THE HEALTH OF KING COUNTY

HIGHLIGHTS

AUGUST 1998

Public Health Data Watch

The Health of King County -- Highlights

These highlights are a summary of *The Health of King County*, a comprehensive report that examines the health status of King County residents in 1996, six years after our last report on the health status of King County residents. While we have issued numerous reports on specific health issues and populations in recent years, this report summarizes trends in major indicators of health. It also documents variation in these indicators by age, gender, race/ethnicity, socio-economic status, and area of residence within the county.

Examination of recent trends shows that while King County residents are healthier in many ways than they were in 1990, some indicators have taken a turn for the worse. Notable progress has been made in promoting maternal and infant health, reducing teenage pregnancy and birth rates, controlling infectious diseases, reducing the burden of injuries and violent crime, and improving air quality. However, new and ongoing challenges were also apparent in controlling chronic illnesses such as childhood asthma, cancer and heart disease, in the growing problem of illicit-drug-related deaths, in behavior related to ill health including smoking and being overweight, and in assuring access to medical care for all county residents. In addition, the persistence of significant inequities in health status across ethnic/racial groups, social class groups and regions remains a major challenge.

Table 1 (on page 8) is a summary of selected health indicators for King County. In this table, we compare the King County 1996 rates with the national rates and the U.S. Year 2000 targets. We also compare disease rates between African Americans and whites, as well as between high poverty and low poverty neighborhoods. In addition, we present the disease trends in King County between 1990 and 1996.

Successes in some areas...

Infant mortality in King County has decreased steadily since the late 1980s. The decline occurred among all racial/ethnic groups, especially among African and Native Americans.

Meanwhile, efforts to expand access to **prenatal care** have successfully increased the proportion of pregnant woman who begin care on time in the first trimester of pregnancy (Figure 1). The increase in on-time prenatal care was particularly marked among minority groups. In addition, the proportion of women **smoking during pregnancy** decreased substantially.

The rates for **teenage birth and pregnancy** showed significant declines, beginning in the early 1990s, largely due to declines among African American youth. The birth rates among African American females age 15-17 dropped 37% since the 1989-1991 period.

Figure 1: Percent of Mothers Receiving Prenatal Care In the First Trimester, By Race/Ethnicity, King County Three Year Rolling Averages, 1981-1996
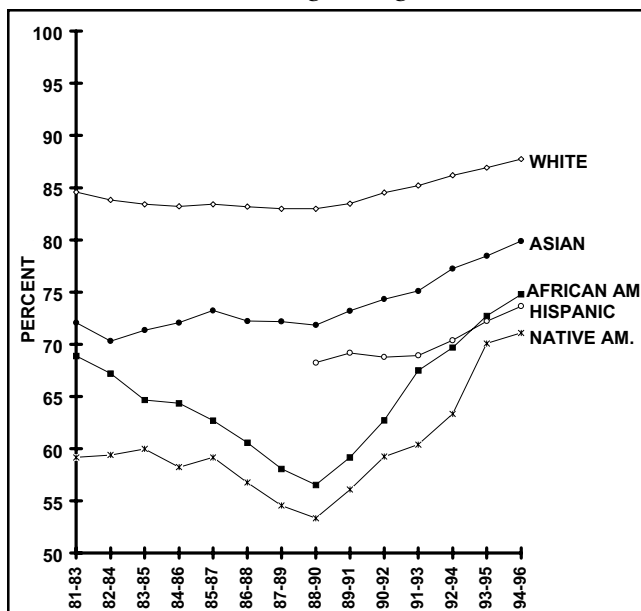
Rates for **childhood immunization** in King County are among the highest in the nation. Less than five cases per year of hemophilus influenza type b and measles were reported in recent years, down from about forty cases in 1990.

The number of **new AIDS cases** has dropped steadily since 1994, while 1996 marked the first year in which the number of AIDS deaths dropped (Figure 2). These favorable trends, however, are tempered by the increasing rates among women, African Americans and Hispanics, and by increases in total number of people living with AIDS and HIV.

