

# MMWR™

MORBIDITY AND MORTALITY WEEKLY REPORT

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## **National Adult Immunization Awareness Week — October 22–28, 1995**

National Adult Immunization Awareness Week will be October 22–28, 1995. This observance will emphasize the importance of appropriately vaccinating adults against diphtheria, hepatitis B, influenza, measles, mumps, pneumococcal disease, rubella, tetanus, and varicella. National Adult Immunization Awareness Week coincides with the influenza vaccination season and offers opportunities to implement vaccination programs. The following two reports describe efforts to increase pneumococcal and influenza vaccination levels in high-risk populations.

Additional information about this week's activities is available from the National Coalition for Adult Immunization, 4733 Bethesda Ave., Suite 750, Bethesda, MD 20814; telephone (301) 656-0003; fax (301) 907-0878.

## **Increasing Pneumococcal Vaccination Rates Among Patients of a National Health-Care Alliance — United States, 1993**

*Streptococcus pneumoniae* is the most common cause of bacterial pneumonia worldwide and a leading cause of sepsis and meningitis (1). In the United States, an estimated 40,000 persons die each year from pneumococcal infections (2). Since 1983, 23-valent pneumococcal polysaccharide vaccines have been licensed in the United States (2) and are 56%–57% effective in preventing invasive pneumococcal disease (3). However, the 1993 National Health Interview Survey documented that ≤28% of persons in high-risk categories, including all persons aged ≥65 years, reported ever having received the vaccine (4). During 1993–1994, VHA Inc. (Irving, Texas)—a national health-care alliance serving approximately 1200 health-care organizations nationwide (including 21% of all community hospitals in the United States)—initiated efforts to improve pneumococcal vaccine delivery to and coverage

*Pneumococcal Vaccination Rates — Continued*

among patients at increased risk for complications of pneumococcal infection. This report summarizes the program and an evaluation of its effectiveness in increasing vaccine coverage.

In August 1993, VHA conducted a telephone survey of a national probability sample about pneumonia and its prevention.\* The survey indicated that, among participants aged  $\geq 65$  years, 32% had read or heard about pneumococcal pneumonia, 27% were aware of pneumococcal vaccine, and 15% (or a member of their family) had ever been vaccinated. In comparison, the year 2000 national health objective for pneumococcal vaccine coverage for persons aged  $\geq 65$  years is 60% (objective 20.11) (5). Based on these findings and recommendations from advisory councils of member health-care organizations, VHA developed the nationwide Pneumonia Pnckout® campaign. The goals of this program were to educate elderly and other high-risk persons about pneumococcal pneumonia and the need for pneumococcal vaccination and to encourage partnerships between VHA health-care organizations and public health departments, senior citizen centers, and community organizations. Overall, 355 (37%) of the 953 member organizations of VHA volunteered to participate.

The campaign was conducted October 25–November 19, 1993, and targeted persons aged  $\geq 65$  years and those with high-risk conditions for pneumococcal disease as defined by the Advisory Committee on Immunization Practices (2). VHA provided each participating organization with a media kit containing public service announcements, sample press releases, and a national toll-free telephone number for patients listing VHA hospitals offering pneumococcal vaccination.

The campaign was evaluated by VHA in January 1994. Based on information provided by 221 (65%) of the 355 organizations, 82,562 persons received pneumococcal vaccine during the 4-week campaign. Of these, 21% were vaccinated in unspecified locations, 19% in hospital outpatient services, 18% in family practice centers or physicians' offices, 15% in public health departments, 15% in community sites, and 12% in other settings (e.g., hospital inpatient services [3%], long-term-care facilities [2%], and other sites [7%]). Examples of problems encountered during the program included the need for physicians' orders to vaccinate Medicare patients; hospital regulations requiring patient registration before administration of vaccine; assurance of adequate vaccine supplies; reluctance of physicians to participate; and the need to educate health-care providers and patients about vaccine benefits, safety, and effectiveness. Educational materials were provided to an estimated 288,000 persons, including the general public (58%), health-care staff (17%), physicians (4%), long-term-care staff (1%), and others (19%).

Evaluation of the impact of the campaign also included a follow-up survey in December 1993 that replicated the methods of the baseline survey.\* Compared with August 1993, there were statistically significant increases in the prevalences of awareness of pneumococcal pneumonia (overall: from 26% to 31%; among persons aged  $\geq 65$  years: from 32% to 40%) and pneumococcal vaccine (overall: from 16% to 24%; among persons aged  $\geq 65$  years: from 27% to 44%), and of persons aged  $\geq 65$  years reporting that they or a family member had been vaccinated (from 15% to 22%).

In September 1994, a year-round campaign was initiated to increase efforts of participating organizations to integrate pneumococcal vaccination into daily patient-care delivery systems; 216 organizations participated, of which 71 (33%) were new. Of the

\*Prevalence estimates have a standard error of  $\pm 2.2\%$ .

*Pneumococcal Vaccination Rates — Continued*

216 organizations, 93 (43%) submitted preliminary evaluations of the 1994 program in January 1995. Based on this evaluation, 56 (60%) provided 36,450 doses of pneumococcal vaccine. An estimated 60% of doses were given in collaboration with public health departments and other community organizations, compared with 30% in 1993. Other patient-care settings (e.g., physician offices, outpatient and inpatient services, and home health care) accounted for 30% of vaccine doses delivered.

*Reported by: DA Stewart, M Scovill, MS, C Aitches, JM Haning, DP Bourque, JS Roberts, MD, L Gentry, C Eddy, VHA Inc, Irving, Texas. DS Fedson, MD, Pasteur-Merieux MSD, Lyon, France. Adult Vaccine-Preventable Diseases Br, Epidemiology and Surveillance Div, National Immunization Program, CDC.*

**Editorial Note:** Based on national surveys, during 1989–1993, vaccination levels among adults increased substantially; for example, pneumococcal vaccination among persons aged  $\geq 65$  years increased from 15% to 28% (4). However, these levels remain below the year 2000 national health objective of 60% vaccination levels for high-risk persons (objective 20.11) (5). Previously documented barriers to achieving high vaccination levels among adults include 1) missed opportunities to vaccinate adults during contacts with health-care providers in offices, outpatient clinics, and hospitals (6); 2) lack of vaccine-delivery systems in the public and private sectors that can reach adults in different settings (e.g., health-care, workplace, and college or university settings) (6); 3) patient and provider fears concerning adverse events following vaccination (7,8); and 4) lack of awareness among both patients and providers of the importance of vaccine-preventable diseases in adults (6). Two of the barriers identified during the VHA campaign are now being addressed: first, the Health Care Financing Administration has approved a regulation that enables the use of standing orders (rather than requiring a physician's presence) to administer pneumococcal vaccine to Medicare patients, and second, vaccine companies have initiated efforts to assure adequate supplies of pneumococcal vaccine. The number of VHA organizations participating in the campaign may increase by overcoming these barriers and others that may have limited participation (e.g., member agency interest and awareness of the problem in their communities and resources to address the problem).

Previous efforts to increase vaccination coverage levels among adults have involved collaborations between public and private health-care providers. For example, the Medicare Influenza Vaccine Demonstration and the Hawaii Pneumococcal Disease Initiative (9,10) both employed public-private partnerships to substantially increase vaccine delivery and improve vaccination levels among elderly persons. In comparison, the VHA campaign entailed minimal collaboration with public agencies during the development stage, although public health departments assisted with implementation. Important elements of the VHA campaign included collection of information about the target population and education of both the target population and health-care providers. More than 80% of the 1994 participants are continuing their efforts in 1995. Replication of the VHA campaign and similar efforts, in conjunction with public-sector support, will assist in achieving national health objectives for 1) reducing epidemic-related pneumonia and influenza-related deaths among persons aged  $\geq 65$  years; and 2) increasing pneumococcal and influenza vaccination levels among noninstitutionalized, high-risk populations to at least 60% (5).

