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miniupdate

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

April 8, 2005

FROM: Howard Backer, MD, MPH, 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.

2005 NIIW Logo

TABLE OF CONTENTS

Disease Activity and Surveillance 1
Immunization Services 3
Vaccines Risks and Benefits 4
Professional Information and Education 4
Public Information and Education 5
Influenza and Pneumoccocal Activities 5
IZ Coalition Activities 6
Miscellaneous 6

2005 NIIW

The Immunization Branch and local health departments are gearing up to kick off National Infant Immunization Week (NIIW) with a statewide coordinated event: "It's Not Magic, It's Immunizations" on April 27th. NIIW is the week of April 24-30, 2005, and together with Toddler Immunization Month (May) it will highlight the successes and effectiveness of childhood immunizations, in particular celebrating our success fighting polio and its eradication in most of the world. The event also celebrates the 50th anniversary of the Salk Polio Vaccine.

DISEASE ACTIVITY AND SURVEILLANCE

The surveillance data reviewed in this section are reported in Table 1 on the next page. The table includes provisional number of cases of *Haemophilus influenzae* type b, hepatitis A, hepatitis B, measles, pertussis, rubella, and tetanus reported in 2005 with onset in 2005 (as of February 28, 2005). For comparison, the numbers of cases reported in 2004 with onset in 2004 (as of February 28, 2004) are included. If you have any questions about this table, please contact Jennifer Myers by telephone: (510) 540-2118 or by email: jmyers@dhs.ca.gov.

Continued on page 2...

Pertussis: From January to February 2005, 49 cases of pertussis were reported in California with onset in 2005, resulting in an annualized incidence rate of 0.02 cases per 100,000 population. This is comparable to the same time period in 2004 (January to February) when 47 cases were reported. Almost half the cases (45%) were in children under five years of age. 14 cases (29%) were in infants less than 12 months old. Race/ethnicity was specified for 40 out of 49 cases. Of these, 25 (51% of all cases) were White, 11 (23%) were Hispanic, 2 (4%) were Asian, 1 (2%) was African American and 1 (2%) was of other race. One death has been reported: a three-week old infant in Los Angeles County who had severe pneumonia. This case has not been lab-confirmed yet but clinical history is consistent with pertussis acquired in the first few days of life. Local health department staff are following up on this case.

Measles: In early March, one case of measles was reported by San Diego County in an adult male. This case was hospitalized and was IgM+ for measles. He had a history of frequent travel, most recently to Germany in February. Vaccination history is unknown. Local health department staff are following up on this case. This case is not included in the table below since disease onset was in March.

Hepatitis A: From January to February 2005, 86 cases of hepatitis A were reported in California in 2005, resulting in an annualized incidence rate of 0.04 cases per 100,000 population. This is a decrease from 2004, when, for the same time period (January to February) 101 cases were reported. Most cases (87%) were reported in adults. Race/ethnicity was specified for 55 out of 86 cases. Of these, 22 (26% of all cases) were White, 16 (19%) were Hispanic, 13 (15%) were Asian/Pacific Islander, 3 (4%) were African American and 1 (1%) was American Indian.

Hepatitis B: From January to February 2005, 43 cases of hepatitis B were reported in California with onset in 2005, resulting in an annualized incidence rate of 0.02 cases per 100,000 population. This is a decrease from 2004, when, for the same time period (January to February) 69 cases were reported. Only one case was not an adult. The local health department is investigating the case's history, including vaccination status. Race/ethnicity was specified for 28 out of 49 cases. Of these, 14 (33% of all cases) were White, 5 (12%) were Hispanic, 7 (16%) were Asian/Pacific Islander, 1 (2%) was African American and 1 (2%) was American Indian.

Mumps: From January to February 2005, 8 cases of mumps were reported in California with onset in 2005. This is comparable to the same time period in 2004 (January to February) when 7 cases were reported. Cases were spread across all ages from 2 years to 38 years of age. Race/ethnicity was specified for 5 out of 8 cases. Of these, 2 were White, 2 were Hispanic and 1 was African American.

