CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC HEALTH
PUBLIC HEALTH SERVICES

Division of Disease Control

ANNUAL SURVEILLANCE SUMMARY

JANUARY 1 – DECEMBER 31, 2000

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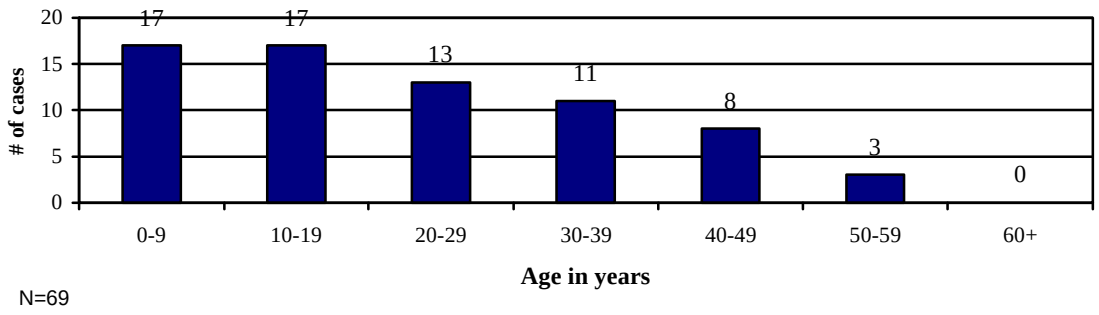
Central Nervous System Infections

Aseptic Meningitis/Encephalitis

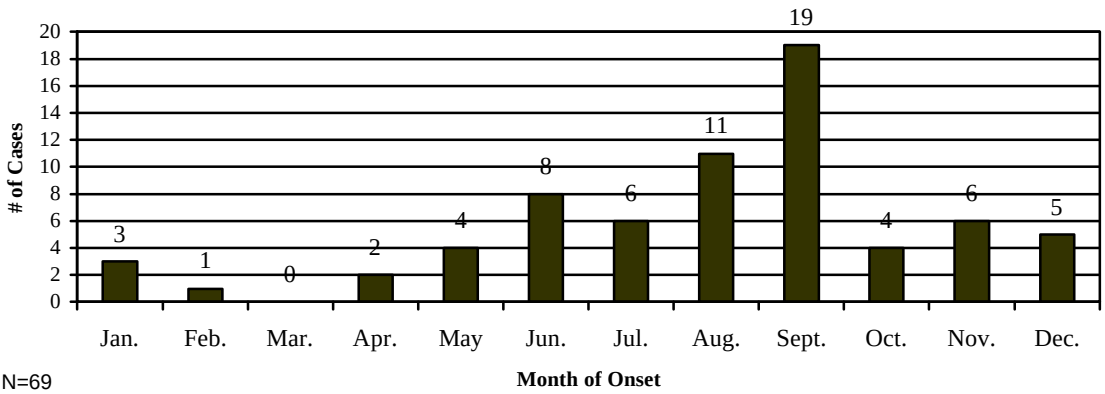
In 2000, 68 cases of aseptic meningitis and one case of encephalitis were confirmed in Philadelphia residents. This near threefold increase in numbers compared to 1999 likely indicates improvements in case ascertainment and case reporting rather than a true change in disease incidence. Active surveillance efforts conducted by the Division of Disease Control and scrutiny for emergence of West Nile Virus infection (see page 10) facilitated improved recognition of aseptic meningitis cases in Philadelphia. Undoubtedly this disease category is still vastly underreported. Among the 69 cases of aseptic meningitis/encephalitis, 49% occurred in persons 19 years of age or younger (Figure 1). There were no fatalities. Enterovirus was laboratory-confirmed as the etiology for five cases. Nearly two-thirds of cases occurred between the months of June and September (Figure 2), suggesting that an enteroviral etiology was likely for many more. No cases of arboviral encephalitis were identified.

Figure 1. Aseptic Meningitis/Encephalitis, Philadelphia 2000
Age Distribution of Cases



N=69

Figure 2. Aseptic Meningitis/Encephalitis, Philadelphia 2000
Cases by Month of Onset



N=69

Bacterial Meningitis

Twenty-three microbiologically confirmed cases of bacterial meningitis (excluding *Neisseria meningitidis* and *Listeria)* were identified in 2000. The age distribution of cases and fatalities is shown in Figure 3. *Streptococcus pneumoniae* accounted for 19 (83%) of the total, with one each of the following: *Haemophilus influenzae* type A, *H. influenzae* nontypeable, group B *Streptococcus,* and *E. coli*. Susceptibility data on isolates was not reported. Five fatalities (22%) were identified, all due to *S. pneumoniae* infection. Cases were distributed throughout the City and there were no unusual clusters of disease.

Meningococcal Infection

Twenty-four cases of meningococcal infection were identified in 2000. Using CDC case definitions for meningococcal disease, 21 were considered *confirmed*, based on isolation of *Neisseria meningitidis* from a normally sterile site. Three others were considered *probable*, based on the presence of meningococcal

Figure 3. Bacterial Meningitis*, Philadelphia 2000
Age Distribution of Cases and Fatalities

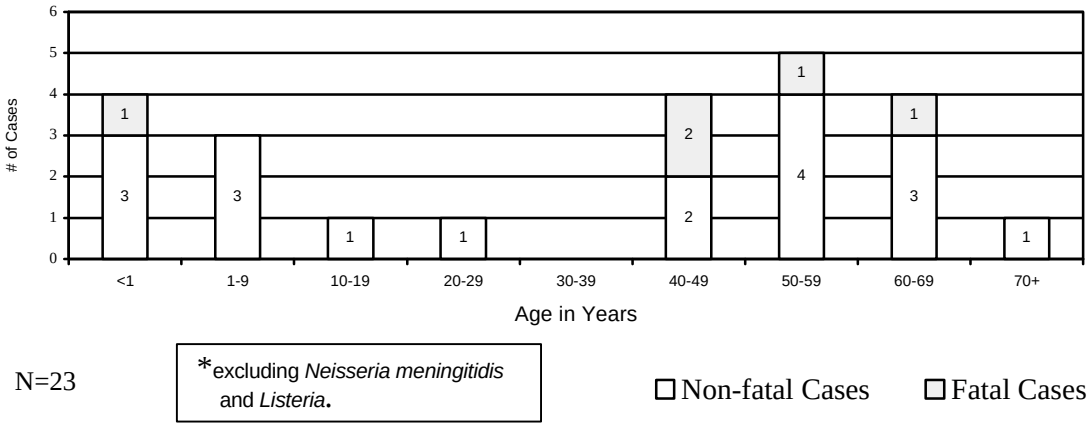
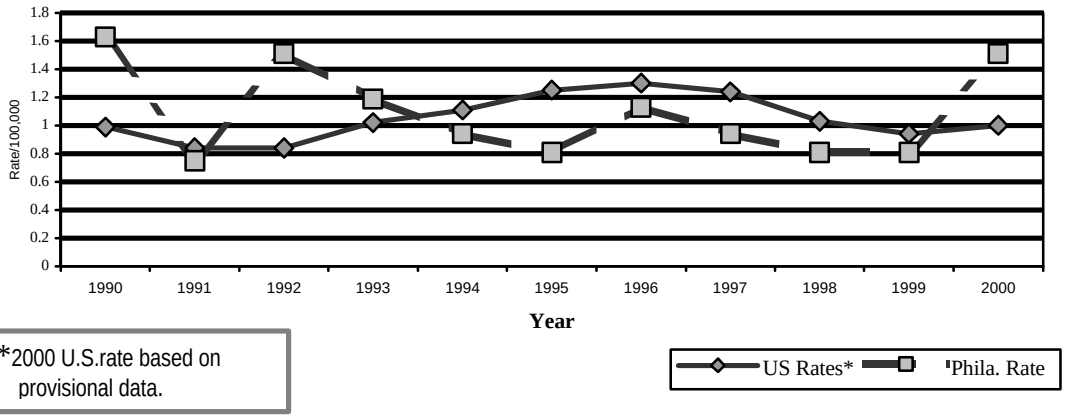


Figure 4. Meningococcal Infections, United States and Philadelphia, 1990-2000
Rates of Infection



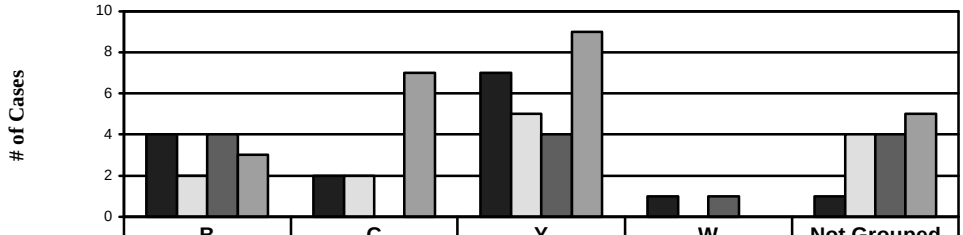
antigen in the CSF and a compatible clinical illness. Cases presented with the following clinical syndromes: primary bacteremia 14 (58%), meningitis 9 (38%), and bacteremia with septic arthritis 1 (4%). There were two fatalities (8%), both occurring in persons over the age of 50 years. Age distribution for the 24 cases was: <1 yr, 2 (8%); 1-5 yrs, 1 (8%); 6-10 yrs, 3 (13%); 11-19 yrs, 5 (21%); 20-29 yrs, 5 (21%); 30-39 yrs, 2 (8%); 40-49 yrs, 2 (8%); 50-59 yrs, 1 (4%); 60-69 yrs, 0 (0%); 70-79 yrs, 2 (8%); and 80-89 yrs, 1 (4%). For 2000, disease incidence in Philadelphia (1.4 cases per 100,000/yr) was higher than in recent years and higher than nationwide incidence as reported by the CDC (approximately 1-1.2 cases per 100,000 persons/year) (Figure 4). As in other recent years, serogroup Y remained most common in Philadelphia (Figure 5).

Six of the cases of meningoccoccal infection occurred in children attending Philadelphia schools, one occurred in a college student, and one in a child attending daycare. In accord with CDC recommendations, antibiotic prophylaxis was recommended for all 18 classmates of the daycare attendee. Routine prophylaxis for the classmates of the meningococcal cases who attended school or college was not recommended.

Listeria

There were twelve cases of *Listeria* infection reported in 2000. Ten cases had positive blood cultures only, two had positive blood and CSF cultures. Eight cases occurred in women, and four in men. All cases occurred in persons over the age of 40 years, with a disproportionate number occurring in persons over the age of 80 years. Distribution of cases by age was as follows: 40-49 yrs, 2 cases; 50-59 yrs, 1 case; 60-69 yrs, 2 cases; 70-79 yrs, 1 case; and 80-89 yrs, 6 cases. Unique risk factors were as follows: corticosteroid treatment 4, chronic hemodialysis 2, cancer 1, and none/unknown 5. Two fatalities were recorded.

Figure 5. Meningococcal Disease, Philadelphia 1997-2000
Reported Serogroups



	B	C	Y	W	Not Grouped
1997	4	2	7	1	1
1998	2	2	5	0	4
1999	4	0	4	1	4
2000	3	7	9	0	5

Serogroup

Gastrointestinal Infections

E. coli O157:H7

The CDC definition of *E. coli* O157:H7 infection requires isolation of the organism from a clinical specimen or the presence of symptoms in a case that is epidemiologically linked to a culture-proven case. Six cases met the case definition for infection with *E. coli* O157:H7 in 2000. Another five were suggestive because their stool tested positive for Shiga toxin but they could not be confirmed as cases in the absence of a positive culture for the organism. Four of the six confirmed cases occurred in children under the age of 12 years. Two infections were linked to a large outbreak of *E. coli* O157:H7 infection acquired following a visit to a Montgomery County petting zoo. Sources of infection in the remaining cases were undetermined.

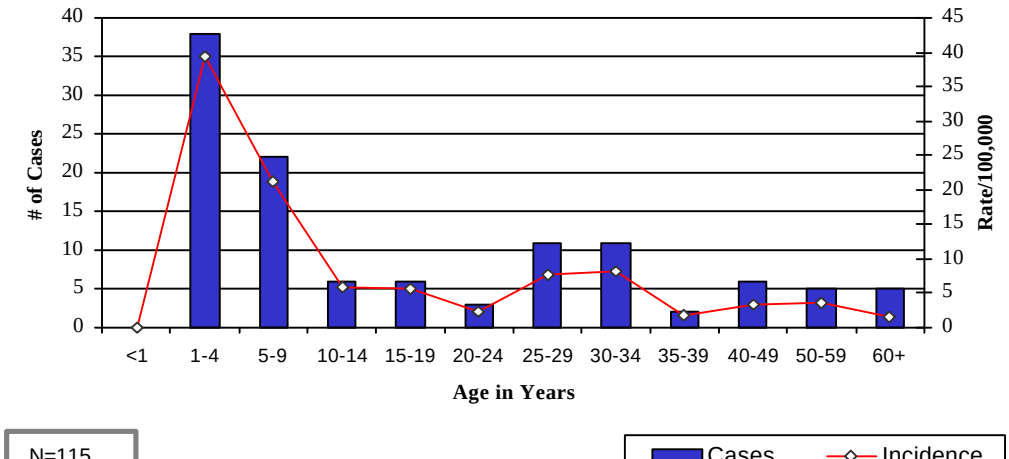
Giardiasis

One hundred and thirty-two cases of laboratory-confirmed giardiasis were reported in Philadelphia residents in 2000. Eighty-two (62%) cases occurred in men, and forty-six (35%) occurred in children 9 years of age or younger. Symptoms reported by the cases, included diarrhea 67%, abdominal pain 38%, nausea 33%, fever 24%, and vomiting 22%. There were no fatalities or complications of infection reported. Forty-six (36%) cases had traveled to, or arrived from, a foreign country in the month prior to illness onset. Most common geographic regions for presumed disease acquisition were West Africa, Southeast Asia, Central America and the Caribbean.

