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Current Trends

Selected Tobacco-Use Behaviors and Dietary Patterns Among High School Students – United States, 1991

In the United States, 30% of all cancer deaths and 87% of lung cancer deaths are attributable to tobacco use (*1*); approximately 35% of all cancer deaths are associated with diet (*2*). Because tobacco-use behaviors and dietary patterns (particularly diets high in fat and low in fruits, vegetables, and grains) established during youth may extend into adulthood and may increase the risk for cancer and other chronic diseases, these behaviors should be monitored and addressed among youth (*1,3*). This article presents self-reported data on the prevalence of selected tobacco-use behaviors and dietary patterns associated with risk for cancer and other chronic diseases among U.S. students in grades 9–12 during 1991.

The national school-based Youth Risk Behavior Survey (YRBS) is a component of CDC's Youth Risk Behavior Surveillance System (YRBSS), which periodically measures the prevalence of priority health-risk behaviors among youth through representative national, state, and local surveys (*4*). The 1991 YRBS used a three-stage sample design to obtain a sample of 12,272 students representative of students in grades 9–12 in the 50 states and the District of Columbia. Students were asked "Have you ever tried cigarette smoking, even one or two puffs?"; "During the past 30 days, on how many days did you smoke cigarettes?"; and "During the past 30 days, did you use chewing tobacco, ... or snuff, ...?" Frequent cigarette use was defined as cigarette smoking on 20 or more of the 30 days preceding the survey. Students also were asked about foods they had consumed the previous day, including fruit; fruit juice; green salad; cooked vegetables; hamburger, hot dogs, or sausage; french fries or potato chips; and cookies, doughnuts, pie, or cake. The total number of servings* of fruit, fruit juice, green salads, and cooked vegetables was estimated by adding the number

*Students who replied that they did not consume a particular type of food were assigned a frequency of 0; students who replied that they consumed a particular type of food "once only" were assigned a frequency of 1; and students who replied that they consumed a particular type of food "twice or more" were assigned a frequency of 2.

High School Students — Continued

of servings of fruits and vegetables consumed during the day preceding the survey. Similarly, the total number of servings of foods typically high in fat content was estimated by adding the number of servings of hamburger, hot dogs, or sausage; french fries or potato chips; and cookies, doughnuts, pie, or cake eaten during the day preceding the survey.

Of all students in grades 9–12, 70.1% reported having tried cigarette smoking, and 12.7% reported frequent cigarette use during the 30 days preceding the survey (Table 1). The prevalence of frequent cigarette use was significantly greater among white students (15.4%) than among Hispanic (6.8%) or black (3.1%) students. The percentage of students who tried cigarette smoking and used cigarettes frequently increased significantly between ninth and 12th grade; 12th-grade students were nearly twice as likely as ninth-grade students to use cigarettes frequently (15.6% and 8.4%, respectively).

Smokeless tobacco use was reported by 10.5% of all students and was significantly more likely among male students (19.2%) than female students (1.3%). White male students (23.6%) were significantly more likely than any other group to report smokeless tobacco use.

Of all students, 12.9% reported consuming five or more (range: 0–8) servings of fruits and vegetables during the day preceding the survey (Table 2). Male students (15.2%) were significantly more likely than were female students (10.5%) to

TABLE 1. Percentage of high school students who used tobacco, by sex, race/ethnicity, and grade — United States, Youth Risk Behavior Survey, 1991*

Category	Tried cigarettes† %	(95% CI**)	Frequent cigarette use§ %	(95% CI)	Smokeless tobacco use¶ %	(95% CI)
Sex						
Female	69.5	(±2.7)	12.4	(±2.5)	1.3	(±0.6)
Male	70.6	(±2.4)	13.0	(±2.0)	19.2	(±2.7)
Race/Ethnicity						
White	70.4	(±2.5)	15.4	(±2.5)	13.0	(±2.2)
Female	69.3	(±3.7)	15.8	(±3.5)	1.4	(±0.8)
Male	71.4	(±2.4)	15.0	(±2.2)	23.6	(±3.3)
Black	67.2	(±3.1)	3.1	(±1.2)	2.1	(±0.6)
Female	69.3	(±3.1)	1.9	(±1.0)	0.7	(±0.4)
Male	64.7	(±5.1)	4.5	(±2.2)	3.6	(±1.4)
Hispanic	75.3	(±4.7)	6.8	(±1.6)	5.5	(±2.7)
Female	74.9	(±5.3)	5.7	(±2.5)	0.6	(±0.4)
Male	75.7	(±6.3)	8.0	(±2.4)	10.7	(±5.7)
Grade						
9th	64.8	(±3.1)	8.4	(±2.2)	9.0	(±2.4)
10th	68.3	(±3.3)	11.3	(±2.5)	10.1	(±2.4)
11th	72.8	(±3.3)	15.6	(±2.9)	12.1	(±2.4)
12th	74.5	(±3.1)	15.6	(±3.3)	10.7	(±2.4)
Total	**70.1**	**(±2.2)**	**12.7**	**(±2.2)**	**10.5**	**(±1.8)**

*Unweighted sample size = 12,272 students.
†Ever tried cigarette smoking, even one or two puffs.
§Cigarette smoking on 20 or more of the 30 days preceding the survey.
¶Used chewing tobacco or snuff during the 30 days preceding the survey.
**Confidence interval.

High School Students — Continued

consume five or more servings of fruits and vegetables during the day preceding the survey. White students (13.9%) were significantly more likely to consume five or more servings of fruits and vegetables than were Hispanic students (9.7%) or black students (6.8%).

Of all students, 64.9% reported eating no more than two (range: 0–6) servings of foods typically high in fat content during the day preceding the survey (Table 2). Female students (72.9%) were significantly more likely than male students (57.2%) to eat no more than two servings of foods typically high in fat content during the day preceding the survey.

Reported by: American Cancer Society, Atlanta. Div of Adolescent and School Health, Div of Nutrition, and Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, CDC.

Editorial Note: The findings in this report are consistent with results from other recent national surveys that measured tobacco-use behaviors and dietary patterns among youth (*5–7*). The YRBS data can be used by public health and education agencies, as well as by voluntary organizations, to assist in targeting priorities and in program management. For example, CDC's National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) has provided the findings in this report to the American Cancer Society (ACS), which will use these data to monitor progress

TABLE 2. Percentage of high school students who consumed five or more servings of fruits and vegetables and no more than two servings of foods typically high in fat content* the day preceding the survey, by sex, race/ethnicity, and grade — United States, Youth Risk Behavior Survey, 1991†

Category	Fruits and vegetables§ %	(95%CI**)	Foods typically high in fat content¶ %	(95% CI)
Sex				
Female	10.5	(±1.4)	72.9	(±1.6)
Male	15.2	(±1.6)	57.2	(±3.3)
Race/Ethnicity				
White	13.9	(±1.4)	64.4	(±2.7)
Black	6.8	(±1.4)	61.3	(±3.5)
Hispanic	9.7	(±2.0)	72.0	(±2.4)
Grade				
9th	14.7	(±3.3)	63.5	(±2.4)
10th	14.0	(±1.8)	62.1	(±4.3)
11th	12.2	(±1.4)	66.0	(±2.5)
12th	10.3	(±1.6)	68.1	(±2.7)
Total	**12.9**	**(±1.2)**	**64.9**	**(±2.2)**

*Students who replied that they did not consume a particular type of food were assigned a frequency of 0; students who replied that they consumed a particular type of food "once only" were assigned a frequency of 1; and students who replied that they consumed a particular type of food "twice or more" were assigned a frequency of 2. The number of servings of fruits and vegetables ranged from 0 through 8. The number of servings of foods typically high in fat content ranged from 0 through 6.

