

MEDICAL INNOVATION AND PATIENTS' QUALITY OF LIFE

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Technological advances allow physicians to better diagnose and treat patients. There are countless examples of the role that technology plays in every aspect of our lives, and medicine is no different. It could be said that the relationship between technology and health care is one of the most crucial and dynamic.

Because of innovation in medicine, we are living longer and enjoying an overall improved quality of life. Does increased competition—more product approvals—in the health care industry drive innovation? Is innovation in the best interest of patients?

A group of European researchers examined the relationship between cutting-edge technology and the cost of health care.¹ The meta-analysis looked at 86 studies and found that some innovations raised costs whereas others reduced them. According to Sally Pipes, the president, CEO, and Taube Fellow in Health Care Studies at the Pacific Research Institute in San Francisco, the relationship “is complex and often conflicting.”

Writing in *Forbes*, Ms. Pipes said that policymakers tend to focus on the six-figure price tag of a new drug or technology. By doing this, they ignore the long-term value that medical innovations can represent for both patients and the broader economy. One way to look at it is to consider the impact of advances in medicine on hospital stays²:

- A European study found that, between the years 2000 and 2008, medical technology cut hospital stays by an average of 13%.³
- New drug therapies save money by keeping patients healthier and out of the hospital.
- A study published by the National Bureau of Economic Research found that Medicare saves more than \$2 for each dollar it spends on medicines.⁴
- Columbia University Professor Frank Lichtenberg estimates that an additional dollar spent on pharmaceuticals reduces hospital expenditures by \$3.65.⁵

Let's not forget the millions of patients who have realized substantial benefits thanks to medical innovation. Cancer death rates have declined over the past 3 decades from 51% in 1977 to 33% in 2009. Cancer therapies have given Americans 42 million additional years of life during the past 22 years. The total economic impact of keeping these individuals alive and working is roughly \$3.5 trillion.⁵

As Ms. Pipes wrote, “By improving doctors' ability to diagnose and monitor their patients, the devices could deliver a return on investment that's exponentially larger in the form of savings to the health care system.” ■

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4. The National Bureau of Economic Research. Medicare and its Impact. <http://www.nber.org/digest/apr06/aw11609.html>. Accessed October 31, 2016.

5. American Cancer Society. Cancer mortality down 20% from 1991 peak. <https://www.sciencedaily.com/releases/2013/01/130117105831.htm>. Accessed October 31, 2016.