

miniupdate

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February 15, 2002

TO: Medical Directors, Community-Based Clinics
Directors, Medical Residency Programs
Directors, Nursing Schools
Interested Others

FROM: Natalie J. Smith, M.D., M.P.H., Chief
Immunization Branch

Below for your information and reference is an abbreviated copy of the Immunization Branch's bimonthly update memorandum. The edited version contains medical and technical information on immunization and vaccines. We hope it is helpful. If you have questions on immunizations, please contact the Immunization Coordinator at your local health department.

Now 93% of kids in child care centers are also protected against varicella!



Illustration by Tim Vinning

See article on 2001 Child Care Assessment Results on p.3

HIGHLIGHTS

- 2001 Preliminary Surveillance Review
- 2001 Child Care Center, Kindergarten, and 7th Grade Assessment Results
- New 2002 ACIP Recommended Childhood Immunization Schedule

Dramatic Achievement in Varicella Levels

Schools and child care centers throughout California seem to have done a stellar job of implementing the new (7/1/01) varicella requirement this year, as indicated by the dramatic results of the annual kindergarten and child care assessment findings. Congratulations to IZ Coordinators, physicians and clinics, school nurses and school staff, and child care providers for this accomplishment! See article in Assessment Activity Section on page 3.

DISEASE ACTIVITY AND SURVEILLANCE

2001 Preliminary Surveillance Review Measles: Forty cases of confirmed measles were reported in 2001, compared with 19 cases in 2000. There were 15 internationally imported cases (from Australia, Germany, Europe, Korea, Japan, and the Philippines) and 6 of the 25 indigenous cases were linked to imports from Japan, Germany, and Europe. A five-case outbreak involved Japanese tourists visiting Disneyland in February. A four-case outbreak

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occurred in August in a San Diego family when they returned from Germany. Another traveler returning from Europe was the index case in a three-case outbreak in San Francisco in September. The last outbreak, with no known source, involved six cases in San Francisco and lasted three generations from late September to early November.

Twenty-five of the 40 cases in 2001 were in adults 18 years old or older. Ten cases were in 5 to 17 year olds, and five cases were in children less than 5 years old, including two infants less than 1 year of age who were too young to be vaccinated. Fourteen cases were hospitalized; three of the children were under age 5 years. There were no deaths, and all cases recovered fully.

Pertussis: To date 475 cases of pertussis have been reported for 2001, resulting in an incidence rate of 1.3 cases per 100,000 population. This is a 25% decrease from the 632 cases reported in 2000. Los Angeles, San Diego, and

Santa Clara were the three counties with the highest numbers of cases with 79, 75, and 46 cases reported respectively. However, even these counties showed a decrease in cases reported in 2001 compared to 2000 and 1999, reflecting the statewide trend of decreasing pertussis rates. Nationally, there were 4,527 cases of pertussis reported in 2001 with an incidence rate of 1.61.

Forty-five percent (207 cases) of 2001 cases occurred in infants under 1 year of age. Ninety-six percent of these infant cases were less than 6 months old and too young to be fully immunized. The incidence rate of pertussis in children under 5 years of age has dropped from 9.9 cases per 100,000 population in 2000 to 8.6 in 2001. The rate in adults also has dropped from 0.7 cases per 100,000 population in 2000 to 0.4 in 2001. One hundred and seventy-five (37%) of the 2001 cases required hospital-

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Reported Cases and Incidence of Selected Vaccine Preventable Diseases California, 2001 & 2000 (Provisional¹ – as of 12/31/01 and 12/31/00)

DISEASE	2001 Cumulative		2000 Cumulative	
	Cases	Rate ²	Cases	Rate ²
Congenital Rubella Syndrome	0	0.0	1	0.0
<i>H. influenzae</i> , type B (Hib) ³	5	0.0	5	0.0
Hepatitis A	1,788	5.1	2,992	8.5
Hepatitis B	831	2.4	1,087	3.1
Measles ⁴	40	0.1	19	0.1
Pertussis	475	1.3	632	1.8
Rubella ⁴	1	0.0	6	0.0
Tetanus	9	0.0	6	0.0

¹ Cases by date of report, not of onset

² Incidence Rate=cases/100,000 population

³ *H. influenzae* is reportable only for cases 30 years of age and under

⁴ Confirmed cases only

Prepared by California Department of Health Services, Immunization Branch

Reported Cases of Selected Vaccine Preventable Diseases by Age Group California, 2001 (Provisional¹ – as of 12/31/01)

