



## National Provider Identifier (NPI)

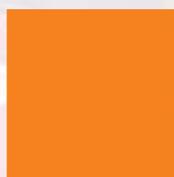
**Article written by: Amy Schlabach, Department of State Health Services, Immunizations, Vaccine Services, Program Specialist**

The *Health Insurance Portability and Accountability Act (HIPAA)* of 1996 requires all health care entities (i.e., providers, clearinghouses, and large health plans) to begin using National Provider Identifiers (NPI) on standard health care transactions by May 23,

2007. All health care providers who conduct any of the HIPAA standard transactions will need to have their NPI no later than May 23, 2007. The NPI eliminates the need for health care providers to use different identification numbers when conducting

transactions with multiple health plans. Additional information related to the NPI standards can be found on the Centers for Medicare and Medicaid Services website at [http://www.cms.hhs.gov/apps/mpi/01\\_overview.asp](http://www.cms.hhs.gov/apps/mpi/01_overview.asp).

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*Compiled by Susan Beslisle,  
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*Pediatrics. May 5, 2006.*

## **The Safety of Trivalent Influenza Vaccine Among Healthy Children 6 to 24 Months of Age**

The objective of this study was to assess the safety of routine trivalent influenza vaccine (TIV) administration among healthy children six through twenty three months of age, after the Advisory Committee on Immunization Practices recommendation. The study was a retrospective case-control study of children receiving TIV in the first two seasons after the Advisory Committee on Immunization Practices recommendation. The authors assessed outcomes in the forty two days after vaccination in a population of 13,383 children. Each case subject was matched, according to age and gender, with three control subjects. Hazard ratios were calculated with conditional logistic regression analysis. The authors found no statistically significant elevated hazard ratios for the first TIV dose. An elevated risk of pharyngitis was found for children receiving a second TIV dose. No elevated risk of seizure was found. The authors concluded that these results, for a population of healthy children, showed no medically significant adverse events related to TIV among children six to twenty three months of age.

***World Health Organization.  
March 24, 2006***

## **Review of latest available evidence on risks to human health through potential transmission of avian influenza (H5N1) through water and sewage**

There is very little information on the role of water in the transmission of influenza viruses among waterfowl or to other animals, including humans. One study has suggested that the fecal–water–oral route is probably significant in transmission of the virus between birds, in view of the greater number of virus isolations from the cloaca than from the trachea of domestic ducks. The authors suggested that a cycle of waterborne

transmission and maintenance of influenza viruses exists within the duck communities of southern China and that it is conceivable that virus transmission could occur in this manner to other susceptible animals, including humans. The most up-to-date version of this document can be accessed at: [http://www.who.int/water\\_sanitation\\_health/emerging/h5n1background.pdf](http://www.who.int/water_sanitation_health/emerging/h5n1background.pdf).

## Recommendations for the Prevention and Control of Influenza

***The Advisory Committee on Immunization Practices (ACIP) June 28, 2006.***

This report updates the 2005 recommendations by ACIP regarding the use of influenza vaccine and antiviral agents. The changes for 2006 include: 1) recommending vaccination of children aged 24—59 months and their household contacts and out-of-home caregivers against influenza; 2) highlighting the importance of administering 2 doses of influenza vaccine for children aged 6 months—<9 years who were previously unvaccinated; 3) advising health-care providers, those planning organized campaigns, and state and local public health agencies to a) develop plans for expanding outreach and infrastructure to vaccinate more persons than the previous year and b) develop contingency plans for the timing and prioritization of administering influenza vaccine, if the supply of vaccine is delayed and/or reduced; 4) reminding providers that they should routinely offer influenza vaccine to patients throughout the influenza season; 5) recommending that neither amantadine nor rimantadine be used for the treatment or chemoprophylaxis of influenza A in the United States until evidence of susceptibility to these antiviral medications has been re-established among circulating influenza A viruses; and 6) using the 2006—07 trivalent influenza vaccine virus strains: A/New Caledonia/20/1999 (H1N1)-like, A/Wisconsin/67/2005 (H3N2)-like, and B/Malaysia/2506/2004-like antigens. For the A/Wisconsin/67/2005 (H3N2)-like antigen, manufacturers may use the antigenically equivalent A/Hiroshima/52/2005 virus; for the B/Malaysia/2506/2004-like antigen, manufacturers may use the antigenically equivalent B/Ohio/1/2005 virus. To view the report in its entirety, go to: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr55e628a1.htm>.

***The New England Journal of Medicine. June 6, 2006.***

## The Under-recognized Burden of Influenza in Young Children

The disease burden of influenza infection among children is not well established. The authors conducted a population-based surveillance study of medical visits associated with laboratory-confirmed influenza.

In this study, eligible children were younger than five years of age, resided in three United States counties, and had a medical visit for an acute respiratory tract infection or fever. Epidemiologic data were collected from parental surveys and chart reviews. Children who were seen in selected pediatric clinics and emergency departments during two influenza seasons (2002–2003 and 2003–2004) were systematically enrolled. The rates of visits to clinics and emergency departments associated with influenza were estimated.

The average annual rate of hospitalization associated with influenza was 0.9 per 1000 children. The estimated burden of outpatient visits associated with influenza was 50 clinic visits and six emergency department visits per 1000 children during the 2002–2003 season and 95 clinic visits and 27 emergency department visits per 1000 children during the 2003–2004 season. The authors concluded that, among young children, outpatient visits associated with influenza were ten to 250 times as common as hospitalizations.

# Up Shot

## Vaccine Record Cards

*Article written by: Clara Taylor,  
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Services*

The Immunization Branch of the Texas Department of State Health Services has available for ordering four different types of vaccination record cards and each card has a specific intended audience.

