

**WHITE PAPER**

# A PATH TO ELIMINATING \$3.6 TRILLION IN WASTEFUL HEALTHCARE SPENDING

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# EXECUTIVE SUMMARY

## Preface

Following the release of the white paper “Where Can \$700 Billion in Waste Be Cut Annually From the U.S. Healthcare System?”, Thomson Reuters and the authors heard from many readers who wondered how much of the waste can be reasonably eliminated in the short term and in a longer time frame.

Others asked about the effect of health reform on the identified six categories of waste. In response, Thomson Reuters and the authors reviewed the literature, investigated our clients’ successful initiatives and estimated the possible impact of these initiatives if implemented at a national level. The result presented in this paper is a vision of one path for reducing wasteful spending in healthcare over the next five to ten years. Great effort was expended to provide a balanced and specifically apolitical viewpoint equally weighing the concerns of patients, providers, payers, and purchasers. The document proposes five successful strategies to mitigate the six categories of waste identified in the previous white paper. This pathway is submitted not as the solution but to contribute useful ideas to the ongoing dialogue over the best way to address this problem. It is hoped that this white paper would serve as a catalyst encouraging more debate and a call to action as our newly passed legislation requires creative and sophisticated implementation.

### Setting a Reasonable Goal for Waste Reduction

While recognizing the challenges and barriers, this paper suggests a pathway to deliver on reasonable short-term and long-term goals for reducing waste. To test the impact of waste reduction against a reasonable goal, we adopted the goal established in an article in the *New England Journal of Medicine*, which suggested maintaining healthcare expenditures at the present level of 17 percent of GDP.<sup>1</sup> This document, therefore, outlines one approach to maintaining healthcare expenditure at 17 percent of GDP over the next ten years, as opposed to current estimates of an increase in expenditures to almost 20 percent. If a phased-in reduction of waste starting at five percent and increasing five percent every year until we have reduced 50 percent of the waste in ten years can be accomplished, this goal is feasible. In the process, **\$3.6 trillion** of wasteful spending would be saved, ten percent of projected healthcare expenditures

over that time period. This paper suggests that this goal can be accomplished by reasonably reducing wasteful spending over the next decade. Many leading healthcare providers and payers have recognized waste and have pursued their own successful solutions, not waiting for large-scale system reform, but working within their own systems and applying available tools and management concepts. These successful efforts will be drawn from and highlighted.

It should be noted that without efforts to control its proportion of total healthcare expenditures, system-wide waste could reach \$1.6 trillion dollars by 2020 – a doubling in just ten years. Even with the savings we propose, the national healthcare expenditure (NHE) would still grow at the same rate as the general economy, an increase of over \$1.4 trillion.

### General Challenges and Barriers to Success

Many of the challenges relate to existing market forces that support independent enterprise and consumer choice but which have resulted in minimal standardization of billing, payment, care or service. The complexity of supply and demand for healthcare services, the third party payment system with its fee-for-service payment model, and the fragmented network of independent providers complicate efforts to reduce wasteful spending.

These and other challenges are unlikely to be fully resolved and therefore constrain the system's ability to reduce waste meaningfully. However, it should still be possible to preserve consumer choice, independent enterprise, and insurance systems while reducing wasted expenditures.

It is difficult to imagine success for a healthcare system that is comprised of individual players without a shared team goal of providing effective and efficient care. A successful team approach will require that some players improve their performance, others change their roles, and still others be recruited for new roles. In other words, meaningful waste reduction requires substantial changes in healthcare delivery.

Most of the examples described here depict individual players improving their performance without changing their roles. Other players have evolved or enhanced their roles by extending their responsibilities to remedy performance gaps. Still others have claimed new roles that remediate the process. In most of these cases, the individual players or small organizations have acted independently on a local or regional level. Adopting many of these best efforts on a broader scale would likely yield systemic improvements, reduce wasteful spending, and improve outcomes.

## FIVE SUCCESSFUL STRATEGIES

Before considering specific opportunities for reducing waste, it is important to review several general strategies that have demonstrated success, can be reasonably implemented broadly, and can be supported by specific experience reported in the literature. Projects such as the National Priorities Partnership<sup>7</sup> and the Institute for Healthcare Improvement<sup>8</sup> support many of these efforts. Although each of the strategies may seem to be directed at a specific category of waste, it is likely that the positive effects would be realized in multiple categories. The matrix identifies which categories of waste will likely be impacted in either a primary or secondary way by the five successful strategies displayed across the top banner.

	Consumer Activism & Transparency	Systems Improvements & Care Coordination	The Medical Home & Culture of Health	Patient Safety & Quality Improvement	Payment Integrity: Ease reimbursement, reduce opportunities for fraud & abuse
Unwarranted Use	●	●	●	●	●
Fraud & Abuse	●	●			●
Admin System Inefficiencies	●	●	●		●
Clinical Inefficiencies & Errors	●	●	●	●	
Lack of Care Coordination	●	●	●	●	
Preventable Conditions & Avoidable Care	●	●	●	●	●

● High Impact      ● Moderate Impact

Each strategy is designed to strengthen relationships among patients, providers, and payers, improve care and reduce waste. The overriding goal is to create better coordination among participants by encouraging better communication with clearer roles and responsibilities.

### 1. Consumer Activism and Transparency

Educate and engage the public on the importance of understanding, and discussing with their caregivers, the value and risks of specific treatment options. Eliminate disincentives (even provide incentives) for providers to pursue more conservative treatment options whenever appropriate.

## **2. Systems Improvements and Care Coordination**

Reduce fragmentation in the delivery of care, addressing significant issues in care coordination, administrative overhead, and redundancy in diagnostic procedures and information collection.

## **3. The Medical Home and Culture of Health**

Ensure that patients are actively engaged, along with their physician partners, in managing their own health through attention to personal behavior, disease prevention, early detection, and appropriate care for chronic diseases. Promote healthy workplaces and environments that make wellness a priority.

## **4. Patient Safety and Quality Improvement**

Encourage and support local, regional, and national quality improvement initiatives to reduce healthcare treatment errors that result in patient harm and higher costs. Create a “culture of performance improvement” that promotes the quick dissemination and adoption of best practices.

## **5. Simplify Reimbursement and Reduce Opportunities for Fraud and Abuse**

Engage the community, including patients and providers, in programs that make the billing process easier and eliminate opportunities for fraud and abuse.

Accomplishing adequate reduction in waste will not be easy. Further, many specific barriers to change reduce the likelihood of eliminating all of the waste in the near future. Those challenges are described in detail. Approaching the goal will require major system change, including aligned incentives and expectations.

The identification of wasteful spending, successful strategies for its remedy, and numerous best-practice efforts are presented in this paper to assist all constituents – providers, health plans, employers and patients alike – in the larger effort to make healthcare delivery more effective and efficient.

## THE CHALLENGE TO ELIMINATING WASTE

Following the release of the white paper “Where Can \$700 Billion in Waste Be Cut Annually From the U.S. Healthcare System?” Thomson Reuters and the authors heard from many readers who wondered how much of this waste can reasonably be eliminated in the short term and in a longer time frame.

Others asked about the effect of health reform on the identified inefficiencies. This paper focuses on realistic solutions that can be administered over the next decade. It examines the merits of establishing both achievable short-and long-term goals for reducing waste and the obstacles to achieving such goals. It must be recognized that recent changes in healthcare law such as insurance reform, near-universal coverage, reimbursement for the meaningful use of electronic medical records, and investment in comparative effectiveness will all have significant impacts on our healthcare system’s efficiency and effectiveness in the longer term. However, many leading healthcare providers and payers have recognized the waste and, rather than waiting for large-scale, system-wide reforms, are pursuing their own successful solutions. Their initiatives, a number of which are highlighted in this paper, have reduced or even eliminated waste, and have maintained or even improved care. The applications of these best practices are quite relevant to the practical implementation of the recently passed healthcare reform.

### How Should the Healthcare Community Set a Goal for Reducing System Waste?

It should be acknowledged that attempting to eliminate all waste is impractical, but nearly everyone agrees that it is important to take steps that are bold enough and broad enough to generate momentum and make efforts worthwhile. After all, our collective ability to fund the expansion of high-quality, efficient healthcare coverage for all U.S. citizens depends, in part, on our shared success in eliminating waste.

Some wonder whether a goal of reducing waste by ten percent next year, or \$70 billion, would have enough impact. This may seem like a reasonable target, but few would consider it enough. With healthcare costs increasing 6-8 percent every year, many believe the system requires a more aggressive approach, simply to stay even. Perhaps cutting 50 percent, or \$350 billion in 2010, is a goal worthy of consideration. While that reduction would certainly contribute to coverage expansion and quality system improvements, it is probably too aggressive for the near term.

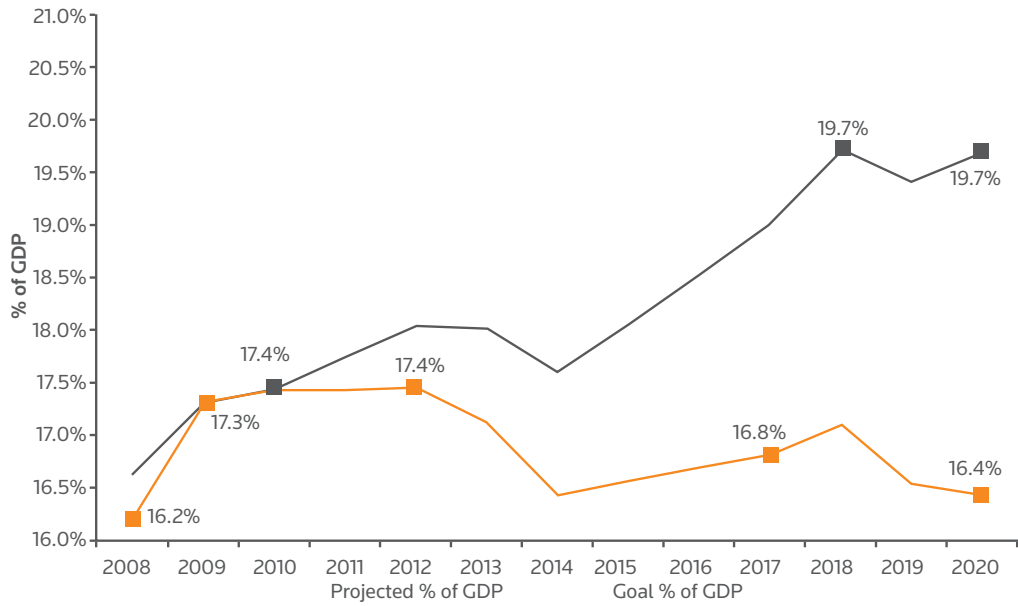
Medical literature provides a guide to establishing a framework for such a goal. In their article in the *New England Journal of Medicine*, Peter Hussey and co-authors suggest that “Although there is no consensus on what should be the target for reducing spending, constraining increases in healthcare spending to the rate of growth in the gross domestic product (GDP) — and so devoting a fixed share of national income to healthcare — offers a reasonable goal.”<sup>1</sup> Hussey’s approach would contribute significantly to promote the nation’s global competitiveness and the future success of the U.S. economy.

Based on findings outlined within these pages, this paper considers adopting targets for waste reduction that are necessary to accomplish this overall goal within ten years. Of course, there will be strategies other than waste reduction that can and likely will be applied to achieving the objective, but this document is based on waste reduction alone.

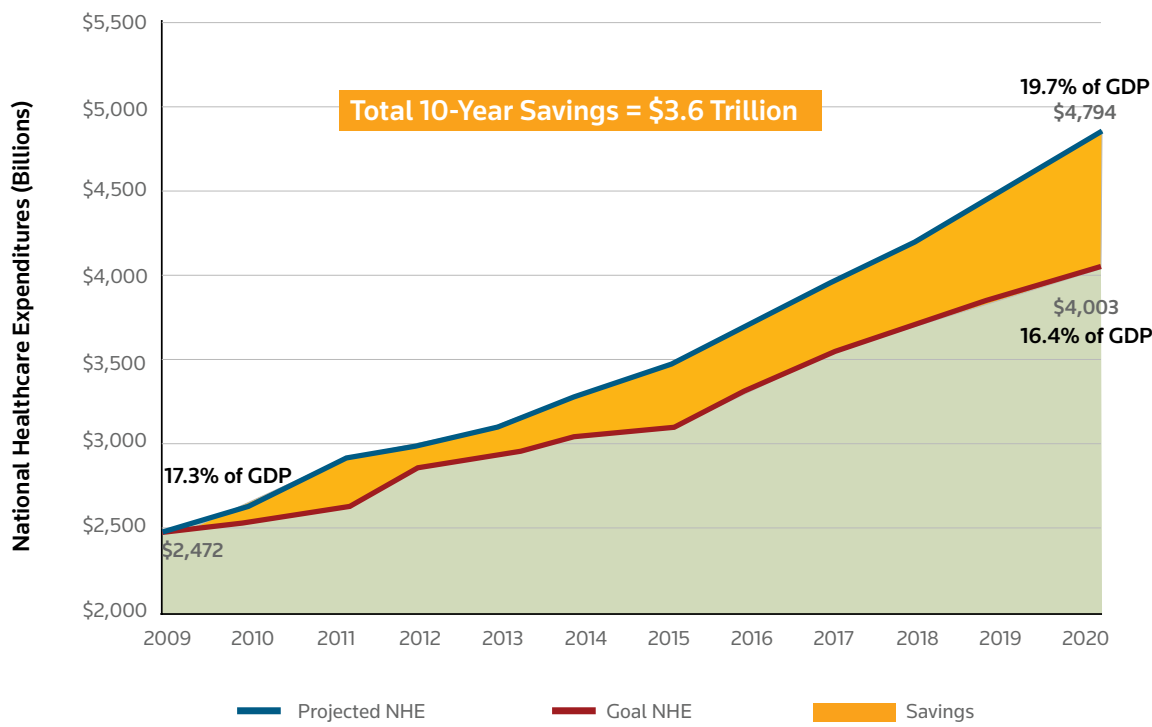
The figures below represent data from a March 2010 Health Affairs article by the Office of the Actuary in the Centers for Medicare and Medicaid that projects healthcare spending and the GDP through 2019.<sup>2</sup> As represented by the solid gray line in the first graph, their projection starts with NHE in 2009 at 17.3 percent of GDP. By 2019, healthcare expenditures reach 19.4 percent of GDP. While the article projects through 2019 only, this paper continues projections through 2020 to demonstrate the possible impact of a ten-year path.

