



## RiverStone Health / Montana Family Medicine Residency ✱ Billings, MT

Program Director: **Roxanne Fahrenwald, MD, FAAFP**  
RiverStone Health: **Nancy Taylor, MBA - Vice President Clinical & Educational Services**  
No. of Residents: **18 residents**  
Patient Base: **17,290 all ages**  
Reporting Period: **January 2009 – December 2009**  
Number Audited: **60 children ages 19-35 months** (100% of our pediatric patients meeting criteria)

RiverStone Health Clinic has been in existence since 1984, and has served as the Family Practice Center for the Montana Family Medicine Residency since the residency's inception in 1996. This partnership has strengthened both organizations and has benefited the patients of the community health center by expanding the services available, as well as ensuring a full complement of Board-certified Family Medicine physicians who serve as faculty, and well-trained residents and midlevel providers. The presence of the Family Medicine Residency also creates a learning environment for all staff of the health center.

The health center is a federally-qualified health center and the majority of patients served by our clinic are at or below 200% of the federal poverty level. This project will attempt to improve the immunization rates for all relevant patients in our health center. All patients who visit the clinic during the time of the project (and who meet the age criteria) will be included in the study results.

### Proposed System Project Plan

Our plan for improvement involves coordination between clinic support staff, providers, public health staff and patients and families. Items included in the Project Plan include:

- RiverStone Health Clinic nursing staff receive training on childhood immunizations including vaccines, dosages, methods of administration, schedules, catch-up schedules and the importance of documentation of each immunization given or refused.
- All nursing staff receive training on the state immunization registry, "WIZRD". All nursing staff has received passwords to access this information.
- Staff/providers receive education on the importance of immunization review and administration if appropriate at all visits. It was identified that there have been "missed opportunities", such as when a child is seen in the clinic for a reason other than to receive immunizations. We have learned the importance of addressing immunization at all appointments for children. The provider will determine if the child's current health status allows the administration of vaccines.
- Immunization schedules and catch-up schedules will be posted throughout the clinic and at nurse/provider work stations.

- The process in anticipation of a pediatric visit to be revised as follows: The day before the scheduled appointment (well child or acute), staff will print off the child's immunization record from WIZRD.
- The nursing staff compares that record to the record in the child's electronic medical record to make sure the information is up to date in both places.
- If the information is not current in one but is documented in the other record/registry, the nursing staff will update the appropriate registry/medical record.
- The nurse compares the child's immunization record to the CDC recommended childhood immunization schedule or if appropriate the CDC catch-up schedule for children.
- The nurse will ask the parent/guardian if they have any immunization records. If the nurse receives new immunization information, it is updated in our electronic health record and WIZRD.
- The nurse reports the immunization information to the provider who will determine if it is appropriate and order the appropriate vaccines.
- The ordered vaccines are discussed with the parent/guardian and vaccine information sheets are made available. The nursing staff can discuss the importance and safety of vaccinations. If the parent/guardian refuses the vaccination, the nurse will document that refusal.
- RiverStone Health is currently working with the state immunization registry to integrate our electronic health record. When that process is complete, the documentation of immunizations given at our clinic will automatically be electronically sent to the state registry. This will enable other health providers to have access to a complete immunization history if a child travels or moves throughout Montana.

## SUMMARY OF CURRENT IMMUNIZATION RATES

VACCINE	U.S. Overall Q1-Q4 2008, NIS Compliance %	Current Compliance %
<b>4+ DTaP</b> ≥4 doses of any diphtheria and tetanus toxoids and pertussis vaccines including diptheria and tetanus toxoids, and any acellular pertussis vaccine TP/DTaP/DT	84.6 ± 1.0	88.00
<b>3+ Polio</b> ≥3 doses of any poliovirus vaccine	93.6 ± 0.6	93.3
<b>1+ MMR</b> ≥1 dose of measles-mumps-rubella vaccine	92.1 ± 0.7	93.30
<b>3+ Hib</b> ≥3 doses of <i>Haemophilus influenzae</i> type b vaccine	90.9 ± 0.7	60.00
<b>3+ Hep B</b> ≥3 doses of hepatitis B vaccine	93.5 ± 0.7	85.00
<b>4+ PCV 7</b> ≥4 doses of pneumococcal conjugate vaccine	80.1 ± 1.1	78.30
<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	90.00
<b>2+Hep A</b> ACIP expanded recommendation to children 12-23 months in May 2006	40.4 ± 1.2	55.00
<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	55.00
<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	55.00
<b>4:3:1:3:3:1:4</b> 4:3:1:3:3:1 plus 4 or more doses of PCV7 + 1 or more doses of varicella vaccine	68.4 ± 1.2	50.00