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The Health of King County:
Many Improvements...
Continuing and Emerging Concerns

The Health of King County is a synthesis of public health data designed to provide a broad overview of the health of King County residents. In many regards, we are a healthy county and getting healthier. Important health indicators have improved. Most show that we enjoy better health than the rest of Washington State and the US (perhaps due to the relatively high incomes and educational levels found among county residents). However, to maintain these gains and address ongoing and emerging challenges, continued vigilance and investments are needed.

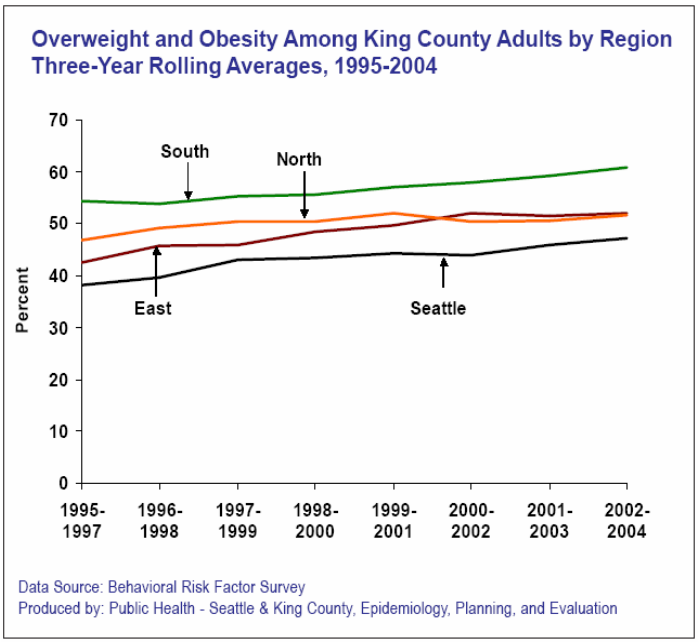
The data used in *Health of King County* are primarily derived from standard public health data systems: vital records, reportable illnesses, hospital discharges, surveys (Behavioral Risk Factor Surveillance System, Healthy Youth Survey) and the US Census. The benefits of using these standard sources include coverage of the entire county population, comparability with state and national data, and availability of historical data to examine trends. However, these data are also limited in the types of health conditions (e.g. data on mental health are inadequate), populations (e.g. data for specific ethnic populations are unavailable) and geographic areas (e.g. data are often not available at the city or neighborhood level) they cover.

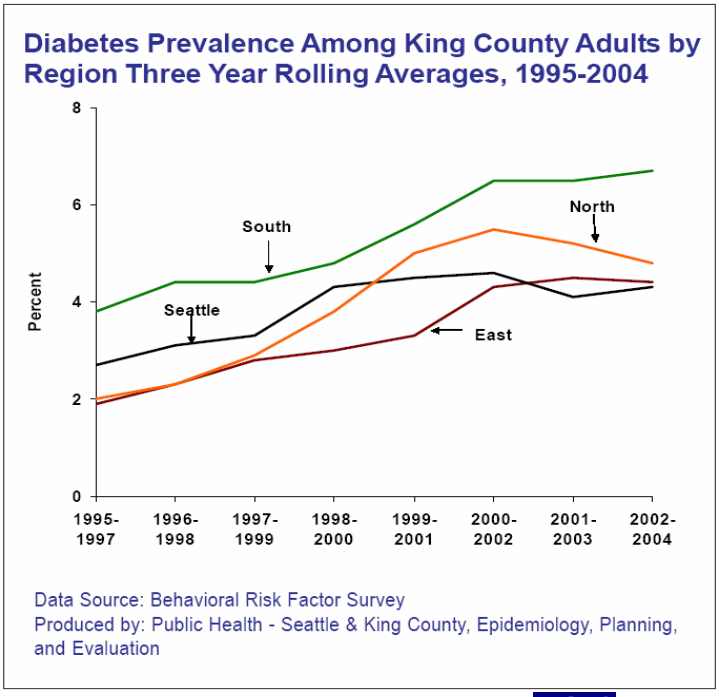
The findings of *Health of King County* have many implications for public health practice, delivery of health care, and public policy. However, it is beyond the scope of this report to discuss them. We hope that readers will be stimulated to seek solutions to the issues raised by this report .

Important Findings of Health of King County

- **Chronic diseases such as cancer, heart disease, stroke, chronic lung diseases (including asthma, emphysema and chronic bronchitis) and diabetes are the largest contributors to ill health in King County**. These conditions resulted in 21,000 hospitalizations in 2004 at a cost of $531 million. Cancer, heart disease and stroke alone account for more than half (56%) of all deaths. Asthma affects 9% of adults and 6% of children. Heart disease and diabetes each afflict at least 5% of adults. Arthritis is also common, with 16% of adults having this disease. Because these conditions become more common with age, their impact will increase as the population ages.

- **Risk factors for chronic diseases are common and affect a growing proportion of the population**. Obesity and overweight are increasing: now more than half (54%) of adults are overweight and 18% are obese. Less than half adults report that they are regularly physically active and 14% report no activity in the past month. Only three-quarters of youth engage in recommended levels of physical activity. Hypertension prevalence increased from 18 to 22% (primarily in South Region and Seattle) between 1995 and 2003. The rate of elevated cholesterol among those screened has increased slightly during the same time period (28% to 31%). Environments that promote physical inactivity, poor nutrition and stress contribute to rising rates of obesity, hypertension and diabetes. Among risk factors, only smoking is declining. Currently, 15% of adults smoke.

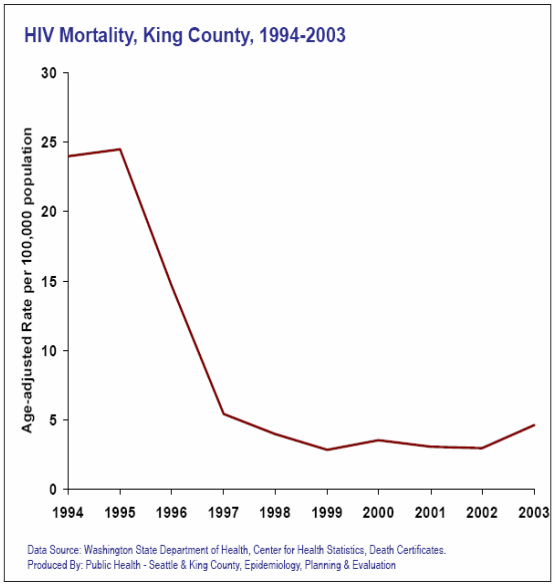


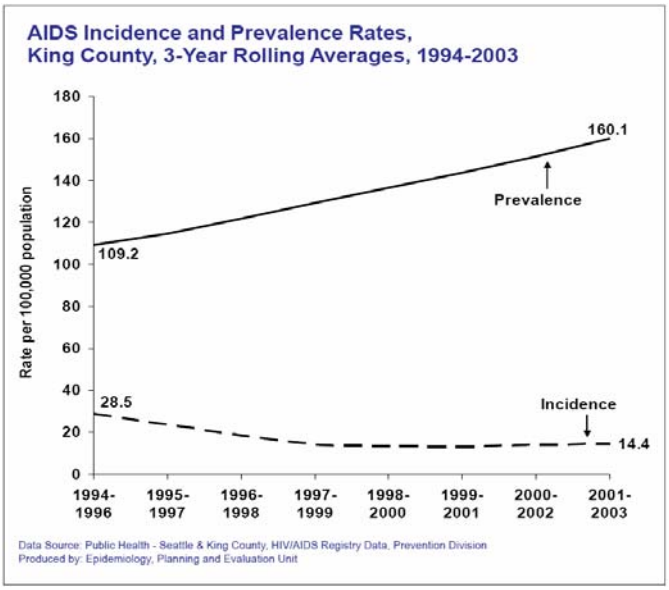


- **The prevalence of diabetes among adults has doubled in the past decade.** Hospitalizations for diabetes, which can often be avoided with planned and proactive diabetes management, are increasing. The diabetes death rate is rising. While we lack surveillance systems for systematically detecting diabetes among children, physicians report

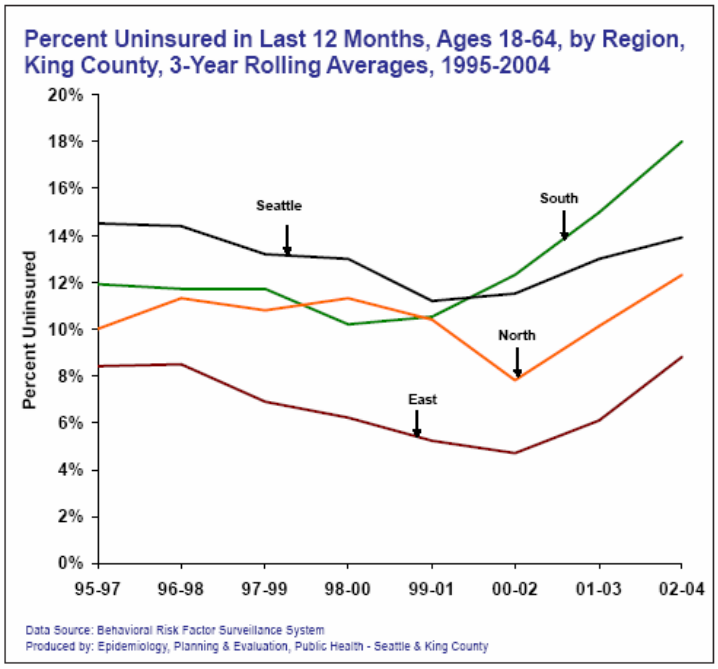
diagnosing Type II diabetes among children with increasing frequency. Type II diabetes is the form associated with obesity and until now has rarely occurred among children.

- **HIV infection has now become a chronic condition as HIV mortality has dropped precipitously**, leading AIDS to move from the 8th to 14th leading cause of death. Because of improved treatment, increasing numbers of people are living with HIV and AIDS, leading to a steady rise in the prevalence of these conditions. For example, the prevalence of AIDS is 47% higher than it was a decade ago even though there are fewer new cases each year.



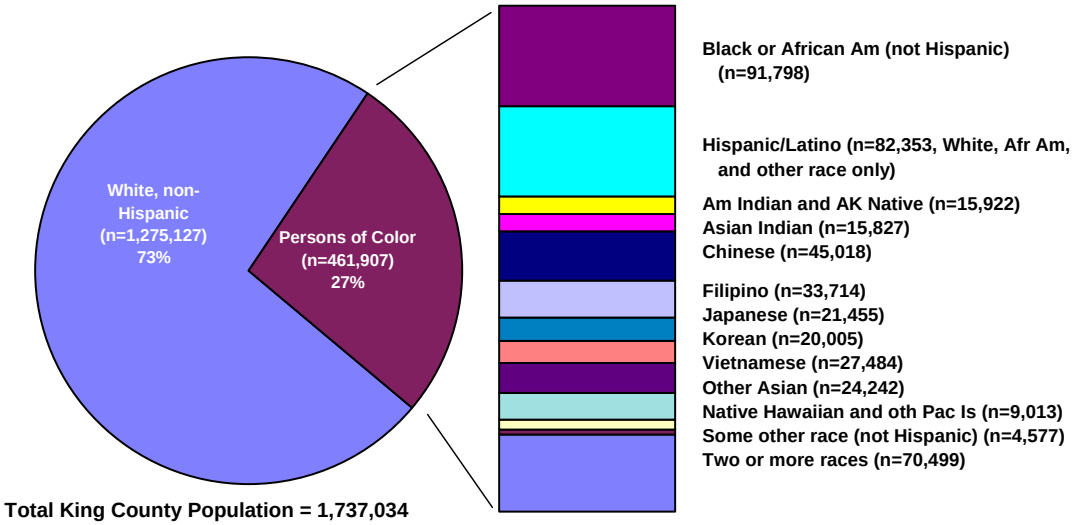


- **The risk of an influenza pandemic may be increasing.** The severity or exact onset of an influenza pandemic cannot be predicted, but there is a high level of concern among public health authorities worldwide about the potential for a severe pandemic resulting from the widespread outbreak of avian influenza A(H5N1) that is occurring in many countries. Such a pandemic could overwhelm healthcare systems, compromise essential community services, lead to societal disruption, and result in significant economic losses.



- **Access to health care has declined notably in the past five years, with a record proportion (15.5%) of the population age 18-64 lacking health insurance** (190,000 people) and a usual source of medical care. This has led to increasing numbers of residents reporting unmet medical needs due to cost and 16,000 hospitalizations per year for avoidable conditions. Limited access to care translates into poorer health outcomes as opportunities for prevention and effective management of diseases are lost.

- **The increasing diversity of the population suggests that the public health and medical care systems need to address health issues in a growing number of cultural contexts.** More of foreign-born people live in the county, especially in Beacon Hill/Georgetown/South Park (where 4 in 10 residents are foreign born) and in Southeast Seattle and White Center/Boulevard Park. The proportion increased in all King County regions. The increase was largest in South Region (from 6.1% to 14.4%) and East Region (from 8.6% to 16.0%).

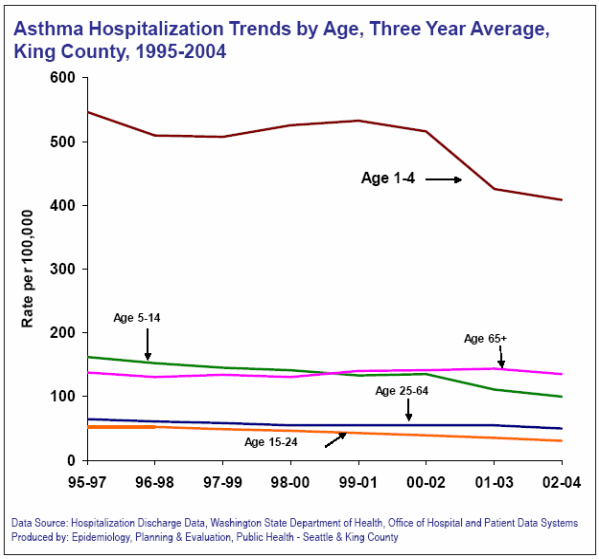


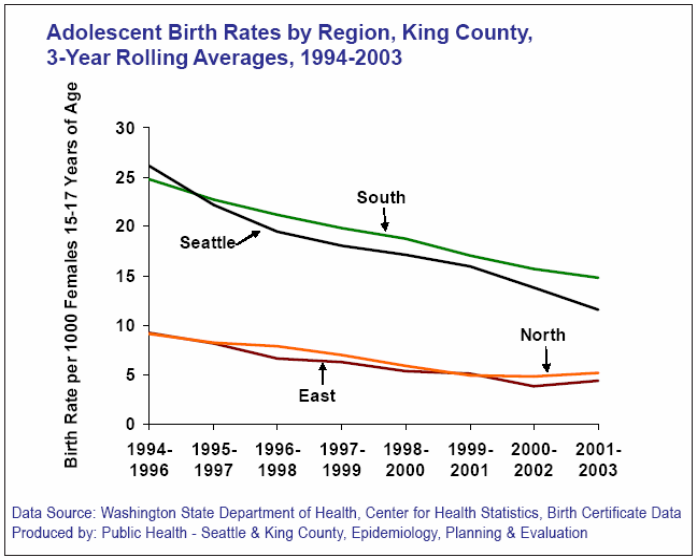
Total King County Population = 1,737,034
Total Hispanic/Latino Ethnicity (all races) = 95,242

Source: US Census, 1999

- **There are large and persistent disparities in health status and access to health care across racial/ethnic groups, income groups and areas of the county.** While some disparities are diminishing, many are increasing.

- **Investments in health promotion and disease prevention pay off.** Asthma morbidity, as measured by hospitalizations, has decreased due to intensive interventions by public health, medical providers, insurers and community organizations. However, the rate remains well above the 1980s level and asthma remains the most common chronic illness of childhood. The rate of low birthweight infants in high poverty areas declined steadily since the mid-1990s and the gap between high and low poverty areas has diminished markedly. The adolescent birth rate has declined substantially. The smoking rate continues to decline.





Improvements

Many health status indicators show improvements. In addition to the favorable trends in HIV, asthma, low birthweight and adolescent birth mentioned above, the report shows that:

- **The death rate continues to fall.** Residents can expect to live five years longer than they did twenty years ago. Life expectancy in the county exceeds that of the rest of Washington State and the nation. The declining death rate is due to lower mortality from heart disease, cancer, stroke and chronic lung disease.

- **Mortality from the most common cancers (lung, colorectal, breast and prostate) is declining.**

- **Health screening can detect many chronic diseases early in their course, making control or cure possible.** Among county adults, 74% of adults report being screened for cholesterol, 82% of women for breast cancer with mammograms, 83% of women for cervical cancer with Pap smears, and 58% of adults for colorectal cancer. The proportion of women receiving mammograms has increased, the proportion of being screened with Pap smears has declined and no changes have occurred in screening for cholesterol and colorectal cancer.

- **Smoking rates have steadily declined** (except in South Region). While smoking still causes vast numbers of deaths (30% of the total), 15% of adults still smoked in 2004. Smoking among pregnant women has also decreased.

- **Motor vehicle injury deaths and hospitalizations are dropping and seat belt use is increasing.**
- **The epidemic of firearm deaths in Seattle during the early-mid 1990s has reversed** and now such deaths are steadily declining.

- **Infant mortality is at its lowest rate ever** and meets the Healthy People 2010 Objective. However, only the rates for whites and Asian/Pacific Islanders are below this objective. The large decrease in deaths from SIDS was the major contributor to the decline.

- **Hepatitis A and B rates have declined dramatically** as use of vaccines has grown. Between 1997 and 2004, the number of cases of hepatitis A declined from 441 to 14. Between 1995 and 2004, cases of hepatitis B decreased from 85 to 23.

- **The rate of childhood immunizations has increased** since 2001, although the current 81% rate of receiving recommended immunizations still falls short of the 2010 Objective of 90%. The rate of immunization against pneumonia among person age 65 and older has increased to 65% but the influenza immunization rate has remained static at 70%. Both rates are well below the 2010 Objective of 90%.

- **Outdoor air quality has steadily improved** over the past 20 years. However small areas continue to have high levels of harmful substances like soot particles or ozone, especially in neighborhoods near highways, industrial areas or train tracks.

Concerns

Despite these improvements, significant health concerns remain. In addition to the concerns regarding diabetes, chronic disease risk factors and access to care described above, additional challenges include:

- **Deaths from unintentional injuries have not declined in the past decade** except for those related to motor vehicles. After chronic illnesses, they are the most important cause of premature loss of life. They remain the most common cause of hospitalization apart from childbirth.

- **The mental health status of residents is not improving.** The rate of persons reporting frequent mental distress is static, as is the suicide rate. Residents report increased poor mental health days. Hospitalizations for psychoses are rising. An exception is the decreasing rate of hospitalization for depression, which may reflect a growing tendency to manage severe depression in outpatient settings.

- **Excessive alcohol use is higher in King County than the rest of the state and the nation.** The proportion of the population reporting excessive drinking increased from 3.4 to 5.6% over the past decade, and the rates of binge drinking and drinking while driving were static.
- **The pattern of drug-related deaths has changed.** Deaths from prescription opiates (e.g. oyxcodone) now exceed deaths from heroin; prescription opiate deaths increased four-fold since 1997. Deaths related to prescription depressant drugs (e.g. benzodiazepines such as valium) and methamphetamines are also on the rise.

- **Improvements seen in access to timely prenatal care in the early and mid 1990s have ended.** Recently, the rate of late or no prenatal care has remained static.

- **Poor indoor environmental quality, usually related to substandard or poorly ventilated buildings, is a concerning environmental health issue**. For example, 23% of low-income homes have visible mold, as do 16% of all homes in the county. Poor indoor air quality is linked to asthma and allergies.

- **The rates of chlamydia and early syphilis (sexually transmitted infections) have increased in recent years.**

Health Disparities

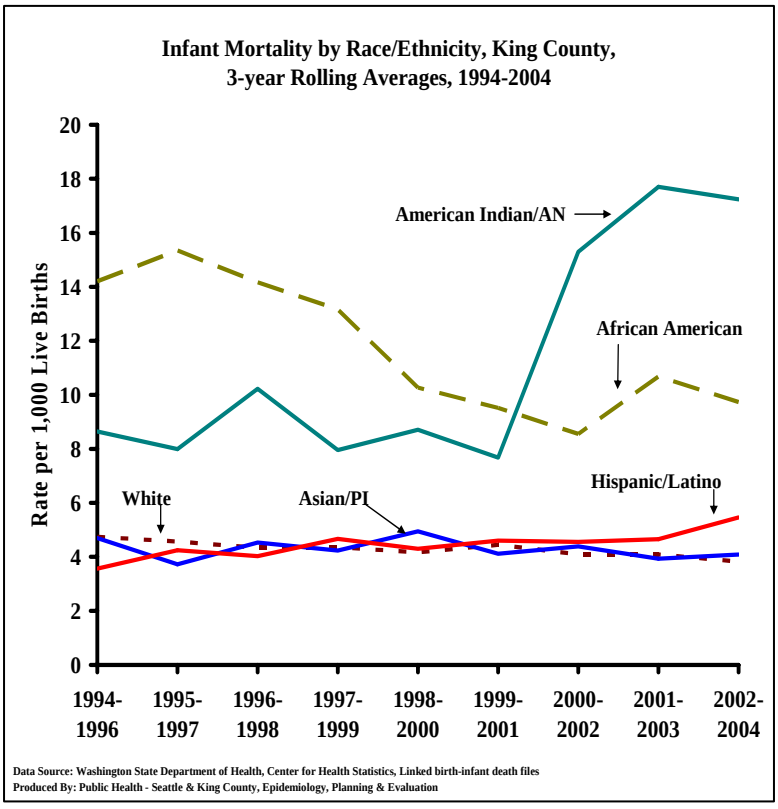
A health disparity is a difference in a health outcome or determinant of health across two populations, such that one population suffers a disproportionate burden of illness. There are large and persistent disparities in health indicators and access to health care in King County across racial/ethnic groups, income groups and areas of the county. While some disparities are diminishing, many

are increasing.

Racial and Ethnic Disparities

When health indicators are compared between African Americans and American Indians/Alaska Natives on the one hand and whites on the other, disparities are found across the spectrum of health indicators, including mortality, birth outcomes, chronic disease and risk factors for chronic disease (e.g. smoking, overweight and physical inactivity, lack of screening), injuries, HIV, mental distress, alcohol use and drug-induced deaths, and access to medical care. Hispanic/Latinos also are affected by disparities, including high rates of adolescent births, physical inactivity, mental distress, HIV, and access to care. In particular:

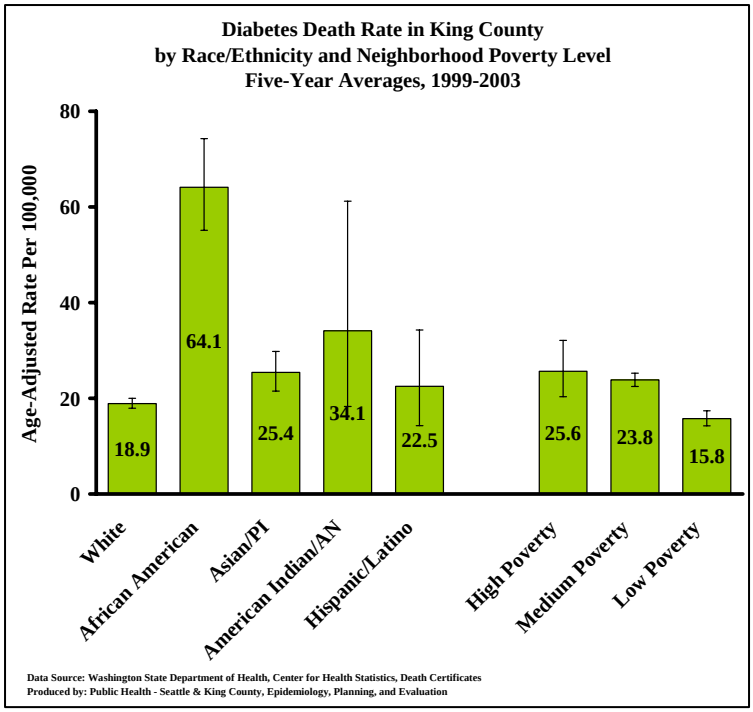
- ***Mortality***: African Americans and American Indian/Alaska Natives have higher death rates and lower life expectancies. The life expectancy of African American and American Indian/Alaska Native males is the lowest of any demographic groups - about 8 years less than expectancy among white males today and lower than that of white males in 1980. The mortality disparity affecting African Americans did not change over the past decade and it increased among American Indian/Alaska Natives. Each year, 158 fewer African Americans and 37 fewer Native Americans/Alaska Natives would die if the mortality disparity was eliminated.



- ***Birth outcomes***: Infant mortality, low birthweight, and preterm deliveries are all more common among African Americans and American Indian/Alaska Natives. While the gaps in these indicators have declined in the past decade, they remain significant. For example, the infant mortality rate among African Americans is declining but remains twice as high as that among whites. Among American Indian/Alaska

Natives, the rate is three times that of whites and the gap is increasing. Adolescent birth rates are higher among African Americans, American Indian/Alaska Natives, and Latinas. All people of color have higher rates of late or no prenatal care than whites, but because of important increases of access in the mid 1990s, the gap decreased between1995-1999.

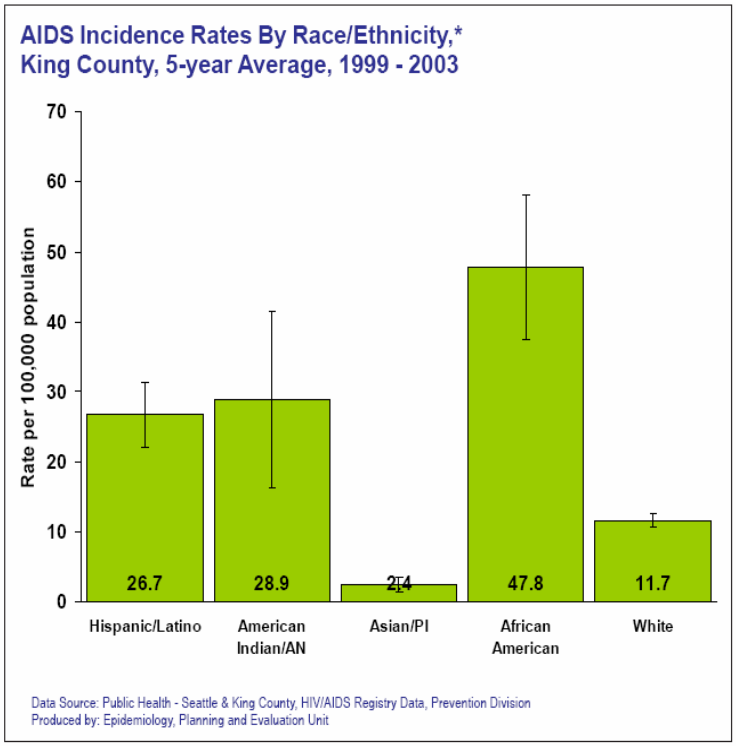
- ***Chronic disease****:* Most chronic diseases are more common among African Americans and American Indian/Alaska Natives. For example, African Americans are more than three times more likely to die of diabetes than whites. Heart disease mortality is also higher among African Americans and American Indian/Alaska Natives and, unlike among other ethnic/racial groups, it has not declined over the past decade, leading to a widening gap. Cancer mortality is higher among African Americans and American Indian/Alaska Natives and lower among Asian/Pacific Islanders and Latinos relative to whites.



- ***Chronic disease risk factors:*** Smoking rates are highest among American Indian/Alaska Natives and are also high among African Americans, relative to whites. Among adults, higher rates of being overweight are seen among American Indian/Alaska Natives and African Americans while among children, rates are high among African Americans, American Indian/Alaska Natives, Pacific Islanders and Latinos. All people of color have higher rates of physical inactivity. Risk factor disparities may exist because of less access to resources for smoking cessation or physical activity, living in neighborhoods where risk of violence and injury discourages physical activity, or less access to healthy foods due to high cost or availability in nearby stores.

- ***Screening for chronic diseases***: Latinos have the lowest rate of screening for cholesterol while African Americans and Asian/Pacific Islanders also have rates lower than that observed among whites. African Americans receive mammograms less frequently than whites. Screening for cervical cancer is lower among Asian/Pacific Islander women.

- ***Injury***: Unintentional injury mortality is higher in American Indian/Alaska Natives. A dramatic decline in homicide firearm deaths occurred among African Americans over the past decade, leading to a marked narrowing of the gap between whites and African Americans.



- ***HIV***: The disparity in HIV mortality between African Americans and whites increased significantly over the past decade. African Americans are now 3.4 times more likely to die from HIV compared to 1.5 times ten years ago.

- ***Tuberculosis***: The rate of new cases of tuberculosis is 41 times higher among American Indians/Native Alaskans, 24 times higher among African Americans and 15 times higher among Asians than among whites. Tuberculosis especially affects homeless people.

- ***Health insurance and access to medical care:*** African Americans and Latinos are more likely to lack health insurance than whites and the gaps have been widening since the late 1990s.

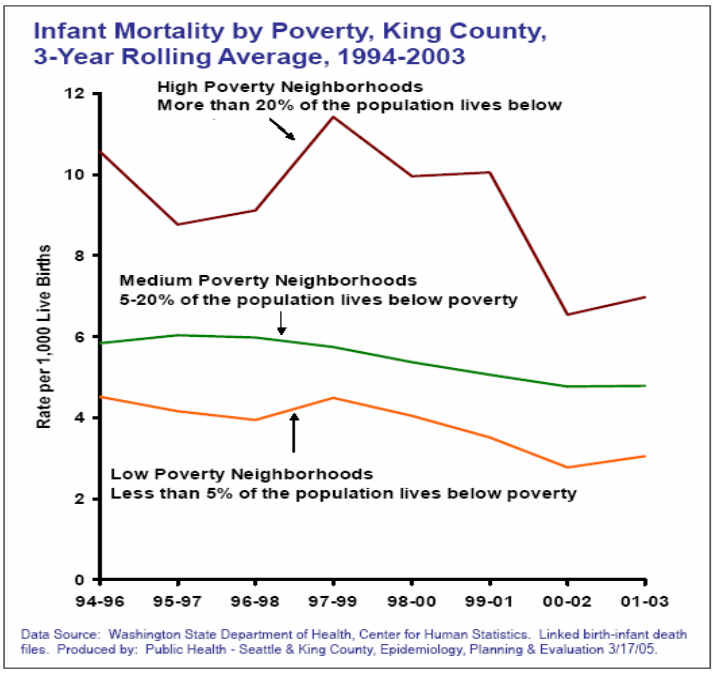
Income Disparities

Low income residents also have disparities in health indicators relative to high income residents. Disparities occur in mortality, birth outcomes, adolescent births, all chronic diseases and risk factors (such as physical inactivity, overweight, smoking, and lack of screening), HIV, mental health, alcohol use, drug-related deaths, and access to care. While this report documents disparities across racial/ethnic groups and areas of King County, the largest disparities generally occur between the lowest and highest income groups. For example, new cases of HIV occur *thirteen* times more frequently and unmet health care needs *five* times more frequently among low income residents. Disparities associated with income affect not only residents of high poverty areas. Residents of medium poverty areas are also affected, although to a lesser degree.

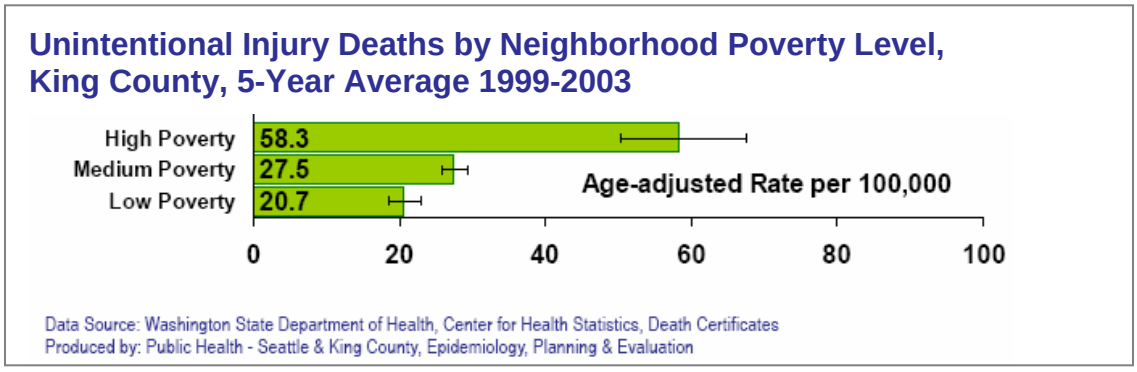
- ***Mortality:*** The death rate is higher and life expectancy shorter (by 3.4 years) among people living in high poverty areas compared to low poverty areas. The gap between moderate poverty and low poverty areas doubled over the past decade while the gap has not changed for high poverty areas. If mortality in high and medium poverty equaled that of low poverty areas, 1292 fewer residents of low and moderate poverty areas would die each year.

- ***Hospitalizations:*** Residents of high poverty areas have a hospitalization rate 43% higher than that of low poverty areas and residents of medium poverty areas have a rate 12% higher. If hospitalizations in high and medium poverty areas equaled that in low poverty areas, approximately 13,000 hospitalizations costing $109-220 million per year might be prevented.

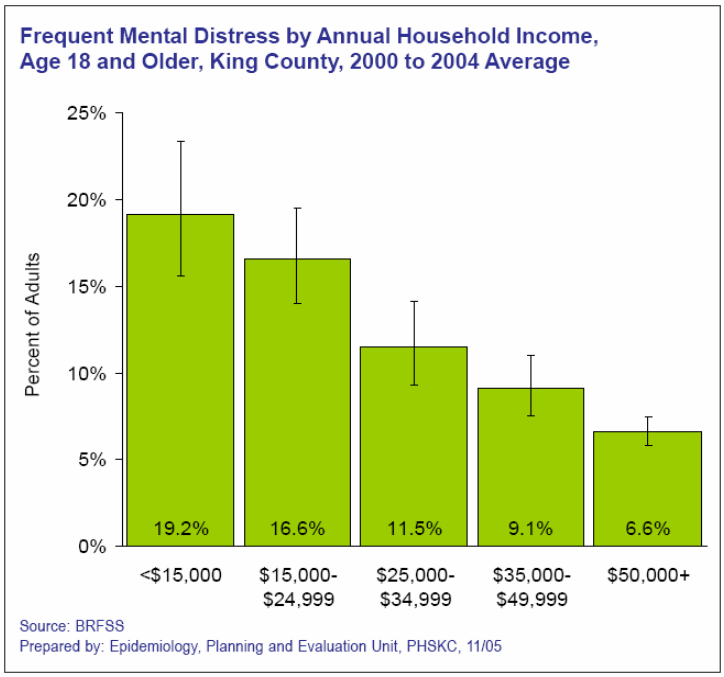
- ***Pregnancy outcomes***: Infant mortality is higher in high poverty areas, but the rate in these neighborhoods began declining sharply in the late 1990s. The rates of low birthweight infants and adolescent births in high poverty areas also have declined steadily but remain higher than in low poverty areas.



- ***Injury***: Mortality from unintentional injuries is higher in high poverty areas, due to excess deaths from motor vehicle vs. pedestrian injuries and poisonings. While firearms deaths are still more common in high poverty areas, the rate has decreased.



- ***Alcohol and drugs***: Heavy drinking tends to be more common in low-income households (but rates of binge-drinking are similar). Drug and alcohol-induced deaths occur more often in high poverty areas.
- ***Mental Health:*** Frequent mental distress is more common in lower income households and affects one-fifth of those in lowest income group. Higher suicide death and hospitalization rates are also apparent in high poverty areas.



- **Health insurance and access to medical care:** Members of the lowest income group are five times more likely to report having unmet needs for medical care. Nearly one-quarter of people with annual household incomes less than $25,000 report unmet medical needs.

Geographic Disparities

A decade ago, primarily Central and Southeast Seattle were disproportionately affected by poor health. Now, the region of the county experiencing the poorest health has expanded south. The South Seattle/South County Area, which includes Downtown, Central and Southeast Seattle, Beacon Hill, Delridge, White Center/Boulevard Park, Tukwila/Sea Tac, Kent and Auburn, experiences lower health status and more limited access to health care than other regions. This region has:

- The highest death rate and the lowest life expectancy in the county. While the death rate in this region is deceasing, the rate of decline is slower than in other parts of the county.

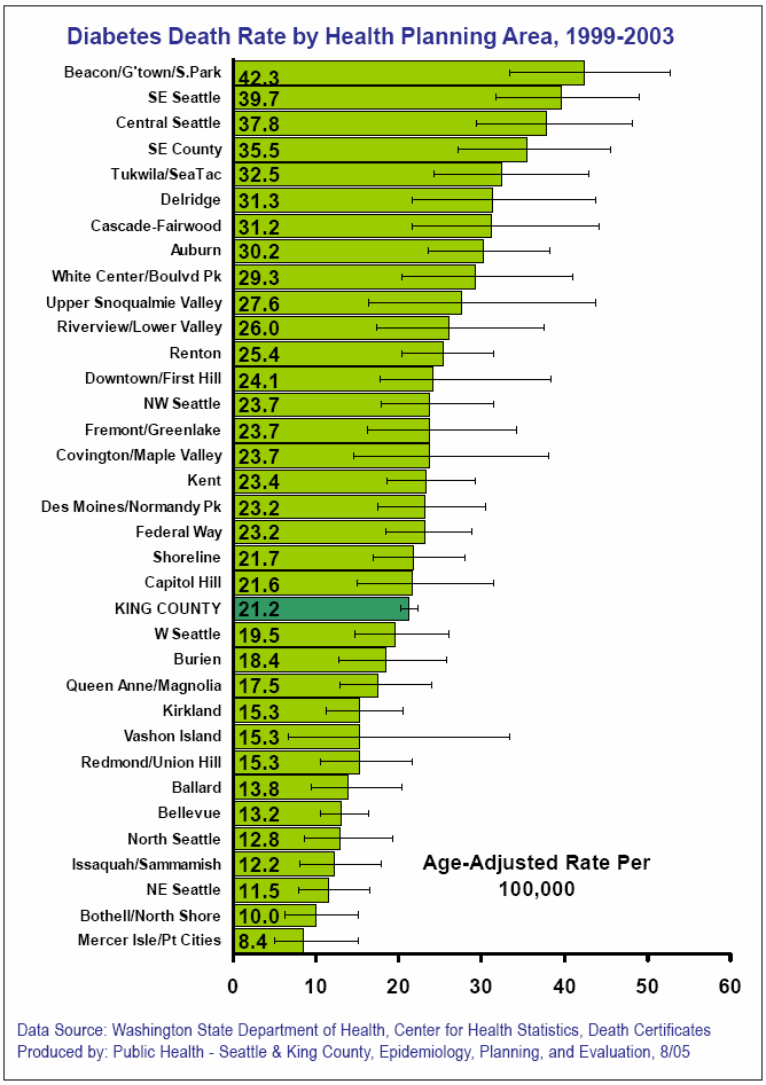
- Poorer maternal and child health indicators than the rest of the county. Infant mortality is increasing only in the South Region and the rate of late or no prenatal care in the South Region is not improving as it is in other regions. The South Seattle/South Region Area also has the highest rates of low birthweight, very low birthweight, preterm delivery, adolescent birth and late or no prenatal care.

- Higher rates of chronic diseases and risk factors. For example, the prevalence of diabetes is rising most rapidly in South Region and diabetes mortality is higher. Asthma hospitalizations among children are more common. The smoking rate has not declined during the past decade as it has in other regions. |

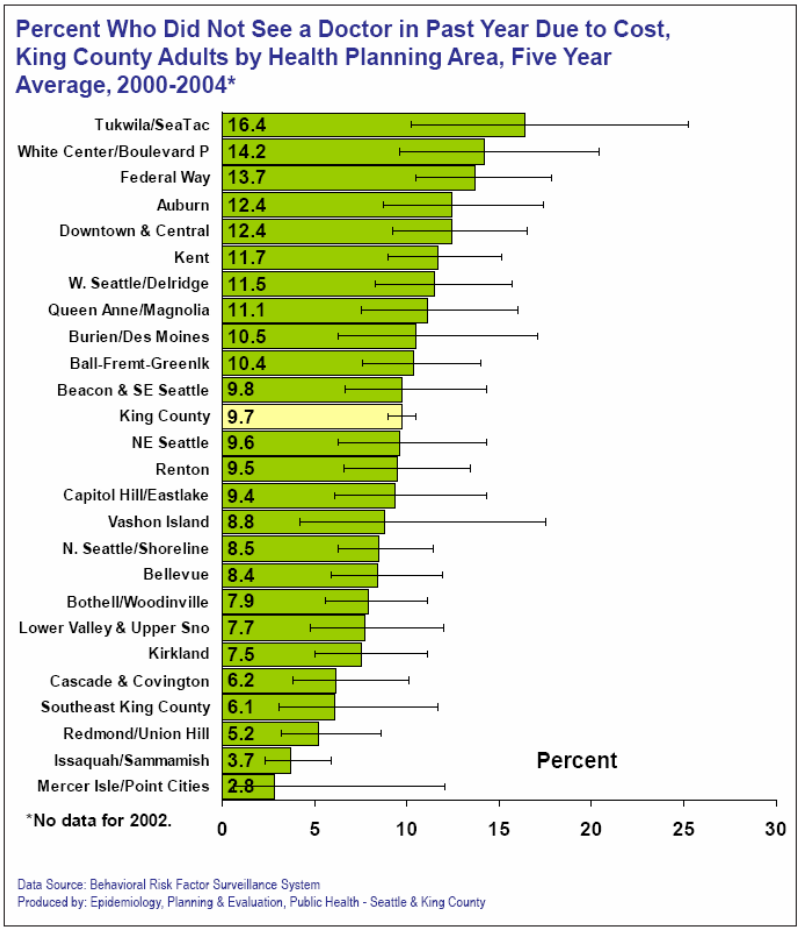
- The highest rates of death from motor vehicle injuries and firearms. It is encouraging to see that the motor vehicle injury rate is decreasing.

- The highest rate of hospitalization for pneumonia and influenza.

- The highest rates of serious mental health problems and health complications from illicit drug use.



- The greatest problems accessing medical care. The proportion of uninsured residents is highest in the county and shows the most rapid increase in recent years. More residents report not seeing a doctor because of costs.



Major demographic changes have occurred in the region in the past decade. The largest increases in non-white and foreign born populations and people living in poverty have occurred here, and its residents have the lowest educational attainment. The South Seattle/South County Area crosses political jurisdictions and solutions to its problems will require a regional approach.

Disparities in other areas of the county: Some other areas also have clusters of poor health indicators, although none include such a wide range of conditions as found in the South Seattle/South Area. Southeast County and to lesser extent Federal Way are notable for relatively high rates of chronic illnesses and risk factors for chronic disease, such as deaths from cancer, heart disease and diabetes and risk factors including smoking, physical inactivity obesity, hypertension and uninsurance. Downtown Seattle is notable for its concentration of unintentional injuries, HIV and AIDS cases, mental health problems, drug and alcohol problems (including deaths for liver disease, drug-induced deaths, illicit drug hospitalizations and alcohol-induced deaths) and access to care issues.

Disparities among sexual minorities

- Smoking rates among homosexual and bisexual people are nearly twice as high as among heterosexuals. The same pattern occurs with binge and heavy drinking.
- Breast cancer screening by mammography is completed less commonly among lesbian and bisexual women (50%) compared to heterosexual women (75%).
- HIV and AIDS still predominantly affect gay males, but are slowly increasing in other groups.
- Frequent mental distress is twice as common among sexual minorities as among heterosexuals.

Investments in health make a difference

The observed trends have not occurred at random. In part, they reflect the level of investment by government, community organizations and the private medical sector in addressing health concerns. Public Health – Seattle & King County has made substantial investments which have contributed to:

- Reductions in smoking
- Increased seat belt use
- Improved control of asthma
- Improved access to prenatal care
- Reductions in infant deaths from SIDS as more infants are placed on their backs to sleep.
- Lower adolescent birth rates
- Increased screening for breast and cervical cancer.

The medical sector has:

- expanded use of effective anti-HIV drugs
- increased screening for early cancers and risk factors for heart disease
- employed state-of-the art treatments for heart disease and cancer.

Continued attention is needed to maintain these gains. While access to prenatal care improved as the result of intensive activities earlier in the past decade, complacency has led to lack of recent progress. Funding for public health asthma control activities is down sharply. In order to address the continuing issue of health disparities and the emerging concerns of diabetes, other chronic diseases, overweight, physical inactivity, pandemic influenza, and mental health, we need to invest in:

- Implementation of effective community health interventions such as community heath workers, home visits to newborns, care coordination and

case management, support groups to encourage physical activity, outreach to increase screening for cancer and chronic disease risk factors, and community education to promote healthy behaviors

- Improvement of the quality of care for chronic conditions, especially among providers who serve populations affected by disparities
- Increasing the ability of people with chronic diseases to self-manage these conditions
- Building homes that provide healthy indoor environments to reduce asthma
- Designing communities which support physical activity
- Making further improvements in air quality
- Making healthy foods more affordable and readily accessible in schools, worksites and communities
- Increasing access to outpatient mental health and substance abuse services
- Assuring universal health insurance coverage and access to health care
- Addressing social factors that affect health, such as unemployment, low wages, lack of educational attainment, inadequate childcare and early childhood education, and discrimination in all forms
- Improving the capacity of community health assessment to monitor trends and disparities.

Health of King County 2006: Summary of Current Data, Trends and Disparities (I)

Health Outcomes: Selected Indicators (year)	Rate/ 100,000 (unless otherwise noted)	Number of King County Residents	Trend (10 years) (see key at bottom)	Healthy People 2010 Goal	Met 2010 Goal	*Health Disparities (see key at bottom)*					
						Region	Health Plannning Area	Race/ Ethnicity	Gender	Income/ Poverty	Sexual Orientation
Population (2000)											
Living in Poverty	8.4%	142,500	↑↑↑	N/A	N/A				N/A	N/A	N/A
Attended College (age >25)	71.0%	845,100	↑↑↑	N/A	N/A				N/A	N/A	N/A
Foreign Born	15.4%	268,300	↑↑↑	N/A	N/A	Yes	Yes	N/A	N/A	N/A	N/A
General Health Status (2003)											
Total Mortality	695.7	11,591	↓↓↓	N/A	N/A						N/A
Expected years of unhealthy life from age 18	8.4	N/A	↑↑↑	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maternal and Child Health (2003)											
Infant Mortality	5.1/1,000	114	↓↓↓	4.5/1000	No				N/A		N/A
Low Birth Weight	6.3%	1,397	↑↑↑	0.1	No				N/A	---	N/A
Very Low Birth Weight	1.0%	217	↑↑↑	0.0	Close		---		N/A	---	N/A
Preterm Delivery	9.0%	1,992	N/A	0.1	No				N/A		N/A
Adolescent Birth	10.1	321	↓↓↓	N/A	N/A				N/A		N/A
Maternal Smoking	5.6%	1,215	↓↓↓	0.0	No				N/A		N/A
Late or No Prenatal Care (2002)	2.3%	436	↓↓↓	N/A	N/A				N/A		N/A
Chronic Disease (2003)											
All Cancer Death	172.1	2,816	↓↓↓	159.9	No						N/A
Lung Cancer Death	50.5	806	↓↓↓	44.9	No						N/A
Colorectal Cancer Death	14.4	253	↓↓↓	13.9	No	---				---	N/A
Colorectal Cancer Incidence (2002)	45.5	736	↓↓↓	N/A	N/A	---					N/A
Breast Cancer Death	23.2	220	↓↓↓	22.3	Close	---	---		N/A	---	N/A
Breast Cancer Incidence (2002)	152.5	1,387	↑↑↑	N/A	N/A				N/A		
Heart Disease	163.7	2,714	↓↓↓	166.0	Yes						N/A
Stroke	57.1	946	↓↓↓	48.0	No				---	---	N/A
Diabetes Prevalence	5.1%	70,000	↑↑↑	N/A	N/A		N/A	N/A	---		No
Diabetes Mortality	21.8	356	---	N/A	N/A						N/A
CLRD	32.4	520	↓↓↓	N/A	N/A						N/A
Injury (2003)											
Unintentional Injury Deaths	26.5	478	---	17.5	No	---					N/A
Motor Vehicle Injury Deaths	7.5	136	↓↓↓	9.2	Yes			---			N/A
Firearm-related Deaths	7.6	140	↓↓↓	4.1	No						N/A
Homicide	3.9	74	↓↓↓	3.0	No						N/A
Communicable Diseases											
HIV Incidence (2004)	20.4	363	↓↓↓	N/A	N/A						
HIV Prevalence (2004)	319.1	5,706	↑↑↑	N/A	N/A						
AIDS Incidence	15.7	280	↓↓↓	1.0	No						
AIDS Prevalence (2004)	178.1	3,185	↑↑↑	N/A	N/A						
HIV/AIDS Deaths	5.0	89	---	0.7	No						

Health of King County 2006: Summary of Current Data, Trends and Disparities (I)

Health Outcomes: Selected Indicators (year)	Rate/ 100,000 (unless otherwise noted)	Number of King County Residents	Trend (10 years) (see key at bottom)	Healthy People 2010 Goal	Met 2010 Goal	*Health Disparities (see key at bottom)*					
						Region	Health Plannning Area	Race/ Ethnicity	Gender	Income/ Poverty	Sexual Orientation
Mental Health/Substance Abuse (2003)											
Frequent Mental Distress (2004) (adults)	9.5%	130,000	---	N/A	N/A		---				
Suicide Deaths	11.9	213	↓↓↓	5.0	No	---				---	N/A
Alcohol-induced Deaths	8.8	159	---	N/A	N/A						N/A
Binge Drinking (2004)	15.7	217,000	---	6.0	No					---	
Drug-induced Deaths	10.3	198	↓↓↓	1.0	No						N/A

Key to symbols and colors

Trends Over Time

	Positive trend
	Negative trend
↓↓↓	Decreasing rate
↑↑↑	Increasing rate
---	No significant change

Health Disparities: Key to Degree of Inequality

Disparities are statistically significant and the risk ratio of highest to lowest group is:

	Less than 2
	2 to 3
	3 or more

Health of King County 2006: Summary of Current Data, Trends and Disparities (II)

Risk Factors for Chronic Disease and Injury and Access to Care: Selected Indicators (year)	Prevalence Percent	Number of King County Residents	Trend (10 years) (see key at bottom)	Healthy People 2010 Goal	Met 2010 Goal	*Health Disparities (see key at bottom)* Region	Health Plannning Area	Race/ Ethnicity	Gender	Income/ Poverty	Sexual Orienta-tion
Chronic Disease Risk Factors											
Smoking											
Current Smoker (2004)	15.2%	211,000	↓↓↓	12.0%	No				---		
Maternal Smoking	5.6%	1,215	↓↓↓	0.0	No				N/A		N/A
Regular Smoker (high school students)	NA	NA									
Physical Inactivity and Obesity											
No physical activity (2004)	14.5%	201,000	---	20.0%	Yes				---		
Does not meet "moderate" physical activity guidelines (2003)	44.8%	620,000	NA	70.0%	Yes		NA		---	---	---
Does not meet "vigorous" physical activity guidelines (2003)	67.2%	931,000	NA	70.0%	Yes		NA	---			---
Obesity (2004)	17.7%	234,000	↑↑↑	15.0%	No						---
Alcohol											
Heavy Drinking (2004)	5.9%	81,000	↑↑↑	NA		---				---	
Cancer screening											
Mammography in last two years (40+) (2004)	74.2%	299,000	↑↑↑	70.0%	Yes	---	N/A		N/A		
Sigmoidoscopy or colonoscopy in last five years (50+) (2004)	50.4%	236,000	N/A	N/A	N/A	---	---	N/A	---		---
Other											
Hypertension (2003)	21.8%	303,000	↑↑↑	16.0%	No				---		---
High blood cholesterol in those who have been checked (2003)	31.2%	329,000	↑↑↑	17.0%	No			---		---	---
Injury Risk Factors											
Alcohol (2004)											
Binge Drinking	15.7%	217,000	---	6.0%	No					---	
Drinking and Driving	4.2%	40,000	---	NA	NA	---	NA	NA	---		---
Firearms (2004)											
Households with Firearm(s)	20.6%	N/A	---	N/A		N/A	N/A	N/A	N/A	N/A	N/A
Households with Firearm(s) where firearm is loaded and unlocked	13.4%	N/A	---	16%	Yes	N/A	N/A	N/A	N/A	N/A	N/A
Children living in home with firearm(s)	18.2%	69,000	↓↓↓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Motor Vehicle Safety											
Does Not Always Use a Seatbelt (2002)	11.0%	153,000	↓↓↓	8%	No		N/A	---		---	N/A
Communicable Disease Risk Factors											
Vaccination											
4:3:1:3:3 series, children 19-35 months (2004)	81.0%	NA	↑↑↑	90.0%	No	NA	NA	NA	NA	NA	NA
Had pneumonia vaccination, age 65+ (2004)	65.0%	117,000	↑↑↑	90.0%	No	---	NA	NA		---	NA
Influenza vaccination/past year, age 65+ (2004)	70.0%	130,000	---	90.0%	No		NA	NA	---		NA
Access to Care											
Percent uninsured (2004)	15.5%	190,000	↑↑↑	0	No						
Could not get care due to cost (2004)	12.6%	175,000	↑↑↑	7%	No						
No usual source of care (2004)	22.3%	157,000	↑↑↑	4%	No						
Oral Health - regular dental care (adults 18+) (2004)	25.9%	359,000	---	56%	No						
-Oral care among youth: untreated decay(2000)	15.0%	?	N/A	21%	Yes	N/A	N/A		N/A		
-Oral and pharyngeal cancer incidence (2000-2002)	12.1 per 100,000	200	---	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
-Oral and pharyngeal cancer incidence early stage (2000-2002)	34.8%	65	---	50%	No	N/A	N/A	N/A	N/A	N/A	

Key to symbols and colors

Trends Over Time

	Positive trend
	Negative trend
↓↓↓	Decreasing rate
↑↑↑	Increasing rate
---	No significant change

Health Disparities: Key to Degree of Inequality

Disparities are statistically significant and the risk ratio of highest to lowest group is:

	Less than 2
	2 to 3
	3 or more

Introduction

This report examines the current health status of King County residents and recent trends, mostly spanning the last 10 years of available data. As in the last *Health of King County* issued in 1998, a range of health indicators—including social determinants of health, behavioral risks, access to care and diseases—are described by age, gender, race/ethnicity, socioeconomic status, time trend and place of residence. Selection of the health indicators is based on the impact on health status, severity and frequency of the condition, whether a disease is amenable to prevention and early detection, and data availability.

The major sources of data are statistical files on births, deaths, hospitalizations, physician reports of sexually transmitted diseases and other communicable diseases, HIV/AIDs surveillance; the Washington State Cancer Registry; the Behavioral Risk Factor Surveillance Survey; and the U.S. Census. Local, state and national data sources (as descriptions of terms used in the report and other technical information) are described in Data Sources and Technical Notes in Appendix A.

Changes to *Health of King County 2006* include the following:

- It is provided primarily as a web-based report, with live links aiding navigation within the report. Because no report of this kind can contain all relevant information on a subject due to space limitations, live links also provide access to other relevant reports and sources of data.
- It is based in part on a 2005 web-based project, *Public Health Core Indicators* for Seattle and King County (at http://www.metrokc.gov/health/reports/coreindicators/). More data on several of the indicators found in this report can be found on this site, and contextual links to the Core Indicators home page are provided within the report.
- Each chapter includes two or more sections. Most sections follow a set outline, including a brief description of the public health importance and data summary, trends for King County and its Regions, patterns by Health Planning Area and Focus on Disparities. Each chapter is designed to stand on its own as a mini-report on a topic area.
- Health Planning Areas have recently been re-defined to be as consistent as possible with current and anticipated suburban city boundaries outside of Seattle and, inside of Seattle city limits, in consultation with city's Department of Neighborhoods. Profiles containing health and demographic data for each Health Planning area are available in Appendix B.

We hope you find this report useful. If you would like further information, please call the Epidemiology, Planning and Evaluation Unit at 206-296-6817 or e-mail us at data.request@metrokc.gov.

Health of King County 2006

Chapter 2: Population and Social Determinants of Health

Current Demographics and Population Trends Over Time

Social Determinants of Health

Public Health
Seattle & King County
HEALTHY PEOPLE. HEALTHY COMMUNITIES.

2

Current Demographics and Population Trends Over Time

Population characteristics and trends help describe King County's many communities and provide a context for trends in health outcomes. King County's fastest-growing age groups are those aged 75 and older and 45 to 64. The county is increasing in racial diversity, especially in South King County. Social determinants of health, such as poverty and educational attainment, have a substantial impact on a broad range of behavioral risks and health outcomes. While overall poverty has remained the same, racial disparities in poverty levels are acute and poverty is increasing in South King County. Educational attainment increased from 1990 to 2000, but large racial and regional disparities remain in the percent of those who finish high school and who have a college education.

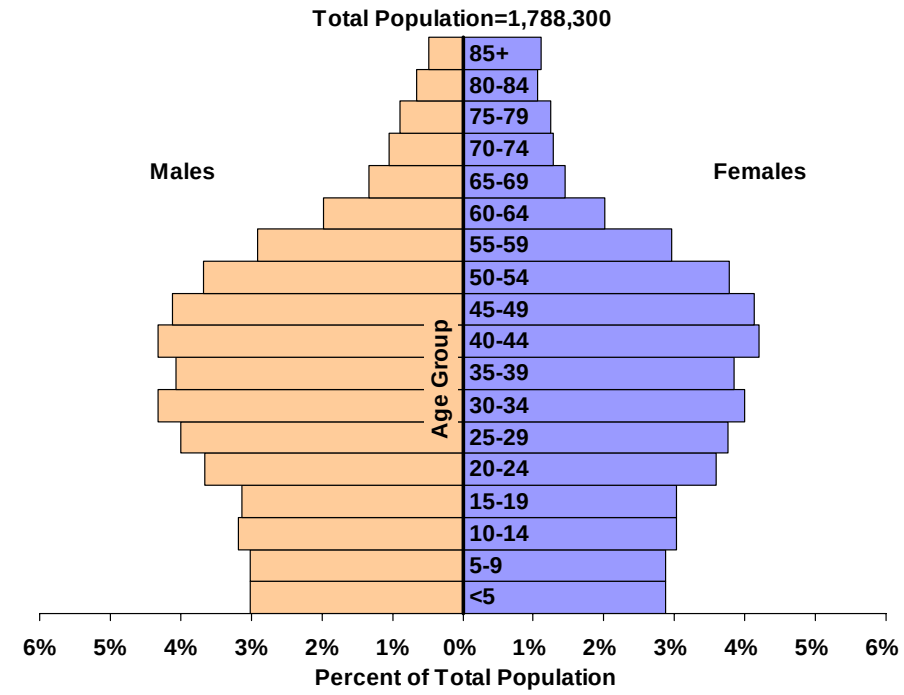
Total, Age and Gender

- The estimated total King County population in 2005 was 1,808,300, including 890,183 men and 898,117 women. The total was an increase of 4% since the 2000 U.S. Census, when the population was 1,737,034. Since 1990, the population has increased by 19.7%.
- King County's largest city, Seattle, had an estimated 2005 population of 573,000, a 2% increase from 2000. The next three biggest cities and their estimated 2004 populations were Kent (84,920, 7% growth); Bellevue (115,500, 5% growth since 2000); and Federal Way (85,800, 3% growth).

  See http://www.metrokc.gov/budget/census00/kc-cities.htm for the growth of these and other King County cities between 1990 and 2000.

- Between 1990 and 2004, the age composition of King County residents changed. The fastest growing age groups were those age 45 to 64 (66% growth since 1990) and 75 and older (40% growth since 1990).

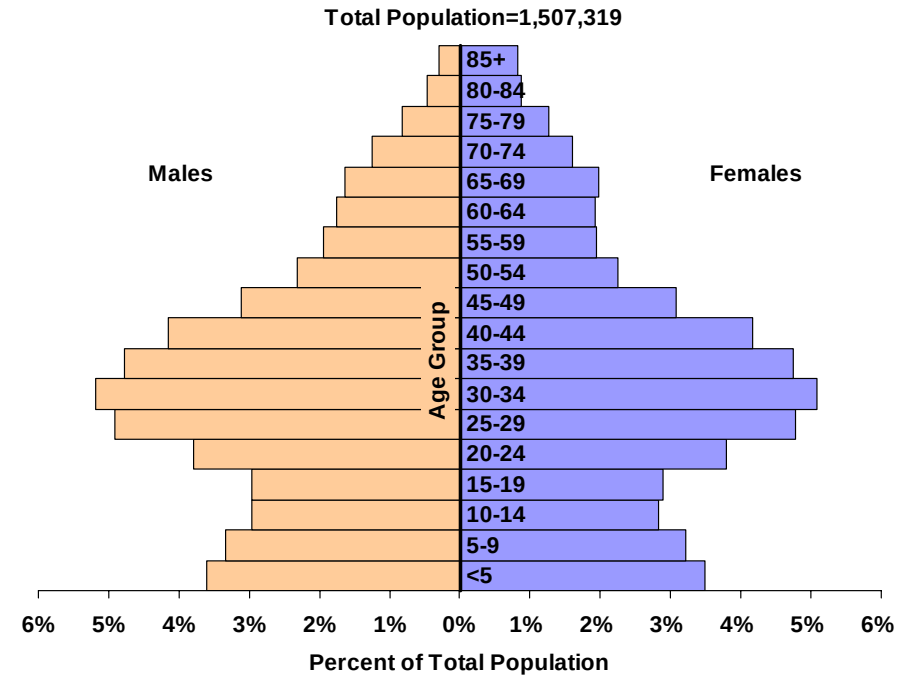
Population Distribution By Age and Gender, King County, 2004



Data Source: Washington State Office of Financial Management Intercensal and Postcensal Estimates
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

- The proportion that are between 45 and 64 increased from 18% to 25%. In 2000, the number in this age group surpassed the number of children under 18 for the first time since 1980. Meanwhile, the percent of the population aged 18 to 44 decreased from 48% to 43%.

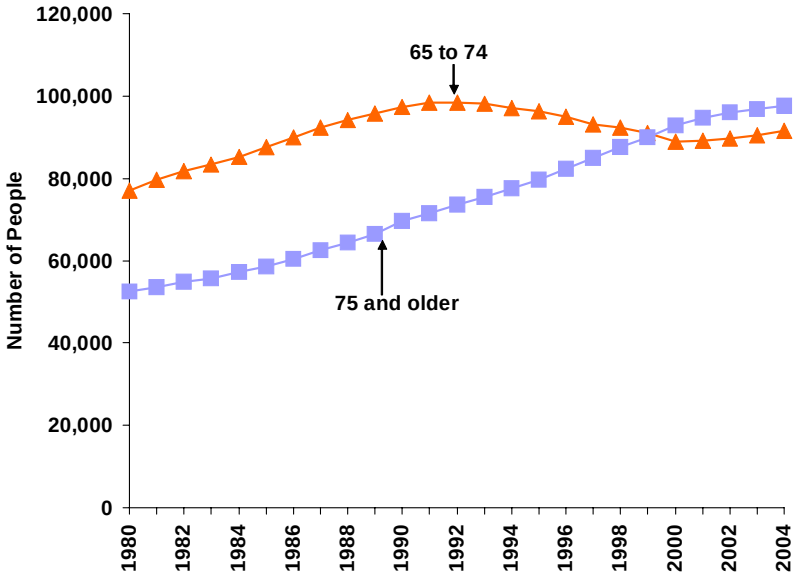
Population Distribution By Age and Gender, King County, 1990



Data Source: 1990 U.S. Census
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

- The proportion over age 65 (11%) is no larger than it was 14 years ago.
- However, beginning in 2000, the number of people age 75 and older was greater than the number in the 65 to 74-year-old age group. In 2004, over 97,000 King County residents were age 75 or more.

Population Estimates by Year and Age Group, Age 65 and Older, King County, 1980 to 2004



Data Source: Population Estimates, Washington State Department of Health and Vista Partnership, 10/04.
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

Race and Ethnicity

- For the first time in 2000, Census respondents were able to indicate they were of more than one race. 4.1% of King County residents listed two or more races.
- The most numerous group was white alone (75.7%). People who identified as Asian alone (10.8%) made up the largest group among people of color, followed by the African American alone (5.4%), American Indian/Alaska Native alone (0.9%), and Native Hawaiian and Other Pacific Islander alone (0.5%). The category Some Other Race accounted for 2.6% of the population. Hispanic/Latinos, an ethnic category and not a race, made up 5.5% of the population; as an ethnicity, Hispanic/Latinos may also be counted in any race group.

King County Population by Race/Ethnicity, 2000

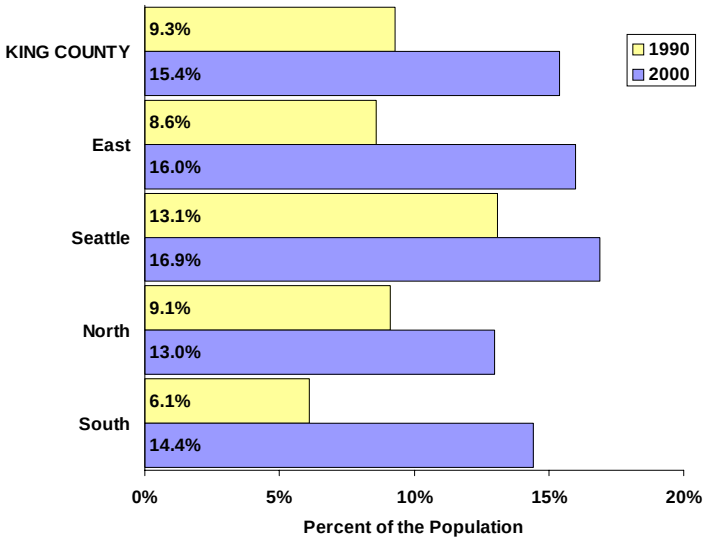
RACE	Number	Percent
Total	1,737,034	100.0
One race	1,666,535	95.9
White	1,315,507	75.7
Black or African American	93,875	5.4
American Indian and Alaska Native	15,922	0.9
Asian	187,745	10.8
Asian Indian	15,827	0.9
Chinese	45,018	2.6
Filipino	33,714	1.9
Japanese	21,455	1.2
Korean	20,005	1.2
Vietnamese	27,484	1.6
Other Asian	24,242	1.4
Native Hawaiian and Other Pacific Islander	9,013	0.5
Native Hawaiian	1,506	0.1
Guamanian or Chamorro	1,028	0.1
Samoan	4,182	0.2
Other Pacific Islander	2,297	0.1
Some other race	44,473	2.6
Two or more races	70,499	4.1
Hispanic or Latino (may be of any race)	95,242	5.5

- For the purposes of direct comparison to 1990 Census figures, we used estimates of what the 2000 race/ethnicity distribution would have been if respondents were required to pick one race, as they were in 1990 (see Appendix C for comparisons by region and health planning area). For King County as a whole, and for South Region, Seattle and North Region, the Hispanic/Latino population grew the fastest of any race/ethnicity group.
- Between 1990 and 2000, South and East Regions showed the most population growth overall (20%). By race/ethnicity, South Region had the greatest increase in African American (141%) and Hispanic/Latino (173%) populations. East Region showed the biggest increase (130%) in the number of Asian/Pacific Islander people, followed closely by South Region (129%).

Country of Birth

- The percent of King County residents who are immigrants increased substantially between 1990 (9.3%) and 2000 (15.4%).
- The proportion increased in all King County regions. The increase was largest in South Region (from 6.1% to 14.4%) and East Region (from 8.6% to 16.0%).
- In 2000, this proportion was largest in Beacon Hill/Georgetown/South Park (about 4 in 10 foreign-born), Southeast Seattle and White Center/Boulevard Park (both about one in four). It was smallest in Covington/ Maple Valley, Vashon Island, Upper Snoqualmie Valley and Southeast King County (less than 1 in 20) (data not shown).

Percent Foreign-Born by Region, King County, 1990 and 2000



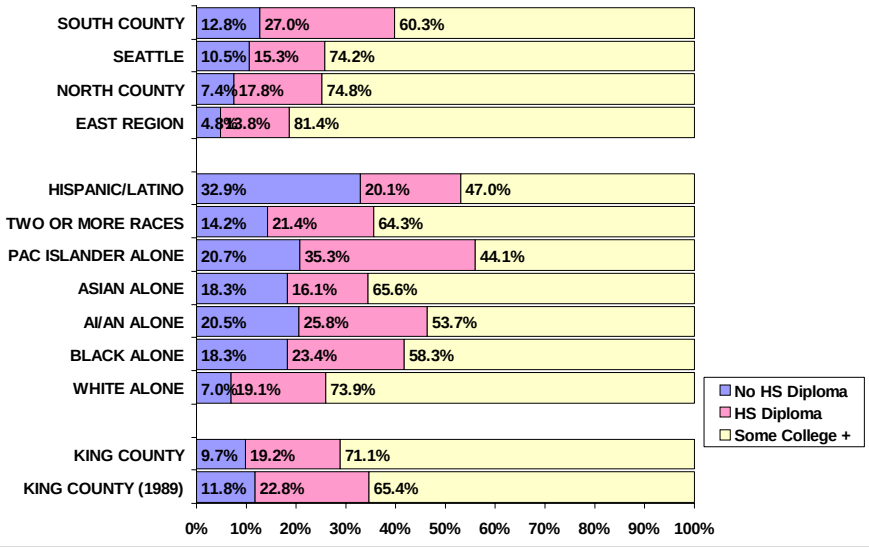
Data Source: 1990 and 2000 U.S. Census
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

Educational Attainment

Higher educational attainment increases the chances of finding a living-wage job, having access to high quality health care, and living a healthy lifestyle. Maternal educational attainment may be related to childhood access to care, breastfeeding practice, low birthweight and infant mortality.

- Between 1989 and 1999, educational attainment increased in King County. In 1999, 71% age 25 and older had attended college, compared to 65% in 1989. Also, the proportion with no high school diploma decreased between 1989 (12% had no high school diploma) and 1999 (10%). (see Appendix C)
- Despite this overall improvement, there are substantial disparities. According to the 2000 Census, 74% of King County whites had at least some college, compared to 44% of Pacific Islanders, 47% of Hispanics, 53% of American Indians and 58% of African Americans.

Educational Attainment by Region and Race/Ethnicity, Age 25 and Older, King County, 1999



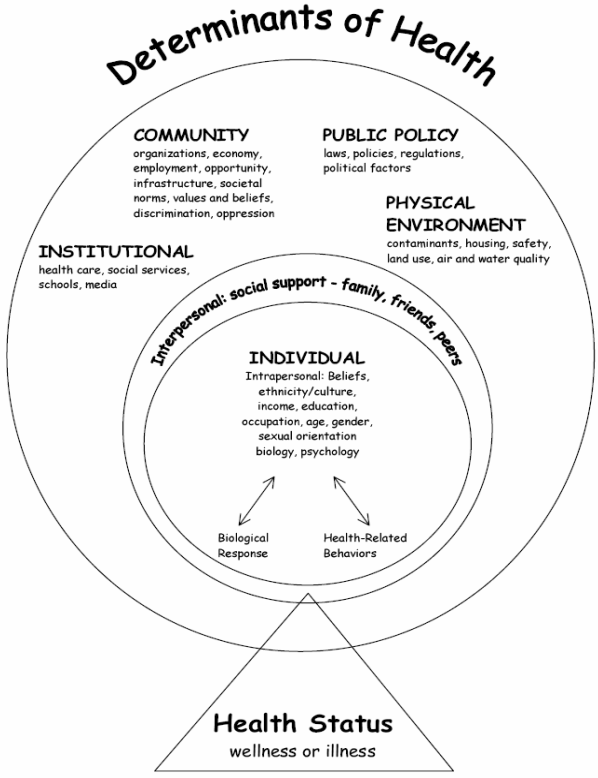
- These disparities were also seen by Region and Health Planning Area. While only 5% of East Region residents lacked a high school diploma, this figure increased to 10% for Seattle and 13% for South Region. The Health Planning Areas with the most people who had not completed high school were concentrated in southeast Seattle and South Region, and included Beacon Hill/Georgetown/South Park (30%), White Center/Boulevard Park (26%) and Southeast Seattle (22%) **(see Appendix C).**

Social Determinants of Health

Social factors are powerful determinants of health that act both before life begins and throughout the course of life. These social factors, or social determinants of health (SDOH), have substantial health effects across several disease categories. SDOH contribute to shorter lifespans, stress, depression, high blood pressure, heart attack, stroke and aggressive behavior.[1]

- SDOH operate at the community, institutional, environmental and family level to affect an individual's health, quality of life, and risk of disease and death. Examples of SDOH include poverty, institutionalized racism, adequate food and housing, and land use policies.
- The pathways through which SDOH affect health is an area of active research; see adjacent figure for a schematic of how social and other determinants affect individual health.
- Disparities in SDOH help explain disparities in health outcomes. For example, racial discrimination—a social determinant—against African Americans can result in poor housing and unsafe neighborhoods for African American families, increasing the risk of exposure to mold and developing asthma or of being a victim of a violent crime.
- Thinking of public health in terms of SDOH can build effective methods of primary prevention—prevention before disease begins—and address disparities in health. Focusing on SDOH is a critical strategy of the Public Health – Seattle & King County 5-year Public Health Strategic Plan (see http://www.metrokc.gov/health/stratplan/).
- A full presentation of SDOH is beyond the scope of this report. Local data on poverty as a SDOH are below. More local data on SDOH such as income distribution, social support, discrimination and early childhood development are available from *Communities Count 2005: Social and Health Indicators Across King County*.

Determinants of Health



Adapted from a model by the Detroit Urban Research Center

Poverty

Poverty and low household income is associated with a broad range of health outcomes. Living in poverty increases social exclusion from many benefits, and those living in higher absolute levels of poverty are at higher risk of adverse health outcomes, including shorter life expectancy; mortality from violence, HIV/AIDS, and chronic diseases such as diabetes; having no health insurance; tobacco and drug use; and obesity. Those living in poverty are more likely to experience chronic stress from unemployment, homelessness and racial and class discrimination, which themselves may lead to adverse health outcomes such as elevated risk of high blood pressure and infant mortality. Whether relative poverty—i.e., the gap between rich and poor—also causes elevated risk is an area of active research.

Trends by County, Region and Health Planning Area

- Poverty has increased steadily in King County from 1969 (7.4%) to 1999 (8.4%). However, the region of the county driving the increase has changed in the last 10 years. The majority of the King County poverty increase came from Seattle from 1969 (10.0%) to 1989 (12.4%). In the most recent time period for Census data, the majority of the increase of King County poverty occurred in South Region form 1989 (6.9%) to 1999 (8.5%), while poverty in Seattle declined (see **Appendix C**).
- Poverty is currently still highest in Seattle, followed by South Region, North Region and East Region.
- Poverty also increased in North Region from 1989 (4.6%) to 1999 (5.4%), after holding fairly steady in earlier years.
- There were wide disparities in poverty by Health Planning Area. The percent living below the Federal Poverty Level (FPL) ranged from 2.7% on Mercer Island to 28.5% in Downtown/First Hill. Almost all Health Planning Areas in South Region showed increases in the poverty level between 1989 and 1999 (see **Appendix C** for trends and current estimates in poverty by HPA), as well as showing increases in earlier time periods.

Poverty in Children and Older Adults

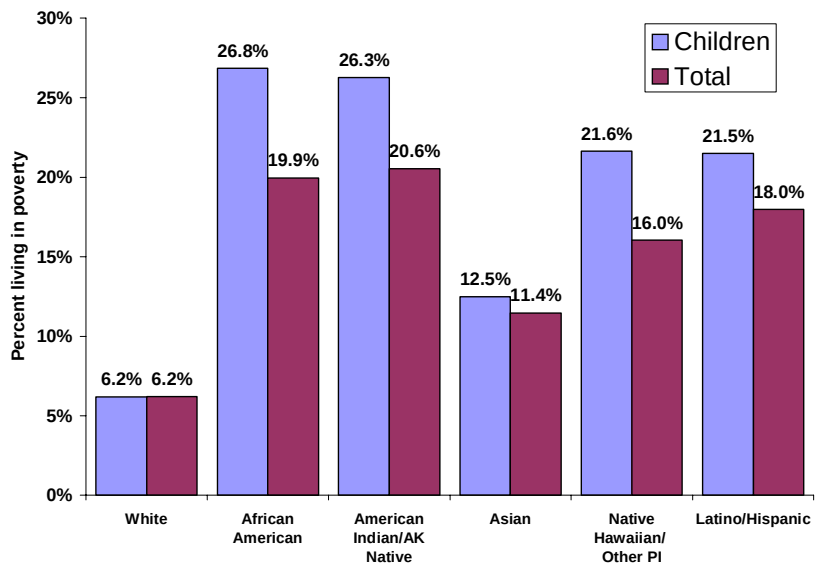
- Poverty in children and older adults is only available for 1989 and 1999 (see table on page 2-8). In 1999 (as in 1989), childhood poverty was highest in Seattle and South Region. However, in South, pov-erty in children increased to 11.4%, and decreased in Seattle to 14.5%.
- In 1999, there were wide disparities in poverty in children by Health Planning Area. For children, more than one in five lived in poverty in Downtown/First Hill (41.8%), Delridge (27.9%), Central Seattle (23.7%) and Beacon Hill/Georgetown/South Park (23.3%).
- HPA disparities were also seen in older adults. Downtown/First Hill and Central Seattle had the largest propor-tion of the elderly living in poverty (30.1% and 24.2%, respectively).

Poverty by Race/Ethnicity

Poverty data by race/ethnicity are only available for 1999. A substantially elevated proportion of people of color are living in poverty compared to whites.
Poverty in people of all ages in communities of color was two to three times more common than in whites.

- African American and American Indian/ Alaska Native children were over four times more likely to live in poverty than whites, and this pattern, though less extreme, was seen in all non-white racial groups.
- Over one in four African American and American Indian/Alaska Native children live below the poverty line; one in five Native Hawaiian/Other Pacific Islander and Hispanic/Latino children live in poverty. Over one in nine Asian children live below the poverty level.

Percent Living in Poverty by Race/Ethnicity, Children and All Ages, King County, 1999



Data Source: U.S. Census

Number and Percent of People Living Below the Federal Poverty Level by Region, Health Planning Area and Age, 1989 and 1999

	Children Under 18			Elderly 65 and Older		
	1989	**1999**	**1999**	1989	**1999**	**1999**
PLACE	% of Children (<18) Living Below FPL	% of Children (<18) Living Below FPL	# of Children (<18) Living Below FPL	% of Elderly (65+) Living Below FPL	% of Elderly (65+) Living Below FPL	# of Elderly (65+) Living Below FPL
KING COUNTY	9.8%	9.9%	37,954	7.3%	7.4%	12,937
EAST REGION	5.0%	4.8%	4,631	4.9%	4.8%	1,859
NORTH COUNTY	5.5%	5.9%	2,029	5.6%	5.1%	752
SEATTLE	16.2%	14.5%	12,335	9.0%	10.2%	6,709
SOUTH COUNTY	9.9%	11.4%	18,959	6.5%	6.5%	3,617
AUBURN	N/A	13.2%	2,087	N/A	7.5%	410
BALLARD	N/A	6.7%	442	N/A	7.6%	432
BEACON/G'TOWN/S.PARK	N/A	23.3%	1,853	N/A	8.1%	351
BELLEVUE	N/A	5.5%	1,437	N/A	6.0%	954
BOTHELL/NORTH SHORE	N/A	6.4%	720	N/A	3.4%	184
BURIEN	N/A	13.1%	980	N/A	5.8%	263
CAPITOL HILL	N/A	8.2%	306	N/A	12.6%	461
CASCADE-FAIRWOOD	N/A	9.1%	931	N/A	3.8%	101
CENTRAL SEATTLE	N/A	23.7%	1,611	N/A	24.2%	1,120
COVINGTON/MAPLE VALLEY	N/A	3.1%	398	N/A	4.9%	106
DELRIDGE	N/A	27.9%	2,211	N/A	15.0%	388
DES MOINES/NORMANDY PK	N/A	9.9%	810	N/A	3.9%	167
DOWNTOWN/FIRST HILL	N/A	41.8%	613	N/A	30.1%	1,307
FEDERAL WAY	N/A	11.4%	3,546	N/A	5.4%	481
FREMONT/GREENLAKE	N/A	5.0%	232	N/A	4.6%	155
ISSAQUAH/SAMMAMISH	N/A	3.1%	662	N/A	3.4%	164
KENT	N/A	13.6%	4,226	N/A	7.4%	610
KIRKLAND	N/A	6.4%	1,100	N/A	4.0%	259
MERCER ISLE/PT CITIES	N/A	3.1%	240	N/A	1.9%	102
NE SEATTLE	N/A	7.4%	718	N/A	5.9%	426
NORTH SEATTLE	N/A	15.7%	975	N/A	6.6%	383
NW SEATTLE	N/A	12.7%	758	N/A	9.0%	518
QUEEN ANNE/MAGNOLIA	N/A	4.9%	298	N/A	6.6%	415
REDMOND/UNION HILL	N/A	5.3%	751	N/A	5.9%	269
RENTON	N/A	11.4%	1,984	N/A	7.9%	626
RIVERVIEW/LOWER VALLEY	N/A	4.5%	705	N/A	2.5%	72
SE COUNTY	N/A	5.6%	692	N/A	7.7%	299
SE SEATTLE	N/A	18.2%	1,925	N/A	8.9%	434
SHORELINE	N/A	6.6%	746	N/A	7.3%	503
TUKWILA/SEATAC	N/A	16.9%	1,715	N/A	7.9%	296
UPPER SNOQUALMIE VALLEY	N/A	5.2%	299	N/A	6.8%	104
VASHON ISLAND	N/A	6.1%	142	N/A	2.2%	30
W SEATTLE	N/A	5.4%	393	N/A	4.6%	319
WHITE CENTER/BOULVD PK	N/A	18.7%	1,448	N/A	8.2%	228

References

[1] Richard Wilkinson and Michael Marmot, eds: Social determinants of health: the solid facts. 2nd Edition. World Health Organization, 2003.

Health of King County 2006

Chapter 3: General Health Status

Mortality

- Total Deaths
- Leading Causes of Death
- Life Expectancy
- Years of Potential Life Lost

Morbidity

- Leading Causes of Hospitalization
- Disability
- Expected Years of Healthy Life
- Self-Reported Health Status

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3

General Health Status: Deaths, Hospitalizations, Life Expectancy, and Self-Reported Health

	Deaths (2003)		Hospitalizations (2003) † †		Life Expectancy (2003)	Percent with self-reported health fair/poor (2004)
	Rate †	Number	Rate †	Number		
East Region	617.5	2,230	8419.0	31,524	82.2	10.1
North County	719.0	997	9069.0	15,724	80.4	10.6
Seattle	663.5	4,232	9442.6	50,170	80.7	9.8
South County	776.5	4,023	10069.4	62,071	78.8	11.6
King County	695.7	11,591	6942.6	119,439	80.3	10.6
Washington State	728.6	45,805	7083.6	421,256	78.7	13.8**
United States	831.2*	2,443,908*	10,200***	34,700,000***	77.6*	15.1^

† Rate is age-adjusted per 100,000 population
† † Non-childbirth hospitalizations
*Preliminary data
** 2003 data
***Non-age-adjusted rate; rate and number for non-Federal short-stay hospitals
^ Median percentage, out of 52 US States and Territories

Source: Death Certificates and Hospital Discharge Data, Washington State Department of Health, Center for Health Statistics, and Behavioral Risk Factor Surveillance Survey, Centers for Disease Control and Washington State Department of Health.
Produced by: Epidemiology, Planning and Evaluation Unit, Public Health- Seattle & King County

- In general, compared to the State and national averages, King County residents are healthier with a lower mortality rate, a longer life expectancy, and a better self-reported health status.

Mortality

- From 1990 to 2003, the overall death rate declined significantly in all regions and the county as a whole, and in all racial/ethnic groups except American Indian/Alaska Natives.
- In 2001-2003 combined, the South region had higher and the East region had lower death rates than the county as a whole. In the same time period, African Americans and American Indian/Alaska Natives had higher and Asian/Pacific Islanders and Hispanic/Latinos (of any race) had lower death rates than whites.
- The leading causes of death in King County in 2003 were cancer, heart disease, and stroke. Causes varied by age and racial/ethnic groups. Conditions of the perinatal period were the 9th leading cause of death for African Americans and the 6th for Hispanic/Latinos, while unintentional injuries, diabetes and homicide were also more highly ranked for these groups, and for American Indian/Alaska Natives and Asian/Pacific Islanders, than for whites.
- Life expectancy in King County is increasing; it is almost 5 years longer in 2003 than in 1980. This trend holds for all racial and ethnic groups except American Indian/Alaska Natives.
- Cancer, unintentional injury, heart disease, suicide and perinatal conditions were the main causes of loss of potential years of life. These causes also vary by racial and ethnic group, with higher numbers of potential years lost from perinatal conditions and unintentional injuries in people of color.

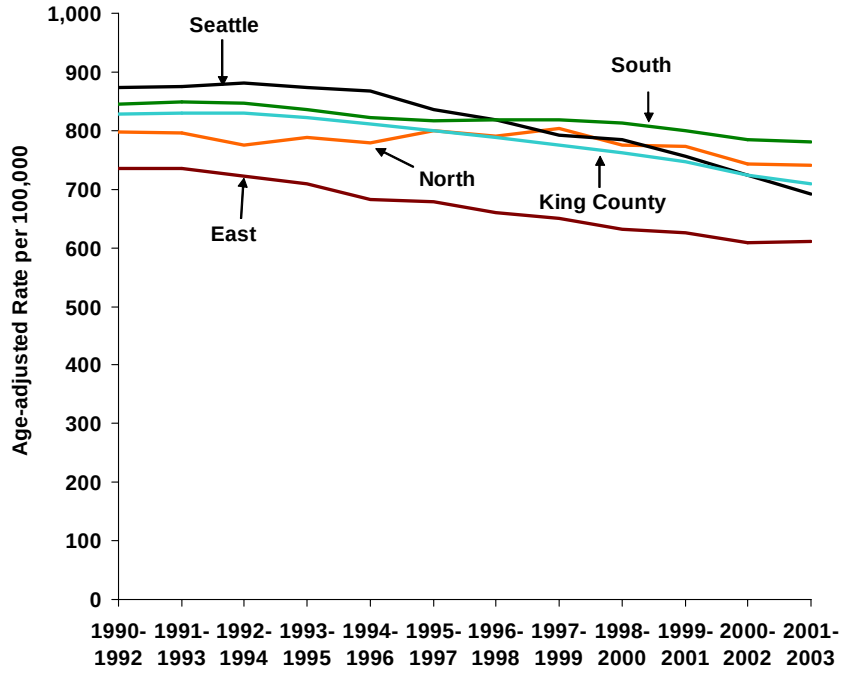
Total Death

- In 2003, 11,591 King County residents, including 4,232 residents of Seattle, died.
- Of the 11,591 deaths, persons under age 65 accounted for 25.3%; while 14.3% were age 65-74; 28.9% were age 75-84%; and 31.5% were age 85 and older.

King County and Regions

- Between 1990 and 2003, the age-adjusted total death rate declined significantly in both King County and in the four Health Regions.
- Averaged over 2001-2003, the age-adjusted total death rates in the South Region were significantly higher while the rate in the East Region was significantly lower than the King County average rate. There was no significant difference between the county and the North Region or Seattle.

Total Deaths by Region, King County, Three-year Rolling Averages, 1990-2003

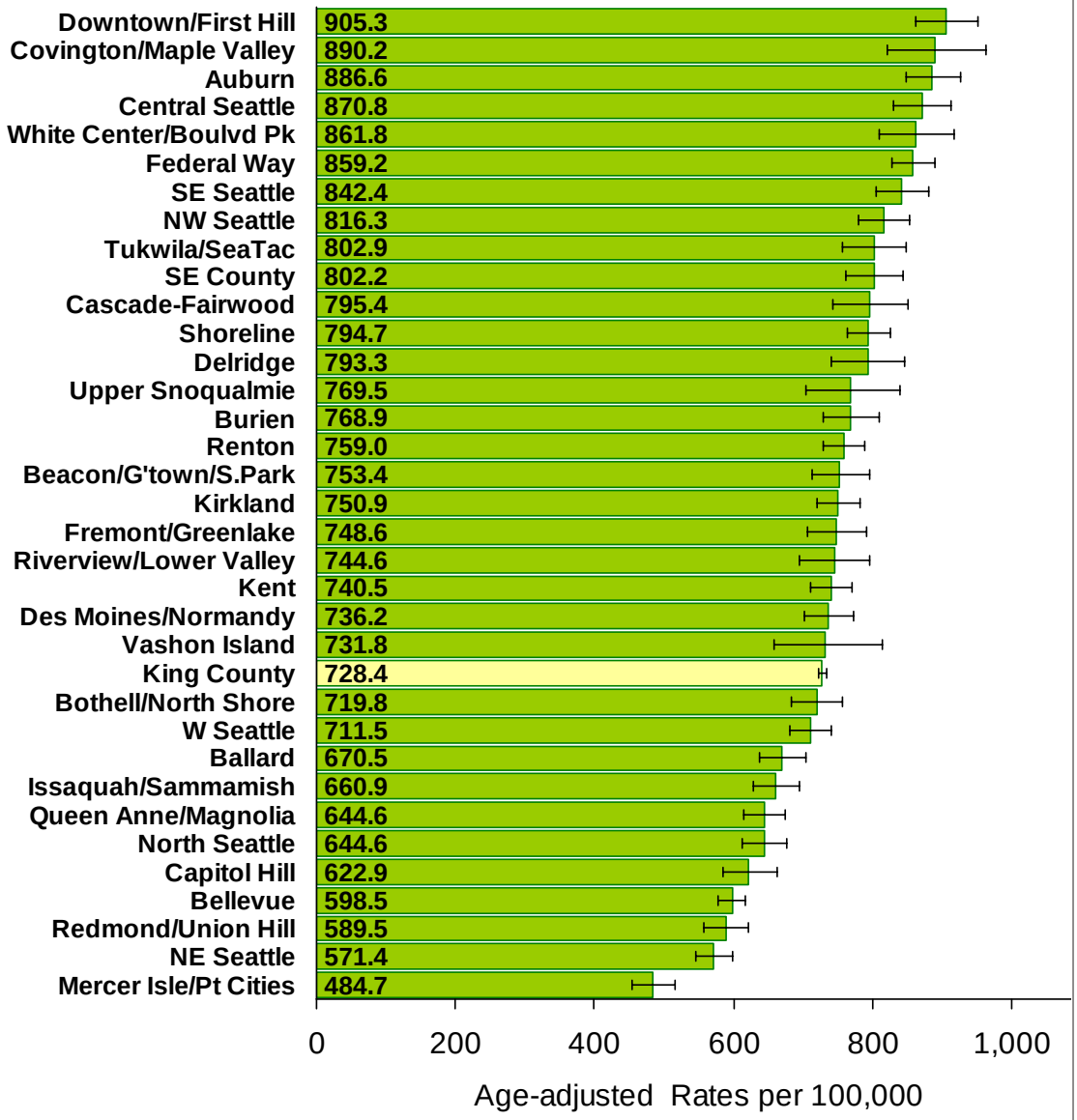


Data Source: Death Certificates
Produced by: Public Health-Seattle & King County, Epidemiology, Planning and Evaluation Unit

Patterns by Health Planning Area

- Age-adjusted death rate also varied between health planning areas. Averaged over 1999-2003, the rates were lower in general for Eastside communities, and higher for the South Region and Seattle than the average rate for the county.

Total Death Rates, by Health Planning Area, King County, 1999-2003 Combined

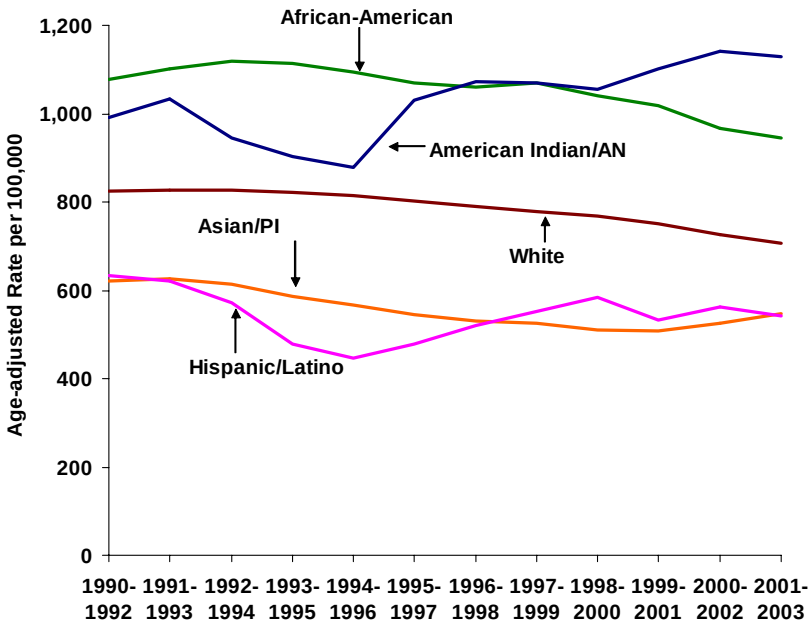


Data Source: Death Certificates
Produced by: Public Health- Seattle & King County, Epidemiology, Planning and Evaluation Unit

Focus on Disparities

- Among the racial/ethnic groups, the total mortality rate between 1990 and 2003 declined significantly for all but American Indian/ Alaska Natives.
- Disparities in the age-adjusted death rate between racial/ethnic groups in King County remained. Averaged over 2001-2003, the rates for African Americans (945.9) and American Indian/Alaska Natives (1128.2) were significantly higher while the rates for Asian and Pacific Islanders (546.6) and Hispanic/ Latinos (542) were significantly lower than the white rate (707.1).

Total Deaths by Race/Ethnicity, King County, Three-year Rolling Averages, 1990-2003



Note: Hispanic/Latinos can be of any race and are included in the racial categories
Data Source: Death Certificates
Produced by: Public Health- Seattle & King County, Epidemiology, Planning and Evaluation Unit

Leading Causes of Death

- In 2003, the three leading causes of death in King County were cancer, heart disease, and stroke.
- The leading causes of death differed in different age groups. In general, unintentional injury, cancer, homicide, and suicide ranked higher among the younger age groups while heart disease, cancer, and other chronic diseases ranked higher among the older age groups. AIDS went from being the number one killer among males age 25-44 in 1996 to number four in 2003, and number five for both males and females.

The Leading Causes of Death, By Age Group, King County, 2003

Rank		age <1	age 1-14	age 15-24	age 25-44	age 45-64	age 65+	All Ages
1st	Cause	Congenital malformations	Unintentional injury	Unintentional injury	Unintentional injury	Cancer	Heart Disease	Cancer
	Number	21	15	50	116	720	2,251	2,816
2nd	Cause	Short gestation and low birth weight	Cancer	Suicide	Cancer	Heart Disease	Cancer	Heart Disease
	Number	15	8	22	31	382	1,992	2,714
3rd	Cause	Sudden Infant Death Syndrome		Homicide	Suicide	Unintentional injury	Stroke	Stroke
	Number	14		16	74	144	838	946
4th	Cause	Maternal complications of pregnancy		Heart Disease	Heart Disease	Stroke	Alzheimer's disease	Alzheimer's disease
	Number	11		7	69	86	649	655
5th	Cause	Intrauterine hypoxia/birth asphyxia		Cancer	HIV/AIDS	Chronic Liver Disease & Cirrhosis	Chronic Lower Respiratory Disease	Chronic Lower Respiratory Disease
	Number	5		5	50	85	463	520
6th	Cause	Neonatal hemorrhage			Homicide	Diabetes	Influenza and pneumonia	Unintentional injury
	Number	5			37	79	296	478
7th	Cause				Stroke	Suicide	Diabetes	Diabetes
	Number				19	79	263	356
8th	Cause				Chronic Liver Disease & Cirrhosis	Chronic Lower Respiratory Disease	Unintentional injury	Influenza and pneumonia
	Number				19	55	153	334
9th	Cause				Diabetes	HIV/AIDS	Pneumonitis from solids/ liquids	Suicide
	Number				12	34	140	213
10th	Cause				Viral Hepatitis	Viral Hepatitis	Parkinson's disease	Chronic Liver Disease and Cirrhosis
	Number				8	28	113	154
Total deaths		114	42	129	594	2,058	8,654	11,591

NOTE: A cell is left blank if the number of deaths is fewer than five.
**Rates are age-adjusted to the 2000 US population. Numbers are five years total. The leading causes of death are ranked by the number of death. Because of age-adjustment, the sequence may not correspond to those ranked by the rates.

Source: Linked Birth-Infant Death Certificates, and Death Certificates, Washington State Department of Health, Center for Health Statistics.
Produced by: Epidemiology, Planning and Evaluation Unit, Public Health- Seattle & King County

Focus on Disparities

- The leading causes of death also varied among the racial/ethnic groups. In general, unintentional injury, homicide, and diabetes ranked relatively higher among the minority populations. Conditions of the perinatal period were the ninth leading cause of death for African Americans and the sixth for Hispanic/Latinos.

The Leading Causes of Death †, by Race/Ethnicity, King County, 1999-2003 Combined

Rank		White	African American	American Indian or Alaska Native	Asian or Pacific Islander	Hispanic/Latino
	Cause	Heart Disease	Heart Disease	Heart Disease	Cancer	Cancer
	Rate*	179.1	250.1	272.2	140.5	123.3
1st	**Average Annual #**	2,506	146	23	199	34
	Cause	Cancer	Cancer	Cancer	Heart Disease	Heart Disease
	Rate*	183.1	229.8	199.8	122.1	133.2
2nd	**Average Annual #**	2,491	143	19	149	30
	Cause	Stroke	Stroke	Unintentional injury	Stroke	Unintentional injury
	Rate*	61.3	80.0	65.5	56.2	28.1
3rd	**Average Annual #**	863	44	11	68	23
	Cause	Chronic lower respiratory disease	Diabetes	Chronic liver disease & cirrhosis	Diabetes	Stroke
	Rate*	39.5	64.1	38.8	25.4	61.3
4th	**Average Annual #**	535	39	6	32	12
	Cause	Alzheimer's disease	Unintentional injury	Stroke	Unintentional injury	Homicide
	Rate*	36.4	33.8	78.9	18.1	7.1
5th	**Average Annual #**	525	34	5	31	8
	Cause	Unintentional injury	Chronic lower respiratory disease	Chronic lower respiratory disease	Chronic lower respiratory disease	Conditions of the perinatal period
	Rate*	28.2	36.6	64.3	18.5	3.8
6th	**Average Annual #**	409	23	5	22	6
	Cause	Influenza and pneumonia	Homicide	Diabetes	Influenza and pneumonia	Diabetes
	Rate*	19.8	18.3	34.1	14.3	22.6
7th	**Average Annual #**	282	21	3	16	6
	Cause	Diabetes	Alzheimer's disease	Influenza and pneumonia	Suicide	Chronic liver disease and cirrhosis
	Rate*	18.9	28.5	29.3	7.2	14.7
8th	**Average Annual #**	258	14	3	15	5
	Cause	Suicide	Conditions of the perinatal period	Homicide	Alzheimer's disease	Suicide
	Rate*	11.6	8.7	14.3	12.9	4.7
9th	**Average Annual #**	172	12	2	13	5
	Cause	Pneumonitis from solids/liquids	HIV/AIDS	Septicemia	Kidney disease	HIV/AIDS
	Rate*	9.1	11.1	18.5	8.6	4.0
10th	**Average Annual #**	130	12	2	11	4
Total Deaths	**Rate***	729.8	986.1	1104.1	531.3	561.8
	Average Annual #	10,172	635	107	705	177

† Rate is age-adjusted per 100,000 population

*Rates are age-adjusted to the 2000 US population. Numbers are the average of five years. The leading causes of death are ranked by the number of death. Because of age-adjustment, the sequence may not correspond to those ranked by the rates.

NOTE: Hispanic/Latinos can be of any race and are included in the preceding racial categories

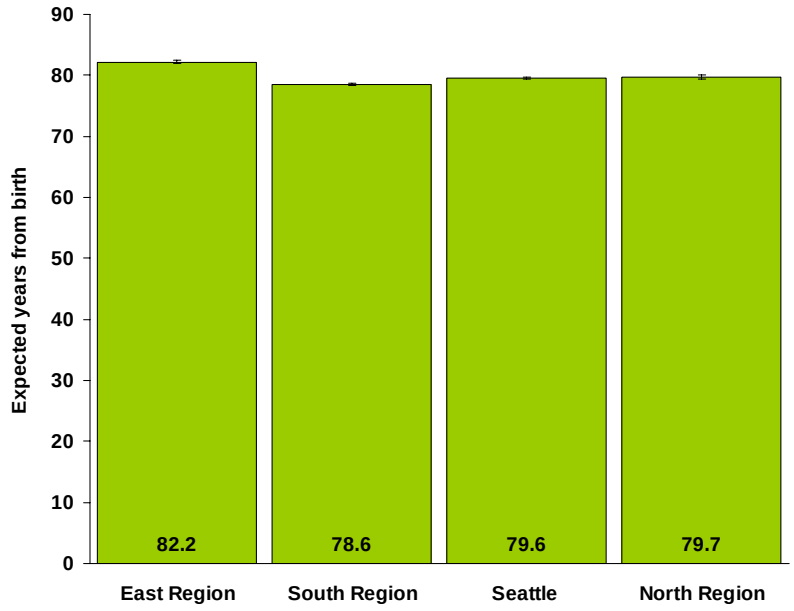
Source: Death Certificates, Washington State Department of Health, Center for Health Statistics.
Produced by: Epidemiology, Planning and Evaluation Unit, Public Health- Seattle & King County

Life Expectancy

King County and Regions

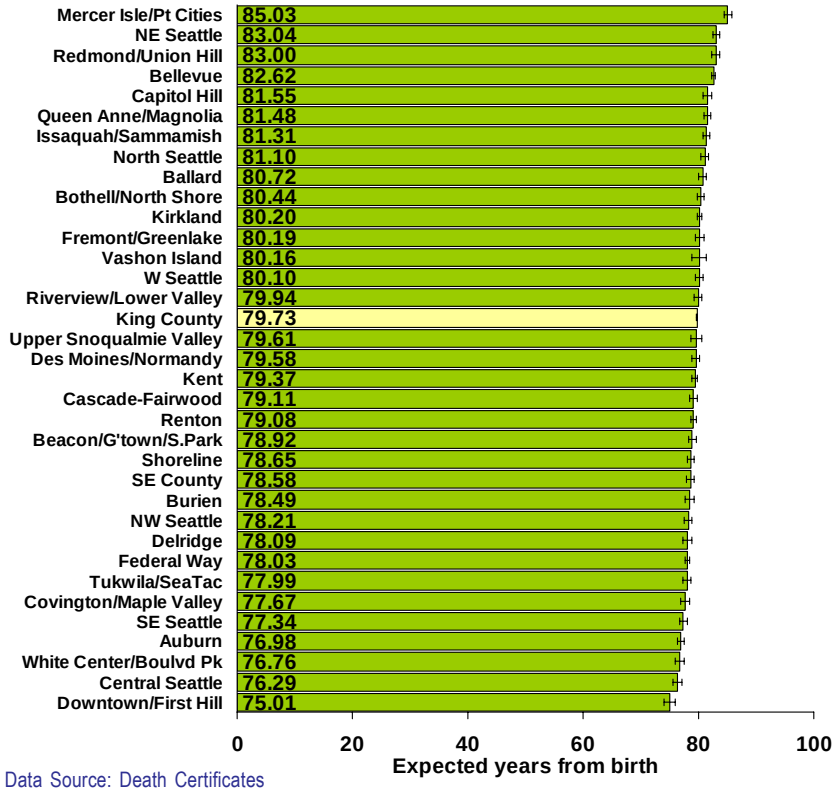
- Life expectancy at birth is the average number of years a person born in 2003 would live if the current age-specific death rates remained unchanged over that person's lifetime.
- In King County, the life expectancy at birth in 2003 was 80.3 years, 78.0 for males and 82.5 for females. This was significantly higher than the figure for counties similar to King County, King County ranked third highest among 15 major metropolitan U.S. counties. Compared to 1980, the life expectancy increased 4.9 years overall, 6.0 for males and 3.8 for females.
- Among the four Health Regions, for 2003, the life expectancy for residents of the East Region was significantly higher than the county average while the life expectancies for residents of the South Region were significantly lower than the county average. There were no significant differences between the county and the North Region or Seattle.

Life Expectancy at Birth, By Region, King County, 1999 - 2003 Combined



Data Source: Death Certificates
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

Life Expectancy at Birth, by Health Planning Area, King County, 1999-2003 Combined



Data Source: Death Certificates
Produced by: Public Health- Seattle & King County, Epidemiology, Planning and Evaluation Unit

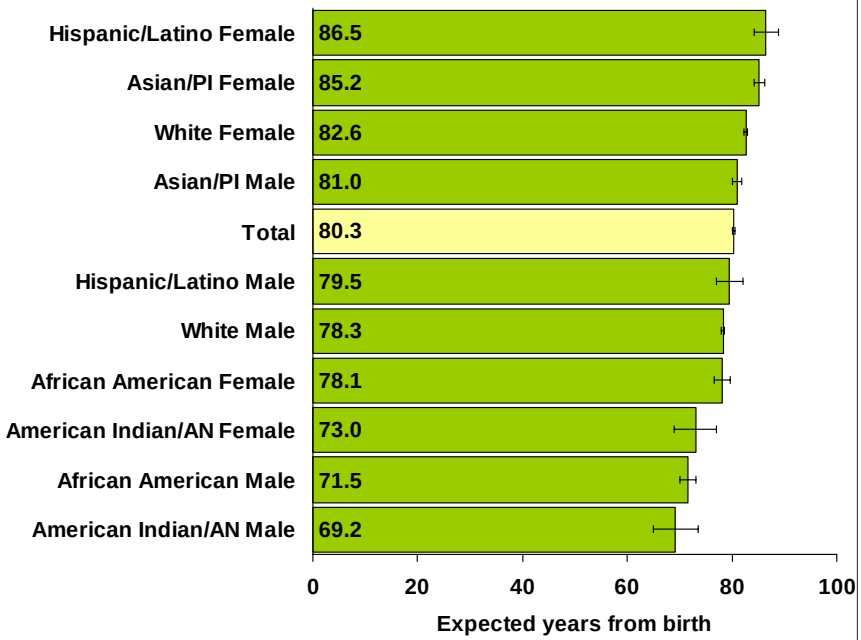
Patterns by Health Planning Area

- Among the Health Planning Areas, residents of Mercer Island had the highest life expectancy (85.0) which was 10 years more than that for residents of Downtown/ First Hill, where the life expectancy (75.0) was the lowest in the county.

Focus on Disparities

- The life expectancies for Hispanic/ Latino females,[1] Asian/Pacific Islander females, and white females were significantly higher while the life expectancies for African Americans and American Indian/Alaska Natives (male and female) as well as white males, were significantly lower than the county average.
- The change in life expectancy between 1990-1992 average and 2001-2003 average was 2.4 for whites, 3.0 for African Americans, and 1.8 for Asian/Pacific Islanders and Hispanic/Latinos. For American Indian/Alaska Natives, between the 1990-1992 average and the 2001-2003 average there was a loss in life expectancy of 1.7 years, despite a gain of 7.4 years between 1980-1982 and 1994-1996.

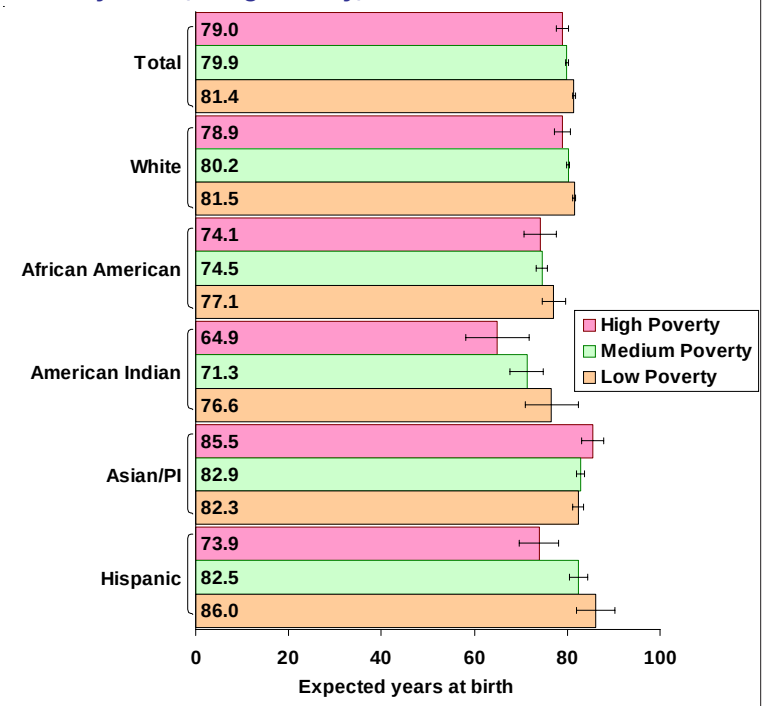
Life Expectancy at Birth, by Race/Ethnicity and Gender, King County, 2003



Note: Hispanics can be of any race and are included in the racial categories
Data Source: Death certificates
Produced by: Public Health- Seattle & King County

- The impact of socioeconomic status on health, especially for the minority populations, can be shown in the association between level of poverty and life expectancy. Among the racial/ethnic groups, life expectancy appeared to be associated with the level of poverty. This association was significant among whites and among Hispanic/Latinos.

Life Expectancy at Birth, By Race/Ethnicity and Poverty Level, King County, 2003[2]



Note: Hispanic/Latinos can be of any race and are included in the racial categories
Data Source: Death certificates
Produced by: Public Health- Seattle & King County

Years of Potential Life Lost (YPLL)

Years of Potential Life Lost (YPLL) before age 65 measures the impact of a cause on premature death. For each death, this measure counts the number of years between the age of death and age 65 as the years of potential life lost. As a result, diseases that cause more deaths among younger persons have a higher weight in YPLL.

- Averaged over 2001-2003, the five leading causes of YPLL in King County were cancer, unintentional injury, heart disease, suicide, and conditions of the perinatal period.

Focus on Disparities

- Conditions of the perinatal period were the number one cause of YPLL in African Americans and the number two cause of YPLL in Hispanic/Latinos. Unintentional injury caused more YPLL than cancer in African Americans, American Indian/Alaska Natives, and Hispanic/Latinos.
- The overall rates of YPLL (per 100,000 population) for African Americans (6500.7), American Indian/Alaska Natives (9759.1), and Hispanic/Latinos (3614.4) were significantly higher than the rate for whites (3041.0). The Asian and Pacific Islander rate (2505.6) was significantly lower than the white rate.

The Five Leading Causes of Years of Potential Life Lost* (YPLL) Before Age 65, By Race/Ethnicity, King County, 2001-2003 Combined

Rank		Total	White	African American	American Indian/ Alaska Native	Asian/ Pacific Islander	Hispanic
1st	Cause	Cancer	Cancer	Conditions of the perinatal period	Unintentional injury	Cancer	Unintentional injury
	Years Lost	633.7	629.0	787.2	2161.4	562.2	749.6
2nd	Cause	Unintentional injury	Unintentional injury	Unintentional injury	Cancer	Unintentional injury	Conditions of the perinatal period
	Years Lost	571.6	565.3	769.7	894.7	345.7	408.9
3rd	Cause	Heart disease	Heart disease	Cancer	Heart disease	Conditions of the perinatal period	Homicide
	Years Lost	338.2	338.1	766.2	779.9	200.9	279.5
4th	Cause	Suicide	Suicide	Homicide	Conditions of the perinatal period	Heart disease	Cancer
	Years Lost	252.4	274.1	666.5	771.9	185.4	266.9
5th	Cause	Conditions of the perinatal period	Conditions of the perinatal period	Heart disease	Homicide	Suicide	Heart disease
	Years Lost	219.8	161.4	552.7	518.6	178.1	251.0
All causes	Years Lost	3,235.6	3,041.1	6,007.6	9,251.4	2,369.1	3,218.4

*Years of Potential Life Lost (three-year average) per 100,000 Population
NOTE: Hispanic/Latinos can be of any race and are included in the racial categories.
Data Source: Death Certificate data, Washington State Department of Health, Center for Health Statistics.
Produced by: Epidemiology, Planning and Evaluation Unit, Public Health- Seattle & King County

References

[1] According to a study by the Washington State Department of Health (Juliet VanEenwyk, Eric Ossiander and Cathy O'Connor, Hispanic Mortality: Discussion Paper, Working Draft Revised January 1998), the lower overall mortality rates and the higher life expectancy for Hispanic/Latinos could be the result of a number of factors, such as under reporting of Hispanic/Latino ethnicity on the death certificates, migration of Hispanic/Latinos to country of origin to die, and a healthier lifestyle among older Hispanic/Latinos. However, the significance of under reporting is unclear. Although older Hispanic/Latinos may have a healthier lifestyle than non-Hispanic/Latinos, it is known that younger Hispanics have a higher death rate than their non-Hispanic counterparts. Since fewer die at younger ages, their impact on the overall death rate and life expectancy is limited.

[2] Poverty level is based on the percentage of persons living below the Federal Poverty Level in a particular census tract in 1989. Those census tracts with 20 percent or more, 5 to 19 percent, and less than 5 percent of the residents living below poverty are classified as high poverty, medium poverty, and low poverty respectively.

