



# VIRGINIA EPIDEMIOLOGY BULLETIN

Robert B. Stroube, MD, MPH, Health Commissioner  
John S. Marr, MD, MPH, State Epidemiologist

Christopher Novak, MD, MPH, Editor  
Vickie L. O'Dell, Layout Editor

May 2004

Volume 104, No. 5

Annual Surveillance Issue

## Summary of Reportable Diseases, Virginia, 2003

### Introduction

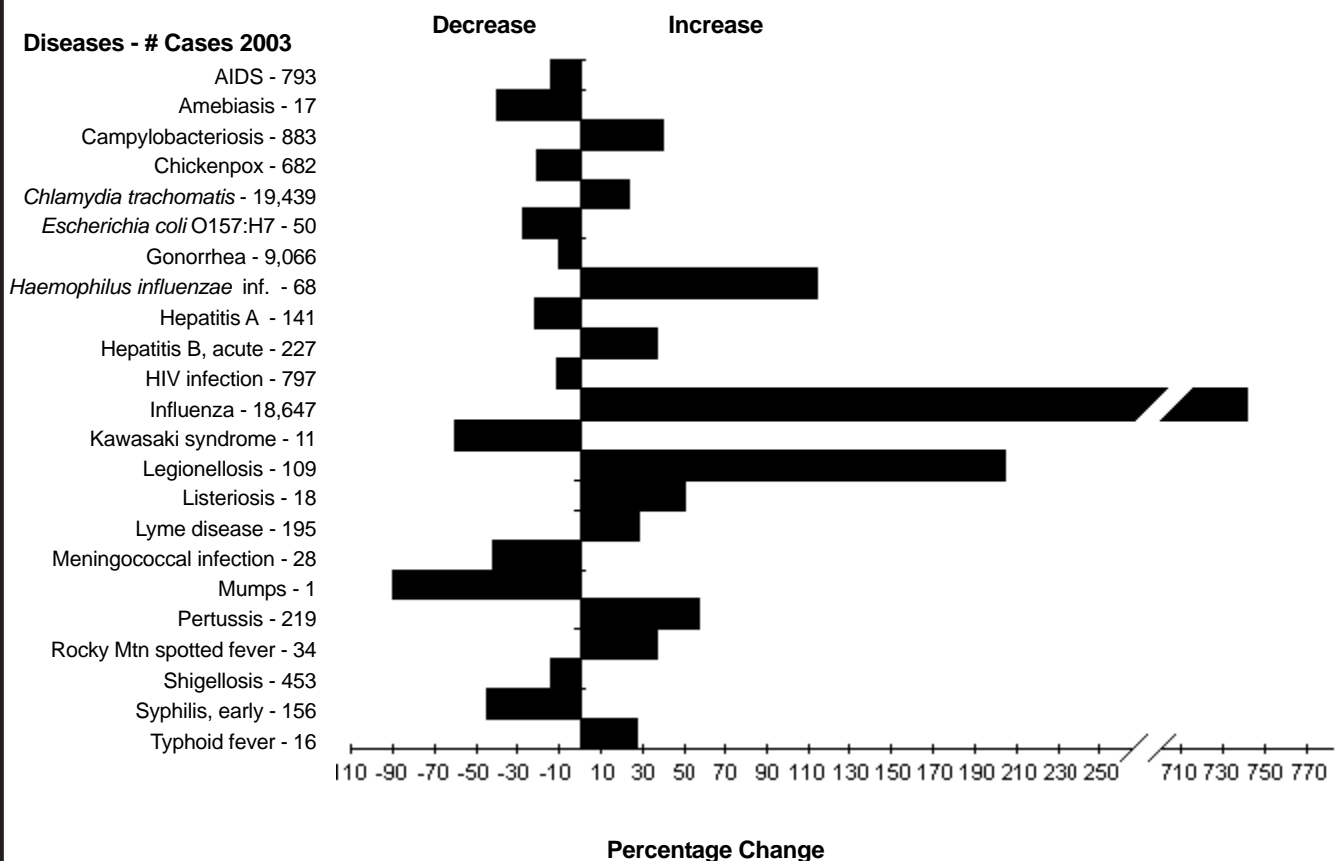
Timely notification about individual cases or outbreaks of certain diseases enables local health departments to take action to prevent and control disease in the community. Therefore, Virginia's *Regulations for Disease Reporting and Control* state that local health departments must be informed of the suspicion or confirmation of any condition in the reportable disease list (available at: [http://](http://www.vdh.virginia.gov/epi/regs.asp)

[www.vdh.virginia.gov/epi/regs.asp](http://www.vdh.virginia.gov/epi/regs.asp)). Those responsible for reporting include physicians, directors of laboratories, persons in charge of medical care facilities, and persons in charge of a school or childcare center.

The Office of Epidemiology within the Virginia Department of Health (VDH) performs ongoing surveillance of reportable diseases. This involves the regular collation of reports from the local health

departments across Virginia and evaluation of the data to look for patterns. An important step in this process includes the timely dissemination of the results to those who need to know, including healthcare providers and the public. Therefore, provisional data are tabulated monthly and published in each issue of the *Virginia Epidemiology Bulletin* (VEB) as well as posted on the internet at <http://www.vdh.virginia.gov/epi/survdata.asp>.

