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Perspectives in Disease Prevention and Health Promotion

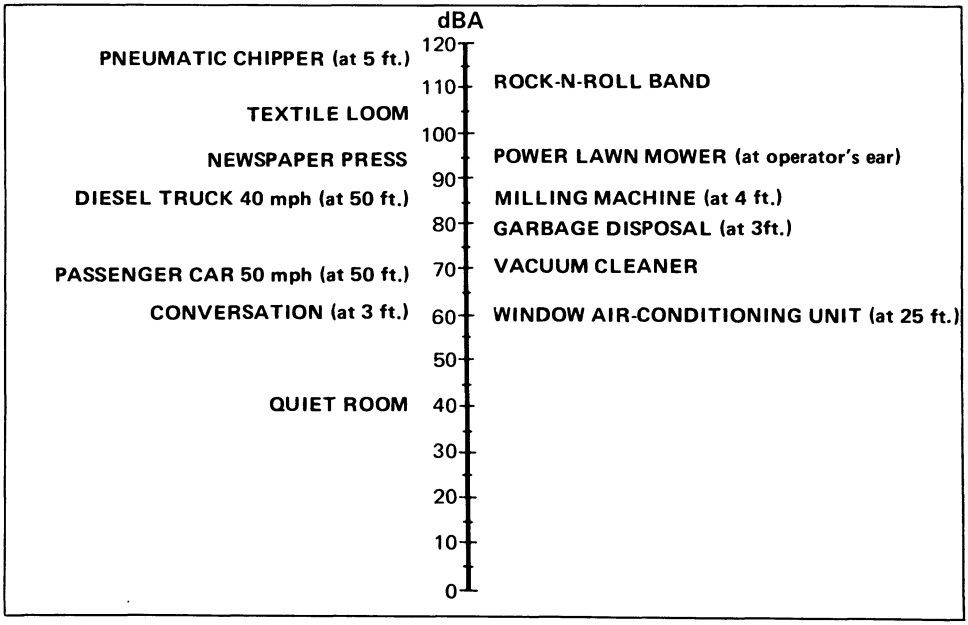
Leading Work-Related Diseases and Injuries — United States

The National Institute for Occupational Safety and Health (NIOSH) has developed a suggested list of 10 leading work-related diseases and injuries (1). *The first seven categories have been described* (1-7); *this article focuses on the eighth category, noise-induced loss of hearing.*

NOISE-INDUCED LOSS OF HEARING

Occupational deafness was first documented among metalworkers in the sixteenth century (*8*). Since then, workers have experienced excessive hearing loss in many occupations associated with noise. Typical occupational and nonoccupational noise levels are shown in Figure 1. Noise-induced loss of hearing is an irreversible, sensorineural condition that progresses with exposure. Although hearing ability declines with age (presbycusis) in all populations, exposure

FIGURE 1. Typical A-weighted noise levels in decibels (dBA)*



*The decibel is a logarithmic measure of sound intensity; the "A-weighted scale" is used to weight the various frequency components of the noise to approximate the response of the human ear.

Leading Work-Related Diseases and Injuries — Continued

to noise produces hearing loss higher than that resulting from the natural aging process; this is caused by damage to nerve cells of the inner ear (cochlea) and, unlike some conductive hearing disorders, cannot be treated medically.

While loss of hearing may result from a single exposure to a very brief impulse noise or explosion, such traumatic losses are rare. In most cases, noise-induced hearing loss is insidious. Typically, it begins to develop at 4,000 hertz (Hz, or cycles per second) in the hearing range of 20 Hz to 20,000 Hz and spreads to lower and higher frequencies. Often, material impairment has occurred before the condition is clearly recognized.

Such impairment is usually severe enough to permanently affect a person's ability to hear and understand speech under everyday conditions. Although the primary frequencies of human speech range from 200 Hz to 2,000 Hz, research has shown that the consonant sounds, which enable people to distinguish words such as "fish" from "fist," have still higher frequency components. As a result, an average hearing threshold (lowest audible sound level) at separate frequencies of 1,000 Hz, 2,000 Hz, and 3,000 Hz is used widely to define material impairment caused by noise (*10,11*).

Recent estimates by the Occupational Safety and Health Administration (OSHA) indicate that about 9,400,000 U.S. production workers (7,900,000 active and 1,500,000 retired) either now work or have worked in industrial locations where noise-exposure levels are 80 decibels (dBA) or higher. This estimate includes most noisy workplaces in the United States, except agricultural, mining, construction, transportation, and government (Table 1) (*11*). At exposure levels below 80 decibels (weighted to the approximate response of the human ear, dBA), an increased risk of hearing loss caused by occupational noise has not been found. Based on the average hearing threshold level at 1,000 Hz, 2,000 Hz, and 3,000 Hz, OSHA estimated that 1,624,000 (17%) production workers have at least mild hearing loss resulting from their occupational noise exposures; 1,060,000 (11%) have material hearing impairment; and 473,000 (5%) have moderate to severe impairment (Table 2) (*11*). These estimates generally agree with NIOSH survey findings, which indicate that one-fourth of persons 55 years of age or older who have been exposed over their working lifetime to an average of about 90 dBA have developed a material hearing impairment caused by occupational noise exposure (*10,12*). An estimated $835 million will be paid in workers' compensation claims for occupational hearing impairment for the 10-year period 1978-1987 (*13*).

Reported by Physical Agents Effects Br, Div of Biomedical and Behavioral Science, National Institute for Occupational Safety and Health, CDC.

Editorial Note: Occupational noise-induced loss of hearing is preventable. In its 1990 objectives for the nation, the U.S. Public Health Service set an objective that "By 1990, the prevalence of occupational noise-induced hearing loss should be reduced to 415,000 cases" (*14*). This objective relates to the number of cases of hearing loss that result in moderate to severe impairment (Table 2). However, it is important to note that if the number of moderate to severe impairments is reduced, the number of mild hearing loss and of material impairments

TABLE 1. Distribution of 9,368,000 production workers who had noise-exposure levels of 80 dBA or greater* — United States

Noise-exposure level (dBA)	No. workers
80-85	3,305,000
86-90	2,656,000
91-95	1,936,000
96-100	965,000
>100	506,000

*From the 1981 OSHA Final Regulatory Analysis for the Hearing Conservation Amendment.

Leading Work-Related Diseases and Injuries — Continued

would be reduced proportionately. OSHA has estimated that within 10 years, the number of cases of noise-induced hearing impairment can be reduced by 20% if all workers exposed to noise levels higher than 85 dBA wear personal hearing protectors (earplugs or muffs) and receive on the average 15 dBA noise reduction (*11*). However, this estimate hinges on effective use of hearing protectors to an extent that has not yet been demonstrated for all workers. NIOSH field investigations of industrial workers who routinely use earplugs indicate average noise reduction ranging from 7 dBA to 20 dBA, depending on the type of plug used (*15*).