Morbidity

- **Leading causes of hospitalizations are injuries, heart, digestive system and respiratory disease, and psychoses.**
- **Psychoses and drug-related hospitalizations increased in percentage of all hospitalizations between 1993 and 2003.**
- **In 2003, an estimated 12.8% of King County residents (aged 5 and older) reported some disability.**
- **Almost half of those aged 75 and older reported some disability. Disability types varied by age group.**
- **In the period 1991-1993, an 18-19 year old could expect 6.3 years of their life spent in only fair or poor health. By 2001-2003 this outlook had significantly worsened; this age group can now expect 8.4 years of unhealthy life.**
- **Persons of lower incomes, of color, and who are older are less likely to report excellent or very good health.**
- **King County residents report more bad physical health days a month (2.9 compared with 2.5) and mental health days (3.2 compared with 3.0) now than 10 years ago, although the differences are not statistically significant.**

Leading Causes of Hospitalization

Certain types of diseases or health conditions account for large shares of hospitalization but are not reflected in mortality data. Some examples of these diseases or conditions include mental health problems, alcohol/drug related conditions, and fractures.

- In 2003, there were a total of 119,439 non-childbirth hospitalizations among King County residents. Between 1990 and 2003 there was a significant decrease in non-childbirth hospitalizations among King County residents (data not shown).
- The leading causes of non-childbirth hospitalization include unintentional injury, heart disease, digestive system disease, respiratory disease, and psychoses.
- The top four causes of hospitalization were the same between 1993 and 2003 (with only a minor change in rank). The ranks of psychoses and drug-related hospitalizations increased while that of cancer decreased during the same time period.

The Leading Causes of Hospitalization, King County, 1993, 1998 and 2003

Cause of Hospitalization (by 2003 Rank)	2003			1998			1993		
	Number	Percent	2003 Rank	Number	Percent	1998 Rank	Number	Percent	1993 Rank
All Cases (Non-Childbirth)	119,439			114,325			118,016		
Unintentional Injury	16,933	14.2%	1	13,168	11.5%	2	14,891	12.6%	1
Heart Disease	13,831	11.6%	2	14,534	12.7%	1	13,919	11.8%	2
Digestive System Disease	13,421	11.2%	3	12,100	10.6%	3	12,995	11.0%	3
Respiratory Disease	11,094	9.3%	4	11,165	9.8%	4	10,607	9.0%	4
Psychoses	8,072	6.8%	5	7,322	6.4%	5	5,812	4.9%	8
Alcohol-Related	7,167	6.0%	6	6,864	6.0%	6	6,150	5.2%	7
Genito/Urinary Disease	6,782	5.7%	7	6,552	5.7%	7	8,078	6.8%	5
Illicit Drug-Related	6,481	5.4%	8	4,684	4.1%	10	3,334	2.8%	16
Cancer	5,933	5.0%	9	6,052	5.3%	8	6,419	5.4%	6
Fractures	4,803	4.0%	10	4,963	4.3%	9	5,303	4.5%	9

NOTE: If a person was hospitalized more than once during the time period, each hospitalization is counted.

Data Source: Hospital Discharge Data, Washington State Department of Health, Center for Health Statistics
Produced by: Epidemiology, Planning and Evaluation Unit, Public Health- Seattle & King County

Types of Disability*

In addition to death and hospitalization, a significant number of people in the population are disabled.

The American Community Survey, conducted by the US Census Bureau, asked a sample of King County residents to report their disability status.

- In 2003, 6.4% of those aged 5-15, 5.2% of those aged 16-20, 10.1% of those ages 21-64, 25.2% of those aged 65-74 and almost half (48.8%) of those aged 75 and over reported having some kind of disability.
- Physical, sensory and go-outside-home disabilities were the most commonly reported among those aged 65 and over; employment, physical and mental disabilities were more reported among those aged 21-64, and among children and youth sensory and mental disabilities were the most reported. (see Appendix D).

Self-reported Disability Status, By Age and Sex, King County, 2003

Age group:		Male:			Female:			Total:
			95% confidence interval			95% confidence interval		
		estimate	lower bound	upper bound	estimate	lower bound	upper bound	estimate
Age 5 to 15:	Total	122,165	119,360	124,970	112,785	110,117	115,453	234,950
	Number with disability	12,144	9,040	15,248	2,833	1,183	4,483	14,977
	Percent disabled	9.9%	7.6%	12.2%	2.5%	1.1%	3.9%	6.4%
Age 16 to 20:	Total	49,035	44,357	53,713	46,347	42,334	50,360	95,382
	Number with disability	2,101	995	3,207	2,892	1,157	4,627	4,993
	Percent disabled	4.3%	2.2%	6.0%	6.2%	2.7%	9.2%	5.2%
Age 21 to 64:	Total	559,269	554,735	563,803	555,494	552,005	558,983	1,114,763
	Number with disability	55,542	47,555	63,529	56,520	49,937	63,103	112,062
	Percent disabled	9.9%	8.6%	11.3%	10.2%	9.0%	11.3%	10.1%
Age 65 to 74:	Total	40,591	38,902	42,280	47,340	46,016	48,664	87,931
	Number with disability	11,968	9,049	14,887	10,173	7,736	12,610	22,141
	Percent disabled	29.5%	23.3%	35.2%	21.5%	16.8%	25.9%	25.2%
Age 75+:	Total	31,326	29,840	32,812	52,950	51,245	54,655	84,276
	Number with disability	14,841	12,943	16,739	26,276	22,970	29,582	41,117
	Percent disabled	47.4%	43.4%	51.0%	49.6%	44.8%	54.1%	48.8%

* Data represent the population in households only; persons in group quarters (such as nursing homes and dormitories) were not sampled.
** Data are from a survey and as such represent a sample of the population. The lower and upper bounds of the 90% confidence interval around the estimated number of persons in each category are presented.
NOTE: Persons can report more than one type of disability, and may appear more than once in the separate categories.

Data Source: U.S. Census Bureau, American Community Survey 2003, Table P059
Produced by: Epidemiology, Planning and Evaluation Unit, Public Health- Seattle & King County

* The authors wish to acknowledge Professor Susan Kinne of the University of Washington for her generosity and extensive input and assistance with data analysis and evaluation for this section.

Expected Years of Healthy Life

Using people's reported health status in different age groups, it is possible to calculate their expected years of healthy and unhealthy life (similar to life expectancy)[1]. Based on the current percentages of people reporting less than very good health by age, a person who is now aged 18-19 can expect to live 84 years of life during which their own health status will be only fair or poor.

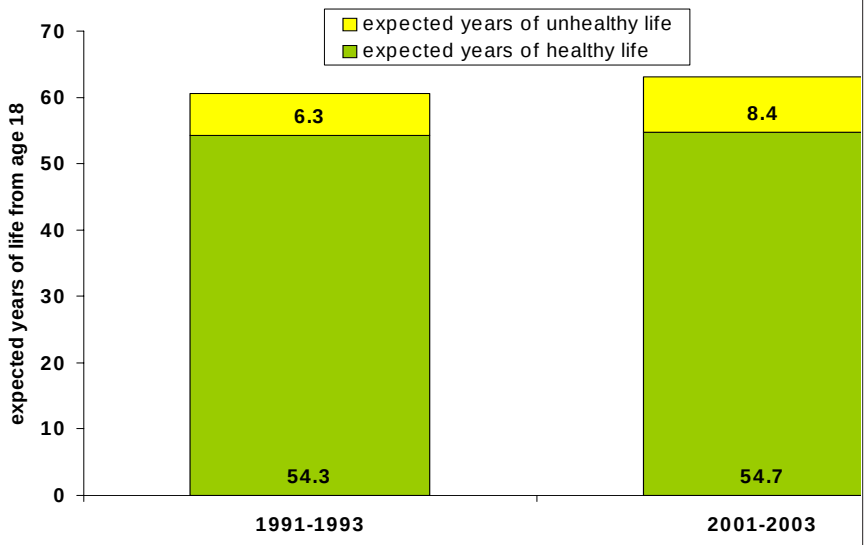
Expected Years of Unhealthy Life*, By Age, King County, 2001-2003 Combined

		95% confidence interval	
Age group	Expected years	lower bound	upper bound
Age 18 to 19	8.4	8.0	8.7
Age 20 to 24	8.2	7.9	8.6
Age 25 to 29	7.8	7.5	8.2
Age 30 to 34	7.6	7.2	7.9
Age 35 to 39	7.3	7.0	7.6
Age 40 to 44	7.1	6.8	7.4
Age 45 to 49	6.8	6.4	7.1
Age 50 to 54	6.3	6.0	6.6
Age 55 to 59	5.8	5.5	6.2
Age 60 to 64	5.3	5.0	5.7
Age 65 to 69	4.9	4.6	5.2
Age 70 to 74	4.3	4.0	4.6
Age 75 to 79	3.9	3.7	4.2
Age 80 to 84	3.3	3.0	3.6
Age 85+	3.1	2.8	3.4

* Time spent in reported health status fair/poor as opposed to good/very good/excellent

Data Source: Death certificate data, Washington State Department of Health, Center for Health Statistics, and Behavioral Risk Factor Surveillance Survey, Centers for Disease Control and Washington State Department of Health.
Produced by: Epidemiology, Planning and Evaluation Unit, Public Health- Seattle & King County

Expected Years of Healthy and Unhealthy Life from Age 18, King County, 1991-1993 and 2001-2003



Data Source: Behavioral Risk Factor Surveillance System Data, Death certificate data; Centers for Disease Control and Washington State Department of Health
Produced by: Epidemiology, Planning and Evaluation Unit, Public Health- Seattle & King County

- In 1991-1993 the comparable years of expected fair or poor health status for 18-19 year-olds was significantly lower, at only 6.3 years.
- While life expectancy increased significantly from 1991-1993 to 2001-2003, the chart shows that most of the gain represents years of unhealthy life. In the same decade, while the percentage of people aged 60 and older reporting fair or poor health did not change, the percentage of people in each age group from 18 to 59 reporting fair or poor health increased significantly.

Self-Reported Health Status

- 62% of the King County adults considered their general health as excellent or very good.
- On the average, King County adults had 2.9 “not good physical health days” and 3.2 “not good mental health days” per month.

Focus on Disparities

- The poor, the elderly and all minority groups except Asian and Pacific Islanders were less likely to report excellent or very good health.
- The elderly had more poor physical health days and fewer poor mental health days than the county average; females had more poor physical and mental health days than males; African Americans had more poor mental health days while Asian and Pacific Islanders had fewer poor physical and mental health days than whites; and by income, those with less income had more poor physical and mental health days than those with greater incomes.

Self-Reported Health Status, Adults Age 18+, King County, 2002-2004 Combined

	Sample size	Excellent/very good health		Average number of "not good" physical health days per month		Average number of "not good" mental health days per month	
		Percent	95% CI	Number	95% CI	Number	95% CI
Total	7,392	61.6	(60.1, 63.0)	2.9	(2.8, 3.1)	3.2	(3.0, 3.4)
Age:							
18-24	509	63.2	(57.6, 68.4)	2.1	(1.7, 2.6)	4.4	(3.8, 5.0)
25-44	2,926	67.5	(65.4, 69.6)	2.3	(2.1, 2.6)	3.3	(3.1, 3.6)
45-64	2,684	60.5	(58.1, 62.7)	3.4	(3.0, 3.7)	3.1	(2.8, 3.4)
65+	1,273	43.7	(40.4, 47.1)	4.6	(4.0, 5.3)	1.6	(1.3, 2.0)
Sex:							
Male	3,025	61.0	(58.8, 63.2)	2.7	(2.4, 3.0)	2.7	(2.4, 3.0)
Female	4,367	62.1	(60.3, 64.0)	3.2	(3.0, 3.4)	3.6	(3.4, 3.9)
Race/Ethnicity:							
White	6,251	64.1	(62.6, 65.7)	2.9	(2.7, 3.1)	3.2	(3.0, 3.4)
African American	276	51.6	(44.1, 59.0)	4.4	(3.0, 5.8)	4.5	(3.4, 5.6)
Asian/PI	497	56.6	(50.9, 62.1)	2.1	(1.5, 2.7)	2.4	(1.8, 3.1)
Hispanic/Latino	383	37.7	(32.0, 43.7)	2.9	(2.1, 3.7)	3.4	(2.5, 4.3)
All other races	368	38.6	(32.8, 44.8)	3.9	(2.8, 5.0)	3.7	(2.7, 4.7)
Annual Household Income:							
<$15,000	458	41.0	(34.8, 47.6)	5.1	(4.1, 6.1)	5.3	(4.4, 6.2)
$15,000-$24,999	815	44.8	(40, 49.6)	4.2	(3.5, 4.9)	5.1	(4.4, 5.9)
$25,000-$34,999	768	52.0	(47.2, 56.7)	3.9	(3.1, 4.6)	4.0	(3.4, 4.6)
$35,000-$49,999	1,034	60.6	(56.8, 64.3)	3.3	(2.7, 3.8)	3.5	(3.0, 4.1)
$50,000+	3,408	71.8	(69.8, 73.6)	2.2	(2.0, 2.4)	2.4	(2.1, 2.6)

Data Source: Behavioral Risk Factor Surveillance Survey, Centers for Disease Control and Washington State Department of Health.
Produced by: Epidemiology, Planning and Evaluation Unit, Public Health- Seattle & King County

References

[1] Methodology from: Centers for Disease Control, “Measuring Healthy Days: Population Assessment of Health-Related Quality of Life”. Atlanta, Georgia: CDC, November 2000.

Health of King County 2006

Chapter 4: Maternal & Infant Health

Infant Mortality

Low Birth Weight

Very Low Birth Weight

Preterm Delivery

Late or No Prenatal Care

Maternal Smoking

Adolescent Birth

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4

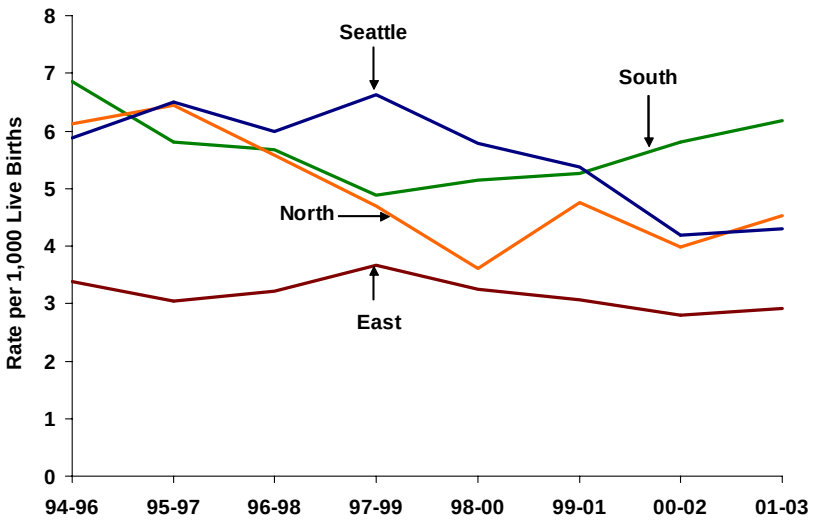
Infant Mortality

- The infant mortality rate is an indicator of the overall health of a community. It is influenced by many factors, including the health of mothers and infants, the capacity and quality of the health care system, mother's income and education, and numerous aspects of the neighborhoods in which families live.
- In King County, the infant mortality rate has declined fairly steadily since 1981. In 2004, the rate was 4.4 per 1,000 live births (see *Public Health Core Indicators for Seattle and King County* for more information about Infant Mortality). This meets the Healthy People 2010 goal of 4.5 deaths per 1,000 live births.
- Despite this decline, significant disparities by race/ethnicity remain and may be getting larger. From 1995-2004, the rate declined only for whites and African Americans. Wide disparities also remain by poverty and Health Planning Area (see *Racial Disparities in Infant Mortality* for more information).
- In 1999-2001, South Region replaced Seattle with the highest rates.
- In comparison to 15 major metropolitan U.S. counties, King County had the 11th lowest rate of infant mortality.
- Because of late-breaking data from the Washington State Department of Health, trends in total infant mortality and infant mortality by race are updated with 2004 data. All other analyses include data up to 2003.

King County and Regions

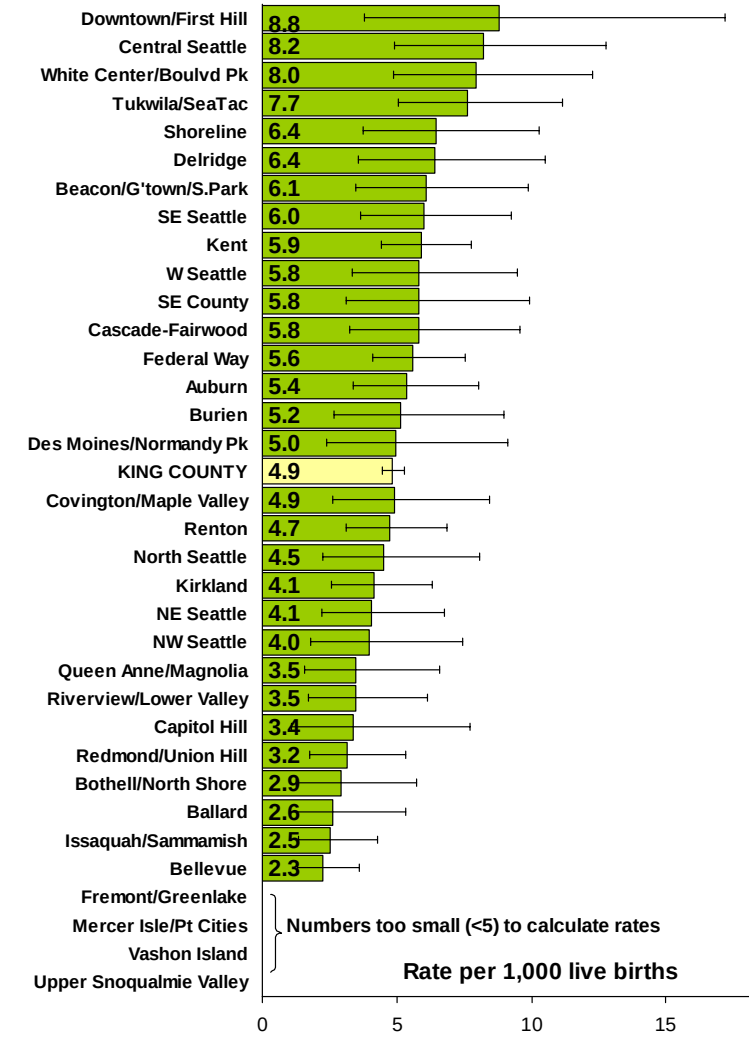
- In King County, the infant mortality rate has declined fairly steadily since 1981. In 2004, the rate was 4.4 per 1,000 live births, the lowest rate on record. There were 101 infant deaths in 2004, the second lowest number on record.
- South Region has not shared in the decline experienced by Seattle. In the most recent time period, 2001-2003, South Region had a significantly higher rate of infant mortality than East Region. Although higher, the infant mortality rate for South Region was not significantly different than the rates for Seattle and North Region.
- East Region has consistently had the lowest rates over that time period.

Infant Mortality by Region, King County, 3-Year Rolling Averages, 1994-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Linked birth-infant death files.
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

Infant Mortality Rates by Health Planning Area, King County, 1999 - 2003 Combined



Data Source: Washington State Department of Health, Center for Health Statistics, linked birth-infant death files for 1980-2003.
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

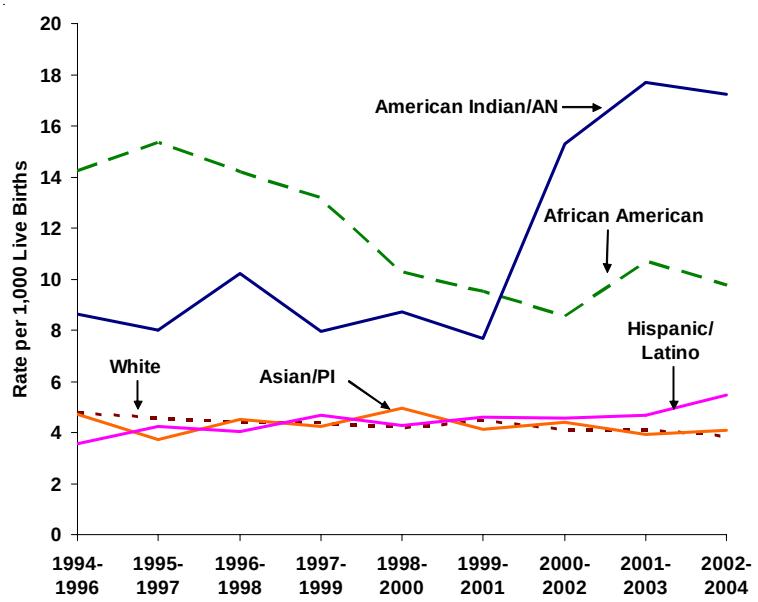
Patterns by Health Planning Area

- Small numbers within the different Health Planning Areas make it difficult to analyze differences between Health Planning Areas. However, Downtown Seattle/First Hill, Central Seattle, White Center/ Boulevard Park, and Tukwila/Sea Tac Health Planning Areas tend to have the highest rates of infant death in King County.
- The lowest rates of infant death tend to be in Bellevue and Issaquah/ Sammamish Health Planning Areas.
- There were too few infant deaths (fewer than five deaths from 1999-2003) in Fremont/Greenlake, Upper Snoqualmie Valley, Mercer and Vashon Islands to allow rates to be calculated for those Health Planning Areas.

Focus on Disparities

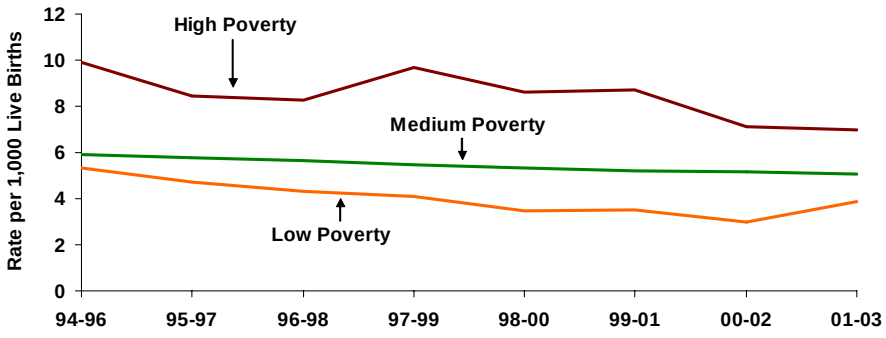
- From 1995 through 2004, infant mortality rates declined for whites and African Americans, and did not decline for other groups.
- Infant death rates remain substantially higher for African Americans and American Indian/Alaska Natives compared to whites.
- The 2002-2004 African American infant mortality rate (9.0/1000) was more than two times higher than that for whites (4.0/1000). The American Indian/Alaska Native infant mortality rate (14.7/1000) was over three times higher than that for whites.
- The direction of the trend over time for American Indian/Alaska Native infants is difficult to interpret because of the relatively small number of American Indian births and infant deaths. Nevertheless, the rate is of great concern and bears close monitoring given that the three-year rate from 2001-2003 is higher than all other periods since the early 1990s.

Infant Mortality by Race/Ethnicity, King County, 3-Year Rolling Averages, 1994-2004



Data Source: Washington State Department of Health, Center for Human Statistics. Linked birth-infant death files.
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

Infant Mortality by Poverty, King County, 3-Year Rolling Average, 1994-2003



Data Source: Washington State Department of Health, Center for Human Statistics. Linked birth-infant death files.
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

- High poverty neighborhoods have consistently had significantly higher rates of infant death than low poverty neighborhoods.
- From 1994-2003, infant death rates declined significantly only in low poverty neighborhoods.
- The only age group to experience significant declines in infant mortality from 1994-2003 were women 25 to 39 years of age (data not shown).

References

[1] Mathews, T.J., Menacker, F., MacDorman MF. Infant mortality statistics from the 2001 period linked birth/infant death data set. National vital statistics reports; Vol. 52, No. 2. Hyattsville, Maryland: National Center for Health Statistics. 2003

[2] Centers for Disease Control and Prevention; MMWR, 2002; 51: 589-592.

Low Birth Weight

(Infants weighing less than 2500 grams [5 ½ pounds] at birth)

The weight of an infant at the time of birth is an important predictor of infant survival. Low birth weight (LBW) babies have a greater risk of dying in their first year of life.[1] In addition, they are more likely to have health problems throughout their lives.[2,3]

The birth weight of an infant is considered to be a reliable indicator of fetal maturity. As an indicator, it represents many factors, including characteristics inherent in the fetus and the mother which may be environmentally, hormonally or genetically determined. [4]

Over the last ten years, the LBW rate in King County has increased significantly and at 6.3% for 2003, remains above the Healthy People 2010 goal of 5%. (see Public Health *Core Indicators* for Seattle and King County for more information about LBW). However, the LBW increase is mainly due to an increase in the proportion of multiple births, which are more likely to be LBW.

The overall increase in the rate of LBW is probably largely attributable to an increase in the use of assisted reproductive technologies which often result in multiple births.

In comparison to 15 major metropoitan U.S. counties, King County has the 13th lowest rate of LBW.

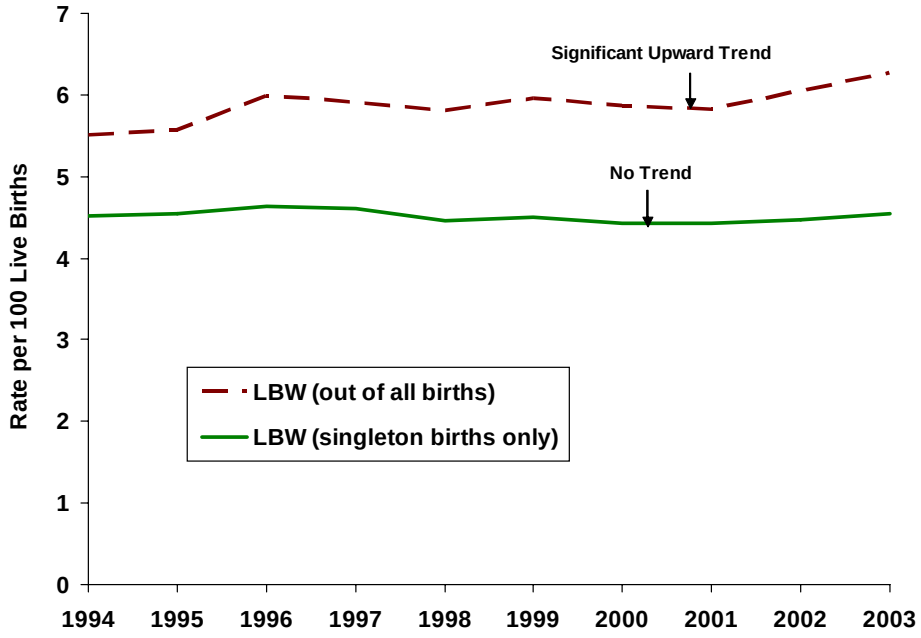
While the rates of LBW no longer vary by neighborhood poverty level it is important to not interpret this information as an indication that health disparities by poverty have been eliminated. The health implications for a LBW infant are dependent on the factors that contributed to the infant being born small. For example, twins, though more likely to be LBW, fare much better than singleton LBW infants; LBW does vary by neighborhood poverty level for singleton births.

African American women in King County are twice as likely to have a LBW infant and American Indian/Alaska Native and Asian/Pacific Islander women still have significantly higher rates of LBW compared to white and Latina/Hispanic women.

King County and Regions

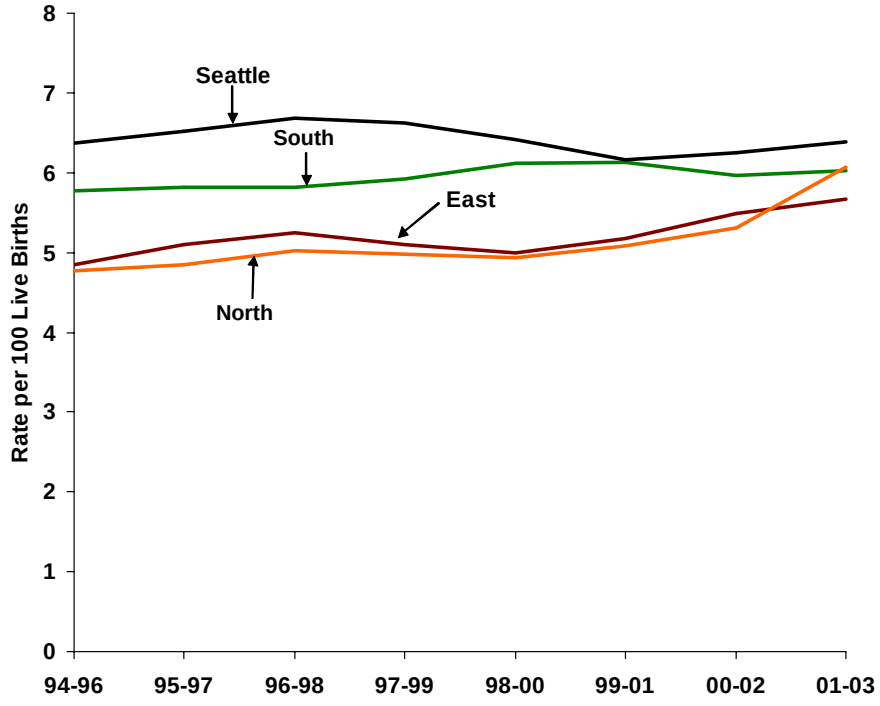
- Low birth weight in King County increased from 1994 to 2003. In 2003, 6.3% of live births were low birth weight.
- The LBW increase was due to an increase in the proportion of multiple births, which tend to be low birth weight. There was no increase in LBW in singleton births.

Low Birth Weight out of All Births and Singleton Births Only, King County, 1994-2003



Data Source: Washington State Department of Health, Center for Health Statistics
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

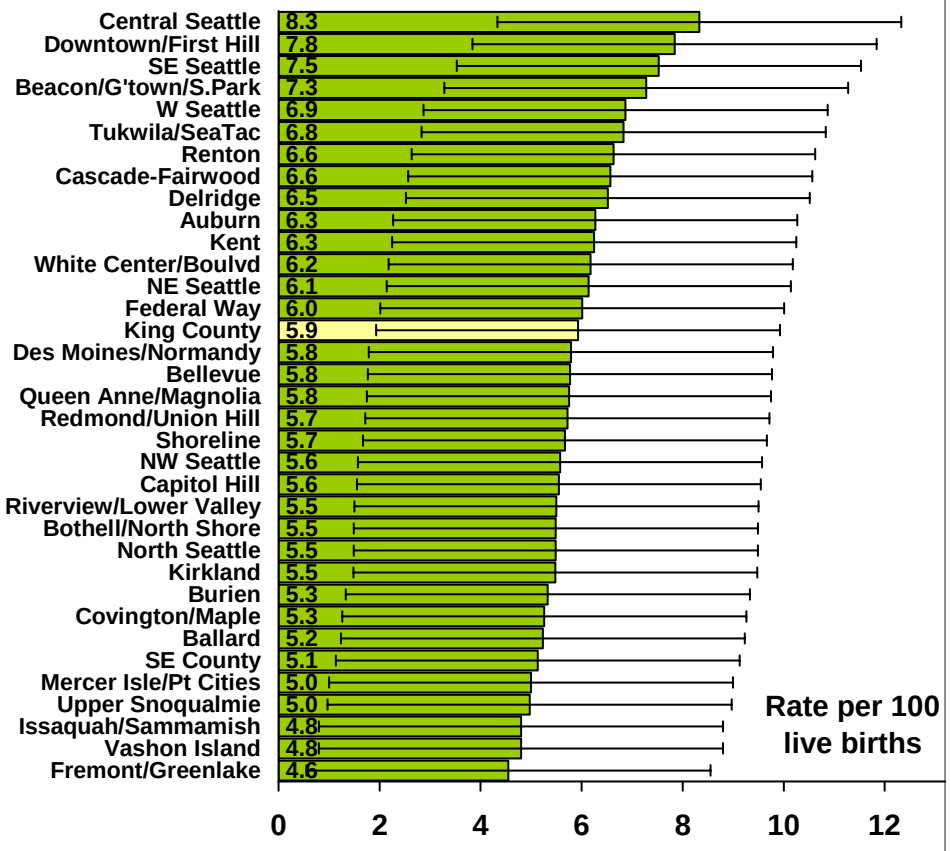
Low Birth Weight Rate by Region, King County, Three Year Rolling Averages, 1994-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Birth Certificate Data
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation, 4/23/2005

- From 1994 to 2003, a significant increase in rates of low birth weight occurred in the East, North and South Regions of King County while Seattle showed no significant change in the rate of low birth weight.
- East Region had a significantly lower rate of low birth weight from 1999-2003 than Seattle or the South Region.

Low Birth Weight Rates by Health Planning Area, King County King County, 1999-2003 Combined



Data Source: Washington State Department of Health, Center for Health Statistics, Birth Certificate
Produced by: Public Health - Seattle & King County,Epidemiology, Planning & Evaluation

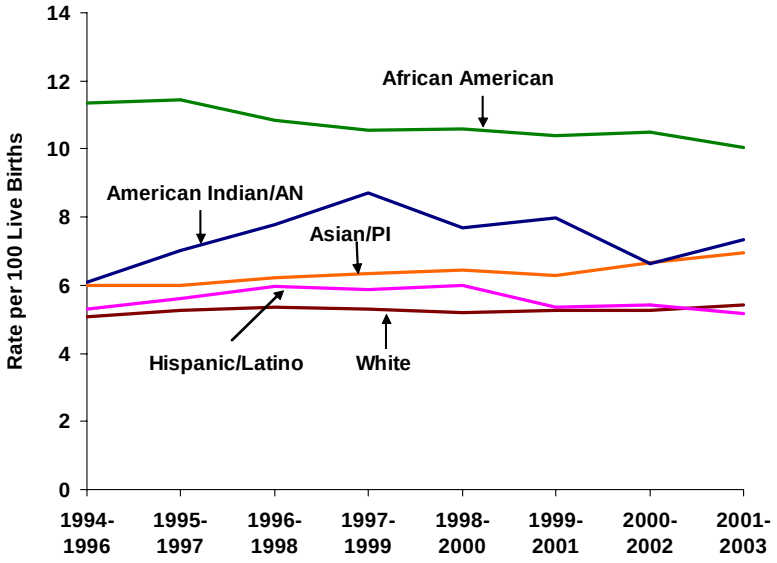
Patterns by Health Planning Area

- Small numbers within the different Health Planning Areas result in overlapping confidence intervals. However, Central Seattle, Beacon Hill/Georgetown/South Park, and White Center/ Boulevard Park Health Planning Areas tend to have the highest rates of low birth weight in King County.
- The lowest rates of low birth weight in King County were in the Fremont/Greenlake and Issaquah/Sammamish Health Planning areas.

Focus on Disparities

- Low birth weight rates have remained significantly higher for African Americans compared to other racial/ethnic groups.
- From 1994-2003, low birth weight rates increased significantly for whites and Asian/Pacific Islanders. The reason for the increase in the rate of low birth weight among whites and Asian/Pacific Islanders is thought to be a reflection of more multiple births among these groups as a result of the increased use of assisted reproductive technologies. There was no significant trend for whites or Asian/Pacific Islanders in rates of low birth weight among singleton births (data not shown).
- All other race/ethnic groups showed no significant change in rates of low birth weight from 1994 to 2003.

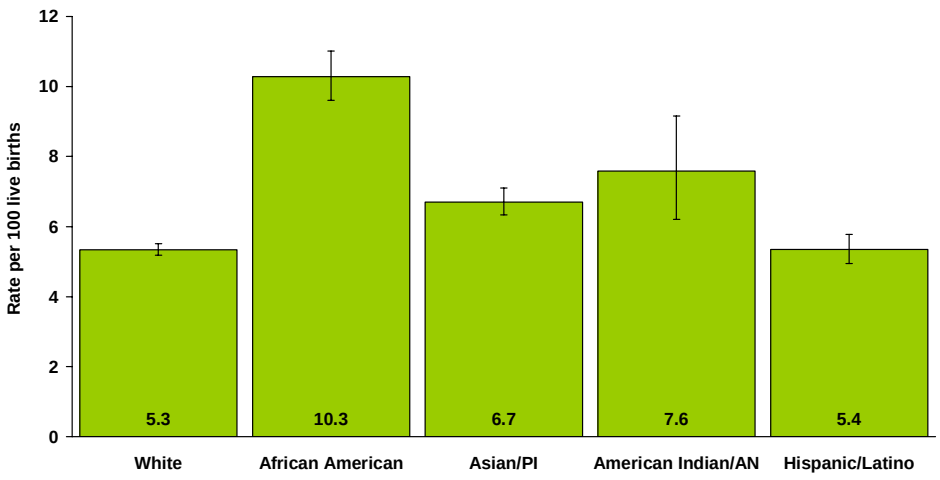
Low Birth Weight Rate by Race/Ethnicity, King County, 3-Year Rolling Averages, 1994-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Birth Certificate Data
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

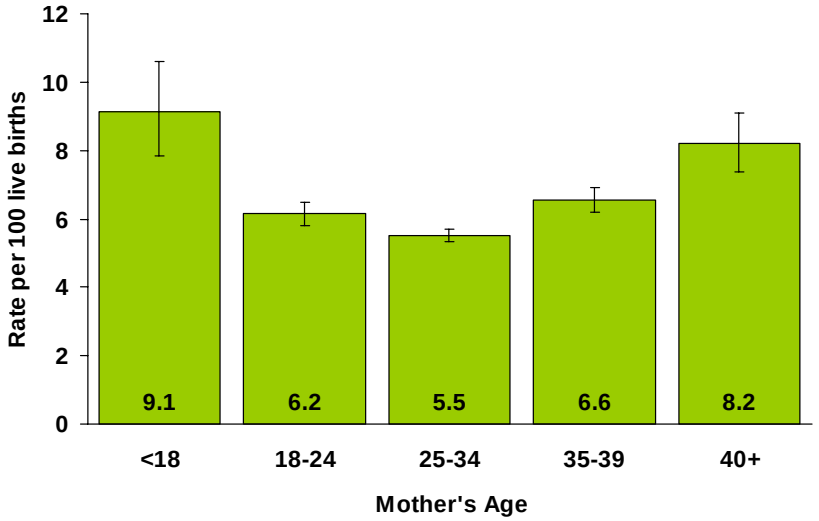
- From 1999-2003 rates of low birth weight were significantly higher for African Americans, American Indian/Alaska Natives and Asian/Pacific Islanders compared to those for whites and Hispanic/Latinos. African American infants were approximately twice as likely to be low birth weight compared to white or Hispanic/Latino infants. American Indian/Alaska Native low birth weight rates were approximately 43% higher, and Asian/Pacific Islanders were approximately 25% higher than low birth weight rates for whites and Hispanic/Latinos.

Low Birth Weight Rates By Race/Ethnicity, King County, 1999 - 2003 Combined



Data Source: Washington State Department of Health, Center for Health Statistics, Birth Certificate Data
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

Low Birth Weight Rates, By Age of Mother, King County, 1999 - 2003 Combined

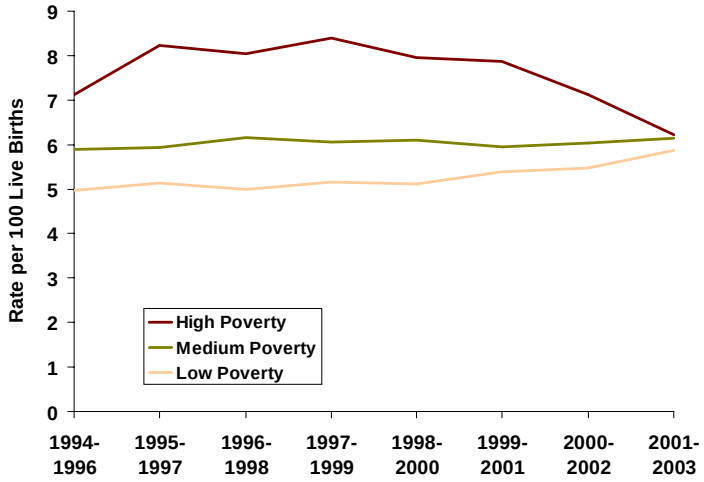


Data Source: Washington State Department of Health, Center for Health Statistics, Birth Certificate Data
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

- Mothers less than 18 years of age and 40 years or older had significantly higher rates of low birth weight compared to women between the ages of 18 and 39. Mothers 25-34 years of age had the lowest rates of low birth weight.

- In past years, high poverty neighborhoods consistently had significantly higher rates of low birth weight than low poverty neighborhoods.
- From 1994-2003, low birth weight rates increased significantly in low poverty neighborhoods and in the past 5 years, from 1999-2003, low birth weight rates declined significantly in high poverty neighborhoods. This has resulted in no significant difference in rates of low birth weight by neighborhood poverty level.

Low Birth Weight Rates by Neighborhood Poverty Level, King County, 3-Year Rolling Averages, 1994-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Birth Certificate Data
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

References

1 Office for National Statistics. *Mortality statistics: childhood, infant and perinatal, series DH3, no.32*. London: The Stationery Office, 1999.

2 Bernstein IM, Horbar JD, Badger GJ, *et al*. Morbidity and mortality among very-low-birth-weight neonates with intrauterine growth restriction. *Am J Obstet Gynecol* 2000;182:198–206.[Medline]

3 Murphy D, Sellers S, MacKenzie I, *et al*. Case-control study of antenatal and intrapartum risk factors for cerebral palsy in very preterm singleton babies. *Lancet* 1995;346:1449–54.[Medline]

4 Centers for Disease Control and Prevention, American Society for Reproductive Medicine, Society for Assisted Reproductive Technology, RESOLVE. 1998 Assisted reproductive technology success rates: national summary and fertility clinic reports, Atlanta: Centers for Disease Control and Prevention, 2000.

5 Contribution of assisted reproductive technology and ovulation-inducing drugs to triplet and higher-order multiple births — United States, 1980-1997. MMWR Morb Mortal Wkly Rep 2000;49:535-538.[Medline]

6 Martin JA, Park MM. Trends in twin and triplet births: 1980–97. National vital statistics reports. Vol. 47. No. 24. Hyattsville, Md.: National Center for Health Statistics, 1999.

Very Low Birth Weight

(Infants weighing less than 1500 grams [3 pounds 4 ounces] at birth)

The chance for survival increases as birth weight increases. Therefore, infants born at a very low birth weight (VLBW) have the lowest survival rates. VLBW infants are approximately 100 times more likely to die by age one than are infants of normal birth weight.

VLBW infants who survive are at a significantly increased risk of physical and visual difficulties, developmental delays and cognitive impairment requiring increased levels of medical, educational and parental care.[1]

In 2003, King County's very low birth weight (VLBW) rate was 1.0 per 100 live births, which was similar to the Health People 2010 Objective of 0.9 per 100 live births. 217 infants were born VLBW.

As with LBW, overall VLBW rates increased from 1994 to 2003, but trends were flat for singleton births, suggesting that increased use of assisted reproductive technologies is an important factor in the increase.

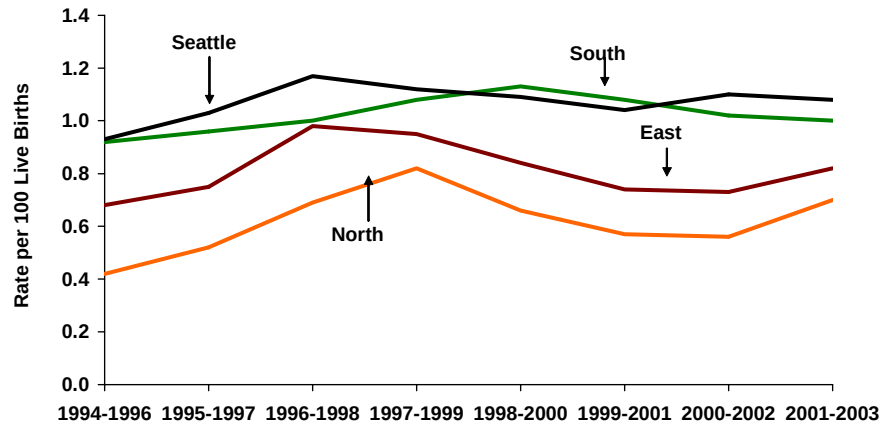
Disparities by race/ethnicity and neighborhood poverty level are substantial. VLBW rates in American Indian/Alaska Natives are twice the rate seen in whites, and African American rates are almost three times the white rate.

VLBW in South Region and Seattle exceed those seen in East and North Regions (see Public Health *Core Indicators* Seattle and King County for more information about VLBW).

King County and Regions

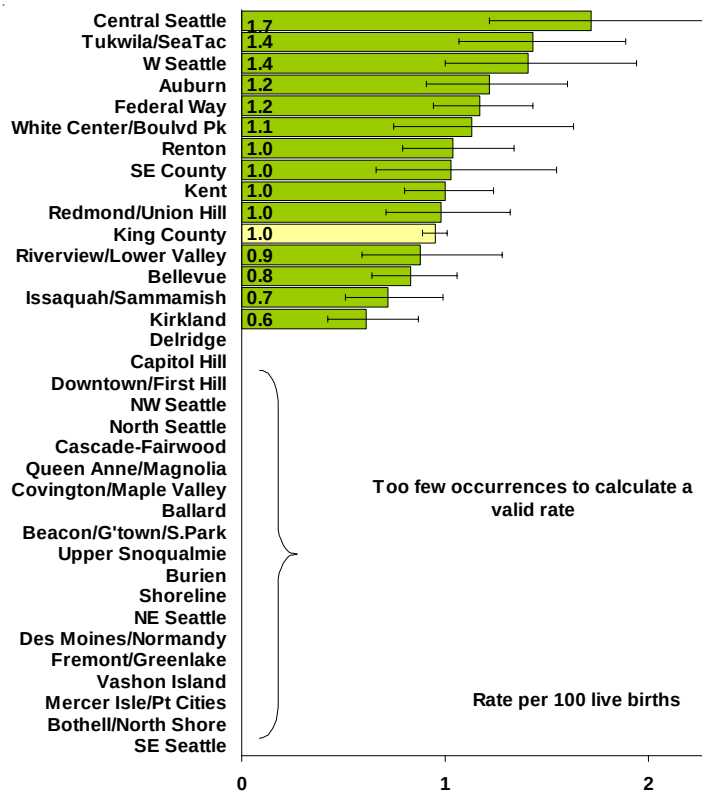
- In 2003, 217 infants were born very low birth weight (VLBW), for a rate of 1 VLBW infant for every 100 live births.
- Like LBW trends, VLBW in all births increased from 1994 to 2003 but was flat for singleton births (data not shown).
- From 1994 to 2003, rates of VLBW have been consistently higher in Seattle and the South Regions of King County in comparison to the East and North Regions of King County.
- The King County rate of 1.0 VLBW births per 100 live births is similar to the Healthy People 2010 goal of 0.9 VLBW births per 100 live births.

Very Low Birth Weight Rate by Region, King County, Three Year Rolling Averages, 1994-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Birth Certificate Data
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

Very Low Birth Weight Rates By Health Planning Area, King County, 1999 - 2003 Combined



Data Source: Washington State Department of Health, Office of Maternal and Child Health, Center for Health Statistics, Birth Certificate Data
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

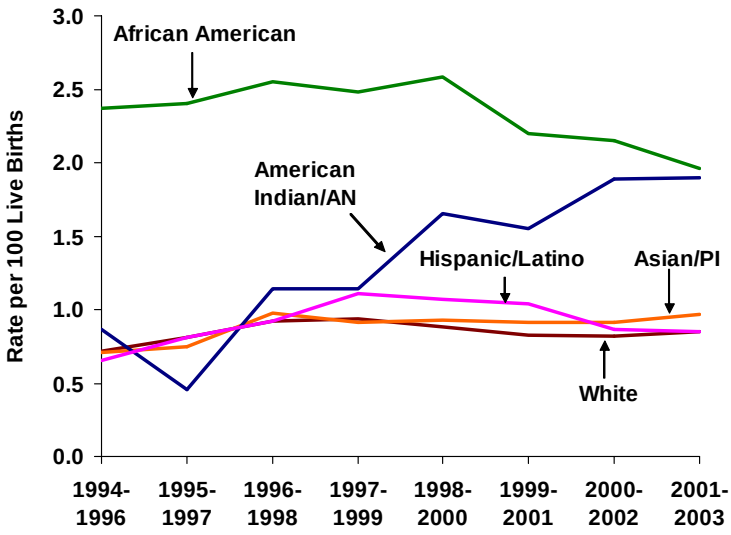
Patterns by Health Planning Area

- Small numbers within the different Health Planning Areas result in overlapping confidence intervals. However, the Central Seattle and Tukwila/SeaTac Health Planning Areas had the highest rates of VLBW in King County.
- The lowest rates of VLBW in King County were in the Kirkland and Issaquah/Sammamish Health Planning areas.

Focus on Disparities

- Over the last decade, VLBW rates have consistently been significantly higher for African Americans compared to whites.
- From 1994-2003, VLBW rates increased significantly for Asian/ Pacific Islanders. All other race/ ethnic groups showed no significant change in rates of low birth weight from 1994 to 2003.
- However, the rate of VLBW for American Indian/Alaska Native infants from 1994 to 2003 appears to have steadily increased although this upward trend was not statistically significant.

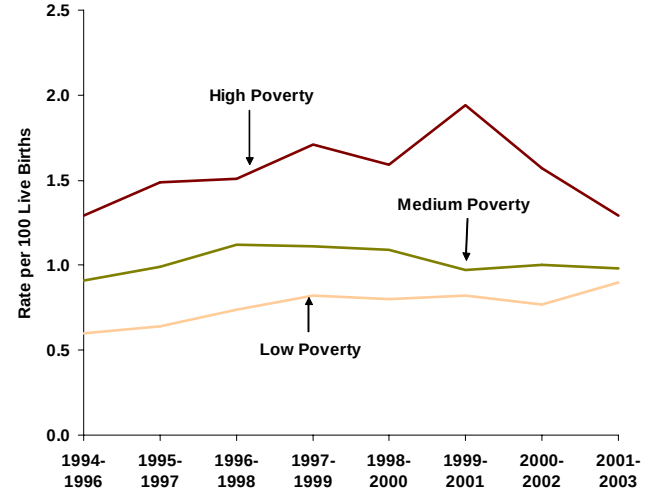
Very Low Birth Weight Rate by Race/Ethnicity, King County, 3-Year Rolling Averages, 1994-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Birth Certificate Data
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

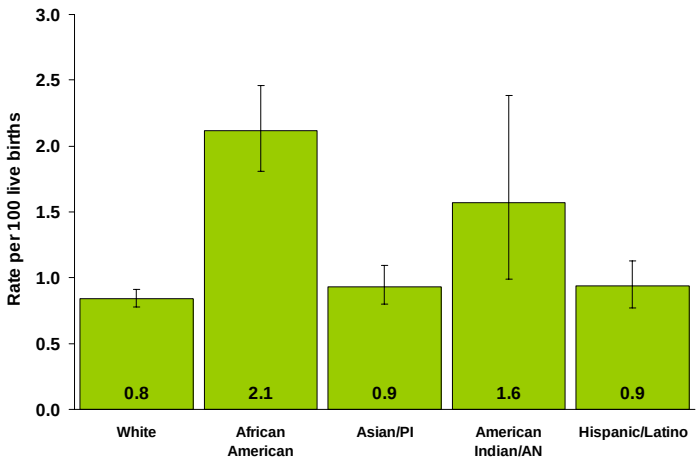
- From 1999-2003, the rate of VLBW for American Indian/Alaska Natives was twice the rate for whites and the difference was statistically significant. African American infants were almost three times the rate for whites during this time period. These differences are larger when the analysis is restricted to singleton births (data not shown).
- Mothers 40 years or older had significantly higher rates of VLBW compared to women between the ages of 18 and 39.

Very Low Birth Weight Rates by Neighborhood Poverty Level, King County, 3-Year Rolling Averages, 1994-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Birth Certificate Data
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

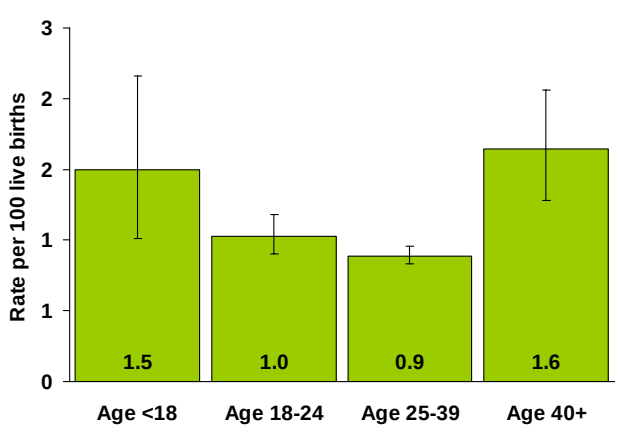
Very Low Birth Weight Rates By Race/Ethnicity, King County, 1999 - 2003 Combined



Data Source: Washington State Department of Health, Center for Health Statistics, Birth Certificate Data
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

- Over the last decade, high poverty neighborhoods consistently had significantly higher rates of VLBW than low poverty neighborhoods.
- From 1994-2003, rates of VLBW in low poverty neighborhoods have significantly increased.
- In the past 5 years, from 1999-2003, rates of VLBW have significantly decreased in high poverty neighborhoods .

Very Low Birth Weight Rates, By Age of Mother, King County, 1999 - 2003 Combined



Data Source: Washington State Department of Health, Center for Health Statistics, Birth Certificate Data
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

References

[1] U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. *Child Health USA 2004.* Rockville, Maryland: U.S. Department of Health and Human Services, 2004.

Preterm Delivery*

(A live birth prior to 37 completed weeks of gestation)

Most pregnancies last approximately 40 weeks. About 12% of babies nationwide are born preterm or before 37 completed weeks of pregnancy.[1]

Preterm delivery is a leading cause of infant death and the leading cause of death in the first month of life.[1,2] All preterm infants are at risk for serious health problems, but most of the serious illness and death is concentrated in the 1 to 2 percent of infants who are born at less than 32 weeks of gestation and who weigh less than 1500 grams.[3]

The costs associated with a preterm delivery are considerable and continue to be higher throughout the child's lifetime due to increased long-term health problems and chronic conditions. At the time of birth, direct health care costs to employers for a premature baby have been estimated to cost $41,610 —15 times higher than the $2,830 for a healthy, full-term delivery.[4]

In 2002, 12.8% or 2,784 births in King County were preterm which is well above the Healthy People 2010 goal of 7.6%. (see Public Health *Core Indicators* Seattle and King County for more information).

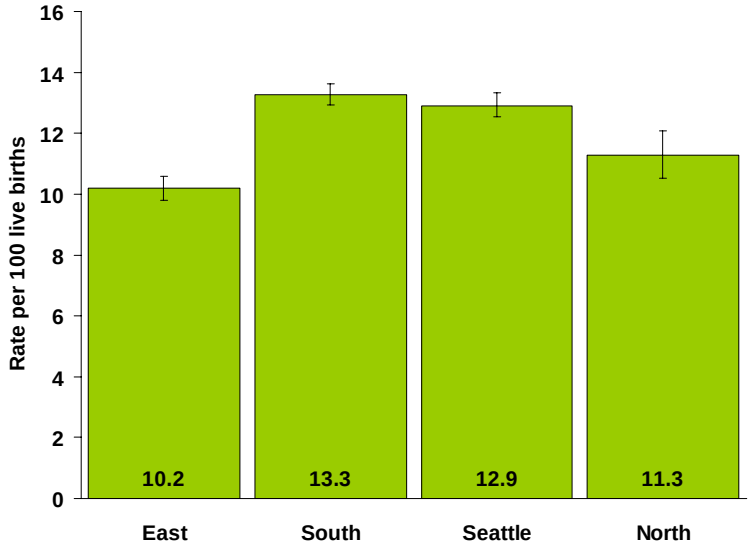
In comparison to 15 major metropolitan U.S.counties, King County had the 7th highest rate of preterm birth.

Every racial/ethnic group in King County had significantly higher rates of preterm delivery in comparison to whites. The highest rates of preterm delivery were seen among African American and American Indian/Alaska Native mothers. Although white women experienced the lowest rate of preterm birth, they still exceed the Healthy People 2010 goals.

King County and Regions

- From 1999-2003, rates of preterm birth were significantly higher in Seattle and the South Region compared to rates in the East and North Regions of King County.
- In 2003, 1,992 births were preterm, for a rate of 9.0%. Trends are not reported because of a change in the method for calculating gestational age, starting in 2003.

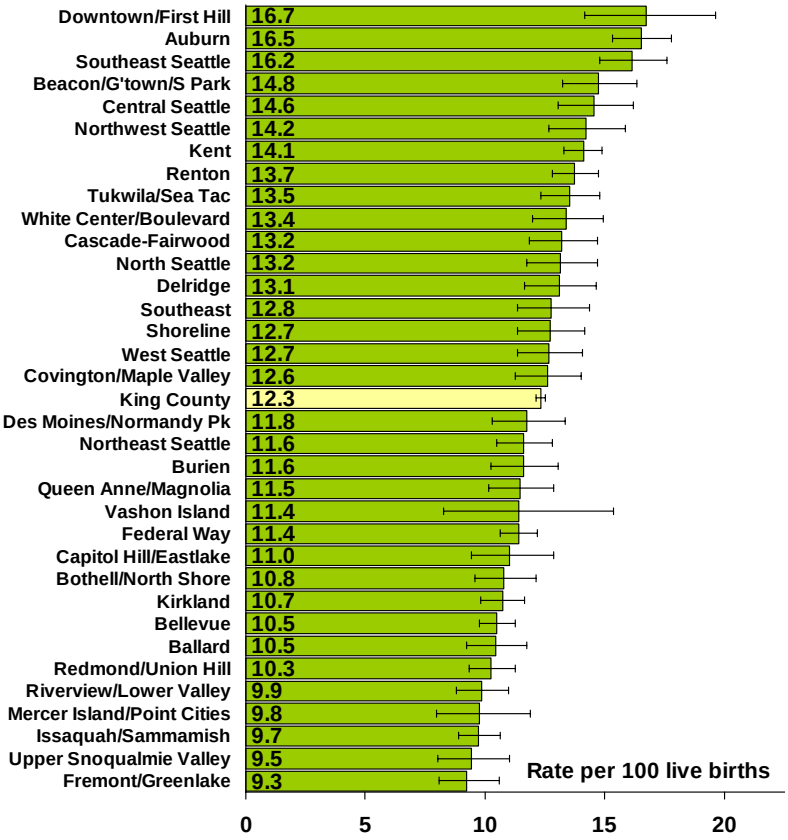
Preterm Birth Rates by Region, King County, 1999-2003 Combined



Data Source: Washington State Department of Health, Center for Health Statistics, Birth Certifcate Data
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

* The way preterm delivery is calculated from statistical files was recently modified by the Washington State Department of Health. The new calculations apply to past and current years, but were released too late to be incorporated in this report. When this section is updated it is expected that these figures will change.

Preterm Birth Rates by Health Planning Area, King County, 1999 - 2003 Combined



Data Source: Washington State Department of Health, Center for Health Statistics, Birth Certificate Data
Washington State Sub-County Population Estimates for Public Health, October 2004
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

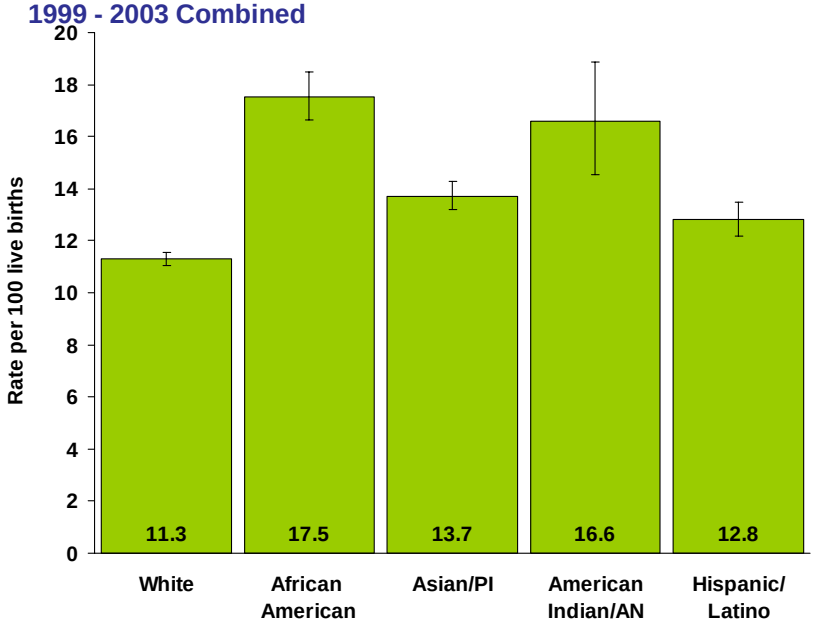
Patterns by Health Planning Area

- Small numbers within the different Health Planning Areas result in overlapping confidence intervals. However, Downtown/First Hill, Auburn, Southeast Seattle, Beacon Hill/Georgetown/South Park, Central Seattle, Northwest Seattle and Kent had the highest rates of preterm birth in King County.
- The lowest rates of preterm birth in King County were in the Kirkland, Bellevue, Ballard, Redmond/Union Hill, Riverview/ Lower Valley, Mercer Island/Point Cities, Upper Snoqualmie Valley, Fremont/Greenlake and Issaquah/ Sammamish Health Planning areas.

Focus on Disparities

- From 1999-2003 the highest rates of preterm birth were among African Americans (17.5%) and American Indian/ Alaska Natives (16.6%) compared to other racial/ethnic groups.
- During that same time period, 1999-2003, the rate of preterm birth for Asian/Pacific Islanders (13.7%) and Hispanic/Latinos (12.8%) was significantly higher than the rate for whites (11.3%).

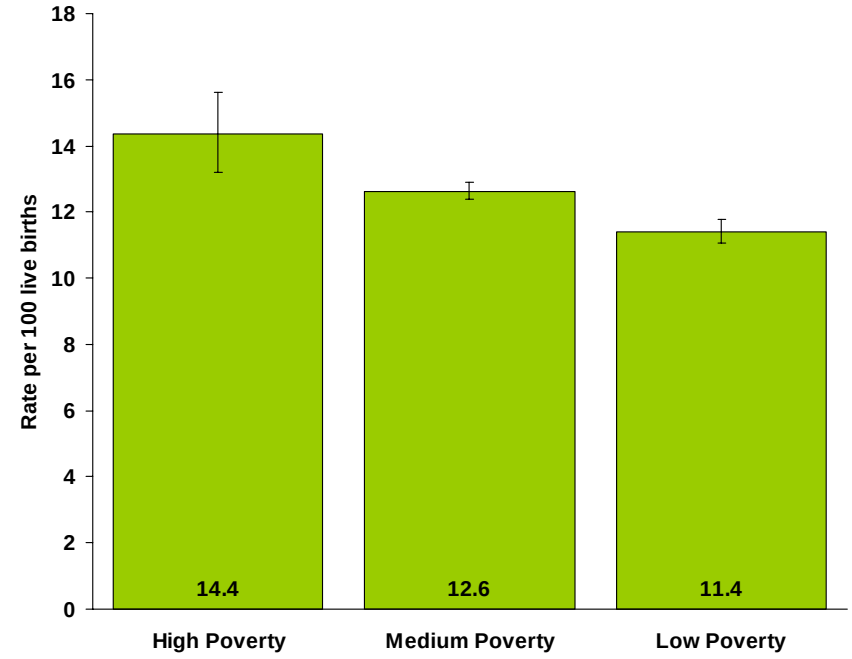
Preterm Birth Rates By Race/Ethnicity, King County, 1999 - 2003 Combined



Data Source: Washington State Department of Health, Center for Health Statistics, Birth Certifcate Data
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

- There is a significant relationship between neighborhood poverty level and the rate of preterm delivery. From 1999 to 2003, the lowest rates of preterm delivery were seen in the low poverty neighborhoods. The high poverty neighborhoods had significantly higher rates of preterm birth in comparison to medium and low poverty neighborhoods.

Preterm Birth Rates by Neighborhood Poverty Level, King County, 1999-2003 Combined



Data Source: Washington State Department of Health, Center for Health Statistics, Birth Certifcate Data
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

References

1 Martin JA, Hamilton BE, Sutton PD, et al. Births: Final data for 2003. National vital statistics reports; vol 54 no 2. Hyattsville, MD: National Center for Health Statistics. 2005.

2 Anderson RN, Smith BL. Deaths: Leading causes for 2002. National vital statistics reports; vol 53 no 17. Hyattsville, Maryland: National Center for Health Statistics. 2005.

3 Goldenberg RL, Hauth JC, Andrews WW. Intrauterine Infection and Preterm Delivery. NEJM 2000;342:1500-7.

4 March of Dimes website. Costs of Prematurity. http://www.marchofdimes.com/prematurity/15341_15349.asp

Late or No Prenatal Care

(Care beginning in the third trimester of pregnancy or no prenatal care at all during pregnancy)

Getting early and regular prenatal care is one of the best ways to promote a healthy pregnancy.

Prenatal care includes medical care provided to a pregnant woman to prevent complications and decrease the incidence of maternal and prenatal mortality. Prenatal care is more than just medical health care; it often includes education and counseling about how to handle different aspects of pregnancy, such as nutrition and physical activity, what to expect from the birth itself, and basic skills for caring for an infant.[1-2]

In 2002, 2.3% of women giving birth received late or no prenatal care, including 236 live births. (Data are not reported for the period after 2002 because of reliability problems.) King County had the 11th highest rate of 15 major metropolitan U.S. counties.

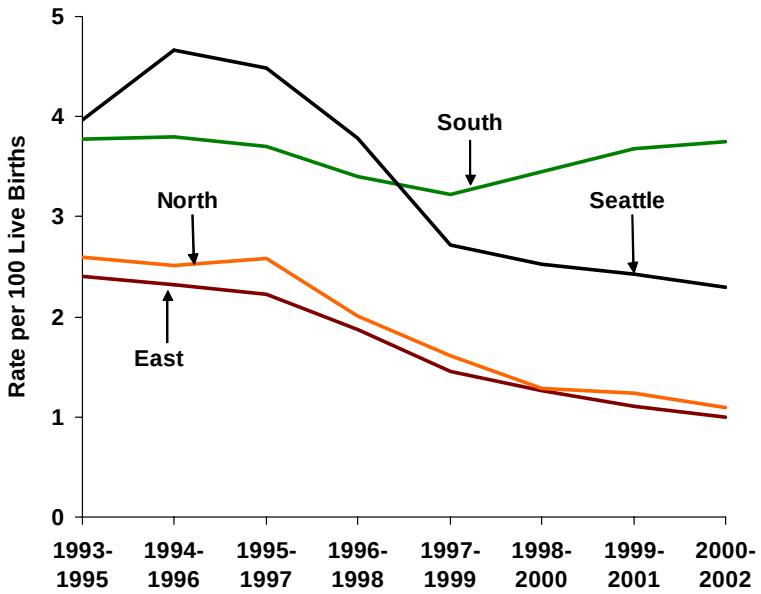
Significant disparities persist, with Latinas/Hispanics, African Americans, American Indian/Alaska Natives and Asian/Pacific Islanders have significantly higher rates than whites.

Disparities are also seen by poverty level of neighborhood, geographic region and Health Planning Area.

King County and Regions

- In 2002, 2.3% of women giving birth (including 236 births) received late or no prenatal care. There was a significant decline in King County from 1993, when the rate was 3.4%.
- From 1993 to 2002, there were significant declines in Seattle, East and North Regions of King County in the percentage of women giving birth who had received late or no prenatal care. South Region had no significant change from 1993 to 2002 in the percentage of women who received late or no prenatal care.
- The highest percentages of births with late or no prenatal care were consistently in Seattle and South Region.

Late or No Prenatal Care Rate by Region, King County, Three Year Rolling Averages, 1993- 2002

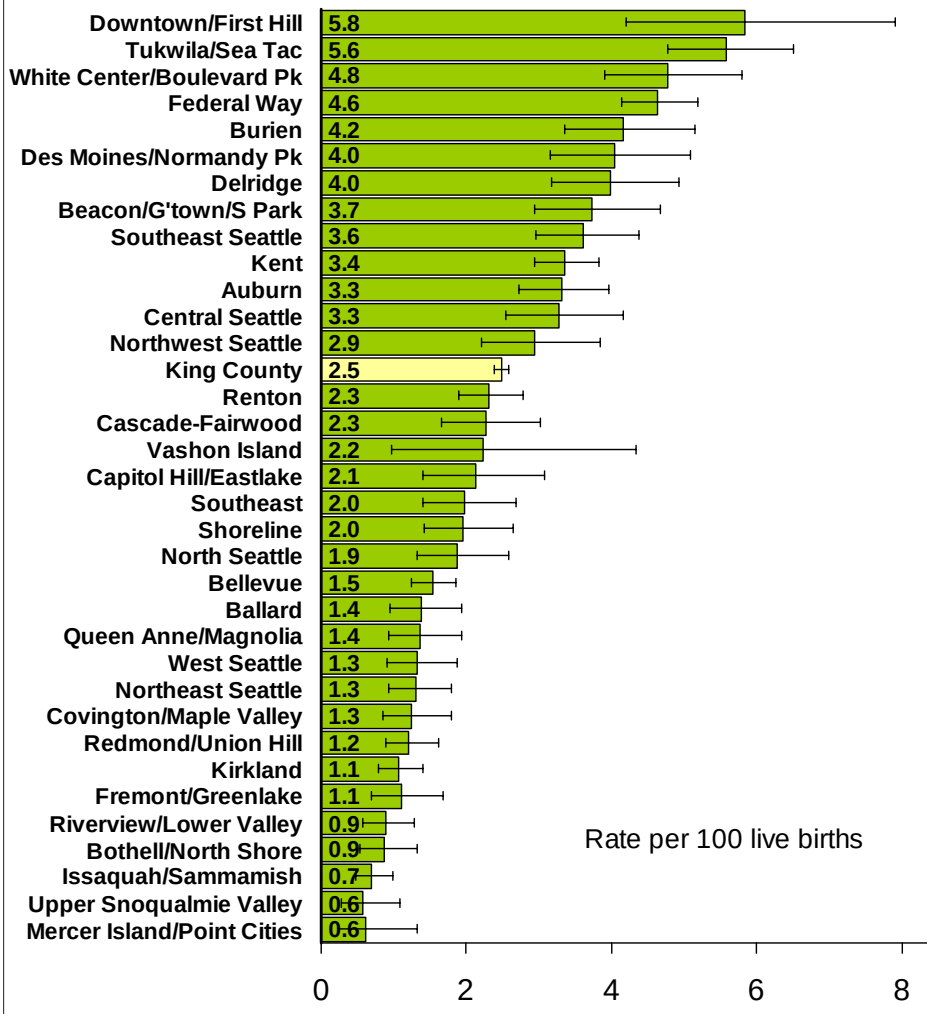


Data Source: Washington State Department of Health, Center for Health Statistics, Birth Certificate Data
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

Patterns by Health Planning Area

- Small numbers within the different Health Planning Areas result in overlapping confidence intervals. However, the Downtown/ First Hill, Tukwila/SeaTac, White Center/Boulevard Park, Federal Way, Burien, Delridge, Beacon Hill/ Georgetown/South Park, Southeast Seattle, Kent and Auburn Health Planning Areas had the highest rates of late or no prenatal care in King County.
- The lowest rates of late or no prenatal care in King County were in the Bellevue, Ballard, Queen Anne/Magnolia, West Seattle, Northeast Seattle, Covington/Maple Valley, Redmond/Union Hill, Kirkland, Fremont/ Greenlake, Riverview/Lower Valley, Bothell/North Shore, Issaquah/Samamish, Upper Snoqualmie Valley, and Mercer Island/Point Cities Health Planning Areas.

Late or No Prenatal Care Rates by Health Planning Area, King County, 1998 - 2002 Combined

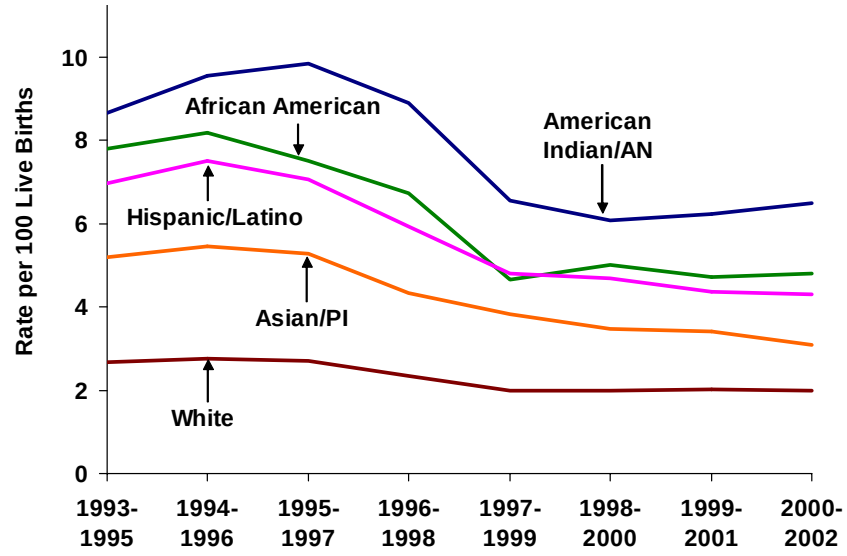


Data Source: Washington State Department of Health, Center for Health Statistics, Birth Certificate Data
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

Focus on Disparities

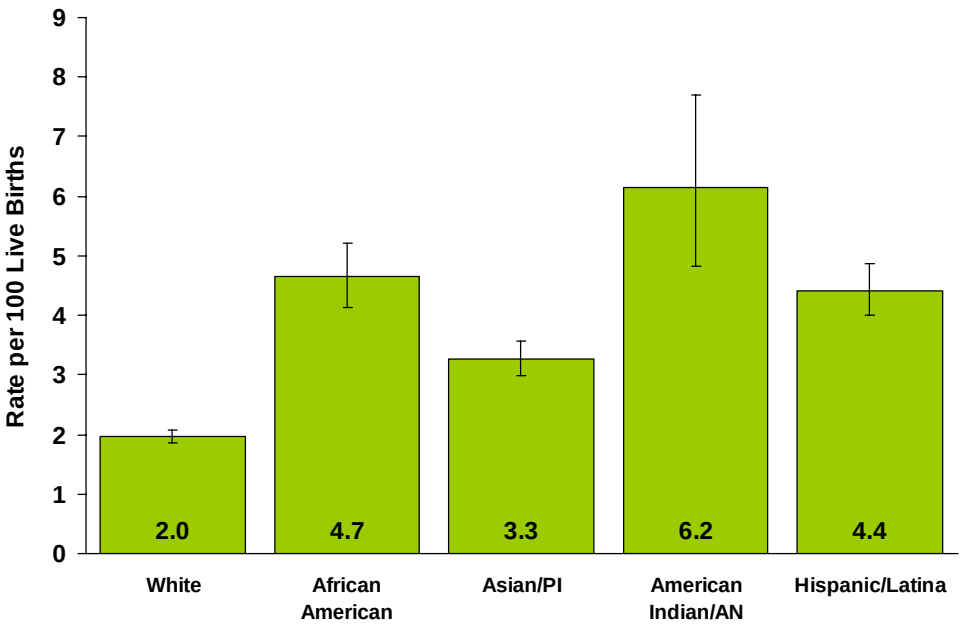
- Over the last decade, from 1993-2002, for all race/ethnic groups, there have been significant declines in the percentage of women that received late or no prenatal care.

Late or No Prenatal Care Rate by Race/Ethnicity, King County, 3-Year Rolling Averages, 1993-2002



Data Source: Washington State Department of Health, Center for Health Statistics, Birth Certificate Data
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

Late or No Prenatal Care Rates, By Race/Ethnicity, King County, 1998 - 2002 Combined

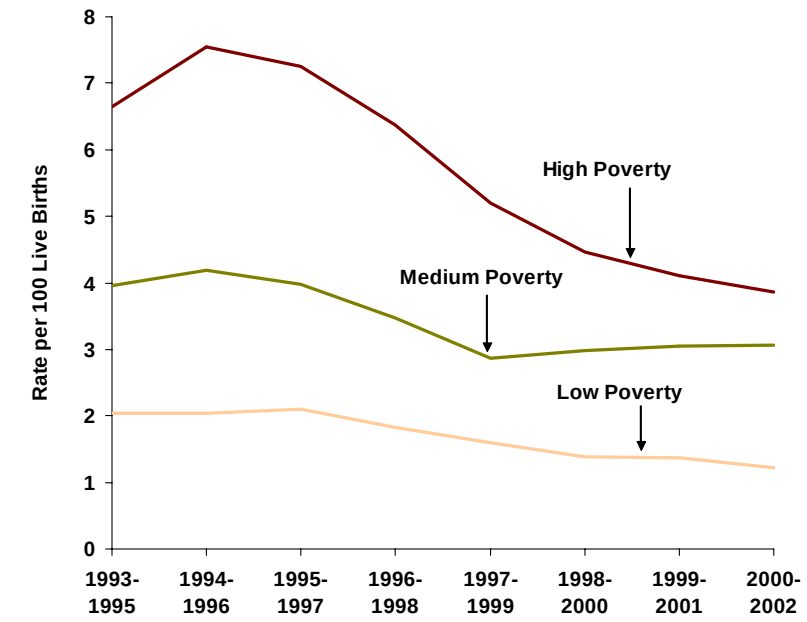


Data Source: Washington State Department of Health, Center for Health
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation, Birth Certificate Data

- Despite these dramatic declines, significant disparities persist. American Indian/Alaska Native mothers are three times as likely, African Americans and Hispanic/Latinas twice as likely, and Asian/Pacific Islanders one and a half times more likely to have received late or no prenatal care compared to white mothers.

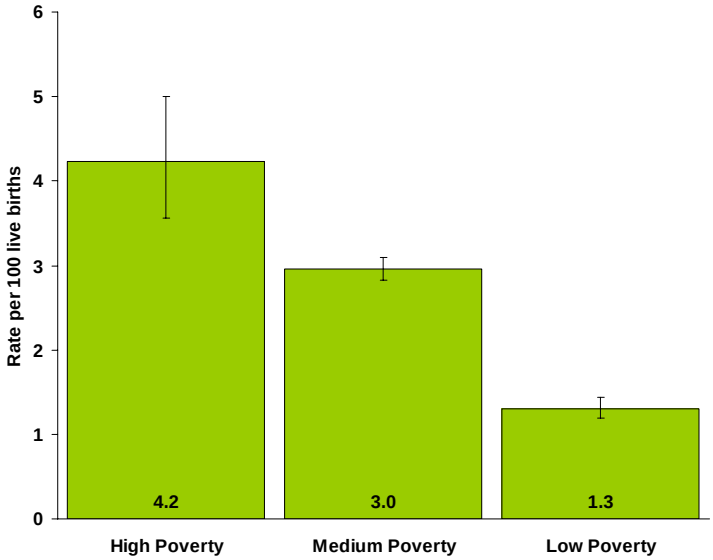
- From 1993-2002, there have been statistically significant declines within each of the three different levels of neighborhood poverty in the percentages of pregnant women receiving late or no prenatal care.
- Over the last decade, high poverty neighborhoods consistently have had significantly higher rates of late or no prenatal care than low poverty neighborhoods. From 1998-2002, the percentage of pregnant women in high poverty neighborhoods receiving late or no prenatal care was over three times that of low poverty neighborhoods. Medium poverty neighborhoods had a rate of late or no prenatal care that was more than twice that of low poverty neighborhoods.

Late or No Prenatal Care Rates by Neighborhood Poverty Level, King County, 3-Year Rolling Averages, 1993-2002



Data Source: Washington State Department of Health, Center for Health Statistics, Birth Certificate Data
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

Late or No Prenatal Care Rates by Neighborhood Poverty Level, King County, 1998 - 2002 Combined



Data Source: Washington State Department of Health, Center for Health Statistics, Birth Certificate Data
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

References

[1] National Center for Health Statistics Health, United States, 2004. With Chartbook on Trends in the Health of Americans. Hyattsville, Maryland: 2004. http://www.cdc.gov/nchs/data/hus/hus04trend.pdf#006

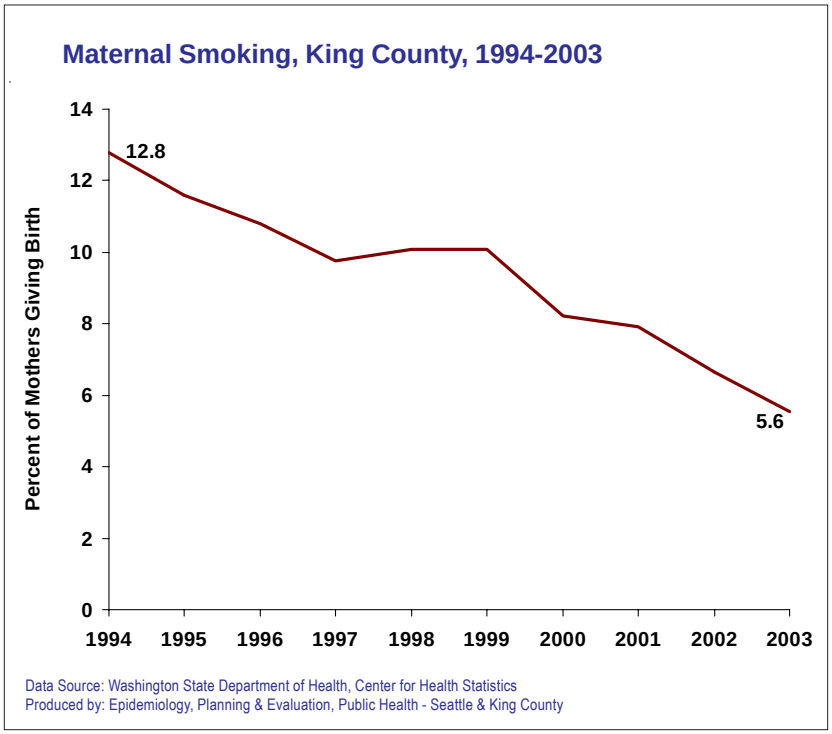
[2] National Institutes of Health, National Institute of Child Health and Human Development. Care Before and During Pregnancy—Prenatal Care, http://www.nichd.nih.gov/about/womenhealth/prenatal_care.cfm

Maternal Smoking

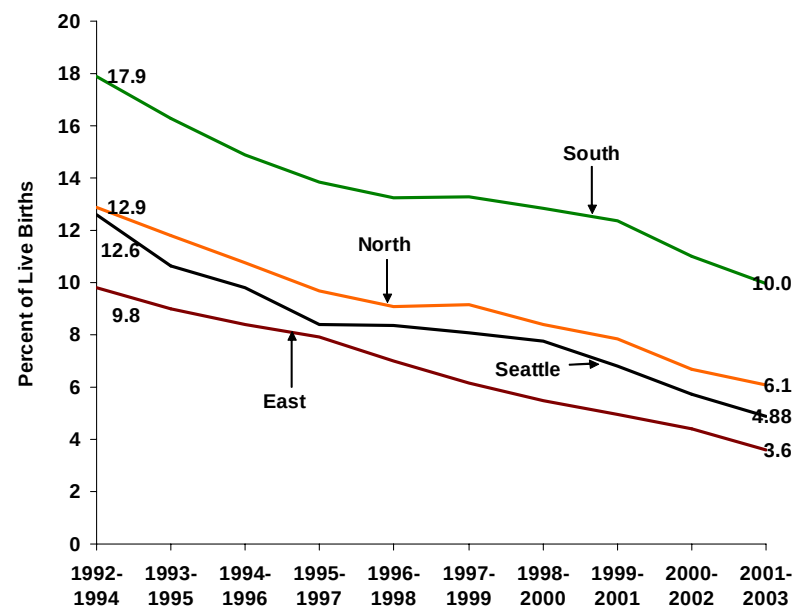
- Smoking during pregnancy is the single most preventable cause of death among mothers and infants.[1] It increases the risk of low birth weight, infant respiratory problems, birth complications and preterm delivery. Smoking is also the major cause of lung cancer and causes a host of other serious diseases.
- Maternal smoking in King County decreased sharply in the last 10 years. In 2003, 5.6% of mothers (1,215 women) giving birth here smoked during pregnancy.
- Despite the sharp decline, the King County rate exceeds the Healthy People 2010 objective of 1% maternal smoking.
- Declines were also seen in all four regions, in all race/ethnic groups and in high, medium and low poverty neighborhoods. However, since 1994, South County lost ground relative to other regions, while other regional disparities, and gaps by race and poverty remained as wide as they were 10 years ago.

King County and Regions

- From 1994 to 2003, maternal smoking in King County declined by more than half, to 5.6% of live births.



Maternal Smoking by Region, King County, 1992-2003



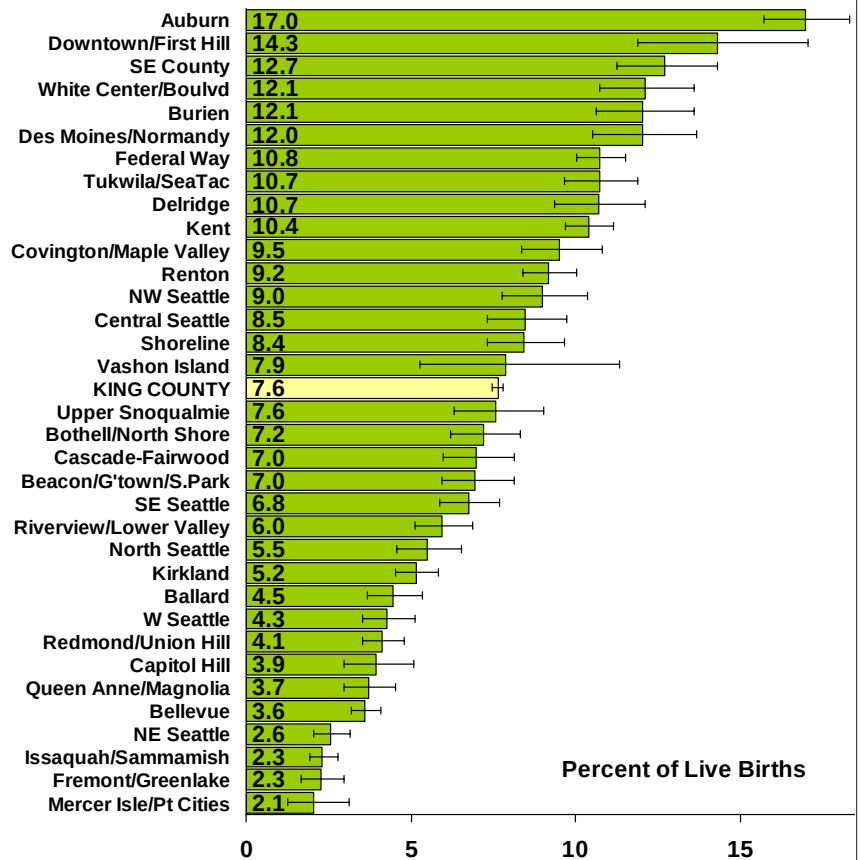
Data Source: Washington State Department of Health, Center for Health Statistics
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

- Maternal smoking went down steadily in all regions. However, South County declined less sharply than the other regions. Specifically, by 2001-2003, East Region maternal smoking rates had fallen 62% since 1992-1994, while South Region rates fell only 44% during this period. Thus, the 1992 South County rate was 1.8 times the East County rate, but in 2001-2003 the disparity had grown to 2.8 times.
- South County's share of 60% of the total number of maternal smoking births (an average of 841 per year from 2001-2003 in South County) is the largest of any region. (South County had only 40% of the total number of live births during this period.)

Patterns by Health Planning Area

- In the chart on the right, all Health Planning Areas from Auburn to Renton had rates above the King County average, while all HPAs from Riverview/ Lower Valley to Mercer Island/ Point Cities had rates below the county average. Auburn's rate was over eight times the rate in Mercer Island/Point Cities.

Maternal Smoking by Health Planning Area, King County, 5-year Average, 1999-2003

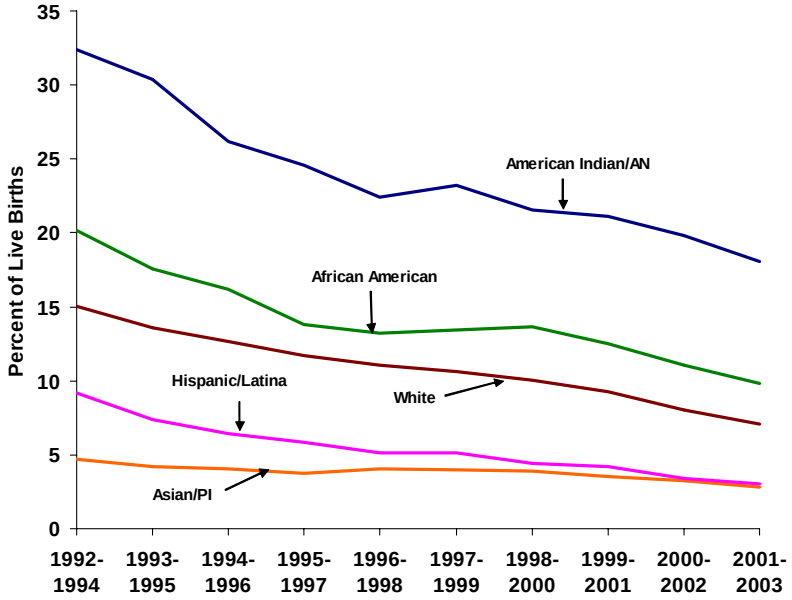


Data Source: Washington State Department of Health, Center for Health Statistics
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

Focus on Disparities

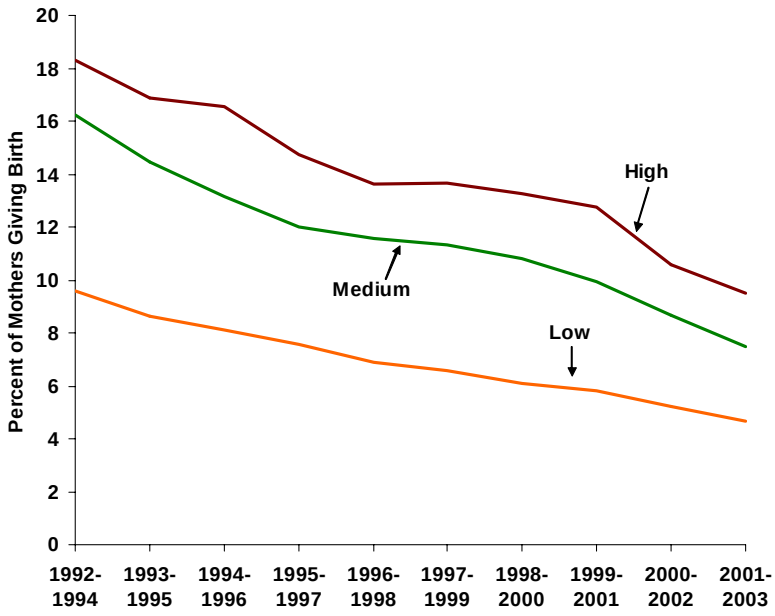
- Maternal smoking rates declined in all race/ethnicity groups between 1994 and 2003. They declined most sharply in Hispanic/Latinas, falling by two-thirds to 3.0% of live births. American Indian/Alaska Natives consistently had the highest rates (18.1% in 2001-2003), while Asian or Pacific Islanders had the lowest (2.9% in 2001-2003).

Maternal Smoking by Race/Ethnicity, King County, 3-year Rolling Averages, 1992-2003



Data Source: Washington State Department of Health, Center for Health Statistics
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

Maternal Smoking by Neighborhood Poverty Level, King County, 3-year Rolling Averages, 1992-2003



Data Source: Washington State Department of Health, Center for Health Statistics
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

- The rates also declined in high-, medium- and low-poverty neighborhoods.

Resources

[1] Centers for Disease Control and Prevention (2005): "Maternal and Infant Health: Smoking During Pregnancy," available at http://www.cdc.gov/reproductivehealth//MaternalInfantHealth/related/SmokingPregnancy.htm, accessed 1/2006.

Adolescent Birth

(births to females 15-17 years of age)

As a group, adolescent mothers (15-17 years) and their children face a future at greater risk of a host of adverse consequences.

Teen mothers are less likely to complete their schooling and more likely to be single parents, thus increasing the chances that they will be poor and dependent as young adults.[1-3] Teen moms are also more likely to have poor birth outcomes compared to mothers 18 and over.

Over the last ten years, the adolescent birth rate in King County has decreased significantly (see Public Health *Core Indicators* Seattle and King County for more information).

In comparison to 15 major metropolitan U.S. counties, King County had the lowest rate of adolescent birth (10.1 per 1,000 live births).

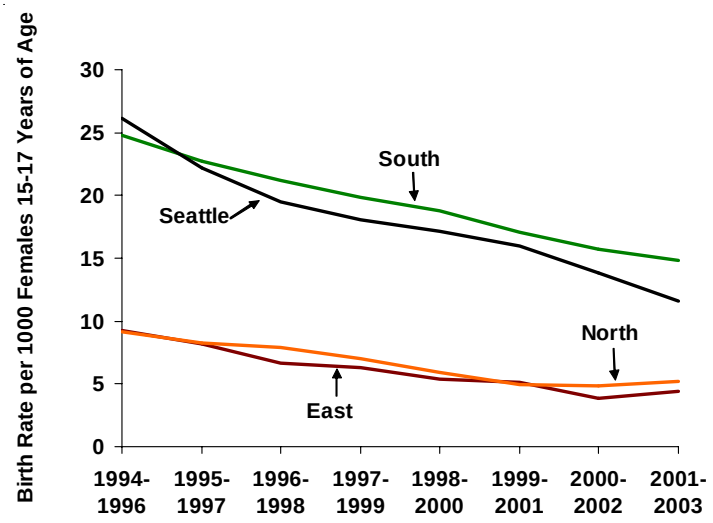
In spite of the dramatic decreases in rates of adolescent birth, significant disparities persist with Latinas/ Hispanics, African Americans and American Indian/Alaska Natives having significantly higher rates than whites and Asian/Pacific Islanders.

Disparities persist by level of neighborhood poverty and geographic region and health planning areas within King County with high poverty neighborhoods and South Region and Seattle showing the highest rates (additional information can be viewed in Adolescent Pregnancy, Birth and Abortion).

King County and Regions

- From 1994 to 2003, there were significant declines in the rates of adolescent birth in King County.
- The highest rates of adolescent birth were consistently in Seattle and South Region.

Adolescent Birth Rates by Region, King County, 3-Year Rolling Averages, 1994-2003

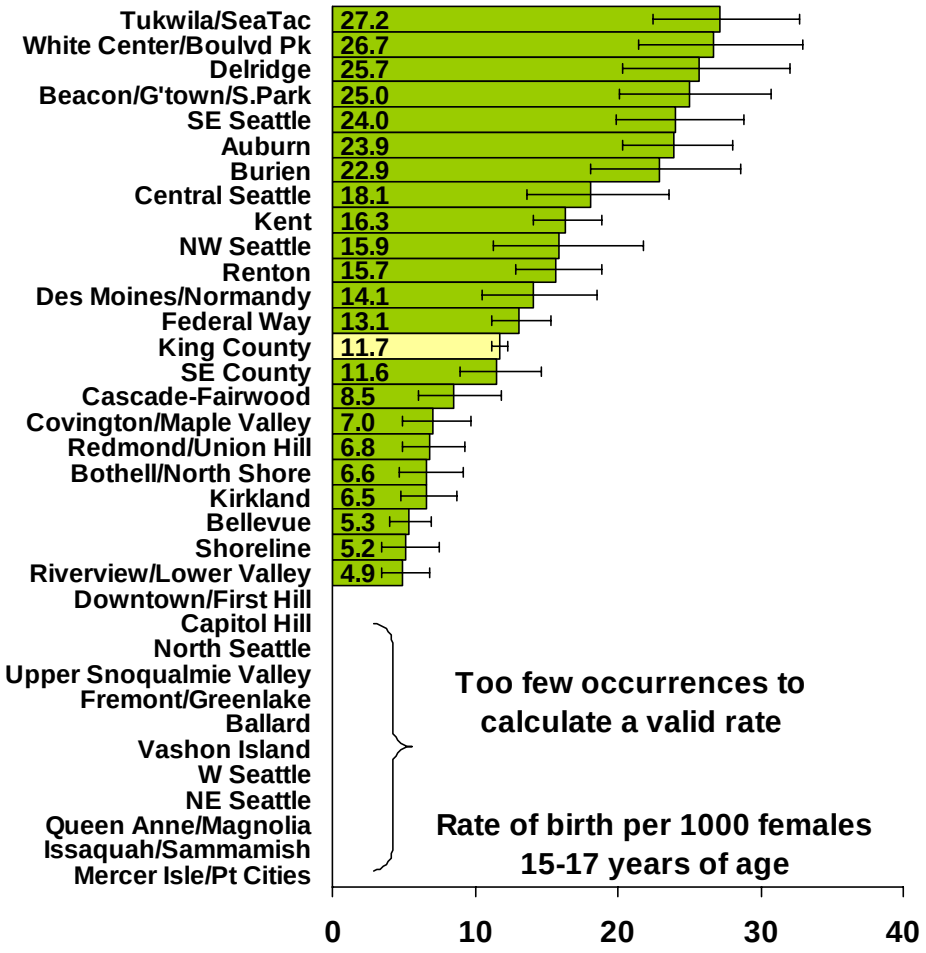


Data Source: Washington State Department of Health, Center for Health Statistics, Birth Certificate Data
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

Patterns by Health Planning Area

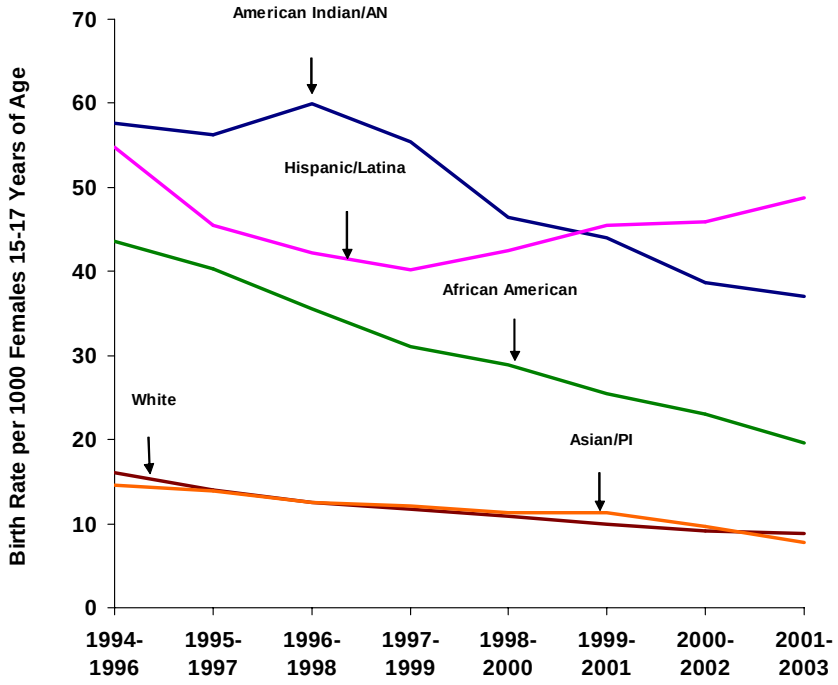
- Small numbers within the different Health Planning Areas result in overlapping confidence intervals. However, the Tukwila/ SeaTac, White Center/ Boulevard Park, Delridge, Beacon Hill/Georgetown/ South Park, Southeast Seattle, Auburn and Burien Health Planning Areas had the highest rates of adolescent birth in King County.
- The lowest rates of adolescent birth in King County were in the Covington/ Maple Valley, Redmond/ Union Hill, Bothell/North Shore, Kirkland, Bellevue, Shoreline and Riverview/ Lower Valley Health Planning areas.

Adolescent Birth Rate by Health Planning Area, King County, 1999-2003 Combined



Data Source: Washington State Department of Health, Center for Health
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation, Birth Certificate Data

Adolescent Birth Rates by Race/Ethnicity
King County, 3-Year Rolling Averages, 1994-2003



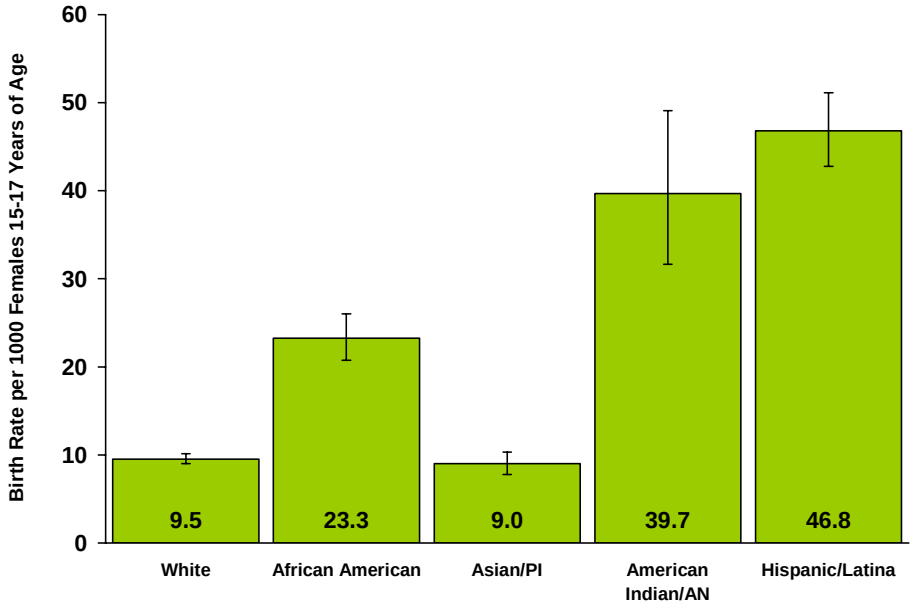
Data Source: Washington State Department of Health, Center for Health Statistics, Birth Certificate Data
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

Focus on Disparities

- Over the last decade, from 1994-2003, adolescent birth rates have consistently been significantly higher for African Americans, American Indian/ Alaska Natives, and Hispanic/ Latinas compared to whites and Asian/Pacific Islanders.
- From 1994-2003, adolescent birth rates decreased significantly for all race/ethnic groups except for Hispanic/Latinas.

- Since 1997-1999, there appears to be an upward trend in adolescent births in Hispanic/Latinas, although this was not statistically significant.
- From 1999-2003, the rate of adolescent birth for Hispanic/Latinas was over four times the rate for whites and Asian/Pacific Islanders. The rate for American Indian/ Alaska Natives was nearly four times the rate for whites and Asian/Pacific Islanders. For African Americans the rate of adolescent birth was twice that for whites and Asian/Pacific Islanders.
- From 1994 to 1998, all race/ethnic groups, except for American Indian/Alaska Natives, declined. But from 1998 to 2003, while other groups continued a significant downward trend, Hispanic/Latina rates flattened and went up, although the increase was not significant.

Adolescent Birth Rates By Race/Ethnicity,
King County, 1999 - 2003 Combined



Data Source: Washington State Department of Health, Center for Health Statistics, Birth Certificate Data
Produced By: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

References

[1] *Whatever Happened to Childhood? The Problem of Teen Pregnancy in the United States*. Washington, DC: National Campaign to Prevent Teen Pregnancy;1997; Maynard RA, Ed. *Kids Having Kids: Economic Costs and Social Consequences of Teen Pregnancy*. Washington, DC: The Urban Institute Press;1997.

[2] Sawhill IV. Teen pregnancy prevention: Welfare reform's missing component. Brookings Policy Brief38; 1998:1-8. Avalilable at: http://www.brook.edu/comm/PolicyBriefs/pb038/pb38.htm.

[3] Ventura SJ, Martin JA, Curtin SC, Mathews TJ. Births: Final data for 1997. National Vital Statistics Reports. Atlanta, GA: Centers for DDisease Control; 1999. Vol. 47, No.18. Available at: http://www.cdc.gov/nchs/data/nvsr/nvsr47/nvs47_18.pdf.

For more information see: http://www.metrokc.gov/health/datawatch/adolescent-pregnancy.pdf

Health of King County 2006

Risk Factors for Chronic Disease and Injury

Introduction

Smoking

Overweight and Obesity

Physical Inactivity

Hypertension

High Blood Cholesterol

Alcohol Misuse

Seatbelt Use and Bicycle Helmet Use

Access to Firearms

Public Health
Seattle & King County
HEALTHY PEOPLE. HEALTHY COMMUNITIES.

5

Introduction

This chapter discusses some of the factors that are associated with increased risk for developing chronic diseases and suffering injury. The most important risk factors for chronic diseases include cigarette smoking, obesity, physical inactivity, high blood pressure, high blood cholesterol, and alcohol misuse. These factors are associated with the leading causes of death (such as heart disease, cancer, and stroke) and many other illnesses.

Results presented in this chapter on behavioral risk factors are based on the Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS is a telephone survey of non-institutionalized adults age 18 and older. The 2004 Washington State Healthy Youth Survey provides supplemental information on behavioral risk factors among King County students in grades 6, 8, 10, and 12.

Behavioral Risk Factor Prevalence (%) Among Adults in King County, Washington State, and the United States

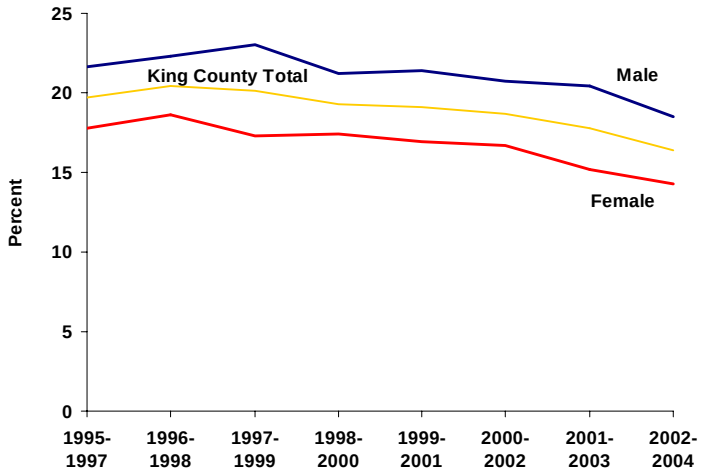
	King County	WA State	United States	HP 2010 Objective
Current smoking 2004	15.2	19.2	20.8	12.0
Obesity 2004*	17.7	21.7	22.2	15.0
No physical activity 2004**	14.5	17.2	22.8	20.0
High blood Pressure 2003	21.8	23.8	24.8	16.0
Cholesterol checked within 5 years 2003	73.5	72.7	72.8	80.0
Total blood cholesterol ≥240 mg/dL 2003	31.2	33.3	33.1	NA
Binge drinking 2004	15.7	14.2	14.9	6.0
Heavy alcohol drinking 2004	5.9	4.8	4.5	NA
Seatbelt Use 2002***	89.0	75.8	69.0	92.0
Unsafe Firearm Storage 2004 ****	13.4	NA	19.0	16.0

* The US rate is for 2002.
** King County and WA State have reached the U.S. Healthy People 2010 objective for this indicator.
*** The WA rate is for 1997 and the U.S. rate is for 1998.
**** King County has reached the U.S. Healthy People 2010 objective for this indicator. The U.S. rate is for 1998.

Smoking

- **Cigarette smoking is a major risk factor for a variety of diseases such as heart disease, lung cancer, and chronic lower respiratory disease.**
- **In King County, 30% of all deaths, 60% of all cancer deaths, 78% of the lung cancer deaths, 13% of the cardiovascular disease deaths, and 57% of the deaths from respiratory diseases were caused by cigarette smoking.[1]**
- **In 2004, 15.6% of King County adults were current smokers, higher than the Healthy People 2010 objective of 12.0%.**
- **The smoking prevalence among King County adults declined significantly between 1995 and 2004, from 19.7% during 1995-1997 to 16.5% during 2002-2004, and the decline was significant in both men and women.**

Current Smoker Among King County Adults by Gender Three-Year Rolling Averages, 1995-2004

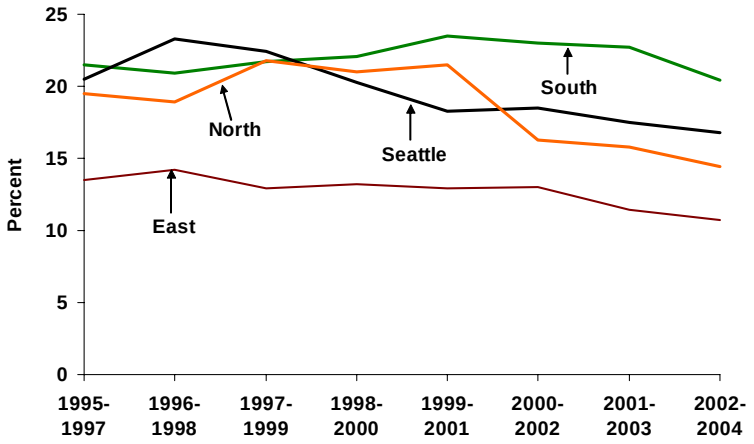


Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

King County and Regions

- Between 1995 and 2004, the only significant decline in the smoking rate occurred in Seattle.
- The East Region consistently had significantly lower rates than the other regions.
- The South Region had significantly higher rates than the other regions during the most recent years.
- See Public Health Core Indicators for Seattle & King County for more information.

Current Smoker Among King County Adults by Region, Three-Year Rolling Averages, 1995-2004

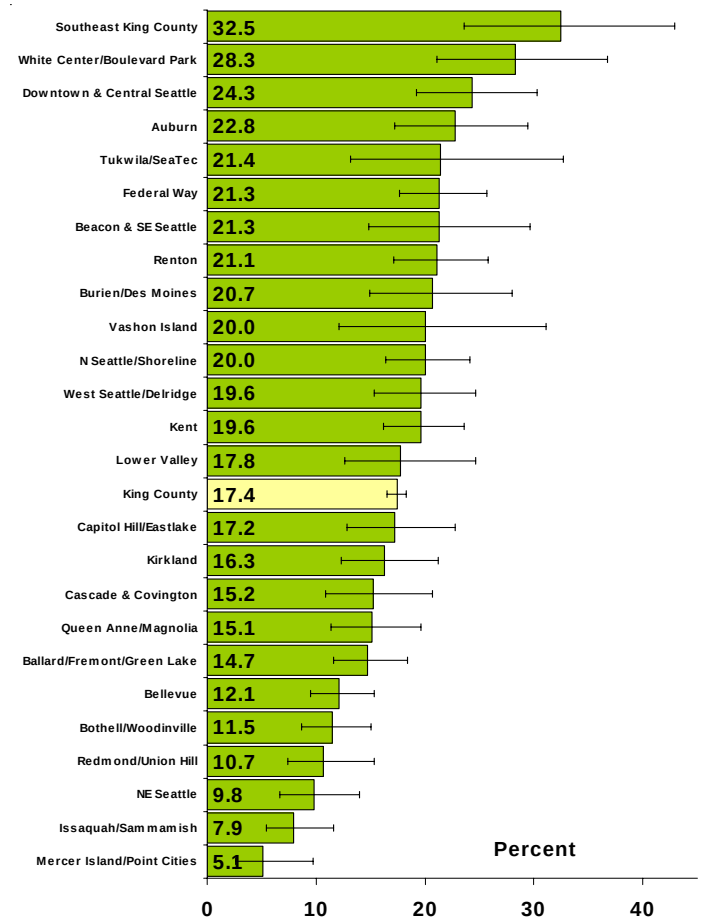


Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Patterns by Health Planning Area

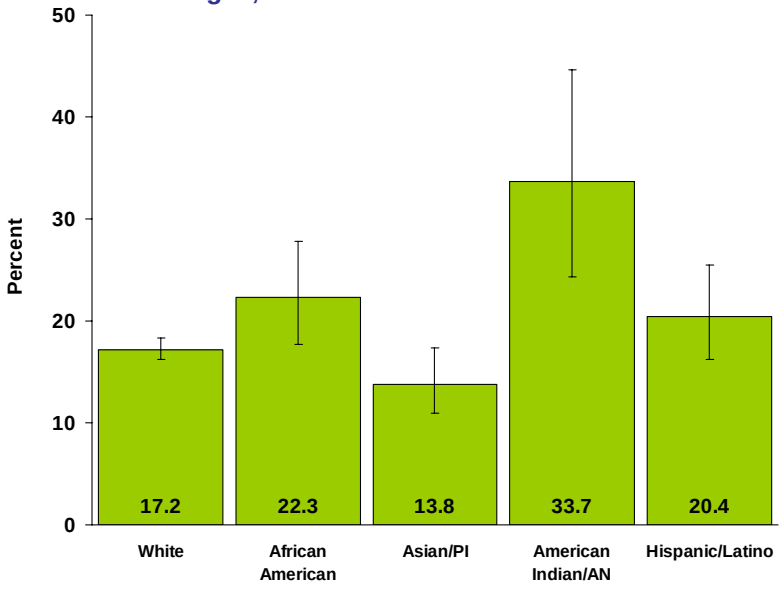
- Among the Health Planning Areas, the smoking prevalence rates in Southeast King County, White Center/Boulevard Park, and Downtown/Central Seattle were significantly higher than the King County average rate.
- The smoking prevalence rates in Mercer Island/Point Cities, Issaquah/ Sammamish, Northeast Seattle, Redmond/Union Hill, Bothell/Woodinville, and Bellevue were significantly lower than the county average.

