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Robert Wood Johnson Foundation



Health Policy Brief

DECEMBER 13, 2012

Reducing Waste in Health Care. A third or more of what the US spends annually may be wasteful. How much could be pared back—and how—is a key question.

WHAT'S THE ISSUE?

Health care spending in the United States is widely deemed to be growing at an unsustainable rate, and policy makers increasingly seek ways to slow that growth or reduce spending overall. A key target is eliminating waste—spending that could be eliminated without harming consumers or reducing the quality of care that people receive and that, according to some estimates, may constitute one-third to nearly one-half of all US health spending.

Waste can include spending on services that lack evidence of producing better health outcomes compared to less-expensive alternatives; inefficiencies in the provision of health care goods and services; and costs incurred while treating avoidable medical injuries, such as preventable infections in hospitals. It can also include fraud and abuse, which was the topic of a [Health Policy Brief](#) published on July 31, 2012.

This policy brief focuses on types of waste in health care other than fraud and abuse, on ideas for eliminating it, and on the considerable hurdles that must be overcome to do so.

WHAT'S THE BACKGROUND?

Many studies have examined the characteristics and amounts of wasteful or ineffective US health care spending in public programs, such as Medicare and Medicaid, and in care paid for by private insurance as well as out-of-pocket

by consumers. By most accounts, the amount of waste is enormous.

THE COST OF WASTE: By comparing health care spending by country, the McKinsey Global Institute found that, after controlling for its relative wealth, the United States spent nearly \$650 billion more than did other developed countries in 2006, and that this difference was not due to the US population being sicker. This spending was fueled by factors such as growth in provider capacity for outpatient services, technological innovation, and growth in demand in response to greater availability of those services. Another \$91 billion in wasteful costs or 14 percent of the total was due to inefficient and redundant health administration practices.

By looking at regional variations in Medicare spending, researchers at the Dartmouth Institute for Health Policy and Clinical Practice have estimated that 30 percent of all Medicare clinical care spending could be avoided without worsening health outcomes. This amount represents about \$700 billion in savings when extrapolated to total US health care spending, according to the Congressional Budget Office.

More recently, an April 2012 study by former Centers for Medicare and Medicaid Services (CMS) administrator Donald M. Berwick and RAND Corporation analyst Andrew D. Hackbarth estimated that five categories of waste consumed \$476 billion to \$992

30%

Excess Medicare spending

According to the Dartmouth Institute for Health Policy and Clinical Practice, 30 percent of all Medicare clinical care spending is unnecessary or harmful and could be avoided without worsening health outcomes.

billion, or 18 percent to 37 percent of the approximately \$2.6 trillion annual total of all health spending in 2011. Spending in the Medicare and Medicaid programs, including state and federal costs, contributed about one-third of this wasteful spending, or \$166 billion to \$304 billion (Exhibit 1). Similarly, a panel of the Institute of Medicine (IOM) estimated in a September 2012 report that \$690 billion was wasted in US health care annually, not including fraud.

CATEGORIES OF WASTE: Researchers have identified a number of categories of waste in health care, including the following:

- **Failures of care delivery.** This category includes poor execution or lack of widespread adoption of best practices, such as effective preventive care practices or patient safety best practices. Delivery failures can result in patient injuries, worse clinical outcomes, and higher costs.

A study led by University of Utah researcher David C. Classen and published in the April 2011 issue of *Health Affairs* found that adverse events occurred in one-third of hospital admissions. This proportion is in line with findings from a 2010 study by the Department of Health and Human Services' Office of Inspec-

tor General (OIG), which found that Medicare patients experienced injuries because of their care in 27 percent of hospital admissions.

These injuries ranged from "temporary harm events," such as prolonged vomiting and hypoglycemia, to more serious "adverse events," such as kidney failure because of medication error. Projected nationally, these types of injuries—44 percent of which were found to be clearly or likely preventable—led to an estimated \$4.4 billion in additional spending by Medicare in 2009, the OIG found. Berwick and Hackbarth estimate that failures of care delivery accounted for \$102 billion to \$154 billion in wasteful spending in 2011.

- **Failures of care coordination.** These problems occur when patients experience care that is fragmented and disjointed—for example, when the care of patients transitioning from one care setting to another is poorly managed. These problems can include unnecessary hospital readmissions, avoidable complications, and declines in functional status, especially for the chronically ill.

Nearly one-fifth of fee-for-service Medicare beneficiaries discharged from the hospital are readmitted within 30 days; three-quarters of these readmissions—costing an estimated \$12 billion annually—are in categories of diagnoses that are potentially avoidable. Failures of care coordination can increase costs by \$25 billion to \$45 billion annually. (See the [Health Policy Brief](#) published on September 13, 2012, for more information on improving care transitions.)