### **C-11 “School/Daycare Immunization Record Card” –**

Is used by schools and daycares as a permanent record of a child’s vaccination history and contains emergency contact information at a glance on the card. This form also allows for the recording of vision and hearing test results, a tuberculin skin test result, and a parent’s/physician’s verification of varicella (chickenpox) illness. Printed on card stock; both sides, 3 ½” x 10” flat folded to 3 ½” x 5” finished size.

### **C-100 “Vaccine Information Documentation Form” –**

A bilingual form used by clinics, hospitals, physician’s offices, and other entities, both public and private, to record the vaccinations given to a client, the date given, the manufacturer of the vaccine, the lot number, site of injection, person giving the vaccine, and the date of the Vaccine Information Statement corresponding to each vaccine. The form also records tuberculin skin test results, client information, a place for

the clinic stamp, and on the reverse side, a signature and date is captured attesting the person has read the Vaccine Information Statement provided on the form each time a vaccine is given. Printed on card stock; both sides with a finished size of 5 x 10 and if fold in thirds, the dimensions are 5” x 3 1/3”.

### **C-102 “Personal Immunization Record Card” –**

A bilingual form used by clinics, hospitals, physician’s offices, and other entities both public and private as a permanent record of a child’s vaccination history kept by the parent until the child is of legal age and includes a recommended childhood and adolescent vaccination schedule. The date the vaccine was given, a space for validation, a space for the next dose, and a space for recording tuberculin skin test results are also provided. From ages birth to 16-18 years of age. Printed on card stock; both sides with a finished size of 5 “x 9”.

### **C-104 “Adult Immunization Record Card” –**

A bilingual form used as a permanent record of the vaccines a person receives as an adult and includes a recommended vaccination schedule. The date the vaccine was given, a space for validation, a space for the next dose, and a space for recording tuberculin skin test results is also provided. From age 16 and up. Printed on card stock; both sides with a finished size of 5” x 9”.

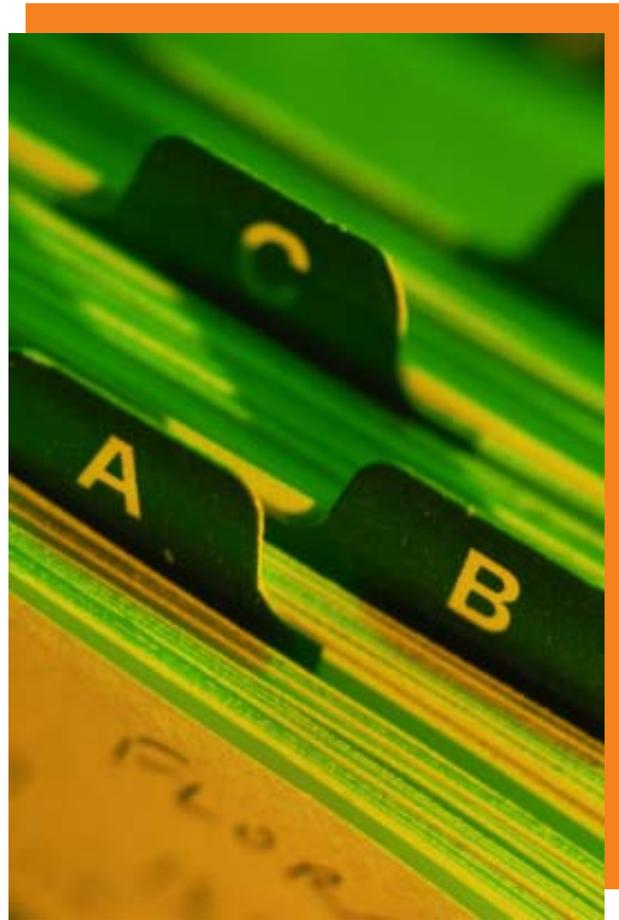
Literature and forms orders can be submitted via facsimile machine, United

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*Resources Within Reach (continued)*

States Postal Service, or electronically. The order form is available to download from our web site at [http://www.dshs.state.tx.us/immunize/literature/litlist\\_txt.shtm](http://www.dshs.state.tx.us/immunize/literature/litlist_txt.shtm). This form can be printed, filled out, and submitted via fax, to (512) 458-7288, or mailed to Department of State Health Services, Immunization Branch, 1100 West 49<sup>th</sup> Street, Austin, Texas 78756. Finally, the order can be placed electronically on-line at <http://www.dshs.state.tx.us/immunize/orderForm.shtm>.

Please allow six to eight weeks for delivery. Contact Jack Shaw via e-mail at [Jack.Shaw@dshs.state.tx.us](mailto:Jack.Shaw@dshs.state.tx.us) or by telephone at (800) 252-9152 if you have any questions or for further assistance.



**V A C C I N E S**

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## Rotavirus Vaccine

*Article written by: Karen Hess, Department of State Health Services, Manager, Vaccine Services Group*

Effective immediately, providers enrolled in the Texas Vaccines for Children (TVFC) Program may begin ordering the rotavirus vaccine, RotaTeq®, for TVFC-eligible infants. This vaccine is not two-tiered as meningococcal vaccine is and may be administered to underinsured children at any TVFC-enrolled clinic site. The vaccination series consists of three doses administered orally from ready-to-use vials and the vaccine is stored in the refrigerator

### Dosing Intervals and Cautions

The series must be initiated between six and twelve weeks of age and all three doses must be administered by thirty two weeks of age. If the series is not initiated by twelve weeks of age, the vaccine cannot be administered. Intervals between doses must be strictly adhered to. Additionally, no doses of this vaccine can be administered after thirty two weeks of age. Dosing intervals are as follows:

Age for Dose 1	Interval Between Doses 1 and 2	Interval Between Doses 2 and 3
6-12 weeks	4-10 weeks	4-10 weeks

Caution is advised when considering vaccinating close contacts that have immunodeficient health conditions. There is a theoretical risk that the live virus vaccine can be transmitted to non-vaccinated contacts. The potential risk of transmission of vaccine virus should be weighed against the risk of acquiring and transmitting natural rotavirus.

