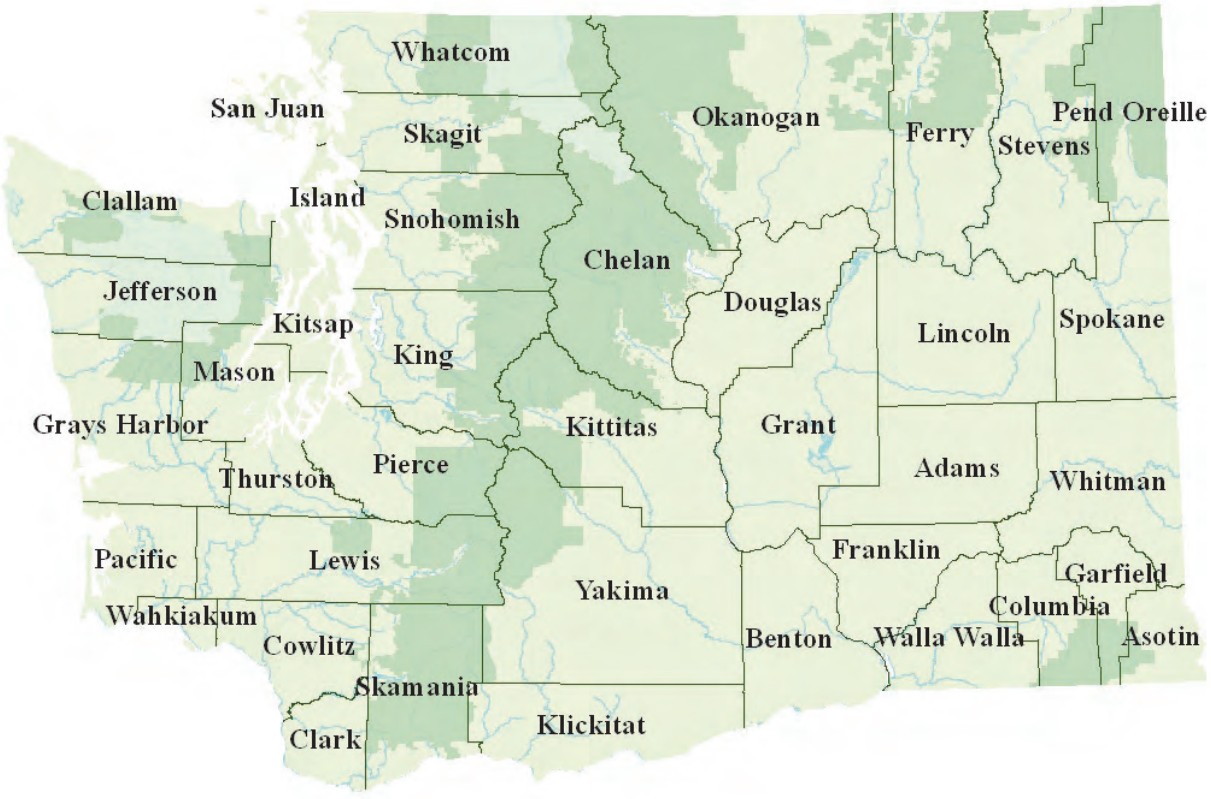
Washington State
COMMUNICABLE DISEASE REPORT 2004

Washington State Department of Health



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Washington State Department of Health
Communicable Disease Epidemiology Section
1610 NE 150th Street
Shoreline, WA 98155-9701
206-418-5500 or 1-877-539-4344

WASHINGTON STATE DEPARTMENT OF HEALTH
Epidemiology, Health Statistics and Public Health Laboratories
Communicable Disease Epidemiology Section
1610 NE 150th Street
Shoreline, WA 98155
206-418-5500 or 1-877-539-4344

COMMUNICABLE DISEASE REPORT 2004

CONTRIBUTORS

COMMUNICABLE DISEASE EPIDEMIOLOGY

Rebecca Baer, MPH
Mary Chadden
Sara Dreitzler, RN, MPH
Donna Duffy, RN, MPH
Marcia Goldoft, MD, MPH
Jo Hofmann, MD
Amynah Janmohamed, MPH
Lara Kidoguchi, MPH
Mira Leslie, DVM, MPH
Kathy Lofy, MD
Phillip Lowe, BS, BA
Kathryn MacDonald, PhD
Judith May, RN, MPH
Ruby Patrick
Eric Sergienko, MD
Phyllis Shoemaker, BA
Deborah Todd, RN, MPH
Megan Tuft

IMMUNIZATION PROGRAM
Pat deHart, ScD

INFECTIOUS DISEASE AND REPRODUCTIVE HEALTH
Maria Courogen, MPH
Anna Easton, BA
Alexia Exarchos, MPH

INFORMATION RESOURCE MANAGEMENT
Craig Erickson

Mary Selecky
Secretary of Health

Maxine Hayes, MD, MPH
Health Officer

Jude VanBuren, **PhD, MPH, RN, RS**
Assistant Secretary
Epidemiology, Health Statistics and Public Health Laboratories

Jo Hofmann, MD
State Epidemiologist for Communicable Disease

Romesh Gautom, PhD
Director, Public Health Laboratories

Juliet Van Eenwyk, PhD, MS
State Epidemiologist for Non-Infectious Disease

This report represents 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 twentieth 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 our 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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Washington State has conducted surveillance for notifiable disease 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 Washington State Department of Health (DOH) and on to the national 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 DOH in 2004. There are several limitations to the accuracy of this information – sick people don't always seek healthcare and healthcare providers and others don't always recognize, confirm or report notifiable conditions. Therefore, reported cases may represent a fraction of the actual burden of disease.

The 2004 population estimates used for rate calculations in this report were provided by the Washington State Office of Financial Management, available online at http://www.ofm.wa.gov/pop/index.htm. Point estimates of 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. Rates are not age-adjusted due to the small numbers of cases for many conditions, and it is assumed that incidence calculated for five or fewer cases of a disease may not be statistically valid as the rate could be affected by a small change in the number of cases.

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 tallies 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.

For additional information about this report or to request a copy in an alternate format, contact:

Ruby Patrick
Communicable Disease Epidemiology Section
Washington State Department of Health
1610 NE 150th Street, Shoreline, WA 98155
206.418.5500

EXECUTIVE SUMMARY

In 2004 certain changes were made to the list of notifiable communicable diseases in Washington: *Streptococcus* Group A, invasive disease and viral encephalitis were removed and arboviral disease was added.

Disease incidence in 2004 was remarkable for the number and variety of conditions related to international and interstate travel, a reminder that global travel can quickly negate the absence of certain infectious diseases in the United States. A new rule for reporting of arboviral disease was designed to capture human West Nile virus infections, however Washington, along with Maine, remained the only two states in the "lower 48" where human cases of West Nile virus infection have not been identified. Arboviral diseases reported in 2004 included a Washington resident infected with West Nile virus after being bitten by a mosquito in Arizona, a college student who acquired Japanese encephalitis virus infection while traveling in Southeast Asia and dengue following exposure in the Philippines. Imported measles traveled to Washington aboard a flight carrying children adopted from China and 24 Washingtonians acquired malaria in the course of their international travel.

Sexually transmitted diseases, 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 17,635 infections reported in 2004, an incidence of 286.0 cases/100,000 population. In addition, the rate of primary and secondary syphilis has increased 84% since 2003. Rates for disease caused by enteric pathogens continue to fall since the 1990s with incidence rates lower than the national average, except for campylobacteriosis and infections caused by enterohemorrhagic *Escherichia coli.*

Pertussis remains a significant problem in Washington, where the 2004 incidence of 13.7 cases/100,000 population far exceeds the CDC's reported national average incidence of 4.0 cases/100,000 population in 2003. Although the highest rates of infection and the most serious illnesses occur among children under one year of age, more than 60% of the cases of pertussis in Washington occur among those 10 years of age and older, among whom waning immunity plays a significant role. It is hoped that acellular pertussis vaccines licensed for adolescents and adults in 2005 will decrease the rate of pertussis in this population and diminish a source of infection for younger children.

One success story is the significant decline in rates of viral hepatitis A and B over the past 10 years, reflecting national trends of increased immunization coverage and implementation of harm reduction programs. Surveillance for hepatitis C remains challenging, as many cases are undiagnosed, many are not reported and resources to track and manage infections are limited.

We hope that you find this summary useful, and are grateful to those who have reported notifiable conditions and most of all, to the staff of local health jurisdictions who have contributed to disease control in Washington State.

REPORT A NOTIFIABLE CONDITION

In accordance with Washington State law (www.doh.wa.gov/notify/other/legal.htm), public health and health care 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 health care providers, hospitals and laboratories, please refer to the posters section at www.doh.wa.gov/notify.

Local Health Jurisdictions

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

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
360-417-2274 after hrs: 360-415-2005

Clark County Health Department
360-397-8408 after hrs: 1-888-727-6230

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

Cowlitz County Health Department
360-414-5590 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: 360-415-2005

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 (24/7)
Message: 206-296-4782 (24/7)
After hours: 206-726-2128

Kitsap County Health District
360-337-5235 after hrs: 360-415-2005

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
253-798-6410 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: 360-336-9397

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
360-676-4593 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 Health Care 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.

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

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**

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]
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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.

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

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**

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 health care 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 **206-418-5472**
or TB Reporting Fax Line **206-418-5545**
! 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 health care 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

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 arbortus, 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 (arthropod-borne) disease, including neuroinvasive and non-neuroinvasive illness, became a notifiable condition in 2004, replacing Encephalitis, viral. Arboviral diseases are transmitted by mosquitoes, other insects and ticks and include flaviviruses (West Nile, dengue, St. Louis encephalitis [SLE] and yellow fever viruses) and alphaviruses (western equine encephalitis [WEE]).

In Washington, endemically acquired cases of WEE and SLE were documented in the Yakima Valley area during the 1930s, 1940s, 1970s and early 1980s. These viruses are usually 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. The vast majority of human arbovirus 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.

West Nile virus infection

In 1999, West Nile virus 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. During 2003 and 2004, more than 1,400 birds and 110 symptomatic horses were tested, however none were found to be infected with WNV. During 2003 and 2004, nine Washington residents were infected with WNV after being exposed to infected mosquitoes in states with ongoing outbreaks (Colorado, Texas, Oklahoma, Wyoming and South Dakota). As of August 1, 2005, no endemically acquired human cases of WNV have been reported 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 over 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 2004, one case of Japanese encephalitis (JE) was reported in a King County resident who acquired the infection while in Thailand on a study abroad program. This was the first JE case reported in a United States resident since 1992; additional information can be found online at http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5405a4.htm.

Also in 2004, one case of dengue fever was reported in a King County resident who had recently returned from the Philippines. 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 species of *Clostridium* (*C. baratii* and *C. butyricum)* produce a neurotoxin and may cause illness similar to botulism. *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 a spectrum of neurological deficits due to irreversible binding of botulinum toxin at the neuromuscular junction, from mild cranial nerve weakness to profound flaccid paralysis.

Foodborne (classic) botulism results from ingestion of botulinum toxin in contaminated food and is an illness of variable severity. Neurologic symptoms usually appear hours to days after ingestion of contaminated food. Initial symptoms involve the cranial nerves, producing blurred or double vision, dysphagia, dry mouth, and occasionally vomiting, constipation or diarrhea. If untreated, botulism progresses to descending, symmetrical flaccid paralysis. 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.

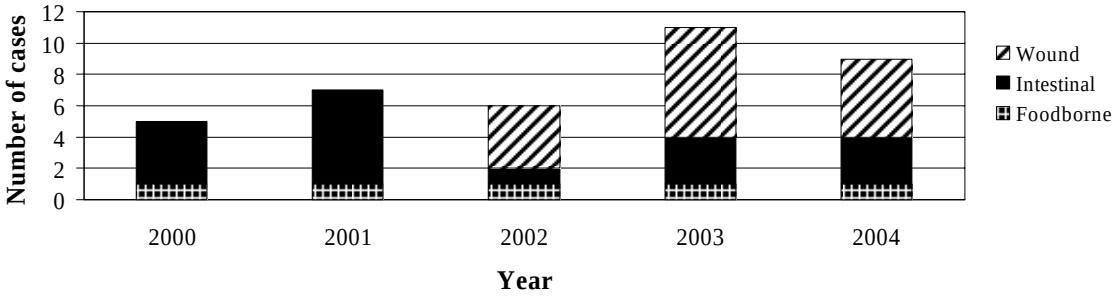
Intestinal (infant or adult) botulism results from ingestion and intestinal growth of toxigenic *C. botulinum* spores. It primarily affects infants under one year of age and, rarely, adults with altered gastrointestinal anatomy. Symptoms may include constipation, poor feeding and failure to thrive that may be followed by progressive weakness, impaired respiration and death. With supportive treatment and administration of human-derived botulism immune globulin recently licensed by the Food and Drug Administration, 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. Multiple cases in Washington have been associated with subcutaneous injection of black tar heroin; the heroin 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. Nationally and in Washington, wound botulism incidence has increased with the growing use of black tar heroin. Proper home canning methods, avoiding the use of honey for infants and avoiding subcutaneous heroin use are preventive measures against botulism.

In 2004, three cases of intestinal botulism were reported, one in a six week old, one in a three month old and one in a six month old infant; none had a history of eating raw honey. Five cases of wound botulism (no clusters) were reported in Washington in 2004, all associated with injecting black tar heroin. One case of foodborne botulism was reported due to toxin produced by *C. baratii.*

Figure 1. Botulism - reported cases by category of disease, 2000-2004



BRUCELLOSIS

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

An average of one brucellosis case per year is reported in Washington and it is usually associated with the consumption of unpasteurized dairy products in countries where brucellosis is common in livestock. Exposure has also occurred in clinical laboratory workers who handle *Brucella* isolates using improper techniques. 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.

Two cases of brucellosis were reported in 2004. One case followed exposure to raw milk from Mexico. The other case, due to *B. suis*, did not have a source of infection identified.

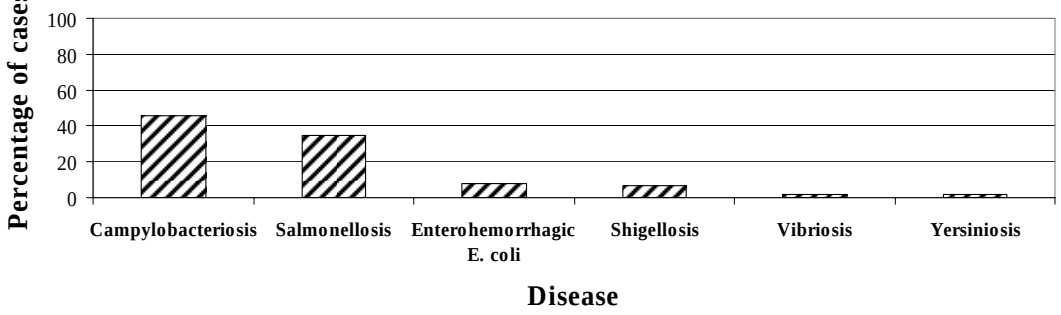
Brucellosis is a potential agent of bioterrorism and is an immediately notifiable condition in Washington. Suspect or confirmed cases in individuals without an appropriate exposure history should raise the index of suspicion for a bioterrorism event.

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. lardis* and *C. fetus,* have also been associated with infection. Outbreaks of campylobacteriosis are uncommon, and most infections are associated with transmission from handling or consuming improperly prepared poultry.

Campylobacteriosis was the most frequently reported enteric disease in Washington in 2004, representing 46% of all bacterial enteric disease reports. There were 861 campylobacteriosis cases (14.0 cases/100,000 population) reported in 2004, consistent with disease rates for the previous five years. The highest rate was in the under one year age group (29.9 cases/100,000 population). The rate in the 0-4 year age group was 29.4 cases/100,000 population.

Figure 2. Enteric diseases - percentage of cases by disease type, 2004

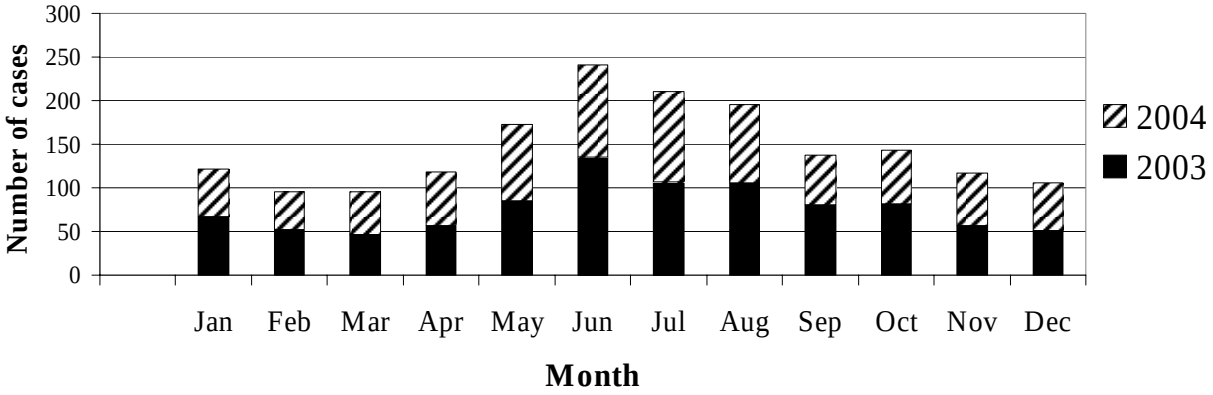


Submission of *Campylobacter* isolates to the Washington State Department of Health Public Health Laboratories (DOH PHL) is not required, but identification of species and relatedness of organisms can assist in outbreak detection. The species of *Campylobacter* was determined for 286 (33%) of reported cases in 2004; 281 were *C. jejuni*, three were *C. coli* and one each was *C. cryaerophila* and *C. larii.*

Cases of campylobacteriosis occur year round, but peaks are commonly seen in summer months. In 2004, most cases were reported from May through August (47% of cases with onset dates reported). Outbreaks of campylobacteriosis do not occur as commonly as other enteric diseases, possibly due to the fragility of the microorganism and low rate of

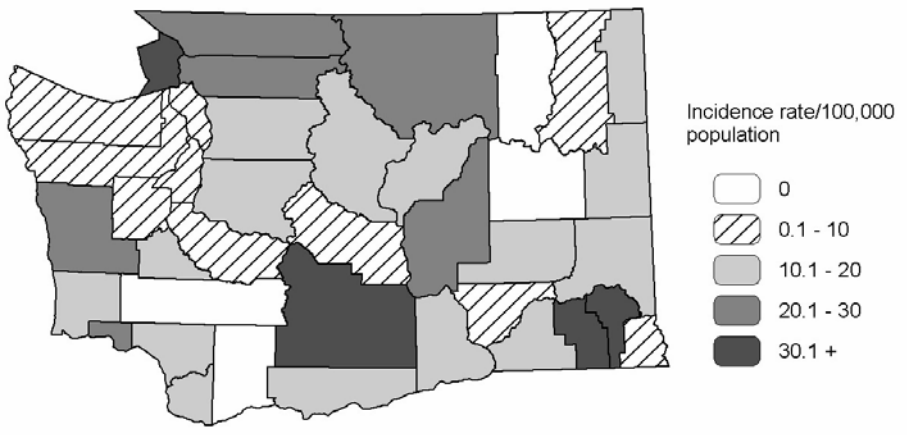
person-to-person spread. There was one confirmed outbreak of campylobacteriosis (unknown vehicle of transmission) reported in 2004.

Figure 3. Campylobacteriosis - reported cases by month of onset, 2003-2004



Rates in Adams, Asotin, Clallam, Columbia, Garfield, Jefferson, Kittitas, Klickitat, Mason, Pacific, Pend Oreille, Stevens and Wahkiakum counties were based on small numbers of cases.

Figure 4. Campylobacteriosis – incidence by county, 2004



CHANCROID

Chancroid is a sexually transmitted genital ulcer disease caused by *Haemophilus ducreyi,* a gram-negative bacillus. It 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 mostly occurs in small outbreaks. In the United States, outbreaks and some endemic transmission have occurred 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. About 10% of persons who have chancroid acquired in the United States are co-infected with syphilis or herpes simplex virus. 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 *CDC STD Treatment Guidelines*, available online at http://www.cdc.gov/STD/treatment.

No cases of chancroid were reported in Washington in 2004.

CHLAMYDIA TRACHOMATIS

Infection with *Chlamydia trachomatis* is the most commonly reported sexually transmitted disease (STD) in the United States and in Washington. Asymptomatic infection is common among both males and females. 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 STDs, chlamydia may enhance the transmission of human immunodeficiency virus (HIV).

Current recommendations for screening, diagnosis and treatment of *Chlamydia,* including management in special populations, can be found in the *CDC STD Treatment Guidelines*, available online at http://www.cdc.gov/STD/treatment. Due to frequent co-infection with *Neisseria gonorrhoeae,* effective treatment for gonorrhea should be included in chlamydia treatment regimens.

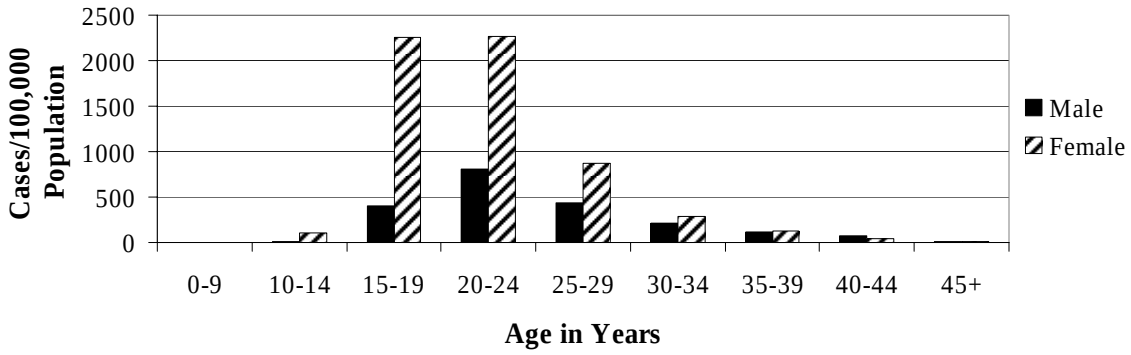
In 2004, 17,635 cases of chlamydia (12,835 females and 4,800 males) were reported (285.9 cases/100,000 population). Of these cases, 662 (3.8%) were also infected with *N. gonorrhoeae*. This compares to 16,796 cases (275.4 cases/100,000 population)

in 2003. The increase in chlamydia cases in recent years can be attributed to several 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 STD services selectively target women for chlamydial screening, which may help account for the high female to male ratio (2.7:1) among reported cases in 2004. The population targeted by the Infertility Prevention Project, the major provider of public funding for chlamydia screening, is women attending STD clinics or seeking reproductive health services in other facilities.

Chlamydia is common among sexually active teens ages 15-19 (33% of reports; 5,792 cases in 2004) and is often more prevalent among female adolescents who are physiologically more susceptible to a chlamydial infection than older women. For ages 15-19 years, the incidence rate was 2,255.7 cases/100,000 population for females and 405.1 cases/100,000 population for males. Among ages 20-24 years, the rate was 2,265.6 cases/100,000 population for females and 810.8 cases/100,000 population for males.

