

Acquired Immunodeficiency Syndrome (AIDS)

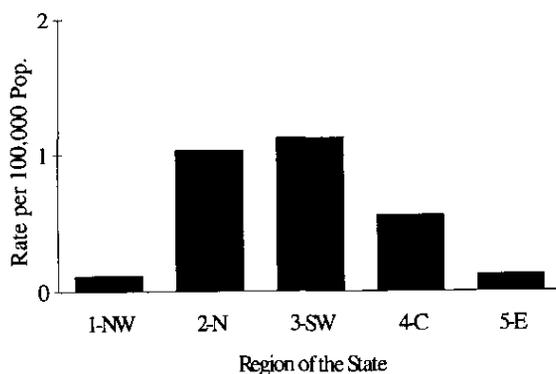
See HIV/AIDS.

Amebiasis

Thirty-nine cases of amebiasis were reported in 1994 compared to 34 in 1993 and 36 in 1992. The distribution of onset of illness ranged from a low of five cases to a high of 15 cases per quarter. The highest incidence rate occurred in the 30-39 year age group (0.9 cases per 100,000 population). The other race category had an incidence rate of 4.4 cases per 100,000 population compared to 0.3 for whites and 0.2 for blacks. Race was not reported for 10 (26%) of the reported cases. Males were more likely to be reported with this disease than females. The southwest health planning region had the highest incidence rate (1.1 cases per 100,000 population), followed by the northern region with 1.0 cases per 100,000 population, as shown in Figure 1.

Figure 1.

Amebiasis: Rate by Region
Virginia, 1994



Anthrax

The last case of anthrax in Virginia was reported in 1970.

Arboviral Infection

One case of arboviral infection was reported in 1994. Arboviral infections are caused by any of a number of viruses transmitted by arthropods such as mosquitoes and ticks. These infections generally occur during the warm weather months when mosquitoes are active. The one case reported in Virginia in 1994 was caused by the LaCrosse virus. The patient was a resident of southwest Virginia whose onset of illness occurred in October.

Infection caused by the LaCrosse virus is also included under the heading Encephalitis, Primary.

Aseptic Meningitis

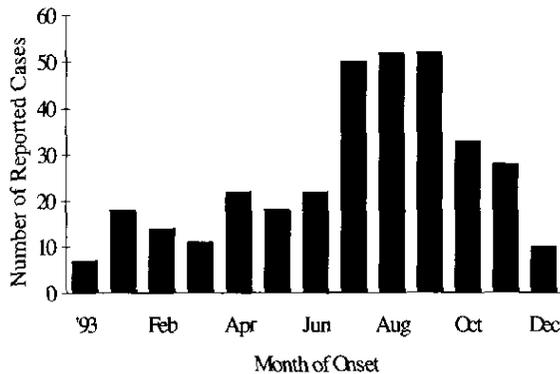
The 337 cases reported in 1994 represented a decrease of six cases from the 343 cases reported in 1993. The onset of disease was highest during the third quarter of the calendar year when 46 percent of the cases occurred (Figure 2). The etiologic agents were reported for only eight of the 337 cases. All eight were enteroviruses, including one further specified as echovirus and one as coxsackievirus.

The very young were at the greatest risk for this reportable disease. The highest incidence rate was among blacks (9.8 cases per 100,000 population), followed by persons in the other race category (4.4 per 100,000) and whites (3.4 per 100,000). Females were as likely as males to be reported.

The eastern health planning region reported 50% of the cases and had an incidence rate (10.4

Figure 2.

Cases of Aseptic Meningitis by Month of Onset, Virginia, 1994



cases per 100,000 population) that was twice as high as any of the other health planning regions.

One death was reported in 1994 for this relatively common but rarely serious condition.

Bacterial Meningitis

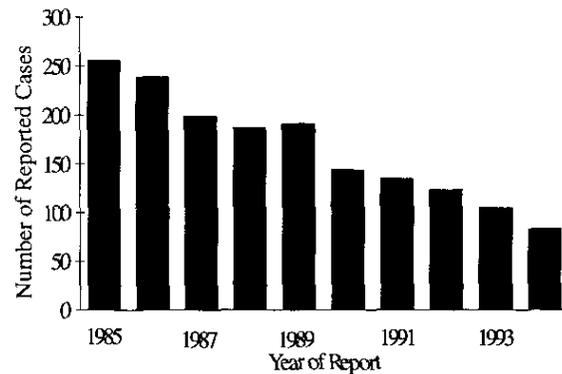
Reported cases of bacterial meningitis continued to decline, a trend which started in 1986. The 83 cases reported in 1994 was the lowest annual total number of cases reported during the previous five years, as shown in Figure 3. The most commonly reported etiologic agent in 1994 was *Streptococcus pneumoniae* (36 cases, 43%), as presented in Table 8. Cases occurred throughout the year and were fairly evenly distributed by quarter of onset.

Infants had the highest incidence rate (34.0 cases per 100,000 population), followed by the age groups 50 and older (1.5 per 100,000) and 1-9 years (1.3 per 100,000). Persons aged 10-19 years had the lowest incidence (0.2 per 100,000).

Blacks were more likely to be infected with this disease than whites and persons in the other race category. Incidence rates for females and males were similar.

Figure 3.

Bacterial Meningitis: Ten Year Trend Virginia, 1985-1994



The northwest and eastern health planning regions had the highest incidence rates (2.2 cases per 100,000 population, each). Six deaths due to bacterial meningitis were reported in 1994. The ages of persons who died ranged from 27 to 78 years (mean = 60).

Meningitis caused by *N. meningitidis* is included under the heading Meningococcal Infection.

Table 8. Etiology of Bacterial Meningitis Cases Reported in Virginia, 1994

Organism	Number of Cases	Percent of Cases
<i>Citrobacter</i>		
<i>C. unspecified</i>	1	1.20
<i>Enterobacter</i>		
<i>E. cloacae</i>	1	1.20
<i>E. unspecified</i>	1	1.20
<i>Escherichia coli</i>	1	1.20
<i>Haemophilus influenzae</i>	6	7.23
<i>Listeria monocytogenes</i>	3	3.61
<i>Serratia marcescens</i>	1	1.20
<i>Staphylococcus:</i>		
<i>S. epidermidis</i>	1	1.20
<i>S. unspecified</i>	4	4.82
<i>Streptococcus:</i>		
<i>S. bovis</i>	1	1.20
<i>S. pneumoniae</i>	36	43.37
Group B unspecified	13	15.66
unspecified	2	2.41
Unspecified	12	14.46
TOTAL	83	100.00

Botulism

Two unrelated cases of infant botulism were reported in 1994. One case was reported in a two month old male from the southwest health planning region and the other was a two month old female from the northern region. Infant botulism results after ingested spores of *Clostridium botulinum* have germinated, multiplied, and produced botulinum toxin in the intestine. In most cases, the source of infection remains unknown; however, honey is one identified potential source.

Brucellosis

Brucellosis is a zoonotic disease that has been infrequently reported in Virginia in recent years. The two cases of brucellosis reported in 1994 were the first in Virginia since 1991. Cases in Virginia usually occur in people associated with the meat-processing industry. Both cases (one male and one female) were reported from the eastern health planning region. The male case worked in a meat-processing facility where exposure most likely occurred. Risk for exposure for the female case was not reported.

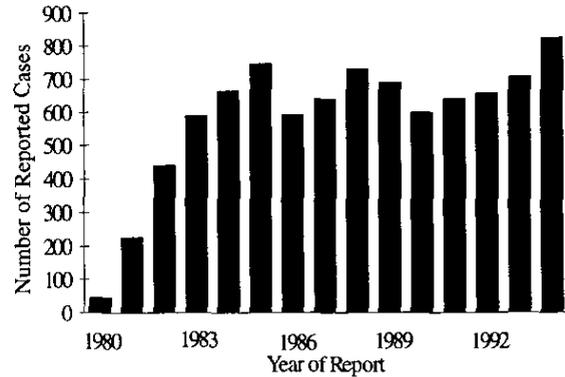
Campylobacteriosis

The 824 cases of campylobacteriosis reported in 1994 represented the highest number of cases reported since surveillance for this disease began in 1980 (Figure 4). The seventeen percent increase in the number of cases reported in 1994 compared to 1993 represented the highest annual increase of this disease. The majority of the cases occurred during the spring and summer months.

The incidence rate for this disease was higher for infants than any other age group. Race was not

Figure 4.

Campylobacteriosis: Fifteen Year Trend, Virginia, 1980-1994



reported for 39% of the 824 cases. Of the cases for whom race was reported, 420 were white, 61 were black, and 21 were in the other race category. Males were more likely than females to be reported.

The northwest health planning region had the highest incidence rate (19.7 cases per 100,000 population), followed by the central region (18.7 per 100,000), the southwest region (12.3 per 100,000), the northern region (10.7 per 100,000), and the eastern region (7.9 per 100,000).

Chancroid

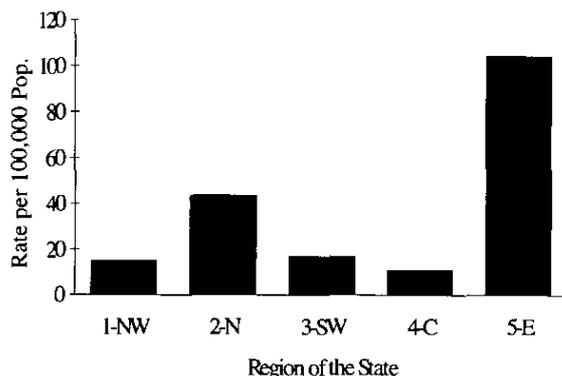
No cases of this sexually transmitted disease were reported in Virginia in 1994. Three cases had been reported the previous year.

Chickenpox

Reported cases of chickenpox were down by 3% in 1994 compared to 1993. Sixty percent (1,708) of the 2,844 cases reported in 1994 were reported from the eastern health planning region which also had the highest incidence rate (104.3 cases per 100,000

Figure 5.

Chickenpox: Rate by Region
Virginia, 1994



population). Incidence rates for the other health planning regions were as follows: northern, 43.5 cases per 100,000 population; southwest, 17.0 cases per 100,000 population; northwest, 15.0 cases per 100,000 population; central, 10.8 cases per 100,000 population (Figure 5).