*Pneumococcal Vaccination Rates — Continued**References*

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### **Increasing Influenza Vaccination Rates for Medicare Beneficiaries — Montana and Wyoming, 1994**

Approximately 20,000 influenza-associated deaths occurred during each of 10 different epidemics in the United States during 1972–1991; most (>90%) of the deaths attributed to pneumonia and influenza occurred among persons aged  $\geq 65$  years (1). Although Medicare has provided reimbursement for influenza vaccination since 1993, the Health Care Financing Administration (HCFA) received billing claims for influenza vaccination for the 1993–94 and 1994–95 influenza seasons for only 35% and 38% of Medicare beneficiaries, respectively (2) (HCFA, unpublished data, 1995). This report describes the impact of an intervention project in September 1994 in which individual Medicare beneficiaries aged  $\geq 65$  years in Montana and Wyoming were contacted and encouraged to receive influenza vaccination.

The project was conducted by the Montana-Wyoming Foundation for Medical Care (MWFMC) in collaboration with HCFA. During 1994, the numbers of persons who were Medicare beneficiaries in Montana and in Wyoming were 130,000 and 60,000, respectively. The two states were divided into 40 geographic regions defined by zip code aggregates (24 in Montana, 16 in Wyoming); in each state, four regions were randomly selected as intervention sites. During September 23–30, MWFMC sent individual letters and an informational brochure to Medicare beneficiaries with mailing addresses in the eight intervention regions: in two regions (total population: 19,850) in each state, beneficiaries received a personalized letter from the MWFMC medical director encouraging them to obtain vaccination, and beneficiaries in the other two regions (total population: 21,250) in each state received a form letter from the MWFMC encouraging them to obtain vaccination. In addition, during October

*Influenza Vaccination Rates — Continued*

1994, public and private organizations, including HCFA, implemented measures to increase influenza vaccination coverage in all regions, including public service announcements and notices to health-care providers.

Vaccination rates in the intervention regions were compared with those in the remaining regions for October 1–December 31 in both 1993 and 1994 using influenza vaccination claims submitted to HCFA. Approximately 90% of influenza vaccination claims submitted to HCFA are for vaccinations provided from October 1 through December 31. Medicare pays for influenza vaccination for beneficiaries enrolled in Part B. This analysis was restricted to those who were alive and continuously enrolled in Part B during the study period; approximately 96% of persons aged  $\geq 65$  years in the United States are enrolled in Medicare Part B. A beneficiary was considered to have received an influenza vaccination if at least one bill for either the influenza vaccine or administration of the vaccine was submitted for the study period. A logistic regression model was used to examine the relation between receipt of both a letter and an influenza vaccination; EGRET software was used to adjust for confounding variables and conduct statistical testing.

From 1993 through 1994, influenza vaccination rates increased in all regions of Montana and Wyoming regardless of intervention status. However, overall increases in influenza vaccination rates were greater in intervention regions across both states than in nonintervention regions by 6.1 percentage points (95% confidence interval [CI]=5.5–6.7). In Montana, the influenza vaccination rate for beneficiaries who received letters increased 8.7 percentage points (from 41.2% to 49.9% among those who received a personal letter) and 6.5 percentage points (from 46.0% to 52.5% among those who received a form letter) compared with 4.4 percentage points (from 42.3% to 46.7%) for beneficiaries who did not receive letters. The crude rate comparisons were statistically significant (personal letter versus no letter=1.1 [95% CI=1.1–1.2] and form letter versus no letter=1.3 [95% CI=1.2–1.3]). In Wyoming, the rate increased 18.9 percentage points (from 23.8% to 42.7% among those who received a personal letter) and 19.9 percentage points (from 20.5% to 40.4% among those who received a form letter) for those receiving letters compared with 11.5 percentage points (from 21.6% to 33.1%) for beneficiaries not receiving letters. The crude rate comparisons were statistically significant (personal letter versus no letter=1.5 [95% CI=1.4–1.6] and form letter versus no letter=1.4 [95% CI=1.3–1.4]).

The strongest predictor for a billing claim for vaccination in 1994 was a claim for vaccination in 1993 (odds ratio [OR]=8.1 [95% CI=7.9–8.4] for beneficiaries vaccinated in 1993 versus those not vaccinated in 1993). In addition, after adjusting for age, sex, and 1993 vaccination status, beneficiaries who received a letter were significantly more likely to receive an influenza vaccination than beneficiaries who did not (OR=1.3; 95% CI=1.3–1.4). Beneficiaries who received a letter from MWFMC were more likely to have a claim for vaccination than those who did not receive a letter both among persons who were vaccinated in 1993 (OR=1.2; 95% CI=1.2–1.3) and those who were not vaccinated in 1993 (OR=1.4; 95% CI=1.3 to 1.4). The likelihood of vaccination was similar for persons who received a personal letter and for those who received a form letter. Age was also an important predictor for a billing claim for vaccination in 1994 (beneficiaries aged  $\geq 70$  years were more likely than those aged 65–69 years to have a billing claim).

*Influenza Vaccination Rates — Continued*

Reported by: JW McMahon, MD, JR Hillman, MD, M McInerney, PhD, Montana-Wyoming Foundation for Medical Care, Helena. MJ Kileen, MD, C Christensen, PhD, Health Care Financing Administration, Regional Office, Seattle, Washington. Adult Vaccine Preventable Diseases Br, Epidemiology and Surveillance Div, National Immunization Program, CDC.

**Editorial Note:** Influenza vaccination levels among elderly persons in the United States increased from 1989 (33%) through 1993 (52%) (3), probably reflecting greater acceptance of preventive medical services by practitioners and patients and increased delivery of vaccine by health-care providers and sources other than physicians (e.g., visiting-nurse and home-health agencies) (3). In addition, the findings in this report suggest that the initiation of Medicare reimbursement for influenza vaccination in 1993 may have contributed to increased rates in Montana and Wyoming, although this intervention also may have increased submission of Medicare claims for persons who had already been receiving influenza vaccine. The intervention project also indicated that prior influenza vaccination, documented by Medicare claims data, was the strongest predictor of current vaccination—a finding consistent with previous reports (4). In addition, the increase in vaccination rates among those who received a letter is similar to the effect of the Medicare Influenza Vaccine Demonstration program in 1990 and 1991, during which a letter to all beneficiaries in parts of 10 states was the most important motivator for vaccination (5).

The Montana and Wyoming intervention resulted in a statistically significant, although modest, improvement in vaccination levels. Other client-oriented interventions (e.g., letter or postcard reminders) have improved influenza vaccination levels by an average of 12% (6). Provider- (e.g., chart reminders and reminders directly to physicians) and system-oriented interventions (e.g., standing orders to nurses) also have been effective in increasing influenza vaccination levels (18% and 39%, respectively) for patients who could be directly identified in providers' health record systems (6). In addition, combinations of client and provider strategies have been documented to be more effective than client-based strategies alone (6). Future interventions to improve influenza vaccination levels in the Medicare population could employ a combination of strategies directed toward patients, providers, and systems to assure more effective means of providing influenza vaccination are used.