A noise-control/hearing-conservation program is the most important step in eliminating occupational hearing loss. Such a program must include:

1. Reduction of noise through engineering controls and the purchase of new, noise-engineered equipment.
2. Proper fit of personal hearing-protection devices.
3. Education of workers and managers about certain characteristics of noise-induced loss of hearing (e.g., irreversible, subtle in onset, psychologically distressing).
4. Proper periodic audiometric testing and notification of workers who are developing hearing loss.
5. Visible commitment of management and workers to the program.

The joint efforts of management, labor, and health-care providers are needed to establish effective hearing-conservation programs in industry. All interested groups must work together to achieve the goal of protecting workers' hearing.

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TABLE 2. Hearing levels (dB) of 9,368,000 production workers who had noise-exposure levels of 80 dBA or greater* — United States

Hearing threshold level (1,000, 2,000, and 3,000 Hz)	Cumulative cases (%)	Expected cases† (%)	Excess cases§ (%)
>15 dB (mild hearing loss)	3,735,000 (40%)	2,111,000 (23%)	1,624,000 (17%)
>25 dB (material hearing impairment)	2,025,000 (22%)	965,000 (10%)	1,060,000 (11%)
>40 dB (moderate to severe hearing impairment)	718,000 (8%)	245,000 (3%)	473,000 (5%)

*From the OSHA 1981 Final Regulatory Analysis for the Hearing Conservation Amendment.

†Based on hearing levels of a nationwide sample of adults in U.S. Public Health Service hearing surveys.

§Cumulative cases minus expected cases.

Leading Work-Related Diseases and Injuries — Continued

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Years of Potential Life Lost Attributable to Low Birthweight — United States, 1980 Birth Cohort

To determine the years of potential life lost before age 65 (YPLL) attributable to low birthweight for all causes of infant mortality, cause- and birthweight-specific mortality data were examined from CDC's National Infant Mortality Surveillance (NIMS) project for singleton births in 1980. This is the most recent file of birthweight-specific infant mortality for the United States.

For the 1980 birth cohort, all states, the District of Columbia, New York City, and Puerto Rico linked birth and infant death certificates and provided CDC with tabulations of deaths by birthweight and other characteristics, including *The International Classification of Diseases, 9th Revision* (ICD-9), codes for underlying cause of death. For each reporting area, the number of live births for calculation of mortality rates was obtained from computer tapes of national natality data prepared by the National Center for Health Statistics (NCHS).*

This analysis included only those singleton infants with known birthweight, in three groups: 500-1,499 grams (very low birthweight [VLBW]); 1,500-2,499 grams (intermediate low birthweight [ILBW]); and 2,500 grams or more. Underlying causes of death were aggregated into 10 categories using a modification of previously described classification schemes (Table 3) (*1,2*). To calculate YPLL, an average age at death of 3.3 days and 127 days was used for neonatal (under 28 days) and postneonatal (28-365 days) deaths, respectively, reflecting the actual age distribution of deaths to infants born in 1980. For each cause of death, the percentage of infant deaths attributable to the increased risk of death associated with VLBW and ILBW (population-attributable risk) (*3*) was calculated, using the rate of death among infants 2,500 grams or more as the referent.† This percentage was then applied to the total YPLL from each cause of infant death to determine YPLL attributable to VLBW and ILBW.§

The neonatal mortality rates were 362.1, 23.1, and 2.0 deaths/1,000 live births, and the postneonatal mortality rates were 64.6, 12.3, and 2.8 deaths/1,000 neonatal survivors for VLBW, ILBW, and 2,500-gram or more infants, respectively. These calculations are based on 30,919 VLBW infants, 176,812 ILBW infants, and 3,324,881 infants weighing 2,500 grams or more.

A total of 2,257,988 YPLL was due to infant deaths. Neonatal deaths accounted for

*Data from Puerto Rico are not included in this analysis. For New Mexico, number of births was obtained from state computer tapes rather than NCHS tapes.

†Population-attributable risk = D - (BR)/T, where D = number of deaths due to a specific cause in a low birthweight category (VLBW or ILBW); B = number of births in a specific birthweight category; R = cause-specific death rate for infants with birthweight 2,500 grams or more; and T = total number of cause-specific infant deaths.

§YPLL = T(65 - [A/365.25]), where A = average age at death, in days.

YPLL — Continued

63.3%, and postneonatal deaths, for 36.7%, of total YPLL; 802,326 (35.5%) YPLL were attributable to VLBW; and 347,773 (15.4%), to ILBW. The increased risk of death associated with low birthweight (VLBW plus ILBW) accounted for 67.5% of YPLL due to neonatal deaths and 22.3% of YPLL due to postneonatal deaths.

The leading causes of YPLL were perinatal conditions,¶ congenital anomalies, sudden infant death syndrome (SIDS), and infections (Table 3). The pattern was similar for YPLL attributable to low birthweight, except that infections were more prominent than SIDS. There were 414,116 YPLL due to causes coded by ICD-9 as prematurity, low birthweight, or respiratory distress syndrome, including 344,093 (83.1%) YPLL attributable to VLBW and 47,737 (11.5%) YPLL attributable to ILBW.

Reported by state health departments of all 50 states, New York City, District of Columbia, and Puerto Rico; Pregnancy Epidemiology Br, Research and Statistics Br, Div of Reproductive Health, Center for Health Promotion and Education, CDC.

Editorial Note: Many infant deaths could probably be prevented by better application of existing technologies and skills (*1*). The importance of this public health problem is highlighted through the use of YPLL to assess infant mortality, because deaths early in life are weighted heavily in the calculation of YPLL (*4*).

Data in this report are derived by linking birth and infant death records by states and reported to the NIMS project. This linkage is estimated to include 95% of reported infant deaths. The number of YPLL attributable to low birthweight depends on the proportion of infants with VLBW and ILBW, their mortality rate, and their relative risk of death compared to infants with birthweight of 2,500 grams or more. YPLL calculated in this manner is less than the YPLL for VLBW and ILBW infants, because not all deaths among them are attributable to the risk associated with low birthweight alone. Use of the population-attributable risk to estimate the proportion of YPLL attributed to low birthweight allows a description of the increase in risk of death associated with VLBW and ILBW. This approach permits assessment of both

¶"Perinatal conditions" refers to conditions classified by ICD-9 (codes 760-779, excluding congenital infections) as originating in the perinatal period and does not refer to the time of death.

TABLE 3. Years of potential life lost before age 65 (YPLL) attributable to increased risk of death associated with birthweights 500-1,499 grams and 1,500-2,499 grams, by cause of infant death — United States, 1980.