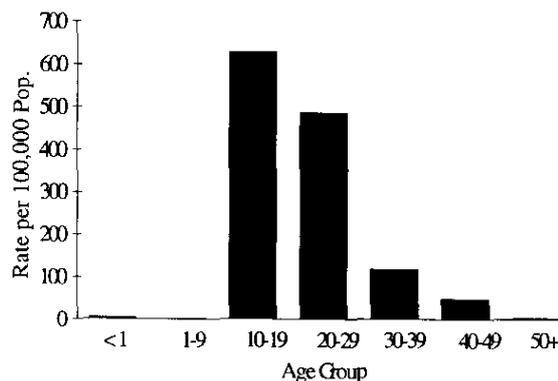
Chlamydia trachomatis **Infection**

During 1994, 12,976 cases of *Chlamydia trachomatis* infection were reported. The majority of the cases (85%) were in the 10-19 and 20-29 year age groups as shown in Figure 6. The incidence rates for these two age groups were 627.6 and 485.6 cases per 100,000 population, respectively. The female to male ratio was 15:1. It should be noted that health department screening is limited to females. Fifty-four percent were black (7,063 cases, 591.1 per 100,000 population) and 29% of the cases were white (3,769 cases, 77.4 per 100,000). Race was not reported for the remaining cases.

Most of the reported cases occurred during the second and third quarters of the year. The eastern health planning region had the highest rate of *C. trachomatis* infections (295.3 per 100,000 popula-

Figure 6.

Chlamydia trachomatis: Rate by
Age Group, Virginia, 1994



tion), followed by the central region with 224.6 cases per 100,000 population.

These data are expected to underestimate the incidence of *C. trachomatis* infections because: (1) screening has been limited to high risk females attending certain public health clinics, (2) as many as 75% of women and 25% of men with uncomplicated *C. trachomatis* infection are asymptomatic, and (3) persons with gonorrhea presumptively treated for *C. trachomatis* infection are not included in the case counts. The Centers for Disease Control and Prevention (CDC) estimate the morbidity due to this organism to be twice that of gonorrhea. There were 13,414 cases of gonorrhea reported in Virginia in 1994, suggesting that there were more than 26,000 *C. trachomatis* infections last year, according to CDC estimates.

Congenital Rubella Syndrome

No cases of this condition have been reported in Virginia since 1981. The incidence of congenital rubella syndrome has declined significantly in this country since 1979.

Diphtheria

The last case of this vaccine preventable disease in Virginia was reported in 1989. This potentially severe disease is rare. Only five or fewer cases have been reported in the United States each year since 1980.

Ehrlichiosis, Human

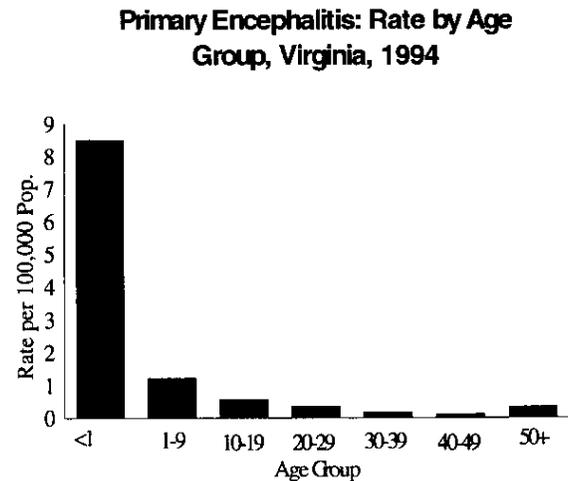
Two confirmed cases of this disease (human monocytic ehrlichiosis) were reported in Virginia in 1994. One case was an adult female from the southwest health planning region and the other was an adult male from the eastern region. Human monocytic ehrlichiosis (HME) is caused by *Ehrlichia chaffeensis* and probably transmitted by the Lone Star tick (*Amblyomma americanum*). Ehrlichiosis is not an officially reportable disease; however, reports are recorded when they are received.

Encephalitis, Primary

Thirty-four primary encephalitis cases were reported during 1994 compared to 44 cases in 1993. The etiologic agent was reported as viral for 26 of the reported cases. Of these, eight were further specified as herpesvirus and one as LaCrosse virus.

Cases occurred throughout the year but peaked during the third quarter of the calendar year. Four cases reported in 1994 had an onset in 1993. The incidence rate was almost seven times as high for infants as for any other age group (Figure 7). Blacks were at a greater risk for this disease than whites and persons in the other race category. The reported number of cases was evenly divided between males and females.

Figure 7.



The eastern health planning region reported the highest number of cases and had the highest incidence rate (16 cases, 1.0 cases per 100,000 population). Two deaths were reported among the primary encephalitis cases.

Encephalitis, Post-Infectious

Six cases of post-infectious encephalitis were reported in 1994, a decrease of one case from the seven cases reported in 1993. Four of the six cases occurred in the first quarter.

Cases ranged in age from one to 51 years (mean = 19). Race was reported as white for two cases, black for two cases, and not stated for the remaining two cases. Four cases were female and two were male.

Three of the six cases reported were from the northern health planning region, two were from the eastern region, and one was from the central region.

Fifth Disease

Fifth disease is not an officially reportable disease in Virginia, however, reports are recorded when they are received. Although Fifth disease usually produces a mild self-limited illness, severe complications of infection can occur. No cases of Fifth disease were reported in 1994. Two cases were reported in 1993.

Foodborne Outbreaks

The five confirmed foodborne outbreaks that were reported in 1994 are summarized in Table 9. The number of ill persons per outbreak ranged from seven to 19. The causative organism was identified in four of the outbreaks; all four agents were bacterial pathogens. Three of the five outbreaks were associated with food prepared in restaurants. Storing or holding foods at improper temperatures were the most common factors contributing to the outbreaks.

Fungal Diseases

Fungal diseases other than histoplasmosis are not officially reportable in Virginia, however, selected fungal diseases are recorded when reported. In 1994, recorded fungal diseases other than histoplasmosis included one case each of blastomycosis, cryptococcosis, and mucormycosis.

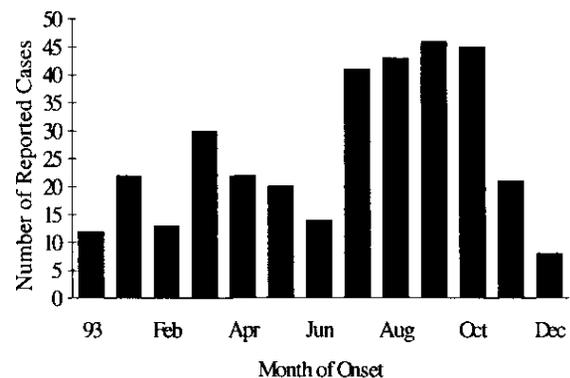
Meningitis caused by *Cryptococcus neoformans* is included under the heading Other Meningitis.

Giardiasis

Reported cases of giardiasis (337) decreased in 1994 by 10% from the 373 cases reported in 1993. Cases occurred throughout the year with peak activity occurring during the summer and early fall (Figure 8).

Figure 8.

Cases of Giardiasis by Month of Onset, Virginia, 1994



The incidence rate was highest for children age 1-9 years (12.0 cases per 100,000 population), followed by adults age 30-39 (5.9 per 100,000). Race was not reported for 126 cases (37%). Of the cases for whom race was reported, persons in the other race category were more likely to be infected than blacks or whites. Males were slightly more likely than females to be reported with this disease.

The northern health planning region had the highest incidence rate (7.1 cases per 100,000 population), and the central and eastern health planning regions had the lowest (3.9 per 100,000 each).

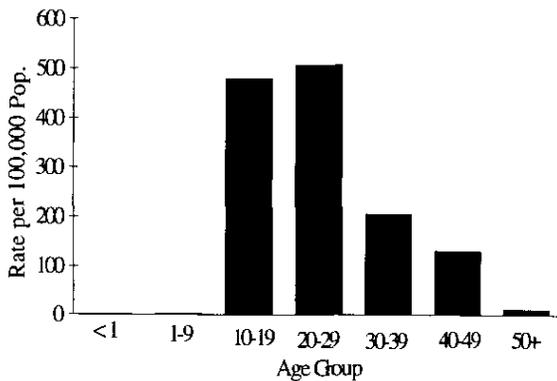
Gonorrhea

Gonorrhea continued to be the most frequently reported disease in Virginia. In 1994, 13,414 cases of gonorrhea were reported, representing a 15% increase from 1993.

Young adults (age 20-29) were more likely to be reported with this disease than any other age group. They had the highest number of cases (5,761) reported and the highest incidence rate (507.8 cases per 100,000 population) as shown in Figure 9.

Figure 9.

Gonorrhea: Rate by Age Group
Virginia, 1994

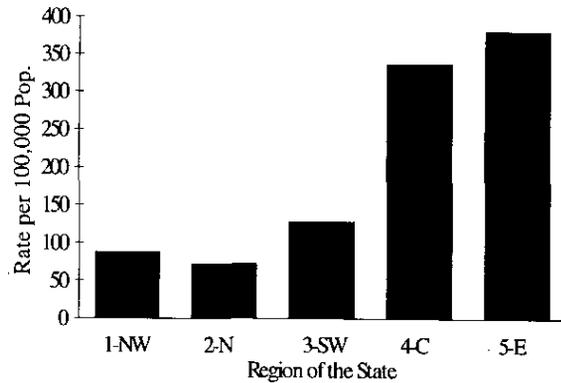


Eighty-one percent of the cases were black (10,925 cases, 914.4 per 100,000 population), eight percent were white (1,046 cases, 21.5 per 100,000), one percent were in the other race category (128 cases, 37.6 per 100,000) and ten percent were of unspecified race (1,315 cases). The incidence rate for males was 234.0 cases per 100,000 compared to 184.5 cases per 100,000 females.

The eastern health planning region reported the most cases (6,240 cases, 381.0 per 100,000 population), followed by the central (3,685 cases, 337.0 per 100,000), southwest (1,597 cases, 128.0 per 100,000), northern (1,123 cases, 72.3 per 100,000), and northwest (769 cases, 87.9 per 100,000) health planning regions (Figure 10).

Figure 10.

Gonorrhea: Rate by Region
Virginia, 1994



Granuloma Inguinale

No cases of granuloma inguinale were reported in 1994. Cases of this disease were last reported in 1990 in Virginia.

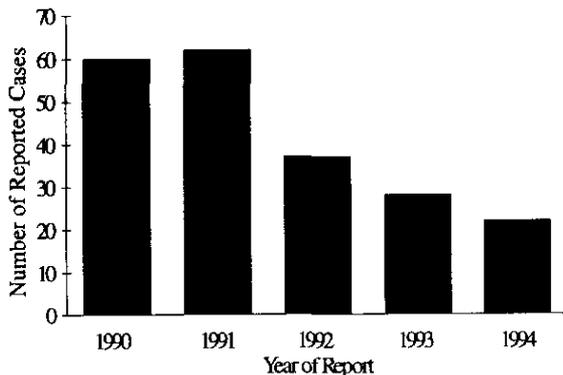
Haemophilus influenzae Infection, Invasive

Invasive *Haemophilus influenzae* infections declined for the third consecutive year (Figure 11). Twenty-two cases were reported in 1994 (including six cases of meningitis) compared to a total of 28 cases reported in 1993. Peak activity for this disease occurred during the first and third quarters when 73% of the cases had onset of illness.

