

# LETTERS

## IMPACT OF PAID SICK LEAVE POLICY: A SOCIAL PLANNER'S PERSPECTIVE

In their article, Kumar et al.<sup>1</sup> examine the impact of paid sick days on influenza attack rates in workplaces using an agent-based model. Their findings show that paid sick leave reduces influenza transmission and hence the burden of illness in workplaces.

The authors would like to point out the work by Liao et al.,<sup>2,3</sup> which studies the impact of paid sick leave on the spread of influenza from a social planner's perspective. As opposed to focusing on workplaces, this study measures the impact of the paid sick leave on an entire society. The study measures attack rates, medical costs, workers' productivity and social welfare under a variety of scenarios. A detailed individual-based model is used for simulating these scenarios that consider the following variables:

- (1) Honesty of the workers receiving paid sick leave,
- (2) Compliance of the workplaces in granting paid sick leave,
- (3) Maximum number of sick days allowed,
- (4) Infectivity of the disease, and

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- (5) Productivity of the workers who work while sick.

The results show that if workers are honest, a liberal paid sick leave policy is highly beneficial to society. However, even if the workers are not honest, paid sick leave still increases social welfare in the majority of scenarios considered. That is because the benefits of paid sick leave outweigh the losses. The results of Kumar et al.<sup>1</sup> once again show that paid sick leave can be a very effective policy instrument for controlling influenza outbreaks. Our research shows that the conclusions are robust to variations in assumptions and model parameters. ■

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### Contributors

All authors contributed equally to this letter.

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**Note.** The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health, the National Science Foundation, or the Department of Defense.

### References

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### KUMAR ET AL. RESPOND

We thank Marathe et al. for alerting us to their study of the impact of paid sick leave on the burden of influenza,<sup>1</sup> published in the International Conference on Complex Sciences: Theory and Applications. We regret that we did not have the opportunity to discuss our results in light of their study, which was published while our recent article was in press.

Liao et al. show that at the overall population level, paid sick days reduce the burden of influenza illness. In addition, under multiple assumptions about rational and honest behavior and workplace compliance with a paid sick days policy, they show that the policy can be cost-effective from the societal standpoint. Their detailed study adds to the evidence base for decision-makers grappling with the economics of providing paid sick days.

We would like to call attention to a specific dimension on which our studies differ. Public health research and practice are concerned both with the reduction of overall disease in the population and with eliminating disparities between population subgroups.<sup>2</sup> In our recent study, we focused on quantifying the differential impact of paid sick days policies on workplaces of different sizes. We hypothesized that paid sick days policies would have a different impact on small workplaces than on large ones because access to paid sick days currently increases with workplace size.<sup>3</sup> Our study showed that this was indeed the case. The 2 studies under discussion highlight that