



## The Choice among Medical Insurance Plans: Reply

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# The Choice Among Medical Insurance Plans: Reply

By Yael Benjamini and Yoav Benjamini\*

In our 1986 paper, "The Choice Among Medical Insurance Plans," we first showed that for a homogeneous group of individuals an HMO plan is welfare superior to a CI plan. We then relaxed the assumption of homogeneity in our analysis, and demonstrated that "when heterogeneity is sufficiently strong a CI plan may be better." Frank Gianfrancesco (1988) raises two qualifications that are supposed to "make difficult the acceptance, as an unambiguous prediction of economic theory," (of this second result). We clearly realized, and stated, that we were not making unambiguous theoretical predictions, so in some sense Gianfrancesco is breaking into a house which has an open door. However, we did support this second result by analyzing data on groups of employees enrolled in CI and HMO, and found the latter group to be much more homogeneous in income, age, and education. This was true both in absolute terms and relative to the levels of the variables. Because of these results, we find it difficult to believe that the large differences in homogeneity between the two groups are all due to a difference of less than a half standard deviation in age—as suggested by Gianfrancesco. Furthermore the phenomenon of younger age in HMO insureds is coupled, in the sources quoted by Gianfrancesco, with lower income. We certainly do not see this in our results.

As to the qualifications themselves: regarding the cross-subsidization issue, Gianfrancesco takes a simple example and shows that under CI, an insured demanding less in a specific state of health, subsidizes the one demanding more when in that state of health. Let us ignore the fact that this does not imply efficiency loss in the strict sense of the

term. An individual may be a high demander in one state of health while being a low demander in a second state of health. Therefore, it is still not clear, though is assumed so by Gianfrancesco, that a single individual will emerge as high demander when all possible states of health are accounted for. Thus it is not clear at all that, *ex ante*, cross-subsidization exists at any significant level.

The qualification regarding the size of welfare loss due to moral hazard is, in our view, a more important one. The separability of the utility function appears in many works, including those comparing insurance plans. Gianfrancesco shows that when both homogeneity and separability are relaxed the effect of heterogeneity may work in the direction that reduces the desirability of the CI plan. The next theoretical contribution naturally called for is an analysis which is set up to understand the conditions under which one effect is stronger than the other.

Ultimately this controversy should be resolved by empirical evidence. This may be accomplished by including for each person, a measure of his distance from the center of his group, as one of the variables to be used for explaining his choice. In the population we studied the group formed in an HMO was more homogeneous, but the question of generalizability can be answered only by new data. We hope this discussion draws attention to the importance of the heterogeneity issue in the health insurance marketplace, and will lead to additional studies.

## REFERENCES

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- Gianfrancesco, Frank D., "The Choice Among Medical Insurance Plans: Comment," *American Economic Review*, March 1988, 78, 277–80.

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