

Community Health Needs Assessment

2019



Introduction



Virginia Mason, founded in 1920, is a nonprofit organization offering a system of integrated health services, including:

- A large multispecialty group practice of more than 500 physicians offering both primary and specialty care
- An acute-care hospital on Seattle First Hill, which is licensed for 336 beds
- Benaroya Research Institute at Virginia Mason, which is internationally recognized for its breakthrough autoimmune disease research
- A network of nine regional medical centers located throughout the Greater Puget Sound region
- Bailey-Boushay House, which is the first skilled-nursing and outpatient chronic care management program in the United States designed and built specifically to meet the needs of people with HIV/AIDS and other chronic or terminal illnesses

Virginia Mason believes it is important to contribute to the communities where patients and staff members work and live. The organization acts on that belief by contributing time, energy and money to efforts that benefit the community in the areas of improving health, providing free and subsidized care, and supporting health professionals' education and research. The Affordable Care Act requires that nonprofit hospitals and health systems plan their community benefit strategies in response to identified community needs. Virginia Mason's Community Health Needs Assessment (CHNA) process incorporates public health

data and input from those representing the broad interests of the community, and serves as a guideline to help the organization achieve three basic goals:

- Improve the community's health status and overall quality of life
- Reduce health disparities within the community
- Increase access to preventive services

For the past six years, Virginia Mason has partnered with other King County hospitals and Public Health – Seattle & King County to form Hospitals for a Healthier Community. This hospital collaborative produces a CHNA every three years, and members are developing programs and initiatives to address a number of the health issues identified.

In accordance with IRS guidelines, members of Hospitals for a Healthier Community, including Virginia Mason, have adopted the collaborative CHNA as their individual CHNA.

Since three of Virginia Mason's regional medical centers are located outside of King County (Bainbridge Island Medical Center in Kitsap County as well as Lynnwood Medical Center and Edmonds Family Medicine in Snohomish County), Virginia Mason has supplemented the King County CHNA with information about needs in Kitsap and Snohomish counties near those medical centers. That supplement is attached to the end of this CHNA.

Defining the Community

In 2019, Virginia Mason has served nearly 205,000 individuals in its hospital and medical centers. Virginia Mason's CHNA service area encompasses the communities where its facilities are located and where 74 percent of its patients reside: King County, the southwest region of Snohomish County and Bainbridge Island in Kitsap County.

Virginia Mason Facilities

- Bailey-Boushay House
- Bainbridge Island Medical Center (Kitsap County)
- Bellevue Medical Center
- Edmonds Family Medicine (Snohomish County)
- Federal Way Medical Center
- Issaquah Medical Center
- Kirkland Medical Center
- Lynnwood Medical Center (Snohomish County)
- Seattle Hospital and Medical Center
- University Village Medical Center

Residence of Patients, 2019

- Seattle: 55,806
- Eastside: 37,082
- South King County: 24,957
- SW Snohomish/NW King: 26,530 (Snohomish County: 36,199)
- Bainbridge Island: 7,631
- Other Washington: 37,795
- Other Northwest: 3,313
- Other unknown: 1,770



King County Community Health Needs Assessment

2018/2019



King County
Hospitals
for a Healthier
Community

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Introduction



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King County hospitals play a valuable role in maintaining the health of the population. Our regional hospitals are committed to providing high-quality healthcare as well as supporting community health through specific initiatives designed to meet the needs of their constituents.

HISTORY

The King County Hospitals for a Healthier Community (HHC) collaborative is comprised of 11 hospital/health systems and Public Health - Seattle & King County (see Appendix C for full list of hospitals). The formation of the King County Hospitals for a Healthier Community collaborative in 2013 was notable in both the intent and effort of the hospitals to collectively examine regional health priorities. In addition to conducting a county-wide community health needs assessment, the collaborative allowed partners to dive deeper into health issues that they were addressing in common, e.g. health insurance enrollment and healthy eating. More importantly, the HHC has become a collective table for the sector in addressing population health, with representatives now sitting at King County's Health Enrollment Leadership Circle and the Governing Board of the King County Accountable Community of Health (KCACH).

VISION

The HHC vision is to participate in a collaborative approach that identifies community needs, assets, resources, and strategies towards assuring better health and health equity for all King County residents.

Each member recognized that the collective impact of working together could greatly exceed the work that any one hospital could achieve on its own. The collaborative was created to eliminate duplicative efforts; lead to the creation of an effective, sustainable process and stronger relationships between hospitals and public health; and, identify opportunities for joint efforts to improve the health and well-being of our communities. This shared approach to assessing needs helps hospital community benefit programs focus available resources to address the community's most critical health needs.

COMMITMENT TO HEALTH EQUITY

HHC members remain committed to working in pursuit of the "quadruple aim" of achieving health equity, optimizing health system performance by enhancing the patient experience of care, improving the health of populations, and reducing healthcare costs.

Introduction

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PURPOSE

This report documents the community health needs of King County and provides a foundation to meet the Affordable Care Act (ACA) and Washington state requirement for non-profit hospitals to conduct a Community Health Needs Assessment (CHNA) every three years. This is the second CHNA conducted by the HHC. The collaborative CHNA is designed to highlight strengths and areas of need that cut across geographies, thereby presenting opportunities for collaboration between public health, hospitals, health systems, community organizations, and communities.

The 2018 CHNA also fulfills part of the Accountable Community of Health's Regional Health Needs Inventory (RHNI) requirements - another value to having over-arching cross-sector tables that can avoid redundancy, and that can make connections among related efforts.

REPORT METHODS

In crafting their approach to this report, HHC members defined health broadly and used a population-based community health framework to identify health needs and establish criteria for selecting key indicators within each health topic. Social, cultural, and environmental factors that affect health were considered throughout the process. Because health services account for only around 20 percent of overall health, this report highlights community health needs that will require clinical as well as non-clinical approaches by hospitals and health systems and their partners. This joint CHNA report provides baseline data on community health indicators for all hospitals to use and import for their own CHNA. This work also supports the hospital community benefit programs by providing data to describe community needs and highlight disparities, which can inform focused strategies to target communities experiencing inequities.

While hospitals and health systems reached consensus on a core set of topic areas, each hospital may also gather additional information specific to its service area.

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In accordance with the Affordable Care Act, this report includes:

- 1. Community description**
- 2. Leading causes of death**
- 3. Levels of chronic illness**

In addition, this report provides quantitative information about the following identified health needs:

- 4. Access to healthcare and use of preventive services**
- 5. Mental health**
- 6. Alcohol, tobacco, marijuana, and other drugs**
- 7. Pregnancy and birth**
- 8. Physical activity, nutrition, and weight**
- 9. Violence and injury prevention**

Additional indicators for each health need as well as data for other health topics are online at www.kingcounty.gov/health/indicators. Detailed data are reported, when available, for neighborhoods, cities, and regions in King County, and by race/ethnicity, age, income/poverty, gender, and other demographic breakdowns. When possible, comparisons are also made to the Washington state average and Healthy People 2020 objectives for the health of all Americans (www.healthypeople.gov).

Community themes and priorities were gleaned from an inventory of over 40 community assessment/engagement reports conducted over the past 3 years. This year's report will include, as an addendum, a spotlight on the lesbian, gay, bisexual, transgender, and queer (LGBTQ) communities of King County. The addendum will examine the health disparities impacting this population. Three methods were used for the LGBTQ CHNA report addendum:

- Analysis of the Behavioral Risk Factor Surveillance System (BRFSS) survey data for the LGB adult population; and, analysis of the Healthy Youth Survey (HYS) data for the LGB school-age population
- Listening sessions with LGBTQ youth and young adults throughout the county
- Key informant interviews with thought leaders in the LGBTQ community

More details about the CHNA methodology are included in Appendix A.

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REPORT LIMITATIONS

There are some notable limitations to this report. First, for some topics of interest, we have incomplete or inadequate quantitative data and a lack of qualitative data to contextualize findings. The exception is the forthcoming LGBTQ spotlight, which will include qualitative findings from youth listening sessions and key informant interviews held throughout the county. Second, racial/ethnic comparisons are made using broad race categories based on a narrow range of options for self-identification in surveys. It is important to report data by race/ethnicity to track progress towards health equity. However, the vast diversity within race/ethnicity categories does not allow us to distinguish among ethnic groups or nationalities within categories. Our ability to report data by the many ethnic groups and nationalities living in King County is limited by sufficient sample sizes and how various surveys collect self-reported racial/ethnic data. Additionally, for some data sources, the most recently available data comes from 2015, not 2016 or 2017.

Finally, space and resource limitations prevent us from mentioning all of the valuable organizations and assets in our communities. A continuously updated statewide database of health and human service information and referrals for Washington state can be found at <https://resourcehouse.info/win211/Index>.

COMMUNITY STRENGTHS AND CHALLENGES

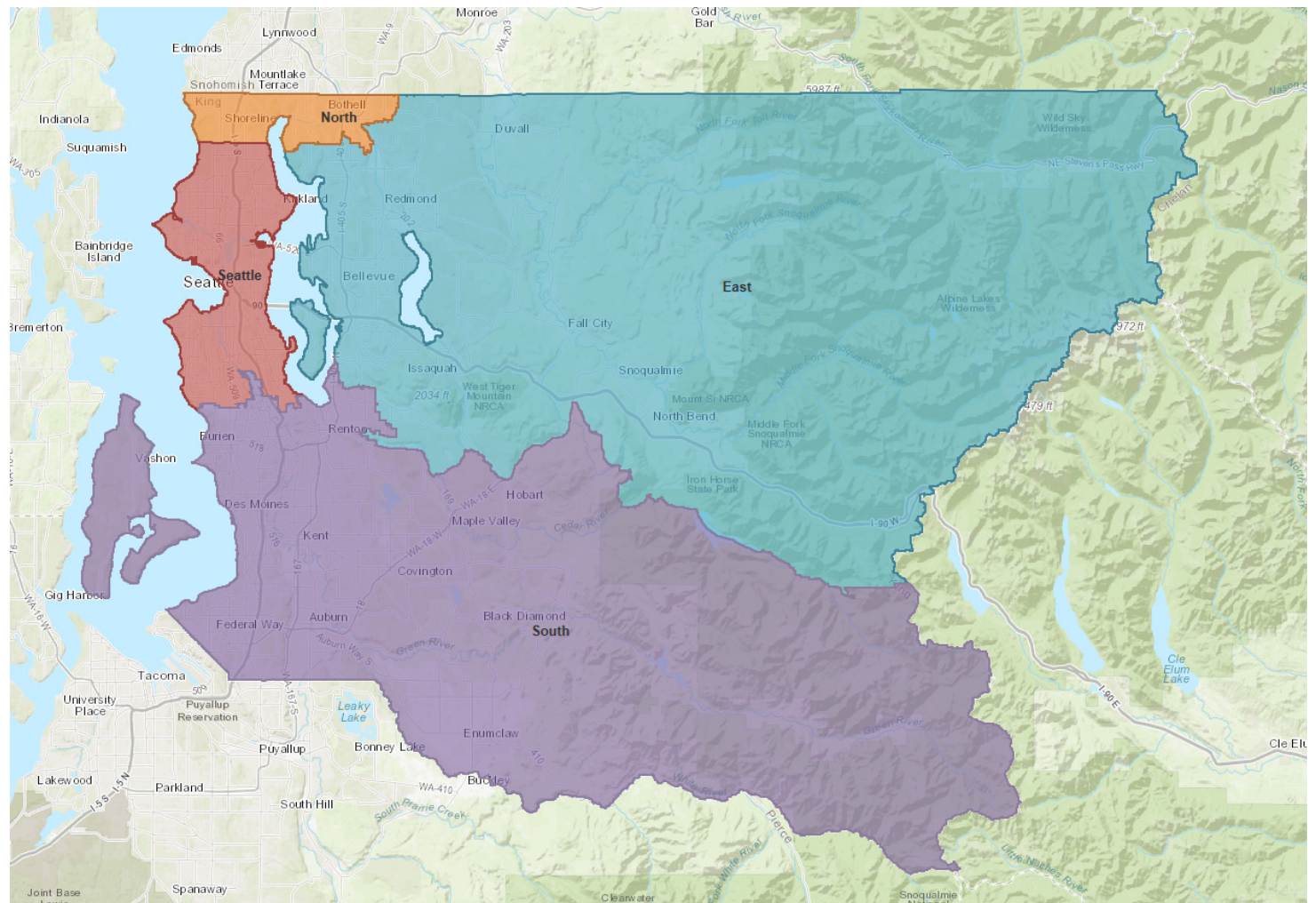
King County is often noted for its unique geographic location, providing close proximity to attractive outdoor features like the Puget Sound, many freshwater lakes, and the Cascade Range. In addition, the county includes both high-density cities like Seattle, as well as many rural areas where residents live and work. Overall, King County ranks among the top counties in the nation on measures of socioeconomic status, health, and well-being. Increasing racial/ethnic diversity, driven in part by immigration, contribute to the unique cultural strengths and assets that benefit the entire region.

Nevertheless, county residents continue to experience stark differences by place, race, and income. The places where we live, work, and play are major predictors of our life experiences. Together, these experiences greatly influence our ability to reach our full potential and thrive as productive members of society. In many ways, “place” is a proxy for opportunity, influencing our access to work, education, healthcare, food, and recreation.¹ Evaluating regional differences in health indicators helps identify neighborhoods with the greatest opportunities for improving health.

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King County regions



People of color and low-income residents are at disproportionate risk of being uninsured and having poor health and social outcomes. Many health and social indicators—such as housing quality, alcohol-related deaths, obesity, lack of health insurance, and smoking—show regional patterns of inequity. South King County is home to some of the most racially and

ethnically diverse communities in our county, and experiences disparities in multiple health and social indicators. As development moves south, many low-income families will need to relocate to find affordable housing, likely increasing their distance from jobs, educational opportunities, and other resources.

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Despite these challenges, our county has an opportunity to learn how to better serve all residents in an era of rapidly expanding prosperity. Washington state and King County leadership continue to stand behind strategies to improve the health and well-being of local residents. This includes embracing the diversity of our communities and partnering with state and local government, community-based organizations, and others to be vocal about healthcare as a key value and priority in King County. Sustaining the gains in health coverage over the past 3 years is a key aspect of this work. Working together, hospitals, health systems, public health, community organizations and communities can improve living conditions and residents' ability to lead healthy lives and achieve their full potential. The success of any effort to fundamentally address health inequities will require meaningful consideration of the impacts of racial, social and economic factors on the health of King County residents. As an overarching assessment of health in King County, the county-wide CHNA provides a foundation for future community partnerships and well-aligned strategies that will succeed in responding to the inequities that it identifies.

WORKING TOGETHER TOWARDS HEALTHIER COMMUNITIES

Over the past three years, a number of King County initiatives have been implemented to address some of the key health challenges and disparities that face our community. The last CHNA report identified the need for increased collaboration among community-based organizations, governmental agencies, advocacy organizations, hospitals and health systems, and the private sector. The initiatives described below are notable as they are explicit in their engagement to assure cross-sector representation, where different stakeholders work collectively for a common purpose, commit to authentic community engagement, and strive to understand and support community-driven solutions.

King County Accountable Community of Health

The King County Accountable Community of Health (KCACH), partnering with the Healthier Washington initiative, seeks to transform health and healthcare by addressing social drivers of health via practice transformation, value-based purchasing, and use of performance measures. The emphasis is on prevention and recovery, coupled with a firm commitment

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to racial equity. As one of the state's nine ACHs, King County's regional partnership has identified four Medicaid transformation projects for which the KCACH will be accountable:

- Integrate health system and community approaches to better manage and control chronic disease;
- Reduce opioid-related death and illness through prevention, treatment and recovery support;
- Implement diversion strategies to promote more appropriate use of emergency care services and person-centered care through increased access to primary care and social services; and,
- Improve coordination of care for Medicaid enrollees through better integration of financing and delivery of physical and behavioral health services through Managed Care Organizations.

A major focus of the KCACH is bringing together diverse stakeholders and partners to implement the Medicaid transformation project demonstration in our county. This is a strategic opportunity to attract significant federal investment to our region to improve health outcomes and address the social and economic factors that impact health.

Physical and Behavioral Health Integration

An integrated healthcare system is one that is able to meet the physical and behavioral healthcare needs of an individual in a holistic, culturally responsive fashion where the individual is engaged in their care. The KCACH is moving forward with expanding bi-directional integration of physical and behavioral healthcare and including integration of oral health to offer more coordinated, whole-person care. This project reflects the KCACH's vision of "having a system that provides whole-person, patient-centered care" with a primary strategy of "building a bridge between medical, behavioral health, and community providers."

Bi-directional integration of healthcare will:

- Improve access to behavioral health through enhanced screening and treatment of behavioral health disorders in primary care settings;
- Expand access to physical health services for individuals with chronic behavioral health conditions through increased screening, identification, and treatment of physical health disorders in behavioral healthcare settings
- Improve active coordination of care among medical and behavioral health providers as well as addressing barriers to care; and

Introduction

Continued

- Align new bi-directional integration with existing, successful community efforts including addressing the social determinants of health.

Bi-directional integration of healthcare is the cornerstone of health systems transformation. Lack of care coordination is a significant driver of avoidable healthcare costs and poor outcomes for Medicaid beneficiaries as well as other consumers. Strengthening providers' ability and capacity to provide client-centered whole-person care, including stronger alignment with social determinant needs, will improve outcomes for the target population and strengthen the foundation for transforming the delivery system.

BEST STARTS FOR KIDS

The **transformation** called for by the 2013 **King County Health and Human Services Transformation Plan** to shift from a crisis and sick-care oriented system, to one focused on prevention, wellness, and the elimination of disparities, is now in action. King County voters approved the Best Starts for Kids (BSK) Levy (Ordinance 18088) in late 2015, creating a vital source of funding to build healthier communities. BSK is the most comprehensive approach to early childhood development in the nation. BSK invests in programs to promote healthier, more resilient families and communities, starting with prenatal support and continuing through teenage years. The levy generates \$65 million annually for investments in prevention and early intervention for children, youth, families, and communities. After a year of community-informed planning in 2016, the Best Starts for Kids initiative established a Children and Youth Advisory Board.

While many BSK strategies are addressing access to services, some investments will focus on making systemic changes that drive health outcomes. These include investments in addressing the inequitable over-representation of youth of color in our juvenile justice system. This means changing practices and policies to do a better job of providing alternative pathways to success for our youth by re-building connections for youth within the education system and the economy.

Executive Summary



For the first time, more than half of King County children are children of color.

This Community Health Needs Assessment (CHNA) is a King County Hospitals for a Healthier Community (HHC) collaborative product that fulfills Section 9007 of the Affordable Care Act.

In accordance with those requirements, the report presents a detailed **description of the community**, analyses of data on **life expectancy and leading causes of death**, and a review of levels of **chronic illness** throughout King County. In addition, this report provides quantitative information about additional community health needs that were identified by the HHC.

COMMUNITY INPUT

Local community needs assessments, strategic plans, and reports from the past three years were reviewed to identify community health needs and to provide context to the quantitative data presented. Key themes that emerged from these assessments of community health are presented in the Community Identified Priorities section of the report.

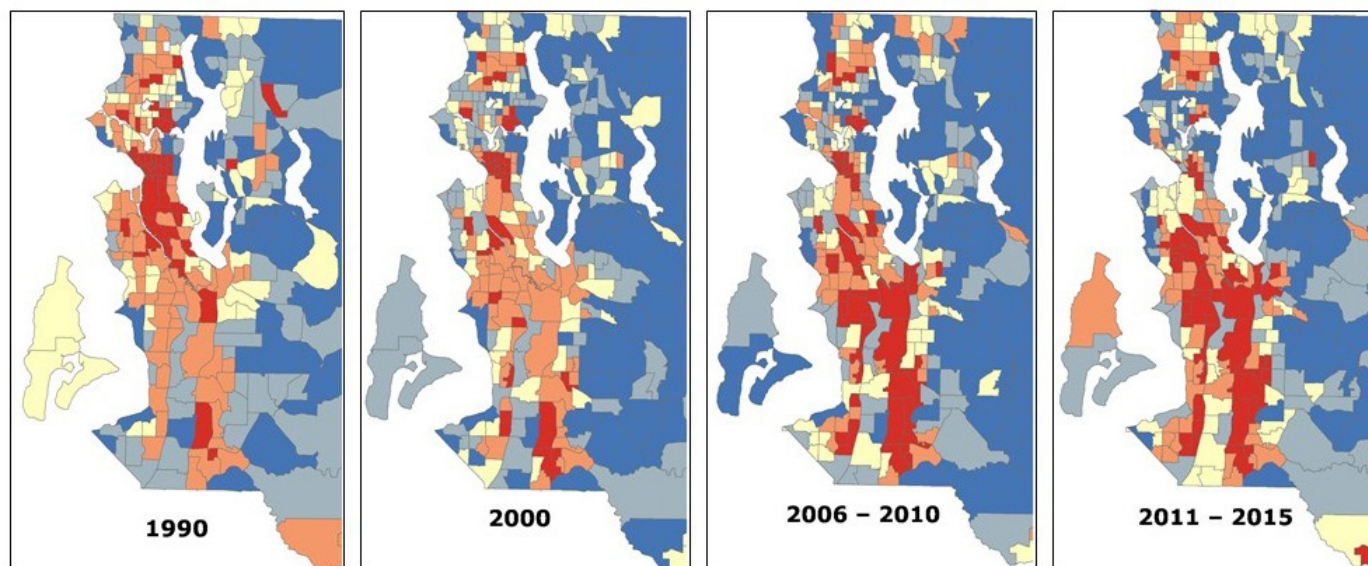
In addition, this year's spotlight on the lesbian, gay, bisexual, transgender, and queer (LGBTQ) communities of King County will examine the health disparities impacting these populations. The spotlight which will be released as an addendum to this report will include analyses of Behavioral Risk Factor Surveillance System (BRFSS) survey data for the LGB adult population; Healthy Youth Survey (HYS) data for the LGB school-age population; and qualitative findings from a series of listening sessions with LGBTQ youth and young adults throughout the county, and key informant interviews with thought leaders in LGBTQ communities.

KING COUNTY'S CHANGING POPULATION

In the past three years, King County has experienced a substantial growth spurt – in population and diversity. For the first time, more than half of King County children are children of color. The population boom has occurred in tandem with rapid rises in the cost of housing – and in homelessness.

As housing costs skyrocketed, poverty has become more concentrated in South Region where, at least until recently, housing has been more affordable, especially for families with children. Life expectancy and a host of other health outcomes are linked to income – a link that may help explain why South Region residents often experience poorer health than residents of other regions. In addition, although babies born in King County in 2015 are expected to live longer than those born in 1990, national data suggest that improvements in life expectancy for those in the top income quartile are 2.5 times greater than for those in the bottom income quartile,² a difference that, over time, tends to magnify existing disparities.

Median household income by King County neighborhood, 1990-2015



Legend:
Red: <\$50,000
Orange: \$50,000 - \$64,999
Yellow: \$65,000 - \$74,999
Grey: \$75,000 - \$89,999
Blue: \$90,000 and over

Data sources: US Census Bureau, 1990 & 2000 censuses; American Community Survey (2006-2010, 2011-2015)

Executive Summary

Continued

The population is aging: by 2040 almost 1 in 4 King County residents is projected to be age 60 or older – up from 1 in 7 in 2000.³ The fastest-growing segment will be those 85 and older. Disability rates are highest for older adults (40% in King County), and per-person healthcare expenditures for adults age 65 and older have historically been 5 times greater than expenditures for children and 3 times greater than those for working-age adults.⁴ Healthcare systems need to prepare for this important demographic shift with adequate workforce capacity and accessible services.

ACROSS KING COUNTY OVERALL, WHAT'S GETTING BETTER?

Although disparities remain, three county-wide successes stand out. These improvements occurred in the context of supportive policy changes – at the federal, state, county, city, and/or school levels.

- Since implementation of the Affordable Care Act, **health insurance coverage** has improved dramatically – for all ages, racial/ethnic groups, and cities.
- **Cigarette smoking** – still the leading preventable cause of death in the United States – has declined across regions, age groups, and racial/ethnic groups. The decline in youth smoking was accompanied by a county-wide decline in **youth substance use**.

- Fewer students in 8th, 10th, and 12th grades are **drinking sugar-sweetened beverages daily**, mirroring a national trend among high school students.⁵

ACROSS KING COUNTY OVERALL, WHAT'S FAILING TO IMPROVE OR GETTING WORSE?

Although many indicators showed little or no improvement, the following have special relevance for healthcare providers:

- In the context of escalating housing prices, **student homelessness in King County** has more than doubled since 2008, reaching 8,411 (nearly 3% of enrolled students) in the 2015-16 school year. More than half of the students were in elementary school or pre-kindergarten. In addition, the 2017 Point-In-Time Count identified 11,643 individuals experiencing homelessness, 50% of whom had one or more disabling conditions.
- **Insufficient physical activity** is associated with obesity, which in turn is linked to diabetes and other chronic diseases (including 4 in 10 cancers diagnosed in the United States).⁶ Fewer than 1 in 4 adults and youth get the recommended amount of exercise. This represents no change for adults, and modest but inadequate improvement for 8th, 10th, and 12th graders, given the importance of physical activity to health.

Executive Summary

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■ The overall **obesity** rate for King County adults has been flat since 2009 (at more than 1 in 5 adults). Nationally, adult obesity levels rose for decades, stabilized between 2003 and 2012, then rose again slightly for women.⁷ At 22%, the 2015 adult obesity rate in King County was significantly lower than the Washington state rate of 26%, and the national rate of 29% (although the 2011-2015 rate in South Region matches the national rate, at 29%).⁸ For King County youth, obesity has held steady around 9% since 2004 except in South Region, where it has increased. In comparison, high school students nationally experienced a steady increase in obesity from 1999 to 2013, which appeared to level off at a higher rate -14% in 2015.

■ **Although new data about food insecurity have not been collected since 2013**, we know that use of food assistance services is often associated with food insecurity. By 2016, participation in the Basic Food program (formerly food stamps) had not returned to pre-recession levels and was increasing for older adults, especially in South Region. A similar pattern was found for visits to King County food banks.

■ Regarding **mental health**, 30% of youth reported feeling sad or hopeless for 2 or more consecutive weeks, to the extent that they stopped doing some of their usual activities; this has gotten worse since 2004 in King County overall, driven by increases in this indicator among youth in South Region. Among adults, the percentage experiencing psychological distress has not changed since the last report.

■ **Drug-related deaths**, especially those related to heroin and methamphetamine, increased dramatically between 2010 and 2016.

HOW IS INCOME LINKED TO HEALTH?

Despite overall improvements in some areas, we find consistent income/poverty gradients in health outcomes (also often reflected in racial/ethnic differences). Many of these patterns tell a story in which inequitable access to care and prevention – especially early in life – sets the stage for later health concerns. The following sets of indicators showed robust links to measures of economic prosperity; usually median income or neighborhood poverty (family economic data were not available for measures of health-related behaviors and outcomes for youth).

Income Gradients for Determinants of Health

■ **Access to care and use of preventive services:** Notable differences by income included *health insurance coverage* (a 7-fold difference between adults in high- and low-poverty neighborhoods, even after implementation of the Affordable Care Act); having *unmet medical needs* due to cost (8-fold difference between adults in the highest and lowest income tiers), *incomplete childhood vaccines*, meeting *screening guidelines for colorectal cancer* (adults), having had a *dental visit in the past year* (adults), and *having dental caries* before 3rd grade (young children).

Executive Summary

Continued

■ **Pregnancy, childbirth, and the first years of life:** Income differences favoring higher incomes were found for *early and adequate prenatal care, low birth weight, and infant mortality.*

■ **Adult physical activity and weight:** Adults in the lowest income tier were 1.5 times as likely to be *obese* as those with the highest incomes, and high-income adults were 1.6 times as likely as those with the lowest incomes to *meet physical activity guidelines.*

■ **Tobacco:** Adults with the lowest incomes were 4 times as likely as those with the highest incomes to *smoke cigarettes.*

Income Gradients for Health Outcomes

■ **Chronic diseases:** Adults with the lowest incomes were at least twice as likely as those with the highest incomes to have a *disability*, or diagnoses of *diabetes* or *asthma.*

■ **Mental health:** Adults in the lowest income tier were almost 15 times as likely as high-income adults to have experienced *serious psychological distress* in the past month.

■ **Hospitalizations:** Residents in high-poverty neighborhoods were most likely to be hospitalized for *unintentional injuries* and for *suicide attempts.*

Life expectancy and types of cancer:

Consistent with national findings, King County residents of low-poverty neighborhoods live longer than those in high-poverty neighborhoods. And residents of high-poverty neighborhoods are most likely to be diagnosed with lung and kidney cancers (both strongly associated with smoking, one of the income-linked behavioral determinants of health).

HOW IS PLACE RELEVANT TO HEALTH?

Recent analyses also found persistent (and increasing) disparities by geographic location, or place. We focus primarily on King County's South Region, which also has the highest concentration of poverty, plus disproportionate representations of people of color and immigrants (half of whom settle in South Region), and significant linguistic diversity. One in four South Region adults has a bachelor's degree, compared to more than half of adults in each of the county's other regions. Not surprisingly, a close look at South Region reveals some of the same disparities that emerged when we focused on poverty.

