Reviewer Assessments of *Economic Analysis of Medicare for All*

by Robert Pollin, James Heintz, Peter Arno, Jeannette Wicks-Lim, and Michael Ash

November 29, 2018

In September 2017, an early stage in this research project, Michael Lighty and RoseAnn DeMoro of National Nurses United proposed to Robert Pollin that the study be rigorously reviewed by a group of distinguished experts in the relevant fields.

Working from their proposal, the group that we assembled included the following people:

Donald Berwick, President Emeritus and Senior Fellow, Institute for Healthcare Improvement and former administrator of the Centers for Medicare & Medicaid Services;
Richard Freeman, Herbert Ascherman Professor of Economics at Harvard University;
Adam Gaffney, Instructor in Medicine at the Harvard Medical School and a pulmonary and critical care doctor at the Cambridge Health Alliance;
Alison Galvani, Director, Center for Infectious Disease Modeling and Analysis and Burnett and Stender Families' Professor of Epidemiology, Yale School of Public Health;
David Himmelstein, Distinguished Professor, School of Urban Public Health at Hunter College and M.D., Columbia University College of Physicians and Surgeons;
William Hsiao, K.T. Li Professor of Economics at the Harvard University T.H. Chan School of Public Health;
James G. Kahn, Professor Emeritus at the University of California-San Francisco Institute for Health Policy Studies;
Theodore Marmor, Professor Emeritus of Political Science, Management and Public Policy, Yale University;
Thomas Rice, Distinguished Professor, Department of Health Policy and Management, Fielding School of Public Health, University of California-Los Angeles;
Jeffrey Sachs, University Professor at Columbia University, Quetelet Professor of Sustainable Development at Columbia's School of International and Public Affairs and Professor of Health Policy and Management at the Columbia School of Public Health; and
Stephanie Woolhandler, Distinguished Professor of Public Health and Health Policy at the CUNY School of Public Health at Hunter College and Adjunct Clinical Professor at the Albert Einstein College of Medicine.

We present here the final assessments that we have received to date. We will subsequently add any further reviews as we receive them.

We present the reviews in alphabetical order. Six of the reviewers, Donald Berwick, Alison Galvani, and Thomas Rice writing by themselves, and Stephanie Woolhandler, David Himmelstein and Adam Gaffney, writing a joint assessment, provided more extended comments in addition to their overview appraisals. We first include their overview assessments among the full set of reviews that we have received. We then present their full assessments later in this document, beginning on p. 5.

Donald Berwick, *President Emeritus and Senior Fellow, Institute for Healthcare Improvement and former administrator of the Centers for Medicare & Medicaid Services*

"**An Extremely Useful Model for Analysis and Planning.** Professor Pollin and his co-authors have done an immense service to our nation's discussion of Medicare for All by offering a logical framework for how it can be analyzed as a policy, and, at a more detailed level, how to combine research and other data sources to make plausible predictions as to its costs, benefits, and other effects. With this pioneering work, they have equipped the public forum—both proponents and skeptics about single payer health care coverage in the U.S.—with a roadmap for conducting civil conversations. This report is not an end to that conversation, but it is an extremely helpful beginning."

Donald Berwick's full assessment is on p. 5.

Sandro Galea, *Robert A. Knox Professor and Dean of the Boston University School of Public Health*

"The Economic Analysis of the Proposed U.S. Medicare for All Act of 2017 Health Insurance Program is a rigorous and robust evaluation of one of the defining public policy discussions of our time. The data suggest that it is inarguable that universal health coverage is associated with better health. The question then becomes the cost associated with introducing universal care in the United States, and how our current system can plausibly transition to universal care. The report shows how, thorough reducing administrative costs, drug prices, and fees for service providers, we can save money nationally whole introducing coverage for all Americans. This puts to rest one of the core challenges to Medicare for all—that it will be prohibitively expensive. Importantly, the report is not blind to the very real friction costs that would accompany such a transition and it offers realistic plans to help provide just transitions for workers who are currently in roles that will be displaced in a transition to Medicare for All. The analysis provided makes it difficult to countenance data-based opposition to Medicare for All; it is simply put hard to oppose a policy that will save the country money, introduce efficiency, and create a healthier country."

