



- 865 World AIDS Day
- 866 HIV Instruction and Selected HIV-Risk Behaviors Among Students
- 868 Implementation of Volunteer Networks for HIV-Prevention Programs
- 876 HIV Infection and AIDS Georgia, 1991 878 Report of PedvaxHIB® Lots with
- Questionable Immunogenicity 879 Business Responds to AIDS Program

World AIDS Day — December 1, 1992

MORBIDITY AND MORTALITY WEEKLY REPORT

"AIDS: A Community Commitment" is the theme selected by the World Health Organization (WHO) for the fifth annual World AIDS Day, December 1, 1992. This year's theme focuses attention on the men, women, and children throughout the world who are infected with human immunodeficiency virus (HIV), the cause of acquired immunodeficiency syndrome (AIDS). Activities will highlight the role communities play in controlling the epidemic of HIV infection and AIDS. On December 1, WHO, governments, and nongovernmental and community organizations throughout the world will hold special events designed to increase knowledge and understanding about AIDS and to encourage compassion for persons infected with HIV.

In conjunction with this event, the Public Health Service has designated December 1 as National AIDS Awareness Day. Information about HIV infection, AIDS, and World AIDS Day is available from the CDC National AIDS Hotline (CDC NAH) and the CDC National AIDS Clearinghouse (CDC NAC). The CDC NAH provides callers with information about HIV/AIDS, refers callers to services in their community, and places orders for HIV/AIDS publications; the CDC NAC distributes materials and maintains data bases on AIDS service organizations, educational materials, funding sources, and drug trials. The telephone numbers for CDC NAH are (800) 342-2437 ([800] 342-AIDS); Spanish, (800) 344-7432 ([800] 344-SIDA); or deaf service, (800) 243-7889 ([800] AIDS-TTY). For CDC NAC, the number is (800) 458-5231.*

*Single copies of this issue of *MMWR* will be available free until November 20, 1993, from the CDC NAC, P.O. Box 6003, Rockville, MD 20849-6003.

Current Trends

HIV Instruction and Selected HIV-Risk Behaviors Among High School Students — United States, 1989–1991

Efforts to prevent human immunodeficiency virus (HIV) infection and acquired immunodeficiency syndrome (AIDS) in the United States must be targeted toward persons of all age groups at risk, including adolescents. Many high school students have reported engaging in behaviors that increase their risk for HIV infection (1,2). During April and May of 1989, 1990, and 1991, CDC conducted three national schoolbased surveys among high school students that addressed, in part, HIV-risk behavior and school-based instruction. This report summarizes findings from these surveys.

The three surveys were the 1989 Secondary School Student Health Risk Survey (SSSHRS) that addressed HIV-related knowledge, beliefs, and behaviors, and the 1990 and 1991 Youth Risk Behavior Surveys (YRBS) that addressed HIV-related topics and other selected risk behaviors (e.g., tobacco use and alcohol and other drug use). All three surveys used a similar multistage design to obtain representative samples of students in grades 9–12 from U.S. public and private schools. In 1989, 81% of selected schools and 83% (n=8098) of selected students participated in the SSSHRS. For the YRBS, response rates for selected schools and students in 1990 were 74% and 87% (n=11,631), respectively, and in 1991 were 75% and 90% (n=12,272), respectively.

Each survey included similar questions about HIV instruction, discussion of AIDS or HIV-infection topics with parents, and HIV-related risk behaviors. Because the 1989 survey did not include comparable questions regarding condom use and injecting-drug use (IDU), these behaviors were compared only for 1990 and 1991. After adjusting for demographic characteristics of the samples, logistic regression analysis was used to test for significant changes over time. All analyses were conducted on data weighted to account for sample design and nonresponse (3,4).

The percentage of students who received HIV instruction in school increased significantly during 1989–1991 (from 54% to 83% [p<0.05]) (Figure 1), as did the percentage of students who discussed AIDS or HIV infection with parents or other adults in their families (from 54% to 61% [p<0.05]). Furthermore, in each year, students who reported receiving HIV instruction in school were significantly more likely than those who did not receive instruction to report discussing AIDS or HIV infection with their parents or other adults in their families in their families (p<0.05).

From 1989 to 1991, significant declines occurred in the percentages of students who reported ever having had sexual intercourse (59% to 54% [p<0.05]), having two or more sex partners during their lifetime (40% to 35% [p<0.05]), and having four or more sex partners during their lifetime (24% to 19% [p<0.05]) (Figure 2). These decreases occurred primarily from 1989 to 1990, and rates were similar for 1990 and 1991.

Among students who reported ever having had sexual intercourse, the overall percentage who reported using condoms did not change significantly from 1990 (46%) to 1991 (48%); however, when analyzed by age group, a significant increase was reported by sexually active students aged <15 years (46% versus 57% [p<0.05]). Rates for reported IDU did not change; less than 2% of students reported this behavior each year.

Reported by: Div of Adolescent and School Health, National Center for Chronic Disease Prevention and Health Promotion, CDC.

High School Students -- Continued

FIGURE 1. Percentage of high school students who reported having received instruction about HIV infection in school and having discussed AIDS or HIV infection with parents or other adults in their families — United States, 1989–1991



*1989 Secondary School Student Health Risk Survey. [†]1990 and 1991 Youth Risk Behavior Surveys.

FIGURE 2. Percentage of high school students who reported having had sexual intercourse and having had sexual intercourse with multiple sex partners — United States, 1989–1991*



*1989 Secondary School Student Health Risk Survey: "With how many people have you had any kind of sexual intercourse in your life?" 1990 Youth Risk Behavior Survey: "With how many persons have you had sexual intercouse in your life?" 1991 Youth Risk Behavior Survey: "During your life, with how many people have you had sexual intercourse?"

High School Students — Continued

Editorial Note: The findings in this report indicate that an increasing proportion of U.S. high school students are receiving instruction about HIV infection and are discussing topics related to AIDS and HIV infection with their parents. In addition, the findings suggest a decline in the proportion of students who report engaging in sexual behaviors that place them at risk for HIV infection—an observation of particular importance given the previous trend of increasing sexual activity among selected subgroups of adolescents during the last 2 decades (5,6).

