

Waste in the US Health Care System

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In this issue of *JAMA*, Shrank and colleagues¹ examine the critically important issue of waste in the US health care system. Their Special Communication represents an analytic update of 2 prominent previous analyses on waste in US health care, one by the Institute of Medicine in 2010² and the other by Berwick and Hackbarth in 2012.³

Shrank and colleagues purposely created similar categories to those developed for the previous reports^{2,3} (failure of care delivery, failure of care coordination, overtreatment or low-value care, pricing failure, fraud and abuse, and administrative complexity) to create continuity between the previous and their contemporary analyses, findings, and inferences. Importantly, the authors not only delineated the range of waste in each category, but also estimated the potential savings that could accrue with interventions to reduce waste.

Based on their analysis of 71 estimates from 54 unique peer-reviewed publications, government-based reports, and other articles published between January 2012 and May 2019, the authors estimated that the total annual amount of waste in the US health care system ranged from \$760 billion to \$935 billion, accounting for approximately 25% of total US health care spending. For the 6 categories evaluated, the estimated ranges of annual waste were as follows: failure of care delivery, \$102.4 billion to \$165.7 billion; failure of care coordination, \$27.2 billion to \$78.2 billion; overtreatment or low-value care, \$75.7 billion to \$101.2 billion; pricing failure, \$230.7 billion to \$240.5 billion; fraud and abuse, \$58.5 billion to \$83.9 billion; and administrative complexity, \$265.6 billion.

The authors' analyses also suggested that an estimated \$191 billion to \$282 billion, or 5% to 8% of total US costs (based on total health care spending of \$3.5 trillion),⁴ could be saved if interventions to reduce waste were implemented and were successful. However, that estimate does not include any savings from reducing administrative complexity because insufficient contemporary US data were available that provided reasonable estimates of potential savings. The administrative complexity that exists in the United States was recently highlighted in an article by Tseng et al,⁵ who estimated the time to generate billing and insurance-related activities in primary care, the emergency department, general medicine inpatient stays, and ambulatory surgical procedures. In these 4 areas, professional billing costs were estimated to represent a range of 8% to 25% of professional revenue.

Shrank and colleagues rightfully acknowledge several important limitations, including the limited nature of data for both

sets of analyses, so estimates of potential waste and savings have broad ranges; the general reliance on studies conducted in the Medicare population and lack of data for the child health population; the need to extrapolate from some findings to generate national estimates; and the variability in estimates of potential savings from interventions to reduce waste. Nonetheless, as the authors suggest, their analyses "offer reasonable bounds for estimated waste and potential cost savings."

Also in this issue of *JAMA*, 2 insightful editorials, by Berwick⁶ and by Joynt Maddox and McClellan,⁷ accompany the article by Shrank et al. Berwick maintains that health care in the United States may have its own version of "the Fermi paradox." He points out that in an era of health care when no dimension of performance is more apparent or more onerous than high cost, and at a time when high health care costs are adversely affecting virtually everyone, it is unclear why approximately \$800 billion in estimated waste in health care spending remains untapped. He proposes 4 plausible explanations and ultimately suggests that "removing waste from US health care will require both awakening a sleepy status quo and shifting power to wrest it from the grip of greed."

Joynt Maddox and McClellan⁷ focus on the 3 "clinical" categories of waste identified by Shrank and colleagues (failure of care delivery, failure of care coordination, and overtreatment or low-value care), which collectively are associated with suboptimal quality of care. The authors discuss reasons many of the recent policy initiatives have not led to the widespread adoption of care redesign or to the major shifts in quality or costs of care that were anticipated when the programs were launched.

At a time when the United States is once again mired in a great debate about the future of its health care system, the data reported in the article by Shrank et al should become part of the national discussion. It would be nearly impossible for all waste to be eliminated in any health care system, just as it is impossible to know the true cost of any change in the delivery and financing of health care without understanding possible savings, and recognizing that there is complexity in knowing the savings. For example, could administrative costs (the category with the largest estimated amount of waste in the article by Shrank et al) in the private sector, approximately 15%, approximate those for Medicaid and Medicare, reportedly no more than 5%?⁸ That alone could save approximately \$120 billion (based on 10% savings of \$1.2 trillion spent on private health insurance).⁴ Furthermore, reducing overutilization of diagnostic tests and procedures could provide additional savings and improve value, but also would reduce income for hospitals and individuals, and as has been learned from many



