

### Penetration of Thyroid-Cancer Screening (2008–2009) and Incidence of Thyroid Cancer (2009) in the 16 Administrative Regions of South Korea.

Data on thyroid-cancer screening are from the Korean Community Health Survey Database, Korea Centers for Disease Control and Prevention; data on incidence are from the Cancer Incidence Database, Korean Central Cancer Registry.

thyroid-replacement therapy, and a few have complications from the procedure. An analysis of insurance claims for more than 15,000 Koreans who underwent surgery showed that 11% had hypoparathyroidism and 2% had vocal-cord paralysis.<sup>3</sup>

Pathologists have long recognized the existence of a substan-

tial reservoir of subclinical thyroid cancer. In 1947, a report in the *Journal* pointed out the discrepancy between the frequent finding of thyroid cancer at autopsy and its rarity as a cause of death.<sup>4</sup> It has been estimated that at least one third of adults harbor small papillary thyroid cancers, the vast majority of which will not produce symptoms during a person's lifetime.<sup>5</sup> As the South Korean data show, all it takes to expose this reservoir is ultrasonographic screening.

The experience with thyroid-cancer screening in South Korea should serve as a cautionary tale for the rest of the world. During the past two decades, multiple countries have had a substantial increase in thyroid-cancer incidence without a concomitant increase in mortality. According to the Cancer Incidence in Five Continents database maintained by the International Agency for Research on Cancer, the rate of thyroid-cancer detection has more than doubled in France, Italy, Croatia, the Czech Republic, Israel, China, Australia, Canada, and the

United States. The South Korean experience suggests that these countries are seeing just the tip of the thyroid-cancer iceberg — and that if they want to prevent their own “epidemic,” they will need to discourage early thyroid-cancer detection.

Disclosure forms provided by the authors are available with the full text of this article at NEJM.org.

From the Department of Preventive Medicine, College of Medicine, Korea University, Seoul, South Korea (H.S.A., H.J.K.); and the Dartmouth Institute for Health Policy and Clinical Practice, Hanover, NH (H.G.W.)

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## National Health Spending in 2014 — Acceleration Delayed

Charles Roehrig, Ph.D.

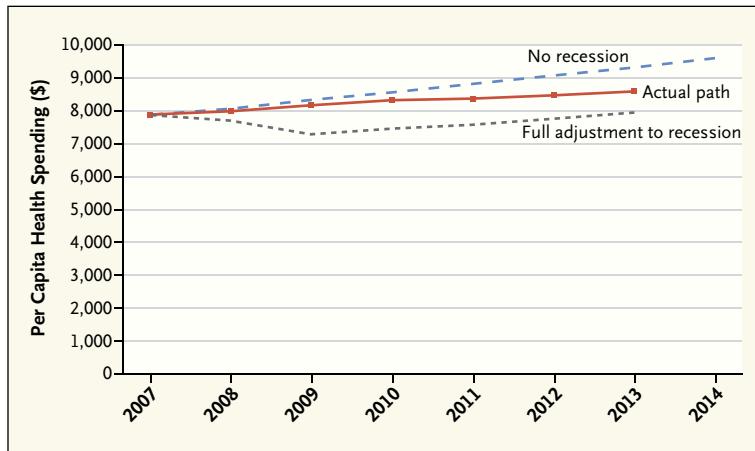
On the basis of data from the Bureau of Economic Analysis (BEA), it was widely reported in May that U.S. health care spending during the first 3 months of 2014 grew at an annualized rate of about 10% relative to the previous quarter. It appeared, at that point, that the 5-year run of sub-4% growth that began in 2009 was ending with a double-digit bang. However, 2 months later, revised BEA data showed a

dramatic change: first-quarter health spending had actually fallen at a 0.9% annual rate.

The pronounced difference between these two estimates is highly influenced by the method used to compute growth rates. Spending in the first quarter of 2014 was compared with spending in the fourth quarter of 2013, and the percent change was compounded to convert it to an annual rate. An alternative approach is to compare

first-quarter spending in 2014 with first-quarter spending in 2013. Such a calculation encompasses a full year of change and generally has a superior signal-to-noise ratio.<sup>1</sup> Applying this method to the BEA data brings the estimates much closer together — 6.3% initially, revised to 3.5% — but the two are still different enough to beg for explanation.

Health economists have anticipated a jump in health spending



#### Real Per Capita Health Spending and the Long Reach of the Recession.

The top line estimates the path that real per capita health spending would have followed if there had been no recession in 2008–2009 and the economy had grown as projected by the Congressional Budget Office in 2007. The bottom line estimates the path of health spending in the scenario of full and immediate adjustment to actual economic conditions.

in 2014 due to expanded insurance coverage under the Affordable Care Act (ACA) and, to a lesser extent, recovery from the severe recession of 2008 and 2009. For example, projections just released by the Centers for Medicare and Medicaid Services (CMS) predict 5.6% growth in 2014, as compared with 3.6% in 2013, with the increase attributed primarily to expanded coverage but also to the improving economy.<sup>2</sup>

Viewed from this perspective, the initial BEA estimate of 6.3% first-quarter growth was roughly consistent with expectations. That's not surprising, since BEA analysts had few hard data on how expanded coverage was affecting first-quarter health spending when they developed their initial estimate. The revised estimate of 3.5% growth incorporated data from the Quarterly Services Survey (QSS) released in June. Although that second estimate should be the more accurate of the two, it is also the more surprising. Why should the growth rate in

health spending remain flat when millions of people are gaining health insurance and when the economic expansion is approaching its sixth year?