Other VPDs: As of February 28, 2005, for this report year no cases of Congenital Rubella Syndrome (CRS), diphtheria, *Haemophilus influenzae* type B invasive disease (Hib), measles, polio, rubella, or tetanus have been reported to the Immunization Branch.

California Pertussis Hospitalizations Increase

In March 2005, Children's Hospital Central California in Madera reported a significant increase in laboratory-confirmed pertussis cases. Twenty-seven children have been hospitalized with pertussis since January; 16 of the

Continued on page 3...

Table 1: Reported Cases with Onset in 2005, (by Age Group) and Incidence of Selected Vaccine Preventable Diseases, California, 2005 (Provisional – as of 2/28/05)

	Age Groups				All Ages	
DISEASE	0-4 yrs	5-17 yrs	18+ yrs	Age Unknown	Cases	Rate[1]
Congenital Rubella Syndrome	0	0	0	0	0	0.00
Diphtheria	0	0	0	0	0	0.00
H. influenzae, type B (Hib)[2]	0	0	0	0	0	0.00
Hepatitis A	4	7	75	0	86	0.04
Hepatitis B	0	1	42	0	43	0.02
Measles[3]	0	0	0	0	0	0.00
Mumps	3	2	3	0	8	0.00
Polio	0	0	0	0	0	0.00
Pertussis	22	13	13	1	49	0.02
Rubella[3]	0	0	0	0	0	0.00
Tetanus	0	0	0	0	0	0.00

[1] Annualized Incidence Rate = cases/100,000 population. Populations estimates source: California Department of Finance projections based on the 2000 census.
[2] *H. influenzae* is reportable only for cases ≤30 years
[3] Confirmed cases only
Prepared by California Department of Health Services, Immunization Branch

cases were admitted in March. In 2004, only three children with pertussis were admitted to the hospital between January and March. The majority of the 2005 cases are from Fresno County and the majority of them are younger than 6 months of age, too young to have received 3 doses of pertussis-containing vaccine. Other local health departments are reporting similar increases in the numbers of cases reported between January and March 2005.

Pertussis incidence is up throughout the nation. The Centers for Disease Control and Prevention (CDC) received 18,957 case reports nationwide in 2004 in comparison with 11,647 in 2003. In California, the number of reported cases increased from 706 cases in 2001, to 1255 cases in 2003 and approximately 1235 cases in 2004.

Although current pertussis vaccines are quite effective in preventing or attenuating severe pertussis in children who have received three or more doses of vaccine, vaccine-conferred immunity wanes after 5 or 6 years. No pertussis-containing vaccine is currently licensed in the U.S. for use in individuals ≥ 7 years of age, although FDA approval of two such vaccines is expected this year.

Pertussis is highly communicable with high attack rates among susceptible individuals who have had close contact to infectious individuals. Close contacts include those who have had: direct contact with respiratory, oral or nasal secretions from a symptomatic case; face-to-face contact with a case who is symptomatic; shared confined space in close proximity for a prolonged period (≥ 1 hour) with a symptomatic case.

Limited data from epidemiologic studies suggest that the early initiation of chemoprophylaxis of close contacts (within 2-3 weeks of cough onset of index case) may limit transmission of pertussis in households and in high risk settings (e.g., residential institutions for developmentally handicapped persons, hospitals). In general, chemoprophylaxis is not indicated for non-household, non high-risk contacts of a case during a school or community outbreak. For information on pertussis outbreak control, contact Celia Woodfill at CWoodfil@dhs.ca.gov.

IMMUNIZATION SERVICES

Pneumo Conjugate Success

It has been five years since a pneumococcal conjugate vaccine (PCV-7) was first licensed in the U.S. for children under two years of age. Although there were earlier shortages, the vaccine now is readily available, and the standard four dose (2-4-6 and 12 to 15 month) schedule should be followed again (MMWR, 53(36); 851-852).