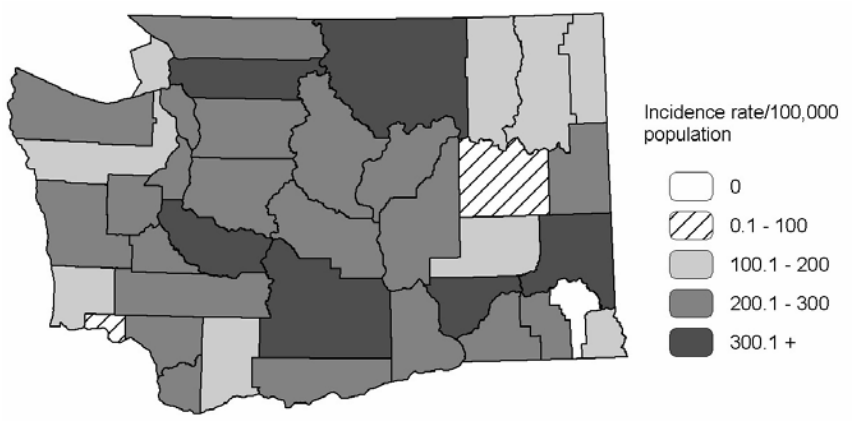
Figure 5. *Chlamydia trachomatis* - incidence by sex and age group, 2004



The *CDC STD Treatment Guidelines* recommend that all women (especially those under 20 years of age) diagnosed with chlamydia be tested again for chlamydia three to four months after treatment. This is due to the high prevalence of repeat infections in women diagnosed with chlamydia. In 2004, 12% (1,554 cases) of women reported with chlamydia infection were reported to have recurrent infection (more than one episode in 12 months) and of the 1,922 cases with recurrent infection, 45% (867) were teenagers.

Thirty-eight Washington counties reported cases of chlamydia in 2004. The highest rates were in Yakima (440.4 cases/100,000 population) and Pierce (361.2 cases/100,000 population) counties. The rate in Wahkiakum County was based on a small number of cases.

Figure 6. *Chlamydia trachomatis* – incidence by county, 2004



CHOLERA

Disease caused by toxigenic bacteria *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 primarily 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, but endemic disease is extremely uncommon in the United States. 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 2004. 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 food or 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 long lasting.

Transmission is fecal-oral through ingestion of contaminated food or water or by direct contact with infected humans or animals, particularly calves. Outbreaks have typically 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 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 also not necessarily free of *C. parvum.* Healthcare providers suspecting cryptosporidiosis must specifically request stool testing for *C. parvum*, as this test may not be routinely performed by clinical laboratories.

Cryptosporidiosis has been notifiable in Washington since December, 2000. There were 63 cases reported in 2004 (1.0 cases/100,000 population). The two most commonly reported risk factors were recent travel outside the United States (19%) and recreational water exposure (10%). Two outbreaks were identified, a travel-associated family cluster and a family cluster associated with exposure to calves.

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 need to specifically request testing if symptoms, food or travel history are suggestive of cyclosporiasis.

Cyclosporiasis became notifiable in Washington in December, 2000. Eleven cases (0.2 cases/100,000 population) were reported in 2004; five involved international travel. Information for travelers is available from travel clinics and the CDC Travelers' Health website 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, other mucous membranes or the skin. The toxin produced by *C. diphtheriae* causes inflammation, swelling and the formation of a characteristic greyish-white membrane on lesions it produces. In severe cases of pharyngeal diphtheria, the infection progresses to airway obstruction. The toxin can also affect the myocardium and nerves and is fatal in 5–10% of non-cutaneous cases. Transmission occurs through direct contact with an infected person or contact with articles soiled by discharge from diphtherial lesions. Although outbreaks of diphtheria are not uncommon in some areas of the world, the disease is rare in the United States, with only 54 cases reported from 1980-2002.

Diphtheria is an immediately notifiable condition in Washington and continued control of this disease depends on routine childhood immunization with diphtheria toxoid and re-immunization of adults every 10 years. In Washington, diphtheria is usually travel-associated. The last case of diphtheria reported in Washington occurred in 1979.

ENTEROHEMORRHAGIC *ESCHERICHIA COLI*

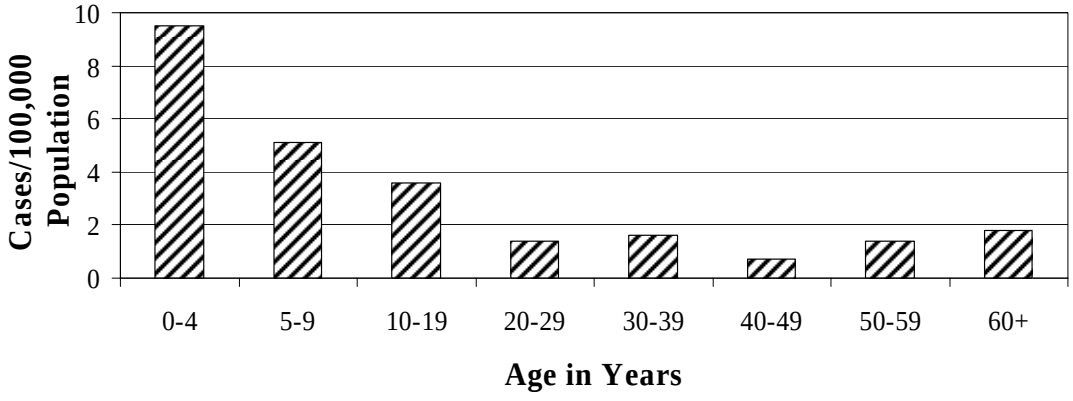
Infections caused by *Escherichia coli* O157:H7 and other Shiga-like toxin producing *E. coli* serotypes are notifiable as enterohemorrhagic *E. coli* infection. Symptoms include bloody diarrhea and abdominal pain, usually without fever. Serious complications include hemolytic uremic syndrome (HUS) or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

Disease caused by enterohemorrhagic *E. coli* is immediately notifiable in Washington. Possibly due to heightened recognition and reporting, Washington has had a higher incidence compared to the national rate. In 2004, the incidence rate in Washington was 2.5 cases/100,000 population, about twice the rate for the United States.

In 2004, 153 cases of *E. coli* O157:H7 were reported in Washington; three infections were fatal.

Males and females had similar rates of infection. Children under the age of five years had an elevated incidence (9.5 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.

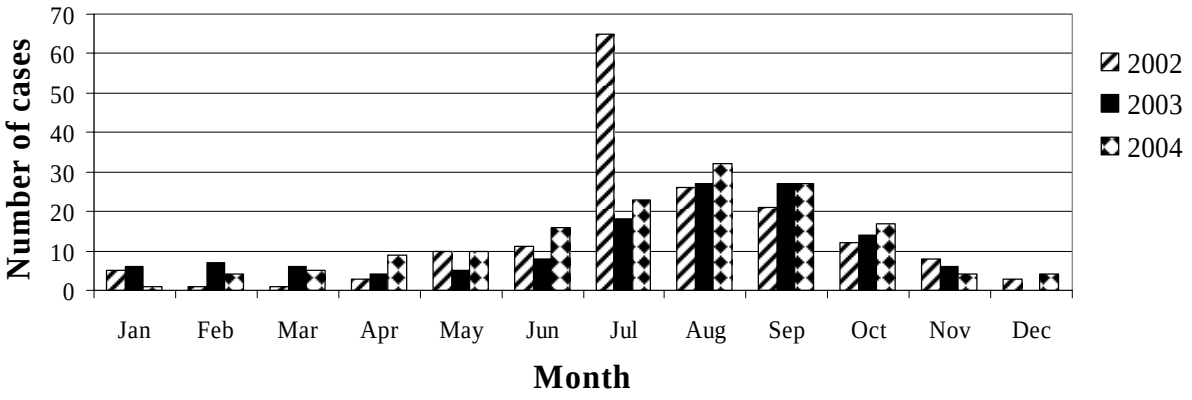
Figure 7. *E. coli* O157:H7 - incidence by age group, 2004



Infection with enterohemorrhagic *E. coli* is seasonal with cases most commonly occurring during summer months. In 2004, 36% of reported cases had onset of illness in July and August. There was one outbreak associated with a day care center and six foodborne outbreaks, including outbreaks associated with ground beef, queso fresco soft cheese and vegetables. Pacific and Whitman counties had elevated rates, however these

were based on small numbers of cases. Twenty-four counties reported no cases of enterohemorrhagic *E. coli* in 2004.

Figure 8. *E. coli* O157:H7 - reported cases by month of onset, 2002-2004



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 an inherently contaminated product (e.g., *Salmonella* and eggs), improper food preparation techniques or 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* and *Shigella* species. 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 2004, 58 foodborne outbreaks, affecting more than 650 persons, were reported. Thirty-five percent resulted in three or fewer ill persons.

One outbreak of norovirus involved approximately 100 ill persons and was associated with an ill food handler at a university cafeteria in Spokane. Another large norovirus outbreak involved ill food handlers at a restaurant/casino in Kittitas County in which more than 130 persons were reported ill. Nine persons reported illness following ingestion of cucurbitacin toxin from delicata squash that had been cross breed with a type of gourd. A complete list of foodborne outbreaks reported in 2004 including etiology and contributing factors is located in Appendix II.

The majority of reported outbreaks (85%) in 2004 involved restaurant settings.

Figure 9. Foodborne outbreaks by place of preparation, 2004

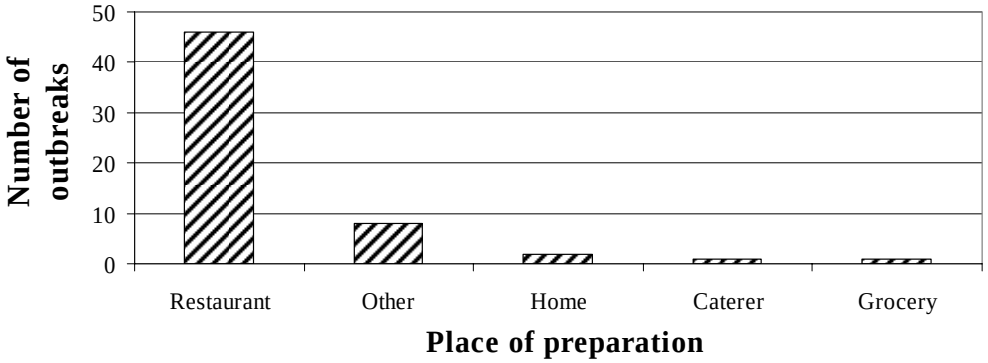
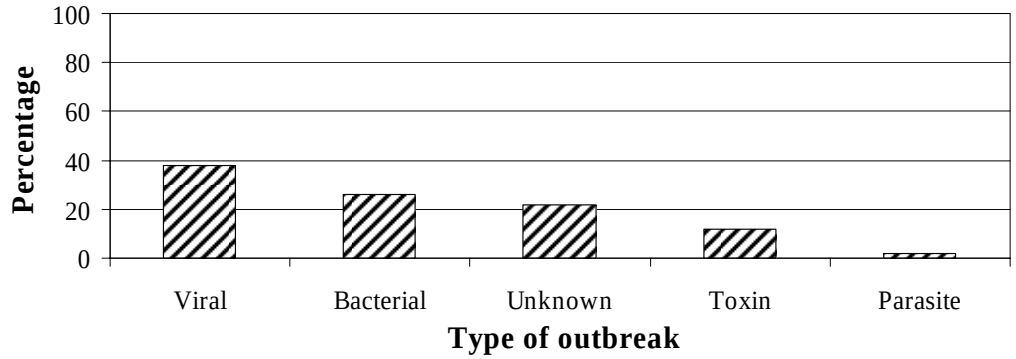
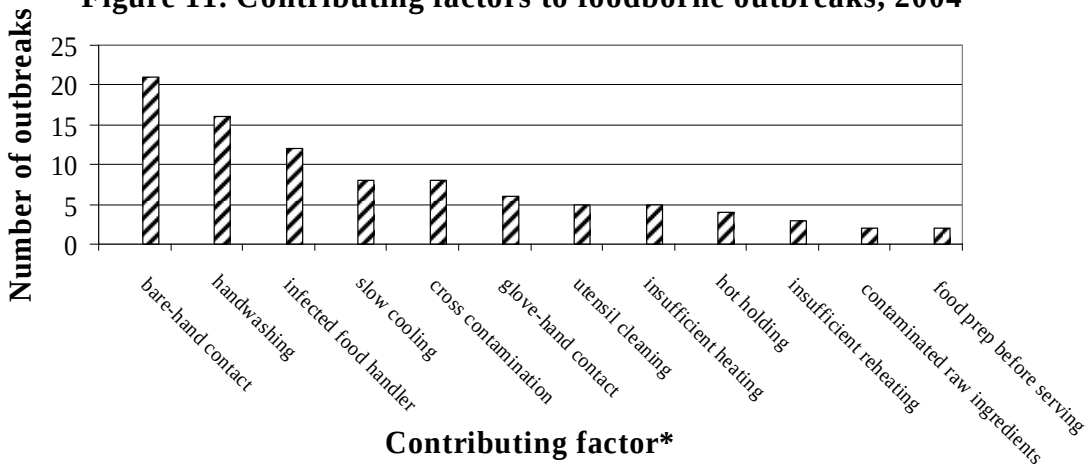


Figure 10. Foodborne outbreak etiology, 2004



Factors contributing to foodborne illness outbreaks during 2004 included bare-hand contact, poor handwashing, contamination by ill food handlers and improper preparation and storage of foods that enable bacterial growth or viability.

Figure 11. Contributing factors to foodborne outbreaks, 2004



*More than one factor may be identified in a single outbreak.

GIARDIASIS

Giardiasis is a diarrheal illness caused by the parasite *Giardia lamblia* (also known as *G. intestinalis* or *G. duodenalis)* that may 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 fecal-oral through the 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 2004, 444 cases of giardiasis were reported (7.2 cases/100,000 population) from 27 counties in Washington, a comparable number to previous years. No deaths were reported. The age-specific incidence was highest in children under five years of age (16.2 cases/100,000 population). Thirty-one percent of cases had onset of illness in July, August or September, which coincides with recreational exposure to untreated water.

Figure 12. Giardiasis - incidence by age group, 2004

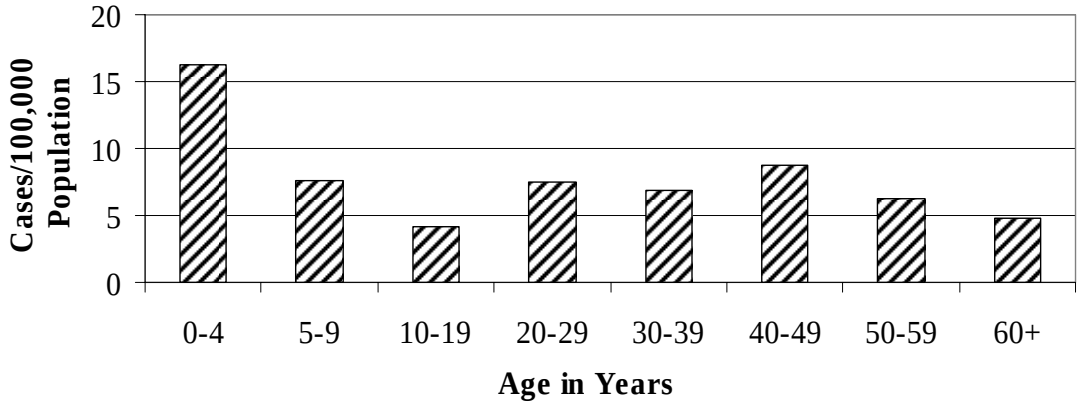
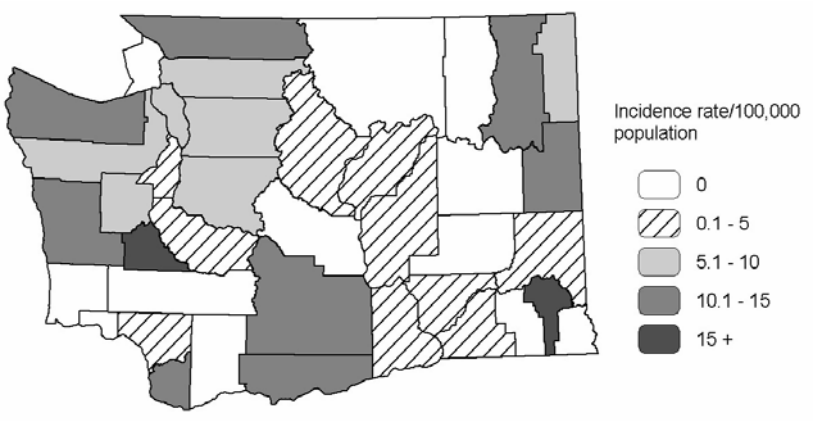


Figure 13. Giardiasis – incidence by county, 2004



GONORRHEA

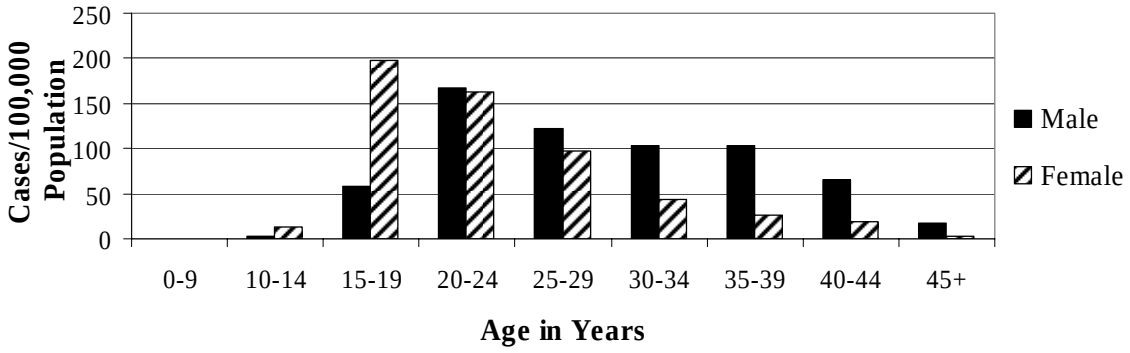
Gonorrhea is caused by the bacteria *Neisseria gonorrhoeae* and is transmitted through sexual contact with an infected partner. Though infections may be asymptomatic, about 50% of women with gonorrheal infections will have symptoms of an abnormal vaginal discharge or painful urination. Men usually have 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. 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 detected an increasing prevalence of quinolone-resistant *Neisseria gonorrhoeae* (QRNG) in the Seattle area. Based on these findings, the CDC recommends that fluoroquinolones (e.g., 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 men who have sex with men (MSM) for confirmed or suspected gonorrhea and should be used with heightened caution in all other patients. The antibiotics of choice are ceftriaxone or cefpodoxime, followed with either azithromycin or doxycycline to empirically treat coexisting chlamydial infection. Current recommendations for diagnosis and treatment of gonorrhea, including management in special populations, can be found in the *CDC STD Treatment Guidelines*, available online at http://www.cdc.gov/STD/treatment.

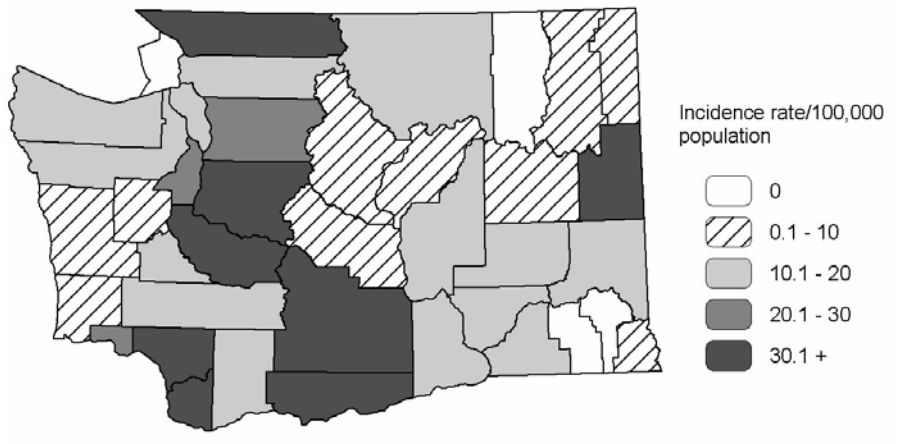
In 2004, 2,810 cases of gonorrhea (1,581 males and 1,229 females) were diagnosed and reported in Washington (45.6 cases/100,000 population). Among these cases, 662 (24%) were also co-infected with chlamydia. Six percent of females with gonorrhea (73 of 1,229) had recurrent infection, a risk factor for infertility. Gonorrhea incidence was highest among sexually active adolescents and young adults. The highest incidence for males occurred among those 20-24 (167.0 cases/100,000 population) and 25-29 (123.0 cases/100,000 population) years of age. The highest rates for females occurred among those 15-19 (198.0 cases/100,000 population) and 20-24 (163.0 cases/100,000 population) years of age. Of the 223 persons with recurrent gonococcal infection (greater than one episode in a 12 month period), 14% (31) were teenagers.

Figure 14. Gonorrhea - incidence by sex and age group, 2004



King and Yakima counties accounted for 52% of Washington's gonorrhea morbidity in 2004. Yakima County had the highest incidence (87.0 cases/100,000 population). Columbia, Ferry, Garfield and San Juan counties reported no cases of gonorrhea in 2004.

Figure 15. Gonorrhea – incidence by county, 2004



GRANULOMA INGUINALE

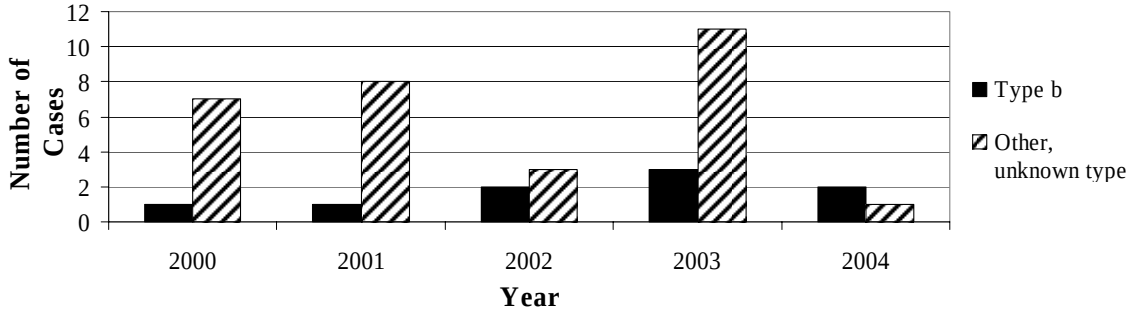
Granuloma inguinale (donovanosis) is a sexually transmitted genital ulcer disease caused by the bacterium *Calymmatobacterium granulomatis*. Rare in the United States, the disease is endemic in some tropical and subtropical areas, primarily certain countries in Asia and in parts of Australia. Current recommendations for diagnosis and treatment of granuloma inguinale can be found in the *CDC STD Treatment Guidelines,* available online at http://www.cdc.gov/STD/treatment. No cases were reported in Washington in 2004.

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*. Infections are now rare in the United States as a result of routine childhood immunization for *H. influenzae* type b (Hib). Transmission is through respiratory droplets and through contact with nasopharyngeal secretions. Children under three years of age are at particular risk for meningitis caused by Hib, sometimes with fatal outcomes. About 10% of Hib meningitis results in permanent sequelae including hearing loss, paralysis or other neurological damage. Invasive disease in children under five years of age is immediately notifiable in Washington.

