



The Impact of the COVID-19 Pandemic on the Willingness of Citizens to Receive Influenza Vaccines

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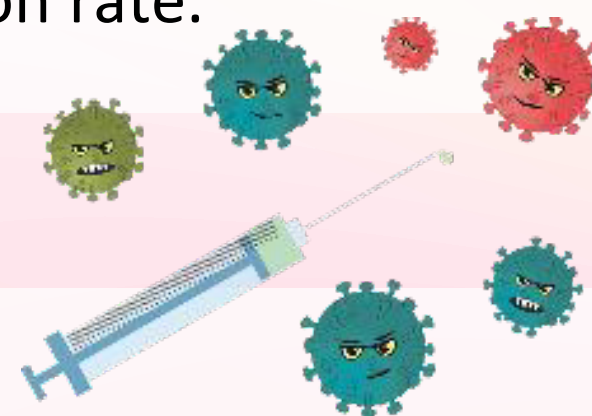
Introduction

- Influenza is an acute respiratory disease caused by the influenza virus and is a common upper respiratory tract infectious disease during the winter flu season. Pre-COVID-19 pandemic, the public's willingness to receive the influenza vaccine was not high.
- However, after the COVID-19 pandemic, the public's acceptance of the influenza vaccine has significantly increased.

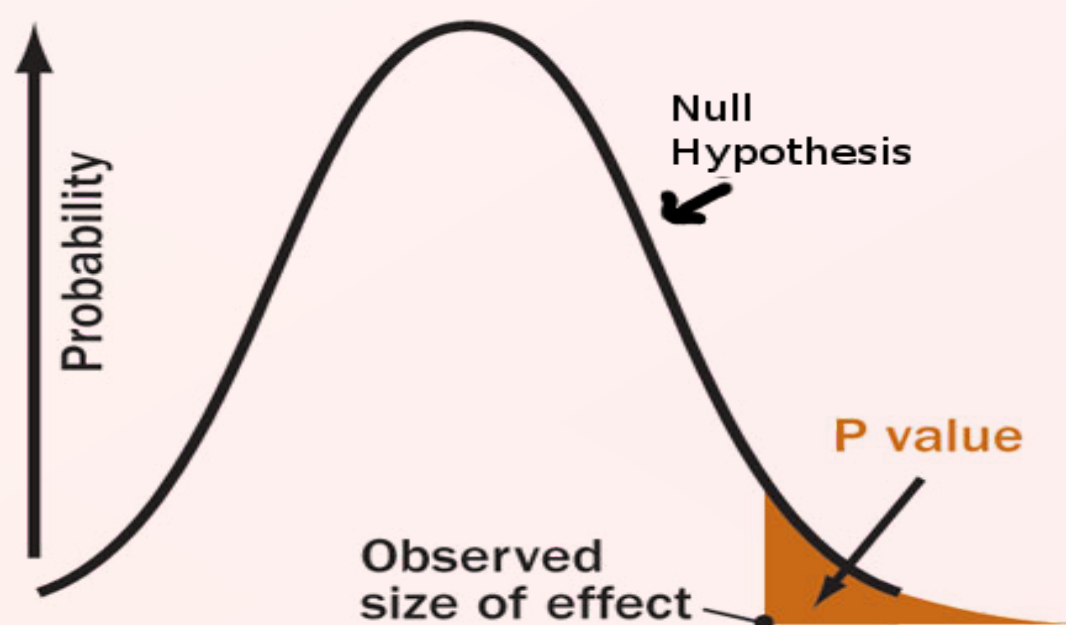


Results

- Data from October 2016 to March 2025 was conducted.
- The resulting P-value of 0.189, exceeding the significance level of 0.05, indicated no significant correlation between the pre- and during- COVID-19 pandemic phases.
- Comparisons were made between the during- and post- COVID-19 pandemic periods, yielding a P-value of 0.025 (<0.05). A statistically significant association between the COVID-19 pandemic and influenza vaccination rates.
- The vaccination rates between the pre- and post- COVID- 19 pandemic periods, a P-value of 0.021 (<0.05) was obtained. This value further confirmed the presence of a statistically significant relationship between these two periods.



$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}}$$



Conclusions

- Two-tailed t test on 9 years data showed no pre-COVID-19 and during-COVID correlation.
- Significant relationships between during/after and pre-/after COVID-19 regarding influenza injection rates. Pandemic improved the intention of influenza injection rates.

Keywords: Preventive medicine, Epidemiology, Primary care intervention