Since most agree it is unrealistic to assume significant savings can be achieved in the near term, we believe it is fair to propose a phased-in reduction of waste. This plan calls for starting with a five percent reduction in 2011, increasing the rate steadily (five percent each year) until 50 percent of the waste is reduced by 2020. Given this path to waste reduction, the graph shows that healthcare expenditures would reach 16.4 percent of GDP vs. 19.7 percent without these reductions, achieving the goal.

**NATIONAL HEALTHCARE EXPENDITURE AS PERCENT OF GDP**



In the graph on the following page, the same projections of percent of GDP have been converted to expected levels of NHE to demonstrate the associated impact on actual cost. The top gray line represents NHE as projected in the Office of the Actuary report and the lower line represents the NHE resulting from the path of waste reduction previously described. Both lines start at \$2.6 trillion in 2010, and the projected 2020 value rises to \$4.8 trillion without waste reduction. With the phased-in waste reduction, the projected value is at the more favorable \$4.0 trillion. The area between the two lines represents the total \$3.6 trillion savings associated with waste reduction during the ten-year period. Savings would gradually increase to \$287 billion in 2015 and \$791 billion in 2020.



Without efforts to control its proportion of total healthcare expenditures, system-wide waste could reach \$1.6 trillion dollars by 2020 – a doubling in just ten years. If the healthcare community can gradually reduce waste over this ten-year period, reaching a target 50 percent reduction in 2020, the system could keep the total amount of waste below current levels while maintaining the percentage of GDP allocated to healthcare expenditures below 17 percent. According to this scenario, achieving the proposed progressive waste reduction targets would save \$3.6 trillion over the next ten years, or almost ten percent of projected healthcare expenditures. Even with this savings, the NHE would grow at the same rate as the general economy, an increase of over \$1.4 trillion.

### Are These Waste Reduction Targets Reasonable?

The healthcare system in the U.S. is very complex. Documentation concerning successes in reducing waste is inadequate. The proposed solutions in this paper are without precedent in some cases. These three elements make it impossible to predict accurately the exact level of waste reduction in a given time period. The intention of this paper is to consider targets that, if achieved, would provide the results depicted in the graph. To evaluate the feasibility of these targets, the paper discusses the significant challenges to success, presents examples of successful small-scale initiatives, and then sets separate intermediate (five-year) and longer term (ten-year) targets for waste reduction in each of the categories described in this and our previous white paper.

To many readers, achievement of these targets will seem reasonable in light of actual success achieved by a number of payer and provider organizations. These benchmark efforts vividly demonstrate the impact of changes in the respective systems of care and the relationship among providers and patients, producing a sizable reduction in waste, and in many cases, an increase in the quality of care.

## General Challenges and Barriers to Success

Viewed one way, a growing U.S. healthcare industry could be considered a positive thing. Individuals receive more and better services that have potential to improve their health and quality of life. The industry creates new jobs in the manufacture of new medical devices, drugs, and equipment and in the direct provision of healthcare services. However, this perspective requires evidence that healthcare's ever-increasing cost is justified by improvements in health and quality of life. Otherwise, increasing resources currently allocated to the healthcare system would be better allocated to other important purposes – such as investment in education, clean energy, or even debt reduction.

What is it about the current healthcare system that makes significant waste seem inevitable? The categories of waste discussed in the previous paper result from specific deficiencies in the system. Those deficiencies present opportunities to reduce or eliminate waste. Many of the challenges relate to existing market forces that have resulted in minimal standardization of billing, payment, care, or service. The supply and demand for healthcare services, the third party payment system with its fee-for-service payment model, and the fragmented network of independent providers, can complicate efforts to reduce wasteful spending. These and other challenges are unlikely to be fully resolved, and therefore constrain the system's ability to reduce waste meaningfully. However, it should be possible to preserve consumer choice, independent enterprise, and insurance systems while markedly reducing the wasted dollars spent that do not result in improved care or prevention.

This paper will:

- Recognize the most significant challenges
- Review successful strategies
- Highlight best practices
- Explore goals for reducing waste over the next five to ten years

This paper describes challenges and barriers relevant to each of the specific categories of waste. However, it must be recognized that except for isolated best-practice examples such as the Leapfrog Group<sup>3</sup> and Bridges to Excellence<sup>4</sup>, the most noteworthy overall barrier is that recognizing and rewarding performance improvement simply does not exist. Incentives are not aligned among stakeholders (e.g., payers, providers, patients) and therefore do not necessarily support common objectives. In fact, under most circumstances, such efforts may significantly reduce immediate compensation for the more efficient and effective healthcare providers. The constituencies that purchase healthcare are in the best position to change this. The Centers for Medicare and Medicaid Services (CMS) and many commercial health plans have demonstrated success with projects such as Diagnosis Related Groups, nonpayment for hospital readmissions, and global payments in Accountable Care Organizations (ACO), all attempting to pay for performance (P4P)<sup>5,6</sup>. Such leadership efforts are promising and have the potential to redefine incentives in care delivery.

It is difficult to imagine success for a healthcare system that is comprised of individual, independent players without a shared team goal of providing effective and efficient care. A successful team approach will require that some players improve their performance, others change their roles, and still others be recruited for new roles. In other words, meaningful waste reduction will require substantial changes in healthcare delivery.

Most of the examples described here depict individual players improving their performance without changing their roles. Other players have evolved or enhanced their roles by extending their responsibilities to remedy nearby performance gaps. Still others have claimed new roles that remediate the process. In most of these cases, the individual players or small organizations have acted independently on a local or regional level. Adopting many of these best efforts on a broader scale, would likely yield systemic process improvements, reduce wasteful spending, and improve outcomes.

## FIVE SUCCESSFUL STRATEGIES

Before considering specific opportunities for reducing waste, it is important to review several general strategies that have demonstrated success, can be reasonably implemented broadly, and can be supported by specific experience reported in the literature. Projects such as the National Priorities Partnership<sup>7</sup> and the Institute for Healthcare Improvement<sup>8</sup> support many of these efforts. Although each of the strategies may seem to be directed at a specific category of waste, it is likely that the positive effects would be realized in multiple categories. The matrix below identifies which categories of waste will likely be impacted in either a primary or a secondary way by the five successful strategies displayed across the top banner.

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Preventable Conditions & Avoidable Care	●	●	●	●	●

● High Impact      ● Moderate Impact

Each strategy is intended to enhance the relationships among patients, providers, and payers to improve care and reduce waste. The overriding goal is to enable better coordination among participants and encourage better communication with clearer roles and responsibilities.

### 1. Consumer Activism and Transparency

Educate and engage the public on the importance of understanding and discussing with their caregivers the value and risks of specific treatment options. Eliminate disincentives (even provide incentives) for providers to pursue more conservative treatment options whenever appropriate.

This strategy focuses on making patients better consumers of healthcare services. It strives to elevate individuals' interest and participation in healthcare decision making to the same level as other important decisions they make about their lives.

Active engagement by medical care consumers and greater transparency in the healthcare market are crucial. This strategy welcomes:

- Better information on alternative treatment and its comparative effectiveness
- Consumer guidance on differences in provider performance and cost
- Patient financial mechanisms such as Health Reimbursement Accounts and Health Savings Accounts to emphasize responsibility for treatment costs
- Patient incentives and recognition to encourage active pursuit of healthy lifestyles and recommended, evidence-based care
- Feedback to providers on how their practice patterns differ from those of their peers
- Evidence-based benefit designs that reward beneficiaries for taking care of themselves and reward purchasers for striking the right balance between insurance coverage and out-of-pocket expenditure

## 2. Systems Improvements and Care Coordination

Reduce fragmentation in the delivery of care, addressing significant issues in care coordination, administrative overhead, and redundancy in diagnostic procedures and information collection.

This strategy attempts to better link providers in actual or virtual teams. The goal is to make all relevant information available at the point of care so the treatment plan can be shared and executed across multiple providers and settings. To accomplish this, health delivery leaders have supported:

- Building Electronic Medical Record (EMR) systems with effective connectivity among providers
- Providing care-management programs focused on minimizing health risks for patients
- Developing centers-of-excellence programs that link community providers to the best available facilities
- Promoting truly integrated delivery systems that put the patient at the center of the process, rather than requiring the patient to navigate among providers
- Simplifying administrative requirements and regulations

This focus on care coordination creates an environment for systemic process improvement and new reimbursement methods beyond fee-for-service payments such as episodes of care, global compensation to Accountable Care Organizations and rewarding providers for top performance.

Porter and Teisberg describe a dysfunctional type of competition among healthcare providers in which incentives result in predictable, but poor choices for provider organizations. They suggest that aggregate-level incentives, by promoting shared responsibility, would focus on population-based performance and results. "While not a panacea for what ails healthcare, the [vast] potential benefit [to be realized at every level] from accelerating large-scale, population-based improvement and reducing variation within and across regions makes aggregate-level incentives worthy of discussion and testing at the regional, state, and national levels."<sup>9</sup>

There is general agreement that infrastructure improvements in healthcare delivery will go a long way toward reducing waste. As has happened in other industries, equipping healthcare providers and patients with an electronic platform to communicate and store important information will be key. EMR adoption and their connection within Health Information Exchanges (HIE) will facilitate improvements to systems and care coordination.

However, if goals are to be achieved, it will not be enough to simply implement new technologies. The systems must be designed and implemented to directly assist providers with clinical decisions, leveraging the latest medical findings. That will be the greatest challenge and is the focus of national initiatives for adoption of Information Technology (IT) in healthcare.

### **3. The Medical Home and Culture of Health**

Ensure that patients are actively engaged, along with their clinicians, in managing their own health through attention to personal behavior, disease prevention, early detection, and appropriate care for chronic diseases. Promote healthy workplaces and environments that make wellness a priority.

This strategy recognizes that patients must take responsibility for their own health. Primary care providers are accountable to their patients and should help them set goals, then provide the information and tools for success. Medical Home programs are designed to acknowledge the partnership and the specific roles of patients and physician-led care teams. Such programs encourage appropriate involvement of a variety of care professionals (including therapists, nurses, nutritionists, psychologists, and pharmacists), each with a skill set applied to the patient's specific issues and goals.

Employers who recognize the competitive advantage of a healthy workforce have been building "cultures of health" within their organizations to encourage, support and reward employee wellness. They have coupled evidence-based benefit design with health promotion to elevate the health status of their employee population. These benchmark companies have also changed the workplace environment to encourage healthy habits such as regular exercise, eating right, and not smoking.

### **4. Patient Safety and Quality Improvement**

Encourage and support local, regional, and national quality improvement initiatives to reduce healthcare treatment errors that result in patient harm and higher costs. Create a "culture of performance improvement" that promotes the quick dissemination and adoption of best practices.

Many industry-sponsored efforts to reduce waste and improve patient safety, operational efficiency, and outcomes have demonstrated significant success by setting an industry goal and developing a common performance enhancement program to support it. Payers and purchasers, who reap many of the rewards of improved provider performance, should encourage and fund such industry-sponsored initiatives. National efforts in this regard include the Healthplan Employer Data Information Set<sup>10</sup>, the National Quality Forum<sup>11</sup>, the Joint Commission's Core Measures Program<sup>12</sup>, Bridges to Excellence<sup>13</sup>, and Leapfrog<sup>3</sup>. While, in most cases, adoption has been slow, these initiatives demonstrate advances in effectiveness and efficiencies of care. Local and regional examples such as the Keystone project in Michigan, described later in this paper, focus on reducing hospital-acquired infections. With the sponsorship of the hospital association and the local Blue Cross and Blue Shield organization, these efforts have achieved remarkable results.

## 5. Simplify Reimbursement and Reduce Opportunities for Fraud and Abuse

Engage the community, including patients and providers, in programs that make the billing process easier and eliminate opportunities for fraud and abuse.

Clearly, the vast majority of healthcare providers are committed to billing appropriately and to receiving compensation only for those services they have rendered. Many agree that part of the goal for improvement in this area includes making it easier to submit claims, receive payment, and be recognized for excellent payment integrity.

The goal is to change the culture of fraud. Both the public and the provider community need to be better educated about how fraudulent payments directly reduce resources available to patients for legitimate and necessary healthcare services. Two studies in 2003 (the Accenture “Survey of Insurance Fraud” and the Insurance Research Council’s “Insurance Fraud: A Public View”) suggest that consumers don’t understand the impact of fraud on the welfare of their communities and are generally unsympathetic to large losses for government or insurance companies.

CMS has recently developed a new Center for Program Integrity that is tasked with engaging the provider community and encouraging the general public to identify and report fraud. The program will be run by a new deputy administrator who will report directly to the CMS administrator. CMS has selected Peter Budetti, MD, JD, to serve in this role. Budetti is the chair of Taxpayers Against Fraud, a nonprofit agency in Washington, D.C. that supports False Claims Act cases.

Other initiatives have attempted to increase patient vigilance in reviewing Explanations of Benefits (EOBs) and identifying and reporting inconsistencies with services received. The provider community may need to become more active participants in the effort, including becoming more tolerant of maturing surveillance systems that can unfortunately create inconveniences, but which detect fraud and uncover new schemes more effectively. Providers would more likely support the inconveniences if they were tied to increased compensation for legitimate care. Payers may need to limit the number of non-professional providers, such as Durable Medical Equipment (DME) vendors, to provide closer relationships and ensure consistency.

## TARGETS FOR REDUCING WASTE BY CATEGORY

Setting reasonable targets requires realism about the magnitude of obstacles and limitations to reducing waste in the short term and about the extent of system change required for more aggressive long-term reductions. In the remainder of this paper, the most important of the immediate obstacles are identified and the difficulty of short-term improvement is a focus. Readers will encounter tangible examples for each category of waste, which highlight efforts of benchmark leaders in the payer and provider communities who have pursued strategies similar to the five described above to affect immediate, demonstrable improvement.

### How Targets were Established

Following the discussion of challenges and examples of successful waste-reduction activities, readers will find suggested intermediate-term (five-year) and long-term (ten-year) targets for reduction of waste in each category. In presenting these targets, the authors considered the extent of the challenges and the magnitude of system changes required to impact waste. Targets are balanced across the six categories to achieve the overall goal of a 25 percent reduction in total waste within five years and a 50 percent reduction within ten years. For some categories, less ambitious reduction targets were set. Other targets are more aggressive, either because progress seems possible with less drastic system change or because it is anticipated that the public will have less tolerance for continued waste in a particular category. For some, both reasons apply. The actual savings estimate presented in the graph following each section is calculated as the difference between the projected waste in 2020 and the reduced level of waste that would result from achieving the suggested long-term target.