Executive Summary

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Determinants of Health by Location

Access to care and use of preventive services:

South Region residents had the lowest rates of *health insurance* and *annual dental visits by adults*, and the highest rate of *unmet medical needs* due to cost.

Pregnancy, childbirth, and the first years of life:

South Region mothers were least likely to get *early and adequate prenatal care*; South Region also had the highest rates of *infant mortality* and *incomplete vaccines*. Also, the proportion of East Region mothers getting *early and adequate prenatal care* has declined sharply.

Physical activity, weight, and nutrition: Daily consumption of sugar-sweetened beverages by youth was highest among South Region youth, and South Region was the only region where youth obesity was getting worse.

Tobacco: South Region had the highest rate of adult smoking, and was the only region where the county-wide decline in adult smoking did not continue after 2006.

Health Outcomes by Location

Chronic diseases: South Region adults had the county's highest rates of *disability* and *diabetes*, and the *diabetes* rate is rising in South and East regions. There were no regional differences for child or adult asthma.

Mental health: South Region youth are increasingly likely to experience *depressive feelings*.

Hospitalizations and suicide deaths: The rate of *unintentional injury hospitalizations* is decreasing county-wide. The rate in South Region remains higher than other regions. The rate of *suicide death* is increasing in South Region.

Analyses often spotlight South Region as an area of concern, in part because of concentrated poverty. Drilling a bit deeper into the most recent data, we find meaningful differences among South Region neighborhoods. For example, while the rate for *early and adequate prenatal care* was below the county average in most South King County neighborhoods near the I-5 corridor (all neighborhoods in Auburn, Federal Way, and Kent, 2 of Renton's 3 neighborhoods, and SeaTac/Tukwila), South Region neighborhoods that did not differ from the county average included those with Puget Sound waterfront (Burien, Des Moines/Normandy Park, Vashon Island) and more rural areas considerably inland from I-5 (Black Diamond/Enumclaw/SE County, Covington/Maple Valley, Fairwood).

Executive Summary

Continued

Health concerns are not confined to South Region. For example, the proportion of mothers receiving *early and adequate prenatal care* in East Region has declined significantly since 2000. According to the most recent data, mothers in Seattle and North Region were more likely than East Region mothers to get *early and adequate prenatal care*. Closer examination revealed that 3 of the 14 King County neighborhoods with rates below the 2011-2015 county average were in Bellevue. In another departure from the focus on South Region, *suicide hospitalization* was most likely for residents of Seattle and North Region, and the East Region rate increased significantly from 2000 to 2015.

HOW ARE RACE AND ETHNICITY RELEVANT TO HEALTH?

Racial and ethnic disparities in health and social outcomes persist throughout the county.

People of color in King County are more likely to be uninsured and to have poor health outcomes. Across a number of health and social indicators, both whites and Asians fare better than others. However, national data suggest that the aggregate category of “Asians” masks disparities within the Asian category. There is a large body of evidence that demonstrates disparities in health outcomes, particularly for Southeast Asians compared to other Asian ethnicities. This is true of

other races as well. For example, existing data do not permit us to disaggregate Somali, Ethiopian, and other emerging African communities from multi-generational African-American communities. Nevertheless, the presence of disparities by race/ethnicity underscore the need to further explore the causes of inequities that result in disparate outcomes and identify solutions.

Determinants of Health by Race/Ethnicity

■ Access to care and use of preventive

services: Although *health insurance coverage* has improved overall, most communities of color remain disproportionately uninsured. In 2016, Hispanic adults were least likely of all racial/ethnic groups to have healthcare coverage, with an uninsured rate nearly 3 times the county average. Black and Hispanic residents were most likely to report having *unmet medical needs* due to cost.

■ Pregnancy, childbirth, and the first years of

life: American Indian/Alaska Native, Black, Hispanic, and Native Hawaiian/Pacific Islander mothers were less likely than Asians and whites to get *early and adequate prenatal care*. Black and American Indian/Alaska Native infants experienced the highest rates of *low birth weight* and *infant mortality*. Rates of *low birth weight* among Asian infants were also higher than the county average; however, they had the lowest rates of *infant mortality*.

Executive Summary

Continued

■ **Physical activity, weight, and nutrition:** Adult *obesity* rates were lowest for Asians and highest for American Indians/Alaska Natives; among youth, *obesity* rates were lowest for Asians and whites and significantly higher for all other groups. Asian and Hispanic youth were least likely to meet *physical activity* standards.

■ **Tobacco:** Among 8th, 10th, and 12th graders, American Indian/Alaska Native youth were significantly more likely than white, Black, Hispanic, and Asian youth to use *tobacco* – nearly 4 times as likely as Asian youth to smoke cigarettes.

Health Outcomes by Race/Ethnicity

■ **Chronic diseases:** *Diabetes* rates among Black adults were significantly higher than the county average and nearly twice the rate among Asian adults. The rate of *asthma* among American Indians/Alaska Natives is 4 times that of Asian adults.

■ **Mental health:** Hispanic, Native Hawaiian/Pacific Islander, American Indian/Alaska Native, and multiple-race youth were more likely than Asian, Black, and white youth to experience *depressive feelings*.

■ **Suicide and homicide deaths:** *Suicide deaths* were higher than the county average for whites and American Indians/Alaska Natives in King County. Homicide deaths, however, were much higher for Black residents than for any other group, at more than 5 times the county average.

■ **Life expectancy, causes of death, and types of cancer:** At 86.3 years, life expectancy is highest among Hispanic and Asian residents; Native Hawaiian/Pacific Islanders (75.0 years) have the lowest life expectancy of all racial/ethnic groups in King County. All racial/ethnic groups share heart disease and cancer as the top 2 causes of death. Among types of cancer, liver cancer is most common among American Indians/Alaska Natives; prostate cancer most prevalent among Black males; cervical cancer highest for Hispanic and Black women. Breast cancer is highest among white women – although Black women are most likely to die from breast cancer. Although the numbers are low due to low population size, Native Hawaiians/Pacific Islanders have strikingly high rates of breast, lung, colorectal, and uterine cancers.

Executive Summary

Continued

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SUMMARY OF HEALTH TOPICS

Determinants of Health

Access to Care and Use of Preventive Services:

Access to *health insurance* improved substantially after implementation of the Affordable Care Act (ACA), and in the year after ACA implementation fewer adults reported *not being able to see a doctor because of cost*. Children who live in high-poverty neighborhoods were least likely to have completed the *vaccinations recommended for young children* by 35 months. More than 1 in 3 adults age 50-75 failed to meet *colorectal cancer screening guidelines*. Low-income adults were least likely to use preventive services such as colorectal cancer screening and *regular dental visits*. Adults in South Region were least likely to report seeing a dentist in the past year – a trend that is getting worse, but only in South Region. About 4 in 10 King County preschoolers, kindergarteners, and 2nd and 3rd graders had experienced *dental caries*. White children were less likely than children of all other races/ethnicities to have had dental caries.

Pregnancy, childbirth, and the first years of life:

Seven in 10 of King County's expectant mothers received *early and adequate prenatal care*, but substantial disparities by poverty and race/ethnicity persist. Pregnant women in South Region were significantly less likely than those in other regions to

get early and adequate prenatal care (67.3%), and the rate of *early and adequate prenatal care* in East Region has decreased since the last report. Disparities in birth outcomes reported in 2015/2016 have not diminished.

Physical Activity, Weight, & Nutrition: While the proportion of 8th, 10th, and 12th grade students meeting federal standards for *physical activity* has increased, fewer than 1 in 4 students met the criteria – the same rate as adults (who showed no improvement). Among even the highest-income adults, only 26% met federal standards. Although there were no racial/ethnic differences among adults, Asian and Hispanic students were least likely to meet physical activity standards. For youth, physical activity did not differ by region, but South Region adults were significantly less likely to meet standards.

Almost 1 in 10 King County students in 8th, 10th, and 12th grades were *obese*, with males and students who identify as lesbian, gay, or bisexual having rates above the county average. Student obesity rates have been flat since 2004 or falling in all regions of the county except South Region where it is rising. Adults were more than twice as likely as youth to be obese, with highest rates for those with the lowest incomes, American Indians/Alaska Natives and Blacks, and those age 45-64. Unlike youth, obesity in adults did not differ by gender or sexual orientation.

Executive Summary

Continued

Fifteen percent of youth reported *drinking sugar-sweetened beverages (SSB) daily*. Females, Asians, and whites reported the lowest rates of daily SSB consumption, while students in South Region were most likely to drink sugary beverages.

Tobacco & Other Drugs: *Cigarette smoking* has dropped for youth and adults across all age groups and regions, although the South Region decline for adults has stalled since 2006. Among both youth and adults, American Indians/Alaska Natives reported the highest rates. While there were no gender differences among youth, male adults were more likely than females to smoke. For youth and adults, those who identified as lesbian, gay, or bisexual (LGB) were more likely than heterosexuals to smoke cigarettes. Combining 8th, 10th, and 12th graders, only 5% smoked cigarettes; for 12th graders alone, 10% reported smoking. Adults in the lowest income tier were 4 times more likely to smoke than adults with the highest incomes.

The proportion of 8th, 10th, and 12th graders who reported *using alcohol, marijuana, painkillers (to get high) or any illicit drugs* – 1 in 4 – has declined since 2004. As with other risky behaviors, youth substance use increased with age, with a 4-fold difference between the rates for 12th graders and 8th graders. Although there were no gender differences, substance use among LGB youth was 1.5 times the rate for heterosexual youth.

King County *deaths related to prescription opioids* dropped from 2010 to 2016. During the same period, deaths related to heroin more than doubled, and those related to methamphetamine increased more than 6-fold. According to a recent survey, heroin and other opiates were injection drug users' drugs of choice; 20% of respondents had experienced a non-fatal overdose in the past year. Although almost 8 out of 10 respondents expressed interest in reducing or stopping opioid use, fewer than 3 in 10 were currently in treatment.

Health Outcomes

Life expectancy and leading causes of death:

An infant born in King County in 2015 can expect to live to age 81.9 – longer than in most parts of the United States, but no different from King County life expectancy in 2009. Within the county, differences in *life expectancy* are linked to poverty and location and can be as great as 10 years. Similarly, age-adjusted *death rates*, which declined for decades, plateaued after 2010, possibly because the decrease in deaths from cardiovascular disease was offset by increases in deaths from Alzheimer's disease. Cancer and heart disease are still the *leading causes of death* in King County. In childhood and early adulthood (younger than 45), males are much more likely than females to die. There are also notable disparities by neighborhood poverty.

Executive Summary

Continued

Chronic Illnesses: In King County 7% of adults have been told by a doctor that they have *diabetes*. Disparities by income, geography, and race/ethnicity were substantial: at least 10% of Blacks, American Indians/Alaska Natives, and Native Hawaiians/Pacific Islanders reported a diabetes diagnosis. Diabetes rates are rising in South and East Regions and for Hispanics and whites.

Seven percent of King County children and 9% of adults had *asthma*, although no age or regional differences were identified in either group. Although income was not linked to childhood asthma, adult asthma was most common in low-income households. Asians had the lowest rate of adult asthma -- the only significant racial/ethnic difference in either children or adults. Between 2000 and 2015, however, asthma rates increased only for white adults. In adults only, females were more likely than males to have asthma. Adults who identified as lesbian, gay, or bisexual were more likely than heterosexual adults to suffer from asthma.

The *leading causes of adult hospitalization* are pregnancy/childbirth, heart disease, injuries, and mental illness. Males are still more likely than females to be hospitalized for heart disease. *Leading causes of hospitalization for children* are respiratory infections, injuries, and mental illness.

The top three types of cancer in King County are lung, prostate, and breast cancer. Native Hawaiians/Pacific Islanders, Blacks, and whites had the highest rates of breast, prostate, colon, and lung cancers.

Mental Health: The proportion of *youth with depressive feelings* has increased across the county. Rates were higher than the county average for female and LGB students, as well as those who live in South Region and those who were Hispanic, Native Hawaiian/Pacific Islander, American Indian/Alaska Native and multiple-race. Although the proportion of King County adults with *serious psychological distress* was considerably lower (4%), there was a 15-fold difference between the lowest and highest income groups and a 2-fold difference between LGB and heterosexual adults. Of all racial/ethnic groups, Asian adults had the lowest rates of serious psychological distress.

Violence and Injury Prevention: *Hospitalization for unintended injuries* was most likely for males, for adults age 65 and older, for residents of high-poverty neighborhoods, and for residents of South Region. The overall decline in King County *suicide hospitalizations* since 2000 masks opposing regional trends – a significant increase in East Region and a decrease in South Region. Suicide hospitalization rates were highest in Seattle and North Region, lowest in East Region. Adults age 18-24 had higher rates

Executive Summary

Continued

than all other age groups, and adults in high-poverty neighborhoods were almost twice as likely as those in low-poverty neighborhoods to be hospitalized after a suicide attempt.

Although there were no regional differences in *suicide deaths*, this rate has been rising in South Region since 2000. In King County, males were 3 times more likely than females to commit suicide. Older adults (ages 45-64 and 65+) were most likely to commit suicide. Unlike suicide hospitalizations, suicide deaths did not differ by poverty level. King County's most recent suicide rate (12.2 per 100,000 population) was 4.5 times the rate of homicides (2.7 deaths per 100,000). Among racial/ethnic groups, whites were most likely (13.8 per 100,000), while Asians (6.6 per 100,000) and Blacks (7.4 per 100,000) were least likely to commit suicide. The opposite pattern was found for homicide deaths, where the rate for Black residents was 14.1 per 100,000 – more than 5 times the county average.

HOSPITALS FOR A HEALTHIER COMMUNITY (HHC) PRIORITIES

By aligning hospital/health system priorities with the community identified priorities that were gathered through various focus groups, interviews, and community conversations – the Hospitals for a Healthier Community collaborative works jointly as well as individually to address the following areas:

1. Mental health & substance use disorders

2. Access to care & transportation

3. Physical health with a focus on obesity, cancer, & diabetes

4. Housing & homelessness

HHC members continue to create opportunities to collaborate between public health, health systems, community organizations, as well as communities. In addition, efforts to leverage and align goals across many other initiatives, such as HealthierHere (King County's Accountable Community of Health) encourages agencies to collectively invest in data, programs, and policies that create equitable and targeted interventions for these identified health areas.

Community Identified Priorities



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To enhance our understanding of King County residents' priorities, we reviewed over 40 community needs assessments, strategic plans, or reports – many with community engagement components and all conducted over the past three years. Themes shared across the documents included:

- Support for youth and families
- Support for older adults
- Equity and social determinants of health
- Housing and homelessness
- Access to healthcare

A variety of community engagement activities conducted by community and governmental organizations confirmed the themes as priorities and enabled King County residents to elaborate on them. These exchanges also identified strategies, community assets, and resources. Though not a comprehensive list of all assets and resources, examples of work being done around the shared themes are highlighted in the sections below. Beyond specific programs and policies, most King County communities share a broad set of assets that help shift the balance toward health and well-being.

Nearly every community report highlighted the need for safe and affordable housing as an important issue.

Community Identified Priorities

Continued

SUPPORT FOR YOUTH AND FAMILIES

Community conversations revealed strong interest in services that support King County infants, youth, and families, especially early learning opportunities that were both more affordable and culturally relevant.

Communities called for:

- **More Early Head Start programs.** Limited access to child care subsidies for those who don't qualify for current Head Start or ECEAP subsidies was mentioned as a significant barrier.
- **More free and low-cost options for child care.**
- **Access to child care services for children with special needs,** as well as options for crisis and respite care.
- **Keeping kids engaged through after-school programs and summer activities.** Middle-school-aged children especially need safe spaces after school and strong mentorship opportunities, since this is a crucial transition stage.

■ Supporting youth to develop into confident and productive adults.

This includes:

- » A focus on socio-emotional development with training in communication, decision-making, self-advocacy, skill building, and healthy relationships
- » Substance abuse and violence prevention
- » Dropout re-engagement programs
- » Academic support to increase graduation rates
- » College preparation and career planning

Assets

King County voters approved the Best Starts for Kids (BSK) Levy (Ordinance 18088) in late 2015, creating a vital source of funding to build healthier communities. While many BSK strategies address access to services, BSK is also investing in systemic changes that provide alternative paths to success for our youth. This means changing practices and policies to do a better job of re-building connections for youth with the education system and the economy. It is considered the most comprehensive approach to childhood development in the United States.

Community Identified Priorities

Continued

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SUPPORT FOR OLDER ADULTS

A common set of concerns for older adults emerged in the priorities highlighted by cities, the county, local aging support services, and in community conversations. These included:

- Increase in older adults experiencing poverty and food insecurity
- Need for affordable housing
- Need for assistance with navigation of the healthcare system
- Need for appropriate transportation
- Need for sustainable systems of caregiving
- Addressing the needs of aging women

Housing was a major concern for older adults, especially those with low, and often fixed, incomes. King County seniors who participated in community conversations described additional barriers to affordable housing based on personal histories – such as past evictions, debts, or poor credit. Economic security can help buffer the challenges of growing older. Without economic security, older adults may experience hunger and a variety of negative health and social outcomes that are exacerbated by poverty.

Many older adults also need support in navigating the healthcare system – from understanding their health insurance coverage to

scheduling appointments. Participants in community conversations stressed the importance of culturally competent health and human services. Case management and navigation assistance were also priorities, especially for those in vulnerable groups like veterans and people with disabilities.

Many older adults are challenged by limited transportation options and physical isolation from their communities – either because they live in rural areas or because of physical circumstances that limit their mobility. Residents of rural, suburban, and urban settings emphasized the importance of creating more sustainable systems of caregiving by (a) ensuring that caregivers are paid well and given adequate support, and (b) decreasing reliance on volunteer service, which can be inconsistent.

The needs of aging women were highlighted, as women have longer life expectancies than men and often face greater financial hardship since they generally earn less than men. These pay gaps particularly affect women of color and LGBTQ women. Older women in the workforce are especially vulnerable to economic hardship, as they routinely take on caregiving responsibilities for other family members (typically unpaid), and can lose their income due to changes in their mobility, personal health, or access to transportation and other support systems.

Community Identified Priorities

Continued

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Assets

Several assets for supporting older adults were identified:

- In late 2017, King County voters renewed the existing Veterans and Human Services Levy and broadened it to support older adults and their caregivers. The new **Veterans, Seniors and Human Services Levy** increases investments in housing stability, healthy living, social engagement, financial stability, and support systems for older adults.
- With an extensive network of community partners, **Community Living Connections – Seattle & King County** helps adults dealing with aging and disability issues (including older adults, adults with disabilities, caregivers, families, and professionals) get the information and support they need by streamlining access to programs and services through a “no wrong door” model.
- Washington’s new Medicaid Transformation Demonstration Waiver includes two innovative programs, **Medicaid Alternative Care (MAC) and Tailored Support for Older Adults (TSOA)**, to support unpaid family caregivers.

- In **The Washington State Plan to Address Alzheimer’s Disease and other Dementias**, consumer and public-private stakeholders are working to prepare the state to meet the challenges of dementia and Alzheimer’s disease, which in King County is expected to increase more than 2-fold, **from 27,887 residents in 2015 to 67,797 residents in 2040**.

Community Identified Priorities

Continued

EQUITY & SOCIAL DETERMINANTS OF HEALTH

To strengthen communities and improve the health of King County residents, we need to address **deeply rooted inequities by race and place**, repeatedly documented in this report. The seeds of many disparities were sown by a history of selective disinvestment in certain communities. Multiple community reports stressed the importance of:

- **Providing resources equitably**
- **Incorporating equity into all community efforts**
- **Targeting support to groups with the highest needs**

Input from across the county revealed concerns over racial and socioeconomic disparities in education, health and human services, environment, transportation, justice and public safety, and economic development. Community members noted:

- **Racial inequities in school dropout rates, disciplinary actions, and matriculation to higher education.**
- **Difficulties in accessing health and human services** for people of color, undocumented immigrants, and members of tribal communities.
- **Worse environmental conditions** for people of color and residents of lower-income neighborhoods, which were described as requiring longer commutes and having less access to healthy food, fewer trees, more traffic, and more harmful environmental exposures than more prosperous neighborhoods.
- **Lack of transportation services in rural areas, especially for people with disabilities.**
- **Diversion of city services** towards gentrified neighborhoods.
- **Overrepresentation in the prison population of people of color**, who were also more likely to be profiled by law enforcement.

Community Identified Priorities

Continued

Unequal access to economic opportunity was expressed as a concern, particularly in a county experiencing a rapid expansion of population and jobs. Community members called out the higher poverty rates experienced by immigrants, refugees, African Americans, Hispanics, and Native populations, and noted that unequal access to jobs was an ongoing challenge for residents of color in King County. Enduring power inequities, as reflected in the history of redlining and current gentrification trends in parts of Seattle, have limited opportunities for African Americans to purchase homes, develop wealth, and sustain stable communities.

Access to affordable and healthy food is a shared priority across King County communities. In many communities, problems with access to food are compounded by low wages, unaffordable housing, and the increasing costs of other basic needs such as childcare, transportation, and healthcare. Community members reporting on this issue made it clear that food insecurity cannot be separated from systemic problems of poverty, transportation, and housing.

Assets

Across the county, concerned government bodies, non-profit organizations, faith organizations, and community members are investing in efforts to better understand and respond to these inequities, addressing issues such as food justice, housing access, and economic opportunity.

■ The **Communities of Opportunity** (COO) initiative, launched in 2014 by the **Seattle Foundation** and King County, focuses on places, policies, and systems changes to strengthen community connections and lead to more equitable health, housing, and economic outcomes. Through investments in community-led partnerships, COO supports organizations working to increase health, housing, and economic opportunities through policy and systems reform. Importantly, communities are driving the initiative, which is governed by a coalition of leaders from communities, philanthropy, and county government.

Community Identified Priorities

Continued

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HOUSING & HOMELESSNESS

Nearly every community report highlighted housing affordability as a key issue. Summaries of community members' input described the crucial role that stable and safe housing plays in maintaining a sense of community connection and overall quality of life. Residents in parts of South King County, where housing costs are relatively lower than other regions, expressed concerns over impending displacement as housing costs continue to rise.

Local organizations assessing the needs of LGBTQ residents called out housing and personal safety as major concerns. Many prioritized reducing the overrepresentation of youth who identify as LGBTQ and youth of color among those experiencing homelessness.

More broadly, community members expressed grave concern about homelessness and the disproportionate distribution of its burden across King County communities. While acknowledging that the county struggles to develop sufficient resources to meet the needs of our homeless populations, many residents were dismayed that, in the midst of our region's robust "economic recovery," homelessness continues to increase.

Assets

In late 2017, Best Starts for Kids announced that, after only one year in operation, partners in its Youth and Family Homelessness Prevention Initiative had prevented more than 3,000 people from becoming homeless. BSK's flexible approach enabled case managers to meet the specific needs of people on the verge of homelessness, such as assistance with landlord negotiations, employment, and utility bills.

Community Identified Priorities

Continued

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ACCESS TO HEALTHCARE

King County has an abundance of healthcare resources – specifically a high ratio of primary care physicians per capita and the existence of several large hospital systems. However, community residents who participated in a local hospital needs assessments ranked **“access to healthcare” as their number one health need**, and described problems including:

- Lack of mental health services
- Language barriers
- System navigation
- Transportation and location of facilities
- Wait times and hours of operation
- Access to specialty care services
- Inability to pay

Mental, behavioral, and addiction services were repeatedly cited as insufficient and difficult to access. In Seattle, residents described steep cultural barriers, as mental health remains a taboo topic in many populations. Rural and suburban residents complained that sufficient mental health resources simply do not exist, especially for school-aged children in Maple Valley, Enumclaw, and Covington.

Despite the expansion of Medicaid and health insurance marketplaces, specific barriers to accessing care persist for residents in rural areas, low-income residents, and some communities of color. These issues were especially noted among American Indian/Alaska Native children and residents of low-income households and the South King County area. Many residents said they could get coverage, but were not eligible for subsidies or Medicaid and could not afford the premiums. Even among those with coverage, many face ongoing challenges with finding specialty care, adult dental care, and behavioral health services. High deductibles and co-pays still impede access to care when residents are forced to choose between healthcare and other basic needs.

Community Identified Priorities

Continued

Assets

The King County Accountable Community of Health (KCACH) will be a major driver of healthcare delivery system reform in the coming years. This new, cross-sector entity is charged with regional implementation of the Medicaid Transformation Demonstration Project, an 1115 Medicaid waiver. The KCACH brings together leaders from the hospital industry, managed care organizations, community clinics, community-based organizations, local government and more to work collaboratively on innovative approaches to providing whole-person care. The KCACH is launching a portfolio of four key projects focused on health promotion and prevention and healthcare delivery system redesign. The focus for these projects includes, 1) bi-directional integration of physical and behavioral health; 2) transitional care for Medicaid beneficiaries leaving hospitals, jail, or psychiatric inpatient care; 3) addressing the opioid crisis; and 4) coordination of care for chronic disease prevention and control. The KCACH will also address cross-cutting needs related to workforce development, health information technology, and support for the move to value-based purchasing.

COMMUNITY VOICES: A CONTEXT FOR UNDERSTANDING

This review of community reports and perspectives has enhanced our appreciation for the diverse experiences of the many populations living in our county. We can paint a truer and more comprehensive portrait of health in King County when we're able to pair our quantitative estimates for community health indicators with the voices of the people who live, work, and play here. These subjective insights provide the context needed to interpret the patterns we see in the data and are especially important in a county that is growing and changing so rapidly. Incorporating the insights of community residents and workers into our understanding of health needs will help us design interventions that are appropriately targeted and sustainable on a community level.

Description of Community



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Since the last CHNA, the economic boom has been acutely felt by longtime residents and new arrivals alike. While we see greater diversity in our county, the diverse communities in the North and South are not the same as those in Seattle and East Regions. Driving this boom is the strong tech sector that is dramatically reshaping our population demographics. The increase in tech jobs has sparked record setting growth, with an influx of young, highly educated, high income earners in the Seattle and East Regions, creating one of the most competitive housing markets in the nation.⁹ This influx has resulted in displacement of many residents further North and South in search of affordable housing options. The impacts of displacement include: increased time spent commuting rather than being home with family, shopping for, preparing and eating meals together, or having time and access to opportunities for physical activity – all of which contribute to disproportionate rates of chronic disease and early death. The effects of these complex challenges to wellness can be seen in regional and economic disparities in health outcomes outlined throughout the report. Although disparities remain in many health indicators, some county-wide successes stand out as well, as described in the Executive Summary and corresponding report sections.

Economic development favors those who can take advantage of it, while marginalizing those at lower economic strata and increasing their health risks.

INTRODUCTION

King County is the 13th most populous county in the United States, with an estimated 2016 population of over 2 million and growing. In

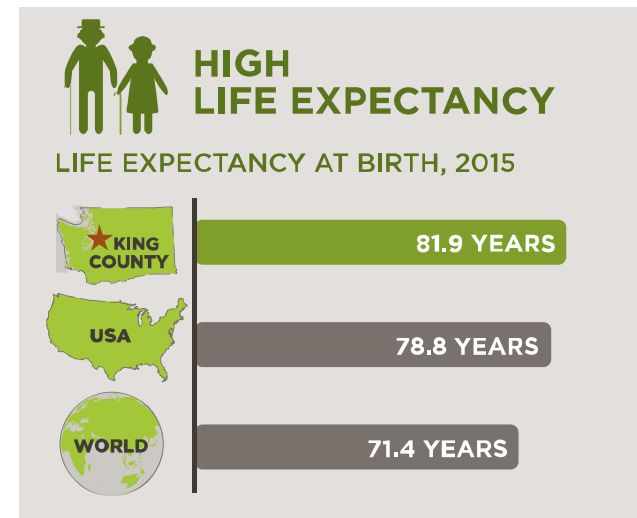
addition to Seattle, King County includes 38 cities and several unincorporated areas, making it the largest metropolitan county in the State of Washington in population, number of cities, and employment.¹⁰ The county is divided into four geographic regions.¹¹ With an estimated 741,000 residents, South Region is home to over a third of the county's population – more than Seattle (687,000), East Region (549,000), and North Region (128,000).ⁱ Across the four regions, 20 school districts and 11 hospital and health systems serve King County families.

King County ranks among the top counties in the U.S. on measures of health and wealth.

Life expectancy is in the 95th percentile among US counties, at 82 years.¹² The population is highly educated, with 48% of residents having at least a bachelor's degree, compared to 31% nationally. King County has been at the center of Washington's economic recovery since 2010, following the most recent national recession.¹³ With multiple booming industries and unemployment at its lowest rate since 2008,¹⁴ many families are thriving. Median household income has steadily increased, reaching more than \$25,000 higher than the national average in 2015.

ⁱWashington State Office of Financial Management, Forecasting & Research Division. *State of Washington 2016 Population Trends [report] and Small Area Estimates Program (SAEP) estimates*. 2016. <https://www.ofm.wa.gov/washington-data-research/population-demographics/population-estimates/small-area-estimates-program>. Accessed December 1, 2017.

However, the success of all residents is challenged by geographic, racial/ethnic, and socioeconomic disparities that negatively impact many communities. Despite high rankings on measures of socioeconomic status and health, county residents continue to experience stark differences in social and health outcomes by place, race, and income. Life expectancy varies widely by neighborhood, with gaps of more than 10 years between neighborhoods with the highest and lowest life expectancies. People in affluent areas have greater access to environments and other resources that encourage healthy behaviors. The convergence of these factors, plus disparities in educational attainment, household income, and health insurance coverage can profoundly influence the health of our communities.



