Reviewer's report

Title: Health, poverty and cognitive function in pre-school children: a cohort study in a middle income urban context

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Reviewer: John T Cacioppo

Reviewer's report:

The authors treat their study as if they have identified a causal mechanism, and Reviewer 2's critique is premised on this fact. However, the cross-sectional study design does not permit a strong test of causal association much less a strong test of causal mechanism. Their study design and statistical modeling permit them to identify associations and to probe possible causal mechanisms but nothing more. If their manuscript were shorted and revised to make this point, the paper might make a worthwhile contribution. A condition of acceptance should be that they eschew any claim of having identified a causal association much less a causal mechanism. Finally, they need to recognize that a null effect (regarding infections and diarrhea) in any given study constitutes weak evidence for the absence of association. As the reviewer noted, this is because various aspects of the methodology and measurement error (e.g., incomplete identification of infections and diarrhea, incorrect aggregation of these events) could mask a true association.