

Jordan University of Science and Technology

Sources of SARS-CoV-2 transmission in Jordan: Self-reported approach

Authors: Kofahi HM, Khabour OF, Swedan SF, Nimer RM.

Abstract: Background: Understanding the dynamics of virus transmission is essential for controlling the COVID-19 pandemic. Demographic factors could influence transmission of the virus in different communities. Herein, the sources of COVID-19 infection in Jordan were explored. In addition, the effects of demographic factors and the adherence to preventive measures on household transmission were investigated. Methods: The study recruited Jordanian adults who recovered from COVID-19 from March to July 2021. Using a questionnaire, information about participants' demographics, level of adherence to personal protective measures, and their perceived source of COVID-19 infection were collected. Crosstabs were used to test for differences in household transmission ratios between different demographic variables. Logistic regression analysis was used to predict risk factors for household transmission. Results: The study recruited a total of 2313 participants. Household transmission was the most frequently reported source of infection (44.9%). Other sources of transmission were work/education related (16.0%), friends (8.6%), healthcare facilities (4.8%), social/event gathering (3.1%), shopping activities (2.2%), and public transport (1.6%). Significantly higher ratios of household transmission were reported by older adults (>60 years), college/university students, and female participants. No significant difference in household transmission was found between low-income and medium-high income groups. A significant increase in household transmission ratios was found with increased adherence to mask-wearing and social distancing. This could be a reflection of the reduced risk of community transmission with increased adherence to these preventive measures, coupled with the difficulty in adhering to these measures within the household setting. In multivariate logistic regression, females, young adults (18-30 years), older adults (>60 years), and those who adhere to mask-wearing most of