

POLICY BRIEF 2015-09

## Correcting Signals for Innovation in Health Care

OCTOBER 2015



## ADVISORY COUNCIL

*The Hamilton Project* seeks to advance America's promise of opportunity, prosperity, and growth.

We believe that today's increasingly competitive global economy demands public policy ideas commensurate with the challenges of the 21st Century. The Project's economic strategy reflects a judgment that long-term prosperity is best achieved by fostering economic growth and broad participation in that growth, by enhancing individual economic security, and by embracing a role for effective government in making needed public investments.

Our strategy calls for combining public investment, a secure social safety net, and fiscal discipline. In that framework, the Project puts forward innovative proposals from leading economic thinkers — based on credible evidence and experience, not ideology or doctrine — to introduce new and effective policy options into the national debate.

The Project is named after Alexander Hamilton, the nation's first Treasury Secretary, who laid the foundation for the modern American economy. Hamilton stood for sound fiscal policy, believed that broad-based opportunity for advancement would drive American economic growth, and recognized that "prudent aids and encouragements on the part of government" are necessary to enhance and guide market forces. The guiding principles of the Project remain consistent with these views.

### Hamilton Project Updates

[www.hamiltonproject.org](http://www.hamiltonproject.org)  
[www.facebook.com/hamiltonproject](http://www.facebook.com/hamiltonproject)  
[www.twitter.com/hamiltonproj](http://www.twitter.com/hamiltonproj)

The views expressed in this policy brief are not necessarily those of The Hamilton Project Advisory Council or the trustees, officers or staff members of the Brookings Institution.

GEORGE A. AKERLOF  
Koshland Professor of Economics  
University of California, Berkeley

ROGER C. ALTMAN  
Founder & Executive Chairman  
Evercore

KAREN ANDERSON  
Principal  
KLA Strategies

ALAN S. BLINDER  
Gordon S. Rentschler Memorial Professor  
of Economics & Public Affairs  
Princeton University

JONATHAN COSLET  
Senior Partner &  
Chief Investment Officer  
TPG Capital, L.P.

ROBERT CUMBY  
Professor of Economics  
Georgetown University

STEVEN A. DENNING  
Chairman  
General Atlantic

JOHN DEUTCH  
Institute Professor  
Massachusetts Institute of Technology

CHRISTOPHER EDLEY, JR.  
The Honorable William H. Orrick, Jr.  
Distinguished Professor; Faculty Director,  
Chief Justice Earl Warren Institute on Law  
& Social Policy  
Boalt School of Law  
University of California, Berkeley

BLAIR W. EFFRON  
Partner  
Centerview Partners LLC

DOUG ELMENDORF  
Former Director  
Congressional Budget Office

JUDY FEDER  
Professor & Former Dean  
McCourt School of Public Policy  
Georgetown University

ROLAND FRYER  
Henry Lee Professor of Economics  
Harvard University

MARK T. GALLOGLY  
Cofounder & Managing Principal  
Centerbridge Partners

TED GAYER  
Vice President &  
Director of Economic Studies  
The Brookings Institution

TIMOTHY GEITHNER  
Former U.S. Treasury Secretary

RICHARD GEPHARDT  
President & Chief Executive Officer  
Gephardt Group Government Affairs

ROBERT GREENSTEIN  
Founder & President  
Center on Budget and Policy Priorities

MICHAEL GREENSTONE  
The Milton Friedman Professor in  
Economics  
Director, Energy Policy Institute at  
Chicago  
University Of Chicago

GLENN H. HUTCHINS  
Co-Founder  
Silver Lake

JAMES JOHNSON  
Chairman  
Johnson Capital Partners

LAWRENCE F. KATZ  
Elisabeth Allison Professor of Economics  
Harvard University

MELISSA S. KEARNEY  
Senior Fellow, The Brookings Institution  
Professor of Economics,  
University of Maryland

LILI LYNTON  
Founding Partner  
Boulud Restaurant Group

MARK MCKINNON  
Former Advisor to George W. Bush  
Co-Founder, No Labels

ERIC MINDICH  
Chief Executive Officer & Founder  
Eton Park Capital Management

SUZANNE NORA JOHNSON  
Former Vice Chairman  
Goldman Sachs Group, Inc.

