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EPH117

FACTORS ASSOCIATED WITH RECEIPT OF SECOND DOSE OF mRNA-1273 VACCINE AT WALGREENS PHARMACIES DURING THE COVID-19 PANDEMIC

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Objectives: Objective: Understanding of COVID-19 vaccination uptake at Walgreens pharmacies and vaccine delivery sites, including long-term care facilities, by examining patient characteristics associated with receipt of the second dose of mRNA-1273 vaccine. Methods: Data from patients aged ≥18 years who received their first dose of mRNA-1273 vaccine at Walgreens pharmacies and vaccine delivery sites between 12/18/2020 and 11/21/2021 were included in the analysis. Those who received other COVID-19 vaccines, aged <18 years, or opted out of Walgreens research were excluded. The primary outcome is a dichotomous variable indicating whether patients received a second dose of mRNA-1273 at Walgreens between 24 and 42 days after the first dose per CDC guidelines. Chi-squared and Student’s t-tests were conducted to determine whether there are univariate associations between patient characteristics, including individual-level and population-level factors. A logistic regression model was developed to further examine these factors. Results: A total of 4,611,163 patients were eligible for a second dose. Of those, 86% received their second dose of mRNA-1273 at Walgreens within the CDC’s recommended timeframe. The logistic regression model revealed significant predictors of receiving a second dose on time (p<0.05): patients who received their second dose on time were significantly more likely to be older, female, Asian, non-Hispanic, and drove less distance to their first dose. At the population-level, patients who received their second dose on time were significantly more likely to be Hispanic, higher income, with higher unemployment, and less likely to be younger, male, White, with higher unemployment.

Conclusions: Almost 90% of this study population received their second dose of mRNA-1273 vaccine per CDC recommendations. Further research should examine differences between early and late adopters and those who received a third vaccine dose, including boosters.

EPH119

INCIDENCE OF HUMAN PAPILLOMAVIRUS (HPV)-RELATED CANCERS BEFORE AND AFTER HPV VACCINE INTRODUCTION AMONG MALES AND FEMALES 15-44 YEARS OLD IN THE US

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Introduction: The human papillomavirus (HPV) vaccine was approved for use in the US in 2006 to prevent HPV-related cancer. We assessed whether HPV vaccination has affected the incidence of HPV-related cancers among adolescent and young adult males and females in the US. Methods: We analyzed data from the United States Cancer Statistics (USCS) 2001–2018 database on males and females 15–44 years old. We included primary cancer cases of HPV-related cancers, including oropharyngeal squamous cell carcinoma, anal and rectal squamous cell carcinoma, vulvar squamous cell carcinoma, vaginal squamous cell carcinoma, penile squamous cell carcinoma, and cervical carcinoma. We compared the 4-year average annual incidence of HPV-related cancers during the 4 years before HPV vaccine introduction (2003–2006) and the latest 4 years in the vaccine era (2015–2018). Annual incidence rates were calculated as the number of cases per 100,000 persons and were age-adjusted to the 2000 US standard population. Results: The 4-year average annual incidence rates for HPV-related cancers decreased in 2015–2018 compared to 2003–2006 among females 15–19 years old (0.4 vs. 1.3 per 1,000,000, rate ratio 0.31, 95% CI 0.17–0.54). HPV 24–34 years old (71 vs. 14.5 per 1,000,000, rate ratio 0.49, 95% CI 0.43–0.57). 25–29 years old (50.2 vs. 58.0 per 1,000,000, rate ratio 0.87, 95% CI 0.82–0.92) and 30–34 years old (116.2 vs. 122.6 per 1,000,000, rate ratio 0.95, 95% CI 0.91–0.99). In addition, the incidence decreased in 2015–2018 compared to 2003–2006 among males 15–19 years old (17.4 vs. 42.3 per 1,000,000, rate ratio 0.41, 95% CI 0.37–0.45) and those 40–44 years old (50.7 vs. 61.5 per 1,000,000, rate ratio 0.82, 95% CI 0.78–0.87). Conclusions: Incidence rates for HPV-related cancers decreased in the vaccine era compared to the pre-vaccine era among both males and females in certain age groups, suggesting possible early effects of HPV vaccination in the US.

EPH120

COMPARING THE EFFECTIVENESS AND COST-EFFECTIVENESS OF SARS-COV-2 SCREENING STRATEGIES USING RAPID ANTIGEN TESTS IN A RESIDENTIAL COLLEGE CAMPUS

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Objective: To compare the effectiveness and cost-effectiveness of SARS-CoV-2 screening strategies using rapid antigen tests in a residential college campus. Methods: A simulative model was developed using published sources, primarily from Patiel et al. JAMA Network Open 2020. In model development we