

TIP Publication Date

May 22, 2014

Trexin Health Economics Series

Small Changes Equal Sustainable Results

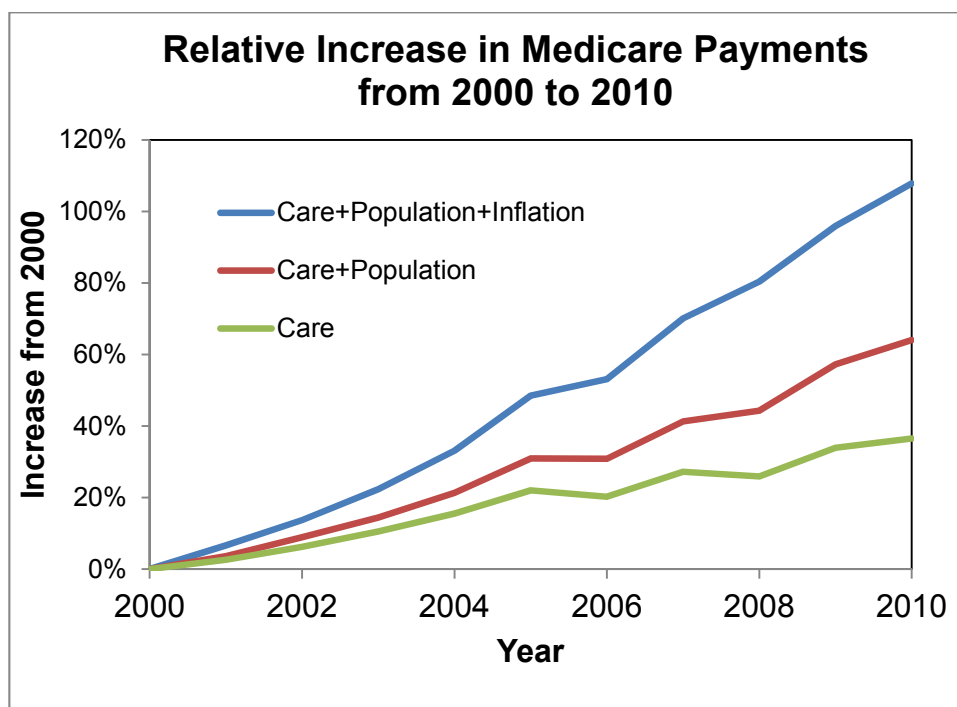
Getting Under the Covers with the High Cost of US Healthcare

Compared to other developed nations the US spends approximately twice as much per capita on healthcare and the total cost seems to be spiraling out of control. And while many other countries have placed a number of types of controls on payers, prices or the availability of services, the US has not. Although the US, regulators and payers, have not made great efforts on system wide controls, the cost curve increase is not as dramatic once we factor in inflation and population growth. When projecting for the future, we need to understand how the US healthcare system has changed in the past.

The US Government publishes extensive summary statistics that we used to look at how the system has changed in the recent past. Also, the Medicare system provides a convenient sample of the US healthcare with a stable population and benefit structure. Insights into the changes in healthcare delivery were explored looking at the changes in healthcare cost over the period of time from 2000 to 2010. Looking at non-Part D spending (there was no Part D prescription drugs benefit in 2000) there was more than a doubling of payments from 2000 (\$211.8 Billion) to 2010 (\$460.8 Billion). Is this an alarming or reasonable growth rate given the rate of inflation and the growth in population? What change in spend would we have expected between 2000 and 2010 if there had been no changes in healthcare delivery?

First, if there had been no changes in delivery or population we would still expect that costs would increase from general inflation. Between 2000 and 2010 the average rate of inflation was 2.7% per year. If everything else remained constant we would expect the Medicare spend to double in 26 years. But, the population of Medicare beneficiaries did increase by an average of 1.9% per year in the ten-year period. Again keeping other factors constant we would expect this rate of population growth to double spending in 37 years. Combining these two effects we would expect spending to double in 17 years with no actual changes in care delivery.

The increase in Medicare spending can be modeled in a simple way by looking at the average annual increase in the cost of care which when combined with the two factors above yields the observed increase in spend. The combined, observed, yearly increase in spending was 7.6% per year, with a doubling time of 10 years, see Figure below. Factoring out the components for inflation and population growth, the average yearly increase in the resource costs was 3.2% per year. If this were the only factor Medicare payments would double in 22 years.



This rate of 3.2% seems fairly modest; it could have risen much more rapidly, especially since the Medicare system has no direct price controls. While CMS was supposed to set payment rates based on a rate for an efficient provider, the complexity of that requirement has led to rates based on the average cost. This system supports continuing expansion of costs since as costs increase, so do payments. Given that there had not been any significant attempts to discover the efficient price, any savings based on efficiency could yield significant benefits. If payment rates decreased by 1% per year instead of the average observed increase of 3.2%, then total spend would increase by 47% in ten years instead of doubling, mitigating the effects of population increase and inflation. Even modest changes to the rates of Medicare payments promoting efficiency could yield substantial savings.

Nothing in this analysis tries to explain how the US healthcare spend per capita came to be double other developed nations. Others have shown that it is most likely a combination of greater utilization of services and prices for those services that are much higher in the US. And while we don't need to solve that set of problems all at once, we do need to stem the growth in spending that relates to care. Increases due to changes in population and inflation would ideally

be offset by increases in the GDP. Over the 10 year period under study GDP increased on average by 4.0% per year in spite of the recession. The increase in Medicare spend due to the combined effects of inflation and population growth was 4.3% per year, indicating that GDP growth did not quite cover the effects of population and inflation.

While there is a real problem with the current increase in US healthcare spending, a small increase in the GDP and a small reduction of costs related to healthcare delivery together would create a viable level of health care spending. Large-scale changes are not required, what is required are small but persistent changes can lead to a US healthcare spend that is sustainable in the long run.



This TIP was written by Walter Linde-Zwirble, Chief Data Scientist, Health Economics. Walter welcomes comments and discussion on this topic and can be reached at walter.linde-zwirble@trexin.com. View Trexin's healthcare insights and expertise at www.trexin.com/healthcare.
