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King County Hospitals for a Healthier Community (HHC) is a collaborative of all 12 hospitals and health systems in King County and Public Health-Seattle & King County. For this report, HHC members joined forces to identify important health needs and assets in the communities they serve. HHC members have also worked together to increase access to healthy foods and beverages in their facilities and to address access-to-care issues by assisting with enrollment of residents in free or low-cost health insurance.

This Community Health Needs Assessment (CHNA) is an HHC collaborative product that fulfills Section 9007 of the Affordable Care Act. The report presents data on:

- **Description of Community:** In an increasingly diverse population of 2 million, large health inequities persist. Rates of poverty and homelessness continue to rise.

- **Life Expectancy and Leading Causes of Death:** Life expectancy in King County neighborhoods can vary by up to 10 years. Leading causes of death among older adults are cancer and heart disease, while injuries are the leading causes of death among children, teens, and young adults.

- **Chronic Illness:** Disparities in chronic illness by race/ethnicity, poverty, and neighborhood are considerable. Asthma and diabetes are common in adults and children. The leading causes of hospitalizations (after pregnancy/childbirth) are heart disease, injury, mental illness, and cancer.

“Hospitals are ‘cornerstone institutions’; they are major forces in the community and should work to improve conditions. They have influence.”

– King County physician
Community Input

We invited community coalitions and organizations to tell us about the assets and resources that help their communities thrive. The assets most frequently mentioned were existing partnerships and coalitions, community health centers, faith communities, and food programs.

We also asked community representatives to identify concerns about health needs in their communities. Common themes included:

1) the importance of a culturally competent workforce in addressing health disparities;

2) acknowledgement that health is determined by the circumstances in which people are born, grow up, live, work, and age, which are in turn shaped by a broad set of forces;

3) the need for hospitals to engage with communities and develop authentic partnerships; and

4) the influential role of hospitals as anchor institutions in addressing social, economic, and behavioral factors.

Identified Health Needs, Assets, Resources, and Opportunities

The report integrates data on HHC’s identified health needs with input from community organizations about assets, resources, and opportunities related to those needs:

- **Access to Care:** Lack of health insurance is common among young adults, people of color, and low-income populations. For 1 in 7 adults, costs are a barrier to seeking medical care. Opportunities include providing assistance to the uninsured or underinsured, addressing issues of workforce capacity and cultural competency, ensuring receipt of recommended clinical preventive services, supporting non-clinical services, and increasing reimbursement for oral health care.

- **Behavioral Health:** Access to behavioral healthcare, integration of behavioral and physical healthcare, and boarding of mental health patients were identified as key issues. Opportunities include use of standardized referral protocols, coordinated discharge planning, and increased capacity for integrated healthcare.
Maternal and Child Health: Disparities in adverse birth outcomes persist, and the percentage of births in which mothers obtained early and adequate prenatal care is too low. Community-based organizations stress the importance of baby-friendly hospitals, quality prenatal care, and ongoing social support, as offered by home visiting programs.

Preventable Causes of Death: include obesity, tobacco use, and lack of appropriate nutrition and physical activity. More than half of adults and 1 in 5 teens are overweight or obese, so increasing access to healthy food and physical activity is critical. In the face of declining resources for tobacco prevention/cessation and persistent disparities in tobacco use, evidence-based opportunities include anti-tobacco messaging and brief clinical tobacco screening.

Violence and Injury Prevention: Deaths due to falls and suicide are both rising; and distracted/impaired driving concerns both community members and law-enforcement officials. Opportunities include regional coordination and standard implementation of best practices in violence injury and prevention (including prevention-related primary care assessment/screening).

The HHC collaborative and individual hospitals and health systems already partner or are interested in partnering with community coalitions and organizations in implementing strategies informed by this assessment and other tools. Working together, hospitals and health systems, public health, and communities can reduce healthcare costs and improve the health of all people in King County.
King County hospitals play a significant role in the region’s overall economy and health. In addition to providing safe and high-quality medical care, these institutions work to improve regional health through community benefit programs that promote health in response to identified community needs. King County’s hospitals and health systems have joined forces with Public Health-Seattle & King County to identify our communities’ strengths and greatest needs in a collaborative called “Hospitals for a Healthier Community” (HHC).

This assessment embraces a broad concept of health that includes social, cultural, and environmental factors that affect health. Working collaboratively both within and outside the health system environment, King County hospitals can help build on expertise and resources to address critical health needs in King County and to address the “triple aim” of health care.

Members of the King County HHC are collaboratively addressing challenges related to diabetes, obesity, and access to care. All have adopted a Healthy Food in Healthcare pledge, and are working to increase access to healthy food choices within their facilities. During the first open enrollment period under the new Affordable Care Act provisions, each member promoted enrollment in communities where residents were likely to be eligible for free or low-cost health insurance.

The purpose of this first joint county-wide community health needs assessment (CHNA) is to highlight strengths and areas of need that cut across geographies and present opportunities for collaboration between public health, hospitals, health systems, community organizations, and communities.

The Affordable Care Act provides a framework for the existing structure of hospital community benefit programs by requiring a CHNA every three years, accompanied by annual implementation strategies. We hope that interested organizations and the public can use this assessment to coordinate efforts and leverage resources.

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

1) A description of the community served
2) Leading causes of death
3) Levels of chronic illness
In addition, this report provides qualitative and quantitative information about the following identified health needs:

4) Access to care
5) Behavioral health
6) Maternal and child health
7) Preventable causes of death
8) Violence and injury prevention

Supplemental data for each indicator are presented in Appendix D. Additional indicators for each health need above, as well as data for other health needs, 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, or other important demographic breakdowns. When possible, comparisons are also made to the Washington State average and national Healthy People 2020 objectives (www.healthypeople.gov).

Working Together Towards Healthier Communities

Across the region, health care reform is catalyzing new levels of collaboration across hospitals and health systems, public health, social services, housing, community development, and other sectors that address the underlying determinants of health for King County’s residents. There is widespread recognition that achievement of the “triple aim” of enhancing the patient experience of care, improving the health of populations, and reducing the per capita cost of health care will require new bridges across systems that have been historically siloed.4

The CHNA complements and stands to help accelerate the goals of local and state health transformation plans. The King County Health and Human Services Transformation Plan calls for a shift from what today is a crisis and sick-care oriented system, to one focused on prevention, wellness, and the elimination of disparities. Community partnerships that address the upstream, nonmedical drivers of health are a key part of ultimately achieving the triple aim.

Washington State’s roadmap for health transformation, Healthier Washington, also recognizes that health happens at the local level, and that communities are at the core of bringing about the changes that will
improve the health of their residents. Regional health assessments and regional health improvement plans are identified as critical elements for driving health transformation. As a foundational piece of regional health assessment work that can be built upon in the years ahead, the CHNA helps lay the groundwork for future community partnerships and well-aligned strategies that will succeed in responding to the identified needs.

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. To identify community concerns and assets, they interviewed stakeholders, consulted recent community-based reports, and pulled information from previous hospital CHNAs. 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 for this report were selected according to the following criteria:

1) 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.
2) 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.

3) Ability to make valid comparisons to a baseline or benchmark.

4) Prevention orientation with clear sense of direction for action by hospitals for individual, community, system, health service, or policy interventions that will lead to community health improvement.

5) Ability to measure progress of a condition or process that can be improved by intervention/policy/system change, and a capacity to affect change exists.

6) Alignment with local and national health care reform efforts including the triple aim.

Indicators that satisfied these criteria 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.

Input was also gathered from people representing the broad interests of the communities served by HHC hospitals and health systems. Three methods were used: interviews with stakeholder coalitions; an online survey; and a review of recent reports on local health needs. The following interview questions were used for the in-person interviews and online survey.

1) What are the main concerns you or your organization have about (topic) right now?

2) What are the people, places, and things that make your community healthy, safe, and strong and tell us why these people, places, and things are important? These could include organizations, leaders, coalitions, initiatives, policies, or physical/environmental attributes.

3) What programs or projects are happening or planned that are most relevant to the identified needs?

4) How can hospitals and health systems be involved in addressing the issues you have identified?

5) What are the most significant gaps in resources, coordination, etc. in this area?

6) Is there anything else you would like to add?

Key limitations of this report include 1) incomplete or inadequate quantitative data on some topics of interest and 2) our inability to summarize every asset and opportunity in King County. For example, although we report data on fruit/vegetable consumption, comprehensive population-based data on healthy eating are simply not available. In addition, resource limitations
prevent us from mentioning all of the valuable organizations and assets in our communities. We look forward to continuing to learn more about community strengths and resources.

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

**Community Strengths and Resilience**

Overall, King County has a strong economy and ranks among the top counties in the nation on indicators of health and wellbeing. In part because of high levels of immigration, we are home to some of the most diverse communities in the U.S. The unique cultural strengths and assets of these communities benefit the entire region. We also benefit from strong institutional assets including faith communities, governments, hospitals and health systems, universities, philanthropies, and non-profits. In addition, many small programs help our communities thrive, and individuals come together to create support networks for friends, family, and neighbors.

However, the benefits of our strong and healthy county are not experienced equally by all. Across the region, communities differ in their assets and their opportunities for improvement. Tracking results over time reveals persistent disparities by race, income, and place.

Displaying data by census tract (see King County Health, Housing and Economic Opportunity Measures map on the next page) helps identify neighborhoods with the greatest opportunities for improving health. The map shows that areas in the southern part of the county and south Seattle, along with pockets in East and North Regions, generally fare worse than other areas.

