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My name is Katherine Baicker, and I am a Professor of Health Economics in the Department of Health Policy and Management at the Harvard School of Public Health. I would like to thank Senator Baucus, Senator Grassley, and the Members of the Committee for giving me the opportunity to participate in this roundtable discussion of how we can address the crucial policy challenge of financing health care reform. This testimony is derived in large part from recent academic work with my colleague Amitabh Chandra that appeared in the journal *Health Affairs*. I summarize that work here.

I would like to discuss several general principles about the nature of health insurance. Misunderstandings about these principles have the potential to impede the development of a much-needed consensus on how to engineer reform. Uncovering the kernels of truth that underlie these misperceptions can help focus reform efforts on the critical challenges facing our health system.

A key distinction should be made between health care and health insurance. Insurance works by pooling risks: many pay a premium up front, and then those who face a bad outcome (getting sick, being in a car accident, having their home burn down) get paid out of those collected premiums. The premium is the expected average cost of treatment for everyone in the pool, not just the cost of treating the sick. Because not everyone will fall sick at the same time, it is possible to make payments to those who do fall sick even though their care costs more than their premium. And this also why it is particularly important for people to get insured when they are healthy – to protect against the risk of needing extra resources to devote to health care if they fall ill.

Uncertainty about when we may fall sick and need more health care is the reason that we purchase insurance – not just because health care is expensive (which it is). Many other things are expensive, including housing and college tuition, but we do not have insurance to help us purchase them because they are not uncertain in the way that potentially needing very expensive medical care is. The more uncertainty there is, the valuable insurance is.

THE PROBLEM OF THE SICK AND UNINSURED

Insured sick people and uninsured sick people present very different issues of public policy. People who have already purchased insurance and then fall sick pose a particular policy challenge: insurance is not just about protecting against unexpected high expenses this year, but also about protecting against the risk of persistently higher expenses in the case of chronic illness. This kind of protection means that once insured, enrollees' premiums would not rise just because they got sick, but this is not always the case today. In fact, insurers have an incentive to shed their sickest enrollees, suggesting a strong role for regulation protecting them. Nor are insurers held responsible when inadequate coverage raises the costs of a future insurer, such as

Medicare for those over 65. These problems highlight the limited availability of true long-run insurance offerings, a reform issue that is often glossed over in the conflation of health care and health insurance.

Uninsured Americans who are sick pose a very different set of problems. They need health *care* more than health *insurance*. Insurance is about reducing uncertainty in spending. It is impossible to "insure" against an adverse event that has already happened, for there is no longer any uncertainty. If you were to try to purchase auto insurance that covered replacement of a car that had already been totaled in an accident, the premium would equal the cost of a new car. You would not be buying car insurance – you would be buying a car. Similarly, uninsured people with known high health costs do not need health insurance – they need health care. Private health insurers can no more charge uninsured sick people a premium lower than their expected costs. The policy problem posed by this group is how to ensure that low income uninsured sick people have the resources they need to obtain what society deems an acceptable level of care and ideally, as discussed below, to minimize the number of people in this situation.

This highlights one of the many reasons that health insurance is different from car insurance: the underlying good, health care, is viewed by many as a right. Furthermore, we may want to redistribute money from the healthy to the sick, in the same way that we redistribute money from the rich to the poor. This kind of redistribution is fundamentally different from private insurance: it is social insurance, and it is hard to achieve through private markets alone.[1] Medicare, which insures the aged and disabled, is an example of a social insurance program. Private markets can pool risk among people starting out with similar health risks, and regulations can ensure that when some members of those risk pools fall ill, insurers cannot deny them care or raise their premiums, but transferring resources to people who are already sick and uninsured or transferring resources from lower health risk groups to higher health risk groups requires social insurance.

How then do we provide the sick and uninsured with socially acceptable care? Private health insurance alone is unlikely to achieve this goal: no insurer will be willing to charge a premium less than enrollees' likely health costs. Instead, they could be provided with health care directly or a premium subsidy equal to their expected health care costs. Alternatively, we could force sick people and healthy people to pool their risks, such as through community rating coupled with insurance mandates (to preclude healthy people from opting out of subsidizing sick ones). These kind of transfers are based on social choices about redistribution.

