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# International Notes

MORBIDITY AND MORTALITY WEEKLY REPORT

# Nutritional Needs Surveys Among the Elderly — Russia and Armenia, 1992

The ongoing social, political, and economic changes in the 15 republics of the former Soviet Union have resulted in hyperinflation of the Soviet Union ruble (SUR), regional conflicts, and other hardships for the populations of these republics (1). In January 1992, a public health assessment in Russia indicated that the elderly—most of whom subsist on fixed incomes and among whom the prevalences of decreased mobility or chronic illnesses may be substantial—are at greatest risk because of declining social support (1). During March–May 1992, CARE, in collaboration with CDC, conducted three surveys in Russia and Armenia to assist in targeting the delivery of food and medical humanitarian aid to the most needy among the elderly. This report summarizes findings from these surveys.

The surveys were designed to collect baseline information on indicators of nutritional risk among elderly populations and to identify subpopulations most in need of relief services. Population-based household surveys of persons aged ≥70 years\* were conducted in three cities: Moscow (population: 9 million) and Ekaterinburg (population: 1.1 million [Western Siberia]), Russia, and Yerevan (population: 1.2 million), Armenia. Participants for the systematic probability sampling were drawn from local listings of persons receiving government pensions. Virtually all of the elderly in the sites were on these listings; however, prisoners and approximately 3000 refugee pensioners in Yerevan were excluded from the lists.

In each city, interview teams were trained locally. Teams visited each participating household and administered questionnaires regarding demographic information, living situations, self-reported medical and dental conditions, home stores of food, economic status, aid received from various sources, and diet and other practices related to nutrition. Interviews were completed for 259 (88%) of 296 persons in Moscow, 215 (74%) of 290 in Ekaterinburg, and 381 (84%) of 456 in Yerevan. Up to three visits were made to obtain interviews. However, 2% of persons on the survey lists who were

<sup>\*</sup>Persons aged ≥70 years were surveyed in Russia; persons aged ≥60 years were surveyed in Armenia. For this analysis, data presented for Armenia were limited to persons aged ≥70 years.

### Nutritional Needs --- Continued

located declined to participate; the remainder of persons not surveyed had died, moved, were not home, or otherwise could not be located. While in the field, investigators used computers for data entry and analysis to generate a report within 1 week from the completion of each survey.

Most (65%–74%) of the elderly surveyed were women (Table 1); one third were married, and nearly two thirds were widowed or divorced. Most (84%–92%) lived in private homes, usually with at least one other person (20%–37%); few (1%–2%) lived in institutions. Median pension ranged from 348 SUR to 448 SUR (the World Bank estimated that minimal nutritional support for one person in Russia is 522 SURs per month [World Bank, personal communication, April 3, 1992] and the Armenian government established an income of 2000 SUR per month as the poverty level [Minister of Social Protection, personal communication, April 15, 1992]. At the time of these surveys, the exchange rate was approximately 100 SUR=\$1 U.S.) Savings were low; 41%–74% had less than 500 SURs in savings. A large proportion of the elderly reported chronic illnesses (57%–67%) or dental problems (e.g., missing teeth) (37%–70%) that impaired eating.

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**Editorial Note:** The findings from these surveys have assisted CARE in targeting its humanitarian relief efforts in relation to three factors. First, by targeting assistance only to elderly in institutions, which had initially been done, most elderly and others at highest risk might be excluded from aid. Second, medical and dental assistance is crucial because medical and dental conditions may be important contributors to nutritional risk. Finally, commodity aid (e.g., rice, wheat, butter oil, sugar, beans, and milk powder) may be more beneficial than monetary aid for those elderly persons with limited ability to leave their homes to shop.

CARE is using this survey methodology every 4–6 months in other sites in the former Soviet Union to assess nutritional status and to target delivery of commodities and humanitarian assistance for elderly persons in need. For example, the baseline data were used to assess and compare the existing distribution of aid at different locations within Russia (e.g., Moscow and Ekaterinburg). In addition, CARE is using market data (i.e., product availability and price) to clarify survey results. For example, market data can be used to assess distribution and price of milk and preference of the elderly for milk.

CARE, in collaboration with government programs in these republics, has provided these baseline findings to other agencies and humanitarian-aid organizations to improve the overall targeting of aid. Follow-up surveys in these cities are planned for January–March 1993 to evaluate the impact of the humanitarian interventions. Rapid nutritional-assessment surveys of this type are important in determining the health status of refugees and other displaced populations (2). This report underscores the utility of such surveys in also supporting international assistance efforts for nonrefugee populations.

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# Nutritional Needs --- Continued

	N (1	loscow n=259)	Eka (i	terinburg n=215)	Y (	'erevan n=155)	
- Category	%	(95% CI <sup>†</sup> )	%	(95% CI)	%	(95% CI)	
Age (yrs) <sup>s</sup> Median <i>(Range)</i>	78 (70–92)		(	75 70–94)	78 (70–96)		
Sex Male Female	26 74	(20.7–31.3) (68.7–79.3)	26 74	(20.1–31.9) (68.1–79.9)	35 65	(27.5–42.5) (57.5–72.5)	
Marital status Married Never married Widowed or divorced	34 4 62	(28.2–39.8) ( 1.6– 6.4) (56.1–67.9)	34 7 59	(27.7–40.3) ( 3.6–10.4) (52.4–65.6)	36 4 60	(28.4–43.6) ( 0.9– 7.1) (52.3–67.7)	
Living situation Institution Communal home Private home Live alone Live with one other Other	2 14 84 24 37 39	( 0.3- 3.7) ( 9.8-18.2) (79.5-88.5) (18.8-29.2) (31.1-42.9) (33.1-44.9)	2 9 89 24 37 39	( 0.1- 3.9) ( 5.2-12.8) (84.8-93.2) (18.3-29.7) (30.5-43.5) (31.3-46.7)	1 8 91 21 20 59	(0 – 2.6) (3.7–12.3) (86.5–96.2) (14.6–27.4) (13.7–26.3) (51.3–66.7)	
Independence Can't always shop Can't always cook Lack enough money for food	61 46 50	(55.1–66.9) (39.9–52.1) (43.9–56.1)	46 37 64	(39.3–52.7) (30.5–43.5) (57.6–70.4)	57 31 77	(49.2–64.8) (23.7–38.3) (70.4–83.6)	
Health status (%) Illness that affects eating Dental problems that affect eating Take ≥3 drugs per day 5-kg weight change during past 6 months	57 60 45 40	(51.1–63.0) (54.0–66.0) (38.9–51.1) (34.0–46.0)	63 70 46 37	(56.5–69.5) (63.9–76.1) (39.3–52.7) (30.5–43.5)	67 37 34 50	(59.6–74.4) (29.4–44.6) (26.5–41.5) (42.1–57.9)	
Savings <500 SUR <sup>¶</sup> >5000 SUR <sup>¶</sup>	41 2	(35.0–47.0) ( 0.3– 3.7)	49 4	(41.1–56.9) ( 1.4– 6.6)	74 1	(67.1–74.1) ( 0 – 2.6)	
Sources of assistance Relative Neighbor Charity Government subsidy	20 3 50 61	(15.1–24.9) ( 1.9– 4.1) (46.9–53.1) (55.1–66.9)	17 2 37 21	(12.0–22.0) ( 0.1– 3.9) (33.7–40.3) (18.2–23.8)	39 2 <1 19	(31.3–46.7) ( 0 – 4.2) ( 0 – 2.6) (12.8–25.2)	
Pension income Received pension during previous month Median (SUR) <sup>1</sup> ( <i>Range</i> [SUR])	61 (55.1–66.9) 97 (94.9–99.1) 402 (60–1664)		95 (92.1–97.9) 448 (130–1800)		88 (1	(82.9–93.1) 348 <u>33–448)</u>	

TABLE 1. Demographic and other characteristics related to nutrition assessment among the elderly — former Soviet Union,\* 1992

\* Moscow and Ekaterinburg, Russia, and Yerevan, Armenia. Confidence interval. <sup>5</sup> All persons interviewed were aged ≥70 years. <sup>1</sup> Soviet Union ruble; at the time of this study, the exchange rate was approximately 100 SUR=\$1 U.S.

# Chaparral-Induced Toxic Hepatitis — California and Texas, 1992

Cases of acute toxic hepatitis in two patients—one in California and one in Texas have been attributed to ingestion of an herbal nutritional supplement product derived from the leaves of the creosote bush known commonly as chaparral. This report summarizes the investigations of these cases.

