CONGRESSIONAL BUDGET OFFICE
U.S. Congress
Washington, DC 20515

Douglas W. Elmendorf, Director

December 29, 2009

Honorable Bruce L. Braley
U.S. House of Representatives
Washington, DC 20515

Dear Congressman:

This letter responds to questions you posed about the Congressional Budget Office's (CBO's) recent analysis of the budgetary effects of proposals to limit costs related to medical malpractice ("tort reform"), as described in a letter to Senator Hatch.[1] In particular, this letter addresses your questions about factors that affect premiums for medical malpractice insurance, the effects of tort reform on patients' health, how recent empirical studies affected CBO's analysis, and why CBO's latest estimates of the budgetary effects of tort reform are larger than the agency's previous estimates.

In its letter to Senator Hatch, CBO concluded that tort reform would lower costs for health care both directly, by reducing medical malpractice costs—which consist of malpractice insurance premiums and settlements, awards, and legal and administrative costs not covered by insurance—and indirectly, by reducing the use of health care services through changes in the practice patterns of providers. The agency estimated that enacting a package of proposals outlined in that letter would reduce federal budget deficits by about $54 billion during the 2010–2019 period. Previously, the agency had found that tort reform would lower health care costs only by reducing medical malpractice costs, and it had estimated significantly smaller effects of tort reform on the federal budget. In the letter to Senator Hatch, CBO noted that imposing limits on suits for damages resulting from negligent health care might have a negative impact on health outcomes but concluded that the evidence is less clear about the effects of tort reform on health outcomes than it is about the effects on health care costs.

Tort Reform and Malpractice Premiums

When setting premiums for malpractice policies, insurers are likely to take into account a number of factors, including: recent payments for awards and settlements; the anticipated cost of future payments and the amount of uncertainty surrounding them (taking into account the legal environment in which the insurer

[1] Congressional Budget Office, letter to the Honorable Orrin G. Hatch regarding effects of proposals to limit costs related to medical malpractice (October 9, 2009).

operates); the extent of competition in the malpractice insurance market; the expected rate of return on invested premium income; and administrative expenses.[2] Because it often takes several years for a malpractice claim to be settled, a substantial period of time may elapse before insurers find out whether they correctly predicted future payments when setting the premium. If actual payments turn out to be greater than predicted, insurers may increase premiums to cover the shortfall; if actual payments are less than predicted, insurers may decrease premiums to remain competitive in the industry. That characteristic of the market for medical malpractice insurance, along with changes in interest rates, contributes to cyclical increases and decreases in premiums from year to year. The study by Rodwin, Chang, Ozaeta, and Omar that you cited in your letter noted that outcome, and pointed out that although medical malpractice premiums may vary substantially in the short run, over the long run premiums reflect liability costs.[3]

Reflecting that relationship, a number of recent research studies, as well as CBO's own analyses, have found that tort reform lowers medical malpractice premiums.[4] Studies by Thorpe and by Kilgore, Morrissey, and Nelson found that caps on noneconomic damages substantially reduced premiums, while a study by Danzon, Epstein, and Johnson found that both caps on noneconomic damages and changes to "joint and several liability" laws lowered premiums.[5] A study by Born, Viscusi, and Baker showed that tort reforms significantly lowered payments by insurers for awards and settlements and also lowered the gap between actual payments and those predicted by the insurer at the start of the claims process.[6] Both of those effects—lower overall payments and more certainty about future payments—are consistent with reductions in medical malpractice premiums associated with tort reform.

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[2] For a review of the literature, see Faith R. Neale and others, "Dynamics of the Market for Medical Malpractice Insurance," *Journal of Risk and Insurance*, vol. 76, no. 1 (2009), pp. 221–247.

[3] See Marc A. Rodwin, Hak J. Chang, Melissa M. Ozaeta, and Richard J. Omar, "Malpractice Premiums in Massachusetts, A High-Risk State: 1975 to 2005," *Health Affairs*, vol. 27, no. 1 (2008), pp. 835–844.

[4] See Congressional Budget Office, *Medical Malpractice Tort Limits and Health Care Spending* (April 2006).

[5] See Kenneth E. Thorpe, "The Medical Malpractice 'Crisis': Recent Trends and the Impact of State Tort Reforms," *Health Affairs*, vol. W4, pp. 20-30; Merideth Kilgore, Michael A. Morrisey, and Leonard J. Nelson, "Tort Law and Medical Malpractice Insurance Premiums," *Inquiry*, vol. 43, no. 3 (2006), pp. 255–270; and Patricia M. Danzon, Andrew J. Epstein, and Scott J. Johnson, "The Crisis in Medical Malpractice Insurance," in Robert E. Litan and Richard Herring, eds., *Brookings-Wharton Papers on Financial Services* (Washington, D.C.: Brookings Institution Press), pp. 55–95.