Incomplete doses may occur if an infant spits or regurgitates the vaccine. If for any reason an incomplete dose of this vaccine is administered, a replacement dose is not recommended. Additional information regarding RotaTeq®, including contraindications and warnings, may be found in the product package insert or at the following website: [http://www.merck.com/product/usa/pi\\_circulars/r/rotateq/rotateq\\_pi.pdf](http://www.merck.com/product/usa/pi_circulars/r/rotateq/rotateq_pi.pdf)

### Billing and Reporting

The Medicaid billing CPT code for rotavirus vaccine is 90680.

An updated TVFC Biological Order Form (C-68) and Monthly Biological Report (C-33) are available on the following website: <http://www.dshs.state.tx.us/immunize/literature/litlist.shtm>. Both forms have been revised to include rotavirus vaccine. Emergency orders will not be allowed for initial orders of rotavirus; providers should order the vaccine at the time they place their next monthly order.

If you have additional questions regarding any of this information, please contact your Health Service Region or TVFC consultant.

## BE READY! STAY READY!

### Emergency Procedures for Protecting Vaccine Inventories

*Article written by: John Gemar,  
Texas Vaccine for Children/Assessment  
Feedback, Incentive and eXchange  
Consultant, Immunization Branch*

Be ready, stay ready! A motto all of us need to practice as we begin the journey into the 2006 hurricane season. Hurricanes, tornadoes, floods, power outages, earthquakes, it does not matter what the disaster, you need to be ready for the worst.

The importance of protecting vaccines entrusted to you should take a clear and defined role in your daily work. Being prepared means having a contingency plan for all aspects of a medical practice and your personal life. Being prepared is not just having a plan in your head or on paper somewhere, but rather a written and practiced tool making your practice more effective and community minded. This article focuses on our requirement to safeguard vaccines, one of our best disease prevention resources. The following is a compilation of information available from [www.cdc.gov](http://www.cdc.gov) and <http://www.dshs.state.tx.us/>.

According to the Centers for Disease Control and Prevention (CDC), the Vaccines For Children (VFC) program maintains vaccine inventories in the field valued at over \$1 billion. To protect this



national vaccine inventory and minimize the potential monetary loss from natural disasters or other emergencies, immunization facilities should develop a written emergency plan to safeguard their vaccine inventories.

Emergency procedures should address the protection and, if needed, retrieval of vaccines. Clinics should have the ability to routinely communicate during normal operations and quickly communicate action plans during emergencies or anticipated emergencies with local health departments (LHD) and/or health service regions (HSR). If there is reasonable cause to believe emerging conditions will disrupt vaccine operations, emergency procedures should be implemented **in advance of the event**.

### **In advance of an emergency, providers should:**

- A. Identify an alternate storage facility (hospital, packing plant, state depot, etc.) with back-up generator where the vaccine can be properly stored and monitored for the interim,
- B. Ensure the availability of staff to

pack and move the vaccine,

C. Maintain the appropriate packing materials (insulated containers, ice packs, dry ice, etc.) and,

D. Ensure a means of transport for the vaccine to the secure storage facility.

Whenever possible, facilities should suspend vaccination activities **before** the onset of emergency conditions to allow sufficient time for packing and transporting vaccine. This document provides you with guidelines for developing facility-specific emergency procedures in the event there is an emergency where vaccines can be saved or recovered.

Your Texas Department of State Health Services (DSHS) HSR and LHD can help by establishing working agreements with hospitals, health departments, or other facilities to serve as emergency vaccine storage facilities.

***Below are some guidelines you can use to begin building your emergency response plan.***

## Emergency Procedures:

A. List emergency phone numbers, companies, and points of contact for:

- Electrical power company
- Refrigeration repair company
- Temperature alarm monitoring company
- Perimeter alarm repair company
- Perimeter alarm monitoring company
- Backup storage facility
- Transportation to backup storage
- Dry ice vendor
- Packing containers and cold pack vendors
- Security
- Emergency generator repair company
- National weather service
- Local Health Department
- Health Service Region
- State Pharmacy (512-458-7500)

\*\* Any other numbers appropriate for your facility.

B. Maintain emergency equipment and supplies:

- Flashlights
- Spare batteries

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- Packing materials for vaccine, insulated containers, thermometers
- Other supplies as needed
- C. Maintain, update, and practice your plan:
  - Put your plan in writing
  - Be specific in the written plan
  - Post the plan where it is easily found
  - Practice the plan every three to four months or when new staff is hired (minimum)
  - Review and update the plan at a minimum every three to four months or when new staff is hired
  - Rotate supplies such as batteries, water, etc. every six months at a minimum
  - Provide diagrams of facilities and maps to alternate storage locations
  - Know where gas, water, and electrical shut-offs are located

## Packing and moving vaccines:

When transporting vaccines, think about how each vaccine was packed when you first received it from the manufacturer or distributor. Use this as a model for how to repack the individual vaccines in order to transport them at their appropriate temperature.

