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Sheng Zhang. *Transmission dynamics of COVID-19 in Ecuador and age-dependent control strategies.*

As countries affected by the pandemic of coronavirus disease 2019 (COVID-19) begin the reopening process, a good understanding of the consequences of relaxing restrictions is indispensable to avoid high peaks, which may overwhelm the health-care systems. We use an age-structured, modified, SEIR model to reconstruct the dynamics of COVID-19 in Ecuador between February and August 2020 across four different periods defined by interventions. This paper explores the benefits associated with the release of specific age groups from lockdown before others. The results suggest that we can prevent cases and deaths with properly designed release policies to protect the most vulnerable individuals and increase economic activity. (Received September 15, 2020)