[6] See Patricia Born, W. Kip Viscusi, and Tom Baker, "The Effects of Tort Reform on Medical Malpractice Insurers' Ultimate Losses," *Journal of Risk and Insurance*, vol. 76, no. 1 (2009), pp. 197–219.

Analyses like those cited above are the best ones for identifying the effects of tort reform on malpractice insurance premiums because they use data for many states and control for the relevant characteristics of states' health care markets that may affect malpractice premiums. Studies that simply observe changes in premiums over time in states that do, and do not, adopt reforms are less suited to isolating the actual effects of tort reform. One reason is that the markets for medical malpractice insurance, physicans' services, and health care more broadly are likely to be different in states that choose to adopt tort reforms and states that do not. Additionally, states may experience other changes in their health care system at the same time tort reforms are implemented. Those analytical challenges are dealt with in the studies on which CBO has based its estimates.

The Effects of Tort Reform on Patients' Health

As you noted in your letter, the potential impact of tort reform on the quality of health care and on health outcomes is an important consideration for policymakers. CBO's letter to Senator Hatch observed that imposing limits on patients' suits involving harm from negligent health care might be expected to have a negative effect on health outcomes. The letter also noted that there is less evidence about the effects of tort reform on people's health than there is about its effects on health care spending, because many studies of malpractice costs have not examined health outcomes.

Among the analyses that have investigated health outcomes, a recent study by Lakdawalla and Seabury reported that lower malpractice costs were associated with an increase in mortality, while a study by Currie and MacLeod found positive impacts on health from reform of joint and several liability and negative impacts from caps on noneconomic damages.[7] Studies by Kessler and McClellan and by Sloan and Shadle found that state tort reforms had no significant effects on health.[8] Similarly, a study by Baicker, Fisher, and Chandra found that there was no significant association between mortality and malpractice costs.[9] Thus, the limited evidence currently available about the effects of tort reform on health outcomes is much more mixed than the larger collection of evidence currently available about the effects of tort reform on health care spending.

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[7] See Darius N. Lakdawalla and Seth A. Seabury, *The Welfare Effects of Medical Malpractice Liability,* Working Paper No. w15383 (Cambridge, Mass.: National Bureau of Economic Research, September 2009); and Janet Currie and W. Bentley MacLeod, "First Do No Harm? Tort Reform and Birth Outcomes," *Quarterly Journal of Economics,* vol. 123, no. 2 (2008), pp. 795–830.

[8] See Daniel Kessler and Mark McClellan, "Do Doctors Practice Defensive Medicine?" *Quarterly Journal of Economics,* vol. 111, no. 2 (1996), pp. 354–380; Daniel Kessler and Mark McClellan, "Malpractice Law and Health Care Reform: Optimal Liability Policy in an Era of Managed Care," *Journal of Public Economics,* vol. 84, no. 2 (2002), pp.175–195; and Frank A. Sloan and John H. Shadle, "Is There Empirical Evidence for "Defensive Medicine"? A Reassessment," *Journal of Health Economics,* vol. 28, no. 2 (2009), pp. 481–491.

[9] See Katherine Baicker, Elliot S. Fisher, and Amitabh Chandra, "Malpractice Liability Costs and the Practice of Medicine in the Medicare Program," *Health Affairs,* vol. 26, no. 3 (2007), pp. 841–852.

Those mixed results related to health outcomes may arise, in part, because of the complicated relationship between malpractice claims and medical errors. As CBO discussed in its December 2008 report *Key Issues in Analyzing Major Health Insurance Proposals*, an estimated 181,000 severe medical injuries attributable to negligence occurred in U.S. hospitals in 2003.[10] However, the correlation between errors and malpractice claims is weaker than might be supposed. An analysis using data from the state of New York, called the Harvard Medical Practice Study, showed that a majority of hospital patients who suffered injuries because of negligence never filed claims and that a substantial fraction of claims that were filed involved health problems that did not appear to be caused by negligence (as judged by a panel of medical professionals)—although patients who suffered injuries due to negligence were more likely to file claims and to receive higher compensation than patients who did not suffer injuries due to negligence.[11]

Recent Research on Tort Reform and Health Care Spending

CBO's latest assessment of the effects of tort reform on spending for health care draws on a considerable amount of analysis that the agency has undertaken during the past several years and a stream of recent research studies that have used a variety of data and empirical techniques.[12] Despite that analysis, estimates of the budgetary effects of tort reform are unavoidably uncertain, as is true for many other issues that CBO studies. In dealing with uncertainty, the agency consistently strives to produce estimates that lie in the middle of the distribution of plausible outcomes based upon available knowledge.