DISEASE	All Ages	Age Groups		
		0-4 yrs	5-17 yrs	18+ yrs
Congenital Rubella Syndrome	0	0	0	0
<i>H. influenzae</i> , type B (Hib) ²	5	5	0	0
Hepatitis A ³	1,788	72	452	1,260
Hepatitis B ³	831	2	17	808
Measles ⁴	40	5	10	25
Pertussis	475	242	355	102
Rubella ⁴	1	0	0	1
Tetanus	9	1	0	8

¹ Cases by date of report, not of onset

² *H. influenzae* is reportable only for cases 30 years of age and under

³ Does not include cases with unknown age

⁴ Confirmed cases only

Prepared by California Department of Health Services, Immunization Branch

ization, nearly all (97%) hospitalized cases were infants under 6 months of age.

Rubella: One lab-confirmed case of rubella was reported in 2001, compared to the six cases reported in 2000. This case was in a 65-year-old woman in San Diego. She had no known source of infection and no reported spread cases. There were no cases of congenital rubella syndrome (CRS) reported in 2001.

Tetanus: One new case of tetanus was reported in the last two months, bringing the 2001 total to nine cases compared to six reported cases in 2000. The new case was an injecting drug user (IDU). In 2001, there were a total of six cases of tetanus reported in IDUs, one who died from complications related to tetanus infection. Two other deaths occurred from tetanus in 2001, one in a 90-year-old woman who was injured while gardening and the other in an 81-year-old woman who also had an acute wound. The ninth case was the unusual neonatal tetanus case discussed in the October 2001 Update.

ASSESSMENT ACTIVITY

2001 Child Care Center Assessment Results

The fall 2001 child care immunization assessment results indicate 93.3% of child care center enrollees (2-5 year olds) met the new chickenpox requirement, a remarkable achievement in the first year of implementation. Overall, results were slightly lower than last year, with 91.8% of the 437,693 enrolled children (in the 9,127 facilities reporting) needing no further follow-up. Results by antigen were up slightly for nearly all vaccines, but comparable to last year. The percent of children with permanent medical exemptions (PMEs) and personal beliefs exemptions (PBEs) were 0.2% and 1.3%, respectively, slightly higher than previous years which is typical when a new vaccine is required. See table at right.

Fall 2001 Kindergarten Assessment Results

In this first year of the chickenpox requirement nearly 97 percent (96.9%) of California kindergartners met the requirement! Virtually all schools with kindergartens (8,705) reported; the total enrollment reported was 523,516 kindergarten students (See Table on right).

The percent of kindergarten students with all required immunizations, including varicella, was 90.9%. This result is lower than the coverage levels achieved in previous years, presumably due to the new varicella requirement.

Percent of Child Care Center Enrollees Adequately Immunized* 1997-2001

	1997	1998	1999	2000	2001
% Not Needing Follow-up	85.5%	91.0%	93.6%	94.1%	91.8%
% Immunized For:					
Polio3+	97.2%	97.8%	97.6%	97.7%	97.6%
DTP 3+	98.0%	98.3%	98.0%	98.4%	98.5%
DTP 4+	94.8%	95.7%	95.6%	96.0%	96.4%
MMR1 +	97.5%	97.9%	97.9%	97.8%	98.0%
Hib1 +	95.3%	96.2%	97.0%	97.5%	97.7%
Hep B 3+	82.0%	93.6%	95.6%	96.3%	96.5%
Varicella 1+**	n/a	n/a	n/a	n/a	93.3%
Exemptions:					
PME	0.1%	0.2%	0.1%	0.1%	0.2%
PBE	0.4%	0.5%	0.5%	0.6%	1.3%

* Enrollees adequately immunized is defined as children who are in compliance with school law for the corresponding school year. Denominator includes PBEs and PME.

** Chickenpox requirement may have been met with a disease history or a varicella immunization.

Prepared by California Department of Health Services, Immunization Branch

Source: Child Care Center Immunization Assessments, 1997-2001

Percent of Kindergartners Immunized by Antigen, 1999-2001

	Fall 1999	Fall 2000	Fall 2001
% Immunized for:			
Polio 3+	97.1%	96.9%	97.1%
DTP 4+	96.3%	96.3%	96.6%
MMR 1	99.4%	99.2%	99.2%
MMR 2	96.4%	96.3%	96.7%
HepB (Series-complete)	97.0%	97.3%	97.7%
Varicella*	n/a	n/a	96.9%

* Chickenpox requirement may have been met with a disease history or a varicella immunization.