Before vaccine was introduced in 1989, several hundred pediatric cases of type b (Hib) infection were reported annually in Washington. More recently, fewer than 10 cases have been reported annually. In 2004, three cases of invasive *H. influenzae* infection were reported in Washington, with no deaths. All cases were under one year of age. Two were type b and one isolate was not tested. One of the cases was partially immunized.

Figure 16. *Haemophilus influenzae* - reported cases by capsular type, 2000-2004



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 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 individuals with HPS require hospitalization and intensive care; there is no specific treatment available and approximately 35% of recognized cases are fatal. The diagnosis of HPS is confirmed by serological assays performed at public health laboratories, or by post-mortem immunohistochemical tissue staining.

HPS was first reported in Washington in 1994; from 1994-2004, 28 cases have been reported. Of these, 17 had exposures in eastern Washington, 8 in western Washington and three were exposed in multiple locations both in and out of state. Nine of the 28 (32%) cases were fatal. During 2004, two cases of HPS were reported in Washington residents, one in Okanogan and one in Adams County. Both infected individuals were in the 55-60 year age group and exposed to rodent droppings in or around their homes and outbuildings; neither infection was fatal.

HEMOLYTIC UREMIC SYNDROME

Hemolytic uremic syndrome (HUS) is a rare complication of certain infections, most commonly occurring after infection with *E. coli* O157:H7 or other Shiga-like toxin producing enteric bacteria. Cases with laboratory confirmation of *E. coli* O157:H7, other Shiga-like toxin producing *E. coli* or *Shigella* should be reported in the appropriate disease category. Cases without laboratory confirmation of a specific agent should be reported as HUS.

Shiga-like toxin has several effects including hemolysis of red cells, destruction of platelets and renal damage which can cause renal failure. 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 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-like toxin producing organism. HUS was made immediately reportable in Washington in December, 2000. Six cases, four in the 0-5 year age group, were reported in 2004.

HEPATITIS A

Infection with hepatitis A virus (HAV) may cause fever, anorexia, nausea, abdominal pain and jaundice. 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, 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 has declined locally and in the United States.

Acute hepatitis A is immediately notifiable in Washington. In 2004, 69 cases of acute hepatitis A were reported in Washington (1.1 cases/100,000 population) with no reported deaths. This represents a continuing decline in hepatitis A cases since the 1,037 cases reported in 1998. Rates were similar among males and females.

Figure 17. Acute hepatitis A - reported cases, 2000-2004

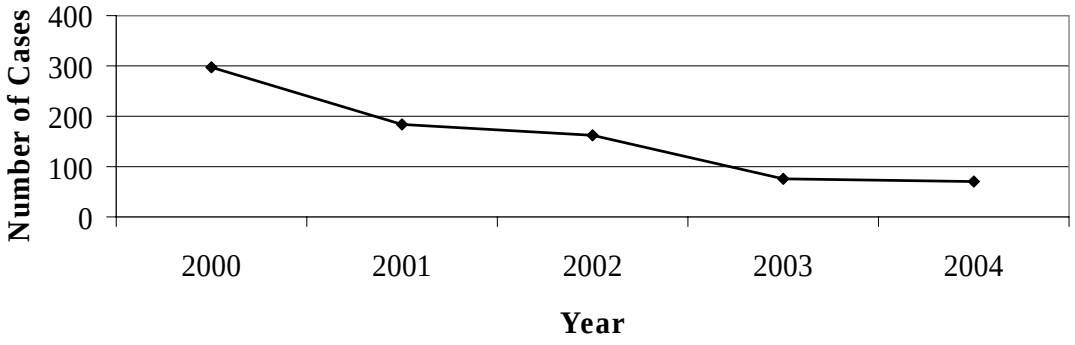
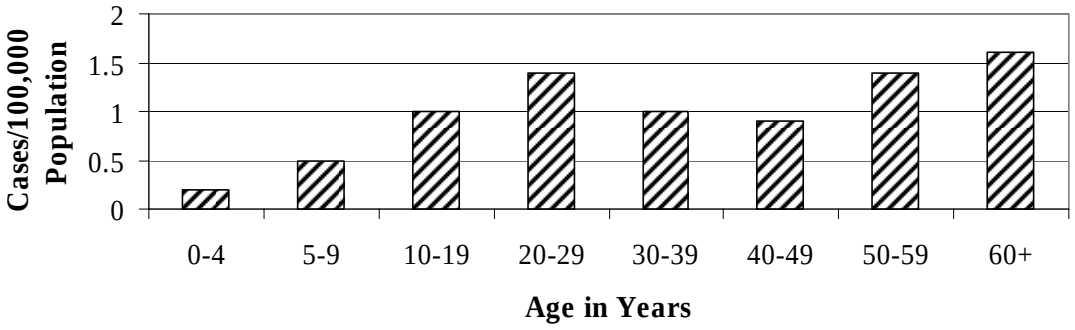


Figure 18. Acute hepatitis A - incidence by age group, 2004



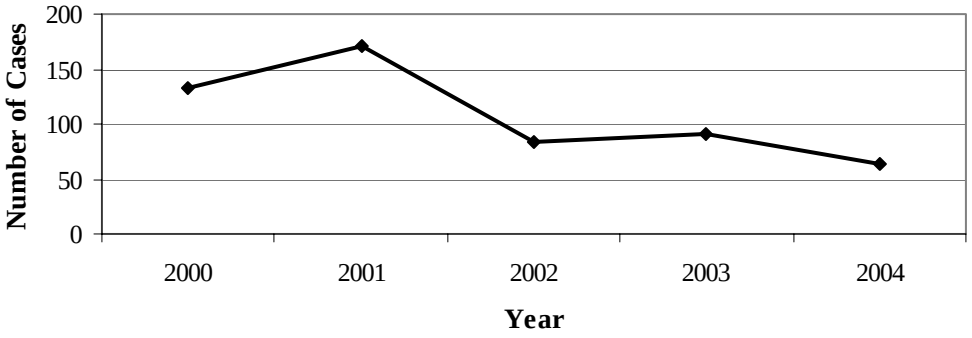
Rates exceeding 5.0 cases/100,000 population occurred in Douglas, Klickitat and Pend Oreille counties, however these rates were based on small numbers of cases.

HEPATITIS B

Infection with hepatitis B virus (HBV) causes acute and chronic disease; acute infection may be asymptomatic, but some individuals may 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.

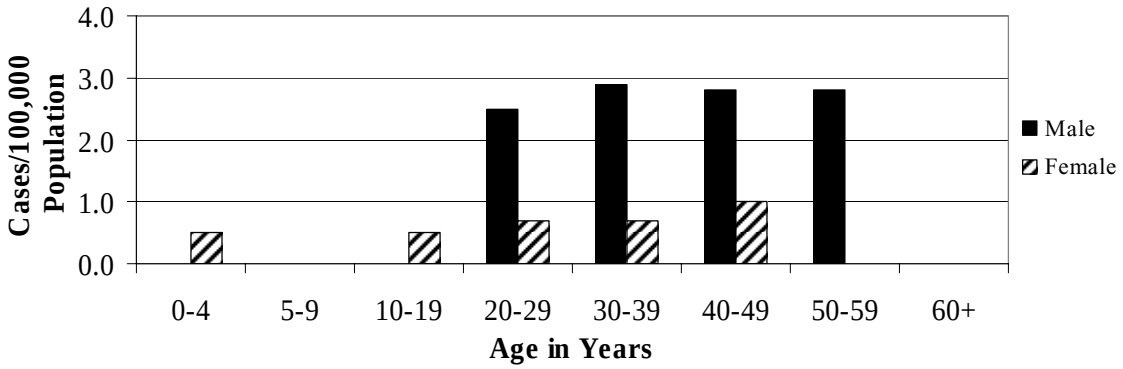
Acute HBV infection with recovery confers lifelong immunity, however 10% of those infected will develop chronic HBV infection which may lead to cirrhosis and hepatocellular carcinoma. Hepatitis B vaccine, available since 1981, prevents infection and is routinely recommended for children, adolescents 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 2004, 64 cases of acute hepatitis B were reported in Washington (1.0 cases/100,000 population) with one reported death.

Figure 19. Acute hepatitis B - reported cases, 2000-2004



The rate of acute hepatitis B was higher among males (1.6 cases/100,000 population) than among females (0.5 cases/100,000 population) and among those 20-49 years of age (1.8 cases/100,000 population), compared with other age groups.

Figure 20. Acute hepatitis B - incidence by sex and age group, 2004



Rates exceeding 3.0 cases/100,000 population occurred in Cowlitz and Skamania counties, however these rates were based on small numbers of cases.

HEPATITIS C

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 a medical or surgical procedure, 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 has limited effectiveness, causes many side effects and is expensive.

Acute hepatitis C was formerly reportable as nonA, nonB hepatitis; in 2001, acute and chronic hepatitis C became notifiable conditions in Washington. In 2004, 23 cases of acute hepatitis C were reported in Washington (0.4 cases/100,000 population) with one reported death. Ninety-one percent of the cases were in the 20-49 year age group. The rate of acute hepatitis C was similar among males and females. 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. The elevated rate in Skagit County was based on a small number of cases.

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 Washington in 2004, there was one reported case in Clark County in an adoptee from India and a case of acute viral hepatitis in Spokane, both without specific agents identified.

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 an infected person who has 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; asymptomatic infections are common, though 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.

Current recommendations for diagnosis and treatment of HSV can be found in the *CDC STD Treatment Guidelines,* available online at http://www.cdc.gov/STD/treatment. Diagnosis of herpes is based on observations of typical lesions with laboratory confirmation by isolation of HSV in culture, HSV antigen detection or by more expensive serologic methods. Antiviral drugs partially control the frequency and severity of outbreaks, but are not a cure.

Only a patient's first disease episode or neonatal infections are notifiable in Washington. In 2004, 2,152 cases of genital herpes (548 males and 1,604 females) were reported (34.9 cases/100,000 population), including one neonatal infection. In 2004, the highest age-specific incidence occurred among females 20-24 years of age (235.6 cases/100,000 population vs. 60.5 cases/100,000 population in males), followed by females 15-19 years of age (158.8 cases/100,000 population vs. 19.8 cases/100,000 population in males). King, Pierce, Snohomish and Spokane counties accounted for 63% of the reported cases.

Figure 21. Herpes simplex - incidence by sex and age group, 2004

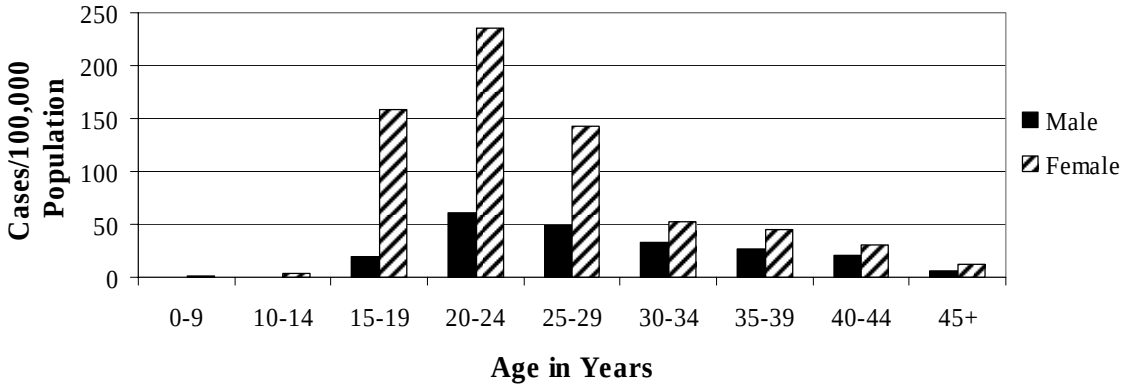
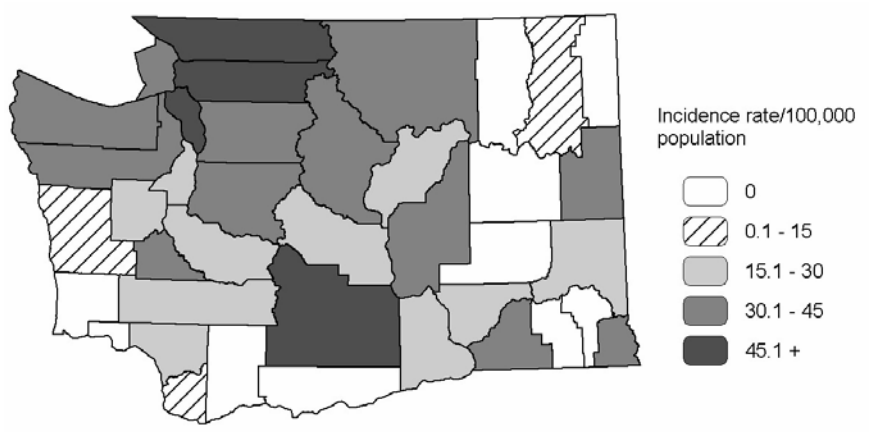


Figure 22. Herpes simplex – incidence by county, 2004



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) has 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 1) 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. The DOH Board of Health mandated HIV reporting in September 1999 and through December 31, 2004, 3,901 cases of HIV infection (not AIDS) were reported to DOH.

Table 1. 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 months 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 2004, 443 cases of AIDS were reported in Washington, a 13% decrease from cases reported in 2003. The incidence rate of AIDS in 2004 was 7.2 cases/100,000 population, compared to the national rate of 15.0 cases/100,000 population (2003 data). While the number of cases fluctuates annually, the trend has been leveling, reflecting trends seen nationally. Declines in morbidity and mortality seen in 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. Of the 443 AIDS cases, 23 were known to have died as of September 1, 2004. In 2004, the number of persons living with AIDS in Washington rose to the highest number ever (5,025), in part due to HAART markedly increasing survival among AIDS patients diagnosed since 1995.

AIDS cases were reported from 26 counties in 2004. For counties with at least five cases, the highest incidence rate was in Okanogan County (15.2 cases/100,000 population), followed by King County (14.4 cases/100,000 population), Franklin County (10.5 cases/100,000 population), Clark, Skagit and Thurston counties (all 5.5 cases/100,000 population) and Pierce County (5.0 cases/100,000 population).

Of the 443 AIDS cases reported, 372 (84%) occurred among males and 71 (16%) among females. Men who have sex with men (MSM) continued to account for the majority (55%) of all AIDS cases reported. Among adult and adolescent males, 279 cases (75%) were MSM, with or without concurrent injection drug use (IDU). Injection drug use alone accounted for 34 (9%) cases among men and 34 cases (9%) were MSM who also used injection drugs. Risk was unreported or unconfirmed in 32 (9%) adult and adolescent male cases. For males, the age-specific rate was highest among persons 30-39 years of age (30.5 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; in recent years, this proportion has fluctuated between 11% and 17%. Among adult and adolescent women with AIDS reported in 2004, 34 (48%) acquired HIV infection through heterosexual contact and 15 (21%) reported IDU. Risk was unreported for 20 (28%) women. For women, the age-specific rate was highest among persons 40-49 years of age (4.7 cases/100,000 population).

As in previous years, racial/ethnic minorities were disproportionately represented among AIDS cases, however the proportion of cases among minorities has been steadily increasing over time. Whites accounted for the majority (292 cases, 66%) of cases reported. African Americans comprised 70 cases (16%), Hispanics 53 cases (12%), Asians 12 cases (3%) and Native Americans 11 cases (2%). Those with multiple or unknown race/ethnicity comprised six cases (1%).

In addition to AIDS cases, 454 cases of HIV (not AIDS) were reported in 2004 (7.4 cases/100,000 population). These included 392 male cases and 62 female cases reported from 26 Washington counties. For counties with at least five cases, the highest rate was in King County (16.8 cases/100,000 population), followed by Cowlitz County (6.3 cases/100,000 population), Thurston County (5.5 cases/100,000 population) and Spokane County (4.4 cases/100,000 population).

The majority of reported HIV cases (86%) were male. For adult and adolescent males, the primary mode of exposure was MSM (275 cases, 70%), followed by IDU (29 cases, 7%) and the two risks combined (41 cases, 10%). Thirty-one cases (8%) were reported with no identified risk (NIR). For males, the age-specific HIV rate was highest among persons 30-39 years of age (30.5 cases/100,000 population). For adult and adolescent females, heterosexual contact was the mode of exposure for 27 cases (44%); 16 cases (26%) reported IDU and 17 cases (28%) reported NIR. For females, the age-specific HIV rate was highest among persons 20-29 years of age (4.7 cases/100,000 population).

Similar to AIDS cases, Whites constituted the majority of HIV cases (305 cases, 67%). African Americans accounted for 74 cases (16%), Hispanics 43 cases (9%), Asians 12 cases (3%) and Native Americans 12 cases (3%). Persons with multiple or unknown race/ethnicity comprised eight (2%) cases.

LEGIONELLOSIS

Legionellosis is an acute bacterial infection caused by *Legionella* bacteria, 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* are 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 immune deficiency. 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 2004, there were 15 cases of legionellosis (0.2 cases/100,000 population) reported in Washington with four deaths. Seven of the cases had predisposing conditions for legionellosis including chronic diabetes, chronic lung disease or immunosuppressive illness. Thirteen cases had infection with *L. pneumophila,* one with *L. micdadei* and one with *L. longbeachae*.

LEPTOSPIROSIS

Leptospirosis is a zoonotic bacterial disease caused by more than 200 *Leptospira interrogans* serovars. Leptospires are shed in urine for prolonged periods by a wide variety of infected wild and domesticated animals; soil and water can also be contaminated. Transmission to humans is usually through abraded skin or contact with mucous membranes during swimming or wading in natural bodies of water, or through direct contact with infected animal tissues. The illness may be asymptomatic, mild or severe and last from a few days to weeks. Signs and symptoms may include fever, headache, myalgias, conjunctival suffusion and, less frequently, meningitis, rash, jaundice or renal dysfunction. Diagnosis is made by the detection of anti-*Leptospira* antibodies, either the presence of IgM or rising titers of IgG in serum or by isolation of leptospires from blood, CSF or urine. There were no reported cases of leptospirosis in humans in 2004. However, 20 cases of canine leptospirosis were reported by veterinarians in western Washington; there was no common exposure identified.

LISTERIOSIS

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

Infection with *Listeria* is frequently asymptomatic in healthy adults, but may result in meningoencephalitis or septicemia in newborns and immunocompromised adults. Fetal or neonatal infections may occur as a result of maternal infection. Those at highest risk for serious listeriosis are neonates, the elderly, immunocompromised persons and pregnant women.

Listeriosis is an immediately notifiable condition in Washington. In 2004, 13 cases of listeriosis (0.2 cases/100,000 population) were reported in Washington with three deaths. Of the 13 reported cases, 11 occurred in individuals over 60 years of age, one in the 30-40 year age group and one in a pregnant woman who miscarried due to her infection. Risk factors among these cases included immunodeficiency and ingestion of soft home made cheese.

LYME DISEASE

Lyme disease is a bacterial disease caused by the spirochete *Borrelia burgdorferi*. Most cases reported in Washington occur in travelers who have been bitten by infected ticks in other states; Lyme disease is rarely acquired in Washington. Only a small percentage of tick bites result in human infection. Infected individuals may be asymptomatic or may develop an erythematous rash with central clearing (erythema migrans [EM]), fever, headache and myalgias or arthralgias. Without treatment, the infection can lead to arthralgias, arthritis, neuritis, myocarditis, skin and mental status changes.

The risk for Lyme disease is highest in the northeastern United States (e.g., New York, Connecticut, etc.) and north central states (Minnesota and Wisconsin), especially during warm weather when ticks are active. For surveillance purposes, the diagnosis of Lyme disease requires exposure in an endemic area and EM >5cm as described by a healthcare provider, or at least one objective manifestation of late disease with detection of antibody by both enzyme immunoassay and Western blot assay.

In 2004, 14 cases of Lyme disease were reported in Washington residents; 12 were acquired in other states and two cases reported exposures in western Washington.

LYMPHOGRANULOMA VENEREUM

Lymphogranuloma venereum (LGV) is a sexually transmitted genital ulcer disease and is rare in the United States. 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. LGV is common in tropical and subtropical areas and is endemic in parts of Asia and Africa. Recently, LGV has emerged in men who have sex with men (MSM) in large urban centers in the Netherlands and elsewhere in Europe, triggering enhanced surveillance should this outbreak spread to North America. In Washington, protocols have been developed to identify potential LGV infection in sentinel clinic populations. No cases of LGV were reported in Washington in 2004; one case was reported in 2003.

Current recommendations for diagnosis and treatment of LGV can be found in the *CDC STD Treatment Guidelines*, available online at http://www.cdc.gov/STD/treatment.

MALARIA

Malaria is a mosquito-borne infection caused by several species of *Plasmodium* parasites (*P. falciparum, P. vivax, P. malariae* and *P. ovale*). *Anopheles* mosquitoes are the primary vector and humans are the main reservoir for malaria. Most cases reported in the United States are associated with exposures in malaria endemic areas, primarily in tropical and subtropical regions. Autochthonous malaria is extremely rare in the United States, although the mosquito vector does exist in limited areas in the United States, primarily in the southeast.

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.

Malaria ranks among the most significant global health challenges. 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 Washington, 24 malaria cases were reported in 2004; all of the cases acquired their infection on other continents including Africa, Asia and South America.

MEASLES (RUBEOLA)

Measles is a febrile rash illness caused by the rubeola virus. Measles is characterized by the acute onset of fever, coryza, conjunctivitis, cough and oral lesions (Koplik spots), followed by an erythematous maculopapular rash that begins on the face and becomes generalized. The virus is highly contagious and is transmitted by airborne and respiratory droplets. The infectious period extends from four days before until four days after the onset of rash and illness usually lasts 7-10 days. Complications (otitis media, pneumonia, croup, encephalitis) may occur in any age group, however measles is more severe in infants and adults than children or adolescents.

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

Measles is an immediately notifiable condition in Washington. In 2004, there were seven confirmed cases of measles in Washington, all in adoptees from the same orphanage in China. No secondary cases in Washington resulted from this outbreak (for additional details on this outbreak, see Appendix 4).

MENINGOCOCCAL DISEASE

Infection with the bacteria *Neisseria meningitidis* may result in bacteremia (meningococcemia), pneumonia or meningitis (meningococcal meningitis). Meningococcal meningitis is frequently accompanied by a petechial rash and may be complicated by purpura fulminans with peripheral gangrene and multi-organ system failure. About 10% of cases are fatal even if treated with appropriate antibiotics. *N. meningitidis* can be distinguished by their capsular polysaccharides and there are 13 pathogenic serogroups, with serogroups B, C and Y causing the most disease in the United States.