# Patient 1

On July 16, 1992, a 42-year-old man visited his family physician for evaluation of scleral icterus and diffuse jaundice. He reported having consumed three 500-mg capsules of chaparral per day for the previous 6 weeks; the supplement had been promoted as a "free radical scavenger." On July 11, he discontinued his use of chaparral because he considered it to be the cause of his illness. He reported no other unusual dietary practices, had not consumed alcohol during the previous 3 years, and had no other known exposure to hepatotoxins.

Physical examination showed a palpable liver edge 3 cm below the right costal margin. An upper abdominal sonogram showed no anomalies. Laboratory test results were negative for evidence of infection with hepatitis A, B, and C; cytomegalovirus; and Epstein-Barr virus. Serum chemistry tests showed a total bilirubin of 16.6 mg/dL (normal: 0–0.3 mg/dL), alkaline phosphatase of 133 U/L (normal: 0–135 U/L), gamma glutamyltranspeptidase (GGT) of 158 U/L (normal: 0–32 U/L), aspartate aminotransferase (AST) of 1077 U/L (normal: 0–48 U/L), and lactate dehydrogenase (LDH) of 405 U/L (normal: 0–225 U/L). His illness was diagnosed as hepatic dysfunction secondary to chaparral ingestion. On August 7, the patient was asymptomatic with a total bilirubin of 3.5 mg/dL, GGT of 75 U/L, and AST of 48 U/L. Three weeks later, liver enzymes had returned to normal levels.

# Patient 2

On July 19, 1992, a 41-year-old woman visited her family physician because of abdominal (right upper-quadrant) pain and jaundice of 4 weeks' duration. She reported consuming approximately 150 tablets of chaparral for a skin condition over an 11week period, but had stopped chaparral use after onset of symptoms. She was admitted to the hospital for evaluation; physical examination revealed marked jaundice but no hepatomegaly. Findings of an abdominal sonogram and barium enema were normal. Laboratory test results for hepatitis A and B were negative. Other results included normal alkaline phosphatase, total bilirubin of 30 mg/dL, AST of 3560 U/L, alanine aminotransferase (ALT) of 2790 U/L (normal: 0–53 U/L), GGT of 138 U/L, and LDH of 868 U/L. In late September 1992, serum chemistry test results were improved: bilirubin was 3.6 mg/dL; AST, 87 U/L; ALT, 93 U/L; GGT, 37 U/L; and LDH, 204 U/L. She had not resumed using chaparral and was asymptomatic as of October 1992.

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Editorial Note: Chaparral is an herbal preparation derived by grinding the leaves of the creosote bush (*Larrea tridentata*), an evergreen desert shrub. The ground leaves may

## Chaparral — Continued

be used for tea, placed in capsules, or formed into tablets. Chaparral has been recommended in nonscientific publications for use as an "antioxidant" or "free radical scavenger" to retard aging and to treat a variety of skin conditions (e.g., acne) and hepatitis (1). In addition, chaparral tea is used as a traditional American Indian medicine. The active ingredient in chaparral is a potent antioxidant, nordihydroguaiaretic acid (NDGA), which can act as a cyclooxygenase and lipoxygenase pathway inhibitor. Long-term studies in rats indicate that consumption of NDGA causes kidney cysts and mesenteric lymphadenopathy (2); however, there is no information on hepatotoxicity from animal studies.

The diagnoses of a toxin-induced hepatitis in these two cases are supported by the temporal relation between hepatic disease and their use of chaparral and by the rapid improvement of both patients when they stopped using the herb. Only one case of hepatotoxicity attributed to chaparral has been previously reported (3). Advertising for chaparral as a nutritional supplement has been increasing; however, it is not known whether the advertising has increased the use of chaparral (S. Page, Food and Drug Administration, personal communication, 1992). The Food and Drug Administration these two cases and conducting laboratory tests on the chaparral products used by the two patients.

Recently, germander (*Teucrium chamaedrys*), in the form of a tea or capsule, has been reported to cause hepatotoxicity (4), and other herbs known to have hepatotoxic properties include *Senecio longilobus* (groundsel), *Scutellaria laterifolia* (skullcap), *Symphytum* spp. (comfrey), *Heliotropium* spp., *Crotolaria* spp., *Phoradendron* and *Viscum* sp. (mistletoe), and *Casia acutifolia* (senna) (5). *Symphytum, Senecia, Crotolaria*, and *Heliotropium* sp. contain pyrrolizidine alkaloids. Consumption of these compounds has been associated with hepatic veno-occlusive disease and death, including one neonatal death after intrauterine exposure following maternal consumption of herbal teas during pregnancy (5).

Herbal and nutritional supplement products have been promoted to the public as "safe" and "natural" alternatives to conventional medicines. Although a multitude of herbal preparations and nutritional supplements containing herbs are available, assessment of and information regarding potential adverse effects of these products is limited (6). However, the two cases described in this report highlight the need to alert the public and health-care and public health professionals to the potential hazards associated with use of certain herbal or nutritional supplements.

Adverse effects associated with ingestion of herbal or nutritional supplements may be nonspecific and develop only after chronic use (5). Consequently, the risks for hepatotoxicity and other adverse effects associated with ingestion of these supplements may be difficult to determine and are probably underestimated. Health-care providers should question patients about their use of these products and inform them of the potential hazards of these products that are sometimes promoted as "natural" and therefore "safe." Reporting any adverse effects of herbal and nutritional supplement products to state or local public health authorities will assist in identifying and characterizing unknown or unanticipated side effects of these products.

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# Chaparral — Continued

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# **Current Trends**

# Anonymous Survey for Simian Immunodeficiency Virus (SIV) Seropositivity in SIV-Laboratory Researchers — United States, 1992

CDC recently reported on two laboratory workers who had seroconverted against simian immunodeficiency virus (SIV) following work-related exposure to the virus (1). In follow-up, the National Institutes of Health (NIH) and CDC have collaborated on an anonymous SIV seroprevalence study using stored serum samples from some laboratory workers and animal caretakers involved in SIV research at some of the NIH-sponsored facilities in the United States. This report summarizes the study.

A convenience sample of serum specimens previously collected from researchers and stored at -4 F (-20 C) were forwarded without any identification of the employee or research facility to CDC through a contract laboratory. Eleven serum specimens known to be seropositive for either human immunodeficiency virus type 1 (HIV-1) or human immunodeficiency virus type 2 (HIV-2) were included in the group of specimens as positive controls. A total of 483 serum samples (including the 11 controls) were screened blindly at CDC using a combination HIV-1/2 peptide-based enzymelinked immunosorbent assay (ELISA) (Biochemical Immunogenetics, Montreal\*). Repeatedly reactive samples were tested by HIV-1 and HIV-2 Western blot and by HIV-1 and HIV-2 peptide-based ELISA assays (Biochemical Immunogenetics; Genetic Systems, Seattle; and in-house). Because of the high degree of serologic cross-reactivity between HIV-2 and SIV, seropositivity to HIV-2 was considered to indicate the presence of antibody to either virus. All 11 control serum samples tested positive for either HIV-1 or HIV-2/SIV.

Three of the 472 samples tested were seropositive for HIV-2/SIV. An additional two samples had antibody to HIV-1.

Reported by: National Institutes of Health. Retrovirus Diseases Br, Div of Viral and Rickettsial Diseases, and Laboratory Investigations Br, Div of HIV/AIDS, National Center for Infectious Diseases, CDC.

Editorial Note: This blinded serosurvey was undertaken to rapidly estimate the prevalence of seroreactivity to SIV among laboratory workers and animal caretakers

<sup>\*</sup>Use of trade names and commercial sources is for identification only and does not imply endorsement by the Public Health Service or the U.S. Department of Health and Human Services. The peptide-based assays used in this study are unlicensed by the Food and Drug Administration for diagnostic purposes; however, they were used here because they are highly sensitive for HIV-2/SIV.

MMWR

# SIV Seropositivity — Continued

involved in SIV research. The findings indicated a low seroprevalence of HIV-2/SIV antibody (0.6%). However, the three SIV-seropositive persons in this blinded study may include one or both cases reported previously by CDC. Moreover, because of the high degree of cross-reactivity between HIV-2 and SIV, it is possible that these persons may be seropositive for HIV-2 rather than SIV.

