Reply to Paltiel et al

To the Editor—We thank and welcome Paltiel and colleagues' review of our recent publication; however, we disagree with a number of their assertions.

We are aware that the results of health economic evaluations are often presented and interpreted using marginal contributions to both costs and consequences. However, we presented the results of our economic evaluation of human immunodeficiency virus (HIV) preexposure prophylaxis (PrEP) among men who have sex with men (MSM) based on their absolute contributions for the following reasons:

1. A number of the interventions presented in our paper were not mutually exclusive. For example, interventions including MSM in serodiscordant regular long-term partnerships (interventions 10 and 11) and multiple partnership groups (interventions 4–9) involve independent policies affecting different and not completely overlapping population groups—and therefore policies prioritizing these 2 groups can be adopted at the same time. Policies aimed at different groups of the population are viewed to be independent; therefore, a direct incremental calculation of the cost-effectiveness of one group vs another is inappropriate [1].
2. A number of our scenarios reflected ranges of coverage that are likely to be achieved in the Australian setting. They did not represent separate public health strategies or policy decisions. Our purpose was to present what the cost-effectiveness of PrEP would be if, for example, 10%, 20%, or 30% of MSM start PrEP. To say that providing PrEP to one proportion of the population is more cost-effective vs another is not useful, as it would be unethical to approve a pharmaceutical agent for an indistinguishable proportion of a target population.

For these reasons, we did not present cost-effectiveness ratios based on marginal contributions to costs and consequences, and we feel it is inappropriate to highlight an efficient frontier in Figure 2 of our article. We highlight that, although Paltiel and colleagues believe that cost-effectiveness results based on absolute contributions lead to a serious misinterpretation of findings, Paltiel and colleagues' and our conclusions align; in our analysis, PrEP meets Australian standards of cost-effectiveness when prioritized to the uninfected members of regular serodiscordant partnerships.

Regarding the potential impact of concomitant antiretroviral therapy in serodiscordant partnerships on PrEP cost-effectiveness, although our model does not capture the full complexities of regular serodiscordant partnerships, it does reflect the high levels of testing and treatment reported within the Australian MSM population [2]. This means that the majority of positive men within serodiscordant partnerships are already on treatment in our model. We agree with Paltiel and colleagues that the effective implementation of other interventions or changes in guidelines leading to an increase in testing, disclosure, and the early initiation of treatment of men in regular partnerships would likely reduce the impact and cost-effectiveness of PrEP. However, a key interpretation of our article will remain: PrEP interventions have the most impact and are more cost-effective when prioritized to men most at risk of infection rather than being applied broadly.

Note

Potential conflicts of interest. All authors: No reported conflicts.

All authors have submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Conflicts that the editors consider relevant to the content of the manuscript have been disclosed.

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