- **Overtreatment.** This category includes care that is rooted in outmoded habits, that is driven by providers' preferences rather than those of informed patients, that ignores scientific findings, or that is motivated by something other than provision of optimal care for a patient. Overall, the category of overtreatment added between \$158 billion and \$226 billion in wasteful spending in 2011, according to Berwick and Hackbarth.

An example of overtreatment is defensive medicine, in which health care providers order unnecessary tests or diagnostic procedures to guard against liability in malpractice lawsuits. A September 2010 *Health Affairs* study led by Harvard University researcher Michelle M. Mello estimated that in 2008, \$55.6 billion or 2.4 percent of total US health care spending was attributed to medical liability system costs, including those for defensive medicine.

EXHIBIT 1

Estimates of Waste in US Health Care Spending in 2011, by Category

| | Cost to Medicare and Medicaid ^a | | | Total cost to US health care ^b | | |
|---|--|------------|------------|---|------------|--------------|
| | Low | Midpoint | High | Low | Midpoint | High |
| Failures of care delivery | \$26 | \$36 | \$45 | \$102 | \$128 | \$154 |
| Failures of care coordination | 21 | 30 | 39 | 25 | 35 | 45 |
| Overtreatment | 67 | 77 | 87 | 158 | 192 | 226 |
| Administrative complexity | 16 | 36 | 56 | 107 | 248 | 389 |
| Pricing failures | 36 | 56 | 77 | 84 | 131 | 178 |
| Subtotal (excluding fraud and abuse) | 166 | 235 | 304 | 476 | 734 | 992 |
| Percentage of total health care spending | 6% | 9% | 11% | 18% | 27% | 37% |
| Fraud and abuse | 30 | 64 | 98 | 82 | 177 | 272 |
| Total (including fraud and abuse) | 197 | 300 | 402 | 558 | 910 | 1,263 |
| Percentage of total health care spending | | | | 21% | 34% | 47% |

SOURCE Donald M. Berwick and Andrew D. Hackbarth, "Eliminating Waste in US Health Care," *JAMA* 307, no. 14 (April 11, 2012):1513–6. Copyright © 2012 American Medical Association. All rights reserved.

NOTES Dollars in billions. Totals may not match the sum of components due to rounding. ^aIncludes state portion of Medicaid. ^bTotal US health care spending estimated at \$2.687 trillion.

\$690 billion

Waste in health care

A September 2012 Institute of Medicine report estimated that \$690 billion was wasted in US health care annually, not including fraud.

“Although there is general agreement about the types and level of waste in the US health care system, there are significant challenges involved in reducing it.”

Overtreatment can also result from overdiagnosis, which results from efforts to identify and treat disease in its earliest stages when the disease might never actually progress and when a strategy such as watchful waiting may have been preferred. For example, in July 2012 the US Preventive Services Task Force recommended against prostate-specific antigen-based screening for prostate cancer because of “substantial overdiagnosis” of tumors, many of which are benign. Excessive treatment of these tumors, including surgery, leads to unnecessary harms, the task force said.

Overtreatment also includes intensive care at the end of a person’s life when alternative care would have been preferred by the patient and family, or excessive use of antibiotics.

Another form of overtreatment is the use of higher-priced services that have negligible or no health benefits over less-expensive alternatives. When two approaches offer identical benefits but have very different costs, the case for steering patients and providers to the less costly alternative may be clear—for example, using generics instead of brand-name drugs.

There is also provision of many services that may once have been considered good health care but that now have been discredited as lacking in evidence of benefit. Under the umbrella of the American Board of Internal Medicine Foundation’s “Choosing Wisely” initiative, nine different medical specialty groups and Consumer Reports have identified a series of regularly used tests or procedures whose use should be examined more closely. In 2013, 21 additional medical specialty groups will release similar lists in their respective fields.

The National Priorities Partnership program at the National Quality Forum, a non-profit organization that works with providers, consumer groups, and governments to establish and build consensus for specific health care quality and efficiency measures, has produced a list of specific clinical procedures, tests, medications, and other services that may not benefit patients. The next step is for physicians and payers to change their practices accordingly.

After requesting public input, CMS on November 27, 2012, posted on its website a list of procedures or services that may be overused, misused, or provide only minimal health care benefits. They include lap-band surgery for obesity, endoscopy for gastroesophageal reflux disease, and lung volume reduction

surgery. CMS said that these services may be evaluated to determine whether they should continue to be reimbursed under Medicare.