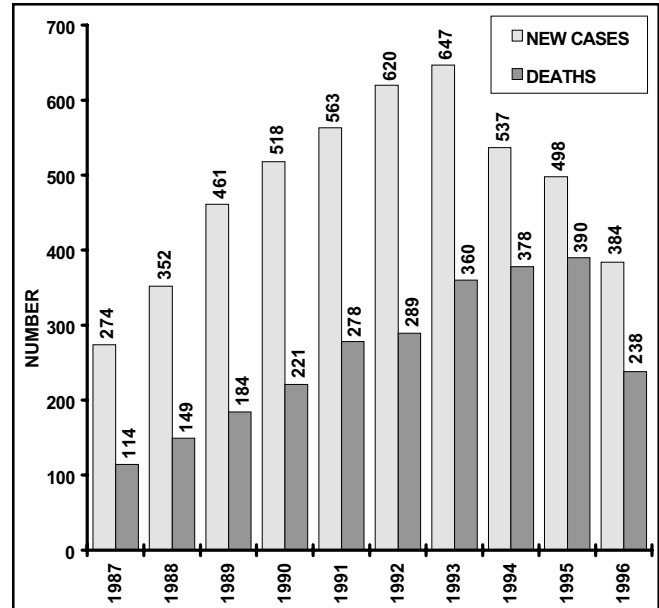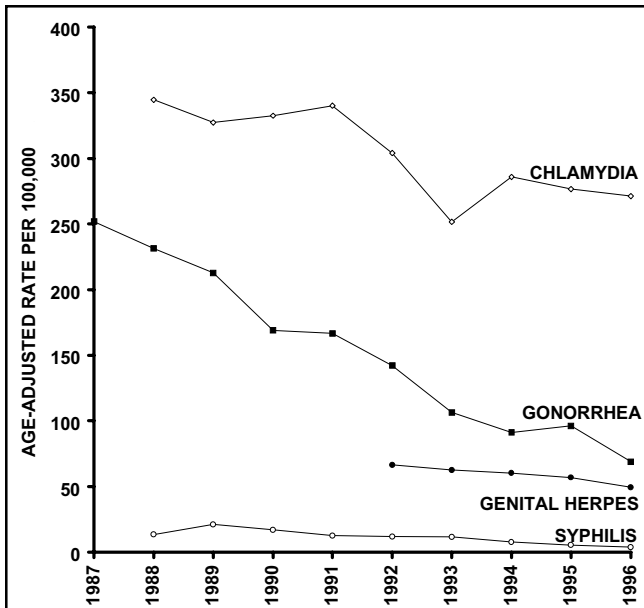Figure 2: AIDS, Number of New Cases and Deaths King County, 1987-1996

Figure 3: STD Trends, King County, 1987-1996

The rates of **sexually transmitted diseases** have dropped steadily since the late 1980s. Gonorrhea has decreased by 78% since 1987 while syphilis has become a rarity. Control of chlamydia and viral sexually transmitted diseases such as herpes and human papilloma virus remain important challenges (Figure 3).
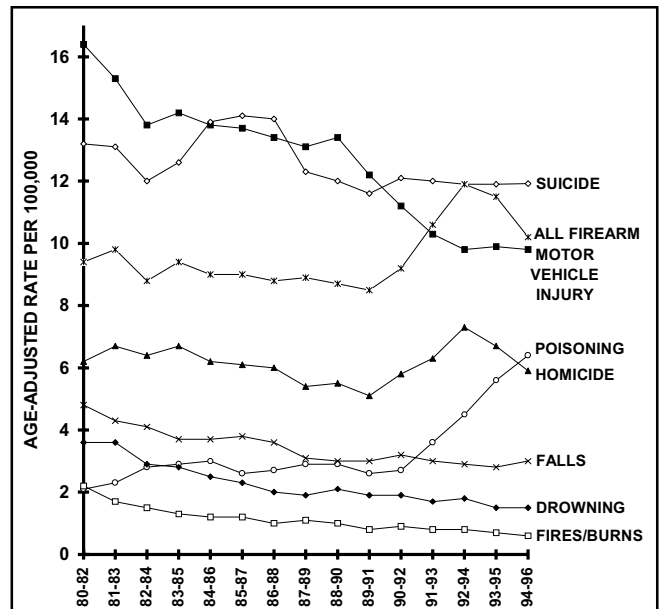
Death rates from **unintentional injuries** declined substantially since 1990, primarily because of the large decrease in motor vehicle-related deaths (Figure 4). Seat belt use increased steadily during this time period.

