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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.

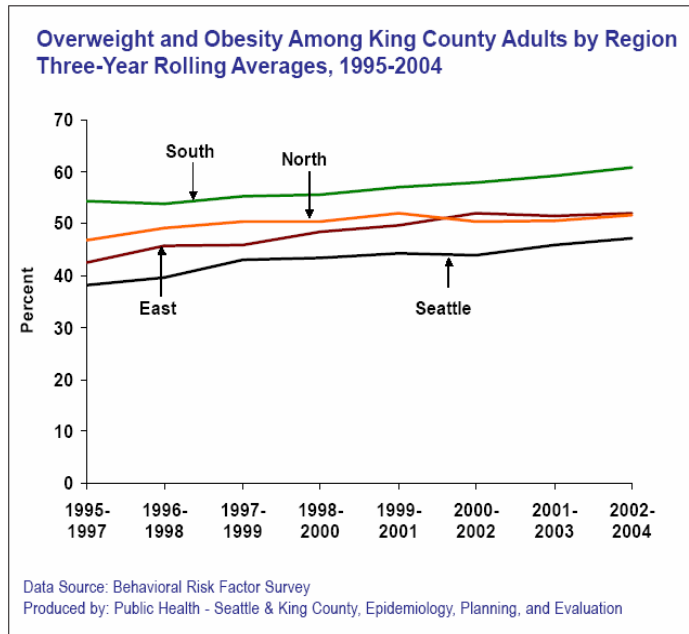
The data used in *Health of King County* are primarily derived from standard public health data systems: vital records, reportable illnesses, hospital discharges, surveys (Behavioral Risk Factor Surveillance System, Healthy Youth Survey) and the US Census. The benefits of using these standard sources 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 .

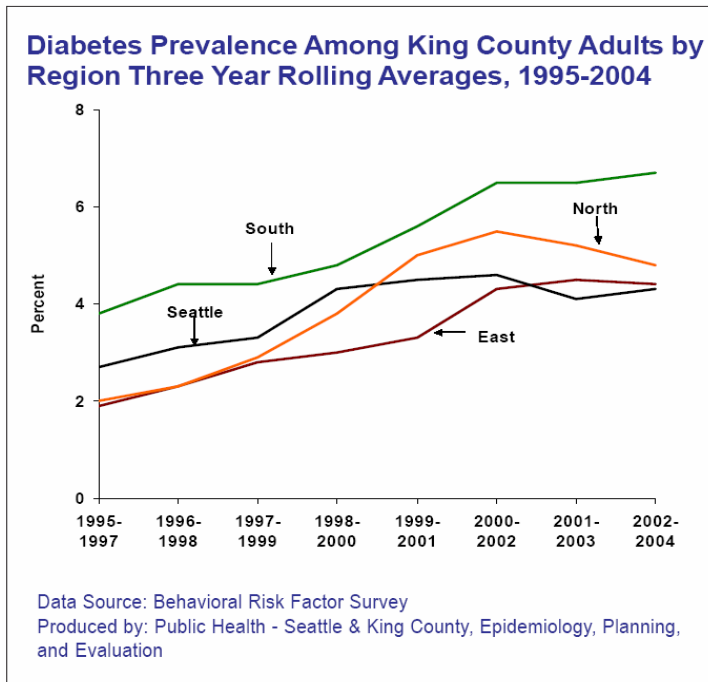
Important Findings of Health of King County

- **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



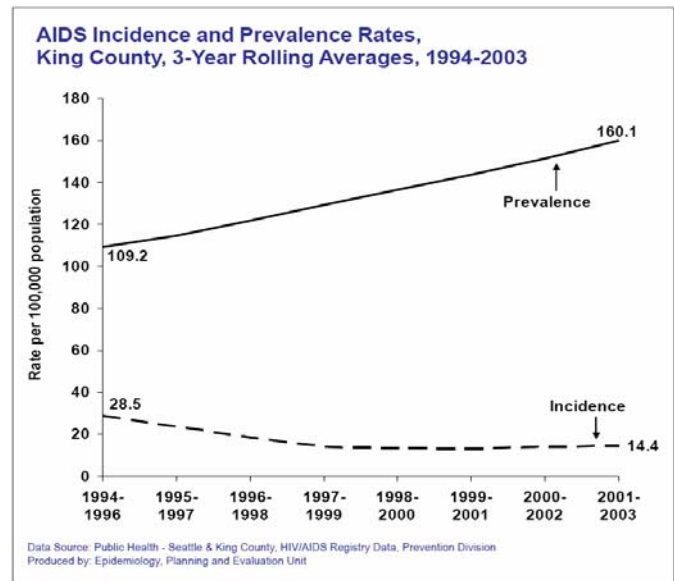
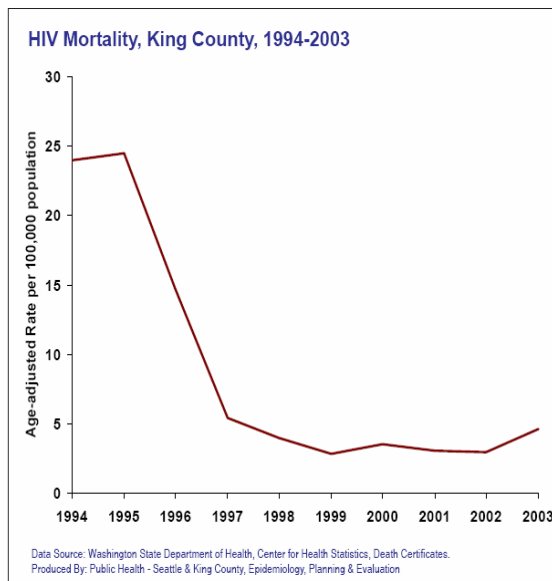
engage in recommended levels of physical activity. Hypertension prevalence increased from 18 to 22% (primarily in South Region and Seattle) between 1995 and 2003. The rate of elevated cholesterol among those screened has increased slightly during the same time period (28% to 31%). Environments that promote 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.



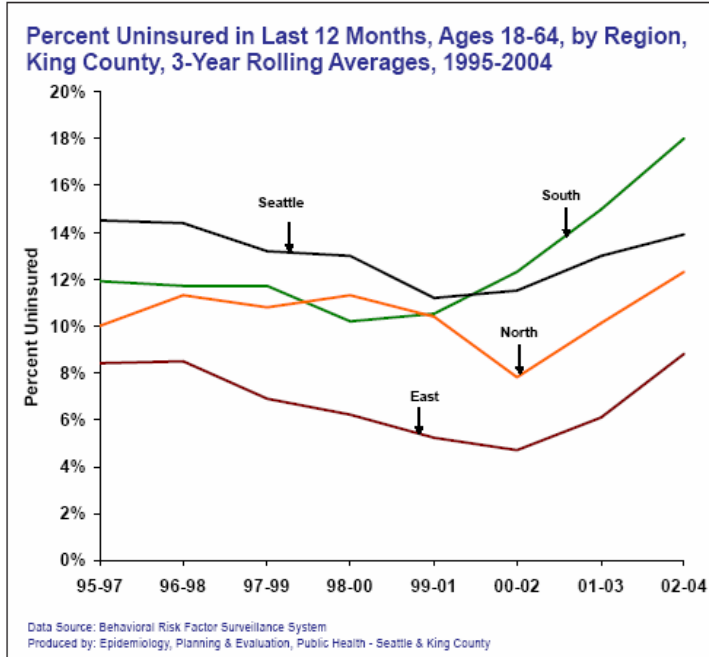
- The prevalence of diabetes among adults has doubled in the past decade.** Hospitalizations for diabetes, which can often be avoided with planned and proactive diabetes management, are increasing. The diabetes death rate is rising. While we lack surveillance systems for systematically detecting diabetes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



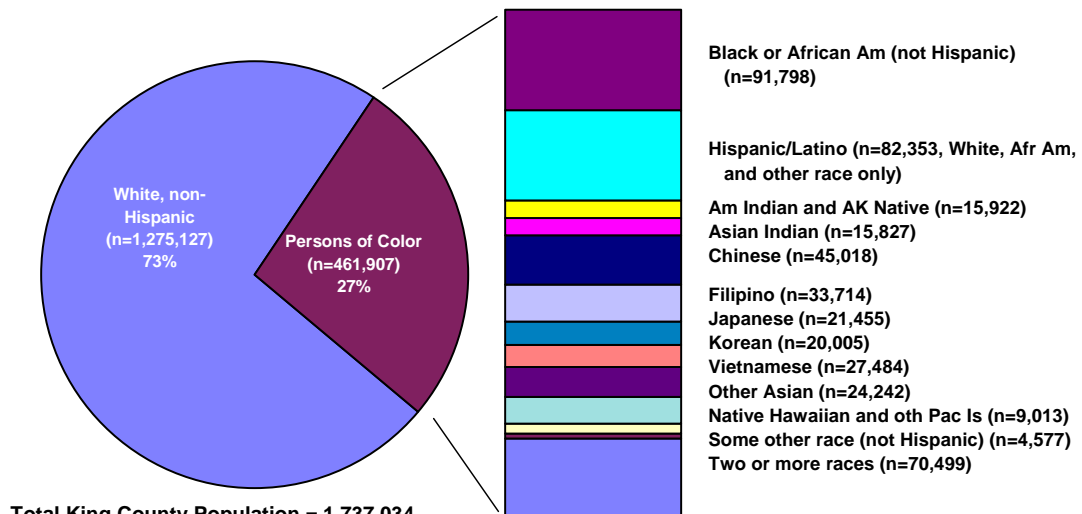
- The risk of an influenza pandemic may be increasing.** The severity or exact onset of an influenza pandemic cannot be predicted, but there is a high level of concern among public health authorities worldwide about the potential for a severe pandemic resulting from the widespread outbreak of avian influenza 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.

