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# World No-Tobacco Day — May 31, 1999

The theme for this year's World No-Tobacco Day, May 31, is "Leave the Pack Behind." As part of World No-Tobacco Day, smokers are encouraged to quit, and governments, community organizations, schools, and families and friends are encouraged to help smokers quit.

Preventing tobacco use by young persons is critical for long-term reductions in tobacco-related deaths. However, the projected increase in global mortality from tobacco use, from 3 million deaths in 1990 to 10 million in 2025, primarily represents mortality among persons who already smoke (1). Smoking cessation interventions can prevent many of these projected deaths.

The World Health Organization (WHO) recommends that governments, community organizations, and health-care systems and professionals 1) make tobacco-use treatment an important public health priority; 2) offer practical interventions; 3) assess and document tobacco use and provide treatment as part of total health care; 4) fund proven treatments and make them widely available; 5) take responsibility for motivating smokers to quit and remain abstinent; 6) monitor tobacco use, and tax and regulate the sale and marketing of tobacco products; 7) invest in developing new treatments for nicotine dependence; and 8) encourage other professionals to set an example by quitting tobacco use (2).

Additional information about World No-Tobacco Day 1999 is available from WHO's World-Wide Web site, http://www.who.int/toh/worldnotobacco99/ teaser.htm\* and CDC's Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, http://www.cdc.gov/tobacco, telephone (800) 232-1311.

References

- 1. World Health Organization. Tobacco or health: a global status report. Geneva, Switzerland: World Health Organization, 1997.
- 2. World Health Organization. Statement on treatment for tobacco dependence. Available at: http://www.who.int/toh. Accessed April 14, 1999.

# **U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES**

<sup>\*</sup>References to sites of nonfederal organizations on the World-Wide Web are provided as a service to *MMWR* readers and do not constitute or imply endorsement of these organizations or their programs by CDC or the U.S. Department of Health and Human Services. CDC is not responsible for the content of pages found at these sites.

# Illegal Sales of Cigarettes to Minors — Ciudad Juárez, Mexico; El Paso, Texas; and Las Cruces, New Mexico, 1999

In 1996, the United States-Mexico Binational Commission (US-MBC) Health Working Group identified prevention of tobacco use, particularly among adolescents, as a priority and subsequently recommended joint efforts toward reducing illegal sales of cigarettes to minors. A 1997 survey of 561 commercial cigarette outlets in Mexico City found that 79% of retailers sold cigarettes to minors (1). To assess the illegal sale of cigarettes to minors in other regions of Mexico and on both sides of the U.S.–Mexico border, during January–February 1999 the General Directorate of Epidemiology in Mexico, the Chihuahua State Department of Health Services (CDH), the Ciudad Juárez Department of Health (CJDH), the Texas Department of Health (TDH), and the New Mexico Department of Health (NMDH) surveyed cigarette outlets in Ciudad Juárez, Mexico; El Paso, Texas; and Las Cruces, New Mexico. This report summarizes the results of these surveys, which indicate that almost all retailers in the surveyed outlets in Ciudad Juárez sold cigarettes to minors and that sales rates to minors were substantially lower in El Paso and Las Cruces.

Although survey methods were the same in each location, sampling methods varied. In Ciudad Juárez, where no list of cigarette outlets was available, the sample was selected by using a stratified cluster design. Within each of eight geographic areas, 23 clusters were selected, each with an equal probability of selection. All stores within each selected cluster were visited by adults, and the operational cigarette outlets were identified and surveyed. In El Paso, where a list of licensed cigarette outlets was available, a stratified cluster design was used in which the strata were six geographic areas within the city limits and the clusters were postal ZIP code areas. Within each of the six areas, two clusters were selected with a probability of selection proportional to the number of cigarette outlets; within a selected cluster, all outlets were surveyed. In Las Cruces, a list of all operational cigarette outlets was available and all outlets were surveyed. Because the Las Cruces list was a census and not a sample, confidence intervals were not calculated. For both Ciudad Juárez and El Paso, sampling weights were calculated using the inverse probability of selection for each cluster within a stratum. Standard errors and 95% confidence intervals were calculated using SUDAAN (2).

Minors who participated in the surveys were recruited from local schools in Ciudad Juárez and El Paso and from a youth organization in Las Cruces. Adult survey escorts were staff of the local or state health departments and volunteers. Teams comprising one adult and two minors attempted to make one purchase per store using the following protocol (1,3): the adult entered the store before one of the minors and noted whether age-of-sale warning signs were posted. Then the adult observed the transaction between the retailer and minor as the minor attempted to purchase a pack of cigarettes. If asked by the retailer, minors were instructed to state truthfully their age and that they carried no identification. An illegal sale was defined as a transaction in which a retailer sold a pack of cigarettes to a minor. If a sale was completed, the minor left the store with the cigarettes and gave them to the adult.

Illegal sales rates to minors in the teams were higher in Ciudad Juárez (98.1%) than in El Paso (18.0%) or Las Cruces (6.1%) (Table 1). In Ciudad Juárez, sales rates did not

TABLE 1. Number and percentage of store visits and of retailers who sold cigarettes to minors,* by category and location —	IIIe
Ciudad Juárez, Mexico; El Paso, Texas; and Las Cruces, New Mexico, 1999	ega.

	Ciudad Juárez, Mexico					El Paso, Texas						Las Cruces, New Mexico			
	Stor	Store visits		Retailer sold cigarettes to minors		Store visits		Retailer sold cigarettes to minors			Store visits		Retailer sold cigarettes to minor		
Category	No.	(%)†	No.	(%) <sup>§</sup>	(95% CI¶)	No.	(%)†	No.	(%) <sup>§</sup>	(95 % CI)	No.	(%)	No.	(%)**	
Minor's age (yrs)															
15	159	(66.1)	151	(95.2)	(±3.7)	94	(26.3)	8	(10.2)	(± 6.8)	38	( 38.8)	0	( 0.0)	
16	81	(33.9)	80	(98.0)	(±3.9)	162	(45.4)	38	(25.9)	(± 6.3)	4	( 4.1)	0	( 0.0)	
17	0	( )	—	( — )	( — )	101	(28.3)	11	(11.2)	(± 6.5)	56	(57.1)	6	(10.7)	
Minor's sex															
Male	141	(58.7)	135	(95.3)	(±4.2)	175	(49.0)	15	(8.8)	(± 4.5)	69	(70.4)	1	(1.4)	
Female	99	(41.3)	96	(97.2)	(±3.3)	182	(51.0)	42	(26.1)	(± 6.1)	29	(29.6)	5	(17.2)	
Retailer's estimated age (yrs)															
<25	53	(22.1)	51	(97.0)	(±4.3)	131	(36.7)	31	(25.3)	(± 7.1)	43	(43.9)	5	(11.6)	
≥25	187	(77.9)	180	(95.9)	(±3.3)	226	(63.3)	26	(13.6)	(± 4.8)	55	(56.1)	1	(1.8)	
Retailer's sex															
Male	125	(52.3)	120	(96.3)	(±3.7)	173	(48.6)	27	(17.6)	(± 6.0)	43	(43.9)	4	(9.3)	
Female	114	(47.7)	110	(95.9)	(±4.2)	183	(51.4)	30	(18.4)	(± 5.5)	55	(56.1)	2	(3.6)	
Unknown	1		1			1		0			0		0		
Retailer asked age															
Yes	8	( 3.3)	6	<u>††</u>	<u>††</u>	33	( 9.2)	2	(7.1)	(± 9.5)	19	(19.4)	0	( 0.0)	
No	232	(96.7)	225	(97.2)	(±2.3)	324	(90.8)	55	(19.1)	(± 4.1)	79	(80.6)	6	(7.6)	
Retailer asked for identification															
Yes	2	( 0.8)	2	<u>††</u>	<u>††</u>	285	(79.8)	8	( 3.0)	(± 2.0)	84	(85.7)	1	(1.2)	
No	238	(99.2)	229	(96.1)	(±2.8)	72	(20.2)	49	(69.8)	(±10.6)	14	(14.3)	5	(35.7)	
Warning signs present															
Yes	3	( 1.3)	2	<u>††</u>	<b>†</b> †	218	(61.2)	31	(15.2)	(± 4.8)	48	( 49.0)	0	( 0.0)	
No	237	(98.7)	229	(96.4)	(±2.7)	138	( 38.8)	25	(21.6)	(± 7.0)	50	(51.0)	6	(12.0)	
Unknown	0		0			1		1			0		0		
Total	240	(100.0)	231	(98.1)	(±2.8)	357	(100.0)	57	(18.0)	(± 3.8)	98	(100.0)	6	(6.1)	

\*Aged <18 years. <sup>†</sup>Unweighted percentages. <sup>§</sup>Weighted percentages. <sup>¶</sup>Confidence interval. \*\*Because percentage of successful purchase attempts represented all cigarette outlets in Las Cruces, 95% CIs are not presented. <sup>††</sup>Numbers were too small to calculate precise estimates.

