

CHAPTER ELEVEN – HEALTH AND HUMAN HEALTH

I. INTRODUCTION

A. Purpose Statement

The way our community develops affects our physical and mental health and the environment. How our community is designed and built in response to population growth creates the conditions in which people live their lives many years into the future. As we look to the future we need to optimize the design of our community in such a way that it protects the health of residents from environmental threats while encouraging healthy behavior. For example, where a school is sited affects how safe it is and how likely children are to walk to school which is in turn an opportunity for them to be physically active. The pattern of development affects how accessible a variety of health behaviors and services will be to a population – for example, the closer people's homes are to where they need to go, the better their access will be or they will have more options of getting there through an active form of transportation. Choices communities make regarding infrastructure for water supplies, wastewater systems and disposal of wastes directly affect water resources, food supplies and public health.

In order for community development to promote good health for our community's residents, the policies that guide development and manage growth should consider the human health implications.' The purpose of this chapter is to define those implications and to plan for the environments that will meet the needs of current and future Thurston County residents while preventing disease and keeping our local population as healthy as possible.

B. Authority and Origins of Planning in Public Health

The authority of the County to do the work of protecting the public's health and safety is established by the laws of Washington State — namely the Revised Code of Washington (RCW) section 70.05.060 — which set forth the powers and duties of the local Board of Health. The state law for growth management also sets forth the authority of the Board of County Commissioners (the same policy-making body in Thurston County's government as the Board of Health) to establish this comprehensive plan and its policies. The difference between the two bodies is that the Board of Health has authority-to enforce the state's public health laws and rules established by the state board of health and secretary of health *throughout* the county — including the cities within the county, whereas the Board of County Commissioners only has jurisdiction for land use and other areas of regulation in the unincorporated parts of the County.

The RCW states that the Board of Health shall:

1. Enforce through the local health officer or the administrative officer appointed under RCW 70.05.040, if any, the public health statutes of the state and rules promulgated by the state board of health and the secretary of health;
2. Supervise the maintenance of all health and sanitary measures for the protection of the public health within its jurisdiction;
3. Enact such local rules and regulations as are necessary in order to preserve, promote and improve the public health and provide for the enforcement thereof;
4. Provide for the control and prevention of any dangerous, contagious or infectious disease within the jurisdiction of the local health department;
5. Provide for the prevention, control and abatement of nuisances detrimental to the public health

The RCW goes on to note that the Board of Health also has the responsibility to make reports to the state board of health as required, and to set fees for services authorized by law or rules established by the state board of health, as long as they are proportionate to the actual costs of providing the services.

A subsequent section, RCW 70.05.070, describes the powers and duties of the local health officer, reinforcing that this is a means for the board of health to meet its responsibilities. It also adds some specific means of accomplishing public health duties, a selection of which are included here:

- Inform the public as to the causes, nature, and prevention of disease and disability and the preservation, promotion and improvement of health within his or her jurisdiction;
- Prevent, control or abate nuisances which are detrimental to the public health;
- Collect such fees as are established by the state board of health or the local board of health for the issuance or renewal of licenses or permits or such other fees as may be authorized by law or by the rules of the state board of health;
- Inspect, as necessary, expansion or modification of existing public water systems, and the construction of new public water systems, to assure that the expansion, modification, or construction conforms to system design and plans;
- Take such measures as he or she deems necessary in order to promote the public health, to participate in the establishment of health educational or training activities, and to authorize the attendance of employees of the local health department or

individuals engaged in the community health programs related to or part of the programs of the local health department.

History

Public health was defined by the American public health leader, Charles- Edward A. Winslow, in 1920 as, "the science and art of preventing disease, prolonging life, and promoting physical health and efficiency through organized community efforts for the sanitation of the environment, the control of community infections, the education of the individual in principles of personal hygiene, the organization of medical and nursing service for the early diagnosis and preventive treatment of disease, and the development of the social machinery which will ensure to every individual in the community a standard of living adequate for the maintenance of health."

During the 1800's, when the growth of large, very densely populated industrial cities made dealing with human and other wastes through sanitation a major focus of government in order to protect people from infectious diseases and poor air, both planning and public health were born as disciplines. They shared a focus on maintaining or protecting public welfare, particularly health and safety. Scientific understanding of the causes and consequences of diseases was increasing, and early on it established the link between people's health and their surroundings – particularly the conveyance of clean water for drinking and the need to keep those drinking water sources free of contamination such as sewage.

A century later, understanding of a new threat to the public's health - chronic diseases, many associated with unhealthy weight and affected by factors of how people eat and how much physical activity they get in their daily lives - has brought about a new appreciation for the importance to health outcomes of design and planning of communities. Opportunities to engage in healthy behaviors are constrained or supported by how areas such as cities or towns are built over time. A major example of this is how the steady increase in childhood obesity closely mirrors the patterns of school siting and design over the last fifty years — with larger school campuses in more remote locations, often in places without the infrastructure to support walking from the nearest residences served by the school. As a result fewer and fewer students have the option of being active (walking or bicycling) for their travel to and from school.

C. Relationship to Other Chapters of the Thurston County Comprehensive Plan and Relevant County Policies

As described above, there are very important links between health and both the built and natural environments. This environment and health connection should be reflected in this comprehensive plan to ensure that it addresses both the need to protect County residents' health and safety, as well as to capitalize on opportunities to promote the public's health. The other parts of this plan, where addressing health objectives would help facilitate this kind of integrative planning to give the best chance of creating healthful environments,

include at a minimum the chapters on Housing, Land Use, Natural Environment, Natural Resource Lands, and Transportation.