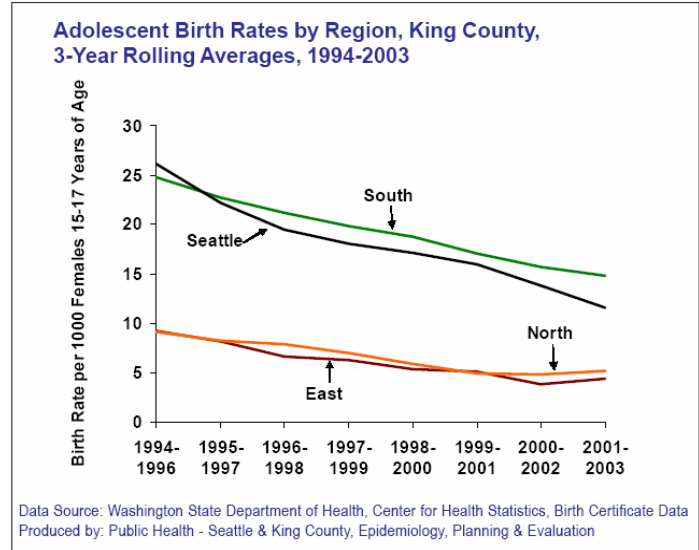
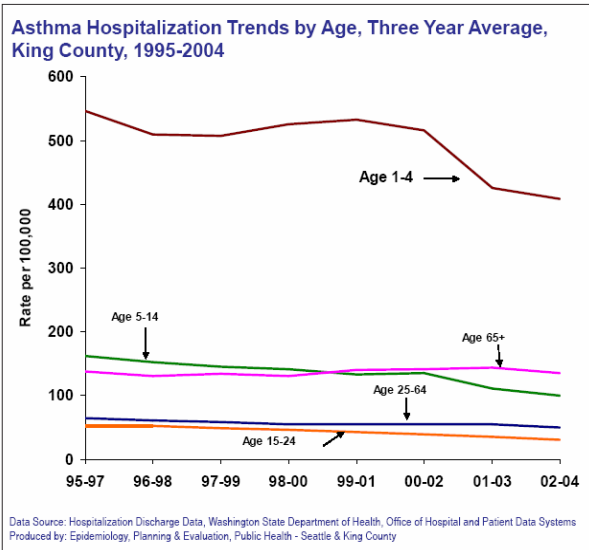
- The increasing diversity of the population suggests that the public health and medical care systems need to address health issues in a growing number of cultural contexts.** More of foreign-born people live in the county, especially in Beacon Hill/Georgetown/South Park (where 4 in 10 residents are 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. oxycodone) 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

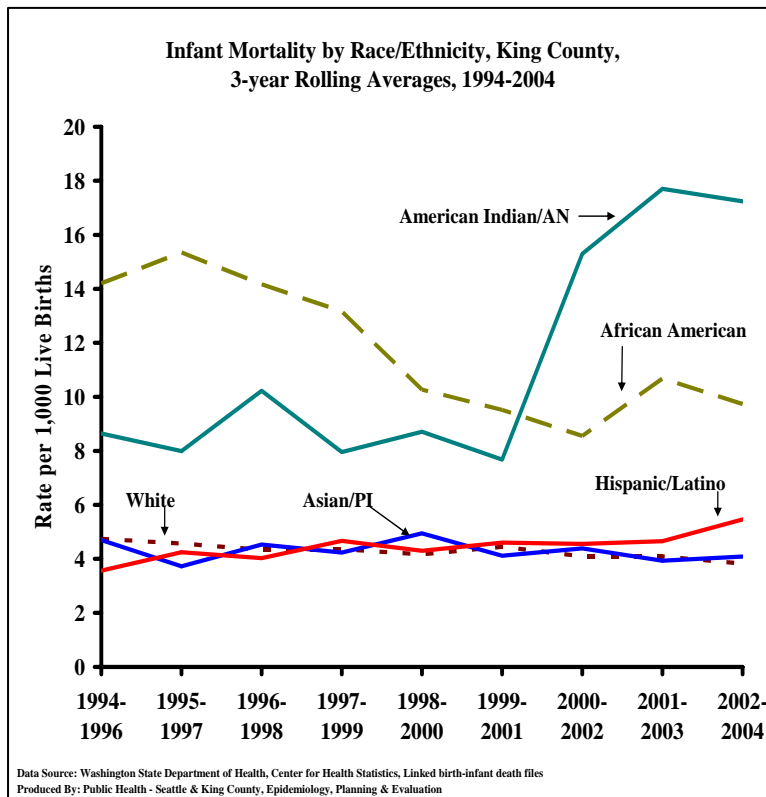
A health disparity is a difference in a health outcome or determinant of health across two populations, such that one population suffers a disproportionate burden of illness. There are large and persistent disparities in health indicators and access to health care in King County across racial/ethnic 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:

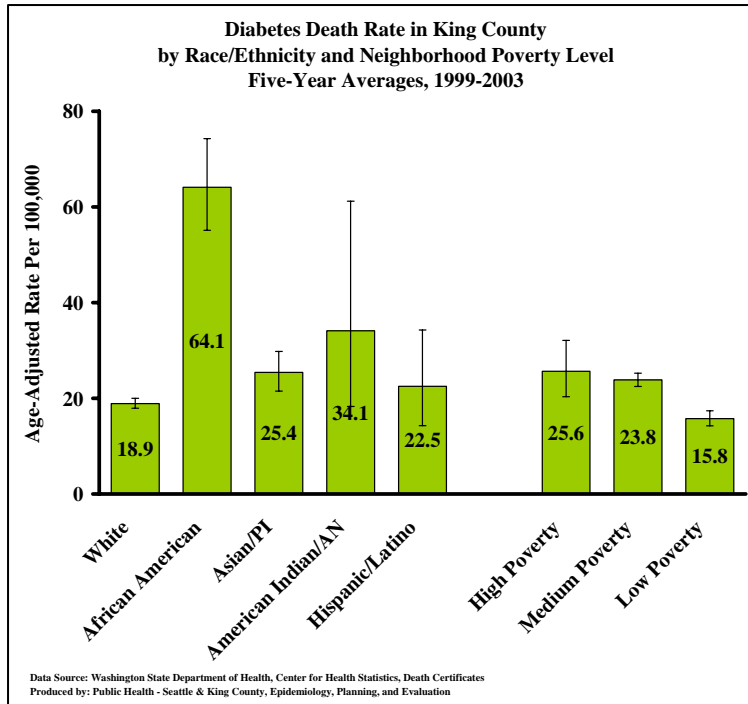
- **Mortality:** African Americans and American Indian/Alaska Natives have higher death rates and lower life expectancies. The life expectancy of African American and American Indian/Alaska Native males is the lowest of any demographic groups - about 8 years less than expectancy among white males today 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

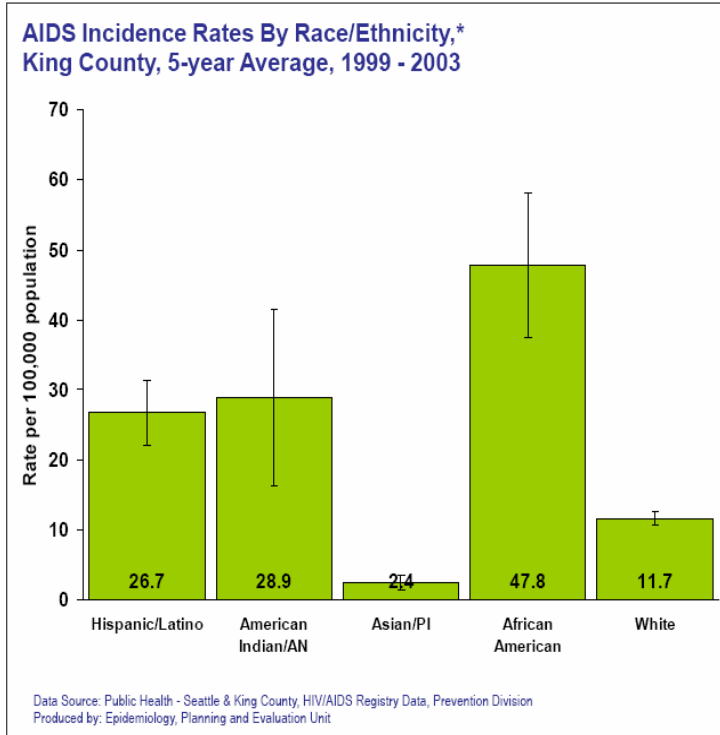
Natives, the rate is three times that of whites and the gap is increasing. Adolescent birth rates are higher among African Americans, American Indian/Alaska Natives, and Latinas. All people of color have higher rates of late or no prenatal care than whites, but because of important increases of access in the mid 1990s, the gap decreased between 1995-1999.