Cryptosporidiosis

In 2000, 22 cases of cryptosporidiosis were laboratory-confirmed in Philadelphia residents. Age distribution for the 22 cases was: ≤ 9 yrs, 2 (9%); 10-19 yrs, 2 (9%); 20-29 yrs, 6 (27%); 30-39 yrs, 7 (32%); 40-49 yrs, 4 (18%); 50-59, 0; 60-69, 0; 70-79 yrs, 1 (5%). Ten (45%) of the cases occurred in women. Twenty of the 22 cases reported at least one risk factor for acquisition of infection, including immunocompromised (8), male homosexual contact (5), travel within the U.S. (6), foreign travel (4), and animal exposure (3). There was no seasonal trend in occurrence of cryptosporidiosis cases. No common source outbreaks were identified.

Figure 6. Shigellosis, Philadelphia 2000
Reported Cases and Incidence By Age Group



Shigella

One hundred and fifteen cases of shigellosis among Philadelphia residents met the CDC case definition for *Shigella* in 2000. Twenty-two (19.1%) of the cases reported were epidemiologically linked to a culture confirmed case of shigellosis. Distribution of cases by age group and age rates are represented in Figure 6. Serotype breakdown is as follows: *S. sonnei* 68 (57.1%), *S. flexneri* 11 (9.2%), and *S. dysenteriae* 1 (0.8%). The one case of *S. dysenteriae* involved a 14 month old infant with reported travel to Santo Domingo during the incubation period for disease.

The only cluster of shigellosis involved a family of five individuals who all became ill with disease. Dates of illness onset suggest that person-to-person spread rather than a single infective food item was the cause of this clustering of cases.

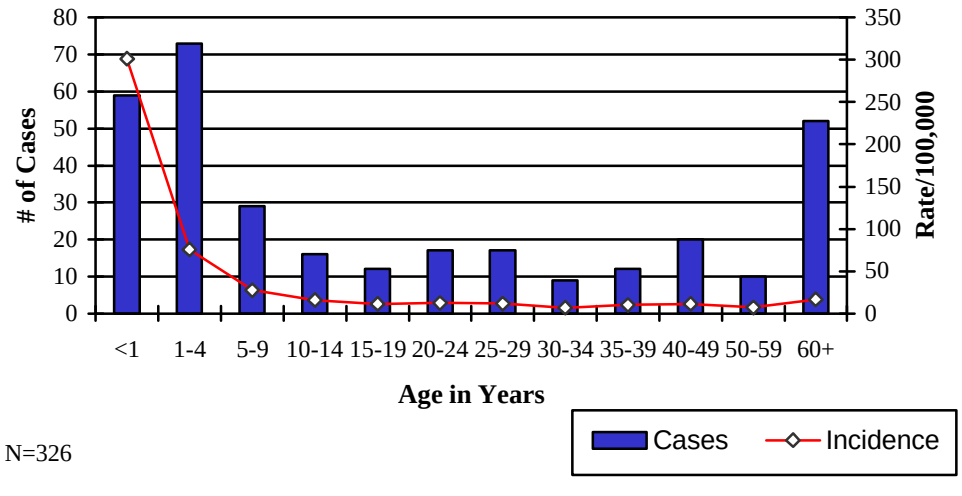
Campylobacter

One hundred and forty-eight confirmed cases of *Campylobacter* were reported among Philadelphia residents in 2000. Similar to salmonellosis and shigellosis, the case rates among infants and children (<5 yrs) were higher than any other age group. Travel to a foreign country during the incubation period for disease was the most common risk factor reported (16.9%)

Salmonella

Three hundred and twenty-eight case reports met the CDC case definition for salmonellosis in 2000. Of these, 315 were culture confirmed as salmonellosis and 13 were identified as cases by epidemiologic link to a confirmed case. There was one salmonellosis associated fatality in 2000 (93 year old woman). Salmonellosis cases by age and case rate are plotted in Figure 7. Consistent with the age distribution in previous years, the case rate among infants was substantially higher than any other age group – children less than 5 years old comprised 40% of the total cases in 2000. *S. enteritidis* (33%) and *S. typhimurium* (22%) continue to be the most frequently reported salmonellosis serotypes in Philadelphia (Figure 8). Twenty-three of the isolates serotyped were recognized as possible reptile associated strains. Of the twenty-three, one case confirmed contact with a reptile

Figure 7. Salmonellosis, Philadelphia 2000
Reported Cases and Incidence By Age Group



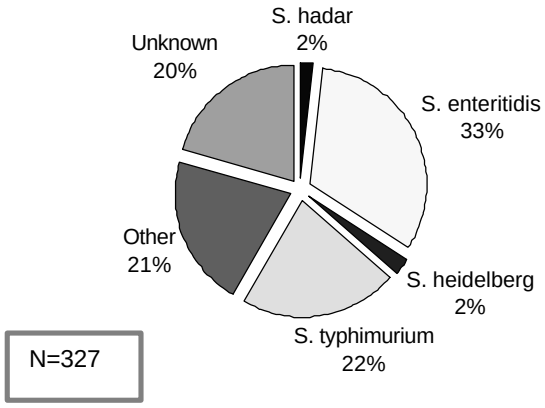
animal (turtle) during the incubation period for illness.

Three salmonellosis-associated outbreaks were investigated in 2000. One outbreak involved six students who attended a local childcare program. Infection was likely introduced by an index case with person-to-person transmission occurring directly or indirectly between infants. Exclusion of salmonellosis-infected infants and enhanced infection control practices resulted in the termination of this outbreak. The second outbreak involved twelve residents of a large senior citizen community. Pulse field gel electrophoresis technology identified the source to be a strain identical to that associated with a large multi--state outbreak. A common diary product distributed throughout the regions in and surrounding Philadelphia was linked to the outbreak. The third outbreak of *Salmonella* involved a popular bar/restaurant in Philadelphia. This outbreak of *Salmonella* (serotype=*S.muenster*) was found to be associated with environmental contamination within the food preparation area. Closure of the facility terminated this disease outbreak.

Typhoid

Two cases of typhoid fever were reported among Philadelphia residents in 2000. Both cases reported travel to India during the incubation period for disease. Neither of the cases received typhoid immunization prior to travel.

Figure 8. Salmonellosis, Philadelphia 2000
Salmonella Serotypes
(Reported by Pennsylvania Bureau of Laboratories)

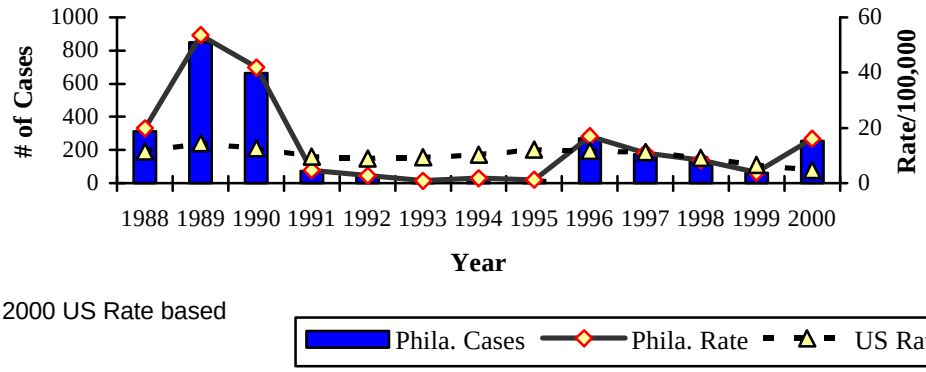


Hepatitis

Hepatitis A

Two hundred and fifty-five reports met the CDC case definition for hepatitis A in 2000. This reflects a four-fold increase as compared to the number of cases in 1999 (n=62). Spatial plot of cases is represented in Appendix A. Clustering of cases was noted in Health Districts 1,2 with 57 (22.3%) cases and HD 6,7 with 78 (30.6%) cases. The highest case rates by zip code were located in 19147 (58.3/100K pop.), 19124 (52.4/100,000 pop.) and 19134 (49.4/100,000 pop.)

Figure 9. Hepatitis A, Philadelphia 1988-2000
Cases and Rates



* 2000 US Rate based

No point source outbreak was identified, however, surveillance data provides the following information. Cases were predominantly male – 173 (67.8%) male, 82 (32.2%) female. The median age was 34 years (range 4 yr.-84 yr.). The most common risk factors include raw shellfish consumption (27, 10.6%) and travel (9, 3.5%). Among individuals 18 years of age and older reported sexual preference is as follows: bisexual, 3 (1.3%); heterosexual, 153 (68.3%); homosexual, 23 (10.3%); and unknown, 45 (20.1%). Sexual encounter information is as follows: no partners, 27 (12.1%); one partner, 98 (43.8%); 2-5 partners, 28 (12.5%); 5 or more partners, 8 (3.6%); unknown, 63 (28%).

Since the initiation of routine hepatitis A immunization of children placed in Philadelphia homeless shelters in 1998, DDC has witnessed the second year in which there have been no hepatitis A outbreaks among homeless shelter residents. In the past, this population has represented a disproportionate number of the total hepatitis A cases in Philadelphia. Pre-exposure hepatitis A immunization appears to be effective in preventing disease in this high-risk community.

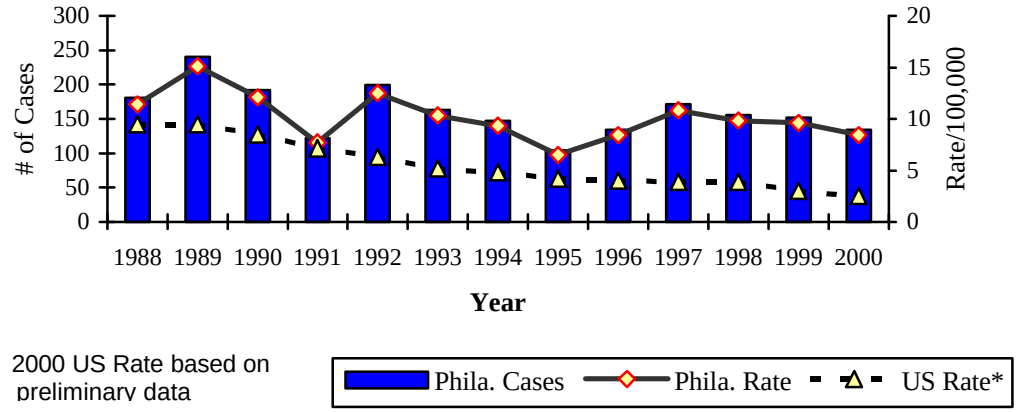
Hepatitis B

There were 1,357 reports of patients with positive hepatitis B serology in 2000, of which 134 (9.8%) were confirmed as having acute disease. The Centers for Disease Control and Prevention case definition for acute hepatitis B requires the presence of acute illness with a) discrete onset of symptoms; b) jaundice or elevated serum aminotransferase levels; and c) IgM antibody to hepatitis B core or positive hepatitis B surface antigen. Of the 134 cases, 31 (23.1%) required hospitalization; there was one hepatitis B related fatality.

The common reported risk factors for cases during the six months prior to illness include: drug use, 16 (11.9%); and greater than 2 sexual partners, 29 (21.6%). Ninety (67.2%) denied a prior history of obtaining hepatitis B vaccine, 1(0.7%) reported a history of obtaining one dose of the hepatitis B vaccine, and 43 (32%) were unknown.

The overall hepatitis B case rate for Philadelphia is 8.45/100,000 in 2000 (compared with 9.6/100,000 in 1999). This rate is based on the 1990 population census data for Philadelphia. Provisional national data indicate 6,646 cases of acute hepatitis B were reported to the CDC in 2000 (Figure 10).

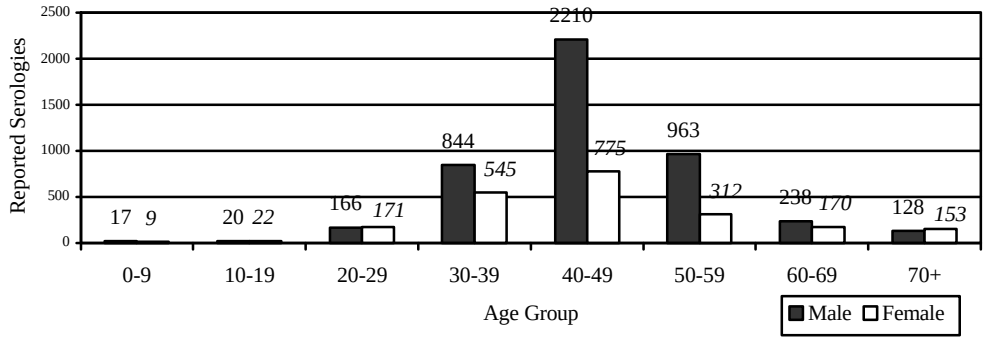
Figure 10. Hepatitis B, Philadelphia 1988-2000
Cases and Rates



Hepatitis C

Clinical laboratories are required to report all patients with serologic evidence of hepatitis C infection (HCV), regardless of whether infection is acute or chronic. In addition, physicians and other health care providers are required to report cases of acute hepatitis C. The Division of Disease Control has established a registry of persons with positive HCV laboratory results in order to facilitate counseling, education, and follow-up of infected persons. The HCV registry consists of Philadelphia residents reported since January 1998 who have serologic evidence of HCV infection, including any positive test by EIA, RIBA, and/or nucleic acid amplification (Figure 11). Reports may not include confirmatory test results and therefore DDC is unable to state with certainty that all reported morbidity indicates true infection. In 2000, DDC added 1,330 new patients to the hepatitis C registry. Of the 1,330 reports, only one could be identified as acute HCV infection based on accompanying clinical information.