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vary by age or sex of the minors, sex or estimated age of the retailers, or type of store. In El Paso, sales rates were significantly lower for boys, minors aged 15 or 17 years, and if the retailer asked for identification. Illegal sales did not differ by store type in El Paso. In Las Cruces, sales rates were lower for boys, for minors aged 15 or 16 years, if warning signs were present, and if the retailer appeared to be aged  $\geq$ 25 years, female, or asked for age or identification.

Reported by: R Adame-Moreno, MD, O Ibarra-Heredia, MD, Ciudad Juárez Dept of Health, Ciudad Juárez, Chihuahua; H Torres-Simental, MD, State Dept of Health, Chihuahua; P Kuri-Morales, MD, M Hoy, MD, General Directorate of Epidemiology; R Tapia-Conyer, MD, Secretariat of Health, Mexico City, Mexico. M Escobedo, MD, R Zima, P Huang, MD, D Satterwhite, Texas Dept of Health. Al Vizcarra, Teens Needing Teens Program, Las Cruces Housing Authority, Las Cruces; S Babb, MPH, ASSIST Program, L Escobedo, MD, Border Health Office, New Mexico Dept of Health. Office of International and Refugee Health, US Dept of Health and Human Svcs. Program Svcs Br, Epidemiology Br, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, CDC.

**Editorial Note**: The substantial difference in the percentage of retailers willing to sell tobacco to minors between Ciudad Juárez and the two U.S. border cities may reflect efforts in the United States to enforce minors' access laws and to provide comprehensive retailer education programs. In surveys conducted during 1987–1993, rates of over-the-counter sales to minors ranged from 32% to 87% and sales from vending machines ranged from 82% to 100% (4). However, since those studies were conducted, enforcement of laws against the sale of tobacco to minors has increased in the United States at the local, state, and federal levels (*3*,*4*).

Enforcement inspections in the United States use the same methodology as this study, except that retailers who sell tobacco to minors are given warnings or fines or can lose their retail tobacco license for repeated illegal sales. The Synar Amendment, administered by the Substance Abuse and Mental Health Services Administration, requires all states to 1) enact and enforce laws against tobacco sales to minors, 2) conduct annually a representative inspection survey (i.e., Synar surveys) to determine the percentage of retailers in compliance with laws prohibiting sales to minors, and 3) develop a strategy and time frame for achieving a noncompliance rate of  $\leq$ 20% or risk losing some federal funds (5). In 1998, Synar surveys in Texas and New Mexico found that retailer noncompliance rates were 13.0% and 13.5%, respectively (J. Steele, Texas Commission on Alcohol and Drug Abuse and D. Maestas, New Mexico Behavioral Services Division, personal communication, 1999).

In El Paso, enforcement has been conducted by local officers, and state-funded enforcement has been conducted in communities adjacent to El Paso. Federal level enforcement and retailer education in El Paso were funded directly by the Food and Drug Administration (FDA) (6) and indirectly through activities required by the Synar Amendment. In Las Cruces, nine compliance-check surveys conducted during 1996– 1998 resulted in warning notices to noncompliant retailers, media publicity, extensive retailer education, and recognition for compliant retailers. Synar Amendment-related enforcement activities have been conducted in New Mexico for several years, and the FDA has distributed retailer education material to tobacco outlets.

In Mexico, the sale of tobacco to minors has been prohibited since 1984. The Mexican Secretariat of Health has developed proposals for strengthening minors' access laws, including requiring identification, prohibiting sale of loose cigarettes and packs

#### Illegal Sales of Cigarettes to Minors — Continued

with <14 cigarettes, eliminating vending machines in places accessible to minors, and decreasing marketing to youth.

The findings in this report are subject to at least two limitations. First, although this study used standard methods during the store visits, the methods may underestimate the ability of underaged persons to purchase cigarettes because they may use false identification, lie about their age, dress to appear older, persuade retailers to sell them cigarettes, or target retailers known to sell cigarettes to minors (7). Second, because sales rates varied by age and sex of minors in El Paso and Las Cruces, some of the difference in sales rates between these locations can be explained by differences in the percentage of young persons aged 15–17 years who participated in the surveys.

The World Health Organization (WHO) supports a comprehensive approach to tobacco control, including legislative action. However, few countries enact or enforce minors' access laws. To reduce tobacco sales to young persons, WHO recommends that countries 1) establish a minimum age of purchase of  $\geq$ 18 years; 2) create a tobacco-sales licensing system so retailers can be identified and informed of their legal responsibilities; 3) establish a graduated schedule of civil law penalties for illegal sales, ranging from warnings to license revocation; 4) enlist the assistance of teenagers in the efforts of law enforcement officers to assess retailers' compliance with the prohibition of sales to minors; 5) end tobacco sales in health care, educational, and athletics facilities; and 6) end tobacco sales in vending machines and from self-service displays (8,9). Other strategies include requesting photo identification or other proof-of-age from persons attempting to purchase tobacco products (3,4,10).

The Mexican Secretariat of Health, CDH, and CJDH will use the results of this survey to demonstrate the need for stricter policies prohibiting the sale of tobacco to minors and to intensity enforcement and retailer education. TDH and NMDH plan to publicize the results of the study to show that enforcement and education efforts must continue. In addition to the enforcement of strong minors' access laws and retailer education, a comprehensive approach to preventing young persons from using tobacco should include raising tobacco taxes and reducing the appeal of tobacco to minors through restrictions on advertising and promotion and through counter-advertising and other educational programs (*3,4,6,8*). The US-MBC will continue to conduct bilateral collaborative tobacco research.

#### References

- 1. CDC. Illegal sales of cigarettes to minors—Mexico City, Mexico, 1997. MMWR 1997;46:440-4.
- 2. Shah BV, Barnwell BG, Bieler GS. SUDAAN user's manual, release 6.4. 2nd ed. Research Triangle Park, North Carolina: Research Triangle Institute, 1996.
- 3. Forster J, Wolfson M. Youth access to tobacco: policies and politics. Public Health Reports 1998;19:203–35.
- 4. US Department of Health and Human Services. Preventing tobacco use among young people: a report of the Surgeon General. Atlanta: US Department of Health and Human Services, Public Health Service, CDC, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 1994.
- Substance Abuse and Mental Health Services Administration. Final regulations to implement section 1926 of the Public Health Service Act regarding the sale and distribution of tobacco products to individuals under the age of 18. Federal Register 1996;13:1492–1500.
- Food and Drug Administration. Regulations restricting the sale and distribution of cigarettes and smokeless tobacco products to protect children and adolescents—final rule. Federal Register 1996;61:41,314–75.

Illegal Sales of Cigarettes to Minors — Continued

- Rigotti NA, DiFranza JR, Chang Y, Tisdale T, Kemp B, Singer DE. The effect of enforcing tobaccosales laws on adolescents' access to tobacco and smoking behavior. N Engl J Med 1997;337:1044–51.
- 8. World Health Organization. Guidelines for controlling and monitoring the tobacco epidemic. Geneva, Switzerland: World Health Organization, 1998.
- 9. World Health Organization. Tobacco or health: a global status report. Geneva, Switzerland: World Health Organization, 1997.
- Forster JL, Murray DM, Wolfson M, Blaine TM, Wagenaar AC, Hennrikus DJ. The effects of community policies to reduce youth access to tobacco. Am J Public Health 1998;88:1193–8.

# Determination of Nicotine, pH, and Moisture Content of Six U.S. Commercial Moist Snuff Products — Florida, January–February 1999

The use of smokeless tobacco (moist snuff and chewing tobacco) can cause oral cancer and precancerous oral lesions (leukoplakia) and is a risk factor for cardiovascular diseases and nicotine addiction (1). Despite these adverse effects, smokeless tobacco is used commonly in the United States by young people, especially male high school students (2). Officials in Florida requested CDC assistance in analyzing six moist snuff products to measure three factors that affect their nicotine dose: pH, nicotine content, and moisture content. This report summarizes the results of the analysis, which indicate that the pH, amount of nicotine, and moisture vary widely among brands.