†Unweighted sample size = 12,272 students.

§Fruit, fruit juice, green salad, and cooked vegetables.

¶Hamburger, hot dogs, or sausage; french fries or potato chips; and cookies, doughnuts, pie, or cake.

**Confidence interval.

High School Students — Continued

toward achieving primary goals for their comprehensive school health education initiative (*8*). These goals are consistent with national health objectives for the year 2000 that address tobacco-use behaviors and dietary patterns associated with risk for cancer and other chronic diseases (objectives 2.5, 2.6, 3.5, and 3.9) (*3*).

The comprehensive school health education initiative is one of four core program initiatives (including patient resources, information, and guidance; tobacco control; and breast cancer detection) identified by ACS to reduce risk for and impact of cancer throughout the 1990s. The primary goals for the comprehensive school health education initiative are 1) reducing the proportion of ninth- and 12th-grade students who have tried cigarette smoking from 65% and 75% to 42% and 48%, respectively; 2) reducing the proportion of ninth- and 12th-grade students who smoked cigarettes on 20 or more of the last 30 days from 8% and 16%, to 4% and 8%, respectively; 3) reducing the proportion of male high school students who use chewing tobacco or snuff from 19% to 12%; 4) increasing the proportion of high school students who daily consume five or more servings of fruits and vegetables from 13% to 35%; and 5) increasing the proportion of high school students who daily eat no more than two servings of selected foods typically high in fat content from 65% to 80%.

To attain these primary goals, ACS has established the following three enabling goals: 1) to increase the proportion of states that require schools to implement comprehensive school health education; 2) increase the average proportion of the nation's school districts that require comprehensive school health education to be implemented across each grade range (i.e., kindergarten–6, 7–9, and 10–12); and 3) increase the average proportion of U.S. schools that implement comprehensive school health education across each grade range. These goals are consistent with the national health objectives for the year 2000 to increase the proportion of schools providing nutrition education (objective 2.19), tobacco-use prevention education (objective 3.10), and quality school health education (objective 8.4) (*8*).

Specific strategies ACS will implement to attain the primary and enabling goals include developing and promoting cancer prevention and control curricula for comprehensive school health education; promoting state and school district policies to require planned, sequential, comprehensive school health education that includes the cancer prevention and control curricula; increasing awareness of the need for comprehensive school health education and the status of school health education; and promoting the adoption of comprehensive school health education among schools nationwide.

The use of YRBS data by ACS illustrates how the YRBSS can be used to help plan and implement national, state, and local health promotion programs. Additional information about the YRBSS is available from the Division of Adolescent and School Health, NCCDPHP, CDC, Mailstop K-33, 1600 Clifton Road, NE, Atlanta, GA 30333.

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High School Students — Continued

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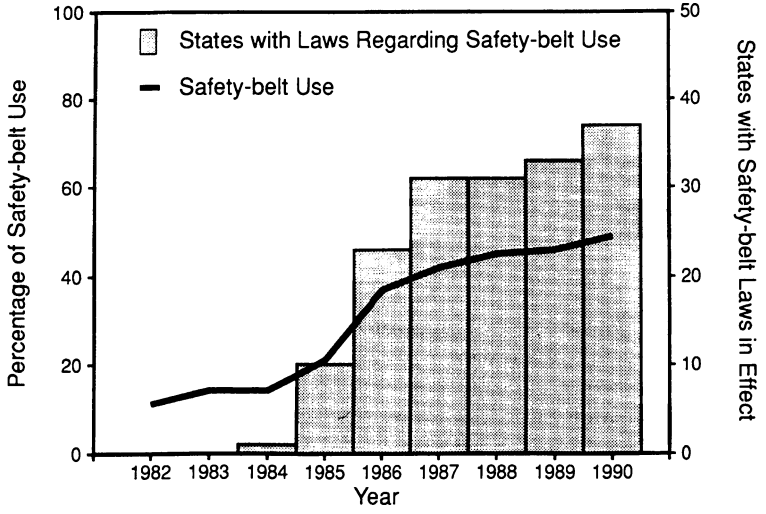
Effectiveness in Disease and Injury Prevention

Increased Safety-Belt Use — United States, 1991

From 1980 to 1990, safety-belt use among passenger-vehicle drivers in the United States increased from 11% to 49%; in 1990, use of safety belts prevented approximately 4800 deaths and 120,000 serious injuries among front-seat occupants (*1*). The increased use of safety belts from 1984 through 1990 was associated primarily with the enactment of state laws (Figure 1). In recent years, however, the rate of increase in use has declined. To increase safety-belt and child passenger restraint use in the United States, in February 1991, the National Highway Traffic Safety Administration (NHTSA) initiated the "70% by '92" program to increase safety-belt use to 70% by the end of 1992 through emphasis on enforcement efforts combined with public awareness campaigns. This report summarizes an assessment of the impact of the program through 1991.

The two primary components of the "70% by '92" program are 1) Operation Buckle Down, a program designed to increase safety-belt use among police and to encourage enforcement of safety-belt laws; and 2) public information campaigns during the summers (i.e., mid-May through mid-September) of 1991 and 1992. Specific program

FIGURE 1. Number of states with safety-belt laws in effect and percentage of safety-belt use* — United States, 1982–1990



*Data on percentage of safety-belt use are derived from National Highway Traffic Safety Administration's 19-city survey.

Safety-Belt Use — Continued

activities designed to be coordinated at the community level include enforcement, public information, media events, and local-use surveys.

In February 1991, NHTSA regional offices and state highway safety offices initiated efforts to enlist community participation in the "70% by '92" program. Through September 1991, approximately 11,000 of the estimated 20,000 local enforcement agencies in the United States had been contacted; of these, approximately 3700 agreed to participate in program activities (*2*). The impact of the program during 1991 was assessed by comparing changes in safety-belt law enforcement levels and safety-belt use rates during 1990 and 1991.

Enforcement levels for 1990 and 1991 were assessed by examining citation rates (per million licensed drivers) reported through the Combined Accident Reduction Effort (CARE), a cooperative traffic-safety law enforcement effort sponsored by member law enforcement agencies in each of the 50 states and the District of Columbia. During 1990 and 1991, substantial increases in enforcement levels were documented for each of the three summer holiday periods; the greatest change occurred during the Independence Day holiday period (i.e., June 16–July 21), when citation rates increased 226% from 1990 (*3*).

Changes in rates of safety-belt use were assessed by examining results from local, state, and national observational surveys. During the Independence Day period, predata and postdata from 186 jurisdictions in 30 states indicated safety-belt use increased an average of seven percentage points. During the Labor Day period (i.e., August 18–September 15) predata and postdata from 390 jurisdictions in 33 states indicated safety-belt use increased an average of four percentage points. Seventy-three jurisdictions submitted three sets of safety-belt use data: pre-Independence Day (June 16), post-Independence Day (July 21), and post-Labor Day (September 15). For these jurisdictions, the average pre-Independence Day/post-Labor Day use increased 11 percentage points, from 48% to 59%. During September and October 1991, state surveys indicated safety-belt use achieved a population-weighted average for all states of 59%. Weighting these rates by annual vehicle miles traveled per state also indicated an average of 59%.

Safety-belt use rates also were assessed by analyzing data from the NHTSA 19-city survey, a trend analysis that uses quarterly observations of safety-belt use in 19 U.S. cities. The average use rate for drivers in these 19 cities increased from 50% during the first quarter of 1991 to 54% during the third quarter, immediately following the summer campaign (*4*).