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### Knowledge, Attitudes, and Practices of Physicians Regarding Urinary Incontinence in Persons Aged $\geq 65$ Years — Massachusetts and Oklahoma, 1993

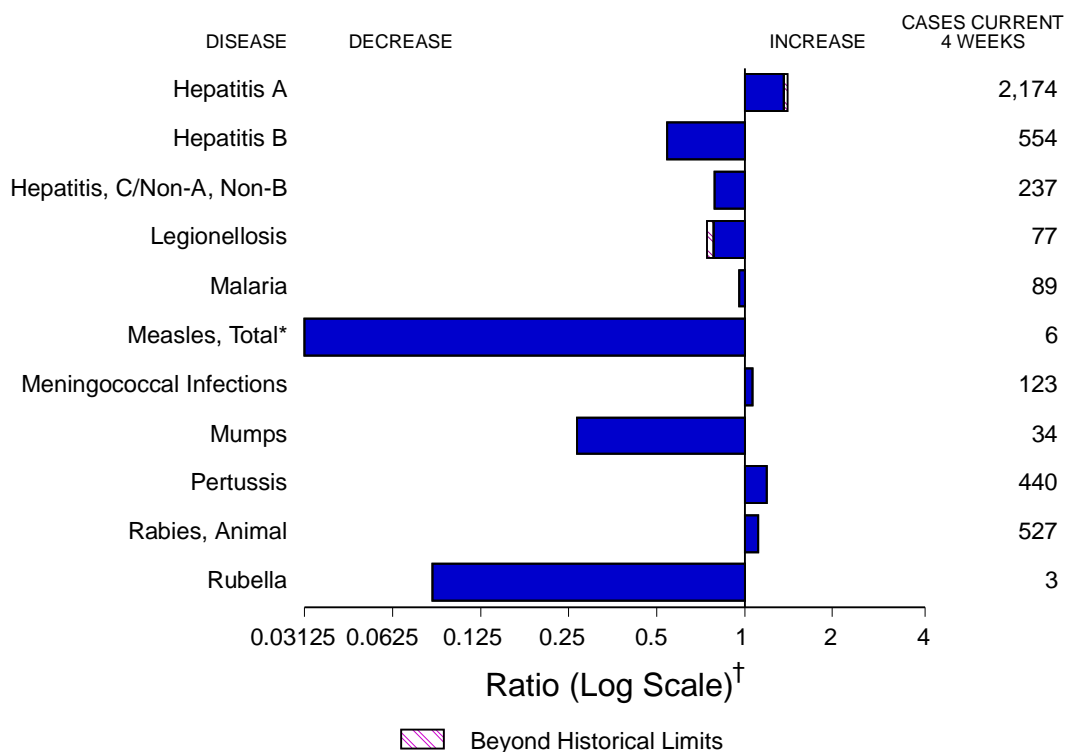
Urinary incontinence (UI)—the involuntary loss of urine sufficient to be a problem for the patient or caregivers (1)—affects an estimated 15%–30% of persons aged  $\geq 60$  years in the United States and is a major cause of admittance to nursing homes (2). UI may be associated with a variety of medical (e.g., rashes, skin infections, pressure sores, urinary tract infections, and falls) and psychosocial problems (e.g., depression, embarrassment, restricted social interaction, reduced activities outside the home, reduced sexual activity, and sleep disturbances) (2–5). Despite the dissemination of clinical practice guidelines for UI by the Agency for Health Care Policy and Research (AHCPR) (1), many physicians do not know how to diagnose or treat UI. Beginning in 1992, CDC and AHCPR funded demonstration projects in Massachusetts and Oklahoma to educate the public, patients, and health-care professionals about UI. In both projects, physicians were assessed regarding baseline attitudes toward UI, knowledge of the causes and treatment of UI, preparedness to evaluate and treat UI, and current practices regarding UI. This report summarizes findings from the two projects during 1993.

**Massachusetts.** During March–May 1993, the Massachusetts Department of Public Health conducted a telephone survey of 350 eligible physicians who were sampled randomly in Essex and Norfolk counties; 163 (47%) participated. Of the 163 participants, 124 (76%) were primary-care physicians; 23 (14%), gynecologists; and 16 (10%), urologists. Overall, 34% reported that they had asked at least three fourths of their elderly patients about UI during the previous month; urologists (75%) and gynecologists (74%) were more likely to report asking than primary-care physicians (21%) ( $p < 0.01$ ). Seventy-two percent of physicians indicated that  $< 10\%$  of their patients aged  $\geq 65$  years mentioned experiencing UI, and 68% that  $< 10\%$  of patients aged  $\geq 65$  years who were asked about UI reported having this condition. The most common reasons that prevented physicians from asking patients about UI included lack of time (36%), lack of available and effective treatments (28%), and patient embarrassment (26%). A total of 73% underestimated the correct proportion (two thirds) of elderly patients with UI who could benefit from therapy. Most urologists (97%) and gynecologists (91%) and 46% of primary-care physicians rated themselves as prepared to treat UI.

**Oklahoma.** During May–September 1993, the Oklahoma State Department of Health mailed a survey to 194 eligible physicians who were randomly selected in four counties (Canadian, Cleveland, Logan, and Oklahoma) in the vicinity of Oklahoma City; 155 (80%) participated. Of the 155 participants, 120 (78%) were primary-care physicians; 26 (15%), gynecologists; and nine (6%), urologists. Overall, one third (33%) reported always asking all new patients about UI; urologists (89%) and gynecologists (58%) were more likely than primary-care physicians (23%) to always ask ( $p < 0.01$ ). Of all respondents, 16% reported they were “fully prepared” and 13% reported they were “poorly prepared” to evaluate UI; 62% of the primary-care physicians rated themselves as “somewhat prepared” or “poorly prepared” to evaluate UI. Nearly one third (32%) of respondents reported incorrectly that elderly persons with chronic UI were unlikely to improve. Most (90%) believed that physicians should be more active in asking the patient about problems with bladder control, and 78% believed that physi-

*(Continued on page 753)*

**FIGURE I. Notifiable disease reports, comparison of 4-week totals ending October 7, 1995, with historical data — United States**



\*The large apparent decrease in the number of reported cases of measles (total) reflects dramatic fluctuations in the historical baseline.

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

**TABLE I. Summary — cases of specified notifiable diseases, United States, cumulative, week ending October 7, 1995 (40th Week)**

	Cum. 1995		Cum. 1995
Anthrax	-	Psittacosis	51
Brucellosis	71	Rabies, human	1
Cholera	13	Rocky Mountain Spotted Fever	465
Congenital rubella syndrome	5	Syphilis, congenital, age < 1 year <sup>†</sup>	280
Diphtheria	-	Tetanus	23
<i>Haemophilus influenzae</i> *	893	Toxic shock syndrome	143
Hansen Disease	106	Trichinosis	25
Plague	6	Typhoid fever	247
Poliomyelitis, Paralytic	-		

\*Of 874 cases of known age, 208 (24%) were reported among children less than 5 years of age.

<sup>†</sup>Updated quarterly from reports to the Division of STD Prevention, National Center for Prevention Services. This total through second quarter 1995.

-: no reported cases



**TABLE II. Cases of selected notifiable diseases, United States, weeks ending October 7, 1995, and October 8, 1994 (40th Week)**