Underlying cause of death	Total	Birthweight-attributable YPLL 500-1,499 g	1,500-2,499 g	500-2,499 g	(%)*
Prematurity/LBW/ respiratory distress syndrome	414,116	344,093	47,737	391,829	(94.6)
Other perinatal, respiratory	137,172	80,542	14,253	94,795	(69.1)
Birth trauma/asphyxia	133,725	63,415	15,997	79,412	(59.4)
Other perinatal	245,095	173,907	26,894	200,800	(81.9)
Subtotal perinatal	930,108	661,957	104,881	766,838	(82.4)
Infections	189,836	31,424	35,615	67,039	(35.3)
Congenital anomalies	542,326	65,740	142,819	208,559	(38.5)
Injuries	77,745	2,118	5,811	7,929	(10.2)
SIDS	324,754	7,779	34,462	42,241	(13.0)
Other	157,301	28,542	18,925	47,467	(30.2)
Unknown/nonspecific	35,919	4,767	5,260	10,027	(27.9)
Total*	**2,257,988**	**802,326**	**347,773**	**1,150,099**	**(50.9)**

*Subtotals and totals may not add to values in table because of rounding.

YPLL – Continued

the importance of individual causes of death and the contribution of low birthweight to each cause of infant mortality.

YPLL due to congenital anomalies and SIDS in this report differs somewhat from two recent CDC reports, because a different age at death was used in calculations (*5,6*). Congenital anomalies contribute substantially to YPLL overall (24.0%), and YPLL attributable to low birthweight (38.5%). Because certain congenital anomalies may increase the risk of low birthweight, some of the YPLL attributable to low birthweight among infants with congenital anomalies may be more properly attributed to the congenital anomaly per se.

Infants with low birthweight may continue to be at an increased risk of death through the fourth year of life (*7*). Thus, the actual YPLL due to low birthweight is higher than the estimates presented here, which are limited to infant deaths (under 1 year).

Although infants with VLBW and ILBW represent less than 6% of newborns with known birthweight of 500 grams or more, they account for approximately half of YPLL due to infant deaths. Efforts to reduce infant deaths will depend to a high degree on the prevention of low birthweight (*8*).

(Continued on page 195)

TABLE I. Summary—cases specified notifiable diseases, United States

Disease	12th Week Ending			Cumulative, 12th Week Ending		
	Mar. 22, 1986	Mar. 23, 1985	Median 1981-1985	Mar. 22, 1986	Mar. 23, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	148	88	N	2,620	1,226	N
Aseptic meningitis	71	70	71	965	819	945
Encephalitis: Primary (arthropod-borne & unspec.)	16	22	22	191	206	201
Post-infectious	3	-	3	13	26	20
Gonorrhea: Civilian	14,524	15,765	16,831	178,389	178,842	209,889
Military	385	264	394	3,654	4,296	5,547
Hepatitis: Type A	380	455	455	5,155	4,837	5,284
Type B	510	560	461	5,436	5,585	5,211
Non A, Non B	72	75	N	707	939	N
Unspecified	64	118	169	1,196	1,160	1,671
Legionellosis	13	7	N	119	149	N
Leprosy	3	7	4	60	95	50
Malaria	21	14	14	158	154	154
Measles: Total*	134	55	55	878	337	433
Indigenous	132	46	N	842	267	N
Imported	2	9	N	36	70	N
Meningococcal infections: Total	68	53	90	757	736	819
Civilian	68	53	90	756	735	819
Military	-	-	-	1	1	2
Mumps	65	158	127	618	938	1,003
Pertussis	26	58	33	455	355	318
Rubella (German measles)	21	10	26	114	80	250
Syphilis (Primary & Secondary): Civilian	482	536	591	5,480	5,585	7,055
Military	5	3	4	49	37	86
Toxic Shock syndrome	7	3	N	64	89	N
Tuberculosis	449	389	421	4,285	4,178	4,830
Tularemia	1	1	1	16	23	22
Typhoid fever	2	6	6	48	50	78
Typhus fever, tick-borne (RMSF)	3	3	1	11	9	11
Rabies, animal	47	83	145	931	920	1,120

TABLE II. Notifiable diseases of low frequency, United States

	Cum 1986		Cum 1986
Anthrax	-	Leptospirosis (Mo. 1)	11
Botulism: Foodborne	3	Plague	-
Infant	12	Poliomyelitis, Paralytic	-
Other	-	Psittacosis (Ohio 1)	13
Brucellosis (Tenn. 1)	12	Rabies, human	-
Cholera	-	Tetanus	7
Congenital rubella syndrome	1	Trichinosis	7
Congenital syphilis, ages < 1 year	-	Typhus fever, flea-borne (endemic, murine)	1
Diphtheria	-		

