Feature

The unofficial vaccine educators: are CDC funded non-profits sufficiently independent?

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Re: The unofficial vaccine educators: are CDC funded non-profits sufficiently independent?

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Dear Editor,
We commend Doshi on citing "insufficient evidence" for a benefit from mandatory influenza vaccination in healthcare workers and exposing conflicts of interest. [1] In the same vein, our organization has found that it has not been proven that the MMR vaccine results in less death or permanent disability than what is expected from measles.[2] The risk of dying or suffering permanent injury from measles in the United States was very small, even before the measles vaccine was introduced in 1963. Therefore, vaccine safety studies must show that the risk of dying or suffering permanent injury from the MMR vaccine is even smaller.

In the late 1950s and early 1960s, right before the measles mass vaccination program was introduced, the chance of dying from measles was 1 in 10,000 or 0.01%.[3] However, the public is generally unaware of this figure as the CDC publishes case-fatality rates based on the number of reported cases only. Since it is estimated that nearly 90% of measles cases are benign and therefore not reported to the CDC, the widely publicized measles case-fatality rate is 10 times higher than what is actually found in the general population.

Furthermore, a large 2004 Danish epidemiological study published in JAMA found that the risk of febrile seizures after MMR vaccination is 1 in 640[4] —a five-fold higher risk of febrile seizure than the risk of seizure from measles.[5] Vestergaard et al. studied the association between MMR and seizures in about 537,000 Danish children 0 to 14 days following MMR vaccination and found 1.56 MMR-related febrile seizure cases per 1,000 vaccinated children aged 15 to 17 months (95% CI, 1.44 to 1.68). Vestergaard's results are based on 973 febrile seizures within two weeks of MMR vaccination, a robust database containing about 18,000 febrile seizures, and a nonvaccinated control group of about 98,000 children. Applying the 1 in 640 risk of febrile seizure to the 3.64 million U.S. children (91% vaccination rate applied to 4 million children[6]) vaccinated with MMR every year results in about 5,700 annual MMR-related seizures.

Measles surveillance in the 1980s and 1990s revealed that there are 3 to 3.5 times more measles seizures than measles deaths.[5] Therefore, because the measles case-fatality rate is 1 in 10,000, the seizure rate from measles is 3 to 3.5 in 10,000 (mean 1 in 3,100). Although 1.56 MMR-related febrile seizures in 1,000 (about 1 in 640) is a small risk, it is five-fold higher than the 1 in 3,100 risk of seizures from measles.[5] In addition, a significant portion of febrile seizures have permanent sequelae. A large 2007 epidemiological study found that 5% of febrile seizures result in epilepsy.[7]

A query of the Vaccine Adverse Event Reporting System (VAERS) for symptoms involving seizures and convulsions from all measles vaccines (for U.S. children age 6 months to 2 years, between 2011 and 2015) results in about 90 seizure reports per year.[8] This is only 1.6% of the about 5,700 expected MMR-related seizures based on Vestergaard's findings. Other serious vaccine adverse events after MMR, including deaths, may similarly be underreported.

As with mandatory influenza vaccination, there is insufficient evidence that mandatory measles vaccination

results in a net public health benefit.

Sincerely,
Shira Miller, M.D.
President, Physicians for Informed Consent

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Competing interests: No competing interests