

The Value and Cost of Medical Innovation

As one of the most research-intensive and research-driven industries in the world, biopharmaceutical companies are continually discovering and developing life-enhancing medicines that will change the course of human health throughout the world.

These transformational medicines are drastically improving the way health care is delivered by saving lives and reducing costly hospitalizations, doctor visits and invasive medical procedures.



“This is the most exciting time in the history of medicine. If we can make some radical changes to accommodate the enormous opportunities, there will be better health at lower costs for many generations to come.”

Eric Topol, MD, Author, *The Creative Destruction of Medicines*

The Cost of Innovation

The path to new treatments is neither quick nor easy and is only achieved through significant investment, innovation and access.

10 – 15
YEARS

It takes an average of **10-15 years to advance one potential new medicine** from discovery to obtaining regulatory approval.

ONLY 1
IN 5,000 –
10,000

Approximately **one in every 5,000-10,000 new compounds becomes a new therapy** that is accessible to patients.

95% OF
CLINICAL
TRIALS
FAIL

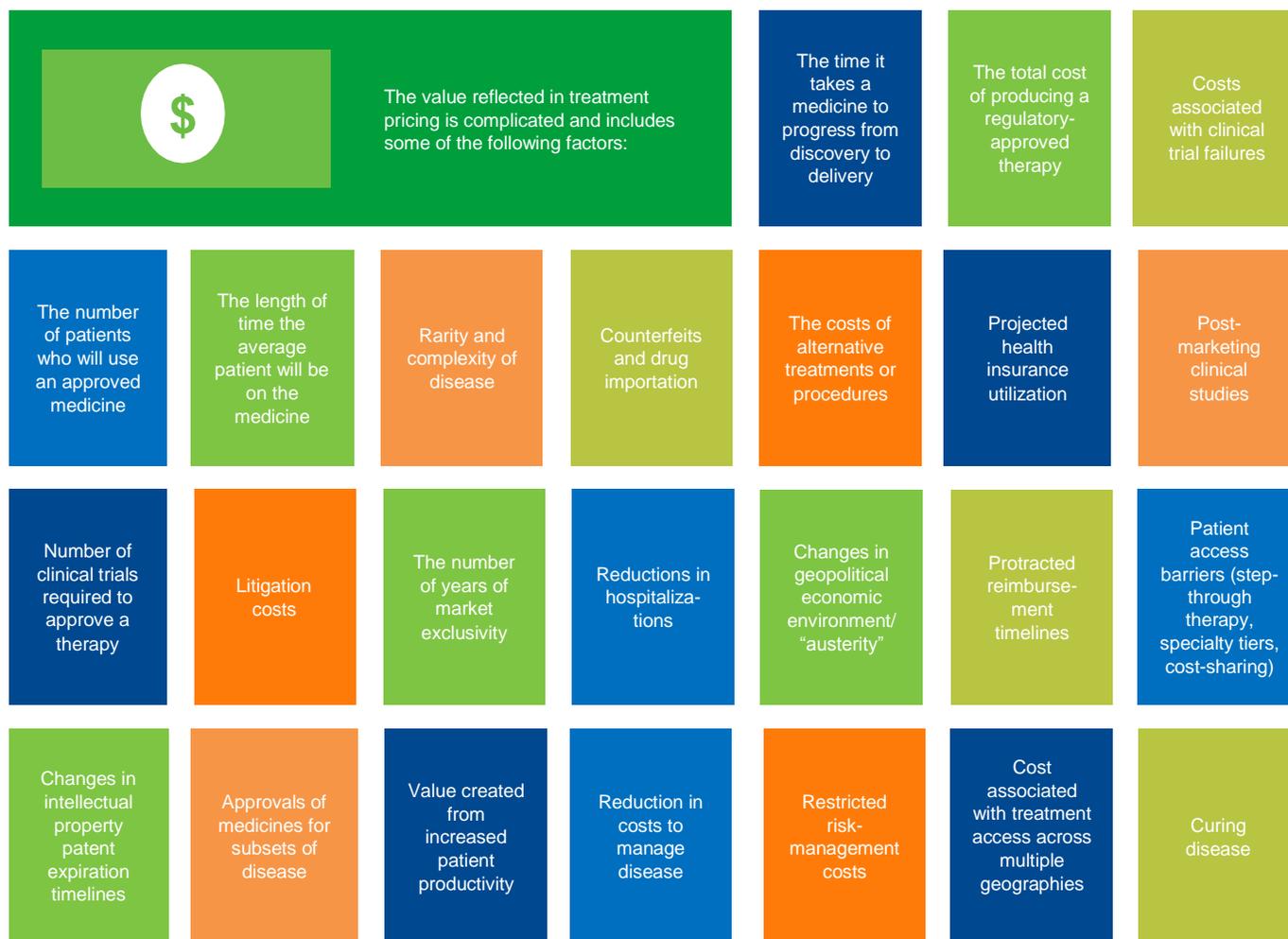
Drug discovery and development is a risky business, with approximately 95 percent of therapeutic candidates entering clinical trials not making it to market.

According to the Tufts Center for the Study of Drug Development, **the average cost to develop one new approved therapy more than tripled** between the late 1990s and 2014, costing up to \$2.6 billion.

Spending for Medicines Unchanged for Over 50 Years

Spending on medical innovation has remained consistent despite biopharmaceutical companies bringing to patients more than 400 new medicines that treat a multitude of rare and severe health conditions over the past 15 years.

According to a 2014 federal report by the Centers for Medicare and Medicaid Services (CMS), retail prescription medicines will continue to account for less than 10 percent of total healthcare spending through 2023 – the same percentage it was in 1960. This consistency occurs because the price of newer, high-valued medicines is offset by the ongoing expiration of branded patents. In the next three to four years, an estimated \$100 billion in healthcare savings will be generated through the use of generic medicines, which are based on previously branded therapies.



Sources

¹ 2014 Economic Impact Report: Driving Growth and Innovation in California's Life Science Industry. BayBio/Biocom.

<http://www.califescience.org/assets/2014CAEconImpactReport.pdf>. Accessed November, 2015.

² 2014 Biomedical Industry Report. California Healthcare Institute. <http://www.chi.org/wp-content/uploads/2013/11/Final-2014CHI-Calif.-Biomed-Report.pdf>. Accessed November, 2015.

³ 2013 Profile: Biopharmaceutical Research industry. PhRMA. <http://www.phrma.org/sites/default/files/pdf/PhRMA%20Profile%202013.pdf>. Accessed November, 2015.

⁴ Ashutosh Jogalekar. Why drugs are expensive: It's the science, stupid. January 6, 2014. Scientific American. <http://blogs.scientificamerican.com/the-curious-wavefunction/why-drugs-are-expensive-ite28099s-the-science-stupid/>. Accessed November, 2015.

⁵ Finkel R. Why Drugs Cost So much. August 17, 2012. <http://www.drugsdb.com/blog/why-drugs-cost-so-much.html>. Accessed November, 2015.

⁶ We need an honest discussion about the cost of treating cancer. October 13, 2014. <http://thehill.com/blog/congress-blog/healthcare/220431-we-need-an-honest-discussion-about-the-cost-of-treating-cancer>. Accessed November, 2015.