Violent crime has also decreased since its peak in the early 1990s. Rates of homicide, aggravated assault, robbery and rape are all lower.

Access to **screening for chronic diseases** has generally improved. Increasing proportions of King County residents report that they have been screened for high cholesterol and breast cancer. However, older and lower income women had significantly lower screening rates for breast and cervical cancer.

Air quality has improved substantially since the late 1980s, with the number of good air quality days increasing from 120 days in 1987 to 313 in 1995.

Figure 4: Trends In Injury Death
King County, Three Year Rolling Averages, 1980-1996

Overall, King County residents remained healthier than the average American. The life expectancy at birth in King County in 1996 was 78 years, compared to 76 years for the U.S. Also, King County residents had lower rates of infant mortality, lower rates of death from heart disease, lung cancer, chronic obstructive pulmo-nary disease (COPD), motor vehicle crashes, and homicide, and lower rates of sexually transmitted diseases. Additionally, King County adults were more likely to practice healthy behaviors. Rates of smoking, overweight, physical inactivity, and lack of seatbelt use were all lower than the national median rates.

…Challenges in others

While some indicators of health status in King County, such as maternal and child health, have improved, others have not. The declining trend in **infant mortality** has leveled off in recent years for African Americans and Asians. The **low birthweight** rate in King County has not improved since 1980 and increased slightly since 1994. Although the rise in low birthweight seen among African and Native Americans in the late 1980s has reversed, the rate among the former remains two times higher than the county as a whole. **Unintended pregnancy** remains a major concern: approximately 35% of all births to King County mothers were the result of unintended pregnancies as were almost all of the induced abortions.

The rate of **whooping cough (pertussis)** has increased substantially since 1995, primarily in school-age children and adults.

The **asthma hospitalization** rate among children age 1-14 increased by 22% between 1987 and 1996 (39% among children age 1-4 and 11% among children age 5-14, as shown in Figure 5). Asthma is now the leading cause of hospitalization among children. Hospitalization rates are highest among children living in lower-income neighborhoods.

Figure 5: Trends In Asthma Hospitalization By Age, King County, 1987-1996
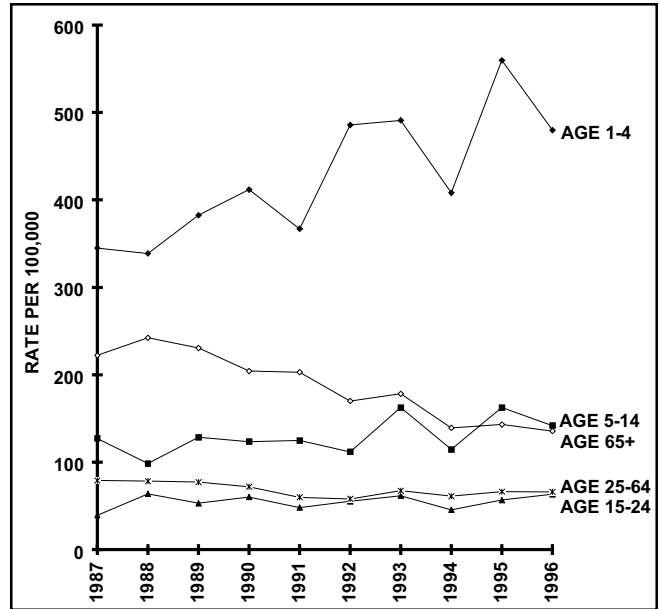
Figure 6: Trends In Chronic Disease Deaths King County, 1980-1996
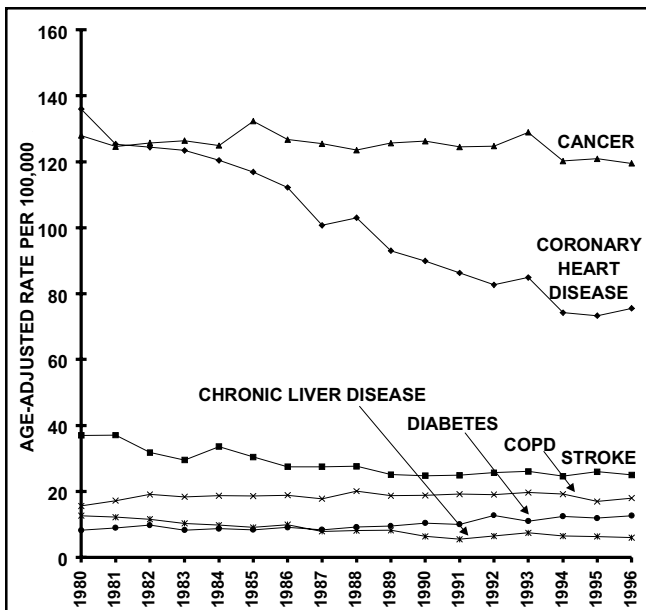
The declining trends in the death rates for **coronary heart disease, stroke, and colorectal cancer** observed since 1980 have leveled off in recent years. Death rates for stroke and colorectal cancer have actually increased among African Americans in recent years. The death rate for **diabetes** increased significantly since the mid-1980s among all ethnic/racial groups, and the increase was greatest among African Americans (Figure 6).

