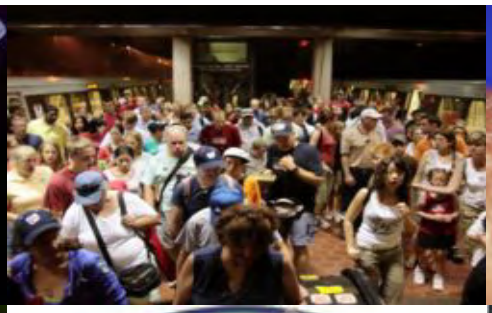
State of Washington
COMMUNICABLE DISEASE REPORT 2005

Washington State Department of Health



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COMMUNICABLE DISEASE REPORT
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This report represents a summary of Washington State communicable disease surveillance: the ongoing collection, analysis and dissemination of morbidity and mortality data to prevent and control communicable disease. This is the twenty-first report from the Communicable Disease Epidemiology Section since 1982. In addition to the contributors listed on the previous page, we would like to recognize the staff of the Public Health Laboratories and the thousands of people in local health jurisdictions, clinics, hospitals and clinical laboratories throughout Washington whose disease reports constitute the basis for this document.

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TECHNICAL NOTES

Washington State has conducted surveillance for notifiable conditions since the 1880s. The rules for reporting notifiable conditions (Washington Administrative Codes 246-100 and 246-101) outline requirements for disease surveillance: Healthcare providers and facilities, laboratories, veterinarians, food service establishments, childcare facilities and schools must notify local health jurisdictions and/or the Washington State Department of Health of certain conditions, including communicable diseases. The information collected in this system flows from local health jurisdictions to the Department of Health and on to the Centers for Disease Control and Prevention (CDC). This information is critical for two reasons: 1) it enables public health agencies to act quickly to prevent the spread of disease and, 2) it provides an overall picture of disease trends at the local, state and national levels. Analyzing these trends allows us to target resources where they are most needed and to assess our effectiveness in preventing and controlling disease.

This report summarizes trends in notifiable communicable diseases reported by local health jurisdictions to the Department of Health in 2005. There are several limitations to the accuracy of this information, primarily that sick people do not always seek healthcare and healthcare providers and others do not always recognize, confirm or report notifiable conditions. Therefore, reported cases may represent a fraction of the burden of disease.

The 2005 population estimates used for rate calculations in this report were provided by the Washington State Office of Financial Management and are available online at http://www.ofm.wa.gov/pop/default.asp. Disease rates are provided as the number of cases of a disease per 100,000 population without confidence intervals, a format intended for non-technical readers. For 2005, county-specific incidence rates have not been provided when fewer than five cases were reported. In addition, rates have not been age-adjusted due to the small numbers of cases for many conditions.

This report is available online at http://www.doh.wa.gov/notify. The online newsletter, *EpiTrends*, available at http://www.doh.wa.gov/publicat/publications.htm, contains monthly totals of selected notifiable conditions by county. Additional information on communicable disease surveillance is available at: http://www.doh.wa.gov/notify, or by contacting the Department of Health Communicable Disease Epidemiology Section, 206.418.5500.

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EXECUTIVE SUMMARY

At the end of the season in 2005, human West Nile virus (WNV) infection continued to elude Washington. While the adjacent states of Oregon and Idaho saw considerable WNV activity identified by surveillance for human disease, affected mosquito pools, dead birds and horses with neurologic symptoms, none was detected in Washington.

Human disease associated with animals played a prominent role in 2005. A record number of persons with tularemia (*Francisella tularensis* infection) was reported; the cases were unrelated and followed exposure to insects and use of power landscaping tools. At least 42 outbreaks of enteric and foodborne disease were investigated by local health jurisdictions, including gastroenteritis due to *Escherichia coli* O157:H7 after consuming raw milk from a commercial dairy and *Salmonella* Ohio linked to handling baby chicks. Collaborative investigations with multiple jurisdictions and agencies included: a multistate outbreak of *S.* Typhimurium linked to ice cream prepared with packaged, uncooked cake mix and *S.* Thompson in Washington, Oregon, British Columbia and Alberta associated with handling pet treats.

Sexually transmitted infections, illness caused by enteric bacterial pathogens and pertussis continue to be the most commonly reported conditions in Washington. Rates of infection with *Chlamydia trachomatis* remain high, with 18,617 infections reported in 2005, an incidence of 297.6 cases/100,000 population. In addition, the rate of primary and secondary syphilis (2.4 cases/100,000 population) continues to rise. Our rates of foodborne and enteric disease are stable and below national averages reported by CDC with the exception of campylobacteriosis (16.7 cases /100,000 population vs. 12.8/100,000 for the U.S.) and infections caused by enterohemorrhagic *Escherichia coli* (2.4 cases /100,000 vs. 1.2 cases/100,000 for the U.S.).

In 2005, pertussis remained a significant problem in Washington, when more than a thousand infections were reported and the incidence of 16.4 cases/100,000 population far exceeded CDC's estimated incidence of 8.5 cases/100,000 population in 2005. Although the highest rate of infection and the most serious illnesses occur among children under one year of age, more than 60% of pertussis in Washington occurs among those 10 years of age and older, for whom waning immunity plays a significant role. Acellular pertussis vaccines licensed for adolescents and adults in 2005 may decrease the rate of pertussis in this population and diminish a source of infection for under- and unimmunized children.

The significant decline in acute viral hepatitis A and B continues, reflecting the success of increased immunization coverage and harm reduction programs. Surveillance for hepatitis C remains challenging, as many infections are unrecognized, many are unreported and resources to track and manage this infection are limited.

We hope that you find this summary useful. We are grateful to healthcare and other professionals who continue to report notifiable conditions and to the staff of Washington's local health jurisdictions who have contributed to disease surveillance, investigation and prevention in our state.

REPORT A NOTIFIABLE CONDITION

In accordance with Washington State law (http://www.doh.wa.gov/notify/other/legal.htm), public health and healthcare professionals should report notifiable conditions to the local health jurisdiction in the county of the patient's residence. Disease reporting telephone numbers are provided below. If no one is available at the local health jurisdiction and a condition is immediately notifiable, please call the Department of Health 24-hour reporting line: 1-877-539-4344. For a complete list of notifiable conditions for healthcare providers, hospitals, laboratories and veterinarians, refer to the posters section at http://www.doh.wa.gov/notify.

Local Health Jurisdictions

Adams County Health Department
509-659-3315 after hrs: 509-659-1122

Asotin County Health District
509-758-3344 after hrs: 208-798-2648

Benton-Franklin Health District
509-547-9737 x226
after hrs: 509-543-3851

Chelan-Douglas Health District
509-886-6400 after hrs: 509-665-2202

Clallam County Health Department
360-417-2411 after hrs: 911

Clark County Health Department
360-397-8182 after hrs: 1-888-727-6230

Columbia County Health District
509-382-2181 after hrs: 911

Cowlitz County Health Department
360-414-5509 after hrs: 360-636-9595

Garfield County Health District
509-843-3412 after hrs: 509-843-3494

Grant County Health District
509-754-6060 after hrs: 509-398-2083

Grays Harbor Health Department
360-532-8631 after hrs: 360-581-1401

Island County Health Department
360-679-7351 after hrs: 360-679-9567

Jefferson County Health Department
360-385-9400 after hrs: 911

King County (Public Health – Seattle and King County)
AIDS/HIV: 206-296-4645
STDs: 206-731-3954
TB: 206-731-4579
Other CD: 206-296-4774
Message: 206-296-4782 (24/7)

Kitsap County Health District
360-337-5235 after hrs: 911

Kittitas County Public Health Department
509-962-7515 after hrs: 911

Klickitat County Health Department
509-773-4565 after hrs: 911

Lewis County Health Department
360-740-1257 after hrs: 360-740-1275

Lincoln County Health Department
509-725-1001 after hrs: 509-725-3501

Mason County Health Department
360-427-9670 x274 after hrs: 911

Northeast Tri-County Health District
Ferry: 509-775-3111 after hrs: 911
Pend Oreille: 509-447-3131 after hrs: 911
Stevens: 509-684-5048 after hrs: 911

Okanogan County Public Health Department
509-422-7140 after hrs: 911

Pacific County Health Department
360-875-9343 after hrs: 360-875-9397

Pierce County Health Department
253-798-6534 after hrs: 253-798-6534

San Juan County Health Department
360-378-4474 after hrs: 360-410-1676

Skagit County Health Department
360-336-9397 after hrs: 911

Skamania County Health Department
1-800-996-2526 after hrs: 1-888-727-6230

Snohomish Health District
425-339-5278 after hrs: 425-339-5295

Spokane Regional Health District
509-324-1449 after hrs: 509-324-1500

Thurston County Health Department
360-786-5470 after hrs: 911

Wahkiakum County Health Department
360-795-6207 after hrs: 360-795-6207

Walla Walla Health Department
509-527-3290 after hrs: 509-527-3290

Whatcom County Health Department
360-738-2508 after hrs: 360-738-2503

Whitman County Health Department
509-397-6280 after hrs: 509-397-6280

Yakima County Health District
509-249-6541 after hrs: 509-575-4040 #1

Notifiable Conditions & the Healthcare Provider

Washington State Department of Health

The following conditions are notifiable to local public health authorities in Washington in accordance with WAC 246-101. Timeframes for notification are indicated in footnotes. **Immediately notifiable conditions are indicated in bold** and should be reported when suspected or confirmed.

Acquired immunodeficiency syndrome (AIDS) [3] (including AIDS in persons previously reported with HIV infection)
Animal bites [I]
Arboviral disease [3] (West Nile virus disease, dengue, Eastern & Western equine encephalitis, etc.)
Botulism [I] **(foodborne, wound and infant)**
Brucellosis [I]
Campylobacteriosis [3]
Chancroid [3]
Chlamydia trachomatis [3]
Cholera [I]
Cryptosporidiosis [3]
Cyclosporiasis [3]
Diphtheria [I]
Disease of suspected bioterrorism origin [I] **(including Anthrax and Smallpox)**
Disease of suspected foodborne origin [I] **(clusters only)**
Disease of suspected waterborne origin [I] **(clusters only)**
Enterohemorrhagic *E. coli*, including *E. coli* O157:H7 infection [I]
Giardiasis [3]
Gonorrhea [3]
Granuloma inguinale [3]
***Haemophilus influenzae* invasive disease** [I] **(under age five years, excluding otitis media)**
Hantavirus pulmonary syndrome [3]
Hemolytic uremic syndrome (HUS) [I]
Hepatitis A, acute [I]
Hepatitis B, acute [3]; chronic [M] (initial diagnosis only)
Hepatitis B, surface antigen positive pregnant women [3]
Hepatitis C, acute and chronic [M] (initial diagnosis only)
Hepatitis, unspecified (infectious) [3]
Herpes simplex, genital (initial infection only) and neonatal [3]
HIV infection [3]
Immunization reactions [3] (severe, adverse)
Legionellosis [3]
Leptospirosis [3]
Listeriosis [I]
Lyme disease [3]
Lymphogranuloma venereum [3]
Malaria [3]
Measles (rubeola) [I]
Meningococcal disease [I]
Mumps [3]
Paralytic shellfish poisoning [I]
Pertussis [I]
Plague [I]
Poliomyelitis [I]
Psittacosis [3]
Q fever [3]
Rabies [I]
Rabies post-exposure prophylaxis [3]
Relapsing fever (borreliosis) [I]
Rubella [I] **(including congenital)**
Salmonellosis [I]
Shigellosis [I]
Syphilis [3] (including congenital)
Tetanus [3]
Trichinosis [3]
Tuberculosis [I]
Tularemia [3]
Typhus [I]
Vibriosis [3]
Yellow fever [I]
Yersiniosis [3]
Unexplained critical illness or death [I]
Rare diseases of public health significance [I]

The following diagnoses are notifiable to the Washington State Department of Health in accordance with WAC 246-101. Timeframes for notification are indicated in footnotes. **Immediately notifiable conditions are indicated in bold** and should be reported when suspected or confirmed.

Asthma, occupational (suspected or confirmed) [M]	1-888-66-SHARP
Birth Defects [M]: Autism spectrum disorders, Cerebral palsy, Alcohol related birth defects	360-236-3492
Pesticide Poisoning (hospitalized, fatal, or cluster) [I]	1-800-222-1222
Pesticide Poisoning (all other) [3]	1-800-222-1222

Notification time frame: [I] **Immediately,**
[3] Within 3 work days, [M] Within one month

If no one is available at the local health jurisdiction and a condition is immediately notifiable, please call 1-877-539-4344

For more information, please see WAC 246-101 or http://www.doh.wa.gov/notify

Notifiable Conditions & Washington's Hospitals

Washington State Department of Health

The following conditions are notifiable to local public health authorities in Washington in accordance with WAC 246-101. Timeframes for notification are indicated in footnotes. **Immediately notifiable conditions are indicated in bold** and should be reported when suspected or confirmed. These notifications are for conditions that occur or are treated in the hospital. Hospital laboratories should use the *Notifiable Conditions & Washington's Laboratories* poster.

Acquired immunodeficiency syndrome (AIDS) [3] (including AIDS in persons previously reported with HIV infection)
Animal bites [I]
Arboviral disease [3] (West Nile virus disease, dengue, Eastern & Western equine encephalitis, etc.)
Botulism [I] **(foodborne, wound and infant)**
Brucellosis [I]
Campylobacteriosis [3]
Chancroid [3]
Chlamydia trachomatis [3]
Cholera [I]
Cryptosporidiosis [3]
Cyclosporiasis [3]
Diphtheria [I]
Disease of suspected bioterrorism origin [I] **(including Anthrax and Smallpox)**
Disease of suspected foodborne origin [I] **(clusters only)**
Disease of suspected waterborne origin [I] **(clusters only)**
Enterohemorrhagic *E. coli*, including *E. coli* O157:H7 infection [I]
Giardiasis [3]
Gonorrhea [3]
Granuloma inguinale [3]
***Haemophilus influenzae* invasive disease** [I] **(under age five years, excluding otitis media)**
Hantavirus pulmonary syndrome [3]
Hemolytic uremic syndrome (HUS) [I]
Hepatitis A, acute [I]
Hepatitis B, acute [3]; chronic [M] (initial diagnosis only)
Hepatitis B, surface antigen positive pregnant women [3]
Hepatitis C, acute and chronic [M] (initial diagnosis only)
Hepatitis, unspecified (infectious) [3]
HIV infection [3]
Immunization reactions [3] (severe, adverse)
Legionellosis [3]
Leptospirosis [3]
Listeriosis [I]
Lyme disease [3]
Lymphogranuloma venereum [3]
Malaria [3]
Measles (rubeola) [I]
Meningococcal disease [I]
Mumps [3]
Paralytic shellfish poisoning [I]
Pertussis [I]
Plague [I]
Poliomyelitis [I]
Psittacosis [3]
Q fever [3]
Rabies [I]
Rabies post-exposure prophylaxis [3]
Relapsing fever (borreliosis) [I]
Rubella [I] **(including congenital)**
Salmonellosis [I]
Shigellosis [I]
Syphilis [3] (including congenital)
Tetanus [3]
Trichinosis [3]
Tuberculosis [I]
Tularemia [3]
Typhus [I]
Vibriosis [3]
Yellow fever [I]
Yersiniosis [3]

Outbreaks of disease that occur or are treated in the hospital (pertussis, influenza, nosocomial infections, viral meningitis, etc.) [I]
Unexplained critical illness or death [I]
Rare diseases of public health significance [I]

The following diagnoses are notifiable to the Washington State Department of Health in accordance with WAC 246-101. Timeframes for notification are indicated in footnotes. **Immediately notifiable conditions are indicated in bold** and should be reported when suspected or confirmed.

Asthma, occupational (suspected or confirmed) [M]	1-888-66-SHARP
Birth Defects [M]: Abdominal wall defects, Autism spectrum disorders, Cerebral palsy, Down syndrome, Alcohol related birth defects, Hypospadias, Limb reductions, Neural tube defects, Oral clefts	360-236-3492
Gunshot Wounds [M]	360-236-3603
Pesticide Poisoning (hospitalized, fatal, or cluster) [I]	1-800-222-1222
Pesticide Poisoning (all other) [3]	1-800-222-1222

Notification time frame: [I] **Immediately,**
[3] Within 3 work days, [M] Within one month

If no one is available at the local health jurisdiction and a condition is immediately notifiable, please call 1-877-539-4344

For more information, please see WAC 246-101 or http://www.doh.wa.gov/notify

Notifiable Conditions & Washington's Laboratories

Washington State Department of Health

The following laboratory results (preliminary or confirmed) are notifiable to local public health authorities in Washington in accordance with WAC 246-101. Timeframes for notification are indicated in footnotes. **Immediately notifiable results are indicated in bold**. Information provided must include: specimen type; name and telephone number of laboratory; date specimen collected; date specimen received; requesting healthcare provider's name and telephone number or address; test result; name of patient (if available) or patient identifier; sex and date of birth or age of patient (if available).

Arboviral disease (West Nile virus disease, dengue, Eastern & Western equine encephalitis, etc.) (detection of viral antigen, antibody, or nucleic acid) 2*

Blood lead level (elevated) 2&i

Blood lead level (non-elevated) M&i

Bordetella pertussis 2*

Brucella 2*!

CD4+ counts <200 or <14% M&ii

Chlamydia trachomatis 2*

Clostridium botulinum **I*!**

Corynebacterium diphtheriae 2*!

Cryptosporidium parvum 2*

Cyclospora cayetanensis 2*!

Disease of suspected bioterrorism origin I*!
Anthrax *(Bacillus anthracis)* I*!
Smallpox (Variola virus) I*!

*Escherichia coli (*Shiga-like toxin only) 2*!

Francisella tularensis 2*!

Hepatitis A (IgM +) 2*

Hepatitis B (detection of viral antigen, antibody, or nucleic acid) M*

Hepatitis C (detection of antibody or nucleic acid) M*

Human immunodeficiency virus (Western blot, P-24 antigen, or viral culture) 2&ii

Human immunodeficiency virus M&ii (RNA or DNA nucleic acid tests)

Listeria monocytogenes 2*

Mycobacterium tuberculosis 2&iii!@

Neisseria gonorrhoeae 2*

Neisseria meningitidis 2*!

Rabies I*

Rubeola I*!

Salmonella species 2*!

Shigella species 2*!

Treponema pallidum 2!

Rare diseases of public health significance I*

Vibrio cholerae **I*!**

Yersinia pestis **I*!**

CODE LEGEND

I Immediately notifiable
2 Notifiable within 2 work days
M Notifiable on a monthly basis
* Notifiable to the local health jurisdiction of the patient's residence
&i Notifiable to DOH Lead Program 360-236-4252
&ii Notifiable to DOH IDRH Assessment 360-236-3419
&iii Notifiable to DOH TB Reporting Line 360-236-3397
or TB Reporting Fax Line 360-236-3405
! Specimen submission required
@ Antibiotic sensitivity testing (first isolates only)

To report a Notifiable Condition, contact the local health jurisdiction of the patient's residence, unless the condition is reportable directly to DOH. If the patient's local health jurisdiction is unknown, please notify the local health jurisdiction of the healthcare provider that ordered the diagnostic test.

If no one is available at the local health jurisdiction and a condition is immediately notifiable, please call 1-877-539-4344

For more information, please see WAC 246-101 or http://www.doh.wa.gov/notify

Notifiable Conditions & the Veterinarian

Washington State Department of Health

Veterinarians, including those working in private practices, laboratories, academic settings, zoos, wildlife centers, animal shelters and government agencies, have an important public health role in the identification and control of zoonotic and vector-borne diseases. **The Washington State Administrative Code (WAC 246-101-405) outlines these responsibilities for veterinarians:**

1. **Notify your local public health department* of any suspected or confirmed case or outbreak involving a disease of public health importance (see table below).**
2. **Cooperate with public health authorities in the investigation of suspected and confirmed cases or outbreaks of zoonotic disease.**
3. **Cooperate with public health authorities in the implementation of zoonotic disease infection control measures, including isolation and quarantine when necessary.**

DISEASE OR CONDITION (report both suspected and confirmed cases or outbreaks)	Report immediately	Report within 7 work days
Animal bite to human	X	
Anthrax (*Bacillus anthracis*)	X	
Arthropod–borne viruses: West Nile virus; Eastern & Western equine encephalitis	X	
Bat bite or contact exposure to human or domestic animal	X	
Brucellosis *(Brucella abortus, B. melitensis, B. suis, B. canis, B. ovis)*	X	
Herpes B virus	X	
Leptospirosis	X	
Plague (*Yersinia pestis*)	X	
Psittacosis/Ornithosis (*Chlamydophila psittaci*)	X	
Q Fever (*Coxiella burnetii*)	X	
Rabies	X	
Tick-borne diseases: Babesiosis, Relapsing fever (*Borrelia hermsii*) Lyme (*B. burgdorferi*), Rocky Mt. spotted fever (*Rickettsia rickettsii*)		X
Trichinosis (*Trichinella spiralis*)		X
Tuberculosis *(Mycobacterium tuberculosis, M. bovis)*	X	
Tularemia (*Francisella tularensis*)	X	
Other vector-borne or zoonotic disease of public health significance (examples: spongiform encephalopathies, Baylisascaris infection in a non-raccoon animal, avian influenza, emerging zoonoses as requested by public health officials)	X	

IMPORTANT NOTE: Selected animal diseases, especially in livestock and poultry, must be reported to the Washington State Department of Agriculture, State Veterinarian's Office. These include eradicated diseases (e.g., tuberculosis, brucellosis), suspected foreign animal diseases (e.g., foot and mouth disease, exotic Newcastle disease, hog cholera) and certain domestic diseases (e.g., anthrax, rabies).

For diseases reportable to both the Department of Agriculture and to Public Health, veterinarians can make just one report and the agencies will reciprocally share these reports.

*A list of local health departments can be found at http://www.doh.wa.gov/LHJMap/LHJMap.htm.

COMMUNICABLE DISEASE SUMMARIES

ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS)

See HIV infection/AIDS

ARBOVIRAL DISEASE

Arboviral diseases are transmitted by mosquitoes, other insects and ticks and include flaviviruses (West Nile virus, dengue, St. Louis encephalitis [SLE], yellow fever) and alphaviruses (western equine encephalitis [WEE]).

West Nile virus infection

In 1999, West Nile virus (WNV) was first identified in the western hemisphere in New York City. Between 1999 and 2003, the virus spread throughout most of North America, causing a major epizootic in birds and horses, as well as a human epidemic. During the fall of 2002, four dead birds were found infected with WNV in Washington, one each in Pend Oreille, Snohomish, Thurston and Pierce Counties. Two infected horses (Whatcom and Island Counties) with neurologic symptoms were also diagnosed as having been infected with WNV.

In 2005, one bird (of 647 tested), two mosquito pools (of 915 tested) and one horse (of 28 tested) were found to be infected with WNV. During 2005, three Washington residents were infected with WNV after being exposed to infected mosquitoes in states with ongoing outbreaks (California and Illinois). In July 2006, a Gig Harbor resident became the first person to acquire WNV in Washington.

In humans, approximately 80% of WNV infections are asymptomatic; 20% develop mild, self-limited febrile illness that may cause weakness and fatigue lasting weeks. Less than 1% of infected persons develop serious neuroinvasive disease (meningitis, encephalitis, acute flaccid paralysis or other neurologic manifestations). The case-fatality rate for severe WNV infection is approximately 5-10%. Individuals >50 years of age are at highest risk for severe illness and death. Prevention and risk reduction measures include using appropriate personal protection to avoid mosquito bites, reducing mosquito breeding sources and mosquito-proofing residences.

Other arboviral diseases

In Washington, endemically acquired cases of western equine encephalitis (WEE) and St. Louis encephalitis (SLE) were documented in the Yakima Valley during the 1930s, 1940s, 1970s and early 1980s. These viruses are transmitted to humans by the bite of an infected mosquito. Wild birds are the natural reservoir for these viruses and the source of infection for mosquitoes. Species of mosquitoes that act as vectors for these diseases are found throughout Washington. In 2005, two mosquito pools tested positive for SLE in Benton County, although no human cases were identified.

The vast majority of human arboviral infections are asymptomatic, however illness caused by arboviruses can range from mild to severe. The last reported human case of endemically acquired arbovirus encephalitis, western equine encephalitis, occurred in a resident of King County in 1988.

In 2005, three cases of dengue fever were reported in King County residents who acquired the infection while traveling in Central America. Information for travelers is available from travel clinics and the CDC Travelers' Health Website at http://www.cdc.gov/travel.

BOTULISM

Botulism is caused by a neurotoxin produced by *Clostridium botulinum*, bacteria which can be found in soil, agricultural products and animal intestinal tracts. Rarely, other clostridial species produce the neurotoxin and cause illness. *C. botulinum* is a potential agent of bioterrorism and is an immediately notifiable condition in Washington. Botulism occurs in three forms: foodborne, intestinal and wound; all result in flaccid paralysis caused by botulinum neurotoxin.

Foodborne (classic) botulism results from ingestion of botulinum toxin present in contaminated food and is an illness of variable severity. Symptoms initially include blurred or double vision, dysphagia, dry mouth, vomiting, constipation or diarrhea and weakness, progressing to descending, symmetrical flaccid paralysis. Neurologic symptoms usually appear hours to days after ingestion of contaminated food. With supportive care and administration of botulinum antitoxin, mortality is 5-10%; recovery may take months. Typical exposures are home-canned vegetables with neutral pH. Foodborne botulism in Washington has been associated with improperly home-canned vegetables including asparagus, beets, corn, carrots, green beans, spinach and salsa.

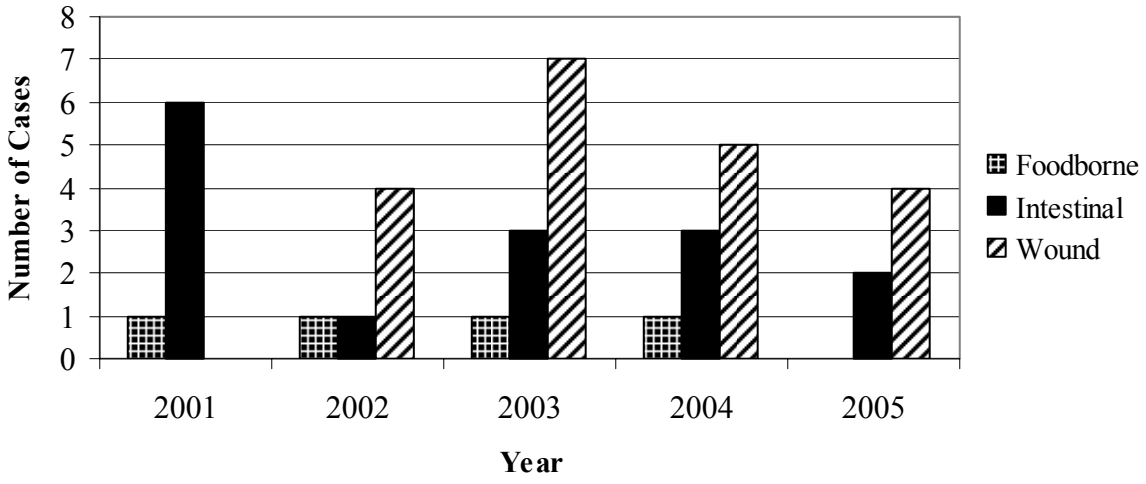
Intestinal (infant or adult) botulism results from ingestion and intestinal growth of toxigenic *C. botulinum* spores. It primarily affects infants under one year of age and, rarely, adults with altered gastrointestinal anatomy. Symptoms may include constipation, poor feeding and failure to thrive that may be followed by progressive weakness, impaired respiration and death. With supportive treatment and administration of human-derived botulism immune globulin, mortality is low. Raw honey consumption has been implicated in some, but not all, cases of intestinal botulism.

Wound botulism results from tissue infected with toxigenic *C. botulinum*. Symptoms of wound botulism are the same as those seen with foodborne botulism. Treatment is administration of botulinum antitoxin and antibiotics, followed by wound debridement. Most cases in Washington have been associated with subcutaneous injection of black tar heroin that is cut with various agents that contaminate the product.

The number of cases of foodborne and intestinal botulism has remained fairly constant in recent years, with minimal numbers reported. In Western states, including Washington, wound botulism has increased with the growing use of black tar heroin. Proper home-canning methods, avoiding honey for infants and avoiding subcutaneous heroin injection constitute preventive measures.

In 2005, two cases of intestinal botulism (both type A) were reported, one in a three month old and one in a seven month old infant; neither had a history of eating raw honey. Four cases of wound botulism (all type A) resulting from injecting black tar heroin, two associated with each other, were reported. No cases of foodborne botulism were reported in Washington in 2005.

Figure 1. Botulism - reported cases by category of disease, 2001-2005



BRUCELLOSIS

Brucellosis is a systemic bacterial infection caused by several species of *Brucella,* most commonly *B. abortus* or *B. melitensis.* The onset of symptoms may be acute or insidious (persistent and subtle) for weeks or months. Symptoms include intermittent fever, chills, sweating, headache, weakness, weight loss and fatigue.

Brucellosis is usually associated with the consumption of unpasteurized dairy products in developing countries. Exposure has also occurred in clinical laboratory workers handling blood cultures of infected individuals. Occupational exposure of slaughterhouse workers and veterinarians to infected placentas and tissues would be unusual since herd management has eradicated brucellosis from most confined livestock in the United States.

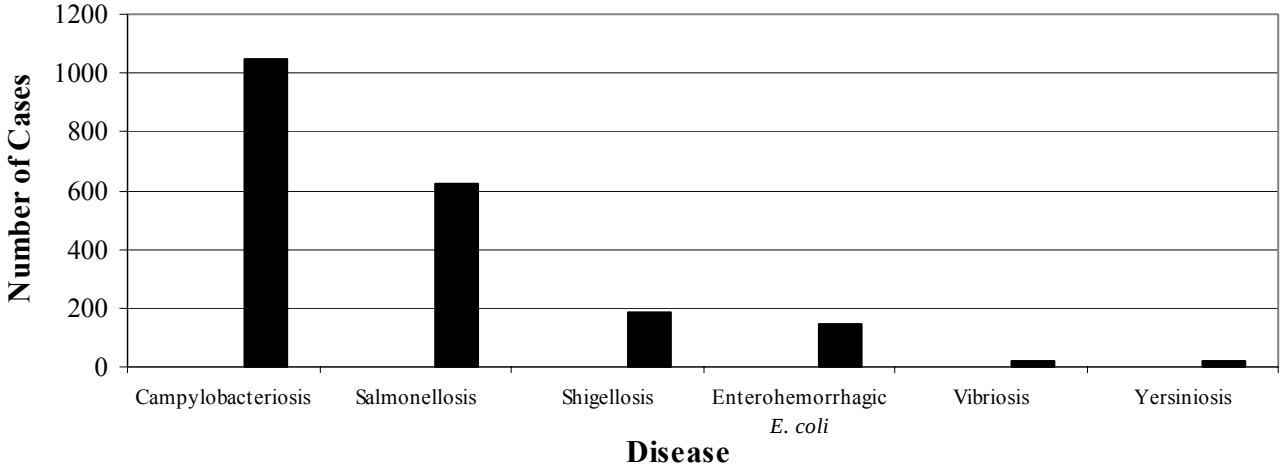
An average of one case per year is reported in Washington There were no cases of brucellosis reported in Washington in 2005. Brucellosis is a potential agent of bioterrorism and is an immediately notifiable condition in Washington. Suspected or confirmed cases in individuals, without an appropriate exposure history, should raise the index of suspicion for a bioterrorism event.

CAMPYLOBACTERIOSIS

Campylobacteriosis is a bacterial infection characterized by diarrhea, abdominal pain, malaise, fever, nausea and vomiting. The disease is most commonly caused by *Campylobacter jejuni.* Other *Campylobacter* species, including *C. coli*, *C. larii* and *C. fetus,* have also been associated with infection.

Campylobacteriosis was the most frequently reported enteric disease in Washington in 2005, representing 51% of all bacterial enteric disease reports. There were 1,045 campylobacteriosis cases (16.7 cases/100,000 population) reported in 2005 by 32 counties, consistent with disease rates for the previous five years. The highest rate was in the <1 year age group (52.9 cases/100,000 population). The rate in the 1-4 year age group was 30.5 cases/100,000 population.

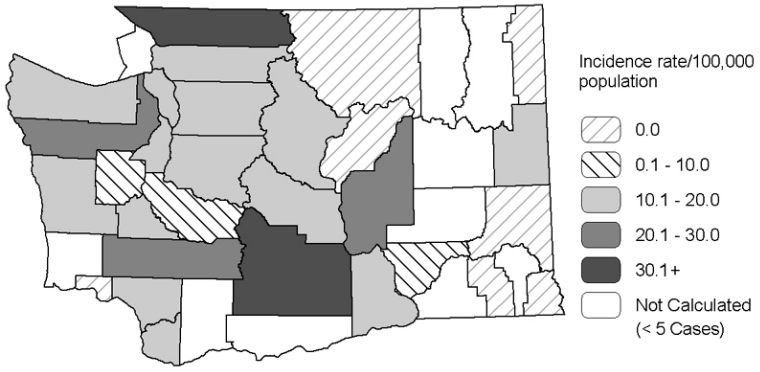
Figure 2. Enteric diseases - number of cases by disease type, 2005



Submission of *Campylobacter* isolates to the Washington State Department of Health Public Health Laboratories (PHL) is not required, but identification of species and relatedness of organisms can assist in outbreak detection. The species of *Campylobacter* was determined for 50% of reported cases in 2005. Of the 519 cases with known species, 99% were *C. jejuni*, four were *C. coli*, one *C. larii* and one *C. upsaliensis*.

Cases of campylobacteriosis occur year round, but peaks are commonly seen in summer months. In 2005, 47% of reported cases had onset of illness during May through August (93% of cases had onset dates reported). Outbreaks of campylobacteriosis do not occur as commonly as other enteric diseases, possibly due to the relative fragility of the microorganism in the environment and low rate of person-to-person spread.

Figure 3. Campylobacteriosis – incidence by county, 2005



CHANCROID

Chancroid is a sexually transmitted genital ulcer disease caused by *Haemophilus ducreyi,* a gram-negative bacillus. Chancroid is characterized by painful ulceration at the site of infection. The incubation period is usually 4-7 days following sexual contact with an infected individual.

Prevalent primarily in tropical and subtropical regions of the world, chancroid is much less common in temperate zones where it infrequently occurs in small outbreaks. In the United States, outbreaks and some endemic transmission are observed, principally among migrant farm workers and inner-city residents. Chancroid is most often diagnosed in men, who usually present with genital ulcers or inguinal tenderness. Depending on the site of the ulcer, women may have less obvious symptoms. Chancroid, like other genital ulcer diseases, is associated with an increased susceptibility to, or risk of, HIV transmission.

Current recommendations for diagnosis and treatment of chancroid can be found in the *2006 Centers for Disease Control and Prevention (CDC) Sexually Transmitted Diseases Treatment Guidelines*, available at http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5511a1.htm.

Thirty cases were reported nationally in 2004, with New York and South Carolina each reporting 14% of the cases. No cases of chancroid were reported in Washington in 2005. The last case reported in Washington occurred in 2002.

CHLAMYDIA TRACHOMATIS

Chlamydia trachomatis infection is the most commonly reported infectious condition in the United States and Washington. The bacteria are transmitted through sexual contact with an infected person. Asymptomatic infection is common among both males and females and contributes to the spread of disease. If symptoms occur, there may be abnormal discharge from the site of infection or pain during urination; women may also have abdominal pain. Untreated chlamydia is a major cause of pelvic inflammatory disease (PID) that can lead to infertility or ectopic pregnancies (particularly with recurrent infections). Perinatal infection can result in neonatal conjunctivitis or pneumonia. Complications in untreated men include urethritis, epididymitis and proctitis. Similar to other sexually transmitted diseases, chlamydia may enhance the transmission of HIV.