PETER ORSZAG  
Vice Chairman of Corporate and  
Investment Banking  
Citigroup, Inc.

RICHARD PERRY  
Managing Partner &  
Chief Executive Officer  
Perry Capital

MEEGHAN PRUNTY EDELSTEIN  
Senior Advisor  
The Hamilton Project

ROBERT D. REISCHAUER  
Distinguished Institute Fellow  
& President Emeritus  
Urban Institute

ALICE M. RIVLIN  
Senior Fellow, The Brookings Institution  
Professor of Public Policy  
Georgetown University

DAVID M. RUBENSTEIN  
Co-Founder &  
Co-Chief Executive Officer  
The Carlyle Group

ROBERT E. RUBIN  
Co-Chair, Council on Foreign Relations  
Former U.S. Treasury Secretary

LESLIE B. SAMUELS  
Senior Counsel  
Cleary Gottlieb Steen & Hamilton LLP

SHERYL SANDBERG  
Chief Operating Officer  
Facebook

RALPH L. SCHLOSSTEIN  
President & Chief Executive Officer  
Evercore

ERIC SCHMIDT  
Executive Chairman  
Google Inc.

ERIC SCHWARTZ  
76 West Holdings

THOMAS F. STEYER  
Investor, Philanthropist, & Advanced  
Energy Advocate

LAWRENCE SUMMERS  
Charles W. Eliot University Professor  
Harvard University

PETER THIEL  
Technology Entrepreneur & Investor

LAURA D'ANDREA TYSON  
Professor of Business Administration  
and Economics; Director, Institute for  
Business & Social Impact  
Berkeley-Haas School of Business

DIANE WHITMORE SCHANZENBACH  
Director

# Correcting Signals for Innovation in Health Care

*Technology adoption* accounts for 30 to 50 percent of health-care spending growth. A central challenge to getting the most out of health-care spending is encouraging more high-value innovation and less low-value innovation that pushes up costs but results in meager health benefits. Recent policy efforts have focused on encouraging more-efficient use of existing technologies, but have not completely addressed all of the fundamental issues that would strengthen incentives for technology developers to prioritize high-value innovation. Many of those incentives are manifest in the nature of health insurance coverage.

The structure of insurance plans is a key determinant of medical technology developers' incentives to innovate, but that structure does not currently promote high-value innovation. For one, following Medicare's lead, most insurance plans cover a wide range of therapies regardless of cost-effectiveness, and this permissiveness favors low-value innovation. Due to a combination of legal rules and institutional forces, insurance plans do not differentiate themselves on the types of innovation that they cover. As a result, consumers are constrained to buy coverage for virtually all technologies, including those that are highly inefficient. Indeed, some consumers may want to pay lower premiums for coverage that excludes treatments with low cost-effectiveness, but that is not a choice consumers currently can make. Consequently, manufacturers and drug companies have weak incentives to innovate in ways that drive down costs while maintaining or improving clinical outcomes. And higher levels of health-care spending absent commensurate improvements in health benefits reduce the well-being of all consumers, particularly those with limited means and resources, through unnecessarily high health insurance premiums or reduced wages.

In a new Hamilton Project discussion paper, Nicholas Bagley of the University of Michigan, Amitabh Chandra of Harvard University, and Austin Frakt of the Department of Veterans Affairs propose three policy reforms to improve the value of insurance for consumers and reduce the distortions in the incentives facing medical technology developers. First, to alleviate some of the burdens of high insurance premiums for low-wage workers, the authors propose replacing the tax exclusion for employer-sponsored health insurance with a tax credit that would phase out as income increases. Second, the authors propose reforming Medicare's coverage determination process so that the program is not required to cover treatments that produce insignificant health benefits at huge costs. Third, the authors propose that the Centers for Medicare & Medicaid Services (CMS) undertake small-scale demonstration pilots to explore reference pricing. Under the reference pricing approach the authors propose, insurers pay no more than a cost-effective price for a given health care technology, but patients who want treatments that are less cost-effective can pay the difference out of pocket. In these pilots, the authors propose that CMS use a reimbursement method that is based in part on a comparison between a treatment's costs and its benefits. Taken together, the authors argue, these reforms would better align health insurance with the preferences and needs of consumers and, in turn, encourage medical technology developers to pursue more-efficient and higher-value innovations.

