

# Waste Not, Want Not The Right Care for Every Patient

## EXECUTIVE SUMMARY

Up to 30 percent of healthcare services delivered each year in the United States are estimated to be unnecessary. This overuse, amounting to approximately \$700 billion a year, is both wasteful and often dangerous to patients. The National Priorities Partnership has identified overuse as one of six priority areas that target reform in ways that will eliminate waste, harm, and disparities to create and expand world-class, patient-centered, affordable healthcare. Overuse – which has been defined as the situation that occurs when “the potential for harm exceeds the possible benefits of care” – happens in every setting and sector of healthcare. Much of overuse stems from unexplained variations in the amount, type, and intensity of medical care. Overuse is a culture-driven problem, and, as with all culture-driven challenges, solutions exist, but they must be robust, and they take time to be successful. Potential solutions include implementing a “shared decisionmaking” approach to healthcare that engages patients as fully equal partners in their own care; implementing information technology systems to ensure that medical decisions are informed by the best possible data; and reforming the healthcare payment system to enhance incentives to provide the right care rather than the most care.\*

\*On March 25-27, 2009, the National Quality Forum held a conference in Cleveland, Ohio (called the Spring Implementation Conference), convening multiple speakers from across the stakeholder spectrum to discuss overuse and consider potential solutions. Many of the quotes in this Issue Brief are taken from speakers’ speeches and presentations at that conference.

## Overuse: A Critical Component of Health Reform and a National Priority

Of all the barriers to national healthcare reform, one of the biggest is the question of how to pay for it. Expenditures in the United States for healthcare surpassed \$2 trillion in 2006, almost three times the \$714 billion spent in 1990,<sup>1</sup> and yet in 2007, 45 million Americans, or 17.8 percent of the U.S. population, lacked health insurance.<sup>2</sup> Many observers legitimately wonder how the United States could possibly shoulder the financial burden of reform, considering that so much currently is spent on healthcare without providing full access to care.

And yet, President Obama and Congress are determined to enact legislation for significant healthcare reform in 2009. The President’s Fiscal Year 2010 budget blueprint contains a \$634 billion fund designed to finance expansion of health coverage for the uninsured and improve care over the coming decade. This is being termed a “down payment on healthcare reform that will bring down costs and expand access.”<sup>3</sup>

One need not conclude that healthcare reform will necessarily lead to higher costs over the long run. Evidence demonstrates that up to 30 percent of

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healthcare services delivered each year in the United States are unnecessary. This overuse, amounting to approximately \$700 billion a year, is both wasteful and often dangerous to patients.<sup>4</sup> Many observers from across the stakeholder spectrum agree that eradicating overuse would make healthcare both safer and more efficient and that the savings generated could be applied toward financing a national healthcare reform effort, should they be marshaled in such a way that resources are redirected toward expanding insurance coverage or addressing underuse.<sup>5</sup>

In 2008, the National Priorities Partnership identified overuse as one of six priority areas that target reform in ways that will eliminate waste, harm, and disparities to create and expand world-class, patient-centered, affordable healthcare.<sup>6</sup> The National Priorities Partnership, a diverse group of national organizations representing those who receive, pay for, deliver, and evaluate healthcare, includes overuse on its action agenda to transform healthcare during a time of severe economic strain by better investing resources to fundamentally improve patient care and outcomes.

“There is far too much waste and inappropriate care in healthcare provided in the United States today,” says Janet Corrigan, PhD, MBA, president and CEO of the National Quality Forum, which convened the National Priorities Partnership. “Removing that waste would encourage appropriate use and enable us to achieve effective, affordable care.”<sup>7</sup>

## The Challenge

**Today, a significant amount** of popular attention on healthcare focuses on the care that Americans do not receive. “Practically everything in our personal interactions with the health care system tells us that far from getting too much care, we’re getting too little,” writes author Shannon Brownlee in her book, *Overtreated*.<sup>8</sup> A recent poll shows that 67 percent of Americans say the healthcare system has a major problem with “too many patients

not getting the medical tests and treatments they need.”<sup>9</sup> And, with economic conditions remaining sour, more than half of Americans report that they are postponing or skipping treatments because of cost.<sup>10</sup>

Although underuse stemming from economic challenges and/or lack of access remains a critical issue, a growing body of evidence indicates that a significant portion of the care Americans receive is redundant and unwarranted—and beyond that, in some cases, even harmful.