The best assurance of vaccine efficacy is to minimize the number of times vaccines are handled and transported. While there is no defined limit to the number of times vaccine may be transported to different clinic sites, multiple transport increases the risk that vaccine will be exposed to inappropriate storage conditions. If vaccine transportation to another location is required, it is critical that vaccine potency be protected by maintaining the cold chain **at all times**. When a multidose vial is used, Food and Drug Administration (FDA) regulations require it be used only by the provider's office where it was first opened. A partial used vial may be transported to or from off-site clinics operated by the same provider as long as the cold chain is properly maintained. However, such a vial may not be transferred to another provider or transported across state lines.

## Transporting Frozen Vaccines:

Varicella, live attenuated influenza (LAIV), and Measles/Mumps/Rubella/Varicella (MMRV) vaccines should be transported on dry ice in a frozen state to maintain potency. The following site provides important instructions for dry ice: [http://www2.cdc.gov/nip/isd/shtoolkit/Resources/Handling\\_Dry\\_Ice.pdf](http://www2.cdc.gov/nip/isd/shtoolkit/Resources/Handling_Dry_Ice.pdf)

If dry ice is not available, these vaccines must be transported at 35° to 46° F; however, this will greatly reduce the shelf life of these vaccines. Consult the manufacturers package insert for shelf life information. Always annotate the date and time these vaccines are removed from the freezer. Once thawed these vaccines may not be refrozen and **must** be discarded according to the time limits noted in the package inserts. If any

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vaccine distributed by the state is rendered unusable for any reason, document the loss on the Vaccine Loss Form, C-69 and notify your HSR immediately for instructions on returning the vaccine. Do not discard the vaccine, but ensure the affected vaccine is properly marked as unusable.

## Transporting Diluent:

Diluent should travel with its corresponding vaccine at all times to ensure there are always equal numbers of vaccine vials and diluent vials for reconstitution. Additionally, the diluent must always be of the correct type and from the same manufacturer as the vaccine it accompanies.

Diluent for refrigerated vaccines may be transported or shipped at room temperature or inside the same insulated cooled container as its corresponding vaccine. Do not ship diluent on dry ice. Diluent must not be frozen.

## Packing Vaccine for Transport:

Don't forget to think about how each vaccine was packed when you first received it. Use this as a model for how to repack the vaccines.

The following are general guidelines for packing vaccine:

- A. Use properly insulated containers to transport vaccine. These containers should be validated to ensure they are capable of maintaining the vaccine at the correct temperatures. If you save the containers the vaccines arrived in from the manufacturer you will not need to purchase any new containers. You may use hard sided plastic insulated containers or Styrofoam coolers with at least 2-inch thick walls. Thin-walled Styrofoam coolers, such as those purchased at grocery stores to hold beverages, are not acceptable.
- B. Pack enough refrigerated or frozen packs to maintain the cold chain. Do not use loose or bagged ice. The number and placement of refrigerated or frozen packs inside the container will depend on container size and outside temperature.
- C. Be sure to place an insulating barrier (e.g., bubble wrap, crumpled brown packing paper, Styrofoam peanuts) between the refrigerated/frozen packs and the vaccines to prevent accidental freezing. The container should be layered as follows: refrigerated/frozen packs, barrier, vaccine, thermometer, another layer of barrier, and additional refrigerated/frozen packs.
- D. Pack vaccines in their original packaging between the two barriers.

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- E. Use a properly placed thermometer near the vaccine to assess whether the cold chain has been broken. Place the thermometer with the vaccine and do not allow it to touch the refrigerated or frozen packs.
- F. Attach labels to the outside of the container to clearly identify the contents as being valuable and fragile vaccines.
- G. Record vaccine type(s), quantity, date, time, and originating facility on a label on the outside of the container. Include the same information inside the container.

At the following site is a chart explaining what types and number of refrigerated/frozen packs to use when packing vaccine: [http://www2.cdc.gov/nip/isd/shtoolkit/Resources/Refrigr\\_Frozen\\_Pack\\_Needs.pdf](http://www2.cdc.gov/nip/isd/shtoolkit/Resources/Refrigr_Frozen_Pack_Needs.pdf).

Identify what vaccines to pack first in an emergency. Pack the refrigerated vaccines first with an adequate supply of cold packs; remove and pack frozen vaccines, using dry ice, immediately before they are to be transported.

If you are unable to pack all vaccines, then save only the most expensive vaccines to minimize dollar loss or save some portion of all vaccines to ensure a short term, complete supply for resuming the vaccination schedule.

**Remember – Write your emergency response plan, make it detailed, and ensure all supplies are available. Do not forget the three P's: Practice, Practice, Practice. Make sure you practice the plan at least twice a year.**

For more information on how to pack vaccines visit the Immunization Action Coalition at <http://www.immunize.org/> or the National Immunization Program at <http://www.cdc.gov/nip/>.



# Up Shot

## CDC Published its Annual Notifiable Disease Summary



**Written by: María Maldonado, Program Specialist, Immunization Branch  
Department of State Health Services**

On June 16, 2006, the Centers for Disease Control and Prevention (CDC)'s *Morbidity and Mortality Weekly Report* published the annual *Summary of Notifiable Diseases-United States for 2004*. The summary contains the official statistics, in tabular and graphic form, for the reported occurrence of nationally notifiable infectious diseases in the United States for that year. These statistics are collected and compiled from reports sent by state health departments to the National Notifiable Diseases Surveillance System (NNDSS).

As of this printing, there are over 70 notifiable diseases, including most vaccine-preventable conditions. The list of nationally notifiable diseases is revised periodically. A disease might be added to the list as a new pathogen emerges, or a disease might be deleted as its incidence declines.