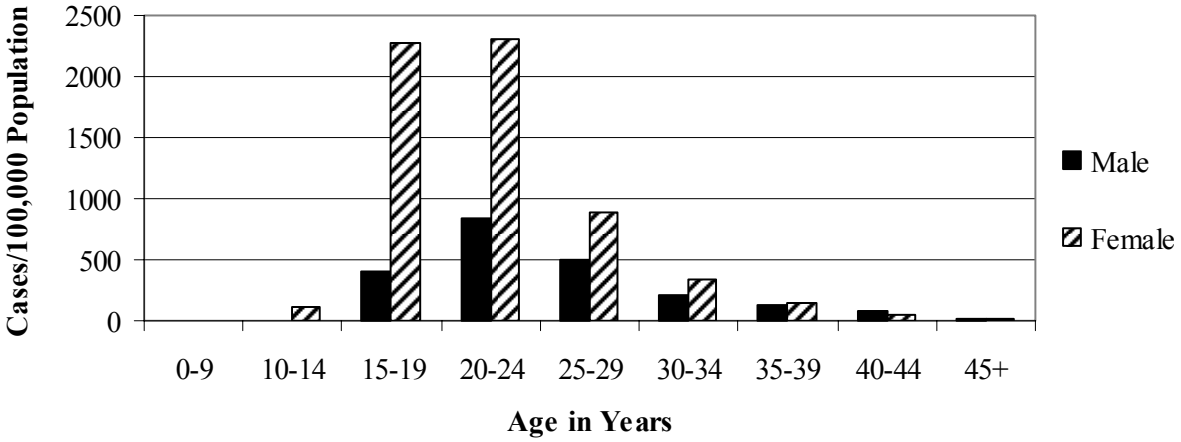
Current recommendations for diagnosis and treatment of chlamydia in adults, pregnant women and infants can be found in the *2006 CDC Sexually Transmitted Diseases Treatment Guidelines*, available at http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5511a1.htm.

In 2005, 18,617 cases of chlamydia (13,470 females and 5,147 males) were reported (297.6 cases/100,000 population) in Washington. Of these cases, 963 (5%) were also infected with *Neisseria gonorrhoeae*. This compares to 17,635 cases of chlamydia (285.9 cases/100,000 population) reported in 2004. The increase in chlamydia cases can be attributed to multiple factors including more sensitive laboratory techniques, more patient-friendly urine tests, an increase in routine screening, improved surveillance and reporting and an increase in risky sexual behaviors.

Many providers of reproductive health and sexually transmitted diseases services selectively target women for chlamydial screening, which may help account for the high female to male ratio (2.6:1) observed among reported cases. The population targeted by the Infertility Prevention Project, the major provider of public funding for chlamydia screening, is young women attending family planning clinics or seeking reproductive health services in other facilities.

Chlamydia is common among sexually active teens (31% of reports; 5,833 cases in 2005) and is often more prevalent among female adolescents, who are physiologically more susceptible to a chlamydial infection than older women. In the 15-19 year age group, the incidence rate was 2,273.2 cases/100,000 population for females and 411.3 cases/100,000 population for males. In the 20-24 year age group, the rate was 2,302.1 cases/100,000 population for females and 842.2 cases/100,000 population for males.

Figure 4. *Chlamydia trachomatis* - incidence by sex and age group, 2005*



*Age unknown for 251 cases.

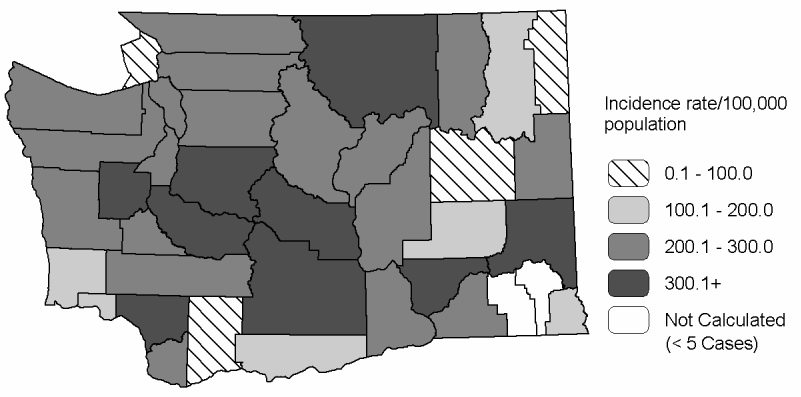
The *2006 CDC STD Treatment Guidelines* recommend that healthcare providers consider advising all women with chlamydial infection to be retested approximately three months after treatment, as women recently treated for *C. trachomatis* have a high prevalence of re-infection. Providers are also encouraged to retest women treated for chlamydial infection whenever they next seek medical care within the following 3–12 months, regardless of whether the patient believes that her sex partners were treated.

If sex partners are unlikely to seek evaluation and treatment, delivery of antibiotic therapy (either a prescription or medication) by heterosexual patients to their partners might be an option. Limited studies have demonstrated a decreasing trend in rates of persistent or recurrent chlamydia with this approach compared with standard partner referral. Male patients must inform their female partners and provide them with written materials about the importance of seeking evaluation for PID (especially if symptomatic). Patient-delivered partner therapy is not routinely recommended for men who have sex with men (MSM) because of a high risk for coexisting infections, especially undiagnosed HIV infection, in their partners.

In 2005, 11% (1,527 cases) of women reported with chlamydia infection were also reported with recurrent infection (>one episode in 12 months), and of the 1,923 (male and female) cases of chlamydia with recurrent infection, 42% (809 cases) were teenagers.

All Washington counties reported cases of chlamydia in 2005. The highest rates were in Pierce (453.5 cases/100,000 population) and Yakima (424.3 cases/100,000 population) counties.

Figure 5. *Chlamydia trachomatis* – incidence by county, 2005



CHOLERA

Disease caused by toxigenic *Vibrio cholerae* serogroup O1 or O139 may range from an asymptomatic infection to a life-threatening illness with acute, profuse watery diarrhea and dehydration. The bacteria are carried only by humans and are spread through the fecal-oral route, usually through contaminated food or water. Cholera is an immediately notifiable condition in Washington. Non-toxigenic *Vibrio*, including *V. cholerae* non-O1 and non-O139, are notifiable as Vibriosis.

V. cholerae is a major cause of epidemic diarrhea in Asia, Africa and Latin America. Cases of cholera are occasionally reported in Washington following travel to endemic areas. No cases of toxigenic *V. cholerae* infection were reported in Washington in 2005. During the past 10 years, one case was reported in 2002. Information for travelers is available from travel clinics and the CDC Travelers' Health Website at http://www.cdc.gov/travel.

CRYPTOSPORIDIOSIS

Cryptosporidiosis is a diarrheal illness caused by the protozoa *Cryptosporidium parvum*, which are found in animals and contaminated water sources. Symptoms may be prolonged and include watery diarrhea, abdominal pain, nausea, vomiting, weight loss and fever. For persons who are immunocompromised, especially those with advanced HIV infection, the disease can be serious and persist for long periods of time.

Transmission is via the fecal-oral route, through ingestion of contaminated food or water or by direct contact with infected humans or animals, particularly calves. Outbreaks have occurred in water parks, swimming pools and child care facilities. The organisms can survive in the environment for long periods of time and are resistant to standard chlorine and other chemical disinfection.

C. parvum cysts are present in the majority of surface waters tested throughout the United States; municipal water systems, home filtered water and bottled water are not necessarily free of *C. parvum* due to resistance to standard disinfectants. Healthcare providers suspecting cryptosporidiosis must specifically request stool testing for *C. parvum* as this test may not be routinely performed by clinical laboratories.

Cryptosporidiosis became a notifiable condition in Washington in December, 2000. There were 94 cases reported in Washington in 2005 (1.5 cases/100,000 population). Exposures included recreational water exposure and international travel. No outbreaks were identified in 2005.

CYCLOSPORIASIS

Cyclosporiasis is a parasitic disease caused by *Cyclospora cayetanensis*. Symptoms include persistent watery diarrhea, nausea, anorexia, abdominal pain, fatigue and weight loss; fever is rare. Transmission is primarily via the fecal-oral route through ingestion of contaminated food or water. Fresh fruits and vegetables such as raspberries, basil and lettuce have been implicated in national and international outbreaks of cyclosporiasis. Exposure is most common in developing countries.

Since identification of *Cyclospora* in stool requires special laboratory tests that are not routinely performed, healthcare providers should specifically request testing if symptoms, food or travel history are suggestive of cyclosporiasis.

Cyclosporiasis became a notifiable condition in Washington in December, 2000. Five cases (all adults) were reported in Washington in 2005; three involved international travel. Information for travelers is available from travel clinics and the CDC Travelers' Health Web site at http://www.cdc.gov/travel.

DIPHTHERIA

Diphtheria is a bacterial disease caused by a toxigenic strain of *Corynebacterium diphtheriae,* usually involving the upper respiratory tract (pharyngeal diphtheria), the skin (cutaneous diphtheria) or, rarely, other mucous membranes. The toxin produced by *C. diphtheriae* causes inflammation, swelling and the formation of a characteristic grayish-white membrane on lesions it produces. In severe cases of pharyngeal diphtheria, the inflammation can progress and cause airway obstruction. The toxin can also affect the myocardium and nerves and causes death in 5–10% of non-cutaneous cases. Transmission occurs through direct contact with respiratory secretions or wound discharge from an infected person, or through contact with articles soiled by such secretions or exudates.

Diphtheria is an immediately notifiable condition in Washington, however it is no longer endemic in the United States and the rare case reported in the US is usually travel-associated. The last case of pharyngeal diphtheria reported in Washington occurred in 1979. Only infections caused by toxigenic strains of *C. diphtheriae* are counted as diphtheria. When diphtheria is

present in a community, unapparent infections (colonizations) outnumber clinical cases. Therefore, continued control of this disease depends on routine childhood immunization with diphtheria toxoid followed by re-immunization of adults at least every 10 years. DOH occasionally receives reports of *C. diphtheriae* isolated from skin lesions and testing for toxigenicity is always done in these instances.

ENTEROHEMORRHAGIC *ESCHERICHIA COLI*

Infections caused by *Escherichia coli* O157:H7 and other Shiga toxin-producing *E. coli* serotypes are notifiable as enterohemorrhagic *E. coli*. Symptoms include bloody diarrhea and abdominal pain, usually without fever. Serious complications include hemolytic uremic syndrome (HUS) or thrombotic thrombocytopenic purpura (TTP). Enterohemorrhagic *E. coli* includes positive cultures for *E. coli* O157:H7, *E. coli* O157 or other Shiga toxin-positive strains, positive assays for Shiga toxin or post-diarrheal HUS. HUS, without preceding diarrhea or laboratory confirmation of an agent, is a separately notifiable condition.

Enterohemorrhagic *E. coli* is an immediately notifiable condition in Washington. In 2005, 149 cases (2.4 cases/100,000 population) were reported in Washington. The majority of reported cases (80%) were infected with *E. coli* O157:H7. There were three cases of *E. coli* O26:H11, one case each of *E. coli* O121:H19, O177:NM, O121:NM and O174:H21 and 23 cases (15%) with unknown serotype. There were six cases (1-13 years of age) with HUS reported as a complication.

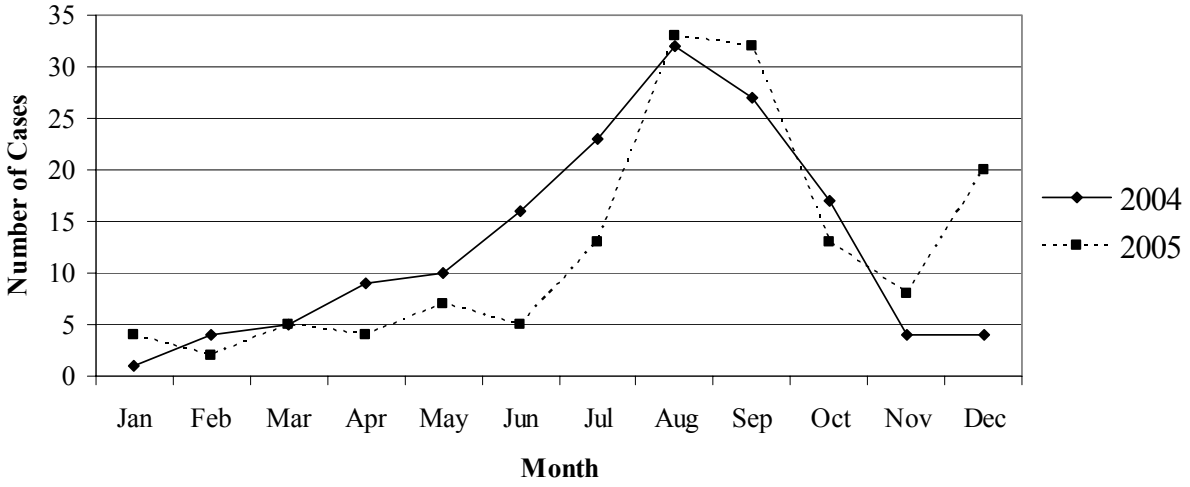
Children <5 years of age had an incidence of 6.6 cases/100,000 population and are at the highest risk for developing HUS as a complication of infection; treatment with antibiotics may increase this risk. Children 5-9 years of age also had an elevated incidence of 7.0 cases/100,000 population.

Figure 6. *E. coli* - incidence by age group, 2005*

*Age unknown for 1 case.

Infection with enterohemorrhagic *E. coli* is seasonal with most cases occurring during the summer months. In 2005, 57% of reported cases with onset date reported had onset of illness June through September. Reported outbreaks in 2005 included infection following exposures at county fairs and six foodborne outbreaks, including outbreaks associated with the consumption of salsa, produce and unpasteurized milk.

Figure 7. *E. coli* - reported cases by month of onset, 2004-2005



FOODBORNE OUTBREAKS

A number of infectious agents can be acquired from contaminated food. An outbreak of suspected foodborne origin is defined as two or more ill persons with epidemiologic and or laboratory evidence implicating a common food as the source of illness. Foodborne outbreaks may result from various factors including inherently contaminated product (e.g., *Salmonella* and eggs), improper food preparation techniques and contamination by ill food handlers. Agents that may cause foodborne outbreaks include *Bacillus cereus*, botulinum toxin, *Campylobacter jejuni*, *Escherichia coli* O157:H7, *Giardia lamblia*, hepatitis A, *Listeria monocytogenes*, noroviruses, *Salmonella, Shigella* and *Vibrio* species. Clusters of diseases of suspected foodborne origin are immediately notifiable in Washington.

The number of reported foodborne outbreaks likely represents only a small proportion of actual events and reports can vary considerably from year to year. In 2005, 42 foodborne outbreaks, affecting approximately 390 persons, were reported in Washington. Thirty-six percent resulted in three or fewer ill persons. Comparable numbers of bacterial (14) and viral (13) outbreaks were reported. Nine outbreaks had unidentified etiologic agents.

Figure 8. Foodborne outbreaks reported, 2001-2005

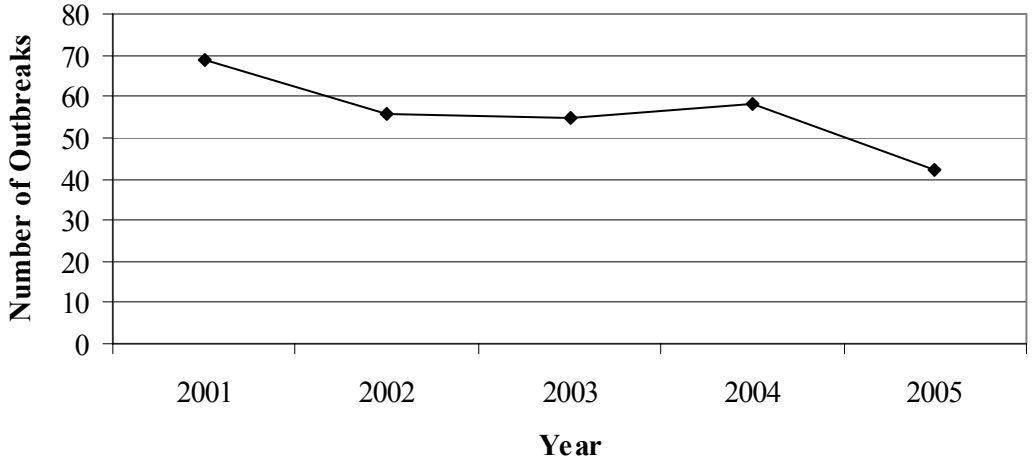
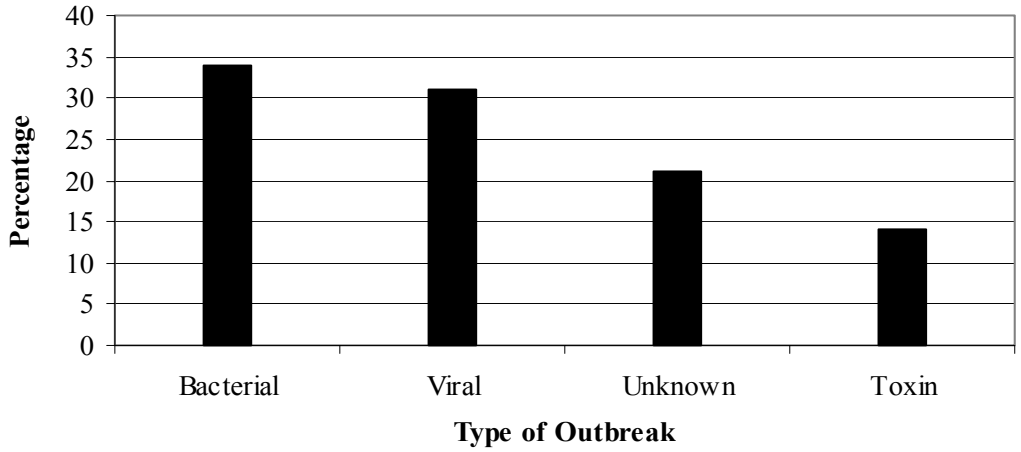


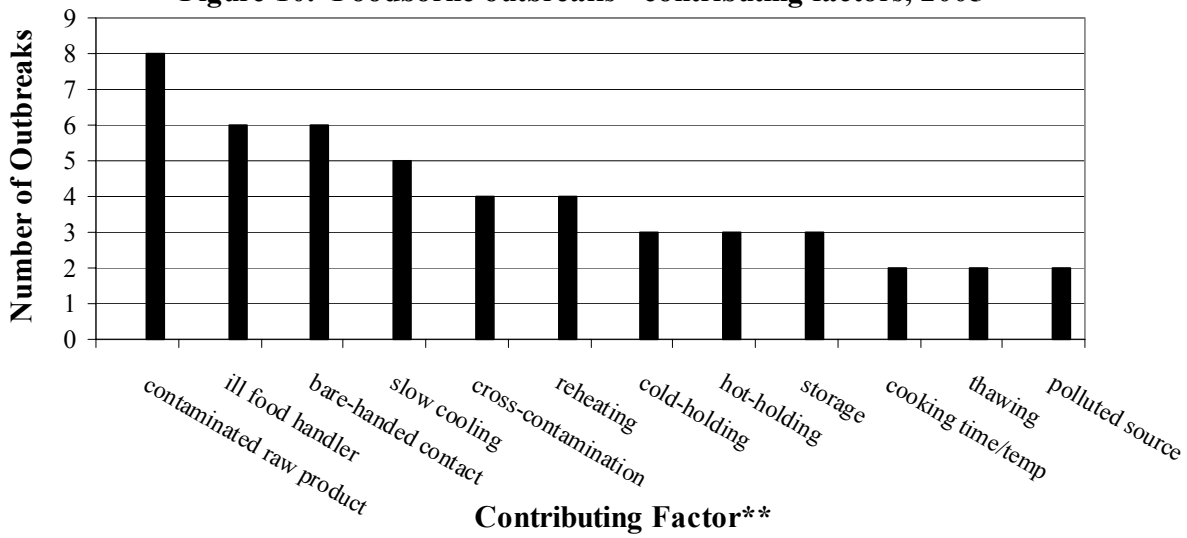
Figure 9. Foodborne outbreak etiology, 2005



Two outbreaks of *Clostridium perfringens* were reported, one related to improper cooling of barbecue pork (see Appendix 2), the other involving improper cooling of taco meat. Three outbreaks of *Bacillus cereus* were reported, all involving improper holding/storage of foods.

The majority of reported foodborne outbreaks (71%) in 2005 involved restaurant settings. Factors contributing to foodborne outbreaks included contaminated raw product, contamination by ill food handlers, bare-handed contact and improper preparation and storage of foods that enable bacterial growth or viability.

Figure 10. Foodborne outbreaks - contributing factors, 2005*



* 14 outbreaks with unknown contributing factors.
** More than one contributing factor may be identified in a single outbreak.

A complete list of foodborne outbreaks reported in 2005, including etiology and contributing factors, is contained in Table 1.

Table 1. FOODBORNE OUTBREAKS REPORTED TO WASHINGTON STATE DEPARTMENT OF HEALTH, 2005

NO.	MTH	COUNTY	# ILL	# LAB CONFIRMED	VEHICLE	AGENT	CONTRIBUTING FACTORS	PREP PLACE	EVIDENCE^ (Vehicle)
1	Jan	King	60	0	Unknown	Viral gastroenteritis*	ill food handler	Cruise/local	5
2	Jan	King	4	0	Salad	Viral gastroenteritis*	bare-handed contact, ill food handler	Restaurant	5
3	Feb	King	2	1	Gyro	*Campylobacter jejuni*	cross-contamination, ill food handler	Restaurant	3
4	Feb	Skagit	3	3	Barbecue pork	*Clostridium perfringens*	slow cooling, inadequate cold-holding	Restaurant	2
5	Feb	Snohomish	7	0	Chinese food (multiple)	Viral gastroenteritis*	unknown	Restaurant	5
6	Mar	Snohomish	2	0	Burrito	Viral gastroenteritis*	unknown	Restaurant	5
7	Mar	Snohomish	2	0	Chicken teriyaki	*Bacillus cereus**	cross-contamination, inadequate cleaning, storage, cold-holding, thawing	Restaurant	5
8	Mar	Wahkiakum	20	2	Salmon dip/Fruit salad	Norovirus	glove-handed contact, ill food handler, preparation time	Homes/Cater	5
9	Apr	Snohomish	3	0	Multiple Mexican	Viral gastroenteritis*	unknown	Restaurant	5
10	May	Snohomish	5	0	Fried rice	*Bacillus cereus**	insufficient hot-holding	Store deli	5
11	May	Spokane	6	6	Unknown	*Shigella*	unknown	Restaurant	N/A
12	Jun	Snohomish	4	0	Pizza	Unknown	unknown	Restaurant	5
13	Jun	Clallam	3	0	Hunan beef	Unknown	food storage, preparation time, insufficient hot-holding, inadequate reheating	Restaurant	5
14	Jun	Grant	4	2	Salad	Norovirus	contaminated raw ingredient, bare-handed contact	Restaurant	5
15	Jun	Multi**	11	6	Ice cream	*S.* Typhimurium	contaminated raw ingredient	Store deli	1
16	Jul	Snohomish	4	0	Tacos	*Clostridium perfringens*	slow cooling	Mobile	5
17	Jul	King	4	0	Almond fried chicken	Unknown	food from polluted source, bare-handed contact	Restaurant	5
18	Jul	King	3	3	Salsa	*E. coli* O157:H7	unknown	Restaurant	5
19	Jul	Clark	4	2	Oysters	*Vibrio parahaemolyticus*	food from polluted source	Store deli	5
20	Jul	Stevens	5	2	Unknown	Norovirus	bare-handed contact, ill food handler	Restaurant	5
21	Aug	Snohomish	4	0	Unknown	Unknown	inadequate cold-holding, insufficient hot-holding, insufficient reheating	Restaurant	5
22	Aug	Snohomish	4	0	Unknown	Unknown	unknown	Restaurant	N/A
23	Aug	Thurston	2	1	Oysters	*Vibrio parahaemolyticus*	contaminated raw product, food storage	Beach	3
24	Aug	Whatcom	30	0	Unknown	Viral gastroenteritis*	glove-handed contact, ill food handler, inadequate cleaning	Catered	N/A

Table 1. FOODBORNE OUTBREAKS REPORTED TO WASHINGTON STATE DEPARTMENT OF HEALTH, 2005

NO.	MTH	COUNTY	# ILL	# LAB CONFIRMED	VEHICLE	AGENT	CONTRIBUTING FACTORS	PREP PLACE	EVIDENCE^ (Vehicle)
25	Sep	Jefferson	3	1	Unknown	*S.* Javiana	cross contamination, insufficient cooking	Restaurant	N/A
26	Sep	Snohomish	2	0	Pork fried rice	*Bacillus cereus**	slow cooling, insufficient thawing	Restaurant	5
27	Sep	King	9	7	Chicken liver pate	*Campylobacter jejuni*	contaminated raw product, food eaten raw or undercooked	Restaurant	3
28	Sep	King**	4	4	Produce	*E. coli* O157:H7	unknown	Restaurant	3
29	Sep	Kitsap**	2	2	Produce	*E. coli* O157:H7	unknown	Restaurant	3
30	Sep	King	14	4	Unknown	*E. coli* O157:H7	unknown	Institution	N/A
31	Sep	Multi**	11	11	Brown organic eggs	*S.* Enteritidis	contaminated raw product	Various	3
32	Oct	Snohomish	3	0	Beef enchilada	Unknown	insufficient reheating	Restaurant	5
33	Oct	King	6	6	Salad	*E. coli* O157:H7	contaminated raw product, cross contamination	Restaurant	1
34	Oct	King	49	3	Oysters	Norovirus	contaminated raw product	Restaurant	3
35	Oct	Cowlitz	6	0	Chicken dish	Unknown	bare-handed contact, slow cooling	Restaurant	5
36	Oct	Snohomish	2	0	Sauce	*S. aureus**	bare-handed contact	Restaurant	5
37	Nov	Kitsap	19	0	Unknown	Viral gastroenteritis*	unknown	Private club	N/A
38	Dec	Multi **	15	7	Milk	*E. coli* O157:H7	contaminated raw product	Dairy farm	1,2
39	Dec	Snohomish	2	0	Unknown	Unknown	slow cooling, insufficient reheating	Restaurant	N/A
40	Dec	Skagit	27	0	Unknown	Viral gastroenteritis*	unknown	Restaurant	N/A
41	Dec	King	17	0	Unknown	Viral gastroenteritis*	unknown	Restaurant	N/A
42	Dec	Snohomish	3	0	Unknown	Unknown	unknown	Restaurant	N/A
		Total	**390**	**73**					

* agent not lab confirmed

** part of larger cluster

^Evidence: 1 - Statistical evidence from epidemiologic investigation; 2 - Laboratory evidence; 3 - Compelling supportive information; 4 - Other data; 5 - Specific evidence lacking, but prior experience makes this likely; N/A - not applicable

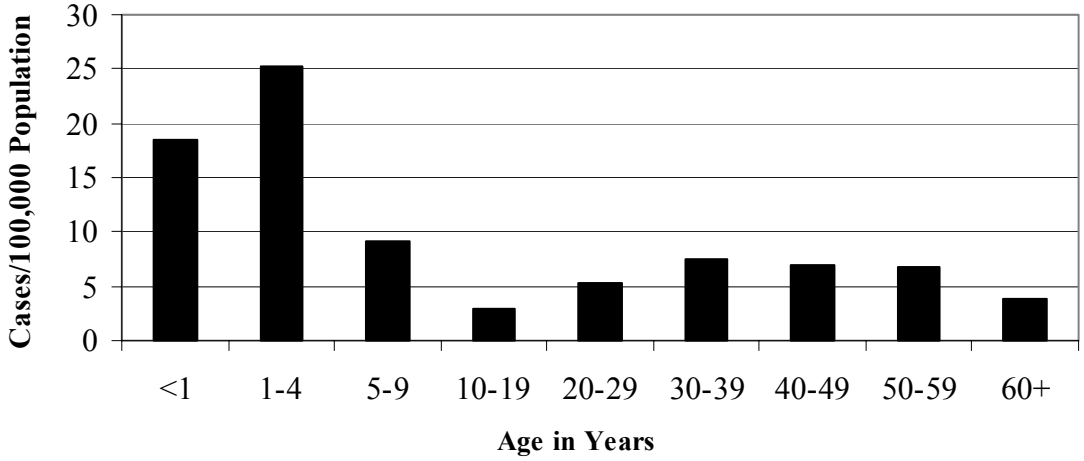
GIARDIASIS

Giardiasis is a diarrheal illness caused by the parasite *Giardia lamblia* (also known as *G. intestinalis* or *G. duodenalis)* that can be carried by humans or animals in the intestinal tract. Infection may be asymptomatic or cause diarrhea, abdominal pain, nausea and fatigue. Patients are infectious throughout their illness, which can be prolonged without treatment.

Giardia transmission is via the fecal-oral route through ingestion of contaminated drinking water, recreational water or food. Person-to-person transmission can occur, especially among children in child care facilities, or through oral/anal sexual contact. During the summer months, transmission is often related to outdoor activity in or near untreated water. *Giardia* is one of the most common causes of waterborne disease in the United States.

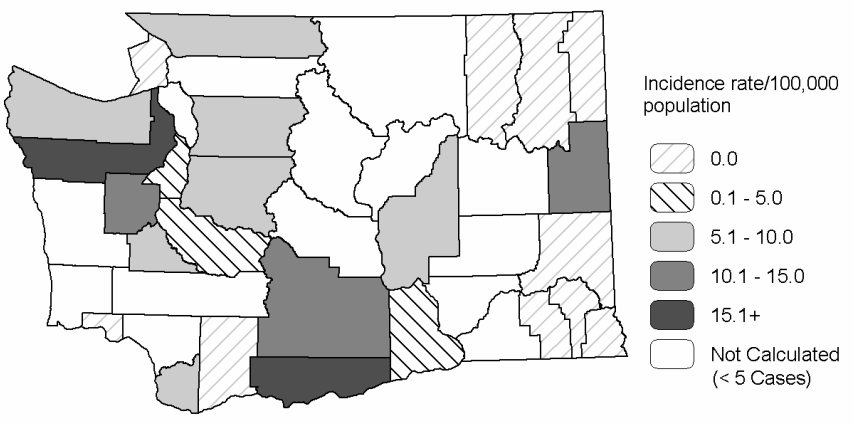
In 2005, 437 cases of giardiasis were reported (7.0 cases/100,000 population) from 29 counties in Washington, a comparable number of cases to previous years. The age-specific incidence was highest in children <5 years of age (22.6 cases/100,000 population). Forty-seven percent of cases with onset date reported had onset of illness June through September, which coincides with recreational exposure to untreated water. Forty-eight cases reported international travel, 107 reported recreational water exposure and 82 reported drinking unchlorinated water. No outbreaks of giardiasis were identified in 2005.

Figure 11. Giardiasis - incidence by age group, 2005*



*Age unknown for 1 case.

Figure 12. Giardiasis – incidence by county, 2005



GONORRHEA

Gonorrhea is caused by the bacteria *Neisseria gonorrhoeae* and is transmitted through sexual contact with an infected partner. Infections may be asymptomatic. About 50% of women with gonorrheal infections will have symptoms of an abnormal vaginal discharge or painful urination. Men usually have a urethral discharge and painful urination that may be severe. Infection may also cause conjunctivitis, pharyngitis or proctitis.

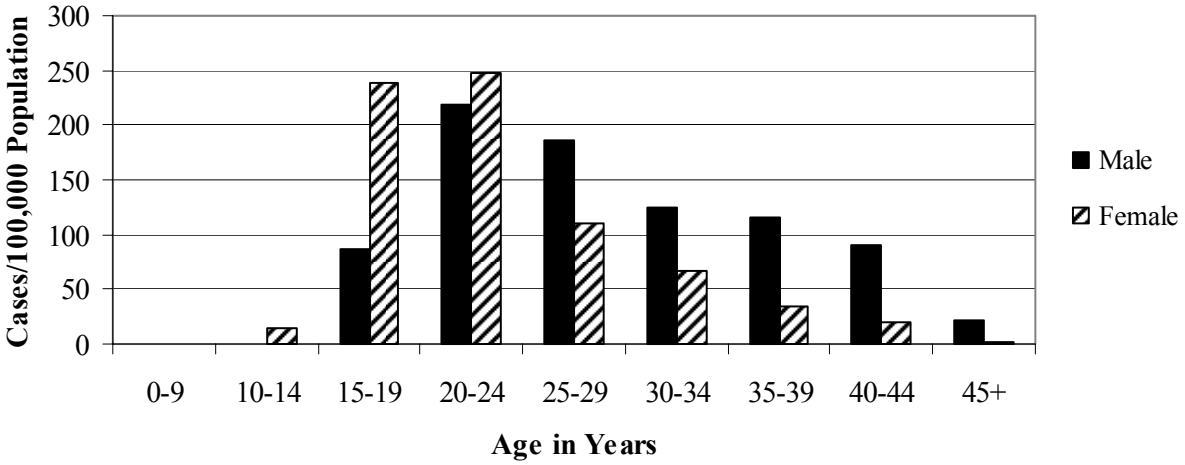
Certain strains of gonorrhea cause minimal initial symptoms but, if untreated, can spread through the blood causing arthritis, tenosynovitis, perihepatitis and petechial or pustular skin lesions; this is called disseminated gonococcal infection (DGI). The most common complication of untreated gonorrhea in women is pelvic inflammatory disease (PID), which can result in infertility, ectopic pregnancy and chronic pelvic pain. The most common complication in men is epididymitis. Gonococcal conjunctivitis may result from perinatal transmission, but is rare in the United States where post-partum ocular prophylaxis is used (mandated in Washington). Epidemiologic studies provide strong evidence that gonococcal infections may facilitate HIV transmission.

The CDC's Gonococcal Isolate Surveillance Project (GISP) has found increasing prevalence of quinolone-resistant *N. gonorrhoeae* (QRNG) in the Seattle area. Based on these findings, the CDC recommends that fluoroquinolones (ciprofloxacin, levofloxacin and ofloxacin) should no longer be used as the first line therapy for gonorrhea. In particular, these drugs should be avoided when treating MSM for proven or suspected gonorrhea and should be used with heightened caution in all other patients. Current recommendations for diagnosis and treatment of gonorrhea can be found in the *2006 CDC Sexually Transmitted Diseases Treatment Guidelines* at http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5511a1.htm.

In 2005, 3,738 cases of gonorrhea (2,116 males and 1,622 females) were reported in Washington (59.7 cases/100,000 population). Among these cases, 963 (26%) also had chlamydia infection. Six percent of females with gonorrhea (91 of 1,622) had recurrent infection, a risk factor for infertility. Gonorrhea incidence was highest among sexually active adolescents and young adults.

The highest incidence for males occurred among those 20-24 (218.9 cases/100,000 population) and 25-29 years of age (185.8 cases/100,000 population). The highest rates for females occurred among those 15-19 (237.8 cases/100,000 population) and 20-24 years of age (248.2 cases/100,000 population). Of the 311 persons with recurrent gonococcal infection (>one episode in a 12 month period), 28% (86) were teenagers.

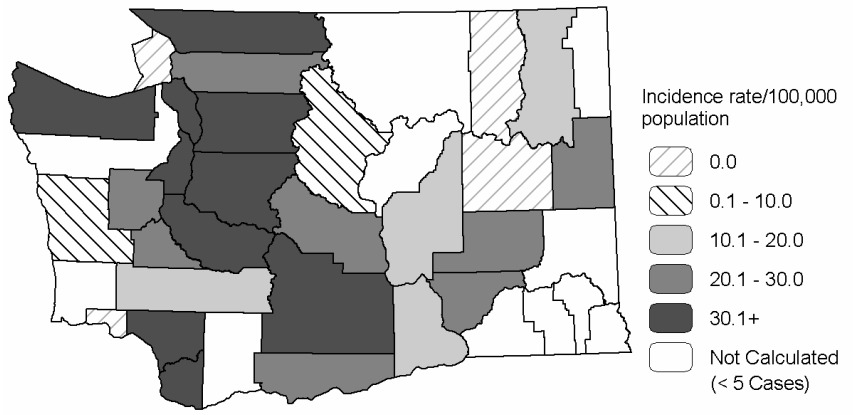
Figure 13. Gonorrhea - incidence by sex and age group, 2005*



*Age unknown for 28 cases.

King and Pierce counties accounted for 66% of reported cases in Washington in 2005. Cowlitz County had the highest reported incidence (108.4 cases/100,000 population). Four counties reported no cases of gonorrhea in 2005.

