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Summary of Reportable Diseases, Virginia, 1995

The Office of Epidemiology, Virginia Department of Health (VDH) compiles data on the statewide occurrence of notifiable diseases in Virginia. This issue of the Virginia Epidemiology Bulletin (VEB) contains summary data on selected conditions reported in Virginia during calendar year 1995.

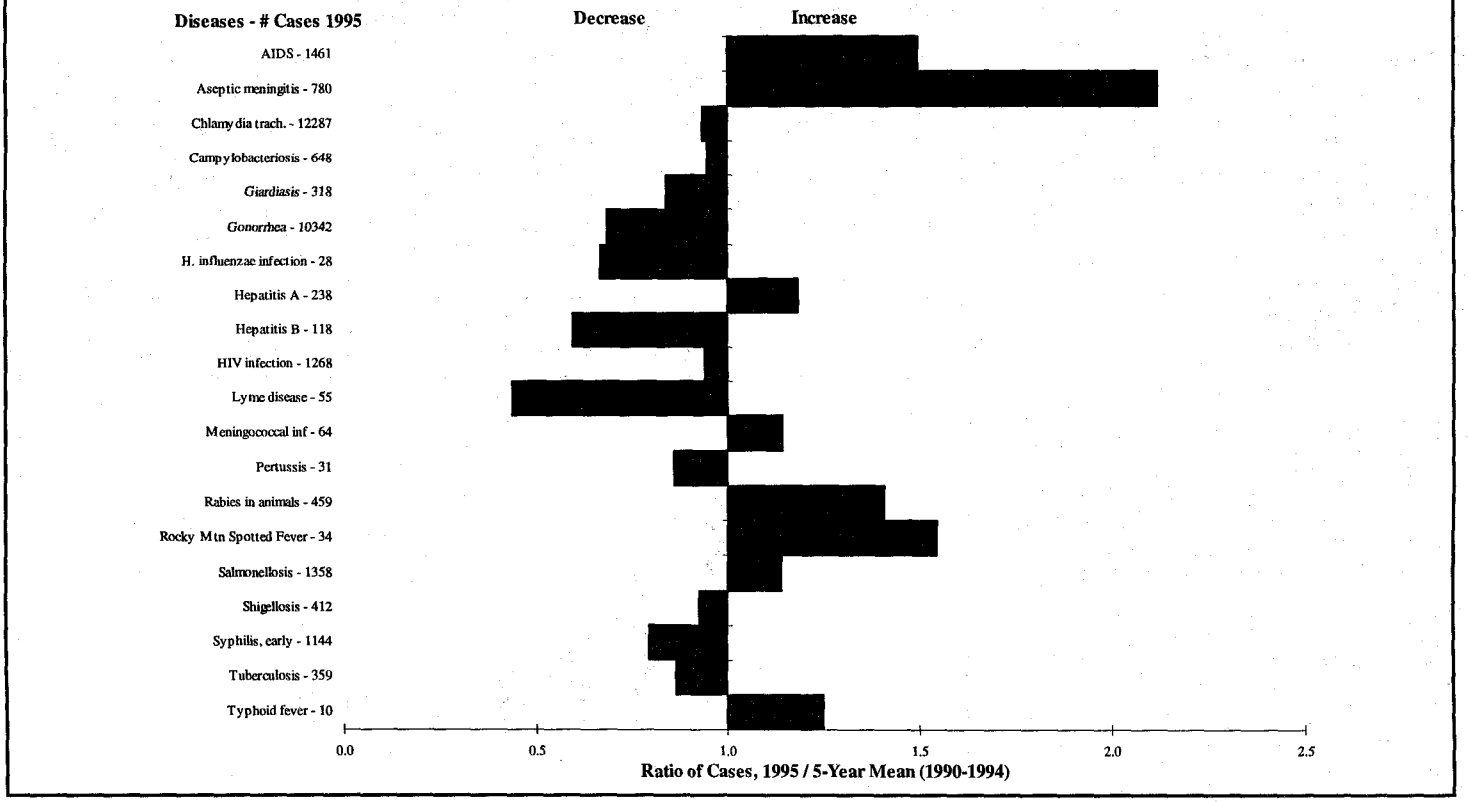
Data Sources

Data in this summary are derived from reports received by the health department from physicians, directors of medical care facilities and directors of laboratories who report cases of notifiable conditions listed in the *Regulations for Disease Reporting and Control.* The current list of reportable conditions can be found in Table 2 on page 5. Provisional data are tabulated monthly and published in each issue of the VEB. These data are compiled in final form in the Virginia Department of Health's annual surveillance report entitled *Reportable Disease Surveillance in Virginia* (See page 4 for an announcement regarding availability of the 1994 annual report). Because of the complexity of the annual report, production and distribution are delayed. In order to provide a more timely summary, this annual issue of the VEB is devoted to the presentation of a brief description of the 1995 surveillance data.

Trend Data

Figure 1 shows the change (increase or decrease) in the number of reports received in 1995 for a selected group of diseases when compared to the average number of cases reported during the previous five years (5-year mean). The data are shown as a ratio of the number of cases reported in 1995 to the 5-year mean.

Figure 1. Change in Disease Incidence in 1995 When Compared to Five Year Mean



1995 HIGHLIGHTS FOR SELECTED DISEASES

AIDS/HIV

In 1995, the number of AIDS cases reported increased by 22% and reports of HIV infection increased 13% over 1994, although HIV reports were still fewer than the 5-year mean. The increase in reported cases in Virginia was due in part to enhanced efforts to encourage reporting. Since 1990, studies have been conducted by health department staff to determine completeness of reporting and to facilitate reporting by health care providers. During 1995, the number and scope of studies increased throughout the state. Without these studies, many of the AIDS and HIV infections reported in 1995 may have remained unidentified. Figure 2 shows the number and vital status of reported cases of AIDS since 1982.