The death rate for **accidental poisoning**, most of which was illicit-drug overdose, rose three-fold between 1991 and 1996 (Figure 4 on page 3). The increase was significant in all regions of King County. Three quarters of these deaths were among males age 25-54. The rate of death from **illicit-drug use** in King County was more than twice the national rate. (However, more recent data from the King County Medical Examiner's Office indicated that drug-caused deaths in 1997 declined 17% from the previous year.)

The **suicide** rate in King County remains significantly higher than the national average. Rates are especially high among all males age 20-34 and white males age 65 and older.

The prevalence of **overweight (including obesity)** among King County adults increased from 38% in 1990 to 45% in 1996, mainly due to an increase in the prevalence of ob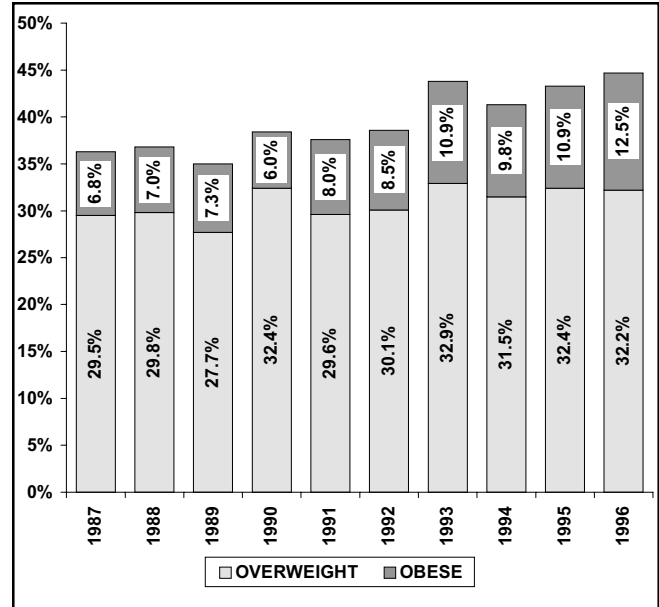esity (Figure 7). In 1996, 42% of King County adults had little or no leisure-time **physical activity** (which had improved from a high of 51% in 1990).

While screening for breast and cervical cancer has reached high levels, many residents are not adequately **screened for colorectal cancer**. Only one-quarter of all King County adults age 50 and older received a fecal occult blood test within the previous year, and only one-third received a sigmoidoscopy or proctoscopy exam within the previous five years (for colorectal cancer screening).

Lack of health insurance remains a concern. One in ten King County adults age 18 to 64 did not have health insurance in 1996, while 17% reported not having a usual place to go to receive medical care.

Figure 7: Trend In Prevalence of Overweight (BMI = 25-29.9) and Obesity (BMI $\geq$ 30) Among King County Adults, 1987-1996

Inequities in health status continue

Although the gap between high and low poverty neighborhoods in total mortality has narrowed since the late 1980s, **health status continues to be significantly associated with neighborhood poverty level**. For example, the death rates of coronary heart disease, stroke, and diabetes in high poverty neighborhoods were significantly higher than the rates in low poverty neighborhoods. This association was also observed in the rates of infant mortality, homicide, hospitalization for mental health conditions, and new cases of sexually transmitted diseases. The association of poverty with poor health is also striking for individuals with low income. For example, low-income persons are much less likely to report their general health status being "excellent or very good" than higher income persons.