Infants had the highest incidence rate (4 cases, 4.9 per 100,000 population), followed by adults age 50 and older (12 cases, 0.8 per 100,000 population). Thirteen cases occurred in whites (0.3 per 100,000 population) and seven occurred in blacks (0.6 per 100,000); race was not reported for two cases. The incidence rate was slightly higher in females than

Figure 11.

**Invasive *H. influenzae*: Five Year Trend
Virginia 1990-1994**



males (0.4 per 100,000 population vs. 0.3 per 100,000 population).

Most cases were reported from the northwest (9 cases, 1.0 per 100,000 population) and northern (7 cases, 0.4 per 100,000 population) health planning regions. The other regions reported from one to three cases.

No *H. influenzae* associated deaths were reported in 1994.

Meningitis caused by *H. influenzae* is also included under the heading Bacterial Meningitis.

Hansen's Disease (Leprosy)

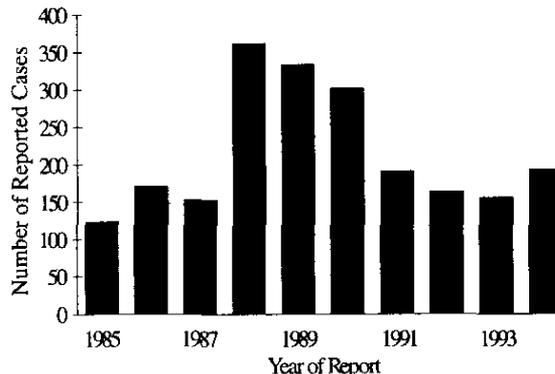
One case of this disease of low frequency in Virginia was reported in 1994. The patient, who was reported from the military, was a 23 year old white male.

Hepatitis A

The annual number of reported cases of hepatitis A (193 cases) increased in 1994 for the first time since 1988, as shown in Figure 12. The occurrence of cases by quarter ranged from 25 to 67. Peak activity occurred during the second and third quarters of the year when 64% of the cases reported onset of illness.

Figure 12.

**Hepatitis A: Ten Year Trend
Virginia, 1985-1994**



Adults between the ages of 20 and 39 were most at risk for hepatitis A with an incidence rate of almost 4 cases per 100,000 population. Persons in the other race category were more likely to be reported with hepatitis A than blacks or whites. The incidence rate for males was 3.6 cases per 100,000 population compared to 2.4 cases per 100,000 population for females.

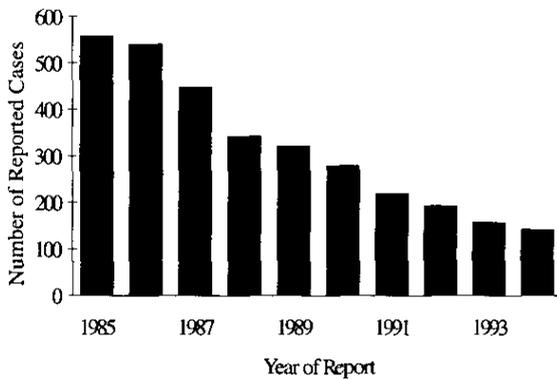
The northern health planning region reported the most cases and had the highest incidence rate of all regions (84 cases, 5.4 per 100,000 population).

Hepatitis B

Hepatitis B cases decreased for the ninth consecutive year. The number of cases reported in 1994 (142) is 416 cases below the ten year high of 558 cases reported in 1985 (Figure 13). Cases occurred throughout the year such that no seasonal trend was noted.

Figure 13.

**Hepatitis B: Ten Year Trend
Virginia, 1985-1994**



Adults in the age groups 20-29 and 30-39 years had the highest and similar incidence rates (3.5 and 3.4 cases per 100,000 population, respectively). Blacks had a much higher incidence rate than the other two race categories (5.0 per 100,000 compared to 1.3 per 100,000 for whites and 0.6 per 100,000 for persons in the other race category). Males were reported more often with this disease than females. The incidence rate in males was 2.4 per 100,000, compared to 2.0 per 100,000 for females.

Incidence rates by region ranged from a high of 2.6 cases per 100,000 population in the eastern health planning region to a low of 1.0 per 100,000 in the northwest region.

No deaths were reported among the 142 cases reported in 1994.

Hepatitis Non-A Non-B

Twenty-six cases of hepatitis non-A non-B were reported in 1994 compared to 54 cases in 1993. Almost half of the cases experienced onset during the first quarter of the calendar year.

Adults in the 30-39 and 40-49 age groups were most likely to be reported with this disease (0.9 cases per 100,000 population each). The incidence rate was highest in persons in the other race category, and males and females had comparable incidence rates (0.4 cases per 100,000 population each). One death due to hepatitis non-A non-B was reported.

Incidence rates ranged from a high of 1.1 cases per 100,000 population in the central health planning region to a low of 0.1 in the northwest region.

Hepatitis C virus (HCV) has been identified as the primary etiologic agent of hepatitis non-A non-B in the United States. Eighteen (69.2%) of the hepatitis non-A non-B cases reported in Virginia in 1994 were reported to have tested positive for antibodies to HCV.

Hepatitis Unspecified

The number of reported cases of hepatitis unspecified decreased in 1994 to 10 from 43 reported in 1993. Cases occurred in all but the fourth quarter.

Incidence rates by age ranged from a high of 4.8 cases per 100,000 population in the 50 and older age group to a low of 0.4 per 100,000 in the 10-19 year age group.

Persons in the other race category were more likely than blacks and whites to be reported with this disease, and males were more likely to be reported than females.

Histoplasmosis

An unusual number of cases of histoplasmosis (180 cases) was reported in Virginia in 1994 due to an outbreak identified in a correctional facility in the central health planning region. Cases of histoplasmosis were reported in 177 inmates and employees at the facility. The outbreak was associated with the clean-up of debris in and around soil contaminated with spore forms of *Histoplasma capsulatum*. Infection resulted from inhalation of airborne spores.

Three non-outbreak related cases of this disease were among the 180 cases reported in 1994. The affected persons ranged in age from 27 to 37 years; two were male and all were white. Two of the cases were reported from the northwest health planning region and one from the southwest region.

Human Immunodeficiency Virus (HIV) Infection and the Acquired Immunodeficiency Syndrome (AIDS)

HIV

During 1994, 1,124 HIV infections were reported, bringing the cumulative total of cases reported since 1989 to 6,942. Sixteen percent of the cumulative HIV infections were reported in 1994. Trends in HIV infection are important because they are likely to be predictive of future AIDS trends.

Males represented the majority (838 cases, 75%) of the HIV infection reports and were three times more likely to have the infection than females (26.7 per 100,000 males vs. 8.8 per 100,000 females). During 1994, the majority of HIV cases were black (733 cases, 65%). Whites represented 30% of the HIV infections while persons in the other race cate-

gory represented 4%. Race was not reported in 13 cases. Black persons were nine times more likely than whites to be reported, having an incidence rate of 61.4 cases per 100,000 population compared to 6.9 per 100,000 in whites. The HIV incidence rate in persons in the other race category was 12.0 per 100,000.

Persons in their thirties had a higher incidence rate than persons in their twenties (467 cases, 41.7 per 100,000 population vs. 367 cases, 32.4 per 100,000 population, respectively). Sixteen pediatric (under 12 years of age) HIV infections were reported in 1994. Of these children, fifteen (94%) were infected through maternal transmission.

Compared to persons with AIDS, persons with HIV infection were more likely to have become infected through heterosexual contact (14% of reported HIV cases vs. 10% of AIDS cases) and less likely to attribute their infection to men having sex with men (30% of reported HIV cases vs. 49% of AIDS reports). Females comprised a much larger proportion of HIV infections (25%) than AIDS cases (15%), as shown in Figure 14.

The highest incidence rate was calculated for the central health planning region (27.6 cases per 100,000 population), followed by the eastern region (25.0 cases per 100,000 population), and the north-

Figure 14.

A Comparison of AIDS and HIV Infections by Sex, Virginia, 1994

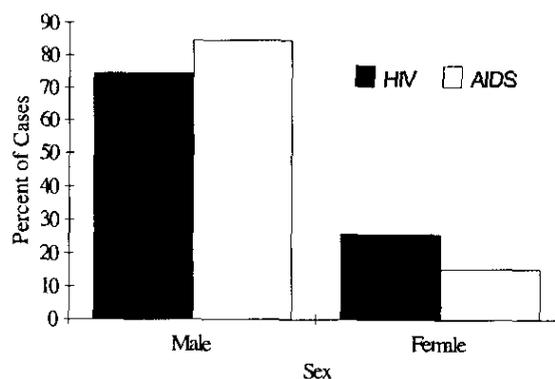
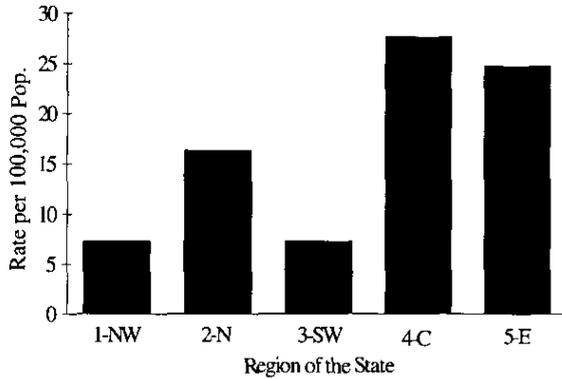


Figure 15.

HIV Infection: Rate by Region
Virginia, 1994



ern region (16.6 cases per 100,000 population). The southwest and northwest regions each experienced an incidence rate of 7.3 cases per 100,000 (Figure 15).

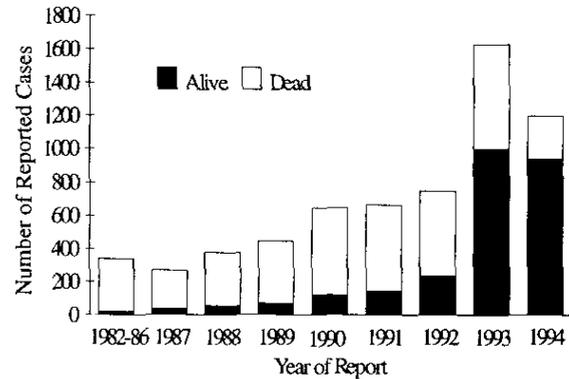
AIDS

Since the first cases were reported in 1982, the cumulative number of AIDS cases reported through the end of 1994 in Virginia is 6,317, with 3,456 (55%) of these cases known to have died. In 1994, 1,200 cases were reported, representing a 27% decrease from 1993 (Figure 16). This decrease may be due to changes in reporting. An unusual number of AIDS cases were recorded in 1993 because: (1) in that year the definition of AIDS was expanded to include additional clinical conditions and a laboratory marker and (2) cases with onset of disease in 1993 and prior years that would not have met previous AIDS case definitions were reported in 1993.

