

## WHY INVEST IN RESEARCH?



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

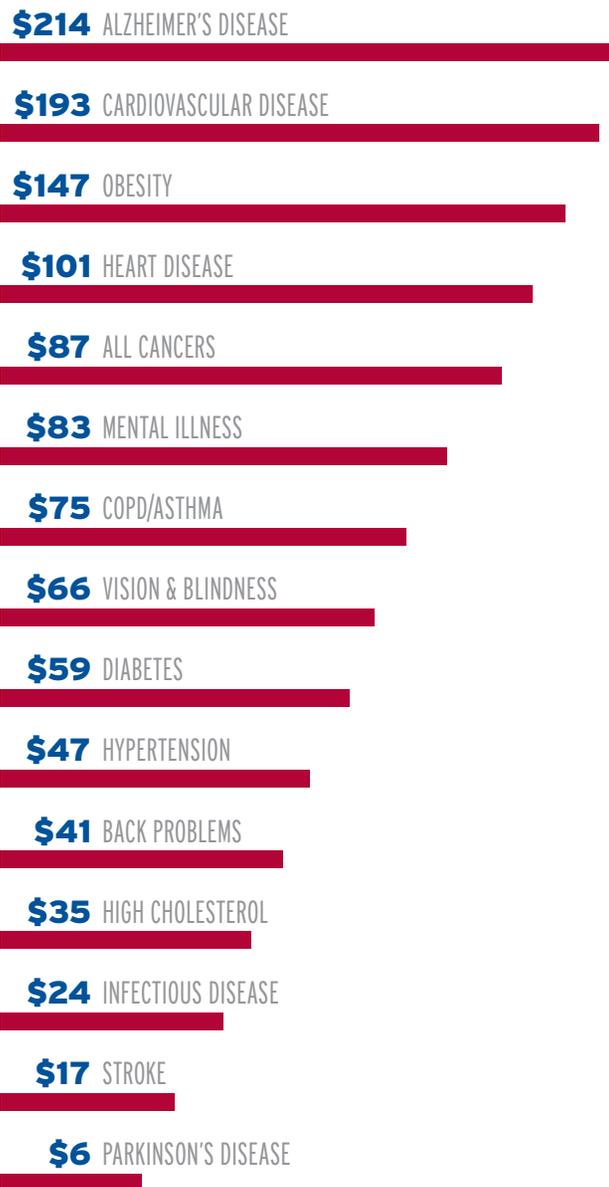
*- Mary Lasker*

### RESEARCH SAVES LIVES AND MONEY.

Vaccinations alone have saved millions of lives and billions of dollars in this nation and across the world.<sup>1</sup> Add to that sophisticated diagnostics that allow for earlier, more targeted intervention and treatments that reduce disabling conditions and shorten the length of illness, and it is clear that greater investment in research is both the right, and smart, thing to do.

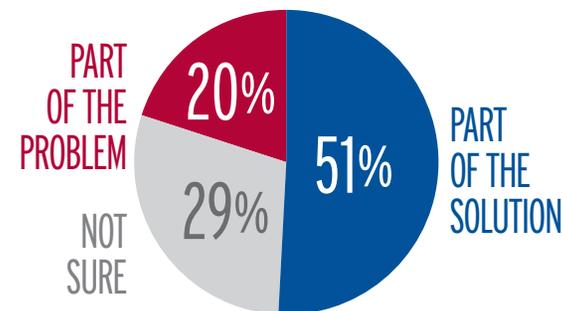
## COST OF CARE FOR MAJOR DISEASES IN US IN 2012

DIRECT COST IN BILLIONS<sup>15</sup>



## WHEN IT COMES TO RISING HEALTH CARE COSTS...

Would you say research to improve health is part of the problem or part of the solution?<sup>16</sup>



Research!America is the nation's largest not-for-profit public education and advocacy alliance working to make medical progress a higher national priority.