There is room for disagreement about specific targets. Dialogue among providers, payers, and the public is critical in determining specific next steps and appropriate goals of achievement for the years ahead.

### Category 1: Administrative Inefficiency

The short-term challenges to reducing administrative waste are significant. Many of the obstacles are related to the fragmentary nature of both the payer and provider systems. Without increased standardization, significant improvement will be difficult. Most waste occurs from complicated financial relationships between payers, providers, and consumers. Short-term efforts should focus on:

- Increasing standardization of payment systems
- Reducing regulatory complexities to facilitate administrative coordination among providers
- Simplifying and realigning payment systems – capitation, gain sharing, bundled or global payments, etc.
- Developing Accountable Care Organizations (ACOs)
- Integrating delivery systems across all sectors of healthcare
- Focusing utilization management – “gold carding” top providers
- Encouraging payers to better inform providers of administrative best practice

Long-term efforts will focus on large-scale reform to healthcare markets and continued standardization of administrative processes.

## Significant Challenges

- The competitive, market-oriented system supporting broad purchaser choice of multiple third-party payers results in both payer and provider organizations experiencing redundancies in claims-related systems.
- An appropriate role for leadership in defining and mandating standards has not been clearly articulated and supported.
- Employer-specific benefit programs result in a wide variety of nonstandard, and often complicated plans, including formularies and cost-sharing arrangements.
- Multiple providers during a single episode of care require complex adjudication by payers.
- Payers negotiate different rates for identical services and, conversely, providers negotiate different rates for identical services with payers. This produces a significant administrative burden.
- Preferred providers or limited health plans may not meet consumers' expectation that all combinations of providers and health plans are accessible.

## Developments Underway

- New Jersey's five largest health plans and five physician groups have created a pilot program allowing hospitals and physicians to communicate with health plans and address administrative tasks through a single Web portal.<sup>14</sup>
- A Towers Watson survey found that 22 percent of plan sponsors intend to eliminate paper-based communications in favor of electronic communications.<sup>15</sup>
- The Minnesota Department of Health estimates that when fully implemented, a law requiring the standard, electronic exchange of routine healthcare business transactions will save the state more than \$60 million per year.<sup>16</sup>
- Several large, self-insured employers have identified suspected duplicate claims ranging from 0.02 to 0.1 percent of paid claims.<sup>17</sup>
- Another large, self-insured manufacturer eliminated the Pharmacy Benefit Manager (PBM) intermediary in purchasing retail drugs by contracting directly with retail chains, reducing administrative complexity, and saving 10-25 percent in supply chain costs.<sup>17</sup>
- A large national insurer implemented a treatment cost calculator that gave providers and patients real-time estimates of expected patient liability, reducing the expense of provider collections.<sup>17</sup>

### Small Steps Yield Significant Rewards

Humana introduced incentives to reduce paper Explanation of Benefits (EOBs). "For each person who goes paperless, the plan will save \$3 to \$6 per member per year... and as much as \$10 to \$12 per member per year for those who are high utilizers of medical care."<sup>15</sup>

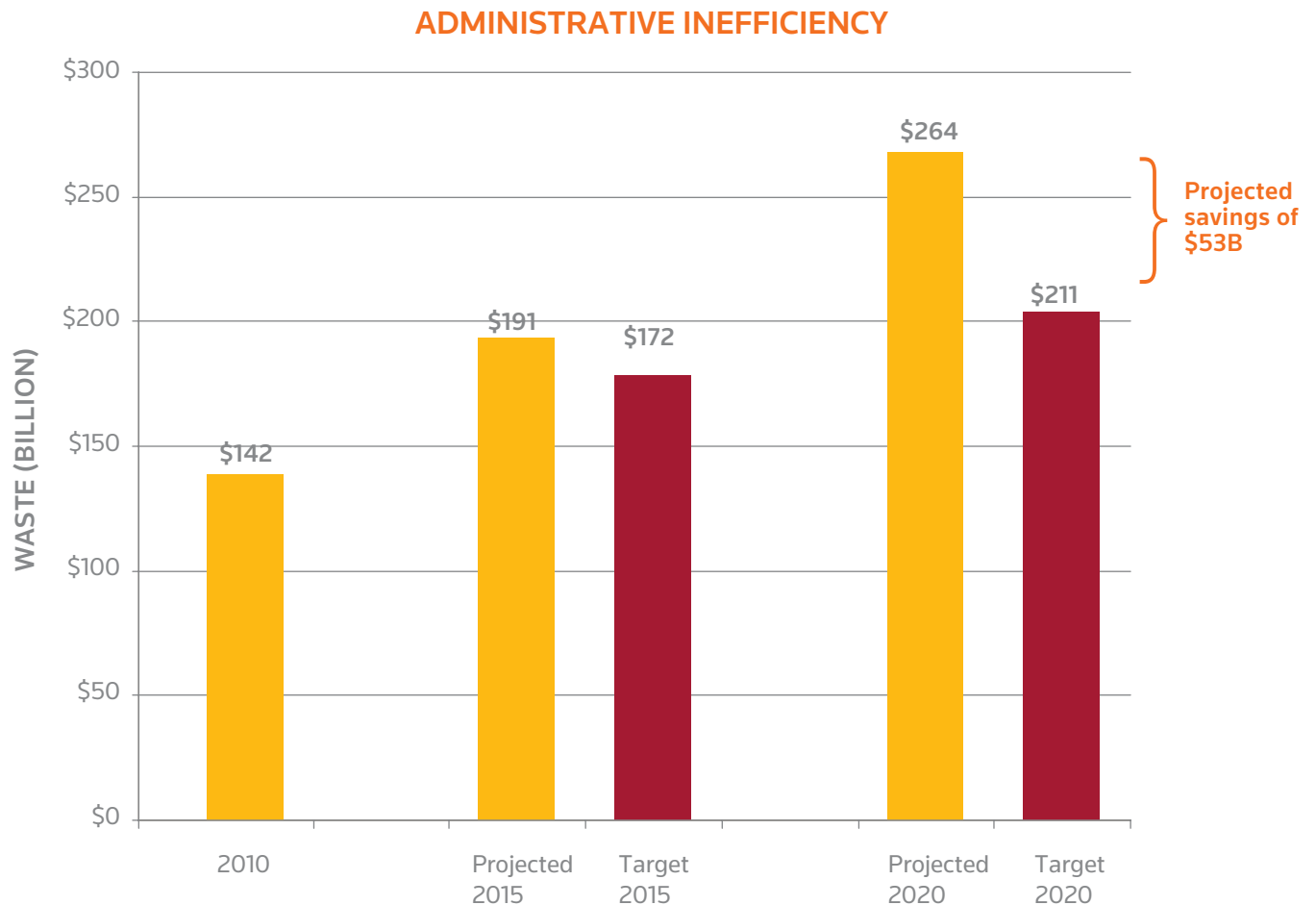
Making reasonable assumptions for such factors as the number of EOBs processed annually, the current rate of electronic EOBs, and the likelihood that some patients will never accept, or be able to access, an electronic version, Thomson Reuters estimates the potential impact of applying this program to all employer-sponsored healthcare plans to be a reduction in waste of up to **\$800 million per year**.

### Reduce Waste Due to Administrative Inefficiency

#### SUGGESTED TARGET REDUCTION

Five years: 10 percent reduction in waste

Ten years: 20 percent reduction in waste



## Category 2: Provider Inefficiencies and Errors

More ambitious goals seem appropriate for this category for two reasons. First, the real cost of errors in patient care is the impact on well-being, recovery, and quality of life. Second, many providers have demonstrated significant improvements in performance by applying standard process-improvement techniques such as Lean, Six Sigma, and Clinical Decision Support tools to drive compliance with evidence-based guidelines. Longer-term enhancements may depend on integrated electronic platforms, delivery systems, or other forms of virtual organizations that enable broader system solutions.

### Significant Challenges

- The professional practice “craft” model, with broad networks of solo or small group practices adds great complexity to system-engineered process improvement. A “learning from mistakes” environment is often not the default. Consequently, the effort is under-resourced.
- The medical staff often prefers taking an individualized approach and may not support changes in clinical practice that could result in better coordination among providers.
- Atul Gawande suggests, “Healthcare costs ultimately arise from the accumulation of individual decisions doctors make about which services and treatments to write an order for. The most expensive piece of medical equipment, as the saying goes, is a doctor’s pen. And, as a rule, hospital executives don’t own the pen caps. The doctors do.”<sup>18</sup>
- Silos of specialty care in the healthcare profession result in unclear roles and responsibilities, creating risks in handoffs and limited accountability.
- Systems designed for the individual clinical practice support unnecessary variation in care rather than efficiency and safety of operations.
- There are real and perceived operational barriers, as well as a lack of short-term payback from investment in IT solutions that could improve long-term efficiency.
- Many providers will not realize a financial return for improvements in the effectiveness or efficiency of the care they provide. Some worry that if they become more efficient, the insurance company will simply pay them less.
- Historically, the industry has established an acceptable level of errors and failures. A culture of individual accountability/blame for mistakes inhibits the group from sharing in the responsibility for preventing errors, for example, by learning from each mistake and creating systemic solutions.

### Developments Underway

- In his address to the Senate Finance Committee, Glen Steele MD, CEO of Geisinger Health System, described the result of the system’s bundled surgery program: “We have improved outcomes and have reduced costs. This is because we have systematically researched how best to deliver care, hardwired the process steps into our electronic health record to prompt us on what best practices are, decreased unjustified variation, and taken financial risk to decrease related complications.”<sup>19</sup>
- In the 1990s, Medicare conducted a demonstration of bundling hospital and physician payments for Coronary Artery Bypass Graft (CABG) surgery. This effort produced cost reductions between 12 and 27 percent.<sup>20</sup>

- The MHA Keystone Center for Patient Safety & Quality brings together hospitals, state and national patient safety experts, and evidence-based best practices to improve patient safety and reduce costs by improving the quality of bedside care. Early findings for the catheter-associated urinary tract infection initiative have demonstrated significant results. "In the first six months of 2008, sixteen hospitals were early implementers of the CA-UTI bundle (catheter associated urinary tract infection), resulting in an estimated reduction of patients with urinary catheters to 29,000 from 32,000. Those 16 hospitals achieved an estimated reduction of more than 1,000 unnecessary hospital days and more than \$1 million in avoided costs."<sup>21</sup> Other programs include stroke, ICU, surgery, obstetrics, and emergency room (ER).
- When Kaiser Permanente implemented its EHR in 2004 for its 225,000 members in Hawaii, the total office visit rate decreased by 25.3 percent and specialty care office visits decreased by 21.5 percent. Scheduled telephone visits increased eightfold and secure e-mail messaging increased sixfold. "Introducing an EHR creates operational efficiencies by offering nontraditional, patient-centered ways of providing care."<sup>22</sup>
- A medical center's rapid response team used an electronic patient surveillance system to decrease mortality by 30.8 percent, which equates to over 60 lives saved annually. Perhaps even more impressive, the center reduced its need for bedside emergency resuscitation outside of the intensive care unit (ICU) by three quarters.<sup>17</sup>
- A large regional hospital implemented an electronic surveillance system to identify the possible onset of congestive heart failure and sepsis. One result has been a 43 percent reduction in ICU mortality for patients transferred from medical/surgical units with a diagnosis of sepsis. There has been a 35 percent increase in the number of congestive heart failure patients receiving the CMS bundle of preventive care measures, and inpatient cardiac and respiratory arrests have decreased by 13 percent. Each of these improvements has resulted in significant savings in intensive care costs and patient suffering.<sup>17</sup>
- A hospital used benchmark data on important measures of business operations to identify cost-saving opportunities and to support the development of patient-flow improvements in the surgical services division. This led to a 22 percent reduction in wait times for add-on emergent surgeries. Staff overtime dropped by 60 percent and patient wait times were reduced as much as 60 percent.<sup>17</sup>
- A hospital used operational benchmark data to evaluate the cost and effectiveness of endo-mechanical devices. The surgical services team developed a cost-reduction initiative to cut expenses by \$80,000 a year. The nuclear medicine department's investigation of wasted radio-pharmaceuticals resulted in an annual cost reduction of \$20,000. Surgical services saved \$700,000 through product standardization and a doctor preference card project that reduced waste from opened, but unused, supplies.<sup>17</sup>
- A hospital reduced its average length of stay (ALOS) by up to 34 percent for four high-volume admissions while decreasing variation in care-giving practices. This resulted in a 25 percent increase in the number of heart failure and pneumonia patients with "perfect care."<sup>17</sup>
- A healthcare system implemented a "Warfarin Bridge Program" using an electronic surveillance system to reduce ALOS and readmissions for patients started on warfarin anticoagulation.<sup>17</sup>
- An office equipment manufacturer operates on-site clinics at various facilities. The services provided to employees at these clinics are completely free of charge except for specialist visits. An impressive 80 percent of employees made use of the on-site clinics. Results showed that when factoring in a savings of \$1.3 million in lost productivity costs associated with users of the local providers, the on-site clinics were clearly cost-effective.<sup>17</sup>

### Small Steps Lead to Significant Rewards

A Medicare demonstration project (1991-1996) bundled hospital and physician payments for CABG surgery and saved 10 percent of the cost for these procedures among the participating hospitals over the five-year study period. CMS-negotiated discounts on Part A and B inpatient expected costs were the reason for 86 percent of the savings. Another five percent came from lower-than-expected spending on post-discharge care (e.g., readmissions) and nine percent came in shifts in market share to the lower cost facilities. Savings varied by hospital. Three of the four original hospital participants made major changes in physician practice patterns and hospital operations to generate savings. The savings came in direct ICU, routine nursing expenses, and pharmacy costs. On a risk-adjusted basis, a negative trend in inpatient mortality was found and the participating hospitals had a significantly lower rate of inpatient deaths compared with Medicare's national averages.<sup>23</sup>

Using its research databases, Thomson Reuters calculated the average cost per CABG for both Medicare and commercial patients and used national statistics on the CABG rate by age cohort to estimate the number of the procedures done annually. Applying the savings rate from the demonstration project to these figures suggests a possible national savings of over \$1.4 billion annually for the CABG procedures.

