

CHAPTER 1

Health care reform: The scope of the problem

Richard C. Semelka,¹ Diane Armao,² and Jorge Elias Jr³

¹University of North Carolina at Chapel Hill, School of Medicine, Department of Radiology, Chapel Hill, NC, USA

²University of North Carolina at Chapel Hill, School of Medicine, Department of Radiology and Pathology and Laboratory Medicine, Chapel Hill, NC, USA

³The School of Medicine of Ribeirao Preto, University of Sao Paulo, Brazil

There is virtually no disagreement that serious problems exist in the US health care system. Prodigious outlays for medical care are undeniable. From a global perspective, the USA pays more per capita in health care than any other country and yet ranks 37th in the world regarding quality of health care; in part this is because approximately 45 million individuals (1 in 6.5) remain uninsured. From a national perspective, per capita Medicare spending in different parts of the country varies dramatically. Medicare enrollees in higher spending regions receive more care than those in lower spending regions but do not have increased access to care, better quality care, improved health outcomes or patient satisfaction [1]. Moreover, there even exists a negative association between higher health care expenditures and outcomes, such as mortality at the regional level [2]. The notion that additional growth in health care cost is primarily driven by advances in science and technology and that more spending will result in improved quality of care is no longer tenable.

Radiologists are ideally positioned to discuss health care issues from a physician's perspective. Due to the nature of their specialty, radiologists are the main diagnostic consultants for virtually all branches of medical practice and hence are familiar with the breadth of medical care. Based on the range of their experience, radiologists can help guide the mechanics involved in health care costs, patient safety and comparative effectiveness metrics. Costs and appropriateness criteria relate to evaluating whether

certain diagnostic studies are warranted, while patient safety addresses issues centered on radiation dose reduction in imaging studies, including substitution of alternate examinations in particular clinical settings. In order to achieve these goals, accurate patient information is paramount.

The waste and the cost

As pointed out by the US Congressional Research Service in 2007 the USA spends more money on health care than any other country in the Organisation for Economic Co-operation and Development (OECD), which comprises 30 countries that represent the most economically advanced countries in the world. The USA spent \$6102 per capita on health care in 2004; double that spent by OECD and 19.9% more than Luxembourg, the second-highest spending country. In that year, 15.3% of the US economy was devoted to health care, compared with 8.9% in the average OECD country and 11.6% in second-placed Switzerland. The OECD has stated that US prices for medical care commodities and services are significantly higher than in other countries and serve as a key determinant of higher overall spending.

One striking example of high health care costs has been recently reported in McAllen, Texas, which possesses the lowest US household income but has the second most expensive US health care market, spending twice the national average [3, 4]. Indeed, patients in McAllen get more diagnostic testing, more hospital treatment, more surgery, and more home care compared to any another town, with no recognition of overall quantity by hospital administrators [3, 4].

In a 2008 analysis by Price Waterhouse Health Research Institute (PwC) on sources of financial waste in the US health care system, there was approximately \$1 trillion in waste, comprising more than a half the total spending, with \$200 billion attributable to defensive health care practice [5]. However, due to the ubiquitous nature of defensive health care practice, such cost may be considerably underestimated.

The PwC indicates that the recession that began in 2007 has changed the trend of medical cost in the USA. Medical cost had a surprisingly low growth rate of 7.5% in 2010, after an estimate of 9%, but increased to 8% in 2011 and was expected to increase to 8.5% in 2012. This trend represents the projected increase in the costs of medical services assumed in setting premiums for health insurance plans. The largest single component of spending is physician services, which accounts for about 33%

of all benefit costs. Outpatient hospital services and prescriptions account for 17% and 15%, respectively. Other services such as home health, skilled nursing, and medical equipment account for a meager 4% of benefit costs.

Expectations surrounding US government health reform, as manifested by the American Reinvestment and Recovery Act of 2009 and the Patient Protection and Affordable Care Act of 2010 (PPACA), will certainly contribute to cost shifting, but the magnitude of its impact on cost-ineffective services versus more cost-effective but underutilized services is not completely clear. One likely scenario involves physicians and hospitals being paid higher levels of compensation for more cost-effective services relative to their costs but lower levels of payment at or below cost for less cost-effective services [6]. Actually, the American College of Radiology recently dedicated a whole issue of the *Journal of the American College of Radiology* (JACR) to this issue, bringing various aspects related to cost, utilization, value and coverage regarding the US Health Reform [7–14]. What seems more than certain is that US health care reform, one way or another, will dominate the scenario of change for patients, physicians, and all other stakeholders for years to come—all hope for a change to the better.