Figure 11. Hepatitis C, Philadelphia, 1998-2000,
Reported Serologies by Age Group and Gender

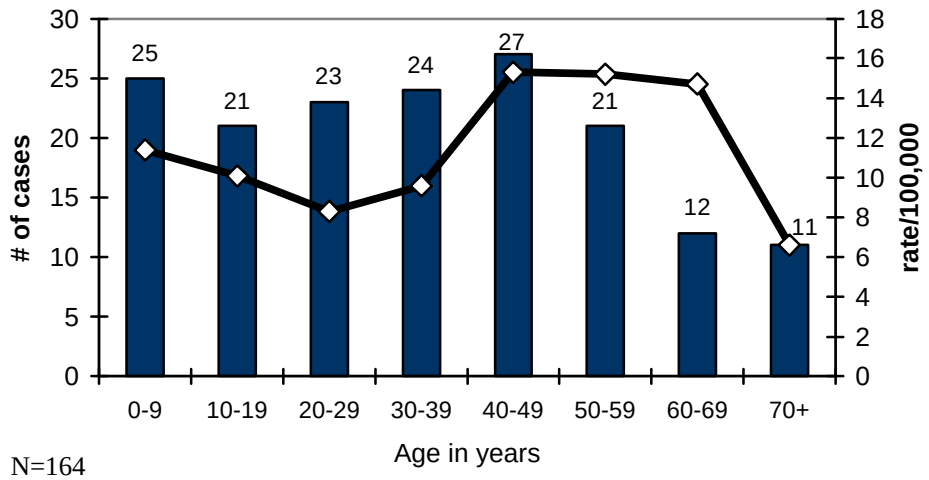


Vector Borne Diseases

Lyme Disease

In 2000, 165 persons were confirmed as new cases of Lyme disease, a decrease of 25% compared to the 221 cases recognized in 1999. The decrease in Lyme cases in Philadelphia likely reflects a true decrease in disease incidence as no reporting bias or change in reporting procedures occurred. A similar decrease was seen in the number of positive serologic studies for Lyme disease reported to the DDC in 2000. Clinical laboratories reported positive serologic studies (enzyme immunoassay, Western blot, immunoblot, etc.) for 713 unique patients in 2000, compared to 1,075 patients in 1999. Of these 713 patients, 548 (78%) could not be confirmed as Lyme cases, as defined by CDC criteria, for the following reasons: no clinical information obtained from the health care provider 286 (52%), clinical surveillance criteria not fulfilled 177 (32%), case out of Philadelphia jurisdiction 85 (16%). For surveillance purposes, CDC defined confirmation of Lyme disease requires that a case have either (a) physician-diagnosed erythema migrans or (b) at least one late manifestation of disease with positive laboratory criteria for disease. Medical providers reported the following clinical findings (non-unique) in the 165 Philadelphia cases: erythema migrans, 50%; arthritis, 47%; facial palsy, 10%; radiculoneuropathy, 3%; carditis, 2%; and lymphocytic meningitis, 1%. Sex distribution of cases was approximately equal. The age distribution and rate of infection (per 100,000 residents) is shown in Figure 12. According to the reporting health care providers, cases were most likely exposed in the following geographic areas: Philadelphia county, 52%; other counties in Pennsylvania, 10%; out-of-state, 5%, and unknown or unreported, 33%. Lyme disease cases, newly diagnosed in 2000, are depicted according to zip code of home residence. (**Appendix B:** Lyme Disease, Philadelphia 2000)

Figure 12. Lyme Disease, Philadelphia, 2000
Reported Cases and Incidence Rate by Age Group



West Nile Virus

In 2000, there were no cases of WNV infection in humans in Philadelphia. WNV is an arbovirus that is transmitted to humans from the bite of infected mosquitoes. Birds, especially crows are extremely susceptible to disease.

Although there were no cases of human

mosquito populations, in dead birds

human cases of aseptic meningitis for whom CSF was available for testing and met the

In conjunction with other City Agencies rtment, the Division of Environmental Health Services identifies

the year. During the mosquito season, out- -
toes during the night. These mosquitoes are d by species and tested for WNV. During the winter months, locations of -wintering mosquitoes are identified. The -wintering dormant populations are

larvae in the spring. Over- -
toes
identified by species and tested for WNV. Removal of over wintering mosquitoes not only contributes to surveillance but also,

produced during mosquito season.

ito species that serves as a vector for WNV is . This species preferentially bite birds, primarily

and following rainfall. WNV was found in three of approximately 85 different mosquito that were sampled. In addition to isolating WNV in mosquitoes, WNV was also isolated in , also called the Asian Tiger mosquito, which

During mosquito season, the Division of nmental Services operates a telephone line for citizens to report sightings of dead -685 9714. When appropriate, the bird is collected and tested -
delphia were collected for WNV testing.
birds, (seven crows and one warbler) tested positive for WNV. The locations of these

(**Appendix C:** WNV Positive Dead Bird Locations)

Eleven of the 69 cases of aseptic meningitis reported to DDC in 2000 had CSF available for testing. All eleven CSF specimens tested negative for WNV.

specimens:

Serum: IgM and IgG:

convalescent phase specimens.
:
Viral Culture
RT-
Tissue: Viral Isolation
RT-

The Division of Disease Control is

appropriate testing to evaluate persons suspected of having WNV.

Active surveillance in mosquito and animal popul
is present in Philadelphia. An active Surveil-

has been established by the DDC and other City agencies to decrease the risk of disease

WNV Control Plan are listed as follows:

Mosquito Surveillance, Prevention and Control

Education and Outreach

Avian Surveillance

Selected Equine Surveillance

Disease Outb

Pesticide Toxicity Monitoring

In 2000, there were eleven confirmed

cases reported travel to an African country

during the incubation period for malaria disease. Malaria by place of acquisition and species is shown in Figure 13. Mean age was 21 years (range of 2-60 years). Six cases (54.5%) reported a previous history of malarial disease. Of the 11 cases, two reported use of malaria chemoprophylactics during travel – both discontinued the use of malaria chemoprophylactic while overseas. Eight (72.7%) cases resided in the West Philadelphia section of the city – encompassing Health Districts #3 and #4 (see Figure 13). Three cases were hospitalized. All cases were treated for malaria – 3 with chloroquine, 1 with primaquine only, 6 with quinine, 1 unknown. Malaria disease by species is as follows: *P. falciparum* (8), *P. vivax* (1), unable to determine/unlocatable (2).

Figure 13.	Malaria Species			
	P. plasmodium	***P. falciparum***	***P. vivax***	**Not speciated**
Africa		2 (3,4)		
Ghana		1 (10)	1 (3)	
Ivory Coast		2 (3,8)		
Liberia		1 (3)		
Senegal		1 (3)		
Sierra Leone				1 (10)
Sudan		1 (3)		

( )= Health District

N=10

Other Reportable Diseases and Conditions

Infant Botulism

There was one confirmed case of infant botulism in 2000. This case involved a 7-week old, full term infant with initial symptoms of constipation progressing to irritability, poor suck, and poor head control with generalized "floppy" muscle tone on hospital admission.

Botulism antitoxin was received within one day of admission. The Pennsylvania State Bureau of Laboratories confirmed *Clostridium botulinum*, type B. Although no definitive environmental or food-related source of infection was identified, possible sources of spores for infants are multiple, and can include foods and dust. The father of the infant was reported as working in construction in various areas surrounding Philadelphia, and a frequent visitor to the home was also involved in construction work. Dietary history of this infant was not revealing. Karo syrup for constipation was the only food item that altered from the daily diet of commercial infant formula. The infant survived and fully recovered.

According to the Pennsylvania State Bureau of Epidemiology, there were seven cases of infant botulism in Pennsylvania in 2000. Per the Pennsylvania Bureau of Laboratories, type B is predominant in this region.

Legionnaire's Disease

Nineteen cases met the CDC surveillance definition for Legionnaire's Disease. The case definition requires laboratory confirmation of diagnosis, in addition to a compatible clinical illness. Since many, if not most, cases of pneumonia are treated empirically, surveillance data for Legionnaire's Disease may under represent true disease burden. Laboratory confirmation of the 2000 cases was as follows: number with positive urine antigen, 16; number with positive culture and/or DFA of respiratory tract specimens, 2; and number with positive serologic tests, 1. Only *Legionella pneumophila* was identified in cases with positive culture specimens. The mean age of cases was 61 years (range 34 – 80 years); 17 of the 19 cases (89%) were men. There were two fatalities (ages 47 and 73 years). All cases presented with a clinical syndrome of pneumonia. Seventeen of the nineteen cases (89%) occurred between the months of May and October. Identified risk factors (non-exclusive) for acquisition of Legionnaire's disease included cigarette smoking (4), immunosuppressive treatment (4), diabetes mellitus (3), and cancer (3). Five cases had no identifiable risk factors for acquisition of infection. There were no nosocomial or institution-related clusters of *Legionella* infection.

Animal Bites

In 2000, PDPH received reports of 1,974 animal bites, a 7.3% decrease when compared to reported bites in 1999. 1,897 or 96% of the reported bites were inflicted by domestic animals (dogs, cats, hamsters, ferrets, gerbils), with dogs accounting for 77% of all bites reported. An owner of the biting animal was identified for 57.1% of biting incidents (1,083 events) involving domestic animals. In 342 instances (17.3% of bite incidents), it is known that the victims were bitten by their own pets. Of bites inflicted by animals other than dogs or cats, the most common were rat bites (13), followed by squirrel (9), rabbit (5), hamster (5), horse (4), mouse (4), snake (4), raccoon (2), opossum (2), and groundhog (1).

Age of the bite victim was available in 1,796 of the 1,974 (91%) incidents. Young children in Philadelphia suffer disproportionately more bites than older Philadelphia residents. 42.3% of reported biting incidents occurred to children under 15 years of age.

In 2000, the Philadelphia Public Health Laboratory tested 101 animals for rabies, including 62 cats, 20 dogs, 7 bats, 7 raccoons, 3 groundhogs, and one each of muskrat and

squirrel. Of these, one cat was found to be infected with rabies. This animal was a sickly kitten that had been adopted from a colony of wild cats. The unvaccinated kitten died unexpectedly within days of being brought in from the wild. Two individuals received postexposure rabies prophylaxis for wounds inflicted by the rabid kitten. Overall, the Public Health Laboratory has identified a total of 32 rabid animals in Philadelphia since 1990 — 17 raccoons, 6 cats, 4 bats, 3 skunks, and 2 woodchucks. The last confirmed case of dog rabies in Philadelphia occurred more than 50 years ago; however, a rabid puppy (unvaccinated) was reported from Montgomery County in 2000.

In recent years, most human cases of rabies in the United States have been associated with exposure to bats**.** This is, in part, because victims of bat bites are not always aware of having been bitten**. Therefore, rabies prophylaxis is indicated for any person exposed to a bat who cannot, with certainty, state that he/she was not bitten by the bat, and the bat is not available for testing.** Thus, a person awakening at night to find a bat in the bedroom, even in the absence of a bite wound, should receive rabies prophylaxis, if the bat escapes. Also, if a bat is found in the bedroom of an unattended child and the bat escapes capture, the child should receive rabies prophylaxis.

To arrange for Rabies Fluorescent Antibody Testing of a captured bat, or other animal involved in a bite, contact the Division of Disease Control, 215-685-6740 (215-686-5665 after normal business hours, on weekends and holidays).

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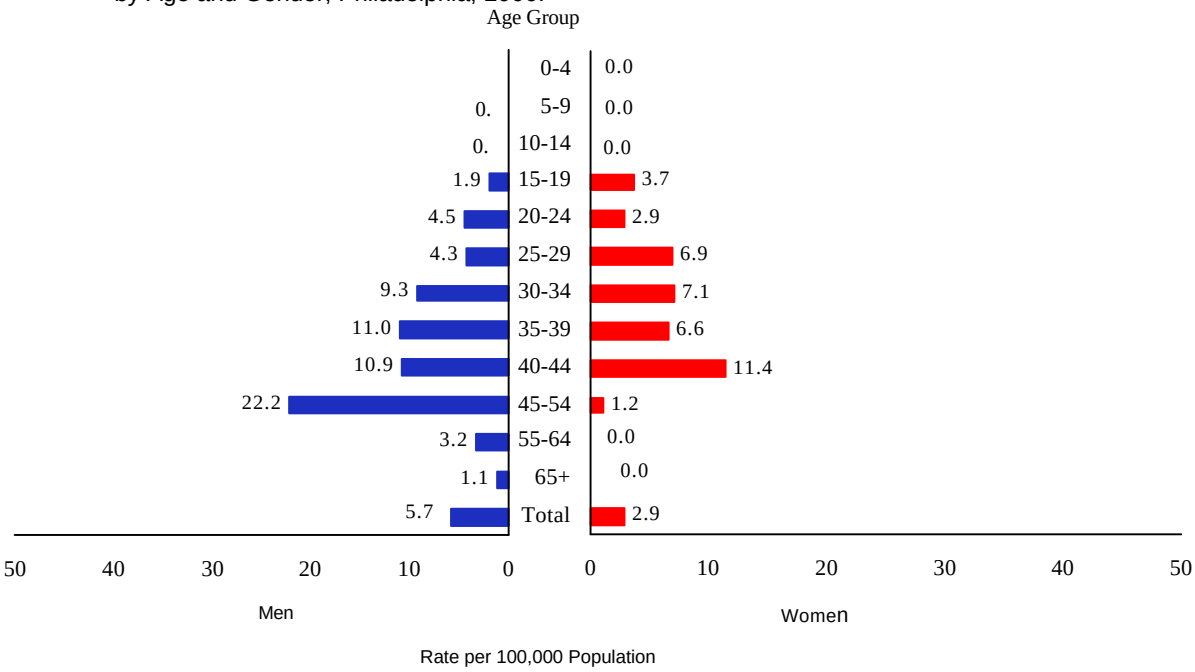
Sexually Transmitted Diseases

Early Syphilis

Reported primary and secondary (P&S) syphilis morbidity in 2000 decreased 2.9% from 69 to 67 cases when compared to 1999. Since 1990, the peak year of our most recent syphilis epidemic, there has been a 97.2% overall decrease in reported P&S syphilis. This overall decrease may be attributed to many factors including saturation of the at-risk population, increased use of condoms/reductions in unprotected sexual activity resulting from educational messages targeting HIV and STD prevention, and the disease intervention activities of the Philadelphia STD Control Program which aggressively provided testing and preventive treatment to contacts of early syphilis cases. Reported early latent syphilis cases have dropped 93.2% since the peak of the epidemic in 1990 when 3,907 cases were reported to a current annual level of 265 cases.