Alison Galvani, *Director, Center for Infectious Disease Modeling and Analysis and Burnett and Stender Families' Professor of Epidemiology, Yale School of Public Health*

"Americans pay more for healthcare than any other country, whether measured on a per capita basis, as a national total or even in terms of comparable medical procedures and pharmaceuticals. However, excessive costs have not translated into superior quality of care, as evidenced by poor clinical outcomes and life expectancy compared to countries that spend much less on their healthcare. To remedy this crisis, Senator Sanders has proposed the U.S. Medicare for All Act of 2017. The act details a single-payer healthcare system that would provide insurance for every resident of the U.S. This report by Pollin et al. offers a comprehensive economic analysis of the proposed health insurance program. Primary components of the study include calculating the projected budget of Medicare for All, predicting the distribution of economic impacts for businesses, families and healthcare practitioners and formulating approaches to generate the required federal revenue.

This stellar economic analysis of a single-payer, universal healthcare system for the U.S. is the first to sufficiently document each step of the calculations, enabling reproducibility of the findings. It is also the first study that thoroughly addresses the transition to and financing of a universal healthcare system for the U.S. Underlying the analysis is an interdisciplinary evidence base that has been compiled from literature spanning economics, health policy

and clinical care both within the U.S. and internationally. The methodology is sound and the assumptions are conservative with regard to their conclusions. Specifically, lower-end figures from the expert literature are used in the calculation of savings, whereas anticipated expenditures are based on the higher end of empirical distributions. Despite stacking the deck against Medicare for All, this analysis convincingly demonstrates the substantial improvements in cost efficiency that could be achieved by Medicare for All. Overall, Medicare for All is expected to reduce national health expenditures….

I am confident that the Pollin et al. study will become recognized as the seminal analysis of a single-payer universal healthcare system for the U.S."

Alison Galvani's full assessment is on p. 7.

William Hsiao, *K.T. Li Professor of Economics at the Harvard University T.H. Chan School of Public Health*

"The study *Economic Analysis of Medicare for All* by Professor Robert Pollin and his co-authors at the University of Massachusetts-Amherst presents an objective, unbiased, comprehensive and thorough economic analysis of Medicare for All. Professor Pollin and his co-authors have set a new high standard for transparency and clarity in presenting their analyses, estimations, and conclusions. The research methods they used to estimate both the cost increases and savings are sound. The assumptions they used to generate cost estimations are based on the latest empirical evidence. Consequently, the conclusions of this study on the overall costs and savings of Medicare for All are reasonable and scientifically sound."

James G. Kahn, *Professor Emeritus at the University of California-San Francisco Institute for Health Policy Studies*

"Robert Pollin and his colleagues carefully examined the economics of the Sanders Medicare for All bill. They considered the increase in demand for medical services due to better and universal health insurance, as well as the substantial savings with a single payer system due to simplified administration, lower drug prices, and other efficiencies. Their conclusion that we will achieve net savings from single payer is sound and reassuring."

Theodore Marmor, *Professor Emeritus of Political Science, Management and Public Policy, Yale University*

"I have reviewed the draft and admire the clarity, industry and intellectual candor with which Professor Pollin and his colleagues address appraising the costs and administrative realities of a Medicare for All innovation. Their discussion is about such a program if chosen politically. It is not about the political feasibility of such a reform nor the steps that might be taken toward such an overall reform. That is descriptive, not critical. It is quite enough to use accepted methods to forecast total health care costs and to estimate the distributive consequences of different taxes. They have done what they promised readers."

Thomas Rice, *Distinguished Professor, Department of Health Policy and Management, Fielding School of Public Health, University of California-Los Angeles*

"Let me begin by stating the obvious: the U.S. health care system is in desperate need of improvement. Compared to other high-income countries, access to care is poor, health care outcomes have much room for improvement, costs are far higher than elsewhere,

and the system is extremely inequitable. While the Affordable Care Act made important inroads, particularly with regard to access and equity, far more needs to be done. It behooves researchers to analyze serious health care reform policy proposals, as you and your colleagues have done in this report, which I applaud.

