Unmasking the Truth: The Effects of Safety Mask Usage on the Infection and Mortality Rates of a Simulated Pathogen

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The purpose of this experiment is to demonstrate the effect of safety mask usage on the infection and mortality rates of a simulated airborne pathogen. The results should reflect the effects of safety mask usage in a real epidemic. For this experiment, I created a program to simulate an airborne pathogen. This program allows user to enter the percentage of the population wearing safety masks, and receive the resulting infection and mortality rates. I ran the experiment with the mask-wearing population at 0%, 10%, 20%, 30% and so on, all the way up to 100%. Ten trials were completed for each statistic. The data shows that the use of face masks greatly reduces the infection and mortality rates of a population undergoing an epidemic. In conclusion, this experiment shows that safety masks are highly beneficial to public health during an epidemic. Hopefully, this experiment will inspire others to take matters of public health into their own hands.

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