**Figure 1. Change in Disease Incidence in 2003 When Compared to Five-Year Mean**



At the end of each year the Office of Epidemiology publishes a report on the year's finalized data entitled *Reportable Disease Surveillance in Virginia* (available at <http://www.vdh.virginia.gov/epi/survdata.asp>). This issue of the VEB summarizes the important findings from disease surveillance data for 2003.

## Data Sources

Data in this summary were derived primarily from physicians, directors of medical care facilities and directors of laboratories who reported conditions listed in the *Regulations for Disease Reporting and Control* to their local health departments. The current list of reportable conditions can be found on the VDH web site at <http://www.vdh.virginia.gov/epi/list.htm>.

## Trend Data

Figure 1 (page 1) shows the reportable diseases that demonstrated the greatest change (increase or decrease) in the number of cases reported in 2003 compared to the average annual number of cases reported during the previous five years (five-year mean). Table 1 shows the number of reported cases for selected diseases in Virginia from 1994-2003. Table 2 shows the number of reported cases and rate per 100,000 population (based on 2002 U.S. Census data) for selected diseases by health planning region.

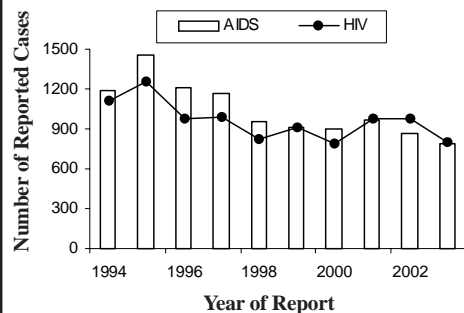
## 2003 HIGHLIGHTS FOR SELECTED DISEASES

### AIDS/HIV

The decrease in the number of AIDS cases reported in 2003 is consistent with the downward trend observed over the past decade (Figure 2). The 793 cases reported in 2003 were 14% below the five-year mean and is the lowest number of reported cases since the AIDS case definition was changed in 1993.

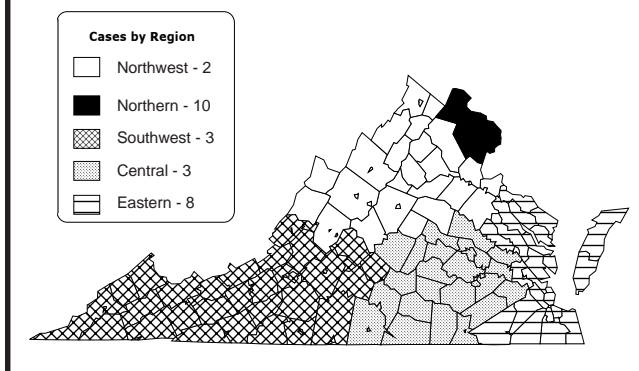
The 20% decrease in the annual number of newly reported cases of HIV infection reverses a two-year up-

**Figure 2. AID/HIV Cases: Ten Year Trend Virginia 1994-2003**



ward trend. However, it is also important to keep in mind that the overall prevalence of HIV-positive individuals is increasing as mortality from AIDS decreases due to the availability of more effective medical therapies.

**Figure 3. Number of Human West Nile Virus Cases by Health Planning Region, Virginia 2003**



### Arboviral Infection (Human)

Thirty-one human cases of arboviral infection were reported in Virginia in 2003 compared to 32 cases in 2002. In both years, the majority of cases were due to West Nile Virus (WNV). The first human WNV cases in Virginia for both 2002 and

2003 occurred in July. Only one of the 26 WNV cases reported in 2003 was fatal compared to two of the 29 WNV cases reported in 2002. Human cases of WNV infection were reported from all regions of the state with the majority (69%) being reported from the northern (10 cases) and eastern (8 cases) health planning regions (Figure 3). Twenty-five of the 26 reported cases were adults  $\geq 40$  years of age. Note that a large proportion of WNV infections are asymptomatic or cause only mild symptoms. Increased awareness and the availability of tests for WNV in 2004 may increase reporting.

Of the remaining five cases of non-WNV arboviral infections in 2003, four cases were LaCrosse encephalitis. All four cases occurred in children aged 3-11 years—two cases were reported from the northwest and two from the southwest health planning regions of the state. Also, one fatal case of eastern equine encephalitis (EEE) was reported in an adult from the eastern health planning region.

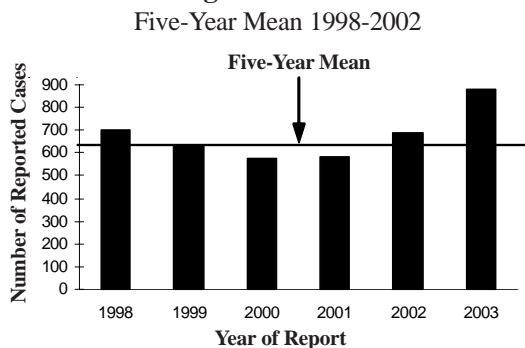
### Campylobacteriosis

The annual number of reported cases of campylobacteriosis increased for the third year in a row—this reversed the general downward trend observed from 1998-2000. The 883 cases reported in 2003 were 39% above the five-year mean (Figure 4) and represent the highest annual number of cases of *Campylobacter* infection ever reported in Virginia. The increase in the number of reported cases in 2003 occurred in all five health planning regions but was highest in the central (64% increase) and northwest (41% increase) health planning regions.