Figure 14. Gonorrhea – incidence by county, 2005



GRANULOMA INGUINALE

Granuloma inguinale (donovanosis) is a sexually transmitted genital ulcer disease caused by the bacteria *Calymmatobacterium granulomatis*. The disease is rare in the United States and endemic in some tropical and subtropical areas, primarily certain countries in Asia and in parts of Australia. Current recommendations for diagnosis and treatment of granuloma inguinale can be found in the *2006 CDC Sexually Transmitted Diseases Treatment Guidelines,* available at http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5511a1.htm. The last case reported in Washington occurred in 1991.

HAEMOPHILUS INFLUENZAE INVASIVE DISEASE

Haemophilus influenzae, bacteria with six distinct capsular types (a-f), can cause severe invasive disease including meningitis, bacteremia, epiglottitis, pneumonia and bone or joint infections. Humans are the only reservoir for *H. influenzae*. Transmission is through respiratory droplets and through contact with nasopharyngeal secretions. Prior to the widespread use of vaccine against *H. influenzae* type b (Hib), about 10% of Hib meningitis resulted in permanent sequelae including hearing loss, paralysis or other neurological damage. Invasive infections with Hib are now rare in the United States as a result of routine childhood immunization. Children <3 years of age are at particular risk for Hib meningitis, so a series of four immunizations for type b (Hib) are given at 2, 4, 6, and 12 to 15 months of age. When invasive infection with *H. influenzae* of any type occurs, the outcome may be fatal. *Only invasive disease occurring in children under five years of age is reportable (immediately) in Washington.* This now includes **all** types of invasive *H. influenzae* which occurs in the <5 year age group.

Before vaccine was introduced in 1989, hundreds of pediatric Hib infections were reported annually in Washington. During the past five years, an average of seven cases of invasive *H. influenzae* of any type has been reported annually. In 2005, five cases of invasive *H. influenzae* disease in children <5 years of age were reported in Washington, only one due to type b. Two were type f, one was type a and one isolate was of unknown type. Three of the affected children were <1 year of age and the others were one and two years of age. The children infected with Hib and with the unknown type were not appropriately immunized for their ages with Hib vaccine.

HANTAVIRUS PULMONARY SYNDROME

Hantavirus pulmonary syndrome (HPS) is a zoonosis caused by infection with Sin Nombre virus or other hantaviruses. Sin Nombre virus is carried by deer mice (*Peromyscus maniculatus*) and other closely related *Peromyscus* mice which are found in rural areas throughout Washington and most of North America. Human exposure occurs by inhalation of dust contaminated with rodent excreta containing the virus. A prodrome of fever, headache, myalgias, fatigue, nausea and abdominal pain is usually followed by rapidly progressive respiratory distress with cardiovascular shock. Most patients require hospitalization and intensive care; there is no specific treatment available and approximately 35% of recognized infections are fatal.

Confirmatory diagnosis of HPS is by serological assays performed at the Public Health Laboratories (PHL). Post-mortem testing is conducted using immunohistochemical tissue staining.

HPS was first reported in Washington in 1994; through 2005, 29 cases have been reported. Of these, 16 had exposures in eastern Washington, 10 in western Washington and three were exposed in multiple locations both in and out of state. Nine of the 29 cases (31%) were fatal. During 2005, HPS was reported in a Yakima County resident and two HPS infections were diagnosed in out-of-state residents.

HEMOLYTIC UREMIC SYNDROME (HUS)

Hemolytic uremic syndrome (HUS) is a rare complication of certain infections, most commonly occurring after infection with *E. coli* O157:H7 or other Shiga toxin-producing enteric bacteria. Cases with laboratory confirmation of *E. coli* O157:H7, other Shiga toxin-producing *E. coli* or *Shigella* should be reported in the appropriate disease category. HUS occurring after diarrhea and without laboratory confirmation of an agent should be reported as a suspect case of enterohemorrhagic *E. coli*. Cases without preceding diarrhea and with no laboratory confirmation of a specific agent should be reported as HUS.

Shiga-like toxin has several effects including hemolysis of red cells (causing anemia) and destruction of platelets which can cause renal injury or renal failure (uremia). A case of HUS is defined as anemia with microangiopathic changes on a peripheral smear and acute renal injury evidenced by hematuria, proteinuria or elevated creatinine, with no preceding diarrhea and no pathogen isolated in stool culture.

Most persons with HUS recover, but some may have permanent renal insufficiency or die from other complications. Neurological deficits or permanent pancreatic damage may also occur. Children are at particular risk for developing HUS as a complication of diarrheal illness caused by a Shiga toxin-producing organism. HUS was made an immediately notifiable condition in Washington in December, 2000. In 2005, four persons with HUS, three in the 0-3 year age group and a 79 year old man, were reported in Washington. There were also six cases of enterohemorrhagic *E. coli* with HUS reported as a complication.

HEPATITIS A

Infection with hepatitis A virus (HAV) is characterized by the acute onset of fever, anorexia, nausea, abdominal pain and jaundice. Infections may be asymptomatic in up to 70% of children <6 years of age and 30% of older children and adults. Transmission occurs through the fecal-oral route, either person-to-person (including sexual contact) or by consumption of contaminated food or water, including raw or undercooked shellfish. The most common risk factors for exposure in the United States include household or sexual contact with a person infected with HAV, but infection may also follow exposure in child care facilities, among injecting and non-injecting drug users, among men who have sex with men, in communities with high rates of hepatitis A and during travel to endemic areas. Infection with HAV confers lifelong immunity and chronic hepatitis A infection does not occur. Hepatitis A vaccine prevents infection and is recommended for those at risk. Since the introduction of effective vaccines against HAV in 1995, the incidence of acute hepatitis A has declined locally and in the United States. In May 2006, the Advisory Committee on Immunization Practices extended their recommendation for routine childhood immunization with hepatitis A vaccine to include children 12-23 months of age.

Acute hepatitis A is immediately notifiable in Washington. In 2005, 63 cases of acute hepatitis A were reported in Washington (1.0 cases/100,000 population) with one death. This represents a continuing decline since hepatitis A peaked in the mid-late 1980's. Since 1995, the incidence among children <10 years of age has dropped from 17 cases to 1/100,000 population. The incidence remains highest among individuals 20-29 years of age (1.6 cases/100,000 population in 2005).

Figure 15. Acute Hepatitis A - reported cases, 2001-2005

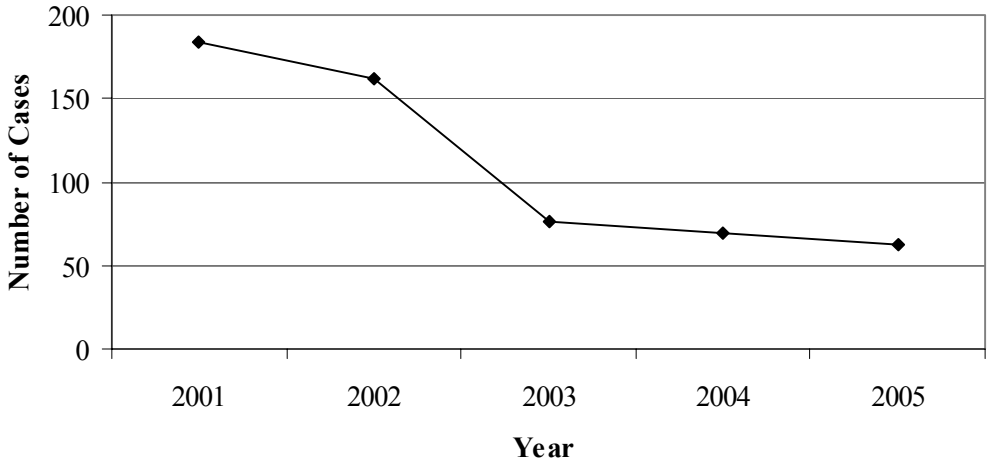
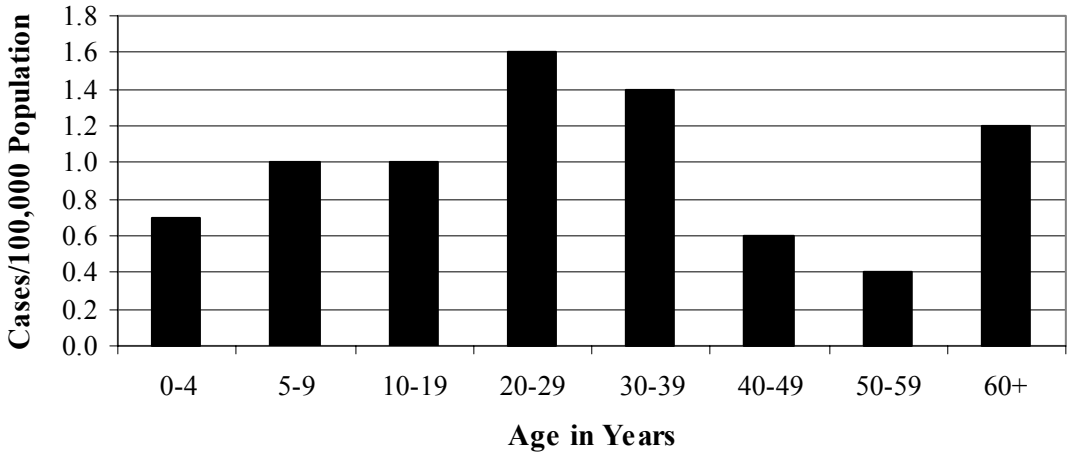


Figure 16. Acute Hepatitis A - incidence by age group, 2005



HEPATITIS B (ACUTE)

Infection with hepatitis B virus (HBV) causes acute and chronic disease. Acute infection may be asymptomatic, but some individuals have fever, anorexia, nausea, abdominal pain and jaundice. Transmission occurs by exposure to blood or body fluids of an infected person and the virus can be spread during acute or chronic infection. The most common risk factor for hepatitis B in the United States is sexual contact with a person infected with HBV; the virus can also be transmitted by sharing injecting drug equipment and through perinatal and occupational exposures. Infection with HBV is common among immigrants from areas of the world with high rates of disease, e.g., Central and Southeast Asia, the Pacific Islands and Sub-Saharan Africa.

Acute HBV infection with recovery confers lifelong immunity, however 10% of those infected will develop chronic HBV infection which may lead to cirrhosis and hepatocellular carcinoma. Hepatitis B vaccine, available since 1981, prevents infection and is routinely recommended for children, adolescents and for those at risk. As a result of widespread immunization, the incidence of acute hepatitis B in Washington and elsewhere in the United States has declined since the mid 1990s, especially among children and adolescents. In 2005, 80 cases of acute hepatitis B were reported in Washington (1.3 cases/100,000 population) with no deaths. The rate was highest among those 20-49 years of age (3.7 cases/100,000 population).

Figure 17. Acute Hepatitis B - reported cases, 2001-2005

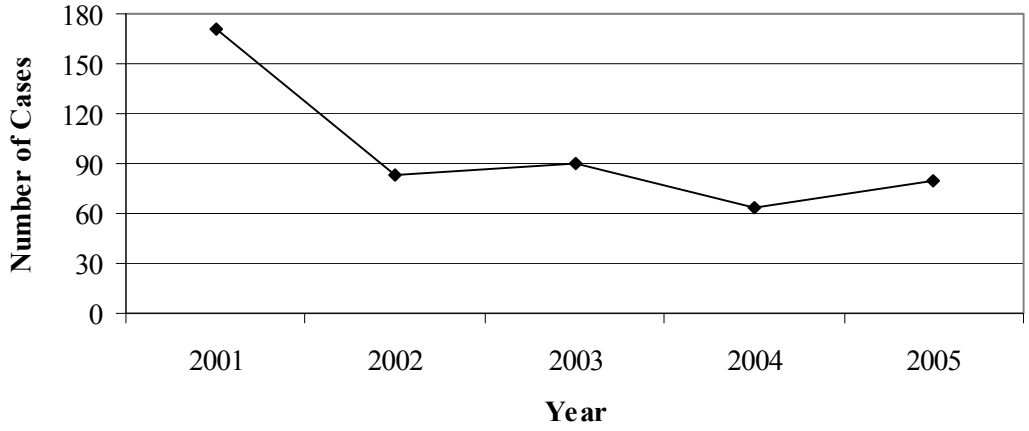
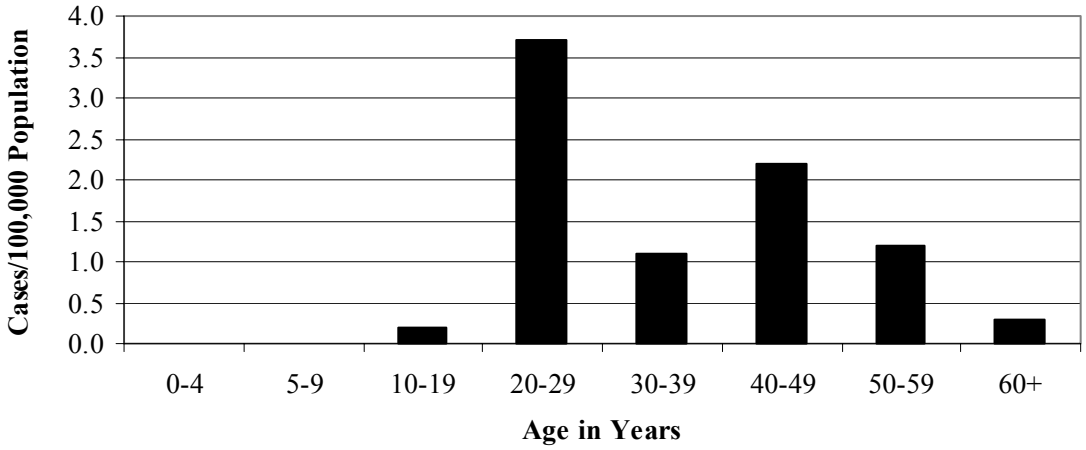


Figure 18. Acute Hepatitis B - incidence by age group, 2005



HEPATITIS C (ACUTE)

Infection with hepatitis C virus (HCV) causes acute and chronic disease; infection is typically asymptomatic but fever, anorexia, nausea, abdominal pain and jaundice can occur. Transmission occurs by exposure to blood or body fluids of a person with acute or chronic infection. The most common risk factor for hepatitis C in the United States is sharing of injecting drug equipment with an infected person; the virus can also be transmitted by occupational exposure, during medical or surgical procedures, by sexual contact and, rarely, through perinatal exposure. About 85% of those infected will develop chronic HCV infection which may lead to cirrhosis and hepatocellular carcinoma. About 1.8% of the United States population has chronic hepatitis C, which is the most common indication for liver transplants among adults in this country. There is no vaccine for hepatitis C and current medical therapy is expensive, has many associated side effects and has limited effectiveness.

Acute hepatitis C was formerly reportable as nonA, nonB hepatitis; in 2001, acute and chronic hepatitis C became notifiable conditions in Washington. In 2005, 21 cases of acute hepatitis C were reported in Washington (0.3 cases/100,000 population) with no reported deaths. It is likely that these numbers seriously underestimate the true incidence of acute hepatitis C as most infections are asymptomatic, not diagnosed or not reported to public health jurisdictions.

HEPATITIS, UNSPECIFIED (INFECTIOUS)

This immediately notifiable condition includes causes of infectious hepatitis other than hepatitis A, B or C. Examples of conditions that should be reported in this category include other causes of viral hepatitis such as hepatitis D (delta) and E. In 2005, there was one reported case of hepatitis E in Washington, following travel to India.

HERPES SIMPLEX, GENITAL AND NEONATAL

Herpes simplex virus (HSV) infections can be caused by two serotypes of the virus, HSV-1 and HSV-2. Genital herpes is a recurrent, lifelong viral infection usually caused by HSV-2. The prevalence of HSV-2 among adults in the United States approaches 25% and about one million people are newly infected each year. Herpes virus can be transmitted by infected persons with no noticeable symptoms. People with oral herpes can transmit the infection during oral sex and perinatal infections can occur, even in the absence of genital lesions in the mother.

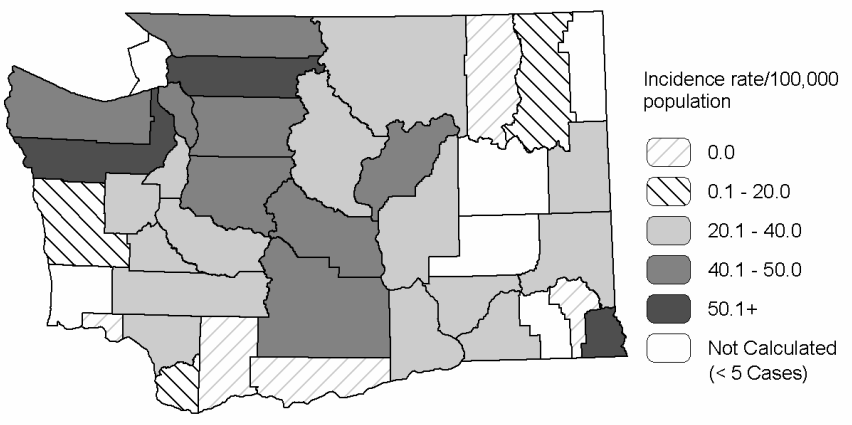
Symptoms of genital herpes vary widely and asymptomatic infections are common. First episodes may be quite severe with painful genital ulcerations, malaise and fever. Symptoms can recur at the initial infection site and the cause of reactivation is unknown. Genital herpes, like other genital ulcer diseases, increases the risk of acquiring HIV.

The *2006 CDC Sexually Transmitted Diseases Treatment Guidelines,* available at http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5511a1.htm, contain recommendations for diagnosis and treatment of HSV. Antiviral drugs partially control the frequency and severity of outbreaks, but are not a cure.

Only a patient's first disease episode of genital HSV or neonatal infections are notifiable in Washington. In 2005, 2,331 cases of genital herpes (623 males and 1,708 females) were reported (37.3 cases/100,000 population), including two neonatal infections. This compares to 2,153 cases (34.9 cases/100,000 population), with one neonatal infection, reported in 2004.

King, Pierce and Snohomish counties accounted for 57% of reported cases in 2005.

Figure 19. Herpes simplex – incidence by county, 2005



HIV INFECTION/AIDS

Acquired Immunodeficiency Syndrome (AIDS) is caused by infection with human immunodeficiency virus (HIV), a retrovirus that attacks the immune system and causes a gradual, progressive depletion of CD4+ T-lymphocytes which are crucial for immune function. Without effective treatment, the resulting immunodeficiency causes susceptibility to opportunistic infections and malignancies; immunodeficiency becomes more severe over time and usually ends in death. Developments in HIV treatment, including combination, highly active antiretroviral therapy (HAART) have considerably improved the prognosis for patients with HIV infection, but the long-term effects of these drugs on organ systems, as well as the development of resistance to these drugs, continue to be studied.

The CDC case definition for AIDS requires one of 25 indicator conditions (Table 2) or a low CD4+ T-lymphocyte count (<200 cells/µl or <14% of total lymphocytes) in the absence of symptomatic illness. Since the introduction of HAART in 1996, reporting of AIDS has become a less reliable indicator of trends in HIV infection, as patients' outcomes improve and they no longer develop AIDS-defining immunodeficiency and/or diseases. HIV infection became a notifiable condition in Washington in September, 1999. Through December 31, 2005, 4,189 cases of HIV infection (not AIDS) have been reported in Washington.

Table 2. CDC case definition: AIDS-indicator diseases

Candidiasis of bronchi, trachea, or lungs
Candidiasis, esophageal
Cervical cancer, invasive
Coccidioidomycosis, disseminated or extrapulmonary
Cryptococcosis, extrapulmonary
Cryptosporidiosis, chronic intestinal (>1 month duration)
Cytomegalovirus disease (other than liver, spleen or lymph nodes)
Cytomegalovirus retinitis (with loss of vision)
Encephalopathy, HIV-related
Herpes simplex: chronic ulcer(s) (>1 month duration; or bronchitis, pneumonitis, or esophagitis)
Histoplasmosis, disseminated or extrapulmonary
Isosporiasis, chronic intestinal (>1 month duration)
Kaposi's sarcoma
Lymphoma, Burkitt's (or equivalent term)
Lymphoma, immunoblastic (or equivalent term)
Lymphoma, primary, of brain
Mycobacterium avium complex or *M. kansasii*, disseminated or extrapulmonary
M. tuberculosis, any site (pulmonary or extrapulmonary)
M. species, disseminated or extrapulmonary
Pneumocystis carinii pneumonia
Pneumonia, recurrent
Progressive multifocal leukoencephalopathy
Salmonella septicemia, recurrent
Toxoplasmosis of brain
Wasting syndrome due to HIV

In 2005, 406 cases of AIDS (6.5 cases/100,000 population) were reported in Washington, a 2% increase from 2004. Fifteen are known to have died. While the number of reported cases fluctuates annually, the trend has been leveling, reflecting trends seen nationally. Declines in morbidity and mortality during the 1990s following the introduction of HAART appear to be attenuated by several factors including treatment-resistant viral strains, late HIV testing, inadequate access to, and adherence to, treatment and recent increases in HIV and STD incidence in some risk groups. In 2005, the number of persons living with AIDS in Washington rose to the highest number ever (5,110), in part due to HAART markedly increasing survival among AIDS patients diagnosed since 1995.

AIDS cases were reported by 25 counties in 2005. Among counties that reported at least five cases, the highest rate was in King County (11.8 cases/100,000 population), followed by Mason County (9.6 cases/100,000 population), Grays Harbor County (8.6 cases/100,000 population) and Franklin County (8.3 cases/100,000 population).

Of the 406 AIDS cases reported in 2005, 351 (86%) occurred among males and 55 (14%) among females. Men who have sex with men continued to account for the majority (53%) of reported cases. Among males, 256 (73%) cases were MSM, with or without concurrent injection drug use (IDU). Injection drug use alone accounted for 32 (9%) cases among men and 40 (11%) cases were MSM who also used injection drugs. Risk was unreported or unconfirmed for 35

(10%) adult and adolescent male cases. For males, the age-specific rate was highest among persons 30-39 years of age (31.9 cases/100,000 population).

Early in the epidemic, males constituted the largest proportion of AIDS cases. The proportion of female AIDS cases has increased over time and, in recent years, has fluctuated between 11% and 17%. Among female cases reported in 2005, 28 (51%) acquired HIV infection through heterosexual contact and 12 (22%) reported IDU. Risk was unreported for 14 (25%) women. For females, the age-specific rate was highest in the 40-49 year age group (4.5 cases/100,000 population).

As in previous years, racial/ethnic minorities were disproportionately represented among reported AIDS cases in 2005. Whites accounted for the majority (63%) of reported cases. African Americans comprised 73 cases (18%), Hispanics 42 cases (10%), Asians 20 cases (5%) and Native Americans 10 cases (2%). Those with multiple or unknown race/ethnicity comprised five cases (1%).

In addition to AIDS cases, 376 cases of HIV infection (not AIDS) were reported in 2005 (6.0 cases/ 100,000 population). These included 320 (85%) male cases and 56 (15%) female cases. Twenty-two counties reported cases of HIV in 2005. For those with at least five cases, the highest rate was in King County (12.6 cases/100,000 population), followed by Pierce County (5.7 cases/ 100,000 population), Clark County (4.9 cases/100,000 population), Whatcom County (3.9 cases/ 100,000 population) and Snohomish County (3.8 cases/100,000 population).

For males, the primary mode of exposure for HIV infection was MSM (216 cases, 68%); 14 cases (4%) reported IDU and 36 cases (11%) reported both risk factors. Thirty-seven cases (12%) were reported with no identified risk. For males, the age-specific HIV infection rate was highest in the 30-39 year age group (25.4 cases/100,000 population). For females, heterosexual contact was the mode of exposure for 22 cases (39%); seven cases (13%) reported IDU and 25 cases (45%) reported no identified risk factor. For females, the age-specific HIV infection rate was highest in the 20-29 year age group (4.1 cases/100,000 population).

Similar to AIDS cases, Whites constituted the majority of HIV cases (239 cases, 64%) reported in 2005. African Americans accounted for 64 cases (17%), Hispanics for 45 cases (12%), Asians for 12 cases (3%) and Native Americans for four cases (1%). Persons with multiple or unknown race/ethnicity comprised 12 (3%) cases.

LEGIONELLOSIS

Legionellosis is an acute bacterial infection caused by *Legionella* species, primarily *L. pneumophila*. It is estimated that 8,000-18,000 people in the United States are infected with *Legionella* annually, with a mortality rate of 5-30%. *Legionella* is found in soil, natural bodies of water and plumbing, heating or cooling systems where warm (90°–105° F), stagnant water allows the organisms to multiply at high rates. Infection has followed inhalation of contaminated aerosols from showers, hot water tanks, cooling towers and whirlpool spas. Person-to-person transmission does not occur.

Legionellosis causes atypical pneumonia with fever, myalgias, headache, fatigue, anorexia and occasionally diarrhea and abnormal liver function tests. Risks for infection include older age, smoking, chronic lung disease, renal insufficiency, diabetes and immunodeficiency. Pontiac fever, characterized by fever and myalgias without pneumonia, is considered to be an allergic reaction to *Legionella* bacterial antigens. Diagnosis of legionellosis is made by the detection of *Legionella* bacterial antigen in tissue, sputum or urine, and by isolation of *Legionella* in culture.

In 2005, there were 18 cases of legionellosis (0.3 cases/100,000 population) reported in Washington, with one death. All but two cases had documented predisposing conditions for legionellosis including diabetes, chronic lung disease, immunodeficiency and/or a history of smoking. Six cases were associated with out-of-state travel. Of the 16 cases with known *Legionella* species, 14 had infection with *L. pneumophila,* one with *L. dumoffii* and one with *L. wadsworthi*.

LEPTOSPIROSIS

Leptospirosis is a zoonotic bacterial disease caused by more than 200 *Leptospira interrogans* serovars. The bacteria (leptospires), excreted in urine by a variety of infected wild and domesticated animals, can contaminate soil and water. Transmission to humans is usually through abraded skin or mucous membrane contact during swimming or wading in natural bodies of water (e.g., streams) or through direct contact with infected animal urine or tissues. Several recent outbreaks have been associated with the swimming portion of triathlons.

Infection may be asymptomatic, mild or severe. Symptoms may include fever, headache, myalgias, conjunctival suffusion and, less frequently, meningitis, rash, jaundice or renal dysfunction. Clinical illness may last from a few days to weeks. Confirmation of leptospirosis requires detection of the organism in a clinical specimen or a $\geq$ 4x rise in microscopic agglutination test (MAT) titer with an appropriate clinical syndrome.

Four cases of leptospirosis in humans were reported in Washington in 2005; three were in-state exposures and one was infected during a triathlon in Florida. The endemically-acquired cases were reported from Pierce, Clark and Skagit counties. None of the cases had a common exposure, but all were apparently infected from direct contact with natural water sources. This represents an increase in reported endemically-acquired leptospirosis infections. Of the nine cases reported during 1996-2004, only four were reportedly exposed in Washington.

In addition, 44 cases of canine leptospirosis were reported by veterinarians in 2005. The dogs resided in Pierce, King, Thurston, Kitsap, Snohomish, Whatcom, Grays Harbor, Spokane and Columbia counties. Two of the affected dogs belonged to one family and two were exposed together while hunting; otherwise, none of them had a common source of exposure identified. Many of the affected dogs' owners reported potential exposures including contact with dead animals (opossum, rodents) and swimming or playing in ponds, streams or swampy areas. Ten of the infected dogs were euthanized or died from the illness. No human illness was linked to the reported animal infections.

LISTERIOSIS

Listeriosis is caused by *Listeria monocytogenes,* gram-positive bacteria found in soil and water, and is transmitted to humans primarily through contaminated food. *Listeria* can be found in a variety of foods such as processed meats, fruits, vegetables and unpasteurized milk or foods made with unpasteurized milk. Unlike most other foodborne pathogens, *Listeria* tend to multiply in refrigerated foods that are contaminated. Processed foods such as soft cheeses or cold cuts can become contaminated during or after processing.

The disease usually causes meningoencephalitis or septicemia in newborns and adults. Fetal or neonatal infections may occur as a result of maternal infection. Those at highest risk for listeriosis are neonates, the elderly, immunocompromised persons and pregnant women. Although *Listeria* can cause diarrhea, routine stool cultures do not detect it.

Listeriosis is an immediately notifiable condition in Washington. In 2005, 14 cases of listeriosis (0.2 cases/100,000 population) were reported in Washington, with three deaths. Of the reported cases, eight occurred in individuals >50 years of age (four >80 years of age), two in the 40-49 year age group and four were newborns, of which two mothers reported consuming 'queso fresco' soft cheese prior to delivery.

LYME DISEASE

Lyme disease is a tick-borne bacterial disease caused by the spirochete *Borrelia burgdorferi*. Most cases reported in Washington residents occur in travelers who have been bitten by infected ticks in highly endemic areas of the United States. Lyme disease is rarely acquired in Washington. Only a small percentage of tick bites result in human infection and ticks must be attached for several hours to transmit this disease. Therefore, when in tick-infested areas, thoroughly checking skin at least every eight hours to remove ticks is recommended to prevent infection.

Sixty to eighty percent of infected individuals develop an expanding erythematous "bulls-eye" rash with central clearing (erythema migrans [EM]), fever, chills, fatigue, headache and myalgias or arthralgias. Without treatment, the infection can lead to Bell's palsy, meningitis, myalgias, arthralgias and chronic complications of the musculoskeletal, cardiac or nervous systems. Most acute Lyme disease can be cured with antibiotics.

The risk for Lyme disease is highest in the northeastern and north central states, especially during May-August when ticks are most active. For surveillance purposes, the diagnosis of Lyme disease requires recent exposure in an endemic area with EM >5cm as described by a healthcare provider, or at least one objective manifestation of late disease with two-step antibody testing by both enzyme immunoassay and Western blot assay.

During 2005, 13 cases of Lyme disease were reported in Washington residents; all had out-of-state exposures.

LYMPHOGRANULOMA VENEREUM

Lymphogranuloma venereum (LGV) is a sexually transmitted genital ulcer disease that is rare in the United States, but common in tropical and subtropical areas and endemic in parts of Asia and Africa. LGV is usually caused by the L1, L2 and L3 serovars of *Chlamydia trachomatis* and is characterized by genital lesions, suppurative regional lymphadenopathy or hemorrhagic proctitis. Recently, LGV has emerged in large urban centers in Europe and North America among MSM, resulting in enhanced surveillance. In Washington, protocols have been developed to identify potential LGV infection in sentinel clinic populations. In 2005, three cases of LGV were reported in Washington due to the heightened surveillance. Two cases were reported in Washington during 2000-2004.

The *2006 CDC Sexually Transmitted Diseases Treatment Guidelines*, available at http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5511a1.htm, contain recommendations for diagnosis and treatment of LGV.

MALARIA

Malaria is a mosquito-borne infection caused by species of *Plasmodium* parasites (*P. falciparum, P. vivax, P. malariae, P. ovale*). Malaria ranks among the most significant global health challenges. Infections occur primarily in tropical and subtropical regions. *Anopheles* mosquitoes are the primary vector and humans are the main reservoir for malaria. Most of the cases reported in the United States are associated with exposures during travel to, or residency in, malaria-endemic areas. However, from 1993-2003, 26 malaria infections, sporadic or outbreak related, occurred in United States residents who had no previous international travel. Autochthonous malaria is extremely rare in the United States, although the mosquito vector exists in some parts of the southern United States.

Symptoms of malaria include cyclic fevers, sweats, rigors and headache; some infections, particularly those caused by *P. falciparum*, may be severe and life-threatening. Malaria is diagnosed by the identification of *Plasmodium* parasites in red blood cells on thick blood smears or by antigen or nucleic acid detection.

Travelers to affected areas should consult with healthcare providers about malaria prophylaxis before leaving the United States. Prevention and treatment of malaria can be complicated due to increasing resistance to antimalarial drugs in some regions. Prophylaxis recommendations for travelers are available from travel clinics and the CDC Travelers' Health Website at http://www.cdc.gov/travel.

In 2005, malaria infections were reported in 24 Washington residents; all cases were infected in other countries.

MEASLES

Measles is a febrile rash illness caused by measles (also called rubeola) virus. Measles disease is characterized by the acute onset of fever, coryza, conjunctivitis, cough and occasionally oral mucosal lesions called Koplik spots. This "prodrome" is followed by an erythematous maculopapular rash that begins on the face and becomes generalized to the entire body. Measles virus is highly contagious and is transmitted by airborne and respiratory droplets. Rapid public health response is essential in order to prevent outbreaks. The infectious period extends from four days before until four days after the onset of rash. The illness usually lasts 7-10 days. Complications such as otitis media, pneumonia (1 in 20 cases), croup, encephalitis (1 in 100 cases) or even death (1 in 3,000-10,000 cases) may occur in any age group. However, measles is more severe in infants and adults than in children or adolescents.

Diagnosis is made by serologic testing, viral isolation from nasopharyngeal secretions or urine or, rarely, by identification of viral antigen in blood or tissues. Measles can be prevented by vaccination (measles-mumps-rubella vaccine [MMR]) and endemic measles is considered to have been eliminated in the United States. Recent cases in the United States have been imported from areas where the disease is still endemic, or could be linked to an imported case.

Measles is an immediately notifiable condition in Washington. Prior to the introduction of vaccine, 400,000 cases per year were reported in the United States. During the past five years, the number of cases reported annually in Washington ranged from 0 to 15. In 2005, one confirmed case of measles was reported in Washington in a 43 year old male, with unknown immunization history, who had traveled to France for an international conference during the likely exposure period.

MENINGOCOCCAL DISEASE

Invasive infection with *Neisseria meningitidis* bacteria most often results in bacteremia (meningococcemia) or meningitis (meningococcal meningitis). Other less common manifestations are pneumonia, septic arthritis and epiglottitis. A petechial rash may accompany any of these syndromes along with complications such as purpura fulminans, peripheral gangrene or multiple organ failure. Up to 10% of infections are fatal, even with appropriate antibiotic treatment, and mortality in adolescents approaches 25% nationwide. Sequelae associated with meningococcal disease occur in 11-19% of patients and include hearing loss, neurologic disability, digit or limb amputations and skin scarring.

N. meningitidis can be distinguished into distinct serogroups by their capsular polysaccharides. Serogroups B and C account for about 60% of meningococcal disease in the United States.

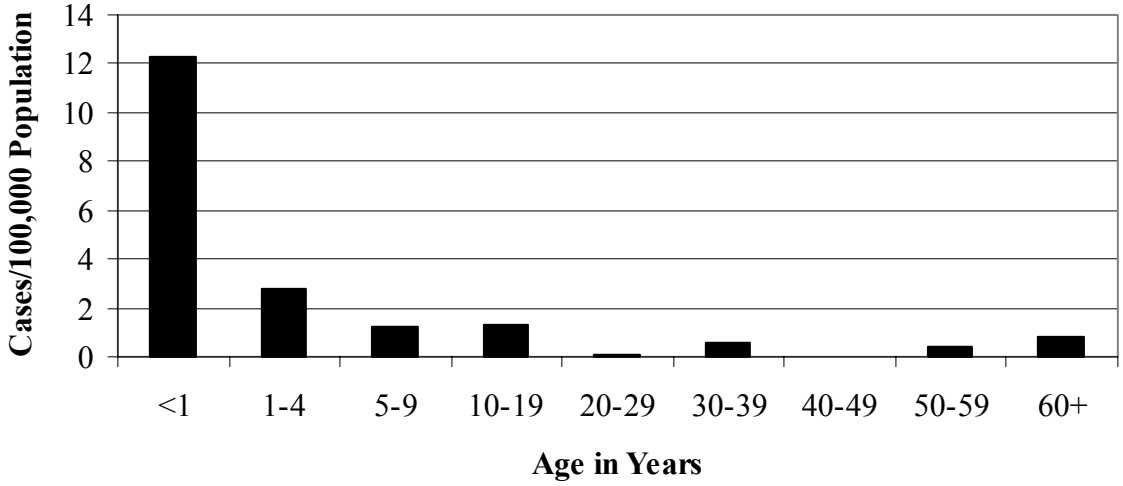
Asymptomatic colonization of the upper respiratory tract provides the source from which the organism is spread. *N. meningitidis* organisms are carried in the nasopharynx of about 5-10% of the healthy population. Transmission occurs by respiratory droplets and through contact with nasopharyngeal secretions. Less than 1% of those colonized develop invasive disease. Risk groups for invasive meningococcal disease include infants and young children, household and other close

contacts of infected persons, residents in congregate settings (e.g., military recruits, college students living in dormitories) and microbiologists working with isolates of *N. meningitidis*. Prompt post-exposure chemoprophylaxis for close contacts following exposure to a case of meningococcal disease is effective in preventing secondary cases.