The U.S. health care system is highly complex, and Senator Sanders' proposal to reform it is far-reaching. The proposal would fundamentally alter the way in which health care is administered and financed, and, to a lesser degree, delivered. Your report has taken on the Herculean task of estimating the cost implications, how revenue will be raised, transition issues, and larger economy-wide effects…. Let me conclude by saying that I found your report to be well-researched and thought out. While we may disagree on specific estimates, I think that you and your colleagues' efforts to evaluate proposals like Medicare for All are essential in moving the U.S. towards a more efficient and equitable system."

Thomas Rice's full assessment is on p. 8.

Jeffrey Sachs, *University Professor at Columbia University, Quetelet Professor of Sustainable Development at Columbia's School of International and Public Affairs and Professor of Health Policy and Management at the Columbia School of Public Health*

This study is the most comprehensive, detailed, authoritative study ever undertaken of Medicare for All, and it points powerfully and unassailably in support of MFA. Medicare for All promises a system that is fairer, more efficient, and vastly less expensive than America's bloated, monopolized, over-priced and under-performing private health insurance system. America spends far more on health care and get far less for its money than any other high-income country. This study explains why, and shows how Medicare for All offers a proven and wholly workable way forward.

Steffie Woolhandler, *M.D., M.P.H., Distinguished Professor, City University of New York at Hunter College Lecturer in Medicine Harvard Medical School, Co-Founder, Physicians for a National Health Program;* **David U. Himmelstein**, *M.D., Distinguished Professor, City University of New York at Hunter College Lecturer in Medicine Harvard Medical School, Co-Founder, Physicians for a National Health Program; and* **Adam Gaffney**, *M.D., M.P.H., Pulmonary and Critical Care Physician, Cambridge Health Alliance Instructor in Medicine, Harvard Medical School, President, Physicians for a National Health Program*

"The *Economic Analysis of Medicare for All* by the Political Economy Research Institute (PERI) team provides a robust and well-documented projection of the economic effects of a properly structured single payer health care reform. Its estimate that such reform would provide universal and comprehensive coverage without any increase in overall health expenditures is sound, and in keeping with older estimates from authoritative sources, such as the Government Accountability Office and the Congressional Budget Office, as well as evidence on the costs of care in nations that have implemented single payer reforms. Indeed, even an estimate by the Koch brothers-funded Mercatus Institute concluded that a single payer reform would realize savings of $2 trillion over ten years…. The PERI team is to be congratulated for producing a highly credible economic analysis of the likely result of implementing a Canadian-style single payer reform in the U.S."

The full assessment by Stephanie Woolhandler, David Himmelstein, and Adam Gaffney is on p. is on p. 10.

Full General Assessment from Donald Berwick

1. A Extremely Useful Model for Analysis and Planning: Professor Pollin and his co-authors have done an immense service to our nation's discussion of Medicare for All by offering a logical framework for how it can be analyzed as a policy, and, at a more detailed level, how to combine research and other data sources to make plausible predictions as to its costs, benefits, and other effects. With this pioneering work, they have equipped the public forum – both proponents and skeptics about single payer health care coverage in the U.S — with a roadmap for conducting civil conversations. This report is not an end to that conversation, but it is an extremely helpful beginning.

2. Costs Are Overestimated: I believe that the model they are using overestimates the additional costs of Medicare for All, over and above those our nation currently pays for health care.

First, although utilization does differ among those now uninsured, underinsured, and insured, I believe it to be true that most of the people in the first two categories sooner or later do end up in care, and those who are ill often experience higher costs than if they had entered sooner.

Second, many who choose to forgo insurance now are younger and in better health, as they acknowledge, and I doubt that universal coverage will boost their use of care substantially.

Third, in the case of Massachusetts, which has achieved nearly universal coverage, although there was a temporary increase in total medical expenditures when the relevant law was passed, we saw nothing approaching the 12% you estimate in your review.

Fourth, although eliminating all copayments and deductibles will increase utilization if we believe the Rand Health Insurance Study, I wish to note that that element is neither essential nor inevitable in a Medicare for All framework (even though it is part of Senator Sanders's plan). It is also the case that nations (such as Scotland and England) where care is "free at the point of service" do not witness the uncorking of insatiable demand that some economists predict if copayments and deductibles were to be eliminated in the U.S. This finding is encouraging enough that at least a modern experiment testing that possibility is warranted, with policies to be adjusted later based on results.