Reported rates of P&S and early latent syphilis were higher among men than women (Figures 14 and 15). The cause of this may be multifactorial including an increase in the percent of cases in men who have sex with men (from 0.9% in 1995 to 11.6% in 2000), and an increased likelihood that a male will notice a lesion on his genitalia and be diagnosed. The rates of syphilis remain higher among Blacks

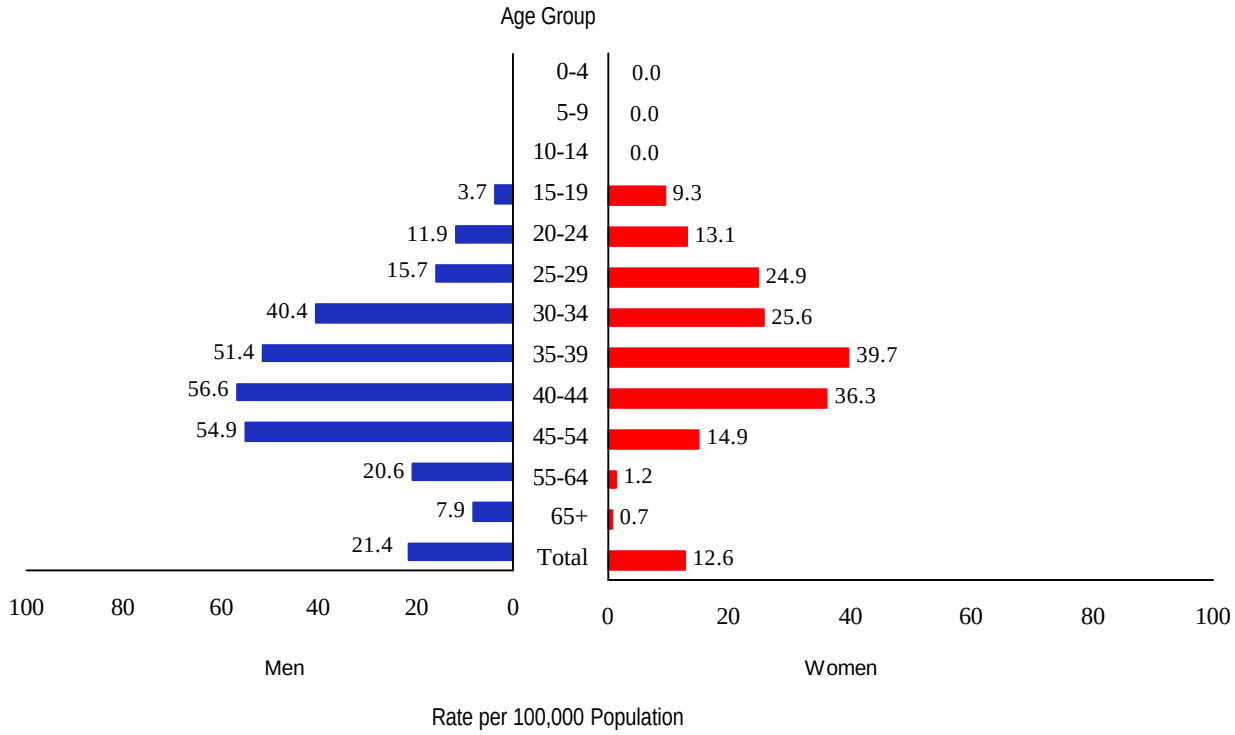
Figure 14. Rate of Primary & Secondary Syphilis per 100,000 Population by Age and Gender, Philadelphia, 2000.



than Whites and Hispanics, though this racial disparity is narrowing.

With rates of infectious syphilis being at an all time low in the United States, the Centers for Disease Control and Prevention has launched a National Plan to Eliminate Syphilis by 2005. The Philadelphia STD Control Program in conjunction with this effort initiated a weekly syphilis outbreak surveillance report and established thresholds for reported morbidity above which outbreak control activities are implemented. In addition, liaisons with community-based organizations have been established and intensified syphilis case management activities have been maintained.

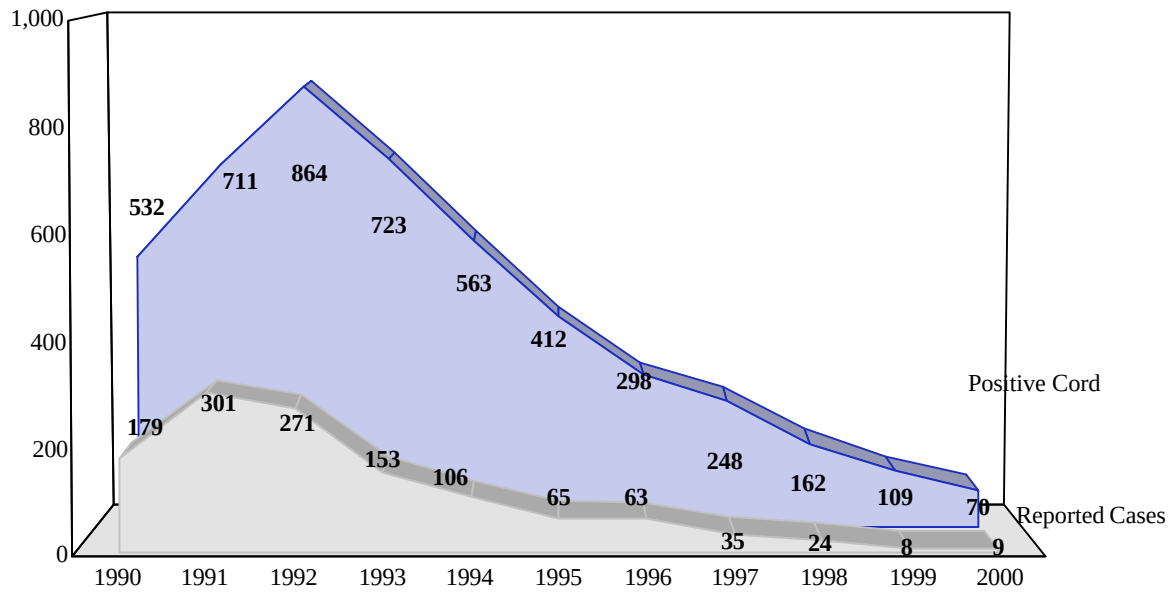
Figure 15. **Rate of Early Latent Syphilis per 100,000 Population by Age and Gender**: Philadelphia, 2000



Congenital Syphilis

In 2000, 9 cases of syphilis in newborns met the current Centers for Disease Control and Prevention surveillance definition for congenital syphilis in Philadelphia [Figure 16]. This represents a 12.5% (+1 case) increase when compared to 1999. The occurrence of congenital syphilis is directly linked to the incidence of early syphilis occurring in the city. Recent reductions in early syphilis are consistent with continued low congenital syphilis morbidity and the decreasing number of reactive cord/maternal serologies reported since 1991 [Figure 16]. Adequate prenatal care, with routine screening for and treatment of syphilis in pregnant women also plays a major role in preventing congenital syphilis.

Figure 16. Reported Cases of Congenital Syphilis and Number of Positive Cord Blood Tests: Philadelphia, 1994-2000.

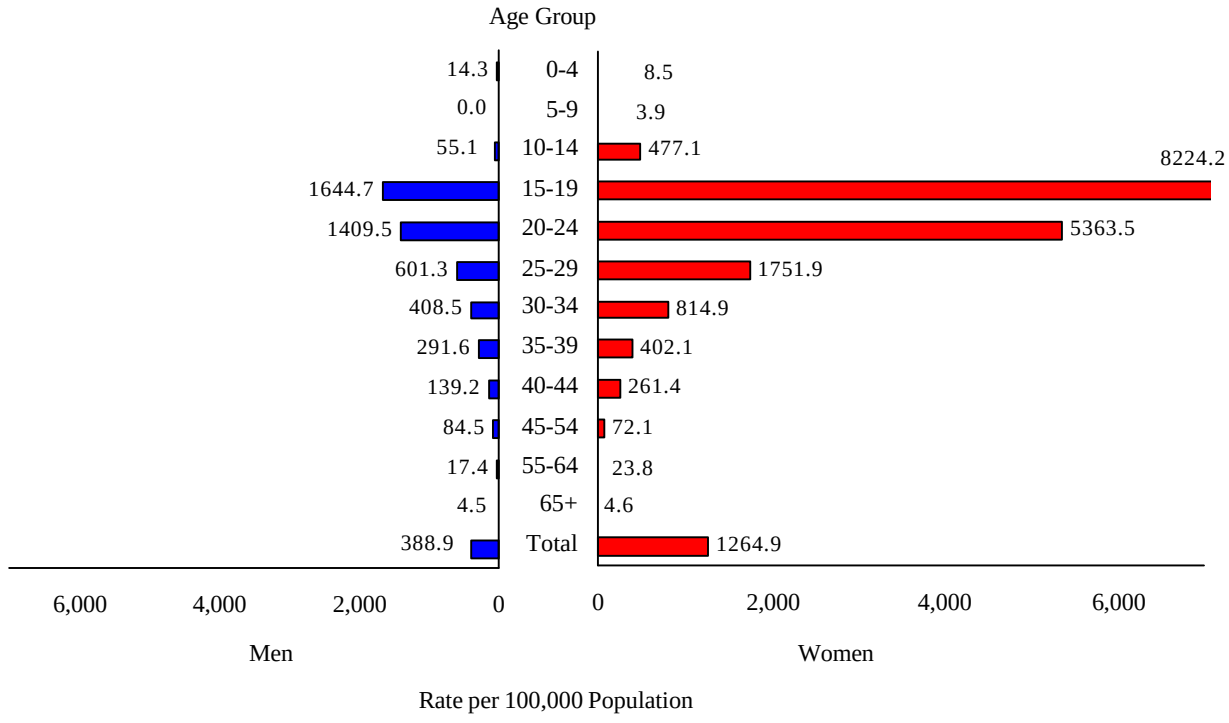


Chlamydia trachomatis

In 2000, 13,593 cases of *Chlamydia trachomatis* were reported representing an increase of 7.4% when compared to 1999. This is due in part to an increase in testing and reporting in men. Although the overall disease rates in women remain greater than in men, there was a 31.0% rise in the rate among men with a 2.3% increase in the rate in women. However, women still comprise a disproportionate number of reported cases, resulting in a F/M ratio of 3.7**:**1. This is due primarily to aggressive screening of asymptomatic women. The rates of infection among adolescent (ages 15-19) and young adult (ages 20-24) women remain staggeringly high [Figure 17].

Untreated chlamydia infection in women can lead to Pelvic Inflammatory Disease, chronic abdominal pain and is the leading cause of tubal infertility**.** In an effort to prevent these complications the PDPH has supported 83,084 screening tests for women this year resulting in the identification of 6,659 cases of chlamydia; this accounts for more than 62%(6,659/10,724) of the total chlamydia cases reported in women. Despite active screening and treatment in women since 1994, there has not been a decrease in the rates of chlamydia among women. Increased partner treatment and screening of asymptomatic men is necessary to control this sexually transmitted disease. Screening of asymptomatic men has become feasible with the advent of noninvasive, urine-based screening using nucleic acid amplification methods. Much of the increase in testing and reporting in men is due to an enhanced effort by the PDPH to screen asymptomatic adolescent males. Urine based screening of young men at various venues was initiated at the end of 1999. During 2000, 4,446 tests were done at the Youth Study Center resulting in the identification of 337 (7.6%) asymptomatic young men with chlamydia. Targeted screening of asymptomatic young men by the PDPH for chlamydia has resulted in an 86% increase in reported morbidity in the 15-19-age group from 473 cases to 884 cases.