Pneumococcal conjugate vaccine already has had a significant positive impact on the health of children, even with the previous shortages. A recent study demonstrated a significant decrease in invasive pneumococcal disease among children at eight children's hospitals in the U.S. for the period 2001 through 2002 (Pediatrics, 2004;113 (no.3):443-449). There is some indication that the decline in children's cases may also be contributing to a decline in adult cases because of the vaccine's effectiveness in eradicating asymptomatic carriage, thereby decreasing opportunities for adults to become infected. Los Angeles County has seen a significant drop in the rate of invasive pneumococcal disease in the 65 and older age group.

Meningococcal Conjugate Vaccine (MCV4) Licensed in US

On January 25, 2005, FDA issued sanofi pasteur (formerly Aventis) the first license in the U.S. for a conjugate vaccine to prevent meningococcal disease. The new vaccine protects against four serogroups of Neisseria meningitidis (A, C, Y, W-135). The formal name for the vaccine is Meningococcal [Groups A, C, Y and W-135] Polysaccharide Diphtheria Toxoid Conjugate Vaccine (or MCV4 for short) and it will be marketed as Menactra™. Detailed information about MCV4 is available at **http://www.fda.gov/cber/products/mpdtave011405.htm**

MCV4 is currently licensed for persons aged 11-55 years, although additional studies of the vaccine in younger and older individuals are planned. The federal Advisory Committee on Immunization Practices (ACIP) has issued preliminary recommendations (**http://www.cdc.gov/nip/vaccine/meningitis/mcv4/mcv4_acip.htm**) that will be followed shortly by a more complete statement. ACIP recommends routine vaccination of children with MCV4 at the pre-adolescent visit (11-12 year old) or before high school entry (~15 years old). Within 3 years, the goal is routine vaccination with MCV4 of all adolescents beginning at 11 years of age. ACIP recognizes that vaccine supply may be an issue in the first few years after licensure of MCV4. Other adolescents who wish to decrease their risk of meningococcal disease may elect to receive MCV4. Of particular concern are college freshman who live in dormitories, who are at higher risk for meningococcal disease compared to other people of the same age.

Hepatitis A Vaccines Now Covered Under VICP

Hepatitis A vaccines are now covered under the National Vaccine Injury Compensation Program (VICP), which

Continued on page 4...

provides a system of no-fault compensation for certain individuals who have been injured by specified childhood vaccines. Coverage for Hepatitis A vaccines took effect on Dec. 1, 2004 (with a seven-year retroactive coverage for adverse events), the effective date of an excise tax to provide funds for the payment of compensation with respect to the hepatitis A vaccines. The Vaccine Injury Table, available at **http://www.hrsa.gov/osp/vicp/table.htm**, lists the vaccines currently covered under the VICP. Trivalent inactivated influenza vaccine is scheduled to be added to the Vaccine Injury Table before the 2005-2006 flu season. For more information, contact VICP at (301) 443-4198 or visit **http://www.hrsa.gov/osp/vicp/index.htm**

Perinatal Hepatitis B Prevention Program 2003 Summary

In 2003, 2644 infants born to HBsAg-positive pregnant women were enrolled in the perinatal hepatitis B prevention program. Overall, 91% of infants born to HBsAg-positive women received HBIG and 3 doses of hepatitis B vaccine, while 84% completed HBIG and the vaccine series by 6 to 8 months of age. Perinatal program staff recently completed a survey to assess perinatal hepatitis B screening prevention practice. The survey found that, in general, hospitals are appropriately managing women who admit for delivery with no record of prenatal care; 96% of moms had documented orders for an HBsAg test in their medical records. In addition, 96% of infants whose mothers had no record of prenatal care were appropriately managed.

VACCINE RISKS AND BENEFITS

IOM Report on Vaccine Safety Research, Data Access and Public Trust

The IOM has completed a Report on Vaccine Safety Research, Data Access, and Public Trust. This report reviews aspects of the Vaccine Safety Datalink (VSD) program that has utilized Northern and Southern California Kaiser data since its inception. The IOM Report recommends that two new oversight groups ensure that the policies and procedures of the VSD and its data-sharing program are implemented as openly as possible. For the full report visit **http://www.iom.edu/report.asp?id=25184**. In accord with the report, CDC has transferred vaccine safety activity from the National Immunization Program to CDC's Office of the Chief of Science.

