<table>
<thead>
<tr>
<th>Page</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Acknowledgements</td>
</tr>
<tr>
<td>5</td>
<td>Introduction</td>
</tr>
<tr>
<td>13</td>
<td>Executive Summary</td>
</tr>
<tr>
<td>25</td>
<td>Community Identified Priorities</td>
</tr>
<tr>
<td>34</td>
<td>Description of Community</td>
</tr>
<tr>
<td>53</td>
<td>Life Expectancy &amp; Leading Causes of Death</td>
</tr>
<tr>
<td>58</td>
<td>Chronic Illnesses</td>
</tr>
<tr>
<td>65</td>
<td>Access to Healthcare &amp; Use of Preventive Services</td>
</tr>
<tr>
<td>72</td>
<td>Mental Health</td>
</tr>
<tr>
<td>75</td>
<td>Alcohol, Tobacco, Marijuana, &amp; Other Drugs</td>
</tr>
<tr>
<td>80</td>
<td>Pregnancy &amp; Birth</td>
</tr>
<tr>
<td>84</td>
<td>Physical Activity, Nutrition, &amp; Weight</td>
</tr>
<tr>
<td>90</td>
<td>Violence &amp; Injury Prevention</td>
</tr>
<tr>
<td>94</td>
<td>End Notes</td>
</tr>
<tr>
<td>98</td>
<td>Appendix A: Methods - Identification of Health Needs and Selection of Indicators</td>
</tr>
<tr>
<td>102</td>
<td>Appendix B: Report Definitions &amp; Structure</td>
</tr>
<tr>
<td>107</td>
<td>Appendix C: About King County Hospitals for a Healthier Community</td>
</tr>
</tbody>
</table>
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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, a difference that, over time, tends to magnify existing disparities.
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. 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. 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.

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). 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.
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. 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%). 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).
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.
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).
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. Close 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.

Racial and ethnic disparities in health and social outcomes persist throughout the county. HOW ARE RACE AND ETHNICITY RELEVANT TO HEALTH? 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 Asians were also higher than the county average; however, they had the lowest rates of infant mortality.
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.
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.
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.
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.
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.