The causes: Expanded list

Because of the intrinsic complexity of the problem and the multifactorial nature of causality, it is not an easy task to determine the main causes of high medical costs, since they can change over time due to multiple confounding factors. A dominant influence is also the subjective bias of the interested observer's point of view. Interestingly, this can also explain why many have failed to present a definitive solution, and few have attempted to address the core of the problem.

Nonetheless, certain causes are clearly identifiable as reflecting a “frequent flyer” list irrespective of the observer's role in the US health care system, or self-interest as a stakeholder.

An attempt to categorize these causes was made by PwC, and they grouped them as follows: 1) behavioral—where individual behaviors are shown to lead to health problems, and have compromised opportunities for earlier, preventative interventions; 2) operational—where administrative or other business processes appear to add costs without creating value; and 3) clinical—where medical care itself is considered inappropriate, entailing overuse, misuse or under-use of particular interventions, missed

Box 1.1 Basic list of rising medical costs in the USA

Physician shortages and high prices of physicians' services
 Medical litigation
 Defensive medicine
 Excessive ordering of expensive medical tests
 Excessive charge per procedure
 Spending on pharmaceuticals
 Small or no success to address preventable health risk factors (such as obesity, smoking, and alcohol abuse)
 Excessive health care expenditure on the terminally ill
 Health care fraud

opportunities for earlier interventions, and overt errors leading to poor quality care for the patient and added health care cost.

A basic but yet expanded list of rising medical costs is presented in Box 1.1. These causes will be discussed in more detail in this publication.

References

1. Fisher ES, Wennberg DE, Stukel TA, Gottlieb DJ, Lucas FL, Pinder EL. The implications of regional variations in Medicare spending. Part 1: The content, quality, and accessibility of care. *Ann Intern Med* 2003; 138:273–287.
2. Fisher ES, Wennberg DE, Stukel TA, Gottlieb DJ, Lucas FL, Pinder EL. The implications of regional variations in Medicare spending. Part 2: Health outcomes and satisfaction with care. *Ann Intern Med* 2003; 138:288–298.
3. Gawande AA, Fisher ES, Gruber J, Rosenthal MB. The cost of health care—highlights from a discussion about economics and reform. *N Engl J Med* 2009; 361:1421–1423.
4. Kauffman-Pickelle C. Radiology and the Culture of Money. *ImagingBiz* 2009. Available online at: <http://www.imagingbiz.com/articles/view/radiology-and-the-culture-of-money1> [accessed February 19, 2013].
5. The price of excess: Identifying waste in healthcare spending. Report Document from PricewaterhouseCoopers' Health Research Institute 2008; 22. Available online at: <http://www.pwc.com/us/en/healthcare/publications/the-price-of-excess.jhtml> [accessed February 19, 2013].
6. Weinstein MC, Skinner JA. Comparative effectiveness and health care spending—implications for reform. *N Engl J Med* 2010; 362:460–465.
7. Rawson JV. Roots of health care reform. *J Am Coll Radiol* 2012; 9:684–688.
8. Norbash A, Hindson D, Heineke J. The accountable health care act of Massachusetts: Mixed results for an experiment in universal health care coverage. *J Am Coll Radiol* 2012; 9:734–739.

9. Lexa FJ. A radiologist's guide to the federal election of 2012: What you should know before you go into the booth. *J Am Coll Radiol* 2012; 9:740–744.
10. Lexa FJ. Drivers of health reform in the United States: 2012 and beyond. *J Am Coll Radiol* 2012; 9:689–693.
11. Lee CI, Enzmann DR. Measuring radiology's value in time saved. *J Am Coll Radiol* 2012; 9:713–717.
12. Duszak R, Jr, Berlin JW. Utilization management in radiology, part 1: Rationale, history, and current status. *J Am Coll Radiol* 2012; 9:694–699.
13. Duszak R, Jr, Berlin JW. Utilization management in radiology, part 2: Perspectives and future directions. *J Am Coll Radiol* 2012; 9:700–703.
14. Carlos RC, Rawson JV. Introduction to the special issue-health care reform: Darkness before dawn? *J Am Coll Radiol* 2012; 9:682–683.