Finally, I would suggest serious consideration to using what some call "value-based insurance design" for a Medicare for All benefit structure, removing all copayment barriers for highly effective care, but not for care that is ineffective or for which other, equally effective, less costly options exist.

3. Global Budgets Could Give Direct Control over Total Costs: In estimating costs, this report does not explore what could be the strongest financial policy lever of all—namely, fixed global budgets for population-based care systems. That is, Medicare for All could move us swiftly toward population-based payment, which would swiftly elicit population-based care. This is, in essence, adopting nationally the (bipartisan) vision of moving from volume-based payment to value-based payment. It is what is contemplated in the work by James and Poulson cited in this study on pp 59 – 60). To put it very simply (and to paraphrase Professor Stuart Altman), "If we want to spend less, we need to spend less." Medicare for All gives us the chance to set a national budget for health care proactively, not reactively. I would think that a stepwise ratchet by, say, 0.5% of the total per year, for five years, from 18.5% to 16% of GDP might be worth considering, keeping in mind that that goal still places our costs way above those in other developed nations with far better life expectancy and satisfaction with their

health care systems. Of course, appropriate population adjustments for demography, poverty, risks, etc., would be required to set budgets for local areas, but they are also feasible.

4. Overestimating the Cost Savings from Prevention and Underestimating the Dividends of Addressing Social Determinants: Prevention is highly desirable on moral and humanitarian grounds, and severely underinvested in under current circumstances. I applaud the use of Medicare for All to increase effective preventive care, but I feel cautious about asserting that prevention will reduce Total Medical Expenses. In some cases, it will; but the research, as I read it, does not support the assertion overall. Where preventive activities may also bear economic fruit is less in clinical preventive services than in (at last) addressing social determinants of health. But that line of thinking, sadly, did not make it into the analysis, and would require a broader brush in designing how funds can flow. (e.g., How could current health care dollars be reallocated to provide better housing, better education, better nutrition support, more effective criminal justice programs, and better transportation?) I have just returned from one of my frequent visits to England, where I saw, among other innovations, a new wave of interest in "social prescribing" as a way to improve health, reduce disparities, and contain total social costs. Note that Medicare for All, correctly designed, would support investments in fighting the real, societal causes of illness.

5. Being Clearer about the Reallocation of Current Employer Contributions to Health Insurance: It seems to me that the report could have explained more simply the reallocation by employers of their current investments in health insurance under Medicare for All. *"Prior to Medicare for All, you paid money to health plans or to self-insured programs. After Medicare for All, you will pay the same money to the single plan, minus some percentage, because it's a more efficient way to provide coverage."* Framing it all as a payroll tax may be, technically, correct, but we could make the case clearer: it's the same money in a different channel.

6. Reducing Costs through Health Care Delivery Redesign: My comments on cost reduction in my review of the last draft emphasized the enormous amount of waste in the current system. I noted then that extracting that waste is a tough ("viscous") process. My intent was, and is, to emphasize that a Medicare for All system could exert direct influences on the pace and extent of that redesign movement, through many mechanisms beyond just changing payment. A Medicare for All system could be an activist, convener, and support of such change efforts. As I wrote previously: "I hope that Medicare for All would include a whole range of technical supports, learning systems, collaboratives, innovation funds, and other mechanisms to help health care delivery change."

7. Need for Further Exploration of Governance Options: As I mentioned in my comments of the prior draft, I think exploration of design details for Medicare for All should include some open-minded consideration of management and governance structures that could help protect this important national commitment from short-cycle political pressures and vicissitudes. Although expanding the role of CMS to manage this system may seem to be the most obvious option, I would hope for some analysis of a different governance structure, such as a public authority, an arms-length body, or an oversight Commission, whose make-up, terms, and governance would lengthen time horizons and provide some insulation against short-term self-interest pressures. I would look for analogues to study and learn from, both in the US and abroad, in which an important public agenda is managed through a body protected from too many such pressures, while remaining ultimately accountable to the citizenry.

