VaxFacts

Immunization Review

Volume 7 Winter 2012

To achieve its goal of preventing disease, disability and death from vaccine-preventable diseases the Connecticut Department of Public Health Immunization Program:

- Provides vaccine to immunization providers throughout the state;
- Provides education for medical personnel and the general public;
- Works with providers using the immunization registry to assure that all children in their practices are fully immunized;
- Assures that children who are in day care, Head Start, and school are adequately immunized;
- Conducts surveillance to evaluate the impact of vaccination efforts and to identify groups that are at risk of vaccine-preventable diseases.

Connecticut Ranks in Top Three States for Health Ranking, Up From 4th in 2010

According to the latest national survey by the United Health Foundation, Connecticut is the third healthiest state in the nation in 2011, up one spot from last year.

The annual report, *America's Health Rankings: A Call to Action for Individuals and Their Communities*, focuses on four groups of health determinants: behaviors, community and environment, public and health policies, and clinical care, along with resultant health outcomes to come up with a single, comprehensive view of the overall health of each state.

"Connecticut's ranking as the third healthiest state in the nation is good news, and shows that the efforts of public health agencies, health care professionals, policymakers and others who are committed to a healthy Connecticut are working," said Department of Public Health Commissioner Dr. Jewel Mullen. "The America's Health Ranking report provides important insight into our health status, and challenges us to build on our successes to make Connecticut even healthier - especially among population groups experiencing the greatest burden of disease in our state."

The report identified Connecticut's low prevalence of smoking, lower prevalence of obesity than most other states, low percentage of children in poverty, and **high immunization coverage as strengths**. Challenges identified in the report were high prevalence of binge drinking and moderate levels of air pollution. Vermont and New Hampshire were respectively ranked above Connecticut as the top two healthiest states in the nation.

America's Health Rankings is the longest running annual assessment of the nation's health on a state-by-state basis. *America's Health Rankings* is the result of a partnership between the United Health Foundation, the American Public Health Association and Partnership for Prevention. The report can be viewed online at www.americashealthrankings.org.

Inside This Issue:

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(860) 509-7929 www.ct.gov/dph/immunizations Commissioner Jewel Mullen, MD, MPH, MPA

CIRTS Update

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Revised 12/20/2011

Congratulations to the Following Practices for Achieving a ≥ 95 - 100% Immunization Rate on CIRTS Enrolled Children Born in 2008

BANACK, SHERRY
BUSH, SPEIGELMAN, PEMBERTON, ROBERT
CALNEN, GERALD
COMMUNITY HEALTH CENTER/NORWALK
CT VALLEY PEDIATRIC CENTER
EAST AVENUE PEDIATRICS
ENFIELD PEDIATRIC ASSOCIATES
ESLICK, MARY
FARMINGTON PEDIATRIC & ADOLESCENT MEDICINE
FLANDERS PEDIATRICS
FOUNTAS, DIANE
GARDNER, STUART
GREENWICH HOSPITAL AMBULATORY PEDIATRICS
GROVE HILL/PLAINVILLE
INCHALIK, KENNETH
MANSFIELD FAMILY PRACTICE
NEWINGTON PEDIATRICS
PEDIATRIC & MEDICAL ASSOCIATES/CHESHIRE
PEDIATRIC ASSOCIATES/BRANFORD
PHILLIPS, FOSTER I.
RELIABLE PEDIATRICS
SANTORO, FRED E.
SCHWARTZ, LESTER
STRATFORD PEDIATRICS
SZAJDA, TERESA

Revised 12/20/2011

Congratulations to the Following Practices for Achieving a ≥ 90 - 94% Immunization Rate on CIRTS Enrolled Children Born in 2008

