Health Profile for the SeaTac Airport Community

Prepared by:

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DATA SUMMARY
Health Profile for the SeaTac Airport Community

People of All Ages

- The percent of the population living in poverty and without a high school diploma is higher in the SeaTac Airport Community compared to King County as a whole. Although SeaTac is diverse, it is predominantly a blue-collar community: in 1990, seven of 10 SeaTac adults were in working-class occupations.
- Chronic diseases such as heart disease, stroke, cancer and chronic obstructive pulmonary disease (COPD) are the leading causes of death in SeaTac and King County.
- Cancer of the lung and chronic obstructive pulmonary disease, two diseases closely linked with cigarette smoking, were elevated in the SeaTac Airport Community compared to the County as a whole. Lung cancer is the leading cause of cancer death in SeaTac, King County and the U.S.
- There is no adult smoking data specifically for the SeaTac community. However, the percent of adults in South County as a whole who were smokers is somewhat higher compared to King County (24% and 19%, respectively).
- AIDS death rates are lower in SeaTac than in the County, and have turned downward in recent years.
- Firearm-related deaths (suicide and homicide) were 50% higher in the SeaTac Airport Community compared to King County.

Maternal and Child Health

- Women giving birth were more likely to have had late prenatal care compared to their King County counterparts.
- Women giving birth were also more likely to have smoked during pregnancy.

Children and Younger Adults

- The birth rate in adolescents age 15 to 17 was almost twice as high in SeaTac compared to King County.
- Teens and younger adults (age 15 to 24 and 25 to 44) had higher hospitalization rates for illicit drug use, while younger adults had higher hospitalization rates for alcohol abuse.
- Teens and young adults aged 15 to 24 had higher incidence rates of chlamydia and gonorrhea.
- Children under 18 were more likely to be hospitalized for asthma and other respiratory diseases.

Older Adults

- Adults 65 and older had lower death rates than their King County counterparts for heart disease and stroke.
- Hospitalization rates for unintentional injury and stroke were also lower than for King County for those aged 65 and older.
- However, death rates for chronic obstructive pulmonary disease was higher among older SeaTac residents compared to King County.

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February 1999

Introduction

In response to a request for an overall community health assessment from residents living near SeaTac Airport, the Seattle-King County Department of Public Health has analyzed a range of data in order to create a profile of the health of this community. The result is the following report which identifies the major causes of death and illness, as well as other health indicators, in the SeaTac Airport Community, and compares them to King County as a whole. For the sake of brevity, the community will sometimes be referred to as "SeaTac", although it should not be confused with the City of SeaTac. A precise description of the geographical boundaries of the community is provided in Technical Appendix A.

The selection of health indicators, or events, examined in this report is limited to data currently available to the Seattle-King County Department of Public Health. For example, while data about the number of deaths related to diabetes are readily available from death certificates, there is currently no way to count the number of living people who have at some point been diagnosed with diabetes.

The results of the primary data analysis can be found in Technical Appendix A. The body of this report contains a summary of the most notable findings, although it is by no means comprehensive. Indicators were chosen for special consideration when statistical tests showed that there was either a significant difference between the occurrence of that indicator in the SeaTac Airport Community and the county as a whole, or there has been a significant change over time in its occurrence. The term "significant" as used throughout the report refers to this statistical definition and is not meant as a judgement about the severity of a problem.

Further information about statistical methods, rate calculation, and data sources is provided in Appendices B and C.

For additional information, or assistance in interpreting the data included, please contact the Seattle-King County Department of Public Health's Epidemiology, Planning and Evaluation Unit at 296-6817.

Health Profile Summary

Population Estimates
(Appendix A – Table 1)

- In 1997, the total population of the SeaTac Airport Community was 98,608 out of a total King County population of 1,652,775.
- The population distribution of SeaTac closely reflected that of King County as a whole in terms of the age, gender, and race/ethnicity of its residents.

Figure 1: Population Distribution of SeaTac Airport Community By Age and Gender, 1997

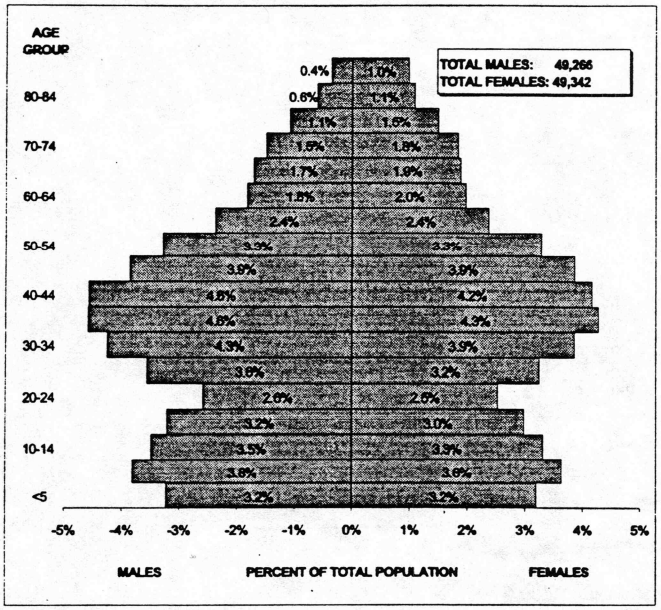
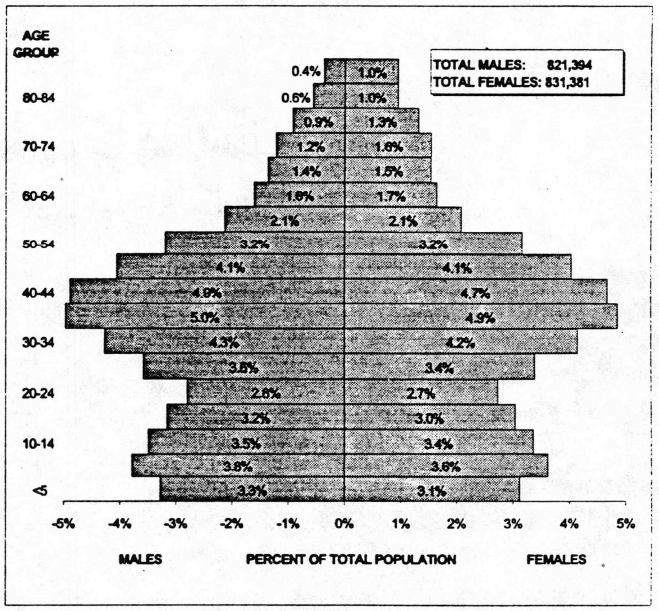


Figure 2: Population Distribution of King County By Age and Gender, 1997

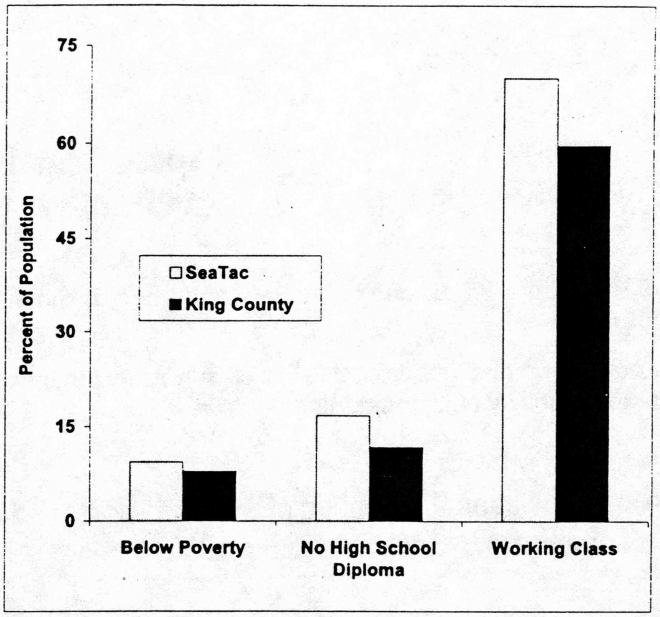


Socioeconomic Status
(Appendix A – Table 1)

- Data from the 1990 U.S. Census indicates that there was a higher percentage of persons below the federal poverty level in SeaTac (9.5%) than in the whole county (8%), particularly among the Asian/Pacific Islander and African American populations.

- As of 1990, the percent of persons age 25 and over without a high school diploma was higher in the SeaTac Airport Community (16.7%) than in King County (11.8%).
- The percentage of the SeaTac population who were working class in 1990 (70.1%) also exceeded the county percentage (59.7%).

Figure 3: Socioeconomic Measures
SeaTac Airport Community and King County
1990

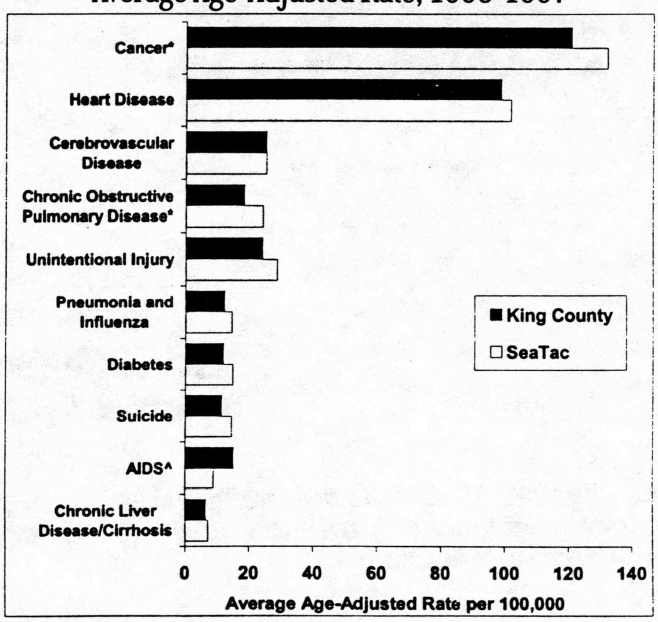


Leading Causes of Death

(Appendix A – Tables 2, 3, 6, 8 & 10)

- Between 1993 and 1997, six chronic illnesses were among the top ten leading causes of death for all age groups in SeaTac. They were cancer, heart disease, cerebrovascular disease (stroke), chronic obstructive pulmonary disease, diabetes, and chronic liver disease.
- Slightly more than one half of all deaths between 1993 and 1997 in SeaTac (52%) were from cancer and heart disease combined (51% in King County).
- Other leading causes of death among all ages in SeaTac included unintentional injury, pneumonia/ influenza, suicide, and AIDS.
- While the leading causes of death were the same in SeaTac and King County between 1993 and 1997, there were some significant differences in the death rates between the two areas. Death rates from cancer, and chronic obstructive pulmonary disease were significantly higher in SeaTac than in the county as a whole. The overall death rate was also higher in SeaTac.
- The elevation in the overall cancer death rate in SeaTac over King County is mainly due to respiratory cancer. There was no significant difference in the death rates from any other major cancer type.

