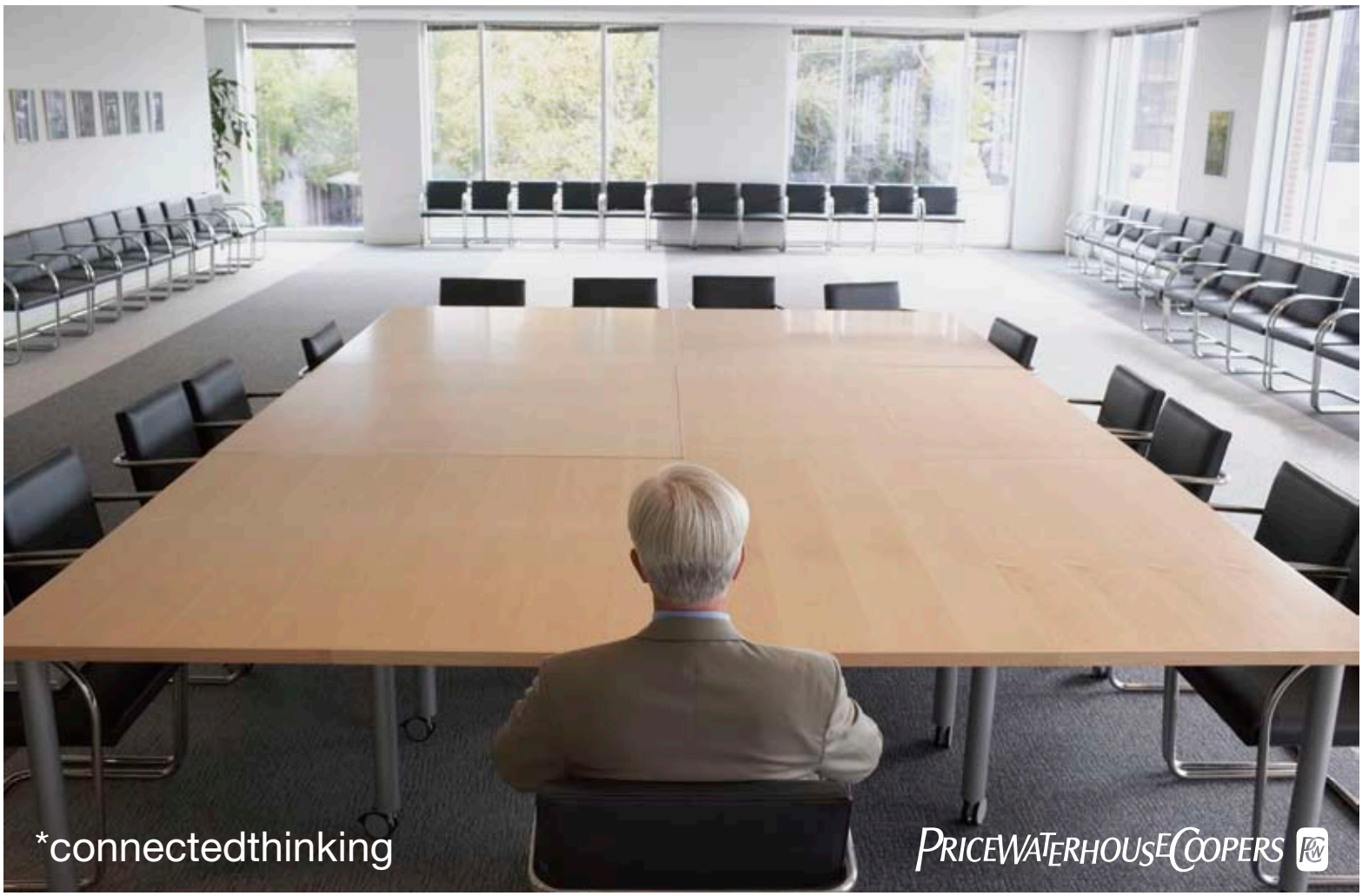
PricewaterhouseCoopers' Health Research Institute

The price of excess*

Identifying waste in healthcare spending



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Executive summary

Everyone agrees there is waste in healthcare spending. Ferreting out the waste breeds controversy and finger-pointing. As a result, health industry leaders focus on what they can control, which is eliminating waste in their own organizations. However, the integrated nature of health can make those efforts counter-productive. Wasteful spending extends beyond one organization or health sector, and eliminating waste in one sector may actually increase it in another.

To appropriately address waste in health spending, health industry leaders, policymakers and consumers must work together on system-wide goals and incentives to address the waste that imperils the health of us all. In this paper, we view waste as costs that could have been avoided without a negative impact on quality.

Key findings:

Wasteful spending in the health system has been calculated at up to $1.2 trillion of the $2.2 trillion spent nationally, more than half of all health spending.

- Spending can be classified into three waste "baskets": behavioral, clinical and operational. These baskets cross all of the health sectors and include consumers, government and industry.
- The top three areas of wasted spending are defensive medicine ($210 billion annually), inefficient claims processing (up to $210 billion annually), and care spent on preventable conditions related to obesity and overweight ($200 billion annually).
- Eight out of 10 consumers surveyed by PricewaterhouseCoopers' Health Research Institute (HRI) said that inefficiency in the healthcare system is not only driving up healthcare costs, but impacting the quality of care.
- Consumers see themselves, government and the industry at fault for wasteful spending. For example, 86% of consumers surveyed by HRI agreed that patients going to emergency rooms for non-emergency care drives up healthcare costs. Two-thirds said that they personally had received excessive medical testing.
- When U.S. consumers were asked why they believe the U.S. healthcare system has inefficiencies that have not been resolved, nearly half said "because it is not a priority for the government." More than a third said it was due to the health industry not being willing to change business practices.
- Key barriers to eliminating waste are culture, politics, funding and incentives, and lack of a coordinated focus.
- Solving inefficiencies means developing system-wide incentives to encourage partnerships and networks that work toward shared value.

