

# MMWR<sup>TM</sup>

## MORBIDITY AND MORTALITY WEEKLY REPORT

- 25 Update: Influenza Activity — United States, 1998–99 Season
- 27 Adult Lead Poisoning from an Asian Remedy for Menstrual Cramps — Connecticut, 1997
- 29 Final Stages of Poliomyelitis Eradication — Western Pacific Region, 1997–1998
- 33 Notices to Readers

### Update: Influenza Activity — United States, 1998–99 Season

In collaboration with the World Health Organization (WHO), its collaborating laboratories, and state and local health departments, CDC conducts surveillance to monitor influenza activity and to detect antigenic changes in the circulating strains of influenza viruses. This report summarizes influenza surveillance in the United States from October 4, 1998, to January 9, 1999, which indicates that overall influenza activity was low.

As of January 9, the 110 WHO and National Respiratory Enteric Virus Surveillance System collaborating laboratories in the United States had tested 20,972 specimens (by culture or direct antigen-detection techniques) for respiratory viruses. Of these, 401 (2%) were positive for influenza viruses; 293 (73%) were influenza A, and 108 (27%) were type B. Of the 95 (32%) influenza A isolates that have been subtyped, 93 (98%) were influenza A(H3N2) and two (2%) were influenza A(H1N1). Since October 4, all of the influenza A(H3N2) viruses antigenically characterized by CDC were similar to A/Sydney/5/97, the H3N2 component of the 1998–99 influenza vaccine. One influenza A(H1N1) isolate was antigenically characterized as an A/Bayern/7/95-like virus that is antigenically distinct from A/Beijing/262/95, the H1N1 vaccine strain. However, the 1998–99 A(H1N1) vaccine strain produces high titers of antibodies that cross react with A/Bayern/7/95 (1). All 15 of the influenza B viruses antigenically characterized by CDC are similar to B/Beijing/184/93, the recommended type B vaccine strain.

Since October 4, 1998, 41 states have reported laboratory-confirmed influenza. Influenza A(H3N2) viruses were reported from 24 states, influenza A(H1N1) viruses from two states, influenza B viruses from 26 states, and influenza A (not subtyped) viruses from 32 states. For the week ending January 9, 1999, New York City reported widespread\* influenza activity, 10 states reported regional activity, and 35 states reported sporadic activity. The overall percentage of patient visits to sentinel physicians for influenza-like illness remained within baseline levels (0–3%) during the entire period. The percentage of deaths attributed to pneumonia and influenza reported by the 122 Cities Pneumonia and Influenza Mortality Surveillance System ranged from 6% to

\*Levels of activity are 1) *no activity*; 2) *sporadic*—sporadically occurring influenza-like illness (ILI) or culture-confirmed influenza with no outbreaks detected; 3) *regional*—outbreaks of ILI or culture-confirmed influenza in counties with a combined population of <50% of the state's total population; and 4) *widespread*—outbreaks of ILI or culture-confirmed influenza in counties with a combined population of >50% of the state's total population.

*Influenza Activity — Continued*

2. CDC. Update: influenza activity—United States and worldwide, 1997–98 season, and composition of the 1998–99 influenza vaccine. MMWR 1998;47:14:280–4.
3. CDC. Update: outbreak of influenza A infection—Alaska and the Yukon Territory, June–July 1998. MMWR 1998;47:30:638.
4. CDC. Influenza A—Florida and Tennessee, July–August 1998, and virologic surveillance of influenza, May–August 1998. MMWR 1998;47:36:756–9.
5. CDC. Prevention and Control of Influenza: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1998;47(no. RR-6).
6. Gomolin IH, Leib HB, Arden NH, Sherman FT. Control of influenza outbreaks in the nursing home: guidelines for diagnosis and management. J Am Geriatr Soc 1995;43:71–4.

**Adult Lead Poisoning from an Asian Remedy for Menstrual Cramps —  
Connecticut, 1997**

Follow-back procedures to determine the source of elevated blood lead levels (BLLs) are integral parts of the CDC's National Institute for Occupational Safety and Health Adult Blood Lead Epidemiology and Surveillance program (ABLES) in 27 states. Although an estimated 90%–95% of cases of elevated BLLs reported to the states in the ABLES program result from occupational exposures, nonoccupational exposures also are identified by this system. This report describes a case of adult lead poisoning attributed to an Asian remedy for menstrual cramps, "Koo Sar" pills, following an investigation by the Adult Lead Registry of the Connecticut Department of Public Health (CDPH), Division of Environmental Epidemiology and Occupational Health.