Reported by: J Michael, J Nichol, Office of Occupant Protection, National Highway Traffic Safety Administration. Unintentional Injuries Section, Epidemiology Br, Div of Injury Control, National Center for Environmental Health and Injury Control, CDC.

Editorial Note: In states with safety-belt use laws, belt use typically increases initially, then decreases modestly in the absence of enforcement, and finally stabilizes at 40%–50%. Public information and education programs without accompanying enforcement have been ineffective in changing these postlaw stabilization rates. However, evaluation data from communities participating in the "70% by '92" program suggest that the enforcement/public information approach might substantially increase safety-belt use rates. Based on previous research and program experience, this approach has the potential for increasing safety-belt use beyond the program goal of 70% (*5*). Assessment of statewide programs in California, Hawaii, Maryland, and Texas and demonstration projects in various Illinois, New York, and

Safety-Belt Use — Continued

Texas cities indicate that gains of 10–30 percentage points can be achieved through highly publicized enforcement. In some localities, use rates of 70%–80% have been attained (*5*). In Canada, an enforcement/public information campaign was associated with an increase in the national safety-belt use rate from 58% in October 1985 to 86% in October 1991 (*6*).

The midterm assessment of the "70% by '92" program is subject to at least three limitations. First, the CARE citation data, used to determine the level of enforcement, are based only on the activity of state police and highway patrol agencies and only on designated roadways and, therefore, do not reflect all safety-belt and child passenger safety enforcement efforts within any state. Nonetheless, because of the relatively standard and consistent reporting procedures used, CARE data provide a useful index of enforcement levels. Second, because the safety-belt use surveys were not uniform in their sampling methods, statistical measures of significance could not be applied to results; however, the data clearly indicate a trend toward increased safety-belt use. Third, the enactment of safety-belt use laws in several states may have increased safety-belt use during 1991. Mandatory-use laws in Alabama, Arkansas, and Rhode Island took effect during the summer months, and use laws in Arizona and Oregon became effective within 6 months before the beginning of the campaign.

Reports on specific community activities indicate that, although law enforcement of safety-belt use has increased substantially in many areas, the public information component of the approach has not been as strong. Local public awareness efforts, particularly media events that highlight community campaigns, must be emphasized continually throughout the "70% by '92" program.

Because of the need for increased and sustained community support of local enforcement agencies' efforts to enforce safety-belt laws, the second year of the program will emphasize establishment of contacts between law enforcement agencies and community leaders, especially public health and health-care providers. Further information regarding the "70% by '92" program is available from NHTSA's Office of Occupant Protection, telephone (202) 366-9294.

References

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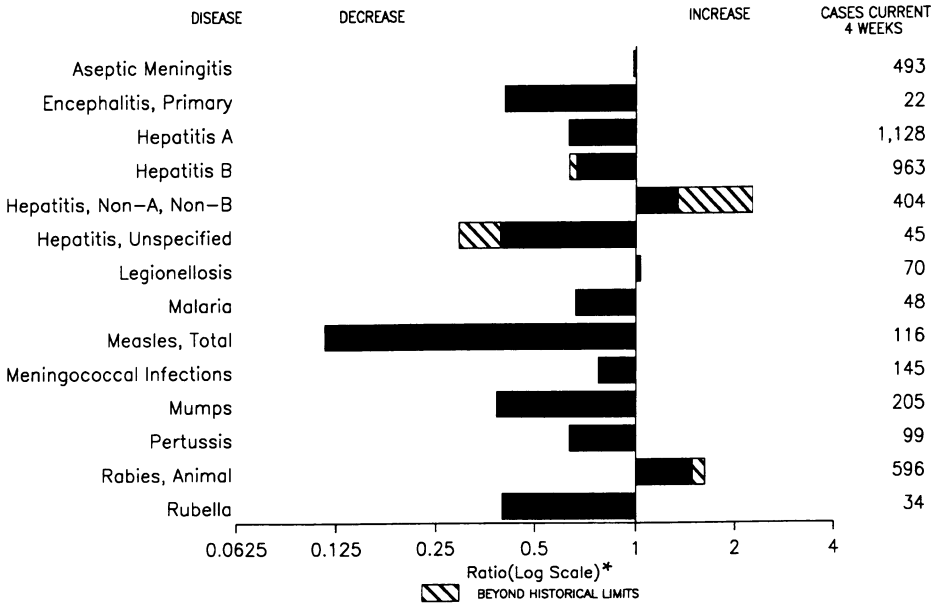
FIGURE I. Notifiable disease reports, comparison of 4-week totals ending June 13, 1992, with historical data — United States



*Ratio of current 4-week total to the 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 June 13, 1992 (24th Week)

	Cum. 1992		Cum. 1992
AIDS*	20,284	Measles: imported	72
Anthrax	-	indigenous	1,007
Botulism: Foodborne	8	Plague	2
Infant	24	Poliomyelitis, Paralytic†	-
Other	-	Psittacosis	42
Brucellosis	27	Rabies, human	-
Cholera	35	Syphilis, primary & secondary	15,490
Congenital rubella syndrome	5	Syphilis, congenital, age < 1 year	-
Diphtheria	3	Tetanus	6
Encephalitis, post-infectious	61	Toxic shock syndrome	113
Gonorrhea	208,529	Trichinosis	15
Haemophilus influenzae (invasive disease)	733	Tuberculosis	9,027
Hansen Disease	66	Tularemia	40
Leptospirosis	15	Typhoid fever	141
Lyme Disease	1,820	Typhus fever, tickborne (RMSF)	95

*Updated monthly; last update May 30, 1992.
†Two cases of suspected poliomyelitis have been reported in 1992; nine suspected cases were reported in 1991; 4 of the 8 suspected cases in 1990 were confirmed, and all were vaccine associated.

TABLE II. Cases of selected notifiable diseases, United States, weeks ending June 13, 1992, and June 15, 1991 (24th Week)

