Does Decision Analysis Have a Race Problem?

In this issue, Cykert and colleagues describe their efforts to use the standard-gamble method of utility assessment to measure utilities for some undesirable conditions resulting from pulmonary disease.¹ Each subject in the study indicated the highest acceptable risk of death from surgery and other therapies that could relieve the undesirable conditions. Of the 64 subjects in the study, 13 were African American, and they gave different responses than the rest of the subjects. The risk of death that they would accept was lower, which appears to mean that the utilities of African Americans for the undesirable conditions were higher than the utilities of others, on a scale bounded by death at the bottom and normal health at the top. This is a post hoc finding, and it should be replicated with a more systematic and larger sample. It is like a cluster of cases of a rare disease, interesting and possibly worth investigating but not yet meaningful.

If the results hold up, they have potentially important implications for several types of decisions. For example, public and private health insurers are turning more often to utility measures for measuring the effectiveness of medical interventions. These organizations try to get the most value for the dollars spent. They can do this by comparing utility to cost and covering the interventions that yield greater utility per dollar. For health insurers who act this way, the direct implication of the work by Cykert and colleagues is that utility should be measured in a sample that represents the population's racial distribution, or the results should be stratified by race. If African Americans are left out, estimates of the population's utilities will be biased. If Cykert's results represent the general direction of this bias, then exclusion of African Americans will lead to more money being spent on treating and preventing chronic conditions with less money being spent on preventing death itself.

These findings also might have implications for other, more local decisions. For example, it might make sense for hospitals that serve primarily African-American patients to have different policies than those that serve few African-American patients. Here, however, we are on shakier ground. Even if this study were replicated with national data, the extrapolation of national findings to local situations is fraught with error. Each hospital could study its own population, but the cost of such studies may be high. Another approach, perhaps no more costly, is to base such decisions on the values of individual patients, without using membership in racial, economic, or ethnic groups to make any inferences about values. Of course, that approach is subject to moral hazard because, once they understood the process, patients could distort their responses to get more expensive treatments. Choosing how to make local decisions should depend on the variance in utility from community to community and from individual to individual, and on the extent to which moral hazard is an issue.

A decision analysis might help us decide whether a national, local, or individual decision analysis is more useful, but that meta-decision-analysis would be overkill.

Further studies should try to discover the cause of group differences, whether groups are defined by race, age, ethnicity, or sex. The differences may be specific to the methods used to measure utilities. For example, the utility measured with a standard gamble may be affected by the person's attitude toward risk more than a utility measured with some other method, and people in different groups might have different risk attitudes.

Also, as the paper notes, the utility may be affected by attitudes toward the hypothetical situation presented in the gamble. For example, to make the task more concrete, Cykert described the gamble as involving a "treatment." Different subjects might have imagined different treatments, so differences in their utilities could have depended on their attitudes toward different treatments. If such effects exist, the standard gamble would be unsuitable for measuring the utility of treatment. If the goal is to do the most good with the money available, we need a measure of good, not a measure of the patient's opinion about a hypothetical treatment, especially when that treatment is different from the real one. If, however, we wanted to base decisions on consumer sovereignty, we would let the consumer choose freely without measuring good and thus without estimating utility. Of course, medical care may be one area where some paternalism is warranted. The paternalism in question measures good and maximizes it, rather than accepting people's opinions about what should be done.

Cykert and colleagues speculate that attitudes toward death itself may explain the differences they observed. It was appropriate for them to include death as an outcome in the gamble, because in the real world patients must decide between interventions that prevent death and those that prevent pain or disability. In the analysis, however, Cykert and colleagues assumed that everyone had the same value for the difference between normal health and death. It is possible, however, that African Americans have a greater desire than others to avoid death, although they might have the same desire to avoid pain. Distinguishing between these possibilities is important, but doing so requires a different sort of investigation based on a better understanding of the source of group differences.

Another possibility is that African Americans, or religious people in general, have the same desire to avoid death as other people, but they oppose *actions* that lead to death. If this possibility actually occurred, it would change how the results should be interpreted. It would mean, for example, that the attitudes expressed by the subjects in this study reflected their attitudes toward risky procedures rather than their attitudes toward death, which can be caused by risky procedures. It also would mean that we

cannot extrapolate conclusions from these results to other sorts of decisions, because the results reflect an opinion about what should be done in a particular case, not a judgment about the goodness or badness of the consequences.

We may do better with measures of utility that are not based on hypothetical decisions at all, although the direct rating they permit is easier for subjects. For measuring utility, though, it is not realism that matters, but internal consistency and unbiased judgment.²—**JONATHAN BARON, PhD,**

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REFERENCES

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