The advantage of social insurance programs, including a nationalized health care system, is that they can achieve redistribution that private markets alone cannot. They may also provide benefits with lower administrative costs (although, in the case of moving to a single payer system, the size of administrative savings relative to overall health care cost growth is likely to be small).[2] There are, of course, costs associated with social insurance programs as well. First, there is the drag on the economy imposed by raising revenues to finance them. Second, there is the loss of competition, diverse offerings for diverse preferences, and market discipline that private provision brings – and that promote higher value and innovation. This means that the social insurance program may be both expensive and inefficient, and thus impose an even larger burden on already strained public budgets. These pressures have, perhaps unsurprisingly,

spawned additional misconceptions that suggest that the costs of expanded insurance are lower and the benefits higher than the data support.

THE COST OF COVERING THE UNINSURED

A common and deceptively appealing argument for expanding insurance coverage is that we could both spend less and achieve better health by replacing the inefficient emergency room care received by the uninsured with an insurance plan. Unfortunately, this argument finds little empirical support. ER care for the uninsured is indeed inefficient and might have been avoided through more diligent preventive care and disease management. Diabetes treatment is a good example; it is much cheaper to manage diabetes well than wait for a hospitalization which requires a leg amputation. Having health insurance may lower the costs of ER and other publicly provided care used by the uninsured through better prevention and medical management. But empirical research also demonstrates that insured people consume more care (and have better health outcomes) than uninsured people – so universal insurance is likely to increase, not reduce, overall health spending.[3]

Why does insurance cause greater consumption of health care? Insurance, particularly insurance with low cost-sharing, means that patients do not bear the full cost of the health resources they use. This is a good thing – having just made the case for the importance of the financial protections that insurance provides – but comes with the side-effect of promoting greater consumption of health resources, even when their health benefit is low. This well-documented phenomenon is known as "moral hazard," even though there is nothing moral or immoral about it. The RAND Health Insurance Experiment (HIE), one of the largest and most famous experiments in social science, measured people's responsiveness to the price of health care. Contrary to the view of many non-economists that consuming health care is unpleasant and thus not likely to be responsive to prices, the HIE found otherwise: people who paid nothing for health care consumed 30 percent more care than those with high deductibles.[4] This is not done in bad faith: patients and their physicians evaluate whether the care is of sufficient value to the patient to be worth the out-of-pocket costs. The increase in care that individual patients use because of insurance has even greater system-wide ramifications. R&D in new medical technologies responds to the changes in aggregate incentives driven by health insurance. While these technologies may improve welfare, they also raise premiums because of larger armamentarium of treatments available to the sick. There is evidence of these system-wide effects: when Medicare was introduced in 1965, providers made spectacular investments beds in high-tech care, and hospital spending surged over 25 percent in 5 years.[5]

Even increases in preventive care do not usually pay for themselves: in general prevention is good for health, but does not reduce spending. Some preventive care has been shown to be cost-saving – such as flu vaccines for toddlers or targeted investments like initial colonoscopy screening for men aged 60-64 – but most preventative care results in greater spending along with better health outcomes. Indeed, some money spent on preventive care may not only cost money, but may be no more cost effective than some "high-tech" medical care For example, screening all 65-year-olds for diabetes, as opposed to only those with hypertension, may improve health but costs so much (about $600,000 per Quality Adjusted Life Year) that that money might be better spent elsewhere.[6]

All of this suggests that insuring the uninsured would raise total spending. This doesn't mean that it would not be money well spent (which I believe it would be). Spending more to attain universal insurance is not a problem if it generates more value than it costs, and the view that health care is a right is not inconsistent with this framework. First, and sometimes overlooked, is the security that insurance provides against the uncertainty of unknown health care expenses. The value of this financial smoothing alone is estimated to be almost as much as the cost of providing people with insurance.[7] Second, much of the additional health care that the newly insured would receive is likely to improve health. (But this is by no means automatic, for as discussed below, being insured is not enough to guarantee good health care.) Extending health insurance coverage is worth it for these reasons – but not because it would save money.