Overuse has been identified as a problem in healthcare for at least two decades.<sup>11,12,13</sup> It was defined more than 10 years ago as the situation that occurs when “the potential for harm exceeds the possible benefits of care.”<sup>14</sup> Peter R. Orszag, President Obama’s budget director, has refined the definition of overuse with an economics lens to “include cases in which the added costs of a more expensive service did not exceed the added benefits it was expected to provide.”<sup>15</sup> More recently, researchers have determined that waste in the health system stems from three main factors: practice variations, adverse events, and overuse of the emergency department (ED) for nonemergent conditions.<sup>16</sup>

Overuse, or waste, can take many forms, such as:

- Diagnostic imaging procedures that are duplicative, faulty, unwarranted, or lead to unnecessary procedures.<sup>17</sup>
- Spine surgeries for back pain that often do not result in better outcomes for patients.<sup>18,19</sup>
- ED visits that could be avoided through expanded access to primary care.<sup>20</sup>
- Rehospitalizations that could be prevented with better coordination of care.<sup>21</sup>

A sizeable number of Americans (about half) believe that the American healthcare system has a “major problem” with “too many patients getting medical tests and treatments that they don’t really need,” although only 16 percent say they themselves have received unnecessary

care.<sup>22</sup> Healthcare stakeholders are now turning their attention toward raising public awareness of the dangers of overuse. Examples include the Partnership for Healthcare Excellence, a Massachusetts effort that has run an advertising campaign to inform consumers about variability in care,<sup>23</sup> and AARP’s work to inform its members about “overtreatment” in member publications.<sup>24</sup> But, there is still much work to be done. “The national attitude toward overuse in healthcare has been remarkably cavalier,” says Wendy Everett, ScD, president of the New England Healthcare Institute.<sup>25</sup> But, the current economic crisis is reviving interest among employers and health plans to address waste now. “There is a financial and moral imperative to eliminating overuse and waste,” says Jennifer Eames, associate director of the Pacific Business Group on Health.<sup>26</sup>

Although there is no unanimity on how to reduce overuse, it is broadly recognized that the healthcare community must look from within to find ways to reduce overuse. “The medical specialties need to take a hard look at their own practices and determine what to target and how to change the status quo,” says Bernard M. Rosof, MD, MACP, chair of the AMA-convened Physician Consortium for Physician Improvement. Furthermore, there is urgency to the issue.<sup>27</sup> “We have to think very hard about whether change is happening fast enough,” says Gerald M. Shea, assistant to the president for governmental affairs at the AFL-CIO. “We have to ask how much money are we saving. If we don’t want the economists to answer the question for us, we’d better do it ourselves.”<sup>28</sup>

The balance between underuse and overuse often is referred to as appropriate use. “Waste occurs when the right care isn’t delivered to patients at the right time,” says David Nexon, senior executive vice president of the Advanced Medical Technology Association (“AdvaMed”)—the trade group that represents medical device manufacturers.<sup>29</sup>

## Where Does Overuse Occur?

**Overuse occurs in every sector** of the health-care industry. See Box 1 for a list of areas in which healthcare suffers from overuse.

In 2008, the New England Healthcare Institute (NEHI) compiled 460 studies and reports published over 8 years to identify and place a price tag on 5 areas of waste.<sup>30</sup> NEHI analysts determined that elimination of these areas of waste would result in significant potential cost savings to the healthcare delivery system. They are:

1. Unexplained variation in the intensity of medical and surgical services.  
**Potential annual savings: \$600 billion**
2. Misuse of drugs and treatments resulting in preventable adverse effects of medical care. **Potential annual savings: \$52.2 billion**
3. Overuse of nonurgent ED care.  
**Potential annual savings: \$21.4 billion**
4. Underuse of appropriate medications:
  - Generic hypertensives: **Potential annual savings: \$3 billion**
  - Controller medicines, particularly inhaled corticosteroids in pediatric asthma: **Potential annual savings: \$2.5 billion**
5. Overuse of antibiotics for respiratory infections. **Potential annual savings: \$1.1 billion**