## The Challenge

Taken together, four key factors send signals to manufacturers to develop technologies without regard to cost-effectiveness: coverage

requirements, obstacles to offering plans that differentiate on technology, the tax code, and reimbursement methods. Together, these factors encourage inefficient innovation by sending an unambiguous signal to manufacturers: "If you build it, we will pay."

## Rigidities in Coverage Requirements

Health insurance plans in the United States—both public and private—are typically required to cover virtually any medical innovation that physicians deem to be medically necessary. This is true even if there is little evidence to support the efficacy of treatments. Extending coverage of any medical innovation often leads to the wider application of select treatments—which may be highly valuable for certain patients—to a much wider population than cost-effectiveness considerations would recommend.

Because Medicare currently lacks the resources and statutory authority to review the vast majority of new technologies that come online, it has limited ability to restrict coverage for those that lack sufficient evidence of effectiveness. Moreover, although Medicare excludes coverage for care that is "not reasonable and necessary for the diagnosis or treatment of illness or injury," its past attempts to exclude such care based on considerations of cost-effectiveness have ended in failure, largely due to pressure from industry and patient groups. As a result, Medicare's coverage process remains formally cost-blind. Since private insurers generally follow Medicare's lead on coverage, this permissiveness tells technology developers that they need not factor cost-effectiveness into their investment decisions.

## Obstacles to Differentiating Plans' Technology Coverage

The lack of robust clinical-effectiveness data makes plan differentiation on cost-effectiveness extremely difficult: without this information, insurers cannot determine when a technology is valuable and when it is wasteful. Generating effectiveness data for any given treatment is generally too expensive to be worthwhile for individual insurers. If an insurer were to develop such data, and exclude a particular technology with low cost-effectiveness on that basis, other insurers would follow suit without making the same research investment. Because of this free-rider problem, health insurers face weak incentives to determine the scope of effectiveness of new technologies, precluding the possibility of a market in which plans compete on cost-effectiveness. To the extent that consumers would rather pay lower premiums for insurance that excludes inefficient use of technology, the absence of such an offering in the market leads to welfare losses. A vast increase in government funding of biomedical and health economics research might ameliorate the problem, but spending on the scale necessary to fill existing gaps in knowledge is unlikely to be forthcoming.

Even if there were a sufficient knowledge base to enable such competition, adverse selection—where patients with high health risk gravitate toward more-expensive plans and those with lower health risks opt for less-expensive plans—will frustrate efforts to enable plan competition over cost-effectiveness, at least without highly controversial regulatory intervention. In other words, the market, left on its own, will not solve the problem.

To illustrate the challenge that adverse selection poses to competition on cost-effectiveness, the authors discuss a hypothetical market in which health plans are differentiated by the cost-effectiveness of the technology they cover. In this market, healthier individuals would naturally gravitate toward lower premium plans that would have higher cost-effectiveness thresholds, while those with more health-care needs would tend to select more-expensive plans that are less cost-effective. Yet if technology's value is tightly coupled to health diagnoses—and it almost certainly is—it would be a considerable challenge to protect expansive, low-value plans from adverse selection. If an insurer tried to spread the costs of expensive

treatments across other plans in the market, premiums across plans would converge, forcing enrollees in less-expensive plans that are more cost-effective to shoulder the cost of therapies that they did not value.