Figure 4: Leading Causes of Death
SeaTac Airport Community and King County
Average Age-Adjusted Rate, 1993-1997



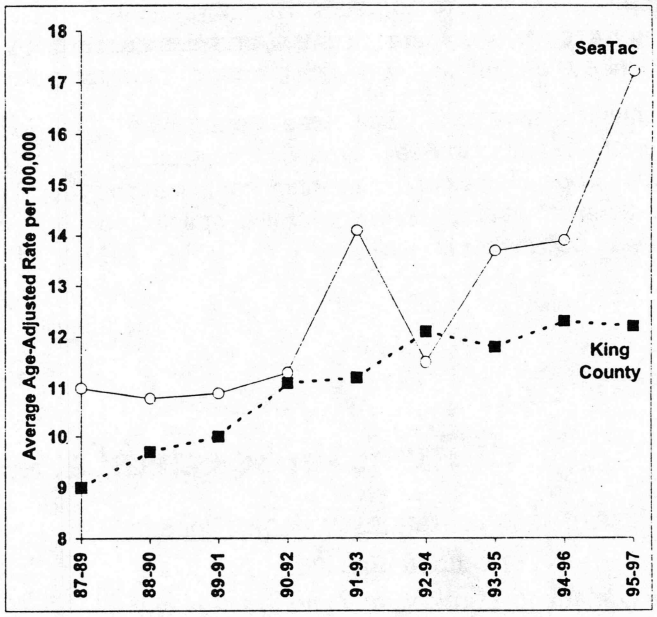
* Statistically significantly higher in SeaTac Airport Community than in King County.
^ Statistically significantly lower in SeaTac Airport Community than in King County.
"Diabetes" includes only deaths for which diabetes was the underlying (primary) cause.

- Respiratory cancer is the leading cause of cancer death in the SeaTac community, King County, Washington State and the U.S.
- In SeaTac, respiratory cancer was followed by breast cancer in women, colorectal cancer among men and women, and prostate cancer in men as the leading causes of cancer death.
- Among children (age 0-17), the three leading causes of death in SeaTac and the county between 1993 and 1997 were unintentional injuries (primarily motor vehicle accidents), homicide, and cancer.

Trends in Selected Causes of Death

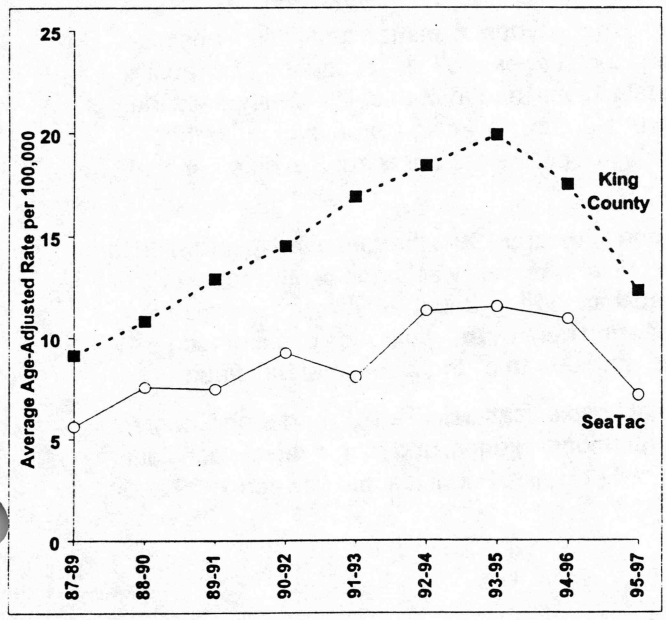
- Most of the leading causes of death in the SeaTac Airport Community have not significantly increased or decreased over the last decade. The exceptions are heart disease, diabetes, and AIDS. Heart disease deaths have declined in both SeaTac and King County since 1987.
- Diabetes deaths increased significantly in both SeaTac and King County from 1987 to 1997.
- "Diabetes deaths" includes only those deaths for which diabetes was determined to be the primary underlying cause. These numbers underestimate the total impact of diabetes on mortality because they exclude deaths from other primary causes, such as stroke, to which diabetes was a contributing factor.
- Furthermore, it is estimated that diabetes is cited as either an underlying or contributing cause on the death certificates of only 50% of all people who had diabetes.

Figure 5: Diabetes Deaths
SeaTac Airport Community and King County
3 Year Rolling Averages, 1987-1997



"Diabetes" includes only deaths for which diabetes was the underlying (primary) cause.

Figure 6: AIDS Deaths
SeaTac Airport Community and King County
3 Year Rolling Averages, 1987-1997



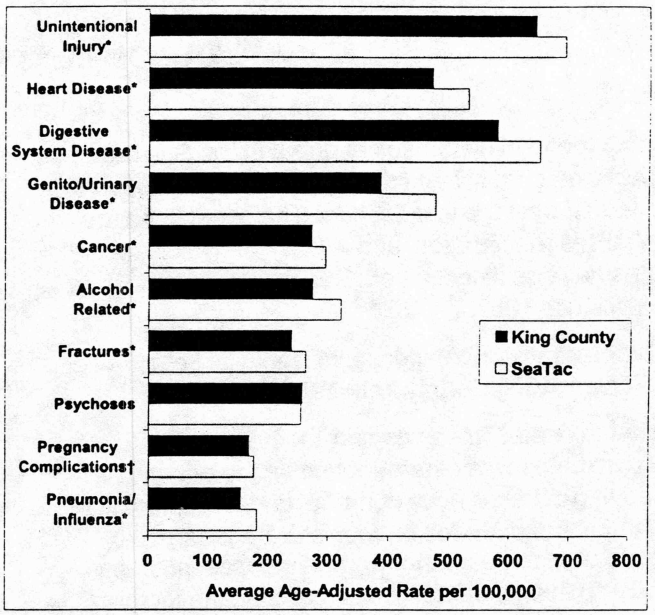
- Between 1993 and 1997, the rate of death from AIDS was significantly lower in SeaTac than in the county. AIDS death rates have been decreasing in SeaTac since 1994 (and in King County since 1995).

Leading Causes of Hospitalization

(Appendix A – Tables 4, 5, 6, 7, 8, 10 & 11)

- From 1992 to 1996, the top ten causes of hospitalization in SeaTac and the county as a whole were unintentional injury, heart disease, digestive system disease, genito/urinary disease, cancer, alcohol-related, fractures, psychoses, pregnancy complications, and pneumonia/influenza.
- Genito/urinary disease hospitalizations in SeaTac are comprised primarily of disorders of female genital organs such as endometriosis (49%) and disorders of the kidneys and urinary tract (37%).
- Hospitalization rates for all of these causes were significantly higher in SeaTac than in King County, except for psychoses and pregnancy complications (no statistical difference). The overall hospitalization rate was also higher in SeaTac.

Figure 7: Leading Causes of Hospitalization
SeaTac Airport Community and King County
Average Age-Adjusted Rates, 1992-1996

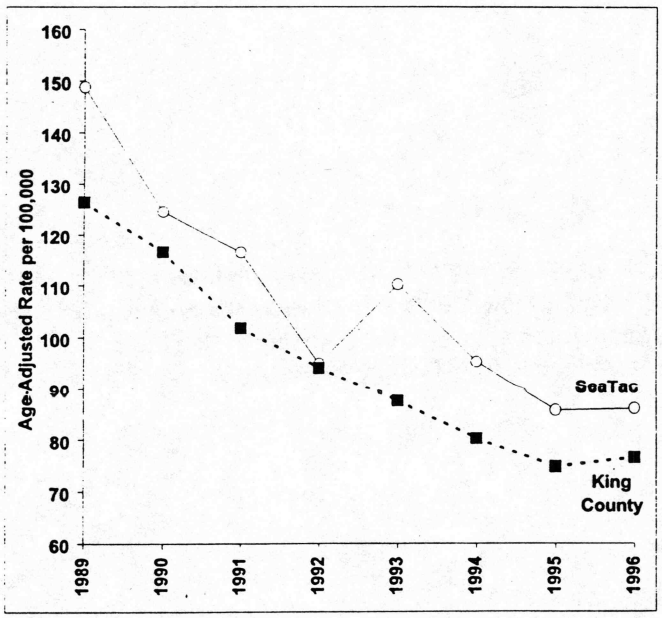


* Statistically significantly higher in SeaTac Airport Community than in King County.

† Rate is per 1,000 live births, not per 100,000 total population.