Source: WA State Department of Health, Center for Health Statistics, death certificates

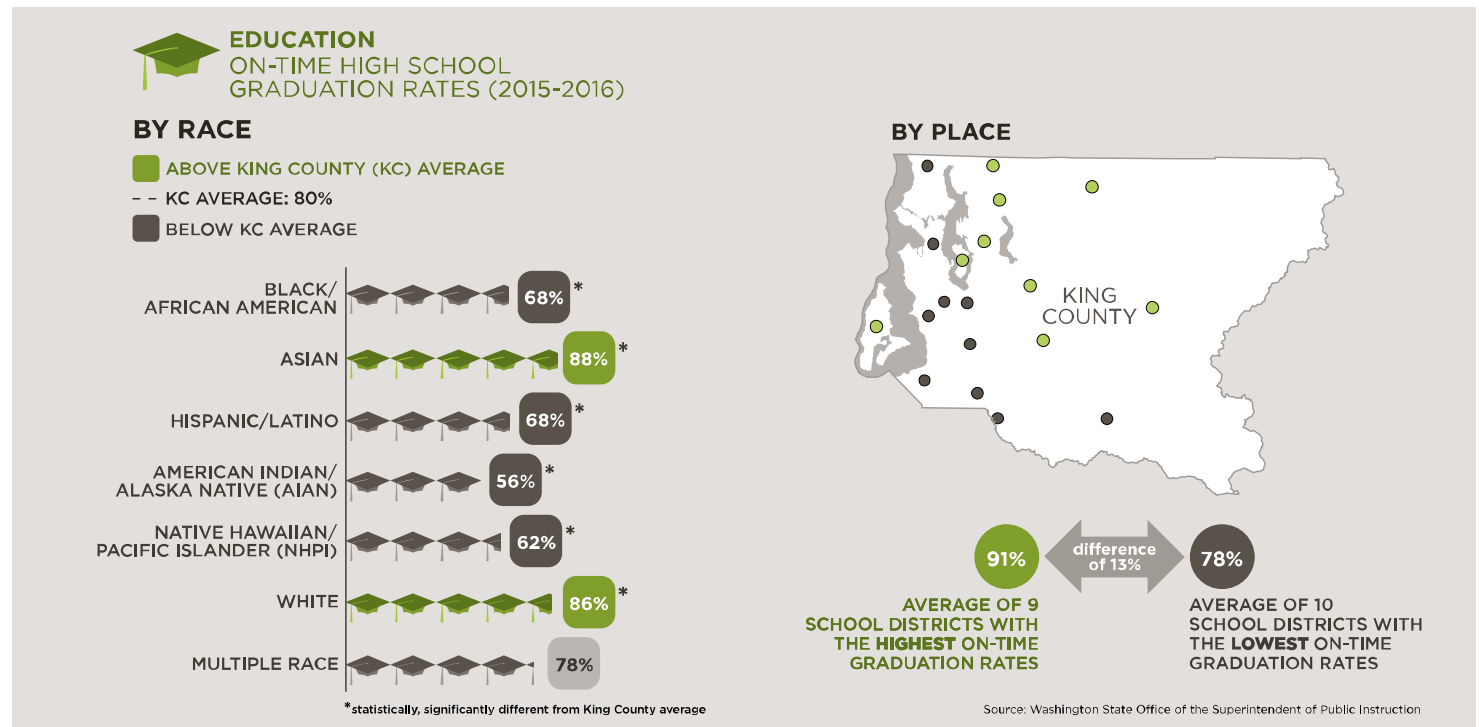
Description of Community

Continued

Educational Attainment

While nearly half of King County residents had at least a bachelor's degree in 2011-2015, this level of educational attainment was significantly lower in South Region at 27%. The proportion of adults with a bachelor's degree dropped to less than 1 in 4 among individuals living in poverty.

High school students in 6 South Region districts, and in Seattle, are the least likely to graduate on time compared to those in other districts. Apart from Asian and multiple-race students, fewer than 7 in 10 high school students of color graduate from high school on time. Racial and regional disparities in high school graduation rates reflect ongoing challenges with equity in education.

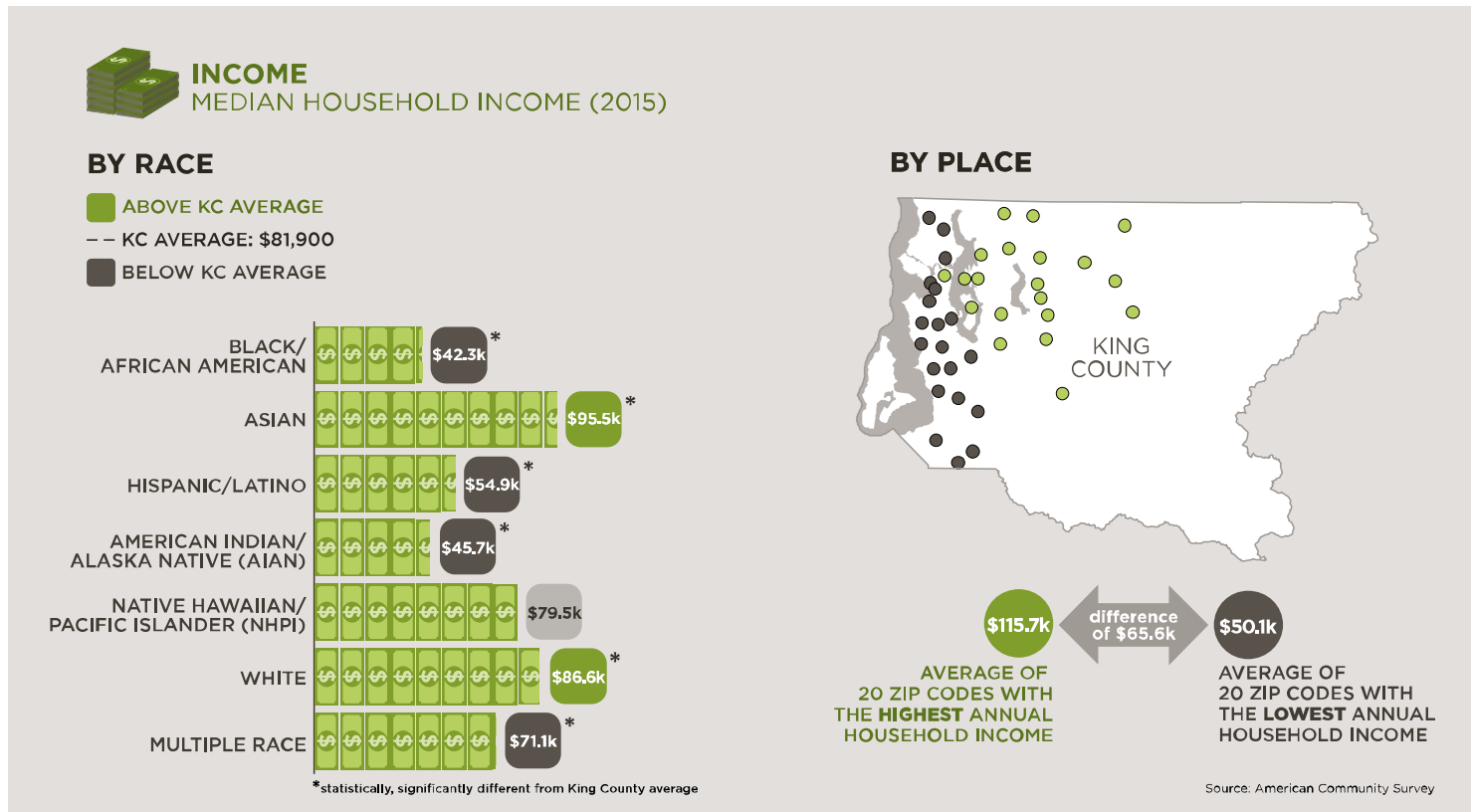


Description of Community

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Household Income

In 2015, Black households in King County reported annual household income less than half that of whites and Asians, and significantly lower than Hispanic and multiple-race households. At just under \$35,000 per year, household income among young adults ages 18 to 24 was less than half that of adults 25 to 64. Income among adults over 65 is also significantly lower than the county average, leaving residents in these two age groups vulnerable to rapidly increasing costs of living.

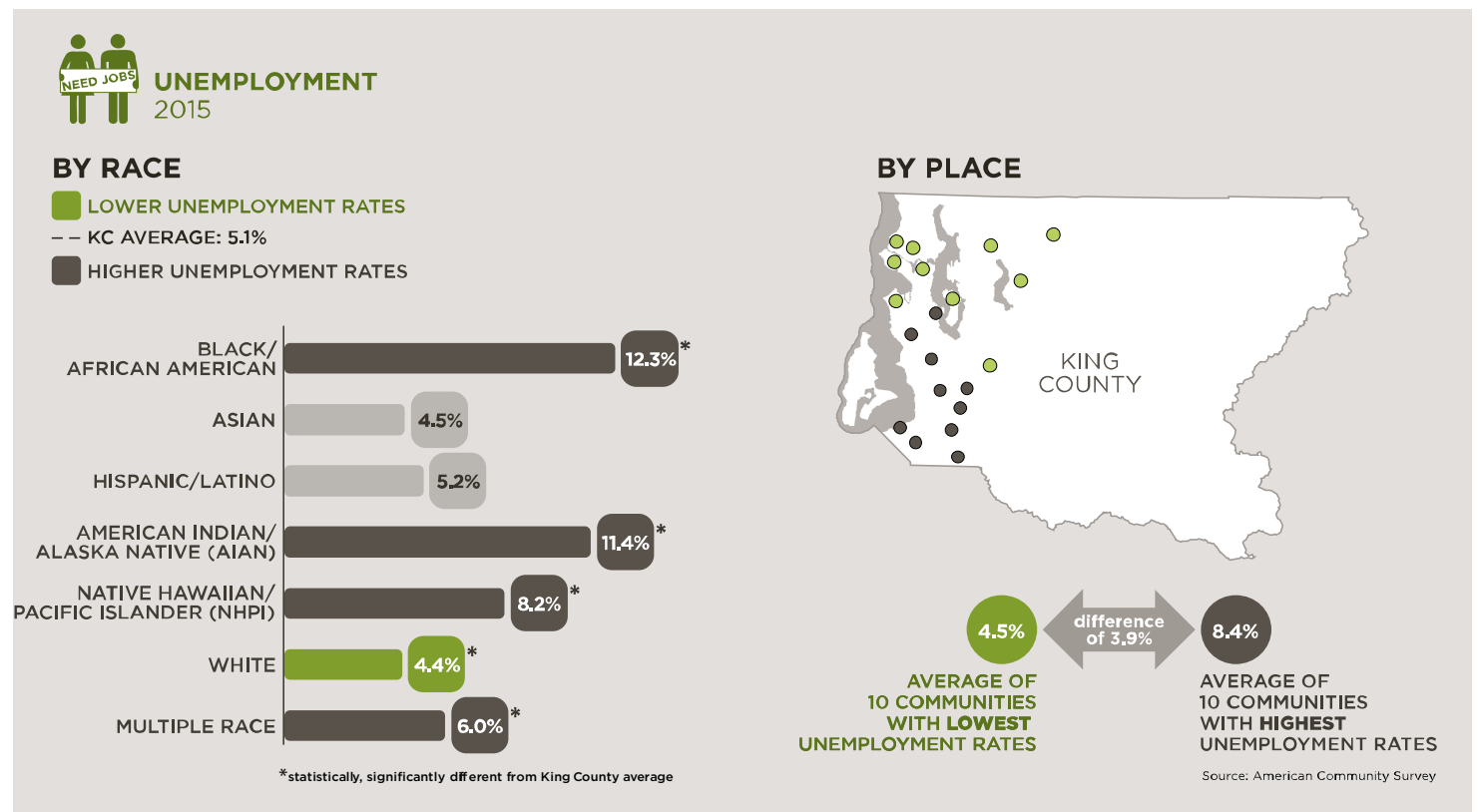


Description of Community

Continued

Unemployment

Data from 2015 show stark racial and geographic disparities in King County unemployment rates. The rate of unemployment among Black and American Indian/Alaska Native residents was more than 2.5 times the unemployment rates of white and Asian residents. South Region communities had some of the highest unemployment rates in the county. Two years later, the county unemployment rate had fallen to 3.9% (September, 2017),¹⁵ reflecting steady recovery from the economic recession.



Description of Community

Continued

Health Insurance Coverage

Health insurance coverage rates have improved across the board.

In 2013, 16.4% of King County adults did not have health insurance; in 2016 – after implementation of the Affordable Care Act – 6.7% lacked coverage. Since the first open-enrollment period for the Affordable Care Act in 2014, King County hospitals and health systems have played a key role in helping families access free and low-cost health insurance options. Initiatives such as the *Coverage is Here King County* campaign, and targeted activities of hospitals, health centers, and community-based organizations were key in getting residents enrolled. South Region cities such as Tukwila, SeaTac, Kent, Des Moines, and Auburn have experienced the largest increases in coverage. Reaching this historic low

rate of uninsurance, King County's success has been recognized as one of the best in the nation.¹⁶

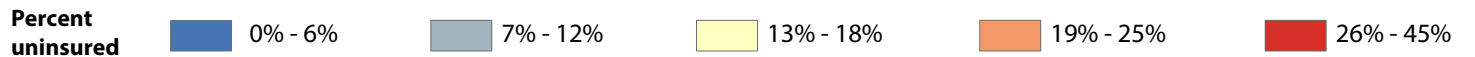
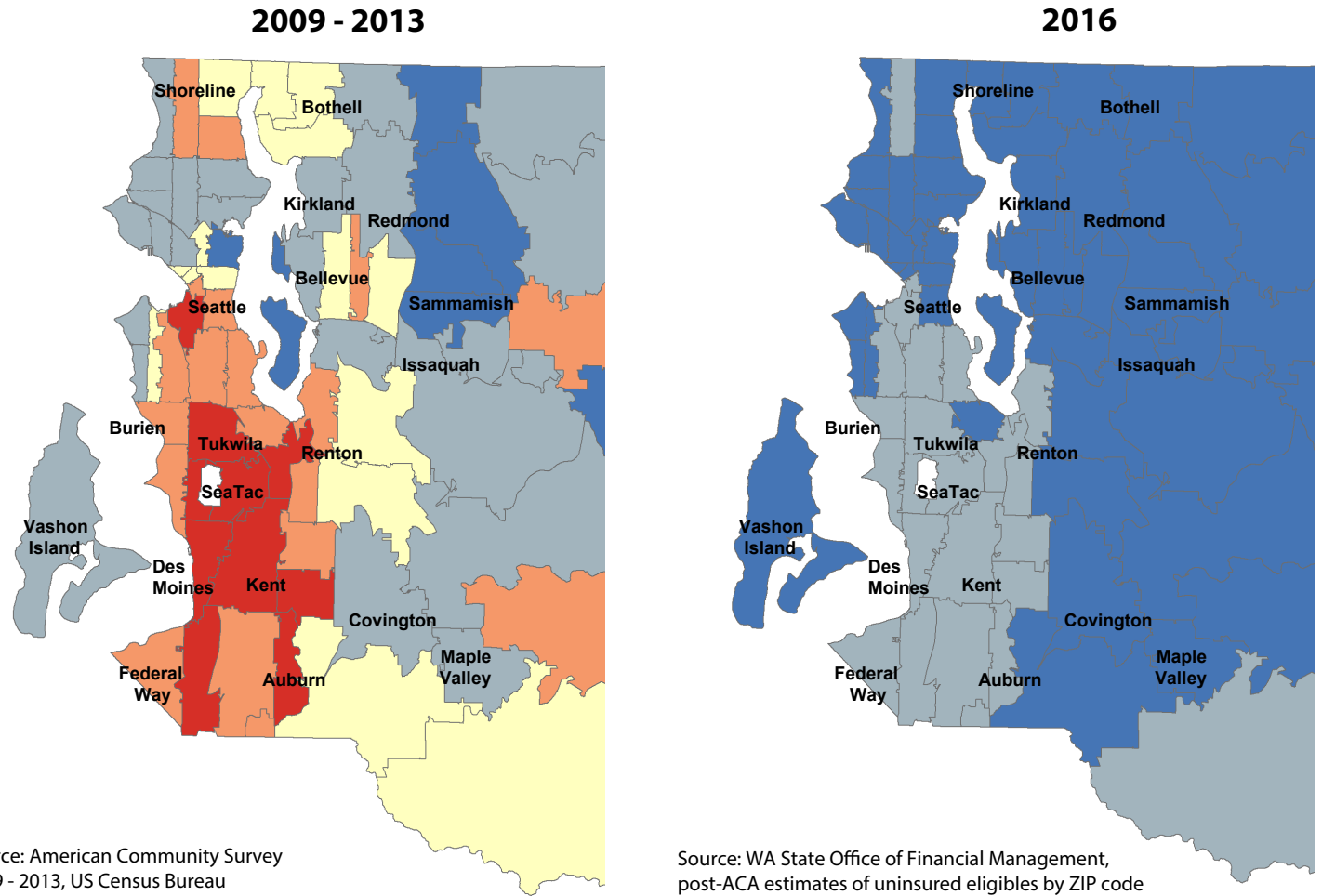
Despite improvements in insurance coverage since implementation of the Affordable Care Act, disparities persist. Those least likely to have health insurance include low-income adults, the unemployed, and most communities of color. Work remains to be done to increase access to insurance among the groups who are least likely to be insured. As healthcare reform remains at the forefront of national conversations, any future healthcare act will need to maintain and expand access to health insurance for all.

The Access to Care & Use of Preventive Services section of this report presents a more detailed description of disparities in insurance coverage.

Description of Community

Continued

Before and after the Affordable Care Act: Uninsured adults age 18-64 by ZIP code in King County, Washington



Description of Community

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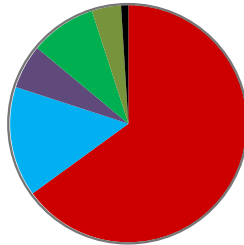
CHANGING DEMOGRAPHICS

The population of King County continues to experience dramatic growth and increasing diversity.

Since 2010, the county has grown by more than 173,000 residents, with most of the increase attributable to people of color. The population is now 38% people of color, nearly tripling in the past 35 years. Increases in the Asian population accounted for 34% of the population growth in King County from 2010 to 2016. Hispanic/Latino communities have also grown rapidly in King County, accounting for 23% of the increase since 2010.

King County, 2010

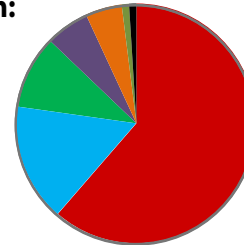
Population:
1,931,249



White/non-Hispanic	65%
Asian/non-Hispanic	15%
Hispanic/Latino	9%
Black/African American non-Hispanic	6%
Multiple race	4%
American Indian/Alaska Native/non-Hispanic	1%
Native Hawaiian/Pacific Islander/non-Hispanic	1%

King County, 2016

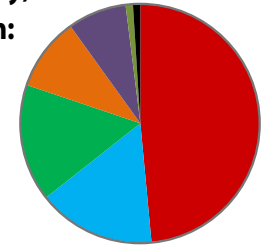
Population:
2,105,100



White/non-Hispanic	62%
Asian/non-Hispanic	16%
Hispanic/Latino	10%
Black/African American non-Hispanic	6%
Multiple race	5%
American Indian/Alaska Native/non-Hispanic	1%
Native Hawaiian/Pacific Islander/non-Hispanic	1%

Population under age 18, King County, 2016

Population:
441,454



White/non-Hispanic	49%
Asian/non-Hispanic	16%
Hispanic/Latino	16%
Multiple race	10%
Black/African American non-Hispanic	8%
American Indian/Alaska Native/non-Hispanic	1%
Native Hawaiian/Pacific Islander/non-Hispanic	1%

Data source: US Census Bureau, Census 2010, WA State Office of Financial Management 2016 Percentages may not add up to 100% due to rounding

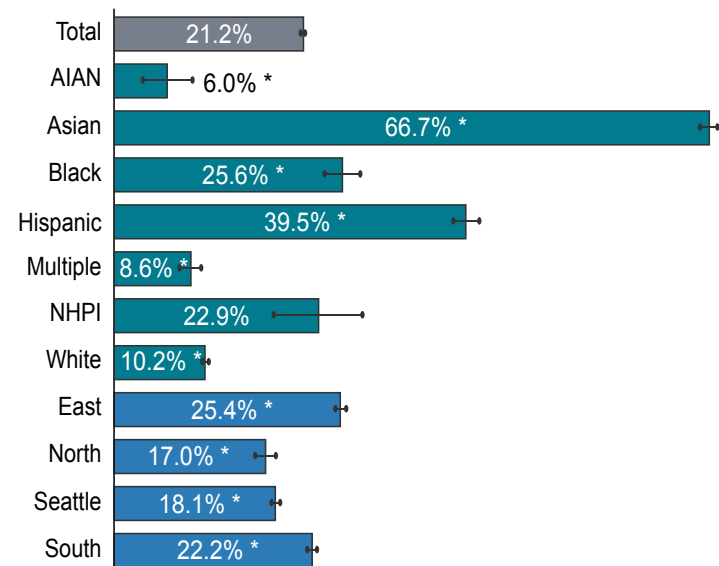
Description of Community

Continued

Immigration from multiple countries contributes to growing cultural and linguistic diversity in the county.

Foreign-born residents, including immigrants and refugees, account for almost half of the population growth in King County in the past 25 years. As of 2015, the population of King County was 21.7% foreign born, compared to 13.5% nationally. Of all race or ethnic groups in the county, the Asian community had the highest proportion of foreign-born residents. In 2015, the largest local population of foreign-born residents was in Bellevue, at 39.1%, more than double the 17.5% in Seattle.

Foreign-born residents King County (average: 2011-2015)



Source: American Community Survey Public Use Micro Sample (PUMS)

* = statistically, significantly different from King County average

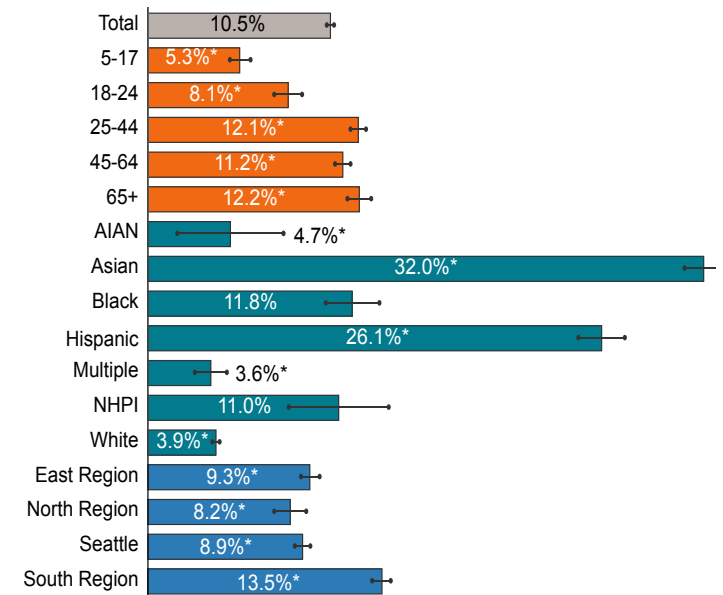
Description of Community

Continued

Approximately 170 languages are spoken in King County, and more than 1 of every 4 King County residents speaks a language other than English at home (versus speaking *only* English at home). Among these are Spanish (the most frequently spoken language), Chinese, Vietnamese, Tagalog, Korean, French, and African languages (most commonly Somali, Tigrinya and Amharic).¹⁷ While this linguistic diversity greatly enriches the broader community, 4 in 10 of our foreign-born residents report that they speak English less than “very well.” Language barriers can severely limit access to education, employment, and healthcare, making it difficult for immigrant families to maintain health and flourish in the community.

Percent age 5 and older who speak English less than “very well”

King County (average: 2011-2015)



Source: American Community Survey Public Use Micro Sample (PUMS)

* = statistically, significantly different from King County average

Description of Community

Continued

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Immigrants have been and continue to be a vital part of our county's health and prosperity,

contributing to our workforce, economy, and rich cultural heritage. Promoting and maintaining health in this growing population are necessary features of a robust community. The national political climate, influenced in part by changes in federal immigration policy, has led some immigrants to avoid seeking medical care.¹⁸ Fear of deportation and disruption of families among both lawful and undocumented immigrants contributes to stress, anxiety, and depression. Irrespective of social class, these challenges can contribute to negative health outcomes for large numbers of King County residents.

Our burgeoning racial and ethnic diversity is most visible among King County children, of whom 51.1% were non-white in 2016.

Children (from birth through 17 years) represent 21.0% of the King County population. Students in King County schools speak dozens of different languages;¹⁹ and the Tukwila School District has been dubbed “the most diverse school district in the nation.”²⁰ The county's fast-growing southern suburbs include several school districts that are “majority minority”—where children of color make up more than half of the student population.

King County's population of older adults will continue to grow as baby boomers age.

The population of adults 65 and older comprised 12% of the county's population in 2016, and is projected to reach 15% by the year 2020.²¹ From a longer-term perspective, the number of 65-and-older adults in the King County population is expected to more than double, from the 2010 Census count of 210,679 (11% of total population) to a projected 477,754 in 2040 (20% of total). In addition to these substantial increases in the number and proportion of older adults, the age distribution of King County's older adults is expected to flip, with the majority shifting from the 65-74 age group to those 75 and olderⁱⁱ. Since disability and many serious health conditions are associated with increasing age, and per-person healthcare costs for this age group are dramatically higher than for any other age group, this demographic trend will significantly impact demands on King County healthcare systems.

ⁱⁱ A group that comprised 46% of older adults in 2010 but will swell to 53% of the 65+ population – more than a quarter of a million individuals – in 2040.²¹

Description of Community

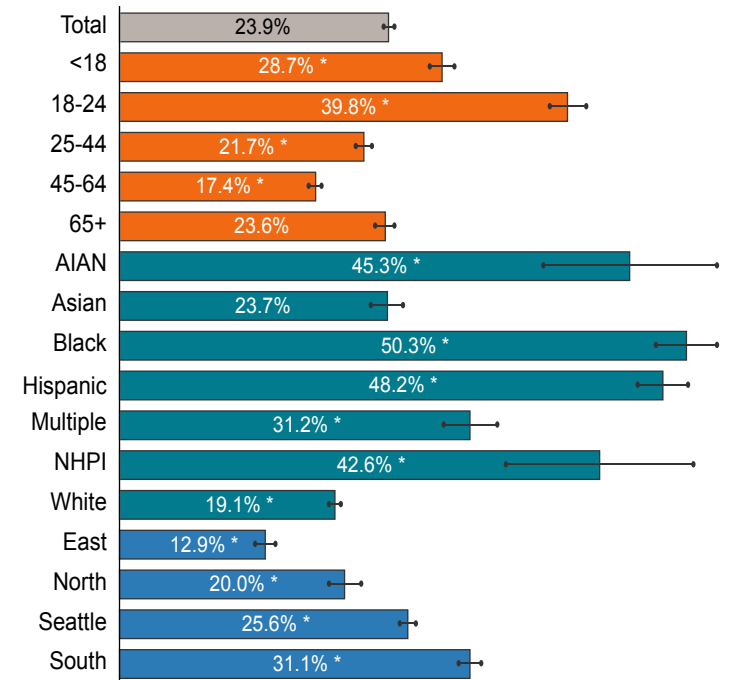
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PERSISTENT DISPARITIES RELATED TO POVERTY

Poverty continues to impact at least 1 of every 5 residents. After a period of increase between 2008 and 2013, the percentage of King County residents living in poverty has slowly declined. From 2011 to 2015, an average of more than 500,000 adults and children lived in or near poverty in King County (below 200% of the Federal Poverty Level); childhood poverty rates have remained fairly stable in recent years.

Urban economic development in the county's largest cities has shaped demographics across the county. The South Region is home to the majority of the county's low-income households, especially families with children. Not surprisingly, staggering racial and regional differences in poverty mirror disparities observed in most chronic disease indicators, disproportionately burdening communities of color and South Region families.