Looking at one component of the health/well-being index, for example, average life expectancy for King County residents is 82 years, 3 years longer than the national average of 79 years. Within the county, however, life expectancy varies by almost 10 years – from 77 years in South Auburn to 86 years in West Bellevue. Many other health and social indicators—such as housing quality, alcohol-related deaths, obesity, lack of health insurance, and smoking—show similar patterns of inequity.

Despite these disparities, the leading risk factors and causes of illness affect us all and call for collective action to give everyone a fair chance to live a healthy life. Each region of the county is affected by the issues covered in this report and each region has unique assets and resources for addressing them. 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.
King County Health, Housing and Economic Opportunity Measures

LEGEND

RANKING
Census Tracts ranked by an index of health, housing and economic opportunity measures.

Lowest Ranked

Highest Ranked

POPULATION MEASURES

Dark red areas populations most impacted

Dark blue areas populations least impacted

Life expectancy
74 years 87 years

Health, broadly defined:
Adverse childhood experiences 20% 9%
Frequent mental distress 14% 4%
Smoking 20% 5%
Obesity 33% 14%
Diabetes 13% 5%
Preventable hospitalizations 1.0% 0.4%

Housing:
Poor housing condition 8% 0%

Economic opportunity:
Low-income, below 200% poverty 54% 6%
Unemployment 13% 3%

Data Sources: U.S. Census Bureau, BRFSS, CHARs
Produced by: Public Health - Seattle & King County
Opportunities for Better Health

In King County—as in communities across the nation—neighborhood conditions, race, income, language, and education are highly correlated with disease burden and life expectancy. Community health data consistently show that these determinants of health—shaped by local distributions of money, power, and resources—cannot be ignored if we hope to improve individual healthcare and health outcomes.

The relationship between lack of opportunities and poor health is clear: King County neighborhoods with the lowest educational attainment and highest levels of poverty are also the areas with the greatest concentrations of obesity, diabetes, and many other adverse health outcomes. Equal access to opportunities such as education, housing, and jobs is necessary for all people to thrive and achieve their full potential.

Because health services account for only around 20 percent of overall health, this report highlights community health needs that will require non-clinical as well as clinical approaches by hospitals and health systems and their partners.¹
This section reports on common themes and issues that came up in our conversations with community coalitions, other community organizations, and subject matter experts. Additional community input can be found in individual chapters of this report.

Basic Needs

Throughout the community interviews conducted for this report and in previous community assessments, residents voiced the importance of meeting basic needs if they are to fulfill the potential for a healthy life. Basic needs most frequently mentioned included affordable housing, transportation, access to care (adult dental and behavioral health especially), public safety, living wages, and opportunities to purchase healthy food and be physically active. Poverty emerged throughout these conversations, most often as a barrier to improved health.

Community members identified access to safe and affordable housing as a major concern. What is being done to improve and preserve existing affordable housing stock and what is being done to encourage new affordable housing? If affordable housing is not preserved, residents may be uprooted from their communities and risk losing long-standing social and emotional connections as well as ties to important social and cultural institutions.

Accessible and affordable transportation was identified as a key component of communities in which economic opportunity might be experienced by all. Ample research supports the notion that reliable transportation to job and education centers can make the difference between poverty and economic stability. King County residents, especially in suburban cities, rely on public transportation – not only to get to their jobs, but also to access healthy food and participate safely in physical activities. Community members identified the need for more efficient bus services and improved connections to multiple parts of the county. Respondents also spoke to the need for additional transportation options, especially for older and/or disabled adults and families.

Respondents are asking hospitals to use their influence not only to promote and protect good health, and prevent ill health, but also to work collaboratively across all sectors to develop systems to address basic needs and reduce health inequities. While these issues may seem beyond the realm of a hospital’s mission, hospitals locally and nationally are working with communities to address basic needs.
**Cultural Competency**

Multiple service providers, community members, and strategic plans called out the importance of providing culturally competent and respectful services to all people regardless of their race, income, language, beliefs, or the complexity of their situation. Community members expressed the importance of cultural and linguistic competency and that it must be taken into account when designing new interventions, practices, and services. King County hospitals have many opportunities to partner with organizations that, because of their strong ties to particular population groups, can help the hospitals offer culturally specific services. A shortage of bilingual and bicultural behavioral health service providers in King County emerged as a significant workforce capacity issue. (Workforce diversity is addressed in the Access to Care chapter.)

Support for these recommendations also comes from the Washington State’s Governor’s Interagency Council on Health Disparities, which has called for increased attention to cultural competency and diversity in the healthcare workforce. A new guide released by the Equity of Care initiative, *Becoming a Culturally Competent Health Care Organization*, outlines steps and educational techniques. Additional guidance on providing culturally and linguistically appropriate services is available from the federal Office of Minority Health.

**Community Input and Inclusiveness**

Stakeholders want assurance that traditionally un- and under-represented communities will be at the table during community health needs assessments and improvement processes. Community engagement and empowerment is considered essential to improving the health and wellness of King County communities. Community representatives view hospitals as “major forces in the community” and would like them to welcome community members as full partners in making decisions to improve community conditions. The community-engagement process should offer opportunities for communities to express their views and have a meaningful role in decision-making. What interviewees described is much more than just engagement; it is “power sharing 101.”

Many expressed desire for an ongoing, “two-way conversation” with hospitals instead of meetings that happen once every three years. Many believe that ongoing communication between hospitals and
community groups will yield more relevant information about community needs than fixed-interval formal assessments. Several different approaches to engagement were suggested. One suggested strategy was to have hospital staff attend community-based coalition meetings on a regular basis. Another was for hospitals to partner with existing community organizations to offer programs jointly. An important take-home message was, “Don’t recreate what already exists, but collaborate.”

**Health Insurance Coverage, Health Literacy, and Navigating Healthcare Services**

These three issues were repeatedly highlighted as continuing challenges to improving the community’s health. Respondents stressed the fact that some people will always “fall through the cracks” and remain uninsured. They expressed concern about people with incomes above 138% of the Federal Poverty Level (FPL) who didn’t enroll in health insurance because they could not afford the premiums, and about those who enrolled but may fall behind in paying their premiums. Lack of access to adult dental care due to the low Medicaid reimbursement rate was also mentioned. But, as one participant said, “Access requires more than health insurance.” People also need to understand basic health issues and know how to navigate the healthcare system. Understanding how the health system works, including the specific services and benefits people are eligible for, was identified as a continuing challenge. Patients are afraid of the cost of care. Respondents reported that many people don’t know how to shop for health insurance that enables them to continue receiving care from their current provider. Community health workers, cultural navigators, and in-person assisters were perceived as helpful in addressing all three concerns.

**Community Assets & Resources**

Although never all-inclusive, identification of community assets and resources is essential to a community health improvement process. We invited stakeholders to tell us about the people, places, policies, and programs that help their community thrive. Community strengths relevant to identified health needs are highlighted in each section (e.g. maternal and child health). We capture just a few of the frequently mentioned assets below:

**Partnerships, coalitions, and collaborations:** Across the board—whether the focus was mental health, violence and injury prevention, healthy eating and
active living, or infant mortality—existing partnerships and coalitions were identified as key community strengths that are essential for success in improving the health and well-being of King County communities. At the same time, many respondents believed coordination among community-based organizations could be improved. They stressed the need for increased collaboration between community-based organizations, governmental agencies, advocacy organizations, hospitals and health systems, and the private sector.

**Faith institutions:** Faith-based institutions and committees were recognized for their tireless efforts to address homelessness, food insecurity, and other basic needs (e.g. Eastside Interfaith Social Concerns Council).

**Community health centers:** Community health centers, particularly clinics that specialize in providing culturally sensitive and appropriate care, were respected for their outreach to and care for hard-to-reach, underserved, and marginalized communities.

**Food programs:** Food banks and other food-related programs (e.g. Fresh Bucks) were recognized as valued resources for families struggling with food insecurity, a key health concern.
The focus area for this community health needs assessment is King County, the common community for all hospitals participating in the HHC collaborative. King County is the 13th most populous county in the United States. With an estimated 2013 population of 2 million and growing, King County is home to one-third of Washington State’s population. King County includes Seattle and 38 other cities, plus unincorporated areas, rural areas, 19 school districts, and 12 hospitals and health systems. South Region has an estimated 704,000 residents, larger than Seattle (617,000), East Region (514,000) and North Region (122,000). More detailed demographic information about King County and the 4 regions is located in Appendix D.

Children and teens represent 21% of the King County population, and 11% of the population are 65 or older. Almost one quarter (24%) of adults has a disability.
King County Hospitals for a Healthier Community
Member hospitals, September 2014

Central Seattle inset
### Changing Demographics

As King County’s population continues to grow, it is also experiencing dramatic demographic shifts: increasing diversity, increasing poverty, and large health inequities compared to other large counties in the U.S. Successive waves of immigrants and refugees from Asia, the Horn of Africa, Central America, and the former Soviet Union have transformed the population. Many of our foreign-born residents are refugees with complex needs. As they integrate into society, these new residents can face enormous challenges, including language barriers, isolation, past trauma, poverty, and disability.