Despite the changes, many adolescents continue to report engaging in HIV-risk behaviors. Reducing these risks and meeting national health objectives for the year 2000 will require implementing HIV education as part of kindergarten through 12th grade comprehensive school health education, especially for students in grades 9–12 (7) (objectives 18.10 and 8.4) (8), and improving the effectiveness of instruction through coordinated school and community efforts.

References

- 1. CDC. Sexual behavior among high school students—United States, 1990. MMWR 1992;40: 885-8.
- 2. CDC. Selected behaviors that increase risk for HIV infection among high school students— United States, 1990. MMWR 1992;41:231,237–40.
- 3. Shah BV. SESUDAAN: standard errors program for computing of standardized rates from sample survey data. Research Triangle Park, North Carolina: Research Triangle Institute, 1981.
- 4. Shah BV, Folsom RE, Harrell FE, Dillard CN. RTILOGIT: procedure for logistic regression on survey data. Research Triangle Park, North Carolina: Research Triangle Institute, 1987.
- 5. CDC. Premarital sexual experience among adolescent women—United States, 1970–1988. MMWR 1991;39:929–32.
- 6. Sonenstein FL, Pleck JH, Ku LC. Sexual activity, condom use, and AIDS awareness among adolescent males. Fam Plann Perspect 1989;21:152-8.
- 7. Holtzman D, Greene BZ, Ingraham GC, Daily LA, Demchuk DG, Kolbe LJ. HIV education and health education in the United States: a national survey of local school district policies and practices. J Sch Health 1992;62:421–7.
- Public Health Service. Healthy people 2000: national health promotion and disease prevention objectives—full report, with commentary. Washington, DC: US Department of Health and Human Services, Public Health Service 1991; DHHS publication no. (PHS)91-50212.

Effectiveness in Disease and Injury Prevention

AIDS Community Demonstration Projects: Implementation of Volunteer Networks for HIV-Prevention Programs — Selected Sites, 1991–1992

States and cities have effectively used community-level intervention projects to reduce cigarette smoking and other risk behaviors associated with chronic disease (1-3); similar strategies have been introduced to prevent human immunodeficiency virus (HIV) infection in men who have sex with men and who identify themselves as homosexual or bisexual (4,5). Many of these projects used community volunteers to deliver interventions (2,4,5). An important concern for community-level intervention projects that rely on volunteers is the need to address the recruitment and retention of these volunteers. CDC AIDS Community Demonstration Projects have developed and maintained volunteer networks among hard-to-reach populations for HIV prevention.

Volunteer Networks — Continued

This report summarizes methods used by demonstration projects in five cities* to develop and maintain volunteer networks during 1991–1992.

Development of Volunteer Networks

The projects have used community-level campaigns to promote HIV prevention among hard-to-reach persons at risk for HIV infection (6), including 1) men who have sex with men but who do not self-identify as homosexual; 2) injecting-drug users [IDUs] not in treatment; 3) female sex partners of IDUs; 4) prostitutes; and 5) youth in high-risk situations. The intervention objective has been to increase condom use and bleach use (for disinfecting needles) among persons at risk by changing the attitudes, perceived risk, self-efficacy[†], and social norms of these groups. Community volunteers have distributed and discussed materials and served as trainers, role models, or opinion leaders in the targeted communities (4–8).

Before intervention efforts began, outreach workers from local health departments made contact with the selected groups to recruit volunteers during the first year of the intervention. Businesses were recruited to act as additional sites for distribution of materials.

Volunteers included peers (i.e., persons who shared the culture and some of the behaviors of the target groups) and interactors (members of the community who had frequent contact with persons in the target groups [e.g., shopkeepers, housing project managers, and social- and health-service providers]). During training sessions, volunteers were introduced to the project, provided with basic education about HIV and AIDS, and engaged in role playing. Volunteers disseminated media materials (e.g., brochures and posters) along with condoms and bleach to high-risk, hard-to-reach persons within the same community. Volunteers focused the attention of recipients on the role-model stories contained in the brochures, reinforced any reported positive behavior change, and sometimes acted as role models (6).

Assessment of Volunteer Networks

Because of the relatively small numbers of volunteers working with each risk group and at each site, this assessment has combined the number of active volunteers during the first 12 months of operation at each site (June 1991–August 1992). During the first 12 months, the number of active volunteers for all sites increased 82.6% (from 138 to 252). Of the 138 volunteers who were recruited during the first month of the intervention, 101 (73%) remained active in the sixth month; of these, 85 (61% of the total) remained active at 12 months.

Project staff at each site conducted debriefing interviews and focus groups with volunteers to determine reasons for volunteering and methods for maintaining and improving the networks. Reasons for volunteering included an appreciation of the emotional rewards of volunteering and incentives, satisfaction with the social aspects of volunteering, and self-perception of making a substantive contribution to prevent AIDS.

Based on these efforts, each site developed means for maintaining and improving the volunteer networks, including 1) offering incentives that provide volunteer recog-

(continued on page 875)

^{*}Dallas; Denver; Long Beach, California; New York City; and Seattle.

[†]Confidence that one can practice a new behavior even in difficult circumstances, for example, practicing safer sexual behavior when under the influence of drugs or alcohol or in the company of a new sex partner.



FIGURE I. Notifiable disease reports, comparison of 4-week totals ending November 14, 1992, with historical data — United States

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

TABLE I. Summary — cases of specified notifiable diseases, United States, cumulative, week ending November 14, 1992 (46th Week)

	Cum. 1992		Cum. 1992
AIDS* Anthrax Botulism: Foodborne Infant Other Brucellosis Cholera Congenital rubella syndrome Diphtheria Encephalitis, post-infectious Gonorrhea Haemophilus influenzae (invasive disease) Hansen Disease	39,229 1 16 45 1 78 97 8 4 101 429,687 1,132 131 131	Measles: imported indigenous Plague Poliomyelitis, Paralytic [†] Psittacosis Rabies, human Syphilis, primary & secondary Syphilis, congenital, age < 1 year ⁵ Tetanus Toxic shock syndrome Trichinosis Tuberculosis Tubaremia Tuchoni favar	126 2,052 11 - - 29,869 1,639 1,639 206 24 20,151 20,151 245
Lyme Disease	7,156	Typhus fever, tickborne (RMSF)	432

*Updated monthly; last update October 31, 1992.