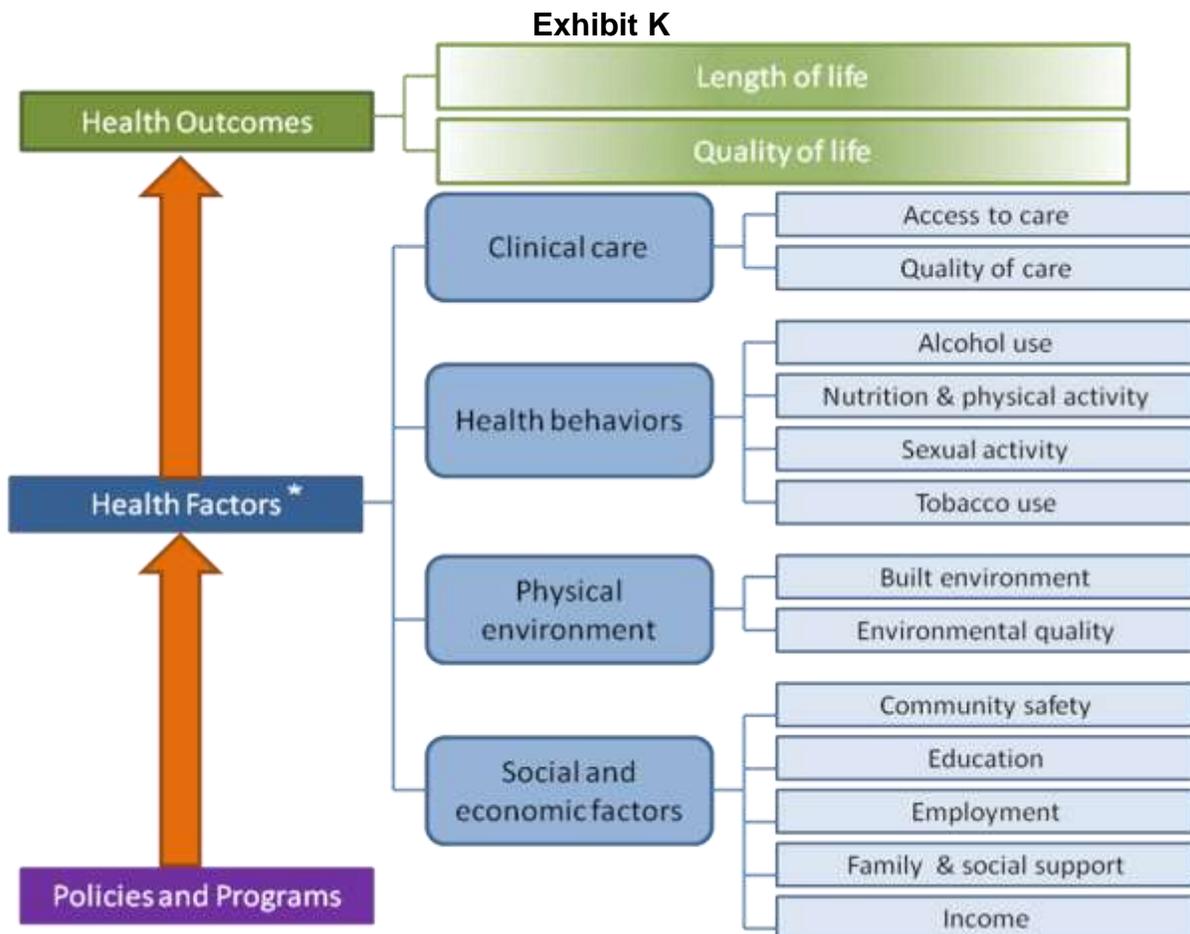
County-wide Planning Policies 9.1 through 9.8 call for all jurisdictions in the county to recognize their dependence on natural systems and maintain a balance between human uses and the natural environment, protect ground and surface water from degradation, protect and enhance air quality, minimize high noise levels, promote awareness of cultural and natural heritage, encourage recycling of materials and products and reduction of waste, and to plan for growth in a manner that can be sustained without degrading the county's livability and environmental quality.

Part II. BACKGROUND AND CONTEXT

Our health is affected by a number of factors, known as determinants of health. Understanding these factors helps us to identify the opportunities to achieve disease prevention and health promotion objectives through community planning.

A. Determinants of Health

- 1) Behavioral - in addition to a person’s genes, how he or she behaves – the things he or she chooses to do - greatly affect his/her health
- 2) Environmental - the physical surroundings where we live shape our behavior and thus our health
- 3) Social - the economic and educational conditions we live in affect health outcomes



Adapted from University of Wisconsin Population Health Institute 2012. County Health Rankings Model. * Model takes as given various significant factors in the health of a community, such as the availability of antibiotics, clean drinking water and sanitary wastewater disposal, immunizations, etc.

B. Current Understanding of Interactions between Built Environment and Health

- 1) Access to Healthy Food – The nutrition environment, from how close by grocery stores are to neighborhoods where many people live to the menus of restaurants and other food service establishments, constrains or enhances the choices of healthier, nutrient-rich foods available to local residents. Access to healthy food can be improved by allowing or encouraging features like community gardens, farmers markets, etc., as well as through governmental and private sector policies.
- 2) Facilities for Physical Activity – The availability of active, walkable places – destinations, parks, sidewalks and trails near where people live and work, and design of these facilities to be safe and inviting – is strongly associated with levels of physical activity, a key factor in preventing chronic disease. Other main characteristics for creating good access to physical activity opportunities that relate to planning the built environment are density and mix of uses, which bring more destinations for walking or other activity within reach of residents or people at work.
- 3) Water – There is continued need for managing wastes and pathogens so as to maintain clean drinking water surface water and to protect water quality more broadly. Land uses and activities such as raising animals/keeping pets or pest and weed control can have substantial impacts on water quality.

