

Investment in research saves lives and money



facts about:

Global Health

Today:

- Approximately 16,000 children under age five die *per day* worldwide, totaling 5.9 million deaths in 2015. Half of these fatalities are due to infectious diseases.*
- One-third of the world's population is infected with tuberculosis (TB).‡
- Nearly 37 million individuals worldwide are living with HIV, with 2 million contracting the infection per year. Globally, AIDS resulted in 1.2 million deaths in 2014, including 150,000 children under age 15.†
- An estimated 68% of deaths worldwide are due to non-communicable diseases (NCDs), the four most common being cardiovascular disease, cancer, diabetes, and chronic lung disease.‡
- Annually, there are an estimated 48.2 million cases of malaria infections across the globe.‡
- One-sixth of the world suffers from one or more Neglected Tropical Diseases (NTDs), totaling more than 1 billion people. ‡

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

- Mary Lasker 1901-1994

The Cost:

- The cumulative global cost of NCDs is projected to reach \$47 trillion between 2010 and 2030.**
- Recent estimates put the total global economic burden of cancer at \$2.5 trillion annually. Cancer caused by tobacco use accounts for \$200 billion of that total.‡
- It is projected that drug-resistant TB will kill 75 million people and cost a total of \$16.7 trillion globally between 2015 and 2050.‡
- By 2050, deaths associated with antibiotic-resistant infections are predicted to cost up to \$100 trillion worldwide, or 3.5% of global GDP annually.‡

++ WORLD ECONOMIC FORUM <WWW.WEFORUM.ORG> ◊ BUSINESS INSIDER <WWW.BUSINESSINSIDER.COM>
 ● ALZHEIMER'S DISEASE INTERNATIONAL <WWW.ALZ.CO.UK> * UNICEF <WWW.CHILDMORTALITY.ORG>
 † O'NEIL, J. THE REVIEW OF ANTIMICROBIAL RESISTANCE, 2014. ‡ WORLD HEALTH ORGANIZATION <WWW.WHO.INT>
 ‡ CENTERS FOR DISEASE CONTROL AND PREVENTION <WWW.CDC.GOV>
 ◻ AMERICAN SOCIETY FOR CLINICAL ONCOLOGY <AM.ASCO.ORG>

SAVING LIVES
SAVING MONEY

HOW RESEARCH SAVES LIVES:

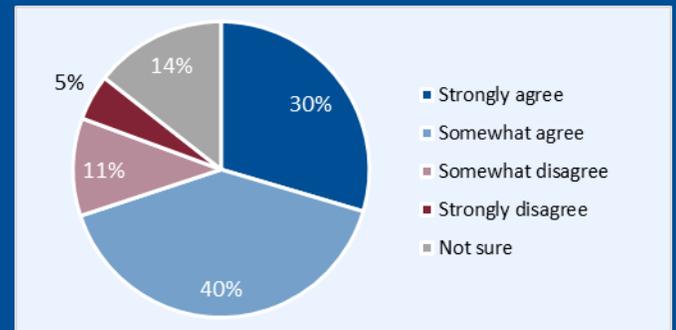
- Since 2000, the global mortality rate for children under five has fallen an average of 3.9% per year. Due to this decline, 48 million children's lives have been saved. This decline is due in part to safe and effective vaccines, other public health interventions like improved sanitation and innovative medical technologies to facilitate improved access to healthcare.*
- Smallpox is the only infectious disease to be eradicated globally. As of 2014, successful prevention and vaccination programs have saved an estimated 450 million lives.‡
- Global tuberculosis (TB) rates have fallen at an average of 1.5% per year through widespread prevention and treatment programs. Despite these gains, approximately 1.5 million people die each year from TB. It is estimated that a TB vaccine, even one that is just 60% effective and administered to only 20% of the at-risk population, would prevent as many as 50 million new TB infections from occurring by 2050.‡

HOW RESEARCH SAVES MONEY:

- Since it became available in 2011, more than 56 million individuals have received the meningitis A vaccine. It is projected that this vaccine, MedAfriVac, will save 43,500 lives, prevent 437,000 infections and save \$570 million over the next decade.‡
- Public health research has shown that proper nutrition within the first 1,000 days of a child's life can have profound effects on their future health and is highly cost-effective. On average, each \$1 a country spends on early nutrition results in \$45 of savings. In some countries, the benefit-cost ratio is even as high as \$166 per \$1 spent.‡

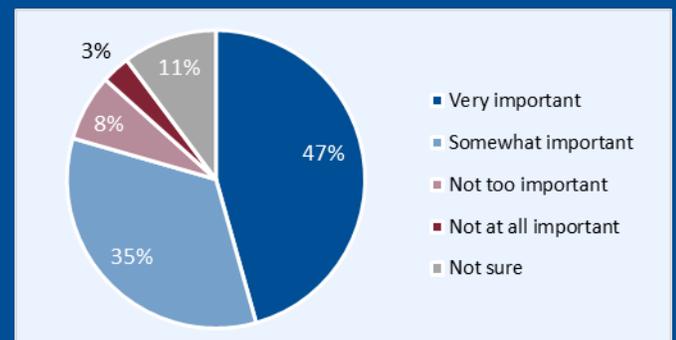
national poll: Important for the U.S. to Support Global Health Research

Do you agree or disagree that Americans will be better off if the U.S. government invests in research designed to improve health around the world?



A RESEARCHIAMERICA POLL OF U.S. ADULTS CONDUCTED IN PARTNERSHIP WITH ZOGBY ANALYTICS IN SEPTEMBER 2015.

How important would you say it is that the U.S. work to improve health globally through research and innovation?



A RESEARCHIAMERICA POLL OF U.S. ADULTS CONDUCTED IN PARTNERSHIP WITH ZOGBY ANALYTICS IN SEPTEMBER 2015.

* UNICEF <WWW.CHILDMORTALITY.ORG>
‡ SCIENCE HEROES <WWW.SCIENCEHEROES.COM>
‡ LOMBORG, BJORN. THE GAURDIAN, 2014.

◻ POLICYCURES <WWW.POLICYCURES.ORG>
+ WORLD HEALTH ORGANIZATION <WWW.WHO.INT>

Hope for the Future:

- For individuals living in rural or low-income communities, access to care continues to be one of the most limiting factors for improving health. New healthcare technologies, like telemedicine and mHealth (mobile health), will play a pivotal role in connecting otherwise isolated individuals with health professionals anywhere in the world. Utilizing new health IT, remote monitoring of patients with cardiac disease and other chronic conditions could save an estimated \$36 billion between 2013 and 2018.^{^*}

* ACCENTURE ANALYSIS <WWW.ACCENTURE.COM>
 ^ JUNIPER RESEARCH <WWW.JUNIPERRESEARCH.COM>
 • THE INNOVATION COUNTDOWN 2030 REPORT, 2015.