[†]Four cases of suspected policimvelitis have been reported in 1992; 6 of the 9 suspected cases with onset in 1991 were confirmed, and 5 of the 8 suspected cases with onset in 1990 were confirmed; all were vaccine associated. ³Reports through second quarter 1992. 1

MMWR

		Aseptic	Encephalitis				Hepatitis (Viral), by type					
Reporting Area	AIDS*	Menin- gitis	Primary	Post-in- fectious	Gono	rrhea	A	В	NA,NB	Unspeci- fied	Legionel- Iosis	Lyme Disease
	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1991	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992
UNITED STATES	39,229	9,937	594	101	429,687	533,255	18,111	13,058	5,066	630	1,122	7,156
NEW ENGLAND	1,447	357	24	-	8,956	12,777	523	450	90	21	47	1.518
Maine	44	37	3	-	77	147	28	21	6	-	2	5
N.n. Vt.	30	27	3 5	-	92	180	31	32	20	1	8	36
Mass.	722	156	10	-	3,225	5,458	258	353	47	20	25	219
R.I.	84	114	3	-	593	1,102	133	18	6	•	10	270
Conn.	538		-	-	4,946	5,841	60	13	-	-	-	982
MID. AILANTIC	10,273	793	24	7	48,088	62,774	1,403	1,707	295	22	292	4,228
N.Y. City	6,024	135	5	1	17,193	24,428	641	341	109	12	90	2,043
N.J.	1,805		-	-	6,582	10,202	226	450	90	-	36	568
ra.	1,140	262	19	6	14,909	16,861	238	513	31	10	153	996
E.N. CENTRAL	3,477	1,672	149	29	82,237	101,589	2,436	1,542	657	23	298	128
Ind.	342	426	10	12	24,631	31,029	395	205	78	4 2	139	57
III.	1,662	463	63	6	27,452	30,546	546	265	85	6	27	24
Mich.	623	526	22	9	18,557	23,330	133	518	397	11	66	27
WIS.	191	48	3	-	3,476	6,654	686	374	72	-	38	-
W.N. CENTRAL	1,110	541	39	6	22,216	26,339	2,398	591	260	34	70	325
lowa	188	82		3	2,602	2,822	52	31	20	2 5	17	162
Mo.	613	232	8	-	13,710	15,863	1,005	393	201	25	25	101
N. Dak.	8	1	3	:	59	76	111	2	4	1	2	1
5. Dak. Nebr	52	28	2	1	157	328	200	26	- 15	1	15	1
Kans.	163	101	5		4,331	3,955	127	56	14	-	5	17
S. ATLANTIC	8,687	1.547	153	45	127.225	156.649	1,151	2.232	838	113	173	572
Del.	112	52	6	-	1,573	2,588	51	191	173	1	23	194
Md.	1,115	199	14	-	14,381	17,743	206	350	32	10	35	157
Va.	541	264	32	12	5,/30	16 108	110	164	2/8	47	19	105
W. Va.	44	38	71		746	1,152	7	46	3	24		12
N.C.	590	188	25	-	21,601	31,365	102	378	81		34	69
Ga.	1.144	193	2	-	35,269	35.097	171	267	110	!	10	23
Fla.	4,261	561	2	33	24,471	31,591	469	712	127	30	23	28
E.S. CENTRAL	1,204	485	24	-	44,448	54,390	309	1,194	1,223	2	55	64
<u>К</u> у.	187	173	13	-	4,203	5,381	113	87	4	-	26	23
lenn.	386	114	6	-	14,072	18,362	114	985	1,202	;	23	32
Miss.	215	73	ī	-	10,676	12,805	36	4	1	i	-	-
W.S. CENTRAL	3.753	1,078	57	5	46.770	59.669	1.767	1.635	146	144	21	107
Ark.	244	14	7		6,387	7,040	118	78	7	4	1	16
La.	633	68	8	1	12,975	13,949	193	158	76	3	4	5
Ukia. Tex.	2.657	996	39	2	22,489	32,463	1.283	1.228	30 25	132	9 7	25 61
MOUNTAIN	1 140	353	28	5	10 758	10 848	2 603	651	258	57	86	16
Mont.	18	11	1	ĭ	102	86	2,000	32	27	1	9	-
Idaho	31	22	:	-	103	142	80	72		2	4	2
Wyo.	354	109	2	1	3 792	3 030	712	12	51	25	17	5
N. Mex.	97	47	4	i	835	918	274	180	27	- 8	2	2
Ariz.	333	98	6	1	3,776	4,022	1,007	149	25	14	28	:
Utah	109	10	3	1	28/	282	342	18	28		22	6
DA CIEIC	0 1 20	2 1 1 1		-	20 001	40 220	E E 01	2 050	1 201		22	100
Wash.	458	3,111	1	4	3,519	40,220	697	3,056	142	∡14 8	13	198
Oreg.	257			-	1,492	1,790	415	246	71	9	ĩ	
Calif.	7,289	3,002	88	3	32,923	40,719	4,173	2,470	885	187	65	184
Hawaii	13	92		1	597 460	/88 643	80 158	17	4	1 Q	1	- 1
Guem		2	-	•	=-00 E0	270			100	2	•	
P.R.	1,478	151	1		192	484	38	370	162	17	1	
V.I.	9	-	-	-	90	338	4	7	-		-	-
Amer. Samoa	-	:	-	-	46 67	57	1	1	-	-	-	-

TABLE II. Cases of selected notifiable diseases, United States, weeks ending November 14, 1992, and November 16, 1991 (46th Week)

N: Not notifiable U: Unavailable *Updated monthly; last update October 31, 1992.