Editorial



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years of attempts, it is difficult to implement appropriate use criteria. Currently, hospital costs account for approximately 35% of US health care expenditures.^{4,9} Drug costs account for 16% to 18% of spending (including inpatient and outpatient), are responsible for the next largest share of health care costs, and continue to be debated, including the high cost of generics, expensive new drugs for rare diseases, and programs such as the 340B Drug Pricing Program.⁹⁻¹² Ultimately, savings in overall drug costs may be limited because new, important therapies are being introduced annually, and savings for the cost of some existing drugs may simply be offset by the cost of new therapies. Nonetheless, reducing waste related to hospital costs and drug costs will become increasingly important.

Assuming that the projected potential savings of \$191 billion to \$282 billion from reducing waste reported by Shrank et al represents a valid estimate, and assuming perhaps even further savings from decreasing waste associated with administrative costs, it may be possible to save at least \$250 bil-

lion annually in health care spending (perhaps more) by reducing and eliminating waste in the US health care system, and then redirecting these funds elsewhere. For instance, with this potential savings, and with average annual health care costs of \$10 000 per individual in the United States,^{4,9} 25 million individuals could be insured with no additional costs to the health care system. Thus, it is possible to provide health care coverage to all individuals in the United States, without further substantial increases in spending, if waste in health care could be minimized.

The Special Communication by Shrank and colleagues,¹ along with the 2 accompanying Editorials by Berwick⁶ and by Joynt Maddox and McClellan,⁷ should contribute to the national discussion about the future of the US health care system as well as those around the world, many of which are struggling with the issue of increasing costs. While no single solution will solve the continuous increases in US health care spending, identifying, reducing, and eliminating waste are important and appropriate places to start.

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Published Online: October 7, 2019.
doi:10.1001/jama.2019.15353

Conflict of Interest Disclosures: None reported.

REFERENCES

- Shrank WH, Rogstad TL, Parekh N. Waste in the US health care system: estimated costs and potential for savings [published online October 7, 2019]. *JAMA*. doi:10.1001/jama.2019.13978
- The Healthcare Imperative: Lowering Costs and Improving Outcomes: Workshop Series Summary, Institute of Medicine. Washington, DC: National Academies Press; 2010. <https://www.nap.edu/catalog/12750/the-healthcare-imperative-lowering-costs-and-improving-outcomes-workshop-series>. Accessed July 10, 2019.
- Berwick DM, Hackbarth AD. Eliminating waste in US health care. *JAMA*. 2012;307(14):1513-1516. doi:10.1001/jama.2012.362
- Martin AB, Hartman M, Washington B, Catline BW. National health care spending in 2017: growth slows to post-great recession rates; share of GDP stabilizes. *Health Aff*. 2019;38(1):96-106. doi:10.1377/hlthaff.2018.05085
- Tseng P, Kaplan RS, Richman BD, Shah MA, Schulman KA. Administrative costs associated with physician billing and insurance-related activities at an academic health care system. *JAMA*. 2018;319(7):691-697. doi:10.1001/jama.2017.19148
- Berwick DM. Elusive waste: the Fermi paradox in US health care [published online October 7, 2019]. *JAMA*. doi:10.1001/jama.2019.14610
- Joynt Maddox KE, McClellan MB. Toward evidence-based policy making to reduce wasteful health care spending [published online October 7, 2019]. *JAMA*. doi:10.1001/jama.2019.13977
- 2018 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds. <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/ReportsTrustFunds/Downloads/TR2018.pdf>. Posted June 5, 2018. Accessed September 16, 2019.
- Papanicolaos I, Woskie LR, Jha AK. Health care spending in the United States and other high-income countries. *JAMA*. 2018;319(10):1024-1039. doi:10.1001/jama.2018.1150
- Kesselheim AS, Avorn J, Sarpawari A. The high cost of prescription drugs in the United States: origins and prospects for reform. *JAMA*. 2016;316(8):858-871. doi:10.1001/jama.2016.11237
- Prescription drug prices in the US. *JAMA*. 2018; 319(10):1042-1043. doi:10.1001/jama.2018.1844
- Bach PB, Giral SA, Saltz LB. FDA approval of tisagenlecleucel: promise and complexities of a \$475 000 cancer drug. *JAMA*. 2017;318(19):1861-1862. doi:10.1001/jama.2017.15218