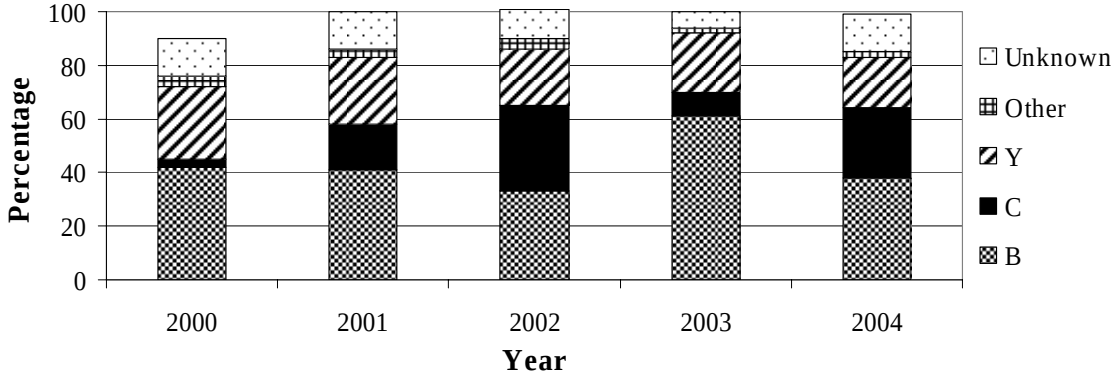
N. meningitidis are carried in the nasopharynx of about 15% of the healthy population. Transmission occurs by respiratory droplets and through contact with nasopharyngeal secretions. Risk groups for meningococcal disease include infants and young children, household and other close contacts of infected persons, residents in congregate settings (e.g., military recruits or college students living in dormitories) and microbiologists working with isolates of *N. meningitidis*. Exposure to tobacco smoke, including second-hand smoke, may increase the risk of illness.

Following exposure to a case of meningococcal disease, prompt post-exposure chemoprophylaxis for close contacts is effective in preventing secondary cases. There are two meningococcal vaccines, the meningococcal polysaccharide vaccine available since the 1970s and meningococcal conjugate vaccine licensed in 2005.

Meningococcal disease is immediately notifiable in Washington. In 2004, there were 42 cases of meningococcal disease (0.7 cases/100,000 population) with four deaths reported in Washington. Rates in Washington have been stable for several years and are comparable to national rates. In 2004, the highest incidence was among children under one year of age (7.5 cases/100,000 population). Higher rates in Garfield, Pacific and Pend Oreille counties were based on small numbers of cases.

In the United States, serogroups B and C account for about 60% of meningococcal disease. The most common serogroup in Washington is serogroup B. In 2004, serogroups B and C accounted for 64% of isolates. Serogroup Y has increased nationwide over the past decade and, in 2004, accounted for 19% of Washington cases. Pneumonia is most commonly associated with serogroup Y.

Figure 23. *Neisseria meningitidis* - percentage of serogroups, 2000-2004



MUMPS

Mumps is an acute viral disease characterized by fever and swelling of the salivary glands, typically the parotids. Transmission may be airborne, 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 include infertility, arthritis, renal involvement, thyroiditis and hearing impairment.

Once a virtually universal infection, mumps incidence decreased in the United States due to routine childhood immunization with measles-mumps-rubella (MMR) vaccine. In 2004, there were two cases of mumps reported in Washington, compared to 11 cases during 2003. One case was an unvaccinated child who had recently arrived in the United States from Japan. The other case was an adult who had an unknown immunization history.

PARALYTIC SHELLFISH POISONING

Paralytic shellfish poisoning (PSP) is caused by eating shellfish containing 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 the 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. Sites closed to shellfishing may not have signs posted, but updates on affected sites and closures are available through the Washington State Department of Health Marine Biotoxin Hotline (1-800-562-5632) or the Food Safety and Shellfish Biotoxin Program website at http://www.doh.wa.gov/ehp/sf/BiotoxinProgram.htm.

In Washington, PSP is an immediately notifiable condition. Two clusters of PSP have been reported in Washington within 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. No cases of PSP were reported in Washington in 2004.

PERTUSSIS

Pertussis is a vaccine-preventable respiratory illness resulting from infection with the bacillus *Bordetella pertussis*. Transmission of *B. pertussis* occurs through respiratory droplets. Classically, pertussis is characterized by episodes of forceful, repetitive coughing followed by an inspiratory whoop and vomiting, although these symptoms may be absent in infants under six months of age or partially immune adolescents and adults. 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 serious disease. Symptoms may last weeks and 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 against pertussis, combined with early recognition and treatment or post-exposure prophylaxis of contacts, is essential for disease control. Acellular pertussis vaccines (DTaP) are recommended for individuals under seven years

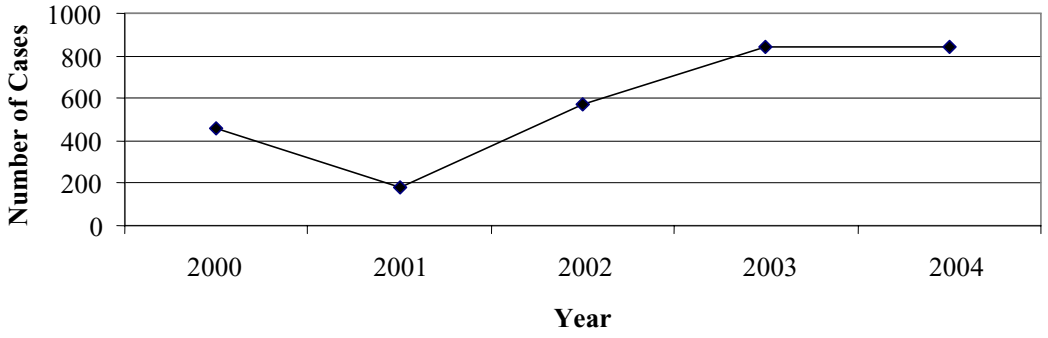
of age. In 2005, a pertussis vaccine became available for adolescents and adults, who are at risk for pertussis due to waning immunity. Infections among adolescents and adults are an important source of disease transmission to non-immunized young children.

For surveillance purposes, pertussis is defined as a compatible illness with *B. pertussis* isolated by culture or detected by nucleic acid amplification tests (NAAT). The direct fluorescent antibody (DFA) assay has low sensitivity and specificity and both false negatives and positives can occur. Serology is not accepted as laboratory confirmation.

Pertussis is an immediately notifiable condition in Washington, and the incidence can fluctuate considerably. In Washington, a nadir occurred in 1993 with 1.8 cases/100,000 population, compared with the 1996 peak of 15.0 cases/100,000 population. In 2004, 842 cases (13.7 cases/100,000 population) of pertussis were reported in Washington (no deaths), representing a 46% increase compared to 2002 and a more than four-fold increase from 2001. The rate in Washington typically exceeds the national rate (US rate 4.0 cases/100,000 population in 2003), a trend that may represent better detection of pertussis through the routine use of NAAT or a truly increased disease rate.

Cough was reported by all but one reported case in 2004. Other symptoms included vomiting (54%), apnea (27%) and whooping (23%). Seizures (five cases) and encephalitis (one case) were uncommon complications; 51 (6%) cases were hospitalized. There were 22 suspected or confirmed pertussis outbreaks reported in 2004, including 10 in healthcare or long-term care settings. In 2004, pertussis peaked in September with high rates throughout the spring and summer months.

Figure 24. Pertussis - reported cases, 2000-2004

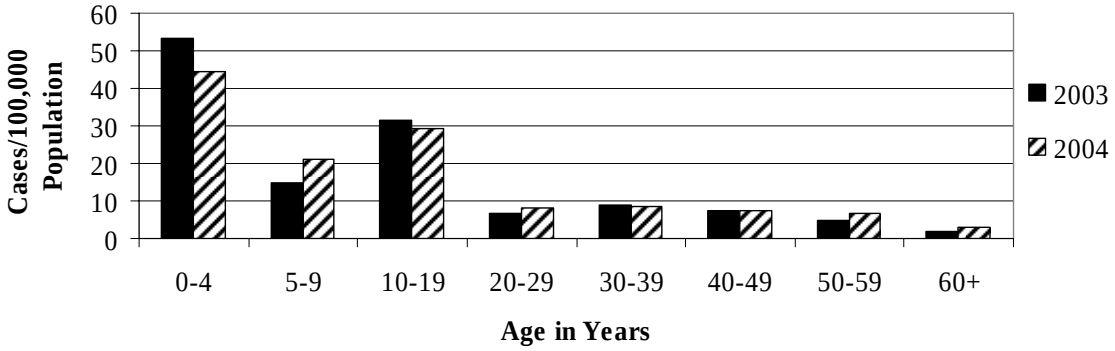


Gender-specific incidence was similar among children and adults older than 59 years of age, however the rate among females 20-59 years of age was 9.9 cases/100,000 population or 1.8 times that of males (5.5 cases/100,000 population) in the same age group. This difference could be due to increased exposure to children with pertussis and more willingness by infected women to seek medical care.

Pertussis rates are typically highest in younger children who have no or partial immunity due to their age. During 2004, infants under one year of age had a high incidence of pertussis (93.3 cases/100,000 population) and comprised 9% of reported cases. Most of

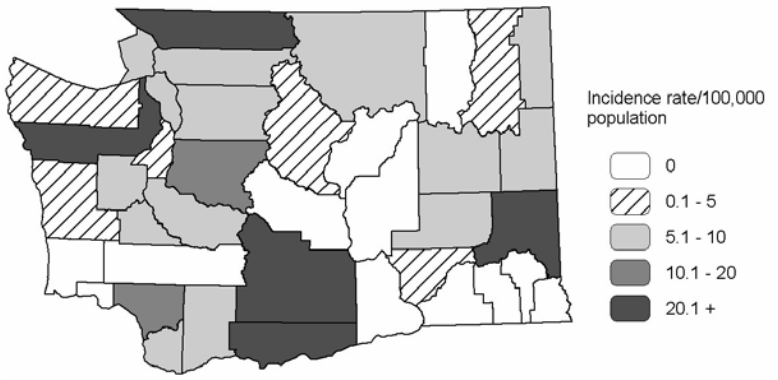
these were among infants under six months of age. Twelve percent of all cases occurred among children 1-4 years of age, 11% among children 5-9 years of age and 32% among adolescents 10-19 years of age. Adults older than 20 years of age comprised 36% of all reports.

Figure 25. Pertussis - incidence by age group, 2003-2004



Five counties had rates more than twice the state average. The high rate in Klickitat County was based on a small number of cases.

Figure 26. Pertussis – incidence by county, 2004



PLAGUE

Plague is a bacterial zoonosis caused by *Yersinia pestis*. Plague is established in small wild mammal populations throughout the western United States. Transmission to humans occurs by flea or animal bites, handling infected animal tissues, or rarely, 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%.

In 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. No cases were reported in Washington in 2004. 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. Suspect or confirmed cases in individuals without an appropriate exposure history should raise the index of suspicion for a bioterrorism event.

POLIOMYELITIS

Poliomyelitis results from infection with any of the three serotypes of poliovirus. Most infections with poliovirus are asymptomatic and fewer than 1% result in paralytic polio (acute flaccid paralysis). Although outbreaks of polio continue to occur in other areas of the world, the last naturally-acquired polio infection in the United States occurred in 1979 and the last in Washington occurred in 1977. Since 1979, almost all polio reported in the United States have resulted from virus shed by an individual immunized using oral polio vaccine, which contains live virus. A few cases of vaccine-associated paralytic polio (VAPP) have occurred in the state, one as recently as 1993. Due to the risk for VAPP, oral vaccine is no longer recommended and inactivated, parenteral polio vaccine is now preferred. In the United States, there have been fewer than 15 cases of polio annually for the last 20 years; all were VAPP, and none were naturally-acquired polio. Polio is an immediately notifiable condition in Washington and no cases were reported in 2004.

PSITTACOSIS

Psittacosis is a zoonosis caused by the bacterium *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 bird cages indoors. *Psittacine* birds (parrots, love birds, parakeets) are most commonly infected, though other birds are also prone to 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 because laboratory tests may be difficult to interpret. Outbreaks in birds are common in aviaries and pet shops. Human exposure is often associated with occupational transmission or disease spread by newly purchased birds. Reporting 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. No cases of psittacosis were reported in Washington in 2004.

Q FEVER

Q fever is caused by infection with the rickettsia *Coxiella burnetti*. Transmission occurs after inhalation of airborne *C. burnetti* in dust contaminated by placental tissues, birth fluids or excreta of infected animals including sheep, cattle, goats, dogs, cats and some wild animals. Symptoms, which are nonspecific and may be prolonged, include fever, chills, headache, weight loss and malaise, with or without hepatosplenomegaly. Chronic infection may cause endocarditis and hepatitis. The last case of Q fever in Washington occurred in 1999; there were no cases reported in 2004. Q fever is a potential agent of bioterrorism. Suspect 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 infection of the central nervous system caused by a neurotropic rhabdovirus of the genus *Lyssavirus*. All mammals, including humans, are susceptible to rabies. In humans, rabies causes a rapidly progressive and fatal encephalomyelitis. 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, and even with intensive care, rabies almost always progresses to coma or death within 20 days of onset, however in October 2004, a 15 year old Wisconsin resident recovered from rabies following treatment with a drug-induced coma and intravenous ribavirin (see MMWR 2004; 53(50):1171-3; online at www.cdc.gov/mmwr/preview/mmwrhtml/mm5350a1.htm).

The incubation period in humans is usually 2-12 weeks, but 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 carefully and immediately evaluated. Rabies can be transmitted from bats to humans, dogs, cats, horses, raccoons, skunks, coyotes and other mammals. 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 they are bitten by any mammal. Detailed information about animal rabies in Washington can be found in Appendix 3.

Rabies is immediately notifiable in Washington. There have been two cases of human rabies identified in Washington in the last decade. In 1995, a four year old child died of rabies four weeks after a bat was found in her bedroom (see MMWR 1995; 44(34):625-7; online at www.cdc.gov/mmwr/preview/mmwrhtml/00038616.htm). In 1997, a 64 year old man was diagnosed with rabies more than six weeks post-mortem (see MMWR 1997; 46(33):770-4; online at www.cdc.gov/mmwr/preview/mmwrhtml/00049057.htm). As with most endemically-acquired rabies in the United States, these two Washington residents were infected with bat variants of rabies virus, despite the absence of reported bat bites in both cases. No human cases of rabies were reported in Washington in 2004.

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 diseases associated with emerging infections, travel associated disease or rarely acquired infections in Washington. In 2004, two cases of tick-borne illness associated with travel to the eastern United States were reported in Washington residents: one case of babesiosis and one case of ehrlichiosis.

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

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 the soft ticks *Ornithodoros hermsii* 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 (up to 105° F), headache, myalgias, fatigue and drenching sweats; a transient petechial rash may also occur. Fever lasting 2-9 days alternates with afebrile periods of 2-4 days, and there may be up to eight relapsing episodes. Diagnosis of relapsing fever can be made by identification of *Borrelia* on a peripheral blood smear. Treatment involves appropriate antimicrobials and supportive care for hospitalized patients.

Relapsing fever is immediately notifiable in Washington. In most years, fewer than 10 cases of tick-borne relapsing fever are reported in Washington residents and many of them are exposed to infected ticks in cabins while vacationing outside of Washington. During 2004, six cases were reported in Washington, one exposure each in Spokane, Okanogan, Chelan and Stevens counties and two residents exposed in Oregon.

RUBELLA

Rubella, or German measles, is a rare, mild, febrile rash illness caused by the rubella virus. Rubella is prevented by routine childhood immunization with the measles-mumps-rubella (MMR) vaccine. Rubella is spread by respiratory droplets or through direct contact with infected persons. Symptoms include a generalized maculopapular rash, accompanied by slight fever and lymphadenopathy. Adults may have joint pain or frank arthritis. The most serious complication of rubella occurs during pregnancy when infection may lead to congenital rubella syndrome, resulting in multiple fetal abnormalities of the brain, eye, ear and internal organs. Most rubella in the United States occurs among young adults who emigrated from areas where rubella is endemic. 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 immediately notifiable in Washington. No cases of rubella were reported in Washington in 2004.

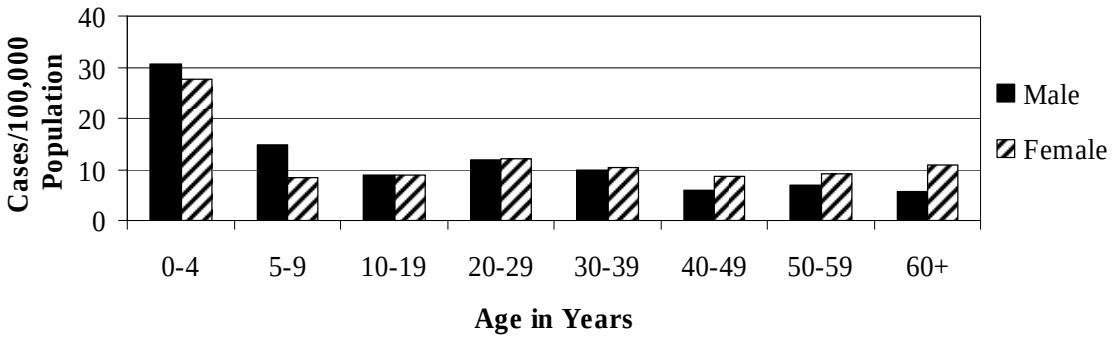
SALMONELLOSIS

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, raw milk, poultry, meat 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 immediately notifiable in Washington. In 2004, 660 cases were reported (10.7 cases/100,000 population) with two deaths. The highest incidence occurred in the 0-4 year age group (29.2 cases/100,000 population).

Figure 27. Salmonellosis - incidence by sex and age group, 2004



In 2004, several outbreaks of salmonellosis were reported in Washington. These included a multi-state outbreak of *S.* Bovismorbificans involving alfalfa sprouts and a multi-state outbreak of *S.* Enteritidis associated with raw almond consumption.

Submission of *Salmonella* isolates to the Washington State Department of Health Public Health Laboratories for serotyping is required. Serotyping and molecular epidemiologic methods may aid in identifying outbreaks and sources of infection. *S.* Typhimurium, *S.* Enteritidis, *S.* Heidelberg, *S.* Saintpaul and *S.* Newport continue to be among the most common serotypes causing disease in Washington and accounted for 52% of all cases of salmonellosis in 2004. Isolates from 20 cases (3%) were unavailable for serotyping.

Table 2. *Salmonella* isolates submitted to the Public Health Laboratories, 2004

Serotype	No.	%
Typhimurium	122	18.5
Enteritidis	97	14.7
Heidelberg	66	10.0
Saintpaul	30	4.6
Newport	28	4.3
4,12:I:--	25	3.8
Bovismorbificans	21	3.2
Unknown	20	3.0
Java	19	2.9
Thompson	16	2.4
Montevideo	14	2.1
Agona	13	2.0
Ohio	12	1.8
Javiana	10	1.5
Oranienburg	10	1.5
Braenderup	8	1.2
Hadar	8	1.2
Stanley	8	1.2
Infantis	7	1.1
Mbandaka	6	0.9

Serotype	No.	%
Muenchen	6	0.9
4,5,12:I:--	5	0.8
Anatum	5	0.8
Paratyphi A	5	0.8
Poona	5	0.8
Paratyphi B	4	0.6
Weltevreden	4	0.6

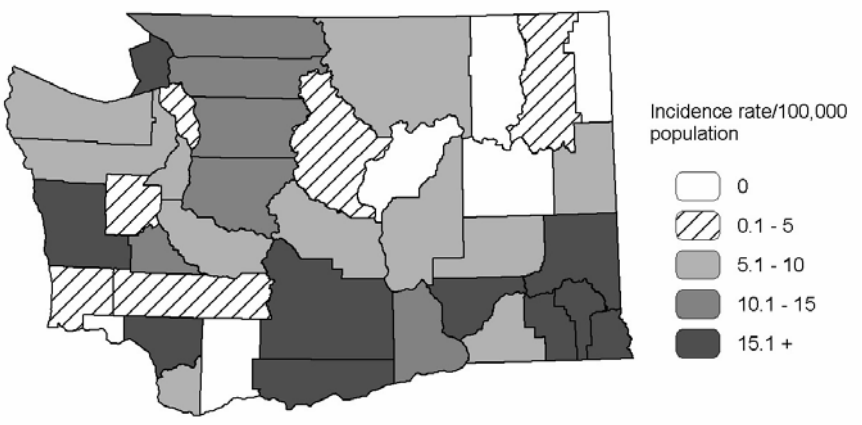
Bareilly, Derby, Dublin, Johannesburg, Schwarzengrun
3 cases each (0.5%)

Brandenburg, Cubana, Durban, Give, Havana, Kentucky, Kingabwa, Litchfield, Marina, Orion, Oslo, Sandiego, Subgenus, Tennessee, Westhampton
2 cases each (<0.5%)

1,4,5,12:1:-; 11:1V:Z53; 16:Z10:ENX,Z15; 4,5:I,--; 9,12:-:1,5; 41:Z4 Z23:-; 44:Z4,Z23:-; 50:B:Z6; 50:GZ51:-; 50:R:Z; 50:R:Z35; 60:R:E,N,X,Z15; Abony; Adelaide; Afula; Blockley; Brazzaville; Bredeney; Chandans; Chester; Cotham; Damman; Daytona; Denver; Gaminara; Guinea; Hangenbeck; Hartford; Hvittingfoss; Indiana; Kottbus; Manhattan; Miami; Minnesota; Panama; Portland; Reading; Rubislaw; Takoradi; Urbana; Wangata
1 case each (<0.5%)

Rates of greater than 10.0 cases/100,000 population occurred in 16 Washington counties in 2004. Of these, rates in Columbia, Garfield and San Juan counties were based on small numbers of cases.

Figure 28. Salmonellosis – incidence by county, 2004

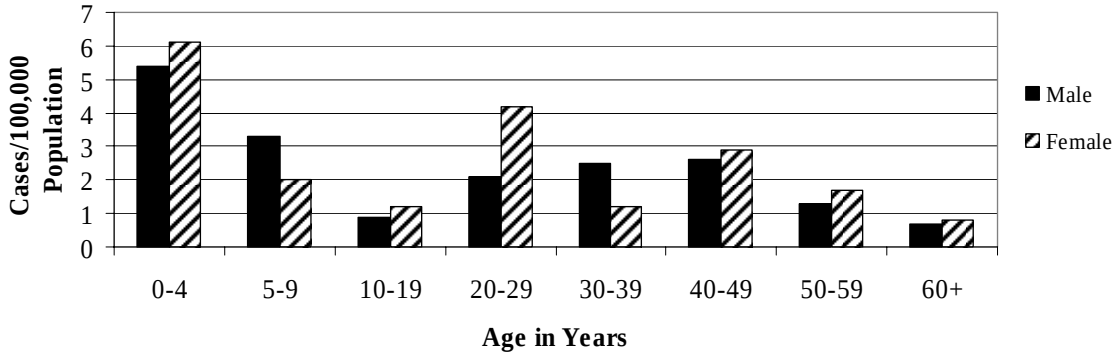


SHIGELLOSIS

Shigellosis is an acute bacterial infection caused by *Shigella sonnei, S. flexneri, S. dysenteriae or S. boydii.* Humans are the only reservoir of *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. Infection requires the ingestion of very few organisms and 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 immediately notifiable in Washington. In 2004, there were 133 cases of shigellosis reported in Washington (2.2 cases/100,000 population) with the highest rate in the 0-4 year age group (5.7 cases/100,000 population).

Figure 29. Shigellosis - incidence by sex and age group, 2004



S. sonnei was the most common species identified, infecting 58% of cases, followed by *S. flexneri* (35%). Fifteen counties in Washington reported cases of shigellosis in 2004. Rates in Benton, Grant, Kitsap, Klickitat, Okanogan, Spokane, Thurston and Whatcom counties were based on small numbers of cases.

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 through 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 can facilitate 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 and fetal death occurs in approximately 40% of cases if untreated. Surviving infants born with congenital syphilis may have multi-organ damage and serious bone deformities. Current recommendations for diagnosis and treatment of syphilis can be found in the *CDC STD Treatment Guidelines*, available online at http://www.cdc.gov/STD/treatment.