C.N.M.I.: Commonwealth of Northern Mariana Islands

٢

			Measle	s (Rube	iola)		Menin-									
Reporting Area	Malaria	Indig	enous	Impo	orted*	Total	gococcal Infections	Mu	mps	1	Pertussis			Rubella	3	
	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	876	5	2,052	-	126	9,138	1,882	27	2,192	76	2,568	2,375	-	141	1,311	
NEW ENGLAND	43	-	56	-	13	86	116	-	16	4	211	267	-	6	4	
Maine N H	1	-	- 15	-	4	7	9	-	-	-	11	54	-	1	-	
Vt.	-	-		-	-	5	57	-	3	1	48	18	-	-	1	
Mass.	22	-	16	-	5	39	45	-	3		99	165	-	-	2	
K.I. Conn	5 12	-	23	-	-	4	12	-	1	1	4		-	4	:	
MID ATLANTIC	12	-	2	-	4	31	38	-	8	2	39	26	-	1	1	
Upstate N.Y.	40		103	-	20	4,698	22/	2	159	4	237	229	-	9	566	
N.Y. City	129	-	42	-	8	1,800	23	-	10	4	20	27	-	-	2	
N.J.	46	-	52	-	1	1,034	41	-	11	-	31	15	-	3	2	
	20	-	5	-		1,463	69	-	71	-	87	62	-	3	23	
Ohio	56	-	40	-	14	96	301	1	294	•	425	393	-	8	321	
Ind.	12	-	20	-	-	6	50	-	107	2	39	94 74	-	-	283	
III.	16	-	9	-	4	27	81	-	89	-	33	70	-	8	9	
Mich. Wie	13	-	11	-	2	43	81	1	73	-	14	37	-	-	25	
WAL CENTRAL			-	-	2	9	19	-	15	-	236	118	-	-	1	
Minn.	3/		87	-	8	59	92	1	75	19	284	197	-	8	19	
lowa	3	-		-	3	17	10	-	24 12	10	103	23	-	3	6	
Mo.	11	-	-	-	-	1	28	1	31	1	10Ŏ	69	-	ĭ	5	
S. Dak.	1	-	-	-	-	-	1	-	2	-	14	4	-	-	1	
Nebr.	i	-		-	-	1	18		-	-	14	4	-	-	•	
Kans.	4	1	1	-	-	13	17	-	2	8	31	11	-	4	1	
S. ATLANTIC	185	-	121	-	14	549	349	7	775	5	166	227	-	22	10	
Del. Md	5	-	1	-	-	21	2	-	8	-	7		-		-	
D.C.	13	:	10	-		1/6	36	2	73	2	32	50	-	6	1	
Va.	40	-	11	-	5	30	54	-	52	-	15	24	-	1	1	
W. Va.	2	-	-	-	:	-	16	-	26	-	.9	- 9	-	1	-	
S.C.	13	-	23	-	1	44	78	-	208	-	43	38	-	-	2	
Ga.	13	-	2	-	1	15	53	5	51	3	10	14	-		-	
Fla.	44	-	45	-	-	250	85	-	277	-	32	45	-	7	6	
E.S. CENTRAL	19	3	451	-	18	28	123	-	57	1	29	89	-	1	100	
Ky. Tenn	11	3	450	-	2	23	40	-		-	1		-	-	-	
Ala.	6			-	-	3	34	-	15	-	8	36	-	1	100	
Miss.	1	-	1	-	16	-	12	-	29	-	3	49	-		-	
W.S. CENTRAL	30	1	1,050	-	5	211	141	4	372	5	120	143	-		7	
Ark.	3	-	-	-	-	5	17	-	9	-	18	13	-	-	í	
La. Okla.	1	1	12	-	-	-	27	-	22	÷	10	17	-	-	-	
Tex.	21	÷	1,038	-	5	206	82	2	322	5	38	41	-	-	-	
MOUNTAIN	29	-	25	-	7	1.256	89	-	137	-	373	217			21	
Mont.	-	U	-	U	-	-	15	υ	2	U	9	5	Ū	-	4	
Idaho	1	-		-	-	451	8	-	3	-	38	27	-	1	-	
Colo.	8	-	21	-	6	7	- 3 19	-	23	-	-	121	-		-	
N. Mex.	5	-	1	-	1	98	9	N	Ň	-	99	43	-		4	
Ariz.	9	-	2	-	-	454	19	-	73	-	121	69	-	2	2	
Nev.	2	-	-	-	-	19	12	-	23	:	36	37	-	2	11	
PACIFIC	232	-	99	-	27	2,155	444	12	307	38	722	£19	-	2		
Wash.	16	-	-	-	11	61	72		12	2	196	131	-	/8	253	
Oreg.	14	•	2	-	1	91	62	N	N	1	41	64	-	2	3	
Alaska	100	:	50 R	:	3 1	1,968	295	8	266	11	426	244	-	45	231	
Hawaii	13	-	34	-	11	30	ž	4	26	24	46	61	-	22	10	
Guam	2	U	10	U	-	-	1	U	11	U			н		10	
P.R.	-	N	411	U.	-	94	3	Ŭ	1	ũ	11	54	ŭ	3	1	
v.i. Amer, Samoa	-	ŭ	-	U U	-	2	-	U	20	U.	-	-	U	-	-	
C.N.M.I.	-	Ŭ	1	ŭ	1		-	ŭ	-	U U	6	•	U	-	-	
								-			•	· · ·		-	-	

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending November 14, 1992, and November 16, 1991 (46th Week)

*For measles only, imported cases include both out-of-state and international importations. N: Not notifiable U: Unavailable [†] International [§] Out-of-state Ţ

