

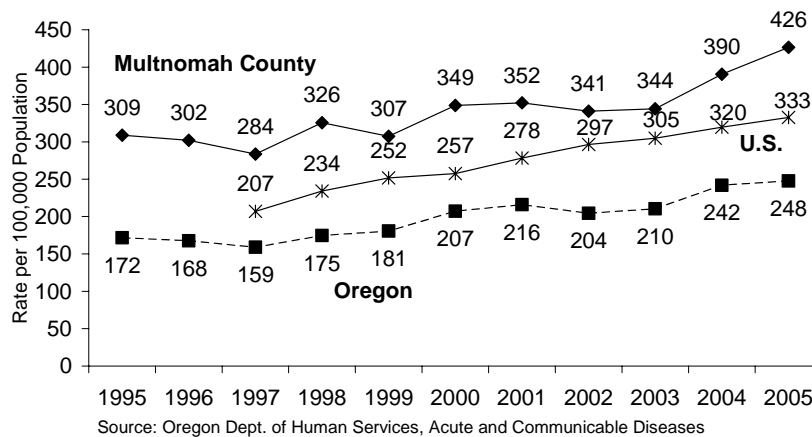
**Multnomah County Health Department:  
Communicable Disease Assessment**

The Multnomah County Communicable Disease Assessment includes information on sexually transmitted diseases (STDs), HIV infection, new AIDS cases, tuberculosis, viral hepatitis, vaccine-preventable diseases, and diarrheal diseases. A communicable disease, also known as contagious disease, is an infectious disease that is capable of being transmitted from one person or species to another. Communicable diseases are often spread through direct contact with an individual, contact with the bodily fluids of infected individuals, or with objects that the infected individual has contaminated. Communicable disease data were provided by the Acute and Communicable Disease Prevention and HIV/Sexually Transmitted Disease/Tuberculosis Programs within the Oregon Department of Human Services. Case rates for communicable diseases were calculated using the National Center for Health Statistics bridged-race population estimates. To help stabilize rates and observe time trends when there are a small number of events, rates are aggregated into rolling averages, using three-year or five-year intervals. By creating rolling rates, trends can be identified more easily.

**Chlamydia**

Chlamydia is the most frequently reported STD in Multnomah County and Oregon. From 1995 to 2005, chlamydia rates increased from 309 cases per 100,000 residents to 426 cases per 100,000 residents (Figure 7.1). Chlamydia rates have been consistently higher in Multnomah County than in Oregon and the U.S. The Oregon Department of Human Services reports that three-fourths of infected women and half of infected men have no symptoms to alert them to seek early care. Rates presented here are likely underestimates of the actual rate of chlamydia infection because most people with chlamydia are not aware of their infections.

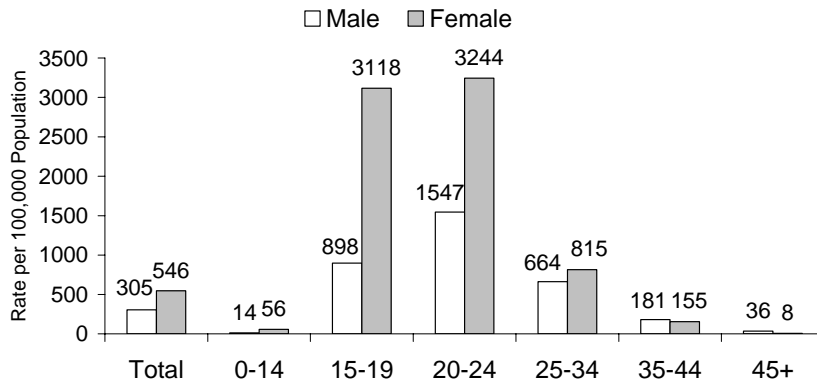
**Figure 7.1  
Chlamydia Case Rates**



## Multnomah County: Communicable Disease

In 2005, 64% of the reported cases of chlamydia were among women and 34% were among men. Higher rates among females may be due to greater screening among females than males. In 2005, females 20-24 years old had the highest rates of chlamydia, followed by females ages 15-19 (Figure 7.2).

