

## Patient held vaccination records could help increasing vaccination coverage

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### Are patient-held vaccination records associated with improved vaccination coverage rates?

**Description:** The study goal was to determine whether patient-held vaccination records improve vaccination rates. The public-use files of the 2004–2006 US National Immunization Survey, a national, validated survey of households with children 19 to 35 months of age, were used. The main outcome was up-to-date (UTD) vaccination status (4 diphtheria-tetanus-acellular pertussis/diphtheria-tetanus vaccine, 3 poliovirus vaccine, 1 measles vaccine, 3 Haemophilus influenza type B vaccine, and 3 hepatitis B vaccine doses), and the main predictor was the use of a vaccination record. Control variables were race/ethnicity, maternal education, poverty status, language, number of children in the home, state of residence, and number of health care providers. Overall, 80.8% of children were UTD, and 40.8% of children had vaccination records. Children with vaccination records were more likely to be UTD (83.9% vs 78.6%;  $P < .0001$ ). The largest effects associated with vaccination records were seen for children with multiple providers (82.8% vs 71.9%;  $P < .0001$ ), those with low maternal education, (81.6% vs 72.9%;  $P < .0001$ ), and those with  $\geq 4$  children in the household, (76% vs 69.6%;  $P < .004$ ). Logistic regression predicting UTD status and controlling for race/ethnicity, maternal education, poverty level, language, number of children in the home, and number of vaccine providers revealed the vaccination record to be associated with a 62% increase in the odds of UTD status (odds ratio: 1.62 [95% CI 1.49–1.77]). Use of patient-held vaccination records is an easily implemented strategy that is associated with increased immunisation rates. A greater effect was seen in groups at risk for underimmunisation. Methods to incorporate and to ensure effective use of these records should be implemented.

**Disclosure statement:** The study was supported by grants from the US Health Services and Resources Administration.

**ECDC comment:** Although it is certainly not possible to translate the US setting one-to-one into any other environment, the study provides an interesting result: The use of patient-held vaccination records was associated with increased immunisation rates, especially in groups that are usually considered as being at risk of low immunisation coverage. It could be a not too costly and relatively easy to implement alternative to improve vaccination coverage in underimmunised groups when resources for implementation of more sophisticated measures like universal electronic vaccination registries are lacking.



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