During January 5–February 7, 1999, University of Miami staff and affiliated persons bought six smokeless tobacco products from stores in Daytona Beach, Fort Myers, Miami, Orlando, Tallahassee, and Tampa/St. Petersburg, Florida. These products were Copenhagen Snuff, Skoal Bandits Straight, Skoal Bandits Wintergreen, Skoal Long Cut Wintergreen, Kodiak Wintergreen, and Hawken Wintergreen,\* and were chosen to reflect a cross-section of products from the five leading U.S. moist snuff brands sold in the United States during 1997 (*3*).

The pH, nicotine, and total moisture content in samples of the six products were analyzed at CDC using a federal standard protocol<sup>†</sup> (4). Samples were stored in their original containers at –95.8 F (–71 C) until tested. The pH was obtained by suspending 2 g of moist snuff in 10 mL distilled water. Total moisture content (water and tobacco constituents that are volatile at 211.1 F [99.5 C]) was obtained by calculating the weight difference in 5 g of tobacco before and after 3 hours of oven drying at 211.1 F (99.5 C). Nicotine was extracted from moist snuff by using methyl *tert*- butyl ether, and tobacco extracts were analyzed by gas chromatography to determine the nicotine content. The nicotine extraction and pH measurements were conducted at room temperature. The percentage of free (unprotonated) nicotine, which is dependent on the pH, was calculated according to the Henderson-Hasselbalch equation and by using a pK<sub>a</sub> value of 8.02 for nicotine (5). Free nicotine content then was calculated by

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

<sup>&</sup>lt;sup>†</sup>The protocol for determining pH, total moisture, and nicotine content used in this analysis was published as a notice to solicit public comment on the protocol in the Federal Register (62 FR 24116, May 2, 1997). The final version of the protocol was published in the Federal Register on March 23, 1999. The differences between the two protocols are minor and would not affect the results of this study; however, the sampling of the products for this study is different from that required by the protocol.

#### Nicotine, pH, and Moisture Content of Smokeless Tobacco - Continued

multiplying the percentage of free nicotine by the total nicotine content (percentage of free nicotine x nicotine content). The tests were not blinded to the brands being tested, and all analyses were done in triplicate. Statistical analyses were performed using Statistical Analysis System (SAS) software.

The mean total moisture content ranged from 48.9% to 54.1%, except Hawken Wintergreen, which had a mean total moisture content of 24.7%; the mean nicotine content varied from 7.11 mg/g to 11.04 mg/g, except Hawken Wintergreen, which had a mean nicotine content of 3.37 mg/g; the mean pH varied from 5.24 (Hawken Wintergreen) to 8.35 (Kodiak Wintergreen). The mean amount of nicotine per dry tobacco weight ranged from 0.45% (Hawken Wintergreen) to 2.41% (Skoal Long Cut Wintergreen). Mean free nicotine levels varied from 0.01 mg/g (Hawken Wintergreen) to 6.23 mg/g (Copenhagen Snuff). The percentage of free nicotine varied from a mean value of 0.23% (Hawken Wintergreen) to 68.14% (Kodiak Wintergreen) (Table 1).

Reported by: Univ of Miami; Florida Office of Tobacco Control, Florida Dept of Health. Air Toxicants Br, Div of Laboratory Sciences, National Center for Environmental Health; Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, CDC.

**Editorial Note:** The findings in this report indicate that substantial differences exist in the pH, the amount of moisture and nicotine, and the percentage of free nicotine among six commonly used U. S. smokeless tobacco products bought at several locations in Florida. The nicotine dose smokeless tobacco users receive may be controlled by adjusting the concentration of nicotine, varying the size of tobacco cuttings, and altering the pH (6). The pH in tobacco strongly affects nicotine absorption through the nose and mouth, especially free nicotine, the chemical form most readily absorbed across the buccal mucosa into the bloodstream (1). Although pH is a determinant of nicotine absorption, other factors can modulate the absorption rate (e.g., amount of moist snuff used and behavioral and physiologic factors unique to each user); however, these factors probably have little effect on the nicotine absorption rate (7). Among the 562 compounds reported on the smokeless tobacco ingredient list (8), several salts (e.g., ammonium, sodium, and potassium) may alter the pH of smokeless tobacco. The findings in this report confirm that products with high nicotine content and high pH have a high percentage of free nicotine.

The findings in this report are subject to at least two limitations. First, the analysis did not use a sales-weighted or representative sample of all U.S. brands or manufacturers; the moist snuff products tested were six leading products manufactured by the two industry leaders. Second, the findings for any specific brand could have been affected by factors unique to the sample delivered to each city surveyed, such as the retailers' duration and conditions of storage (e.g., humidity and temperature) and manufacturing dates.

This study is a new federal analysis of pH, moisture, and nicotine content of smokeless tobacco that quantifies a wide range of nicotine dosing capabilities in moist snuff products. These findings are consistent with other studies (6,9) that have found a wide variation in the nicotine dosing capabilities of these products. The Food and Drug Administration previously found that smokeless tobacco contains components intended to control the delivery of nicotine to the body (10). Smokeless tobacco users who dip or chew eight to 10 times a day may be exposed to the same amount of nicotine as persons who smoke 30 to 40 cigarettes a day (1). In addition, smokeless

TABLE 1. Mean values of nicotine, total moisture, and pH of six moist snuff products\* — Florida, January–February 1999<sup>†</sup>

Product	Place of purchase	Total moisture (%)	рН	Nicotine content (mg/g)§	Nicotine dry weight (%)	Free nicotine (mg/g) <sup>§</sup>	Free nicotine (%)
Copenhagen Snuff	Daytona Beach	54.8	8.21	10.76	2.38	6.546	60.81
	Fort Myers	53.4	7.99	10.32	2.21	4.982	48.27
	Miami	52.7	8.05	10.62	2.25	5.471	51.53
	Tampa/St. Petersburg	55.1	8.48	10.66	2.37	7.920	74.33
	Overall mean	54.0	8.18	10.59	2.30	6.229	58.74
	SD <sup>୩</sup>	±1.0	±0.20	±0.17	±0.08	±1.178	±10.56
Skoal Bandits Straight**	Orlando	49.4	5.47	8.00	1.58	0.022	0.28
	Tampa/St. Petersburg	47.3	5.57	8.05	1.53	0.029	0.35
	Tallahassee	50.1	5.51	7.71	1.55	0.024	0.31
	Overall mean	48.9	5.52	7.92	1.55	0.025	0.31
	SD	±1.2	±0.05	±0.16	±0.02	±0.003	± 0.03
Skoal Bandits Wintergreen**	Daytona Beach	50.6	6.91	7.12	1.44	0.515	7.24
	Orlando	49.3	6.88	7.42	1.47	0.502	6.77
	Tampa/St. Petersburg	49.8	6.86	7.05	1.40	0.456	6.47
	Tallahassee	49.7	6.74	6.83	1.36	0.341	4.99
	Overall mean	49.9	6.85	7.11	1.42	0.454	6.37
	SD	±0.5	±0.07	±0.22	±0.04	±0.072	± 0.88
Skoal Long Cut Wintergreen	Daytona Beach	54.9	7.87	11.10	2.46	4.627	41.68
	Miami	54.4	7.80	10.95	2.40	4.121	37.64
	Orlando	54.2	7.94	10.79	2.35	4.895	45.36
	Tampa/St. Petersburg	53.1	7.53	11.33	2.42	2.775	24.48
	Overall mean	54.1	7.79	11.04	2.41	4.105	37.29
	SD	±0.7	±0.16	±0.21	±0.04	±0.853	± 8.23
Kodiak Wintergreen	Daytona Beach	53.5	8.34	9.01	1.94	6.078	67.46
	Orlando	53.0	8.34	8.46	1.80	5.724	67.67
	Tallahassee	53.8	8.47	8.23	1.78	6.058	73.63
	Tampa/St. Petersburg	52.7	8.27	8.54	1.80	5.448	63.79
	Overall mean	53.2	8.35	8.56	1.83	5.827	68.14
	SD	±0.4	±0.08	±0.30	±0.07	±0.272	± 3.68
Hawken Wintergreen	Orlando	28.0	5.45	3.00	0.42	000.8	0.27
	Tallahassee	25.1	5.61	3.17	0.42	0.012	0.39
	Tampa/St. Petersburg	20.9	4.65	3.93	0.50	0.002	0.04
	Overall mean	24.7	5.24	3.37	0.45	0.007	0.23
	SD	±3.1	±0.45	±0.43	±0.04	±0.005	± 0.15

\*Use of trade names and commercial sources is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services or CDC. <sup>§</sup>Units for nicotine and free nicotine content are milligrams of nicotine (or free nicotine) per gram of tobacco (mg/g). <sup>§</sup>Standard deviation.

