Addressing the American Health-Care Cost Crisis: Role of the Oncology Community

Scott D. Ramsey, Patricia A. Ganz, Veena Shankaran, Jeffrey Peppercorn, Ezekiel Emanuel

Manuscript received April 3, 2013; revised August 12, 2013; accepted August 14, 2013.

Correspondence to: Scott D. Ramsey, MD, PhD, Fred Hutchinson Cancer Research Center, 1100 Fairview Ave N, M3-B232, PO Box 19024, Seattle, WA 98109 (e-mail: sramsey@fhcrc.org).

Health-care cost growth is unsustainable, and the current level of spending is harming our economy and our patients. This commentary describes the scope of the health-care spending problem and the particular factors in cancer care that contribute to the problem, reflecting in part presentations and discussions from an Institute of Medicine National Cancer Policy Forum Workshop held in October 2012. Presenters at the workshop identified a number of steps that the oncology community can take to reduce the rate of growth in cancer-care costs while maintaining or improving upon the quality of care. This commentary aims to highlight opportunities for the oncology community to take a leadership role in delivering affordable, high-quality cancer care.

The scale of health-care spending in the United States is continuing to drag on our economy, and future growth in health costs threatens to aggravate the US debt crisis if no action is taken (1,2). Cancer care, in particular, contributes to a substantial and growing percentage of health-care expenditures (3). Some of this growth in spending is due to the development of new technologies that have helped cancer patients live better and longer. A substantial percentage of cancer costs, however, can be attributed to spending on treatments that provide limited value to patients and adoption of new technologies that provide marginal, but not clinically meaningful, benefit (4). As the professional custodians of cancer treatment, the oncology community should take ownership of the cancer spending problem by eliminating no and low-value care and by setting a clear standard for when to accept and adopt new technologies (ie, real improvements in survival or quality of life). Oncologists can also take the lead in helping other key health-care stakeholders (eg, payers, accreditation organizations) make changes that will eliminate low-value care. In this commentary, the term “oncologist” includes health-care providers involved in the direct delivery of cancer care, such as medical oncologists, radiation oncologists, oncologic surgeons, imaging specialists, advanced practice nurses, and others who provide care to cancer patients.

This commentary summarizes some of the key topics discussed during the Institute of Medicine’s National Cancer Policy Forum workshop, “Delivering Affordable Cancer Care in the 21st Century.” The goal of the workshop was to examine the drivers of current and projected cancer care costs, as well as potential ways to curb these costs while maintaining or improving the quality of care. Readers of this commentary are encouraged to review the workshop agenda, presentations, and video webcast that are available on the Institute of Medicine website (5), as well as the workshop summary (6). This commentary reflects the discussions in the first portion of the workshop, which examined current challenges to the delivery of affordable cancer care, as well as the thoughts of these authors on action steps moving forward.

Anatomy of the Health-Care Cost Crisis

In 2011, the United States spent approximately $2.7 trillion on health care (7). To put this number into context, if the United States health-care system were a national economy, it would be the fifth largest in the world, between Germany and France. The United States spends vastly more per capita than other countries do on health care, adjusting for the relative wealth of nations and the fact that wealthier nations do (and should) invest more in health care. For example, health-care spending per person ($8000) in the United States exceeds the Chinese gross domestic product (GDP) per person (8). Further, the distribution of health-care dollars within the US population and across individuals’ lifetimes is skewed. For example, 14% of the Medicare population (those with six or more chronic conditions) consumes 46% of all health-care dollars (9). Additionally, 25% of all Medicare dollars are spent on the care of Medicare beneficiaries in their last year of life; of this amount, nearly 40% is spent in the last 30 days of life (10).