### King County, 1980

**Population:** 1,269,898

- **White/non-Hispanic:** 87%
- **Asian/Pacific Islander:** 5%
- **Black/African American non-Hispanic:** 4%
- **Hispanic/Latino:** 2%
- **American Indian/Alaska Native:** 1%
- **Some other race:** 1%

### King County, 2010

**Population:** 1,931,249

- **White/non-Hispanic:** 65%
- **Asian/non-Hispanic:** 14%
- **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%
- **Some other race:** 0.2%
- **Some other race:** 0.2%

**Population under age 18**

**King County, 2010**

**Population size:** 413,502

- **White/non-Hispanic:** 53%
- **Asian/non-Hispanic:** 14%
- **Hispanic/Latino:** 14%
- **Multiple race:** 9%
- **Black/African American non-Hispanic:** 8%
- **American Indian/Alaska Native/non-Hispanic:** 1%
- **Native Hawaiian/Pacific Islander/non-Hispanic:** 1%
- **Some other race:** 0.4%

Data source: US Census Bureau, Census 1980, 2010

Percentages may not add up to 100% due to rounding.
Students at area school districts speak dozens of different languages, the Tukwila School District has been dubbed "the most diverse school district in the nation." More than 1 of every 3 residents—and almost half of children—is a person of color, and the diversification trend is expected to continue. The county's fast-growing southern suburbs include several cities and school districts that are already "majority minority"—where people of color make up more than half the population. Approximately 170 languages are spoken in King County, and 1 of every 4 King County residents speaks a language other than English at home—more than twice the rate only 20 years ago. In addition to Spanish (the most frequently spoken language), Vietnamese, Russian, Chinese, Korean, Tagalog, and African languages (primarily Somali) are also common.

King County's population over age 60 is increasing, and will continue to grow as baby boomers age (doubling from 1990 to 2020). Adults older than 60 will comprise 21 percent of the county's total population by 2020, up from 16 percent in 2010. Since many health conditions increase with age, this has implications for increased burden on the healthcare system.

**Increasing Poverty**

Poverty continues to rise: almost 1 of every 5 residents—more than 500,000 adults and children—now live in or near poverty (below 200% of the Federal Poverty Level). As poverty shifts from inner-city Seattle to the margins of Seattle and suburban areas to the south, prevalence of chronic diseases and associated risk factors are increasing in those areas. This mirrors what is happening across the nation. For poverty in particular, looking at King County as a whole masks huge disparities. One indicator of poverty, eligibility for the Free or Reduced-Price Meal program, varied widely in the 2012-2013 school year—from 4% of students in Mercer Island to 79% in Tukwila. With the exception of the rural Skykomish school district, all districts with 50% or more students in the Free or Reduced-Price Meal programs were located in South King County.
Housing Affordability

As costs for rent and home purchases increase, families have less to spend on other necessities. Almost half of renters and 40% of owners with a mortgage in King County are paying more than 30% of their household income on housing—the threshold for unaffordability. An estimated 11,561 people took refuge in emergency shelters in 2012-2013, and the number of students experiencing homelessness continued its upward trend to 6,188 students in the 2012-2013 school year.*

Stark Disparities by Place, Race, and Income

Overall King County rankings on measures of quality of life, socioeconomic status, and health are among the highest in the country. As with poverty, however, these averages mask stark differences by place, race and income. People of color, people living in poverty, and those living in communities with few opportunities also experience the health-related impacts of inequity. Any efforts to improve the health of the community and to successfully achieve the triple aims of better health, better care, and lower healthcare costs will require strategies that acknowledge and tackle these disparities.
Life expectancy and leading causes of death are broad foundational health measures often used by local, state, and federal public health agencies to monitor progress in promoting wellbeing, preventing disease and disability, and reducing health disparities.

Life expectancy is defined as the number of years a newborn can expect to live if current death rates remain the same during her lifetime. While King County’s life expectancy exceeds the national average, the county average masks broad disparities by place and race/ethnicity.

Differences in leading causes of death vary by age. While injuries are a leading cause for children, teens, and young adults, cancer and heart disease are leading causes of deaths for older adults.

Place matters, with shorter life expectancies in southeast Seattle and south King County.

Life expectancy at birth by Health Reporting Areas
King County, 2008-2012

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

In 2012, the average life expectancy for King County newborns was 81.7 years.

■ Residents of the South Auburn neighborhood are expected to live an average of 10 fewer years than those in the West Bellevue neighborhood.

■ From 2000 to 2012, life expectancy increased steadily in King County overall and in all regions except East Region, where it is already comparatively high.

Leading Causes of Death

In 2012, the top two leading causes of death in King County were cancer and heart disease.

■ 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 1992, to #5 in 2002, and #3 in 2012, because of increases in attribution of death to Alzheimer’s rather than other conditions (such as pneumonia, cardiovascular disease, pulmonary embolism, dehydration).

■ Among King County residents age 1 to 44 years, the top-ranked causes of death are unintentional injuries, cancer, and suicide. For adults 45 and older, cancer and heart disease dominate the rankings.

■ All racial/ethnic groups share heart disease and cancer as the top 2 causes of death.

■ Unintentional injury is ranked #3 for American Indian/Alaska Natives, Blacks, Hispanics, and Native Hawaiians, reflecting the relative youth of these populations.
# Leading causes of death by age

**King County, 2008-2012 average**

<table>
<thead>
<tr>
<th>Rank</th>
<th>King County</th>
<th>Age &lt; 1</th>
<th>Age 1-14</th>
<th>Age 15-24</th>
<th>Age 25-44</th>
<th>Age 45-64</th>
<th>Age 65-74</th>
<th>Age 75 &amp; older</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cancer</td>
<td>Congenital malformations</td>
<td>Unintentional injury</td>
<td>Unintentional injury</td>
<td>Cancer</td>
<td>Cancer</td>
<td>Heart disease</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Heart disease</td>
<td>Sudden infant death syndrome</td>
<td>Cancer</td>
<td>Suicide</td>
<td>Cancer</td>
<td>Heart disease</td>
<td>Heart disease</td>
<td>Cancer</td>
</tr>
<tr>
<td>3</td>
<td>Alzheimer’s disease</td>
<td>Short gestation and low birth weight</td>
<td>Congenital malformations</td>
<td>Homicide</td>
<td>Suicide</td>
<td>Unintentional injury</td>
<td>Chronic lower respiratory disease</td>
<td>Alzheimer’s disease</td>
</tr>
<tr>
<td>4</td>
<td>Stroke</td>
<td>Maternal complications of pregnancy</td>
<td>Homicide</td>
<td>Cancer</td>
<td>Heart disease</td>
<td>Chronic liver disease and cirrhosis</td>
<td>Diabetes</td>
<td>Stroke</td>
</tr>
<tr>
<td>5</td>
<td>Unintentional injury</td>
<td>Complications of placenta/cord</td>
<td>Suicide</td>
<td>Congenital malformations</td>
<td>Homicide</td>
<td>Suicide</td>
<td>Stroke</td>
<td>Chronic lower respiratory disease</td>
</tr>
<tr>
<td>6</td>
<td>Chronic lower respiratory disease</td>
<td>Bacterial sepsis of newborn</td>
<td>Chronic liver disease and cirrhosis</td>
<td>Diabetes</td>
<td>Unintentional injury</td>
<td>Diabetes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Diabetes</td>
<td>Diseases of circulatory system</td>
<td>Diabetes</td>
<td>Chronic lower respiratory disease</td>
<td>Chronic liver disease and cirrhosis</td>
<td>Unintentional injury</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Suicide</td>
<td>Unintentional injury</td>
<td>Stroke</td>
<td>Stroke</td>
<td>Alzheimer’s disease</td>
<td>Parkinson’s disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Chronic liver disease and cirrhosis</td>
<td>Necrotizing enterocolitis</td>
<td>HIV/AIDS</td>
<td>Viral hepatitis</td>
<td>Kidney diseases</td>
<td>Influenza and pneumonia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Influenza and pneumonia</td>
<td>Respiratory distress</td>
<td>Influenza and pneumonia</td>
<td>Septicemia</td>
<td>Septicemia</td>
<td>Pneumonitis from solids/liquids</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Ave.# per yr.** 11,896 101 37 120 512 2,315 1,683 7,129

*Blank cell = too few cases to report in order to protect individual confidentiality. The leading causes of death are ranked by the number of deaths over the 5-year period.*

*Rate = Deaths per 100,000 population. Rates for all ages are age-adjusted to the 2000 U.S. population.*

*Source: Death Certificate Data, Washington State Department of Health, Center for Health Statistics.*
Chronic illnesses are among the leading causes of death, disability, and hospitalization in King County, Washington State, and the U.S. They are generally characterized by multiple risk factors, a long period of development, prolonged course of illness, and increased incidence with age. This section focuses on chronic illnesses for which the health care delivery system plays a major role in prevention, screening, and treatment: asthma, diabetes, HIV, and cancers of the colon, cervix, and breast.

The leading causes of hospitalization for children and young adults are pregnancy/childbirth complications, asthma, and injuries.
ASTHMA

ADULT ASTHMA

From 2009 to 2013, 9% of King County adults reported i) they had been told by a health professional that they had asthma and ii) they still had asthma.

■ Women were 1.6 times as likely as men to have asthma.

■ Adults with annual household income below $25,000 were 1.5 to 1.7 times more likely to have asthma than those with income above $50,000.

Asthma (adults)
King County, 2009-2013 average

Source: Behavioral Risk Factor Surveillance System.
**CHILDHOOD ASTHMA**

From 2009 to 2013, 7% of King County children aged 0-17 had asthma. During this period children's asthma decreased in Seattle, but did not change in King County overall.

---

**Current asthma among children age 0-17**

**King County, 2009-2013 average**

- **King County**: 7%
- **AIAN**: *
- **Asian**: 9%
- **Black**: 11%
- **Hispanic**: 6%
- **Multiple**: 8%
- **NHPI**: *
- **White**: 6%
- **East**: 6%
- **North**: 6%
- **Seattle**: 8%
- **South**: 6%

*Source: Behavioral Risk Factor Surveillance System*
**DIABETES**

**ADULT DIABETES**

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

- Adults age 65 and older were 9 times more likely than those ages 45-64 to have diabetes.
- American Indian/Alaska Native adults were about 3 times as likely as white, Asian, and Hispanic adults to have diabetes.
- From 2000 to 2013, adult diabetes rates increased for the county as a whole and in South Region.