In 2004, there were 150 primary and secondary (P & S) syphilis infections (2.4 cases/100,000 population), 51 early latent cases, 135 late/late latent cases and no cases of congenital syphilis reported in Washington. The rate among males 20-44 years of age was almost 30 times higher than that of females in the same age group (11.3 cases/ 100,000 population vs. 0.4 cases/100,000 population). These cases represent an ongoing resurgence of syphilis among men who have sex with men (MSM) in Washington that was first observed in 1999. The most recent outbreak of syphilis among heterosexuals occurred more than a decade ago.

Figure 30. Primary and secondary syphilis - reported cases, 2000-2004

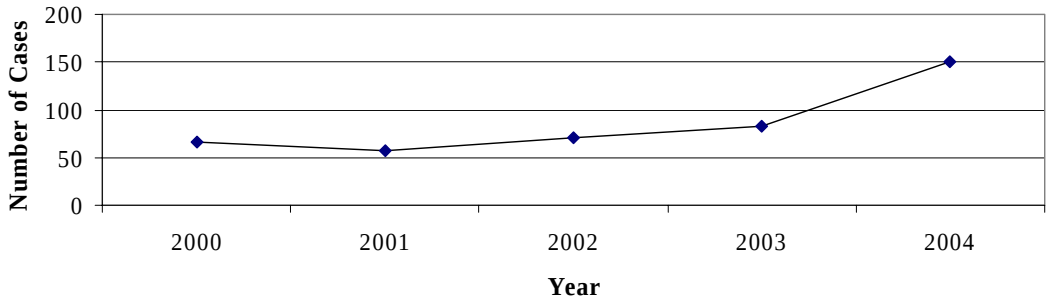
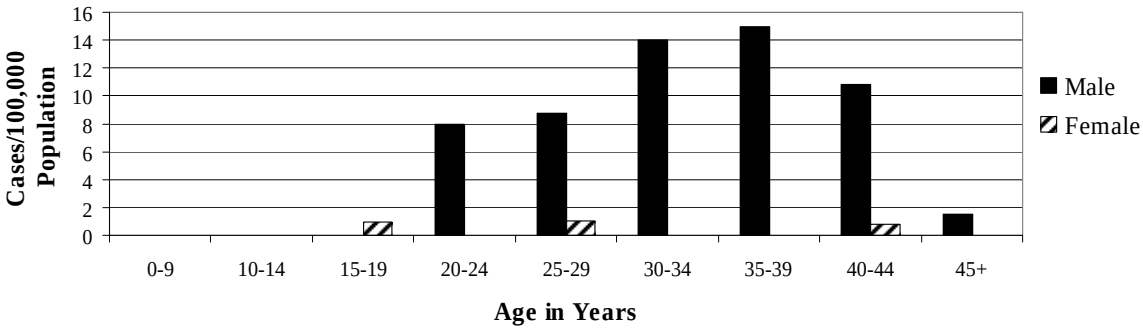


Figure 31. Primary and secondary syphilis - incidence by sex and age group, 2004



Eighty-two percent of the P & S syphilis cases in 2004 were reported by King County and many of the other cases statewide may have been associated with this outbreak that occurred almost exclusively among MSM. Over 35% of the male cases were HIV infected and most were also receiving care for HIV at the time of their syphilis infection.

TETANUS

Tetanus results from exposure to a neurotoxin produced by *Clostridium tetani* bacteria, usually as the result of introduction of the bacteria into a wound by a penetrating injury. *C. tetani* are commonly present in the soil and in the intestines of animals and humans.

The toxin prevents the release of neurotransmitters and causes muscle spasms that progress in a descending pattern, ultimately causing respiratory arrest and autonomic dysfunction. Mortality is high, even with intensive care. Tetanus is 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, usually older adults who have not received scheduled booster doses of tetanus toxoid. In Washington, the most recently reported case of tetanus occurred in 2000 and the last death from tetanus occurred in 1983. No cases of tetanus were reported in Washington in 2004.

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 commonly reported exposure in Washington. The last case of trichinosis in Washington was reported in 2000; there were no cases reported in 2004.

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 of respiratory secretions from infectious persons. Infection results in TB disease (active TB) or latent TB, and 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 disease is usually performed by examination of chest radiographs and sputum or tissue stained for acid-fast bacilli, and isolation of *M. tuberculosis* by culture of sputum or other specimens.

Tuberculosis disease is immediately notifiable in Washington. TB disease 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, etc.). From 1991-1994, TB disease decreased 17%. After a brief increase (1995-1997), the case count has continued to decline.

In 2004, 244 new cases (142 male and 102 female cases) of active TB in Washington were reported (3.9 cases/100,000 population), the lowest incidence ever recorded for Washington. Nineteen of 39 counties reported at least one new case of TB. King and Island counties had the highest incidence (7.4 and 6.6 cases/100,000 population, respectively), however the rate for Island County was based on a small number of cases.

Age-specific TB rates were highest among persons 65 years of age and older (7.3 cases/100,000 population) in 2004; persons 5-14 years of age continue to have the lowest rate (0.2 cases/100,000 population). The difference between gender-specific rates was not statistically significant in 2004 (4.6 cases/100,000 population in males vs. 3.2 cases/100,000 population in females).

Table 3. Tuberculosis by age group, 2004

Age (Years)	Cases	Cases/100,000 Population	%
0-4	4	0.9	2
5-14	2	0.2	1
15-24	39	4.4	16
25-44	80	4.5	32
45-64	68	4.3	28
65+	51	7.3	21
Total	244	3.9	100

A large proportion of TB disease was reported among certain racial/ethnic groups. The incidence among Asians was 15 times higher than among Whites and almost four times higher than that of Hispanics. The incidence among Blacks was 14 times higher than that of Whites and more than three times higher than that of Hispanics.

Table 4. Tuberculosis by race/ethnicity, 2004

Race/Ethnicity	Cases	Cases/100,000 Population	%
Asian/Pacific Islander, alone	95	24.0	39
White, alone	87	1.6	36
Black, alone	48	22.5	20
Hispanic, all races	32	6.1	13
American Indian/Alaska Native, alone	13	12.5	5
Multi-race	1	<1.0	<1

In 2004, 77% of TB cases occurred among persons born outside the United States. Foreign-born persons accounted for 92 (64%) male TB cases and 71 (70%) female TB cases.

Table 5. Tuberculosis by race/ethnicity and country of origin, 2004

	US-born		Foreign-born		Total	
Race/Ethnicity	No.	%	No.	%	No.	%
White, alone	51	59	36	41	87	36
American Indian/Alaska Native, alone	13	100	0	-	13	5
Black, alone	10	21	38	79	48	20
Hispanic, all races	8	25	24	75	32	13
Asian/Pacific Islander, alone	6	6	89	94	95	39
Multi-race	1	100	0	-	1	<1

Co-morbidity with HIV remains low in Washington. The number of reported persons with TB also infected with HIV decreased from 12 in 2003 to nine in 2004.

Resistance to at least one anti-TB drug was found in 33 of 203 (16%) *M. tuberculosis* isolates tested for drug susceptibility. Of those individuals infected with drug resistant isolates, seven (21%) were from the United States and 26 (79%) were foreign-born. There were two isolates of *M. tuberculosis* with multi-drug resistance (defined as resistance to at least isoniazid and rifampin) and one resistant to rifampin alone.

TULAREMIA

Tularemia, also known as rabbit or deerfly fever, is an acute bacterial infection 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 the bacteria that has been aerosolized by mowing or other garden equipment. Symptoms reflect the route of transmission and can include fever, malaise, lymphadenopathy (glandular form), skin ulcers (ulceroglandular), eye infection (oculoglandular), pharyngitis, abdominal pain, diarrhea and pneumonia; all infections can result in sepsis (typhoidal).

Tularemia is immediately notifiable in Washington. In most years, fewer than 10 cases of tularemia in humans are reported in Washington. Occasionally, animal reservoirs such as snowshoe hare are identified. In 2004, four cases were reported among Washington residents from Clark, Grant, Mason and Spokane counties. Three of the four cases had in-state exposures.

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

TYPHOID FEVER

Typhoid fever, caused by *Salmonella* Typhi, is a systemic 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 or water. The incubation period is one to three weeks. Mortality may be as high as 10% without antibiotic treatment. Since there can be a prolonged carrier state, due to intestinal or gallbladder infection, patients should have stool cultures after antibiotic treatment to confirm resolution of their infection. Organisms can be isolated from blood early in the disease and from urine and feces after the first week.

Typhoid is no longer considered 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. A 1990 foodborne outbreak of typhoid fever has been the only Washington typhoid outbreak identified during the past 15 years. In 2004, there were six cases reported in Washington with no deaths; five were travelers to Asia, the Middle East and Mexico. One was a close contact of a case returning from Central America. 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).* Symptoms include headache, chills, fever, prostration, confusion, photophobia, vomiting and rash (generally starting on the trunk). In the United States, only flea-borne, or murine, typhus is likely to occur with fewer than 80 cases reported annually. Murine typhus may resolve spontaneously and the case-fatality rate is about 1%. Rats, mice and possibly other small mammals are the reservoir for flea-borne typhus.

In the United States, a seasonal peak occurs in late summer and autumn and cases tend to be scattered geographically, with a high proportion typically reported from Texas and southern California. Typhus is immediately notifiable in Washington. The last reported case of murine typhus in Washington occurred in 1994 and was travel-associated. No cases were reported in Washington in 2004.

UNEXPLAINED CRITICAL ILLNESS OR DEATH

Illness or death occurring in previously healthy individuals 1-49 years of age with hallmarks of an infectious disease (e.g., fever, abnormal white blood cell count, etc.), no identified diagnosis and severity requiring admission to an intensive care unit or resulting in death, is immediately notifiable in Washington. Surveillance for unexplained critical illness or death (UCID) in Washington began in 2001 to identify emerging pathogens and unusual disease occurrences.

Four suspected cases of UCID were reported in Washington in 2004, compared to 12 cases in 2003 and six cases in 2002. DOH collaborated with the CDC's Meningitis and Special Pathogens Branch to have laboratory testing performed on autopsy tissue from two of the four cases. Testing at CDC identified the etiology of one case: pneumonia and sepsis caused by *Staphylococcus aureus*. This case was reclassified and removed from the UCID case count. No etiology was identified in the death of a 20 year old female reported to have myocarditis who had no evidence of myocarditis at autopsy performed by the local pathologist. Tissue examination, including immunohistochemical staining at CDC, did not yield any further diagnostic clues.

One case was identified prior to specimen submission as being bacterial meningitis and, therefore, further investigation was not needed. Investigation of the fourth case was not pursued, pending the Medical Examiner's investigation.

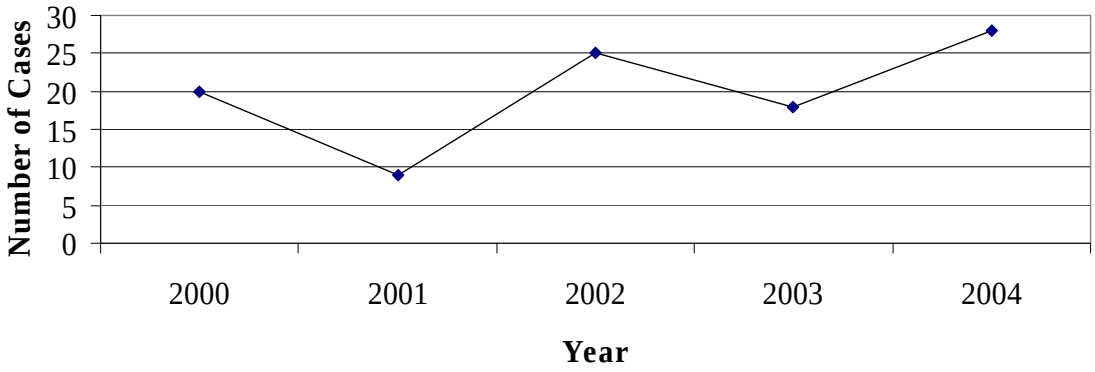
VIBRIOSIS

Vibriosis is caused by infection with *Vibrio* bacteria, including *V. parahaemolyticus, V. vulnificus,* non-toxigenic *V. cholerae* and other less common *Vibrio* 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 abrasions 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 vibriosis cases varies from year to year; 28 cases were reported in Washington in 2004 (0.5 cases/100,000 population). These included 26 *V. parahaemolyticus* cases, one *V. alginolyticus* case (a woman who was wounded by stepping on a rock in seawater) and one unknown species. More than 80% of the cases had some seafood-related exposure, the majority having consumed raw oysters.

Figure 32. Vibriosis - reported cases, 2000-2004



WATERBORNE OUTBREAKS

Waterborne outbreaks can be due to many agents including viruses, bacteria and parasites that contaminate recreational or drinking water. An outbreak is defined as two or more ill persons with epidemiologic and or laboratory evidence implicating a common water exposure. Suspected outbreaks should be reported immediately to local health jurisdictions, even before confirmatory laboratory results are available. In 2004, no waterborne outbreaks were reported in Washington.

YELLOW FEVER

Yellow fever is a mosquito-borne flavivirus that occurs in tropical regions of Africa and South America. One of the primary vector mosquitoes for yellow fever is *Aedes aegypti*, a species which is found primarily in the eastern, southeastern and lower mid-western 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, with a mortality rate of 5-40%.

Yellow fever is immediately notifiable 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 the bacteria species *Yersinia*, primarily *Y. enterocolitica*, however other *Yersinia* species, comprising 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 2004, there were 34 cases of yersiniosis reported in Washington (0.6 cases/100,000 population), a comparable number to previous years. Reported risk factors included pork consumption or raw pork products in the household, ingestion of untreated water and contact with animals (e.g., cats, dogs, pigs, goats and horses). There was one case of yersiniosis caused by *Y. kristensenii*, with an unknown exposure source. The elevated rate in Klickitat County was based on a small number of cases.

APPENDIX I
DISEASE INCIDENCE AND MORTALITY RATES

ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS)

Case, Death Rate/100,000 Population

	2000		2001		2002		2003 (AIDS)		2003 (HIV)		2004 (AIDS)		2004 (HIV)	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	0	0.0	0	0.0	1	6.0	1	6.0	0	0.0	0	0.0	0	0.0
Asotin	0	0.0	0	0.0	1	4.8	0	0.0	0	0.0	0	0.0	2	9.7
Benton	5	3.6	4	2.8	4	2.7	5	3.3	1	1.0	2	1.3	2	1.3
Chelan	1	1.6	0	0.0	1	1.5	1	1.5	0	0.0	2	2.9	2	2.9
Clallam	5	7.8	2	3.1	3	4.6	2	3.1	2	3.1	0	0.0	3	4.6
Clark	16	4.6	23	6.5	32	8.8	20	5.4	27	7.3	21	5.5	17	4.4
Columbia	0	0.0	0	0.0	0	0.0	1	24.4	0	0.0	0	0.0	0	0.0
Cowlitz	6	6.3	3	3.2	2	2.1	4	4.2	4	4.2	3	3.1	6	6.3
Douglas	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Ferry	0	0.0	1	13.7	1	13.7	0	0.0	0	0.0	0	0.0	0	0.0
Franklin	4	8.8	6	11.9	4	7.8	5	9.3	1	1.9	6	10.5	1	1.8
Garfield	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	41.7
Grant	0	0.0	1	1.3	2	2.6	1	1.3	0	0.0	4	5.1	2	2.6
Grays Harbor	4	6.0	4	5.8	1	1.5	2	2.9	0	0.0	2	2.9	2	2.9
Island	1	1.3	2	2.8	2	2.7	4	5.4	3	4.1	1	1.3	1	1.3
Jefferson	2	7.6	0	0.0	1	3.8	0	0.0	0	0.0	0	0.0	1	3.7
King	218	12.6	304	17.3	273	15.4	329	18.5	301	17.0	257	14.4	300	16.8
Kitsap	14	6.0	6	2.6	11	4.7	10	4.2	7	3.0	10	4.2	8	3.3
Kittitas	0	0.0	0	0.0	1	2.9	0	0.0	0	0.0	2	5.6	1	2.8
Klickitat	0	0.0	0	0.0	1	5.2	0	0.0	1	5.2	1	5.2	0	0.0
Lewis	3	4.4	1	1.4	1	1.4	2	2.8	3	4.3	1	1.4	1	1.4
Lincoln	1	10.4	0	0.0	0	0.0	1	9.9	0	0.0	1	9.8	0	0.0
Mason	5	10.1	5	10.1	2	5.0	2	4.0	1	2.0	3	5.9	3	5.9
Okanogan	2	5.3	0	0.0	2	5.0	0	0.0	0	0.0	6	15.2	1	2.5
Pacific	0	0.0	2	9.5	3	14.3	0	0.0	3	14.4	0	0.0	2	9.5
Pend Oreille	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pierce	57	8.1	62	8.7	29	4.0	33	4.5	44	6.0	37	5.0	31	4.2
San Juan	2	15.7	1	6.9	0	0.0	1	6.8	0	0.0	1	6.6	0	0.0
Skagit	1	1.0	2	1.9	0	0.0	1	1.0	3	2.8	6	5.5	4	3.7
Skamania	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Snohomish	25	4.1	20	3.2	29	4.6	35	5.5	20	3.1	28	4.3	19	2.9
Spokane	36	8.6	20	4.7	17	4.0	25	5.8	18	4.2	21	4.9	19	4.4
Stevens	2	5.0	1	2.5	2	5.0	2	4.9	3	7.4	1	2.5	0	0.0
Thurston	11	5.4	11	5.2	10	4.7	6	2.8	2	0.9	12	5.5	12	5.5
Wahkiakum	1	25.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Walla Walla	5	9.1	1	1.8	2	3.6	1	1.8	1	1.8	2	3.5	0	0.0
Whatcom	4	2.5	5	2.9	8	4.6	5	2.9	2	1.1	4	2.3	6	3.4
Whitman	2	4.9	0	0.0	1	2.5	0	0.0	0	0.0	0	0.0	0	0.0
Yakima	10	4.5	9	4.0	3	1.3	9	4.0	6	2.7	9	4.0	7	3.1
STATEWIDE TOTAL														
CASES	443	7.5	496	8.3	450	7.4	508	8.3	453	7.4	443*	7.2	454	7.4
DEATHS	155	2.6	139	2.3	137	2.3	157	2.6	13	0.2	100	1.6	2	0.0

*As of September 1, 2004

Note: For some years, the number of cases reported is lower than reported in previous years. This is due to participation in a national deduplication exercise conducted with other states and CDC in 2004.

AIDS STATEWIDE BY YEAR

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
1990	567	11.7	371	7.6
1991	615	12.3	461	9.2
1992	577	11.3	515	10.1
1993*	1,543	29.4	618	11.8
1994	878	16.5	664	12.4
1995	846	15.6	653	12.0
1996	684	12.4	468	8.5
1997	589	10.5	221	3.9
1998	393	6.9	161	2.8
1999	349	6.1	130	2.3
2000	443	7.5	155	2.6
2001	496	8.3	139	2.3
2002	450	7.4	137	2.3
2003	508	8.3	157	2.6
2004**	443	7.2	100	1.6

*Revision of the AIDS case definition for adults and adolescents

**As of September 1, 2004

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

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

CAMPYLOBACTERIOSIS

Case, Death Rate/100,000 Population

	2000		2001		2002		2003		2004	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	1	6.1	3	18.1	1	6.0	2	12.0	3	18.0
Asotin	0	0.0	3	14.5	1	4.8	1	4.9	1	4.8
Benton	19	13.3	11	7.6	19	12.9	40	26.4	20	12.9
Chelan	11	16.5	6	8.9	10	14.8	8	11.8	7	10.2
Clallam	3	4.6	7	10.8	4	6.2	8	12.3	2	3.0
Clark	50	14.5	57	16.2	54	14.9	67	18.0	74	19.3
Columbia	0	0.0	0	0.0	0	0.0	0	0.0	2	48.8
Cowlitz	12	12.9	13	13.8	11	11.7	4	4.2	11	11.5
Douglas	5	15.3	1	3.0	7	21.1	4	11.9	5	14.6
Ferry	2	27.5	0	0.0	0	0.0	2	27.4	0	0.0
Franklin	4	8.1	6	11.9	4	7.8	13	24.3	5	8.8
Garfield	0	0.0	0	0.0	0	0.0	0	0.0	1	41.7
Grant	11	14.7	9	11.9	11	14.4	24	31.1	18	23.0
Grays Harbor	11	16.4	9	13.1	7	10.2	14	20.3	19	27.5
Island	1	1.4	2	2.8	3	4.1	6	8.1	5	6.7
Jefferson	1	3.9	7	26.8	3	11.3	4	15.0	2	7.4
King	331	19.1	320	18.2	295	16.6	270	15.2	266	14.9
Kitsap	18	7.8	26	11.1	11	4.7	20	8.4	24	10.0
Kittitas	4	12.0	7	20.6	3	8.6	5	14.2	2	5.6
Klickitat	2	10.4	8	41.5	2	10.4	3	15.5	2	10.4
Lewis	12	17.5	8	11.5	14	19.9	5	7.1	0	0.0
Lincoln	2	19.6	0	0.0	2	19.6	0	0.0	0	0.0
Mason	7	14.2	12	24.2	5	10.0	7	13.9	2	3.9
Okanogan	5	12.6	7	17.6	3	7.5	2	5.1	8	20.2
Pacific	2	9.5	2	9.5	2	9.5	2	9.6	3	14.3
Pend Oreille	1	8.5	1	8.5	1	8.5	0	0.0	2	16.8
Pierce	60	8.6	53	7.4	44	6.1	32	4.4	33	4.4
San Juan	3	21.3	2	13.9	5	34.2	2	13.5	5	33.1
Skagit	25	24.3	19	18.3	25	23.8	19	17.8	23	21.1
Skamania	0	0.0	2	20.2	0	0.0	0	0.0	0	0.0
Snohomish	107	17.7	108	17.5	105	16.7	96	15.1	88	13.6
Spokane	79	18.9	38	9.0	56	13.2	67	15.6	49	11.3
Stevens	0	0.0	8	19.9	7	17.3	13	32.0	2	4.9
Thurston	40	19.3	31	14.7	27	12.7	25	11.6	28	12.8
Wahkiakum	0	0.0	0	0.0	0	0.0	0	0.0	1	26.3
Walla Walla	5	9.1	12	21.7	140	252.7	6	10.8	6	10.6
Whatcom	51	30.6	59	34.6	46	26.7	47	26.9	48	27.1
Whitman	6	14.7	2	5.0	2	4.9	5	12.2	6	14.4
Yakima	115	51.7	132	58.8	102	45.3	120	53.1	88	38.7
STATEWIDE TOTAL										
CASES	1,006	17.1	991	16.6	1,032	17.1	943	15.5	861	14.0
DEATHS	2	0.0	0	0.0	1	0.0	0	0.0	0	0.0

