



DELINEO COVID-19 SIMULATION

Name:

Date:

Background Information

- When dealing with an infectious disease, there are two relevant sets of variables that can affect the spread and severity. The **first** is about the virus itself, some examples of these variables include the mode of spread, the infection rate, risk factors, and origin. Once an infectious disease is exposed to a population and begins to spread, however, the spread can be slowed or accelerated by the actions of said population. These variables are the **second** group that the Delineo Anytown, USA simulation measures, and by adjusting those variables we can see the different ways the disease spreads.
- When it comes to airborne diseases, the spread is highly dependent on the level of contact between infected individuals and the rest of the population. People get sick by inhaling, ingesting, or absorbing disease particles. The variables in the simulation affect how much contact the population has with each other and, subsequently, disease particles.

Knowledge Check

When it comes to Covid-19, what are the variables that affect spread and severity listed above?

Public Health Interventions

- Mask mandates
- Capacity restrictions
- Daily testing capacity
- Contact tracing level
- Vaccinated population
- Stay-at-home orders

Bonus: what other interventions have you seen implemented in your area? Can you think of any new ideas?

Activity	
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In this activity, we're going to be measuring how different interventions and public health measures affect the spread of covid.

1. **Question:** What interventions are most effective in combating the spread of covid-19?
2. **Hypothesis:** The two variables that will have the biggest effect on the spread are _____ and _____?
3. **Procedure:** Plan five different settings to run the simulation at to test your hypothesis.
 - a.
 - b.
 - c.
 - d.
 - e.
4. **Results:** Run the simulation and record your results.
5. **Conclusion:** What was the most effective intervention?

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| Food for thought | Think about your results |
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<p>If you were Mayor of Anytown, what would you take into consideration when coming up with a covid response plan? What outcome would you try to minimize: hospitalizations, death rate, or infection rate?</p>	<p>Was there anything surprising in your results? If you ran the experiment again, what would you have done differently? Were there other variables you wish you could have tested?</p>
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