### More Small Steps Bring Greater Rewards

Atul Gawande's *The Checklist Manifesto* includes the story of Dr. Peter Pronost at Johns Hopkins Medicine. His checklist of the five things doctors needed to do to avoid infection when inserting a central line reduced infections from 11 percent to zero. He estimated that using the checklist had prevented 43 infections, avoided eight ICU deaths, and saved the hospital approximately \$2 million. He and his colleagues have created similar checklists for other situations in the ICU.<sup>24</sup> Dr. Gawande estimates that, "ICUs put five million lines into patients each year, and national statistics show that after ten days four percent of those lines become infected. Line infections occur in eighty thousand people a year in the United States and are fatal between five and 28 percent of the time, depending on how sick one is at the start. Those who survive line infections spend on average a week longer in intensive care."

The average hospital payment for a day in the ICU calculated from *Thomson Reuters MarketScan® Research Databases* is \$1,965. Applying this figure to Dr. Gawande's estimates, suggests a possible savings of over \$900 million each year by avoiding central line infections.

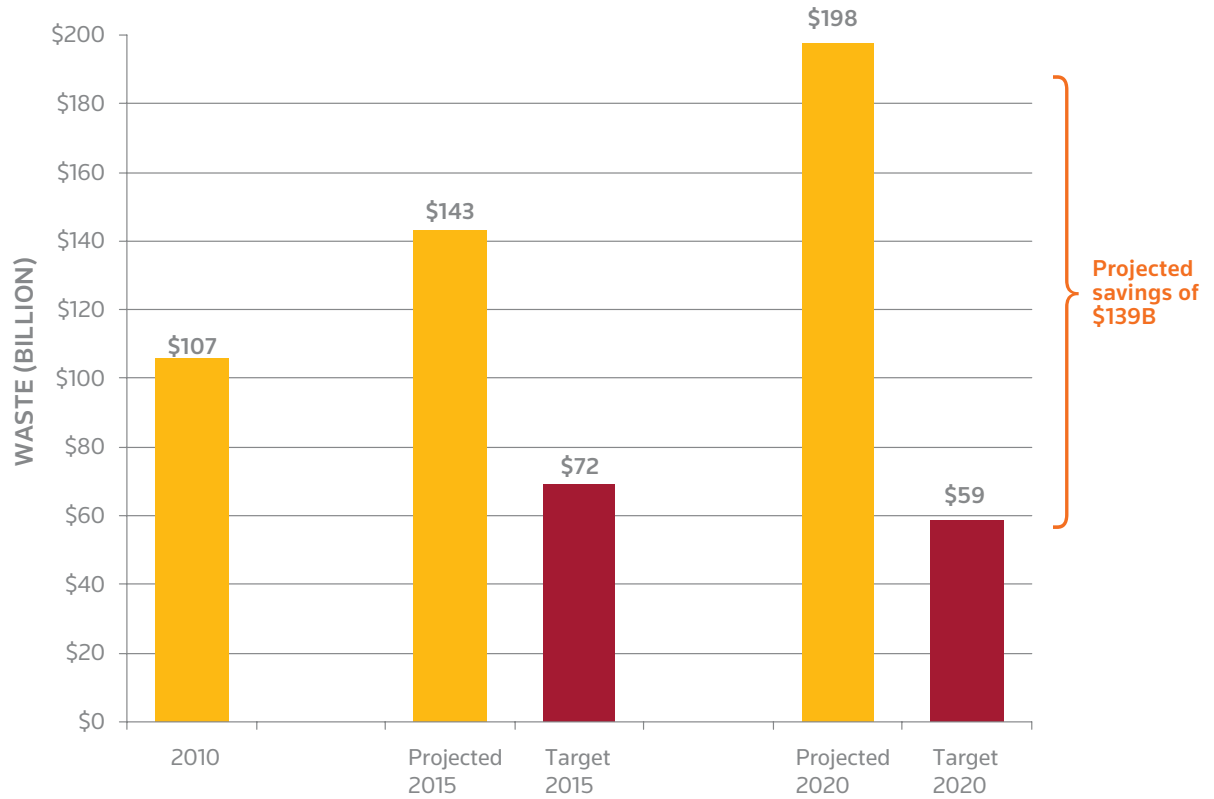
## Reduce Waste Due to Provider Inefficiencies and Errors

### SUGGESTED TARGET REDUCTION

Five years: 50 percent reduction in waste

Ten years: 70 percent reduction in waste

### PROVIDER INEFFICIENCIES AND ERRORS



### Category 3: Lack of Care Coordination

An aggressive goal seems warranted for this category because of the significant consequences for the health and quality of life of our most vulnerable populations. As underscored by the challenges below, the most substantial change required to improve care for complex or chronically ill patients is to increase the communication and coordination among healthcare providers. This means advancing communication technology and identifying clear roles and responsibilities among providers in the care of a single patient.

#### Significant Challenges

- There is no effective infrastructure for routine and effective communication among providers. Although patients will ultimately benefit from investments in the infrastructure for sharing information among providers, most attempts to demonstrate a clear financial return to providers have been unsuccessful.
- There is probably some limited financial saving to individual physicians from implementing an EMR in their offices. However, the majority of the improvements in quality and efficiency will result from connecting independent systems through a public infrastructure. The potential \$44,000 incentive from CMS for meaningful use of EMRs by practitioners should make adoption less burdensome.
  - The American Health Information Management Association believes that for the U.S. healthcare industry to meet the current and future needs of the nation, a properly funded and maintained national healthcare information infrastructure should be established. The infrastructure should advance the delivery of patient care and improve the health of the population, while protecting the rights of patients and providers. The focus of the infrastructure should be to provide accurate and timely information to support decision making at all levels. It must provide access to and exchange of health information that can be used by patients, providers, payers, research entities, public health agencies, oversight organizations, and policy makers.<sup>25</sup>
  - The Health Information Technology for Economic and Clinical Health (HITECH) Act was enacted to improve American healthcare delivery and patient care through an investment in health information technology. "The provisions of the HITECH Act are specifically designed to work together to provide the necessary assistance and technical support to providers, enable coordination and alignment within and among states, establish connectivity to the public health community in case of emergencies, and assure the workforce is properly trained and equipped to be meaningful users of EHRs. Combined these programs build the foundation for every American to benefit from an electronic health record, as part of a modernized, interconnected, and vastly improved system of care delivery."<sup>26</sup>
  - David Blumenthal, the National Coordinator for Health Information Technology, recognizes the need to aggressively define "meaningful use" to ensure that the potential of this technology is achieved. In a recent article he states, "The provisions of the HITECH Act are best understood not as investments in technology per se but as efforts to improve the health of Americans and the performance of their healthcare system."<sup>27</sup> However, to be effective it is necessary that providers actively use new technologies including decision support tools, incorporating them into their routine workflow, and sharing data with other providers.
  - In the article quoted above, David Blumenthal also recognizes the importance of ensuring the security of the information system: "Health information exchange, however, will never reach its potential unless patients and providers are confident that patients' data are private and secure — both when stored in EHRs (electronic health records) or other repositories and when flowing through the healthcare system."<sup>27</sup>

- Effective protocols for handoffs, agreement on roles and responsibilities, and incentives to coordinate care among hospitals, skilled-nursing facilities, and outpatient care are generally lacking or, if present, are often ineffective.
  - Vincent Mor and colleagues suggest that changes to payment methods could align incentives for better coordination of care among hospitals and skilled nursing facilities. “Alarming numbers of Medicare beneficiaries are readmitted to hospitals shortly after being discharged. Stephen Jencks and colleagues found that almost one-fifth (19.6 percent) of all Medicare beneficiaries were re-hospitalized within 30 days in 2004. Approximately 90 percent of these re-hospitalizations were unplanned. They cost [Medicare] an estimated \$17.4 billion.”<sup>28</sup> The cost of the pattern of patients’ entry and re-entry among hospitals and skilled nursing facilities is huge. Because current payment systems provide little reward for either hospitals or skilled nursing facilities to worry about the inefficiencies inherent in this situation, they suggest a change in the payment mechanism as a possible solution. Bundling Medicare payments for hospital episodes to cover the base hospitalization, readmissions, physician services, post-acute care, and other Medicare-covered services might provide hospitals with an incentive to better manage these episodes. Incorporating Medicaid payment might provide an even larger incentive.
- Patient concern over the privacy and confidentiality of data imposes limits on the sharing of their health information among providers.
- There are no easy dynamic means of sharing information among providers and their patients to monitor the treatment of conditions and identify early warnings.
- Without a system’s attention to ensuring a population’s timely access to the most appropriate services and settings of service, some patients may only be able to access more costly alternatives (e.g., seeking treatment in the emergency room because no primary care practice is available on Saturday afternoon, or extending a hospital stay because no appropriate outpatient treatment is available).

### Developments Underway

- New York’s North Shore Hospital System on Long Island recently announced that it will pay an incentive of up to \$40,000 to each physician in its network who adopts its Electronic Health Records.<sup>14</sup> That is in addition to the \$44,000 incentive available from CMS for complying with the meaningful use requirements. The hospital is also providing an incentive to share de-identified, anonymous, and aggregated data on the quality of care. “The decision by North Shore to provide a financial incentive as well as the software license suggests that many physicians still do not believe that current-generation EHRs will offer a return on investment directly to physicians.”<sup>29</sup> By more closely aligning itself with its physicians, the hospital hopes to respond more effectively to future changes in reimbursement, such as penalties for readmission rates or bundled payments. A 2005 Health Affairs article by Richard Hillestad, et al estimated that effective EMR implementation and networking could eventually save more than \$81 billion annually.<sup>30</sup>
- A transportation company provides 24-hour, toll-free nurse lines to employees so that they can obtain information about their conditions and treatment options, thereby reducing the number of unnecessary office and ER visits. Savings associated with one line reached \$1.62 per member per year after all expenses.<sup>17</sup>

- A large multi-hospital system recognized a need to reduce unnecessary utilization of the ER. The effort focused on patients with frequent and non-urgent visits to ER, high risk for addiction to pain medication, and no primary care medical home. As a result of a program to refer those patients to community primary care physicians, to educate ER physicians on appropriate levels of narcotic prescriptions, and to undertake a targeted community communication campaign, improper ER use dropped by 72 percent and ordering of narcotics dropped by ten percent.<sup>17</sup>
- After identifying opportunities for better mental health management including screening, prescription drug adherence, and utilization of treatment programs, a large employer changed vendors to integrate an Employee Assistance Program with Work/Life Resources. The company tracked referrals among health plans and behavioral health and health-coaching programs to maximize employee awareness and ease access to counseling resources.<sup>17</sup>

### Small Steps Yield Significant Rewards

The Institute for Healthcare Improvement (IHI) is sponsoring a series of seminars to encourage the development of community coalitions to reduce inappropriate emergency room visits. The announcement for the series states, “Retrospective review identifies that as many as 50 percent of all Emergency Department (ED) visits could have been avoided by care in other settings.”<sup>31</sup> However, from the perspective of the individuals who present to the ED for care, their visits are unavoidable at the time as alternatives are not known, not available, or do not exist. Many efforts to reduce avoidable ED visits have typically focused on providing alternative options for medical care, for example, primary care clinics, nursing call-in centers, or expanded physician office hours. The most successful strategies identified during an IHI research phase involved the formation of coalitions that include community resources and support in addition to medical providers. IHI has been testing a framework to reduce avoidable ED visits using the formation of coalitions to design specific interventions which are both patient-centric and beneficial for organizations from a population approach.”

Thomson Reuters calculated a conservative estimate for the difference in the cost of care between a routine non-emergent ER visit and a visit to a primary care physician, derived from *Thomson Reuters MarketScan Research Databases*. Applying this estimate to the finding that 50 percent of emergency room visits, where the patient was not admitted to the hospital, could have been provided in a less intensive setting, researchers estimate a potential annual savings of **\$2 billion** for employer-sponsored healthcare plans alone.

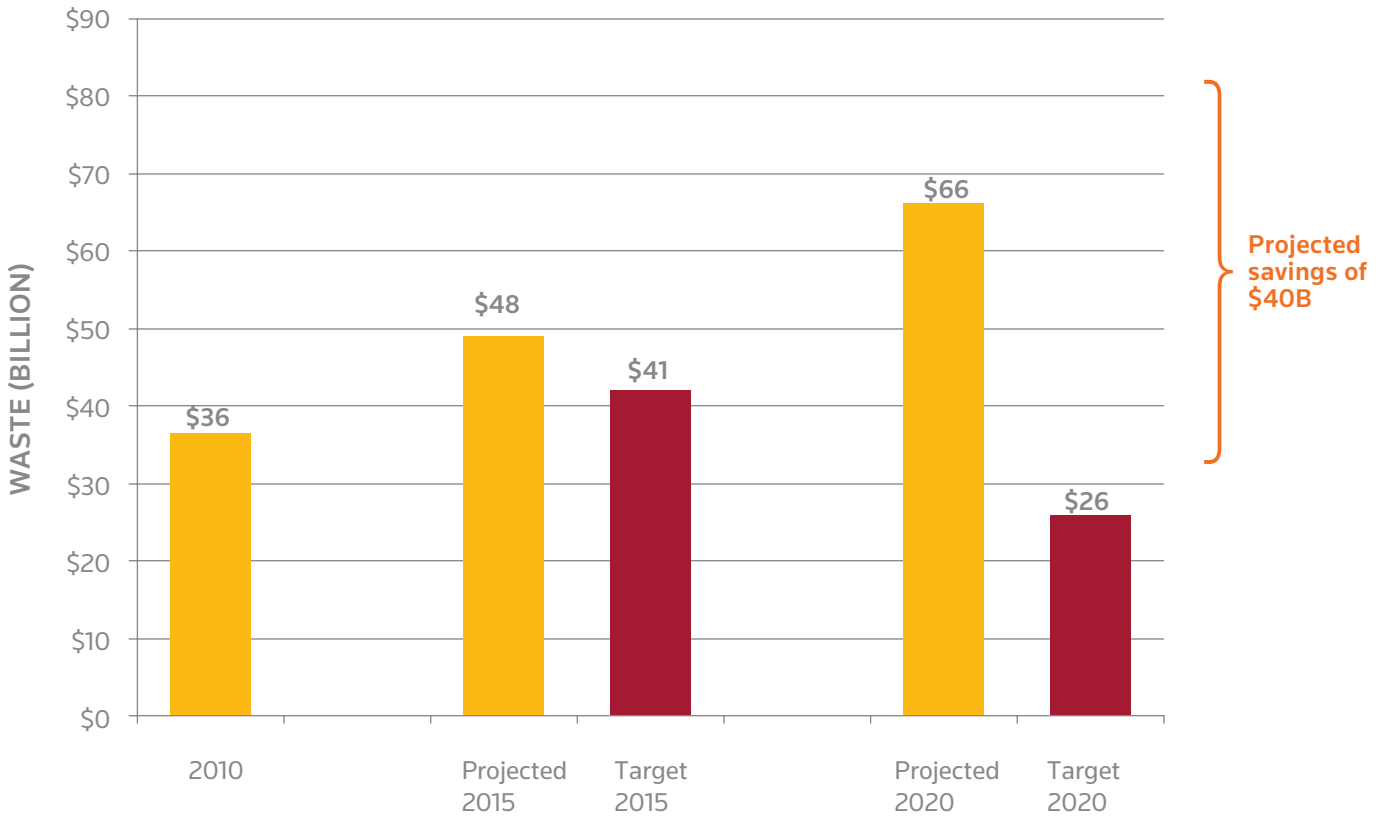
## Reduce Waste Due to Lack of Care Coordination

### SUGGESTED TARGET REDUCTION

Five years: 15 percent reduction in waste

Ten years: 60 percent reduction in waste

### LACK OF CARE COORDINATION



#### Category 4: Unnecessary Care

In her 2007 book, *Overtreated: Why Too Much Medicine Is Making Us Sicker and Poorer*<sup>32</sup>, Shannon Brownlee makes clear what others in the healthcare system have long recognized as the many causes of overtreatment, including variations in care, economic drivers, redundant services, a belief that more is better, and the pursuit of end-of-life cures.