ADADE, ANDREW
AVON PEDIATRICS
BERLIN PEDIATRIC ASSOCIATES
BRIDGEPORT/MONROE PEDIATRIC GROUP/BRIDGEPORT
BRIDGEPORT HOSPITAL PRIMARY CARE
BRANFORD PEDIATRIC & ALLERGY/BRANFORD
BRANFORD PEDIATRIC & ALLERGY/CLINTON
BRANFORD/N BRANFORD PEDIATRICS/N BRANFORD
CCMC/AT CHARTER OAK FAMILY HEALTH CENTER
CENTRAL PEDIATRICS
CHC/CLINTON
CHC/MERIDEN
CHC/MIDDLETOWN
CHC/NEW LONDON
CHILD CARE ASSOCIATES/DANBURY
CHILDREN'S MEDICAL ASSOCIATES
CENTER FOR ADVANCED PEDIATRICS/NORWALK
CENTER FOR PEDIATRIC MEDICINE/DANBURY
CENTER FOR PEDIATRIC MEDICINE/N FAIRFIELD
CURI, MICHAEL
EAST HAVEN PEDIATRICS
ECHN PEDIATRICS/ELLINGTON Site 546
GALAN, LAURENTIU
GUILFORD PEDIATRICS
HIGH RIDGE FAMILY PRACTICE
LAVOIE, RICHARD J.
LEVINE, MICHAEL S.
LITCHFIELD COUNTY PEDIATRICS
MARKOWSKI, JOEL
MARLBOROUGH FAMILY PRACTICE
MERIDEN PEDIATRIC ASSOCIATES
NAUGATUCK PEDIATRICS
NEWTOWN CENTER PEDIATRICS
OPTIMUS HEALTH CARE/FAMILY MEDICAL CENTER
OPTIMUS HEALTH CARE/MAIN STREET PEDIATRICS
PARNES, ROBERT
PATEL & PATEL
PEDIATRIC & ADOLESCENT HEALTH CARE/ANSONIA
PEDIATRIC & ADOLESCENT MEDICINE/CHESHIRE
PEDIATRIC & ADOLESCENT MEDICINE/ORANGE
PEDIATRIC ASSOCIATES/MARLBOROUGH
PEDIATRIC ASSOCIATES/WESTERN CT
PEDIATRIC HEALTH CARE ASSOCIATES/BRIDGEPORT
PEDIATRIC HEALTH CARE ASSOCIATES/HUNTINGTON/SHELTON
PEDIATRIC HEALTH CARE ASSOCIATES/SOUTHPORT
PEDIATRIC HEALTH CARE ASSOCIATES/STRATFORD
PEDIATRIC HEALTH CENTER/DANBURY HOSPITAL
PEDIATRIC MEDICINE/WALLINGFORD
PEDIATRICS PLUS
PEDICORP/WINDSOR
PERSONAL CARE PEDIATRICS
PRIMED PEDIATRICS/TRUMBULL
SHAPIRO, HAROLD
SMART START PEDIATRICS
SOUTHBURY PEDIATRICS
SOUTHINGTON PEDIATRIC ASSOCIATES
SPIESEL/BUTLER/DAVIS
STEIN, NEIL
SOUTHWEST/COMMUNITY HEALTH CENTER/FAIRFIELD
THE CHILD AND FAMILY HEALTH CENTER
TLC PEDIATRICS
TORRINGTON-WINSTED PEDIATRIC ASSOCIATES
TORRINGTON-WINSTED PEDIATRIC ASSOCIATES/WINSTED
TOSCANO, ROBERT
TUNXIS PEDIATRIC & ADOLESCENT MEDICINE
UNIONVILLE PEDIATRIC GROUP
WEST HARTFORD PEDIATRICS
WHITNEY PEDIATRIC & ADOLESCENT MEDICINE
WILDWOOD PEDIATRICS/OLD SAYBROOK
WINDHAM PRIMARY CARE

Recognition based on the following schedule administered on or before the children's 2nd birthday
OK – 4,3,1,2,3,1,2-4:
4 DTaP
3 Polio
1 MMR given on or after first birthday
*2 or more Hib
3 Hep B with one given on or after 24 weeks of age
1 Varicella given on or after first birthday and/or Varicella disease
2 to 4 PCV age appropriately given with one given on or after first birthday
(Based on practices with ≥ 20 CIRTS enrolled children born in 2008.)
**Please note the 2-dose Hib schedule reflects the Hib supply shortage and February 2008 to July 2009 deferment of the Hib booster dose.*

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Q. How can a practice's Electronic Medical Record (EMR) interface with CIRTS in order to attest to Meaningful Use?