When policymakers refer to the crisis in health-care spending, they typically mean the rate of growth in health-care spending relative to the growth in GDP. Health-care costs are consuming an increasing share of our economy (currently about 18%) and are causing serious economic consequences. Rising health-care costs have been a key factor behind stagnant wage growth over the last 30 years (11). Since 1979, real wages (controlling for inflation) have actually decreased 4%, whereas health-care costs have increased nearly 600% over the same period (12). In addition, higher health-care costs for Medicaid and state employees have forced states to cut education programs and support for public colleges and universities. The Congressional Budget Office estimates that at its
current growth rate, Medicare and Medicaid spending alone will rise from 5% of the economy in 2013 to 6.2% by 2023 (some time in 2014, health programs will become the federal government’s largest single budget item). To maintain current Medicare and Medicaid benefits for this period, either marginal tax rates would need to increase substantially or deep cuts would need to be made to other domestic programs (1). Both options would lead to a real decline in GDP as wealth and income are redistributed away from highly productive investments such as education and infrastructure maintenance and toward health care. In fact, this shift is already happening.

Put simply, further growth in health-care spending is neither economically nor politically tenable. Vast changes to the health-care system can take years to implement and have an impact. These compelling data suggest that immediate action must be taken to avoid serious harm to the US economy and its citizens if we are to avert a financial catastrophe. The data above suggest that such action to reduce spending need not impair health outcomes, and indeed redirection of resources toward higher-value care and research may lead to improved cancer outcomes. It is within this context that we discuss the challenges associated with the delivery of high-quality and affordable oncology care.

Role of Cancer in the Health-Care Cost Crisis

In 2013, 1.66 million Americans will be diagnosed with cancer (13). In 2010, cancer spending comprised approximately 5% of all health-care expenses (at least $125 billion) and more than 12% of payments by commercial insurers. In coming decades, it will play an increasingly prominent role in health-care costs for several reasons. First, overall cancer incidence is projected to increase by more than 50% in the next 30 years because of the aging population. Second, cancer costs are rising faster than other sectors in medicine (14–17). Finally, patients with some cancers are living longer, in part because of improvements in therapy. This, of course, is desirable but will raise the lifetime costs of managing cancer. Thus, it is important to focus on factors that can be addressed to reduce the cost of spending per patient in ways that do not threaten the advances in survival and quality of life that have been achieved.

Critical Appraisal of the Culprits in Rising Cancer Spending

In considering ways to constrain the rise in costs of cancer care, it is important to identify modifiable factors that substantially contribute to growth in health-care spending. Multiple studies have shown that medical malpractice and defensive medicine, insurance company profits, and “demanding patients” contribute relatively little to total health-care expenditures and growth in spending over time (18). The Congressional Budget Office estimates that malpractice and defensive medicine comprise a small portion of health-care expenditures (less than 5%) (19). Others have estimated that the portion is even lower (20). Profits at the five largest for-profit insurance companies represented less than 0.5% of total health-care spending and a very small fraction of the $100 billion increase in overall health-care spending between 2010 and 2011 (21). Attention should therefore be focused on the most important drivers behind growth in cancer spending (Table 1).

Table 1. Estimated contributions of selected factors to long-term growth in real health-care spending per capita, 1940 to 1990 (31)

<table>
<thead>
<tr>
<th>Factor proposed to contribute to health-care spending growth</th>
<th>Newhouse (32)</th>
<th>Cutler (33)</th>
<th>Smith, Heffler, Freeland (31)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aging of the population</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Changes in third-party payment</td>
<td>10%</td>
<td>13%</td>
<td>10%</td>
</tr>
<tr>
<td>Personal income growth</td>
<td>&lt;23%</td>
<td>5%</td>
<td>11%–18%</td>
</tr>
<tr>
<td>Prices in the health-care sector</td>
<td>0%</td>
<td>19%</td>
<td>11%–22%</td>
</tr>
<tr>
<td>Administrative costs</td>
<td>Not estimated</td>
<td>13%</td>
<td>3%–10%</td>
</tr>
<tr>
<td>Supplier-induced demand/defensive medicine</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Technology-related changes</td>
<td>&gt;65%</td>
<td>49%</td>
<td>38%–62%</td>
</tr>
</tbody>
</table>

Taking Ownership of the Cancer Care Cost Crisis: Guiding Principles for Oncologists

Individual physicians may feel that although controlling health-care costs is important, they are powerless to address cancer costs in their day-to-day clinical practice (22,23). Yet it is the individual physician who ultimately makes recommendations about how to use expensive technologies in the clinic—indeed, oncologists are the gatekeepers for most cancer care spending. As noted above, most economists believe that technology-related changes underlie the majority of medical expenditure growth. We therefore believe that the most effective way that oncologists can address the cancer care cost crisis is by rethinking their approach to adopting and using new medical technologies.

