Abstract

Anaemia is a significant public health concern worldwide with critical economic and health consequences affecting over 30% of the female population.. We assess the effects of community-level sanitation on women's haemoglobin levels in Sub-Saharan Africa (SSA), a region particularly vulnerable to anaemia. Using the geocoded location of communities, we construct unique geographical panel data on access to sanitation facilities and combine it with individual women's haemoglobin level information in ten countries from SSA. We adopt an instrumental variable design with fixed effects estimations and exploit the geographical variation in sanitation and subsequent sanitation improvements within communities. Quantitatively, our results demonstrate that eradicating the practice of open defecation within a community increases women's haemoglobin levels as a 100-percentage point decrease in open defecation leads to 0.751 g/dL. The heterogeneity analysis illustrates the statistically significant and larger effects of community sanitation on the haemoglobin levels of non-pregnant women and those residing in urban areas than their counterparts. Moreover, the findings show a similar impact of community-level sanitation on haemoglobin levels in households with and without improved water sources. Our results show the significance of positive spillover effects of community-level sanitation and document that observed haemoglobin advantage accrues to women even where households have sanitation facilities, suggesting the importance of community-level behaviour change.