Because HIV-1 shows some cross-reactivity with HIV-2, HIV-1 testing was conducted as a necessary part of this study. However, the two HIV-1–seropositive persons in this anonymous study cannot be identified or notified; these persons may be aware of their HIV-1 status.

To address concerns about the potential for transmission of SIV in research laboratories, NIH and CDC are planning to add voluntary testing for SIV to their existing medical surveillance programs. In addition, NIH and CDC are planning a collaborative prospective study to investigate SIV seropositivity among animal caretakers and laboratory workers in federally funded SIV-research laboratories to identify specific exposures associated with seropositivity. Based on CDC's investigation of the two previously reported cases (1) and the findings reported in this study, all laboratory and animal workers involved in SIV research should strictly adhere to recommended procedures for handling known and potentially SIV-infected clinical samples (2).

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# Update: Influenza Activity — United States and Worldwide, 1992

During the 1991–92 influenza season, influenza activity was reported at moderate levels in many parts of the world. Influenza A(H1N1), A(H3N2), and influenza B viruses have continued to circulate worldwide. From October 1991 through February 1992, when influenza viruses circulated widely in the Northern Hemisphere, epidemic levels of activity were most commonly associated with the H3N2 subtype of influenza A (1). This report summarizes worldwide influenza activity reported from March through September 1992 and activity in the United States from October 1991 through September 1992.

Asia. During March and April, outbreaks caused by influenza A(H3N2) viruses were reported in Hong Kong and in China. From March through May, India, Singapore, and Thailand reported sporadic isolations of influenza A(H3N2); sporadic isolations of influenza A(H1N1) were reported from China, Hong Kong, Singapore, and Thailand. During March, influenza B outbreaks were reported in China and Indonesia; Hong Kong, Malaysia, Singapore, and Taiwan reported sporadic influenza B activity.

**Europe**. During March and April, influenza activity declined in reporting countries. No isolates have been reported since May.

North America. Canada reported influenza A isolates through March. In the United States, influenza A outbreaks began in late October. Influenza activity peaked from early December to mid-January, with influenza A(H3N2) viruses predominating, and declined from mid-January through February. Only sporadic isolates were reported

# Influenza Activity — Continued

during March and April (2), although the number of influenza B isolates increased during this period. During June and early July, nine influenza B isolates were obtained during sporadic activity in Fairbanks, Alaska. Isolates were obtained from sporadic cases in other states through September. Influenza A(H1N1) was isolated from one person in Texas in August 1992.

**Central and South America**. During June and July, influenza A(H1N1) viruses were isolated during an epidemic in Argentina. Influenza A(H1N1) and A(H3N2) viruses were isolated in Chile during outbreaks peaking in mid-August. During March, Jamaica reported influenza outbreak activity attributed to A(H1N1) viruses. During June, Uruguay reported epidemic influenza activity with the isolation of both influenza A and influenza B viruses. During August and early September, influenza B viruses were isolated during epidemic-level activity in Panama. Sporadic influenza B activity was reported from Brazil in May.

**Oceania**. Beginning in March, Australia reported influenza activity, caused predominately by influenza A(H3N2) viruses, at a higher level than during the two previous seasons and earlier than is typical. In New Zealand, influenza activity began in April and peaked in June; influenza A(H1N1) was the predominant virus isolated, although influenza A(H3N2) and influenza B viruses also were isolated. Fiji reported one influenza A(H3N2) isolate coincident with outbreaks of influenza-like illness from March to June. Papua New Guinea reported influenza A activity from March to May and detection of influenza B in June.

**Africa**. From June through August, both influenza A(H3N2) and influenza B viruses were isolated in South Africa, with A(H3N2) viruses predominating. During March and April, influenza A(H3N2) was isolated in Madagascar.

**Characterization of influenza virus isolates**. During the 1991–92 worldwide influenza season, 983 isolates were antigenically characterized by the World Health Organization Collaborating Center for Surveillance, Epidemiology, and Control of Influenza at CDC; of these, 550 (56%) were from the United States. Of the 561 influenza A(H3N2) viruses isolated worldwide, 94% resembled the A/Beijing/353/89-like viruses; 5%, the A/Shanghai/24/90-like viruses; and 1%, the A/England/427/88-like viruses (*3*). A/Taiwan/01/86-like viruses accounted for 61% of the 276 influenza A(H1N1) viruses isolated worldwide, while the antigenically related A/Texas/36/91-like viruses (*1*) accounted for 39%. Of the 146 influenza B isolates, 5% resembled B/Victoria/02/87; 27%, B/Panama/45/90; and 68%, B/Qingdao/102/91, a minor variant of B/Panama (*1*).

Reported by: WHO National Influenza Centers. Communicable Diseases Div, World Health Organization, Geneva. WHO Collaborating Center for Surveillance, Epidemiology, and Control of Influenza, Influenza Br, and Epidemiology Activity, Office of the Director, Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases; Div of Immunization, National Center for Prevention Svcs, CDC.

**Editorial Note:** Both influenza A and influenza B viruses circulated throughout the world from October 1991 through September 1992, with influenza A(H3N2) viruses predominating. In the United States during the 1991–92 influenza season, influenza A(H1N1) viruses circulated primarily in the mid-Atlantic and South Atlantic regions; during the two previous seasons, influenza A(H1N1) had circulated at very low levels in the United States. This observation, coupled with the detection of influenza B during 1992, suggests that type A(H1N1) and type B viruses may circulate together in the United States during the 1992–93 influenza season.

#### MMWR

#### Influenza Activity — Continued

In recent years, the Advisory Committee on Immunization Practices (ACIP) has recommended that organized vaccination campaigns be conducted during November. During the 1991–92 season, however, outbreaks occurred in some areas either before vaccination campaigns had been completed or fewer than 2 weeks after vaccination, when vaccine-induced antibody may not be fully developed. As a result, the ACIP reviewed patterns of influenza activity during the previous 10-year period and concluded that mid-October through mid-November is the optimal period for vaccination (4). In addition, beginning each September, persons who are at increased risk for complications from influenza and who visit health-care providers for routine care or are hospitalized should be offered influenza vaccine. Health-care providers should continue to offer vaccine to members of high-risk and other target groups after mid-November and after influenza activity has begun.

Target groups for influenza vaccination include persons who are at high risk for developing serious medical complications following influenza infections, their healthcare providers, and household members. Persons at increased risk for complications are 1) those aged  $\geq$ 65 years; 2) all residents of nursing homes or chronic-care facilities; 3) persons with chronic pulmonary or cardiovascular disorders (including children with asthma); 4) persons requiring medical follow-up during the past year for chronic metabolic diseases, renal dysfunction, hemoglobinopathies, or immunosuppression; and 5) children and teenagers on long-term aspirin therapy who are at increased risk for Reye syndrome if infected with influenza. Based on national estimates, in 1989, only 30% of those aged  $\geq$ 65 years and 12% of those aged <65 years who were at increased risk for influenza-related complications received vaccination against influenza (5).

The 1992 influenza vaccine contains virus strains representing the three distinct groups of influenza viruses in worldwide circulation: A/Texas/36/91-like (H1N1), A/Beijing/353/89-like (H3N2), and B/Panama/45/90-like viruses. Most viruses isolated since the beginning of March 1992 are closely related to the 1992–93 influenza vaccine strains.

Although the vaccine and circulating influenza virus strains appear to be wellmatched, the antiviral drug amantadine hydrochloride should be considered as an adjunct to vaccination for prevention and treatment of influenza A infection. Chemoprophylaxis with amantadine is particularly recommended for use in nursing homes and other institutional settings with high-risk persons, for high-risk persons with anaphylactic hypersensitivity to egg protein or other vaccine components, and for immunocompromised persons. Treatment of influenza A infection with amantadine may shorten the duration and reduce the severity of illness when administered within 48 hours after onset of symptoms.

Amantadine is effective against infection with influenza A viruses but not influenza B viruses. When both type A and type B viruses are circulating simultaneously in the United States, laboratory assessment of an influenza-like illness (by obtaining pharyngeal or nasal swab specimens for culture or application of rapid diagnostic techniques) may assist in guiding the choice of influenza-control measures (6).