Background

In an increasingly global economy, the inefficiency of the U.S. health system ranks poorly. The U.S. spends nearly twice as much per-capita on health than other industrialized nations without a corresponding gain in outcomes, according to the OECD.[1] The U.S. ranks 20th in life expectancy and has the third highest infant mortality rate. The U.S. also has high levels of obesity (over 32% of the population compared with 20% globally),[2] with a significant potential effect on health spending.[3] When compared with five similar industrialized nations, the U.S. ranks at the bottom on all key measures, except for tobacco usage. See Exhibit 1.

Exhibit 1: U.S. ranks poorly in health system efficiency

Relative ranking	Australia	Canada	Germany	New Zealand	United Kingdom	United States
Life expectancy	1	2*	4	3	4	6*
Infant mortality rate (per 1000 live births)	2	2*	1	4	4	6*
Tobacco consumption	3	2	6	4	5	1
Obesity (%)	3*	2	1	4*	5	6*
Avoidable deaths (Per 100,000)*	1	2	3	4	5	6
Health expenditures per capita, 2005	$3,128**	$3,326	$3,287	$2,330	$2,724	$6,401

All information is taking from 2005 OECD data unless otherwise noted.
*2000, 2003-2005 World Health Organization Data. Avoidable deaths is defined as deaths caused by treatable conditions left undetected and/or untreated.
**2004 OECD data.
Source: Organization for Economic Cooperation and Development, World Health Organization, analysis by PricewaterhouseCoopers' Heath Research Institute

One argument holds that at least part of the U.S. spending gap can be accounted for in higher prices, rather than higher use of resources.[4] Even so, global comparisons show substantial opportunity to enhance the health of the population while reducing spending.

Inefficiency is a component of waste, but not all of it. The Institute of Medicine described waste as activities or resources that don't add value, such as inefficiencies in processing, materials and patients' time. The notion of "waste" is emotive, carrying connotations of mismanagement or misapplication of resources. To that end, in this paper, we define "waste" as costs that could have been avoided without a negative impact on quality.

About the research

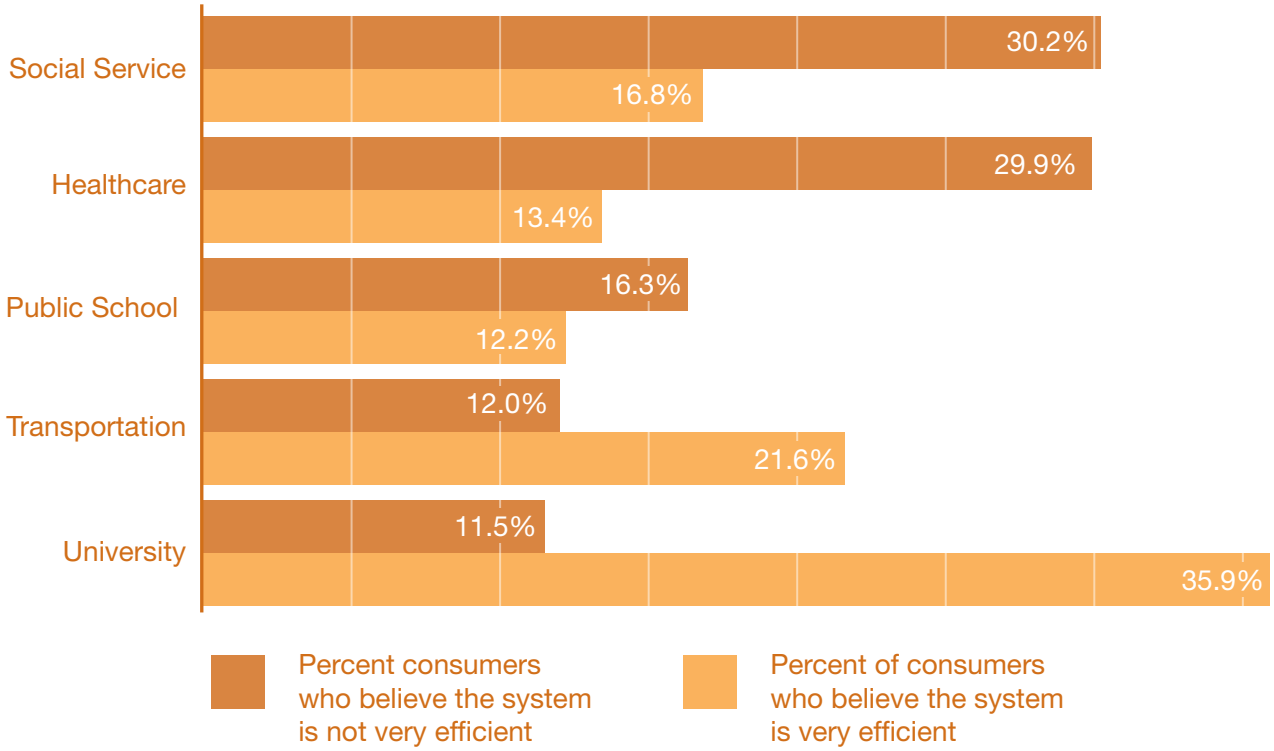
As part of its preparation for the 180º Health Forum, PricewaterhouseCoopers' Health Research Institute (HRI) interviewed more than 20 health industry and government executives who will be participating in the forum sessions. The forum is dedicated to change in healthcare. Reviewing the waste in health spending was viewed as an appropriate starting place for discussing how to restructure incentives, investments and priorities. In addition to interviews, HRI reviewed more than 35 studies about waste and inefficiency in healthcare and commissioned a survey of 1,000 U.S. consumers to get their views on what constitutes waste and inefficiency in the system.

