

1173-90-16

Sara Del Valle*. *The Role of Epidemic Modeling in the Fight Against COVID-19.*

As the novel coronavirus disease (COVID-19) pandemic continues despite non-pharmaceutical mitigations such as stay-at-home orders, wearing masks, and social distancing, as well as pharmaceutical interventions such as vaccines, epidemiological models have played a key role in assessing their impact on mitigating its spread. Determining implementation of these interventions and the most effective vaccine distribution approach is particularly important as states reopen and education departments consider the arguments of transitioning from virtual to in-person school attendance. In this talk, I will describe how the epidemic modeling community has been using different approaches from Susceptible-Infectious-Recovered-type models to statistical models and agent-based simulations to understand, model, and forecast COVID-19 spread as well as to quantify the impact of different mitigation strategies. These modeling approaches have been able to provide real-time decision support regarding optimal strategies to reduce negative health outcomes of COVID-19. (Received August 2, 2021)