AIDS is caused by the human immunodeficiency virus (HIV). The most common modes of transmission are through unprotected sexual intercourse (especially anal intercourse) and injecting drug use (IDU). During 1994, men having sex with men (MSM) accounted for the greatest percentage of AIDS cases (49%), followed by IDU (19%). An additional 6% of cases had both of the above risk factors (Figure 17).

Figure 16.

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

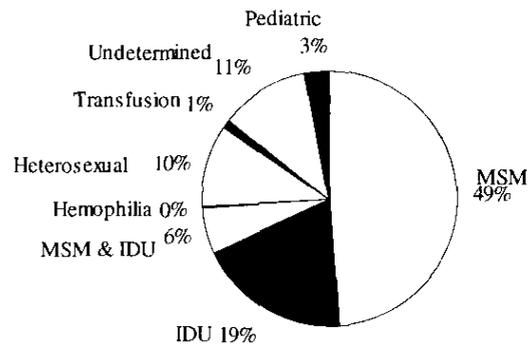


The 30-39 year age group had the highest incidence rate (556 cases, 49.7 per 100,000 population), followed by 40-49 year olds (308 cases, 35.3 per 100,000). Thirty-two pediatric AIDS cases were reported in 1994. Thirty (94%) of these children were infected via perinatal transmission.

This is the second consecutive year that the majority of AIDS cases reported were black (634 cases, 53%). An additional 526 cases were white (44%) and 38 cases were in the other race category (3%). Blacks were five times more likely than whites to be reported with AIDS, having an incidence rate of 53.1 cases per 100,000 population

Figure 17.

AIDS: Mode of Transmission
Virginia, 1994



compared to 10.8 in whites. Males also represented a disproportionate share, with a disease rate six times higher than females (32.6 vs. 5.4 cases per 100,000 population).

The eastern and central health planning regions experienced the highest incidence rate (25.9 and 25.8 cases per 100,000 population, respectively), followed by the northern region (20.0 cases per 100,000 population), southwest region (8.9 cases per 100,000 population), and northwest region (8.2 cases per 100,000 population).

Persons with AIDS develop a variety of life-threatening opportunistic infections due to immunosuppression. The most commonly diagnosed infection is *Pneumocystis carinii* pneumonia (PCP). Nearly one quarter (24%) of the cases reported during 1994 developed PCP during the course of their illness. Other frequently diagnosed conditions include Kaposi's sarcoma (4%), HIV wasting syndrome (10%), *Mycobacterium avium* infection (6%), esophageal candidiasis (6%), and HIV encephalopathy (3%). Nearly half (48%) of the 1994 cases were reported because of having low CD4 counts and would not have been recorded before the definition of AIDS was expanded in 1993.

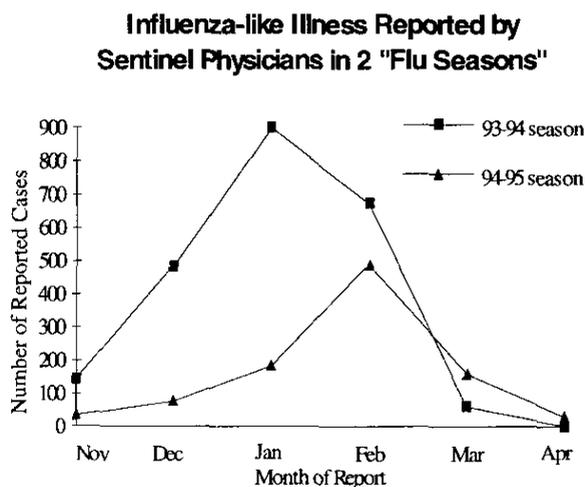
Influenza

The influenza season in Virginia usually runs from the fourth quarter (October - December) of one year through the first quarter (January - March) of the following year. During this period, the health department conducts active influenza surveillance using sentinel physicians from around the state who report cases of influenza-like illness on a weekly basis. In addition, sporadic cases of influenza-like illness are reported throughout the calendar year through our passive disease reporting system. Information from both surveillance systems, along with laboratory identification of viral agents, is used

to monitor and define influenza activity in Virginia. During the influenza season, cases are tabulated weekly and used to characterize influenza or influenza-like activity in Virginia as sporadic, regional or widespread.

During the 1993-94 influenza season, all isolates reported in Virginia were influenza type A. Based on sentinel physician data, widespread activity occurred from late December to mid-February, peaking late January 1994. By comparison, during the 1994-95 influenza season, influenza type A and influenza type B were isolated in Virginia. Widespread activity occurred from early January to late February, with peak activity occurring mid-February 1995 (Figure 18).

Figure 18.



There were 957 cases of influenza reported through the passive surveillance system in calendar year 1994 compared to 1,363 cases in 1993, and 148 cases in 1992 (Figure 19). The small number of cases reported in 1992 was due to the early onset of influenza activity during the 1991-92 influenza season followed by the late onset of activity during the 1992-93 influenza season.

Influenza incidence rates throughout the state for calendar year 1994 ranged from a low of 0.3 cases per 100,000 population in the northern health planning region to a high of 45.3 per 100,000 population in the southwest region.

Figure 19.

Influenza: Ten Year Trend
Virginia, 1985-1994

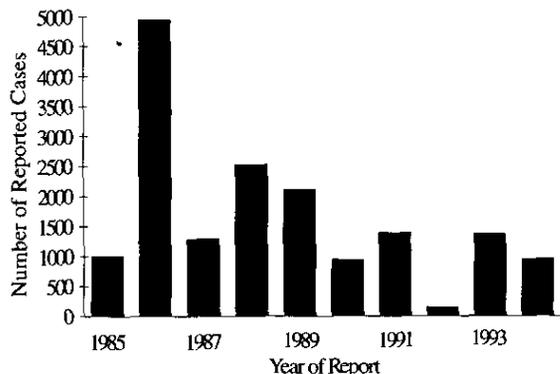
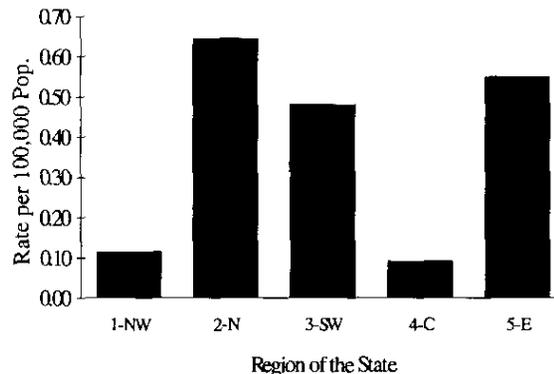


Figure 20.

Kawasaki Syndrome: Rate by Region
Virginia, 1994



Kawasaki Syndrome

Twenty-seven reported cases of Kawasaki syndrome were confirmed in 1994 compared to 31 in 1993. A disease primarily of the young, cases ranged in age from five months to seven years. One-half of the cases with an onset in 1994 occurred during the first quarter of the year.

Twenty-two (81%) were in the 1-9 year age group and the remaining five cases were infants. The incidence rate was highest among persons in the other race category (0.9 cases per 100,000 population), followed by blacks (0.6 per 100,000) and whites (0.4 per 100,000). Males were 4.5 times more likely to be reported with this condition than females.

The highest incidence rates were observed in the northern and eastern health planning regions (0.6 cases per 100,000 population each). The southwest health planning region had an incidence rate of 0.5 cases per 100,000 population and the northwest and central regions each had a rate of 0.1 per 100,000 (Figure 20).

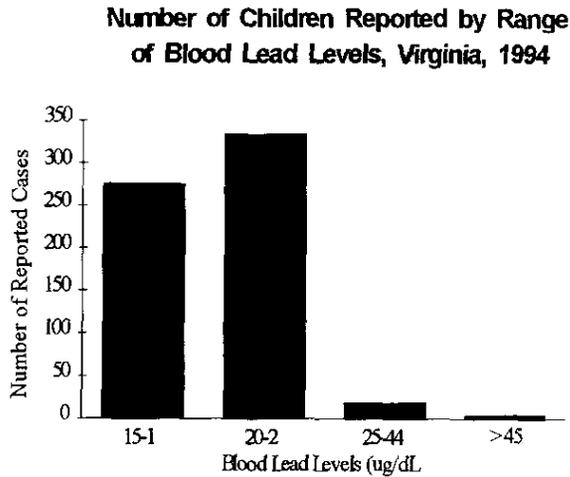
Lead - Elevated Levels in Children

The number of reported cases of elevated blood lead levels increased during 1994 which marked the first full year of reporting since this condition became reportable on July 1, 1993. Any child age 15 years or younger, with a venous blood lead level greater than or equal to 15 µg/dL, should be reported to the health department.

Five hundred fifty-nine (61%) of the children had levels in the 15-19 µg/dL range, the category for which the Centers for Disease Control and Prevention (CDC) recommends nutritional and educational interventions and more frequent screening; 345 (38%) had levels in the 20-44 µg/dL range, for which CDC recommends medical evaluation and environmental evaluation and remediation; 16 (2%) had levels 45 and higher, requiring both medical and environmental interventions (Figure 21).

Children age five and younger comprised 93% of the reported cases (Figure 22). Race was reported for 443 children (48%): 348 were black, 83 were white and twelve were in the other race category. More males (511 cases, 56%) were reported with lead poisoning than females (409 cases, 44%).

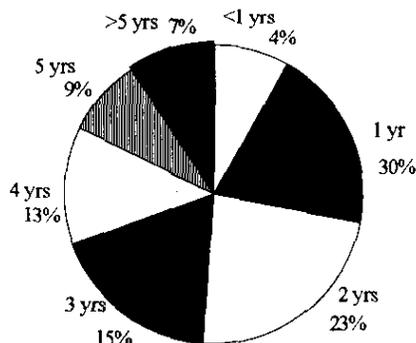
Figure 21.



Cases were reported from all of the health planning regions: northwest, 41 cases; northern, 20 cases; southwest, which includes the federally funded lead prevention program in Lynchburg, 198 cases; central, which includes the programs in Petersburg and Richmond, 349 cases; and eastern, which includes the programs in Norfolk and Portsmouth, 312 cases.

Figure 22.