There are now two types of meningococcal vaccine available: a meningococcal polysaccharide vaccine available since the 1970s and a new meningococcal conjugate vaccine licensed in 2005. Both vaccines are effective in providing protection against serogroups A, C, Y and W135, but neither is protective against meningococcal disease caused by serogroup B.

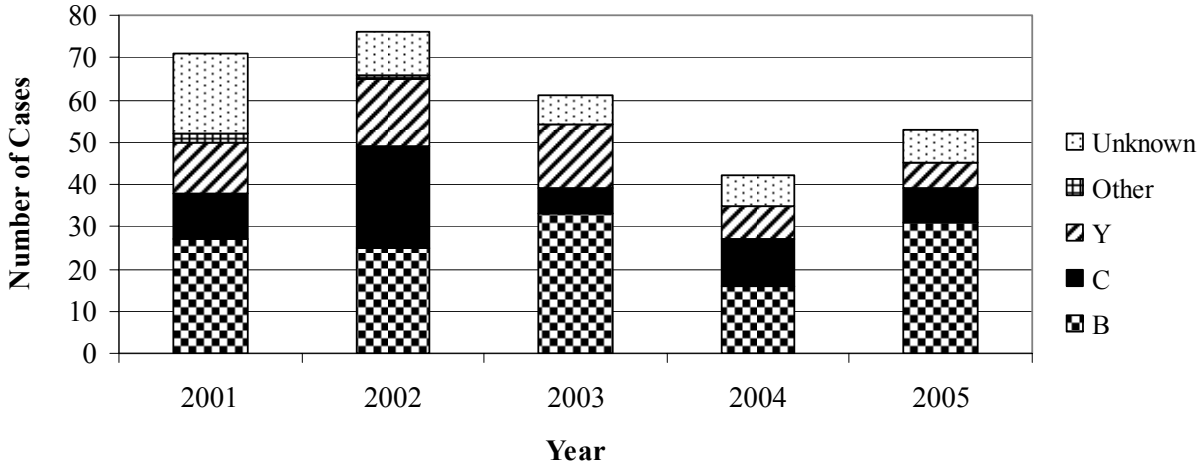
Meningococcal disease is an immediately notifiable condition in Washington. In 2005, there were 53 cases of meningococcal disease (0.8 cases/100,000 population) with four deaths (7.5% fatality rate) reported in Washington. The highest reported incidence was in children under one year of age (12.3 cases/100,000 population).

Figure 20. Meningococcal Disease - incidence by age group, 2005



An isolate was available for serogrouping in 45 (85%) of the cases reported in 2005. Serogroup B accounted for 69% of reported cases with known serogroup in Washington in 2005; therefore, these cases would not have been vaccine-preventable. Serogroup C accounted for 18% and serogroup Y, which may be more likely to be associated with pneumonia, for 13% of reported cases with known serogroup.

Figure 21. Meningococcal Disease - number of cases by serogroup, 2001-2005



MUMPS

Mumps is an acute viral disease characterized by fever and swelling of the salivary glands, typically the parotids. Transmission may be airborne, but is primarily through respiratory droplets or through direct contact with nasopharyngeal secretions. Complications of mumps infection among individuals who are past puberty include orchitis and oophoritis. Other rare complications in persons of any age include encephalitis, infertility, arthritis, renal involvement, thyroiditis and hearing impairment.

Though once a virtually universal childhood infection, mumps incidence has decreased in the United States due to routine childhood immunization with measles-mumps-rubella (MMR) vaccine. In 2005, there were three cases of mumps reported in Washington, all adults of whom two had traveled abroad during the incubation period. Vaccination history was unknown for all three cases.

PARALYTIC SHELLFISH POISONING

Paralytic shellfish poisoning (PSP) is caused by eating shellfish contaminated with a toxin produced by the phytoplankton *Alexandrium catenella.* Bivalve mollusks such as clams, oysters, mussels and geoduck ingest the algae and concentrate the toxin. “Red tide” is a misnomer as PSP is rarely associated with reddish discoloration of water.

Symptoms begin within minutes or hours after eating poisonous shellfish and may include paresthesias of the mouth and extremities along with nausea. Severe poisoning progresses rapidly to paralysis, respiratory arrest and death. In milder cases, symptoms resolve within hours to days and recovery is complete. PSP should be suspected when a patient has compatible symptoms and has consumed food that is likely to have been contaminated. Confirmation requires detection of the toxin in the implicated food.

In Washington, prevention of PSP includes surveillance of recreational and commercial shellfish harvest areas for biotoxins using laboratory testing. Areas with dangerous levels of toxin are closed to harvesting. PSP can be present in dangerous amounts even when the water looks clean and cooking does not inactivate the toxin. Updates on affected sites and site closures, which may not always be posted with signs at beaches, are available through the Washington State Department of Health Marine Biotoxin Hotline (1-800-562-5632) or the Food Safety and Shellfish Biotoxin Program Web site at http://www.doh.wa.gov/ehp/sf/BiotoxinProgram.htm.

Paralytic shellfish poisoning is an immediately notifiable condition in Washington. Two clusters of PSP have been reported in Washington during the past 10 years (seven cases in 2000 and five in 1998). All cases from both clusters were associated with consumption of mussels from south Puget Sound waters. One case of PSP was reported in Washington in 2005 and was associated with consumption of raw oysters in King County.

PERTUSSIS

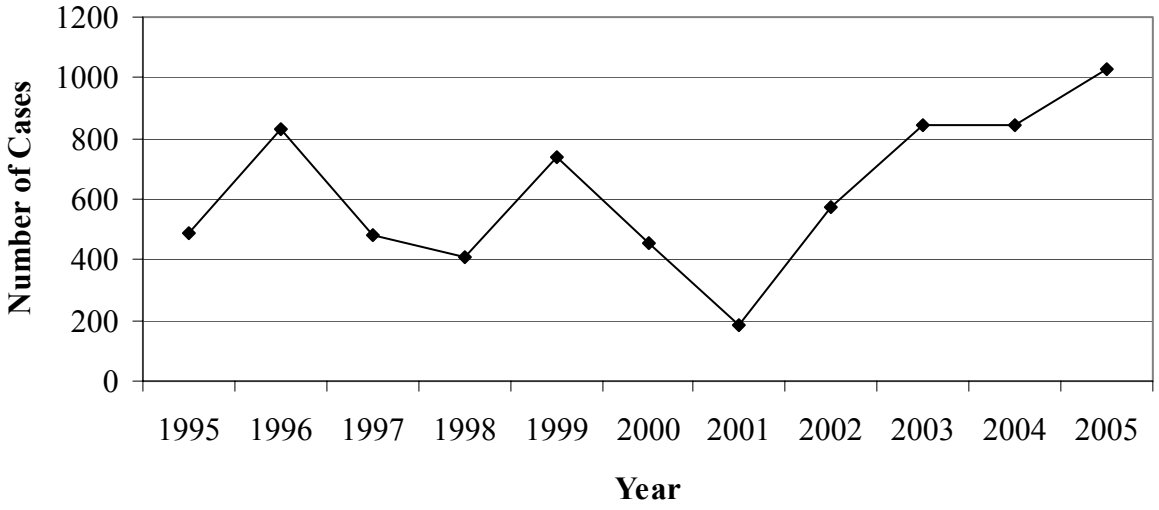
Pertussis is a respiratory illness resulting from local infection of the nasopharynx by the bacteria *Bordetella pertussis*. Transmission of *B. pertussis* occurs through contact with respiratory droplets from the nose and throat of an infected person. Classically, pertussis is characterized by episodes of forceful, repetitive coughing followed by an inspiratory whoop and post-tussive vomiting. Because of the local nature of the disease, fever is usually low grade or absent. Symptoms are often modified in infants who may present with difficulty with feeding as a primary manifestation along with apnea or cyanosis. In partially immune adolescents and adults, pertussis may cause mild or atypical respiratory illness; in this population, the diagnosis may not be recognized, allowing disease transmission to populations at risk for becoming more seriously ill. Pertussis symptoms may last for weeks. Rare, but serious complications may occur including pneumonia, encephalopathy and death. Infants under six months of age are at greatest risk for complications.

Routine childhood immunization and early recognition and treatment of cases along with identification and post-exposure prophylaxis of contacts are essential elements of disease control. Acellular pertussis vaccines (DTaP) are recommended for individuals <7 years of age. In 2005, a new pertussis vaccine (Tdap) became available for adolescents and adults, most of whom are susceptible due to waning immunity 5-10 years after pertussis vaccination (or after pertussis disease). Infections among adolescents and adults are an important source of disease transmission to not yet immunized young children.

For surveillance purposes, diagnosis of pertussis is made on the basis of a clinically compatible illness. Supporting laboratory evidence can be obtained with the identification of *B. pertussis* by isolation in culture, detection of *B. pertussis* nucleic acid or polymerase chain reaction (PCR). Direct fluorescent antibody (DFA) and serology for pertussis are available but are not accepted

Pertussis is an immediately notifiable condition in Washington. In 2005, 1,026 cases (16.4 cases/100,000 population) of pertussis were reported in Washington from 26 counties. This represents a 78% increase compared to 2002 and a more than five-fold increase from 2001 which had the least number of reports submitted for any year in the past decade. In 2004, the national incidence of reported pertussis was 8.9 cases/100,000 population and the number of cases reported nationally in 2004 was the highest since 1959. Increased rates, both nationally and in Washington, could be due to a combination of heightened surveillance and improved testing along with a genuine increase in disease burden.

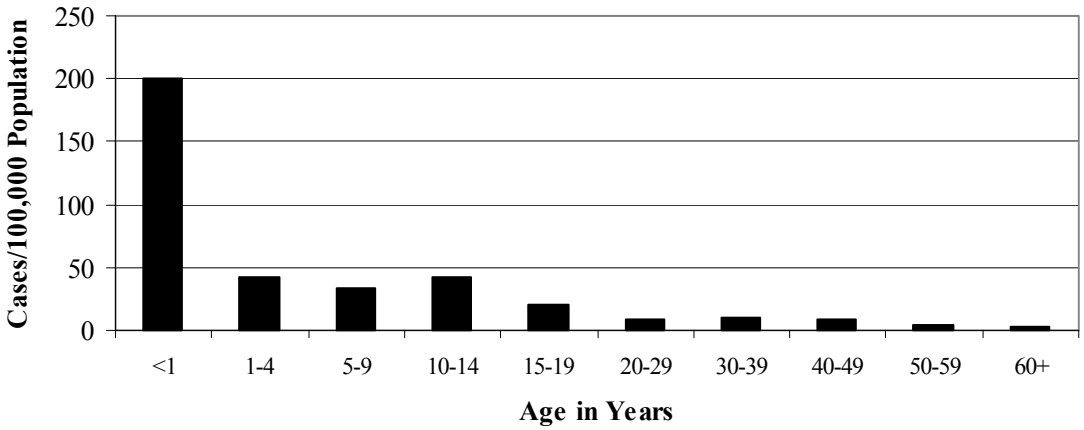
Figure 22. Pertussis - reported cases, 1995-2005



Males and females constituted 43% and 57% of reported cases, respectively, in Washington in 2005. Gender-specific incidence was similar among adults older than 59 years of age, however the rate among females 20-59 years of age was 11.0 cases/100,000 population compared to 5.1 cases/100,000 population for males in the same age group and the rate among females 0-19 years of age was 44.7 cases/100,000 population compared to 39.0 cases/100,000 population in males. The difference in rates among males and females 20-59 years of age could be due to females having increased exposure to children with pertussis and a greater willingness by symptomatic women to seek medical care.

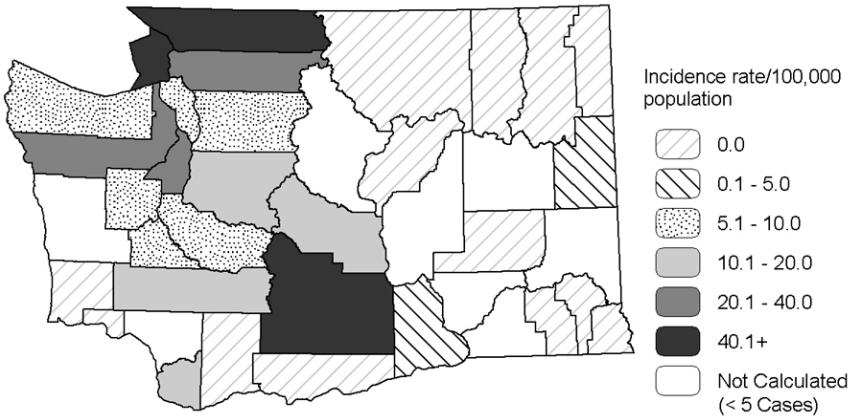
Pertussis rates are typically highest in younger children who are not yet fully immunized due to their age. During 2005, infants under one year of age had a very high incidence of pertussis (200.4 cases/100,000 population) and comprised 16% of reported cases. Eighty percent of the cases <1 year of age were <6 months of age. Fourteen percent of reported cases were in the 1-4 year age group, 13% in the 5-9 year age group and 27% were adolescents 10-19 years of age. Adults >20 years of age comprised 30% of reported pertussis cases.

Figure 23. Pertussis - incidence by age group, 2005



San Juan, Skagit, Whatcom and Yakima counties had reported incidence rates more than twice the state average in 2005 with 77.4, 36.1, 66.4 and 82.4 cases per 100,000 population, respectively. In 2005, onset date was available for 99% of the reported cases and, of those, 45% had an onset of illness during May through August. There were several suspected or confirmed pertussis outbreaks reported in 2005 in Washington involving day cares, schools, healthcare facilities and a variety of other congregate settings.

Figure 24. Pertussis – incidence by county, 2005



PLAGUE

Plague is a bacterial zoonosis caused by *Yersinia pestis*. Plague is established in wild small mammal populations throughout the western United States. Transmission to humans occurs by flea or animal bite, handling infected animal tissues or, less commonly, by inhalation. Plague can cause three clinical syndromes: bubonic (fever, headache, nausea and unilateral lymph node swelling); septicemic (bacteremia, coagulopathy and multi-organ system failure); and pneumonic (pneumonia). Early recognition and appropriate antimicrobial treatment are essential as the case fatality rate for untreated plague is 50-60%.

During the early 1900s, plague was probably widespread in rats and their fleas around Washington ports. The last reported human case in Washington occurred in 1984 in an animal trapper in Yakima County. Limited serosurveys of wild carnivores, primarily coyotes, in Washington indicate that plague occurs in wild animals at a low level, however the distribution is unknown.

Plague is a potential agent of bioterrorism and is an immediately notifiable condition in Washington. Suspected or confirmed cases in individuals, without an appropriate exposure history, should raise the index of suspicion for a bioterrorism event.

POLIOMYELITIS

Poliovirus is the infectious agent causing poliomyelitis. Most cases are asymptomatic and fewer than 1% result in acute flaccid paralysis. The last naturally-acquired case of polio in the United States occurred in 1979 and the last in Washington occurred in 1977. Although 22 countries reported polio reintroduction after 2003, as of March 2006, wild poliovirus was indigenous in only four countries: Afghanistan, India, Nigeria and Pakistan. In Washington, the last case of paralytic polio was reported in 1993 and was associated with receipt of oral live polio vaccine (vaccine-associated paralytic polio [VAPP]). The last case of paralytic polio in the United States was reported in 2005; this infection was associated with immunization with live vaccine during overseas travel. Due to the risk for VAPP, oral vaccine has been replaced by parenteral polio vaccine (IPV) in the United States. Effective January 2000, all US children should receive four doses of IPV at ages 2, 4, 6-18 months and 4-6 years. Polio is an immediately notifiable condition in Washington. No cases of poliomyelitis were reported in Washington in 2005.

PSITTACOSIS

Psittacosis is an infection caused by the bacteria *Chlamydophila psittaci*. It can be a mild or severe respiratory illness with fever, chills, headache, cough, myalgias and atypical pneumonia. Humans are infected after inhaling aerosolized bacteria, usually while cleaning pet bird cages indoors. Psittacine birds (parrots, love birds, parakeets) are most commonly infected, though other birds acquire infection including pigeons, poultry, canaries and sea birds. Infected birds may be asymptomatic or ill and shed the organism in their droppings, especially when under stress.

Psittacosis is difficult to diagnose as laboratory tests cross-react and are difficult to interpret. Outbreaks in birds are common in aviaries and pet shops and human exposure is often associated with occupational transmission in these settings or with newly purchased birds. Reporting cases of psittacosis to public health agencies is important so that exposure sources can be identified and further spread of disease among birds and humans can be prevented. One case of psittacosis was reported in Washington in 2005, a woman with a private aviary in Benton County.

Q FEVER

Q fever is caused by infection with the rickettsial agent *Coxiella burnetii.* Transmission occurs after inhalation of *C. burnetii* in dust contaminated by placental tissues, birth fluids or excreta of infected animals including sheep, cattle, goats, dogs, cats and some wild animals. Non-specific symptoms may be prolonged, including fever, chills, headache, weight loss and malaise, with or without hepatosplenomegaly. Chronic infection may cause endocarditis and hepatitis.

In 2005, two cases of Q fever were reported in Washington residents. One case was infected while traveling in Kuwait and the other was exposed in Yakima County. Q fever is a potential agent of bioterrorism. Suspected or confirmed cases in individuals, without an appropriate exposure history, should raise the index of suspicion for a bioterrorism event.

RABIES

Rabies is an acute zoonotic infection of the central nervous system caused by a lyssavirus. All mammals, including humans, are susceptible to rabies. In humans, rabies causes a rapidly progressive and fatal encephalomyelitis. Even with intensive medical care, rabies almost always progresses to coma or death within 20 days of onset. Non-specific early symptoms include paresthesias, sore throat, anorexia, fever and malaise. Neuropsychiatric symptoms may include anxiety, agitation, lethargy, confusion, hallucinations, seizures, dysphagia, paralysis and coma. Death is most often due to respiratory failure.

The incubation period for rabies in humans is usually 2-12 weeks, however there have been documented incubation periods of more than one year. Factors influencing the length of incubation include the amount of viral inoculum, anatomic location of exposure, the variant of rabies virus and the thoroughness of post-exposure wound cleansing. Bites from infected animals constitute the primary route of transmission; less common exposures include viral inoculation into an open wound or mucous membrane. Transplanted organs and corneas from patients with fatal undiagnosed rabies have caused infection in recipients.

In Washington, bats are the primary source of rabies and human exposures to bats should be evaluated carefully and immediately. Rabies can be transmitted from bats to humans, dogs, cats, horses, raccoons, skunks, coyotes and other mammals. Bat variant rabies has been identified in a horse, llama, cat and dog in Washington. In other regions of the United States, endemic sources of rabies include raccoons, skunks, foxes and coyotes. Canine rabies still accounts for the majority of human rabies worldwide. Travelers to rabies-endemic countries should be warned to

seek immediate medical care if bitten by any mammal.

Rabies is an immediately notifiable condition in Washington. There have been two cases of human rabies identified in Washington during the last 20 years. In 1995, a four year old child died of rabies four weeks after a bat was found in her bedroom [MMWR 1995; 44(34):625-27]. In 1997, a 64 year old man was diagnosed with rabies more than six weeks post-mortem [MMWR 1997; 46(33):770-74]. Similar to many endemically-acquired rabies infections in the United States, these two Washington residents were infected with bat variants of rabies virus, despite the lack of history of bat bites in either case. No human cases of rabies were reported in Washington in 2005.

Table 3. Washington State Animals Tested for Rabies, 1986-2005
(Rabid animals in parentheses)

Year	Bat	Cat	Dog	Ferret	Raccoon	Skunk	Rodents	Lago-morphs	Other Wild	Other Domestic	Total
1986	63 (8)	116	68	17	15	10	6	1	16	3	315
1987	91 (10)	133	119 (1)	30	10	4	13	0	8	0	408
1988	69 (4)	165	110	15	16	3	12	2	5	3	400
1989	102 (9)	124	91	20	9	4	8	1	9	4	372
1990	63 (4)	104	82	5	7	5	5	1	14	4	290
1991	90 (9)	105	96	13	8	3	13	0	19	2	349
1992	73 (6)	132	90	16	14	2	12	0	14	6 (1)*	359
1993	68 (1)	122	95	8	4	8	16	2	10	13	347
1994	58 (14)	105	90	7	4	3	15	0	16	14 (1)^	312
1995	263 (15)	140	114	12	8	1	23	3	15	18	597
1996	257 (13)	104	101	8	9	2	14	3	20	12	530
1997	780 (51)	155	118	7	17	4	15	2	18	11	1127
1998	447 (27)	126	109	8	11	1	6	0	19	16	743
1999	334 (25)	103	71	3	11	3	8	1	14	13	561
2000	330 (23)	105	60	1	2	4	6	1	9	4	523
2001	263 (22)	111	93	2	3	1	8	0	4	5	488
2002	186 (12)	99 (1)	53	7	2	2	9	1	8	9	376
2003	229 (23)	137	72	0	11	1	4	1	9	10	474
2004	311 (20)	141	70	3	13	6	11	0	6	10	571
2005	245 (15)	132	66	3	12	2	5	1	10	4	480
Total 1986-2005	**4322 (311)**	**2459 (1)**	**1768 (1)**	**185**	**186**	**69**	**209**	**20**	**243**	**161 (2)**	**9622 (315)**

* Horse

^ Llama

Rodents include: beaver, chinchilla, chipmunk, degu, gerbil, gopher, hamster, marmot, mouse, muskrat, nutria, porcupine, prairie dog, rat, squirrel, vole, woodchuck

Lagomorphs include: rabbit and pika

Other domestic include: burro, cattle, goat, horse, llama, mule, pig, sheep

Other wild include: badger, bear, bison, bobcat, cougar, coyote, deer, fox, kinkajou, lynx, marten, mink, mole, monkey/non-human primates, ocelot, opossum, otter, seal, shrew, striped polecat, weasel, wolf, wolf hybrid

WASHINGTON RABIES PROPHYLAXIS DECISION-MAKING

Although human rabies is rare in the United States (2-6 cases per year), animal bites are very common and, as a result, thousands of people receive rabies post-exposure prophylaxis (PEP) each year. Rabies is almost universally fatal without appropriate PEP (rabies vaccine and rabies immune globulin) which is a safe and effective means of prevention. All animal bites should be thoroughly cleansed and consideration of PEP should be based on careful evaluation of the circumstances surrounding the exposure, the species and availability of the animal and the epidemiology of rabies in the area.

Information about pre- and post-exposure prophylaxis is available in 'Human Rabies Prevention – United States, 1999, Recommendations of the Advisory Committee on Immunization Practices' at http://www.cdc.gov/ncidod/dvrd/rabies/prevention&control/preventi.htm. Rabies exposures usually involve animal bites, however, in rare circumstances, exposures can involve saliva or central nervous system tissue inoculated into mucous membranes or open wounds. Petting or touching the body, urine, blood or feces of a potentially rabid animal or being sprayed by a skunk are not considered to be rabies exposures. In Washington, the most common high risk rabies exposures involve direct contact with rabid bats.

ANIMAL RABIES

Rabies was endemic among dogs in King County between 1937 and 1940. During the 1950s and 1960s, major efforts in pet vaccination and animal control eradicated the canine variant of rabies in the United States, however, rabies in wildlife has been documented at record levels nationwide during the last two decades.

Between 1970 and 2005, 15,667 animals were tested for rabies in Washington and 458 (3%) were found to have rabies. This does not represent the prevalence of rabies, since no routine surveillance in animals is conducted and most animals are submitted for diagnostic testing only after human exposure has occurred.

The primary reservoir of rabies in the northwest United States is bats. Of the 6,211 bats examined for rabies in Washington between 1960 and 2005, 526 (8%) were rabid. Rabid bats have been found in almost every county in Washington. While terrestrial animal (non-bat) variants of rabies have not been identified in Washington, rabies can be transmitted from bats to other mammals, including humans.

Domestic Animals

In the United States, twice as many cats as dogs are reported annually with rabies, underlining the need for better vaccination coverage in cats. In 2002, a rabid cat was identified in Walla Walla County with bat-variant rabies. The last suspected rabid dog was identified in Pierce County in 1987, six months after exposure to a rabid bat. Testing for rabies performed at the Public Health Laboratories identified the virus in the dog's brain tissues, however the infection was not confirmed at CDC. In 1992, a horse in Benton County died of rabies and in 1994, a llama in King County died after becoming infected with a bat-variant of rabies virus.

Wild Animals, Rodents and Lagomorphs

Although common in some parts of the United States, raccoon, skunk and fox (terrestrial) variants of rabies virus have not been documented in Washington. Four rabid skunks identified in the 1960s and 1970s were either imported from outside the state or inappropriately given live virus rabies vaccine. Rodents (mice, guinea pigs, gophers, rats, squirrels) and lagomorphs (rabbits, hares) pose a very low risk of rabies and rabid lagomorphs have never been found in Washington. Bites from other wild animals should be evaluated on a case by case basis, as surveillance for terrestrial rabies is limited in Washington and lack of data does not definitively rule out its presence.

Table 4. RABIES PROPHYLAXIS REGIMENS

Vaccination Status	Treatment	Regimen*
Not previously vaccinated	Wound cleansing	All post-exposure treatment should begin with immediate thorough cleansing of all wounds with soap and water. If available, a virucidal agent such as a povidone-iodine solution should be used to irrigate the wounds.
	RIG	Administer 20 IU/kg body weight. If anatomically feasible, the full dose should be infiltrated around the wound(s) and any remaining volume should be administered IM at an anatomical site distant from vaccine administration. Also, RIG should not be administered in the same syringe as vaccine. As RIG might partially suppress active production of antibody, no more than the recommended dose should be given.
	Vaccine	HDCV, RVA or PCEC 1.0 mL, IM (deltoid area[+]), one dose on days 0[&],3,7,14 and 28
Previously vaccinated[@]	Wound cleansing	All post-exposure treatment should begin with immediate thorough cleansing of all wounds with soap and water. If available, a virucidal agent such as a povidone-iodine solution should be used to irrigate the wounds.
	RIG	RIG should not be administered.
	Vaccine	HDCV, RVA or PCEC 1.0 mL, IM (deltoid area[+]), one dose on days 0[&] and 3.

HDCV=human diploid cell vaccine; PCEC=purified chick embryo cell vaccine; RIG=rabies immune globulin; RVA=rabies vaccine adsorbed; IM=intramuscular.

* These regimens are applicable for all age groups, including children.

[+] Deltoid area is the only acceptable site of vaccination for adults and older children; for younger children, the outer aspect of the thigh may be used. Vaccine should never be administered in the gluteal area.

[&] Day 0 is the day the first dose of vaccine is administered.

[@] Any person with a history of pre-exposure vaccination with HDCV, RVA or PCEC; prior post-exposure prophylaxis with HDCV, RVA or PCEC; or previous vaccination with any other type of rabies vaccine and a documented history of antibody response to the prior vaccination.

RARE DISEASES OF PUBLIC HEALTH SIGNIFICANCE

Suspected or confirmed cases of rare diseases of public health significance are immediately notifiable in Washington. This allows public health agencies to identify and respond to diseases associated with emerging infections, travel-associated disease or infections rarely acquired in Washington. Such rare diseases include, but are not limited to, Creutzfeldt-Jakob disease, cryptococcosis, coccidioidomycosis, exotic zoonoses and vector-borne diseases, avian influenza, smallpox, monkeypox, viral hemorrhagic diseases, lymphocytic choriomeningitis, visceral larval migrans and others.

Certain rare diseases, including smallpox and viral hemorrhagic diseases, may be associated with acts of bioterrorism. Suspected or confirmed cases in individuals without an appropriate exposure history should raise the index of suspicion for a bioterrorism event.

African tick bite fever

African tick bite fever is a disease transmitted to humans by ticks that are infected with *Rickettsia africae*. Symptoms usually begin within eight days after the tick bite and may last for 1-15 days. Symptoms may include fever, multiple eschars and lymphadenopathy. In 2005, two cases of African tick bite fever were reported in Washington residents following exposure to ticks in South Africa.

Creutzfeldt-Jakob disease

Prion diseases, also known as transmissible spongiform encephalopathies (TSE), are rare, fatal neurodegenerative diseases of animals and humans thought to be caused by abnormal transmissible proteins known as prions. The most common human prion disease, Creutzfeldt-Jakob disease (CJD), occurs worldwide and affects approximately one person per million population annually, with the highest incidence among persons >55 years of age. An average of five cases of CJD are reported annually in Washington (range 2-9). In 2005, one case of CJD was reported, however death certificates had not been finalized for 2005 as of publication of this report. Variant CJD (vCJD) is associated with infected cattle ("mad cow disease") and has never been identified in Washington.

Coccidioidomycosis

Coccidioidomycosis is a respiratory infection caused by the fungus *Coccidioides immitis* found in soil in the southwestern United States and northern Mexico. The most common manifestations of infection are fever, cough, chest pain and muscle aches; infection may be asymptomatic, while disseminated infection occurs in rare cases. In 2005, one case of travel-associated coccidioidomycosis was reported in a Washington resident.

Cryptococcosis

Cryptococcosis is a very rare fungal disease caused by *Cryptococcus* fungus that can affect the lungs (pneumonia) and nervous system (meningitis) in humans. Initial pulmonary infection is usually asymptomatic. Most patients present with disseminated infection, especially meningoencephalitis. In the United States, 85% of cases occur in HIV-infected persons.

Human and animal infections caused by *Cryptococcus gattii* emerged on Vancouver Island, British Columbia (BC) in 1999. *C. gattii* is generally considered to be restricted to tropical and sub-tropical climates (e.g., Australia, Africa and India). As a result of enhanced surveillance to identify human cases of the BC strain of *C. gattii*, one case of *C. neoformans* (non-outbreak strain) was identified in Washington in 2005.

RELAPSING FEVER

Tick-borne relapsing fever is a bacterial zoonosis caused by the spirochete *Borrelia hermsii* and is the most common tick-borne infection transmitted in Washington. The principal vectors are *Ornithodoros hermsii* soft ticks which can transmit the organism from wild rodent reservoirs to humans. Soft ticks feed during the night, inflicting a painless and often undetectable bite. Humans are most often exposed while staying overnight in rustic cabins. Symptoms include recurrent episodes of high fever, headache, myalgias, fatigue and drenching sweats; a transient petechial rash may also occur. Periods of fever lasting 2-9 days alternate with afebrile periods of 2-4 days. There may be up to eight relapsing episodes. Diagnosis of relapsing fever can be made by identification of *Borrelia* spirochetes on a peripheral blood smear. Treatment involves appropriate antimicrobials and supportive care for hospitalized patients.

Relapsing fever is an immediately notifiable condition in Washington. Fewer than 10 cases of tick-borne relapsing fever are reported annually in Washington residents and many are exposed to infected ticks in cabins while vacationing outside of Washington. During 2005, six cases of relapsing fever were reported in Washington. Of the four Spokane and two Whitman County residents, two cases were exposed in Douglas County, one in Spokane County and three in Idaho.

RUBELLA

Rubella, often called German measles or “three day” measles in the past, is a mild febrile rash illness caused by the rubella virus. Rubella is spread by respiratory droplets or through direct contact with infected persons. Like many vaccine-preventable diseases, rubella is now rare in the United States. Children usually present with a generalized maculopapular rash but few or no constitutional symptoms. Adults may experience a 1-5 day prodrome of low-grade fever, headache, malaise, mild coryza and conjunctivitis. Postauricular, occipital and posterior cervical lymphadenopathy is the most characteristic clinical feature and precedes the rash by 5-10 days. Arthralgia or frank arthritis may complicate the illness, particularly among adult females. Up to 50% of rubella infections are subclinical.

Rubella is important because of its ability to produce abnormalities in a developing fetus. Congenital rubella syndrome (CRS) occurs in up to 90% of infants born to women infected with rubella during the first trimester of pregnancy, and can result in multiple fetal abnormalities of the brain, eye, ear and internal organs. Defects are rare when maternal infection occurs after the 20th week of gestation. Congenital malformations and fetal death may occur following inapparent maternal rubella.

Rubella is prevented by routine childhood immunization with the measles-mumps-rubella (MMR) vaccine. The rubella antigen became available in the US in 1969. By the end of 2002, 58% of countries had included rubella vaccine in their national immunization programs, including 94% of countries in the Americas. In countries where rubella vaccine has not been introduced, the disease remains endemic. Most rubella in the US now occurs among young adults who emigrated from endemic areas, or in US residents who travel to endemic countries unaware that they are susceptible to the disease. Diagnostic tests for rubella include serology, virus isolation or identification of viral antigen in blood or tissues. Congenital infection is confirmed by serology. Rubella is an immediately notifiable condition in Washington. One case of rubella was reported in Washington in 2005 in a 33 year old male who was exposed during travel to Jordan.

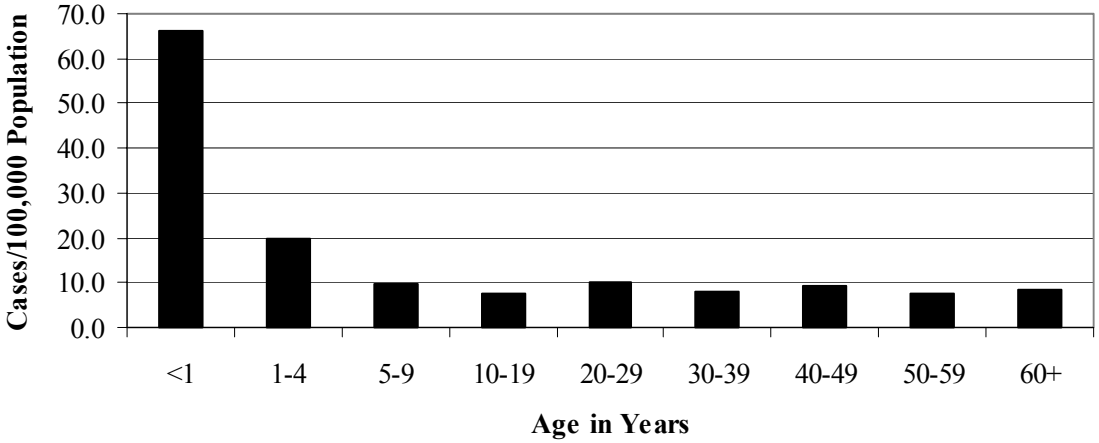
SALMONELLOSIS

Salmonellosis is an enteric bacterial infection caused by a myriad of *Salmonella* serotypes. Salmonellosis is typically characterized by the acute onset of fever, diarrhea, nausea and abdominal pain, with or without vomiting. Illness is usually mild, resolving after several days, but may be severe in the very young, elderly or those with chronic illnesses. *Salmonella* are transmitted through the fecal-oral route and the bacteria may be shed in the feces of humans and animals for days to months, or longer. Healthy animals (especially reptiles, chickens, cattle, dogs and cats) can carry *Salmonella* chronically and be a direct source of human infection, however most human salmonellosis results from ingestion of contaminated food. Common exposures include ingestion of contaminated eggs, unpasteurized milk, poultry and produce.

Salmonella infections occur year round with a slight increase during the spring and summer months. Most outbreaks have resulted from ingestion of inherently contaminated food or food contaminated by infected food handlers. Person-to-person transmission can occur, including through oral-anal sex.

Salmonellosis is an immediately notifiable condition in Washington. In 2005, 626 cases were reported (10.0 cases/100,000 population). The highest incidence occurred in the <1 year age group (66.4 cases/100,000 population) and in the 1-4 year age group (20.0 cases/100,000 population).

Figure 25. Salmonellosis - incidence by age group, 2005*



*Age unknown for 2 cases.

In 2005, several outbreaks of salmonellosis were reported in Washington. These included outbreaks associated with handling of baby chicks, pet treats, a multi-county outbreak of *S.* Typhimurium associated with ice cream and a multi-county outbreak of *S.* Enteritidis associated with consumption of brown organic eggs. Sporadic cases of reptile-associated salmonellosis were also reported.

Submission of *Salmonella* isolates to the Public Health Laboratories (PHL) for serotyping is required. Serotyping and molecular epidemiologic methods aid in identifying outbreaks and sources of infection. *S.* Enteritidis*, S.* Typhimurium and *S.* Heidelberg continue to be among the most common serotypes causing disease in Washington and accounted for 44% of all cases of salmonellosis reported in 2005. The serotype was unknown for 3% (21) of reported cases.