Poverty and near poverty King County (average: 2011-2015)



Source: American Community Survey Public Use Micro Sample (PUMS)

* = statistically, significantly different from King County average

Description of Community

Continued

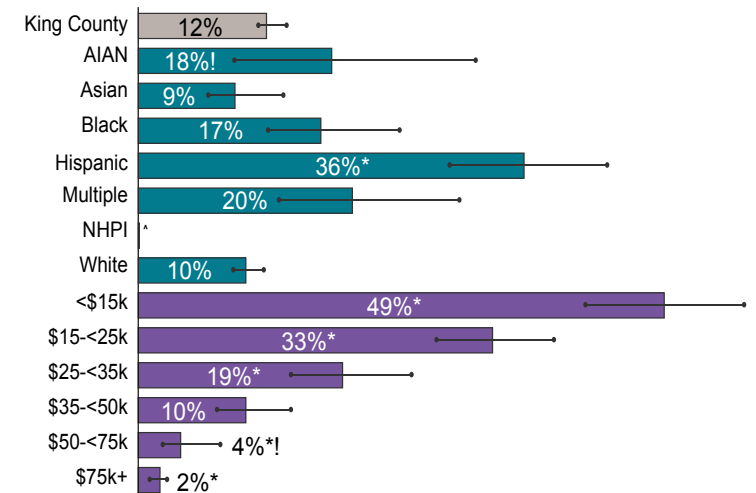
Uncertainty about Food

Residents living in poverty cannot always afford to feed their families. Food insecurity (the uncertainty of having enough money to adequately feed all family members)ⁱⁱⁱ is associated with obesity and stress, all of which are more prevalent among low-income populations and are risk factors for several chronic health conditions.²² Access to affordable healthy foods is essential for adult and child health. Averaging data from three survey years, more than 1 in 10 King County adults reported that within the past 12 months they ran out of food and didn't have money to buy more. South Region residents were more likely than those in other regions to report this kind of food hardship, which also affected 1 in 3 Hispanic households. By 2016, participation in the Basic Food program by King County residents still had not returned to pre-recession levels, and was increasing for older adults, especially in South Region cities.²³ A similar pattern was found for visits to King County food banks.²⁴

ⁱⁱⁱ United States Department of Agriculture, Economic Research Service. *Definitions of Food Security*. <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security/>. Updated October 4, 2017. Accessed November 1, 2017.

Food insecurity

King County (average: 2010, 2011, & 2013)



Source: Behavioral Risk Factor Surveillance System

* = Significantly different from King County average

! = Interpret with caution; sample size is small, so estimate is imprecise

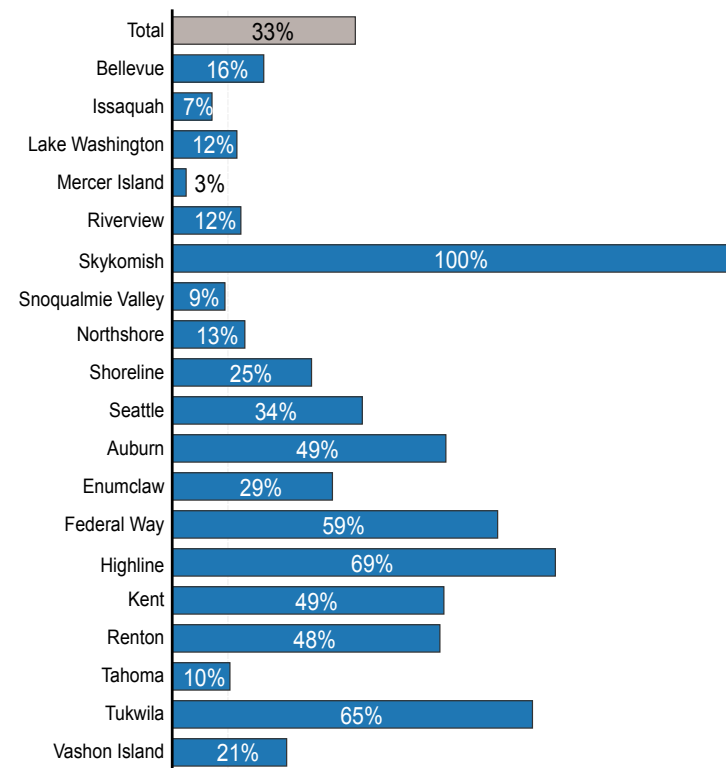
^ = Data suppressed if too few cases to protect confidentiality and/or report reliable rates

Description of Community

Continued

Eligibility for the Free or Reduced-Price Meal program – another marker for poverty and food insecurity – varied widely in the 2016-2017 school year – from 10% of students in the Tahoma School District to nearly 70% in Highline and Tukwila. With the exception of the small, rural district of Skykomish, all districts with 50% or more students in the Free or Reduced-Price Meal programs were located in South Region.

Students eligible for free/reduced price meal
King County (2016-2017 school year)



Source: Washington State Office of the Superintendent of Public Instruction

Unaffordable Housing

Escalating housing prices disproportionately burden older adults, communities of color, and people living in poverty. Lack of affordable housing contributes to a multidimensional cycle of poverty and displacement that drastically changes communities. With explosive growth of local businesses and the influx of new residents, rental and home prices continue to rise throughout the county. During 2011-2015, almost half of renters and over one third of owners with a mortgage in King County were paying at least 30% of their household income on housing, a level deemed unaffordable by the U.S. Department of Housing and Urban Development. The majority of those living at or near poverty are bearing this level of “housing cost burden” -- more than 8 in 10 renters and 9 out of 10 mortgage-paying home owners.

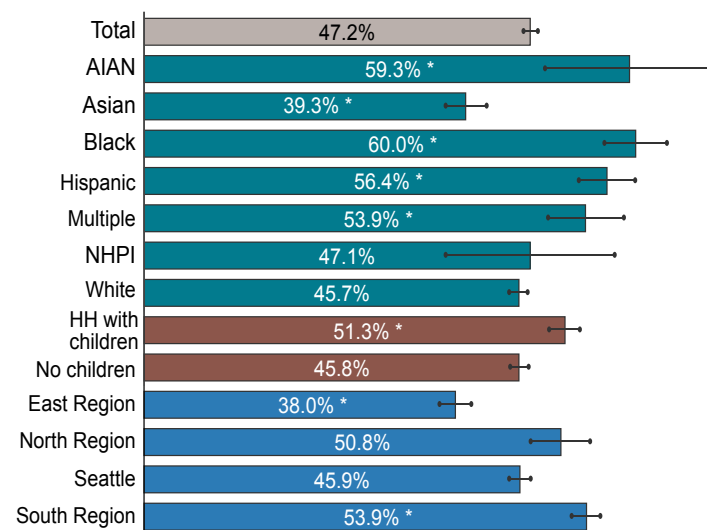
Over 64% of renters and 50.1% of mortgage-paying owners over the age of 65 experience cost burden associated with housing.

Female homeowners are significantly more likely than males to experience mortgage-related cost burden. The gender disparity is even wider among renters, where more than half of female renters (54.4%) experience housing cost burden compared to 40.5% of males.

Cost burden affects more than half of renters with children.

Cost-burdened renters

King County (average: 2011-2015)



Source: American Community Survey Public Use Micro Sample (PUMS)

* = statistically, significantly different from King County average

Renters and homeowners alike have turned to South Region to find affordable housing, but that comes at a price as well – the cost, in time and money, of traveling longer distances to work, usually in a car.

Light rail offers a convenient, affordable alternative to driving, but until recently served one South Region community -- Tukwila. Five years after light rail came to King County, use of public transit by Tukwila commuters more than doubled (from 7% to 16%); at the same time, the share of Tukwila residents who drove to work alone dropped from 73% to 65%. Commute modes did not change in South Region cities without light rail service. In Kent and Auburn, for example, 3 out of 4 commuters were still driving to work, and only 6% used public transit.²⁵

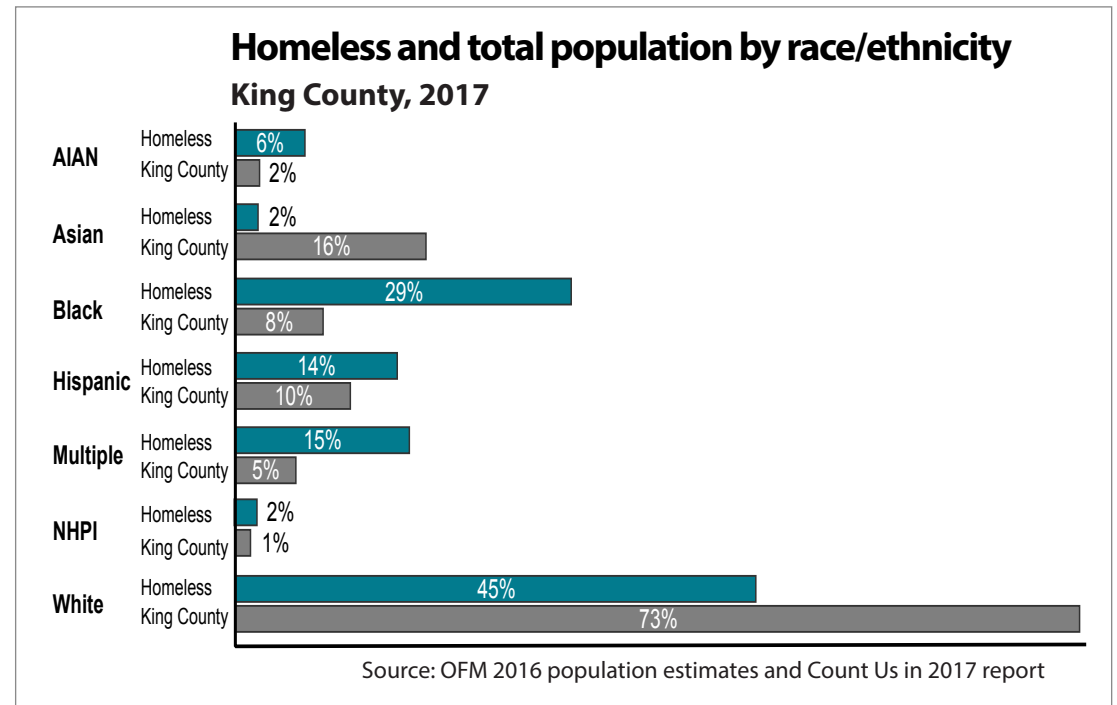
Increasing Homelessness

Homelessness in King County is a growing concern, affecting families, communities, and agencies in multiple regions.

The 2017 Point-In-Time Count identified 11,643 individuals, youth, and members of families experiencing homelessness in King County, with the majority in Seattle.²⁶ Nearly half of that count was unsheltered -- living on the streets, in abandoned buildings, in vehicles, or in tents. Unaccompanied youth and young adults under the age of 25 made up 13% of the individuals counted. Almost a quarter of the individuals identified were experiencing chronic homelessness,^{iv} compared to fewer than 10% in 2015 and 2016. Key findings from the report include:

- Issues with housing affordability were identified as primary contributors to homelessness for nearly 1 out of 4 respondents, and more than 70% called out affordable housing and rental assistance as crucial to ending their homelessness.
- 50% of homeless individuals had one or more disabling conditions.
- 17% of homeless individuals reported serious mental illness.
- 40% of homeless individuals reported a history of domestic violence or partner abuse; this was true of 58% of survey respondents who identified as lesbian, gay, bisexual, transgender, or queer (LGBTQ).

■ Homelessness disproportionately impacts people of color (55% of respondents identified as a person of color). Black individuals are overrepresented in the homeless population by more than 3-fold.



^{iv} Chronic homelessness is defined as sleeping in places not meant for human habitation or staying in emergency shelters for a year or longer, or experiencing at least four such episodes of homelessness in the last three years, and also living with a disabling condition such as a chronic health problem, psychiatric or emotional condition, or physical disability.²⁶

Description of Community

Continued

For families and children, residential instability can rupture social ties, hinder academic performance, and damage physical and emotional health.

Student homelessness may be our most sensitive indicator of family homelessness, as it captures a range of social challenges related to being without stable housing. In King County, student homelessness has more than doubled since 2008, reaching 8,411 (nearly 3% of enrolled students) in the 2015-16 school year.²⁷ In most school districts at least half of the homeless students were in elementary school or pre-kindergarten. Although student homelessness has increased county-wide, it varies considerably across school districts. The Tukwila District had the highest rate, at 1 in 9 students, compared to fewer than 1 in 100 in Mercer Island, Issaquah, Northshore, Tahoma, and Vashon Island school districts.²⁷ While the majority of homeless students were “doubled up” with friends or extended family, 3% were unsheltered.

Disparities in Out-of-Home Placements

At about 5 per 1,000, the rate of King County children in out-of-home placements has remained fairly stable over the past ten years.

As of January 2017, just over 1,400 King County children had been placed in care outside their immediate family (in residential centers, foster and adoptive homes, group homes and detention centers, and relative placements).²⁸ Although racial/ethnic disparities have narrowed over the past decade, rates of out-of-home care are still higher in many communities of color, hovering around 9 out of every 1,000 Black and Native Hawaiian/Pacific Islander children and 19 per 1,000 American Indian/Alaska Native children.

Youth and young adults with a history of child welfare involvement face a high risk of homelessness. Nearly 1 in 5 respondents in the 2017 Point In Time survey reported a history of foster care.²⁶ Rates of foster-care involvement were highest among LGBTQ respondents (33%) and unaccompanied young people under 25 years of age (29%). Less than 1% reported that they were living in foster care immediately prior to becoming homeless.

Disparities in Disability

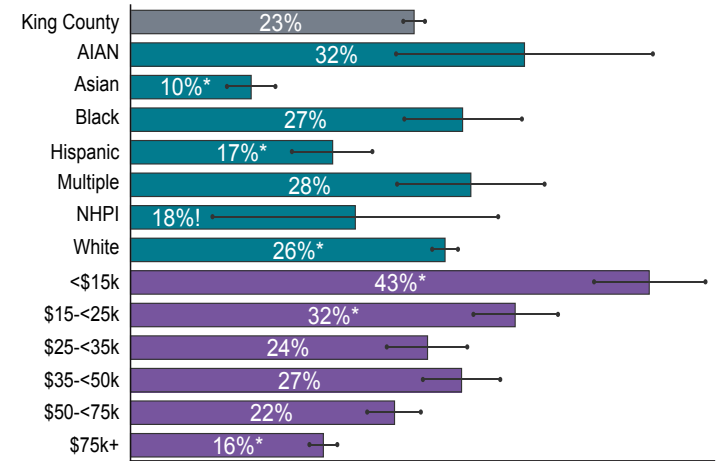
Nearly 1 in 4 King County adults reported having a physical, mental, or emotional impairment or condition that limits their function or ability to perform major activities of life. Disability rates in King County have remained relatively unchanged over the past 10 years, consistently impacting some communities more than others. Disability prevalence increases with age – from 13% for the youngest adults to 40% for those 65 and older. As previously mentioned, both the size and the expected life span of King County’s older adult population are increasing. At one quarter of the population, the health and social needs of residents affected by disabilities must be considered in all healthcare planning.

Disability rates in King County have remained relatively unchanged over the past 10 years, consistently impacting some communities more than others. Disability prevalence increases with age – from 13% for the youngest adults to 40% for those 65 and older. As previously mentioned, both the size and the expected life span of King County’s older adult population are increasing. At one quarter of the population, the health and social needs of residents affected by disabilities must be considered in all healthcare planning.

- At 26%, disability rates are highest in South Region, exceeding the overall rate of the county.
- Adults who identify as bisexual are significantly more likely to report disability than those who identify as heterosexual.
- Disability is lowest among Asian and Hispanic residents, compared to most other racial/ethnic groups.
- Lower income is associated with higher disability rates. Just as disability may limit employment opportunities and thus income, the limited and sometimes dangerous circumstances of poverty may increase risk for disability.

Disability (adult)

King County (average: 2011-2015)



Source: Behavioral Risk Factor Surveillance System

* = Significantly different from King County average

! = Interpret with caution; sample size is small, so estimate is imprecise

Description of Community

Continued

King County
Community Health
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RECURRING THEMES: INCOME, PLACE, AND RACE

Throughout King County, people of color and low-income residents are more likely to have poor health and social outcomes. While these outcomes cannot be attributed to any one factor, we know that economic development favors those who can take advantage of it, while marginalizing those at lower economic strata, increasing their health risks. Systemic racism – like exposure to toxins, social support, and a living wage – is a determinant of health. The impacts of racism can be deep and long-lasting, affecting health through structural and social processes that are not moderated by age, sex, birthplace, or education level,²⁹⁻³¹ and should not be confused with the idea of race. More than half of all Black and Hispanic King County residents live in South Region, where health outcomes are below the county average on almost every indicator. The effects of these inequities spread far beyond South Region, challenging the health and prosperity of all King County residents. The social and economic determinants of health – shaped by local distributions of money, power, and resources – cannot be ignored if we hope to improve healthcare and health outcomes.

Life Expectancy & Leading Causes of Death



Life expectancy and leading causes of death are broad foundational health measures often used to assess the health of the population and monitor progress in preventing disease and disability, as well as reducing health disparities.

Although life expectancy in King County is higher than it was in 1990, there have been no significant improvements since 2009. Similarly, age-adjusted death rates stopped their decades-long decline in 2010. This stalemate may result from two competing factors – a sharp decline in cardiovascular disease in many age groups countered by an increase in deaths from Alzheimer’s disease among those age 85 and older.

Hispanic and Asian residents in King County live an average of 11 years longer than Native Hawaiians/Pacific Islanders.

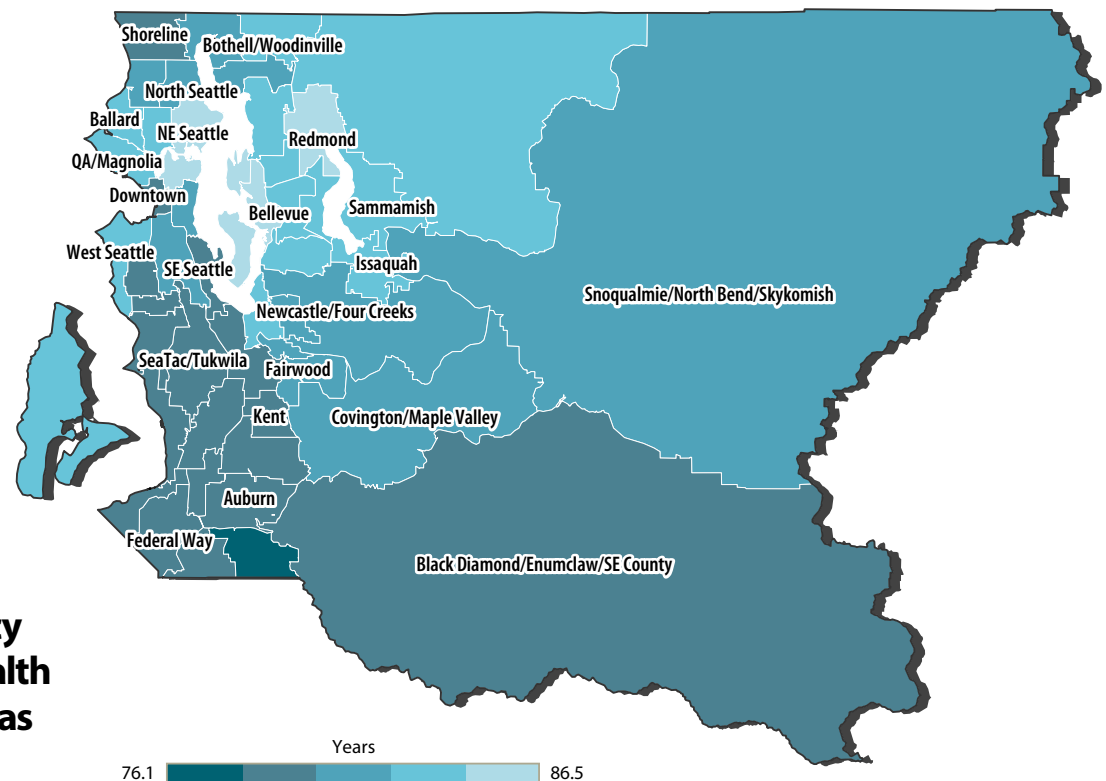
Life Expectancy & Leading Causes of Death

Continued

LIFE EXPECTANCY

This indicator shows life expectancy at birth – the number of years a newborn can expect to live. Life expectancy increased in King County from 79.5 in 2000, to 81.9 in 2010, but has plateaued since then (the 2015 life expectancy was 81.9 years). While King County’s life expectancy exceeds the national average, variations within the county reflect noteworthy differences in life expectancy by place and race/ethnicity. For 2011-2015, average life expectancy at birth was 81.8 years in King County.

- Residents of NE Seattle are expected to live an average of 10.4 years longer than those in South Auburn.
- Life expectancy is highest among Hispanic (86.3 years) and Asian (86.1 years) residents. Native Hawaiian/Pacific Islander (75 years) residents have the lowest life expectancy of all racial/ethnic groups in King County.
- Residents living in low-poverty neighborhoods live an average of 5 years longer than those in high-poverty areas.



Life expectancy at birth by Health Reporting Areas

King County, (average: 2011-2015)



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

Life Expectancy & Leading Causes of Death

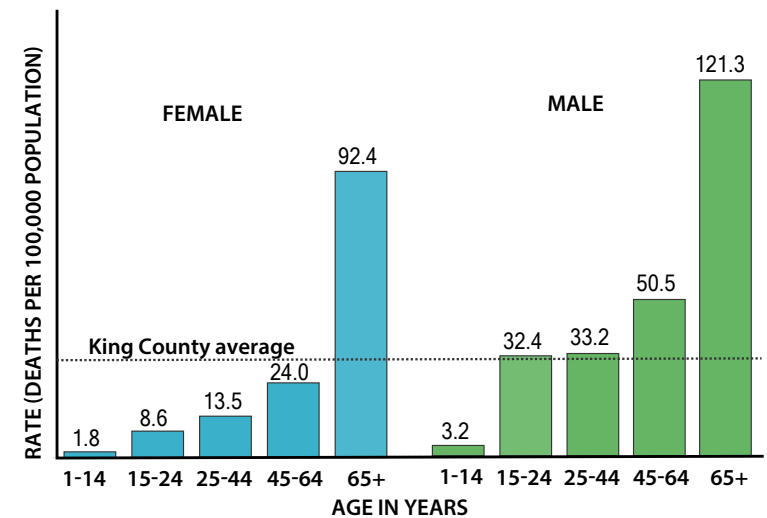
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LEADING CAUSES OF DEATH

- Despite reductions in the rate of death from cardiovascular disease (CVD), heart disease was still – with cancer – 1 of the top 2 leading causes of death in King County from 2011 to 2015. Leading causes of death varied by age. While cancer and heart disease were leading causes of deaths for adults over age 45, unintentional injuries and suicides were leading causes of death among children, teens, and young adults.
- With the exception of Alzheimer’s disease, the rank order of causes of death has been fairly stable over time. Alzheimer’s moved from #10 in the 1991-1995 period, to #4 in 2001-2005, and finally to #3 in 2011-2015. It is unclear whether the change in rank is due to additional attribution of deaths to Alzheimer’s versus other conditions or an actual increase in the condition.
- Averaged across the life span, men in King County die at 1.4 times the rate for women. Life expectancy for men (79.5 years) is significantly lower than for women (83.9 years).

- In the 15-24 age group (notoriously high for risk-taking among males), males die at a rate 2.7 times that of females. In the same age group, the average death rate from unintentional injury among males is nearly 4 times the rate among females.
- The male suicide rate is 2 to 3 times the female rate in each age group, starting as early as 15-24 years old and up to age 64.

Unintentional injury death rate by age King County (average: 2011-2015)



Data source: WA State Department of Health, Death Certificate Data

Life Expectancy & Leading Causes of Death

Continued

- Males are also more likely than females to be killed by someone else, with a homicide rate 2.3 times the female rate in 15-24 year-olds, and 3.6 among those age 25-44.

- Among leading causes of death, Alzheimer's disease is the only exception where women are more likely to die of the disease than men. Among adults older than 65, the female rate of death from Alzheimer's was 1.8 times the rate among males. Even among adults of all ages, females are 1.3 times more likely than males to die of Alzheimer's disease.

- Cancer was the leading cause of death among women between the ages of 25-44. It is the third leading cause of death among men of that age group, following unintentional injury and suicide.

- Heart disease death rates among men are 1.6 times those among women.

- The rate of heart disease among Native Hawaiians/Pacific Islanders (NHPI) is 3.3 times the rate among Asians, although the overall number of these deaths in NHPI (an average of 17 deaths per year) is small.

- The top three causes of death among Native Hawaiians/Pacific Islanders are related to obesity (heart disease, cancer, and diabetes) – this group has the 3rd highest obesity rates (28%) behind American Indians/Alaska Natives (AIAN) (44%) and Blacks (33%) – although the precision of estimates among the NHPI and AIAN groups is limited by small sample sizes.

- The rate of unintentional injury death for American Indians/Alaska Natives (n=14) is 1.9 times the rate for Blacks (n=46), 2.2 times the rate for whites (n=533), and 4 times the rate for Asians (n=44).

Life Expectancy & Leading Causes of Death

Continued

Leading causes of death, King County (average: 2011-2015) (ranked by the number of deaths)

Rank	Total	BY RACE/ETHNICITY						
		AIAN	Asian	Black	Hispanic	Multiple race	NHPI	White
All	All 619.5 (12,409)	All 857.7 (113)	All 436.1 (1,006)	All 796.6 (738)	All 432.0 (277)	All 341.3 (113)	All 963.4 (67)	All 634.1 (10,337)
1	Cancer 147.7 (2,941)	Cancer 140.1 (19)	Cancer 117.2 (288)	Cancer 191.3 (178)	Cancer 96.0 (61)	Cancer 84.1 (26)	Heart disease 270.0 (17)	Cancer 150.4 (2,410)
2	Heart disease 125.7 (2,534)	Heart disease 156.9 (18)	Heart disease 80.9 (180)	Heart disease 154.9 (134)	Heart disease 89.5 (43)	Heart disease 65.0 (16)	Cancer 217.6 (16)	Heart disease 129.6 (2,163)
3	Alzheimer's disease 41.5 (832)	Unintentional 72.8 (14)	Stroke 33.9 (75)	Unintentional injury 38.4 (46)	Unintentional injury 20.8 (27)	Unintentional injury 16.6 (12)	Diabetes 62.2 (4)	Alzheimer's disease 44.7 (762)
4	Unintentional injury 31.7 (654)	Chronic liver disease 44.8 (9)	Unintentional injury 17.7 (44)	Diabetes 50.3 (44)	Stroke 27.2 (14)	Suicide 7.1 (6)	Unintentional injury 21.7 (4)	Unintentional injury 33.8 (533)
5	Stroke 30.6 (605)	Chronic lower resp. disease 67.0 (7)	Alzheimer's disease 19.1 (38)	Stroke 41.6 (35)	Chronic liver disease 10.4 (11)	Chronic lower resp. disease 28.3 (6)	Stroke 73.1 (3)	Chronic lower resp. disease 31.9 (503)
6	Chronic lower resp. disease 29.8 (571)	Diabetes 31.7 (4)	Diabetes 16.6 (38)	Chronic lower resp. disease 27.0 (24)	Diabetes 18.2 (11)	Diabetes 12.2 (4)	Chronic lower resp. disease 62.7 (2)	Stroke 29.3 (484)
7	Diabetes 18.5 (370)	Stroke 42.8 (4)	Chronic lower resp. disease 12.8 (28)	Alzheimer's disease 35.5 (24)	Suicide 5.5 (10)	Alzheimer's disease 19.7 (3)	Septicemia 19.5 (2)	Diabetes 17.0 (275)
8	Suicide 12.2 (255)	Suicide 14.7 (3)	Suicide 6.6 (21)	Homicide 14.1 (19)	Alzheimer's disease 26.3 (8)	Stroke 12.0 (3)	Nephritis 28.7 (1)	Suicide 13.8 (213)
9	Chronic liver disease 9.5 (210)	Alzheimer's disease 31.2 (2)	Influenza/pneumonia 9.0 (19)	Essential hypertension 19.4 (16)	Homicide 3.2 (6)	Influenza/pneumonia 8.2 (2)	Suicide 6.6 (1)	Chronic liver disease 10.4 (179)
10	Influenza/pneumonia 9.0 (183)	Influenza/pneumonia 14.0 (2)	Parkinson's disease 8.1 (17)	Nephritis 15.9 (14)	Pneumonitis 12.4 (5)	Homicide 1.5 (2)	Influenza/pneumonia 11.9 (1)	Influenza/pneumonia 8.9 (150)

CAUSE CATEGORY:

- All causes ■ Chronic disease ■ Infectious disease
- Other ■ Injury/violence

Data source: WA State Department of Health, Death Certificate Data.

Note: For each cause, the first number shown is the 5-year average rate per 100,000 and the number in parentheses is the average annual count for that cause over the 5-year period. For leading causes by age, the rates are age-specific. All other rates are age-adjusted.

Chronic Illnesses



Chronic illnesses are among the leading causes of death, disability, and hospitalization in King County. They are common and costly, underscoring the need for targeted prevention and health-promotion strategies. This section focuses on two chronic illnesses – asthma and diabetes – for which the healthcare system plays a key role in prevention, screening, and treatment. We also review leading causes of hospitalization and leading causes of cancer incidence.

South Region adults were more likely to have diabetes than adults in all other regions, a disparity that has not changed since 2013.