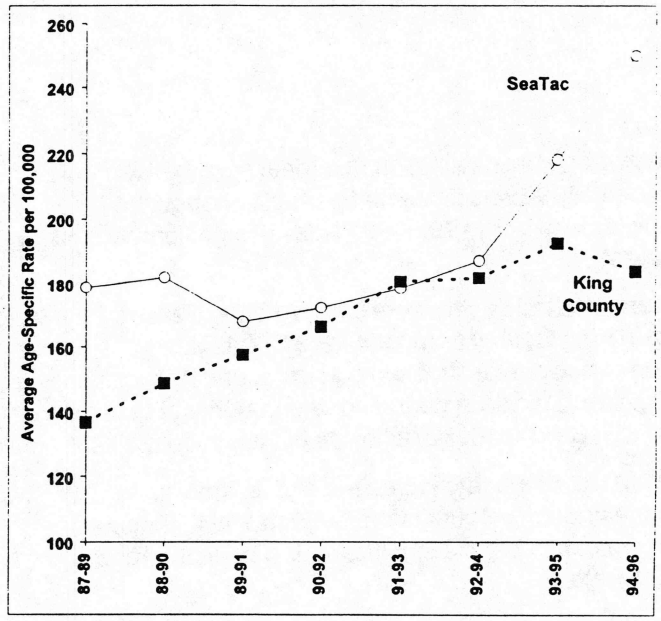
Trends in Selected Causes of Hospitalization

Figure 8: Hospitalizations for Motor Vehicle Accident Injuries
SeaTac Airport Community and King County
Age-Adjusted Rates, 1989-1996



- The two major types of unintentional injury hospitalizations for all ages are falls, accounting for most hospitalizations, and motor vehicle crashes. In the 15-24 age group, however, motor vehicle crashes precede falls as the greatest cause of unintentional injury.
- Between 1992 and 1996, the rate of hospitalization for motor vehicle crashes was significantly higher in SeaTac than in King County. Motor vehicle crashes are reported here by the residence of the person injured, rather than by the location of the crash.
- Rates of hospitalization in SeaTac and King County for unintentional injuries, and motor vehicle accidents specifically, declined significantly between 1989 and 1996.

Figure 9: Hospitalization for Asthma Among 0-17 Year Olds
SeaTac Airport Community and King County
3 Year Rolling Averages, 1987-1996

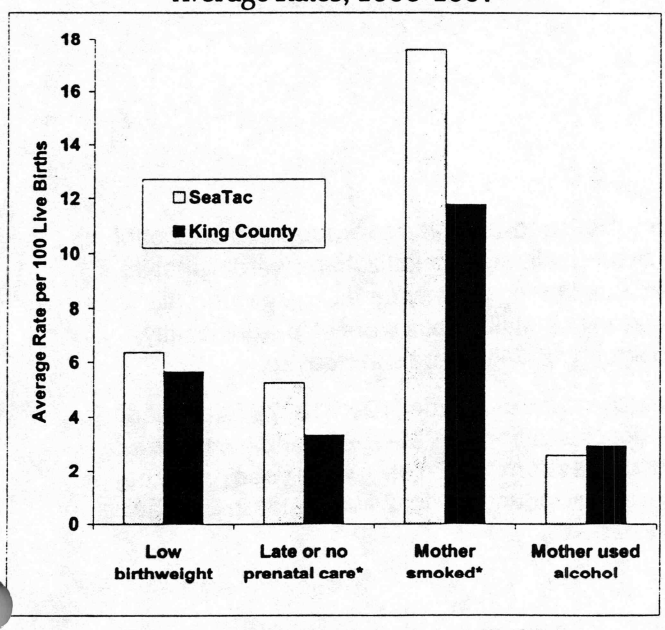


- Hospitalization rates for pneumonia/influenza and asthma (constituting 36% and 19% of respiratory disease hospitalizations for all ages, respectively) were also significantly higher in SeaTac than in the county among the 0-17 age group.
- From 1987 to 1996 asthma hospitalization rates among 0-17 year olds increased in both SeaTac and King County.
- In addition to asthma, the other four leading causes of hospitalization in SeaTac for children age 0-17 were unintentional injuries, digestive system disease, infections, and perinatal conditions (ie. related to birth).
- These were the same five leading causes of hospitalization among children in the entire county.

Maternal and Child Health Indicators

(Appendix A – Table 9)

Figure 10: Maternal and Child Health
SeaTac Airport Community and King County
Average Rates, 1993-1997



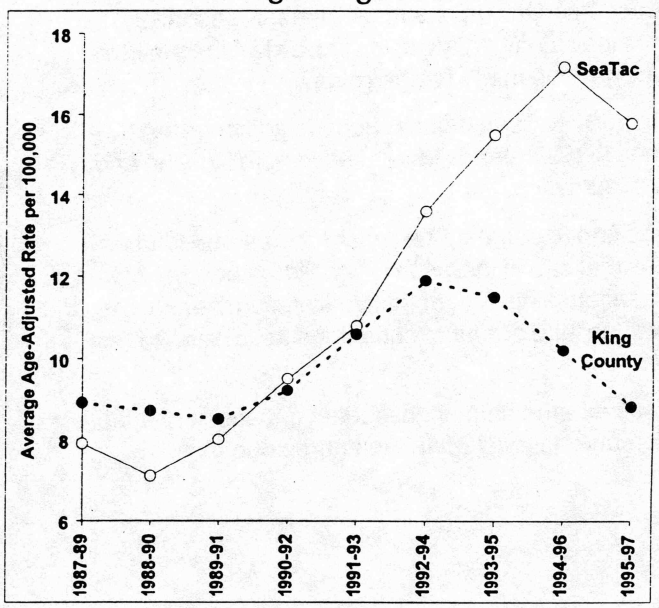
* Statistically significantly higher in SeaTac Airport Community than in King County.

- The average overall birth rate from 1993-1997 was 22% higher in SeaTac than in the entire county.
- The birth rate among teens age 15-17 in the same period was also higher in SeaTac by 94%.
- There were no significant differences between SeaTac and King County in terms of maternal use of alcohol while pregnant and low birth weight births. But the rate of maternal smoking during pregnancy and the percentage of births for which the mother received late or no prenatal care was significantly higher in SeaTac.

Violence

(Appendix A – Table 10)

Figure 11: All Firearm Deaths
SeaTac Airport Community and King County
3 Year Rolling Averages, 1987-1997

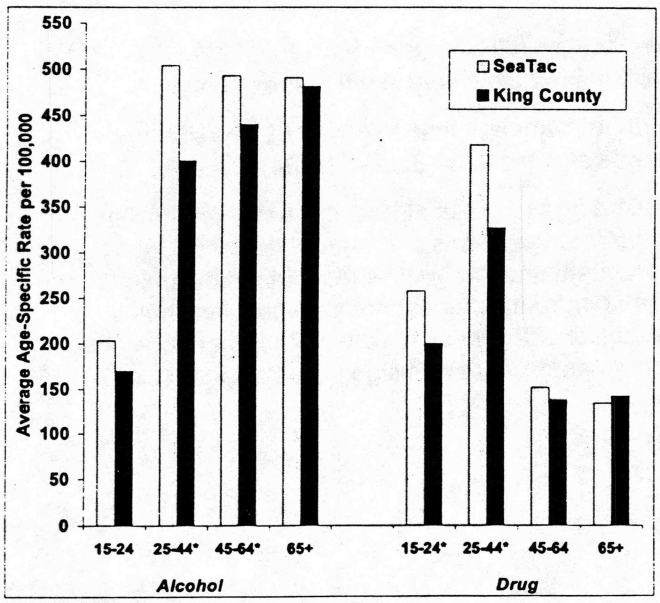


- The average hospitalization rate for assault between 1992 and 1996 was higher in SeaTac, although the homicide rate from 1993-1997 was not significantly different.
- Firearm-related deaths were 50% higher in SeaTac than in King County from 1993-1997. This rate includes accidental shootings, suicide, and homicide by firearm. Suicide accounts for the majority of these deaths in SeaTac (69%), followed by homicide (31%).
- The firearm death rate increased significantly in SeaTac and King County from 1989 to 1994. Since then, there has been a significant decline in the King County rate.

Mental Health and Substance Misuse

(Appendix A – Tables 7 & 11)

Figure 12: Alcohol and Drug Hospitalizations
in Teens and Adults
SeaTac Airport Community and King County
Average Rates, 1992-1996



* Statistically significantly higher in SeaTac Airport Community than in King County.

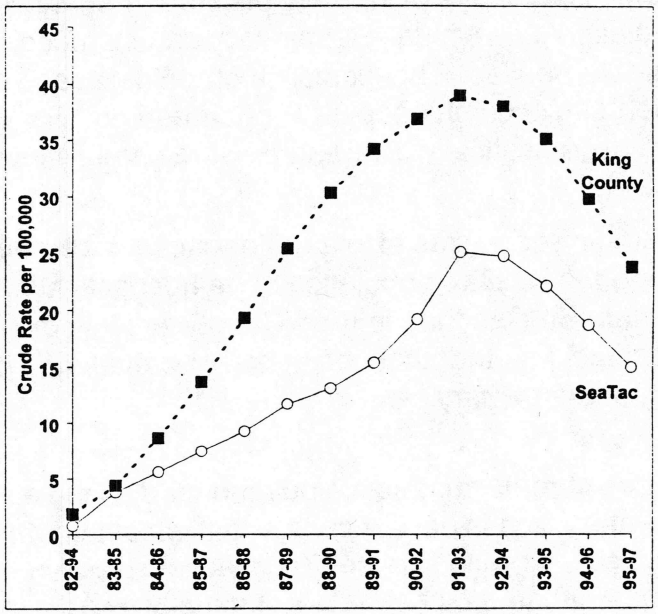
- Between 1992 and 1996, the average rates of alcohol and illicit drug related hospitalizations were higher in SeaTac than in King County for all age groups. Illicit drug related hospitalizations were also significantly higher among 15-24 year olds in SeaTac.
- The average rates of suicide (1993-1997), attempted suicide hospitalizations (1992-1996), and hospitalizations for depression (1992-1996) were not significantly different overall or among 15-24 year olds in SeaTac and King County.

Communicable Diseases

(Appendix A – Tables 7 & 12)

- The average rate of new AIDS cases from 1995-1997 was lower in SeaTac than in King County.
- Between 1993 and 1997, the average rates of chlamydia and gonorrhea were significantly higher in SeaTac among 15-24 year olds and all ages.
- There were no significantly differences in rates of TB and vaccine preventable diseases.
- From 1993-1997, the average food and waterborne disease rates were significantly lower in SeaTac than in King County.

Figure 13: New AIDS Cases
SeaTac Airport Community and King County
3 Year Rolling Averages, 1982-1997



Behavioral Risk Factors and Access to Health Care

(Appendix A – Tables 13, 14 & 15)

- There is no data available on the prevalence of behavioral risk factors or measures of access to health care specifically among the SeaTac Airport Community. However, a telephone survey conducted throughout King County provides some of this information for the South King County region to which SeaTac belongs.
- Data from the Behavioral Risk Factor Survey indicate that 17% of women in South County had not had a Pap Smear recently, versus 13% in the county as a whole.
- Among all adults surveyed, a greater percentage in South County were smokers (24%) or were overweight (28%) than in King County (19% and 22%, respectively).
- The number of South County households with a loaded gun in the home was 16.5%, versus 12.5% for the county.
- It should be noted that although the survey data does indicate some differences between South County and the entire county in the prevalence of certain risk factors, none of those differences were statistically significant.

