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Response to: Assessing exposure to outdoor light and health risks

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The authors respond

We thank the readers for their interest in our paper and for suggesting the use of the Visible Infrared Imaging Radiometer Suite (VIIRS) Day-Night Band (DNB) data (1) as a means for estimating levels of outdoor light-at-night (OLAN). At the time we initiated our study these data were not yet available and thus we relied on the best Defense Meteorological Satellite Program (DMSP) data (2) that existed at the time. We agree that the higher resolution of the VIIRS DNB data allows for more precise area estimates of OLAN and greater potential to distinguish effects from other urban-related risk factors. We cannot, however, assess the validity of the authors' assertion that the "DNB data from 2012 provides a better indicator of past OLAN exposure than DMSP at most urban locations..." Depending on the research question being addressed, the degree to which these two alternative data sources are able to capture historical OLAN exposure is an important issue to consider. While we plan to explore the use of the VIIRS DNB data in our own future research, and would certainly encourage other researchers to do the same, a careful evaluation of historical concordance of exposure estimates based on these two data sources would be prudent.

References Cited

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