Appendix F

The Health Effects of Varying Levels of Cost Sharing in a Generous Private Health Insurance Plan: The RAND Health Insurance Experiment

As noted in appendix C of this background paper, definitive conclusions about the relative impacts of insurance coverage vs. lack of coverage are difficult to draw because there have been no truly experimental studies testing the effects of not having insurance. It is important to note that the RAND Health Insurance Experiment (HIE) was designed to examine levels of cost-sharing among privately insured patients and ***not* the impact of being uninsured (21).** The fact is that all the HIE participants benefited from the assurance that at least part of their health care bills would be paid by an insurer. Further, the maximum that could be paid out-of-pocket by any HIE participating family was $1,000 per year (in 1982 dollars), or a lesser amount adjusted for income (21). For some, coverage was entirely "free" because no premium was charged for any plan (21).[1] Finally, any family assigned to a plan that offered less coverage than its insurance before the HIE was reimbursed an amount equal to its maximal ***possible*** loss. As a consequence, it is difficult to draw inferences from HIE findings about the effects of lack of insurance on health outcomes. The findings of the HIE can be useful, however, in demonstrating whether cost-sharing results in delaying or forgoing care within the context of a generous benefit package,[2] and the health effects that delaying or forgoing care may cause.[3]

For the most part, and particularly for persons with ''average' income and health,[4] the HIE found that health outcomes were neither significantly improved when care was free, nor adversely affected by requirements for cost sharing (20,21,81,121 ,171). Exceptions included findings that functional far vision (21) and dental and oral health (8) improved for individuals receiving free care. These findings may be of particular interest because dental and vision services are often not covered, or subject to many limitations, in private insurance plans (153, also see appendix D).

When analytic efforts were concentrated on adults who were initially in ill health (in the bottom quarter of a range of health status indicators) and living in low-income families (below $7,300 in 1982 dollars), cost-sharing (as opposed to free care) had statistically significant adverse effects on the specific physiologic measures of blood pressure and vision and on the relative risk of dying related to three major risk factors (i.e., smoking more than a pack of cigarettes a day, high cholesterol, high systolic blood pressure), but not on a range of other measures including perceived health status.

It is unclear to what extent the findings of the HIE would hold in the current health care and family income environment (e.g., at current cost-sharing levels, with greater efforts to manage care). This issue is important to current health care reform proposals. In its main report, scheduled to be published in 1993, OTA will examine the internal and external validity of the HIE and other studies of the impact of various cost-sharing arrangements on utilization, process, and health outcomes.

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1 Premiums are not typically considered part of patient cost sharing.

2 All plans covered ambulatory and hospital care, preventive services, most dental services, psychiatric and psychological services (limited to 52 visits a year), and prescription drugs.

3 "f'he Rand HIE is also important because it measured various aspects of health care services, including the utilization, process, and quality of care (21,80,102).

4 Generally, "average" refers to families in the middle two-fifths of the income and health distributions (21).