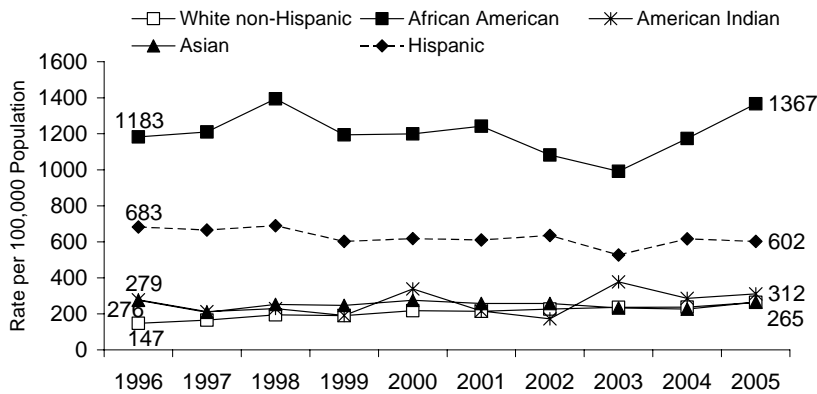
**Figure 7.2**  
**Chlamydia Rate by Age and Gender**  
**Multnomah County 2005**



Source: Oregon Dept. of Human Services, Acute and Communicable Disease

Chlamydia case rates by race/ethnicity are displayed in Figure 7.3. Chlamydia rates are consistently higher among African Americans and Hispanics than among White non-Hispanics, Asians, and American Indians.

**Figure 7.3**  
**Chlamydia Rates by Race/Ethnicity**  
**Multnomah County 1996-2005**

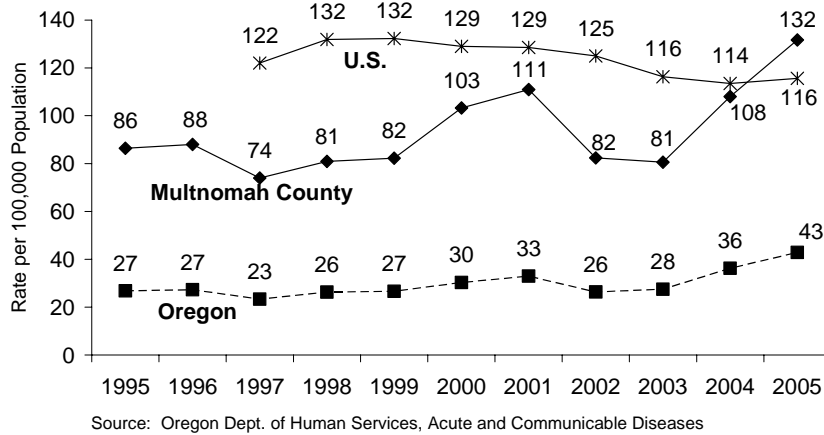


Source: Oregon Dept. of Human Services, Acute and Communicable Disease



**Gonorrhea**

**Figure 7.4  
Gonorrhea Case Rates**

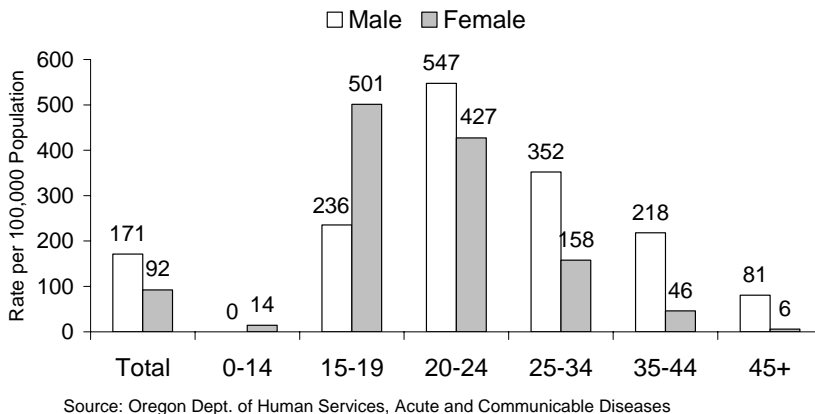


Gonorrhea case rates increased in 2004 and 2005 (Figure 7.4). Case rates increased from 81 gonorrhea cases per 100,000 residents in 2003 to 132 cases per 100,000 residents in 2005. These increases may reflect changes in the gonorrhea test or possible changes in testing or reporting

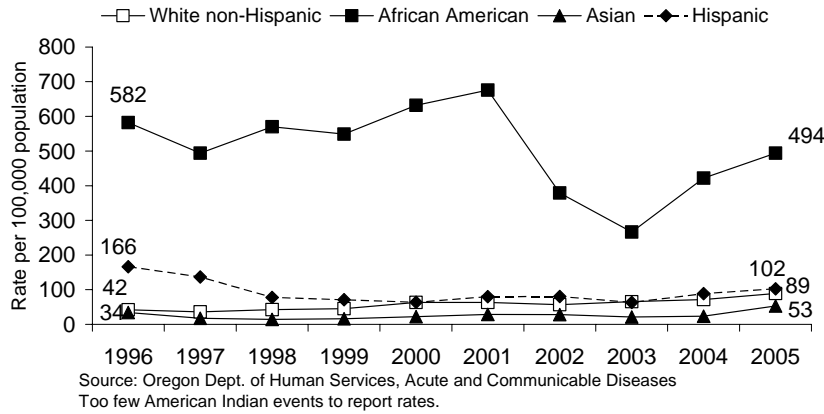
practices. In recent years tests used to diagnose gonorrhea have become more sensitive and have increased the detection of gonorrhea. The Oregon Department of Human Services reported an increase in the percent of cases among patients without symptoms, suggesting that more patients were being tested in 2004-2005. The state also reported a greater increase in the number of gonorrhea cases diagnosed in private offices (72% increase) compared to public sites (26% increase) in 2004-2005.