Employers have not demanded more-sophisticated plans—for example, plans that impose higher cost sharing for technologies with a dubious evidence base, or deductibles that increase with income—because most employers are likely too small to initiate changes in plan design in a marketplace where plans are much larger than individual firms. Also, any single employer that invests in developing a successful alternative will see its plan promptly copied by its competitors, in much the same way that insurers tend to copy Medicare. There is little competitive advantage to be gained by investing in innovative plan design. Consolidation in the insurance industry exacerbates the problem by reducing the incentives to offer inexpensive or novel plans.

### **Tax Exclusion of Employer-Sponsored Health Insurance**

By excluding employer contributions toward health insurance from taxable income, the tax code encourages compensation packages that are skewed toward insurance rather than wages. Not only is this tax exclusion regressive—it is larger for individuals in high tax brackets than for those in low tax brackets—but also, by favoring health-care spending relative to wages, the tax code promotes health-care consumption at the expense of other goods, from housing to education.

The authors argue that inefficiencies generated by the tax exclusion run deeper than is conventionally understood. Employer contributions are excluded from their employees' taxable income only where employers do not discriminate “in favor of highly compensated individuals” in setting eligibility rules or prices for employee health plans. The nondiscrimination rule encourages self-insured firms—which employed 61 percent of all covered workers in 2014—to offer the same health plans, at the same prices, to most of their workers, whether in the C-Suite or on the factory floor.

High-paid executives and low-wage workers may have substantially different preferences for health insurance, however. Some employees, especially low-wage workers, may prefer to pay lower premiums for a plan that covers only cost-effective technologies. Other employees, especially high-wage workers, may be willing to pay much higher premiums for coverage of low-value technologies. Yet all employees are offered the same health plans, regardless of differences in demand. This may seem like a good deal for workers, but evidence suggests that employees pay for their fringe benefits by taking home lower wages or paying higher premiums than they would like.

### **Reimbursement Methods**

The adoption of low-value technologies is affected by the pervasiveness of reimbursement methods that encourage greater volume, but not necessarily greater quality, of care. Fee-for-service reimbursement, whereby insurers reimburse providers based on the number and type of medical service, is least sensitive to value. Payment based on diagnosis-related groups (DRGs), a form of prospective payment in which providers receive a flat rate per case, is not much more sensitive, especially given that many surgical DRG payments are determined post-surgery. Fee-for-service and DRG-based reimbursement account for the vast majority of Medicare payments, and are also common in private plans. Rigorous empirical analysis shows that providers respond to the financial incentives that these reimbursement methods create. For example, one analysis finds that a 2 percent increase in physician payment rates results in a 3 percent increase in care provision. This effect is larger for more-elective procedures, such as cataract surgery, than it is for less-discretionary services, such as open-heart bypass surgery.

## **A New Approach**

Bagley, Chandra, and Frakt propose three policy reforms that sidestep extreme regulatory changes, but that nonetheless move toward fixing the distorted market signal sent to medical technology developers. The authors argue that these proposals would make progress where existing efficiency-focused proposals (e.g., bundled payments and accountable care organizations) fall short: encouraging manufacturers to develop high-value, cost-effective technology.

### **1. Replace the Tax Exclusion for Employer-Provided Health Insurance with a Tax Credit**

First, the authors propose that Congress replace the tax exclusion for employer-sponsored health insurance with a tax credit that would phase out with increasing income. Employer-sponsored plans and premiums, according to the authors, are often tailored to the preferences of high-income employees. The proposed reform would make health insurance, and ultimately medical innovation, more sensitive to the preferences of low-income employees, who currently provide an implicit cross-subsidy to their high-income counterparts for the coverage of technology that has low cost-effectiveness. By decoupling high- and low-income employee demand, the proposal aims to better align health-care innovation with the preferences of consumers of varying income levels.

Specifically, the tax credit would be keyed to the price of a midrange employer-sponsored plan. For example, for a single individual the tax credit could equal 40 percent of the average cost of premiums (\$6,025 in 2014) but would phase out with increasing income. The authors suggest that the threshold to start the phaseout could be \$52,500 in individual income (roughly the income of the median American), with the credit fully phased out for incomes above \$85,000 (the cutoff for the top income decile). A separate tax credit and phaseout schedule would be employed for family insurance plans. Changing the tax exclusion to such a tax credit would allow low-income employees—but not high-income employees—to buy health plans on a tax-preferred basis.

