study[2] has shown that coarse particles (diameter >2·5 μm) are most common in many Indian cities. Our findings[3,4] from particulate matter collected from various Indian cities showed that coarse particles predominantly influence the total inflammatory responses induced by particulate matter. Therefore, a reduction in $PM_{2·5}$ alone might not result in the proposed health benefits. Coarse particles will continue to dominate India's metropolitan cities owing to an increase in vehicle usage, infrastructure shortages, and improper solid waste collection and transport. Indian cities that are below the rank of metropolitan cities are also facing high population growth and uncontrolled development. Because of the unpaved roads and resources shortages in these growing towns, coarse particle exposure will probably increase in the future. These coarse particles can deposit in distal airways and the upper respiratory tract. Inhalable fractions of particulate matter (diameter of about <15 μm) can deposit in the upper respiratory tract and might modulate carriage of bacteria in this area. Upper respiratory carriage of bacteria is a prerequisite for infection and is the primary reservoir for transmission in children and adults.[5]

Population growth and overcrowding might increase the concentration of airborne biological particles in Indian cities;[4] such increases would be caused by resuspension of road dust, improper handling and transport of sewage, increased vehicle usage, and solid waste in Indian cities. Our experiments[4] have shown that airborne biological particles constitute a small, but notable, portion of the particulate matter and influence the total inflammatory response induced by particulate matter. Similar results were reported for particulate matter collected from other countries.[6,7] Our research[8] shows that airborne biological particles are an important part of exposure in Indian households that burn biomass. In summary, the Commission makes an ambitious proposal to enhance public health through a reduction in global exposure to air pollution. The development of successful control strategies to reduce air pollution requires planning at national, regional, and local levels and plausible inclusion of several external parameters, such as coarse particles. A more open-minded, flexible, and inclusive approach might be more effective to reduce the air pollution and adverse health effects at a regional level.

I declare no competing interests.

S Gangamma
ganganitk@gmail.com

Environmental Immunology Laboratory, National Institute of Technology Karnataka, Mangaluru 575025, India

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Accelerating the evidence for new classes of long-lasting insecticide-treated nets

The comment by Gerry F Killeen and Hilary Ranson (April 21, p 1551),[1] on our trial of long-lasting synergist piperonyl butoxide and pyrethroid-treated nets and indoor residual spraying for control of insecticide-resistant malaria mosquitoes (April 21, p 1577),[2] although summarising accurately the trial's findings, was less a commentary on its implications for future malaria control than a critique on the slow rate of progress in getting piperonyl butoxide synergist and other new long-lasting insecticidal nets implemented to scale. The appeal by Killeen and Ranson, to roll out interventions not yet tested against malaria outcomes rather than accelerating the evidence-based process that our trial intended to inspire, runs the risk of reversing the process of evaluation or resuming the stalemate or free-for-all that arises between products when interventions are not fully assessed. What our study has shown is the importance of rigorous controlled trials to build evidence and guide strategy. What future trials of next generation long-lasting insecticidal nets will require is a funding stream that will address the need for more timely evidence on effectiveness and durability. To guide malaria control strategy, an alliance or body of stakeholder representatives should be established that is competent to make far-reaching public health decisions on the basis of that evidence. What would be helpful now is a review of why the stalemate on the use of piperonyl butoxide synergist long-lasting insecticidal nets has existed for so long and how this trial can provide lessons for the future.

The authors of the comment took the opportunity to express frustration at the delays in decision making at WHO. With the benefit of the new evidence on piperonyl butoxide-treated long-lasting insecticidal nets, it becomes easier to see why policy should change. But, until our trial, there was no definitive evidence that malaria control was being compromised by increasing insecticide resistance or that standard long-lasting insecticidal nets were starting to fail in some places. The global malaria burden had continued