Waste baskets of health spending are behavioral, clinical and operational

More than 80% of consumers surveyed by HRI said that health system inefficiencies increase costs and reduce the quality of the care they receive. Any effort to improve efficiency entails trade-offs between competing demands and sometimes conflicting values. Certain references to “fat” in the system can spark a politically charged debate.

When HRI asked consumers about the efficiency of the health system compared to other societal “systems,” healthcare ranked poorly. See Exhibit 2.

Exhibit 2: Consumer perceptions of efficiency of large scale systems



Source: Analysis by PricewaterhouseCoopers’ Health Research Institute

When it comes to wasteful spending, health industry leaders focus on what they can control, which is to eliminate waste in their own organizations. However, the integrated nature of health can make those efforts counter-productive. Wasteful spending extends beyond one organization or health sector, and eliminating waste in one sector may actually increase it in another. To appropriately address waste in health spending, health industry leaders, policy makers and consumers must work together on system-wide goals and incentives.

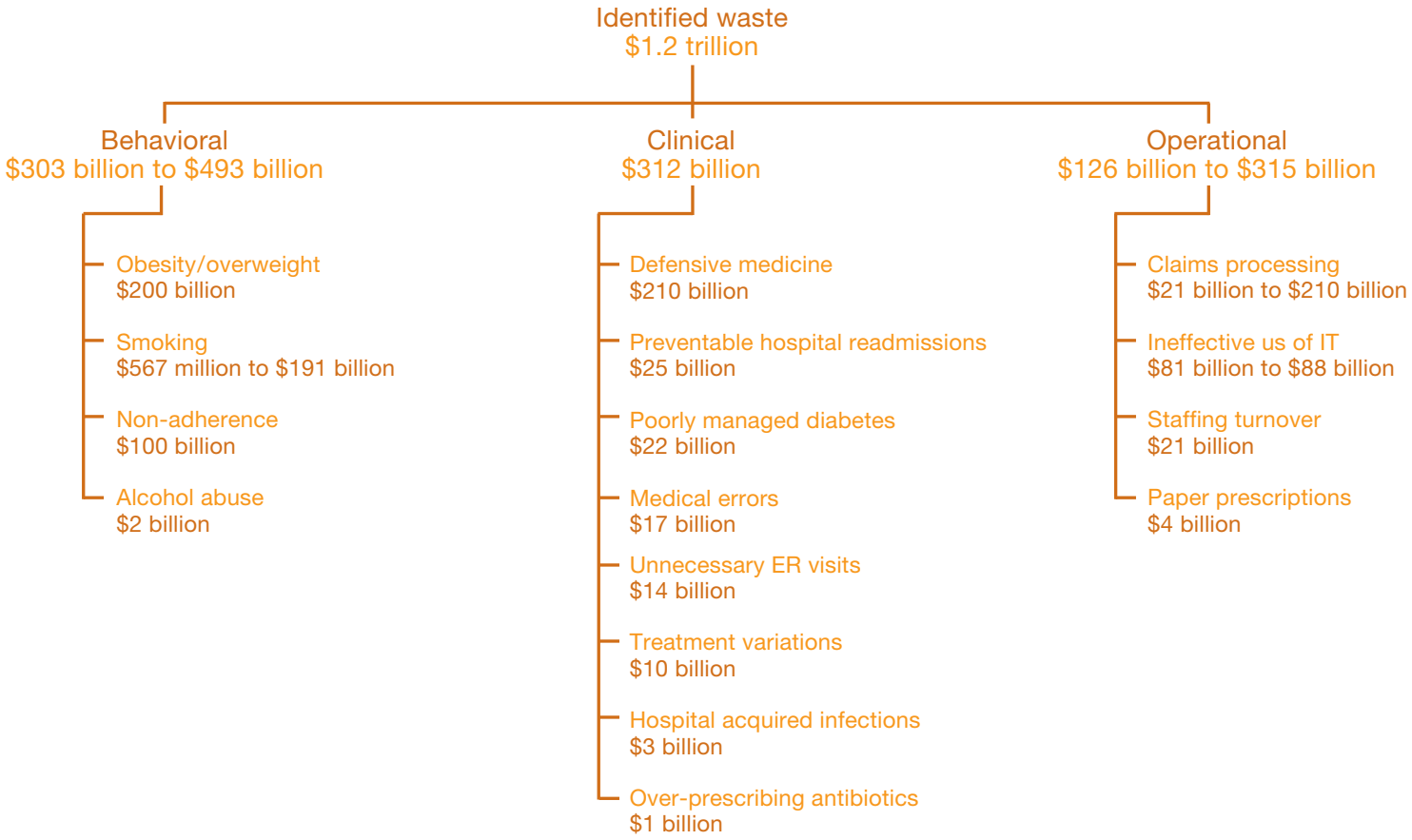
Inefficient spending in health can be categorized into three waste "baskets" as shown in Exhibit 3:

- Behavioral—where individual behaviors are shown to lead to health problems, and have potential opportunities for earlier, non-medical interventions.
- Operational—where administrative or other business processes appear to add costs without creating value.
- Clinical—where medical care itself is considered inappropriate, entailing overuse, misuse or under-use of particular interventions, missed opportunities for earlier interventions, and overt errors leading to quality problems for the patient, plus cost and rework.