- 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.

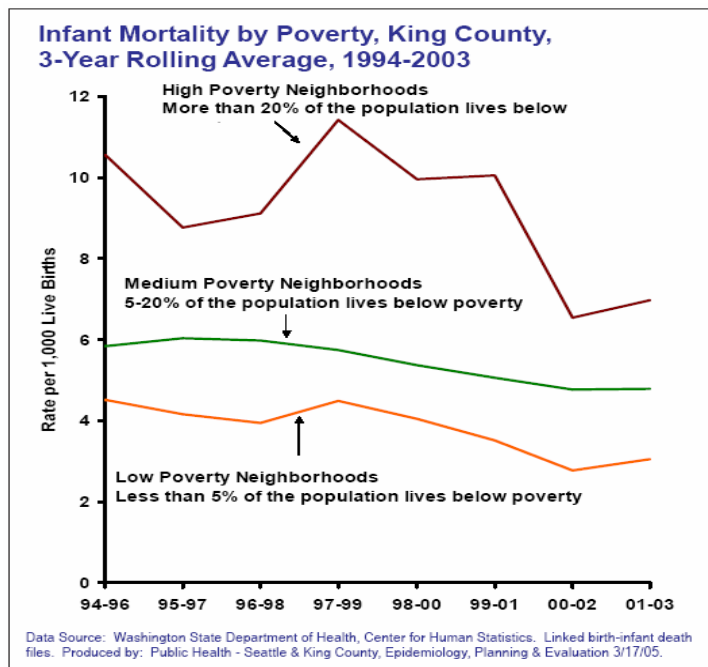
- **Health insurance and access to medical care:** African Americans and Latinos are more likely to lack health insurance than whites and the gaps have been widening since the late 1990s.

Income Disparities

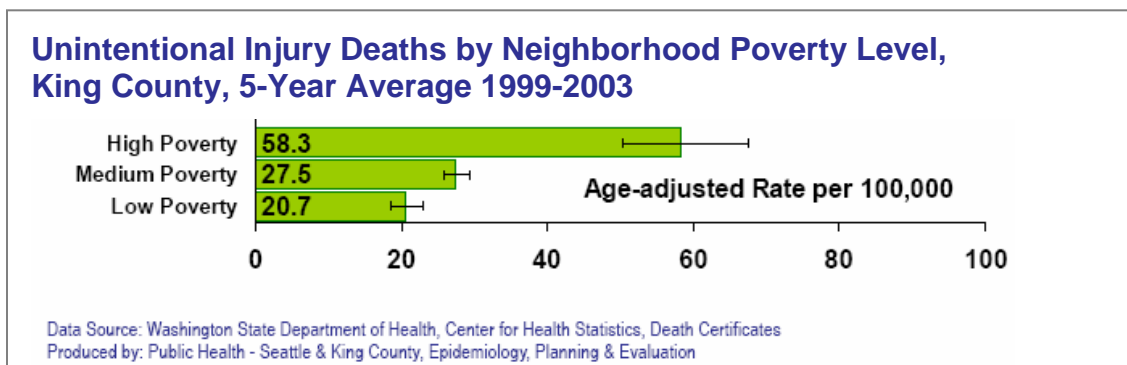
Low income residents also have disparities in health indicators relative to high income residents. Disparities occur in mortality, birth outcomes, adolescent births, all chronic diseases and risk factors (such as physical inactivity, overweight, smoking, and lack of screening), HIV, mental health, alcohol 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.

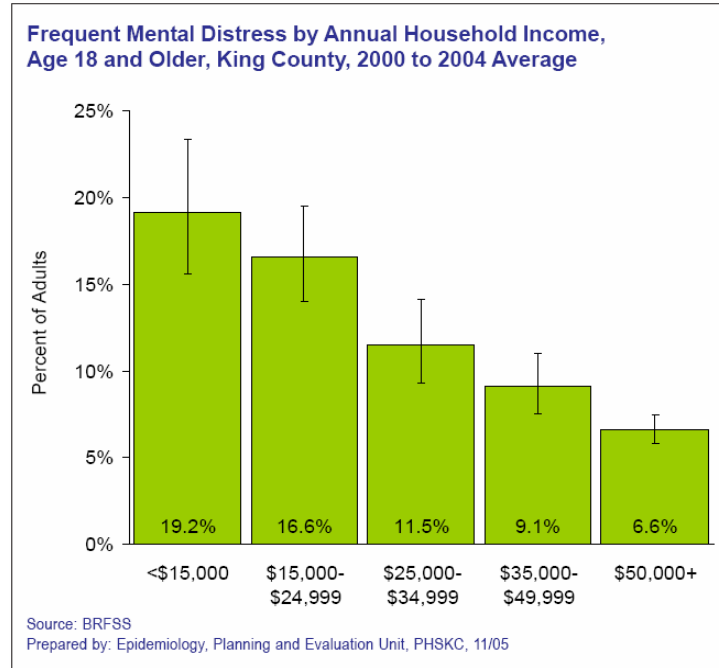
- Pregnancy outcomes:** Infant mortality is higher in high poverty areas, but the rate in these neighborhoods began declining sharply in the late 1990s. The rates of low birthweight infants and adolescent births in high poverty areas also have declined steadily but remain higher than in low poverty areas.



- 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.



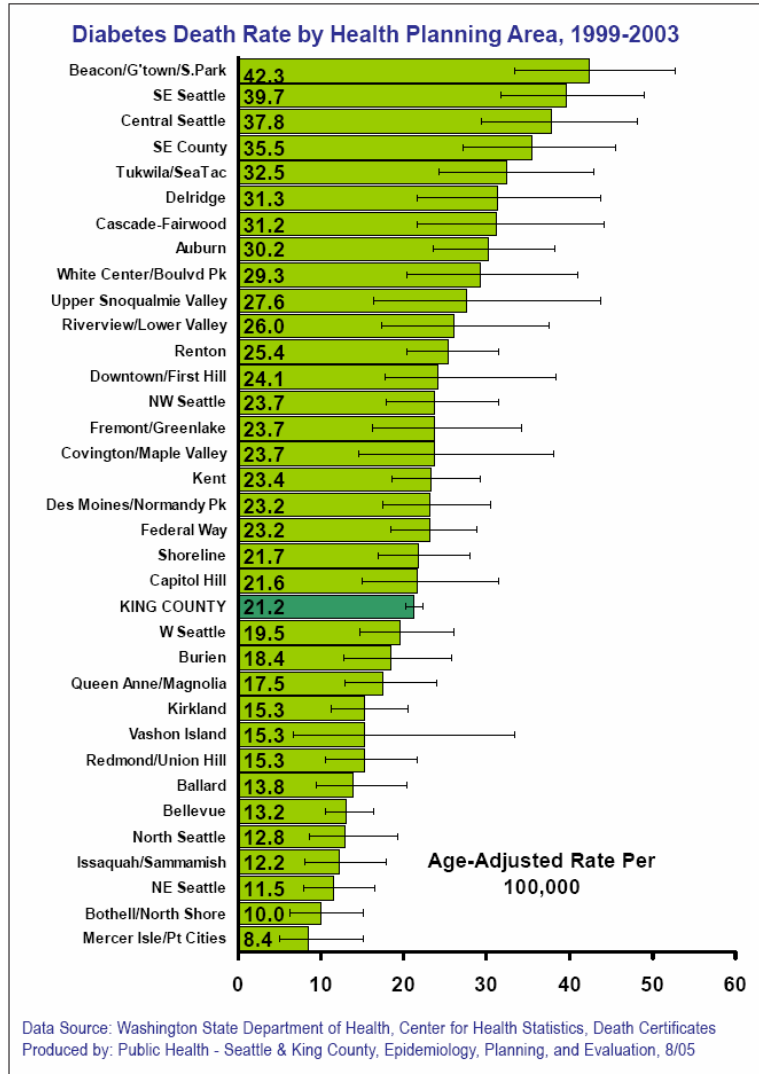
- Health insurance and access to medical care:** Members of the lowest income group are five times more likely to report having unmet needs for medical care. Nearly one-quarter of people with annual household incomes less than \$25,000 report unmet medical needs.