### **2. Strengthen Medicare's Coverage Determination Process**

The authors next propose reforming Medicare's coverage determination process so that the program is not required to cover treatments that produce small health benefits at huge costs. Specifically, recognizing how beneficial reforms to Medicare often spill over into other parts of the health-care market, they call on Congress to give Medicare the authority to decline to cover highly inefficient treatments. However, the authors also say that if explicit consideration of cost-effectiveness is too challenging for Medicare to implement, states should require plans to take cost-effectiveness into account in coverage decisions, either in their Medicaid programs or in their exchange plans. To avoid the adverse selection problem that would accompany allowing plans to differentiate on cost-effectiveness, states would have to prohibit health plans from providing coverage for therapies shown to be insufficiently cost-effective.

In addition, the authors propose that CMS allocate resources to strengthen Medicare's coverage determination process, and they call on Congress to increase funding for the Patient-Centered Outcomes Research Institute, the Agency for Healthcare Research and Quality, and the National Institutes of Health in order to expand support for comparative-effectiveness research. Currently, Medicare has the resources to scrutinize only a handful of the technologies that come online each year. The authors argue that new resources would enable Medicare to review and assess new technologies more effectively. At the same time, better data about the comparative effectiveness of treatments would enable Medicare to distinguish between those treatments that are worth the additional cost and those that are not.

### 3. Limited Experimentation with Reference Pricing in Medicare

Third, the authors call on CMS to undertake small-scale demonstration pilots to explore reference pricing. Under the reference pricing approach the authors propose, insurers pay no more than a cost-effective price for a given health care technology, but patients who want treatments that are less cost-effective can pay the difference out of pocket. With reference pricing consumers have incentives to choose more cost-effective treatments because they are liable for the marginal price—the last dollar spent—which could be exorbitant. Policyholders’ desire to stay within the reference price, the authors argue, will put pressure on providers to adopt low-cost treatments, which will in turn encourage manufacturers to develop cost-effective therapies.

Under the authors’ proposal, Medicare would experiment with reference pricing by modifying a proposal by two health-care experts, Steven Pearson and Peter Bach. In the Pearson-Bach proposal, Medicare would classify treatments based on effectiveness (but not cost-effectiveness): a treatment might be superior to existing therapies, equivalent to them, or of uncertain benefit. For the superior therapies, Medicare would use the standard cost-based reimbursement formulas that it currently employs. For therapies with benefits equivalent to existing treatments, Medicare would pay the same amount it pays for an equally effective reference therapy. For those of uncertain benefit, Medicare would pay for three years as if the technology were effective and then would reevaluate the technology. At that point, unless there was evidence of superior effectiveness, Medicare would decline to pay more for the technology than it pays for the reference therapy. If the treatment turned out to be less effective than the reference therapy, Pearson and Bach suggest that Medicare could reevaluate whether the service was reasonable and necessary.

Critically, under the Pearson-Bach proposal, the prices paid to treat a particular condition would vary by provider because Medicare would still calculate those prices using its standard methodology. The prices would be capped, however, for therapies that have not been shown to be superior to less-expensive alternatives. The Pearson-Bach approach thus contrasts with a common variant on reference pricing (which Bagley, Chandra, and Frakt do not propose) in which a single reference price is held constant across providers.

With regard to the goal of fixing the incentives of technology developers, the authors argue that the Pearson-Bach proposal would discourage the development of only (a) treatments that are clinically equivalent to less-expensive existing therapies, and (b) treatments that do not improve health relative to existing therapies. But because the Pearson-Bach proposal does not incorporate measures of cost-effectiveness, the authors argue that it will not discourage the development of treatments with insignificant clinical benefits and disproportionately high costs.