Among the findings for vaccine-preventable diseases:

- ◆ Tetanus continues disproportionately to affect older Americans, many of whom remain susceptible because they have never received a primary series of at least three tetanus toxin-containing vaccinations.
- ◆ Since routine childhood vaccination was recommended in 1999 in states where hepatitis A rates were consistently elevated, the overall hepatitis A rate has declined

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dramatically. In 2004, the rate (1.9 per 100,000 population) was the lowest yet recorded, with 5,683 cases reported. Declines have been greater among age groups and regions where routine vaccination of children is recommended, likely reflecting the result of the current vaccination strategy.

- ◆ In 2004, the rate among children aged younger than 13 years, the cohort born since routine infant Hepatitis B vaccination was implemented, was 0.07 per 100,000 population, representing a 94% decline for that age group since 1990.
- ◆ Pertussis continues to cause morbidity in the United States despite high coverage levels for childhood pertussis vaccine. During 1994–2004, the reported pertussis rate per 100,000 population increased from 1.8 to 8.9. How much of this increase reflects greater recognition and better reporting is unclear. Adolescents and adults now account for the majority (67%) of reported cases. They become susceptible to disease when vaccine-induced immunity wanes.
- ◆ In 2004, nine varicella deaths were reported to CDC from eight states. Ages varied from 14 months to 79 years. Five deaths occurred among children aged 14 months to 10 years, and four occurred among adults aged 22–79 years.
- ◆ In 2004, nine varicella deaths were reported to CDC from eight states. In 1999, the Council of State and Territorial Epidemiologists recommended that varicella deaths be reported to CDC to monitor the impact of routine varicella vaccination on varicella-related mortality. The reporting of varicella deaths is incomplete, limiting the usefulness of mortality data in assessing the impact of the varicella vaccination program.

To access the complete *Summary*, and those publications from previous years, go to: <http://www.cdc.gov/mmwr/summary.html>.



## Birth Registrars Play a Critical Role in the ImmTrac Newborn Consent Process

*Article written by Cheryl Seeman, Program Specialist, ImmTrac, Department of State Health Services*

ImmTrac staff recently visited birth registrars at hospitals and birthing facilities with a low performance rate in the implementation of the ImmTrac newborn consent process, which is available through the Texas Electronic Registrar birth registration system.

ImmTrac consent at birth registration is necessary to ensure a high client population and to improve data quality in ImmTrac as well as in local registries with which immunization data is exchanged. Increasing client participation in ImmTrac is also an important part of the statewide initiative to raise immunization coverage levels for the children of Texas. Recent analyses of newborn consent data indicate that 94% to 96% of parents of newborns choose to grant consent when offered the opportunity to enroll their newborn child in ImmTrac. As one of the first contacts with mothers and their newborns, birth registrars have the unique opportunity to offer new parents the option to register their little Texan for participation in this free immunization registry service.

Although it is also required by Texas law (Health and Safety Code - Chapter 161, §161.007), DSHS must offer parents of newborns the opportunity to “grant” or “deny” consent for ImmTrac participation, many hospitals, including several large hospitals in major metropolitan areas, have not implemented the recommended ImmTrac newborn consent process. This has significantly impacted enrollment of newborns in ImmTrac. To resolve this problem, ImmTrac Group staff, along with staff from the Department StateHealth Services health service regions and local health department immunization programs, conducted visits and meetings with birth registrars and health information management personnel at over 20 of the low-performing hospitals in the Houston, San Antonio, and Dallas/Ft. Worth areas in late March and early April. The objectives for the visits were to:

- ◆ Educate the birth registrars and hospital administrators about the Registry and the benefits of participation for the child and family,
- ◆ Explain the newborn consent process and the importance of the birth registrar’s role in the process,
- ◆ Encourage hospitals and birthing centers to implement the process or improve their compliance rate,
- ◆ Offer and provide ongoing technical assistance and support, and
- ◆ Share “best practices” collected from a phone survey conducted with 20 high-performing facilities.

While the results of this collaborative education effort will likely not be completely evident

until late Summer or early Fall, preliminary ImmTrac consent compliance statistics for the first quarter of 2006 indicate that previously low-performing facilities which were low-performing in 2005 have already significantly increased their compliance rate.

For more information about this initiative, please contact Ms. Adriana Rhames, ImmTrac Program Specialist, Immunization Branch, at (512) 458-7111 Ext. 2924 or (800) 252-9152 or via e-mail: [Adriana.Rhames@dshs.state.tx.us](mailto:Adriana.Rhames@dshs.state.tx.us).

## ImmTrac, the Texas Immunization Registry - Statistics

Article written by Karen Black, Program Specialist, ImmTrac, Department of State Health Services

As of June 1, 2006, ImmTrac has:

- ◆ Over 2,600 active online user sites
- ◆ Over 53 million immunization records in ImmTrac
- ◆ Over 5.2 million Texas children participating in ImmTrac
- ◆ Over two million children are under age six

**Other statistics:**

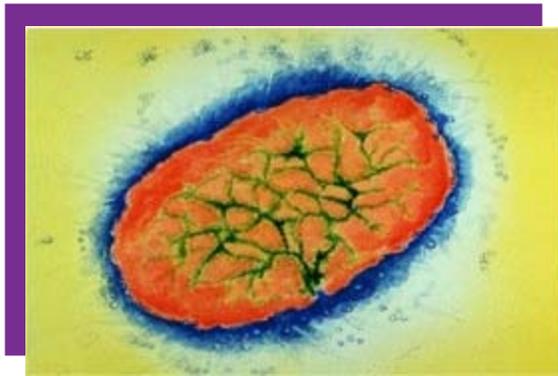
- ◆ In 2005, more than 1,000,000 immunizations were reported to ImmTrac online.
- ◆ An average of 20,000 immunization histories are generated from ImmTrac each month.