C. Public Health Priorities in Thurston County

The Thurston County Board of Health, together with the director and staff of the Thurston County Public Health & Social Services department and partner organizations in the community, worked in the first half of 2011 to define key priorities for improving the health of the public in our community. The three main areas of priority chosen include: Access to Health Care / Health Care Reform, Environmental Public Health - Protecting Environment / Reducing Pollution, Healthy Living - Chronic Disease Prevention through Nutrition & Physical Activity Promotion, and Tobacco Prevention.

❖ Access to Health Care

Disparities in access to health care affect everybody: the individual in need, the insurance companies including public funders, the public safety net, and health care providers. Limited access to quality health care undermines people's ability to reach their full potential and lowers their quality of life.

If a community has barriers to accessing health services, its residents will suffer from:

- more disease and disability;
- delays in receiving appropriate care;
- inability to get preventive services;
- preventable hospitalizations;
- more costly care;
- reduced life expectancy.

Clinical preventive services like screening for early evidence of disease, when combined with communities designed to prevent chronic disease, contributes to a high-quality, effective health care system. The National Prevention Strategy (2011) lays out a long-range strategic plan for ensuring a healthier population across the nation. It focuses, like this chapter, on the leading causes of death and their underlying causes: preventing smoking/tobacco use, promoting nutrition and physical activity, and ensuring healthful community environments in such diverse arenas as housing, transportation, education, and workplaces.

❖ Environmental Public Health - Protecting Environment/Reducing Pollution

Environmental health is the branch of public health that is concerned with all aspects of the natural and built environment that may affect human health. It studies how environmental factors can harm human health and conducts identification, prevention, and control of such effects. Environmental health professionals work to:

- maintain a safe supply of food and drinking water;
- discover mechanisms of diseases caused by environmental exposures;
- treat and dispose of liquid, solid and toxic wastes;
- reduce air, water, food, and noise pollution;
- control workplace hazards.

Since the pioneering work of John Snow in the 1850s established the link between contamination by human wastes and waterborne infectious diseases, maintaining a high standard of water quality particularly for drinking water has been a major public health priority and responsibility. The work of maintaining clean water involves not only sound rules and regulations to protect sources of drinking water (aquifer recharge zones and other critical areas), but also appropriate infrastructure and land use on a broader scale so that problems are addressed, and costs kept in control, by design. It is far more expensive to clean up contamination than to prevent it from occurring in the first place. Some of the impact on water quality is the result of individual or organizational behavior, so education, outreach and technical assistance about how to minimize use of, and properly store or dispose of, potential contaminants must be part of public health efforts.

❖ Healthy Living - Chronic Disease Prevention through Nutrition & Physical Activity

While infectious diseases remain a key focus of public health surveillance and action, diseases that result from poor diet, lack of physical activity and the use of tobacco have become much more significant in the past century in terms of impact on population health.

Obesity and overweight are precursors to long term health conditions like Type 2 Diabetes, and the incidence of unhealthy weight in the population of Thurston County, like the nation, has been increasing. These are preventable conditions, and preventing them depends on more people having good access to healthful foods and physical activity. This means

having plentiful healthy food environments like community gardens and farmers markets in neighborhoods and throughout the community; more surroundings that encourage physical activity like parks and trails nearby where people live, go to school, or work.

Tobacco use is the leading cause of death - by far - across the United States, contributing to cancers, heart disease and a host of other chronic or fatal health conditions. Tobacco products contain addictive substances and are marketed heavily, making them an intractable problem. The norms in American life have clearly shifted to the point where smoking is recognized as a detrimental factor in the health of individuals and society as a whole, yet it remains a vexing problem. Once initiated, tobacco use is difficult to quit. The County supports efforts to prevent initiation (starting to smoke), particularly by children and youth, and also tobacco cessation.

Exposure to any amount of secondhand smoke, even when one is not a smoker, is likewise damaging to one's health. Thurston County benefits from the Washington State Smoking in Public Places law, passed by citizen initiative in 2005 to ban smoking in "public places" with an emphasis on workplaces (which are required to be 100% smoke free). This law forbids smoking within 25 feet of entrances, exits, windows that open, and ventilation intakes that serve enclosed areas where smoking is prohibited – with the intent of reducing exposures to secondhand smoke. The County supports establishing other smoke-free policies as enhancements to the Smoking in Public Places law, for example with employers and in multifamily housing.

Part III. THURSTON COUNTY COMMUNITY HEALTH INDICATORS

Health Data for Decision Making

The local health department maintains extensive data and monitors health status and other indicators regarding the health of the population residing in Thurston County. This section provides summaries of data concerning the public health priority areas introduced above. While Thurston County Comprehensive Plan is the governing land use plan for only the unincorporated areas of the county, public health serves the entire population of Thurston County, inclusive of residents within the cities. Therefore, some of the data discussed here is for all of Thurston County, not just unincorporated areas, though we have also included, where possible, health data for just residents in unincorporated areas.

Access to Health Care

Data on the prevalence of chronic health conditions for Thurston County's population indicate that we are comparable or slightly worse than state averages. There is a need for care and prevention in our community relating to these conditions.