\*\* Skoal Bandits come in 0.5 g sachets. Each sachet provides half the nicotine indicated.

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#### Nicotine, pH, and Moisture Content of Smokeless Tobacco - Continued

tobacco contains known cancer-causing agents: nitrosamines, polycyclic aromatic hydrocarbons, and radioactive polonium (1). These findings underscore the need for intensive efforts to prevent children and adolescents from using any tobacco product, including smokeless tobacco, and to educate young users about the risks associated with smokeless tobacco.

#### References

- US Department of Health and Human Services. The health consequences of using smokeless tobacco: a report of the advisory committee to the Surgeon General. Bethesda, Maryland: US Department of Health and Human Services, Public Health Service, 1986.
- 2. CDC. Youth Risk Behavior Surveillance—United States, 1997. MMWR 1998;47(no. SS-3).
- 3. Maxwell JC Jr, Fenstermacher SD. The smokeless tobacco industry in 1997. The Maxwell Consumer Report. Richmond, Virginia: Davenport & Company LLC, May 22, 1998.
- CDC. Protocol to measure the quantity of nicotine contained in smokeless tobacco products manufactured, imported, or packaged in the United States. Federal Register 1997;62:24116–9.
- Lide DR, ed. CRC Handbook of chemistry and physics. 71st ed. Boca Raton, Florida: CRC Press, 1990.
- 6. Henningfield JE, Radzius A, Cone EJ. Estimation of available nicotine content of six smokeless tobacco products. Tob Control 1995;4:57–61.
- 7. Tomar SL, Henningfield JE. Review of the evidence that pH is a determinant of nicotine dosage from oral use of smokeless tobacco. Tob Control 1997;6:219–25.
- US House of Representatives. Smokeless tobacco ingredient list as of April 4, 1994. US House of Representatives, Report to Subcommittee on Health and the Environment, Committee on Energy and Commerce. Washington, DC: Patton, Boggs and Blow, May 3, 1994.
- 9. Djordjevic MV, Hoffmann D, Glynn T, Connolly GN. US commercial brands of moist snuff, 1994: I. Assessment of nicotine, moisture, and pH. Tob Control 1995;4:62–6.
- US Department of Health and Human Services, US Food and Drug Administration. Regulations restricting the sale and distribution of cigarettes and smokeless tobacco to protect children and adolescents. Federal Register 1996;61:44396–45318.

# Prenatal Discussion of HIV Testing and Maternal HIV Testing — 14 States, 1996–1997

In July 1995, the Public Health Service recommended that health-care providers counsel all pregnant women about human immunodeficiency virus (HIV) prevention and encourage testing for HIV infection (1) and, if indicated, initiate zidovudine therapy (2). To evaluate compliance with these recommendations, CDC analyzed population-based data on HIV counseling and testing during 1996–1997 from 14 states participating in the Pregnancy Risk Assessment Monitoring System (PRAMS). This report presents an analysis of survey data collected from 1996 through 1997; results indicate that HIV counseling and testing of pregnant women were common but varied by state, type of prenatal health-care provider, Medicaid status, and maternal demographic characteristics.

PRAMS is an ongoing, state-based surveillance system that collects information about maternal behaviors, attitudes, and experiences. Each month, PRAMS surveys a random sample of mothers who have given birth to live infants during the previous 2–6 months using stratified, systematic sampling of resident birth certificates. A questionnaire is mailed to each mother, and a follow-up questionnaire is mailed to nonrespondents. Nonrespondents then are contacted by telephone. Statistical weights are applied to account for sampling probability, nonresponse, and sampling frame coverage in each state. The annual state-specific response rate to the entire

#### Prenatal Discussion of HIV Testing — Continued

questionnaire for 11 states in 1996 and 13 states in 1997 was approximately 70% (range: 69.4%–80.0%). Details of the survey design, questionnaire, and other operational aspects of the survey have been published (*3*).

Beginning in 1996, mothers who received prenatal care were asked whether a doctor, nurse, or other health-care provider counseled them about testing for HIV. Mothers in eight states, regardless of whether they received prenatal care, were asked if they had been tested for HIV infection during pregnancy or at delivery. Mothers who received any prenatal care and responded to the provider test discussion question were included in the analysis (n=17,354 [97.4%] in 1996; n=19,693 [98.1%] in 1997). To analyze maternal HIV testing, data were included on all mothers who responded to the HIV testing question regardless of having received prenatal care (n=8420 [89.8%] in 1996; n=11,152 [91.0%] in 1997). To account for the complex survey design, SUDAAN was used to calculate point estimates, risk ratios, and 95% confidence intervals (CIs) surrounding the risk ratios. State-specific risk ratios are not presented for sparse data (response categories with <20 women).

During 1997, the state-specific proportion of mothers who recalled discussing HIV testing with their prenatal health-care provider ranged from 63.4% (Maine) to 86.7% (North Carolina), and the proportion of mothers who recalled being tested ranged from 58.0% (Oklahoma) to 80.7% (Florida) (Figure 1). Among 10 states with data from 1996 to 1997, increases in testing discussions occurred in New York (22.8%), Oklahoma (17.8%), and West Virginia (15.3%). Seven states demonstrated no increases

# FIGURE 1. Percentage of mothers who recalled discussing HIV testing with their health-care provider and percentage who reported being tested for HIV during pregnancy or at delivery, by state — 13 states, Pregnancy Risk Assessment Monitoring System, 1997



\*Includes only mothers who received prenatal care.

<sup>§</sup>Estimates do not include births in New York City.

<sup>&</sup>lt;sup>†</sup>Includes all mothers.

#### Prenatal Discussion of HIV Testing — Continued

(range: –2 to 0.9%) in prenatal testing discussions. The largest increase in reporting of maternal testing from 1996 to 1997 occurred in New York (18.1%). Smaller increases occurred in West Virginia (15.2%), Florida (14.3%), Oklahoma (11.5%), and Georgia (6.5%).

During 1997 in all states, black mothers were significantly more likely than white mothers to report that their provider discussed testing (risk ratio [RR]=1.05–1.29). Hispanic mothers were not significantly more likely to report having had a testing discussion in most states. In seven states, mothers with less than a high school education were significantly more likely (RR=0.96–1.22) to recall a discussion about testing. Similarly, in 11 states, mothers aged <25 years were significantly more likely to recall a discussion about testing (RR=1.04–1.25). Public health-care providers were more likely than private providers to discuss testing (RR=0.96–1.29) in 10 states. In 11 states, mothers who received Medicaid benefits during pregnancy were significantly more likely to recall health-care provider (RR=0.99–1.32).

In most states, black race, type of prenatal health-care provider, education level, age, and receipt of Medicaid benefits were associated significantly with maternal HIV testing. However, associations between maternal characteristics and testing discussions were stronger than associations between maternal characteristics and actual testing.

Reported by: Pregnancy Risk Assessment Monitoring System Working Group, Div of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion; Div of HIV/AIDS–Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention, CDC.

**Editorial Note**: This report documents a substantial level of counseling about HIV testing and receipt of testing for women who have given birth since publication of the 1995 guidelines. In 1997, >70% of women in nine states recalled discussing HIV testing with their health-care provider during prenatal care, and at least 50% of women in all states reported being tested for HIV during pregnancy or at delivery.