Full Assessment of Alison Galvani

Americans pay more for healthcare than any other country, whether measured on a per capita basis, as a national total or even in terms of comparable medical procedures and pharmaceuticals. However, excessive costs have not translated into superior quality of care, as evidenced by poor clinical outcomes and life expectancy compared to countries that spend much less on their healthcare. To remedy this crisis, Senator Sanders has proposed the U.S. Medicare for All Act of 2017. The act details a single-payer healthcare system that would provide insurance for every resident of the U.S. This report by Pollin et al. offers a comprehensive economic analysis of the proposed health insurance program. Primary components of the study include calculating the projected budget of Medicare for All, predicting the distribution of economic impacts for businesses, families and healthcare practitioners and formulating approaches to generate the required federal revenue.

This stellar economic analysis of a single-payer, universal healthcare system for the U.S. is the first to sufficiently document each step of the calculations, enabling reproducibility of the findings. It is also the first study that thoroughly addresses the transition to and financing of a universal healthcare system for the U.S. Underlying the analysis is an interdisciplinary evidence base that has been compiled from literature spanning economics, health policy and clinical care both within the U.S. and internationally.

The methodology is sound and the assumptions are conservative with regard to their conclusions. Specifically, lower-end figures from the expert literature are used in the calculation of savings, whereas anticipated expenditures are based on the higher end of empirical distributions. Despite stacking the deck against Medicare for All, this analysis convincingly demonstrates the substantial improvements in cost efficiency that could be achieved by Medicare for All. Overall, Medicare for All is expected to reduce national health expenditures.

The report discusses how the cost-effectiveness of American healthcare would be bolstered by the single-payer system of the Medicare for All Act. A single-payer system would simplify administration and billing, eliminating redundancies. Consequently, physicians and nurses would have more time to treat patients, improving both the quality and the efficiency of healthcare. By creating a unified billing database, a single-payer system would also facilitate data retrieval and fraud prevention. Additionally, the Medicare for All Act proposes to revise financial incentives for providers such that excessive medical intervention and unnecessarily expensive options are discouraged. Another source of savings will be achieved by consolidation of healthcare for the world's largest economy into a single system that will empower price negotiations for provider services, medical equipment and pharmaceuticals. Furthermore, improved access to preventive services will help avert health problems before they become serious and expensive to treat. The report delineates each source of savings and the corresponding contributions to overall cost reduction, simultaneously illuminating the areas in which our current system is inefficient and inequitable.

Pollin et al incorporate the cost of greater healthcare utilization that is likely to arise from the expansion of full coverage to people who are currently uninsured and underinsured. The demographic distribution of those who are now uninsured is taken into account in calculating the demand on healthcare that will be generated when they receive insurance. Assumptions about how the underinsured will increase utilization are informed by studies based on real world observations and controlled experiments. The criterion used to define

the underinsured is more insightful than the traditional definition, and I hope that it becomes widely adopted.

Uniquely, Pollin et al. address the challenges that could arise in transitioning to a single-payer universal healthcare system. The report reviews the lessons that can be learned from the inception of Medicare in the U.S. as well as from the establishment of universal healthcare in other countries. These precedents demonstrate that a single-payer system has the potential to be swiftly introduced and attain high public approval. Pollin et al. suggest thoughtful solutions for the US, with particular attention to compensation and training opportunities for the current health insurance workforce.

I am confident that the Pollin et al. study will become recognized as the seminal analysis of a single-payer universal healthcare system for the U.S.

Full Assessment of Thomas Rice

Dear Dr. Pollin:

Thank you very much for sending me a revised draft, dated July 2018, of you and your colleagues' report, "Economic Analysis of the proposed U.S. Medicare for All Act of 2017 Health Insurance Program," which provides a quantitative assessment of Senator Sanders' health care reform proposal. In your letter to me dated July 4, 2018, you ask if I would consider writing a short assessment of your report. I am happy to do so in this letter.

Let me begin by stating the obvious: the U.S. health care system is in desperate need of improvement. Compared to other high-income countries, access to care is poor, health care outcomes have much room for improvement, costs are far higher than elsewhere, and the system is extremely inequitable. While the Affordable Care Act made important inroads, particularly with regard to access and equity, far more needs to be done. It behooves researchers to analyze serious health care reform policy proposals, as you and your colleagues have done in this report, which I applaud.