Local and national reports of influenza surveillance can be used by health-care providers in making clinical decisions. Surveillance information is updated weekly at CDC and is available by telephone (CDC Voice Information System [influenza update]

(continued on page 823)



# FIGURE I. Notifiable disease reports, comparison of 4-week totals ending October 24, 1992, with historical data — United States

\*Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

# TABLE I. Summary — cases of specified notifiable diseases, United States, cumulative, week ending October 24, 1992 (43rd Week)

	Cum. 1992		Cum. 1992
AIDS*	35,339	Measles: imported	118
Anthrax	1 1	indigenous	2,028
Botulism: Foodborne	16	Plague	11
Infant	44	Poliomyelitis, Paralytic <sup>†</sup>	
Other	1 1	Psittacosis	78
Brucellosis	69	Rabies, human	
Cholera	97	Syphilis, primary & secondary	27,487
Congenital rubella syndrome	8	Syphilis, congenital, age < 1 year <sup>5</sup>	1,639
Diphtheria	4	Tetanus	26
Encephalitis, post-infectious	97	Toxic shock syndrome	198
Gonorrhea	395.090	Trichinosis	23
Haemophilus influenzae (invasive disease)	1.081	Tuberculosis	18,153
Hansen Disease	129	Tularemia	139
lentospirosis	31	Typhoid fever	322
Lyme Disease	6,348	Typhus fever, tickborne (RMSF)	412

\*Updated monthly; last update October 3, 1992.

Four cases of suspected policinyelitis have been reported in 1992; 6 of the 9 suspected cases with onset in 1991 were confirmed, and 5 of the 8 suspected cases with onset in 1990 were confirmed; all were vaccine associated.

<sup>§</sup>Reports through second quarter 1992.

		Aseptic	Encept	Encephalitis		Hepatitis (Viral), by type						
Reporting Area	AIDS*	Menin- gitis	Primary	Post-in- fectious	Gona	Gonorrhea		В	NA,NB	Unspeci- fied	Legionel- Iosis	Lyme Disease
	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1991	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992
UNITED STATES	35,339	8,775	551	97	395,090	493,462	16,940	12,875	5,813	599	1.065	6.348
NEW ENGLAND	1,118	330	23	-	8,619	11,956	496	475	90	20	43	1.383
Maine	36	36	3	-	76	132	28	19	6	-	2	4
Vt.	23	23 18	3	:	185	167	31	32	20 11	1	5	34
Mass.	552	141	10	-	3,068	5,158	241	381	47	19	24	203
K.I. Conn.	399	112	3		559	1,061	129	18	6	-	10	260
MID. ATLANTIC	9 276	722	21	7	20 1/6	59 704	1 296	1 570	- 207	- 10	-	0/0
Upstate N.Y.	1,180	375			8,589	10,662	279	408	181	8	282	2,234
N.Y. City	5,421	122	4	1	15,302	22,820	593	309	5	-	6	15
N.J. Pa.	1,603	225	17	6	1,112	9,553 15 759	187 227	371	82 29	10	32 139	502
E.N. CENTRAL	3 106	1 421	141	27	76 025	91 5 1 5	2 348	1 958	1 151	34	284	126
Ohio	558	395	46	2	23,123	28,489	2,340	1,558	74	4	130	52
Ind.	294	187	11	11	7,531	9,358	693	672	554	13	37	30
Mich.	1,481	351	59 22	6 8	24,683	27,887	505 124	237	82 371	6 11	24 64	17
Wis.	191	31	3	-	3,277	6,361	671	356	70		29	
W.N. CENTRAL	983	482	36	6	19,245	24,476	2,239	567	236	33	67	291
Minn.	187	72	15	-	2,449	2,592	628	63	18	2	6	142
No.	74 502	213	- 8	3	1,327	1,612	42 924	30	5 181	4 25	16 25	26
N. Dak.	8	1	3	-	52	70	101	1	4	1	23	1
S. Dak.	7	9	1	1	149	302	198	5	-	:		1
Kans.	40 159	20 86	4	2 -	4,103	3,485	121	32 55	15	-	3	9 17
S. ATLANTIC	7,993	1.386	142	43	121 515	147 220	1 076	2 122	796	95	162	527
Del.	102	49	6	-	1,467	2,416	50	182	169	1	23	185
Md.	990	174	13	•	13,318	16,317	189	332	32	8	30	142
Va.	538	24	31	12	4,989	15 276	100	158	2/0	32	12	94
W. Va.	42	33	63	-	704	1,042	7	46	2	24	-	9
N.C.	534	177	24	-	20,711	29,870	96	366	74	-	34	66
Ga.	1.036	176	2		34,434	32,860	156	248	97		7	3
Fla.	4,021	503	2	31	23,470	29,711	444	674	120	29	22	24
E.S. CENTRAL	1,108	446	21	-	40,018	48,455	263	1,088	1,614	2	52	57
Ky.	174	161	13	-	3,960	5,022	88	83	3	-	25	20
Ala.	391	117	3		14,140	14,476	44	110	1,595	1	6	28
Miss.	189	70	1	-	9,656	11,908	34	4	1	1	-	
W.S. CENTRAL	3,264	1,021	53	5	43,813	56,030	1,651	1,562	136	143	20	102
Ark.	200	11	7	-	5,981	6,613	102	71	8	4		14
Okla.	191	- 50	3	ż	4.580	5.854	159	165	33	5	9	25
Tex.	2,305	954	35	2	21,048	30,715	1,206	1,173	25	131	7	58
MOUNTAIN	1,017	327	27	5	10,152	10,169	2,429	613	241	50	81	15
Mont.	17	11	1	1	102	82	81	32	27	1	9	-
Wyo.	2	5	2		48	81	12	12	47	-	1	5
Colo.	322	102	9	1	3,588	2,844	670	94	79	21	17	-
N. Mex.	75	40	4	1	788	3 762	261	166	23	8 13	2	2
Utah	96	15	3 3	i	285	266	281	14	27	6	20	6
Nev.	163	42	2	-	1,707	2,156	87	85	14	•	20	-
PACIFIC	7,474	2,640	87	4	36,557	44,847	5,152	2,920	1,252	204	74	191
Wash. Oreg	429			-	3,089	3,919	366	290	128	8	12	13
Calif.	6,676	2,555	80	3	31,101	37,896	3,921	2,368	869	177	60	177
Alaska	13	14	6	:	564	723	58	16	4	1	-	-
Hawaii	121	/1	-	1	419	607	147	15	188	9	1	1
Guam	1 3/0	2 151	1	-	50 102	15 457	5	261	-	6	-	1
V.I.	.,543	-		-	86	315	4	7	102			:
Amer. Samoa	-	-	-	-	40	46	1	1	-	-	-	-
C.N.M.I.	•	-	-	-	64	75	3	•	-	-	-	-

# TABLE II. Cases of selected notifiable diseases, United States, weeks ending October 24, 1992, and October 26, 1991 (43rd Week)

U: Unavailable N: Not notifiable \*Updated monthly; last update October 3, 1992. C.N.M.I.: Commonwealth of Northern Mariana Islands