Table 11-1

Chronic Health Conditions Requiring Medical and/or Behavioral Health Care, Thurston County

	Thurston	State	Note
High School Youth, 10th Graders ²			
– Have Asthma	22%	19%	(2010 Data)
– Have Diabetes	4%	4%	(2010 Data)
– Are Obese	11%	10%	(2010 Data)
– Have Been Depressed	31%	30%	(2010 Data)
– Abuse Alcohol	28%	28%	(2010 Data)
– Abuse Prescription Pain Killers	9%	8%	(2010 Data)
Adults ¹			
– Have Asthma	10%	9%	(2009 Data)
– Have Diabetes	8%	8%	(2009 Data)
– Have or Ever Had Cancer	11%	11%	(2009 Data)
– Have Coronary Heart Disease	3%	3%	(2009 Data)
– High Blood Pressure	31%	28%	(2009 Data)
– High Cholesterol	34%	39%	(2009 Data)
– Diagnosed with Depressive Disorder	21%	17%	(2008 Data)
– Diagnosed with Anxiety Disorder	15%	12%	(2008 Data)

Source:

¹ Assessment and Planning Section, TCPHSS; Behavioral Risk Factor Surveillance Survey (BRFSS) 2008, 2009.

² Assessment and Planning Section, TCPHSS; Healthy Youth Survey 2010.

Environmental Health

Groundwater

Thurston County residents rely almost exclusively on groundwater as their potable water source - that is to say, uses for human consumption including drinking. There are approximately 600 Group B (2-14 service connections) and 300 Group A (15 or more service connections) public water systems in Thurston county. Department of Ecology records show more than 4000 water wells were drilled in Thurston County from 2000-2010.

While groundwater quality is generally very good, pollution from land use activities has significantly affected water quality in some areas. In 2011, elevated nitrate concentrations (above 3.0 mg/l) were found in ground water sampled in 13 areas across Thurston County (Thurston County Geodata). Background nitrate concentrations in groundwater should be less than 2.0 mg/l. Nitrate in people's food or water reduces the ability of red blood cells to carry oxygen, with more serious health effects for infants (methemoglobinemia or "blue baby syndrome"). Our drinking water quality standard (upper limit) for nitrate is 10 milligrams per liter (mg/l). The presence of elevated nitrate levels in ground water indicates it is being polluted by land use activities and are an indication that other pollutants may be present.

The Scatter Creek Aquifer is the potable water source for much of southern Thurston County. The aquifer flows from Tenino westward to Grand Mound and Rochester, and then south to Lewis County. The aquifer is shallow and unconfined - not having an impermeable layer of rock or sediment between it and the surface - and therefore vulnerable to pollution from land use activities. Bacterial and nitrate pollutants have contaminated the aquifer. Sampling conducted from September 2008 through June 2009 found nitrate values in the 120 samples collected ranged from a high of 7.8 mg/l to a low of 1.7 mg/l.

Surface Waters

Marine

Commercial shellfish harvesting takes place along Thurston County shorelines in Totten Inlet, Eld Inlet, Henderson Inlet and along Nisqually Reach. There are approximately 11,857 acres commercial shellfish harvesting areas in Thurston County (using 2008 as base year). Overall water quality conditions improved from 2008 to 2011 so that harvesting restrictions were lifted on 318 acres of commercial shellfish harvesting areas. While water quality improvements were documented in Henderson Inlet and Nisqually Reach, water quality trends in Eld Inlet are declining. Over half of 22 sampling stations monitored by the Department of Health in Eld inlet showed increased fecal pollution from 2004 – 2009.

Fresh water

Water quality is regularly monitored at 13 sites on the nine largest lakes in Thurston County. A variety of parameters are monitored, including those needed to calculate the Carlson trophic state indices (TSI), namely clarity, chlorophyll a and total phosphorous.

Trophic state indices are used to express the degree of productivity, or plant and algae growth, in these lakes. The indices show that our lakes vary from having oligotrophic (Summit Lake) to eutrophic conditions (Capitol Lake and Pattison Lake). Oligotrophic lakes are associated with “good” water quality, ones in which people like to swim and recreate. The most eutrophic lakes have poor water clarity and tend to have frequent and/or prolonged algae blooms. Nutrients associated with land use activities such as nitrogen and phosphorous influence water quality and the trophic state of lakes.

Total Maximum Daily Load (TMDL) studies, which describes overall pollutant quantities, or loading, have been completed for many watersheds in Thurston County, including the Chehalis, Henderson and Nisqually basins. The TMDL reports for Henderson and Nisqually found that pollutant loads to some streams need to be significantly improved before the stream can meet the water quality standards called for in the federal Clean Water Act. Work on the Deschutes River watershed is ongoing. The TMDL process requires states to identify sources of pollution in waters that fail to meet state water quality standards and to develop Water Quality Improvement Reports to address those pollutants.

On-site Sewage Systems

There are approximately 70,000 on-site sewage (septic) systems in Thurston County. While properly designed, constructed and maintained on -site sewage systems (OSS) provide a safe and efficient way to treat and dispose of domestic waste water; failing or improperly used OSS can generate significant levels of pollution that pose public health and environmental concerns. Failing on-site sewage systems in Thurston County have contributed to commercial shellfish area closures and significant levels of ground water pollution. Surfacing sewage poses an immediate threat to people who come in contact with it.