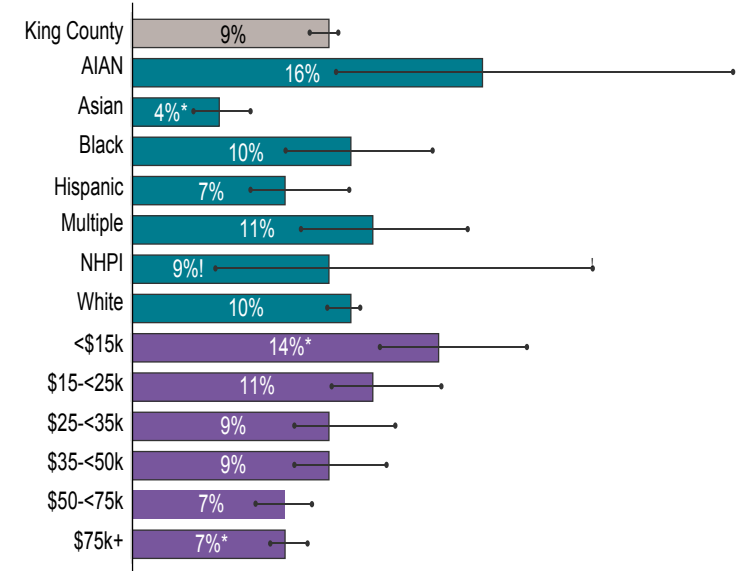
ASTHMA

Adult Asthma

From 2011 to 2015, 9% of King County adults reported i) they had been told by a health professional at some point in their life that they had asthma and ii) they still had asthma. Adult asthma rates reported in 2015 have not significantly changed throughout the county since 2000.

- Women were 1.6 times as likely as men to have asthma.
- Adults with annual household income below \$15,000 were 1.6 to 2.0 times as likely to have asthma as those with income above \$50,000, demonstrating a growing income disparity in asthma prevalence.

Asthma (adults)
King County (average: 2011-2015)



Source: Behavioral Risk Factor Surveillance System

* Significantly different from King County average

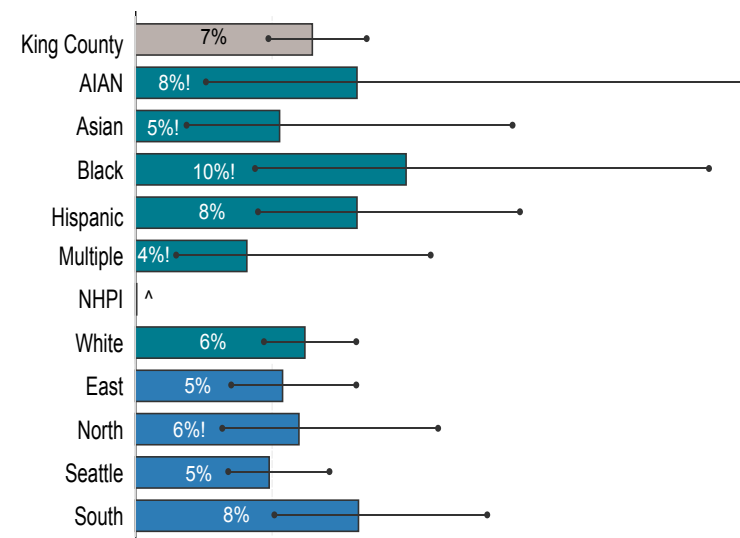
! Interpret with caution; sample size is small, so estimate is imprecise

Childhood Asthma

From 2011 to 2014, 7% of King County children age 0-17 had asthma.

- Since the last report (reporting asthma rates from 2009-2013), the distributions of childhood asthma by race and place have not changed significantly.
- Children age 10-14 had 2.8 times the asthma rate of children age 5-9.

Current asthma among children age 0-17 King County (average: 2011-2014)



Source: Behavioral Risk Factor Surveillance System

! Interpret with caution; sample size is small, so estimate is imprecise

^ Data suppressed if too few cases to protect confidentiality and/or report reliable rates

Chronic Illnesses

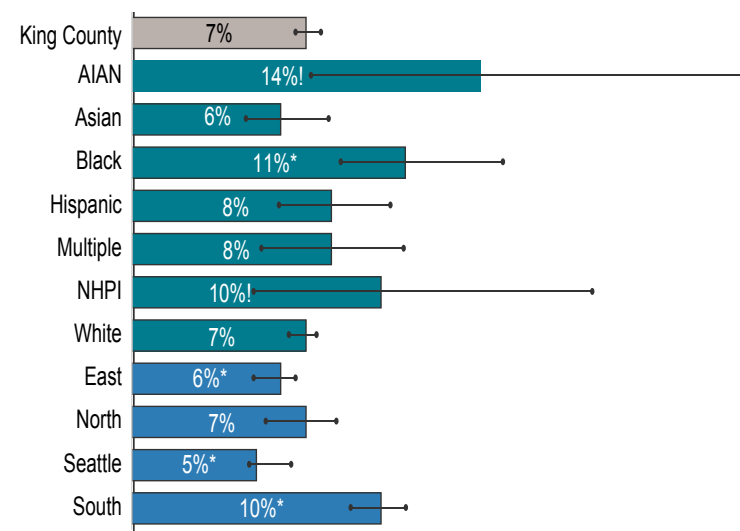
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DIABETES

From 2011 to 2015, 7% of King County adults reported having been told by a doctor that they had diabetes (excluding “pre-diabetes” and diagnoses during pregnancy), the same rate as from 2009 to 2013.

- Diabetes prevalence increases with age. Diabetes rates among adults over age 65 are 2.6 times the county average.
- Black adults were 1.8 times as likely as Asian adults to have diabetes.
- Adults with annual income greater than \$75,000 were less likely than those with lower incomes to have diabetes. South Region adults were more likely to have diabetes than adults in all other regions.

Diabetes (adults) King County (average: 2011-2015)



Source: Behavioral Risk Factor Surveillance System

* Significantly different from King County average

! Interpret with caution; sample size is small, so estimate is imprecise

LEADING CAUSES OF HOSPITALIZATION

Hospitalization data from 2011 to 2015 provide a valuable perspective on the public health impact of chronic diseases and injuries in King County.

- The leading causes of hospitalization among adults were pregnancy/childbirth-related, heart disease, injuries, and mental illness.
- The hospitalization rate for heart disease was 54% higher among men than women – unchanged since the 2008-2012 report period.
- For children ages 1 to 14, the leading causes of hospitalization were respiratory infections, injuries, and mental illness.
- Infants were most frequently hospitalized during birth and for respiratory infections and jaundice.

King County, (2011-2015) (ranked by the number of hospitalizations)

Rank	Total	Female	Male
All	All	All	All
All	8,324.7 (167,527)	9,334.9 (97,568)	7,421.5 (69,958)
1	Pregnancy/ childbirth-related 1,177.7 (25,117)	Pregnancy/ childbirth-related 2,403.4 (25,116)	Heart disease 754.7 (6,933)
2	Heart disease 611.2 (12,400)	Heart disease 489.0 (5,466)	Mental illness 524.2 (5,392)
3	Unintentional injuries 530.8 (10,711)	Unintentional injuries 489.9 (5,443)	Unintentional injuries 562.2 (5,268)
4	Mental illness 517.8 (10,699)	Mental illness 512.6 (5,307)	Septicemia 397.7 (3,631)
5	Cancer and benign tumors 372.4 (7,750)	Cancer and benign tumors 390.7 (4,202)	Cancer and benign tumors 361.4 (3,547)
6	Septicemia 356.5 (7,265)	Septicemia 325.8 (3,633)	Osteoarthritis 253.7 (2,538)
7	Osteoarthritis 290.8 (6,144)	Osteoarthritis 322.9 (3,605)	Lower GI disorders 246.3 (2,371)
8	Lower GI disorders 239.6 (4,881)	Urinary system disease 242.8 (2,683)	Urinary system disease 235.3 (2,074)
9	Urinary system disease 238.9 (4,757)	Lower GI disorders 233.0 (2,509)	Stroke 217.3 (1,925)
10	Stroke 196.6 (3,941)	Stroke 178.9 (2,016)	Respiratory infections 212.9 (1,862)

Cause category

- Total
- Birth/ pregnancy
- Injury/ violence
- Chronic Disease
- Infectious Disease
- Other

See next page for notes and data source

Notes: Leading causes of hospitalization

King County, 2011-2015

(ranked by the number of hospitalizations)

Note: Rate = Hospitalizations per 100,000 population, age-adjusted to the 2000 U.S. population.

The leading causes of hospitalization are ranked by the number of hospitalizations over the 5-year period (second number in parentheses).

Data Source: Washington State Department of Health, Center for Health Statistics, Hospital Discharge Data (CHARS) 1987-2015.

Pregnancy and childbirth-related includes normal childbirth as well as complications such as prolonged pregnancy and high blood pressure (e.g. preeclampsia, eclampsia).

Heart disease: Major sub-causes include congestive heart failure, cardiac dysrhythmias, acute myocardial infarction (i.e. heart attack), and coronary artery disease.

Unintentional injuries: Major sub-causes include falls, motor vehicle accidents, and poisoning.

Mental illness: Major sub-causes include bipolar disorder, depression, schizophrenia, and alcohol and substance-related disorders.

Cancer and benign tumors: Major sub-causes include uterine cancer, colorectal cancer, prostate cancer, lung cancer, and lymphatic cancer.

Septicemia, also known as sepsis, occurs when a bacterial infection enters the bloodstream and the body's response to the infection triggers widespread inflammation.

Osteoarthritis is a common and painful disease caused by degeneration of the protective cartilage in joints.

Lower gastrointestinal disorders: Major sub-causes include intestinal obstruction without hernia, appendicitis, and diverticulitis.

Urinary system diseases include bladder and urinary tract infections, kidney stones, kidney failure, incontinence, and interstitial cystitis.

Stroke occurs when blood flow to the brain stops, due either to blockage by a blood clot or the rupture and bleeding of a blood vessel.

Respiratory infections: Major sub-causes include pneumonia and acute bronchitis.

Cancer Incidence

Except in the first year of life, cancer and benign growths are among the top 5 causes of hospitalization. The incidence and types of cancer vary substantially by age, gender, race/ethnicity, and neighborhood poverty.

- Cancer rates are highest for those age 65 and older. Rank ordered by the number of new cases per year in this age group, the top three are cancers of the breast (females), prostate (males), and lung.

- Although the numbers are low due to low population size, Native Hawaiians/Pacific Islanders have strikingly high rates of breast, lung, colorectal, and uterine cancers. Black males have the highest rate of prostate cancer; American Indians/Alaska Natives have the highest rate of liver cancer; and whites have the highest rate of melanoma (skin) cancer.

- The incidence of lung and kidney cancers – both linked to cigarette smoking – increase with neighborhood poverty (and liver cancer makes the list of top-10 cancer sites only in high-poverty neighborhoods). Breast and prostate cancers show the opposite pattern, with higher rates in more prosperous neighborhoods, possibly reflecting the longer life expectancies associated with wealth.

Most common cancer types (new cases) King County (average: 2010-2014) (ranked by the number of cases)

Rank	Total	Male	Female
1	Breast (Female) 144.0 (1,553)	Prostate (Male) 121.7 (1,178)	Breast (Female) 144.0 (1,553)
2	Prostate (Male) 121.7 (1,178)	Lung 57.8 (488)	Lung 47.0 (489)
3	Lung 51.6 (977)	Colorectal 39.7 (370)	Colorectal 31.7 (339)
4	Colorectal 35.3 (709)	Skin Melanoma 34.3 (321)	Uterine (Female) 25.8 (289)
5	Skin Melanoma 28.2 (580)	Non-Hodgkin Lymphoma 27.2 (248)	Skin Melanoma 24.0 (259)
6	Non-Hodgkin Lymphoma 21.9 (438)	Oral/Pharynx 16.9 (170)	Thyroid 19.8 (209)
7	Uterine (Female) 25.8 (289)	Leukemia 19.0 (168)	Non-Hodgkin Lymphoma 17.4 (190)
8	Leukemia 14.9 (289)	Liver 15.1 (155)	Ovary (Female) 12.4 (136)
9	Kidney 13.9 (282)	Brain 8.3 (80)	Leukemia 11.6 (121)
10	Thyroid 13.3 (279)	Stomach 8.9 (78)	Oral/Pharynx 7.3 (80)

Note: Under each cancer site, the first number shown is the 5-year average age-adjusted rate per 100,000 and the number in the parentheses is the average annual count from that cause over the 5-year period. The table presents cancers at the invasive stages only. Cancers at the in situ stage are excluded.

Data Source: Washington State Cancer Registry

Access to Healthcare & Use of Preventive Services



King County
Community Health
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Access to health services is defined as “the timely use of personal health services to achieve the best health outcomes.”³² Access to comprehensive, high-quality healthcare facilitates prevention and early detection of disease. Health insurance coverage is a key component of entry to the healthcare system. In general, people without health insurance receive less medical care and have worse health outcomes. As such, disparities in insurance coverage perpetuate disparities in health and quality of life.

Following implementation of the Affordable Care Act (ACA), healthcare coverage increased dramatically – statewide and in King County. Beginning in October 2010, more young adults were allowed to remain on their parents’ health insurance plans. From 2010 to 2016, lack of health insurance dropped by more than 2/3 among young adults ages 18-24. With the initiation of the individual mandate in 2014, access to private insurance was expanded and more adults became eligible for Medicaid.

King County hospitals played an important role in helping families access health insurance, partnering with other organizations on the Coverage Is Here King County campaign to enroll community members in qualified health plans. As a member of the partnership, Public Health-Seattle & King County developed

After implementation of the Affordable Care Act, the percentage of King County residents without health insurance decreased by half.

a network of enrollment navigators who offered enrollment assistance at libraries, food banks, and other public places in communities with the highest rates of uninsured residents. These cooperative efforts paid off. After ACA implementation for additional age groups in 2014, lack of insurance among the unemployed dropped from 42.8% in 2013 to 18.8% in 2016 ; foreign-born naturalized citizens saw a 10.3% absolute decline in lack of coverage.³³

Access to Healthcare & Use of Preventive Services

Continued

UNINSURED ADULTS

Expansion of coverage through the ACA has reduced the rate of uninsured adults from 16.4% in 2013 (prior to the ACA individual mandate) to 6.7% in 2016. Despite widespread and collective outreach efforts, significant disparities persist.

■ Most communities of color remain disproportionately uninsured (American Indians/Alaska Natives, Blacks, and Hispanics/Latinos are all significantly less likely than whites to have coverage). For example, in 2016, Hispanic adults were 6.5 times as likely as non-Hispanic whites to be without coverage.

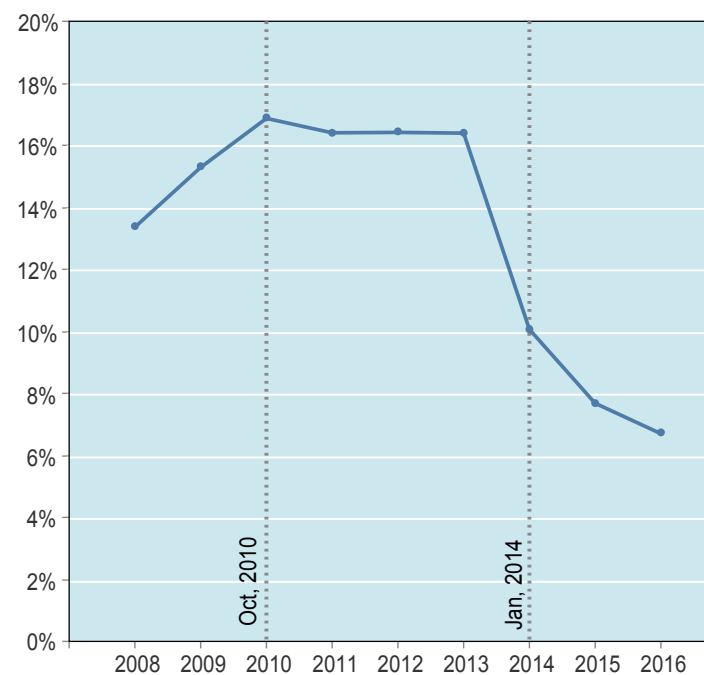
■ Although coverage improved considerably in South Region cities from 2013 to 2016, residents of these cities were still more likely than residents of other areas to be uninsured in 2016.

■ In 2016, low-income adults (household income below 200% of the Federal Poverty Level) were more than 7 times as likely as those in the highest income households to be uninsured.

■ Lack of insurance coverage decreased with age, from a high of 8.1% for 18- to 24-year olds to 4.9% for adults age 55-64.

It will be a few years before we can combine multiple years of “before-ACA” and “after-ACA” data to make stronger comparisons of geographic and racial disparities.

**Adults age 18-67 with no health insurance
King County (2008-2016)**



Source: American Community Survey

Access to Healthcare & Use of Preventive Services

Continued

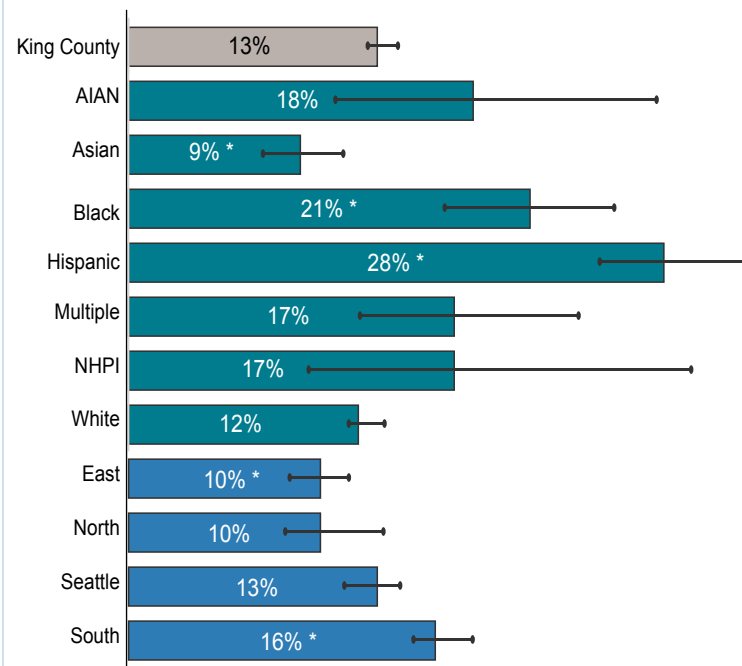
UNMET MEDICAL NEEDS

Uninsured adults are more likely to have unmet needs due to cost. Costs are a barrier to seeking needed medical care for 1 in 7 King County adults. Many adults and children in the county do not receive recommended clinical preventive services or regular oral healthcare services.

From 2011 to 2015, an average of 13% of King County adults reported they needed to see a doctor in the past 12 months but could not, due to cost. Unmet medical needs were significantly lower in 2015 (the year after implementation of the ACA, and the latest year for which data are available) than in 2013 (the year before ACA implementation). Disparities across the implementation period are shown in 5-year averages for 2011-2015.

- Adults age 25-44 were more likely (16%) than any other age group to report unmet healthcare needs. Only 4% of adults 65 and older reported unmet needs due to cost.
- Asian residents were the least likely of any racial/ethnic group to report having unmet medical needs. Black residents were twice as likely and Hispanics were 3 times more likely than Asians to report unmet medical needs.
- Adults with household income below \$15,000 were 8 times as likely as those earning more than \$75,000 to report unmet medical needs.

Unmet medical needs (adults) King County (average: 2011-2015)



Source: Behavioral Risk Factor Surveillance System

* Statistically, significantly different from King County average

Access to Healthcare & Use of Preventive Services

Continued

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INCOMPLETE VACCINES

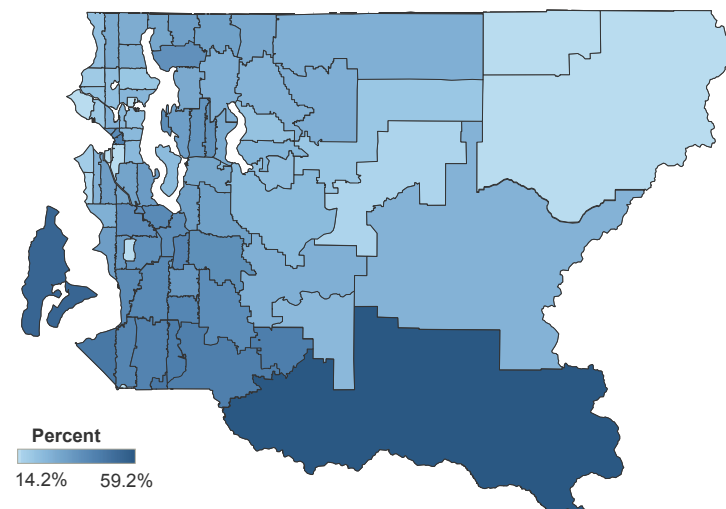
Despite improvements, King County still does not meet the Healthy People 2020 objective of reducing incomplete vaccination coverage to 20% of children age 19-35 months. Vaccination rate estimates are based on vaccination records submitted by healthcare providers to the Washington State Immunization Information System (WSIIS). According to the most recent WSIIS report, infant vaccination rates have improved in King County. Analysis of WSIIS data reported as of February 1, 2017 revealed the following:

- In 2014, 38% of King County children age 19-35 months had not completed the recommended set of immunizations for young children; by 2017, the percentage had dropped to 33%.
- Seattle leads King County regions in completion of vaccinations for young children with the county's lowest rate (27%) of incomplete vaccinations by 35 months. Vaccination rates in the North Region of the county have improved since 2014 (41% incomplete in 2014 compared to 31% in 2017).
- Incomplete vaccination rates are highest in low-income neighborhoods.
- In the 98022 zip code – covering parts of Enumclaw and neighboring areas to the East – 59% of children 19-35 months old have not received the complete series of childhood vaccines. This is the highest rate in King County. At 55%, Vashon Island also has one of the county's highest incomplete vaccination rates.

Incomplete vaccination coverage, age 19-35 months,

King County (2017)

King County overall (2017): 33.4%



Data suppressed if too few cases to protect confidentiality and/or report reliable rates, suppressed areas will appear gray in map.

Source: WA State Immunization Information System (Child Profile Health Promotion & Immunization Registry System) PHSKC, APDE; 08/2017

4:3:1:3:3:1:4 series is defined as 4 or more doses of diphtheria, tetanus, acellular pertussis (DTaP) vaccine; 3 or more doses of polio vaccine; 1 measles vaccine; 3 or more doses of Haemophilus influenzae type b (Hib) vaccine; 3 or more doses of hepatitis B (Hep B) vaccine; 1 or more doses of varicella vaccine; and 4 or more doses of pneumococcal conjugate vaccine (PCV).

WSIIS estimates of vaccination coverage may underestimate true coverage due to i) incomplete submission of vaccine records, and ii) retention of vaccine records of children after they have moved to another area. Children may not receive vaccines for a variety of reasons, including i) barriers to accessing clinical preventive services, and ii) family choices to not have children vaccinated.

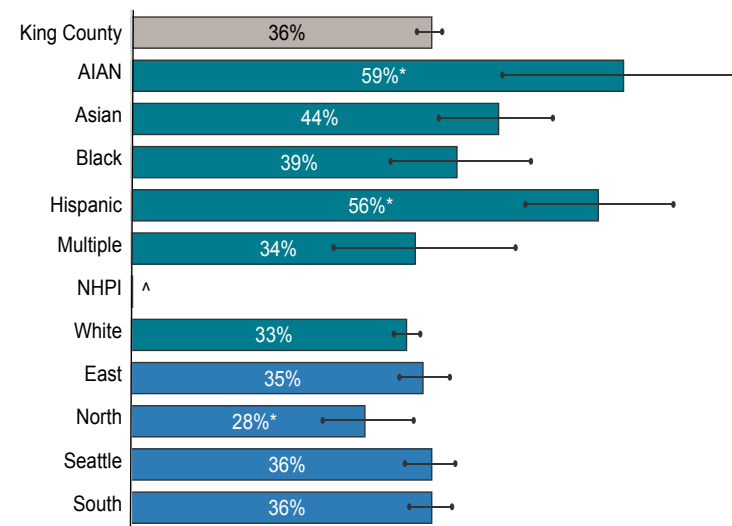
COLORECTAL CANCER SCREENING

From 2011 to 2015, more than 1 in 3 King County adults age 50-75 failed to meet colorectal cancer screening guidelines.

- More than half of adults with a household income below \$15,000 failed to meet screening guidelines
- Adults with household income of \$75,000 or more were significantly more likely to meet screening guidelines than those with household incomes below \$50,000.
- Of all cities and neighborhoods, SeaTac/Tukwila and North East Bellevue shared the highest rate – 47% -- of adults who had not met screening guidelines. At 18%, Bothell/Woodinville had the lowest rate.

Did not meet colorectal cancer screening guidelines (age 50-75)

King County (average: 2011-2015)



Source: Behavioral Risk Factor Surveillance System

* Significantly different from King County average

^ Data suppressed if too few cases to protect confidentiality and/or report reliable rates

Access to Healthcare & Use of Preventive Services

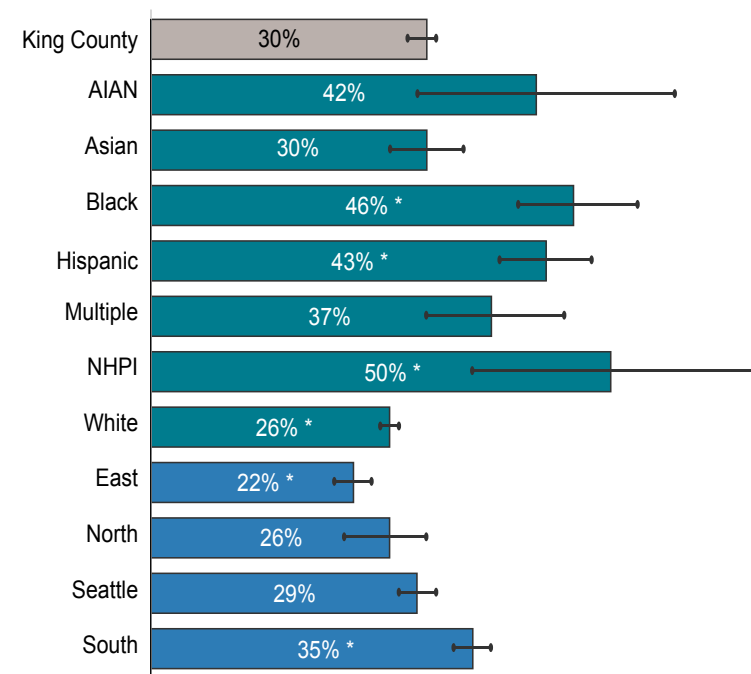
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ADULT DENTAL VISITS

From 2011 to 2015, an average 30% of King County adults reported they did not visit a dentist or dental clinic in the past year. This rate has not changed significantly since 2009.

- More than half of adults with household income below \$25,000 had not visited a dentist in the past year, reflecting no change in income disparities for dental care since the 2008-2012 reporting period.
- Whites were significantly more likely than all other racial/ethnic groups, with the exception of Asians, to have had a dental visit in the previous year.
- Regional comparisons show that adults in South Region were most likely (35%) to report that they had not seen a dentist in the previous year. The percentage of adults without consistent dental care has risen over the past 10 years in South Region, while remaining relatively flat in other King County regions.

No dental checkup in past year (adults) King County (average: 2011-2015)



Source: Behavioral Risk Factor Surveillance System

* Statistically, significantly different from King County average

CHILDHOOD DENTAL CARIES

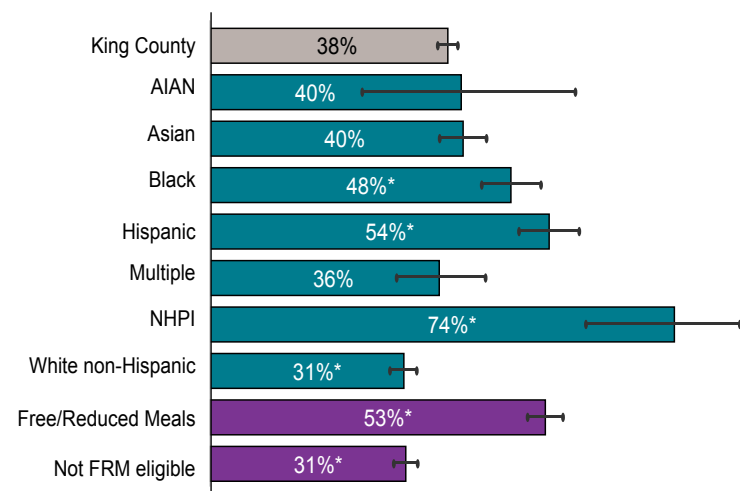
The presence of dental caries (cavities) is a marker of dental health and access to care among children. Childhood experiences with caries – treated or untreated – have not changed much in recent years. In 2015, 38% of children in King County had caries – about the same as the 40% reported in 2010. Among a sample of preschoolers, kindergarteners, and 2nd and 3rd graders, rates were highest for children in grades 2 and 3. Noteworthy disparities in childhood caries warrant targeted outreach related to dental health.

- At a rate 2.4 times that of white children, Native Hawaiian/Pacific Islander children were significantly more likely to have had caries than children in other racial/ethnic groups. Asian, Black, Hispanic, and multiple-race children were also more likely than white children to have had caries.

- More than half of children who are eligible for free/reduced lunch have had caries.

- At 33%, students from English-speaking households were significantly less likely to have had caries than those from households where the primary language was Spanish (54%) or another non-English language (47%).

**Childhood cavities
King County (2015)**



Source: Smile Survey 2015

* Differs significantly from King County average

Mental Health



Mental illness is a broad term that covers a range of conditions affecting emotion, thinking, and behavior.

Common mental health conditions are depression, anxiety, and substance use disorders. Like other health conditions, mental illness is treatable. In general, a mentally healthy person functions well at home, work, and school, and is able to cope with the challenges of daily living. People experiencing “adult serious psychological distress” or “youth with depressive feelings” (the two mental health indicators below) may benefit from consultation with a mental health professional.