### Chickenpox

The 682 cases of chickenpox reported in 2003 represent a small reversal in the general decline in the annual number of cases recorded since the varicella vaccine was licensed in 1995. However, the ten-year trend for reported cases of chickenpox in Virginia (Figure 5) demonstrates the significant impact of the vaccine in decreasing the incidence of varicella in Virginia.

**Figure 4. Campylobacteriosis Virginia 1998-2003**



**Table 1. Ten Year Trend in Number of Reported Cases of Selected Diseases, Virginia, 1994-2003**

Disease	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
AIDS*	1,191	1,457	1,207	1,171	961	908	901	970	870	793
Amebiasis	39	16	28	30	31	34	24	37	16	17
Campylobacteriosis	824	648	790	644	700	637	574	583	686	883
Chickenpox	2,844	2,667	1,778	1,760	1,115	1,490	592	540	605	682
<i>Chlamydia trachomatis</i> inf.	12,976	12,287	11,755	11,604	13,370	13,427	15,366	18,322	18,518	19,439
<i>Escherichia coli</i> O157:H7†	46	37	53	88	69	79	77	52	70	50
Giardiasis	337	318	405	465	503	471	437	417	386	423
Gonorrhea	13,414	10,342	9,292	8,731	9,215	9,315	10,166	11,081	10,462	9,066
<i>H. influenzae</i> infection	22	28	11	15	19	24	41	34	41	68
Hepatitis A	193	238	218	250	226	185	164	167	163	141
Hepatitis B	142	118	163	137	109	106	174	213	224	227
Hepatitis C	26	21	17	27	13	11	3	3	15	15
HIV*	1,108	1,251	979	993	823	916	793	975	979	797
Influenza	957	1,484	957	517	1,160	2,558	1,909	1,963	3,486	18,647
Kawasaki syndrome	27	32	19	27	36	33	29	28	11	11
Legionellosis	17	28	54	34	27	41	37	39	35	109
Listeriosis	17	17	20	12	9	17	9	15	10	18
Lyme disease	131	55	57	67	73	122	149	156	259	195
Malaria	37	55	60	73	61	76	55	55	36	59
Measles	3	0	3	1	2	18	2	1	0	0
Meningococcal infection	69	64	67	60	49	60	42	46	46	28
Mumps	48	28	19	21	13	11	11	8	5	1
Pertussis	37	31	108	59	56	65	134	272	168	219
Rabies in animals	428	459	612	690	549	581	574	502	592	542
Rocky Mtn Spotted fever	22	34	54	23	14	20	7	40	43	34
Salmonellosis	1,135	1,358	1,229	1,120	1,135	1,286	1,020	1,368	1,277	1,187
Shigellosis	656	412	746	416	200	136	460	784	1,061	453
Syphilis, early	1,409	1,144	798	615	379	364	266	235	165	156
Toxic substances related ill.	103	214	268	237	349	345	328	417	485	211
Tuberculosis	372	359	349	349	339	334	292	306	315	332
Typhoid fever	9	10	11	5	7	11	22	15	8	16

\*Some numbers have changed from those previously reported due to a reassessment of the data.

†Not reportable prior to 1999.

### **Haemophilus influenzae Infection, Invasive**

The annual number of reported cases of invasive infections due to all types of *Haemophilus influenzae* increased in 2003, with 68 cases reported in 2003 compared to the five-year mean of 32 cases per year (Figure 6). The increase in the number of cases reported in 2003 repre-

sented a 66% increase above the 41 cases reported in 2002 and a 100% increase from the 34 cases reported in 2001. The cause of this increase is not known. Only nine (13%) of the 68 cases reported in 2003 were < 5 years of age. Eight of those nine cases (89%) were identified as non-typable *Haemophilus influenzae*. Serotyping was not completed on the remaining case.

For perspective, prior to the introduction of effective conjugate vaccines in 1990, *H. influenzae* type b (Hib) was the leading cause of bacterial meningitis and other invasive bacterial disease among children < 5 years of age. With the availability of an effective vaccine, Hib has become a rare cause of invasive disease in children aged < 5 years in the U.S.

**Table 2. Number of Reported Cases and Rate per 100,000 Population for Selected Diseases by Health Planning Region, Virginia, 2003**