The Environmental Health Division is responsible for reviewing and permitting the installation and repair of OSS with design flows of 3,500 gallons per day or less. Permits are reviewed to ensure compliance with Article IV of the Thurston County Sanitary Code and WAC 246 -272A. These regulations require the sewage systems to meet system site, soil and installation standards.

WAC 246 -272A requires the OSS owner to take steps to ensure the OSS is properly monitored and maintained to help keep it from failing. Thurston County augments state law by requiring renewable certificates (permits) for OSS that are large, complex or serve food service establishments. Renewable certificates are also required in the Henderson Inlet and Nisqually Reach watersheds, where OSS were found to be significant pollution sources. Beginning January 1, 2013 approximately 13,500 OSS will be required to have renewable operational certificates, of which 10,000 will be in the special Henderson or Nisqually monitoring and maintenance areas (Marine Recovery Areas).

Solid and Hazardous Waste

Thurston County is home to many businesses and industries that use and store hazardous materials or wastes. Since 2000, the County's hazardous waste program staff has assisted over 1,800 businesses with the management, recycling, and disposal of their hazardous materials. Industry-specific campaigns have enabled the County to provide education about best management practices that includes product substitution, treatment options, new recycling techniques, and removal of hazardous and extremely hazardous chemicals from local schools. The County also assists the Department of Ecology to oversee the cleanup of local contaminated sites. As of October 2009, 193 Thurston County sites were identified by the Department of Ecology and included on the Washington State Confirmed and Suspected Contaminated Sites List and the Leaking Underground Storage Tanks (LUST) List.

In 2011, Thurston County Public Health & Social Services permitted seven public solid waste facilities, including the Thurston County Waste and Recovery Center, Hazo House, and three county-owned transfer stations. Nine privately-owned facilities were also permitted, including the Silver Springs Organics composting facility. Thurston County is responsible for regulating the materials that these facilities handle, including the small quantities of hazardous materials or wastes associated with small businesses and households. A more complete discussion of regulation for these materials and wastes can be found in the Thurston County Hazardous Waste Plan.

In 2008, an estimated 96% of Thurston County adults used chemical products around their home such as weed killers, bug sprays and household cleaners. Of county adults that used household chemical products, 27% never or only sometimes familiarized themselves with the health effects of the product and 10% acknowledged that they do not follow directions for use.¹

Source:

¹ Assessment and Planning Section, TCPHSS; Perception and Practice - Environmental Factors and Lifestyle Choices Survey 2008.

Healthy Living – Chronic Disease Prevention

Nutrition

In Thurston County, 40% of adults acknowledge that the way they eat is not healthy. Among county adults that have food available on-site at work, 27% describe the food as healthy.¹ In 2009, 23% or an estimated 44,100 Thurston County adults consumed the recommended daily amount of fruit and vegetables compared to 25% for Washington State. Since 2003, about 1 in 4 county adults consumed enough fruit and vegetables (2003 = 24%, 2005 = 27%, 2007 = 26%).² In 2008, 32% of Thurston County 8th graders consumed the recommended daily amount of fruit and vegetables (Washington State = 28%).³

Table 11-2

Away from Home Food Purchasing, Thurston County Adults 2008 ¹

	Low Income	Not Low Income	All County Adults
Purchased During Past Month			
– Meal at Fast Food Restaurant	56%	59%	58%
– Meal at Sit Down or Buffet Style Restaurant	53%	82%	71%

Low Income: Annual household income of less than \$35,000

Table 11-3

Away from Home Food Purchasing by Location of Residence, Thurston County Adults 2008 ¹

	Unincorporated Area	Within City Limits
Purchased During Past Month		
– Meal at Fast Food Restaurant	53%	64%
– Meal at Sit Down or Buffet Style Restaurant	71%	70%

The early years of a child’s life influences their lifelong food choices. Once established, eating patterns can be difficult to modify. Children prefer what they are used to eating with their family.

Table 11-4

Eating Patterns among Middle and High School Students, Thurston County and Washington State 2010 ³

	Thurston	State
6th Graders		
– Eat Breakfast	81%	77%
– Eat Dinner with Family	77%	76%
– Drink Regular Pop/Soda (not diet)	31%	35%
8th Graders		
– Eat Breakfast	67%	68%
– Eat Dinner with Family	68%	67%
– Drink Regular Pop/Soda (not diet)	38%	40%

10th Graders		
– Eat Breakfast	61%	63%
– Eat Dinner with Family	57%	60%
– Drink Regular Pop/Soda (not diet)	34%	36%

Table 11-5

Eating Patterns among Middle School Students, Thurston County 2010³

	Rural School Districts	Urban School Districts
8th Graders		
– Eat Breakfast	61%	67%
– Eat Dinner with Family	56%	68%
– Drink Regular Pop/Soda (not diet)	37%	38%

*Rural is defined as the following school districts: Griffin, Rainier, Rochester, Tenino, and Yelm.
Urban is defined as the following school district: North Thurston, Olympia, and Tumwater.*

Source:

¹ Assessment and Planning Section, TCPHSS; Perception and Practice - Environmental Factors and Lifestyle Choices Survey 2008.

² Assessment and Planning Section, TCPHSS; Behavioral Risk Factor Surveillance Survey 2003, 2005, 2007, 2009.

³ Assessment and Planning Section, TCPHSS; Healthy Youth Survey 2008, 2010.