Geographic Disparities

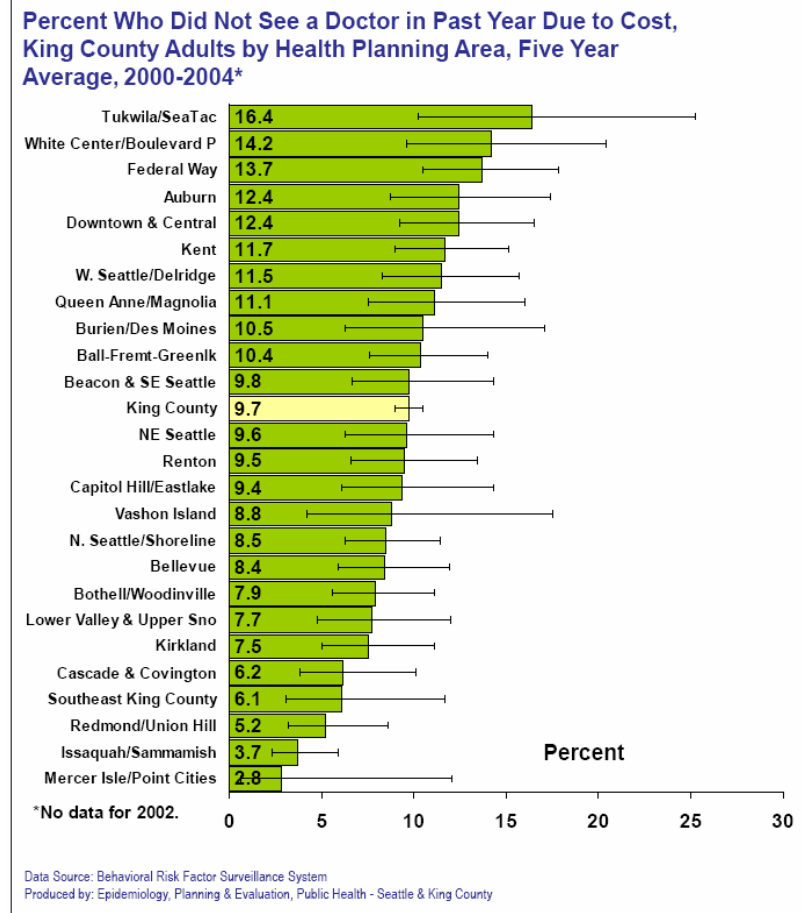
A decade ago, primarily Central and Southeast Seattle were disproportionately affected by poor health. Now, the region of the county experiencing the poorest health has expanded south. The South Seattle/South County Area, which includes Downtown, Central and Southeast Seattle, Beacon Hill, Delridge, 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 decreasing, 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 health 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 Disparities (see key at bottom)

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	Region	Health Planning 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		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						N/A
HIV Prevalence (2004)	319.1	5,706	↑↑↑	N/A	N/A						N/A
AIDS Incidence	15.7	280	↓↓↓	1.0	No						N/A
AIDS Prevalence (2004)	178.1	3,185	↑↑↑	N/A	N/A						N/A
HIV/AIDS Deaths	5.0	89	---	0.7	No						N/A

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

Health Disparities (see key at bottom)

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	Region	Health Planning 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)

Health Disparities (see key at bottom)

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	Region	Health Planning Area	Race/Ethnicity	Gender	Income/Poverty	Sexual Orientation
Chronic Disease Risk Factors											
<i>Smoking</i>											
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									
<i>Physical Inactivity and Obesity</i>											
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						---
<i>Alcohol</i>											
Heavy Drinking (2004)	5.9%	81,000	↑↑↑	NA		---				---	
<i>Cancer screening</i>											
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	---		---
<i>Other</i>											
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											
<i>Alcohol (2004)</i>											
Binge Drinking	15.7%	217,000	---	6.0%	No				---		---
Drinking and Driving	4.2%	40,000	---	NA	NA	---	NA	NA	---		---
<i>Firearms (2004)</i>											
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
<i>Motor Vehicle Safety</i>											
Does Not Always Use a Seatbelt (2002)	11.0%	153,000	↓↓↓	8%	No		N/A	---		---	N/A
Communicable Disease Risk Factors											
<i>Vaccination</i>											
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	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	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	Lightest blue
2 to 3	Medium blue
3 or more	Darkest blue

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

Current Demographics and Population Trends Over Time

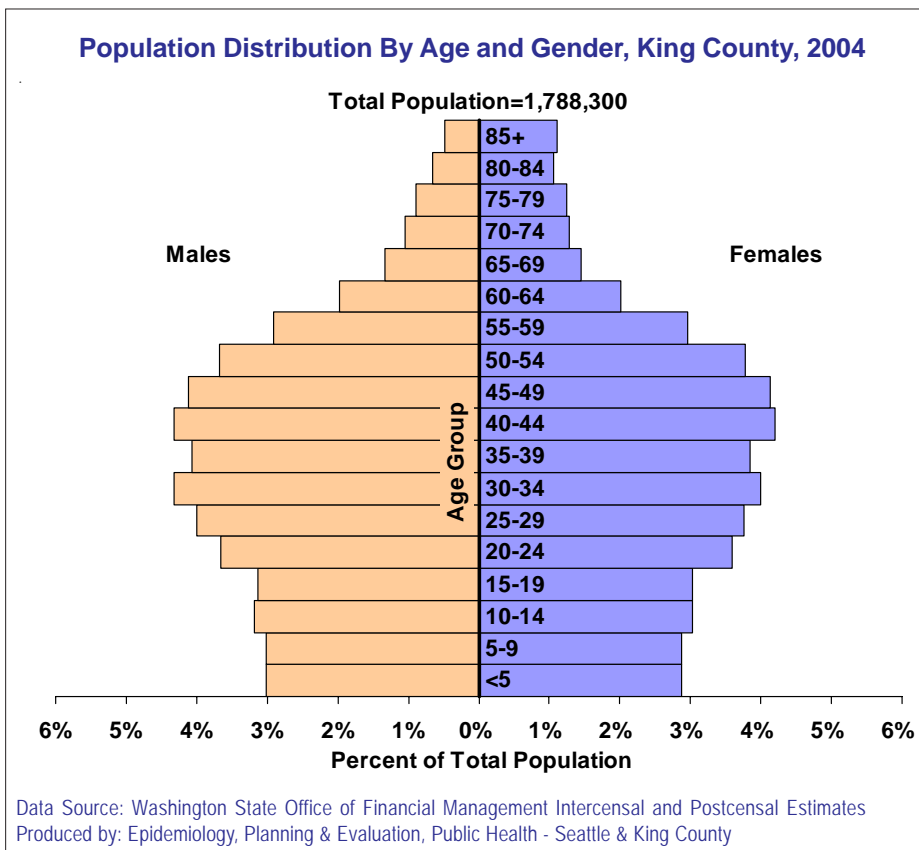
Population characteristics and trends help describe King County's many communities and provide a context for trends in health outcomes. King County's fastest-growing age groups are those aged 75 and older and 45 to 64. The county is increasing in racial diversity, especially in South King County. Social 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

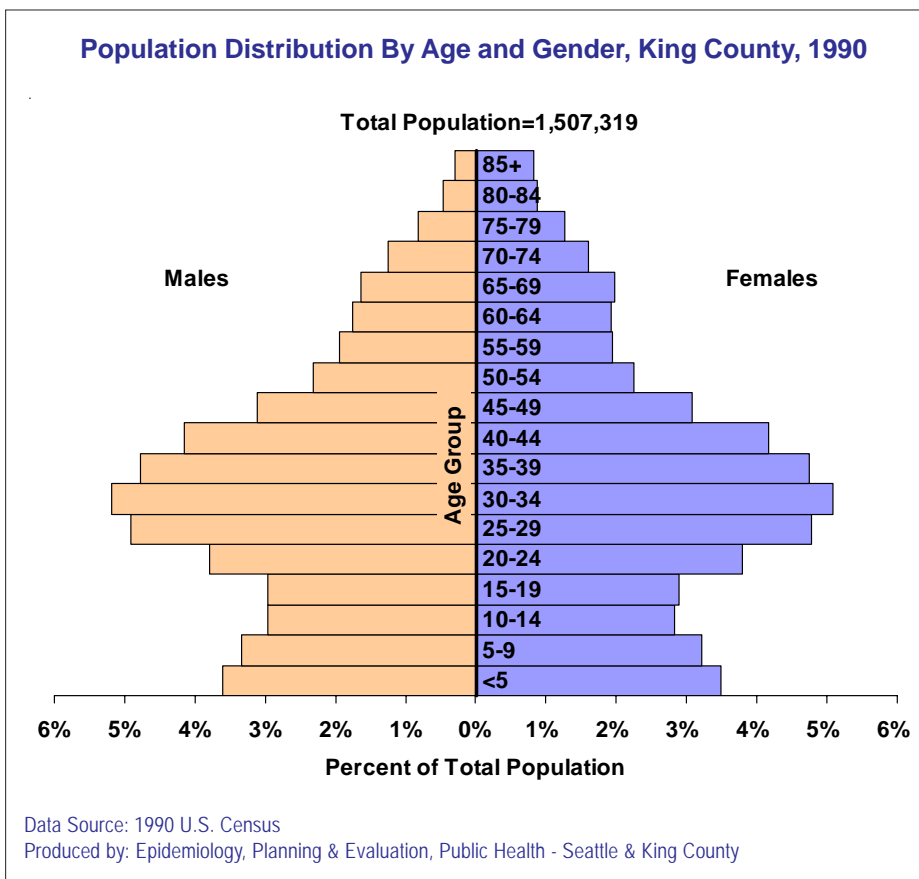
- The estimated total King County population in 2005 was 1,808,300, including 890,183 men and 898,117 women. The total was an increase of 4% since the 2000 U.S. Census, when the population was 1,737,034. Since 1990, the population has increased by 19.7%.
- King County's largest city, Seattle, had an 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.

