



Commentary

## The Healing Power Of Innovation

Glen Whitman and Raymond Raad 01.06.10, 12:05 PM ET

As congressional Democrats prepare to revamp America's health care sector, few have addressed how their plans might affect medical innovation. The United States leads the world in such innovation, generating most of the medical discoveries, drugs, devices and procedures that improve health throughout the world. That's one feature of American health care we should not throw out with the bath water.

In a new study for the Cato Institute, we compare the U.S. to other nations by their contributions to basic medical sciences, diagnostics, therapeutics, and business models. With the exception of business model innovation (which appears sluggish across nations), the U.S. has contributed more in these areas than any other country--and sometimes more than all other countries combined.

Take basic medical sciences, meaning advances in our understanding of disease and the human body. As measured by Nobel Prizes in medicine and physiology, the U.S. leads the world: 57 U.S.-based prize winners in the last four decades, compared with just 40 from other nations.

How about diagnostics and therapeutics, which help doctors identify and treat disease? Of the top 27 diagnostic and therapeutic innovations over the past four decades, work in the U.S. contributed significantly to 20, including nine of the top 10. By contrast, all European Union countries together with Switzerland had a hand in 14 of those advances, and just five of the top 10.

Important innovations developed solely in the U.S. include drugs like ACE inhibitors for heart failure and high blood pressure, selective serotonin reuptake inhibitors for depression, and treatments for cataracts.

Why does America outpace the rest of the world in medical innovation? It's not our large population. The combined population of the E.U. and Switzerland exceeds the U.S. population by more than 50%.

Many characteristics of a country can affect innovation, including the patent system, tax code, medical culture, general business climate and quality of universities. But health care policy surely plays a major role. It seems likely that American medical innovation is driven largely by something often regarded as a defect: the fact that we spend so much money.

The NIH spends more than \$30 billion annually on research in basic medical sciences, while its counterparts in Europe spend \$3 billion to \$4 billion annually.

Additionally, centrally organized health care systems, like those in much of Europe, are characterized by strong buyer power that pushes down compensation. As a result, they pay 35% to 55% less for prescription drugs.

Centralized systems also place limits on the use of new drugs, technologies and procedures. As a result, they tend to adopt new technologies later and use them less extensively.

Lower spending might seem like a good thing, until you consider the poor incentive it creates for innovation. Other things equal, people and firms tend to invest more in medical innovation when they expect a higher return, when the returns last longer and when the returns arrive sooner.

As Sidney Taurel, former CEO of the pharmaceutical giant Eli Lilly, once put it: America, "though hardly 'free' of government intervention ... is the one market where global innovators find the incentive they need to keep pushing the boundaries." Critics often describe America's high level of per-capita medical spending as a problem--but when encouraging innovation, it's a feature.

Unfortunately, the health care bills moving through Congress could curtail medical innovation. Imposing price controls on drugs and treatments--or indirectly forcing their prices down by means of a "public option" or expanded public insurance programs--would reduce the incentive for innovators to develop new treatments.

Proposed reforms could also retard business model innovation--an area where innovation is weak. Congress has already used its control of Medicare to limit the growth of specialty hospitals. A nationally mandated insurance package would severely curtail innovation in payment methods and insurance products, which have the potential to improve the coordination and delivery of health care services.

The health care debate should address more than just covering the uninsured and controlling costs. When the U.S. generates medical innovations, the whole world benefits. That is a virtue of the American system that is not reflected in comparative life expectancy and mortality statistics.

Before we let elected officials overhaul America's health care sector, we should insist that they respect and preserve those aspects of the American system worth saving.

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