There were **wide variations in health status by geographic area** within King County. For example, the life expectancy for residents of Central Seattle was 8.7 years less than the county average and 12.5 years less than that for Mercer Island, where the life expectancy was the highest in the county (Figure 8). In general, residents of Central Seattle, Southeast Seattle, and White Center/Skyway had higher mortality rates while the Eastside communities had lower mortality rates than the county average rate. The gaps in total mortality between the inner-city areas (Central Seattle, Southeast Seattle, and White Center/Skyway) and the Eastside communities did not change during 1980 to 1996.

Figure 8: Life Expectancy at Birth By Health Planning Area, King County Three Year Average, 1994-1996
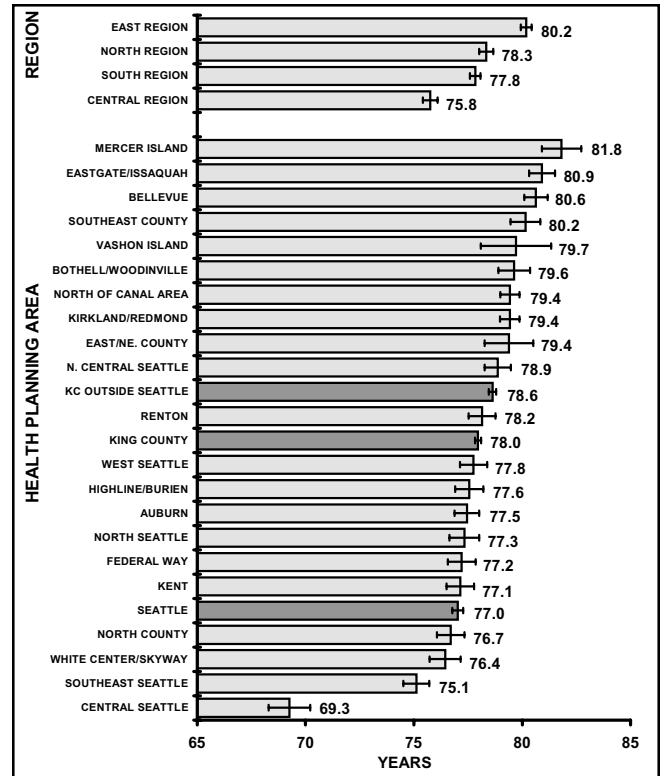
Figure 9: Total Death, Age-Adjusted Rate By Race/Ethnicity, King County Three Year Rolling Averages, 1980-1996
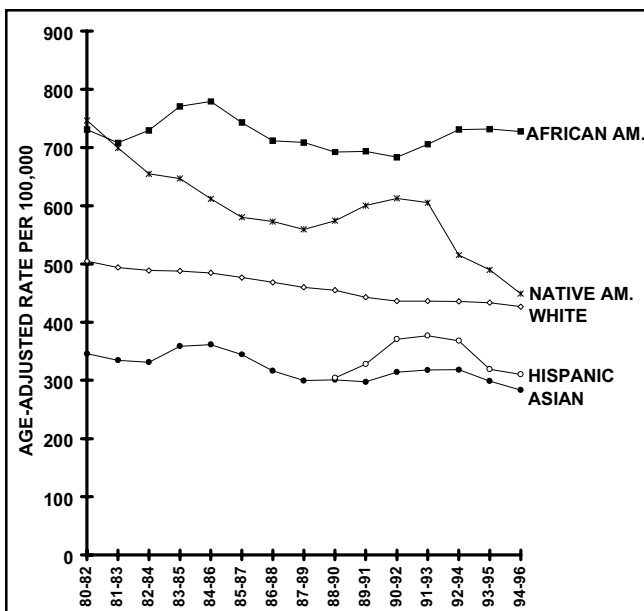
Variations in health status were also apparent across racial/ethnic groups. When compared to whites, African Americans continued to have relatively poor health and much higher death rates (Figure 9), which are associated with their disadvantage in socio-economic status. The overall death rate among African Americans was 1.7 times that of the county average, up from 1.5 times in 1990. The gap increased because the death rate among African Americans has remained steady while the county average rate has declined. The infant mortality rate for African Americans has declined substantially since its peak in the early 1990s, but still remains more than twice the county average rate. African Americans also had higher death rates for the major chronic diseases (such as coronary heart disease, stroke, and cancer) and high incidence rates for sexually transmitted diseases.

