

Abstract

The effect of face masks on Covid-19 transmission is crucial for the health of populations. Nevertheless, its economic consequences cannot be overlooked. To perform a quantitative meta-analysis, 258 estimates from 44 primary studies were collected together with more than 30 variables mirroring the differences among the studies. Publication bias was examined by implementing various statistical tests resulting in mild evidence for the phenomenon. We contribute to other meta-analyses on the topic by employing the Bayesian and Frequentist model averaging to identify the drivers behind the heterogeneity of the estimates. The results suggest that temperature, geographical latitude, and panel data structure have a highly statistically significant and positive effect on the risk of transmission associated with mask-wearing. Moreover, a positive effect was identified for healthcare set-up. In contrast, performing an aerosol-generating procedure shifts the risk in the negative direction.

JEL Classification I1, I11, I19,

Keywords meta-analysis, Covid-19, face masks, pandemic, Covid-19 transmission, publication bias, Bayesian model averaging

Title The Effect of Face Masks on Covid Transmission: A Meta-Analysis