Data from PRAMS suggest that physician practices regarding prenatal HIV testing discussions and prenatal maternal HIV testing may be influenced by state-specific variations in HIV seroprevalence rates among childbearing women and physician perceptions of maternal HIV risk factors. Health-care providers serving women in states with high HIV seroprevalence rates may be more aware of HIV prevention and may place higher priority on prenatal HIV prevention. For example, on average, fewer mothers (69.2%) in low HIV seroprevalence states (HIV seroprevalence rate among pregnant women <0.05%) recalled a discussion about testing compared with mothers (81.4%) in high seroprevalence states (seroprevalence rate >0.4%) (4). Maternal HIV testing demonstrated a similar association; fewer mothers (58.0%) in low seroprevalence states. Variations in testing discussions by maternal race, age, and Medicaid status may reflect targeted testing efforts by providers on the basis of known epidemiology of HIV among women in their area. In addition, perception of the mother's risk may influence whether a provider discusses HIV testing.

Differences in state legislation also may contribute to variations in HIV discussions and testing. During 1996, Florida and New York enacted legislation requiring that all health-care providers include HIV counseling during prenatal care. High levels of provider discussions on HIV testing reported in Washington and North Carolina can be

#### Prenatal Discussion of HIV Testing — Continued

attributed to legislation mandating this activity before 1996. In July 1997, Arkansas law required that providers test all pregnant women for HIV; however, that legislation probably did not affect results presented in this report. An association among legislation, discussions, and actual HIV testing cannot be established using PRAMS data (5).

Another survey has shown increased test counseling for women who were young and other than white, sought care from a public provider, and had low incomes (6). PRAMS data also are consistent with a provider survey that found variations in prenatal test counseling according to provider type (i.e., public versus private) and type of patient insurance (i.e., Medicaid versus other) (7).

The findings in this report are subject to at least four limitations. First, information about previous HIV testing among mothers and the testing date, if any, were not available. Second, the wording of the survey questions did not allow consideration of a cause-effect relationship between provider test counseling and maternal test acceptance. Third, information was not collected on maternal risk for HIV infection, context of test counseling (i.e., strength of provider encouragement), or reasons a mother refused testing. Finally, data were not available to estimate self-reported information accuracy; however, most respondents completed the questionnaire within 4 months of the infants' delivery, minimizing recall bias.

Data from this survey permit health-care professionals and policymakers to monitor ongoing health-care provider counseling and maternal testing. The results described in this report emphasize the need for increasing health-care providers'—especially private sector providers'—awareness of HIV testing during prenatal care to ensure that health-care providers counsel all pregnant women.

#### References

- 1. CDC. US Public Health Service recommendations for human immunodeficiency virus counseling and voluntary testing for pregnant women. MMWR 1995;44(no. RR-7):1–14.
- 2. Connor EM, Sperling RS, Gelber R, et al. Reduction of maternal-infant transmission of human immunodeficiency virus type 1 with zidovudine treatment. N Engl J Med 1994;331:1173–80.
- 3. Adams MM, Shulman HB, Bruce C, et al. The Pregnancy Risk Assessment Monitoring System: design, questionnaire, data collection and response rates. Paediatr Perinat Epidemiol 1991;5: 333–46.
- 4. Davis SF, Rosen D, Steinberg S, et al. Trends in HIV prevalence among childbearing women in the United States, 1989–1994. J Acquir Immune Defic Syndr 1998;19:158–64.
- National Alliance of State and Territorial AIDS Directors (NASTAD). An overview of recent state policies, programs, data collection and evaluation activities related to reducing perinatal HIV transmission: 1998 summary report. Washington, DC: NASTAD Issue Brief, July 1998.
- Royce RA, Alston P, Eckman A, et al. Factors associated with HIV counseling and testing during prenatal care. Presented at The Conference on Global Strategies for the Prevention of HIV Transmission from Mothers to Infants. Washington, DC, September 3–6, 1997.
- 7. Walter EB, Lampe MA, Livingston E, Royce RA. How do North Carolina prenatal care providers counsel and test pregnant women for HIV? N C Med J 1998;59:105–9.



### FIGURE I. Selected notifiable disease reports, comparison of provisional 4-week totals ending May 15, 1999, 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 — provisional cases of selected notifiable diseases, United States, cumulative, week ending May 15, 1999 (19th Week)

	Cum. 1999		Cum. 1999
Anthrax Brucellosis Cholera Congenital rubella syndrome Cryptosporidiosis* Diphtheria Encephalitis: California* eastern equine* St. Louis* western equine* Hansen Disease Hantavirus pulmonary syndrome* <sup>†</sup> Hemolytic uremic syndrome, post-diarrheal* HIV infection, pediatric* <sup>§</sup>	12 2 430 - 2 - 1 30 7 8 57	Plague Poliomyelitis, paralytic Psittacosis Rabies, human Rocky Mountain spotted fever (RMSF) Streptococcal disease, invasive Group A Streptococcal toxic-shock syndrome* Syphilis, congenital <sup>¶</sup> Tetanus Toxic-shock syndrome Trichinosis Typhoid fever Yellow fever	- 12 53 809 18 47 6 39 6 96

-:no reported cases \*Not notifiable in all states.

<sup>\*</sup>Not notifiable in all states.
 <sup>†</sup> Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (NCID).
 <sup>§</sup> Updated monthly from reports to the Division of HIV/AIDS Prevention–Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP), last update April 25, 1999.
 <sup>¶</sup> Updated from reports to the Division of STD Prevention, NCHSTP.

						erichia			11		
	All	DS	Chla	mydia	NETSS <sup>†</sup>	PHLIS <sup>§</sup>	Gono	rrhea	Hepa C/NA	atitis A,NB	
Reporting Area	Cum. 1999*	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1999	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	
UNITED STATES	14,890	15,998	197,155	206,759	430	220	105,919	120,627	928	1,649	
NEW ENGLAND	779	483	6,696	7,532	62	50	2,101	2,032	68	29	
Maine N H	15 23	10 12	193 332	355	4	- 2	15 22	12 33	1	-	
Vt.	5	10	186	144	6	1	20	11	2	2	
Mass. R I	500 52	206 42	3,183	3,112 924	32	29	925 218	/49 128	62	2/	
Conn.	184	203	1,969	2,642	14	15	901	1,099	-	-	
MID. ATLANTIC	3,612	4,629	26,824	25,695	30	2	14,120	14,119	63	149	
N.Y. Citv	406 1,894	547 2,654	13.718	N 13 <i>.</i> 244	- 27	- 1	5,686	2,459 5,616	40	122	
N.J.	765	820	3,626	4,273	3	1	1,919	2,519	-	-	
	54/	608	9,478	8,178	N	-	4,566	3,525	23	2/	
Ohio	1,105	247	28,639 8,121	31,282 9,770	32	36	4,912	23,045 5,898	236	194	
Ind.	147	271	-	-	5	8	726	2,283	-	4	
Mich.	505 215	487 217	7,936	8,433 8,136	16	7	7,263 5,606	6,891	8 228	162	
Wis.	55	69	2,305	4,943	N	6	815	1,947		-	
W.N. CENTRAL	285	281	7,101	12,660	87	32	2,365	5,995	42	10	
lowa	44 35	48 14	2,319	2,608	26	21	235	895 494	-	- 4	
Mo.	102	138	-	4,354	9	5	-	3,192	39	4	
N. Dak. S. Dak.	4 12	4	325 619	374 614	3	- 4	57	32 101	-	-	
Nebr.	26	31	1,146	1,075	30	-	517	419	-	2	
	62 4 165	39 4 065	1,680	2,054	/ 51	-	008 21 206	20 274	3	-	
Del.	4,155	4,065	43,754	39,879 942	2	- 20	634	32,374 500	90	40	
Md.	467	488	2,916	3,026	3	-	2,643	3,337	22	3	
Va.	231	339 285	4,700	3,308	15	- 7	964 3,122	2,261	- 7	- 1	
W. Va.	24	34	795	898	1	1	225	310	11	3	
S.C.	269 402	271	8,220 7,213	8,446 6,937	9 5	ь З	7,086 3,981	4,454	19	-	
Ga.	583	504	9,885	9,150	3	-	6,360	7,390	1	8	
	624	1,825	8,973	1/ 259	13	9	0,37 I 11 926	5,684 12,462	24 100	15	
Ky.	104	85	2,634	2,279	11	-	1,185	1,268	6	9	
Tenn.	286	180	5,234	4,679	11	4	4,005	3,916	37	40	
Miss.	132	138	3,399	3,685	3	1	3,179	3,613	56	-	
W.S. CENTRAL	1,553	1,949	28,999	30,804	16	9	16,292	18,420	99	344	
Ark.	56 162	71 330	2,020 6 245	1,295 4 610	4	2	943 4 978	1,465 3 920	2 82	3	
Okla.	46	107	3,032	3,840	4	4	1,554	2,072	2	1	
Tex.	1,289	1,441	17,702	21,059	5	-	8,817	10,963	13	338	
MOUNTAIN Mont.	545 4	513 12	9,973 509	11,318 402	34	17	2,638	3,032	60 4	201	
Idaho	8	12	501	705	1	2	26	60	4	77	
Wyo. Colo.	3 103	1 91	288 2.408	261 2.879	2 13	3 4	10 747	11 838	20 12	47 10	
N. Mex.	21	76	1,385	1,359	2	1	243	268	4	34	
Ariz. Utah	274 54	198 44	3,161 701	3,893 856	8	3	1,148 74	1,416 83	12	2 14	
Nev.	78	79	1,020	963	-	2	373	335	2	13	
PACIFIC	2,222	2,201	30,114	33,331	52	40	5,859	8,148	164	630	
Wash. Oreg.	117 50	162 64	4,486	4,097	12 15	16 11	802 289	697	5 4	8 10	
Calif.	2,016	1,928	22,019	27,663	25	12	4,530	7,154	155	570	
Alaska Hawaii	6 33	11 36	/1/ 836	/34 837	-	- 1	129	127 170	-	1 41	
Guam	1	-	-	122	N	-	-	14	-	-	
P.R.	493	661	U	U	5	U	121	150	-	-	
v.i. Amer. Samoa	- 13	15	N U	N U	N N	U	U	U	U	U	
CNMI	-	-	Ň	Ň	N	Ú	-	14	_	_	