The overall death rate and infant mortality rate among Native Americans has dropped substantially since 1990. While the death rate from chronic liver disease/cirrhosis declined, it remained 3.6 times the rate for whites. Native Americans also had high rates of death from unintentional injury and pneumonia/ influenza.

Overall, the health status of Asians in King County across many indicators was similar to or better than that of whites, but Asians had the highest incidence rate of tuberculosis among the racial/ethnic groups in King County.

In general, the health status of Hispanics in King County was also similar to that of whites. However, Hispanics had a lower rate of on-time prenatal care, higher rates of teen-age birth, sedentary lifestyle, diabetes-related death, sexually-transmitted diseases, hepatitis B, and death from drug-overdose than whites.

The variations associated with neighborhood poverty level, residential community and race/ethnicity are among the most longstanding and disturbing patterns found in this report. To a large extent, they are probably related to complex political, social and cultural factors (e.g., a societal history of economic and racial discrimination and inequality that affects the potential for achieving good health). In drawing attention to these variations, we hope to support community members, public officials and the general public in the continuing search for personal, community and policy solutions.

The importance of prevention

Prevention of disease and promotion of good health are key strategies to reverse these negative trends and address the persistent social inequities in health. At least 50% of all deaths are associated with preventable factors. These factors include cigarette smoking, poor nutrition, physical inactivity, alcohol, microbial agents (such as bacteria and viruses), toxic agents, firearms, motor vehicles, sexual behavior, and illicit use of drugs. The prevalence of these factors among King County residents continues at relatively high levels (Table 2) and their health impacts are substantial. For example, in 1996, 2,228 deaths (or 19% of the total deaths) in King County were caused by cigarette smoking. Yet, 20% of the King County adults currently smoke, and the smoking rate among youth has recently increased.

To decrease the occurrence of these factors, the combined efforts of public health agencies, health care providers, social service agencies, and community organizations are required. We must encourage social and physical environments which promote health and encourage individuals to practice healthy behaviors. We must assure that all residents have access to the knowledge and services they need to treat and prevent illness. Innovative service delivery programs, new school and workplace policies, legislation, and community mobilization for all King County residents and for high-risk populations will help us consolidate our gains and make further progress towards the goal of healthy lives for everyone living in King County.

Table 1: Summary of Key Health Indicators for King County

Indicators	King County			U.S.		Met 2000 Target	Afri. Am./ White Ratio**	High/Low Poverty Ratio**
	1996 Number	1996 Rate	90-96 Trend	1996 Rate	2000 Target			
GENERAL HEALTH STATUS								
Total Mortality (D) aar	11,744	427.0	τ	494.1	---	---	1.7	1.7
Life Expectancy (years)	—	78.0	σ	76.1	---	---	0.9	0.9
ACCESS TO CARE								
Avoidable Hospitalization (H) aar	16,589	773.0	τ	---	---	---	---	2.5
ENVIRONMENTAL HEALTH								
Asthma, All (H) cr			⇒					2.9
Asthma, Children Age 0-14 (H) asr	1,830	112.2	σ	---	160.0	Yes	---	3.7
Foodborne Illness Outbreak (R)	106	NA	⇒ 93-96	---	---	---	---	---
CHRONIC DISEASES								
Coronary Heart Disease (D) aar	2,326	75.5	τ	102.9*	100.0	Yes	1.3	1.6
Stroke (D) aar	935	25.0	⇒	26.5	20.0	No	1.8	1.2
All Cancer (D) aar	2,892	119.5	⇒	129.1	130.0	Yes	1.4	1.2
All Cancer, 1994 (I) aar	6,831	386.1	---	---	---	---	---	---
Lung Cancer (D) aar	752	32.6	⇒	39.7*	42.0	Yes	1.3	1.3
Breast Cancer (D) aar	271	22.7	⇒	21.0*	20.6	No	NS	NS
Colorectal Cancer (D) aar	307	11.8	⇒	12.4*	13.2	Yes	1.6	NS
Prostate Cancer (D) aar	177	14.0	τ	15.5*	---	---	2.0	NS
Cervical Cancer (D) aar	16	1.7	⇒	1.3	1.3	No	2.8	2.3
Diabetes (D) aar	318	12.6	σ	13.6	---	---	3.7	2.2
Diabetes-Related Death (D) aar	870	32.4	σ	---	34.0	Yes	3.0	1.7
COPD (D) aar	513	18.0	⇒	21.0	25.0	Yes	NS	1.6
Cirrhosis (D) aar	233	6.0	⇒	7.5	6.0	Yes	NS	4.4
Arthritis-Caused Disability (P)	47,938	---	---	---	---	---	---	---
COMMUNICABLE DISEASES								
AIDS (D) aar	238	12.2	σ 90-95	11.6	---	---	1.8	9.3
HIV/AIDS (R) cr	384	23.6	τ 93-96	25.2	---	---	---	---
Chlamydia, Female (R) cr	2,352	286.5	τ	314.9	---	---	6.8	5.6
Gonorrhea (R) cr	925	56.8	τ	122.8	225.0	Yes	16.7	15.2
Syphilis (pri.+sec.) (R) cr	<5	<0.3	τ	4.3	10.0	Yes	28.8	40.7
Hepatitis A (R) cr	429	26.3	⇒	11.7	---	---	0.6	6.5
Hepaptis B (R) cr	80	4.9	τ	4.0	---	---	2.1	8.3
Tuberculosis (R) cr	239	7.9	⇒ 92-96	8.0	3.5	No	---	---
Pneumonia/Influenza (D) aar	470	12.1	⇒	12.6	---	---	NS	1.4
MATERNAL & CHILD HEALTH								
Infant Deaths (D)	118	5.5	τ	7.2	7.0	Yes	2.3	2.2
Teen Births (Female Age 15-17)	539	18.4	τ	34.0	---	---	3.0	4.3
Low Birth Weight (%)	1,285	6.0	σ 93-96	7.4	5.0	No	2.3	1.5