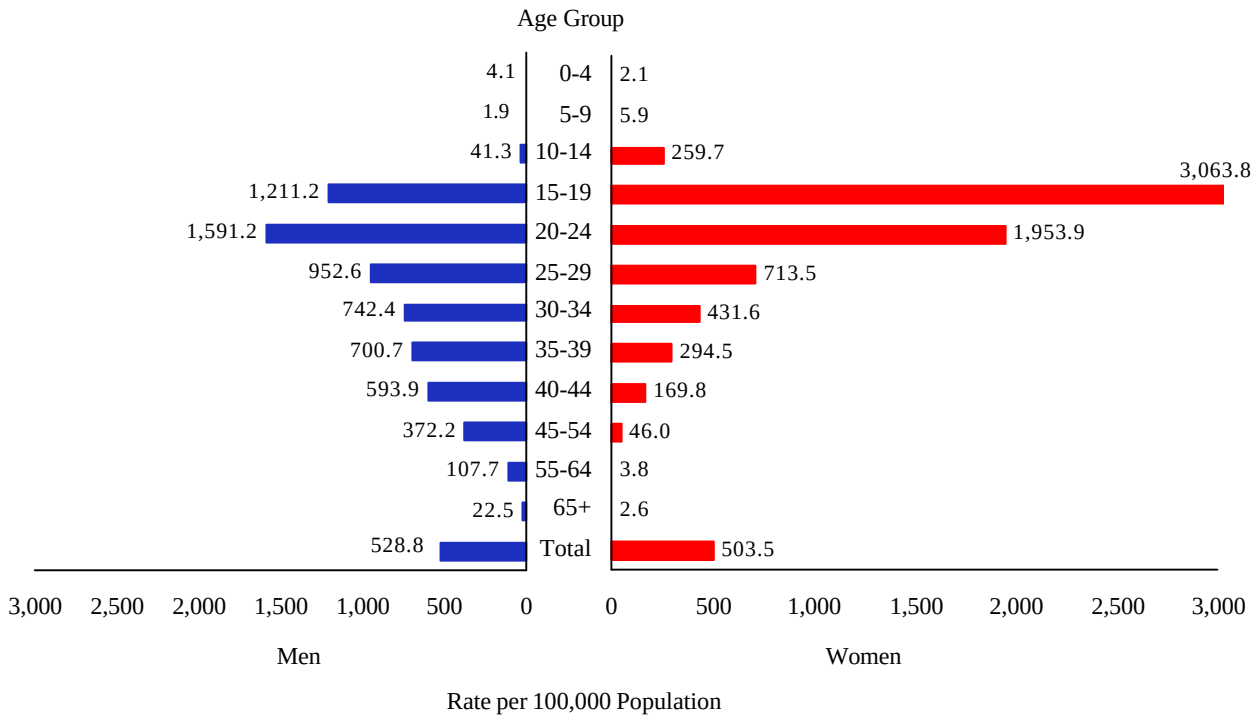
Figure 17**. Rate of Chlamydia per 100,000 Population by Age and Gender: Philadelphia, 2000.**



Gonorrhea

In 2000, 8,170 cases of gonorrhea were reported, a 5% increase when compared to 1999. This represents a continued increase in cases over the past four years. Teenagers and young adults remain disproportionately infected [Figure 17]. While there is little routine screening of asymptomatic men, a large proportion of men infected with gonorrhea will be symptomatic. Routine screening in women remains necessary as women are more likely to have subtle or no symptoms. As with *Chlamydia*, women with gonorrhea who are untreated are at risk of developing complications that may lead to infertility. In 2000, the PDPH provided/supported 83,344 screening tests for women resulting in the identification of 2,223 cases of gonorrhea; this accounted for more than 52% (2,223/4,269) of the total cases of gonorrhea reported in women. The continued increase in gonorrhea without adequate explanation is of major concern. Increased screening and educational efforts targeted at young, asymptomatic men and women will be needed to have a favorable impact on this disease.

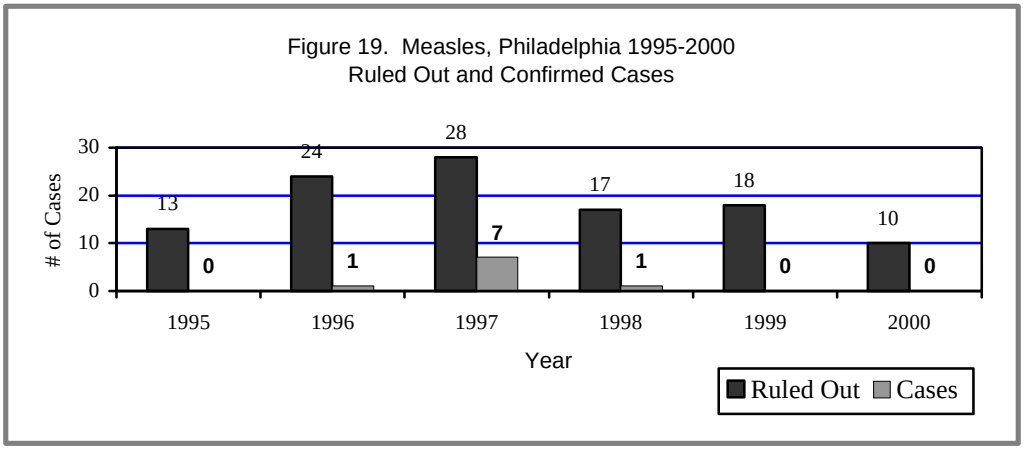
Figure 18. Rate of Gonorrhea per 100,000 Population by Age and Gender: Philadelphia, 2000.



Vaccine Preventable Diseases

Measles

Ten suspected measles cases were reported to DDC in 2000; for the second consecutive year, all were ruled out based on negative serologic test (IgM) and/or clinical case presentation incompatible with measles.



The number of suspected and confirmed measles cases reported from 1995 to 2000 is shown in Figure 19. Nationally, there were 87 (61 indigenous/ 26 imported) confirmed cases of measles in 2000. This is an all-time low for measles incidence in the United States.

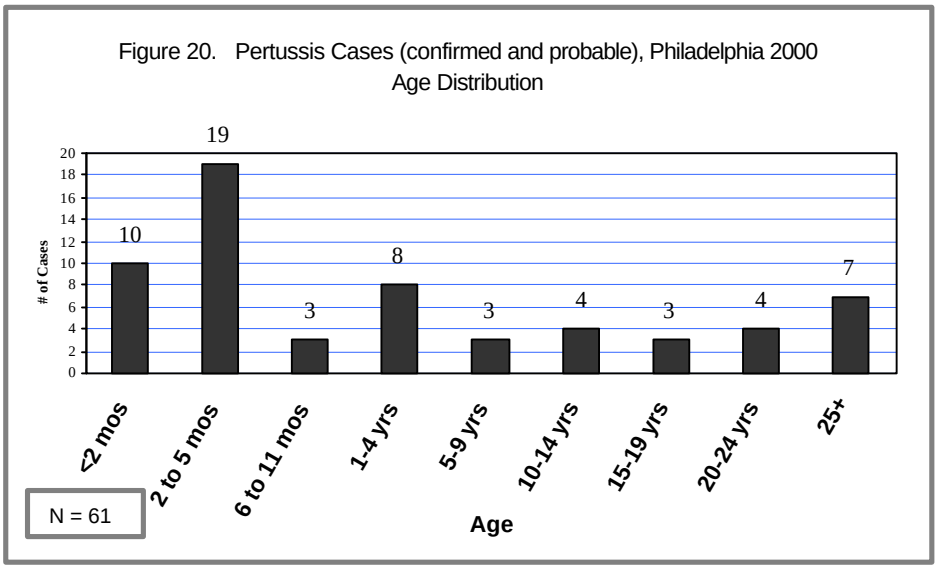
Mumps

Six suspected mumps cases were reported to DDC in 2000, of which two (2) met the CDC clinical case definition; none were confirmed by serology or culture. These two male cases, 9 and 15 years of age, reported histories of receiving two doses and one dose of MMR vaccine, respectively. Provisional data from CDC indicate 323 confirmed cases of mumps in the United States in 2000. Since other viral illnesses, such as coxsackie and parainfluenza, also present with parotitis, diagnosis of mumps can only be confirmed by viral cultures of urine and/or nasopharyngeal aspirate, or positive serologic test (IgM). As of Fall 2001, the Philadelphia Public Health Laboratory will be offering serologic testing for suspected cases of mumps.

Pertussis

In 2000, 61 reported cases of pertussis met the CDC surveillance definition. Of these 61, 56 were confirmed by either a laboratory test (PCR = 28, culture = 20, serology = 2) or epidemiologic link to a confirmed case (epi link = 6). Five cases were considered probable cases; these were cases that met the CDC clinical case definition, but no laboratory testing or epidemiologic link could be established. Of the 61 cases, none resulted in death.

Thirty-two (52%) of the cases were less than one year of age, eleven (18%) were children 1 to 9 years of age, and eighteen



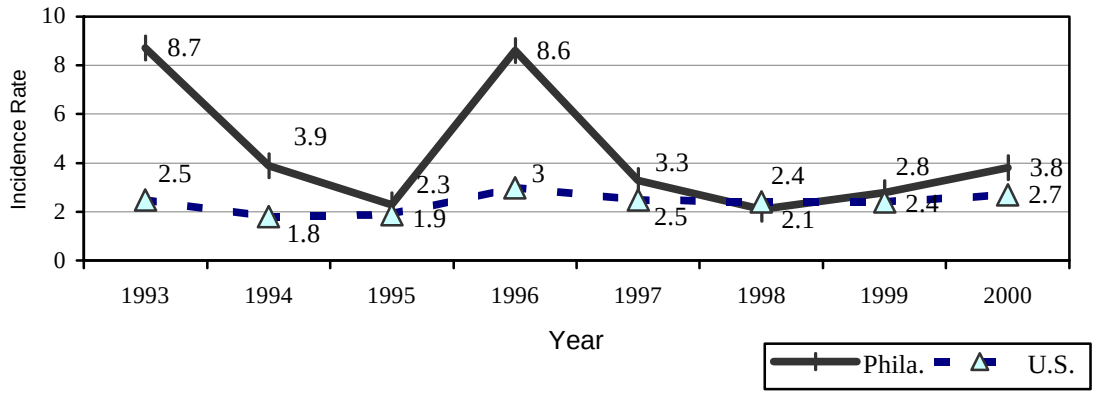
(30%) cases ranged in age from 10 to 64 years. Of the children 1 to 9 years of age (n=11), 7 (64%) had received four doses of pertussis-containing vaccine and 4 (36%) had received five doses. Age distribution of confirmed and probable cases is shown in Figure 20.

Eighteen (30%) of the cases were male and 43 (70%) were female. Twenty-three (38%) of the cases required hospitalization (range: 1 to 14 days, mean: 4 days). Symptoms were characterized by cough in 95% of cases, with duration of cough ranging from 4 to 71 days (median = 28 days). Other reported symptoms included whoop (53%), apnea (34%), post-tussive vomiting (46%), and paroxysms (39%). Ninety-seven percent (97%) of patients were prescribed antibiotics. Of these, 93% received erythromycin or other macrolides. The 2000 annual pertussis incidence per 100,000 persons for Philadelphia was 4.0 and for the United States was 2.4. The incidence rate for Philadelphia and for the United States from 1993 to 2000 is shown in Figure 21.

Rubella

There were 9 suspected cases of rubella reported to DDC in 2000. All of these cases were ruled out as not meeting the CDC case definition for rubella. In the majority of cases (8 of the 9), serum IgM testing was mistakenly requested instead of IgG testing for the initial serologic screen. All suspected cases were female, with ages ranging from 20 to 63 years.

Figure 21. Pertussis, Philadelphia 1993-2000
Philadelphia and US Incidence Rates



Division of Disease Control – Special Projects

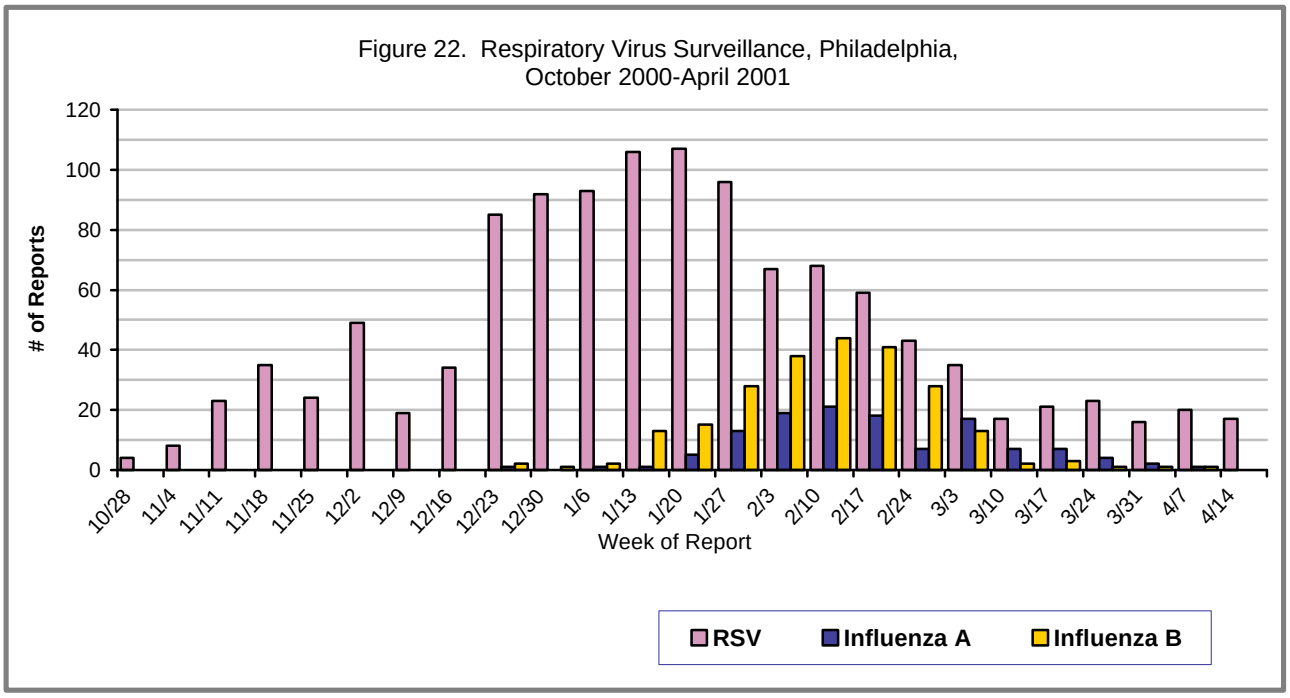
Sentinel Surveillance of Respiratory Viruses (including *Influenza*)

DDC conducts laboratory-based surveillance of respiratory viruses each year during the cold weather seasons. Diagnostic virology laboratories from three Philadelphia hospitals and one reference laboratory site submit aggregate data to DDC weekly. Laboratories report the total number of isolates of influenza A and B, and respiratory syncytial virus (RSV) from the preceding week. No identifying or demographic information on patients is collected, thus surveillance likely represents disease burden beyond Philadelphia boundaries. Because this is a sentinel surveillance system it does not measure disease incidence. Rather, the objectives of surveillance are to monitor trends in virus circulation throughout the area, and determine which respiratory viruses predominate during a given season.

Numbers of isolates reported through Respiratory Virus Surveillance for the period of October 2000 – April 2001 are depicted in Figure 22. Overall, the total number of influenza isolates reported in 2000-2001 season was modestly higher than in the preceding winter season (355 vs 317, respectively). Influenza B was much more active in Philadelphia than in other recent winter seasons. Influenza B accounted for approximately two-thirds of all isolates (N=232) reported in 2000-2001, a trend similarly noted throughout Pennsylvania and in the eastern part of the United States. Influenza A was much less prevalent in 2000-2001 compared to the 1999-2000 season. There were fewer than half as many isolates reported for the most recent season (123 vs 313, respectively).

