivor:



NAME: Basma Abdellaoui
 AGE: 17
 Disease: diabetes
 Type: type 1

DIAGNOSED AT AGE 3

Basma Abdellaoui was diagnosed with type 1 diabetes at the age of 3, and because of her youth, originally much of the burden for her care fell on her parents. Diabetes requires meticulous management and monitoring, a difficult task for any child to undertake. Abdellaoui, though, soon proved to be up to the challenge.

By the age of 5 she attended a diabetes educational camp that taught her to become more independent. As she and her family became more accustomed to the routine management of the disease, Abdellaoui felt more empowered to take risks, build confidence and be a positive influence in the lives of others dealing with diabetes.

Now a 17-year-old high school student and diabetes advocate, Abdellaoui has observed medical progress through the evolution of devices like pumps and glucose monitors, and other technical devices that ease the management of the disease, especially for kids. Thanks to medical research, she believes these innovations are just the beginning.

Working with the American Diabetes Association as the National Youth Advocate, she currently travels around the nation to various events, sharing her inspiring story and helping people with diabetes live easier. Abdellaoui doesn't let diabetes prevent her from participating in normal teenage activities.

Said Abdellaoui: "[Diabetes] is a door for me that has led to many other amazing things."

facts about: } Diabetes

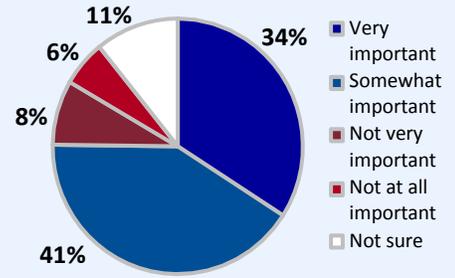
Hope for the Future:

- ❖ Scientists are rapidly discovering genetic risk factors for diabetes. This knowledge has the potential to greatly accelerate efforts to prevent, diagnose and treat the disease.*
- ❖ NIH-funded research is exploring novel non-invasive imaging techniques to predict cardiovascular events in diabetics. These techniques could significantly improve a doctor's ability to monitor patients as well as determine the effects of new medicines and therapies in diabetic patients.**
- ❖ Facilitating delivery of existing therapeutic agents is another target of NIH-funded research. One such project is specifically targeting the improvement of drug delivery to the retina to treat diabetic retinopathy.**
- ❖ NIH-funded research is being used to develop a model that would allow direct assessment of clinically relevant therapies for the treatment of autoimmune diabetes. This model, if successful, will speed the delivery of successful therapeutic approaches to diabetic patients.**
- ❖ Federally funded scientists have developed a method to generate hundreds of millions of pancreatic beta cells in vitro. The cells are functional and respond to changes in blood glucose level similarly to beta cells in healthy individuals. The new technique could revolutionize diabetes treatment.***

SOURCES: *NATIONAL INSTITUTE OF DIABETES AND DIGESTIVE AND KIDNEY DISEASES
 **NATIONAL INSTITUTE OF HEALTH RESEARCH PORTFOLIO ONLINE REPORTING TOOL
 ***PAGLIUCA, F. ET AL. CELL. 2014, 159(2):428-439.

Eliminating Health Disparities is Important to Americans

"Studies show that certain health problems such as diabetes, heart disease and infant mortality happen more often among minorities or citizens with lower incomes. How important do you feel it is to conduct medical or health research to understand and eliminate these differences?"



SOURCE: A NATIONAL POLL OF U.S. ADULTS CONDUCTED IN PARTNERSHIP WITH ZOGBY ANALYTICS, WITH SUPPORT FROM THE AMERICAN SOCIETY OF HEMATOLOGY, IN NOVEMBER 2013.