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

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

*CHLAMYDIA TRACHOMATIS**

Case, Death Rate/100,000 Population

	2000		2001		2002		2003		2004	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	29	183.9	37	222.9	22	132.5	30	180.7	24	143.7
Asotin	20	98.5	24	115.9	42	202.9	52	252.4	41	198.1
Benton	306	218.0	274	189.2	238	161.2	348	229.6	406	261.8
Chelan	118	186.2	117	174.4	129	190.8	168	247.4	169	247.1
Clallam	79	116.9	92	142.0	157	241.9	156	238.9	151	229.1
Clark	646	188.6	714	202.5	844	232.3	844	226.7	891	232.5
Columbia	4	0.0	1	0.0	3	0.0	1	0.0	9	219.5
Cowlitz	122	128.0	182	193.8	128	135.6	196	206.5	235	246.6
Douglas	52	162.8	53	161.6	60	181.3	69	205.4	85	248.5
Ferry	9	122.9	5	68.5	10	137.0	8	109.6	14	191.8
Franklin	189	416.3	162	321.4	162	315.8	188	350.7	192	336.8
Garfield	1	0.0	0	0.0	1	0.0	0	0.0	0	0.0
Grant	143	202.3	158	208.2	169	221.2	216	280.2	234	298.9
Grays Harbor	111	165.9	87	127.0	108	157.9	153	222.4	189	273.1
Island	116	156.3	107	147.8	223	305.1	175	236.5	177	236.6
Jefferson	32	121.1	23	88.1	32	120.3	59	221.0	37	137.0
King	4,495	263.8	4,295	244.3	4,470	251.9	5,169	290.5	5,336	298.4
Kitsap	536	230.5	483	206.9	532	226.7	671	283.1	672	280.6
Kittitas	60	186.0	76	223.5	74	212.6	90	255.7	94	262.6
Klickitat	21	109.5	30	155.4	26	134.7	35	181.3	41	212.4
Lewis	64	92.9	65	93.5	130	185.2	141	200.3	196	277.2
Lincoln	2	0.0	7	68.6	5	49.0	6	59.4	8	78.4
Mason	109	224.6	107	215.7	109	218.9	109	217.1	119	234.3
Okanogan	78	205.4	85	214.1	96	241.2	116	292.9	133	335.9
Pacific	13	60.8	29	138.1	39	185.7	37	177.0	33	157.1
Pend Oreille	6	55.0	4	0.0	9	76.3	16	135.6	14	117.7
Pierce	2,073	292.2	2,336	327.4	2,733	377.0	2,820	384.4	2,687	361.2
San Juan	14	109.8	15	104.2	14	95.9	10	67.6	21	139.1
Skagit	180	178.2	201	193.1	229	217.9	270	253.0	327	300.6
Skamania	5	50.4	6	60.6	11	111.1	13	131.3	19	188.1
Snohomish	1,115	188.3	1,349	218.1	1,295	206.2	1,467	230.1	1,632	253.1
Spokane	688	165.7	736	174.2	905	212.6	988	230.5	1,101	254.9
Stevens	31	81.9	40	99.3	33	81.7	59	145.3	44	108.1
Thurston	401	195.4	430	204.6	440	207.3	511	237.9	552	252.6
Wahkiakum	4	0.0	2	0.0	3	0.0	3	0.0	3	0.0
Walla Walla	84	153.1	96	173.9	115	207.6	80	143.4	138	243.4
Whatcom	238	146.5	254	148.9	367	213.1	436	249.9	462	260.6
Whitman	64	152.3	74	183.6	87	214.3	133	324.4	147	352.5
Yakima	808	377.5	875	389.8	886	393.8	953	421.7	1,002	440.4
STATEWIDE TOTAL										
CASES	13,066	224.5	13,631	228.1	14,936	247.2	16,796	275.4	17,635	285.9
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

**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

CRYPTOSPORIDIOSIS*

Case, Death Rate/100,000 Population

	2001		2002		2003		2004	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	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
Benton	0	0.0	0	0.0	2	1.3	3	1.9
Chelan	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
Clark	7	2.0	1	0.3	7	1.9	6	1.6
Columbia	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
Douglas	0	0.0	0	0.0	1	3.0	0	0.0
Ferry	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
Garfield	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
Grays Harbor	0	0.0	1	1.5	0	0.0	0	0.0
Island	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
King	31	1.8	32	1.8	35	2.0	31	1.7
Kitsap	1	0.4	1	0.4	3	1.3	2	0.8
Kittitas	2	5.9	0	0.0	2	5.7	0	0.0
Klickitat	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
Lincoln	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
Okanogan	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
Pend Oreille	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
San Juan	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
Skamania	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
Spokane	2	0.5	1	0.2	1	0.2	0	0.0
Stevens	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
Wahkiakum	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
Whatcom	0	0.0	1	0.6	0	0.0	0	0.0
Whitman	0	0.0	0	0.0	0	0.0	1	2.4
Yakima	10	4.5	1	0.4	3	1.3	2	0.9
STATEWIDE TOTAL								
CASES	73	1.2	62	1.0	65	1.1	63	1.0
DEATHS	0	0.0	0	0.0	0	0.0	0	0.0

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

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

* 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

E. COLI O157:H7

Case, Death Rate/100,000 Population

	2000		2001		2002		2003		2004	
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	5	3.5	4	2.8	3	2.0	4	2.6	9	5.8
Chelan	3	4.5	2	3.0	0	0.0	0	0.0	0	0.0
Clallam	2	3.1	0	0.0	2	3.1	0	0.0	0	0.0
Clark	20	5.8	8	2.3	15	4.1	13	3.5	21	5.5
Columbia	1	24.6	0	0.0	0	0.0	0	0.0	0	0.0
Cowlitz	1	1.1	1	1.1	1	1.1	2	2.1	0	0.0
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	1	2.0	0	0.0	2	3.9	2	3.7	2	3.5
Garfield	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Grant	2	2.7	2	2.6	1	1.3	2	2.6	0	0.0
Grays Harbor	3	4.5	3	4.4	0	0.0	1	1.5	2	2.9
Island	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Jefferson	0	0.0	0	0.0	1	3.8	1	3.7	0	0.0
King	67	3.9	36	2.0	32	1.8	40	2.2	43	2.4
Kitsap	7	3.0	6	2.6	5	2.1	3	1.3	4	1.7
Kittitas	1	3.0	5	14.7	3	8.6	2	5.7	0	0.0
Klickitat	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Lewis	0	0.0	2	2.9	2	2.8	2	2.8	0	0.0
Lincoln	0	0.0	0	0.0	0	0.0	1	9.9	0	0.0
Mason	3	6.1	0	0.0	0	0.0	0	0.0	0	0.0
Okanogan	2	5.1	1	2.5	1	2.5	1	2.5	0	0.0
Pacific	1	4.8	0	0.0	0	0.0	2	9.6	2	9.5
Pend Oreille	0	0.0	0	0.0	1	8.5	0	0.0	0	0.0
Pierce	21	3.0	15	2.1	11	1.5	6	0.8	28	3.8
San Juan	0	0.0	0	0.0	0	0.0	1	6.8	0	0.0
Skagit	4	3.9	3	2.9	0	0.0	5	4.7	1	0.9
Skamania	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Snohomish	29	4.8	20	3.2	11	1.8	12	1.9	20	3.1
Spokane	22	5.3	11	2.6	43	10.1	10	2.3	2	0.5
Stevens	0	0.0	0	0.0	0	0.0	1	2.5	0	0.0
Thurston	14	6.8	7	3.3	1	0.5	7	3.3	6	2.7
Wahkiakum	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Walla Walla	3	5.4	7	12.7	3	5.4	2	3.6	0	0.0
Whatcom	19	11.4	9	5.3	15	8.7	4	2.3	5	2.8
Whitman	0	0.0	0	0.0	2	4.9	0	0.0	5	12.0
Yakima	6	2.7	7	3.1	10	4.4	4	1.8	3	1.3
STATEWIDE TOTAL										
CASES	237	4.0	150	2.5	166	2.7	128	2.1	153	2.5
DEATHS	0	0.0	0	0.0	0	0.0	0	0.0	3	0.0

E. COLI O157:H7 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

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
2002	0	0.0	0	0.0
2003	0	0.0	0	0.0

* Western equine encephalitis

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

** Yellow fever (vaccine-associated)

*** West Nile virus (all travel-associated)

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

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

GIARDIASIS

Case, Death Rate/100,000 Population

	2000		2001		2002		2003		2004	
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	2	9.7	0	0.0
Benton	10	7.0	6	4.1	7	4.7	8	5.3	4	2.6
Chelan	4	6.0	6	8.9	3	4.4	5	7.4	2	2.9
Clallam	5	7.7	3	4.6	9	13.9	4	6.1	8	12.1
Clark	45	13.0	37	10.5	26	7.2	26	7.0	40	10.4
Columbia	1	24.6	0	0.0	0	0.0	0	0.0	0	0.0
Cowlitz	11	11.8	8	8.5	8	8.5	8	8.4	4	4.2
Douglas	0	0.0	2	6.1	0	0.0	0	0.0	1	2.9
Ferry	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Franklin	2	4.1	4	7.9	0	0.0	4	7.5	2	3.5
Garfield	0	0.0	0	0.0	0	0.0	0	0.0	1	41.7
Grant	6	8.0	4	5.3	2	2.6	1	1.3	2	2.6
Grays Harbor	1	1.5	0	0.0	3	4.4	2	2.9	7	10.1
Island	7	9.8	1	1.4	6	8.2	5	6.8	4	5.3
Jefferson	9	34.7	5	19.2	0	0.0	4	15.0	2	7.4
King	222	12.8	140	8.0	166	9.4	117	6.6	119	6.7
Kitsap	15	6.5	16	6.9	16	6.8	8	3.4	11	4.6
Kittitas	1	3.0	5	14.7	0	0.0	2	5.7	0	0.0
Klickitat	2	10.4	1	5.2	2	10.4	1	5.2	2	10.4
Lewis	8	11.7	5	7.2	5	7.1	5	7.1	0	0.0
Lincoln	1	9.8	0	0.0	1	9.8	0	0.0	0	0.0
Mason	3	6.1	11	22.2	2	4.0	6	12.0	5	9.8
Okanogan	0	0.0	4	10.1	4	10.1	3	7.6	0	0.0
Pacific	0	0.0	1	4.8	1	4.8	1	4.8	0	0.0
Pend Oreille	0	0.0	1	8.5	3	25.4	1	8.5	1	8.4
Pierce	45	6.4	40	5.6	39	5.4	27	3.7	26	3.5
San Juan	2	14.2	0	0.0	3	20.5	0	0.0	0	0.0
Skagit	4	3.9	5	4.8	11	10.5	14	13.1	7	6.4
Skamania	1	10.1	2	20.2	2	20.2	0	0.0	0	0.0
Snohomish	79	13.0	63	10.2	60	9.6	43	6.7	63	9.8
Spokane	42	10.0	49	11.6	47	11.0	46	10.7	44	10.2
Stevens	2	5.0	0	0.0	7	17.3	3	7.4	6	14.7
Thurston	15	7.2	19	9.0	21	9.9	25	11.6	33	15.1
Wahkiakum	0	0.0	1	26.3	0	0.0	0	0.0	0	0.0
Walla Walla	4	7.2	7	12.7	5	9.0	2	3.6	2	3.5
Whatcom	19	11.4	16	9.4	18	10.5	34	19.5	18	10.2
Whitman	2	4.9	4	9.9	1	2.5	2	4.9	1	2.4
Yakima	54	24.3	46	20.5	32	14.2	26	11.5	29	12.7
STATEWIDE TOTAL										
CASES	622	10.6	512	8.6	510	8.4	435	7.1	444	7.2
DEATHS	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0

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

GONORRHEA*

Case, Death Rate/100,000 Population

	2000		2001		2002		2003		2004	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	2	0.0	2	0.0	0	0.0	4	0.0	3	0.0
Asotin	0	0.0	1	0.0	1	0.0	2	0.0	2	0.0
Benton	6	4.3	11	7.6	11	7.5	18	11.9	19	12.3
Chelan	6	9.5	4	0.0	3	0.0	2	0.0	2	0.0
Clallam	7	10.4	6	9.3	2	0.0	8	12.3	8	12.1
Clark	86	25.1	100	28.4	138	38.0	158	42.4	191	49.8
Columbia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cowlitz	9	9.4	10	10.6	13	13.8	15	15.8	51	53.5
Douglas	4	0.0	1	0.0	3	0.0	3	0.0	2	0.0
Ferry	2	0.0	1	0.0	0	0.0	0	0.0	0	0.0
Franklin	1	0.0	14	27.8	4	0.0	2	0.0	7	12.3
Garfield	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Grant	7	9.9	15	19.8	4	0.0	13	16.9	15	19.2
Grays Harbor	2	0.0	5	7.3	12	17.5	7	10.2	4	0.0
Island	11	14.8	10	13.8	15	20.5	23	31.1	14	18.7
Jefferson	0	0.0	1	0.0	2	0.0	2	0.0	3	0.0
King	1,222	71.7	1,555	88.4	1,462	82.4	1,351	75.9	1,265	70.7
Kitsap	133	57.2	127	54.4	81	34.5	91	38.4	70	29.2
Kittitas	2	0.0	1	0.0	2	0.0	7	19.9	3	0.0
Klickitat	0	0.0	1	0.0	2	0.0	2	0.0	8	41.5
Lewis	6	8.7	4	0.0	13	18.5	6	8.5	13	18.4
Lincoln	1	0.0	1	0.0	0	0.0	0	0.0	1	0.0
Mason	8	16.5	10	20.2	6	12.0	13	25.9	5	9.8
Okanogan	2	0.0	1	0.0	4	0.0	6	15.2	6	15.2
Pacific	0	0.0	0	0.0	0	0.0	4	0.0	1	0.0
Pend Oreille	0	0.0	2	0.0	0	0.0	0	0.0	1	0.0
Pierce	536	75.6	660	92.5	636	87.7	538	73.3	452	60.8
San Juan	0	0.0	0	0.0	1	0.0	2	0.0	0	0.0
Skagit	6	5.9	13	12.5	17	16.2	25	23.4	20	18.4
Skamania	1	0.0	0	0.0	1	0.0	0	0.0	2	0.0
Snohomish	108	18.2	189	30.6	190	30.3	139	21.8	166	25.7
Spokane	108	26.0	102	24.1	124	29.1	97	22.6	152	35.2
Stevens	1	0.0	4	0.0	2	0.0	5	12.3	2	0.0
Thurston	33	16.1	33	15.7	52	24.5	37	17.2	43	19.7
Wahkiakum	0	0.0	0	0.0	1	0.0	0	0.0	1	0.0
Walla Walla	1	0.0	3	0.0	3	0.0	2	0.0	8	14.1
Whatcom	12	7.4	23	13.5	53	30.8	57	32.7	65	36.7
Whitman	4	0.0	7	17.4	6	14.8	8	19.5	7	16.8
Yakima	92	43.0	74	33.0	61	27.1	107	47.3	198	87.0
STATEWIDE TOTAL										
CASES	2,419	41.6	2,991	50.1	2,925	48.4	2,754	45.2	2,810	45.6
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

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

HAEMOPHILUS INFLUENZAE INVASIVE DISEASE

Case, Death Rate/100,000 Population

	2000		2001		2002		2003		2004	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	1	6.1	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	2	1.4	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	0	0.0	2	0.6	1	0.3	1	0.3	0	0.0
Columbia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cowlitz	1	1.1	0	0.0	0	0.0	2	2.1	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	0	0.0	0	0.0	2	0.1	1	0.1	0	0.0
Kitsap	0	0.0	1	0.4	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	1	5.2	0	0.0	0	0.0	0	0.0	0	0.0
Lewis	0	0.0	0	0.0	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	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Okanogan	0	0.0	1	2.5	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	2	0.3	0	0.0	0	0.0	1	0.1	1	0.1
San Juan	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Skagit	0	0.0	0	0.0	1	1.0	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	1	0.2	0	0.0	0	0.0
Spokane	1	0.2	0	0.0	0	0.0	1	0.2	1	0.2
Stevens	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Thurston	0	0.0	1	0.5	0	0.0	1	0.5	1	0.5
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	1	0.6	0	0.0
Whitman	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Yakima	0	0.0	3	1.3	0	0.0	5	2.2	0	0.0
STATEWIDE TOTAL										
CASES	8	0.1	8	0.1	5	0.1	14	0.2	3	0.0
DEATHS	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0

H. INFLUENZAE STATEWIDE BY YEAR

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	8	0.1	0	0.0
2002	5	0.1	0	0.0
2003	14	0.2	1	0.0
2004	3	0.0	0	0.0

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

* 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 28 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

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

HEPATITIS A

Case, Death Rate/100,000 Population

	2000		2001		2002		2003		2004	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	0	0.0	0	0.0	0	0.0	1	6.0	0	0.0
Asotin	1	4.9	0	0.0	0	0.0	0	0.0	0	0.0
Benton	3	2.1	6	4.1	1	0.7	1	0.7	2	1.3
Chelan	8	12.0	5	7.5	1	1.5	0	0.0	2	2.9
Clallam	0	0.0	3	4.6	1	1.5	3	4.6	0	0.0
Clark	26	7.5	10	2.8	13	3.6	3	0.8	10	2.6
Columbia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cowlitz	8	8.6	4	4.3	2	2.1	0	0.0	2	2.1
Douglas	4	12.3	1	3.0	0	0.0	1	3.0	2	5.8
Ferry	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Franklin	5	10.1	0	0.0	1	1.9	2	3.7	0	0.0
Garfield	0	0.0	1	41.7	0	0.0	0	0.0	0	0.0
Grant	15	20.1	2	2.6	1	1.3	3	3.9	1	1.3
Grays Harbor	2	3.0	1	1.5	1	1.5	1	1.5	1	1.4
Island	1	1.4	1	1.4	4	5.5	0	0.0	1	1.3
Jefferson	5	19.3	0	0.0	0	0.0	0	0.0	0	0.0
King	98	5.6	31	1.8	30	1.7	28	1.6	17	1.0
Kitsap	4	1.7	7	3.0	5	2.1	0	0.0	3	1.3
Kittitas	0	0.0	0	0.0	2	5.7	1	2.8	0	0.0
Klickitat	1	5.2	0	0.0	0	0.0	0	0.0	2	10.4
Lewis	1	1.5	0	0.0	4	5.7	0	0.0	1	1.4
Lincoln	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Mason	2	4.0	1	2.0	2	4.0	1	2.0	0	0.0
Okanogan	5	12.6	0	0.0	0	0.0	2	5.1	1	2.5
Pacific	0	0.0	1	4.8	0	0.0	0	0.0	0	0.0
Pend Oreille	0	0.0	0	0.0	0	0.0	0	0.0	2	16.8
Pierce	10	1.4	55	7.7	61	8.4	6	0.8	2	0.3
San Juan	7	49.7	0	0.0	1	6.8	0	0.0	0	0.0
Skagit	10	9.7	8	7.7	3	2.9	0	0.0	1	0.9
Skamania	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Snohomish	23	3.8	8	1.3	14	2.2	5	0.8	5	0.8
Spokane	11	2.6	3	0.7	4	0.9	4	0.9	2	0.5
Stevens	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Thurston	14	6.8	13	6.2	6	2.8	3	1.4	3	1.4
Wahkiakum	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Walla Walla	9	16.3	1	1.8	0	0.0	0	0.0	2	3.5
Whatcom	3	1.8	4	2.3	2	1.2	9	5.2	5	2.8
Whitman	2	4.9	1	2.5	0	0.0	1	2.4	0	0.0
Yakima	20	9.0	17	7.6	3	1.3	1	0.4	2	0.9
STATEWIDE TOTAL										
CASES	298	5.1	184	3.1	162	2.7	76	1.2	69	1.1
DEATHS	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0

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

HEPATITIS B

Case, Death Rate/100,000 Population

	2000		2001		2002		2003		2004	
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	1	0.7	0	0.0	0	0.0	0	0.0
Chelan	0	0.0	1	1.5	0	0.0	0	0.0	0	0.0
Clallam	0	0.0	2	3.1	0	0.0	0	0.0	1	1.5
Clark	4	1.2	9	2.6	2	0.6	2	0.5	6	1.6
Columbia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cowlitz	5	5.4	22	23.4	11	11.7	3	3.2	3	3.1
Douglas	0	0.0	0	0.0	0	0.0	2	6.0	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	2	2.7	1	1.3	0	0.0	0	0.0	1	1.3
Grays Harbor	1	1.5	0	0.0	0	0.0	1	1.5	0	0.0
Island	1	1.4	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	44	2.5	35	2.0	30	1.7	34	1.9	22	1.2
Kitsap	0	0.0	4	1.7	0	0.0	3	1.3	0	0.0
Kittitas	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Klickitat	0	0.0	2	10.4	0	0.0	0	0.0	0	0.0
Lewis	0	0.0	0	0.0	0	0.0	2	2.8	0	0.0
Lincoln	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Mason	2	4.0	1	2.0	2	4.0	1	2.0	1	2.0
Okanogan	0	0.0	1	2.5	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	26	3.7	7	1.0	5	0.7	5	0.7	4	0.5
San Juan	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Skagit	1	1.0	4	3.8	3	2.9	2	1.9	0	0.0
Skamania	1	10.1	0	0.0	0	0.0	0	0.0	1	9.9
Snohomish	6	1.0	13	2.1	5	0.8	9	1.4	11	1.7
Spokane	22	5.3	33	7.8	15	3.5	12	2.8	9	2.1
Stevens	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Thurston	6	2.9	2	1.0	2	0.9	3	1.4	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	1	1.8	0	0.0
Whatcom	5	3.0	30	17.6	7	4.1	9	5.2	1	0.6
Whitman	1	2.5	1	2.5	0	0.0	1	2.4	0	0.0
Yakima	5	2.2	2	0.9	1	0.4	0	0.0	4	1.8
STATEWIDE TOTAL										
CASES	132	2.2	171	2.9	83	1.4	90	1.5	64	1.0
DEATHS	5	0.1	0	0.0	0	0.0	1	0.0	1	0.0

HEPATITIS B 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

HEPATITIS C

Case, Death Rate/100,000 Population

	2000		2001		2002		2003		2004	
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	0	0.0	1	0.7	0	0.0	0	0.0	1	0.6
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	6	1.7	1	0.3	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	4	4.3	2	2.1	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	12	0.7	10	0.6	8	0.5	8	0.4	8	0.4
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	1.5	1	1.4	2	2.8	1	1.4	1	1.4
Lincoln	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Mason	2	4.0	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	2	9.5	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	2	0.3	5	0.7	3	0.4	3	0.4
San Juan	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Skagit	0	0.0	1	1.0	1	1.0	0	0.0	3	2.8
Skamania	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Snohomish	1	0.2	2	0.3	1	0.2	2	0.3	0	0.0
Spokane	5	1.2	9	2.1	3	0.7	1	0.2	6	1.4
Stevens	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Thurston	2	1.0	0	0.0	1	0.5	4	1.9	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	1	0.6	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	5	2.2	2	0.9	3	1.3	2	0.9	1	0.4
STATEWIDE TOTAL										
CASES	44	0.7	31	0.5	27	0.4	21	0.3	23	0.4
DEATHS	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0