Summary and Discussion of Findings

Chronic disease was the major cause of death in the SeaTac Airport Community, as well as King County. Chronic diseases are those that are slow to develop and last for an extended period of time. Cancer and heart disease combined accounted for about half of all deaths. Residents of the SeaTac Airport Community were at a higher risk for death from cancer and chronic obstructive pulmonary disease (primarily emphysema) compared to the King County population as a whole. Respiratory cancer, accounting for 30% of cancer deaths, was also higher in SeaTac. The excess in chronic disease deaths as compared to the entire county appears to occur in people younger than 65. For the oldest age group (65+), the SeaTac rates were not statistically different, or were actually lower.

Chronic disease was also a major cause of disability (measured by hospitalization rates) among the SeaTac population. The hospitalization rates for heart disease and cancer were higher in SeaTac than in King County, as was the total hospitalization rate. Hospitalization can reflect factors other than incidence or prevalence of a condition, such as access to timely and appropriate primary care.

Besides chronic obstructive pulmonary disease and respiratory cancer, two other types of respiratory illness have a substantial impact on the health of SeaTac residents. Pneumonia/ Influenza - diseases caused by infectious agents - were the sixth leading cause of death among all ages. Although asthma is not usually a cause of death, it can have a debilitating impact on health. Hospitalization rates for both pneumonia/influenza and asthma were significantly higher among people younger than 65 in SeaTac than they were in the whole county. Furthermore, since 1987 those rates have been increasing among children age 0-17 both in SeaTac and in the entire county.

Unintentional injuries were the greatest cause of death among children age 0-17, and the second leading cause of hospitalization for people over 65. Falls and motor vehicle crashes account for most unintentional injuries and deaths, although their relative impact varies by age group. While motor vehicle crashes claimed the greatest number of lives among all ages, the greatest number of hospitalizations were related to falls. For older residents of SeaTac, falls accounted for the largest number of unintentional injury deaths.

Fortunately, rates of hospitalization for unintentional injuries, and particularly motor vehicle crashes, have steadily declined in SeaTac. This trend only refers to the injury rate from collisions, and doesn't necessarily indicate that traffic collisions are also declining.

While the overall birth rate in the SeaTac Airport Community was higher than in the county by 22%, the rate among teens age 15-17 was 94% higher. Some of the risk factors for poor birth outcomes were also significantly higher in SeaTac. More mothers smoked during pregnancy,

and fewer received prenatal care within the first trimester of pregnancy.

The rate of death from firearms, including homicide, accidental shootings, and suicide, was higher by 50% in SeaTac than in the county as a whole. Furthermore, the rate increased significantly from 1989 to 1994 in both the SeaTac Airport Community and King County. The overall homicide rate (all weapons combined) was not significantly different in the two regions.

Violence was also a major cause of death and injury specifically among children age 0-17. Homicide was the second leading cause of death among children age 0-17.

Hospitalizations related to alcohol and illicit drug misuse were higher in SeaTac than in the county, although this difference may be partially an artifact of the way in which hospitalization data is reported. The data do not include people hospitalized in free standing substance abuse clinics or federal institutions such as the Veteran's Administration Hospital.

Reported cases of the sexually transmitted diseases chlamydia and gonorrhea were significantly higher in SeaTac than in the county by 51% and 22%, respectively.

The rate of death from AIDS was significantly lower in SeaTac and has been declining there since 1994. The rate of diagnosis of new AIDS cases also seems to be following a declining trend in SeaTac, as it is in the entire county.

Prevention of Disease, Injury and Death

Although many of the health problems in a community like SeaTac do not have a single, easily identifiable cause, there are a number of controllable factors that are known to contribute to or exacerbate the development of disease or the occurrence of injury. Because these risk factors are relatively well understood and are preventable, they represent one way to reduce the incidence of disease, injury and death. Although many of the risk factors can often be reduced by modification in individual lifestyles, the ability to make choices about healthy lifestyle behaviors is influenced and limited by norms of society, available resources, and other socioeconomic factors.

In addition to measures to reduce life-style risk factors, early detection and treatment can mitigate the impact of chronic disease. Access to and utilization of health care services to screen for high cholesterol, high blood pressure, as well as breast, colorectal, and cervical cancer is important in the prevention of unnecessary death and disability.

The most important risk factors for chronic diseases include cigarette smoking, alcohol misuse, high blood pressure, obesity, physical inactivity, high blood cholesterol, and high fat/low fiber diet. All of these factors are associated with the leading causes of death in the SeaTac Airport Community including cancer, heart disease, diabetes, cerebrovascular disease, chronic obstructive pulmonary disease, and cirrhosis.

Cigarette smoking is a major risk factor for heart disease, lung cancer, and many chronic and acute respiratory conditions. Alcohol misuse increases the risk of heart disease, high blood pressure, chronic liver disease, sexually transmitted disease, motor vehicle crashes, and other unintentional injuries including falls.

In addition to lifestyle risk factors, exposure to environmental hazards such as air pollution, toxic chemicals, and radiation can also affect health status. Poor air quality, both indoor and outdoor, contributes substantially to illness and death from respiratory diseases including cancer, chronic obstructive pulmonary disease, and asthma.

Timely access to and use of prenatal care in the first trimester of pregnancy may reduce the risk of infant death and other infant health problems. Smoking during pregnancy is also associated with an increase in poor birth outcomes. Infants born to mothers under age 18 have increased risk of mortality and low birthweight. Both the mother and the child tend to have subsequent educational, economic, and social problems.

Prevention and control of chronic disease risk factors, such as high blood pressure, can also reduce the occurrence of pregnancy complications that result in hospitalization among women, and improve health outcomes for their children.

Wearing a seat belt in a motor vehicle or wearing a helmet while riding a bicycle or motorcycle can prevent injury in an accident or mitigate injury severity. Firearms contribute to deaths and injuries in suicide, homicide, assault, and accident. Handguns are the most frequently used firearms in these incidents.

Based on availabe data, it is not possible to determine the extent to which these risk factors have contributed to the current health status of the SeaTac Airport Community, and specifically to the excess in death and disability in that community as compared to the county as a whole. However, national studies indicate that at least 50% of all deaths are associated with preventable factors. The reduction or elimination of these risk factors is, therefore, a key strategy for the prevention of disease and promotion of good health.

Opportunities for Prevention: The Impact of Risk Factors for Poor Health

Key areas for prevention	% of all deaths*	Impact on leading causes of death and other major health problems
Smoking	**19**	heart disease, stroke, lung cancer, cervical cancer, COPD, asthma, infant health
Diet/Physical Activity	**14**	heart disease, stroke, cancer, diabetes, falls and hip fracture
Alcohol Use	**5**	chronic liver disease/cirrhosis, motor vehicle crashes, falls and hip fracture, violent crimes, fetal alcohol syndrome
Exposure to Microbial agents & Immunizations/Vaccinations	**4**	AIDS, STDs, TB, Enteric diseases, hepatitis, Vaccine-preventable diseases among children, pneumonia and influenza among older adults
Toxic agents in the environment	**3**	heart disease, cancer, COPD, asthma
Firearms in the home	**2**	suicide, homicide, firearm injuries, violent crimes
Motor vehicle safety & seat belt use	**1**	motor vehicle crashes, injuries from motorcycle /bicycle accidents
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 cancer
Prenatal care	**NA**	infant mortality, low birth weight
Hypertension	**NA**	heart disease, stroke, and kidney failure
Mental health	**NA**	depression, suicide
Lack of Access to health care	**NA**	all, preventable hospitalization, dental health

* 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).

Summary Data Tables

List of Summary Data Tables

All summary data tables include statistics for the SeaTac Airport Community (or the closest geographic approximation possible) and comparison statistics for King County overall. The following tables are included in this Technical Appendix:

Table 1: Estimated Population and Indicators of Socioeconomic Status by Race/Ethnicity
Table 2: Leading Causes of Death
Table 3: Chronic Disease Mortality
Table 4: Leading Causes of Hospitalization
Table 5: Hospitalization for Pneumonia/Influenza and Asthma In Ages 0-17, 18-64 & 65+
Table 6: Leading Causes of Death and Hospitalization for Children Age 0-17
Table 7: Health of Young Persons Age 15-24
Table 8: Leading Causes of Death and Hospitalization for Adults Age 65 and Older
Table 9: Maternal and Child Health
Table 10: Injury and Violence
Table 11: Mental Health and Substance Abuse
Table 12: Communicable Disease
Table 13: Access to and Utilization of Health Care
Table 14: Behavioral Risk Factors for Disease and Injury
Table 15: Firearm Risk Factors

SeaTac Airport Community Boundaries

The geographic boundaries of the SeaTac Airport Community were determined through consultation with a community member. Because different types of data are reported by different geographic units, three community boundary definitions were necessary in order to produce the information in this report. The community boundary used for most of the data analysis includes census tracts 264-271, 273-276, 278-281, 284.01, 284.02, 284.03, 285-287, 288.01, and 288.02. For data available only by zip code, the zip codes 98146, 98148, 98158, 98166, 98168, and 98188 define the boundary because they most closely match the census tracts above. The maps in Technical Appendix D visually demonstrate the differences between these two community boundary definitions. The zip code boundary for King County is also not an exact match of the county census tract boundary. Behavioral Risk Factor Survey data is only available for the entire South King County survey region which contains the SeaTac Airport Community.

Time Period Analyzed

The years reported are always the most recent years of data available. Since different data sources have different lag times for availability, the most recent year varies from 1990 for U.S. Census data to 1997 for births, deaths and some communicable diseases.