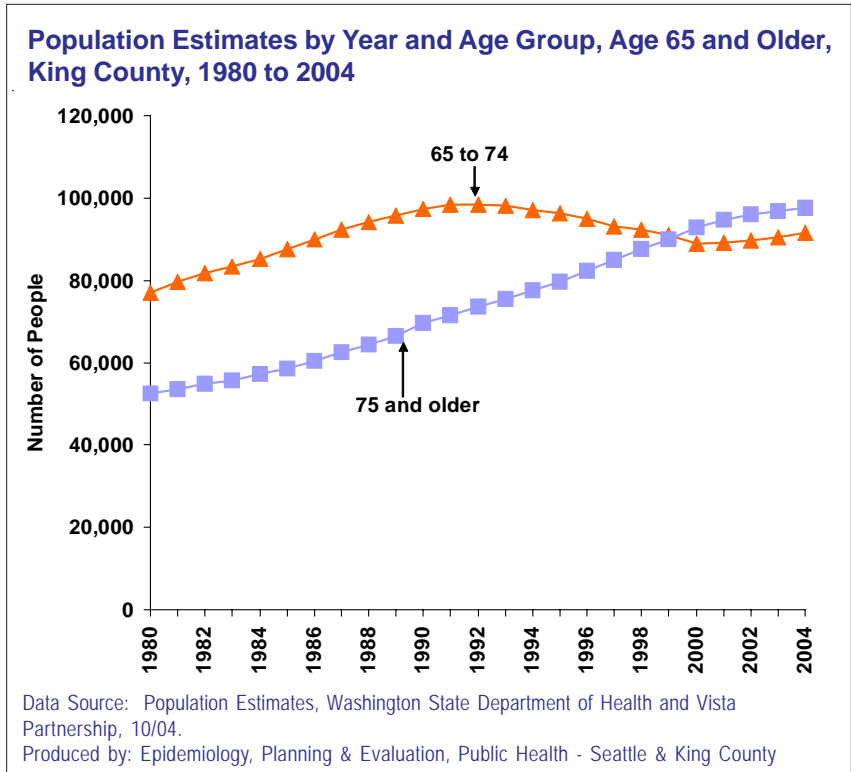
- Between 1990 and 2004, the age composition of King County residents changed. The fastest growing age groups were those age 45 to 64 (66% growth since 1990) and 75 and older (40% growth since 1990).



- 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%.



- 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.



Race and Ethnicity

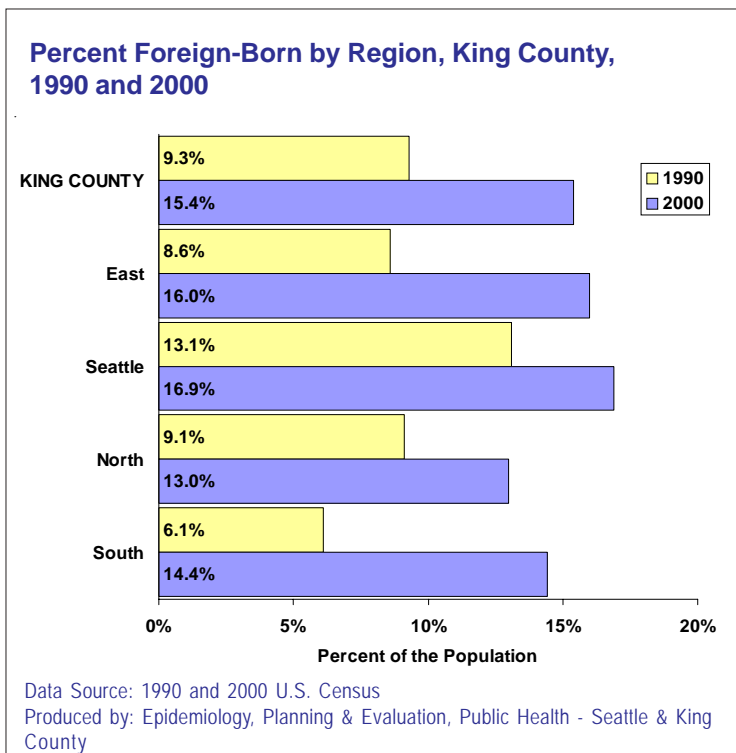
- For the first time in 2000, Census respondents were able to indicate they were of more than one race. 4.1% of King County residents listed two or more races.
- The most numerous group was white alone (75.7%). People who identified as Asian alone (10.8%) made up the largest group among people of color, 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.

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

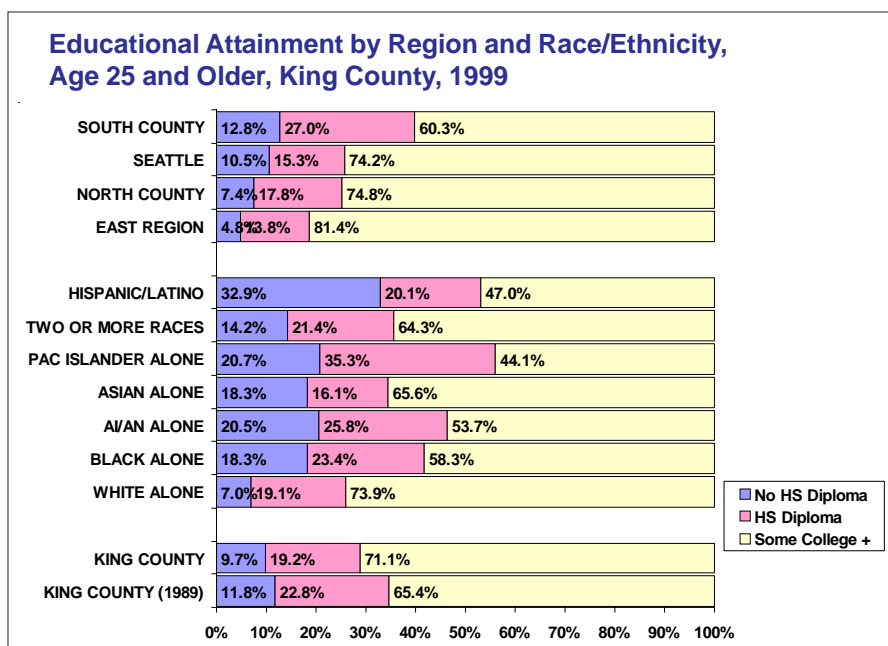
- The percent of King County residents who are immigrants increased substantially between 1990 (9.3%) and 2000 (15.4%).
- The proportion increased in all King County regions. The increase was largest in South Region (from 6.1% to 14.4%) and East Region (from 8.6% to 16.0%).
- In 2000, this proportion 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).



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.

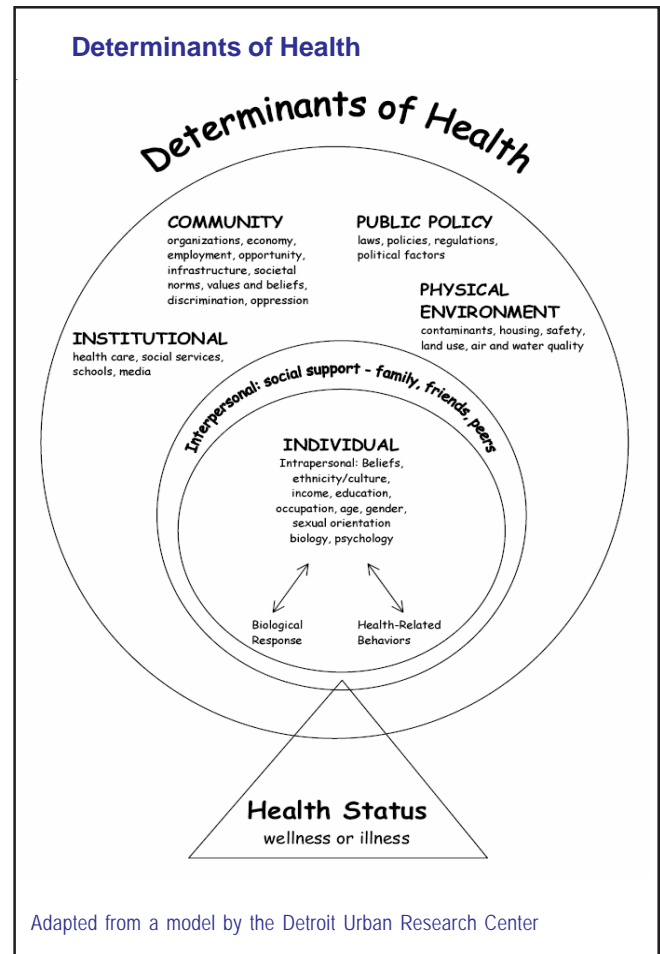


- These disparities were also seen by Region and Health Planning Area. While only 5% of East Region residents lacked a high school diploma, this figure increased to 10% for Seattle and 13% for South Region. The Health Planning Areas with the most people who had not completed high school were concentrated 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](#).