Ages of Children with Elevated Blood Lead Levels, Virginia, 1994

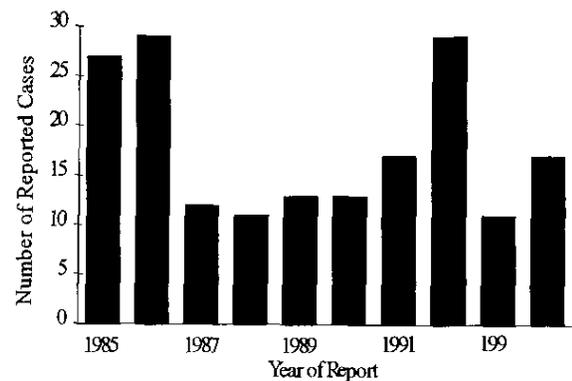


Legionellosis

Seventeen confirmed cases of legionellosis were reported in 1994, an increase from the 11 cases reported in 1993 (Figure 23). Males have historically been reported with this disease more than females. In 1994, the male to female ratio was 3:1 and the incidence rate per 100,000 population was 3.4 times higher for males than females. Ages among cases ranged from 32 to 73 (mean = 53). Seven cases were white, five were black and two were in the other race category. Race was not reported for three cases.

Figure 23.

Legionellosis: Ten Year Trend Virginia, 1985-1994



The southwest health planning region reported the highest number of confirmed cases (7), followed by five from the northwest region, four from the eastern region and one from the central region. No confirmed cases were reported from the northern region. One death was reported in a 73 year old black male.

Leptospirosis

No cases of this zoonotic bacterial disease were reported in Virginia in 1994 or in 1993. Two cases of leptospirosis were reported in 1992.

Listeriosis

Seventeen cases of listeriosis were reported in 1994 (including three cases of meningitis) compared to 23 cases in 1993. Persons reported with listeriosis ranged in age from newborn to 78 years. Two of the 17 persons reported with listeriosis in 1994 were infants, one was in the 20-29 age group, five were in the 30-39 age group, and the remainder were age 50 or older. More cases were reported among females (12 cases, 0.4 per 100,000 population) than males (5 cases, 0.2 per 100,000 population). Of the 16 persons for whom race was reported, 15 were white (0.3 cases per 100,000 population) and one was black (0.1 case per 100,000 population).

From one to eight cases were reported from each of the health planning regions. Incidence rates ranged from 0.1 cases per 100,000 population in the central health planning region to 0.5 cases per 100,000 population in the northern region. No deaths associated with this disease were reported.

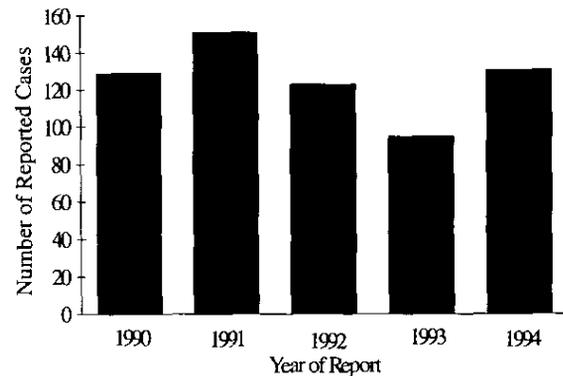
Meningitis due to listeriosis is also included under the heading Bacterial Meningitis.

Lyme Disease

The number of confirmed cases of Lyme disease (131) reported in Virginia in 1994 increased from the 95 cases reported in 1993. Figure 24 shows the five year trend since Lyme disease became a reportable condition in mid-1989.

Figure 24.

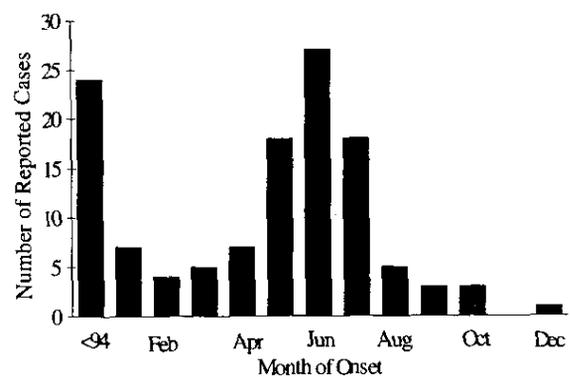
Lyme Disease: Five Year Trend
Virginia, 1990-1994



Cases occurred throughout the year but were more likely to occur during May, June, and July (Figure 25). Persons with Lyme disease ranged in age from two to 83 years (mean = 41). Incidence rates per 100,000 population ranged from 1.0 for age group 1-9 years to 3.1 for age group 30-39 years. Females accounted for 56% of reported cases (incidence rate 2.2 cases per 100,000 population vs. 1.9 cases per 100,000 population for males). The rate among whites (95 cases, 2.0 per 100,000 population) was higher than in blacks (10 cases, 0.8 per 100,000 population) and persons in the other race

Figure 25.

Cases of Lyme Disease by
Month of Onset, Virginia, 1994



category (6 cases, 1.8 per 100,000 population). Race was not reported for 20 persons.

Cases of Lyme disease were reported from all health planning regions with the highest number of reported cases and the highest incidence rates in the northern and eastern health planning regions. *Borrelia burgdorferi*, the causative organism for Lyme disease in this country, has been isolated from rodents, and infected ticks have been identified in several counties in Virginia. There have been no human isolates of this organism from Virginia to date.

Lymphogranuloma Venereum

No cases of this sexually transmitted infection have been reported in Virginia since 1992.

Malaria

Thirty-seven cases of malaria were reported in 1994, four cases less than the number reported in 1993. Cases were reported in all age groups, including one infant. The incidence rate was twice as high for males as females (0.8 vs. 0.4 cases per 100,000 population). Blacks and persons in the other race category had the highest incidence rates (2.0 cases per 100,000 population each, compared to 0.1 cases per 100,000 for whites).

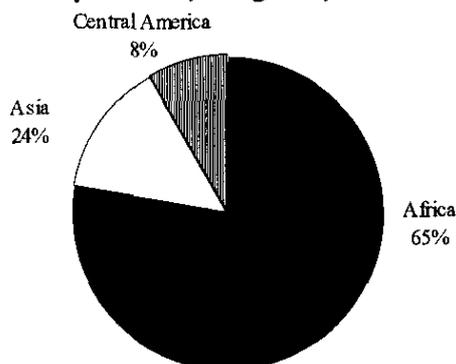
Thirty-two cases (87%) were reported from the northern health planning region, three cases were reported from the eastern region and one case each was reported from the southwest and central regions.

Species was reported for 33 cases: 19 *Plasmodium falciparum*, 12 *P. vivax*, 1 *P. malariae* and 1

P. ovale. Fifteen persons reported with malaria were U.S. civilians, thirteen were foreign-born civilians, and two were U.S. military personnel. The countries most often traveled to or visited from prior to onset were in Africa (Figure 26). Eleven cases (29.7%) were reported to have a history of malaria prior to the incident reported in Virginia in 1994.

Figure 26.

Cases of Malaria by Place of Acquisition, Virginia, 1994



Measles

Three cases of measles were reported in 1994 compared to four cases in 1993. The number of cases reported for both of these years reflects the lowest annual number of measles cases since 1988 when 239 cases were reported (Figure 27). Two cases were linked to persons outside of Virginia and the source for the other case was not determined.

The three persons reported with measles were ages 18, 19, and 20 years. Two were female; all were white.

One case each was reported from the northwest, northern and eastern health planning regions.

Figure 27.

Measles: Ten Year Trend
Virginia, 1985-1994

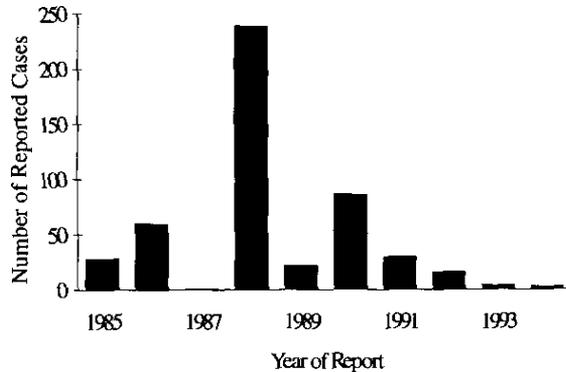
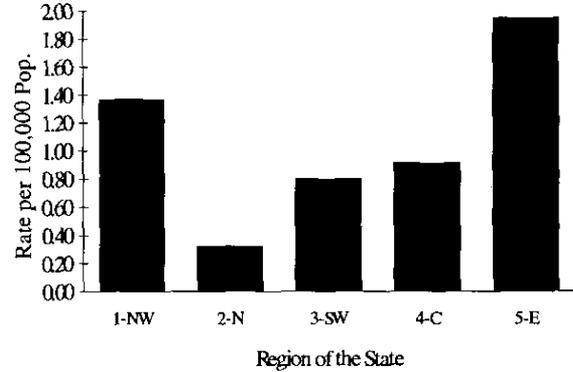


Figure 28.

Meningococcal Infection:
Rate by Region, Virginia, 1994



Meningococcal Infection

The total number of cases of meningococcal infection reported in 1994 increased to 69, up 33% from the 52 cases reported in 1993. Onset of illness was distributed fairly evenly throughout the year with slightly more cases occurring in the first quarter (38%).

Infants had the highest incidence rate (17.0 cases per 100,000 population), followed by persons in the 10-19 year age group (1.7 cases per 100,000 population). Incidence rates were less than 1.0 cases per 100,000 population for the other age groups.

Blacks and persons in the other race category (1.5 and 1.2 cases per 100,000 population, respectively) had a higher incidence rate than whites (0.9 per 100,000). Cases were almost evenly divided between males and females.

The eastern health planning region had the highest number of cases reported and the highest incidence rate (32 cases, 2.0 per 100,000 population), as illustrated in Figure 28.

The serogroup was reported for 39 cases (57%): 20 were group C, 14 group B, 4 group Y, and 1 group A. The organism was isolated from cerebrospinal

fluid in 30 cases, from blood in 21 cases, and from both in 15 cases.

Four males and one female, ranging in age from infant to 39 years, died from meningococcal infections.

Mumps

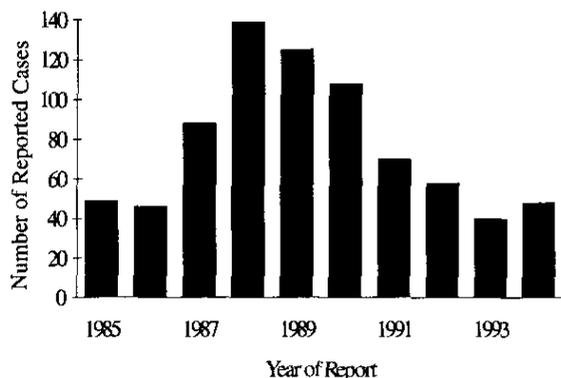
The number of reported cases of mumps increased for the first time since 1989. The 48 cases reported in 1994 is eight cases more than the 40 reported in 1993, and follows an average annual decline of 17 cases over the last five years (Figure 29).

