## Comment

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## Disseminating public health messages about second-hand smoking through mosque congregations in Bangladesh

Prospects of delivering community health interventions through religious leaders during mosque congregations are under-researched in Bangladesh, where 88% of the population are Muslim.<sup>1</sup> We thank Noreen Mdege and colleagues<sup>2</sup> for evaluating the efficacy and costeffectiveness of a community-based smoke-free-home intervention to reduce second-hand smoke exposure using a cluster-randomised, controlled trial design. In this intervention, the religious leaders (ie, imams and khatibs) were trained and encouraged to disseminate messages during mosque congregations on changing smoking behaviours. The study successfully showed that public health behavioural-change interventions can be delivered through religious leaders during mosque congregations on a large scale, however, the intervention was not shown to be efficacious.

We appreciate the pragmatic, three-arm, clusterrandomised, controlled trial design, in which randomisation of mosques and consenting households to the trial groups was done for an unbiased estimate. However, the intervention delivery process could be improved, and qualitative data could be collected for a better understanding of the findings from the quantitative assessment.

The intervention messages were delivered during talks by religious leaders on a religious or moral subject during sermons, which are not a mandatory part of the prayer. The authors neither presented the information about how many individuals attended that sermon nor controlled for attendance in the regression models. The attendance could have affected the outcome of this intervention. Before the intervention delivery began, a half-day training on the content and delivery process of the messages was provided for the religious leaders. It was not clear if the training session was adequate for orienting the religious leaders. To understand whether the training was adequate, an assessment of the knowledge of the religious leaders would be necessary. Also, acceptance and adherence of the messages among the participants should have been explored. Therefore, along with the efficacy analysis of the intervention, qualitative assessments of both the religious leaders and the participants could be useful to explain the findings.

It was reported that in one of the intervention groups, the personalised feedback on the indoor air quality to the households was delayed. As the authors did not provide any information on average delay time, it is unclear how such delays might have affected the efficacy estimates. Finally, as the intervention was not efficacious and had an additional cost compared with the control group, it was not necessary to do a costeffectiveness analysis.

It seems to be very useful to deliver public health information through mosques in a country such as Bangladesh, where the Muslim proportion of the population is considerably high. In addition, the country has a good network of community health workers, which has been utilised for delivering programmes such as family planning, primary health care, and behavioural change communication counselling services.<sup>3</sup> It would, therefore, be more useful to combine the religious leaders and health workers from a health system perspective, to deliver second-hand smoking messages with greater effect. Inclusion of religious leaders can be considered an incremental investment in addition to delivering an intervention through health workers, which might have multiplier effects on health-related behaviour and ultimately on health.<sup>4,5</sup> In hygiene-promotion guidelines from Bangladesh, these two interventions were proposed to be combined for the delivery of handwashing-related messages.<sup>6</sup> We therefore suggest that the effectiveness of these two interventions should be tested jointly for delivering the messages related to second-hand smoking.

Based on the context of public health practice and the findings of the trial by Mdege and colleagues, there is scope to improve the intervention in future trials. This intervention thus deserves further investigations with moderation in the design and by adopting a more appropriate evaluation method. Accurate identification of the household members who attended the sermons where the public health messages on second-hand smoking were disseminated could be useful to better understand the efficacy of the intervention.

We declare no competing interests.



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- 1 Bangladesh Bureau of Statistics. Report on Bangladesh sample vital statistics 2018. Dhaka: Bangladesh Bureau of Statistics, 2019.
- 2 Mdege ND, Fairhurst C, Wang H-I, et al. Efficacy and cost-effectiveness of a community-based smoke-free-home intervention with or without indoorair-quality feedback in Bangladesh (MCLASS II): a three-arm, clusterrandomised, controlled trial. *Lancet Glob Health* 2021; **9**: e639–50.

- 3 Balabanova D, Mills A, Conteh L, et al. Good Health at Low Cost 25 years on: lessons for the future of health systems strengthening. *Lancet* 2013; 381: 2118–33.
- 4 Vanderweele TJ, Christakis NA. Network multipliers and public health. Int J Epidemiol 2019; **48**: 1032–37.
- 5 Christakis NA, Fowler JH. Social contagion theory: examining dynamic social networks and human behavior. Stat Med 2013; 32: 556–77.
- 6 WASHplus. WASHplus behavior change strategy: hygiene promotion guidelines for Bangladesh. Washington, DC: USAID, 2015.