Reporting Area	AIDS*	Gonorrhea		Hepatitis (Viral), by type						Legionellosis	
				A		B		C/NA,NB			
				Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994		
UNITED STATES	54,704	262,617	310,023	20,900	18,663	7,475	8,802	3,260	3,183	953	1,208
NEW ENGLAND	2,653	4,396	6,485	226	231	165	265	93	116	28	64
Maine	81	66	71	23	21	7	11	-	-	5	4
N.H.	77	91	85	8	16	18	22	12	9	1	-
Vt.	30	47	24	5	9	1	6	1	12	-	-
Mass.	1,137	2,211	2,455	99	87	65	151	73	75	18	44
R.I.	192	406	364	26	20	8	7	7	20	4	16
Conn.	1,136	1,575	3,486	65	78	66	68	-	-	N	N
MID. ATLANTIC	14,696	25,506	34,749	1,237	1,301	927	1,134	320	366	153	189
Upstate N.Y.	1,736	3,846	8,044	334	446	302	297	175	175	40	46
N.Y. City	7,624	8,598	13,353	587	494	290	251	1	1	4	6
N.J.	3,575	3,326	3,944	144	230	190	296	108	159	21	37
Pa.	1,761	9,736	9,408	172	131	145	290	36	31	88	100
E.N. CENTRAL	4,122	57,890	62,464	2,226	1,857	721	914	220	265	249	347
Ohio	852	16,800	16,784	1,451	679	87	132	9	19	125	159
Ind.	429	6,182	6,737	132	304	179	164	6	8	59	36
Ill.	1,736	16,431	19,040	217	464	94	240	33	72	13	31
Mich.	825	14,033	13,893	290	229	318	302	172	166	25	67
Wis.	280	4,444	6,010	136	181	43	76	-	-	27	54
W.N. CENTRAL	1,266	15,079	17,177	1,447	950	470	517	99	69	94	82
Minn.	285	2,238	2,463	146	184	45	48	2	14	6	2
Iowa	71	1,191	1,103	54	49	42	24	13	9	20	28
Mo.	564	8,704	9,474	1,035	483	319	390	57	18	44	29
N. Dak.	6	20	33	23	5	4	-	8	1	4	4
S. Dak.	15	131	169	49	31	2	2	1	-	3	1
Nebr.	84	697	1,059	34	107	22	24	6	11	10	13
Kans.	241	2,098	2,876	106	91	36	29	12	16	7	5
S. ATLANTIC	14,155	76,711	83,039	992	958	1,083	1,614	258	339	171	291
Del.	241	1,723	1,496	7	21	2	12	1	1	2	31
Md.	2,250	7,471	14,501	169	137	206	277	4	17	27	66
D.C.	827	3,594	5,582	20	17	15	40	-	1	4	6
Va.	1,082	8,085	10,282	163	134	91	102	14	20	17	8
W. Va.	86	534	623	17	15	41	33	43	24	4	3
N.C.	816	18,785	21,590	89	109	224	225	46	51	31	20
S.C.	766	9,333	10,336	40	32	39	25	17	8	31	12
Ga.	1,784	11,257	U	55	26	63	516	15	173	23	101
Fla.	6,303	15,929	18,629	432	467	402	384	118	44	32	44
E.S. CENTRAL	1,763	32,038	35,986	1,225	480	632	899	774	731	43	71
Ky.	221	3,819	3,777	36	127	54	66	22	24	10	8
Tenn.	709	10,503	11,697	975	213	493	772	750	692	24	36
Ala.	484	12,852	12,079	69	78	85	61	2	15	6	12
Miss.	349	4,864	8,433	145	62	-	-	-	-	3	15
W.S. CENTRAL	4,691	23,834	36,759	3,272	2,423	1,304	990	520	256	13	35
Ark.	209	2,671	5,232	343	151	36	22	4	7	1	6
La.	785	8,662	9,396	100	122	152	137	140	142	3	12
Okla.	206	1,496	3,742	660	246	376	113	323	48	3	11
Tex.	3,491	11,005	18,389	2,169	1,904	740	718	53	59	6	6
MOUNTAIN	1,716	6,660	7,690	3,065	3,690	603	516	347	353	89	73
Mont.	17	55	72	102	18	19	18	12	10	4	14
Idaho	38	96	69	244	275	65	67	41	64	2	1
Wyo.	12	42	66	90	23	17	22	141	128	8	4
Colo.	523	2,241	2,696	424	402	95	78	54	58	33	15
N. Mex.	137	780	760	637	880	233	165	39	44	4	3
Ariz.	545	2,532	2,475	889	1,475	92	57	37	20	9	9
Utah	112	131	199	555	427	54	62	9	15	14	6
Nev.	332	783	1,353	124	190	28	47	14	14	15	21
PACIFIC	9,642	20,503	25,674	7,210	6,773	1,570	1,953	629	688	113	56
Wash.	717	2,122	2,275	628	870	141	184	156	201	20	10
Oreg.	347	224	775	1,543	784	62	121	29	35	-	-
Calif.	8,328	17,162	21,335	4,874	4,900	1,345	1,612	402	447	88	44
Alaska	60	551	716	41	177	9	12	1	-	-	-
Hawaii	190	444	573	124	42	13	24	41	5	5	2
Guam	-	65	99	5	22	1	4	-	-	1	1
P.R.	1,925	459	390	81	52	455	282	182	139	-	-
V.I.	27	6	25	-	3	2	7	-	1	-	-
Amer. Samoa	-	24	25	6	8	-	-	-	-	-	-
C.N.M.I.	-	23	41	15	6	7	1	-	-	-	-

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

\*Updated monthly to the Division of HIV/AIDS Prevention, National Center for Prevention Services, last update September 28, 1995.

**TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending October 7, 1995, and October 8, 1994 (40th Week)**

Reporting Area	Lyme Disease		Malaria		Measles (Rubeola)						Meningococcal Infections		Mumps	
	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994	Indigenous		Imported*		Total		Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994
					1995	Cum. 1995	1995	Cum. 1995	Cum. 1995	Cum. 1994				
UNITED STATES	6,486	9,549	928	826	2	243	-	24	267	863	2,310	2,134	614	1,123
NEW ENGLAND	1,582	2,230	37	60	-	6	-	2	8	27	106	100	10	19
Maine	25	18	5	4	-	-	-	-	-	5	8	19	4	3
N.H.	19	24	1	3	-	-	-	-	-	1	20	8	1	4
Vt.	8	14	1	3	-	-	-	-	-	3	8	2	-	-
Mass.	149	146	12	27	-	1	-	1	2	7	38	44	2	3
R.I.	285	323	4	8	-	5	-	-	5	7	-	-	1	2
Conn.	1,096	1,705	14	15	-	-	-	1	1	4	32	27	2	7
MID. ATLANTIC	3,993	5,737	252	162	-	7	-	5	12	212	273	229	93	93
Upstate N.Y.	2,057	3,634	52	44	-	1	-	-	1	17	84	75	24	27
N.Y. City	158	18	133	59	-	2	-	3	5	14	38	28	13	7
N.J.	837	1,139	50	35	-	4	-	2	6	173	73	51	12	13
Pa.	941	946	17	24	-	-	-	-	-	8	78	75	44	46
E.N. CENTRAL	65	469	86	91	-	7	-	3	10	102	317	316	109	193
Ohio	43	36	12	14	-	1	-	-	1	17	93	92	36	51
Ind.	14	15	14	12	-	-	-	-	-	1	59	41	4	7
Ill.	3	23	32	40	-	-	-	2	2	56	71	103	31	89
Mich.	5	5	15	22	-	4	-	1	5	25	57	46	38	35
Wis.	-	390	13	3	-	2	-	-	2	3	37	34	-	11
W.N. CENTRAL	193	246	22	38	-	2	-	-	2	170	154	136	30	60
Minn.	129	129	4	11	-	-	-	-	-	-	25	12	2	4
Iowa	11	13	3	5	-	-	-	-	-	7	27	18	-	13
Mo.	34	91	6	12	-	1	-	-	1	160	62	66	22	38
N. Dak.	-	-	1	1	-	-	-	-	-	-	1	1	1	4
S. Dak.	-	-	2	-	-	-	-	-	-	-	5	8	-	-
Nebr.	1	3	3	4	-	-	-	-	-	2	14	11	4	1
Kans.	18	10	3	5	-	1	-	-	1	1	20	20	1	-
S. ATLANTIC	432	657	201	166	1	11	-	1	12	64	418	310	89	162
Del.	7	101	1	3	-	-	-	-	-	-	6	5	-	-
Md.	267	212	55	60	-	-	-	1	1	4	31	27	20	47
D.C.	1	6	15	12	-	-	-	-	-	-	3	4	-	-
Va.	47	117	45	23	-	-	-	-	-	3	53	56	20	38
W. Va.	22	18	2	-	-	-	-	-	-	37	8	12	-	3
N.C.	48	71	15	9	-	-	-	-	-	3	67	44	16	35
S.C.	16	7	1	4	-	-	-	-	-	-	51	21	9	7
Ga.	12	110	26	29	-	2	-	-	2	3	82	66	8	9
Fla.	12	15	41	26	1	9	-	-	9	14	117	75	16	23
E.S. CENTRAL	41	37	20	29	-	-	-	-	-	28	148	151	13	18
Ky.	9	21	2	10	-	-	-	-	-	-	47	34	-	-
Tenn.	20	10	7	9	-	-	-	-	-	28	37	28	-	6
Ala.	7	6	8	9	-	-	-	-	-	-	34	59	4	5
Miss.	5	-	3	1	-	-	-	-	-	-	30	30	9	7
W.S. CENTRAL	90	99	40	38	1	22	-	3	25	16	287	250	40	201
Ark.	5	8	3	3	-	2	-	-	2	1	22	38	3	5
La.	4	1	5	6	-	17	-	1	18	1	41	31	10	23
Okla.	39	56	1	6	-	-	-	-	-	-	28	24	-	23
Tex.	42	34	31	23	1	3	-	2	5	14	196	157	27	150
MOUNTAIN	7	13	48	25	-	67	-	1	68	164	158	141	25	134
Mont.	-	-	3	-	-	-	-	-	-	-	2	6	1	-
Idaho	-	3	1	2	-	-	-	-	-	1	7	15	3	7
Wyo.	3	3	-	1	-	-	-	-	-	-	7	6	-	2
Colo.	-	1	22	11	-	26	-	-	26	19	42	28	2	4
N. Mex.	1	4	5	3	-	30	-	1	31	-	31	13	N	N
Ariz.	-	-	7	2	-	10	-	-	10	1	48	48	2	94
Utah	1	1	6	4	-	-	-	-	-	134	14	18	11	14
Nev.	2	1	4	2	-	1	-	-	1	9	7	7	6	13
PACIFIC	83	61	222	217	-	121	-	9	130	80	449	501	205	243
Wash.	10	1	18	24	-	16	-	4	20	3	75	75	10	14
Oreg.	4	6	10	14	-	-	-	1	1	2	70	109	N	N
Calif.	69	54	182	163	-	105	-	3	108	61	292	310	176	210
Alaska	-	-	2	2	-	-	-	-	-	10	8	2	13	3
Hawaii	-	-	10	14	-	-	-	1	1	4	4	5	6	16
Guam	-	-	-	-	U	-	U	-	-	228	3	-	3	6
P.R.	-	-	1	4	-	11	-	-	11	11	23	7	2	2
V.I.	-	-	-	-	U	-	U	-	-	-	-	-	2	4
Amer. Samoa	-	-	-	-	-	-	-	-	-	-	-	-	-	2
C.N.M.I.	-	-	1	1	U	-	U	-	-	29	-	-	-	2