To address this problem, the authors propose that Medicare combine the Pearson-Bach proposal with a cost-effectiveness threshold. Under this modification, Medicare would decline to pay more than this threshold, but would allow beneficiaries who wanted a therapy whose cost exceeds this threshold to pay the difference out of pocket. For example, consider a therapy that the Pearson-Bach proposal would reimburse at \$200,000. If Medicare’s threshold were \$150,000 for a given level of clinical effectiveness, Medicare would pay a maximum of \$150,000, but the beneficiary would be permitted to receive the treatment by paying the remaining \$50,000 out of pocket. Importantly, a given treatment can be highly cost-effective for some conditions but less so for others, so the authors propose that the threshold be applied to the cost-effectiveness of treating specific medical conditions.

## Roadmap

- Congress will replace the tax exclusion for employer-sponsored health insurance with a tax credit that phases out with increasing income. The tax credit will be keyed to the price of a midrange employer-sponsored plan—for example, equal to 40 percent of the average cost of premiums in the individual market, which was \$6,025 in 2014. The tax credit will decrease as income increases, phasing out between, for example, \$52,500 and \$85,000 in individual income—roughly the median and top-decile cutoff, respectively. A separate tax credit and phaseout schedule will be used for family insurance plans.
- Congress will give Medicare the authority to decline to cover technologies that produce small health benefits at huge costs, and will increase funding for the Patient-Centered Outcomes Research Institute, the Agency for Healthcare Research and Quality, and the National Institutes of Health in order to expand support for comparative-effectiveness research. In addition, CMS will allocate resources to strengthen Medicare’s coverage determination process.
- For select treatments and regions, the Center for Medicare and Medicaid Innovation will undertake small-scale demonstration pilots in Medicare and Medicare Advantage to explore reference pricing with a cost-effectiveness threshold.

Under the proposal, Medicare’s threshold willingness to pay for a given level of clinical effectiveness need not be hard and fast across treatments. The clinical needs of particular subgroups, together with other ethical considerations (such as whether the treatment is for an underserved population or in an emerging, high-need area) might counsel for higher or lower thresholds in particular cases.

The authors argue, in contrast, that Medicaid should not experiment with reference pricing. Not only is the program already means-tested by income, which reduces the scope for differences in demand, but, more significantly, the authors are skeptical about Medicaid’s ability to implement this approach successfully because most Medicaid enrollees lack sufficient resources to make a meaningful choice between high- and low-technology plans.

Implementation of this proposal would proceed through the Center for Medicare and Medicaid Innovation (Innovation Center), created by the ACA and empowered to waive most Medicare rules in order to experiment with novel payment methodologies that may save money and improve the quality of care. The Innovation Center recently introduced mandatory bundled payments for knee and hip replacements in seventy-five different geographic areas. The authors propose that the Innovation Center adopt a similar approach to experiment with reference pricing to reduce the use of high-cost but less-effective therapies in traditional Medicare. They recommend

## Learn More about This Proposal

This policy brief is based on The Hamilton Project discussion paper, “Correcting Signals for Innovation in Health Care,” which was authored by

NICHOLAS BAGLEY  
University of Michigan

AMITABH CHANDRA  
Harvard University

AUSTIN FRAKT  
Department of Veterans Affairs, Boston University,  
Harvard University

starting with cancer treatments, followed by orthopedics and imaging, in select regions. The authors propose that at the same time and in the same geographic areas the Innovation Center should experiment with reference prices for Medicare Advantage.

## Benefits and Costs

### Benefits

The proposal to replace the tax exclusion for employer-sponsored health insurance with an income-sensitive tax credit would mitigate the cross-subsidization from low-income to high-income employees that occurs when high-income employees demand lavish, fully loaded insurance plans that their lower-income colleagues may not value compared to higher wages or other benefits. This tax change would also reduce artificially inflated demand for health-care goods relative to non-health-care goods, from housing to education. The reform would also undo the regressive feature of the current tax treatment of health insurance. But the primary benefit of this reform would be the decoupling of high- and low-income employee demand for health insurance, which would reduce the inefficient cross-subsidy and in turn encourage high-value, cost-effective innovation from technology developers.