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 from 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

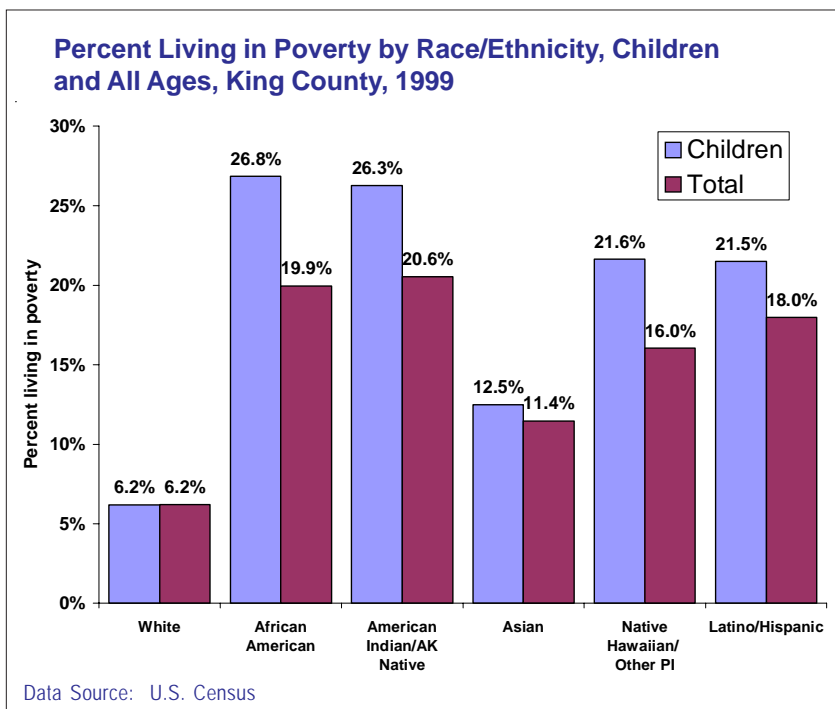
- Poverty in children and older adults is only available for 1989 and 1999 (see table on page 2-8). In 1999 (as in 1989), childhood poverty was highest in Seattle and South Region. However, in South, poverty in children increased to 11.4%, and decreased in Seattle to 14.5%.
- In 1999, there were wide 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 proportion 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.



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

PLACE	Children Under 18			Elderly 65 and Older		
	1989	1999	1999	1989	1999	1999
	% 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/GTOWN/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

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

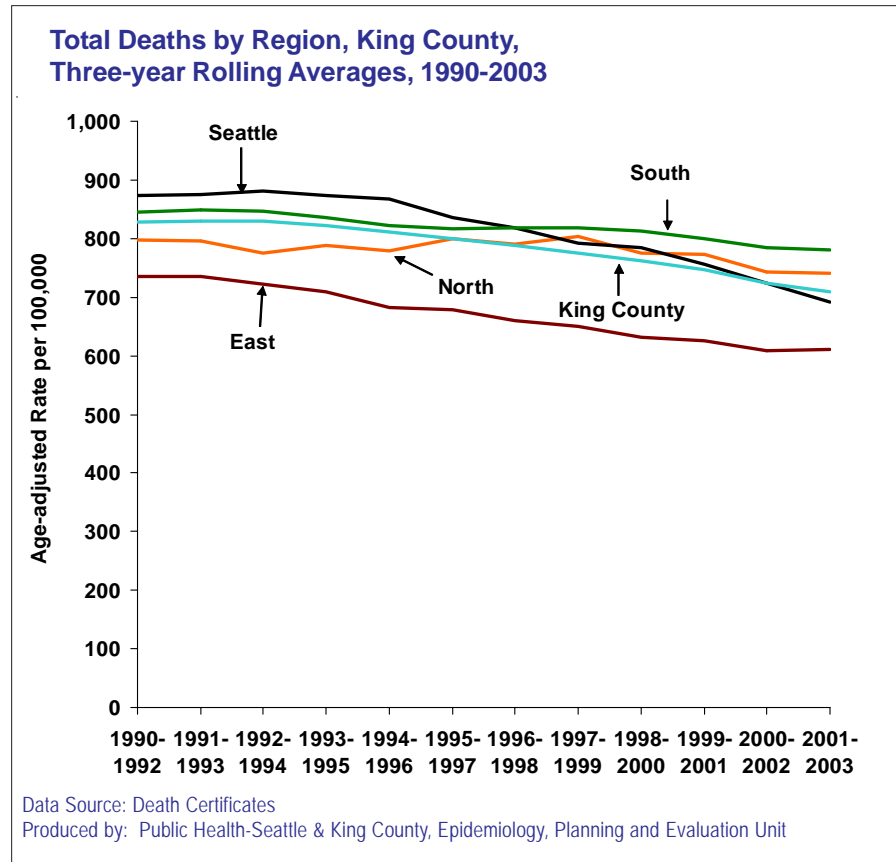
- From 1990 to 2003, the overall death rate declined significantly in all regions and the county as a whole, and in all racial/ethnic groups except American Indian/Alaska Natives.
- In 2001-2003 combined, the South region had higher and the East region had lower death rates than the county as a whole. 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.

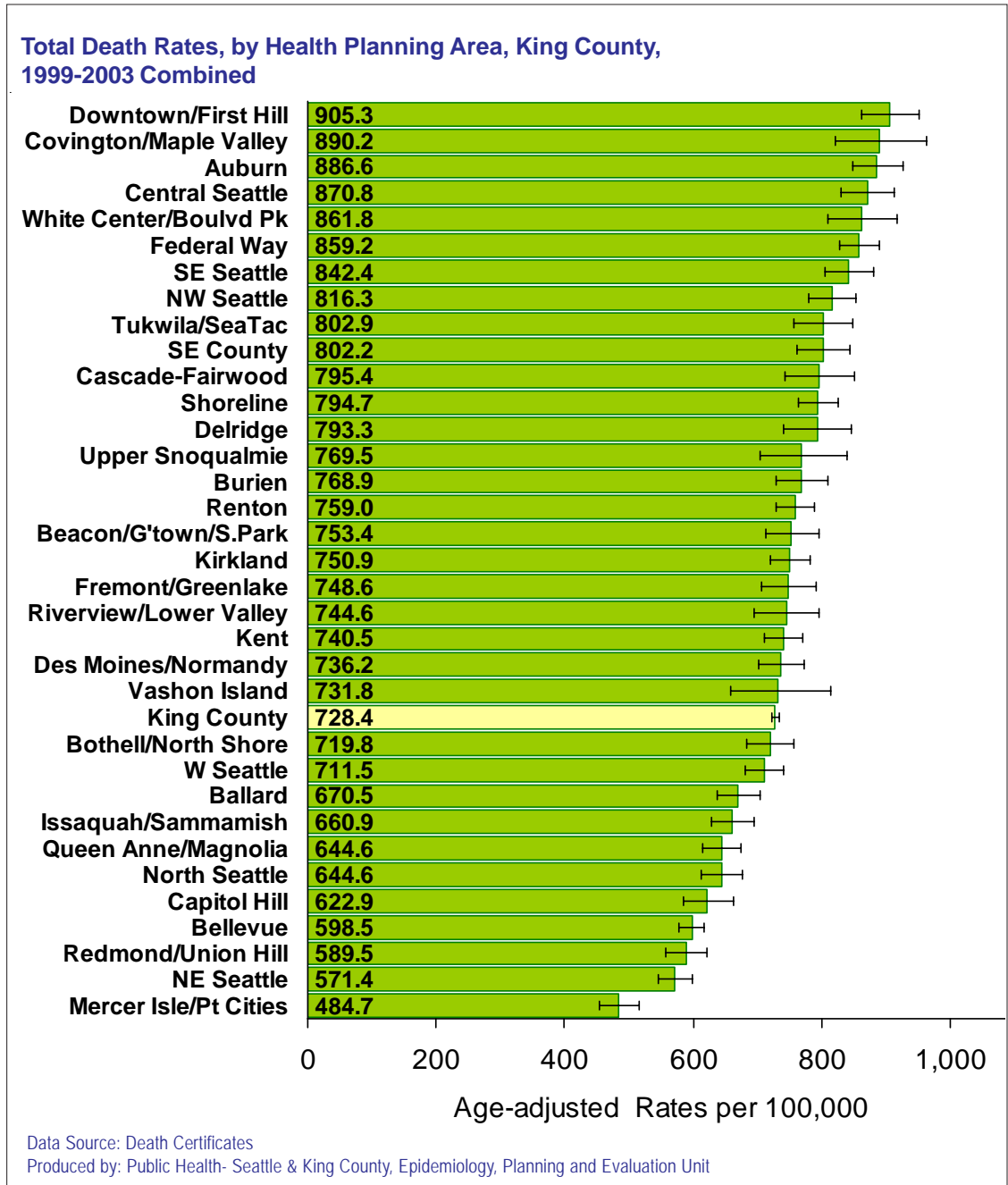
King County and Regions

- 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.



