Center Forward Basics June 2016

Overview

Over the last several decades we have seen an astronomical increase in new medical discoveries that are improving people's health and helping them live longer. Many experts predict that these advances will continue to increase exponentially as the innovation ecosystem makes new discoveries and builds off existing success, especially in the United States. Also, there is strong bi-partisan support for the idea of making new medical treatments and cures a top policy priority for lawmakers.

Decades of Discovery

Experts state that it takes approximately 10 years for a new medicine or treatment to make it from a concept to patient use and broad distribution. Clinical trials alone can take six to seven years. This whole process for one drug, including the inevitable scientific setbacks and failures, is estimated at \$2.6 billion. This cost assumes the likelihood that a medicine or treatment will successfully make it out of clinical trails is relatively low at about 12 percent.

That being said, the last half-century has been an era of extraordinary innovation and discovery. Consider the following:

- <u>Life expectancy</u> in the United States is now at almost 78.8 years. In 1935, when the Social Security program was established, life expectancy was just 61 years old. Heart disease and cancer death rates (the two top killers in the United States) have been falling steadily since 1999, in part due to better screening technology and treatments to prevent and cure these diseases. This has significantly contributed to increases in life expectancy rates.
- Diabetes: According to the American Diabetes Association over 29.1 million American have diabetes. It is the seventh cause of death and there are many co-morbid conditions associated with the disease, like hypoglycemia, hypertension, blindness and amputations, to name a few. The economic costs are also high: \$176 billion in direct medical costs and \$69 billion in lost productivity. Medical innovations, however, continue to grow, with better and easier ways to administer and produce insulin,

Key Facts

Experts state that it takes approximately 10 years for a new medicine or treatment to make it from a concept to patient use and broad distribution.

Life expectancy in the United States is now at almost 78.8 years.

According to the <u>Information</u>
<u>Technology and Innovation</u>
<u>Foundation</u>'s ranking of
"biopharma innovation" the
United States ranks number one
in this area.

A recent bipartisan poll conducted by Center Forward and the Galen Institute, says Americans strongly favor action on public policies that support medical discovery into new treatments and cures. Nearly all voters believe it is important for the United States to continue to develop new treatments and cures for diseases and believe these new discoveries are an opportunity to help the United States maintain it's competitive edge.

as well as monitoring devices that are simpler and less painful for patients to use.

- HIV/AIDS: Once considered a death sentence, innovations in drug therapies now mean most people in the United States diagnosed with HIV live healthy and long lives thanks in part to Highly Active Antiretroviral Treatments (HAART).
- High-Cholesterol: Over the last several years, there has been an increased call for doctors to prescribe statins and other cholesterol fighting drugs as a preventive measure to ward off heart disease and strokes. According to the American Heart Association, while change in exercise and diet are absolutely necessary, they are often not sufficient to lower high-cholesterol on their own.
- Cystic Fibrosis: This genetic and progressive disease that causes lung infections and limits patients ability to breathe over time has seen a dramatic increase in treatment options and therapies that have successfully extended lives. According to the Cystic Fibrosis Foundation, 50 years ago there was no effective treatment for the disease, but now there are therapies that help keep lungs clear from mucus and prevent and fight infections.
- Human Papillomavirus (HPV): There are around 14 million new HPV infections every year, with about half occurring among 15-24 year olds. HPV has no systems and can cause specific cancers. In recent years, a vaccine has been developed and the Center for Disease Control and Prevention recommends that boy and girls between the ages of 11 or 12 get vaccinated to protect them from future disease.

Engine of American Economic Growth

America is the leader in medical innovation and discovery. Partnerships between the private sector, government, universities and non-profits all contribute to an ecosystem that supports and creates these new discoveries. According to the Information Technology and Innovation Foundation's ranking of "biopharma innovation" the United States ranks number one in this area.

Americans Want a Focus on Treatment and Cures

According to a recent <u>bipartisan poll</u> conducted by <u>Center Forward</u> and the <u>Galen Institute</u>, Americans strongly favor action on public policies that support medical discovery into new treatments and cures. Nearly all voters believe it is important for the United States to continue to develop new treatments and cures for diseases and believe these new discoveries are an opportunity to help the United States maintain its

More Resources

How National Policies Impact Global Biopharma Innovation: A Worldwide Ranking. Information Technology and Innovation Foundation. John Wu and Stephen Ezell. April 2016.

How to Create More Medical
Breakthroughs? Get Everyone on
Board. TED. Chris Gash. May 2016.

Why Life-Sciences Innovation Is Politically Purple. Information Technology and Innovation Foundation. Robert D. Atkinson. February 2016.

Center Forward/Galen Institute. Medical Discovery Research. June 2016.

21st Century Cures Legislation
Overview. Energy and Commerce
Committee, U.S. House of
Representatives.

About Center Forward

Contact:

Cori Smith Kramer, Executive Director

www.center-forward.org

competitive edge. Some of the findings include:

- Seventy-eight percent of respondents said they believe that Members of Congress and candidates running for office should adopt policies that support the development of new treatments and cures;
- Taking this a step further, nearly two-thirds of voters (65 percent) favor the next president prioritizing medical discovery during his/her first 100 days in office; and,
- The results show overwhelming support for ongoing access to new treatments and cures through Medicare and private health plans, as well as modernizing the FDA, and facilitating new public-private partnerships, among other initiatives.

Conclusion

America has always been a country where innovation and new ideas thrive, and this is particularly true with regard to new treatments and cures. As a former Obama Commerce Secretary and Ambassador to China recently said in an <u>op-ed</u>: "Any solution to our health care challenges requires creativity and commitment to identify opportunities that reduce costs, extend productivity, create jobs and catalyze new areas of longlasting, impactful innovation. Medical discovery is our best chance to create impactful change, spur economic growth and improve the well-being of our aging population."