

MMR vaccination campaign messages can 'backfire', research shows

March 3 2014



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(Medical Xpress)—Messages designed to encourage parents to vaccinate their children against measles, mumps and rubella (MMR) can actually have the opposite effect, new research has revealed. Recent outbreaks of measles in the U.S. and Wales have prompted much discussion about highlighting the importance of maintaining high rates of immunisation

with the MMR vaccine.

Dr Jason Reifler, a political scientist at the University of Exeter—in collaboration with colleagues from Dartmouth College, Georgia State University, and the University of Michigan—tested four types of messages designed to promote MMR vaccination with a nationally representative sample of [parents](#) in the US. Their study is forthcoming in the April 2014 issue of the journal *Pediatrics*. It will be published online March 3.

In the trial, parents were randomly assigned to one of five conditions. These conditions represent four potential strategies available to [public health](#) agencies to promote vaccination, as well as a control group for comparison. They were given one of the following:

1. Information adapted from (but not attributed to) the Centers for Disease Control and Prevention (CDC) explaining the lack of evidence that the MMR vaccine causes autism
2. Written information about the dangers of the diseases
3. Images of children who have diseases prevented by the MMR vaccine
4. A dramatic narrative about an infant who almost died of measles from a CDC fact sheet
5. A control condition in which respondents read material unrelated to health

Parents' beliefs and attitudes about vaccines were surveyed before and after receiving the material. The trial showed that none of the messages increased parents' intent to vaccinate, and some of them backfired.

Dr Jason Reifler, a political scientist at the University of Exeter, explained the response to the trial. He said: "Providing parents with

information debunking the supposed link between the MMR vaccine and autism did reduce the misperception that vaccines cause autism. While this result seems encouraging, there is also significant cause for alarm. The debunking information led some parents—those who are most sceptical about vaccines—to report that they were less likely to vaccinate a future child compared to equally sceptical parents in the control condition".

Dr Reifler added: "Our results show some of the challenges faced in promoting public health. The intervention that was effective in correcting the misperception also reduced intent to vaccinate among some parents. Some interventions increased misperceptions. Waiting for a deadly measles outbreak—like in Wales last year—to convince parents to vaccinate is too costly. Knowing how systems like the NHS can effectively promote immunisation is a crucial component of public health."

The research findings indicated that additional research is needed to determine what messages would be more persuasive. Any further studies may consider looking at whether more subtle messages that do not induce fear could be explored. According to the study authors, any approaches should be carefully tested before dissemination to assess their effectiveness, especially among sceptical populations.

Provided by University of Exeter

Citation: MMR vaccination campaign messages can 'backfire', research shows (2014, March 3) retrieved 24 April 2024 from

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