Table 1. Estimated Population and Indicators of Socioeconomic Status by Race/Ethnicity in SeaTac Airport Community† and King County

	SeaTac Airport Community					King County				
	1997 Estimate		1990 Census			1997 Estimate		1990 Census		
Race/Ethnicity	1997 Estimated Population	Percent of Total Population	% Living Below Poverty (Based on 1989 Income)	% of Employed Persons (Age 16+) in Working Class Position	% of Adults (Age 25+) Without a High School Diploma/ GED	1997 Estimated Population	Percent of Total Population	% Living Below Poverty (Based on 1989 Income)	% of Employed Persons (Age 16+) in Working Class Position	% of Adults (Age 25+) Without a High School Diploma/ GED
African American	4,112	4.2%	31.3%	NA	17.9%	93,701	5.7%	22.3%	NA	21.0%
Asian/Pacific Islander	10,301	10.4%	21.8%	NA	30.0%	177,515	10.7%	15.2%	NA	21.3%
Hispanic Ethnicity**	5,448	5.5%	13.8%	NA	27.7%	63,925	3.9%	14.9%	NA	21.6%
Native American	2,000	2.0%	26.7%	NA	21.9%	20,577	1.2%	25.7%	NA	23.9%
White	82,195	83.4%	7.3%	NA	15.5%	1,360,982	82.3%	6.1%	NA	10.3%
Total Population	98,608	100.0%	9.5%	70.1%	16.7%	1,652,775	100.0%	8.0%	59.7%	11.8%

†SeaTac Airport Community includes census tracts: 264-271, 273-276, 278-281, 284.01, 284.02, 284.03, 285-287, 288.01, and 288.02.

** Hispanic ethnicity may include persons of any race.

NA = not available by race/ethnicity.

Source: Washington State DSHS Office of Research and Data Analysis, Adjusted Population Estimates, June 1997.
1990 U.S. Census

Produced by: Seattle-King County Department of Public Health, EPE, 2/23/99

Table 2. Leading Causes of Death in SeaTac Airport Community† and King County, 1993-97

Condition	SeaTac Airport Community					King County					Comparison to King County Rates	
				95% Confidence Interval					95% Confidence Interval			
	Rank	Average Annual Count	Rate per 100,000*	Lower Bound	Upper Bound	Rank	Average Annual Count	Rate per 100,000*	Lower Bound	Upper Bound	Significant Difference**	Percent Difference
Cancer	1	201	132.1	123.7	140.6	2	2,831	120.8	118.7	122.9	Higher	9
Heart Disease	2	196	101.9	95.2	108.6	1	3,023	98.9	97.2	100.6	NS	3
Cerebrovascular Disease	3	55	25.3	22.1	28.5	3	901	25.3	24.5	26.1	NS	0
Chronic Obstructive Pulmonary Disease	4	43	24.3	20.9	27.7	4	510	18.5	17.7	19.3	Higher	31
Unintentional Injury	5	33	28.8	24.1	33.6	6	463	24.2	23.1	25.2	NS	19
Pneumonia and Influenza	6	31	14.6	12.1	17.1	5	478	12.3	11.7	12.8	NS	19
Diabetes (Underlying Cause)	7	24	15.0	12.2	17.9	7	293	12.0	11.4	12.7	NS	25
Suicide	8	15	14.7	11.2	18.3	9	201	11.5	10.7	12.2	NS	28
AIDS	9	10	9.0	6.4	11.5	8	291	15.2	14.4	16.0	Lower	-41
Chronic Liver Disease/Cirrhosis	10	9	7.3	5.1	9.4	10	130	6.6	6.1	7.1	NS	11
All Causes of Death		770	464.6	449.6	479.6		11,425	427.9	424.2	431.5	Higher	9
				95% Confidence Interval					95% Confidence Interval			
			Years	Lower Bound	Upper Bound			Years	Lower Bound	Upper Bound		
Life Expectancy at Birth			77.0	76.6	77.5			78.0	77.9	78.1	Lower	-1

†SeaTac Airport Community includes census tracts: 264-271, 273-276, 278-281, 284.01, 284.02, 284.03, 285-287, 288.01, and 288.02.

*Rates are age-adjusted to the 1940 U.S. Population.

**Lower=lower than King County rate; higher=higher than King County rate; NS=not statistically significant.

Sources: Washington State DOH Center for Health Statistics and Washington State DSHS for adjusted population estimates (6/97).

Produced by: Seattle-King County Department of Public Health, EPE, 2/23/99

Table 3. Chronic Disease Mortality in SeaTac Airport Community† and King County, 1993-97

Condition	SeaTac Airport Community				King County				Comparison to King County Rates	
			95% Confidence Interval				95% Confidence Interval			
	Average Annual Count	Rate per 100,000*	Lower Bound	Upper Bound	Average Annual Count	Rate per 100,000*	Lower Bound	Upper Bound	Significant Difference**	Percent Difference
All Cancer	201	132.1	123.7	140.6	2,831	120.8	118.7	122.9	Higher	9
..Respiratory Cancer	60	41.1	36.3	46.0	774	34.6	33.5	35.8	Higher	19
..Colorectal Cancer	19	11.0	8.6	13.4	282	11.2	10.5	11.8	NS	-2
..Breast Cancer in Women (F)	20	27.3	21.7	33.0	245	20.6	19.3	21.8	NS	33
..Prostate Cancer (M)	11	13.9	10.3	17.5	179	14.5	13.6	15.5	NS	-4
Heart Disease	196	101.9	95.2	108.6	3,023	98.9	97.2	100.6	NS	3
Cerebrovascular Disease	55	25.3	22.1	28.5	901	25.3	24.5	26.1	NS	0
Chronic Obstructive Pulmonary Disease	43	24.3	20.9	27.7	510	18.5	17.7	19.3	Higher	31
Diabetes (Underlying Cause)	24	15.0	12.2	17.9	293	12.0	11.4	12.7	NS	25
Chronic Liver Disease/Cirrhosis	9	7.3	5.1	9.4	130	6.6	6.1	7.1	NS	11

†SeaTac Airport Community includes census tracts: 264-271, 273-276, 278-281, 284.01, 284.02, 284.03, 285-287, 288.01, and 288.02.

*Rates are age-adjusted to the 1940 U.S. Population.

**Lower=lower than King County rate; higher=higher than King County rate; NS=not statistically significant.

Source: Washington State DOH Center for Health Statistics and Washington State DSHS for adjusted population estimates (6/97).

Table 4. Leading Causes of Hospitalization in SeaTac Airport Community† and King County, 1992-96

Condition	SeaTac Airport Community					King County					Comparison to King County Rates	
				95% Confidence Interval					95% Confidence Interval			
	Rank	Average Annual Count	Rate per 100,000*	Lower Bound	Upper Bound	Rank	Average Annual Count	Rate per 100,000*	Lower Bound	Upper Bound	Significant Difference**	Percent Difference
Unintentional Injury	1	880	693.9	672.7	715.1	1	12,742	644.9	639.8	650.1	Higher	8
Heart Disease	2	809	532.3	516.7	548.0	3	10,452	473.4	469.5	477.4	Higher	12
Digestive System Disease	3	804	651.1	630.6	671.5	2	10,978	580.3	575.4	585.3	Higher	12
Genito/Urinary Disease	4	568	478.2	460.3	496.1	4	7,182	386.9	382.8	391.0	Higher	24
Cancer	5	423	295.8	283.2	308.3	5	5,518	272.5	269.2	275.7	Higher	9
Alcohol Related	6	370	321.4	306.6	336.2	6	4,931	274.3	270.9	277.8	Higher	17
Fractures	7	339	263.4	249.9	276.9	7	4,891	239.3	236.1	242.6	Higher	10
Psychoses	8	289	255.3	241.5	269.0	8	4,583	257.3	253.8	260.7	NS	-1
Pregnancy Complications (F)^	9	264	176.5	168.0	185.4	9	3,583	168.1	165.9	170.4	NS	5
Pneumonia/Influenza	10	254	181.8	171.2	192.4	10	3,412	155.0	152.5	157.5	Higher	17
All Hospitalizations (excluding childbirth)		6,020	4896.0	4851.3	4940.7		82,128	4349.2	4338.5	4360.0	Higher	13

†SeaTac Airport Community includes zip codes: 98146, 98148, 98158, 98166, 98168, and 98188.
*Rates are age-adjusted to the 1940 U.S. Population.
**Lower=lower than King County rate; higher=higher than King County rate; NS=not statistically significant.
^Rate=number of hospitalizations for pregnancy complications per 1,000 live births (not per total population).
Source: Washington State DOH Office of Hospital and Patient Data Systems and Washington State DSHS for adjusted population estimates (6/97).

Produced by: Seattle-King County Department of Public Health, EPE, 2/23/99

Table 5. Hospitalization for Pneumonia/Influenza and Asthma Among 0-17, 18-64, & 65+ year olds in SeaTac Airport Community† and King County, 1992-96

Condition	SeaTac Airport Community				King County				Comparison to King County Rates	
			95% Confidence Interval				95% Confidence Interval			
	Average Annual Count	Rate per 100,000	Lower Bound	Upper Bound	Average Annual Count	Rate per 100,000	Lower Bound	Upper Bound	Significant Difference**	Percent Difference
Age 0-17:										
Pneumonia/Influenza	35	146.7	125.9	170.0	375	97.0	92.6	101.4	Higher	51
Asthma	55	227.1	201.1	255.7	726	187.8	181.7	194.0	Higher	21
Age 18-64:										
Pneumonia/Influenza	81	124.9	113.1	137.7	1,059	101.8	99.1	104.6	Higher	23
Asthma	45	69.7	60.9	79.4	540	51.9	50.0	53.9	Higher	34
Age 65+:										
Pneumonia/Influenza	138	1089.6	1009.9	1174.1	1,978	1133.7	1111.4	1156.2	NS	-4
Asthma	24	187.9	155.7	224.8	236	135.5	127.9	143.5	Higher	39

†SeaTac Airport Community includes zip codes: 98146, 98148, 98158, 98166, 98168, and 98188.

**Lower=lower than King County rate; higher=higher than King County rate; NS=not statistically significant.

Source: Washington State DOH Office of Hospital and Patient Data Systems and Washington State DSHS for adjusted population estimates (6/97).