By gender, 65% of the reported cases of gonorrhea in 2005 were among men, and 35% were among women. Reported gonorrhea rates are highest among males ages 20-24, followed by females ages 15-29 (Figure 7.5). In 2005, there were 547 cases per 100,000 males ages 20-24 and 501 cases of gonorrhea per 100,000 females ages 15-19. Gonorrhea rates are higher for males than females in every age category with the exception of youth age 15-19.

**Figure 7.5  
Gonorrhea Rate by Age and Gender  
Multnomah County 2005**



**Figure 7.6  
Gonorrhea Rates by Race/Ethnicity  
Multnomah County 1996-2005**



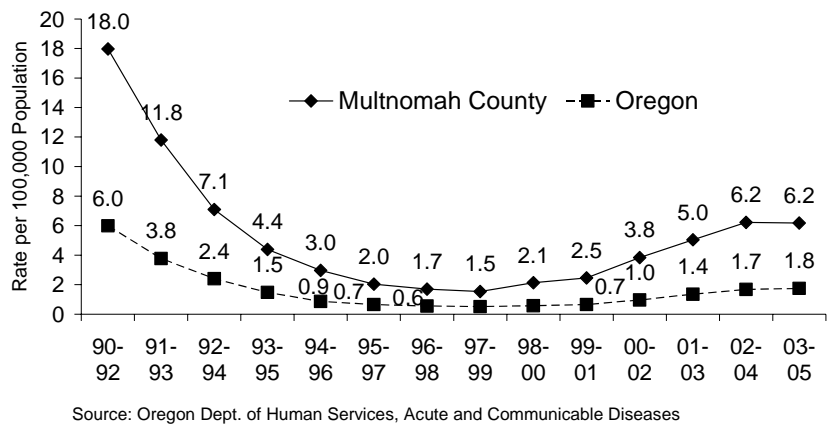
Gonorrhea rates among African Americans are consistently higher than rates among other racial/ethnic groups (Figure 7.6). Although there was a decline in infection rates among African Americans between 2001 and 2003 rates increased in 2004 and 2005. In 2005, the African American gonorrhea rate was five times higher than the White non-Hispanic rate.

**Syphilis**

In the 1990's rates of syphilis infection per 100,000 residents declined dramatically in Multnomah County as well as in Oregon (Figure 7.7). Rates have increased since the 1997-1999 period. In the 2002-2004 and 2003-2005 periods, there were 6.2 syphilis cases per 100,000 residents. This increase reflects national trends, with most of the increase in cases occurring in men who have sex with men.

In 2003 Multnomah County identified a syphilis outbreak occurring in men who have sex with men, similar outbreaks began in 2000 in other West Coast cities. The outbreaks were primarily associated with liaisons arranged through internet chat rooms and commercial sex venues such as bathhouses and adult bookstores. Traditional sex partner notification and treatment strategies were hampered because affected individuals often were unable to name or locate sex partners (for more information:

**Figure 7.7  
Syphilis Case Rates  
Multnomah County and Oregon**



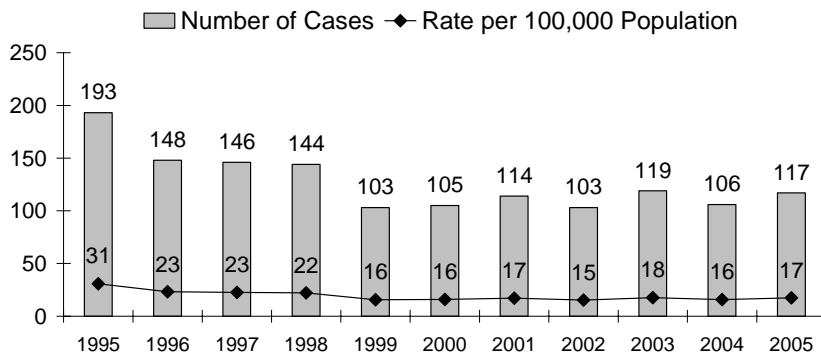
<http://oregon.gov/DHS/ph/std/syphilis.shtml>). In response to the outbreak and the changes in sexual networks, up-to-date, proven strategies were implemented to find and treat sex partners. Strategies include web-based partner notification, community education and health promotion; a community collaborative to increase awareness and promote behavioral change in men who have sex with men, including a media campaign that encourages regular testing, appropriate treatment, and behavior change.