			Measles (Rubeola)			Menin-						<b></b>			
Reporting Area	Malaria	Indig	enous	Impo	orted*	Total	gococcal Infections	Mu	mps	1	Pertussi	8		Rubella	
	Cum. 1992	1992	Cum. 1992	1992	Cum. 1992	Cum. 1991	Cum. 1992	1992	Cum. 1992	1992	Cum. 1992	Cum. 1991	1992	Cum. 1992	Cum. 1991
UNITED STATES	6 807	42	2,028	-	118	8,994	1,762	17	2,077	83	2,175	2,256	1	147	1,296
NEW ENGLAND	41	-	56	-	13	84	113	-	16	9	198	255	-	6	4
Maine N.H.	1	-	15	-	4	7	9 5	-	- 3	2	11 43	54 18	-	1	1
Vt.	-	•	-	-	2	5	6	-	1	-	8	4	-	-	÷
R.I.	22	-	16	-	5	3/	43 12	-	3		96	153	-	4	2
Conn.	10	-	2	-	4	31	38	-	8	2	37	26	-	1	1
MID. ATLANTIC	219	•	180	-	15	4,645	210	2	148	4	215	213	-	17	565 539
N.Y. City	126	-	42	-	8	1,750	20	-	12	-	9	27	-		2
N.J. Pa.	35 26	:	52 5	-	1	1,033	34 58	2	11 66	:	31 83	15 51	-	3	2 22
E.N. CENTRAL	51	-	40	-	14	95	277	2	280	18	348	389	-	8	320
Ohio	10	•	-	-	6	11	66	-	97	10	83	92	-	-	283
ING. III.	12		20	-	4	26	44 72	1	10	8	39 28	/4 70	-	8	3
Mich.	12	•	11	-	2	43	76	1	71	-	9	37	-	-	25
WN CENTRAL	36		- 6		2	59	84	1	66	2	188	185		7	18
Minn.	16	•	5	-	5	27	16	-	19	-	32	75	-		6
lowa Mo	2	:		:	3	17	8 27	1	11	2	7 85	20 62	-	3	65
N. Dak.	1	-	-	-	-	-	1	-	2	-	14	4	-		1
S. Dak. Nebr.	1	:	-	:	-	1	1 15	2	4	-	14	4 9	-	-	-
Kans.	4	-	1	-	-	13	16	-	2	-	23	11	-	4	-
S. ATLANTIC	166	-	122	-	12	503	330	3	743	5	147	213	1	21	9
Md.	53	-	10	-	7	176	33	2	69	4	29	49	-	6	1
D.C.	10	-		-	-	- 20	3	-	5	-	1	1	•	1	1
W. Va.	2	-			-		16	-	25	1	9	20 9		1	-
N.C. S.C.	12	-	24 29	:	:	44	75	:	192	:	36 10	34 13	-	- 7	2
Ga.	5	-	2	-	1	15	47	-	70	-	14	42	-	÷	2
FIA.	41	-	43	-	-	204	83	1	274	-	31	45	1	6	5
Ky.	1	-	440		2	28	36	-	5/	2	31	- 85	-	-	100
Tenn.	12	-	-	-	•	3	32	-	15	-	9	35	-	1	100
Miss.	1	-	1	-	16	-	11	-	29	-	3	40	-	-	-
W.S. CENTRAL	27	42	1,049	-	5	199	129	4	355	-	55	136	-	-	7
Ark. La.	3	-	-	-	:	5	14 27	1	8 22	-	18	10 16	:	:	1
Okla.	5	-	11	-	:		14		17	-	28	39	-	-	-
IEX.	18	42	1,038	-	5	194	74	3	308	-	-	/1	•	-	5
Mont.		-	- 25			1,255	14	-	2	-	343	294	-	- 9	<i>.</i>
ldaho Wyo	1	-	- 1	-	-	450	8	-	3	-	39	27	-	1	-
Colo.	7	•	21	-	6	7	17	-	19	12	50	123		2	3
N. Mex. Ariz	4 9	-	1		1	98 454	8 19	N	N 70	1	96 114	36 62	:	2	4
Utah	4	-	-	-	-	224	4	1	22	-	35	37	-	2	11
Nev.	2	-		-	-	19	12	1	12		2	2	-	2	7
Wash.	16	-	104	-	11	2,120	420	-	284	3	192	486	:	/8	246
Oreg.	12	-	3	-	1	88	59	N	N	1	40	62	-	3	3
Alaska	105	-			1	1,942	200	-	240	- 23	14	13	-	44	224
Hawaii	10	-	34	-	10	30	6	-	21	-	17	60	-	23	10
Guam P.R.	2	Ŭ	10 411	U	-	94	1	U	11	UU	11	- 53	UU	3	1
V.I.	-	-	-	-	•	2	-	-	20			-		-	-
C.N.M.I.	-	U	1	U	1		-	Ū		Ū	1	-	Ū	-	:

# TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending October 24, 1992, and October 26, 1991 (43rd Week)

•For measles only, imported cases include both out-of-state and international importations. N: Not notifiable U: Unavailable <sup>†</sup> International <sup>§</sup> Out-of-state

Reporting Area	Sy (Primary 8	Syphilis (Primary & Secondary)		Tuber	culosis	Tula- remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1992	Cum. 1991	Cum. 1992	Cum. 1992	Cum. 1991	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992
UNITED STATES	27,487	34,716	198	18,153	18,746	139	322	412	6,435
NEW ENGLAND	576	858	14	431	541	1	26	7	712
Maine	2	1	1	19	33	-	-	-	-
N.H. Vt.	/0	2		6	8	-		-	21
Mass.	275	405	5	231	283	1	16	3	26
R.I. Conn	34 194	45	2	42	75	:		2	656
	3 560	5 886	23	3 851	4 349	1	82	43	1 794
Upstate N.Y.	266	555	-9	339	366	-	11	15	1,220
N.Y. City	2,132	2,962	•	2,540	2,669	:	36	6	16
N.J. Pa	98 1.064	1,009	14	473	587	1	13	11	269
EN CENTRAL	4 167	4 247	53	1 858	1 862	1	36	28	140
Ohio	669	543	15	278	288	:	6	15	13
Ind.	251	157	11	157	187	:	1	6	19
nn. Mich.	1,900	2,003	20	955 403	959 343	1	25	2	30 15
Wis.	569	519	-	65	85	-	ĭ	3	57
W.N. CENTRAL	1,189	705	34	419	428	54	6	31	944
Minn.	81	59	7	109	86	-	2	-	148
No.	40 905	446	8	32 195	188	39	2	22	28
N. Dak.	1	1	2	6	6	-	-		136
S. Dak. Nabr	-	1	-	19	29 15	11	;	1	113
Kans.	161	124	7	38	49	2		5	353
S. ATLANTIC	7,622	10,177	22	3,517	3,552	5	30	129	1,508
Del.	172	144	3	42	28	:	-	13	177
Md. DC	535	814	2	316	320	1	7	15 1	453
Va.	608	775	3	298	274	2	ż	21	294
W. Va.	17	26	1	78	60	:	1	5	40
N.C. S.C.	2,056	1,653	3	443	460	1	2	5/	3/
Ga.	1,489	2,513	5	732	718	1	ī	7	302
Fla.	1,412	2,352	4	1,188	1,194	-	16	3	43
E.S. CENTRAL	3,557	3,823	3	1,150	1,243	9	5	60	162
Ky. Tenn	943	1 2 3 8		319	289	2	1	51	33
Ala.	1,245	1,444	-	342	322		1	3	71
Miss.	1,228	1,052	-	205	251	-	3	-	1
W.S. CENTRAL	5,077	6,216	2	2,199	2,235	35	15	98	618
чгк. _а.	2.117	2,290		1/8	190	24	1	1/	40
Okla.	341	167	1	129	143	11	÷	80	279
lex.	1,934	3,181	1	1,737	1,727	-	13	1	291
MOUNTAIN	293	481	15	464	509	27	5	10	228
daho	1	6 4	1	20	6 8	12	1	3 1	21
Nyo.	3	8	-	-	Š	1	:	4	81
Colo. May	48	74	6	47	70	4	2	-	24
Ariz.	150	302	2	212	262	-		-	64
Jtah	7	6	4	61	40	2	:	1	6
Nev.	41	53	-	60	59	2	1	-	16
'ACIFIC Nash	1,446	2,323	32	4,264	4,027	6	117	6	329
Dreg.	40	74	1	111	106	-	1	3	2
Calif.	1,322	2,075	29	3,648	3,449	2	101	3	314
haska Iawaii	5	4	-	43 214	57 166	2	- 7	-	13
Guam	3	1	_	59	e	_	,	-	-
P.R.	290	349		200	203	-	3 1	•	41
/.l.	58	87	-	3	2	-	-	-	-
C.N.M.I.	6	- 5	-	50	3 18	-	1	-	•
		-						-	-

# TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending October 24, 1992, and October 26, 1991 (43rd Week)

U: Unavailable

	A	All Cau	ses, By	/ Age (Y	ears)		P&I <sup>†</sup>	P&I <sup>†</sup> Total Reporting Area		All Causes, By Age (Years)					
Reporting Area	All Ages	≥65	45-64	25-44	1-24	<1	Total			≥65	45-64	25-44	1-24	<1	Tota
NEW ENGLAND	584	391	116	46	17	14	53	S. ATLANTIC	1,385	865	274	162	41	42	70
Boston, Mass.	145	81	35	17	5	7	19	Atlanta, Ga.	167	86	45	30	1	5	3
Bridgeport, Conn.	46	29	12	3	2	-	6	Baltimore, Md.	327	192	69	42	12	12	29
Cambridge, Mass. Fall River Mass	20	13	4	,	-	:	-	Lacksonville Fla	109	80	14	14	Ř	4	4
Hartford, Conn.	50	33	13	3	1	-	-	Miami, Fla.	96	50	20	20	ă,	2	
Lowell, Mass.	25	21	2	2	-	-	2	Norfolk, Va.	51	36	9	3	-	3	3
Lynn, Mass.	14	. 9	3	2	-	-	2	Richmond, Va.	68	41	16	6	4	1	3
New Bedford, Mass	. 41	31	5	4	1	-	5	Savannah, Ga.	50	34	10	4	2	;	4
Providence R I	43 51	37	11	3	5		5	Tampa Fla	154	116	22	11	2	2	11
Somerville, Mass.	5	4		ĩ	-	-	-	Washington, D.C.	163	92	32	żi	10	8	5
Springfield, Mass.	45	35	3	3	2	2	2	Wilmington, Del.	22	21	1	-	-		-
Waterbury, Conn.	28	24	3	1	-		6	E.S. CENTRAL	758	512	140	52	36	18	50
worcester, mass.	40	28		2		4	4	Birmingham, Ala.	110	65	25	õ	°9	Š	4
MID. ATLANTIC	2,380	1,562	458	257	52	50	98	Chattanooga, Tenn.	83	59	15	5	3	1	4
Albany, N.Y.	50	34	10	4	-	2	7	Knoxville, Tenn.	82	58	12	7	2	3	.9
Buffalo NY	88	59	20	4	2	3	1	Memphie Tenn	155	103	21	10	3	2	14
Camden, N.J.	37	22	7	4	2	ž	3	Mobile, Ala.	86	59	18	6	1	2	5
Elizabeth, N.J.	29	17	10	2	-	-	-	Montgomery, Ala.	52	41	7	1	3	-	4
Erie, Pa.§	57	47	6	.3	-	1	4	Nashville, Tenn.	126	83	24	11	6	2	5
Jersey City, N.J. New York City, N.Y.	1 207	7/3	248	10	20	10	20	W.S. CENTRAL	1,382	871	289	149	44	29	88
Newark, N.J.	',207	΄υ	τŪ	Ü	บ็	ΰ	Ŭ	Austin, Tex.	67	42	11	9	2	3	4
Paterson, N.J.	29	18	7	3	ĩ	-	3	Baton Rouge, La.	58	41	10	5	2	:	3
Philadelphia, Pa.	399	269	82	31	10	6	26	Corpus Christi, lex.	. 40	120	<b>5</b> 2	20	1	3	2
Pittsburgh, Pa.s	63	46	12	3	1	1	4	El Paso, Tex.	71	50	19	29	2°	<u>'</u> .	3
Rochester, N.Y.	125	95	14	ż	3	6	3	Ft. Worth, Tex.	75	50	11	9	4	1	4
Schenectady, N.Y.	23	17	5	i				Houston, Tex.	347	200	81	47	13	6	45
Scranton, Pa.§	24	18	3	3	-	-	1	Little Rock, Ark.	65	48	10	17	1	1	4
Syracuse, N.Y.	112	85	13	9		5	8	San Antonio, Tex.	192	130	36	18	Å	4	6
Utica, N.Y.	22	17	5	4		2	4	Shreveport, La.	45	28	10	3	3	1	5
Yonkers, N.Y.	Ū	Ü	Ŭ	U	υ	υ	U	Tulsa, Ókla.	104	75	21	6	2	-	8
E.N. CENTRAL	2,142	1.369	390	180	125	78	122	MOUNTAIN	806	550	145	76	15	20	61
Akron, Ohio	76	59	14	2		ĩ		Albuquerque, N.M.	104	57	25	13	7	2	4
Canton, Ohio	47	34	88	4	-	1	5	Colo. Springs, Colo	. 39	21	12	.3	1	2	12
Chicago, III.	393	156	78	72	75	12	13	Las Veras Nev	119	77	21	10	2	4	12
Cincinnati, Onio	156	00 96	13	14		9	10	Ogden, Utah	18	18	-	-	-	-	ž
Columbus, Ohio	224	153	45	15	8	ž	6	Phoenix, Ariz.	163	116	25	11	3	8	21
Dayton, Ohio	104	73	20	5	1	5	9	Pueblo, Colo.	26	24		1	-	1	2
Detroit, Mich.	207	128	41	15	12	11	6	Salt Lake City, Utah	115	80	24	12	2	3	5
Evansville, Ind.	52	39	10	2	1		3	Tucson, Anz.	100			12	-	-	
Garv. Ind.	17	9	3	3	1	1	-	PACIFIC Baskalau Calif	1,819	1,180	311	208	74	42	114
Grand Rapids, Mich	n. 56	40	11	ž	ż	i	4	Fresno Calif	76	13	22	25	2	2	2
Indianapolis, Ind.	148	94	32	12	5	5	28	Glendale, Calif.	24	21	2	1	-	-	3
Madison, Wis.	41	32	10	-	1	5	3	Honolulu, Hawaii	67	42	13	7	2	3	7
Peoria, III.	46	34	11	1	2		4	Long Beach, Calif.	75	48	14	_9	3	1	10
Rockford, III.	51	31	7	5	5	3	5	Los Angeles, Calif.	432	255	73	57	37	1	16
South Bend, Ind.	45	35	6	3	1	•	5	Portland Oreg	133	94	20	13	3	3	6
Toledo, Ohio	113	83	18	6	2	4	5	Sacramento, Calif.	150	99	23	18	4	ĕ	15
Youngstown, Onio	/1	55	9	3		3	4	San Diego, Calif.	129	90	18	16	2	3	9
W.N. CENTRAL	717	520	113	55	16	12	39	San Francisco, Calif	f. 188	102	38	39	3	5	10
Des Moines, Iowa	69	54	7	4	2	2	9	Santa Cruz Celif	31	23	21	3	4 2	1	18
Kansas City Kane	28	23	4 2	1	1		1	Seattle, Wash.	155	105	31	12	5	2	5
Kansas City, Mo.	99	75	14	3	4	3	3	Spokane, Wash.	59	43	11	1	ĩ	3	5
Lincoln, Nebr.	32	22	6	3	-	ĭ	ī	Tacoma, Wash.	88	60	12	11	3	2	6
Minneapolis, Minn.	137	88	29	14	3	3	10	TOTAL	11,973 <sup>¶</sup>	7,820	2,236	1,185	420	305	695
Omaha, Nebr.	106	82	18	12	1	-	6				,				
St. Paul, Minn.	52	36	11	3	1	1	3								
Wichita, Kans.	51	32	8	ě	i	-	Ă								

# TABLE III. Deaths in 121 U.S. cities,\* week ending October 24, 1992 (43rd Week)

\*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks. Total includes unknown ages.

U: Unavailable.

#### MMWR

# Influenza Activity — Continued

[404] 332-4555) or through the CDC Information Service on the Public Health Network\* electronic bulletin board. Periodic updates about influenza activity also may be available from state and local health departments.

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# Surveillance for Occupationally Acquired HIV Infection — United States, 1981–1992

Public health surveillance for and risk-assessment studies of human immunodeficiency virus (HIV) infection provide a basis for formulating measures to minimize the risk for occupational transmission of HIV to health-care workers (1–6). Data on occupational transmission of HIV have been provided by two CDC-supported national surveillance systems: one initiated in 1981 for acquired immunodeficiency syndrome (AIDS) cases and one initiated in 1991 for HIV infections acquired through occupational exposures (Table 1). This report summarizes data on occupationally acquired HIV infection from these surveillance systems through September 1992.

For surveillance purposes, health-care workers are defined as persons, including students and trainees, who worked in a health-care, clinical, or HIV-laboratory setting any time since 1978. Persons reported from these two systems have been classified with documented or possible occupationally acquired HIV infection. Those classified with documented occupationally acquired HIV infection had evidence of HIV seroconversion (i.e., a negative HIV-antibody test at the time of the exposure that was subsequently positive) following a discrete percutaneous or mucocutaneous occupational exposure to blood, body fluids, or other clinical or laboratory specimens. Persons classified with possible occupationally acquired HIV infection did not have behavioral or transfusion risks for HIV infection that could be identified during follow-up investigation; each person reported past percutaneous or mucocutaneous occupational exposure to blood, body fluids, or laboratory specimens, but seroconversion against HIV as a result of an occupational exposure was not documented.