\*For imported measles, cases include only those resulting from importation from other countries.

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

**TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending October 7, 1995, and October 8, 1994 (40th Week)**

Reporting Area	Pertussis			Rubella			Syphilis (Primary & Secondary)		Tuberculosis		Rabies, Animal	
	1995	Cum. 1995	Cum. 1994	1995	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994
UNITED STATES	78	2,938	3,001	-	117	208	11,384	16,364	14,974	16,764	5,443	5,915
NEW ENGLAND	10	391	347	-	34	128	131	172	389	386	1,225	1,456
Maine	1	28	15	-	1	-	2	4	12	23	45	-
N.H.	7	39	66	-	1	-	1	4	15	13	123	123
Vt.	-	60	40	-	-	-	-	-	3	6	143	111
Mass.	2	240	190	-	7	124	48	75	215	198	365	553
R.I.	-	2	5	-	-	2	3	12	38	35	269	40
Conn.	-	22	31	-	25	2	77	77	106	111	280	629
MID. ATLANTIC	2	252	473	-	12	6	628	1,093	3,124	3,462	1,008	1,556
Upstate N.Y.	2	128	196	-	4	5	43	143	387	434	374	1,153
N.Y. City	-	21	93	-	7	-	287	491	1,664	2,013	-	-
N.J.	-	13	13	-	1	1	129	172	595	596	278	217
Pa.	-	90	171	-	-	-	169	287	478	419	356	186
E.N. CENTRAL	6	275	444	-	4	9	2,000	2,417	1,483	1,591	70	53
Ohio	4	115	121	-	-	-	672	918	207	271	10	4
Ind.	-	19	50	-	-	-	214	197	176	145	12	12
Ill.	-	67	89	-	1	1	752	818	737	791	3	17
Mich.	2	62	48	-	3	8	228	231	308	338	37	12
Wis.	-	12	136	-	-	-	134	253	55	46	8	8
W.N. CENTRAL	31	212	144	-	-	2	608	955	454	439	263	171
Minn.	30	118	51	-	-	-	34	37	103	101	19	14
Iowa	-	1	17	-	-	-	37	49	48	46	88	70
Mo.	-	43	39	-	-	2	502	804	179	194	19	19
N. Dak.	-	8	4	-	-	-	-	1	3	8	24	10
S. Dak.	-	11	15	-	-	-	-	1	20	21	72	30
Nebr.	1	9	8	-	-	-	9	11	20	16	5	-
Kans.	-	22	10	-	-	-	26	52	81	53	36	28
S. ATLANTIC	6	284	269	-	26	15	2,934	4,278	2,590	3,005	1,712	1,576
Del.	-	10	2	-	-	-	14	22	42	34	74	47
Md.	-	28	58	-	-	-	137	237	241	252	265	436
D.C.	-	5	7	-	-	-	87	179	85	96	11	2
Va.	-	15	30	-	-	-	476	635	202	255	340	316
W. Va.	-	-	4	-	-	-	9	8	57	61	94	61
N.C.	-	110	58	-	1	-	886	1,318	335	374	377	131
S.C.	2	22	13	-	1	-	456	630	247	287	103	146
Ga.	-	26	24	-	1	2	572	657	323	533	210	302
Fla.	4	68	73	-	23	13	297	592	1,058	1,113	238	135
E.S. CENTRAL	3	256	119	-	-	-	2,970	2,996	1,151	1,156	228	158
Ky.	3	14	58	-	-	-	161	156	235	247	23	20
Tenn.	-	204	18	-	-	-	674	827	294	378	72	34
Ala.	-	35	31	-	-	-	515	522	323	314	124	100
Miss.	-	3	12	N	N	N	1,620	1,491	299	217	9	4
W.S. CENTRAL	-	231	151	-	7	13	1,440	3,502	1,839	2,116	527	541
Ark.	-	28	22	-	-	-	82	388	117	204	21	25
La.	-	15	10	-	-	-	788	1,383	6	11	25	55
Okla.	-	16	22	-	-	4	54	123	146	193	31	31
Tex.	-	172	97	-	7	9	516	1,608	1,570	1,708	450	430
MOUNTAIN	10	431	384	-	5	5	200	207	474	423	148	124
Mont.	-	3	6	-	-	-	4	3	10	9	41	15
Idaho	-	81	45	-	-	-	-	1	12	11	3	3
Wyo.	-	1	-	-	1	-	-	-	3	7	22	17
Colo.	7	84	186	-	-	-	98	107	37	51	9	11
N. Mex.	3	89	20	-	-	-	33	18	64	43	5	6
Ariz.	-	149	97	-	3	-	33	39	234	170	45	52
Utah	-	19	28	-	1	4	4	11	31	38	15	12
Nev.	-	5	2	-	-	1	28	28	83	94	8	8
PACIFIC	10	606	670	-	29	30	473	744	3,470	4,186	262	280
Wash.	4	213	96	-	2	-	12	29	189	208	7	15
Oreg.	2	29	86	-	1	4	7	31	33	90	-	10
Calif.	-	319	473	-	23	22	453	678	3,057	3,645	251	222
Alaska	-	-	-	-	-	-	1	3	59	52	4	33
Hawaii	4	45	15	-	3	4	-	3	132	191	-	-
Guam	U	1	2	U	-	1	8	3	35	69	-	-
P.R.	-	12	2	-	-	-	237	246	195	150	44	67
V.I.	U	-	-	U	-	-	2	25	-	-	-	-
Amer. Samoa	-	-	1	-	-	-	-	1	4	4	-	-
C.N.M.I.	U	-	-	U	-	-	4	1	13	25	-	-