**Diabetes (adults)**
**King County, 2009-2013 average**

- King County: 7%
- American Indian/Alaska Native (AIAN): 18%
- Asian: 7%
- Black: 12%
- Hispanic: 7%
- Multiple: 7%
- NHPI: 6%
- White: 6%
- East: 5%
- North: 5%
- Seattle: 5%
- South: 10%

*Source: Behavioral Risk Factor Surveillance System.*
CHILDHOOD DIABETES

From 2008 to 2010, 4% of King County students in 8th, 10th and 12th grades had doctor-diagnosed diabetes. This includes both Type I and Type II diabetes.

- Native Hawaiian/Pacific Islander and Black students were more than 2 times as likely as white students to have been diagnosed with diabetes.

- In contrast with adult diabetes, children’s diabetes rates declined from 2004 to 2010 for the county as a whole and in South Region.

Source: Healthy Youth Survey.
HUMAN IMMUNODEFICIENCY VIRUS (HIV)

Human immunodeficiency virus (HIV) can lead to acquired immunodeficiency syndrome (AIDS), a condition characterized by progressive failure of the immune system.

HIV PREVALENCE

In 2013, 6,995 King County residents were known to have HIV, a rate of 326.9 cases per 100,000 population.

- The Capitol Hill-Eastlake neighborhood has the highest rate of HIV, a rate 45 times greater than in the areas with the lowest rate (Black Diamond-Enumclaw-Southeast County and Bear Creek- Carnation-Duvall).
- Non-Hispanic Black residents of King County were 13 times more likely to be living with HIV than Asians, the race/ethnicity group with the lowest rates in King County.
- Prevalence rates were even higher among foreign-born Blacks, men who have sex with men, and injection drug users.\(^x\)

---

HIV Prevalence
King County, 2013

<table>
<thead>
<tr>
<th>Group</th>
<th>Rate^</th>
</tr>
</thead>
<tbody>
<tr>
<td>King County</td>
<td>326.9</td>
</tr>
<tr>
<td>AIAN</td>
<td>371.4</td>
</tr>
<tr>
<td>Asian NH</td>
<td>79.8</td>
</tr>
<tr>
<td>Black NH</td>
<td>1,061.7</td>
</tr>
<tr>
<td>Hispanic</td>
<td>581.0</td>
</tr>
<tr>
<td>Multiple NH</td>
<td>279.0</td>
</tr>
<tr>
<td>NHPI NH</td>
<td>166.8</td>
</tr>
<tr>
<td>White NH</td>
<td>293.0</td>
</tr>
<tr>
<td>Poverty: High</td>
<td>470.1</td>
</tr>
<tr>
<td>Medium</td>
<td>254.1</td>
</tr>
<tr>
<td>Low</td>
<td>77.2</td>
</tr>
</tbody>
</table>

Source: HIV/AIDS Registry data as of 4/14, Public Health - Seattle & King County
^Rate = Cases per 100,000 population
NH: Non-Hispanic
CANCERS OF THE COLON, CERVIX, AND BREAST

INVASIVE COLORECTAL CANCER

From 2007 to 2011, an average of 691 new cases of invasive colorectal cancer were diagnosed in King County each year, for a rate of 37.3 cases per 100,000 population.

- Even after adjusting for age differences, American Indian/Alaska Native and Black residents had the highest rates of colorectal cancer.

- From 2000 to 2011, the rate of new colon cancer diagnoses declined in King County overall and in all regions except North Region.
INVASIVE CERVICAL CANCER

From 2007 to 2011, on average 64 new cases of invasive cervical cancer were diagnosed each year in King County, an average rate of 6.2 cases per 100,000 women.

- American Indian/Alaska Native women were 3.5 times more likely than white women to be diagnosed with cervical cancer.
- Women living in high poverty areas were almost twice as likely as women living in low poverty areas to be diagnosed.

Invasive Cervical Cancer Incidence
King County, 2007-2011 average

Source: WA State Cancer Registry

^Rate = Cases of uterine cancer per 100,000 women, age-adjusted to the 2000 US population.
INVASIVE BREAST CANCER

From 2007 to 2011, 1,426 new cases of breast cancer were diagnosed each year among King County women, a rate of 140.0 cases per 100,000 women.

■ In King County overall, rates of new diagnoses declined from 2000 to 2006, then flattened out after 2006. Seattle showed a similar pattern, with the plateau starting after 2007. In East Region, rates continued to decline through 2011.

■ The rate of new breast cancer diagnoses was highest among King County white women. However, mammography rates were lower among Black women than in white women.
LEADING CAUSES OF HOSPITALIZATION

Hospitalization data offer another perspective on the health of King County residents.

- The leading causes of hospitalization among adults were pregnancy/childbirth complications, heart disease, injuries, and mental illness.

- For children and young adults, pregnancy/childbirth complications, asthma, and injuries are the leading causes of hospitalizations. Newborn deliveries and uncomplicated childbirth hospitalizations are not shown.

- The hospitalization rate for heart disease is 54% higher among men than women.

The leading causes of hospitalization are ranked by the number of hospitalizations over the 5-year period. Excludes hospitalization of newborns for delivery.

Rate = Hospitalizations per 100,000 population, age-adjusted to the 2000 US population.


Pregnancy and childbirth complications: Major complications include prolonged pregnancy, high blood pressure (e.g. preeclampsia, eclampsia), Newborn delivery refers to routine hospitalization of a newborn infant after birth.

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 biopolar 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.

### Leading causes of hospitalization

<table>
<thead>
<tr>
<th>Rank</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pregnancy-childbirth complications</td>
<td>Heart disease</td>
<td>Pregnancy-childbirth complications</td>
</tr>
<tr>
<td>2</td>
<td>Heart disease</td>
<td>Unintentional injuries</td>
<td>Heart disease</td>
</tr>
<tr>
<td>3</td>
<td>Unintentional injuries</td>
<td>Mental illness</td>
<td>Unintentional injuries</td>
</tr>
<tr>
<td>4</td>
<td>Mental illness</td>
<td>Cancer and benign tumors</td>
<td>Mental illness</td>
</tr>
<tr>
<td>5</td>
<td>Cancer and benign tumors</td>
<td>Infectious and parasitic diseases</td>
<td>Cancer and benign tumors</td>
</tr>
<tr>
<td>6</td>
<td>Osteoarthritis</td>
<td>Lower gastrointestinal disorders</td>
<td>Osteoarthritis</td>
</tr>
<tr>
<td>7</td>
<td>Lower gastrointestinal disorders</td>
<td>Respiratory infections</td>
<td>Lower gastrointestinal disorders</td>
</tr>
<tr>
<td>8</td>
<td>Infectious and parasitic diseases</td>
<td>Osteoarthritis</td>
<td>Infectious and parasitic diseases</td>
</tr>
<tr>
<td>9</td>
<td>Respiratory infections</td>
<td>Stroke</td>
<td>Respiratory infections</td>
</tr>
<tr>
<td>10</td>
<td>Stroke</td>
<td>Skin infections</td>
<td>Stroke</td>
</tr>
</tbody>
</table>

Ave.# per yr. 99,049 69,484 168,534

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

Infectious and parasitic diseases: Major sub-causes include septicemia (bacterial infection of the blood) and viral infection.

Respiratory infections: Major sub-causes include pneumonia and acute bronchitis.
Access to comprehensive, high-quality healthcare facilitates prevention and early detection of disease. Without health insurance, most people cannot afford quality healthcare, and disparities in coverage perpetuate disparities in health and quality of life. Access to health insurance coverage has improved with expansion of Medicaid eligibility and implementation of health insurance marketplaces for Qualified Health Plans. However, for 1 in 7 King County adults, costs are a barrier to seeking needed medical care. Too many adults and children in the county do not receive recommended clinical preventive services or regular oral healthcare services.

Opportunities include assistance for people without health insurance or who struggle to afford health insurance premiums; increased workforce diversity; and increased Medicaid reimbursement of dental care providers.

“Dental care is sorely lacking. There’s nothing we’re doing as badly.”
– Emergency Department physician
ACCESS TO CARE

COVERAGE IS HERE
KING COUNTY CAMPAIGN

The first open enrollment period for new health insurance options took place in 2013 and 2014. Organizations in King County partnered on the Coverage Is Here King County campaign and, through their collective efforts, enrolled 165,000 residents in new coverage. Each hospital in King County played a role in helping families access new free and low-cost health insurance options. Across all hospitals and health systems, more than 300 staff were trained and certified as In-Person Assisters (IPA) to help community members with enrollment in Medicaid or a Qualified Health Plan through Washington Healthplanfinder. County-wide, hospital staff enrolled over 13,000 individuals. Hospitals also publicized the opportunity to enroll through signage in their facilities, radio ads, websites, speaking engagements, and extensive workforce education. Early data suggest that the proportion of hospital patients with insurance coverage is increasing and use of charity care is declining. For the latest enrollment data, see http://www.kingcounty.gov/healthservices/health/partnerships/HealthReform.aspx
UNINSURED ADULTS

From 2008 to 2012, 16% of King County adults ages 18-64 had no health insurance. Expansion of coverage through the Affordable Care Act has probably reduced this rate, but 2014 data are not yet available. Most adults ages 65 and older are covered by Medicare, so are not included in this indicator.

- Hispanic adults were 3.8 times more likely than non-Hispanic whites to be without coverage.
- Low-income adults (household income less than 200% of the Federal Poverty Level [FPL]) were more than 7 times more likely to be uninsured than those in the highest income households.
- Adults age 65 and older are not included here, as most are covered by Medicare.