Aseptic Meningitis

The 780 cases reported statewide were more than two times the 5-year mean of 368 cases. A community-based outbreak of this relatively common but rarely serious clinical disease occurred in the eastern region of the state during the summer of 1995. Sixty-one percent (472 cases) of the statewide total number of cases were reported from this region. Echovirus types 9 and 30 were isolated from a number of specimens submitted for laboratory analysis.

Campylobacteriosis

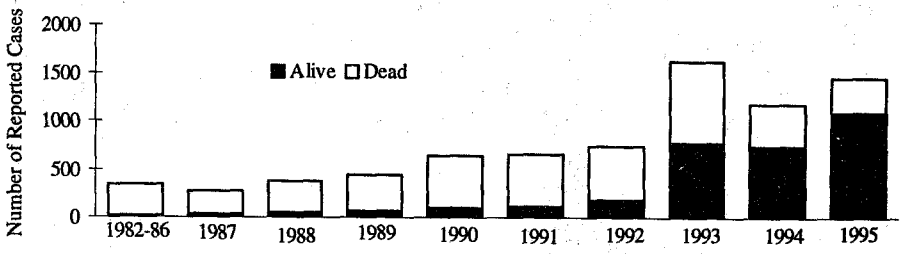
A 21% decrease in the number of *Campylobacter* infections reported in 1995 follows an unexplained record high of reported cases in 1994 (824). The 648 reported cases in 1995 were only 37 cases fewer than the 5-year mean.

Haemophilus influenzae Infection, Invasive

The annual number of reported cases of invasive infections due to all types of *Haemophilus influenzae* increased slightly in Virginia in 1995. However, the 28 cases reported in 1995 were still considerably fewer than the 5-year mean of 42 cases.

An increase in the use of vaccines to protect infants and children from *H.influenzae* type b (Hib) infections has contributed to the declining trend in this disease in children under 5 years of age (Fig. 3). As seen in Figure 3, no clear trend is seen for the 5 years and older group. Between 1989 and 1995, the average age of this group ranged from 34 to 58 years of age.

Figure 2. Reported Cases of AIDS in Virginia by Year of Report and Vital Status



Hepatitis A

The annual number of reported cases of hepatitis A increased for the second consecutive year and was 18% higher than the 5-year mean. The number of reported cases increased in four of the five health planning regions. The largest increase, however, occurred in the central region (48 cases in 1995 compared to 18 cases in 1994). A community-wide outbreak among young adults in the Richmond metropolitan area contributed to the increase in 1995.