GETTING HIGH-VALUE CARE

Having insurance may increase the quantity of care patients receive, but it is no guarantee that they will receive high quality care. A recent study found that Americans received less than 60 percent of recommended care, including preventive, acute, and chronic care, and including such low-cost interventions as flu vaccines and antibiotics for surgical patients.[8] Beginning with the work of John Wennberg at Dartmouth, an immense literature in medicine and economics has found that even among Medicare enrollees, there are enormous differences in the quality of care received: in fact, in areas where the *most* is spent on Medicare beneficiaries, they are the *least* likely to get high quality care. The use of mammograms, flu-shots, beta-blockers and aspirin for heart attack patents, rapid antibiotics for pneumonia patients, and simple laboratory tests to evaluate the management of diabetes are all lower in higher-spending areas.[9] Higher spending is not even associated with lower mortality, which suggests that more generous insurance provision does not necessarily translate to better care or outcomes.

When these results showing the lack of relationship between spending and quality were first reported there were two predictable responses by skeptics: that high spending areas had sicker patients who were (appropriately) less likely to receive these therapies, and that patients in high-spending had higher satisfaction even if their measurable health outcomes were the same. Neither claim is supported by the evidence.

What, then, do patients in high-spending areas get? Evidence suggests that this higher intensity is driven by greater use of procedures with questionable clinical value – that may even be associated with underuse of high value, less-intensive care. Patients in high-spending areas are no more likely to receive surgery, but see more specialists more frequently, have more diagnostic and imaging services, and get more intensive care in the end of the life – none of which has been shown through clinical trials to improve health.[10] "Coordination failures" in delivery may both raise costs and lower quality, even among the insured. Investments in health services research can help shed light on how we can consistently deliver higher-value care.

Thus, while health insurance increases the quantity of care patients receive, being insured alone is not sufficient to ensure high quality care. Insuring the uninsured will give them access to the sort of health care that the rest of us receive: a combination of valuable care, overuse of some costly interventions with little proven benefit, and underuse of some vitally important therapies, care that is sometimes coordinated but often fragmented. This is better than no care, but it

highlights the problem of collapsing the entire debate about U.S. health care reform down to the issue of uninsurance: health insurance alone does not guarantee good health care.

THE ROLE OF EMPLOYERS

Employees ultimately pay for the health insurance that they get through their employer, no matter who writes the check to the insurance company. The view that we can get employers to shoulder the cost of providing health insurance stems from the misconception that employers pay for benefits out of a reservoir of profits. Regardless of a firm's profits, valued benefits are paid primarily out of workers wages.[11] While workers may not even be aware of the cost of their total health premium, employers make hiring and salary decisions based on the total cost of employment, including both wages and benefits such as health insurance, maternity leave, disability and retirement benefits.[12] They provide health insurance not out of generosity of spirit, but as a way to attract workers – just like wages. When the cost of benefits rises, wages fall (or rise more slowly than they would have otherwise), leaving workers bearing the cost of their benefits in the form of lower wages.[13]

The uncomfortable arithmetic of this wage-fringe offset is seen in other contexts – for example, workers bear the costs of workers compensation, and mandated maternity benefits primarily reduce the wages of women of child-bearing age.[14] When it is not possible to reduce wages, employers may respond in other ways: employment can be reduced for workers whose wages cannot be lowered, outsourcing and a reliance on temp-agencies may increase, and workers can be moved into part-time jobs where mandates do not apply. These adjustments are neither instantaneous nor one-for-one for every person (depending, for example, on wage rigidities, how much individuals value the insurance benefit, and how heterogeneous the employees' income and health are) – a fact that obscures the underlying connection. This also means that the claimed connection between health care costs and the "international competitiveness" of U.S. industry is murky at best: higher health costs primarily lower current workers' non-health compensation, rather than firms' profitability (although the same trade-off cannot operate in retiree health benefits, making their effects more complicated).[15]