When added together, the opportunities for eliminating wasteful spending add up to $1.2 trillion, or more than half of health spending. However, redundant costs appear multiple times across the spectrum. Like health spending itself, these categories overlap. Reducing one basket can affect the size of the others. For example, averting heart disease could reduce some of the estimated $71 billion spent on inpatient care.[5] That, in turn, would eliminate wasteful spending on both operational and clinical costs.

Waste cannot be eliminated immediately. Patients with preventable conditions must be treated. Providers and payers must follow required processes for reimbursement and payment. However, by viewing waste in these baskets, the size of opportunities can be prioritized and rewarded.

Exhibit 3: Identifying waste in healthcare spending



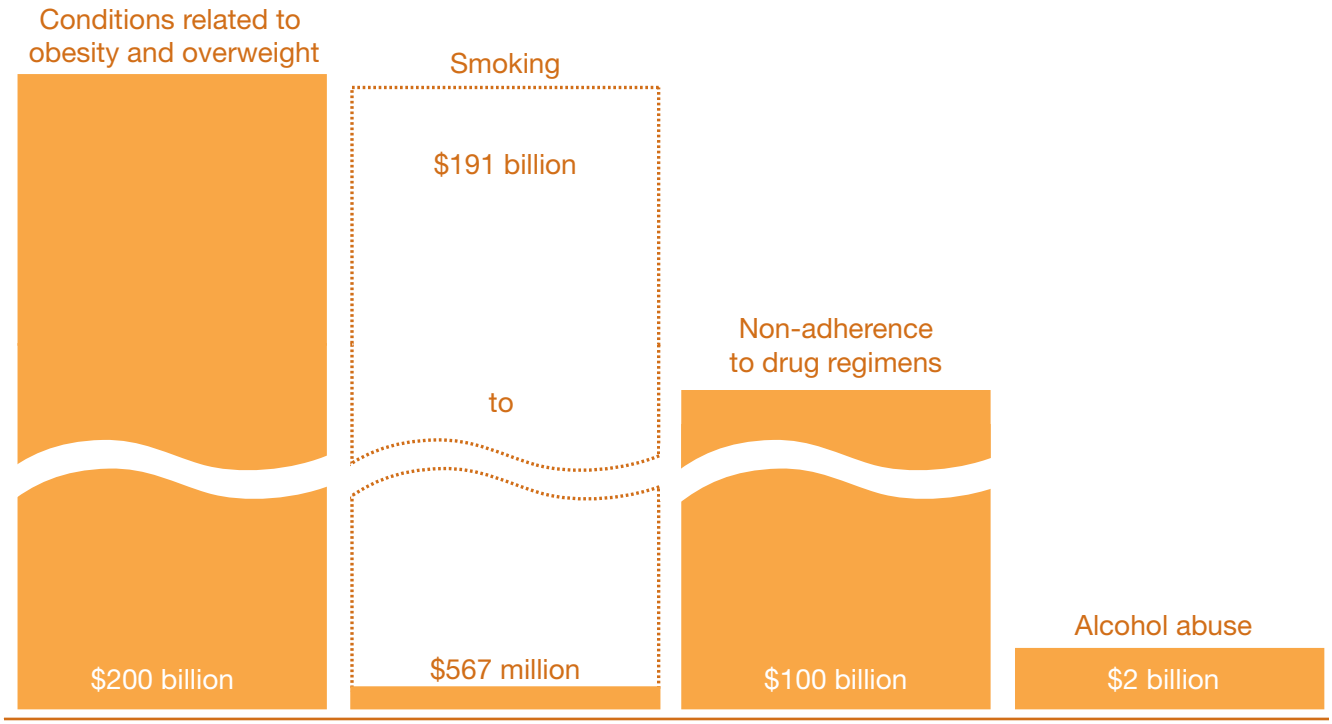
Source: Analysis by PricewaterhouseCoopers' Health Research Institute

Behavioral: All's not well

Preventable risk factors—such as obesity, smoking, poor adherence to drug regimens, and alcohol abuse—drive health spending. An individual with a high number of these risk factors costs more than twice as much in healthcare costs as one with a low number of risk factors, according to PricewaterhouseCoopers' analysis.[6] Conditions such as obesity lead to higher rates of diabetes, hyperlipidemia, back problems, depression and hypertension.[7] This is a concern of both employers and government, which recently noted that about one-fourth of Medicare spending was attributed to obese beneficiaries in 2002.[8] Exhibit 4 shows the costs associated with these

consumer behaviors.[9, 10, 11, 12] It's important to note that these costs are only those absorbed by the healthcare system. Other costs, such as lost productivity, absenteeism, and presenteeism, can be three to four times higher.

Exhibit 4: Annual excess costs from consumer behavior



Source: RTI International & Center for Disease Control and Prevention (2002), Datamonitor (2007), Americas Health Insurance Plans (2007), Commonwealth Fund (2007), Agency for Health Research and Quality (2003), Analysis by PricewaterhouseCoopers' Health Research Institute

Clinical: Lack of effectiveness is followed by lack of implementation

Two common themes underlie waste in clinical care. First, those providing or paying for care often don't have the best information on the right thing to do. Second, those providing or paying for the care don't utilize that information. Variation in treatment has been documented for decades by the Dartmouth Institute for Health Policy and Clinical Practice, which has reported that up to one-third of spending is on unnecessary hospitalizations, redundant tests, unproven treatments, and excessive end of life care.[13] "There are inappropriate and unnecessary variances in care," said Michael Karpf, M.D., executive vice president for health affairs of the University of Kentucky hospital system. "Some are legitimate and necessary. But doctors need to be engaged to