<sup>\*</sup>Use of trade names and commercial sources is for identification only and does not imply endorsement by the Public Health Service or the U.S. Department of Health and Human Services.

# **Occupationally Acquired HIV Infection — Continued**

As of September 30, 1992, CDC had received reports of 32 health-care workers in the United States with documented occupationally acquired HIV infection and 69 with possible occupationally acquired HIV infection.

Among those with documented occupationally acquired HIV infection, 27 (84%) had percutaneous exposure, four (13%) had mucocutaneous exposure, and one (3%) had both percutaneous and mucocutaneous exposures. Thirty were exposed to HIV-infected blood, one to concentrated infectious HIV, and one had a percutaneous exposure to an unspecified fluid from an unknown source patient. Seven (22%) of these workers have developed AIDS.

Of the 69 health-care workers classified with possible occupationally acquired HIV infection, four (6%) had occupational exposures to blood of patients known to be HIV-infected or to research laboratory specimens known to contain infectious HIV. Of the remaining 65, none reported exposure to blood or body fluids known to be HIV infected. Of these 69 workers, 54 (78%) have developed AIDS.

Reported by: Div of HIV/AIDS, National Center for Infectious Diseases, CDC.

**Editorial Note:** Health-care workers with AIDS and without an identified behavioral or transfusion risk for HIV infection are a priority for follow-up investigation by health departments to determine whether infection occurred through occupational exposure or by an alternate mode of transmission. In addition, in collaboration with state and local health departments, CDC conducts surveillance for HIV-infected health-care workers suspected to have become infected through occupational exposures but who do not meet the AIDS case definition (7). These surveillance systems help monitor occupational transmission of HIV and identify the circumstances that result in transmission. Although no transmission of HIV after mucocutaneous exposure has occurred in prospective studies of the risk for transmission following occupational exposures to HIV (8,9), case reports have documented such transmission (1).

Occupation	Documented	Possible
Dental worker, including dentist	0	6
Embalmer/Morgue technician	0	3
Emergency medical technician/Paramedic	0	7
Health aide/Attendant	1	5
Housekeeper/Maintenance worker	1	5
Laboratory technician, clinical	11	12
Laboratory technician, nonclinical	1	1
Nurse	12	14
Physician, nonsurgical	4	7
Physician, surgical	0	2
Respiratory therapist	1	1
Surgical technician	1	1
Technician/Therapist, other than those listed above	0	3
Other health-care occupations	0	2
Total	32	69

# TABLE 1. Health-care workers with documented and possible occupationally acquired HIV infection, by occupation — United States, through September 1992

# **Occupationally Acquired HIV Infection — Continued**

The number of persons with occupationally acquired HIV infection is probably greater than the totals presented here because not all health-care workers are evaluated for HIV infection following exposures and not all persons with occupationally acquired infection are reported. Suspected cases of occupationally acquired HIV infection should be reported to CDC through state and local health department HIV/AIDS surveillance programs. To protect confidentiality of reported workers, names and other specific identifying information are not sent to CDC.

Data on health-care workers with documented and possible occupationally acquired HIV infection, as well as AIDS case surveillance, are published quarterly in CDC's *HIV/AIDS Surveillance Report*. Single copies of the report are available free from the CDC National AIDS Clearinghouse, P.O. Box 6003, Rockville, MD 20849-6003; telephone (800) 458-5231. Individuals or organizations can be added to the mailing list by writing to Management Analysis and Services Office, Office of Program Support, CDC, 1600 Clifton Road, NE, Mailstop A-22, Atlanta, GA 30333.

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# Topics in Minority Health

# Community Awareness and Use of HIV/AIDS-Prevention Services Among Minority Populations — Connecticut, 1991

Human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS)-prevention efforts supported by the federal government include programs offered through community-based organizations (CBOs) and state and local health departments (1). To assess the extent of community awareness and use of these HIV/AIDS-prevention services among Hispanics and non-Hispanic blacks in three cities in Connecticut, the Connecticut State Department of Health Services (CSDHS) included questions on HIV/AIDS-prevention programs in its population-based chronic

#### HIV/AIDS Prevention — Continued

disease and health risk survey. This report summarizes survey results regarding awareness and use of these community-based programs during 1991.

The Connecticut HIV/AIDS Risk Survey was a household probability sample of Hispanics and non-Hispanic blacks aged 18–45 years living in Bridgeport (1990 population: 141,686), Hartford (1990 population: 139,739), and New Haven (1990 population: 130,475). During October 1991, 926 respondents from 1370 households with telephones were interviewed by telephone for the chronic disease portion of the survey, using methods adapted from the Behavioral Risk Factor Surveillance System (2). Of these 926 respondents, 769 were eligible (i.e., non-Hispanic black or Hispanic aged 18–45 years) to respond to survey questions related to HIV/AIDS-prevention programs; of those ineligible, 111 were white and 46 were aged >45 years. In addition, 45 households without telephones were visited to obtain interviews; 31 respondents from the 800 eligible respondents addressed awareness of HIV/AIDS-prevention programs and services, HIV-testing experience, and self-perceived risk for HIV infection. Nonrespondents were not characterized. Data were weighted to compensate for unequal sampling probabilities and nonresponse.

Overall, 35% of respondents were aware of special AIDS outreach and information services (Table 1). Persons with higher education levels were more likely to be aware of these services in all locations. Of respondents who stated that they were aware of services, 81 (10.6% of all respondents) reported they had received services. Among all respondents, women were more likely to have received services than men (13.4% versus 7.2%), as were Hispanics than were non-Hispanic blacks (18.5% versus 5.4%). However, when those who had no knowledge of services were excluded from the analysis, the reported use of services by men and women were similar.

The 81 respondents who reported receiving services identified sources of service including community health clinics (e.g., Bridgeport Community Health Center), hospitals, and community-based organizations (e.g., Latinos Contra SIDA, Hartford, and AIDS Interfaith Network, New Haven). Eight (9.9%) of 81 respondents had received services in cities other than where they resided.

Of all respondents, 23.5% reported having been tested for HIV antibody. Rates of testing were highest in Bridgeport and varied substantially among groups (Table 1). Rates were higher among men, blacks, younger persons, unmarried persons with steady partners, persons with higher education, and those whose self-perceived risk for infection was high or medium. Most tests, whether required (e.g., for insurance, employment, blood donation, and military) or voluntary, were obtained from hospitals, physicians' offices, and health centers (Table 2); HIV testing clinics, public health departments, and other clinics that receive public funds for HIV testing accounted for 19% of reported tests.

Persons who had not been tested but who indicated they might be tested during the next 6 months identified private-sector physicians, health centers, and hospitals as likely sources for testing. Approximately 25% identified public sources, and 13.1% reported they would use HIV testing centers.

Reported by: PJ Checko, MPH, B Weinstein, MPH, A McLendon, MEd, AIDS Section, M Adams, MS, Div of Chronic Disease, JL Hadler, MD, State Epidemiologist, Connecticut State Dept of Health Svcs. Behavioral Risk Factor Surveillance Br, Office of Surveillance and Analysis, National Center for Chronic Disease Prevention and Health Promotion; Behavioral and Prevention Re-

### HIV/AIDS Prevention --- Continued

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**Editorial Note:** HIV/AIDS-prevention efforts in the United States involve public health agencies and CBOs that provide services such as public information; health education; risk-reduction counseling; and HIV counseling, testing, and referral (1,3–5). These programs may be aimed especially at persons with specific risk behaviors (e.g.,