Since 2004, youth rates of depressive feelings have increased in King County overall and in South Region.

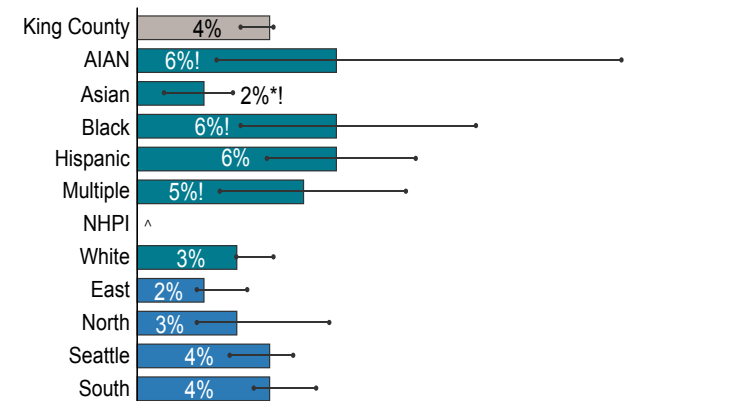
ADULT SERIOUS PSYCHOLOGICAL DISTRESS

From 2011 to 2015, 4% of adults in King County experienced “serious psychological distress” (determined by responses to survey questions about the frequency, over the past 30 days, of feeling nervous, hopeless, restless, worthless, that everything was an effort, and so depressed that nothing could cheer them up). Rates of this indicator have not significantly changed throughout the county since 2009.

- At 15%, the rate for adults with household income below \$15,000 was almost 4 times the county average and 15 times the rate for adults with household income at or above \$75,000. Income did not just differentiate those at the extremes of the distribution. Adults with income below \$25,000 were 3.5 to 7 times more likely than those making \$35,000 or more to experience serious psychological distress.

- Adults who identified as lesbian, gay, or bisexual (LGB) were more than twice as likely as heterosexual adults to report serious psychological distress. This was true for both males and females. While stable throughout the county overall, the rate of this indicator among LGB adults has increased significantly since 2009.

Serious psychological distress (adults) King County (average: 2011-2015)



Source: Behavioral Risk Factor Surveillance System

* Significantly different from King County average

! Interpret with caution; sample size is small, so estimate is imprecise

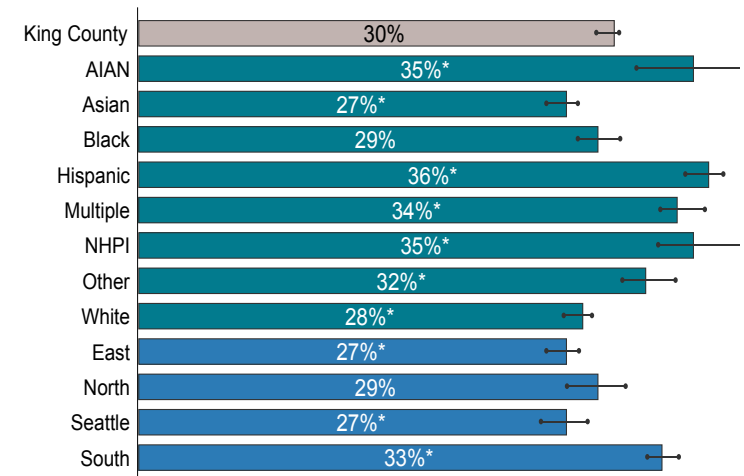
^ Data are suppressed if too few cases to protect confidentiality and/or report reliable rates

YOUTH WITH DEPRESSIVE FEELINGS

Averaging data from 2014 and 2016, close to 1 in 3 (30%) of King County 8th, 10th, and 12th grade students experienced depressive feelings. Students were considered to have had depressive feelings if they reported that, almost every day for 2 or more consecutive weeks during the past year, they had felt so sad or hopeless that they stopped doing some of their usual activities.

- Female students were 1.7 times as likely as males to report depressive feelings.
- Hispanic, Native Hawaiian/Pacific Islander, American Indian/Alaska Native, and multiple-race youth were more likely than Asian, Black, and white youth to report depressive feelings.
- Youth in South Region were more likely than those in Seattle, East, and North regions to experience depressive feelings.
- From 2004 to 2016, youth rates of depressive feelings increased in King County overall and in South Region. Rates also increased for white and multiple-race students, but declined for Asian students.

Youth with depressive feelings (school - age) King County (average: 2014 & 2016)



Source: Healthy Youth Survey

* Significantly different from King County average

Alcohol, Tobacco, Marijuana, & Other Drugs



King County
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While cigarette smoking is the leading preventable cause of death in the United States, excessive use of alcohol is also linked to health risks and premature death. Because tobacco use and alcohol abuse pose significant risks to public health, monitoring these indicators is an ongoing priority in King County.

Youth substance use is a particularly pressing public health concern. The brain is still developing through the early to mid-20s, and regular use of marijuana by youth has been associated with risks for addiction and negative effects on school performance.^v Driving while under the influence of marijuana and alcohol is especially concerning, given the impact of these substances on the skill necessary for safe driving. Washington state law prohibits giving or selling tobacco to minors under the age of 18, and prohibits selling or giving alcohol or marijuana to minors younger than 21. Given recent changes in state policy decriminalizing recreational marijuana use among adults, monitoring its use and impact on youth is a public health priority.

The opioid epidemic has garnered national headlines as a public health emergency. Preventing opioid addiction, improving access to treatment, and reducing fatal overdoses are areas of targeted action in King County.

^vCenters for Disease Control and Prevention (CDC). *What Parents Need to Know About Marijuana Use and Teens*. 2017. <https://www.cdc.gov/marijuana/pdf/Marijuana-Teens-508.pdf>. Accessed Oct. 20, 2017.

Across all King County regions, youth cigarette smoking has decreased by half since 2004.

Alcohol, Tobacco, Marijuana, & Other Drugs

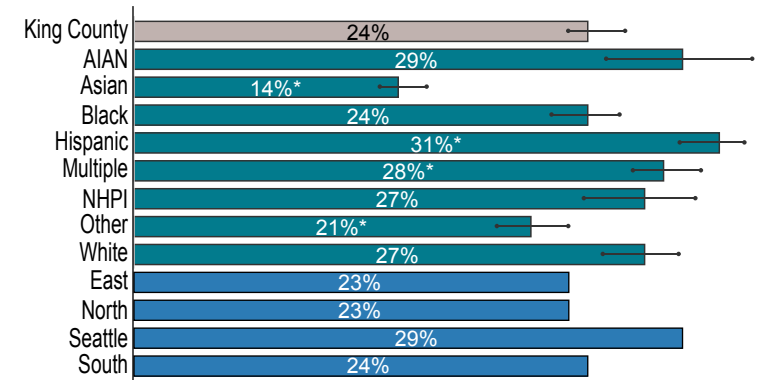
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YOUTH SUBSTANCE USE

Tobacco, alcohol, and marijuana are all potentially addictive, as are many prescription drugs. Laws are in place to help protect youth during the years when their brains are most susceptible to addiction. This substance use indicator reports on 8th, 10th, and 12th graders' use of alcohol, marijuana, painkillers (to get high), or any illicit drug (other than alcohol, tobacco, and marijuana) in the past 30 days.

- Averaging data from 2014 and 2016, 24% of King County youth attending public schools in the 8th, 10th and 12th grades reported using alcohol, marijuana, painkillers, or any illicit drug in the past 30 days.
- Nearly 4 out of 10 students in 12th grade engaged in alcohol, marijuana, painkillers, or any illicit drug use in the past 30 days.
- There was no gender difference in substance use.
- Lesbian, gay, and bisexual students were 1.5 times more likely than heterosexual students to report substance use.
- The substance use rate for 12th-grade youth was 4.3 times that of the 8th graders and 1.6 times the county average for students of all grades.
- From 2004 to 2016, youth substance use rates declined for the county overall.

Alcohol, marijuana, painkiller, or any illicit drug use (school-age) King County (average: 2014 & 2016)



Source: Healthy Youth Survey

* Significantly different from King County average

Alcohol, Tobacco, Marijuana, & Other Drugs

Continued

TOBACCO USE

According to the Centers for Disease Control and Prevention, “cigarette smoking harms nearly every organ of the body, causes many diseases, and reduces the health of smokers in general.” One of the most encouraging findings in this report is that smoking rates continue to go down for both adults and youth.

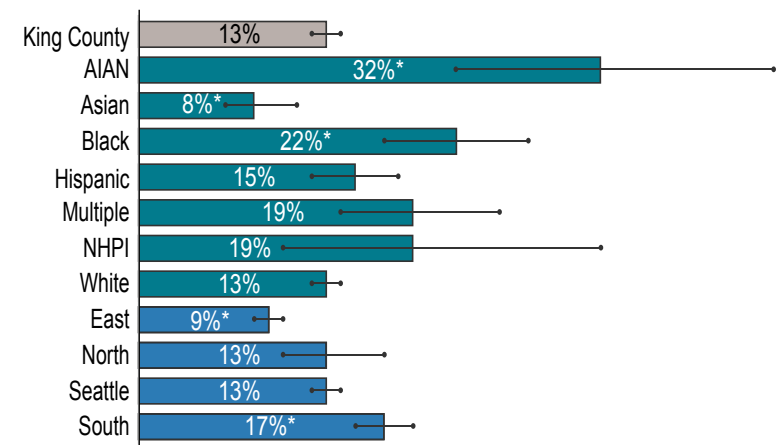
Adult Smoking

Due in part to policy changes and associated cultural shifts, adult cigarette smoking has declined dramatically since the year 2000. From 2011 to 2015, 13% of King County adults reported that they currently smoked cigarettes every day or on some days.

- Adults with household income less than \$15,000 were 4 times more likely than those with income at or above \$75,000 to be current smokers.
- Males were 1.3 times more likely than females to smoke cigarettes.
- Lesbian, gay, and bisexual adults were almost twice as likely as heterosexual adults to be current smokers.
- Approximately 3 out of 10 American Indian/Alaska Native residents were cigarette smokers.
- Adults in South Region were almost twice as likely as those in East Region to be current smokers.

- From 2000 to 2015, adult smoking rates declined by 43% for the county overall and for all regions except South Region, where the rate declined between 2000 and 2006 and leveled out between 2006 and 2015. Still, the adult smoking rate in South Region declined by 38% over the 15-year period.

Cigarette smoking (adults)
King County (average: 2011-2015)



Source: Behavioral Risk Factor Surveillance System

* Significantly different from King County average

Alcohol, Tobacco, Marijuana, & Other Drugs

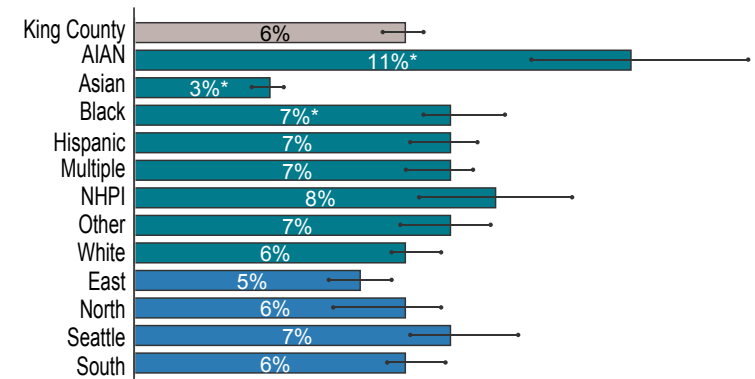
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Youth Smoking

School-age students were considered cigarette smokers if they had smoked in the last month. This indicator did not include use of other tobacco products. Averaging data from 2014 and 2016, 6% of King County youth attending public schools in the 8th, 10th and 12th grades were current cigarette smokers.

- Among 12th graders, 1 in 10 were smokers, more than 3 times the rate for 8th graders.
- Although smoking did not differ by gender, lesbian, gay, and bisexual youth were more than 3 times as likely as heterosexual youth to smoke cigarettes.
- American Indian/Alaska Native students were almost 4 times more likely than Asian students to be cigarette smokers.
- From 2004 to 2016, rates of youth cigarette smoking fell by about half – for King County overall, all 4 of the county’s regions, and all racial/ethnic groups.

Cigarette smoking (school-age) King County (average: 2014 & 2016)



Source: Healthy Youth Survey

* Significantly different from King County average

Alcohol, Tobacco, Marijuana, & Other Drugs

Continued

OPIOID AND OTHER DRUG-RELATED DEATHS

The overall number of drug overdose deaths in King County has increased in recent years. The number of overdose deaths was 332 in 2016, compared to 244 in 2010. Prescription opioid deaths have decreased but heroin- and methamphetamine-involved deaths have increased.

- There were 107 prescription opioid-involved deaths in 2016, compared to 138 in 2010.
- Heroin-involved deaths have more than doubled – from 51 to 118 – between 2010 and 2016.
- Methamphetamine-involved deaths in King County have increased dramatically in recent years, from 15 deaths in 2010 to 98 deaths in 2016.

INJECTION DRUG USE

Public Health-Seattle & King County (PHSKC) conducts a biannual survey of needle-exchange clients to monitor demographics, health, and behavior trends among people who inject drugs. In June 2017, PHSKC needle-exchange staff surveyed 427 needle-exchange clients. Among these respondents:

- The primary drug of choice was heroin or other opiates (64% of respondents), followed by methamphetamine (17%), or methamphetamine and heroin combined (10%).
- 20% of respondents had experienced a non-fatal overdose in the past 12 months.
- 62% reported owning a naloxone opioid overdose reversal kit in the past 12 months, an increase from 47% in 2015. In 2017, 30% of all respondents reported using naloxone to reverse an overdose.
- While 78% were interested in reducing or stopping opioid use and 62% were interested in stopping or reducing stimulant use, only 28% were currently in treatment for substance use disorder.

Pregnancy & Birth



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A healthy community is one that ensures that all children thrive and reach their full potential. A mother's mental, physical, emotional, and socioeconomic well-being – before, during, and after pregnancy – can affect outcomes in infancy, childhood, and adulthood. Improving the health of mothers, infants, and children is a global public health concern and a priority in King County. Successful pregnancies and births are markers of overall community health. While King County has made progress in decreasing rates of poor birth outcomes, disparities persist, particularly among Black and American Indian/Alaska Native populations.

Infants born to Black or American Indian/Alaska Native mothers were more than twice as likely as those born to Asian or white mothers to die before their first birthday.

EARLY AND ADEQUATE PRENATAL CARE

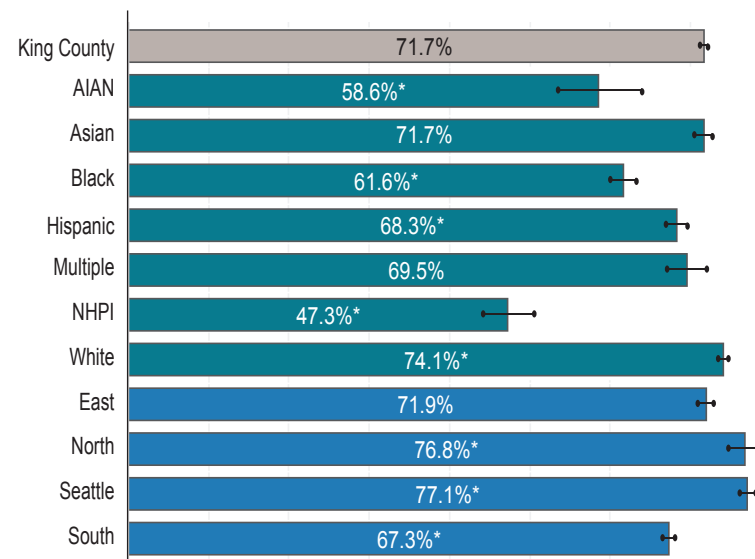
Starting prenatal care early in pregnancy and continuing with regular visits improves the chances of a healthy pregnancy and birth. This indicator measures births for which i) prenatal care started before the end of the 4th month and ii) 80% or more of the recommended number of visits occurred.

From 2011 to 2015, more than 7 out of 10 expectant mothers (71.7%) received early and adequate prenatal care, a slight increase from the 2008-2012 average (69.7%) reported previously. King County has not yet achieved the Healthy People 2020 objective that at least 77.6% of pregnant women receive early and adequate prenatal care.

- The chances of receiving early and adequate prenatal care increased with age, from a low of 55.2% among mothers younger than 18 to 77.2% for mothers age 40 and older.
- American Indian/Alaska Native, Black, Hispanic, and Native Hawaiian/Pacific Islander mothers were less likely than Asian and white mothers to receive early and adequate prenatal care. These disparities have not changed since the previous report.

- The probability of mothers receiving early and adequate prenatal care was lowest in high-poverty neighborhoods and highest in the most prosperous neighborhoods.
- Since 2000, early and adequate care has increased in Seattle and decreased in East Region. After a 7-year decline, South Region has rebounded to its 2000 level.

**Early and adequate prenatal care
King County (average: 2011-2015)**



Source: Birth certificate data, Washington State Department of Health, Center for Health Statistics

* Significantly different from King County average

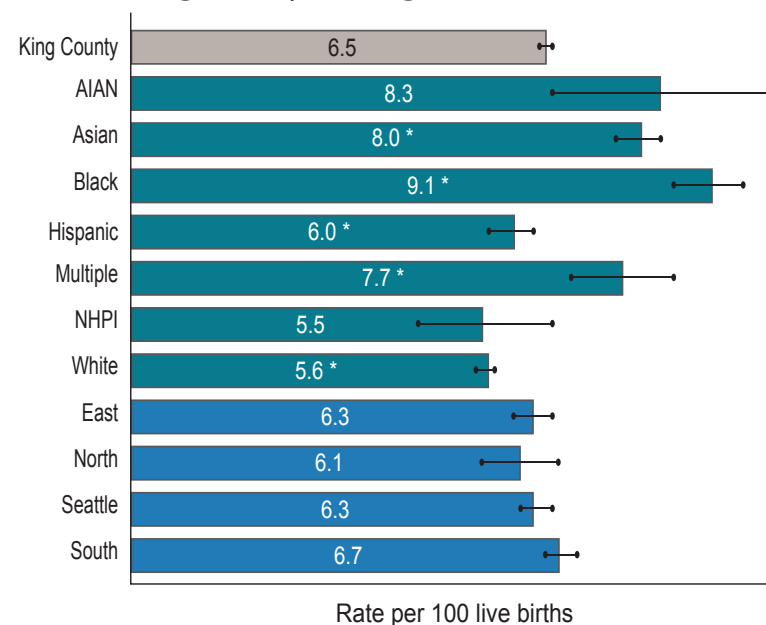
LOW BIRTH WEIGHT

Any infant born weighing less than 2500 grams (about 5.5 pounds) is considered low birth weight. Low birth weight infants are at higher risk of infant mortality, respiratory disorders, and neurodevelopmental disabilities.

From 2011 to 2015, 6.5% of infants born in King County were low birth weight – unchanged since the previous report.

- Although King County meets the Healthy People 2020 objective of 7.8% or fewer infants born at low weight, 1,646 low birth weight babies were born in King County in 2015.
- Infants born to Black mothers were more likely to be low birth weight than infants born to mothers of all other racial/ethnic groups (except American Indians/Alaska Natives).
- After increasing in the early 2000s, rates of low birth weight in King County plateaued from 2006 to 2015. Although patterns vary somewhat across King County regions, in no region has the rate of low birth weight infants consistently declined.

Low birth weight (all births) King County (average: 2011-2015)



Source: Birth certificate data, Washington State Department of Health, Center for Health Statistics

* Significantly different from King County average

INFANT MORTALITY

The infant mortality rate is the number of babies who die before their first birthday per 1,000 live births in a given year. More than half of infant deaths are associated with labor and delivery-related conditions, birth defects, and prematurity. Because many of these deaths are preventable, infant mortality is a measure of the overall health of a population.

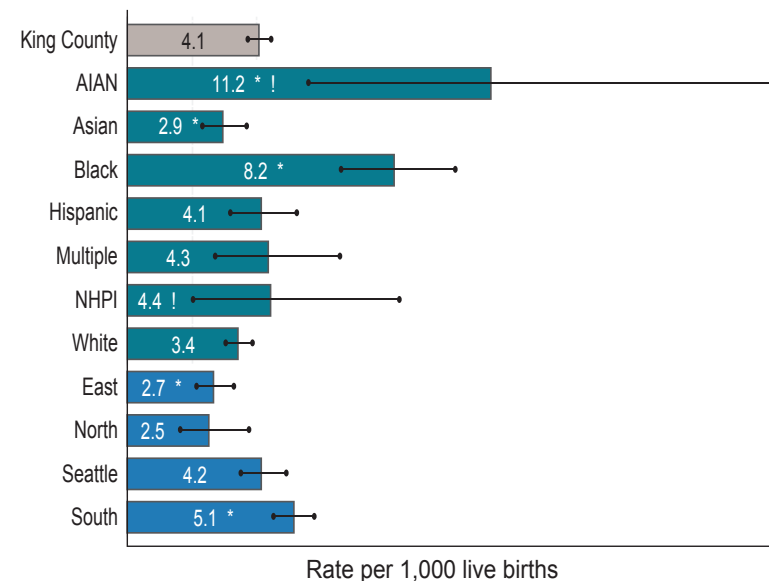
From 2011 to 2015, King County's average infant mortality rate was 4.1 deaths per 1,000 live births – representing no change since the last report. Infant mortality in King County has declined since 2000.

- Infants born to Black or American Indian/Alaska Native mothers were more than 2.5 times as likely as those born to Asian or white mothers to die before their first birthday. In a change from the last report, babies born to multiple-race mothers were no more likely than those born to white mothers to die in infancy.

- The infant mortality rate in low-poverty neighborhoods was just 60% of the rate in high-poverty neighborhoods. An increasing proportion of King County's high-poverty neighborhoods are in South Region, where the infant mortality rate exceeds the rates for East and North Regions.

- Infants born to mothers age 24 and younger are more likely than those born to older mothers to die in their first year.

Infant mortality
King County (average: 2011-2015)



Source: Linked birth-death certificate data, Washington State Department of Health, Center for Health Statistics

* Significantly different from King County average

! Interpret with caution; sample size is small, so estimate is imprecise

Physical Activity, Nutrition, & Weight



Physical inactivity, unhealthy diet, and obesity – all have been identified as risk factors for heart disease, cancer, and stroke, which are leading causes of death in King County. Physical inactivity, unhealthy diet, and obesity can also increase the risk of developing type 2 diabetes – the leading cause of blindness and kidney failure in the United States. Each of these risk factors is an appropriate target for prevention-focused interventions. As with many leading causes of death and disability, disparities by race/ethnicity, economic status, and geographic location are common and in some instances are increasing.

Fewer than 1 in 4 students in 8th, 10th, and 12th grades get the recommended 60 or more minutes of daily physical activity.

Physical Activity, Nutrition, & Weight

Continued

PHYSICAL ACTIVITY: YOUTH AND ADULTS

Regular physical activity helps control weight, strengthen bones and muscles, and boosts mental health and academic performance. It also reduces the risks of many chronic illnesses and, for older adults, improves their ability to conduct daily activities and helps prevent falls.

Youth Physical Activity

In 2014 and 2016, fewer than 1 in 4 students in 8th, 10th, and 12th grades got the recommended 60 or more minutes of daily physical activity. The Healthy People 2020 goal is 31.6% of adolescents meeting physical activity requirements.

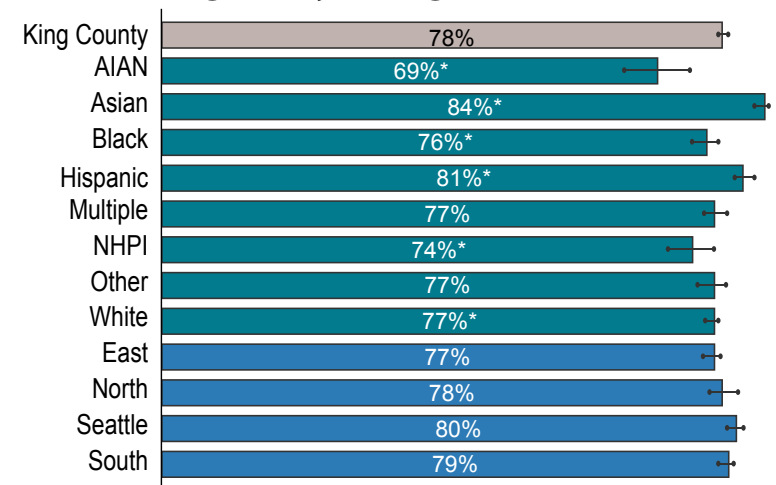
■ As grade level increased, student participation in physical activity declined; by 12th grade, only 18% of students met recommendations.

■ At all grade levels, female students were significantly less likely than male students to meet physical activity recommendations; by 12th grade, only 12% of female students met recommendations.

■ Since 2006, the proportions of students meeting physical activity recommendations have increased for the county, in all 4 regions, and for all racial/ethnic groups. But the rate of improvement is slow, and there is still a long way to go to reach suggested standards.

Physical activity recommendation not met (school-age)

King County (average: 2014 & 2016)



Source: Healthy Youth Survey

* Significantly different from King County average

Physical Activity, Nutrition, & Weight

Continued

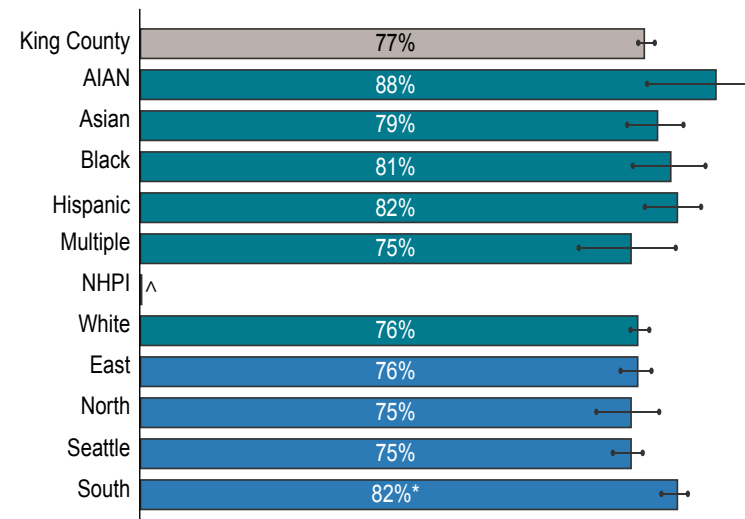
Adult Physical Activity

As with youth, fewer than 1 in 4 King County adults met federal physical activity recommendations (between 2011 and 2015), defined as muscle-strengthening exercises on 2 or more days per week and either 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity aerobic activity per week.

- This rate has been consistent, without significant improvement since 2009.
- There were no significant differences by race/ethnicity – in no group did more than 25% of adults meet physical activity recommendations.

Physical activity recommendation not met (adults)

King County (average: 2011-2015)



Source: Behavioral Risk Factor Surveillance System

* Significantly different from King County average

^ Data is suppressed if too few cases to protect confidentiality and/or report reliable rates

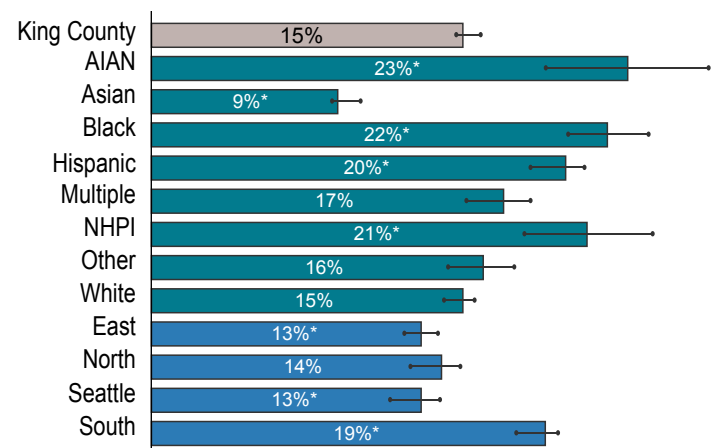
SUGAR-SWEETENED BEVERAGE CONSUMPTION: YOUTH

Drinking sugar-sweetened beverages is associated with weight gain, dental cavities, and several chronic illnesses. In 2014 and 2016, an average of 15% of King County students in 8th, 10th, and 12th grades consumed sodas or sugar-sweetened beverages daily. This appears to continue a steady decline from 2004, when almost half of King County students reported drinking at least one soda on the previous day (changes in the question’s recall period – previous day vs. the previous week – precludes direct comparison or trend analysis). To further curb consumption of these beverages, as of January, 2018, Seattle joins Philadelphia, San Francisco, and other cities in taxing sodas and other sugary drinks.

- Male students were 1.7 times more likely than females to drink sodas or sugar-sweetened beverages daily.
- Hispanic, Native Hawaiian/Pacific Islander, Black, American Indian/Alaska Native, and multiple-race students were more likely than Asians and whites to consume sodas or sugar-sweetened drinks every day.
- South Region students were more likely to report consuming soda daily than students in the other 3 regions.

