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COLUMBIA UNIVERSITY

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TO: The Association of National Advertisers (ANA)

FROM: Frank R. Lichtenberg, Courtney C. Brown Professor of Business at the
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Associate of the National Bureau of Economic Research FL

SUBJECT: Economic Research on the Impact of Prescription Drug Expenditures on
Mortality, Morbidity and Total Medical Expenditures

I have conducted several empirical studies to determine the impact of drug utilization on total medical expenditures, mortality, and morbidity. I have attached these studies, as well as my *Curriculum Vitae*, in order to give you an idea of my background and experience in this area.

Too often, prescription drug costs are examined in a vacuum, independently from broader health care considerations. This approach tends to be misleading and uninformative. I believe that my studies of the effect of prescription drug expenditures on total health care expenditures, mortality, and morbidity in the United States, provide an important analytic framework and economic analysis as policymakers consider these critical health care issues.

The first study¹, based on disease-level data for the period 1980-1991, indicated that for every \$1 increase in prescription drug expenditures in the U.S., there is a corresponding savings of \$3.65 in hospital care expenditure, ignoring any indirect cost of hospitalization.

¹ A brief summary of this study was published as, "Do (More and Better) Drugs Keep People Out of Hospitals?," *American Economic Review* 86, May, 1996, 384-8. A longer version was published as, "The Effect of Pharmaceutical Utilization and Innovation on Hospitalization and Mortality," in *Productivity, Technology, and Economic Growth*, ed. by B. van Ark, S. K. Kuipers and G. Kuper (Kluwer Academic Publishers, 2000)

A more recent study is based on patient-level data for 22,061 people in the year 1996. This paper, entitled "*The Benefits and Costs of Newer Drugs: Evidence from the 1996 Medical Expenditure Panel Survey*," was distributed in March of this year as Working Paper No. 8147 of the National Bureau of Economic Research.

This research serves to demonstrate that the replacement of older by newer prescription drugs actually results in reductions in mortality, morbidity, and total medical expenditures in the U.S.

This paper did not directly address the issue of the impact of direct-to-consumer marketing on the price of the prescription drug product. However, the findings certainly raise important concerns about any proposal to restrict direct communication with consumers about new medicines and therapies. Given the important role of DTC marketing in communicating with consumers about benefits and risks of newer drugs, it is critical for policymakers to carefully consider the impact that any restrictions on DTC marketing might have on overall health care expenditures.

The nation's spending for prescription drugs has increased in recent years, even when controlling for general inflation. Previous studies have shown that the replacement of older drugs by newer, more expensive drugs, is one of the reasons for this increase. But those studies did not measure how much of the difference between new and old drug prices reflects changes in quality as better, newer drugs replace older, less effective medications.

In Working Paper 8147 for the NBER, I analyzed prescribed medicine event-level data from the 1996 Medical Expenditure Panel Survey (MEPS) to provide evidence about the effect of drug age on mortality, morbidity, and total medical expenditure, controlling for a number of characteristics of the individual and the event.

The results provide strong support for the hypothesis that the replacement of older by newer prescription drugs results in reductions in mortality, morbidity and total medical expenditure. Although the mortality rate in the sample is quite low, I found that people consuming new drugs were significantly less likely to die by the end of the survey than people consuming older drugs. As to morbidity, I found that people consuming new drugs were significantly less likely to experience work-loss days than people with the same conditions consuming older drugs.

The estimates indicate that reductions in prescription drug age tend to reduce all types of non-drug medical expenditures, although the reduction in inpatient expenditure is by far the largest. The total estimated reduction in non-drug expenditure from reducing the age of the drug is almost four times as large as the increase in drug expenditure, so reducing the age of the drug results in a substantial net reduction in the total cost of treating the condition.

In summary, my research indicates clear economic benefits to consumers and society from the use of newer prescription drug products. In light of this evidence, Congress and the FDA should be very cautious about any changes in governmental policy that restrict

the ability of manufacturers to communicate with consumers about these newer products. DTC marketing should not be considered in a vacuum, but rather in the broader context of overall health care policy.

I would be happy to discuss these important issues with the FDA, members of Congress or their staff.