Review of: "Hospitalization costs of coronaviruses diseases in upper-middle-income countries: A systematic review"

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The COVID-19 pandemic continues to stress healthcare systems globally, with tremendous financial and human costs. In high income settings such as the United States, the average COVID-19 hospitalization is estimated at $20,000 USD. However, less is known about the direct costs of coronavirus hospitalizations in low and middle-income countries. Crucially, these are also areas with vaccine inequity: 2.8 billion people globally have not received their first dose of COVID-19 vaccine. Understanding the costs of COVID-19 hospitalizations in global populations is an important step not just to grasp the magnitude of the economic burden of the COVID-19 pandemic, but more importantly, to identifying underpinning cost drivers, and thus inform healthcare decision makers, globally.

Rocha-Filho et al conducted a systematic review of the literature to better characterize the direct costs of coronavirus hospitalizations in upper middle-income countries. Only COVID-19 manuscripts were identified in the search, which was conducted shortly after the second wave, in February 2021. Five studies were included, two of which were from China, with the remaining three from Brazil, Turkey, and Iran. Within the five included studies, there was variability in the reported costs and marked heterogeneity in reported direct costs of hospitalizations: Turkey reported the lowest for both ward and ICU admissions ($900, $2984 respectively, reported in 2021 International dollars). A study from Brazil reported the highest direct costs of a ward admission ($5093), while ICU admission costs were highest in China ($52,432). Across the included studies, ward costs were driven by hospital bed or routine service costs, however at the ICU level, there was no clear cost driver. Unfortunately, very little information on the underlying patient/population characteristics is reported, including sample size, age, or comorbidities.

Despite its limitations (small number of included studies, lack of standardization in reported costs, heterogeneity in costs, drivers and lack of information on underlying population from sample size to comorbidities, disease severity), this systematic review contributes to the growing body of literature seeking to characterize the economic impact of the COVID-19 pandemic on global populations and the authors should be commended for their undertaking. However, there remain many missing pieces: further research to define the economic impact of the COVID-19 pandemic on our global society will require a broad lens- for example, one that also includes care sought for mental health and substance use disorders during this time, as well as the downstream effects of delayed diagnoses and treatments.