Drank soda or sugar sweetened beverage daily (school-age)

King County (average: 2014 & 2016)



Source: Healthy Youth Survey

* Significantly different from King County average

OBESITY: YOUTH AND ADULTS

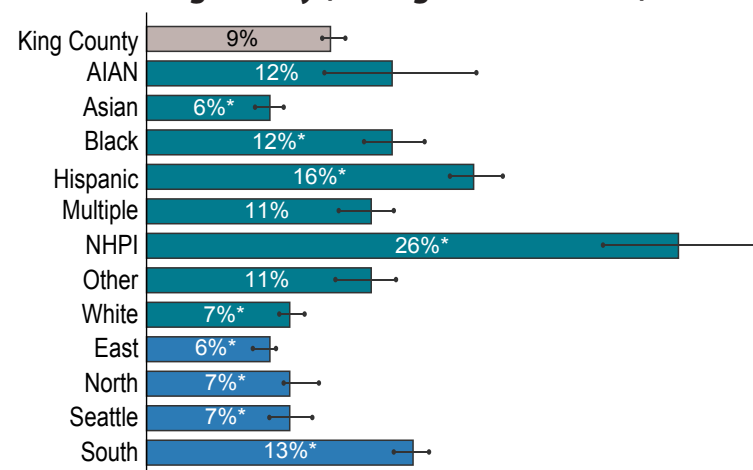
Obesity affects more than a third of American adults and is associated with excess individual medical costs and increased risk of premature death. If obesity trends continue to increase, the United States will be responsible for nearly half of global costs associated with overweight and obesity, which are projected to reach 1.2 trillion by 2025.³⁴

Youth Obesity

Youth are considered obese if their Body Mass Index (BMI) is in the top 5% for their age and gender. Averaging 2014 and 2016 survey data, 9% of King County students attending public schools in 8th, 10th, and 12th grades were obese.

- Asian and white students were less likely to be obese than students of all other racial/ethnic groups. At all three grade levels, Native Hawaiian/Pacific Islander students were 3 to 4 times more likely than Asian or white students to be obese.
- Male students were more likely than female students to be obese.
- At all grade levels, students who identified as lesbian, gay or bisexual were significantly more likely to be obese than heterosexual students.
- While student obesity rates for the county as a whole have been flat since 2004, obesity rates for students in South Region have increased.

Obesity (school-age)
King County (average: 2014 & 2016)



Source: Healthy Youth Survey

* Significantly different from King County average

Physical Activity, Nutrition, & Weight

Continued

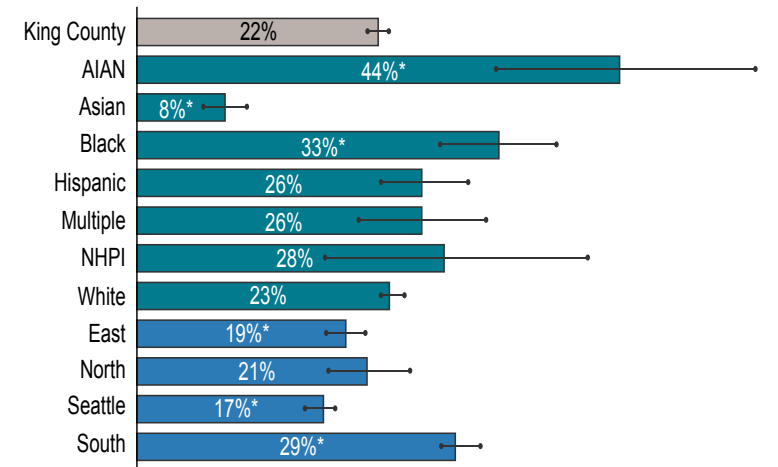
Adult Obesity

Obesity rates among King County adults increased from 2000 to 2009, but have been relatively stable since 2009. In the 2011-2015 period, as in previous years, 22% of King County adults were obese, reporting a Body Mass Index (BMI) greater than or equal to 30.

- Asian residents had the lowest obesity rates. With the highest rates in the county, American Indian/Alaska Native residents were 5.5 times more likely than Asians, and twice as likely as whites, to be obese.
- At 28%, obesity is most prevalent among residents with the lowest annual household incomes (less than \$15,000), and least prevalent among those with annual household income greater than \$75,000 (19%).
- Although the overall obesity rate in King County plateaued after 2009, obesity rates among Hispanic and American Indian/Alaska Native residents continued to increase through 2015.

Obesity (adults)

King County (average: 2011-2015)



Source: Behavioral Risk Factor Surveillance System

* Significantly different from King County average

Violence & Injury Prevention



King County
Community Health
Needs Assessment
2018/2019

This section reports on hospitalizations from unintentional injuries and on hospitalizations and deaths related to suicide. Unintentional injuries account for 82% of the total injury hospitalizations in King County, with falls accounting for the majority of those hospitalizations. Suicide measures presented here are also relevant to mental health. For every case that results in hospitalization or death, many more injuries and suicide attempts are never reported. Hospitalization data exclude cases where emergency department treatment was received but the patient was not admitted to the hospital.

Data describing additional causes of hospitalization and death from intentional and unintentional injuries are available at <http://www.kingcounty.gov/health/indicators>.

The rate of suicide in King County is almost 5 times the homicide rate.

Violence & Injury Prevention

Continued

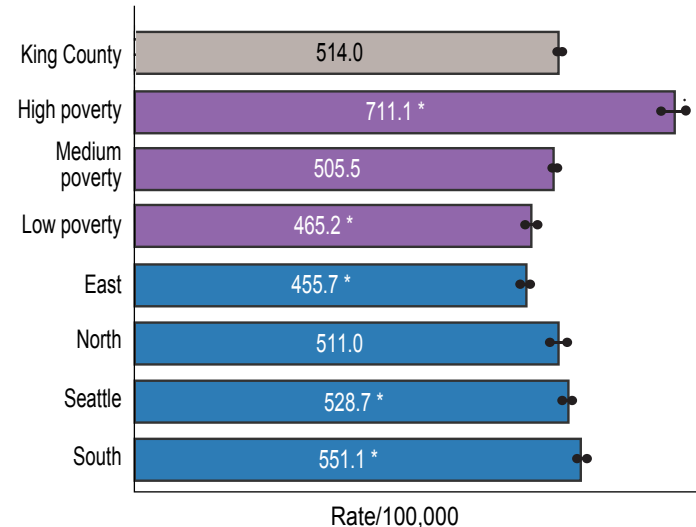
UNINTENTIONAL INJURY HOSPITALIZATIONS

In 2015, the most recent year for which we have data, King County hospitals reported a total of 10,832 admissions for unintentional injuries^{vi} (excluding deaths) – a rate of 519.4 hospitalizations per 100,000 population. The county’s 2011-2015 average annual rate was 514 per 100,000, down from the 2008-2012 average annual rate of 526.9 per 100,000 population.

- Adults in high-poverty neighborhoods were more likely than those in medium- or low-poverty neighborhoods to be hospitalized for unintentional injuries.
- For adults age 65 and older, the rate of hospitalization for unintentional injury was 4.2 times the county average.
- Overall, the county rate has declined since 2000, driven in part by a significant decline in South Region, though South Region rates remain higher than the other regions.

^{vi}Included are injuries due to falls, fire, firearms, drowning, motor vehicle collision, poisoning, and suffocation.

Unintentional injury hospitalizations King County (average: 2011-2015)



Source: Washington State Department of Health, Office of Hospital and Patient Data Systems

* Differs significantly from King County average

Violence & Injury Prevention

Continued

SUICIDE DEATHS

From 2011-2015, an average of 255 suicide deaths occurred in King County each year. The 2011-2015 average suicide death rate in King County was 12.2 per 100,000 population, compared to 11.5 per 100,000 population in 2008-2012.

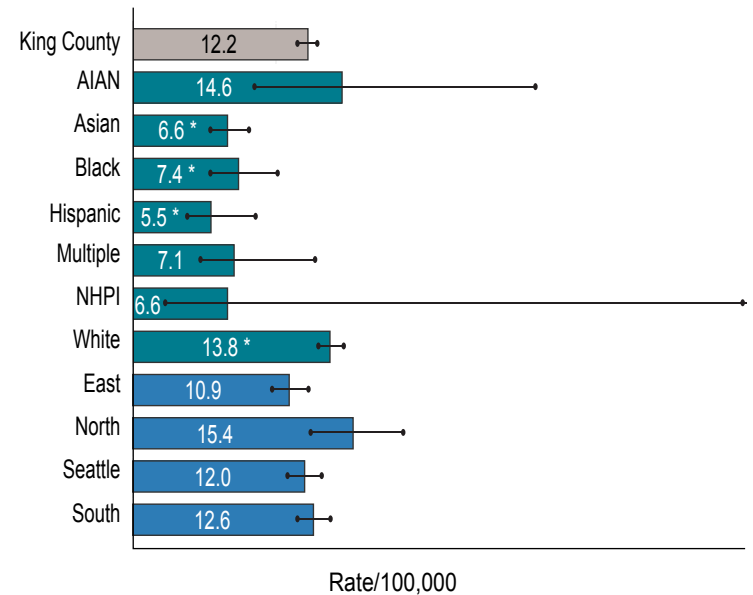
- Over the same 2011-2015 period, King County's average annual suicide rate was 4.5 times the homicide rate, which was 2.7 deaths per 100,000 population.
- The suicide death rate for adults age 45 and older was 1.5 times the county average.
- Males were 2.8 times more likely than females to die from suicide.
- The suicide rates for Hispanic, Asian, and Black populations were significantly lower than the county average, while the rate for whites exceeded the county average at 13.8 per 100,000. A very different pattern emerged for homicide deaths, where the average annual rate for Black residents (14.1 per 100,000 population) was 5.2 times the county average.
- The average suicide rate among American Indians/Alaska Natives (AIAN) was 14.6 per 100,000 population – the highest of all racial/ethnic groups, but this

difference failed to reach statistical significance, at least partially due to the small size of King County's AIAN population.

- The King County suicide death rate has been rising since 2000, driven primarily by a steady upward trend in South Region.

Suicide

King County (average: 2011-2015)



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

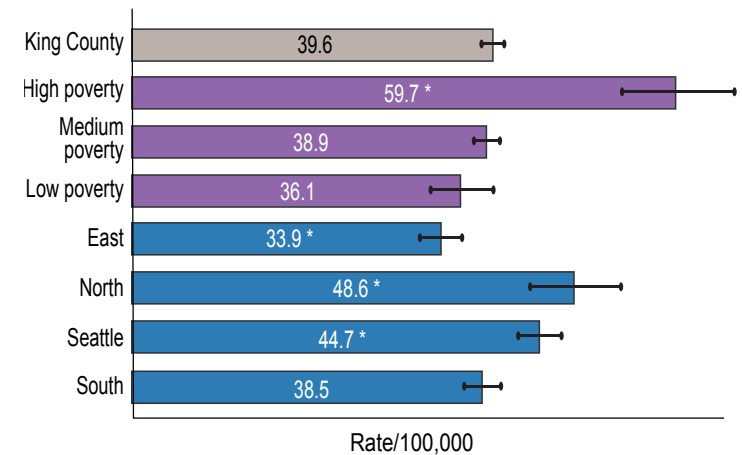
*Differs significantly from King County average

SUICIDE HOSPITALIZATIONS

From 2011-2015, an average of 808 non-fatal suicide hospitalizations occurred in King County each year, for an average rate of 39.6 per 100,000 population. The 2008-2012 average rate was 41.5 per 100,000 population.

- The suicide hospitalization rate among adults age 18-24 was significantly higher than all other age groups, and 1.7 times the county average. County residents in the youngest (less than 18 years old) and oldest (65+ years) age groups were least likely to be hospitalized for suicide.
- Adults living in high-poverty neighborhoods were 1.7 times more likely than those in low-poverty areas to be hospitalized for suicide.
- Female residents were 1.6 times more likely than males to be hospitalized after a suicide attempt – the reverse of the pattern for suicide completions.
- Adults in North Region and Seattle were more likely than those in South and East regions to be hospitalized for suicide.
- Suicide hospitalization rates for the county as a whole decreased from 2000-2015. Over the same period, rates increased in East Region and decreased in South Region.

**Suicide hospitalizations
King County (average: 2011-2015)**



Source: Washington State Department of Health, Office of Hospital and Patient Data Systems

* Differs significantly from King County average

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Appendix A: Methods

APPENDIX A: IDENTIFICATION OF HEALTH NEEDS & SELECTION OF INDICATORS

For the previous 2015/2016 King County Community Health Needs Assessment, a committee of representatives from Hospitals for a Healthier Community (HHC), facilitated by Public Health-Seattle & King County (PHSKC) staff, used a community health framework and population-based approach for the report to identify health needs and develop criteria for indicators used to measure health needs. The group finalized the selection of indicators with feedback from public health and hospital staff.

Committee members planned a succinct report focused on key indicators that relate to the hospitals' and communities' assets and resources and inform future collective strategies. These indicators were to be focused on population-based preventive strategies and promote policy/systems/environmental change for maximum population health impact. It was also recognized that partnerships between hospitals, community organizations, and communities are key to successful strategies to address common health needs.

Committee members from HHC and other representatives served as subject matter experts and helped identify population-level health needs.

To identify community concerns and assets, they interviewed stakeholders, consulted recent community-based reports, and pulled information from previous hospital CHNAs. The group reached consensus to focus particularly on access to care, preventable causes of death, maternal and child health, behavioral health, and violence & injury prevention. While hospitals and health systems reached consensus on a core set of topic areas, each hospital may also gather additional information specific to its service area.

Recognizing that the CHNA is not intended to provide comprehensive data for each specialized topic, indicators were selected according to the following criteria:

1. Availability of high-quality data that are population-based (where possible), measurable, accurate, reliable, and regularly updated. Data should focus on rates rather than counts.
2. Ability to make valid comparisons to a baseline or benchmark.
3. Prevention orientation with clear sense of direction for action by hospitals for individual, community,

Appendix A: Methods

Continued

system, health service, or policy interventions that will lead to community health improvement.

4. Ability to measure progress of a condition or process that can be improved by intervention/policy/system change, and there exists a capacity to affect change.
5. Ability to address health equity, particularly by age, gender, race/ethnicity, geography, socioeconomic status, although not all demographic breakdowns may be available for all indicators.
6. Alignment with local and national healthcare reform efforts including the triple aim.

For the purpose of the 2018/2019 King County CHNA, a committee of HHC representatives, facilitated by PHSKC staff, revisited the original list of indicators and opted to remove a short list of 12 indicators for which timely and/or actionable data are not currently available in King County. A few additional indicators were added to the CHNA to reflect emerging or more widely accepted community health needs, such as the opioid epidemic. All removal and addition of indicators was conducted in a manner consistent with the aforementioned selection criteria.

The final set of indicators were analyzed, using appropriate statistical methods, by Public Health-Seattle & King County. Data were compiled from local, state, and national sources such as the U.S. Census Bureau, U.S. Centers for Disease Control and Prevention, Washington State Department of Health, and King County.

Appendix A: Methods

Continued

Community Assessments and Reports

For the 2018/2019 CHNA, recent reports including broad community needs assessments, strategic plans, or reports on specific health needs were reviewed for context and relevant assets, resources, and opportunities. The following reports were reviewed:

1. [Advancing Equity and Opportunity for King County Immigrants and Refugees: A Report from the King County Immigrant and Refugee Task Force July 7, 2016](#)
2. [Aging and Disability Services 2014 Community Engagement](#)
3. [Aging the LGBTQ Way: A Forum on Equity, Respect & Inclusion, 2017](#)
4. [Allyship 2015 Housing & Safety Survey](#)
5. [Area Plan – Area Agency on Aging, Seattle-King County, 2016-2019](#)
6. [City of Seattle Health and Equity Assessment, June 2016](#)
7. [City of Seattle 2016 Homeless Needs Assessment](#)
8. [Count Us In – Seattle / King County Point-In-Time Count of Persons Experiencing Homelessness, 2017](#)
9. [Creating an Equitable Future in Washington State – Black Well-being and Beyond, 2015](#)
10. [Community Dialogues 2015-2016 Report](#)
11. [Group Health Cooperative Community Health Needs Assessment, 2016-2018](#)
12. [Food Assessment – Kent Washington, September 2016](#)
13. [Generations Aging with Pride: Focus Groups and Town hall feedback](#)
14. Growing in Solidarity: Examining Food Inequities in Auburn
15. [How King County Tackles Health Food Affordability, Stanford Center on Longevity. 2017](#)
16. King County, Best Starts for Kids Community Conversations, 2016
17. [King County Equity and Social Justice Strategic Plan, 2016-2022](#)
18. [King County Equity and Social Justice Strategic Plan Community Engagement Report \(December 2015\)](#)
19. [King County Local Food Initiative, 2016 Annual Report](#)
20. King County Department of Community and Human Services, Unpublished data from community outreach, June – December, 2016
21. King County Update to Regional Health Improvement Plan, April 2016

Appendix A: Methods

Continued

22. [King County Youth Action Plan, 2015](#)
23. Living Well Kent Focus Group Executive Summary, December 2015
24. [MultiCare Auburn Medical Center - Community Health Needs Assessment and Implementation Strategy, 2016](#)
25. [Northwest Hospital & Medical Center Community Health Needs Assessment 2016](#)
26. [Overlake Medical Center, Community Health Needs Assessment 2014-2015](#)
27. [Positive Aging – Sound Generations 2015-2016 Annual Report](#)
28. [2017 Seattle Chinatown-International District Public Safety Survey Report](#)
29. [Seattle Cancer Care Alliance Community Health Needs Assessment, 2016](#)
30. [Seattle Children’s Hospital 2016 Community Health Assessment](#)
31. [Seattle Chinatown-International District 2020 Healthy Community Action Plan](#)
32. [Seattle Youth Violence Prevention Needs Assessment, 2015](#)
33. [Swedish Community Health Needs Assessment 2016-2018](#)
34. [Swedish Community Health Needs Assessment – Ballard, 2016-2018](#)
35. [Swedish Community Health Needs Assessment – Edmonds, 2016](#)
36. [Swedish Community Health Needs Assessment – First Hill Campus and Cherry Hill Campus, 2016-2018](#)
37. [Swedish Community Health Needs Assessment – Issaquah, 2016-2018](#)
38. [Swedish Community Health Needs Assessment – Swedish Cancer Institute, 2016-2018](#)
39. [Transportation and Health Tool \(US Department of Transportation\)](#). Updated October 27, 2015
40. [Valley Medical Center 2017 Community Health Needs Assessment](#)
41. [Virginia Mason Community Health Needs Assessment 2016-2018](#)
42. [Voices Rising: African American Economic Security in King County, February 2017](#)
43. [Washington Hospital Healthcare System Community Health Needs Assessment, 2016](#)
44. [2015 Washington State Housing Needs Assessment](#)
45. [White Center Community Development Association, 2016 Community Survey Report](#)

Appendix B: Report Definitions & Structure



For each indicator, this report includes:

- A description of the indicator
- Overall estimate for King County
- Multiple-year averaged estimates for select sub-populations (e.g. race/ethnicity and region) in either a bar chart or map
- Narrative interpretation that highlights important findings – typically of disparities (by race, place, income, gender, or sexual orientation) and trends

The Community Health Indicators website includes enhanced information for each indicator in the report and additional indicators including (where applicable):

- King County estimate from the most recent year available, including rate and number of people affected (this estimate may differ from the multiple-year averaged estimates presented in the report).

NOTE: This is typically the only single-year data presented; for most analyses, data from multiple years are combined to improve the reliability of the estimates.

- A bar chart that shows multiple-year averaged estimates for all demographic breakdowns (e.g. age, gender, region, race/ethnicity, and income or neighborhood poverty level as a measure of socioeconomic status).
- A map of multiple-year averaged estimates by neighborhoods/cities, ZIP codes, or regions.
- A line chart of rolling-averaged estimates for King County and each region over time to show trends (please see definition of rolling averages below).
- More detail about each data point appears in a tool tip box when the pointer hovers on a bar or line.
- The following symbols are used in graphs throughout the report (*, ^, !):
 - * Denotes values that are significantly different from the King County average
 - ^ There are too few cases to protect confidentiality and/or report reliable rates
 - ! While rates are presented, there are too few cases to meet a precision standard, and results should be interpreted with caution.
- To protect confidentiality, presentation of data follows reliability and suppression guidelines.

Appendix B: Report Definitions & Structure

Continued

Confidence Interval (also known as error bar) is the range of values that includes the true value 95% of the time. If the confidence intervals of two groups do not overlap, the difference between groups is considered statistically significant (meaning that chance or random variation is unlikely to explain the difference). For some indicators, primarily those from the Census or the American Community Survey, results are reported with a 90% confidence interval, showing the range that includes the true value 90% of the time.

Confidence intervals on the CHI website are turned off by default. Users may turn them on by clicking the appropriate radio button.

Crude, Age-Specific, and Age-Adjusted Rates

- Rates are usually expressed as the number of events per 100,000 population. When this applies to the total population (all ages), the rate is called the **crude rate**.
- Infant mortality, maternal smoking, and other maternal/child health measures are calculated with live births as the denominator and presented as a rate per 1,000 live births (infant mortality) or percent of births (preterm, low birth weight, etc.).
- When the rate applies to a specific age group (e.g., age 15-24), it is called the **age-specific rate**.

- The crude and age-specific rates present the actual magnitude of an event within a population or age group.
- When comparing rates between populations, it is useful to calculate a rate that is not affected by differences in the age composition of the populations. This is the **age-adjusted rate**. For example, if a neighborhood with a high proportion of older people also has a higher-than-average death rate, it will be difficult to determine if that neighborhood's death rate is higher than average for residents of all ages or if it simply reflects the higher death rate that naturally occurs among older people. The age-adjusted rate mathematically removes the effect of the population's age distribution on the indicator.
- Prevalence rates from the Behavioral Risk Factor Surveillance Survey (BRFSS) are expressed as percent of the adult population, usually ages 18+. Exceptions to the age range are noted. These rates are not age-adjusted.
- Prevalence rates from the Healthy Youth Survey (HYS) are for public school students in the specified grades, and weighted to the population. HYS is only asked of students in grades 6 (abbreviated version), 8, 10, and 12 every other year.

Appendix B: Report Definitions & Structure

Continued

King County
Community Health
Needs Assessment
2018/2019

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Geographies: Whenever possible, indicators are reported for King County as a whole and for 4 regions within the county. If enough data are available for a valid analysis, they may also be reported by smaller geographic areas (cities, neighborhoods within large cities, and groups of smaller cities and unincorporated areas). Education data are reported by school district. For more detail, plus maps, see [About King County Geographies](#) or our geographic definitions page.

Cities/Neighborhoods (also known as Health Reporting Areas or HRAs): In 2011, new King County Health Reporting Areas (HRAs) were created to coincide with city boundaries in King County. These areas, recently re-named “Cities/Neighborhoods,” are based on aggregations of U.S. Census Bureau-defined blocks. Where possible, Cities/Neighborhoods correspond to cities and, for larger cities, to neighborhoods within cities, and delineate unincorporated areas of King County. These geographical designations were created to help cities and planners as they consider issues related to local health status or health policy. Cities/Neighborhoods are used whenever we have sufficient sample size to present the data. These are represented in the report as “city/neighborhood” data.

Federal Poverty Guidelines, issued by the Department of Health and Human Services, are a simplified version of the federal poverty thresholds.

The guidelines are used to determine financial eligibility for various federal, state, and local assistance programs. For a family of 4, the federal poverty guideline was \$24,250 in 2015; in 2016 it was \$24,300.

Neighborhood poverty levels are based on the proportion of households in a Census tract in which annual household income (as reported in the U.S. Census Bureau’s American Community Survey) falls below the federal poverty threshold.

- **High poverty:** 20% or more households in the neighborhood below poverty threshold. Using this criterion, 14.0% of King County households are in high-poverty neighborhoods.
- **Medium poverty:** 5% to 19% of households below poverty threshold. Using this criterion, 62.7% of King County households are in medium-poverty neighborhoods.
- **Low poverty:** fewer than 5% of households below poverty threshold. Using this criterion, 23.3% of King County households are in low-poverty neighborhoods.

*An interactive [map of King County census tracts](#) can be found on the Communities Count website (<http://www.communitiescount.org/>)

This neighborhood-level characteristic is used where individual measures of income or poverty level are not available. The high-poverty area follows the

Appendix B: Report Definitions & Structure

Continued

definition of a Federal Poverty Area. The 5% limit for low-poverty areas was chosen to create a group markedly different from Federal Poverty Areas, and thus sensitive to differences in health outcomes that may be associated with socio-economic differences, while maintaining enough tracts in each group for robust comparisons.

For area-based measures of poverty, a census tract is considered a neighborhood. Data sources where census tract information are not available use ZIP codes to designate the neighborhood.

Race/Ethnicity and Discrimination: Race and ethnicity are markers for complex social, economic, and political factors that can influence community and individual health in important ways. Many communities of color have experienced social and economic discrimination and other forms of racism that can negatively affect the health and well-being of these communities. We continue to analyze and present data by race/ethnicity because we believe it is important to be aware of racial and ethnic group disparities in these indicators.

Race/Ethnicity Terms: Federal standards mandate that race and ethnicity (Hispanic origin) are distinct concepts requiring 2 separate questions when collecting data from an individual. "Hispanic origin" is meant to capture the heritage, nationality group,

lineage, or country of birth of an individual (or his/her parents) before arriving in the United States. Persons of Hispanic ethnicity can be of any race. 2010 Census terms: (One race) white, Black or African-American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, Some Other Race; (Two or more races); Hispanic or Latino origin, White alone (Not Hispanic or Latino). Persons of Hispanic ethnicity are also counted in their preferred race categories. Racial/ethnic groups are sometimes combined when sample sizes are too small for valid statistical comparisons of more discrete groups. For small groups (American Indian and Alaska Native, Native Hawaiian and Other Pacific Islander) in which a high proportion of King County residents are that race and one or more others, the grouping, "(race) alone or in combination" is sometimes used to include all who identify as that group.

Some surveys collect racial/ethnic information using only one question on race. These terms are:

Terms: Hispanic, white non-Hispanic, Black, American Indian/Alaska Native (AIAN), Asian, Native Hawaiian/Pacific Islander (NHPI), white, and Multiple Race (Multiple).

Appendix B: Report Definitions & Structure

Continued

Limitations of Race/Ethnicity Categories: When asked to identify their race and ethnicity in surveys, respondents are often offered a narrow range of options (see terms above); those broad categories are then used to make expansive racial/ethnic comparisons. The vast diversity within racial/ethnic categories does not allow us to distinguish among ethnic groups or nationalities within categories. Combining groups with wide linguistic, social, and cultural differences – such as African immigrants and Black Americans; Vietnamese, Korean, and East Indians in one Asian category; and white Americans with eastern Europeans, for example – does not allow for a careful analysis of the potential disparities within groups, or the varied sociocultural influences on those disparities. In addition, some racial/ethnic samples in King County are too small for meaningful comparisons or generalizations.

Rolling Averages: When the frequency of an event varies widely from year to year, or sample sizes are small, the yearly rates are aggregated into averages – often in 3-year intervals – to smooth out the peaks and valleys of the yearly data in trend lines. For example, for events occurring from 2001 to 2015, rates may be graphed as three-year rolling averages: 2001-2003, 2002-2004...2011-2015. Adjacent data points will contain overlapping years of data. Statistical tests comparing data points with overlapping times are not appropriate. Increases or decreases in rates are determined statistically using data for single years.

Rounding Standards: Rates from the Behavioral Risk Factor Surveillance Survey (BRFSS) and Healthy Youth Survey (HYS) are rounded to the nearest full integer (for example, 15%). Vital statistics and hospitalization rates are rounded to one decimal point (for example, 15.4%), as are estimates from the American Community Survey (ACS)/Census.

Statistical Significance: Differences between sub-population groups and the overall county are examined for each indicator. Unless otherwise noted, all differences mentioned in the text are statistically significant (unlikely to have occurred by chance).

The potential to detect differences and relationships (termed the statistical power of the analysis) is dependent in part on the number of events and size of the population, or, for surveys, the number of respondents, or sample size. Differences that do not appear to be significant might reach significance with a large enough population or sample size.

Citation Request:

The data published in this Community Health Needs Assessment report and on the Community Health Indicators website may be reproduced without permission. Please use the following citation when reproducing:

*“Retrieved (date) from Public Health – Seattle & King County, Community Health Indicators.
www.kingcounty.gov/health/indicators”*

Appendix C: About Hospitals for a Healthier Community



King County
Community Health
Needs Assessment
2018/2019

A collaborative of hospitals and health systems and Public Health - Seattle & King County have joined forces to identify the greatest needs of the communities they serve and develop plans to address them. Working together they leverage their expertise and resources to address the most critical health needs in our county. A shared approach to community benefits can avoid duplication and focus available resources on a community's most important health needs.

Current Priorities

Access to care: Members continue to prioritize Medicaid expansion and ensure that residents have access to health insurance through Washington Healthplanfinder (<https://www.wahealthplanfinder.org/>).

Needs assessment: Members are working together to assess the health needs of our King County communities and will develop strategies to address these priority areas. The collaborative report will be presented and available to the public in 2018. Individual hospitals will also be publishing their own community health needs assessments.

