Robert Smith

School of Health and Related Research

University of Sheffield

Regents Court

Sheffield, S1 4DA.

Editorial Team,

Wellcome Open Research.

14/11/2021

Dear Sir/Madam,

RE: A comparison of WHO-HEAT model results using a non-linear physical activity dose response function with results from the existing tool.

Please find in this submission our paper on the effect on estimated health benefits of the assumed dose-response relationship between physical activity and premature mortality. Tools like the HEAT are increasingly being used to incorporate health benefits into decision making processes in other sectors (e.g. transport). However, there is a trade-off between ease of use of these tools and the accuracy of the results generated by the tools. This paper aims to demonstrate that it is possible to improve the accuracy of a tool with minimal additional user inputs. It adds to a wider debate around this trade-off.

I hope that you find this paper a useful addition to the academic literature on this topic, and worthy of publication in your journal.

Yours faithfully,

Robert Smith