**HIV Infection**

There were 117 HIV positive diagnoses during 2005 (Figure 7.8). Of those with positive tests in 2005, 93% were men and 7% were women. HIV(nonAIDS) became reportable in October 2001 under the HIV/AIDS Reporting System (HARS). HIV(nonAIDS) cases were likely undercounted prior to 2002. AIDS had been reportable since 1984 but HIV infection prior to October 2001 was not except in some very limited circumstances (such as in units of blood tested positive for HIV). For more information on HIV(nonAIDS) reporting see the September 11, 2001 CD Summary from the Oregon Department of Human Services (<http://www.oregon.gov/DHS/ph/cdsummary/01cdsum.shtml>).

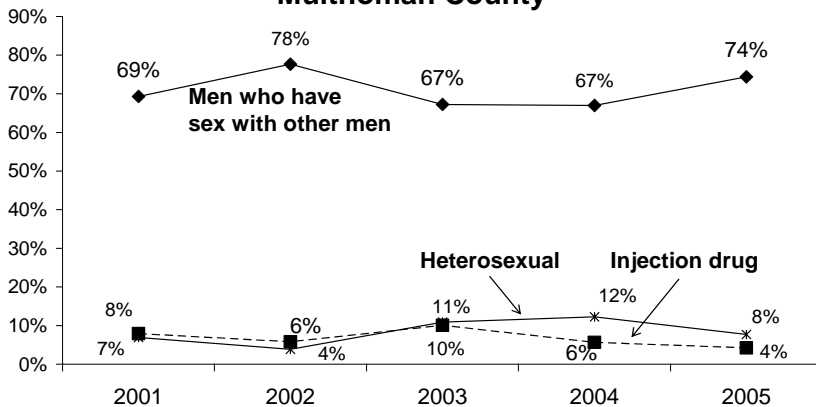
**Figure 7.8  
Newly Diagnosed HIV Infection  
Multnomah County**



Source: Oregon Dept. of Human Services, HST Program. Note: HIV(nonAIDS) became reportable October 2001. HIV(nonAIDS) cases likely undercounted prior to 2002.

Newly diagnosed HIV by selected risk behaviors is displayed in Figure 7.9. Risk behaviors such as men having sex with men, injection drug use, prostitution and sex with a partner at risk are recorded for HIV tests. Men who have sex with other men continues to be the leading risk group for HIV infection.