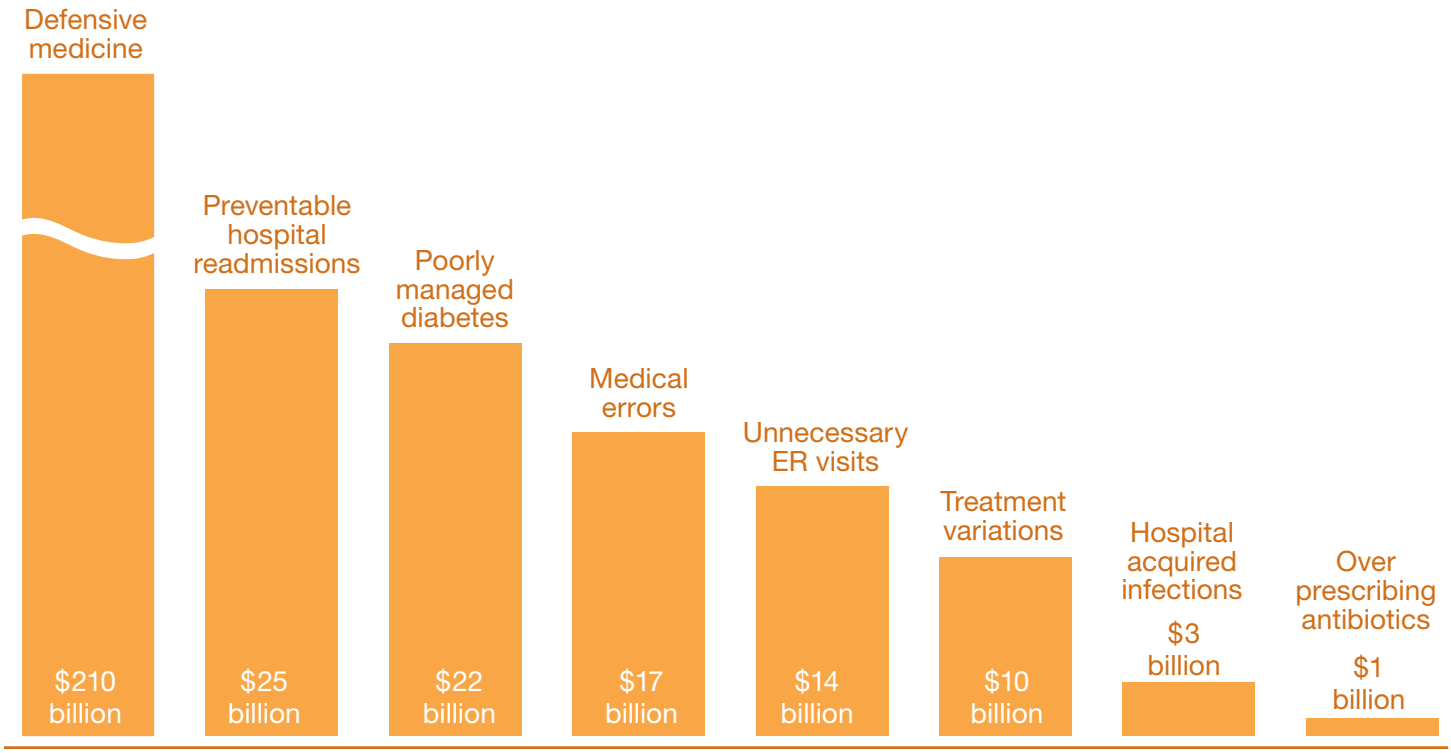
understand that they have an obligation to their patients and society." Several groups, including the Institute of Medicine, have called for more research around clinical effectiveness through government or quasi-government agencies so that clinicians know what treatments work best. Consumers surveyed by HRI agreed: 60% said they would support the government mandating higher quality standards.

But, that's only half the battle. Adoption of evidenced-based practices is lacking, as documented by the 2003 RAND Corporation study showing that only 55% of patients receive recommended care.[14] Backing up that finding, 62% of consumers in HRI's survey said they received effective care all or most of the time. This plays out in numerous ways. For example, a PricewaterhouseCoopers' study showed that implementation of proper discharge planning and instructions for cardiac patients could save a 350-bed hospital $486,000 annually.[15] Preventable readmissions are a case of too little management resulting in too much care. "Lack of coordination is the biggest waste," noted Scott Wallace, CEO of the National Alliance of Health Information Technology. Vicky Gregg, CEO of Blue Cross of Blue Shield of Tennessee, added that new treatments and technologies are being developed to add value for patients. However, she cautioned: "While people are creating all of these great ornaments, without a tree to apply them all to, no one is getting the whole picture."

According to the HRI survey, consumers see key areas of clinical waste:

- Nearly three-fourths (73%) said that increased demand by patients for costly advanced medical treatments and technologies was driving up healthcare costs.
- Two-thirds said that overused diagnostic testing was driving up healthcare costs.
- Two-thirds (65%) acknowledged that they themselves had received excessive medical treatment, and 16% said they received excessive testing so that doctors could protect themselves from a lawsuit.
- According to a PricewaterhouseCoopers' study with America's Health Insurance Plans (AHIP), 10% of health costs are attributed to too much care in the form of defensive medicine and associated legal costs.[16] The study suggested that the costs stretch across physician, outpatient, hospital, drugs and other medical services. However, too little care bears a cost as well. For example, a pregnant diabetic mother whose care is not managed properly can end up delivering a premature baby, which carries emotional and financial costs. Studies show that the clinical basket of inefficiencies has numerous examples of over utilization, under utilization and wrong treatments as shown in Exhibit 5.[17, 18, 19, 20, 21, 22, 23, 24]

