



CONNECTICUT DEPARTMENT OF PUBLIC HEALTH IMMUNIZATION PROGRAM
IMMUNIZATION ACTION PLAN

Governor: M. Jodi Rell

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L A A



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T I M E



Vaccines Save Lives, Save Dollars

Immunization programs have not only resulted in dramatic decreases in morbidity, disability and mortality but have done so at substantial cost savings.

Routine childhood immunization with the vaccines included in the 4:3:1:3:3:1* series results in a net direct cost savings of ~ \$10 billion and a net societal savings of \$43 billion. For every dollar spent, immunization programs save more than \$5 in direct costs and ~ \$11 in additional costs to society.

This is according to a study of a hypothetical 2001 US birth cohort of 3.8 million infants followed-up from birth to death. The study used population-based vaccination coverage, published vaccine efficacies, historical data on disease incidence before vaccination, and disease incidence reported for 1995-2001. Without a routine childhood immunization program, there would have been approximately 14.3 million cases of diseases, resulting in 33,564 deaths and costing \$12.3 billion in direct costs and \$46.6 billion in societal costs. The direct and societal costs of the routine childhood immunization program were estimated at \$2.3 billion and \$2.8 billion respectively. The direct and societal benefit-cost ratios for the program were 5.3 and 16.5, respectively.

*4- DTaP ; 3-Polio ; 1 MMR; 3 Hib; 3 Hepatitis B; 1 Varicella



**Immunization Action Coalition
Vaccination Information for Healthcare Professionals**

The Immunization Action Coalition (IAC) is an excellent resource for educational materials for professionals and the public. This site also has links to the latest VIS in multiple languages. The IAC website is: <http://www.immunize.org>.

The coalition provides a weekly e-mail update, the IAC Express. To subscribe to IAC Express, as well as to view past issues, please visit <http://www.immunize.org/express>

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"Administering Vaccines: Dose, route, site, and needle size", the one-page form was updated with the addition of information on administering the vaccines that protect against human papillomavirus (HPV), rotavirus, and herpes zoster (shingles). To access a ready-to-print (PDF) version of the updated piece, go to:
<http://www.immunize.org/catg.d/p3085.pdf>

TIPS OF THE ISSUE:

For information about Immunizations, check out the Department of Public Health (DPH) website at:
<http://www.dph.state.ct.us/BCH/infectiousdise/immuniza.htm>

NEWLY RELEASED 12-01-06

General Recommendations on Immunization

Recommendations of the Advisory Committee on Immunization Practices (ACIP)
<http://www.cdc.gov/mmwr/PDF/rr/rr5515.pdf>



ACIP UPDATE OCTOBER 2006

The Advisory Committee on Immunization Practices (ACIP) voted on October 25, 2006 to recommend a newly licensed zoster vaccine, Zostavax manufactured by Merck, to protect against shingles for all people aged 60 and older, including those who have had a previous episode of shingles.

"Vaccines aren't just for kids anymore—and this vaccine represents an important medical breakthrough aimed at improving health in older people," said Dr. Anne Schuchat, assistant surgeon general and director of CDC's National Center for Immunization and Respiratory Diseases. "These vaccine recommendations address a health problem for people aged 60 and older. It has been tested and has been found to be safe and effective in providing protection against shingles and associated chronic pain."

Zostavax, the only zoster vaccine on the market, was studied in approximately 38,000 individuals throughout the United States who were aged 60 years and older. Half received the vaccine and half received a placebo. Study participants were followed for an average of three years to see if they developed shingles and, if they did, how long the pain lasted. Zostavax reduced the occurrence of shingles by about 50 percent and post herpetic neuralgia (pain persisting after an episode of shingles) by 67 percent.

NEXT SCHEDULED ACIP MEETING
February 21-22, 2007
Agenda not available at press time.

UPDATED ADULT IMMUNIZATION SCHEDULE

To obtain a copy of the 2007 adult immunization schedule: <http://www.cdc.gov/NIP/recs/adult-schedule.htm#print>

Improved Supply of Meningococcal Conjugate Vaccine, Recommendation to Resume Vaccination of Children Aged 11--12 Years

In May 2006, CDC, in consultation with ACIP, the American Academy of Pediatrics, American Academy of Family Physicians, American College Health Association, and Society for Adolescent Medicine, recommended deferral of MCV4 vaccination of children aged 11--12 years in response to vaccine supply limitations. Sanofi Pasteur now reports that limitations in the MCV4 supply have been resolved. Therefore, CDC recommends resuming routine vaccination for all recommended groups according to ACIP recommendations, including children aged 11--12 years and, if not previously vaccinated with MCV4, of adolescents at high-school entry (at approximately age 15 years), of college freshmen living in dormitories, and of other persons at increased risk for meningococcal disease. Where possible, providers who deferred vaccination of children aged 11--12 years should recall those patients for vaccination.