Disease	Total			Northwest Region			Northern Region			Southwest Region			Central Region			Eastern Region		
	No.	Rate	Population	No.	Rate	1,072,129	No.	Rate	1,915,168	No.	Rate	1,307,231	No.	Rate	1,245,303	No.	Rate	1,753,711
AIDS	793	10.87		63	5.88		304	15.87		71	5.43		179	14.37		176	10.04	
Amebiasis	17	0.23		2	0.19		13	0.68		1	0.08		0	0.00		1	0.06	
Campylobacteriosis	883	12.11		206	19.21		189	9.87		162	12.39		179	14.37		147	8.38	
Chickenpox	682	9.35		41	3.82		164	8.56		61	4.67		57	4.58		359	20.47	
<i>Chlamydia trachomatis</i> infection	19,439	266.52		2,204	205.57		2,393	124.95		2,747	210.14		4,823	387.30		7,272	414.66	
<i>Escherichia coli</i> O157:H7	50	0.69		13	1.21		13	0.68		7	0.54		12	0.96		5	0.29	
Giardiasis	423	5.80		73	6.81		148	7.73		52	3.98		63	5.06		87	4.96	
Gonorrhea	9,066	124.30		440	41.04		589	30.75		1,094	83.69		2,461	197.62		4,482	255.57	
<i>Haemophilus influenzae</i> infection	68	0.93		12	1.12		3	0.16		21	1.61		18	1.45		14	0.80	
Hepatitis A	141	1.93		14	1.31		62	3.24		14	1.07		26	2.09		25	1.43	
Hepatitis B	227	3.11		22	2.05		27	1.41		44	3.37		67	5.38		67	3.82	
Hepatitis C	15	0.21		0	0.00		1	0.05		8	0.61		3	0.24		3	0.17	
HIV infection	797	10.93		35	3.26		241	12.58		43	3.29		219	17.59		259	14.77	
Influenza	18,647	255.66		3,017	281.40		1,791	93.52		4,789	366.35		3,599	289.01		5,451	310.83	
Kawasaki syndrome	11	0.15		2	0.19		2	0.10		0	0.00		3	0.24		4	0.23	
Legionellosis	109	1.49		37	3.45		19	0.99		21	1.61		8	0.64		24	1.37	
Listeriosis	18	0.25		2	0.19		7	0.37		5	0.38		1	0.08		3	0.17	
Lyme disease	195	2.67		30	2.80		109	5.69		6	0.46		14	1.12		36	2.05	
Malaria	59	0.81		4	0.37		33	1.72		4	0.31		10	0.80		8	0.46	
Measles	0	0.00		0	0.00		0	0.00		0	0.00		0	0.00		0	0.00	
Meningococcal infection	28	0.38		4	0.37		4	0.21		10	0.76		5	0.40		5	0.29	
Mumps	1	0.01		0	0.00		0	0.00		0	0.00		1	0.08		0	0.00	
Pertussis	219	3.00		148	13.80		9	0.47		13	0.99		16	1.28		33	1.88	
Rabies in animals	542	--		157	--		115	--		99	--		78	--		93	--	
Rocky Mountain spotted fever	34	0.47		11	1.03		1	0.05		5	0.38		7	0.56		10	0.57	
Salmonellosis	1,187	16.27		195	18.19		365	19.06		178	13.62		203	16.30		246	14.03	
Shigellosis	453	6.21		20	1.87		120	6.27		118	9.03		98	7.87		97	5.53	
Syphilis, early	156	2.14		6	0.56		58	3.03		9	0.69		38	3.05		45	2.57	
Tuberculosis	332	4.55		29	2.70		157	8.20		22	1.68		65	5.22		59	3.36	
Typhoid fever	16	0.22		1	0.09		13	0.68		0	0.00		1	0.08		1	0.06	

## Hepatitis A

The annual number of reported cases of hepatitis A has been declining for the past six years. The 141 cases reported in 2003 are 22% below the five-year mean of 181 cases (Figure 7).