- **Administrative complexity.** This category of waste consists of excess spending that occurs because private health insurance companies, the government, or accreditation agencies create inefficient or flawed rules and overly bureaucratic procedures. For example, a lack of standardized forms and procedures can result in needlessly complex and time-consuming billing work for physicians and their staff.

In an August 2011 *Health Affairs* article, University of Toronto researcher Dante Morra and coauthors compared administrative costs incurred by small physician practices in the United States, which interact with numerous insurance plans, to small physician practices in Canada, which interact with a single payer agency. US physicians, on average, incurred nearly four times more administrative costs than did their Canadian counterparts. If US physicians’ administrative costs were similar to those of Canadian physicians, the result would be \$27.6 billion in savings annually. Overall, administrative complexity added \$107 billion to \$389 billion in wasteful spending in 2011.

- **Pricing failures.** This type of waste occurs when the price of a service exceeds that found in a properly functioning market, which would be equal to the actual cost of production plus a reasonable profit. For example, Berwick and Hackbarth note that magnetic resonance imaging and computed tomography scans are several times more expensive in the United States than they are in other countries, attributing this to an absence of transparency and lack of competitive markets. In total, they estimate that these kinds of pricing failures added \$84 billion to \$178 billion in wasteful spending in 2011.

- **Fraud and abuse.** In addition to fake medical bills and scams, this category includes the cost of additional inspections and regulations to catch wrongdoing. Berwick and Hackbarth estimate that fraud and abuse added \$82 billion to \$272 billion to US health care spending in 2011.

WHAT ARE THE ISSUES?

Although there is general agreement about the types and level of waste in the US health care system, there are significant challenges

involved in reducing it. Much waste is driven by the way US health care is organized, delivered, and paid for and, in particular, by the economic incentives in the system that favor volume over value. An additional problem is that attacking “waste” usually means targeting someone’s income.

In its September 2012 report, the IOM offered 10 broad recommendations for creating a very different health care system in which research, new incentives, partnerships between providers and patients, and a culture that supports continuous learning and development could lead to real-time improvements in the efficiency and effectiveness of US health care.

Although the IOM committee that prepared the report did not estimate cost savings, it predicted that implementing these measures would improve care and reduce expenses. The panel’s recommendations included the following:

- Improve providers’ capacity to collect and use digital data to advance science and improve care.
- Involve patients and their families or caregivers in care decisions. Increasing comparative effectiveness research may help physicians, patients, and their families make more informed decisions. (See the [Health Policy Brief](#) published on October 8, 2010, for more information on comparative effectiveness research.)
- Use clinical practice guidelines and provider decision support tools to a greater extent.
- Promote partnerships and coordination between providers and the community to improve care transitions.
- Realign financial incentives to promote continuous learning and the delivery of high-quality, low-cost care. Numerous efforts are underway among public and private payers to move from the traditional fee-for-service mechanism, which pays based on the volume of services performed, and toward those that pay based on value and outcomes. (For more information, see the [Health Policy Brief](#) published October 11, 2012, on pay-for-performance, and the [Health Policy Brief](#) published January 31, 2012, on accountable care organizations.)

- Improve transparency in provider performance, including quality, price, cost, and outcomes information. In a May 2003 *Health Affairs* article, Gerard F. Anderson from Johns Hopkins University, Uwe E. Reinhardt from Princeton University, and coauthors compared US health care spending with those of other member nations of the Organization for Economic Cooperation and Development. They found that the United States spent more on health care than any other country and that the difference was caused mostly by higher prices.

One way to improve transparency and reduce prices is through “reference pricing,” in which an employer or insurer makes a defined contribution toward covering the cost of a particular service and the patient pays the remainder. The objective is to encourage patients to choose providers with both quality and costs in mind. In a September 2012 *Health Affairs* article, University of California, Berkeley, researchers James C. Robinson and Kimberly MacPherson reviewed how this approach is being tested.

Many of the measures described above are in process, although they are playing out at different rates in different regions and systems around the country. There are widespread concerns about how replicable and scalable some new payment models are, and how soon they will make a major difference in the way care is provided and in what amount. There are also cross-cutting trends, including consolidation of hospital systems and their employment of physicians, which could lead to the provision of more unnecessary services, not fewer.

For example, in a May 2012 *Health Affairs* article, Robert A. Berenson, an institute fellow at the Urban Institute, and coauthors found that dominant hospital systems and large physician groups can often exert considerable market power to obtain steep payment rates from insurers.