Of these factors contributing to overuse, practice variation accounts for by far the largest portion of overuse. The Dartmouth Medical School, in its groundbreaking work documenting variation in services and costs across the United States, provides compelling evidence that supply-induced demand increases the number of services provided without improving quality. Regional variations have been highlighted recently in the national media<sup>31</sup> and are feeding the political discourse.<sup>32</sup>

The causes of practice variations, rigorously documented in the Dartmouth Atlas,<sup>33</sup> include failure to adhere to established clinical practice guidelines, extensive and unnecessary care at the end of life, overuse of procedures including coronary artery bypass graft (CABG) surgery,

## BOX 1 Areas of Overuse

In its 2008 report, *National Priorities and Goals: Aligning Our Efforts to Transform America's Healthcare*, the National Priorities Partnership identified nine areas in which healthcare suffers from overuse. They are:

- inappropriate medication use (e.g., antibiotics);
- unnecessary laboratory testing;
- unnecessary maternity care interventions (i.e., inappropriate Cesarean section);
- unwarranted diagnostic imaging;
- inappropriate nonpalliative services at the end of life (e.g., chemotherapy in the last 14 days of life);
- unwarranted procedures;
- unnecessary consultations;
- preventable emergency department visits and hospitalizations (e.g., hospitalizations lasting less than 24 hours); and
- potentially harmful preventive services with no benefit.

**Source:** National Priorities Partnership. *National Priorities and Goals: Aligning Our Efforts to Transform America's Healthcare*. Washington, DC: National Quality Forum; 2008.

percutaneous coronary interventions (PCIs, also known as angioplasties), and back surgeries.

For example, in back surgery, there is a 5-fold variation in surgery rates across the United States, with 71 hospital referral regions demonstrating rates 30 percent higher than the national average and 52 hospital referral regions showing rates 25 percent lower than the national average, according to Dartmouth Atlas researchers. Similarly, for CABG surgery, there is a 5-fold variation across the nation. For PCIs, the variation is 10-fold.

This is not to say that there are necessarily too many CABGs or angioplasties. In fact, in some cases there may be too few. Stents are initially simpler to place, better tolerated by patients, and less expensive than CABG. However, stents are less durable than bypass grafting, resulting in more (and more serious) complications over time. These adverse outcomes, along with the need for expensive dual antiplatelet therapy, make the ultimate expense of “PCI first” greater than a “CABG first” strategy, particularly for patients with extensive coronary artery disease.<sup>34</sup> “There is a belief system that PCI with stents is superior to medical therapy and not inferior to coronary

bypass grafting, although the evidence is actually to the contrary,” says Peter K. Smith, MD, chief of cardiovascular and thoracic surgery at Duke University Health System.<sup>35</sup>

Lack of good care coordination often is the root cause of overuse. More services do not necessarily lead to better quality or increased patient satisfaction; in fact, sometimes precisely the opposite is true. Dartmouth researchers recently examined the associations among hospital care intensity, the technical quality of hospital care, and patients’ ratings of their hospital experiences and found that greater inpatient care intensity (such as more doctor visits and more days in the hospital) was associated with lower quality scores and lower patient ratings. The link between greater care intensity and lower quality and less favorable patient experiences may be poorly coordinated care, they found.<sup>36</sup> Patients are taking notice and voicing their dissatisfaction with this “continuum of confusion,” in part because comparatively few patients enjoy a continuous healing relationship with a primary care physician. “In our current fragmented system of care, every patient is a ‘new patient,’” says Bruce Bagley, MD, medical director for quality improvement for the American

Academy of Family Physicians. “Past history, recent testing or previous recommendations take a backseat to the immediacy of the moment and the needs to establish a disposition.”<sup>37</sup>

Fragmentation of care can also lead to hospitalizations that may be preventable if there were comprehensive primary care, good communication across providers and settings, and the availability of necessary information at the time of admission.<sup>38</sup>