Texas Law requires that all healthcare providers report to ImmTrac all vaccines administered to a child younger than 18 years of age, within 30 days from the time of administration. Healthcare providers who do not report to ImmTrac vaccines they administer to a child, **are not** in compliance with Texas law.

ImmTrac offers three options for reporting immunizations: Direct Online Entry via the ImmTrac web application; Electronic Data Transfer (exporting from Electronic Medical Records or other software for importing of data into ImmTrac), or; for providers with no computer or Internet access, the ImmTrac Paper Reporting Form. Prior to reporting immunizations, all healthcare providers **must register** with ImmTrac for access to the Registry application.

For an ImmTrac registration packet or additional information on reporting, please visit <http://www.ImmTrac.com> or call ImmTrac Customer Support at (800) 348-9158.

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## Pertussis Overview for Healthcare Providers

*Article written by Susan Beslisle, RN, Immunization, Branch Department of State Health Services*

Two new vaccines have recently been placed on the market. Tetanus, diphtheria, and pertussis, and for adolescents and adults, Tdap, Which is to be used as one Td booster. This vaccine, Tdap, is designed primarily decrease the number of adolescents and adults who may spread pertussis (whooping cough). These groups can pass it on to infants who are not fully immunized yet. Children who are too young to be fully vaccinated and those who have not completed the primary vaccination series are at highest risk for severe illness and hospitalization. Like measles, pertussis is highly contagious with up to 90% of susceptible household contacts developing clinical disease following exposure to a known case. Adolescents and adults become susceptible when immunity wanes.

Pertussis is a respiratory bacterial disease, *Bordetella pertussis*, a gram-negative coccobacillus, which is vaccine-preventable. Prolonged coughing is one of the first signs. The severe spasms of coughing can last for several weeks or even for months. Major complications are most common among infants and young children and include hypoxia, apnea, pneumonia, seizures, encephalopathy, and malnutrition.

Young children can die from pertussis. Pertussis also occurs in adults but they may not have the whooping sound that is often present in children. Posttussive vomiting may be present in adolescents and adults.

Pertussis is usually spread from person-to-person through close contact with respiratory droplets released when a person coughs or sneezes. Before the introduction of the vaccine in the 1940s, pertussis was a major cause of serious illness and death among infants and young children in the United States.

In 2003, thirteen children died in the United States from pertussis. Most deaths occur among unvaccinated children or children too young to be fully vaccinated. An average of more than 160,000 cases of pertussis and more than 5,000 deaths are due to pertussis are reported every year in the 1920s-30s. At its peak during this period, the annual number of case-reports was more than 250,000 with up to 9,000 deaths. In the 1940s, whole-cell pertussis vaccine combined with diphtheria and tetanus toxoids (DTP) was introduced, and case-reports of pertussis decreased more than 99% by 1976, when the number of reported cases reached a record-low of 1,010 cases.

An increasing number of cases of pertussis have been reported to the CDC since the 1980s. The increases are greatest among adolescents (aged 10-19 years), but an increase is also seen among infants younger than five months old.

Infants under the age of 12 months have more serious illness from pertussis and are more likely to have complications and be hospitalized than persons in other age groups. In the 1990s, about two thirds of infants reported with pertussis were hospitalized. Infants are more likely to have pneumonia and convulsions. Infants also are at greatest risk of fatal pertussis. In recent years, 15 to 21 infant deaths from pertussis are reported to CDC annually.

In the U.S., DTaP (diphtheria and tetanus toxoids and acellular pertussis vaccine).is safe and effective, and prevents severe pertussis and death among infants and young children. The best way to protect

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infants from pertussis is to give DTaP vaccine starting on time at two months of age. Parents should vaccinate their infant on time (at 2, 4, and 6 months of age) and complete all the recommended doses of DTaP vaccine to best protect their infant.

At least three DTaP doses are needed to have the maximum benefit from the vaccination but even one or two doses of DTaP will provide some protection against pertussis. Parents are urged to make sure their infant receives these doses on time. Vaccine may be used up to age seven. A child may receive the new Tdap from age 10-11 and on. There are two products currently available and they have different ages they apply to. Please see the package insert for instructions. Also check with the current 2006 ACIP Recommendations for Immunizations at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5451-1immunizationa1.htm>.

Parents can also help protect their very young infants by minimizing exposure (close contact) with persons who have cold symptoms or cough illness. Coughing people of any age, including parents, siblings and grandparents can have pertussis. When a person has cold symptoms or cough, they should stay away from young infants as much as possible.

The challenges to protecting our most susceptible population are many. Understanding pertussis pathogenesis and immunity; protecting infants from severe pertussis; control of pertussis outbreaks; diagnosing pertussis in a timely, accurate, and standardized fashion; understanding the true burden of disease in different age and socioeconomic groups; evaluating the impact of a licensed pertussis vaccine in persons > 14 years of age; evaluating the impact of acellular vaccines on prevention programs; and determining the prevalence of erythromycin-resistant B. pertussis.

Many times the providers wait until the culture comes back to treat the patient while the patient continues to expose others. If the patient has come into direct contact with a confirmed case, has the appropriate symptoms and it has not passed the appropriate time for treatment, they should receive treatment, even before cultures are back. All other individuals that are close contacts should be treated prophylactic ally.

For additional information see CDC's website: <http://www.cdc.gov/nip/diseases/pertussis/faqs.htm>

## Diagnosis and Testing

All suspected cases of pertussis should have a nasopharyngeal aspirate or swab obtained for culture from the posterior nasopharynx.

Nasopharyngeal swab specimens are obtained using a Dacron™ (not cotton) swab inserted slowly through the nostril to the posterior pharynx. Ideally the swab is left in the posterior pharynx for 10 seconds before withdrawing.