Table 1 continued on next page

Table 1, continued

Indicators	King County 1996 Number	King County 1996 Rate	King County 90-96 Trend	U.S. 1996 Rate	U.S. 2000 Target	Met 2000 Target	Afri. Am./ White Ratio**	High/Low Poverty Ratio**
INJURY & VIOLENCE								
Unintentional Injury (D) aar	501	25.6	⇒	30.1	29.3	Yes	1.6	2.0
Motor Vehicle Deaths (D) aar	170	10.2	τ	16.2	---	---	NS	NS
Motor Vehicle Collisions (R) cr	49,927	---	τ	---	---	---	---	---
Homicide (D) aar	74	4.9	τ 94-96	9.3*	7.2	Yes	11.1	5.3
Firearm Death (D) aar	148	8.7	⇒	13.7*	12.6	Yes	4.0	2.2
Falls, Death (D) aar	106	3.4	⇒	2.6*	2.3	No	NS	2.0
Falls, Hospitalization, 65+ (H) asr	3,371	1903.0	σ	---	---	---	---	1.3
Hip Fracture, 65+ (H) asr	1,362	769.2	σ	---	607.0	No	---	NS
MENTAL HEALTH								
Depression (H) aar	3,015	175.3	σ 92-96	---	---	---	---	2.5
Accidental Poisoning (D) aar	141	7.5	σ	3.2*	---	---	3.0	6.8
Suicide (D) aar	216	12.1	⇒	10.8	10.5	No	NS	2.0
Attempted Suicide (H) aar	875	53.8	τ 94-96	---	---	---	---	3.2

(D)	=	Death.
(H)	=	Hospitalization.
(I)	=	Incidence (new cases per year).
(P)	=	Prevalence (existing cases per year).
(R)	=	Report (note that for some diseases, underreporting is common).
aar	=	Age-adjusted rate, adjusted to the 1940 U.S. population.
cr	=	Crude rate per 100,000.
asr	=	Age-specific rate per 100,000.
---	=	Comparable data are not available or not applicable.
σ	=	Significant increasing trend.
τ	=	Significant declining trend.
⇒	=	Flat, non-significant trend.
*****	=	1995 data.
**	=	The rate ratio comparing African Americans to whites and comparing high to low poverty neighborhoods are 1992-1996 average rates (10-year average rates for cervical cancer).
NS	=	The rate difference is not statistically significant.