On February 19, 1997, a 33-year-old Cambodian woman, her husband, and their two children were screened at a free lead-screening event sponsored by a nursing school community health promotion center. The husband had a BLL of  $<10 \mu\text{g/dL}$ , and the children, aged 8 and 2 years, had BLLs of  $2 \mu\text{g/dL}$  and  $3 \mu\text{g/dL}$ , respectively. The woman, however, had a BLL of  $44 \mu\text{g/dL}$  and a confirmatory BLL on March 3 of  $42 \mu\text{g/dL}$ .\* The woman reported no symptoms associated with lead poisoning (e.g., muscle pains or weakness, headaches, or loss of appetite).

On March 14, 1997, the director of the health promotion center notified the CDPH's case-management coordinator for the Adult Lead Registry; the coordinator interviewed the woman by telephone for follow-up. The CDPH coordinator requested samples of any medicines, teas, or cosmetics that the woman had used that might have been the source of the lead. All submitted materials (teas, medicinal herbs, cosmetics, and two of three bottles of red pills in their original containers) were sent to the CDPH State Laboratory for analysis. Lead was found only in the red pills, at concentrations of 3.5 ppm in pills from bottle A and 1.2 ppm in pills from bottle B.†

On April 1, 1997, a CDPH follow-up interview revealed that for 3–4 years the woman had taken six of these pills per day on 7 days of each month to treat menstrual cramps. She was advised to stop taking the pills and was asked to submit additional pills for

\*CDPH regards adult BLLs  $<10 \mu\text{g/dL}$  as normal; the geometric mean blood lead level for adults aged 20–49 years in the Third National Health and Nutrition Examination Survey (1991–94) was  $2.1 \mu\text{g/dL}$  (1).

†Laboratory analysis was performed using acid digestion and graphite flame absorption (EPA method 200.9).

*Adult Lead Poisoning — Continued*

further investigation. After she stopped using the pills, follow-up BLLs were 28 µg/dL in April, 21 µg/dL in May, 19 µg/dL in June, and 12 µg/dL in September 1997.

Because the woman originally had reported purchasing the pills in New York City, samples were sent to the New York City Department of Health for confirmation and follow-up. On October 10, 1997, laboratory results from New York showed lead in amounts of 12.5 ppm in pills from bottle A and 4.5 ppm in pills from bottle B. Additional follow-up with the woman indicated that both bottles actually had been obtained in San Francisco, California.

CDPH contacted the California Department of Health Services, and the matter was referred to the San Francisco Department of Public Health for investigation, including review of the package literature (written in Chinese) that accompanied the pills. The product or brand name listed on the outside of the package was "Koo So Pills," and on the package insert it was "Koo Sar Pills." The manufacturer, Tien Sau Tong, is in Hong Kong. Lead is not among the 11 listed ingredients. The insert states, "These medical pills are good for general debility." The directions for dosage are one pill taken with warm water two times daily. The lead content of pills from two packages of Koo Sar pills purchased at different shops in San Francisco was 2.7 ppm lead (0.9 µg/pill) and 4.3 ppm (1.5 µg/pill), respectively.

No additional cases of lead poisoning associated with Koo Sar pills have been reported to California, Connecticut, New York, or to any of the other state ABLES programs. Food and drug authorities at the state (California) and federal level were notified of this incident; no recall or other regulatory action has been initiated.

*Reported by: BC Jung, MPH, Connecticut Dept of Public Health, Div of Environmental Epidemiology and Occupational Health; M Morrissey-Ross, MSN, Fairfield Univ School of Nursing Health Promotion Center, Fairfield, Connecticut. L Nicaj, New York City Dept of Health. D Lo, San Francisco Dept of Public Health; B Materna, PhD, R Fornes, MS, California Dept of Health Services. Div of Surveillance, Hazard Evaluations, and Field Studies, National Institute for Occupational Safety and Health, CDC.*

**Editorial Note:** This report describes a previously unrecognized source of lead poisoning from a traditional or folk remedy. This is the only known case resulting from Koo Sar pills, but other cases may have occurred; elevated BLLs in persons who are asymptomatic may not be diagnosed (this case was identified serendipitously), and diagnosed cases may not have been reported. Because lead is not listed as an ingredient of Koo Sar pills, it is thought to be a constituent or contaminant of the red dye used to color the pills. The varying lead concentrations measured in different samples of the pills probably result from varying amounts of lead present during manufacture of the red dye.