The U.S. health care system is highly complex, and Senator Sanders' proposal to reform it is far- reaching. The proposal would fundamentally alter the way in which health care is administered and financed, and, to a lesser degree, delivered. Your report has taken on the Herculean task of estimating the cost implications, how revenue will be raised, transition issues, and larger economy- wide effects. I focus here on costs (Sections 2 and 3) as that is where my training and experience lie.

While I have not had the time to review your specific calculations, I do agree with you that the Medicare for All Act would, if enacted, result in substantial administrative savings for a number of reasons, including fewer tasks for insurers and the need for far fewer personnel in hospitals and physicians' office who currently deal with billing, eligibility, and so on. While I have never conducted research specifically on administrative costs, I found your estimate of a 4.9% decline in total U.S. health care costs as a result of administrative simplification to be a reasonable one, and in line with the experience of other high-income countries.

I am not convinced, however, that the price reductions will be as large as you have calculated. I do agree that one of the major reasons that the U.S. is an outlier with regard to health expenditures is that unit prices of medical care, procedures, and prescription medicines are so high. The report assumes, perhaps unrealistically, that hospital and physician

prices ultimately would be set at Medicare levels, which would mean that providers would receive more for patients currently covered by Medicaid and less for patients currently covered by private insurance than they currently do. Moreover, it projects that brand name drug prices will be reduced by an average of 50% so that they are comparable with those paid in other countries, and that dental prices would fall by 22%. My reason for skepticism comes from thinking about the political and institutional obstacles involved in reducing aggregate provider payments. One thing behavioral economics teaches us is how loss aversion manifests itself: providers will use all of their political clout to keep remuneration as close to current levels as possible. As an illustration, given that hospitals currently receive approximately 75% more from private insurers than from Medicare, an immediate decrease to Medicare payment rates would likely lead, in their minds, to unacceptably large disruptions.

One of the most challenging tasks in estimating the costs of a proposal like Medicare for All is projecting what spending will be in the wake of reduced cost sharing requirements (in this case, essentially reduced to zero). I was pleased to see that you changed your methodology based in part of comments that I provided in your previous draft report, where you had assumed a zero utilization response for the bulk of the U.S. insured population. Combining "high-end" estimates from your own work with those of Professor Thorpe provides, I think, a more reasonable estimate. While I remain concerned that the utilization response for insured non-elderly would be *only* 7%, as estimated by Thorpe, I admit that this is really difficult to project, in part because it will take a while for the U.S. health care system to adjust its supply capacities in the wake of higher demand for services. Moreover, Medicare for All seems to provide little incentive to move away from our costly fee-for-service system. Rather, by eliminating cost sharing, patients will have less incentive than they have now to join managed care networks.

Finally, some elements are just hard to predict, although I was pleased to see your efforts to quantify them. For example, I had difficulty assessing your estimate potential savings from changes in provision of unnecessary services and fraud reduction. One the one hand, and as you note, a centrally-run system and universal data base will help in ferreting out fraud. But I worry that government will have more trouble controlling unnecessary care, even more so with no cost-sharing requirements. One of the lessons from the research on McAllen vs. El Paso, Texas was that while there was a great deal of high-tech service overutilization under Medicare in McAllen (Atul Gawande's *New Yorker* article), there appeared to be far less for private insurers (Luisa Franzini et al.'s *Health Affairs* article). What I took away from this discordant evidence was that the U.S. government was better than private insurance in controlling prices, but private insurance did better than Medicare in controlling wasteful utilization. Perhaps government would become better at targeting overutilization under Medicare for All than it does now under traditional Medicare, but this proposition certainly is not obvious.

Let me conclude by saying that I found your report to be well-researched and thought out. While we may disagree on specific estimates, I think that you and your colleagues' efforts to evaluate proposals like Medicare for All are essential in moving the U.S. towards a more efficient and equitable system.