Exhibit 5: Annual excess costs in clinical services



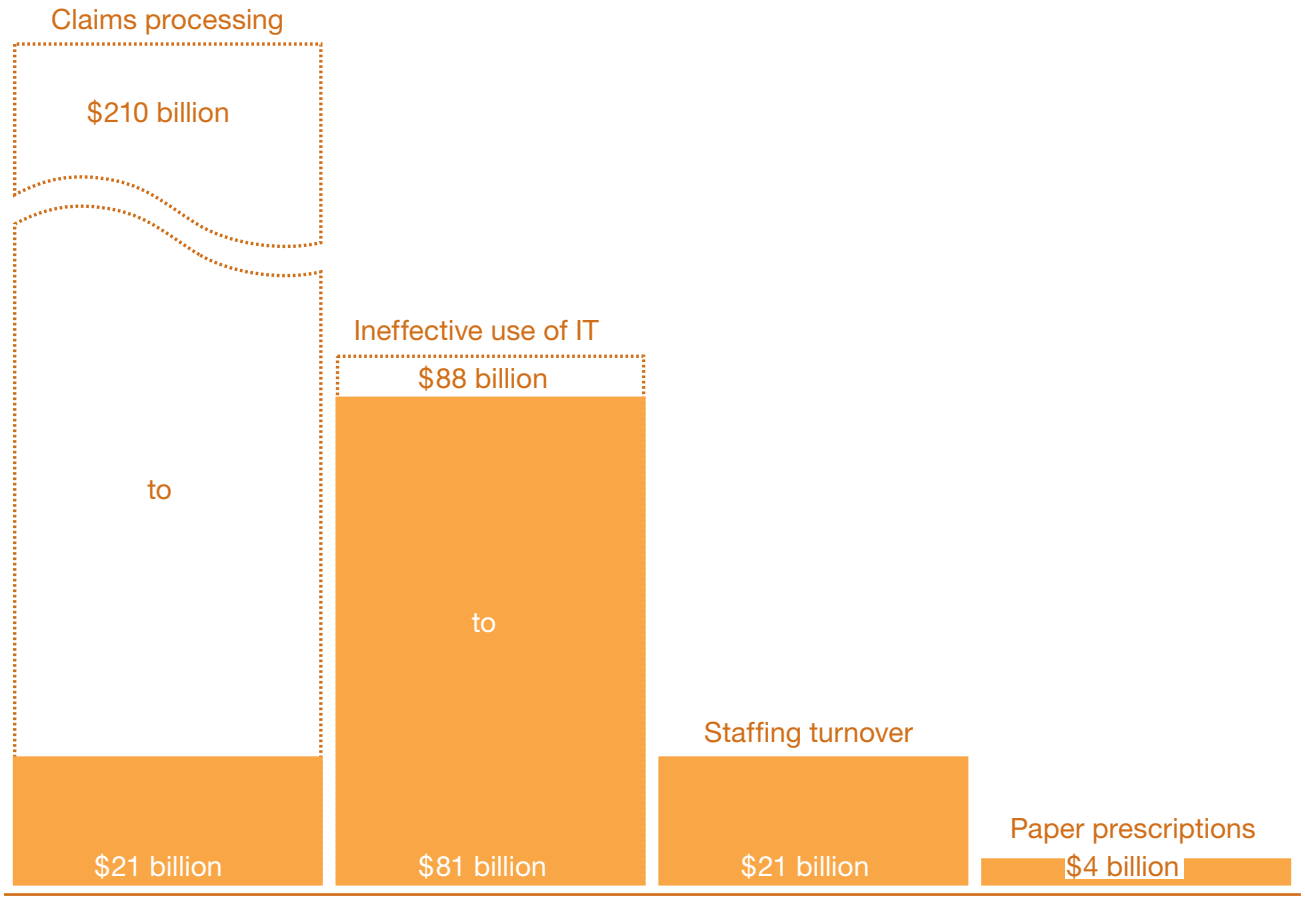
Source: Institute of Medicine (1999), "The Factors Fueling Rising Healthcare Costs 2006", PricewaterhouseCoopers (2006), Medpac (2007), American Association of Endocrinologists (2006), Center for Disease Control and Prevention (2005), Solucient (2007), U.S Outcomes Research Group of Pfizer Inc (2005), National Committee for Quality Assurance (2005), Analysis by PricewaterhouseCoopers' Health Research Institute

Operational: Complexity adds costs

About 700 different organizations, health plans, and employers pay the bills at Johns Hopkins Health System in Baltimore. Each one has different rules about what's eligible for payment, how much to pay and when to pay. As one of 4,500 hospitals in the U.S., it's a microcosm of the complexities that add costs to the health system. An in-house study found that potential administrative complexity fuels expenses in scheduling, registration, financial clearance, coding, claims processing, credentialing and utilization management for inpatient, outpatient and home care services.[25] Reducing the redundancies could save the hospital more than $40 million annually, and that's only "numbers we could identify if we could just get computers talking to each other," said Richard Davis, vice president of innovation and patient safety at Johns Hopkins. Hopkins is "trying to focus on the front-end administrative tasks that are just required to get the patient in the door and receive a payment from a payer," but larger savings could result from cross-sector collaboration.

Administering treatment is expensive, estimated at between 15% and 30% of all health spending. That cost is shared among purchasers and providers. Our complex payment system was cited as the number two driver of inefficiencies by consumers surveyed by HRI. Three-fourths of those surveyed said they would support government-mandated technology reforms to make the system more efficient. Exhibit 6 shows the breakdown of excess operational costs.[26, 27, 28, 29, 30]

Exhibit 6: Annual excess costs in operational processes



Source: PNC Bank (2007), Commonwealth Fund (2007), RAND Corporation(2005), "Beyond the Sound Byte", PricewaterhouseCoopers (2007), "What Works, Healing the Healthcare Staffing Shortage", PricewaterhouseCoopers (2007), Analysis by PricewaterhouseCoopers' Health Research Institute

Barriers to reducing inefficiency

When asked to pick among 13 reasons for inefficiencies, consumers surveyed by HRI tagged both government and the health industry. (See Exhibit 7.) This shows consumers' views that the government and industry sectors jointly have a responsibility to work together to address waste.