Reporting Area	AIDS*	Aseptic Meningitis	Encephalitis		Gonorrhea		Hepatitis (Viral), by type				Legionellosis	Lyme Disease
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	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	20,284	2,399	229	61	208,529	262,173	8,808	7,232	3,439	312	573	1,820
NEW ENGLAND	681	123	15	-	4,605	6,654	277	273	29	16	34	180
Maine	27	11	-	-	39	64	28	13	4	-	1	-
N.H.	22	5	2	-	7	154	20	20	9	1	3	9
Vt.	9	5	2	-	13	19	4	6	4	-	2	2
Mass.	382	47	8	-	1,629	2,797	136	206	9	15	18	37
R.I.	41	55	3	-	356	521	61	15	3	-	10	46
Conn.	200	-	-	-	2,561	3,099	28	13	-	-	-	86
MID. ATLANTIC	4,844	253	12	7	21,642	32,546	665	925	170	13	174	1,278
Upstate N.Y.	642	117	-	-	4,451	5,395	171	221	106	6	73	883
N.Y. City	2,651	45	2	1	6,858	13,010	222	146	3	-	3	-
N.J.	1,041	-	-	-	2,969	5,010	100	238	43	-	22	109
Pa.	510	91	10	6	7,364	9,131	172	320	18	7	76	286
E.N. CENTRAL	1,911	330	63	10	39,730	48,950	1,130	1,107	623	18	121	47
Ohio	388	95	23	1	11,282	14,865	216	119	55	3	62	21
Ind.	194	37	5	-	3,923	4,736	369	411	310	5	12	16
Ill.	808	64	16	4	12,989	14,924	206	87	25	3	7	3
Mich.	401	129	18	5	9,896	11,109	67	305	191	7	30	7
Wis.	120	5	1	-	1,640	3,316	272	185	42	-	10	-
W.N. CENTRAL	585	152	14	4	9,975	12,918	1,045	377	167	21	37	60
Minn.	101	11	1	-	1,302	1,301	300	30	10	2	2	3
Iowa	46	20	-	2	710	899	20	15	3	2	9	7
Mo.	306	72	8	-	5,346	7,913	343	283	138	16	13	44
N. Dak.	1	1	1	-	33	28	55	1	3	1	1	1
S. Dak.	3	4	-	1	82	156	165	4	-	-	-	-
Nebr.	19	13	1	1	8	875	78	13	5	-	11	1
Kans.	109	31	3	-	2,494	1,746	84	31	8	-	1	4
S. ATLANTIC	4,849	495	44	29	65,230	77,996	542	1,158	453	43	90	112
Del.	53	19	4	-	729	1,083	18	113	86	1	15	51
Md.	561	62	9	-	6,729	7,855	109	182	19	5	16	20
D.C.	387	11	1	-	3,483	4,587	10	43	198	-	7	-
Va.	275	78	10	7	8,430	7,839	48	82	15	15	10	21
W. Va.	25	3	3	-	403	538	4	28	1	9	-	1
N.C.	306	54	13	-	11,313	14,674	40	166	42	-	11	6
S.C.	165	6	-	-	4,875	5,616	10	24	-	-	16	-
Ga.	641	60	2	-	22,472	19,764	60	150	40	-	5	2
Fla.	2,436	202	2	22	6,796	16,040	243	370	52	13	10	11
E.S. CENTRAL	622	138	8	-	21,532	23,877	138	619	993	1	25	21
Ky.	82	45	5	-	2,428	2,585	37	36	1	-	14	6
Tenn.	190	41	1	-	6,596	9,294	62	522	985	-	9	13
Ala.	229	38	1	-	7,278	5,864	23	59	7	1	2	2
Miss.	121	14	1	-	5,230	6,134	16	2	-	-	-	-
W.S. CENTRAL	1,812	289	20	4	21,084	30,336	854	921	59	74	9	37
Ark.	95	4	7	-	3,729	3,337	43	35	5	3	-	5
La.	320	17	2	1	3,175	7,404	59	71	23	2	-	1
Okla.	100	-	1	2	2,226	2,998	93	97	20	2	4	13
Tex.	1,297	268	10	1	11,954	16,597	659	718	11	67	5	18
MOUNTAIN	595	79	10	3	4,936	5,407	1,299	332	129	29	41	2
Mont.	9	-	1	1	49	51	38	20	25	-	7	-
Idaho	13	12	-	-	60	70	30	39	3	-	3	1
Wyo.	2	-	-	-	27	48	3	2	5	-	1	-
Colo.	217	19	5	1	1,573	1,506	376	50	42	13	7	-
N. Mex.	52	8	3	-	419	521	126	100	13	7	2	-
Ariz.	159	24	1	-	1,873	2,027	559	62	14	4	11	-
Utah	46	-	-	1	103	154	132	8	16	5	2	1
Nev.	97	16	-	-	832	1,030	35	51	11	-	8	-
PACIFIC	4,385	540	43	4	19,795	23,489	2,858	1,520	816	97	42	83
Wash.	217	-	-	-	1,750	2,088	325	150	61	6	5	2
Oreg.	130	-	-	-	712	924	172	142	34	6	-	-
Calif.	3,971	490	40	3	16,772	19,843	2,220	1,217	579	79	36	81
Alaska	8	3	3	-	344	330	14	6	2	1	-	-
Hawaii	59	47	-	1	217	304	127	5	140	5	1	-
Guam	-	-	-	-	36	-	5	1	-	2	-	1
P.R.	735	71	1	-	72	308	9	176	29	13	1	-
V.I.	2	-	-	-	53	249	2	4	-	-	-	-
Amer. Samoa	-	-	-	-	17	22	-	1	-	-	-	-
C.N.M.I.	-	-	-	-	25	27	-	-	-	-	-	-

N: Not notifiable U: Unavailable C.N.M.I.: Commonwealth of the Northern Mariana Islands
*Updated monthly; last update May 30, 1992.

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending June 13, 1992, and June 15, 1991 (24th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported*		Total									
	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	345	39	1,007	1	72	6,867	1,171	40	1,411	23	609	995	2	99	952
NEW ENGLAND	19	11	25	-	7	47	74	-	9	5	64	167	-	5	2
Maine	-	-	-	-	-	-	7	-	-	-	2	42	-	-	-
N.H.	2	1	10	-	-	-	5	-	1	-	18	12	-	-	1
Vt.	-	-	-	-	-	5	2	-	-	-	-	3	-	-	-
Mass.	10	-	5	-	3	17	28	-	2	4	33	97	-	-	1
R.I.	4	10	10	-	-	2	-	-	-	-	-	-	-	4	-
Conn.	3	-	-	-	4	23	32	-	6	1	11	13	-	1	-
MID. ATLANTIC	97	2	158	-	8	4,044	126	2	97	1	66	101	-	15	528
Upstate N.Y.	14	2	76	-	2	297	66	-	44	-	22	58	-	11	507
N.Y. City	52	-	33	-	5	1,375	11	-	12	-	7	9	-	-	2
N.J.	17	-	44	-	1	976	17	-	11	-	14	8	-	3	-
Pa.	14	-	5	-	-	1,396	32	2	30	1	23	26	-	1	19
E.N. CENTRAL	19	-	23	1	9	74	170	4	169	1	42	185	-	5	164
Ohio	3	-	2	-	3	1	45	-	64	-	18	61	-	-	147
Ind.	4	-	19	-	-	1	26	1	7	-	12	37	-	-	1
Ill.	4	-	1	-	4	24	49	-	46	-	4	40	-	5	4
Mich.	7	-	1	1§	1	39	43	3	50	1	2	22	-	-	11
Wis.	1	-	-	-	1	9	7	-	2	-	6	25	-	-	1
W.N. CENTRAL	21	-	5	-	3	33	67	2	51	2	47	66	-	4	15
Minn.	7	-	3	-	2	8	7	-	7	-	15	24	-	-	6
Iowa	2	-	-	-	1	15	7	2	9	-	1	7	-	-	5
Mo.	9	-	1	-	-	-	33	-	28	1	18	22	-	-	4
N. Dak.	-	U	-	U	-	-	-	U	2	U	7	1	U	-	-
S. Dak.	1	-	-	-	-	-	1	-	-	1	3	1	-	-	-
Nebr.	-	-	-	-	-	-	9	-	3	-	2	5	-	-	-
Kans.	2	-	1	-	-	10	10	-	2	-	1	6	-	4	-
S. ATLANTIC	68	5	108	-	8	408	200	13	557	-	64	70	-	11	5
Del.	4	-	3	-	-	21	2	-	4	-	-	-	-	-	-
Md.	17	5	8	-	7	162	21	3	46	-	14	13	-	7	1
D.C.	6	-	-	-	-	-	-	1	3	-	-	-	-	1	1
Va.	14	-	5	-	1	22	35	-	20	-	4	10	-	-	-
W. Va.	-	-	-	-	-	-	15	2	22	-	3	6	-	-	-
N.C.	6	-	25	-	-	31	32	-	124	-	13	14	-	-	-
S.C.	-	-	29	-	-	12	17	-	46	-	9	-	-	-	-
Ga.	3	-	-	-	-	14	29	-	54	-	6	16	-	-	-
Fla.	18	-	38	-	-	146	49	7	238	-	15	11	-	3	3
E.S. CENTRAL	9	14	418	-	17	1	78	-	36	-	12	23	-	1	83
Ky.	1	14	416	-	1	-	26	-	-	-	-	-	-	-	-
Tenn.	4	-	-	-	-	1	21	-	12	-	5	11	-	1	83
Ala.	4	-	-	-	-	-	25	-	6	-	7	12	-	-	-
Miss.	-	-	2	-	16	-	6	-	18	-	-	-	-	-	-
W.S. CENTRAL	8	2	185	-	-	38	94	18	263	1	22	21	-	-	1
Ark.	-	-	-	-	-	5	8	-	6	-	9	2	-	-	1
La.	-	-	-	-	-	-	20	-	15	-	-	8	-	-	-
Okla.	2	2	11	-	-	-	11	1	14	1	13	11	-	-	-
Tex.	6	-	174	-	-	33	55	17	228	-	-	-	-	-	-
MOUNTAIN	10	1	2	-	6	680	63	-	76	3	104	117	-	3	4
Mont.	-	-	-	-	-	-	12	-	2	-	1	-	-	-	-
Idaho	-	-	-	-	-	217	8	-	2	-	14	20	-	1	-
Wyo.	-	-	1	-	-	-	2	-	-	-	-	3	-	-	-
Colo.	4	1	1	-	6	5	10	-	5	1	20	61	-	-	1
N. Mex.	1	-	-	-	-	91	5	N	N	2	26	10	-	-	1
Ariz.	4	-	-	-	-	312	14	-	47	-	37	8	-	1	-
Utah	-	-	-	-	-	39	4	-	15	-	5	13	-	1	-
Nev.	1	U	-	U	-	16	8	U	5	U	1	2	U	-	2
PACIFIC	94	4	83	-	14	1,542	299	1	153	10	188	245	2	55	150
Wash.	6	-	-	-	10	4	36	-	8	4	51	60	-	6	-
Oreg.	8	-	4	-	1	44	45	N	N	-	13	37	-	2	2
Calif.	74	-	42	-	-	1,480	207	1	134	6	114	105	-	34	143
Alaska	1	-	8	-	1	1	6	-	1	-	-	11	-	-	-
Hawaii	5	4	29	-	2	13	5	-	10	-	10	32	2	13	5
Guam	1	U	10	U	-	-	-	U	6	U	-	-	U	1	-
P.R.	-	-	5	-	-	67	3	-	1	-	8	14	-	-	1
V.I.	-	-	-	-	-	2	-	-	13	-	-	-	-	-	-
Amer. Samoa	-	U	-	U	-	24	-	U	-	U	6	-	U	-	-
C.N.M.I.	-	U	-	U	-	-	-	U	-	U	1	-	U	-	-