Participating Hospitals and Health Systems

EvergreenHealth

CHI Franciscan Health

St. Elizabeth Hospital
St. Francis Hospital
Highline Medical Center
Regional Hospital

Kaiser Permanente

MultiCare Health System

Auburn Medical Center
Covington Medical Center

Navos

Overlake Medical Center

Seattle Cancer Care Alliance

Seattle Children's

Swedish Medical Center

Ballard Campus
Cherry Hill Campus
First Hill Campus
Issaquah Campus

UW Medicine

Harborview Medical Center
Northwest Hospital & Medical Center
UW Medical Center
Valley Medical Center

Virginia Mason

Virginia Mason
Community Health Needs Assessment
2019-2021

Kitsap–Snohomish
supplement



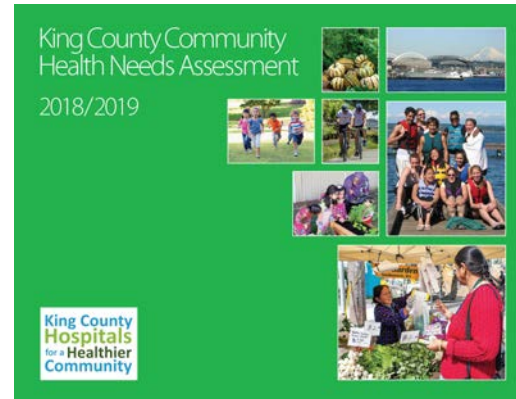
Background

Virginia Mason is a nonprofit organization offering a system of integrated health services, including:

- A large multispecialty group practice of more than 500 physicians offering both primary and specialty care
- An acute-care hospital licensed for 336 beds
- Benaroya Research Institute at Virginia Mason, which is internationally recognized for autoimmune disease research
- Outpatient medical facilities and services in Seattle, Bainbridge Island, Bellevue, Edmonds, Federal Way, Kirkland, Issaquah, and Lynnwood
- Bailey-Boushay House, a nursing residence and chronic care management center for people living with AIDS and other chronic or terminal illnesses
- Virginia Mason Institute, which trains health care professionals and others around the world in the Virginia Mason Production System, an innovative management method for improving quality and safety

Since 2013 Virginia Mason has partnered with other hospitals and Public Health–Seattle & King County to form King County Hospitals for a Healthier Community (KCHHC).

The KCHHC collaborative completed a [community health needs assessment](#) (CHNA) for 2019-2021, and members are developing programs and initiatives to address a number of the health issues identified.



Three of Virginia Mason’s primary care facilities are located outside of King County: Bainbridge Island Medical Center in Kitsap County and Edmonds Family Medicine and Lynnwood Medical Center in Snohomish County.

Virginia Mason is supplementing the King County CHNA with information about needs in the parts of Kitsap and Snohomish counties near those medical centers.

Information about community priorities in this supplement comes primarily from four sources:

- [Kitsap Community Health Priorities](#) is a collaborative formed in 2011 by Kitsap Public Health District, Harrison Medical Center, and United Way of Kitsap County and later joined by a number of other community partners to assess needs and coordinate action on health priorities. www.kitsapchp.com
- [CHI Franciscan Health Harrison Medical Center CHNA for 2017-2020](#), which was prepared by the Kitsap Public Health District. www.chifranciscan.org/about-us/community-health-needs-assessment
- [Providence Regional Medical Center Everett CHNA for 2017-2020](#), which uses a methodology adopted from the Snohomish Health District. www.psjhealth.org/community-benefit/community-health-needs-assessments
- [Edge of Amazing](#), a multi-sectoral collaborative convened by the Providence Institute for a Healthier Community and Snohomish County Health Leadership Coalition. www.edgeofamazing.org

Summary of community health needs in Kitsap County (Bainbridge Island)

BAINBRIDGE ISLAND

Bainbridge Island’s population has lower levels of risks associated with poor health outcomes compared with the rest of Kitsap County. Until recently, Bainbridge Island did not experience housing affordability issues faced by other parts of the county. Because of high housing costs in the Seattle, people are moving to neighboring counties seeking affordable market-rate housing, pushing up the cost to own or rent a home. Even in relatively wealthy Bainbridge Island, there are now households that are “cost-burdened” — paying more than 30 percent of income on housing.

Bainbridge Island residents are generally healthier than those of other regions in Kitsap County, with some exceptions. For example, Bainbridge Island had the highest incidence of breast cancer in the county (2011-13). In addition, there were five opioid-related deaths in Bainbridge Island in 2016-17; while it is a small number, it was the highest rate in Kitsap County.

COUNTY-WIDE PRIORITY NEEDS

Kitsap County has identified health needs similar to those in King County: obesity (including opportunities to exercise and eat healthy foods), access to medical, prenatal, dental, and mental health care, and other issues related to behavioral health, such as substance abuse prevention and treatment.

	Kitsap Community Health Priorities	CHI Franciscan Health Harrison Medical Center
Obesity and nutrition	●	●
Affordable housing and homelessness	●	
Adult and youth mental health	●	●
Adverse childhood experiences (ACEs)	●	
Access to primary, specialty, mental and dental care	●	●
Infant mortality and prenatal care/breastfeeding		●
Substance abuse prevention and treatment		●

COMMUNITY PARTNERS ADDRESSING NEEDS

Several community partners are engaged with Kitsap Community Health Priorities in addressing needs identified through its assessment process, including public health, hospitals, United Way, the Y, Project Access Northwest, Peninsula Community Health Centers, local government, and schools. A number of coalitions are focused on community priorities, including 5210 Kitsap, a countywide initiative to increase healthy eating and physical activity, an Affordable Housing Workgroup, and Kitsap Strong, a collective impact approach to addressing ACEs.

Summary of community health needs in southwest Snohomish County (Edmonds-Lynnwood area)

EDMONDS-LYNNWOOD

The southwest part of Snohomish County, along the urban corridor north of King County is racially and ethnically diverse. Parts of this area — notably Lynnwood and Mountlake Terrace — are considered to be at higher risk, particularly because of language challenges and housing instability.

The opioid epidemic has hit Snohomish County particularly hard, and is prevalent in homeless encampments and associated with increased property crimes. Snohomish County has one of the highest opioid-related death rates in the state, mainly due to heroin overdoses.

COUNTY-WIDE PRIORITY NEEDS

Snohomish County continues to focus on priorities identified in previous assessments, including obesity prevention and encouraging healthy eating and active living. Recent assessments have focused on basic needs, mental health, and access to health care and other services.

	Edge of Amazing	Providence Regional Medical Center Everett
Access to primary care		●
Integrating behavioral health into primary care	●	
Youth mental health	●	
Affordable housing and homelessness	●	●
Substance abuse		●
Creating a trauma informed and restorative practice community	●	
Access to basic needs	●	
Building community and collaborations	●	

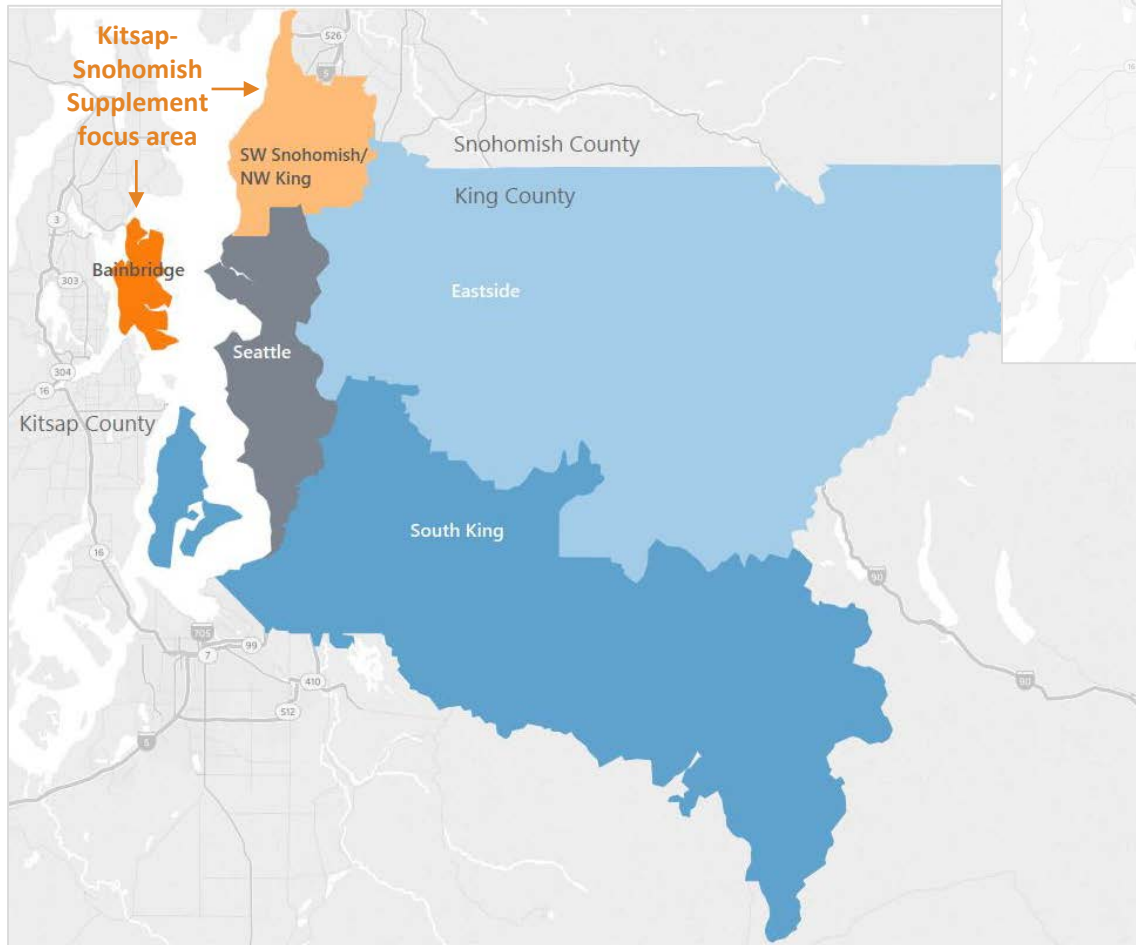
COMMUNITY PARTNERS ADDRESSING NEEDS

A number of representatives of health care (including PRCME), public health, education, business/economic development, human services, nonprofit organizations, and the faith community have come together to form the Snohomish County Health Leadership Coalition, snocohealth.org. The Snohomish County sheriff's office and other agencies have received national attention for their Multi-Agency Coordination Group created to respond to the opioid crisis.

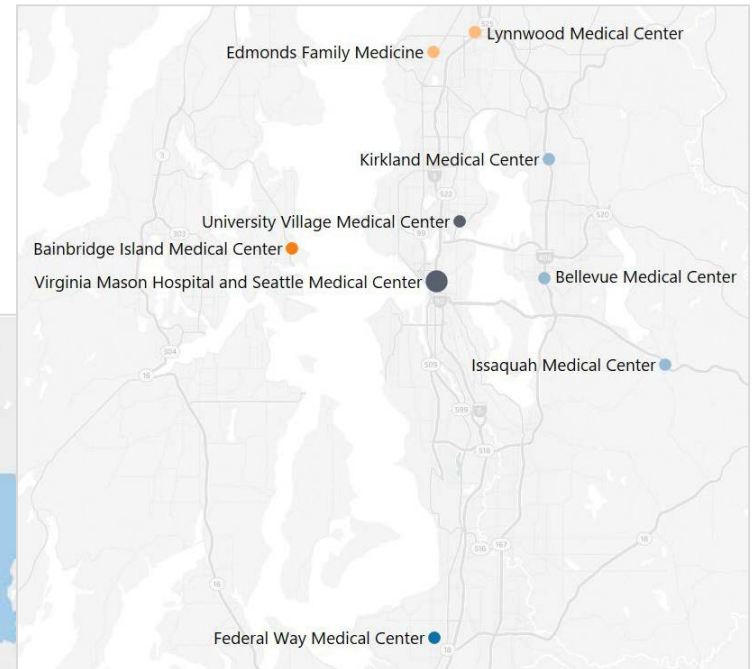
Defining the community

Virginia Mason had more than 1.1 million patient visits in its hospital and medical centers between October 2017 and September 2018. The CHNA service area encompasses the communities where facilities are located and where approximately three-quarters of patients reside: King County, the southwest region of Snohomish County, and Bainbridge Island in Kitsap County.

CHNA area



Virginia Mason facilities and number of patient visits



Patient visit count (10/2017 - 9/2018)

Virginia Mason Clinic	510,332	45%
Federal Way	194,194	17%
University Village	74,456	7%
Issaquah	73,870	6%
Lynnwood	72,827	6%
Kirkland	72,316	6%
Bellevue	61,861	5%
Bainbridge Island	59,221	5%
Edmonds	19,258	2%
TOTAL	1,138,155	

Population and leading causes of death

The leading causes of death are cancer and heart disease; rates for both have been declining over time. Mortality rates are higher than the state average in Snohomish County for cancer, heart disease, Alzheimer’s disease, chronic lung disease, and diabetes. In Kitsap county, mortality rates are higher than average for suicide, liver disease, and influenza and pneumonia.

Estimated 2018 population of Kitsap County and Snohomish County communities in the Virginia Mason CHNA area

Kitsap County	267,120
Bainbridge Island	24,320
	9% of county
Snohomish County	805,120
Bothell (part)	17,820
Brier	6,600
Edmonds	41,820
Lynnwood	38,260
Mill Creek	20,470
Mountlake Terrace	21,560
Mukilteo	21,320
	167,855
	21% of county

Source: Washington State Office of Financial Management

Leading causes of death, 2015
(rate per 100,000 age-adjusted to 2000 population)

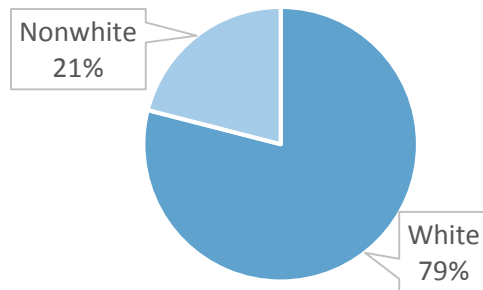
	Kitsap County	Snohomish County	King County	Washington State	U.S.
Cancer	144.0	169.8	142.5	157.0	158.5
Heart disease	123.7	139.0	122.3	138.3	168.5
Alzheimer's disease	41.4	47.6	44.3	44.9	29.4
Accidents	39.7	42.9	33.5	42.5	43.2
Chronic lung disease	36.3	40.3	28.5	39.9	41.6
Stroke	27.5	31.4	30.3	34.4	37.6
Diabetes	17.5	25.6	17.9	22.5	21.3
Suicide	19.8	14.6	11.7	15.6	13.3
Liver disease	15.0	11.7	10.1	12.4	10.8
Flu & pneumonia	15.2	8.4	9.2	10.7	15.2

Source: Washington State Department of Health

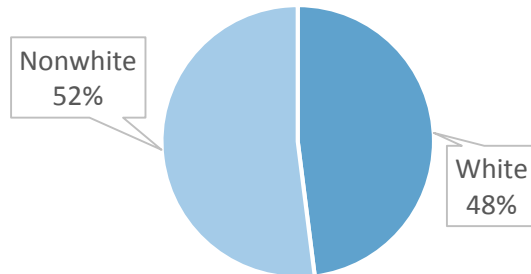
Population profile

Southwest Snohomish County is more racially and ethnically diverse than Bainbridge Island, as reflected by enrollment in the Bainbridge Island and Edmonds school districts. The Edmonds School District has more low income students and more English language learners than Bainbridge Island, as well as a lower high school graduation rate.

Bainbridge Island School District



Edmonds School District



School district demographics

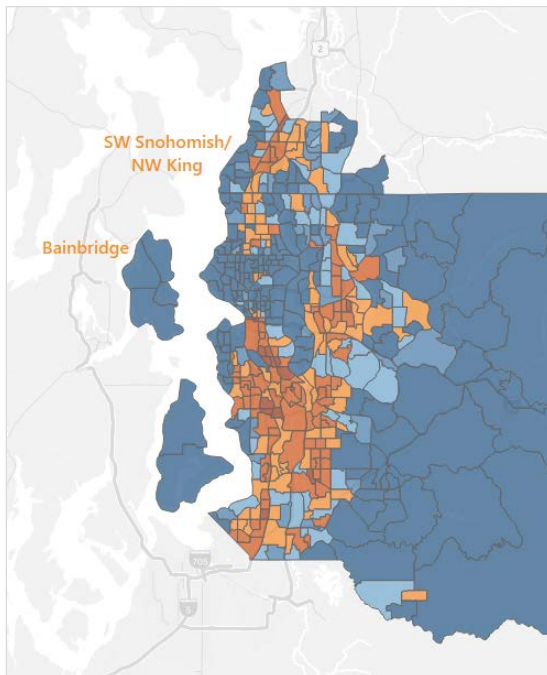
	Bainbridge Island	Edmonds
American Indian/Alaska Native	1%	1%
Asian	3%	13%
Black	1%	7%
Hispanic	7%	21%
Native Hawaiian/other Pacific Islander	--	1%
Multiracial	9%	11%
White	79%	48%
English language learners	1%	13%
Low income	7%	33%
2017 high school graduation	93%	82%

Social and economic factors that influence health

As noted in the King County CHNA, there are differences in opportunities to lead a healthy life that are related to race, income, and place of residence. The maps below illustrate some of those differences in the Virginia Mason CHNA area.

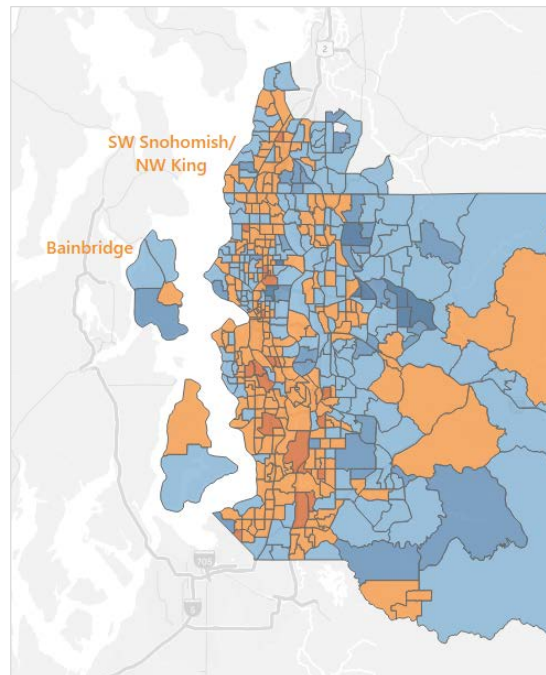
Limited English proficiency

In many areas a high percentage of residents struggle with the English language, especially native speakers of Chinese, Korean, and Vietnamese in Snohomish County



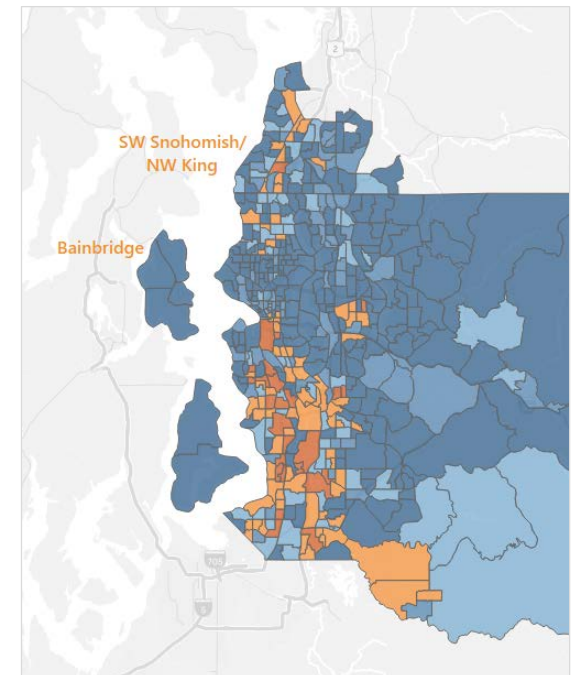
Cost burdened households

In some neighborhoods as much as half of households pay more than 30% of their income on housing



Uninsured population

Despite gains in Washington state related to the Affordable Care Act, coverage rates are comparatively low in some areas and among Hispanics and Native Americans



Compared to national values:

Worse   Better

County health indicators

The following pages present county-level data for indicators related to priorities identified in CHNAs conducted in King, Kitsap and Snohomish counties.

Kitsap-Snohomish highlights

(Differences in indicator values between counties may or may not be statistically significant)

- Both Kitsap and Snohomish counties had higher rates of uninsurance than King County, as well as proportionately fewer doctors and dentists
- Smoking rates are higher and excessive drinking lower than in King County.
- Kitsap and Snohomish residents were more likely to experience poor health and have higher rates of diabetes. On the other hand, there are lower rates of respiratory pollutants that are likely to have non-cancer adverse effects.
- All three counties are comparable for a number of economic security indicators. A notable difference relates to younger children's educational opportunities: Snohomish County has lower rates of preschool enrollment and fourth-grade reading proficiency than Kitsap and King counties.
- Kitsap County infant mortality is higher than the other two counties and the state average, particularly among nonwhite infants.
- Kitsap and Snohomish counties have fewer behavioral health resources compared to King County.
- Obesity and adult physical inactivity rates are higher in Kitsap and Snohomish counties, and people there have less convenient access to walkable destinations.
- Kitsap and Snohomish injury death rates are higher than King County, while rates of violent crimes are lower.

County health indicators

Access to care

				County			Washington state
				Kitsap	Snohomish	King	
Dentists	rate	per 100,000 population	2015	76.5	67.6	104.0	78.5
Primary Care Physicians	rate	per 100,000 population	2014	66.1	50.8	119.3	84.1
Uninsured Children	percent	under age 18 without health insurance	2012-16	10.7	11.7	7.9	10.0
Uninsured Population	percent	population without health insurance	2012-16	7.7	9.3	8.3	9.8

Alcohol, tobacco & other drugs

					County			Washington state
					Kitsap	Snohomish	King	
Current Smokers	percent	adults reporting smoking cigarettes most days	2014	13.8	13.0	10.1	13.4	
Excessive Drinking	percent	adults 18 & older self reporting heavy alcohol consumption	2014	19.3	18.4	22.0	19.5	

County health indicators

Chronic illness

				County			Washington state
				Kitsap	Snohomish	King	
Poor or Fair Health	percent	adults reporting having fair or poor health	2014	11.9	12.6	10.2	13.1
Poor Physical Health Days	number	self-reported physically unhealthy days per month (average)	2014	3.2	3.6	2.8	3.5
Diabetes Prevalence	percent	adults 20 & older told by a doctor they have diabetes	2013	8.7	9.9	6.8	8.7
Heart Disease Prevalence	percent	adults age 18 & older	2015	17.1	18.1	18.6	19.0
Respiratory Hazard Index	score	likelihood of respiratory pollutants to increase non-cancer adverse health effects (scores >1 are "likely")	2011	2.0	3.1	4.4	2.8
Cancer Deaths	rate	age adjusted deaths/100,000 population	2011-15	161.7	159.1	144.4	158.6
Breast Cancer Incidence	rate	per 100,000 females	2010-14	137.6	136.1	142.6	134.8
Colon and Rectum Cancer Incidence	rate	per 100,000 population	2010-14	38.1	39.1	34.9	36.6
Lung Cancer Incidence	rate	per 100,000 population	2010-14	61.4	60.9	50.8	59.1
Prostate Cancer Incidence	rate	per 100,000 males	2010-14	148.4	119.6	120.3	116.2

County health indicators

Income, education & housing

				County			
				Kitsap	Snohomish	King	Washington state
Children Below 100% FPL	percent	age 17 & under living in households with income below federal poverty level	2012-16	12.6	11.8	13.0	16.5
Population Below 100% FPL	percent	population living in households with income below federal poverty level	2012-16	10.4	9.3	10.7	12.7
Food Insecurity	percent	population experiencing food insecurity at some point during previous year	2014	13.4	12.0	13.4	13.7
Free and Reduced Price Lunch	percent	public school students eligible for subsidized meals programs	2015-16	38.4	37.1	34.9	45.4
Unemployment	percent	age 16 & older unemployed and seeking work	2017	4.5	4.3	3.9	4.5
SNAP Benefits	percent	households receiving Supplemental Nutrition Assistance Program benefits	2012-16	12.1	11.8	10.2	13.9
Preschool Enrollment	percent	children age 3-4 enrolled in preschool	2012-16	50.5	42.2	50.6	41.1
Reading Proficiency	percent	children in grade 4 testing at or above "proficient" level	2014-15	62.6	59.0	64.4	55.2
On-Time High School Graduation	percent	students receiving diploma within 4 years	2014-15	82.2	83.8	81.6	81.3
Adults with an Associate's Degree or Higher	percent	adults age 25 & older	2012-16	41.8	40.9	57.3	43.3
Cost Burdened Households	percent	households for which housing costs exceed 30% of total household income	2012-16	33.1	34.6	34.7	33.9
Severe Housing Problems	percent	households with 1 or more severe housing conditions, including spending >50% income on housing costs	2012-16	16.1	16.9	18.1	18.2

County health indicators

Maternal & child health

				County			Washington state
				Kitsap	Snohomish	King	
Infant Deaths	rate	deaths under age 1 year per 1,000 livebirths	2015	5.9	4.1	3.6	4.8
Low Birth Weight	percent	births weighing under 2500 grams	2011-15	6.4	5.8	6.5	6.3
Pre-Term Births	percent	births occurring before 37 weeks gestation	2012-14	9.1	9.2	9.3	9.7
Teen Births	rate	births to women age 15-19 per 1,000 population	2011-15	21.6	18.9	15.5	25.6

Mental health

							Washington state
				Kitsap	Snohomish	King	
Mental Health Providers	rate	per 100,000 population	2016	239.9	264.1	315.0	274.9
Poor Mental Health Days	number	self-reported mentally unhealthy days per month (average)	2014	3.5	3.3	3.1	3.5
Social and Emotional Support (Insufficient)	percent	adults 18 & older (self report)	2014	16.0	16.5	15.9	16.8
Suicide Deaths	rate	per 100,000 population	2011-15	14.7	13.5	12.1	14.8

County health indicators

Physical activity, nutrition & weight

				County			Washington state
				Kitsap	Snohomish	King	
Obesity (Adult)	percent	adults 20 & older reporting BMI > 30.0	2013	29.3	29.0	22.0	26.9
Physical Inactivity (Adult)	percent	adults 20 & older reporting not participating in physical activity or exercise	2013	17.4	17.5	13.5	16.7
Walkable Destinations	percent	population living in close proximity to a park, playground, library, museum, etc.	2012-15	16.8	14.4	48.5	26.2
Food Environment Index	score	measuring affordable, accessible, healthy food options (0=poorest access, 10=best)	2014	7.5	8.1	7.9	7.6

Violence & injury prevention

				Kitsap	Snohomish	King	Washington state
							state
Deaths by Suicide, Drug or Alcohol Misuse	rate	per 100,000 population	2011-15	42.3	42.4	33.5	42.2
Injury Deaths	rate	per 100,000 population	2011-15	59.7	59.5	49.5	61.4
Motor Vehicle Crash Deaths	rate	per 100,000 population	2011-15	7.0	6.7	5.4	7.8
Pedestrian Accident Deaths	rate	per 100,000 population	2011-15	1.0	1.5	1.2	1.2
Violent Crimes	rate	reported by law enforcement per 100,000 population	2012-14	267.9	191.2	332.1	283.8

County health indicators

Indicator values in this section (with one exception*) are from a data platform provided by Kaiser Permanente to communities as a way to support community health needs assessments and community collaboration. The platform was developed by the Institute for People, Place and Possibility using a number of public secondary sources, including those listed below. The data platform is freely available to users at www.chna.org/kp.

Data sources

American Community Survey	Adults with an Associate's Degree or Higher Children Below 100% FPL Cost Burdened Households Population Below 100% FPL Preschool Enrollment Severe Housing Problems SNAP Benefits Uninsured Children Uninsured Population
Behavioral Risk Factor Surveillance System	Current Smokers Excessive Drinking Poor Mental Health Days Poor or Fair Health Poor Physical Health Days Social and Emotional Support (Insufficient) Tree Canopy Cover
Bureau of Labor Statistics	Unemployment
Center for Applied Research and Environmental Systems	Walkable Destinations
Centers for Medicare and Medicaid Services	Heart Disease Prevalence
County Health Rankings	Exercise Opportunities
Environmental Protection Agency	Respiratory Hazard Index
Fatality Analysis Reporting System	Pedestrian Accident Deaths
FBI Uniform Crime Reports	Violent Crimes
Feeding America	Food Insecurity

Health Resources & Services Administration	Dentists Mental Health Providers Pre-Term Births Primary Care Physicians
National Center for Chronic Disease Prevention and Health Promotion	Diabetes Prevalence Obesity (Adult) Physical Inactivity (Adult)
National Center for Education Statistics	Free and Reduced Price Lunch On-Time High School Graduation Reading Proficiency
National Vital Statistics System	Cancer Deaths Deaths by Suicide, Drug or Alcohol Misuse Injury Deaths Low Birth Weight Motor Vehicle Crash Deaths Suicide Deaths Teen Births
State Cancer Profiles	Breast Cancer Incidence Colon and Rectum Cancer Incidence Lung Cancer Incidence Prostate Cancer Incidence
USDA & Feeding America	Food Environment Index
* Washington State Department of Health	Infant Deaths