



## St. Louis University - Belleville Family Medicine Residency ✱ Belleville, IL

Program Director: **E. Charles Robacker, MD, FAAFP**  
Program Contact: **Anne Nash, MD**  
No. of Residents: **42 residents**  
Patient Base: **12,000 all ages**  
Reporting Period: **Baseline: Jan – Dec 2008; Improved: Jan – Dec 2009**  
Number Audited: **299 children ages 19-35 months**

### Barriers

- Transient nature of our population.
- Lack of consistent tracking of childhood immunizations.
- High no-show rate for patient visits.
- Differences in provider immunization practices.

### Programs and Processes Implemented to Overcome Barriers

**Contacting the families more regularly** by keeping an immunization log to identify children due for shots, so that less time may elapse between patient contact thereby increasing the likelihood that we can keep the children coming to clinic for regular visits and updating their contact information. The most difficult obstacle to increasing our childhood immunization rate is being unable to contact the families directly. For up to one quarter of our young children, we have incorrect demographic data due to frequent moves and decreased reliance on home telephone lines with increased reliance on cellular phones and prepaid phones that frequently change or become inactive.

**Creating a separate electronic log and reviewing and updating monthly.** Although we use an electronic medical record, we do not have the technical support to run regular reports for children due for immunizations. This was addressed by creating a separate electronic log using the list of enrolled patients and completing an individual chart review for each child. This list was reviewed and updated monthly, so the immunization status of all enrolled children was verified.

**Re-contacting and re-scheduling missed appointments.** Our clinic has an overall 20% no-show rate for scheduled appointments. In the past, if children missed well-child visits, no steps were taken by the clinic to reschedule the appointment, therefore parents were solely responsible for rescheduling appointments. By implementing the patient log, the families of children who were due for shots each month were re-contacted and re-scheduled for follow-up appointments.

**Educational component for all providers and staff about our agreed upon immunization schedule.** We have a large clinic with many different providers and rotating support staff. Each person has a varying degree of understanding of appropriate immunization practices as well as different approach to timing of immunization.

**Immunization Review Tool.** We created a review form to use for young children at each visit to prompt staff to identify children who are due for shots. Using the immunization review tool increased provider compliance with immunization guidelines.

## Summary of Improved Immunization Rates

VACCINE	* U.S. Overall Q1-Q4 2008, NIS Compliance %	Baseline Compliance %	Improved Compliance %	Change (Improved-Baseline) %
<b>4+ DTaP</b> ≥4 doses of any diphtheria and tetanus toxoids and pertussis vaccines including diphtheria and tetanus toxoids, and any acellular pertussis vaccine TP/DTaP/DT	84.6 ± 1.0	52.00	72.60	20.60
<b>3+ Polio</b> ≥3 doses of any poliovirus vaccine	93.6 ± 0.6	74.30	90.00	15.70
<b>1+ MMR</b> ≥1 dose of measles-mumps-rubella vaccine	92.1 ± 0.7	67.80	86.00	18.20
<b>3+ Hib</b> ≥3 doses of <i>Haemophilus influenzae</i> type b vaccine	90.9 ± 0.7	74.30	89.00	14.70
<b>3+ Hep B</b> ≥3 doses of hepatitis B vaccine	93.5 ± 0.7	74.30	90.60	16.30
<b>4+ PCV 7</b> ≥4 doses of pneumococcal conjugate vaccine	80.1 ± 1.1	53.00	73.90	20.90
<b>1+ Var</b> 1 or more doses of varicella at or after child's first birthday, unadjusted for history of varicella illness	90.7 ± 0.7	66.00	86.60	20.60
<b>2+Hep A</b> 2 or more doses of hepatitis A	40.4 ± 1.2	44.00	52.00	8.00
<b>VACCINE SERIES</b>				
<b>4:3:1:3:3</b> 4 or more doses of DtaP, 3 or more doses of poliovirus vaccine, 1 or more doses of any MMR, 3 or more doses of Hib, and 3 or more doses of HepB	78.2 ± 1.1	50.00	70.60	20.60
<b>4:3:1:3:3:1</b> 4:3:1:3:3 plus 1 or more doses of varicella vaccine	76.1 ± 1.1	50.00	70.60	20.60
<b>4:3:1:3:3:1:4</b> 4:3:1:3:3:1 plus 4 or more doses of PCV7 plus 1 or more doses of varicella vaccine	68.4 ± 1.2	50.00	68.60	18.60