Current Smoking Among King County Adults by Health Planning Area, 2000-2004 Averages



Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Current Smoker Among King County Adults by Race/Ethnicity, Five-Year Averages, 2000-2004



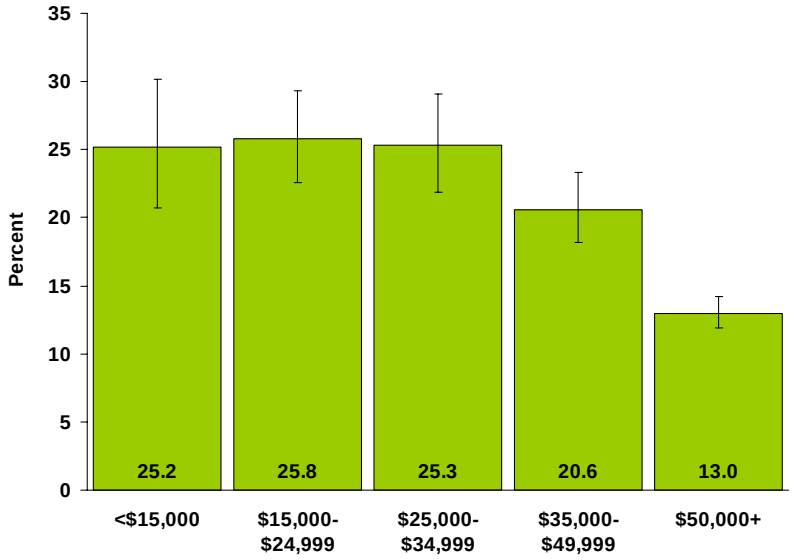
Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Focus on Disparitities

- American Indian/Alaska Natives had a significantly higher smoking rate than whites. African Americans also had a relatively higher rate.

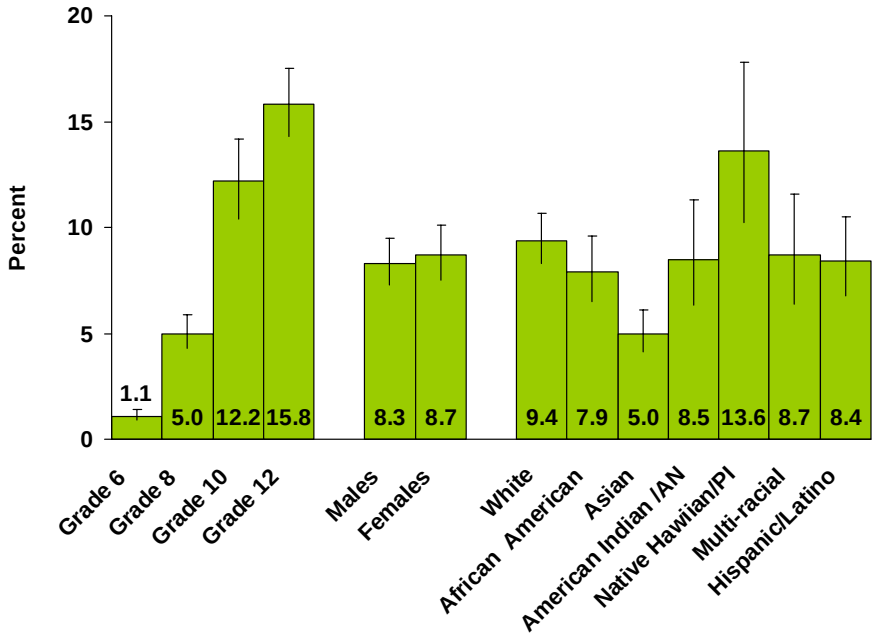
- Adults from higher income households had a significantly lower smoking rates.
- In 2003-2004, adults whose sexual orientation is gay/lesbian/bisexual had a significantly higher smoking rate (26.6%, 95% CI: 20.7%-33.4%) than heterosexual adults (15.0%, 95% CI: 13.9%-16.2%) (data not shown).

Current Smoker Among King County Adults by Annual Household Income, Five-Year Averages, 2000-2004



Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Current Smoker Among Students in Grade 6, 8, 10, and 12 in King County, 2004



Data Source: Washington State Healthy Youth Survey.
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Smoking Among Youth

- The 2004 Washington State Healthy Youth Survey provides the most recent data on smoking among King County students in grades 6, 8, 10, and 12. In 2004, 5.0% of grade 8 students and 15.8% of grade 12 students in King County were current smokers (smoked every day or some days during the past 30 days).
- The current smoker prevalence was similar between male and female students.
- Native Hawaiian/Pacific Islander students had higher than average smoking rates while Asian students had lower than average rates.

References

[1] Estimated using SAMMEC (Smoking-Attributable Mortality, Morbidity, and Economic Costs), an online application developed by the CDC (http://apps.nccd.cdc.gov/sammec/intro.asp) using 2000-2004 King County smoking prevalence (current and former), and 2001-2003 King County mortality and life expectancy data.

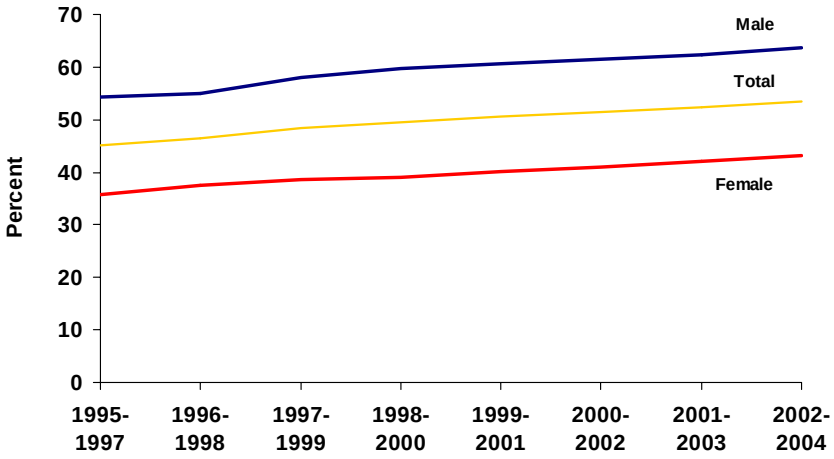
Overweight and Obesity

- **Obesity is the second leading cause of preventable death.**
- **Overweight and obesity increase the risk of coronary heart disease, stroke, hypertension, diabetes, gallbladder disease, osteoarthritis, sleep apnea, respiratory problems, and endometrial, breast, prostate, and colon cancers.**
- **In this report, overweight and obesity for adults are defined by Body Mass Index (BMI), a ratio of weight to height (weight in kg / (height in m^2). Overweight is defined as a BMI between 25.0 and 29.9 and obese as a BMI of 30 or above. "Overweight and obesity" refers to BMI $\geq$ 25.**
- **Similar to the national trend, the prevalence of overweight and obesity among King County adults continued to increase between 1995 and 2004 in both men and women.**
- **In 2004, 54.4% of the King County adults were either overweight (36.7%) or obese (17.7%).**
- **National data show that the prevalence of overweight has also been increasing among children.[1]**

King County and Regions

- Between 1995 and 2004, increasing trends were observed in all regions except the North Region, where the increasing trend was not statistically significant.
- The overweight and obesity rates have been consistently higher in the South Region and lower in Seattle.

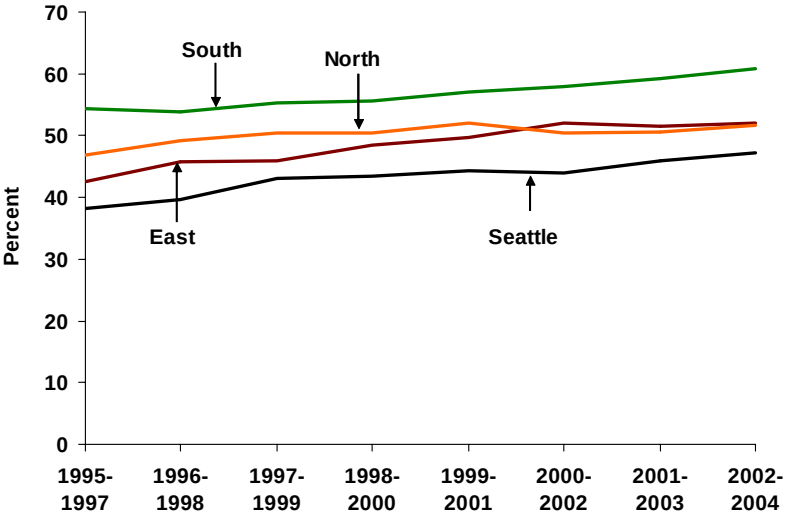
Overweight and Obesity Among King County Adults by Gender Three-Year Rolling Averages, 1995-2004



Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

- See Public Health Core Indicators for Seattle & King County for more information about overweight and obesity.

Overweight and Obesity Among King County Adults by Region Three-Year Rolling Averages, 1995-2004

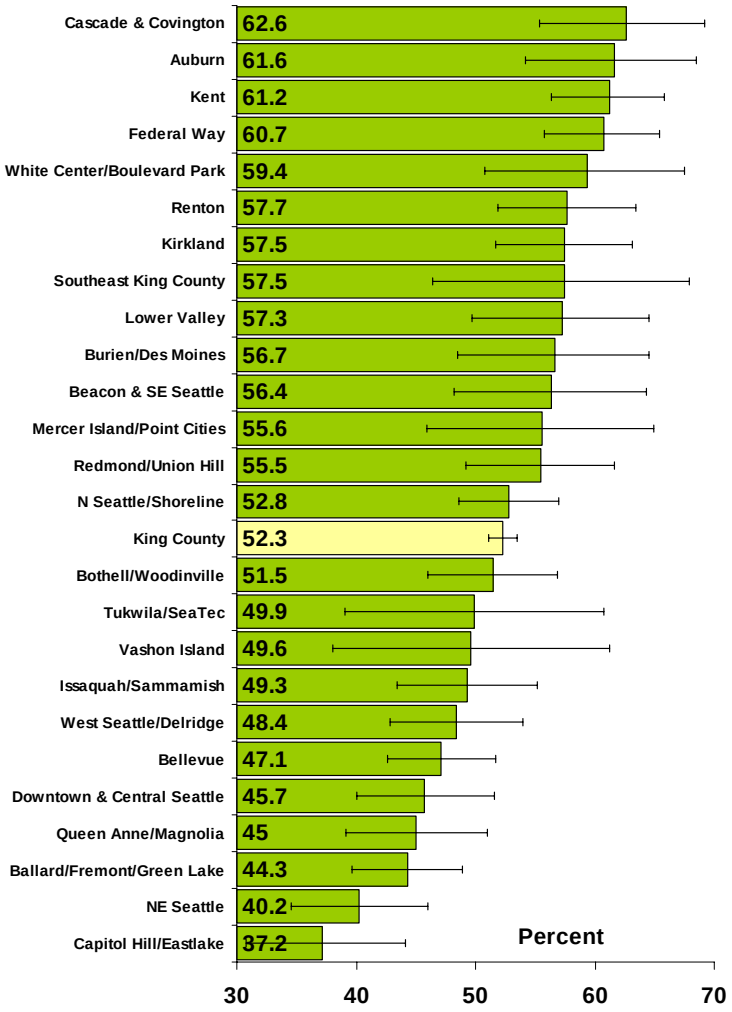


Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Patterns by Health Planning Area

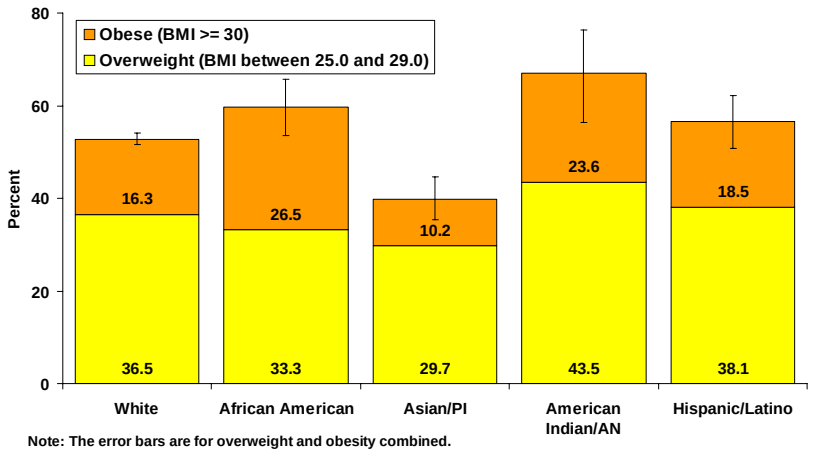
- The overweight and obesity rates in Cascade & Covington, Auburn, Kent, and Federal Way were significantly higher than the King County average.
- Capitol Hill/Eastlake, Northeast Seattle, Ballard/Fremont/Green Lake, and Queen Anne/Magnolia had significantly lower overweight and obesity rates.

Overweight and Obesity Among King County Adults by Health Planning Area, 2000-2004 Averages



Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Overweight and Obesity among King County Adults by Race/Ethnicity, 2000-2004 Averages



Note: The error bars are for overweight and obesity combined.

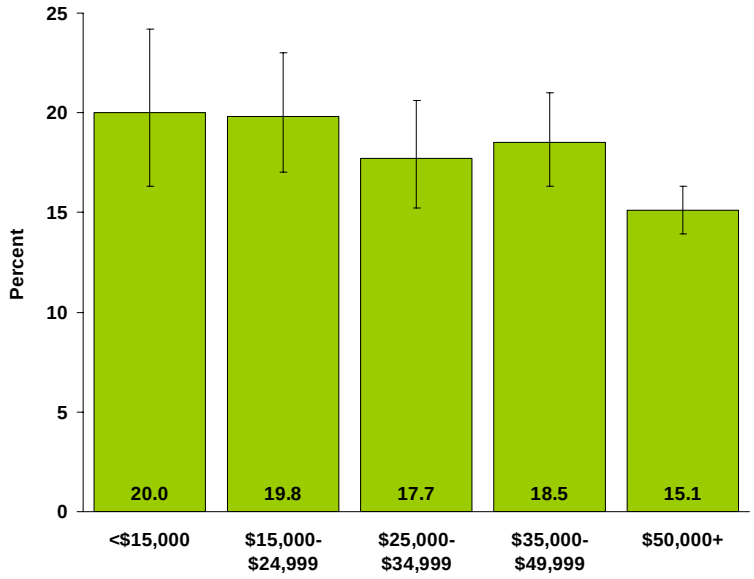
Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Focus on Disparities

- Averaged over 2000-2004, the prevalence of overweight and obesity among American Indian/ Alaska Native (67.1%) was significantly higher than the white rate (52.8%). African Americans also had higher overweight and obesity prevalence (59.8) and their obesity prevalence (26.5%) was significantly higher than whites (16.3%).

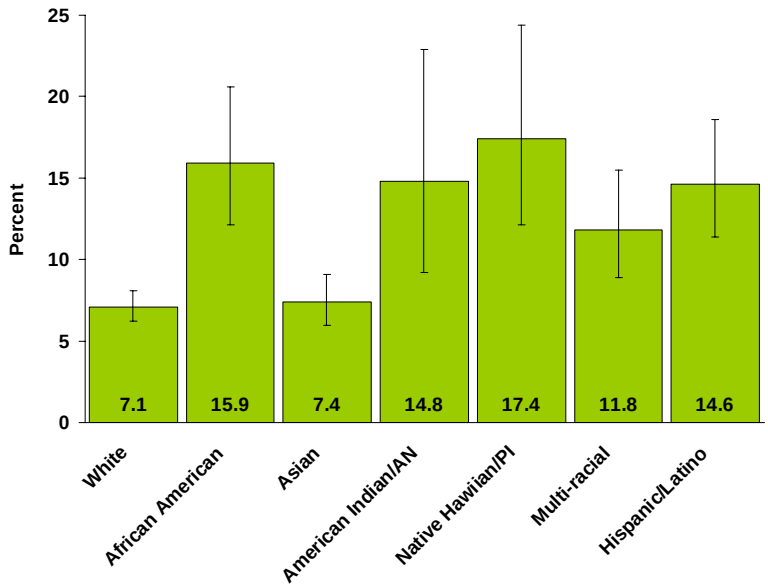
- The lower the household income, the higher the prevalence of obesity.

Obesity Among King County Adults by Household Annual Income, Five-Year Averages, 2000-2004



Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Overweight Among King County Students in Grade 8, 10, and 12 by Race/Ethnicity 2004



Data Source: Washington State Healthy Youth Survey.
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Overweight Among Youth

- The 2004 HYS data show that 8.9% of the students in grades 8, 10, and 12 were overweight. An additional 12.3% of the students were at risk for overweight.[2]
- The prevalence rates of overweight among African American (15.9%), American Indian/Alaska Native (14.8%), Native Hawaiian/Pacific Islander (17.4%), and Hispanic/Latino (14.6%) students were significantly higher than white students (7.1%). The prevalence among Asian students was similar to whites.

References

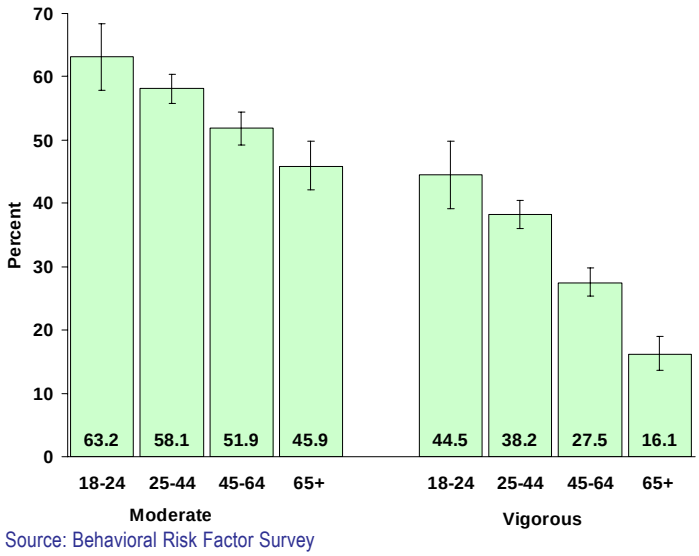
[1] CDC. Prevalence of Overweight Among Children and Adolescents: United States, 1999-2002. /www.cdc.gov/nchs/products/pubs/pubd/hestats/overwght99.htm

[2] For persons age 2-20, overweight is defined as BMI-for-age > 95th percentile based on the CDC gender-specific BMI-for-age reference. At risk for overweight is BMI > 85th percentile but < 95th percentile.

Physical Inactivity

- **Physical inactivity increases the risk of coronary heart disease, hypertension, obesity, diabetes, and many other health conditions.**
- **The CDC recommends that adults engage in either moderate-intensity physical activities for at least 30 minutes on 5 or more days per week or vigorous-intensity physical activity for 20 or more minutes per occasion on 3 or more days per week.[1]**
- **In 2004, 14.5% of the King County adults did not participate in any physical activity during the previous 30 days.**
- **In 2003, 44.3% did not meet the recommended physical activity level.**
- **The older the age, the less likely to meet the recommended physical activity levels.**

Meet Recommended Physical Activity Level Among King County Adults by Age, 2001 and 2003 Averages

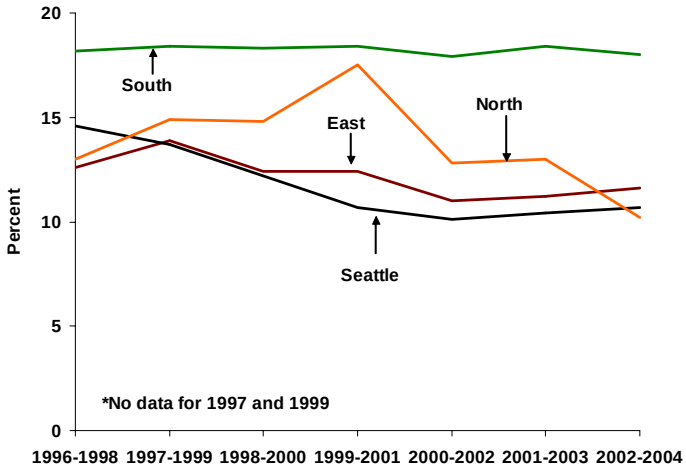


Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

King County and Regions

- Between 1996 and 2004, the prevalence of physical inactivity (did not participate in any leisure time physical activity during the previous 30 days) among King County adults declined slightly but significantly from 15.2% to 14.5% (data not shown).
- During the 10 year period, compared to the other regions, adults in the South Region consistently had higher rate of physical inactivity.
- See Public Health Core Indicators for Seattle & King County for more information.

No Physical Activity Among King County Adults by Region, Three-Year Rolling Averages, 1996-2004

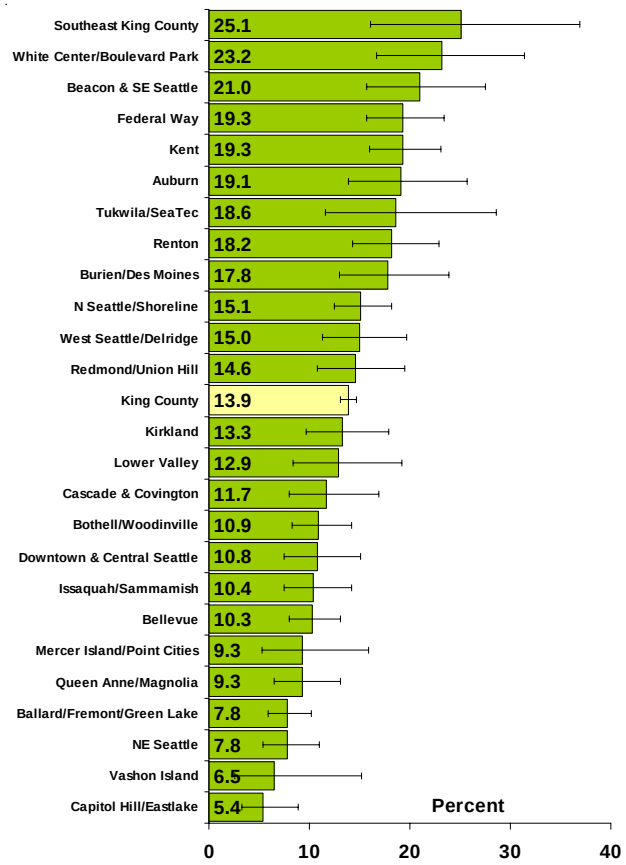


Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Patterns by Health Planning Area

- Adults living in Southeast King County, White Center/Boulevard Park, Beacon Hill & Southeast Seattle, Federal Way, and Kent were less likely to participate in physical activity than the King County average rate. Adults living in Capitol Hill/Eastlake, Northeast Seattle, Ballard/ Fremont/Green Lake were more likely to participate in physical activity.

No Physical Activity Among King County Adults by Health Planning Area, 2000-2004 Averages

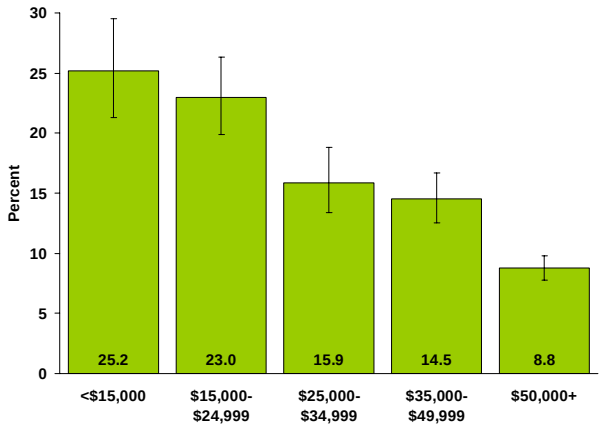


Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Focus on Disparities

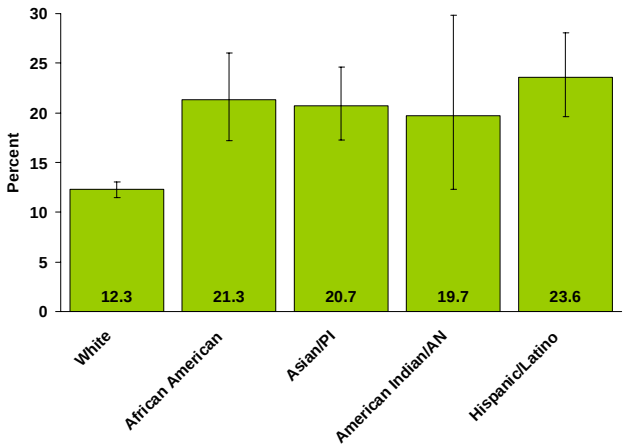
- Adults with lower household income were more likely to be physically inactive.
- The minority populations were significantly more likely to be physically inactive than whites.

No Physical Activity Among King County Adults by Annual Household Income, Five-Year Averages, 2000-2004



Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

No Physical Activity Among King County Adults by Race/Ethnicity, Five-Year Averages, 2000-2004

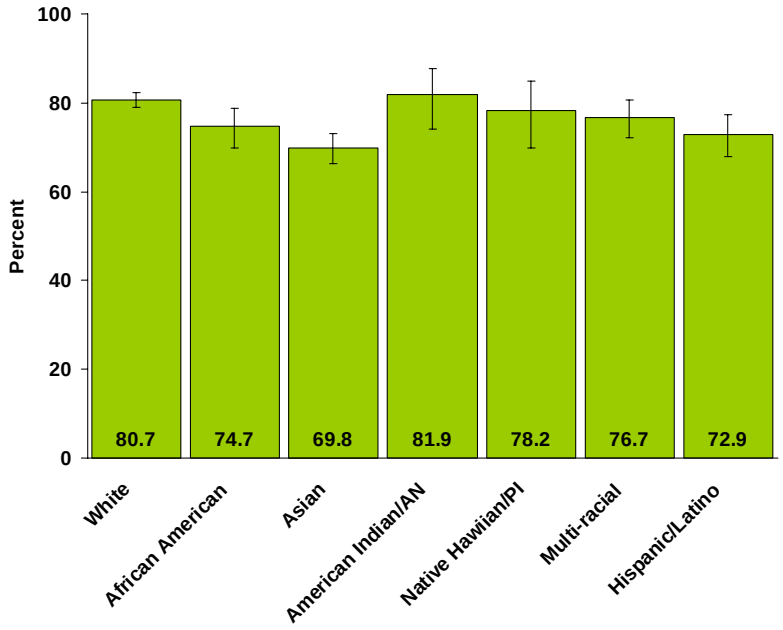


Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Physical Inactivity in Youth

- Among students in grades 8, 10, and 12, only 77.8% met the recommended physical levels in 2004.
- Asian, Hispanic/Latino and African American students were significantly less likely to meet the recommended physical activity level than whites.

Meet Physical Activity Recommendations Among King County Students in Grade 8, 10, and 12 by Race/Ethnicity 2004



Data Source: Washington State Healthy Youth Survey.
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

References

[1] /www.cdc.gov/nccdphp/dnpa/physical/recommendations/index.htm

Hypertension

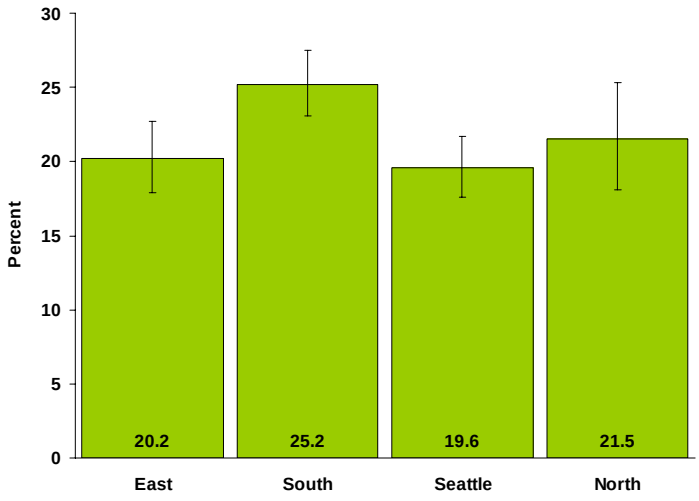
(High Blood Pressure: a blood pressure reading of 140/90 mmHg or higher)

- **Hypertension significantly increases the risk of coronary heart disease, stroke, and kidney failure.**
- **Factors such as obesity, physical inactivity, high salt diet, alcohol misuse, age, sex, heredity, and race affect the risk for hypertension.**
- **In 2003, 21.8% of King County adults had been told that they have high blood pressure. Among them, 65.7% were taking hypertension medication.**
- **The prevalence of hypertension increases with age and reaches 51.7% among older adults age 65 and over.**
- **It is recommended that adults with initial normal blood pressure measurements should be rechecked within two years.[1]**

King County and Regions

- The prevalence of hypertension among King County adults increased significantly between 1995 and 2003 from 18.4% to 21.8%.
- The hypertension prevalence increased significantly in the South Region between 1995 and 2003 from 15.6% to 25.3% (data not shown).
- In Seattle, the prevalence increased significantly between 1999 and 2003 from 14.8% to 21.7% (data not shown).
- The prevalence in the South Region was significantly higher than the county average.

Have Been Told to Have High Blood Pressure Among King County Adults by Region, 2001 and 2003 Averages

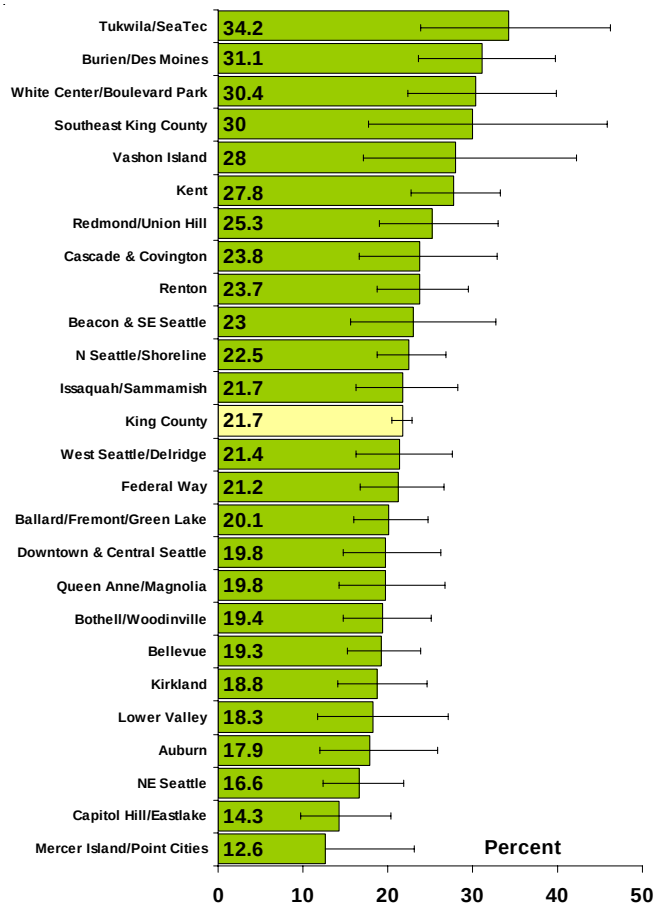


Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Patterns by Health Planning Area

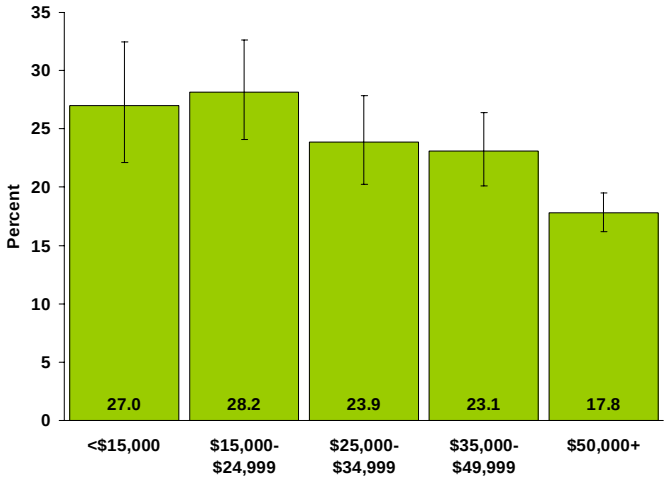
- The prevalence of hypertension among adults in Tukwila/SeaTac and Burien/Des Moines was significantly higher than the King County average.
- Mercer Island/Point Cities, Capitol Hill/Eastlake, and Northeast Seattle had the lowest prevalence rates.

High Blood Pressure Among King County Adults by Health Planning Area, 2001 and 2003 Averages



Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

High Blood Pressure Among King County Adults by Annual Household Income, Three-Year Averages, 1999, 2001, and 2003



Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Focus on Disparities

- Lower income adults had higher hypertension prevalence than adults in higher income levels.

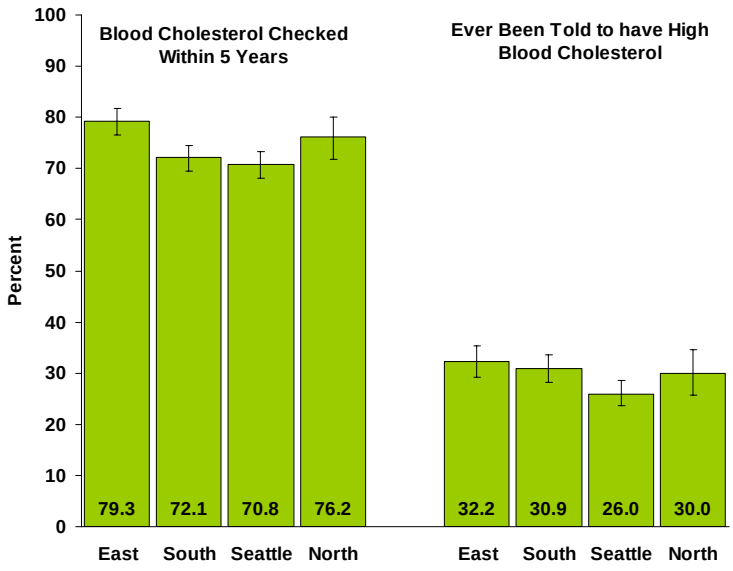
High Blood Cholesterol

- **Elevated blood cholesterol increases the risk of coronary heart disease and stroke. The most important behavioral risk factor for high blood cholesterol is excess consumption of dietary fat, especially saturated fat, as well as lack of physical activity.**
- **A blood cholesterol level of 200 to 239 mg/dl is considered borderline-high and a level of 240 mg/dl or higher is considered high.**
- **Routine screening of blood cholesterol at least every five years is recommended by the U.S. Preventive Services Task Force (USPSTF) for men aged 35 and older and for women aged 45 and older[1], while the National Cholesterol Education Program (NCEP) recommends that all adults age 20 and over have their cholesterol checked at least every 5 years[2].**
- **Averaged over 2001 and 2003, 73.6% of the King County adults had been checked for blood cholesterol during the past 5 years.**
- **Among adults who have been checked, 29.5% had been told to have high blood cholesterol, ranging from 12.9% for younger adults age 18-24 to 42.0% for older adults age 65 and over.**

King County and Regions

- Between 1995 and 2003 among King County adults, there was no change in the rate of having blood cholesterol checked within five years. Among those who have been checked for blood cholesterol, the rate of having been told to have high blood cholesterol increased slightly but significantly from 28.2% to 31.2% (data not shown)
- Adults in the East Region were significantly more likely to have blood cholesterol checked within 5 years than the South Region and Seattle and the rate increased significantly between 1995 and 2003. There were no significant changes in the screening rate among the other three regions. (data not shown)
- Among those who have been checked for blood cholesterol, the prevalence of high blood cholesterol among adults in the East Region was significantly higher than the rate in Seattle.

Blood Cholesterol Check and Level Among King County Adults by Region, Two-Year Averages, 2001 and 2003

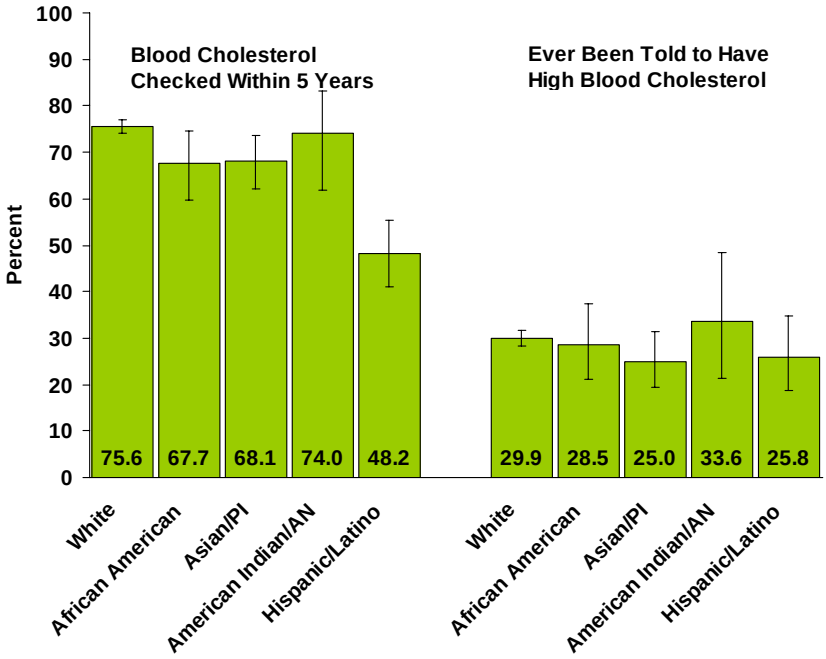


Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Focus on Disparity

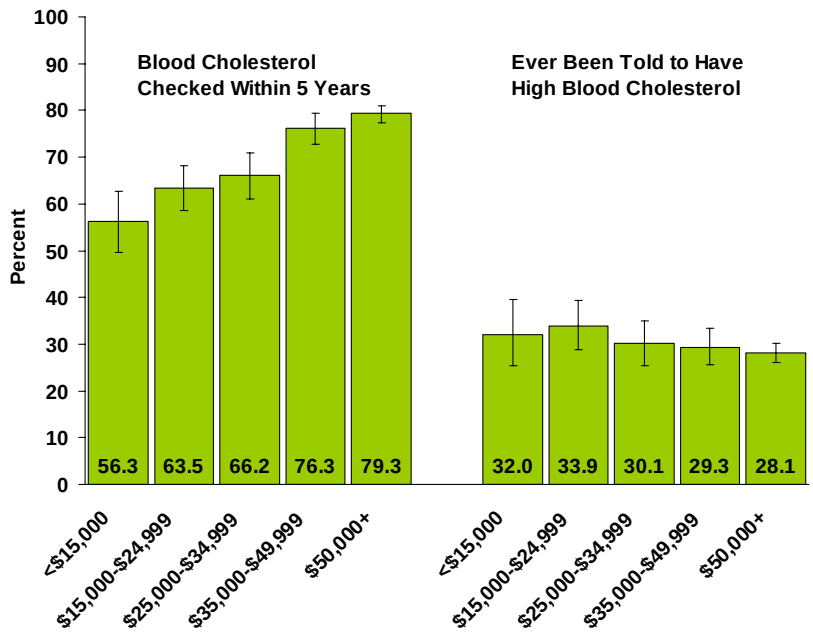
- Hispanics had significantly lower cholesterol screening rate than the other racial groups.
- African Americans and Asians/PI also had lower screening rates than whites.
- American Indian/AN had relatively higher prevalence of high blood cholesterol than the other racial/ethnic groups although the differences were not statistically significant because of small survey sample size.

Blood Cholesterol Check and Level Among King County Adults by Race/Ethnicity, Two-Year Averages, 2001 and 2003



Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Checked Blood Cholesterol and Level Among King County Adults by Annual Household Income, Two-Year Averages, 2001 and 2003

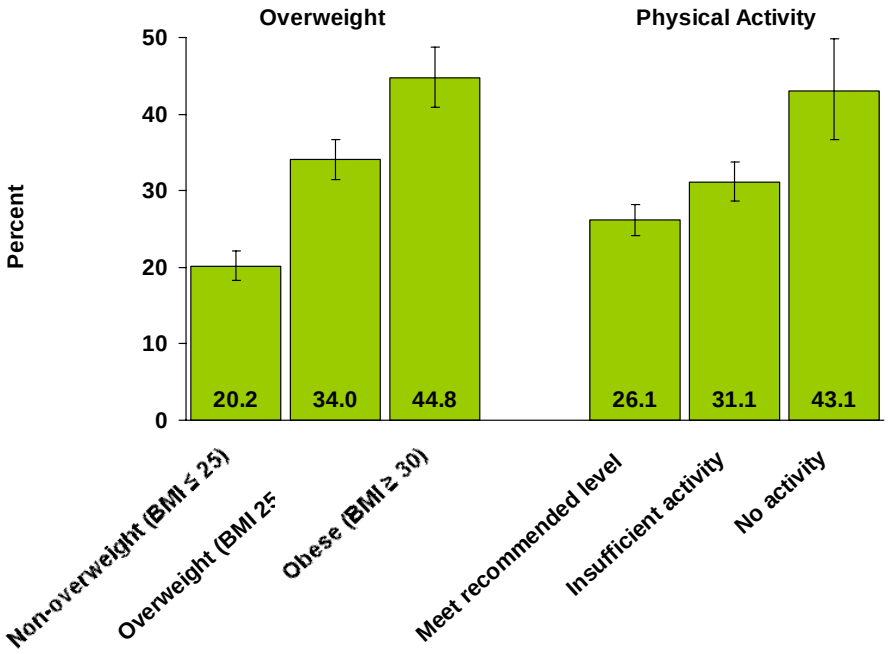


Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

- Adults with lower household incomes had lower cholesterol screening rates but somewhat higher prevalence rates of high blood cholesterol.

- High blood cholesterol prevalence is significantly associated with overweight status and physical activity level.

Prevalence of High Blood Cholesterol Among King County Adults Who Have Been Tested by Overweight Status and Physical Activity Level, Two-Year Averages, 2001 and 2003



Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

References

[1] U.S. Preventive Services Task Force. Screening for Lipid Disorders in Adults. 2001 http://www.ahcpr.gov/clinic/uspstf/uspschol.htm

[2] Executive summary of the third report of the National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation, And Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III). JAMA 2001;285:2486—97.

Alcohol Misuse

- **Alcohol misuse increases the risk of a variety of diseases and conditions such as heart disease, high blood pressure, motor vehicle crashes, chronic liver disease, sexually transmitted diseases, fall injuries, suicide, homicide, and domestic violence.**
- **Alcohol-related motor vehicle crashes are a leading cause of death among young adults and teenagers.**

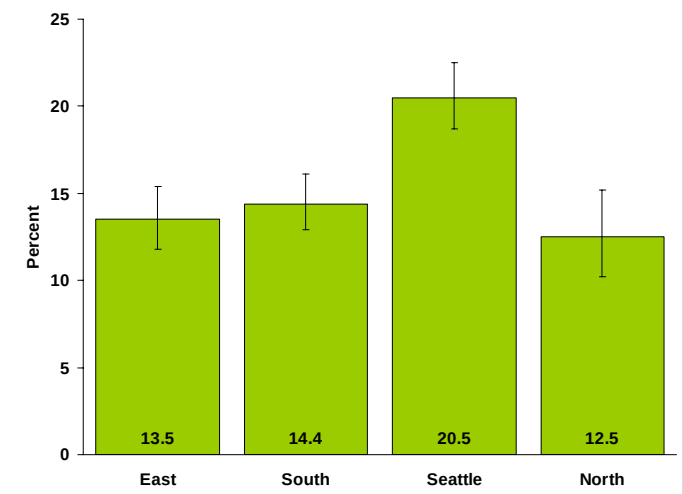
Alcohol Misuse Among Adults

- In 2004, 15.7% of King County adults reported binge drinking (consumed 5 or more drinks on one occasion) during the past month. Binge drinking prevalence was 31.6% among young adults age 18-24 (38.6% in males and 24.1% in females) (data not shown).
- 4.2% of King County adults admitted drinking and driving (after too much alcohol) during the past month and the prevalence was 12.2% among young adults age 18-24 (14.1% in males and 10.5% in females) (data not shown).
- 5.9% of King County adults were heavy drinkers (2 or more drinks per day for men and 1 or more drinks per day for women) and heavy drinking prevalence was 11.0% among young adults age 18-24 (9.1% in males and 12.8% in females) (data not shown).
- Between 1995 and 2004, there was no significant change in the prevalence of binge drinking, and drinking and driving among King County adults. However, the prevalence of heavy drinking increased significantly from 3.4% to 5.6% (data not shown).

King County and Regions

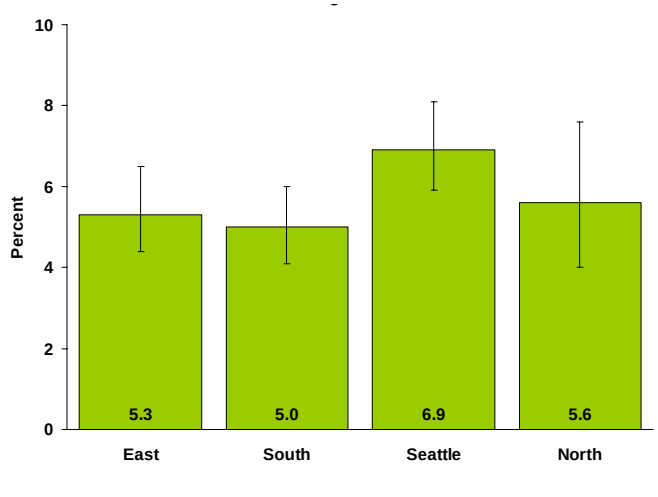
- Binge drinking prevalence increased significantly in the East Region between 1995 and 2004 from 9.6% to 16.3% (data not shown). However, Seattle had significantly higher binge drinking prevalence than the other regions.
- The prevalence rates of drinking and driving were higher in Seattle and the North Region but the differences among the regions were not statistically significant.

Binge Drinking Among King County Adults by Region, Four-Year Averages, 2001-2004



Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

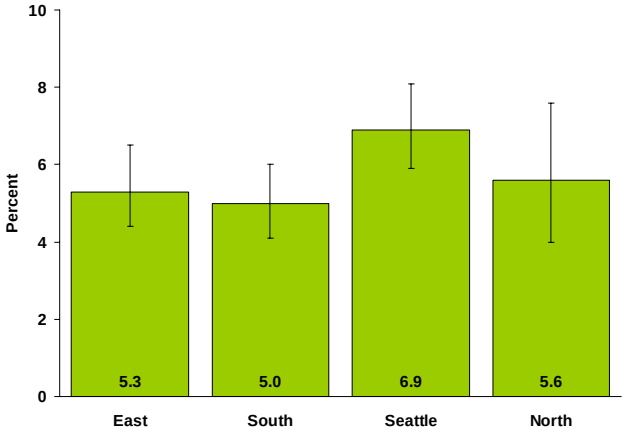
Drinking and Driving Among King County Adults by Region, Four-Year Averages, 2001-2004



Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

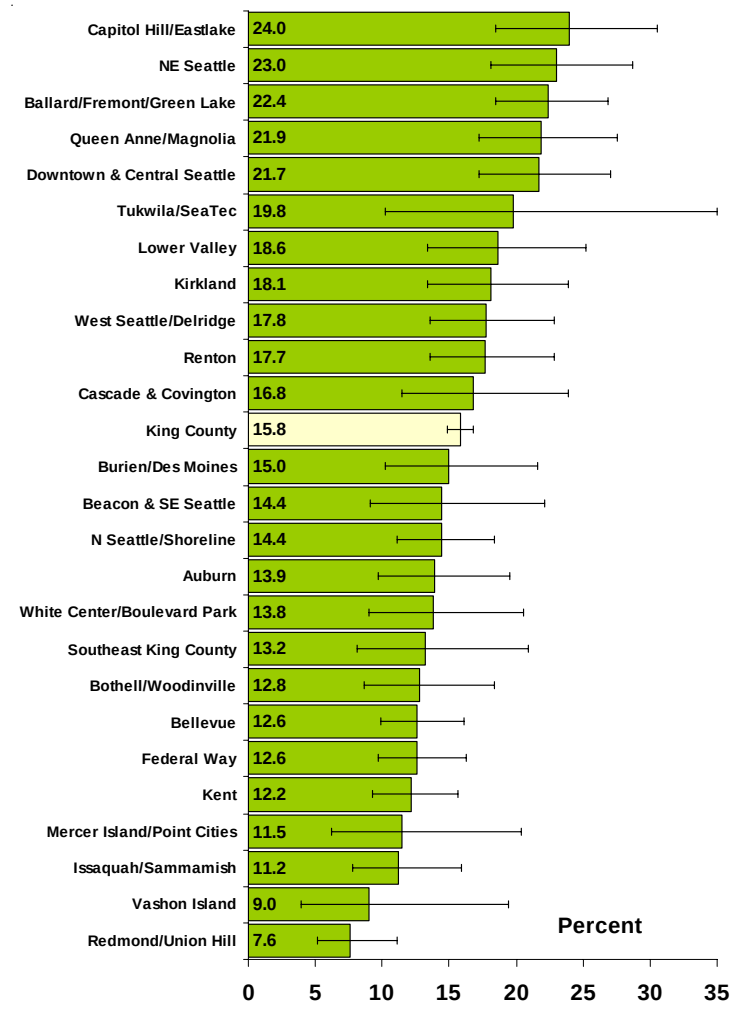
- The prevalence of heavy drinking increased significantly between 1995 and 2004 in Seattle (from 3.3% to 7.6%) and the North Region (from 2.2% to 3.7%) (data not shown). Seattle had the highest heavy drinking prevalence among the four regions but the differences were not statistically significant.

Heavy Drinking Among King County Adults by Region, Four-Year Averages, 2001-2004



Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Binge Drinking Among King County Adults by Health Planning Area, 2000-2004 Averages



Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Patterns by Health Planning Areas

- The prevalence of binge drinking in Capitol Hill/Eastlake, Northeast Seattle, Ballard/Fremont/Green Lake, Queen Anne/Magnolia, and Downtown/Central Seattle were significantly higher than the county average. Redmond/Union Hill had significantly lower than average prevalence.
- The prevalence rates of heavy drinking in Capitol Hill/Eastlake (10.4%) and Queen Anne/Magnolia (10.0%) were the highest among the health planning areas (data not shown).

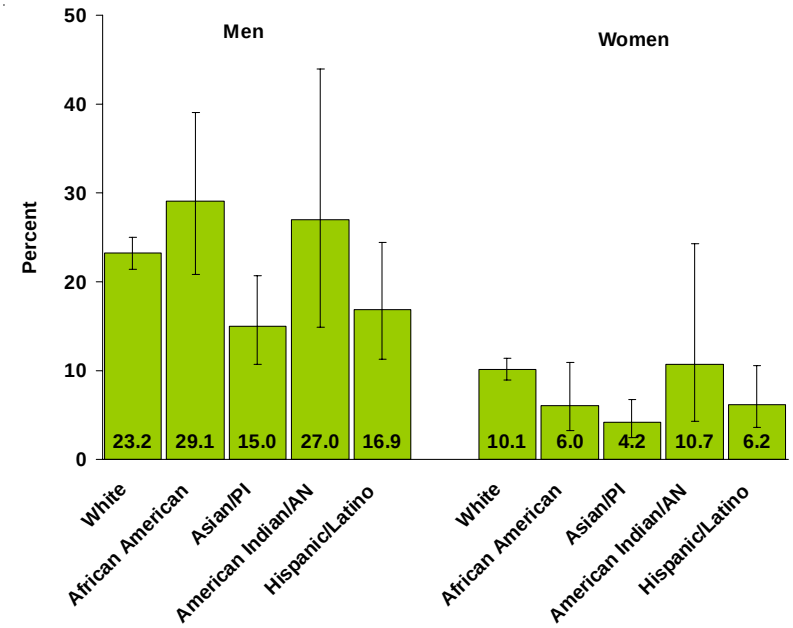
Focus on Disparities

- For men, binge drinking prevalence was higher among African Americans, American Indian/Alaska Natives, and whites, and lower among Asian/Pacific Islanders and Hispanic/Latinos. For women, whites and American Indian/Alaska Natives had relatively higher rates while Asian/Pacific Islanders, African Americans, and Hispanic/Latinos had relatively lower rates. Because of small sample size for the minority groups, most of the differences were not statically significant.
- The racial/ethnic differences on heavy drinking are similar to those observed on binge drinking. However, white women had significantly higher heavy drinking prevalence than white men (although by definition, the amount of drinking for women is half of that for men).
- By sexual orientation, those who are gay/lesbian/bisexual, or other had significantly higher binge drinking prevalence and heavy drinking prevalence than heterosexuals (26.0% vs. 15.4% on binge drinking and 10.9% vs. 5.5% on heavy drinking) (data not shown).

Alcohol Use in Youth

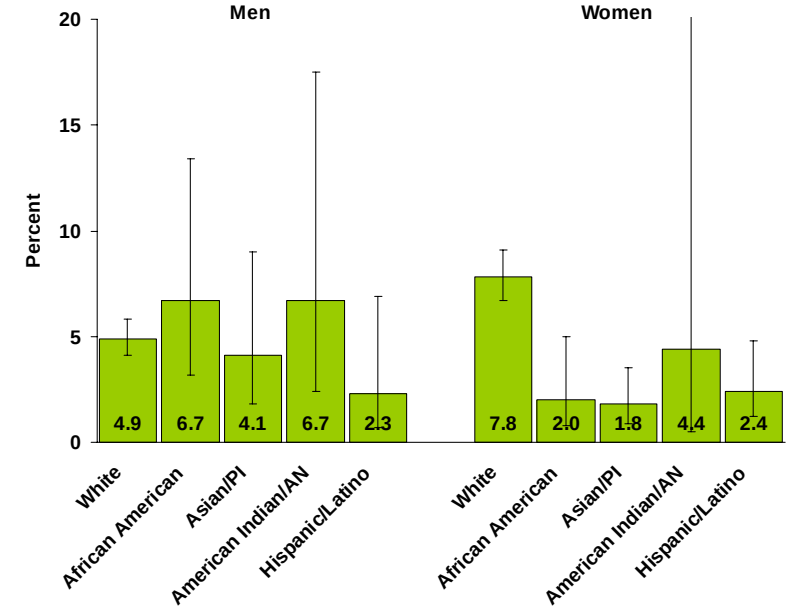
- Among King County students, the prevalence of recent alcohol use[1] was 3.8% in grades 6, 14.7% in grade 8, 31.5% in grade 10, and 42.0% in grade 12.
- The prevalence of binge drinking was 7.3% in grade 8, 15.4% in grade 10, and 22.5% in grade 12.
- The rates of recent alcohol use and binge drinking were similar between male and female students.

Binge Drinking Among King County Adults by Race/Ethnicity and Gender, Four-Year Averages, 2001-2004



Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Heavy Drinking Among King County Adults by Race/Ethnicity and Gender, Four-Year Averages, 2001-2004



Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

References

[1] Had a glass, can or bottle of alcohol (beer, wine, wine coolers, hard liquor) during the past 30 days.

Seatbelt Use and Bicycle Helmet Use

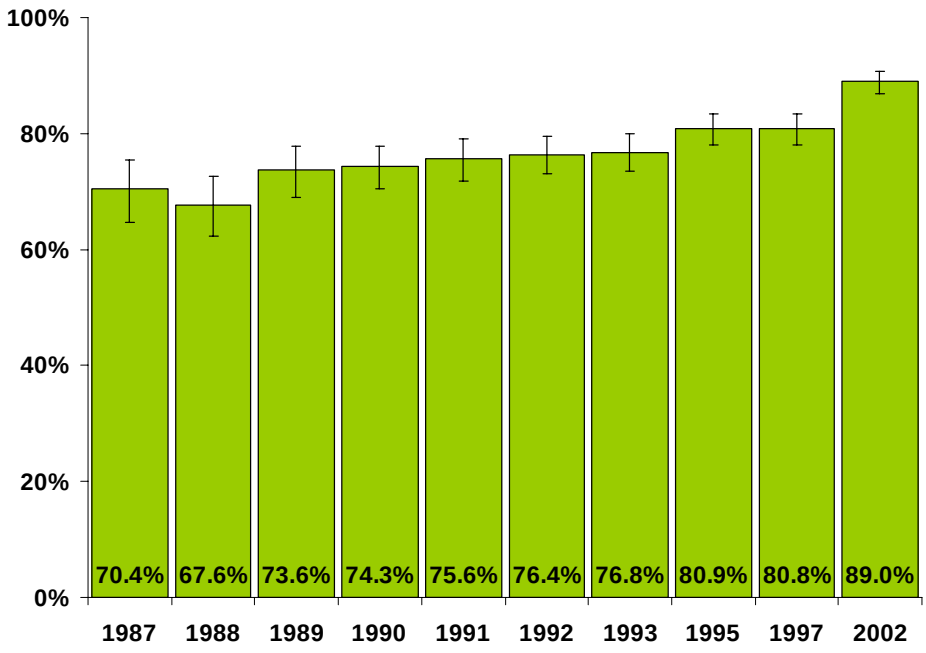
Motor vehicle crashes are a significant contributor to injury and death. Wearing a seatbelt when driving or riding in any type of motor vehicle drastically improves the chance of surviving a crash.
-- Wearing a lap/shoulder belt, while traveling in a passenger vehicle, can reduce the risk of dying up to 45% and up to 60% when riding in a "light truck" (this category includes SUVs).[1]
-- Unbelted passengers pose a risk to belted passengers by catapulting forward, backward, or sideways in a car crash – increasing the risk of death for the belted occupant up to 22%.[2]

In a crash, a bicycle helmet significantly reduces the bicyclist's risk of suffering a head injury.
-- Bicycle helmets, regardless of type, provide substantial protection against head injuries for cyclists of all ages involved in crashes, including crashes involving motor vehicles.[3]
-- Bicycle helmets have been shown to reduce the risk of head injury by as much as 85% and brain injury by as much as 88%.[4]

King County and Regions

- Data related to seatbelt use by King County adults come from the Behavioral Risk Factor Survey. Questions about seatbelt use are not asked every year. The most recent data are from the 2002 survey.
- In 2002, 89% of King County adults reported always wearing a seatbelt while driving or riding in a motor vehicle. An additional 6.6% reported almost always using a seatbelt. (data not shown)
- The proportion of those always using a seatbelt has significantly increased since 1987.

Percent of Adults Age 18+ Who Report Always Wearing a Seatbelt, King County, 1987 - 2002



Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Percent of Adults Age 18+ Who Report Always Wearing a Seatbelt By Region, King County, 2002

	Percent	95% C.I.
East Region	93.8	(90.2-96.1)
South Region	87.6	(83.2-90.9)
Seattle	86.2	(81.8-89.7)
North Region	92.4	(86.0-96.0)
King County Total	88.9	(86.7-90.8)

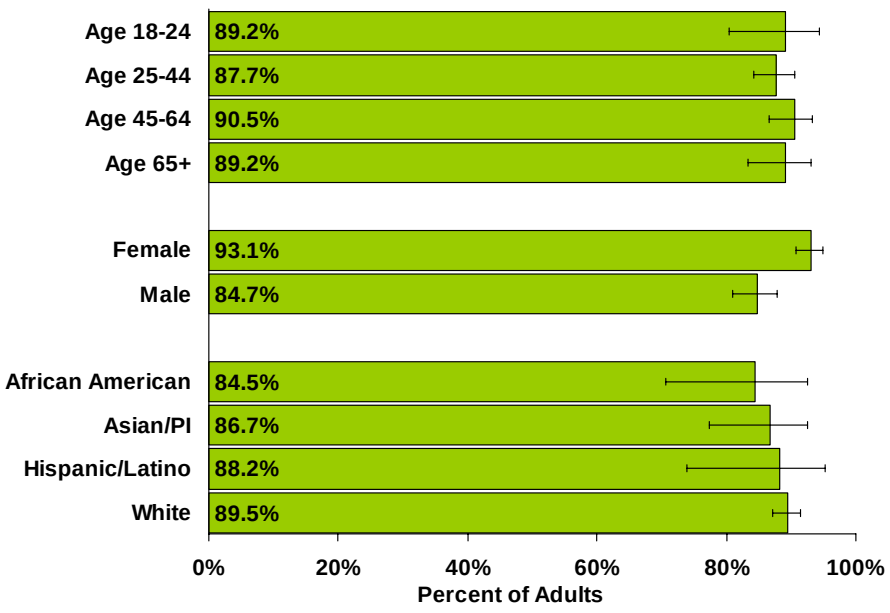
Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

- East Region residents are significantly more likely to use a seatbelt than Seattle residents. Other regional differences are not significant.
- The BRFSS does not collect data about use of bicycle helmets. Observational studies conducted by PHSKC in 2004 show bicycle helmet use at approximately 75%.

Focus on Disparities

- Females are more likely than males to use a seatbelt.
- There are no significant differences in seatbelt use among age groups, race/ethnic groups, or income groups (data not shown).
- Observational data on use of bicycle helmets show children and adults use helmets more frequently than teens. Children and adult usage was 83% and 84% respectively while teen usage was only 60%.

Percent of Adults Age 18+ Who Report Always Wearing a Seatbelt By Age, Gender and Race/Ethnicity, King County, 2002



Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

References

1 National Highway Traffic Safety Administration (NHTSA), Traffic Safety Facts 2004 Data, Occupant Protection.

2 Cummings P, Rivara F. "Car Occupant Death According to the Restraint Use of Other Occupants: A Matched Cohort Study," The Journal of the American Medical Association, January 2004.

2 Thompson DC, Rivara FP, Thompson RS. Effectiveness of bicycle safety helmets in preventing head injuries. A case-control study. JAMA. 1996 Dec 25;276(24):1968-73.

3 Thompson RS, Rivara FP, Thompson DC. A case-control study of the effectiveness of bicycle safety helmets. N Engl J Med.1989 May 25;320(21):1361-7.

Access to Firearms

Firearms are a significant contributor to injury and death.

Firearms in the home are particularly risky:

-- Sixty-one percent of the firearms used in school associated-homicides or suicides came from the perpetrator's home or the home of a friend or relative of the perpetrator.[1]

-- In 72% of unintentional firearm-related deaths and injuries, suicides, and suicide attempts by 0-19 year-olds, the firearm was stored in the residence of the victim, a relative, or a friend.[2]

-- A review of King County firearm related deaths found that there were 43 suicides, homicides, or unintentional deaths involving a gun kept in the home for every one case of homicide for self-protection.[3]

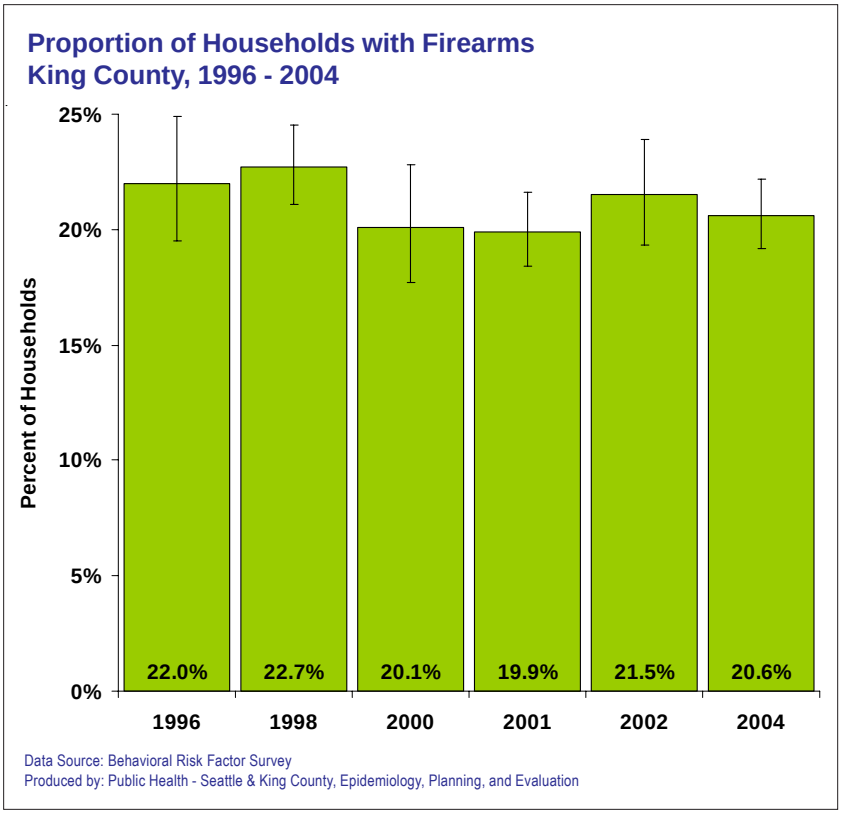
Safely storing firearms reduces these risks:

-- In a case – control study published in 2005, researchers found that "...storing household guns locked, unloaded, or separate from the ammunition is associated with significant reductions in the risk of unintentional and self-inflicted firearm injuries and deaths among adolescents and children." [4]

-- A 1997 study of state gun safe storage laws found a 23% reduction in unintentional shooting deaths among children younger than 15 years in the states covered by these laws.[5]

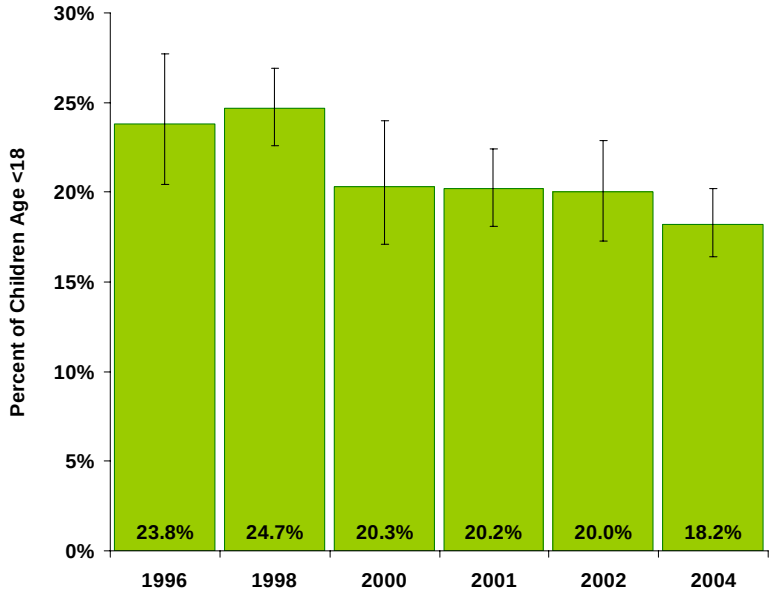
Trends and Patterns in Firearm Access

- Data related to firearms in King County households come from the Behavioral Risk Factor Survey. Questions about firearms are not asked every year.
- The proportion of households in King County where firearms are present has remained fairly constant. The proportion has varied a few percentage points from year to year but these changes have not been significant. It is estimated that firearms are present in or around one fifth (21%) of King County households.
- Firearms are stored safely, unloaded and locked, in the majority of households where they are present. However, approximately 13% of King County households with firearms store them unsafely - loaded and unlocked. This percentage is better than the Healthy People 2010 target of 16%. It is estimated that there are 19,000 households in King County with a loaded and unlocked firearm. (Data not shown).



- While the proportion of households with firearms remains constant, the number of children living in homes with firearms is significantly declining. In 2004, approximately 18% of King County's children lived in a home with one or more firearms.

Percent of Children Under Age 18 in Households with Firearms, King County, 1996 - 2004



Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Estimated Percent and Number of Children Living in Homes Where Firearms are Loaded and Unlocked, King County

Year	Percent	95% Confidence Interval	Number
1996	2.0%	(1.1%, 3.6%)	8,000
1998	1.7%	(1.1%, 2.5%)	6,000
2000	0.4%	(0.1%, 1.2%)	1,000
2002	0.6%	(0.2%, 1.4%)	2,000
2004	1.0%	(0.6%, 1.7%)	4,000

Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

- The proportion of children residing in homes where firearms are stored in an unsafe manner is also declining significantly. In 2004 only 1% of King County's children (approximately 4,000 children) lived in homes where firearms were kept both loaded and unlocked.
- In contrast to these positive trends, there is evidence that children have access to firearms. During the 2003 – 2004 school year, there were 14 firearm incidents reported in King County schools.[6]

References

1 MMWR Weekly, 3/7/2003

2 Grossman et al., "Self-inflicted and Unintentional Firearm Injuries Among Children and Adolescents: A Harborview Injury Prevention and Research Center Study," Archives of Pediatric & Adolescent Medicine, August 1999.

3 Kellerman AL, Reay DT. Protection or peril? An analysis of firearm-related deaths in the home. N Engl J Med.1986; 314:1557–1560

4 Grossman DC, Mueller BA, Riedy C, et al. Gun storage practices and risk of youth suicide and unintentional firearm injuries. JAMA. 2005;293:707-714.

5 Cummings P, Grossman DC, Rivara FP, Koepsell TD. State gun safe storage laws and child mortality due to firearms. JAMA. 1997;278:1084-1086.

6 Washington Superintendent of Public Instruction, 2003-04 Annual Weapons Report.

Health of King County 2006

Chapter 6: Chronic Disease

Introduction

Heart Disease

Cancer

Stroke

Chronic Lower Respiratory Disease

Diabetes

Chronic Liver Disease and Cirrhosis

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Introduction

Chronic diseases are among the leading causes of death and disability. They are generally characterized by multiple risk factors, a long development period, a prolonged course of illness, and increased onset with age. In this chapter, we examine heart disease, cancer, stroke, chronic lower respiratory disease (CLRD), diabetes, and chronic liver disease and cirrhosis. In 2003, these diseases accounted for 65% of the total deaths in King County.

Chronic Diseases, Age-adjusted Death Rate, Number, and Rank, 2003*

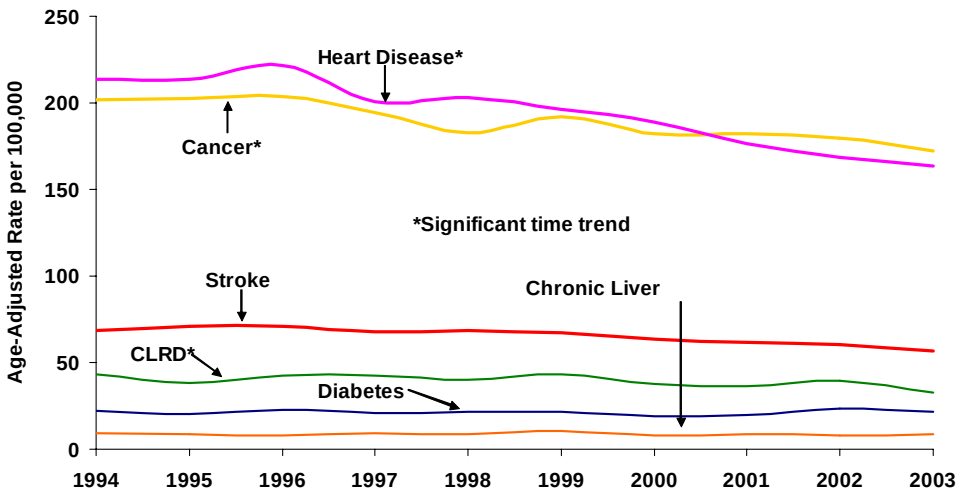
	King County			WA State			US	
	Rate	#	Rank	Rate	#	Rank	Rate	Rank
Cancer	172.1	2816	1	190.1	11043	2	189.3	1
Heart Disease	163.7	2714	2	190.5	11154	1	232.1	2
Stroke	57.1	946	3	61.5	3588	3	53.6	3
CLRD	32.4	520	5	46.4	2648	4	43.2	4
Diabetes	21.7	356	7	20.1	1509	7	25.2	6
Chronic liver disease	8.7	154	10	9.2	565	10	9.2	12

*death rate is age adjusted to the 2000 U.S. population. Rank is among the leading causes of death.

Trends and Patterns for King County and Regions

- In 2001, cancer surpassed heart disease in the total number of deaths and became the number one cause of death in King County.
- The age-adjusted death rates for cancer, heart disease, stroke, and CLRD declined significantly between 1994 and 2003. The death rates for diabetes and chronic liver disease/ cirrhosis were unchanged during the 10 year period.

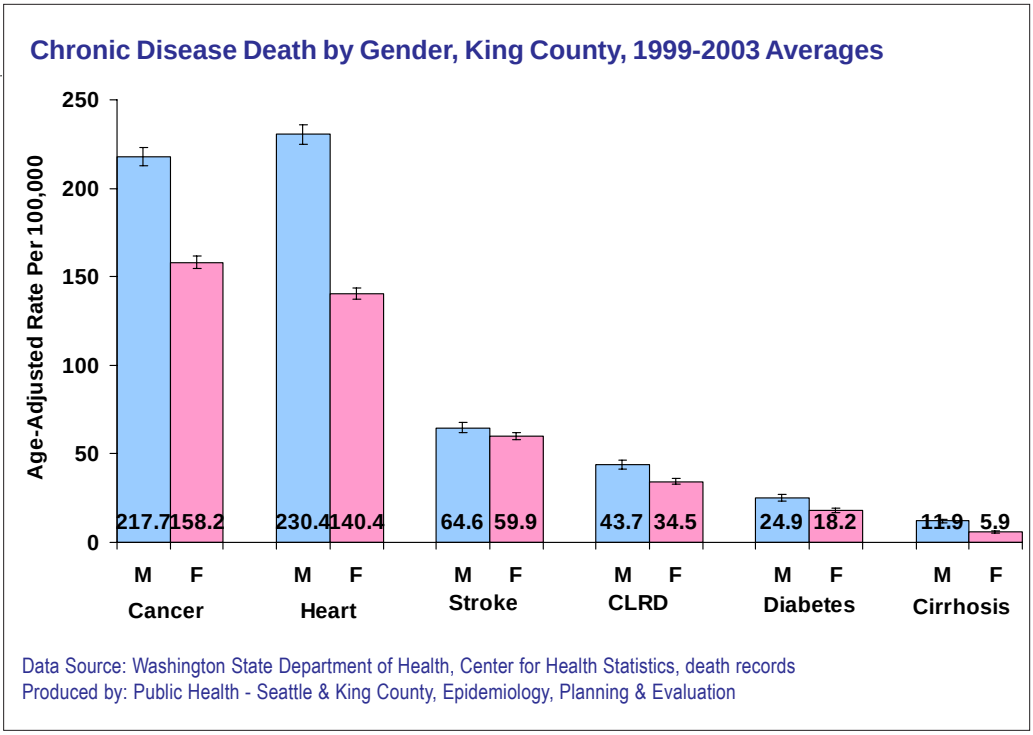
Time Trends for Chronic Disease Death, King County 1994-2003



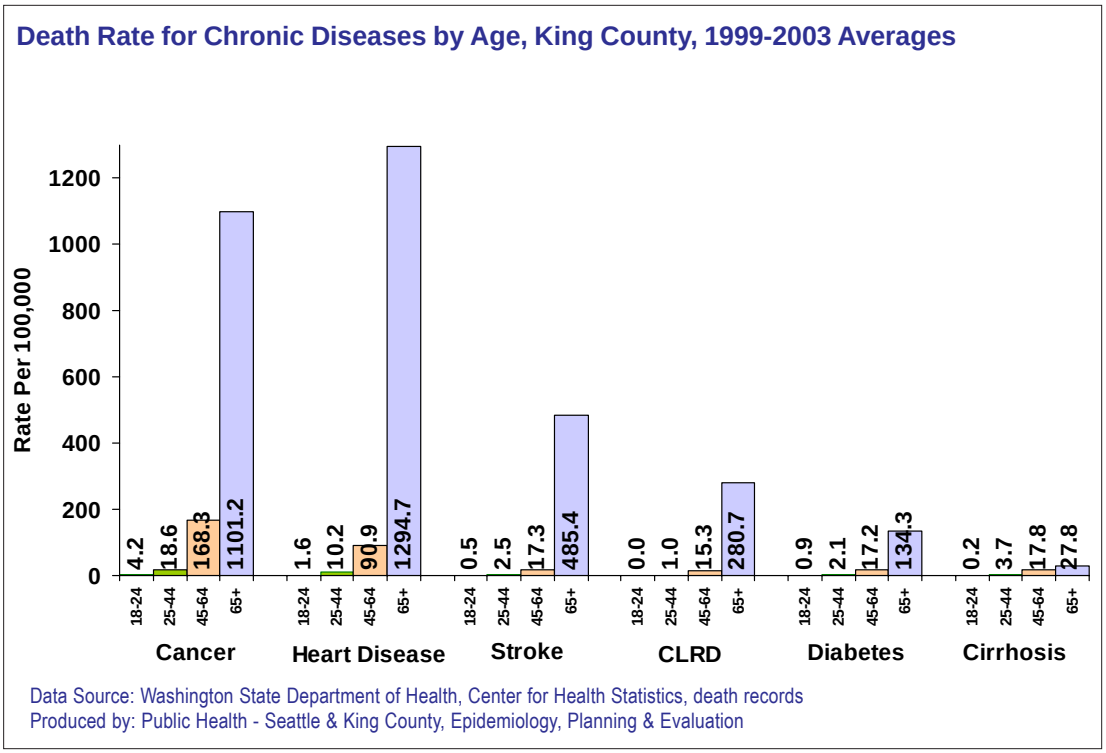
Data Source: Washington State Department of Health, Center for Health Statistics, death records
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

Age-Adjusted Death Rate for Chronic Diseases by Gender, 1999-2003 Averages

- Among the six chronic diseases, except for stroke, the male death rate was significantly higher than the female death rate.



Age-Adjusted Death Rate for Chronic Diseases by Age, 1999-2003 Averages



- The death rates for the 65 and over age group are substantially higher than the younger groups.
- For chronic liver disease and cirrhosis, the 45-64 age group had a relatively higher rate.

Heart Disease

Heart disease is the second leading cause of death in King County, only recently surpassed by cancer. Coronary heart disease (CHD) is the most common form of heart disease. Other heart conditions, such as congestive heart failure or sudden cardiac death, are often the result of CHD.

Risk factors for coronary heart disease include cigarette smoking, physical inactivity, obesity, high blood pressure, diabetes, high blood cholesterol, and lack of social support.

The 2004 BRFSS data show that 4.6%, or about 40,000 King County adults have coronary heart disease. Among older adults age 65 and over, the prevalence is 20.2%.

Averaged over 1998-2002, there were 14,346 hospitalizations per year for heart disease among King County residents.

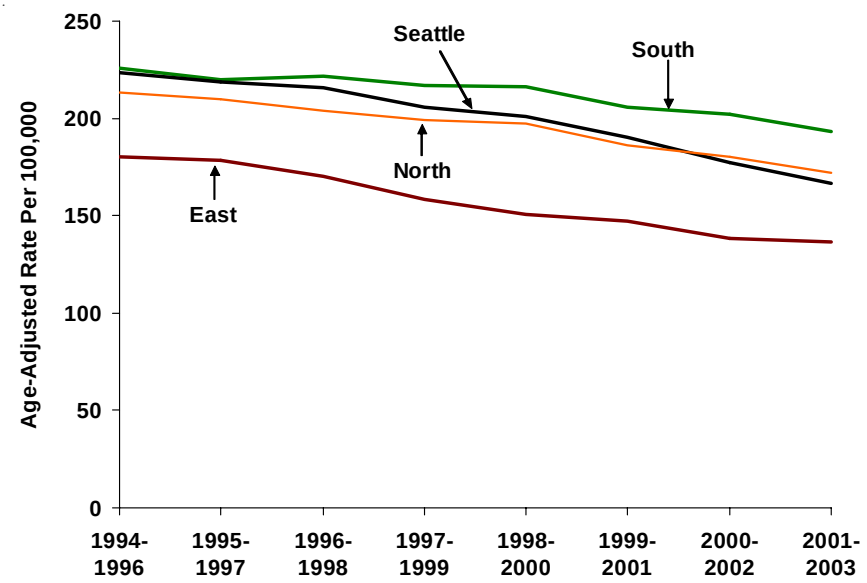
In 2003, 2,714 heart disease deaths occurred among King County residents. CHD accounted for 74% (n=2005) of the total heart disease deaths.

See Public Health Core Indicators for Seattle & King County for more information.

King County and Regions

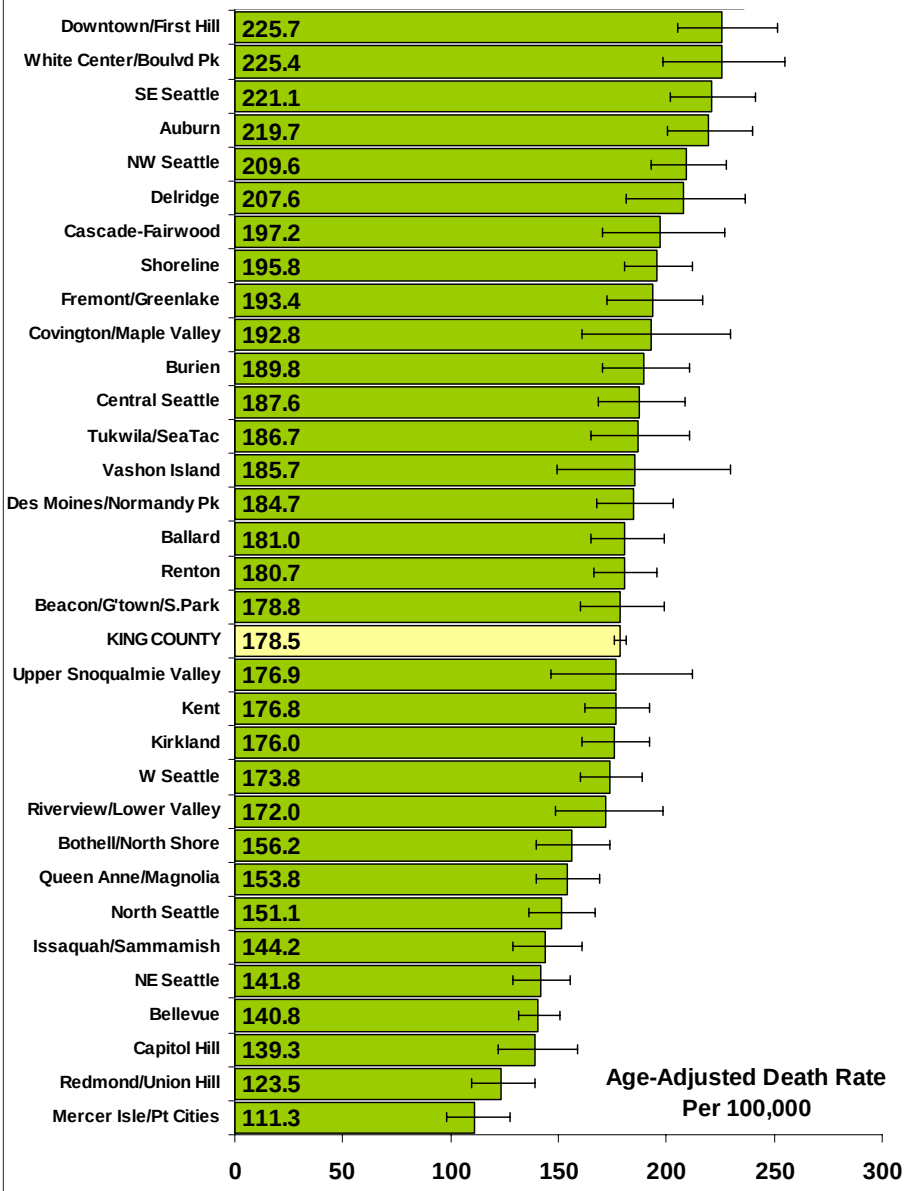
- Between 1994 and 2003, the age-adjusted heart disease death rate in King County declined 23%. The decline was significant among all four regions.
- Compared to the other regions, the East Region had a significantly lower rate while the South Region had significantly higher rate.

Heart Disease Death Rate in King County by Region, Three-Year Rolling Averages, 1994-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Heart Disease Death Rate in King County by Health Planning Area, 1999-2003 Averages



Data Source: Death Certificate Data: Washington State Department of Health, Center for Health Statistics.
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

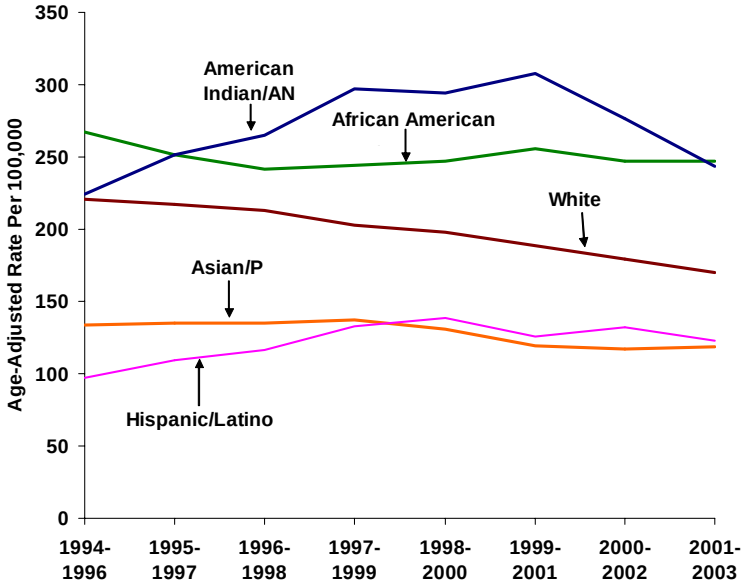
Patterns by Health Planning Area

- Among the Health Planning Areas, the highest death rates were in Southeast County, Federal Way, Downtown/ First Hill, White Center/ Boulevard Park, and Southeast Seattle while the lowest death rates were in Mercer Island/ Point Cities, Redmond/ Union Hill, Capitol Hill, Bellevue, and Northeast Seattle.
- The death rate in Southeast County was more than twice the rate in Mercer Island/Point Cities.

Focus on Disparities

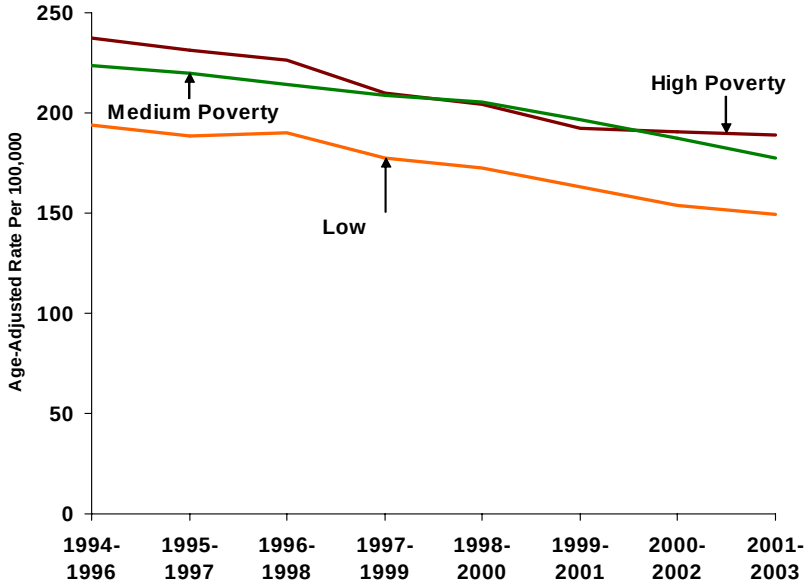
- Compared to whites, African Americans and American Indian/Alaska Natives had significantly higher death rates while Asian/Pacific Islanders and Hispanic/Latinos had significantly lower rates.
- Between 1994 and 2003, while the death rate declined significantly among whites and Asian/Pacific Islanders, there was no significant change in the death rate among African Americans, American Indian/Alaska Natives, and Hispanic/Latinos.
- During 1994 to 2003, although the death rate declined in both the high and low poverty areas, the gap between them remained at the same magnitude. The declining trend in high poverty areas leveled off in recent years.

Heart Disease Death Rate in King County by Race/Ethnicity, Three-Year Rolling Averages, 1994-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Heart Disease Death Rate in King County by Neighborhood Poverty Level Three-Year Rolling Averages, 1994-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Cancer

Since 2001, cancer, surpassing heart disease, has become the number one cause of death in King County.

In 2003, 2,816 King County residents died from cancer.

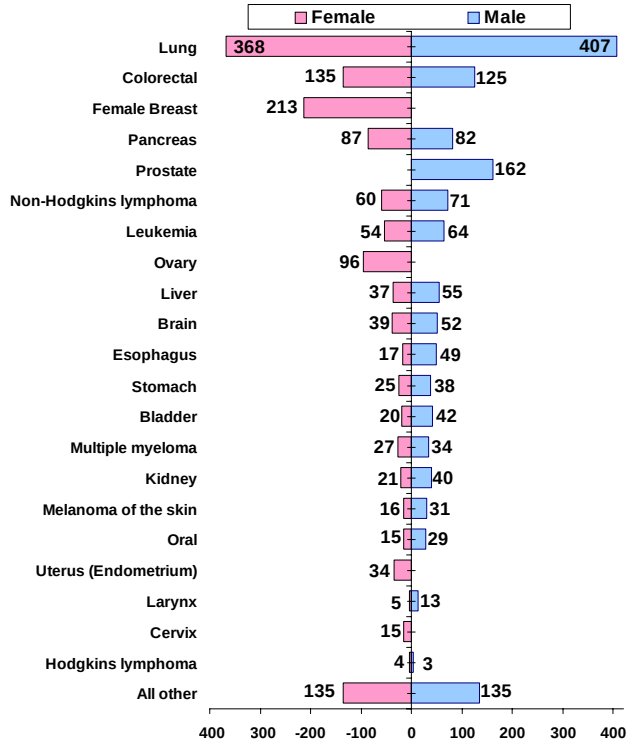
In 2002, 8,046 new cases of cancer were diagnosed among King County residents.

The most common types of cancer death include lung cancer, colorectal cancer, female breast cancer, pancreas cancer, and prostate cancer.

The most prevalent cancers by diagnosis are female breast cancer, prostate cancer, lung cancer, colorectal cancer, and melanoma of the skin.

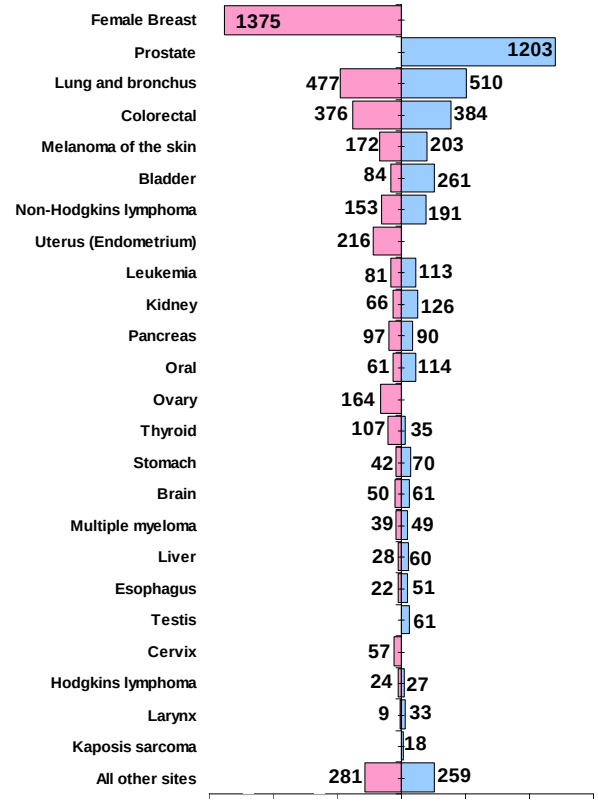
Many cancers can be prevented by reducing the risk factors, or cured by early detection.

Number of Cancer Deaths Per Year Among King County Residents, Five-Year Averages, 1999-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates.
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

New Cancer Cases Per Year Among King County Residents, Five-Year Averages, 1998-2002

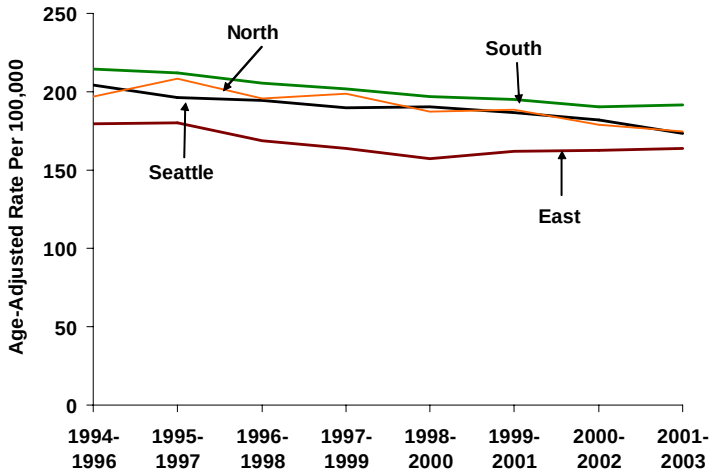


Data Source: Washington State Cancer Registry.
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

King County and Regions

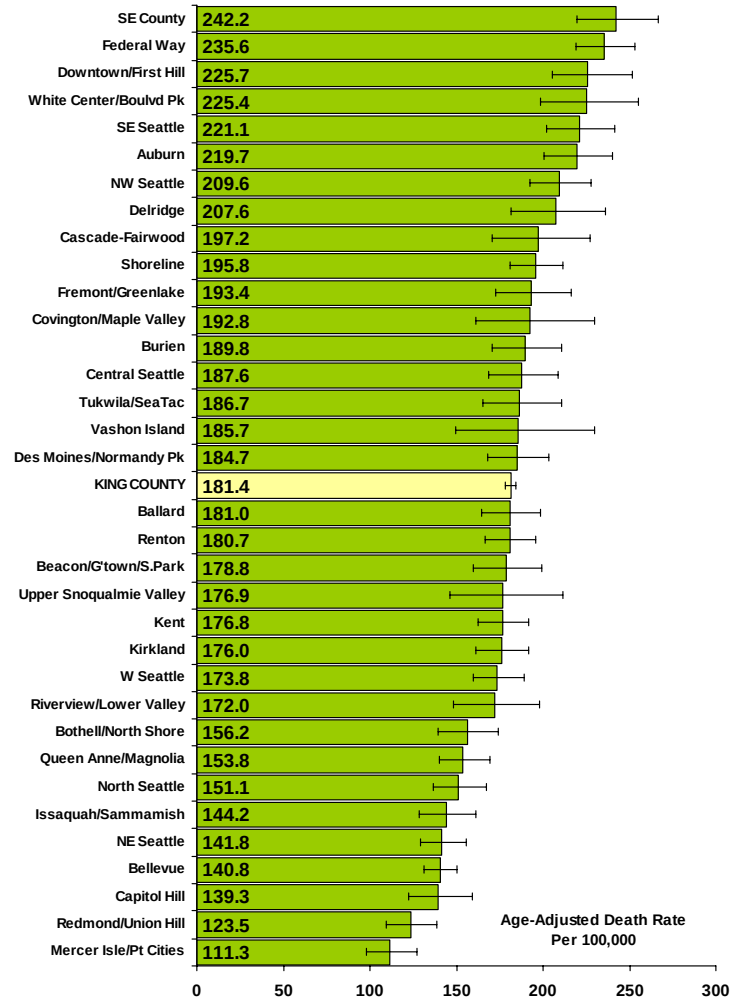
- Between 1994 and 2003, the all cancer death rate in King County declined significantly by 15% (data not shown) and the decline was significant among all four regions.
- The all cancer death rate has been consistently lower in the East Region but consistently higher in the South Region.

All Cancer Death Rate in King County by Region, Three-Year Rolling Averages, 1994-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Cancer Death Rate in King County by Health Planning Area, 1999-2003 Averages



Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Patterns by Health Planning Area

- The differences in the all cancer death rate among the health planning areas are relatively small.
- Compared to the King County average, the all cancer death rates in Covington/Maple Valley, Central Seattle, and Auburn were significantly higher while Mercer Island/Point Cities and Bellevue were significantly lower.

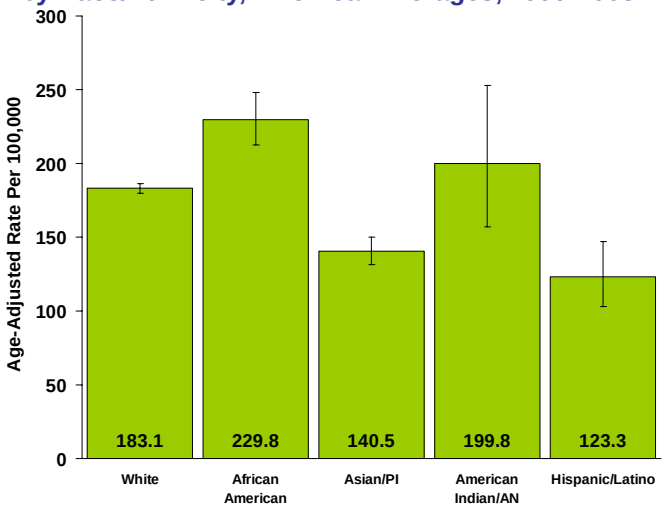
Focus on Disparities

- Between 1994 and 2003, the all cancer death rate declined significantly among whites and African Americans (data not shown). However, African Americans continue to have the highest death rate.

Stage at Diagnosis and Survival

Survival after cancer diagnosis is highly associated with the stage at diagnosis. In general, cancers diagnosed and treated at an earlier stage have a better chance to be cured. Effective screening methods for early detection exist for breast, cervical, and colorectal cancers. The following tables summarize the incidence and the five-year relative survival rate[1] for the major types of cancer by their stage at diagnosis.

All Cancer Death Rate in King County by Race/Ethnicity, Five-Year Averages, 1999-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Cancer Incidence (New Cases of Diagnosis, Invasive only) and 5-Year Relative Survival Rate Among King County Residents by Stage

	New Cases 1998-2002 Total					Percent of Total				5-Year Relative Survival Rate (%)*				
Site	Total	Local	Reg.	Distant	Un-staged	Local	Reg.	Distant	Un-staged	Local	Reg.	Distant	Un-staged	All
Bladder	730	504	128	62	36	69.0	17.5	8.5	4.9	97.2	49.6	5.7	40.4	84.2
Brain	552	354	135	5	58	64.1	24.5	0.9	10.5	NA	NA	NA	NA	34.4
Breast (female)	6816	4379	2019	253	165	64.2	29.6	3.7	2.4	99.2	83.6	22.4	53.9	89.9
Cervix	284	149	102	21	12	52.5	35.9	7.4	4.2	93.1	51.8	19.6	65.2	72.9
Colorectal	3770	1259	1610	669	232	33.4	42.7	17.7	6.2	96.8	69.2	9.5	33.3	65.3
Endometrium	1069	773	179	78	39	72.3	16.7	7.3	3.6	98.8	69.8	22.9	47.7	89.9
Esophagus	357	68	125	95	69	19.0	35.0	26.6	19.3	41.8	11.7	NA	12.0	15.3
Hodgkins lymphoma	254	31	122	88	13	12.2	48.0	34.6	5.1	92.2	91.1	74.4	72.2	84.8
Kaposi's sarcoma	89	23	21	18	27	25.8	23.6	20.2	30.3	NA	NA	NA	NA	28.1
Kidney and renal pelvis	954	565	146	185	58	59.2	15.3	19.4	6.1	90.1	63.1	10.6	31.9	63.3
Larynx	209	120	68	12	9	57.4	32.5	5.7	4.3	86.8	54.7	NA	53.4	70.6
Liver	434	140	127	54	113	32.3	29.3	12.4	26.0	19.7	5.2	7.4	NA	9.3
Lung and bronchus	4907	793	1212	2360	542	16.2	24.7	48.1	11.0	56.4	14.9	2.3	5.9	16.5
Melanoma of the skin	1859	1645	110	55	49	88.5	5.9	3.0	2.6	98.6	67.3	6.3	94.1	93.5
Multiple myeloma	436	23		402	11	5.3	0.0	92.2	2.5	67.5	NA	30.3	NA	32.7
Non-Hodgkins lymphoma	1710	427	229	839	215	25.0	13.4	49.1	12.6	68.8	67.1	50.0	62.8	59.3
Oral cavity and pharynx	869	317	433	74	45	36.5	49.8	8.5	5.2	86.1	55.9	22.4	48.0	63.3
Ovary	811	167	112	489	43	20.6	13.8	60.3	5.3	94.8	56.5	29.0	21.4	45.3
Pancreas	929	67	300	413	149	7.2	32.3	44.5	16.0	21.1	7.2	1.2	1.6	4.6
Prostate**	5976	4400	1143	311	122	73.6	19.1	5.2	2.0	100.0	NA	28.1	84.1	100
Stomach	559	101	194	178	86	18.1	34.7	31.8	15.4	70.3	20.3	2.6	11.4	21.8
Testis	298	225	51	20	2	75.5	17.1	6.7	0.7	99.2	93.8	75.4	100.0	96.3
Thyroid	704	444	228	26	6	63.1	32.4	3.7	0.9	99.5	93.4	72.8	85.1	96.9

*For cases diagnosed between 1993 and 1997. **Survival rate for local and regional are combined for prostate cancer.

Leukemia Incidence and 5-Year Relative Survival Rate among King County Residents by Type

	New Cases, 1998-2002	Percent	5-year relative survival (%)*
Acute Lymphocytic	88	10.9	69.1
Chronic Lymphocytic	254	31.4	83.1
Acute Myelocytic	239	29.6	18.2
Chronic Myelocytic	121	15.0	47.2
All other types	106	13.1	NA
All Leukemia	808	100.0	54.0

*For cases diagnosed between 1993 and 1997.

References

[1] Relative survival rate is a net survival measure representing cancer survival in the absence of other causes of death.

Lung Cancer

Lung cancer is the leading cause of cancer death.

The most important risk factor for lung cancer is cigarette smoking, causing 78% of the lung cancer deaths.

In 2003, there were 806 lung cancer deaths among King County residents, accounting for 29% of all cancer deaths.

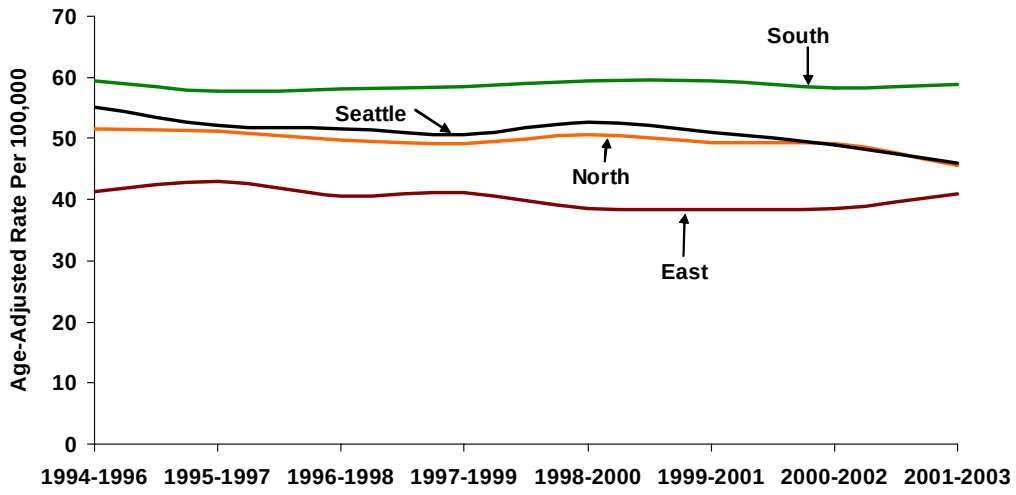
In 2002, 964 new cases of lung cancer were diagnosed among King County residents.

The five-year relative survival rate for lung cancer in King County was 16.5%.

King County and Regions

- Between 1994 and 2003, the lung cancer death rate in King County declined significantly by 7.7% due to a 15.8% decline among males (data not shown).
- Among the four regions, only Seattle had a significant decline during the period.
- The South Region had the highest death rate while the East Region had the lowest death rate throughout the ten year period.

Lung Cancer Deaths by Region
King County, 3-Year Rolling Averages, 1994-2003

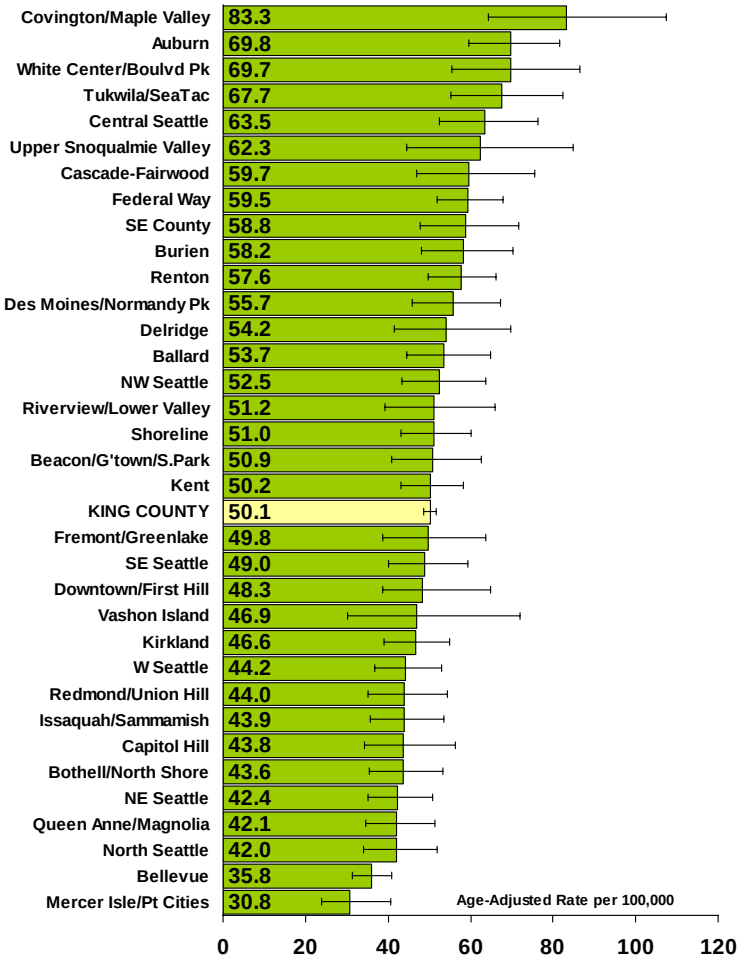


Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

Patterns by Health Planning Area

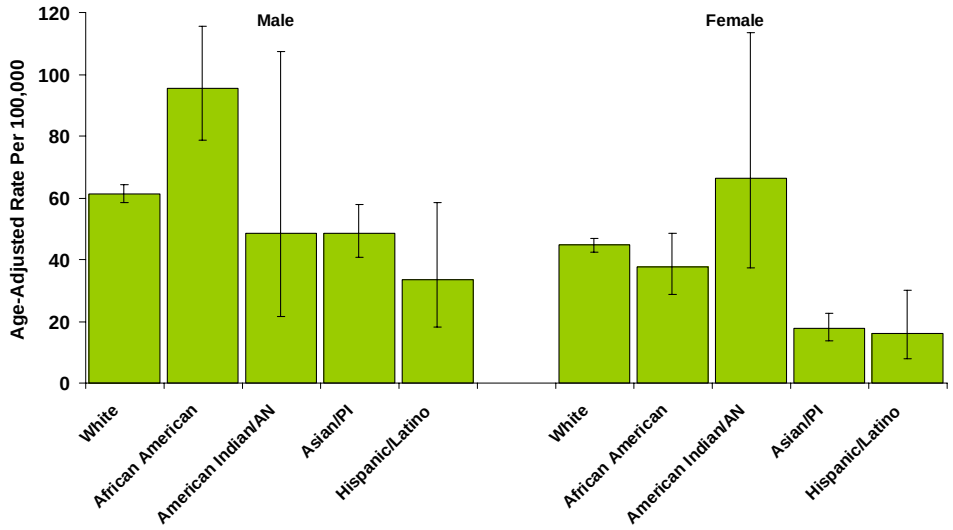
- The highest lung cancer death rates were in Covington/Maple Valley, Auburn, White Center/Boulevard Park, Tukwila/SeaTac, and Central Seattle. The death rates in Mercer Island/Point Cities and Bellevue were significantly lower than the county average rate.
- The death rates in health planning areas are highly correlated with current smoking prevalence rates (r=0.71).

Lung Cancer Death By Health Planning Area King County, Five-Year Average, 1999-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Death Records
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Lung Cancer Death Rate in King County by Gender and Race/Ethnicity Five-Year Averages, 1999-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Focus on Disparities

- Among the racial/ethnic groups, only whites had a significant decline in the lung cancer death rate between 1999 and 2003.
- Among males, the death rate among African Americans was significantly higher than the white rate. Native American females had higher death rate than the other racial/ethnic groups but the difference was not statistically significant.

Colorectal Cancer

(Cancer of the Colon and Rectum)

Colorectal cancer is the second leading cause of cancer death in King County.

In 2003, 233 King County residents, 104 males and 129 females, died from colorectal cancer.

In 2002, 736 new cases of colorectal cancer were diagnosed among King County residents.

The overall five-year relative survival rate for colorectal cancer in King County was 65.3%.

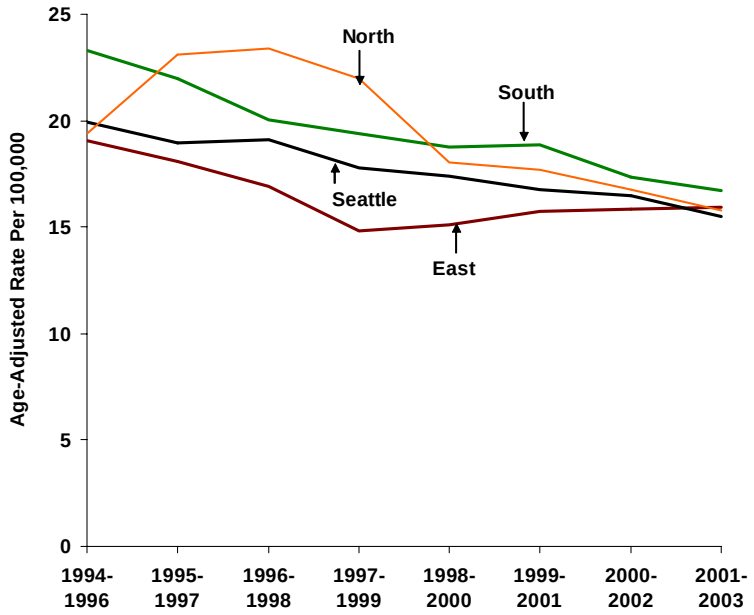
Screening for colorectal cancer can reduce mortality and it is recommended that men and women age 50 and older be screened for colorectal cancer.[1]

See Public Health Core Indicators for Seattle & King County for more information.

King County and Regions

- Between 1994 and 2003, the colorectal cancer death rate declined significantly by 29% in King County.
- Among the four regions, a significant decline occurred in Seattle and the South Region, but not in the East and the North regions.
- During 2001 and 2003, the colorectal cancer death rate was similar among the four regions.

Colorectal Cancer Death Rate in King County by Region, Three-Year Rolling Averages, 1994-2003

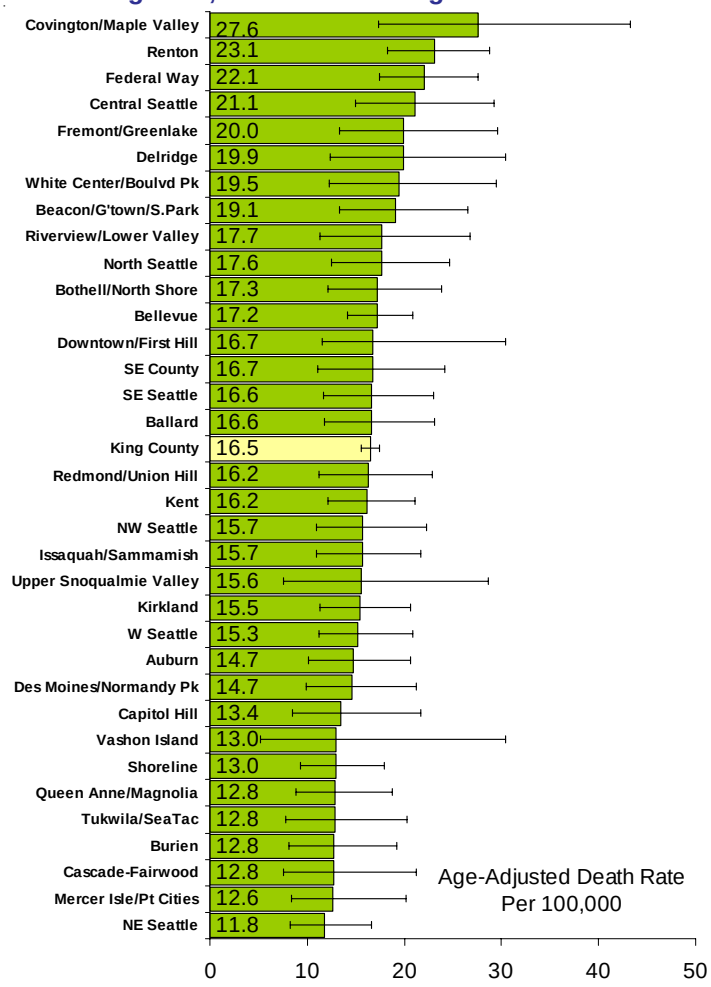


Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Patterns by Health Planning Area

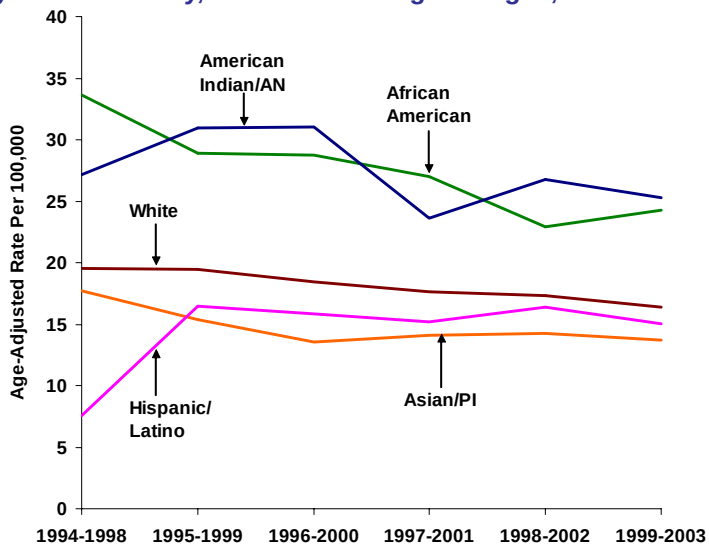
- Covington/Maple Valley, Renton, and Federal Way had the highest colorectal cancer death rate.
- The death rates in the other health planning areas were not significantly different from the county average rate.

