



## Democratic reforms and health: interpreting causal estimates

### Authors' reply

In his Correspondence, Samuel Watson refers to two sets of African countries to support his argument that one cannot necessarily interpret the synthetic control method (SCM) results of our study<sup>1</sup> as causal effects.

First, he presents SCM results for four countries (Mozambique, South Africa, Zambia, and Zimbabwe), which were not included in our study. These countries were not included in our SCM results because the SCM analysis for Mozambique and Zambia did not provide reliable SCM predictors (both had high Root Mean Square Predicted Error indicators), as was the case for several other countries (such as Nepal, Bangladesh, and Madagascar), for which SCM indicated strong reductions in child mortality following democratisation but which were dropped because of unreliable SCM predictors. Zimbabwe was not included because of its rather unique reverse political transformation to keep consistency in the analysis, and South Africa did not satisfy the standard criteria used to identify democratisation (ie, a switch in the Polity2 index). We do not want to speculate whether the reasons provided by Watson for the Mozambique and Zambia cases are correct since we excluded these countries because of unreliable predictors; but the graphs are consistent with our findings that there is on average a decline in child mortality following democratisation and that there is significant heterogeneity among countries (including no significant effect in a large part of the countries we analysed).

Watson's second empirical argument based on a simple ad-hoc comparison of child mortality in a few African countries with and without democracy is puzzling because it is

well known that a simple comparison of child mortality across countries does not allow to draw any causal conclusions since it does not control for various other factors that might play a role, which is precisely why we used an SCM approach.

Finally, we welcome Watson's plea for better theoretical research, which can combine with improved empirical research to identify the causal mechanisms and actual effects of political reforms on health.

We declare no competing interests.

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- 1 Pieters H, Curzi D, Olper A, Swinnen J. Effect of democratic reforms on child mortality: a synthetic control analysis. *Lancet Glob Health* 2016; 4: 627–32.