HEPATITIS C
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

HERPES SIMPLEX*

Case, Death Rate/100,000 Population

	2000		2001		2002		2003		2004	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	2	0.0	11	66.3	6	36.1	4	0.0	3	0.0
Asotin	6	29.5	11	53.1	11	53.1	17	82.5	9	43.5
Benton	42	29.9	41	28.3	34	23.0	59	38.9	40	25.8
Chelan	13	20.5	22	32.8	15	22.2	19	28.0	27	39.5
Clallam	35	51.8	27	41.7	30	46.2	32	49.0	24	36.4
Clark	68	19.8	51	14.5	56	15.4	44	11.8	42	11.0
Columbia	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0
Cowlitz	16	16.8	16	17.0	15	15.9	18	19.0	18	18.9
Douglas	13	40.7	14	42.7	6	18.1	9	26.8	8	23.4
Ferry	2	0.0	2	0.0	0	0.0	0	0.0	3	0.0
Franklin	18	39.6	17	33.7	10	19.5	10	18.7	11	19.3
Garfield	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Grant	12	17.0	15	19.8	13	17.0	15	19.5	30	38.3
Grays Harbor	14	20.9	8	11.7	16	23.4	9	13.1	10	14.5
Island	19	25.6	16	22.1	22	30.1	20	27.0	35	46.8
Jefferson	0	0.0	9	34.5	7	26.3	7	26.2	11	40.7
King	745	43.7	672	38.2	650	36.6	688	38.7	700	39.1
Kitsap	83	35.7	59	25.3	80	34.1	64	27.0	54	22.5
Kittitas	9	27.9	12	35.3	12	34.5	9	25.6	8	22.3
Klickitat	2	0.0	1	0.0	5	25.9	3	0.0	3	0.0
Lewis	7	10.2	7	10.1	23	32.8	15	21.3	19	26.9
Lincoln	3	0.0	0	0.0	0	0.0	1	0.0	1	0.0
Mason	17	35.0	11	22.2	14	28.1	15	29.9	14	27.6
Okanogan	8	21.1	8	20.2	4	0.0	16	40.4	12	30.3
Pacific	0	0.0	3	0.0	4	0.0	2	0.0	3	0.0
Pend Oreille	1	0.0	2	0.0	4	0.0	4	0.0	4	0.0
Pierce	240	33.8	186	26.1	221	30.5	236	32.2	194	26.1
San Juan	5	39.2	1	0.0	5	34.2	2	0.0	5	33.1
Skagit	21	20.8	27	25.9	35	33.3	41	38.4	84	77.2
Skamania	2	0.0	0	0.0	0	0.0	0	0.0	3	0.0
Snohomish	246	41.5	244	39.4	268	32.7	268	42.0	286	44.4
Spokane	94	22.6	123	29.1	147	34.5	163	38.0	172	39.8
Stevens	3	0.0	6	14.9	2	0.0	6	14.8	6	14.7
Thurston	61	29.7	38	18.1	55	25.9	87	40.5	70	32.0
Wahkiakum	0	0.0	0	0.0	0	0.0	1	0.0	1	0.0
Walla Walla	23	41.9	12	21.7	9	16.2	15	26.9	23	40.6
Whatcom	59	36.3	37	21.7	55	31.9	80	45.8	87	49.1
Whitman	8	19.0	5	12.4	4	0.0	12	29.3	8	19.2
Yakima	113	52.8	121	53.9	76	33.8	82	36.3	125	54.9
STATEWIDE TOTAL										
CASES	2,010	34.5	1,836	30.7	1,914	31.7	2,073	34.0	2,152	34.9
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

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

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

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

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

MALARIA

Case, Death Rate/100,000 Population

	2000		2001		2002		2003		2004	
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	1	0.7	0	0.0	0	0.0
Chelan	0	0.0	1	1.5	0	0.0	0	0.0	0	0.0
Clallam	0	0.0	1	1.5	0	0.0	0	0.0	0	0.0
Clark	0	0.0	0	0.0	2	0.6	3	0.8	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	1	1.3	0	0.0	0	0.0	1	1.3	0	0.0
Grays Harbor	1	1.5	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	1	3.7
King	17	1.0	10	0.6	15	0.9	15	0.8	13	0.7
Kitsap	2	0.9	0	0.0	0	0.0	0	0.0	3	1.3
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	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	1	2.0	0	0.0	0	0.0	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	12	1.7	1	0.1	5	0.7	7	1.0	3	0.4
San Juan	0	0.0	1	6.9	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	1	0.2	1	0.2	1	0.2	2	0.3
Spokane	3	0.7	3	0.7	1	0.2	3	0.7	1	0.2
Stevens	0	0.0	0	0.0	0	0.0	1	2.5	0	0.0
Thurston	1	0.5	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	1	0.6
Whitman	1	2.5	0	0.0	0	0.0	1	2.4	0	0.0
Yakima	1	0.4	1	0.4	1	0.4	0	0.0	0	0.0
STATEWIDE TOTAL										
CASES	43	0.7	19	0.3	26	0.4	34	0.6	24	0.4
DEATHS	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

MALARIA STATEWIDE BY YEAR

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

MEASLES

Case, Death Rate/100,000 Population

	2000		2001		2002		2003		2004	
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	0	0.0	1	0.3	1	0.3	0	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	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	2	2.8	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	2	0.1	12	0.7	0	0.0	0	0.0	6	0.3
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	1	0.1	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	0	0.0	1	0.1
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	3	0.1	15	0.3	1	0.0	0	0.0	7	0.1
DEATHS	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

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

MENINGOCOCCAL DISEASE

Case, Death Rate/100,000 Population

	2000		2001		2002		2003		2004	
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	1	4.9	0	0.0	1	4.8	1	4.9	0	0.0
Benton	0	0.0	0	0.0	1	0.7	0	0.0	0	0.0
Chelan	0	0.0	0	0.0	2	3.0	1	1.5	0	0.0
Clallam	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Clark	8	2.3	12	3.4	11	3.0	5	1.3	3	0.8
Columbia	1	24.6	0	0.0	0	0.0	0	0.0	0	0.0
Cowlitz	2	2.2	3	3.2	0	0.0	2	2.1	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	2	3.9	0	0.0	0	0.0
Garfield	0	0.0	0	0.0	0	0.0	0	0.0	1	41.7
Grant	2	2.7	1	1.3	1	1.3	0	0.0	1	1.3
Grays Harbor	2	3.0	0	0.0	0	0.0	1	1.5	0	0.0
Island	0	0.0	0	0.0	1	1.4	2	2.7	1	1.3
Jefferson	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
King	18	1.0	14	0.8	21	1.2	8	0.4	17	1.0
Kitsap	4	1.7	5	2.1	0	0.0	3	1.3	2	0.8
Kittitas	0	0.0	0	0.0	1	2.9	0	0.0	0	0.0
Klickitat	0	0.0	0	0.0	0	0.0	1	5.2	0	0.0
Lewis	0	0.0	0	0.0	0	0.0	5	7.1	0	0.0
Lincoln	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Mason	2	4.0	3	6.0	0	0.0	0	0.0	1	2.0
Okanogan	1	2.5	0	0.0	0	0.0	1	2.5	0	0.0
Pacific	0	0.0	0	0.0	2	9.5	1	4.8	1	4.8
Pend Oreille	0	0.0	1	8.5	0	0.0	0	0.0	1	8.4
Pierce	7	1.0	9	1.3	11	1.5	10	1.4	4	0.5
San Juan	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Skagit	4	3.9	1	1.0	6	5.7	4	3.7	0	0.0
Skamania	1	10.1	0	0.0	0	0.0	0	0.0	0	0.0
Snohomish	2	0.3	5	0.8	5	0.8	6	0.9	3	0.5
Spokane	1	0.2	8	1.9	2	0.5	4	0.9	3	0.7
Stevens	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Thurston	1	0.5	2	1.0	1	0.5	1	0.5	1	0.5
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	5	3.0	3	1.8	1	0.6	2	1.1	0	0.0
Whitman	0	0.0	2	5.0	2	4.9	0	0.0	1	2.4
Yakima	9	4.0	2	0.9	5	2.2	3	1.3	2	0.9
STATEWIDE TOTAL										
CASES	71	1.2	71	1.2	76	1.3	61	1.0	42	0.7
DEATHS	6	0.1	6	0.1	8	0.1	7	0.1	4	0.1

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

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

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

PERTUSSIS

Case, Death Rate/100,000 Population

	2000		2001		2002		2003		2004	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	0	0.0	0	0.0	1	6.0	2	12.0	1	6.0
Asotin	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Benton	4	2.8	2	1.4	1	0.7	5	3.3	0	0.0
Chelan	2	3.0	2	3.0	8	11.8	2	2.9	2	2.9
Clallam	1	1.5	1	1.5	2	3.1	2	3.1	2	3.0
Clark	12	3.5	3	0.9	22	6.1	38	10.2	21	5.5
Columbia	0	0.0	1	24.4	0	0.0	1	24.4	0	0.0
Cowlitz	1	1.1	3	3.2	26	27.5	3	3.2	10	10.5
Douglas	0	0.0	1	3.0	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	1	1.9	2	3.7	1	1.8
Garfield	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Grant	1	1.3	0	0.0	1	1.3	0	0.0	0	0.0
Grays Harbor	0	0.0	0	0.0	5	7.3	0	0.0	2	2.9
Island	10	14.0	1	1.4	2	2.7	21	28.4	6	8.0
Jefferson	0	0.0	10	38.3	0	0.0	1	3.7	19	70.4
King	192	11.1	40	2.3	153	8.6	294	16.5	190	10.6
Kitsap	8	3.4	28	12.0	5	2.1	15	6.3	8	3.3
Kittitas	6	18.0	0	0.0	0	0.0	1	2.8	0	0.0
Klickitat	0	0.0	0	0.0	0	0.0	1	5.2	6	31.1
Lewis	1	1.5	3	4.3	0	0.0	2	2.8	0	0.0
Lincoln	0	0.0	0	0.0	0	0.0	0	0.0	1	9.8
Mason	3	6.1	1	2.0	1	2.0	2	4.0	3	5.9
Okanogan	12	30.3	0	0.0	2	5.0	0	0.0	2	5.1
Pacific	0	0.0	1	4.8	1	4.8	0	0.0	0	0.0
Pend Oreille	0	0.0	0	0.0	0	0.0	0	0.0	1	8.4
Pierce	79	11.3	39	5.5	124	17.1	211	28.8	68	9.1
San Juan	19	135.0	1	6.9	1	6.8	18	121.6	1	6.6
Skagit	9	8.7	1	1.0	70	66.6	45	42.2	8	7.4
Skamania	0	0.0	0	0.0	2	20.2	0	0.0	1	9.9
Snohomish	43	7.1	7	1.1	35	5.6	95	14.9	40	6.2
Spokane	7	1.7	2	0.5	0	0.0	4	0.9	43	10.0
Stevens	0	0.0	0	0.0	0	0.0	0	0.0	1	2.5
Thurston	9	4.3	11	5.2	11	5.2	13	6.1	13	5.9
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	0	0.0	0	0.0
Whatcom	11	6.6	23	13.5	13	7.5	46	26.4	303	170.9
Whitman	0	0.0	0	0.0	1	2.5	2	4.9	23	55.2
Yakima	27	12.1	3	1.3	85	37.8	18	8.0	66	29.0
STATEWIDE TOTAL										
CASES	458	7.8	184	3.1	575	9.5	844	13.8	842	13.7
DEATHS	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0

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

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

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

*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

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

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

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

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

SALMONELLOSIS

Case, Death Rate/100,000 Population

	2000		2001		2002		2003		2004	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	0	0.0	4	24.1	1	6.0	1	6.0	1	6.0
Asotin	1	4.9	0	0.0	0	0.0	7	34.0	5	24.2
Benton	17	11.9	14	9.7	13	8.8	24	15.8	21	13.5
Chelan	6	9.0	7	10.4	10	14.8	5	7.4	2	2.9
Clallam	1	1.5	14	21.6	10	15.4	1	1.5	5	7.6
Clark	33	9.6	25	7.1	33	9.1	39	10.5	36	9.4
Columbia	0	0.0	1	24.4	0	0.0	2	48.8	1	24.4
Cowlitz	12	12.9	9	9.6	7	7.4	5	5.3	18	18.9
Douglas	1	3.1	1	3.0	4	12.1	7	20.8	0	0.0
Ferry	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Franklin	1	2.0	5	9.9	8	15.6	7	13.1	13	22.8
Garfield	0	0.0	0	0.0	0	0.0	0	0.0	1	41.7
Grant	6	8.0	6	7.9	22	28.8	7	9.1	5	6.4
Grays Harbor	2	3.0	8	11.7	13	19.0	9	13.1	12	17.3
Island	15	21.0	3	4.1	4	5.5	5	6.8	1	1.3
Jefferson	5	19.3	3	11.5	2	7.5	4	15.0	2	7.4
King	200	11.5	261	14.8	211	11.9	246	13.8	236	13.2
Kitsap	24	10.3	15	6.4	18	7.7	12	5.1	14	5.8
Kittitas	6	18.0	1	2.9	5	14.4	3	8.5	2	5.6
Klickitat	3	15.7	3	15.5	1	5.2	1	5.2	6	31.1
Lewis	6	8.7	9	12.9	5	7.1	2	2.8	1	1.4
Lincoln	0	0.0	1	9.8	0	0.0	2	19.8	0	0.0
Mason	2	4.0	2	4.0	3	6.0	6	12.0	2	3.9
Okanogan	2	5.1	8	20.2	1	2.5	8	20.2	2	5.1
Pacific	0	0.0	4	19.0	1	4.8	3	14.4	1	4.8
Pend Oreille	2	17.0	0	0.0	0	0.0	1	8.5	0	0.0
Pierce	62	8.8	76	10.7	60	8.3	64	8.7	69	9.3
San Juan	0	0.0	0	0.0	1	6.8	0	0.0	3	19.9
Skagit	15	14.6	11	10.6	13	12.4	8	7.5	11	10.1
Skamania	0	0.0	1	10.1	1	10.1	0	0.0	0	0.0
Snohomish	71	11.7	65	10.5	78	12.4	70	11.0	67	10.4
Spokane	34	8.1	42	9.9	26	6.1	30	7.0	31	7.2
Stevens	1	2.5	2	5.0	4	9.9	13	32.0	1	2.5
Thurston	22	10.6	22	10.5	17	8.0	17	7.9	24	11.0
Wahkiakum	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Walla Walla	10	18.1	4	7.2	10	18.1	10	17.9	3	5.3
Whatcom	29	17.4	20	11.7	16	9.3	23	13.2	19	10.7
Whitman	9	22.1	3	7.4	2	4.9	2	4.9	10	24.0
Yakima	61	27.4	31	13.8	55	24.4	55	24.3	35	15.4
STATEWIDE TOTAL										
CASES	659	11.2	681	11.4	655	10.8	699	11.5	660	10.7
DEATHS	1	0.0	2	0.0	0	0.0	1	0.0	2	0.0

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

SHIGELLOSIS

Case, Death Rate/100,000 Population

	2000		2001		2002		2003		2004	
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	2	9.7	0	0.0	1	4.8	0	0.0	0	0.0
Benton	3	2.1	8	5.5	5	3.4	3	2.0	3	1.9
Chelan	3	4.5	10	14.9	0	0.0	1	1.5	0	0.0
Clallam	1	1.5	1	1.5	0	0.0	0	0.0	0	0.0
Clark	9	2.6	5	1.4	8	2.2	5	1.3	10	2.6
Columbia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cowlitz	3	3.2	1	1.1	1	1.1	1	1.1	15	15.7
Douglas	1	3.1	2	6.1	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	1	2.0	3	6.0	1	1.9	0	0.0	0	0.0
Garfield	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Grant	3	4.0	1	1.3	2	2.6	5	6.5	1	1.3
Grays Harbor	1	1.5	0	0.0	1	1.5	0	0.0	0	0.0
Island	13	18.2	2	2.8	0	0.0	0	0.0	0	0.0
Jefferson	4	15.4	1	3.8	0	0.0	0	0.0	0	0.0
King	155	8.9	110	6.3	84	4.7	95	5.3	56	3.1
Kitsap	15	6.5	5	2.1	2	0.9	2	0.8	4	1.7
Kittitas	1	3.0	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	1	5.2
Lewis	7	10.2	1	1.4	2	2.8	0	0.0	0	0.0
Lincoln	1	9.8	0	0.0	0	0.0	0	0.0	0	0.0
Mason	5	10.1	1	2.0	1	2.0	0	0.0	0	0.0
Okanogan	4	10.1	0	0.0	1	2.5	0	0.0	4	10.1
Pacific	0	0.0	0	0.0	4	19.0	0	0.0	0	0.0
Pend Oreille	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pierce	40	5.7	12	1.7	58	8.0	21	2.9	12	1.6
San Juan	0	0.0	2	13.9	1	6.8	0	0.0	0	0.0
Skagit	8	7.8	10	9.6	1	1.0	1	0.9	5	4.6
Skamania	0	0.0	1	10.1	0	0.0	0	0.0	0	0.0
Snohomish	30	5.0	19	3.1	17	2.7	17	2.7	10	1.6
Spokane	15	3.6	6	1.4	7	1.6	10	2.3	1	0.2
Stevens	0	0.0	1	2.5	0	0.0	0	0.0	0	0.0
Thurston	11	5.3	4	1.9	3	1.4	1	0.5	1	0.5
Wahkiakum	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Walla Walla	1	1.8	1	1.8	0	0.0	1	1.8	0	0.0
Whatcom	6	3.6	9	5.3	2	1.2	6	3.4	3	1.7
Whitman	1	2.5	0	0.0	0	0.0	1	2.4	0	0.0
Yakima	157	70.5	20	8.9	28	12.4	18	8.0	7	3.1
STATEWIDE TOTAL										
CASES	501	8.5	236	3.9	230	3.8	188	3.1	133	2.2
DEATHS	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

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

SYPHILIS (PRIMARY AND SECONDARY)

Case, Death Rate/100,000 Population

	2000		2001		2002		2003		2004	
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	1	1.6	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	1	1.5
Clark	1	0.3	0	0.0	2	0.6	6	1.6	2	0.5
Columbia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cowlitz	1	1.1	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	1	2.0	0	0.0	1	1.9	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	1	1.5	0	0.0
Island	0	0.0	0	0.0	4	5.5	0	0.0	1	1.3
Jefferson	1	3.8	0	0.0	0	0.0	0	0.0	0	0.0
King	50	2.9	41	2.3	50	2.8	60	3.4	123	6.9
Kitsap	2	0.9	0	0.0	2	0.9	0	0.0	4	1.7
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	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	1	2.0
Okanogan	0	0.0	1	2.5	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	5	0.7	2	0.3	7	0.9
San Juan	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Skagit	0	0.0	2	1.9	1	1.0	0	0.0	1	0.9
Skamania	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Snohomish	1	0.2	2	0.3	4	0.6	8	1.3	8	1.2
Spokane	0	0.0	0	0.0	1	0.2	1	0.2	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	2	0.9
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	1	0.6	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	3	1.4	4	1.8	1	0.4	2	0.9	0	0.0
STATEWIDE TOTAL										
CASES	66	1.1	57	1.0	70	1.2	82	1.3	150	2.4
DEATHS	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

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

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

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

TUBERCULOSIS*

Case, Death Rate/100,000 Population

	2000		2001		2002		2003		2004	
Counties	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Adams	1	0.0	0	0.0	0	0.0	1	0.0	0	0.0
Asotin	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Benton	3	0.0	1	0.0	1	0.0	2	0.0	4	0.0
Chelan	0	0.0	1	0.0	1	0.0	4	0.0	0	0.0
Clallam	2	0.0	0	0.0	0	0.0	1	0.0	0	0.0
Clark	6	1.8	8	2.3	10	2.7	10	2.6	8	2.0
Columbia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cowlitz	6	6.3	2	0.0	2	0.0	1	0.0	0	0.0
Douglas	1	0.0	0	0.0	1	0.0	2	0.0	0	0.0
Ferry	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Franklin	6	13.2	2	0.0	3	0.0	5	9.3	3	0.0
Garfield	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Grant	3	0.0	7	9.9	2	0.0	3	0.0	0	0.0
Grays Harbor	1	0.0	3	0.0	1	0.0	1	0.0	1	0.0
Island	0	0.0	1	0.0	0	0.0	1	0.0	5	6.6
Jefferson	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0
King	127	7.5	139	7.9	158	8.9	155	8.7	133	7.4
Kitsap	7	3.0	5	2.1	6	2.5	2	0.0	2	0.0
Kittitas	0	0.0	1	0.0	0	0.0	0	0.0	1	0.0
Klickitat	1	0.0	0	0.0	1	0.0	0	0.0	0	0.0
Lewis	2	0.0	0	0.0	0	0.0	2	0.0	1	0.0
Lincoln	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Mason	1	0.0	3	0.0	0	0.0	3	0.0	1	0.0
Okanogan	2	0.0	0	0.0	1	0.0	2	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	34	0.0	22	3.1	16	2.2	18	2.4	34	4.5
San Juan	1	0.0	0	0.0	1	0.0	0	0.0	1	0.0
Skagit	0	0.0	1	0.0	3	0.0	2	0.0	2	0.0
Skamania	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Snohomish	21	3.6	28	4.5	16	2.5	12	1.8	15	2.3
Spokane	14	3.4	10	2.4	7	1.6	4	0.0	7	1.6
Stevens	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Thurston	2	0.0	5	2.4	3	0.0	5	2.3	7	3.2
Wahkiakum	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Walla Walla	2	0.0	1	0.0	3	0.0	1	0.0	1	0.0
Whatcom	3	0.0	6	3.5	7	4.0	5	2.8	6	3.3
Whitman	1	0.0	0	0.0	1	0.0	0	0.0	0	0.0
Yakima	10	4.7	15	6.7	8	3.5	8	3.5	12	5.2
STATEWIDE TOTAL										
CASES	258	4.4	261	4.4	252	4.2	250	4.1	244	3.9
DEATHS	2	0.0	6	0.1	4	0.0	11	0.2	7	0.1

*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	0	0.0
2004	244	3.9	7	0.1

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

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

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

UNEXPLAINED CRITICAL ILLNESS OR DEATH*

Case, Death Rate/100,000 Population

Year	Cases	Rate	Deaths	Rate
2001	3	0.1	2	0.0
2002	6	0.1	5	0.1
2003	9	0.1	9	0.1
2004	1	0.0	1	0.0

*Unexplained critical illness or death first became a notifiable condition in Washington in 12/2000

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

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

YERSINIOSIS

Case, Death Rate/100,000 Population

	2000		2001		2002		2003		2004	
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	1	1.5
Clallam	0	0.0	0	0.0	0	0.0	1	1.5	0	0.0
Clark	0	0.0	1	0.3	4	1.1	0	0.0	1	0.3
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	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	1	1.9	0	0.0
Garfield	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Grant	2	2.7	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	1	1.4
Island	0	0.0	0	0.0	2	2.7	0	0.0	1	1.3
Jefferson	0	0.0	0	0.0	1	3.8	0	0.0	0	0.0
King	22	1.3	16	0.9	12	0.7	12	0.7	14	0.8
Kitsap	1	0.4	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	2	10.4
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	1	9.9	0	0.0
Mason	0	0.0	0	0.0	1	2.0	1	2.0	0	0.0
Okanogan	0	0.0	1	2.5	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	1	0.1	0	0.0	2	0.3	1	0.1	3	0.4
San Juan	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Skagit	0	0.0	1	1.0	0	0.0	1	0.9	1	0.9
Skamania	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Snohomish	4	0.7	2	0.3	4	0.6	6	0.9	6	0.9
Spokane	2	0.5	0	0.0	0	0.0	0	0.0	1	0.2
Stevens	0	0.0	0	0.0	0	0.0	2	4.9	1	2.5
Thurston	1	0.5	1	0.5	0	0.0	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	0	0.0	1	0.6	0	0.0	0	0.0	1	0.6
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	1	0.4	1	0.4
STATEWIDE TOTAL										
CASES	33	0.6	23	0.4	26	0.4	28	0.5	34	0.6
DEATHS	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