Answer: Connecticut's Immunization Registry and Tracking System (CIRTS) is not able to receive messages from EMRs at this time. We are in the process of developing a web-based registry to replace our current DOS-based registry and hope to have the new registry up and running by the middle of 2012. In 2012, DPH will work to facilitate electronic submission of immunization records to CIRTS from EMRs. Some useful links are provided below. Click on the name of the link.

1. Office of the National Coordinator for Health Information
http://healthit.hhs.gov/portal/server.pt/community/healthit_hhs_gov__home/120

2. eHealthConnecticut
http://www.ehealthconnecticut.org/

3 HL7 messaging guidelines
http://www.cdc.gov/vaccines/programs/iis/stds/standards.htm

4. DPH information
www.ct.gov/dph/hite

Invasive Pneumococcal Disease Appears to Be on Decline

In March 2010, the Advisory Committee on Immunization Practices (ACIP) published recommendations for use of a 13-valent Pneumococcal Conjugate Vaccine (PCV13) that included serotypes not in the previously available 7-valent vaccine (PCV7). The table below shows that in Connecticut there were half the number of cases of Invasive Pneumococcal Disease (IPD) due to serotype 19a in 2010 than there were in 2009 after introduction of the PCV13 vaccine. Serotype 19a had been the predominant serotype found in cases of IPD in the past 5 years. It also shows a modest drop in the total number of cases of IPD pre-PCV13 in 2009 to post-PCV13 use in 2010. It should also be noted that PCV13 was not in widespread use until the middle of the year.

Year	PCV7 sero-types*	PCV13 sero-types**	Sero-type 19a	Non-Vaccine/Unknown serotypes	Total No. of Cases***
2000	87	96	2	14	110
2001	42	54	3	9	63
2002	24	36	6	8	44
2003	7	23	7	14	37
2004	2	19	8	12	31
2005	0	27	19	16	43
2006	1	28	22	16	44
2007	0	24	19	12	36
2008	1	21	16	15	36
2009	1	25	16	10	35
2010	3	18	8	12	30

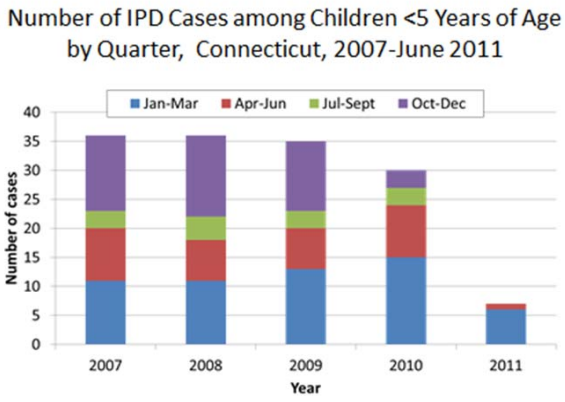
*PCV7 vaccine: Includes serotypes 4, 6B, 9V, 18C, 19F, 23F

**PCV13 vaccine: Includes serotypes 1, 3, 4, 5, 6A, 6B, 7F, 9V, 14, 18C, 19A, 19F, 23F

***Total number of cases equals PCV13 types plus non-vaccine/unknown types

Data obtained from the Connecticut Department of Public Health Epidemiology Program

The graph below shows that starting in the last quarter of 2010 Connecticut has seen a large drop in the number of cases with the trend continuing into 2011.



Centers for Disease Control and Prevention
MMWR
Morbidity and Mortality Weekly Report

ACIP UPDATES

New Advisory Committee on Immunization Practices (ACIP) Recommendations for Tdap Vaccination of Pregnant Women and Others with Close Infant Contact

Maternal vaccination

ACIP recommends that women's healthcare personnel implement a Tdap vaccination program for pregnant women who previously have not received Tdap. Healthcare personnel should administer Tdap during pregnancy, preferably during the third or late second trimester (after 20 weeks' gestation). If not administered during pregnancy, Tdap should be administered immediately postpartum.