*For measles only, imported cases includes both out-of-state and international importations.

N: Not notifiable U: Unavailable †International §Out-of-state

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending June 13, 1992, and June 15, 1991 (24th Week)

Reporting Area	Syphilis (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		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	15,490	19,738	113	9,027	9,661	40	141	95	3,699
NEW ENGLAND	284	523	10	180	277	-	13	2	350
Maine	-	-	-	48	25	-	-	-	-
N.H.	-	12	6	-	-	-	1	-	1
Vt.	1	1	-	3	3	-	-	-	14
Mass.	140	251	3	64	135	-	9	1	2
R.I.	16	22	1	13	33	-	-	1	-
Conn.	127	237	-	52	81	-	3	-	333
MID. ATLANTIC	2,239	3,609	14	2,100	2,320	-	43	5	1,055
Upstate N.Y.	154	323	5	142	253	-	6	1	602
N.Y. City	1,154	1,700	-	1,319	1,377	-	18	3	-
N.J.	310	638	-	361	376	-	12	-	335
Pa.	621	948	9	278	314	-	7	1	118
E.N. CENTRAL	2,207	2,213	31	918	999	-	14	11	56
Ohio	318	287	10	142	140	-	3	7	4
Ind.	143	67	7	80	76	-	-	2	3
Ill.	1,021	1,073	4	460	535	-	10	-	9
Mich.	457	548	10	199	204	-	1	1	7
Wis.	268	238	-	37	44	-	-	1	33
W.N. CENTRAL	540	326	17	175	241	14	2	5	629
Minn.	41	38	3	39	43	-	-	-	98
Iowa	17	28	4	19	32	-	-	-	101
Mo.	399	216	3	62	110	11	2	5	8
N. Dak.	1	1	1	2	5	-	-	-	65
S. Dak.	-	1	-	15	18	2	-	-	60
Nebr.	1	7	3	13	8	1	-	-	5
Kans.	81	35	3	25	25	-	-	-	292
S. ATLANTIC	4,372	5,825	13	1,727	1,747	2	11	24	821
Del.	95	72	3	17	15	-	-	3	113
Md.	342	483	1	111	162	1	2	1	236
D.C.	205	373	-	57	95	-	1	1	10
Va.	339	482	1	116	146	1	-	-	133
W. Va.	7	15	1	29	38	-	1	1	21
N.C.	1,079	868	3	222	215	-	-	11	2
S.C.	586	694	1	187	183	-	1	2	65
Ga.	903	1,409	1	397	324	-	-	3	171
Fla.	816	1,429	2	591	569	-	6	2	70
E.S. CENTRAL	2,042	2,133	-	563	638	5	2	15	64
Ky.	50	35	-	174	150	1	-	1	33
Tenn.	540	748	-	105	161	4	-	13	-
Ala.	837	764	-	192	187	-	-	1	31
Miss.	615	586	-	92	140	-	2	-	-
W.S. CENTRAL	2,778	3,521	1	890	1,078	11	5	29	402
Ark.	364	289	-	67	96	5	-	5	19
La.	1,173	1,142	-	87	63	-	-	-	-
Okla.	116	82	-	41	70	6	-	24	193
Tex.	1,125	2,008	1	695	849	-	5	-	190
MOUNTAIN	189	263	10	240	240	8	2	3	71
Mont.	3	2	-	-	-	4	-	1	10
Idaho	1	3	1	12	3	-	1	-	-
Wyo.	1	3	-	-	2	2	-	-	24
Colo.	23	41	4	16	6	-	1	-	2
N. Mex.	19	14	1	39	31	2	-	1	4
Ariz.	96	172	2	111	137	-	-	-	29
Utah	5	4	2	33	25	-	-	1	1
Nev.	41	24	-	29	36	-	-	-	1
PACIFIC	839	1,325	17	2,234	2,121	-	49	1	251
Wash.	49	86	-	140	135	-	3	-	-
Oreg.	23	36	-	46	50	-	-	-	-
Calif.	761	1,196	17	1,909	1,808	-	43	1	239
Alaska	2	3	-	29	34	-	-	-	12
Hawaii	4	4	-	110	94	-	3	-	-
Guam	2	-	-	34	-	-	1	-	-
P.R.	130	223	-	120	71	-	1	-	25
V.I.	28	61	-	3	1	-	-	-	-
Amer. Samoa	-	-	-	-	2	-	1	-	-
C.N.M.I.	4	-	-	12	4	-	1	-	-

U: Unavailable

TABLE III. Deaths in 121 U.S. cities,* week ending June 13, 1992 (24th Week)