The second proposal—reforming Medicare’s coverage determination process—would correct the signal sent to technology developers from both the public and private sectors. Private insurers often follow Medicare’s lead when it comes to the scope of coverage, so invigorating Medicare’s anemic system for evaluating new technologies would have powerful effects on private coverage decisions. That, in turn, would help mitigate the collective-action problem that discourages insurers in the commercial market from undertaking cost-effectiveness research and making coverage policies that reflect this information. In addition, this reform would encourage the states to weave Medicare’s cost-effectiveness determinations into their Medicaid programs. A new set of signals—from Medicare, private payers, and Medicaid—would encourage manufacturers to channel their investments toward higher-value treatments and away from treatments that offered only marginal improvements at exorbitant cost. This reform would also encourage manufacturers to fund and disclose effectiveness data about their products.

The third proposal—introducing reference pricing into Medicare—would increase the value of insurance for most consumers by not paying for inefficient technologies that most people do not value. A key motivation for this proposal, the authors argue, is that people who

do not value inefficient therapies should not be forced to pay for them for those who do. Cost-sensitive reference pricing, according to the authors, would reduce this cross-subsidization of low-value health-care technology. In addition, the proposal would improve the signal sent to technology manufacturers about the market for innovations. Fewer resources would go toward the development of expensive therapies that offer insignificant health improvements. Instead, manufacturers would invest in the development of therapies that substantially improve health at lower cost.

### Costs and Challenges

Replacing the tax exclusion with an income-sensitive tax credit would reduce the tax liability of low-income employees at the expense of high-income employees. As such, the shift would effectively impose a new charge on high-income people, generating predictable political headwinds. It could also disrupt firms’ ongoing efforts to prepare for the Cadillac Tax, which could create uncertainty in the commercial markets.

The proposed reform to Medicare’s coverage determination process does not avoid the costs of a one-size-fits-all decision for enrollees, whose differences in demand span the full range of incomes and preferences. In addition, the federal government would incur the direct costs of funding cost-effectiveness research.

With regard to reference pricing, one potential worry is that elderly or vulnerable patients might be steered into selecting care that exceeded the reference price. A requirement that Medicare receive the “best price” for a particular treatment would mitigate this risk, and similar rules already exist in the ACA. Nonprofit hospitals, for example, can retain their tax-exempt status only if they charge low-income uninsured people “not more than the amounts generally billed to individuals who have insurance.” The rule could be adapted and extended to ensure that any price exceeding the reference price is in line with the costs of the underlying treatment. Even with that protection in place, however, diligent oversight would be essential to ensure access and to prevent abuses.

## Conclusion

Technology is the most important driver of health-care spending growth, but recent policy efforts to moderate this growth have focused on encouraging more-efficient use of existing technologies, rather than on improving the incentives of technology developers. Due to legal rules and institutional forces, Americans must pay for the coverage of some highly inefficient technologies. Some Americans might value or be insensitive to the higher costs of such permissive coverage, but others would prefer to pay lower premiums for cost-effective health plans. This lack of choice, combined with other features of insurance plans, sends a distorted signal to medical technology developers that society is willing to pay virtually any price for treatments that offer only small health benefits over existing technology. The result is that manufacturers and drug companies face weaker incentives to develop high-value technologies.

All this has consequences not just for individual consumers, but also for the trajectory of health-care spending and the country’s long-term fiscal position. However, serious legal and economic challenges preclude a simple market-based solution. Public and private insurers cannot legally exclude treatments with tiny benefit-to-cost ratios, but even if they could, adverse selection would undermine any attempted market solution that did not include drastic regulatory changes. To address this challenge, the authors propose three policy reforms that would not require extreme regulatory interventions but would nonetheless make insurance more responsive to the preferences of consumers, and, in turn, would encourage manufacturers to develop higher-value technologies.