Aspirates are also better to use if another diagnostic test Polymerase Chain Reaction (PCR) is to be performed on the same specimen. Serologic tests have been used in epidemiologic investigations, but are not yet available for routine clinical use. See the CDC website for more information regarding diagnosis and testing. <http://www.cdc.gov/nip/>

## Best Practices

*Article written by: Sonna Sanders, Department of State Health Services Regional Manager*



During the month of May 2006, the Granbury Field Office experimented with the use of laptops at their remote sites. Staff successfully achieved internet connection at 80% of these rural sites. This was accomplished by using accelerated dial-up with a cell phone as a modem. A broadband card could be used to increase the connection rate, making the use of laptops even more productive.

As parents frequently present incomplete immunization records, having on site access to TWICES and ImmTrac significantly reduced the

number of unnecessary vaccines administered. In two weeks, during five satellite clinics staff saved approximately \$420.00 in vaccine dollars by not administering unneeded doses.

Additional cost savings occurred as staff directly entered data into TWICES in “real time”, allowing staff to complete other duties upon the return to their office.

Outlook may also be accessed while in the field, allowing instant access to all field offices in an emergency situation. Managers would be able to

communicate with all field offices quickly by e-mail rather than placing numerous calls to individual cell phones. Field office staff would have access to regional calendars and the ability to locate and communicate with supervisors and staff in an efficient manner.

Does your office or organization have an innovative way to make your vaccine program be more cost-effective or efficient? Share your best practices with us by sending us an e-mail to [Maria.Maldonado@dshs.state.tx.us](mailto:Maria.Maldonado@dshs.state.tx.us).

## Janice Lovett



My name is Janice Lovett and I am a Public Health Technician, Immunization Compliance Specialist with the Immunization Branch of the Department of State Health Services (DSHS). I first worked for the State as an Administrative Fraud investigator with the Office of Inspector General in September 1997. I have worked for the State for almost nine years. Most of that time I have worked in Legal Services. I became a paralegal in June of 2003 while working for the Department of Aging and Disability Services but chose to continue as an Administrative Assistant. Prior to coming to the Immunization Branch, I worked in Cancer Epidemiology as an Administrative Assistant for eight months. Working in

the Cancer Registry gave me the desire to become a Public Health Technician and paved the way for my coming to Immunizations. I am really impressed with the fine people here and hope to make a difference along the way.

I was born a native Texan and raised in the Houston area. I transferred to Austin in 1999. My husband, Wells, is a cancer survivor and he always wanted to live in the Hill Country. We have been happily married for nineteen years. I have two sons and he has two daughters.

## Michael Williams



I joined the ImmTrac group on June 1, 2006. I am extremely excited about coming to the agency and being able to work for such an important branch. My job responsibilities include conducting orientations for new users, assisting clients with immunization history request, and providing web application assistance to ImmTrac users and other customer support activities.

My technical and customer support experience includes working for several companies in the private sector. I am a 10 year veteran of the United States Armed Forces and have three beautiful children ages 17, 14 and 9. My wife Sharma Hill-Williams is also an employee of DSHS.

I am very appreciative of the warm welcome and transition assistance into the new work environment provided by the Immtrac Staff.

