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Reduce the Explosive Growth in U.S. Health Care Costs through Rigorous Evidence About "What Works"

The Problem: Health care costs consume a large and rapidly growing share of GDP and the federal budget. Over the past 30 years, total U.S. spending on health care has more than doubled as a share of GDP, and is projected to double again by 2035, according to Congressional Budget Office (CBO) estimates. At 15% – or $7500 per person per year – the current share is larger than that of any other major industrialized country. The federal government's spending on mandatory health care programs – mainly Medicare and Medicaid – now accounts for 21% of federal spending, making it the single largest component of the federal budget. The additional spending, however, often does not produce better health outcomes. As CBO has stated, "Substantial evidence suggests that more expensive care does not always mean better care …evidence indicates that much spending is not cost-effective and in many cases does not even improve health."[1]

The Opportunity: Rigorous studies have identified a few health care system reforms, such as the following, that produce major cost savings. What distinguishes these reforms from the large majority of strategies for reducing cost is that these have been proven effective in well-conducted randomized controlled trials – the most credible method of evaluating program impact, per evidence standards articulated by the National Academy of Sciences,[2] National Science Foundation,[3] Food and Drug Administration,[4] Congressional Budget Office,[5] and other respected scientific bodies.

- **Prospective payment of Medicare home health agencies: shown to reduce Medicare expenditures by 20% with no adverse effects on patient health.** In 1995, HHS launched a randomized trial to test prospective payment of Medicare home health agencies – i.e., paying such agencies an up-front lump sum per patient – against the usual cost-reimbursement approach. The evaluation found that prospective payment reduced costs to Medicare by 20% over three years, compared to cost reimbursement, with no adverse effects on patient health.[6] This finding helped shape Medicare's nationwide implementation of prospective payment for home health agencies in 2000, producing large cost savings in this $15 billion program.[7]

- **Transitional Care Model (TCM) for elderly hospital patients: shown to reduce unnecessary rehospitalizations by 30-50% and net healthcare costs by $4,000 per patient.** TCM is a nurse-led hospital discharge and home follow-up program for chronically-ill older adults. It is designed to address a major problem in the U.S. healthcare system: more than one-third of older patients discharged from U.S. hospitals each year are rehospitalized within 90 days, generating major costs to Medicare.[8] TCM has been shown in two randomized trials to reduce rehospitalizations by 30-50% and net healthcare costs by $4,000 per patient, without any adverse effects on patient health or quality of life.[9] These results suggest that successful national replication of this model could generate Medicare savings of about $10 billion per year – without cutting anyone's benefits.

- **Staying Free smoking cessation program for hospitalized smokers: shown to produce a 30% increase in sustained abstinence from smoking.** Staying Free is a nurse-administered behavioral intervention, evaluated in four well-conducted randomized controlled trials in diverse hospital settings. These studies found that the program produced a 30% increase in sustained abstinence from smoking, at a cost of just $150 per patient.[10] Nationwide implementation of this program would likely produce major health care savings, because smoking is the leading preventable cause of disease in the United States, according to the Centers for Disease Control, accounting for approximately $96 billion in annual health care spending.

June 2011

The Challenge:

1. **Unfortunately, such examples of rigorously-proven cost-saving strategies are currently uncommon.** This is because well-conducted randomized controlled trials carried out in multiple sites – widely considered the "gold standard" for evaluating the effectiveness of *medical treatments* – are not often used to evaluate *health care system or behavioral interventions*. The examples described above are rare exceptions.

2. **Meanwhile, the less-rigorous studies that are more typically used to evaluate system reforms too often produce erroneous conclusions.**

   - **Example: The Medicare Coordinated Care Demonstration (MCCD).** MCCD is a large, federally-funded randomized controlled trial of 15 different cost-saving strategies for Medicare patients with chronic conditions, designed to coordinate care among their many physicians. A review of earlier, more preliminary studies (quasi-experiments and small randomized studies) suggested that such programs reduced hospitalizations and health care costs, often by 25% or more.[11] By contrast, the more definitive MCCD study has found that none of the 15 strategies is producing net savings in Medicare costs. On average, they have actually increased such costs by 11%.[12] This is a typical pattern across diverse policy areas: promising preliminary evidence is often not confirmed in more definitive randomized trials.

Proposed Solution: That federal implementation of the Affordable Care Act and other health care reform efforts include, as a top priority –

1. **Use of randomized controlled trials, wherever feasible, to evaluate new cost-reduction strategies, in order to increase the number of proven approaches.** A few such randomized evaluations are currently underway, such as the MCCD and the Medicare Health Support Program. However, a much more systematic federal effort is needed – in part because, as noted above, even many promising, well-executed strategies will be found not to work. Thus a wide array of promising strategies must be tested to ensure success.

2. **National scale-up of the proven approaches.** Such scale-up could begin with the existing proven strategies, and need not wait for the results of the new research studies urged above, so as to begin generating important savings as soon as possible.

Conclusion: Rigorous randomized trials have shown they can produce important, actionable evidence about "what works" to reduce health care costs. If included as a central element of health care reform efforts, they can point the way to major national cost savings that do not compromise – and may actually improve – the health of the American people.

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[4] The Food and Drug Administration's standard for assessing the effectiveness of pharmaceutical drugs and medical devices, at 21 C.F.R. §314.126, linked here.

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[12] Deborah Peikes, Arnold Chen, Jennifer Schore, and Randall Brown, "Effects of Care Coordination on Hospitalization, Quality of Care, and Health Care Expenditures Among Medicare Beneficiaries: 15 Randomized Trials," *JAMA*, vol. 301, no. 6, February 11, 2009, pp. 603-618. One possible reason MCCD produced different results than the earlier studies is that some of the earlier studies had weaknesses, such as selection or attrition bias or small samples, that could have produced a false positive finding.