U: Unavailable - : no reported cases

**TABLE III. Deaths in 121 U.S. cities,\* week ending  
October 7, 1995 (40th Week)**

Reporting Area	All Causes, By Age (Years)						P&J†	Total	Reporting Area	All Causes, By Age (Years)						P&J†	Total
	All Ages	≥65	45-64	25-44	1-24	<1				All Ages	≥65	45-64	25-44	1-24	<1		
NEW ENGLAND	625	449	99	59	10	8	39	S. ATLANTIC	1,242	781	254	136	43	27	83		
Boston, Mass.	173	125	29	15	1	3	6	Atlanta, Ga.	153	96	31	20	4	2	7		
Bridgeport, Conn.	64	46	8	10	-	-	3	Baltimore, Md.	169	91	41	29	6	2	15		
Cambridge, Mass.	25	19	6	-	-	-	6	Charlotte, N.C.	92	61	26	1	3	1	11		
Fall River, Mass.	15	14	-	-	1	-	-	Jacksonville, Fla.	109	81	16	8	3	1	9		
Hartford, Conn.	47	25	9	12	1	-	6	Miami, Fla.	104	60	23	16	3	2	1		
Lowell, Mass.	26	18	5	3	-	-	1	Norfolk, Va.	59	38	9	3	3	6	3		
Lynn, Mass.	10	8	1	1	-	-	-	Richmond, Va.	87	54	18	10	5	-	4		
New Bedford, Mass.	22	20	-	1	1	-	2	Savannah, Ga.	52	39	6	6	-	1	8		
New Haven, Conn.	40	26	5	5	3	1	2	St. Petersburg, Fla.	52	31	10	5	2	4	2		
Providence, R.I.	58	45	9	2	1	1	6	Tampa, Fla.	164	113	32	14	2	3	15		
Somerville, Mass.	4	3	1	-	-	-	1	Washington, D.C.	191	109	41	24	12	5	8		
Springfield, Mass.	36	23	8	3	1	1	3	Wilmington, Del.	10	8	1	-	-	-	-		
Waterbury, Conn.	29	22	5	2	-	-	2	E.S. CENTRAL	668	400	145	70	23	29	45		
Worcester, Mass.	76	55	13	5	1	2	1	Birmingham, Ala.	69	45	15	7	1	1	2		
MID. ATLANTIC	2,426	1,569	469	280	68	39	130	Chattanooga, Tenn.	67	41	17	2	2	5	4		
Albany, N.Y.	50	34	5	7	2	2	5	Knoxville, Tenn.	91	62	16	8	3	2	12		
Allentown, Pa.	25	22	1	2	-	-	-	Lexington, Ky.	92	54	20	11	2	5	8		
Buffalo, N.Y.	109	79	17	10	2	1	6	Memphis, Tenn.	164	95	26	22	9	12	12		
Camden, N.J.	26	13	8	3	2	-	2	Mobile, Ala.	47	31	10	3	2	1	-		
Elizabeth, N.J.	15	6	4	5	-	-	-	Montgomery, Ala.	20	10	5	3	2	-	-		
Erie, Pa.‡	41	35	5	-	1	-	4	Nashville, Tenn.	118	62	36	14	2	3	7		
Jersey City, N.J.	36	21	7	4	2	2	2	W.S. CENTRAL	1,350	829	273	163	46	39	76		
New York City, N.Y.	1,311	849	248	164	26	24	60	Austin, Tex.	76	46	13	13	1	3	3		
Newark, N.J.	58	25	19	11	3	-	4	Baton Rouge, La.	54	31	10	5	4	4	2		
Paterson, N.J.	U	U	U	U	U	U	U	Corpus Christi, Tex.	66	35	18	7	-	6	2		
Philadelphia, Pa.	399	240	90	45	20	3	21	Dallas, Tex.	174	111	32	23	5	3	2		
Pittsburgh, Pa.§	47	29	11	4	2	1	4	El Paso, Tex.	58	38	8	8	2	2	3		
Reading, Pa.	16	13	3	-	-	-	2	Ft. Worth, Tex.	77	51	10	11	2	3	4		
Rochester, N.Y.	103	78	11	10	4	-	9	Houston, Tex.	331	174	79	52	19	7	25		
Schenectady, N.Y.	22	17	3	-	2	-	1	Little Rock, Ark.	78	49	18	6	3	2	5		
Scranton, Pa.§	32	26	4	2	-	-	1	New Orleans, La.	80	44	22	10	4	-	-		
Syracuse, N.Y.	83	53	16	6	2	6	6	San Antonio, Tex.	187	126	32	23	2	4	18		
Trenton, N.J.	34	16	12	6	-	-	2	Shreveport, La.	61	46	8	3	3	1	7		
Utica, N.Y.	19	13	5	1	-	-	1	Tulsa, Okla.	108	78	23	2	1	4	5		
Yonkers, N.Y.	U	U	U	U	U	U	U	MOUNTAIN	793	510	142	82	36	22	53		
E.N. CENTRAL	2,059	1,361	390	187	70	50	159	Albuquerque, N.M.	91	56	18	13	3	1	2		
Akron, Ohio	42	28	7	5	1	1	-	Colo. Springs, Colo.	50	34	9	5	2	-	10		
Canton, Ohio	21	19	-	1	1	-	6	Denver, Colo.	85	48	14	9	4	10	6		
Chicago, Ill.	413	234	96	51	19	12	48	Las Vegas, Nev.	127	88	26	8	3	2	2		
Cincinnati, Ohio	144	98	26	11	6	3	8	Ogden, Utah	28	22	2	3	1	-	3		
Cleveland, Ohio	174	107	34	18	7	8	4	Phoenix, Ariz.	142	79	29	23	6	4	15		
Columbus, Ohio	158	106	37	11	3	1	13	Pueblo, Colo.	21	18	1	2	-	-	1		
Dayton, Ohio	124	95	20	8	1	-	15	Salt Lake City, Utah	105	62	24	9	8	2	10		
Detroit, Mich.	220	131	46	30	9	4	10	Tucson, Ariz.	144	103	19	10	9	3	4		
Evansville, Ind.	37	24	9	2	1	1	-	PACIFIC	1,269	847	222	124	46	30	117		
Fort Wayne, Ind.	46	30	10	4	2	-	2	Berkeley, Calif.	23	15	6	1	-	1	-		
Gary, Ind.	18	10	1	2	5	-	1	Fresno, Calif.	64	38	13	8	2	3	5		
Grand Rapids, Mich.	63	46	8	1	3	5	5	Glendale, Calif.	U	U	U	U	U	U	U		
Indianapolis, Ind.	162	109	35	13	2	3	6	Honolulu, Hawaii	78	36	12	19	9	2	4		
Madison, Wis.	73	56	9	5	-	3	9	Long Beach, Calif.	74	51	12	8	1	2	8		
Milwaukee, Wis.	133	95	22	4	5	7	14	Los Angeles, Calif.	U	U	U	U	U	U	U		
Peoria, Ill.	41	29	9	2	1	-	3	Pasadena, Calif.	29	25	4	-	-	-	4		
Rockford, Ill.	42	28	5	6	3	-	10	Portland, Ore.	116	79	22	9	5	1	4		
South Bend, Ind.	46	38	4	4	-	-	1	Sacramento, Calif.	154	109	23	13	6	3	18		
Toledo, Ohio	102	78	12	9	1	2	4	San Diego, Calif.	162	104	29	16	5	8	22		
Youngstown, Ohio	U	U	U	U	U	U	U	San Francisco, Calif.	145	89	31	21	3	1	19		
W.N. CENTRAL	838	602	125	57	29	13	32	San Jose, Calif.	159	109	26	11	9	4	13		
Des Moines, Iowa	90	64	14	7	4	1	6	Santa Cruz, Calif.	U	U	U	U	U	U	U		
Duluth, Minn.	33	29	1	3	-	-	2	Seattle, Wash.	131	98	18	10	3	2	4		
Kansas City, Kans.	40	24	12	2	1	1	-	Spokane, Wash.	48	32	10	3	1	2	6		
Kansas City, Mo.	80	43	14	5	3	3	3	Tacoma, Wash.	86	62	16	5	2	1	10		
Lincoln, Nebr.	28	25	1	1	1	-	1	TOTAL	11,270 <sup>¶</sup>	7,348	2,119	1,158	371	257	734		
Minneapolis, Minn.	200	145	32	12	6	5	10										
Omaha, Nebr.	81	64	7	4	5	1	4										
St. Louis, Mo.	135	97	24	9	5	-	-										
St. Paul, Minn.	66	51	7	5	2	1	3										
Wichita, Kans.	85	60	13	9	2	1	3										