The nature and urgency of the cancer spending crisis are such that if physicians fail to take ownership of the problem, other players in the health-care delivery system will act in ways that diminish physicians’ medical discretion as well as their personal incomes and ability to provide comprehensive care. Because the physician–patient relationship is the nexus of health care and the most efficient and effective way of matching patients’ needs and desires with the most appropriate therapies, factors that erode this relationship would be detrimental to health care. The oncology community has a narrow window of opportunity to be leaders in controlling cancer care costs, before others will usurp this role.

We believe that four principles should guide the oncology community in addressing the cancer cost problem:

1. It is not possible to address costs without also addressing quality. Low prices alone may indicate skimping on effective treatment rather than identifying high-value care. Reliable quality measures can help distinguish high-value care from cheap but low-value care.
2. Interventions must consider total costs for cancer care. Shifting costs, for example, away from chemotherapy and outpatient supportive care toward increased hospitalization for symptoms is not a solution.

3. Eliminating the use of services that either have no supporting evidence of superior outcomes or good evidence of similar outcomes but higher costs will reduce costs without harming patients. We refer to these types of care as low-value care.

4. Communication with patients and about the risks, benefits, and costs of alternative therapies is critical because patients are suspicious of efforts to reduce costs, often justifiably. We believe that shared decision-making is the most promising approach to reducing costs while ensuring that care reflects patient preferences (24,25).

**Defining Low-Value Care**

The most straightforward task that the oncology community can undertake to reduce overall spending in cancer care without harming patients is to stop using services that have low value. This will not correct all of the factors that contribute to the rise in cancer spending (eg, higher pricing for new drugs, aging of the population); however, these steps are the low-hanging fruit that can have a substantial impact on cancer spending without compromising quality of care or access to promising new therapies.

Examples of services that provide low value include the following:

1. Interventions that have been proven to provide no clinical benefit (eg, 10 fractions of radiation for treatment of uncomplicated bone metastases when one fraction is as effective for pain relief; routine use of positron emission tomography (PET) scan for staging in stage I breast cancer; early treatment of ovarian cancer relapse based on rise in CA-125 levels alone).

2. Interventions given outside the context of a clinical trial when the benefits are unproven and the costs are higher (eg, proton beam therapy for early-stage prostate cancer; robotic cancer surgery; routine off-label chemotherapy use based on phase I/II trial data).

3. Interventions for which an equally safe and effective but less costly alternative exists. In these cases, oncologists should choose the lowest-cost option, preferably in the context of an institutional clinical treatment pathway (eg, three-drug, first-line combination regimens listed as equivalent by the National Comprehensive Cancer Network guidelines for metastatic gastric cancer vary in cost by nearly $50,000 (26)).

4. Interventions that patients may not desire when fully informed. Many patients have misperceptions about the health benefits of the treatments they choose, particularly for advanced cancer. For example, a nationwide study found that 69% of patients with lung cancer and 81% of those with colorectal cancer did not report understanding that chemotherapy was not at all likely to cure their cancer (27). Aligning perceptions with evidence may reduce use of services that are unlikely to improve quality of quantity of life.

5. Interventions that duplicate work that has already been done (eg, repeat imaging, laboratories, or procedures across health systems because of lack of communication and coordination).

The American Board of Internal Medicine’s Choosing Wisely campaign is an excellent example of an initiative that directly addresses several low-value interventions in health care (28). However, even with clear guidance, it is often challenging to change clinical practice. Lack of data or conflicting data can result in a broad range of clinician and patient interpretations. In addition, because most fee-for-service insurance plans err on the side of coverage when evidence is conflicting and tend to reimburse more generously for newer technologies, it is difficult to curb the use of unproven and costly interventions simply by issuing consensus statements. In addition, ineffective patient-to-provider communication can result in care inconsistent with patient preferences (eg, subsequent line chemotherapy instead of hospice care). Lack of time and resources to discuss palliative care and hospice care can lead to poor clinical outcomes for patients and poor economic outcomes for health systems.