Dr. Howard Brody from the Institute for the Medical Humanities at the University of Texas asks the medical profession to step up to the issue in his *New England Journal of Medicine* article, *Medicine's Ethical Responsibility for Health Care Reform—The Top Five List*: “I would propose that each specialty society commit itself immediately to appointing a blue-ribbon study panel to report, as soon as possible, that specialty's ‘Top Five’ list. The ‘Top Five’ list would consist of five diagnostic tests or treatments that are very commonly ordered by members of that specialty, that are among the most expensive services provided, and that have been shown by the currently available evidence not to provide meaningful benefit to [many] patients for whom they are commonly ordered.”<sup>33</sup> He suggests that it might take a “Top 20” or “Top 50” list to reduce (or eliminate) most of the waste. Like Shannon Brownlee, he acknowledges the many significant challenges of this effort along with its negative financial incentives to the medical profession, but encourages the profession to “seize the moral high ground.” A higher goal may seem appropriate for this effort, but Dr. Brody's approach is a reasonable “down-payment.”

#### Significant Challenges

- There is a general lack of consensus on the effectiveness and efficiency of specific clinical care for many conditions. Increased investment in Comparative Effectiveness (CE) studies has been encouraged by the Obama administration.
  - In their thorough review of recent Comparative Effectiveness studies Michael Hochman et al found that “Comparative effectiveness studies also help physicians determine which interventions and strategies are most effective, safest, or least costly when multiple options are available.”<sup>34</sup> However it is important to note that, “Our study also found that only two percent of CE studies and one percent of all studies included formal cost-effectiveness analyses. Cost-effectiveness analyses are critical for promoting efficient and effective healthcare.”
- Professional liability pressures encourage physicians and other providers to order unwarranted diagnostic tests and treatment. Studies suggest that between five and nine percent of medical expenditures can be tied to practicing “defensive medicine.”<sup>35,36</sup>
- Even where accepted standards exist, there is a significant lack of consistent awareness, understanding, and application.
  - In a recent article on CE research, Milton Weinstein, et al reported that a study of colon cancer treatment demonstrated that the authors found significant variability in the use of inappropriate chemotherapy. They conclude that “... we can save money without compromising outcomes — if we can induce providers to cut back on cost-ineffective services and replace them with more cost-effective, but underutilized services.”<sup>37</sup>

- Although the use of real-time decision rules and appropriateness criteria would improve compliance with current guidelines, systems to support real-time access to this information are available to very few providers.
  - David Brenner cites a recent study “involving 200 patients who underwent some radiographic imaging on arrival at a level one trauma center, and for whom the imaging decisions were made without the use of decision rules, CT (computed tomography) prescription patterns were retrospectively analyzed: of the 200 patients, 169 underwent CT scanning, resulting in a total of 660 scans. If ACR (American College of Radiology) appropriateness criteria had been applied (which they were not), 44 percent of these CT scans would not have been performed, but none of the patients with clinically significant injuries would have been excluded from CT imaging.”<sup>38</sup> Other studies suggest that 20-40 percent of CT scans could be avoided, if decision guidelines were followed, without compromising patient care. Of course, he acknowledges, “there are other very real considerations pushing in the other direction, including legal and economic factors and patient preference.” To be effective, guidelines must be routinely re-evaluated to reflect new evidence.
- Financial incentives encourage over-utilization of procedures by providers; reducing volume reduces revenue and profit margins.
  - Elliott Fischer, Dartmouth Medical School, writes “I have asked physician audiences what proportion of the patients they saw in their office that day needed to be seen; many will say that only a minority of their patients needed to be seen. They are seeing the others because they need to keep their offices full to pay the rent, and because they are not paid to provide care in any other way, such as through telephone calls or email.”<sup>39</sup>
  - Author Linda Chen reports that during a physician panel discussion, one said, “A lot of provider groups have the argument that ‘we’re still in the fee-for-service mode.’ They think ‘If we change too quickly, we won’t get reimbursed for what we’re doing. Maybe we should maximize our reimbursement now, wait until people figure out what they’re doing and then catch up.’ Such mentality is not patient-centered.”<sup>40</sup>
  - In a very recent study of the use of elective coronary angiography, the authors found that, “... slightly more than one-third of patients without known disease who underwent elective cardiac catheterization had obstructive coronary artery disease. Better strategies for risk stratification are needed to inform decisions and increase the diagnostic yield of cardiac catheterization in routine clinical practice.”<sup>41</sup> The implication is that the test was negative for the remaining two-thirds. As summarized by an Associated Press report on the study, “... they are sometimes done on people who may have some less clear-cut symptoms like shortness of breath, or no symptoms but some risky traits like high cholesterol and an abnormal result on another heart test.”
  - Commenting on specific examples of where providers have suffered negative financial impacts from becoming more efficient, Ginsberg, et al stated, “Efforts to improve the efficiency and quality of healthcare are unlikely to be successful if physicians and hospitals incur steep financial losses from success in accomplishing these goals, according to a new study by the Center for Studying Health System Change (CSHSC). Currently, most efforts to improve efficiency for a specific medical condition usually reduce the number of services per patient that can be billed, posing financial challenges for providers.”<sup>42</sup>
- Some services are unjustifiably profitable and others are unprofitable simply due to payment systems presenting further obstacles to designing more effective and efficient care that can be supported by all participating healthcare providers and patients.
  - As an example of how difficult it is to control costs through changes in fee-for-service payment systems, Medicare in 2005 provided an incentive for physicians to treat bladder cancer patients in less expensive office settings. Despite that, there was a dramatic increase in the number of procedures and overall costs rose by 50 percent.<sup>43</sup>

- Jonathan Skinner et al suggest that changes in incentives should focus on provider networks to encourage the local development of effective and efficient systems of care. "... the common component seems to be something systemic about the hospital-physician network; the factor, whatever it is, drives up the numbers of hospital days and physician visits and the use of imaging and other services for all types of patients. The implication of these results is that excessive healthcare costs arise at the level of the hospital-provider network. Thus, incentives that are designed to reduce costs should be targeted to specific networks, rather than regions or states."<sup>44</sup> He also recognizes as a possible effective solution, the Accountable Care Organization's incentives to provide efficient care while achieving measurable quality benchmarks.
- Variation in the use of high-intensity acute interventions at the end of life adds significant cost to care, but does little to delay death or to decrease the pain of dying.
  - In his book, *In Defiance of Death: Exposing the Real Costs of End-of-Life Care*, Kenneth Fischer suggests that "studies show that 90 percent of us would rather die peacefully...surrounded by family and friends, as comfortable as possible. The reality is that nearly 80 percent of us will end up... languishing in a hospital, often in an expensive Intensive Care Unit, with very little contact with family and friends."<sup>45</sup>
  - Jean Kutner discusses the end-of-life decision for an 86-year-old patient, and comments on the underutilization of hospice. "Hospice remains underused. Only 39 percent of all U.S. decedents receive hospice care."<sup>46</sup> She reports on a study that suggests that patients can "differentiate between expected outcomes relative to the burden of treatment: 99 percent would choose a treatment that was low burden and restored health, 27 percent would choose a treatment that afforded survival but was accompanied by severe functional impairment, and 11 percent would choose a treatment that afforded survival but with severe cognitive impairment."
  - Zhang et al's study on the effect of advanced cancer patient-physician discussions about end-of-life reports that aggregate costs of care were \$1,876 for patients who reported these physician discussions compared with \$2,917 for patients who did not. Higher costs were associated with a worse quality of dying.<sup>47</sup>
  - Results reported in *JAMA* in 1995 of the "Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatments" (SUPPORT) highlighted the significant shortcomings in end-of-life care. "... only 47 percent of physicians knew when their patients preferred to avoid CPR; 46 percent of do-not-resuscitate (DNR) orders were written within two days of death; 38 percent of patients who died spent at least ten days in intensive care unit (ICU); and for 50 percent of conscious patients who died in the hospital, family members reported moderate to severe pain at least half the time."<sup>48</sup> The study found no significant improvement after implementing a nurse-facilitated intervention designed to improve advanced care planning, patient-physician communication, and the dying process.
  - In his book previously referenced, Fischer suggests "Eliminating CPR in the most obvious end-of-life cases would no way decrease the survival rate. Reducing the use of CPR by 50 percent, eliminating the most futile cases, would increase the long-term survival rate to 20 percent. This single step could save the American healthcare system approximately \$13 billion per year."<sup>45</sup> Others, such as Luce and Rubenfeld,<sup>49</sup> disagree with both the ability to identify obvious end of life and therefore disagree with the estimates of savings. Studies continue on the effectiveness of advanced directives.
- There is a lack of patient incentives to investigate treatment alternatives. Patients sometimes insist on inappropriate treatment because they lack the education to support informed choices.
  - The team at Dartmouth continues to suggest that shared decision-making will significantly reduce utilization of some procedures. "There is evidence that the amount of care that would be demanded under shared decision-making might be substantially less than is currently being provided."<sup>50</sup>

- Current sources of information might be confusing consumers on the risks and appropriateness of care options.
  - Bridget M. Kuehn reports on a study on the impact of pharmaceutical advertisements by Dominick L. Frosch that concluded, “the effects of the advertisements on public health have been mixed.”<sup>51</sup> Some consumers feel better informed and adhere more closely to instructions accompanying prescribed medications. However, there are also potential problems. “The ads leave patients with an exaggerated perception of both potential benefits and potential risks of the drugs.” Physicians report that half of the requests for advertised drugs are inappropriate choices for the patients. However, the study finds that physicians fill about two-thirds of such requests, even the 6 percent that could be harmful.
  - Uwe Reinhardt warns us, “In any event, educating American patients to be smarter, more cost-conscious users of healthcare is, at best, a long-run strategy. It will take a decade or more ... Although some insurers now gingerly experiment with providing some such data [prices and quality] to their insured, most Americans still approach the healthcare system as the analogue of blindfolded shoppers pushed into a department store.”<sup>52</sup>
- The variation in care is well recognized. Reducing it could produce remarkable improvements in the efficiency and effectiveness of healthcare delivery. The lack of standardization leads to wide variations in care and outcomes, causing higher error rates.

### Developments Underway

Many experts propose a local community-and population-based approach to creating new systems of care to address cost and care coordination. Darrell Kirch recently supported the Healthcare Innovation Zone (HIZ) idea. This approach “... would create a program whereby willing groups of [providers and insurers] could design and test regionally specific, highly integrated care delivery systems and payment approaches that would promote quality and “bend the curve” (i.e., participants would commit to cost containment below the rate of local healthcare cost inflation).”<sup>53</sup> The HIZ principles are expected to be pursued by the new Center for Medicare and Medicaid Innovation that is established by the Patient Protection and Affordable Care Act (PL 111-148).

The examples that follow demonstrate how individual providers or payers can affect change. HIZ will support more significant experimentation through broader participation and aligned incentives.

- In support of a population-based approach to improve system performance, Keith Mandel, Vice President of Medical Affairs, Cincinnati Children’s Hospital Medical Center, discussed a program implemented by his hospital’s physician-hospital organization (PHO) and an independent practice association (Ohio Valley Primary Care Associates).<sup>54</sup> The program links an aggregate-level incentive to an improvement in asthma outcomes across the system. “Overall objectives were that the aggregate-level incentive would promote shared accountability across sites for improving care across a large population, enhance leadership focus on large-scale change, and change how practices interact and learn from each other...” Ultimately, the goal was to accelerate diffusion of effective interventions at a population level. “Critical to successfully implementing the aggregate-level incentive was that the board representing primary care practices be committed to defining overall success as achieving improvement goals for network-level process and outcome measures.” The board did its part by focusing on developing and spreading innovative processes and practices. Obstacles to system-wide performance include the competitive culture among sites and coordination with other reward systems.

- “In the decades since SUPPORT (described previously), researchers have defined attributes of a “good death”, addressed the role of advanced directives in advance care planning, and studied the use of surrogate decision-making at the end of life.”<sup>55</sup> Although these researchers have been disappointed by the lack of improvement in most cases, there are some encouraging signs:
  - The Veterans Health Administration has initiated an electronic medical record that allows placement of clinical warnings, do-not-resuscitate orders, and scanned advanced directive documents.
  - Newer advanced-directives documents have been developed to provide a more complete understanding of the patient’s wishes.
  - Guidelines on assessing terminal prognosis for physician-family discussions are available.
  - Recent successful educational models highlight the importance of early and ongoing discussion of end-of-life values with family members, surrogates, and healthcare providers.