## Hepatitis B, Acute

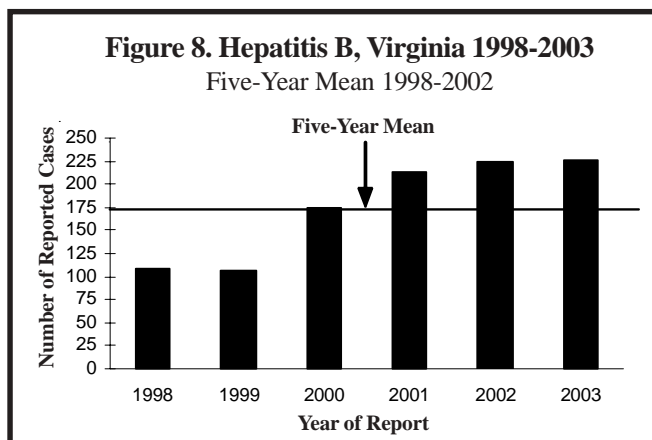
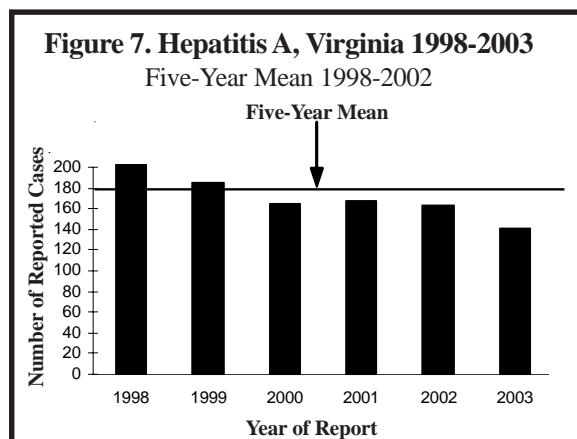
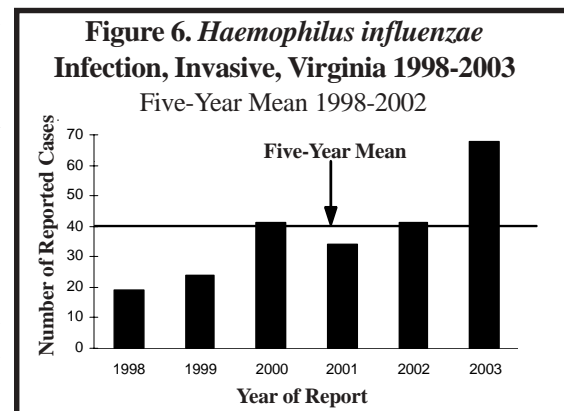
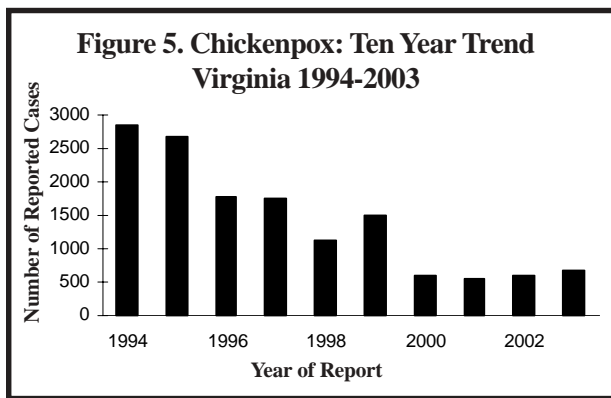
The 227 cases of acute hepatitis B reported in 2003 were comparable to the 224 cases reported in 2002. However, the number of cases of acute hepatitis B reported in 2003 was 37% above the five-year mean (Figure 8) and represented the highest annual number of cases since IgM antibody to hepatitis B core antigen (IgM anti-HBc) became a reportable condition by directors of laboratories in 1999. Although 2003 was the fourth consecutive year with an increase in the number of reported cases, this may be partly a result of the increased reporting by laboratories, rather than increased incidence of the disease.

## Influenza

Last year saw a very significant increase in the number of cases of influenza reported to health departments (18,647 cases—a 435% increase from 2002, and 742% above the five-year mean). This is likely a result of a particularly early year for the onset of the 2003-2004 influenza season. Additional factors may have included the difference between the vaccine strain of influenza A/H3N2 and the dominant drift strain (A/Fujian/411/2002), heightened media attention and public awareness that may have increased case reporting, and the increased availability of rapid screening tests to confirm the diagnosis of influenza.

## Legionellosis

In 2003, 109 cases of disease caused by *Legionella pneumophila* were reported. This was 204% above the five-year mean. Although the reason for this increase is unknown, other states in the mid-Atlantic region noted a similar increase in 2003. No common exposure was identified, and it is probable that the increase represented an increase in “sporadic” cases across the region. This pattern may



have been related to warm weather combined with the very high rainfall experienced in 2003 promoting the growth of the bacterium in the environment.

## Lyme Disease

Since becoming a notifiable disease, Lyme disease has been the most frequently reported tickborne illness in Virginia. The 195 cases reported in 2003 represented a 42% decrease from the 259 cases reported in 2002. This was 28% above the five-year mean (Figure 9). Cases were reported from all regions of the state; however, the majority (56%) were reported from the northern health planning region.

## Malaria

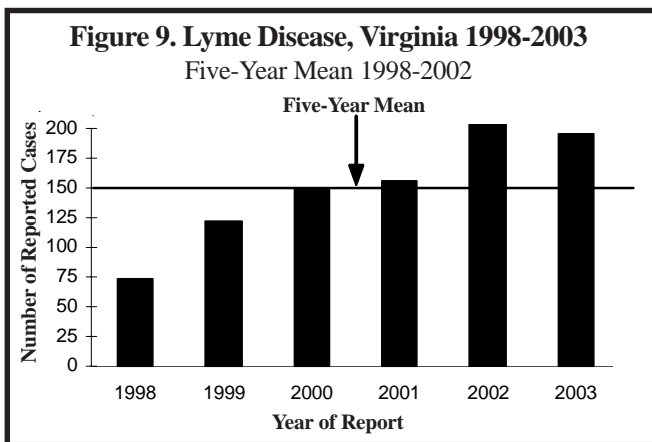
The 59 cases of malaria reported in Virginia in 2003 represent a 64% increase over 2002, but were only 4% above the five-year mean. Newly identified cases almost always occur among US residents with recent travel to malarious countries or among foreign residents immigrating to or visiting the US. However, one domestically acquired case of malaria was reported in 2003. This person had no history of international travel, but resided in the same county in Virginia where two other domestically acquired cases of malaria occurred in 2002. Therefore, this case was likely exposed in 2002, but had a prolonged incubation period before symptoms developed.