Prepared by California Department of Health Services, Immunization Branch

Source: Kindergarten Immunization Assessments, 1999-2001

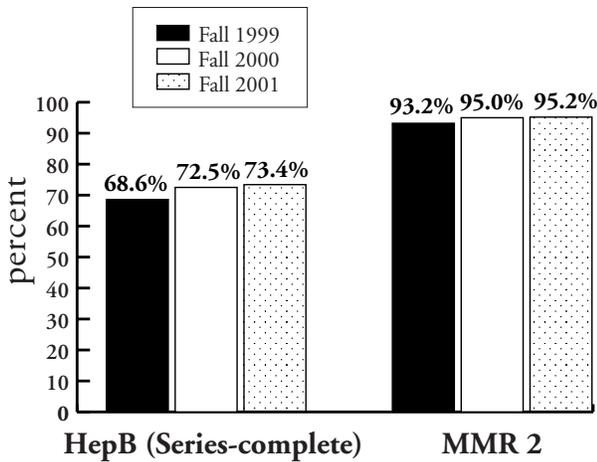
Fall 2001 7th Grade Assessment Results

Result of this year's seventh grade immunization assessment showed that the percent of students adequately immunized was similar to last year's result. This analysis of immunization coverage level was based on the students in the 4,544 schools that reported for the school year 2001-2002. 70.04% of 520,564 students in these schools received all of the required immunizations (hepatitis B series and two doses of MMR).

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Hepatitis B and MMR coverage rates were slightly higher than last year; 73.4% and 95.2% of students have been vaccinated for hepatitis B and MMR2 respectively.

California 7th Grade Students Immunized by Antigen, 1999-2001



Prepared by California Department of Health Services, Immunization Branch
 Source: Seventh Grade Immunization Assessments, 1999-2001

IMMUNIZATION SERVICES

Recommended Childhood Immunization Schedule 2002

The ACIP/AAP/AAFP-recommended childhood immunization schedule for 2002 is enclosed. The schedule has remained the same in core content as for the 2001 recommended schedule, but the 2002 schedule has a new color format and adds influenza and pneumococcal immunization recommendations for high-risk children.

The new design highlights the importance of catch-up vaccination, the preadolescent visit, a preference for administering the first dose of the hepatitis B vaccine series at birth, and three vaccines for selected at-risk groups.

Hepatitis B Vaccine

The 2002 schedule indicates a preference for administering the first dose of hepatitis B vaccine to all newborns soon after birth and before hospital discharge to minimize the risk for infection because of errors in maternal hepatitis B surface antigen (HBsAg) testing or reporting. Because of California's perinatal hepatitis B screening law, most infants born to HbsAg positive mothers in California are identified and vaccinated in the hospital. The 2-4-6 months 3-dose series continue to be an option for infants born to documented HbsAg negative mothers. A footnote on the schedule indicates a total of four doses of hepatitis B vaccine, including the birth dose, may be administered if a combination vaccine is used to complete the series; that is,

the ACIP/AAP/AAFP do not consider the extra dose of hepatitis B vaccine received in such a series to pose any added risk of adverse reactions. The birth dose if given, however, must be monovalent hepatitis B vaccine.

Vaccines for Selected Populations

The area on the schedule below the interrupted line displays certain vaccines recommended for use in selected populations. High-risk children aged 24-59 months should receive catch-up pneumococcal conjugate vaccine (PCV) doses, if indicated. Pneumococcal polysaccharide vaccine (PPV) is recommended in addition to PCV for certain high-risk groups. The recommendation to administer influenza vaccine annually to high-risk children also appears on the schedule.

This year, because of the new color format, the Immunization Branch is printing supplies of the recommended childhood immunization schedule for local health departments. Copies of the new schedule were sent to VFC providers, Health Officers, and Immunization Coordinators in mid-January. An electronic copy is also available at www.cdc.gov/nip/recs/child-schedule.PDF.

Temporarily Altered Immunization Recommendations during the Current Vaccine Shortages

Here is an update on the most recent ACIP and/or CDC recommendations on temporarily altering immunization scheduling because of national shortages of the following three products:

Td: No change from the recommendations CDC issued on May 25, 2001. Continue to defer Td booster doses for adolescents and adults. Td can be used if needed for tetanus prophylaxis in wound management, administration of a person's primary 3-dose tetanus-diphtheria immunization series, and persons not up-to-date on tetanus-diphtheria immunization (including boosters) who are traveling to a country where diphtheria risk is currently high.