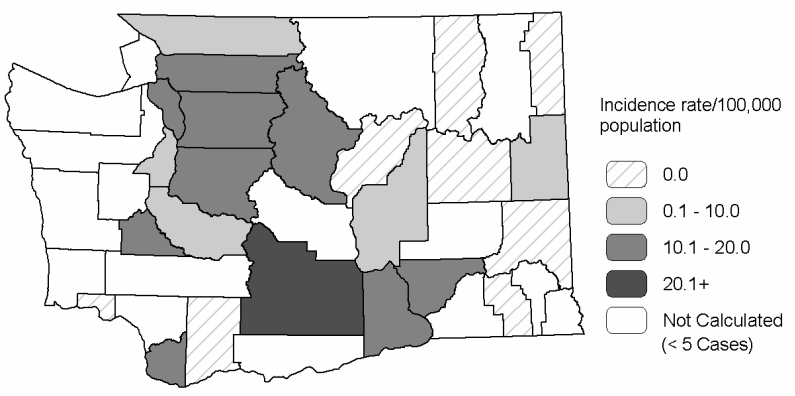
Table 5. *Salmonella* isolates submitted to the WA Public Health Laboratories, 2005

Serotype	No.	%
Enteritidis	120	19.2
Typhimurium	110	17.6
Heidelberg	42	6.7
Newport	29	4.6
Montevideo	22	3.5
Infantis	19	3.0
Paratyphi B	18	2.9
Ohio	14	2.2
Thompson	14	2.2
4 5 12:I:--	13	2.1
Muenchen	13	2.1
Saintpaul	13	2.1
4 12:I;--	10	1.6
Javiana	9	1.4
Stanley	7	1.1
Weltevreden	6	1.0
Braenderup	5	0.8
Oranienburg	5	0.8
Poona	5	0.8
Sandiego	5	0.8
Tennessee	5	0.8
Agona	4	0.6
Albany	4	0.6
Brandenburg	4	0.6
Corvallis	4	0.6
Mbandaka	4	0.6
Unknown	21	3.4

≤ 3 Cases: 1 4 5 12; 1 4 5 12;I;--; 4 5 12:NM; 44:Z4 Z23:-; 45:G;Z51;-; 47:Z4 Z23:-; 48:GZ51:-(MARINER); 48:I V Z13:I 5; 61:C:1 5; 8 20:z4 z23:-; Adelaide; Agbeni; Amager; Anatum; Apapa; B:1 W; B;4 12:I:--; Berta; Blockley; Bovismorbificans; Chester; Cholera-Suis; Clackamas; Daytona; Derby; Dublin; Eastbourne; Florida; Fluntern; Gaminara; Glostrup; Haardt; Hadar; Hartford; Havana; Hvittingfoss; Jangwani; Java; Kentucky; Kimberley; Kisarawe; Kottbus; Landala; Litchfield; Marina; Matadi; Meleagridis; Miami; Mississippi; Muenster; Norwich; Oslo; Panama; Paratyphi A; Poano; Putten; Richmond; Rubislaw; Schwarzengrund; Senftenberg; Singapore; Stanleyville; Sundsvall; Telelkebir; Urbana; Virchow

Cases of salmonellosis were reported by 31 counties in Washington in 2005. The highest rates were in Yakima, Island and Benton Counties with 22.7, 13.2 and 12.0 cases per 100,000 population reported, respectively.

Figure 26. Salmonellosis – incidence by county, 2005

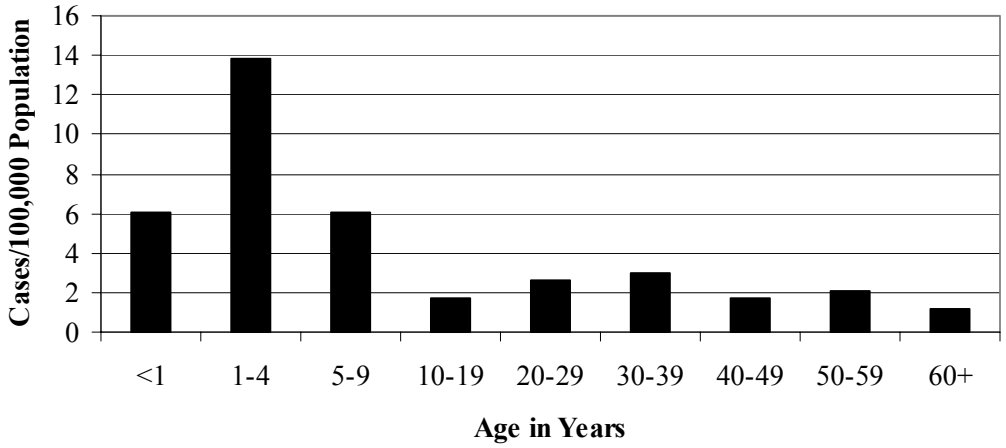


SHIGELLOSIS

Shigellosis is an acute enteric bacterial infection caused by *Shigella sonnei, S. flexneri, S. dysenteriae* or *S. boydii.* Humans are the only reservoir for *Shigella* and transmission occurs via the fecal-oral route through ingestion of contaminated food or water or via person-to-person transmission, including oral-anal sex. Ingestion of very few organisms can cause infection. Outbreaks typically occur in association with child care or food service facilities. Symptoms include fever, watery or bloody diarrhea, abdominal pain, malaise and headache.

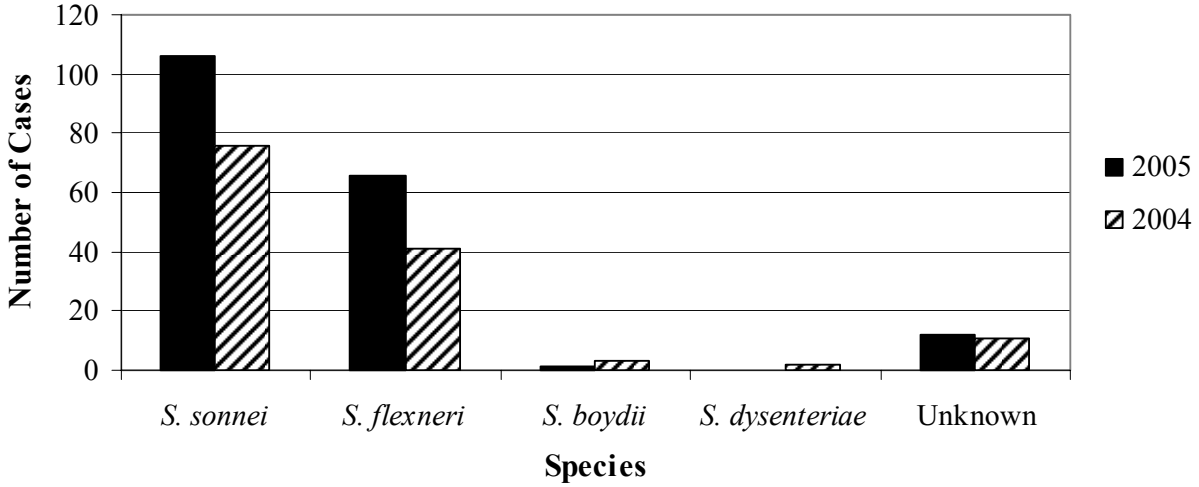
Shigellosis is an immediately notifiable condition in Washington. In 2005, there were 185 cases of shigellosis reported in Washington (3.0 cases/100,000 population) by 20 counties. The highest incidence was in the 1-4 year age group (13.8 cases/100,000 population).

Figure 27. Shigellosis - incidence by age group, 2005



S. sonnei was the most common species identified, infecting 57% of reported cases, followed by *S. flexneri* (36%). The species was unknown for 6% of cases.

Figure 28. Shigellosis - number of cases by species, 2004-2005



SYPHILIS

Syphilis is a genital ulcer and systemic disease caused by the spirochete *Treponema pallidum.* Syphilis is divided into four disease stages: primary, secondary, early latent and late/late latent. *T. pallidum* is transmitted by direct contact with lesions of primary or secondary syphilis or by perinatal transmission. Untreated syphilis is infectious during the first three stages. Untreated late or late latent syphilis may cause damage to the central nervous system, heart or other organs. Similar to other genital ulcer diseases, syphilis facilitates the transmission of HIV.

Signs and symptoms differ for each stage of syphilis. Primary syphilis may be characterized by a painless ulcer, or chancre, at the site of infection (mouth, genitals, anus). Secondary syphilis, which occurs 3-6 weeks after primary infection, may present with a fever, diffuse rash that involves the palms or soles, myalgias, headache, hair loss and fatigue. Primary and secondary syphilis resolve with or without treatment, but some untreated infections may progress after many years to late syphilis with irreversible multi-organ damage. Congenital syphilis may follow early, or rarely late, infection during pregnancy with fetal death in approximately 40% of cases if untreated. Surviving infants born with congenital syphilis may have multi-organ damage and serious bone deformities.

The *2006 CDC Sexually Transmitted Diseases Treatment Guidelines*, available at http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5511a1.htm, contain recommendations for diagnosis and treatment of syphilis.

In 2005, there were 152 primary and secondary (P & S) infections (2.4 cases/100,000 population), 64 early latent cases, 143 late/late latent cases and no congenital syphilis reported in Washington. These cases represent an ongoing resurgence of syphilis among MSM in Washington, a trend first observed in 1999. The most recent outbreak of syphilis among heterosexuals occurred more than a decade ago.

Figure 29. Primary and secondary syphilis - reported cases, 2001-2005

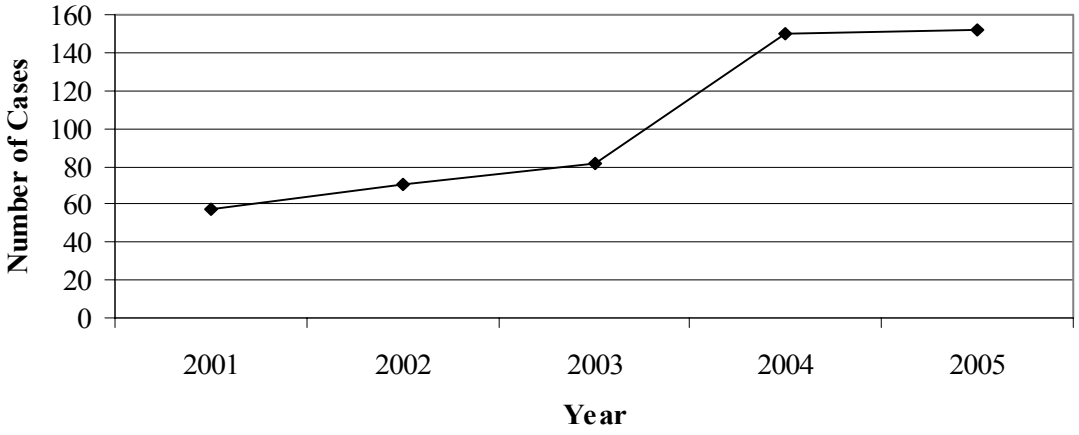
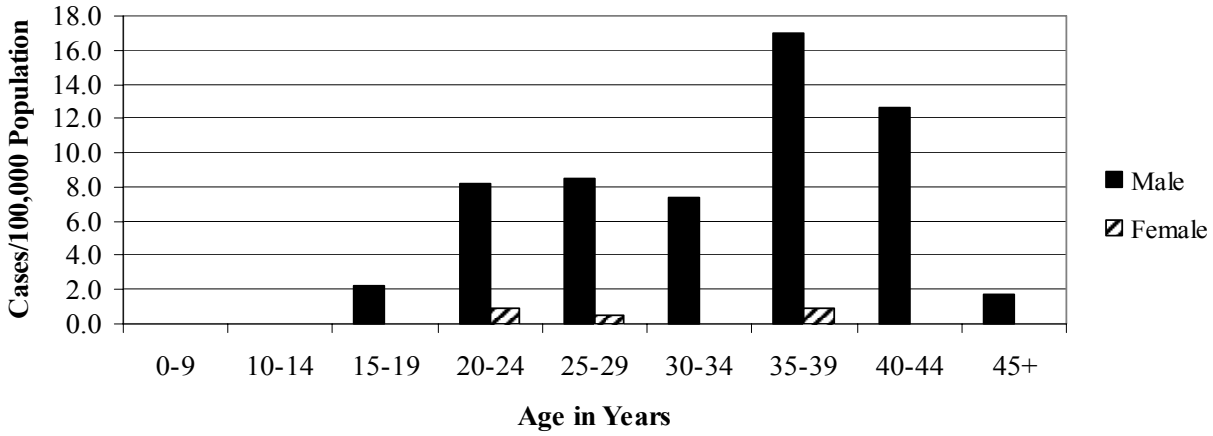


Figure 30. Primary and secondary syphilis - incidence by sex and age group, 2005



Seventy-eight percent of P & S syphilis cases in 2005 were reported by King County. This trend has been observed since 1997 and is in contrast to earlier outbreaks in which a greater proportion of cases were reported from other counties.

TETANUS

Tetanus is an acute disease that is induced by an exotoxin produced by *Clostridium tetani* bacteria which grow anaerobically at the site of an injury. *C. tetani* are commonly present in the intestines of animals and humans and are a harmless normal inhabitant. Soil or fomites can be contaminated with animal or human feces, so tetanus spores are ubiquitous in the environment and can be introduced by a penetrating injury resulting from trauma or during activities such as farm work or gardening.

Tetanus is characterized by painful muscular contractions, primarily of the masseter and neck muscles, secondarily of the trunk muscles. Muscle spasms usually begin within 14 days of the injury, progress in a descending pattern and can ultimately cause respiratory arrest and

autonomic dysfunction. The case fatality rate ranges from 10 to over 80% and is highest in infants and in the elderly. Tetanus is easily prevented by routine childhood and adult vaccination and by appropriate wound care following tetanus-prone injuries.

Now relatively uncommon in the United States, tetanus primarily affects unvaccinated or under-vaccinated persons, typically older adults who have not received scheduled booster doses of tetanus toxoid. In Washington, three cases were reported during the past 10 years. In 2005, one case of tetanus was reported in Washington in a 61 year old male who acquired a puncture wound while gardening.

TRICHINOSIS

Trichinosis is an infection caused by the ingestion of raw or insufficiently cooked meat contaminated with the parasite *Trichinella spiralis.* Symptoms range from unapparent infection to a fulminating fatal disease depending on the number of larvae ingested. The sudden appearance of myalgias with edema of the upper eyelids and fever are early characteristic signs of trichinosis. Consumption of wild game is the most likely exposure in North America. An outbreak reported in 2005 in British Columbia was associated with hunting and consuming bear meat. The last reported case of trichinosis in Washington occurred in 2000 (cougar meat) and prior to that in 1993 (bear meat). No cases of trichinosis were reported in Washington in 2005.

TUBERCULOSIS

Tuberculosis (TB) is a systemic infection most commonly caused in the United States by the acid-fast bacillus *Mycobacterium tuberculosis*.

M. tuberculosis is transmitted by airborne droplets and respiratory secretions from infectious persons. Infection results in TB disease (active TB) or latent TB; persons with latent TB are not infectious. The incubation period is highly variable and most TB disease affects the lungs (pulmonary TB) with respiratory and systemic symptoms, including hemoptysis, pleuritic chest pain, weight loss, fatigue, malaise, fever and night sweats. Symptoms of extrapulmonary TB disease depend on the site of infection. TB infection can be detected by reaction to the purified protein derivative (PPD), or tuberculin, skin test; diagnosis of TB is usually performed by examination of chest radiographs, sputum or tissue stained for acid-fast bacilli and by isolation of *M. tuberculosi*s from sputum or other specimens.

Tuberculosis is an immediately notifiable condition in Washington. Reported TB in Washington increased 21% from 1987-1991 (255 to 309 cases). Factors contributing to this rise included increasing numbers of immigrants from endemic countries, TB associated with the HIV epidemic and outbreaks of TB in congregate settings (e.g., correctional and healthcare facilities, homeless shelters). From 1991-1994, reported TB decreased 17%. After a brief increase during 1995-1997, the case count has continued to decline.

In 2005, 256 new cases of active TB were reported (4.0 cases/100,000 population) in Washington, a slight increase from 2004. Twenty-three counties reported at least one new case of TB and 10 counties reported five or more cases. Among these, the highest rates were in King and Yakima counties, with 7.0 and 5.6 cases/100,000 population reported, respectively.

The rate of TB was highest among persons ≥65 years of age (7.7 cases/100,000 population) in 2005; persons 5-14 years of age continued to have the lowest incidence (0.5 cases/100,000 population). Gender-specific incidence rates were comparable in 2005 (4.8 cases/100,000 population in males and 3.3 cases/100,000 population in females).

Table 6. Tuberculosis by age group, 2005

Age (Years)	Cases	Cases/100,000 Population	%
0-4	4	0.9	2
5-14	5	0.5	2
15-24	37	4.1	14
25-44	72	4.0	28
45-64	83	5.1	32
65+	55	7.7	22
Total	**256**	**4.0**	**100**

A large proportion of TB disease was reported among certain racial/ethnic groups. The incidence among Asians was more than 13 times that of Whites and almost four times that of Hispanics. The incidence among Blacks was more than 11 times that of Whites and three times that of Hispanics.

Table 7. Tuberculosis by race/ethnicity, 2005

Race/Ethnicity	Cases	Cases/100,000 Population	%
Asian/Pacific Islander, alone	100	25.6	39
White, alone	93	1.9	36
Black, alone	44	21.5	17
Hispanic, all races	37	7.0	14
American Indian/Alaska Native, alone	17	18.4	7
Multi-Race	2	1.1	1

Sixty-seven percent (171) of reported TB cases occurred among persons born outside the United States. Foreign-born persons accounted for 95 (63%) of male TB cases and 76 (72%) of female TB cases.

Table 8. Tuberculosis by race/ethnicity and country of origin, 2005

	US-born		Foreign-born		Total	
Race/Ethnicity	**No.**	**%**	**No.**	**%**	**No.**	**%**
Asian/Pacific Islander, alone	6	6	94	94	100	39
White, alone	49	53	44	47	93	36
Black, alone	13	30	31	70	44	17
Hispanic, all races	3	8	34	92	37	14
American Indian/Alaska Native, alone	16	94	1	6	17	7
Multi-Race	1	50	1	50	2	1

Co-morbidity with HIV remains low in Washington. The number of reported persons with TB also infected with HIV increased slightly from nine in 2004 to 15 in 2005.

Resistance to at least one anti-TB drug was found in 36 of 203 (18%) persons from whom *M. tuberculosis* was isolated and tested for drug susceptibility. Of these, six (17%) were from the United States and 30 (83%) were foreign-born. There were three multiple-drug resistant (defined as resistance to at least isoniazid and rifampin) isolates of *M. tuberculosis* identified in 2005. There were no rifampin-only resistant cases identified.

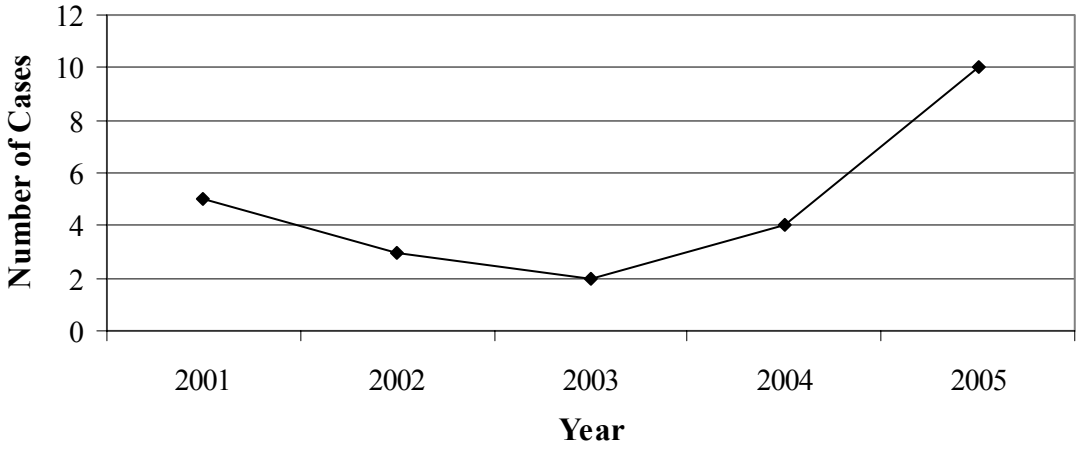
TULAREMIA

Tularemia, also known as rabbit or deerfly fever, is an acute bacterial zoonosis caused by *Francisella tularensis.* Infection may develop following several routes of exposure: deerfly or tick bite, handling infected animals, ingesting contaminated food or water, mucous membrane contact with contaminated water and inhalation of bacteria aerosolized by mowing or other garden equipment. Symptoms reflect the route of transmission and can include fever, malaise, lymphadenopathy (glandular form), skin ulcers (ulceroglandular form), eye infection (oculoglandular form), pharyngitis, abdominal pain, diarrhea and pneumonia; any of the types of infection can cause sepsis (typhoidal form). Occasionally, infected animal reservoirs such as snowshoe hare are identified.

Tularemia is an immediately notifiable condition in Washington. An average of three cases have been reported annually during recent years. In 2005, 10 tularemia cases were reported among residents of Clallam (1), Clark (3), Cowlitz (2), King (1), Lewis (1), and Thurston (2) counties; this is the highest number of cases reported in a single year in Washington. Four of the cases had the pneumonic form of tularemia, five cases had ulceroglandular tularemia and one case had the bacteria isolated from synovial fluid in a prosthetic knee. The cases, eight adults and a six and seven year old, were not linked to each other and all 10 individuals contracted the disease naturally, mostly from insect bites and the use of power landscaping tools that create an airborne dust contaminated with the bacteria. All cases were most likely exposed in Washington and generally in and around their homes; the King County case was exposed while camping in Whatcom County.

F. tularensis is a potential agent of bioterrorism. Suspected or confirmed cases in individuals, without an appropriate exposure history, should raise the index of suspicion for a bioterrorism event.

Figure 31. Tularemia - reported cases, 2001-2005



TYPHOID FEVER

Typhoid fever, caused by *Salmonella* Typhi, is a systemic bacterial infection with fever, headache, rash, constipation or diarrhea, and swelling of the lymph nodes. The disease is spread via the fecal-oral route, either directly through person-to-person transmission or through contaminated food, water or milk. The incubation period is one to three weeks. Mortality may be as high as 10% without antibiotic treatment. Since there can be a prolonged intestinal carrier state, sometimes due to gallbladder infection, patients should be re-cultured after antibiotic treatment to confirm resolution of the infection. Organisms can be isolated from blood early in the disease and from urine and feces after the first week.

Typhoid fever is not endemic in Washington and reported cases occur among immigrants and travelers. People traveling to areas where there is a recognized risk of exposure to *S.* Typhi should be vaccinated. Typhoid fever should be reported (immediately) as *Salmonella* Typhi and, for paratyphoid fever, as *S.* Paratyphi A or *S.* Paratyphi B. In 2005, 11 cases of typhoid fever were reported in Washington; eight were travelers to Asia, two were travelers to Africa and one case, a 10 month old infant, was a household contact of a confirmed case. Vaccination recommendations for travelers are available from travel clinics and the CDC Travelers' Health Website at http://www.cdc.gov/travel.

TYPHUS

Typhus is a rickettsial disease transmitted by lice *(Rickettsia prowazekii)*, fleas *(R. typhi, R. mooseri, R. felis)* or mites *(Orientia tsutsugamushi)*. In the United States, only flea-borne, or murine, typhus is likely to occur, with fewer than 80 cases reported annually nationwide. Symptoms of flea-borne typhus may include headache, chills, fever, prostration, confusion, photophobia, vomiting and rash and the case-fatality rate is about 1%. Rats, mice and possibly other small mammals are reservoirs for flea-borne typhus.

Typhus is an immediately notifiable condition in Washington. The last reported case of flea-borne (murine) typhus in Washington occurred in 1994 and was travel-associated. No cases were reported in Washington in 2005.

UNEXPLAINED CRITICAL ILLNESS OR DEATH

Critical illness or death from a potentially infectious cause occurring in previously healthy persons ages 1-49 is an immediately notifiable condition in Washington. The case must have:

1) indication of an infectious origin (fever, abnormal white blood cell count),
2) be severe enough to either require hospitalization or result in death, and
3) have no identified etiology from initial testing performed at a hospital or commercial reference laboratory

In 2005, nine persons with potential unexplained critical illness or death (UCID) were reported to the Department of Health. Seven of these were persons who had died. Of these, six had tissues collected for review by the Infectious Disease Pathology Activity at the Centers for Disease Control and Prevention. One had an overwhelming sepsis identified as being caused by *Staphylococcus aureus*. Of the remaining eight cases for which a definitive infectious cause was not identified initially, three were probably due to a medical cause (congestive heart failure, pulmonary embolus), one had hepatitis of unknown etiology, one had hepatorenal failure with associated thrombocytopenia and fever, and one presented with seizures and was found to have cerebral edema and possible meningoencephalitis. One case was later diagnosed as having been infected with hantavirus pulmonary syndrome.

VIBRIOSIS

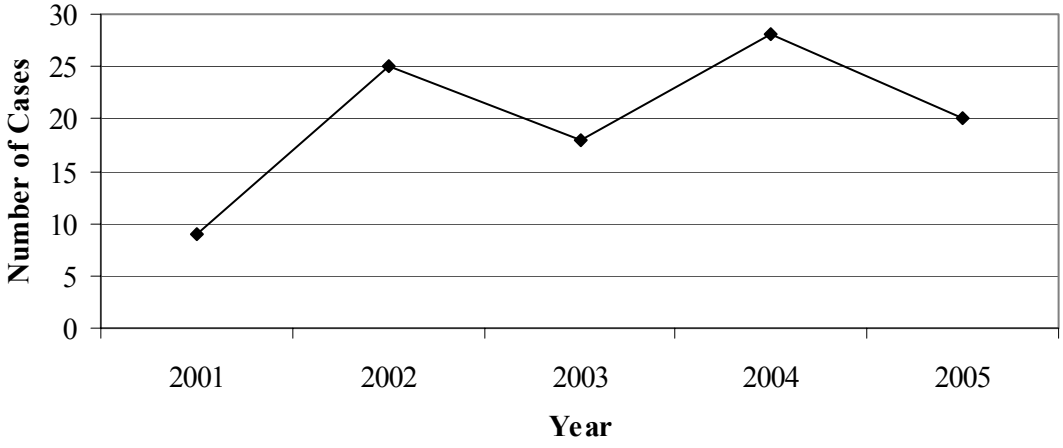
Vibriosis is caused by infection with *Vibrio* bacteria, including *V. parahaemolyticus, V. vulnificus,* non-toxigenic *V. cholerae* and other less common species. Infections caused by toxigenic *V. cholerae* are notifiable as cholera.

V. parahaemolyticus occurs naturally in Pacific coastal waters, especially during warmer months. Transmission of *Vibrio* usually occurs through ingestion of contaminated raw or undercooked shellfish or through abrasion or penetrating injuries acquired in contaminated seawater. Symptoms include abdominal pain, watery diarrhea, vomiting, headache and fever. *V. vulnificus*,

a species that occurs in the Gulf of Mexico, can cause sepsis and shock in immunocompromised persons.

The number of reported vibriosis cases varies from year to year; 20 cases were reported in Washington in 2005 (0.3 cases/100,000 population). These included 16 *V. parahaemolyticus* cases, one *V. alginolyticus* case (unknown exposure) and three cases with unknown species. Eighty percent of cases reported some seafood-related exposure, with several having consumed raw oysters.

Figure 32. Vibriosis - reported cases, 2001-2005



WATERBORNE OUTBREAKS

Disease of waterborne origin can be due to many infectious agents, including viruses such as hepatitis A, bacteria such as *E. coli* O157:H7 and parasites such as *Giardia*. A waterborne outbreak is defined as two or more ill persons with epidemiologic and/or laboratory evidence implicating a common water exposure as the source of illness, where the exposure may be drinking water or recreational water. Suspected outbreaks should be immediately reported to local health jurisdictions, even before confirmatory laboratory results are available. In 2005, no confirmed waterborne outbreaks were reported. Three possible outbreaks were identified involving a home (no agent identified), a hotel spa (no agent identified) and a family well (giardiasis).

YELLOW FEVER

Yellow fever is caused by a mosquito-borne flavivirus that occurs in tropical regions of Africa and South America. One of the primary vector mosquitoes for yellow fever, *Aedes aegypti*, is also found in some parts of the southern United States. Symptoms include fever, rigors, headache, backache, generalized myalgias, prostration, jaundice, nausea and vomiting. Most infections resolve, but some progress to a hemorrhagic diathesis with hepatic and renal failure. The mortality rate ranges from 5-40%.

Yellow fever is an immediately notifiable condition in Washington. With the exception of a single case of yellow fever vaccine-associated viscerotropic disease reported in 2002, no cases of yellow fever have ever been reported in Washington.

Vaccination recommendations for travelers are available from travel clinics and the CDC Travelers' Health Website at http://www.cdc.gov/travel.

YERSINIOSIS

Yersiniosis is an acute enteric infection caused by *Yersinia* bacteria, primarily *Y. enterocolitica,* however other *Yersinia* species that comprise multiple serotypes and biotypes are also pathogenic. The disease is characterized by acute fever, diarrhea and abdominal pain that may mimic appendicitis; complications are rare. Wild and domestic animals are reservoirs for *Yersinia.* Transmission occurs through the fecal-oral route by ingestion of contaminated food or water or by direct contact with infected humans or animals, particularly pigs. *Y. enterocolitica* has been isolated from a variety of foods, including raw pork and pork products.

In 2005, there were 19 cases of yersiniosis reported in Washington (0.3 cases/100,000 population), a slight decrease from previous years. Forty-two percent of cases were in the 0-9 year age group. Reported risk factors included pork consumption, ingestion of untreated water and contact with animals. There was one case infected with *Y. pseudotuberculosis*.

APPENDIX I

DISEASE INCIDENCE AND MORTALITY RATES

ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS)*

Case, Death Rate/100,000 Population

	2001		2002		2003 (AIDS)		2003 (HIV)		2004 (AIDS)		2004 (HIV)		2005 (AIDS)		2005 (HIV)	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	1	*	1	*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Asotin	0	0.0	1	*	0	0.0	0	0.0	0	0.0	1	*	2	*	0	0.0
Benton	2	*	3	*	2	*	1	*	2	*	0	0.0	4	*	2	*
Chelan	0	0.0	1	*	1	*	1	*	2	*	1	*	2	*	3	*
Clallam	2	*	4	*	0	0.0	1	*	0	0.0	2	*	4	*	3	*
Clark	23	6.5	28	7.7	15	4.0	16	4.3	21	5.5	11	2.9	16	4.1	19	4.9
Columbia	0	0.0	0	0.0	1	*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cowlitz	2	*	3	*	3	*	2	*	2	*	3	*	2	*	2	*
Douglas	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Ferry	1	*	1	*	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Franklin	5	9.9	4	*	5	9.3	0	0.0	5	8.8	1	*	5	8.3	3	*
Garfield	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	*	0	0.0	0	0.0
Grant	1	*	1	*	1	*	0	0.0	4	*	2	*	0	0.0	1	*
Grays Harbor	4	*	1	*	1	*	0	0.0	3	*	1	*	6	8.6	2	*
Island	1	*	2	*	3	*	3	*	1	*	1	*	1	*	0	0.0
Jefferson	1	*	0	0.0	0	0.0	0	0.0	0	0.0	1	*	2	*	0	0.0
King	215	12.2	246	13.9	272	15.3	207	11.6	221	12.4	219	12.2	213	11.8	227	12.6
Kitsap	4	*	10	4.3	6	2.5	6	2.5	12	5.0	3	*	7	2.9	5	2.1
Kittitas	0	0.0	1	*	0	0.0	0	0.0	2	*	0	0.0	2	*	1	*
Klickitat	0	0.0	1	*	0	0.0	1	*	1	*	0	0.0	0	0.0	0	0.0
Lewis	1	*	2	*	1	*	1	*	1	*	0	0.0	1	*	0	0.0
Lincoln	0	0.0	0	0.0	0	0.0	0	0.0	1	*	0	0.0	0	0.0	0	0.0
Mason	4	*	4	*	1	*	2	*	3	*	3	*	5	9.6	2	*
Okanogan	0	0.0	2	*	1	*	0	0.0	5	12.6	1	*	0	0.0	0	0.0
Pacific	1	*	3	*	0	0.0	3	*	0	0.0	0	0.0	1	*	2	*
Pend Oreille	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pierce	53	7.4	27	3.7	33	4.5	34	4.6	33	4.4	20	2.7	34	4.5	43	5.7
San Juan	0	0.0	0	0.0	0	0.0	0	0.0	1	*	0	0.0	0	0.0	0	0.0
Skagit	1	*	2	*	3	*	3	*	3	*	3	*	5	4.5	2	*
Skamania	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Snohomish	22	3.6	31	4.9	24	3.8	16	2.5	34	5.3	13	2.0	48	7.3	25	3.8
Spokane	15	3.6	18	4.2	22	5.1	12	2.8	22	5.1	15	3.5	26	6.0	10	2.3
Stevens	1	*	1	*	2	*	1	*	1	*	0	0.0	0	0.0	1	*
Thurston	10	4.8	4	*	6	2.8	2	*	11	5.0	11	5.0	8	3.6	6	2.7
Wahkiakum	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Walla Walla	1	*	1	*	1	*	1	*	0	0.0	0	0.0	1	*	0	0.0
Whatcom	6	3.5	6	3.5	6	3.4	3	*	1	*	6	3.4	3	*	7	3.9
Whitman	1	*	1	*	0	0.0	0	0.0	1	*	0	0.0	1	*	2	*
Yakima	9	4.0	4	*	11	4.9	4	*	7	3.1	5	2.2	7	3.1	8	3.5
STATEWIDE TOTAL																
CASES	387	6.5	414	6.9	421	6.9	320	5.2	400	6.5	324	5.3	406	6.5	376	6.0
DEATHS	153	2.6	157	2.6	184	3.0	29	0.5	152	2.5	10	0.2	93	1.5	9	0.1

*Incidence rates not calculated for < 5 cases.

Note: Cases are presented by year of diagnosis and county of residence at that time. HIV/AIDS data are dynamic in that cases that progress from HIV to AIDS are removed from the HIV column and added to the AIDS column, and cases discovered to have an initial diagnosis in another state are removed from WA State data.

Data reflect cases reported through 3/31/06.

AIDS STATEWIDE BY YEAR

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1990	733	15.1	371	7.6
1991	835	16.6	461	9.2
1992	897	17.4	515	10.0
1993^	943	17.9	617	11.7
1994	853	15.9	676	12.6
1995	754	13.8	665	12.2
1996	661	11.9	495	8.9
1997	512	9.0	226	4.0
1998	385	6.7	167	2.9
1999	351	6.0	137	2.3
2000	429	7.3	165	2.8
2001	387	6.5	153	2.6
2002	414	6.9	157	2.6
2003	421	6.9	184	3.0
2004	400	6.5	152	2.5
2005	406	6.5	93	1.5

^ Revision of the AIDS case definition for adults and adolescents.

ARBOVIRAL DISEASE^

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
2002	1**	0.0	0	0.0
2003	8***	0.1	0	0.0
2004	3****	0.0	0	0.0
2005	6*****	0.1	0	0.0

** Yellow fever (vaccine-associated)
*** West Nile virus (all travel-associated)
**** West Nile virus, dengue, Japanese encephalitis (all travel-associated)
***** West Nile virus, dengue (all travel associated)

^ Arboviral (mosquito, sandfly, tick-borne) Disease became a notifiable condition in 2004, replacing Encephalitis, viral.

ENCEPHALITIS, VIRAL

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1985	0	0.0	0	0.0
1986	0	0.0	0	0.0
1987	0	0.0	0	0.0
1988	1*	0.0	0	0.0
1989	0	0.0	0	0.0
1990	0	0.0	0	0.0
1991	0	0.0	0	0.0
1992	0	0.0	0	0.0
1993	0	0.0	0	0.0
1994	0	0.0	0	0.0
1995	0	0.0	0	0.0
1996	0	0.0	0	0.0
1997	0	0.0	0	0.0
1998	0	0.0	0	0.0
1999	0	0.0	0	0.0
2000	0	0.0	0	0.0
2001	0	0.0	0	0.0

*Western equine encephalitis.