Physical Activity

In 2009, 60% of, or an estimated 114,930, Thurston County adults engaged in the recommended amount of physical activity compared to 54% for Washington State. The county ranked 3rd highest for adults meeting adult physical activity recommendations. Since 2003, nearly 3 in 5 county adults engaged in the recommended amount of physical activity (2003 = 57%, 2005 = 58%, 2007 = 56%).¹ Local decisions and investments have improved the walkability and bicycle-friendliness of Thurston County, however differences remain in levels of physical activity among county residents.

Table 11-6

Physical Activity at Home and Work, Thurston County Adults 2008 ²

	Low Income	Not Low Income	All County Adults
Recent Physical Activity			
– Went on a Walk Near Home	60%	75%	68%
– Went Bike Riding Near Home	17%	27%	23%
– [Employed Adults] Went on Walk Near Work	39%	51%	48%

Commute to Work			
– [Employed Adults] Walked to Work	12%	9%	9%
– [Employed Adults] Bike Riding to Work	15%	9%	10%

*Recent Physical Activity: Specific activity occurred on one or more days during the past month
 Low Income: Annual household income of less than \$35,000*

Table 11-7

**Recent Physical Activity by Location of Residence,
 Thurston County Adults 2008 ²**

	Unincorporated Area	Within City Limits
Recent Physical Activity		
– Went on a Walk Near Home	61%	77%
– Went Bike Riding Near Home	18%	28%

Life-long health attitudes and behaviors are typically formed during adolescence. Physical activity during adolescence has been shown by research to provide a range of immediate and long term benefits including: promoting psychological well-being by reducing feelings of depression and anxiety; affecting weight which connects to development of certain chronic health conditions like obesity, high blood pressure and diabetes. Physical activity declines among county youth as they move from middle school to high school.

Table 11-8

Physical Activity, Thurston County Middle and High School Students ³

	Thurston 2006	Thurston 2010
6th Graders		
– Met Physical Activity Recommendation	NA	63%
– Participated in PE Class at School	NA	NA
– Walk to or from School at Least Once a Week	NA	27%
– Bike to or from School at Least Once a Week	NA	13%
8th Graders		
– Met Physical Activity Recommendation	51%	62%
– Participated in PE Class at School	68%	63%
– Walk to or from School at Least Once a Week	NA	30%
– Bike to or from School at Least Once a Week	NA	11%

10th Graders		
– Met Physical Activity Recommendation	45%	54%
– Participated in PE Class at School	37%	45%
– Walk to or from School at Least Once a Week	NA	32%
– Bike to or from School at Least Once a Week	NA	9%
12th Graders		
– Met Physical Activity Recommendation	43%	50%
– Participated in PE Class at School	39%	39%
– Walk to or from School at Least Once a Week	NA	18%
– Bike to or from School at Least Once a Week	NA	5%

*Physical Activity Recommendation: On five or more days each week, physical activity 60 minutes or more
 NA = Not available, data on this topic not collected at all or in same way at this point in time.*

Table 11-9

Physical Activity, Thurston County Middle School Students 2010 ³

	Rural School Districts	Urban School Districts
8th Graders		
– Met Physical Activity Recommendation	52%	62%
– Participated in PE Class at School	66%	57%
– Walk to or from School at Least Once a Week	23%	32%
– Bike to or from School at Least Once a Week	6%	12%

*Rural is defined as the following school districts: Griffin, Rainier, Rochester, Tenino, and Yelm.
 Urban is defined as the following school district: North Thurston, Olympia, and Tumwater.*

Source:

¹ Assessment and Planning Section, TCPHSS; BRFSS 2003, 2005, 2007, 2009.

² Assessment and Planning Section, TCPHSS; Perception and Practice - Environmental Factors and Lifestyle Choices Survey 2008.

³ Assessment and Planning Section, TCPHSS; Healthy Youth Survey 2006, 2010.

Tobacco Prevention

Tobacco is the leading preventable cause of death for Thurston County residents. During the last decade a series of public policy decisions and local programs contributed to a decline in cigarette smoking in Thurston County. In 2003, county data showed that 23% of adults smoked cigarettes compared to 19% in 2010. In 2010, Thurston County had the 10th highest adult smoking rate in the state, with at least 36,930 adult cigarette smokers. Tobacco products contain nicotine, a chemical that causes addiction. Of county adults that currently use tobacco products, 61% would like to quit. ¹

Table 11-10

Adult Tobacco Use, Thurston County and Washington State ¹

	Thurston	State	Note
Adult Cigarette Smoking			
– 2010	19%	15%	Thurston County cigarette smoking rates are consistently higher than the state. In 2010, 13% of county births were to a mom who smoked cigarettes during pregnancy (compared to 9% for the state). ³
– 2009	17%	15%	
– 2008	19%	15%	
– 2007	18%	17%	
– 2006	21%	17%	
– 2005	18%	17%	
– 2004	21%	19%	
– 2003	23%	19%	

Data prior to 2003 unavailable for Thurston County

Tobacco use has generally declined over the last decade among county middle school and high school youth. However, Thurston County continues to have youth tobacco use rates that are higher than the state. ²

Table 11-11

Tobacco Use, Thurston County Middle School Students ²

	Rural School Districts	Urban School Districts
8th Graders		
– Smoke cigarettes	7%	5%
– Smoke cigarillos/cigars	NA	NA
– Use chew	2%	3%

Rural is defined as the following school districts: Griffin, Rainier, Rochester, Tenino, and Yelm.

Urban is defined as the following school district: North Thurston, Olympia, and Tumwater.