**Figure 7.9  
Newly Diagnosed HIV by Risk Behavior  
Multnomah County**

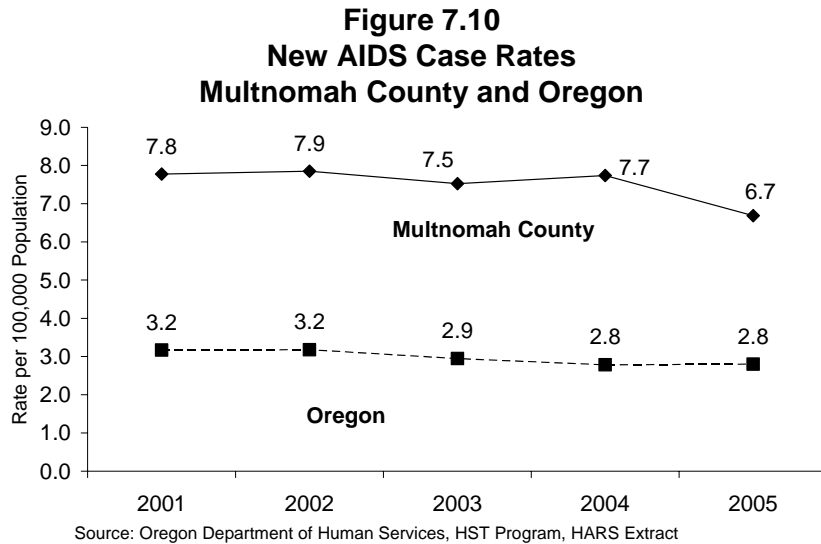


Source: Oregon Department of Human Services, HST Program, HARS Extract

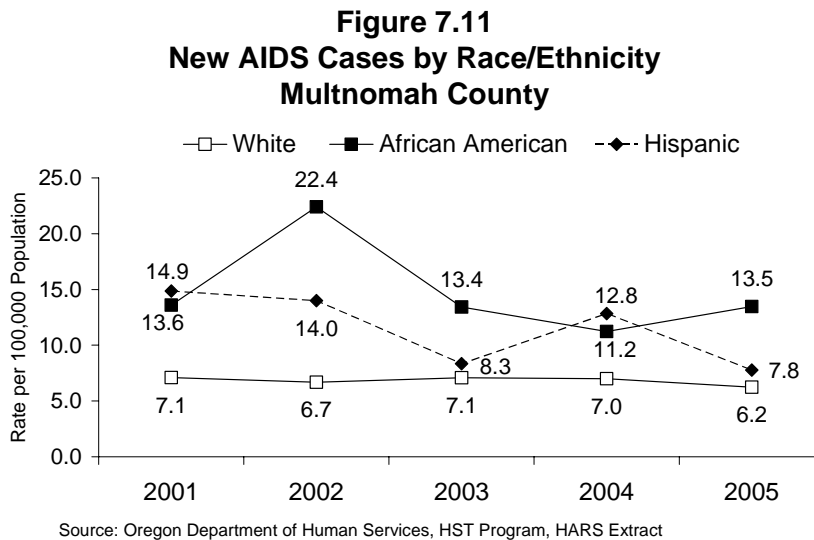


**New AIDS Cases**

The rate of reported new AIDS cases (late-stage HIV infection) has declined since the early 1990s. The rate of AIDS cases in Multnomah County has remained roughly twice the rate for Oregon as a whole. In 2005, there were 6.7 AIDS cases per 100,000 residents in Multnomah County (Figure 7.10). In Multnomah County new AIDS cases have been primarily among men. In 2005, 100% of new AIDS cases were among men. By age, 78% of new AIDS cases were 30-49 year olds, 13% were 50-59 year olds and 9% were 20-29 year olds.



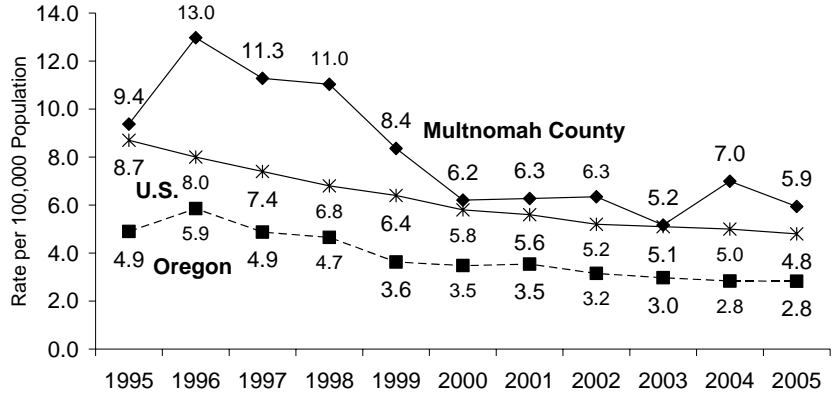
The rate of new AIDS cases has remained steady from 2001 to 2005 among White non-Hispanics. The rate among African Americans and Hispanics fluctuates with an overall decline for Hispanics (Figure 7.11). There were too few cases among Asians and American Indians to calculate rates.



**Tuberculosis**

Figure 7.12 displays rates of tuberculosis (TB) per 100,000 population for Multnomah County, Oregon and the U.S. which have all declined since the mid 1990s. Rates of TB are higher among foreign born residents than among U.S. born residents. Over 60% of Multnomah County and Oregon TB cases are consistently among foreign born residents.

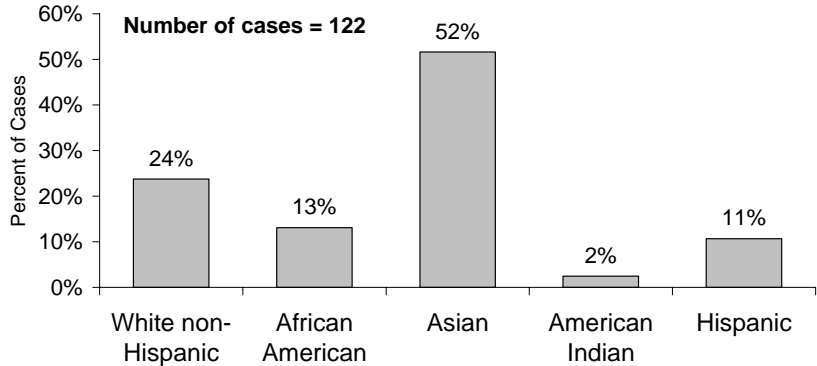
**Figure 7.12  
Tuberculosis Case Rates  
Multnomah County, Oregon and U.S.**



Source: Oregon Department of Human Services; Tuberculosis Program

By race and ethnicity, the majority of TB cases diagnosed between 2003 and 2005 in Multnomah County were among Asians (52%), followed by White non-Hispanics (24%). Thirteen percent were among African Americans and 11% among Hispanics (Figure 7.13).