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to decrease each year in parallel with increasing coverage of standard pyrethroid-treated long-lasting insecticidal nets. What our trial has shown is that resistance is now a substantial problem, standard pyrethroid-treated long-lasting insecticidal nets are becoming less effective than before, and alternative long-lasting insecticidal nets containing synergist piperonyl butoxide will provide better protection and transmission control than standard long-lasting insecticidal nets. Before our trial and this year's World Malaria Report,[3] which showed that malaria levels had plateaued, there was not enough evidence to justify the switch. Killeen and Ranson say that trials should have been done earlier and, on this, we concur. They call for more trials. We agree with this, too. Before 2017, when WHO adopted new procedures for advising on trials and trial design,[4] there had been little encouragement from WHO for comparative trials between different classes of long-lasting insecticidal net products on disease outcomes, and no appetite for trials from product manufacturers and funding agencies. Killeen and Ranson say that our findings accord with the less rigorous phase 1 and phase 2 entomological studies that preceded them. They do accord but, until our trial, there was no certainty that they would do so. That the outcomes did broadly accord is reassuring, and we can build on that. Before then, the evidence based on entomology alone was insufficient to shift policy to more expensive piperonyl butoxide-treated long-lasting insecticidal nets. The trial did reveal several important findings that were not predicted. We expected an additive effect between the piperonyl butoxide-treated long-lasting insecticidal nets and indoor residual spraying interventions. That we did not see one was surprising, and useful, as it means there is no case for the more expensive combined intervention, when one intervention is sufficient. Killeen and Ranson say that we shall never know whether piperonyl butoxide-treated long-lasting insecticidal nets could slow the emergence of insecticide resistance. There is plenty of time to show that resistance selection can be slowed down, or even reversed, if the piperonyl butoxide-treated long-lasting insecticidal nets are scaled up fast enough. There are signs that the scale-up is already starting, following on from trial evidence. Another result that might have gone the other way was the effect of pirimiphos methyl indoor residual spraying when combined with standard long-lasting insecticidal nets. Many trials of combinations of indoor residual spraying and long-lasting insecticidal nets have not seen an added effect with other classes of indoor spraying insecticides.[5] The long residual effect of this particular indoor residual spraying is remarkable and unprecedented for any member of the organophosphate or carbamate insecticide class and makes intermittent application of indoor residual spraying a viable malaria control strategy.

The appetite for running a small series of controlled trials on new classes of long-lasting insecticidal nets has recently grown, with the UNITAID Catalytic Fund stepping in to fill the evidence gap identified by WHO. Running in parallel to this series will be a restricted number of pilot rollouts in selected countries to gain more evidence from routine deployment, so that scale-up of the new long-lasting insecticidal nets is not delayed for longer than necessary.[6]

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*Natacha Protopopoff, *Mark Rowland*
mark.rowland@lshtm.ac.uk

Department of Disease Control, London School of Hygiene & Tropical Medicine, London WC1E 7HT, UK

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Department of Error

Llibre JM, Hung C-C, Brinson C, et al. Efficacy, safety, and tolerability of dolutegravir-rilpivirine for the maintenance of virological suppression in adults with HIV-1: phase 3, randomised, non-inferiority SWORD-1 and SWORD-2 studies. Lancet *2018;* **391:** *839–49*—In the legend of table 1 of this Article (published online first on Jan 5, 2018), the most commonly reported NNRTI at baseline should read "dolutegravir-rilpivirine, n=185 [36%]; CAR, n=189 [37%]"; the most commonly reported protease inhibitor at baseline should read "dolutegravir-rilpivirine, n=58 [11%]; CAR, n=40 [8%]"; and the most commonly reported INSTI at baseline should read "dolutegravir-rilpivirine, n=43 [8%]; CAR, n=44 [9%]". The last sentence of the eighth paragraph in the Results section should read "having neuropsychiatric adverse events worse than grade 2". In figure 3, for "Age <50 years", "HIV-1 RNA <50 copies per mL (n/N)" should read "350/366" and the bar and diamond have been updated. In table 2, the dolutegravir-rilpivirine group should read "2 (<1%)" for "Neoplasms (benign, malignant, or unspecified)". In figure 4, the "Total:HDL cholesterol" for the dolutegravir-rilpivirine group's baseline value should read "3·78". The appendix of this Article has been updated. These corrections have been made to the online version as of Feb 1, 2018.

Sperber A. Health for migrants and Dominicans of Haitian descent. Lancet *2018;* **391:** *2093–94*—In this World Report, the following phrase should have read: "…the 2010 earthquake that killed more than 300 000 and displaced 1·5 million people". This correction has been made to the online version as of May 31, 2018.