Reporting Area	All Causes, By Age (Years)						P&I†
	All Ages	≥65	45-64	25-44	1-24	<1	Total
NEW ENGLAND	577	410	100	45	13	9	43
Boston, Mass.	152	92	37	15	6	2	24
Bridgeport, Conn.	33	24	3	3	1	2	1
Cambridge, Mass.	24	20	2	2	-	-	3
Fall River, Mass.	20	17	3	-	-	-	-
Hartford, Conn.	62	39	12	6	2	3	-
Lowell, Mass.	25	22	2	1	-	-	3
Lynn, Mass.	25	19	3	2	-	1	1
New Bedford, Mass.	26	20	5	1	-	-	-
New Haven, Conn.	39	29	5	4	-	1	3
Providence, R.I.	40	31	8	1	-	-	-
Somerville, Mass.	6	5	1	-	-	-	-
Springfield, Mass.	39	29	7	3	-	-	4
Waterbury, Conn.	36	26	3	7	-	-	3
Worcester, Mass.	50	37	9	-	4	-	1
MID. ATLANTIC	2,319	1,450	451	286	68	64	111
Albany, N.Y.	52	30	13	1	4	4	1
Allentown, Pa.	16	13	3	-	-	-	1
Buffalo, N.Y.	100	68	25	2	2	3	3
Camden, N.J.	33	18	8	2	3	2	2
Elizabeth, N.J.	21	15	5	1	-	-	-
Erie, Pa.§	31	24	4	3	-	-	2
Jersey City, N.J.	49	25	15	3	-	6	-
New York City, N.Y.	1,180	708	224	186	40	22	47
Newark, N.J.	76	39	15	14	5	3	5
Paterson, N.J.	36	16	9	9	1	1	3
Philadelphia, Pa.	296	193	53	30	7	13	15
Pittsburgh, Pa.§	65	42	11	9	2	1	8
Reading, Pa.	10	8	2	-	-	-	1
Rochester, N.Y.	123	86	19	11	1	6	5
Schenectady, N.Y.	23	18	3	1	1	-	-
Scranton, Pa.§	40	32	6	2	-	-	3
Syracuse, N.Y.	81	53	18	6	1	3	4
Trenton, N.J.	38	27	8	3	-	-	6
Utica, N.Y.	15	12	2	-	1	-	-
Yonkers, N.Y.	34	23	8	3	-	-	5
E.N. CENTRAL	2,077	1,229	417	229	112	90	93
Akron, Ohio	48	32	10	-	2	4	2
Canton, Ohio	39	30	9	-	-	-	3
Chicago, Ill.	528	197	114	109	67	41	17
Cincinnati, Ohio	127	91	20	10	2	4	11
Cleveland, Ohio	169	106	34	14	5	10	3
Columbus, Ohio	135	77	38	11	3	6	7
Dayton, Ohio	122	79	28	6	6	3	6
Detroit, Mich.	217	118	54	33	6	6	5
Evansville, Ind.	48	35	10	2	-	1	2
Fort Wayne, Ind.	48	35	9	-	3	1	5
Gary, Ind.	17	7	5	3	2	-	-
Grand Rapids, Mich.	49	39	4	4	1	1	2
Indianapolis, Ind.	147	96	27	12	7	5	10
Madison, Wis.	36	22	8	5	-	1	2
Milwaukee, Wis.	94	69	18	4	2	1	3
Peoria, Ill.	33	23	5	3	1	1	2
Rockford, Ill.	39	27	5	3	2	2	2
South Bend, Ind.	47	35	9	1	1	1	3
Toledo, Ohio	134	111	10	9	2	2	8
Youngstown, Ohio	U	U	U	U	U	U	U
W.N. CENTRAL	826	604	129	45	29	19	36
Des Moines, Iowa	95	72	15	6	2	-	4
Duluth, Minn.	26	20	5	-	-	1	1
Kansas City, Kans.	19	9	3	3	4	-	-
Kansas City, Mo.	103	69	22	5	4	3	3
Lincoln, Nebr.	37	28	6	3	-	-	2
Minneapolis, Minn.	201	148	30	12	9	2	10
Omaha, Nebr.	95	74	14	3	2	2	5
St. Louis, Mo.	139	106	16	4	6	7	6
St. Paul, Minn.	54	40	6	4	1	3	5
Wichita, Kans.	57	38	12	5	1	1	-
S. ATLANTIC	1,190	697	254	152	37	43	50
Atlanta, Ga.	179	90	45	36	6	2	4
Baltimore, Md.	230	124	51	39	6	10	16
Charlotte, N.C.	91	50	23	11	3	4	4
Jacksonville, Fla.	113	70	31	6	4	1	5
Miami, Fla.	75	39	8	15	3	10	-
Norfolk, Va.	65	44	13	2	2	4	7
Richmond, Va.	80	54	12	9	1	4	3
Savannah, Ga.	48	20	20	7	-	1	1
St. Petersburg, Fla.	74	52	12	5	1	4	-
Tampa, Fla.	132	91	26	11	4	-	8
Washington, D.C.	78	43	11	10	7	2	2
Wilmington, Del.	25	20	2	1	-	1	-
E.S. CENTRAL	733	467	149	64	24	29	56
Birmingham, Ala.	110	68	28	9	2	3	2
Chattanooga, Tenn.	75	60	10	1	2	2	8
Knoxville, Tenn.	84	53	20	7	3	1	9
Louisville, Ky.	U	U	U	U	U	U	U
Memphis, Tenn.	212	127	46	16	7	16	20
Mobile, Ala.	94	54	13	17	5	5	6
Montgomery, Ala.	51	34	10	5	-	2	-
Nashville, Tenn.	107	71	22	9	5	-	11
W.S. CENTRAL	1,391	847	281	140	69	54	79
Austin, Tex.	70	44	13	4	7	2	6
Baton Rouge, La.	32	23	6	3	-	-	2
Corpus Christi, Tex.	45	36	5	3	-	1	1
Dallas, Tex.	220	128	48	25	15	4	3
El Paso, Tex.	63	35	17	4	4	3	6
Ft. Worth, Tex.	76	40	16	11	7	2	4
Houston, Tex.	356	193	80	47	15	21	26
Little Rock, Ark.	83	52	13	5	4	9	8
New Orleans, La.	95	58	15	17	3	2	-
San Antonio, Tex.	158	102	33	11	8	4	9
Shreveport, La.	73	57	10	3	-	3	6
Tulsa, Okla.	120	79	25	7	6	3	8
MOUNTAIN	763	503	129	75	27	28	57
Albuquerque, N.M.	95	55	16	13	7	4	2
Colo. Springs, Colo.	28	19	4	3	2	-	3
Denver, Colo.	104	68	16	13	1	6	11
Las Vegas, Nev.	137	96	28	8	2	3	7
Ogden, Utah	16	10	2	2	-	1	-
Phoenix, Ariz.	158	105	20	20	7	6	18
Pueblo, Colo.	17	11	4	2	-	-	1
Salt Lake City, Utah	106	67	19	10	5	5	10
Tucson, Ariz.	102	72	20	4	3	3	5
PACIFIC	2,133	1,411	394	203	57	54	112
Berkeley, Calif.	13	8	3	1	-	1	-
Fresno, Calif.	107	69	16	12	4	6	5
Glendale, Calif.	25	20	4	1	-	-	2
Honolulu, Hawaii	61	42	10	2	4	3	7
Long Beach, Calif.	75	50	14	10	-	1	4
Los Angeles, Calif.	744	474	144	79	23	14	35
Pasadena, Calif.	26	18	5	1	-	2	7
Portland, Oreg.	144	96	34	7	5	2	7
Sacramento, Calif.	171	119	31	17	1	3	13
San Diego, Calif.	147	105	20	10	5	5	6
San Francisco, Calif.	150	89	33	20	1	5	1
San Jose, Calif.	177	116	30	14	9	8	8
Santa Cruz, Calif.	25	17	6	1	1	-	4
Seattle, Wash.	139	95	21	19	2	2	1
Spokane, Wash.	50	35	8	5	-	2	7
Tacoma, Wash.	79	58	15	4	2	-	5
TOTAL	12,009¶	7,618	2,304	1,239	436	390	637

*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.