Cases occurred throughout the year and did not reflect a seasonal trend. Most cases were in the 1-9 year age group (25 cases, 3.0 per 100,000 population). Cases ranged in age from one to 49 years (mean = 36). Persons in the other race category had an incidence rate twice that of blacks and three times that of whites. Males had a slightly higher incidence rate than females (26 cases, 0.8 per 100,000 population vs. 22 cases, 0.7 per 100,000 population).

Cases were reported from each health planning region but were more likely to be reported from the

Figure 29.

**Mumps: Ten Year Trend
Virginia, 1985-1994**



eastern region. The distribution of reported cases by region ranged from a high of 17 cases (1.0 per 100,00 population) from the eastern region to a low of three cases (0.3 per 100,000) from the central region.

Nosocomial Outbreaks

A nosocomial outbreak refers to any group of illnesses of common etiology occurring in patients in hospitals or nursing homes acquired by exposure of those patients to the disease agent while confined in such facilities. In 1994, all five of the nosocomial outbreaks that were reported occurred in nursing homes. Three of the outbreaks were suspected of being of viral origin and caused symptoms of gastroenteritis in two of the nursing homes and influenza-like illness in another. One outbreak was due to scabies (*Sarcoptes scabiei*) and one was due to group A streptococcal disease which was confirmed among residents and employees at a nursing home. Illnesses associated with this outbreak included wound infections, pharyngitis and other respiratory symptoms. One resident had an invasive group A streptococcal infection and subsequently died of the infection.

Occupational Illnesses

During 1994, 103 cases of the following occupational illnesses were reported: asbestosis (82%), lead poisoning (17%), carpal tunnel syndrome (1%), and silicosis (1%). The remainder of this section will present further information on the cases of asbestosis and lead poisoning.

Of the 84 persons reported with asbestosis, all but two were male. Cases ranged in age from 45 to 84 years (mean = 62). Race was generally not reported.

Cases were only reported from the eastern (95%) and central (5%) health planning regions. The industries employing the most persons reported with asbestosis were shipbuilding (54 cases, 64%), the railroad industry (8 cases, 10%) and the military (8 cases, 10%).

The 17 persons reported with elevated blood lead levels ranged in age from 21 to 67 years (mean = 38). Cases were reported from all five health planning region, ranging from one to five cases per region. Four workers were employed in the steel industry, three worked with stained glass, and one repaired small engines. The industry or occupation was not reported for nine workers who were reported with elevated blood lead levels.

Ophthalmia Neonatorum

Three cases of ophthalmia neonatorum were reported in 1994. *Chlamydia trachomatis* was the causative organism for two cases and one was due to *Neisseria gonorrhoeae*. All three cases were reported from the eastern health planning region.

Other Meningitis

Thirty-three cases of meningitis caused by organisms other than bacteria or viruses were reported in 1994. Twenty-five cases were caused by *Cryptococcus neoformans* and one by *Candida albicans*. The causative organism was unspecified for seven cases.

The reported cases were primarily adults. All but three of the cases were in persons age 20 years or older. The number of cases was approximately the same for blacks and whites; however, the incidence rate was 1.3 cases per 100,000 population for blacks compared to 0.3 cases per 100,000 population for whites. Twice as many males were reported as females (23 cases, 0.7 per 100,000 population vs. 10 cases, 0.3 per 100,000 population).

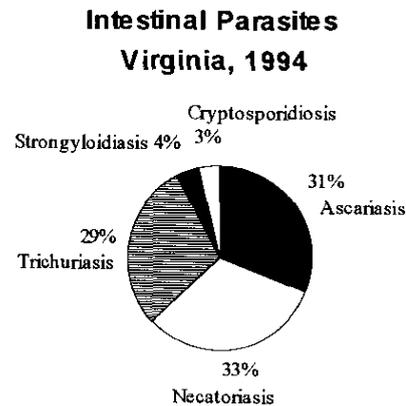
Ten of the 13 deaths reported for this category were associated with *C. neoformans* infection. Persons who died ranged in age from 1 to 84 years; all but four were male.

Parasites, Intestinal

In addition to amebiasis and giardiasis, selected reports of other parasitic intestinal diseases are recorded. In 1994, 206 cases of these intestinal parasites were reported: 66 cases of necatoriasis (hookworm), 64 cases of ascariasis (roundworm), 60 cases of trichuriasis (whipworm), nine cases of strongyloidiasis, and seven cases of cryptosporidiosis (Figure 30).

The occurrence of these infections ranged from 30 cases during the first quarter of the calendar year to a high of 80 cases during the last quarter. Cases were reported in all age groups except infants. The average incidence rate for persons less than 30 (excluding infants) was 4.8 cases per 100,000 popula-

Figure 30.



tion compared to 2.0 cases per 100,000 population for persons age thirty or older.

By health planning region, incidence rates ranged from a low of 0.2 cases per 100,000 population in the northwest region to a high of 8.2 per 100,000 in the central region.

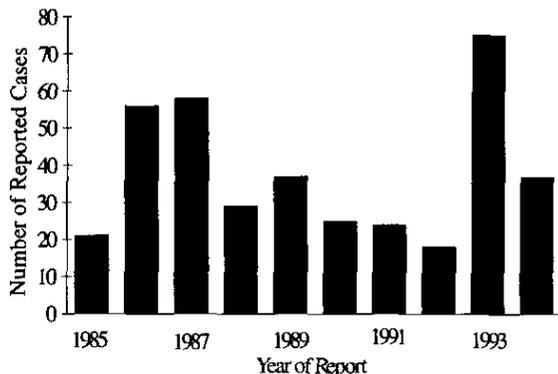
Pertussis

Thirty-seven cases of pertussis were reported in 1994 compared to 75 cases reported in 1993 (Figure 31). Children less than ten years old accounted for 32 (87%) of the reported cases; 25 of these children were less than one year of age. More females (21 cases, 0.6 per 100,000 population) were reported with pertussis than males (16 cases, 0.5 per 100,000 population). Race was usually not reported.

The distribution of cases by month of onset ranged from one case in the fourth quarter to 13 cases in the third quarter (Figure 32). The highest incidence rate occurred in the northern health planning region (13 cases, 0.8 per 100,000 population) and the lowest in the southwest region (2 cases, 0.2 per 100,000 population). Incidence rates for the

Figure 31.

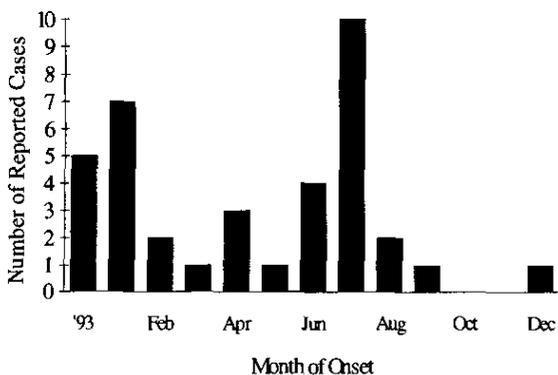
**Pertussis: Ten Year Trend
Virginia, 1985-1994**



other regions clustered around 0.6 to 0.7 cases per 100,000 population.

Figure 32.

**Cases of Pertussis by
Month of Onset, Virginia, 1994**



Phenylketonuria (PKU)

One case of PKU was identified in 1994 through newborn screening programs compared to seven cases in 1993. The case was diagnosed in a three month old from the eastern health planning region.

Plague

No cases of this disease have been reported in Virginia during the twentieth century.

Poliomyelitis

The last reported case of poliomyelitis in Virginia occurred in 1978.

Psittacosis

Two cases of this disease were reported in 1994. One case occurred in a pet store employee who cleaned the bird cages and the other was in a pet bird owner who died as a result of illness with this disease.

Q Fever

The last case of Q fever reported in Virginia was in 1987.

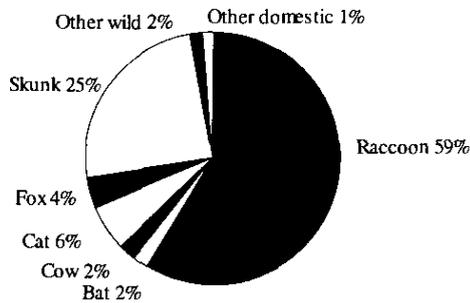
Rabies in Animals

The total number of laboratory confirmed rabid animals for 1994 was 428; a 11% increase over the 1993 total of 387. The raccoon rabies outbreak continued its expansion, showing up in four counties that had not previously reported raccoon rabies; Accomack, Amherst, Halifax and Smyth.

For the thirteenth consecutive year raccoons were the most commonly reported species with rabies. The 251 rabid raccoons accounted for 59% of

Figure 33.

Species of Animals Positive for Rabies, Virginia, 1994



all rabid animals (Figure 33) and rabid skunks accounted for 25%. Other wildlife reported as rabid in 1994 included 17 foxes, 9 bats, 5 groundhogs, 1 opossum and 1 otter. Rabid domestic animals included 25 cats, 9 cows, 4 dogs, and 1 horse. The number of animals tested in 1994 was 3,232; 55 less than in 1993. The percent positive was slightly higher in 1994 compared to 1993 (13% vs. 12%).

The most commonly tested animals were cats (30% of animals tested), dogs (20%) and raccoons (17%). Although skunks only accounted for 4% of the animals tested, 74% of those that were tested were rabid. The percent positive for raccoons that were tested was 46% while only 3% of cats and less than 1% of dogs were positive.

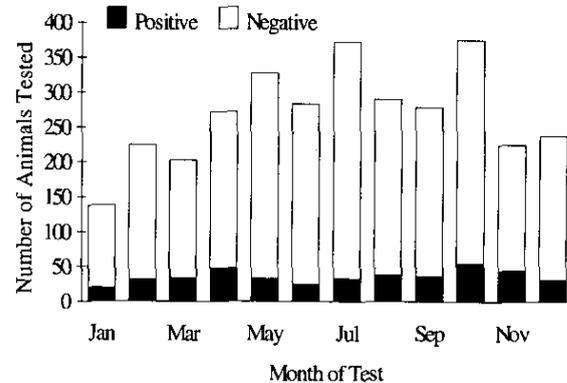
The localities with the highest number of rabid animals in 1994 included: Accomack (8% of reported cases), Fairfax County (including the cities of Fairfax and Falls Church) (8%), Augusta (including the city of Staunton) (6%). The rest of the localities contributed 5% or fewer cases each to the total number of rabid animals. The number of animals tested is compared to the number positive for each month in Figure 34.

The percent of rabid animals that exposed humans were as follows: dogs, 100%; horse, 100%; cows, 78%; bats, 67%; cats, 92%; foxes, 29%;

groundhogs, 20%; raccoons, 13%; and skunks, 9%. Human exposure was not reported for the rabid opossum or the rabid otter.

Figure 34.