Cocooning

ACIP recommends that adolescents and adults (e.g., parents, siblings, grandparents, child-care providers, and healthcare personnel) who have or anticipate having close contact with an infant aged <12 months should receive a single dose of Tdap to protect against pertussis if they have not previously received Tdap. Ideally, these adolescents and adults should receive Tdap at least 2 weeks before beginning close contact with the infant.

The full updated ACIP Tdap recommendation for pregnant women and others with close infant contact is available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6041a4.htm?s_cid=mm6041a4_w

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Pertussis—Connecticut, 2007–2010

Pertussis, or whooping cough, is a highly contagious, and potentially life threatening, vaccine-preventable illness of the respiratory tract caused by the bacterium *Bordetella pertussis*. Illness is characterized by paroxysmal cough, posttussive vomiting, and inspiratory whoop. Persons who are partially immune may experience a mild or moderate cough illness (*1*).

Laboratory confirmation is important to distinguish pertussis from other causes of prolonged cough illness that may require different prevention and control strategies. This report describes the epidemiology of pertussis cases reported to the Connecticut Department of Public Health (DPH) during 2007–2010, and includes some data reported previously to summarize diagnostic testing trends and fluctuations in case counts (*2*).

In Connecticut, suspected pertussis cases are reported to the DPH by physicians via phone and the Reportable Disease Confidential Case Report Form PD-23. Laboratories use the Laboratory Report of Significant Findings Form OL-15C to report positive serologies, cultures, polymerase chain reaction (PCR), and direct fluorescent antibody (DFA) results.

Cases are classified according to the national surveillance case definition (*3*). A probable case is defined as a cough illness lasting >2 weeks in a person with at least one of the following symptoms: paroxysms of coughing, inspiratory “whoop”, or posttussive vomiting and absence of laboratory confirmation, and no epidemiologic linkage to a laboratory-confirmed case of pertussis. A confirmed case is defined as 1) an acute cough illness of any duration with isolation by culture of *B. pertussis* or 2) a case that is consistent with the probable case definition and is confirmed by PCR testing or by epidemiologic linkage to a laboratory-confirmed case. Laboratory criteria for diagnosis include isolation of *B. pertussis* from clinical specimen or positive PCR for pertussis.

During 2007–2010, a total of 309 cases of pertussis were reported to the DPH. Of these, 187 (61%) were confirmed of which, 37 (20%) were confirmed by culture, 129 (69%) by PCR, and 21 (11%) by epidemiologic linkage (Figure 1). Only one positive culture was reported from a non-hospital private lab. The number of hospital laboratories reporting positive pertussis cultures decreased from 6 in 2007, to 2 in 2010. While the percentage of confirmed cases has increased since a low of 21% in 2006, the percentage of cases confirmed by PCR has increased significantly during 2003–2010 ($p<0.01$, chi square for trend). During 2010, the first year lab-specific data were available, 72 positive PCR results were reported from 6 private laboratories to the DPH. Of these, 20 (28%) failed to meet the case definition (the remaining 2 were included in adjacent reporting year cases); 13 of these were reported by the same laboratory. During 2010, 3 laboratories reported 68 (94%) of the PCR positives with one lab reporting 48 (67%) of the total.

Little county-level incidence variation occurred during 2007–2010, other than in Litchfield County during 2010 when 52 cases were reported, an 11-fold rise in incidence compared with the average of the previous 3 years. Most of the cases occurred during the summer months, and leveled off by the end of September. Other than

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Jennifer Hall
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West Haven
Christine Depierro
203-937-3654
Other areas
Debora Jones
860-509-7241

Figure 1. Incidence and numbers of reported pertussis cases by confirmation status and year, Connecticut, 2002-2010.