Colorectal Cancer Death Rate in King County by Health Planning Area, 1999-2003 Averages



Data Source: Death Certificate Data: Washington State Department of Health, Center for Health Statistics
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Colorectal Cancer Death Rate in King County by Race/Ethnicity, Five-Year Rolling Averages, 1994-2003



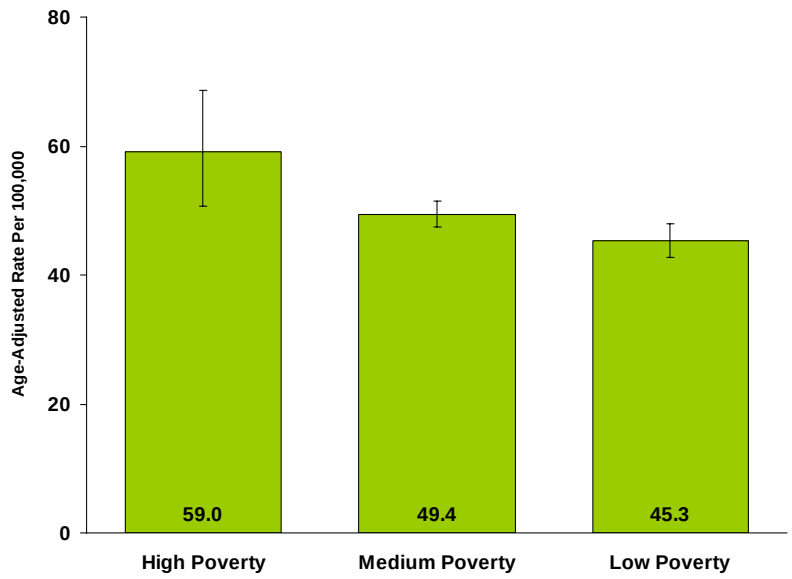
Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Focus on Disparities

- The colorectal cancer death rate declined significantly among whites and African Americans between 1994 and 2003.
- However, the African American rate remained significantly higher than the white rate.
- The death rate among American Indian/Alaska Native was similar to the higher rate for African Americans but it was not significantly different from the white rate because of small numbers.
- The colorectal cancer incidence rate was also the highest among African Americans and American Indians/ Alaska Natives (data not shown).

- The incidence rate was significantly higher in high poverty areas.

Colorectal Cancer (Invasive) Incidence Rate in King County by Neighborhood Poverty Level, Five-Year Averages, 1999-2003



Data Source: Washington State Cancer Registry
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Screening

It is recommended that men and women age 50 or older be screened for colorectal cancer. Tests commonly used for colorectal cancer screening include the fecal occult blood test (FOBT), flexible sigmoidoscopy, and colonoscopy.

The 2004 Behavioral Risk Factor Surveillance System (BRFSS) data show that among King County adults age 50 and over, 24% had an FOBT within 1 year, 50% had a sigmoidoscopy or colonoscopy within 5 years, and 58% had either of these tests. For colonoscopy only, 36% had the screening within 10 years. Among uninsured adults age 50-64, the screening rates were significantly lower.

Colorectal Cancer Screening Rates Among King County Adults Age 50+, 2004

	Percent	95% Conf. Interval
Total (age 50+, 2004)		
-Had an FOBT within 1 year	23.9	21.4 -26.7
-had a sigmoidoscopy/colonoscopy within 5 years	50.4	47.2 -53.5
-Had either of the above	57.7	54.5 – 60.8
-Had a colonoscopy within 10 years	36.4	33.4 – 39.4
Uninsured (age 50-64, 2002, 2004 average)		
-Had an FOBT within 1 year	11.2	5.6 – 21.3
-had a sigmoidoscopy/colonoscopy within 5 years	17.4	10.1 – 28.4
-Had either of the above	23.2	14.6 – 34.7
-Had a colonoscopy within 10 years	11.2	4.7 – 24.6

References

[1] U.S. Preventive Services Task Force (USPSTF): Screening for Colorectal Cancer. July 2002. www.ahcpr.gov/clinic/uspstf/uspscolo.htm

Female Breast Cancer

Breast cancer is the second leading cause of cancer deaths among females.

In 2003, 220 King County women died from breast cancer.

In 2002, 1,387 new cases of breast cancer were diagnosed.

The overall five-year relative survival rate among women diagnosed for breast cancer was 90%.

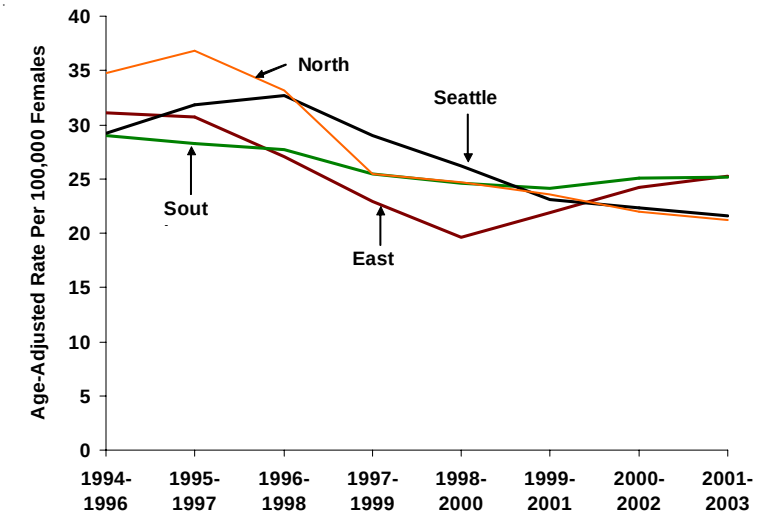
Screening for breast cancer can reduce mortality. It is recommended that women age 40 and older should have mammography screening every 1-2 years.[1]

See Public Health Core Indicators for Seattle & King County for more information.

King County and Regions

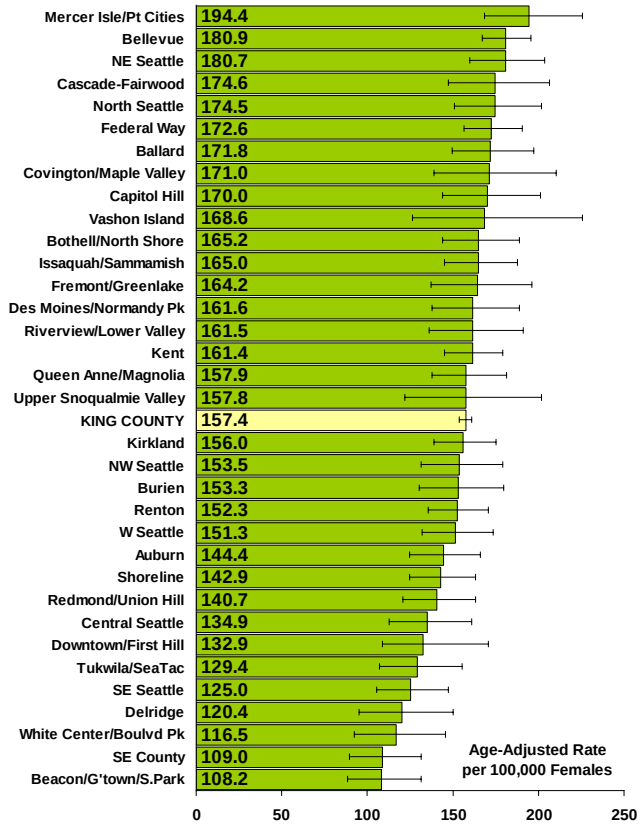
- The age-adjusted breast cancer death rate declined 16% from 1994 to 2003 in King County (data not shown).
- The declining trend was significant in Seattle, the East and North regions, but not in the South Region.
- Averaged over 1999-2003, the death rate in the South Region was 2-3 percentage points higher than the other regions but the differences between the regions were not statistically significant (data not shown).

Breast Cancer Death Rate in King County by Region, Three-Year Rolling Averages, 1994-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Breast Cancer Incidence By Health Planning Area
King County, Five-Year Average, 1998-2002



Data Source: Washington State Cancer Registry
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

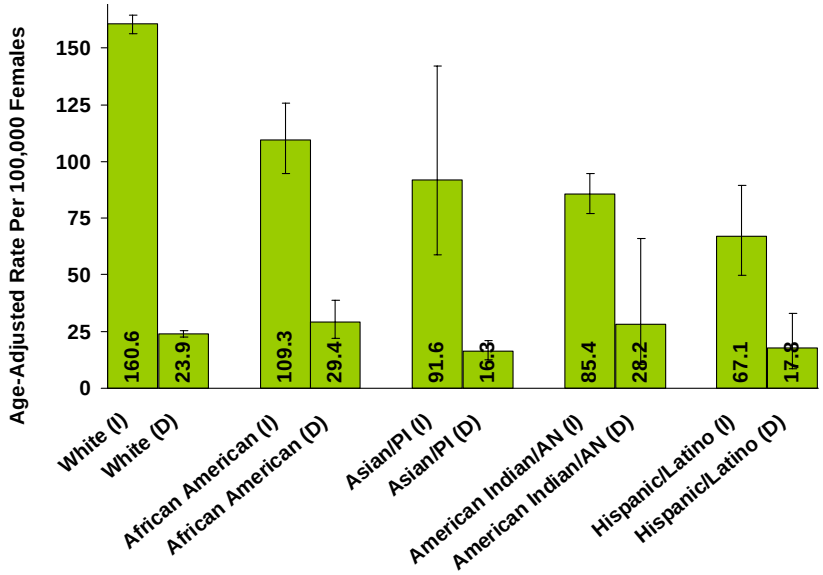
Patterns by Health Planning Area

- None of the health plan areas had a death rate that was significantly different from the King County average rate.
- However, breast cancer incidence rates in Mercer Island/Point Cities and Bellevue were significantly higher than the county average while the rates in Beacon Hill/Georgetown/South Park, Southeast County, White Center/Boulevard Park, Delridge, and Southeast Seattle were significantly lower than the county rate.

Focus on Disparities

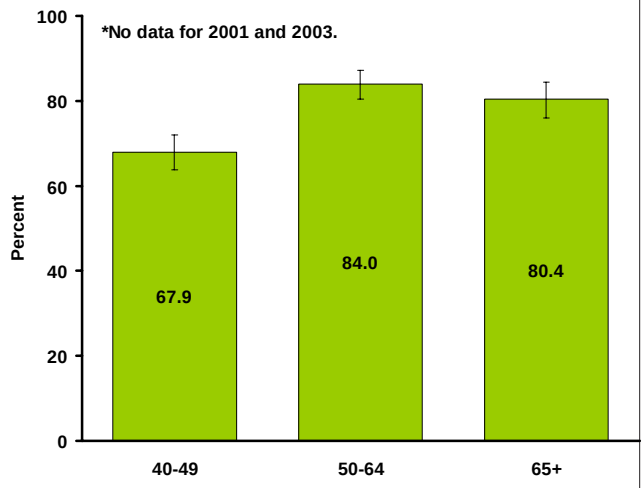
- Although the breast cancer incidence rate for whites was 47% higher than the rate for African Americans, the African American death rate was 23% higher than the white rate.

Breast Cancer Incidence (I - 1998-2002) and Death (D - 1999-2003) Rates in King County by Race/Ethnicity, Five-Year Averages



Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates and Cancer Registry
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Had a Mammogram Within Two Years Among King County Women Age 40+ by Age, Five-Year Averages, 2000-2004*



Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Screening

- In 2004, 74.2% of the King County women age 40 and over had received a mammography screening within two years.
- The screening rate among women age 40-49 was significantly lower than women in older age groups.

* By sexual orientation, women who are lesbian/bisexual had a significantly lower screening rate (2003-2004 average data on "Had a mammogram within two years": 49.5%, 95% CI: 33.9%-65.2%) than heterosexual women (75.0%, 95% CI: 71.9%-77.8%) (data not shown).

References

[1] The U.S. Preventive Services Task Force (USPSTF): Screening for Breast Cancer. February 2002. www.ahcpr.gov/clinic/uspstf/uspsbrca.htm>

Cervical Cancer

Averaged over 1999-2003, there were 15 cervical cancer deaths per year among King County women.

Averaged over 1998-2002, 57 King County women were diagnosed with invasive cervical cancer per year.

The age-adjusted cervical cancer death rate per 100,000 declined significantly from 2000 to 2003 from 2.6 to 1.0.

The five-year relative survival rate for all invasive cervical cancers diagnosed was 72.9%.

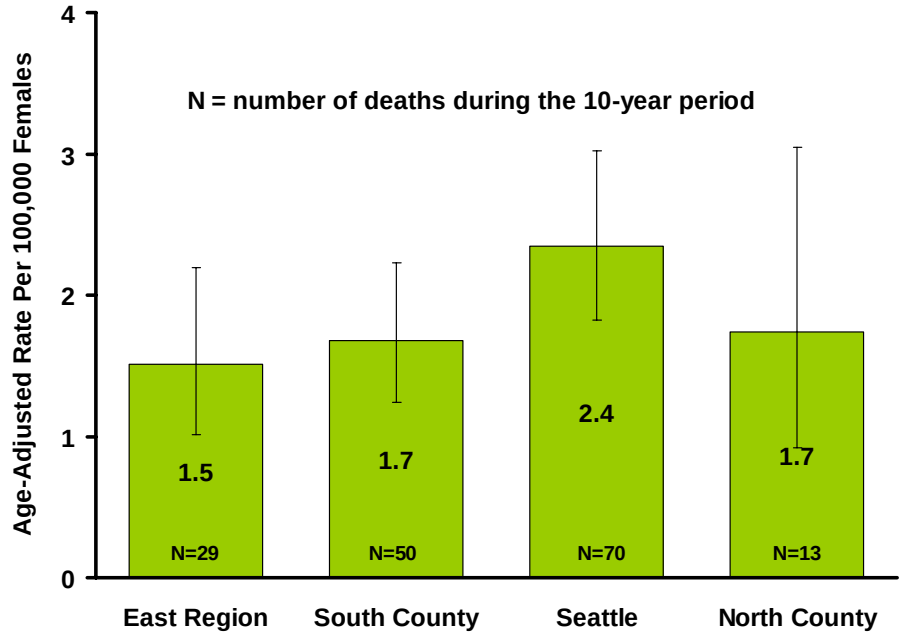
Invasive cervical cancer is potentially preventable through Pap test screening. It is recommended that Pap tests start at age 18 or with sexual activity. After three or more tests with normal findings, the test may be performed less frequently.[1]

In 2004, 83.2% of King County women age 18 and over had received a Pap test within three years.

King County and Regions

- A significant decline in the cervical cancer death rate occurred in Seattle and the North Region but not in the East and the South Regions (data not shown).
- The death rate in Seattle was higher than the other regions but the differences between the regions were not statistically significant.

Cervical Cancer Death Rate in King County by Region
Ten-Year Combined, 1994-2003

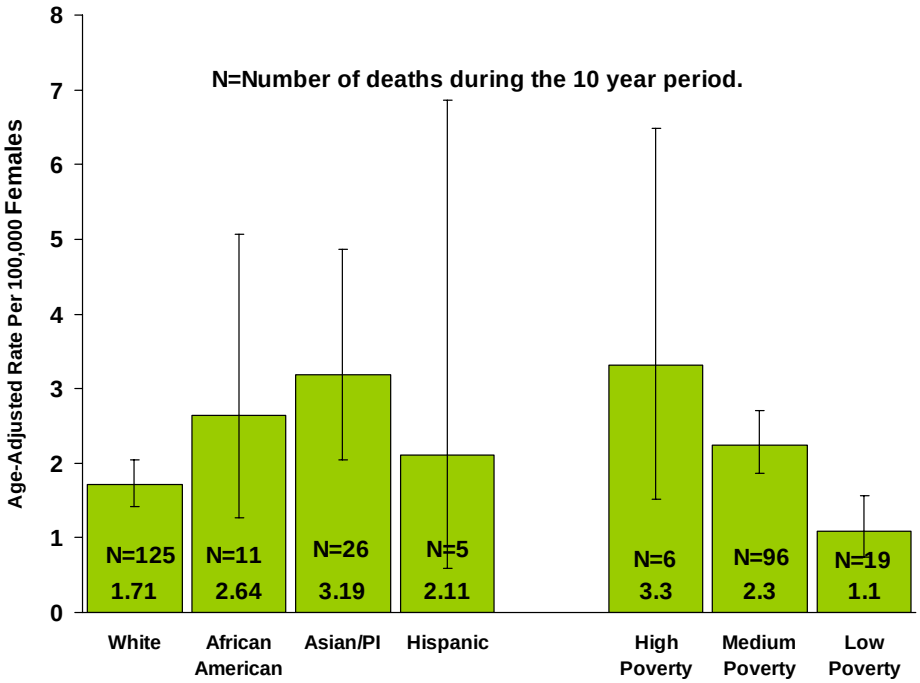


Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation, 8/05

Focus on Disparities

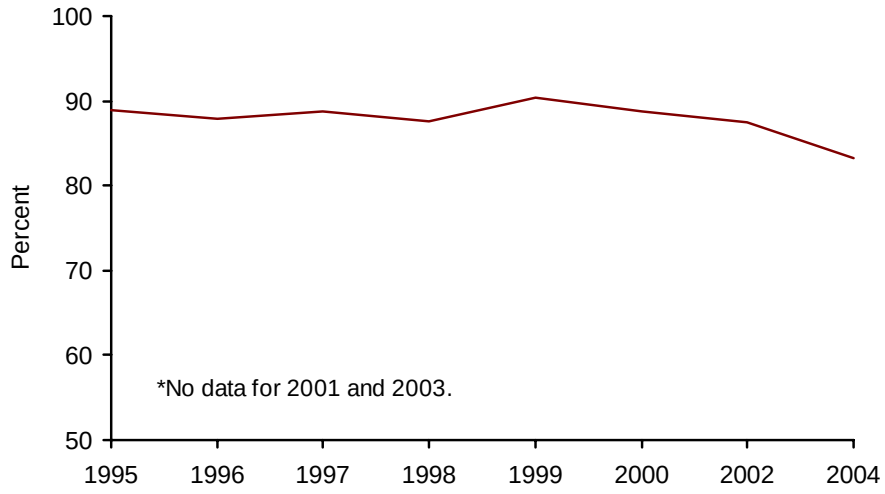
- Asians/Pacific Islanders had a significantly higher death rate than whites.
- High and medium poverty areas had a higher death rate than lower poverty areas.

Cervical Cancer Death Rate in King County by Race/Ethnicity and Neighborhood Poverty Level, 10-Year Combined, 1994-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Had a Pap Test Within Three Years Among King County Women Age 18+, 1995-2004*

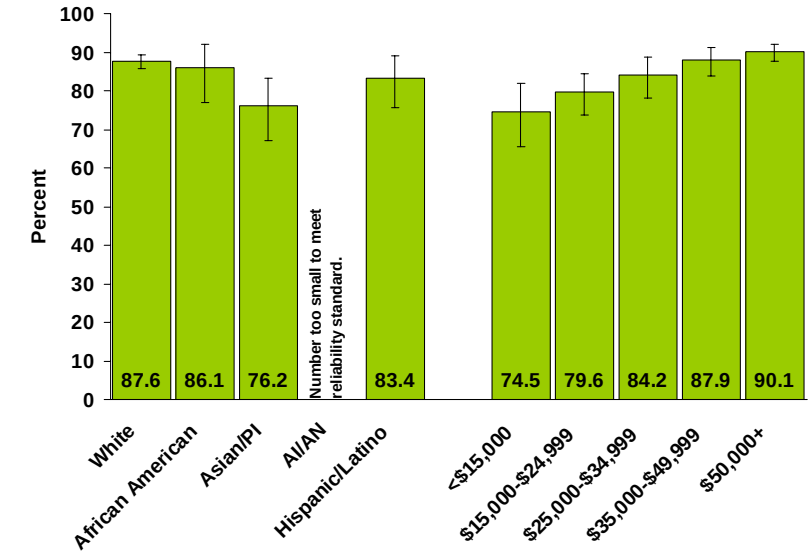


Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Screening

- The Pap test screening rate (screened within three years) declined significantly among King County women between 1999 and 2004.
- Among the four regions, there was no significant difference in the screening rates (data not shown).

Had a Pap Test Within Three Years Among King County Women Age 18+ by Race/Ethnicity and Annual Household Income, 2000, 2002, and 2004 Averages



Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

- Asian/PI women and women from lower income households had lower screening rates.

References

[1] The U.S. Preventive Services Task Force (USPSTF): Screening for Cervical Cancer. January 2003. http://www.ahcpr.gov/clinic/uspstf/uspscerv.htm

Prostate Cancer

Prostate cancer is the second leading cause of cancer death in men, after lung cancer.

In 2003, 158 King County men died from prostate cancer.

In 2002, 1,246 King County men were diagnosed for invasive prostate cancer.

Of the prostate cancer deaths between 1999 and 2003, 92% were among men age 65 and older and 74% among men 75 and older.

Of the prostate cancer diagnosed between 1998 and 2002, 63% were among men age 65 and older.

Five-year relative survival rate for prostate cancer is 100%.

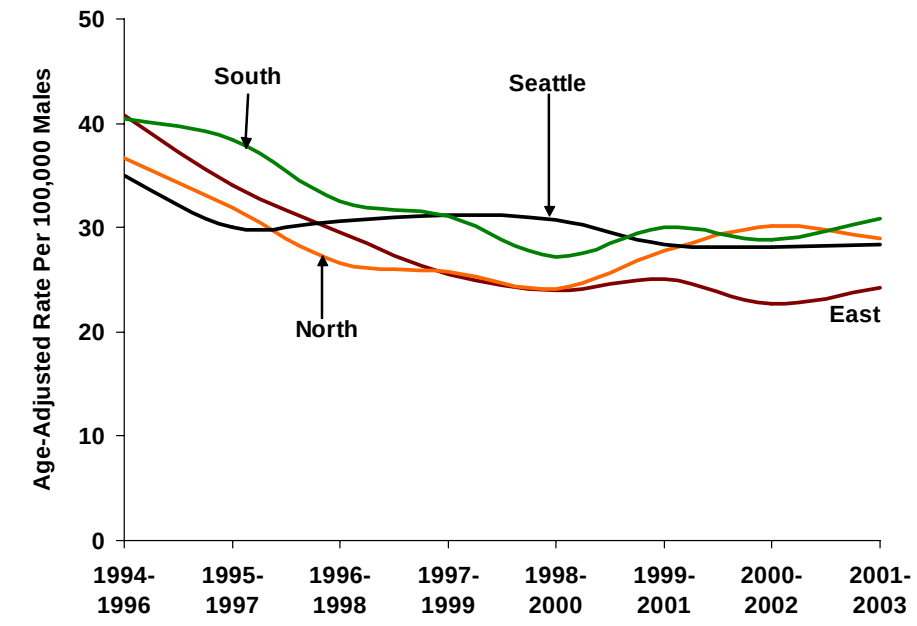
Screening for prostate cancer is still controversial. "The U.S. Preventive Services Task Force concludes that the evidence is insufficient to recommend for or against routine screening for prostate cancer using prostate specific antigen (PSA) testing or digital rectal examination (DRE)."[1]

The American Cancer Society, however, recommends annual screening among men with a life expectancy of at least ten years using both prostate-specific antigen (PSA) blood test and digital rectal examination (DRE) starting at age 50.[2]

King County and Regions

- Between 1994 and 2003, the prostate cancer death rate declined significantly by 38% in King County (data not shown).
- A significant decline in the prostate cancer death rate occurred in all King County regions except the North Region.
- The death rate was the highest in the South Region and the lowest in the East Region but the differences were not statistically significant. The incidence rate in the East Region, however, was significantly higher than the county average, possibly related to its higher screening rate.

Prostate Cancer Deaths in King County by Region
Three-Year Rolling Averages, 1994-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

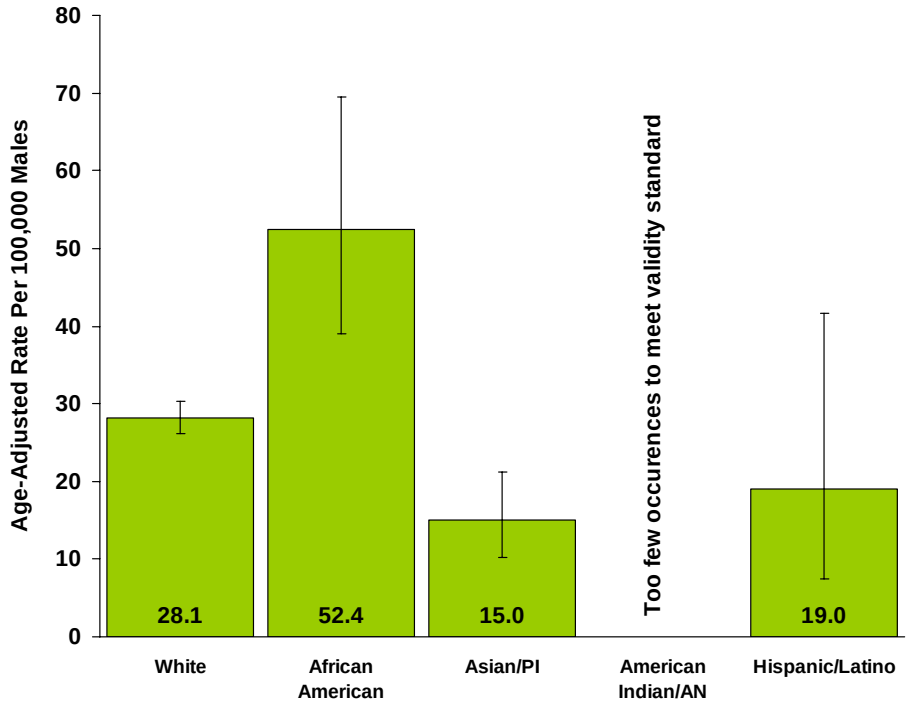
Patterns by Health Planning Area

- Because of the relative small numbers per area, none of the Health Planning Areas had a death rate that was significantly different from the county average. (data not shown)

Focus on Disparities

- Among the racial/ethnic groups, only whites had a significant decline in the death rate (data not shown).
- The death rate for African Americans was 86% higher than the white rate. The death rate among Asian/PI was significantly lower than the white rate. The Hispanic rate was similar to the white rate.
- The incidence rate per 100,000 for African Americans (245.3) was significantly higher than the white rate (178.3). The incidence rates for Asian/PI (89.8), American Indian/AN (67.6), and Hispanic/Latino (75.1) were significantly lower than the white rate.
- There was no significant difference in the prostate cancer death rate among areas with different neighborhood poverty levels. (data not shown)

Prostate Cancer Death Rate in King County by Race/Ethnicity, Five-Year Averages, 1999-2003

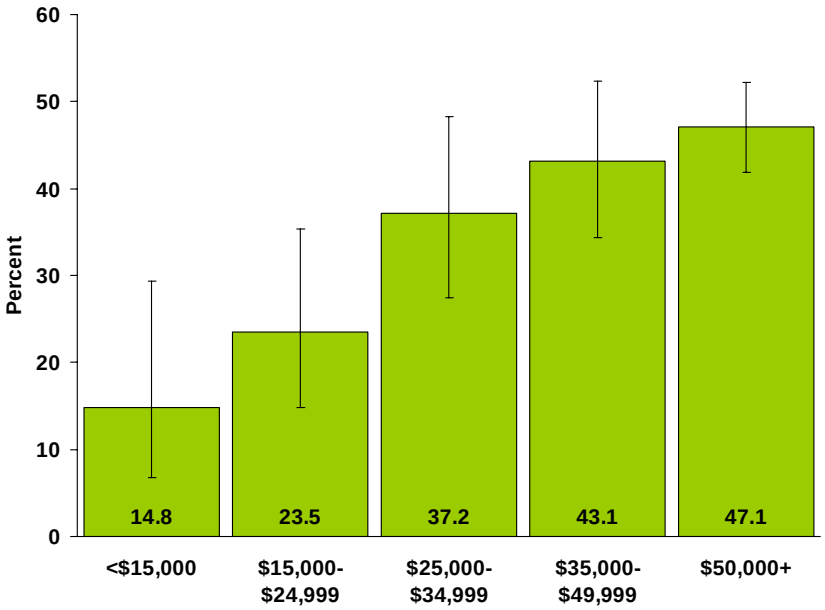


Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Screening

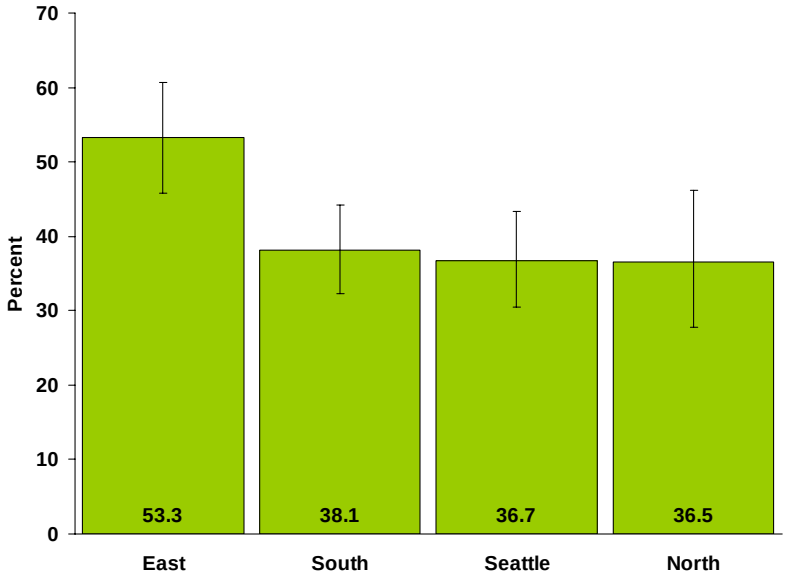
- Averaged over 2001, 2002, and 2004, among King County adults age 50 and over, 49.3% had received a PSA test during the past year, 54.1% had received a DRE during the past year, and 41.0% had received both (data not shown).
- The screening rate for both PSA and DRE is significantly associated with household income.

Had PSA and DRE During the Past Year Among King County Men Age 50+ by Household Income Level, 2001, 2002, and 2004



Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Had PSA and DRE During the Past Year Among King County Men Age 50+ by Region, 2001, 2002, and 2004 Averages



Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

- Men in the East Region were more likely to receive prostate cancer screening than men in the other regions.

References

[1] U.S. Preventive Services Task Force: December 2002. Screening for Prostate Cancer. http://www.ahcpr.gov/clinic/uspstf/uspsprca.htm

[2] American Cancer Society. Cancer Facts and Figures 2005. www.cancer.org/docroot/STT/content/STT_1x_Cancer_Facts__Figures_2005.asp

Stroke

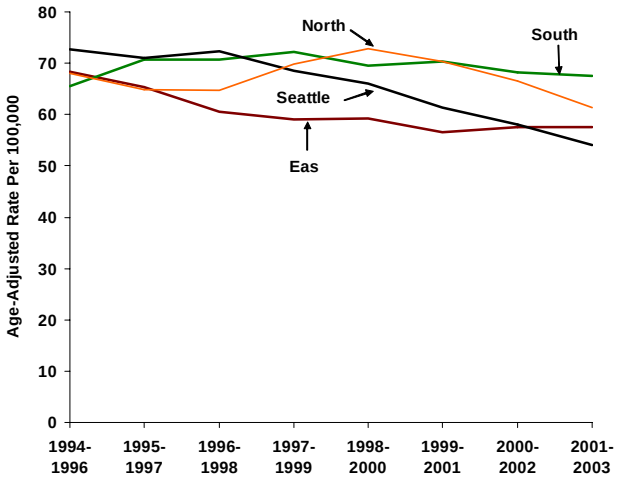
Stroke is caused by an interruption of blood supply to a portion of the brain due to blockage or rupture of the blood vessels to the brain. Stroke is the third leading cause of death and a major cause of disability.The 2004 BRFSS data show that 1.5%, or about 13,000 King County adults had suffered a stroke and the prevalence was 6.6% among older adults age 65 and over.[1] Averaged over 1999 to 2003, there were 3588 stroke hospitalizations per year among King County residents. In 2003, 946 King County residents died from stroke. Stroke shares many of the same risk factors with coronary heart disease, such as hypertension, smoking, and diabetes.

See Public Health Core Indicators for Seattle & King County for more information

King County and Regions

- The stroke death rate in King County declined significantly by 16.6% between 1994 and 2003 (data not shown).
- Among the four regions, only the East Region and Seattle experienced a significant decline.

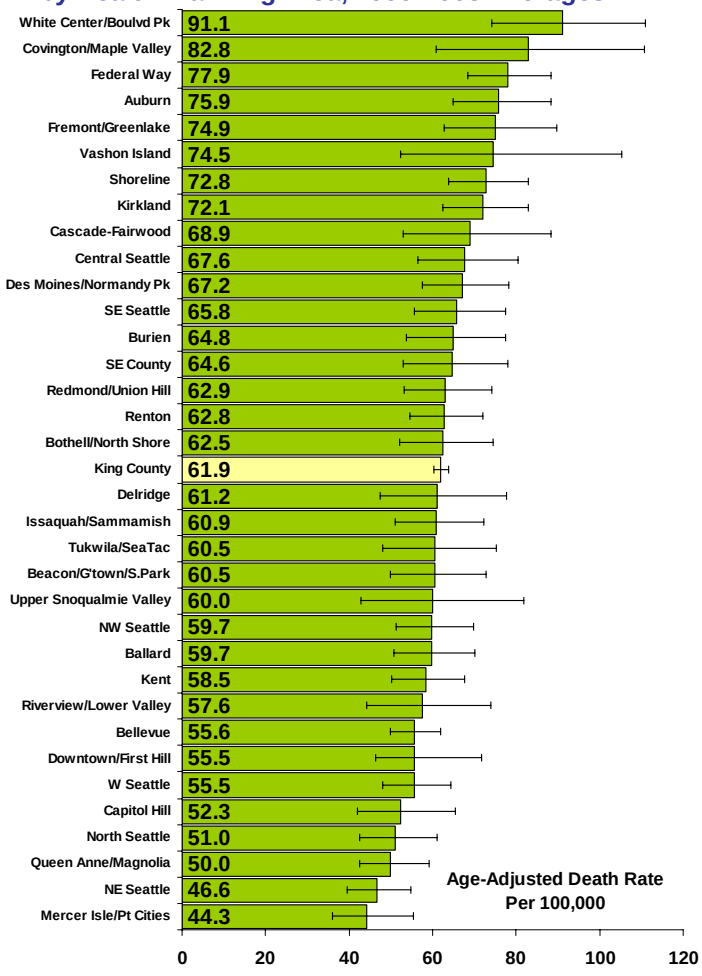
Stroke Death Rate in King County by Region, Three-Year Rolling Averages, 1994-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

- Averaged over 1999 and 2003, the stroke death rates in the East Region and Seattle were lower than the North and the South Regions but the differences were not statistically significantly (data not shown).

Stroke Death Rate in King County by Health Planning Area, 1999-2003 Averages



Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

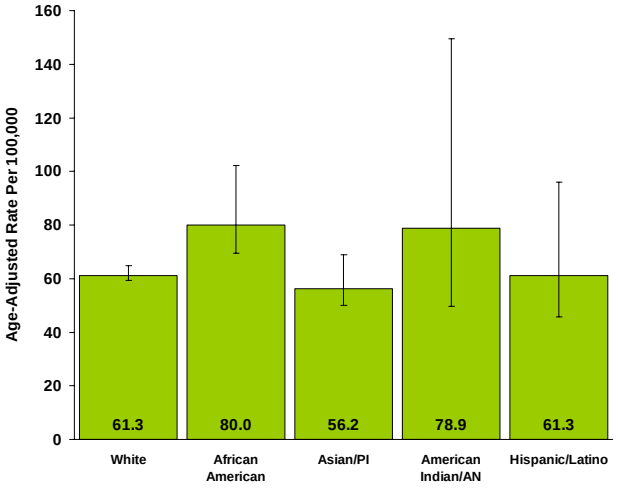
Patterns by Health Planning Area

- White Center/Boulevard Park, Covington/Maple Valley, Federal Way, Auburn, and Fremont/ Greenlake had the highest stroke death rate in King County.
- Areas with the lowest stroke death rate include Mercer Island/Point Cities, Northeast Seattle, Queen Anne/Magnolia, North Seattle, and Capitol Hill.

Focus on Disparities

- African Americans and American Indian/Alaska Natives had a higher stroke death rate than whites, while Asian/Pacific Islanders and Hispanic/Latinos had similar rates.
- Both whites and African Americans experienced a significant decline in the stroke death rate between 1994 and 2003 (data not shown).

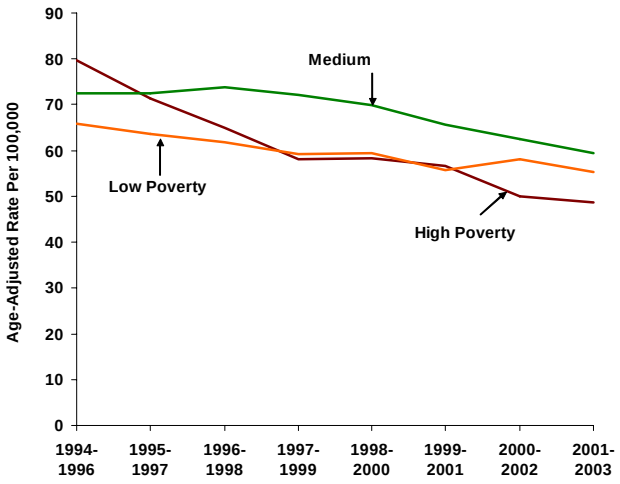
Stroke Death Rate in King County by Race/ Ethnicity, Five-Year Averages, 1999-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

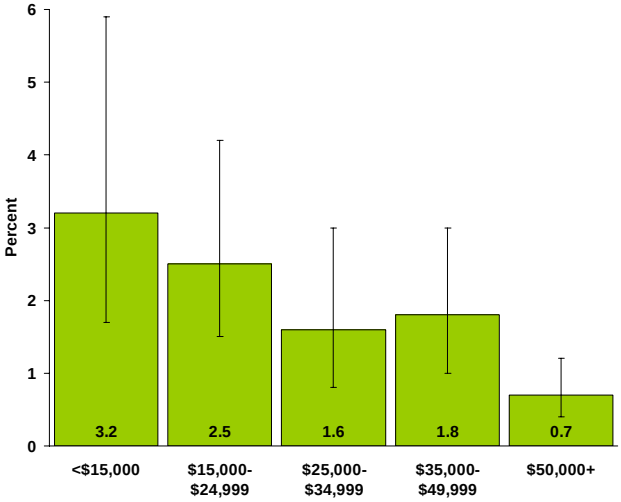
- The stroke death rate in high poverty areas experienced a more significant decline than medium and low poverty areas. The death rate in high poverty areas has become similar to the rate in low poverty areas.
- However, stroke prevalence is higher among lower income adults.

Stroke Death Rate in King County by Neighborhood Poverty Level Three-Year Rolling Averages, 1994-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Stroke Prevalence Among King County Adults by Annual Household Income, 2001 and 2004 Average



Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

References

[1] The BRFSS data do not include institutionalized individuals such as people living in a nursing home and therefore the prevalence rates are likely to be underestimated.

Chronic Lower Respiratory Disease (CLRD)

Chronic Lower Respiratory Disease (CLRD) includes chronic obstructive pulmonary disease (COPD) and asthma. Chronic bronchitis and emphysema are the most common forms of COPD, results in progressive difficulty in breathing.

Between 80 and 90 percent of COPD is attributable to cigarette smoking. Smoking, including secondhand smoking, is also a major risk factor for asthma.

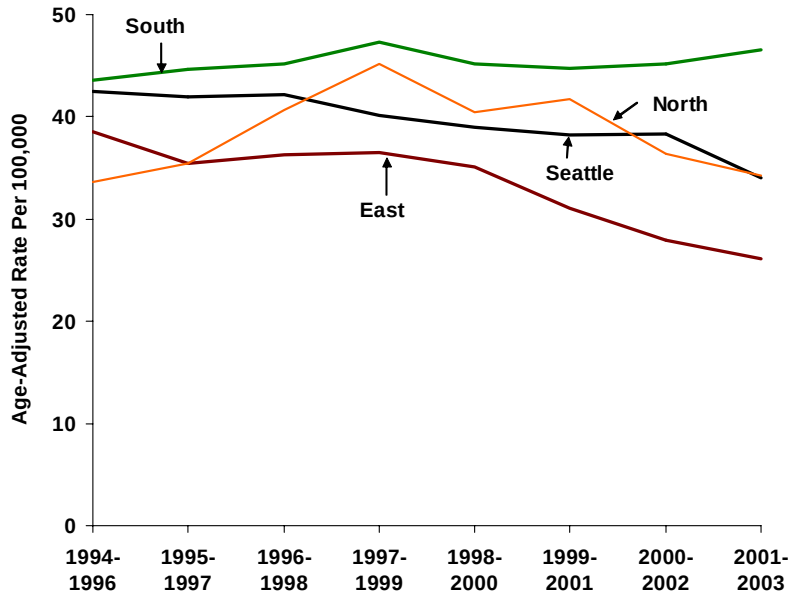
COPD mainly affects older people but asthma is common in both adults and children.

CLRD is the 4th leading cause of death among King County residents.

King County and Regions

- From 1994 to 2003, the CLRD death rate declined significantly by 25% in King County (data not shown).
- By region, the death rate declined significantly in the East Region and Seattle during 1994 to 2003 and during 1999 to 2003. The death rate also declined significantly during 1999-2003 in the North Region.
- Following the pattern in smoking prevalence, the death rate in the South Region was the highest while the East region was the lowest.

CLRD Death Rate in King County by Region, Three-Year Rolling Averages, 1994-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

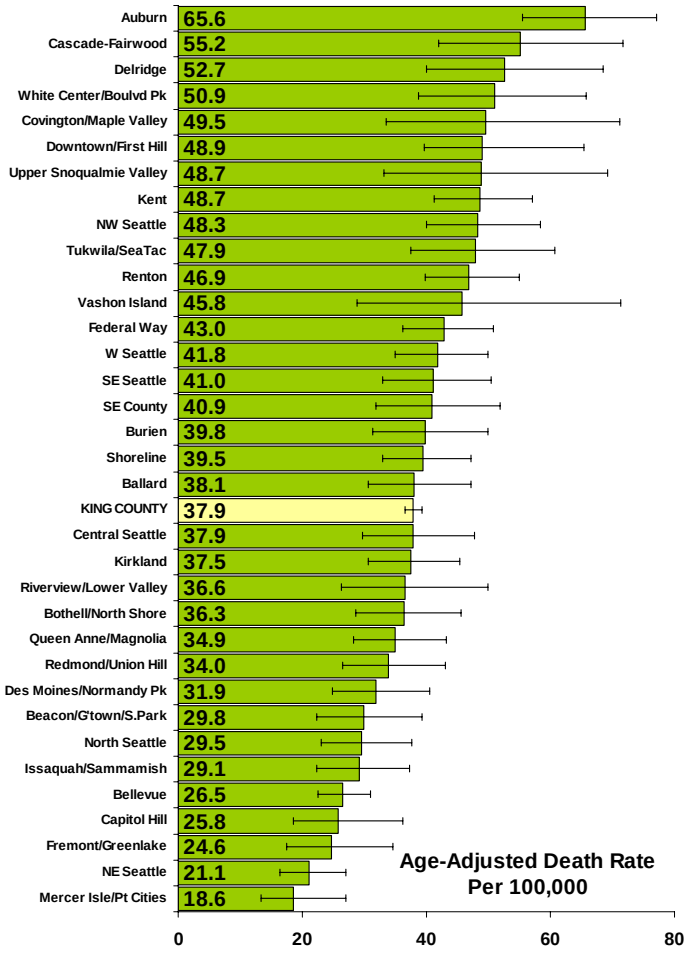
Patterns by Health Planning Area

- Auburn, Cascade-Firewood, and Delridge had the highest death rate while Mercer Island and North-east Seattle had the lowest.

Focus on Disparities

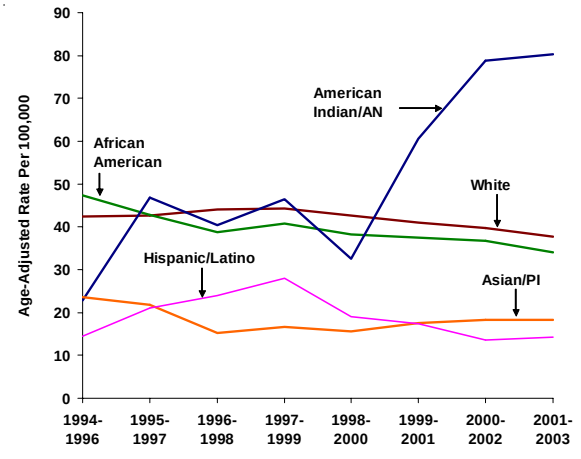
- The death rate among whites and African Americans declined significantly between 1994 and 2003. Three year average rate from 1994-1996 to 2001-2003 for American Indian/Alaska Natives increased 3.5 times but the increase was not statistically significant because of small numbers.
- The 2001-2003 average rate for American Indian/Alaska Natives was 2.2 times the county average rate (data not shown).
- The death rates for Asian/Pacific Islanders and Hispanic/Latinos were significantly lower than the county average rate.
- The death rates in high and medium poverty areas were significantly higher than the rate in lower poverty areas.
- Between 1994 and 2003, only the high poverty areas did not have a significant decline in the death rate (data not shown).

CLRD Death Rate in King County by Health Planning Area, 1999-2003 Averages



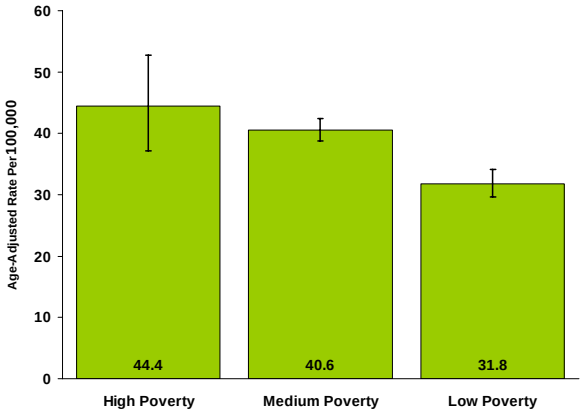
Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

CLRD Death Rate in King County by Race/Ethnicity, Three-Year Rolling Averages, 1994-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

CLRD Death Rate in King County by Neighborhood Poverty Level, Five-Year Averages, 1999-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Diabetes

Diabetes is caused by a decreased ability to produce insulin (Type 1) or an impaired response to insulin (Type 2). Of all diabetics, 90% have Type 2 diabetes.

Without proper treatment, diabetes can lead to serious complications such as kidney failure, blindness, and lower extremity amputation.

Diabetes is the 7th leading cause of death in King County. In 2003, there were 356 deaths with diabetes as the primary cause.

In addition, 610 deaths occurred in 2003 in which diabetes was a contributing cause.

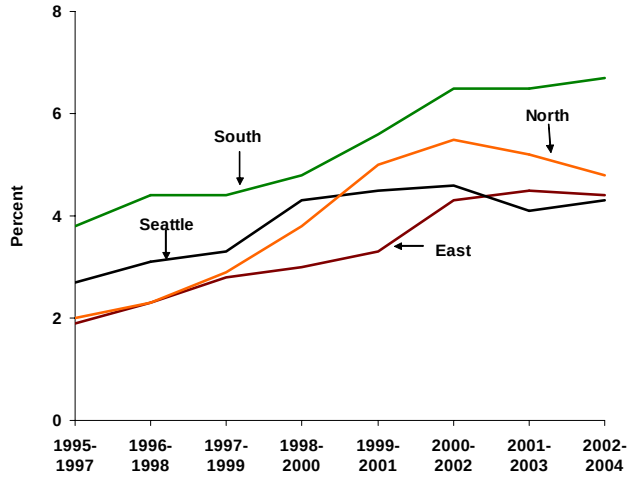
The 2004 BRFSS data show that 5.1% or about 70,000 King County adults have been diagnosed for diabetes.

See Public Health Core Indicators for Seattle & King County for more information.

King County and Regions

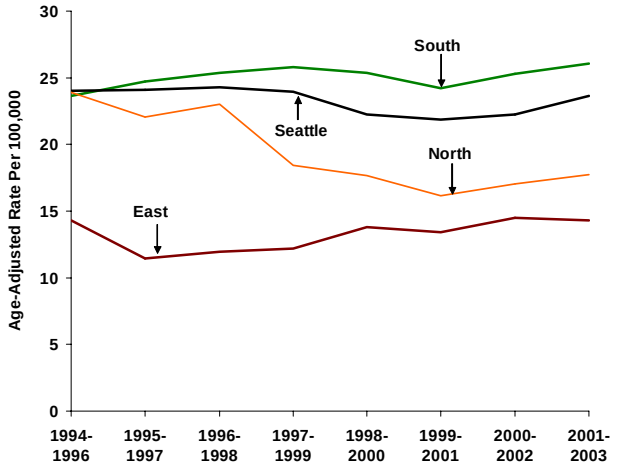
- From 1995 to 2004, the prevalence of diabetes increased 2.9 times in King County (data not shown) and the increase was significant in all four regions.
- Averaged over 2000-2004, the South Region had the highest rate while the East Region had the lowest (data not shown).
- There was no significant change in the death rate between 1994 and 2003 in King County (data not shown).
- The death rates in the South Region and in Seattle were significantly higher than the death rate in the North and East regions.

Diabetes Prevalence Among King County Adults by Region, Three Year Rolling Averages, 1995-2004



Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

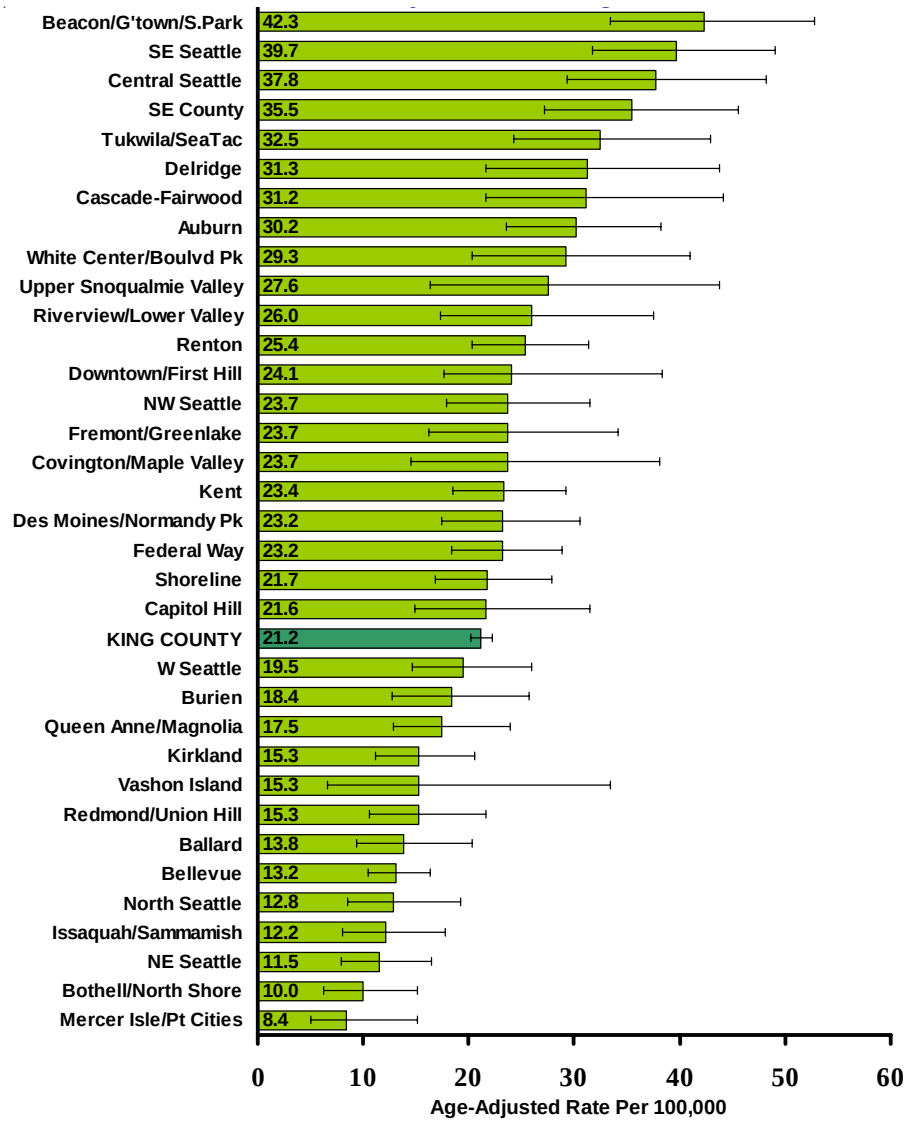
Diabetes Death Rate in King County by Region, Three-Year Rolling Averages, 1994-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Pattern by Health Planning Area

- Beacon Hill/Georgetown/ South Park, Southeast Seattle, Central Seattle, Southeast County, Tukwila/ SeaTac had the highest diabetes death rates in the county.
- The eastside communities and Northeast Seattle had lower than average death rates.



Poorly Controlled Diabetes

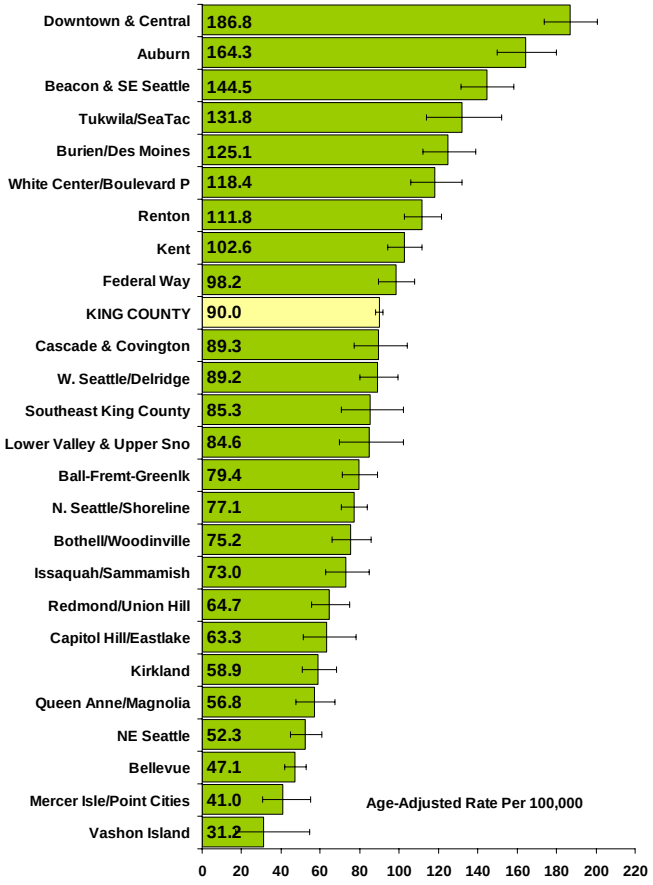
- Hospitalizations for diabetes, especially those with severe complications, such as ketoacidosis or coma, indicate the disease is poorly controlled.
- In 2003, there were 1,672 hospitalizations for diabetes among King County residents, including 626 for ketoacidosis or coma.
- The hospitalization rate for diabetes and for ketoacidosis or coma increased significantly from 1994 to 2003 (data not shown).
- The diabetes hospitalization rates in Downtown/Central Seattle, Auburn, Beacon/ Southeast Seattle, Burien/Des Moines, Tukwila/SeaTac, White Center/Boulevard Park, Renton, and Kent were significantly higher than the county average rate.

- Eastside communities, Vashon Island, Northeast Seattle, Queen Ann/Magnolia, Capitol Hill/Eastlake, North Seattle/Shoreline had lower than average hospitalization rate.

Focus on Disparities

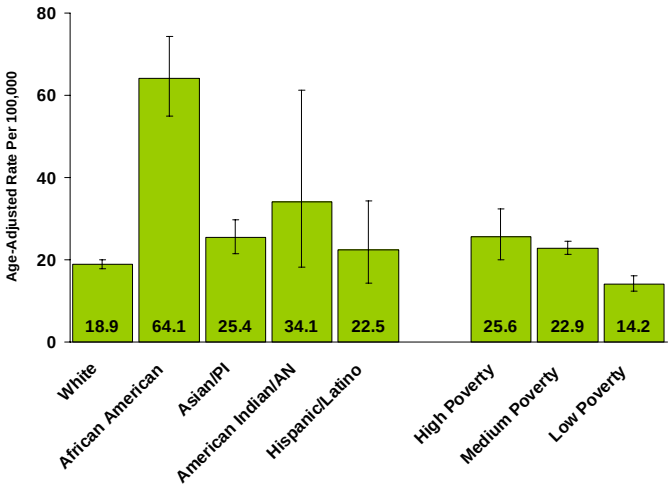
- American Indian/Alaska Natives and African Americans had substantially higher prevalence rate than the other racial/ethnic groups but the differences were not statistically significant because of small sample sizes in the BRFSS data (data not shown).
- People from lower income households had significantly higher prevalence than people from higher income households (data not shown).

Hospitalization for Diabetes, King County, 1999-2003 Average



Data Source: Washington State Department of Health, Center for Health Statistics, CHARS
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Diabetes Death Rate in King County by Race/ Ethnicity and Neighborhood Poverty Level Five-Year Averages, 1999-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

- The death rates had similar racial/income disparities. The African American rate was 3.4 times the white rate while the American Indian/Alaska Native rate was 1.8 times the white rate.
- A clear gradient by income levels in the death rate is also observed.

Chronic Liver Disease and Cirrhosis

Cirrhosis, the scarring of the liver, is the final nonreversible outcome of chronic liver damage most often caused by excessive alcohol consumption and hepatitis. In this report, the terms "chronic liver disease" and "cirrhosis" are used interchangeably. Each of the terms includes all forms of chronic liver disease.

In the United States, cirrhosis is the 12th leading cause of death.

In 2003, the age-adjusted death rate for cirrhosis was 8.7 per 100,000 with 154 deaths.

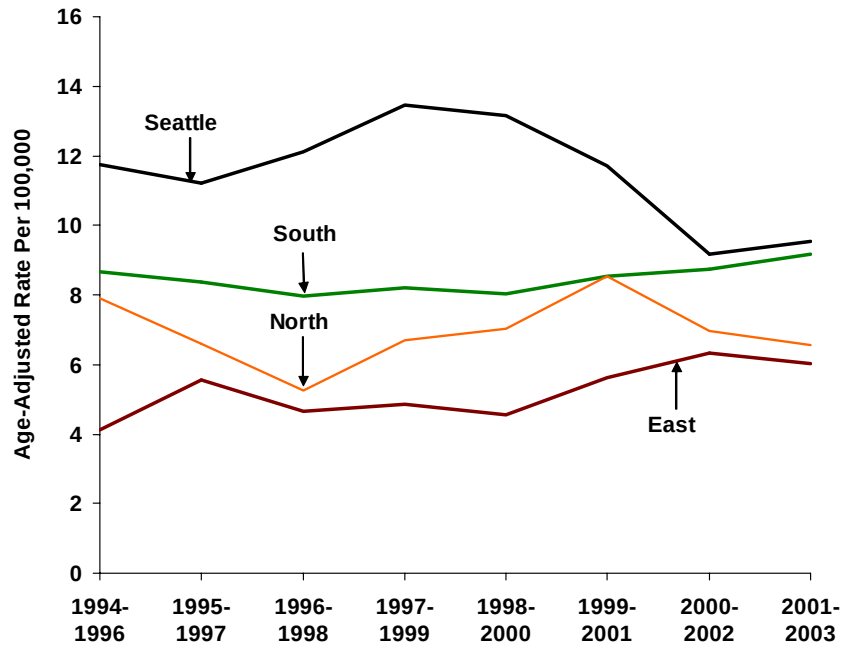
There was no significant change in the death rate during the past 10 years.

During 1999-2003, alcoholic liver disease accounted for 78.7% of the deaths from chronic liver disease.

King County and Regions

- Although the overall death rate was unchanged from 1994 to 2003 in King County (data not shown), a significant increase in cirrhosis death occurred in the East Region, although it continued to have the lowest death rate among the four regions.
- Seattle had the highest death rate among the four regions, although the gap in the death rate between Seattle and the other regions narrowed in recent years.

Chronic Liver Disease Death Rate in King County by Region, Three-Year Rolling Averages, 1994-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

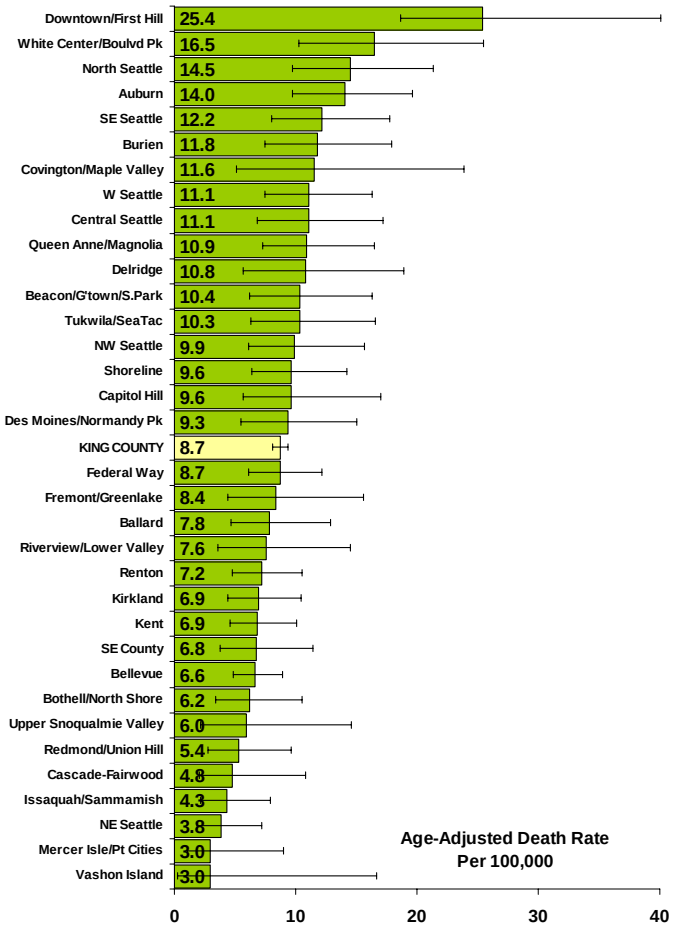
Patterns by Health Planning Area

- The death rate in Seattle's Downtown/First Hill area was 2.9 times the King County rate. The death rates in White Center/Boulevard Park, North Seattle, and Auburn were also significantly higher than the county average.
- The lowest death rates were in Mercer Island/Point Cities, Northeast Seattle, and Issaquah/ Sammamish.

Focus on Disparities

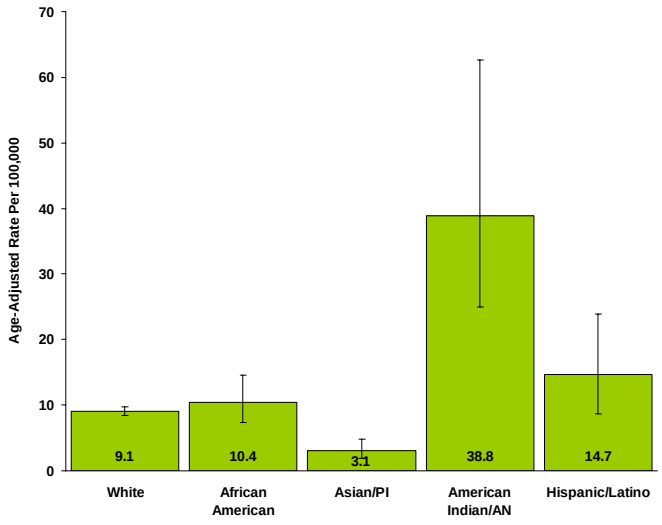
- Averaged over 1999-2003, the death rate for American Indian/Alaska Natives (38.8) was 4.5 times the county average. The Hispanic rate (14.7) was 1.7 times the county average but the difference was not statistically significant because of relative small numbers. The white and African American rates (9.1 and 10.4 respectively) were similar to the county average.
- Although the death rate for Asian/Pacific Islanders (3.1) was only about one-third of the county average, the death rate increased significantly between 1994 and 2003 (data not shown).
- The death rates in high and medium poverty areas were 3.0 and 1.6 times higher respectively than the rate in low poverty areas.

Chronic Liver Disease Death Rate in King County by Health Planning Area, 1999-2003 Averages



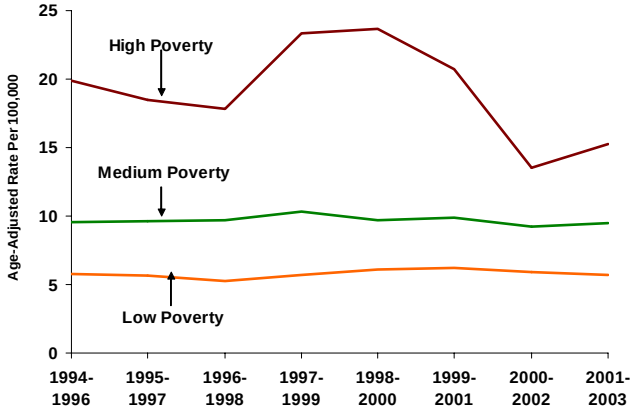
Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation,

Chronic Liver Disease Death Rate in King County by Race/Ethnicity, Five-Year Averages, 1999-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Chronic Liver Disease Death Rate in King County by Neighborhood Poverty Level Three-Year Rolling Averages, 1994-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Health of King County 2006

Chapter 7: Injuries and Violence

Introduction

Unintentional Injuries

Motor Vehicle Injuries

Submersion Injuries

Fall Injuries

Firearm Injuries

Homicide and Assault Injuries

7

Public Health
Seattle & King County
HEALTHY PEOPLE. HEALTHY COMMUNITIES

Introduction

Injuries are very common. Most of us will suffer a serious injury at least once in our lives. Often, people say “accident” when they talk about injuries. In fact, we can predict and prevent most injuries.

In the U.S. injuries are the leading cause of death from infancy to middle age, with health and social costs totaling over $180 billion a year.

In King County injuries killed more people between the ages of one and 44 than any other cause of death. Furthermore, injuries were the leading cause of hospitalization for King County residents ages five to 44 and over 85.

Injuries are classified by intent. The majority of injuries in King County are unintentional injuries, such as motor vehicle crashes. Suicide and homicide are examples of intentional injuries.

The 2003 King County injury death rate was 44.2 per 100,000. A total of 808 King County residents died as the result of an injury in 2003.

Injuries are the leading cause of years of potential life lost before age 65.

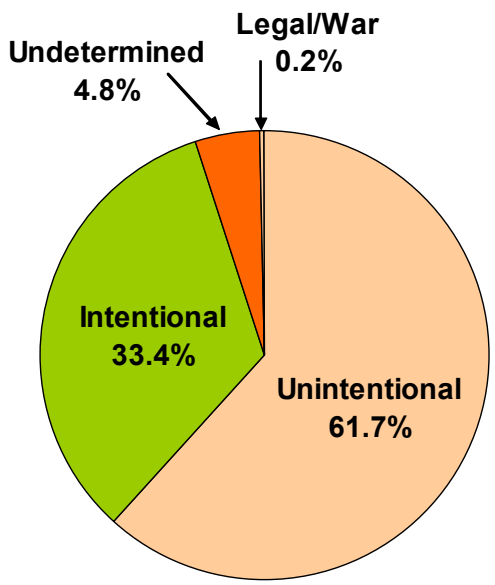
Public Health – Seattle & King County focuses on preventing traffic, firearm, fall, and submersion injuries. Additional information can be found on-line at

http://www.metrokc.gov/health/injury/index.htm and http://metrokc.gov/health/ems/index.htm.

Categories of Injury

- Injuries are classified by intent.
- Unintentional injuries, such as motor vehicle crashes and falls, account for over 60% of injury deaths in King County. During the 5 year period from 1999 to 2003, 2,444 King County residents died as a result of an unintentional injury.
- One third of injury deaths in King County are intentional – the result of a homicide or suicide. In King County, 1,324 residents died of an intentional injury from 1999 to 2003.
- Intent could not be ascertained in approximately 5% (189 cases) of injury deaths. These are classified as undetermined intent.
- A small percentage of injury deaths are attributed to legal/law enforcement actions or acts of war. Seven deaths were included in this category from 1999 to 2003.

Injuries By Intent, King County, 5-Year Total, 1999 - 2003



Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

Unintentional Injuries

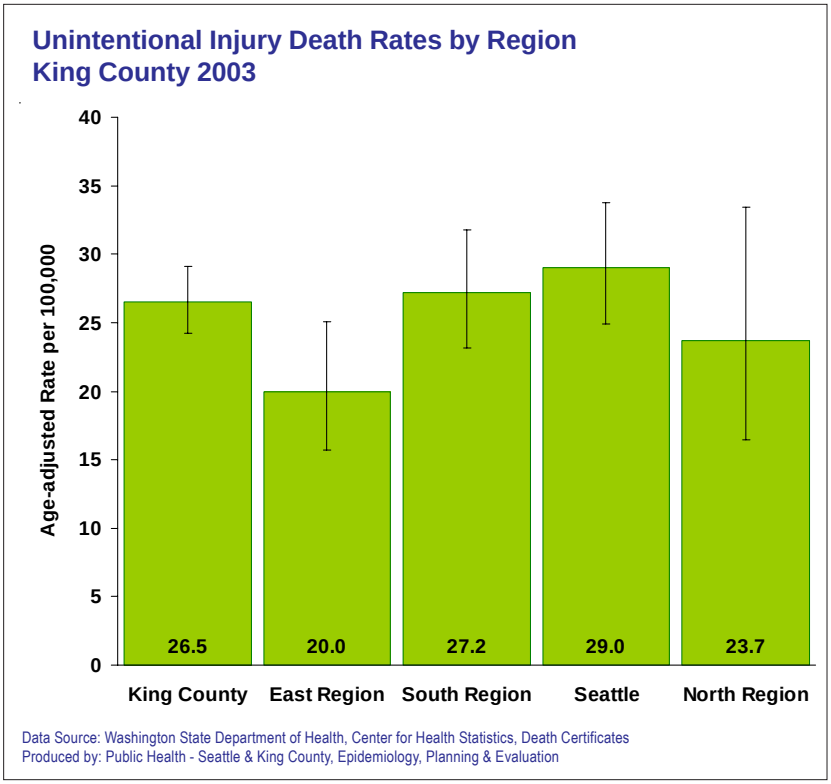
Unintentional injury deaths were second only to cancer as the leading cause of years of potential life lost in King County in 2003.

Between the ages of 1 and 44, King County residents are more likely to die from an unintentional injury than any other cause.

The 2003 King County unintentional injury death rate of 26.5 per 100,000 exceeds the Healthy People 2010 objective of 17.5 per 100,000.

King County and Regions

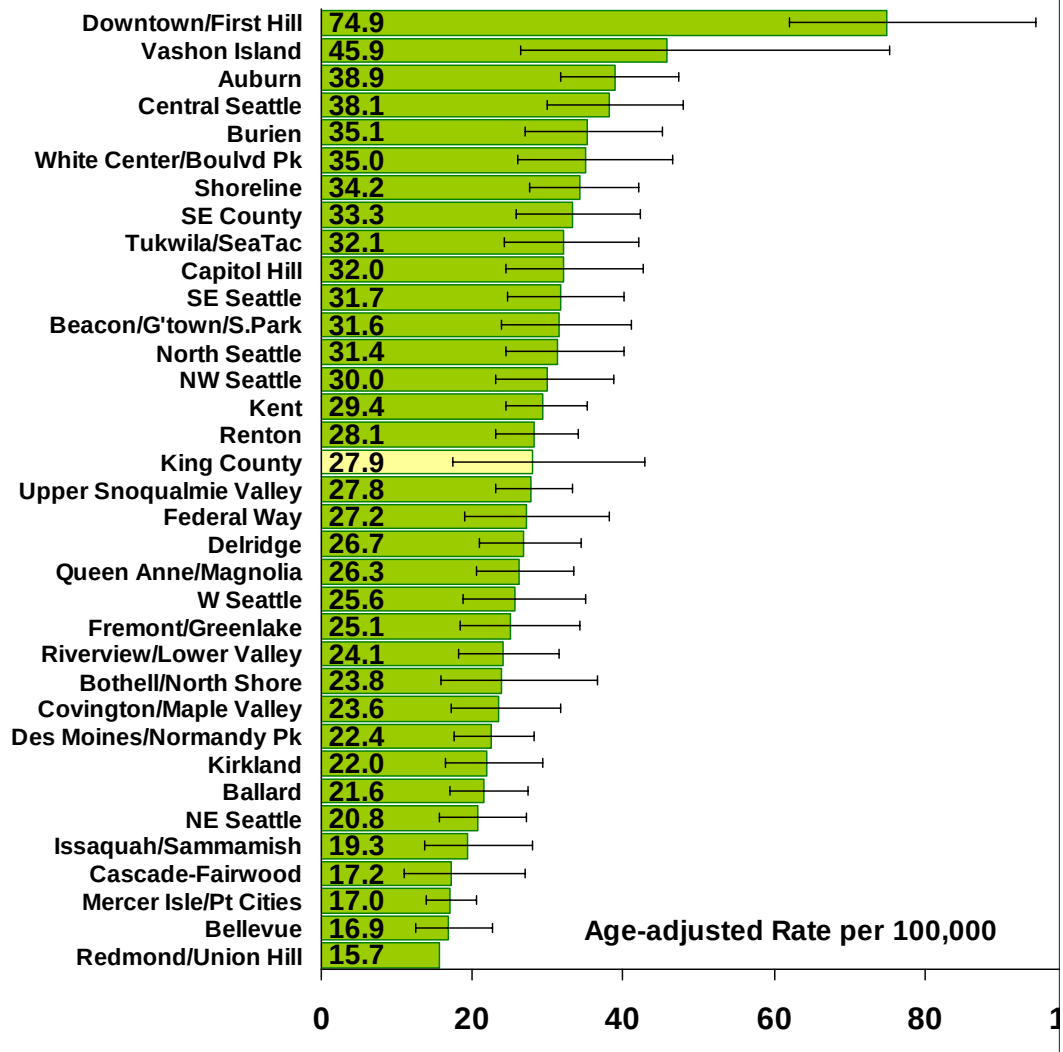
- In 2003 the King County unintentional injury death rate was 26.54 per 100,000. Although there are apparent differences in rates among King County and the four regions, these differences are not significant.
- The rate of unintentional injury deaths is relatively constant over time - showing no significant increase or decrease - in King County and in all four regions (data not shown).



Patterns by Health Planning Area

- Averaging the five year period 1999 to 2003, the Downtown/First Hill Health Planning Area had the highest unintentional injury death rate in King County except for Vashon Island.
- The King County unintentional death rate for the period 1999 to 2003 is 27.92 per 100,000 (95% CI: 26.81, 29.06). The unintentional injury death rates in the Downtown/First Hill, Auburn, and Central Seattle Health Planning Areas are higher than the King County rate. The rates in the Northeast Seattle, Issaquah/ Sammamish, Cascade-Fairwood, Bellevue, and Redmond/Union Hill Health Planning Areas are lower than the King County rate.

Unintentional Injury Deaths by Health Planning Area, King County, 5-Year Average, 1999-2003

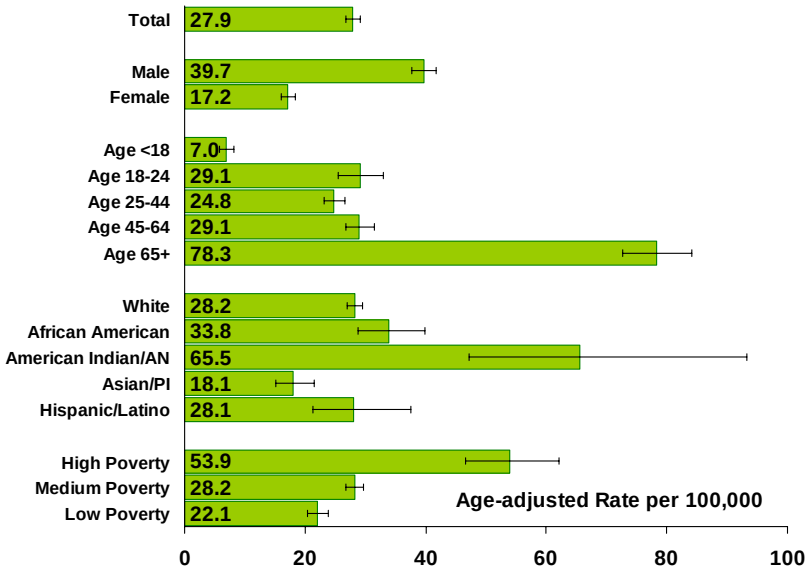


Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

Focus on Disparities

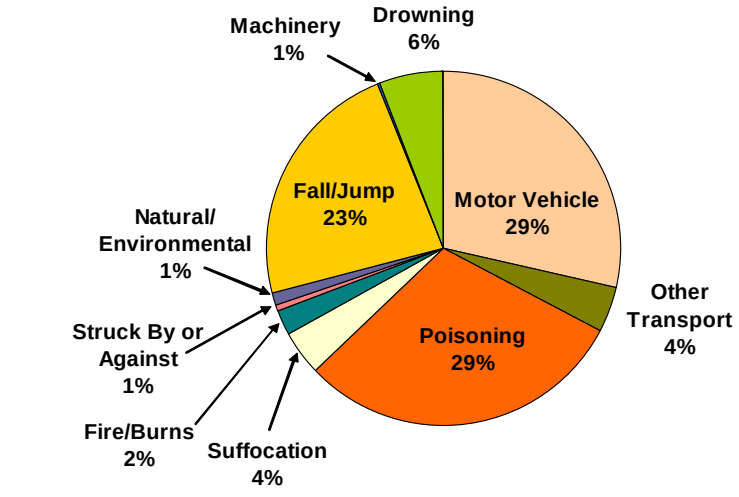
- Males are more than twice as likely to die as the result of an unintentional injury than females.
- Unintentional injury death rates vary greatly by age. The youngest, children under age 18, have death rates one fourth that of the overall population. The oldest, those age 65 and over, are much more likely to die of an unintentional injury than any other age group. The death rate for those over age 65 is 2.5 times greater than the overall population.
- The unintentional injury death rate for American Indian/Alaska Natives is higher than all other race/ethnic groups and is more than twice as high as the county rate.
- Those who live in higher poverty neighborhoods are disproportionally impacted by unintentional injuries. Unintentional injury death rates increase as neighborhood poverty level increases. In the highest poverty neighborhoods, the death rate is almost twice the county rate and almost 2.5 times the rate in the lowest poverty neighborhoods.

Unintentional Injury Deaths by Gender, Age, Race/Ethnicity, and Neighborhood Poverty Level, King County, 5-Year Average 1999-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

Unintentional Injury Deaths by Cause King County, 5-Year Average 1999-2003



Note: Firearm, Overexertion, and Cut/Pierce Injuries total less than .1% and are not shown

Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

Causes of Unintentional Injuries

- Injury deaths can result from a variety of causes. The three major causes in King County, accounting for over 80% of unintentional injury deaths, are motor vehicle related injuries, accidental poisonings, and falls.
- Preventing unintentional injuries can be complex. Detailed analysis of the cause and circumstance of an injury can target specific prevention strategies to be most effective.

* Poisoning includes: accidental overdose of drugs (prescription, over-the-counter, and illegal drugs such as cocaine and heroin), alcohol poisoning, solvents and their vapors, gases such as carbon monoxide, pesticides, poisonous plants, chemicals or other noxious substances.

Motor Vehicle Injuries

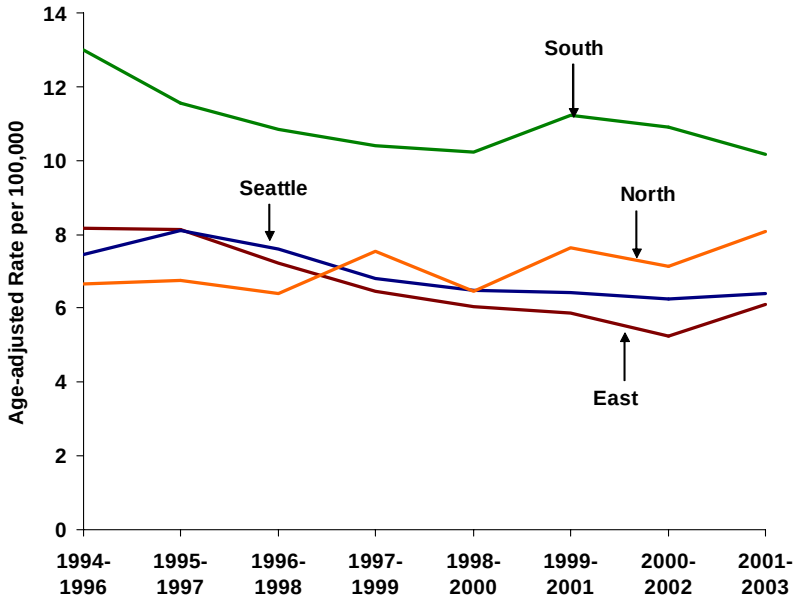
The King County motor vehicle death rate in 2003 was 7.5 per 100,000

The motor vehicle death rate in King County is lower than the Washington state rate, the Healthy People 2010 objective, demographically similar counties, and 11 of 15 major metropolitan U.S. counties.

King County and Regions

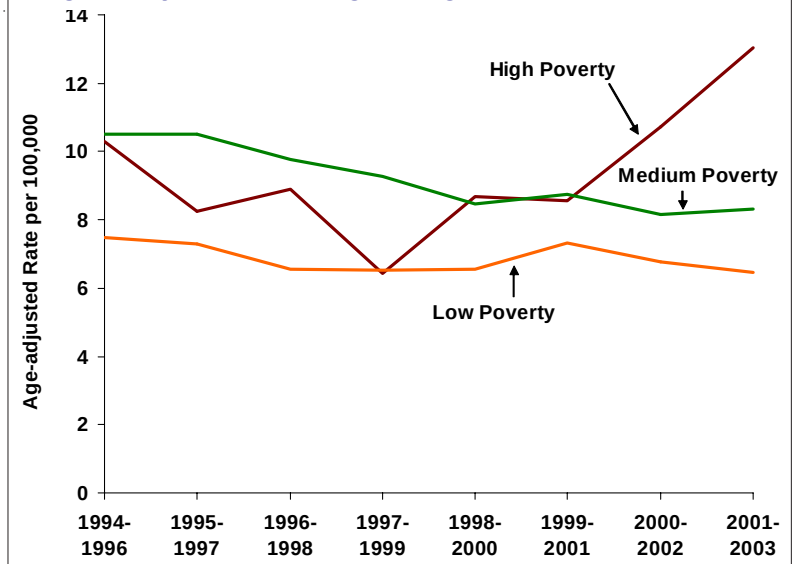
- Motor vehicle injury deaths have declined in South Region and in King County overall. Despite the decrease, the rate in the South Region remains significantly higher than in East Region and Seattle.
- Hospitalizations for motor vehicle injuries have also declined significantly in King County and in all four regions since 1993 (data not shown).
- See Public Health Core Indicators for Seattle & King County for more information about motor vehicle injuries.

Motor Vehicle Injury Deaths by Region, King County, 3 Year Rolling Averages 1994 - 2003



Data Source: WA State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

Motor Vehicle Injury Deaths By Neighborhood Poverty Level, King County, 3 Year Rolling Averages 1994 - 2003



Data Source: WA State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

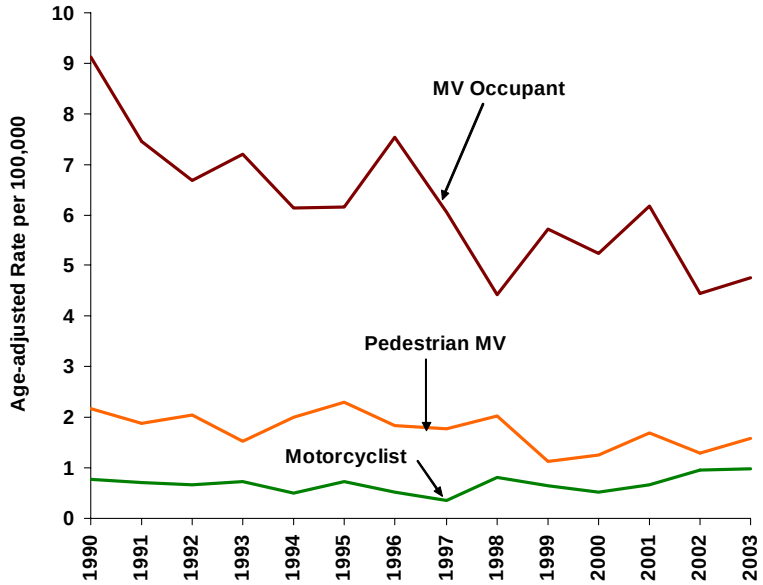
Focus on Disparities

- Those in higher poverty neighborhoods are at greater risk for motor vehicle injury death or hospitalization. Hospitalizations have decreased significantly at all poverty levels but deaths have only decreased for medium poverty neighborhoods.
- The motor vehicle death rate for males is twice that of females. The male rate has not decreased significantly while the female rate has. (Data not shown).
- The motor vehicle hospitalization rate has declined for both males and females. The hospitalization rate for males is also significantly higher than for females. (Data not shown).
- There are no significant differences in motor vehicle death rates for different race/ ethnic groups in King County (data not shown). Hospitalization data is not available by race/ethnicity.

Motor Vehicle Injuries by Circumstance

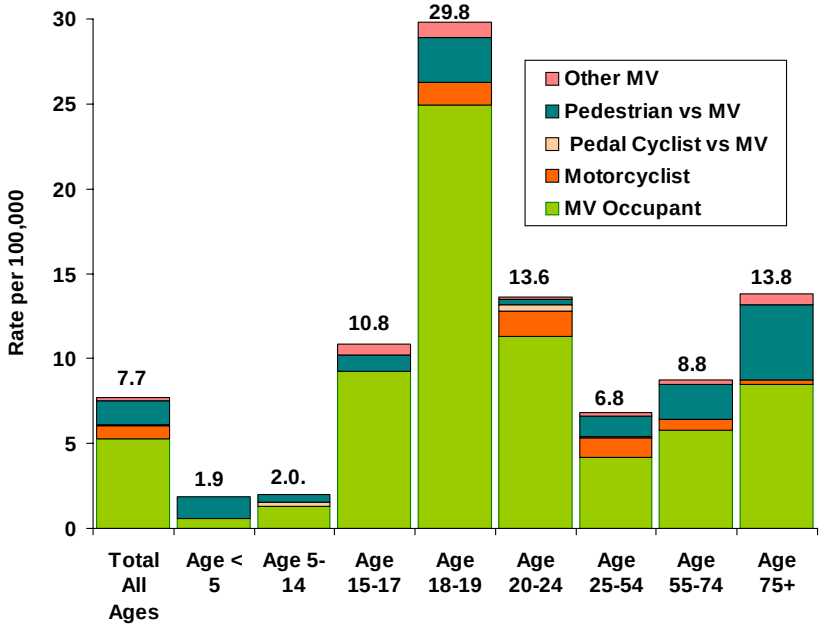
- Motor vehicle injury deaths result from a number of circumstances. Most, 68%, of motor vehicle deaths occur as an occupant; 18% occur as a pedestrian being struck by a motor vehicle; 10% are motorcyclists; and 1% are pedal cyclists struck by a motor vehicle (data not shown).
- Motor vehicle occupant deaths and pedestrian motor vehicle deaths have declined significantly while motorcyclist deaths have remained stable.

Motor Vehicle Deaths By Circumstance
King County, 1990 - 2003



Data Source: Washington Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

Motor Vehicle Injury Death Rates By Age and Circumstance
King County, 5 Year Average 1999-2003



Data Source: Washington Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

- Motor vehicle injury death rates vary significantly across age groups. The youngest age groups have the lowest rates. Rates for ages 18 – 19 are highest - more than twice the next highest age group.
- The majority of deaths among those under age 5 are pedestrian deaths. In all other age groups the majority of deaths are motor vehicle occupant. The highest rate of occupant deaths occur among those age 18-19. Those age 75 and over have higher pedestrian death rates than any other age group, although this difference is not always significant.

Submersion Injuries

In 2003 there were 30 submersion deaths (drowning) among King County residents. The submersion death rate was 1.7 per 100,000.

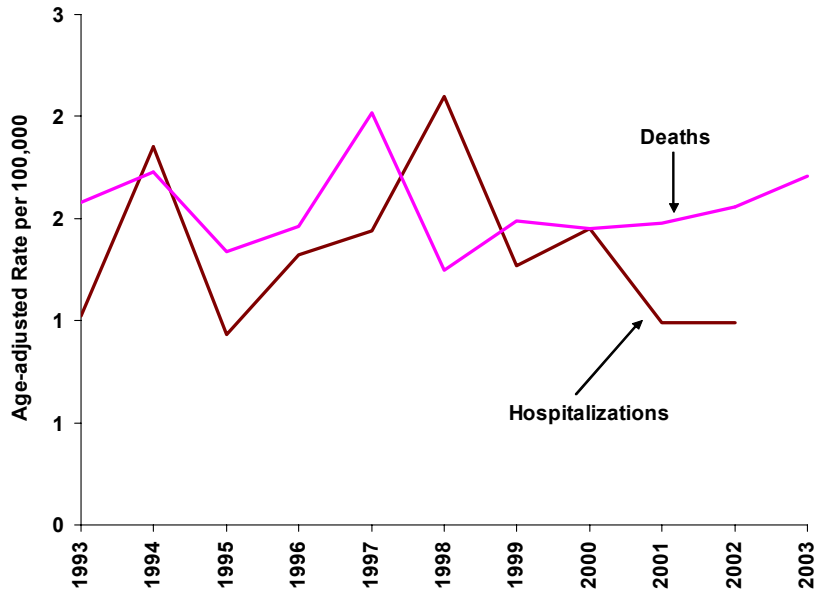
The King County submersion death rate exceeds the Healthy People 2010 target of .9 per 100,000

There were 11 submersion hospitalizations in 2003 for a rate of .7 per 100,000.

King County and Regions

- There is a significantly decreasing trend in submersion hospitalizations in King County. The trend in submersion deaths (drowning) is stable.

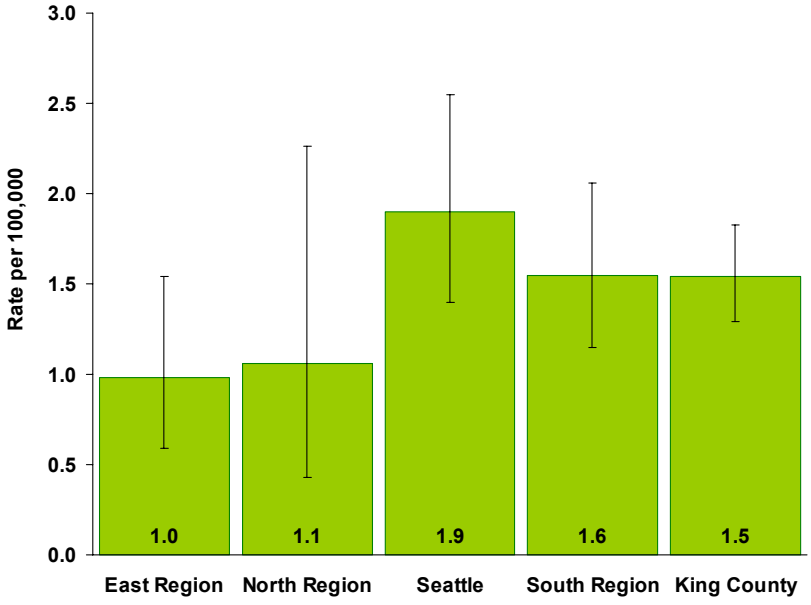
Submersion Deaths and Hospitalizations, King County, 1993-2003



Data Source: Deaths-WA State Department of Health, Center for Health Statitics, Death Certificates Hospitalizations-WA State Department of Health, Office of Patient Data Systems, Hospital Discharge Data
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

- Regional differences in submersion death rates are not statistically significant.
- The submersion death rate for males is significantly higher than for females (data not shown).
- There are no significant differences in submersion death rates among different age groups, different race/ethnic groups or among different neighborhood poverty levels (data not shown).

Submersion Deaths by Region, King County, 1999-2003 Combined



Data Source: WA State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

Fall Injuries

A fall can result in serious injury leading to permanent disability or death.

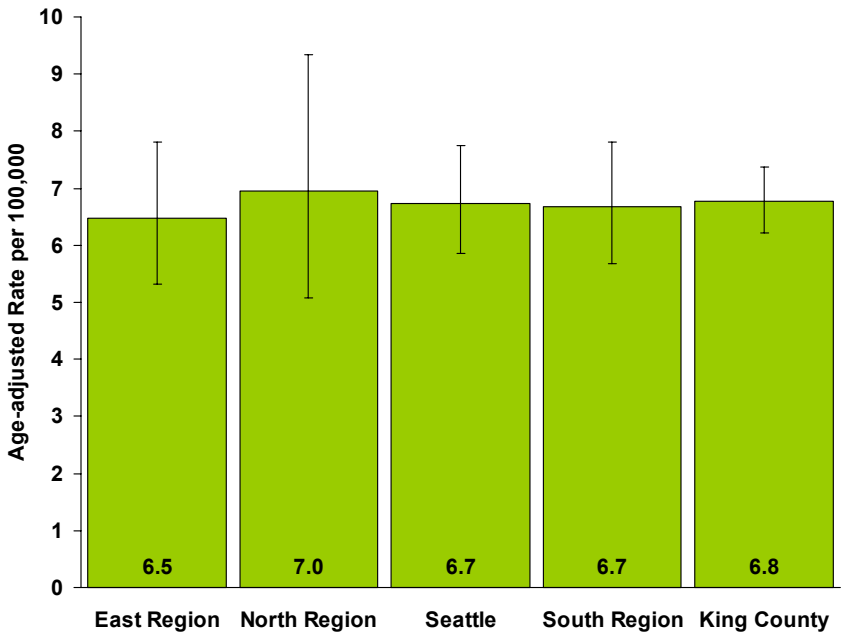
The 2003 King County fall death rate of 7.3 per 100,000 (124 deaths) is higher than the Healthy People 2010 target of 3 per 100,000.

In 2004 there were 5,105 hospitalizations in King County related to injuries from falls. The fall hospitalization rate in 2004 was 302.8 per 100,000.

King County and Regions

- There are no significant differences in fall death rates between King County and the 4 regions. Nor did the regions differ from on another.
- Fall death rates have been stable since 1994 in King County and in all 4 regions (data not shown).
- Hospitalizations for fall injuries have been declining in King County and in East Region, Seattle, and North Region (data not shown).

Fall Injury Death Rates by Region, King County, 5 Year Average 1999 - 2003

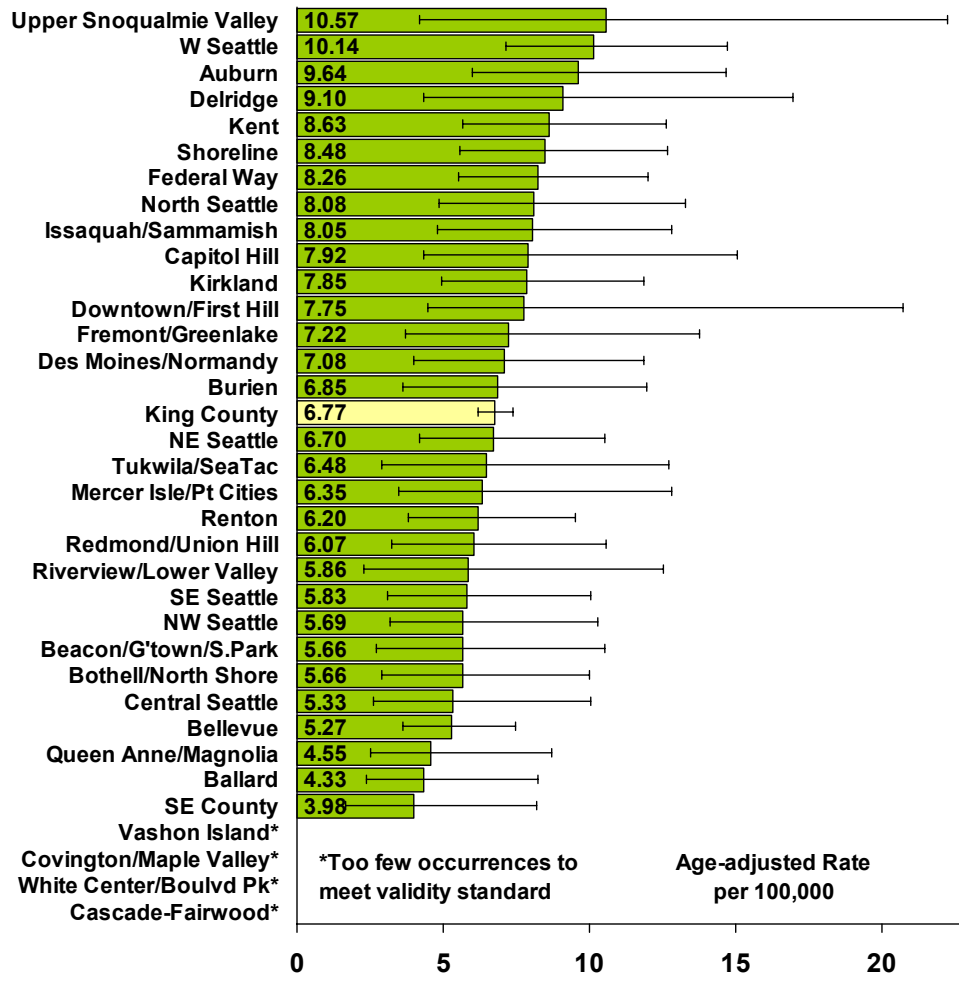


Data Source: WA State Department of Health, Center for Health
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & EvaluationStatistics, Death Certificates

Patterns by Health Planning Area

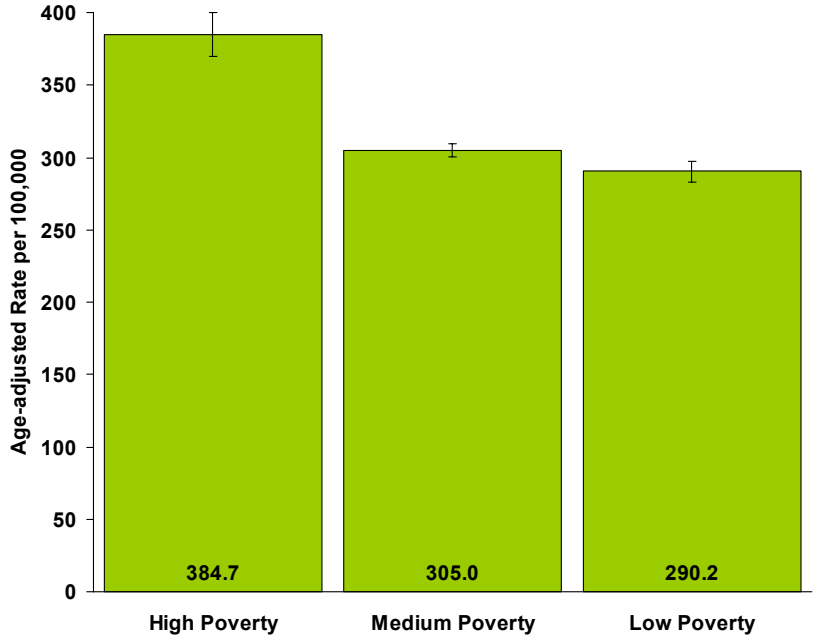
- Apparent differences in fall death rates by Health Planning Area are not significant.
- No Health Planning Area rate is significantly higher or lower than the King County rate.

Fall Injury Death Rates by Health Planning Area, King County, 5 Year Average 1999-2003



Data Source: WA State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

Fall Injury Hospitalization Rates by Neighborhood Poverty Level, King County 5 Year Average 2000 - 2004



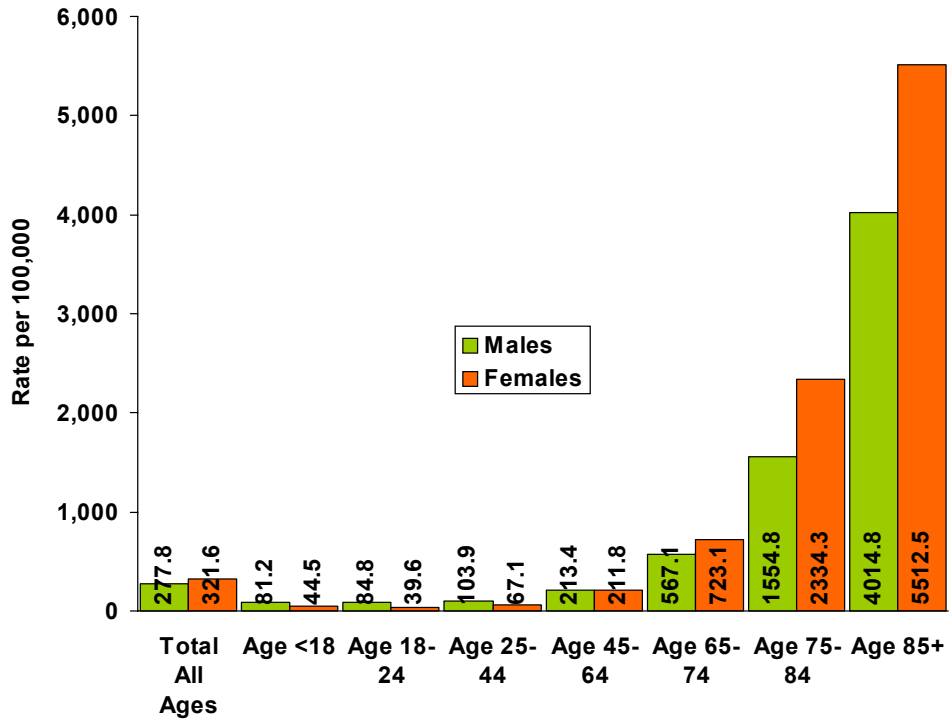
Data Source: WA State Department of Health, Office of Hospital and Patient Data Systems, Hospital Discharge Data
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

Focus on Disparities

- Fall death rates do not vary by race or ethnicity (data not shown). Hospitalization data is not available by race/ethnicity.
- Hospitalizations for fall injuries are highest in high poverty neighborhoods and lowest in low poverty neighborhoods.
- There are no significant differences in fall deaths by neighborhood poverty level (data not shown).
- Fall death and hospitalization rates increase with age with the highest rates seen among older adults (data not shown).
- There is an increasing trend in fall deaths among those age 65 and older. This increase is due to significant increases in fall deaths among males age 75-84. Rates for all other age groups are stable. (Data not shown).

- Fall death rates are significantly higher for males than females (data not shown); however fall hospitalizations are significantly higher for females.
- Patterns in fall injuries by age vary by gender. While female hospitalization rates are higher than males overall, male hospitalization rates are higher than female rates for all age groups under age 45. Between the ages of 45 and 74 male and female hospitalization rates are not significantly different. After age 70 female hospitalization rates are significantly higher than male rates.
- Fall death rates among males are usually higher than for females within each age group although this difference is not always significant (data not shown).

Fall Injury Hospitalization Rates by Age and Gender, King County 5 Year Average 2000 - 2004



Data Source: WA State Department of Health, Office of Hospital and Patient Data Systems, Hospital Discharge Data
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

Firearm Injuries

In 2003, 140 residents of King County were killed by a firearm. The intent of the shooting could not be determined in only one of these deaths. The remaining 139 deaths were intentional; 42 homicides and 97 suicides. There were no unintentional firearm deaths among King County residents in 2003.

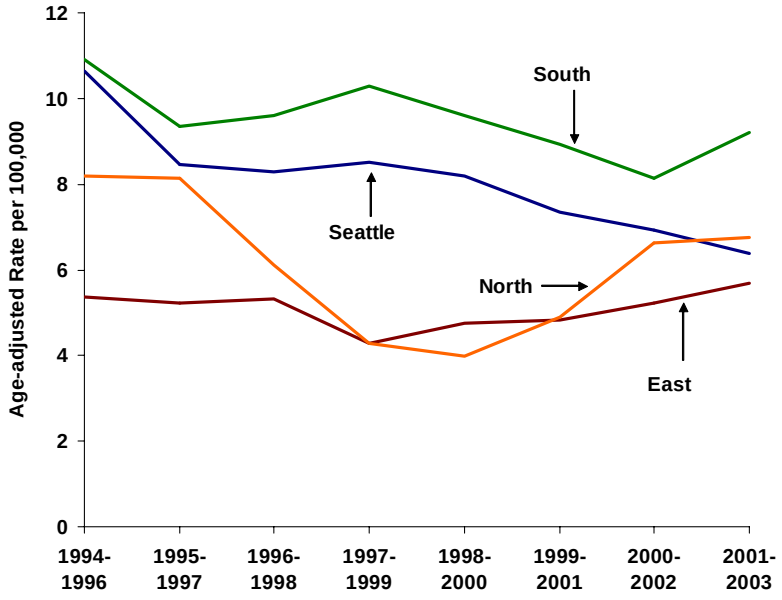
The 2003 King County firearm death rate was 7.6 deaths per 100,000 population. When compared to 15 major metropolitan U.S. counties, King County tied for the 10th lowest rate.

While the King County firearm death rate has declined significantly since 1994, the rate remains higher than the Healthy People 2010 goal of 4.1 deaths per 100,000.

King County and Regions

- During the 10 year period 1994 to 2003, the firearm death rate declined significantly in the Seattle and in King County overall (data not shown).
- The South Region has the highest firearm death rate. During the period 1999-2003, the firearm death rate in South Region was 9.3 per 100,000 which was significantly higher than the rates in the other 3 regions.
- Small numbers of deaths within Health Planning Areas make detecting statistical differences between these small geographic areas very difficult.
- See Public Health Core Indicators for Seattle and King County for more information about firearm injuries.

Firearm Deaths by Region, King County, 3 Year Rolling Averages 1994 - 2003

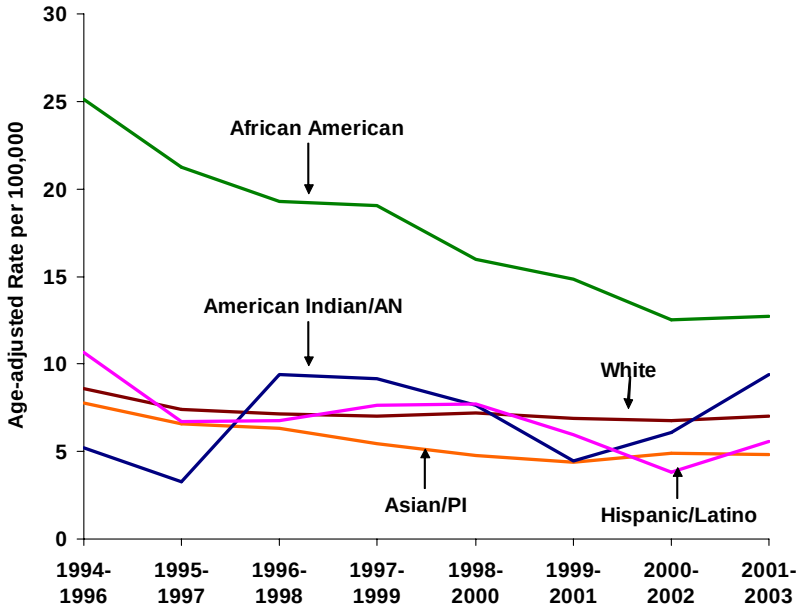


Data Source: WA State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

Focus on Disparities

- During the 10 year period 1994 to 2003, there was a highly significant decrease in the firearm death rate among African Americans in King County. Significant declines were also seen among Asian/Pacific Islanders and whites during this period. The Hispanic/Latino rate was stable during this time. Due to the very small number of firearm deaths among American Indian/ Alaska Natives, it was not possible to test for trends.
- Despite dramatic declines, the firearm death rate for African Americans remains high in King County. The 1999-2003 rate of 14.4 per 100,000 is significantly higher than all other race/ethnic groups except American Indian/ Alaska Natives.

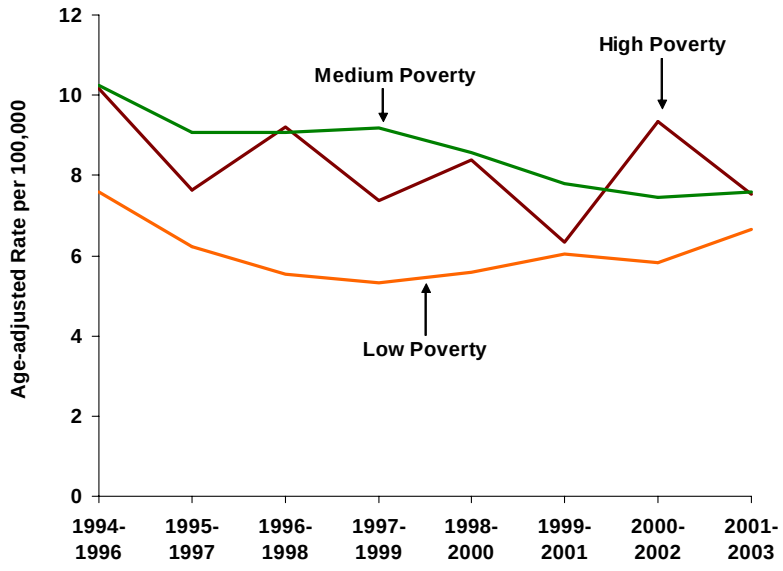
Firearm Deaths by Race/Ethnicity, King County, 3 Year Rolling Averages 1994 - 2003



Data Source: WA State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

- The decline in firearm deaths among African Americans can be attributed to a significant decrease in firearm homicides. Firearm homicides have also decreased among Asian/Pacific Islanders (data not shown).
- The decline in the firearm death rate for whites is due to a significant decrease in firearm suicides (data not shown).

Firearm Deaths by Neighborhood Poverty Level, King County, 3 Year Rolling Averages 1994 - 2003

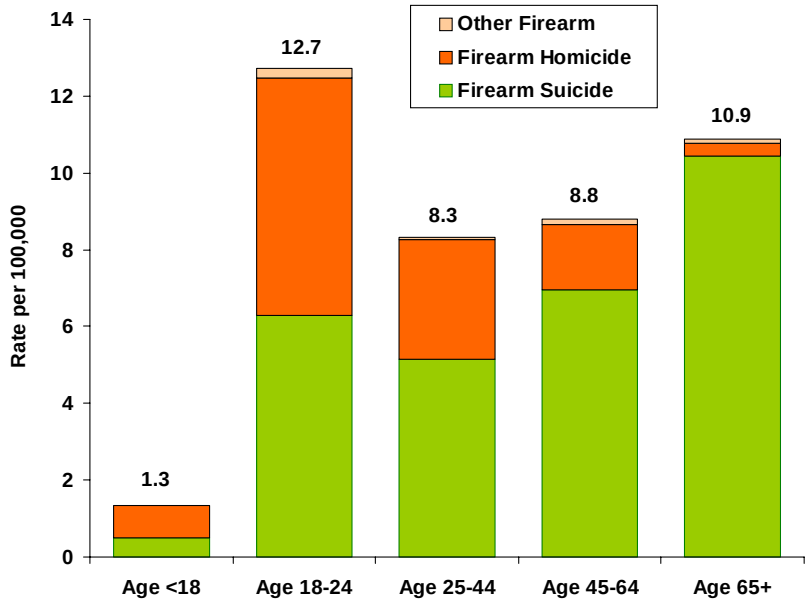


Data Source: WA State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

- During the period 1994 to 2003, significant declines in firearm death rates were found in high and medium poverty neighborhoods. The death rate in low poverty neighborhoods was stable during this time period.
- Although the firearm death rate for King County males has declined significantly since 1994, the rate remains significantly higher than the female rate. During the period 1999 to 2003, the rate for males was more than six times the female rate (data not shown).

- Firearm deaths have declined in all age groups except age 45-64 (data not shown). Firearm death rates for those age 18-24 are significantly higher than all other age groups except those age 65 and over. The difference between rates for those age 18-24 and age 65 and older is not statistically significant.
- For those in the younger age groups, firearm deaths are almost equally divided between homicides and suicides. As age increases the proportion of firearm deaths that are suicides increases until 95% of firearm deaths are suicides.

Firearm Deaths, By Intent, By Age
King County, 1999-2003 Combined



Data Source: WA Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

Homicide and Assault Injuries

Assault injuries are intentional injuries – intentionally causing bodily harm to another person. An assault that results in death is a homicide. Homicides and serious assault injuries that result in hospitalization are reported in this chapter.

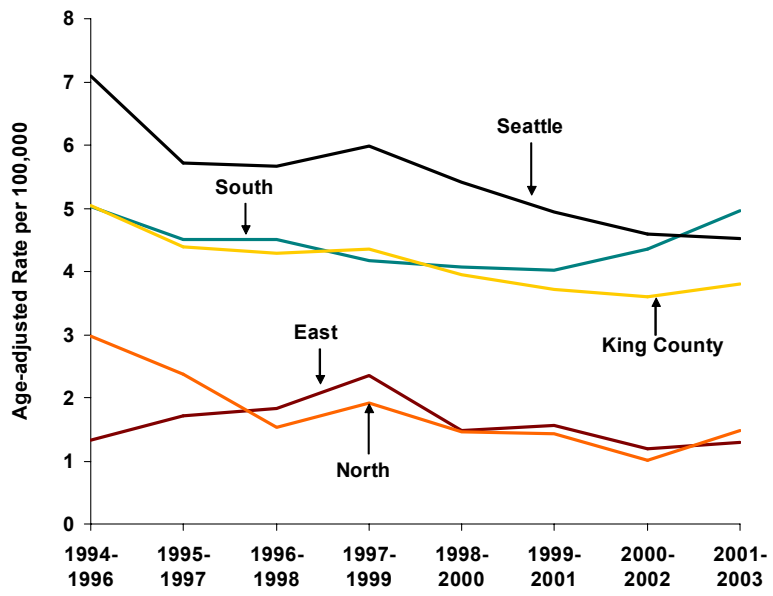
The 2003 King County homicide rate of 3.9 deaths per 100,000 is less than the Washington State rate, the rate for demographically similar counties, and less than 11 of 15 major metropolitan U.S. counties.