Among specialists, cardiologists represent the “gold standard” for following clinical guidelines, but even they do so only 70 percent of the time, according to Everett’s research. It is necessary to convince physicians to change behavior, but possible to do so only if presented with the supporting evidence—and making sure that physicians are not being blamed as the singular source of the problem. “When we look at overuse from the perspective of a surgeon, we look at this first as, ‘Someone is trying to judge us for that which I think I do well,’” says Frank G. Opelka, MD, FACS, chair of the American College of Surgeons’ Patient Safety and Quality Improvement Committee. “Perhaps that’s not the right message to send out to our providers.”<sup>39</sup>

Aggressive healthcare in the last weeks or months of life often constitutes waste. Examples include the provision of chemotherapy in the last 14 days of life, which represents an alarming increase in the aggressive treatment of patients with terminal cancers.<sup>40</sup> Unfortunately, this is also an area where there is too little care—palliative care. John Mastrojohn, III, RN, MSN, MBA, vice president, palliative care, quality, and research for the National Hospice and Palliative Care Organization, is fond of quoting the influential author Eric J. Cassell, MD, when he says, “the failure to understand the nature of suffering can result in medical intervention that, though technically adequate, not only fails to relieve suffering but becomes a source of suffering itself.”<sup>41</sup> Moving patients to hospice earlier reduces Medicare costs 70 percent of the time, by an average of \$2,309 per hospice patient,<sup>42</sup> and it addresses

patients’ and their families’ desires for care at the end of life regarding their need for comfort.

The ED is another setting that is rife with overuse. This care is extraordinarily expensive because of the large number of diagnostic tests associated with most ED visits, which results from the lack of information about the patient’s condition and the requirement to treat immediately. But not all cases in the ED are emergencies. It is important to note that the definition of “emergency” is in the eye of the beholder. For example, a young mother of a newborn may present at the ED with her baby who will not stop crying. This may not constitute an emergency in strict medical terms, but if that young mother has nowhere else to turn and does not know what to do, she needs that ED visit for reassurance, and for her the situation *is* emergent.<sup>43</sup> Nonetheless, in strict financial terms, ED use for medically nonurgent purposes is costly. According to the Centers for Disease Control and Prevention, 13.9 percent of ED visits in 2005 were for nonurgent purposes, up from 9.7 percent in 1997. Furthermore, contrary to popular opinion, the majority of these nonurgent ED visits were not from patients lacking insurance. Although uninsured patients account for a disproportionate share of ED use, the greatest number of nonurgent ED visits came from privately insured individuals, research shows. “The astonishing fact is that 40 percent are made by privately insured patients. Two-thirds of patients have primary care providers,” Everett says. See Box 2 for information on what constitutes a nonurgent ED visit.

Patients resort to ED use for a variety of reasons: lack of regular or preventive care for chronic conditions, the inability to book a timely primary care appointment, referral by their physician, or convenience. In addition, patients’ perception of their medical problem as a medical emergency, which often is contrary to how the condition would be clinically classified, is another driver of ED overuse.<sup>44</sup>

## BOX 2 Nonurgent ED Visits

What constitutes a nonurgent ED visit? Examples include:

- A new mother who cannot get her baby to stop crying; her doctor’s office is closed, and the ED is the best place to get immediate reassurance.
- A college student who thinks she has strep throat and decides that spending a few hours at the ED on a Sunday is better than waiting until the student health clinic reopens on Monday.
- An elderly nursing home patient who is taken to the ED with dehydration, because his facility did not have a physician onsite at the time.

## Possible Solutions

**Overuse is sustained** by a culture and social norms shared among physicians and patients that can best be summed up in the bromide, “better safe than sorry.” Physicians are trained to act on behalf of their patients and often recommend treatments that “might work,” with the implicit understanding that they might not. They are much more concerned about sins of omission (i.e., failure to treat) than acts of commission.