*Two of the 134 reported cases for this week were imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending March 22, 1986, and March 23, 1985 (12th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum. 1986	1986	Cum. 1986	Cum. 1986	Cum. 1986	Cum. 1985	1986	1986	1986	1986	1986	Cum. 1986
UNITED STATES	2,620	71	191	13	178,389	178,842	380	510	72	64	13	60
NEW ENGLAND	112	3	8	-	4,157	5,785	10	47	2	8	-	1
Maine	4	-	-	-	200	232	-	2	-	-	-	-
N H	4	-	2	-	118	125	2	-	1	-	-	-
Vt.	2	-	2	-	73	51	-	1	-	-	-	-
Mass	62	-	2	-	1,714	2,191	3	23	1	7	-	1
R I.	9	2	-	-	416	432	2	2	-	-	-	-
Conn.	31	1	2	-	1,636	2,754	3	19	-	1	-	-
MID ATLANTIC	923	10	35	-	30,509	23,776	21	28	5	10	-	5
Upstate N Y.	93	4	12	-	3,703	3,556	3	5	2	1	-	-
N Y. City	573	1	9	-	17,569	9,944	3	1	-	7	-	5
N J.	169	1	3	-	3,535	5,119	11	11	2	1	-	-
Pa	88	4	11	-	5,702	5,157	4	11	1	1	-	-
E N. CENTRAL	143	6	36	2	23,383	26,176	15	40	3	7	2	3
Ohio	30	1	13	2	6,717	6,956	4	21	-	5	2	-
Ind	16	1	3	-	3,601	2,306	1	4	1	2	-	-
Ill	64	-	3	-	3,379	7,681	7	2	1	-	-	2
Mich	28	4	16	-	8,097	7,483	3	13	1	-	-	1
Wis	5	-	1	-	1,589	1,750	-	-	-	-	-	-
W N. CENTRAL	59	4	3	1	8,432	9,085	13	24	3	1	1	1
Minn	28	-	1	-	1,205	1,326	5	4	1	-	-	1
Iowa	5	2	2	-	853	981	-	2	2	-	-	-
Mo	15	2	-	-	3,961	4,199	3	18	-	1	-	-
N Dak	2	-	-	-	83	72	2	-	-	-	-	-
S Dak	1	-	-	-	165	166	2	-	-	-	1	-
Nebr	3	-	-	-	605	802	1	-	-	-	-	-
Kans	5	-	-	1	1,560	1,539	-	-	-	-	-	-
S. ATLANTIC	361	20	33	9	39,363	38,707	33	103	15	5	4	1
Del	8	1	3	-	782	807	1	2	-	-	-	-
Md	36	-	9	-	5,206	6,117	1	4	-	-	-	-
D C	59	-	-	-	3,414	3,263	1	1	-	-	-	-
Va	45	-	14	-	4,096	4,041	6	20	4	-	-	1
W Va	1	-	2	-	556	527	1	1	1	1	-	-
N C	21	2	4	-	7,984	7,910	4	12	3	2	2	-
S C	14	-	-	-	4,396	4,761	-	17	-	-	-	-
Ga	27	-	-	-	-	-	2	17	-	-	-	-
Fla	150	17	1	9	12,929	11,281	17	29	7	2	2	-
E S. CENTRAL	27	4	15	-	16,013	15,727	8	17	4	-	-	-
Ky	7	-	6	-	1,840	1,783	2	1	1	-	-	-
Tenn	12	1	1	-	6,400	6,127	2	12	-	-	-	-
Ala	4	3	8	-	4,385	4,890	2	4	1	-	-	-
Miss	4	-	-	-	3,388	2,927	2	-	2	-	-	-
W S. CENTRAL	241	4	13	-	23,507	26,204	46	29	5	12	4	5
Ark	7	-	-	-	2,093	2,490	-	2	-	-	-	-
La	31	1	1	-	4,188	5,456	-	2	-	-	-	-
Okla	10	-	4	-	2,701	2,639	8	4	3	4	2	-
Tex	193	3	8	-	14,525	15,619	38	21	2	8	2	5
MOUNTAIN	74	5	10	1	5,854	5,824	35	33	6	6	1	7
Mont	1	-	-	1	146	186	-	-	1	-	-	-
Idaho	1	-	-	-	193	209	2	-	-	-	-	-
Wyo	2	-	2	-	132	157	1	-	1	-	-	-
Colo	35	1	2	-	1,572	1,707	4	1	1	3	-	3
N Mex	6	-	-	-	631	702	3	5	-	-	1	-
Ariz	17	1	4	-	1,730	1,727	17	14	3	2	-	2
Utah	6	1	1	-	257	248	4	6	-	-	-	-
Nev	6	2	1	-	1,193	888	4	7	-	1	-	2
PACIFIC	680	15	38	-	27,171	27,558	199	189	29	15	1	37
Wash.	21	-	2	-	2,024	2,064	14	21	7	-	1	5
Oreg.	14	-	-	-	1,023	1,533	37	11	2	-	-	-
Calif.	627	15	34	-	23,037	22,850	147	152	20	15	-	31
Alaska	8	-	2	-	778	694	1	3	-	-	-	-
Hawaii	10	-	-	-	309	417	-	2	-	-	-	1
Guam	-	-	-	-	13	37	-	-	-	-	-	-
P.R.	22	2	3	-	516	842	2	4	-	2	-	-
V.I.	-	U	-	-	47	94	U	U	U	U	U	-
Pac. Trust Terr.	-	-	-	-	17	146	16	-	-	1	-	-
Amer. Samoa	-	-	-	-	8	-	1	1	-	-	-	-

N: Not notifiable U: Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending March 22, 1986, and March 23, 1985 (12th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum. 1986	1986	Cum. 1986	1986	Cum. 1986	Cum. 1985	Cum. 1986	1986	Cum. 1986	1986	Cum. 1986	Cum. 1985	1986	Cum. 1986	Cum. 1985
UNITED STATES	158	132	842	2	36	337	757	65	618	26	455	355	21	114	80
NEW ENGLAND	9	-	9	-	-	4	56	2	11	-	28	16	-	-	5
Maine	-	-	-	-	-	-	11	-	-	-	2	2	-	-	-
N.H.	-	-	-	-	-	-	3	1	5	-	9	9	-	-	2
Vt.	1	-	-	-	-	-	8	-	-	-	1	2	-	-	-
Mass.	4	-	9	-	-	4	10	-	-	-	8	2	-	-	3
R.I.	1	-	-	-	-	-	6	-	4	-	1	1	-	-	-
Conn.	3	-	-	-	-	-	18	1	2	-	7	-	-	-	-
MID ATLANTIC	22	23	386	-	3	24	128	6	45	3	66	48	-	22	15
Upstate N.Y.	2	-	1	-	2	12	35	1	17	1	40	26	-	14	5
N.Y. City	7	23	51	-	1	10	33	4	5	-	5	7	-	5	7
N.J.	2	-	334	-	-	2	18	-	9	-	4	1	-	3	3
Pa.	11	-	-	-	-	-	42	1	14	2	17	14	-	-	-
E.N. CENTRAL	4	-	58	-	1	90	92	16	278	10	112	60	-	1	8
Ohio	1	-	-	-	-	11	43	3	43	7	59	13	-	-	-
Ind.	-	-	-	-	-	1	10	2	14	-	9	11	-	-	-
Ill.	2	-	21	-	-	4	21	9	138	2	11	10	-	-	2
Mich.	1	-	-	-	-	39	18	1	38	-	11	6	-	-	5
Wis.	-	-	37	-	1	35	-	1	45	1	22	20	-	1	1
W.N. CENTRAL	3	6	61	-	-	3	36	2	22	3	27	28	-	2	6
Minn.	1	-	-	-	-	1	9	-	1	3	15	10	-	-	-
Iowa	1	-	-	-	-	-	4	-	5	-	4	1	-	-	-
Mo.	1	-	-	-	-	2	17	1	7	-	3	7	-	1	-
N. Dak.	-	-	-	-	-	-	-	1	2	-	2	4	-	-	-
S. Dak.	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Nebr.	-	-	-	-	-	-	4	-	-	-	-	1	-	-	-
Kans.	-	6	61	-	-	-	2	-	6	-	3	5	-	1	6
S. ATLANTIC	21	62	155	-	2	12	162	4	55	5	90	87	-	6	10
Del.	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Md.	3	-	4	-	-	1	19	-	3	2	20	21	-	-	1
D.C.	-	-	-	-	-	1	2	-	-	-	-	-	-	-	-
Va.	6	-	-	-	-	7	32	-	6	1	9	1	-	-	-
W. Va.	-	-	-	-	-	-	2	2	22	-	2	-	-	-	-
N.C.	3	-	-	-	-	-	22	-	4	-	12	6	-	-	-
S.C.	-	62	140	-	-	-	22	1	5	-	2	-	-	-	2
Ga.	2	-	-	-	1	-	21	-	4	2	39	45	-	-	4
Fla.	7	-	11	-	1	3	41	1	11	-	6	14	-	6	3
E.S. CENTRAL	4	-	-	-	-	-	37	-	5	1	12	3	-	1	1
Ky.	2	-	-	-	-	-	6	-	2	-	1	1	-	1	1
Tenn.	-	-	-	-	-	-	16	-	1	-	2	1	-	-	-
Ala.	2	-	-	-	-	-	12	-	1	1	9	1	-	-	-
Miss.	-	-	-	-	-	-	3	-	1	-	-	-	-	-	-
W.S. CENTRAL	13	7	37	-	12	2	51	9	50	1	19	24	7	24	10
Ark.	-	-	21	-	-	-	5	-	3	-	-	7	-	-	1
La.	4	-	-	-	-	-	4	-	-	1	3	1	-	-	-
Okla.	1	2	2	-	-	-	9	N	N	-	16	16	-	-	-
Tex.	8	5	14	-	12	2	33	9	47	-	-	-	7	24	9
MOUNTAIN	5	1	35	-	5	146	34	21	81	2	60	18	-	-	1
Mont.	-	-	-	-	1	115	4	-	2	-	-	2	-	-	-
Idaho	1	-	-	-	-	-	1	-	2	-	13	-	-	-	-
Wyo.	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-
Colo.	1	-	-	-	2	-	7	-	4	2	14	8	-	-	-
N. Mex.	-	-	13	-	2	-	4	N	N	-	8	2	-	-	-
Ariz.	2	1	22	-	-	31	10	21	69	-	19	3	-	-	1
Utah	-	-	-	-	-	-	4	-	1	-	6	3	-	-	-
Nev.	1	-	-	-	-	-	2	-	3	-	-	-	-	-	-
PACIFIC	77	33	101	2	13	56	161	5	71	1	41	71	14	58	24
Wash.	5	4	22	-	7	1	21	-	4	1	18	9	-	-	-
Oreg.	8	-	-	-	2	-	13	N	N	-	2	15	-	-	1
Calif.	64	23	63	2 †	4	49	121	5	60	-	18	44	14	58	21
Alaska	-	-	-	-	-	-	5	-	2	-	1	1	-	-	-
Hawaii	-	6	16	-	-	6	1	-	5	-	2	2	-	-	2
Guam	1	-	1	-	-	10	-	-	1	-	-	-	1	2	1
P.R.	1	-	-	-	-	39	2	2	14	-	2	1	-	-	4
V.I.	-	U	-	U	-	9	-	U	5	U	-	-	U	-	-
Pac. Trust Terr.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