The 2003 King County homicide rate exceeds the Healthy People 2010 goal of 3 per 100,000.

King County and Regions

- The homicide rate in King County is significantly decreasing. On a regional level, only Seattle has a significantly decreasing trend. The apparent upturn in South Region is not significant.
- When averaged over the 5 year period 1999-2003, the homicide rates for Seattle and South Region are significantly higher than the rates for East and North Regions (data not shown).
- King County has also experienced a significant decline in hospitalizations for assault injuries. Assault hospitalizations have declined in East Region and in Seattle. Significant differences in assault hospitalizations remain between all King County regions. Seattle has the highest rate followed by South Region. North Region is lower than Seattle and South Region and East Region has the lowest rate of all. (Data not shown).
- See Public Health Core Indicators for Seattle and King County for more information about homicide and assault injuries

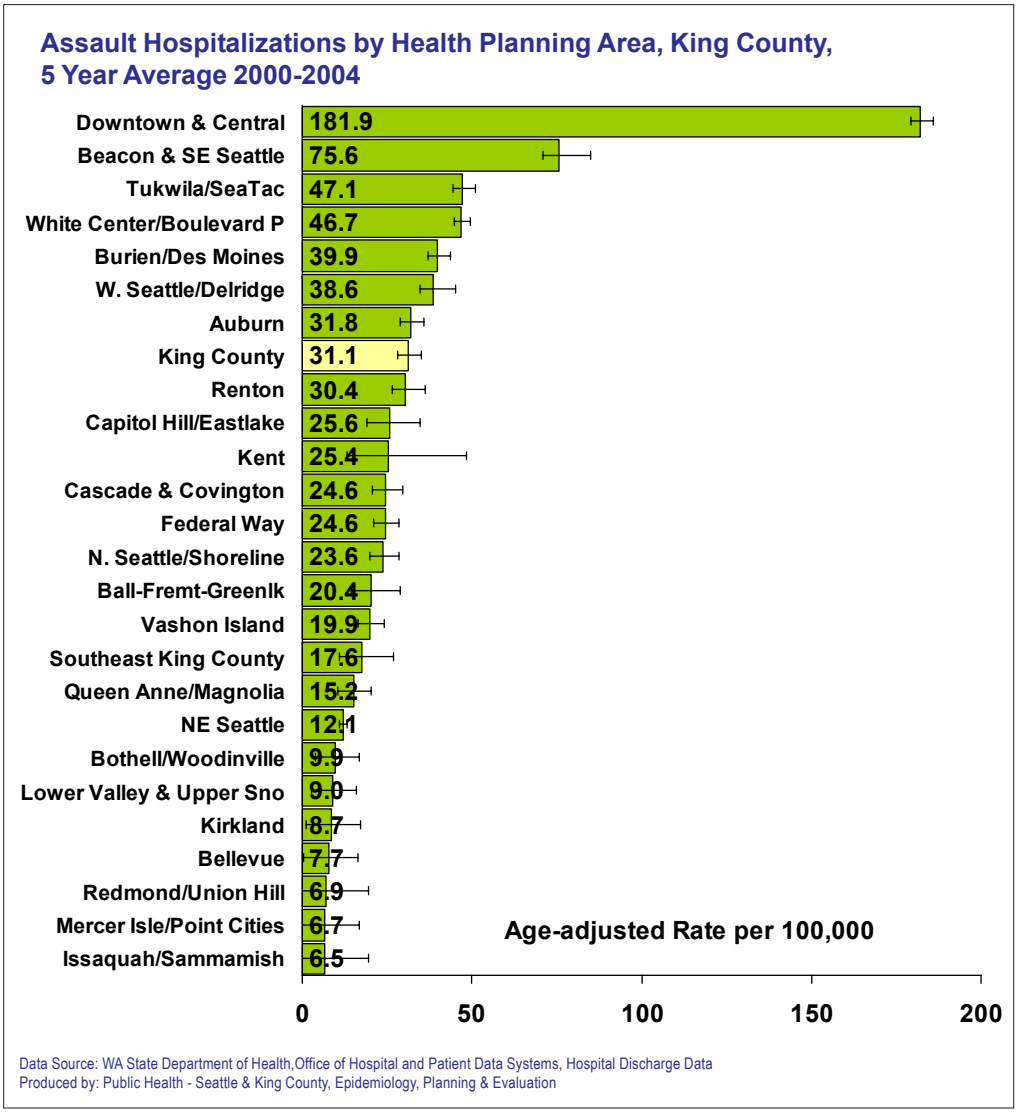
Homicide Deaths By Region, King County, 3 Year Rolling Averages 1994 - 2003



Data Source: WA State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

Patterns by Health Planning Area

- Hospitalizations for assault injuries vary by the victim's place of residence. Those who live in the Downtown and Central Seattle, Beacon Hill and Southeast Seattle, Tukwila/SeaTac, White Center/Boulevard Park, Burien/Des Moines and West Seattle/Delridge Health Planning Areas have higher assault hospitalization rates than the county overall.

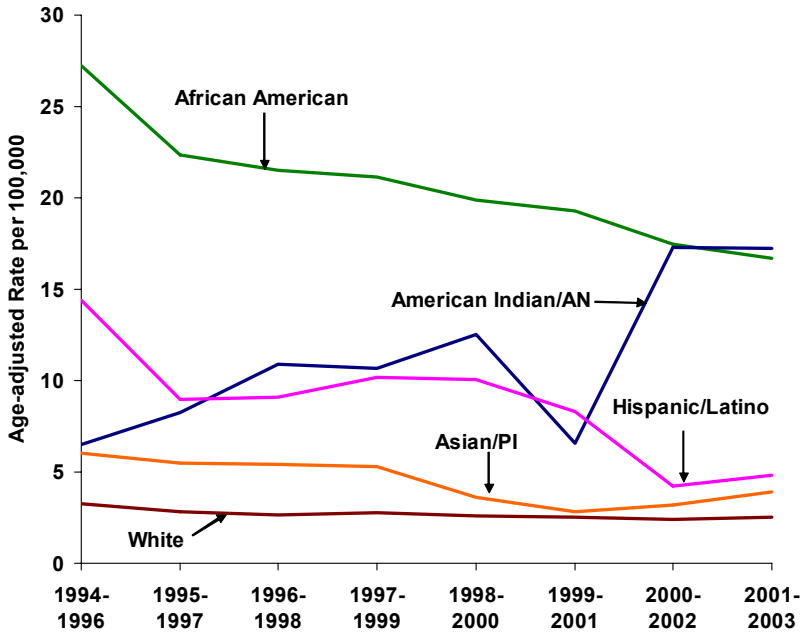


- Small numbers of homicides within Health Planning Areas make detecting statistical differences between these small geographic areas very difficult. Homicide rates in the Southeast Seattle, Central Seattle, and Beacon Hill/ Georgetown/South Park Health Planning Areas are higher than the overall county homicide rate (data not shown).

Focus on Disparities

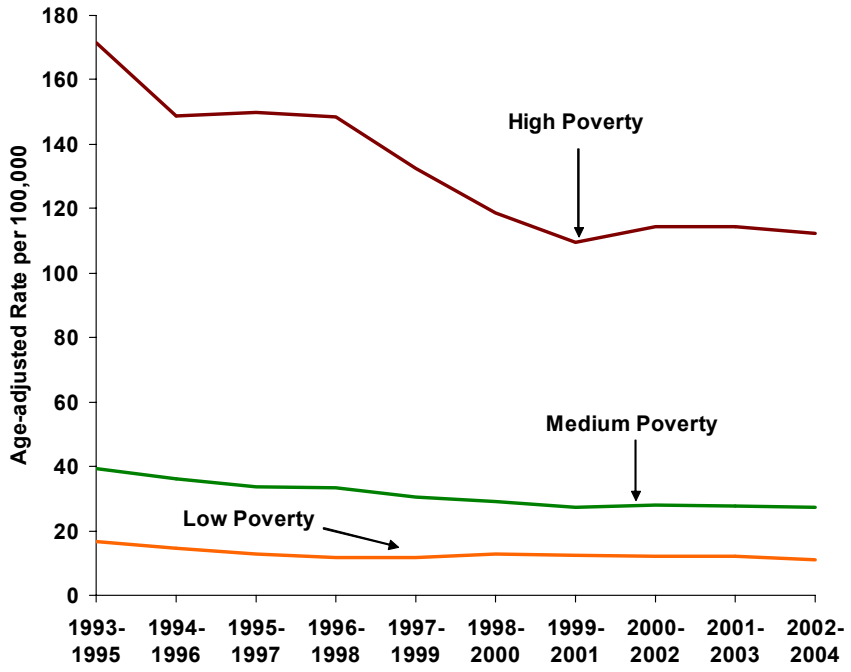
- The decrease in homicide rates experienced by the county overall was also seen among African Americans, Asian/Pacific Islanders, whites, and Hispanic/Latinos. The number of homicides among American Indian/Alaska Natives is too few for a statistical trend test.
- The decline in homicides for African Americans and Asian/Pacific Islanders is due to a significant decline in firearm homicides. Non-firearm homicides did not decline in these two groups.
- Despite the declines, differences among race/ethnic groups remain. When averaged over the 5 year period 1999-2003, African Americans, American Indian/Alaska Natives, and Hispanic/Latinos have higher homicide rates than whites (data not shown).
- Hospitalization data is not available by race/ethnicity.

Homicide Deaths By Race/Ethnicity, King County, 3 Year Rolling Averages 1994 - 2003



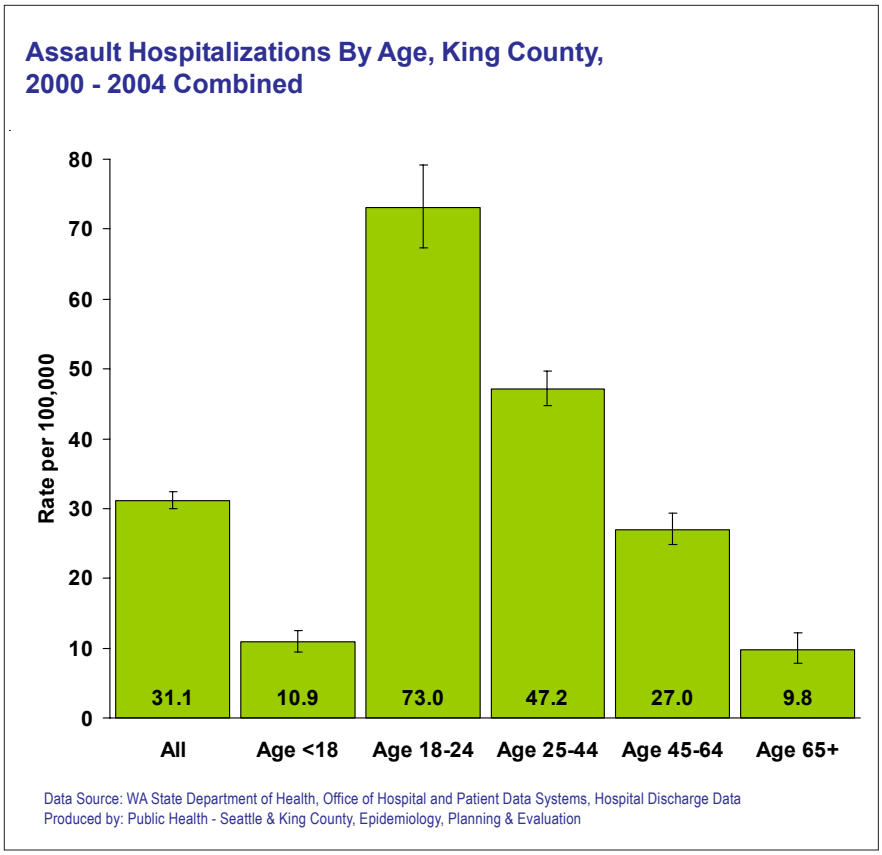
Data Source: WA State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

Assault Hospitalizations By Neighborhood Poverty Level, King County, 3 Year Rolling Averages, 1993 - 2004



Data Source: WA State Department of Health, Office of Hospital and Patient Data Systems, Hospital Discharge Data
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

- Significant downward trends in assault hospitalizations have been seen in both high poverty and medium poverty neighborhoods.
- Assault hospitalizations remain highest in high poverty neighborhoods and lowest in low poverty neighborhoods. Averaged over the 5 year period 2000 – 2004, the assault hospitalization rate in high poverty neighborhoods of 113.5 per 100,000 is almost 10 times the rate in low poverty neighborhoods, 11.8 per 100,000 (data not shown).
- Homicide rates by neighborhood poverty level show a similar pattern. While homicide rates have declined in high and medium poverty neighborhoods, the rates remain higher than for low poverty neighborhoods. (Data not shown).



- Homicides and assault hospitalizations have declined for males and females. Males however, experience homicide and assault injury hospitalizations at higher rates than females. (Data not shown).
- Homicide and assault injury rates vary significantly by age group. Assault hospitalization and homicide rates for those age 18-24 are higher than any other age group.

Health of King County 2006

Chapter 8: Communicable Disease

HIV/AIDS

Sexually Transmitted Diseases

Tuberculosis

Childhood Immunization

Adult Immunization for Pneumococcal Disease and Influenza

Vaccine Preventable Diseases

Hepatitis C

Enteric, Food and Waterborne Diseases

Vectorborne and other Zoonotic Diseases

Emerging Infectious Diseases

Public Health
Seattle & King County
HEALTHY PEOPLE. HEALTHY COMMUNITIES.

Introduction

The importance of communicable (infectious) diseases as a cause of morbidity and mortality in the US declined dramatically during the past 100 years with the establishment of sanitary water supplies and sewage systems, and with the advent of the antibiotic era. However, the past 25 years have seen the emergence of new infectious diseases and the re-emergence of infections that were thought to be declining. Although HIV/AIDS is notable among the emerging infectious diseases, a host of other infectious diseases have been recently identified, such as *E. coli* O157:H7 infection, hantavirus pulmonary syndrome, Lyme disease, SARS, and avian influenza. Tuberculosis, particularly multi-drug resistant tuberculosis has gained attention in recent years as an important re-emerging pathogen. However antimicrobial-resistant strains of other pathogens are also emerging, such as methicillin-resistant *Staphylococcal aureus* (MRSA) and vancomycin-resistant enterococcus (VRE). In addition, the burden of established pathogens such as hepatitis C is increasing as the infected population ages and suffers the consequences of chronic infection.

In this chapter, we examine a selection of communicable diseases that either cause ongoing mortality or morbidity, have the potential to become epidemic, or are preventable with vaccination. Diseases and data presented in this chapter are compiled from the report "Public Health-Seattle & King County: Communicable Disease Summary 2003 and 2004". For more detailed information, readers can view the entire report at http://www.metrokc.gov/health/prevcont/index.htm.

Summary of Communicable Disease Incidence or Death in King County, WA State, and U.S.*

Disease	King 2004[1]		WA 2004[2,3]		U.S.[4,5]	
	Rate	N	Rate	N	Rate	N
HIV/AIDS Death (age-adjusted rate, 2003)	4.7	89	2.4	146	4.7	13544
STDs						
-Chlamydia	305.1	5428	285.9	17635	319.6	929462
-Gonorrhea	72.3	1286	45.6	2810	113.5	330132
-Syphilis (early stage)**	9.3	166	3.3	201	2.7	7980
Tuberculosis	7.4	133	3.9	244	5.0	14874
Hepatitis A	0.8	14	1.1	69	2.6	7653
Hepatitis B, acute	1.3	23	1.0	64	2.5	7526
Hepatitis C, acute	0.6	10	0.4	23	0.4	1102
HIB	0.1	2	0.0	3	0.7	2013
Measles	0.3	6	0.1	7	0.0	56
Meningococcal Disease	1.0	18	0.7	42	0.6	1756
Mumps	0.0	1	0.0	2	0.1	231
Pertusis	11.2	201	13.7	842	3.9	11647
Influenza/pneumonia Death (age-adjusted rate, 2003)	20.0	334	18.5	1082	22.0	65163
Enteric Diseases						
-Campylobacteriosis	14.8	264	14.0	861		NA
-E. Coli 0157:H7	2.3	42	2.5	153	0.9	2671
-Giardiasis	7.0	126	7.2	444	6.7	19709
-Salmonellosis	13.1	234	10.7	660	14.8	43657
-Shigellosis	3.5	63	2.2	133	8.0	23581

*Note that King County incidence cases are based on day of report; WA Sate cases are based on date of onset; and U.S. cases from MMWR are based on date reported to the CDC. The U.S. data are for 2004 on STDs and for 2003 on the other communicable diseases.
**Early stage includes primary, secondary, and early latent cases. The U.S. data only include primary and secondary cases.

References

1 Public Health – Seattle & King County. Communicable Disease Summary 2003 and 2004. www.metrokc.gov/health/prevcont/index.htm.

2 Washington State Department of Health. Washington State Communicable Disease Report 2004. www.doh.wa.gov/Notify/other/2004cdr/cdr2004.pdf.

3 Washington State Department of Health. Washington State 2004 Sexually Transmitted Disease Morbidity. www.doh.wa.gov/cfh/STD/morbidity.htm

4 CDC. Summary of Notifiable Disease – United States, 2003. MMWR. April 22, 2005/52(54);1-85.

5 CDC. Trends in Reportable Sexually Transmitted Diseases in the United States, 2004. National Surveillance data for Chlamydia, Gonorrhea, and Syphilis. www.cdc.gov/std/stats/trends2004.htm

HIV/AIDS

Although HIV/AIDS is still a disease that primarily affects men who have sex with men, it is gradually spreading to other populations.

Because an estimated 25% of infected people are unaware of their infection, local program goals include increasing the number of infected people who are aware of their infection and who are getting high quality care, and decrease the prevalence of high risk behaviors.

As new antiretroviral treatment has grown more effective and new infections continue to occur, the prevalence of HIV is increasing at about 250 to 300 new cases per year.

Effective treatment has decreased mortality substantially in recent years. The last Health of King County reported that HIV was the 8th leading cause of death in 1996, but in 2003 it was the 14th leading cause.

The magnitude of disparities in incidence, prevalence and mortality in high-risk communities is among the largest of any health outcome.

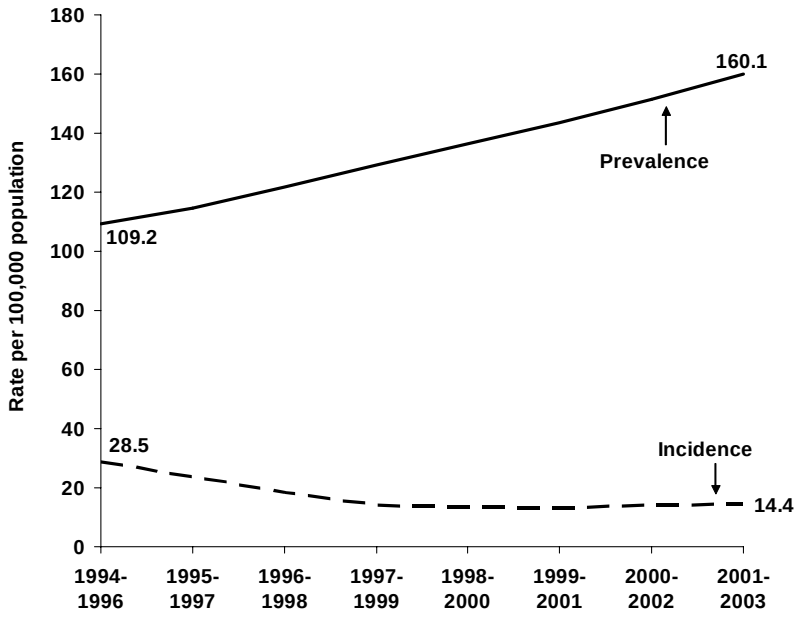
This section is a summary of an important and complex topic. For more comprehensive data on HIV/AIDS in King County, visit the HIV/AIDS Surveillance website at http://www.metrokc.gov/health/apu/epi/index.htm and Public Health Core Indicatiors for Seattle & King County at http://www.metrokc.gov/health/reports/CoreIndicators/index.htm.

King County and Regions

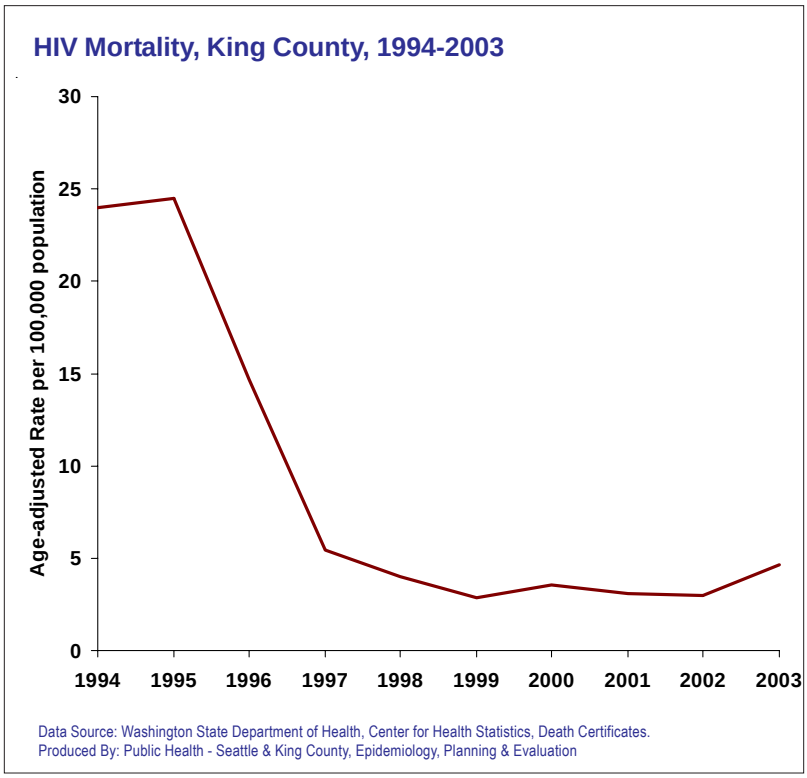
Morbidity

- The rate of new cases of AIDS has decreased over the last 10 years, although the decrease has slowed or ended in the last five years. In 2003, 280 incident cases were reported, for a rate of 15.7 per 100,000.
- HIV incidence rates also fell from 1992-1994 to 1997-1999, but have flattened out in the last five years. In 2004, 363 new cases of HIV were reported, for a rate of 20.4 per 100,000 (data not shown).
- During this time period, HIV prevalence and AIDS prevalence has increased steadily. In 2004, HIV prevalence was 319.1 per 100,000 (5,706 cases) and AIDS prevalence stood at 178.1 per 100,000 (3,185 cases) (data not shown).
- From 1994 to 2003, AIDS and HIV prevalence increased in all regions of the county (for more data, see Public Health Core Indicators for King County).

AIDS Incidence and Prevalence Rates, King County, 3-Year Rolling Averages, 1994-2003



Data Source: Public Health - Seattle & King County, HIV/AIDS Registry Data, Prevention Division
Produced by: Epidemiology, Planning and Evaluation Unit

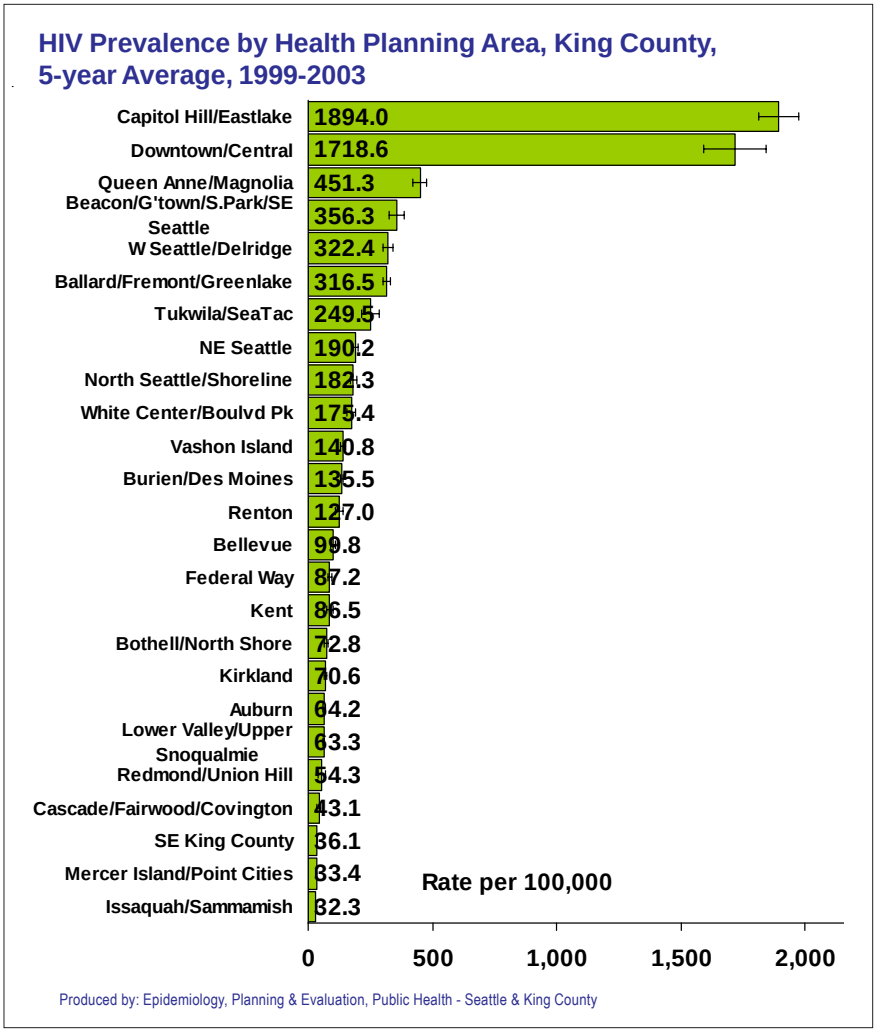


Mortality

- In 2003, 89 people died of HIV, for a rate of 4.7 per 100,000. The last Health of King County reported that HIV was the 8th leading cause of death in 1996, but in 2003 it was the 14th leading cause.
- However, the overall downward trend of HIV deaths ended in 1999 (2.9 deaths per 100,000). Although the number of deaths and death rates have varied somewhat between 1999 and 2003, they have generally remained at this lower level.
- The decrease in mortality was seen in Seattle and South County. Other regions had so few deaths that trends could not be reliably analyzed.

Patterns by Health Planning Area

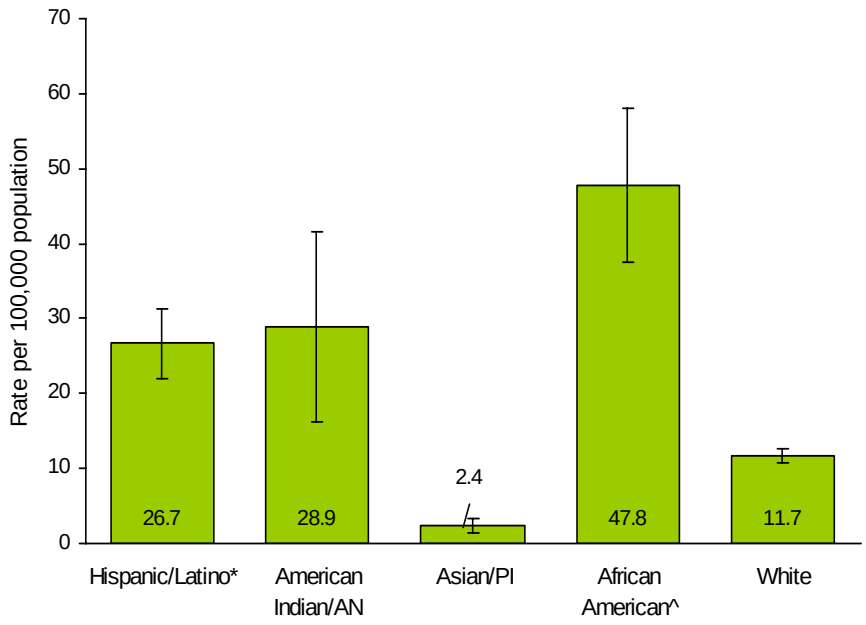
- HIV and AIDS incidence and prevalence occurs in every King County Health Planning area, but high numbers of cases and rates are overwhelmingly concentrated in the Capitol Hill/Eastlake and Downtown/Central HPAs. For instance, these two HPAs have HIV prevalence rates more than three times higher than the next highest HPA, Queen Anne/ Magnolia.
- This pattern in mortality rates is also seen in mortality from HIV. The rate is highest in Downtown/ First Hill (29.7 per 100,000). Health Planning Areas located in East County, and Vashon Island generally show fewer than 5 deaths a year, below the minimum number of events for calculating valid rates.



Focus on Disparities

- There are substantial disparities in the incidence, prevalence and mortality from HIV/AIDS. Higher risk is seen in men who have sex with men, people who live in high poverty neighborhoods, and African Americans, Hispanic/ Latinos, and American Indian/ Alaska Natives. Below are two examples of the widest disparities.
- AIDS incidence in African Americans is four times the white rate, and in American Indian/Alaska Natives and Hispanic/Latinos the rate is over twice that of whites. The rate seen in Asian/Pacific Islanders is less than one-quarter of the rate in whites.
- African Americans include two distinct populations: U.S.-born and foreign-born persons. The U.S.-born represent 61% of recent cases among African Americans; 75% are men who have sex with men or injection drug users. The foreign-born represent 39% of recent cases among African Americans; 96% were exposed to HIV heterosexually or through undetermined sources. Rates among foreign-born African Americans are 6 to 12 times higher than for whites, while rates among U.S.-born African Americans are 3-4 times higher.
- In 1999-2003, new cases of HIV occurred in high-poverty neighborhoods at a rate of 83.9 per 100,000. In low-poverty neighborhoods, HIV incidence was 6.0 per 100,000, a more than 13-fold difference.

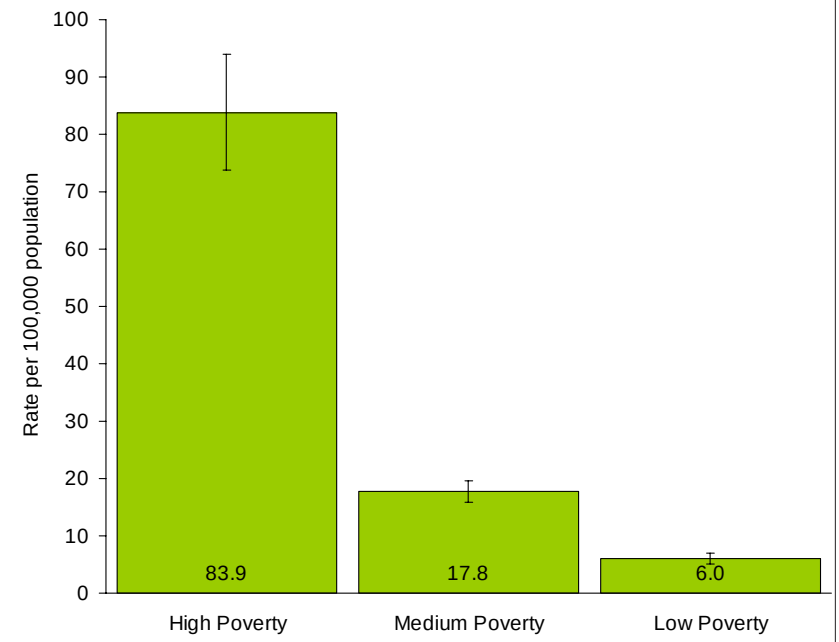
AIDS Incidence Rates By Race/Ethnicity,*^
King County, 5-year Average, 1999 - 2003



*The category "Hispanic/Latino" is presented as a race for HIV/AIDS data. All other races are non-Hispanic.
^The category African American includes both U.S.-born and foreign-born persons.

Data Source: Public Health - Seattle & King County, HIV/AIDS Registry Data, Prevention Division
Produced by: Epidemiology, Planning and Evaluation Unit

HIV Incidence Rates by Neighborhood Poverty Level,
King County, 1999-2003 Combined



Data Source: Public Health - Seattle & King County, HIV/AIDS Registry data, Prevention Division
Produced by: Public Health - Seattle & King County, Epidemiology, Planning & Evaluation

Sexually Transmitted Diseases (STDs)

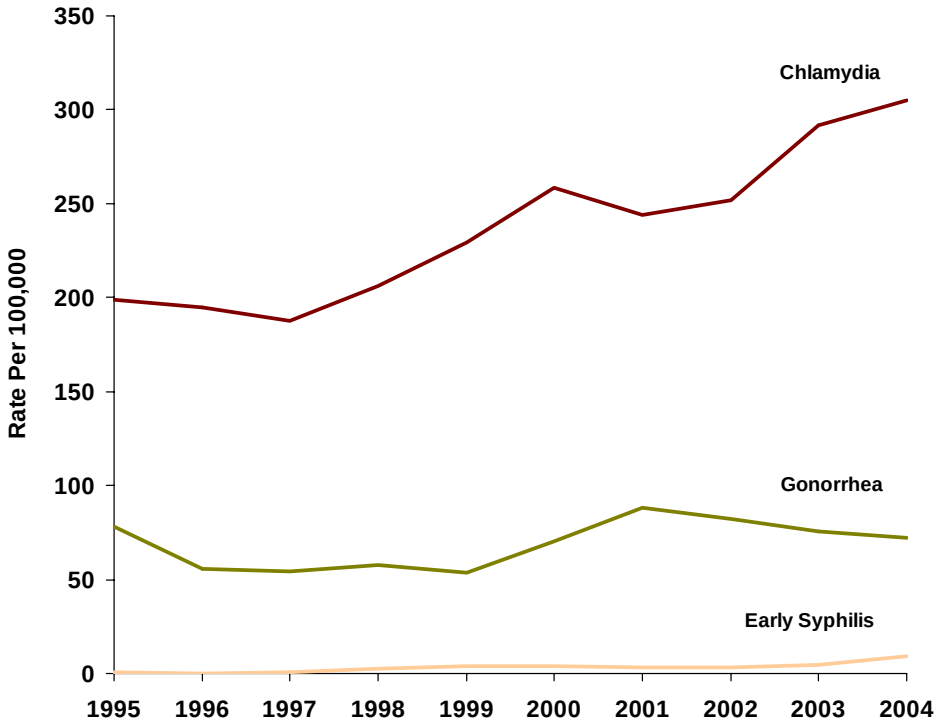
Sexually transmitted diseases (STDs) are caused by a variety of bacteria, viruses, and other organisms. Bacterial STDs, such as chlamydia, gonorrhea and syphilis, can be cured with antibiotics. STDs caused by viruses, such as genital herpes, human papillomavirus, hepatitis B, and HIV infection cannot be cured, but most can be treated to relieve symptoms and help prevent complications. If untreated, STDs can have consequences ranging from mild brief illness to serious complications such as infertility, tubal pregnancy, cancer, stroke, and death. Many STDs can cause serious health problems, including death, in infants born to infected mothers.

In this section, we summarize the data for chlamydia, gonorrhea, and syphilis. Other diseases that can be transmitted through unprotected sex, including HIV infection, hepatitis B and hepatitis C, are presented in other sections of this chapter.

Chlamydia

- Chlamydia is the most commonly reported infection in the United States. It is transmitted through unprotected sex and can be transmitted from mother to baby during childbirth.
- Chlamydial infection can result in pelvic inflammatory disease (PID), which can cause ectopic pregnancy and female infertility.
- Chlamydial infection is often asymptomatic. Therefore, rates based on reported cases almost certainly underestimate the true incidence of the disease.
- In 2004, 5,428 cases of chlamydial infection were reported among King County residents, including 3,647 cases among women.

Incidence Rates for Chlamydia, Gonorrhea, and Early Syphilis in King County, 1995-2004



Data Source: Washington State Department ofHealth, STD/TB Services
Produced by: PublicHealth - Seattle & King County, Epidemiology, Planning and Evaluation

- Between 1995 and 2004, the incidence rate of chlamydia has been increasing.
- The incidence rate was highest among females age 15-20 (2363.9 cases per 100,000) and among males age 20-24 (814.9 cases per 100,000).

Gonorrhea

- Gonococcal infection if left untreated, may also lead to PID, subsequently cause infertility, ectopic pregnancy, and/or chronic pelvic pain. An infant who contracts gonorrhea from her mother during delivery may develop gonococcal conjunctivitis, which may lead to blindness if untreated.
- Gonorrhea is often experienced without symptoms. Reported cases are believed to reflect about half the true total.
- In 2004, 1,286 cases were reported among King County residents, including 414 cases of women.
- Men who have sex with men (MSM) have a higher incidence rate than heterosexual men or women.

Syphilis

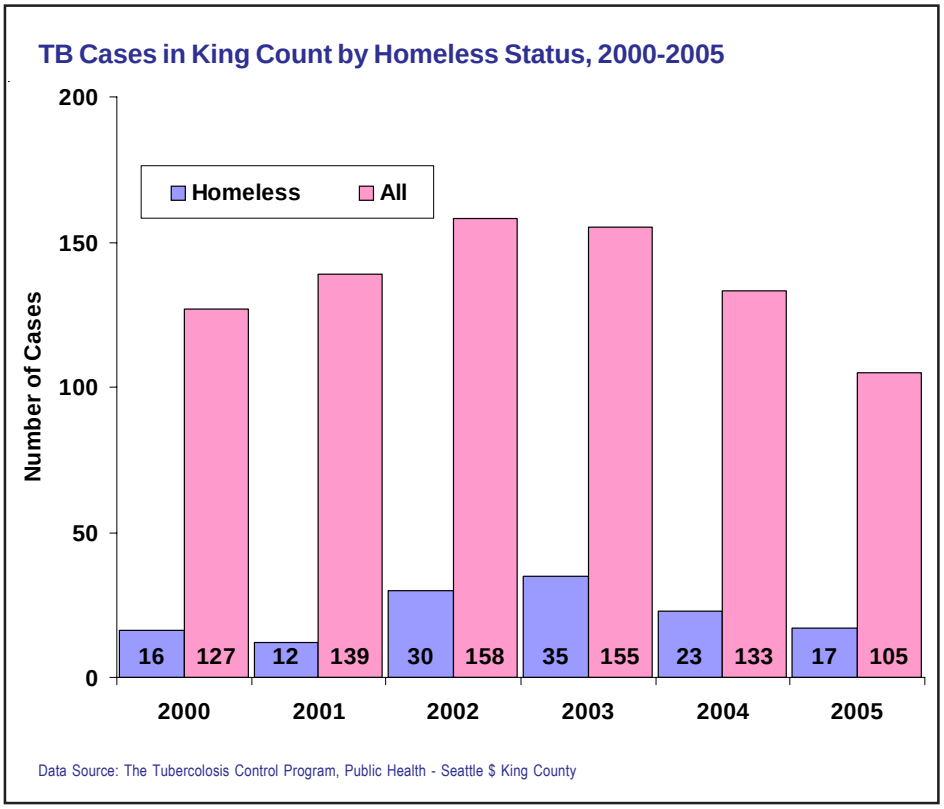
- Syphillis is most often transmitted through unprotected sex and can be transmitted from mother to baby during pregnancy.
- King County experienced a sharp increase in early syphilis cases (including primary, secondary, and early latent cases) in 2004, with 166 reported cases, compared to 84 cases in 2003.
- Between 1995 and 2004, the incidence rate of early syphilis increased significantly.
- Of the 166 cases in 2004, 140 (84%) were among MSM. Since 1997, King County has experienced an epidemic of syphilis among MSM. It is estimated that the incidence of early syphilis was 324.5 per 100,000 among MSM in 2004, compared to 1.5 per 100,000 among heterosexuals. More than half (56%) of the 2004 early syphilis cases in MSM were also HIV positive.
- King County also experienced an outbreak of early syphilis among heterosexuals in 2004 with 26 cases, compared to 5 cases in 2003. Most of these cases reported engaging in commercial sex work, sex with commercial sex workers, and /or drug use.

Tuberculosis

Tuberculosis (TB) is spread from person to person through airborne exposure. TB bacteria can be released into the air when a person with active TB disease coughs, sneezes, sings, etc. After TB exposure, some people may acquire dormant, latent TB infection. These individuals are not contagious and do not have symptoms. However, those with latent TB infection have a 10% risk of developing active TB disease; 5% within the first 2 years after acquisition and an additional 5% over the rest of their lifetime.

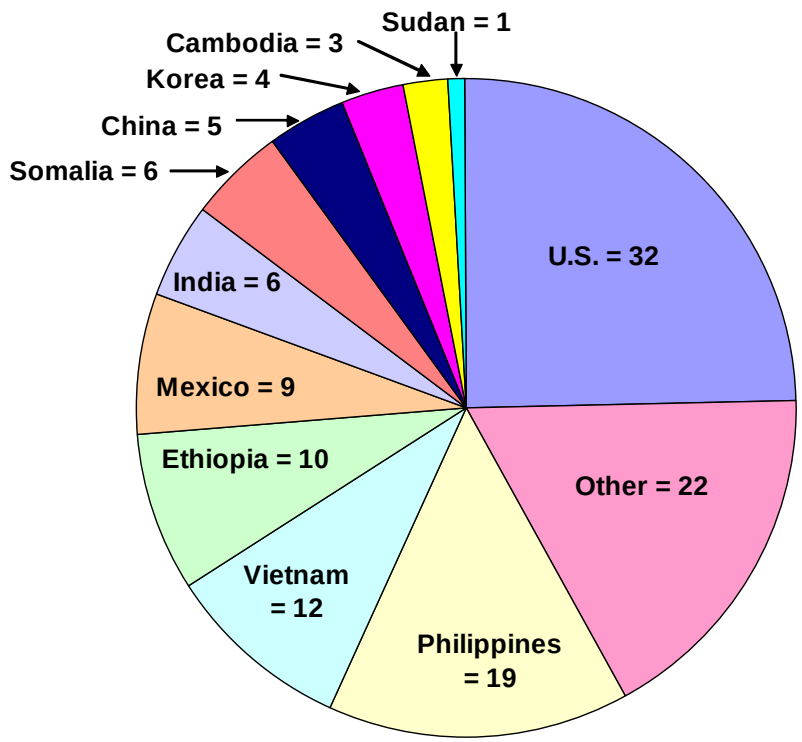
Active TB disease usually affects the lungs, but can affect other parts of the body such as the brain, kidney or spine. Affected individuals may have symptoms of weight loss, cough, night sweat, fever or fatigue.

- In 2005, there were 127 new TB cases diagnosed in King County.
- Between 2000 and 2005, the number of cases per year ranged from 127 to 158.
- TB incidence rates in Seattle-King County remain higher than rates in the rest of the state and the national average. It is estimated that there are over 100,000 people with latent TB infection in King County.
- Twenty-three cases (18% of all TB cases) were homeless in 2005. Homeless cases were at their peak during the 2002-2003 outbreak, during which time 65 cases were reported.



- TB incidence rates per 100,000 were highest among Asians (29.3), African Americans (37.3), and American Indians (18.8), compared to non-Hispanic whites (2.3).
- About 14% of the King County TB cases had drug resistance (any drugs).
- Two cases had multi-drug resistant TB (MDR TB; resistant to at least isoniazid and rifampin), which is very difficult (20-40% mortality) and expensive (approximately $250,000) to cure.
- Six percent of TB cases were co-infected with HIV.
- There are approximately 100 TB cases each year among foreign-born persons. The highest case numbers came from Vietnam, Ethiopia, the Philippines, Somalia, and India.

TB Cases among King County Residents by Country of Birth, 2005



- Because of the large pool of individuals with latent TB infection (a third of the world's population is infected with TB), lack of convenient preventive medications, and lack of an effective TB vaccine, it is unlikely that TB will be eliminated anytime soon.
- The TB Control Program at Public Health – Seattle & King County focuses on (1) case management of active TB cases in order to stop further transmission of TB and prevent development of multi-drug resistant TB; (2) contact investigation around active TB cases to identify, evaluate and treat those who were exposed and recently infected and (3) partnership with community health care professionals to enhance targeted TB testing and treatment of latent TB infection.

For more detailed information about tuberculosis, please read the 2005 Annual TB Report, to be posted shortly at http://www.metrokc.gov/health/tb/tbfacts.htm.

Childhood Immunization

In the United States, children are recommended to receive vaccinations for the following diseases by their second birthday: diphtheria, tetanus, and pertussis (DTaP), measles, mumps, and rubella (MMR), *Haemophilus influenza* type b (Hib), hepatitis B, poliomyelitis, varicella (chickenpox) and pneumococcal (PCV) disease. Influenza vaccine is recommended for all children 6-23 months of age and high-risk children 24 months and older. The Washington State immunization law requires that all children be immunized with specified vaccines for childcare and at school entry. A two year old is considered current for the recommended basic immunizations if the child has had 4 DTaP, 3 polio, 1 MMR, 3 Hib, and 3 hepatitis B (HepB) vaccines (4:3:1:3:3 series), plus 1 varicella, 4 PCVs (pneumoccocal conjugate vaccine), and 2 hepatitis A vaccines.

Through the Vaccines for Children Program (VFC), King County distributes 700,000 doses of childhood vaccine annually to over 300 clinic sites throughout the county. This state and federally funded program assures that low-cost immunizations are available for all children in Washington State.

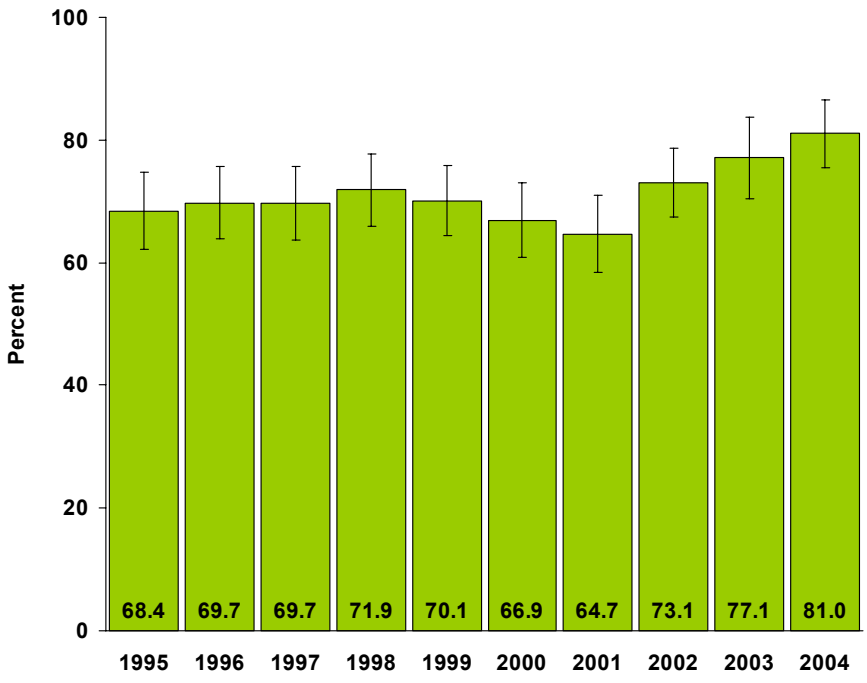
- Among King County children aged 19-35 months in 2004, the percentage of children who received the 4:3:1:3:3 series was 81.0%, compared to 77.7% in Washington State and 80.9% in the U.S. These rates are lower than the U.S. 2010 target of 90%.
- Between 1999 and 2004 in King County, the child immunization rate increased significantly especially after a low of 64.7% in 2001. In March 2005, King County received two awards from the Centers for Disease Control and Prevention for this achievement, one for child immunization high coverage rates and one for the significant improvement.

Childhood Immunization Rates in King County, WA State, and the U.S. US, National Immunization Survey, 2004 (± 95% Confidence Interval)

Children 19-35 Months of Age			
	King County	**Washington**	**U.S.**
3+DTP	96.3±2.8	96.4±1.9	95.9±0.5
4+DTP	89.0±4.7	85.0±4.1	85.5±0.8
3+Polio	92.4±3.7	91.0±3.0	91.6±0.7
1+MMR[l]	94.8±3.0	92.3±2.8	93.0±0.6
3+Hib	95.5±2.9	94.9±2.2	93.5±0.6
3+HepB	90.8±3.8	88.7±3.3	92.4±0.6
1+Var††	84.5±4.8	77.6±4.4	87.5±0.7
3+PCV‡‡	87.5±4.9	81.0±4.2	73.2±1.0
4:3:1	85.7±5.0	82.4±4.3	83.5±0.9
4:3:1:3	84.5±5.2	81.2±4.3	82.5±0.9
4:3:1:3:3	81.0±5.5	77.7±4.6	80.9±0.9
4:3:1:3:3:1* **	73.7±6.1	66.5±5.0	76.0±1.0

†† One or more doses of varicella at or after child's first birthday, unadjusted for history of varicella illness
‡‡ Three or more doses of pneumococcal conjugate vaccine
*** Four or more doses of DTP, three or more doses of poliovirus vaccine, one or more doses of any MCV, three or more doses of Hib, three or more doses of HepB, and one or more doses of varicella

Children 19-35 Months of Age with Completed 4:3:1:3:3 Vaccine Series (DTaP, Pol, MMR, Hib, Hep B)
King County, 1995-2004



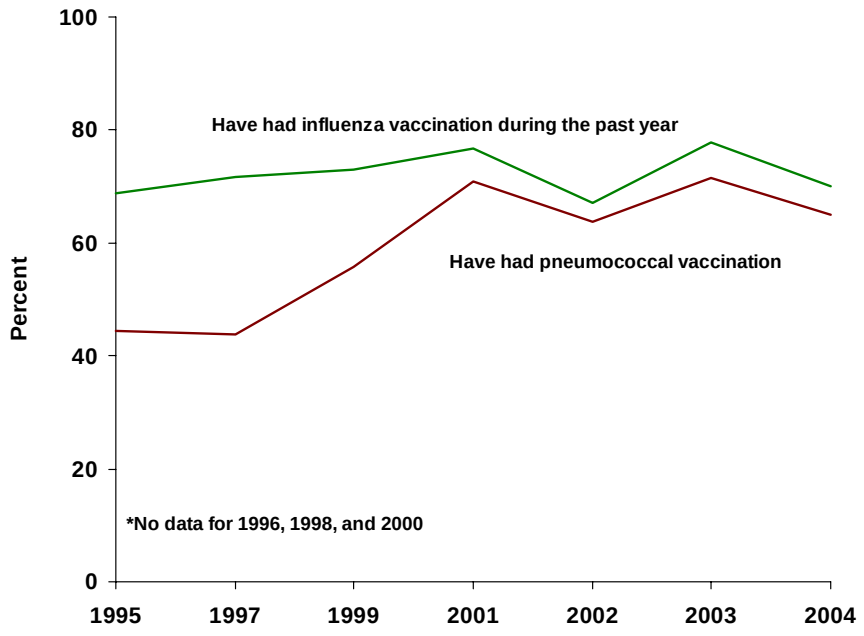
Source: National Immunization Survey, Centers for Disease Control and Prevention.
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

- More parents in King County are claiming exemptions from receiving at least one immunization required for school. In the 1999-2000 school year the exemption rate was 2.9% and during the 2004-2005 school year, the exemption rate was 4.5%. Children who are not immunized may be excluded from school during a disease outbreak.

Adult Immunization for Pneumococcal Disease and Influenza

- Unlike childhood immunizations for which there are national and State programs to provide vaccine to all eligible children, there is no national adult immunization program. Consequently, among adults, access to vaccine and coverage with recommended vaccinations are lower.
- Adults age 65 and older, and those with medical conditions that increase their risk for pneumococcal disease, are recommended to receive pneumococcal vaccine.
- The primary target groups recommend for annual influenza vaccination are 1) persons at increased risk for influenza-related complications (i.e., those aged e" 65 years, children aged 6-23 months, pregnant women, and persons of any age with certain chronic medical conditions); 2) persons aged 50-64 because this group has an elevated prevalence of certain chronic conditions; and 3) persons who live with or care for persons at high risk.[1]
- In 2004, among King County adults age 65 and older, 65% have received a pneumococcal vaccine ever and 70.0% have received a flu shot during the previous year. These rates are well below the U.S. 2010 target of 90% for both types of immunization.
- Between 1995 and 2004 among King County older adults, the rate of immunization for pneumococcal disease increased significantly from 44% to 65% while there was no significant change in the rate for flu vaccine.

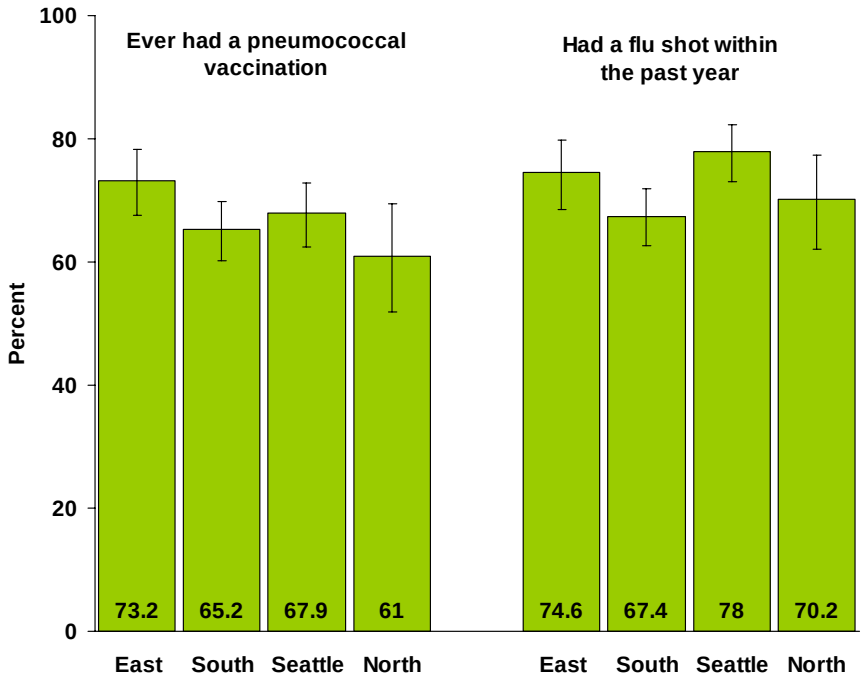
Pneumococcal and Influenza Vaccination Among King County Adults Age 65+, 1995-2004*



Source: Behavioral Risk FactorSurvey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

- The increase in pneumococcal vaccination was significant in all four regions except the North region (data not shown).
- The East region had a relatively higher pneumococcal immunization rate while the South and the North regions had relatively lower rates. However, the differences among the regions were not statistically significant.
- Seattle had a relatively higher flu shot rate.

Pneumococcal and Influenza Vaccination Among King County Adults Age 65+ by Region, Four-Year Averages, 2001-2004



Data Source: Behavioral Risk Factor Survey
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

References

[1] CDC. Prevention and Control of Influenza. Recommendations of the Advisory Committee on Immunization Practices. MMWR. Recommendations and Reports. July 29, 205/54(RR08);1-40.

Vaccine Preventable Diseases

Diphtheria

- Diphtheria in an infection involving the tonsils, pharynx, larynx and nose. It is caused by the bacterium *Corynebacterium diphtheriae*. It is preventable with vaccination.
- The last case of toxigenic diphtheria was reported in Washington State in 1979.

Haemophilus influenzae Invasive Infection

- Invasive infections with *Haemophilus influenzae* bacteria can cause meningitis, epiglottitis, pneumonia, and blood infections.
- The introduction of the *Haemophilus influenzae* type b (Hib) conjugate vaccine in 1987 led to a rapid decline in the number of pediatric invasive *H. influenzae* type b infections.
- There were two reported cases of invasive *H. influenzae* infections in 2003 and in 2004. None of the four cases were serotype b.

Hepatitis A

- Infection with the Hepatitis A virus causes an inflammation of the liver (hepatitis) which causes fever, malaise, nausea, vomiting, abdominal pain, and jaundice (yellow eyes and skin).
- Hepatitis A is transmitted via the fecal-oral route. A person can get hepatitis A is by eating food prepared by an infected person who didn't wash their hands well after using the bathroom and by eating food products contaminated with fecal material at some point during production, distribution, or preparation.
- Hepatitis A vaccine was introduced in 1995, and in October 2005, was recommended for all children age 12 months or older and adults in specific high risk groups.
- Since 1997, hepatitis A cases have been declining in King County, from 441 cases in 1997 to 14 cases in 2004.
- International travel was the most common risk factor, and was reported by half of the cases during 2003-2004.

Hepatitis B

- Acute infection with hepatitis B virus (HBV) causes inflammation of the liver (hepatitis), with fever, malaise, nausea, vomiting, abdominal pain, and jaundice (yellow eyes and skin). Hepatitis B infection can become chronic, and lead to cirrhosis of the liver or liver cancer.
- HBV is transmitted by contact with the blood or body fluids of a person who has either an acute or chronic HBV infection. This contact may happen through occupational exposure (i.e., needle sticks in the health care setting), sexual contact, or sharing of objects contaminated with small amounts of blood such as toothbrushes, razors, or drug injection needles.
- Babies born to women who have either chronic or acute HBV infection can be exposed to the virus during the birth process. Administration of HBV immune globulin (HBIG) and HBV vaccine at birth, and follow-up doses of HBV vaccine can prevent hepatitis B infection in most infants. Babies born to women with HBV infection in King County are closely followed by Public Health to ensure that they receive HBIG at birth, appropriate follow-up doses of hepatitis B vaccine, and testing to ensure they have responded to vaccine and have not been infected.
- Reports of acute HBV cases have been declining both in King County and nationally. Between 1995 and 2004, the number of reported cases of acute HBV cases in King County declined from 85 to 23 cases.

Measles

- Measles is an acute viral respiratory illness caused by the measles virus. Measles can cause serious complications, such as pneumonia, encephalitis, and death.
- Measles is preventable with vaccination.
- In 2004, there were six cases of measles in toddlers adopted from China. No secondary cases occurred in King County. In 2001, 12 cases of measles linked to an outbreak in Korea were reported.

Meningococcal Disease

- A bacteria called *Neisseria meningitidis* can cause infection of the blood or meningitis, both of which are frequently life threatening. Eight to 15 percent of cases are fatal and another 10 to 20 percent result in long term complications, including mental retardation, hearing loss, and amputation of limbs.
- The disease is spread from person to person via the droplets that come out a person's mouth when they talk, cough, or sneeze. People may transmit *Neisseria meningitidis* even if they have mild or no symptoms.
- Two meningococcal vaccines are currently available which prevent infection with some strains of *Neisseria meningitidis*. Vaccination is recommended for adolescents (age 15 years or by high school entry), college freshmen living in dorms, people with asplenia (no spleen) and certain other medical conditions, laboratory personnel exposed to the bacteria, and travelers to high risk regions.
- In King County, there were 18 reported cases of meningococcal disease in 2004.
- Between 1995 and 2004, the number of reported cases per year ranged from 6 in 2003 to 31 in 1996.

Mumps

- Mumps is an acute viral disease characterized by fever and swelling of the salivary (typically parotid) glands caused by infection with the mumps virus. Complications include orchitis in males and mastitis in women.
- Mumps is a vaccine preventable disease
- In 2004, one mumps case was reported in King County.

Pertussis (whooping cough)

- Pertussis is a bacterial respiratory disease that causes a persistent paroxysmal cough (coughing spells or fits) often accompanied by vomiting. Some children who develop pertussis, particularly unvaccinated children, will develop a characteristic “whoop” when they inhale during a cough paroxysm.
- Pertussis infection in infants is of particular concern in infants, because of they have higher rates of hospitalization, pneumonia, and death compared to older children and adults.
- There is a pertussis vaccine which is designed to prevent severe illness and complications due to pertussis in infants. Immunity from the vaccine wears off over about 10 years leaving, even vaccinated people susceptible.
- In 2004, there were 201 reported of cases of pertussis in King County.
- A newly licensed pertussis vaccine is available for adolescents and adults and may eventually help decrease overall pertussis rates in the community.

Poliomyelitis

- Poliomyelitis is a vaccine preventable disease, and through intensive vaccination campaigns, poliovirus was declared eradicated from the Western Hemisphere in 1991, from the Western Pacific in 1997, and from Europe in 1998.
- Poliomyelitis is caused by an infection with polio virus. It causes a paralytic illness in some people who are infected, however, some people infected are asymptomatic (have no symptoms), though they can pass the infection on to others.
- Because polio still occurs in other countries, travelers can be exposed to the virus, and the potential for introduction of polio into the U.S. form abroad still exists.

Rubella (German Measles)

- Rubella is a rash illness caused by infection with the rubella virus.
- Rubella is usually a mild illness, however, rubella infection in a pregnant woman can cause congenital anomalies (birth defects) in the developing fetus.
- Rubella is a vaccine preventable disease.
- No cases of rubella were reported in 2003 and 2004 in King County. Two cases were reported in 2002, both in unvaccinated recent immigrants.

Tetanus

- Tetanus is a disease that can occur with a wound becomes contaminated with a bacterium called *Clostridium tetani*. Wounds that are contaminated with dirt, saliva, or feces, puncture wounds, crush injuries, and unsterile injections are at high risk for tetanus infection, however, seemingly mild wounds can become infected as well. Tetanus is characterized by severe, potentially life-threatening muscle spasms.
- Tetanus is vaccine preventable. In the U.S., tetanus typically occurs in adults over 60 years of age, reflecting a lack of immunity in this population.
- The most recent reports of tetanus in King County occurred in 1996 (two cases) and again in 2005 (one case).

Varicella

- Varicella (chickenpox) is not currently a legally reportable disease. Varicella is often thought of as a mild disease, but in fact, can be very serious for adolescents and adults, and both children and adults can die from complications of the disease. Due to the increase in varicella immunization rates, less varicella disease is circulating, creating a particular risk for unimmunized children who reach adolescence without being exposed to the disease. In Washington State, varicella vaccine will be required for school and child care entry beginning July 1, 2006.

Pneumoccal Disease

- Pneumococcal disease is caused by infection with the bacterium *Streptococcus pneumoniae*. *Streptococcus pneumoniae* can cause meningitis, bloodstream infections and pneumonia children and adults
- Pneumococcal disease can be prevented by vaccination.

Influenza

- Infection with influenza virus causes a respiratory tract infection characterized by sudden onset of high fever, muscle aches, headache, cough, and sore throat. Pneumonia is a common complication of influenza infection.
- There are two types of influenza virus that typically cause human disease. They are influenza A and B. Influenza can be prevented, or ameliorated by vaccine, but, because the viruses change each year, people who wish to avoid getting influenza must receive a vaccination every year.

Influenza and Pneumonia Death and Hospitalization

Influenza and pneumonia are the leading causes of death from infectious diseases in the US and King County. Like diabetes, they often occur in persons with other health problems and are often listed as a contributing cause of death rather than the underlying cause. They are also among the leading causes of hospitalization in children and the elderly.

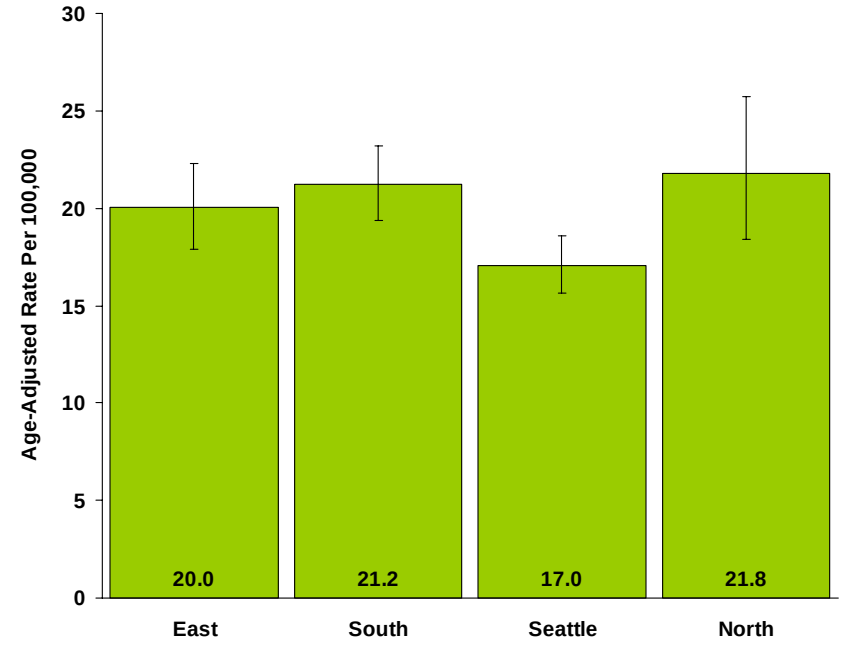
In 2003 among King County residents, there were 334 deaths classified on death certificates as due to influenza and pneumonia. Of the 334 deaths, 296 (88.6%) were among persons age 65 and older.

In 2004, there were 3,596 hospitalizations for influenza and pneumonia.

King County and Region

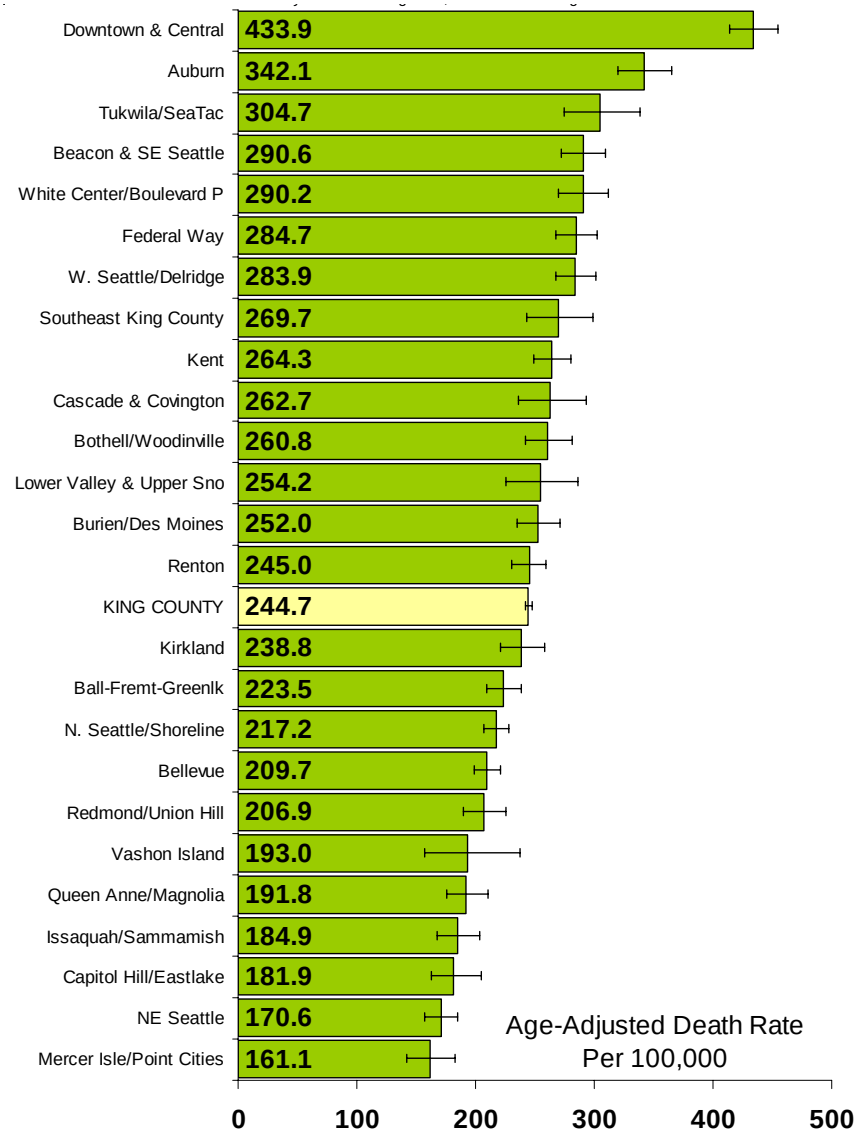
- Between 1994 and 2003, the age-adjusted influenza and pneumonia death rate declined significantly from 25.6 per 100,000 to 20.0 per 100,000.
- The decline was significant in all regions except the North region (data not shown)
- The death rate in Seattle was the lowest and was significantly lower than the King County rate.

Influenza and Pneumonia Death Rate in King County by Region, Five-Year Averages, 1999-2003



Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

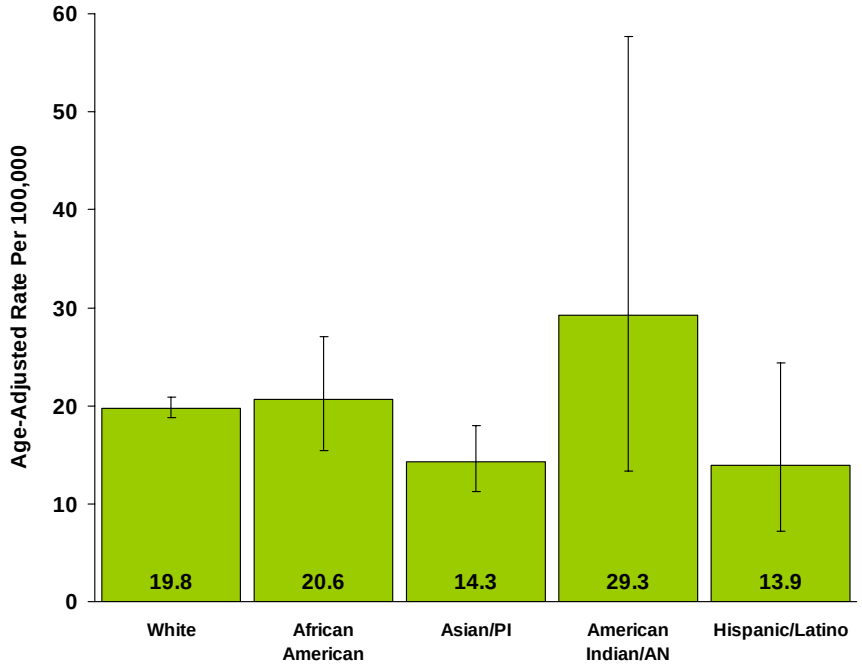
Pneumonia/Influenza Hospitalization Rate in King County by Health Planning Area, 2000-2004 Averages



Patterns by Health Planning Area

- Among the health planning areas, Covington/Maple Valley, Upper Snoqualmie Valley, and Issaquah/Sammamish had the highest death rate while Mercer Island/Point Cities and Ballard had the lowest death rates. However, compared to the King County average death rate, few of the areas had a significantly different rate (data not shown).
- Many hospitalizations for influenza and pneumonia may be avoidable with immunization and easy access to primary care. Among the health planning areas in King County, there are wide differences in the hospitalization rate. Averaged over 2000-2004, Downtown and Central Seattle, Auburn, and Tukwila/Sea Tac had the highest rate while Mercer Island/Point Cities, Northeast Seattle, and Capitol Hill/East Lake had the lowest rate.

Influenza and Pneumonia Death Rate in King County by Race/Ethnicity, Five-Year Averages, 1999-2003



Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Focus on Disparities

- Among the racial/ethnic groups in King County, only whites experienced a significant decline in the influenza and pneumonia death rate (data not shown).
- Compared to whites, American Indian/Alaska Natives had higher death rate while Asians and Hispanics had a lower rate. Nevertheless, the racial/ethnic differences were not statistically significant.

Hepatitis C

- Hepatitis C virus (HCV) is transmitted primarily by direct exposure to the blood of an infected person. Currently, it is mostly likely transmitted through injection drug use. HCV can also be transmitted through unprotected sex and through mother to fetus during pregnancy, but this is rare.
- Over 70 percent of persons with acute HCV infection are asymptomatic. Sixty to 85 percent of persons with acute HCV infection go on to develop chronic HCV infection, and 10 to 15 percent of these people will develop cirrhosis of the liver within 20 years after infection.
- There are between 6 to 13 new cases of acute HCV infection per year.
- Chronic HCV infection became reportable in December 2000. In 2004, there were 1,285 reported cases of probable or confirmed chronic hepatitis C and another 359 cases of possible chronic hepatitis C.
- There is no vaccine for hepatitis C.

Enteric, Food and Waterborne Diseases

Campylobacteriosis

- Campylobacteriosis is an intestinal infection caused by *Campylobacter jejuni*. It is the most common reported bacterial cause of diarrheal illness. It is primarily transmitted through food, particularly raw or undercooked poultry, and unpasteurized milk. It can also be transmitted from person to person or from animal to person. Infected puppies and kittens, in particular, are frequent shedders of *Campylobacter*.
- Infected persons may have mild or no symptoms, but symptoms of infection include diarrhea stomach cramps, fever, nausea, and vomiting.
- In 2004, there were 264 reports of campylobacteriosis in King County.
- King County campylobacteriosis rates were not significantly different than those for the US and Washington State.

Cryptosporidiosis

- Infection with the protozoan *Cryptosporidium parvum* (cryptosporidiosis) is primarily associated with drinking untreated surface water, contact with livestock, wild animals, and pets, and swimming in contaminated swimming pools. *Crytosporidium* can be transmitted from person to person.
- Cryptosporidiosis infections can cause profuse and watery diarrhea, loss of appetite, and cramping and abdominal pain, however, asymptomatic infections are common.
- Boiling water for one minute kills the parasite; however, chlorination has not proven to be effective.
- Cryptosporidium became reportable in Washington State in 2001.
- In 2004, King County 34 cases of cryptosporidiosis were reported.

Cyclosporiasis

- Infection with *Cyclospora cayetanensis* (cyclosporiasis) can be acquired from ingestion of water or food that was contaminated with fecal matter. It has been associated with consumption of imported berries and herbs sprayed with contaminated water. It is not spread from person to person.
- Symptoms of infection include watery diarrhea, nausea, fatigue, and weight loss. In immune compromised persons, diarrhea can last several months.
- Cyclosporiasis became a reportable condition in Washington State in 2001. Nine cases were reported in King County in 2004.

E. coli O157:H7 Infection

- *E. coli* O157:H7 infections are associated with ingestion of raw or undercooked meat, unwashed contaminated produce (especially sprouts and melons), unpasteurized milk, contaminated water, and unpasteurized juices. Petting zoos can also be a source of *E. coli* O157:H7 infection when good hand washing practices are not followed after petting the animals. The bacteria can be transmitted from person to person via food, shared bath water, and contaminated objects.
- Infection with *E.coli* O157:H7 can cause severe illness. Symptoms include diarrhea, which is often bloody, and painful stomach cramps. Fever is usually mild or absent. In up to 10% of cases, infection with *E. coli* results in a serious condition called hemolytic uremic syndrome (HUS), which damages the kidneys and may cause kidney failure and death. Children under age 10 are at special risk of developing HUS.
- In 2004, there were 42 reports of E. coli O157:H7 in King County.
- The rate of infection with *E.* coli O157:H7 in King County was similar to rates of infection for the US and Washington State in 2004.

Giardiasis

- Giardiasis is a parasitic infection caused by a protozoan, *Giardia lamblia*. The two major sources of infection in King County are ingestion of contaminated water and person to person spread among children in day care centers.
- Symptoms of infection with the *Giardia* parasite typically include stomach cramps, gas, diarrhea, lack of appetite and nausea.
- There were 126 cases of giardiasis reported in King County in 2004.
- The rate of reported giardiasis infection for King County in 2004 was similar to rates for the US and Washington State.

Listeriosis

- Listeriosis is caused by a bacterium, *Listeria monocytogenes*, and is most commonly transmitted through contaminated food products. Common foods sources of the bacteria include unpasteurized milk or milk products, soft cheeses (i.e., brie, Mexican-style fresh cheese), ice cream, raw vegetables, raw meats, and refrigerated meat spreads, pates, deli meats, or smoked seafood.
- Symptoms of listeriosis include fever muscle aches, nausea, vomiting and diarrhea. Headache, stiff neck, and loss of balance or seizures can occur if meningitis or encephalitis occurs. Listeriosis can result in serious illness, including blood stream infections, meningitis, and encephalitis. People with weakened immune systems (pregnant women, persons with HIV/AIDS, the elderly, and persons with other immunosuppressive diseases) are at greatest risk of developing serious complications from infection with *Listeria* bacteria. Infections in pregnant women can cause spontaneous abortions (miscarriage), stillbirth, or severe infections (sometimes fatal) in the newborn.
- In 2004, there were 4 reports of listeriosis in King County.
- King County's listeriosis rates for 2004 were comparable to US and Washington State.

Salmonellosis

- Salmonellosis is caused by infection with the bacterium *Salmonella*, which is primarily transmitted through ingestion of contaminated food or water. Undercooked poultry, meat, and eggs, raw unwashed produce, and unpasteurized milk are the most common vehicles of transmission. It can also be contracted from exposure to the feces of an infected person or animal. Animals that can transmit *Salmonella* bacteria to humans include reptiles (e.g. lizards, snakes, iguanas, etc), amphibians (e.g. newts, toads, salamanders, etc), and other animals (e.g. fowl, hedgehogs, etc).
- Symptoms of infection with *Salmonella* include diarrhea, stomach cramps, headache, fever, and vomiting. Up to 5% of cases can shed the bacteria for up to a year. Complications of infection are rare and include arthritis, blood stream infections, and death.
- In 2004, there were 234 reports of salmonellosis in King County.
- The rate of infection with *Salmonella* reported in King County in 2004 was comparable to rates in the US and Washington State.

Shigellosis

- Shigellosis is an infection of the intestines caused by four different strains of S*higella* bacteria. *Shigella* is highly infectious and the bacteria are spread easily from person to person.
- Symptoms of infection with *Shigella* include diarrhea, which is often bloody, fever, stomach cramps, nausea, and vomiting.
- In 2004, there were 63 reports of shigellosis in King County.
- King County rates of shigellosis infection did not differ from Washington State or the US in 2004.

Yersiniosis

- Yersiniosis is caused by the bacteria, *Yersinia enterocolitica.* Yersiniosis is primarily spread through consumption of contaminated food items, especially undercooked pork or pork products. Person to person transmission is rare.
- Symptoms include diarrhea, appendicitis-like abdominal pain, and fever; however, some people infected with *Yersinia* may remain asymptomatic.
- In 2004, there were 15 cases of Yersiniosis reported in King County.

Summary

- Food borne bacterial diseases can be prevented by cooking all meat to an internal temperature of at least 140 degrees Fahrenheit, by keeping food out of the danger zone (between 40 and 140 degrees Fahrenheit) for more than two hours, by preparing food with clean utensils, bowls and cutting boards, by preventing cross-contamination (for example, not cutting produce on a cutting board where raw meat was prepared), and by good hand washing before and after food preparation, after going to the bathroom or changing diapers, and after any contact with animals.
- Child care settings, particularly those with children in diapers are susceptible to outbreaks of intestinal diseases. Good hand washing, and sanitizing toys and diaper change areas are essential for preventing transmission.

Vector borne and Other Zoonotic Diseases

Hantavirus Pulmonary Syndrome (HPS)

- Hantavirus Pulmonary Syndrome is caused by infection with the Sin Nombre virus. Symptoms include fever, muscle aches, gastrointestinal symptoms, and respiratory distress.
- The first case of HPS was reported in the United States in the Southwest in 1993 among Native American populations.
- The disease is transmitted through exposure to the dried, aerosolized excreta of deer mice and other wild rodents.
- Three cases of HPS have been reported in King County with one case each in 1997, 1999, and 2003. The case reported in 1997 was fatal. All three were likely exposed in Central or Eastern Washington

Lyme Disease

- Lyme disease is caused by the bacteria *Borrelia burgdorferi* and is often characterized by a bulls-eye shaped rash and muscle and joint aches, fever, headaches, and enlarged lymph nodes. It is transmitted to humans via the bite of infected ixodid ticks. Ticks are infected by feeding on deer. Serious neurologic and cardiac complications may result from untreated infections.
- Lyme disease is uncommon in Washington State and the Pacific Northwest.
- In 2004, there were 10 reported cases, six were persons who had traveled to the East Coast, one had traveled to the Midwest, and two traveled internationally. One case was lost to follow-up.
- No vaccine is currently licensed in the United States for Lyme disease.

Emerging Infectious Diseases

Pandemic Influenza [1, 2]

Since December 2003, outbreaks of highly pathogenic avian influenza A (H5N1) among poultry have been reported in Asia, followed by spread to Europe, the Middle East, and Africa. Cases of H5N1 influenza have been demonstrated in humans living in many areas where avian outbreaks have occurred. As of February 2, 2006, 161 cases of laboratory-confirmed influenza A (H5N1) virus infections in humans, resulting in 86 deaths, have been reported. The Centers for Disease Control and Prevention (CDC), the World Health Organization (WHO), the World Organization for Animal Health (OIE), and national health authorities in affected countries are working to assess and monitor the situation, provide epidemiologic and laboratory support, and assist with control efforts.

The rapidity and extent of spread of the avian H5N1 influenza outbreak is historically unprecedented and poses a considerable human public health risk both because the virus infects humans, causing severe disease with high mortality, and more importantly, because of the potential for the avian virus to either directly mutate or recombine with a human influenza virus and give rise to a new human pandemic strain capable of passing readily from person to person. The current H5N1 virus circulating in Asia is highly pathogenic for humans, and immunity in the human population is generally lacking. However, at this time the strain is not able to be easily transmitted between humans, and sustained person-to-person transmission has not occurred. If the virus continues to circulate widely among poultry, it has a greater potential to infect humans and other animals (such as pigs), where genetic reassortment could take place and create a new pandemic strain. Human H5N1 cases to-date have been almost exclusively associated with direct exposure to infected birds or to surfaces contaminated with excretions from infected birds.

Influenza viruses reside in wild birds in nature, and human pandemics are thought to be inevitable naturally-occurring events. During the 20th century, three human influenza pandemics occurred. The 1918-1919 pandemic was the most severe pandemic known and killed approximately 500-650,000 people in the United States and over 50 million worldwide. Nearly half of those who died were young, healthy adults. The influenza pandemics of 1957 and 1968 were less severe, resulting in 70,000 and 34,000 excess deaths in the US, respectively.

Although the severity and exact onset of the next influenza pandemic cannot be predicted, there is an unprecedented level of concern among public health officials and scientists worldwide about the potential for a human pandemic to develop from the current avian outbreak. One reason for this is that the current avian influenza A H5N1 virus resembles the 1918 virus in its genetic makeup and the severe disease it is causing.

It is estimated that depending on the level if severity, an influenza pandemic in the US could result in 865,000 – 9.9 million persons requiring hospitalization and 209,000- 1.9 million deaths with up to hundreds of billons of dollars in economic losses

Key components of pandemic preparedness include having incident management systems for a large scale health emergency, coordination of the health and emergency response, good disease surveillance, optimally availability of vaccine and antiviral, robust healthcare system preparedness, ability to maintain essential community services, ability to implement outbreak containment measures, and timely, accurate and effective public communication.

West Nile Virus[3]

- West Nile virus (WNV) is transmitted by the bite of an infected mosquito. While disease caused by WNV has been recognized in Africa, the Middle East and parts of Europe for many decades, the virus first appeared in the United States in 1999.
- Most people infected with WNV do not have any symptoms. About 20% of people who get infected develop an illness called West Nile Fever with flu-like symptoms that can range from mild to moderately severe. Less than one percent of infected people develop severe disease, called West Nile encephalitis or West Nile meningitis. The risk of severe disease or death is highest in elderly persons.
- Between January 1 and December 1, 2005, 2,744 cases of WNV disease in humans were reported in the U.S., an increase from 2,359 during the same period in 2004.
- In 2002, the virus was found for the first time in birds and horses in Washington State, but the virus has not been detected in people in Washington State as of December 2005.
- In the absence of an effective vaccine, prevention of WNV disease depends on community-level mosquito control and promotion of personal protection against mosquito bites, such as use of repellents and avoiding outdoor exposure when mosquitoes are active.

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2 WHO. Avian Influenza. http://www.who.int/csr/disease/avian_influenza/en/index.html

3 CDC. West Nile Virus Activity — United States, January 1—December 1, 2005. MMWR 2005; 54(49);1253-1256. http://www.cdc.govmwr/preview/mmwrhtml/mm5449a1.htm

Health of King County 2006

Chapter 9: Environmental Health

Asthma Hospitalizations

Indoor and Outdoor Air Quality

West Nile Virus

Water Quality and Waterborne Illnesses

Tacoma Smelter Plume

Public Health
Seattle & King County
HEALTHY PEOPLE. HEALTHY COMMUNITIES.

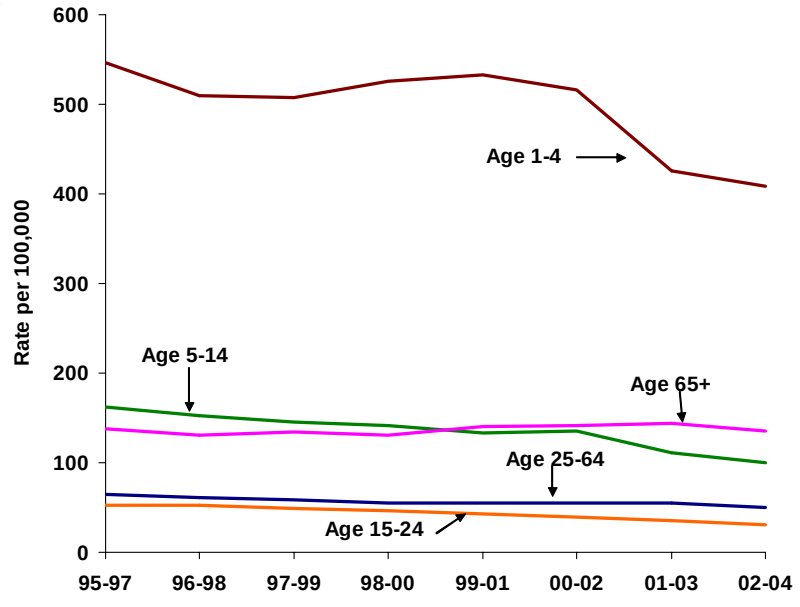
Asthma Hospitalizations

- **Asthma is the most common chronic childhood illness and contributes to many missed school and work days. Nationally, children with asthma average 2.5 missed days of school due to the disease.[1]**
- **Hospitalizations for asthma, especially for children, reflect more than just the underlying prevalence of the condition. With adherence to treatment plans, asthma hospitalizations can be reduced.**
- **Asthma hospitalizations are considered an indicator for problems accessing primary care, finding affordable medications, correct use of medications, and home treatment equipment.**
- **King County asthma hospitalizations have declined dramatically since 2001, especially in children.**
- **HP 2010 goals are to reduce the rate of asthma hospitalizations in three age categories: children under 5, 250 per 100,000, ages 5 to 64, 77 per 100,000, and ages 65 and older, 110 per 100,000.**
- **For 2004, King County met the ages 5 to 64 goal with 47 asthma hospitalizations per 100,000. We were still higher for the under age 5 category (390 per 100,000) and 65 and older (123 per 100,000).**
- **In 2004, among King County residents of all ages, asthma hospitalizations cost $11.8 million, or $8,826 per hospitalization.[2] Please see Asthma in King County for more information about asthma.**
- **King County has a number of programs targeting asthma prevention and control. The decrease in asthma hospitalizations has occurred simultaneously with the implementation of some of these programs.**
- **The childhood asthma hospitalization rate has seen the most dramatic reduction, although the adult asthma hospitalization rate has also lessened. (See Public Health Core Indicators for more information).**
- **With continued efforts and effective programs, the decreasing trend is likely to continue.**

King County and Regions

- The hospitalization rate was highest among children aged 1 to 4 and adults 65 and older.
- Childhood asthma hospitalization was significantly higher in males than in females, in younger age groups (<1 and 1-4 years of age), in high poverty neighborhoods, and in Seattle (data not shown).
- Asthma hospitalizations significantly decreased for children aged 0 to 17 in the last 10 years. However, the decrease occurred between 2000 and 2004. Childhood asthma hospitalization dropped most dramatically between 2002 and 2003, by 31%.
- Common risk factors causing asthma or triggering asthma attacks include tobacco smoke, mold, house dust mites, cockroaches, rodents, cat and dog dander, nitrogen dioxide (such as from stoves), wood smoke, and some chemicals (such as formaldehyde from particle board).[3,4] Other hazards include pollens, molds, and pollutants such as nitrogen dioxide, sulfur dioxide, ozone, and diesel exhaust particles [5]

Asthma Hospitalization Trends by Age, Three Year Average, King County, 1995-2004

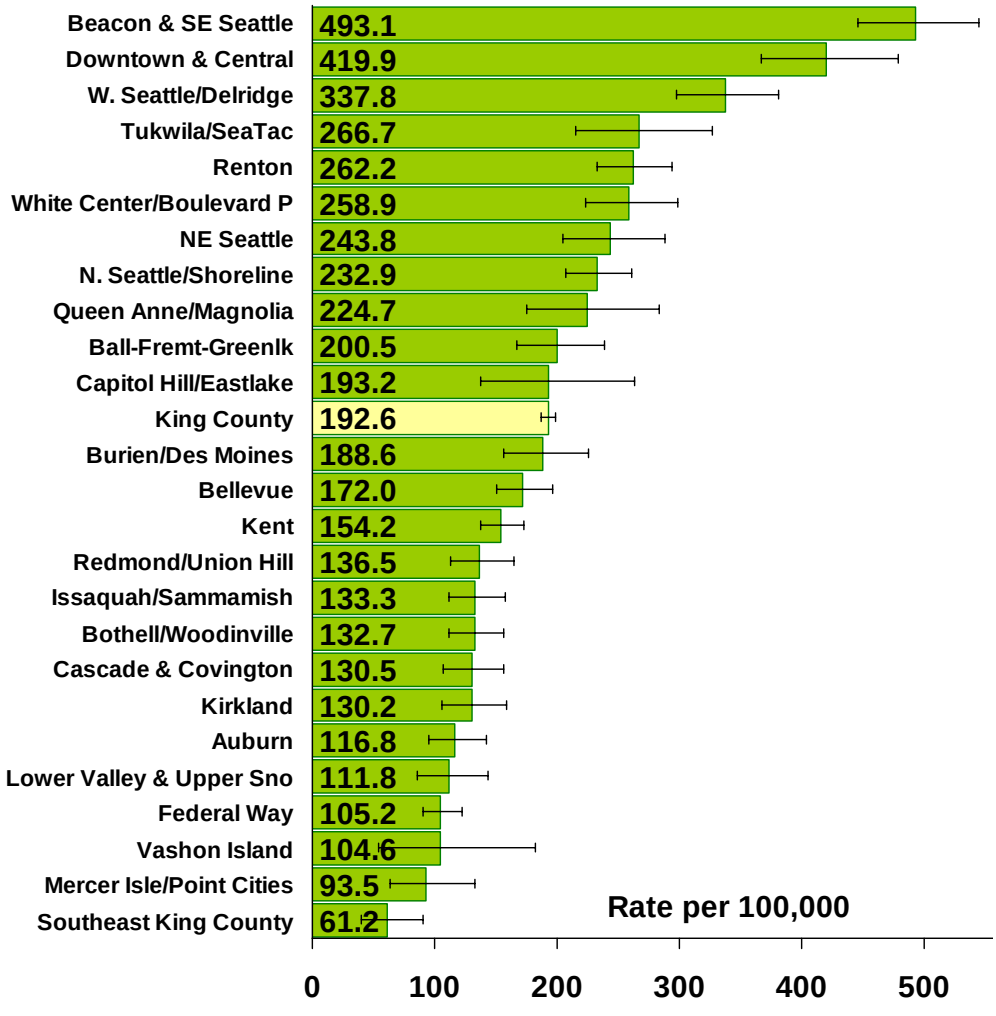


Data Source: Hospitalization Discharge Data, Washington State Department of Health, Office of Hospital and Patient Data Systems
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

Patterns by Health Planning Area

- Beacon & Southeast Seattle, Downtown/Central,West Seattle/Delridge, Tukwila/SeaTac, Renton, White Center/Boulevard Park, and Northeast Seattle had significantly higher childhood asthma hospitalization rates than the King County average.
- Kent, Redmond/Union Hill, Issaquah/Sammamish, Bothell/Woodinville, Cascade/Covington, Kirkland, Auburn, Lower Valley/Upper Snoqualmie, Federal Way, Vashon Island, Mercer Isle/Point Cities, and Southeast King County had lower rates of childhood asthma hospitalization than the King County average.

Childhood Asthma Hospitalizations by Health Planning Area, King County Five Year Average, 2000-2004

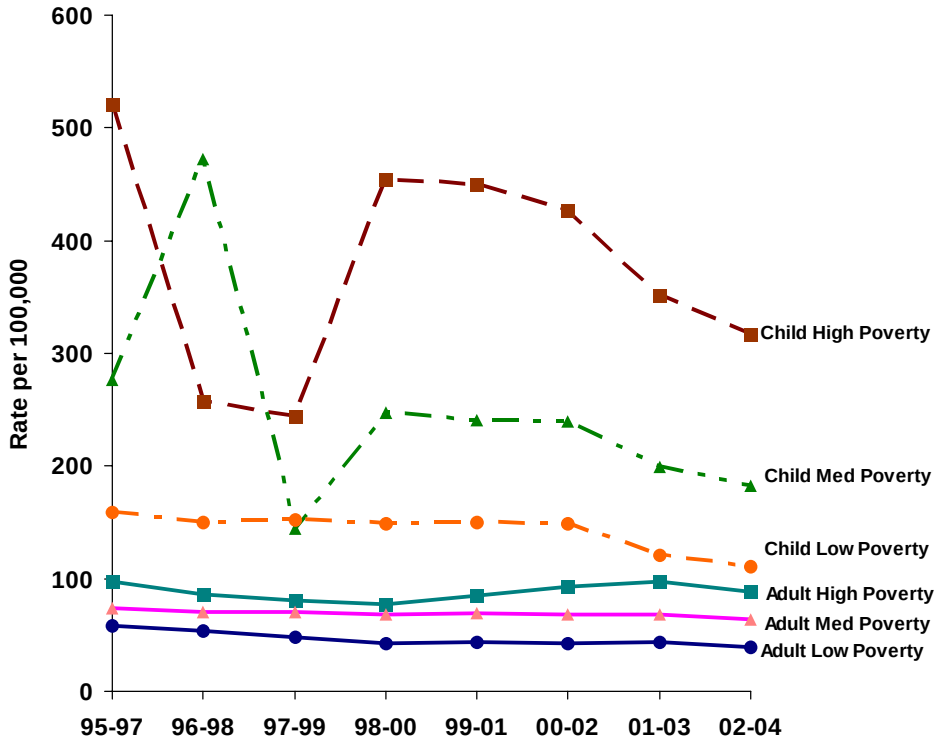


Data Source: Hospitalization Discharge Data, Washington State Department of Health, Office of Hospital and Patient Data Systems
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

Focus on Disparities

- Race data are not collected by the hospitalization discharge data system. However, national research shows there to be a widening racial gap in asthma morbidity and mortality.[6,7]
- Inequalities exist by neighborhood poverty level in children and adults.
- Adults living in high poverty neighborhoods[8] are twice as likely to be admitted to the hospital for asthma compared to people from low poverty neighborhoods. The disparity is greater in children in high poverty neighborhoods, where they are 3 times more likely to be hospitalized for asthma than children in higher income areas.

Asthma Hospitalization Trends by Age and Community Poverty Level, Three Year Average, King County, 1995-2004



Data Source: Hospitalization Discharge Data, Washington State Department of Health, Office of Hospital and Patient Data Systems
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

Resources

[1] Wang LY, Zhong Y, Wheeler L. Direct and indirect costs of asthma in school-age children. Prev Chronic Dis. 2005 Jan;2(1):A11. Epub 2004 Dec 15.

[2] Public Health Data Watch, Asthma in King County, King County, Seattle-King County Department of Public Health, Vol 8, No 2, 2005.

[3] U.S. Environmental Protection Agency. Asthma and Indoor Environments. www.epa.gov/asthma/triggers.html

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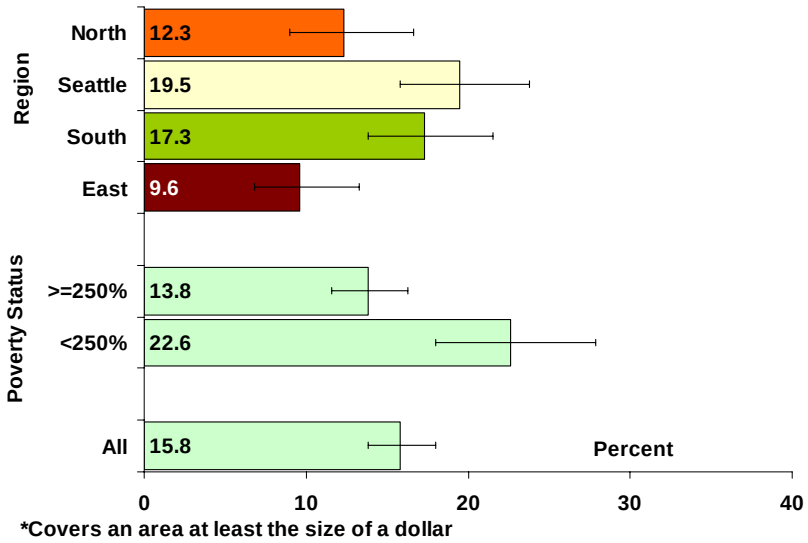
[8] Income is not collected for hospitalizations. Communities were assigned a poverty level based on the percent of population living below the Federal Poverty Level ($17,500 for a family of four in 2000). High poverty neighborhoods had 15% or more living below the FPL, medium poverty: 5% to 14%, and low poverty: less than 5%.

Indoor and Outdoor Air Quality

Indoor Air Quality

- Much of the air quality regulatory focus is on outdoor air; however, most people spend as much as 90% of their time indoors. According to the Environmental Protection Agency (EPA), indoor pollutants may be considerably higher than outdoor levels.[1] Potential hazards include mold, pesticides, chemicals, airborne particles, cigarette and fireplace smoke, lead dust, and noise. Poor indoor air quality can be a trigger for asthma, which is one of the most common reasons for children to need hospital care.
- Health effects from indoor air pollutants may be experienced almost immediately after exposure (irritation of the eyes, nose, and throat, headaches, dizziness, asthma attack, hypersensitivity pneumonitis, and humidifier fever, and fatigue) or, possibly, years later. These effects, which include respiratory diseases, heart disease, and cancer, can be debilitating or fatal. It is recommended to try to improve the indoor air quality in your home even if there are no noticeable symptoms.
- There is no population-based source for indoor air quality, although the Behavioral Risk Factor Surveillance Survey (BRFSS), a telephone survey, asked respondents about having mold/mildew larger than the size of a dollar bill inside the home in the past year.
- Mold/mildew was more frequently seen in household where income was below 250% of the federal poverty level (FPL) as compared to those with household income over 250% of the FPL.
- People living in the Seattle and South Region were more likely to report seeing mold in the home than those living in the East Region.
- One in 4 adults with asthma had a large mold or mildew spot in their home, as compared to 1 in 6 adults with no asthma. (data not shown)

Percent of King County Adults Reporting Mold/Mildew* Inside The Home During The Past Year, 2004



*Covers an area at least the size of a dollar

Data Source: Behavioral Risk Factor Surveillance System.
Produced by: Epidemiology, Planning & Evaluation, Public Health, Seattle & King County

Pollutants in the home include[2]:

- Basic techniques for improving indoor air quality include improving ventilation by occasionally opening doors and windows, and installing and using fans in the kitchen and bathroom. Refrain from smoking in the home whenever possible and avoid the use of toxic household products. For alternative products, please visit http://www.metrokc.gov/health/hazard/hazchems.htm.

Carbon monoxide alarms can be installed to detect high levels of CO.

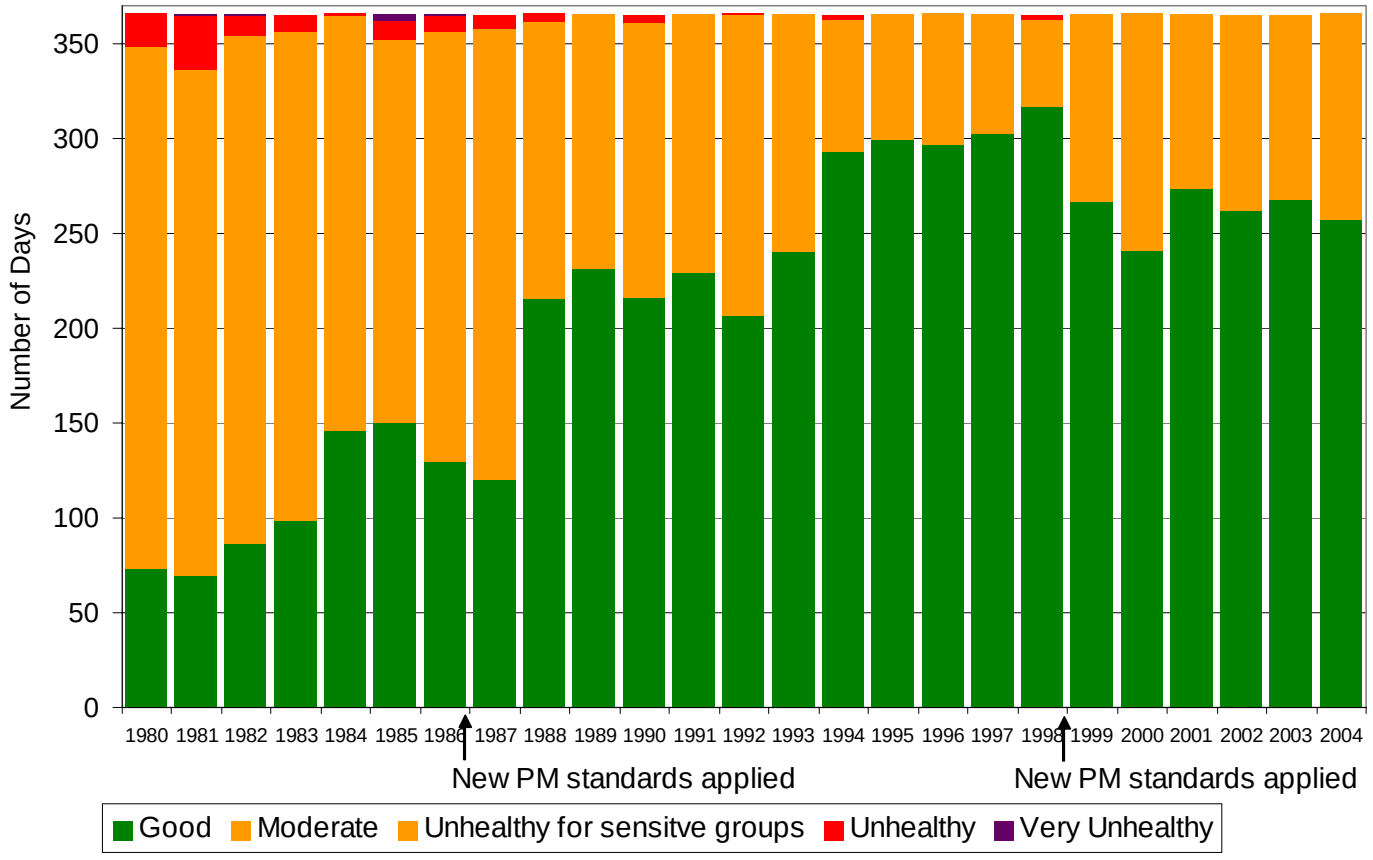
Pollutant	Source	Health effect	Exposure reduction
Radon (limited areas in King County)	Uranium in the soil or rock on which homes are built.	lung cancer.	Test. If levels are high, find a radon reducing expert
Environmental tobacco smoke (ETS)	Smoking from cigarettes, cigars, or pipes	asthma, asthma excerabtion, lower respiratory tract infections (pneumonia and bronchitis), and eye, nose, and throat irritation.	Don't smoke at home or allow others to do so. Ask smokers to smoke outdoors; if smoking indoors cannot be avoided, increase ventilation smoking area. Don't smoke around infants or toddlers.
Particulate matter, carbon monoxide, formaldhye, nitrogen dioxide	Heating systems that burn oil, gas kerosene, coal, or wood.	**Carbon monoxide**: unconsciousness and death at high concentration. Lower concentration: headaches, dizziness, weakness, nausea, confusion, and fatigue. **Nitrogen dioxide:** eye, nose, and throat irritation, shortness of breath; increases respiratory infection; possibly emphysema **Particulate matter:** lodge in the lungs and irritate or damage lung tissue. Can cause cancer.	When operating fuel-burning unvented space heaters: keep the heater properly adjusted and follow manufacturer instructions. When in use, open the door to the room where the heater is located and open a window slightly. Use a stove hood and an outdoor-vented fan to reduce exposure when cooking. Consider a pilotless stove. Open the flue when using a gas fireplace. Keep woodstove emissions to a minimum. Choose properly sized new stoves certified as meeting EPA emission standards. Annual inspection of central air handling systems, including furnaces, flues, and chimneys and promptly repair cracks or damaged parts.
Pesticides, herbicides, outdoor air pollution	Contaminated soil tracked in from outside, stored pesticide containers, products used in the home such as insecticides, termiticides, rodenticides, fungicides, and disenfectants	headaches, dizziness, muscle twitching, weakness, tingling sensations, and nausea. The EPA is concerned that cyclodienes might cause long-term damage to the liver and the central nervous system and increase risk of cancer.	Read the label and follow the directions. It is illegal to use any pesticide in any manner inconsistent with the directions on its label. Ventilate the area well after pesticide use. Dispose of unwanted pesticides safely. Use non-chemical methods of pest control when possible.
Asbestos	Primarily in older homes' pipe and furnace insulation materials, shingles, millboard, textured paints, and floor tiles	Asbestos can cause lung cancer, mesothelioma, and asbestosis	Do not cut, rip, or sand asbestos-containing materials. When removing or cleaning up asbestos, use a professionally trained contractor.
Lead	Lead can be a contimant in the air, drinking water, food, or soil. The most common source today is older, deteriorating lead-based paint.	High levels: Convulsions, coma, or death. Lower: Adversely effects on the brain, central nervous system, blood cells, and kidneys. Younger children are especially susceptible.	Keep areas where children play as dust-free and clean as possible. Do not remove lead paint yourself. Leave lead-based paint undisturbed if it is in good condition. Do not bring lead dust into the home. Eat right.
Molds	Wet or damp surfaces	Sneezing, runny nose, red eyes, and skin rash (dermatitis), either immediate or delayed. Asthma trigger. Mold exposure can irritate the eyes, skin, nose, throat, and lungs.	Control moisture indoors. Clean up and fix water leaks and spills promptly. Scrub mold off hard surfaces with detergent and water, and dry completely. Reduce humidity in your house. Increase ventilation or air movement by opening doors and/or windows, when practical. Use fans as needed. Increase air temperature.

Outdoor Air Quality

- Outdoor air quality is measured by the Air Quality Index (AQI), a national system of gauging the condition of outside air with the potential to harm human health.[3] The AQI measures carbon monoxide, nitrogen dioxide, sulfur dioxide, ozone, lead, and particulate matter. Particulate matter is particles of dust, soot, and unburned fuel that is suspended in the air.
- Poor air quality can significantly impact human health in a variety of ways. Pollutants contribute to respiratory disease development such as asthma, lung cancer, and chronic obstructive pulmonary disease (COPD). Increased mortality can also be attributed to days with poor air quality.[4,5] Other ailments from air pollutants include eye nose and throat irritation, headaches, dizziness and fatigue.

- The AQI measures the amount of pollutants in the outdoor air from a score of 0 to 500. As the AQI goes higher, the level of air pollution and the health concern increases. There are six categories: good (0-50), moderate (51-100), unhealthy for sensitive people (101-150), unhealthy (151-200), very unhealthy (201-300), and hazardous (301-500).[5]
- King County generally has healthy air. Since 1986, King County has not had any days that were classified very unhealthy.
- In the past six years, King County has not had any days that fell in the unhealthful group.
- Washington State had 13 areas designated as "nonattainment" areas by the EPA. These areas experienced persistent air quality problems, and additional air pollution controls were required in these areas. King County was a nonattaintment area for ozone and particulate matter, and the Duwamish and Kent Valley were nonattainment area for PM. However, Washington State worked to reduce the pollution in these areas. As of September 26th, 2005, all of Washington State is in compliance, and there are no nonattainment areas.[6]

Number of Days by Air Quality Index Categories, King County, 1980-2004



Data Source: United States Environmental Protection Agency Air Quality Index
Prepared by: Epidemiology, Planning and Evaluation, Public Health – Seattle & King County

Resources

1 EPA Indoor Air Quality home page. http://www.epa.gov/iaq/ia-intro.html

2 www.epa.gov/iaq/molds/moldguide.html

3 http://cfpub.epa.gov/airnow/index.cfm?action=static.aqi, Environmental Protection Agency

4 Scoggins A, Kjellstrom T, Fisher G, Connor J, Gimson N. Spatial analysis of annual air pollution exposure and mortality. Sci Total Environ. 321(1-3):71-85, 2004.

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West Nile Virus in King County: Surveillance and Response

- West Nile virus is a mosquito-borne viral disease. While it has caused outbreaks in Africa, Asia, Eastern Europe and the Middle East for decades, it did not appear in the United States until 1999. Through 2005, West Nile virus had ***not*** been detected in people or animals in King County, but it has been found in several locations in Washington State starting in 2002.
- West Nile virus can infect humans, birds, mosquitoes, horses and other animals. Birds are the reserviors for the virus in nature. Mosquitoes pick up the virus from birds then spread it by biting people. People are infected when they are bitten by a mosquito carrying West Nile virus.
- Symptoms range from mild to severe. A mild infection is the West Nile fever, with flu-like symptoms (fever, muscle aches, fatigue, headache, rash, and joint pain) that may last from a few days to several weeks. When the West Nile virus affects the nervous system (neuroinvasive disease), it causes swelling and inflammation of the brain or covering of the spinal cord and may result in paralysis and death. Symptoms of neuroinvasive disease may include fever, neck stiffness, confusion, disorientation, coma, tremors, convulsions, muscle weakness, and paralysis.
- The majority of people who become infected with West Nile virus do not get sick. About 20% of those infected go on to develop West Nile fever. About 1 in 150 of persons infected with West Nile virus develop the more serious neuroinvasive form of the disease.
- In 2005, there were 2,744 cases of West Nile virus illnesses reported in the United States. Of these, 52% had West Nile fever and 43% had neuroinvasive disease.[1] In 2005, Washington was one of only 8 states (AK, HI, ME, NH, WV, VA, VT) that did not have a reported human case.[2]

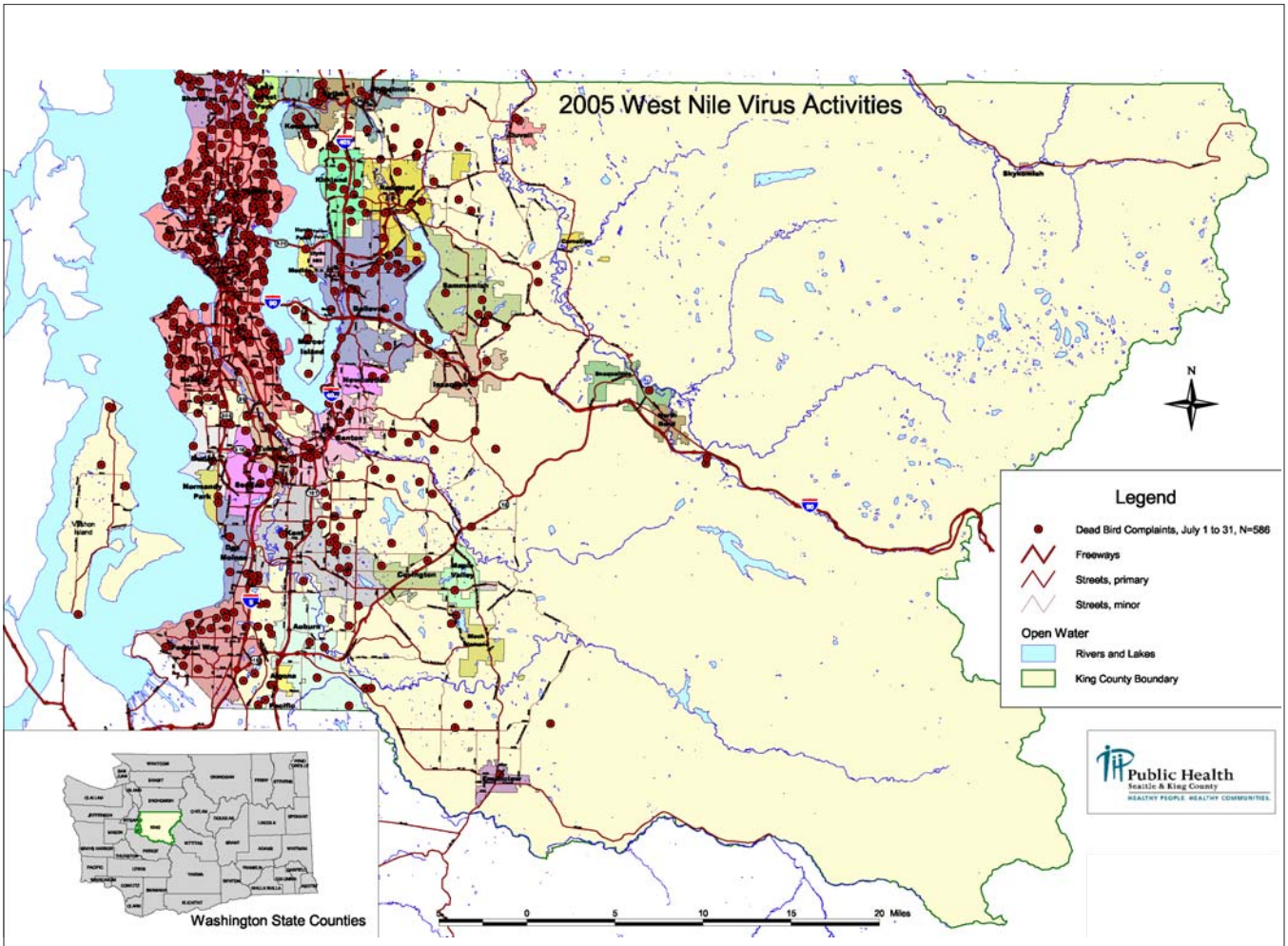
- Please see Communicable Disease chapter for more information.