A failure of omission is unpardonable to providers, patients, and the legal system. Patients suffer when sick or injured and understandably demand care to alleviate the pain and anxiety; and physicians are trained in a culture of doing “everything possible” on behalf of their patients. This mix of expectations makes the pact of the social norm hard to break. A complicating factor is that the concentration on the patient as an individual and on his or her illness takes precedence over implications within the broader community. For example, in the case of antibiotic overuse, there is little concern within the provider-patient dyad for what might be good for society (e.g., bacterial resistance, unsustainable costs), public health, or the patient in the next bed.<sup>45</sup> Hence, the “tragedy of commons” — the dilemma in which multiple

individuals acting independently in their own self-interest ultimately destroy a shared limited resource even when it is clear that it is not in anyone's long-term interest to do so—is particularly worrisome when it comes to overuse.<sup>46,47</sup>

As with any culture-driven challenge, solutions exist, but they must be robust, and they take time to be successful. Some of these solutions are “big-ticket” financial items, such as payment reform or the implementation of information technology systems; other resolutions demand a change in mindset. None will be easy. It is not as simple as slicing benefits or declaring some procedures off-limits to Medicare beneficiaries. “We need rational healthcare, not rationed healthcare,” says James N. Weinstein, DO, MS, director of the Dartmouth Institute for Health Policy and Clinical Practice.<sup>48</sup> Instead, as patient- and physician-driven medical behavior changes, the challenge is to encourage this behavior change in such a way that keeps the patient at the center of care and encourages system improvement and clinical advancement. “Innovation and medical progress does not come automatically,” says Advamed's David Nexon. “As we make changes, we need to be sensitive in a way that supports rather than inhibits medical innovation.”

### Involving Patients in Their Own Care

The Institute of Medicine (IOM) defines quality care as care that is safe, timely, equitable, efficient, and patient centered.<sup>49</sup> Of these aims, patient-centeredness often is discussed but is difficult to define and measure. IOM has defined patient-centered care as “care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions.”<sup>50</sup> Engaging patients in their own care, by treating them as equal members of the healthcare team and encouraging them to speak up rather than be passive recipients of care, is at the core of patient-centered care.

There are tools to help patients get the answers they need. The Agency for Healthcare Research and Quality promotes

patient engagement through its “Questions Are the Answer” public information campaign to encourage patients to become more involved in their own care.<sup>51</sup> Shannon Brownlee offers examples of questions patients should ask, such as “How good is the evidence that this screening test will reduce my risk of dying?” and “Is the test itself dangerous?”<sup>52</sup> The Center for Advancing Health produces a series of “Prepared Patient” publications that helps people participate more fully in their healthcare with topics such as “Is this good science?”<sup>53</sup>

A strong movement within healthcare called “shared decisionmaking” is encouraging physicians to be receptive to those questions. Characteristics of shared decisionmaking include that at least two parties—the physician and the patient—be involved; that both parties share information; that both parties take steps to build a consensus about the preferred treatment; and that an agreement is reached on the treatment to implement.<sup>54</sup>

Weinstein, of the Dartmouth Institute for Health Policy and Clinical Practice, is a longtime practitioner of shared decisionmaking. As a back surgeon, he employs it in his own practice. Weinstein, chair of the Department of Orthopaedic Surgery at Dartmouth-Hitchcock Medical Center, estimates that if patients were fully engaged in the decisionmaking process, there would be approximately 30 percent fewer back surgeries, given that so many patients find relief from back pain in a relatively short period without surgery. “Patients tend to choose the most effective treatment when they are well informed,” he says. “Shared decisionmaking not only results in better outcomes, but in increased confidence for the patient. Ultimately, patients should be empowered to decide what is right for them.”

In addition to shared decisionmaking at the individual physician-patient level, consumers can be engaged at the community level. Physicians and other healthcare leaders can engage in public education campaigns in their communities to convince the public that more care is not necessarily

better care. Advertising executive Matt Williams, executive vice president of The Martin Agency—who has worked with former Vice President Al Gore on the Alliance for Climate Protection's We campaign, raising national awareness about global warming—describes a “ladder of engagement,” starting with consciousness, then belief, then behavior change. “Engage the passionate minority and set the stakes high,” Williams advises.<sup>55</sup>

### Guidelines and Care Paths

As noted above, practice variations, including failure to adhere to established clinical guidelines, constitute the overwhelming majority of instances of overuse. Everett suggests that guidelines are not followed for reasons including:

- guidelines are not easily accessible;
- guidelines are not updated in a timely fashion;
- clinical practitioners trust their own judgment more than established guidelines; and
- there exists little economic incentive to adhere to guidelines.