BOTULISM

Case, Death Rate/100,000 Population

Year	Food	Intestinal	Wound	Combined Rate	Deaths	Rate
1985	5	4	0	0.2	0	0.0
1986	2	4	0	0.1	0	0.0
1987	1	1	1	0.1	0	0.0
1988	3	4	0	0.2	0	0.0
1989	10	0	0	0.2	0	0.0
1990	1	0	0	0.1	0	0.0
1991	0	3	0	0.1	0	0.0
1992	0	2	0	0.0	0	0.0
1993	4	5	0	0.2	0	0.0
1994	3	2	0	0.1	0	0.0
1995	4	2	0	0.1	0	0.0
1996	2	0	2	0.1	0	0.0
1997	0	1	2	0.1	0	0.0
1998	2	4	0	0.1	0	0.0
1999	2	4	1	0.1	0	0.0
2000	1	4	0	0.1	0	0.0
2001	1	6	0	0.1	0	0.0
2002	1	1	4	0.1	0	0.0
2003	1	3	7	0.2	0	0.0
2004	1	3	5	0.1	0	0.0
2005	0	2	4	0.1	0	0.0

BRUCELLOSIS

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1985	0	0.0	0	0.0
1986	1	0.0	0	0.0
1987	1	0.0	0	0.0
1988	1	0.0	0	0.0
1989	1	0.0	0	0.0
1990	0	0.0	0	0.0
1991	3	0.1	0	0.0
1992	1	0.0	0	0.0
1993	0	0.0	0	0.0
1994	0	0.0	0	0.0
1995	0	0.0	0	0.0
1996	2	0.0	0	0.0
1997	3	0.1	0	0.0
1998	3	0.1	0	0.0
1999	0	0.0	0	0.0
2000	0	0.0	0	0.0
2001	0	0.0	0	0.0
2002	2	0.0	0	0.0
2003	1	0.0	0	0.0
2004	2	0.0	0	0.0
2005	0	0.0	0	0.0

CAMPYLOBACTERIOSIS

Case, Death Rate/100,000 Population

	2001		2002		2003		2004		2005*	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	3	18.1	1	6.0	2	12.0	3	18.0	4	*
Asotin	3	14.5	1	4.8	1	4.9	1	4.8	0	0.0
Benton	11	7.6	19	12.9	40	26.4	20	12.9	26	16.4
Chelan	6	8.9	10	14.8	8	11.8	7	10.2	9	13.0
Clallam	7	10.8	4	6.2	8	12.3	2	3.0	7	10.5
Clark	57	16.2	54	14.9	67	18.0	74	19.3	57	14.6
Columbia	0	0.0	0	0.0	0	0.0	2	48.8	0	0.0
Cowlitz	13	13.8	11	11.7	4	4.2	11	11.5	16	16.7
Douglas	1	3.0	7	21.1	4	11.9	5	14.6	0	0.0
Ferry	0	0.0	0	0.0	2	27.4	0	0.0	2	*
Franklin	6	11.9	4	7.8	13	24.3	5	8.8	6	9.9
Garfield	0	0.0	0	0.0	0	0.0	1	41.7	1	*
Grant	9	11.9	11	14.4	24	31.1	18	23.0	19	24.0
Grays Harbor	9	13.1	7	10.2	14	20.3	19	27.5	10	14.3
Island	2	2.8	3	4.1	6	8.1	5	6.7	10	13.2
Jefferson	7	26.8	3	11.3	4	15.0	2	7.4	8	29.0
King	320	18.2	295	16.6	270	15.2	266	14.9	337	18.6
Kitsap	26	11.1	11	4.7	20	8.4	24	10.0	28	11.6
Kittitas	7	20.6	3	8.6	5	14.2	2	5.6	6	16.4
Klickitat	8	41.5	2	10.4	3	15.5	2	10.4	4	*
Lewis	8	11.5	14	19.9	5	7.1	0	0.0	16	22.3
Lincoln	0	0.0	2	19.6	0	0.0	0	0.0	1	*
Mason	12	24.2	5	10.0	7	13.9	2	3.9	5	9.6
Okanogan	7	17.6	3	7.5	2	5.1	8	20.2	0	0.0
Pacific	2	9.5	2	9.5	2	9.6	3	14.3	3	*
Pend Oreille	1	8.5	1	8.5	0	0.0	2	16.8	0	0.0
Pierce	53	7.4	44	6.1	32	4.4	33	4.4	48	6.4
San Juan	2	13.9	5	34.2	2	13.5	5	33.1	2	*
Skagit	19	18.3	25	23.8	19	17.8	23	21.1	22	19.8
Skamania	2	20.2	0	0.0	0	0.0	0	0.0	2	*
Snohomish	108	17.5	105	16.7	96	15.1	88	13.6	110	16.8
Spokane	38	9.0	56	13.2	67	15.6	49	11.3	74	17.0
Stevens	8	19.9	7	17.3	13	32.0	2	4.9	2	*
Thurston	31	14.7	27	12.7	25	11.6	28	12.8	26	11.6
Wahkiakum	0	0.0	0	0.0	0	0.0	1	26.3	0	0.0
Walla Walla	12	21.7	140	252.7	6	10.8	6	10.6	2	*
Whatcom	59	34.6	46	26.7	47	26.9	48	27.1	66	36.5
Whitman	2	5.0	2	4.9	5	12.2	6	14.4	0	0.0
Yakima	132	58.8	102	45.3	120	53.1	88	38.7	116	50.6
STATEWIDE TOTAL										
CASES	991	16.6	1,032	17.1	943	15.5	861	14.0	1,045	16.7
DEATHS	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0

* Incidence rates not calculated for < 5 cases.

CAMPYLOBACTERIOSIS STATEWIDE BY YEAR

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1980	8	0.2	0	0.0
1981	106	2.5	0	0.0
1982	299	7.0	0	0.0
1983	149	3.5	0	0.0
1984	146	3.4	1	0.0
1985	250	5.7	0	0.0
1986	347	7.9	0	0.0
1987	420	9.4	1	0.0
1988	709	15.5	1	0.0
1989	899	19.3	0	0.0
1990	899	18.5	0	0.0
1991	930	18.6	4	0.1
1992	1,060	20.7	1	0.0
1993	1,051	20.1	0	0.0
1994	1,050	19.7	0	0.0
1995	1,050	19.3	4	0.1
1996	1,139	20.6	1	0.0
1997	1,150	20.5	0	0.0
1998	901	15.8	1	0.0
1999	950	16.5	2	0.0
2000	1,006	17.1	2	0.0
2001	991	16.6	0	0.0
2002	1,032	17.1	1	0.0
2003	943	15.5	0	0.0
2004	861	14.0	0	0.0
2005	1,045	16.7	0	0.0

CHANCROID

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1985	0	0.0	0	0.0
1986	1	0.0	0	0.0
1987	1	0.0	0	0.0
1988	0	0.0	0	0.0
1989	6	0.1	0	0.0
1990	1	0.0	0	0.0
1991	3	0.1	0	0.0
1992	2	0.0	0	0.0
1993	0	0.0	0	0.0
1994	1	0.0	0	0.0
1995	5	0.1	0	0.0
1996	1	0.0	0	0.0
1997	2	0.0	0	0.0
1998	1	0.0	0	0.0
1999	0	0.0	0	0.0
2000	0	0.0	0	0.0
2001	0	0.0	0	0.0
2002	1	0.0	0	0.0
2003	0	0.0	0	0.0
2004	0	0.0	0	0.0
2005	0	0.0	0	0.0

*CHLAMYDIA TRACHOMATIS**

Case, Death Rate/100,000 Population

	2001		2002		2003		2004		2005	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	37	222.9	22	132.5	30	180.7	24	143.7	32	188.2
Asotin	24	115.9	42	202.9	52	252.4	41	198.1	37	177.0
Benton	274	189.2	238	161.2	348	229.6	406	261.8	406	256.8
Chelan	117	174.4	129	190.8	168	247.4	169	247.1	174	251.4
Clallam	92	142.0	157	241.9	156	238.9	151	229.1	145	217.1
Clark	714	202.5	844	232.3	844	226.7	891	232.4	916	234.0
Columbia	1	*	3	*	1	*	9	219.5	4	*
Cowlitz	182	193.8	128	135.6	196	206.5	235	246.6	322	335.8
Douglas	53	161.6	60	181.3	69	205.4	85	248.5	72	207.5
Ferry	5	68.5	10	137.0	8	109.6	14	191.8	16	216.2
Franklin	162	321.4	162	315.8	188	350.7	192	366.8	221	365.3
Garfield	0	0.0	1	*	0	0.0	0	0.0	1	*
Grant	158	208.2	169	221.2	216	280.2	234	298.9	188	237.7
Grays Harbor	87	127.0	108	157.9	153	222.4	189	273.1	164	235.0
Island	107	147.8	223	305.1	175	236.5	177	236.6	183	240.8
Jefferson	23	88.1	32	120.3	59	221.0	37	137.0	57	206.5
King	4,295	244.3	4,470	251.9	5,169	290.5	5,336	298.4	5,604	309.9
Kitsap	483	206.9	532	226.7	671	283.1	672	280.6	660	274.5
Kittitas	76	223.5	74	212.6	90	255.7	94	262.6	155	423.5
Klickitat	30	155.4	26	134.7	35	181.3	41	212.4	26	133.3
Lewis	65	93.5	130	185.2	141	200.3	196	277.2	162	226.3
Lincoln	7	68.6	5	49.0	6	59.4	8	78.4	5	49.5
Mason	107	215.7	109	218.9	109	217.1	119	234.2	162	312.1
Okanogan	85	214.1	96	241.2	116	292.9	133	335.9	124	313.1
Pacific	29	138.1	39	185.7	37	177.0	33	157.1	33	154.9
Pend Oreille	4	*	9	76.3	16	135.6	14	117.7	10	82.0
Pierce	2,336	327.4	2,733	377.0	2,820	384.4	2,687	361.2	3,428	453.5
San Juan	15	104.2	14	95.9	10	67.6	21	139.1	10	64.5
Skagit	201	193.1	229	217.9	270	253.0	327	330.6	294	265.1
Skamania	6	60.6	11	111.1	13	131.3	19	188.1	9	87.4
Snohomish	1,349	218.1	1,295	206.2	1,467	230.1	1,632	253.1	1,556	237.3
Spokane	736	174.2	905	212.6	988	230.5	1,101	254.9	1,071	245.5
Stevens	40	99.3	33	81.7	59	145.3	44	108.1	72	174.8
Thurston	430	204.6	440	207.3	511	237.9	552	252.6	528	235.6
Wahkiakum	2	*	3	*	3	*	3	*	5	128.2
Walla Walla	96	173.9	115	207.6	80	143.4	138	243.4	160	278.3
Whatcom	254	148.9	367	213.1	436	249.9	462	260.6	480	265.5
Whitman	74	183.6	87	214.3	133	324.4	147	352.5	152	358.5
Yakima	875	389.8	886	393.8	953	421.7	1,002	440.4	973	424.3
STATEWIDE TOTAL										
CASES	13,631	228.1	14,936	247.2	16,796	275.4	17,635	285.9	18,617	297.6
DEATHS	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

* Incidence rates not calculated for < 5 cases.

CHLAMYDIA TRACHOMATIS STATEWIDE BY YEAR

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1987**	5,071	113.2	0	0.0
1988	12,534	274.6	0	0.0
1989	10,865	233.1	0	0.0
1990	12,709	261.1	0	0.0
1991	12,917	258.3	0	0.0
1992	11,762	229.9	0	0.0
1993	10,331	197.1	0	0.0
1994	10,575	198.2	0	0.0
1995	9,463	174.3	0	0.0
1996	9,237	167.4	0	0.0
1997	9,523	169.8	0	0.0
1998	10,998	193.4	0	0.0
1999	11,964	207.7	0	0.0
2000	13,066	224.5	0	0.0
2001	13,631	228.1	0	0.0
2002	14,936	247.2	0	0.0
2003	16,796	275.4	0	0.0
2004	17,635	285.9	0	0.0
2005	18,617	297.6	0	0.0

**First year reported, July - December.

CHOLERA

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1985	0	0.0	0	0.0
1986	0	0.0	0	0.0
1987	0	0.0	0	0.0
1988	0	0.0	0	0.0
1989	0	0.0	0	0.0
1990	0	0.0	0	0.0
1991	0	0.0	0	0.0
1992	2	0.0	0	0.0
1993	0	0.0	0	0.0
1994	0	0.0	0	0.0
1995	0	0.0	0	0.0
1996	0	0.0	0	0.0
1997	0	0.0	0	0.0
1998	0	0.0	0	0.0
1999	0	0.0	0	0.0
2000	0	0.0	0	0.0
2001	0	0.0	0	0.0
2002	1	0.0	0	0.0
2003	0	0.0	0	0.0
2004	0	0.0	0	0.0
2005	0	0.0	0	0.0

CRYPTOSPORIDIOSIS*

Case, Death Rate/100,000 Population

	2001		2002		2003		2004		2005**	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Asotin	0	0.0	1	4.8	1	4.9	0	0.0	0	0.0
Benton	0	0.0	0	0.0	2	1.3	3	1.9	4	*
Chelan	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Clallam	1	1.5	0	0.0	0	0.0	0	0.0	0	0.0
Clark	7	2.0	1	0.3	7	1.9	6	1.6	7	1.8
Columbia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cowlitz	0	0.0	0	0.0	0	0.0	3	3.1	3	*
Douglas	0	0.0	0	0.0	1	3.0	0	0.0	0	0.0
Ferry	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Franklin	0	0.0	1	1.9	0	0.0	1	1.8	0	0.0
Garfield	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Grant	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Grays Harbor	0	0.0	1	1.5	0	0.0	0	0.0	0	0.0
Island	0	0.0	0	0.0	0	0.0	0	0.0	1	*
Jefferson	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
King	31	1.8	32	1.8	35	2.0	31	1.7	55	3.0
Kitsap	1	0.4	1	0.4	3	1.3	2	0.8	2	*
Kittitas	2	5.9	0	0.0	2	5.7	0	0.0	2	*
Klickitat	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Lewis	0	0.0	2	2.8	0	0.0	0	0.0	1	*
Lincoln	0	0.0	0	0.0	0	0.0	0	0.0	2	*
Mason	0	0.0	0	0.0	0	0.0	0	0.0	1	*
Okanogan	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pacific	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pend Oreille	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pierce	16	2.2	10	1.4	2	0.3	8	1.1	4	*
San Juan	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Skagit	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Skamania	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Snohomish	2	0.3	6	1.0	7	1.1	6	0.9	2	*
Spokane	2	0.5	1	0.2	1	0.2	0	0.0	0	0.0
Stevens	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Thurston	1	0.5	4	1.8	1	0.5	0	0.0	1	*
Wahkiakum	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Walla Walla	0	0.0	0	0.0	0	0.0	0	0.0	1	*
Whatcom	0	0.0	1	0.6	0	0.0	0	0.0	1	*
Whitman	0	0.0	0	0.0	0	0.0	1	2.4	0	0.0
Yakima	10	4.5	1	0.4	3	1.3	2	0.9	7	3.1
STATEWIDE TOTAL										
CASES	73	1.2	62	1.0	65	1.1	63	1.0	94	1.5
DEATHS	0	0.0	0	0.0	0	0.0	0	0.0	0	0

* Cryptosporidiosis first became a notifiable condition in Washington in 12/2000.

** Incidence rates not calculated for < 5 cases.

CYCLOSPORIASIS*

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
2001	9	0.2	0	0.0
2002	5	0.1	0	0.0
2003	0	0.0	0	0.0
2004	11	0.2	0	0.0
2005	5	0.1	0	0.0

* Cyclosporiasis first became a notifiable condition in Washington in 12/2000.

DIPHTHERIA

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1985	0	0.0	0	0.0
1986	0	0.0	0	0.0
1987	0	0.0	0	0.0
1988	0	0.0	0	0.0
1989	0	0.0	0	0.0
1990	0	0.0	0	0.0
1991	0	0.0	0	0.0
1992	0	0.0	0	0.0
1993	0	0.0	0	0.0
1994	0	0.0	0	0.0
1995	0	0.0	0	0.0
1996	0	0.0	0	0.0
1997	0	0.0	0	0.0
1998	0	0.0	0	0.0
1999	0	0.0	0	0.0
2000	0	0.0	0	0.0
2001	0	0.0	0	0.0
2002	0	0.0	0	0.0
2003	0	0.0	0	0.0
2004	0	0.0	0	0.0
2005	0	0.0	0	0.0

ENTEROHEMORRHAGIC *E. COLI*

Case, Death Rate/100,000 Population

	2001		2002		2003		2004		2005*	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	1	6.0	0	0.0	0	0.0	0	0.0	0	0.0
Asotin	0	0.0	0	0.0	0	0.0	0	0.0	1	*
Benton	4	2.8	3	2.0	4	2.6	9	5.8	3	*
Chelan	2	3.0	0	0.0	0	0.0	0	0.0	1	*
Clallam	0	0.0	2	3.1	0	0.0	0	0.0	1	*
Clark	8	2.3	15	4.1	13	3.5	21	5.5	30	7.7
Columbia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cowlitz	1	1.1	1	1.1	2	2.1	0	0.0	7	7.3
Douglas	0	0.0	1	3.0	0	0.0	0	0.0	0	0.0
Ferry	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Franklin	0	0.0	2	3.9	2	3.7	2	3.5	2	*
Garfield	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Grant	2	2.6	1	1.3	2	2.6	0	0.0	0	0.0
Grays Harbor	3	4.4	0	0.0	1	1.5	2	2.9	2	*
Island	0	0.0	0	0.0	0	0.0	0	0.0	2	*
Jefferson	0	0.0	1	3.8	1	3.7	0	0.0	0	0.0
King	36	2.0	32	1.8	40	2.2	43	2.4	43	2.4
Kitsap	6	2.6	5	2.1	3	1.3	4	1.7	9	3.7
Kittitas	5	14.7	3	8.6	2	5.7	0	0.0	1	*
Klickitat	0	0.0	0	0.0	0	0.0	0	0.0	1	*
Lewis	2	2.9	2	2.8	2	2.8	0	0.0	1	*
Lincoln	0	0.0	0	0.0	1	9.9	0	0.0	0	0.0
Mason	0	0.0	0	0.0	0	0.0	0	0.0	1	*
Okanogan	1	2.5	1	2.5	1	2.5	0	0.0	0	0.0
Pacific	0	0.0	0	0.0	2	9.6	2	9.5	0	0.0
Pend Oreille	0	0.0	1	8.5	0	0.0	0	0.0	0	0.0
Pierce	15	2.1	11	1.5	6	0.8	28	3.8	6	0.8
San Juan	0	0.0	0	0.0	1	6.8	0	0.0	0	0.0
Skagit	3	2.9	0	0.0	5	4.7	1	0.9	2	*
Skamania	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Snohomish	20	3.2	11	1.8	12	1.9	20	3.1	17	2.6
Spokane	11	2.6	43	10.1	10	2.3	2	0.5	3	*
Stevens	0	0.0	0	0.0	1	2.5	0	0.0	0	0.0
Thurston	7	3.3	1	0.5	7	3.3	6	2.7	4	*
Wahkiakum	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Walla Walla	7	12.7	3	5.4	2	3.6	0	0.0	0	0.0
Whatcom	9	5.3	15	8.7	4	2.3	5	2.8	9	5.0
Whitman	0	0.0	2	4.9	0	0.0	5	12.0	0	0.0
Yakima	7	3.1	10	4.4	4	1.8	3	1.3	3	*
STATEWIDE TOTAL										
CASES	150	2.5	166	2.7	128	2.1	153	2.5	149	2.4
DEATHS	0	0.0	0	0.0	0	0.0	3	0.0	0	0.0

* Incidence rates not calculated for < 5 cases.

ENTEROHEMORRHAGIC *E. COLI* STATEWIDE BY YEAR

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1988	167	3.7	0	0.0
1989	157	3.4	1	0.0
1990	220	4.5	0	0.0
1991	164	3.3	0	0.0
1992	300	5.9	2	0.0
1993	741	14.1	3	0.0
1994	174	3.3	2	0.0
1995	140	2.6	1	0.0
1996	187	3.4	1	0.0
1997	149	2.7	0	0.0
1998	144	2.5	0	0.0
1999	186	3.2	0	0.0
2000	237	4.0	0	0.0
2001	150	2.5	0	0.0
2002	166	2.7	0	0.0
2003	128	2.1	0	0.0
2004	153	2.5	3	0.0
2005	149	2.4	0	0.0

GIARDIASIS

Case, Death Rate/100,000 Population

	2001		2002		2003		2004		2005*	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	0	0.0	0	0.0	0	0.0	0	0.0	1	*
Asotin	0	0.0	0	0.0	2	9.7	0	0.0	0	0.0
Benton	6	4.1	7	4.7	8	5.3	4	2.6	7	4.4
Chelan	6	8.9	3	4.4	5	7.4	2	2.9	2	*
Clallam	3	4.6	9	13.9	4	6.1	8	12.1	5	7.5
Clark	37	10.5	26	7.2	26	7.0	40	10.4	31	7.9
Columbia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cowlitz	8	8.5	8	8.5	8	8.4	4	4.2	1	*
Douglas	2	6.1	0	0.0	0	0.0	1	2.9	2	*
Ferry	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Franklin	4	7.9	0	0.0	4	7.5	2	3.5	1	*
Garfield	0	0.0	0	0.0	0	0.0	1	41.7	0	0.0
Grant	4	5.3	2	2.6	1	1.3	2	2.6	6	7.6
Grays Harbor	0	0.0	3	4.4	2	2.9	7	10.1	3	*
Island	1	1.4	6	8.2	5	6.8	4	5.3	3	*
Jefferson	5	19.2	0	0.0	4	15.0	2	7.4	7	25.4
King	140	8.0	166	9.4	117	6.6	119	6.7	140	7.7
Kitsap	16	6.9	16	6.8	8	3.4	11	4.6	10	4.2
Kittitas	5	14.7	0	0.0	2	5.7	0	0.0	1	*
Klickitat	1	5.2	2	10.4	1	5.2	2	10.4	6	30.8
Lewis	5	7.2	5	7.1	5	7.1	0	0.0	1	*
Lincoln	0	0.0	1	9.8	0	0.0	0	0.0	4	*
Mason	11	22.2	2	4.0	6	12.0	5	9.8	6	11.6
Okanogan	4	10.1	4	10.1	3	7.6	0	0.0	1	*
Pacific	1	4.8	1	4.8	1	4.8	0	0.0	4	*
Pend Oreille	1	8.5	3	25.4	1	8.5	1	8.4	0	0.0
Pierce	40	5.6	39	5.4	27	3.7	26	3.5	21	2.8
San Juan	0	0.0	3	20.5	0	0.0	0	0.0	0	0.0
Skagit	5	4.8	11	10.5	14	13.1	7	6.4	2	*
Skamania	2	20.2	2	20.2	0	0.0	0	0.0	0	0.0
Snohomish	63	10.2	60	9.6	43	6.7	63	9.8	54	8.2
Spokane	49	11.6	47	11.0	46	10.7	44	10.2	54	12.4
Stevens	0	0.0	7	17.3	3	7.4	6	14.7	0	0.0
Thurston	19	9.0	21	9.9	25	11.6	33	15.1	17	7.6
Wahkiakum	1	26.3	0	0.0	0	0.0	0	0.0	0	0.0
Walla Walla	7	12.7	5	9.0	2	3.6	2	3.5	3	*
Whatcom	16	9.4	18	10.5	34	19.5	18	10.2	16	8.8
Whitman	4	9.9	1	2.5	2	4.9	1	2.4	0	0.0
Yakima	46	20.5	32	14.2	26	11.5	29	12.7	28	12.2
STATEWIDE TOTAL										
CASES	512	8.6	510	8.4	435	7.1	444	7.2	437	7.0
DEATHS	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

* Incidence rates not calculated for < 5 cases.

GIARDIASIS STATEWIDE BY YEAR

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1980	840	20.3	0	0.0
1981	547	12.9	0	0.0
1982	956	22.4	0	0.0
1983	706	16.5	0	0.0
1984	710	16.4	0	0.0
1985	779	17.8	0	0.0
1986	811	18.4	0	0.0
1987	827	18.5	0	0.0
1988	851	18.6	0	0.0
1989	980	21.0	0	0.0
1990	792	16.3	0	0.0
1991	876	17.5	1	0.0
1992	860	16.8	1	0.0
1993	747	14.3	0	0.0
1994	722	13.5	0	0.0
1995	855	15.7	0	0.0
1996	668	12.1	0	0.0
1997	738	13.2	0	0.0
1998	740	13.0	1	0.0
1999	560	9.7	1	0.0
2000	622	10.6	1	0.0
2001	512	8.6	0	0.0
2002	510	8.4	0	0.0
2003	435	7.1	0	0.0
2004	444	7.2	0	0.0
2005	437	7.0	0	0.0

GONORRHEA*

Case, Death Rate/100,000 Population

	2001		2002		2003		2004		2005	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	2	*	0	0.0	4	*	3	*	5	29.4
Asotin	1	*	1	*	2	*	2	*	1	*
Benton	11	7.6	11	7.5	18	11.9	19	12.3	21	13.3
Chelan	4	*	3	*	2	*	2	*	6	8.7
Clallam	6	9.3	2	*	8	12.3	8	12.1	21	31.4
Clark	100	28.4	138	38.0	158	42.4	191	49.8	206	52.6
Columbia	0	0.0	0	0.0	0	0.0	0	0.0	2	*
Cowlitz	10	10.6	13	13.8	15	15.8	51	53.5	104	108.4
Douglas	1	*	3	*	3	*	2	*	2	*
Ferry	1	*	0	0.0	0	0.0	0	0.0	0	0.0
Franklin	14	27.8	4	*	2	*	7	12.3	17	28.1
Garfield	0	0.0	0	0.0	0	0.0	0	0.0	1	*
Grant	15	19.8	4	*	13	16.9	15	19.2	13	16.4
Grays Harbor	5	7.3	12	17.5	7	10.2	4	*	5	7.2
Island	10	13.8	15	20.5	23	31.1	14	18.7	31	40.8
Jefferson	1	*	2	*	2	*	3	*	2	*
King	1,555	88.4	1,462	82.4	1,351	75.9	1,265	70.7	1,785	98.7
Kitsap	127	54.4	81	34.5	91	38.4	70	29.2	76	31.6
Kittitas	1	*	2	*	7	19.9	3	*	8	21.9
Klickitat	1	*	2	*	2	*	8	41.5	5	25.6
Lewis	4	*	13	18.5	6	8.5	13	18.4	12	16.8
Lincoln	1	*	0	0.0	0	0.0	1	*	0	0.0
Mason	10	20.2	6	12.0	13	25.9	5	9.8	14	27.0
Okanogan	1	*	4	*	6	15.2	6	15.2	1	*
Pacific	0	0.0	0	0.0	4	*	1	*	3	*
Pend Oreille	2	*	0	0.0	0	0.0	1	*	2	*
Pierce	660	92.5	636	87.7	538	73.3	452	60.8	675	89.3
San Juan	0	0.0	1	*	2	*	0	0.0	0	0.0
Skagit	13	12.5	17	16.2	25	23.4	20	18.4	32	28.9
Skamania	0	0.0	1	*	0	0.0	2	*	3	*
Snohomish	189	30.6	190	30.3	139	21.8	166	25.7	244	37.2
Spokane	102	24.1	124	29.1	97	22.6	152	35.2	121	27.7
Stevens	4	*	2	*	5	12.3	2	*	5	12.1
Thurston	33	15.7	52	24.5	37	17.2	43	19.7	56	25.0
Wahkiakum	0	0.0	1	*	0	0.0	1	*	0	0.0
Walla Walla	3	*	3	*	2	*	8	14.1	1	*
Whatcom	23	13.5	53	30.8	57	32.7	65	36.7	117	64.7
Whitman	7	17.4	6	14.8	8	19.5	7	16.8	2	*
Yakima	74	33.0	61	27.1	107	47.3	198	87.0	139	60.6
STATEWIDE TOTAL										
CASES	2,991	50.1	2,925	48.4	2,754	45.2	2,810	45.6	3,738	59.7
DEATHS	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

* Incidence rates not calculated for < 5 cases.

GONORRHEA STATEWIDE BY YEAR

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1980	14,215	344.2	0	0.0
1981	13,204	310.7	0	0.0
1982	11,381	266.9	0	0.0
1983	9,895	230.9	0	0.0
1984	9,158	211.6	0	0.0
1985	10,073	229.8	0	0.0
1986	9,848	222.8	0	0.0
1987	8,909	198.8	0	0.0
1988	7,154	156.7	0	0.0
1989	6,369	136.7	0	0.0
1990	5,009	105.7	0	0.0
1991	4,441	88.8	0	0.0
1992	4,169	81.5	0	0.0
1993	3,740	71.4	0	0.0
1994	2,893	54.2	0	0.0
1995	2,765	50.9	0	0.0
1996	2,020	36.6	0	0.0
1997	1,955	34.9	0	0.0
1998	1,948	34.3	0	0.0
1999	2,132	37.0	0	0.0
2000	2,419	41.6	0	0.0
2001	2,991	50.1	0	0.0
2002	2,925	48.4	0	0.0
2003	2,754	45.2	0	0.0
2004	2,810	45.6	0	0.0
2005	3,738	59.7	0	0.0

GRANULOMA INGUINALE

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1985	0	0.0	0	0.0
1986	0	0.0	0	0.0
1987	1	0.0	0	0.0
1988	0	0.0	0	0.0
1989	0	0.0	0	0.0
1990	1	0.0	0	0.0
1991	2	0.0	0	0.0
1992	0	0.0	0	0.0
1993	0	0.0	0	0.0
1994	0	0.0	0	0.0
1995	0	0.0	0	0.0
1996	0	0.0	0	0.0
1997	0	0.0	0	0.0
1998	0	0.0	0	0.0
1999	0	0.0	0	0.0
2000	0	0.0	0	0.0
2001	0	0.0	0	0.0
2002	0	0.0	0	0.0
2003	0	0.0	0	0.0
2004	0	0.0	0	0.0
2005	0	0.0	0	0.0

HAEMOPHILUS INFLUENZAE INVASIVE DISEASE

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1980	126	3.0	0	0.0
1981	156	3.7	0	0.0
1982	149	3.5	6	0.1
1983	123	2.8	5	0.1
1984	110	2.5	5	0.1
1985	153	3.5	6	0.1
1986	319	7.1	11	0.2
1987	271	5.9	6	0.1
1988	200	4.3	0	0.0
1989	163	3.3	2	0.0
1990	123	2.5	6	0.1
1991	51	1.0	0	0.0
1992	22	0.4	1	0.0
1993	17	0.3	0	0.0
1994	10	0.2	0	0.0
1995	11	0.2	3	0.1
1996	10	0.2	0	0.0
1997	6	0.1	0	0.0
1998	11	0.2	1	0.0
1999	5	0.1	1	0.0
2000	8	0.1	0	0.0
2001*	7	1.8	0	0.0
2002*	5	1.3	0	0.0
2003*	13	3.3	1	0.3
2004*	4	1.0	0	0.0
2005*	5	1.2	0	0.0

*Rates for 2001-2005 are for 0-4 age populations.

HANTAVIRUS PULMONARY SYNDROME*

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1994	2	0.0	1**	0.0
1995	4	0.1	2	0.0
1996	4	0.1	2	0.0
1997	3	0.0	1	0.0
1998	2	0.0	0	0.0
1999	5	0.1	1	0.0
2000	1	0.0	0	0.0
2001	1	0.0	0	0.0
2002	1	0.0	0	0.0
2003	2	0.0	1	0.0
2004	2	0.0	0	0.0
2005	1	0.0	0	0.0

* Hantavirus Pulmonary Syndrome first became a notifiable condition in Washington in 12/2000.

**Out of state exposure.

Note: One retrospective case from 1985 was reported, for a total of 29 cases reported in Washington.

HEMOLYTIC UREMIC SYNDROME*

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
2001	3	0.1	0	0.0
2002	1	0.0	0	0.0
2003	1	0.0	0	0.0
2004	6	0.1	0	0.0
2005	4	0.1	0	0.0

* Hemolytic uremic syndrome first became a notifiable condition in Washington in 12/2000.

HEPATITIS A

Case, Death Rate/100,000 Population

	2001		2002		2003		2004		2005*	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	0	0.0	0	0.0	1	6.0	0	0.0	0	0.0
Asotin	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Benton	6	4.1	1	0.7	1	0.7	2	1.3	1	*
Chelan	5	7.5	1	1.5	0	0.0	2	2.9	1	*
Clallam	3	4.6	1	1.5	3	4.6	0	0.0	3	*
Clark	10	2.8	13	3.6	3	0.8	10	2.6	7	1.8
Columbia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cowlitz	4	4.3	2	2.1	0	0.0	2	2.1	2	*
Douglas	1	3.0	0	0.0	1	3.0	2	5.8	0	0.0
Ferry	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Franklin	0	0.0	1	1.9	2	3.7	0	0.0	0	0.0
Garfield	1	41.7	0	0.0	0	0.0	0	0.0	0	0.0
Grant	2	2.6	1	1.3	3	3.9	1	1.3	5	6.3
Grays Harbor	1	1.5	1	1.5	1	1.5	1	1.4	0	0.0
Island	1	1.4	4	5.5	0	0.0	1	1.3	0	0.0
Jefferson	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
King	31	1.8	30	1.7	28	1.6	17	1.0	16	0.9
Kitsap	7	3.0	5	2.1	0	0.0	3	1.3	1	*
Kittitas	0	0.0	2	5.7	1	2.8	0	0.0	0	0.0
Klickitat	0	0.0	0	0.0	0	0.0	2	10.4	0	0.0
Lewis	0	0.0	4	5.7	0	0.0	1	1.4	0	0.0
Lincoln	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Mason	1	2.0	2	4.0	1	2.0	0	0.0	0	0.0
Okanogan	0	0.0	0	0.0	2	5.1	1	2.5	0	0.0
Pacific	1	4.8	0	0.0	0	0.0	0	0.0	0	0.0
Pend Oreille	0	0.0	0	0.0	0	0.0	2	16.8	0	0.0
Pierce	55	7.7	61	8.4	6	0.8	2	0.3	5	0.7
San Juan	0	0.0	1	6.8	0	0.0	0	0.0	0	0.0
Skagit	8	7.7	3	2.9	0	0.0	1	0.9	1	*
Skamania	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Snohomish	8	1.3	14	2.2	5	0.8	5	0.8	11	1.7
Spokane	3	0.7	4	0.9	4	0.9	2	0.5	1	*
Stevens	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Thurston	13	6.2	6	2.8	3	1.4	3	1.4	3	*
Wahkiakum	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Walla Walla	1	1.8	0	0.0	0	0.0	2	3.5	0	0.0
Whatcom	4	2.3	2	1.2	9	5.2	5	2.8	2	*
Whitman	1	2.5	0	0.0	1	2.4	0	0.0	1	*
Yakima	17	7.6	3	1.3	1	0.4	2	0.9	3	*
STATEWIDE TOTAL										
CASES	184	3.1	162	2.7	76	1.2	69	1.1	63	1.0
DEATHS	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0

* Incidence rates not calculated for < 5 cases.

