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Effectiveness of pharmacists-led provider-focused interventions to improve HPV vaccination rates in adults

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Human papillomavirus (HPV) vaccination is universally recommended for adolescents, yet vaccination rates remain low worldwide. A pharmacists-led provider-focused interventional study that included repeated contacts, education, individualized feedback, and strong quality improvement incentives to raise HPV vaccination rates at three qualified community health centers was conducted. The effectiveness of the intervention, rates of initiation of vaccination, and completion of the HPV vaccination among teenagers (girls and boys, ages 11–25 years) were compared by means of two follow-ups. We divided the sample size into two groups, intervention group 250 patients and 250 subjects in control group. We conducted multivariable logistic regression accounting for clustering by practice. Patients in interventional study group significantly increased HPV vaccine initiation during the active intervention period relative as compared to control group (girls OR 1.4, boys OR 12.1; $p < 0.001$ for both). Boys at intervention group were also more likely to continue to initiate vaccination during the post-intervention or maintenance period (OR 7.9; $p < 0.01$). Girls and boys at intervention practices were also likely to complete their next needed HPV vaccination doses than those in control group (girls OR 1.3, boys OR 21; $p < 0.04$ for both). Provider-focused interventions including repeated contacts, education, individualized feed-back, and strong quality improvement incentives have the potential to produce sustained improvements in HPV vaccination rates.

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Studies on mumps virus infection, genotype identification of circulating strains among MMR vaccine recipients

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Mumps, long considered a vaccine preventable childhood infection has now caused worldwide re-emergence in vaccinated populations. Thus, a study was done to investigate the cases of vaccine failure among mumps suspect cases in Chennai, India. Results revealed an alarming 90.5 % of vaccinated cases were positive for anti-mumps IgM antibody, indicating that MMR vaccine had failed to offer protection. This is the first report to portray the high prevalence of mumps in vaccinated populations in India. Genotypic characterization of the virus revealed that the circulating strain was genotype C which is distinct from the vaccine strain of genotype N (L-Zagreb). This is also the first report in India to suggest that genotype C was responsible for the present mumps infection. Poor efficacy is a contributing factor to the failure of MMR vaccine and hence, its efficacy was analyzed by determining the seroprotective antibody level. Highest seropositivity (100%) was noticed for rubella, an intermediate number (76% & 92% who received two doses and first doses of MMR) for measles and the lowest (49% & 83%) for mumps virus. This warrants a revisit of vaccine preparation using circulating strains and optimization to improve its efficacy.

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