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

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending March 22, 1986, and March 23, 1985 (12th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1986	Cum. 1985	1986	Cum. 1986	Cum. 1985	Cum. 1986	Cum. 1986	Cum. 1986	Cum. 1986
UNITED STATES	5,480	5,585	7	4,285	4,178	16	48	11+3	931
NEW ENGLAND	120	127	-	124	143	-	2	1	-
Maine	8	3	-	14	13	-	-	-	-
N.H.	6	3	-	2	6	-	-	-	-
Vt.	4	-	-	6	-	-	-	-	-
Mass.	62	71	-	59	85	-	1	1	-
R.I.	6	4	-	5	16	-	-	-	-
Conn.	34	46	-	38	23	-	1	-	-
MID. ATLANTIC	811	720	-	840	828	-	5	-	112
Upstate N.Y.	40	45	-	133	107	-	1	-	14
N.Y. City	463	455	-	400	448	-	4	-	-
N.J.	163	158	-	150	63	-	-	-	-
Pa.	145	62	-	157	210	-	-	-	98
E.N. CENTRAL	146	274	-	580	514	-	4	-	12
Ohio	31	29	-	83	98	-	-	-	1
Ind.	26	17	-	67	63	-	-	-	3
Ill.	39	149	-	258	234	-	-	-	2
Mich.	35	67	-	139	94	-	3	-	2
Wis.	15	12	-	33	25	-	1	-	4
W.N. CENTRAL	60	73	3	111	113	6	3	-	116
Minn.	8	19	1	23	19	-	1	-	13
Iowa	4	11	-	11	17	1	-	-	29
Mo.	33	28	2	59	52	5	2	-	12
N. Dak.	2	-	-	3	2	-	-	-	36
S. Dak.	-	4	-	2	5	-	-	-	25
Nebr.	8	2	-	4	6	-	-	-	1
Kans.	5	9	-	9	12	-	-	-	-
S. ATLANTIC	1,403	1,418	1	841	841	3	5	3	264
Del.	10	12	-	8	9	-	-	-	-
Md.	98	113	-	53	75	1	-	-	156
D.C.	90	75	-	36	38	-	-	-	-
Va.	115	80	-	74	60	1	1	-	43
W. Va.	3	2	-	34	21	-	-	-	6
N.C.	137	167	-	130	98	-	2	2	-
S.C.	172	193	-	112	109	-	-	1	6
Ga.	-	-	-	98	132	1	-	-	32
Fla.	778	776	1	296	299	-	2	-	21
E.S. CENTRAL	380	498	-	394	367	3	-	4+2	37
Ky.	25	19	-	107	73	2	-	1	11
Tenn.	167	148	-	107	112	1	-	-	14
Ala.	144	178	-	133	135	-	-	1	12
Miss.	44	153	-	47	47	-	-	2 2	-
W.S. CENTRAL	1,278	1,407	1	523	415	3	1	3+1	89
Ark.	63	75	-	64	29	2	-	-	20
La.	206	245	-	119	73	-	-	-	3
Okla.	38	43	1	44	55	1	-	1 1	10
Tex.	971	1,044	-	296	258	-	1	2	56
MOUNTAIN	160	187	1	86	81	-	2	-	165
Mont.	3	1	-	5	13	-	-	-	64
Idaho	1	2	-	4	2	-	-	-	-
Wyo.	-	5	-	-	1	-	-	-	67
Colo.	50	46	-	1	3	-	-	-	-
N. Mex.	17	20	-	21	15	-	-	-	2
Ariz.	70	103	1	41	39	-	1	-	32
Utah	4	3	-	4	3	-	1	-	-
Nev.	15	7	-	10	5	-	-	-	-
PACIFIC	1,122	881	1	786	876	1	26	-	136
Wash.	16	32	-	49	37	-	2	-	-
Oreg.	26	27	-	31	27	-	-	-	-
Calif.	1,068	805	1	650	732	-	22	-	133
Alaska	-	-	-	12	37	1	-	-	3
Hawaii	12	17	-	44	43	-	2	-	-
Guam	1	2	-	-	9	-	-	-	-
P.R.	193	199	-	64	66	-	-	-	7
V.I.	-	-	U	-	1	-	-	-	-
Pac. Trust Terr.	4	13	-	5	16	-	-	-	-
Amer. Samoa	-	-	-	-	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending March 22, 1986 (12th Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	835	622	135	41	7	30	90
Boston, Mass.	204	140	31	19	3	11	34
Bridgeport, Conn.	47	31	13	1	1	1	1
Cambridge, Mass.	29	24	5	-	-	-	4
Fall River, Mass.	32	27	5	-	-	-	-
Hartford, Conn.	70	53	14	1	-	2	5
Lowell, Mass.	44	33	8	2	-	1	5
Lynn, Mass.	35	26	8	1	-	-	5
New Bedford, Mass.	48	43	3	1	1	-	2
New Haven, Conn.	59	38	15	3	-	3	2
Providence, R.I.	87	69	11	4	1	2	11
Somerville, Mass.	11	11	-	-	-	-	-
Springfield, Mass.	49	39	6	1	-	3	10
Waterbury, Conn.	50	38	9	2	-	1	6
Worcester, Mass.	70	50	7	6	1	6	5
MID ATLANTIC	3,100	1,219	299	570	472	540	170
Albany, N.Y.	59	39	6	7	4	3	-
Allentown, Pa.	23	16	5	2	-	-	-
Buffalo, N.Y.	139	103	22	5	2	7	16
Camden, N.J.	35	23	8	1	2	1	-
Elizabeth, N.J.	23	21	2	-	-	-	1
Erie, Pa.†	45	32	11	1	-	1	7
Jersey City, N.J.	42	31	6	4	-	1	-
N.Y. City, N.Y. §	1,708	241	23	488	445	511	80
Newark, N.J.	75	40	16	12	2	5	2
Paterson, N.J.	34	21	7	4	1	1	2
Philadelphia, Pa.	491	346	110	24	8	3	29
Pittsburgh, Pa.†	64	45	14	1	4	-	6
Reading, Pa.	36	25	9	2	-	-	7
Rochester, N.Y.	98	69	18	4	2	5	5
Schenectady, N.Y.	24	18	6	-	-	-	-
Scranton, Pa.†	29	22	6	1	-	-	5
Syracuse, N.Y.	82	64	14	2	1	1	4
Trenton, N.J.	40	23	10	5	1	1	1
Utica, N.Y.	18	17	1	-	-	-	4
Yonkers, N.Y.	35	23	5	7	-	-	1
E.N. CENTRAL	2,384	1,383	370	242	190	198	132
Akron, Ohio	88	68	12	2	3	3	4
Canton, Ohio	44	34	5	3	1	1	7
Chicago, Ill.§	553	127	4	140	138	144	16
Cincinnati, Ohio	143	105	20	5	5	8	17
Cleveland, Ohio	166	109	37	11	5	4	3
Columbus, Ohio	123	79	28	6	6	4	3
Dayton, Ohio	157	92	45	10	4	6	6
Detroit, Mich.	288	174	68	29	10	6	8
Evansville, Ind.	46	35	5	3	-	3	2
Fort Wayne, Ind.	34	27	5	1	-	1	5
Gary, Ind.	13	8	3	1	-	1	-
Grand Rapids, Mich.	51	40	7	1	2	1	9
Indianapolis, Ind.	157	98	38	11	6	4	9
Madison, Wis.	43	30	8	2	1	2	7
Milwaukee, Wis.	170	127	29	5	3	6	-
Peoria, Ill.	53	36	13	2	-	2	11
Rockford, Ill.	36	27	6	2	1	-	3
South Bend, Ind.	37	28	6	1	1	1	7
Toledo, Ohio	108	87	14	4	2	1	12
Youngstown, Ohio	74	52	17	3	2	-	3
W.N. CENTRAL	876	614	158	53	20	31	48
Des Moines, Iowa	91	67	15	5	4	-	8
Duluth, Minn.	45	36	3	5	-	1	4
Kansas City, Kans.	33	25	5	1	1	1	-
Kansas City, Mo.	126	90	25	5	2	4	7
Lincoln, Nebr.	52	38	13	-	-	1	3
Minneapolis, Minn.	79	55	8	9	2	5	7
Omaha, Nebr.	79	50	20	3	3	3	2
St. Louis, Mo.	200	140	30	15	5	10	5
St. Paul, Minn.	75	50	14	5	3	3	4
Wichita, Kans.	96	63	25	5	-	3	8