New Book: "Evidence of Harm"

A new book promoting a link between autism and thimerosal was just released with a lot of fanfare, including an extensive media tour for the author, David Kirby. Both AAP and CDC are preparing Talking Points in response to the author's claims. The National Network for Immunization Information website (**www.immunizationinfo.org**) has a number of resources on Mercury in Vaccines for providers and families.

PROFESSIONAL INFORMATION AND EDUCATION

NIP Launches IZ Web Course

The National Immunization Program has a new web-based basic immunization training course, and the first module (of 13) is now up and running: "Understanding the Basics: General Recommendations on Immunization." This course was developed through a Cooperative Agreement with the Association of Teachers of Preventive Medicine. The course is an interactive, self-study program that participants can complete at their own pace. Module 1 consists of basic immunization principles, learning opportunities, practice questions, reference and resource materials, and an extensive glossary. The modules are intended to be used for introductory training of healthcare professionals who provide immunizations, including nursing students, medical assistants, pharmacists, and other health professionals. The course is also appropriate for health educators, immunization program managers, Department of Defense paraprofessionals, and other healthcare providers working in private offices, hospitals, and public health settings.

Continuing education credits are offered for various health professions. Physicians, nurses, health educators, and others are invited to apply for these credits. The course is available free of charge on the CDC website at **http://www.cdc.gov/nip/ed/youcalltheshots.htm**.

Family Practice "Vaccines Across the Life Span, 2005"

The Journal of Family Practice has published a supplement, "Vaccines Across the Life Span, 2005." This supplement was prepared by members of the Group on Immunization Education of the Society of Teachers of Family Medicine through a cooperative agreement with CDC. Materials in the supplement include recent changes in influenza epidemiology and vaccine recommendations, communicating the benefits and risks of vaccines, and immunization barriers and solutions. For more information visit **http://www.jfponline.com/supplements/supp_0105.asp**.

More on page 5...

2005 CDC Epidemiology and Prevention of Vaccine-Preventable Diseases Course

Mark your calendars now: The live version of CDC's Epidemiology and Prevention of Vaccine Preventable Diseases Course will again be hosted by the Immunization Branch, both in Sacramento on November 14-15, 2005 and in Torrance on November 17-18, 2005. The course brochure is included in this ☛UPDATE. Don't miss this opportunity to attend this comprehensive review and update course presented by CDC.

California Adult Immunization Summit, May 2, 2005

The California Adult Immunization Summit hosted by the California Adult Immunization Coalition will be in San Diego at the Marriott Mission Valley Hotel on Monday, May 2, 2005. The Summit offers numerous opportunities to interact and network with national, state and local leaders involved in adult immunization issues. The Summit agenda contains interactive sessions that offer new information and strategies for adult immunization.

For more details or to register for the 2005 California Adult Immunization Summit go to **www.immunize-CAadults.org**. Please register early. A $25 non-refundable fee is required to confirm your registration. For more information, please contact Patricia Laija (PLaija@dhs.ca.gov or (916) 552-9717).

PUBLIC INFORMATION AND EDUCATION

Salk Vaccine Celebration

The 50th anniversary of Salk Polio vaccine will be April 12, and will be marked nationally by the opening of a year-long exhibit at the Smithsonian's National Museum of American History on "Whatever Happened to Polio," as well as symposia at the University of Michigan (where the trials were conducted) and the University of Pittsburgh (where the vaccine was discovered.)

The transformation in the public's health made possible by the Salk polio vaccine is also being recognized through the NIIW kick-off events being scheduled in many jurisdictions: "It's not magic….it's immunizations."

For further information on the Salk vaccine anniversary go to **http://www.cdc.gov/nip/events/ polio-vacc-50th**.