\*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 - : no reported cases

*Urinary Incontinence — Continued*

cians should emphasize behavioral treatments (e.g., bladder training and pelvic muscle exercises) for UI.

*Reported by: L Branch, PhD, ABT Associates Inc; N Resnick, MD, C DuBeau, MD, Harvard Medical School; A Balsam, PhD, C Bottum, MPH, D Siegal, MPA, Massachusetts Dept of Public Health, Boston. A Yerkes, MPH, Oklahoma State Dept of Health; S McFall, PhD, College of Public Health, Univ of Oklahoma Health Sciences Center, Oklahoma City. Health Interventions and Translation Br, and Aging Studies Br, Div of Chronic Disease Control and Community Intervention, National Center for Chronic Disease Prevention and Health Promotion, CDC.*

**Editorial Note:** In addition to its clinical effects, UI results in substantial health-care costs: in 1987, the annual direct costs for care of patients with UI were estimated to exceed \$10.3 billion (2). Although existing therapies can improve two thirds of UI cases, the findings in this report suggest that most primary-care physicians neither routinely ask their elderly patients about UI nor believe they are adequately prepared to evaluate and treat UI. Previous studies have indicated that approximately half of patients with UI reported their physicians had never asked about UI, treated the condition, or referred them for treatment (6–9).

One of the national health objectives for the year 2000 is to increase to 60% the proportion of primary-care providers (i.e., physicians, physicians' assistants, nurses, and physical and occupational therapists) who routinely evaluate their patients aged ≥65 years for UI (objective 17.17) (10). In both Massachusetts and Oklahoma, interventions were conducted after the surveys to prepare physicians to evaluate and treat UI. In Massachusetts, these interventions included a local conference about UI for urologists and chiefs of gynecology, organization of a series of hospital grand rounds presentations about UI by urologists, and a statewide mailing of program materials and information about the AHCPR guidelines to primary-care physicians. In Oklahoma, some physicians at area hospitals received briefings at department or general medical staff meetings to reinforce the importance of asking patients about UI; in addition, the Oklahoma Geriatric Education Center conducted an education session about treatment options for UI.

The health-care impact of UI is likely to increase because of the changing demographic composition of the U.S. population. As a consequence, clinical providers and public health programs will need to strengthen capacities to prevent UI and to ensure that patients with this condition can receive appropriate treatment. Health-care providers should routinely ask elderly patients about this condition and associated problems, educate patients about noninvasive behavioral interventions for UI, and if necessary, refer patients for appropriate treatment.

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**National Breast Cancer Awareness Month — October 1995**

October is National Breast Cancer Awareness Month, and October 19 has been designated National Mammography Day. CDC supports breast and cervical cancer early detection efforts through cooperative agreements with state health departments in all 50 states. Through a partnership with CDC, 35 states and nine American Indian tribal organizations offer affordable screening mammograms to low-income women.

Additional information about CDC's Breast and Cervical Cancer Early Detection Program is available from the Division of Cancer Prevention and Control, National Center for Chronic Disease Prevention and Health Promotion, CDC, telephone (770) 488-4226.

**Mammography Use — Wisconsin, 1980–1993**

In the United States, efforts to reduce mortality from breast cancer focus primarily on secondary prevention (i.e., early detection and treatment). Since 1980, private, public, and voluntary organizations in Wisconsin have promoted screening mammography as a means for reducing the death rate from breast cancer (1,2). To assess the effectiveness of these efforts, the Division of Health, Wisconsin Department of Health and Social Services (DOH), analyzed data from annual statewide surveys of mammography providers during 1989–1993 and data about self-reported mammography use from the Behavioral Risk Factor Surveillance System (BRFSS) during 1987–1993. This report summarizes these analyses and trends in the number of mammograms performed annually in Wisconsin during 1980–1993.

An annual survey of all registered mammography providers in Wisconsin has been conducted since 1989. During 1980–1993, the number of mammography providers ranged from 76 to 236 (Table 1). Survey questionnaires are mailed annually to all mammography providers in conjunction with a mailing of DOH radiation-protection registration materials. The questionnaire asks each facility to estimate the total number of mammograms performed during that year and to provide information about mammography referral and follow-up procedures, fees, and availability of low-cost screening services. The 1989 survey requested estimates of the total number of mam-

*Mammography Use — Continued***TABLE 1. Estimated annual number of mammograms — Wisconsin, 1980–1993\***

Year	Mammography provider survey		BRFSS <sup>†</sup>	% Difference
	No. providers	Estimated no. mammograms	Estimated no. women who had a mammogram	(% BRFSS greater than provider survey)
1980	76	31,000	NA <sup>§</sup>	NA
1981	76	34,000	NA	NA
1982	83	39,000	NA	NA
1983	85	50,000	NA	NA
1984	93	74,000	NA	NA
1985	126	130,000	NA	NA
1986	142	188,000	NA	NA
1987	145	237,000	389,000	64%
1988	167	276,000	499,000	81%
1989	183	334,000	499,000	45%
1990	198	383,000	516,000	35%
1991	218	455,000	608,000	34%
1992	228	466,000	638,000	37%
1993	236	517,000	607,000	17%

\*Based on data from annual mammography provider surveys for 1989–1993 (the 1989 survey requested information for 1980–1989) and the Behavioral Risk Factor Surveillance System (BRFSS) for 1987–1993.

<sup>†</sup>Standard errors for annual BRFSS estimates ranged from  $\pm 1.5\%$  to  $\pm 1.7\%$ .

<sup>§</sup>Not available.

mammograms performed during 1980–1989. The response rates for the five surveys conducted during 1989–1993 were 75%, 89%, 90%, 91%, and 91%, respectively. Data were adjusted for nonresponse to provide statewide estimates of the annual number of mammograms performed.

Trends in self-reported mammography use were determined by analyzing data from the BRFSS, which has included questions about mammography use since 1987. The BRFSS is a random-digit-dialed telephone survey of household residents aged  $\geq 18$  years that provides population-based surveillance data about selected health behaviors. The total number of mammograms performed in the state each year during 1987–1993 was estimated from the BRFSS by multiplying the adult female population in Wisconsin by the proportion of women who reported having had a mammogram during the preceding 12 months. The number of adult women interviewed in Wisconsin for the annual BRFSS ranged from 673 (in 1990) to 857 (in 1993).