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
S. ATLANTIC	1,476	927	326	112	47	63	66
Atlanta, Ga.	162	93	35	15	7	12	5
Baltimore, Md.	250	154	55	20	7	14	5
Charlotte, N.C.	89	62	21	1	2	3	4
Jacksonville, Fla.	122	73	30	8	7	4	7
Miami, Fla.	106	68	19	14	1	4	2
Norfolk, Va.	67	41	16	2	4	4	2
Richmond, Va.	135	77	39	10	2	7	10
Savannah, Ga.	69	41	13	8	4	3	6
St. Petersburg, Fla.	142	124	15	1	-	2	11
Tampa, Fla.	81	54	16	4	4	2	3
Washington, D.C.	232	127	60	28	9	8	11
Wilmington, Del.	21	13	7	1	-	-	-
E.S. CENTRAL	871	567	204	55	19	26	43
Birmingham, Ala.	139	84	36	9	5	5	4
Chattanooga, Tenn.	56	41	13	1	-	1	1
Knoxville, Tenn.	77	51	18	6	1	1	4
Louisville, Ky.	97	67	19	5	-	6	5
Memphis, Tenn.	229	152	47	17	6	7	13
Mobile, Ala.	85	52	23	6	3	1	7
Montgomery, Ala.	52	37	9	2	3	1	2
Nashville, Tenn.	136	83	39	9	1	4	7
W.S. CENTRAL	1,374	752	219	170	121	112	67
Austin, Tex.	59	42	8	4	5	-	3
Baton Rouge, La.	74	51	14	3	3	3	3
Corpus Christi, Tex.	43	32	8	1	1	1	1
Dallas, Tex.	223	133	46	27	6	11	11
El Paso, Tex.	49	33	12	1	3	-	3
Fort Worth, Tex.	129	80	26	13	4	6	9
Houston, Tex. §	318	74	1	80	82	81	5
Little Rock, Ark.	68	44	16	4	2	2	3
New Orleans, La.	86	47	27	10	-	2	1
San Antonio, Tex.	176	111	35	19	7	4	14
Shreveport, La.	39	24	7	2	4	2	3
Tulsa, Okla.	110	81	19	6	4	-	11
MOUNTAIN	697	438	156	61	22	20	40
Albuquerque, N.Mex.	87	47	23	12	4	1	3
Colo. Springs, Colo.	46	29	9	6	1	1	6
Denver, Colo.	120	78	22	8	7	5	9
Las Vegas, Nev.	90	56	25	8	1	-	6
Ogden, Utah	25	18	2	2	1	2	3
Phoenix, Ariz.	139	80	40	8	4	7	2
Pueblo, Colo.	27	15	6	5	1	-	4
Salt Lake City, Utah	55	35	9	7	1	3	1
Tucson, Ariz.	108	80	20	5	2	1	6
PACIFIC	2,036	1,362	375	167	76	46	123
Berkeley, Calif.	19	8	9	2	-	-	-
Fresno, Calif.	66	39	14	9	1	3	7
Glendale, Calif.	35	30	2	2	-	-	1
Honolulu, Hawaii	85	53	19	8	4	1	5
Long Beach, Calif.	96	63	17	6	7	3	16
Los Angeles, Calif.	675	423	139	60	38	7	31
Oakland, Calif.	58	38	9	5	1	5	1
Pasadena, Calif.	30	23	3	4	-	-	1
Portland, Oreg.	143	107	20	8	5	3	6
Sacramento, Calif.	134	96	25	7	2	4	12
San Diego, Calif.	118	76	21	16	2	3	13
San Francisco, Calif.	152	106	25	10	2	8	5
San Jose, Calif.	153	101	24	16	9	3	12
Seattle, Wash.	157	118	24	10	3	2	5
Spokane, Wash.	70	50	14	3	-	3	7
Tacoma, Wash.	45	31	10	1	2	1	1
TOTAL	13,649††	7,884	2,242	1,471	974	1,066	779

* 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.