FEAR OF RATIONING: In theory, a focus on eliminating waste in health care could skirt the issue of rationing because wasteful activities, by definition, carry no benefit to consumers. However, there may be a fine line between health care that is of no benefit and situations where the benefits are relatively small, especially in comparison to the cost.

A common example involves continued chemotherapy treatments for patients having cer-

\$389 billion

Waste because of administrative complexity

Administrative complexity, such as unnecessary forms and paperwork, added up to \$389 billion in wasteful spending in 2011.

“Much waste is driven by the way US health care is organized, delivered, and paid for.”

tain advanced cancers. These treatments can cost tens of thousands of dollars but extend a patient's life by only a few weeks. However, restricting the use of such treatments or services can lead to accusations of "rationing."

To address many Americans' fear that the Affordable Care Act would lead to rationing, the law specifically forbids the federal government from making decisions on "coverage, reimbursement, or incentive programs" under Medicare that take cost-effectiveness into account, and "in a manner that treats extending the life of an elderly, disabled, or terminally ill individual as of lower value than extending the life of an individual who is younger, nondisabled, or not terminally ill." The law is

silent on any of these activities going on outside of Medicare.

WHAT'S NEXT?

Efforts to extract waste from the health care system will in all likelihood continue along a range of federal government initiatives, including information technology adoption, pay-for-performance, payment and delivery reforms, comparative effectiveness research, and competitive bidding. Similar programs are also being initiated by state Medicaid agencies and by private payers. In the view of many experts, even more vigorous efforts to pursue the reduction of waste in health care are clearly warranted. ■

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Health Policy Briefs are produced under a partnership of *Health Affairs* and the Robert Wood Johnson Foundation.

Cite as:
"Health Policy Brief: Reducing Waste in Health Care," *Health Affairs*, December 13, 2012.

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RESOURCES

Anderson, Gerard F., Uwe E. Reinhardt, Peter S. Hussey, and Varduhi Petrosyan, "[It's the Prices, Stupid: Why the United States Is So Different from Other Countries](#)," *Health Affairs* 22, no. 3 (2003): 89–105.

Bentley, Tanya G.K., Rachel M. Effros, Kartika Palar, and Emmett B. Keeler, "[Waste in the US Health Care System: A Conceptual Framework](#)," *Milbank Quarterly* 86, no. 4 (2008): 629–59.

Berenson, Robert A., Paul B. Ginsburg, Jon B. Christianson, and Tracy Yee, "[The Growing Power of Some Providers to Win Steep Payment Increases from Insurers Suggests Policy Remedies May Be Needed](#)," *Health Affairs* 31, no. 5 (2012): 973–81.

Berwick, Donald M., and Andrew D. Hackbarth, "[Eliminating Waste in US Health Care](#)," *JAMA* 307, no. 14 (April 11, 2012): 1513–6.

Classen, David C., Roger Resar, Frances Griffin, Frank Federico, Terri Frankel, Nancy Kimmel, et al., "['Global Trigger Tool' Shows That Adverse Events in Hospitals May Be Ten Times Greater Than Previously Measured](#)," *Health Affairs* 30, no. 4 (2011): 581–9.

Elmendorf, Douglas W., "[Options for Controlling the Costs and Increasing the Efficiency of Health Care](#)," Statement before the Subcommittee on Health, Committee on Energy and Commerce, US House of Representatives, March 10, 2009.

Farrell, Diana, Eric Jensen, Bob Kocher, Nick Lovegrove, Fareed Melhem, Lenny Mendonca, et al., "[Accounting for the Cost of US Health Care: A New Look at Why Americans Spend More](#)," McKinsey Global Institute, December 2008.

Hoffman, Ari, and Steven D. Pearson, "['Marginal Medicine': Targeting Comparative Effectiveness Research to Reduce Waste](#)," *Health Affairs* 28, no. 4 (2009): w710–18. DOI: 10.1377/hlthaff.28.4.w710.

Institute of Medicine, "[Best Care at Lower Cost: The Path to Continuously Learning Health Care in America](#)," September 6, 2012.

Kelley, Robert, "[Where Can \\$700 Billion in Waste Be Cut Annually from the US Healthcare System?](#)" Thomson Reuters, October 2009.

Levinson, Daniel R., "[Adverse Events in Hospitals: National Incidence among Medicare Beneficiaries](#)," Department of Health and Human Services Office of Inspector General, November 2010.

Morra, Dante, Sean Nicholson, Wendy Levinson, David N. Gans, Terry Hammons, and Lawrence P. Casalino, "[US Physician Practices Versus Canadians: Spending Nearly Four Times as Much Money Interacting with Payers](#)," *Health Affairs* 30, no. 8 (2011): 1443–50.