Investment in research saves lives and money

facts about: Vaccines

Today:

- About 2.2 million children worldwide die every year from vaccine-preventable diseases.*
- Wider use of the HPV vaccine could reduce the approximately 11,000 cases and 4,000 deaths from cervical cancer that occur in the U.S. each year.**
- More than 50,000 American adults die each year from vaccine-preventable diseases, such as flu, pneumonia and hepatitis B.***
- The U.S. recently had the largest outbreak of measles in more than 10 years. Most cases were associated with international travel of unvaccinated individuals, emphasizing the importance of global vaccination.****
- Without vaccination, whooping cough (pertussis) can spread quickly as seen in the recent California epidemic, which is expected to be the worst in 50 years.*****

Sources: *WORLD HEALTH ORGANIZATION (WWW.WHO.INTERNATIONAL)
**NATIONAL CANCER INSTITUTE (WWW.CANCER.GOV)
***U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES (WWW.HHS.GOV)
****CENTERS FOR DISEASE CONTROL AND PREVENTION (WWW.CDC.GOV)
*****WINTER, K. ET AL. MORTALITY AND MorBIDITY WEEKLY REPORT. 2010; 59(26): 817.

The Cost:

- Despite preventive efforts, every year the seasonal flu causes around 200,000 hospitalizations and 36,000 deaths and costs the U.S. about $87.1 billion.


U.S. survivor:

NAME: MICHELLE PANGILINAN,
ISAIAH AND AALIYAH
DISEASE: CHICKENPOX

Like most Americans her age, Michelle Pangilinan of Woodbridge, VA, got the chickenpox as a child. She had a fever and an extremely itchy rash and blisters for about a week. Thanks to the introduction of a chickenpox vaccine in 1995, Michelle’s children, Isaiah and Aaliyah, will likely never experience the disease.

Michelle values the vaccine. “I’m glad that Isaiah and Aaliyah won’t have to suffer through the itchiness and discomfort that I did. And if they stay healthy, I can go to work and keep up with my other responsibilities. It’s amazing the difference that research and prevention can make in a single generation.”

GLOBAL survivor:

NAME: NATALIE WILLIAMS
DISEASE: DENGUE FEVER

Natalie Williams of Porterville, CA, spent two years in Honduras as a Peace Corps Volunteer. While living and working in Honduras, Natalie contracted dengue fever, a virus spread by mosquitoes. She had a severe headache, body aches and a fever for four days. “I wanted to die my body hurt so bad.”

The only current treatment for dengue is staying hydrated and taking acetaminophen to keep the fever down. However, a dengue vaccine is in clinical trials in Latin America. Dengue is a growing public health problem, and a vaccine would help prevent the disease in the 230 million people infected annually worldwide.

S A V I N G L I V E S
S A V I N G M O N E Y

HOW RESEARCH SAVES LIVES:

- Every year, vaccines prevent at least 3 million deaths and save 750,000 children from disability worldwide.*
- The CDC has estimated that 70 million Americans received the H1N1 flu vaccine, reducing the number of infections and related hospitalizations and deaths.**
- In the early 1950s, 50 million cases of smallpox occurred annually with a mortality rate of about 30%. However, the institution of a global vaccination program led to the eradication of the disease in 1979.***

Sources: *TAYLOR, K. ET AL. VACCINE. 2009; 275: 03-08.
**CENTERS FOR DISEASE CONTROL AND PREVENTION
***WORLD HEALTH ORGANIZATION

HOW RESEARCH SAVES MONEY:

- The series of seven vaccines given to children in the U.S. is estimated to save $53 billion in direct and societal costs over the lifetime of those born in a single year.*
- Introduction of the polio vaccine has saved the U.S. an estimated $180 billion in treatment costs for the disease.**


“If you think research is expensive, try disease.”
— Mary Lasker 1901–1994
Hope for the Future:

- The U.S. government funded a clinical trial on a combination of vaccines to protect against HIV that lowered the rate of infection by 31.2%. This is first time a vaccine against HIV has been shown to work.*
- A promising new therapeutic vaccine is being tested for treating lung cancer, the most deadly type of cancer in the U.S. Initial clinical trials have demonstrated that the vaccine can extend survival by nearly 16 months.**
- NIH-funded researchers have made a discovery that could lead to a universal flu vaccine that would eliminate the need to develop a new vaccine for the flu each year and protect against emerging flu pandemics.***

***NATIONAL INSTITUTES OF HEALTH (WWW.NIH.GOV)

The Bottom Line:

Vaccines are proven to prevent disease, ultimately saving lives and treatment costs. The U.S. must invest in research on continued development of vaccines to prevent and treat diseases, which will improve the health of Americans and people worldwide.

**Vaccines are a miracle...**

BILL GATES, Co-chair, Bill & Melinda Gates Foundation

Americans Aged 65+ Who Had a Pneumonia Vaccination, 2008


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