## Measles

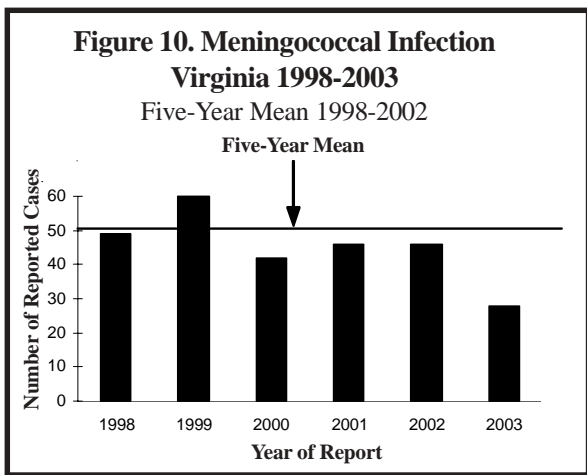
No cases of measles have been reported in Virginia since 2001. Continued high vaccine coverage rates and the implementation of a two-dose schedule in 1989 have led to a dramatic decline in cases since 1993. Nationwide, the majority of cases are now imported from other countries or linked to imported cases.

## Meningococcal Infection

The 28 cases of meningococcal infection reported in 2003 were the lowest annual number of cases reported in 15 years and were 42% below the five-



trend may be a result of increased recognition of the disease in adolescents and adults by clinicians, increased susceptibility among adolescents and adults due to waning immunity following vaccination (since no booster vaccine is available for persons over seven years of age) and reduced boosting occurring as a result of a decrease in exposure to natural infection.



year mean of 49 cases (Figure 10). Two deaths were reported.

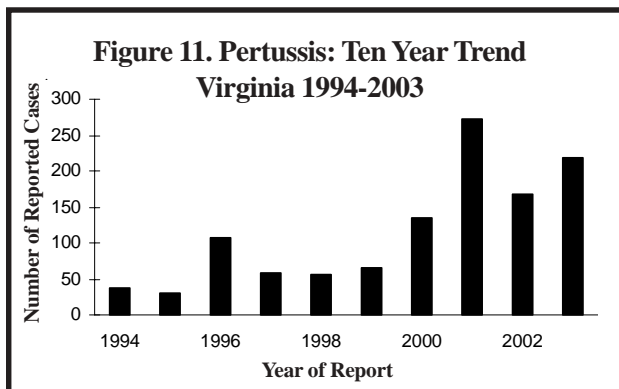
Studies have shown that those living in more crowded environments, such as campus dormitories, are at least three times more likely to contract the bacteria.<sup>1</sup> Therefore, since 2001 Virginia law requires that students enrolling in any four-year Virginia public college or university for the first time must be immunized against this serious, and potentially fatal, disease. This requirement for vaccination may be part of the reason for the recent declines in meningococcal disease.

**Pertussis**

The number of pertussis cases has increased in recent years in Virginia (Figure 11) despite high levels of vaccination coverage in children. The majority (68%) of the 219 cases reported in 2003 were reported from the northwest health planning region of Virginia compared to 56% of the 168 cases reported in 2002 and 86% of the 272 cases reported in 2001. The pattern in Virginia mirrors the upward trend for pertussis cases throughout the U.S. Although not known for certain, this

**Rabies in Animals**

The number of rabid animals reported declined slightly, to 542 cases, in 2003 (lower than the five-year mean of 560 cases). Rabid raccoons (321 cases) accounted for 59% of all rabid animals (Figure 12). Other frequently reported rabid animals included skunks (92



cases), foxes (48 cases), cats (34 cases), and bats (19 cases).

**Rabies in Humans**

An adult male from northern Virginia died from rabies in 2003. The diagnosis was confirmed by immunohistochemical (IHC) stains for rabies virus. Genetic sequence analysis indicated 100% homology with a raccoon rabies virus variant from Virginia, but how the patient became infected remains unknown. The last human death from rabies in Virginia occurred in December 1998 in a male prison inmate, possibly due to an unrecognized exposure to a bat.

**Salmonellosis**

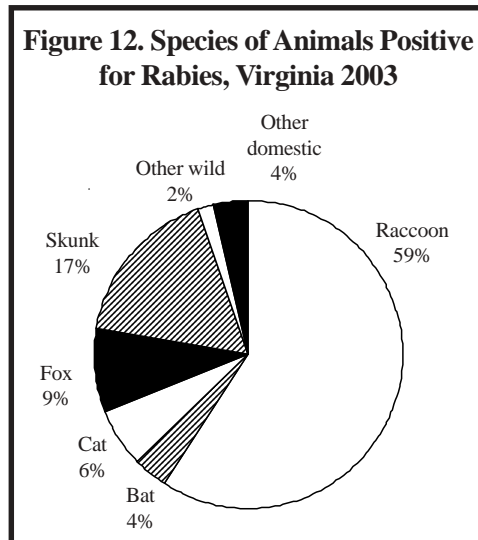
*Salmonella* infection is the most frequently reported enteric disease in Virginia. The 1,187 reported cases of salmonellosis in 2003 were 7% less than the 1,277 cases reported in 2002 and 2% below the five-year mean. Fewer foodborne outbreaks due to *Salmonella* were reported in 2003 than in previous years.

**Severe Acute Respiratory Syndrome (SARS)**

In 2003, following the issuance of the World Health Organization's global health alert regarding SARS, VDH implemented steps to protect the public health that included adding SARS to the notifiable disease list in Virginia and developing an emergency response plan. The Centers for Disease Control and Prevention (CDC) has periodically updated the case definition of probable and suspect SARS cases and provided criteria for excluding cases from consideration. The total number of SARS cases in Virginia in 2003 was one probable and two suspected cases.