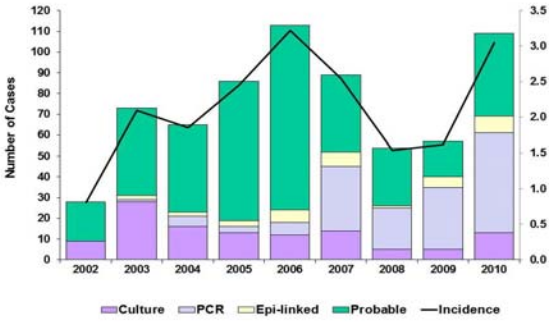
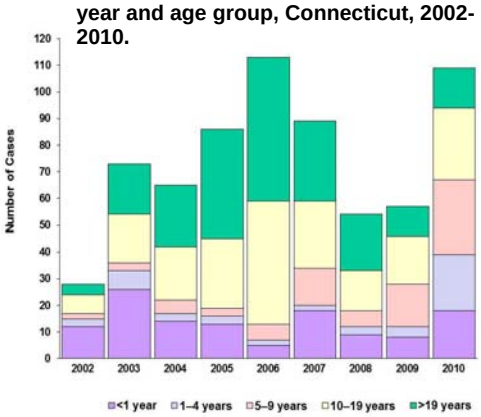


Figure 2. Number of pertussis cases by year and age group, Connecticut, 2002-2010.



(Continued from page 4 Pertussis in CT 2007-2010)
household transmission, none of these cases could be epidemiologically linked to a common setting, such as a school, workplace, or camp. Of the 31 cases with confirmatory testing, 26 (84%) were by PCR performed at a single private laboratory.

Of the 309 cases, 53 (17%) were aged <1 year (including 47 aged <6 months), 30 (10%) were 1–4 years, 64 (21%) were 5–9 years, 85 (28%) were 10–19 years, and 77 (25%) were >20 years (Figure 2). The number of cases among children <10 years of age increased significantly during the 4 year reporting period ($p<0.01$, chi square for trend). Using 2010 population data, the average annual incidence was highest among children <1 year of age (34.9 per 100,000 population), and lower in children aged 1–4 years (4.6), 5–9 years (7.2), 10–19 years (4.3), and >20 years (0.7). During 2007-2010, the statewide average annual incidence was 2.2 cases per 100,000 population.

Race and ethnicity data were analyzed independently. Data on race were available for 265 (86%) cases. Of these, 233 (88%) were white, 7 (3%) black, 5 (2%) Asian/Pacific Islander, 5 (2%) American Indian/Alaska Native, and 15 (6%) were identified as "other race." Data on ethnicity were available for 249 (81%) cases. Of these, 51 (20%) were Hispanic. Of infants <1 year of age with known ethnicity, 25 (53%) were Hispanic.

Of the 309 cases, 44 (14%) were hospitalized, of which 35 (80%) were <6 months of age. Pneumonia was radiographically confirmed in 13 cases. The median length of hospital stay was 4 days, no deaths were reported, and there was one report of seizures associated with pertussis.

Reported by

K Kudish DVM, MSPH, Immunizations Program; Connecticut Department of Public Health.

Editorial

The overall incidence of pertussis in the United States has been increasing steadily since 2007 and surpassed peak rates observed during 2005; an increased incidence among younger age groups was also observed during recent years (4). Similar increases were seen in Connecticut. Compared with older age groups, infants continued to have the highest reported incidence of pertussis, with a higher proportion reported in Hispanic infants.

Diagnostic testing for pertussis remains challenging. Culture is specific and considered the gold standard but is not sensitive. PCR is more sensitive but PCR

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(Continued from page 5 Pertussis in CT 2007-2010)

assays for pertussis are not standardized across clinical laboratories. Testing methods, DNA targets used, and result interpretation criteria vary, and laboratories do not use the same cutoffs for determining a positive result. High PCR-cycle threshold values indicate low levels of amplified DNA, which may indicate infection but can also be the result of specimens contaminated with DNA from the environment. In addition, most clinical laboratories use a single target PCR for IS481, which is present in multiple copies in *B.pertussis* and in lesser quantities in *B. holmesii* and *B. bronchiseptica*. Because this DNA sequence is present in multiple copies, IS481 is especially susceptible to falsely-positive results. Use of multiple targets may improve specificity of PCR assays for pertussis (*5*).