Guidelines work the best when they are from a trusted source, are hard-wired into structured decision trees through health information technology systems, and are easily available for clinical decisionmaking (such as with computerized physician order entry [CPOE] systems). Similarly, clinical practice pathways reflect best clinical practices and can be linked to quality performance measures, which, when publicly reported, can encourage significant behavioral change.

### Payment Incentives

Incentives matter to providers and patients. Today, the U.S. healthcare system by and large reimburses providers on a per-visit or per-procedure basis. This fee-for-service system provides enormous incentive to increase volume, which fuels overuse. Therefore, there needs to be a powerful, countervailing incentive system to reduce unnecessary care and redirect incentives toward value.

What kind of incentive would it take to optimize appropriate care? Some demonstration projects have awarded physicians a bonus incentive of up to 2 percent of their pay for adhering to clinical guidelines. “This doesn’t hit the radar screen,” Everett says. In surveys conducted by NEHI, half of physicians are not moved by a 2 percent bonus payment; but 87 percent of physicians would be somewhat or much more likely to comply with guidelines if the bonus payment were 9 percent. At a 20 percent incentive, says Everett, “all but the most recalcitrant would think guideline compliance is a great idea.” Other payment approaches also address incentives for better efficiency, including bundled payments that promote adherence to guidelines, as with Geisinger Health System’s ProvenCare package for CABG<sup>56</sup> and the Prometheus Payment system’s “evidence-informed case rate.”<sup>57</sup> So-called global payments, when combined with risk adjustments and with pay-for-performance initiatives, including measures of overuse, are generating significant interest.<sup>58</sup> Also, payment for shared decisionmaking could play an instrumental part in reducing overuse.

Patients, too, respond to incentives. The field of behavioral economics demonstrates that incentives can be structured to “nudge” people toward the options that are right for them and society, such as opt-ins for contributions to retirement savings.<sup>59</sup> There are applications to health care. For example, many pharmaceutical benefit plans offer lower copayments to encourage patients to use generic rather than brand-name medications. Other “nudge” interventions for reducing overuse can include giving patients a free “cold care kit” for upper respiratory infections along with a delayed fill prescription to reduce the misuse of antibiotics<sup>60</sup> for viral infections and routinely providing shared decisionmaking services for appropriate conditions at no or limited cost to the patient and with reimbursement for the provider.

Unfortunately, today’s payment system not only fails to reward value but in some instances actually discourages it. Gerri Lamb, PhD, associate professor at Arizona State University and a visiting scholar at Emory University, points to conflicts in various payment mechanisms for nursing home care as a reason for potentially avoidable hospital admissions and readmissions of nursing home residents. “Our current reimbursement system encourages transfers to hospitals rather than looking at improving and helping nursing homes provide care,” she says.<sup>61</sup> Restructuring Medicare reimbursement rules to encourage greater care coordination (e.g., incentivizing greater access to primary care at nursing homes) could curb overuse. In Box 3, George Halvorson, president and CEO of Kaiser Foundation Health Plan and Hospitals, discusses how the current payment approach can penalize those who provide the best care.

### Information Technology as a Facilitator of Reform

Information technology systems have long been touted as an essential infrastructure to influence clinical decisions and to improve quality. Although not a panacea, health information technology advances such as CPOE and electronic health record (EHR) systems collectively offer the promise of getting complete clinical information

to caregivers instantaneously along with clinical decision support. Information technology-enabled systems thereby offer the possibility of informing the decision-making process at the point of care, thus improving the quality of healthcare delivered.<sup>62</sup>

But, information technology systems are expensive to implement. The American Recovery and Reinvestment Act of 2009—commonly known as President Obama’s stimulus bill—contains \$19 billion in incentive payments to encourage physicians to adopt EHR systems,<sup>63</sup> but this is just a fraction of what it will cost to fully digitize American healthcare.

NEHI researchers have found that approximately 1 in 10 people admitted to hospitals suffer a serious, predictable adverse drug event (ADE) that could be prevented by CPOE with clinical decision support. ADEs typically lead to an extra 4.6 days in the hospital per patient per error. In a study published in 2008, researchers from NEHI and the Massachusetts Technology Collaborative determined that in Massachusetts alone, CPOE systems could prevent 55,000 medical errors and save \$170 million a year.