Why, then, do we have a private health insurance system based primarily on policies offered through employers? There is a preference in the tax code for premiums paid by employers relative to premiums paid by individuals or direct payments for health care. This tax preference drives both the predominance of employment-based policies and the prevalence of policies with low cost-sharing, because care paid for in the form of higher employer premiums comes at a lower after-tax price than care paid for out-of-pocket. Of course, this tie between employment and insurance comes at a well-known cost: workers who leave or lose a job risk losing their insurance or facing much higher premiums, sometimes forcing them to stay in a job to retain health insurance.[16]

This is not to say that there are not important advantages to getting insurance through an employer instead of on the individual non-group insurance market (especially given the current state of individual market), including better pricing and risk pooling. The employer market is the primary mechanism for maintaining cross-subsidization from low-risk populations to high-risk ones, with tax subsidies adding an element of social insurance (albeit one that is not particularly

progressive).[17] It is these benefits that are the main advantages of access to employer policies, not the fact that employers nominally pay part of the premium.

EFFICIENT INSURANCE

Greater patient cost-sharing could help improve the efficiency of health care spending, but it is not a cure-all It is certainly true that first-dollar insurance coverage (that is, insurance coverage for the first dollar of health care expenditures or insurance with very low cost-sharing more broadly) encourages use of care with very low marginal benefit and that greater cost-sharing would help reduce the use of discretionary care of questionable value. But there is also evidence that patients under-utilize drugs with very high value when confronted with greater cost-sharing (whether because they lack resources or information). Worse, there is evidence that even $5 - $10 increases in copayments for outpatient care can result in some patients getting hospitalized as a result of cutting back too much on valuable care, offsetting the reduced spending.[18] Capping total insurance benefits is also short-sighted and imprudent: not only does evidence suggest that such caps result in adverse clinical outcomes, worse adherence, and increased hospital and ER costs, but the presence of caps means that patients are not insured against catastrophic costs – exactly what insurance is supposed to protect against the most.

There is no reason to think that the optimal insurance structure would look like the typical high-deductible plan. Rather, it might subsidize high-value care such as treatments to manage diabetes or asthma, while imposing greater cost-sharing on care of lower value, such as elective surgeries with limited health benefits. People would choose the insurance plans that offered them the best benefit mix – trading off higher premiums for plans that covered care of diminishing marginal value. Of course, what may be valuable to one patient could be wasteful for another, and the key challenge for 'value based insurance design' policies is to differentiate these cases. Many firms are experimenting with these plans.[19] Focusing exclusively on high-deductible plans that rely on a blunt structure of patient cost-sharing and perfectly forward-looking patients may forestall the development of even more innovative plans.

This does not mean that competition and cost-sharing have no role in driving higher value spending, however. Competition between insurers to offer plans that have the mix of benefits enrollees find most valuable could drive the kind of innovative plans described above. Increased cost-sharing such as that promoted by high deductible policies coupled with health savings accounts can also be an important tool for improving the value of care. As the evidence from the RAND HIE discussed above shows, the low-cost sharing plans fostered by the current tax treatment of health insurance (which look more like pre-paid health care than true insurance) promote the use of care that is of limited health benefit. While most spending is indeed done by people with very high total costs, well-designed cost-sharing programs could still have substantial effects on spending decisions. Most spending is not done in emergency settings, and even limited cost-sharing can have an effect on a substantial share of total spending.[20] This suggests that carefully designed incentives could have a big effect on improving the value of care delivered.

CONCLUSION

We know that our health care system is not delivering the consistently high-quality, high-value care that we should expect. While there are many open questions in the design of the ideal system, with millions uninsured and rising costs threatening to swamp public and private budgets alike, we cannot afford to wait to act.