Produced by: Seattle-King County Department of Public Health, EPE, 2/23/99

Table 6. Leading Causes of Death and Hospitalization for Children Age 0-17 in SeaTac Airport Community†‡ and King County

Condition	SeaTac Airport Community					King County					Comparison to King County Rates	
				95% Confidence Interval					95% Confidence Interval			
	Rank	Average Annual Count	Rate per 100,000	Lower Bound	Upper Bound	Rank	Average Annual Count	Rate per 100,000	Lower Bound	Upper Bound	Significant Difference**	Percent Difference
A. Leading Causes of Death, 1993-97†												
Unintentional Injury	1	2	9.3	4.6	16.6	1	27	6.9	5.8	8.1	NS	35
Homicide	2	1	5.1	1.9	10.9	2	13	3.4	2.6	4.3	NS	50
Cancer	3	1	3.4	0.9	8.5	3	13	3.4	2.6	4.3	NS	0
All Causes of Death		19	79.5	64.2	97.2		208	52.8	49.7	56.1	Higher	51
B. Leading Causes of Hospitalization, 1992-96‡												
Unintentional Injuries	1	75	309.2	278.7	342.2	1	1,118	289.0	281.5	296.7	NS	7
Digestive System Disease	2	64	266.1	237.8	296.9	2	911	235.6	228.8	242.6	NS	13
Asthma	3	55	227.1	201.1	255.7	3	726	187.8	181.7	194.0	Higher	21
Infections	4	47	196.5	172.3	223.1	5	575	148.6	143.2	154.1	Higher	32
Perinatal Conditions	5	42	173.3	150.6	198.4	4	626	161.9	156.3	167.7	NS	7
All Causes of Hospitalization (not childbirth)		2,059	8532.6	8368.6	8699.1		28,653	7407.7	7369.4	7446.2	Higher	15

†SeaTac Airport Community includes census tracts: 264-271, 273-276, 278-281, 284.01, 284.02, 284.03, 285-287, 288.01, and 288.02.

‡SeaTac Airport Community includes zip codes: 98146, 98148, 98158, 98166, 98168, and 98188.

**Lower=lower than King County rate; higher=higher than King County rate; NS=not statistically significant.

Sources: Washington State DOH Center for Health Statistics, and Office of Hospital and Patient Data Systems.
Washington State DSHS for adjusted population estimates (6/97).

Produced by: Seattle-King County Department of Public Health, EPE, 2/23/99

Table 7. Health of Young Persons Age 15 to 24 in SeaTac Airport Community† and King County

			SeaTac Airport Community					King County					Comparison to King County Rates	
						95% Confidence Interval					95% Confidence Interval			
Indicator	Source of Data	Time Period Analyzed	Average Annual Count	Rate	Per	Lower Bound	Upper Bound	Average Annual Count	Rate	Per	Lower Bound	Upper Bound	Significant Difference**	Percent Difference
All Causes of Death:	Death Certificates†	93-97	9	84.2	100,000 Age 15-24	61.7	112.4	144	75.3	100,000 Age 15-24	69.9	81.1	NS	12
Unintentional Injury:	Hospitalizations‡													
All Unintentional Injury		92-96	61	524.4	"	467.4	586.5	975	508.4	"	494.2	522.9	NS	3
..Motor Vehicle Accident Injury		92-96	19	160.6	"	129.8	196.4	293	152.7	"	145.0	160.7	NS	5
..Falls		92-96	11	92.2	"	69.3	120.3	182	94.7	"	88.6	101.0	NS	-3
Birth to teenage mother:	Births Certificates†	93-97	67	37.7	1,000 15-17 Year Old Females	33.8	42.0	551	19.4	1,000 15-17 Year Old Females	18.7	20.1	Higher	94
Sexually Transmitted Disease:	Disease Reports†													
Chlamydia		93-97	207	1890.9	100,000 Age 15-24	1777.5	2009.9	2,328	1219.6	100,000 Age 15-24	1197.6	1242.0	Higher	55
Gonorrhea		93-97	48	439.3	"	385.6	498.6	575	301.2	"	290.3	312.5	Higher	46
Alcohol and Substance Abuse	Hospitalizations‡													
Alcohol-Related		92-96	24	201.6	"	166.9	241.3	326	169.9	"	161.8	178.4	NS	19
Illicit Drug-Related		92-96	30	254.5	"	215.3	298.8	384	200.0	"	191.2	209.2	Higher	27
Mental Health:	Hospitalizations‡													
Suicide Attempt		92-96	12	105.9	"	81.2	135.7	193	100.8	"	94.6	107.4	NS	5
Depression		92-96	26	220.3	"	184.0	261.8	388	202.0	"	193.1	211.2	NS	9
Injury Due to Violence:	Hospitalizations‡													
Assault		92-96	14	123.0	"	96.3	154.8	183	95.5	"	89.4	183.2	NS	29

†Mortality, birth and disease report data for SeaTac Airport Community includes census tracts: 264-271, 273-276, 278-281, 284.01, 284.02, 284.03, 285-287, 288.01, and 288.02.

‡Hospitalization data for SeaTac Airport Community includes zip codes: 98146, 98148, 98158, 98166, 98168, and 98188.

**Lower=lower than King County rate; higher=higher than King County rate; NS=not statistically significant.

Sources: Mortality/Birth Data: Washington State DOH Center for Health Statistics; Hospitalizations: Wash State DOH, Office of Hospital and Patient Data Systems;
Hospitalizations: Washington State DOH, Office of Hospital and Patient Data Systems;
Disease Reports: Washington State DOH, STD/TB Services
Washington State DSHS for adjusted population estimates (6/97) used in rate calculations.

Produced by: Seattle-King County Department of Public Health, EPE, 2/23/99

Table 8. Leading Causes of Death and Hospitalization for Adults Age 65 and Older in SeaTac Airport Community†‡ and King County

Condition	SeaTac Airport Community					King County					Comparison to King County Rates	
				95% Confidence Interval					95% Confidence Interval			
	Rank	Average Annual Count	Rate per 100,000	Lower Bound	Upper Bound	Rank	Average Annual Count	Rate per 100,000	Lower Bound	Upper Bound	Significant Difference**	Percent Difference
A. Leading Causes of Death, 1993-97†												
Heart Disease	1	163	1331.7	1241.9	1426.3	1	2,569	1461.4	1436.2	1486.9	Lower	-9
Cancer	2	139	1137.5	1054.7	1225.2	2	2,006	1141.2	1119.0	1163.8	NS	0
Cerebrovascular Disease	3	48	390.0	342.2	442.8	3	819	465.9	451.7	480.4	Lower	-16
Chronic Obstructive Pulmonary Disease	4	39	315.0	272.2	362.7	4	457	259.8	249.2	270.7	Higher	21
Pneumonia and Influenza	5	27	221.9	186.3	262.5	5	441	250.8	240.4	261.5	NS	-12
All Causes of Death		556	4533.6	4366.6	4705.4		8,439	4801.5	4755.8	4847.5	Lower	-6
B. Leading Causes of Hospitalization, 1992-96‡												
Heart Disease	1	507	4006.3	3851.9	4165.3	1	6,650	3811.5	3770.7	3852.7	NS	5
Unintentional Injury	2	356	2810.9	2681.8	2944.6	2	5,337	3058.9	3022.3	3095.8	Lower	-8
Digestive System Disease	3	282	2225.0	2110.4	2344.3	3	3,945	2261.1	2229.7	2292.9	NS	-2
Cancer	4	239	1885.5	1780.1	1995.6	4	2,950	1691.2	1664.0	1718.7	Higher	11
Cerebrovascular Disease	5	151	1193.8	1110.3	1282.1	5	2,407	1379.8	1355.3	1404.7	Lower	-13
All Causes of Hospitalization		2,171	17141.5	16820.6	17467.1		29,878	17125.8	17039.0	17212.9	NS	0

†SeaTac Airport Community includes census tracts: 264-271, 273-276, 278-281, 284.01, 284.02, 284.03, 285-287, 288.01, and 288.02.

‡SeaTac Airport Community includes zip codes: 98146, 98148, 98158, 98166, 98168, and 98188.

**Lower=lower than King County rate; higher=higher than King County rate; NS=not statistically significant.

Sources: Washington State DOH Center for Health Statistics, and Office of Hospital and Patient Data Systems.
Washington State DSHS for adjusted population estimates (6/97).

Produced by: Seattle-King County Department of Public Health, EPE, 2/23/99

Table 9. Maternal and Child Health in SeaTac Airport Community and King County

Indicator	Time Period Analyzed	SeaTac Airport Community			95% Confidence Interval		King County			95% Confidence Interval		Comparison to King County Rates	
		Average Annual Count	Rate	Per	Lower Bound	Upper Bound	Average Annual Count	Rate	Per	Lower Bound	Upper Bound	Significant Difference**	Percent Difference
Outcome Measures:													
Infant mortality†	93-97	11	7.7	1,000 Births	5.8	10.0	122	5.6	1,000 Births	5.2	6.1	NS	37
Hospitalizations for Pregnancy Complications (F)‡	92-96	264	176.5	1,000 Births	168.0	185.4	3,583	168.1	1,000 Births	165.9	170.4	NS	5
Risk Factors for Poor Maternal or Child Health:													
Low birthweight†	93-97	93	6.4	100 Births	5.8	7.0	1,235	5.7	100 Births	5.5	5.8	NS	12
Late or No 1st trimester prenatal care†	93-97	63	5.3	100 Births	4.7	5.9	628	3.3	100 Births	3.2	3.5	Higher	57
Mother smoked when pregnant†	93-97	246	17.6	100 Births	16.6	18.6	2,451	11.8	100 Births	11.6	12.0	Higher	49
Mother used alcohol when pregnant†	93-97	31	2.6	100 Births	2.2	3.0	512	3.0	100 Births	2.8	3.1	NS	-12
Birth to teenage mother†	93-97	67	37.7	1,000 15-17 Year Old Females	33.8	42.0	551	19.4	1,000 15-17 Year Old Females	18.7	20.1	Higher	94
Annual Births:													
Total births†	93-97	1457	69.9	1,000 15-44 Year Old Females	68.3	71.5	21,867	57.5	1,000 15-44 Year Old Females	57.2	57.8	Higher	22

†SeaTac Airport Community for this indicator includes census tracts: 264-271, 273-276, 278-281, 284.01, 284.02, 284.03, 285-287, 288.01, and 288.02.