Measles

No cases of measles were reported among Virginia residents in 1995. This is the first year since reporting of measles began in Virginia (1915) that no cases were identified. Also in 1995, the United States recorded the fewest cases of measles since national surveillance began in 1912.

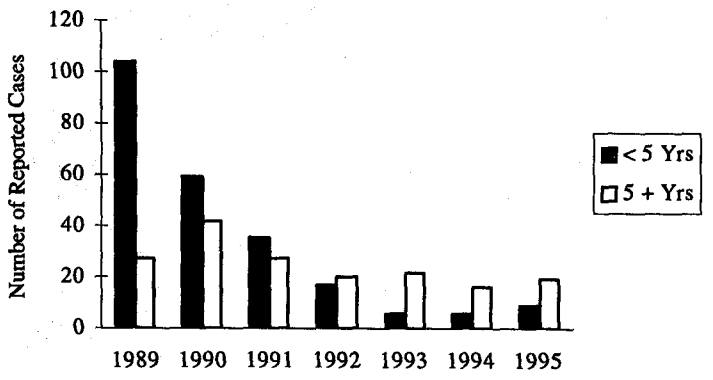
Meningococcal Infection

The number of reported meningococcal infections decreased from the 69 cases (5 deaths) reported in 1994 to 64 (5 deaths) in 1995 but was slightly higher than the 5-year mean (56 cases). Serogroup was reported for 44 (69%) of the cases. Nineteen were group C, 13 group Y, 11 group B, and one group Z. Although the number of reported cases of this disease was less in 1995 than in 1994, the occurrence of three epidemiologically linked cases of group C disease among students drew much attention. Two cases occurred in student athletes who had onsets within two days of each other. Both students had competed in the same track meet but attended different schools. A third student who attended the same school as one of the athletes was diagnosed with meningococcal disease within 30 days of the first two cases. As a result of the latter case, a recommendation was made to offer vaccine to students attending school with the third case. Because vaccine is only effective for disease caused by groups A, C, W135, and Y, it is important for all *N. meningitidis* cultures to be forwarded to the State lab for identification of serogroup.

Pertussis

In 1995, 31 confirmed cases of pertussis were reported, a 16% decrease from the 37 cases reported in 1994. Between 1993 and 1995, the number of reported pertussis cases decreased 59%. The decrease in reported cases during that time period coincided with the national trend.

Figure 3. Invasive *H. influenzae* Infections: Trend by Age, Virginia, 1989-1995



Rabies in Animals

The number of laboratory confirmed rabid animals increased from 428 in 1994 to 459 in 1995. The 459 cases reported in 1995 are the highest number of cases reported in Virginia in the last ten years and are 137 cases above the 5-year mean of 327 cases. The annual number of laboratory confirmed rabid animals more than doubled in 1995 compared to 1990. Figure 4 shows the areas of the state with increases in the number of reports of rabid animals since 1990. Major contributors to Virginia rabies cases in 1995 included raccoons (271), skunks (114), cats (27) and foxes (21).

Figure 4. Increase in Reports of Rabid Animals 1995 Compared to 1990, by Locality

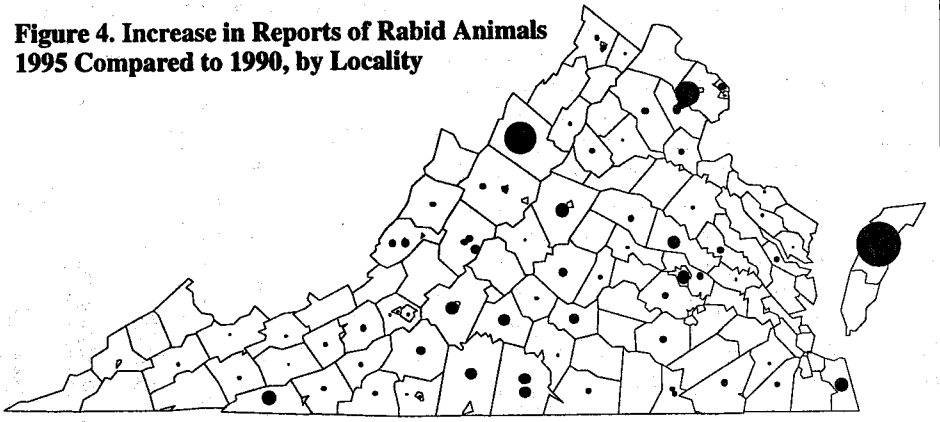


Table 1. Number of Reported Cases and Rate /100,000 Population for Selected Diseases by Health Planning Region, 1995