**Figure 7.13  
Tuberculosis Cases by Race/Ethnicity  
Multnomah County, 2003-2005**



Source: Oregon Department of Human Services, Tuberculosis Program

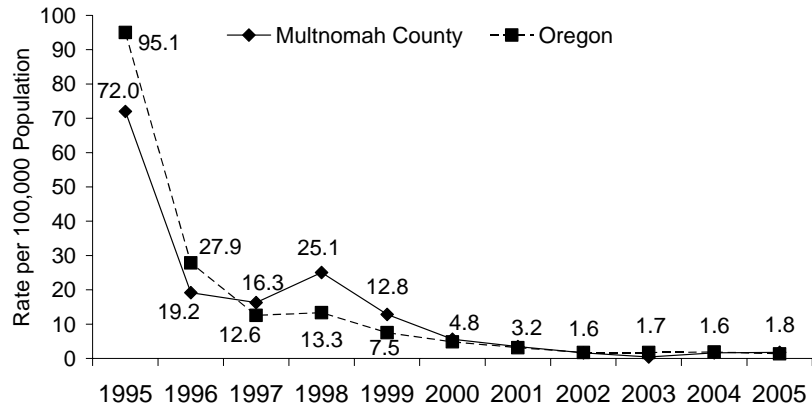
**Hepatitis A**

Hepatitis A is a liver disease caused by a virus. It can be transmitted through food or water, fecal-oral exposure, or sexual contact. In rare cases hepatitis A can be blood borne. The Centers for Disease Control and Prevention has estimated that over one-third of Americans have evidence of past infection. Although rates of hepatitis A are low in Multnomah County, immunization is recommended for travelers to countries with high or intermediate occurrence of hepatitis A, men who have sex with men, injecting drug users, persons with clotting-factor disorders, and persons with chronic liver disease. Immunization for prevention is available for individuals ages two years and older.



The number of hepatitis A cases per year has dropped substantially since the mid 1990s in Multnomah County and in Oregon. Hepatitis A case rates peaked for Multnomah County in 1995 at 72 cases per 100,000 residents (Figure 7.14). For Oregon, hepatitis A case rates peaked in 1995 at 95.1 cases per 100,000 residents. In 2005, there were 1.8 cases of hepatitis A per 100,000 residents in Multnomah County and 1.3 cases per 100,000 residents in Oregon.

**Figure 7.14  
Hepatitis A Case Rates  
Multnomah County and Oregon**



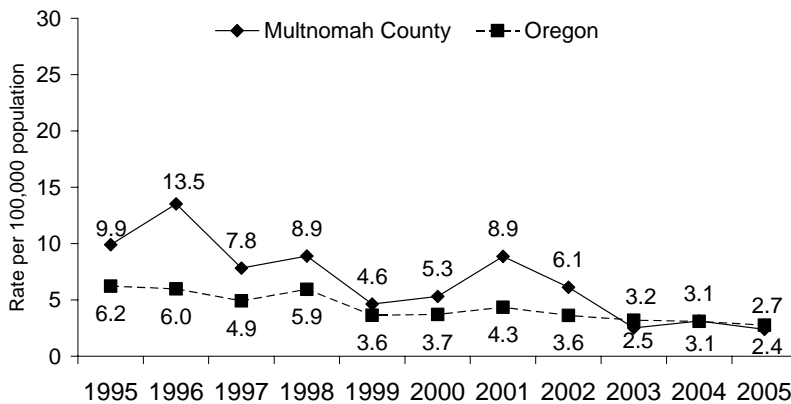
Source: Oregon Dept. of Human Services, Acute and Communicable Disease

By gender, hepatitis A occurred more frequently among men than among women in the 1990s, but the number of cases among men has dropped in recent years.

**Hepatitis B**

Hepatitis B is a serious disease of the liver caused by a virus. Hepatitis B is a blood borne virus and can be transmitted through sexual contact; needle, razor, or toothbrush sharing; or perinatally from mother to child. Prenatal testing for hepatitis B is recommended for pregnant women. Chronic hepatitis B infection occurs in approximately 90% of infected infants, 30% of infected children younger than 5 years, and less than 5% of infected persons age 5 years and older. Hepatitis B vaccine is available to all age groups. Hepatitis B vaccination is recommended as a part of routine vaccinations for infants and children, and is required for school attendance in Oregon. Vaccination for hepatitis B was added to school vaccination requirements in school year 1999-2000 for first graders and in 2000-2001 for seventh graders. Rates of hepatitis B have declined substantially since the mid 1990s.