‡SeaTac Airport Community for this indicator includes zip codes: 98146, 98148, 98158, 98166, 98168, and 98188.

**Lower=lower than King County rate; higher=higher than King County rate; NS=not statistically significant.

Source: Washington State DOH Center for Health Statistics.
Washington State DSHS for adjusted population estimates (6/97).

Produced by: Seattle-King County Department of Public Health, EPE, 2/23/99

Table 10. Injury and Violence in SeaTac Airport Community† and King County

Indicator	Type of Data	Time Period Analyzed	SeaTac Airport Community				King County				Comparison to King County Rates	
					95% Confidence Interval				95% Confidence Interval			
			Average Annual Count	Rate per 100,000	Lower Bound	Upper Bound	Average Annual Count	Rate per 100,000	Lower Bound	Upper Bound	Significant Difference**	Percent Difference
Unintentional Injury:												
Motor Vehicle Accident-Related Injury	Hospitalizations*	92-96	97	94.6	85.8	103.5	1,301	82.6	80.5	84.7	Higher	15
Falls	Hospitalizations*	92-96	319	213.6	202.4	224.8	4,882	208.4	205.6	211.3	NS	2
Fractures	Hospitalizations*	92-96	339	263.4	249.9	276.9	4,891	239.3	236.1	242.6	Higher	10
..Hip Fracture	Hospitalizations*	92-96	95	47.3	42.9	51.8	1,425	43.4	42.3	44.5	NS	9
All Unintentional Injury	Hospitalizations*	92-96	880	693.9	672.7	715.1	12,742	644.9	639.8	650.1	Higher	8
All Unintentional Injury	Deaths*	93-97	33	28.8	24.1	33.6	463	24.2	23.1	25.2	NS	19
Intentional Injury and Violence:												
Child Abuse (Ages 0-17)	Reports to CPS***	92-93	1,187	5002.5	4803.4	5208.0	9,704	2585.3	2549.0	2621.9	Higher	93
Assault	Hospitalizations*	92-96	57	60.2	52.9	67.4	696	45.3	43.8	46.9	Higher	33
Homicide	Deaths*	93-97	6	7.3	4.7	9.9	88	6.0	5.4	6.6	NS	22
All Firearms‡	Deaths*	93-97	15	15.7	12.0	19.5	163	10.3	9.5	11.0	Higher	52

†Hospitalization and CPS data for SeaTac Airport Community includes zip codes: 98146, 98148, 98158, 98166, 98168, and 98188.
Mortality and crime data for SeaTac Airport Community includes census tracts: 264-271, 273-276, 278-281, 284.01, 284.02, 284.03, 285-287, 288.01, and 288.02.
*Rates are age-adjusted to the 1940 U.S. Population.
**Lower=lower than King County rate; higher=higher than King County rate; NS=not statistically significant.
***Rates on child abuse are not age-adjusted.
‡All Firearms includes Suicide, Homicide and Accidental Shootings.
Sources:
Mortality data: Washington State DOH, Center for Health Statistics
Hospitalizations data: Washington State DOH, Office of Hospital and Patient Data Systems
Child Abuse data: Washington State DSHS
Washington State DSHS for adjusted population estimates (6/97).

Produced by: Seattle-King County Department of Public Health, EPE, 2/23/99

Table 11. Mental Health and Substance Abuse in SeaTac Airport Community† and King County

			SeaTac Airport Community				King County				Comparison to King County Rates	
					95% Confidence Interval				95% Confidence Interval			
Indicator	Type of Data	Time Period Analyzed	Average Annual Count	Rate per 100,000*	Lower Bound	Upper Bound	Average Annual Count	Rate per 100,000*	Lower Bound	Upper Bound	Significant Difference**	Percent Difference
Depression	Hospitalizations	92-96	145	137.2	126.7	147.7	2,231	134.5	131.9	137.1	NS	2
Suicide	Deaths	93-97	15	14.7	11.2	18.3	201	11.5	10.7	12.2	NS	28
Suicide Attempt	Hospitalizations	92-96	57	57.7	50.7	64.6	870	54.8	53.1	56.5	NS	5
Alcohol-Related	Hospitalizations	92-96	370	321.4	306.6	336.2	4,931	274.3	270.9	277.8	Higher	17
Chronic Liver Disease/Cirrhosis	Deaths	93-97	9	7.3	5.1	9.4	130	6.6	6.1	7.1	NS	11
Illicit Drug-Related	Hospitalizations	92-96	226	212.9	200.2	225.5	2,998	172.4	169.6	175.3	Higher	23

†Hospitalization data for SeaTac Airport Community includes zip codes: 98146, 98148, 98158, 98166, 98168, and 98188.
Mortality data for SeaTac Airport Community includes census tracts: 264-271, 273-276, 278-281, 284.01, 284.02, 284.03, 285-287, 288.01, and 288.02.
*Rates are age-adjusted to the 1940 U.S. Population.
**Lower=lower than King County rate; higher=higher than King County rate; NS=not statistically significant.
Sources:
Mortality data: Washington State DOH, Center for Health Statistics
Hospitalizations data: Washington State DOH, Office of Hospital and Patient Data Systems
Washington State DSHS for adjusted population estimates (6/97).

Produced by: Seattle-King County Department of Public Health, EPE, 2/23/99

Table 12. Communicable Disease in SeaTac Airport Community† and King County

Disease	Time Period Analyzed	SeaTac Airport Community				King County				Comparison to King County Rates	
		Average Annual Count	Rate per 100,000*	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound	Average Annual Count	Rate per 100,000*	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound	Significant Difference**	Percent Difference
Chlamydia	93-97	297	437.7	416.7	458.6	3,457	289.0	284.8	293.1	Higher	51
Gonorrhea	93-97	80	111.8	100.8	122.9	1,218	91.4	89.0	93.7	Higher	22
Food and Waterborne Disease^	93-97	53	58.0	50.9	65.2	1,144	73.7	71.7	75.6	Lower	-21
New AIDS Cases	95-97	15	14.9	10.9	19.9	387	23.7	22.3	25.1	Lower	-37
New TB Cases	90-94	9	7.6	5.2	9.9	114	6.6	6.1	7.2	NS	15
Vaccine Preventable Disease‡	91-95	4	4.5	2.4	6.6	39	2.7	2.3	3.1	NS	67

†Chlamydia, gonorrhea, food/waterborne disease and vaccine preventable disease data for SeaTac Airport Community includes census tracts: 264-271, 273-276, 278-281, 284.01, 284.02, 284.03, 285-287, 288.01, and 288.02.

AIDS and TB data for SeaTac Airport Community includes zip codes: 98146, 98148, 98158, 98166, 98168, and 98188.

^Food & Waterborne Disease includes Campylobacteriosis, Salmonellosis, Shigellosis, Giardiasis, E. coli 0157:H7, and other enteric communicable diseases.

‡Vaccine preventable disease includes measles, mumps, rubella, pertussis, diphtheria, tetanus, and invasive *Haemophilus influenzae* serotype B.

*Rates are age-adjusted to the 1940 U.S. Population.

**Lower=lower than King County rate; higher=higher than King County rate; NS=not statistically significant.

Sources: Washington State DOH STD/TB Services and Communicable Disease Epidemiology.
Seattle-King County DPH, HIV/AIDS Epidemiology.
Washington State DSHS for adjusted population estimates (6/97).

Produced by: Seattle-King County Department of Public Health, EPE, 2/23/99

Table 13. Access to and Utilization of Health Care in South King County* and King County, 1994-95

Indicator	South King County		95% Confidence Interval		King County		95% Confidence Interval		Comparison to King County Rates	
	N^	Weighted Percent	Lower Bound	Upper Bound	N^	Weighted Percent	Lower Bound	Upper Bound	Significant Difference**	Percent Difference
Does not Have Health Insurance (age 18-64):	284	12.1	8.0	16.2	2,268	11.4	9.4	13.4	NS	6.1
Needed to see a doctor in last year but didn't because of cost (age 18 and older):	405	13.5	9.0	18.1	2,268	11.0	9.0	13.0	NS	22.7
Women over 50 not having mammogram in last 2 years:	124	22.5	14.2	30.7	740	21.4	17.7	25.1	NS	5.1
Women not having Pap Smear in last 3 years (age 18 and older):	155	16.9	9.3	24.5	622	12.9	9.4	16.3	NS	31.0

*South King County includes the following zip codes: 98001-98003, 98010, 98022, 98023, 98031, 98032, 98038, 98042, 98047, 98051, 98055, 98056, 98058, 98059, 98070, 98092, 98146, 98148, 98158, 98166, 98168, 98178, 98188, and 98198.

^N=Number of valid responses to question (excluding "Do Not Know" and no answer).

**Lower=lower than King County rate; higher=higher than King County rate; NS=not statistically significant.

Source: Washington State Behavioral Risk Factor Surveillance System (1994) and Seattle-King County DPH Small Area Behavioral Risk Factor Survey (1995)

Table 14. Behavioral Risk Factors for Disease and Injury in South King County* and King County, 1994-95

Risk Factor	South King County				King County				Comparison to King County Rates	
			95% Confidence Interval				95% Confidence Interval			
	N^	Weighted Percent	Lower Bound	Upper Bound	N^	Weighted Percent	Lower Bound	Upper Bound	Significant Difference**	Percent Difference
Smoker:	405	23.8	18.4	29.1	2,276	18.7	16.4	21.1	NS	27
Does not eat 5 or more fruits/vegetables per day:	381	89.4	85.9	92.8	2,136	88.3	86.5	90.0	NS	1
Overweight:	399	28.3	22.6	34.0	2,244	21.8	19.4	24.2	NS	30
No physical activity in past month:	405	16.2	11.9	20.6	2,275	14.8	12.8	16.8	NS	9
Youngest child (age 5-17) does not wear helmet all or most of the time when riding bicycle:	75	33.6	22.0	45.3	336	29.8	23.6	36.0	NS	13

*South King County includes the following zip codes: 98001-98003, 98010, 98022, 98023, 98031, 98032, 98038, 98042, 98047, 98051, 98055, 98056, 98058, 98059, 98070, 98092, 98146, 98148, 98158, 98166, 98168, 98178, 98188, and 98198.