Disease	Total		Northwest Region		Northern Region		Southwest Region		Central Region		Eastern Region	
1995 Population Data	6,551,576		900,721		1,609,829		1,249,188		1,114,328		1,677,510	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
AIDS	1461	22.30	76	8.44	365	22.67	151	12.09	315	28.27	554	33.03
Amebiasis	16	0.24	2	0.22	7	0.43	1	0.08	2	0.18	4	0.24
Aseptic meningitis	780	11.91	86	9.55	128	7.95	44	3.52	50	4.49	472	28.14
Bacterial meningitis	130	1.98	29	3.22	24	1.49	22	1.76	16	1.44	39	2.32
Campylobacteriosis	648	9.89	158	17.54	103	6.40	134	10.73	156	14.00	97	5.78
Chickenpox	2667	40.71	148	16.43	535	33.23	242	19.37	106	9.51	1636	97.53
Chlamydia trachomatis inf.	12287	187.54	1653	183.52	1726	107.22	1915	153.30	3455	310.05	3538	210.91
Encephalitis, primary	40	0.61	9	1.00	4	0.25	6	0.48	4	0.36	17	1.01
Giardiasis	318	4.85	31	3.44	116	7.21	81	6.48	33	2.96	57	3.40
Gonorrhea	10342	157.86	620	68.83	931	57.83	1261	100.95	3079	276.31	4451	265.33
H. influenzae infection	28	0.43	8	0.89	6	0.37	6	0.48	3	0.27	5	0.30
Hepatitis A	238	3.63	21	2.33	86	5.34	47	3.76	46	4.13	38	2.27
Hepatitis B	118	1.80	14	1.55	35	2.17	26	2.08	15	1.35	28	1.67
Hepatitis Non-A Non-B	21	0.32	2	0.22	4	0.25	4	0.32	4	0.36	7	0.42
Histoplasmosis	4	0.06	1	0.11	0	0.00	1	0.08	1	0.09	1	0.06
HIV infection	1268	19.35	50	5.55	216	13.42	97	7.77	408	36.61	497	29.63
Influenza	1484	22.65	158	17.54	90	5.59	990	79.25	11	0.99	235	14.01
Kawasaki syndrome	32	0.49	2	0.22	14	0.87	6	0.48	0	0.00	10	0.60
Legionellosis	28	0.43	10	1.11	6	0.37	6	0.48	2	0.18	4	0.24
Lyme disease	55	0.84	9	1.00	13	0.81	9	0.72	11	0.99	13	0.77
Malaria	55	0.84	1	0.11	48	2.98	0	0.00	3	0.27	3	0.18
Measles	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Meningococcal infection	64	0.98	6	0.67	14	0.87	11	0.88	15	1.35	18	1.07
Mumps	28	0.43	0	0.00	2	0.12	6	0.48	8	0.72	12	0.72
Pertussis	31	0.47	1	0.11	13	0.81	1	0.08	4	0.36	12	0.72
Rabies in animals	459	-	134	--	61	--	85	--	95	--	84	--
Rocky Mtn spotted fever	34	0.52	12	1.33	3	0.19	11	0.88	4	0.36	4	0.24
Salmonellosis	1358	20.73	154	17.10	401	24.91	180	14.41	309	27.73	314	18.72
Shigellosis	412	6.29	30	3.33	123	7.64	22	1.76	31	2.78	206	12.28
Syphilis, early	1144	17.46	11	1.22	32	1.99	80	6.40	187	16.78	834	49.72
Tuberculosis	359	5.48	24	2.66	150	9.32	30	2.40	53	4.76	102	6.08
Typhoid fever	10	0.15	1	0.11	8	0.50	0	0.00	1	0.09	0	0.00

Salmonellosis

In Virginia, the number of reported cases of *Salmonella* infection increased to 1,358 in 1995 from 1,135 cases in 1994 and was also an increase over the 5-year mean. Nationally, an unusual number of *Salmonella* infections due to the serotypes *S. stanley* and *S. newport* were reported in 1995. Consumption of alfalfa sprouts has been epidemiologically implicated as a source for these infections. An unusual number of cases caused by these two serotypes was also recognized in Virginia in 1995. Although no common food source has been identified in Virginia for the *S. newport* infections, the investigation of a recent outbreak in the Shenandoah Valley epidemiologically linked alfalfa sprouts to *S. stanley* infections.