Of the influenza isolates subtyped by the Pennsylvania Bureau of Laboratories, type A/New Caledonia/20/99 (H1N1) and

Figure 22. Respiratory Virus Surveillance, Philadelphia, October 2000-April 2001



B/Beijing/184/93 were identified. Both strains were included in the 2000-2001 flu vaccine. However, further study of the B isolates by the CDC proved them to be more closely related antigenically to the B/Sichuan/379/99 reference strain than to the current vaccine strain. (B/Sichuan virus exhibits cross-reactivity with the B/Beijing vaccine strain.) B/Sichuan will be included in the 2001-2002 influenza vaccine.

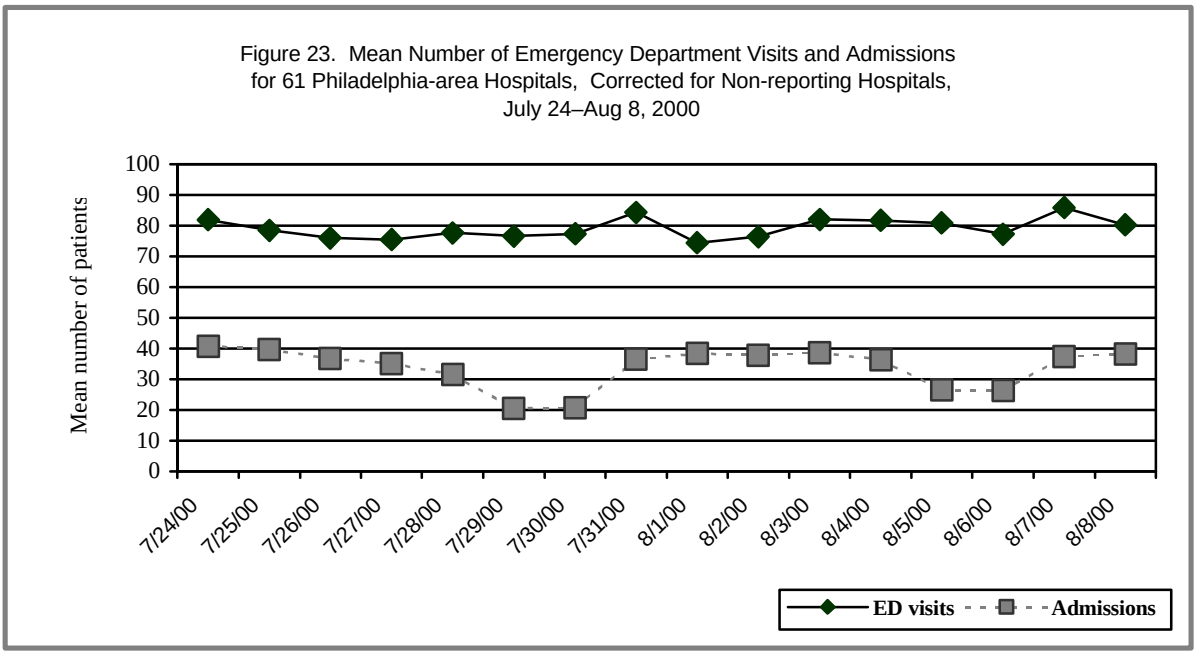
Bioterrorism Preparedness

In the last five years, preparedness for biological terrorism has become a national priority and a major public health concern. At least 17 countries, including the former Soviet Union and Iraq, have developed biological agents as weapons, and there is evidence that both international and domestic terrorist groups have experimented with bioweapons to be used on civilian targets. Organisms capable of producing disease in a large sector of the population, such as anthrax, plague and smallpox, are among the biological agents that are likely to be weaponized. The release of a biological agent would likely be a covert event that results in an infectious disease epidemic not immediately recognized as biological terrorism. Determination of the source of such an event would require an epidemiological investigation. Early recognition and reporting of diseases that are uncommon will enable the rapid initiation of control measures to prevent the occurrence of mass casualties.

The Division of Disease Control (DDC) currently monitors data from the Medical Examiner's Office to identify the occurrence of severe infectious diseases. DDC is also evaluating the use of other sources of local disease information that would supplement reports obtained through the existing National Notifiable Disease Surveillance System currently in place.

Throughout 2000, staff from the DDC have been working with the City of Philadelphia Office of Emergency Management and other city agencies to develop a citywide biological response plan for the health consequences of an infectious disease epidemic of any etiology. This plan includes sections on surveillance and disease detection, incident management, mass patient care, vaccine and pharmaceutical distribution, mass fatality management and environmental surety. It is intended to address the consequences of a biological weapon release or a naturally occurring epidemic like pandemic influenza. DDC is now working with the Delaware Valley Healthcare Council, the hospital subcommittee of the Local Emergency Planning Committee, and area hospitals to

Figure 23. Mean Number of Emergency Department Visits and Admissions for 61 Philadelphia-area Hospitals, Corrected for Non-reporting Hospitals, July 24–Aug 8, 2000



implement the plan and ensure that it adequately addresses the needs of Philadelphia healthcare facilities who will be the "first responders" in this kind of event.

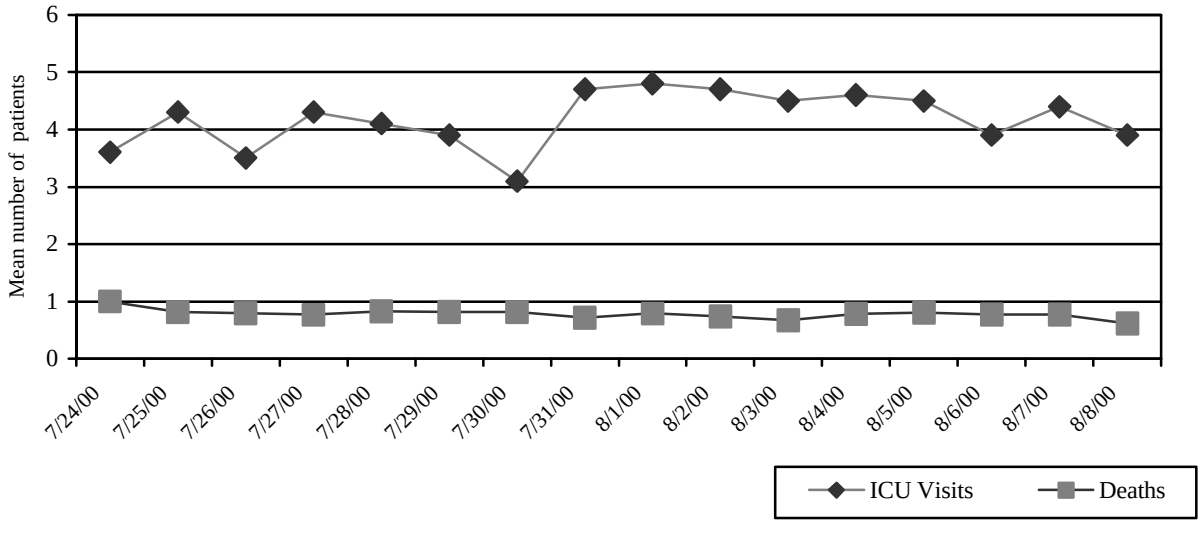
Republican National Convention

During the 2000 Republican National Convention, the Philadelphia Department of Public Health (PDPH) collaborated with the Pennsylvania, New Jersey, and Delaware Departments of Health and the Centers for Disease Control and Prevention (CDC) to conduct medical surveillance. The goals of this surveillance project were to: (1) detect infectious disease outbreaks in the greater Philadelphia area during and immediately after the convention; (2) monitor for overt and covert episodes of bioterrorism; and (3) describe the medical consequences associated with a large, high profile convention. PDPH and CDC staff monitored 3 types of data during the convention period. These included clinical data from first aid stations, data from sentinel hospital Emergency Departments, and census data from 61 area hospitals. Although official events of the RNC occurred from July 31st – Aug 4th, hospital surveillance was initiated 2 weeks earlier to permit collection of baseline data. Surveillance continued for seven days following the Convention to account for the incubation periods of selected infectious diseases.

The Philadelphia Emergency Management Services (EMS) established first aid stations at various RNC-related venues in the city between July 27-August 4, 2000. EMS staff collected basic demographic and diagnostic information regarding both infectious and non-infectious syndromes on all patient visits to these stations. A total of 169 encounters were recorded. The majority of patients required treatment for soft-tissue injuries, heat-related illness, lacerations, fractures and sprains (n=91, 53.8%). A smaller percentage of individuals (n=19, 11.2%) presented with gastroenteritis or respiratory illness. Forty-four (26%) of the 169 patients seen at the first-aid stations required EMS transport to a Philadelphia hospital.

First aid stations proved to be a useful site from which to identify acute convention-related illness. In addition, these data will assist EMS and the health care community with planning for future special events in Philadelphia.

Figure 24. Mean Number of ICU Visits and Deaths for 61 Philadelphia-area Hospitals, Corrected for Non-reporting Hospitals, July 24–Aug 8, 2000



The second surveillance project monitored data from five sentinel Emergency Departments (EDs) located throughout the city, including convention venues. Clinicians from participating Emergency Departments completed a brief one-page form for each patient encounter which assigned the patient to one of 7 infectious disease syndrome categories that had been developed by CDC. Data from the questionnaire were entered from the EDs into a centralized database via a secure website.

PDPH and CDC epidemiologists monitored ED data continuously between July 24 - August 10, 2000. An epidemiological investigation was initiated when an increase or apparent cluster of syndromes was detected, or following the occurrence of a single case of a specific syndrome (e.g., meningitis, sepsis, unexplained death with fever) that might suggest an infectious disease outbreak. The CDC/PDPH team initiated 20 investigations during the surveillance period and no outbreaks related to the convention were identified.

Hospital census surveillance was the third tool used for the enhanced surveillance system. Sixty-one hospitals in the greater Philadelphia area participated in this project, including most hospitals within the Philadelphia city limits and selected hospitals from Bucks, Montgomery, Delaware, Chester counties, and from the adjoining states of New Jersey and Delaware. From July 17-August 10, hospitals submitted daily figures for 1) the number of ED visits, 2) total hospital admissions, 3) total ICU admissions, and 4) total hospital deaths. In most hospitals, infection control practitioners submitted these data via the same secure website used to receive ED data.

Summaries of these census data are presented in Figures 23 and 24. Provisional data analysis suggested that the RNC did not have a major effect on hospital activity in the region. However, it was not possible to draw specific conclusions without analysis of background data.

Although no infectious disease outbreaks or bioterrorist events were identified during this surveillance project, new relationships and methods were developed to enhance future infectious disease surveillance. This was the first time Division of Disease Control used a secure, web-based data system to collect surveillance information. Based on this experience, DDC is also considering ways to monitor existing data sets from hospital Emergency Departments and other clinical programs to more rapidly identify disease trends in the community. All of these projects resulted from the successful collaboration between public health and key providers such as EMS and area hospitals.

Perinatal Hepatitis B Prevention Program

In 1994, the Philadelphia Board of Health passed a regulation requiring all pregnant women to be screened for hepatitis B surface antigen (HBsAg) and positive test results reported to the PDPH. On receipt of a positive test result, a public health nurse initiates case management of the pregnant woman and her family. This involves identifying contacts who are susceptible to disease, screening for presence of antibodies, and facilitating administration of hepatitis B vaccine series as indicated. The pregnant woman is then followed to ensure that her infant receives hepatitis B immune globulin (HBIG) after delivery, and that the hepatitis B vaccine series is initiated. The infant is also followed until he/she completes hepatitis B immunization and post-vaccination screening. This process often takes up to two years. In the eight-year history of the program, 939 cases have been successfully completed. The cases who are lost to follow-up, move, or are not locatable has decreased in the last three years, due to the cooperation of some primary care sites seeing children. Since 1997, a total of 9 infants (1.7% of 531 tested) have been found to be HBsAg-positive on post-vaccination screening, despite adherence to the protocol for management of infants of HBsAg-positive mothers. In 1999, 3 (4.2%) of the 71 infants tested were found to be HBsAg-positive.

In 1999, of the 123 reported infants born to HBsAg-positive mothers, 65 (53%) were foreign-born. One hundred and eighteen (96%) of exposed infants were given the first dose of

vaccine and HBIG at birth. One hundred and three (84%) infants completed the three-dose series of hepatitis B vaccine, and 71 (58%)were screened post-vaccination. Of these, 63 were immune to hepatitis B, 5 were susceptible and are receiving additional doses of vaccine, and 3 infants were HBsAg-positive (i.e. infected carriers).

Preliminary data for 2000 indicate that 121 live births to HBsAg-positive mothers were reported. Of these, 119 (98%) have received hepatitis B vaccine dose 1 and HBIG at delivery. Data on three-dose vaccine schedule completion and post-vaccination serology are pending.

Varicella Active Surveillance Project

The West Philadelphia Varicella Active Surveillance Project (VASP) is a cooperative agreement funded by the Centers for Disease Control and Prevention (CDC) and implemented by the Philadelphia Department of Public Health (PDPH), Division of Disease Control (DDC), in October 1994. The primary purpose of VASP is to monitor and document the epidemiology of varicella-zoster viral infection among the approximate 300,000 persons in the target area of West Philadelphia before and after the varicella vaccine, VARIVAX®, became available. The West Philadelphia VASP was awarded an additional five years of funding from CDC in October 1999 to continue its work with hospitals, health-care providers, schools, and child-care facilities. Along with comprehensive surveillance of varicella, an emphasis also has been placed on monitoring herpes zoster (shingles) in individuals under 20 years of age for the new project cycle. Additionally, VASP implemented several new initiatives that will enhance the understanding of risk factors associated with varicella disease in previously vaccinated individuals and varicella susceptibility in adolescents.

