DIFFERENCE BETWEEN THE DTPA AND HPV VACCINATION INITIATION RATES IN THE SCHOOL-BASED PROGRAM IN AUSTRALIA

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Introduction:
In Australia, adolescents are routinely offered both HPV vaccine and a booster dTpa (diphtheria, tetanus, pertussis) simultaneously in the secondary school vaccination program. Although they are administered at the same time, differences in initiation rates exist. We identified schools where HPV initiation was lower than dTpa coverage and identified associated school-level factors across three states (Tasmania, New South Wales, and Western Australia).

Methods:
HPV vaccination initiation rates (first dose/total enrolments) and dTpa vaccination coverage (dTpa dose/ total enrolments) in 2016 were calculated using data from the National HPV Vaccination Program Register, state dTpa programs and school enrolments. A multivariate analysis assessed sociodemographic and school-level factors associated with HPV initiation being an absolute >5% lower than dTpa coverage.

Results:
Of 1,280 schools included, the median school-level HPV initiation rate was 83% (interquartile range (IQR):70-89%) and the median dTpa coverage was 86% (IQR: 75-92%). Nearly a third (30%) of all schools had HPV vaccination initiation >5% lower than dTpa coverage and 13% had > 10% difference. School-level factors independently associated with >5% difference were: schools with parental socio-educational advantage scores in the middle (aOR=1.83, 95%CI=1.28-2.61) or higher tertiles (aOR=2.1, 95%CI=1.35-3.27) (greatest advantage), compared to lower scores; smaller (aOR=3.5, 95%CI=2.39-5.1) or medium sized schools (aOR=1.65,

95%CI= 1.16-2.34), compared to larger schools; and private schools (but not Catholic schools) (aOR=1.8, 95%CI=1.28-2.52), compared to government schools.

Conclusion:
This research identified a third of schools in these three states had lower HPV initiation coverage than dTpa. The difference was greatest in schools which were private, smaller, and had higher parental socio-educational advantage. Research can now be prioritised to understand the reasons for differential uptake, which may include issues around HPV being a sexually transmitted infection, safety concerns or a lack of familiarity with the vaccine, and develop interventions to address these gaps.

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