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

APPENDIX II
FOODBORNE OUTBREAKS, 2004

FOODBORNE OUTBREAKS, 2004

MONTH	COUNTY	# ILL	# LAB CONFIRMED	VEHICLE	AGENT	CONTRIBUTING FACTORS	PREP PLACE	EVIDENCE^
January	Thurston	2	0	Salads	Unknown	bare-hand contact	Restaurant	5
January	King	7	0	Raw oysters	Viral gastroenteritis*	contaminated raw product	Restaurant	3
January	King	5	0	Caesar salad	Viral gastroenteritis*	bare-hand contact, handwashing	Restaurant	3
January	Cowlitz	2	0	Undetermined	Unknown	unknown	Restaurant	N/A
February	Skagit	21	3	Pasta salad	Norovirus	bare-hand contact, handwashing, ill food handler	Caterer	1,3
February	Spokane	3	0	Deli sandwich	Viral gastroenteritis*	handwashing	Grocery/deli	5
February	Yakima	4	4	Undetermined	*S.* Heidelberg	cross contamination, bare-hand contact, handwashing	Jail	1,3
February	Pierce	18	0	Salad	Viral gastroenteritis*	bare-hand contact, handwashing, ill food handler	Restaurant	1
February	Thurston	19	13	Ice	*Giardia lamblia*	cross contamination	Restaurant	3
March	Klickitat	6	0	Undetermined	Unknown	unknown	Restaurant	N/A
March	Kittitas	4	0	Undetermined	Viral gastroenteritis*	unknown	Restaurant	5
March	Skamania	20	1	Pudding, sandwich	Norovirus	bare-hand contact, handwashing, ill food handler	Assisted Living Facility	3
March	Grant	2	0	Sandwiches	Unknown	unknown	Restaurant	5
March	King	9	8	Undetermined	*S.* Subgenus 40	cross contamination, bare-hand contact, handwashing, storage, cooling, hot holding	Restaurant	3
March	King	4	0	Unknown	Viral gastroenteritis*	bare-hand contact, handwashing	Restaurant	3
March	Clark	2	2	Vegetables	*E. coli* O157:H7	food preparation, inadequate cooking	Restaurant	3
April	Cowlitz	2	0	Clam chowder	*C. perfringens**	slow cooling, inadequate reheating	Restaurant	5
April	Snohomish	5	0	Buffet items	*B. cereus**	cross contamination, storage, cold and hot holding	Restaurant	5
April	Thurston	7	0	Undetermined	Viral gastroenteritis*	unknown	Restaurant	N/A
April	Chelan-Douglas	28	0	Ready to eat foods	Viral gastroenteritis*	bare-hand contact, handwashing	Restaurant	3
April	Chelan-Douglas	5	0	Escolar	Scombroid	toxin	Restaurant	2,3
May	Multistate	4	4	Undetermined	*E. coli* O157:H7	unknown	N/A	N/A
May	Multistate	7	7	Ground beef	*E. coli* O157:H7	contaminated raw product	N/A	1
May	Multistate	20	20	Alfalfa sprouts	*S.* Bovismorbificans	contaminated raw product	N/A	1
May	Grant	3	0	Grilled chicken	*C. perfringens**	food prep, slow cooling, storage, hot holding, inadequate reheating	Restaurant	3

FOODBORNE OUTBREAKS, 2004

MONTH	COUNTY	# ILL	# LAB CONFIRMED	VEHICLE	AGENT	CONTRIBUTING FACTORS	PREP PLACE	EVIDENCE^
May	King	2	0	Chicken teriyaki	Unknown	slow cooling, inadequate reheating	Restaurant	5
May	Cowlitz	27	9	Ready to eat foods	*Shigella sonnei*	bare-hand contact, handwashing, ill food handler	Restaurant	3
May	Spokane	9	0	Undetermined	Viral gastroenteritis*	ill food handler	Restaurant	3
May	Snohomish	5	0	Pizza	Unknown	unknown	Restaurant	5
May	Whatcom	3	2	Queso fresco	*E. coli* O157: H7	contaminated raw product, pasteurization	Restaurant	3
June	Snohomish	9	0	Salad	Viral gastroenteritis*	bare-hand contact	Restaurant	5
June	King	4	0	Chinese food	*Campylobacter**	cross contamination, food prep, storage, slow cooling, hot/cold holding, inadequate cooking	Restaurant	3
August	Clallam	2	0	Rice	Unknown	slow cooling	Restaurant	5
August	Whatcom	6	5	Undetermined	*E. coli* O157:H7	cross contamination, bare-hand contact, ill food handler	Restaurant	5
August	Whatcom	3	3	Undetermined	*E. coli* O157:H7	cross contamination, bare-hand contact	Restaurant	5
August	Snohomish	2	0	Chinese food	*B. cereus**	unknown	Restaurant	5
August	Yakima	7	0	Undetermined	Viral gastroenteritis*	bare-hand contact, handwashing, ill food handler	Restaurant	3
September	Snohomish	8	0	Undetermined	Unknown	bare-hand contact, handwashing	Restaurant	3
September	Snohomish	9	0	Pizza	Unknown	unknown	Restaurant	5
September	Snohomish	3	0	Undetermined	Viral gastroenteritis*	unknown	Restaurant	N/A
September	Spokane	2	0	Undetermined	Unknown	unknown	Restaurant	N/A
September	King	2	1	Undetermined	*Campylobacter jejuni*	cross contamination, bare-hand contact, handwashing	Restaurant	3
October	Multicounty	9	0	Delicata squash	Cucurbitacin	toxin	Home	3
October	King	3	1	Chinese food	*S.* Heidelberg	cross contamination, bare-hand contact, handwashing	Restaurant	3
November	Spokane	97	3	Beverages, condiments, ice	Norovirus	bare-hand contact, ill food handler	Cafeteria	1
November	King	50	1	Asparagus, potato salad, bread	Norovirus	bare-hand contact, ill food handler	Restaurant	1
November	Snohomish	3	0	Pizza	Unknown	unknown	Restaurant	5
November	Multicounty	16	0	Escolar	Scombroid	toxin	Cooking school, home	3
November	Clark	2	0	Turkey	*Salmonella**	inadequate cooking	Home	5
November	Multistate	6	6	Almonds	*S.* Enteritidis	contaminated raw product	N/A	1,2
December	Snohomish	4	0	Undetermined	Unknown	bare-hand contact, slow cooling	Restaurant	3
December	King	14	0	Cheese	Viral gastroenteritis*	ill food handler	Restaurant	1

FOODBORNE OUTBREAKS, 2004								
MONTH	COUNTY	# ILL	# LAB CONFIRMED	VEHICLE	AGENT	CONTRIBUTING FACTORS	PREP PLACE	EVIDENCE^
December	King	27	0	BBQ ribs	Viral gastroenteritis*	ill food handler	Restaurant	1
December	Jefferson	4	0	Razor clams/beurre blanc sauce	Unknown	unknown	Restaurant	3
December	Snohomish	11	0	Seafood caesar salad	Viral gastroenteritis*	unknown	Restaurant	3
December	Snohomish	2	0	Thai food	Viral gastroenteritis*	handwashing	Restaurant	3
December	Yakima	3	0	Undetermined	Viral gastroenteritis*	cross contamination, food storage, slow cooling, inadequate cooking	Restaurant	5
December	Kittitas	116	16	Undetermined	Norovirus	bare-hand contact, handwashing, ill food handler	Restaurant/Casino	3

*Suspected Agent

^Evidence: 1-Statistical evidence from epi investigation 2-Laboratory evidence (e.g., id agent in food) 3-Compelling supportive information

4-Other data 5-Specific evidence lacking, but prior experience makes this likely

APPENDIX III
RABIES, 2004

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.

Complete information about human rabies pre- and post-exposure prophylaxis is available in 'Human Rabies Prevention - United States, 1999, Recommendations of the Advisory Committee on Immunization Practices (ACIP)' on the CDC website 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 in the United States has been documented at record levels nationwide during the last two decades. Between 1970 and 2004, 15,187 animals were tested for rabies in Washington and 443 (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 5,966 bats examined for rabies in Washington between 1960 and 2004, 511 (8.6%) 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 US, 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. 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 from Benton County died of rabies and in 1994, a llama from 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 US, 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.

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.

[+] The 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.

Animal Rabies in Washington, 1930-2004

Species	1930-1949	1950-1969	1970-1989	1990-1999	2000-2004	TOTAL
Bat	0	75	171	165	100	511
Cat	19	2	1	0	1	23
Cattle	37	0	0	0	0	37
Coyote	1	0	0	0	0	1
Dog	1,415	24	1	0	0	1,440
Goat	2	0	0	0	0	2
Horse	0	0	0	1	0	1
Llama	0	0	0	1	0	1
Sheep	1	0	0	0	0	1
Skunk	0	2*	2*	0	0	4
TOTAL	**1,475**	**103**	**175**	**167**	**101**	**2,021**

*Imported ill or improperly vaccinated

References:

Bleck, Thomas P. and Charles E. Rupprecht. “Rabies Virus,” in Mandell G.L. ed, Principles and Practice of Infectious Disease. Fifth Edition, 2000. Churchill Livingstone, Inc.

Compendium of Animal Rabies Prevention and Control, National Association of State Public Health Veterinarians. *MMWR* 2004; 53 (RR-9); 1-12.

Human Rabies Prevention, United States, 1999 – Recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR* 1999; 48 (RR-1); 1-21.

APPENDIX IV
SPECIAL TOPICS

Measles Outbreak, April 2004
Public Health – Seattle and King County

On April 5, 2004, an 18 month old female presented to a pediatric clinic in Seattle with a two day history of rash, preceded by two to three days of a prodromal illness characterized by fever, cough, coryza and conjunctivitis. Koplik's spots were present in the child's mouth. The physician examining the child suspected measles and immediately notified local public health. A serum sample collected on April 5 was positive for measles IgM by enzyme immunoassay on April 6, 2004.

Public health immediately began an investigation upon report of the suspected case. The investigation revealed that the ill child and her family were part of a group of 11 families, with 12 children adopted from orphanages in China, that had spent approximately 10 days together in China before traveling to the United States at the end of March, 2004. Of the 12 children in the group, eight came to the Puget Sound region (six to King and two to Snohomish County) and one each to Alaska, Florida, Maryland and New York. After the first case was recognized, subsequent investigations by public health authorities determined that 11 of the 12 children had a current or recent febrile-rash illness; the child that did not develop a rash was seven years old.

Interviews with the families of the eight children who came to the Puget Sound area yielded reports of current, or resolved, recent febrile-rash illness in six of the children. Five of the six King County families had made a total of 14 visits to King County health care professionals for their ill children since arriving in the US; seven of these visits were for rash illnesses. Unfortunately, measles had not been considered in the differential diagnosis of any of these children and measles testing had not been ordered. In addition to the first identified 18 month old child, all six of the other ill children were subsequently confirmed to have had measles.

There were no reports of secondary cases among Washington residents, despite the seven cases having had multiple community exposures while contagious. One documented secondary case occurred in an unimmunized 19 year old visitor who had contact with one of the Washington cases while the child was contagious. The lack of secondary cases in Washington may be a reflection of relatively good MMR vaccine coverage rates, the requirement for a second dose of MMR vaccine in school-aged children and more limited risk of transmission of respiratory infections from young children.

Measles vaccine is recommended for internationally adopted children at the appropriate age and adoptive families should also be immune to measles. Although federal law currently requires persons applying for an immigrant visa to show proof of having received recommended vaccines as defined by the Advisory Committee on Immunization Practices (ACIP), internationally adopted children less than 11 years of age are exempt from those regulations, but are required to receive the necessary immunizations within 30 days of arriving in the United States.

Measles remains endemic in many parts of the world. Health care professionals who care for children should remain aware of the signs and symptoms of measles, especially when evaluating an international adoptee. Adoptive parents and their families who travel overseas to pick up their children should ensure that their own immunizations are current. Consideration should also be made to avoid public settings when a newly adopted child from overseas becomes ill within the first three weeks of arrival and parents should seek immediate medical attention for their child. Numbers of international adoptions are on the rise and outbreaks of measles among this population will continue to occur unless reasonable and effective recommendations to further enhance prevention of measles are implemented.

Japanese Encephalitis in a King County Resident, June 2004
Washington State Department of Health and Public Health - Seattle and King County

Japanese encephalitis (JE) virus is the leading cause of viral encephalitis in Asia. Transmission rates vary seasonally and geographically. No virus-specific treatment exists; however, preventative vaccination is available. The case-fatality rate is approximately 30% with neurologic sequelae common among survivors. JE has rarely been reported in short-term travelers to endemic areas; this and concerns about possible reactogenicity have resulted in somewhat selective vaccination recommendations.

In late June 2004, Public Health - Seattle and King County (PHSKC) was notified of a rapidly progressive encephalitis in a previously healthy 22 year old woman who had just returned from a 32 day visit to northern Thailand. The patient had become ill two days earlier with fever (101.5° F), nausea, headache, photophobia and stiff neck that had worsened over time. Two days later, she had difficulty speaking and swallowing, profound lethargy and fever (104.0°F). Laboratory testing on acute cerebrospinal fluid and acute and convalescent serum performed by the Centers for Disease Control and Prevention confirmed the diagnosis of JE. She recovered without sequelae after 14 days of hospitalization and six weeks of outpatient rehabilitation. This is the first Japanese encephalitis case reported in a U.S. traveler since 1992.

The case patient had traveled to Thailand with 21 other students for a four week university affiliated academic program. To learn more about the group's pre-travel health care preparations, their exposure to mosquitoes and their knowledge and use of mosquito prevention techniques, PHSKC and the Washington State Department of Health (DOH) conducted a telephone survey of the student travelers.

Twenty (91%) of 22 students participated in the survey; there were no other similar illnesses reported. Respondents had a mean age of 22 years (range 19-30 years) and spent a median of 6.5 weeks (range 4.5-16 weeks) in Asia. In preparation for the study abroad program, five (25%) students consulted a travel medicine specialist, seven (35%) consulted a primary care provider or a parent in the healthcare field and eight (40%) did not consult any healthcare provider (HCP). One student (not the case patient) had been vaccinated against JE. Six of nine students who received recommendations about malaria prophylaxis took the medication on the trip; only two used it. Ten of 12 students who saw a HCP were advised of one or more mosquito avoidance techniques, such as appropriate use of insect repellent. All 20 students participated in outdoor activities; nineteen (95%) reported receiving mosquito bites. All of the students visited a rural area and participated in an overnight camping trip. The academic program was based in Chiang Mai city, where 15 (75%) reported "sometimes" or "always" using insect repellent and only three (15%) students reported having window screens, bed nets or mosquito coils at their dormitory.

On the basis of the cohort survey results, DOH provided the following recommendations to the university study abroad program: 1) require students traveling to areas outside of North America or Western Europe to consult with a HCP knowledgeable in travel medicine for advice on appropriate vaccinations, malaria prophylaxis and other health precautions before travel and 2) develop a formal curriculum on travelers' health topics to be presented during pre-departure orientation.

The Advisory Committee on Immunization Practices (ACIP) recommends JE vaccine for travelers to JE endemic areas of Asia during the transmission season, especially those spending one or more months in these areas and whose travel itineraries include rural settings. JE vaccine should also be considered for travelers visiting areas with epidemic transmission or those engaging in extensive outdoor activity in rural settings in areas where JE is endemic, regardless of the duration of their visit. In addition, organized international travel programs should ensure that travelers obtain appropriate preventive health guidance before travel.

Additional information on this case and JE vaccination and prophylaxis recommendations can be found online at http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5405a4.htm.

Escolar-Related Scombrotoxin Poisoning and Diarrhea, November 2004 Washington State Department of Health

In November 2004, the Washington State Department of Health was contacted by Thurston County Health Department regarding a suspected outbreak of scombrotoxin poisoning in a cooking class taught at a supermarket. The potential source of the poisoning was poisoning was a fish, escolar, prepared as the entrée.

Escolar (*Lepidocybium flavobrunneum*) is an oceangoing fish that is typically caught as a byproduct in the tuna fishing industry. As the fish decomposes, gram negative bacteria found in the gut change the histidine in the flesh into histamine and other biogenic amines. These amines, when eaten, can cause scombrotoxin poisoning, also known as scombroid, which results in an allergic-like reaction. In addition, escolar contains an indigestible waxy ester, gempylotoxin, which can lead to oily diarrhea and abdominal cramping. The indigestible waxy ester, gempylotoxin, is present in escolar and other species, such as oilfish (*Ruvettus pretiosus*), of the Gempylid family. There is a dose-response curve and consumption of as little as four ounces results in oily, yellow/orange diarrhea along with abdominal cramping. As with scombrotoxin poisoning, the diarrhea is short-lived, resolving without intervention in about 24 hours.

Production of biogenic amines results when large, red fleshed fish, typically in the *Scombroidae* family, but also fish such as skipjack or mahi-mahi, start to decompose. Approximately 20mg of histamine per 100g of fish flesh is the threshold level to cause symptoms. While histamine levels can vary from portion to portion of the fish, it is typically found in higher concentrations closer to the gut. There have been rare cases of respiratory arrest and death, but typically, cases have a shorter and less lethal course of allergy-like symptoms, such as flushing, itching and hives; diarrhea is also common. Antihistamines, such as diphenhydramine, can be effective. Unlike for true allergic reactions, steroids are not useful in treating scombrotoxin poisoning.

A telephone survey of the cooking class participants was conducted to obtain food histories, clinical characteristics of illness and information about any medical treatment they sought or over-the-counter medications taken. A case of scombrotoxin poisoning was defined as a cooking class participant who had at least on symptom of histamine intoxication (flushing, numbness, hives or itching) within 24 hours of the implicated meal. A case of escolar-associated gastroenteritis was defined as diarrhea or abdominal cramping in the absence of any scombrotoxin poison-defining symptoms.

Twenty-three of 24 class participants were interviewed; all had eaten escolar. Twelve (52%) experienced symptoms of scombrotoxin poisoning within one hour of ingesting the fish. Flushing (10/12) was the most common symptom, followed by headache (9/12) and hives (8/12). Nine of the class participants who did not experience scombrotoxin poisoning symptoms had abdominal cramping and diarrhea. Five class participants sought healthcare; four took over-the-counter medications.

A product trace-back identified additional contaminated fish from the same lot which was obtained from a common wholesaler and histamine was detected in escolar samples obtained from the wholesaler. During the trace-back, an additional cluster of cases was identified in King County. This involved a family of two adults and one toddler, who developed scombrotoxin poisoning symptoms shortly after consuming escolar. An additional case was reported to King County due to heightened awareness of escolar-causing scombrotoxin symptoms. Distributors of the product were advised to return or dispose of unsold escolar.

A similar outbreak with combined scombrotoxin poisoning and escolar-associated illness was reported in Douglas County in May, 2004. Two other similar outbreaks have been reported in the peer-reviewed literature. The incidence of combined scombroid and escolar-associated gastroenteritis is probably under-recognized and underreported.

Diarrhea related to consuming escolar has been known for generations in some societies. The Hawaiians refer to it as *maku'u* - explosive diarrhea after eating too much *walu*, the Hawaiian name for escolar. Recently, escolar has been appreciated for its weight loss and appetite control value. In small amounts, it can produce a feeling of satiety, with the resultant reduction in calorie intake.

Escolar is commercially available in the United States, but is prohibited for sale in Japan and is restricted in other countries such as Australia. Escolar had previously been banned for its purgative properties by the FDA. However, this position was reversed in 1997. Given the increasing frequency of these outbreaks, it may well be worth reconsidering this reversal. Both retail consumers and restaurateurs should be made aware of this species and its unique properties.

Influenza, 2004-2005 Season
Washington State Department of Health

In 2004, influenza activity began the first week of November with sporadic activity continuing through the third week of December. Activity rapidly increased in January lasting through the first week of February, after which activity slowly decreased. The last case of influenza was reported the end of April. Peak weeks of activity were the second week of January through February. Overall, 2004 influenza activity in Washington was comparable to previous years.

In Washington, reported influenza activity in schools was sporadic until the third week of January when 10 schools reported greater than 10% absenteeism with influenza-like illness (ILI). School ILI rapidly increased and peaked the first week of March, with 14 schools reporting greater than 10% absenteeism due to ILI.

Forty-six long-term care and assisted living (AL) facilities participated in sentinel influenza surveillance in Washington during the 2004-2005 season. Outbreaks in 22 long-term care and AL facilities were investigated with seven (32%) confirmed as influenza A (not subtyped), 11 (50%) confirmed as influenza A, H3N2 and four (18%) confirmed as influenza B.

Sentinel surveillance laboratories reported 751 influenza isolates from 21 counties in Washington. Seventy-two percent of the influenza isolates were type A and 28% were influenza B. Of the 123 influenza A isolates subtyped, all were type A, H3N2. Eight percent of surveillance isolates were obtained from patients under one year of age, 12% from persons 1-4 years of age, 18% from persons 5-19 years of age, 19% from persons 20-39 years of age, 18% from persons 40-59 years of age and 22% from persons over 60 years of age. Age was not reported for 3% of cases.

Strains circulating in Washington during the 2004-2005 season were antigenically similar to those contained in the 2004-2005 vaccine. However, increasing numbers of the A/California/7/2004-like strain were seen nationwide. As a result, the Northern hemisphere trivalent influenza vaccine for the 2005-2006 season will contain this strain as the A, H3N2 component, replacing the A/Fujian/411/2002 H3N2-like virus. The recommended 2005-2006 trivalent vaccine for the United States will contain A/New Caledonia/20/1999 (H1N1)-like, A/California/7/2004 (H3N2)-like and B/Shanghai/361/2002-like viruses.

APPENDIX V
STATE DEMOGRAPHICS

Washington State
Population Estimates, 1985-2004*

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

*April 1, 2004 estimate

Washington State Population Estimates By County, 2004*

Washington State Office of Financial Management

County	Estimate
Adams	16,700
Asotin	20,700
Benton	155,100
Chelan	68,400
Clallam	65,900
Clark	383,300
Columbia	4,100
Cowlitz	95,300
Douglas	34,200
Ferry	7,300
Franklin	57,000
Garfield	2,400
Grant	78,300
Grays Harbor	69,200
Island	74,800
Jefferson	27,000
King	1,788,300
Kitsap	239,500
Kittitas	35,800
Klickitat	19,300
Lewis	70,700
Lincoln	10,200
Mason	50,800
Okanogan	39,600
Pacific	21,000
Pend Oreille	11,900
Pierce	744,000
San Juan	15,100
Skagit	108,800
Skamania	10,100
Snohomish	644,800
Spokane	432,000
Stevens	40,700
Thurston	218,500
Wahkiakum	3,800
Walla Walla	56,700
Whatcom	177,300
Whitman	41,700
Yakima	227,500
Washington State	6,167,800

*April 1, 2004 estimate

Washington State Population Estimates By Age and Sex, 2004*

Washington State Office of Financial Management

Age (years)	Male	Female	TOTAL
0-4	205,374	195,784	401,158
5-9	210,225	200,256	410,481
10-14	228,931	216,806	445,737
15-19	226,861	216,028	442,889
20-24	226,327	213,494	439,821
25-29	205,713	194,867	400,580
30-34	221,584	211,513	433,097
35-39	227,209	219,564	446,773
40-44	249,095	246,269	495,364
45-49	243,657	244,535	488,192
50-54	218,357	223,078	441,435
55-59	180,004	183,588	363,592
60-64	129,577	132,549	262,126
65-69	93,128	99,714	192,842
70-74	73,288	85,306	158,594
75-79	58,715	78,764	137,479
80-84	42,452	66,203	108,655
85+	31,735	67,250	98,985
TOTAL	3,072,232	3,095,568	6,167,800

*April 1, 2004 estimate