# Up Shot

## Red Book® Online Table – *NEW*

### Status of Licensure and Recommendations for New Vaccines\*

Vaccine	Manufacturer	BLA submitted to FDA	BLA age indications**	FDA licensure	Status of AAP/CDC recommendations***
MCV4 (Menactra®)	sanofi pasteur	Dec-2003	11-55 years of age	Licensed 14-Jan-05	<a href="http://aappolicy.aappublications.org/cgi/content/full/pediatrics;116/2/496">AAP: aappolicy.aappublications.org/cgi/content/full/pediatrics;116/2/496</a> <a href="http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5407a1.htm">CDC: www.cdc.gov/mmwr/preview/mmwrhtml/rr5407a1.htm</a>
		Supplement to original BLA March 2005	2-10 years of age	To be reviewed	Pending FDA licensure
Varicella virus second dose (Varivax®)	Merck	Supplement to original BLA: second dose	children 12 months to 12 years of age (3 month minimum interval)	Licensed 5-Apr-05	<a href="http://www.cdc.gov/nip/vaccine/varicella/varicella_acip_recs_prov_june_2006.pdf">ACIP: www.cdc.gov/nip/vaccine/varicella/varicella_acip_recs_prov_june_2006.pdf</a> AAP Recommendation: Pending
Tdap (BOOSTRIX®)	GlaxoSmithKline (GSK)	Jul-2004	10-18 years of age	Licensed 3-May-05	<a href="http://aappolicy.aappublications.org/cgi/content/full/pediatrics;117/3/965">AAP: aappolicy.aappublications.org/cgi/content/full/pediatrics;117/3/965</a> <a href="http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5503a1.htm">CDC: www.cdc.gov/mmwr/preview/mmwrhtml/rr5503a1.htm</a>
Tdap (ADACEL™)	sanofi pasteur	Aug-2004	11-64 years of age	Licensed 10-Jun-05	<a href="http://aappolicy.aappublications.org/cgi/content/full/pediatrics;117/3/965">AAP: aappolicy.aappublications.org/cgi/content/full/pediatrics;117/3/965</a> <a href="http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5503a1.htm">CDC Adolescent: www.cdc.gov/mmwr/preview/mmwrhtml/rr5503a1.htm</a> <a href="http://www.cdc.gov/nip/vaccine/tdap/tdap_adult_recs.pdf">ACIP Adult: www.cdc.gov/nip/vaccine/tdap/tdap_adult_recs.pdf</a> ACIP in Pregnancy Recommendation: Pending
MMRV (ProQuad®)	Merck	Aug-2004	Same as for MMR dose 1 or dose 2; 12 months to 12 years	Licensed 6-Sep-05	<a href="http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5447a4.htm">CDC: www.cdc.gov/mmwr/preview/mmwrhtml/mm5447a4.htm</a>
Hepatitis A (VAQTA®)	Merck	Supplement to original BLA	greater than or equal to 12 months	Licensed 15-Aug-05	<a href="http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5507a1.htm">CDC: www.cdc.gov/mmwr/preview/mmwrhtml/rr5507a1.htm</a>
Hepatitis A (HAVRIX®)	GlaxoSmithKline (GSK)	Supplement to original BLA	greater than or equal to 12 months	Licensed 18-Oct-05	<a href="http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5507a1.htm">CDC: www.cdc.gov/mmwr/preview/mmwrhtml/rr5507a1.htm</a>
Rotavirus (ROTATEQ®)	Merck	Apr-2005	2, 4, and 6 months of age	Licensed 3-Feb-06	<a href="http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5512a1.htm">CDC: www.cdc.gov/mmwr/preview/mmwrhtml/rr5512a1.htm</a> AAP Recommendation: Pending
Herpes zoster vaccine (ZOSTAVAX®)	Merck	Apr-2005	Greater than or equal to 60 years	Licensed 25-May-06	Pending ACIP Recommendations
Influenza (FLUARIX™)	GlaxoSmithKline (GSK)	May-2005	18 years of age and older	Licensed 31-Aug-05	<a href="http://www.cdc.gov/mmwr/preview/mmwrhtml/rr55e628a1.htm">ACIP: www.cdc.gov/mmwr/preview/mmwrhtml/rr55e628a1.htm</a>
Influenza (FluLaval™)	GlaxoSmithKline (GSK)	Mar-2006	18 years of age and older	To be reviewed	Pending FDA licensure
HPV (GARDASIL®)	Merck	Dec-2005	9-26 years of age (3 doses)	Licensed 08-Jun-06	Approved, ACIP & AAP recommendations: Pending
HPV (Cervarix™)	GlaxoSmithKline (GSK)	Last quarter 2006	Pending submission	Pending BLA submission	Pending FDA licensure
Hib/DTaP/IPV (PENTACEL™)	sanofi pasteur	Jul-2005	2, 4, 6, and 15 to 18 months	To be reviewed	Pending FDA licensure
CAIV-T (FluMist®)	MedImmune	Jul-2006	6 months to 49 years	To be reviewed	Pending FDA licensure

Table updated 8/14/06

BLA = biologics license application, VRBPAC = Vaccines and Related Biological Products Advisory Committee, FDA = Food and Drug Administration  
AAP = American Academy of Pediatrics, ACIP = Advisory Committee on Immunization Practices, MCV4 = Meningococcal conjugate vaccine  
MMRV = measles, mumps, rubella, varicella, Tdap = Tetanus Toxoid, Reduced Diphtheria Toxoid and Acellular Pertussis Vaccine, adsorbed  
HPV = human papillomavirus vaccine, Hib = Haemophilus influenzae b, DTaP = Diphtheria, Tetanus and Pertussis, IPV = Inactivated Poliovirus Vaccine,  
CAIV-T = Cold adapted influenza vaccine-trivalent

\* information from vaccine manufacturers, from ACIP meetings and from AAP

\*\* age licensure can change following FDA review; not final until package insert approved

\*\*\* ACIP recommendations do not become official until approved by the CDC Director and Department of HHS and publication in MMWR

For an updated table, go to: <http://aapredbook.aappublications.org/news/vaccstatus.shtml>



## The 2007 Immunization Coloring Calendar

*Article by Markel Rojas,  
Immunization Branch Program  
Specialist, Department of State  
Health Services*

An effective, and fun, keepsake to remind parents to immunize their children on a timely basis has been developed by the PiET Group. The Parent/Child Coloring Calendar is a bilingual (English/Spanish) eighteen-month calendar (January 2007 to June 2008) replacing the individual coloring sheets. The calendar will be available in the Fall for distribution through the Health Service Regions. All available stock will be distributed at that time. Along with the calendars, we will distribute colorful bilingual posters to be posted in the clinic waiting area to advertise the calendars.

In brief, simple “clips,” the calendar tells a story, leading the child through the reasons

for immunizations and through the vaccination process. Each month facing sheet is a coloring page for the child, each sheet contributing to the story line. The letter to parents explains the purpose and uses for the calendar. The immunizations schedule indicates to parents the timelines for vaccinations. Stickers are part of the calendar package—they may be used to mark the vaccination due dates on the appropriate date. It includes tips for parents and a description of the 15 vaccine-preventable diseases. A drop sheet for the inside back cover, featuring the logo: *Vaccines: Build Your Child’s Health*, includes space for recording the physician’s name and telephone number, subtly encouraging the concept of a “*medical home*.” It also includes our 800 number and our website address. References are made to our other services, e. g., *ImmTrac* and *Vaccines for Children*.

Staff from various disciplines and locations contributed to the development of the calendar: concept, artwork, testing, surveys, etc. Testing for the acceptability and effectiveness of the calendar was conducted through surveys in three areas: Dallas, Houston and San Antonio. The response was overwhelmingly positive! The calendar is a result of our joint efforts—real teamwork! Our thanks to all who contributed to the development of the calendar.

The *UpShot Online* is published quarterly by the Texas Department of State Health Services Immunization Branch. To submit your comments and suggestions or to be notified by e-mail when the next issue is posted, please contact [Maria.Maldonado@dshs.state.tx.us](mailto:Maria.Maldonado@dshs.state.tx.us). For instructions on how to submit articles, please call (512) 458-7111, extension 2194.