NA = Not available due to small numbers

Table 11-12

Tobacco Use, Thurston County Middle and High School Students ²

Current Tobacco Use	Thurston 2002	Thurston 2010	Note
8th Graders			
– Smoke cigarettes	9%	7%	In 2010, 8 th grade cigarette smokers were less likely to have
– Smoke cigarillos/cigars	6%	3%	

– Use chew	2%	3%	had a parent talk to them about dangers of tobacco products (smokers = 41% no discussion, non-smokers = 27% no discussion).
10th Graders			
– Smoke cigarettes	15%	14%	In 2010, almost half (47%) of 10 th grade tobacco users either gave money to someone to buy tobacco for them or bought it themselves.
– Smoke cigarillos/cigars	15%	11%	
– Use chew	5%	9%	
12th Graders			
– Smoke cigarettes	22%	19%	In 2010, 67% of 12 th grader cigarette smokers first tried them before leaving middle school (age 14 or younger).
– Smoke cigarillos/cigars	16%	16%	
– Use chew	7%	9%	

Current Tobacco Use: Any use during the past 30 days

Secondhand smoke from tobacco products has been scientifically shown to cause premature death and disability by increasing a person’s risk for a range of cancers, heart disease and respiratory problems. The majority of county adults agree that secondhand smoke creates serious health problems. In 2009, 82% of county adults believed lung cancer was caused by tobacco smoke (12% unsure), 68% believed heart disease is caused by tobacco smoke (25% unsure) and 92% believed respiratory problems among children are caused by tobacco smoke (5% unsure). Among adults who smoke cigarettes, 97% thought breathing secondhand smoke was harmful.¹ Over the past decade youth exposure to secondhand cigarette smoke has declined, however further reduction is needed. In 2002, 14% of Thurston County 8th graders were exposed to secondhand smoke every day at home. By 2010, that figure declined to 7% which is higher than the state. Though not exposed every day, an additional 26% of county 8th graders were exposed to secondhand smoke at home weekly in 2010.²

Source:

¹ Assessment and Planning Section, TCPHSS; BRFSS 2003, 2008, 2009.

² Assessment and Planning Section, TCPHSS; Healthy Youth Survey 2002, 2010.

³ Washington State Department of Health, Birth Certificates 2009.

Part IV. GOALS, OBJECTIVES AND POLICIES**Environmental Public Health Goals and Policies**

The following are goals, objectives and policies relating to the maintenance of clean water, a main area of environmental public health action by the County.

GOAL HHS - EH-1: TO PROTECT AND PRESERVE GROUNDWATER QUALITY AND DRINKING WATER SUPPLIES.

OBJECTIVE A: The County should assure ground water resources (aquifers) are protected from land use activities and development.

OBJECTIVE B: The County should assure public water supplies are properly managed and monitored wells produce safe, clean drinking water.

OBJECTIVE C: The County should evaluate regional water quality to identify public health risks.

OBJECTIVE D: The Thurston County Sanitary Code should include standards that ensure new and replacement on-site sewage systems are properly designed, constructed and maintained to reduce risks to public health and surface water resources.

OBJECTIVE E: The County should work to ensure on-site sewage systems in urban communities that cause significant groundwater pollution or pose significant public health risk are converted to sewer.

OBJECTIVE F: The County should ensure that septic systems are properly monitored and managed and failing systems are identified and promptly repaired.

OBJECTIVE G: The County should ensure that wastes are managed so as to protect groundwater resources.

OBJECTIVE H: Thurston County should condition the approval of land use and development permits so they do not adversely affect ground surface water quality. Proposals should be evaluated for physical, biological and chemical impacts, including pesticides, toxic materials and chemicals of emerging concern.

OBJECTIVE I: Thurston County should work to keep current on the risks to ground and surface water resources posed by human activities and update its rules and policies to manage these risks to protect public health and the environment.

GOAL HHS - EH-2: TO ENSURE SURFACE WATERS ARE PROTECTED FROM POLLUTION SO THEY ARE SAFE FOR WATER RECREATION AND SHELLFISH HARVESTING.

OBJECTIVE A: The County should assure surface water resources are protected from land use activities, development and non-point pollution.

OBJECTIVE B: The County should evaluate regional water quality to identify public health risks.

OBJECTIVE C: The Thurston County Sanitary Code should include standards that ensure new and replacement on-site sewage systems are properly designed, constructed and maintained to reduce risks to public health and surface water resources.

OBJECTIVE D: The County should ensure that on-site sewage systems in urban communities that cause significant surface water pollution or pose significant public health risk are converted to sewer.

OBJECTIVE E: The County should ensure that septic systems are properly monitored and managed and failing systems are identified and promptly repaired.

OBJECTIVE F: The County should ensure that wastes are managed so as to protect surface water resources.

GOAL HHS - EH-3: TO ENSURE WASTES ARE MANAGED SO AS TO PROTECT PUBLIC HEALTH AND WATER RESOURCES.

OBJECTIVE A: Thurston County should investigate and respond to complaints and take enforcement action as needed to assure solid and hazardous wastes are properly managed.

OBJECTIVE B: Thurston County should permit solid waste facilities and assure they comply with permit conditions and applicable law to assure wastes are properly managed.

OBJECTIVE C: Thurston County should conduct outreach to bring better understanding of environmental health and ways to protect air and water quality to members of the community/Thurston County residents.

OBJECTIVE D: Thurston County should work with businesses (small quantity generators) to improve compliance with rules for proper handling and disposal of hazardous materials.

OBJECTIVE E: Thurston County should provide information about health hazards and environmental hazards associated with household products. Information about safer or lower-risk products should also be provided.