†Pneumonia and influenza.

§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

Current Trends

Role of Alcohol in Forensic Deaths — Westchester County, New York, 1989

In the United States, 58% of all adults consume alcohol, and death rates for most injuries and some diseases increase directly in relation to levels of consumption (*1–3*). Forensic deaths (i.e., deaths certified under the medical examiner system) include a substantial proportion of cases for which alcohol use may have contributed to the death; in many cases, this system provides detailed medical information on causes of death because of autopsies and blood alcohol level testing. To further characterize alcohol-related deaths in Westchester County (*4,5*), the New York Medical College (NYMC) and the Westchester County Department of Laboratories and Research (WCDLR) estimated the total alcohol-related mortality (ARM) and years of potential life lost before age 65 (YPLL) for all deaths certified by the medical examiner for Westchester County, New York, during 1989. This report summarizes the findings and addresses public health applications for estimating ARM employing this method.

The NYMC and WCDLR used Alcohol-Related Disease Impact (ARDI) software to estimate the overall mortality from both acute injuries and chronic diseases associated with alcohol use or misuse (*6*). ARDI is based on an established set of diagnoses causally related to alcohol and estimates of alcohol-attributable fractions (AAFs) for each diagnosis (*6*).

Westchester County (1990 U.S. census population: 874,866), north of New York City, is both urban and suburban and is served by a single medical examiner's office. Of the 7974 persons who died within Westchester County during 1989, 1097 (14%) deaths were reviewed by the Westchester County medical examiner, and 645 (59%) autopsies were performed. The NYMC and WCDLR reviewed each record to obtain data on age, sex, race, place of residence, date and place of injury and death, manner and cause of death, other involved conditions, blood alcohol concentration (BAC), and the presence of other toxicologic substances. To determine estimates of ARM and YPLL by age, sex, and specific diseases, alcohol-related deaths were combined with estimated AAFs.

The Westchester County medical examiner's office obtains a BAC on nearly all persons autopsied; however, autopsies were more likely to be performed when the diagnoses were alcohol related (398 [86%] versus 247 [39%]). Of the 1097 persons, 465 (42%) were determined to have had alcohol-related diagnoses (Table 1). BACs had been determined for 359 (77%) persons with an alcohol-related diagnosis and 229 (36%) persons without an alcohol-related diagnosis.

Persons with an alcohol-related diagnosis were younger and were more likely to be male, race other than white, and noncounty residents, and to have died outside of a hospital or health facility. BAC levels were significantly higher ($p = 0.001$) for the alcohol-related death group.

Of the 1097 deaths reviewed by the medical examiner's office, 165 (15%) were estimated to be attributable to alcohol. Unintentional and intentional injuries, digestive-system diseases, and excess blood alcohol (usually in association with other diseases or drugs) accounted for 95% of all alcohol-attributable deaths. An

Alcohol in Forensic Deaths — Continued

estimated 119 (17%) deaths among the 699 males and 46 (12%) among the 398 females in this population were attributable to alcohol. The mean YPLL per alcohol-related death was 18.2 years.

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Editorial Note: Previous reports based on the use of ARDI have measured the impact of alcohol on mortality in the U.S. and in Wisconsin (*7,8*). During 1987, 6.3% of deaths among males and 3.4% among females were attributable to alcohol (*7*). However, because a higher proportion of deaths reviewed by the medical examiner's office in Westchester County were alcohol-related injury deaths, the alcohol-attributable mortality described in this report is higher.

TABLE 1. Comparison of decedents with and without alcohol-related diagnoses reviewed by the medical examiner's office — Westchester County, New York, 1989*

	Decedents with alcohol-related diagnosis (n=465)		Decedents without alcohol-related diagnosis (n=632)		
Category	**No.**	**(%)**	**No.**	**(%)**	**p value**
Males	317	(68)	382	(60)	<0.01
Age (yrs)	*46 (± 22.2)†*		*63 (± 20.1)†*		*<0.001*
Autopsy performed	398	(86)	247	(39)	<0.001
Race					
White	312	(67)	478	(76)	
Other than white	153	(33)	154	(24)	<0.01
Residence in county					
Yes	387	(83)	584	(92)	
No	70	(15)	44	(7)	<0.001
Blood alcohol concentration (BAC)					
Positive	119	(26)	21	(3)	
Negative	240	(52)	208	(33)	<0.001
Mean BAC (g/dL)	*0.15 (± 0.12)†*		*0.05 (± 0.04)†*		*<0.001*
Other drugs					
Present	116	(25)	85	(13)	
Absent	242	(52)	144	(23)	
Death in hospital or health facility					
Yes	285	(61)	426	(67)	
No	180	(39)	206	(33)	<0.05

*Because of missing data, percentages may not total 100%.
†Standard deviation.

Alcohol in Forensic Deaths — Continued

Despite the limitations of studies based on highly selected forensic deaths, the findings described in this report are similar to published total county-specific alcohol-related death rates that are based on diagnostic groups and similar AAFs (*9*). From 1979 through 1985, in Westchester County, an estimated 220 (range: 161–280) alcohol-attributable deaths occurred annually. The estimate of 165 alcohol-related deaths in forensic cases for 1989 in this report suggests that approximately 75% of all alcohol-attributable deaths occurring within the county were captured using this method. Therefore, this method can provide a measure of the burden of alcohol use and misuse and assist state and local public health professionals and policy makers in better characterizing the public health impact of alcohol use and misuse. Westchester County health-care providers, social agencies, and planning organizations can use these data to estimate the impact of alcohol use locally and to target specific strategies toward this problem.

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Surveillance Summaries

Publication of *CDC Surveillance Summaries*

Since 1983, CDC has published the *CDC Surveillance Summaries* under separate cover as part of the *MMWR* series. Each report published in the *CDC Surveillance Summaries* focuses on public health surveillance; surveillance findings are reported for a broad range of risk factors and health conditions.

Summaries for each of the reports published in the most recent (April 24, 1992) issue of the *CDC Surveillance Summaries* (*1*) are provided below. All subscribers to *MMWR* receive the *CDC Surveillance Summaries*, as well as the *MMWR Recommendations and Reports*, as part of their subscriptions.

BREAST AND CERVICAL CANCER SURVEILLANCE, UNITED STATES, 1973–1987

Breast and cervical cancer incidence and mortality rates were reviewed for the period 1973–1987. For breast cancer, mortality has been relatively stable, increasing from 26.9 per 100,000 women in 1973 to 27.1 in 1987. Alternatively, data from the

Surveillance Summaries — *Continued*

National Cancer Institute's Surveillance, Epidemiology, and End Results Program (SEER) showed a 36% increase in the incidence of this malignancy over the same period. In 1987, overall incidence of invasive breast cancer was 111.9 per 100,000 women. White women experienced lower overall mortality rates and higher overall incidence than black women; however, these differences varied by age. Examination of breast cancer incidence by stage of disease at diagnosis revealed that rates for distant and regional disease have remained relatively stable since 1973. In contrast, rates of localized and in situ cancers exhibited an increase in the 1980s that may correspond to increased use of mammography in this country.