Adults age 18-64 with no health insurance
King County, 2008-2012 average

<table>
<thead>
<tr>
<th>Category</th>
<th>2008-2012 Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>King County</td>
<td>16%</td>
</tr>
<tr>
<td>AIAN</td>
<td>26%</td>
</tr>
<tr>
<td>Asian</td>
<td>15%</td>
</tr>
<tr>
<td>Black</td>
<td>25%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>42%</td>
</tr>
<tr>
<td>Multiple</td>
<td>18%</td>
</tr>
<tr>
<td>NHPI</td>
<td>24%</td>
</tr>
<tr>
<td>White NH</td>
<td>11%</td>
</tr>
<tr>
<td>Income: &lt;138% of FPL</td>
<td>37%</td>
</tr>
<tr>
<td>138-199%</td>
<td>36%</td>
</tr>
<tr>
<td>200-399%</td>
<td>20%</td>
</tr>
<tr>
<td>400%+</td>
<td>5%</td>
</tr>
</tbody>
</table>

Source: American Community Survey, US Census
FPL, Federal Poverty Level
UNINSURED CHILDREN

From 2008 to 2012, an average of 5% of King County children had no health coverage.

- American Indian/Alaska Native children were 5 times more likely than non-Hispanic white children to be uninsured.
- Children in low-income households (less than 200% of the FPL) were 5 times more likely than those in the highest income households to be uninsured.
- Children living in South Region were more than twice as likely to be uninsured than children living in East Region.

Source: American Community Survey, US Census
ADULTS WITHOUT USUAL PRIMARY CARE PROVIDER

From 2009 to 2013, 1 in 4 King County adults did not have anyone they identified as a primary healthcare provider.

- Adults with household income less than $25,000 were 2.4 times more likely than those with incomes over $75,000 to be without a primary care provider.
- Hispanics were twice as likely as whites to have no primary care provider.
- Adults age 18-24 were more than 9 times more likely than those age 65 or older to be without usual primary care provider. In general the likelihood of not having a primary care provider decreased with increasing age.
- From 2000 to 2013, the proportion of adults without a primary care provider increased for the county as a whole and in East and South Regions.

Source: Behavioral Risk Factor Surveillance System.
UNMET MEDICAL NEEDS

From 2009 to 2013, 14% of King County adults reported they needed to see a doctor in the past 12 months but could not, due to cost.

- Hispanics were 3.9 times more likely than Asians to report unmet medical needs.
- Adults with household income less than $25,000 were at least 8 times more likely than those earning more than $75,000 to report unmet medical needs.
- Compared to adults with health insurance, uninsured adults were more than 4 times as likely to have unmet medical needs.\textsuperscript{xii}
- In King County, unmet medical need increased from 2000-2004, plateaued from 2004-2007, then increased again from 2007-2013. In East Region, rates held steady through 2006, then began to increase. In South Region, rates increased between 2000 and 2013.

Unmet medical need (adults)
King County, 2009-2013 average

<table>
<thead>
<tr>
<th>Group</th>
<th>Unmet Medical Need</th>
</tr>
</thead>
<tbody>
<tr>
<td>King County</td>
<td>14%</td>
</tr>
<tr>
<td>AIAN</td>
<td>15%</td>
</tr>
<tr>
<td>Asian</td>
<td>8%</td>
</tr>
<tr>
<td>Black</td>
<td>23%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>31%</td>
</tr>
<tr>
<td>Multiple</td>
<td>24%</td>
</tr>
<tr>
<td>NHPI</td>
<td>17%</td>
</tr>
<tr>
<td>White</td>
<td>12%</td>
</tr>
<tr>
<td>Income: &lt;$15,000</td>
<td>36%</td>
</tr>
<tr>
<td>$15,000 to $24,999</td>
<td>31%</td>
</tr>
<tr>
<td>$25,000 to $34,999</td>
<td>23%</td>
</tr>
<tr>
<td>$35,000 to $49,999</td>
<td>12%</td>
</tr>
<tr>
<td>$50,000 to $74,999</td>
<td>10%</td>
</tr>
<tr>
<td>$75,000+</td>
<td>4%</td>
</tr>
</tbody>
</table>

Source: Behavioral Risk Factor Surveillance System.
KEY ACCESS TO CARE ISSUES: COMMUNITY INPUT, RESOURCES, AND OPPORTUNITIES

Community input:
While many residents have found coverage since implementation of the Affordable Care Act, some are not eligible for subsidies or Medicaid, choose not to enroll, or struggle to afford premiums. Community members stressed that the healthcare system should continue to provide charity care for people who fall through the cracks.

For those with coverage, ongoing challenges include access to specialty care, adult dental care, and behavioral health services. Even with increased health insurance coverage, high deductibles and co-pays may deter an individual from seeking care when faced with the challenges of meeting basic needs for food and housing.

The potential loss of services such as case management, integrated mental health, nutrition counseling, and other non-clinical services presents another challenge to maintaining good health.

Assets and resources include:

- Community Health Centers continue to serve all residents regardless of ability to pay. Public Health Centers, tribal clinics, and school-based health centers also serve the health needs of the community (see map of facilities on page 46).

- Local hospitals remain committed to providing charity care to low-income individuals and enrolling residents in health coverage. In 2013, King County hospitals provided a total of $154.5 million in charity care to qualifying patients. Hospitals are still required to meet the state’s charity care law and regulatory requirements (WAC 246-453).

- Project Access Northwest connects low-income and uninsured patients with specialty care and provides health literacy education.

- The Pacific Hospital Preservation and Development Authority provides funding for programs that address access to care issues.
The Health Coalition for Children and Youth (HCCY) is a coalition of organizations in Washington that work to meet the health needs of children, including medical, dental, and mental health care.

The First Friday Forum is a coalition of community health centers, social service organizations, government agencies and hospitals that share information related to publicly sponsored health care program eligibility, enrollment, and best practices.

The Edward Thomas House Medical Respite Care is a collaborative of several hospitals that works to reduce unnecessary hospitalizations by providing respite care for homeless individuals.

WithinReach connects families, online, in-person, or through a hotline, with whatever resources they may need, e.g. health care enrollment, food, etc.

Opportunities include:

In 2014, several hospitals provided funds to assist low-income households with payment for insurance premiums. To qualify, household income needed to be less than 200% of the Federal Poverty Level (in 2014, approximately $47,700 a year for a family of 4 with 2 children) and had to be enrolled through Washington Healthplanfinder (Washington’s health benefit exchange). This ongoing program is managed by Project Access Northwest.
Hospital and safety net health care facilities
King County, October 2014

Health care facilities include hospitals, hospital-affiliated clinics, Federally Qualified Health Centers, and school-based health centers.
WORKFORCE CAPACITY

Community input:
Community Health Centers report severe shortages of primary care providers. Community members stress the importance of a workforce that reflects our communities’ diversity.

Assets and resources include:
- Seattle Jobs Initiative’s Healthcare Career Pathway trains diverse, low-income residents in healthcare careers.
- As part of their healthcare workforce strategic plan, Seattle Central Community College’s planned expansion of its Nursing and Allied Health programs at the Pacific Tower will double its number of training slots. Programs are expected to begin in fall of 2015. A consortium of local colleges is also creating a program for community health workers/patient care navigators.

USE OF CLINICAL PREVENTIVE SERVICES

Opportunities include:
- Working with alternative as well as allopathic healthcare providers to improve vaccination coverage; improving data on vaccination coverage.
INCOMPLETE VACCINES

In 2014, 13,586 King County children age 19-35 months (almost 2 out of 5 children, or 38%) had not completed the recommended series of immunizations for young children (4:3:1:3:3:1:4 series).

■ These estimates are based on vaccination records submitted by healthcare providers to the WA State Immunization Information System (WSIIS). According to past statewide assessments, WSIIS estimates of vaccination coverage 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.

■ Completion rates are lowest in the South and North regions, representing both low- and high-income areas of King County, respectively.

Community input:

Incomplete vaccinations remain a concern. King County does not meet the Healthy People 2020 objective of reducing incomplete vaccination coverage to 20% of children aged 19-35 months.
Access to Care, Use of Clinical Preventive Services, and Oral Health

Continued

Assets and resources include:

- The VAX Northwest Immunity Community program is training parents to be immunization advocates in child care settings, pre-schools, and elementary schools.
- Almost all pediatric providers (~340) are enrolled in the Vaccines for Children Program, a federal program that provides vaccines at no cost to children who might otherwise not be vaccinated.
- Each year, PHSKC’s Immunization Program and the Washington State Department of Health visit 50% of clinics enrolled in the Vaccines for Children Program. They assess clinics for best immunization practices and provide education and recommendations to healthcare providers. Additionally, 25% of these clinics receive a site visit from the CDC’s AFIX (Assessment, Feedback, Incentives, and eXchange) quality improvement program to increase immunization coverage.
- The WithinReach Immunization Program promotes immunization coverage through a variety of programs, including the Immunization Action Coalition of WA, which raises public awareness and provides education to groups ranging from health care providers to parents, and Vax Northwest, which is a resource for parents to ensure that everyone can find accurate information about the value of vaccines.
- The Department of Health’s Child Profile Health Promotion System helps to ensure that Washington’s kids get the preventive health care they need, provides free educational resources to families, and tracks individual and population level immunization coverage.
- A grassroots campaign led by Vashon Island resident Celina Yarkin has been lauded for working to improve vaccination coverage among the island’s children.