TABLE II. Provisional cases of selected notifiable diseases, United States,<br/>weeks ending May 15, 1999, and May 16, 1998 (19th Week)

U: Unavailable C.N.M.I.: Commonwealth of Northern Mariana Islands N: Not notifiable -: no reported cases

\*Updated monthly from reports to the Division of HIV/AIDS Prevention–Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention, last update April 25, 1999. <sup>†</sup>National Electronic Telecommunications System for Surveillance. <sup>§</sup>Public Health Laboratory Information System.

	Legion	ellosis	Lyı Dise	me ease	Ма	laria	Syp (Primary &	hilis Secondary)	Tubero	ulosis	Rabies, Animal
Reporting Area	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999*	Cum. 1998*	Cum. 1999
UNITED STATES	331	432	1,485	1,624	354	419	2,164	2,574	1,844	2,964	1,848
NEW ENGLAND Maine N.H.	21 3 2	22 1 2	203	392 4 7	14 1 -	18 - 3	26	28 1 1	114 6 -	152 3 2	295 58 15
vt. Mass. R.I. Conn.	3 5 2 6	1 8 4 6	122 10 71	95 24 260	1 4 - 8	13 2	16 1 8	2 19 - 5	59 16 33	1 82 17 47	52 59 35 76
MID. ATLANTIC Upstate N.Y. N.Y. City N.J. Pa.	76 24 5 5 42	94 25 22 4 43	957 363 5 118 471	1,009 492 25 127 365	87 27 24 24 12	121 28 62 17 14	96 11 42 11 32	105 12 21 38 34	665 91 422 152 U	750 105 449 196 U	375 253 U 71 51
E.N. CENTRAL Ohio Ind. III. Mich. Wis.	71 28 5 10 26 2	164 55 37 21 23 28	26 19 5 1 1 U	25 17 4 2 2 U	35 8 4 13 8 2	39 2 1 19 14 3	388 34 32 248 70 4	379 65 66 148 72 28	120 U U 86 34	149 U U 109 40	19 6 - 13
W.N. CENTRAL Minn. Iowa Mo. N. Dak. S. Dak. Nebr.	16 1 9 5 - 1	26 3 4 8 - 9	17 8 2 - 1 -	14 3 8 2 - -	14 2 4 7 -	22 8 3 8 1	15 5 3 - - 4	67 5 - 49 - 1 4	166 70 14 62 1 3 6	132 44 2 54 3 9 4	201 37 44 6 54 25 1
Kans.	-	2	6	1	1	2	3	8	10	16	34
S. ATLANTIC Del. Md. D.C. Va. W. Va. N.C. S.C. Ga.	39 2 5 - 8 N 7 6	47 6 9 3 4 N 6 4	174 3 126 1 9 4 22 2	129 3 106 4 4 1 1 2	99 - 30 7 19 1 8 - 7	92 1 33 7 15 - 7 3 13	745 2 158 14 56 2 197 101 110	1,015 11 278 30 71 1 280 126 112	350 U 15 83 16 152 84 U	537 8 U 42 89 21 267 110 U	705 3 146 174 42 157 56 61
Fla.	11	14	7	4	27	13	105	106	U 100	U	66
E.S. CENTRAL Ky. Tenn. Ala. Miss.	52 44 6 2	18 10 4 1 3	35 16 7 6 6	3 7 6	2 3 2	12 1 6 3 2	424 43 226 105 50	431 43 213 93 82	108 U U 102 6	226 U U 136 90	96 19 31 46
W.S. CENTRAL Ark. La. Okla.	1 - 1 -	9 - - 3	2 - 2	6 3 -	8 - 6 1	12 1 4 1	332 27 91 73	330 50 106 17	93 55 U 38	771 38 U 44	34 - 34
Iex. MOUNTAIN Mont. Idaho	- 20 -	6 22 1	- 4 - 1	3 1 -	1 15 2 1	6 21 - 1	141 47 -	157 90 -	- 59 5	689 81 2 4	63 23
Wyo. Colo. N. Mex. Ariz. Utab	- 2 1 2 9	1 4 2 4 8	1 - 1 - 1	-	- 5 2 4	- 6 4 1	- 1 - 43 1	- 4 10 68 3	1 U 22 U	1 U 24 U 21	25 1 - 14
Nev.	6	2	-	1	1	3	2	5	15	29	-
PACIFIC Wash. Oreg. Calif. Alaska Hawaii	35 7 1 26 1	30 3 27 -	67 1 65 -	32 1 4 27 -	75 5 8 57 - 5	82 6 8 67 - 1	91 28 1 59 1 2	129 6 123 -	169 90 U 22 57	166 88 U U 17 61	60 - 55 5
Guam P.R. V.I. Amer. Samoa C.N.M.I.	- - U U	1 - U U	- U U	- - U U	- - U U -	1 - U U	75 U U	84 U U 98	- - U U	37 46 U U 54	28 U U

# TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States,<br/>weeks ending May 15, 1999, and May 16, 1998 (19th Week)

N: Not notifiable U: Unavailable -: no reported cases

\*Cumulative reports of provisional tuberculosis cases for 1998 and 1999 are unavailable ("U") for some areas using the Tuberculosis Information Management System (TIMS).