Consider, first, the effects of expanded coverage. CMS projects that 9 million people, or about 3% of the population, will gain coverage in 2014. As a rule of thumb, health spending for people who gain insurance doubles.<sup>3</sup> If these 9 million people have average health care needs, one might expect their share of national health spending to grow from 1.5% to 3%, since their final share of health spending should be the same as their share of the population and their initial share should be half that. Such a change would add 1.5 percentage points to the growth in health spending in 2014. Given that the health care needs of these newly insured people, who are all younger than 65, are likely to be somewhat less than average, the increase would probably be somewhat less than 1.5 percentage points. Yet surprisingly,

the revised data showed no increase at all in the first-quarter growth rate.

There are two parts to the likely explanation for this flat growth. First, the increase in spending associated with expanded coverage was small in the first quarter because many ACA enrollments occurred toward the end of the quarter and even people who enrolled earlier did not begin spending health care dollars right away. Second, this small increase was offset by a reduction in health spending due to the unusually cold winter that discouraged people from leaving home to seek care.

Next, consider the effect of the economy. Health spending is closely tied to long-term (real per capita) economic growth, and it accounted rather consistently for about one quarter of such growth between 1980 and 2007.<sup>4</sup> Health spending, however, reacts slowly and incrementally to short-term economic fluctuations (business cycles), with effects spread over a number of years.<sup>5</sup> Some effects are immediate and obvious, such as the loss of employer-sponsored health insurance during recessions and subsequent gains during recoveries. A longer-term effect relates to the timing and intensity of cost-control efforts by public and private payers. Declining tax revenues during recessions create pressure on state and federal governments to control spending on Medicaid and Medicare. In the private sector, slack demand causes businesses to hold the line on employee compensation and to increase pressure on insurers to limit premium increases. Some effects, such as observed reductions in health spending by people who did not lose their insurance cov-

erage, are not yet fully understood. These various effects tend to be reversed during economic recoveries, but the likely timing of such a reversal is difficult to pinpoint, particularly for the most recent recession, given its severity and slow recovery.

This last point is addressed in the graph, in which the path of real per capita health spending since the start of the recession is compared with two alternatives: the estimated path for a scenario in which the recession did not occur and the estimated path for a scenario in which health spending adjusted immediately and fully to the recession and its aftermath. The no-recession path assumes a continuation of prerecession real per capita economic growth, with health spending continuing to account for one quarter of the increase. The full-adjustment path applies that one-quarter share to the actual economic growth. The sharp initial drop in this line between 2007 and 2009 (−\$600) reflects the sharp decline in real per capita gross domestic product (GDP) (−\$2,400) during the recession. The slow upward path since 2009 mirrors the disappointing economic recovery, in which real per capita GDP has only recently returned to what it was in 2007 and shows no signs of returning to the long-term path expected before the recession. The graph shows the expected gradual adjustment of health spending downward from its prerecession path toward full adjustment to exist-

ing economic conditions. The remaining adjustment gap suggests that, although we are 5 years into the recovery, the economy continues to exert downward pressure on health spending.

What does this trend suggest for health spending for the remainder of 2014? Although there is still considerable uncertainty, the CMS projection of 9 million newly insured adults seems consistent with recent evidence. This increase in coverage should push the health spending growth rate up toward 5%. As I've argued above, it seems premature to expect any net uptick in health spending related to economic growth. Another source of acceleration is spending on prescription drugs, which has been growing at double-digit rates in recent months, since savings from patent expirations are down and spending on specialty drugs is up. This growth could add a half percentage point or more to the rate of growth in overall health spending and drive it up to 5.5%.

Although there is considerable uncertainty in this figure, some acceleration in health spending in 2014 seems inevitable. Hospital financial reports for the second quarter are showing the expected effects of expanded coverage: less uncompensated care, higher revenues, and higher patient volumes. However, September data from the QSS show no acceleration in spending on overall health care services for the second quarter of 2014, with very low growth in

spending for physician services (prescription drugs are excluded from QSS, since they are a good rather than a service). Even if spending reaches an annual rate of 5.5% in the final two quarters, the increase for the year seems unlikely to substantially exceed 5%.

Although 2014 may be yet another year in which health spending grows more slowly than expected, the anemic economic recovery suggests that near-term pressures to control health spending will remain strong.

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From the Center for Sustainable Health Spending, Altarum Institute, Ann Arbor, MI.

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