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## Research article

# Predictive Model for the Total Daily COVID-19 Cases with Herd Immunity Policy

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**Abstract** The spread of coronavirus disease 2019 (COVID-19) has caused a pandemic, and policies for fighting COVID-19 have been enacted by the governments of most countries. The herd immunity policy is the policy that Sweden is using to fight COVID-19. The purpose of this research is to estimate the number of total COVID-19 cases in Sweden in which herd immunity is being encouraged. A logistic model was selected as the predictive model for estimating the number of COVID-19 cases in Sweden and the other Nordic countries in which the strict lockdown policy has been instigated, and a comparative study between them was conducted and validation of the predictive models was confirmed. The findings show that the herd immunity policy is applicable and acceptable but flattening the predictive curve by applying the herd immunity policy is slightly slower than when applying the strict lockdown policy.

**Keywords:** Coronavirus disease 2019, Herd Immunity, Logistic Model, Least-squares Method

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