Focusing on the underlying issues discussed here suggests that the fundamental problems facing our health insurance system are unlikely to be cured by the extremes of either a single payer system or an unfettered marketplace. On the one hand, the unregulated marketplace is unlikely to provide long-run stable insurance. Private insurers will always have an incentive to try to shed their highest cost enrollees, so without regulatory safeguards even the insured sick will be at risk of losing the insurance protections to which they are entitled. Private insurance fundamentally cannot provide the kind of redistribution based on underlying health risk or income that social insurance can. On the other hand, a single payer system does not automatically provide high quality care: the provision of low-value care is as pervasive in the single payer Medicare system as it is elsewhere. Single-payer systems are also slow to innovate – as suggested by the fact that it took Medicare 40 years to add a prescription drug benefit, long after most private insurers had done so. Nor do calculations of the costs of a single-payer system measure the utility loss from forcing people with different preferences into a monolithic health insurance plan. The private facilities that have sprung up in Canada to meet the demands of those who want more health care than the public system provides fundamentally undermine the "single payer" nature of the system.

How one balances these trade-offs is likely driven as much by philosophy as economics, and any reform will involve tough choices between competing values. Serious reforms would focus not exclusively on lowering costs, but on increasing the value that we get from health insurance and health care.[21] Reforms that promoted higher-value insurance could both extend coverage so that more people benefit from the protections that insurance affords and ensure that those protections are secure for those who fall ill. These reforms would not be enough to achieve uniformly high-quality care, however. The frequent failure of the use of best practices and the tremendous geographic variation in the use of costly care of uncertain medical benefit are often obscured in the focus on the uninsured. That many nations, including both the U.S. and Canada, struggle with these challenges suggests that reforms of the payment system alone are unlikely to solve all of these problems. A comprehensive reform proposal that aimed both to extend insurance protections to those who lack them and to improve the value of care received by those who are insured would be more likely to succeed at each goal than proposals that focused on just one.

Thank you again for the opportunity to meet with you. I would be happy to answer any questions that you might have.

REFERENCES

1. Jonathan Gruber, *Public Finance and Public Policy* (New York: Worth Publishers, 2007).
2. Henry J. Aaron, "The Costs of Health Care Administration in the United States and Canada--Questionable Answers to a Questionable Question," *New England Journal of Medicine* 349, no. 8 (2003): 801-803; Steffie Woolhandler, T. Campbell and David U. Himmelstein, "Costs of Health Care Administration in the United States and Canada," *New England Journal of Medicine* 349, no. 8 (2003): 768-775; Ken E. Thorpe, "Inside the Black Box of Administrative Costs," *Health Affairs (Millwood)* 11, no. 2 (1992): 41-55; Joseph P. Newhouse and Anna Sinaiko, "Can Multi-Payer Financing Achieve Single-Payer Spending Levels?," *Forum for Health Economics & Policy* 10, no. 1 (2007): Article 2; Chapin White, "Health Care Spending Growth: How Different Is the United States from the Rest of the OECD?," *Health Affairs* 26, no. 1 (2007): 154-161.
3. John M. McWilliams, Ellen Meara, Alan Zaslavsky and John Z. Ayanian, "Use of Health Services by Previously Uninsured Medicare Beneficiaries," *New England Journal of Medicine* 357, no. 2 (2007): 143-153; Jack Hadley, John Holahan, Teresa Coughlin and Dawn Miller, "Covering the Uninsured in 2008: Current Costs, Sources of Payment, and Incremental Costs," *Health Affairs* (2008): hlthaff.27.25.w399.
4. Joseph P Newhouse, and the Insurance Experiment Group, *Free for All?: Lessons from the Rand Health Insurance Experiment* (Cambridge, MA: Harvard University Press, 1993).
5. Amy Finkelstein, "The Aggregate Effects of Health Insurance: Evidence from the Introduction of Medicare," *Quarterly Journal of Economics* (2007).
6. J. T. Cohen, P. J. Neumann and M. C. Weinstein, "Does Preventive Care Save Money? Health Economics and the Presidential Candidates," *New England Journal of Medicine* 358, no. 7 (2008): 661-663; L. B. Russell, "The Role of Prevention in Health Reform," *New England Journal of Medicine* 329, no. 5 (1993): 352-354.
7. Amy Finkelstein and Robin McKnight, "What Did Medicare Do? The Initial Impact of Medicare on Mortality and out of Pocket Medical Spending," *Journal of Public Economics* 92 (2008): 1644-1669.
8. E.A. McGlynn et al, "The Quality of Health Care Delivered to Adults in the United State," *New England Journal of Medicine* 348, no. 26 (2003): 2635-2645; John Wennberg and Megan Cooper, *The Dartmouth Atlas of Health Care* (Chicago: American Hospital Association Press, 1999).
9. Katherine Baicker and Amitabh Chandra, "Medicare Spending, the Physician Workforce, and Beneficiaries' Quality of Care," *Health Affairs (Millwood)* Suppl Web Exclusive (2004): W184-197.
10. Elliott S. Fisher, David E. Wennberg, Therese A. Stukel, Daniel J. Gottlieb, F. Lee Lucas and E.L. Pinder, "The Implications of Regional Variation in Medicare Spending. Part 1: The Content, Quality and Accessibility of Care," *Annals of Internal Medicine* 138, no. 4 (2003): 273-287; ———, "The Implications of Regional Variation in Medicare Spending. Part 2: Health Outcomes and Satisfaction with Care," *Annals of Internal Medicine* 138, no. 4 (2003): 288-298.
11. Lawrence Summers, "Some Simple Economics of Mandated Benefits," *American Economic Review* 79 (1989): 177-183.