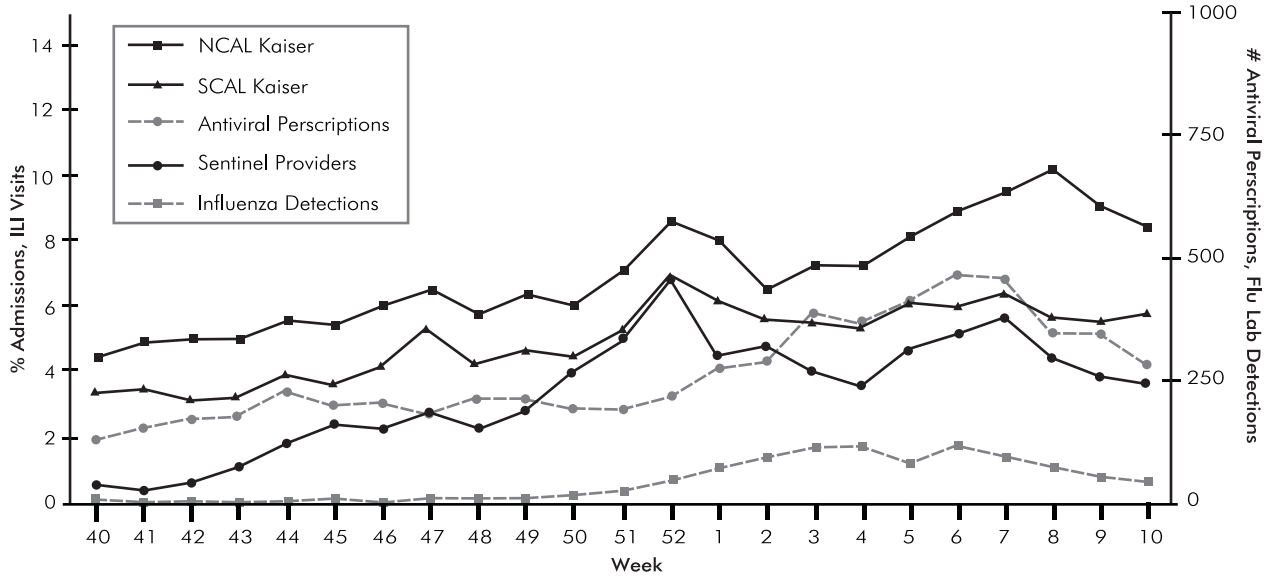
INFLUENZA AND PNEUMOCOCCAL ACTIVITIES

California Influenza Surveillance Update

As of mid-March, influenza activity has been mild to moderate throughout California. This season, influenza

Continued on page 6...

Figure 2: 2004–2005 Influenza Surveillance Overview



Source: DHS Viral and Rickettsial Disease Laboratory and Immunization Branch
Prepared by California Department of Health Services, Immunization Branch

activity has had two peaks. The first peak occurred in both Northern and Southern California during the last week of December, and then decreased slightly throughout January. In the first week of February, activity increased until the end of the month, slightly in Southern California and moderately in Northern California. Decreases in activity throughout the state were observed in the beginning of March.

CDHS has antigenically characterized 98 influenza isolates, 93 (95%) of which have matched the components of the 2004-5 influenza vaccine for the Northern Hemisphere (13 A/Fujian/411/2002 (H3N2)-like, 1 A/New Caledonia 20/99-like, 79 B/Shanghai/361/2002-like). Five influenza B viruses belonged to B/Victoria-like family, the predominant B strain which circulated between 2001 and 2003.

Additionally, an influenza A (H3N2) isolate sent to CDC in September 2004 from a patient in Santa Clara County has been identified as a new prototype reference strain called A/California/ 7/2004 that is related to but distinguishable from A/Fujian/411/2002. Since mid-January, an increasing proportion of influenza A (H3N2) viruses nationwide have been reported to be similar to the "California" strain. As of March 11, 2005, 56% of influenza A (H3N2) viruses characterized at CDC are most closely related to A/California/7/2004.

Antibodies produced against A/Fujian/411/2002-like viruses cross-react with A/California7/2004-like viruses but at a lower level, and, because of this, effectiveness of the 2004-05 vaccine could be reduced against A/California/7/2004-like viruses. The World Health Organization has recommended A/California as a component of the 2005-6 influenza vaccine and candidate vaccine viruses are currently being developed.

