Leading from Behind to Help Improve Adult Immunization Rates
Karin Szymanski, Jennifer Tinney, Rebecca Navedale

Summary of Topic:
In public health and healthcare sectors, there are a multitude of initiatives aimed at improving immunization rates for adults. Coalitions are experts at monitoring these efforts to identify opportunities for partnership and shared messaging. But how do we determine the most appropriate agency to lead change efforts?

Description of Session:
In this panel, we will discuss three adult immunization initiatives which have the potential to directly impact coverage rates in our state. In each, the Arizona Partnership for Immunization navigated complex relationships to identify where and how to integrate vaccine messages into competing priorities of outside agencies. TAPI’s role in each initiative varies, providing participants with a unique perspectives about "leading from behind" and how to best facilitate a group's process.

Jennifer Tinney (Program Director, TAPI) will review an effort to convene all state universities to implement policies which will consistently educate potential students about immunization entry requirements. Participants will learn how TAPI approached the universities to work together for the first time, what worked to help identify a common vision and how the initiative is evolving. Special emphasis on convening partners who are historically competitive towards one another will be provided.

Karin Szymanski (Project Manager, TAPI) will discuss strategies to work with "non-traditional" partners to integrate immunization messages into unique settings during the second portion of the panel. Throughout public health and healthcare, many organizations convene groups of advocates to execute important projects seemingly un-related to immunizations. "Getting invited to the table" with a new partner is the first step helping integrate immunization messaging into other public health efforts. But even more critical, we must listen carefully to experts about how to best discuss immunizations in new environments and to new people. Karin will review creative ways to see that immunizations is elevated as a priority, mistakes made and lessons learned collaborating with agencies who are "experts" in fields outside of vaccines, and specific ideas participants can execute when leaving.

If we can empower organizations like universities to implement consistent policies to promote vaccines AND implement powerful pro-vaccine messaging campaigns in unique environments to educate adults we haven’t focused on in the past... how will we know we are successful improving rates? Over the last year, TAPI has investigated registry data exchange from a plethora of different perspectives. Rebecca Nevedale (Manager of Health System Strategy, FrameShift Group & TAPI) will discuss how TAPI's collaborative approach helped identify a trend in which public health leaders were discussing similar questions, concerns and ideas related to health registries and the state's Health Information exchange. In response, TAPI initiated an ad hoc group to discuss how clinicians can have the right information about their patients (e.g., immunization coverage) at the point of care, and the potential systems in the healthcare sector that public health can expand on. Through research, discussion (& debate!) and stick-to-it-ness, the state Health Information Exchange has identified a purpose and structure for an HIE Public Health Workgroup to help the exchange act on requests of public health/social service partners. In addition to providing clinicians with point-of-care information about patients, this creates an enormous opportunity to monitor population health trends for adult populations moving forward.
Each panelist will review evaluation methods concurrently. Methods include: QR code tracking, website/social media analytics, text message usage and coalition member feedback.
Oral Presentation
The spatiotemporal evolution of vaccine refusal in California, 2000-2013
Paul Delamater

Background:
Vaccine hesitancy continues to be an issue throughout much of the United States, as numerous vaccine hesitant parents choose to exempt their children from school-entry vaccination requirements for nonmedical reasons, despite the safety and effectiveness of vaccines.

Objectives:
We conducted an analysis of how vaccine refusal, measured by the use of nonmedical exemptions (those based on personal or religious beliefs) from vaccination (NMEs), evolved across space and over time in California prior to the implementation of SB277.

Methods:
Using school-entry data from the California Department of Public Health, we examined NMEs for students entering kindergarten in California from 2000-2013. We conducted global and local spatial autocorrelation analyses to determine whether NME use became more geographically clustered over the study period and whether the location of local clusters of high use were stable over time.

Results:
The use of NMEs increased from 0.73% of all kindergarteners in 2000 to 3.09% in 2013 and became more geographically clustered over the study period. Local geographic clusters of high use were relatively isolated early in the study period, but expanded in size over time. Regions that had low initial NME use and moderate to large increases over the study period were located in close proximity to the initial high use regions.

Conclusion:
We found an observable spatial structure to vaccine refusal and NME use over time, which appears to be a self-reinforcing process locally, as well as a spatially diffusive process. Importantly, we found evidence that use of NMEs in the initially isolated regions appeared to stimulate vaccine refusal in geographically proximal regions. Thus, our results suggest that efforts aimed at decreasing future NME use may be most effective if they target regions where NME use is already high, as well as the nearby regions.
Oral Presentation
Assessment of MMR vaccination status among children with and without exemptions to school immunization requirements
Nhan Le, Katherine Graff, Natalie Linton, Teal Bell, Chas DeBolt

Background:
Importations of measles from endemic countries have continued to result in measles cases and outbreaks in the United States during the post-elimination era. School vaccine exemption rates are often cited as a measure of potential risk for measles transmission in schools. However, the extent to which school vaccine exemption rates actually represent increased measles vulnerability in schools is unknown.

Objectives:
This evaluation assessed true measles-mumps rubella (MMR) vaccine vaccination status for students with a documented exemption to one or more vaccines that contributed to their school’s exemption rate; MMR vaccination status for students claiming a specific exemption to MMR vaccine was separately assessed. Students documented as compliant with school entry vaccine requirements in Washington were assessed as a comparison group.

Methods:
A School Module linked to the Washington State Immunization Information System (WIIS) is used by 10 Washington school districts to document compliance with receipt of vaccines required for school entry and generate exemption rates. De-identified student lists were linked to WIIS immunization records using only an identification number. Each exempt student was matched by school and grade to two students documented as compliant with school entry requirements. Students with no vaccine information in WIIS were excluded from the analysis.

Results:
Among 714 exempted and 1416 compliant students, 565 (79%) and 1414 (99%) had vaccine information in WIIS, respectively. Four hundred eight (72%) of the 565 students exempted to one or more vaccines had received at least one MMR dose, as had 183 (54%) of 327 students with an MMR-specific exemption and 1382 (98%) of 1414 students documented as compliant.

Conclusion:
Assessment of true MMR vaccination status among exempted and compliant students suggests that school exemption rates may not provide an accurate representation of measles transmission risk in school environments.