Patterns by Health Planning Area

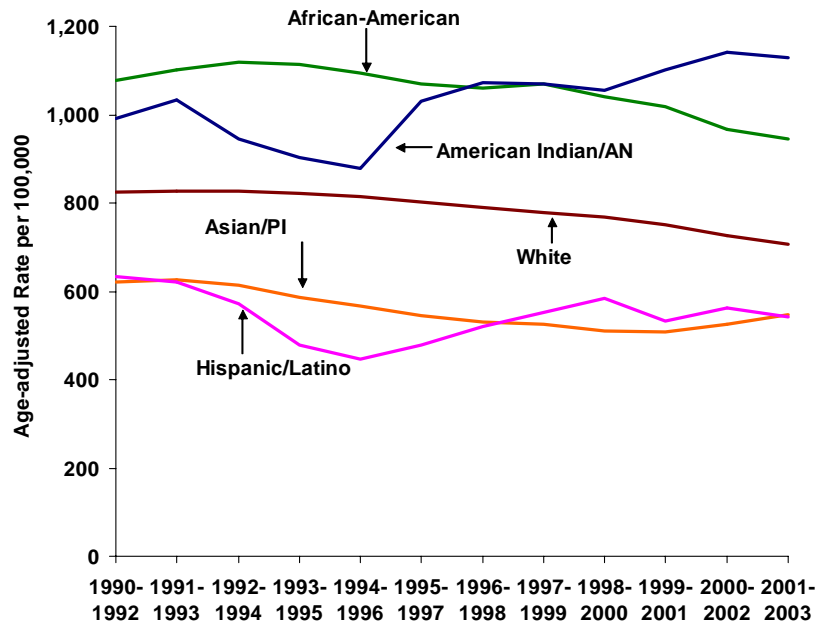
- Age-adjusted death rate also varied between health planning areas. Averaged over 1999-2003, the rates were lower in general for Eastside communities, and higher for the South Region and Seattle than the average rate for the county.



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 Number	Congenital malformations 21	Unintentional injury 15	Unintentional injury 50	Unintentional injury 116	Cancer 720	Heart Disease 2,251	Cancer 2,816
2nd	Cause Number	Short gestation and low birth weight 15	Cancer 8	Suicide 22	Cancer 31	Heart Disease 382	Cancer 1,992	Heart Disease 2,714
3rd	Cause Number	Sudden Infant Death Syndrome 14		Homicide 16	Suicide 74	Unintentional injury 144	Stroke 838	Stroke 946
4th	Cause Number	Maternal complications of pregnancy 11		Heart Disease 7	Heart Disease 69	Stroke 86	Alzheimer's disease 649	Alzheimer's disease 655
5th	Cause Number	Intrauterine hypoxia/birth asphyxia 5		Cancer 5	HIV/AIDS 50	Chronic Liver Disease & Cirrhosis 85	Chronic Lower Respiratory Disease 463	Chronic Lower Respiratory Disease 520
6th	Cause Number	Neonatal hemorrhage 5			Homicide 37	Diabetes 79	Influenza and pneumonia 296	Unintentional injury 478
7th	Cause Number				Stroke 19	Suicide 79	Diabetes 263	Diabetes 356
8th	Cause Number				Chronic Liver Disease & Cirrhosis 19	Chronic Lower Respiratory Disease 55	Unintentional injury 153	Influenza and pneumonia 334
9th	Cause Number				Diabetes 12	HIV/AIDS 34	Pneumonitis from solids/ liquids 140	Suicide 213
10th	Cause Number				Viral Hepatitis 8	Viral Hepatitis 28	Parkinson's disease 113	Chronic Liver Disease and Cirrhosis 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
1st	Cause	Heart Disease	Heart Disease	Heart Disease	Cancer	Cancer
	Rate*	179.1	250.1	272.2	140.5	123.3
2nd	Average Annual #	2,506	146	23	199	34
	Cause	Cancer	Cancer	Cancer	Heart Disease	Heart Disease
3rd	Rate*	183.1	229.8	199.8	122.1	133.2
	Average Annual #	2,491	143	19	149	30
4th	Cause	Stroke	Stroke	Unintentional injury	Stroke	Unintentional injury
	Rate*	61.3	80.0	65.5	56.2	28.1
5th	Average Annual #	863	44	11	68	23
	Cause	Chronic lower respiratory disease	Diabetes	Chronic liver disease & cirrhosis	Diabetes	Stroke
6th	Rate*	39.5	64.1	38.8	25.4	61.3
	Average Annual #	535	39	6	32	12
7th	Cause	Alzheimer's disease	Unintentional injury	Stroke	Unintentional injury	Homicide
	Rate*	36.4	33.8	78.9	18.1	7.1
8th	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
9th	Rate*	28.2	36.6	64.3	18.5	3.8
	Average Annual #	409	23	5	22	6
10th	Cause	Influenza and pneumonia	Homicide	Diabetes	Influenza and pneumonia	Diabetes
	Rate*	19.8	18.3	34.1	14.3	22.6
11th	Average Annual #	282	21	3	16	6
	Cause	Diabetes	Alzheimer's disease	Influenza and pneumonia	Suicide	Chronic liver disease and cirrhosis
12th	Rate*	18.9	28.5	29.3	7.2	14.7
	Average Annual #	258	14	3	15	5
13th	Cause	Suicide	Conditions of the perinatal period	Homicide	Alzheimer's disease	Suicide
	Rate*	11.6	8.7	14.3	12.9	4.7
14th	Average Annual #	172	12	2	13	5
	Cause	Pneumonitis from solids/liquids	HIV/AIDS	Septicemia	Kidney disease	HIV/AIDS
15th	Rate*	9.1	11.1	18.5	8.6	4.0
	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

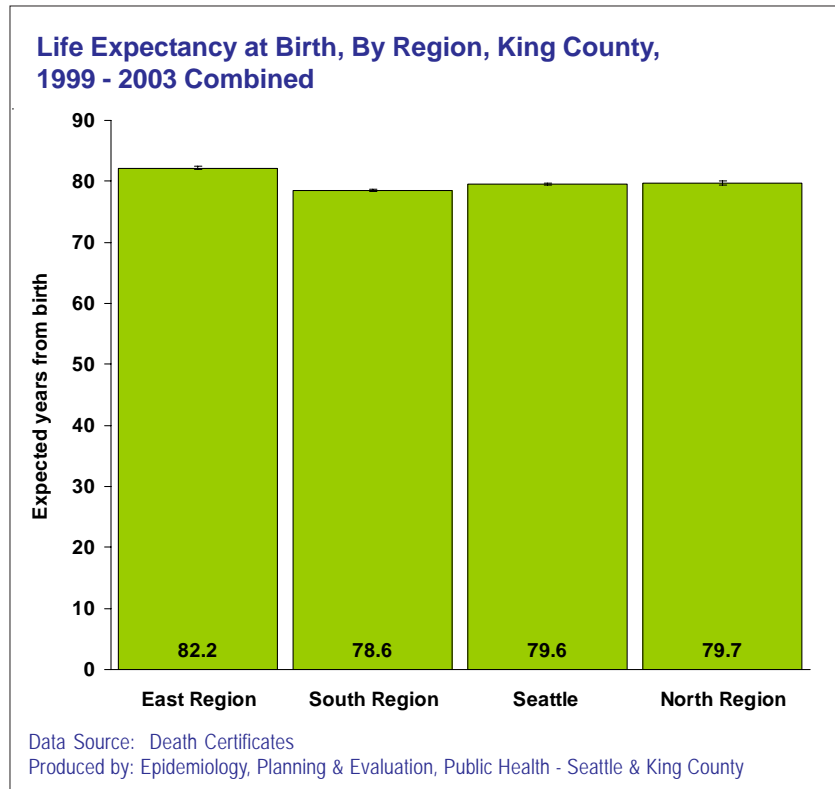
Source: Death Certificates, Washington State Department of Health, Center for Health Statistics.

