

IDSA: small drop in MMR vaccination rate would be costly

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(HealthDay)—Even minor reductions in childhood measles-mumps-

rubella (MMR) vaccination, driven by vaccine hesitancy, is likely to have substantial public health and economic consequences, according to a study presented Oct. 6 at IDWeek, the combined annual meeting of the Infectious Diseases Society of America, the Society for Healthcare Epidemiology of America, the HIV Medicine Association, and the Pediatric Infectious Diseases Society, being held Oct. 4 to 8 in San Diego.

Nathan C. Lo, from Stanford University in California, and colleagues created a [model](#) to test the public health and [economic consequences](#) of increasing the prevalence of [vaccine hesitancy](#) and removing nonmedical exemptions. They used the case example of MMR vaccination and [measles](#) and calibrated the model to annual measles cases in U.S. children (ages 2 to 11 years) in recent years. The model prediction was validated with an independent data set from the United Kingdom.

The researchers found that a modest 5 percent decline in MMR vaccine coverage in the United States would result in a threefold increase in measles cases for children ages 2 to 11 years nationally every year, costing an additional \$ 2.1 million in public sector funds. If unvaccinated infants, adolescents, and adult populations were also considered, the numbers would be substantially higher. The trend was robust despite variation in the estimates due to the stochastic elements of measles importation and sensitivity of some model inputs.

"The results support an urgent need to address vaccine hesitancy in policy dialogues at state and national level, with consideration of removing personal belief exemptions of childhood vaccination," conclude the authors.

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