Animal Rabies Tests by Month and Test Result, Virginia, 1994



Rabies in Humans

No human rabies cases were reported in 1994. The last reported case in Virginia occurred in 1953. The number of persons who received postexposure prophylaxis increased between 1993 and 1994, from 378 to 446. This is the highest number reported since we began keeping records in 1985. Preexposure vaccinations were reported for 557 persons, a 45% decrease from the 806 reported in 1993.

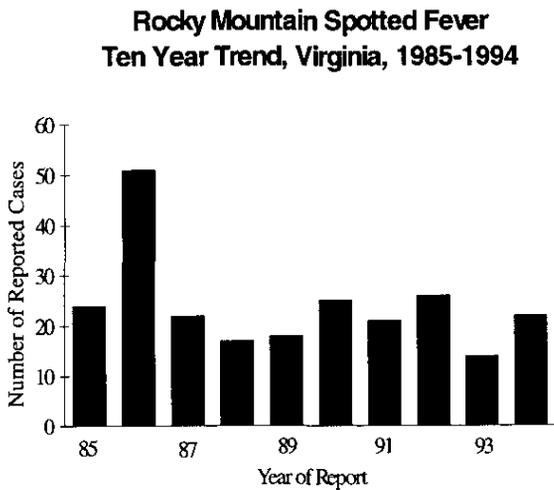
Reye Syndrome

One confirmed case of Reye syndrome was reported in 1994. The person diagnosed was an elderly male with a history of chronic obstructive pulmonary disease who at the time of diagnosis had a positive culture for influenza type A virus.

Rocky Mountain Spotted Fever

The number of confirmed cases of Rocky Mountain spotted fever increased to 22 in 1994, up eight cases from the 14 reported in 1993. Figure 35 shows the ten year trend in the number of reported cases of Rocky Mountain spotted fever in Virginia. Onset of illness occurred primarily between April and September (Figure 36).

Figure 35.



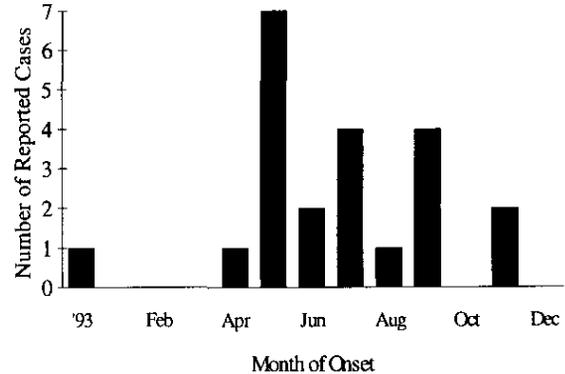
Three age groups (10-19, 40-49 and 50+) had the higher incidence rates (0.5 cases per 100,000 population each). The average age of reported cases was 41 years. Seventeen of the 22 cases were white, however, the other race category had the highest incidence rate (2 cases, 0.6 per 100,000 population).

Almost twice as many males (14 cases, 0.5 per 100,000 population) were reported with Rocky Mountain spotted fever as females (8 cases, 0.3 per 100,000).

Incidence rates ranged from a high of 0.5 cases per 100,000 population in the northwest and central health planning regions to a low of 0.2 cases per 100,000 population in the southwest and eastern regions.

Figure 36.

Rocky Mountain Spotted Fever by Month of Onset, Virginia, 1994



Ten (45%) of the cases reported having a rash. Eight reported a tick bite, ten reported being in a tick infested area, and the exposure status was not reported for four. No deaths were reported.

Rubella

The last case of rubella in Virginia occurred in 1990.

Salmonellosis

The number of cases of *Salmonella* infection increased for the second consecutive year in Virginia. The 1,135 cases reported in 1994 were 8% more than the 1,055 cases reported in 1993 and 19% more than the 957 cases reported in 1992. Increases were noted in the northwest and central health planning regions which were up 67% and 42%, respectively from the number of cases reported in 1992. The most frequently reported species are listed in Table 10.

Onset of illness occurred throughout the year, peaking in the third quarter. Infants had the highest

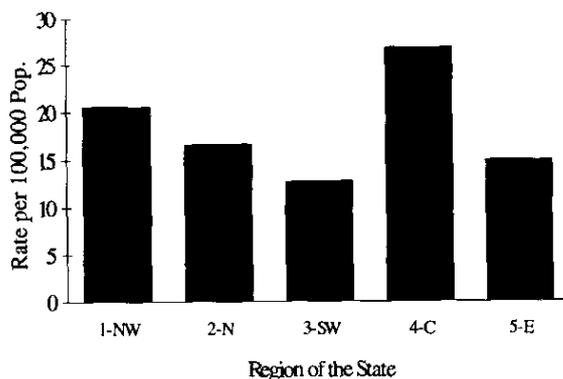
Table 10. Number and Percent of Salmonella Infections by Species, Virginia, 1994

Species Causing Infection	Number of Cases	Percent of Cases
<i>S. typhimurium</i>	317	27.93
<i>S. enteritidis</i>	188	16.56
<i>S. heidelberg</i>	67	5.90
<i>S. newport</i>	55	4.85
<i>S. muenchen</i>	28	2.47
<i>S. hadar</i>	22	1.94
<i>S. saint paul</i>	20	1.76
<i>S. thompson</i>	17	1.50
<i>S. agona</i>	16	1.41
<i>S. braenderup</i>	14	1.23
Unspecified	214	18.85
All Others	177	15.59
TOTAL	1135	100.00

rate of illness (150 cases, 182.3 per 100,000 population), followed by children age 1-9 (275 cases, 33.5 per 100,000 population). The other age groups' incidence rates ranged from 10.2 to 13.9 cases per 100,000 population. The incidence rate in blacks (15.5 cases per 100,000 population) was 1.5 times that of whites (9.2 per 100,000) and of persons in the other race category (9.7 per 100,000). Race was not reported for 469 cases. The incidence rates for males and females were similar.

Figure 37.

Salmonellosis: Rate by Region Virginia, 1994



By health planning region, incidence rates ranged from 12.7 cases per 100,000 population in the southwest to 26.8 cases per 100,000 population in the central region, as shown in Figure 37. No *Salmonella* related deaths were reported.

The one confirmed *Salmonella* foodborne outbreak reported in 1994 accounted for seven cases (see Foodborne Outbreaks section).

Shigellosis

The number of cases of shigellosis reported in 1994 (656) is 15% less than the 776 cases reported in 1993, continuing the erratic temporal pattern of increases and decreases (Figure 38). The peak occurrence of this disease was in the second quarter of the year compared to the third quarter for other enteric diseases (i.e., campylobacteriosis, giardiasis, and salmonellosis). Eighty percent of the *Shigella* infections (573 cases) were caused by *Shigella sonnei*; 42 infections were due to *S. flexneri*; two to *S. boydii*; two to *S. dysenteriae*; and species was not reported for 37 infections.

Children age 1-9 years were by far more likely to be reported with this disease than any other age

Figure 38.

Shigellosis: Ten Year Trend Virginia, 1985-1994

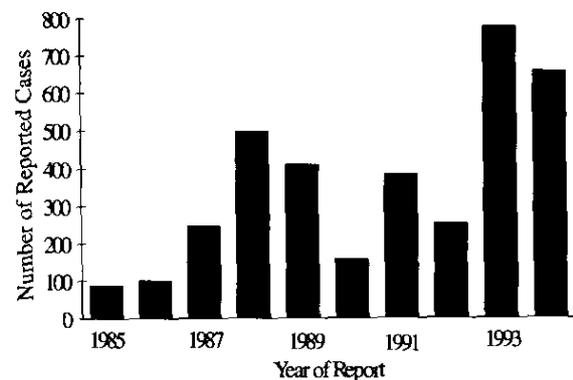
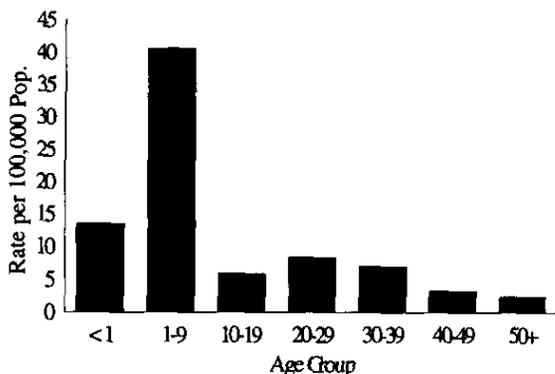


Figure 39.

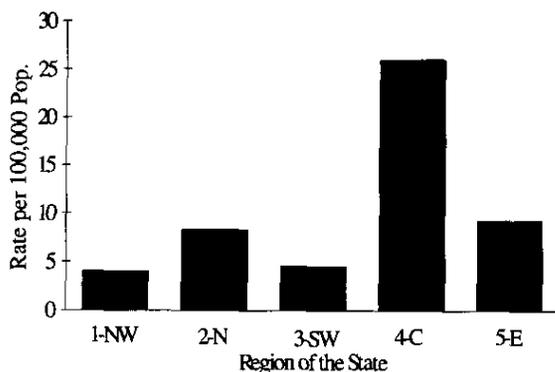
**Shigellosis: Rate by Age Group
Virginia, 1994**



group (Figure 39). One-half of all reported cases were in this age group for an incidence rate of 40.5 cases per 100,000 population. Blacks had the highest number of cases reported and the highest incidence rate (209 cases, 17.5 per 100,000 population). Race was not reported for 279 cases. The incidence rate was higher for females than for males (10.8 vs. 9.2 cases per 100,000 population). The incidence rate was the highest for the central health planning region for the second consecutive year (Figure 40).

Figure 40.

**Shigellosis: Rate by Region
Virginia, 1994**



Smallpox

The last reported case of smallpox in Virginia occurred in 1944.

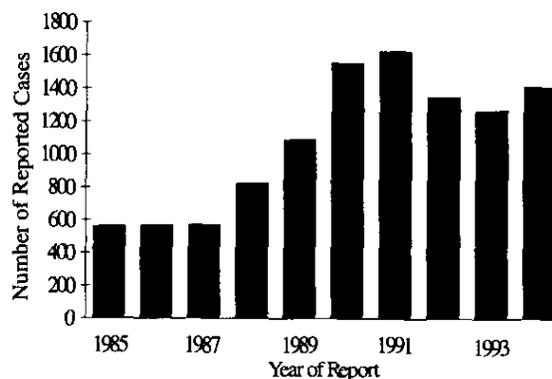
Syphilis

Early Syphilis

Early syphilis includes the primary, secondary and early latent stages of syphilis. The number of cases of early syphilis reported increased 11% from 1,268 cases in 1993 to 1,409 cases in 1994 (Figure 41).

Figure 41.