None of these initiatives has yet clearly demonstrated an improvement in end-of-life care, but they suggest progress is possible.

- A randomized, controlled trial in 2005 concluded that a structured interview intended to identify nursing-home patients whose goals for palliative care made them candidates for hospice services increased the use of hospice care at end-of-life. The group was 20 times more likely to move to hospice care than the control group, had fewer acute-care admissions, spent fewer days in the acute-care setting, and their families rated care more highly. The conclusion, “A simple communication intervention can increase rates of hospice referrals and families’ ratings of end-of-life care and may also decrease utilization of acute care resources.”<sup>56</sup>
- Humana’s “Maximize Your Benefit” program saved \$7.5 million in pharmacy expenses during its first two years, by informing members about less expensive medication alternatives.<sup>57</sup>
- A state’s pharmaceutical costs were noted to be a key driver for healthcare budget increases. A complex study of antibiotics prescribed for children who had one visit for upper respiratory infection (URI) and subsequent prescriptions for antibiotics revealed \$434,000 in unnecessary payments annually for URI antibiotics.<sup>17</sup>
- During an informed plan enrollment, a large employer sent a letter to each employee showing the employee’s historical plan usage. Eighty percent of online enrollees used the modeling tool to select the best benefit plan. High-cost plan enrollment dropped from 60 to 33 percent with a slight increase in Health Reimbursement Arrangement enrollment.<sup>17</sup>
- One state’s Office of Retirement Services changed its plan design to encourage use of a mail-order pharmacy, increasing employee cost sharing for long-term use in a retail setting. Mail order use doubled with savings estimated at \$14 million or 1.7 percent.<sup>17</sup>
- When a health plan made information on physician “affordability” available to members, 58,000 enrolled in the alternative network.<sup>17</sup>
- A large self-insured employer completed a Six Sigma program focused on increasing generic substitution for Proton Pump Inhibitor medications and on encouraging step therapy when appropriate. The project expects savings of \$6.4 million annually.<sup>17</sup>

### Small Steps Yield Significant Rewards

As reported in a Dartmouth Atlas Project Topic Brief, “In the early 1990s, the implementation of a decision aid to help patients choose between watchful waiting and surgery for their enlarged prostates was introduced in the urologic clinics in two pre-paid group practices, Kaiser Permanente in Denver and Group Health Cooperative in Seattle. ... the population-based rates of prostatectomy fell 40 percent ...”<sup>58</sup>

We used the Thomson Reuters MarketScan Research Database for analyzing the usage of five of the National Priorities Partners’ “unwarranted procedures, including prostatectomy.” The analysis suggests a conservative estimate for the reduction in the use of unwarranted procedures that could result from informed-patient decisions. We found that, if those states with higher than average use of these services reduced their use to the average, total savings would be \$3.3 billion per year for employer-sponsored healthcare plans alone. This would require a reduction of only 7-9 percent, a much more conservative result than the 40 percent achieved in the Kaiser Permanente program for prostatectomy.

### More Small Steps Lead to More Rewards

A study conducted by U.S. Oncology and Aetna demonstrated that treating non-small cell lung cancer patients with evidence-based care resulted in an average cost savings of 35 percent over 12 months without affecting health outcomes.<sup>58</sup>

Applying a 35 percent cost saving to the prevalence and cost of treating non-small cell lung cancer in *Thomson Reuters MarketScan Research Databases*, would result in an annual savings of \$1.14 billion for the under 65 population alone.

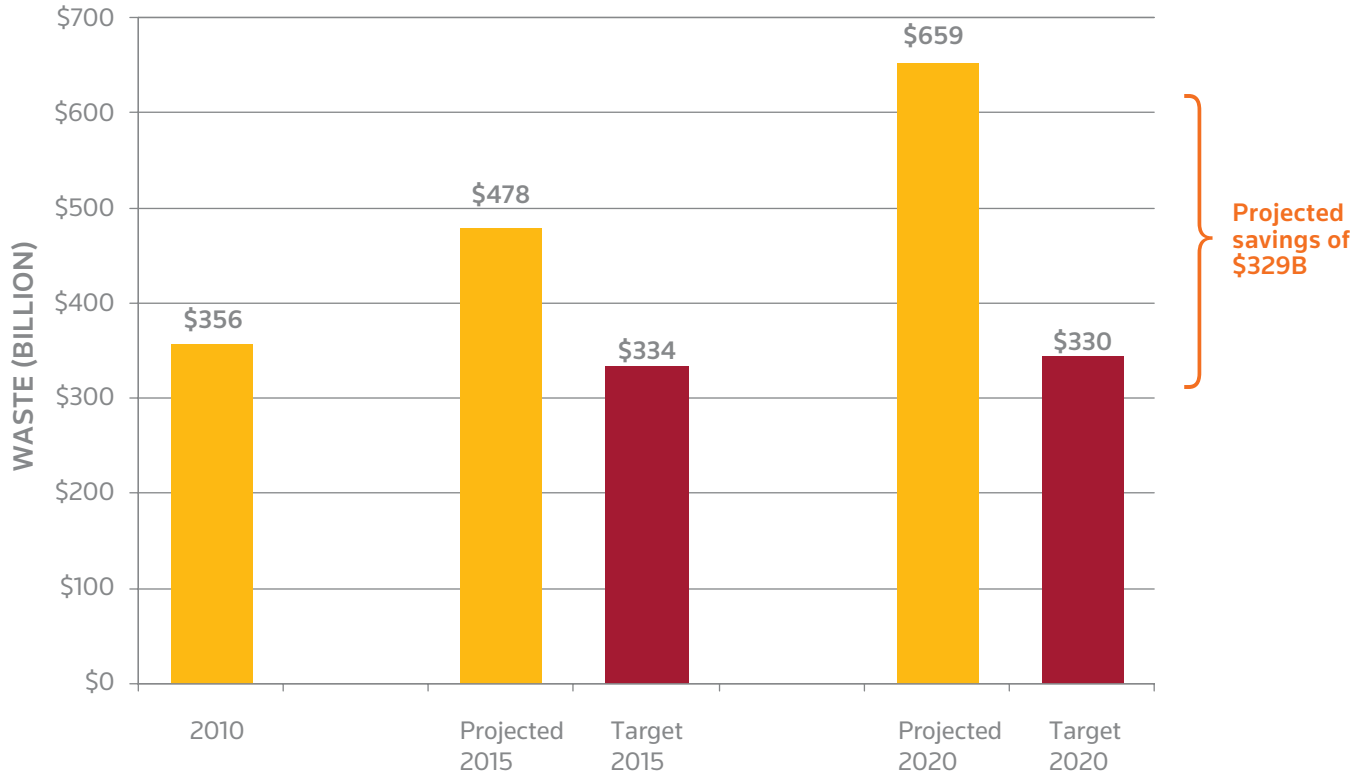
## Reduce Unnecessary Care

### SUGGESTED TARGET REDUCTION

Five years: 30 percent reduction in waste

Ten years: 50 percent reduction in waste

### UNNECESSARY CARE



## Category 5: Preventable Conditions and Avoidable Care

This problem is often referred to as one of under-use. Often certain simple maintenance procedures for preventing illness or the complications of a chronic condition are not received by the patient. The result is that patients develop unnecessary complications or escalation in the severity of their illness, requiring expensive and often painful acute-care services. The need for these services could have been avoided with proper, and usually less expensive, preventive care.

This is another category where we can set aggressive goals over the next five and ten years. Organizations such as NCQA and its HEDIS metric system have allowed large parts of the American population to receive preventive services and avoid the downstream care needs.

### Significant Challenges

- The American lifestyle (overeating, sedentary habits, tobacco use, alcohol abuse) results in significant costly chronic disease morbidity and mortality.
- With sedentary work environments becoming the norm, opportunities to exercise are not available in the community. Many exercise facilities are too expensive or inconvenient. Many people lack access to facilities or even to safe, outdoor exercise areas.
- The most convenient and affordable food is unhealthy, such as that provided by vending machines and fast food restaurants. Underprivileged inner-city communities often lack access to fresh fruits and vegetables.
- Often high out-of-pocket costs or financial barriers in an insurance plans' preventive-care or disease-management services provide a disincentive for patients to access necessary care.
- Feedback to physicians to monitor patient compliance or deterioration in condition is inadequate or often nonexistent.
- Many times, there is an inadequate personal connection and established trust between the patient and caregivers, reducing compliance and adherence.
- There are significant difficulties in navigating medical delivery systems to receive preventive and maintenance care. Ken Thorpe et al suggest, "System fragmentation means that chronically ill patients receive episodic care from multiple providers who rarely coordinate the care they deliver. Because of this structural deficiency, patients with chronic illnesses receive only 56 percent of clinically recommended care."<sup>59</sup>
- There is often inadequate family and social support for the elderly and other vulnerable patients.

### Developments Underway

- "Focus on Supporting Quality Improvement Through Use of Health Information Technology"<sup>60</sup> describes several examples of the value of Information Technology advances to reduce waste due to preventable conditions and avoidable care.
  - Interactive Telephone Technology  
The automated telephone self-management support program provided patient education and self-management support for diabetes patients. Patients respond to questions, triggering callback which leads to higher levels of patient engagement.

- Use of Individual Health Records to Improve Quality of Care Through Decision Support  
A large national plan launched a regional campaign to improve the use of its Individual Health Record (IHR). IHR users demonstrated higher use of recommended services and lower medical costs despite a higher illness burden.
- Delivering Patient-Centric Care Through Touch Screen Technology  
Touch screens for entering risk assessment patient information into an EMR resulted in an 80-85 percent compliance rate with patients who completed the questionnaire.
- A large employer and Thomson Reuters undertook the first long-term evaluation of the financial and health impact of a large-scale corporate health and wellness program on participating employees. The evaluation included a financial analysis of medical insurance claims for 18,331 domestic employees who participated in its Health and Wellness Program. Employee medical expenditures were evaluated for up to five years before and four years after the program began. Savings averaged \$8.5 million annually for the four-year period after the program began, primarily due to lower administrative and medical utilization costs. Reduction in medical care costs amounted to a savings per employee of \$225 annually. The savings came from reductions in hospital admissions, mental health visits, and outpatient service use.<sup>17</sup>
- A Medicaid-managed care plan distributed lists to physicians of members missing recommended services or soon due for such services. Representatives also contacted the members by phone and informed the appropriate care managers and member services staff. The result was an increase in the number of members receiving recommended preventive services and a reduction in both hospital admissions and emergency room visits.<sup>17</sup>
- A large employer changed plan design to provide a financial incentive for preventive care. Target populations included expectant mothers (for prenatal care) and the general population (for preventive screenings). As a result, 20 percent of expectant mothers enrolled in the Maternity Pre-Care program with an ROI of 2.4 to one, and general screening rates increased.<sup>17</sup>
- A large employer identified important disparities between appropriate care and preventive screening among its employee population by job grade, ethnicity, and race. The company implemented on-site biometric tests, mobile mammography, and coordinated appointments with local mammography providers. It also eliminated copayments for screening and preventive services.<sup>17</sup>
- A large employer offered a financial incentive for better diabetic care. They gave \$50 to diabetics who enrolled in care management and who received necessary preventive care.<sup>17</sup> The results:
  - 2,286 of 8,000 diabetics enrolled; one-fourth new to the program
  - All members got Hb1c and eye exams (up from 82 percent and 52 percent)
  - ER visits fell by 13 percent; hospital admissions dropped by seven percent
  - The average cost of a diabetic patient dropped by five percent
- A Medicaid-managed care plan analyzed medical claims data and identified 4.8 percent of its high-risk members as candidates for care management. The plan offered financial incentives to primary care practices to participate in the program to manage the care for those patients. Annual savings of \$7.8 million resulted from a decrease in hospitalizations and visits to medical specialists.<sup>17</sup>
- A large employer's health advocate program offers a full set of advocate, care management, and disease management services through a team of vendors. The program demonstrated an ROI of 3.8 to one through significant decreases in catastrophic cases, hospital utilization, and ER visits.<sup>17</sup>
- A health plan's disease management program focused on heart failure, cancer, and chronic obstructive pulmonary disease (COPD) patients identified as high-risk members. Through intense management, costs for those conditions were reduced from between 13 and 28 percent.<sup>17</sup>

### Small Steps Yield Significant Rewards

In response to the increasing cost of treating employees with diabetes, a large employer implemented a value-based drug benefit to address the problem of low medication adherence. The new design shifted all drugs and devices for treating diabetes, asthma, and hypertension to tier one (same as for generics). After three years, medication possession rates increased significantly, use of fixed-combination drugs increased, and there was a 28 percent reduction in diabetes ER visits and a 62 percent decrease in avoidable admissions for asthma.<sup>17</sup>

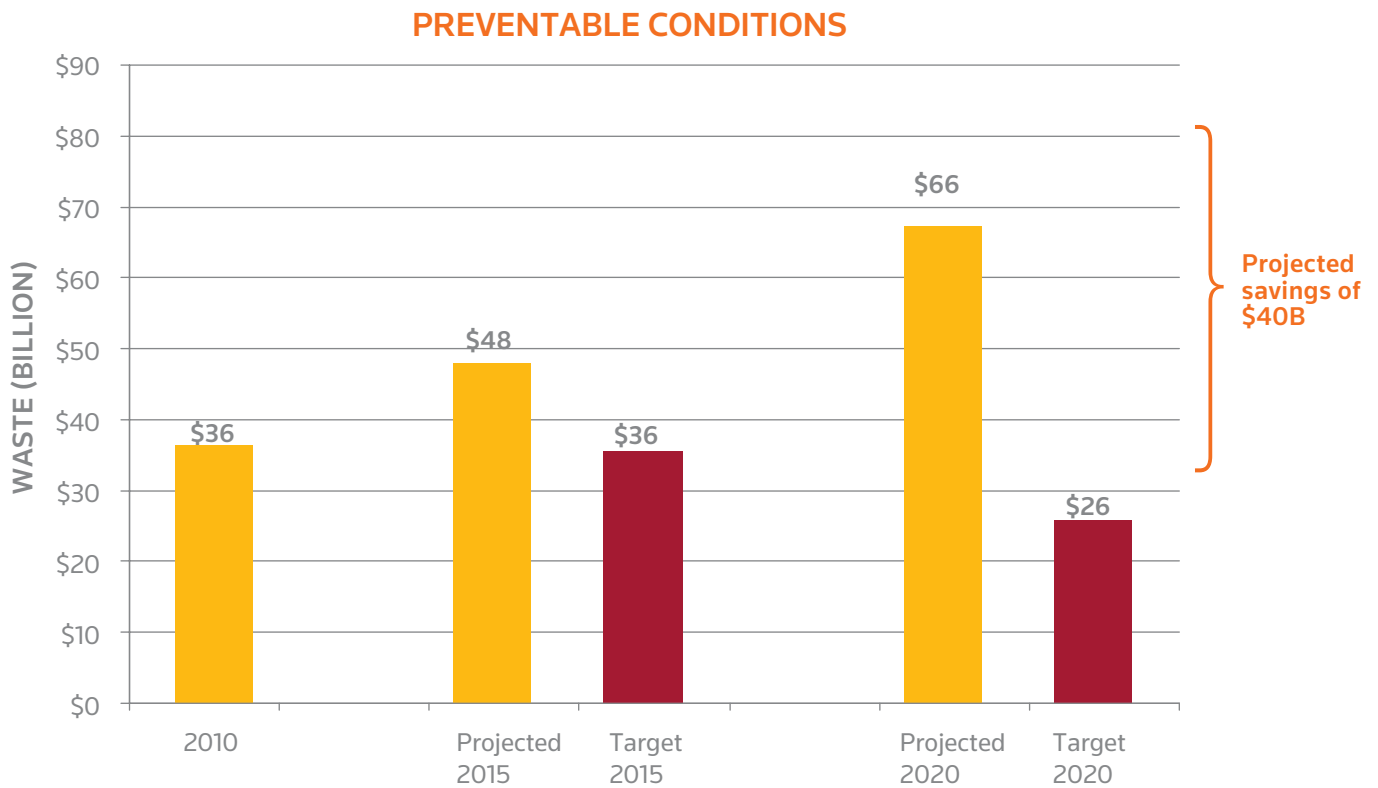
Based on statistics for diabetes and asthma patients in *Thomson Reuters MarketScan Research Databases*, these actions would result in annual savings, nationally, of \$29 million for diabetes ER visits and \$404 million in asthma hospital admissions.