Table 2: Opportunities for Prevention:
The Prevalence (%) and Impact of Risk Factors for Poor Health

Key Areas for Prevention	%*	Time Trend	% of All Deaths**	Impact on Leading Causes of Death and Other Major Health Problems
SMOKING			19	Heart Disease, Stroke, Lung Cancer,
Current Smoker	20	τ 87-96		Cervical Cancer, COPD, Asthma,
Smoking During Pregnancy	11	τ 84-96		Infant Health.
Regular Smoker (High School Students)	25	σ 93-95		
DIET/PHYSICAL ACTIVITY			14	Heart Disease, Stroke, Cancer,
Not Eating Fruit/Vegetable 5-A-Day	74	---		Diabetes, Falls and Hip Fracture.
Sedentary Lifestyle	42	τ 90-96		
Overweight	45	σ 87-96		
ALCOHOL			5	Chronic Liver Disease/Cirrhosis,
Chronic Drinking	2	τ 87-95		Motor Vehicle Crashes, Falls and
Drinking and Driving	2	⇒ 87-95		Hip Fracture, Violent Crimes, Fetal
Binge Drinking	15	τ 87-95		Alcohol Syndrome.
MICROBIAL AGENTS			4	AIDS, STDs, TB, Enteric Diseases,
No or Incomplete 4:3:1 Vaccination***	18	σ 94-96		Hepatitis, Childhood Vaccine-
No Influenza Vaccination (Age 65+)	31	τ 93-95		Preventable Diseases, Pneumonia
Never Had Pneumonia Vac. (Age 65+)	56	τ 93-95		and Influenza Among Older Adults.
TOXIC AGENTS (indoor and outdoor air quality, occupational exposure, etc.)	---	---	3	Heart Disease, Cancer, COPD, Asthma.
FIREARMS			2	Suicide, Homicide, Firearm Injuries,
Have Guns In or Around the Home	25	---		Violent Crimes.
MOTOR VEHICLES			1	Motor Vehicle Crashes, Injuries
Do Not Always Use a Seatbelt	18	τ 87-95		from Motorcycle/Bicycle Accidents.
Do Not Always Use a Seatbelt (High School Student)	>30			
SEXUAL BEHAVIOR			1	HIV/AIDS, STDs, Unintended Pregnancy.
ILLICIT USE OF DRUGS	---	---	1	Drug Overdose, AIDS, STDs, Hepatitis B, Violent Crimes.
CANCER SCREENING			NA	Breast, Cervical, and Colorectal
No Mammography Within Two Years (Female Age 50+)	19	τ 87-96		Cancer.
No Pap Test Within Three Years (Female Age 50+)	12	⇒ 92-96		
No Colorectal Cancer Screening (50+)	61	---		
NO 1ST TRIMESTER PRENATAL CARE	13	τ 80-96	NA	Infant Mortality, Low Birth Weight.
HYPERTENSION	19	⇒ 87-96	NA	Heart Disease, Stroke, Kidney Failure.
MENTAL HEALTH			NA	Depression, Suicide.
"Not Good" Days Per Month > 10	11	---		
LACK OF ACCESS TO CARE			NA	All, Preventable Hospitalization,
Uninsured (Age 18 to 64)	10	⇒ 92-96		Dental Health.
No Usual Source of Care	17	⇒ 92-96		

* = If not specified, the prevalence rate is for King County adults age 18+ in 1995 or 1996.

** = Percentage of total deaths caused by this factor, based on national studies. (From: McGinnis, JM and Foege, WH. Actual Causes of Death in the United States. JAMA. 270 (18): 2207-2212. 1993).

*** = Among children age 19-35 months.

σ = Significant increasing trend; τ = Significant declining trend; ⇒ = flat, non-significant trend.

NA = Not Available.

Glossary:

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 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 its 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 1940 U.S. population.

Rolling Averages: For populations of small size (Native Americans in King County for example), 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 1992 through 1996, the rates are instead reported as three-year rolling averages: 1992-1994, 1993-1995, and 1994-1996.

Health Planning Areas and Health Regions: In addition to examining data for King County and Seattle, we also analyzed the data by the four health administrative regions and the 21 Health Planning Areas used by the Seattle-King County Department of Public Health. The Health Planning Areas are aggregates of census tracts or zip codes and many of them approximately correspond to the incorporated cities in King County.