^N=Number of valid responses to question (excluding "Do Not Know" and no answer).

**Lower=lower than King County rate; higher=higher than King County rate; NS=not statistically significant.

Source: Washington State Behavioral Risk Factor Surveillance System (1994) and Seattle-King County DPH Small Area Behavioral Risk Factor Survey (1995)

Produced by: Seattle-King County Department of Public Health, EPE, 2/23/99

Table 15. Firearm Risk Factors in South King County* and King County, 1994-95

Risk Factor	South King County				King County				Comparison to King County Rates	
			95% Confidence Interval				95% Confidence Interval			
	N^	Weighted Percent	Lower Bound	Upper Bound	N^	Weighted Percent	Lower Bound	Upper Bound	Significant Difference**	Percent Difference
Have loaded gun in home:	399	16.5	11.9	21.2	2,239	12.5	10.5	14.5	NS	32
Have loaded handgun in home:	399	15.3	10.7	19.8	2,235	10.9	9.0	12.8	NS	40

*South King County includes the following zip codes: 98001-98003, 98010, 98022, 98023, 98031, 98032, 98038, 98042, 98047, 98051, 98055, 98056, 98058, 98059, 98070, 98092, 98146, 98148, 98158, 98166, 98168, 98178, 98188, and 98198.

^N=Number of valid responses to question (excluding "Do Not Know" and no answer).

**Lower=lower than King County rate; higher=higher than King County rate; NS=not statistically significant.

Source: Washington State Behavioral Risk Factor Surveillance System (1994) and Seattle-King County DPH Small Area Behavioral Risk Factor Survey (1995)

Data Analysis Techniques and Definitions

Rates

Almost all health data are presented in the form of rates. A rate is the number of occurrences of an event divided by the size of the population that could experience that event over a specified time period. Thus, a birth rate for 15 - 17 year olds is the number of births in this age group during a given year, divided by the total number of girls age 15-17 during that year. Rates are usually multiplied by a constant, the "per" number (a percent is per 100; rates are usually per 1,000 or per 100,000), in order to make them whole numbers, which are easier to interpret. For example, the birth rate for girls age 15-17 in King County is expressed as 19.4 births per 1,000 girls that age, instead of .0194 births per girl aged 15-17.

Confidence Intervals

Some of the year to year fluctuation in the occurrence of events (such as births) in a population is due to random factors that cannot be measured. Statisticians normally report confidence intervals, or "margins of error" to show the range in which we think the true rate falls, given that there will be some random variation. The standard confidence interval is calculated so that there is a 95% probability that the true rate falls within its range. The true rate is the rate that would occur if there were no random factors (see Chiang, Chin Long, "Standard Error of the Age-Adjusted Death Rate," *Vital Statistics Special Reports,* 1961, 47(9):275-285).

Confidence intervals are also useful to determine whether rates in two areas are significantly different from one another. If the confidence intervals of the two rates overlap, we cannot say that they are statistically different from one another; the true rates of each may fall within the overlapping range. Therefore, it is only when the confidence intervals of two rates do not overlap that we conclude that the rates are "statistically significantly" different from one another. This method was used to determine whether community rates differed from King County rates.

Rolling Averages

The larger the population you're examining, the more stable or reliable you can expect rates to be. That is, there's less purely random variation in the numbers. Sometimes, in order to observe an overall time trend in rates, it helps to look at more than one year of data at a time. In this case, the rates are grouped into "rolled" averages across the total observed period. For example, to look at heart disease deaths from 1980-1997, we may use 5-year intervals. This means we would calculate the average rates from 1980-84, 1981-85, and so on. Each five year average successively advances by one year, includes a higher number of cases than a single year, and thus smoothes out random year-to-year fluctuations. This method of presenting trends can be seen in some of the graphs included in this report. Note, however, that all statistical tests to determine the presence of a statistically significant time trend were calculated using single-year data. See "Statistical Trend" below.

Data Analysis Techniques and Definitions

Age Adjusting

There are some health events (e.g., heart disease) that people are more likely to get when they get older. Others (like homicide) are more likely to affect younger people. This means that if you examined a community with a lot of older people, you would see a higher proportion of the whole population with heart disease than you would in a younger community. That doesn't necessarily mean that the first community had more of a heart disease problem, just that there were more older people living there. We often want to compare disease rates in two areas with different age structures, so we need to control for the age structure. This is called age-adjusting. Age adjusted rates tell you if one area is more likely to have a disease, leaving aside the fact that it has older (or younger) residents than the area it's being compared to.

Statistical Trend

We can do a statistical test on successive discrete years of data to give us an idea of whether there is a true overall increase or decrease in rates, or just random variation. From any given year to the next, a rate may go up or down randomly, but a rate that keeps going up or down may indicate that a real change is occurring in the population. This is called a trend. The chi square test for trend (see Armitage and Berry, Statistical Methods in Medical Research, Second Edition, 1987, pp. 372-373) gives us an idea of whether the change we see is significant. It looks at the size of the population, the amount of change in the rate, and the number of years that change occurs to tell whether the trend seems to be significant. A large population, a big chance in the rate, and a long period of time over which the rate continued to change would all give more confidence that a true statistical trend is occurring.

Technical Appendix C

Sources of Health Data

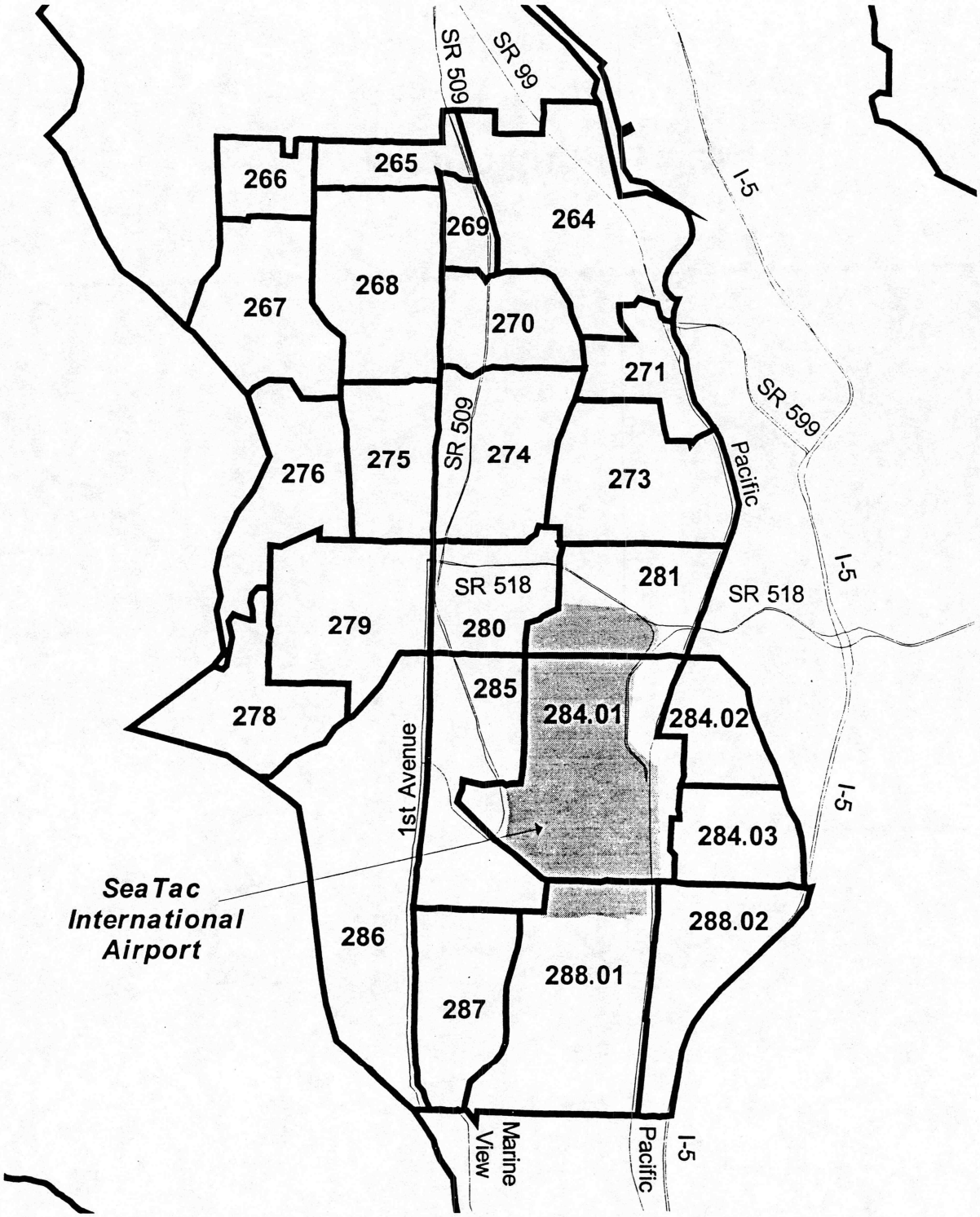
Data Type	Years Available	Data Source
Birth Certificates	1980-97	Washington State Department of Health, Center for Health Statistics
Death Certificates	1980-97	Washington State Department of Health, Center for Health Statistics
Population Demographics	1980, 1990	U.S. Census Bureau
Adjusted Population Estimates	intercensal estimates for all years thru 1997	Washington State Department of Social and Health Services, Office of Research and Data Analysis
Hospital Discharge Data	1980-96	Washington State Department of Health, Office of Hospital and Patient Data Systems, Comprehensive Hospital Abstract Reporting System (CHARS)
Reportable Disease Records	1988-97	Washington State Department of Health, STD/TB Services and Communicable Disease Epidemiology Seattle-King County Department of Public Health, HIV/AIDS Epidemiology
Accepted Child Abuse Referrals	1992-93	Washington State Department of Social and Health Services, Child Protective Services
Behavioral Risk Factor Surveillance Data	1994-1995	Washington State Behavioral Risk Factor Surveillance System Seattle-King County Department of Public Health Small Area Behavioral Risk Factor Survey

Technical Appendix D

Maps of the SeaTac Airport Community

Map 1: King County

Map 2: SeaTac Airport Community By Census Tract



Map 3: SeaTac Airport Community
By ZIP Code