Industry leaders interviewed for this report identified a common set of barriers that they believe stand in the way of improving the efficiency of the nation's healthcare system:

Culture: The industry often lacks the will and the agility to change business processes. Doing the right thing may not be the easiest path, making change more difficult. "Change only moves as fast as the slowest common denominator," said George Lynn, president emeritus of AtlantiCare Health System. In many industries, lack of agility cripples an organization's ability to compete.

Politics: Many industry leaders mentioned that political infighting gets in the way of progress. Greg Simon, president of the advocacy group FasterCures, noted that the healthcare industry is divided because of the view that "government owns the solutions for Democrats and consumers own the solution for Republicans."

Lack of incentives and funding: Changes in behavior will require changes in incentives across providers, payers and patients. The investment and potential savings are long term and have been shown to build in future years. For example, the Commonwealth Fund's recent "Bending the Curve" study reported that if the federal excise taxes were raised by $2 on cigarettes and the additional revenue paid for national tobacco control programs, a potential savings of $191 billion could result by 2017.[31] Similarly, a Milken Institute study concluded that major changes that would result in healthier lifestyles could cut $217 billion from the nation's healthcare bill in 2023. The savings were calculated in lower incidence of and treatment costs for cancer, heart disease, hypertension, mental disorders, diabetes, pulmonary conditions and stroke.[32]

Lack of a coordinated focus: The financial benefits of creating efficiencies in the health system often accrue to external organizations. Many participants in the system believe that someone else will solve the system's ills, and so they go back to working on their own organizational issues. "We should be working together for the best interests of the patient in a system of care," said Joel Allison, CEO of Baylor Health System. "Without a clear direction, you can begin focusing on multiple initiatives and lose sight of your goal."

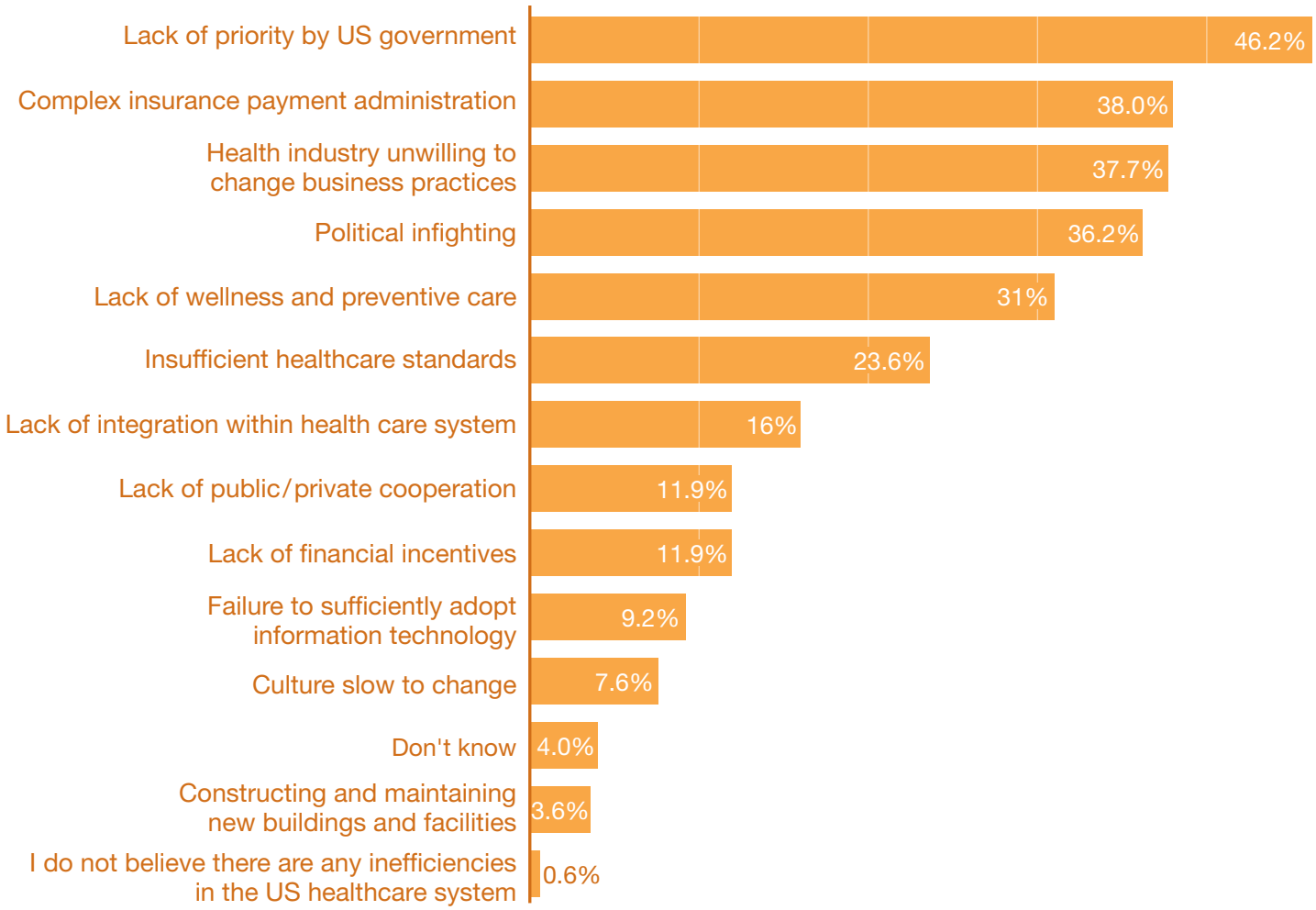
Call to action: Create collaborative models and incentive systems that deliver value

Reducing waste isn't merely an exercise in subtraction. While the costs of waste are enormous and well documented, focusing on costs alone isn't constructive. Cost reduction, particularly in one sector, won't necessarily eliminate waste. It can increase costs elsewhere in the system. Organizations cannot and will not work against their own self-interests. In today's health economy, traditional sectors are increasingly converging, which creates opportunity and conflict.