Opportunities include:

- Working with healthcare providers to improve vaccination coverage is extremely important. Patients trust their providers, and a provider’s recommendation can shape a caregiver’s decision to vaccinate a child.
- Improving vaccination coverage data would help public health practitioners identify pockets of need.
- Sustained work with naturopathic physicians and other providers of complementary and alternative medicine is needed to ensure that the benefits of vaccines are offered to all population groups.
COLORECTAL CANCER SCREENING

From 2011 to 2013, more than 1 in 3 King County adults age 50-75 (36%) failed to meet colorectal cancer screening guidelines.iii

- Adults with household income below $25,000 were half as likely as those in the highest income households to meet screening guidelines.

- Hispanics were half as likely as non-Hispanic whites to meet screening guidelines.

Colorectal cancer screening guidelines not met (age 50-75)
King County, 2011-2013 average

<table>
<thead>
<tr>
<th>Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>King County</td>
<td>36%</td>
</tr>
<tr>
<td>AIAN</td>
<td>43%</td>
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<tr>
<td>Asian</td>
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<td>67%</td>
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<tr>
<td>Hispanic</td>
<td>37%</td>
</tr>
<tr>
<td>Multiple</td>
<td>37%</td>
</tr>
<tr>
<td>NHPI</td>
<td>33%</td>
</tr>
<tr>
<td>White</td>
<td>35%</td>
</tr>
<tr>
<td>East</td>
<td>29%</td>
</tr>
<tr>
<td>North</td>
<td>29%</td>
</tr>
<tr>
<td>Seattle</td>
<td>35%</td>
</tr>
<tr>
<td>South</td>
<td>36%</td>
</tr>
</tbody>
</table>

Source: Behavioral Risk Factor Surveillance System.
ORAL HEALTH

ADULT DENTAL VISITS

From 2008 to 2012, an average 27% of King County adults reported they did not visit a dentist or dental clinic in the past year.

■ American Indian/Alaska Native, Hispanic, and Black adults were about half as likely as whites to have had an annual dental visit.

■ About half of adults with household income less than $25,000 had not visited a dentist in the past year.

■ From 2001 to 2012, annual dental check-up rates did not change for King County adults overall; for adults in Seattle and South Region, however, fewer adults are getting annual check-ups.

CHILDREN’S DENTAL VISITS

From 2008 to 2012, 18% of students in 8th, 10th and 12th grades reported they had not visited a dentist in the past year for a check-up, exam, teeth cleaning, or other dental work.

■ Black and Native Hawaiian/Pacific Islander students were half as likely as white students to have an annual dental visit.

■ Between 2004-2012, more students reported visiting the dentist in the county and all regions except Seattle.
CHILDHOOD CAVITIES

Dental disease, which affects children’s ability to eat, sleep, and learn, is a common, chronic problem among King County children. In 2010, 40.2% of kindergarten and 3rd-grade children had treated or untreated cavities.

- Children eligible for free or reduced-price school meals were almost 2 times more likely than those from higher-income families to have untreated dental disease.
- Untreated dental disease was also more likely among …
  - … children of color (compared to white non-Hispanic children)
  - … children whose family spoke a language other than English at home.
- Use of protective dental sealants was high among all third-grade children.

---

Childhood cavities
King County, 2010

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>King County</td>
<td>40.2%</td>
</tr>
<tr>
<td>Asian</td>
<td>45.0%</td>
</tr>
<tr>
<td>Black</td>
<td>45.0%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>59.0%</td>
</tr>
<tr>
<td>Other</td>
<td>51.0%</td>
</tr>
<tr>
<td>White NH</td>
<td>30.2%</td>
</tr>
<tr>
<td>FRP lunch eligible</td>
<td>56.6%</td>
</tr>
<tr>
<td>FRP lunch ineligible</td>
<td>29.4%</td>
</tr>
<tr>
<td>Other language at home</td>
<td>55.7%</td>
</tr>
<tr>
<td>English at home</td>
<td>33.1%</td>
</tr>
</tbody>
</table>

Source: 2010 King County Smile Survey
FRP, Free/Reduced Price
Other language: language other than English spoken at home
English: English spoken at home
KEY ORAL HEALTH ISSUES: COMMUNITY INPUT, RESOURCES, AND OPPORTUNITIES

Community input:
Inadequate Medicaid reimbursement is likely to restrict access to adult dental care. While Medicaid now offers coverage for adult dental care, dentists report that reimbursements for private-practice care (only 25 cents on the dollar) are often too low to cover the costs of providing care to Medicaid eligible adults.**

Assets and resources include:
- Several community health centers have opened new dental clinics in 2014 and plan to open additional clinics in 2015.
- The Seattle and King County Access to Baby and Child Dentistry program connects low-income children, 0-5 years of age, with private dentists.
- The Seattle-King County Dental Society provides donated dental services for low-income residents who do not qualify for Medicaid.
- The SmileMobile is a mobile dental office serving low-income children. Services range from examinations and preventive care to fillings and minor oral surgery.

Opportunities include:
- Increasing reimbursement rates could provide incentive for dentists to accept patients with Medicaid.
**ADULT PREVENTABLE HOSPITALIZATIONS**

Prevention Quality Indicators (PQIs) are population-specific measures of the rate of adult hospital admissions for the 12 conditions listed in the table (also called “ambulatory care sensitive conditions”).

- Good outpatient care or early intervention can potentially prevent the need for hospitalizations for these conditions. Therefore, PQIs are used as indicators of access to high quality, community-based primary care.

- The PQI “All” measure combines the acute and chronic PQIs into a single measure for an overall rate.

From 2008 to 2012 in King County:

- PQI hospitalizations were dominated by COPD/asthma for older adults, congestive heart failure, and bacterial pneumonia.

- Adults older than 75 had the highest rates of PQI hospitalizations (almost 7 times the county average).

- PQIs rates in high-poverty areas were double those of low-poverty areas.

- South Region had almost twice the rate of PQIs as East Region.

Since 2000, the PQI composite rate has declined in King County, East Region, and North Region but not in South Region. The Seattle rate has declined since 2006.

---

**Adult preventable hospitalizations**

**King County, 2008-2012 average**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Rate</th>
<th>Average # per year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PQI Composite All</strong></td>
<td>773.7</td>
<td>11,766</td>
</tr>
<tr>
<td><strong>PQI Composite - Acute</strong></td>
<td>327.7</td>
<td>4,983</td>
</tr>
<tr>
<td>Dehydration</td>
<td>67.1</td>
<td>1,020</td>
</tr>
<tr>
<td>Bacterial Pneumonia</td>
<td>154.3</td>
<td>2,346</td>
</tr>
<tr>
<td>Urinary Tract Infection</td>
<td>106.3</td>
<td>1,617</td>
</tr>
<tr>
<td><strong>PQI Composite - Chronic</strong></td>
<td>446.0</td>
<td>6,783</td>
</tr>
<tr>
<td>Diabetes - Short Term Complications</td>
<td>37.5</td>
<td>570</td>
</tr>
<tr>
<td>Diabetes - Long Term Complications</td>
<td>53.1</td>
<td>807</td>
</tr>
<tr>
<td>Diabetes - Uncontrolled</td>
<td>4.6</td>
<td>70</td>
</tr>
<tr>
<td>Lower Extremity Amputation (Diabetics)</td>
<td>8.6</td>
<td>131</td>
</tr>
<tr>
<td>Adult Asthma (Ages 18-39)</td>
<td>25.0</td>
<td>159</td>
</tr>
<tr>
<td>COPD or Asthma in Adults (Ages 40 and older)</td>
<td>209.1</td>
<td>1,844</td>
</tr>
<tr>
<td>Hypertension</td>
<td>20.5</td>
<td>312</td>
</tr>
<tr>
<td>Congestive Heart Failure</td>
<td>187.4</td>
<td>2,850</td>
</tr>
<tr>
<td>Angina</td>
<td>7.3</td>
<td>111</td>
</tr>
</tbody>
</table>

COPD = Chronic Obstructive Pulmonary Disease
Low birth weight is found in the maternal child health section. Perforated appendix admission rate not available.

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

Rate = number of hospitalizations per 100,000 population ages 18 and older.
Behavioral health refers to mental and emotional well-being and/or actions that affect wellness. Behavioral health conditions encompass both mental health and substance use disorders and are related to physical health and wellness. Mental illness is the second leading cause of disability and premature mortality, and accounts for over 15% of the burden of all diseases in the U.S.

Health problems associated with substance abuse include psychosis, depression, drug overdose, skin and lung infections, HIV/AIDS, motor vehicle injuries, and other injuries.

Opportunities include use of standardized referral protocols, coordination of discharge planning across the healthcare system, increased capacity for integrated behavioral healthcare, and increased inpatient capacity for behavioral health.

More than 1 in 4 King County middle and high school students experienced depressive feelings.
**MENTAL HEALTH**

**ADULT SERIOUS PSYCHOLOGICAL DISTRESS**

From 2009 to 2013, 3% of adults in King County experienced “serious psychological distress” (the reported frequency, over the past 30 days, of feeling nervous, hopeless, restless, depressed, worthless, or that everything was an effort).

- The rate for adults with household income under $15,000 was 5 times the county average.
- Data were insufficient to assess trends.

<table>
<thead>
<tr>
<th></th>
<th>King County</th>
<th>AIAN</th>
<th>Asian</th>
<th>Black</th>
<th>Hispanic</th>
<th>Multiple</th>
<th>NHPI</th>
<th>White</th>
<th>East</th>
<th>North</th>
<th>Seattle</th>
<th>South</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009-2013 Average</td>
<td>3%</td>
<td>5%</td>
<td>2%</td>
<td>4%</td>
<td>6%</td>
<td>3%</td>
<td>4%</td>
<td>3%</td>
<td>2%</td>
<td>2%</td>
<td>3%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Source: Behavioral Risk Factor Surveillance System.
YOUTH WITH DEPRESSIVE FEELINGS

Over 2008-2012, over 1 in 4 (26%) of King County 8th, 10th, and 12th grade students experienced depressive feelings.