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# THE ECONOMIC IMPACT OF RESEARCH

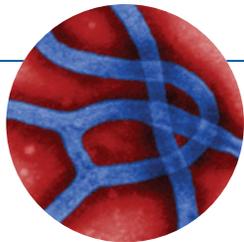
National Institutes of Health (NIH) funding supported **405,759** jobs in 2013.<sup>2</sup>

Discoveries arising from NIH-funded research serve as a foundation for the U.S. biomedical industry, which exports an estimated **\$90 billion** in goods and services annually.<sup>3</sup>

The U.S. government's **\$4 billion** investment in the Human Genome Project spurred an estimated **\$965 billion** in economic growth from 1988-2012—a 178-fold return on investment, after adjusting for inflation.<sup>3a</sup>

## CASE STUDY EMERGING HEALTH THREATS

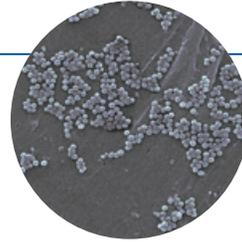
In a truly global society, disease threats can travel quickly around the world. Containing the ongoing threat of the Ebola outbreak will cost the international community billions of dollars.<sup>4</sup> Research across the spectrum – ranging from biomedical to public health – can curb costs associated with potential global health risks. From developing vaccines to disease surveillance, research is part of the solution.



## CASE STUDY HEALTHCARE ASSOCIATED INFECTIONS

Healthcare associated infections (HAI) are the most common complication of hospital care, resulting in 722,000 infections and 75,000 deaths each year. Approximately 1 in every 25 hospitalized patients falls victim to a HAI.<sup>5</sup> The annual direct medical costs of HAIs are estimated at \$28.4 to \$33.8 billion.<sup>6</sup>

In a landmark intervention funded by AHRQ and conducted in 103 Intensive Care Units (ICU's) in Michigan, one of the most common and costly HAIs – Central Line-Associated Bloodstream Infections – were reduced by up to 66%.<sup>7</sup>



## CASE STUDY VETERANS WITH SERVICE-CONNECTED DISABILITIES

As a society, we agree that caring for wounded warriors is a top priority. But are we doing enough? Of the 2.8 million American veterans of the Afghanistan and Iraq wars, nearly 119,000 have been diagnosed with Post-Traumatic Stress Disorder (PTSD) and nearly 288,000 with a traumatic brain injury (TBI).<sup>8</sup>

According to the Assistant Secretary of Defense for Health Affairs Dr. Jonathan Woodson, "PTSD and mTBI (mild traumatic brain injury) are two of the most-prevalent injuries suffered by our warfighters in Iraq and Afghanistan, and identifying better treatments for those impacted is critical."<sup>9</sup> Research into these conditions can help fulfill our nation's solemn commitment to our veterans.



## CASE STUDY PEDIATRIC CANCERS

For children diagnosed with cancer, the average age at diagnosis is 6 years old. In fatal pediatric cancers, children lose an average of 71 years of life.<sup>10</sup>

Scientists are developing novel and less toxic treatments for children battling cancer. Researchers have identified the genes that cause cancer and other health conditions.

Research has helped to dramatically increase the cancer survival rate for children, but childhood cancers are often associated with serious side effects later in life. For many rare cancers, the survival rate is far lower.<sup>11</sup>

Federal funding for childhood cancer research amounts to less than \$5000 for each of the 40,000 children facing cancer treatment each year.<sup>12</sup> More resources are needed to continue combating pediatric cancers and other childhood diseases.



## CASE STUDY DEMENTIA

The economic impact of dementia in the United States ranges from \$159 billion to \$215 billion annually. The greatest health care costs associated with dementia are institutional and home-based long-term care.<sup>13</sup>

A treatment breakthrough introduced in 2015 that delays the age of onset of Alzheimer's by five years would reduce total costs, a savings of \$50 billion by 2020, according to the Alzheimer's Association. By 2050, the reduction in total costs would reach \$447 billion.<sup>14</sup>