### Reduce Waste Due to Preventable Conditions and Avoidable Care

#### SUGGESTED TARGET REDUCTION

Five years: 25 percent reduction in waste

Ten years: 60 percent reduction in waste



## Category 6: Fraud and Abuse

The vast majority of providers are committed to appropriate billing and payment integrity. In addition, many providers, as they form larger organizations such as integrated delivery systems, are increasingly vested in the fight against fraud. Perhaps it is for these reasons that so few within the medical community have an appreciation of the magnitude of fraud. Only a small percentage of those submitting bills are intent on “gaming” the system by seeking payment for care not delivered or delivered at a grossly inappropriate level.

No one really knows the full extent of healthcare fraud and abuse and the true cost to payers and therefore to the community. Many payers of healthcare (health plans, government, employers) are satisfied that current expenditures for fraud detection and collection programs demonstrate an adequate ROI of \$8 or even \$12 for every dollar spent. For these payers, it is very difficult to predict the financial return to more aggressive fraud detection and prevention. For this reason, in the short term, efforts will probably need to be gradual and begin to demonstrate returns before any more significant investments are made. It is also likely that returns on investment may decline as the medical community attempts to approach the larger long-term goal. Therefore, an immediate goal of reducing waste from fraud by a modest 15 percent seems reasonable. However, it is important to recognize that national attention on the issue has increased recently. Certainly, the spotlight has brightened through the convening of the first National Summit on Health Care Fraud through which Health and Human Services and the Attorney General assembled leaders from government healthcare programs, large insurance companies, and law enforcement agencies to consider a joint agenda for tackling this problem.

### Significant Challenges

- Because the payer is separate from the recipient of healthcare services, there is no natural check on the actual provision of goods and services. The payer has no way of verifying that the service was provided and the consumer has no way of knowing that the insurance provider has been billed for a service the consumer did not receive.
- Fraudulent operators have become very skilled at outwitting the system.
- Estimating the actual level of fraud is complicated, thus discouraging more significant investment in prevention.
- Healthcare professionals minimize the extent of fraud, insisting that the problem is less significant and mainly among nonprofessionals and therefore are less likely to work actively toward its reduction.
- It is extremely difficult and expensive to prove fraud and recover fraudulent payments.
- More substantive efforts to screen new providers for enrollment in plans require additional administrative expense and inconvenience to providers. It might be necessary to limit non-professional sources (e.g., those for durable medical equipment) to fewer vendors to enable better monitoring and controls.
- Payers do not want to jeopardize their positive relationships with providers by complicating and slowing the claims payment process to scrutinize bills submitted.

- Currently, the most common approach is to identify possible fraud retrospectively. The “pay and chase” method has been shown to be ineffective at preventing fraud, but is able to demonstrate a reasonable return on investment. Ideally, methods for detecting fraud could identify problems before payment is made. By actually preventing fraud in this way, the system would minimize the need and significant cost of retrospective pursuit and recovery efforts. However, such methods are still maturing in many settings and have not been widely implemented.
- The public does not understand the substantial impact of this fraud on the affordability of healthcare, and may consider “Big Government” and “Big Insurance” as unsympathetic victims.
- Poor claims adjudication, data upload errors, and inconsistent application of contract terms can result in substantial over-payments, which are not considered fraud but which are clearly very wasteful.

### Developments Underway

- In January 2010, Health and Human Services Secretary Kathleen Sebelius said, “Since 2007, the Strike Forces have charged more than 500 defendants for healthcare fraud crimes resulting in more than \$1 billion in fraudulent billing. Over 200 defendants have been sentenced to prison, with sentences ranging from two months to 30 years. Added up, we’ve done more to fight healthcare fraud in 2009 than in any other year. But we’re not done fighting. Building on the investments the President made in fraud fighting in last year’s budget, he will request \$1.7 billion in his budget to support programs to fight fraud.”<sup>61</sup>
- The newly enacted Affordable Care Act is designed to lengthen prison sentences in criminal fraud cases, and the new law provides an additional \$300 million over the next 10 years for stronger enforcement. It also gives the government new authority to step up oversight of companies participating in Medicare and Medicaid. Under the Act, providers could be subject to fingerprinting, site visits and criminal background checks before they begin billing Medicare and Medicaid. To combat fraud, the act allows Secretary Sebelius to bar providers from joining the programs and allows her to withhold payments from providers if an investigation is pending.<sup>62</sup>
- Blue Cross and Blue Shield companies’ anti-fraud investigators collectively prevented \$134 million in fraudulent or erroneous medical claims, while recouping nearly \$115 million from fraudulent claims. Nationally, Blue Cross and Blue Shield anti-fraud investigators opened 13,424 cases.<sup>63</sup>
- A Medicaid program uses claims data to score ambulance providers’ performance compared to the peer group benchmark. Among the findings were these red flags:
  - Thousands of trips that lacked documentation or authorization by a medical professional’s signature.
  - Documentation that was forged or copied.
  - Excessive utilization and high cost per patient. For example, the twelve most expensive patients transported by one company averaged \$22,393 in payments and over 200 claims per patient.
  - Repeated use of ambulance-level transportation for patients going two or three times per week to outpatient dialysis, adult daycare, or mental health centers.

Three of the Program Integrity reviews recently completed showed high levels of noncompliance (46 percent, 65 percent, and 71 percent, respectively) with requirements to document the medical necessity for the ambulance-level transportation. Because of these reviews, Program Integrity has referred two more cases to the Medicaid Fraud Control Unit. The questioned payments in these cases exceed \$1 million.<sup>17</sup>

- A Medicaid program found excessive utilization, engagement of paraprofessionals without physician supervision, faulty or nonexistent documentation, incorrect billing codes, no documentation of medical necessity, and many other problems in its initial reviews of psychological services. A Time Standard Study identified multiple psychiatrists and one psychologist with claims that amounted to more than 12 hours of patient ‘face time’ in a day. The Division of Program Integrity has now opened five cases and referred one case to the Medicaid Fraud Control Unit. Serious instances of abuse were found in the two cases that have been completed to date. Those providers are now reimbursing the agency a total of \$165,000 and have taken corrective actions as a condition for retaining their status as Medicaid providers.<sup>17</sup>

### Small Steps Yield Significant Rewards

A new pilot program designed to curb prescription drug abuse in the South Carolina Medicaid program has saved the state more than \$320,000 since it began in January 2009.<sup>64</sup> Through data analysis that revealed a pattern of uncoordinated care and drug-seeking behavior, such as visiting multiple physicians and hospitals for prescriptions, the Pharmacy Lock-In pilot program identified 48 Medicaid recipients who used numerous pharmacies to fill prescriptions for Schedule II narcotics, including powerful painkillers and amphetamines. Those individuals were notified of their placement in the Lock-In program and were required to select a primary pharmacy for services but their access to prescriptions was not limited.

“A comparison of the participants’ Medicaid expenditures before and after lock-in showed substantial cost savings across most service categories, not just pharmacy:

- Medicaid expenditures for this group decreased by \$321,541; an average cost savings of \$6,699 per beneficiary;
- On average, a 40 percent decrease in the total number of prescriptions used, and a 43 percent decrease in Schedule II drugs;
- A 36 percent decrease in the number of claims for doctor visits and other medical professional services;
- A 21 percent decrease in the number of hospital and ER visits.”

The program is now expanding to include up to 200 Medicaid recipients.

“We’re very pleased with the results so far,” said Sherry Ward, director of the SCDHHS Division of Program Integrity, which manages the Pharmacy Lock-In program. “We want to make sure we curtail drug-seeking behavior. At the same time, this is an opportunity to improve coordination of care and ensure beneficiaries still have access to needed medications.”

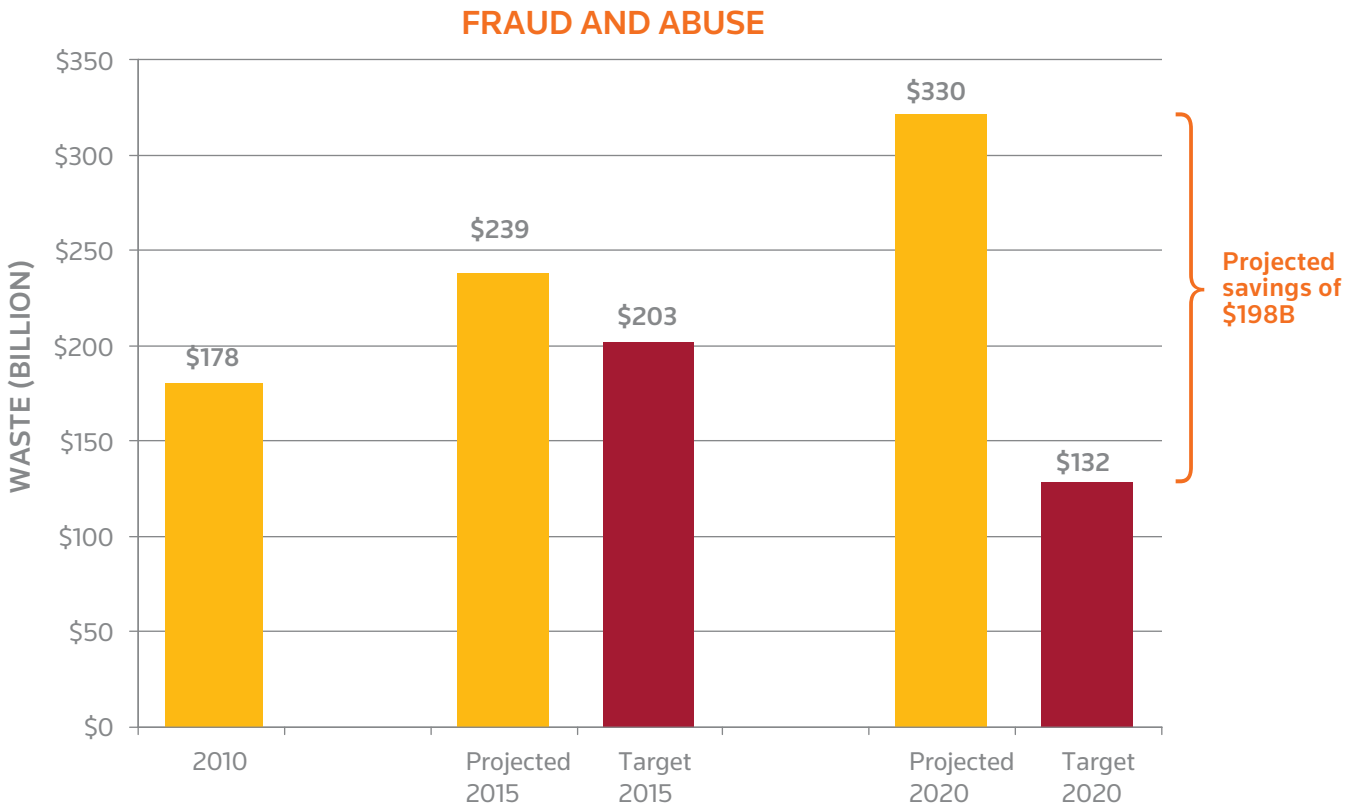
Applying the South Carolina Medicaid results to an analysis of *Thomson Reuters MarketScan Research Databases* of the number of patients filling prescriptions for DEA Class II drugs at six or more pharmacies, Thomson Reuters estimates a national reduction in waste for just this single initiative of **\$455 million**.

## Reduce Waste Due to Fraud and Abuse

### SUGGESTED TARGET REDUCTION

Five years: 15 percent reduction in waste

Ten years: 60 percent reduction in waste



## CONCLUSION

### **Reducing Waste to Maintain Healthcare Expenditures at Less Than 17 Percent of GDP Can Save \$3.6 Trillion**

To reduce waste in the healthcare system, the medical community needs to set targets, identify strategies and initiatives, and implement them broadly. There are countless examples of benchmark efforts in both large and small organizations, but the path is strewn with obstacles. Some can be avoided while others may need to be removed. Removal of some can be accomplished at the level of the individual provider, health plan, employer, or patient. Many others require concerted changes to national practices and policy. Still others require significant national investments in infrastructure.