PCR-confirmed cases contribute an increasing proportion of the total number of reported confirmed cases (14% during 2002–2006 compared with 69% during 2007–2010) (*2*). Moreover, many cases confirmed by epidemiologic linkage to laboratory-confirmed cases are linked to PCR-confirmed cases, potentially multiplying the contribution of PCR testing to the overall number of cases reported. Because the majority of PCR testing is performed at just a few clinical laboratories, there is the potential for a major impact on pertussis surveillance in Connecticut based on the PCR testing method employed; at least 2 of the 3 labs reporting 94% of the PCR positive pertussis cases have a disclaimer stating that the PCR methodology does not distinguish between *B. pertussis* and *B. holmesii*. Since *B. holmesii* can cause a pertussis-like illness, it is unknown to what extent these reports might impact surveillance data.

References

1. Edwards KE, Decker MD. Pertussis vaccine. In: Plotkin SA, Orenstein WA, eds. Vaccines. Philadelphia, PA: WB Saunders; 2004:471--528.

2. Kudish K, Hadler J. Pertussis—Connecticut, 2002–2006. Connecticut Epidemiologist. 2007:27(3).

3. Centers for Disease Control and Prevention. Pertussis (Whooping Cough) 2010 case definition. Available at www.cdc.gov/osels/ph_surveillance/nndss/casedef/pertussis_current.htm.

4. Centers for Disease Control and Prevention. Pertussis (Whooping Cough) Surveillance & Reporting. Available at www.cdc.gov/pertussis/surv-reporting.html.

5. Centers for Disease Control and Prevention. Best Practices for Health Care Professionals on the use of Polymerase Chain Reaction (PCR) for Diagnosing Pertussis. www.cdc.gov/pertussis/clinical/diagnostic-testing/diagnosis-pcr-bestpractices.html.

Protecting Infants From Pertussis: Results of a Survey of Pertussis Vaccine Use at Connecticut Birth Hospitals

Rates for pertussis-related complications and fatalities are highest in early infancy. Parents with pertussis, including new mothers, are the identified source of *Bordetella pertussis* infection in >25% of pertussis cases (*1*). Pertussis vaccine for adolescents and adults, known as tetanus-diphtheria-acellular pertussis (Tdap), was licensed in 2005 for one time use. In 2008, the Advisory Committee on Immunization Practices (ACIP) published recommendations that included a dose of Tdap for close contacts of newborns who have not previously been vaccinated, preferably before hospital discharge for postpartum mothers (*1*). The strategy behind the recommendation is known as "cocooning." Cocooning is intended to protect infants from becoming infected with highly contagious pertussis (whooping cough) by vaccinating family members who have close contact with them.

In 2008, the Connecticut Department of Public Health (DPH) Immunization Program established the Tdap Cocoon Program. The program's goal is to facilitate the ACIP recommendation to vaccinate new mothers with Tdap. The DPH recognized that the cost of Tdap is seen as prohibitive by hospitals because this vaccine has not yet been bundled into maternity charges covered by Medicaid or by many insurance plans. The Tdap Cocoon Program has also made Tdap available to fathers and age-eligible infant contacts (i.e., siblings, adoptive parents, grandparents, infant caregivers) as well as hospital health care workers. The vaccine is available free of cost to birth hospitals and participating referral sites. Vaccination of family members is accomplished primarily through a network of hospital referrals to pre-arranged sites.