Information technology could also be implemented in other ways to reduce overuse. For example, telemedicine technology could help solve the problem of limited access to primary care, especially

## BOX 3 The Advantage of Systems Thinking

George Halvorson advocates “systems thinking” as a way to encourage rational care, but points out that payment systems currently discourage such thinking.

Halvorson offers the example of the Institute for Clinical Systems Improvement in Minnesota, which undertook an initiative to encourage a best practices approach to the treatment of urinary tract infections in women. The initiative improved measurable process improvements by 500 percent within a year and cut costs by 35 percent, but those costs went directly to providers’ bottom lines.

“Rework generated a lot of caregiver revenue. So did unnecessary office visits—visits that could be eliminated by patient-focused reengineered care delivery,” Halvorson writes. “Providers do not see losing 35 percent of their revenue as an economic reward. The current American payment approach directly and immediately penalized the providers who provided best care for those patients.”

Source: Halvorson GC. *Health Care Reform Now! A Prescription for Change*. San Francisco, CA: Jossey-Bass; 2007.

in rural areas, dramatically cutting down on one of the drivers of ED overuse. And, EHRs could much more efficiently glean and interpret the data needed to measure compliance with established clinical guidelines—even enabling a pay-for-compliance incentive program—as well as serve as a vehicle to disseminate new or updated guidelines and quickly integrate them into clinical decision support tools.

## Conclusion

**Health reform presents** both a challenge and an opportunity: to transform American healthcare. Doing so requires more than simply modifying parts of the current healthcare system; it requires rational thinking about how all elements of the healthcare enterprise interact with each other, says Denis A. Cortese, MD, president and CEO of the Mayo Clinic.<sup>64</sup>

Cortese observes a healthcare delivery system composed of three domains: knowledge (e.g., medical research), care delivery (e.g., hospitals, physicians), and payers (e.g., health plans, Medicare). “Each of these domains works well within its own construct, as it is designed to do,” he says. “The problem is at the interface between domains.” For example, IOM notes that it takes 17 years on the average to implement a clinical recommendation into everyday practice<sup>65</sup>—that is, to transfer information from the knowledge domain to the care delivery domain.

Instead of a system, Cortese says, the United States has a collection of interdependent entities that each protects its own self-interests, with little thought put into how they behave as a whole. “There’s nothing really broken about our system because there isn’t one. Nobody designed it, so you can’t fix it—because it doesn’t exist.” But Cortese envisions something entirely different: an organized delivery system composed of “learning organizations,” in which integration and coordination of care exist as the foundation. In Cortese’s systemic vision, individualized

medicine and the science of healthcare delivery share equal billing with the ultimate goal being value, defined as quality divided by cost. Learning organizations, Cortese asserts, could ensure transfer of information between domains—between knowledge and care delivery and between care delivery and payer—so that better practices are communicated quickly and efficiently, ensuring that evidence-based care is always delivered to patients and thus curbing overuse.

Payment reform is a component of a health system transformation that reduces overuse. So is information technology. But each, as a stand-alone solution, is incomplete. What is required is a culture change that incorporates payment reform and information technology, questions entrenched and implied social contractual obligations between patient and providers, and puts the patient at the center of every healthcare transaction. “We need to appreciate even more the question of, ‘what do my patients want?’” says Dartmouth’s Weinstein. “Only providing what is necessary and according to your patients’ preferences doesn’t suppress your practice. It gets you to the right practice.”

Curbing overuse should not be synonymous with cutting access. In fact, if implemented correctly in an organized, learning system of care, reducing overuse ideally should increase access. A healthcare system that is evidence based, that is accountable, and that uses information technology wisely and focuses on value will reduce the “epidemic of care” and create a safer and better healthcare system<sup>66</sup> that places a high premium on value, innovation, and patient-centeredness.

Today, however, the evidence is clear that resources are being wasted in a way that is not only expensive but also denies care to those who need it. Rationalizing healthcare does not mean rationing it; it means reducing overuse so that resources can be redirected, with the goal of getting the right care to every patient, every time.

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## Notes

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