**Early Syphilis: Ten Year Trend
Virginia, 1985-1994**



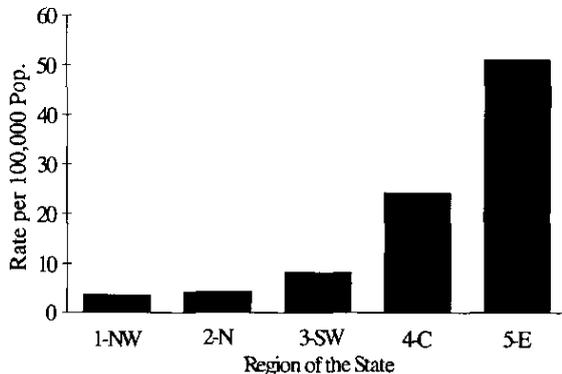
More than a quarter (28%) of the early syphilis morbidity occurred in persons in the 15-24 year age range, while 35% was reported in the 20-29 year age group and 34% in the 30-39 year age group. Six percent of the reported cases were white (85 cases, 1.8 per 100,000 population), 90% were black (1,271 cases, 106.4 per 100,000 population), and 3% were persons in the other race category (37 cases, 10.9 per 100,000 population). Race was not reported for one percent of the cases.

The number of female cases increased 13% from 654 in 1993 to 741 in 1994. The corresponding increase in the number of cases in males was 9% from 614 in 1993 to 668 in 1994. The 1994 incidence rate per 100,000 population was 22.7 for females and 21.3 for males.

The eastern health planning region reported the most cases (1,104 cases, 67.4 per 100,000 population), followed by the central region (185 cases, 16.9 per 100,000 population), southwest region (67 cases, 5.4 per 100,000 population), northern region (27 cases, 1.7 per 100,000 population), and northwest region (26 cases, 3.0 per 100,000 population). Incidence rates by region are shown in Figure 42. The onset of disease was fairly evenly distributed throughout the year.

Figure 42.

**Early Syphilis: Rate by Region
Virginia, 1994**



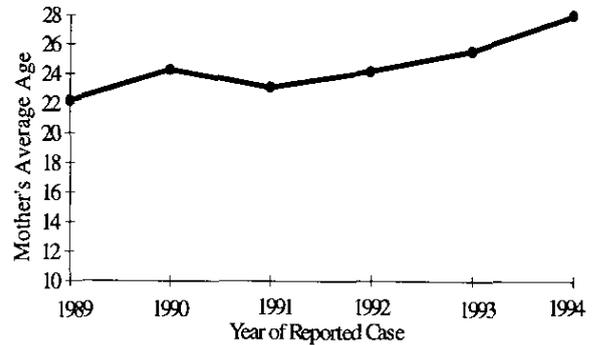
Congenital Syphilis

In 1994, eighteen cases of congenital syphilis were reported. Thirteen cases were reported from the eastern health planning region, three from the northern region, and one each from the northwest and central regions. Fourteen of the infants were black, two were white, two were of other/unknown race. Nine of the cases were male, seven female, and two did not have sex reported.

The mother's average age was 28 years, with a range of 20 to 39. Figure 43 illustrates an increasing

Figure 43.

**Congenital Syphilis by Mother's
Average Age and Year of Report,
Virginia, 1989-1994**



trend in mother's age over a five year period. Most (89%) were single parents. None sought prenatal care during the first trimester of pregnancy, seven sought prenatal care during the second trimester, and three sought care during the third trimester. Eight mothers did not receive any prenatal care.

The 18 congenital cases in 1994 represented a 22% decrease from the 23 cases reported in 1993. The decrease in early congenital syphilis may be associated with the 5% decrease in early syphilis among women during the previous year, especially those of childbearing age. Due to the nine month gestation period, there is usually a lag between an increase or decrease in early syphilis and congenital syphilis. It is expected, therefore, that congenital syphilis for 1995 may increase, as there was a 13% increase in female early syphilis cases from 1993 to 1994.

Tetanus

Two cases of tetanus were reported in 1994. Both were persons in the age 50 or older age group who experienced an injury prior to developing tetanus. Neither person had ever been vaccinated for tetanus. Nationally, and in Virginia, tetanus is a

disease that primarily affects unvaccinated or inadequately vaccinated older adults.

Toxic Shock Syndrome

One confirmed case of toxic shock syndrome was reported in 1994 compared to seven cases in 1993. The case occurred in a 27 year old white female from the northwest health planning region who reported tampon use.

Toxic Substance Related Illnesses

No illness in this category was reported in 1994.

Toxoplasmosis

One case of toxoplasmosis was reported in 1994 in a 42 year old male from the northern health planning region. Toxoplasmosis, a common protozoan infection in man and animals, is not a reportable disease in Virginia; however, cases are recorded when reports are received.

Trichinosis

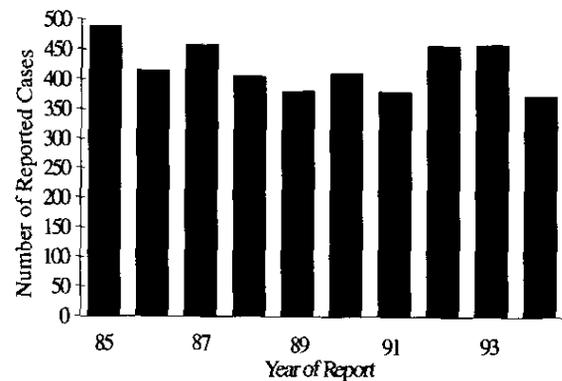
No cases of trichinosis were reported in Virginia in 1994.

Tuberculosis

In 1994, 372 tuberculosis cases were reported, the lowest number ever reported in Virginia. Thirteen cases (4%) were reactivations of previously diagnosed and treated disease. The annual incidence rate for Virginia was 5.8 cases per 100,000 population, compared to 9.4 cases per 100,000 population for the nation. Figure 44 shows the ten year trend for tuberculosis in Virginia.

Figure 44.

Tuberculosis: Ten Year Trend
Virginia, 1985-1994

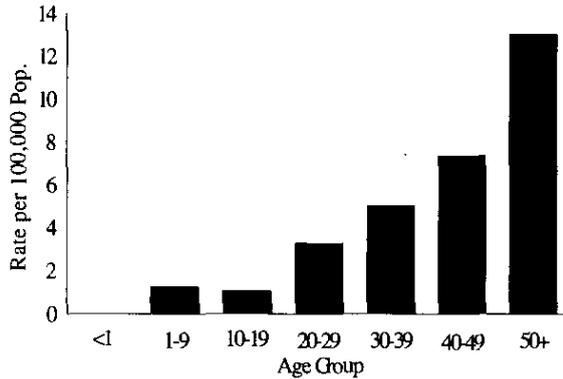


Cases of tuberculosis occurred in all age groups except infants. Over half of the cases reported were in persons age 50 years and older (196 cases, 13.0 per 100,000 population). Ten cases (1.2 per 100,000 population) were reported in children under age ten (Figure 45). The highest incidence rate occurred among persons in the other race category (96 cases, 28.2 per 100,000 population) followed by blacks (139 cases, 11.6 per 100,000 population) and whites (137 cases, 2.8 per 100,000 population). Almost twice as many males (231 cases, 7.4 per 100,000 population) were reported with tuberculosis as females (141 cases, 4.3 per 100,000 population).

The northern health planning region reported the most cases (123 cases, 7.9 per 100,000 population) followed by the eastern (99 cases, 6.0 per 100,000 population) and central (73 cases, 6.7 per 100,000

Figure 45.

Tuberculosis: Rate by Age Group
Virginia, 1994



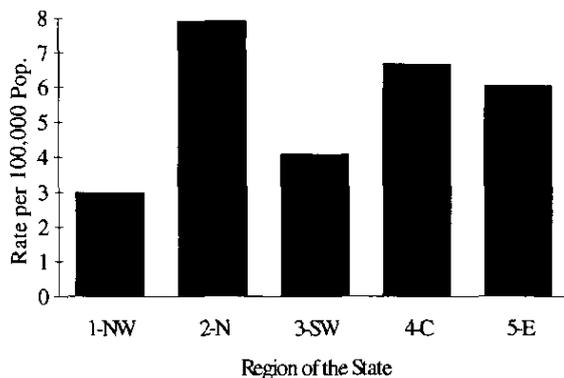
population) regions (Figure 46). Persons born in countries outside the United States accounted for 133 cases (36%), 95 of whom were reported from the northern health planning region.

Of 291 isolates tested, 26 (9%) were resistant to one anti-tuberculosis medication. Twenty-two (8%) were resistant to multiple drugs, ten of which were resistant to both isoniazid and rifampin.

Forty-one (11%) persons reported with tuberculosis in 1994 died: 17 were diagnosed at death and 24 died during the course of their treatment. How-

Figure 46.

Tuberculosis: Rate by Region
Virginia, 1994



ever, tuberculosis was reported as a contributory factor to death in only two of the deaths.

Tularemia

No cases have been reported since 1992.

Typhoid Fever

Nine cases of typhoid fever were reported in 1994. Seven cases were reported from the northern health planning region and one case was reported from the central and eastern health planning regions. The cases ranged in age from 1 to 35 years. Five females and four males were reported.

Seven of the nine cases had either travelled to or lived in another country during the month preceding their onset of illness. One case had not traveled and the travel history for one case was not reported.

Typhus, Flea-borne

No cases of this disease were reported in 1994. One case had been reported the previous year.

Vibrio Infection

Non-cholera

Ten *Vibrio* infections (not including cholera) were reported in 1994. The species of these ten non-cholera cases included *V. parahaemolyticus* (4 cases), *V. vulnificus* (3 cases), *V. fluvialis* (1 case), *V. mimicus* (1 case), and *V. cholerae* non-01 (1

case). Five of the ten cases occurred during the months of June and July.

The age of cases ranged from 27 to 98 years (mean = 54). Eight of the cases were males and two were females. Race was not reported for the majority (70%) of persons reported.

Seven of the cases were reported from the eastern health planning region, two from the northern region, and one from the central region. One death associated with *V. vulnificus* infection was reported: a 56 year old male who had a history of chronic obstructive pulmonary disease and cirrhosis died following an injury as a result of a fall.

Cholera

Additionally, one toxigenic *V. cholerae* O139 infection was reported. The infection was reported in a resident of northern Virginia who was part of an outbreak of cholera among passengers on a cruise to southeast Asia.

Waterborne Outbreaks

No waterborne outbreaks have been confirmed in Virginia since 1992.

Yellow Fever

No cases of yellow fever have been reported in Virginia in this century.

Yersiniosis

Although not officially reportable, the health department was notified of twenty-five laboratory confirmed cases of this disease in 1994, compared to 23 in 1993. Infection with *Yersinia enterocolitica* accounted for all of the cases. One-half (52%) of the cases occurred in children under ten years of age. Race was usually not reported, but females outnumbered males 2 to 1.

Cases were fairly evenly distributed throughout the state. Four to seven cases were reported from each of the health planning regions.