١

MMWR

	100001114, 1352, and November 16, 1991 (46							STN VVEEK)					
Reporting Area	Sy (Primary 8	philis k Secondary)	Toxic- Shock Syndrome	Tuber	culosis	Tula- remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal				
	Cum. 1992	Cum. 1991	Cum. 1992	Cum. 1992	Cum. 1991	Cum. 1992	Cum. 1992	Cum. 1992	Cum.				
UNITED STATES	29,869	37,153	206	20 151	20 222	147	245	400	1002				
NEW ENGLAND	617	909	15	461	573	147	345 27	432	7,148				
Maine	5	3	2	19	33	-		<i>'</i>	//5				
Vt.	/0	12	6	17	5	-	1	-	9				
Mass.	294	435	5	252	308	1	17	3	22 29				
Conn.	212	45 412	2	42 125	75	-	-	2					
MID. ATLANTIC	4,216	6,297	25	4.642	4 711	1	03	2	/15				
Upstate N.Y.	307	563	10	549	379	-	15	15	1,235				
N.J.	2,284 497	3,236	-	2,741	2,929 781	1	39	6	18				
Pa.	1,128	1,427	15	570	622	-	14	14	323				
E.N. CENTRAL	4,495	4,493	50	1,987	2,016	1	37	28	146				
Ind.	244	569 164	16 5	288 175	329	-	6	16	13				
W.	2,081	2,162	9	1,035	1,035	1	25	4	19 38				
Mich. Wis.	831 613	1,032	20	416	358	-	4	3	15				
W.N. CENTRAL	1.358	794	37	/3 447	00 454	52	I B	3	61				
Minn.	86	60	7	123	87	- 52	2		980 152				
lowa Mo	44	63 489	7	36	55	-	1	3	165				
N. Dak.	1,005	409	3	195	205	3/	2	22	29 141				
S. Dak. Nebr	÷	1	:	21	30	11	:	1	122				
Kans.	161	165	8	20 45	51	2		2	12 359				
S. ATLANTIC	7,997	10,847	21	3,757	3,806	5	34	137	1.625				
Del. Ma	185	150	3	42	31	:	:	14	188				
D.C.	346	638	2 -	344 94	360	1	7	17 1	494 16				
Va.	645	827	3	305	288	2	4	21	321				
N.C.	2,141	1.782	1	82 506	63 491	1	1	5 61	44				
S.C.	1,077	1,372	1	346	372	÷	2	8	154				
Ga. Fla.	1,564	2,671	4	776	751	1	2 17	7	321				
E.S. CENTRAL	3,842	4,182	3	1.325	1,355	9	5	61 61	43				
Ky.	152	97	-	349	304	2	ĩ	6	59				
Ala.	1,078	1,316 1.607	3	391 358	439	7		52	41				
Miss.	1,323	1,162	-	227	266	-	3	-	1				
W.S. CENTRAL	5,470	6,694	5	2,420	2,418	42	15	103	647				
La.	2,302	2.476	1	193 198	209	29	1	21	42				
Okla.	384	184	3	133	154	11	-	81	284				
MOUNITAIN	2,042	3,453	1	1,896	1,866	-	13	1	313				
Mont.	301	507	16	493	537	29 12	6	11	232				
ldaho Wwo	1	4	1	21	9	-	1	1	7				
Colo.	50	8 81	1	- 52	5	1	-	4	81				
N. Mex.	39	28	1	72	63	6	í	1	24				
Utah	7	320	2	222	282	-	1	:	66				
Nev.	41	54	-	65	61	3	1	1	17				
PACIFIC	1,573	2,430	34	4,619	4,352	7	122	6	329				
Oreg.	/4 43	172	3	277	272	2	8	:	-				
Calif.	1,443	2,167	29	3,947	3,729	2	104	3	314				
Hawaii	5 8	4	-	43	59 184	3	-	•	13				
Guam	3	1	-	200	104	•	8	-	-				
P.R.	290	378	-	200	203	:	3	-	42				
v.i. Amer. Samoa	62	92	-	3	3	-		•					
C.N.M.I.	6	5	-	50	3 18	2	1	-	-				

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending November 14, 1992, and November 16, 1991 (46th Week)

U: Unavailable

	A	II Causes, By Age (Years)			All Causes, By Age (Years)										
Reporting Area	Ali 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	560	408	91	42	11	8	42	S. ATLANTIC	1,138	676	222	155	43	41	65
Bridgeport Conn	150	93	30	1/	3	7	15	Atlanta, Ga.	137	67	30	28	8	4	3
Cambridge, Mass.	15	12	3	3		:	Ā	Baltimore, Md.	194	105	45	24	7	13	22
Fall River, Mass.	22	18	3	1	-	-	-	Jacksonville, Fla	108	66	22	5	1	2	2
Hartford, Conn.	60	34	17	8	1	-	2	Miami, Fla.	66	36	11	12	4	ž	
Lowell, Mass.	25	19	3	3	-	-	1	Norfolk, Va.	41	21	4	. 8	6	2	1
New Redford Mass	21	13	2	-	-	•	1	Richmond, Va.	88	54	15	12	2	5	4
New Haven, Conn.	53	41	+	3	2	-	2	Savannan, Ga.	42	33	4	4	1	-	3
Providence, R.I.	33	26	5	ž	-	-	3	Tampa, Fla.	120	76	15	19	- E	5	12
Somerville, Mass.	4	3	1	-	-	-	-	Washington, D.C.	181	104	35	31	ĕ	4	6
Springfield, Mass.	39	28	8	1	2	-	4	Wilmington, Del.	14	10	3	1	-	-	-
Worcester Mass	38	35	1	1	1	;	5	E.S. CENTRAL	736	482	143	65	25	21	47
			0	3	'	'	5	Birmingham, Ala.	98	67	18	5	4	-4	2
MID. AILANTIC	2,480	1,611	473	278	48	69	120	Chattanooga, Tenn.	68	46	16	3	2	1	4
Allentown Pa	53	35	10	3	2	3	1	Knoxville, Tenn.	84	59	16	6	2	1	6
Buffalo, N.Y.	100	60	30	6	1	2	3	Lexington, Ky.	170	36	9	10	1	3	12
Camden, N.J.	47	34	5	3 ă	3	2		Mobile Ala	63	114	30	10	8	3	12
Elizabeth, N.J.	21	11	5	5	-		-	Montgomery, Ala.	61	45	1Ŏ	ĩ	3	ż	i
Erie, Pa.s	45	37	4	4	-	-	3	Nashville, Tenn.	126	73	29	14	4	6	13
New York City, N.J.	1 277	24	261	205	-		-	WS CENTRAL	1 244	744	252	146	56	12	50
Newark, N.J.	40	20	201	205	23	21	58	Austin, Tex.	74	45	12	13	3	43	3
Paterson, N.J.	26	15	š	1	i	4	i	Baton Rouge, La.	19	14	4	Ĩ	-	:	-
Philadelphia, Pa.	296	181	72	17	7	18	21	Corpus Christi, Tex.	36	26	8	1	-	1	-
Pittsburgh, Pa.s	91	63	19	2	5	2	6	Dallas, lex.	194	105	35	30	8	16	3
Rochester NV	115	15	14	-	1		3	Ft Worth Tex	89	30	24	10	2	2	4
Schenectady, N.Y.	32	27	4	9	4	3	2	Houston, Tex.	279	154	58	50	12	5	21
Scranton, Pa.§	29	24	4	-	-	i	1	Little Rock, Ark.	63	34	19	5	3	ž	3
Syracuse, N.Y.	98	71	18	4	-	5	11	New Orleans, La.	75	47	15	5	3	2	-
Irenton, N.J.	23	17	3	2	-	1	2	San Antonio, lex.	172	109	32	16	8	7	.9
Vonkers NV	- K	15	- 1	- 1			.:	Tulsa Okla	76	61	20	2	2	3	11
	0	0	0	0	0	U	U				10	-	3	-	•
E.N. CENTRAL	1,676	1,213	257	103	49	52	79		754	513	137	59	22	23	53
Canton, Ohio	69	50	11	6	2	-		Colo Springs Colo	41	/8	15	12	4	2	5
Chicago, III.	- 35 U	39	, j	- ů	3			Denver, Colo.	. 91	62	18	â	i	2	12
Cincinnati, Ohio	69	56	8	2	ĭ	2	5	Las Vegas, Nev.	104	70	23	ğ	-	2	6
Cleveland, Ohio	143	93	25	13	5	7	2	Ogden, Utah	29	21	2	3	-	3	2
Columbus, Ohio	191	125	35	16	4	11	5	Phoenix, Ariz.	136	88	30	10	2	6	11
Detroit Mich	210	125	21	12	3	3	7	Salt Lake City Litah	18	14	17			ē	1
Evansville, Ind.	48	36	-40	1	1	1	1	Tucson, Ariz.	130	91	23	10	5	ĭ	5
Fort Wayne, Ind.	63	52	7	3	-	-	2	PACIEIC	1 500	1 004			-		
Gary, Ind.	26	20	3	2	-	-	-	Berkeley, Calif.	1,599	1,034	201	104	60	54	89
Indiananolis Ind	146	39	3	7	4	3	3	Fresno, Calif.	77	49	12	* 6	4	6	5
Madison, Wis.	48	38	23	5	2	4	12	Glendale, Calif.	18	14	2	-	2	-	-
Milwaukee, Wis.	130	96	18	š	3	5	10	Honolulu, Hawaii	83	58	16	6	1	2	2
Peoria, III.	42	35	6	•	-	Ĩ	3	Long Beach, Calif.	261	53	11	5	4	1	.9
Rockford, III.	51	38	7	3	2	1	4	Pasadena, Calif.	23	16	50	2	24	10	14
Toledo Ohio	101	44	15	2	1	2	2	Portland, Oreg.	86	52	18	12	2	2	-
Youngstown, Ohio	62	50	6	3	1	2		Sacramento, Calif.	127	81	25	8	8	5	14
WN CENTRAL								San Diego, Calif.	109	73	16	12	2	6	8
Des Moines Iowa	541 5E	382	91	39	16	13	21	San Jose Calif	. 160	94	24	34	6	2	-
Duluth, Minn.	36	29	5	2		2	3	Santa Cruz, Calif.	35	25	7	1	1	4	19
Kansas City, Kans.	16	11	ž	ĩ	-	1	-	Seattle, Wash.	123	84	24	10	2	3	3
Kansas City, Mo.	U	Ū	U	Ú	υ	Ú	U	Spokane, Wash.	64	46	11	4	-	ž	5
Minneanolie Minn	27	20	6	1		÷	2	lacoma, Wash.	79	56	17	3	2	1	2
Omaha, Nebr.	76	122	24 18	16	3	1	11	TOTAL	10,728 [¶]	7,063	1,947	1,051	330	324	575
St. Louis, Mo.	122	76	18	12	11	5	2								5.5
St. Paul, Minn.	Ū	Ŭ	Ũ	ΰ	Ü	Ŭ	Ū								
wichita, Kans.	43	30	8	2	1	2	-								