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

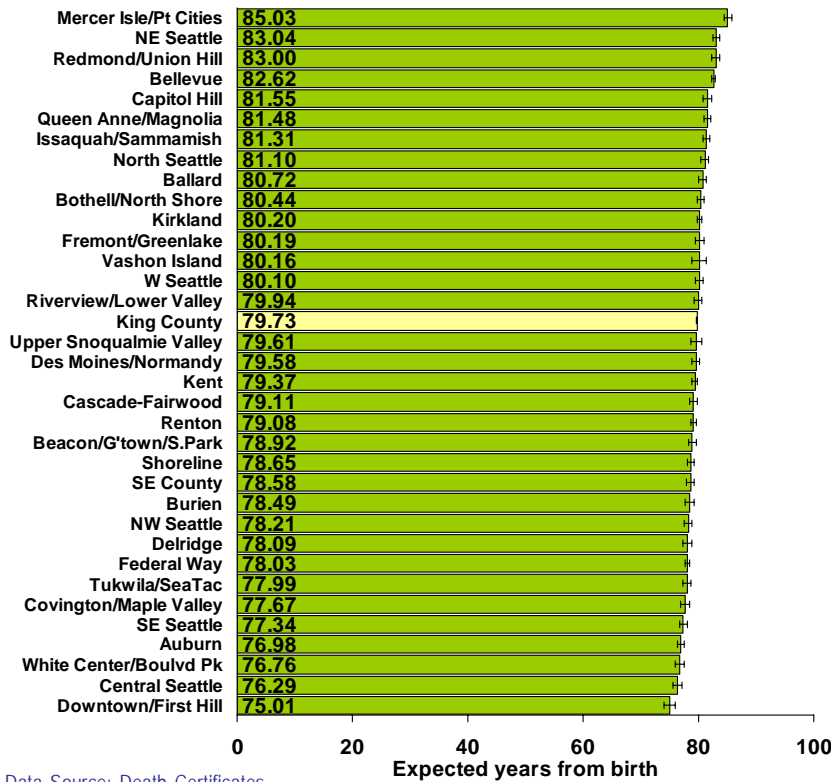
Life Expectancy

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 Health Planning Area, King County, 1999-2003 Combined



Data Source: Death Certificates

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

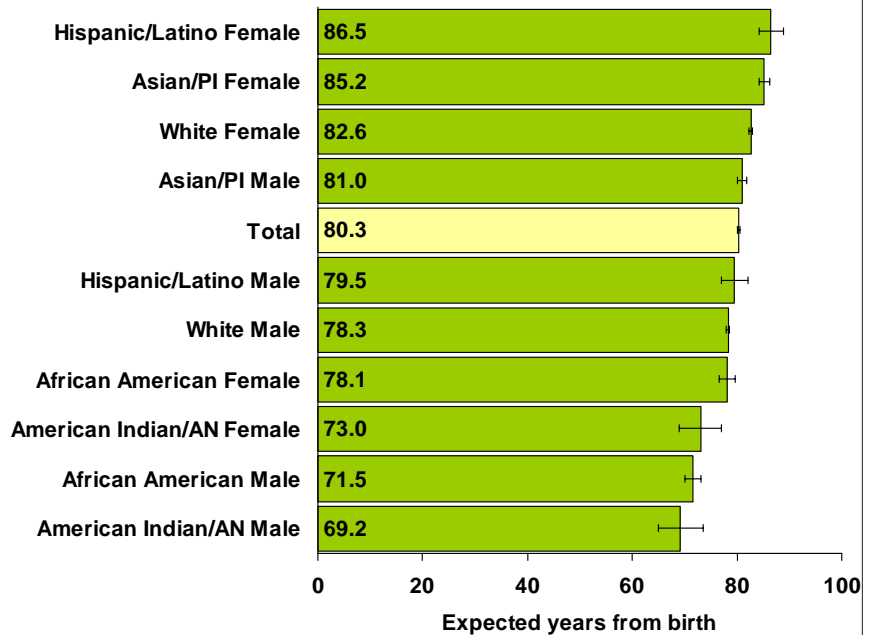
Patterns by Health Planning Area

- 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

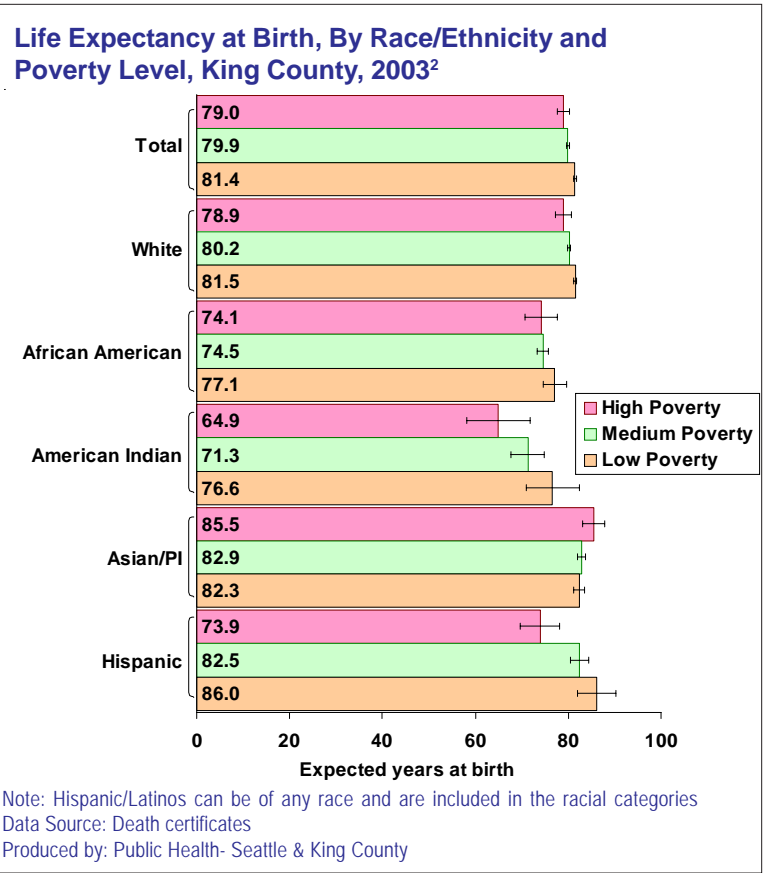


Note: Hispanics can be of any race and are included in the racial categories

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.



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 Osslander 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:
		estimate	95% confidence interval		estimate	95% confidence interval		estimate
			lower bound	upper bound		lower bound	upper bound	
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.

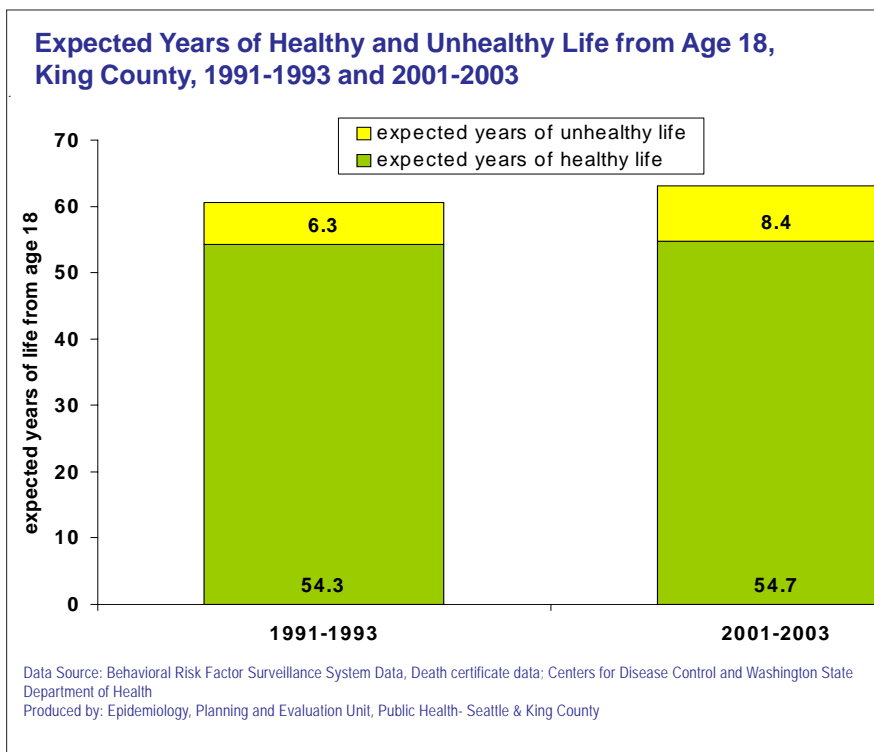
Expected Years of Healthy Life

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.

Age group	Expected years	95% confidence interval	
		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



- 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.

	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.