§ Data not available. Figures are estimates based on average of past 4 weeks.

YPLL — Continued

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Epidemiologic Notes and Reports

Acquired Immunodeficiency Syndrome in Correctional Facilities: A Report of the National Institute of Justice and the American Correctional Association

Recently, the National Institute of Justice (NIJ) of the U.S. Department of Justice, and the American Correctional Association (ACA) jointly sponsored the development of a report on the incidence of acquired immunodeficiency syndrome (AIDS) in correctional facilities, the issues and options facing correctional administrators in formulating policy responses to the problem, and the rationales advanced for various policy choices (*1*). The report was based, in part, on a questionnaire mailed to all 50 state correctional departments, the Federal Bureau of Prisons, and 37 large city and county jail systems. Following are key findings of the report.

1. Responses were received from mid-November 1985 through early January 1986 from all 50 of the state correctional departments, the Federal Bureau of Prisons, and 33 of the 37 large city and county jail systems that had been asked to participate. A cumulative total of 766 AIDS cases meeting the CDC surveillance definition were recognized among inmates in these responding correctional systems; 24 state prison systems and the Federal Bureau of Prisons reported 455 cases, and 20 large city and county jail systems reported 311 cases.* Of the 766 AIDS patients, 322 (42%) died while in the custody of the correctional systems; 265 (35%) were released from custody; and 179 (23%) remained in custody. The remaining 26 (52%) state systems and 13 (39%) local systems responding to the questionnaire had no reported cases. Among state and federal systems, 80% of the systems accounted for only 5% of the total AIDS cases, while 4% of the systems contributed 72% of the cases. Among responding city and county systems, 69% accounted for only 5% of the total AIDS cases, while 6% accounted for 77% of the cases (Table 4).
2. Respondents reported eight AIDS cases among current or former correctional staff. Seven of the eight had known risk factors for AIDS; investigation of the eighth case is not complete. None of these staff members reported involvement in an incident with an inmate in which transmission of human T-lymphotropic virus type III/lymphadenopathy associated virus (HTLV-III/LAV), the AIDS virus, might have occurred.

*Because inmates may move from local to state facilities, it is possible that a small number of inmate cases have been reported more than once.

AIDS – Continued

3. The geographic distribution of total AIDS cases among inmates is highly skewed. Over 70% of total AIDS cases in state prison systems and city and county jail systems has occurred in the mid-Atlantic region, with all of the other regions of the United States contributing much smaller percentages (Table 5).
4. In jurisdictions with large numbers of AIDS cases among inmates, the majority appears to have occurred among persons with histories of intravenous (IV) drug abuse. For example, 95% of cases in the New York state correctional system had such a history (*2*).
5. Responding correctional systems agreed on the importance of providing education on AIDS to staff and inmates. Ninety-three percent currently provide or are developing AIDS training or educational materials for staff; 83% currently provide or are developing such programs or materials for inmates. Responding jurisdictions in which educational

TABLE 4. Distribution of acquired immunodeficiency syndrome (AIDS) cases among inmates, by type of correctional system — United States

AIDS cases (range)	State/federal systems				City/county systems			
	Systems	(%)	Cases	(%)	Systems	(%)	Cases	(%)
0	26	(51)	0	(0)	13	(39)	0	(0)
1-3	15	(29)	24	(5)	10	(30)	16	(5)
4-10	5	(10)	30	(7)	7	(21)	43	(14)
11-25	2	(4)	42	(9)	1	(3)	12	(4)
26-50	1	(2)	33	(7)	1	(3)	40	(13)
51-100	1	(2)	95	(21)	0	(0)	0	(0)
> 100	1	(2)	231	(51)	1	(3)	200	(64)
Total	**51**	**(100)**	**455**	**(100)**	**33**	**(100)**	**311**	**(100)**

TABLE 5. Regional distribution of acquired immunodeficiency syndrome (AIDS) cases in correctional facilities, by type of system* — United States

Region	State systems		City/county systems	
	Cases	(%)	Cases	(%)
New England†	16	(3.7)	0	(0.0)
Mid-Atlantic§	327	(75.5)	222	(71.4)
East North Central¶	6	(1.4)	8	(2.6)
West North Central**	0	(0.0)	1	(0.3)
South Atlantic††	49	(11.3)	24	(7.7)
East South Central§§	1	(0.2)	0	(0.0)
West South Central¶¶	12	(2.8)	3	(1.0)
Mountain***	2	(0.5)	1	(0.3)
Pacific†††	20	(4.6)	52	(16.7)
Total	**433**	**(100.0)**	**311**	**(100.0)**

*Federal Bureau of Prisons excluded.

†Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut.

§New York, New Jersey, Pennsylvania.

¶Ohio, Indiana, Illinois, Michigan, Wisconsin.

**Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas.

††Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida.

§§Kentucky, Tennessee, Alabama, Mississippi.

¶¶Arkansas, Louisiana, Oklahoma, Texas.

***Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada.

†††Washington, Oregon, California, Alaska, Hawaii.

AIDS — Continued

programs had been in effect long enough to offer assessments of their impact reported that such programs have been effective in reducing the fears of staff (85% of jurisdictions) and inmates (79%). Timely and effective education efforts have prevented threatened job actions by correctional staff unions and generally forestalled hysteria over AIDS within the institutions of several correctional systems.

6. Six state prison systems and seven of the responding city or county jail systems are now screening or are planning to screen all inmates, all new inmates, or all inmates belonging to at least one high-risk group for antibody to HTLV-III/LAV (Table 6). Most of the other responding jurisdictions use the test on a more limited basis. This includes testing in support of diagnoses of AIDS or AIDS-related complex (ARC); testing in response to incidents in which HTLV-III/LAV might have been transmitted; testing on inmate request; and testing for epidemiologic studies of the prevalence of seropositivity and/or seroconversion within correctional facilities (Table 6).
7. The majority of responding jurisdictions (67% of state/federal systems and 70% of the city/county systems) either has in place or has in the developmental stage policies and procedures for the correctional management of inmates with AIDS, ARC, and asymptomatic HTLV-III/LAV infection. While housing policies for these inmate categories vary considerably across jurisdictions (Table 7), the four systems with almost 75% of the AIDS cases (New York state, New York City, New Jersey, and Florida) follow the same combination of policies: (1) medical segregation of all inmates with confirmed AIDS, but no segregation of inmates with ARC or asymptomatic HTLV-III/LAV infection; (2) clinical evaluation and ongoing monitoring (without testing for HTLV-III/LAV antibody) of inmates in risk groups; and (3) intensive and continuous education programs on AIDS for both staff and inmates. None of these four systems screen inmates for antibody to HTLV-III/LAV.