DTaP: In the January 4, 2002 issue of MMWR (50:1159), ACIP has recommended that if providers do not have enough DTaP to immunize all children with 5 doses, they should (a) defer the 4th dose (usually given at age 15-18 months), and (b) if there is still insufficient DTaP, also defer the 5th dose.

Pneumococcal Conjugate Vaccine (PCV): In the December 21, 2001 issue of MMWR (50:1140-2), ACIP has continued its prior recommendation that use of PCV in children aged 2 years and older be restricted to those at high risk from pneumococcal disease (chronic heart or lung disease, sickle cell disease or other hemoglobinopathy, immunocompromised, long-term systemic corticosteroid use, asplenia, diabetes, CSF leak, solid organ transplantation).

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In addition, the ACIP now recommends that **all** providers defer the 4th PCV dose given to 15-18 month-olds and, if an individual provider's PCV supply is still insufficient, defer certain additional PCV doses, as outlined in the table enclosed.

For all of the above 3 vaccines currently in short supply, providers should maintain lists of patients for whom doses are deferred and, when the supply situation improves, recall these patients for administration of the deferred doses as age-appropriate.

Avoiding Pregnancy after Receiving Measles, Mumps and/or Rubella Vaccines

Previously the recommendation was that women avoid becoming pregnant for 3 months after receipt of rubella vaccine and for one month after receiving measles or mumps vaccines. In the December 14, 2001 issue of MMWR (50:1117), the ACIP changed these recommendations to the following: Women should avoid becoming pregnant for 28 days after receipt of rubella, mumps, and/or measles vaccines (including, of course, combination products with these vaccines such as MMR).

Twinrix and Twinrix Jr

In the October 2001 issue of UPDATE, we reported on the new combined adult vaccine for hepatitis A and hepatitis B, Twinrix® (GlaxoSmithKline), summarizing the indications for use of this product. Use of the combined vaccine reduces the number of injections compared to the monovalent ("single antigen") hepatitis A and B vaccines and results in decreased cost for both vaccine and administration. Twinrix is only approved for persons 18 years of age and older.

Another formulation, Twinrix Jr ("Twinrix Junior") is not licensed in the U.S., but is available in some countries for use in children. The recommendations for completing a "mix-and-match" series involving Twinrix vaccine can become quite complicated. The complete list of possible scenarios can be found on the CDC web site at: www.cdc.gov/ncidod/diseases/hepatitis/twinrix.htm#ages.

VACCINE RISKS AND BENEFITS

No Evidence that Multiple Vaccines Overwhelm or Weaken the Immune System

In a recent publication (Pediatrics 2002;109:124-9), Offit et al review the strong evidence that the theoretical concern that multiple vaccines, especially if administered at the same time, might somehow overwhelm or weaken infants' immunization systems is unfounded. Among the evidence marshaled and points made by Offit et al in this article are the following:

- From the time of birth newborn infants are well equipped with both humoral (antibody) and cellular immune system capacity. They have to be, since during the birth process they are exposed to microbes in the mother's birth canal and within hours of birth their GI tracts are heavily colonized with bacteria.
- Young infants are fully capable of generating protective humoral and cellular immune system response to multiple vaccines administered simultaneously. These responses are similar regardless of whether the different vaccines are administered on the same day or weeks apart. Projections based on known features of infants' immune systems are that they could respond adequately to literally thousands of vaccines given at the same time.
- Development of protective immune responses to standard vaccines is not impaired by the presence, at the time of vaccine administration to infants, of fever, upper respiratory tract infection, otitis media, skin infection, or diarrhea.
- Children who were immunized with standard vaccines in the first few months of life have, if anything, fewer infections (including non-vaccine preventable infections) than children who have not been immunized.

While children of today receive more standard vaccines than they did 40 years ago (when the standard vaccines were whole-cell DTP, polio, and smallpox vaccines), because today's vaccines are engineered with modern techniques to contain many fewer substances, e.g., proteins, today's children are actually exposed to fewer antigens (immune system stimulating agents) through immunization than were children 40 years ago.