Providers receiving State supplied vaccine can now resume vaccinating the following cohorts with publicly supplied vaccine, regardless of health insurance status:

- ⇒ 11-12 year olds
- ⇒ College freshmen living in dormitories and high school seniors, as they get accepted to college

In addition, providers can resume catch-up vaccination of VFC-eligible high school enterers (14-15 year olds). Unfortunately, there is insufficient funding to be able to provide vaccine for all 14-15 year olds.

VFC eligibility criteria is defined as follows: (a) Medicaid enrolled; (b) NO health insurance; (c) American Indian or Alaskan native. Those individuals who are underinsured (have health insurance that does not fully cover immunizations) can be referred to a Federally Qualified Health Center (FQHC) to be immunized with VFC-supplied vaccine.

The EpicENTER



PERTUSSIS

The Immunization program has been receiving an increasing number of reports of pertussis disease. Below is a short review of the clinical course of the disease, laboratory testing and diagnosis, treatment and immunization schedule.

DISEASE

Pertussis, or whooping cough, is a highly infectious disease caused by the bacterium, *Bordetella pertussis*. The incubation is commonly 7-10 days. The clinical course of the disease is often as follows: catarrhal stage 1-2 weeks of a runny nose with an intermittent non-productive cough. Symptoms are similar to an upper respiratory illness.

Paroxysmal stage – Paroxysmal coughing episodes that are continuous, without inspiration. The paroxysmal coughing is often followed by a characteristic whoop and/or post-tussive vomiting. This lasts for several weeks. Fever is absent or minimal. In the convalescent stage symptoms wane over weeks to months.

LABORATORY CONFIRMATION

Nasopharynx aspirate or swab obtained for culture from the posterior nasopharynx is the preferred test method. Swabs from the throat and anterior nasal passage have unacceptably low rates of recovery of the bacterium.

DFA testing of the nasopharynx should only be used as an adjunct to culture because of the low sensitivity and variable specificity. Several commercial laboratories offer pertussis cultures. In addition, collection kits can be obtained from the DPH laboratory at (860) 509-8501. Cost for the culture and DFA test is \$31.50.

PCR testing is not standardized among laboratories. Correlation of PCR results and disease are not well established.

Serology - Results of serologic testing are difficult to interpret without having a serologic test that is validated to have levels that correlate with active disease. There is only one serologic test that has been validated, and that is a limited availability, non-commercial test performed and validated by the Massachusetts Health Department. **In general, serologic testing from commercial sources should not be relied on for diagnosis and case confirmation at this time.**

TREATMENT

Infants younger than six months often require hospitalization for supportive care. Antimicrobial agents given during the catarrhal stage may ameliorate the disease. After the cough is established, the agents may have no effect on the course of the illness but are recommended to limit the spread of organisms to others.



CIRTS

Rates are out!

The immunization rates for children born in 2003 have been sent to individual pediatric and family practices. Rates were determined from children enrolled in the CT Immunization Registry and Tracking System (CIRTS), which accounts for 84% of all children born in the state of CT in 2003.

Immunization Status on 2nd Birthday of Children Enrolled in CIRTS

Schedule 4,3,1,3,3,1*	Not up-to-date In CIRTS	Up-to-date in CIRTS #	%	Total # in CIRTS
*2000 Birth Cohort	8520	25,591	75%	34,111
2001 Birth Cohort	8678	26,141	75%	34,819
2002 Birth Cohort	9050	26,609	75%	35,659
2003 Birth Cohort	6243	29,686	83%	35,929

Schedule 4,3,1,3,3,1: 4 DTaP, 3 IPV, 1 MMR on/after 12 months, 3 Hib, 3 Hep B, 1 Varicella on/after 12 months

* Due to the DTaP shortage in 2001, up to a 6 months grace period after age 2 on DTaP #4 was given

CIRTS vs. National Immunization Survey (NIS)

CIRTS Data (children born Jan-Dec 2003)	83%	CIRTS statewide-computerized registry that maintains immunization records on children up to six
NIS Data for CT (Children born Feb 2002-July 2004)	82%	NIS a large on-going telephone sample survey of immunization coverage among pre-school age children



Schedule 4,3,1,3,3,1: 4 DTaP, 3 IPV, 1 MMR on/after 12 months, 3 Hib, 3 Hep B, 1 Varicella on/after 12 months

2005 National Immunization Survey (NIS) Results

Results of CDC's 2005 NIS were released in September 2006. Major findings are:

- Vaccination coverage for U.S. children aged 19-35 months (born February 2002 - July 2004) remained at or near all-time high levels. Coverage levels varied substantially among states ranging from a high of 90.7% for Massachusetts to a low of 62.9% for Vermont.
- The **national coverage rate** for the 4:3:1:3:3:1 series was **76.1%**.
- Coverage rates for the 4:3:1:3:3:1 series did not vary significantly by race/ethnicity. Rates ranged from 76% to 79% for blacks, whites, Asians and Hispanics.
- **PCV coverage increased** from the previous year from 73.2% to 82.8% for >= 3 doses and from 43.4% to 53.7% for >=4 doses. (91.0% for 3 doses and 70.9% for 4 doses for CT)
- Coverage for one or more doses of **MMR decreased** from 93% to 91.5%. (95.2% for CT)

The NIS is being expanded to assess coverage for recommended vaccines received by children aged 13 - 17 years, including MCV4, Tdap and HPV vaccines. For more information see the MMWR article at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5536a2.htm>.

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(Continued from page 2 Pertussis)

IMMUNIZATION



Children in day care or school settings are required to receive pertussis-containing vaccine. Prior to May 2005, there was no pertussis containing vaccine licensed for anyone 7 years and older. However, in 2005 two vaccines were licensed by the FDA. ADACEL™ (Sanofi Pasteur) is approved for ages 11-64 years. BOOSTRIX® (GlaxoSmithKline) is licensed for persons aged 10-18 years.

In October 2005, the ACIP recommended routine use of a single dose of Tdap for adults 19-64 years of age to replace the next tetanus and diphtheria toxoids vaccine (Td) booster. ACIP also recommended the vaccine for health care workers and adults who have close contact with infants <12 months of age. Provisional recommendations were published in March 2006 for vaccinating adults.

The adolescents' recommendation calls for 1 dose of Tdap given between the ages of 11 and 18 years.

Provisional recommendations for use of Tdap in pregnant women were published in August 2006. Below are the 3 links to those recommendations.

http://www.cdc.gov/nip/vaccine/tdap/tdap_adult_recs.pdf

<http://www.cdc.gov/mmwr/PDF/rr/rr5503.pdf>

http://www.cdc.gov/nip/reccs/provisional_reccs/tdap-preg.pdf

Guidelines for the control of pertussis outbreaks can be downloaded from:

<http://www.cdc.gov/nip/publications/pertussis/guide.htm>

ORDERING VACCINES FROM DPH IMMUNIZATION PROGRAM

The following information is provided to assist programs in getting their vaccine orders processed by DPH Immunization staff. To expedite your orders and reduce unnecessary phone calls:

HOW DOSES ARE CALCULATED

1. Each month, multiply the total number of doses administered for each individual vaccine by 2.5.
2. The doses "on hand" are subtracted from the total in #1
3. The total in #2 is what should be ordered
4. For example:
⇒ 54 doses of Hib were used and 14 doses were left in the refrigerator.
⇒ $54 \times 2.5 = 135$
⇒ $135 - 14 = 121$
⇒ Round according to doses per package
⇒ Order 130 doses.
5. Faxed orders (see next section) are reviewed to meet these numbers



FAXING THE ORDERS TO DPH

1. FAX NUMBER: (860) 509-8371
2. DPH Immunization Program has legal size paper in the fax machine. Therefore there is no need to reduce the original.
3. There is no need to use a cover sheet.
4. Each page should be faxed in a separate fax call. Call the fax number and fax the first page, hang up, then call the fax number again and fax the second page. When they are faxed together in one call, they sometimes overlap. Please be sure that your PIN number is on all pages.
5. Fax only once, **Do not mail.**
6. If possible, please fax between hours 8:30 a.m. – 4:00 p.m. Monday through Friday, except holidays. This will allow for any malfunctions of our fax machine to be corrected immediately. It will also allow the immunization program to notify you if we are having difficulty reading your order.
7. If you are having difficulties and are not sure if the order came through, you may call and confirm it with Maria Heinz at (860) 509-7929. If you do call to confirm, please call right after it was faxed.
8. Orders must be faxed by the last business day of the month.



COMING SOON

The annual four-part series "Epidemiology & Prevention of Vaccine Preventable Diseases", will air Thursdays Jan 25, Feb 1, Feb 8 and Feb 15 2007 from 12-4 pm Eastern Time. CE credits are available for physicians, nurses and others. The program is available by satellite and web cast.

For more information

http://www.cdc.gov/nip/ed/satellite_broadcasts.htm

To locate a satellite site to view the program, call Carolann Kapur at 860-509-7929

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PUBLIC HEALTH

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