- Students were considered to have had depressive feelings if during the past year they reported feeling so sad/hopeless almost every day for 2 or more consecutive weeks that they stopped doing some usual activities.

- Females were 1.5 times more likely than males to report depressive feelings.

- Hispanic, Native Hawaiian/Pacific Islander, and Alaska Native/American Indian youth were more likely than Black and white youth to report depressive feelings.

- From 2004 to 2012, youth rates of depressive feelings decreased for King County overall and for Seattle and North Region.

Source: Healthy Youth Survey.

<table>
<thead>
<tr>
<th>Location</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>King County</td>
<td>26%</td>
</tr>
<tr>
<td>AIAN</td>
<td>33%</td>
</tr>
<tr>
<td>Asian</td>
<td>26%</td>
</tr>
<tr>
<td>Black</td>
<td>28%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>32%</td>
</tr>
<tr>
<td>Multiple</td>
<td>29%</td>
</tr>
<tr>
<td>NHPI</td>
<td>32%</td>
</tr>
<tr>
<td>White</td>
<td>23%</td>
</tr>
<tr>
<td>Other</td>
<td>29%</td>
</tr>
<tr>
<td>East</td>
<td>24%</td>
</tr>
<tr>
<td>North</td>
<td>24%</td>
</tr>
<tr>
<td>Seattle</td>
<td>24%</td>
</tr>
<tr>
<td>South</td>
<td>28%</td>
</tr>
</tbody>
</table>
ADULT FREQUENT MENTAL DISTRESS

From 2009-2013, 10% of King County adults experienced frequent mental distress, defined as 14 or more of the past 30 days with poor mental health.

- The rate of frequent mental distress for adults in households with income under $15,000 was 2.4 times the county average.

Frequent mental distress (adults)
King County, 2009-2013 average

<table>
<thead>
<tr>
<th></th>
<th>2009-2013 Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>King County</td>
<td>10%</td>
</tr>
<tr>
<td>AIAN</td>
<td>9%</td>
</tr>
<tr>
<td>Asian</td>
<td>7%</td>
</tr>
<tr>
<td>Black</td>
<td>14%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>13%</td>
</tr>
<tr>
<td>Multiple</td>
<td>13%</td>
</tr>
<tr>
<td>NHPI</td>
<td>7%</td>
</tr>
<tr>
<td>White</td>
<td>10%</td>
</tr>
<tr>
<td>East</td>
<td>7%</td>
</tr>
<tr>
<td>North</td>
<td>12%</td>
</tr>
<tr>
<td>Seattle</td>
<td>10%</td>
</tr>
<tr>
<td>South</td>
<td>12%</td>
</tr>
</tbody>
</table>

Source: Behavioral Risk Factor Surveillance System.
SUBSTANCE ABUSE & CHEMICAL DEPENDENCY

YOUTH BINGE DRINKING

Over 2008-2012, 15% of King County students in 8th, 10th and 12th grades engaged in binge drinking.

- For youth, binge drinking is defined as having 5 or more alcoholic drinks in a row in the past 14 days.
- The binge drinking rate for American Indian/Alaska Native youth was 2.5 times that of the lowest King County rates.
- The binge drinking rate for 12th graders was 1.5 times the county average for students of all grades.
- From 2004 to 2012, rates declined for the county overall and for all regions except East Region.
- Additional substance abuse data are available online.

Binge drinking (school-age)
King County, 2008-2012 average

Source: Healthy Youth Survey.
KEY BEHAVIORAL HEALTH ISSUES: COMMUNITY INPUT, RESOURCES, AND OPPORTUNITIES

Interviews with members of community coalitions and organizations identified three key issues related to behavioral health: (1) access to behavioral healthcare; (2) integration of human services and behavioral and physical healthcare; and (3) boarding of mental health patients.

ACCESS TO BEHAVIORAL HEALTHCARE

Community input:

Those who are seriously mentally ill often face difficulty accessing behavioral health care in a primary care setting. Insurers’ regulatory barriers also can limit the range of needed services that are covered. Members of vulnerable populations struggle to access care and need a high level of assertive engagement.

Assets and resources include:

- Peer Bridger program at Navos and Harborview.
- Culturally specific providers including the Seattle Indian Health Board, the Muckleshoot Clinic, the Snoqualmie Nation Clinic, Sea Mar, Consejo, Seattle Counseling Service, Asian Counseling and Referral Service.
- A progressive and supportive community; specific communities like Lesbian, Gay, Bisexual, Transgender, and Questioning (LGBTQ), which provide private funds to cover services.
- The Mental Illness and Drug Dependency funds, which provide additional services for those who do not qualify for Medicaid.
- Specialty courts (Domestic Violence Court, Drug Court, Mental Health Court, Family Treatment Court).

Opportunities include:

- Standardized referral protocols for behavioral health treatment, created in coordination with behavioral healthcare providers, could streamline the process and improve access for patients.
- Some healthcare systems, public health, and universities provide naloxone, an opiate overdose antidote, to individuals in high-risk populations. The drug has been shown to reduce fatalities from opiate use.
INTEGRATION OF HUMAN SERVICES AND BEHAVIORAL AND PHYSICAL HEALTHCARE

Community input:
Community members strongly support hospitals efforts to integrate systems of human services and behavioral and physical healthcare. Serious mental illness is often associated with chronic disease and homelessness, so cross-training staff to address physical health and human services issues as well as behavioral health issues is critical.

Assets and resources include:
- The Partnership Group of community behavioral health providers, which collaborates on policies and practices to promote integration and quality care.
- School based integrated health centers.
- Plymouth Housing Group and DESC, providers of permanent, supportive housing to homeless people with chronic mental illness.

Opportunities include:
- Coordination related to discharge planning (including notification of behavioral healthcare providers and communication of prescriptions to all relevant providers) could create efficiencies and reduce unnecessary emergency department use.
- Clinicians in primary care and emergency departments can use Screening, Brief Intervention, and Referral to Treatment (SBIRT) to identify individuals at risk for substance abuse disorders.
- Many healthcare organizations are increasing their capacity for integrated behavioral healthcare.
- Continued advocacy for improved coordination between mental and physical health services can highlight the importance of this issue.
BOARDING OF MENTAL HEALTH PATIENTS

Community input:
Community members identified the practice of “psychiatric boarding” (involuntarily placing mentally ill patients in emergency rooms without treatment) as a serious problem. Individuals who are in danger of hurting themselves or others should not be “warehoused;” they should receive appropriate treatment in a therapeutic setting.

Assets and resources include:
- A new mobile crisis team and additional Program for Assertive Community Treatment (PACT) team will soon be available to help divert people from hospitals.
- A new transitions program helps hospitals find placement solutions for psychiatric patients.
- The Crisis Solutions Center, operated by the Downtown Emergency Services Center (DESC), offers an alternative to hospitalization.

Opportunities include:
- Some hospitals are planning to open additional psychiatric treatment beds, including beds for adolescents. Medicaid will cover psychiatric services within freestanding psychiatric hospitals for the next two years.
- A new 16-bed evaluation and treatment center will open in King County in 2015.
- The Early Detection and Intervention for the Prevention of Psychosis Program (EDIPPP) educates families and those who routinely interact with youth—teachers, mental health professionals, and doctors—about key signs to look for in young people to identify and prevent psychosis.
- Applying trauma informed care principles within healthcare facilities can reduce unnecessary trauma for people living with a mental illness or trauma impacts.
Healthy pregnancies, healthy babies, and healthy mothers are important goals for all communities. Mothers’ mental, physical, emotional, and socio-economic well-being – before, during, and after pregnancy – can affect outcomes in infancy, childhood, and adulthood. Maternal and child health outcomes are also markers of overall community health; a healthy community is one which ensures all children thrive and reach their full potential.

While King County has made progress in decreasing rates of poor birth outcomes, it does not meet the Healthy People 2020 objective for prenatal care. Disparities in birth outcomes persist, particularly among Black/African American and American Indian/Alaska Native populations.

Opportunities include participating in the Baby-Friendly Hospital Initiative, using prenatal care as an opportunity to address lifelong health issues, promoting trauma-informed care and the life-course model, and advocating for home visiting and other community support programs.
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. Two-thirds 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 2008 to 2012, King County’s average infant mortality rate was 4.1 deaths per 1,000 live births.

- Infants born to American Indian/Alaska Native, Black, and multiple-race mothers were 2 times more likely than those born to white mothers to die before their first birthday.
- Infant mortality in high-poverty neighborhoods was twice as high as in low-poverty neighborhoods.
- In King County, infant mortality has declined since 2000.

### Infant mortality

**King County, 2008-2012 average**

<table>
<thead>
<tr>
<th></th>
<th>Rate^</th>
</tr>
</thead>
<tbody>
<tr>
<td>King County</td>
<td>4.1</td>
</tr>
<tr>
<td>AIAN</td>
<td>7.0†</td>
</tr>
<tr>
<td>Asian</td>
<td>3.1</td>
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<tr>
<td>Black</td>
<td>7.0</td>
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<tr>
<td>Hispanic</td>
<td>4.3</td>
</tr>
<tr>
<td>Multiple</td>
<td>7.3</td>
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<tr>
<td>NHPI</td>
<td>4.7†</td>
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<tr>
<td>White NH</td>
<td>3.4</td>
</tr>
<tr>
<td>East</td>
<td>2.9</td>
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<td>South</td>
<td>4.9</td>
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<tr>
<td>Seattle</td>
<td>4.0</td>
</tr>
<tr>
<td>North</td>
<td>2.8</td>
</tr>
</tbody>
</table>

^Rate = Deaths per 1,000 live births

Source: Linked Birth-Death Certificate Data, WA State DOH, Center for Health Statistics
EARLY AND ADEQUATE PREGNATAL CARE

Starting prenatal care early in pregnancy and having regular visits improves the chances of a healthy pregnancy. 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 2008 to 2012, 7 out of 10 expectant mothers (69.7%) received early and adequate prenatal care.