A Closer Look:

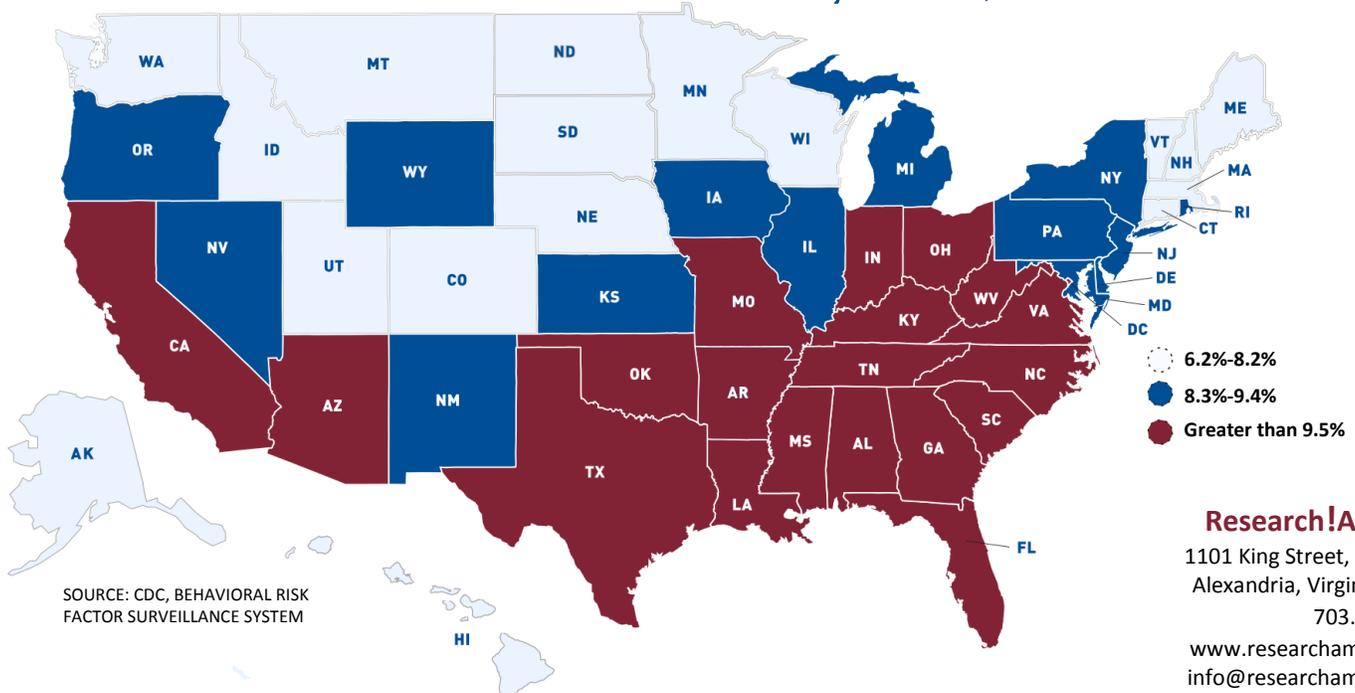
There are two types of diabetes affecting Americans today. **Type 1** diabetes (T1D) is an *autoimmune disease* affecting a person's pancreas and their ability to produce insulin, a hormone needed to get energy from food. T1D usually appears in childhood and lasts a lifetime. According to JDRF, a leading T1D advocacy organization, nearly 600,000 youth are expected to have T1D by 2050*. **Type 2** diabetes (T2D) is a *metabolic disorder* affecting a person's ability to use the insulin their body makes effectively. T2D usually develops in adulthood.

SOURCES: *JUVENILE DIABETES RESEARCH FOUNDATION

The Bottom Line:

Today, almost 30 million Americans have diabetes. Without research-based interventions, that number is only expected to grow. Research is the gateway to preventive and diagnostic measures, treatments and ultimately a cure for this disabling and costly disease.

Prevalence of Diabetes by State, 2012



SOURCE: CDC, BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM

Research!America

1101 King Street, Suite 520
 Alexandria, Virginia 22314
 703.739.2577
www.researchamerica.org
info@researchamerica.org

The Albert and Mary Lasker Foundation is a founding partner in this series of fact sheets. www.laskerfoundation.org