

INVESTMENT IN RESEARCH SAVES LIVES AND MONEY

Vaccines

Unlike most medical interventions, which treat or cure existing diseases, vaccines prevent them. By stimulating the body to produce antibodies through exposure to killed or weakened germs, vaccines allow individuals to gain disease immunity.

TODAY

Vaccinations among Americans born between 1994 and 2018 will prevent

419 million

illnesses, help avoid

936,000

fatalities, and save nearly

\$1.9 trillion

in direct and indirect costs.¹

The number of U.S. children without childhood vaccinations

is increasing.

The percent of two-year-olds who had not received their childhood vaccinations rose from

0.9% to 1.3%

between 2011 and 2015.²

By early May 2019, the U.S. had seen over

760

confirmed cases of measles, although measles was declared eliminated from the U.S. in 2000.³

COST

\$16:

That's how much every dollar spent on vaccines saves in direct medical costs.⁴

\$9 billion:

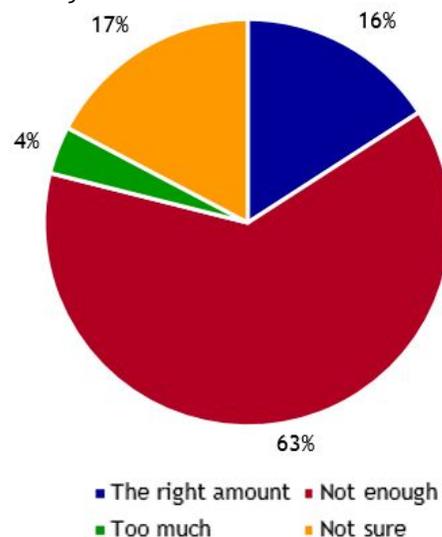
That's the annual economic burden of vaccine-preventable diseases in the U.S.⁵

\$811,929:

That's how much was spent to treat an unvaccinated 6-year old who contracted tetanus in 2017.⁶

Majority Say Current Spending on Research to Prevent, Cure and Treat Disease is not Enough

The U.S. spends about five cents of each health dollar on research to prevent, cure and treat disease and disability. Do you think that this is too much, the right amount, or not enough?



Research Delivers Solutions

Across Africa, more than **250,000 children die from malaria annually**. The world's **first malaria vaccine**, and the first vaccine to target a human parasite, could change that. A collaborative effort between the World Health Organization and the governments of Ghana, Kenya, and Malawi, the malaria vaccine pilot program, which launched in April of 2019, aims to **vaccinate 360,000 children annually**.⁷

Strains of the **human papillomavirus (HPV)**, a common sexually transmitted infection, can cause cervical and other cancers. The newest **HPV vaccine** protects against 80% of all cervical cancers, and will **prevent 29,000 cases of cancer annually**.⁸

Nanotechnology researchers have figured out how to use **self-assembling nanoparticles** to create a vaccine—ushering in a new era of vaccine design technology.⁹

A spate of **whooping cough outbreaks** has demonstrated a need for a better whooping cough vaccine. Researchers working to develop a new, **more effective vaccine** have reported successful Phase 1 clinical trials.¹⁰

¹“VCF Infographic: Protecting America’s Children Every Day”. CDC. 2019.

²“Vaccination Coverage Among Children.” CDC. 2018.

³“Measles Cases in 2019.” CDC. 2019.

⁴“Expanding Use of Vaccines Could Save up to \$44” JHSPH. 2016.

⁵Ozawa et al. “Economic Burden of Diseases.” 2016

Source: A Research!America poll of U.S. adults conducted in partnership with Zogby Analytics in January 2019

Vaccines

Then. Now. Imagine.

THEN

For thousands of years, smallpox was one of the major health threats in the world, killing an estimated 300 million people in the 20th century alone. In the late 1940s and early 1950s, polio caused permanent injury or paralysis to approximately 35,000 people annually.^{11, 12}

NOW

The development of effective vaccines and widespread vaccinations led to the global eradication of smallpox in 1980, and the elimination of polio from the U.S. in 1979.^{11, 12}

IMAGINE

A world free of vaccine-preventable illnesses, with an increased range of diseases — like cancers and antimicrobial-resistant pathogens — that vaccines can prevent.

Strength of Belief in Importance of Vaccines Declining

Thinking about the common vaccines available today such as polio, tetanus, measles, and flu, how important do you believe vaccines are to the health of our society today?

