Abstract

We assess the treatment effect of juvenile stay-at-home orders (JSAHO) on reducing the rate of SARS-CoV- 2 infection spread in Saline County ("Saline"), Arkansas, by examining the difference between Saline's and control Arkansas counties' changes in daily and mean log infection rates of pretreatment (March 28–April 5, 2020) and treatment periods (April 6–May 6, 2020). A synthetic control county is constructed based the parallel-trends assumption, least-squares on fitting on pretreatment and socio-demographic covariates, and elastic-netbased methods, from which the counterfactual outcome is predicted and the treatment effect is estimated using the difference-indifferences, the synthetic control, and the changes-in-changes methodologies. Both the daily and average treatment effects of JSAHO are shown to be significant. Despite its narrow scope and lack of enforcement for compliance, JSAHO reduced the rate of the infection spread in Saline.