		K outre P	Knew of outreach/service program		eceived ition/services in program	Had HIV-antibody test		
Category	No.†	%	(95% CI <sup>s</sup> )	%	(95% CI)	%	(95% CI)	
City						_		
Bridgeport	252	33.4	(27.5–39.3)	11.1	(7.1–15.0)	31.2 <sup>¶</sup>	(25.4–37.0)	
Hartford	330	34.0	(28.7–39.3)	9.9	( 6.5–13.2)	17.5	(13.2–21.7)	
New Haven	218	39.1	(33.1–45.1)	11.2	( 7.3–15.0)	24.5	(19.2–29.8)	
Sex				_		-		
Male	304	31.5	(25.8–37.2)	7.2 <sup>¶</sup>	( 4.0–10.3)	28.6 <sup>¶</sup>	(23.0–34.1)	
Female	496	37.8	(33.8–41.8)	13.4	(10.5–16.2)	19.4	(16.1–22.7)	
Race/Ethnicity								
Black, non-								
Hispanic	486	33.7	(29.5–37.9)	5.4"	(3.4–7.5)	29.4	(25.3–33.4)	
Hispanic	314	36.9	(31.5–42.3)	18.5	(14.2–22.8)	14.6	(10.7–18.5)	
Age group (yrs)						-		
18–24	183	29.4	(22.9–35.8)	6.4	( 3.0– 9.9)	30.2	(23.8–36.7)	
25–29	148	39.5	(31.8–47.3)	11.7	( 6.6–16.8)	29.7	(22.4–36.9)	
30–39	257	39.9	(33.8–46.0)	14.8	(10.3–19.2)	21.4	(16.3–26.5)	
40–45	211	30.5	(24.2–36.8)	8.0	( 4.3–11.7)	16.9	(11.8–22.1)	
Partner status				_		-		
Married	335	37.9	(32.5–43.4)	13.9 <sup>¶</sup>	(10.0–17.8)	18.3 <b>"</b>	(13.9–22.6)	
Steady partner	160	30.1	(23.2–36.9)	11.0	( 6.3–15.7)	32.1	(25.7–39.1)	
No steady partner	291	33.2	(28.0–38.4)	6.4	( 3.7– 9.1)	25.5	(20.6–30.3)	
Education								
Less than high								
school graduate	217	26.3 <b>1</b>	(20.7–32.0)	7.1	( 3.8–10.4)	16.0 <b>'</b>	(11.3–20.7)	
High school	205	01.1	(DE 0 DC 4)	• •	1 CE 12 A	01.1	(10 4 05 7)	
graduate More then high	295	31.1	(25.8-36.4)	9.9	( 0.5-13.4)	21.1	(10.4-25.7)	
school graduate	282	45.2	(39.2–51.2)	13.7	(9.6–17.8)	31.2	(25.7–36.8)	
Risk for HIV								
infection								
High/Medium	55	31.8	(19.9–43.6)	6.1 <sup>¶</sup>	(0 -12.2)	38.7 <sup>¶</sup>	(26.3–51.2)	
Low/None	672	35.6	(32.0-39.3)	11.7	(9.3-14.2)	21.8	(18.7–24.9)	
Don't know	71	31.5	(20.6-42.3)	2.9	(0 - 6.8)	29.8	(19.1-40.5)	
Total	800	35.0	(31.7–38.3)	10.6	( 8.4–12.7)	23.5	(20.6–26.5)	

TABLE 1. Percentage of respondents who know of HIV/AIDS-prevention outreach or service programs in their community, had received information or services from the program, and had been tested for HIV — Connecticut HIV/AIDS Risk Survey, 1991\*

\*Percentages are based on weighted values; numbers are unweighted.

Numbers may not add to 100% due to nonresponse.

<sup>3</sup>Confidence interval.

<sup>¶</sup>One-way analysis of variance for this variable (p<0.05).

## HIV/AIDS Prevention — Continued

injecting-drug users), population groups (e.g., homeless and young adults), and geographic areas (e.g., inner cities). The use of representative population-based surveys can help in assessing the impact of these programs on various groups and may reduce the methodologic constraints associated with sampling based on clinic populations or convenience sampling of groups targeted by programs (6). Findings from this survey regarding the level of reported HIV-antibody testing and the sources of testing in Connecticut are consistent with national data (7–9).

The CSDHS is using these findings to evaluate HIV/AIDS-prevention programs for current and potential program clients in the three communities. In Connecticut, a variety of service providers, including CBOs and public health departments in the three cities covered by the survey, are attempting to identify and enroll persons who engage in risk behaviors into HIV-prevention programs. CBOs in these areas deliver a variety of services through street-outreach programs that target injecting-drug users, adolescent males who have sex with men, and women who may not readily seek testing and counseling.

The findings in this report are subject to at least three limitations. First, the use of these survey results to evaluate targeted programs is limited because the survey did not clearly identify risk behavior and HIV status among respondents. Second, al-though some results were consistent with national data, results regarding program awareness and testing experience may reflect self-reporting error and recall bias. Finally, because it was not possible to characterize nonrespondents, the representativeness of this survey could not be assessed.

The findings of this survey indicated a substantial level of awareness and use of HIV services in the general population of blacks and Hispanics in these cities, and many of the respondents identified the specific program from which they had received ser-

	Persons	tested (n=190)	Perso to be te next 6 mo	ons likely ested in the onths (n=187)
Source of tests	%	(95% CI <sup>+</sup> )	%	(95% CI)
Public Source				
HIV testing clinic	6.5	( 3.0–10.0)	13.1	( 8.2–18.0)
Public health department	3.7	( 1.0- 6.4)	4.3	( 1.4- 7.3)
Other clinic	9.2	(5.1–13.4)	7.3	( 3.5–11.1)
Total	19.4	(13.8–25.0)	24.7	(18.5–30.9)
All other sources				
Doctor/Health center	18.1	(12.6–23.5)	25.4	(19.1–31.7)
Hospital	25.8	(19.5-32.0)	28.5	(22.0-35.1)
Employee health clinic	3.7	( 1.0- 6.4)	4.3	(1.3-7.2)
Red Cross/Blood bank	15.9	(10.7-21.1)	0.9	(0 - 2.2)
Don't know	1.4	(0 – 3.0)	10.8	( 6.3–15.3)
Other	15.8	(10.6–20.9)	5.4	(2.1-8.7)
Total	80.6	(75.0–86.2)	75.3	(69.1-81.5)
Total	100.0		100.0	

# TABLE 2. Self-reported source of HIV-antibody test for persons tested and likely to be tested in the next 6 months\* — Connecticut HIV/AIDS Risk Survey, 1991

\*Following the survey date.

<sup>†</sup>Confidence interval.

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# HIV/AIDS Prevention — Continued

vices. However, the findings suggest the need to intensify efforts to increase the number of persons who know where to get information about existing programs in their areas, particularly among persons in lower education groups who were least aware of available services. In particular, because men and blacks used services at a lower rate than did women and Hispanics, programs delivering HIV/AIDS education and testing and counseling services need to continue to target these groups.

Survey data on HIV-antibody testing indicated that levels of testing were particularly low among residents of Hartford, Hispanics, and persons who did not graduate from high school. These data also indicated that most HIV-antibody tests take place outside of publicly funded programs, where national data suggest that pretest and posttest counseling is less likely to take place (7). The CSDHS plans to use this information to ensure that persons being tested receive the appropriate counseling and referral services whether they are tested at public- or private-sector locations.

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# Notices to Readers

# Revision of the Proposed Expansion of the AIDS Surveillance Case Definition

In November 1991, CDC proposed an expansion of the acquired immunodeficiency syndrome (AIDS) surveillance case definition and solicited public comment (1). Following a review of these comments and additional scientific data, CDC has revised the proposed expansion. The document describing this revision is available from the CDC National AIDS Clearinghouse, P.O. Box 6003, Rockville, MD 20849-6003; telephone (800) 458-5231.

## Notices to Readers — Continued

#### Reference

1. CDC. Review of draft for revision of HIV infection classification system and expansion of AIDS surveillance case definition. MMWR 1991;40:787.

# **Announcement of CDC Name Change**

The U.S. Congress, as part of the Preventive Health Amendments of 1992, has recognized CDC's leadership role in prevention by formally changing its name to the Centers for Disease Control and Prevention. The President signed the bill on October 27. In making this change, and acknowledging CDC's responsibility for "addressing illness and disability before they occur," the Congress also specified that the agency should continue to be recognized by the acronym "CDC."

# Erratum: Vol. 41, No. 41

In the article "Poliomyelitis—Netherlands, 1992," on page 777, reference 6 was cited incorrectly. The correct citation should be "Office of the Chief Medical Officer of Health. Annual report, 1991. *The Hague: Ministry of Health, Netherlands, 1992.*"

### Erratum: Vol. 40, No. 53

The *MMWR Summary of Notifiable Diseases, United States, 1991* (published October 2, 1992) contains a mislabeled map on page 15. The map titled "Acquired Immunodeficiency Syndrome (AIDS)—Reported pediatric cases by year, United States, 1982–1991" should be titled as shown in the following map.

# ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS) — Reported pediatric\* cases, United States and Puerto Rico, 1991



\*Children less than 13 years old (n=683).

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