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**The Lancet**

Re: Submission of “**Are prognostic type 2 diabetes risk prediction algorithms racially biased?**” for The Lancet’s call for papers ‘*Advancing racial and ethnic equity in science, medicine, and health’*

Dear Reviewing Editors,

We are pleased to answer The Lancet’s call on “*Advancing racial and ethnic equity in science, medicine, and health*”, by submitting our research paper reporting on racial bias in prognostic type 2 diabetes prediction algorithms.

Briefly, despite the rising abundance of prediction models that aim to support health decision-making in terms of treatment and preventive measures, there is a paucity of evaluation of such decisive tools across different racial and ethnic groups. Using publicly available nationwide data from the US, we show that validated prognostic type 2 diabetes prediction algorithms published in the literature likely perform differentially across various racial groups. Specifically, our analysis shows that these algorithms tend to overestimate the risk of type 2 diabetes within non-Hispanic Whites, as the majority population, in the US, while they tend to underestimate this risk within minority groups.

In this work, we undertook a comprehensive study addressing a key perspective suggested for The Lancet’s special issue on racial and ethnic equity. Namely, *we identified healthcare processes that perpetuate inequities with concrete proposals for change*: we provided specific recommendations for investigators, journals, and policy makers to incorporate algorithmic fairness principles in model development, dissemination, and adoption. The enormous costs of type 2 diabetes and health inequities (>1 trillion USD in the US & >1 trillion EUR in the EU), represents a clear financial incentive for the adoption of fair prognostic models in healthcare, and our study could be an important puzzle piece in this disruptive process.

We believe that our findings have the potential to instigate change in the *status quo*, and thus, this report is of high importance for the Journal and its readership.

We declare no competing interests. All authors approve this submission for The Lancet’s call. We look forward to hearing from you.

Sincerely,

*Tibor V. Varga, on behalf of all co-authors*