To gain a better understanding of current practice at both participating and non-participating hospitals, and to estimate Tdap coverage in 2011 among postpartum women statewide, a survey of birth hospitals was conducted by the DPH. The survey was conducted by telephone with the postpartum nurse manager and in some cases, a hospital pharmacist. Data for Tdap

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CHILDHOOD IMMUNIZATION CHAMPION AWARD

2012 will mark the inaugural presentation of the *CDC Childhood Immunization Champion Awards*. The CDC will honor up to one immunization *Champion* from each of the 50 states and the District of Columbia. If you have a champion in mind, see the site below. You will find all nomination materials, award and eligibility criteria, and the deadlines associated with the award.
http://www.cdc.gov/vaccines/events/niiw/champions/childhood.html

If you know of someone who is deserving of this award, please complete the nomination form and return it via mail fax or e-mail by **February 10, 2012** to:

Mail:
Vincent Sacco
Immunization Program Manager
Connecticut Department of Public Health
410 Capitol Ave. MS #11 MUN
Hartford, CT 06134

Fax:
860-509-7945
Attention: Vincent Sacco

E-mail: Vincent.sacco@ct.gov

(Continued from page 7 Protecting Infants)
doses administered from Tdap Cocoon Program order forms were also utilized for participating hospitals.

All 28 birth hospitals in Connecticut participated in the survey, although complete data were not available from all hospitals. Of the 28 hospitals, 26 (93%) reported offering Tdap to postpartum patients, but this total includes 2 hospitals not yet routinely offering vaccine to all patients. At the time of the survey, 20 hospitals were participating in the Tdap Cocoon Program, with an additional 6 hospitals privately purchasing vaccine.

An immunization coverage rate for 2011 was calculated for program participants (n=20) based upon the number of Tdap doses administered to postpartum patients divided by the number of live births during the same time period (submitted monthly on the Tdap order form) and similarly for non-program participants based upon survey data (n=3). During 2011, the mean Tdap immunization rate for postpartum patients was 62% (confidence interval 53%–71%; median 62%, range 10%–91%). This rate represents 12,442 doses administered out of 20,901 live births. No attempt was made to correct for the impact on the coverage rate of past receipt of Tdap or multiple births.

T-tests were performed to examine hospital characteristics related to higher mean Tdap immunization rates including newborn hospital care level, inclusion of Tdap as part of the standard and/or default patient order sets, vaccine education documents used, who was responsible for discussing Tdap with patients, and recording the reason for patient refusal. One variable approached statistical significance; recording the reason for patient refusal of Tdap (one tailed p=0.05).

No hospitals reported vaccinating other family members or close contacts of the newborn at the postpartum unit. Of all hospitals included in the survey, 6 (21%) reported referring family members to an on-site hospital clinic for vaccination, (including a pediatric, occupational health (*2*), primary care, employee health, or walk-in clinic), 8 (29%) to a local health department for vaccination, and 2 (7%) to a Visiting Nurses Association. The remaining hospitals refer contacts to their primary care doctor or community health center.

Reported by

K Kudish DVM, MSPH, D Wurm, MPH, Immunizations Program; Connecticut Department of Public Health.

Editorial

Several studies reported Tdap immunization rates from a limited number of hospitals in postpartum patients. Rates ranged from 72%–86% (*2,3*) but to our knowledge a review in the literature of this size has not yet been published. We did not attempt to determine Tdap coverage in other infant contacts due to the difficulty of obtaining this information. Due to legal and logistical complexities, hospitals are limited in their abilities to vaccinate individuals who are not their patients. Referral systems are one way to vaccinate infant contacts but introduce a different set of barriers to vaccination. One such barrier is that not all primary care physicians stock Tdap; one study found that 83% of primary care physicians stocked Tdap vaccine in 2009 (*4*). It is not known if maternal Tdap vaccination only is protective for the newborn (i.e., incomplete cocooning).
In June 2011, the ACIP voted to preferentially recommend Tdap during

(Continued on page 8)

(Continued from page 4 ACIP Updates)

Recommendations on the Use of Quadrivalent Human Papillomavirus Vaccine in Males — Advisory Committee on Immunization Practices (ACIP), 2011

