Targeted, Regional Approach Likely Best To Improve Vaccine Rates

By Jamie Wells, M.D. — June 12, 2018

A multidisciplinary team from Texas just published their work in *PLOS Medicine* [2] on U.S. vaccination rates in children, specifically focusing on nonmedical exemptions (NMEs) in states and counties. With 72.2% of those 19 to 35 months of age fully vaccinated nationwide, the researchers sought to determine the impact of parental concerns over safety and efficacy in opt out rates due to religious and philosophical beliefs. Their analysis of data was based on the 18 states that allow more nonspecific, philosophical-belief NMEs that can include religious objections.

What did they discover?

*As summarized from the study [2]...*

- Since 2009, NMEs rose in 12 of the 18 states permitting philosophical-belief NMEs mostly until 2014 when many hit a plateau for the last 3 years. Among those with a continued climb: AR, ND, OH, OK, TX, UT.
- Within each of these states there were certain counties, especially the larger metropolitan areas, that pose high risk for epidemics of vaccine-preventable disease.
- There are “hotspot” population dense urban centers that show large numbers of NMEs in areas with easy access to international travel.
- States with higher NME rates have lower measles, mumps, and rubella (MMR) vaccine coverage.
They concede their findings cannot correlate outbreaks directly with high NME rates, but convey it will take time to learn if their speculation translates to the real world.

- A current analysis reveals there is a national leveling off of annual change in NME rates over recent years.

**What do they suggest?**

In terms of policy changes, they support the states with the most restrictive NMEs. The states that are more moderate require parental viewing of educational products prior to receipt of the NME in which they surmise this option may result in short-term gains. Others require a physician’s signature while yet another was influential when it trained healthcare providers on vaccine-centered communication.

They report after unvaccinated children at Disneyland triggered a measles epidemic in California the state rid itself of NMEs. Rates of NMEs dramatically declined following this ban and along with it came record high vaccination. The researchers accept that despite exemption policy some states still see escalation in NMEs. They endorse policies that are most strict at the state level centrally targeting NMEs and understand a number of measures are requisite in improving rates, including but not limited to: improving access, expanding education and awareness programs, engaging communities through churches and “pro-vaccination celebrity allies.”

**What they fail to address**

Though the team acknowledges that the role of the pediatrician is essential to minimizing NME rates and that communication between these stakeholders has demonstrated tremendous effectiveness with vaccine compliance, they fail to address how time-intensive such frequent, cumulative discussions are for the typical busy practitioner. With ever increasing high patient volumes in primary care, conversations about vaccines often consume the office visit so much so that some practices refuse to treat children of vaccine-hesitant parents. Talking about vaccines can hijack time away from other patients and displace focus away from the many other important issues that are actually happening like assessing development is normal or diagnosing and treating pathological conditions.

The trusted relationship between pediatrician and family cannot be overstated with respect to this issue and obtaining fully informed consent, neither can the amount of training, testing and monitoring to maintain certification for the former. Pediatricians do not need one more class about the benefit of vaccines, recurrent board exams and continued medical educational requirements are already covering this topic extensively and repeatedly. In addition, the hefty clerical burdens of electronic medical records are also impacting feasibility, so policies that serve to free up physician time not hamper it will likely pay the greatest dividends in the real world. And given the lack of homogeneity throughout states, it seems targeted regional approaches to hotspot zones (and counties with lower compliance) would be the most efficient primary strategy (see [here](#)).

The American Academy of Pediatrics (AAP) came out in support of those physicians who as a last resort won’t see vaccine-refusing families. The ethics surrounding such a stance, though mitigated by its use only as a final option after exhausting other efforts, are controversial. Some believe
keeping these families in a practice puts other patients who might be immunosuppressed at risk.
Others recognize the hazards associated with alienating such families and consider the
importance of preserving fundamental bioethical principles like autonomy.

To review the complexity of this debate and the dangers of coercive policies, please see the
following pieces:

- **Are We Actually More Paternalistic Or Patient-Centered These Days?**, see [here](https://www.acsh.org/news/2018/05/01/are-we-actually-more-paternalistic-or-patient-centered-these-days-12904)[5]

**Source:**

Olive JK, Hotez PJ, Damania A, Nolan MS (2018). The state of the anti-vaccine movement in the
United States: A focused examination of nonmedical exemptions in states and counties. PLOS
Med 15(6):e1002578. [https://doi.org/10.1371/journal.pmed.1002578][6]