TABLE III. Deaths in 121 U.S. cities,* week ending November 14, 1992 (46th Week)

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

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.

Vol. 41 / No. 46

MMWR

Volunteer Networks — Continued

nition (e.g., prizes and media coverage); 2) increasing team-building opportunities for volunteers; 3) informing volunteers of the progress of the project and reinforcing their role; 4) maintaining frequent contact between outreach workers and volunteers; and 5) providing skills during volunteer training sessions for coping with rejection.

Reported by: C Guenther-Grey, MA, S Tross, PhD, National Development and Research Institute, New York City. A McAlister, PhD, Univ of Texas, Austin; A Freeman, MPH, Dallas County Health Dept, Dallas. D Cohn, MD, Denver County Health Dept, Denver. N Corby, PhD, Long Beach Health Dept, California. R Wood, MD, Seattle-King County Dept of Public Health, Seattle. M Fishbein, PhD, Univ of Illinois, Urbana-Champaign, Illinois. Behavioral and Prevention Research Br, Div of Sexually Transmitted Diseases and HIV Prevention, National Center for Prevention Svcs, CDC.

Editorial Note: The findings in this report suggest that community projects for HIV prevention can recruit and retain active volunteers to intervene within hard-to-reach groups and provide HIV-prevention messages in their communities. The retention rate for these project volunteers, who generally are from low socioeconomic and disenfranchised backgrounds, was higher at 12 months (61%) than that for volunteers who actively sought out the volunteer role at mainstream AIDS-service organizations (50%) (9). In addition, the distribution of intervention materials by trained volunteers increased exposure to the intervention, particularly among hard-to-reach persons in high-risk groups who infrequently attended clinics.

The findings in this report are subject to at least two limitations. First, this assessment is based on a descriptive review of information rather than on a rigorous experimental design to evaluate the strategies used to recruit and maintain a volunteer network. Second, because the methods to recruit and retain volunteers were combined by site and target group for the total intervention period, it was not possible to determine which strategies were most successful.

These preliminary findings from the projects do not address whether the intervention delivered by volunteers has changed HIV-risk behavior among these hard-to-reach populations. The impact of using volunteers in community-level interventions to change risk behaviors among targeted groups requires further evaluation. Therefore, AIDS community demonstration projects in these five cities are continuing to evaluate the impact of disseminating intervention materials through community volunteers to hard-to-reach populations regarding condom use and the use of bleach to disinfect needles (6). This report suggests that focus groups and interviews with volunteers may be useful as methods to improve this intervention.