Surveillance for West Nile Virus

- Crows, blue jays, magpies, and birds of prey are very susceptible to West Nile virus and likely to die if infected. Monitoring reports of dead birds of these types and laboratory testing of birds are ways of detecting West Nile virus when it arrives in an area. Mosquitoes can also be tested.
- Public Health - Seattle & King County (PHSKC) monitors dead bird and mosquito complaints from citizens. Geographically-representative samples of dead birds and mosquitoes are collected for testing. People and horses with symptoms suggestive of West Nile virus are also tested, as are all blood donations.
- In 2005, PHSKC received and mapped over 2,700 dead bird reports in King County. Laboratory testing was performed on 110 dead birds, 21 pooled mosquito samples, 4 horses, and 4 people. All tests were negative for West Nile virus.

The figure below shows how PHSKC collects and tracks dead bird data.

- Public Health officials believe that West Nile virus eventually will occur in King County. Since its introduction to the eastern seaboard in 1999, West Nile virus has steadily made its way westward across the US. In 2003, the first human cases were seen in California and Idaho, followed by cases in Oregon in 2004. In these western states, West Nile virus cases have continued to climb: in California from 3 human cases in 2003 to 928 in 2005; in Idaho from 1 case in 2003 to 13 in 2005; and in Oregon from no cases in 2003 to 6 in 2005.
- Public Health—Seattle & King County continues to monitor dead birds and mosquitoes for West Nile virus, assist cities and agencies in reducing mosquito habitat, and providing citizens with prevention education.



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Peter Isaksen, Environmental Health GIS, August, 2, 2005

References

[1] CDC. West West Nile Virus Activity — United States, January 1—December 1, 2005. MMWR 2005; 54(49);1253-1256. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5449a1.htm

[2] Centers for Disease Control West Nile Information page: http://www.cdc.gov/ncidod/dvbid/westnile/qa/cases.htm

Water Quality and Waterborne Illnesses

Water Quality and Waterborne Illnesses

Water is essential to human life and to the health of the environment, and is important in two dimensions: the quality and quantity available. Water quality is defined by chemical, biological and aesthetic (appearance and smell) characteristics. A healthy environment has good water quality that supports a rich and varied community of organisms while also protecting public health.

Water quality influences how communities can use the water for activities such as drinking, swimming or commercial purposes. Groundwater is susceptible to both pollution and depletion. Contamination can occur from improper hazardous material storage, improper pesticide use, rain run-off from roads, and exposure to fecal material, to name a few. Water depletion happens when water recharge is disrupted or removed (as in development) or by using more water from an aquifer than is naturally recharged.

Water systems are regulated by Seattle-King County Department of Public Health (SKCDPH) or the Washington State Department of Health (DOH). Individual private wells are required to be located away from potential sources of contamination during their initial location approval, and ongoing during their use by recorded protective covenants. Individual private wells must be tested for nitrate, arsenicand coliform bacteria, and be found satis-factory prior to any use. Small public water systems (Group B) serve 2 to 14 connections and are not subject to the federal Safe Drinking Water Act, but , but must meet WA State Board of Health (WAC 246-271) and King County Board of Health Title 12 requirements for water quality and operations. In 2005, King County had 1,483 Group B water systems. Approximately 50% (752) comply with all requirements. About 26% of these systems were sampled for bacterial testing. There were no bacterial outbreaks associated with any Group B system, although some tested positive for coliform and E. Coli bacteria.

Larger community water systems (Group A) serve 15 or more connections, and are regulated by DOH. Each tested water system receives one of four colors that represents the status of the system. Green signifies systems in compliance with drinking water regulations. Yellow represents a questionable compliance status. Blue indicates the system does not meet design requirements or is in excess of approved connections. Red means the system is substantially out of compliance with drinking water regulations. In 2005, there were 214 active Group A systems in King County. Of these, 156 were community systems, 49 were transient non-community, and 9 were non-transient, non-community systems (NTNC). Group A testing showed 61% of the systems were green, 3% were yellow, 34% were blue, and 1% were red.

For many years, the drinking water standard for arsenic was 50 parts per billion (ppb). The standard was lowered by the Environmental Protection Agency (EPA) to 10 ppb, which went into effect in January 2006. This new criterion only applies to Group A community water systems serving more than 25 people and NTNC water systems (such as schools and daycares).

Infections which can be transmitted by drinking water include giardiasis, cryptosporidiosis, campylobacteriosis, cyclosporiasis, salmonellosis, and yersinosis. Nationally, giardiasis and cryptosporidiosis are the most commonly identified culprits in waterborne outbreaks. There were 126 giardiasis cases and 264 cases of cryptosporidiosis, 34 cases of campylobacteriosis, 9 cases of cyclosporiasis, 234 salmonellosis cases, and 15 casesof yersnosis reported in 2004 in King County, but the proportion of these attributable to residential water systems is unknown. Communicable disease staff who follow up on reportable conditions find that many cases were acquired through travel. Low levels of *cryptosporidium* cysts are found in Seattle water (maximum of 12 per 100 liters); however, most outbreaks are associated with much higher levels of cysts.

Tacoma Smelter Plume

The Asarco Smelter, located in Ruston, Washington, near Tacoma, operated for 96 years as a lead and copper smelter, and was a major domestic producer of arsenic. The surrounding area was designated as an Environmental Protection Agency Superfund site in the early 1980s. Further examination showed wind carried the arsenic and lead-laden smoke, creating a zone of soil contamination that extended further than the Superfund area. This area is called the Tacoma Smelter Plume (TSP).

Washington Department of Ecology and local health jurisdictions in the affected area, including Public Health-Seattle and King County (PHSKC), have been studying and sampling soils in the TSP area for lead and arsenic levels. While the studies show widespread contamination, there is not an immediate health emergency at the levels detected thus far. The primary concerns are about long-term exposure, especially in children, and much of the sampling has occurred in areas where children play frequently, including schools, parks, camps, and childcare facilities.

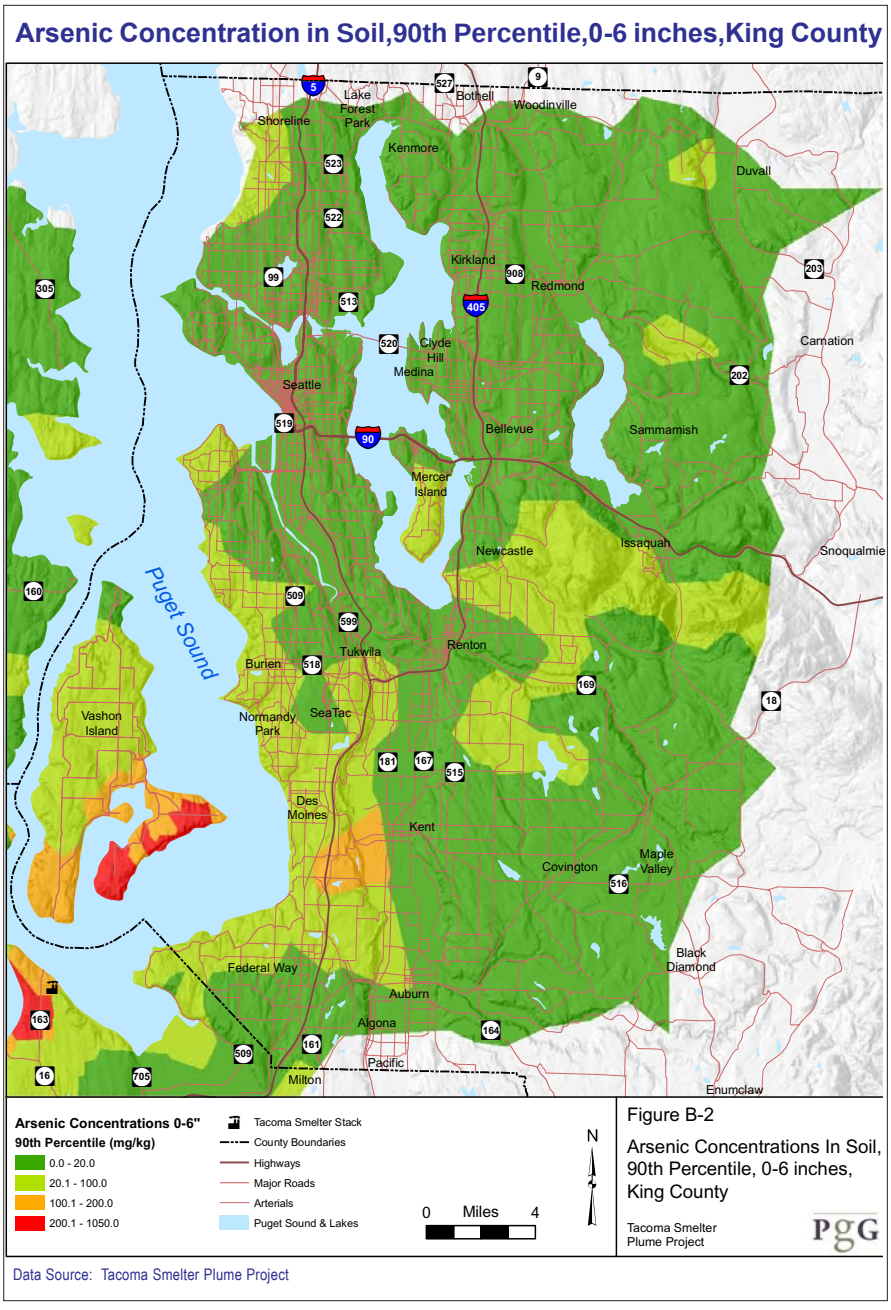


Figure B-2

Arsenic Concentrations In Soil, 90th Percentile, 0-6 inches, King County

Tacoma Smelter Plume Project

PGG

Inorganic arsenic is extremely toxic, and can cause both acute and long-term health effects. Chronic (long-term) exposure may lead to a variety of symptoms including numbness, cardiovascular disease, diabetes, and vascular disease, or cancer, including skin cancer (non-melanoma), kidney, bladder, lung, prostate, and liver cancer. Washington law requires that arsenic-contaminated soils be cleaned to levels specified in the Model Toxics Control Act (MTCA).[1] Arsenic clean-up levels vary according to the type of contaminated property. The strictest clean up method is 20 parts per million (ppm) for residential areas and 200 ppm for industrial properties.

Lead is also toxic, and children are particularly vulnerable to the effects of lead in their bodies. Chronic exposure may affect the central nervous system, blood pressure, and kidneys. In children, effects range from lowered IQ and reduced growth to balance, memory, and hearing problems. Pregnant women exposed to lead may have babies born prematurely and at lowered birth weights. Washington law requires that lead-contaminated soils be cleaned up to specific levels under the MCTA. The clean-up level for lead is 250 ppm for residential areas and 1000 ppm for industrial.

The map to the left is from a report, Tacoma Smelter Plume Project Extended Footprint Study. It shows the 90% value of arsenic in 0-6 inches or soil. The sample value would be above or below the expected 10% of the time.

The table below summarizes the major TSP sample activity summary since 1999. It does not include small-scale re-sampling and research projects conducted by PHSKC.

Sample activity summary[2]

To reduce exposure to contaminated soil, PHSKC recommends:

- Keeping children from playing in or eating contaminated dirt.
- Frequently wash toys, pacifiers and other items that go into children's mouths.
- Cover bare soils with bark, grass or other material.
- Wash hands and face thoroughly after working or playing in the soil, especially before eating. Do not eat, chew, or smoke in areas with contaminated soil.
- Wash garden vegetables and fruits carefully to remove all soil particles. Take care to get dirt out of the crevices of vegetables such as broccoli.
- Remove work and play shoes before entering the house.
- Wash soil-laden clothes separately from other clothes.
- Damp-mop floors and wipe down counters, tables and window ledges regularly. Do not use a vacuum as a method to keep contaminated dust under control. Vacuum cleaners DO NOT reduce dust and tend to stir it up into your breathing zone.
- Prevent pets from tracking contaminated soils into your home. Keep them out of areas with exposed dirt.
- Make sure you and your children eat a balanced diet with adequate amounts of iron and calcium. Iron and calcium help to prevent lead from becoming a problem in the body.

February 2006

Study	Year(s)	Locations sampled	Number of samples
Vashon-Maury Island Footprint (Phase I)	1999-2000	177	436
Vashon-Maury Island Child-Use Areas	2000-2001	34	1503
Mainland Footprint (Phase II)	2001-2002	75	624
Mainland Child-Use Areas (Phase I)	2002-2003	97	2532
Extended Mainland Footprint (Phase III)	2003-2004	185	784
Mainland Child-Use Areas (Phase II)	2004-2005	91*	3580**

* data from draft Summary Report: Tacoma Smelter Plume Phase II, Child Use Areas King County, Washington, PHSKC, June, 2005

** calculated from data submitted July 2005; does not include duplicate samples

Please visit the Ecology[3] or PHSKC web page[4] for more information about sampling, the TSP project, how to have residential soil sampled, or additional ways to reduce exposure to contaminated soils.

References

1 www.ecy.wa.gov/biblio/wac173340.html

2 Data extracted from reports available on WA Department of Ecology web site http://www.ecy.wa.gov/, except for the Mainland Child-Use Areas Phase II, the report for which was not available on this web site as of 2/02/06.

3 http://www.ecy.wa.gov/programs/tcp/sites/tacoma_smelter/

4 http://www.metrokc.gov/health/tsp/arseniclead.htm

Health of King County 2006

Chapter 10: Mental Health/Drug Abuse

Frequent Mental Distress

Suicide

Hospitalizations for Psychoses and Depression

Alcohol Induced Deaths

Drug Induced Deaths

Mental Health/Drug Abuse

A mental illness (or mental disorder) is a health condition that is "characterized by alterations in thinking, mood, or behavior...associated with distress and/or impaired functioning."[1] Mental illness is the second leading cause of disability and premature mortality, and accounts for over 15% of the burden of all diseases in the U.S.[2] Mental health is intricately related to physical health; the mind mediates responses to the physical and social environment that affect physical health, and somatic diseases may directly or indirectly have an impact on mental functioning. Health problems associated with substance abuse include psychosis, depression, drug overdose, skin and lung infections, HIV/AIDS motor vehicle crashes and other unintentional injuries, homicide and other injuries caused by violence. Local population-based data on mental illness and substance abuse is far from comprehensive; this section of Health of King County presents some of the available data on the county and its neighborhoods.

References

[1] U.S. Department of Health and Human Services. *Mental Health: A Report of the Surgeon General - Executive Summary.* Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health, 1999.

[2] Murray CL and Lopoex AD (Eds.) (1996): *The global burden of disease. A comprehensive assessment of mortality and disability from diseases, injuries, and risk factors in 1990 and projected to 2020.* Cambridge MA: Harvard University. As quoted in Mental Health: A Report of the Surgeon General cited above.

Self-Reported Frequent Mental Distress

Frequent mental distress (FMD) is a factor contributing to poor mental health. The measure FMD was developed by the Centers for Disease Control and Prevention[3] from a question on the Behavioral Risk Factor Surveillance Survey: "Now, thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?" A survey respondent who reported 14 or more of poor mental health days was classified as having FMD.

9.3% of King County residents (130,000 people) suffered from FMD in 2004.

King County was ranked 8th of 15 major metropolitan counties in FMD and was slightly above demographically similar counties.

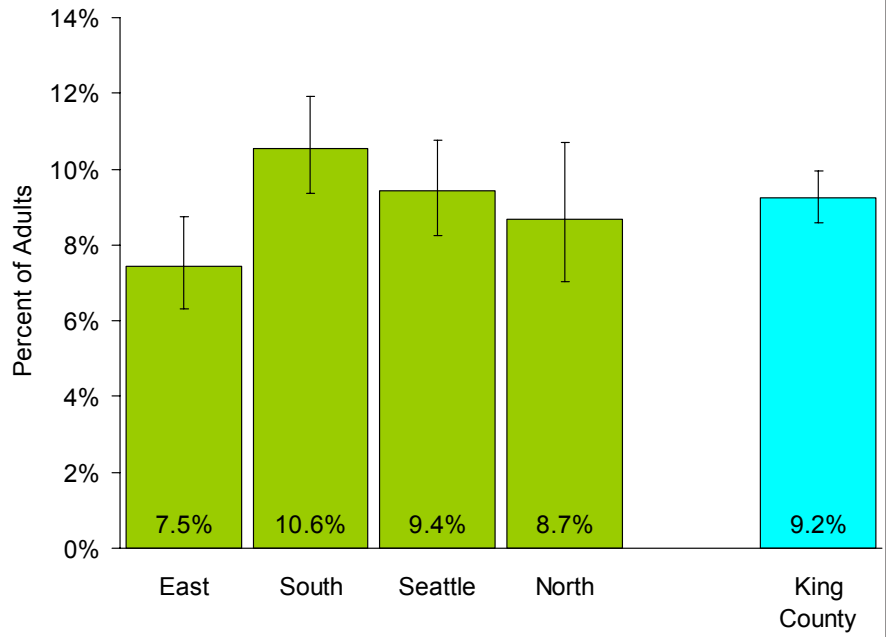
Higher rates were seen in South Region;lower rates were seen in older adults.

FMD was more prevalent in those with lower household incomes, in African Americans and Hispanic/Latinos, and in those whose sexual orientation was gay/lesbian/bisexual.

King County and Regions

- In 2004, 9.3% of King County adults 18 and older (or about 130,000 people) reported FMD in the previous month.
- Averaging 2000 to 2004 data, the highest percent of FMD was in South Region (10.6%), which was significantly greater compared to East Region (7.5%). Seattle (9.4%) and North Region (8.7%) had intermediate values. (For comparison, this 5-year average was 9.2% for King County as a whole.)
- FMD held steady in King County and its communities in the last 10 years of data (1995 to 2004).
- King County's rate was slightly less than that for Washington State (9.9%) and was also slightly below the median for the 15 largest counties in the U.S. (Brooklyn, NY, 10.2%). The local rate was slightly more than the FMD rate for demographically similar counties (8.2%) (see Public Health Core Indicators for Seattle & King County, for additional detail on trends and comparisons).

Frequent Mental Distress by Region, Age 18 and Older, King County, 2000-2004 Average

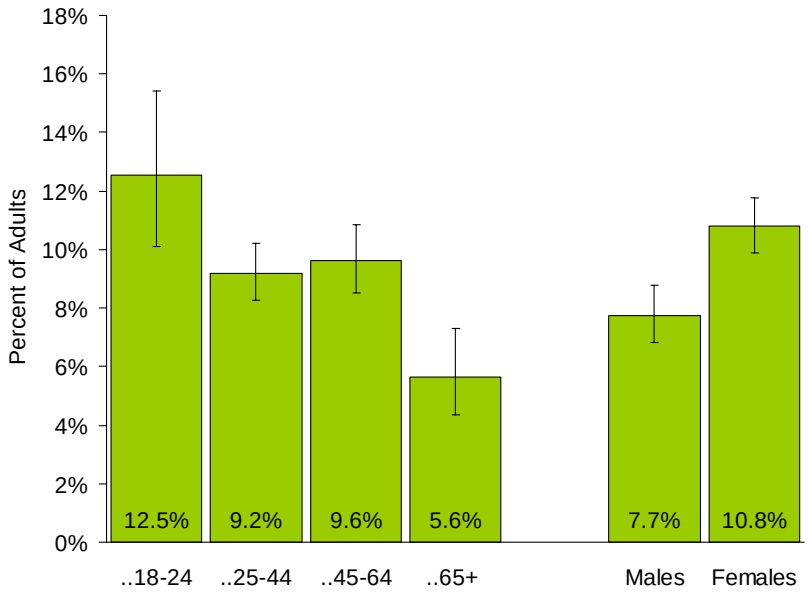


Data Source: BRFSS
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

Age and Gender

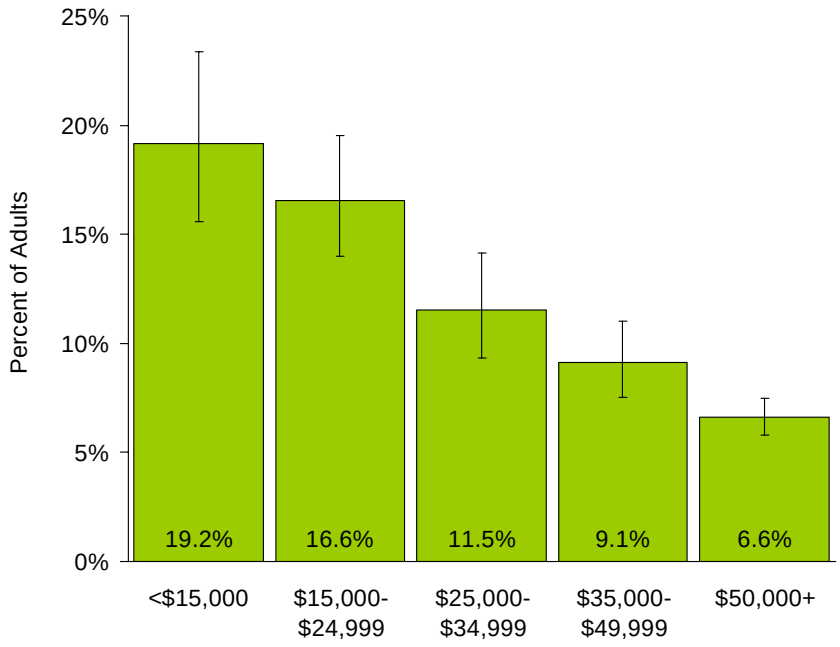
- On average, FMD becomes less prevalent as people get older. 12.5% of 18-to-24 year-old respondents reported FMD, while, among those 65 and older, only 5.6% had FMD.
- Women (10.8%) were also more likely to report FMD than men (7.7%).

Frequent Mental Distress by Age, Gender, Age 18 and Older, King County, 2000-2004 Average



Data Source: BRFSS
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

Frequent Mental Distress by Annual Household Income, Age 18 and Older, King County, 2000 to 2004 Average



Data Source: BRFSS
Prepared by: Epidemiology, Planning and Evaluation Unit, PHSKC

Focus on Disparities

The burden of FMD falls disproportionately on low-income people and people of color and those who identify as gay/lesbian/bisexual.

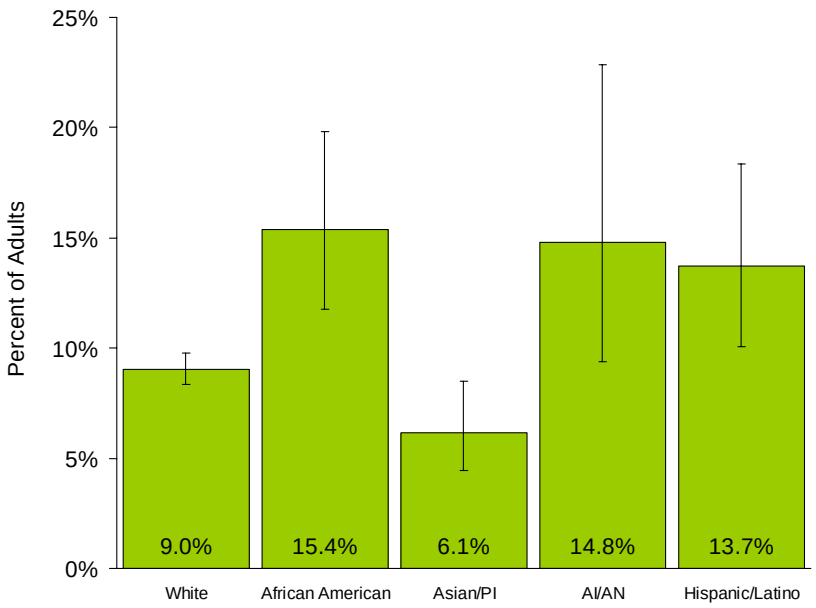
Annual Household Income

- FMD was much more common in low-income respondents. Almost one in five (19.2%) of those with household incomes below $15,000 per year experienced FMD. In this group, FMD was almost three times higher than the rate in people in households earning $50,000 or more per year.

Race/Ethnicity

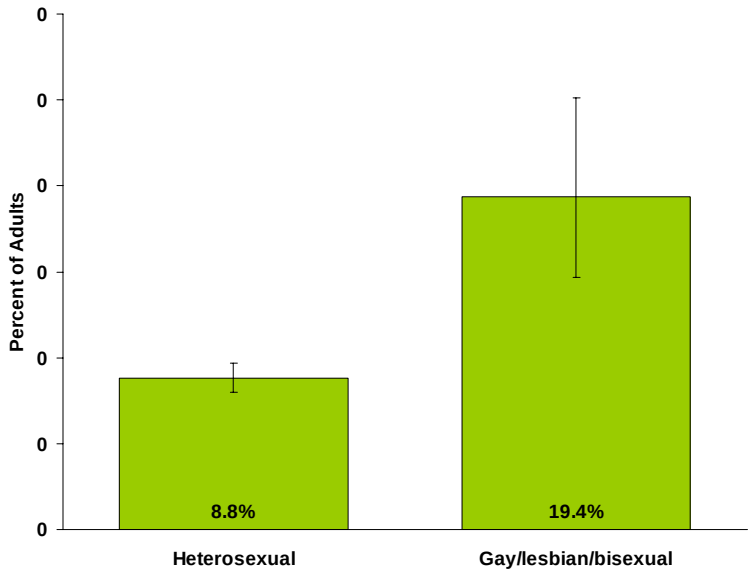
- African Americans (15.4%), American Indian/Alaska Natives (14.8%) and Hispanic/Latinos (13.7%) all had significantly greater FMD rates than seen in white (9.0%) and Asian/Pacific Islander (6.1%) respondents. A limitation of the data source, the BRFSS, is that data are not collected by specific Asian background. From other projects, it is known that Asian groups differ in mental health status.

Frequent Mental Distress by Race/Ethnicity, Age 18 and Older, King County, 2000-2004 Aveage



Data Source: BRFSS
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

Frequent Mental Distress by Sexual Orientation, King County, Age 18 and Older, 2000-2004 Average



Data Source: BRFSS
Produced By: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

- Those who identified as gay/lesbian/bisexual were over twice as likely as those who identified as heterosexual to experience FMD.

References

[3] Centers for Disease Control and Prevention. Self-reported frequent mental distress among adults - United States, 1993-2001. MMWR 2004;53:963-966.

Suicide

Suicide is among the most serious consequences of mental health problems. In King County, suicide is the leading cause of unintentional injury death, the leading cause of death in 15-to-24-year-olds, and the leading injury-related cause of years of potential life lost before age 65. In this report, suicide hospitalizations are limited to admissions to acute care hospitals. In 2003, the suicide rate was 11.9 per 100,000. This was above the Healthy People 2010 objective of 5.0 per 100,000. See Public Health Core Indicators for Seattle & King County for more information.

King County ranked third among 15 major metropolitan counties in suicide deaths.

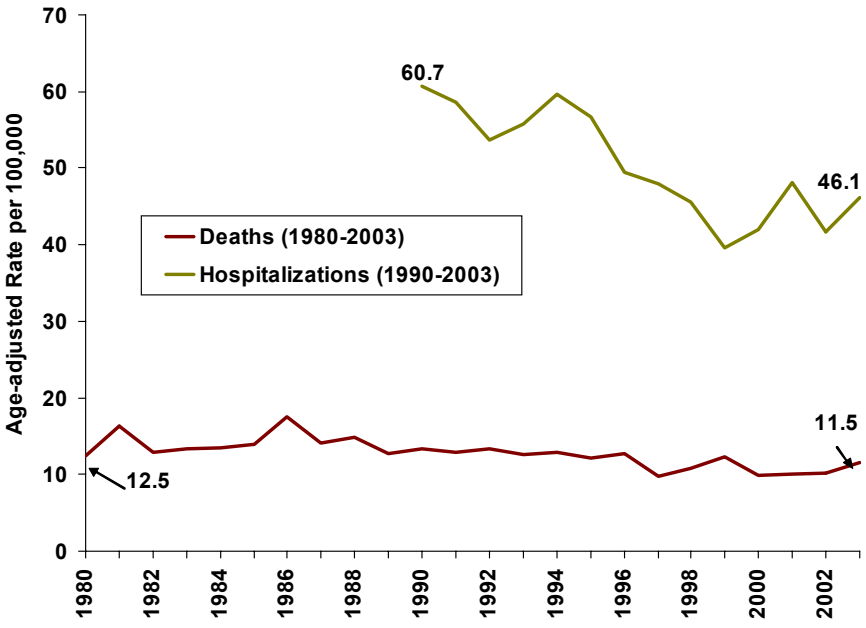
Suicide death rates declined in Seattle since the early 1990s. There are currently no significant differences between regions. Hospitalizations for suicide attempts have declined since the early 1990s.

Suicide attempts are more common among young adults and females, while suicide deaths are greatest in those 65 and older and males. Suicide is more common in whites compared to other race/ethnic groups.

Suicide ideation is relatively common in young people, with almost one in five 10th grade students reporting having seriously considered suicide.

- In 2003, 213 King County residents committed suicide, for an age-adjusted rate of 11.9 per 100,000.
- Suicide death rates have fluctuated but, overall, decreased since 1980, from 12.5 per 100,000 to 11.5 per 100,000. However, in the last five years alone, suicide deaths have neither increased nor declined.
- From 1990 to 2003, hospitalization rates for those who attempted suicide declined. However, these data don't include hospitalization admissions to psychiatric hospitals. The decline may be due to the increasing likelihood of referrals from hospital emergency rooms directly to psychiatric hospitals, as well health system changes that were implemented in the 1990s to provide alternatives to psychiatric hospitalization, which can be disruptive to the lives of patients.
- In Seattle, where historically suicide has been highest, suicide deaths declined from 15.3 per 100,000 (1990-1992 average) to 10.1 per 100,000 (2001-2003) (data not shown). Currently, suicide death rates are highest in South County (11.6 per 100,000), although region-level differences are not statistically significant.
- Suicide death rates are highest in whites. Both deaths and hospitalizations tended to be higher in high-poverty neighborhoods (data not shown).
- Since 1990-1992, suicide hospital admission rates fell in Seattle and East (data not shown). For the most current data, (2001-2003), South County residents had the highest rates for suicide hospitalization.

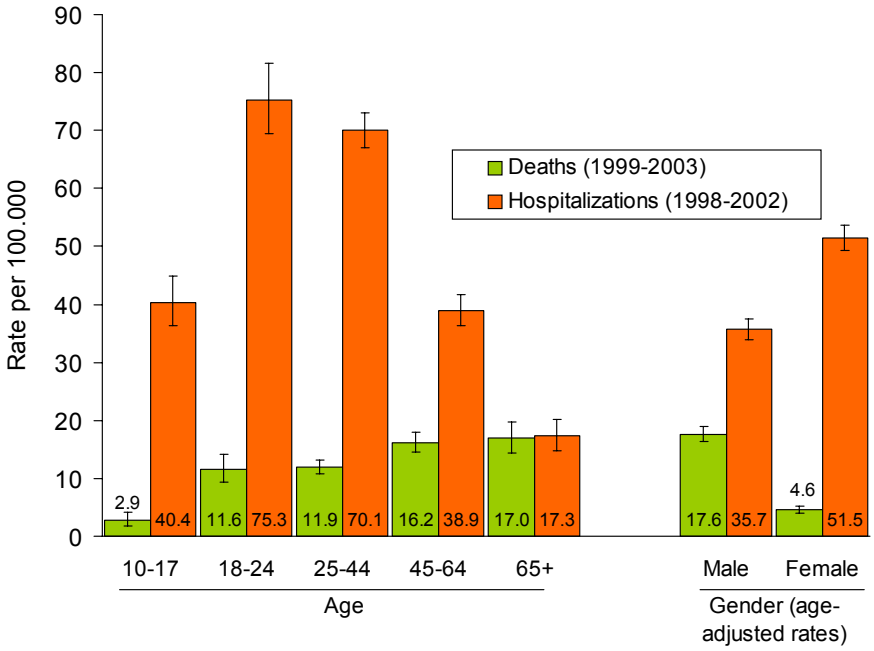
Suicide Death and Hospitalization Rates, King County, Latest Available Data



Data Source: Washington State Department of Health, Center for Health Statistics
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

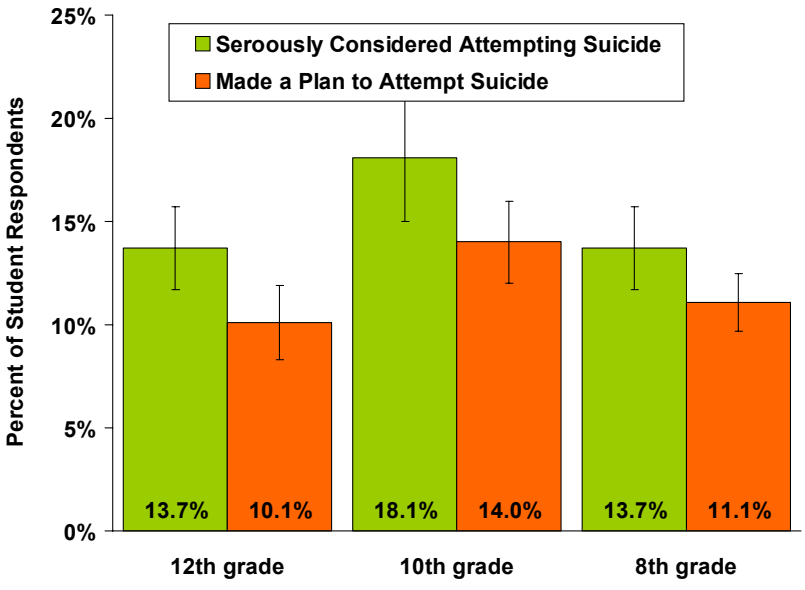
- Hospital admissions for suicide attempts are more common among young adults and females, while suicides deaths are greatest in those 65 and older and males. Hospitalizations for suicide attempts are 13 times more common than deaths in those aged 10 to 17. While suicide hospitalizations were twice as common as deaths in males, hospitalizations were over 10 times more common than deaths in females.
- As age increases, suicide completion rates gradually increase. After age 18 to 24, where they peak, suicide hospitalizations decrease substantially. This is very likely due to greater percentage of "success" in suicide tries in older age groups.

Age- and Gender-specific Rates of Suicide Deaths and Hospitalizations, King County, 5-year Average, Most Recent Data Available



Data Source: Washington State Department of Health, Center for Health Statistics
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

Self-reported Suicide Ideation in the Last 12 Months, Grades 8, 10 and 12, King County,* 2004



*may not be representative of King County due to low response rates
Source: Healthy Youth Survey, Washington State Department of Health
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

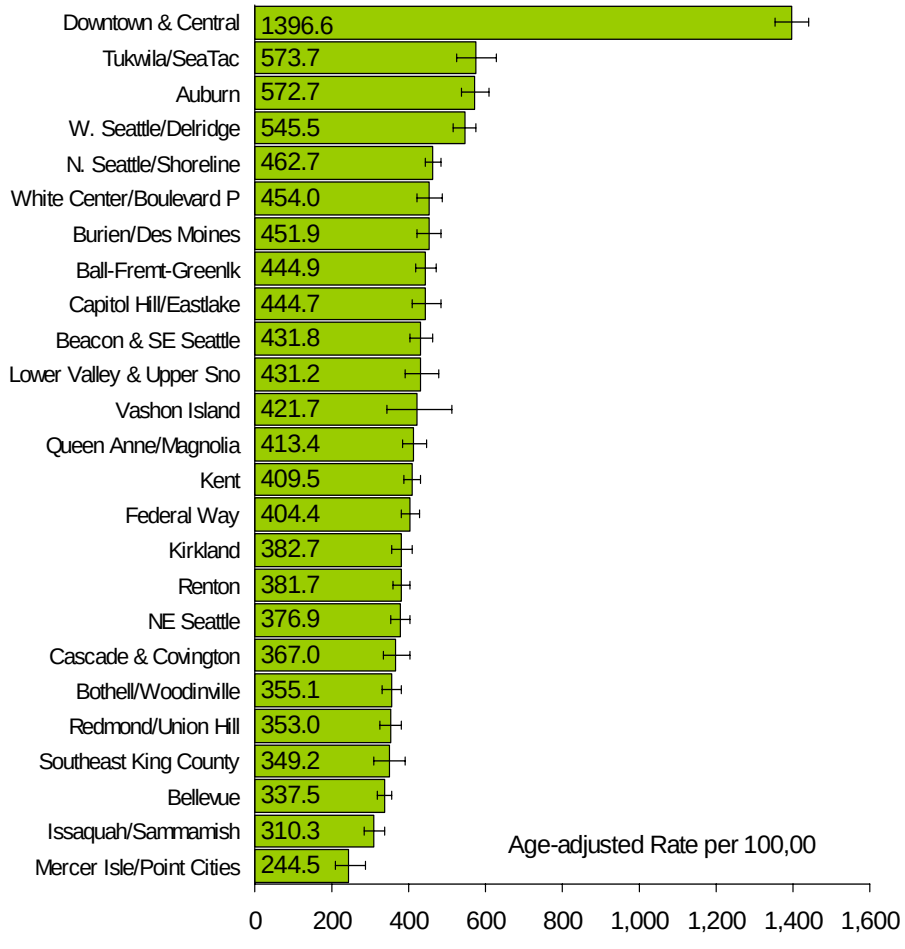
- Suicide ideation and planning is relatively common in young people. In King County, almost one in five (18.1%) 10th grade students who participated in the Healthy Youth Survey reported seriously considering suicide, and 14.0% made a plan for committing suicide in the previous 12 months. Patterns in suicide consideration and plan were similar (while such ideation was less common) in 12th grade and 8th grade students.
- These percentages may not be precisely representative of all King County students because of survey response rates between 47% and 67%. However, in a theoretical survey in which everyone participated, there would have to be markedly different answers from those who were non-respondents in the HYS to change the general pattern seen here.

Other Mental Health-Related Hospitalizations:

All Psychoses and Depression

Data on mental health other than suicide deaths is sparse. Information is not systematically collected or made available on those admitted to standalone mental hospitals or other treatment facilities, or for outpatient treatment of mental health problems. Hospitalizations in acute care facilities for mental health problems, despite limitations mentioned in the section on suicide, probably provide some sense of where the burden of severe mental health problems falls in King County.

All Psychoses Hospitalization Rates by Health Planning Area, King County, 3-year Average, 2001 to 2003



Data Source: Washington State Department of Health, Center for Health Statistics
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

- The hospitalization rate for all psychoses increased between 1987 (388 per 100,000) (the first year of hospitalization data collection) and 2000 (481 per 100,000). After peaking in 2000, the rate fell between 2000 and 2003 (438 per 100,000).
- Hospitalizations were over twice as high in the Downtown/Central Seattle Health Planning Area (HPA) (1397 per 100,000) than in any other HPA , probably reflecting the larger population of homeless people in this neighborhood. In other HPAs, rates in southeast and west Seattle and South County were generally higher than those in North County and East County.
- Rates for hospitalization for depression followed a similar pattern, with the highest rates shown in Downtown/Central Seattle (403 per 100,000) and lowest in the relatively affluent Mercer Island/Pt. Cities (104 per 100,000) (data not shown).

Alcohol-Induced Deaths

About two-thirds of the alcohol-induced deaths were due to alcoholic liver diseases such as cirrhosis of the liver. In 2003, there were 159 alcohol-induced deaths among King County residents. The death rate in males was 2.6 times the rate in females. See Public Health Core Indicators for Seattle & King County for more information.

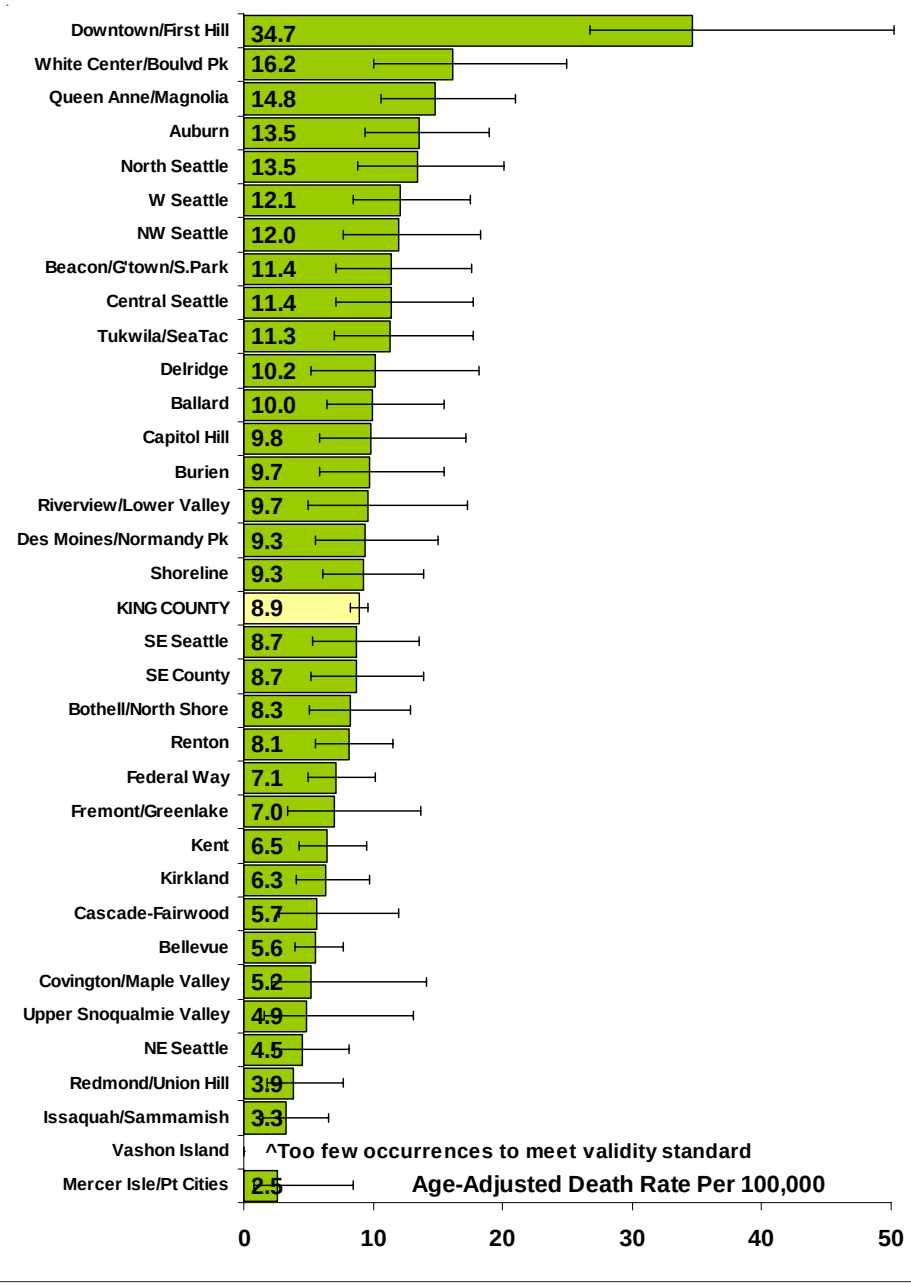
King County and Regions

- There was no significant change in alcohol induced deaths between 1994 and 2003. (data not shown)

Pattern by Health Planning Area

- The death rate in Downtown/ First Hill residents was 3.9 times the county rate. The rates in White Center/ Boulevard Park and Queen Anne/Magnolia residents were also significantly higher than the county rate. The rates in Mercer Island/ Point Cities, Issaquah/ Sammamish, Redmond/ Union Hill, and Northeast Seattle were significantly lower than the county rate.

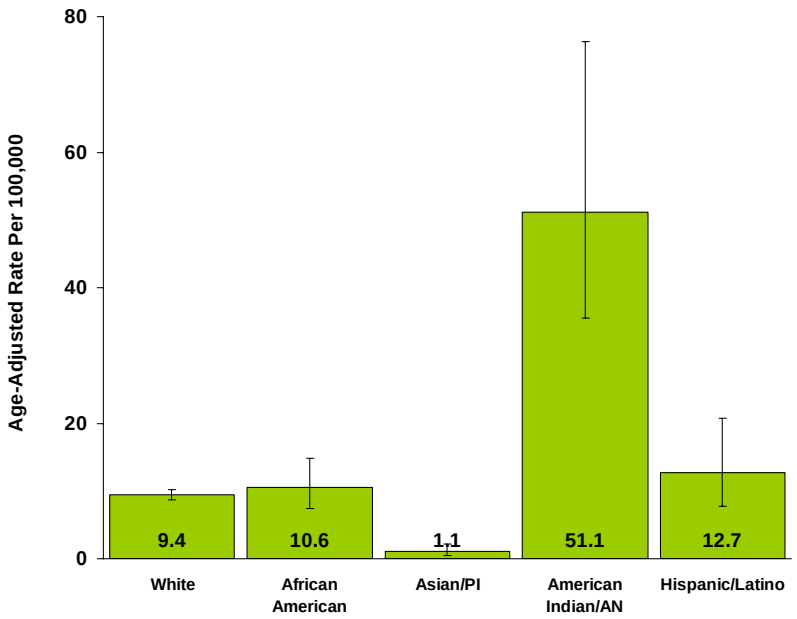
Alcohol-Induced Death Rate in King County by Health Planning Area, 1999-2003 Averages



Focus on Disparities

- American Indians/Alaska Natives were particularly affected by alcohol-induced deaths. The death rate for American Indian/Alaska Natives was five times the rate for white. The death rate for Asian/Pacific Islanders was significantly lower than the rates for the other racial/ethnic groups.

Alcohol-Induced Death Rate in King County by Race/Ethnicity, Five-Year Averages, 1999-2003



Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation, 12/0

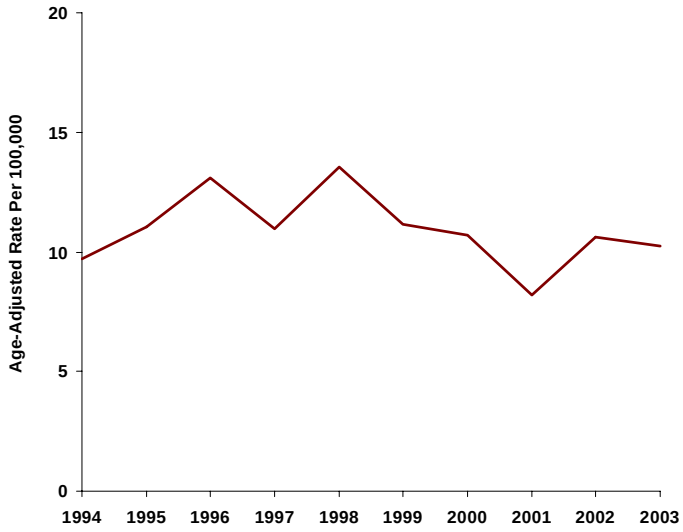
Drug-Induced Deaths

Averaged over 2001-2003, 70.3% of the drug-induced deaths among King County residents were accidental, 12.2% were suicides, 5.9% were a result of mental and behavioral disorders, and 11.6% had undetermined intent.

King County and Regions

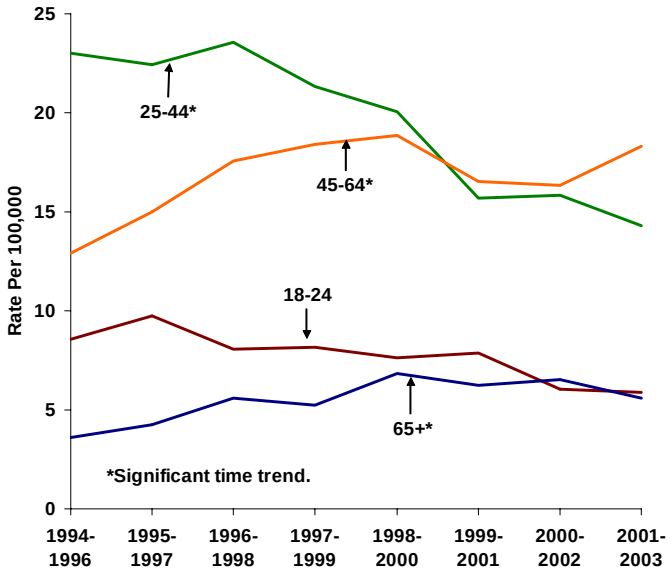
- Drug-induced deaths peaked in 1998, and have declined slightly since then but remained elevated compared to earlier years.

Drug-Induced Death Rate in King County, 1994-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

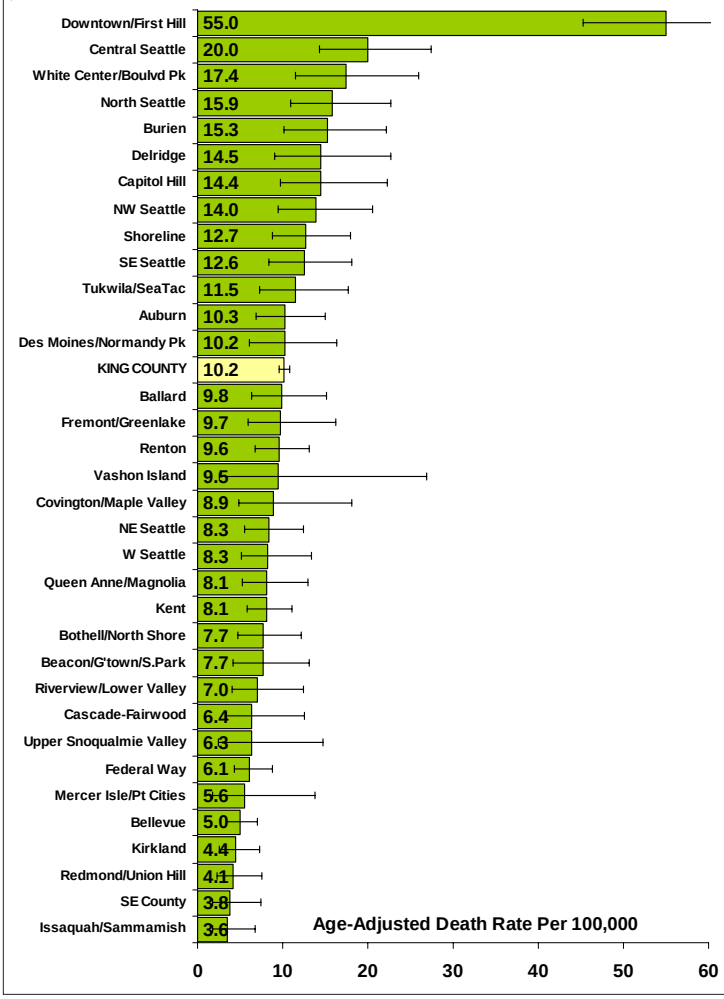
Drug-Induced Death Rate in King County by Age, Three-Year Rolling Averages, 1994-2003



Data Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

- This pattern is seen mainly in the 45-64 year old and the 65 and older age groups. In contrast, the rate in those aged 25-44 steadily declined between 1994 and 2003.
- Among the four regions, Seattle experienced the largest increase to 1998 and, since 1998, had a significant decline in the death rate while there was no significant change in the other regions (data not shown).

Drug-Induced Death Rate in King County by Health Planning Area, 1999-2003 Averages



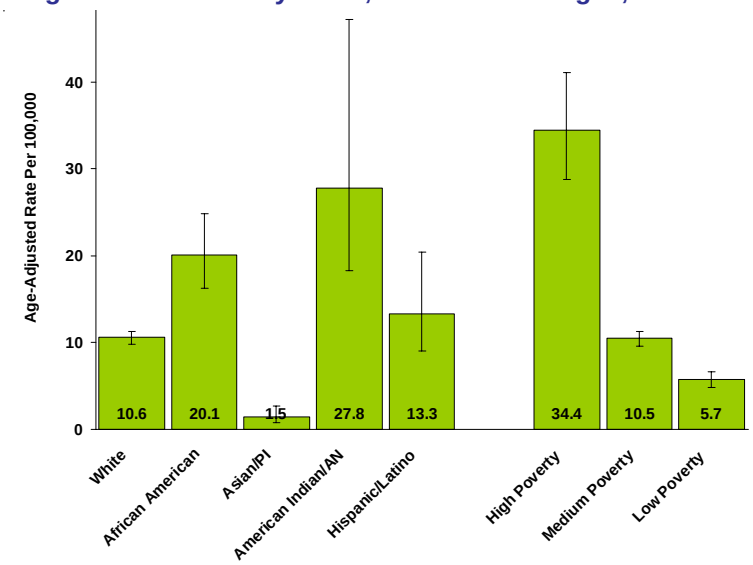
Patterns by Health Planning Area

- The death rate in Downtown/First Hill was 5.4 times the county average.
- Central Seattle, White Center/Boulevard Park, and North Seattle also had a significantly higher than average death rate.
- The death rates in eastside areas and Federal Way were significantly lower than the county rate.

Focus on Disparities

- The death rates among African Americans and American Indian/Alaska Natives were significantly higher than the white rate while the rate among Asian/Pacific Islanders was significantly lower.
- The death rate in high poverty neighborhoods were also significantly higher than lower poverty neighborhoods.

Drug-Induced Death Rate in King County by Race/Ethnicity, Neighborhood Poverty Level, Five-Year Averages, 1999-2003



Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

Medical Examiner's Data on Type of Drugs[1] (data not shown)

On the death certificate, drug types are often not specifically recorded. Data tracked by the King County Medical Examiner's office include more detailed information on the type of drugs for overdose deaths occurred in King County[2]. The majority of deaths involved multiple drugs with an average of approximately two drugs per case.

Heroin was the most common drug involved in overdose deaths, present in 759 of 1587 deaths (48%) from 1997-2004. Heroin had a marked spike in 1998 with 144 deaths. Numbers declined to less than 100 per year from 2001 to 2004.

Cocaine and alcohol were the second most common drugs detected, with each involved in 36% of deaths from 1997-2004. Alcohol numbers were at their highest level in 1998, primarily due to their use in combination with heroin. Otherwise, no trends are discernable for cocaine or alcohol from 1997 to 2004.

Prescription-type opiates, also known as narcotic analgesics, were involved in 118 deaths in 2004, making it the most common drug detected that year. Between 1997 and 2004, overdose deaths in which prescription-type opiates were one of the drugs present increased four-fold. These deaths include both legal usage for pain or addiction treatment and intentional misuse via forged prescriptions or street purchases. From 1997 to 2003, the volume of prescription opiates sold in the King County area increased 68%.

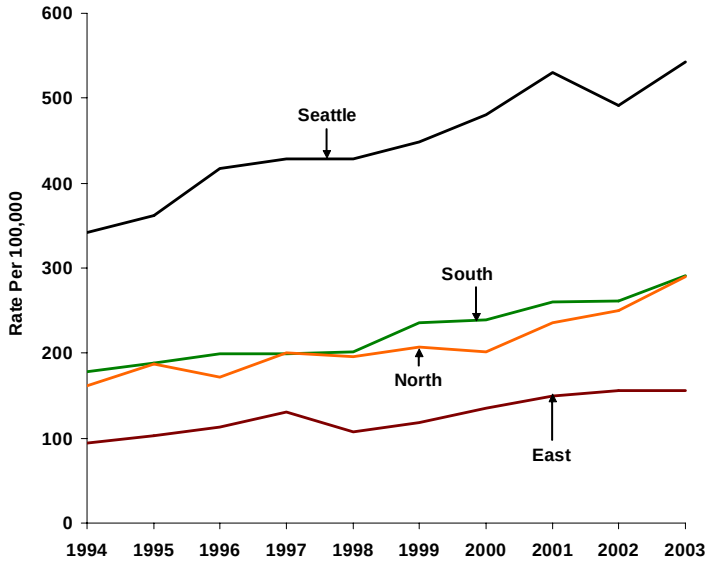
Prescription and over the counter depressant (such as Valium®, secobarbital, and Benadryl®) involved deaths also increased in recent years. They are almost always used in combination with other drugs such as alcohol, heroin, and prescription-type opiates.

Methamphetamine involved deaths increased from 3 deaths in 1997 to 18 deaths in 2003 and 2004.

Illicit Drug-Related Hospitalizations

- In 2003, there were 6,481 illict drug-related hospitalizations that accounted for 5.4% of the non-childbirth hospitalizations among King County residents. The hospitalization rate increased significantly between 1994-2003 and between 1999 and 2003 in both males and females, in all adult age groups, in high, medium, and low poverty neighborhoods, and in all four regions (only region data is shown).

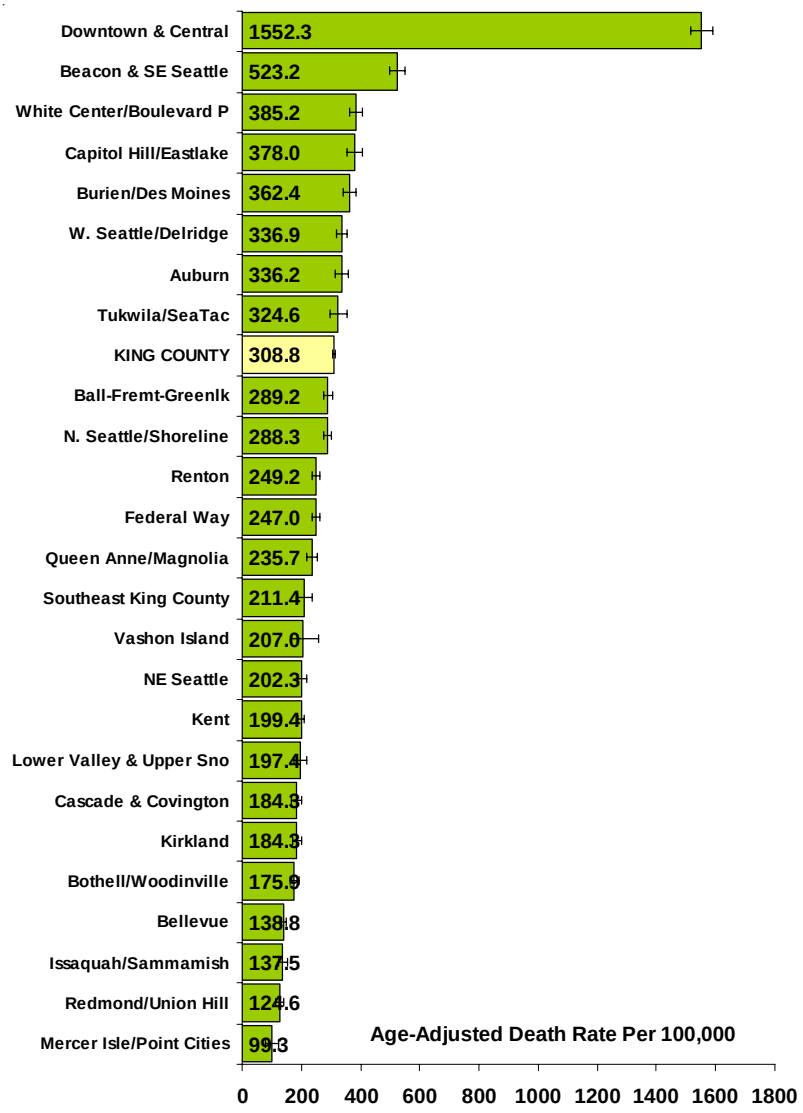
Illicit Drug-Related Hospitalization Rate in King County by Region, 1995-2004



Data Source: Washington State Department of Health, Center for Health Statistics, CHARS
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation

- Seattle had significantly higher hospitalization rate than the other regions. Among the Health Planning Areas, the hospitalization rate in Downtown/Central Seattle was five times the county average rate. Beacon Hill/ Southeast Seattle, White Center/ Boulevard Park, Capitol Hill/ Eastlake, and Auburn had higher than average rate.
- Hospitalization data reported here are limited to hospital admissions of King County residents to Washington State acute care hospitals. Information on substance-abuse-related outpatient visits to any facility and admissions to standalone hospitals or treatment centers are not systematically gathered or reported and are not represented in this section.

Illicit Drug-Related Hospitalization Rate in King County by Health Planning Area, 2000-2004 Averages



References

[1] This section was adapted from material graciously provided by Caleb Banta-Green of the University of Washington Alcohol and Drug Abuse Institute.

[2] The Medical Examiner's data are based on place of occurrence, not place of residence. Deaths of King County residents outside the county are not included while deaths of non-King County residents within the county are included. For more detailed data on drug abuse trends, see http://www.metrokc.gov/health/subabuse/. For more detailed Medical Examiner's data, please read its 2004 Annual Report at: http://www.metrokc.gov/health/examiner/2004report/index.htm

Health of King County 2006

Chapter 11: Access to Care

Insurance Coverage

Oral Health Care

Avoidable Hospitalizations

Unmet Medical Need

Usual Source of Care

Public Health
Seattle & King County
HEALTHY PEOPLE. HEALTHY COMMUNITIES.

11

Health Insurance Coverage

Lack of health insurance is a major barrier to obtaining needed and preventive health care.[1] Uninsured people have an increased risk of morbidity and mortality from preventable diseases.[2,3]

In King County, 15.5% of adult residents, 190,000 lacked health insurance in 2004. This is the highest percentage recorded since data began being collected in 1991.

This percentage has been increasing since 2000, and does not meet the Healthy People 2010 goal of 0% uninsured.

In 2004, 4.1% of children (about 16,000) were uninsured.

Compared to 15 major metropolitan U.S. counties, King County ranks 14th in lack of health insurance. King County is not statistically different than Washington State, or 5 demographically comparable counties across the United States. See Public Health Core Indicators for Seattle and King County for more information.

While an increase in the prevalence of uninsured was seen in many demographic groups, substantial disparities not only persist, but have intensified by income, and race/ethnicity, and age.

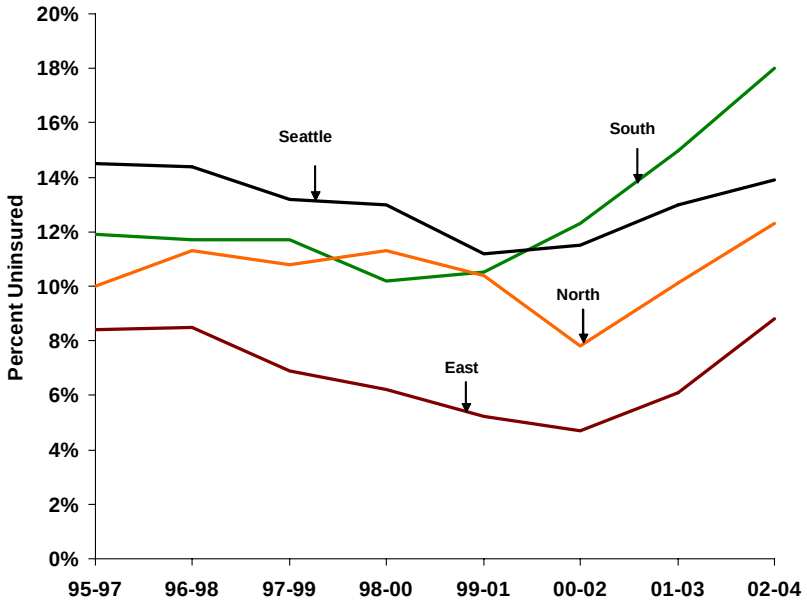
Uninsured individuals were less likely to get preventive care and needed screenings, increasing the likelihood of morbidity and mortality.[4,5] They are also less likely to seek needed medical care due to cost.

The impacts of the uninsured and underinsured stretch an already strained safety net, including hospitals and public health clinics.[6]

King County and Regions

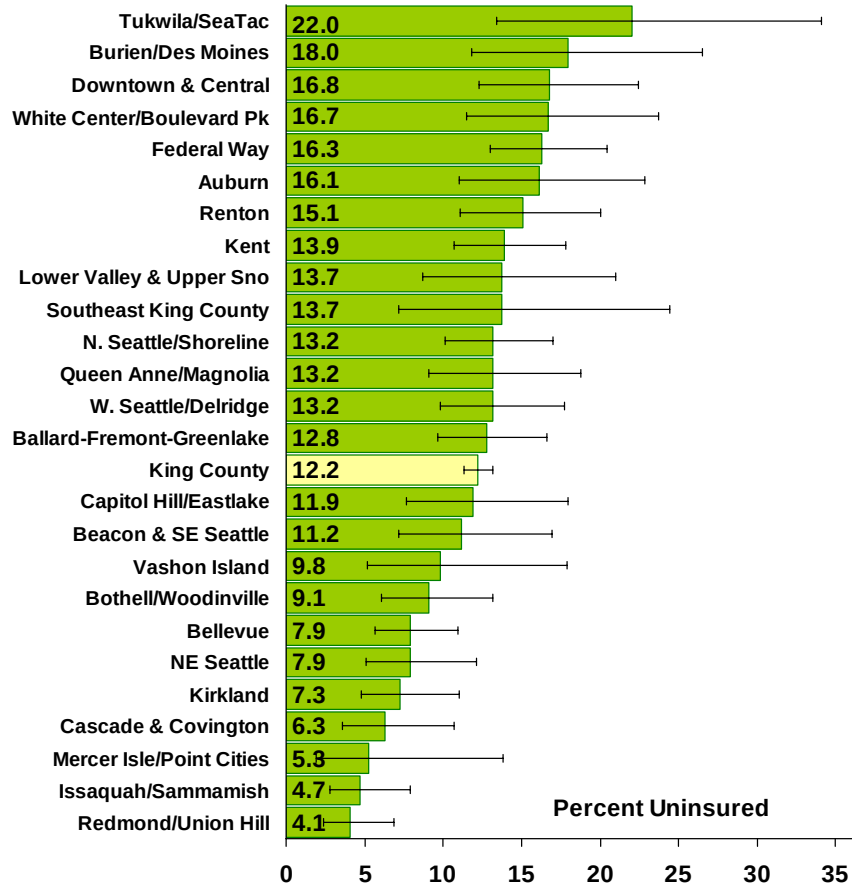
- The South Region experienced an increasing trend in the percent of residents uninsured for both the 10 year period 1995-2004 and from 2000-2004. In 2000-2002, South Region surpassed Seattle with the highest percent of uninsured.
- The East Region consistently had a significantly lower percent uninsured than the other regions.
- All regions experienced higher percents of uninsured residents, although not all are statistically significant.
- For a more indepth look at insurance coverage, see the Uninsured in King County.

Percent Uninsured in Last 12 Months, Ages 18-64, by Region, King County, 3-Year Rolling Averages, 1995-2004



Data Source: Behavioral Risk Factor Surveillance System
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

Lack of Health Insurance by Health Planning Area, Age 18-64, King County, Five-Year Average, 2000-2004



Data Source: Behavioral Risk Factor Surveillance System
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

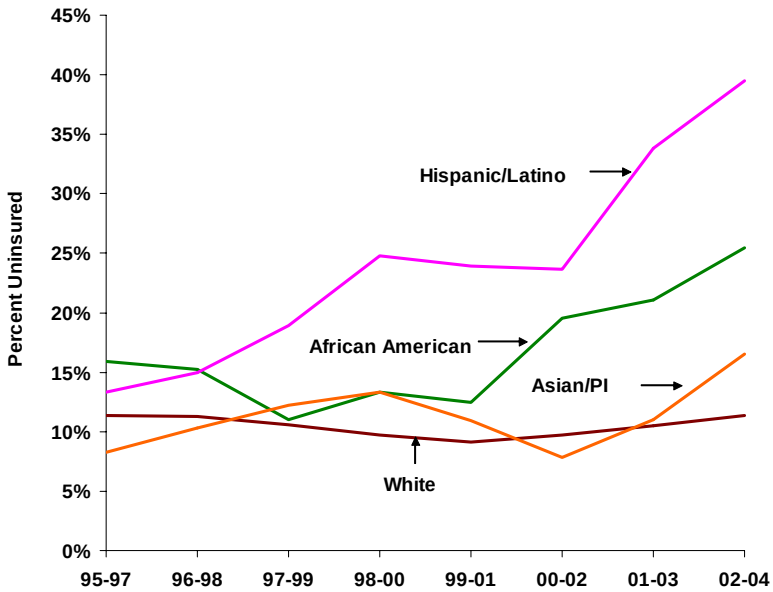
Patterns by Health Planning Area

- Among the Health Planning Areas (HPAs), the uninsured prevalence in Tukwila/SeaTac was significantly higher than the King County average rate for the 5-year period 2000-2004.
- The prevalence of uninsured in Bellevue, Kirkland, Cascade & Covington, Issaquah/Sammamish, and Redmond/Union Hill were significantly lower than the county average.

Focus on Disparities

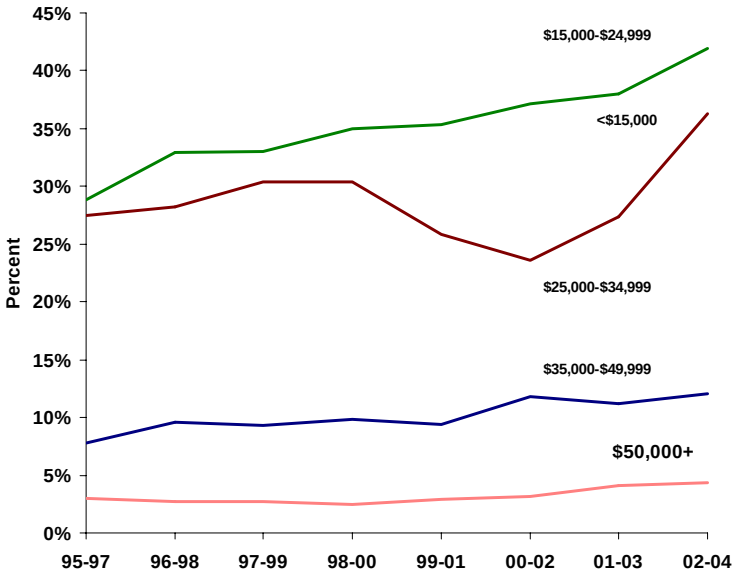
- Age disparities increased in the last 10 years. In the three year period 1995-1997, as compared to adults aged 45-64, those aged 25-44 were 2 times and those 18-24 were 3 times less likely to not have health insurance. In 2002-2004, ages 25-44 were 2.5 times and those aged 18-24 were 4.5 times less likely to have health insurance than 45-64 year olds.
- Disparities by race/ethnicity also widened in the last 10 years. In 1995-1997, African Americans and Hispanic/Latinos were 1.3 and 1.2 times less likely, respectively, to have health insurance than whites. Asian/PIs were 1.3 times more likely to have health insurance than whites. The gap between whites and all other race/ethnicities increased in the 3 year period from 2002-2004. African Americans were 2.2 times, Asian/PI were 1.5, and Hispanic/Latinos were 3.5 times more likely to not have health insurance.

Percent Uninsured in Last 12 Months, Ages 18-64, by Race/ Ethnicity, King County, 3-Year Rolling Averages, 1995-2004



Data Source: Behavioral Risk Factor Surveillance System
Produced by: Epidemiology, Planning & Evaluation, Public Health, Seattle-King County

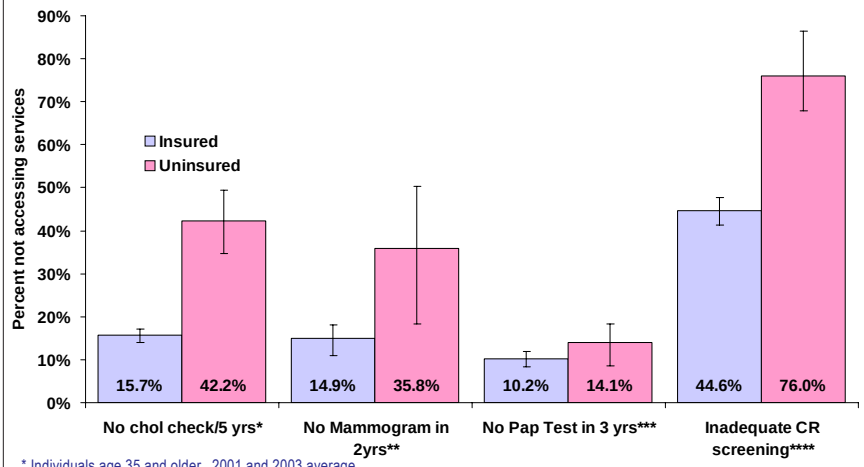
Percent Uninsured by Annual Household Income, Ages 18-64, King County, Three-Year Rolling Averages, 1995-2004



Data Source: Behavioral Risk Factor Surveillance Survey
Produced by: Epidemiology, Planning and Evaluation, Public-Health, Seattle & KIng County

- In 2002-2004, East Region had the lowest percentage (9%) of adults lacking insurance coverage. South Region (18%) and Seattle (14%) had significantly higher percentages of uninsured residents than the East Region. The North Region (12%) was not significantly different from any other region.
- Residents of South Region were twice as likely to be uninsured as residents of East Region. In 2000-2002, South Region surpassed Seattle as the region with the highest percentage of uninsured.
- Lack of insurance has significantly increased in the last 5 years in both East and South Regions. The apparent increase in North Region from 2000 to 2004 was not statistically significant.
- Persons with no health care coverage were significantly less likely to meet health screening guidelines, with the exception of Pap tests, than those who were insured.
- Uninsured respondents were almost twice as likely to miss colorectal and mammography screening guidelines.
- Uninsured respondents were almost four times less likely to have received a cholesterol check in the last 5 years.
- In 1994-1998, uninsured individuals were three times less likely to have received a Pap smear. The latest data show no significant difference between the uninsured and the insured receiving Pap smears.

Lack of Insurance and Access to Preventative Services, Age 18 and Over, King County, 2000 2004 Average



* Individuals age 35 and older. 2001 and 2003 average.
** Women, age 50 and older. 2000, 2002, 2004 average.
*** Women age 18 and older. 2000, 2002, 2004 average.
**** Inadequate colorectal screening is defined as not having a fecal occult blood test (FOBT) within one year, or a sigmoidoscopy or colonoscopy within 5 years, for the population 50 years and older. 2001, 2002, and 2004 average.

Data source: Behavioral Risk Factor Surveillance Survey
Produced by: Epidemiology, Planning and Evaluation, Public-Health, Seattle & KIng County

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Oral Health Care

Oral disease is a major public health problem with high prevalence and incidence in all regions of the world. It affects more people than asthma or diabetes.[1] The heaviest burden of oral diseases occurs in disadvantaged and socially marginalized populations.[2]

Good oral health is more than just healthy teeth and gums. It involves receiving the proper preventive and restorative care, tooth retention, and detection of oral cancers in early stages. There is mounting evidence pointing to a relationship between poor oral care and increased morbidity and mortality.[3, 4, 5]

Dental health coverage is not as robust or as frequently available as medical care coverage. Even when coverage is offered, it often has high deductibles, exclusions, and co-pays. Getting regular preventive care may seem discretionary, particularly in low-income families.[6]

Regular dental care can prevent dental problems such as caries (cavities), gingivitis, and tooth loss.

While King County children have better overall oral care, as compared to Washington State, there are still wide disparities by income and race.

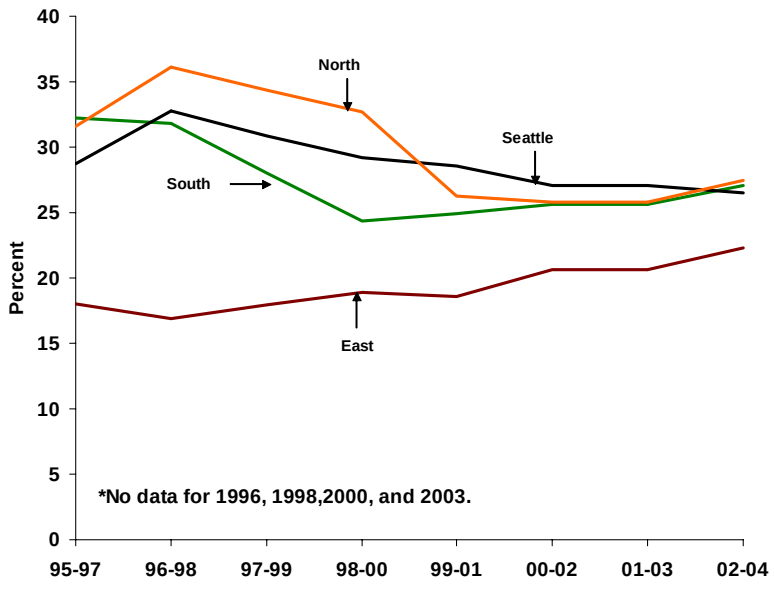
Dental Access to Care does not always mean accessability to services. Data from the ABCD program show less than 1/3 of Medicaid children aged 0 to 5 receive dental service, even though they are eligible.

The percent of people visiting the dentist in the last year has stayed relatively the same over the last 5 years. However, the percentage in East Region remains lower than the other regions.

King County and Regions

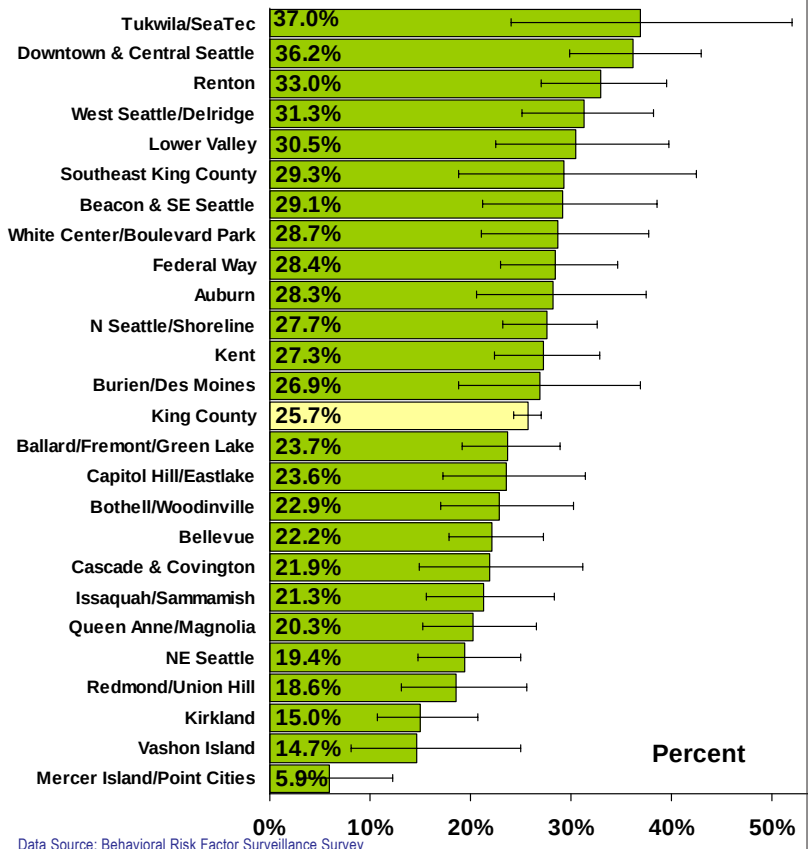
- King County did not experience a significant change in the number of people seeing a dentist last year.
- In 2004, about one quarter (25.9%) of King County adults (about 359,000 individuals) had not seen a dentist or dental clinic in the past year.
- People living in East Region remain more likely to receive dental care than those living in South Region or Seattle. The gap between East Region and the rest of King County appears to be decreasing.
- See Public Health Core Indicators for Seattle and King County for more information on not seeing a dentist in the past year.
- North Region experienced a decreasing trend in the 10-year period between 1995-2004.

Did Not See a Dentist Within the Past Year Among King County Adults Age 18+ by Region, Three-Year Rolling Averages, 1995-2004*



Data Source: Behavioral Risk Factor Surveillance System
Produced by: Epidemiology, Planning, and Evaluation Surveillance System, Public Health - Seattle & King County

Have Not Been To A Dentist in More than One Year, King County Adults, Five-Year Average, 2000-2004



Data Source: Behavioral Risk Factor Surveillance Survey
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

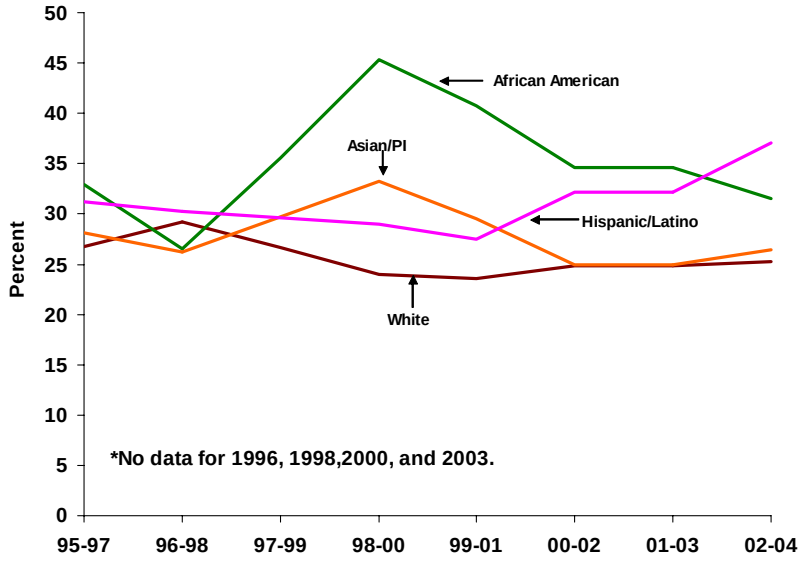
Patterns by Health Planning Area

- Small numbers within Health Planning Areas (HPA) make it difficult to determine statistical significance between the HPA. However, Tukwila/SeaTac, Downtown/Central Seattle, Renton HPA tend to have the highest rates of no regular dental care within King County.
- Mercer Island/Point Cities and Kirkland HPAs were significantly lower than the overall King County rate.

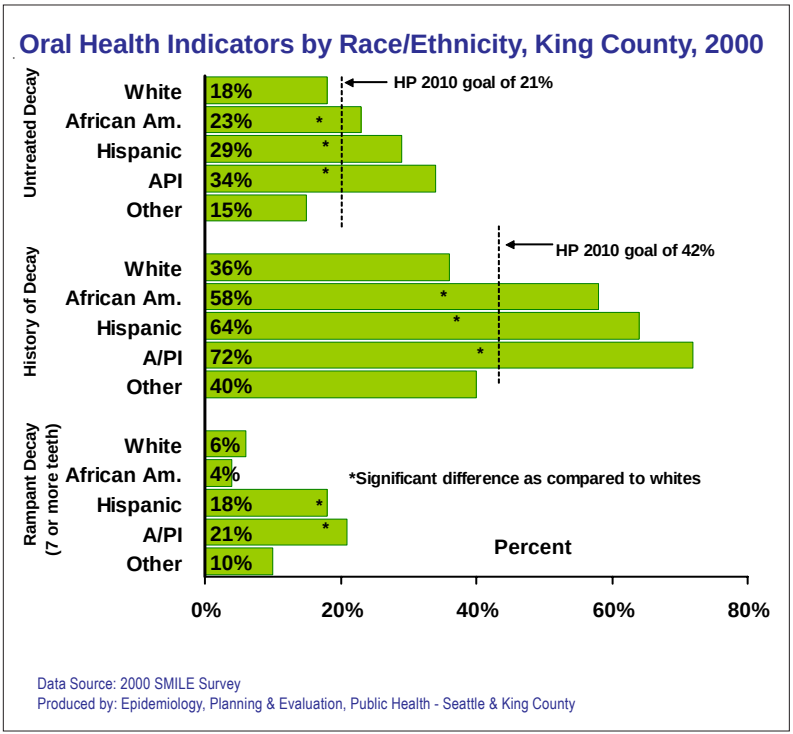
Focus on Disparities

- Men (29.3%)were less likely to see a dentist in the past year than women (22.7%).
- Infrequent dental care was one and a half to two and a half times more likely to occur in lower income people than in those making $50,000 or more. Age differences were seen with people 18-64 and over being less likely to get regular dental care than those aged 45-64. (data not shown)
- Disparities by race/ethnicity were also evident, with African Americans and Hispanic /Latinos being less likely to visit a dentist within the past year than whites.
- In the past, data were collected that allowed analysis of dental visits by dental insurance status. That data is no longer collected, although those without dental insurance were more likely to have infrequent dental care (data not shown).

Did Not See a Dentist Within the Past Year Among King County Adults Age 18+ by Race/Ethnicity Three-Year Rolling Averages, 1995-2004*



Data Source: Behavioral Risk Factor Surveillance Survey
Produced by: Epidemiology, Planning, and Evaluation, Public Health - Seattle & King County

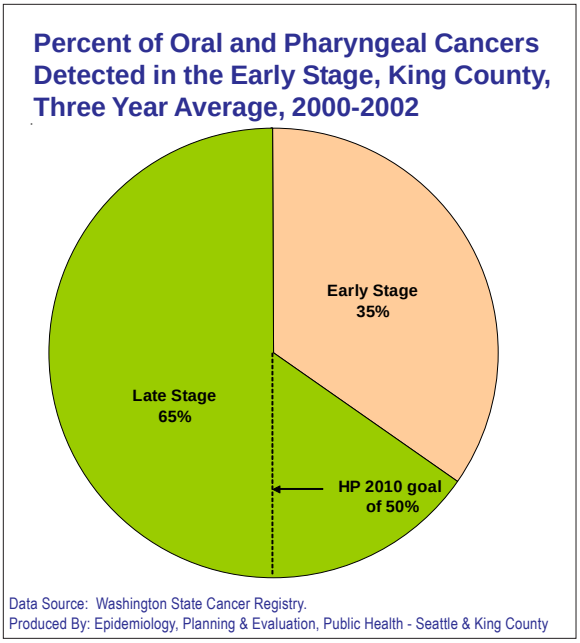


Oral Care Among Youth

- The 2000 Smile Survey data provide the most recent data on oral care in school-age children in King County. The survey was given to 2nd and 3rd graders, as well as Early Head Start children. In 2000, 15% of children had a history of untreated decay, and 8% had rampant decay (decay on 7 or more teeth). Both of these were significantly lower than Washington State's percent (data not shown).
- However, disparities were seen by race/ethnicity. Significant differences exist across the spectrum of decay.
- Healthy People (HP) 2010 goal for reducing the number of children with untreated decay is 21%, and to reduce those with a history of decay to 42%. Only whites and other races met these goals.

Oral and Pharyngeal Cancer

- Overall King County 2000-2002 rates show only 34.8% of people diagnosed with invasive oral and pharyngeal cancer were detected at the earliest stage.
- Healthy People 2010 goals are to have 50% or more of oral and pharyngeal cancers to be detected at the earliest stage.
- Earlier detection improves survival, and decreases morbidity and mortality related to the cancer.
- Oral cancer detection can be accomplished during a regular examination – from either a medical care or dental care provider. Additionally, practitioners can discuss how to avoid risk factors for these cancers (tobacco products and alcohol).



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Avoidable Hospitalizations

Avoidable hospitalizations are an indicator of inadequate primary care or poor access to appropriate medical care. With adequate and timely primary care, the risk of hospitalization could be reduced for these conditions. [1,2]

Avoidable hospitalizations may occur for a number of reasons: lack of health insurance coverage, limited medical knowledge, no means of transportation, language barriers, mental health problems, or personal beliefs in the value and type of medical services.[3]

Underlying prevalence of diseases, patient care-seeking behavior, and adherence to treatment plan also affect avoidable hospitalization rates.

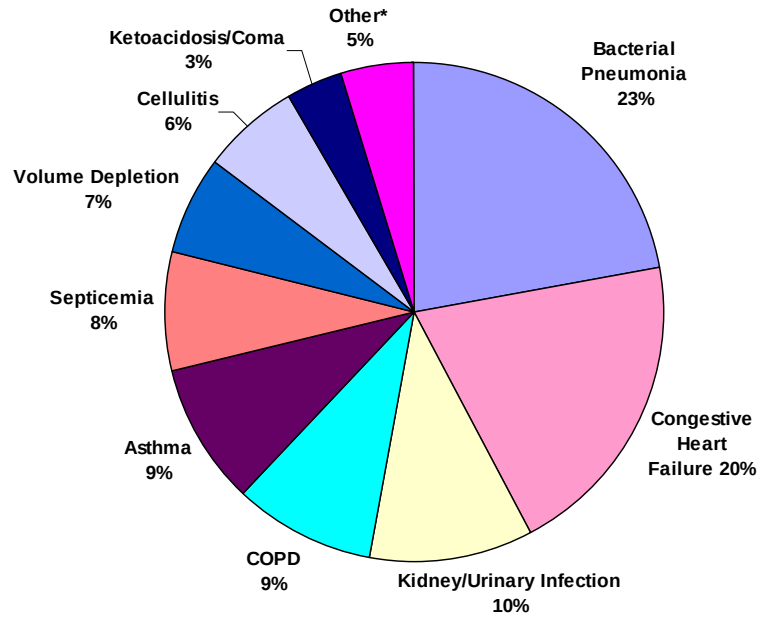
In 2004, there were 16,152 avoidable hospitalizations among King County residents, which accounts for 14% of all non-childbirth hospitalizations.

Countywide, avoidable hospitalizations significantly decreased in the last 10 years; but South Region has begun to bear a greater burden of avoidable hospitalizations.

Avoidable Hospitalization in King County

- More than half of avoidable hospitalizations were caused by bacterial pneumonia, congestive heart failure (CHF), and kidney/urinary infection. They accounted for 23%, 20%, and 10% of all avoidable hospitalizations, respectively.
- Bacterial pneumonia and CHF continued to be the two leading causes of avoidable hospitalization. Available vaccines for bacterial pneumonia could prevent about half the hospitalizations for this condition.[4] For CHF, poverty is the biggest predictor of hospitalization. The risk of hospitalization increases as neighborhood poverty grows.[5]

Avoidable Hospitalizations in King County, Three Year Average, 2002-2004



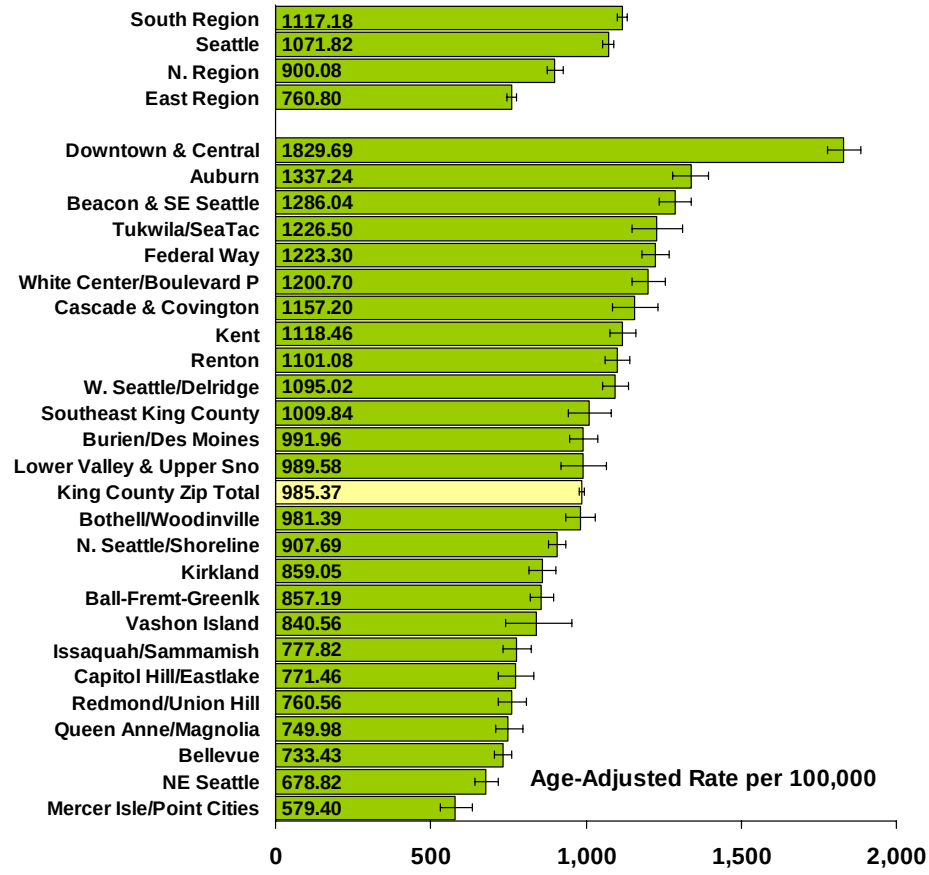
*"Other" includes: incarcerated hernia, primary hypertension, angina, dental conditions, Grand Mal status, and hypoglycemia

Data Source: Hospitalization Discharge Data, Washington State Department of Health, Office of Hospital and Patient Data Systems
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

Patterns by Health Planning Area

- Averaged over 2002-2004, the age-adjusted avoidable hospitalization rate was highest for South Region. In the past, Seattle had the highest rates of avoidable hospitalization, but South Region now has significantly higher avoidable hospitalization rates than Seattle, North, and East Regions. Seattle was significantly higher than North and East Regions, and North is higher than East Region.
- By Health Planning Areas, Downtown and Central are almost twice the King County average. Rates in Auburn, Beacon Hill/ Southeast Seattle, Tukwila/SeaTac, Federal Way, White Center/ Boulevard Park, Cascade/ Covington, Kent, Renton, and West Seattle/Delridge are all significantly higher than the county rate.
- Most of the Eastside communities were significantly lower than the county rate. In Seattle, North Seattle/Shoreline, Ballard/Fremont/Greenlake, Capitol Hill/Eastlake, Queen Anne/Magnolia, and Northeast Seattle were also significantly lower. Mercer Island had the lowest rates of avoidable hospitalizations in the county.

Avoidable Hospitalization Rates by Region and HPA, King County Three Year Average, 2002-2004

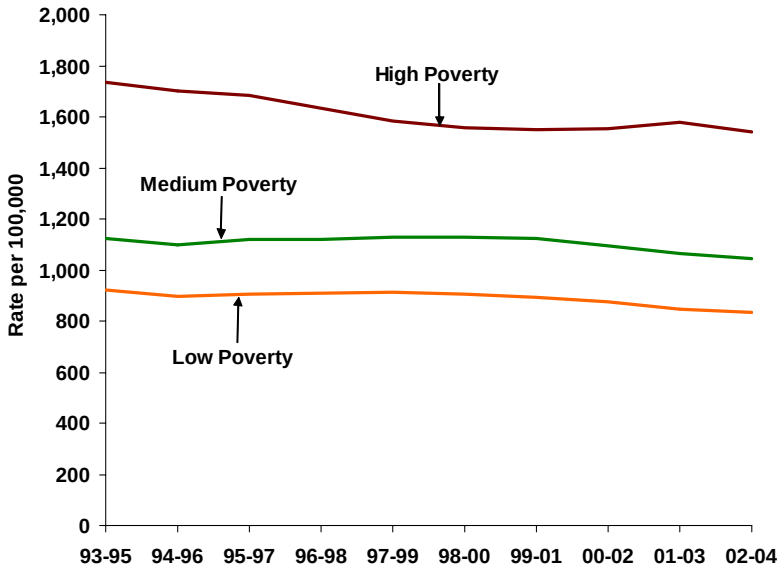


Data Source: Hospitalization Discharge Data, Washington State Department of Health, Office of Hospital and Patient Data Systems
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

Focus on Disparities

- Hospitalization data in Washington State do not collect information on race/ethnicity or individual income information, so no data can be presented by this category. However, the National Hospital Discharge Survey (NHDS) show socioeconomic status and racial differences as well as health inequalities by those who are covered by insurance as well as the uninsured.[6]
- Men (1,015 per 100,000) are significantly more likely to be hospitalized for avoidable conditions than are women (934 per 100,000) (data not shown).
- Individuals who live in high poverty neighborhoods are almost twice as likely to have a condition for which hospitalization could be avoided than an individual living in a low poverty neighborhood. In 2004, high poverty neighborhoods had a rate of 1382 per 100,000, compared to the low poverty neighborhood rate of 794 per 100,000 (data not shown). While all groups experienced a significant decline over the last 10 years, the gap between high and low poverty neighborhoods has remained relatively steady.

Avoidable Hospitalizations Rates by Neighborhood Poverty Level, Three Year Average, King Coungy, 1995-2004



Data Source: Hospitalization Discharge Data, Washington State Department of Health, Office of Hospital and Patient Data Systems
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

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6 Pappas G, Hadden WC, Kozak LJ, et al. Potentially avoidable hospitalizations: inequalities in rates between US socioeconomic groups. AJPH 87:811-816, 1997.

Unmet Medical Need

Unmet medical need indicates whether people are getting health care they feel they need.

The Healthy People (HP) 2010 target is to lower the percent unable to get needed medical care due to cost to 7%.

In 2004, 12.6%, about 175,000 King County adults reported not getting needed medical care due to cost. This trend has significantly increased over the last 5 years, and remains higher than the HP 2010 goal.

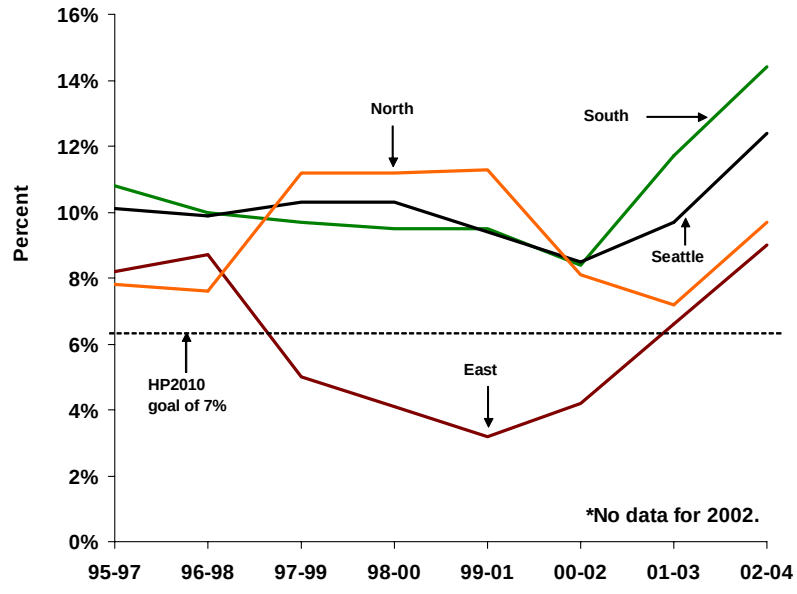
King County has the 11th lowest percent with unmet medical need out of 15 major metropolitan U.S. counties across the country. It is not significantly different from Washington State or other counties with comparable demographics. See Public Health Core Indicators for Seattle & King County for more information.

Health care coverage is an important component of being able to access the health care system,[1] but even individuals with health insurance experience difficulties.

King County and Regions

- East Region experienced a significant increasing trend over the last five years, although it is still statistically significantly lower than South Region or Seattle.
- South Region also experienced a significantly increasing trend. In the three-year period 2000-2002, South Region surpassed Seattle with the percent of people not seeing a doctor due to cost.

Percent Who Did not See a Doctor in Past Year Due to Cost, King County Adults by Region, Three-Year Rolling Averages, 1995-2004*

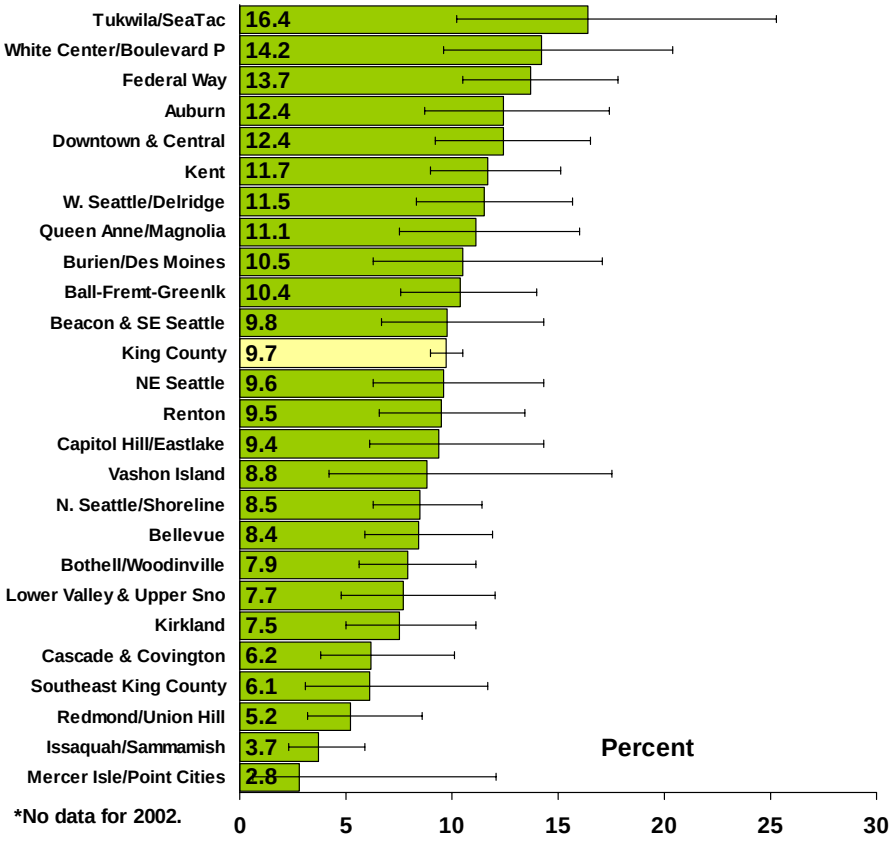


Data Source: Behavioral Risk Factor Surveillance System
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

Patterns by Health Planning Area

- Small numbers make differences by Health Planning Area (HPA) difficult to interpret. Nonetheless, HPAs in the South Region tended to be higher than the King County average, and HPAs in the East Region tended to be lower than King County average.
- Issaquah/Sammamish and Redmond reported significantly less difficulty in obtaining medical care due to cost than the King County average.
- Federal Way had a significantly higher percent not getting needed medical care due to cost compared to the King County average.

Percent Who Did Not See a Doctor in Past Year Due to Cost, King County Adults by Health Planning Area, Five Year Average, 2000-2004*



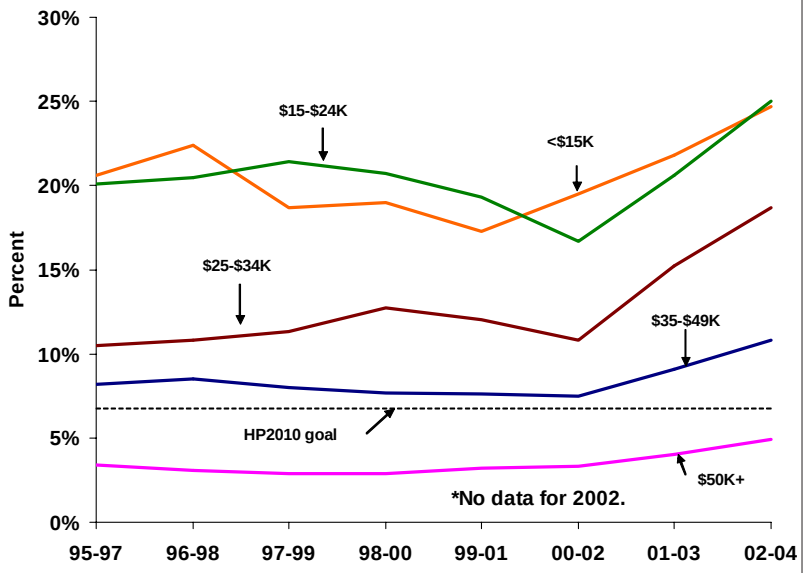
*No data for 2002.

Data Source: Behavioral Risk Factor Surveillance System
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

Focus on Disparities

- Individuals aged 18-24 were two to six times less likely to get needed medical care than older age groups. Those 65 and older reported significantly fewer problems than the other age groups. (data not shown)
- Males had 1.2 times the risk of not getting needed medical care due to cost than females. (data not shown)
- Asian/Pacific Islanders and whites are one to three times less likely to not get needed medical care due to cost than African Americans or Hispanics/Latinos (data not shown).
- As compared to household incomes greater than $50,000 a year, all other income groups were between 2 and 5 times more likely to report unmet medical need. Both those in the $15,000-$24,000 and $15,000 and under income groups were 5 times more likely to report not seeing the doctor due to cost.

Percent Who Did not See a Doctor in Past Year Due to Cost, King County Adults by Annual Household Income, Three-Year Rolling Averages, 1995-2004*



Data Source: Behavioral Risk Factor Surveillance System
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

References

[1] Aday LA. The impact of health policy on access to medical care. Milbank Mem Fund Q Health Soc; 54(2):215-33, 1976.

[2] Liao Y, et al. REACH 2010 surveillance for health status in minority communities – United State, 2001-2002. MMWR Surveill Summ. Aug 27;53(6)1-36, 2004.

Usual Source of Care

Access to a usual source of care is related with receiving adequate preventive care,[1,2] access to care,[3] better care continuity, and fewer hospitalizations, which result in lower health care costs.[4]

The Healthy People (HP) 2010 target is for 96% of adults 18 and older to have a usual on-going source of care.

In 2004, only 77.7% of King County adults reported having a usual source of care. This means that more than one in five (approximately 157,000 individuals) lacked a usual source of care.

Consistently collected data is only available from 2000-2004.

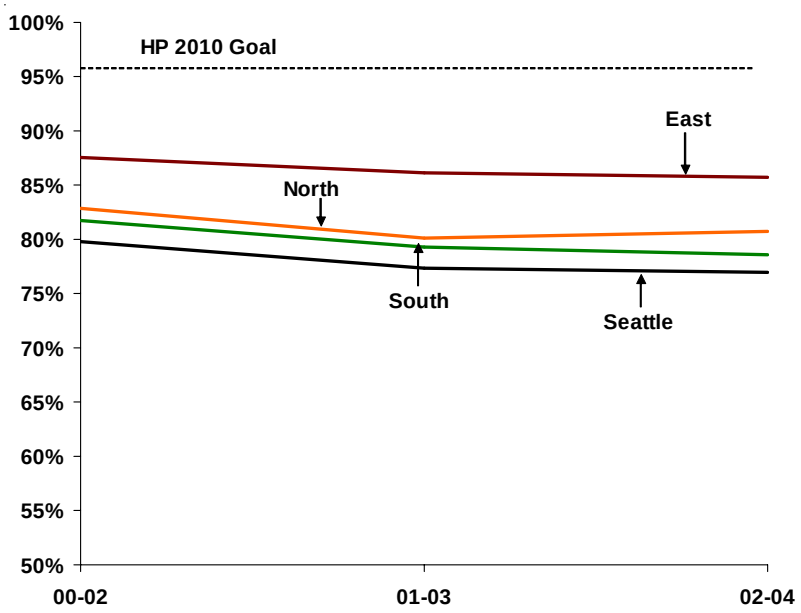
Overall, King County did not meet the HP 2010 objective of 96% having a usual source of care. Trends are moving away from having a usual source of care.

The uninsured and Spanish speaking populations had the highest prevalence of lacking a usual source of care.

King County and Regions

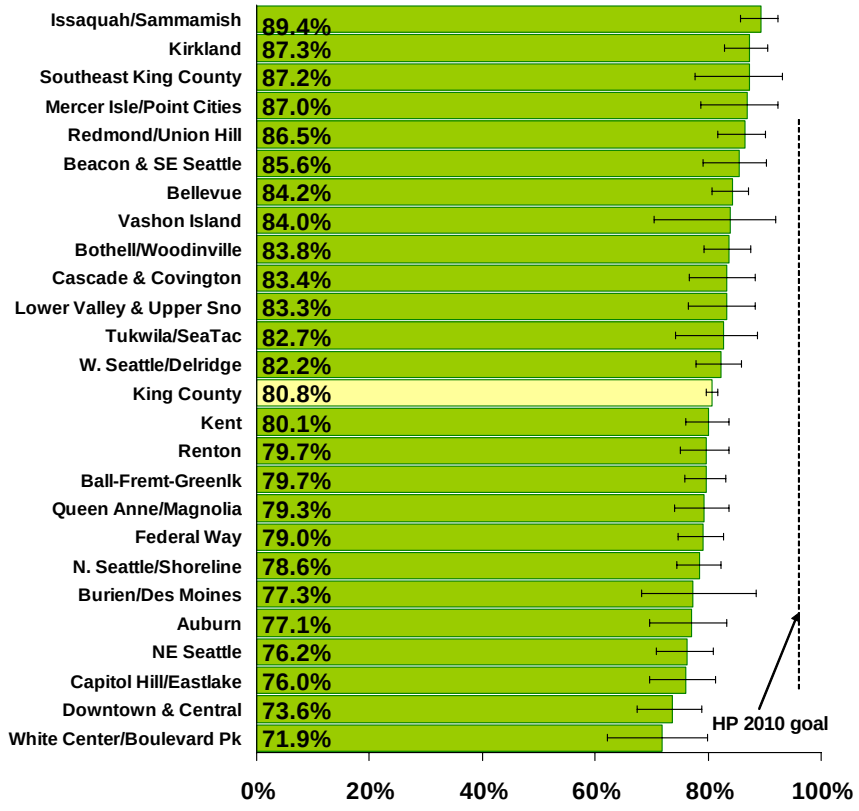
- King County, South Region and Seattle showed significant decreases in the prevalence of a usual source of care.
- East and North Region had no significant trends.

Percent With a Usual Source of Care, King County Adults by Region, Three-Year Rolling Averages, 2000-2004



Data Source: Behavioral Risk Factor Surveillance System
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

Had a Usual Source of Care, King County Adults, by Health Planning Area, Five Year Average, 2000-2004



Data Source: Behavioral Risk Factor Surveillance System
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

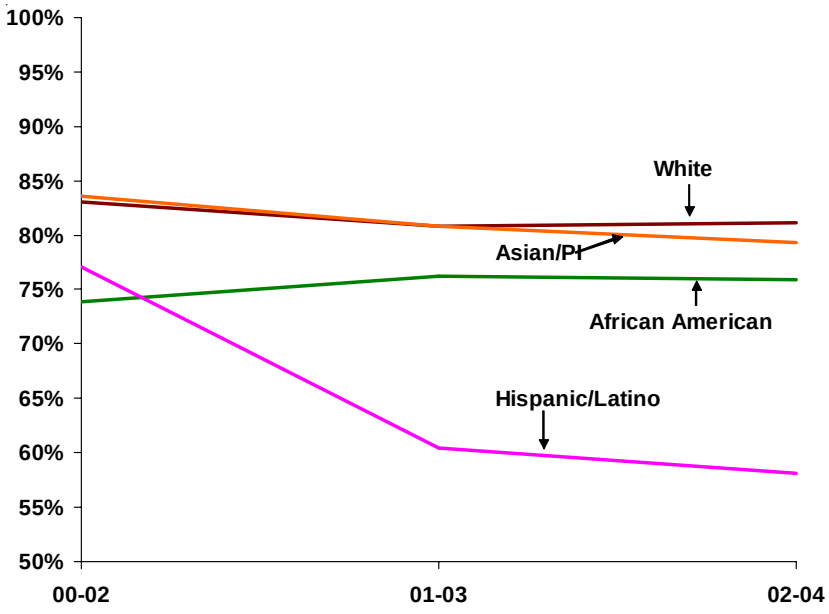
Patterns by Health Planning Area

- Small numbers make the data difficult to interpret. Nonetheless, HPAs in Seattle and the South Region tended to be lower than the King County average, and HPAs in the East Region tended to be higher than King County average.
- Issaquah/Sammamish and Kirkland have a significantly higher percent of people having a usual source of care than King County as a whole.

Focus on Disparities

- Hispanic/Latinos are significantly less likely to have a routine source of care, compared to other races/ethnicities. The disparity is even more severe when examined by language.
- Beginning in 2003, the Behavioral Risk Factor Surveillance Survey (BRFSS), which collects data on usual source of care, was given in Spanish as well as English.
- 76% of English respondents reported having a usual source of care in 2003 and 2004. Less than one quarter (23.9%) of Spanish respondents reported having a usual source of care.

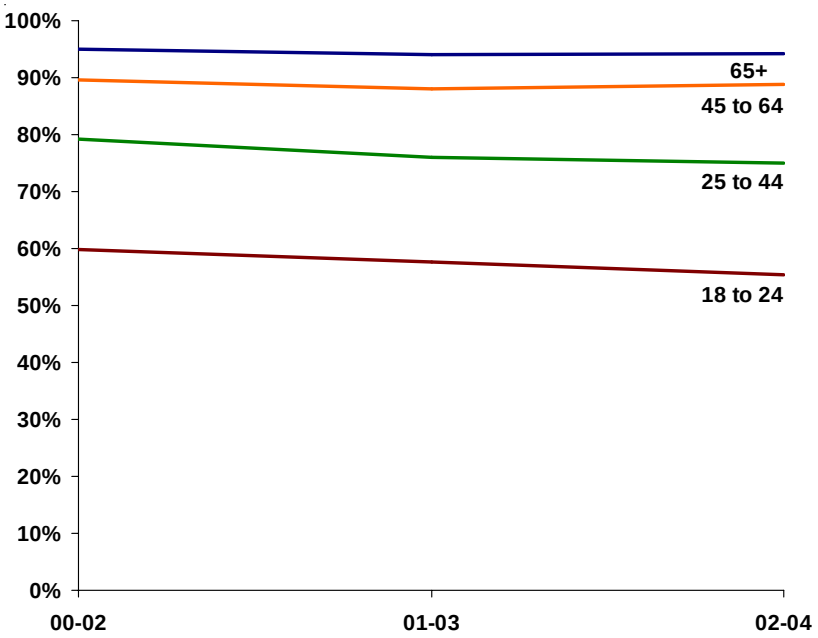
Percent Who Had a Usual Source of Care, King County Adults by Race/Ethnicity, Three-Year Rolling Averages, 2000-2004



Data Source: Behavioral Risk Factor Surveillance System
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

- Older respondents were more likely to have a usual source of care, with significant differences between each group.
- People covered by health insurance were more than twice as likely to have a usual source of care (82.1%) as the uninsured (36.8%) (data not shown).
- People living in households with incomes greater than $50,000 were more likely to have a usual source of care than the other income groups (data not shown).