Reporting Adverse Events to VAERS

To ensure that vaccines are as safe as possible and to maintain public confidence in vaccines, the U.S. maintains a system that provides for close monitoring of the incidence of adverse events, adequate scientific evaluation of possible associations, and appropriate response to newly identified risk of vaccine. In 1990, CDC and the FDA established the Vaccine Adverse Event Reporting System (VAERS), a passive surveillance system that monitors vaccine safety. The VAERS case form is provided to physicians, health departments, and public health clinics that administer vaccine. The VAERS system accepts reports of any suspected adverse event following administration of a vaccine, whether or not it is certain that the vaccine caused the event. The FDA reviews reports of serious events and conducts analyses of reports by vaccine lots. The CDC routinely reviews selected serious

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outcomes (e.g., anaphylaxis) and conducts additional analyses as needed to address specific concerns and to evaluate trends in reporting. Health care providers, manufacturers, patients, and parents/guardians are all encouraged to report any clinically significant adverse event believed to be related to vaccination. More information is available at www.vaers.org.

VACCINES FOR CHILDREN (VFC) PROGRAM

Deadline for Annual Recertification of VFC Providers

Deadline for public and private sector providers to submit their VFC certification was December 31, 2001. Providers who have not yet submitted the forms should do so immediately to ensure that they remain eligible to continue receiving vaccine from the VFC Program. Contact the VFC Program (510)704-3750 for additional copies of the certification forms or further information if needed.

PROFESSIONAL INFORMATION AND EDUCATION

Comforting Restraint for Immunization Flier

In response to a number of requests for a graphic depiction of the proper way for a parent to hold their child during immunizations, the Immunization Branch developed the small poster "Comforting Restraint" (IMM 720) using images from the "Immunization Techniques" video. A sample is enclosed.

PUBLIC INFORMATION AND EDUCATION

Meningococcal Disease and Vaccine Information Flier (IMM 608)

Enclosed is a new flier about meningococcal disease and vaccine. The Immunization Branch developed the flier as mandated by the recently enacted AB 1452. This established a requirement for colleges and universities to provide college-age students with this information.

The information on side one provides all of the required information to fulfill AB 1452. The back side contains information in a Q&A format that colleges may wish to share with students. Space for the student's signature has been added to side one for the convenience of colleges and universities. A PDF document and a text only version are available on the DHS website at www.dhs.ca.gov/ps/dc/dc/izgroup/pdf/Meningflyer.pdf.

PKIDS as IZ Advocates

Parents of Kids with Infectious Diseases (PKIDS) is launching a new project designed to provide media access to parents whose children have been affected by vaccine preventable diseases. PKIDS will identify parents in each state and ask them to share their experiences to decision-makers, reporters, and others. If you know of parents that fit this description, please share the information with Chris Kukka of PKIDS at ckukka@pkids.org

INFLUENZA AND PNEUMOCOCCAL ACTIVITIES

Points of Interest = California Senior Immunizations

Enclosed is a Points of Interest flier produced by the DHS Survey Research Group in collaboration with the IZ Branch that describes flu and pneumococcal coverage among California's senior population. The data used were collected using the Behavioral Risk Factor Surveillance System. For additional copies, please contact Nisha Gandhi at (510)540-2236, email: ngandhi@dhs.ca.gov.

MISCELLANEOUS

Update Index

Enclosed is the UPDATE Index for 2001. If you are looking for a past UPDATE or mini UPDATE article, this is the place to look; articles are listed by category with the month and the page that it appeared.

Bear Tracks Comes Out of Hibernation

The California Coalition for Childhood Immunization (C3I) has reinvigorated its statewide newsletter *Bear Tracks* for coalitions and coalition partners and members. The first issue of the quarterly newsletter is enclosed.

INS Requirements and the Td Shortage

In April 2001, the INS issued information to Civil Surgeons about the shortage of Td vaccine in the U.S. and an automatic waiver was given for this vaccine, effective through March 31, 2002. However, as the Td shortage continues, the Immunization Branch is guessing INS will further extend the Td waiver. We will relay information about the INS waiver extension when it becomes available. The following website will directly link you to further information and updates: www.cdc.gov/ncidod/dq/pdf/pp_va_2.pdf

Update Now Available by E-Mail:

If you would like to receive an electronic copy of the Update, we can now e-mail the Update as an Adobe Acrobat pdf file. To get on our e-mail list, please send an e-mail to izupdate@dhs.ca.gov. Please indicate whether you would like to still receive the mailed version as well.