The rate of decline in cervical cancer incidence and mortality has slowed in recent years. In 1987, 3.0 cervical cancer deaths per 100,000 women occurred. SEER incidence for invasive disease for that year was 8.2 per 100,000. Rates varied by race, age, state, and stage of disease. In general, black women experienced much higher incidence and mortality from invasive cervical cancer than white women. For both races, rates of in situ disease were highest among young women and decreased rapidly with age. Rates of in situ cervical cancer were consistently higher than rates of invasive cancer for the time period studied.

Authors: *Judith R. Qualters, Ph.D., M.P.H., Nancy C. Lee, M.D., Robert A. Smith, Ph.D., Division of Cancer Prevention and Control; Ronald E. Aubert, Ph.D., M.S.P.H., Office of Surveillance and Analysis, National Center for Chronic Disease Prevention and Health Promotion, CDC.*

CANCER SCREENING BEHAVIORS AMONG U.S. WOMEN: BREAST CANCER, 1987–1989, AND CERVICAL CANCER, 1988–1989

Data from the Behavioral Risk Factor Surveillance System (BRFSS) were used to examine trends in breast and cervical cancer screening behaviors among U.S. women in selected states. Data reported are from the 1987, 1988, and 1989 BRFSS for breast cancer screening (mammography) and from the 1988 and 1989 BRFSS for cervical cancer screening (Papanicolaou [Pap] smear). Results are presented as either state-specific or state-aggregate data for the years noted above.

State-specific analyses indicated that self-reported mammography utilization increased between 1987 and 1989. Although whites and blacks reported similar mammography utilization rates both for screening and for a current or previous breast problem, disparities were evident among women of different ages and incomes. The proportion of women who reported ever having had a Pap smear and having heard of a Pap smear were extremely high and remained fairly consistent across the 2 survey years. State-aggregate analyses, however, showed that the percentage of women who had a Pap smear within the previous year was negatively associated with age and positively associated with income. A higher proportion of blacks than whites obtained Pap smears. These results indicate that certain segments of the population are not taking full advantage of available breast and cervical cancer screening technologies. Public health strategies, such as those outlined in the Breast and Cervical Cancer Mortality Prevention Act of 1990 (Public Law 101-354), should enhance screening opportunities for these women.

Authors: *Susan P. Ackermann, Ph.D., M.A., Epidemiology and Statistics Branch, Division of Cancer Prevention and Control; Robert M. Brackbill, Ph.D., M.P.H., Behavioral Surveillance Branch, Office of Surveillance and Analysis; Barbara A. Bewerse, M.N., M.P.H., Nancy E. Cheal, R.N., M.S., Health Promotion and Training Branch, Division of Cancer Prevention and Control, National Center for Chronic Disease Prevention and Health Promotion, CDC. Lee M. Sanderson, Ph.D., M.A., Remedial Programs Branch, Division of Health Assessment and Consultation, Agency for Toxic Substances and Disease Registry.*

Surveillance Summaries — *Continued*

SURVEILLANCE OF CONGENITAL CYTOMEGALOVIRUS DISEASE, 1990–1991

In January 1990, a registry was initiated for surveillance of infants with the often severe symptoms of congenital cytomegalovirus (CMV) disease. In the first 2 years, 100 cases were reported to the registry. Petechiae, the most commonly noted clinical sign, were reported for approximately 50% of infants, usually accompanied by hepatomegaly and splenomegaly. Of the various severe neurologic conditions that can result from congenital CMV infection, the most frequent was intracranial calcifications, which were noted in 43% of the cases. The most common laboratory abnormality was low platelet count, which was observed in 52% of the cases. Infants with severe neurologic damage were about twice as likely as infants with less severe damage to have most other clinical signs and laboratory abnormalities. Data bases will be developed to facilitate comparisons among symptomatically infected infants and asymptomatically infected as well as noninfected infants.

Authors: *James G. Dobbins, Ph.D., John A. Stewart, M.D., Viral Exanthems and Herpesvirus Branch, Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases, CDC. Gail J. Demmler, M.D., Baylor College of Medicine; and the Collaborating Registry Group.*

Reference

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Quarterly Table Reporting Alcohol Involvement in Fatal Motor-Vehicle Crashes

The following table reports alcohol involvement in fatal motor-vehicle crashes in the United States for April–June 1991. This table, published quarterly in *MMWR*, focuses attention on the impact of alcohol use on highway safety.

A fatal crash is considered alcohol-related by the National Highway Traffic Safety Administration (NHTSA) if either a driver or nonoccupant (e.g., pedestrian) had a blood alcohol concentration (BAC) of ≥0.01 g/dL in a police-reported traffic crash. Those with a BAC ≥0.10 g/dL (the legal level of intoxication in most states) are considered intoxicated. Because BAC levels are not available for all persons in fatal crashes, NHTSA estimates the number of alcohol-related traffic fatalities based on a discriminant analysis of information from all cases for which driver or nonoccupant BAC data are available. Seasonal trends may be associated with these data.

Estimated number and percentage of total traffic fatalities* and drivers involved in fatal crashes, by age and blood alcohol concentration (BAC) level — United States, April–June 1991

		Fatalities by BAC†					
		BAC=0.00		0.01%≤BAC≤0.09%		BAC≥0.10%	
Age (yrs)	No. fatalities§	No.	(%)	No.	(%)	No.	(%)
0–14	797	603	(75.6)	51	(6.5)	143	(17.9)
15–20	1,756	902	(51.4)	228	(13.0)	626	(35.6)
21–24	1,224	408	(33.3)	195	(15.9)	621	(50.8)
25–34	2,260	757	(33.5)	217	(9.6)	1,286	(56.9)
35–64	2,860	1,427	(49.9)	245	(8.6)	1,187	(41.5)
≥65	1,464	1,163	(79.4)	108	(7.4)	193	(13.2)
Total	**10,361**	**5,260**	**(50.8)**	**1046**	**(10.1)**	**4,055**	**(39.1)**

		Drivers¶ by BAC**					
		BAC=0.00		0.01%≤BAC≤0.09%		BAC≥0.10%	
Age (yrs)	No. drivers§	No.	(%)	No.	(%)	No.	(%)
0–14††	46	40	(86.0)	5	(10.2)	2	(3.8)
15–20	2,202	1,508	(68.5)	227	(10.3)	467	(21.1)
21–24	1,681	891	(53.0)	209	(12.4)	581	(34.6)
25–34	3,581	2,064	(57.6)	309	(8.6)	1208	(33.7)
35–64	4,569	3,364	(73.6)	251	(5.5)	954	(20.9)
≥65	1,332	1,190	(89.4)	47	(3.5)	95	(7.1)
Total	**13,411**	**9,057**	**(67.5)**	**1,047**	**(7.8)**	**3,307**	**(24.7)**

*Fatalities include all occupants and nonoccupants who died within 30 days of a motor vehicle crash on a public roadway.

†BAC distributions are estimates for drivers and nonoccupants involved in fatal crashes. Numbers of fatalities are rounded to the nearest whole number.

§Includes only those for whom age is known.

¶Driver may or may not have been killed.

**BAC distributions are estimates for drivers involved in fatal crashes. Numbers of drivers are rounded to the nearest whole number.

††Although usually too young to legally drive, persons in this age group are included for completeness of the data set.

Source: Fatal Accident Reporting System, National Highway Traffic Safety Administration.

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