Percent Who Had a Usual Source of Care, King County Adults by Age, Three-Year Rolling Averages, 2000-2004



Data Source: Behavioral Risk Factor Surveillance System
Produced by: Epidemiology, Planning & Evaluation, Public Health - Seattle & King County

References

[1] Ettner SL: The timing of preventive services for women and children: The effect of having a usual source of care. American Journal of Public Health 86(12): 1748-54, 1996.

[2] Ettner SL: The relationship between continuity of care and the health behaviors of patients: Does having a usual physician make a difference? Medical Care 37(6): 547-55, 1999.

[3] Sox CM, Swartz K, Burstin HR, Brennan TA: Insurance or a regular physican: Which is the most powerful predictor of health care? American Journal of Public Health 88(3): 364-70, 1998.

[4] Weiss LJ, Blustein J: Faithful patients: The effect of long-term physician-patient relationships on the costs and use of health care by older Americans. American Journal of Public Health 86(12): 1742-7, 1996.

Appendix A: Data Sources and Technical Notes

Data Sources

The following are sources for data analyzed for the report. Public Health – Seattle & King County is responsible for all analyses and results.

King County and Washington State

1. Behavioral Risk Factor Surveillance System: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; Washington State Department of Health Center for Health Statistics; and Public Health – Seattle & King County.
2. Births, deaths and hospitalizations: Washington State Department of Health, Center for Health Statistics
3. Cancer registry: Washington State Department of Health, Center for Health Statistics
4. Communicable Disease data: Washington State Department of Health, Communicable Disease Epidemiology.
5. HIV/AIDS data: HIV/AIDS Epidemiology Unit, Public Health – Seattle & King County, and Infectious Diseases and Reproductive Health Assessment Unit, Washington State Department of Health.
6. Population estimates: Washington State Department of Health, Vista Partnership, Krupski Consulting: Washington State Population Estimates for Public Health. October 2004.
7. STD data: Washington State Department of Health, STD/TB Services.
8. U.S. Census Bureau, American Community Survey (do we want a separate notation for the demographics from the 2000 Census, not just the ACS
9. Washington State Healthy Youth Survey: Washington State Department of Health
10. SMILE survey: Washington State Department of Health and Public Health – Seattle & King County
11. State Population Survey (for the childhood insurance bullet)
12. Ann? Disability data

U. S.

1. Behavioral Risk Factor Surveillance System Survey: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.
2. Births and deaths: U.S. National Center for Health Statistics, public use data file.
3. Healthy People 2010: U.S. Office of Disease Promotion and Health Prevention, U.S. Department of Health and Human Services
4. U.S. Census Bureau, American Community Survey

Technical Notes

Data Interpretation

Crude, Age-Specific, and Age-Adjusted Rate: a rate in this report is usually expressed as the number of events per 100,000 population per year. When this applies to the total population (all ages), the rate is called *the crude rate*. When the rate applies to a specific age group (e.g. age 15-24), it is called *the age-specific rate*. Crude and age-specific rates present the actual magnitude of an event within a population or age group.

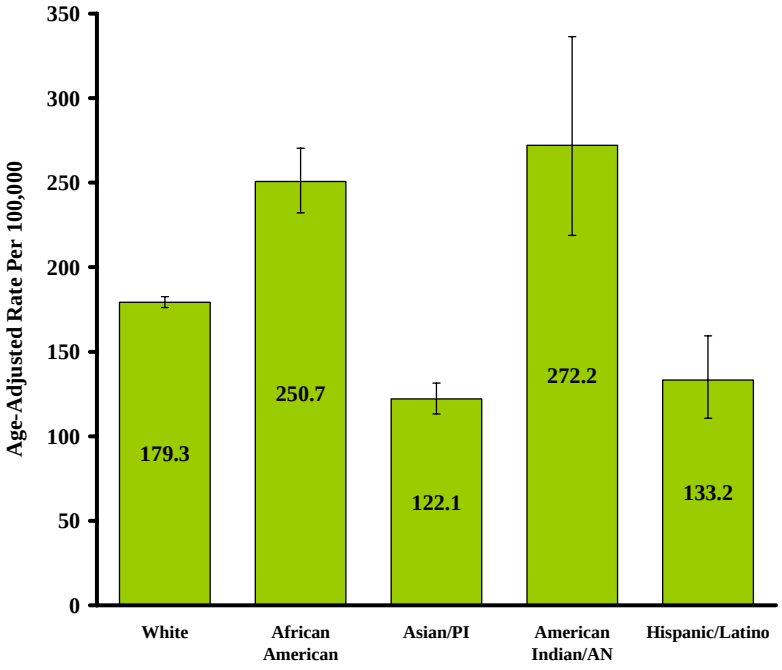
When comparing rates between populations, it is useful to calculate a rate which is not affected by differences in the age composition of the populations. For example, if one population has a higher death rate and more older people, it will not be easy to determine if the rate is truly higher or just reflects the high death rate among older people. *The age-adjusted rate* is a rate that mathematically removes the effect of the age composition. By convention, the rate is often adjusted to the age distribution of the 2000 U.S. population. In this report, when comparisons are made between two or more population of all ages such as gender, racial/ethnic groups, and geographic areas, age-adjusted rates are used.

Confidence Interval: When comparing rates between different groups in King County with bar graphs, the "95% confidence interval" or margin of error is given for each rate to assess how much the rate is likely to vary due to chance. For each estimated rate, one would expect the rate to fluctuate, but to remain within the confidence interval 95% of the time. The larger the population, the smaller the confidence interval, and thus the more reliable the rate. When comparing two rates, if the confidence intervals do not overlap, the difference between the two rates is considered “statistically significant”, that is, chance or random variation can be ruled out as the reason for the difference.

The following graph is an example which shows the age-adjusted death rate and 95% confidence intervals for heart disease by race/ethnicity in King County.

The heart disease death rate for American Indians/Alaska Natives (AI/AN) appears to be higher than the rate for African Americans (AA). However, since the higher end of the confidence interval for AA is greater than the lower end of the confidence interval for AI/AN, their confidence intervals overlap. Therefore the difference between the two rates is not statistically significant. The confidence intervals for AA and AI/AN, however, do not overlap with the intervals for the other three racial/ethnic groups. As a result, we can state that the heart disease death rate for AA and AI/AN are significantly higher than the rates for the other three groups.

Confidence Interval Example: Heart Disease Rate in King County by Race/Ethnicity, 2001-2003 Average



Source: Washington State Department of Health, Center for Health Statistics, Death Certificates
Produced by: Public Health - Seattle & King County, Epidemiology, Planning, and Evaluation, 3/05

Tests for Time Trends: The probability that a trend over time is simply due to random variation is calculated using objective statistical tests. If the probability that a trend is due to random variation is less than 5% (i.e., $p<0.05$), a trend is considered statistically significant. (For rates, the test for trend is found in the following citation: Mantel N. Chi-square tests with one degree of freedom; extensions of the Mantel-Haenzel procedure. J Am Stat Assoc. 1963; 58(303): 690-700. For percents from surveys, trend over time is assessed with the svylogit command in Stata (StataCorp. 2003. *Stata Statistical Software:* Release 8.0. College Station, TX. Stata Corporation.))

Rolling Averages: For populations of small size, small changes in the number of events will cause the rate to fluctuate substantially. To help stabilize the rate and observe the time trend of an event, rates are sometimes aggregated into "rolled" averages, such as in 3 or 5 year intervals, across the total observed period. For example, if there is a highly fluctuating rate caused by low numbers of events for years 2000 through 2004, the rates are instead reported as three-year rolling averages: 2000-2002, 2001-2003, and 2002-2004.

Race/Ethnicity: Race/ethnicity is a marker for complex social, economic and political factors that are important influences on community and individual health. Differences in rates of most diseases and injuries are not due to biological or genetic factors. Many

people of color in the U.S. have experienced social and economic discrimination, and other forms of racism, which can negatively affect their health. We examine and present data by race/ethnicity because we believe that it is important to understand which racial/ethnic groups are disproportionately affected by significant health issues. We hope this understanding will lead to strategies that address these issues, as well as the social and economic inequities which underlie them. Analyses by race are presented by single-race categories to allow trend over time comparisons, using data before and after the 2000 U.S. Census.

Annual Household Income: For data with annual household income at the individual level, such as the BRFSS data, we examined the data by annual household income levels: less then $15,000, $15,000 to $24,999, $25,000 to $34,999, $35,000 to $49,999, and $50,000 and over. We also converted these income categories to Federal Poverty Levels based on income and size of the households.

Neighborhood Poverty Level: For health outcomes for which individual income was not available, health outcomes were divided into high-, medium- and low-poverty neighborhoods based on the census tract of ZIP code in which the person lived. To construct these neighborhoods, all King County census tracts or ZIP codes were first ranked by the percentage of population living below the Federal Poverty Level in 1999. Tracts and ZIP codes were then divided into groups with similar poverty levels. Census tracts were divided into three groups in which 20% or more, 5% to 19%, and less than 5% of the population were living below poverty. The analogous poverty ranges in ZIP-code-based groupings were 15% or more, 5% to 15% and less than 5% of the population living below poverty. Health events were assigned to one of these groups based on the census tract or ZIP code of residence, and the tracts or ZIPs in each group were aggregated together for the analysis. These groups are labeled as “high poverty”, “medium poverty”, and “low poverty” neighborhoods in this report.

Geographical Definitions

Regions and Health Planning Areas: In addition to examining data for King County, we also analyzed the data by Region and by Health Planning Area (HPA) used by Public Health – Seattle & King County. In 2005, Public Health created revised HPA boundaries to be as consistent as possible with current and anticipated suburban city boundaries. For Seattle, HPAs were created in consultation with the City of Seattle’s Department of Neighborhoods. For the most precise HPAs, block groups were aggregated to create 34 new HPAs. ZIP code-based HPAs are used where health outcomes by block group are not available and they differ somewhat from the block group-based HPAs in terms of boundary and population size. There are 25 ZIP-based HPAs.

While we attempted to create both sets of HPAs to be as similar as possible, boundary discrepancies are present and in some cases block-group-based HPAs were combined to better fit ZIP-code-based HPA boundaries. Notable differences between the ZIP and the census areas occur in the North Seattle area, where North Seattle, Northwest Seattle and Shoreline HPAs are combined into North Seattle/Shoreline. Other HPAs that are combined in Seattle include West Seattle and Delridge, Beacon Hill-

Georgetown-South Park and Southeast Seattle, Ballard and Fremont-Greenlake, and Capitol Hill and Eastlake. In South Region, Des Moines/Normandy Park, and Cascade-Fairwood and Covington-Maple Valley are combined into ZIP code-based HPAs. The White Center/Boulevard Park as defined by zip code covers some of Burien and SeaTac. The Auburn area is increased and SE County is smaller. Tukwila/SeaTac covers a smaller area. In East county, Lower Valley and Upper Snoqualmie are combined into a single HPA as defined by zip code. Also, the Riverview- Lower Valley-Upper Snoqualmie has one zip code (98077) that crosses into Snohomish County. A detailed map is available upon request.

On the following pages, the first table shows the year 2000 population for the ZIP code-based HPAs and the block group-based HPAs. The next two tables show the full names of both sets of HPAs and the abbreviations for them used in this report.

ZIP code-based	Population	Block group-based	Population
Auburn	61623	Auburn	57541
Ball-Fremt-Greenlk	90560	Ballard	44241
		Fremont/Greenlake	40718
Beacon & SE Seattle	62825	Beacon/G'town/S.Park	35053
		SE Seattle	43230
Bellevue	121645	Bellevue	124769
Bothell/Woodinville	75094	Bothell/North Shore	48615
Burien/Des Moines	50337	Burien	34390
		Des Moines/Normandy Pk	34954
Capitol Hill/Eastlake	40271	Capitol Hill	40714
Cascade & Covington	58912	Cascade-Fairwood	39064
		Covington/Maple Valley	39666
Downtown & Central Seattle	84046	Central Seattle	38471
		Downtown/First Hill	36778
Federal Way	116214	Federal Way	113159
Issaquah/Sammamish	51901	Issaquah/Sammamish	71517
Kent	137745	Kent	111945
Kirkland	70883	Kirkland	79604
Lower Valley & Upper Sno	38144	Riverview/Lower Valley	51898
		Upper Snoqualmie Valley	20971
Mercer Isle/Point Cities	24814	Mercer Isle/Pt Cities	29983
N. Seattle/Shoreline	135254	North Seattle	40390
		Shoreline	51416
		NW Seattle	40781
NE Seattle	82650	NE Seattle	70695
Queen Anne/Magnolia	54796	Queen Anne/Magnolia	53601
Redmond/Union Hill	82103	Redmond/Union Hill	60887
Renton	99136	Renton	77313
Southeast King County	27975	SE County	44181
Tukwila/SeaTac	30509	Tukwila/SeaTac	42024
Vashon Island	9978	Vashon Island	10136
W. Seattle/Delridge	76785	W Seattle	47700
		Delridge	31016
White Center/Boulevard Pk	55972	White Center/Boulvd Pk	29609

Health Planning Areas by Block Group (in alphabetical order by abbreviation)

Abbreviation	Full HPA Name
Auburn	Auburn
Ballard	Ballard
Beacon/G'town/S.Park	Beacon Hill-Georgetown-South Park
Bellevue	Bellevue
Bothell-North Shore	Bothell-North Shore
Burien	Burien
Cap. Hill-Eastlake	Capitol Hill-Eastlake
Cascade-Fairwood	Cascade-Fairwood
Central Seattle	Central Seattle
Covington-Maple Valley	Covington-Maple Valley
Delridge	Delridge
Des Moines-Normandy Pk	Des Moines-Normandy Park
Downtown/First Hill	Downtown/First Hill
Federal Way	Federal Way
Fremont/Greenlake	Fremont/Greenlake
Issaquah/Sammamish	Issaquah/Sammamish
Kent	Kent
Kirkland	Kirkland
Mercer Isle/Pt Cities	Mercer Island/Point Cities (Yarrow Bay, Hunts Point)
NE Seattle	Northeast Seattle
North Seattle	North Seattle
NW Seattle	Northwest Seattle
Queen Anne/Magnolia	Queen Anne/Magnolia
Redmond/Union Hill	Redmond/Union Hill
Renton	Renton
Riverview/Lower Valley	Riverview/Lower Valley
SE County	Southeast County
SE Seattle	Southeast Seattle
Shoreline	Shoreline
Tukwila/SeaTac	Tukwila/SeaTac
Upper Snoqualmie Valley	Upper Snoqualmie Valley
Vashon Island	Vashon Island
W Seattle	West Seattle
White Center/Blvd Pk	White Center/Boulevard Park

Health Planning Areas by Zip Code (in alphabetical order by abbreviation)

Abbreviation	Full HPA Name
Auburn	Auburn
Ball-Fremt-Greenlk	Ballard-Fremont-Greenlake
Beacon/SE Seattle	Beacon Hill-Georgetown-South Park-Southeast Seattle
Bellevue	Bellevue
Bothell/Woodinville	Bothell-North Shore-Woodinville
Burien/Des Moines	Burien-Des Moines-Normandy Park
Capitol Hill/Eastlake	Capitol Hill-Eastlake
Cascade/Covington	Cascade-Fairwood-Covington-Maple Valley
Downtown/Central	Downtown-Central Seattle
Federal Way	Federal Way
Issaquah/Sammamish	Issaquah/Sammamish
Kent	Kent
Kirkland	Kirkland
Lower Valley/Upper Sno	Lower Valley-Riverview-Upper Snoqualmie
Mercer Isle/Point Cities	Mercer Island-Point Cities (Yarrow Bay, Hunts Point)
N. Seattle/Shoreline	North Seattle-Shoreline
NE Seattle	Northeast Seattle
Queen Anne/Magnolia	Queen Anne-Magnolia
Redmond/Union Hill	Redmond-Union Hill
Renton	Renton
Southeast King County	Southeast King County
Tukwila/SeaTac	Tukwila-Sea Tac
Vashon Island	Vashon Island
W. Seattle/Delridge	West Seattle-Delridge
White Center/Blvd Pk	White Center-Boulevard Park

Health Planning Areas in Seattle (block group based):

	King County			Seattle			Ballard		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			579392			44876		
Age 0-17 (%)	21.8%			15.2%			14.6%		
Age 65+ (%)	10.5%			12.1%			13.2%		
White (%)	80.0%			73.9%			92.1%		
Black (%)	6.3%			9.7%			2.1%		
American Indian/Alaska Native (%)	1.0%			1.1%			1.1%		
Asian/PI (%)	12.7%			15.2%			4.7%		
Hispanic (%)	6.0%			5.8%			4.4%		
2000 Census Data									
Percent below poverty	8.4%			11.8%			6.6%		
Percent below 200% poverty	19.6%			25.0%			17.2%		
Percent Foreign Born	15.4%			16.9%			9.2%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		78.8	[80.0, 80.5]		81.7	[80.8, 82.5]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		31.2	[32.4, 32.8]		33.6	[32.9, 34.3]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	4.3	[3.4, 5.4]	81	3.7	[1.4, 7.9]	6
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	6.4	[6.0, 6.8]	1184	5.1	[4.1, 6.3]	82
Very Low Birth Weight (% < 1500 g)	1.0	[0.9, 1.0]	630	1.1	[0.9, 1.2]	201	0.8	[0.4, 1.4]	13
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	12.1	[11.6, 12.7]	2254	9.4	[8.0, 11.0]	152
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	11.6	[10.2, 13.2]	240	3.4	[1.1, 7.7]	5
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	166.4	[160.6, 172.5]	3185	166.8	[147.0, 189.5]	274
Cancer	177.9	[174.1, 181.7]	8559	173.3	[167.1, 179.7]	3051	165.1	[144.4, 188.7]	245
Lung Cancer	49.1	[47.1, 51.2]	2319	46.1	[42.8, 49.5]	783	49.7	[38.3, 64.2]	69
Colorectal Cancer	16.1	[15.0, 17.3]	777	15.5	[13.7, 17.5]	278	14.0	[8.7, 22.5]	23
Female Breast Cancer	23.8	[22.0, 25.7]	659	21.6	[18.8, 24.9]	219	19.1	[10.8, 34.0]	17
Stroke	59.7	[57.6, 61.9]	2910	54.1	[50.9, 57.5]	1076	50.5	[40.1, 63.7]	88
Diabetes	21.6	[20.3, 23.0]	1040	23.6	[21.4, 26.1]	414	10.2	[5.7, 18.1]	16
Diabetes-Related	60.1	[57.9, 62.4]	2873	60.1	[56.5, 63.9]	1070	39.9	[30.3, 52.5]	62
CLRD	36.2	[34.5, 38.0]	1716	34.0	[31.3, 36.9]	623	34.2	[25.2, 46.4]	51
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	9.5	[8.1, 11.2]	165	6.0	[2.7, 12.8]	9
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	4.5	[3.6, 5.7]	85	3.7	[1.1, 10.2]	5
Suicide deaths	10.5	[9.7, 11.5]	579	10.1	[8.7, 11.7]	187	10.1	[5.5, 18.0]	16
Firearm-related deaths	7.4	[6.8, 8.0]	663	7.01	[6.1, 8.1]	217	8.31	[5.0, 13.7]	20
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	6.4	[5.3, 7.7]	119	8.7	[4.3, 16.6]	12
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	7.6	[6.6, 8.7]	231	2.3	[0.8, 5.9]	6
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	15.5	[13.8, 17.4]	314	12.1	[7.3, 20.2]	20
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	11.2	[9.6, 12.9]	194	8.7	[4.6, 16.3]	13
Drug-induced deaths	9.7	[8.9, 10.6]	558	13.6	[12.0, 15.5]	258	7.8	[4.1, 15.0]	13

Health Planning Areas in Seattle (block group based):

	King County			Seattle			Beacon/G'town/S.Park		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			579392			37200		
Age 0-17 (%)	21.8%			15.2%			23.3%		
Age 65+ (%)	10.5%			12.1%			12.4%		
White (%)	80.0%			73.9%			31.2%		
Black (%)	6.3%			9.7%			18.1%		
American Indian/Alaska Native (%)	1.0%			1.1%			1.5%		
Asian/PI (%)	12.7%			15.2%			49.3%		
Hispanic (%)	6.0%			5.8%			11.3%		
2000 Census Data									
Percent below poverty	8.4%			11.8%			15.3%		
Percent below 200% poverty	19.6%			25.0%			36.0%		
Percent Foreign Born	15.4%			16.9%			41.4%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		78.8	[80.0, 80.5]		79.5	[78.6, 80.4]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		31.2	[32.4, 32.8]		32.2	[31.5, 32.9]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	4.3	[3.4, 5.4]	81	6.8	[3.3, 12.4]	10
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	6.4	[6.0, 6.8]	1184	7.4	[6.0, 8.9]	106
Very Low Birth Weight (% < 1500 g)	1.0	[0.9, 1.0]	630	1.1	[0.9, 1.2]	201	0.6	[0.3, 1.2]	9
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	12.1	[11.6, 12.7]	2254	13.5	[11.7, 15.5]	194
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	11.6	[10.2, 13.2]	240	22.2	[16.3, 29.5]	47
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	166.4	[160.6, 172.5]	3185	165.8	[142.3, 192.2]	178
Cancer	177.9	[174.1, 181.7]	8559	173.3	[167.1, 179.7]	3051	191.9	[166.9, 219.7]	212
Lung Cancer	49.1	[47.1, 51.2]	2319	46.1	[42.8, 49.5]	783	55.1	[42.1, 70.9]	61
Colorectal Cancer	16.1	[15.0, 17.3]	777	15.5	[13.7, 17.5]	278	22.1	[14.1, 33.0]	24
Female Breast Cancer	23.8	[22.0, 25.7]	659	21.6	[18.8, 24.9]	219	25.5	[14.2, 42.7]	15
Stroke	59.7	[57.6, 61.9]	2910	54.1	[50.9, 57.5]	1076	68.1	[53.4, 85.8]	73
Diabetes	21.6	[20.3, 23.0]	1040	23.6	[21.4, 26.1]	414	49.5	[37.1, 64.9]	53
Diabetes-Related	60.1	[57.9, 62.4]	2873	60.1	[56.5, 63.9]	1070	103.1	[84.8, 124.2]	111
CLRD	36.2	[34.5, 38.0]	1716	34.0	[31.3, 36.9]	623	22.5	[14.4, 33.6]	24
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	9.5	[8.1, 11.2]	165	8.9	[4.3, 16.6]	10
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	4.5	[3.6, 5.7]	85	6.8	[2.9, 13.6]	8
Suicide deaths	10.5	[9.7, 11.5]	579	10.1	[8.7, 11.7]	187	7.2	[3.1, 14.4]	8
Firearm-related deaths	7.4	[6.8, 8.0]	663	7.01	[6.1, 8.1]	217	8.01	[4.5, 13.4]	15
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	6.4	[5.3, 7.7]	119	10.7	[5.5, 18.9]	12
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	7.6	[6.6, 8.7]	231	6.0	[3.0, 10.8]	11
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	15.5	[13.8, 17.4]	314	20.0	[12.4, 30.7]	21
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	11.2	[9.6, 12.9]	194	9.8	[4.9, 17.7]	11
Drug-induced deaths	9.7	[8.9, 10.6]	558	13.6	[12.0, 15.5]	258	8.9	[4.3, 16.7]	10

Health Planning Areas in Seattle (block group based):

	King County			Seattle			Capitol Hill		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			579392			41351		
Age 0-17 (%)	21.8%			15.2%			9.1%		
Age 65+ (%)	10.5%			12.1%			9.3%		
White (%)	80.0%			73.9%			87.1%		
Black (%)	6.3%			9.7%			5.9%		
American Indian/Alaska Native (%)	1.0%			1.1%			0.8%		
Asian/PI (%)	12.7%			15.2%			6.3%		
Hispanic (%)	6.0%			5.8%			4.0%		
2000 Census Data									
Percent below poverty	8.4%			11.8%			10.1%		
Percent below 200% poverty	19.6%			25.0%			22.3%		
Percent Foreign Born	15.4%			16.9%			10.2%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		78.8	[80.0, 80.5]		82.3	[81.3, 83.3]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		31.2	[32.4, 32.8]		34.8	[34.0, 35.6]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	4.3	[3.4, 5.4]	81	NA		<5
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	6.4	[6.0, 6.8]	1184	5.9	[4.4, 7.8]	50
Very Low Birth Weight (% < 1500 g)	1.0	[0.9, 1.0]	630	1.1	[0.9, 1.2]	201	1.1	[0.5, 2.0]	9
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	12.1	[11.6, 12.7]	2254	10.9	[8.8, 13.4]	92
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	11.6	[10.2, 13.2]	240	9.2	[4.0, 18.1]	8
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	166.4	[160.6, 172.5]	3185	139.7	[117.9, 166.2]	152
Cancer	177.9	[174.1, 181.7]	8559	173.3	[167.1, 179.7]	3051	137.2	[115.0, 164.4]	139
Lung Cancer	49.1	[47.1, 51.2]	2319	46.1	[42.8, 49.5]	783	43.8	[31.5, 61.4]	43
Colorectal Cancer	16.1	[15.0, 17.3]	777	15.5	[13.7, 17.5]	278	7.6	[3.2, 18.4]	8
Female Breast Cancer	23.8	[22.0, 25.7]	659	21.6	[18.8, 24.9]	219	19.5	[9.5, 41.5]	11
Stroke	59.7	[57.6, 61.9]	2910	54.1	[50.9, 57.5]	1076	52.7	[39.6, 71.1]	56
Diabetes	21.6	[20.3, 23.0]	1040	23.6	[21.4, 26.1]	414	15.5	[8.5, 28.3]	15
Diabetes-Related	60.1	[57.9, 62.4]	2873	60.1	[56.5, 63.9]	1070	36.6	[25.5, 53.1]	37
CLRD	36.2	[34.5, 38.0]	1716	34.0	[31.3, 36.9]	623	23.5	[14.9, 37.7]	24
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	9.5	[8.1, 11.2]	165	7.9	[3.8, 18.3]	10
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	4.5	[3.6, 5.7]	85	NA		<5
Suicide deaths	10.5	[9.7, 11.5]	579	10.1	[8.7, 11.7]	187	16.1	[9.1, 29.0]	20
Firearm-related deaths	7.4	[6.8, 8.0]	663	7.01	[6.1, 8.1]	217	7.07	[3.9, 13.8]	15
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	6.4	[5.3, 7.7]	119	5.6	[2.2, 15.7]	7
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	7.6	[6.6, 8.7]	231	16.1	[11.2, 24.2]	37
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	15.5	[13.8, 17.4]	314	10.3	[5.3, 21.4]	12
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	11.2	[9.6, 12.9]	194	7.9	[3.8, 18.3]	10
Drug-induced deaths	9.7	[8.9, 10.6]	558	13.6	[12.0, 15.5]	258	16.2	[10.0, 28.0]	22

Health Planning Areas in Seattle (block group based):

	King County			Seattle			Central Seattle		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			579392			39942		
Age 0-17 (%)	21.8%			15.2%			18.1%		
Age 65+ (%)	10.5%			12.1%			12.3%		
White (%)	80.0%			73.9%			51.2%		
Black (%)	6.3%			9.7%			31.5%		
American Indian/Alaska Native (%)	1.0%			1.1%			1.1%		
Asian/PI (%)	12.7%			15.2%			16.2%		
Hispanic (%)	6.0%			5.8%			8.6%		
2000 Census Data									
Percent below poverty	8.4%			11.8%			17.1%		
Percent below 200% poverty	19.6%			25.0%			34.0%		
Percent Foreign Born	15.4%			16.9%			18.8%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		78.8	[80.0, 80.5]		76.8	[75.8, 77.8]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		31.2	[32.4, 32.8]		30.7	[29.9, 31.5]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	4.3	[3.4, 5.4]	81	8.9	[4.8, 15.2]	13
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	6.4	[6.0, 6.8]	1184	8.3	[6.9, 9.9]	119
Very Low Birth Weight (% < 1500 g)	1.0	[0.9, 1.0]	630	1.1	[0.9, 1.2]	201	1.7	[1.1, 2.6]	25
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	12.1	[11.6, 12.7]	2254	13.4	[11.6, 15.4]	191
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	11.6	[10.2, 13.2]	240	13.2	[8.5, 19.5]	25
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	166.4	[160.6, 172.5]	3185	177.8	[154.9, 203.6]	220
Cancer	177.9	[174.1, 181.7]	8559	173.3	[167.1, 179.7]	3051	207.3	[181.9, 235.6]	244
Lung Cancer	49.1	[47.1, 51.2]	2319	46.1	[42.8, 49.5]	783	66.3	[52.2, 83.6]	76
Colorectal Cancer	16.1	[15.0, 17.3]	777	15.5	[13.7, 17.5]	278	21.8	[14.2, 32.6]	26
Female Breast Cancer	23.8	[22.0, 25.7]	659	21.6	[18.8, 24.9]	219	22.2	[12.5, 38.4]	16
Stroke	59.7	[57.6, 61.9]	2910	54.1	[50.9, 57.5]	1076	61.2	[48.3, 77.1]	78
Diabetes	21.6	[20.3, 23.0]	1040	23.6	[21.4, 26.1]	414	38.1	[27.7, 51.6]	45
Diabetes-Related	60.1	[57.9, 62.4]	2873	60.1	[56.5, 63.9]	1070	102.2	[84.7, 122.7]	121
CLRD	36.2	[34.5, 38.0]	1716	34.0	[31.3, 36.9]	623	36.5	[26.5, 49.7]	44
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	9.5	[8.1, 11.2]	165	11.1	[5.9, 19.6]	13
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	4.5	[3.6, 5.7]	85	9.2	[4.7, 17.0]	12
Suicide deaths	10.5	[9.7, 11.5]	579	10.1	[8.7, 11.7]	187	11.7	[6.4, 20.4]	14
Firearm-related deaths	7.4	[6.8, 8.0]	663	7.01	[6.1, 8.1]	217	13.32	[8.7, 19.8]	27
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	6.4	[5.3, 7.7]	119	9.9	[5.0, 18.2]	12
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	7.6	[6.6, 8.7]	231	20.5	[14.8, 28.0]	43
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	15.5	[13.8, 17.4]	314	17.5	[11.0, 27.1]	23
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	11.2	[9.6, 12.9]	194	11.8	[6.4, 20.4]	14
Drug-induced deaths	9.7	[8.9, 10.6]	558	13.6	[12.0, 15.5]	258	21.6	[14.3, 32.1]	28

Health Planning Areas in Seattle (block group based):

	King County			Seattle			Downtown/First Hill		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			579392			38108		
Age 0-17 (%)	21.8%			15.2%			4.8%		
Age 65+ (%)	10.5%			12.1%			13.3%		
White (%)	80.0%			73.9%			68.1%		
Black (%)	6.3%			9.7%			14.5%		
American Indian/Alaska Native (%)	1.0%			1.1%			2.1%		
Asian/PI (%)	12.7%			15.2%			15.4%		
Hispanic (%)	6.0%			5.8%			6.6%		
2000 Census Data									
Percent below poverty	8.4%			11.8%			28.5%		
Percent below 200% poverty	19.6%			25.0%			45.9%		
Percent Foreign Born	15.4%			16.9%			19.0%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		78.8	[80.0, 80.5]		75.5	[74.3, 76.8]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		31.2	[32.4, 32.8]		30.0	[29.2, 30.8]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	4.3	[3.4, 5.4]	81	NA		<5
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	6.4	[6.0, 6.8]	1184	7.9	[5.7, 10.7]	41
Very Low Birth Weight (% < 1500 g)	1.0	[0.9, 1.0]	630	1.1	[0.9, 1.2]	201	1.2	[0.4, 2.5]	6
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	12.1	[11.6, 12.7]	2254	15.2	[12.1, 18.9]	80
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	11.6	[10.2, 13.2]	240	21.2	[11.0, 37.0]	12
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	166.4	[160.6, 172.5]	3185	214.0	[188.9, 249.4]	289
Cancer	177.9	[174.1, 181.7]	8559	173.3	[167.1, 179.7]	3051	195.3	[170.7, 230.2]	241
Lung Cancer	49.1	[47.1, 51.2]	2319	46.1	[42.8, 49.5]	783	51.0	[38.7, 76.0]	60
Colorectal Cancer	16.1	[15.0, 17.3]	777	15.5	[13.7, 17.5]	278	18.1	[11.4, 39.8]	24
Female Breast Cancer	23.8	[22.0, 25.7]	659	21.6	[18.8, 24.9]	219	17.2	[8.0, 58.3]	11
Stroke	59.7	[57.6, 61.9]	2910	54.1	[50.9, 57.5]	1076	50.4	[39.7, 73.9]	81
Diabetes	21.6	[20.3, 23.0]	1040	23.6	[21.4, 26.1]	414	23.3	[15.5, 45.6]	30
Diabetes-Related	60.1	[57.9, 62.4]	2873	60.1	[56.5, 63.9]	1070	66.2	[52.4, 92.1]	83
CLRD	36.2	[34.5, 38.0]	1716	34.0	[31.3, 36.9]	623	48.8	[36.9, 73.4]	60
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	9.5	[8.1, 11.2]	165	22.9	[15.0, 45.3]	26
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	4.5	[3.6, 5.7]	85	6.6	[2.9, 27.9]	9
Suicide deaths	10.5	[9.7, 11.5]	579	10.1	[8.7, 11.7]	187	22.2	[10.7, 48.8]	23
Firearm-related deaths	7.4	[6.8, 8.0]	663	7.01	[6.1, 8.1]	217	5.01	[2.5, 17.9]	11
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	6.4	[5.3, 7.7]	119	13.7	[4.0, 40.3]	11
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	7.6	[6.6, 8.7]	231	27.2	[20.5, 41.8]	55
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	15.5	[13.8, 17.4]	314	18.5	[12.1, 39.9]	29
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	11.2	[9.6, 12.9]	194	33.6	[23.7, 56.9]	38
Drug-induced deaths	9.7	[8.9, 10.6]	558	13.6	[12.0, 15.5]	258	51.8	[39.8, 76.4]	65

Health Planning Areas in Seattle (block group based):

	King County			Seattle			Fremont/Greenlake		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			579392			41098		
Age 0-17 (%)	21.8%			15.2%			11.2%		
Age 65+ (%)	10.5%			12.1%			8.5%		
White (%)	80.0%			73.9%			91.1%		
Black (%)	6.3%			9.7%			2.0%		
American Indian/Alaska Native (%)	1.0%			1.1%			0.8%		
Asian/PI (%)	12.7%			15.2%			6.1%		
Hispanic (%)	6.0%			5.8%			3.6%		
2000 Census Data									
Percent below poverty	8.4%			11.8%			7.7%		
Percent below 200% poverty	19.6%			25.0%			18.4%		
Percent Foreign Born	15.4%			16.9%			8.2%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		78.8	[80.0, 80.5]		81.3	[80.5, 82.2]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		31.2	[32.4, 32.8]		32.7	[31.8, 33.5]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	4.3	[3.4, 5.4]	81	NA		<5
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	6.4	[6.0, 6.8]	1184	4.4	[3.4, 5.6]	63
Very Low Birth Weight (% < 1500 g)	1.0	[0.9, 1.0]	630	1.1	[0.9, 1.2]	201	0.8	[0.4, 1.5]	12
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	12.1	[11.6, 12.7]	2254	9.1	[7.6, 10.8]	131
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	11.6	[10.2, 13.2]	240	NA		<5
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	166.4	[160.6, 172.5]	3185	168.2	[143.7, 197.0]	188
Cancer	177.9	[174.1, 181.7]	8559	173.3	[167.1, 179.7]	3051	156.3	[131.7, 185.2]	161
Lung Cancer	49.1	[47.1, 51.2]	2319	46.1	[42.8, 49.5]	783	38.2	[26.3, 55.0]	36
Colorectal Cancer	16.1	[15.0, 17.3]	777	15.5	[13.7, 17.5]	278	20.8	[12.1, 34.6]	20
Female Breast Cancer	23.8	[22.0, 25.7]	659	21.6	[18.8, 24.9]	219	27.9	[16.5, 48.7]	19
Stroke	59.7	[57.6, 61.9]	2910	54.1	[50.9, 57.5]	1076	64.8	[50.1, 83.8]	73
Diabetes	21.6	[20.3, 23.0]	1040	23.6	[21.4, 26.1]	414	31.7	[20.5, 47.9]	28
Diabetes-Related	60.1	[57.9, 62.4]	2873	60.1	[56.5, 63.9]	1070	62.3	[46.3, 83.0]	57
CLRD	36.2	[34.5, 38.0]	1716	34.0	[31.3, 36.9]	623	17.5	[10.4, 29.5]	20
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	9.5	[8.1, 11.2]	165	5.8	[2.2, 15.0]	7
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	4.5	[3.6, 5.7]	85	NA		<5
Suicide deaths	10.5	[9.7, 11.5]	579	10.1	[8.7, 11.7]	187	13.4	[7.5, 24.3]	17
Firearm-related deaths	7.4	[6.8, 8.0]	663	7.01	[6.1, 8.1]	217	7.42	[4.0, 13.8]	16
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	6.4	[5.3, 7.7]	119	5.5	[1.9, 14.7]	7
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	7.6	[6.6, 8.7]	231	3.6	[1.5, 8.7]	8
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	15.5	[13.8, 17.4]	314	20.9	[13.3, 33.1]	25
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	11.2	[9.6, 12.9]	194	7.0	[2.9, 16.5]	8
Drug-induced deaths	9.7	[8.9, 10.6]	558	13.6	[12.0, 15.5]	258	8.0	[3.9, 17.3]	11

Health Planning Areas in Seattle (block group based):

	King County			Seattle			Northeast Seattle		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			579392			72605		
Age 0-17 (%)	21.8%			15.2%			13.5%		
Age 65+ (%)	10.5%			12.1%			10.4%		
White (%)	80.0%			73.9%			83.7%		
Black (%)	6.3%			9.7%			2.5%		
American Indian/Alaska Native (%)	1.0%			1.1%			0.6%		
Asian/PI (%)	12.7%			15.2%			13.2%		
Hispanic (%)	6.0%			5.8%			3.6%		
2000 Census Data									
Percent below poverty	8.4%			11.8%			13.9%		
Percent below 200% poverty	19.6%			25.0%			26.1%		
Percent Foreign Born	15.4%			16.9%			13.8%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		78.8	[80.0, 80.5]		83.8	[83.1, 84.5]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		31.2	[32.4, 32.8]		35.4	[34.8, 35.9]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	4.3	[3.4, 5.4]	81	4.2	[1.9, 8.0]	6
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	6.4	[6.0, 6.8]	1184	6.4	[5.3, 7.5]	80
Very Low Birth Weight (% < 1500 g)	1.0	[0.9, 1.0]	630	1.1	[0.9, 1.2]	201	0.8	[0.5, 1.3]	14
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	12.1	[11.6, 12.7]	2254	11.7	[10.2, 13.2]	184
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	11.6	[10.2, 13.2]	240	2.7	[1.0, 5.8]	12
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	166.4	[160.6, 172.5]	3185	126.9	[125.2, 163.8]	257
Cancer	177.9	[174.1, 181.7]	8559	173.3	[167.1, 179.7]	3051	164.7	[154.4, 200.1]	309
Lung Cancer	49.1	[47.1, 51.2]	2319	46.1	[42.8, 49.5]	783	38.6	[26.1, 47.5]	72
Colorectal Cancer	16.1	[15.0, 17.3]	777	15.5	[13.7, 17.5]	278	12.5	[11.5, 28.0]	24
Female Breast Cancer	23.8	[22.0, 25.7]	659	21.6	[18.8, 24.9]	219	25.8	[8.9, 31.9]	27
Stroke	59.7	[57.6, 61.9]	2910	54.1	[50.9, 57.5]	1076	41.0	[41.3, 65.6]	83
Diabetes	21.6	[20.3, 23.0]	1040	23.6	[21.4, 26.1]	414	11.9	[8.5, 23.2]	21
Diabetes-Related	60.1	[57.9, 62.4]	2873	60.1	[56.5, 63.9]	1070	28.8	[30.3, 53.3]	53
CLRD	36.2	[34.5, 38.0]	1716	34.0	[31.3, 36.9]	623	19.1	[19.8, 38.6]	38
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	9.5	[8.1, 11.2]	165	2.9	[8.0, 23.2]	5
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	4.5	[3.6, 5.7]	85	NA		<5
Suicide deaths	10.5	[9.7, 11.5]	579	10.1	[8.7, 11.7]	187	6.2	[4.0, 16.5]	14
Firearm-related deaths	7.4	[6.8, 8.0]	663	7.01	[6.1, 8.1]	217	5.05	[3.8, 12.3]	18
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	6.4	[5.3, 7.7]	119	3.3	[2.2, 11.9]	8
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	7.6	[6.6, 8.7]	231	2.0	[0.7, 4.7]	11
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	15.5	[13.8, 17.4]	314	15.9	[10.3, 24.7]	22
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	11.2	[9.6, 12.9]	194	4.6	[2.0, 9.7]	17
Drug-induced deaths	9.7	[8.9, 10.6]	558	13.6	[12.0, 15.5]	258	7.6	[4.3, 13.3]	15

Health Planning Areas in Seattle (block group based):

	King County			Seattle			North Seattle		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			579392			41601		
Age 0-17 (%)	21.8%			15.2%			15.7%		
Age 65+ (%)	10.5%			12.1%			14.4%		
White (%)	80.0%			73.9%			76.9%		
Black (%)	6.3%			9.7%			5.9%		
American Indian/Alaska Native (%)	1.0%			1.1%			1.0%		
Asian/PI (%)	12.7%			15.2%			16.2%		
Hispanic (%)	6.0%			5.8%			6.1%		
2000 Census Data									
Percent below poverty	8.4%			11.8%			11.5%		
Percent below 200% poverty	19.6%			25.0%			23.9%		
Percent Foreign Born	15.4%			16.9%			19.4%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		78.8	[80.0, 80.5]		81.7	[80.8, 82.6]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		31.2	[32.4, 32.8]		34.3	[33.6, 35.0]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	4.3	[3.4, 5.4]	81	4.1	[1.5, 8.8]	9
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	6.4	[6.0, 6.8]	1184	5.6	[4.4, 6.9]	133
Very Low Birth Weight (% < 1500 g)	1.0	[0.9, 1.0]	630	1.1	[0.9, 1.2]	201	1.0	[0.5, 1.6]	17
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	12.1	[11.6, 12.7]	2254	12.7	[11.0, 14.7]	244
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	11.6	[10.2, 13.2]	240	7.5	[3.9, 13.1]	6
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	166.4	[160.6, 172.5]	3185	143.1	[111.7, 144.0]	245
Cancer	177.9	[174.1, 181.7]	8559	173.3	[167.1, 179.7]	3051	175.8	[146.6, 184.8]	261
Lung Cancer	49.1	[47.1, 51.2]	2319	46.1	[42.8, 49.5]	783	35.2	[30.1, 49.2]	52
Colorectal Cancer	16.1	[15.0, 17.3]	777	15.5	[13.7, 17.5]	278	18.0	[8.0, 19.3]	26
Female Breast Cancer	23.8	[22.0, 25.7]	659	21.6	[18.8, 24.9]	219	16.8	[16.9, 39.1]	14
Stroke	59.7	[57.6, 61.9]	2910	54.1	[50.9, 57.5]	1076	52.0	[32.6, 51.4]	87
Diabetes	21.6	[20.3, 23.0]	1040	23.6	[21.4, 26.1]	414	14.1	[7.3, 18.9]	20
Diabetes-Related	60.1	[57.9, 62.4]	2873	60.1	[56.5, 63.9]	1070	40.2	[21.5, 38.2]	59
CLRD	36.2	[34.5, 38.0]	1716	34.0	[31.3, 36.9]	623	27.6	[13.5, 26.8]	43
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	9.5	[8.1, 11.2]	165	13.9	[0.9, 7.6]	17
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	4.5	[3.6, 5.7]	85	5.2	[0.5, 6.2]	7
Suicide deaths	10.5	[9.7, 11.5]	579	10.1	[8.7, 11.7]	187	8.4	[3.3, 11.4]	10
Firearm-related deaths	7.4	[6.8, 8.0]	663	7.01	[6.1, 8.1]	217	6.96	[2.9, 8.6]	14
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	6.4	[5.3, 7.7]	119	5.2	[1.4, 7.7]	8
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	7.6	[6.6, 8.7]	231	5.0	[2.5, 9.7]	6
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	15.5	[13.8, 17.4]	314	10.6	[6.7, 16.8]	27
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	11.2	[9.6, 12.9]	194	13.8	[8.0, 23.1]	8
Drug-induced deaths	9.7	[8.9, 10.6]	558	13.6	[12.0, 15.5]	258	11.4	[6.4, 20.0]	18

Health Planning Areas in Seattle (block group based):

	King County			Seattle			Northwest Seattle		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			579392			41916		
Age 0-17 (%)	21.8%			15.2%			15.0%		
Age 65+ (%)	10.5%			12.1%			15.0%		
White (%)	80.0%			73.9%			79.4%		
Black (%)	6.3%			9.7%			5.6%		
American Indian/Alaska Native (%)	1.0%			1.1%			1.5%		
Asian/PI (%)	12.7%			15.2%			13.4%		
Hispanic (%)	6.0%			5.8%			6.2%		
2000 Census Data									
Percent below poverty	8.4%			11.8%			11.5%		
Percent below 200% poverty	19.6%			25.0%			26.1%		
Percent Foreign Born	15.4%			16.9%			19.1%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		78.8	[80.0, 80.5]		78.7	[77.9, 79.5]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		31.2	[32.4, 32.8]		30.7	[30.0, 31.4]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	4.3	[3.4, 5.4]	81	NA		<5
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	6.4	[6.0, 6.8]	1184	5.8	[4.6, 7.2]	79
Very Low Birth Weight (% < 1500 g)	1.0	[0.9, 1.0]	630	1.1	[0.9, 1.2]	201	1.3	[0.8, 2.1]	18
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	12.1	[11.6, 12.7]	2254	13.3	[11.5, 15.4]	181
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	11.6	[10.2, 13.2]	240	10.3	[5.8, 17.0]	15
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	166.4	[160.6, 172.5]	3185	191.8	[171.2, 215.2]	337
Cancer	177.9	[174.1, 181.7]	8559	173.3	[167.1, 179.7]	3051	187.0	[165.0, 212.0]	278
Lung Cancer	49.1	[47.1, 51.2]	2319	46.1	[42.8, 49.5]	783	53.5	[41.8, 68.3]	76
Colorectal Cancer	16.1	[15.0, 17.3]	777	15.5	[13.7, 17.5]	278	13.6	[8.2, 22.4]	21
Female Breast Cancer	23.8	[22.0, 25.7]	659	21.6	[18.8, 24.9]	219	18.2	[10.0, 33.6]	16
Stroke	59.7	[57.6, 61.9]	2910	54.1	[50.9, 57.5]	1076	58.1	[47.5, 71.4]	112
Diabetes	21.6	[20.3, 23.0]	1040	23.6	[21.4, 26.1]	414	23.5	[16.4, 33.8]	38
Diabetes-Related	60.1	[57.9, 62.4]	2873	60.1	[56.5, 63.9]	1070	57.8	[46.2, 72.5]	92
CLRD	36.2	[34.5, 38.0]	1716	34.0	[31.3, 36.9]	623	42.9	[33.2, 55.7]	71
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	9.5	[8.1, 11.2]	165	7.1	[3.3, 14.6]	10
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	4.5	[3.6, 5.7]	85	4.6	[1.6, 11.5]	6
Suicide deaths	10.5	[9.7, 11.5]	579	10.1	[8.7, 11.7]	187	10.6	[5.9, 18.7]	16
Firearm-related deaths	7.4	[6.8, 8.0]	663	7.01	[6.1, 8.1]	217	5.65	[3.0, 10.5]	13
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	6.4	[5.3, 7.7]	119	6.6	[2.7, 14.5]	8
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	7.6	[6.6, 8.7]	231	5.7	[3.0, 10.7]	12
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	15.5	[13.8, 17.4]	314	19.8	[13.5, 29.4]	34
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	11.2	[9.6, 12.9]	194	8.3	[4.1, 16.2]	11
Drug-induced deaths	9.7	[8.9, 10.6]	558	13.6	[12.0, 15.5]	258	11.5	[6.6, 20.1]	16

Health Planning Areas in Seattle (block group based):

	King County			Seattle			Queen Anne/Magnolia		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			579392			54562		
Age 0-17 (%)	21.8%			15.2%			11.1%		
Age 65+ (%)	10.5%			12.1%			12.3%		
White (%)	80.0%			73.9%			90.4%		
Black (%)	6.3%			9.7%			2.4%		
American Indian/Alaska Native (%)	1.0%			1.1%			0.7%		
Asian/PI (%)	12.7%			15.2%			6.4%		
Hispanic (%)	6.0%			5.8%			3.6%		
2000 Census Data									
Percent below poverty	8.4%			11.8%			6.0%		
Percent below 200% poverty	19.6%			25.0%			14.7%		
Percent Foreign Born	15.4%			16.9%			10.2%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		78.8	[80.0, 80.5]		82.2	[81.4, 82.9]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		31.2	[32.4, 32.8]		34.0	[33.4, 34.6]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	4.3	[3.4, 5.4]	81	NA		<5
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	6.4	[6.0, 6.8]	1184	5.6	[4.5, 6.9]	85
Very Low Birth Weight (% < 1500 g)	1.0	[0.9, 1.0]	630	1.1	[0.9, 1.2]	201	0.8	[0.4, 1.4]	12
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	12.1	[11.6, 12.7]	2254	10.8	[9.2, 12.5]	165
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	11.6	[10.2, 13.2]	240	NA		<5
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	166.4	[160.6, 172.5]	3185	149.2	[131.7, 169.5]	280
Cancer	177.9	[174.1, 181.7]	8559	173.3	[167.1, 179.7]	3051	164.5	[145.5, 186.4]	283
Lung Cancer	49.1	[47.1, 51.2]	2319	46.1	[42.8, 49.5]	783	40.3	[31.0, 52.7]	66
Colorectal Cancer	16.1	[15.0, 17.3]	777	15.5	[13.7, 17.5]	278	11.8	[7.1, 20.0]	20
Female Breast Cancer	23.8	[22.0, 25.7]	659	21.6	[18.8, 24.9]	219	25.5	[16.2, 41.7]	25
Stroke	59.7	[57.6, 61.9]	2910	54.1	[50.9, 57.5]	1076	49.1	[39.9, 61.3]	101
Diabetes	21.6	[20.3, 23.0]	1040	23.6	[21.4, 26.1]	414	19.5	[13.4, 28.9]	34
Diabetes-Related	60.1	[57.9, 62.4]	2873	60.1	[56.5, 63.9]	1070	45.4	[35.7, 58.2]	79
CLRD	36.2	[34.5, 38.0]	1716	34.0	[31.3, 36.9]	623	33.2	[25.2, 44.3]	61
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	9.5	[8.1, 11.2]	165	10.2	[5.9, 18.0]	17
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	4.5	[3.6, 5.7]	85	NA		<5
Suicide deaths	10.5	[9.7, 11.5]	579	10.1	[8.7, 11.7]	187	8.2	[4.5, 15.4]	15
Firearm-related deaths	7.4	[6.8, 8.0]	663	7.01	[6.1, 8.1]	217	2.91	[1.4, 6.7]	10
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	6.4	[5.3, 7.7]	119	6.0	[3.1, 12.6]	12
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	7.6	[6.6, 8.7]	231	5.1	[2.8, 9.5]	14
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	15.5	[13.8, 17.4]	314	14.6	[9.7, 22.6]	30
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	11.2	[9.6, 12.9]	194	13.8	[8.7, 22.2]	23
Drug-induced deaths	9.7	[8.9, 10.6]	558	13.6	[12.0, 15.5]	258	9.9	[5.9, 17.4]	19

Health Planning Areas in Seattle (block group based):

	King County			Seattle			Southeast Seattle		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			579392			45407		
Age 0-17 (%)	21.8%			15.2%			24.5%		
Age 65+ (%)	10.5%			12.1%			12.1%		
White (%)	80.0%			73.9%			36.2%		
Black (%)	6.3%			9.7%			29.6%		
American Indian/Alaska Native (%)	1.0%			1.1%			1.1%		
Asian/PI (%)	12.7%			15.2%			33.2%		
Hispanic (%)	6.0%			5.8%			7.0%		
2000 Census Data									
Percent below poverty	8.4%			11.8%			12.3%		
Percent below 200% poverty	19.6%			25.0%			29.0%		
Percent Foreign Born	15.4%			16.9%			28.8%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		78.8	[80.0, 80.5]		78.5	[77.6, 79.3]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		31.2	[32.4, 32.8]		31.5	[30.8, 32.1]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	4.3	[3.4, 5.4]	81	5.1	[2.5, 9.4]	6
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	6.4	[6.0, 6.8]	1184	7.6	[6.4, 8.9]	63
Very Low Birth Weight (% < 1500 g)	1.0	[0.9, 1.0]	630	1.1	[0.9, 1.2]	201	1.6	[1.1, 2.3]	13
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	12.1	[11.6, 12.7]	2254	14.7	[13.0, 16.5]	151
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	11.6	[10.2, 13.2]	240	20.0	[15.3, 25.8]	37
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	166.4	[160.6, 172.5]	3185	200.9	[177.8, 226.3]	274
Cancer	177.9	[174.1, 181.7]	8559	173.3	[167.1, 179.7]	3051	176.9	[155.1, 201.0]	239
Lung Cancer	49.1	[47.1, 51.2]	2319	46.1	[42.8, 49.5]	783	48.3	[37.3, 61.8]	65
Colorectal Cancer	16.1	[15.0, 17.3]	777	15.5	[13.7, 17.5]	278	14.1	[8.4, 22.1]	19
Female Breast Cancer	23.8	[22.0, 25.7]	659	21.6	[18.8, 24.9]	219	20.8	[11.8, 34.4]	16
Stroke	59.7	[57.6, 61.9]	2910	54.1	[50.9, 57.5]	1076	56.5	[44.6, 70.7]	78
Diabetes	21.6	[20.3, 23.0]	1040	23.6	[21.4, 26.1]	414	37.7	[28.1, 49.7]	51
Diabetes-Related	60.1	[57.9, 62.4]	2873	60.1	[56.5, 63.9]	1070	96.6	[80.7, 114.8]	131
CLRD	36.2	[34.5, 38.0]	1716	34.0	[31.3, 36.9]	623	43.9	[33.4, 56.8]	59
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	9.5	[8.1, 11.2]	165	13.3	[7.8, 21.1]	18
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	4.5	[3.6, 5.7]	85	13.1	[7.6, 21.1]	17
Suicide deaths	10.5	[9.7, 11.5]	579	10.1	[8.7, 11.7]	187	5.8	[2.5, 11.6]	8
Firearm-related deaths	7.4	[6.8, 8.0]	663	7.01	[6.1, 8.1]	217	11.70	[7.6, 17.2]	26
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	6.4	[5.3, 7.7]	119	6.6	[3.0, 12.6]	9
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	7.6	[6.6, 8.7]	231	2.9	[1.2, 6.0]	10
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	15.5	[13.8, 17.4]	314	21.1	[15.4, 28.8]	23
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	11.2	[9.6, 12.9]	194	7.4	[3.9, 13.2]	13
Drug-induced deaths	9.7	[8.9, 10.6]	558	13.6	[12.0, 15.5]	258	10.6	[6.2, 17.2]	14

Health Planning Areas in Seattle (block group based):

	King County			Seattle			West Seattle		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			579392			48612		
Age 0-17 (%)	21.8%			15.2%			15.4%		
Age 65+ (%)	10.5%			12.1%			16.0%		
White (%)	80.0%			73.9%			91.0%		
Black (%)	6.3%			9.7%			2.7%		
American Indian/Alaska Native (%)	1.0%			1.1%			1.0%		
Asian/PI (%)	12.7%			15.2%			5.2%		
Hispanic (%)	6.0%			5.8%			4.1%		
2000 Census Data									
Percent below poverty	8.4%			11.8%			4.6%		
Percent below 200% poverty	19.6%			25.0%			11.7%		
Percent Foreign Born	15.4%			16.9%			7.8%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		78.8	[80.0, 80.5]		81.0	[80.2, 81.7]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		31.2	[32.4, 32.8]		32.8	[32.3, 33.4]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	4.3	[3.4, 5.4]	81	4.4	[1.8, 8.9]	7
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	6.4	[6.0, 6.8]	1184	6.9	[5.7, 8.3]	109
Very Low Birth Weight (% < 1500 g)	1.0	[0.9, 1.0]	630	1.1	[0.9, 1.2]	201	1.6	[1.0, 2.3]	25
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	12.1	[11.6, 12.7]	2254	11.5	[9.9, 13.3]	183
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	11.6	[10.2, 13.2]	240	4.6	[1.9, 9.4]	7
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	166.4	[160.6, 172.5]	3185	157.0	[140.4, 175.9]	351
Cancer	177.9	[174.1, 181.7]	8559	173.3	[167.1, 179.7]	3051	150.3	[132.9, 170.0]	295
Lung Cancer	49.1	[47.1, 51.2]	2319	46.1	[42.8, 49.5]	783	38.6	[29.9, 50.0]	72
Colorectal Cancer	16.1	[15.0, 17.3]	777	15.5	[13.7, 17.5]	278	14.0	[9.3, 21.4]	30
Female Breast Cancer	23.8	[22.0, 25.7]	659	21.6	[18.8, 24.9]	219	15.6	[9.4, 27.3]	21
Stroke	59.7	[57.6, 61.9]	2910	54.1	[50.9, 57.5]	1076	55.1	[45.7, 67.0]	129
Diabetes	21.6	[20.3, 23.0]	1040	23.6	[21.4, 26.1]	414	19.7	[13.6, 28.6]	37
Diabetes-Related	60.1	[57.9, 62.4]	2873	60.1	[56.5, 63.9]	1070	55.1	[45.0, 67.8]	112
CLRD	36.2	[34.5, 38.0]	1716	34.0	[31.3, 36.9]	623	41.3	[33.0, 51.9]	92
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	9.5	[8.1, 11.2]	165	9.0	[5.2, 15.8]	17
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	4.5	[3.6, 5.7]	85	NA		<5
Suicide deaths	10.5	[9.7, 11.5]	579	10.1	[8.7, 11.7]	187	13.9	[8.2, 22.6]	20
Firearm-related deaths	7.4	[6.8, 8.0]	663	7.01	[6.1, 8.1]	217	7.63	[4.3, 13.0]	17
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	6.4	[5.3, 7.7]	119	4.2	[1.5, 10.3]	7
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	7.6	[6.6, 8.7]	231	2.1	[0.8, 5.4]	6
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	15.5	[13.8, 17.4]	314	14.3	[9.8, 21.5]	34
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	11.2	[9.6, 12.9]	194	11.5	[7.1, 18.8]	22
Drug-induced deaths	9.7	[8.9, 10.6]	558	13.6	[12.0, 15.5]	258	7.8	[3.8, 15.0]	12

Health Planning Areas in the North Region (block group based):

	King County			North Region			Bothell/North Shore		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			143223			49634		
Age 0-17 (%)	21.8%			24.1%			22.9%		
Age 65+ (%)	10.5%			11.0%			11.0%		
White (%)	80.0%			86.7%			89.2%		
Black (%)	6.3%			2.3%			1.9%		
American Indian/Alaska Native (%)	1.0%			0.7%			0.6%		
Asian/PI (%)	12.7%			10.3%			8.3%		
Hispanic (%)	6.0%			4.4%			4.0%		
2000 Census Data									
Percent below poverty	8.4%			5.4%			5.1%		
Percent below 200% poverty	19.6%			13.9%			13.1%		
Percent Foreign Born	15.4%			13.0%			11.5%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		79.9	[79.5, 80.3]		80.4	[79.7, 81.1]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		32.0	[31.7, 32.4]		32.1	[31.6, 32.7]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	4.5	[2.8, 7.0]	20	3.7	[1.4, 8.0]	6
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	6.1	[5.4, 6.8]	267	5.5	[4.4, 6.8]	88
Very Low Birth Weight (% < 1500 g)	1.0	[0.9, 1.0]	630	0.7	[0.5, 1.0]	31	0.4	[0.1, 0.8]	6
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	11.5	[10.5, 12.5]	503	10.3	[8.8, 12.0]	165
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	5.2	[3.9, 6.8]	51	7.6	[4.9, 11.3]	25
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	172.0	[159.4, 185.3]	699	163.5	[142.1, 187.4]	212
Cancer	177.9	[174.1, 181.7]	8559	174.9	[162.2, 188.5]	710	182.0	[159.8, 206.5]	249
Lung Cancer	49.1	[47.1, 51.2]	2319	45.6	[39.1, 52.8]	182	43.1	[32.6, 55.9]	58
Colorectal Cancer	16.1	[15.0, 17.3]	777	15.8	[12.2, 20.3]	65	15.7	[9.6, 24.2]	21
Female Breast Cancer	23.8	[22.0, 25.7]	659	21.3	[15.7, 28.4]	49	29.4	[18.6, 45.1]	23
Stroke	59.7	[57.6, 61.9]	2910	61.4	[54.0, 69.6]	249	59.2	[46.3, 74.5]	73
Diabetes	21.6	[20.3, 23.0]	1040	17.8	[13.9, 22.5]	72	8.9	[4.6, 15.9]	12
Diabetes-Related	60.1	[57.9, 62.4]	2873	50.5	[43.7, 58.1]	202	40.4	[30.1, 53.2]	52
CLRD	36.2	[34.5, 38.0]	1716	34.2	[28.7, 40.6]	136	31.9	[22.9, 43.5]	41
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	6.6	[4.3, 9.7]	27	3.8	[1.2, 9.2]	5
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	5.0	[0.5, 3.4]	6	NA		<5
Suicide deaths	10.5	[9.7, 11.5]	579	11.6	[8.2, 14.9]	50	9.5	[5.3, 16.2]	15
Firearm-related deaths	7.4	[6.8, 8.0]	663	5.85	[4.2, 8.0]	41	4.60	[2.4, 8.3]	12
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	10.2	[5.6, 11.4]	34	6.5	[2.9, 12.7]	9
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	1.5	[0.8, 2.8]	12	NA		<5
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	18.7	[14.8, 23.5]	77	15.5	[9.4, 24.1]	20
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	6.9	[4.7, 10.1]	30	6.3	[2.8, 12.4]	9
Drug-induced deaths	9.7	[8.9, 10.6]	558	7.9	[5.6, 11.1]	37	7.9	[4.2, 14.1]	13

Health Planning Areas in the North Region (block group based):

	King County			North Region			Riverview/Lower Valley		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			143223			52470		
Age 0-17 (%)	21.8%			24.1%			29.7%		
Age 65+ (%)	10.5%			11.0%			5.6%		
White (%)	80.0%			86.7%			93.7%		
Black (%)	6.3%			2.3%			0.9%		
American Indian/Alaska Native (%)	1.0%			0.7%			0.7%		
Asian/PI (%)	12.7%			10.3%			4.7%		
Hispanic (%)	6.0%			4.4%			4.3%		
2000 Census Data									
Percent below poverty	8.4%			5.4%			3.6%		
Percent below 200% poverty	19.6%			13.9%			9.2%		
Percent Foreign Born	15.4%			13.0%			7.4%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		79.9	[79.5, 80.3]		80.2	[79.3, 81.0]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		32.0	[31.7, 32.4]		32.2	[31.5, 32.9]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	4.5	[2.8, 7.0]	20	4.8	[2.2, 9.1]	9
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	6.1	[5.4, 6.8]	267	5.3	[4.3, 6.5]	98
Very Low Birth Weight (% < 1500 g)	1.0	[0.9, 1.0]	630	0.7	[0.5, 1.0]	31	0.8	[0.5, 1.3]	15
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	11.5	[10.5, 12.5]	503	9.5	[8.1, 11.0]	175
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	5.2	[3.9, 6.8]	51	5.8	[3.8, 8.6]	25
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	172.0	[159.4, 185.3]	699	167.0	[137.7, 200.9]	121
Cancer	177.9	[174.1, 181.7]	8559	174.9	[162.2, 188.5]	710	191.0	[161.1, 225.1]	166
Lung Cancer	49.1	[47.1, 51.2]	2319	45.6	[39.1, 52.8]	182	49.0	[34.5, 68.0]	43
Colorectal Cancer	16.1	[15.0, 17.3]	777	15.8	[12.2, 20.3]	65	17.6	[9.8, 29.9]	17
Female Breast Cancer	23.8	[22.0, 25.7]	659	21.3	[15.7, 28.4]	49	20.3	[9.4, 39.3]	11
Stroke	59.7	[57.6, 61.9]	2910	61.4	[54.0, 69.6]	249	60.0	[42.5, 82.2]	39
Diabetes	21.6	[20.3, 23.0]	1040	17.8	[13.9, 22.5]	72	30.1	[18.5, 46.6]	21
Diabetes-Related	60.1	[57.9, 62.4]	2873	50.5	[43.7, 58.1]	202	61.4	[44.2, 83.4]	43
CLRD	36.2	[34.5, 38.0]	1716	34.2	[28.7, 40.6]	136	33.8	[21.3, 51.1]	23
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	6.6	[4.3, 9.7]	27	8.3	[3.1, 18.4]	7
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	5.0	[0.5, 3.4]	6	NA		<5
Suicide deaths	10.5	[9.7, 11.5]	579	11.6	[8.2, 14.9]	50	7.8	[4.0, 15.7]	12
Firearm-related deaths	7.4	[6.8, 8.0]	663	5.85	[4.2, 8.0]	41	5.09	[2.5, 10.3]	12
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	10.2	[5.6, 11.4]	34	11.0	[5.7, 20.5]	14
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	1.5	[0.8, 2.8]	12	NA		<5
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	18.7	[14.8, 23.5]	77	11.0	[4.4, 22.7]	7
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	6.9	[4.7, 10.1]	30	11.6	[5.2, 23.0]	9
Drug-induced deaths	9.7	[8.9, 10.6]	558	7.9	[5.6, 11.1]	37	7.0	[3.2, 15.1]	10

Health Planning Areas in the North Region (block group based):

	King County			North Region			Shoreline		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			143223			52833		
Age 0-17 (%)	21.8%			24.1%			21.7%		
Age 65+ (%)	10.5%			11.0%			14.8%		
White (%)	80.0%			86.7%			80.4%		
Black (%)	6.3%			2.3%			3.4%		
American Indian/Alaska Native (%)	1.0%			0.7%			1.0%		
Asian/PI (%)	12.7%			10.3%			15.3%		
Hispanic (%)	6.0%			4.4%			4.3%		
2000 Census Data									
Percent below poverty	8.4%			5.4%			6.9%		
Percent below 200% poverty	19.6%			13.9%			18.7%		
Percent Foreign Born	15.4%			13.0%			17.0%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		79.9	[79.5, 80.3]		79.2	[78.5, 79.9]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		32.0	[31.7, 32.4]		31.8	[31.2, 32.3]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	4.5	[2.8, 7.0]	20	5.2	[2.2, 10.1]	10
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	6.1	[5.4, 6.8]	267	7.3	[6.0, 8.7]	146
Very Low Birth Weight (% < 1500 g)	1.0	[0.9, 1.0]	630	0.7	[0.5, 1.0]	31	1.1	[0.6, 1.7]	31
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	11.5	[10.5, 12.5]	503	14.1	[12.3, 16.1]	284
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	5.2	[3.9, 6.8]	51	4.3	[2.3, 7.1]	59
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	172.0	[159.4, 185.3]	699	181.9	[163.7, 201.9]	379
Cancer	177.9	[174.1, 181.7]	8559	174.9	[162.2, 188.5]	710	163.7	[145.7, 183.6]	308
Lung Cancer	49.1	[47.1, 51.2]	2319	45.6	[39.1, 52.8]	182	48.4	[38.8, 60.1]	88
Colorectal Cancer	16.1	[15.0, 17.3]	777	15.8	[12.2, 20.3]	65	12.6	[8.1, 19.3]	25
Female Breast Cancer	23.8	[22.0, 25.7]	659	21.3	[15.7, 28.4]	49	16.8	[9.7, 28.4]	17
Stroke	59.7	[57.6, 61.9]	2910	61.4	[54.0, 69.6]	249	63.7	[53.4, 76.0]	137
Diabetes	21.6	[20.3, 23.0]	1040	17.8	[13.9, 22.5]	72	22.7	[16.3, 31.2]	42
Diabetes-Related	60.1	[57.9, 62.4]	2873	50.5	[43.7, 58.1]	202	57.9	[47.5, 70.2]	112
CLRD	36.2	[34.5, 38.0]	1716	34.2	[28.7, 40.6]	136	37.4	[29.4, 47.4]	76
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	6.6	[4.3, 9.7]	27	7.9	[4.3, 13.8]	14
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	5.0	[0.5, 3.4]	6	NA		<5
Suicide deaths	10.5	[9.7, 11.5]	579	11.6	[8.2, 14.9]	50	14.8	[9.5, 22.3]	25
Firearm-related deaths	7.4	[6.8, 8.0]	663	5.85	[4.2, 8.0]	41	7.36	[4.5, 11.7]	20
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	10.2	[5.6, 11.4]	34	12.4	[7.6, 19.7]	20
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	1.5	[0.8, 2.8]	12	0.4	[0.0, 2.9]	8
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	18.7	[14.8, 23.5]	77	14.9	[8.5, 24.4]	46
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	6.9	[4.7, 10.1]	30	8.9	[4.5, 16.3]	13
Drug-induced deaths	9.7	[8.9, 10.6]	558	7.9	[5.6, 11.1]	37	5.0	[2.1, 10.7]	18

Health Planning Areas in the East Region (block group based):

	King County			East Region			Bellevue		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			407519			128452		
Age 0-17 (%)	21.8%			23.7%			20.6%		
Age 65+ (%)	10.5%			10.2%			12.7%		
White (%)	80.0%			85.6%			78.4%		
Black (%)	6.3%			1.8%			2.4%		
American Indian/Alaska Native (%)	1.0%			0.5%			0.4%		
Asian/PI (%)	12.7%			12.2%			18.8%		
Hispanic (%)	6.0%			4.4%			5.5%		
2000 Census Data									
Percent below poverty	8.4%			4.4%			5.3%		
Percent below 200% poverty	19.6%			10.9%			12.8%		
Percent Foreign Born	15.4%			16.0%			23.8%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		82.4	[82.1, 82.6]		82.8	[82.4, 83.2]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		33.9	[33.7, 34.1]		34.3	[33.9, 34.6]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	2.9	[2.1, 3.9]	46	2.2	[1.1, 4.1]	10
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	5.7	[5.3, 6.1]	889	5.9	[5.2, 6.7]	265
Very Low Birth Weight (% < 1500 g)	1.0	[0.9, 1.0]	630	0.8	[0.7, 1.0]	128	0.9	[0.6, 1.2]	39
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	9.7	[9.2, 10.2]	1518	10.2	[9.3, 11.2]	456
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	4.4	[3.6, 5.3]	106	4.4	[3.0, 6.4]	29
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	136.7	[129.7, 144.0]	1446	138.1	[126.5, 150.6]	523
Cancer	177.9	[174.1, 181.7]	8559	163.6	[156.0, 171.6]	1759	158.8	[146.6, 171.9]	626
Lung Cancer	49.1	[47.1, 51.2]	2319	41.1	[37.2, 45.2]	431	38.4	[32.5, 45.1]	153
Colorectal Cancer	16.1	[15.0, 17.3]	777	15.9	[13.6, 18.5]	172	18.3	[14.3, 23.2]	71
Female Breast Cancer	23.8	[22.0, 25.7]	659	25.3	[21.4, 29.6]	158	23.7	[17.8, 31.4]	53
Stroke	59.7	[57.6, 61.9]	2910	57.6	[53.0, 62.4]	599	55.9	[48.6, 64.1]	210
Diabetes	21.6	[20.3, 23.0]	1040	14.3	[12.1, 16.8]	151	12.7	[9.4, 16.9]	49
Diabetes-Related	60.1	[57.9, 62.4]	2873	41.7	[37.9, 45.9]	432	38.6	[32.6, 45.4]	147
CLRD	36.2	[34.5, 38.0]	1716	26.1	[23.0, 29.4]	267	24.1	[19.4, 29.6]	91
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	6.0	[4.7, 7.6]	72	7.3	[4.9, 10.5]	30
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	1.3	[0.7, 2.1]	16	NA		<5
Suicide deaths	10.5	[9.7, 11.5]	579	9.3	[7.6, 11.2]	113	10.6	[7.7, 14.5]	43
Firearm-related deaths	7.4	[6.8, 8.0]	663	5.38	[4.4, 6.5]	107	4.55	[3.1, 6.6]	30
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	6.1	[4.8, 7.8]	71	4.1	[2.3, 6.8]	16
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	0.6	[0.4, 1.1]	14	0.8	[0.2, 1.9]	5
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	17.3	[14.8, 20.0]	180	15.2	[11.5, 19.8]	56
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	5.4	[4.1, 6.9]	65	6.5	[4.3, 9.6]	27
Drug-induced deaths	9.7	[8.9, 10.6]	558	4.4	[3.3, 5.7]	56	4.5	[2.7, 7.2]	18

Health Planning Areas in the East Region (block group based):

	King County			East Region			Issaquah/Sammamish		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			407519			72263		
Age 0-17 (%)	21.8%			23.7%			29.2%		
Age 65+ (%)	10.5%			10.2%			7.3%		
White (%)	80.0%			85.6%			89.3%		
Black (%)	6.3%			1.8%			1.1%		
American Indian/Alaska Native (%)	1.0%			0.5%			0.4%		
Asian/PI (%)	12.7%			12.2%			9.1%		
Hispanic (%)	6.0%			4.4%			3.0%		
2000 Census Data									
Percent below poverty	8.4%			4.4%			3.1%		
Percent below 200% poverty	19.6%			10.9%			7.8%		
Percent Foreign Born	15.4%			16.0%			10.7%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		82.4	[82.1, 82.6]		81.2	[80.5, 81.8]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		33.9	[33.7, 34.1]		32.7	[32.1, 33.3]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	2.9	[2.1, 3.9]	46	1.9	[0.7, 4.0]	6
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	5.7	[5.3, 6.1]	889	5.1	[4.4, 6.0]	166
Very Low Birth Weight (% < 1500 g)	1.0	[0.9, 1.0]	630	0.8	[0.7, 1.0]	128	0.7	[0.4, 1.0]	22
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	9.7	[9.2, 10.2]	1518	9.6	[8.5, 10.7]	310
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	4.4	[3.6, 5.3]	106	2.1	[1.0, 3.8]	10
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	136.7	[129.7, 144.0]	1446	145.1	[125.6, 166.9]	205
Cancer	177.9	[174.1, 181.7]	8559	163.6	[156.0, 171.6]	1759	182.3	[160.7, 206.1]	279
Lung Cancer	49.1	[47.1, 51.2]	2319	41.1	[37.2, 45.2]	431	41.6	[31.4, 54.1]	59
Colorectal Cancer	16.1	[15.0, 17.3]	777	15.9	[13.6, 18.5]	172	15.0	[9.4, 22.9]	24
Female Breast Cancer	23.8	[22.0, 25.7]	659	25.3	[21.4, 29.6]	158	28.5	[18.4, 42.9]	27
Stroke	59.7	[57.6, 61.9]	2910	57.6	[53.0, 62.4]	599	59.2	[46.9, 73.8]	82
Diabetes	21.6	[20.3, 23.0]	1040	14.3	[12.1, 16.8]	151	13.8	[8.3, 21.8]	20
Diabetes-Related	60.1	[57.9, 62.4]	2873	41.7	[37.9, 45.9]	432	57.8	[45.5, 72.3]	79
CLRD	36.2	[34.5, 38.0]	1716	26.1	[23.0, 29.4]	267	28.1	[19.8, 38.8]	38
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	6.0	[4.7, 7.6]	72	4.4	[1.7, 9.6]	7
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	1.3	[0.7, 2.1]	16	NA		<5
Suicide deaths	10.5	[9.7, 11.5]	579	9.3	[7.6, 11.2]	113	10.1	[6.0, 16.5]	19
Firearm-related deaths	7.4	[6.8, 8.0]	663	5.38	[4.4, 6.5]	107	6.70	[4.1, 10.6]	22
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	6.1	[4.8, 7.8]	71	5.4	[2.5, 10.6]	10
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	0.6	[0.4, 1.1]	14	NA		<5
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	17.3	[14.8, 20.0]	180	26.8	[18.8, 37.2]	37
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	5.4	[4.1, 6.9]	65	2.4	[0.7, 6.7]	5
Drug-induced deaths	9.7	[8.9, 10.6]	558	4.4	[3.3, 5.7]	56	3.9	[1.6, 8.5]	8

Health Planning Areas in the East Region (block group based):

	King County			East Region			Kirkland		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			407519			81071		
Age 0-17 (%)	21.8%			23.7%			21.5%		
Age 65+ (%)	10.5%			10.2%			8.8%		
White (%)	80.0%			85.6%			88.3%		
Black (%)	6.3%			1.8%			1.9%		
American Indian/Alaska Native (%)	1.0%			0.5%			0.6%		
Asian/PI (%)	12.7%			12.2%			9.1%		
Hispanic (%)	6.0%			4.4%			4.6%		
2000 Census Data									
Percent below poverty	8.4%			4.4%			4.9%		
Percent below 200% poverty	19.6%			10.9%			11.5%		
Percent Foreign Born	15.4%			16.0%			13.8%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		82.4	[82.1, 82.6]		80.3	[79.7, 80.8]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		33.9	[33.7, 34.1]		31.9	[31.4, 32.4]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	2.9	[2.1, 3.9]	46	4.2	[2.3, 7.2]	13
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	5.7	[5.3, 6.1]	889	5.6	[4.8, 6.5]	172
Very Low Birth Weight (% < 1500 g)	1.0	[0.9, 1.0]	630	0.8	[0.7, 1.0]	128	0.5	[0.3, 0.9]	16
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	9.7	[9.2, 10.2]	1518	9.0	[8.0, 10.1]	275
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	4.4	[3.6, 5.3]	106	5.6	[3.6, 8.3]	24
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	136.7	[129.7, 144.0]	1446	156.2	[138.3, 175.7]	284
Cancer	177.9	[174.1, 181.7]	8559	163.6	[156.0, 171.6]	1759	188.3	[168.9, 209.4]	357
Lung Cancer	49.1	[47.1, 51.2]	2319	41.1	[37.2, 45.2]	431	50.1	[40.3, 61.7]	94
Colorectal Cancer	16.1	[15.0, 17.3]	777	15.9	[13.6, 18.5]	172	16.1	[10.9, 23.2]	31
Female Breast Cancer	23.8	[22.0, 25.7]	659	25.3	[21.4, 29.6]	158	29.7	[20.6, 41.9]	35
Stroke	59.7	[57.6, 61.9]	2910	57.6	[53.0, 62.4]	599	70.1	[58.2, 83.9]	122
Diabetes	21.6	[20.3, 23.0]	1040	14.3	[12.1, 16.8]	151	16.6	[11.2, 23.7]	32
Diabetes-Related	60.1	[57.9, 62.4]	2873	41.7	[37.9, 45.9]	432	49.8	[39.9, 61.5]	90
CLRD	36.2	[34.5, 38.0]	1716	26.1	[23.0, 29.4]	267	28.7	[21.2, 38.1]	49
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	6.0	[4.7, 7.6]	72	8.4	[5.0, 13.6]	19
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	1.3	[0.7, 2.1]	16	2.0	[0.6, 5.2]	5
Suicide deaths	10.5	[9.7, 11.5]	579	9.3	[7.6, 11.2]	113	9.4	[5.9, 14.5]	23
Firearm-related deaths	7.4	[6.8, 8.0]	663	5.38	[4.4, 6.5]	107	4.64	[2.8, 7.5]	20
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	6.1	[4.8, 7.8]	71	7.4	[4.3, 12.1]	18
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	0.6	[0.4, 1.1]	14	NA		<5
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	17.3	[14.8, 20.0]	180	24.8	[18.0, 33.5]	43
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	5.4	[4.1, 6.9]	65	7.5	[4.4, 12.3]	18
Drug-induced deaths	9.7	[8.9, 10.6]	558	4.4	[3.3, 5.7]	56	3.9	[1.9, 7.7]	10

Health Planning Areas in the East Region (block group based):

	King County			East Region			Mercer Island/Point Cities		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			407519			30858		
Age 0-17 (%)	21.8%			23.7%			24.9%		
Age 65+ (%)	10.5%			10.2%			18.3%		
White (%)	80.0%			85.6%			87.4%		
Black (%)	6.3%			1.8%			1.2%		
American Indian/Alaska Native (%)	1.0%			0.5%			0.2%		
Asian/PI (%)	12.7%			12.2%			11.2%		
Hispanic (%)	6.0%			4.4%			1.9%		
2000 Census Data									
Percent below poverty	8.4%			4.4%			2.7%		
Percent below 200% poverty	19.6%			10.9%			6.1%		
Percent Foreign Born	15.4%			16.0%			12.7%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		82.4	[82.1, 82.6]		85.3	[84.5, 86.2]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		33.9	[33.7, 34.1]		36.8	[36.2, 37.4]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	2.9	[2.1, 3.9]	46	NA		<5
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	5.7	[5.3, 6.1]	889	4.3	[2.9, 6.3]	27
Very Low Birth Weight (% < 1500 g)	1.0	[0.9, 1.0]	630	0.8	[0.7, 1.0]	128	NA		<5
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	9.7	[9.2, 10.2]	1518	8.0	[6.0, 10.6]	50
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	4.4	[3.6, 5.3]	106	NA		<5
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	136.7	[129.7, 144.0]	1446	109.1	[92.3, 130.5]	150
Cancer	177.9	[174.1, 181.7]	8559	163.6	[156.0, 171.6]	1759	139.4	[119.7, 163.7]	185
Lung Cancer	49.1	[47.1, 51.2]	2319	41.1	[37.2, 45.2]	431	32.6	[23.6, 46.7]	44
Colorectal Cancer	16.1	[15.0, 17.3]	777	15.9	[13.6, 18.5]	172	11.0	[6.2, 22.0]	15
Female Breast Cancer	23.8	[22.0, 25.7]	659	25.3	[21.4, 29.6]	158	26.0	[15.3, 48.0]	18
Stroke	59.7	[57.6, 61.9]	2910	57.6	[53.0, 62.4]	599	41.5	[31.5, 56.6]	58
Diabetes	21.6	[20.3, 23.0]	1040	14.3	[12.1, 16.8]	151	7.8	[3.9, 18.1]	11
Diabetes-Related	60.1	[57.9, 62.4]	2873	41.7	[37.9, 45.9]	432	22.4	[15.2, 35.1]	31
CLRD	36.2	[34.5, 38.0]	1716	26.1	[23.0, 29.4]	267	16.6	[10.5, 28.4]	23
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	6.0	[4.7, 7.6]	72	NA		<5
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	1.3	[0.7, 2.1]	16	NA		<5
Suicide deaths	10.5	[9.7, 11.5]	579	9.3	[7.6, 11.2]	113	NA		<5
Firearm-related deaths	7.4	[6.8, 8.0]	663	5.38	[4.4, 6.5]	107	NA		<5
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	6.1	[4.8, 7.8]	71	NA		<5
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	0.6	[0.4, 1.1]	14	NA		<5
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	17.3	[14.8, 20.0]	180	8.7	[4.5, 19.1]	12
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	5.4	[4.1, 6.9]	65	NA		<5
Drug-induced deaths	9.7	[8.9, 10.6]	558	4.4	[3.3, 5.7]	56	6.8	[1.8, 19.2]	5

Health Planning Areas in the East Region (block group based):

	King County			East Region			Redmond/Union Hill		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			407519			62068		
Age 0-17 (%)	21.8%			23.7%			23.1%		
Age 65+ (%)	10.5%			10.2%			8.2%		
White (%)	80.0%			85.6%			85.4%		
Black (%)	6.3%			1.8%			1.8%		
American Indian/Alaska Native (%)	1.0%			0.5%			0.5%		
Asian/PI (%)	12.7%			12.2%			12.3%		
Hispanic (%)	6.0%			4.4%			5.6%		
2000 Census Data									
Percent below poverty	8.4%			4.4%			4.6%		
Percent below 200% poverty	19.6%			10.9%			11.2%		
Percent Foreign Born	15.4%			16.0%			18.2%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		82.4	[82.1, 82.6]		83.5	[82.7, 84.2]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		33.9	[33.7, 34.1]		34.8	[34.0, 35.5]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	2.9	[2.1, 3.9]	46	3.4	[1.6, 6.4]	9
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	5.7	[5.3, 6.1]	889	6.5	[5.6, 7.6]	173
Very Low Birth Weight (% < 1500 g)	1.0	[0.9, 1.0]	630	0.8	[0.7, 1.0]	128	1.2	[0.8, 1.7]	31
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	9.7	[9.2, 10.2]	1518	10.2	[9.0, 11.5]	270
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	4.4	[3.6, 5.3]	106	6.1	[3.8, 9.2]	22
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	136.7	[129.7, 144.0]	1446	122.6	[105.3, 142.3]	197
Cancer	177.9	[174.1, 181.7]	8559	163.6	[156.0, 171.6]	1759	154.6	[133.5, 178.3]	208
Lung Cancer	49.1	[47.1, 51.2]	2319	41.1	[37.2, 45.2]	431	44.2	[33.0, 58.2]	55
Colorectal Cancer	16.1	[15.0, 17.3]	777	15.9	[13.6, 18.5]	172	18.1	[11.4, 27.6]	25
Female Breast Cancer	23.8	[22.0, 25.7]	659	25.3	[21.4, 29.6]	158	20.5	[11.3, 34.9]	16
Stroke	59.7	[57.6, 61.9]	2910	57.6	[53.0, 62.4]	599	63.6	[51.1, 78.6]	97
Diabetes	21.6	[20.3, 23.0]	1040	14.3	[12.1, 16.8]	151	16.7	[10.4, 25.9]	23
Diabetes-Related	60.1	[57.9, 62.4]	2873	41.7	[37.9, 45.9]	432	38.0	[27.9, 50.7]	51
CLRD	36.2	[34.5, 38.0]	1716	26.1	[23.0, 29.4]	267	27.7	[19.4, 38.5]	40
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	6.0	[4.7, 7.6]	72	3.9	[1.5, 9.0]	7
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	1.3	[0.7, 2.1]	16	NA		<5
Suicide deaths	10.5	[9.7, 11.5]	579	9.3	[7.6, 11.2]	113	7.7	[4.3, 13.7]	15
Firearm-related deaths	7.4	[6.8, 8.0]	663	5.38	[4.4, 6.5]	107	5.45	[3.2, 9.2]	17
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	6.1	[4.8, 7.8]	71	4.0	[1.5, 9.4]	7
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	0.6	[0.4, 1.1]	14	NA		<5
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	17.3	[14.8, 20.0]	180	14.2	[8.8, 22.3]	23
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	5.4	[4.1, 6.9]	65	3.2	[1.1, 8.1]	6
Drug-induced deaths	9.7	[8.9, 10.6]	558	4.4	[3.3, 5.7]	56	3.4	[1.3, 8.1]	7

Health Planning Areas in the East Region (block group based):

	King County			East Region			Upper Snoqualmie Valley		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			407519			21092		
Age 0-17 (%)	21.8%			23.7%			27.7%		
Age 65+ (%)	10.5%			10.2%			7.4%		
White (%)	80.0%			85.6%			95.7%		
Black (%)	6.3%			1.8%			1.0%		
American Indian/Alaska Native (%)	1.0%			0.5%			1.1%		
Asian/PI (%)	12.7%			12.2%			2.2%		
Hispanic (%)	6.0%			4.4%			3.2%		
2000 Census Data									
Percent below poverty	8.4%			4.4%			4.4%		
Percent below 200% poverty	19.6%			10.9%			14.2%		
Percent Foreign Born	15.4%			16.0%			4.4%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		82.4	[82.1, 82.6]		79.0	[77.8, 80.3]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		33.9	[33.7, 34.1]		30.9	[29.8, 32.0]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	2.9	[2.1, 3.9]	46	NA		<5
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	5.7	[5.3, 6.1]	889	5.3	[4.0, 6.9]	56
Very Low Birth Weight (% < 1500 g)	1.0	[0.9, 1.0]	630	0.8	[0.7, 1.0]	128	1.0	[0.5, 1.9]	11
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	9.7	[9.2, 10.2]	1518	9.9	[8.1, 12.0]	105
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	4.4	[3.6, 5.3]	106	5.1	[2.0, 10.4]	7
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	136.7	[129.7, 144.0]	1446	170.0	[132.6, 215.3]	74
Cancer	177.9	[174.1, 181.7]	8559	163.6	[156.0, 171.6]	1759	203.5	[162.5, 252.1]	91
Lung Cancer	49.1	[47.1, 51.2]	2319	41.1	[37.2, 45.2]	431	47.5	[28.2, 75.3]	19
Colorectal Cancer	16.1	[15.0, 17.3]	777	15.9	[13.6, 18.5]	172	18.3	[7.6, 37.6]	8
Female Breast Cancer	23.8	[22.0, 25.7]	659	25.3	[21.4, 29.6]	158	27.7	[10.6, 60.5]	7
Stroke	59.7	[57.6, 61.9]	2910	57.6	[53.0, 62.4]	599	70.9	[47.6, 102.2]	30
Diabetes	21.6	[20.3, 23.0]	1040	14.3	[12.1, 16.8]	151	31.4	[16.5, 54.8]	13
Diabetes-Related	60.1	[57.9, 62.4]	2873	41.7	[37.9, 45.9]	432	70.1	[46.5, 101.8]	29
CLRD	36.2	[34.5, 38.0]	1716	26.1	[23.0, 29.4]	267	53.1	[33.1, 81.4]	22
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	6.0	[4.7, 7.6]	72	9.6	[3.5, 23.6]	6
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	1.3	[0.7, 2.1]	16	0.0		0
Suicide deaths	10.5	[9.7, 11.5]	579	9.3	[7.6, 11.2]	113	14.3	[5.4, 31.8]	7
Firearm-related deaths	7.4	[6.8, 8.0]	663	5.38	[4.4, 6.5]	107	15.30	[7.6, 28.0]	12
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	6.1	[4.8, 7.8]	71	13.2	[5.1, 29.4]	7
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	0.6	[0.4, 1.1]	14			
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	17.3	[14.8, 20.0]	180	30.1	[15.9, 52.5]	13
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	5.4	[4.1, 6.9]	65	7.8	[2.5, 21.2]	5
Drug-induced deaths	9.7	[8.9, 10.6]	558	4.4	[3.3, 5.7]	56	NA		<5

Health Planning Areas in the South Region (block group based):

	King County			South Region			Auburn		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			649166			58483		
Age 0-17 (%)	21.8%			26.0%			27.3%		
Age 65+ (%)	10.5%			9.2%			9.8%		
White (%)	80.0%			80.3%			89.7%		
Black (%)	6.3%			7.1%			3.0%		
American Indian/Alaska Native (%)	1.0%			1.3%			2.1%		
Asian/PI (%)	12.7%			11.3%			5.2%		
Hispanic (%)	6.0%			7.5%			7.7%		
2000 Census Data									
Percent below poverty	8.4%			8.5%			11.0%		
Percent below 200% poverty	19.6%			21.7%			27.8%		
Percent Foreign Born	15.4%			14.4%			10.6%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		80.3	[78.6, 79.0]		76.9	[76.1, 77.6]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		32.6	[31.1, 31.4]		29.8	[29.2, 30.4]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	6.2	[5.3, 7.2]	163	5.5	[3.0, 9.2]	14
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	6.0	[5.7, 6.3]	1586	5.6	[4.8, 6.6]	143
Very Low Birth Weight (% <1500 g)	1.0	[0.9, 1.0]	630	1.0	[0.9, 1.1]	264	1.0	[0.7, 1.5]	26
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	12.5	[12.1, 12.9]	3279	14.2	[12.8, 15.8]	360
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	14.8	[13.6, 16.0]	605	24.5	[19.8, 30.0]	94
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	193.1	[186.0, 200.5]	2842	217.6	[193.7, 243.8]	303
Cancer	177.9	[174.1, 181.7]	8559	191.7	[184.8, 198.8]	2986	212.6	[189.4, 238.0]	308
Lung Cancer	49.1	[47.1, 51.2]	2319	58.8	[55.0, 62.8]	910	70.6	[57.5, 85.9]	102
Colorectal Cancer	16.1	[15.0, 17.3]	777	16.7	[14.7, 18.9]	256	16.5	[10.4, 24.8]	23
Female Breast Cancer	23.8	[22.0, 25.7]	659	25.2	[22.0, 28.7]	229	30.9	[20.2, 45.6]	26
Stroke	59.7	[57.6, 61.9]	2910	67.5	[63.3, 72.0]	964	77.1	[63.1, 93.4]	106
Diabetes	21.6	[20.3, 23.0]	1040	26.1	[23.5, 28.8]	400	35.6	[26.5, 47.0]	51
Diabetes-Related	60.1	[57.9, 62.4]	2873	77.2	[72.7, 81.8]	1153	94.9	[79.4, 112.5]	134
CLRD	36.2	[34.5, 38.0]	1716	46.6	[43.1, 50.2]	679	58.6	[46.6, 72.9]	83
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	9.2	[7.8, 10.8]	164	14.0	[8.6, 21.6]	21
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	1.5	[4.0, 6.1]	98	3.6	[1.3, 8.3]	6
Suicide deaths	10.5	[9.7, 11.5]	579	11.1	[10.1, 13.3]	219	14.7	[9.5, 22.1]	25
Firearm-related deaths	7.4	[6.8, 8.0]	663	9.25	[8.2, 10.4]	289	7.40	[4.6, 11.5]	21
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	8.1	[8.8, 11.8]	194	17.8	[12.0, 25.8]	30
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	2.0	[1.5, 2.5]	67	NA		<5
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	18.5	[16.4, 20.9]	267	20.8	[13.8, 30.1]	28
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	8.7	[7.4, 10.2]	161	12.0	[7.2, 19.0]	19
Drug-induced deaths	9.7	[8.9, 10.6]	558	8.9	[7.7, 10.4]	180	9.5	[5.5, 15.6]	17

Health Planning Areas in the South Region (block group based):

	King County			South Region			Burien		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			649166			35503		
Age 0-17 (%)	21.8%			26.0%			22.1%		
Age 65+ (%)	10.5%			9.2%			13.8%		
White (%)	80.0%			80.3%			83.4%		
Black (%)	6.3%			7.1%			5.7%		
American Indian/Alaska Native (%)	1.0%			1.3%			1.3%		
Asian/PI (%)	12.7%			11.3%			9.5%		
Hispanic (%)	6.0%			7.5%			11.4%		
2000 Census Data									
Percent below poverty	8.4%			8.5%			9.3%		
Percent below 200% poverty	19.6%			21.7%			23.5%		
Percent Foreign Born	15.4%			14.4%			15.4%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		80.3	[78.6, 79.0]		79.1	[78.3, 80.0]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		32.6	[31.1, 31.4]		31.9	[31.2, 32.6]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	6.2	[5.3, 7.2]	163	3.5	[1.1, 7.9]	5
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	6.0	[5.7, 6.3]	1586	5.2	[4.1, 6.5]	75
Very Low Birth Weight (% <1500 g)	1.0	[0.9, 1.0]	630	1.0	[0.9, 1.1]	264	0.8	[0.4, 1.4]	11
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	12.5	[12.1, 12.9]	3279	11.2	[9.5, 13.1]	161
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	14.8	[13.6, 16.0]	605	22.6	[16.6, 30.2]	46
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	193.1	[186.0, 200.5]	2842	182.6	[158.7, 209.3]	211
Cancer	177.9	[174.1, 181.7]	8559	191.7	[184.8, 198.8]	2986	185.9	[162.1, 212.6]	220
Lung Cancer	49.1	[47.1, 51.2]	2319	58.8	[55.0, 62.8]	910	57.2	[44.4, 72.9]	68
Colorectal Cancer	16.1	[15.0, 17.3]	777	16.7	[14.7, 18.9]	256	13.2	[7.4, 22.1]	15
Female Breast Cancer	23.8	[22.0, 25.7]	659	25.2	[22.0, 28.7]	229	30.3	[18.7, 47.8]	21
Stroke	59.7	[57.6, 61.9]	2910	67.5	[63.3, 72.0]	964	69.5	[55.1, 86.9]	80
Diabetes	21.6	[20.3, 23.0]	1040	26.1	[23.5, 28.8]	400	17.5	[10.7, 27.4]	20
Diabetes-Related	60.1	[57.9, 62.4]	2873	77.2	[72.7, 81.8]	1153	64.9	[51.1, 81.6]	76
CLRD	36.2	[34.5, 38.0]	1716	46.6	[43.1, 50.2]	679	47.8	[36.2, 62.4]	57
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	9.2	[7.8, 10.8]	164	14.2	[8.2, 23.1]	17
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	1.5	[4.0, 6.1]	98	6.7	[2.7, 14.1]	7
Suicide deaths	10.5	[9.7, 11.5]	579	11.1	[10.1, 13.3]	219	13.5	[7.5, 22.6]	15
Firearm-related deaths	7.4	[6.8, 8.0]	663	9.25	[8.2, 10.4]	289	15.80	[10.5, 23.1]	28
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	8.1	[8.8, 11.8]	194	8.9	[4.1, 17.2]	9
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	2.0	[1.5, 2.5]	67	4.2	[1.8, 8.6]	8
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	18.5	[16.4, 20.9]	267	11.1	[5.9, 19.5]	13
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	8.7	[7.4, 10.2]	161	10.8	[5.7, 18.9]	13
Drug-induced deaths	9.7	[8.9, 10.6]	558	8.9	[7.7, 10.4]	180	15.3	[9.1, 24.7]	18

Health Planning Areas in the South Region (block group based):

	King County			South Region			Cascade-Fairwood		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			649166			40051		
Age 0-17 (%)	21.8%			26.0%			25.3%		
Age 65+ (%)	10.5%			9.2%			7.7%		
White (%)	80.0%			80.3%			76.3%		
Black (%)	6.3%			7.1%			6.9%		
American Indian/Alaska Native (%)	1.0%			1.3%			0.8%		
Asian/PI (%)	12.7%			11.3%			16.1%		
Hispanic (%)	6.0%			7.5%			4.5%		
2000 Census Data									
Percent below poverty	8.4%			8.5%			5.1%		
Percent below 200% poverty	19.6%			21.7%			14.8%		
Percent Foreign Born	15.4%			14.4%			13.5%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		80.3	[78.6, 79.0]		79.1	[78.2, 80.0]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		32.6	[31.1, 31.4]		31.5	[30.8, 32.2]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	6.2	[5.3, 7.2]	163	8.6	[4.6, 14.7]	13
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	6.0	[5.7, 6.3]	1586	7.2	[5.9, 8.7]	108
Very Low Birth Weight (% <1500 g)	1.0	[0.9, 1.0]	630	1.0	[0.9, 1.1]	264	1.1	[0.6, 1.7]	16
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	12.5	[12.1, 12.9]	3279	11.8	[10.1, 13.7]	177
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	14.8	[13.6, 16.0]	605	7.5	[4.5, 11.6]	19
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	193.1	[186.0, 200.5]	2842	154.1	[124.6, 189.1]	107
Cancer	177.9	[174.1, 181.7]	8559	191.7	[184.8, 198.8]	2986	197.8	[167.7, 232.8]	171
Lung Cancer	49.1	[47.1, 51.2]	2319	58.8	[55.0, 62.8]	910	61.0	[45.3, 81.6]	55
Colorectal Cancer	16.1	[15.0, 17.3]	777	16.7	[14.7, 18.9]	256	16.2	[8.9, 28.9]	16
Female Breast Cancer	23.8	[22.0, 25.7]	659	25.2	[22.0, 28.7]	229	32.8	[17.8, 56.7]	15
Stroke	59.7	[57.6, 61.9]	2910	67.5	[63.3, 72.0]	964	72.5	[51.9, 98.8]	44
Diabetes	21.6	[20.3, 23.0]	1040	26.1	[23.5, 28.8]	400	27.7	[16.3, 44.8]	19
Diabetes-Related	60.1	[57.9, 62.4]	2873	77.2	[72.7, 81.8]	1153	70.4	[51.3, 95.0]	50
CLRD	36.2	[34.5, 38.0]	1716	46.6	[43.1, 50.2]	679	55.7	[39.2, 77.6]	39
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	9.2	[7.8, 10.8]	164	6.3	[2.4, 15.8]	7
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	1.5	[4.0, 6.1]	98	5.6	[2.2, 14.5]	7
Suicide deaths	10.5	[9.7, 11.5]	579	11.1	[10.1, 13.3]	219	11.1	[5.2, 22.5]	11
Firearm-related deaths	7.4	[6.8, 8.0]	663	9.25	[8.2, 10.4]	289	11.06	[6.4, 18.9]	19
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	8.1	[8.8, 11.8]	194	5.9	[2.6, 14.8]	8
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	2.0	[1.5, 2.5]	67	NA		<5
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	18.5	[16.4, 20.9]	267	18.8	[9.3, 34.3]	12
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	8.7	[7.4, 10.2]	161	7.1	[2.9, 16.8]	8
Drug-induced deaths	9.7	[8.9, 10.6]	558	8.9	[7.7, 10.4]	180	8.2	[3.9, 17.8]	10

Health Planning Areas in the South Region (block group based):

	King County			South Region			Covington/Maple Valley		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			649166			39844		
Age 0-17 (%)	21.8%			26.0%			31.2%		
Age 65+ (%)	10.5%			9.2%			5.3%		
White (%)	80.0%			80.3%			94.0%		
Black (%)	6.3%			7.1%			2.0%		
American Indian/Alaska Native (%)	1.0%			1.3%			0.9%		
Asian/PI (%)	12.7%			11.3%			3.2%		
Hispanic (%)	6.0%			7.5%			3.7%		
2000 Census Data									
Percent below poverty	8.4%			8.5%			3.0%		
Percent below 200% poverty	19.6%			21.7%			9.9%		
Percent Foreign Born	15.4%			14.4%			4.9%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		80.3	[78.6, 79.0]		77.7	[76.8, 78.7]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		32.6	[31.1, 31.4]		30.0	[29.2, 30.8]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	6.2	[5.3, 7.2]	163	6.0	[2.7, 11.3]	9
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	6.0	[5.7, 6.3]	1586	5.3	[4.2, 6.6]	80
Very Low Birth Weight (% <1500 g)	1.0	[0.9, 1.0]	630	1.0	[0.9, 1.1]	264	0.7	[0.4, 1.3]	11
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	12.5	[12.1, 12.9]	3279	11.2	[9.6, 13.1]	169
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	14.8	[13.6, 16.0]	605	4.6	[2.5, 7.8]	14
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	193.1	[186.0, 200.5]	2842	210.3	[168.2, 261.0]	106
Cancer	177.9	[174.1, 181.7]	8559	191.7	[184.8, 198.8]	2986	253.2	[210.2, 304.0]	152
Lung Cancer	49.1	[47.1, 51.2]	2319	58.8	[55.0, 62.8]	910	88.1	[63.0, 121.6]	48
Colorectal Cancer	16.1	[15.0, 17.3]	777	16.7	[14.7, 18.9]	256	28.4	[15.4, 50.5]	18
Female Breast Cancer	23.8	[22.0, 25.7]	659	25.2	[22.0, 28.7]	229	36.1	[17.7, 68.5]	12
Stroke	59.7	[57.6, 61.9]	2910	67.5	[63.3, 72.0]	964	88.5	[59.6, 127.2]	34
Diabetes	21.6	[20.3, 23.0]	1040	26.1	[23.5, 28.8]	400	25.5	[13.5, 46.4]	16
Diabetes-Related	60.1	[57.9, 62.4]	2873	77.2	[72.7, 81.8]	1153	89.2	[63.2, 123.9]	47
CLRD	36.2	[34.5, 38.0]	1716	46.6	[43.1, 50.2]	679	43.7	[25.3, 71.8]	20
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	9.2	[7.8, 10.8]	164	8.6	[2.4, 24.9]	6
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	1.5	[4.0, 6.1]	98	8.3	[3.9, 21.8]	10
Suicide deaths	10.5	[9.7, 11.5]	579	11.1	[10.1, 13.3]	219	11.8	[6.5, 25.6]	15
Firearm-related deaths	7.4	[6.8, 8.0]	663	9.25	[8.2, 10.4]	289	7.06	[3.8, 15.7]	14
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	8.1	[8.8, 11.8]	194	11.5	[5.5, 26.4]	12
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	2.0	[1.5, 2.5]	67	NA		<5
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	18.5	[16.4, 20.9]	267	30.1	[14.6, 55.9]	11
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	8.7	[7.4, 10.2]	161	5.9	[1.7, 19.9]	5
Drug-induced deaths	9.7	[8.9, 10.6]	558	8.9	[7.7, 10.4]	180	6.4	[2.7, 19.5]	8

Health Planning Areas in the South Region (block group based):

	King County			South Region			Delridge		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			649166			32114		
Age 0-17 (%)	21.8%			26.0%			25.3%		
Age 65+ (%)	10.5%			9.2%			8.2%		
White (%)	80.0%			80.3%			60.8%		
Black (%)	6.3%			7.1%			14.2%		
American Indian/Alaska Native (%)	1.0%			1.3%			1.9%		
Asian/PI (%)	12.7%			11.3%			23.0%		
Hispanic (%)	6.0%			7.5%			11.3%		
2000 Census Data									
Percent below poverty	8.4%			8.5%			16.0%		
Percent below 200% poverty	19.6%			21.7%			34.0%		
Percent Foreign Born	15.4%			14.4%			24.6%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		80.3	[78.6, 79.0]		78.3	[77.2, 79.3]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		32.6	[31.1, 31.4]		30.8	[29.8, 31.7]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	6.2	[5.3, 7.2]	163	4.5	[1.6, 9.6]	6
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	6.0	[5.7, 6.3]	1586	6.9	[5.5, 8.4]	91
Very Low Birth Weight (% <1500 g)	1.0	[0.9, 1.0]	630	1.0	[0.9, 1.1]	264	0.8	[0.4, 1.4]	10
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	12.5	[12.1, 12.9]	3279	13.0	[11.2, 15.1]	173
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	14.8	[13.6, 16.0]	605	19.2	[13.5, 26.6]	36
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	193.1	[186.0, 200.5]	2842	201.4	[169.1, 238.4]	140
Cancer	177.9	[174.1, 181.7]	8559	191.7	[184.8, 198.8]	2986	205.4	[172.8, 242.6]	144
Lung Cancer	49.1	[47.1, 51.2]	2319	58.8	[55.0, 62.8]	910	50.0	[34.6, 70.1]	35
Colorectal Cancer	16.1	[15.0, 17.3]	777	16.7	[14.7, 18.9]	256	20.1	[10.7, 34.7]	13
Female Breast Cancer	23.8	[22.0, 25.7]	659	25.2	[22.0, 28.7]	229	27.9	[13.8, 51.2]	11
Stroke	59.7	[57.6, 61.9]	2910	67.5	[63.3, 72.0]	964	53.6	[37.6, 74.3]	37
Diabetes	21.6	[20.3, 23.0]	1040	26.1	[23.5, 28.8]	400	39.6	[25.7, 58.5]	26
Diabetes-Related	60.1	[57.9, 62.4]	2873	77.2	[72.7, 81.8]	1153	108.8	[85.1, 137.4]	73
CLRD	36.2	[34.5, 38.0]	1716	46.6	[43.1, 50.2]	679	53.1	[37.0, 74.0]	36
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	9.2	[7.8, 10.8]	164	8.6	[3.1, 19.4]	6
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	1.5	[4.0, 6.1]	98	7.8	[3.5, 16.6]	9
Suicide deaths	10.5	[9.7, 11.5]	579	11.1	[10.1, 13.3]	219	6.1	[2.2, 14.7]	6
Firearm-related deaths	7.4	[6.8, 8.0]	663	9.25	[8.2, 10.4]	289	8.49	[4.7, 14.9]	15
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	8.1	[8.8, 11.8]	194	7.1	[2.5, 16.6]	6
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	2.0	[1.5, 2.5]	67	7.2	[3.7, 13.4]	12
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	18.5	[16.4, 20.9]	267	19.5	[10.6, 33.4]	14
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	8.7	[7.4, 10.2]	161	8.3	[3.0, 18.8]	6
Drug-induced deaths	9.7	[8.9, 10.6]	558	8.9	[7.7, 10.4]	180	16.7	[9.2, 28.7]	15

Health Planning Areas in the South Region (block group based):

	King County			South Region			Des Moines/Normandy Pk		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			649166			35941		
Age 0-17 (%)	21.8%			26.0%			23.2%		
Age 65+ (%)	10.5%			9.2%			15.6%		
White (%)	80.0%			80.3%			82.0%		
Black (%)	6.3%			7.1%			7.1%		
American Indian/Alaska Native (%)	1.0%			1.3%			0.9%		
Asian/PI (%)	12.7%			11.3%			10.0%		
Hispanic (%)	6.0%			7.5%			6.6%		
2000 Census Data									
Percent below poverty	8.4%			8.5%			7.2%		
Percent below 200% poverty	19.6%			21.7%			18.7%		
Percent Foreign Born	15.4%			14.4%			12.0%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		80.3	[78.6, 79.0]		79.7	[78.8, 80.5]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		32.6	[31.1, 31.4]		31.8	[31.2, 32.5]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	6.2	[5.3, 7.2]	163	NA		<5
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	6.0	[5.7, 6.3]	1586	5.5	[4.3, 7.0]	65
Very Low Birth Weight (% <1500 g)	1.0	[0.9, 1.0]	630	1.0	[0.9, 1.1]	264	0.5	[0.2, 1.1]	6
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	12.5	[12.1, 12.9]	3279	11.9	[10.0, 14.0]	141
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	14.8	[13.6, 16.0]	605	14.4	[9.8, 20.5]	31
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	193.1	[186.0, 200.5]	2842	178.7	[157.4, 202.4]	275
Cancer	177.9	[174.1, 181.7]	8559	191.7	[184.8, 198.8]	2986	178.6	[156.0, 203.8]	238
Lung Cancer	49.1	[47.1, 51.2]	2319	58.8	[55.0, 62.8]	910	45.4	[34.3, 59.5]	58
Colorectal Cancer	16.1	[15.0, 17.3]	777	16.7	[14.7, 18.9]	256	14.3	[8.4, 23.2]	18
Female Breast Cancer	23.8	[22.0, 25.7]	659	25.2	[22.0, 28.7]	229	26.1	[15.3, 42.4]	19
Stroke	59.7	[57.6, 61.9]	2910	67.5	[63.3, 72.0]	964	72.9	[60.1, 88.0]	122
Diabetes	21.6	[20.3, 23.0]	1040	26.1	[23.5, 28.8]	400	24.0	[16.6, 34.1]	36
Diabetes-Related	60.1	[57.9, 62.4]	2873	77.2	[72.7, 81.8]	1153	77.5	[63.5, 94.0]	115
CLRD	36.2	[34.5, 38.0]	1716	46.6	[43.1, 50.2]	679	34.0	[24.8, 45.9]	48
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	9.2	[7.8, 10.8]	164	10.0	[5.1, 18.0]	12
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	1.5	[4.0, 6.1]	98	6.7	[2.7, 14.1]	7
Suicide deaths	10.5	[9.7, 11.5]	579	11.1	[10.1, 13.3]	219	10.7	[5.4, 19.0]	12
Firearm-related deaths	7.4	[6.8, 8.0]	663	9.25	[8.2, 10.4]	289	7.81	[4.2, 13.3]	14
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	8.1	[8.8, 11.8]	194	6.9	[2.7, 14.3]	7
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	2.0	[1.5, 2.5]	67	3.4	[1.3, 7.6]	6
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	18.5	[16.4, 20.9]	267	20.9	[14.3, 30.1]	35
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	8.7	[7.4, 10.2]	161	11.2	[5.9, 19.6]	13
Drug-induced deaths	9.7	[8.9, 10.6]	558	8.9	[7.7, 10.4]	180	11.0	[5.7, 19.6]	12

Health Planning Areas in the South Region (block group based):

	King County			South Region			Federal Way		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			649166			115886		
Age 0-17 (%)	21.8%			26.0%			27.5%		
Age 65+ (%)	10.5%			9.2%			7.9%		
White (%)	80.0%			80.3%			78.1%		
Black (%)	6.3%			7.1%			7.8%		
American Indian/Alaska Native (%)	1.0%			1.3%			1.0%		
Asian/PI (%)	12.7%			11.3%			13.1%		
Hispanic (%)	6.0%			7.5%			7.1%		
2000 Census Data									
Percent below poverty	8.4%			8.5%			8.2%		
Percent below 200% poverty	19.6%			21.7%			21.1%		
Percent Foreign Born	15.4%			14.4%			15.5%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		80.3	[78.6, 79.0]		78.0	[77.5, 78.5]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		32.6	[31.1, 31.4]		30.3	[29.9, 30.7]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	6.2	[5.3, 7.2]	163	6.4	[4.3, 9.2]	29
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	6.0	[5.7, 6.3]	1586	6.3	[5.6, 7.1]	283
Very Low Birth Weight (% <1500 g)	1.0	[0.9, 1.0]	630	1.0	[0.9, 1.1]	264	1.3	[1.0, 1.7]	58
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	12.5	[12.1, 12.9]	3279	11.7	[10.7, 12.7]	525
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	14.8	[13.6, 16.0]	605	11.8	[9.5, 14.5]	89
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	193.1	[186.0, 200.5]	2842	239.8	[218.8, 262.4]	506
Cancer	177.9	[174.1, 181.7]	8559	191.7	[184.8, 198.8]	2986	190.7	[173.2, 209.7]	463
Lung Cancer	49.1	[47.1, 51.2]	2319	58.8	[55.0, 62.8]	910	58.1	[48.6, 69.0]	142
Colorectal Cancer	16.1	[15.0, 17.3]	777	16.7	[14.7, 18.9]	256	17.3	[12.3, 23.9]	41
Female Breast Cancer	23.8	[22.0, 25.7]	659	25.2	[22.0, 28.7]	229	21.1	[14.0, 30.7]	29
Stroke	59.7	[57.6, 61.9]	2910	67.5	[63.3, 72.0]	964	73.0	[61.5, 86.2]	148
Diabetes	21.6	[20.3, 23.0]	1040	26.1	[23.5, 28.8]	400	23.8	[17.9, 31.3]	59
Diabetes-Related	60.1	[57.9, 62.4]	2873	77.2	[72.7, 81.8]	1153	88.1	[75.9, 101.9]	198
CLRD	36.2	[34.5, 38.0]	1716	46.6	[43.1, 50.2]	679	47.7	[38.6, 58.4]	99
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	9.2	[7.8, 10.8]	164	9.0	[5.7, 13.9]	25
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	1.5	[4.0, 6.1]	98	3.5	[1.9, 6.7]	13
Suicide deaths	10.5	[9.7, 11.5]	579	11.1	[10.1, 13.3]	219	12.0	[8.3, 17.0]	38
Firearm-related deaths	7.4	[6.8, 8.0]	663	9.25	[8.2, 10.4]	289	8.75	[6.4, 12.0]	47
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	8.1	[8.8, 11.8]	194	8.5	[5.5, 13.0]	27
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	2.0	[1.5, 2.5]	67	1.7	[0.8, 3.5]	10
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	18.5	[16.4, 20.9]	267	23.9	[17.5, 32.0]	48
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	8.7	[7.4, 10.2]	161	7.6	[4.8, 11.9]	24
Drug-induced deaths	9.7	[8.9, 10.6]	558	8.9	[7.7, 10.4]	180	5.5	[3.3, 9.0]	20