OBJECTIVE F: Thurston County should provide education about the health impacts of improperly disposing of hazardous materials such as herbicides, paints, pesticides, unused medicines, used motor oil, etc.

OBJECTIVE G: Thurston County should support product stewardship advocacy, programs and legislation to reduce the health and environmental impacts of consumer products in their generation, consumption, storage and disposal. Part of this support should include providing information to the public about the importance of product stewardship.

OBJECTIVE H: Thurston County's procurement practices should reflect the goal of reducing the generation of hazardous materials as much as possible. Examples, include advancing product stewardship, or more specifically extended producer responsibility, into product procurement contracts and practices whenever feasible, and the development and updating of policies to ensure that the least toxic effective alternatives are purchased and used.

Nutrition Goals and Policies

The following goals and policies aim to promote wellness and reduce the incidence of chronic disease by increasing the proportion of Thurston County residents who eat healthfully. The fundamental goal of these policies is to improve nutrition in accordance with the Dietary Guidelines for Americans 2010.

GOAL HHS-N-1: TO IMPROVE PLACES WHERE PEOPLE PURCHASE FOOD OR EAT IN THURSTON COUNTY, MAKING HEALTHY OPTIONS ACCESSIBLE TO ALL LOCAL RESIDENTS.

OBJECTIVE A: The County should increase the availability of healthful foods in a variety of community settings.

POLICIES:

1. The County should implement farm to institution strategies.

OBJECTIVE B: The County should increase the access to healthful foods in communities, including provision of full service grocery stores, farmers markets, and community gardens.

POLICIES:

1. The County should ensure that land use rules allow for farmers markets.
2. The County should provide incentives for new grocery store development in areas where grocery stores are lacking.
3. The County should ensure that land use rules allow community gardens.

Physical Activity Goals and Policies

The following goals and policies aim to promote wellness and reduce the incidence of chronic disease by increasing the proportion of Thurston County residents who meet the recommendations for daily physical activity.

GOAL HHS-PA-1: TO CREATE ENVIRONMENTS FOR ACTIVE LIVING, FOSTERING CHANGES TO THE COMMUNITY ENVIRONMENT AND ASSOCIATED POLICIES THAT INCREASE PHYSICAL ACTIVITY.

OBJECTIVE A: The County should increase access to free or low cost recreational opportunities for physical activity.

POLICIES:

1. The County shall support creation or enhancement of access to places for physical activity combined with informational outreach activities (examples include walking paths, exercise facilities indoors, improved access to nearby facilities, wayfinding signs, and point-of-decision prompts to encourage use of stairs).
2. The County should promote policies to enhance physical activity opportunities at worksites, including healthcare and school settings.

OBJECTIVE B: The County should support urban planning approaches – zoning and land use – that promote physical activity.

POLICIES:

1. The County should promote increasing density of land use and mix of uses in urbanized, or urbanizing, areas to create more walkable community environments.
2. The County should require design that increases proximity of residential areas to stores, jobs, schools and recreation areas in urbanized or urbanizing areas.

OBJECTIVE C: The County should support complete streets and community design for increased physical activity and active transportation.

POLICIES:

1. The County should build, and require of new developments, connections among trails, paths, neighborhoods and schools, and sidewalks to increase access to opportunities to be physically active.
2. The County should collaborate with the Thurston region's community development, planning and transportation departments to ensure that activity-friendly design principles are incorporated into local plans, development codes and design review processes.
3. The County should promote and provide facilities to support active commuting to schools and worksites located in Thurston County.
4. The County should consider the establishment of a non-motorized transportation citizen committee that will advise on improvements to roadways and trails that make it easier to walk, bicycle or otherwise be active in meeting transportation needs.
5. The County should address the unique challenges of promoting access to physical activity opportunities in rural areas where roadway infrastructure and land use is not generally supportive of walking or bicycling.

OBJECTIVE D: The County should enhance the safety and perceived safety of communities to improve walkability and bicycle friendliness.

POLICIES

1. The County should participate in traffic safety and injury prevention efforts with attention to improving physical activity opportunities.
2. The County should support Safe Routes to School projects and other efforts to address safety problems and barriers to physical activity among vulnerable populations (such as inaccessible or hazardous street crossings, poor school siting or design).

3. The County should establish design guidelines and rules that result in improved safety and comfort for people bicycling, walking or engaging in other physical activity.

Tobacco Prevention Goals and Policies

The following goals and policies aim to promote wellness and reduce the incidence of chronic disease by preventing the use of tobacco and exposure to secondhand smoke.

GOAL HHS-T-1: TO ELIMINATE EXPOSURE TO SECONDHAND SMOKE.

OBJECTIVE A: The County shall enforce the Washington State Smoking in Public Places law and seek to strengthen it in local implementation.

POLICIES:

1. The County should provide education to business owners regarding the Smoking in Public Places law.
2. The County should work with local law enforcement to help understand the ability to use the Smoking in Public Places law to respond to individual complaints.
3. The County should collaborate with other local jurisdictions (cities and towns) to enforce the Smoking in Public Places law.

OBJECTIVE B: The County should support the development of smoke-free housing and workplace policies.

POLICIES:

1. The County should encourage apartment owners and managers to adopt smoke-free policies, providing information and resources to assist them.
2. The County should provide information to the public about smoke-free housing.
3. The County should encourage policies that lead to all parks, transit facilities and services, and public housing to become tobacco free.
4. The County should support tobacco free work sites and promote policies that ensure this shift.