After a careful evaluation of the research relevant to tort reform, along with discussions with members of the agency's Panel of Health Advisers who have particular expertise in this topic, CBO concluded that the weight of empirical evidence now demonstrates a link between tort reform and the use of health care services. The estimates from CBO's own empirical analysis in 2006 implied that implementing the package of tort reforms described in the recent letter to Senator Hatch would reduce the use of health care services and, thereby, health care spending—a finding that was consistent with the results of some studies done by outside researchers.[13] However, the studies available at that time (including

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[10] See Congressional Budget Office, *Key Issues,* pp. 150–154.

[11] See Paul C. Weiler and others, *A Measure of Malpractice: Medical Injury, Malpractice Litigation and Patient Compensation* (Cambridge, Mass.: Harvard University Press, 1993). Similar patterns of results have been documented in subsequent studies, including David M. Studdert and others, "Negligent Care and Malpractice Claiming Behavior in Utah and Colorado," *Medical Care,* vol. 38, no. 3 (2000), pp. 250–260; and David M. Studdert and others, "Claims, Errors, and Compensation Payments in Medical Malpractice Litigation," *New England Journal of Medicine*, vol. 354, no. 19 (2006), pp. 2024–2033.

[12] For CBO's earlier analyses, see *The Effects of Tort Reform: Evidence from the States* (June 2004) and *Medical Malpractice Tort Limits and Health Care Spending* (April 2006).

[13] See Kessler and McClellan, "Do Doctors Practice Defensive Medicine?" and "Malpractice Law and Health Care Reform."

CBO's) reported estimates that varied considerably in magnitude and contained some anomalous results, so CBO concluded that there was not sufficient evidence to incorporate in its budget estimates an effect of tort reform on health care utilization. More-recent studies have provided further support for the hypothesis that tort reform would slightly reduce the use of health care, and they have helped to resolve some apparent anomalies in earlier findings.[14]

For example, the study by Lakdawalla and Seabury and one by Avraham, Dafny, and Schanzenbach analyzed data that had not been used in previous research and used statistical methods that strengthened the evidence regarding the effects of tort reform on health care utilization and spending. Previous research had generally compared changes in health care spending over time in states that had and had not adopted tort reforms, controlling for other observable differences among states. Lakdawalla and Seabury used an approach that did not rely on comparisons of state tort reforms; they found that a reduction in medical malpractice costs was associated with a reduction in health care spending that exceeded what would arise solely from the direct effect of that reduction in malpractice costs. Avraham, Dafny, and Schanzenbach analyzed the impact of tort reform on health insurance premiums; they found that tort reform was associated with a reduction in premiums for self-insured plans that, again, exceeded what would arise from the direct effect of tort reform on malpractice costs.

In addition, the study by Baicker, Fisher, and Chandra found that use of diagnostic services, especially imaging, showed the largest changes in response to a change in malpractice costs. That result is consistent with a common view that ordering additional diagnostic services is a preferred strategy for reducing exposure to medical malpractice liability. That study reinforced the findings from other studies that tort reform would affect health care utilization by changing the practice patterns of providers. The study by Sloan and Shadle found mixed evidence of an effect of tort reform on health care spending. The authors estimated that certain types of tort reform had no effect on total spending by hospitals, while other types decreased it.

Previous research by CBO and others had found that replacing joint and several liability laws with a "fair share" rule appeared to increase health care spending—in contrast with other tort reforms, such as caps on noneconomic damages, which appeared to decrease spending. The study by Currie and MacLeod explained that a fair share rule is unusual among commonly discussed tort reforms because it increases the risk of financial liability perceived by most physicians. In CBO's

[14] See Ronen Avraham, Leemore S. Dafny, and Max M. Schanzenbach, *The Impact of Tort Reform on Employer-Sponsored Health Insurance Premiums*, Working Paper No. w15371 (Cambridge, Mass.: National Bureau of Economic Research, September 2009); Baicker, Fisher, and Chandra (2007); Currie and MacLeod (2008); Lakdawalla and Seabury (2009); and Sloan and Shadle (2009).

view, if physicians generally react to greater liability pressure by performing more procedures, then a fair share rule would be expected to increase overall health care utilization and spending.[15] That explanation helped to make sense of previously counterintuitive results and therefore gave CBO greater confidence in those earlier results.

CBO's Updated Estimates of the Budgetary Effects of Tort Reform
In CBO's December 2008 *Budget Options* volume, a common package of tort reform proposals was estimated to decrease spending by about $4 billion and to increase revenues by about $1 billion from 2010 to 2019.[16] In CBO's letter to Senator Hatch, those proposals were estimated to decrease spending by roughly $41 billion and increase revenues by roughly $13 billion over that same period. The latest estimates are substantially larger than the earlier ones for four principal reasons:

- They include a larger estimate of the effect of tort reform on medical malpractice costs;

- They incorporate the effect of a gradual reduction in the utilization of health care services resulting from changes in the practice patterns of providers;

- The estimated effect on federal revenues was substantially smaller in the previous estimate (which reflected only a reduction in malpractice costs) than the estimated effect on revenues in the current estimate (which reflects the combined effects of the reduction in malpractice costs and the change in spending attributable to changes in practice patterns); and

- The reduction in utilization is projected to generate a proportionately larger reduction in federal spending on health care than in other spending on health care.