invasive A B Indigenous Impo Cum. Cum. Cum. Cum. Cum. Cum. Cum.	orted <sup>†</sup>	To	
Cum. Cum. Cum. Cum. Cum. Cum. Cum.	<b>O</b>		otal
Reporting Area 1999* 1998 1999 1998 1999 1998 1999 1999	Cum. 1999	Cum. 1999	Cum. 1998
UNITED STATES 449 453 5,811 8,313 2,155 3,193 - 16 -	10	26	24
NEW ENGLAND 32 30 67 117 34 53	1	1	1
Maine 3 2 2 10	- 1	- 1	-
Vt. 4 2 3 7 1 2	-	-	-
Mass. 14 23 19 36 18 25 U - U	-	-	1
Conn. 6 - 29 50 - 11 U - U	-	-	-
MID. ATLANTIC 55 66 361 602 275 476	2	2	9
Upstate N.Y. 33 24 92 126 73 113	2	2	-
N.J. 17 24 42 110 33 83	-	-	8
Pa 2 167 149 108 139	-	-	1
E.N. CENTRAL 52 70 1,201 1,151 183 624	-	-	4
Ind. 1 13 29 112 4 300	-	-	3
III. 20 27 166 298 - 98 Mich 6 676 512 142 165	-	-	-
Wis 2 25 100 - 34	-	-	-
W.N. CENTRAL 39 31 268 681 114 138	-	-	-
Minn. 12 17 21 28 13 11	-	-	-
Mo. 11 8 146 266 64 89	-	-	-
N. Dak 1 2 - 2	-	-	-
Nebr. 3 - 16 16 7 7	-	-	-
Kans. 2 5 15 44 8 9	-	-	-
S. ATLANTIC 109 84 653 552 413 299 - 1 -	3	4	6
Md. 30 27 125 142 66 66	-	-	1
D.C. 2 - 24 24 9 6 U - U	-	-	-
Va. 10 10 51 103 39 37 - 1 - W.Va. 1 3 7 - 10 3	-	-	-
N.C. 19 12 50 37 83 81	-	-	-
S.C. 2 2 10 12 36	-	-	- 1
Fla. 22 12 223 117 125 49	1	1	1
E.S. CENTRAL 39 27 189 162 183 164	-	-	-
Ky. 6 5 31 8 22 19 U - U Tenn. 20 15 94 94 80 116	-	-	-
Ala. 11 6 32 34 40 29	-	-	-
MISS. 2 1 32 26 41	-	-	-
W.S. CENTRAL 29 26 1,110 1,536 180 460 - 1 - Ark. 1 - 16 20 16 30	2	3	-
La. 7 12 44 13 54 11	-	-	-
Okia.     19     12     185     211     40     25     -     -       Tex.     2     2     865     1.292     70     394     -     1     -	2	- 3	-
MOUNTAIN 47 66 546 1,240 218 297	-	-	-
Mont. 1 - 9 25 10 3	-	-	-
Wyo. 1 - 3 19 1 2	-	-	-
Colo. 6 12 103 95 39 39	-	-	-
Ariz. 23 31 316 777 41 75 U - U	-	-	-
Utah 4 3 24 78 11 25	-	-	-
Nev. 1 1/ 50 92 23 33	-	-	-
PACIFIC         47         53         1,416         2,272         555         682         -         14         -           Wash.         1         3         100         373         21         47         -         -         -	2	16	4
Oreg. 18 25 102 168 36 70 - 8 -	-	8	-
Calif. 23 22 1,210 1,696 486 552 - 6 - Alaska 4 1 3 10 7 7	2	8	- 3
Hawaii 1 2 1 25 5 6	-	-	-
Guam 1 U - U	-	-	-
r.r. 1 2 61 19 5/ 22/ V.I. U U U U U U U U	Ū	- U	- U
Amer. Samoa U U U Ü Ü Ü Ü Ü Ü Ü Ü Ü	Ŭ	Ŭ	Ŭ

# TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination,<br/>United States, weeks ending May 15, 1999,<br/>and May 16, 1998 (19th Week)

N: Not notifiable U: Unavailable -: no reported cases

 $^*$  Of 93 cases among children aged <5 years, serotype was reported for 37 and of those, 5 were type b.

<sup>†</sup>For imported measles, cases include only those resulting from importation from other countries.

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#### MMWR

	Mening Dise	jococcal ease	Mumps				Pertussis		Rubella			
Reporting Area	Cum. 1999	Cum. 1998	1999	Cum. 1999	Cum. 1998	1999	Cum. 1999	Cum. 1998	1999	Cum. 1999	Cum. 1998	
UNITED STATES	985	1,213	6	135	343	87	1,869	1,624	4	27	220	
NEW ENGLAND	44	59	-	1	-	-	145	304	-	3	34	
Naine N.H.	- 3	4	Ū	- 1	-	Ū	30	5 21	Ū	-	-	
Vt. Mass	3	1 27	-	-	-	-	10 97	27	-	-	- 7	
R.I.	2	3	-	-	-	-	3	245	-	-	-	
Conn.	6	23	U	-	-	U	5	6	U	-	27	
Upstate N.Y.	84 23	30	2	3	3	44 43	467 418	204 99	3 1	6 3	99 89	
N.Y. City	19 17	14 34	-	3	153 2	-	10	11 8	-	-	6 4	
Pa.	25	47	1	12	3	1	39	86	2	3	-	
E.N. CENTRAL	142	180	-	15	36	-	137	174	-	-	-	
Ind.	7	26	-	-	2	-	2	45	-	-	-	
III. Mich.	43 20	54 20	-	3	6 13	-	23 18	12 20	-	-	-	
Wis.	-	19	-	-	-	-	-	38	-	-	-	
W.N. CENTRAL	116 26	101 16	1 1	5 1	19 10	18 18	43 18	129 76	-	2	9	
lowa	28	14	-	3	6	-	12	29	-	2	-	
Mo. N. Dak.	39	43	-	1	2	-	10	9	-	-	1	
S. Dak.	5	6	-	-	-	-	2	4	-	-	-	
Kans.	11	18	-	-	-	-	-	6	-	-	8	
S. ATLANTIC	176	180	-	29	25	5	109	99	-	2	4	
Md.	26	19	-	3	-	-	33	20	-	-	-	
D.C. Va	1 22	- 19	U	2	- 4	U	- 13	1	U	-	-	
W. Va.	2	5	-	-	-	-	1	1	-	-	-	
S.C.	21	25 28	-	5	4	-	25 8	42 12	-	-	-	
Ga. Fla	27 54	37 46	-	- 9	1	1 4	9 20	1 16	-	-	- 1	
E.S. CENTRAL	86	91	-	1	4	-	35	45	1	1	-	
Ky. Topp	24	15	U	-	-	U	3	18 12	U	-	-	
Ala.	18	27	-	1	1	-	7	12	1	1	-	
MISS.	1/	15 142	-	- 17	3	-	3	2	-	-	-	
Ark.	17	143	-	-	- 20	-	52 4	11	-	5	- 00	
La. Okla.	30 14	25 22	1	2 1	2	-	3 7	- 6	-	-	-	
Tex.	6	80	-	14	24	-	38	72	-	5	56	
MOUNTAIN Mont	72	71 2	-	8	18	3	195 1	305 1	-	6	5	
Idaho	7	3	-	-	1	1	86	112	-	-	-	
Wyo. Colo.	2	3 16	-	- 3	1	-	2 42	/ 68	-	-	-	
N. Mex.	9 24	11 25	N	N	N	2	15 21	55 35	-	- 5	1	
Utah	5	7	-	4	3	-	26	14	-	-	2	
Nev.	5	4	-	1	8	-	2	13	-	1	1	
Wash.	26	263	- -	41	54 4	16	415	109	-	2 -	9	
Oreg. Calif.	36 128	44 186	N 2	N 34	N 35	1	11 252	20 142	-	- 2	2	
Alaska	4	1	-	1	2	-	3	-	-	-	-	
Guam	4	4	-	5	13	-	5	4	-	-	2	
P.R.	2	3			1	1	5	2				
v.i. Amer. Samoa	U U	U U	U U	U U	U U	U U	U U	U U	U U	U U	U U	
C.N.M.I.	-	-	U	-	2	U	-	1	U	-	-	

# TABLE III. (Cont'd.) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending May 15, 1999, and May 16, 1998 (19th Week)