**Sexually Transmitted Diseases**

The annual number of the most frequently reported sexually transmitted disease, *Chlamydia trachomatis* infection, increased for the sixth consecutive year as shown in Figure 13. The 19,436 cases of *Chlamydia trachomatis* infection represented the highest annual number of cases ever reported. One reason for the increase may be the use



of more sensitive laboratory amplification techniques that have enhanced case finding. The number of testing sites using enhanced diagnostic testing has continuously increased in an effort to identify additional chlamydial infections, especially among asymptomatic persons.

The number of cases of gonorrhea reported in 2003 showed a second year of decline and reverses the previously seen four-year upward trend in the annual number of reported cases. The 9,066 cases reported in 2003 were 10% less than the five-year mean. The reversal in the number of reported cases may be partially attributed to increased efforts targeting gonorrhea by the Virginia Epidemiology Response Team (VERT).

Early syphilis, which includes primary, secondary and early latent stages of syphilis, decreased for the ninth consecutive year. The 156 cases reported in 2003 are the lowest annual number reported on record. The continued decline in reported cases can be partially attributed to VERT syphilis elimination efforts, including additional contact tracing and social networking activities.

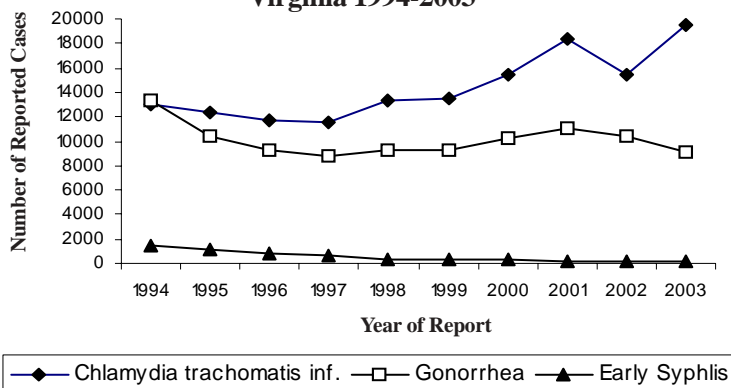
### Shigellosis

Shigellosis decreased by 57% to 453 cases in 2003, compared to the 1,061 cases reported in 2002. This level was 14% less than the five-year mean (Figure 14). Although the spread of this disease can occur through contamination of food and water, the predominant mode of transmission is by direct contact with an infected person. Personal hygiene (i.e., hand washing) remains the most effective method of prevention.

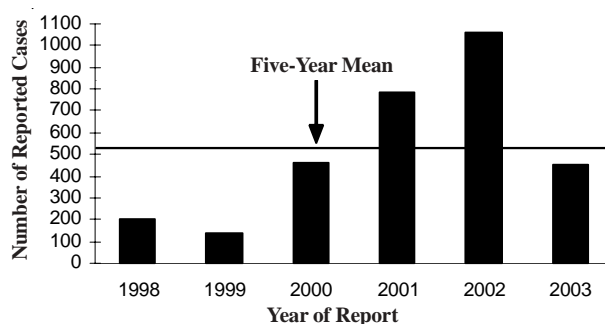
### Tuberculosis

The 332 reported cases of tuberculosis (TB) in 2003 represented a 5% increase compared to the 315 cases reported in 2002. This was 15% above the five-year mean (Figure 15). Of the 332 cases reported in 2003, 13% were found to be resistant to at least one first-line drug. There

**Figure 13. Selected STDs: Ten Year Trend Virginia 1994-2003**



**Figure 14. Shigellosis, Virginia 1998-2003**  
Five-Year Mean 1998-2002



were two cases of multi-drug resistant TB (MDR-TB) in 2003 compared to the four seen in 2002. In 2003, 21 TB cases (6.3%) were co-infected with HIV compared to 13 cases (4.1%) in 2002.

In 2003, the burden of tuberculosis disease shifted away from the northern health planning region, which reported an 11% decrease, while the northwest, central and eastern health planning regions saw increases in case numbers. Most of this shift represents an increase of foreign-born cases in these areas. Prior to 2000, less than 50% of cases were born outside of the U.S. In 2003, 62% of cases were born outside the U.S.

### Conclusions

This report presents a summary of the disease surveillance statistics for cases reported during the 2003 calendar year. In Virginia in 2003, conditions that showed a significant increase in the number of cases, or continued to be

significantly elevated, included campylobacteriosis, *Chlamydia trachomatis* infection, invasive *Haemophilus influenzae* infection, acute hepatitis B, influenza, legionellosis, listeriosis, lyme disease and pertussis.

On the positive side, significant progress continues to be made in controlling other vaccine preventable diseases, particularly hepatitis A, meningococcal infection, mumps, and measles. The incidence of chickenpox has also held relatively steady. In addition, the number of new cases of shigellosis, HIV/AIDS, gonorrhea and syphilis continues to decline.

Healthcare providers and laboratory directors need to remember that they are responsible for reporting all cases of notifiable diseases to their local health department. It is through these efforts that programs can monitor changes in the health of communities, act to minimize the spread of disease, identify new and emerging public health problems, and direct resources to improving the health of Virginians.

