

Major assumptions used in modeling the cost-effectiveness of strategies to improve infection control for Covid-19 in the university setting.

1. Employees and students who are over the age of 70 will not come to work or school. We computed risk only for those under the age of 70, roughly 95% of the affiliate population.
2. Students will cover all of their own medical costs from the university perspective but such costs are included from the societal perspective.
3. Areas in which an infected affiliate has visited for more than 10 minutes will be closed for 24 hours, and all close contacts (>6 feet for more than 10 minutes) will be isolated.
4. If more than 5 university affiliates test positive on a single day (other than during mass screening), the campus will be closed and classes will be held online for the remainder of the semester.
5. Litigation costs will not be incurred.
6. Reducing viral load influences the chance of contagion, but not disease severity. We did not account for a potentially less severe disease among those exposed to a relatively smaller viral load than they would have were control measures not in place.
7. There is no difference in viral loads across sex, age groups and disease severity.
8. Those who test positive for Covid-19, or who are close contacts of confirmed positive Covid-19 cases, will remain at home for 14 days.
9. Roughly 75% of students asked to quarantine will adhere to the quarantine.
10. Medical costs are incurred by the student, and are therefore counted only in the societal perspective of the analysis. (Most universities require students to purchase their own health insurance, so health costs are borne by students.)
11. Productivity and knowledge acquisition are equivalent in-person and online.
12. When a person is quarantined, the relevant intangible cost is lost leisure time valued at the national average wage.
13. There is no loss of health-related quality of life associated with quarantine if person is asymptomatic.
14. All wages should be valued at the median hourly wage in the US.
15. The average infected university affiliate will have an average of 10 close contacts (>6 feet for more than 10 minutes) prior to detection.