References

- 1. Farquhar JW, Fortmann SP, Maccoby N, et al. The Stanford five-city project: design and methods. Am J Epidemiol 1985;122:323–34.
- 2. Puska P, Nissinen A, Tuomilehto J, et al. The community-based strategy to prevent coronary heart disease: conclusions from the ten years of the North Karelia project. Ann Rev Public Health 1985;6:147–93.
- 3. Carlaw RW, Mittlemark MB, Bracht N, Luepker R. Organization for a community cardiovascular health program: experiences from the Minnesota heart health program. Health Educ Q 1984;11:243–52.
- 4. Kelly J, St. Lawrence J, Diaz Y, et al. HIV risk behavior reduction following intervention with key opinion leaders of the population: an experimental analysis. Am J Public Health 1991;81:168–71.
- Kegeles SM, Hays RB, Coates TJ. A community-level risk reduction intervention for young gay and bisexual men. Presented at the Annual Convention of the American Psychological Association, Washington, DC, August 14–18 1992.

Volunteer Networks --- Continued

- 6. O'Reilly K, Higgins D. AIDS community demonstration projects for HIV prevention among hardto-reach groups. Public Health Rep 1991;106:714–20.
- Puska P, Koskela K, McAlister A, et al. Use of lay opinion leaders to promote diffusion of health innovations in a community programme: lessons learned from the North Karelia project. Bull WHO 1986;64:437–46.
- McAlister A. Population behavior change: a theory-based approach. J Public Health Policy 1991;12:345–61.
- 9. Snyder M, Omoto AM. Volunteerism and society's response to the HIV epidemic. Current Directions in Psychological Science 1992;1:113-6.

Current Trends

HIV Infection and AIDS — Georgia, 1991

Public health surveillance efforts for acquired immunodeficiency syndrome (AIDS) in the United States have documented an increasing proportion of cases among persons who reside outside the largest metropolitan areas (1,2). These findings, coupled with results of human immunodeficiency virus (HIV) prevalence studies, have led to the development of HIV-related prevention and treatment services in smaller cities and rural areas. This report presents results of HIV-infection and AIDS surveillance in Georgia (1990 population: 6.5 million) for 1991 and compares these findings for urban and rural areas.

During 1991, AIDS was diagnosed in 1286 persons residing in Georgia (Figure 1). Of these, 920 (72%) were reported from the state health district that includes Atlanta, in which approximately 36% of the state's total population resides; 236 (18%) cases were reported from health districts that include smaller cities*; and 130 (10%) were from districts that include only outlying or rural areas[†]. Overall, 74% of men with AIDS were reported from Atlanta, compared with 56% of women with AIDS. When compared with 1990, in 1991 the incidence of AIDS decreased 4% in Atlanta but increased 16% in the rest of the state.

In an anonymous, population-based HIV serosurvey among women delivering infants in Georgia during 1991, the prevalence of HIV infection was 1.6 per 1000 women in Atlanta; 1.8, in health districts including smaller cities; and 0.9, in rural areas. Based on extrapolation from these rates, during 1991 there were an estimated 70 births to HIV-positive women in Atlanta, compared with 94 in other areas of the state.

In a special study conducted in three hospitals in rural Georgia in 1991, residual blood specimens collected from patients aged 15–54 years for routine diagnostic purposes were tested anonymously for HIV (*3*). Overall, seven (0.5%) of 1319 patients were HIV positive.

Reported by: BM Whyte, MD, JA Wilber, MD, State Epidemiologist, Georgia Dept of Human Resources. HIV Seroepidemiology Br, Surveillance Br, Div of HIV/AIDS, National Center for Infectious Diseases, CDC.

Editorial Note: Public health surveillance efforts have confirmed that the HIV/AIDS epidemic affects not only large cities but also some smaller cities and rural areas (4). Ensuring appropriate medical care and other services are available for persons with

^{*}Albany, Athens, Augusta, Columbus, Macon, Savannah; population of the county of the core city 88,000-255,000, 1990 U.S. census.

[†]Areas not including a metropolitan statistical area central county.

HIV and AIDS — Continued

HIV infection who reside outside major metropolitan centers presents challenges in training providers, assuring access to care, establishing referral networks, and integrating health and social services.

The Ryan White Comprehensive AIDS Resources Emergency (CARE) Act of 1990[§] provides grants to states to improve the quality, accessibility, and organization of health care for persons with HIV infection. In Georgia, these funds have supported the establishment of clinic services in health districts outside Atlanta, including satellite clinics in remote locations and transportation or reimbursement of costs for travel to clinics. Services provided in these clinics are multidisciplinary and include referral to other service organizations as needed, especially for mental health and substance-abuse counseling. Ryan White CARE Act funds are administered by local consortia that include public and private medical providers, community-based organizations, local governments, business groups, persons with HIV infection, and others. Additional partnerships between small businesses and public health agencies have resulted in donation of food services for persons with AIDS and the construction of a hospice.

The Georgia Department of Human Resources has used AIDS surveillance and HIVprevalence data to guide development of services for persons with HIV/AIDS.

§ Public Law 101-381.



FIGURE 1. Number of AIDS cases, by health district — Georgia, 1991*

*Excludes one case-patient with unknown residence.

HIV and AIDS — Continued

Surveillance data also have enabled the efficient use of resources in planning comprehensive programs for all parts of the state, including small cities and rural areas.

References

- 1. Green T, Karon JM, Nwanyanwu O. Changes in AIDS incidence trends in the United States. J Acquir Immune Defic Syndr 1992;5:547–55.
- 2. Ellerbrock TV, Bush TJ, Chamberland ME, Oxtoby MJ. Epidemiology of women with AIDS in the United States, 1981 through 1990. JAMA 1991;265:2971–5.
- Murrill CS, Kuncl KA, Weeks HR, Whyte BM, Petersen LR, Janssen RS. HIV seroprevalence in hospital patients in rural Georgia. Southern Med J 1992;85:969–71.
- 4. Whyte BM, Carr JC. Comparison of AIDS in women in rural and urban Georgia. Southern Med J 1992;85:571–8.

Notices to Readers

Advisory Committee on Immunization Practices Update: Report of PedvaxHIB[®] Lots with Questionable Immunogenicity

Since 1988, the rate of *Haemophilus influenzae* type b (Hib) disease has decreased in the United States primarily because of the introduction and use of three Hib conjugate vaccines in infants and children. In CDC-coordinated active surveillance areas, rates of reported Hib disease among children aged <5 years have decreased by 95% from the first half of 1989 to the first half of 1992 (CDC, unpublished data, 1992). Other population-based studies with each of the two vaccines licensed for infants also have shown decreases in disease incidence in all age groups (1-3).