Avian Influenza (H5N1) and California Surveillance

A significant increase in the number of human avian influenza cases in Asia has sparked new concern regarding the next influenza pandemic. Heightened surveillance for H5N1 avian influenza is a key first step to rapidly identify the importation of a new pandemic strain into California. Given California's many ports of entry and frequent traffic from Asia, surveillance for avian influenza A (H5N1) remains at the enhanced level established. Guidelines for enhanced surveillance are as follows:

Testing for avian influenza A (H5N1) is indicated for hospitalized patients with:

a. Radiographically confirmed pneumonia, acute respiratory distress syndrome (ARDS), or other severe respiratory illness for which an alternate diagnosis has not been established, and
b. History of travel within 10 days of symptom onset to a country with documented H5N1 avian influenza in poultry and/or humans (for a regularly updated listing of H5N1-affected countries, see the OIE Web site at **http://www.oie.int/eng/en_index.htm** and the WHO Web site at **http://www.who.int/en/**).

Testing for avian influenza A (H5N1) should be considered on a case-by-case basis in consultation with local health departments for hospitalized or ambulatory patients with:

a. Documented temperature of >38°C (>100.4°F), and
b. One or more of the following: cough, sore throat, shortness of breath, and
c. History of contact with poultry (e.g., visited a poultry farm, a household raising poultry, or a bird market) or a known or suspected human case of influenza A (H5N1) in an H5N1-affected country within 10 days of symptom onset.

For any cases that meet the above criteria, please contact Trevor Shoemaker (510-540-2065) or Carol Glaser (510-307-8613). For the most current updates on avian influenza A (H5N1) activity, and the CDHS enhanced surveillance reporting guidelines, please refer to our website: **http://www.dhs.ca.gov/ps/dcdc/VRDL/html/FLU/ Flu-h5n1.htm**

IZ COALITION ACTIVITIES

C3I Celebrates 10th Anniversary

On May 19th the California Coalition for Childhood Immunization (C3I) will hold its biannual meeting and 10th Anniversary celebration in Santa Ana at the Doubletree Hotel from 8:30- 4pm. The meeting is being hosted locally by the Orange County IZ Coalition. All California immunization coalitions are encouraged to send a representative to the meeting. For additional information please contact Norene DeBruycker at (916) 447-7063 x 333.

MISCELLANEOUS

Staff Changes

We are pleased to announce that ***Denise Rogers***, MPH has joined the Immunization Branch as Assistant Branch Chief and Senior Public Health Advisor (PHA). Denise is

Continued on page 7...

a National Immunization Program PHA and most recently the Director of Field Services in the Los Angeles County immunization program. She graduated from UC Santa Barbara and received her MPH at UCLA. Prior to her Los Angeles assignment, Denise was an Immunization Branch Field Representative in the Central Valley. Denise replaces John Dunajski who retired April 1 after 34 years as a public health advisor, with over 20 of them in California.

We are also pleased to announce that ***Maria Volk***, MPA has been named Chief of the IZ Branch's Field Services Section, another position held by John Dunajski. Maria has been with the Branch since 1996 and a Public Health Advisor since 1998.

John Dunajski received a royal sendoff from retirement well-wishers in late March.

We are also pleased to announce ***Lisa Benton***, MD, has joined the Branch to serve as the bioterrorism medical officer and lead the Branch's preparedness program. Dr. Benton received her MD from Thomas Jefferson University, Jefferson Medical College, and her MPH from Harvard University. She did a surgical residency at the University of Medicine and Dentistry of New Jersey- Robert Wood Johnson Medical School. Dr. Benton comes to us from the DHS Environmental and Occupational Division where she worked on chemical and nuclear disaster planning.

Chris Kim joined us in February as the SIIS Information Systems Specialist. He has significant experience in design and development of new systems as well as significantly modifying existing applications. Chris received his MS in Industrial Engineering from the University of Houston, and his BS in Industrial Engineering from Sung Kyun Kwan University, Korea. He joins the SIIS technical staff to provide support and expertise for all nine regional registries.

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