

University of Arizona Study of Arizona Kindergarten Vaccine Exemptions--Highlights

January 24, 2013

Personal exemptions (PBEs) are on the rise in Arizona – these [rates](#) were more than twice as high in the 2011-2012 school year (3.4%) as they were in 2003 (1.6%). The University of Arizona, College of Public Health, recently [looked](#) into the “who, what, when, where and why” of personal beliefs exemptions to school immunization requirements.

STUDY RESULTS

Person Belief Exemptions (PBEs) for School Vaccines

The study analyzed 75,788 kindergarten children in 1,018 schools in Arizona in the 2010-2011 school year.

- 2.7% of the children had PBEs, ranging from 0% to 68% with a median of 1.4%.
- 21% schools had PBE rates > 5%, 8% had PBE rates > 10%, and 3% had PBE rates >20%.
- Schools where mostly white students attended, those with fewer students who use free and reduced lunch, and charter schools were more likely to have high exemption rates.
- Schools in the northern part of the state were more likely to have personal exemptions than those in the south – and the number of exemptions increased from west to east.
- The vaccines most likely to be exempted were MMR, DTaP and Hepatitis B.
- Record reviews at 8 schools with high rates of PBE revealed that schools vary widely in the quality of immunization records and data maintained and reported to the state. In at least a few cases, children who were immunized had been reported as exempted and vice versa.
- Some school personnel reported that parents requested convenience exemptions, while others indicated that most exempting parents have real concerns about the safety and efficacy of vaccines.
- Town hall meetings conducted with 27 parents in high PBE schools identified reasons for parental concerns similar to those found in other studies: Fear of autism or other side effects, dislike of too many vaccines, perceived potential vaccine contaminants, perceived lack of vaccine effectiveness, and lack of trust of manufacturers, pharmaceuticals, government, and physicians. 62% of exempting parents knew someone who had a severe reaction to a vaccine dose.

Statewide Online Physician Survey

- Physicians (131 responding) reported that the main reasons why parents refuse or delay immunizations is fear their child will develop autism or suffer other long-term consequences from vaccine side-effects.
- They cited personal conversations with parents as being the most effective tool in educating parents about vaccines.
- 9% of physicians excluded children with PBEs from their practices.
- 62% of physicians did not favor establishing a new protocol that would require clinician signatures on all exemptions forms; they believed it would not decrease PBEs and/or it would be a burden to their practices.

Recommendations:

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Physician Attitudes and Practices Regarding Vaccine Exemptions	Strong support from the medical community should be leveraged to develop educational campaigns that address vaccine hesitancy on a broader scale.
	Physician education classes on communicating with vaccine hesitant parents should be developed and implemented in state medical schools as well as for continuing medical education courses.
	Physician education on the importance of newer vaccines and the risks incurred by the diseases they prevent should be emphasized.
	Brochures and posters that address vaccine hesitancy should be revised to include personal statements from medical professionals as well as individuals who have suffered from the diseases and links to informational websites should be distributed to clinicians that are included in the ASIIS database. This will act as a supplement to one on one education during in office visits.

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	Protocol changes that involve physician buy in must be vetted thoroughly through statewide medical associations to determine levels of support for the program.
	Physicians and public health practitioners should be made aware of the effects of the requirement for a physician's signature on exemption forms a protocol which was recently enacted in Washington, and which has reduced the proportion of exemptors from 6.0% to 4.5% (Washington State Dept of Health).
Characterization of Parents and Schools with High Levels of Exemptions	Schools guidance on reporting vaccination history should be updated, training and webcasts on how to report and maintain vaccination records should be made available to school administrators and professionals.
	Close monitoring of schools that do not have school nurses should be put in place with record review and in-person training by county officials, as needed.
	Clusters of high immunization schools should be regularly assessed to allow increased vigilance to identify high risk areas for outbreaks.
	In-county immunization coordinators should be notified of high exemption areas on an annual basis so that they can focus efforts in detection and review of these schools and coordination with school officials to determine how best to improve coverage.
	Educational programs and flyers about vaccination should be developed and tested with those individuals who have vaccine hesitancy but have chosen to vaccinate. This will allow the development of arguments that may allow other vaccine hesitant parents to get their children vaccinated. These should include personal stories of severe outcomes associated with VPD.
	Schools should be provided with these educational materials regarding vaccination and school health to distribute with the vaccine record forms.
	Educational modules that could be administered in high exemption schools could be developed. Forums for parents should be held at schools before children enter both Kindergarten and 6th grade to ensure proper and timely education is being delivered regarding the importance of vaccinations (both primary and boosters).
	An exemption form that asks the parent to initial acknowledgements of the risks of not vaccinating should replace the standard form that simply requires a signature. The form in Appendix C could be modified to include an initial by each risk acknowledgement.
Town Hall Meeting Findings	While in-person educational sessions are not generally possible, identifying materials from trusted sources, videos etc. and compiling these into an educational packet for school administrators to deliver in high exemption schools.
	Develop a clear and concise FAQ page about vaccines. This format of information is often very user-friendly. Include clear and concise information on vaccine spacing and the health implications of vaccination spacing, i.e. not protecting children when they are most susceptible to certain VPD etc. Links to other educational resources for questioning parents would also be useful. These should be

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	<p>sources that are viewed as neutral. Government or pharmaceutical websites might not be trusted. Universities with information or other research groups could be viewed as a more neutral source. Suggestions include: http://www.chop.edu/service/parents-possessing-accessing-communicating-knowledge-about-vaccines/home.html</p>
	<p>Identify key physicians who are empathetic to the parental concerns and who are willing to listen and educate them in a respectful manner. Use these clinicians to help develop and design training for other clinicians.</p>
	<p>Use grandmothers as good sources of information and first-hand knowledge regarding the risks of vaccine preventable diseases.</p>
	<p>Incorporate personal stories into informational websites of parents who have lost children or suffered consequences from not vaccinating their children.</p>
	<p>Incorporate education that clarifies the role that breastfeeding plays in immunity to infectious diseases.</p>
	<p>Most importantly ensure that communication is respectful to those who are trying to decide if they will vaccinate their children. Dismissal of fears only increases the distrust of the medical system and exacerbates the problem.</p>