An increase in *Salmonella* infections with serotypes associated with exposure to reptiles was also observed in 1995. The popularity of reptiles as pets and their ability to transmit *Salmonella* has placed many persons (especially children) at increased risk for disease. (See *VEB*, June 1995).

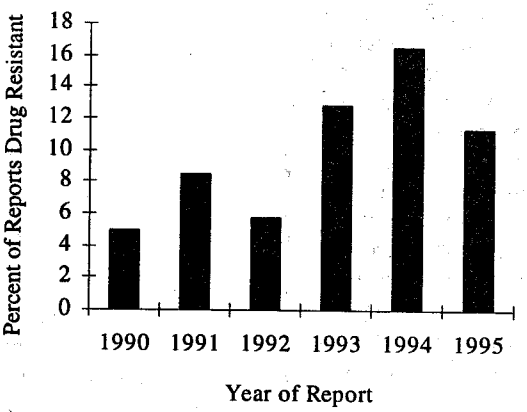
Shigellosis

The 412 reported cases of shigellosis in 1995 were a 37% decrease from the 656 cases reported in 1994 and a 47% decrease from the 776 cases reported in 1993. No community-wide outbreaks of shigellosis were reported in 1995, which may account for the decrease in reports.

Sexually Transmitted Diseases

The number of reported cases of sexually transmitted diseases decreased in 1995 compared to 1994 and the 5-year mean. *Chlamydia trachomatis* infections were down by 5%, gonorrhea infections by 23% and early syphilis by 19%. However, for the fourth consecutive year, more than 50% of the reported early syphilis cases were female (Fig. 5). This high proportion of early syphilis in females has the potential for increased congenital syphilis cases.

Figure 6. Increase in Reports of Drug-Resistant *Mycobacterium tuberculosis* (Resistance to At Least One First-Line Drug), Virginia, 1990-1995

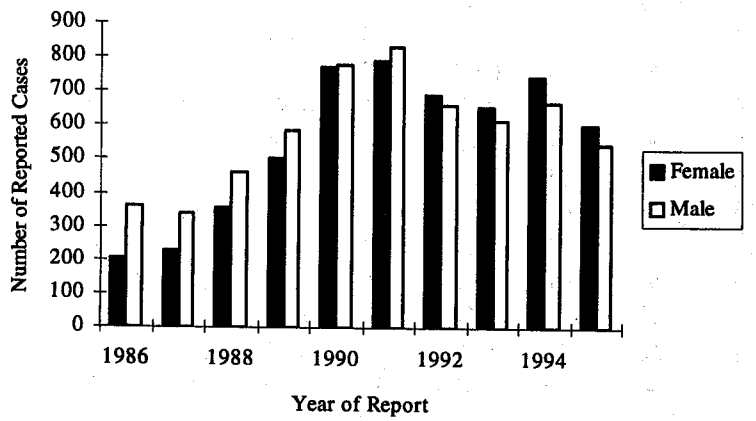


Tuberculosis

Virginia reported 359 cases of tuberculosis (TB) in 1995. This represented a 3.5% decrease from the 372 cases reported in 1994. Eighty-eight percent of the cases were culture confirmed and pulmonary disease accounted for 80.2% of all 1995 reports. Drug sensitivity studies were done on 308 (97.2%) of the 317 culture-confirmed cases and of those tested, 35 (11%) had resistance to at least one first-line anti-TB drug (Fig. 6). This was a decrease from 48 (17%) in 1994. Four of these cases had disease resistant to both isoniazid and rifampin (MDR-TB), down from 10 MDR-TB cases reported in 1994. Cases in foreign-born persons accounted for 46.2% of all Virginia's TB reports in 1995 compared to 35.8% in 1994. Of the 171 TB cases for whom the results of HIV testing were known, 21 or 12.3%, were seropositive. This percentage was down from 19% in 1994, but remains a serious concern.