70%

Very Important

22%

Somewhat Important

4%

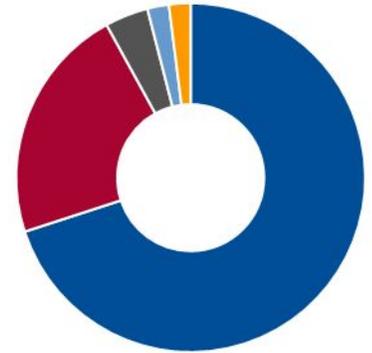
Not too important

2%

Not at all important

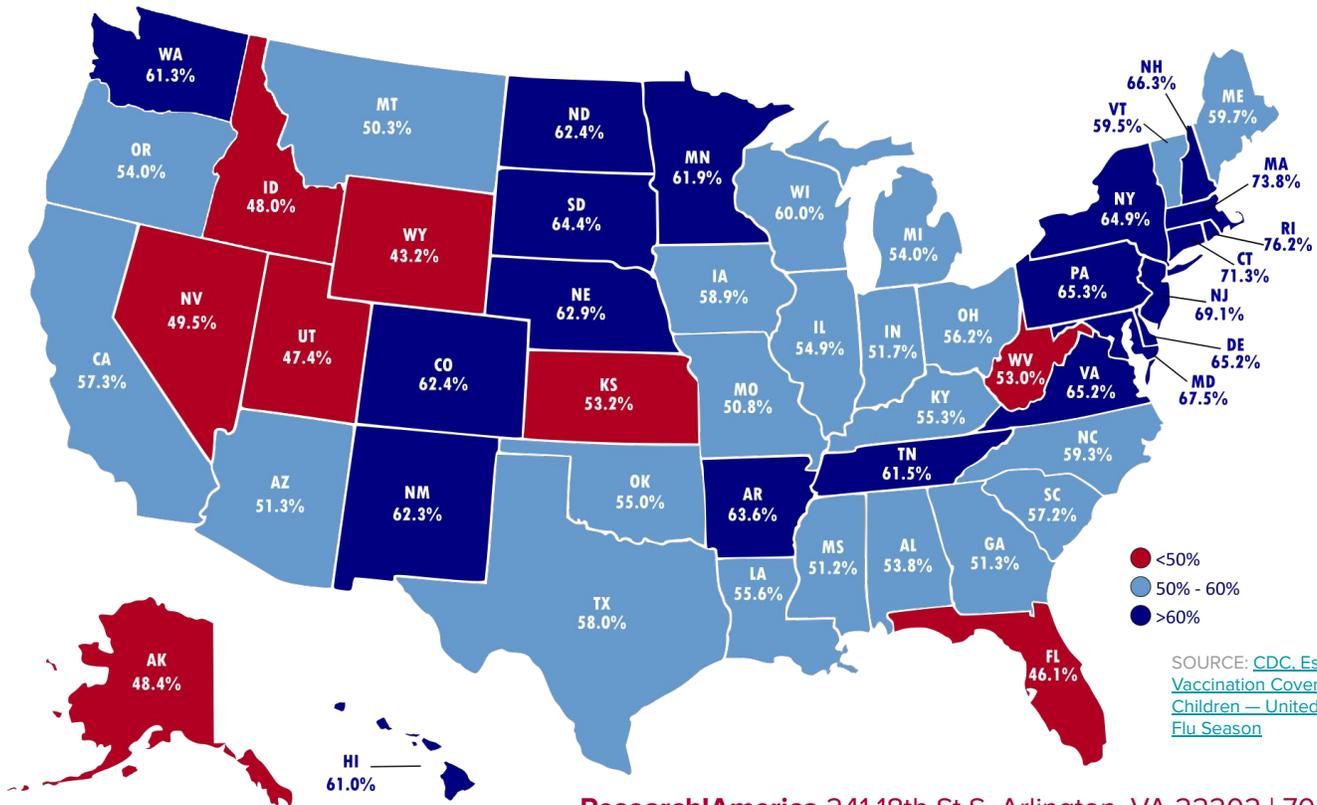
2%

Don't Know/Refused



↓ Decrease in those who say "very important" - down 10% since 2008.¹³

Flu Vaccination Coverage Among Children: 2017-2018 Flu Season



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

6. Ingber. "Unvaccinated Boy Spent 57 Days in the Hospital." 2019
 7. "Malaria Vaccine Pilot Launched in Malawi." WHO, 2019.
 8. "Assessment of HPV Types in Cancers." CDC, 2018.
 9. Marcandalli et al. "Nanoparticles in Vaccine Design." 2019.
 10. Brennan. "A New Whooping Cough Vaccine." 2017.
 11. "Bugs, Drugs and Smoke: Stories from Public Health." WHO, 2011.
 12. "A Polio-Free U.S. Thanks to Vaccine Efforts." CDC, 2018.
 13. A Research!America poll in partnership with Zogby Analytics in 2018