



The Brooklyn Hospital Center Family Medicine Residency * Brooklyn, NY

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No. of Residents:	17 residents
Patient Base:	644 all ages
Reporting Period:	Baseline: Jan – Dec 2008; Improved: Jan – Dec 2009
Number Audited:	79 children ages 19-35 months

The Brooklyn Hospital Family Medicine center serves a diverse minority low socio-economic immigrant population. In general, this population tends to be underserved in all areas of health care, including immunization.

Barriers

- Intrinsic and inevitable component of a residency program is the discrepancy of care that occurs with several residents involved in the care of the patients. The luxury of the seeing the same primary care provider at every visit is a seldom occurrence.
- High no-show rate of 30%
- Language and cultural barriers to understanding of the need for immunizations.
- Parents concerns about the side effects of vaccines, the confusing vaccination schedule, expense of vaccines, and the inconvenience of the vaccination process.
- Difficulty in updating the accurate immunization as we move from paper to EMR.

Programs and Processes Implemented to Overcome Barriers

All residents, attending physicians and nursing staff are coached to proactively determine the immunization status for each pediatric patient that walks into our clinic. They are coached to print out patient immunization status in spite of the nature of the visit and we also re-educate residents and attending physicians that the primary care provider is be the real “gate keeper” to use every opportunity to assess their immunization status.

Biannual Immunization lectures are provided for faculty and residents. These updates are provided during our Drug of the Month didactic sessions.

Each resident is provided with printed business cards. These cards are used to remind the parents of who their doctors are and to actively ask to be seen by the same provider.

Policy barriers were identified and have been modified. Policy barriers included obstructive appointment systems, long waiting times and mandated pre-immunization standards, i.e. physical examinations

Reminder calls are made the night before, in the appropriate language, through an automated calling system.

When given reminder calls, parents are notified that they don't have to be the person to bring a child in. They can hand-write a note giving permission to give the immunizations.

An exit staff person is assigned to each patient. The exit staff coordinates the referrals, sets next appointments and assures that the patient's needs are met before they leave the visit.

Use of Immunization Cards. Every parent gets a "Yellow card" and is advised to bring it in every visit.

Language appropriate hand outs are provided to educate parents about the importance of vaccines, the hazards of the diseases they prevent, side effects and contraindications.

Actively hire primary care providers who are diverse in language, background and ethnicity.

Parents and providers are given the option of using the "language bank" to use the language of preference for comfort and ease of communication.

Use of State Immunization Registry and rapid data entry. Data collection and updating is done within 24 hours on the NY State Department of Health website. NYCIR is up-to-date even if the patient is a transient visitor. As always we strive to provide the best medical care moving from paper to EMR and better use of the NY state registry

Community-based outreach and promotional events. These tools are used to educate and attract pediatric population and include health fairs and mobile vans.

Summary of Improved Immunization Rates

VACCINE	* U.S. Overall Q1-Q4 2008, NIS Compliance %	Baseline Compliance %	Improved Compliance %	Change (Improved-Baseline) %
4+ DTaP ≥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	49.37	77.22	27.85
3+ Polio ≥3 doses of any poliovirus vaccine	93.6 ± 0.6	84.81	92.41	7.60
1+ MMR ≥1 dose of measles-mumps-rubella vaccine	92.1 ± 0.7	64.56	84.81	20.25
3+ Hib ≥3 doses of <i>Haemophilus influenzae</i> type b vaccine	90.9 ± 0.7	82.28	89.87	7.59
3+ Hep B ≥3 doses of hepatitis B vaccine	93.5 ± 0.7	91.14	94.94	3.80
4+ PCV 7 ≥4 doses of pneumococcal conjugate vaccine	80.1 ± 1.1	40.51	69.62	29.11
1+ Var 1 or more doses of varicella at or after child's first birthday, unadjusted for history of varicella illness	90.7 ± 0.7	63.29	84.81	21.52
2+Hep A 2 or more doses of hepatitis A	40.4 ± 1.2	11.39	24.05	12.66
VACCINE SERIES				
4:3:1:3:3 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	48.10	73.42	25.32
4:3:1:3:3:1 4:3:1:3:3 plus 1 or more doses of varicella vaccine	76.1 ± 1.1	44.30	72.15	27.85
4:3:1:3:3:1:4 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	37.97	64.56	26.59