Virginia's TB incidence has declined for the past two consecutive years, but MDR-TB, TB/HIV coinfection, cultural diversity, substance abuse and homelessness persist and present significant challenges to effective case management and continuous treatment. For this reason, the use of cost effective interventions such as

Figure 5. Early Syphilis Ten Year Trend by Sex, Virginia, 1986-1995



Surveillance Report Available

The Virginia Department of Health's annual surveillance report, entitled *Reportable Disease Surveillance in Virginia, 1994,* is available. This document summarizes morbidity information reported in Virginia during calendar year 1994. In it you will find statistics on reportable diseases by year, region, age, race, sex, and time of onset. Information is presented in the form of narratives, graphs, tables, and maps. If you are interested in receiving a copy of this report, please call the Office of Epidemiology at (804)786-6261. This publication is distributed free of charge.

directly observed therapy (DOT) increased for the third consecutive year. In 1995, 50.6% of all patients with TB disease in Virginia were placed on DOT to ensure the continuity of therapy.

EPIDEMIOLOGIC NOTES

The data provided here represent a portion of disease surveillance statistics for 1995 and include cases reported during the 1995 calendar year. These data may differ from the provisional data published in 1995 issues of the VEB. Incidence rates were calculated using 1995 population estimates.

Submitted by: Leslie M. Branch and Mary Jean Linn, Surveillance and Investigation, Office of Epidemiology.

Survey for Antimicrobial-Resistant *Salmonella typhi*

In the past several years, there have been numerous reports of multidrug-resistant *Salmonella typhi* infections around the world. Unfortunately, no reliable national surveillance data are available to determine how frequently drug resistant typhoid fever occurs in the US.

The Virginia Department of Health is cooperating with the Centers for Disease Control in conducting a survey to determine the incidence of antimicrobial-resistant *S. typhi* isolates in the United States during a one year period.

We are requesting that directors of all laboratories, not just hospital laboratories as required, send *S. typhi* isolates identified from June 1, 1996, through May 31, 1997, to the state laboratory (Division of Consolidated Laboratory Services, DCLS). Isolates should be sent on a nonselective, non-carbohydrate-containing medium such as heart infusion agar. The accuracy of the survey depends upon the timely receipt of as many isolates as possible.

Please contact Judy Carroll at DCLS, (804)692-0065, for further information. Your asistance in this survey is important and appreciated.

Table 2. Reportable Diseases in Virginia

Acquired immunodeficiency syndrome
Amebiasis
ANTHRAX *
Arboviral infection
Aseptic meningitis
Bacterial meningitis (specify etiology)
BOTULISM
Brucellosis
Campylobacter infection* (excluding *C. pylori*)
Chancroid
Chickenpox
Chlamydia trachomatis infection *
Congenital rubella syndrome
DIPHTHERIA *
Encephalitis
primary (specify etiology)
post-infectious
FOODBORNE OUTBREAK
Giardiasis
Gonorrhea *
Granuloma inguinale
HAEMOPHILUS INFLUENZAE INFECTION, INVASIVE *
HEPATITIS A *
Hepatitis B
Hepatitis Non-A Non-B
Hepatitis Unspecified
Histoplasmosis
Human immunodeficiency virus (HIV) infection *
Influenza * ¶
Kawasaki syndrome
Lead - elevated levels in children *~
Legionellosis *
Leprosy
Leptospirosis
Listeriosis *
Lyme disease
Lymphogranuloma venereum
Malaria *
MEASLES (RUBEOLA)
MENINGOCOCCAL INFECTION *
Mumps
Nosocomial outbreak
Occupational illness
Ophthalmia neonatorum
Pertussis (Whooping cough) *
Phenylketonuria (PKU)
PLAGUE *
POLIOMYELITIS *
PSITTACOSIS
Q fever
Rabies in animals *
RABIES IN MAN
Rabies treatment, post-exposure
Reye syndrome
Rocky Mountain spotted fever
Rubella (German measles)
Salmonellosis *
Shigellosis *
SMALLPOX
Syphilis, all stages* PRIMARY AND SECONDARY
Tetanus
Toxic shock syndrome
Toxic substance related illness
Trichinosis *
TUBERCULOSIS (Mycobacteria *)
Tularemia
Typhoid fever
Typhus, flea-borne
Vibrio infection, including CHOLERA*
WATERBORNE OUTBREAK
YELLOW FEVER

UPPER CASE indicates conditions that must be reported by physicians and directors of medical care facilities by rapid reporting to the local health director via telecommunication. Report all other diseases within seven days.