Tort Reform Would Have a Greater Effect on Malpractice Costs. CBO periodically updates its estimates of the effect of tort reform on malpractice costs as new data on malpractice costs and state laws become available and the agency improves its techniques for modeling the effects of tort reform. CBO currently estimates that the nation's direct costs for medical malpractice—which consist of malpractice insurance premiums and settlements, awards, and legal and administrative costs not covered by insurance—would be reduced by about 10 percent (relative to the amounts under current law) if the common package of

[15] Seemingly contrary to that logic, Currie and MacLeod estimated that adopting a fair share rule decreased utilization. However, their analysis focused on a single procedure, births by Caesarean section.

[16] See Congressional Budget Office, *Budget Options, Volume 1: Health Care* (December 2008), pp. 21–22.

tort reforms was implemented nationwide. CBO's previous estimate was that tort reform would lower malpractice costs nationwide by about 6 percent.[17]

Tort Reform Would Also Affect the Utilization of Health Care Services. As described in CBO's letter to Senator Hatch and reiterated above, the agency's estimates of the effects of tort reform now incorporate a slight reduction in the utilization of health care attributable to changes in the practice patterns of providers. The combination of direct savings in malpractice costs and indirect savings in health care services would reduce national health spending in response to the proposed reforms by roughly 0.5 percent, CBO projects. The increase in CBO's estimate of the effects of tort reform on health care spending—arising from both the larger estimated change in malpractice costs and the incorporation of the change in utilization owing to changes in practice patterns—implies a significant increase in the estimated effects of tort reform on both federal tax revenues and federal outlays.

The Effect of Reduced Health Care Spending on Revenues Would Be Greater. On the revenue side, a reduction in spending on health care arising from tort reform would shift some compensation from employment-based health insurance (which is excluded from income and payroll taxes) to taxable wages and salaries, thereby increasing tax revenues. That reduction in spending on health care—and the resulting revenue impact—would be the combined effect of three consequences of tort reform: a reduction in malpractice costs; a reduction in the use of health care services; and an increase in the amount of health insurance purchased because of lower insurance prices brought about by the two other factors. In CBO's previous estimate, the second factor on that list was not included, and the induced increase in insurance purchases offset a considerable share of the decrease in spending attributable to lower malpractice costs; as a result, the estimated net reduction in spending was a good deal smaller than the 0.2 percent figure that represents CBO's current assessment of the effect of tort reform on health care spending because of the reduction in malpractice costs. In CBO's latest estimate, the reduction in spending owing to changes in providers' practice patterns significantly outweighs the induced increase in insurance purchases; as a result, the net reduction in health care spending incorporating all three factors listed above is 0.5 percent. Thus, the estimated increase in federal tax revenues from tort reform has risen by more than the ratio of 0.5 to 0.2.

Changes in Utilization Would Have a Proportionately Greater Effect on Federal Spending. On the outlay side, the reduction in the utilization of health care services due to changes in practice patterns would have a proportionately larger effect on federal spending for health care than it would have on other spending for health care. The most important reason for the difference is that, according to empirical evidence, utilization of care in Medicare would be reduced

[17] See Congressional Budget Office, *Key Issues in Analyzing Major Health Insurance Proposals*, pp. 150–154.

more than would utilization of care as a whole. The greater impact in Medicare can probably be explained by two factors. First, the bulk of Medicare services are provided on a fee-for-service basis, whereas most private health care spending occurs through plans that manage the utilization of care to some degree. Such plans may limit the use of services that have marginal benefit to patients to a greater degree than does Medicare, leaving less room for changes in pressures regarding malpractice to affect utilization. Second, when compared with the use of private health care services, the use of services in Medicare is less likely to be influenced by the effects of changes in malpractice costs on the premiums and cost sharing faced by patients.

I hope you find this information useful. If you have any further questions, please contact me or my staff. The primary staff contact is Stuart Hagen.

Sincerely,

Douglas W. Elmendorf

Douglas W. Elmendorf
Director

cc: Honorable Orrin G. Hatch

Honorable John Conyers, Jr.
Chairman
House Committee on the Judiciary

Honorable Lamar Smith
Ranking Member
House Committee on the Judiciary

Honorable Patrick J. Leahy
Chairman
Senate Committee on the Judiciary

Honorable Jeff Sessions
Ranking Member
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