



Environmental Science Graduate Program Seminar Series

Evaluation of university and surrounding area factors
causing variability in COVID-19 vaccination rates
among U.S. universities

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Abstract

University campuses are dense social hotspots vulnerable to infectious disease outbreaks. While most U.S. universities have enlisted vaccine mandates to aid in combatting the COVID-19 pandemic, the details and stringency of the rules surrounding the mandates have been shown to be largely inconsistent across the country, potentially affecting the rate of vaccination on university campuses. The objectives of this study are to determine whether identified university and surrounding area factors are associated with the mandate stringencies and student vaccination rates. This study collects data pulled from publicly available university websites to compare the effect of university and surround area factors on student vaccination rates and ease of exemption from vaccine mandates. Significant association ($p\text{-value} < 0.05$) with vaccination rates were found in university vaccine exemption stringencies and student faculty ratios, as well as all surrounding area vaccination rates and university location. Exemption stringency also had minor significance ($p\text{-value} < 0.1$) when correlated with student to faculty ratios, surrounding area vaccination rates, and university location. Results suggest university and surrounding area characteristics may be underlying factors in inconsistent mandates and vaccination rates on university campuses.