N: Not notifiable U: Unavailable -: no reported cases

	A	II Cau	ses, By	Age (Y	'ears)		P&I <sup>†</sup> All Causes, By Age (Years)			P&I <sup>†</sup>					
Reporting Area	All Ages	>65	45-64	25-44	1-24	<1	Total	Reporting Area	All Ages	>65	45-64	25-44	1-24	<1	Total
NEW ENGLAND Boston, Mass. Bridgeport, Conn. Cambridge, Mass. Fall River, Mass. Hartford, Conn. Lowell, Mass. Lynn, Mass. New Bedford, Mass. New Haven, Conn. Providence, R.I. Somerville, Mass. Springfield, Mass.	533 161 34 17 27 U 25 13 20 53 30 53 7 9 28	405 113 25 15 23 U 21 9 14 23 37 4 38 24	78 29 5 2 3 U 2 1 5 2 9 1 8 3	30 11 2 1 U 2 1 2 5 2 2 1	9 4 1 - - U 1 1 - - 1 - 1	11 4 - - U 1 - - 3 1 - -	49 21 3 2 U 2 - 1 3 4 1 2 1	S. ATLANTIC Atlanta, Ga. Baltimore, Md. Charlotte, N.C. Jacksonville, Fla. Miami, Fla. Norfolk, Va. Richmond, Va. Savannah, Ga. St. Petersburg, Fla. Tampa, Fla. Washington, D.C. Wilmington, Del.	999 U 220 81 127 111 41 64 58 U 196 92 9	649 U 143 52 84 60 27 39 45 U 142 54 3	224 U 43 19 26 28 10 17 8 U 40 27 6	87 U 27 4 11 17 2 5 3 U 12 6	24 U 6 2 5 1 - 2 2 U 2 4 -	11 U 3 1 4 2 1 - U	65 U 28 10 2 1 4 8 U 8 4 -
Worcester, Mass. MID. ATLANTIC Albany, N.Y. Allentown, Pa. Buffalo, N.Y. Camden, N.J. Elizabeth, N.J. Erie, Pa.	69 2,325 41 U 73 34 12 44	59 1,610 33 U 55 25 9 36	8 437 6 U 14 4 3 3	1 195 1 U 3 3 - 3	- 41 - U - 1 - 1	1 41 U 1 1 1	6 104 3 U 5 4	E.S. CENTRAL Birmingham, Ala. Chattanooga, Tenn. Knoxville, Tenn. Lexington, Ky. Memphis, Tenn. Mobile, Ala. Montgomery, Ala. Nashville, Tenn.	831 179 60 69 76 160 80 62 145	569 140 44 42 107 59 43 92	159 27 9 17 18 32 11 12 33	61 6 3 9 14 8 4 9	23 3 1 2 5 4 2 2 4	19 3 2 3 - 1 7	45 15 6 13 1 4 2
Jersey City, N.J. New York City, N.Y. Newark, N.J. Paterson, N.J. Philadelphia, Pa. Pittsburgh, Pa.§ Reading, Pa. Rochester, N.Y. Schenectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	28 1,089 57 20 59 23 129 25 32 97 41 21 U	19 745 27 10 332 37 17 103 21 30 68 27 16 U	7 215 18 98 14 20 3 1 13 6 2 U	2 97 8 1 46 6 3 6 - 8 5 3 U	13 3 12 2 1 1 6 1 U	19 1 12 1 2 2 U	35 4 27 3 2 8 1 3 5 3 1 U	W.S. CENTRAL Austin, Tex. Baton Rouge, La. Corpus Christi, Tex. Dallas, Tex. El Paso, Tex. Ft. Worth, Tex. Houston, Tex. Little Rock, Ark. New Orleans, La. San Antonio, Tex. Shreveport, La. Tulsa, Okla.	1,358 58 2 43 183 82 113 396 59 87 176 58 101	903 43 1 33 117 60 74 235 38 48 137 47 70	272 6 39 10 23 94 14 23 26 7 24	112 5 1 3 14 7 11 43 4 10 8 2 4	42 2 - 8 4 2 16 2 5 1 - 2	29 2 1 5 1 3 8 1 4 2 1	106 2 7 4 3 13 37 4 11 9 11 5
E.N. CENTRAL Akron, Ohio Canton, Ohio Chicago, III. Cincinnati, Ohio Cleveland, Ohio Columbus, Ohio Dayton, Ohio Detroit, Mich. Evansville, Ind. Fort Wayne, Ind.	2,184 54 453 123 162 179 146 203 56 56	1,466 41 23 275 87 94 128 102 112 44	446 7 9 106 24 41 29 27 53 11 12	176 2 56 7 14 18 12 24 1 2	47 1 12 4 3 2 3 6	48 3 4 1 10 2 8 -	130 4 37 10 1 10 8 7 1	MOUNTAIN Albuquerque, N.M. Boise, Idaho Colo. Springs, Colo Denver, Colo. Las Vegas, Nev. Ogden, Utah Phoenix, Ariz. Pueblo, Colo. Salt Lake City, Utah Tucson, Ariz.	853 104 46 102 194 17 43 17 107 155	560 68 33 49 61 123 13 22 14 74 103	161 21 7 24 43 1 13 2 14 31	85 10 3 9 20 2 6 1 10 15	23 5 1 3 7 - 5 1	24 2 4 5 1 2 4 5	59 2 3 5 7 6 2 1 4 13 6
Gary, Ind. Grand Rapids, Mich Indianapolis, Ind. Lansing, Mich. Milwaukee, Wis. Peoria, III. Rockford, III. South Bend, Ind. Toledo, Ohio Youngstown, Ohio	22 . 66 189 36 96 43 46 43 88 91	12 39 126 28 85 33 32 30 71 63	6 18 43 3 9 6 8 7 12 15	-449413 -537	- 1 5 - 1 1 4 1 - 3	4 6 1 - 2 2 3	- 633026387	PACIFIC Berkeley, Calif. Fresno, Calif. Glendale, Calif. Honolulu, Hawaii Long Beach, Calif. Los Angeles, Calif. Pasadena, Calif. Portland, Oreg. Sacramento, Calif.	1,323 18 87 9 71 58 213 26 110 157	964 13 67 8 54 40 155 18 82 124	208 3 9 12 33 4 17 25	88 2 8 4 3 13 13 7 4	29 1 2 8 1 1	34 2 2 1 4 2 4 3	149 9 1 5 7 15 2 10 35
W.N. CENTRAL Des Moines, Iowa Duluth, Minn. Kansas City, Kans. Kansas City, Mo. Lincoln, Nebr. Minneapolis, Minn. Omaha, Nebr. St. Louis, Mo. St. Paul, Minn. Wichita, Kans.	684 68 25 99 27 225 85 U 155 U	499 50 21 U 70 20 164 60 U 114 U	116 8 3 0 24 4 35 16 0 26 0	38 7 U 4 3 14 U 6 U	11 2 - - - - 3 3 U 3 U	20 1 U 1 9 2 U 6 U	56 7 3 U 9 1 25 8 U 3 U	San Diego, Calif. San Francisco, Calif San Jose, Calif. Santa Cruz, Calif. Seattle, Wash. Spokane, Wash. Tacoma, Wash. TOTAL	195 U 195 27 109 48 U 11,090 <sup>¶</sup>	133 U 139 22 73 36 U 7,625	31 U 30 2 23 9 U 2,101	17 U 15 2 9 3 U 872	5 U 7 - 2 U 249	9 U 4 1 2 U 237	25 U 26 1 5 U 763

# TABLE IV. Deaths in 122 U.S. cities,\* week ending May 15, 1999 (19th Week)

U: Unavailable -: no reported cases \*Mortality data in this table are voluntarily reported from 122 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. \*Pneumonia and influenza. \*Because of changes in reporting methods in this Pennsylvania city, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks. Total includes unknown ages.

## Notice to Readers

# Satellite Broadcast on Vaccinating Adults: The Technical Issues

On June 3 from 12 noon to 2 p.m. eastern daylight time, CDC's National Immunization Program and the Public Health Training Network will cosponsor a satellite broadcast, *Vaccinating Adults: The Technical Issues*. The broadcast is intended for physicians, physician assistants, nurses, nurse practitioners, pharmacists, medical students, and others who provide vaccinations or establish immunization policy, and will present an in-depth discussion of the vaccines for influenza, pneumococcal disease, and hepatitis B, including vaccine indications, contraindications, and adverse reactions. This is a taped re-broadcast and will not contain a live question and answer session.

Course registration information is available from state health department immunization programs; from two CDC World-Wide Web sites, http://www.cdc.gov/nip or http://www.cdc.gov/phtn; and from the course coordinator, telephone (404) 639-8799. Continuing education credit for a variety of professions will be offered based on 2 hours of instruction.

#### Addendum: Vol. 48, No. RR-2

In the March 19, 1999, *MMWR Recommendations and Reports*, "Rotavirus Vaccine for the Prevention of Rotavirus Gastroenteritis Among Children," on page v, the list of CDC staff members who prepared the report should include Paul E. Kilgore, M.D., M.P.H., Epidemiology and Surveillance Division, National Immunization Program, CDC.

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Director, Centers for Disease Control and Prevention Jeffrey P. Koplan, M.D., M.P.H. Deputy Director, Centers for Disease Control and Prevention Claire V. Broome, M.D.	<ul> <li>Director, Epidemiology Program Office Stephen B. Thacker, M.D., M.Sc.</li> <li>Editor, <i>MMWR</i> Series John W. Ward, M.D.</li> <li>Managing Editor, <i>MMWR</i> (weekly) Karen L. Foster, M.A.</li> </ul>	Writers-Editors, MMWR (weekly) Jill Crane David C. Johnson Teresa F. Rutledge Caran R. Wilbanks Desktop Publishing Morie M. Higgins Peter M. Jenkins							
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