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Editorial Note: The NIJ/ACA report illustrates both the scope of the AIDS problem in correctional facilities and the diversity of the responses such facilities are taking.

TABLE 6. Policies of correctional systems for testing inmates for human T-lymphotropic virus type III/lymphadenopathy-associated virus antibody* — United States

Policy	State/federal systems Systems	(%)	City/county systems Systems	(%)
Screening†				
All or all new inmates	4	(8)	0	(0)
Members of at least one risk group	2	(4)	7	(21)
Testing *only* for diagnoses, incident response, or epidemiological studies	39	(76)	20	(61)
Testing only on inmate request	1	(2)	1	(3)
No testing	5	(10)	5	(15)
Total	**51**	**(100)**	**33**	**(100)**

*Includes actual and planned policies.

†The two screening policies are hierarchical; systems with both policies are placed in the policy category listed first.

AIDS – Continued

The apparent lack of reported AIDS cases among correctional staff as a result of contact with inmates is consistent with previous findings that the risk of HTLV-III/LAV transmission in occupational settings is extremely low and does not appear to result from casual contact. Correctional staff should follow published guidelines for preventing transmission of HTLV-III/LAV infection in the workplace (*3*).

Since IV drug abuse is an important predisposing factor to both incarceration and HTLV-III/LAV infection, it is not surprising to find AIDS cases in inmate populations. It is also not surprising that a high proportion of cases among inmates has been reported from correctional facilities in New York and New Jersey, since those two states have reported 62% of all U.S. AIDS cases associated with histories of IV drug abuse. In addition, the proportion of IV drug abusers with HTLV-III/LAV antibody is reported to be higher in New York City and northern New Jersey than in other parts of the country (*4*).

Incarceration is not, in itself, associated with a risk of HTLV-III/LAV transmission. The risk of transmission in inmate populations depends on the prevalence of infection among persons who have been incarcerated and the frequency with which such persons might participate in IV drug abuse, with sharing of needles, or in sexual contact with other inmates. However, data to quantify this risk have been quite limited.

Thus far, the only study of HTLV-III/LAV transmission among inmates was conducted by the Maryland Division of Corrections (*5*). In that study, conducted from April through July 1985, serologic testing for HTLV-III/LAV antibody was offered at one facility to all 360 inmates who had been incarcerated 7 years or longer. Of the 137 inmates who participated, two (1%), both of whom had been incarcerated for 9 years, were seropositive by both

TABLE 7. Housing policies of correctional systems for inmates with acquired immunodeficiency syndrome (AIDS), AIDS-related complex (ARC), or asymptomatic inmates with antibody to human T-lymphotropic virus type III/lymphadenopathy-associated virus* — United States

Policy	State/federal systems		City/county systems	
	Systems	(%)	Systems	(%)
Segregate AIDS cases; maintain ARC cases and asymptomatic seropositives in general prison population†	3	(6)	3	(9)
Segregate AIDS and ARC cases; maintain asymptomatic seropositives in general prison population	10	(20)	3	(9)
Segregate all infected inmates	8	(16)	13	(39)
No segregation of infected inmates	2	(4)	0	(0)
No policy	8	(16)	1	(3)
Combinations (involving case-by-case determination)	16	(31)	10	(30)
Other policy combinations	4	(8)	3	(9)
Total	**51**	**(100)**	**33**	**(100)**

*Includes actual and planned policies.

†For the purposes of this categorization, segregation means that the basic policy is to hospitalize inmates (either within or outside the correctional system) or to administratively place inmates in separate housing units or cells.

AIDS – Continued

enzyme immunoassay and Western blot methods. Because testing was done in a way to preserve anonymity, additional information about the seropositive inmates was not available. The possible effects of selection bias in this study are also unknown.

Additional data are available from correctional facilities on the incidence of infection with hepatitis B virus (HBV), which has routes of transmission generally similar to those of HTLV-III/LAV. In two recent studies of inmates incarcerated for 1 year, annual seroconversion rates to HBV ranged from 0.8% to 1.3% (*6, 7*).

It is clear from the NIJ/ACA report that many correctional systems have given high priority to AIDS education programs and that such programs are the basis for AIDS-prevention activities in these systems. At present, most correctional systems are performing serologic tests for HTLV-III/LAV antibody on a limited basis. More extensive use of the tests, such as testing all inmates, all new inmates, or all inmates known to belong to risk groups, would undoubtedly identify additional seropositive persons, who might then be candidates for additional educational programs or other measures to decrease the risk that they might infect others. Such testing could, however, pose difficulties for a number of correctional facilities. In some jurisdictions, legal and policy provisions may currently prohibit testing. Many correctional systems assert that if testing is done, but the results cannot be kept confidential, seropositive inmates could face a range of problems, including the possibility of physical harm.

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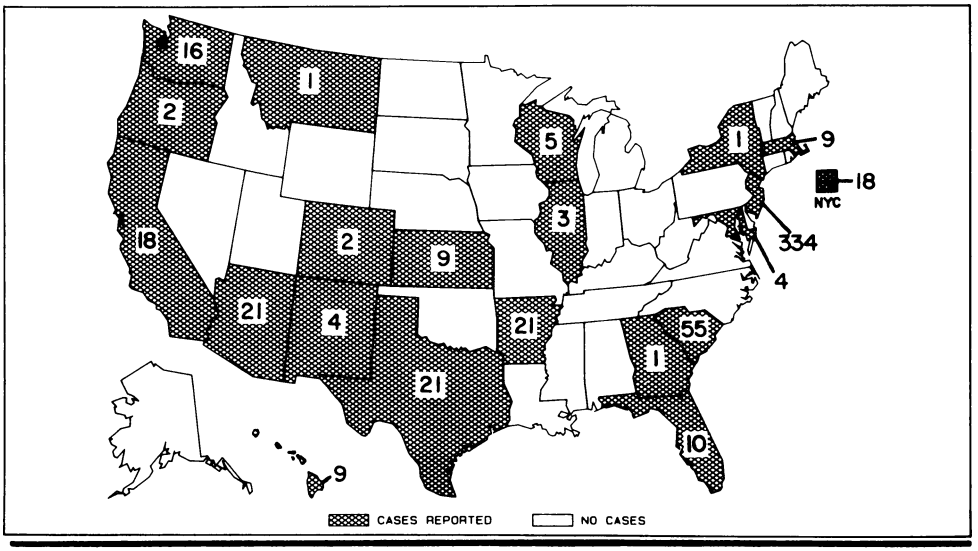
FIGURE I. Reported measles cases — United States, weeks 8-11, 1986



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The data in this report 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.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333.

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