

COVID-19 Simulation Integrated Model (COVSIM) to Inform Local Decision-Making

COVID-19 Modeling Projections for Schools Part 1: Model Background



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The "COVSIM" Model team

The COVSIM team is one of six modeling teams funded by CDC and the Council for State and Territorial Epidemiologists to:

- (a) forecast SARS CoV-2 infections and outcomes,
- (b) estimate the impact of intervention scenarios, and
- (c) support state and local decision-makers











Our Modeling Objective

To estimate the proportion of susceptible students infected throughout a school semester, depending on incoming protection as well as masking and testing policies.



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Student population: 500







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Imagine a school...



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- > 2-3 students begin infected with COVID-19 at the start of the semester





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- > 2-3 students begin infected with COVID-19 at the start of the semester
- Some students have either already had COVID-19 or have received the vaccine ("incoming protection"), or are susceptible to becoming infected
- > Every week, one new student becomes infected with COVID-19 outside the school
- > Availability of random RT-PCR testing and isolation among students every week



Random testing and isolation of COVID-19 positive students



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Availability of random RT-PCR testing and isolation among students every week

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