HEPATITIS A STATEWIDE BY YEAR

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1980	554	13.4	2	0.0
1981	791	18.6	0	0.0
1982	494	11.6	1	0.0
1983	268	6.3	1	0.0
1984	373	8.6	0	0.0
1985	702	16.0	2	0.0
1986	1,385	31.3	1	0.0
1987	2,589	57.8	1	0.0
1988	2,669	58.5	7	0.1
1989	3,273	70.2	5	0.1
1990	1,380	28.4	1	0.0
1991	608	12.2	3	0.0
1992	865	16.9	1	0.0
1993	926	17.7	1	0.0
1994	1,119	21.0	2	0.0
1995	937	17.3	9	0.2
1996	1,001	18.1	3	0.0
1997	1,019	18.2	1	0.0
1998	1,037	18.2	2	0.0
1999	505	8.8	1	0.0
2000	298	5.1	1	0.0
2001	184	3.1	0	0.0
2002	162	2.7	0	0.0
2003	76	1.2	0	0.0
2004	69	1.1	0	0.0
2005	63	1.0	1	0.0

HEPATITIS B (ACUTE)

Case, Death Rate/100,000 Population

	2001		2002		2003		2004		2005*	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Asotin	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Benton	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0
Chelan	1	1.5	0	0.0	0	0.0	0	0.0	0	0.0
Clallam	2	3.1	0	0.0	0	0.0	1	1.5	0	0.0
Clark	9	2.6	2	0.6	2	0.5	6	1.6	13	3.3
Columbia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cowlitz	22	23.4	11	11.7	3	3.2	3	3.1	5	5.2
Douglas	0	0.0	0	0.0	2	6.0	0	0.0	0	0.0
Ferry	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Franklin	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Garfield	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Grant	1	1.3	0	0.0	0	0.0	1	1.3	1	*
Grays Harbor	0	0.0	0	0.0	1	1.5	0	0.0	1	*
Island	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Jefferson	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
King	35	2.0	30	1.7	34	1.9	22	1.2	23	1.3
Kitsap	4	1.7	0	0.0	3	1.3	0	0.0	6	2.5
Kittitas	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Klickitat	2	10.4	0	0.0	0	0.0	0	0.0	0	0.0
Lewis	0	0.0	0	0.0	2	2.8	0	0.0	0	0.0
Lincoln	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Mason	1	2.0	2	4.0	1	2.0	1	2.0	0	0.0
Okanogan	1	2.5	0	0.0	0	0.0	0	0.0	0	0.0
Pacific	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pend Oreille	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pierce	7	1.0	5	0.7	5	0.7	4	0.5	5	0.7
San Juan	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Skagit	4	3.8	3	2.9	2	1.9	0	0.0	0	0.0
Skamania	0	0.0	0	0.0	0	0.0	1	9.9	0	0.0
Snohomish	13	2.1	5	0.8	9	1.4	11	1.7	6	0.9
Spokane	33	7.8	15	3.5	12	2.8	9	2.1	14	3.2
Stevens	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Thurston	2	1.0	2	0.9	3	1.4	0	0.0	1	*
Wahkiakum	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Walla Walla	0	0.0	0	0.0	1	1.8	0	0.0	0	0.0
Whatcom	30	17.6	7	4.1	9	5.2	1	0.6	4	*
Whitman	1	2.5	0	0.0	1	2.4	0	0.0	0	0.0
Yakima	2	0.9	1	0.4	0	0.0	4	1.8	1	*
STATEWIDE TOTAL										
CASES	171	2.9	83	1.4	90	1.5	64	1.0	80	1.3
DEATHS	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0

* Incidence rates not calculated for < 5 cases.

HEPATITIS B (ACUTE) STATEWIDE BY YEAR

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1980	257	6.2	6	0.1
1981	345	8.1	11	0.3
1982	358	8.4	2	0.0
1983	307	7.2	3	0.1
1984	317	7.3	2	0.0
1985	484	11.0	6	0.1
1986	989	22.4	8	0.2
1987	1,126	25.1	4	0.1
1988	979	21.4	6	0.1
1989	1,055	22.6	9	0.2
1990	616	12.7	7	0.1
1991	470	9.4	5	0.1
1992	399	7.8	1	0.0
1993	247	4.7	0	0.0
1994	255	4.8	2	0.0
1995	226	4.2	2	0.0
1996	158	2.9	1	0.0
1997	114	2.0	2	0.0
1998	136	2.4	0	0.0
1999	111	1.9	1	0.0
2000	132	2.2	5	0.1
2001	171	2.9	0	0.0
2002	83	1.4	0	0.0
2003	90	1.5	1	0.0
2004	64	1.0	1	0.0
2005	80	1.3	0	0.0

HEPATITIS C (ACUTE)

Case, Death Rate/100,000 Population

	2001		2002		2003		2004		2005*	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	0	0.0	1	6.0	0	0.0	0	0.0	0	0.0
Asotin	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Benton	1	0.7	0	0.0	0	0.0	1	0.6	0	0.0
Chelan	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Clallam	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Clark	1	0.3	0	0.0	0	0.0	0	0.0	0	0.0
Columbia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cowlitz	2	2.1	0	0.0	0	0.0	0	0.0	0	0.0
Douglas	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Ferry	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Franklin	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Garfield	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Grant	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Grays Harbor	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Island	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Jefferson	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
King	10	0.6	8	0.5	8	0.4	8	0.4	9	0.5
Kitsap	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Kittitas	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Klickitat	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Lewis	1	1.4	2	2.8	1	1.4	1	1.4	0	0.0
Lincoln	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Mason	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Okanogan	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pacific	0	0.0	2	9.5	0	0.0	0	0.0	0	0.0
Pend Oreille	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pierce	2	0.3	5	0.7	3	0.4	3	0.4	5	0.7
San Juan	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Skagit	1	1.0	1	1.0	0	0.0	3	2.8	2	*
Skamania	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Snohomish	2	0.3	1	0.2	2	0.3	0	0.0	1	*
Spokane	9	2.1	3	0.7	1	0.2	6	1.4	2	*
Stevens	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Thurston	0	0.0	1	0.5	4	1.9	0	0.0	0	0.0
Wahkiakum	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Walla Walla	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Whatcom	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Whitman	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Yakima	2	0.9	3	1.3	2	0.9	1	0.4	2	*
STATEWIDE TOTAL										
CASES	31	0.5	27	0.4	21	0.3	23	0.4	21	0.3
DEATHS	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0

* Incidence rates not calculated for < 5 cases.

HEPATITIS C (ACUTE) STATEWIDE BY YEAR

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1981	54	1.3	8	0.2
1982	94	2.2	0	0.0
1983	151	3.5	1	0.0
1984	131	3.0	2	0.0
1985	145	3.3	1	0.0
1986	167	3.8	7	0.2
1987	207	4.6	1	0.0
1988	232	5.1	2	0.0
1989	208	4.5	4	0.1
1990	141	2.9	6	0.1
1991	164	3.3	4	0.1
1992	186	3.6	1	0.0
1993	219	4.2	1	0.0
1994	294	5.5	0	0.0
1995	234	4.3	1	0.0
1996	66	1.2	1	0.0
1997	42	0.7	0	0.0
1998	29	0.5	0	0.0
1999	24	0.4	0	0.0
2000	44	0.7	0	0.0
2001	31	0.5	0	0.0
2002	27	0.4	0	0.0
2003	21	0.3	0	0.0
2004	23	0.4	1	0.0
2005	21	0.3	0	0.0

HERPES SIMPLEX*

Case, Death Rate/100,000 Population

	2001		2002		2003		2004		2005	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	11	66.3	6	36.1	4	*	3	*	2	*
Asotin	11	53.1	11	53.1	17	82.5	9	43.5	18	86.1
Benton	41	28.3	34	23.0	59	38.9	40	25.8	38	24.0
Chelan	22	32.8	15	22.2	19	28.0	27	39.5	23	33.2
Clallam	27	41.7	30	46.2	32	49.0	24	36.4	29	43.4
Clark	51	14.5	56	15.4	44	11.8	42	11.0	72	18.4
Columbia	1	*	0	0.0	0	0.0	0	0.0	2	*
Cowlitz	16	17.0	15	15.9	18	19.0	18	18.9	30	31.3
Douglas	14	42.7	6	18.1	9	26.8	8	23.4	15	43.2
Ferry	2	*	0	0.0	0	0.0	3	*	0	0.0
Franklin	17	33.7	10	19.5	10	18.7	11	19.3	15	24.8
Garfield	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Grant	15	19.8	13	17.0	15	19.5	30	38.3	22	27.8
Grays Harbor	8	11.7	16	23.4	9	13.1	10	14.5	11	15.8
Island	16	22.1	22	30.1	20	27.0	35	46.8	34	44.7
Jefferson	9	34.5	7	26.3	7	26.2	11	40.7	14	50.7
King	672	38.2	650	36.6	688	38.7	700	39.1	798	44.1
Kitsap	59	25.3	80	34.1	64	27.0	54	22.5	67	27.9
Kittitas	12	35.3	12	34.5	9	25.6	8	22.3	18	49.2
Klickitat	1	*	5	25.9	3	*	3	*	0	0.0
Lewis	7	10.1	23	32.8	15	21.3	19	26.9	25	34.9
Lincoln	0	0.0	0	0.0	1	*	1	*	2	*
Mason	11	22.2	14	28.1	15	29.9	14	27.6	20	38.5
Okanogan	8	20.2	4	*	16	40.4	12	30.3	13	32.8
Pacific	3	*	4	*	2	*	3	*	2	*
Pend Oreille	2	*	4	*	4	*	4	*	4	*
Pierce	186	26.1	221	30.5	236	32.2	194	26.1	231	30.6
San Juan	1	*	5	34.2	2	*	5	33.1	2	*
Skagit	27	25.9	35	33.3	41	38.4	84	77.2	65	58.6
Skamania	0	0.0	0	0.0	0	0.0	3	*	0	0.0
Snohomish	244	39.4	268	32.7	268	42.0	286	44.4	305	46.5
Spokane	123	29.1	147	34.5	163	38.0	172	39.8	155	35.5
Stevens	6	14.9	2	*	6	14.8	6	14.7	5	12.1
Thurston	38	18.1	55	25.9	87	40.5	70	32.0	82	36.6
Wahkiakum	0	0.0	0	0.0	1	*	1	*	0	0.0
Walla Walla	12	21.7	9	16.2	15	26.9	23	40.6	22	38.3
Whatcom	37	21.7	55	31.9	80	45.8	87	49.1	77	42.6
Whitman	5	12.4	4	*	12	29.3	8	19.2	14	33.0
Yakima	121	53.9	76	33.8	82	36.3	125	54.9	99	43.2
STATEWIDE TOTAL										
CASES	1,836	30.7	1,914	31.7	2,073	34.0	2,153	34.9	2,331	37.3
DEATHS	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

* Incidence rates not calculated for < 5 cases.

LEGIONELLOSIS

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1985	7	0.2	2	0.1
1986	15	0.3	8	0.2
1987	24	0.5	3	0.1
1988	29	0.6	4	0.1
1989	30	0.6	5	0.1
1990	18	0.4	4	0.1
1991	15	0.3	5	0.1
1992	15	0.3	5	0.1
1993	12	0.2	2	0.0
1994	13	0.2	2	0.0
1995	22	0.4	6	0.1
1996	7	0.1	2	0.0
1997	11	0.2	0	0.0
1998	15	0.3	2	0.0
1999	21	0.4	4	0.1
2000	19	0.3	1	0.0
2001	10	0.2	1	0.0
2002	8	0.1	3	0.1
2003	14	0.2	1	0.0
2004	15	0.2	4	0.1
2005	18	0.3	1	0.0

LEPTOSPIROSIS

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1985	0	0.0	0	0.0
1986	0	0.0	0	0.0
1987	0	0.0	0	0.0
1988	0	0.0	0	0.0
1989	0	0.0	0	0.0
1990	0	0.0	0	0.0
1991	0	0.0	0	0.0
1992	0	0.0	0	0.0
1993	0	0.0	0	0.0
1994	0	0.0	0	0.0
1995	0	0.0	0	0.0
1996	2	0.0	0	0.0
1997	2	0.0	0	0.0
1998	0	0.0	0	0.0
1999	0	0.0	0	0.0
2000	0	0.0	0	0.0
2001	4	0.1	0	0.0
2002	0	0.0	0	0.0
2003	1	0.0	0	0.0
2004	0	0.0	0	0.0
2005	4	0.1	0	0.0

LISTERIOSIS

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1985	21	0.5	1	0.0
1986	37	0.8	5	0.1
1987	36	0.8	6	0.1
1988	38	0.8	4	0.1
1989	21	0.5	2	0.0
1990	22	0.5	3	0.1
1991	18	0.4	6	0.1
1992	13	0.3	0	0.0
1993	21	0.4	2	0.0
1994	13	0.2	3	0.1
1995	24	0.4	1	0.0
1996	11	0.2	3	0.1
1997	17	0.3	1	0.0
1998	12	0.2	3	0.1
1999	19	0.3	5	0.1
2000	12	0.2	2	0.0
2001	15	0.3	1	0.0
2002	11	0.2	0	0.0
2003	13	0.2	3	0.0
2004	13	0.2	3	0.0
2005	14	0.2	3	0.0

LYME DISEASE

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1985	0	0.0	0	0.0
1986	1	0.0	0	0.0
1987	10	0.2	0	0.0
1988	12	0.3	0	0.0
1989	37	0.8	0	0.0
1990	33	0.7	0	0.0
1991	7	0.1	0	0.0
1992	14	0.3	0	0.0
1993	9	0.2	0	0.0
1994	4	0.1	0	0.0
1995	10	0.2	0	0.0
1996	18	0.3	0	0.0
1997	10	0.2	0	0.0
1998	7	0.1	0	0.0
1999	14	0.2	0	0.0
2000	9	0.2	0	0.0
2001	9	0.2	0	0.0
2002	12	0.2	0	0.0
2003	7	0.1	0	0.0
2004	14	0.2	0	0.0
2005	13	0.2	0	0.0

LYMPHOGRANULOMA VENEREUM

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1985	1	0.0	0	0.0
1986	0	0.0	0	0.0
1987	5	0.1	0	0.0
1988	1	0.0	0	0.0
1989	7	0.1	0	0.0
1990	1	0.0	0	0.0
1991	2	0.0	0	0.0
1992	2	0.0	0	0.0
1993	4	0.1	0	0.0
1994	3	0.1	0	0.0
1995	1	0.0	0	0.0
1996	1	0.0	0	0.0
1997	0	0.0	0	0.0
1998	0	0.0	0	0.0
1999	0	0.0	0	0.0
2000	1	0.0	0	0.0
2001	0	0.0	0	0.0
2002	0	0.0	0	0.0
2003	1	0.0	0	0.0
2004	0	0.0	0	0.0
2005	3	0.0	0	0.0

MALARIA

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1981	30	0.7	0	0.0
1982	24	0.6	0	0.0
1983	15	0.3	0	0.0
1984	20	0.5	0	0.0
1985	34	0.8	0	0.0
1986	35	0.8	0	0.0
1987	28	0.6	0	0.0
1988	24	0.5	0	0.0
1989	44	0.9	0	0.0
1990	33	0.7	0	0.0
1991	29	0.6	0	0.0
1992	21	0.4	0	0.0
1993	41	0.8	0	0.0
1994	45	0.8	0	0.0
1995	23	0.4	0	0.0
1996	41	0.7	0	0.0
1997	49	0.9	0	0.0
1998	30	0.5	0	0.0
1999	43	0.7	0	0.0
2000	43	0.7	0	0.0
2001	19	0.3	0	0.0
2002	26	0.4	0	0.0
2003	34	0.6	0	0.0
2004	24	0.4	0	0.0
2005	24	0.4	0	0.0

MEASLES

Case, Death Rate/100,000 Population

	2001		2002		2003		2004		2005*	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Asotin	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Benton	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chelan	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Clallam	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Clark	1	0.3	1	0.3	0	0.3	0	0.0	0	0.0
Columbia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cowlitz	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Douglas	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Ferry	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Franklin	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Garfield	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Grant	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Grays Harbor	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Island	2	2.8	0	0.0	0	0.0	0	0.0	0	0.0
Jefferson	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
King	12	0.7	0	0.0	0	0.0	6	0.3	1	*
Kitsap	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Kittitas	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Klickitat	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Lewis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Lincoln	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Mason	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Okanogan	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pacific	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pend Oreille	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pierce	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
San Juan	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Skagit	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Skamania	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Snohomish	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0
Spokane	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Stevens	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Thurston	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Wahkiakum	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Walla Walla	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Whatcom	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Whitman	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Yakima	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
STATEWIDE TOTAL										
CASES	15	0.3	1	0.0	0	0.0	7	0.1	1	0.0
DEATHS	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

* Incidence rates not calculated for < 5 cases.

MEASLES STATEWIDE BY YEAR

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1980	178	4.2	0	0.0
1981	3	0.1	0	0.0
1982	42	1.0	0	0.0
1983	43	1.0	0	0.0
1984	178	4.1	0	0.0
1985	178	4.0	0	0.0
1986	176	3.9	0	0.0
1987	47	1.0	0	0.0
1988	7	0.2	0	0.0
1989	56	1.2	0	0.0
1990	357	7.1	2	0.0
1991	67	1.3	0	0.0
1992	11	0.2	0	0.0
1993	0	0.0	0	0.0
1994	5	0.1	0	0.0
1995	17	0.3	0	0.0
1996	38	0.7	0	0.0
1997	2	0.0	0	0.0
1998	1	0.0	0	0.0
1999	5	0.1	0	0.0
2000	3	0.1	0	0.0
2001	15	0.3	0	0.0
2002	1	0.0	0	0.0
2003	0	0.0	0	0.0
2004	7	0.1	0	0.0
2005	1	0.0	0	0.0

MENINGOCOCCAL DISEASE

Case, Death Rate/100,000 Population

	2001		2002		2003		2004		2005*	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Asotin	0	0.0	1	4.8	1	4.9	0	0.0	0	0.0
Benton	0	0.0	1	0.7	0	0.0	0	0.0	0	0.0
Chelan	0	0.0	2	3.0	1	1.5	0	0.0	0	0.0
Clallam	0	0.0	0	0.0	0	0.0	0	0.0	1	*
Clark	12	3.4	11	3.0	5	1.3	3	0.8	6	1.5
Columbia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cowlitz	3	3.2	0	0.0	2	2.1	0	0.0	3	*
Douglas	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Ferry	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Franklin	0	0.0	2	3.9	0	0.0	0	0.0	0	0.0
Garfield	0	0.0	0	0.0	0	0.0	1	41.7	1	*
Grant	1	1.3	1	1.3	0	0.0	1	1.3	1	*
Grays Harbor	0	0.0	0	0.0	1	1.5	0	0.0	1	*
Island	0	0.0	1	1.4	2	2.7	1	1.3	0	0.0
Jefferson	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
King	14	0.8	21	1.2	8	0.4	17	1.0	14	0.8
Kitsap	5	2.1	0	0.0	3	1.3	2	0.8	1	*
Kittitas	0	0.0	1	2.9	0	0.0	0	0.0	0	0.0
Klickitat	0	0.0	0	0.0	1	5.2	0	0.0	0	0.0
Lewis	0	0.0	0	0.0	5	7.1	0	0.0	2	*
Lincoln	0	0.0	0	0.0	0	0.0	0	0.0	1	*
Mason	3	6.0	0	0.0	0	0.0	1	2.0	0	0.0
Okanogan	0	0.0	0	0.0	1	2.5	0	0.0	0	0.0
Pacific	0	0.0	2	9.5	1	4.8	1	4.8	1	*
Pend Oreille	1	8.5	0	0.0	0	0.0	1	8.4	0	0.0
Pierce	9	1.3	11	1.5	10	1.4	4	0.5	7	0.9
San Juan	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Skagit	1	1.0	6	5.7	4	3.7	0	0.0	0	0.0
Skamania	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Snohomish	5	0.8	5	0.8	6	0.9	3	0.5	4	*
Spokane	8	1.9	2	0.5	4	0.9	3	0.7	5	1.1
Stevens	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Thurston	2	1.0	1	0.5	1	0.5	1	0.5	0	0.0
Wahkiakum	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Walla Walla	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Whatcom	3	1.8	1	0.6	2	1.1	0	0.0	3	*
Whitman	2	5.0	2	4.9	0	0.0	1	2.4	0	0.0
Yakima	2	0.9	5	2.2	3	1.3	2	0.9	2	*
STATEWIDE TOTAL										
CASES	71	1.2	76	1.3	61	1.0	42	0.7	53	0.8
DEATHS	6	0.1	8	0.1	7	0.1	4	0.1	4	0.1

* Incidence rates not calculated for < 5 cases.

MENINGOCOCCAL DISEASE STATEWIDE BY YEAR

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1980	67	1.6	2	0.0
1981	78	1.8	3	0.1
1982	56	1.3	2	0.0
1983	48	1.1	3	0.1
1984	56	1.3	3	0.1
1985	67	1.5	6	0.1
1986	62	1.4	5	0.1
1987	87	1.9	4	0.1
1988	76	1.7	3	0.1
1989	96	2.1	12	0.2
1990	80	1.6	5	0.1
1991	73	1.5	8	0.1
1992	92	1.8	5	0.1
1993	97	1.9	6	0.1
1994	111	2.1	7	0.1
1995	126	2.3	7	0.1
1996	116	2.1	10	0.2
1997	115	2.1	11	0.2
1998	77	1.4	7	0.1
1999	93	1.6	4	0.1
2000	71	1.2	6	0.1
2001	71	1.2	6	0.1
2002	76	1.3	8	0.1
2003	61	1.0	7	0.1
2004	42	0.7	4	0.1
2005	53	0.8	4	0.1

MUMPS

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1980	166	4.0	0	0.0
1981	165	3.9	0	0.0
1982	102	2.4	0	0.0
1983	55	1.3	0	0.0
1984	56	1.3	0	0.0
1985	42	1.0	0	0.0
1986	30	0.7	0	0.0
1987	70	1.6	0	0.0
1988	44	1.0	0	0.0
1989	59	1.3	0	0.0
1990	66	1.4	0	0.0
1991	178	3.6	0	0.0
1992	18	0.4	0	0.0
1993	14	0.3	0	0.0
1994	23	0.4	0	0.0
1995	16	0.3	0	0.0
1996	26	0.5	0	0.0
1997	21	0.4	0	0.0
1998	11	0.2	0	0.0
1999	2	0.0	0	0.0
2000	10	0.2	0	0.0
2001	2	0.0	0	0.0
2002	0	0.0	0	0.0
2003	11	0.2	0	0.0
2004	2	0.0	0	0.0
2005	3	0.0	0	0.0

PARALYTIC SHELLFISH POISONING

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1985	3	0.1	0	0.0
1986	0	0.0	0	0.0
1987	0	0.0	0	0.0
1988	7	0.2	0	0.0
1989	0	0.0	0	0.0
1990	0	0.0	0	0.0
1991	0	0.0	0	0.0
1992	0	0.0	0	0.0
1993	0	0.0	0	0.0
1994	0	0.0	0	0.0
1995	0	0.0	0	0.0
1996	0	0.0	0	0.0
1997	0	0.0	0	0.0
1998	5	0.1	0	0.0
1999	0	0.0	0	0.0
2000	7	0.1	0	0.0
2001	0	0.0	0	0.0
2002	0	0.0	0	0.0
2003	0	0.0	0	0.0
2004	0	0.0	0	0.0
2005	1	0.0	0	0.0

PERTUSSIS

Case, Death Rate/100,000 Population

	2001		2002		2003		2004		2005*	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	0	0.0	1	6.0	2	12.0	1	6.0	0	0.0
Asotin	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Benton	2	1.4	1	0.7	5	3.3	0	0.0	7	4.4
Chelan	2	3.0	8	11.8	2	2.9	2	2.9	1	*
Clallam	1	1.5	2	3.1	2	3.1	2	3.0	5	7.5
Clark	3	0.9	22	6.1	38	10.2	21	5.5	61	15.6
Columbia	1	24.4	0	0.0	1	24.4	0	0.0	0	0.0
Cowlitz	3	3.2	26	27.5	3	3.2	10	10.5	4	*
Douglas	1	3.0	2	6.0	0	0.0	0	0.0	0	0.0
Ferry	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Franklin	0	0.0	1	1.9	2	3.7	1	1.8	2	*
Garfield	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Grant	0	0.0	1	1.3	0	0.0	0	0.0	4	*
Grays Harbor	0	0.0	5	7.3	0	0.0	2	2.9	2	*
Island	1	1.4	2	2.7	21	28.4	6	8.0	5	6.6
Jefferson	10	38.3	0	0.0	1	3.7	19	70.4	8	29.0
King	40	2.3	153	8.6	294	16.5	190	10.6	316	17.5
Kitsap	28	12.0	5	2.1	15	6.3	8	3.3	60	25.0
Kittitas	0	0.0	0	0.0	1	2.8	0	0.0	5	13.7
Klickitat	0	0.0	0	0.0	1	5.2	6	31.1	0	0.0
Lewis	3	4.3	0	0.0	2	2.8	0	0.0	14	19.6
Lincoln	0	0.0	0	0.0	0	0.0	1	9.8	1	*
Mason	1	2.0	1	2.0	2	4.0	3	5.9	5	9.6
Okanogan	0	0.0	2	5.0	0	0.0	2	5.1	0	0.0
Pacific	1	4.8	1	4.8	0	0.0	0	0.0	0	0.0
Pend Oreille	0	0.0	0	0.0	0	0.0	1	8.4	0	0.0
Pierce	39	5.5	124	17.1	211	28.8	68	9.1	70	9.3
San Juan	1	6.9	1	6.8	18	121.6	1	6.6	12	77.4
Skagit	1	1.0	70	66.6	45	42.2	8	7.4	40	36.1
Skamania	0	0.0	2	20.2	0	0.0	1	9.9	0	0.0
Snohomish	7	1.1	35	5.6	95	14.9	40	6.2	55	8.4
Spokane	2	0.5	0	0.0	4	0.9	43	10.0	19	4.4
Stevens	0	0.0	0	0.0	0	0.0	1	2.5	0	0.0
Thurston	11	5.2	11	5.2	13	6.1	13	5.9	14	6.2
Wahkiakum	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Walla Walla	0	0.0	0	0.0	0	0.0	0	0.0	4	*
Whatcom	23	13.5	13	7.5	46	26.4	303	170.9	120	66.4
Whitman	0	0.0	1	2.5	2	4.9	23	55.2	3	*
Yakima	3	1.3	85	37.8	18	8.0	66	29.0	189	82.4
STATEWIDE TOTAL										
CASES	184	3.1	575	9.5	844	13.8	842	13.7	1,026	16.4
DEATHS	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

* Incidence rates not calculated for < 5 cases.

PERTUSSIS STATEWIDE BY YEAR

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1980	77	1.9	0	0.0
1981	58	1.4	1	0.0
1982	36	0.8	1	0.0
1983	20	0.5	0	0.0
1984	326	7.5	1	0.0
1985	92	2.1	0	0.0
1986	163	3.7	2	0.0
1987	110	2.5	0	0.0
1988	130	2.8	1	0.0
1989	201	4.3	0	0.0
1990	227	4.7	0	0.0
1991	149	3.0	0	0.0
1992	241	4.7	0	0.0
1993	96	1.8	0	0.0
1994	140	2.6	0	0.0
1995	491	9.0	0	0.0
1996	830	15.0	1	0.0
1997	481	8.6	0	0.0
1998	406	7.1	1	0.0
1999	739	12.8	0	0.0
2000	458	7.8	1	0.0
2001	184	3.1	0	0.0
2002	575	9.5	0	0.0
2003	844	13.8	0	0.0
2004	842	13.7	0	0.0
2005	1,026	16.4	0	0.0

PLAGUE

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1985	0	0.0	0	0.0
1986	0	0.0	0	0.0
1987	0	0.0	0	0.0
1988	0	0.0	0	0.0
1989	0	0.0	0	0.0
1990	0	0.0	0	0.0
1991	0	0.0	0	0.0
1992	0	0.0	0	0.0
1993	0	0.0	0	0.0
1994	0	0.0	0	0.0
1995	0	0.0	0	0.0
1996	0	0.0	0	0.0
1997	0	0.0	0	0.0
1998	0	0.0	0	0.0
1999	0	0.0	0	0.0
2000	0	0.0	0	0.0
2001	0	0.0	0	0.0
2002	0	0.0	0	0.0
2003	0	0.0	0	0.0
2004	0	0.0	0	0.0
2005	0	0.0	0	0.0

POLIOMYELITIS

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1985	0	0.0	0	0.0
1986	0	0.0	0	0.0
1987	1*	0.0	0	0.0
1988	1*	0.0	0	0.0
1989	0	0.0	0	0.0
1990	0	0.0	0	0.0
1991	1*	0.0	0	0.0
1992	1*	0.0	0	0.0
1993	1*	0.0	0	0.0
1994	0	0.0	0	0.0
1995	0	0.0	0	0.0
1996	0	0.0	0	0.0
1997	0	0.0	0	0.0
1998	0	0.0	0	0.0
1999	0	0.0	0	0.0
2000	0	0.0	0	0.0
2001	0	0.0	0	0.0
2002	0	0.0	0	0.0
2003	0	0.0	0	0.0
2004	0	0.0	0	0.0
2005	0	0.0	0	0.0

*Vaccine-associated cases.

PSITTACOSIS

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1985	3	0.1	1	0.0
1986	7	0.2	0	0.0
1987	12	0.3	0	0.0
1988	8	0.2	0	0.0
1989	4	0.1	1	0.0
1990	5	0.1	0	0.0
1991	6	0.1	0	0.0
1992	13	0.3	0	0.0
1993	4	0.1	0	0.0
1994	4	0.1	0	0.0
1995	7	0.1	0	0.0
1996	4	0.1	0	0.0
1997	0	0.0	0	0.0
1998	3	0.1	0	0.0
1999	0	0.0	0	0.0
2000	1	0.0	0	0.0
2001	0	0.0	0	0.0
2002	0	0.0	0	0.0
2003	0	0.0	0	0.0
2004	0	0.0	0	0.0
2005	1	0.0	0	0.0

Q FEVER

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1985	1	0.0	0	0.0
1986	2	0.0	0	0.0
1987	1	0.0	1	0.0
1988	1	0.0	0	0.0
1989	0	0.0	0	0.0
1990	2	0.0	0	0.0
1991	0	0.0	0	0.0
1992	1	0.0	0	0.0
1993	0	0.0	0	0.0
1994	0	0.0	0	0.0
1995	1	0.0	0	0.0
1996	0	0.0	0	0.0
1997	0	0.0	0	0.0
1998	0	0.0	0	0.0
1999	1	0.0	0	0.0
2000	0	0.0	0	0.0
2001	0	0.0	0	0.0
2002	0	0.0	0	0.0
2003	0	0.0	0	0.0
2004	0	0.0	0	0.0
2005	2	0.0	0	0.0

RABIES

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1985	0	0.0	0	0.0
1986	0	0.0	0	0.0
1987	0	0.0	0	0.0
1988	0	0.0	0	0.0
1989	0	0.0	0	0.0
1990	0	0.0	0	0.0
1991	0	0.0	0	0.0
1992	0	0.0	0	0.0
1993	0	0.0	0	0.0
1994	0	0.0	0	0.0
1995	1	0.0	1	0.0
1996	0	0.0	0	0.0
1997	1	0.0	1	0.0
1998	0	0.0	0	0.0
1999	0	0.0	0	0.0
2000	0	0.0	0	0.0
2001	0	0.0	0	0.0
2002	0	0.0	0	0.0
2003	0	0.0	0	0.0
2004	0	0.0	0	0.0
2005	0	0.0	0	0.0

RELAPSING FEVER

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1985	4	0.1	0	0.0
1986	2	0.0	0	0.0
1987	7	0.1	1	0.0
1988	5	0.1	0	0.0
1989	5	0.0	0	0.0
1990	4	0.1	0	0.0
1991	6	0.1	0	0.0
1992	6	0.1	0	0.0
1993	2	0.0	0	0.0
1994	9	0.2	0	0.0
1995	12	0.2	0	0.0
1996	8	0.2	0	0.0
1997	4	0.1	0	0.0
1998	5	0.1	0	0.0
1999	3	0.1	0	0.0
2000	5	0.1	1	0.0
2001	1	0.1	0	0.0
2002	7	0.1	0	0.0
2003	6	0.1	0	0.0
2004	6	0.1	0	0.0
2005	6	0.1	0	0.0

RUBELLA

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1981	108	2.5	0	0.0
1982	58	1.4	0	0.0
1983	10	0.2	0	0.0
1984	2	0.1	0	0.0
1985	16	0.4	0	0.0
1986	15	0.3	0	0.0
1987	2	0.0	0	0.0
1988	0	0.0	0	0.0
1989	2	0.0	0	0.0
1990	6	0.1	0	0.0
1991	8	0.2	0	0.0
1992	8	0.2	0	0.0
1993	3	0.1	0	0.0
1994	0	0.0	0	0.0
1995	2	0.0	0	0.0
1996	15	0.3	0	0.0
1997	5	0.1	0	0.0
1998	5	0.1	0	0.0
1999	5	0.1	0	0.0
2000	8	0.1	0	0.0
2001	0	0.0	0	0.0
2002	2	0.0	0	0.0
2003	0	0.0	0	0.0
2004	0	0.0	0	0.0
2005	1	0.0	0	0.0

SALMONELLOSIS

Case, Death Rate/100,000 Population

	2001		2002		2003		2004		2005*	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	4	24.1	1	6.0	1	6.0	1	6.0	4	*
Asotin	0	0.0	0	0.0	7	34.0	5	24.2	2	*
Benton	14	9.7	13	8.8	24	15.8	21	13.5	19	12.0
Chelan	7	10.4	10	14.8	5	7.4	2	2.9	8	11.6
Clallam	14	21.6	10	15.4	1	1.5	5	7.6	4	*
Clark	25	7.1	33	9.1	39	10.5	36	9.4	40	10.2
Columbia	1	24.4	0	0.0	2	48.8	1	24.4	0	0.0
Cowlitz	9	9.6	7	7.4	5	5.3	18	18.9	4	*
Douglas	1	3.0	4	12.1	7	20.8	0	0.0	0	0.0
Ferry	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Franklin	5	9.9	8	15.6	7	13.1	13	22.8	7	11.6
Garfield	0	0.0	0	0.0	0	0.0	1	41.7	1	*
Grant	6	7.9	22	28.8	7	9.1	5	6.4	5	6.3
Grays Harbor	8	11.7	13	19.0	9	13.1	12	17.3	3	*
Island	3	4.1	4	5.5	5	6.8	1	1.3	10	13.2
Jefferson	3	11.5	2	7.5	4	15.0	2	7.4	2	*
King	261	14.8	211	11.9	246	13.8	236	13.2	214	11.8
Kitsap	15	6.4	18	7.7	12	5.1	14	5.8	19	7.9
Kittitas	1	2.9	5	14.4	3	8.5	2	5.6	4	*
Klickitat	3	15.5	1	5.2	1	5.2	6	31.1	2	*
Lewis	9	12.9	5	7.1	2	2.8	1	1.4	2	*
Lincoln	1	9.8	0	0.0	2	19.8	0	0.0	0	0.0
Mason	2	4.0	3	6.0	6	12.0	2	3.9	4	*
Okanogan	8	20.2	1	2.5	8	20.2	2	5.1	2	*
Pacific	4	19.0	1	4.8	3	14.4	1	4.8	2	*
Pend Oreille	0	0.0	0	0.0	1	8.5	0	0.0	0	0.0
Pierce	76	10.7	60	8.3	64	8.7	69	9.3	52	6.9
San Juan	0	0.0	1	6.8	0	0.0	3	19.9	1	*
Skagit	11	10.6	13	12.4	8	7.5	11	10.1	13	11.7
Skamania	1	10.1	1	10.1	0	0.0	0	0.0	0	0.0
Snohomish	65	10.5	78	12.4	70	11.0	67	10.4	69	10.5
Spokane	42	9.9	26	6.1	30	7.0	31	7.2	40	9.2
Stevens	2	5.0	4	9.9	13	32.0	1	2.5	1	*
Thurston	22	10.5	17	8.0	17	7.9	24	11.0	23	10.3
Wahkiakum	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Walla Walla	4	7.2	10	18.1	10	17.9	3	5.3	1	*
Whatcom	20	11.7	16	9.3	23	13.2	19	10.7	16	8.8
Whitman	3	7.4	2	4.9	2	4.9	10	24.0	0	0.0
Yakima	31	13.8	55	24.4	55	24.3	35	15.4	52	22.7
STATEWIDE TOTAL										
CASES	681	11.4	655	10.8	699	11.5	660	10.7	626	10.0
DEATHS	2	0.0	0	0.0	1	0.0	2	0.0	0	0.0

* Incidence rates not calculated for < 5 cases.