On October 25, 2011, the Advisory Committee on Immunization Practices (ACIP) recommended routine use of quadrivalent human papillomavirus (HPV) vaccine (HPV4; Gardasil, Merck & Co. Inc.) in males aged 11 or 12 years. ACIP also recommended vaccination with HPV4 for males aged 13 through 21 years who have not been vaccinated previously or who have not completed the 3-dose series; males aged 22 through 26 years may be vaccinated. These recommendations replace the October 2009 ACIP guidance that HPV4 may be given to males aged 9 through 26 years. For these recommendations, ACIP considered information on vaccine efficacy (including data available since October 2009, on prevention of grade 2 or 3 anal intraepithelial neoplasia [AIN2/3], a precursor of anal cancer), vaccine safety, estimates of disease and cancer resulting from HPV, cost-effectiveness, and programmatic considerations. The evidence for HPV4 vaccination of males was evaluated using Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) methods. The full statement is available at: www.cdc.gov/mmwr/preview/mmwrhtml/mm6050a3.htm

Use of Hepatitis B Vaccinations for Adults with Diabetes Mellitus: Recommendations of the Advisory Committee on Immunization Practices (ACIP)

Hepatitis B virus (HBV) causes acute and chronic infection of the liver leading to substantial morbidity and mortality. In the United States, since 1996, a total of 29 outbreaks of HBV infection in one or multiple long-term–care (LTC) facilities, including nursing homes and assisted-living facilities, were reported to CDC; of these, 25 involved adults with diabetes receiving assisted blood glucose monitoring (CDC, unpublished data, 2011). These outbreaks prompted the Hepatitis Vaccines Work Group of the Advisory Committee on Immunization Practices (ACIP) to evaluate the risk for HBV infection among all adults with diagnosed diabetes. The Work Group reviewed HBV infection–related morbidity and mortality and the effectiveness of implementing infection prevention and control measures. The strength of scientific evidence regarding protection was evaluated using the Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) methodology, and safety, values, and cost-effectiveness were incorporated into a recommendation using the GRADE system. Based on the Work Group findings, on October 25, 2011, ACIP recommended that all previously unvaccinated adults aged 19 through 59 years with diabetes mellitus (type 1 and type 2) be vaccinated against hepatitis B as soon as possible after a diagnosis of diabetes is made (recommendation category A). Data on the risk for hepatitis B among adults aged ≥60 years are less robust. Therefore, ACIP recommended that unvaccinated adults aged ≥60 years with diabetes may be vaccinated at the discretion of the treating clinician after assessing their risk and the likelihood of an adequate immune response to vaccination (recommendation category B). The full statement is available at:
www.cdc.gov/mmwr/preview/mmwrhtml/mm6050a4.htm?s_cid=mm6050a4_x

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pregnancy, and to administer in the immediate postpartum period if not given before that time. The full ACIP statement was published in October. The American College of Obstetrics and Gynecology is expected to endorse the new recommendation.

References

1. Prevention of Pertussis, Tetanus, and Diphtheria Among Pregnant and Postpartum Women and Their Infants : Recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2008;57(04):1-47,51.

2. Healy CM, Rench MA, Castagnini LA, Baker CJ. Pertussis immunization in a high-risk postpartum population. Vaccine. 2009 Sep 18;27 (41):5599-602. Epub 2009 Jul 30.

3. Healy CM, Rench MA, Baker CJ. Implementation of cocooning against pertussis in a high-risk population. Clin Infect Dis. 2011 Jan 15;52 (2):157-62.

4. Freed GL, Clark SJ, Cowan AE, Coleman MS. Primary care physician perspectives on providing adult vaccines. Vaccine. 2011 Feb 17;29 (9):1850-4. Epub 2011 Jan 7.

5. Updated Recommendations for Use of Tetanus Toxoid, Reduced Diphtheria Toxoid and Acellular Pertussis Vaccine (Tdap) in Pregnant Women and Persons Who Have or Anticipate Having Close Contact with an Infant Aged <12 Months --- ACIP, 2011. MMWR. 2011; 60(41):1424-1426.