All cases of varicella and zoster occurring in the city of Philadelphia are reportable to the Department of Public Health; however, only cases residing in the West Philadelphia area receive an extensive investigation. Additionally for zoster, only those cases under 20 years of age receive an extensive investigation. Investigations are conducted to confirm diagnosis and establish epidemiological links,

Figure 25. Varicella Cases by Month of Onset, October 1994 to December 2000

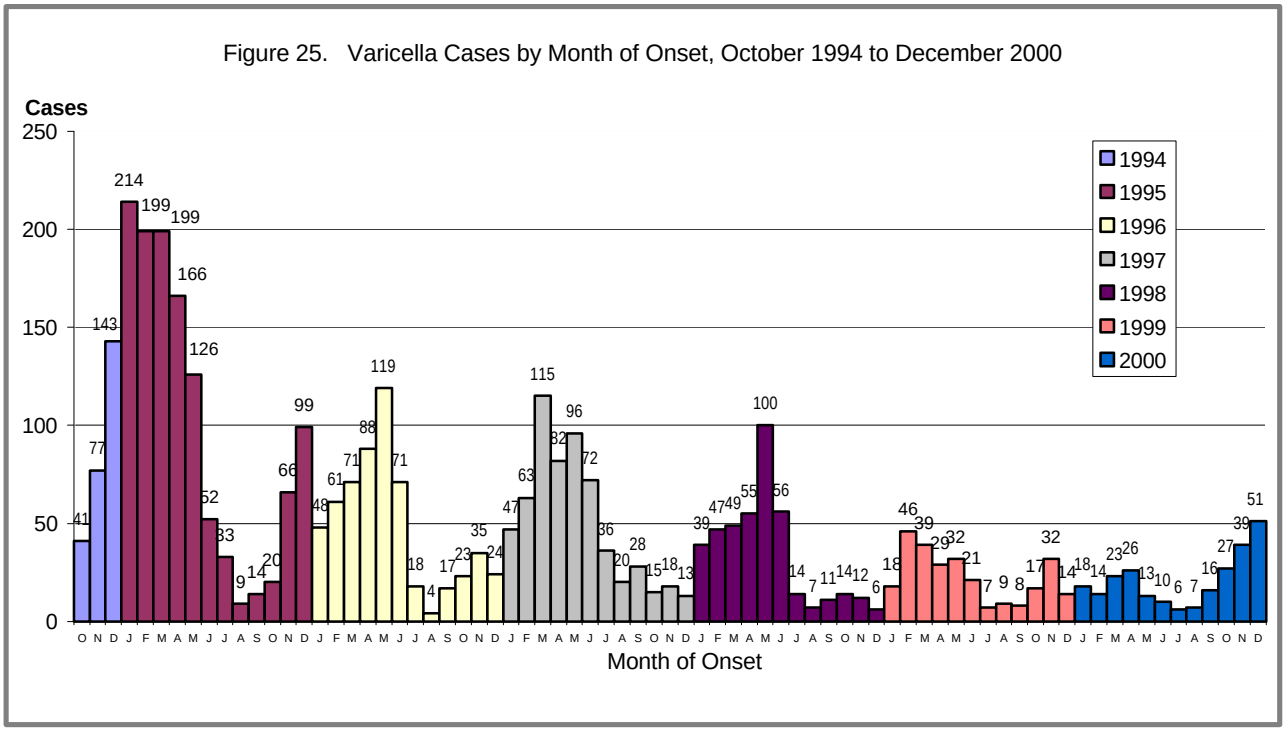
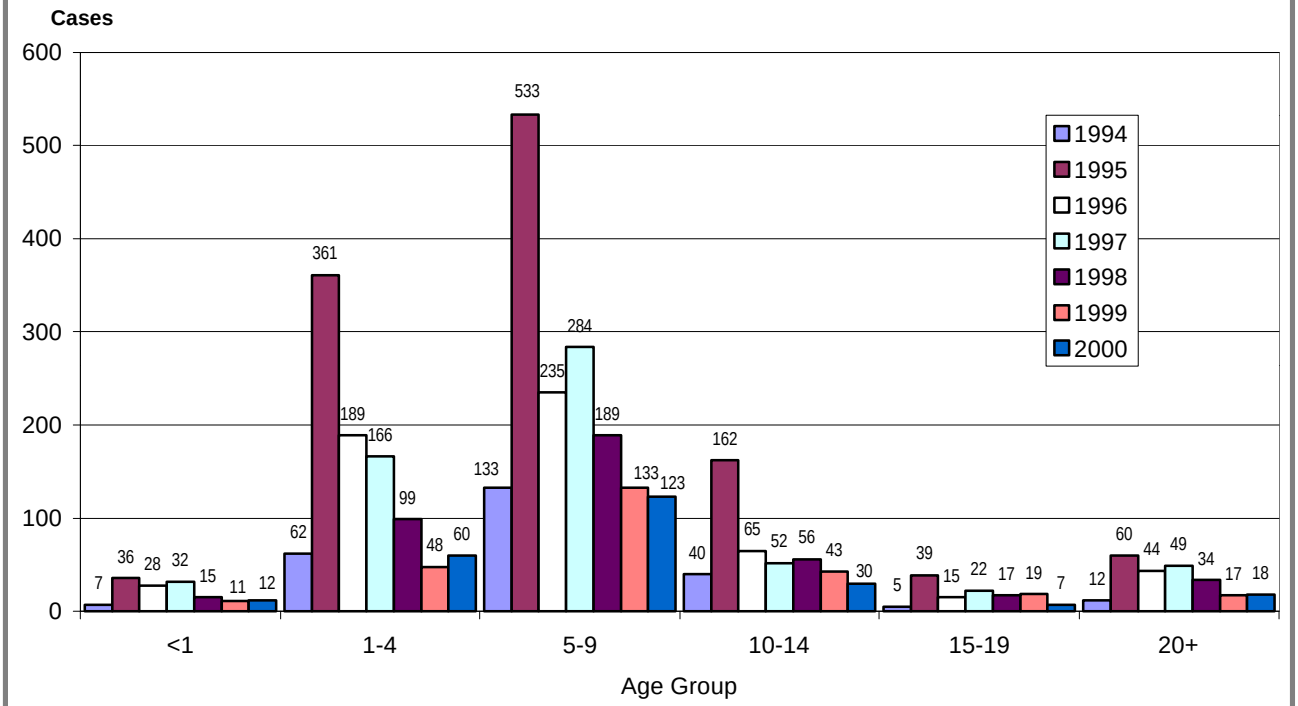


Figure 26. Varicella Cases by Age Group and Year



as well as to obtain information regarding history of varicella vaccine, presence of complications, description of illness and spread of disease within households. Data are also collected on varicella-related hospitalizations and deaths (VZV deaths are nationally reportable). Cases of varicella and zoster are reported by over 250 participating surveillance sites in the target area, including hospitals, public and private schools, primary care practitioners, public health clinics, licensed child-care facilities, and homeless shelters. Case identification is facilitated through a standardized site-specific surveillance system. After notification, each case, or his/her parent/guardian, is interviewed via telephone. The interviewer also assesses whether there are additional cases or susceptible contacts within the household. A case investigation is completed for each newly identified case of varicella.

In 2000, a total of 250 confirmed cases of varicella were reported from the VASP surveillance area of West Philadelphia, an 8% decline from 1999 (271 vs. 250) and the lowest number of reported cases since 1995, the first full year of active varicella surveillance (Figure 25). Schools continued to be the greatest source of varicella case reports received by the DDC, accounting for 28% of all reported cases during the year. Twenty-two percent of varicella reports were from primary care facilities/physicians, while hospitals and family members contributed almost equally to 31% of the varicella reports. The age distribution of confirmed varicella cases continued to follow a similar pattern demonstrated in previous years, with the majority of cases (61%) continuing to occur among the school–age population of 5-14 year old children (Figure 26).

Seven of the confirmed varicella cases for 2000 from West Philadelphia were hospitalized, an increase from 1999 when there were no hospitalizations. Ages of the hospitalized varicella cases ranged from 4 months to 42 years. Four of the hospitalized cases had an underlying medical condition(s) and none of the cases received the varicella vaccine prior to

illness. Two varicella-related deaths also were reported to the VASP; however, these individuals did not reside in the surveillance area of West Philadelphia or in the city of Philadelphia. Both varicella-related deaths occurred in individuals with underlying medical conditions.

Thirteen confirmed zoster cases in individuals under 20 years of age from West Philadelphia were reported to the VASP in 2000. The majority of these cases (7 cases, 54%) were reported by primary care facilities/physicians. Ages of the zoster cases ranged from 16 months to 16 years with a median age of 10 years.

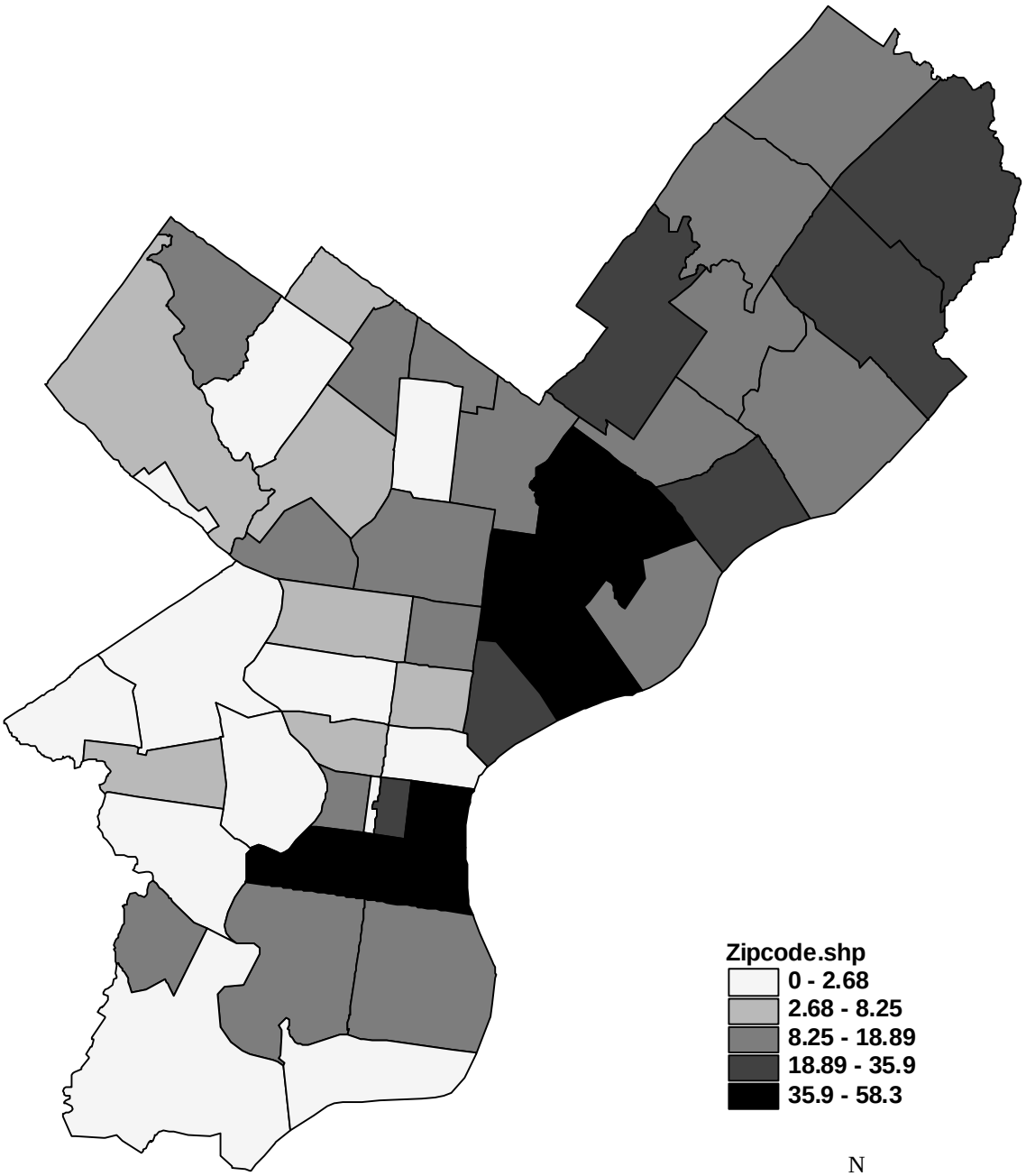
Syphilis Elimination Project

In 1990, the peak year of a syphilis epidemic that began in 1986, 2,361 cases of infectious syphilis were reported in Philadelphia. In 2000, this number declined 97.2% with only 67 cases reported. Similar decreases noted throughout the United States prompted the Centers for Disease Control and Prevention in Atlanta, Georgia to initiate an effort to eliminate syphilis in the United States by 2005. The CDC has defined elimination at the national level as, “the absence of sustained transmission in the United States”; on the local level, elimination is defined as, “the absence of transmission of new cases within the jurisdiction, except within 90 days of report of an imported index case”.

The Philadelphia STD Control Program has initiated a multi-pronged effort to contribute to this national goal. Specific activities include enhanced laboratory-based surveillance, expanded laboratory support for routine testing in the Philadelphia Prison System, targeted field screening including acquisition of funds for a mobile testing/treatment van, intensified syphilis case management including heightened partner notification efforts, development of an outbreak response plan which includes members of the affected communities in its planning and implementation, and development of an early warning system which incorporates weekly analysis of reported morbidity combined with the establishment of community and risk group-based outbreak thresholds. While we believe elimination of syphilis in Philadelphia is achievable, we recognize that this goal is extremely ambitious. It is a goal which cannot be achieved unilaterally and which requires, at a minimum, equivalent success in other parts of the country linked to Philadelphia by sea, land and air travel of its residents.