SALMONELLOSIS STATEWIDE BY YEAR

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1980	462	11.2	0	0.0
1981	574	13.5	1	0.0
1982	749	17.6	0	0.0
1983	739	17.2	0	0.0
1984	515	11.9	0	0.0
1985	565	12.9	0	0.0
1986	783	17.7	2	0.0
1987	660	14.7	1	0.0
1988	612	13.4	0	0.0
1989	630	13.5	2	0.0
1990	634	13.4	6	0.1
1991	791	15.8	1	0.0
1992	609	11.9	1	0.0
1993	830	15.8	0	0.0
1994	863	16.2	0	0.0
1995	691	12.7	0	0.0
1996	734	13.3	0	0.0
1997	675	12.0	0	0.0
1998	703	12.4	2	0.0
1999	792	13.8	2	0.0
2000	659	11.2	1	0.0
2001	681	11.4	2	0.0
2002	655	10.8	0	0.0
2003	699	11.5	1	0.0
2004	660	10.7	2	0.0
2005	626	10.0	0	0.0

SHIGELLOSIS

Case, Death Rate/100,000 Population

	2001		2002		2003		2004		2005*	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Asotin	0	0.0	1	4.8	0	0.0	0	0.0	0	0.0
Benton	8	5.5	5	3.4	3	2.0	3	1.9	5	3.2
Chelan	10	14.9	0	0.0	1	1.5	0	0.0	4	*
Clallam	1	1.5	0	0.0	0	0.0	0	0.0	0	0.0
Clark	5	1.4	8	2.2	5	1.3	10	2.6	10	2.6
Columbia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cowlitz	1	1.1	1	1.1	1	1.1	15	15.7	2	*
Douglas	2	6.1	0	0.0	0	0.0	0	0.0	1	*
Ferry	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Franklin	3	6.0	1	1.9	0	0.0	0	0.0	0	0.0
Garfield	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Grant	1	1.3	2	2.6	5	6.5	1	1.3	3	*
Grays Harbor	0	0.0	1	1.5	0	0.0	0	0.0	0	0.0
Island	2	2.8	0	0.0	0	0.0	0	0.0	1	*
Jefferson	1	3.8	0	0.0	0	0.0	0	0.0	1	*
King	110	6.3	84	4.7	95	5.3	56	3.1	72	4.0
Kitsap	5	2.1	2	0.9	2	0.8	4	1.7	1	*
Kittitas	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Klickitat	0	0.0	0	0.0	0	0.0	1	5.2	1	*
Lewis	1	1.4	2	2.8	0	0.0	0	0.0	2	*
Lincoln	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Mason	1	2.0	1	2.0	0	0.0	0	0.0	0	0.0
Okanogan	0	0.0	1	2.5	0	0.0	4	10.1	1	*
Pacific	0	0.0	4	19.0	0	0.0	0	0.0	0	0.0
Pend Oreille	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pierce	12	1.7	58	8.0	21	2.9	12	1.6	12	1.6
San Juan	2	13.9	1	6.8	0	0.0	0	0.0	0	0.0
Skagit	10	9.6	1	1.0	1	0.9	5	4.6	10	9.0
Skamania	1	10.1	0	0.0	0	0.0	0	0.0	0	0.0
Snohomish	19	3.1	17	2.7	17	2.7	10	1.6	16	2.4
Spokane	6	1.4	7	1.6	10	2.3	1	0.2	6	1.4
Stevens	1	2.5	0	0.0	0	0.0	0	0.0	0	0.0
Thurston	4	1.9	3	1.4	1	0.5	1	0.5	3	*
Wahkiakum	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Walla Walla	1	1.8	0	0.0	1	1.8	0	0.0	0	0.0
Whatcom	9	5.3	2	1.2	6	3.4	3	1.7	5	2.8
Whitman	0	0.0	0	0.0	1	2.4	0	0.0	0	0.0
Yakima	20	8.9	28	12.4	18	8.0	7	3.1	29	12.6
STATEWIDE TOTAL										
CASES	236	3.9	230	3.8	188	3.1	133	2.2	185	3.0
DEATHS	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

* Incidence rates not calculated for < 5 cases.

SHIGELLOSIS STATEWIDE BY YEAR

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1980	287	6.9	0	0.0
1981	426	10.0	1	0.0
1982	284	6.7	0	0.0
1983	370	8.6	0	0.0
1984	224	5.2	0	0.0
1985	144	3.3	0	0.0
1986	321	7.3	0	0.0
1987	318	7.1	0	0.0
1988	306	6.7	0	0.0
1989	232	5.0	0	0.0
1990	278	5.7	0	0.0
1991	405	8.1	0	0.0
1992	439	8.6	0	0.0
1993	797	15.2	0	0.0
1994	478	9.0	0	0.0
1995	426	7.8	0	0.0
1996	333	6.0	1	0.0
1997	318	5.7	0	0.0
1998	277	4.9	0	0.0
1999	172	3.0	0	0.0
2000	501	8.5	0	0.0
2001	236	3.9	0	0.0
2002	230	3.8	0	0.0
2003	188	3.1	0	0.0
2004	133	2.2	0	0.0
2005	185	3.0	0	0.0

SYPHILIS (PRIMARY AND SECONDARY)*

Case, Death Rate/100,000 Population

	2001		2002		2003		2004		2005	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Asotin	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Benton	0	0.0	0	0.0	0	0.0	0	0.0	1	*
Chelan	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Clallam	0	0.0	0	0.0	0	0.0	1	*	0	0.0
Clark	0	0.0	2	*	6	1.6	2	*	5	1.3
Columbia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cowlitz	0	0.0	0	0.0	0	0.0	0	0.0	1	*
Douglas	0	0.0	0	0.0	0	0.0	0	0.0	1	*
Ferry	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Franklin	1	*	0	0.0	1	*	0	0.0	1	*
Garfield	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Grant	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Grays Harbor	0	0.0	0	0.0	1	*	0	0.0	0	0.0
Island	0	0.0	4	*	0	0.0	1	*	4	*
Jefferson	0	0.0	0	0.0	0	0.0	0	0.0	1	*
King	41	2.3	50	2.8	60	3.4	123	6.9	119	6.6
Kitsap	0	0.0	2	*	0	0.0	4	*	4	*
Kittitas	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Klickitat	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Lewis	0	0.0	0	0.0	1	*	0	0.0	1	*
Lincoln	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Mason	0	0.0	0	0.0	0	0.0	1	*	0	0.0
Okanogan	1	*	0	0.0	0	0.0	0	0.0	0	0.0
Pacific	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pend Oreille	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pierce	5	0.7	5	0.7	2	*	7	0.9	3	*
San Juan	0	0.0	0	0.0	0	0.0	0	0.0	1	*
Skagit	2	*	1	*	0	0.0	1	*	1	*
Skamania	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Snohomish	2	*	4	*	8	1.3	8	1.2	3	*
Spokane	0	0.0	1	*	1	*	0	0.0	0	0.0
Stevens	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Thurston	0	0.0	0	0.0	0	0.0	2	*	2	*
Wahkiakum	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Walla Walla	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Whatcom	1	*	0	0.0	0	0.0	0	0.0	1	*
Whitman	0	0.0	0	0.0	0	0.0	0	0.0	1	*
Yakima	4	*	1	*	2	*	0	0.0	2	*
STATEWIDE TOTAL										
CASES	57	1.0	70	1.2	82	1.3	150	2.4	152	2.4
DEATHS	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

* Incidence rates not calculated for < 5 cases.

PRIMARY AND SECONDARY SYPHILIS
STATEWIDE BY YEAR

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1980	262	6.3	8	0.2
1981	167	3.9	2	0.0
1982	172	4.0	0	0.0
1983	196	4.6	0	0.0
1984	158	3.7	2	0.0
1985	115	2.6	2	0.0
1986	194	4.4	0	0.0
1987	176	3.9	0	0.0
1988	265	5.8	0	0.0
1989	461	9.9	0	0.0
1990	354	7.5	0	0.0
1991	178	3.6	0	0.0
1992	85	1.7	0	0.0
1993	67	1.3	0	0.0
1994	36	0.7	0	0.0
1995	17	0.3	0	0.0
1996	9	0.2	0	0.0
1997	17	0.3	0	0.0
1998	44	0.8	0	0.0
1999	77	1.3	0	0.0
2000	66	1.1	0	0.0
2001	57	1.0	0	0.0
2002	70	1.2	0	0.0
2003	82	1.3	0	0.0
2004	150	2.4	0	0.0
2005	152	2.4	0	0.0

TETANUS

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1985	0	0.0	0	0.0
1986	0	0.0	0	0.0
1987	1	0.0	0	0.0
1988	1	0.0	0	0.0
1989	1	0.0	0	0.0
1990	1	0.0	0	0.0
1991	1	0.0	0	0.0
1992	3	0.1	0	0.0
1993	1	0.0	0	0.0
1994	1	0.0	0	0.0
1995	0	0.0	0	0.0
1996	1	0.0	0	0.0
1997	1	0.0	0	0.0
1998	0	0.0	0	0.0
1999	0	0.0	0	0.0
2000	1	0.0	0	0.0
2001	0	0.0	0	0.0
2002	0	0.0	0	0.0
2003	0	0.0	0	0.0
2004	0	0.0	0	0.0
2005	1	0.0	0	0.0

TRICHINOSIS

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1985	0	0.0	0	0.0
1986	0	0.0	0	0.0
1987	0	0.0	0	0.0
1988	0	0.0	0	0.0
1989	2	0.0	0	0.0
1990	1	0.0	0	0.0
1991	0	0.0	0	0.0
1992	1	0.0	0	0.0
1993	1	0.0	0	0.0
1994	0	0.0	0	0.0
1995	0	0.0	0	0.0
1996	0	0.0	0	0.0
1997	0	0.0	0	0.0
1998	0	0.0	0	0.0
1999	0	0.0	0	0.0
2000	1	0.0	0	0.0
2001	0	0.0	0	0.0
2002	0	0.0	0	0.0
2003	0	0.0	0	0.0
2004	0	0.0	0	0.0
2005	0	0.0	0	0.0

TUBERCULOSIS*

Case, Death Rate/100,000 Population

	2001		2002		2003		2004		2005	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	0	0.0	0	0.0	1	*	0	0.0	0	0.0
Asotin	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Benton	1	*	1	*	2	*	4	*	0	0.0
Chelan	1	*	1	*	4	*	0	0.0	1	*
Clallam	0	0.0	0	0.0	1	*	0	0.0	0	0.0
Clark	8	2.3	10	2.7	10	2.6	8	2.0	9	2.1
Columbia	0	0.0	0	0.0	0	0.0	0	0.0	1	*
Cowlitz	2	*	2	*	1	*	0	0.0	1	*
Douglas	0	0.0	1	*	2	*	0	0.0	1	*
Ferry	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Franklin	2	*	3	*	5	9.3	3	*	2	*
Garfield	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Grant	7	9.9	2	*	3	*	0	0.0	3	*
Grays Harbor	3	*	1	*	1	*	1	*	3	*
Island	1	*	0	0.0	1	*	5	6.6	1	*
Jefferson	0	0.0	0	0.0	0	0.0	0	0.0	1	*
King	139	7.9	158	8.9	155	8.7	133	7.4	127	7.0
Kitsap	5	2.1	6	2.5	2	*	2	*	6	2.4
Kittitas	1	*	0	0.0	0	0.0	1	*	0	0.0
Klickitat	0	0.0	1	*	0	0.0	0	0.0	0	0.0
Lewis	0	0.0	0	0.0	2	*	1	*	0	0.0
Lincoln	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Mason	3	*	0	0.0	3	*	1	*	0	0.0
Okanogan	0	0.0	1	*	2	*	0	0.0	0	0.0
Pacific	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pend-Oreille	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pierce	22	3.1	16	2.2	18	2.4	34	4.5	27	3.5
San Juan	0	0.0	1	*	0	0.0	1	*	0	0.0
Skagit	1	*	3	*	2	*	2	*	6	5.4
Skamania	0	0.0	0	0.0	0	0.0	0	0.0	1	*
Snohomish	28	4.5	16	2.5	12	1.8	15	2.3	24	3.6
Spokane	10	2.4	7	1.6	4	*	7	1.6	13	2.9
Stevens	0	0.0	0	0.0	0	0.0	0	0.0	1	*
Thurston	5	2.4	3	*	5	2.3	7	3.2	6	2.6
Wahkiakum	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Walla Walla	1	*	3	*	1	*	1	*	2	*
Whatcom	6	3.5	7	4.0	5	2.8	6	3.3	5	2.7
Whitman	0	0.0	1	*	0	0.0	0	0.0	1	*
Yakima	15	6.7	8	3.5	8	3.5	12	5.2	14	5.6
STATEWIDE TOTAL										
CASES	261	4.4	252	4.2	250	4.1	245	3.9	256	4.0
DEATHS	6	0.1	4	0.0	11	0.2	9	0.1	14	0.2

*Incidence rates not calculated for < 5 cases.

TUBERCULOSIS STATEWIDE BY YEAR

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1980	424	10.3	13	0.3
1981	401	9.4	15	0.4
1982	301	7.1	6	0.1
1983	239	5.6	10	0.2
1984	207	4.8	6	0.1
1985	220	5.0	5	0.1
1986	218	4.9	3	0.1
1987	255	5.7	10	0.2
1988	236	5.2	9	0.2
1989	248	5.3	4	0.1
1990	284	5.8	12	0.2
1991	309	6.2	7	0.1
1992	306	6.0	7	0.1
1993	286	5.5	7	0.1
1994	264	4.9	6	0.1
1995	278	5.1	2	0.0
1996	285	5.2	3	0.1
1997	305	5.4	6	0.1
1998	265	4.7	5	0.1
1999	258	4.5	5	0.1
2000	258	4.4	2	0.0
2001	261	4.4	6	0.1
2002	252	4.2	4	0.0
2003	250	4.1	11	0.2
2004	245	3.9	9	0.1
2005	256	4.0	14	0.2

TULAREMIA

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1985	0	0.0	0	0.0
1986	1	0.0	0	0.0
1987	4	0.1	0	0.0
1988	1	0.0	0	0.0
1989	2	0.0	0	0.0
1990	4	0.1	0	0.0
1991	2	0.0	0	0.0
1992	2	0.0	0	0.0
1993	2	0.0	0	0.0
1994	1	0.0	0	0.0
1995	4	0.1	0	0.0
1996	2	0.0	0	0.0
1997	2	0.0	0	0.0
1998	8	0.1	0	0.0
1999	2	0.0	0	0.0
2000	2	0.0	0	0.0
2001	5	0.1	0	0.0
2002	3	0.1	0	0.0
2003	2	0.0	0	0.0
2004	4	0.1	0	0.0
2005	10	0.2	0	0.0

TYPHOID FEVER

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1985	3	0.1	0	0.0
1986	3	0.1	0	0.0
1987	9	0.2	0	0.0
1988	13	0.3	0	0.0
1989	11	0.2	0	0.0
1990	22	0.5	0	0.0
1991	10	0.2	0	0.0
1992	11	0.2	0	0.0
1993	8	0.1	0	0.0
1994	12	0.2	0	0.0
1995	4	0.1	0	0.0
1996	4	0.1	0	0.0
1997	7	0.1	0	0.0
1998	8	0.1	0	0.0
1999	8	0.1	0	0.0
2000	6	0.1	0	0.0
2001	7	0.1	0	0.0
2002	7	0.1	0	0.0
2003	4	0.1	0	0.0
2004	6	0.1	0	0.0
2005	11	0.2	0	0.0

TYPHUS

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1985	0	0.0	0	0.0
1986	0	0.0	0	0.0
1987	0	0.0	0	0.0
1988	0	0.0	0	0.0
1989	0	0.0	0	0.0
1990	0	0.0	0	0.0
1991	1	0.0	0	0.0
1992	0	0.0	0	0.0
1993	0	0.0	0	0.0
1994	1	0.0	0	0.0
1995	0	0.0	0	0.0
1996	0	0.0	0	0.0
1997	0	0.0	0	0.0
1998	0	0.0	0	0.0
1999	0	0.0	0	0.0
2000	0	0.0	0	0.0
2001	0	0.0	0	0.0
2002	0	0.0	0	0.0
2003	0	0.0	0	0.0
2004	0	0.0	0	0.0
2005	0	0.0	0	0.0

VIBRIOSIS

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1985	4	0.1	0	0.0
1986	7	0.1	0	0.0
1987	18	0.4	0	0.0
1988	11	0.2	0	0.0
1989	4	0.1	0	0.0
1990	30	0.6	0	0.0
1991	4	0.1	0	0.0
1992	7	0.1	0	0.0
1993	33	0.6	0	0.0
1994	9	0.2	0	0.0
1995	6	0.1	0	0.0
1996	3	0.1	0	0.0
1997	58	1.0	0	0.0
1998	41	0.7	0	0.0
1999	21	0.4	0	0.0
2000	20	0.3	0	0.0
2001	9	0.2	0	0.0
2002	25	0.4	0	0.0
2003	18	0.3	0	0.0
2004	28	0.5	0	0.0
2005	20	0.3	0	0.0

YELLOW FEVER

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1985	0	0.0	0	0.0
1986	0	0.0	0	0.0
1987	0	0.0	0	0.0
1988	0	0.0	0	0.0
1989	0	0.0	0	0.0
1990	0	0.0	0	0.0
1991	0	0.0	0	0.0
1992	0	0.0	0	0.0
1993	0	0.0	0	0.0
1994	0	0.0	0	0.0
1995	0	0.0	0	0.0
1996	0	0.0	0	0.0
1997	0	0.0	0	0.0
1998	0	0.0	0	0.0
1999	0	0.0	0	0.0
2000	0	0.0	0	0.0
2001	0	0.0	0	0.0
2002	0	0.0	0	0.0
2003	0	0.0	0	0.0
2004	0	0.0	0	0.0
2005	0	0.0	0	0.0

YERSINIOSIS

Case, Death Rate/100,000 Population

	2001		2002		2003		2004		2005*	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Asotin	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Benton	0	0.0	0	0.0	0	0.0	0	0.0	1	*
Chelan	0	0.0	0	0.0	0	0.0	1	1.5	0	0.0
Clallam	0	0.0	0	0.0	1	1.5	0	0.0	1	*
Clark	1	0.3	4	1.1	0	0.0	1	0.3	0	0.0
Columbia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cowlitz	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Douglas	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Ferry	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Franklin	0	0.0	0	0.0	1	1.9	0	0.0	1	*
Garfield	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Grant	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Grays Harbor	0	0.0	0	0.0	0	0.0	1	1.4	0	0.0
Island	0	0.0	2	2.7	0	0.0	1	1.3	0	0.0
Jefferson	0	0.0	1	3.8	0	0.0	0	0.0	1	*
King	16	0.9	12	0.7	12	0.7	14	0.8	10	0.6
Kitsap	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Kittitas	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Klickitat	0	0.0	0	0.0	0	0.0	2	10.4	0	0.0
Lewis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Lincoln	0	0.0	0	0.0	1	9.9	0	0.0	0	0.0
Mason	0	0.0	1	2.0	1	2.0	0	0.0	0	0.0
Okanogan	1	2.5	0	0.0	0	0.0	0	0.0	0	0.0
Pacific	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pend Oreille	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pierce	0	0.0	2	0.3	1	0.1	3	0.4	0	0.0
San Juan	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Skagit	1	1.0	0	0.0	1	0.9	1	0.9	0	0.0
Skamania	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Snohomish	2	0.3	4	0.6	6	0.9	6	0.9	1	*
Spokane	0	0.0	0	0.0	0	0.0	1	0.2	0	0.0
Stevens	0	0.0	0	0.0	2	4.9	1	2.5	0	0.0
Thurston	1	0.5	0	0.0	1	0.5	0	0.0	1	*
Wahkiakum	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Walla Walla	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Whatcom	1	0.6	0	0.0	0	0.0	1	0.6	2	*
Whitman	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Yakima	0	0.0	0	0.0	1	0.4	1	0.4	1	*
STATEWIDE TOTAL										
CASES	23	0.4	26	0.4	28	0.5	34	0.6	19	0.3
DEATHS	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

* Incidence rates not calculated for < 5 cases.

YERSINIOSIS STATEWIDE BY YEAR

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1988	15	0.3	0	0.0
1989	40	0.9	0	0.0
1990	37	0.8	0	0.0
1991	28	0.6	0	0.0
1992	34	0.7	0	0.0
1993	50	1.0	0	0.0
1994	40	0.7	0	0.0
1995	50	0.9	0	0.0
1996	37	0.7	0	0.0
1997	30	0.5	0	0.0
1998	39	0.7	0	0.0
1999	32	0.6	0	0.0
2000	33	0.6	0	0.0
2001	23	0.4	0	0.0
2002	26	0.4	0	0.0
2003	28	0.5	0	0.0
2004	34	0.6	0	0.0
2005	19	0.3	0	0.0

APPENDIX II

SPECIAL TOPICS

Human Salmonellosis Associated with Animal-derived Pet Treats, 2004-05 Western Canada and Washington State

During 2004-2005, contact with *Salmonella*-contaminated pet treats containing beef and seafood resulted in human *Salmonella* Thompson infections in Washington and western Canada. Nine cases of *S.* Thompson (4 in British Columbia, 3 in Washington and 2 in Alberta) with indistinguishable PFGE patterns were identified. Eight of the nine cases were interviewed, six (75%) of which were exposed to pet treats of beef and seafood origin from manufacturers in Washington and British Columbia. The other two cases had pet dogs. Stool obtained from one of the (asymptomatic) dogs yielded an *S.* Thompson pattern matching the outbreak strain.

During investigation of the pet treat manufacturing plants, it was found that although the pet treats were dehydrated, temperatures were not high enough to kill bacteria that may have been present. In addition, no other methods, such as irradiation, were used during processing.

Testing of shrimp, salmon and beef treats yielded an *S.* Thompson PFGE pattern indistinguishable from the outbreak strain. Pet treats from the plants also contained other *Salmonella* serotypes including *S.* Montevideo, *S.* Newport, *S.* Give, *S.* Meleagridis, *S.* Cerro, *S.* Muenster, *S.* Agona and *S.* Anatum. Both manufacturers issued voluntary recalls of the implicated products in June, 2005.

Pet treat manufacturers, retailers, consumers and public health agencies should be aware of the potential for animal-derived pet treats to serve as a source of human *Salmonella* infection. Public health agencies should consider this possibility during investigations of cases or outbreaks of human salmonellosis.

Clostridium Perfringens and Consumption of BBQ Pork, February 2005
Skagit County

On February 25, 2005, Skagit County Department of Health (SCDH) was notified of illness in a 43 year old male, his nine year old daughter and his five year old son. The onset of each illness occurred approximately 12 hours after consuming barbecue pork purchased as take-out from a restaurant. The cooked pork was purchased cold from the restaurant by the man's father on the afternoon of February 23 and taken home, which was about 45 minutes from the restaurant. He ate a portion of the cold pork upon arriving home and promptly placed the remainder in the refrigerator. He did not become ill, but was taking tetracycline at the time for another illness.

The man ate a portion (cold) later that afternoon and awoke about nine hours later with severe abdominal cramps followed shortly by diarrhea. The cramps and diarrhea continued through the next day. The next evening, the two children each ate a portion of the pork heated by their mother who reported eating two bites with no subsequent illness. The children both awoke early the next morning with abdominal cramps and diarrhea.

The SCDH obtained food histories for each family member. The family had shared several meals during previous days, however the onset of symptoms following consumption of the pork was consistent for all three cases.

Stool samples from the father and two children, along with a sample of the pork left in the family's refrigerator, were submitted to the Washington State Public Health Laboratories for testing and were confirmed for *Clostridium perfringens*.

Two follow-up inspections of the restaurant conducted by SCDH revealed that temperatures were not routinely monitored throughout the cooking process, cooked pork was being stored improperly and refrigeration temperatures were above normal. There is some question regarding the role of post-purchase handling of the product. However, the relatively complicated process of slow cooking (perhaps with inadequate temperature monitoring), bulk cooling (perhaps in portions too large to facilitate rapid cooling) and improper refrigeration prior to food service, presented several opportunities for bacterial growth.

Outbreaks due to *C. perfringens* are rarely identified. Watery diarrhea and cramps caused by preformed toxin occur 12-72 hours after ingestion. The organism occurs in normal stool, so confirmation required quantitative testing accompanied by stool testing. Spores survive normal cooking temperature and grow during temperature mishandling. Common sources of infection are meats, stews, poultry, gravy and dried foods.

Salmonella Ohio Associated with Handling Chicks, March-May, 2005
Washington State Department of Health

Between February 28 and May 15, 2005, 18 *Salmonella* Ohio infections with an indistinguishable PFGE pattern were reported to public health agencies in Washington, Oregon, Idaho and California.

Of the 18 reported cases in the four states, the median age was 4.5 years and 13 were female. When interviewed, 13 recalled handling baby chicks the week before their onset of illness.

Seven cases of *S.* Ohio infection were reported to the Washington State Department of Health as part of this outbreak. Onsets of illness were between March 10 and May 9, 2005. The median age was five years (range 6 months - 42 years) and four were female. Six of the seven cases reported direct contact with chicks. Laboratory testing of chicks from one household confirmed *S*. Ohio with a PFGE pattern indistinguishable from the outbreak pattern. The case that did not report any direct or indirect contact with chicks or their crates worked at a post office that handled shipments of chicks. A trace-back of feed stores and suppliers from which the chicks were purchased identified one hatchery as the source of chicks for five of the cases.

Three cases in Oregon and two cases in Idaho reported direct exposure to chicks that were traced back to the same hatchery in Washington. A third case in Idaho did not report direct contact with chicks, but a sibling had contact with chicks traced to the Washington hatchery. Two cases in California had direct contact with chicks that originated at the Washington hatchery.

The Washington State Department of Agriculture visited the hatchery. Of five environmental swabs taken, all were positive for *Salmonell*a. Serotypes isolated were *S*. Ohio (from bedding and fan), *S*. Montevideo (from hatching crates) and *S*. Muenchen (from standing water and floor drain). The environmental isolates of *S.* Ohio yielded a PFGE pattern indistinguishable from the outbreak strain.

The Role of Methamphetamine Use in an Outbreak of Tuberculosis, 2005-06 Snohomish County

Estimates suggest that 12.3 million Americans have used methamphetamines. Methamphetamine use has been implicated in the transmission of HIV and STDs. While the congregation of people using illicit drugs (i.e., cocaine, heroin, marijuana) has led to tuberculosis (TB) outbreaks, there is no documentation of methamphetamine use being associated with TB transmission. In 2006, Snohomish Health District and the Centers for Disease Control and Prevention investigated a cluster of TB cases among people using methamphetamines.

The cluster included patients with TB diagnosed from January 2005 to February 2006 with matching genotypes and/or epidemiological links to the index patient. Medical records were reviewed and interviews of patients, their contacts and nurses were conducted. Information about methamphetamine use was self-reported or gathered through key informants. Nine patients met the inclusion criteria. All used methamphetamines and were either directly (5) or indirectly (4) linked to a house known for illicit drug activities. The patients reported 119 contacts; 73 had a tuberculin skin test (TST) and 28 (38%) had a positive TST result. Forty-two percent of adult contacts reported use of methamphetamines. Among contacts using methamphetamines, 14 (64%) of 22 had a positive TST result, compared with three (25%) of 12 not using methamphetamines. Several cases diagnosed during 1991-2002 were also linked to this house and the one available *M. tuberculosis* isolate from these had a genotype matching the current outbreak strain.

This outbreak was fueled by methamphetamine use. TB control and substance abuse programs must collaborate to meet the public health needs of people addicted to methamphetamines.

Influenza, 2005-2006 Season
Washington State Department of Health

Synopsis

Sporadic cases of influenza A were first reported in early November 2005 and rapidly increased with a peak during the third week of December, after which reported cases decreased rapidly. This initial influenza A activity occurred mainly in middle-aged persons. Three nursing homes reported influenza outbreaks during this period. During the third week of February, 2006, reports of laboratory-confirmed cases began to increase rapidly, peaking during the last two weeks of March. The second peak of activity was related to increased influenza B in school-aged children and influenza A in nursing home residents. Several schools had laboratory-confirmed influenza B outbreaks and 12 nursing homes reported influenza A outbreaks during this period. As the season progressed, more influenza B was reported than influenza A and 24% of the season's laboratory-confirmed isolates were identified as influenza B.

Sentinel Laboratories

Sentinel influenza surveillance laboratories reported 610 isolates from 17 counties. Seventy-six percent of the influenza isolates were influenza type A and 24% were influenza B. Of the 462 influenza A isolates, 98 were influenza A, H3N2, four were influenza A, H1N1 and 360 were influenza A, not subtyped. Eight percent of isolates were obtained from patients under one year of age, 13% from persons 1-4 years of age, 25% from persons 5-19 years of age, 19% from persons 20-39 years of age, 17% from persons 40-59 years of age and 18% from persons 60 years of age or older.

School Absenteeism

Nine schools reported influenza-related absenteeism during October 2005 through February 2006. In March, 2006, 71 schools reported greater than 10% absenteeism with influenza-like illnesses (ILI). This decreased to six schools by the second week of April. No school absenteeism was reported during the last five weeks of the influenza season. Gastrointestinal (GI) symptoms were reported from many schools reporting influenza B cases. GI tract symptoms (nausea, vomiting, diarrhea), while uncommon, may be reported in up to 25% of school children in the respiratory phase of influenza B.

Sentinel Long-Term Care Facilities

Thirty-eight long-term care (LTC) and assisted living (AL) facilities participated in sentinel influenza surveillance in Washington during the 2005-2006 season. Eighteen clusters were investigated with 15 (83%) laboratory-confirmed as either influenza A, H3N2 or influenza A, not subtyped. The other three were laboratory-negative for influenza viruses.

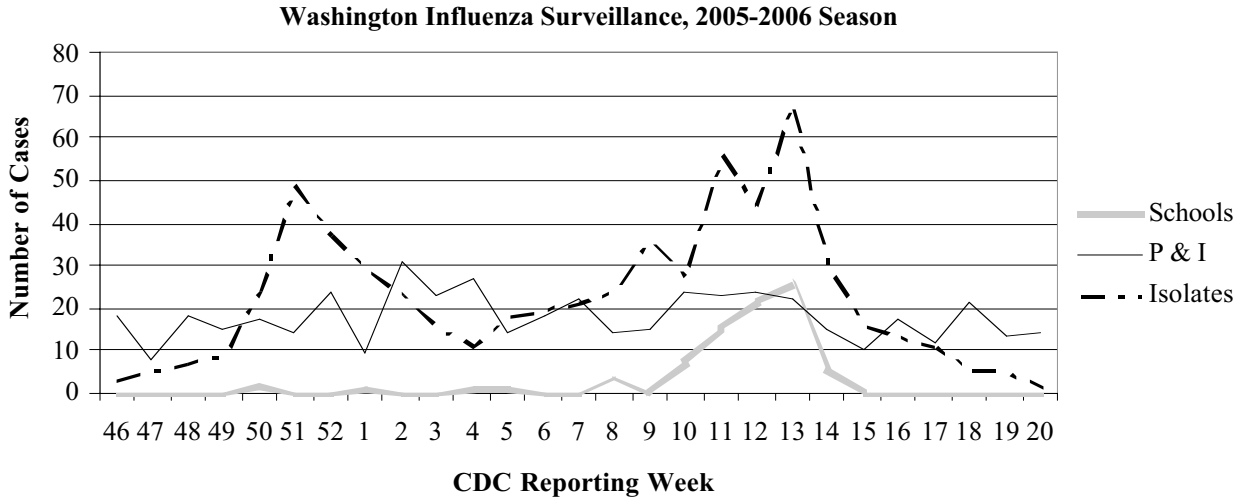
Sentinel Physicians

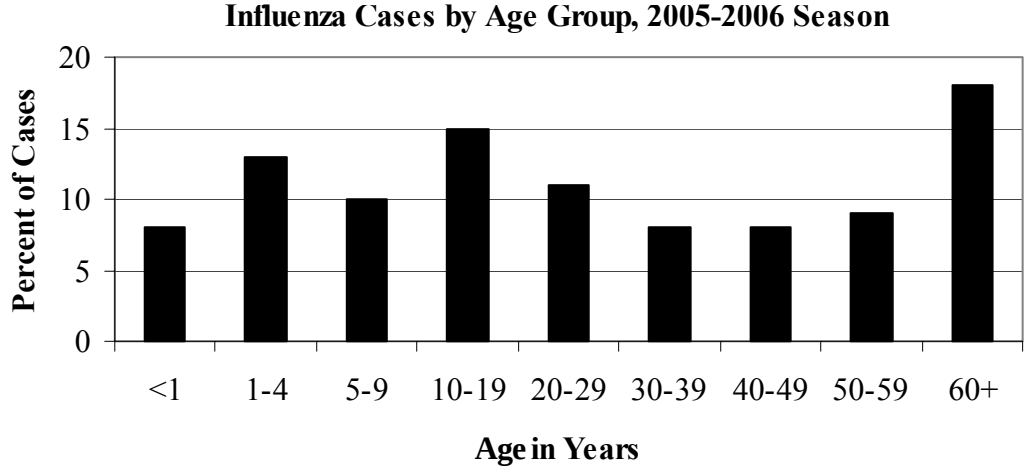
While Washington has met the Centers for Disease Control and Prevention's (CDC) goal of one physician per 250,000 population, compliance is sub-optimal. Forty-four percent of Washington's sentinel physicians did not report the level of influenza activity among their patients to CDC. The remainder (56%) reported 3-100% of the time, though many reported 50% or more of the time.

Influenza Trivalent Vaccine, 2006-2007

Influenza strains primarily circulating in Washington during the 2005-06 season were antigenically similar to those contained in the 2005-06 vaccine. However, increasing numbers of influenza A, H3N2 and influenza B strains circulating nationwide were more similar to A/Wisconsin/67/2005 (H3N2)-like and B/Malaysia/2506/2004-like viruses. As a result, the Northern Hemisphere trivalent influenza vaccine composition for 2006-2007 will include:

- an A/New Caledonia/20/99 (H1N1)-like virus;
- an A/Wisconsin/67/2005 (H3N2)-like virus (A/Wisconsin/67/2005 and A/Hiroshima/52/2005)
- a B/Malaysia/2506/2004-like virus (B/Malaysia/2506/2004 and B/Ohio/1/2005)





APPENDIX III

STATE DEMOGRAPHICS

Washington State Population Estimates, 1985-2005*

Washington State Office of Financial Management

Year	Estimate
1985	4,384,100
1986	4,419,700
1987	4,481,100
1988	4,565,000
1989	4,660,700
1990	4,866,663
1991	5,021,335
1992	5,141,177
1993	5,265,688
1994	5,364,338
1995	5,470,104
1996	5,567,764
1997	5,663,763
1998	5,750,033
1999	5,830,835
2000	5,894,143
2001	5,974,900
2002	6,041,700
2003	6,098,300
2004	6,167,800
2005	6,256,400

*April 1, 2005 estimate

Washington State Population Estimates By County, 2005*

Washington State Office of Financial Management

County	Estimate
Adams	17,000
Asotin	20,900
Benton	158,100
Chelan	69,200
Clallam	66,800
Clark	391,500
Columbia	4,100
Cowlitz	95,900
Douglas	34,700
Ferry	7,400
Franklin	60,500
Garfield	2,400
Grant	79,100
Grays Harbor	69,800
Island	76,000
Jefferson	27,600
King	1,808,300
Kitsap	240,400
Kittitas	36,600
Klickitat	19,500
Lewis	71,600
Lincoln	10,100
Mason	51,900
Okanogan	39,600
Pacific	21,300
Pend Oreille	12,200
Pierce	755,900
San Juan	15,500
Skagit	110,900
Skamania	10,300
Snohomish	655,800
Spokane	436,300
Stevens	41,200
Thurston	224,100
Wahkiakum	3,900
Walla Walla	57,500
Whatcom	180,800
Whitman	42,400
Yakima	229,300
Washington State	**6,256,400**

*April 1, 2005 estimate

Washington State Population Estimates By Age and Sex, 2005*

Washington State Office of Financial Management

Age (years)	Male	Female	TOTAL
0-4	207,890	198,434	406,324
5-9	210,889	200,675	411,564
10-14	226,591	215,155	441,746
15-19	230,712	219,516	450,228
20-24	230,705	217,931	448,636
25-29	211,482	200,430	411,912
30-34	216,038	206,329	422,367
35-39	229,437	220,548	449,985
40-44	246,929	243,897	490,826
45-49	247,123	246,902	494,025
50-54	224,313	229,115	453,428
55-59	191,318	195,250	386,568
60-64	136,702	140,279	276,981
65-69	96,689	103,280	199,969
70-74	74,312	85,748	160,060
75-79	59,142	77,969	137,111
80-84	43,096	67,152	110,248
85+	33,655	70,767	104,422
TOTAL	**3,117,023**	**3,139,377**	**6,256,400**

*April 1, 2005 estimate