Adulterants, including lead, have been noted in Asian traditional or folk medicines (2,3). Folk remedies and cosmetics from East Indian, Pakistani, Chinese, and Latin American cultures that have contained lead include alarcon, alcoh, azarcon, bali goli, coral, gliasard, greta, kohl, liga, pay-loo-ah, rueda, and surma (4). Other sources of lead ingestion have included contaminated ground paprika (5), ayurvedic metal-mineral tonics (6), Deshi Dewa (a fertility drug) (7), hai gen fen (clamshell powder) added to tea (8), and pigment used in plastic wire insulation (9).

Traditional or folk remedies taken by persons for various ailments should be considered by health-care providers as possible sources of adult lead poisoning—particularly when an occupational exposure cannot be identified. Educational interventions should be targeted toward ethnic communities known to use such folk reme-

*Adult Lead Poisoning — Continued*

dies by state and municipal health departments and other community groups; educational materials should warn of the dangers of using folk remedies that might contain toxic ingredients that can lead to adverse health effects.

*References*

1. CDC. Update: blood lead levels—United States, 1991–1994. *MMWR* 1997;46:141–6.
2. Ko, RJ. Adulterants in Asian patent medicine [Letter]. *N Engl J Med* 1998;339:847.
3. Beigel Y, Ostfeld I, Schoenfeld N. Clinical problem solving: a leading question. *N Engl J Med* 1998;339:827–30.
4. Mulroy MT, Filchak K, Gaudio M. What you should know about lead poisoning: a resource manual for childcare providers. Hartford, Connecticut: Connecticut Department of Public Health, 1997:1–10.
5. Kakosy T, Hudak A, Naray M. Lead intoxication epidemic caused by ingestion of contaminated ground paprika. *J Toxicol Clin Toxicol* 1996;34:507–11.
6. Prpic-Majic D, Pizent A, Jurasovic J, Pongracic J, Restek-Samarzija N. Lead poisoning associated with the use of Ayurvedic metal-mineral tonics. *J Toxicol Clin Toxicol* 1996;34:417–23.
7. Kulshrestha MK. Lead poisoning diagnosed by abdominal x-rays. *J Toxicol Clin Toxicol* 1996;34:107–8.
8. Hill GJ, Hill S. Lead poisoning due to hai gen fen. *JAMA* 1995;273:24–5.
9. Carey B. The case of the addled electrician. *Health* 1994;8:122.

### **Final Stages of Poliomyelitis Eradication — Western Pacific Region, 1997–1998**

In 1988, the World Health Assembly resolved to eradicate poliomyelitis globally by 2000 (1). A plan of action for polio eradication in the Western Pacific Region (WPR) by 1995 was adopted in 1990. The plan was based on routine and supplemental vaccination activities with oral poliovirus vaccine (OPV) and acute flaccid paralysis (AFP) surveillance in the eight countries where polio was endemic (Cambodia, China, Laos, Malaysia, Mongolia, Papua New Guinea, Philippines, and Vietnam) (2). Regionwide, the number of reported polio cases decreased from approximately 6000 in 1990 to zero in 1998. This report describes the extensive efforts to eliminate the last chains of poliovirus transmission in the Mekong River area.

AFP surveillance was introduced in Cambodia, Laos, and Vietnam in 1992, and has improved steadily (during 1994–1997, the proportion of AFP cases with two adequate stool samples increased from 7% to 71% in Cambodia, 0 to 70% in Laos, and 49% to 84% in Vietnam). From 1992 to 1997, the number of confirmed polio cases decreased from 557 to one in Vietnam; from 146 to eight in Cambodia; and from seven to zero in Laos. In addition, analysis of 1996 data suggested that poliovirus transmission was limited to focal areas in Cambodia, Laos, and Vietnam. During 1996, 21 confirmed cases of polio were reported in WPR (17 cases from the Mekong River area of Cambodia, one from nearby southern Laos, and three imported into China from Myanmar) (3).

National Immunization Days (NIDs)\* were conducted from 1993 through 1998 in Vietnam and Laos, and from 1995 through 1998 in Cambodia. A total of 12.5 million children were targeted in the three countries during each round of NIDs, and the re-

---

\*Mass campaigns over a short period (days to weeks) in which two doses of OPV are administered to all children in the target group (usually aged 0–4 years) regardless of previous vaccination history, with an interval of 4–6 weeks between doses.