One of these vaccines, PedvaxHIB®* (Haemophilus b conjugate vaccine [Meningococcal Protein Conjugate], MSD, Merck and Co., Inc., West Point, Pennsylvania) has been distributed in the United States since 1989 and has been recommended for use in infants since December 1990. The manufacturer is notifying physicians that data obtained after licensure indicate that 16 lots[†] of this vaccine may have lower than expected immunogenicity. The lots were initially distributed from August 1990 through August 1991 and had expiration dates from April 1991 through May 1992. These 16 lots comprise 366,000 doses of a total of approximately 2 million doses of PedvaxHIB® distributed, or about 1% of all Hib conjugate vaccine released in the United States since January 1990. Although vaccine from these lots induced a lower antibody response, the precise level of antibody necessary for protection is not known, and there is no clear evidence that children receiving vaccine from these lots are at increased risk for disease. Given the limited period of distribution of these vaccine lots, it is unlikely that many children received all three recommended doses (at 2, 4, and 12-15 months of age) from lots with reduced immunogenicity. In addition, most children who have received vaccine from these lots will now be >18 months of age and at lower risk for Hib disease. The company will contact physicians who received vaccine from these lots and has suggested that selected recipients of these lots receive an addi-

878

^{*}Use of trade names and commercial sources is for identification only and does not imply endorsement by the Public Health Service or the U.S. Department of Health and Human Services.

¹¹¹¹¹¹¹¹¹ Lot numbers of PedvaxHIB[®] with questionable immunogenicity are 1160S, 1724S, 1726S, 2377S, 2379S, 0485T, 2378S, 2380S, 0405T, 0853T, 0172T, 0173T, 0498T, 0774T, 0884T, and 1288T.

Notices to Readers - Continued

tional dose of Hib conjugate vaccine. Inquiries about use of vaccine from these lots may be directed to Merck and Co., Inc. ([215] 652-7300, collect).

All current lots of PedvaxHIB[®] that have been tested have expected immunogenicity. In view of the success of the Hib conjugate vaccines in preventing Hib disease, the Advisory Committee on Immunization Practices recommends that physicians should ensure all children are up-to-date with the recommended Hib conjugate vaccine schedule. To facilitate postmarketing evaluation of Hib conjugate vaccines, physicians are encouraged to record lot numbers and manufacturers of vaccines administered for all children, and to report any case of invasive Hib disease in a child <5 years of age to local and state health departments.

References

- 1. Black SB, Shinefield HR, the Kaiser Permanente Pediatric Vaccine Study Group. Immunization with oligosaccharide conjugate *Haemophilus influenzae* type b (HbOC) vaccine on a large health maintenance organization population: extended follow-up and impact on *Haemophilus influenzae* disease epidemiology. Pediatr Infect Dis J 1992;11:610–3.
- Santosham M, Wolff M, Reid R, et al. The efficacy in Navajo infants of a conjugate vaccine consisting of *Haemophilus influenzae* type b polysaccharide and *Neisseria meningitidis* outermembrane protein complex. N Engl J Med 1991;324:1767–72.
- Vadheim CM, Greenberg DP, Eriksen E, et al. Reduction of Hib disease in southern California, 1983–1991. In: Program and abstracts of the 32nd Interscience Conference on Antimicrobial Agents and Chemotherapy. Washington, DC: American Society for Microbiology, 1992;398.

Business Responds to AIDS Program

On December 1, 1992, CDC will initiate a new, long-term, primary prevention program for human immunodeficiency virus (HIV) education. This program, "Business Responds to AIDS" (BRTA), will encourage business executives, managers, and labor leaders to undertake comprehensive workplace HIV education that includes developing written HIV policies; providing employee education; supporting education efforts for employees' families; developing manager, labor-leader, and supervisor training about companies' HIV policies and education programs; and providing corporate support and encouraging employees to provide volunteer support for community HIV-prevention activities. BRTA will help CDC in increasing public understanding of, involvement in, and support for HIV prevention.

An interactive satellite teleconference originating at CDC headquarters in Atlanta will introduce the BRTA program to the nation. Participants in the teleconference will include the American Red Cross, the U.S. Department of Health and Human Services, the New England Corporate Consortium on AIDS, and the business and labor communities from several sites throughout the United States.

To assist business and labor in initiating their own HIV-education programs, the CDC National AIDS Clearinghouse has established the BRTA Resource Service. The BRTA Resource Service has available the BRTA manager's kit, which includes materials for policy development, education program development, and additional resources. The manager's kit (cost: \$25 per kit) can be obtained from the Business Responds to AIDS Resource Service, P.O. Box 6003, Rockville, MD 20849-6003.

POSTAGE & FEES PAID

PHS/CDC Permit No. G-284

The Morbidity and Mortality Weekly Report (MMWR) Series is prepared by the Centers for Disease Control and Prevention (CDC) and is available on a paid subscription basis from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; telephone (202) 783-3238.

The data in the weekly *MMWR* are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday. Inquiries about the *MMWR* Series, including material to be considered for publication, should be directed to: Editor, *MMWR* Series, Mailstop C-08, Centers for Disease Control and Prevention, Atlanta, GA 30333; telephone (404) 332-4555.

Director, Centers for Disease Control and Prevention	Editor, <i>MMWR</i> Series
William L. Roper, M.D., M.P.H.	Richard A. Goodman, M.D., M.P.H.
Deputy Director, Centers for Disease Control	Managing Editor, <i>MMWR</i> (weekly)
and Prevention	Karen L. Foster, M.A.
Walter R. Dowdle, Ph.D.	Writers-Editors, <i>MMWR</i> (weekly)
Director, Epidemiology Program Office Stephen B. Thacker, M.D., M.Sc.	David C. Johnson Barbara J. Reynolds Caran R. Wilbanks
	Editorial Assistant, MMWR (weekly) Darlene D. Rumph

		Official Business Penalty for Private Use \$300	DEPARTMENT OF HEALTH AND HUMAN SERVICES Public Health Service Centers for Disease Control and Prevention (CDC) Atlanta, Georgia 30333

☆U.S. Government Printing Office: 1993-733-131/67044 Region IV

HHS Publication No. (CDC) 93-8017