Full Assessment by Stephanie Woolhandler, David Himmelstein, and Adam Gaffney

The *Economic Analysis of Medicare for All* by the Political Economy Research Institute (PERI) team provides a robust and well-documented projection of the economic effects of a properly structured single payer health care reform. Its estimate that such reform would provide universal and comprehensive coverage without any increase in overall health expenditures is sound, and in keeping with older estimates from authoritative sources, such as the Government Accountability Office and the Congressional Budget Office, as well as evidence on the costs of care in nations that have implemented single payer reforms. Indeed, even an estimate by the Koch brothers-funded Mercatus Institute concluded that a single payer reform would realize savings of $2 trillion over ten years.

The PERI group's projections that the utilization of medical care would rise by about 12% after a single payer reform, labelled a "high-end" estimate," may well overstate the utilization increase likely to occur. Experience in Canada, as well as in the U.S. with the implementation of Medicare, suggests that the finite supply of hospital beds and physician time dampens increases in the society-wide use of care. Indeed, in those past cases, the increases in utilization by previously uninsured groups were offset by small decreases in utilization among those who had been covered prior to the reforms, resulting in no overall increase in the number of hospitalizations or physician visits.

The analysis' projections of administrative savings under single-payer also incorporate conservative assumption, and hence may underestimate potential savings. Our research, along with colleagues in Canada and several European nations, suggests that hospital administrative costs could fall from the present level of 25% to 12% of total hospital expenditures, a 13% decrease. In contrast, the PERI group estimates that Medicare for All would reduce hospital administration costs by only 8.5%.

While their estimate of the administrative savings is conservative, they may be too optimistic about how quickly such savings could be achieved. Insurance overhead would, as they project, drop precipitously in the first year of the program's full implementation. However, savings on providers' administrative costs are likely to take somewhat longer to be fully realized. Much of the redundant documentation required by the current payment systems that drives up administrative costs is ingrained in electronic health records systems whose software will need to be revised. This revision cannot go live prior to the full implementation of the single payer system, and it will take some time for users to adapt. Similarly, many personnel, such as office receptionists, and hospital ward clerks and administrators perform both billing-related and clinical tasks. Much of the redesign of work flows and staffing patterns, and the elimination of redundant personnel cannot occur before the single payer reform is fully in place.

In some other areas the PERI researchers' projections also appear optimistic. Their estimate that substantial savings (1.5% of total health spending) on fraud and the overuse of medical services would be realized in the first year of the program's operation may overstate the likely short term savings. Both fraud and overuse are certainly widespread, and a single payer reform would provide a framework for their detection and mitigation. However, the failure of multiple past efforts to root our fraud in the Medicare and Medicaid programs, and to change the medical culture that encourages overuse, mandates caution about a quick fix for these sources of waste.

One could also quibble with the PERI analysts' assumption that the single payer program would cover virtually 100% of health expenditures. It seems unlikely that such a program would cover items like cosmetic surgery or non-prescription drugs and supplies like. Excluding such items from coverage would not affect the PERI group's projections of overall healthcare spending, but would slightly reduce their estimate of the new taxes needed to fund the system.

Overall, the PERI estimate incorporates some assumptions likely to overstate new costs associated with the implementation of a single payer program, and others likely to understate these costs. Given this caveat, we believe it prudent to anticipate that health care expenditures (as a share of GDP) in the first year of a single payer reform would remain at roughly the same level as in the year prior to the reform—still a substantial saving as compared to current, relentlessly rising trends. In the medium term we expect that health care's share of GDP would gradually fall.

It should also be pointed out that the PERI group's projections are based on a reform that emulates Canada's simple payment system, such as that envisioned in the current version of the House single payer bill—H.R. 676. That approach would abandon per-patient hospital billing in favor of global budget payment, and would fund hospital capital investments through direct government grants rather than from hospitals' operating surpluses, or debt financing that is ultimately paid back from operating surpluses. Retaining Medicare's current payment strategy—as in the current version of the Senate single payer bill - S. 1804— would sacrifice some of the savings on hospital administration, and leave in place significant incentives for overuse, as well as financial gaming.

In sum, the PERI team is to be congratulated for producing a highly credible economic analysis of the likely result of implementing a Canadian-style single payer reform in the U.S.