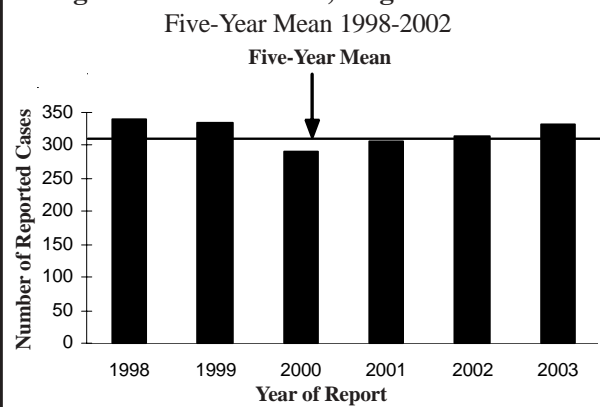
For additional information about disease surveillance in Virginia, visit our Web site at <http://www.vdh.virginia.gov/epi/newhome.asp>.

#### References:

<sup>1</sup> MMWR. Meningococcal Disease and College Students. June 30, 2000 / 49(RR07):11-20.

Submitted by: Leslie Branch, Division of Surveillance and Investigation.

**Figure 15. Tuberculosis, Virginia 1998-2003**



**Cases of Selected Notifiable Diseases Reported in Virginia\***

**Total Cases Reported, April 2004**

**Total Cases Reported Statewide,  
January - April**

Disease	State	Regions					Total Cases Reported Statewide, January - April		
		NW	N	SW	C	E	This Year	Last Year	5 Yr Avg
<b>AIDS</b>	106	9	73	9	9	6	215	290	276
<b>Campylobacteriosis</b>	34	5	11	5	6	7	122	117	107
<b><i>E. coli</i> O157:H7</b>	1	0	0	0	0	1	1	4	6
<b>Giardiasis</b>	35	1	11	8	5	10	106	76	96
<b>Gonorrhea</b>	703	73	59	65	171	335	2,983	2,766	3,142
<b>Hepatitis, viral</b>									
<b>A, acute</b>	7	0	2	3	1	1	25	31	39
<b>B, acute</b>	24	4	5	3	6	6	61	37	45
<b>C, acute</b>	1	0	0	0	0	1	9	0	1
<b>HIV Infection</b>	79	5	24	8	22	20	269	271	258
<b>Lead in Children†</b>	70	10	6	16	30	8	183	164	144
<b>Legionellosis</b>	1	0	0	0	0	1	5	6	4
<b>Lyme Disease</b>	5	0	1	0	0	4	8	10	8
<b>Measles</b>	0	0	0	0	0	0	0	0	1
<b>Meningococcal Infection</b>	1	0	0	0	0	1	3	6	17
<b>Mumps</b>	0	0	0	0	0	0	1	1	3
<b>Pertussis</b>	13	3	0	1	0	9	39	33	25
<b>Rabies in Animals</b>	45	4	14	10	7	10	133	168	159
<b>Rocky Mountain Spotted Fever</b>	0	0	0	0	0	0	0	1	<1
<b>Rubella</b>	0	0	0	0	0	0	0	0	0
<b>Salmonellosis</b>	46	6	9	8	10	13	175	170	201
<b>Shigellosis</b>	8	0	1	2	4	1	30	85	100
<b>Syphilis, Early§</b>	19	0	4	0	3	12	42	61	89
<b>Tuberculosis</b>	28	0	15	0	7	6	56	69	70

*Localities Reporting Animal Rabies This Month:* Amelia 1 skunk; Bedford 1 skunk; Bland 1 raccoon; Botetourt 1 raccoon; Chesterfield 1 cat, 1 raccoon; Clarke 1 raccoon; Dinwiddie 1 raccoon; Essex 1 raccoon; Fairfax 2 foxes, 7 raccoons, 1 skunk; Fauquier 1 skunk; Franklin 1 raccoon; Frederick 1 raccoon; Giles 1 bobcat; Goochland 1 raccoon; Grayson 1 raccoon; Hampton 1 raccoon; Hanover 1 raccoon; Henrico 1 cat; Isle of Wight 1 fox, 1 skunk; Loudoun 1 cow; Lynchburg 1 raccoon; Nelson 1 raccoon; Norfolk 2 raccoons; Northampton 2 raccoons; Prince William 3 raccoons; Smyth 1 cow, 1 skunk; Virginia Beach 1 raccoon; Williamsburg 1 fox; Wythe 1 raccoon.

*Toxic Substance-related Illnesses:* Cadmium Exposure 1; Adult Lead Exposure 2; Mercury Exposure 1; Pneumoconiosis 5; Silicosis 1.

\*Data for 2004 are provisional. †Elevated blood lead levels  $\geq 10\mu\text{g/dL}$ . §Includes primary, secondary, and early latent.

Published monthly by the  
**VIRGINIA DEPARTMENT OF HEALTH**  
 Office of Epidemiology  
 P.O. Box 2448  
 Richmond, Virginia 23218  
 Telephone: (804) 864-8141



**PRESORTED  
 STANDARD  
 U.S. POSTAGE  
 PAID  
 Richmond, Va.  
 Permit No. 591**