

Chronic Disease

“Chronic” means “to persist over a long period of time.” Thus a “chronic disease” is one that is long-lasting or recurs. Chronic diseases, if not properly managed and controlled, can be complicated by the occurrence of additional, serious chronic diseases and leave residual disabilities that have a profound impact on the quality of life for people affected by them. Risky health behaviors—such as tobacco use, lack of physical activity, and poor eating habits—contribute to the onset and progression of chronic diseases. Additional factors include environmental exposures, genetically contributing factors, and ageing. Primary and secondary prevention options can prevent or modify progression of chronic diseases.

Section Overview

This section discusses four of the top ten leading causes of death in Washington: cancer, [coronary heart disease](#), [stroke](#), and [diabetes](#). It also includes [asthma](#), which is a major cause of disease and disability among children. Cancer is the leading cause of death in Washington. This section discusses five common cancers for which there are clear public health interventions. These include four of the five most common cancers ([lung](#), [breast](#), [colorectal](#), [melanoma](#)) and the most preventable and treatable cancer ([invasive cervical cancer](#), if found at an early stage).

Each chapter examines prevalence, mortality, or incidence of one of these diseases in relation to changes over time, the national *Healthy People 2010* goals, geographic variation, age and gender, race and Hispanic origin, income, and education. Chapters also include information on other measures of impact and burden of the disease, risk and protective factors related to the disease, and possible intervention strategies. Readers can find detailed information on major risk factors for these diseases—including tobacco use, nutrition, physical activity, and obesity—in the [Major Risk and Protective Factors](#) section of this report.

Highlights and Discussion

In Washington, the prevalence of diabetes and the incidence of melanoma are on the rise. Rates of mortality or incidence of the other diseases presented in this section are declining. Death rates for stroke, breast cancer, and lung cancer in Washington are similar to those seen nationally.

Rates of coronary heart disease mortality, diabetes prevalence, and incidence of invasive cervical and colorectal cancers are lower for Washington than the nation. Rates of asthma prevalence and melanoma incidence have consistently exceeded national levels since the 1990s.

Our state has already met or likely will meet some of the relevant national *Healthy People 2010, Midcourse Review* targets, such as those for asthma hospitalization (in people younger than age 65), coronary heart disease and stroke mortality, breast and colorectal cancer mortality and screening, and invasive cervical cancer mortality. While meeting *Healthy People 2010* targets is reassuring that we are on the right track, this success should not preclude continuing considerable efforts to reduce morbidity and mortality. Unless trends improve, we are unlikely to meet the targets for asthma hospitalization among people ages 65 and older, diabetes prevalence, lung cancer mortality, melanoma mortality, “sun smart” behavior to prevent melanoma, and cervical cancer screening.

Although disease prevalence, incidence, and mortality vary greatly among counties, it is clear that chronic disease is a major public health problem in most parts of the state.

As people age, they become more susceptible to chronic diseases. Except for asthma and invasive cervical cancer, all other chronic diseases reported in this section increase with age. Asthma is more likely to occur in people ages 25–34 compared to older people. There are no age-specific differences in cervical cancer incidence.

Among the diseases in this section that affect both men and women, men are generally more likely than women either to get or die from these diseases, with a few exceptions. Women younger than 75 are more likely than men to have asthma; and women 85 and older are also more likely than men to die from stroke.

Disparities

The prevalence of both diabetes and asthma increases as income decreases. For the other diseases discussed in this section, direct measures of income were not available. In the *Health of Washington State, 2004 Supplement*¹

we reported on analyses of neighborhood poverty in relation to chronic disease in Washington. These analyses suggested that rates of coronary heart disease and lung cancer mortality and cervical and colorectal cancer incidence increased as the percent of people living in poverty increased, while the incidence of melanoma decreased. There was not a relationship between neighborhood poverty and stroke, although other research suggests that there is a connection of increased stroke mortality with lower economic resources.² National data indicate that women with low levels of education and income are more likely to be diagnosed with late stage breast cancer,^{3, 4} which is strongly associated with higher mortality. Washington residents with higher levels of income and education are more likely to have received screening for breast, cervical, and colorectal cancers.

Most of the chronic diseases covered in this section occur at higher rates in populations with lower educational levels. Exceptions include asthma prevalence, where there is no association with education, and melanoma, where incidence increases with higher educational levels.

In Washington State, racial and ethnic disparities persist for most of the chronic diseases included in this section. American Indians and Alaska Natives and blacks generally have the highest rates of disease while Asian and Pacific Islanders and people of Hispanic origin generally have the lowest. There are some exceptions: Hispanics and Asians and Pacific Islanders have relatively high rates of cervical cancer incidence, and whites have the highest rates of melanoma incidence and the lowest diabetes prevalence.

Interpreting data on racial and ethnic differences requires caution. The racial and ethnic groupings in this report are comprised of many ethnically and culturally diverse subpopulations. The extent of chronic disease often varies by subgroups within the larger population. This is particularly true for Asians and Pacific Islanders. Additionally, many of the disparities are not caused by race or Hispanic origin *per se*. Differences in education, income, and access to care together with variations in risk and protective factors such as smoking or participating in cancer screening explain some of the disparities by race and Hispanic origin.

Summary

As the population ages in Washington and the nation, the public health challenge of chronic

disease management will grow. Public health efforts to address this challenge require prevention, early intervention, and evidence-based or best practices management of disease. Public health needs to involve a broad range of partners in the delivery of these services. Elimination of health disparities is a high priority. More research and evaluation are needed to better understand underlying causes of these disparities and how best to reduce them.

Endnotes

¹ Washington State Department of Health. (2004). *Health of Washington State 2004 Supplement* [cited 2007, October 19]. Olympia, WA: Washington State Department of Health. Available on <http://www.doh.wa.gov/HWS/HWS2004supp.htm>.

² Finkelstein, M. M., Jerrett, M., & Sears, M. R. (2005). Environmental inequality and circulatory disease mortality gradients. *Journal of Epidemiology and Community Health*, 59, 481-487.

³ Yabroff, K. R., & Gordis, L. (2003). Does stage at diagnosis influence the observed relationship between socioeconomic status and breast cancer incidence, case-fatality, and mortality? *Social Science & Medicine*, 57, 2265-2279.

⁴ Kawachi, I., & Kroenke, C. (2006). Socioeconomic disparities in cancer incidence and mortality. In D. Schottenfeld & J. F. Fraumeni (Eds.), *Cancer epidemiology and prevention* (pp. 174-188). New York: Oxford University Press.