** These are the only conditions reportable by directors of laboratories. These and all other conditions are reportable by physicians and directors of medical care facilities as well.*

¶ Physicians and directors of medical care facilities should report influenza by number of cases only (and type of influenza, if available).

~ A blood lead level of 15 ug/dL or higher in children age 0-15.

Cases of Selected Notifiable Diseases Reported in Virginia.*

Disease	Total Cases Reported, April 1996						Total Cases Reported Statewide, January through April		
		Regions							
	State	NW	N	SW	C	E	This Yr	Last Yr	5 Yr Avg
AIDS	81	5	18	5	23	30	329	398	403
Campylobacteriosis	33	4	6	6	12	5	160	118	127
Giardiasis	26	4	4	8	5	5	84	65	80
Gonorrhea	830	50	77	147	222	334	3217	4044	4446
Hepatitis A	11	0	4	1	1	5	48	64	51
Hepatitis B	13	1	0	6	2	4	51	31	52
Hepatitis NANB	1	0	0	1	0	0	4	2	10
HIV Infection	90	3	25	4	34	24	300	350	418
Influenza	3	1	0	2	0	0	257	906	707
Legionellosis	3	2	0	0	0	1	9	3	3
Lyme Disease	0	0	0	0	0	0	0	3	10
Measles	0	0	0	0	0	0	0	0	6
Meningitis, Aseptic	10	2	2	2	0	4	44	49	56
Meningitis, Bacterial†	5	3	0	1	0	1	23	53	41
Meningococcal Infections	5	0	0	3	1	1	20	25	20
Mumps	0	0	0	0	0	0	3	10	16
Pertussis	3	0	0	0	3	0	3	7	7
Rabies in Animals	59	11	7	11	8	22	174	123	105
Rocky Mountain Spotted Fever	0	0	0	0	0	0	0	0	0
Rubella	0	0	0	0	0	0	0	0	0
Salmonellosis	61	10	15	10	12	14	285	225	240
Shigellosis	16	1	6	0	0	9	117	57	104
Syphilis, Early‡	96	0	2	3	23	68	346	456	499
Tuberculosis	32	2	14	6	3	7	82	65	90

Localities Reporting Animal Rabies: Accomack 2 raccoons; Arlington 2 raccoons; Bath 1 skunk; Carroll 1 cat; Chesapeake 1 raccoon; Chesterfield 1 raccoon; Culpeper 1 raccoon; Essex 1 raccoon; Fairfax 3 raccoons; Fauquier 1 raccoon; Franklin 1 raccoon; Frederick 1 raccoon; Gloucester 1 cat; Goochland 1 raccoon; Grayson 1 raccoon; Greensville 1 cat; Halifax 2 raccoons, 1 skunk; Henrico 1 raccoon; Loudoun 1 raccoon; Lynchburg 1 raccoon; New Kent 1 cat; Northampton 13 raccoons; Northumberland 1 otter; Page 1 raccoon, 1 skunk; Patrick 2 raccoons; Pittsylvania 1 raccoon; Prince William 1 raccoon; Pulaski 1 raccoon; Richmond County 1 skunk; Rockbridge 1 skunk; Rockingham 1 horse, 1 skunk; Russell 2 skunks; Shenandoah 1 skunk; Southampton 1 raccoon; Stafford 1 skunk; Tazewell 1 raccoon; Virginia Beach 1 raccoon;
Occupational Illnesses: Asbestosis 4; Carpal Tunnel Syndrome 2; Coal Workers' Pneumoconiosis 10; Loss of Hearing 13.

*Data for 1996 are provisional.
†Other than meningococcal.
‡Includes primary, secondary, and early latent.

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