Analyses of the mammography provider surveys (1989–1993) and the BRFSS (1987–1993) indicated steady increases in the number of mammograms performed each year during 1980–1993 (Table 1). Based on the provider survey, the total number of mammograms performed each year increased nearly 17-fold, from 31,000 in 1980 to 517,000 in 1993. Compared with the provider survey, estimates based on the BRFSS were consistently higher, varying from 81% higher in 1988 to 17% higher in 1993. In addition, the number of mammography providers increased 310%, from 76 in 1980 to 236 in 1993. Standard errors for annual BRFSS estimates ranged from  $\pm 1.5\%$  to  $\pm 1.7\%$ .  
*Reported by: P Lantz, PhD, M Bunge, E Cautley, JL Phillips, PL Remington MD, State Chronic Disease Epidemiologist, Div of Health, Wisconsin Dept of Health and Social Svcs. Div of Field Epidemiology, Epidemiology Program Office, CDC.*

**Editorial Note:** The findings in this report document a nearly 17-fold increase in the annual number of mammograms performed in Wisconsin during 1980–1993. Although the estimated number of mammograms performed each year differed

*Mammography Use — Continued*

substantially by data source, the trends were similar for both sources. Two important factors probably contributed to the increase in mammography use during this period: 1) the substantial increase in the acceptance and use of screening mammography among physicians during the 1980s (3) and 2) initiation of extensive efforts to educate the public and health-care professionals about national screening mammography guidelines, which were implemented during the late 1980s (4). Other possible contributing factors include the initiation of low-cost mammography screening programs (5) and wider availability of high-quality, low-cost mammography equipment beginning during the early 1980s.

The findings in this report are subject to limitations associated with the two data sources. Although the provider survey is an example of a low-cost, efficient method to characterize trends in mammography use, it does not collect information about sociodemographic variables and may overestimate mammography use because data were based on the number of mammograms performed and some women receive more than one mammogram each year. In addition, the estimates based on the self-reported BRFSS data probably were higher than those from the provider survey for at least three reasons. First, some women who reported having had a mammogram during the previous 12 months probably received the mammogram >12 months previously (6–8). Second, women who participated in the BRFSS may not be representative of the total population of women in Wisconsin because they had telephones, were better educated, or were more likely to have had insurance coverage—factors related to an increased likelihood of having received a mammogram. Third, the BRFSS is a household survey that does not include institutionalized women (e.g., those in long-term-care facilities), who are less likely than noninstitutionalized women to receive mammograms (9).

The findings in this report are being used in Wisconsin to further identify groups of women who underuse mammography screening, develop intervention strategies to increase mammography use, and assess progress toward the year 2000 national health objectives for breast cancer and mammography (objectives 16.11 and 16.16) (10). This approach can be adapted for use by health departments in other states to assess the effectiveness of efforts to promote mammography screening.

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Notice to Readers**Publication of Draft Guideline  
for Prevention of Intravascular Device-Related Infections**

The Hospital Infection Control Practices Advisory Committee and CDC published for public comment the *Draft Guideline for Prevention of Intravascular Device-Related Infections* in the September 27, 1995, *Federal Register*.<sup>\*</sup> Copies of the document (stock number 069-001-000-89-1) are available for \$8.00 from the Order and Information Desk, U.S. Government Printing Office, Washington, DC 20402-9329; telephone, (202) 512-1800. The draft document also can be viewed and photocopied at U.S. government depository libraries or other public or academic libraries that receive the *Federal Register*. Comments must be received in writing by October 30, 1995, at CDC, Attention: IV Guideline, Mailstop E-69, 1600 Clifton Road, NE, Atlanta, GA 30333.

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<sup>\*</sup>60 FR 49978-50006.

Notice to Readers**Update: Availability of Electronic MMWR on Internet**

Since January 27, 1995, the *MMWR* series has been available in an electronic format on the Internet (1); current and past copies (since January 15, 1993) in the *MMWR* series are available electronically. To access CDC's Internet file servers, users must have Internet access and software that retrieves files by file transfer protocol (FTP) or software that will access the World Wide Web (WWW). As of May 1, changes have been made in the names of some directories used to access the electronic *MMWR* files and Adobe<sup>TM</sup> Acrobat<sup>TM\*</sup> Reader software (produced by Adobe, Inc.) required to view the electronic *MMWR* in Adobe<sup>TM</sup> Acrobat<sup>TM</sup> portable document format (.pdf). Following are the revised instructions.

**Where to Obtain MMWR Through the Internet**

Users can receive *MMWR* by connecting to the following servers:

**CDC FTP server.** Use FTP to connect to CDC's file server *ftp.cdc.gov*. Supply user name **anonymous**, and give the user's Internet e-mail address in response to the prompt for the password. Select the subdirectory **/pub/publications**, then subdirec-

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

*Notices to Readers — Continued*

tory **mmwr**. Select subdirectory **wk** for the *MMWR* (weekly), subdirectory **ss** for *CDC Surveillance Summaries*, or subdirectory **rr** for *MMWR Recommendations and Reports*. Then view the listing, and download the files of interest.

Each .pdf file represents a single issue of *MMWR* and is named according to the publication, volume, and issue number. For example, mm4301.pdf contains all pages for the *MMWR* (weekly) Volume 43, Number 1. Files with the prefix rr or ss represent *MMWR Recommendations and Reports* or *CDC Surveillance Summaries*, respectively.

**CDC WWW server.** Programs that browse the WWW (e.g., Mosaic) allow particularly easy navigation of the Internet. Use WWW software to connect to the *MMWR* WWW pages at either of the following addresses:

- <http://www.cdc.gov/>

Go to **Publications, Products, and Subscription Services**, then **Morbidity and Mortality Weekly Report (MMWR)** to find the *MMWR*, OR

- <http://www.cdc.gov/epo/mmwr/mmwr.html>

To access the *MMWR*, follow the instructions that appear on the screen.

**How to Obtain *MMWR* from the Public E-Mail List**

An automatic service is available for receiving a weekly notification of the contents of the *MMWR* and instructions on how to electronically retrieve the complete *MMWR* file through e-mail. To subscribe, send an e-mail message to [lists@list.cdc.gov](mailto:lists@list.cdc.gov). The body content of the e-mail should read **subscribe mmwr-toc**. The subscriber will be added automatically to the mailing list and receive a weekly table of contents and other announcements regarding the electronic *MMWR*. Subscribers will also receive instructions about additional e-mail commands, such as retrieving documents, sending messages to the system operator, canceling a subscription, or sending an e-mail change of address.

Some sites may have to process the received mail attachments with a uudecode utility to create an acceptable binary file readable by Acrobat™. If the user's e-mail system does not have uudecode, the user should contact his/her e-mail administrator. Uudecode software is available free of charge at many FTP sites on the Internet. Questions about the list service should be sent to [mmwr-questions@list.cdc.gov](mailto:mmwr-questions@list.cdc.gov) by e-mail.

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- <http://www.cdc.gov/>

Choose **Publications, Products, and Subscription Services**, then **Morbidity and Mortality Weekly Report (MMWR)**, and finally **Adobe™ Acrobat™ Reader**. Read the instructions. Then choose **Obtain a free copy of the Adobe™ Acrobat™ Reader**. Select “*download to disk*” from the WWW software, and download the appropriate DOS, Macintosh®, UNIX®, or Windows™ reader(s).

- <http://www.cdc.gov/epo/mmwr/mmwr.html>

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**Users should *not* call CDC's MMWR office for software support.**

### Reference

1. CDC. Availability of electronic *MMWR* on Internet. *MMWR* 1995;44:48–50.

### Erratum: Vol. 44, No. 37

In the report “Syringe Exchange Programs—United States, 1994–1995,” the following limitation should have been included in the second full paragraph on page 691: “Because of incomplete reporting, the total number of syringes exchanged in 1992 is underestimated.” In the next paragraph, the reference cited for the Tacoma hepatitis study is incorrect. The correct reference is “Hagan H, Des Jarlais DC, Friedman SR, et al. Reduced risk of hepatitis B and hepatitis C among injecting drug users participating in the Tacoma syringe exchange program. *Am J Public Health* (in press).” All subsequent references in the paragraph should be renumbered accordingly (i.e., references 7, 6, and 8 should become 7, 8, and 9).

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