**Figure 7.15  
Acute Hepatitis B Case Rates  
Multnomah County and Oregon**



Source: Oregon Dept. of Human Services, Acute and Communicable Disease

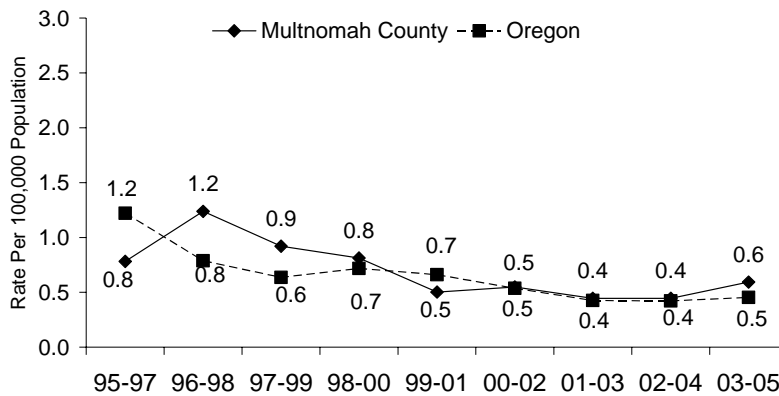
The rate of new hepatitis B cases in Multnomah County has fallen from 13.5 per 100,000 population in 1996 to 2.4 in 2005 (Figure 7.15). Oregon's rate of new cases fell from 6.2 in 1995 to 2.7 in 2005.



### Hepatitis C

The CDC estimates that hepatitis C is the most common blood borne infection in the United States and that most cases of hepatitis C remain undetected. There is no vaccine for hepatitis C. Since people with acute hepatitis C infection frequently do not exhibit symptoms, cases go undetected unless they result in chronic liver disease or are detected through blood screening for other purposes. The highest infection rates are found among injecting drug users and people with hemophilia who received transfusions or clotting factor concentrates prior to 1987. Routine testing for hepatitis C is recommended for injection drug users, people with a blood transfusion or organ transplant prior to 1992, people who received clotting factors made before 1987, children born to hepatitis C positive women, and health care workers and emergency medical staff *after* exposure to hepatitis C positive blood.

**Figure 7.16**  
**Acute Hepatitis C Case Rates**  
**Multnomah County and Oregon**



Source: Oregon Dept. of Human Services, Acute and Communicable Disease

Rates of new cases of acute hepatitis C are shown in Figure 7.16. Less than 1 person in every 100,000 was diagnosed with acute hepatitis C in Multnomah County or Oregon in the period 2003-2005. A count of cases shows that there were 24 new cases of acute hepatitis C from 1996-1998 and 12 new cases from 2003-2005 in Multnomah County.

The number of new acute cases has been dropping steadily due to better screening and prevention efforts. Despite this, long-term (chronic) hepatitis C remains a serious problem. In July of 2005, chronic hepatitis C became a reportable disease in Oregon. Multnomah County has had voluntary laboratory reporting since 2001. In Multnomah County, 1,628 cases of chronic hepatitis C were reported in 2005. About 20% of people with chronic infection have continuing liver inflammation which can cause disabling symptoms as well as cirrhosis of the liver. A significant percent of people with cirrhosis develop liver failure or liver cancer. In the U.S., hepatitis C kills 8,000 to 12,000 people a year. It is also the most common reason for liver transplantation. Illness, deaths and health care costs due to hepatitis C disease are expected to rise over the next 20 years.



**Vaccine-Preventable Diseases**

Vaccine-preventable diseases presented include pertussis, also known as whooping cough; haemophilus influenzae, a bacterial pneumonia; and meningococcal disease. Pertussis is a highly contagious upper respiratory infection. Children are routinely immunized for pertussis as part of a series of vaccinations completed by their second birthday. Although pertussis is perceived as a disease of children younger than five years of age, adults can also have pertussis. From 2000 through 2005, 62% of the pertussis cases in Oregon were age 10 years or older. Prior to 2005 there was no pertussis vaccine for adults. In 2005 two new pertussis vaccines were licensed, one for 11-64 year olds and one for 10-18 year olds. For more information on pertussis vaccine recommendations see the March 7, 2006 CD Summary from the Oregon Department of Human Services (<http://www.oregon.gov/DHS/ph/cdsummary/06cdsum.shtml>).