The targets proposed in this paper suggest a 25 percent reduction in waste within five years and a 50 percent reduction in ten years. The medical community may not be able to measure progress against the targets themselves, but it can measure many proxies. It should certainly be able to see evidence of progress by observing:

- Slower growth in overall healthcare spending
- Reduction in patient care error rates
- Accelerating adoption and use of information technology
- Improved recognition of potential fraud and reduction in estimated rates of its occurrence
- Reduction in the utilization of specific high-cost services where alternatives are available that are equally or more effective

Members of the medical community may debate the feasibility of the specific targets suggested in this paper. There are certainly other paths worthy of consideration. Our five strategies and six categories of waste reduction are submitted not as the solution, but as a contribution to further discussions on the solution. Perhaps by identifying the challenges (as well as the efforts underway) toward reducing waste, this paper will accelerate individual and organizational contributions to improving the cost and delivery of healthcare.

## REFERENCES

- <sup>1</sup> P. Hussey, C. Eibner, M. S. Ridgely, and E. McGlynn; “Controlling U.S. Health Care Spending — Separating Promising from Unpromising Approaches”; *NEJM* Volume 361:2109-2111, November 26, 2009, Number 22.
- <sup>2</sup> C. Truffer, S. Keehan, S. Smith, J. Cylus, A. Sisko, J. Poisal, J. Lizonitz, M. K. Clemens; “Health Spending Projections Through 2019: The Recession’s Impact Continues”; *Health Affairs*, March 2010.
- <sup>3</sup> The Leapfrog Group Fact Sheet; March 2010.
- <sup>4</sup> “Five Years On: Bridges Built. Bridges to Build”; Bridges to Excellence, 2003.  
[www.bridgestoexcellence.org](http://www.bridgestoexcellence.org).
- <sup>5</sup> C. Damberg, M. Sorbero, P. Hussey, S. Lovejoy, H. Liu, A. Mehrotra; “Exploring Episode-Based Approaches for Medicare Performance Measurement, Accountability and Payment”, February 2009; Assistant Secretary for Planning and Evaluation U.S. Department of Health and Human Services.
- <sup>6</sup> K. Devers and R. Berenson; “Can Accountable Care Organizations Improve the Value of Health Care by Solving the Cost and Quality Quandaries?”; Urban Institute; October 2009.
- <sup>7</sup> National Priorities Partnership. *National Priorities and Goals: Aligning Our Efforts to Transform America’s Healthcare*. Washington, DC: National Quality Forum; 2008.
- <sup>8</sup> “Savings Accounts: Stories of how health care organizations are saving time, resources, energy and patients’ lives”; Progress Report 2006, Institute for Healthcare Improvement; <http://www.ihl.org/IHI/Results/ImprovementStories/>.
- <sup>9</sup> M. E. Porter, E. O. Teisberg; “Redefining Health Care: Creating Value-Based Competition on Results”; Boston, MA: Harvard Business School Press; 2006:4.
- <sup>10</sup> Health Plan Report Card, National Committee on Quality Assurance; <http://www.ncqa.org/tabid/60/Default.aspx>.
- <sup>11</sup> “Safe Practices for Better Healthcare, A Consensus Report”; National Quality Forum; Washington DC, 2010.
- <sup>12</sup> “Leadership in Healthcare Organizations; A Guide to Joint Commission Leadership Standards”; A Governance Institute White paper; Winter 2009; [www.governanceinstitute.com](http://www.governanceinstitute.com).
- <sup>13</sup> J. Halladay, S. Stearns, T. Wroth, L. Spragens, S. Hofstetter, S. Zimmerman, and P. D. Sloane; “Cost to Primary Care Practices of Responding to Payer Requests for Quality and Performance Data;” *Annals of Family Medicine* 7:495-503 (2009).

- <sup>14</sup> *Health Plan Week*, February 15, 2010.
- <sup>15</sup> *Health Plan Week*, March 1, 2010.
- <sup>16</sup> "New state requirements for electronic billing of health care claims to take effect July 15"; Minnesota Department of Health, July 13, 2009.
- <sup>17</sup> Thomson Reuters Case Study.
- <sup>18</sup> A. Gawande; "The Cost Connundrum, What a Texas town can teach us about healthcare"; *The New Yorker*, June 1, 2010.
- <sup>19</sup> Statement of Glenn D. Steele Jr., MD, PhD President and Chief Executive Officer Geisinger Health System to the Committee on Finance United States Senate, April 21, 2009.
- <sup>20</sup> C. Liu, S. Subramanian, and J. Cromwell; "Impact of Global Bundled Payments on Hospital Costs of Coronary Artery Bypass Grafting"; *Journal of Health Care Finance*, Vol. 27, No4, Summer 2001.
- <sup>21</sup> MHA Keystone Center for Patient Safety and Quality, Michigan Health and Hospital Association, [http://www.mhakeystonecenter.org/hai\\_overview.htm](http://www.mhakeystonecenter.org/hai_overview.htm).
- <sup>22</sup> C. Chen, T. Garrido, D. Chock, G. Okawa, L. Liag; "The Kaiser Permanente Electronic Health Record: Transforming and Streamlining Modalities of Care"; *Health Affairs*, Vol 28, Number 2, 2009.
- <sup>23</sup> C. Liu, S. Subramanian, and J. Cromwell; "Impact of Global Bundled Payments on Hospital Costs of Coronary Artery Bypass Grafting"; *Journal of Health Care Finance*, Vol. 27, No4, Summer 2001.
- <sup>24</sup> A. Gawande; "The Checklist Manifesto: How To Get Things Right"; Metropolitan Books; December 22, 2009.
- <sup>25</sup> American Health Information Management Association Statement on National Healthcare Information Infrastructure; May 18, 2002.
- <sup>26</sup> Office of The National Coordinator of Healthcare Technology, April 2009; [http://healthit.hhs.gov/portal/server.pt?open=512&objID=1487&parentname=CommunityPage&parentid=6&mode=2&in\\_hi\\_userid=10741&cached=true](http://healthit.hhs.gov/portal/server.pt?open=512&objID=1487&parentname=CommunityPage&parentid=6&mode=2&in_hi_userid=10741&cached=true).
- <sup>27</sup> D. Blumenthal; "Launching HITECH"; *NEJM*, Volume 362:382-385, Number 5, February 4, 2010.
- <sup>28</sup> V. Mor, O. Intrator, Z. Feng and D. Grabowski; "The Revolving Door Of Rehospitalization From Skilled Nursing Facilities"; *Health Affairs*, 29, number 1 (2010): 57-64.

- <sup>29</sup> S. Shea, and G. Hripcsak; “Accelerating the Use of Electronic Health Records in Physician Practices”; *NEJM*, Volume 362:192-195, January 21, 2010, Number 3.
- <sup>30</sup> R. Hillestad, J. Bigelow, A. Bower, F. Girosi, R. Meill, R. Scoville, R. Taylor; “Can Electronic Medical Record Systems Transform Health Care? Potential Health Benefits, Savings And Costs”; *Health Affairs*, Volume 24, Number 5, 2005.
- <sup>31</sup> Institute for Healthcare Improvement, “Reducing Avoidable Emergency Department Visits”, Webinar series, May 2010.
- <sup>32</sup> S. Brownlee; “Overtreated: Why Too Much Medicine Is Making Us Sicker and Poorer”; Bloomsbury, USA, 2007.
- <sup>33</sup> H. Brody; “Medicine’s Ethical Responsibility for Health Care Reform — The Top Five List”; *NEJM*, Volume 362:283-285, January 28, 2010, Number 4.
- <sup>34</sup> M. Hochman, D. McCormick; “Characteristics of Published Comparative Effectiveness Studies of Medications”; *JAMA*, 2010; 303(10):951-958.
- <sup>35</sup> S. Weinstein, “The Cost of Defensive Medicine”, American Academy of Orthopaedic Surgeons (AAOS), Now, November 2008.
- <sup>36</sup> F. J. Hellinger, W. E. Encinosa; “The Impact of State Laws Limiting Malpractice Damage Awards on Healthcare Expenditures”; *American Journal of Public Health*, August 2006; 96(8):1375-Epub 2006 Jun 29.
- <sup>37</sup> M. Weinstein and J. Skinner; “Comparative Effectiveness and Health Care Spending — Implications for Reform”; *NEJM*, Volume 362:460-465, Number 5, February 4, 2010.
- <sup>38</sup> D. Brenner; “Medical Imaging in the 21st Century — Getting the Best Bang for the Rad”; *NEJM*, Volume 362:943-945, Number 10, March 11, 2010.
- <sup>39</sup> E. Fischer; “Healthcare Spending, Quality, and Outcomes: More Isn’t Always Better”, A Dartmouth Atlas Project Topic Brief, February 27, 2009.
- <sup>40</sup> L. Chen; Doctors Need to Reform Panel, The Dartmouth, January 29, 2010.
- <sup>41</sup> M. Patel, E. Peterson, D. Dai, J. M. Brennan, R. Redberg, H. V. Anderson, R. Brindis, and P. Douglas; “Low Diagnostic Yield of Elective Coronary Angiography”; *NEJM*, Volume 362:886-895, March 11, 2010, Number 10.
- <sup>42</sup> P. Ginsburg, H. Pham, K. McKenzie, A. Milstein; “Distorted Payment System Undermines Business Case for Health Quality and Efficiency Gains”; Issue Brief No. 112, July 2007.
- <sup>43</sup> M. Hemani, D. Makarov, W. Huang, S. Taneja; “The effect of changes in Medicare reimbursement on the practice of office and hospital-based endoscopic surgery for bladder cancer”; *Cancer*, Volume 116 Issue 5, Pages 1264 – 1271.

- <sup>44</sup> J. Skinner, D. Staiger, and E. Fisher; "Looking Back, Moving Forward"; *NEJM*, Volume 362:569-574, February 18, 2010, Number 7.
- <sup>45</sup> K. Fischer; "In Defiance of Death: Exposing the Real Costs of End-of-Life Care"; Praeger Publishers, 2008.
- <sup>46</sup> J. Kutner, Discussant; "An 86-Year-Old Woman With Cardiac Cachexia Contemplating the End of Her Life Review of Hospice Care"; *JAMA*, 2010;303(4):349-356.
- <sup>47</sup> B. Zhang, A. Wright, H. Huskamp, M. Nilsson, M. Maciejewski, H. Prigerson; "Health Care Costs in the Last Week of Life"; *Archives of Internal Medicine*; Vol. 169 No 5 March 9, 2009.
- <sup>48</sup> The SUPPORT Principle Investigators; "A Controlled Trial to Improve Care for Seriously Ill Hospitalized Patients, The Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatment (SUPPORT)"; *JAMA*, November 22/29 1997; Volume 274 Number 20.
- <sup>49</sup> J. Luce, G. Rubenfeld; "Can Health Care Costs Be Reduced by Limiting Intensive Care at the End of Life?"; *American Journal of Respiratory and Critical Care Medicine*; Vol 165. pp750-754, 2002.
- <sup>50</sup> "Preference-Sensitive Care"; A Dartmouth Atlas Project Topic Brief 2007.
- <sup>51</sup> B. Kuehn; "FDA Weighs Limits for Online Ads"; *JAMA*, 2010; 303(4):311-313.
- <sup>52</sup> U. Reinhardt; "A Good Start"; *The Wall Street Journal*, January 20, 2010.
- <sup>53</sup> D. Kirch; "The Healthcare Innovation Zone A Platform for True Reform"; *JAMA*, 2010; 303(9):874-875.
- <sup>54</sup> K. Mandel; "Aligning Rewards With Large-Scale Improvement" *JAMA*, 2010 ; 303(7):663-664.
- <sup>55</sup> L. Collins, S. Parks, L. Winter; "The State of Advance Care Planning: One Decade after SUPPORT"; *American Journal of Hospice and Palliative Medicine*; 2006; 23;378.
- <sup>56</sup> D. Casarett, J. Karlawish, K. Morales, R. Crowley, T. Mirssch, D. Asch; "Improving the Use of Hospice Services in Nursing Homes"; *JAMA*, July 13, 2005, Vol 294, No 2.
- <sup>57</sup> M. Sipkoff; "9 Ways To Reduce Unwarranted Variation"; *Managed Care*, November 2003.
- <sup>58</sup> M. Neubauer, J. R. Hoverman, M. Kolodziej, L. Reisman, S. Gruschkus, S. Hoang, A. Alva, M. McArthur, M. Forsyth, T. Rothermel, R. Beveridge; "Cost Effectiveness of Evidence-Based Treatment Guidelines for the Treatment of Non-Small-Cell Lung Cancer in the Community Setting"; *JOP* Jan 2010: 12-18.
- <sup>59</sup> K. Thorpe, L. Ogden, K. Galactionova; "Chronic Conditions Account for Rise in Medicare Spending from 1987 to 2006"; *Health Affairs* 29 No. 4 (2010).
- <sup>60</sup> "Focus on Supporting Quality Improvement Through Use of Health Information Technology"; The Leadership Series, NCQA, 2009.

<sup>61</sup> Secretary Kathleen Sibelius; "A Zero-Tolerance Approach to Health Care Fraud"; The White House Blog, January 28, 2010.

<sup>62</sup> "Stepped-Up Medicare Fraud Enforcement Snags \$2.5B" Associated Press, May 13, 2010.

<sup>63</sup> "Blue Cross And Blue Shield Companies' Anti-Fraud Units Recover and Save More Than \$249 Million In 2007", *BCBSA*, June 19, 2008.

<sup>64</sup> South Carolina Department of Health and Human Services; "S.C. Medicaid Targets Prescription Drug Abusers"; Press Release, November 3, 2009.

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#### **Chief Medical Officer**

Dr. Fabius is Chief Medical Officer for the Healthcare & Science business of Thomson Reuters. He is responsible for thought leadership, strategy, client relations, and clinical direction. Dr. Fabius previously served as Strategic Adviser for Walgreens Health & Wellness assisting them in their approach to population health. Prior to that, Dr. Fabius was President and CMO of CHD Meridian / I-trax Healthcare, the leading provider of workplace health solutions. Dr. Fabius was global medical leader at General Electric responsible for the health and safety of over 330,000 employees. He also served as medical director of utilization, disease and quality management as well as eHealth and Health informatics for Aetna and US Healthcare.

Dr. Fabius is a faculty member of the American College of Occupational and Environmental Medicine, the new School of Population Health at Thomas Jefferson University and the American College of Physician Executives where he is recognized as a Distinguished Fellow. He is the author of two significant books on population health issues with a third to be published in September 2010.





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