Nonetheless, there are several steps that the government and industry, working together, should take to reduce waste and improve efficiency:

- Create incentives that improve value on a system-wide basis and agree on how that value is determined. As Carolyn Clancy, director of the Agency for Healthcare Research and Quality, said: "You can't solve healthcare payment issues until you know what you want to buy." That discussion requires a cross-industry discussion and collaboration on value-driven models of care and treatment.
- Focus on investments that improve health status. Improvements in wellness may initially increase costs as individuals live longer and generate even higher costs in later years, but the value of extending life is not just a financial equation. In some cases, solutions will require up-front investments. For example, some diagnostic tools fall outside current reimbursement schedules so clinicians don't prescribe them. Yet, these tools could lead to more precise and earlier diagnoses and more appropriate therapies prescribed.
- Leverage interdependencies. The success of initiatives to eliminate wasteful spending on healthcare is contingent on participation by other sectors. Organizations that can succeed at collaboration will succeed in an increasingly networked industry.

Exhibit 7: Consumer perceptions of barriers to reducing inefficiency



Source: Analysis by PricewaterhouseCoopers' Health Research Institute

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Carter Pate
Partner, Global and U.S. Health Industries and Government Services Leader
carter.pate@us.pwc.com
(703) 918-1111

David Chin, M.D.
Principal, Health Research Institute Leader
david.chin@us.pwc.com
(617) 530-4381

Sandy Lutz
Managing Director, Health Research Institute
sandy.lutz@us.pwc.com
(214) 754-5434

Nick Beard M.D. M.S.
Director, Health Research Institute
nicolas.beard@us.pwc.com
(206) 398-3293

Benjamin Isgur
Assistant Director, Health Research Institute
benjamin.isgur@us.pwc.com
(214) 754-5091

Ryan Carlos
Research Analyst
ryan.r.carlos@us.pwc.com
(317) 453-4118

Justin Loring
Research Analyst
justin.r.loring@us.pwc.com
(646) 471-2413

Heidi Pandya
Research Analyst
heidi.j.pandya@us.pwc.com
214-754-5368

Booker Young
Research Analyst
booker.t.young@us.pwc.com
(678) 419-1847

Health Research Institute Advisory Team

Joseph M. Albian
Principal, Health Industries
joe.albian@us.pwc.com
(312) 298-2018

David Levy
Principal, Health Industries
david.l.levy@us.pwc.com
(646) 471-1070

Jack Rodgers
Managing Director, Health Policy Economics Practice
jack.rodgers@us.pwc.com
(202) 414-1646

Hindy Shaman
Director, Health Industries
hindy.shaman@us.pwc.com
(703) 453-6161

Kimberly Ishihara
Manager, Health Industries
kimberly.k.ishihara@us.pwc.com
(213) 217-3240

Todd Hall
Director, Health Industries Marketing
todd.w.hall@us.pwc.com
(617) 530-4185

Nadia Leather
Director, Payer/Provider Marketing
nadia.m.leather@us.pwc.com
(646) 471-7536

Attila Karacsony
Director, Pharma/Life Sciences Marketing
attila.karacsony@us.pwc.com
(973) 236-5640

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Our research

PricewaterhouseCoopers' Health Research Institute (HRI) is an unparalleled resource for health industry expertise. By providing cutting-edge intelligence, perspective, and analysis on issues impacting the health industry, HRI assists executive decision-makers and stakeholders worldwide in navigating their most pressing business challenges. PricewaterhouseCoopers is one of the only firms with a dedicated global healthcare research unit, capitalizing on fact-based research and collaborative exchange among our network of professionals with day-to-day experience in the health industries.

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Endnotes

1. OECD per capita for U.S. is $6,401, compared with OECD average without US at $2,959.

2. Organisation for Economic Co-operation and Development, “Health Data 2007—Frequently Requested Data,” http//www.oecd.org/topicstatsportal/0,3398,en_2825_495642_1_1_1_1_1,00.html.

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17. Unnecessary ER visit costs are based on the “National Hospital Ambulatory Medical Survey: 2005 Emergency Department Summary” from the CDC, there were 115.3 million people who visited the ER, with 13.9% of those individuals who were prioritized with “non-urgent care”. Costs were calculated based on Wellmark Blue Cross Blue Shield estimate of ER at $1,049 and $153 for average cost of a physician visit.

18. Defensive medicine costs are calculated at $210 billion based on 10% of all healthcare spending as documented in The Factors Fueling Rising Healthcare Costs 2006, prepared for America’s Health Insurance Plans, January 2006.

19. Over-prescribing of drugs costs are calculated at $1.2 billion based on savings in correcting the overuse of antibiotics in the HEDIS 2006 Draft Measures Focus on Overuse; Monitoring, Follow-up Visits Also Addressed, prepared by NCQA , 2005.

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21. Preventable hospital readmission costs are calculated at $25 billion based on savings in preventing readmissions based on rate of potentially preventable readmissions in Promoting Great Efficiency in Medicare, prepared by MedPac Report to Congress, June 2007.

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