It is estimated that 7% of adults with a persistent cough have pertussis, but do not get diagnosed or treated. While there are few pertussis cases in Multnomah County each year, there was a spike in cases in 2003 and 2005 (Table 7.1). Symptoms of pertussis are mild in adults and are frequently undiagnosed, but adults can transmit the disease to children who get very ill due to their smaller pulmonary systems.

<b>Table 7.1</b>						
<b>Vaccine-Preventable Diseases, Multnomah County</b>						
<b>Rate per 100,000 Population</b>						
	<b>Pertussis</b>		<b>Hib Infection</b>		<b>Meningococcal Disease</b>	
<b>Year</b>	<b>Rate</b>	<b>Number</b>	<b>Rate</b>	<b>Number</b>	<b>Rate</b>	<b>Number</b>
1999	1.4	9	2.7	18	1.8	12
2000	2.0	13	0.8	5	1.8	12
2001	1.9	13	1.2	8	1.0	7
2002	3.7	25	2.1	14	0.9	6
2003	8.1	55	1.3	9	1.3	9
2004	3.4	23	1.5	10	1.0	7
2005	12.9	87	1.5	10	1.3	9

Source: Oregon Dept. of Human Services, Acute and Communicable Disease

Haemophilus influenzae b (Hib), a bacterial pneumonia, has dropped dramatically among infants and young children since the Hib vaccination was approved for children in 1987 and infants in 1990. Hib vaccine is routinely given to children by their second birthday. The number of Hib cases in Multnomah County remains low.

Meningococcal disease, although rare, is a serious bacterial illness with a high individual mortality rate. Meningitis is an infection of the fluid surrounding the brain and spinal fluid. Two vaccines are licensed for meningococcal disease, one available since the 1970's (meningococcal polysaccharide vaccine - MPSV4) and one licensed in 2005 (meningococcal conjugate vaccine - MCV4). The new vaccine, MCV4, is recommended for individuals age 11 to 55 years. MPSV4 is recommended for children ages 2-10 and adults over 55 who are at risk. The new vaccine should help to keep the number of meningococcal disease cases in Multnomah County low.



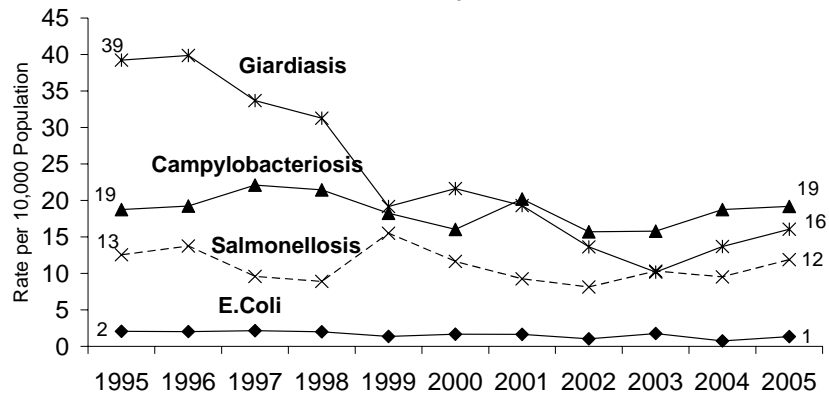
**Diarrheal Diseases**

The most common diarrheal diseases in Multnomah County include campylobacteriosis, E. coli, salmonellosis, and giardiasis. Rates of illness caused by unsafe food handling have declined in both Multnomah County and Oregon since the early 1990s. Multnomah County met the national objective for reducing E.Coli infection in 2004 and 2005 (1 case per 100,000 population). Multnomah County has not met national objectives for reducing campylobacteriosis (12.3 cases per 100,000 population) or salmonellosis (6.8 cases per 100,000 population). Very young children, the elderly, and individuals with compromised immune systems are most likely to experience serious effects from food borne illness. Food borne bacterial diseases can be prevented by adequate cooking, keeping foods at a safe temperature, cleaning utensils well, and thorough hand washing.

Campylobacteriosis was the most commonly reported bacterial cause of intestinal illness over the past four years. Salmonellosis and campylobateriosis are usually transmitted through food, particularly undercooked poultry. Salmonellosis can also be contracted from an infected person or animal through contact with their feces. Giardiasis is a parasitic infection transmitted through water contaminated with feces. E. coli is spread mostly from contaminated meat products, predominately from ground beef.

Many of the food borne illnesses noted above can be prevented by through hand washing. Rates of diarrheal disease have remained relatively steady in Multnomah County with the exception of giardiasis which has declined substantially since 1995 (Figure 7.17).

**Figure 7.17  
Diarrheal Disease Rates  
Multnomah County 1995-2005**



Source: Oregon Dept. of Human Services, Acute and Communicable Disease

