

**Improving Vaccination Rates in Children Under Two
By Jonathan Cartsonis, MD
Medical Director, CVN
3/29/18**

Mass vaccination against childhood disease is a public health triumph of the twentieth century. Millions of lives have been spared and the health care savings have been dramatic. According to one study, “for every dollar spent, the vaccination program (has saved) more than \$5 in direct costs and approximately \$11 in additional costs to society.”ⁱ Historically, CVN CHC’s set a high standard, serving as an example of best practice nationally for childhood vaccination.

In 2016 UDS immunization reporting rules changed to add influenza to the 21 childhood shots and moved shot completion requirement from “by age 3” to “by age 2.”

The changes led to significant declines in two-year olds considered to be up-to-date in this quality of care measure. After CVN Quality/Clinical Committee members reviewed network immunization data, they decided to focus attention on improving flu shot compliance to help restore vaccination rates to previously high levels. In the end, better compliance would mean that CHC’s get appropriate credit for hard - fought efforts and more importantly the children in the network experience lower morbidity, mortality, and illness - associated costs.

The specific strategies identified by the Q/C Committee known to improve vaccination rates are listed:

1. Assign an individual/small team to be accountable for vaccine effort
2. Staff extra MA (“shot nurse”) in pediatric clinics dedicated to bringing all children up-to-date
3. Develop vaccination standing orders and immunize regardless reason for visit
4. Vaccinate patient’s siblings who are incidentally present in clinic
5. Run registry reports of every qualifying child and re-run reports frequently to keep them current
6. Develop recall/outreach/reminder system that utilizes patient registry via texts, email, conventional mail—especially useful when VFC flu supplies arrive late in season/calendar year (often the case)
7. Involve all front and back office staff in making phone calls to get children in for immunizations.
8. Schedule MA staff for free TAPIⁱⁱ trainings: How to flag charts for recall, effective recall messaging, properly check ASIIS registry and correctly update EHR
9. Capitalize on flu education materials customized free by TAPI
10. Collaborate with local WIC on Flu education and seasonal flu vaccine clinics in WIC offices.
11. Vaccinate as long as flu vaccine is available to ensure completion of the initial two-flu-shot series.
12. Standardize flu vaccine types stocked in clinic to ensure repeat vaccination is completed with correct vaccine type
13. Consider allowing each clinic to set flu vaccination goals for the season and stock appropriately-- and plan periodic CMO follow-up for clinic accountability

Partnering with TAPI deserves emphasis. The non-profit conducts activities aimed at improving childhood vaccination rates across Arizona including on-site consultations, staff trainings, and analysis of clinic-by-clinic ASIIS Registry data. TAPI's work reveals common reporting pitfalls--as well as remedies. An example: Hospital-administered-newborn Hepatitis B. Locating this data in the ASIIS registry is a challenge because many neonates are un-named at the time vaccination. TAPI trains office staff in strategies for capturing the information. This is one demonstration that collaborative efforts within your organization are important, and so are partnerships with external experts like TAPI to significantly boost quality efforts.

ⁱ Zhou F, Santoli J, Messonnier ML, et al. Economic Evaluation of the 7-Vaccine Routine Childhood Immunization Schedule in the United States, 2001. *Arch Pediatr Adolesc Med.* 2005;159(12):1136–1144. doi:10.1001/archpedi.159.12.1136

ⁱⁱ **The Arizona Partnership for Immunization**