



Wyeth Immunization Awards

Award Track: 2009 System Implementation

San Joaquin General Hospital Family Medicine Residency Program * French Camp, CA

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No. of Residents: 21
Patient Base: Total: 12,172; Children (0-3): 1,259
Children Impacted: 750+ (medically underserved ages 19-35 months)

Overview

Research has clearly shown that vaccination reduces mortality and morbidity. The core of the challenge of getting every child vaccinated remains education and access. This difficult mission proves to be a greater challenge with medically underserved populations such as ours. Parents either are not aware of the importance of vaccinations for disease prevention or believe that vaccinations carry more risk than benefit. Once parents are ready and willing to vaccinate their children, finding providers who accept state-run Medicaid (which represent most of our underserved population) to give the vaccination and provide care in a timely fashion is nearly impossible.

As important as education is, a larger obstacle for our community is medical access. Our department and residency program provide the only medical care for the indigent population for the County of San Joaquin. Being well-below both the national and Californian per capita personal income level, most of our patients are on some form of Medicaid. With most of the private groups and clinics in the area meeting their quota for Medicaid children, the burden falls on us to accommodate the remaining. Therefore, it is often difficult for our pediatric patients to have their well-child care visits for their vaccinations on a regular interval. Therefore, we propose a multi-pronged system which directly addresses these two root problems.

Proposed System

Pediatric Group Visits for Well-Child Checks. With today's pressure on primary care providers for increased productivity and the push to see more patients, often there is not even time to provide adequate counseling to parents on preventive education, needless to say provide education on the importance of vaccinations. Group visits allow the provider the time to deliver the necessary message and education to an entire group, thus eliminating the unnecessary repetition of the same advice. Also, it allows parents to interact and share common interests and concerns as well as find encouragement to meet necessary medical goals.

In addition to providing the necessary education, group visits will afford the provider the ability to accommodate more pediatric patients, both to be seen and to get the necessary vaccinations. This will increase medical access. Another educational measure we would like to employ is to produce a list of medical myths and greatest concerns regarding vaccinations. This list will be printed on flyers and brochures as well as posters. The posters will be placed around the clinic waiting area. The flyers will

also be in the waiting area for parents to take with them while the brochures will be given to the parents of all pediatric clinic visits.

Pediatric Walk-In Clinics. As a form of open access scheduling model, parents do not have to make an appointment for their children to be seen. We will start out with one-half day a week for the first 3-4 months. Depending on the demands, we will add more pediatric walk-in clinics. The parents will be informed that they can simply show up on that set block of time and be seen.

Outreach Vaccination Programs. We will combine the models of school-vaccination program and door-to-door program used by many countries to achieve success vaccination rates of greater than 95%. Due to several constraints, such as work schedule and lack of transportation, many parents cannot bring their children even if we have the open slots. Therefore, we will bring the vaccinations to them. We find a central location within a local pharmacy, church, or even mall where our patients can easily get to and have a vaccination day. It will start out with one day in a weekend per month. Hopefully, by having it on a Saturday or Sunday, it will accommodate more parents' schedules. After 3 months, we will determine if more sessions can be added per month.

Pediatric Registry. The core of our system will be creating and implementing a pediatric registry. Our county hospital, like many clinics and hospitals, do not have the financial resources to have an Electronic Medical Record. Therefore, it is very difficult to track the records of our patients to determine which vaccination is needed for which child. More than half of our pediatric population is lost to follow-up. Even with EMR, many systems do not have the capability to run queries to determine which child is not up-to-date with his or her vaccinations. With a registry designed for our hospital, we will run reports and queries quarterly. The reports will not only tell us the children who are not up-to-date on their vaccinations but also the parents' names and contact information. This will facilitate, streamline, and help us save time contacting the parents. In addition, we will have a system to identify patients lost to follow-up. We can contact them to determine if they transferred clinics, moved out of the area, or simply forgot their appointments.

Although California has a state-wide, web-based database called the Regional Immunization Data Exchange (RIDE) most clinics and institutions, including our own, either do not use the database or do not enter the information regularly enough to keep it up-to-date. A sampling of pediatric clinics around the county shows that less than 20% of the clinic consistently use the database. Also, the users of the system, including our own, do not know how to generate queries to see a list of children who need a certain vaccination. Currently, we can only see an individual child's vaccination record. In addition, the RIDE system lacks the demographics information needed to contact the parents.

Educational Outreach. We will produce a list of medical myths and greatest concerns regarding vaccinations. This list will be printed on flyers and brochures as well as posters. The posters will be placed around the clinic waiting area. The flyers will also be in the waiting area for parents to take with them while the brochures will be given to the parents of all pediatric clinic visits.

Goals and Objectives

GOAL 1: Reach the National Average for Rates of Vaccination for All Vaccines Within 14 Months.

Objective 1.1: We want to increase current rates and hopefully, implement a system that can be a model for improved medical access. On average, this means nearly doubling our current rate of vaccination. The outcome measures will include all vaccinations (DTaP, polio, Hib, hepatitis B, PCV, varicella, and MMR) for children under 36 months, as well as the well-child check visits. All data will be managed by a Registry created within Microsoft Access. Using Access allows for easy manipulation of

the data and queries for any needed reports, and it provides for more universal data import and export (such as Excel for statistical analysis or Word for report generations). In addition, the hospital already has the license for the multiple users throughout the hospital.

Objective 2.1: We have a large percentage of patients who came to our clinics for one or two visits and never returned for subsequent visits. Although we believe that part of the reason our vaccination statistics are so poor is that they include data from patients who transferred to different clinics and institutions, with our current paper-charts we can not determine the reasons patients are lost to follow-up. Using the Registry to track this information we will determine who transferred medical care to other clinics and institutions and the reasons why. With this information we should be able to more accurately determine our rates of vaccinations, ensure that children are getting the proper medical care and vaccinations, and better understand weaknesses or dissatisfaction with our clinics.

GOAL 2: Increase Patient and Provider Satisfaction.

Part of our system is to increase access for patients to their providers. In addition to monitoring the primary outcome with rates of vaccination, we will conduct a patient satisfaction survey, as well as a provider satisfaction survey, in each of the three modalities. Even if the primary outcome improves, the continued success of the model can only be achieved if both the patients and providers are satisfied.

Current Vaccine Rates for Medically Underserved Children Age 19-35 Months

VACCINE	U.S. Overall 2004, NIS Compliance %	Current Compliance Rate %
DTP/DTaP/DT (4 doses)	84.8 (+/-0.8)	56.70
IPV (3 doses)	91.6 (+/-0.7)	49.17
MMR (1 dose)	93.0 (+/-0.6)	45.17
Hib (≥ 3 doses)	93.5 (+/- 0.6)	67.78
Hep B (≥ 3 doses)	92.4 (+/-0.6)	62.81
PCV (3 doses)	73.2 (+/1.0)	54.87
PCV (4 doses)	87.5 (+/-0.7)	49.38
Varicella (≥ 1 dose)	84.8 (+/-0.8)	44.91
VACCINE SERIES		
4 DTP+3 IPV+1 MMR	83.5 (+/-0.9)	48.95
4 DTP+3 IPV+1 MMR+3 Hib	82.5 (+/-0.9)	46.85
4 DTP+3 IPV+1 MMR+3 Hib+3 Hep B	80.9 (+/-0.9)	39.54
4 DTP+3 IPV+1 MMR+3 Hib+3 Hep B+1 Var	76.0 (+/-1.0)	31.82