

Letters to the Editor

The Skinny on COI Analysis

Dear Sir:

In a recent Perspective article in this journal (1), Roux and Donaldson criticize the usefulness of cost-of-illness (COI) (1) studies, which they suggest are fraught with methodological flaws. Furthermore, they contend that COI studies should not be used to set priorities for government investment in the prevention of disease and injury. We acknowledge the validity of some of their arguments and wholeheartedly agree that scientifically rigorous economic evaluation (such as cost-benefit analysis and cost-effectiveness analysis) should be used in decisions for funding interventions. However, as we recently noted (2), COI studies can be valuable tools for promoting attention to the economic burden imposed by specific illnesses and are a crucial first step in the economic evaluation of prevention interventions.

As suggested by Roux and Donaldson, COI data may assist in mobilizing interest and resources to a particular public health problem. We argue that this is how many COI studies are being used in the government: not to explicitly set health policy but rather to spotlight burden of disease that moves beyond traditional epidemiological estimates of mortality and morbidity. For example, a recent COI study by Finkelstein et al. (3) showed that the government pays for >50% of the health care costs associated with persons who are obese or overweight. These findings clarify the debate about whether obesity is a personal or societal issue and provide a clear motivation for government to try to reduce the costs of obesity. Because economic evaluation is useful only after interventions have been developed and evaluated, COI studies are an important part of the process for priority-setting in research on prevention.

Many of the methodological “flaws” that Roux and Donaldson contend to be inherent in COI studies, such as overestimating productivity losses and double-counting costs for chronic diseases, can be overcome. For example, concerns about using earnings to measure productivity have led many prevalence-based COI studies to focus on direct costs of care only. Furthermore, whereas the human capital approach has limitations to valuing lost productivity, this is not specific to COI studies. Indeed, cost-benefit analyses in the health care field often use the human capital approach to calculate the economic benefits from preventing death and disability. Many recent COI studies rely on individual level data that allow for directly modeling the relationship between a particular disease and expenditures (4) and, therefore, do not suffer from problems of double-counting ex-

penditures that were most likely to occur in epidemiological COI studies.

As stated in our own critique of COI studies, the potential for misuse of these, and many other, studies is ever-present, and, therefore, authors need to clearly state how the results should and should not be used. We also believe that COI studies will continue to benefit from better data and methods. Further debate on this subject should focus on how to advance the state of science of COI studies and how to transfer the results of these studies to policy makers required to allocate our scarce public health resources.

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References

1. **Roux L, Donaldson C.** Economics and obesity: costing the problem or evaluating solutions? *Obes Res.* 2004;12:173–9.
2. **Finkelstein E, Corso P.** Cost-of-illness analyses for policy making: a cautionary tale of use and misuse. *Expert Rev Pharmacoeconom Outcomes Res.* 2003;3:367–9.
3. **Finkelstein E, Fiebelkorn I, Wang G.** National medical spending attributable to overweight and obesity: how much, and who’s paying? *Health Affairs.* (Web exclusive accessed May 14, 2003); pp. W3-219–W3-226.
4. **Finkelstein EA, Fiebelkorn IA, Corso PS, Binder SC.** Medical expenditures attributable to injuries—United States, 2000. *MMWR Morbid Mortal Wkly Rep.* 2004;53:1–4.

Response to Drs. Corso, Grosse, and Finkelstein

Dear Sir:

We welcome the part-recognition and part-rebuttal by Corso et al. of the arguments put forward in our recent article. As Corso et al. have done with our article, we also acknowledge the validity of some of the arguments they make, thus providing fertile common ground for debate about the usefulness of cost-of-illness (COI) studies and economic evaluation more generally.

Corso et al. contend that COI studies “can be valuable tools for promoting attention to the economic burden imposed by specific illnesses.” We are not sure how much progress can be made on whether this is the case without,

perhaps, some empirical evidence on their added value over and above estimates of morbidity and mortality. This would require some work not only on the perceived usefulness (by decision makers) of such studies but also on decision makers' interpretations of them.

Corso et al. also state that COI studies can be a useful first step in economic evaluation. Here, we suppose the emphasis should be on *can be*, the approach taken to any economic evaluation largely depending on circumstances and the expert judgments of the research team as to how best to approach such circumstances. However, for both promoting attention to diseases and as a first step in economic evaluation, we would doubt that COI estimates are always necessary.

If, as Corso et al. imply, COI estimates are being used just as pieces of information by the government in a complex decision-making process, we feel more comfortable. Obviously, many pieces of information will feed into such decisions about research and care priorities. If anything, our concern is not to place too much emphasis on the size of the problem, but rather, the payoff from interventions vis-à-vis other uses of resources. These will not always be in congruence.

Finally, we also welcome the cautions highlighted by

Finkelstein and Corso (1) with respect to the potential flaws of both economic evaluation and COI studies (1,2). Our only addition, or proposed substitution, would be to say that we need to debate further the state of the science of economics more generally, rather than just COI studies, in terms of their contributions to the allocation of scarce public health resources.

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