12. Janet Currie and Brigitte Madrian, "Health, Health Insurance and the Labor Market," In *Handbook of Labor Economics,* edited by Orley Ashenfelter and David Card. Amsterdam: Elsevier Science, 2000.
13. Katherine Baicker and Helen Levy, "Employer Health Insurance Mandates and the Risk of Unemployment," *Risk Management and Insurance Review* 11, no. 1 (2008): 109-132; Katherine Baicker and Amitabh Chandra, "The Labor Market Effects of Rising Health Insurance Premiums," *Journal of Labor Economics* 24, no. 3 (2006).
14. Jonathan Gruber and Alan Krueger, "The Incidence of Employer-Provided Insurance: Lessons from Workers' Insurance," *Tax Policy and the Economy* 5 (1991): 111-143; Jonathan Gruber, "The Incidence of Mandated Maternity Benefits," *American Economic Review* 84 (1994): 622-641.
15. Len Nichols and Sarah Axeen, " Employer Health Costs in a Global Economy: A Competitive Disadvantage for U.S. Firms," *New America Foundation Working Paper* (2008).
16. Brigitte Madrian, "Employment-Based Health Insurance and Job Mobility: Is There Evidence of Job-Lock?," *Quarterly Journal of Economics* 109, no. 1 (1994): 27-54.
17. Mark V. Pauly and Bradley Herring, "Risk Pooling and Regulation: Policy and Reality in Today's Individual Health Insurance Market," *Health Affairs* 26, no. 3 (2007): 770-779.
18. John Hsu, M. Price, J. Huang, R. Brand, V. Fung, R. Hui, B. Fireman, J. P. Newhouse and J. V. Selby, "Unintended Consequences of Caps on Medicare Drug Benefits," *New England Journal of Medicine* 354, no. 22 (2006): 2349-2359; Amitabh Chandra, Jonathan Gruber and Robin McKnight, "Patient Cost-Sharing, Hospitalization Offsets, and the Design of Optimal Health Insurance for the Elderly," *NBER Working Paper* 12972 (2007).
19. Michael E. Chernew, Allison B. Rosen and A. Mark Fendrick, "Value-Based Insurance Design," *Health Affairs (Millwood)* 26, no. 2 (2007): w195-203.
20. Katherine Baicker, "Improving Incentives in Health Care Spending: Properly Designed Health Spending Accounts Can Be a Major Step," *Business Economics* (2006); Katherine Baicker, William H. Dow and Jonathan Wolfson, "Lowering the Barriers to Consumer-Directed Health Care: Responding to Concerns," *Health Affairs (Millwood)* 26, no. 5 (2007): 1328-1332.
21. Elliott S. Fisher, Douglas O. Staiger, Julie P. W. Bynum and Daniel J. Gottlieb, "Creating Accountable Care Organizations: The Extended Hospital Medical Staff," *Health Affairs* 26, no. 1 (2007): w44-57.