To overcome the challenges in identifying and eliminating low-value care, we believe that compendia—which are often used to define cancer drug coverage policy—need to be more transparent and stringent in making recommendations based on high-quality evidence of efficacy and value (29). In addition, clinical guidelines should be accompanied by practice incentives and educational resources. The oncology community should take a lead in helping payers structure the incentives in ways that save money but maintain or improve the quality of care for patients. In addition, oncologists should educate themselves and their patients about the benefits of following practice guidelines aimed at reducing costs while maintaining quality. This can be done effectively by using patient decision aids and by creating clinical treatment pathways within oncology practices based on cost, toxicity, and efficacy. In addition, because oncology care is complex and there can be cases when there may be a compelling reason to consider an intervention or technology that is otherwise low value in a given clinical scenario, there should be efficient and transparent mechanisms for coverage appeal to ensure that all patients get the care they need. Policies that support good clinical practice and appropriate medical discretion will support the broader goal of curtailing low-value care and controlling costs. Finally, based on evidence that increased spending—particularly on inpatient hospital services—for patients with advanced cancer does not correlate with better survival, we believe that institutions need to invest resources that encourage palliative care as an alternative to aggressive therapy (30).

**Defining High-Value Care**

In conjunction with eliminating low-value care, oncologists should adopt expensive new technologies more judiciously. To do this, oncologists need to agree on what defines high-value cancer care. Therapies that do not meet one of the following outcomes should not be considered high value and therefore should not be broadly taken up into practice: 1) improvement in survival; 2) improvement in quality of life; 3) reduction in treatment-related side effects; 4) reduction in costs while delivering similar or better clinical benefits.

Treatments that improve surrogate endpoints, such as response rate or progression-free survival, but not overall survival or quality of life should not be considered high-value care. In cases where drugs are approved or therapies adopted based on surrogate
endpoints (eg, progression-free survival), clinicians should refrain from prescribing these therapies unless a clear relationship between the endpoint and final outcome (eg, survival) has been established previously.

Before broadly adopting innovations into clinical practice, oncologists need a way of comparing the value of different innovations and determining whether an innovation is really worth pursuing. Cost-effectiveness analysis is the most commonly used approach to assessing value around the world, although its use is viewed with skepticism by some in the United States. If the US oncology community rejects cost-effectiveness as a way to determine relative value, it will be important to offer an alternative that is methodologically rigorous and can slow cost growth by reducing the use of low-value interventions that increase overall cancer care expenditures. In cases where the evidence supporting innovation and/or value is suggestive but not clear, it is important to have a process for generating further evidence. The oncology community can be a strong advocate for increasing funding to answer current clinical questions that cannot be resolved with existing evidence.

Conclusions

The cancer spending problem will cause major social and economic hardship for this country if immediate action is not taken. The oncology community has an opportunity and obligation to lead the effort in minimizing growth in cancer spending while maintaining and enhancing high-quality care. Eliminating care that provides low value to our patients is a critical first step. Oncologists should work with key stakeholders in cancer care to create a system that incentivizes evidence-based, high-value interventions. Such an approach will help direct resources toward high-value treatments and care that can truly improve the lives of patients with cancer.

References

Note
We are grateful to Dr Harvey Fineberg for helpful comments on an earlier draft and Erin Balogh for research and manuscript assistance.

Affiliations of authors: Fred Hutchinson Cancer Research Center, Seattle, WA (SDR); Hutchinson Institute for Cancer Outcomes Research, University of California–Los Angeles, Los Angeles, CA (PAG); Schools of Medicine and Public Health, Seattle Cancer Care Alliance, Seattle, WA (VS); Medical Director’s Office, Duke Cancer Institute, Durham, NC (JP); Medicine Oncology, University of Pennsylvania, Philadelphia, PA (EE); Global Initiatives and Department of Medical Ethics and Health Policy.