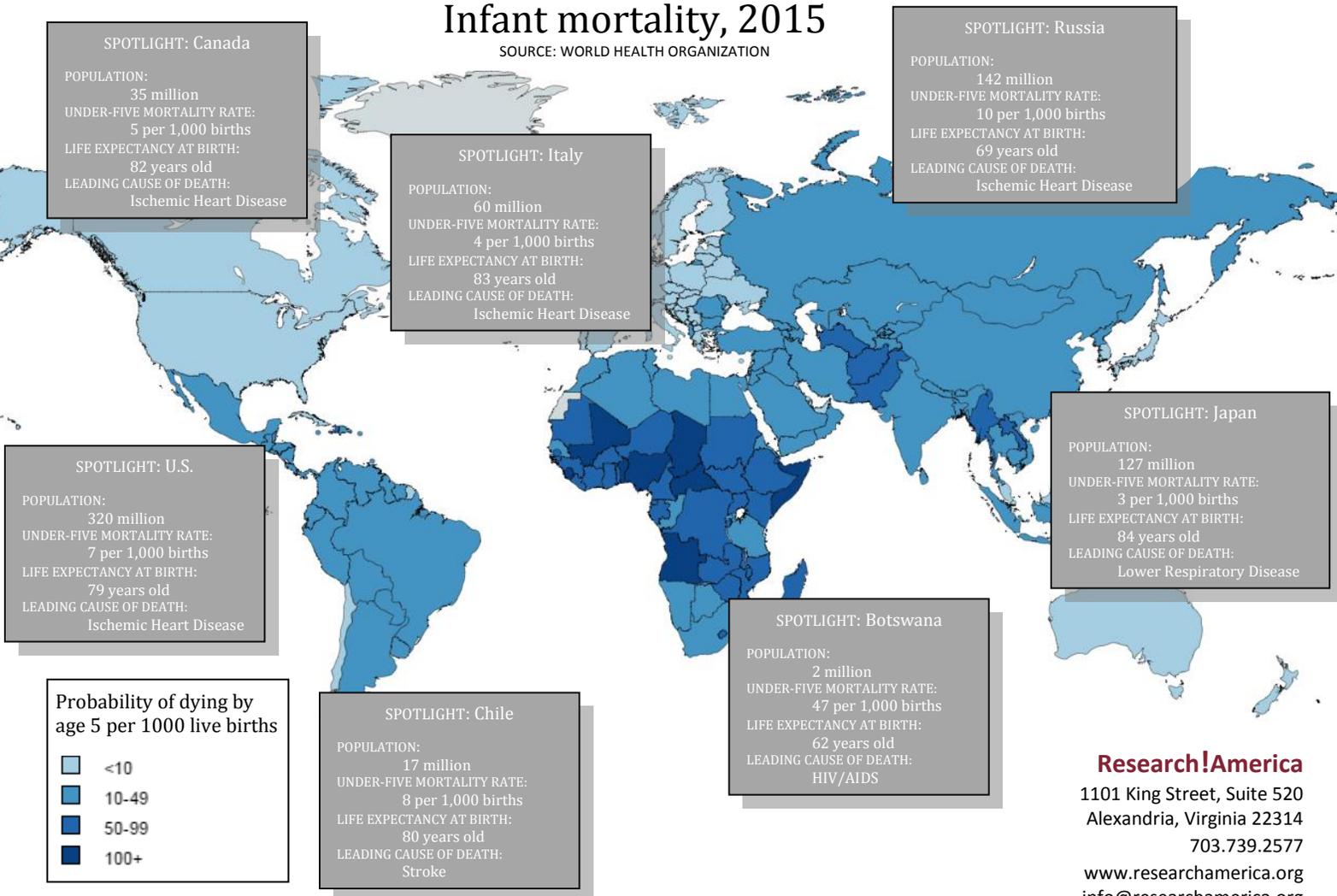
- Lack of access to clean water leads to many life-threatening and avoidable diseases. Researchers are in the process of developing a device to attach to small-scale community water pumps to sanitize the water. Such a technology is projected to save more than 1.5 million children's lives and \$1.2 billion within its first 15 years of utilization.[•]
- In the fight to eliminate HIV/AIDS, researchers are in the process of developing long-acting injectable antiretrovirals. HIV/AIDS treatment requires daily medications whose effectiveness decreases with low adherence. A long-acting formula would be able to provide life-prolonging medications for several months at a time. Such a medication can also be utilized to prevent infections in the short-term for high-risk populations.[•]

The Bottom Line:

We have it in our power to reduce the suffering and needless deaths that arise from avoidable diseases and poor health quality. By incentivizing and robustly funding global health research, millions of lives can be saved. In our increasingly globalized world, Americans are at more risk than ever from health threats abroad. Poor health does not respect country borders. Global health research is vital to preventing the emergence and spread of diseases and conditions that could have profoundly negative affects worldwide.

Infant mortality, 2015

SOURCE: WORLD HEALTH ORGANIZATION



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