# Questions and Concerns

## 1. Is the tax proposal different from the Cadillac Tax?

Yes, the proposal differs from the Cadillac Tax, which is insensitive to employee income and imposes a 40 percent tax on all individual plans with a premium in excess of \$10,200 or a family premium in excess of \$27,500. By contrast, the authors propose replacing the tax exclusion of employer-sponsored health insurance with a tax credit that would phase out with rising income. This would allow low-income employees—but not high-income employees—to buy health plans on a tax-preferred basis.

## 2. Would the proposals discourage the development of the next Harvoni or Sovaldi—drugs that are expensive but that appear to essentially cure hepatitis C?

No. The proposals would discourage only those innovations that are exorbitantly expensive relative to their benefits. The prescription drugs Harvoni and Sovaldi are expensive, but they appear to have huge benefits for an identifiable class of patients. The aim of the proposals is to encourage such cost-effective innovation. The cost-effectiveness of a treatment is a good, albeit rough, guide to its value: almost no one would spend a million dollars for an extra minute of life, but almost everyone would spend one dollar for an extra day. The proposals would help make medical innovation reflect what consumers value by changing the incorrect signal sent to manufacturers and drug companies—that society will pay any amount for innovation that offers just incremental benefits over existing technology. Proton beam therapy for prostate cancer, for example, may fall into this category because it has not been shown to be clinically superior to existing alternatives, and yet is far more expensive.

## 3. Does the recent slowdown in health-care spending make the proposals of this paper less urgent?

A number of factors have likely contributed to the recent deceleration in the pace of health-care spending growth, including the recession, increased rates of patient cost-sharing, and reforms in the ACA. But historical experience—together with the absence of significant changes in the basic structure of the health-care system—suggests that such growth will consistently outpace inflation in the coming years. The recent slowdown is probably a lull in the storm, and not the new normal. The technology-driven growth of health-care spending remains an urgent policy challenge.

## Highlights

Technology adoption accounts for 30 to 50 percent of health-care spending growth. Nicholas Bagley of the University of Michigan, Amitabh Chandra of Harvard University, and Austin Frakt of the Department of Veterans Affairs propose three policy reforms to encourage developers to pursue high-value technologies that make substantial improvements to health at lower cost.

## The Proposals

**Tax Treatment of Employer-Sponsored Health Insurance.** Congress would replace the tax exclusion for employer-sponsored health insurance with a tax credit that phases out with increasing income. The aim of this reform is to make health insurance, and ultimately medical innovation, more sensitive to the preferences of low-income employees, who currently provide an implicit cross-subsidy to their high-income counterparts for the coverage of inefficient medical technology.

**Medicare Coverage Determination Process.** Medicare would no longer be required to cover treatments with extremely low cost-effectiveness. In addition, the Centers for Medicare & Medicaid Services would allocate resources to strengthen Medicare's coverage determination process and Congress would increase funding for comparative-effectiveness research. Better comparative effectiveness data would help Medicare identify those treatments that have huge costs but insignificant health benefits compared to existing alternatives.

**Reference Pricing with a Cost-Effectiveness Threshold.** For select treatments and regions, the Center for Medicare and Medicaid Innovation would undertake small-scale demonstration pilots in Medicare and Medicare Advantage to explore reference pricing with a cost-effectiveness threshold.

## Benefits

Health insurance plans in the United States—both public and private—cover virtually any medical technology, often with poor evidence of clinical effectiveness, and with little regard to cost. As a result, Americans are constrained to buy coverage for some highly inefficient technologies regardless of their willingness to pay. This lack of choice, in turn, sends a distorted signal to medical technology developers—that society is willing to pay practically any price for treatments that offer uncertain health benefits over existing technology. Consequently, manufacturers and drug companies have weak incentives to innovate in ways that drive down costs while maintaining or improving clinical outcomes. The authors' three proposals aim to encourage medical technology developers to pursue high-value innovations.



1775 Massachusetts Ave., NW  
Washington, DC 20036

(202) 797-6484

BROOKINGS



Printed on recycled paper.

[WWW.HAMILTONPROJECT.ORG](http://WWW.HAMILTONPROJECT.ORG)