Health Planning Areas in the South Region (block group based):

	King County			South Region			Kent		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			649166			114432		
Age 0-17 (%)	21.8%			26.0%			27.5%		
Age 65+ (%)	10.5%			9.2%			7.5%		
White (%)	80.0%			80.3%			77.9%		
Black (%)	6.3%			7.1%			8.2%		
American Indian/Alaska Native (%)	1.0%			1.3%			1.0%		
Asian/PI (%)	12.7%			11.3%			12.9%		
Hispanic (%)	6.0%			7.5%			7.5%		
2000 Census Data									
Percent below poverty	8.4%			8.5%			9.5%		
Percent below 200% poverty	19.6%			21.7%			22.8%		
Percent Foreign Born	15.4%			14.4%			16.1%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		80.3	[78.6, 79.0]		79.6	[79.1, 80.2]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		32.6	[31.1, 31.4]		32.0	[31.5, 32.5]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	6.2	[5.3, 7.2]	163	6.7	[4.6, 9.4]	34
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	6.0	[5.7, 6.3]	1586	6.3	[5.6, 7.0]	317
Very Low Birth Weight (% <1500 g)	1.0	[0.9, 1.0]	630	1.0	[0.9, 1.1]	264	1.0	[0.7, 1.3]	50
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	12.5	[12.1, 12.9]	3279	13.5	[12.5, 14.5]	677
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	14.8	[13.6, 16.0]	605	14.9	[12.2, 18.1]	104
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	193.1	[186.0, 200.5]	2842	164.9	[147.4, 183.9]	341
Cancer	177.9	[174.1, 181.7]	8559	191.7	[184.8, 198.8]	2986	176.8	[159.5, 195.5]	411
Lung Cancer	49.1	[47.1, 51.2]	2319	58.8	[55.0, 62.8]	910	49.3	[40.5, 59.6]	116
Colorectal Cancer	16.1	[15.0, 17.3]	777	16.7	[14.7, 18.9]	256	14.0	[9.4, 20.3]	31
Female Breast Cancer	23.8	[22.0, 25.7]	659	25.2	[22.0, 28.7]	229	35.1	[25.8, 46.9]	49
Stroke	59.7	[57.6, 61.9]	2910	67.5	[63.3, 72.0]	964	59.5	[49.0, 71.6]	118
Diabetes	21.6	[20.3, 23.0]	1040	26.1	[23.5, 28.8]	400	21.4	[15.6, 28.7]	48
Diabetes-Related	60.1	[57.9, 62.4]	2873	77.2	[72.7, 81.8]	1153	77.1	[65.4, 90.4]	163
CLRD	36.2	[34.5, 38.0]	1716	46.6	[43.1, 50.2]	679	52.9	[43.2, 64.3]	106
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	9.2	[7.8, 10.8]	164	8.4	[5.2, 13.1]	23
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	1.5	[4.0, 6.1]	98	4.9	[2.9, 8.4]	18
Suicide deaths	10.5	[9.7, 11.5]	579	11.1	[10.1, 13.3]	219	12.9	[9.2, 18.0]	42
Firearm-related deaths	7.4	[6.8, 8.0]	663	9.25	[8.2, 10.4]	289	10.09	[7.6, 13.5]	55
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	8.1	[8.8, 11.8]	194	10.2	[7.1, 14.8]	35
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	2.0	[1.5, 2.5]	67	2.4	[1.3, 4.5]	14
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	18.5	[16.4, 20.9]	267	16.9	[11.5, 24.0]	33
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	8.7	[7.4, 10.2]	161	7.6	[4.7, 12.1]	22
Drug-induced deaths	9.7	[8.9, 10.6]	558	8.9	[7.7, 10.4]	180	8.8	[5.8, 13.2]	29

Health Planning Areas in the South Region (block group based):

	King County			South Region			Renton		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			649166			79534		
Age 0-17 (%)	21.8%			26.0%			22.3%		
Age 65+ (%)	10.5%			9.2%			10.5%		
White (%)	80.0%			80.3%			73.8%		
Black (%)	6.3%			7.1%			11.3%		
American Indian/Alaska Native (%)	1.0%			1.3%			0.9%		
Asian/PI (%)	12.7%			11.3%			14.1%		
Hispanic (%)	6.0%			7.5%			6.9%		
2000 Census Data									
Percent below poverty	8.4%			8.5%			8.5%		
Percent below 200% poverty	19.6%			21.7%			20.9%		
Percent Foreign Born	15.4%			14.4%			16.2%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		80.3	[78.6, 79.0]		79.7	[79.1, 80.3]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		32.6	[31.1, 31.4]		31.9	[31.4, 32.4]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	6.2	[5.3, 7.2]	163	4.6	[2.6, 7.4]	16
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	6.0	[5.7, 6.3]	1586	6.5	[5.7, 7.4]	226
Very Low Birth Weight (% <1500 g)	1.0	[0.9, 1.0]	630	1.0	[0.9, 1.1]	264	0.9	[0.6, 1.3]	32
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	12.5	[12.1, 12.9]	3279	12.9	[11.7, 14.1]	450
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	14.8	[13.6, 16.0]	605	13.9	[10.6, 18.0]	57
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	193.1	[186.0, 200.5]	2842	180.3	[162.5, 199.5]	378
Cancer	177.9	[174.1, 181.7]	8559	191.7	[184.8, 198.8]	2986	190.3	[172.2, 209.9]	411
Lung Cancer	49.1	[47.1, 51.2]	2319	58.8	[55.0, 62.8]	910	55.0	[45.5, 66.0]	118
Colorectal Cancer	16.1	[15.0, 17.3]	777	16.7	[14.7, 18.9]	256	23.1	[17.0, 30.7]	48
Female Breast Cancer	23.8	[22.0, 25.7]	659	25.2	[22.0, 28.7]	229	18.9	[12.1, 28.5]	24
Stroke	59.7	[57.6, 61.9]	2910	67.5	[63.3, 72.0]	964	57.0	[47.2, 68.3]	119
Diabetes	21.6	[20.3, 23.0]	1040	26.1	[23.5, 28.8]	400	23.8	[17.6, 31.6]	50
Diabetes-Related	60.1	[57.9, 62.4]	2873	77.2	[72.7, 81.8]	1153	59.8	[49.7, 71.5]	124
CLRD	36.2	[34.5, 38.0]	1716	46.6	[43.1, 50.2]	679	44.9	[36.2, 55.2]	92
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	9.2	[7.8, 10.8]	164	7.6	[4.5, 12.2]	18
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	1.5	[4.0, 6.1]	98	3.8	[1.8, 7.4]	10
Suicide deaths	10.5	[9.7, 11.5]	579	11.1	[10.1, 13.3]	219	9.8	[6.2, 14.9]	23
Firearm-related deaths	7.4	[6.8, 8.0]	663	9.25	[8.2, 10.4]	289	7.91	[5.4, 11.3]	32
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	8.1	[8.8, 11.8]	194	6.5	[3.7, 10.8]	16
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	2.0	[1.5, 2.5]	67	1.2	[0.4, 2.9]	5
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	18.5	[16.4, 20.9]	267	16.4	[11.4, 22.9]	35
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	8.7	[7.4, 10.2]	161	7.8	[4.6, 12.3]	19
Drug-induced deaths	9.7	[8.9, 10.6]	558	8.9	[7.7, 10.4]	180	8.6	[5.4, 13.3]	22

Health Planning Areas in the South Region (block group based):

	King County			South Region			SE County		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			649166			44773		
Age 0-17 (%)	21.8%			26.0%			27.7%		
Age 65+ (%)	10.5%			9.2%			9.3%		
White (%)	80.0%			80.3%			94.8%		
Black (%)	6.3%			7.1%			0.7%		
American Indian/Alaska Native (%)	1.0%			1.3%			2.8%		
Asian/PI (%)	12.7%			11.3%			1.7%		
Hispanic (%)	6.0%			7.5%			3.4%		
2000 Census Data									
Percent below poverty	8.4%			8.5%			5.1%		
Percent below 200% poverty	19.6%			21.7%			15.2%		
Percent Foreign Born	15.4%			14.4%			3.7%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		80.3	[78.6, 79.0]		79.4	[78.5, 80.2]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		32.6	[31.1, 31.4]		31.5	[30.8, 32.2]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	6.2	[5.3, 7.2]	163	4.6	[1.7, 9.8]	8
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	6.0	[5.7, 6.3]	1586	4.8	[3.7, 6.2]	111
Very Low Birth Weight (% <1500 g)	1.0	[0.9, 1.0]	630	1.0	[0.9, 1.1]	264	1.0	[0.5, 1.7]	16
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	12.5	[12.1, 12.9]	3279	11.5	[9.8, 13.5]	215
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	14.8	[13.6, 16.0]	605	10.8	[7.6, 14.9]	14
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	193.1	[186.0, 200.5]	2842	219.4	[192.1, 249.6]	238
Cancer	177.9	[174.1, 181.7]	8559	191.7	[184.8, 198.8]	2986	196.1	[170.4, 224.6]	218
Lung Cancer	49.1	[47.1, 51.2]	2319	58.8	[55.0, 62.8]	910	63.8	[49.4, 81.3]	68
Colorectal Cancer	16.1	[15.0, 17.3]	777	16.7	[14.7, 18.9]	256	18.7	[11.3, 29.2]	20
Female Breast Cancer	23.8	[22.0, 25.7]	659	25.2	[22.0, 28.7]	229	14.7	[6.9, 28.5]	10
Stroke	59.7	[57.6, 61.9]	2910	67.5	[63.3, 72.0]	964	65.8	[51.1, 83.5]	69
Diabetes	21.6	[20.3, 23.0]	1040	26.1	[23.5, 28.8]	400	31.2	[21.5, 43.8]	35
Diabetes-Related	60.1	[57.9, 62.4]	2873	77.2	[72.7, 81.8]	1153	89.7	[72.4, 110.0]	96
CLRD	36.2	[34.5, 38.0]	1716	46.6	[43.1, 50.2]	679	35.0	[24.4, 48.7]	36
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	9.2	[7.8, 10.8]	164	8.1	[4.1, 14.8]	12
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	1.5	[4.0, 6.1]	98	NA		<5
Suicide deaths	10.5	[9.7, 11.5]	579	11.1	[10.1, 13.3]	219	8.7	[4.4, 15.9]	12
Firearm-related deaths	7.4	[6.8, 8.0]	663	9.25	[8.2, 10.4]	289	7.28	[4.1, 12.2]	16
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	8.1	[8.8, 11.8]	194	13.3	[7.8, 21.6]	18
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	2.0	[1.5, 2.5]	67	NA		<5
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	18.5	[16.4, 20.9]	267	16.4	[10.4, 24.8]	16
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	8.7	[7.4, 10.2]	161	9.2	[4.9, 16.0]	12
Drug-induced deaths	9.7	[8.9, 10.6]	558	8.9	[7.7, 10.4]	180	9.9	[5.4, 16.8]	8

Health Planning Areas in the South Region (block group based):

	King County			South Region			Tukwila/SeaTac		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			649166			43519		
Age 0-17 (%)	21.8%			26.0%			23.8%		
Age 65+ (%)	10.5%			9.2%			8.8%		
White (%)	80.0%			80.3%			71.0%		
Black (%)	6.3%			7.1%			12.3%		
American Indian/Alaska Native (%)	1.0%			1.3%			1.5%		
Asian/PI (%)	12.7%			11.3%			15.2%		
Hispanic (%)	6.0%			7.5%			14.3%		
2000 Census Data									
Percent below poverty	8.4%			8.5%			11.9%		
Percent below 200% poverty	19.6%			21.7%			28.8%		
Percent Foreign Born	15.4%			14.4%			24.4%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		80.3	[78.6, 79.0]		78.1	[77.2, 78.9]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		32.6	[31.1, 31.4]		30.7	[29.9, 31.4]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	6.2	[5.3, 7.2]	163	8.4	[5.0, 13.3]	18
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	6.0	[5.7, 6.3]	1586	6.0	[5.0, 7.2]	127
Very Low Birth Weight (% <1500 g)	1.0	[0.9, 1.0]	630	1.0	[0.9, 1.1]	264	1.1	[0.7, 1.7]	24
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	12.5	[12.1, 12.9]	3279	12.2	[10.7, 13.7]	255
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	14.8	[13.6, 16.0]	605	26.5	[20.5, 33.6]	67
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	193.1	[186.0, 200.5]	2842	180.6	[153.4, 211.5]	164
Cancer	177.9	[174.1, 181.7]	8559	191.7	[184.8, 198.8]	2986	199.9	[172.1, 231.2]	193
Lung Cancer	49.1	[47.1, 51.2]	2319	58.8	[55.0, 62.8]	910	72.0	[55.8, 92.0]	69
Colorectal Cancer	16.1	[15.0, 17.3]	777	16.7	[14.7, 18.9]	256	10.1	[4.6, 19.9]	9
Female Breast Cancer	23.8	[22.0, 25.7]	659	25.2	[22.0, 28.7]	229	20.6	[10.6, 36.9]	12
Stroke	59.7	[57.6, 61.9]	2910	67.5	[63.3, 72.0]	964	63.4	[47.4, 83.3]	54
Diabetes	21.6	[20.3, 23.0]	1040	26.1	[23.5, 28.8]	400	37.8	[26.6, 52.8]	38
Diabetes-Related	60.1	[57.9, 62.4]	2873	77.2	[72.7, 81.8]	1153	77.1	[60.2, 97.6]	74
CLRD	36.2	[34.5, 38.0]	1716	46.6	[43.1, 50.2]	679	47.6	[34.5, 64.4]	45
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	9.2	[7.8, 10.8]	164	11.1	[5.9, 20.1]	13
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	1.5	[4.0, 6.1]	98	6.1	[2.8, 13.1]	9
Suicide deaths	10.5	[9.7, 11.5]	579	11.1	[10.1, 13.3]	219	6.4	[2.6, 14.4]	7
Firearm-related deaths	7.4	[6.8, 8.0]	663	9.25	[8.2, 10.4]	289	10.63	[6.7, 16.7]	23
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	8.1	[8.8, 11.8]	194	11.5	[6.2, 20.4]	14
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	2.0	[1.5, 2.5]	67	2.7	[1.0, 6.8]	6
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	18.5	[16.4, 20.9]	267	16.6	[9.3, 27.8]	16
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	8.7	[7.4, 10.2]	161	11.1	[5.9, 20.1]	13
Drug-induced deaths	9.7	[8.9, 10.6]	558	8.9	[7.7, 10.4]	180	10.9	[5.7, 19.7]	13

Health Planning Areas in the South Region (block group based):

	King County			South Region			Vashon Island		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			649166			10383		
Age 0-17 (%)	21.8%			26.0%			22.1%		
Age 65+ (%)	10.5%			9.2%			13.1%		
White (%)	80.0%			80.3%			96.0%		
Black (%)	6.3%			7.1%			1.0%		
American Indian/Alaska Native (%)	1.0%			1.3%			0.8%		
Asian/PI (%)	12.7%			11.3%			2.2%		
Hispanic (%)	6.0%			7.5%			2.8%		
2000 Census Data									
Percent below poverty	8.4%			8.5%			6.0%		
Percent below 200% poverty	19.6%			21.7%			16.8%		
Percent Foreign Born	15.4%			14.4%			4.6%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		80.3	[78.6, 79.0]		80.2	[78.6, 81.9]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		32.6	[31.1, 31.4]		32.7	[31.6, 33.8]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	6.2	[5.3, 7.2]	163	NA		<5
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	6.0	[5.7, 6.3]	1586	5.9	[3.1, 10.0]	13
Very Low Birth Weight (% <1500 g)	1.0	[0.9, 1.0]	630	1.0	[0.9, 1.1]	264	NA		<5
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	12.5	[12.1, 12.9]	3279	11.2	[7.3, 16.6]	25
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	14.8	[13.6, 16.0]	605	NA		<5
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	193.1	[186.0, 200.5]	2842	193.7	[147.3, 253.6]	60
Cancer	177.9	[174.1, 181.7]	8559	191.7	[184.8, 198.8]	2986	201.6	[155.9, 260.4]	68
Lung Cancer	49.1	[47.1, 51.2]	2319	58.8	[55.0, 62.8]	910	58.0	[34.7, 95.8]	19
Colorectal Cancer	16.1	[15.0, 17.3]	777	16.7	[14.7, 18.9]	256	NA		<5
Female Breast Cancer	23.8	[22.0, 25.7]	659	25.2	[22.0, 28.7]	229	27.8	[8.9, 78.7]	5
Stroke	59.7	[57.6, 61.9]	2910	67.5	[63.3, 72.0]	964	62.6	[37.4, 102.5]	19
Diabetes	21.6	[20.3, 23.0]	1040	26.1	[23.5, 28.8]	400	22.1	[8.8, 51.5]	7
Diabetes-Related	60.1	[57.9, 62.4]	2873	77.2	[72.7, 81.8]	1153	64.8	[39.9, 104.1]	21
CLRD	36.2	[34.5, 38.0]	1716	46.6	[43.1, 50.2]	679	48.6	[27.1, 85.2]	15
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	9.2	[7.8, 10.8]	164	NA		<5
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	1.5	[4.0, 6.1]	98	NA		<5
Suicide deaths	10.5	[9.7, 11.5]	579	11.1	[10.1, 13.3]	219	NA		<5
Firearm-related deaths	7.4	[6.8, 8.0]	663	9.25	[8.2, 10.4]	289	NA		<5
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	8.1	[8.8, 11.8]	194	29.4	[10.5, 66.6]	6
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	2.0	[1.5, 2.5]	67	NA		<5
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	18.5	[16.4, 20.9]	267	NA		<5
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	8.7	[7.4, 10.2]	161	NA		<5
Drug-induced deaths	9.7	[8.9, 10.6]	558	8.9	[7.7, 10.4]	180	NA		<5

Health Planning Areas in the South Region (block group based):

	King County			South Region			White Center/Boulvd Pk		
DEMOGRAPHICS									
Population 2003 Estimates									
Total Population	1779300			649166			30817		
Age 0-17 (%)	21.8%			26.0%			26.1%		
Age 65+ (%)	10.5%			9.2%			9.3%		
White (%)	80.0%			80.3%			66.1%		
Black (%)	6.3%			7.1%			9.1%		
American Indian/Alaska Native (%)	1.0%			1.3%			1.9%		
Asian/PI (%)	12.7%			11.3%			22.9%		
Hispanic (%)	6.0%			7.5%			14.5%		
2000 Census Data									
Percent below poverty	8.4%			8.5%			14.2%		
Percent below 200% poverty	19.6%			21.7%			35.6%		
Percent Foreign Born	15.4%			14.4%			26.2%		
HEALTH INDICATORS (3-Year Averages, 2001-2003)									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
OVERALL HEALTH									
Life Expectancy at Birth (years)	80.1	[80.0, 80.2]		80.3	[78.6, 79.0]		77.1	[76.1, 78.2]	
Life Expectancy at Age 50 (years)	32.3	[32.2, 32.4]		32.6	[31.1, 31.4]		30.6	[29.7, 31.5]	
MATERNAL AND INFANT HEALTH									
Infant Mortality (deaths/1000 live births)	4.9	[4.4, 5.4]	322	6.2	[5.3, 7.2]	163	9.6	[5.3, 16.1]	14
Low Birth Weight (% < 2500 g)	6.1	[5.9, 6.2]	3966	6.0	[5.7, 6.3]	1586	6.0	[4.8, 7.4]	86
Very Low Birth Weight (% <1500 g)	1.0	[0.9, 1.0]	630	1.0	[0.9, 1.1]	264	1.1	[0.6, 1.8]	16
Preterm Delivery (% <37 weeks)	11.7	[11.4, 11.9]	7644	12.5	[12.1, 12.9]	3279	13.1	[11.3, 15.1]	188
Teen Birth (per 1000 females 15-17)	10.7	[10.0, 11.3]	1017	14.8	[13.6, 16.0]	605	22.4	[16.3, 30.0]	45
CHRONIC DISEASE DEATH (age-adjusted death rate per 100,000)									
Heart Disease	169.4	[165.7, 173.1]	8248	193.1	[186.0, 200.5]	2842	213.6	[180.7, 250.9]	153
Cancer	177.9	[174.1, 181.7]	8559	191.7	[184.8, 198.8]	2986	181.6	[151.7, 215.8]	133
Lung Cancer	49.1	[47.1, 51.2]	2319	58.8	[55.0, 62.8]	910	64.5	[47.3, 86.3]	47
Colorectal Cancer	16.1	[15.0, 17.3]	777	16.7	[14.7, 18.9]	256	20.0	[10.9, 33.9]	14
Female Breast Cancer	23.8	[22.0, 25.7]	659	25.2	[22.0, 28.7]	229	16.6	[6.7, 34.9]	7
Stroke	59.7	[57.6, 61.9]	2910	67.5	[63.3, 72.0]	964	75.4	[56.0, 99.4]	51
Diabetes	21.6	[20.3, 23.0]	1040	26.1	[23.5, 28.8]	400	29.4	[18.1, 45.4]	21
Diabetes-Related	60.1	[57.9, 62.4]	2873	77.2	[72.7, 81.8]	1153	76.3	[57.3, 99.8]	55
CLRD	36.2	[34.5, 38.0]	1716	46.6	[43.1, 50.2]	679	54.4	[38.6, 74.9]	39
Chronic Liver Disease-Cirrhosis	8.4	[7.7, 9.3]	437	9.2	[7.8, 10.8]	164	10.9	[4.9, 21.6]	9
INJURY/VIOLENCE DEATH (age-adjusted death rate per 100,000)									
Homicide deaths	3.8	[3.3, 4.3]	212	1.5	[4.0, 6.1]	98	8.6	[3.7, 18.0]	8
Suicide deaths	10.5	[9.7, 11.5]	579	11.1	[10.1, 13.3]	219	16.5	[9.1, 28.2]	15
Firearm-related deaths	7.4	[6.8, 8.0]	663	9.25	[8.2, 10.4]	289	11.75	[6.9, 19.2]	18
Motor Vehicle Accident deaths	7.9	[7.2, 8.7]	425	8.1	[8.8, 11.8]	194	13.6	[7.0, 24.7]	12
COMMUNICABLE DISEASE (age-adjusted death rate per 100,000)									
HIV/AIDS deaths	3.4	[3.1, 3.8]	328	2.0	[1.5, 2.5]	67	4.6	[1.8, 10.1]	7
Influenza/pneumonia deaths	17.3	[16.2, 18.6]	854	18.5	[16.4, 20.9]	267	25.1	[14.8, 40.2]	18
MENTAL HEALTH (age-adjusted death rate per 100,000)									
Alcohol-induced deaths	8.7	[8.0, 9.6]	462	8.7	[7.4, 10.2]	161	15.0	[7.7, 26.9]	12
Drug-induced deaths	9.7	[8.9, 10.6]	558	8.9	[7.7, 10.4]	180	21.4	[13.0, 34.0]	20

Health Planning Areas in Seattle (ZIP code based):

	King County			Seattle			Ball-Fremt-Greenlk		
DEMOGRAPHICS									
2003 Population Estimate									
Total Population	1779300			541187			91330		
Age 0-17 (%)	21.8%			15.1%			13.4%		
Age 65+ (%)	10.5%			11.8%			10.9%		
White (%)	80.0%			73.8%			90.0%		
Black (%)	6.3%			9.7%			2.6%		
American Indian/Alaska Native (%)	1.0%			1.1%			1.1%		
Asian/PI (%)	12.7%			15.4%			6.3%		
Hispanic (%)	6.0%			5.9%			4.5%		
HEALTH INDICATORS									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
BRFSS Indicators, 5-Year Average, 2000-2004 (%)									
General Health is fair or poor	10.2	[8.8,13.2]		10.5	[10.0,12.5]		7.4	[5.6,9.8]	
Current Smoker	17.4	[16.5,18.3]		16.9	[15.2,18.6]		14.7	[11.6,18.4]	
Overweight	52.3	[51.1,53.5]		45.4	[43.3,47.5]		44.3	[39.7,48.9]	
Obese	16.5	[15.6,17.4]		13.1	[11.8,14.6]		12.6	[9.7,16.2]	
No physical activity	13.8	[13.1,14.7]		10.7	[9.5,12.1]		7.8	[5.9,10.2]	
Uninsured (age 18-64)	12.1	[11.3,13.0]		12.8	[11.3,14.5]		12.8	[9.7,16.6]	
Could not see a doctor due to cost	9.9	[9.1,10.6]		10.6	[9.2,12.1]		10.4	[7.6,14.0]	
Hospitalization (3-Year Average Rate Per 100,000 and 3-Year Total Number, 2002-2004									
Childhood Asthma (Age <18)	166.1	[158.8, 173.6]	1945	274.5	[254.2, 296.0]	677	151.7	[114.7, 196.9]	56
Adult Asthma (Age 18+)	59.0	[56.7, 61.4]	2457	63.7	[59.6, 68.1]	876	38.0	[30.6, 46.7]	90
Motor Vehicle Accident†	67.2	[65.0, 69.5]	3632	66.7	[62.8, 70.9]	1148	52.4	[44.0, 62.4]	156
Assault†	30.3	[28.9, 31.8]	1706	50.1	[46.8, 53.6]	906	20.4	[15.4, 27.1]	59
Suicide†	43.3	[41.6, 45.1]	2443	46.4	[43.3, 49.8]	842	35.7	[28.9, 44.2]	105

Health Planning Areas in Seattle (ZIP code based):

	King County			Seattle			Beacon & SE Seattle		
DEMOGRAPHICS									
2003 Population Estimate									
Total Population	1779300			541187			66775		
Age 0-17 (%)	21.8%			15.1%			24.2%		
Age 65+ (%)	10.5%			11.8%			12.1%		
White (%)	80.0%			73.8%			33.5%		
Black (%)	6.3%			9.7%			24.3%		
American Indian/Alaska Native (%)	1.0%			1.1%			1.3%		
Asian/PI (%)	12.7%			15.4%			40.9%		
Hispanic (%)	6.0%			5.9%			9.7%		
HEALTH INDICATORS									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
BRFSS Indicators, 5-Year Average, 2000-2004 (%)									
General Health is fair or poor	10.2	[8.8,13.2]		10.5	[10.0,12.5]		18.8	[13.7,25.3]	
Current Smoker	17.4	[16.5,18.3]		16.9	[15.2,18.6]		21.3	[14.8,29.7]	
Overweight	52.3	[51.1,53.5]		45.4	[43.3,47.5]		56.4	[48.2,64.3]	
Obese	16.5	[15.6,17.4]		13.1	[11.8,14.6]		19.1	[13.9,25.6]	
No physical activity	13.8	[13.1,14.7]		10.7	[9.5,12.1]		21.0	[15.7,27.5]	
Uninsured (age 18-64)	12.1	[11.3,13.0]		12.8	[11.3,14.5]		11.2	[7.2,16.9]	
Could not see a doctor due to cost	9.9	[9.1,10.6]		10.6	[9.2,12.1]		9.8	[6.7,14.3]	
Hospitalization (3-Year Average Rate Per 100,000 and 3-Year Total Number, 2002-2004									
Childhood Asthma (Age <18)	166.1	[158.8, 173.6]	1945	274.5	[254.2, 296.0]	677	383.9	[331.0, 443.1]	187
Adult Asthma (Age 18+)	59.0	[56.7, 61.4]	2457	63.7	[59.6, 68.1]	876	111.5	[95.4, 129.7]	169
Motor Vehicle Accident†	67.2	[65.0, 69.5]	3632	66.7	[62.8, 70.9]	1148	98.6	[85.3, 113.4]	199
Assault†	30.3	[28.9, 31.8]	1706	50.1	[46.8, 53.6]	906	70.0	[58.9, 82.5]	143
Suicide†	43.3	[41.6, 45.1]	2443	46.4	[43.3, 49.8]	842	43.8	[35.2, 54.1]	89

Health Planning Areas in Seattle (ZIP code based):

	King County			Seattle			Capitol Hill/Eastlake		
DEMOGRAPHICS									
2003 Population Estimate									
Total Population	1779300			541187			41076		
Age 0-17 (%)	21.8%			15.1%			10.0%		
Age 65+ (%)	10.5%			11.8%			9.7%		
White (%)	80.0%			73.8%			86.4%		
Black (%)	6.3%			9.7%			7.0%		
American Indian/Alaska Native (%)	1.0%			1.1%			0.6%		
Asian/PI (%)	12.7%			15.4%			5.9%		
Hispanic (%)	6.0%			5.9%			3.7%		
HEALTH INDICATORS									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
BRFSS Indicators, 5-Year Average, 2000-2004 (%)									
General Health is fair or poor	10.2	[8.8,13.2]		10.5	[10.0,12.5]		7.1	[4.6,10.7]	
Current Smoker	17.4	[16.5,18.3]		16.9	[15.2,18.6]		17.2	[12.8,22.8]	
Overweight	52.3	[51.1,53.5]		45.4	[43.3,47.5]		37.2	[30.8,44.1]	
Obese	16.5	[15.6,17.4]		13.1	[11.8,14.6]		7.0	[4.6,10.5]	
No physical activity	13.8	[13.1,14.7]		10.7	[9.5,12.1]		5.4	[3.3,8.9]	
Uninsured (age 18-64)	12.1	[11.3,13.0]		12.8	[11.3,14.5]		11.9	[7.7,18.0]	
Could not see a doctor due to cost	9.9	[9.1,10.6]		10.6	[9.2,12.1]		9.4	[6.1,14.3]	
Hospitalization (3-Year Average Rate Per 100,000 and 3-Year Total Number, 2002-2004									
Childhood Asthma (Age <18)	166.1	[158.8, 173.6]	1945	274.5	[254.2, 296.0]	677	218.8	[144.4, 318.3]	27
Adult Asthma (Age 18+)	59.0	[56.7, 61.4]	2457	63.7	[59.6, 68.1]	876	41.5	[30.4, 55.4]	46
Motor Vehicle Accident†	67.2	[65.0, 69.5]	3632	66.7	[62.8, 70.9]	1148	48.3	[36.5, 64.8]	62
Assault†	30.3	[28.9, 31.8]	1706	50.1	[46.8, 53.6]	906	24.3	[15.9, 37.7]	33
Suicide†	43.3	[41.6, 45.1]	2443	46.4	[43.3, 49.8]	842	46.7	[34.7, 63.4]	61

Health Planning Areas in Seattle (ZIP code based):

	King County			Seattle			Downtown & Central		
DEMOGRAPHICS									
2003 Population Estimate									
Total Population	1779300			541187			86756		
Age 0-17 (%)	21.8%			15.1%			12.3%		
Age 65+ (%)	10.5%			11.8%			12.6%		
White (%)	80.0%			73.8%			57.3%		
Black (%)	6.3%			9.7%			22.1%		
American Indian/Alaska Native (%)	1.0%			1.1%			1.7%		
Asian/PI (%)	12.7%			15.4%			18.9%		
Hispanic (%)	6.0%			5.9%			8.0%		
HEALTH INDICATORS									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
BRFSS Indicators, 5-Year Average, 2000-2004 (%)									
General Health is fair or poor	10.2	[8.8,13.2]		10.5	[10.0,12.5]		16.6	[12.1,22.3]	
Current Smoker	17.4	[16.5,18.3]		16.9	[15.2,18.6]		24.3	[19.2,30.3]	
Overweight	52.3	[51.1,53.5]		45.4	[43.3,47.5]		45.7	[40.0,51.6]	
Obese	16.5	[15.6,17.4]		13.1	[11.8,14.6]		16.3	[12.3,21.3]	
No physical activity	13.8	[13.1,14.7]		10.7	[9.5,12.1]		10.8	[7.5,15.1]	
Uninsured (age 18-64)	12.1	[11.3,13.0]		12.8	[11.3,14.5]		16.8	[12.3,22.4]	
Could not see a doctor due to cost	9.9	[9.1,10.6]		10.6	[9.2,12.1]		12.4	[9.2,16.5]	
Hospitalization (3-Year Average Rate Per 100,000 and 3-Year Total Number, 2002-2004									
Childhood Asthma (Age <18)	166.1	[158.8, 173.6]	1945	274.5	[254.2, 296.0]	677	348.6	[287.1, 419.4]	112
Adult Asthma (Age 18+)	59.0	[56.7, 61.4]	2457	63.7	[59.6, 68.1]	876	120.8	[106.9, 135.9]	275
Motor Vehicle Accident†	67.2	[65.0, 69.5]	3632	66.7	[62.8, 70.9]	1148	128.6	[114.7, 144.2]	348
Assault†	30.3	[28.9, 31.8]	1706	50.1	[46.8, 53.6]	906	174.5	[159.5, 191.1]	515
Suicide†	43.3	[41.6, 45.1]	2443	46.4	[43.3, 49.8]	842	99.6	[88.5, 112.4]	303

Health Planning Areas in Seattle (ZIP code based):

	King County			Seattle			North Seattle/Shoreline		
DEMOGRAPHICS									
2003 Population Estimate									
Total Population	1779300			541187			133400		
Age 0-17 (%)	21.8%			15.1%			18.7%		
Age 65+ (%)	10.5%			11.8%			15.1%		
White (%)	80.0%			73.8%			79.8%		
Black (%)	6.3%			9.7%			4.5%		
American Indian/Alaska Native (%)	1.0%			1.1%			1.0%		
Asian/PI (%)	12.7%			15.4%			14.7%		
Hispanic (%)	6.0%			5.9%			5.0%		
HEALTH INDICATORS									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
BRFSS Indicators, 5-Year Average, 2000-2004 (%)									
General Health is fair or poor	10.2	[8.8,13.2]		10.5	[10.0,12.5]		12.1	[9.5,15.2]	
Current Smoker	17.4	[16.5,18.3]		16.9	[15.2,18.6]		20.0	[16.4,24.1]	
Overweight	52.3	[51.1,53.5]		45.4	[43.3,47.5]		52.8	[48.6,57.0]	
Obese	16.5	[15.6,17.4]		13.1	[11.8,14.6]		17.7	[14.9,21.0]	
No physical activity	13.8	[13.1,14.7]		10.7	[9.5,12.1]		15.1	[12.5,18.2]	
Uninsured (age 18-64)	12.1	[11.3,13.0]		12.8	[11.3,14.5]		13.2	[10.1,17.0]	
Could not see a doctor due to cost	9.9	[9.1,10.6]		10.6	[9.2,12.1]		8.5	[6.3,11.4]	
Hospitalization (3-Year Average Rate Per 100,000 and 3-Year Total Number, 2002-2004									
Childhood Asthma (Age <18)	166.1	[158.8, 173.6]	1945	274.5	[254.2, 296.0]	677	182.0	[152.8, 215.1]	137
Adult Asthma (Age 18+)	59.0	[56.7, 61.4]	2457	63.7	[59.6, 68.1]	876	60.1	[52.0, 69.2]	195
Motor Vehicle Accident†	67.2	[65.0, 69.5]	3632	66.7	[62.8, 70.9]	1148	62.2	[54.9, 70.4]	267
Assault†	30.3	[28.9, 31.8]	1706	50.1	[46.8, 53.6]	906	21.5	[17.3, 26.7]	89
Suicide†	43.3	[41.6, 45.1]	2443	46.4	[43.3, 49.8]	842	49.7	[43.1, 57.1]	208

Health Planning Areas in Seattle (ZIP code based):

	King County			Seattle			Northeast Seattle		
DEMOGRAPHICS									
2003 Population Estimate									
Total Population	1779300			541187			84744		
Age 0-17 (%)	21.8%			15.1%			13.2%		
Age 65+ (%)	10.5%			11.8%			10.2%		
White (%)	80.0%			73.8%			84.2%		
Black (%)	6.3%			9.7%			2.5%		
American Indian/Alaska Native (%)	1.0%			1.1%			0.7%		
Asian/PI (%)	12.7%			15.4%			12.6%		
Hispanic (%)	6.0%			5.9%			3.6%		
HEALTH INDICATORS									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
BRFSS Indicators, 5-Year Average, 2000-2004 (%)									
General Health is fair or poor	10.2	[8.8,13.2]		10.5	[10.0,12.5]		8.8	[6.0,12.6]	
Current Smoker	17.4	[16.5,18.3]		16.9	[15.2,18.6]		9.8	[6.7,14.0]	
Overweight	52.3	[51.1,53.5]		45.4	[43.3,47.5]		40.2	[34.6,46.0]	
Obese	16.5	[15.6,17.4]		13.1	[11.8,14.6]		10.3	[7.5,14.0]	
No physical activity	13.8	[13.1,14.7]		10.7	[9.5,12.1]		7.8	[5.4,11.0]	
Uninsured (age 18-64)	12.1	[11.3,13.0]		12.8	[11.3,14.5]		7.9	[5.1,12.1]	
Could not see a doctor due to cost	9.9	[9.1,10.6]		10.6	[9.2,12.1]		9.6	[6.3,14.3]	
Hospitalization (3-Year Average Rate Per 100,000 and 3-Year Total Number, 2002-2004									
Childhood Asthma (Age <18)	166.1	[158.8, 173.6]	1945	274.5	[254.2, 296.0]	677	243.0	[193.4, 301.5]	82
Adult Asthma (Age 18+)	59.0	[56.7, 61.4]	2457	63.7	[59.6, 68.1]	876	16.8	[11.9, 23.2]	37
Motor Vehicle Accident†	67.2	[65.0, 69.5]	3632	66.7	[62.8, 70.9]	1148	43.4	[35.4, 53.1]	114
Assault†	30.3	[28.9, 31.8]	1706	50.1	[46.8, 53.6]	906	11.3	[7.5, 16.9]	36
Suicide†	43.3	[41.6, 45.1]	2443	46.4	[43.3, 49.8]	842	27.5	[21.3, 35.6]	78

Health Planning Areas in Seattle (ZIP code based):

	King County			Seattle			Queen Anne/Magnolia		
DEMOGRAPHICS									
2003 Population Estimate									
Total Population	1779300			541187			55771		
Age 0-17 (%)	21.8%			15.1%			11.1%		
Age 65+ (%)	10.5%			11.8%			12.3%		
White (%)	80.0%			73.8%			90.1%		
Black (%)	6.3%			9.7%			2.7%		
American Indian/Alaska Native (%)	1.0%			1.1%			0.7%		
Asian/PI (%)	12.7%			15.4%			6.4%		
Hispanic (%)	6.0%			5.9%			3.7%		
HEALTH INDICATORS									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
BRFSS Indicators, 5-Year Average, 2000-2004 (%)									
General Health is fair or poor	10.2	[8.8,13.2]		10.5	[10.0,12.5]		7.6	[5.2,11.0]	
Current Smoker	17.4	[16.5,18.3]		16.9	[15.2,18.6]		15.1	[11.4,19.6]	
Overweight	52.3	[51.1,53.5]		45.4	[43.3,47.5]		45.0	[39.2,51.0]	
Obese	16.5	[15.6,17.4]		13.1	[11.8,14.6]		9.3	[6.4,13.2]	
No physical activity	13.8	[13.1,14.7]		10.7	[9.5,12.1]		9.3	[6.5,13.1]	
Uninsured (age 18-64)	12.1	[11.3,13.0]		12.8	[11.3,14.5]		13.2	[9.1,18.8]	
Could not see a doctor due to cost	9.9	[9.1,10.6]		10.6	[9.2,12.1]		11.1	[7.5,16.0]	
Hospitalization (3-Year Average Rate Per 100,000 and 3-Year Total Number, 2002-2004									
Childhood Asthma (Age <18)	166.1	[158.8, 173.6]	1945	274.5	[254.2, 296.0]	677	204.5	[144.9, 280.8]	38
Adult Asthma (Age 18+)	59.0	[56.7, 61.4]	2457	63.7	[59.6, 68.1]	876	37.7	[28.5, 48.9]	56
Motor Vehicle Accident†	67.2	[65.0, 69.5]	3632	66.7	[62.8, 70.9]	1148	53.5	[42.3, 68.0]	92
Assault†	30.3	[28.9, 31.8]	1706	50.1	[46.8, 53.6]	906	15.6	[10.4, 24.1]	30
Suicide†	43.3	[41.6, 45.1]	2443	46.4	[43.3, 49.8]	842	33.9	[25.4, 45.5]	61

Health Planning Areas in Seattle (ZIP code based):

	King County			Seattle			West Seattle/Delridge		
DEMOGRAPHICS									
2003 Population Estimate									
Total Population	1779300			541187			78717		
Age 0-17 (%)	21.8%			15.1%			19.8%		
Age 65+ (%)	10.5%			11.8%			12.6%		
White (%)	80.0%			73.8%			77.1%		
Black (%)	6.3%			9.7%			7.7%		
American Indian/Alaska Native (%)	1.0%			1.1%			1.4%		
Asian/PI (%)	12.7%			15.4%			13.7%		
Hispanic (%)	6.0%			5.9%			7.1%		
HEALTH INDICATORS									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
BRFSS Indicators, 5-Year Average, 2000-2004 (%)									
General Health is fair or poor	10.2	[8.8,13.2]		10.5	[10.0,12.5]		13.2	[10.0,17.2]	
Current Smoker	17.4	[16.5,18.3]		16.9	[15.2,18.6]		19.6	[15.4,24.6]	
Overweight	52.3	[51.1,53.5]		45.4	[43.3,47.5]		48.4	[42.8,54.0]	
Obese	16.5	[15.6,17.4]		13.1	[11.8,14.6]		15.9	[12.0,20.8]	
No physical activity	13.8	[13.1,14.7]		10.7	[9.5,12.1]		15.0	[11.3,19.7]	
Uninsured (age 18-64)	12.1	[11.3,13.0]		12.8	[11.3,14.5]		13.2	[9.8,17.7]	
Could not see a doctor due to cost	9.9	[9.1,10.6]		10.6	[9.2,12.1]		11.5	[8.3,15.7]	
Hospitalization (3-Year Average Rate Per 100,000 and 3-Year Total Number, 2002-2004									
Childhood Asthma (Age <18)	166.1	[158.8, 173.6]	1945	274.5	[254.2, 296.0]	677	290.4	[243.8, 343.5]	136
Adult Asthma (Age 18+)	59.0	[56.7, 61.4]	2457	63.7	[59.6, 68.1]	876	75.1	[63.3, 88.5]	142
Motor Vehicle Accident†	67.2	[65.0, 69.5]	3632	66.7	[62.8, 70.9]	1148	71.2	[60.6, 83.3]	169
Assault†	30.3	[28.9, 31.8]	1706	50.1	[46.8, 53.6]	906	37.2	[29.6, 46.4]	86
Suicide†	43.3	[41.6, 45.1]	2443	46.4	[43.3, 49.8]	842	37.7	[30.2, 46.6]	92

Health Planning Areas in the North Region (ZIP code based):

	King County			North Region			Bothell/Woodinville		
DEMOGRAPHICS									
2003 Population Estimate									
Total Population	1779300			165135			82108		
Age 0-17 (%)	21.8%			22.0%			26.6%		
Age 65+ (%)	10.5%			12.4%			7.7%		
White (%)	80.0%			85.3%			91.5%		
Black (%)	6.3%			2.9%			1.4%		
American Indian/Alaska Native (%)	1.0%			0.8%			0.5%		
Asian/PI (%)	12.7%			11.0%			6.6%		
Hispanic (%)	6.0%			4.6%			4.5%		
HEALTH INDICATORS									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
BRFSS Indicators, 5-Year Average, 2000-2004 (%)									
General Health is fair or poor	10.2	[8.8,13.2]		10.8	[9.3,11.8]		8.7	[6.3,11.8]	
Current Smoker	17.4	[16.5,18.3]		15.6	[13.3,18.4]		11.5	[8.7,15.0]	
Overweight	52.3	[51.1,53.5]		51.7	[48.0,55.3]		51.5	[46.0,56.9]	
Obese	16.5	[15.6,17.4]		16.4	[14.0,19.2]		13.8	[10.7,17.5]	
No physical activity	13.8	[13.1,14.7]		13.2	[11.2,15.5]		10.9	[8.3,14.2]	
Uninsured (age 18-64)	12.1	[11.3,13.0]		10.7	[8.4,13.6]		9.1	[6.1,13.2]	
Could not see a doctor due to cost	9.9	[9.1,10.6]		8.9	[7.0,11.2]		7.9	[5.6,11.1]	
Hospitalization (3-Year Average Rate Per 100,000 and 3-Year Total Number, 2002-2004									
Childhood Asthma (Age <18)	166.1	[158.8, 173.6]	1945	150.7	[129.1, 175.0]	172	121.8	[96.6, 151.5]	80
Adult Asthma (Age 18+)	59.0	[56.7, 61.4]	2457	46.6	[40.1, 53.9]	184	34.4	[26.4, 44.1]	62
Motor Vehicle Accident†	67.2	[65.0, 69.5]	3632	64.7	[57.9, 72.1]	337	56.8	[47.3, 67.9]	135
Assault†	30.3	[28.9, 31.8]	1706	15.7	[12.4, 19.7]	78	10.7	[6.9, 16.3]	25
Suicide†	43.3	[41.6, 45.1]	2443	43.4	[37.9, 49.5]	226	35.5	[28.4, 44.3]	88

Health Planning Areas in the North Region (ZIP code based):

	King County			North Region			Cascade & Covington		
DEMOGRAPHICS									
2003 Population Estimate									
Total Population	1779300			165135			61590		
Age 0-17 (%)	21.8%			22.0%			28.2%		
Age 65+ (%)	10.5%			12.4%			6.5%		
White (%)	80.0%			85.3%			85.4%		
Black (%)	6.3%			2.9%			4.2%		
American Indian/Alaska Native (%)	1.0%			0.8%			0.8%		
Asian/PI (%)	12.7%			11.0%			9.7%		
Hispanic (%)	6.0%			4.6%			3.7%		
HEALTH INDICATORS									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
BRFSS Indicators, 5-Year Average, 2000-2004 (%)									
General Health is fair or poor	10.2	[8.8,13.2]		10.8	[9.3,11.8]		9.6	[6.4,14.2]	
Current Smoker	17.4	[16.5,18.3]		15.6	[13.3,18.4]		15.2	[10.9,20.7]	
Overweight	52.3	[51.1,53.5]		51.7	[48.0,55.3]		62.6	[55.4,69.2]	
Obese	16.5	[15.6,17.4]		16.4	[14.0,19.2]		22.2	[16.8,28.7]	
No physical activity	13.8	[13.1,14.7]		13.2	[11.2,15.5]		11.7	[8.0,16.9]	
Uninsured (age 18-64)	12.1	[11.3,13.0]		10.7	[8.4,13.6]		6.3	[3.6,10.7]	
Could not see a doctor due to cost	9.9	[9.1,10.6]		8.9	[7.0,11.2]		6.2	[3.8,10.1]	
Hospitalization (3-Year Average Rate Per 100,000 and 3-Year Total Number, 2002-2004									
Childhood Asthma (Age <18)	166.1	[158.8, 173.6]	1945	150.7	[129.1, 175.0]	172	109.5	[83.0, 141.8]	57
Adult Asthma (Age 18+)	59.0	[56.7, 61.4]	2457	46.6	[40.1, 53.9]	184	31.0	[22.3, 42.1]	41
Motor Vehicle Accident†	67.2	[65.0, 69.5]	3632	64.7	[57.9, 72.1]	337	73.3	[59.5, 91.1]	123
Assault†	30.3	[28.9, 31.8]	1706	15.7	[12.4, 19.7]	78	22.9	[15.9, 34.2]	38
Suicide†	43.3	[41.6, 45.1]	2443	43.4	[37.9, 49.5]	226	41.2	[32.3, 54.0]	76

Health Planning Areas in the East Region (ZIP code based):

	King County			East Region			Bellevue		
DEMOGRAPHICS									
2003 Population Estimate									
Total Population	1779300			410398			124260		
Age 0-17 (%)	21.8%			24.1%			20.6%		
Age 65+ (%)	10.5%			10.1%			13.5%		
White (%)	80.0%			86.0%			79.1%		
Black (%)	6.3%			1.7%			2.4%		
American Indian/Alaska Native (%)	1.0%			0.5%			0.4%		
Asian/PI (%)	12.7%			11.8%			18.2%		
Hispanic (%)	6.0%			4.4%			5.5%		
HEALTH INDICATORS									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
BRFSS Indicators, 5-Year Average, 2000-2004 (%)									
General Health is fair or poor	10.2	[8.8,13.2]		8.0	[9.5,10.9]		10.2	[7.7,13.3]	
Current Smoker	17.4	[16.5,18.3]		12.2	[10.6,14.0]		12.1	[9.5,15.3]	
Overweight	52.3	[51.1,53.5]		52.2	[49.7,54.7]		47.1	[42.6,51.7]	
Obese	16.5	[15.6,17.4]		14	[12.4,15.7]		11.0	[8.7,13.9]	
No physical activity	13.8	[13.1,14.7]		11.9	[10.4,13.6]		10.3	[8.0,13.1]	
Uninsured (age 18-64)	12.1	[11.3,13.0]		7.2	[6.0,8.7]		7.9	[5.7,10.9]	
Could not see a doctor due to cost	9.9	[9.1,10.6]		6.7	[5.5,8.0]		8.4	[5.9,11.9]	
Hospitalization (3-Year Average Rate Per 100,000 and 3-Year Total Number, 2002-2004									
Childhood Asthma (Age <18)	166.1	[158.8, 173.6]	1945	113.1	[101.2, 125.9]	331	137.3	[112.5, 166.0]	106
Adult Asthma (Age 18+)	59.0	[56.7, 61.4]	2457	36.4	[32.6, 40.5]	336	36.2	[29.7, 43.8]	107
Motor Vehicle Accident†	67.2	[65.0, 69.5]	3632	46.8	[42.9, 51.0]	551	38.0	[31.9, 44.9]	142
Assault†	30.3	[28.9, 31.8]	1706	6.4	[5.0, 8.1]	75	8.9	[6.1, 12.7]	33
Suicide†	43.3	[41.6, 45.1]	2443	31.3	[28.1, 34.6]	377	30.1	[24.7, 36.5]	111

Health Planning Areas in the East Region (ZIP code based):

	King County			East Region			Issaquah/Sammamish		
DEMOGRAPHICS									
2003 Population Estimate									
Total Population	1779300			410398			73239		
Age 0-17 (%)	21.8%			24.1%			29.2%		
Age 65+ (%)	10.5%			10.1%			7.3%		
White (%)	80.0%			86.0%			89.3%		
Black (%)	6.3%			1.7%			1.1%		
American Indian/Alaska Native (%)	1.0%			0.5%			0.4%		
Asian/PI (%)	12.7%			11.8%			9.1%		
Hispanic (%)	6.0%			4.4%			3.1%		
HEALTH INDICATORS									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
BRFSS Indicators, 5-Year Average, 2000-2004 (%)									
General Health is fair or poor	10.2	[8.8,13.2]		8.0	[9.5,10.9]		4.4	[2.7,6.9]	
Current Smoker	17.4	[16.5,18.3]		12.2	[10.6,14.0]		7.9	[5.4,11.6]	
Overweight	52.3	[51.1,53.5]		52.2	[49.7,54.7]		49.3	[43.4,55.2]	
Obese	16.5	[15.6,17.4]		14	[12.4,15.7]		16.0	[12.0,21.0]	
No physical activity	13.8	[13.1,14.7]		11.9	[10.4,13.6]		10.4	[7.5,14.2]	
Uninsured (age 18-64)	12.1	[11.3,13.0]		7.2	[6.0,8.7]		4.7	[2.8,7.9]	
Could not see a doctor due to cost	9.9	[9.1,10.6]		6.7	[5.5,8.0]		3.7	[2.3,5.9]	
Hospitalization (3-Year Average Rate Per 100,000 and 3-Year Total Number, 2002-2004									
Childhood Asthma (Age <18)	166.1	[158.8, 173.6]	1945	113.1	[101.2, 125.9]	331	122.8	[97.3, 153.0]	79
Adult Asthma (Age 18+)	59.0	[56.7, 61.4]	2457	36.4	[32.6, 40.5]	336	27.7	[20.1, 37.4]	43
Motor Vehicle Accident†	67.2	[65.0, 69.5]	3632	46.8	[42.9, 51.0]	551	38.7	[30.0, 49.6]	73
Assault†	30.3	[28.9, 31.8]	1706	6.4	[5.0, 8.1]	75	4.7	[2.2, 9.5]	10
Suicide†	43.3	[41.6, 45.1]	2443	31.3	[28.1, 34.6]	377	28.9	[21.8, 38.1]	58

Health Planning Areas in the East Region (ZIP code based):

	King County			East Region			Kirkland		
DEMOGRAPHICS									
2003 Population Estimate									
Total Population	1779300			410398			71693		
Age 0-17 (%)	21.8%			24.1%			20.7%		
Age 65+ (%)	10.5%			10.1%			9.0%		
White (%)	80.0%			86.0%			87.8%		
Black (%)	6.3%			1.7%			2.0%		
American Indian/Alaska Native (%)	1.0%			0.5%			0.6%		
Asian/PI (%)	12.7%			11.8%			9.5%		
Hispanic (%)	6.0%			4.4%			4.8%		
HEALTH INDICATORS									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
BRFSS Indicators, 5-Year Average, 2000-2004 (%)									
General Health is fair or poor	10.2	[8.8,13.2]		8.0	[9.5,10.9]		6.2	[4.0,9.4]	
Current Smoker	17.4	[16.5,18.3]		12.2	[10.6,14.0]		16.3	[12.3,21.2]	
Overweight	52.3	[51.1,53.5]		52.2	[49.7,54.7]		57.5	[51.7,63.1]	
Obese	16.5	[15.6,17.4]		14	[12.4,15.7]		15.2	[11.6,19.8]	
No physical activity	13.8	[13.1,14.7]		11.9	[10.4,13.6]		13.3	[9.7,17.9]	
Uninsured (age 18-64)	12.1	[11.3,13.0]		7.2	[6.0,8.7]		7.3	[4.8,11.0]	
Could not see a doctor due to cost	9.9	[9.1,10.6]		6.7	[5.5,8.0]		7.5	[5.0,11.1]	
Hospitalization (3-Year Average Rate Per 100,000 and 3-Year Total Number, 2002-2004									
Childhood Asthma (Age <18)	166.1	[158.8, 173.6]	1945	113.1	[101.2, 125.9]	331	120.5	[90.6, 157.0]	54
Adult Asthma (Age 18+)	59.0	[56.7, 61.4]	2457	36.4	[32.6, 40.5]	336	47.0	[37.3, 58.5]	80
Motor Vehicle Accident†	67.2	[65.0, 69.5]	3632	46.8	[42.9, 51.0]	551	53.5	[44.0, 64.7]	115
Assault†	30.3	[28.9, 31.8]	1706	6.4	[5.0, 8.1]	75	6.8	[3.8, 11.5]	16
Suicide†	43.3	[41.6, 45.1]	2443	31.3	[28.1, 34.6]	377	36.5	[29.0, 45.7]	83

Health Planning Areas in the East Region (ZIP code based):

	King County			East Region			Lower Valley & Upper Sno		
DEMOGRAPHICS									
2003 Population Estimate									
Total Population	1779300			410398			38425		
Age 0-17 (%)	21.8%			24.1%			28.5%		
Age 65+ (%)	10.5%			10.1%			6.4%		
White (%)	80.0%			86.0%			96.0%		
Black (%)	6.3%			1.7%			0.8%		
American Indian/Alaska Native (%)	1.0%			0.5%			1.0%		
Asian/PI (%)	12.7%			11.8%			2.2%		
Hispanic (%)	6.0%			4.4%			3.4%		
HEALTH INDICATORS									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
BRFSS Indicators, 5-Year Average, 2000-2004 (%)									
General Health is fair or poor	10.2	[8.8,13.2]		8.0	[9.5,10.9]		7.0	[4.0,11.9]	
Current Smoker	17.4	[16.5,18.3]		12.2	[10.6,14.0]		17.8	[12.6,24.6]	
Overweight	52.3	[51.1,53.5]		52.2	[49.7,54.7]		57.3	[49.7,64.5]	
Obese	16.5	[15.6,17.4]		14	[12.4,15.7]		15.8	[11.0,22.2]	
No physical activity	13.8	[13.1,14.7]		11.9	[10.4,13.6]		12.9	[8.4,19.2]	
Uninsured (age 18-64)	12.1	[11.3,13.0]		7.2	[6.0,8.7]		13.7	[8.7,21.0]	
Could not see a doctor due to cost	9.9	[9.1,10.6]		6.7	[5.5,8.0]		7.7	[4.8,12.0]	
Hospitalization (3-Year Average Rate Per 100,000 and 3-Year Total Number, 2002-2004									
Childhood Asthma (Age <18)	166.1	[158.8, 173.6]	1945	113.1	[101.2, 125.9]	331	109.2	[76.6, 151.2]	36
Adult Asthma (Age 18+)	59.0	[56.7, 61.4]	2457	36.4	[32.6, 40.5]	336	52.1	[37.7, 70.2]	43
Motor Vehicle Accident†	67.2	[65.0, 69.5]	3632	46.8	[42.9, 51.0]	551	93.8	[75.5, 116.2]	99
Assault†	30.3	[28.9, 31.8]	1706	6.4	[5.0, 8.1]	75	6.2	[2.3, 15.2]	6
Suicide†	43.3	[41.6, 45.1]	2443	31.3	[28.1, 34.6]	377	36.1	[25.5, 50.8]	41

Health Planning Areas in the East Region (ZIP code based):

	King County			East Region			Mercer Island/Point Cities		
DEMOGRAPHICS									
2003 Population Estimate									
Total Population	1779300			410398			25483		
Age 0-17 (%)	21.8%			24.1%			25.0%		
Age 65+ (%)	10.5%			10.1%			18.3%		
White (%)	80.0%			86.0%			86.3%		
Black (%)	6.3%			1.7%			1.3%		
American Indian/Alaska Native (%)	1.0%			0.5%			0.2%		
Asian/PI (%)	12.7%			11.8%			12.1%		
Hispanic (%)	6.0%			4.4%			1.9%		
HEALTH INDICATORS									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
BRFSS Indicators, 5-Year Average, 2000-2004 (%)									
General Health is fair or poor	10.2	[8.8,13.2]		8.0	[9.5,10.9]		11.0	[5.8,19.7]	
Current Smoker	17.4	[16.5,18.3]		12.2	[10.6,14.0]		5.1	[2.6,9.7]	
Overweight	52.3	[51.1,53.5]		52.2	[49.7,54.7]		55.6	[45.9,64.9]	
Obese	16.5	[15.6,17.4]		14	[12.4,15.7]		9.3	[4.5,18.1]	
No physical activity	13.8	[13.1,14.7]		11.9	[10.4,13.6]		9.3	[5.3,15.9]	
Uninsured (age 18-64)	12.1	[11.3,13.0]		7.2	[6.0,8.7]		5.3	[1.9,13.8]	
Could not see a doctor due to cost	9.9	[9.1,10.6]		6.7	[5.5,8.0]		2.8	[0.6,12.1]	
Hospitalization (3-Year Average Rate Per 100,000 and 3-Year Total Number, 2002-2004									
Childhood Asthma (Age <18)	166.1	[158.8, 173.6]	1945	113.1	[101.2, 125.9]	331	67.9	[36.2, 115.8]	13
Adult Asthma (Age 18+)	59.0	[56.7, 61.4]	2457	36.4	[32.6, 40.5]	336	29.8	[17.4, 47.6]	17
Motor Vehicle Accident†	67.2	[65.0, 69.5]	3632	46.8	[42.9, 51.0]	551	26.3	[15.7, 44.0]	22
Assault†	30.3	[28.9, 31.8]	1706	6.4	[5.0, 8.1]	75	NA		<5
Suicide†	43.3	[41.6, 45.1]	2443	31.3	[28.1, 34.6]	377	25.9	[14.1, 45.5]	16

Health Planning Areas in the East Region (ZIP code based):

	King County			East Region			Redmond/Union Hill		
DEMOGRAPHICS									
2003 Population Estimate									
Total Population	1779300			410398			62944		
Age 0-17 (%)	21.8%			24.1%			23.7%		
Age 65+ (%)	10.5%			10.1%			8.2%		
White (%)	80.0%			86.0%			85.5%		
Black (%)	6.3%			1.7%			1.7%		
American Indian/Alaska Native (%)	1.0%			0.5%			0.5%		
Asian/PI (%)	12.7%			11.8%			12.2%		
Hispanic (%)	6.0%			4.4%			5.4%		
HEALTH INDICATORS									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
BRFSS Indicators, 5-Year Average, 2000-2004 (%)									
General Health is fair or poor	10.2	[8.8,13.2]		8.0	[9.5,10.9]		8.1	[5.4,11.9]	
Current Smoker	17.4	[16.5,18.3]		12.2	[10.6,14.0]		10.7	[7.4,15.3]	
Overweight	52.3	[51.1,53.5]		52.2	[49.7,54.7]		55.5	[49.2,61.6]	
Obese	16.5	[15.6,17.4]		14	[12.4,15.7]		19.9	[15.4,25.2]	
No physical activity	13.8	[13.1,14.7]		11.9	[10.4,13.6]		14.6	[10.8,19.5]	
Uninsured (age 18-64)	12.1	[11.3,13.0]		7.2	[6.0,8.7]		4.1	[2.4,6.9]	
Could not see a doctor due to cost	9.9	[9.1,10.6]		6.7	[5.5,8.0]		5.2	[3.2,8.6]	
Hospitalization (3-Year Average Rate Per 100,000 and 3-Year Total Number, 2002-2004									
Childhood Asthma (Age <18)	166.1	[158.8, 173.6]	1945	113.1	[101.2, 125.9]	331	98.1	[71.4, 131.8]	44
Adult Asthma (Age 18+)	59.0	[56.7, 61.4]	2457	36.4	[32.6, 40.5]	336	34.1	[25.2, 45.1]	49
Motor Vehicle Accident†	67.2	[65.0, 69.5]	3632	46.8	[42.9, 51.0]	551	55.0	[44.6, 67.6]	102
Assault†	30.3	[28.9, 31.8]	1706	6.4	[5.0, 8.1]	75	4.1	[1.7, 9.0]	8
Suicide†	43.3	[41.6, 45.1]	2443	31.3	[28.1, 34.6]	377	38.0	[29.5, 48.9]	71

Health Planning Areas in the South Region (ZIP code based):

	King County			South Region			Auburn		
DEMOGRAPHICS									
2003 Population Estimate									
Total Population	1779300			664244			62590		
Age 0-17 (%)	21.8%			25.9%			27.4%		
Age 65+ (%)	10.5%			9.2%			9.5%		
White (%)	80.0%			80.0%			89.6%		
Black (%)	6.3%			7.2%			2.7%		
American Indian/Alaska Native (%)	1.0%			1.3%			3.0%		
Asian/PI (%)	12.7%			11.5%			4.7%		
Hispanic (%)	6.0%			7.4%			7.0%		
HEALTH INDICATORS									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
BRFSS Indicators, 5-Year Average, 2000-2004 (%)									
General Health is fair or poor	10.2	[8.8,13.2]		11.2	[6.8,9.5]		10.0	[7.0,13.9]	
Current Smoker	17.4	[16.5,18.3]		21.6	[19.9,23.4]		22.8	[17.2,29.4]	
Overweight	52.3	[51.1,53.5]		59.1	[56.9,61.2]		61.6	[54.2,68.5]	
Obese	16.5	[15.6,17.4]		21.3	[19.6,23.1]		27.8	[21.4,35.2]	
No physical activity	13.8	[13.1,14.7]		18.1	[16.6,19.8]		19.1	[13.9,25.7]	
Uninsured (age 18-64)	12.1	[11.3,13.0]		14.9	[13.3,16.6]		16.1	[11.0,22.8]	
Could not see a doctor due to cost	9.9	[9.1,10.6]		11.5	[10.2,12.9]		12.4	[8.7,17.4]	
Hospitalization (3-Year Average Rate Per 100,000 and 3-Year Total Number, 2002-2004									
Childhood Asthma (Age <18)	166.1	[158.8, 173.6]	1945	145.0	[134.9, 155.8]	751	102.7	[77.0, 134.2]	53
Adult Asthma (Age 18+)	59.0	[56.7, 61.4]	2457	70.2	[66.0, 74.7]	1035	99.3	[83.3, 117.5]	135
Motor Vehicle Accident†	67.2	[65.0, 69.5]	3632	77.5	[73.6, 81.5]	1519	88.8	[75.6, 103.8]	163
Assault†	30.3	[28.9, 31.8]	1706	30.3	[27.9, 32.8]	610	30.8	[23.4, 40.0]	59
Suicide†	43.3	[41.6, 45.1]	2443	47.2	[44.2, 50.3]	964	82.6	[70.1, 96.8]	156

Health Planning Areas in the South Region (ZIP code based):

	King County			South Region			Burien/Des Moines		
DEMOGRAPHICS									
2003 Population Estimate									
Total Population	1779300			664244			56344		
Age 0-17 (%)	21.8%			25.9%			22.5%		
Age 65+ (%)	10.5%			9.2%			14.7%		
White (%)	80.0%			80.0%			82.3%		
Black (%)	6.3%			7.2%			7.4%		
American Indian/Alaska Native (%)	1.0%			1.3%			1.1%		
Asian/PI (%)	12.7%			11.5%			9.2%		
Hispanic (%)	6.0%			7.4%			9.0%		
HEALTH INDICATORS									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
BRFSS Indicators, 5-Year Average, 2000-2004 (%)									
General Health is fair or poor	10.2	[8.8,13.2]		11.2	[6.8,9.5]		7.3	[4.5,11.5]	
Current Smoker	17.4	[16.5,18.3]		21.6	[19.9,23.4]		20.7	[14.9,28.0]	
Overweight	52.3	[51.1,53.5]		59.1	[56.9,61.2]		56.7	[48.5,64.5]	
Obese	16.5	[15.6,17.4]		21.3	[19.6,23.1]		19.3	[14.1,26.0]	
No physical activity	13.8	[13.1,14.7]		18.1	[16.6,19.8]		17.8	[13.0,23.9]	
Uninsured (age 18-64)	12.1	[11.3,13.0]		14.9	[13.3,16.6]		18	[11.8,26.5]	
Could not see a doctor due to cost	9.9	[9.1,10.6]		11.5	[10.2,12.9]		10.5	[6.3,17.1]	
Hospitalization (3-Year Average Rate Per 100,000 and 3-Year Total Number, 2002-2004									
Childhood Asthma (Age <18)	166.1	[158.8, 173.6]	1945	145.0	[134.9, 155.8]	751	196.7	[154.6, 246.9]	74
Adult Asthma (Age 18+)	59.0	[56.7, 61.4]	2457	70.2	[66.0, 74.7]	1035	78.2	[63.7, 95.0]	101
Motor Vehicle Accident†	67.2	[65.0, 69.5]	3632	77.5	[73.6, 81.5]	1519	73.0	[60.5, 87.5]	120
Assault†	30.3	[28.9, 31.8]	1706	30.3	[27.9, 32.8]	610	36.3	[27.5, 47.0]	58
Suicide†	43.3	[41.6, 45.1]	2443	47.2	[44.2, 50.3]	964	46.3	[36.5, 58.1]	76

Health Planning Areas in the South Region (ZIP code based):

	King County			South Region			Federal Way		
DEMOGRAPHICS									
2003 Population Estimate									
Total Population	1779300			664244			119091		
Age 0-17 (%)	21.8%			25.9%			27.5%		
Age 65+ (%)	10.5%			9.2%			7.8%		
White (%)	80.0%			80.0%			78.4%		
Black (%)	6.3%			7.2%			7.7%		
American Indian/Alaska Native (%)	1.0%			1.3%			1.0%		
Asian/PI (%)	12.7%			11.5%			12.9%		
Hispanic (%)	6.0%			7.4%			7.2%		
HEALTH INDICATORS									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
BRFSS Indicators, 5-Year Average, 2000-2004 (%)									
General Health is fair or poor	10.2	[8.8,13.2]		11.2	[6.8,9.5]		10.0	[7.7,12.8]	
Current Smoker	17.4	[16.5,18.3]		21.6	[19.9,23.4]		21.3	[17.6,25.7]	
Overweight	52.3	[51.1,53.5]		59.1	[56.9,61.2]		60.7	[55.8,65.4]	
Obese	16.5	[15.6,17.4]		21.3	[19.6,23.1]		26.0	[21.8,30.7]	
No physical activity	13.8	[13.1,14.7]		18.1	[16.6,19.8]		19.3	[15.7,23.4]	
Uninsured (age 18-64)	12.1	[11.3,13.0]		14.9	[13.3,16.6]		16.3	[13.0,20.4]	
Could not see a doctor due to cost	9.9	[9.1,10.6]		11.5	[10.2,12.9]		13.7	[10.5,17.8]	
Hospitalization (3-Year Average Rate Per 100,000 and 3-Year Total Number, 2002-2004									
Childhood Asthma (Age <18)	166.1	[158.8, 173.6]	1945	145.0	[134.9, 155.8]	751	105.4	[86.1, 127.6]	104
Adult Asthma (Age 18+)	59.0	[56.7, 61.4]	2457	70.2	[66.0, 74.7]	1035	84.7	[73.9, 96.7]	219
Motor Vehicle Accident†	67.2	[65.0, 69.5]	3632	77.5	[73.6, 81.5]	1519	66.9	[58.3, 76.8]	229
Assault†	30.3	[28.9, 31.8]	1706	30.3	[27.9, 32.8]	610	27.6	[22.3, 34.0]	99
Suicide†	43.3	[41.6, 45.1]	2443	47.2	[44.2, 50.3]	964	47.5	[40.7, 55.5]	175

Health Planning Areas in the South Region (ZIP code based):

	King County			South Region			Kent		
DEMOGRAPHICS									
2003 Population Estimate									
Total Population	1779300			664244			133415		
Age 0-17 (%)	21.8%			25.9%			28.1%		
Age 65+ (%)	10.5%			9.2%			7.1%		
White (%)	80.0%			80.0%			80.5%		
Black (%)	6.3%			7.2%			7.3%		
American Indian/Alaska Native (%)	1.0%			1.3%			1.0%		
Asian/PI (%)	12.7%			11.5%			11.2%		
Hispanic (%)	6.0%			7.4%			7.0%		
HEALTH INDICATORS									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
BRFSS Indicators, 5-Year Average, 2000-2004 (%)									
General Health is fair or poor	10.2	[8.8,13.2]		11.2	[6.8,9.5]		11.6	[8.8,15.1]	
Current Smoker	17.4	[16.5,18.3]		21.6	[19.9,23.4]		19.6	[16.2,23.6]	
Overweight	52.3	[51.1,53.5]		59.1	[56.9,61.2]		61.2	[56.4,65.8]	
Obese	16.5	[15.6,17.4]		21.3	[19.6,23.1]		18.1	[14.9,21.9]	
No physical activity	13.8	[13.1,14.7]		18.1	[16.6,19.8]		19.3	[16.0,23.1]	
Uninsured (age 18-64)	12.1	[11.3,13.0]		14.9	[13.3,16.6]		13.9	[10.7,17.8]	
Could not see a doctor due to cost	9.9	[9.1,10.6]		11.5	[10.2,12.9]		11.7	[9.0,15.1]	
Hospitalization (3-Year Average Rate Per 100,000 and 3-Year Total Number, 2002-2004									
Childhood Asthma (Age <18)	166.1	[158.8, 173.6]	1945	145.0	[134.9, 155.8]	751	146.5	[125.1, 170.5]	166
Adult Asthma (Age 18+)	59.0	[56.7, 61.4]	2457	70.2	[66.0, 74.7]	1035	69.6	[60.3, 79.9]	201
Motor Vehicle Accident†	67.2	[65.0, 69.5]	3632	77.5	[73.6, 81.5]	1519	79.9	[71.0, 90.0]	310
Assault†	30.3	[28.9, 31.8]	1706	30.3	[27.9, 32.8]	610	26.9	[22.1, 32.8]	112
Suicide†	43.3	[41.6, 45.1]	2443	47.2	[44.2, 50.3]	964	42.4	[36.3, 49.5]	178

Health Planning Areas in the South Region (ZIP code based):

	King County			South Region			Renton		
DEMOGRAPHICS									
2003 Population Estimate									
Total Population	1779300			664244			101700		
Age 0-17 (%)	21.8%			25.9%			22.3%		
Age 65+ (%)	10.5%			9.2%			10.5%		
White (%)	80.0%			80.0%			70.3%		
Black (%)	6.3%			7.2%			12.0%		
American Indian/Alaska Native (%)	1.0%			1.3%			0.8%		
Asian/PI (%)	12.7%			11.5%			16.9%		
Hispanic (%)	6.0%			7.4%			6.4%		
HEALTH INDICATORS									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
BRFSS Indicators, 5-Year Average, 2000-2004 (%)									
General Health is fair or poor	10.2	[8.8,13.2]		11.2	[6.8,9.5]		12.0	[9.0,15.8]	
Current Smoker	17.4	[16.5,18.3]		21.6	[19.9,23.4]		21.1	[17.1,25.8]	
Overweight	52.3	[51.1,53.5]		59.1	[56.9,61.2]		57.7	[51.9,63.4]	
Obese	16.5	[15.6,17.4]		21.3	[19.6,23.1]		20.3	[16.0,25.4]	
No physical activity	13.8	[13.1,14.7]		18.1	[16.6,19.8]		18.2	[14.3,22.9]	
Uninsured (age 18-64)	12.1	[11.3,13.0]		14.9	[13.3,16.6]		15.1	[11.1,20.0]	
Could not see a doctor due to cost	9.9	[9.1,10.6]		11.5	[10.2,12.9]		9.5	[6.6,13.4]	
Hospitalization (3-Year Average Rate Per 100,000 and 3-Year Total Number, 2002-2004									
Childhood Asthma (Age <18)	166.1	[158.8, 173.6]	1945	145.0	[134.9, 155.8]	751	214.1	[180.8, 251.7]	146
Adult Asthma (Age 18+)	59.0	[56.7, 61.4]	2457	70.2	[66.0, 74.7]	1035	58.3	[49.0, 68.9]	138
Motor Vehicle Accident†	67.2	[65.0, 69.5]	3632	77.5	[73.6, 81.5]	1519	74.1	[64.7, 84.6]	226
Assault†	30.3	[28.9, 31.8]	1706	30.3	[27.9, 32.8]	610	30.2	[24.4, 37.1]	94
Suicide†	43.3	[41.6, 45.1]	2443	47.2	[44.2, 50.3]	964	36.0	[29.7, 43.5]	114

Health Planning Areas in the South Region (ZIP code based):

	King County			South Region			Southeast King County		
DEMOGRAPHICS									
2003 Population Estimate									
Total Population	1779300			664244			29439		
Age 0-17 (%)	21.8%			25.9%			27.4%		
Age 65+ (%)	10.5%			9.2%			10.7%		
White (%)	80.0%			80.0%			96.9%		
Black (%)	6.3%			7.2%			0.5%		
American Indian/Alaska Native (%)	1.0%			1.3%			1.5%		
Asian/PI (%)	12.7%			11.5%			1.2%		
Hispanic (%)	6.0%			7.4%			3.6%		
HEALTH INDICATORS									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
BRFSS Indicators, 5-Year Average, 2000-2004 (%)									
General Health is fair or poor	10.2	[8.8,13.2]		11.2	[6.8,9.5]		12.5	[7.4,20.4]	
Current Smoker	17.4	[16.5,18.3]		21.6	[19.9,23.4]		32.5	[23.6,42.9]	
Overweight	52.3	[51.1,53.5]		59.1	[56.9,61.2]		57.5	[46.4,67.9]	
Obese	16.5	[15.6,17.4]		21.3	[19.6,23.1]		24.0	[16.5,33.5]	
No physical activity	13.8	[13.1,14.7]		18.1	[16.6,19.8]		25.1	[16.1,36.9]	
Uninsured (age 18-64)	12.1	[11.3,13.0]		14.9	[13.3,16.6]		13.7	[7.2,24.4]	
Could not see a doctor due to cost	9.9	[9.1,10.6]		11.5	[10.2,12.9]		6.1	[3.1,11.7]	
Hospitalization (3-Year Average Rate Per 100,000 and 3-Year Total Number, 2002-2004									
Childhood Asthma (Age <18)	166.1	[158.8, 173.6]	1945	145.0	[134.9, 155.8]	751	57.4	[31.4, 96.1]	14
Adult Asthma (Age 18+)	59.0	[56.7, 61.4]	2457	70.2	[66.0, 74.7]	1035	54.5	[38.0, 75.9]	35
Motor Vehicle Accident†	67.2	[65.0, 69.5]	3632	77.5	[73.6, 81.5]	1519	111.9	[90.2, 137.5]	94
Assault†	30.3	[28.9, 31.8]	1706	30.3	[27.9, 32.8]	610	22.7	[13.6, 35.9]	19
Suicide†	43.3	[41.6, 45.1]	2443	47.2	[44.2, 50.3]	964	52.9	[38.4, 71.4]	45

Health Planning Areas in the South Region (ZIP code based):

	King County			South Region			Tukwila/SeaTac		
DEMOGRAPHICS									
2003 Population Estimate									
Total Population	1779300			664244			30112		
Age 0-17 (%)	21.8%			25.9%			22.4%		
Age 65+ (%)	10.5%			9.2%			10.0%		
White (%)	80.0%			80.0%			73.8%		
Black (%)	6.3%			7.2%			10.7%		
American Indian/Alaska Native (%)	1.0%			1.3%			1.3%		
Asian/PI (%)	12.7%			11.5%			14.1%		
Hispanic (%)	6.0%			7.4%			12.1%		
HEALTH INDICATORS									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
BRFSS Indicators, 5-Year Average, 2000-2004 (%)									
General Health is fair or poor	10.2	[8.8,13.2]		11.2	[6.8,9.5]		10.5	[6.5,16.5]	
Current Smoker	17.4	[16.5,18.3]		21.6	[19.9,23.4]		21.4	[13.2,32.7]	
Overweight	52.3	[51.1,53.5]		59.1	[56.9,61.2]		49.9	[39.1,60.7]	
Obese	16.5	[15.6,17.4]		21.3	[19.6,23.1]		23.3	[15.8,33.0]	
No physical activity	13.8	[13.1,14.7]		18.1	[16.6,19.8]		18.6	[11.6,28.6]	
Uninsured (age 18-64)	12.1	[11.3,13.0]		14.9	[13.3,16.6]		22	[13.4,34.1]	
Could not see a doctor due to cost	9.9	[9.1,10.6]		11.5	[10.2,12.9]		16.4	[10.2,25.3]	
Hospitalization (3-Year Average Rate Per 100,000 and 3-Year Total Number, 2002-2004									
Childhood Asthma (Age <18)	166.1	[158.8, 173.6]	1945	145.0	[134.9, 155.8]	751	196.5	[140.5, 267.7]	40
Adult Asthma (Age 18+)	59.0	[56.7, 61.4]	2457	70.2	[66.0, 74.7]	1035	78.6	[59.3, 102.3]	55
Motor Vehicle Accident†	67.2	[65.0, 69.5]	3632	77.5	[73.6, 81.5]	1519	69.6	[53.3, 90.3]	63
Assault†	30.3	[28.9, 31.8]	1706	30.3	[27.9, 32.8]	610	49.5	[36.3, 67.1]	47
Suicide†	43.3	[41.6, 45.1]	2443	47.2	[44.2, 50.3]	964	53.4	[39.7, 71.4]	51

Health Planning Areas in the South Region (ZIP code based):

	King County			South Region			Vashon Island		
DEMOGRAPHICS									
2003 Population Estimate									
Total Population	1779300			664244			10224		
Age 0-17 (%)	21.8%			25.9%			22.2%		
Age 65+ (%)	10.5%			9.2%			13.0%		
White (%)	80.0%			80.0%			96.0%		
Black (%)	6.3%			7.2%			1.0%		
American Indian/Alaska Native (%)	1.0%			1.3%			0.8%		
Asian/PI (%)	12.7%			11.5%			2.2%		
Hispanic (%)	6.0%			7.4%			2.8%		
HEALTH INDICATORS									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
BRFSS Indicators, 5-Year Average, 2000-2004 (%)									
General Health is fair or poor	10.2	[8.8,13.2]		11.2	[6.8,9.5]		7.6	[3.4,16.1]	
Current Smoker	17.4	[16.5,18.3]		21.6	[19.9,23.4]		20.0	[12.1,31.1]	
Overweight	52.3	[51.1,53.5]		59.1	[56.9,61.2]		49.6	[38.1,61.2]	
Obese	16.5	[15.6,17.4]		21.3	[19.6,23.1]		15.7	[9.1,25.8]	
No physical activity	13.8	[13.1,14.7]		18.1	[16.6,19.8]		6.5	[2.6,15.2]	
Uninsured (age 18-64)	12.1	[11.3,13.0]		14.9	[13.3,16.6]		9.8	[5.2,17.9]	
Could not see a doctor due to cost	9.9	[9.1,10.6]		11.5	[10.2,12.9]		8.8	[4.2,17.5]	
Hospitalization (3-Year Average Rate Per 100,000 and 3-Year Total Number, 2002-2004									
Childhood Asthma (Age <18)	166.1	[158.8, 173.6]	1945	145.0	[134.9, 155.8]	751	161.1	[80.6, 287.1]	11
Adult Asthma (Age 18+)	59.0	[56.7, 61.4]	2457	70.2	[66.0, 74.7]	1035	12.6	[2.6, 35.7]	3
Motor Vehicle Accident†	67.2	[65.0, 69.5]	3632	77.5	[73.6, 81.5]	1519	149.6	[103.0, 212.2]	38
Assault†	30.3	[28.9, 31.8]	1706	30.3	[27.9, 32.8]	610	23.9	[7.7, 58.6]	6
Suicide†	43.3	[41.6, 45.1]	2443	47.2	[44.2, 50.3]	964	38.3	[18.2, 75.0]	11

Percent Population Change by Region, Health Planning Area and Race/Ethnicity, King County, 1990 and Estimated* 2000

PLACE	2000 Population Count	1990-2000 Population Change (%) Total	White	African American	American Indian/AN	Asian/PI	Hispanic/ Latino
KING COUNTY	1,737,030	15%	8%	40%	-4%	76%	115%
East Region	399,511	20%	12%	46%	17%	130%	123%
North County	140,149	10%	4%	97%	8%	68%	101%
Seattle	563,388	9%	7%	2%	-19%	34%	63%
South County	633,983	20%	8%	141%	7%	129%	173%
Auburn	57,541	25%	20%	202%	26%	85%	191%
Ballard	44,241	4%	3%	48%	-29%	24%	47%
Beacon/G'town/S.Park	35,053	11%	9%	-8%	-37%	26%	106%
Bellevue	124,769	14%	2%	24%	12%	116%	140%
Bothell/North Shore	48,615	14%	10%	120%	12%	66%	117%
Burien	34,390	6%	-3%	203%	-9%	105%	205%
Capitol Hill	40,714	3%	4%	-24%	-14%	40%	26%
Cascade-Fairwood	39,064	19%	5%	120%	25%	126%	95%
Tukwila/SeaTac	38,471	8%	44%	-23%	-15%	6%	112%
Covington/Maple Valley	39,666	45%	42%	109%	12%	152%	119%
Delridge	31,016	12%	2%	45%	-32%	42%	84%
Des Moines/Normandy Pk	34,954	9%	-2%	180%	1%	132%	148%
Downtown/First Hill	36,778	55%	50%	58%	0%	96%	72%
Federal Way	113,159	22%	7%	177%	29%	132%	162%
Fremont/Greenlake	40,718	5%	4%	14%	-30%	35%	19%
Issaquah/Sammamish	71,517	43%	34%	158%	61%	290%	134%
Kent	111,945	28%	11%	214%	16%	191%	166%
Kirkland	79,604	8%	3%	40%	-4%	94%	90%
Mercer Isle/Pt Cities	29,983	4%	-1%	12%	49%	61%	39%
NE Seattle	70,695	5%	3%	11%	-22%	25%	23%
North Seattle	40,390	11%	3%	80%	-9%	40%	84%
NW Seattle	40,781	10%	3%	104%	-2%	51%	78%
Queen Anne/Magnolia	53,601	8%	6%	19%	-6%	39%	36%
Redmond/Union Hill	60,887	31%	21%	96%	25%	184%	180%
Renton	77,313	13%	0%	62%	-17%	105%	162%
Riverview/Lower Valley	51,898	20%	18%	68%	30%	110%	119%
SE County	44,181	21%	20%	60%	13%	66%	92%
SE Seattle	43,230	8%	5%	-6%	-27%	33%	73%
Shoreline	51,416	2%	-6%	104%	8%	59%	73%
Tukwila/SeaTac	42,024	12%	-7%	171%	-10%	161%	287%
Upper Snoqualmie Valley	20,971	26%	25%	109%	-7%	204%	63%
Vashon Island	10,136	9%	8%	117%	-6%	61%	67%
W Seattle	47,700	2%	0%	64%	-9%	38%	38%
White Center/Boulvd Pk	29,609	13%	-5%	117%	-20%	88%	199%

Data Source:

1990-2003 Population Estimates: Population Estimates for Public Health Assessment, Washington State Department of Health, Vista Partnership, and Krupski Consulting. October 2004.

*Race/ethnicity totals are bridged-race estimates based on 2000 U.S. Census race figures. Census figures, which included multiple race for the first time in 2000, were bridged to single-race figures to faciliate assessment of change. For more information on this methodology see http://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm

For 2000 U.S.Census Counts by race/ethnicity, see The American Community Survey (http://www.census.gov/main/www/cen2000.html))

Totals over race may not match U.S. Census totals.

Educational Attainment by Race/Ethnicity, Region and Health Planning Area, Age 25 and Older, King County, 2000

	No HS Diploma	HS Diploma	Some College +
King County (1990)	11.8%	22.8%	65.4%
King County (2000)	9.7%	19.2%	71.1%
White Alone	7.0%	19.1%	73.9%
Black Alone	18.3%	23.4%	58.3%
American Indian/AN Alone	20.5%	25.8%	53.7%
Asian Alone	18.3%	16.1%	65.6%
Pacific Islander Alone	20.7%	35.3%	44.1%
Two or More Races	14.2%	21.4%	64.3%
Hispanic/Latino	32.9%	20.1%	47.0%
East Region	4.8%	13.8%	81.4%
North Region	7.4%	17.8%	74.8%
Seattle	10.5%	15.3%	74.2%
South Region	12.8%	27.0%	60.3%
Auburn	15.5%	32.4%	52.1%
Ballard	7.3%	15.7%	77.0%
Beacon/G'town/S. Park	29.5%	24.9%	45.6%
Bellevue	5.5%	13.1%	81.4%
Bothell/North Shore	6.6%	17.4%	76.0%
Burien	15.4%	26.9%	57.7%
Capitol Hill/Eastlake	4.2%	7.5%	88.3%
Cascade-Fairwood	8.2%	23.1%	68.7%
Central Seattle	17.8%	15.1%	67.1%
Covington/Maple Valley	8.3%	23.3%	68.5%
Delridge	19.8%	21.8%	58.4%
Des Moines/Normandy Pk	10.9%	25.0%	64.0%
Downtown/First Hill	18.4%	18.8%	62.8%
Federal Way	10.2%	25.8%	64.0%
Fremont/Greenlake	3.3%	9.0%	87.7%
Issaquah/Sammamish	2.5%	12.2%	85.3%
Kent	12.4%	26.3%	61.3%
Kirkland	5.0%	16.3%	78.7%
Mercer Island/Pt. Cities	2.0%	7.7%	90.3%
NE Seattle	2.9%	8.5%	88.6%
North Seattle	8.4%	17.6%	74.0%
NW Seattle	10.2%	20.1%	69.7%
Queen Anne/Magnolia	3.5%	10.8%	85.7%
Redmond/Union Hill	5.3%	12.3%	82.4%
Renton	13.3%	26.2%	60.5%
Riverview/Lower Valley	5.4%	17.4%	77.2%
SE County	10.5%	31.7%	57.7%
SE Seattle	21.9%	21.0%	57.1%
Shoreline	9.9%	19.7%	70.4%
Tukwila/SeaTac	18.4%	30.3%	51.2%
Upper Snoqualmie V.	9.4%	22.1%	68.5%
Vashon Island	4.7%	15.3%	79.9%
W Seattle	6.7%	17.4%	75.9%
White Center/Blvd. Pk.	25.5%	31.3%	43.3%

Source: 1990 and 2000 U.S. Census

Percent Living Below the Federal Poverty Level
by Region and Health Planning Area*, King County, 1969, 1979, 1989 and 1999

Place	1969	1979	1989	1999	Number*
King County	7.4%	7.7%	8.0%	8.4%	142,546
East Region	3.8%	4.7%	4.2%	4.4%	17,430
North County	4.2%	4.5%	4.6%	5.4%	7,511
Seattle	10.0%	11.2%	12.4%	11.8%	64,068
South County	6.2%	6.3%	6.9%	8.5%	53,537
Auburn	9.3%	9.7%	10.4%	11.0%	6,272
Ballard	8.5%	7.7%	6.9%	6.6%	2,900
Beacon/G'town/S. Park	12.7%	14.3%	20.3%	15.3%	5,285
Bellevue	2.9%	4.5%	5.0%	5.3%	6,572
Bothell/North Shore	4.2%	4.2%	4.0%	5.1%	2,463
Burien	4.8%	7.1%	7.8%	9.3%	3,158
Capitol Hill/Eastlake	12.4%	13.6%	12.7%	10.1%	4,090
Cascade-Fairwood	3.7%	3.8%	3.7%	5.6%	2,163
Central Seattle	15.6%	18.2%	16.5%	17.1%	6,426
Covington/Maple Valley	6.4%	3.9%	3.8%	3.0%	1,206
Delridge	13.1%	12.6%	14.8%	16.0%	4,952
Des Moines/Normandy Pk	4.1%	5.7%	6.3%	7.2%	2,437
Downtown/First Hill	26.9%	29.9%	31.7%	28.5%	8,786
Federal Way	4.6%	5.1%	5.2%	8.2%	9,245
Fremont/Greenlake	9.8%	10.1%	8.4%	7.7%	3,119
Issaquah/Sammamish	5.0%	3.4%	2.2%	3.1%	2,176
Kent	5.8%	6.1%	6.9%	9.5%	10,557
Kirkland	4.9%	5.0%	4.9%	4.9%	3,839
Mercer Island/Pt. Cities	2.6%	3.9%	2.4%	2.7%	792
NE Seattle	8.6%	11.4%	14.8%	13.9%	8,787
North Seattle	5.1%	6.8%	8.8%	11.5%	4,618
NW Seattle	7.4%	7.5%	9.7%	11.5%	4,637
Queen Anne/Magnolia	6.9%	6.8%	6.3%	6.0%	3,091
Redmond/Union Hill	3.5%	4.6%	3.5%	4.6%	2,798
Renton	5.2%	6.2%	6.0%	8.5%	6,558
Riverview/Lower Valley	6.4%	5.1%	4.2%	3.6%	1,887
SE County	9.2%	6.8%	6.2%	5.1%	2,250
SE Seattle	9.3%	11.2%	16.7%	12.3%	5,222
Shoreline	4.1%	5.1%	5.9%	6.9%	3,507
Tukwila/SeaTac	5.8%	5.9%	8.8%	11.9%	4,909
Upper Snoqualmie V.	6.6%	7.5%	5.2%	4.4%	907
Vashon Island	6.7%	6.6%	5.5%	6.0%	601
W Seattle	5.1%	6.4%	5.7%	4.6%	2,155
White Center/Blvd. Pk.	11.8%	10.3%	15.9%	14.2%	4,181

Data Sources: 1969, 1979 and 1989: National Change Database, The Urban Institute and GeoLytics
1999: 2000 U.S. Census

*Number of people living below the poverty level in 1999.

Health Planning Areas in the South Region (ZIP code based):

	King County			South Region			White Center/Boulevard P		
DEMOGRAPHICS									
2003 Population Estimate									
Total Population	1779300			664244			59739		
Age 0-17 (%)	21.8%			25.9%			24.9%		
Age 65+ (%)	10.5%			9.2%			10.4%		
White (%)	80.0%			80.0%			73.2%		
Black (%)	6.3%			7.2%			8.3%		
American Indian/Alaska Native (%)	1.0%			1.3%			1.7%		
Asian/PI (%)	12.7%			11.5%			16.8%		
Hispanic (%)	6.0%			7.4%			13.4%		
HEALTH INDICATORS									
	Rate	**95% CI**	**N**	**Rate**	**95% CI**	**N**	**Rate**	**95% CI**	**N**
BRFSS Indicators, 5-Year Average, 2000-2004 (%)									
General Health is fair or poor	10.2	[8.8,13.2]		11.2	[6.8,9.5]		17.2	[11.4,25.0]	
Current Smoker	17.4	[16.5,18.3]		21.6	[19.9,23.4]		28.3	[21.1,36.8]	
Overweight	52.3	[51.1,53.5]		59.1	[56.9,61.2]		59.4	[50.8,67.5]	
Obese	16.5	[15.6,17.4]		21.3	[19.6,23.1]		21.3	[15.4,28.6]	
No physical activity	13.8	[13.1,14.7]		18.1	[16.6,19.8]		23.2	[16.7,31.4]	
Uninsured (age 18-64)	12.1	[11.3,13.0]		14.9	[13.3,16.6]		16.7	[11.5,23.7]	
Could not see a doctor due to cost	9.9	[9.1,10.6]		11.5	[10.2,12.9]		14.2	[9.6,20.4]	
Hospitalization (3-Year Average Rate Per 100,000 and 3-Year Total Number, 2002-2004									
Childhood Asthma (Age <18)	166.1	[158.8, 173.6]	1945	145.0	[134.9, 155.8]	751	208.0	[168.0, 254.7]	93
Adult Asthma (Age 18+)	59.0	[56.7, 61.4]	2457	70.2	[66.0, 74.7]	1035	87.9	[72.7, 105.2]	118
Motor Vehicle Accident†	67.2	[65.0, 69.5]	3632	77.5	[73.6, 81.5]	1519	90.1	[76.7, 105.4]	162
Assault†	30.3	[28.9, 31.8]	1706	30.3	[27.9, 32.8]	610	43.5	[34.5, 54.3]	81
Suicide†	43.3	[41.6, 45.1]	2443	47.2	[44.2, 50.3]	964	48.2	[38.7, 59.6]	89

Self-reported Disability Status, Number with Disability and Percent Disabled, by Age and Sex, King County, 2003

	Age 5 to 15:			Age 16 to 20:			Age 21 to 64:			Age 65 to 74:			Age 75+:		
Any disability	Total	Number with disability	Percent disabled	Total	Number with disability	Percent disabled	Total	Number with disability	Percent disabled	Total	Number with disability	Percent disabled	Total	Number with disability	Percent disabled
Male	122,165	12,144	9.9%	49,035	2,101	4.3%	559,269	55,542	9.9%	40,591	11,968	29.5%	31,326	14,841	47.4%
male lower bound	119,360	9,040	7.6%	44,357	995	2.2%	554,735	47,555	8.6%	38,902	9,049	23.3%	29,840	12,943	43.4%
male upper bound	124,970	15,248	12.2%	53,713	3,207	6.0%	563,803	63,529	11.3%	42,280	14,887	35.2%	32,812	16,739	51.0%
Female	112,785	2,833	2.5%	46,347	2,892	6.2%	555,494	56,520	10.2%	47,340	10,173	21.5%	52,950	26,276	49.6%
female lower bound	110,117	1,183	1.1%	42,334	1,157	2.7%	552,005	49,937	9.0%	46,016	7,736	16.8%	51,245	22,970	44.8%
female upper bound	115,453	4,483	3.9%	50,360	4,627	9.2%	558,983	63,103	11.3%	48,664	12,610	25.9%	54,655	29,582	54.1%
Total	234,950	14,977	6.4%	95,382	4,993	5.2%	1,114,763	112,062	10.1%	87,931	22,141	25.2%	84,276	41,117	48.8%
Sensory disability	Total	Number with disability	Percent disabled	Total	Number with disability	Percent disabled	Total	Number with disability	Percent disabled	Total	Number with disability	Percent disabled	Total	Number with disability	Percent disabled
Male	122,165	2,936	2.4%	49,035	202	0.4%	559,269	16,881	3.0%	40,591	3,679	9.1%	31,326	6,169	19.7%
male lower bound	119,360	775	0.6%	44,357	0	0.0%	554,735	12,446	2.2%	38,902	2,265	5.8%	29,840	4,423	14.8%
male upper bound	124,970	5,097	4.1%	53,713	522	1.0%	563,803	21,316	3.8%	42,280	5,093	12.0%	32,812	7,915	24.1%
Female	112,785	222	0.2%	46,347	0	0.0%	555,494	12,396	2.2%	47,340	3,311	7.0%	52,950	11,573	21.9%
female lower bound	110,117	0	0.0%	42,334	0	0.0%	552,005	8,954	1.6%	46,016	1,618	3.5%	51,245	8,956	17.5%
female upper bound	115,453	591	0.5%	50,360	502	1.0%	558,983	15,838	2.8%	48,664	5,004	10.3%	54,655	14,190	26.0%
Total	234,950	3,158	1.3%	95,382	202	0.2%	1,114,763	29,277	2.6%	87,931	6,990	7.9%	84,276	17,742	21.1%
Physical disability	Total	Number with disability	Percent disabled	Total	Number with disability	Percent disabled	Total	Number with disability	Percent disabled	Total	Number with disability	Percent disabled	Total	Number with disability	Percent disabled
Male	122,165	1,116	0.9%	49,035	313	0.6%	559,269	26,432	4.7%	40,591	8,889	21.9%	31,326	11,788	37.6%
male lower bound	119,360	127	0.1%	44,357	0	0.0%	554,735	20,728	3.7%	38,902	6,268	16.1%	29,840	9,751	32.7%
male upper bound	124,970	2,105	1.7%	53,713	807	1.5%	563,803	32,136	5.7%	42,280	11,510	27.2%	32,812	13,825	42.1%
Female	112,785	222	0.2%	46,347	1,284	2.8%	555,494	31,114	5.6%	47,340	7,520	15.9%	52,950	20,941	39.5%
female lower bound	110,117	0	0.0%	42,334	0	0.0%	552,005	26,557	4.8%	46,016	5,207	11.3%	51,245	17,765	34.7%
female upper bound	115,453	591	0.5%	50,360	2,587	5.1%	558,983	35,671	6.4%	48,664	9,833	20.2%	54,655	24,117	44.1%
Total	234,950	1,338	0.6%	95,382	1,597	1.7%	1,114,763	57,546	5.2%	87,931	16,409	18.7%	84,276	32,729	38.8%
Mental disability	Total	Number with disability	Percent disabled	Total	Number with disability	Percent disabled	Total	Number with disability	Percent disabled	Total	Number with disability	Percent disabled	Total	Number with disability	Percent disabled
Male	122,165	11,092	9.1%	49,035	1,420	2.9%	559,269	22,848	4.1%	40,591	1,756	4.3%	31,326	4,250	13.6%
male lower bound	119,360	7,965	6.7%	44,357	522	1.2%	554,735	17,933	3.2%	38,902	512	1.3%	29,840	2,638	8.8%
male upper bound	124,970	14,219	11.4%	53,713	2,318	4.3%	563,803	27,763	4.9%	42,280	3,000	7.1%	32,812	5,862	17.9%
Female	112,785	2,833	2.5%	46,347	2,723	5.9%	555,494	22,059	4.0%	47,340	1,440	3.0%	52,950	8,350	15.8%
female lower bound	110,117	1,183	1.1%	42,334	913	2.2%	552,005	17,224	3.1%	46,016	550	1.2%	51,245	5,865	11.4%
female upper bound	115,453	4,483	3.9%	50,360	4,533	9.0%	558,983	26,894	4.8%	48,664	2,330	4.8%	54,655	10,835	19.8%
Total	234,950	13,925	5.9%	95,382	4,143	4.3%	1,114,763	44,907	4.0%	87,931	3,196	3.6%	84,276	12,600	15.0%
Self-care disability	Total	Number with disability	Percent disabled	Total	Number with disability	Percent disabled	Total	Number with disability	Percent disabled	Total	Number with disability	Percent disabled	Total	Number with disability	Percent disabled
Male	122,165	1,782	1.5%	49,035	313	0.6%	559,269	8,341	1.5%	40,591	2,077	5.1%	31,326	4,217	13.5%
male lower bound	119,360	246	0.2%	44,357	0	0.0%	554,735	5,487	1.0%	38,902	825	2.1%	29,840	2,508	8.4%
male upper bound	124,970	3,318	2.7%	53,713	807	1.5%	563,803	11,195	2.0%	42,280	3,329	7.9%	32,812	5,926	18.1%
Female	112,785	222	0.2%	46,347	1,469	3.2%	555,494	8,522	1.5%	47,340	1,066	2.3%	52,950	7,400	14.0%
female lower bound	110,117	0	0.0%	42,334	134	0.3%	552,005	6,016	1.1%	46,016	341	0.7%	51,245	5,517	10.8%
female upper bound	115,453	591	0.5%	50,360	2,804	5.6%	558,983	11,028	2.0%	48,664	1,791	3.7%	54,655	9,283	17.0%
Total	234,950	2,004	0.9%	95,382	1,782	1.9%	1,114,763	16,863	1.5%	87,931	3,143	3.6%	84,276	11,617	13.8%
Go-outside-home disability				Total	Number with disability	Percent disabled	Total	Number with disability	Percent disabled	Total	Number with disability	Percent disabled	Total	Number with disability	Percent disabled
Male				49,035	657	1.3%	559,269	14,436	2.6%	40,591	3,397	8.4%	31,326	5,736	18.3%
male lower bound				44,357	36	0.1%	554,735	10,587	1.9%	38,902	1,540	4.0%	29,840	3,960	13.3%
male upper bound				53,713	1,278	2.4%	563,803	18,285	3.2%	42,280	5,254	12.4%	32,812	7,512	22.9%
Female				46,347	1,469	3.2%	555,494	11,459	2.1%	47,340	3,251	6.9%	52,950	14,994	28.3%
female lower bound				42,334	134	0.3%	552,005	8,466	1.5%	46,016	1,803	3.9%	51,245	11,813	23.1%
female upper bound				50,360	2,804	5.6%	558,983	14,452	2.6%	48,664	4,699	9.7%	54,655	18,175	33.3%
Total				95,382	2,126	2.2%	1,114,763	25,895	2.3%	87,931	6,648	7.6%	84,276	20,730	24.6%
Employment disability				Total	Number with disability	Percent disabled	Total	Number with disability	Percent disabled						
Male				49,035	657	1.3%	559,269	27,273	4.9%						
male lower bound				44,357	17	0.0%	554,735	22,538	4.1%						
male upper bound				53,713	1,297	2.4%	563,803	32,008	5.7%						
Female				46,347	1,638	3.5%	555,494	29,269	5.3%						
female lower bound				42,334	394	0.9%	552,005	25,428	4.6%						
female upper bound				50,360	2,882	5.7%	558,983	33,110	5.9%						
Total				95,382	2,295	2.4%	1,114,763	56,542	5.1%						

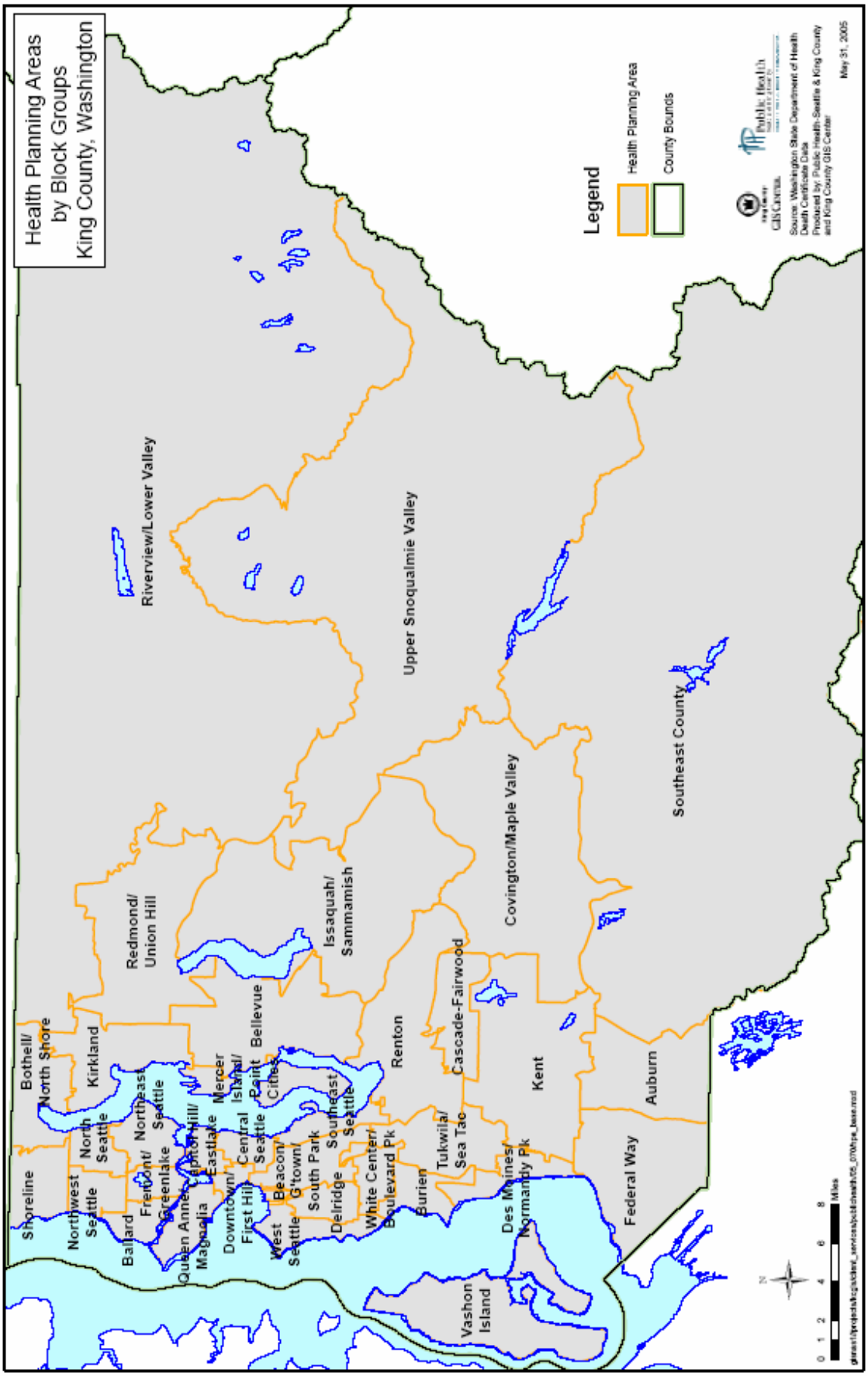
* Data represent the population in households only; persons in group quarters (such as nursing homes and dormitories) were not sampled.
** Data are from a survey and as such represent a sample of the population. The lower and upper bounds of the 90% confidence interval around the estimated number of persons in each category are presented.
NOTE: Persons can report more than one type of disability, and may appear more than once in the separate categories.

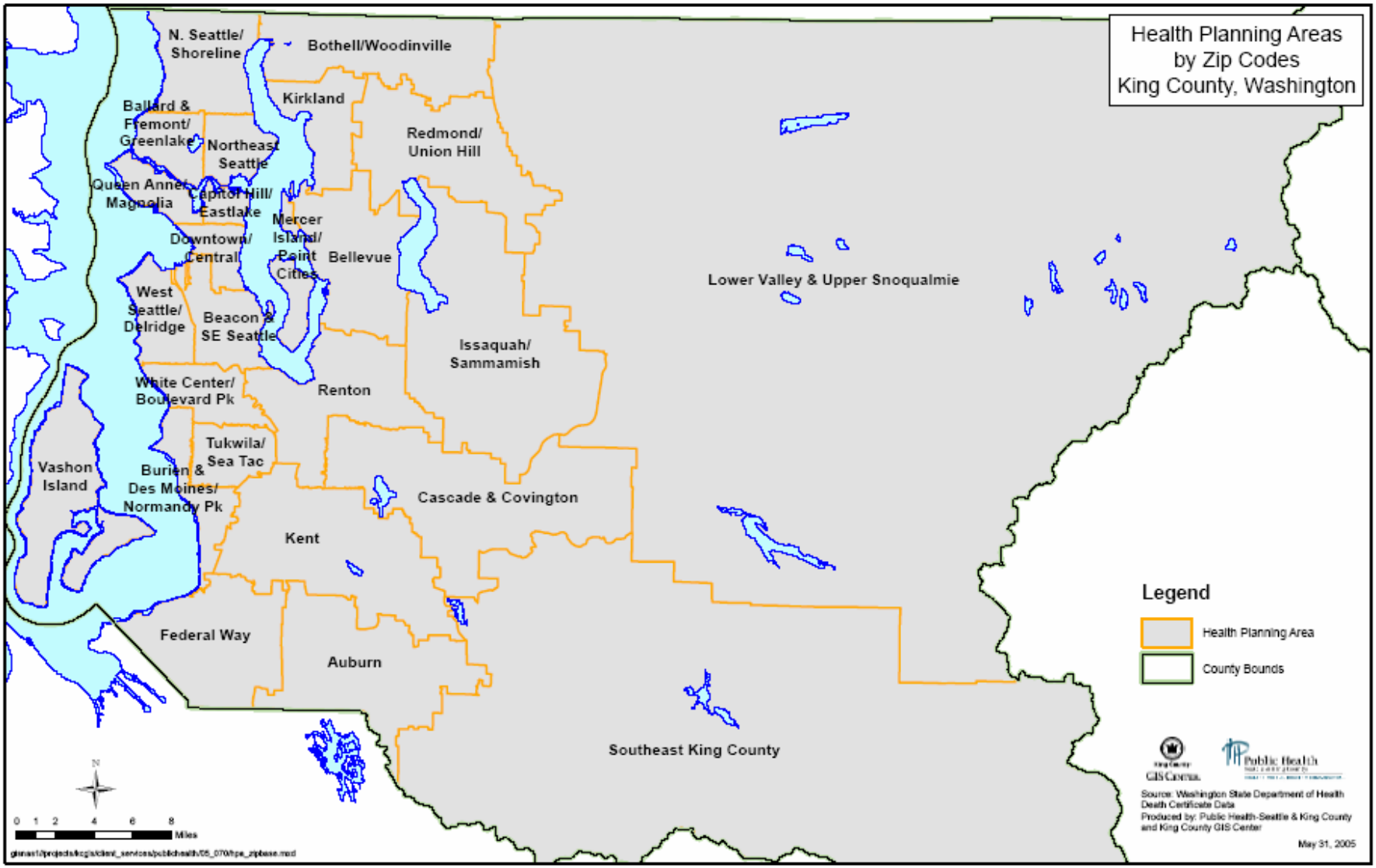
Source: U.S. Census Bureau, American Community Survey 2003, Tables P059 and PCT040 through 045.

Appendix E. ICD Codes for Causes of Death and Hospitalization

Causes	ICD-10 Code	ICD-9 Code
Asthma	J45-J46	493
Cancer, All	C00-C97	140-208
Cancer, breast (female)	C50	174-175
Cancer, cervical	C53	180
Cancer, colorectal	C18-C21	153-154
Cancer, lung	C33-C34	162
Chronic Liver Disease	K70, K73-K74	571
CLRD	J40-J47	490-494, 496
Diabetes	E10-E14	250
Heart Disease	I00-I09, I11, I13, I20-I51	391.0-392.0, 393-398, 402, 404, 410-429
Heart Disease, coronary	I20-I25	410-414, 429.2
HIV disease	B20-B24	42-44
Influenza and Pneumonia	J10-J18	480-487
Motor Vehicle Crashes	V02-V04, V09.0, V09.2, V12-V14, V19.0-V19.2, V19.4-V19.6, V20-V79, V80.3-V80.5, V81.0-V81.1, V82.0-V82.1, V83-V86, V87.0-V87.8, V88.0-V88.8, V89.0, V89.2	E810-E825
Stroke	I60-I69	430-434, 436-438
Suicide	X60-X84, Y87.0	E950-E959
Unintentional Injury	V01-X59, Y85-Y86	E800-E869, E880-E929

Health Planning Area Reference Maps:
Block Group (this page) and ZIP Code (next page) Definitions




Health Planning Areas
by Zip Codes
King County, Washington
N. Seattle/
Shoreline
Bothell/Woodinville
Kirkland
Ballard &
Fremont/
Greenlake
Northeast
Seattle
Redmond/
Union Hill
Queen Anne/
Magnolia
Capitol Hill/
Eastlake
Mercer
Island/
Point
Cities
Bellevue
Downtown/
Central
Lower Valley & Upper Snoqualmie
West
Seattle/
Delridge
Beacon &
SE Seattle
Issaquah/
Sammamish
White Center/
Boulevard Pk
Renton
Tukwila/
Sea Tac
Vashon
Island
Burien &
Des Moines/
Normandy Pk
Cascade & Covington
Kent
Federal Way
Auburn
Southeast King County
Legend
Health Planning Area
County Bounds
0 1 2 4 6 8
Miles
Source: Washington State Department of Health
Death Certificate Data
Produced by: Public Health-Seattle & King County
and King County GIS Center
May 31, 2005