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Public taps: A drop in the bucket? Experimental evidence from Uganda

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Abstract

Lack of access to potable water is one of the greatest challenges for rural regions in developing countries, particularly in sub-Saharan Africa (SSA). Deprivation of potable water causes high rates of morbidity and mortality due to diarrhoeal disease, mainly in children below five years. One solution is to improve the water sources at which drinking water is daily fetched by installing public taps in the centre of towns. While these taps provide communities with safe drinking water, they also require behavioural changes in expenditures since water is no longer free. This study investigates the causal impact of public taps on drinking water quality at home and diarrheal disease. 360 households located in five villages in rural Western Uganda participated. The households were surveyed and a water sample was taken from their storage container, before and after the installation of nine public taps at the village centres. Difference-in-differences analysis suggests that tap use has a limited positive impact on microbiological drinking water quality at home, however, there is an increase in the incidence of diarrhea in children. We show that when households commit to tap water, access frictions and substitution of disinfection limit the potential benefits of public taps.

Keywords: Drinking water security, diarrhea, *E. coli*, experiment, public taps, Uganda