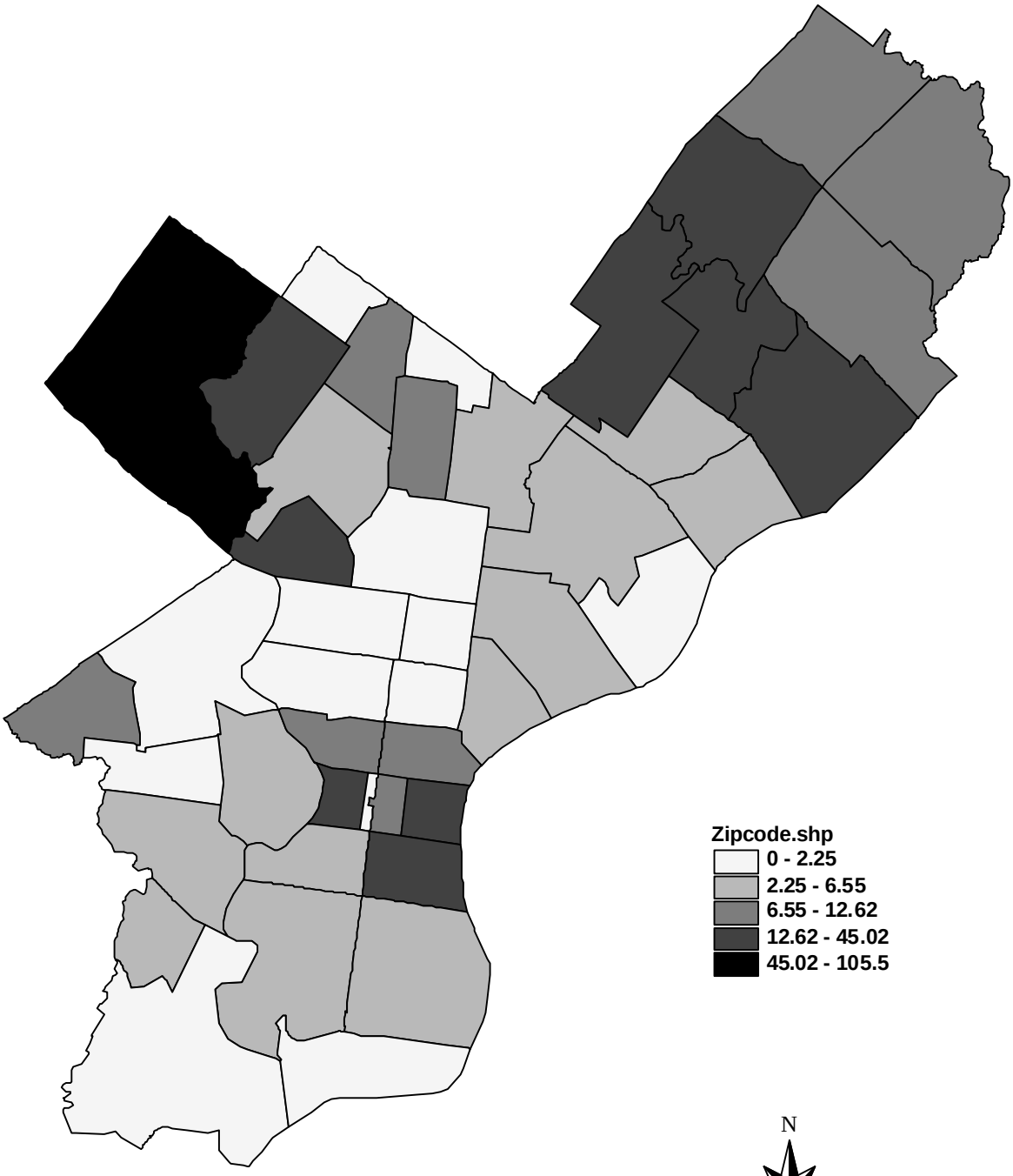
Appendices

Hepatitis A, Philadelphia 2000
Rates per 100,000 by Zipcode of Residence

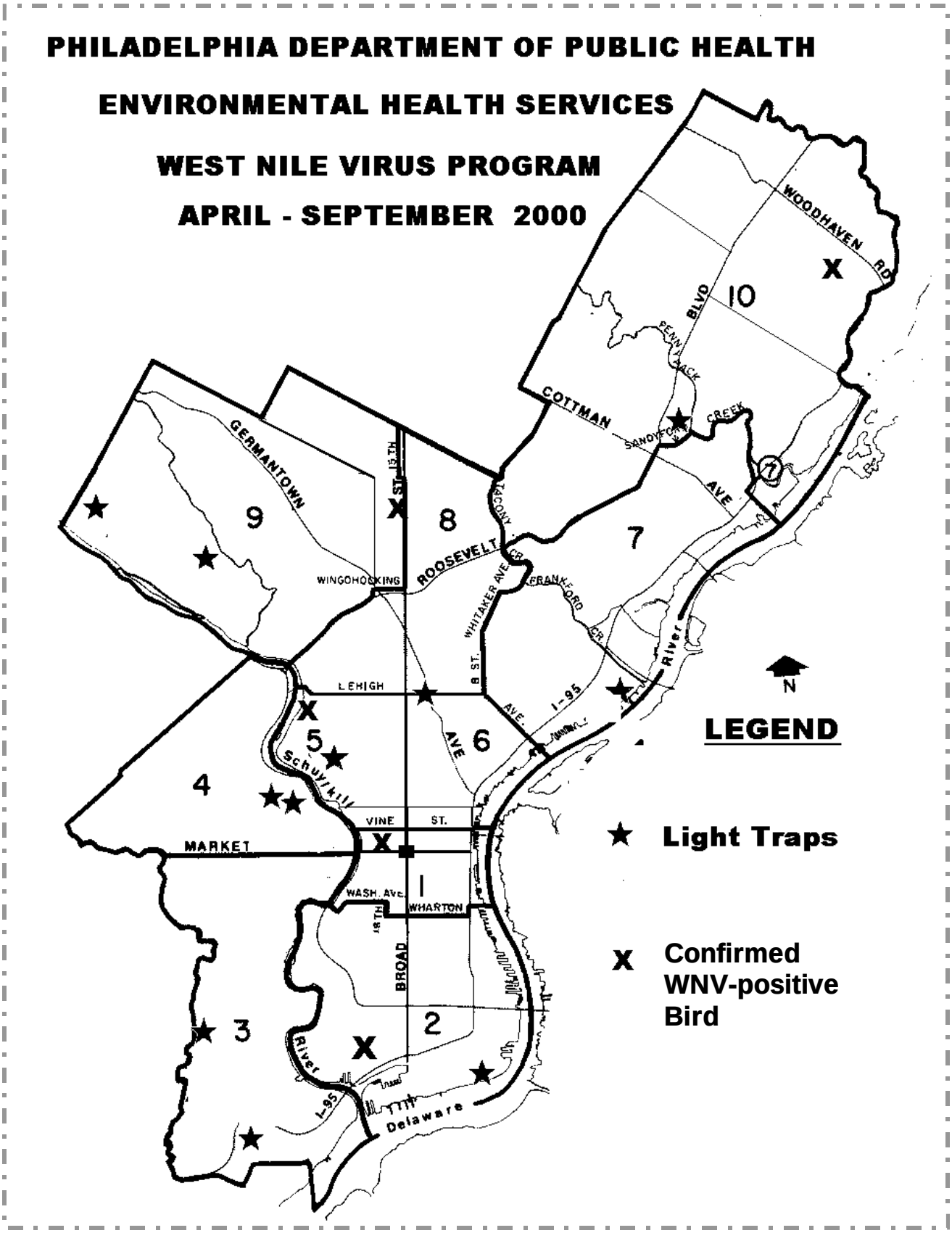


N=255
Philadelphia Department of Public Health
Division of Disease Control
March 2001

Lyme Disease, Philadelphia 2000
Rates per 100,000 by Zipcode of Residence



N=165
Philadelphia Department of Public Health
Division of Disease Control
June 2001


PHILADELPHIA DEPARTMENT OF PUBLIC HEALTH
ENVIRONMENTAL HEALTH SERVICES
WEST NILE VIRUS PROGRAM
APRIL - SEPTEMBER 2000
WOODHAVEN RD
BLVD
10
PENNYPACK
COTTMAN
SANDY FORD
CREEK
AVE
71
GERMANTOWN
13 TH ST
9
8
7
TACONY CR
ROOSEVELT
WINGOHOCKING
WHITTAKER AVE
FRANKFORD CR
River
B ST.
LEHIGH
AVE
I-95
5
6
Schuylkill
4
VINE ST.
MARKET
WASH. Ave.
1
WHARTON
18 TH
BROAD
3
2
River
I-95
Delaware
N
LEGEND
Light Traps
Confirmed WNV-positive Bird

APPENDIX D

LIST OF REPORTABLE COMMUNICABLE DISEASES

DIVISION OF DISEASE CONTROL
PHILADELPHIA, PA

ANNUAL COMMUNICABLE DISEASE TOTALS

DISEASES	YEARS										
(NR = Not reportable, NA = Not available)	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
ACQUIRED IMMUNODEFICIENCY SYNDROME	546	633	737	1,825	1,413	1,294	1,297	1,223	909	1,383	1,077
AMEBIASIS	7	9	13	21	10	4	9	27	4	15	31
ANIMAL BITES	1,853	1,601	1,626	2,012	2,210	1,911	2,184	2,120	2,345	2,130	1,974
ANTHRAX	0	0	0	0	0	0	0	0	0	0	0
BOTULISM	0	0	0	0	0	0	0	0	0	1	1
BRUCELLOSIS	0	0	0	0	0	0	0	0	0	0	0
CAMPYLOBACTERIOSIS	156	179	178	220	211	138	193	157	142	132	148
CHLAMYDIA TRACHOMATIS	NR	NR	8,716	10,053	9,956	8,079	8,118	10,480	11,763	12,660	13,593
CHOLERA	0	0	0	0	0	0	0	0	0	0	0
CRYPTOSPORIDIOSIS	NR	NR	NR	NR	NR	24	20	14	14	24	22
DIARRHEA (newborn)	0	0	0	0	0	0	0	0	0	0	0
DIPHTHERIA	0	0	0	0	0	0	0	0	0	0	0
ENCEPHALITIS	0	2	1	2	0	0	1	5	0	1	1
ESCHERICHIA COLI O157:H7	NR	NR	NR	NR	NR	7	5	3	6	7	6
GIARDIASIS	138	181	164	172	165	182	180	179	130	105	132
GONORRHEA	19,554	15,398	11,914	10,580	8,026	6,565	6,415	6,504	7,271	7,776	8,170
GUILLIAN-BARRE SYNDROME	0	2	1	1	1	2	1	1	0	2	3
HAEMOPHILUS INFLUENZAE type b	10	4	0	1	1	5	4	2	0	0	0
HEPATITIS A	664	76	44	15	30	22	269	176	133	62	255
HEPATITIS B	192	122	199	163	147	104	134	171	155	152	134
HEPATITIS (Non-A and Non-B) [C as of 1999]	6	2	3	1	4	1	0	7	0	3	1
HISTOPLASMOSIS	0	0	0	0	0	0	0	1	0	0	2
KAWASAKI DISEASE	1	2	0	1	0	1	0	0	0	1	2
LEGIONELLOSIS	0	5	13	4	4	4	8	9	15	15	19
LEPTOSPIROSIS	0	0	0	0	0	0	0	0	0	0	0
LISTERIOSIS	NR	NR	NR	NR	NR	NR	3	6	5	10	12
LYME DISEASE	47	78	118	115	152	206	225	184	179	220	165
LYMPHOGRANULOMA VENEREUM (LGV)	0	0	0	0	0	0	0	0	0	0	0
MALARIA	3	1	7	8	11	4	8	10	11	10	11
MEASLES	293	1,401	4	0	2	0	1	7	1	0	0
MENINGITIS, aseptic	3	45	15	11	10	16	11	39	26	25	68
MENINGITIS, bacterial	28	20	30	19	23	20	10	32	12	15	23
MENINGOCOCCAL INFECTIONS	26	12	24	19	15	13	18	15	13	13	24
MUMPS	31	29	8	8	4	7	9	5	1	5	2
PELVIC INFLAMMATORY DISEASE	34	0	0	0	0	0	NA	NA	NA	NA	NA
PERTUSSIS	60	20	21	130	58	29	100	46	31	44	61
PLAGUE	0	0	0	0	0	0	0	0	0	0	0
POLIOMYELITIS	0	0	0	0	0	0	0	0	0	0	0
PSITTACOSIS	0	0	5	0	0	1	0	0	0	0	0
RABIES (Human)	0	0	0	0	0	0	0	0	0	0	0
REYE SYNDROME	0	0	0	0	0	0	0	0	0	0	0
RICKETTSIAL DISEASES, including RMSF	0	1	0	0	0	0	1	1	1	4	0
RUBELLA,including congenital rubella syndrome	0	0	0	2	0	0	1	0	1	0	0
SALMONELLOSIS	463	467	438	388	332	472	424	395	319	346	328
SHIGELLOSIS	184	226	240	196	91	293	412	361	123	129	115
SYPHILIS - PRIMARY & SECONDARY	2,361	1,411	907	515	298	199	141	108	89	69	67
SYPHILIS - CONGENITAL	179	290	271	153	106	65	63	35	24	8	9
SYPHILIS - TOTAL	5,705	4,904	4,811	3,752	2,006	1,299	1,298	1,091	796	826	622
TETANUS	0	1	0	0	0	0	0	1	0	0	0
TOXIC SHOCK SYNDROME	0	0	1	1	0	0	0	2	1	0	0
TOXOPLASMOSIS	0	0	0	0	0	0	0	1	2	3	2
TUBERCULOSIS	253	308	345	333	276	309	250	233	179	184	169
TULAREMIA	0	0	0	0	0	1	1	0	0	0	0
TYPHOID & PARATYPHOID FEVER	0	0	5	1	0	6	2	1	4	1	2
YELLOW FEVER	0	0	0	0	0	0	0	0	0	0	0

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