- Only about half of teen mothers (51.2%) received early and adequate prenatal care.

- 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.

- Early and adequate care increased recently in South Region and Seattle, but declined in East Region.

Early and adequate prenatal care
King County, 2008-2012 average

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
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<td>King County</td>
<td>69.7%</td>
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<td>57.4%</td>
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<tr>
<td>Asian</td>
<td>71.1%</td>
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<td>Black</td>
<td>59.2%</td>
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<tr>
<td>Hispanic</td>
<td>63.6%</td>
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<tr>
<td>Multiple</td>
<td>65.7%</td>
</tr>
<tr>
<td>NHPI</td>
<td>41.3%</td>
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<tr>
<td>White</td>
<td>71.8%</td>
</tr>
<tr>
<td>East</td>
<td>74.2%</td>
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<tr>
<td>North</td>
<td>75.0%</td>
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<tr>
<td>Seattle</td>
<td>74.3%</td>
</tr>
<tr>
<td>South</td>
<td>63.7%</td>
</tr>
</tbody>
</table>

Source: Birth Certificate Data, WA State DOH, Center for Health Statistics
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 2008 to 2012, 6.4% of infants born in King County were low birth weight.

- Although King County meets the Healthy People 2020 objective of 7.8% or fewer infants born at low weight, 1,563 low birth weight babies were born in King County in 2012.

- 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 have recently declined in King County and Seattle. The increase has continued in East Region.
KEY MATERNAL AND CHILD HEALTH ISSUES: COMMUNITY INPUT, RESOURCES, AND OPPORTUNITIES

Community input:

A community needs assessment produced by United Indians of All Tribes Foundation cited the high rates of poverty among American Indian/Alaskan Native families and inadequate supports for these families to promote the healthy development of their infants.

Community groups stressed the importance of providing adequate opportunities for pregnant women to receive culturally competent care and social support. Without this, they may resort to using the emergency department or other hospital-based care.

Community members also emphasized the importance of recognizing how adverse childhood experiences can lead to chronic disease in adulthood and poor birth outcomes for the next generation.

Assets and resources include:

■ The Equal Start Community Coalition which brings together leaders of nearly 30 organizations to promote healthy mothers, families, and communities and seeks to reduce infant mortality.

■ The Native American Women’s Dialogue on Infant Mortality (NAWDIM), a Native-led collective whose members are concerned about high rates of infant mortality in their communities.

■ Governor Inslee’s statewide Results Washington framework which calls for reducing birth outcome disparities.

■ An objective of the Public Health Improvement Partnership, convened by the Washington State Department of Health, to prevent or reduce the impact of adverse childhood experiences, such as abuse and neglect.

■ Nurse Family Partnership and other home visiting and prenatal support programs including MOMs Plus program for high risk pregnant and parenting women. Providers remain concerned that there is not sufficient capacity within these programs.

■ The Period of PURPLE Crying curriculum, a new way to help parents understand this time in their baby’s life, a promising strategy to reduce the risk of child abuse.
Opportunities include:

- The Baby-Friendly Hospital Initiative encourages and recognizes hospitals and birthing centers that offer an optimal level of care for infant feeding and mother/baby bonding. Three hospitals in King County currently have this certification.

- Adverse Childhood Experiences (ACEs) are common and increasingly recognized as significant risk factors for poor adult health outcomes. The ACES Collaborative, an informal work group of providers in Public Health-Seattle & King County, is developing a common framework of trauma-informed care and the life course model (a strength-based framework grounded in understanding and responding to the impact of trauma across the lifespan). The group’s goals are to offer technical guidance and support and to promote existing and emerging data and research on the life course model.

- Prenatal care can offer an opportunity to address lifelong health issues with women.

- Many strong community-based organizations provide home visiting and other supports to pregnant and parenting women and are strong partners to healthcare systems.
Heart disease, cancer, and stroke – all leading causes of death in King County – share many of the same risk factors. Cigarette smoking, obesity, unhealthy diet, physical inactivity, high blood pressure, and high blood cholesterol increase the risk of dying from these diseases. Every one of these risk factors is an appropriate target for prevention-focused interventions. Among preventable causes of death, persistent disparities by race/ethnicity, economic status, and neighborhood are common.

Obesity, physical activity, and nutrition opportunities include participating in the Healthier Hospitals Initiative’s Healthy Beverages Challenge, offering fitness programs in a variety of settings; information about free or low-cost exercise and cooking programs in languages read by immigrants and refugees, and improving families’ ability to afford healthy food by supporting job-training programs, community economic development, and living-wage ordinances.

Tobacco-related opportunities include continuing tobacco prevention and cessation messaging to the public and to patients, and implementing evidence-based brief tobacco screenings.

“I don’t think any family prefers to eat processed foods; but at certain times of the month, it’s what’s consumed because there’s not the funds to buy the fresh produce.”

–King County mother
HOSPITAL EFFORTS TO EXPAND ACCESS TO HEALTHY FOOD:

Members of the HHC collaborative have adopted the Healthy Food in Healthcare pledge. In addition, 9 of King County’s 12 hospitals and health systems have taken the next step and enrolled in the Healthier Hospitals Initiative Healthy Beverages Challenge, which calls on institutions to increase healthy beverage purchases by 20%. Each facility is working with its nutrition team to provide healthier options on its menus, use local ingredients, and provide education to employees, patients, and visitors. Members are adopting additional strategies to improve access to fruits and vegetables through Fresh Bucks, on-site farmers’ markets, grocery store vouchers for produce, and free or low-cost food bags.
**ADULT OBESITY AND OVERWEIGHT**

From 2009 to 2013, 22% of King County adults were obese, reporting a Body Mass Index (BMI) greater than or equal to 30, and 55% of adults were obese or overweight, reporting a BMI greater than or equal to 25.

- American Indians/Alaska Natives were 5.5 times more likely than Asians, and twice as likely as whites, to be obese. Hispanics were 1.5 times more likely than Asians to be overweight.

- Males were more likely to be overweight than females.

- King County obesity rates increased from 2000 to 2008, then flattened out through 2013. At the regional level, obesity rates increased from 2000 to 2013 in all regions except North Region.

- Overweight rates decreased from 2000 to 2013 in King County and East Region.

---

**Preventable Causes of Death**

Continued
**CHILDREN’S OBESITY AND OVERWEIGHT**

Students are considered obese if their Body Mass Index (BMI) is in the top 5% for their age and gender, and overweight or obese if their BMI is in the top 15%. From 2008 to 2012, 9% of King County students in 8th, 10th, and 12th grades were obese, and 21% were overweight or obese.

- Native Hawaiian/Pacific Islander students were about 3.5 times more likely to be obese than Asian or white students in grades 8, 10, and 12.
- American Indian/Alaska Native, Black, Native Hawaiian/Pacific Islander, and Hispanic students were more likely than Asian or white students to be overweight.
- Between 2004 and 2012, student obesity rates declined for the county as a whole and for all regions except South Region.

### Obesity and overweight (school-age)

**King County, 2008-2012 average**

<table>
<thead>
<tr>
<th>Region</th>
<th>Overweight</th>
<th>Obesity</th>
</tr>
</thead>
<tbody>
<tr>
<td>King County</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIAN</td>
<td>17%</td>
<td>12%</td>
</tr>
<tr>
<td>Asian</td>
<td>10%</td>
<td>6%</td>
</tr>
<tr>
<td>Black</td>
<td>17%</td>
<td>13%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>18%</td>
<td>14%</td>
</tr>
<tr>
<td>Multiple</td>
<td>15%</td>
<td>10%</td>
</tr>
<tr>
<td>NHPI</td>
<td>17%</td>
<td>23%</td>
</tr>
<tr>
<td>White</td>
<td>11%</td>
<td>7%</td>
</tr>
<tr>
<td>East</td>
<td>10%</td>
<td>6%</td>
</tr>
<tr>
<td>North</td>
<td>11%</td>
<td>7%</td>
</tr>
<tr>
<td>Seattle</td>
<td>13%</td>
<td>9%</td>
</tr>
<tr>
<td>South</td>
<td>14%</td>
<td>12%</td>
</tr>
</tbody>
</table>

Source: Healthy Youth Survey.
**PHYSICAL ACTIVITY**

In 2011 and 2013, fewer than 1 in 4 King County adults met physical activity recommendations: 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.

- Of all race/ethnicity groups, Alaskan Natives/ American Indians were least likely to meet recommendations.
- Adult data were insufficient to assess trends.

From 2008 to 2012, fewer than 1 in 4 students in 6th, 8th, 10th, and 12th grades got the recommended 60 or more minutes of daily physical activity.

- As grade level increased, student participation in physical activity declined, with 12th graders 0.8 times as likely as 6th graders to meet recommendations.
- Rates of not meeting physical activity recommendations among youth decreased between 2006-2012 for the county and in all 4 regions.

---

*Sources: Behavioral Risk Factor Surveillance System, 2011 & 2013 (Adult), Healthy Youth Survey, 2008-2012 (School-age).*
**ADULT SUGAR-SWEETENED BEVERAGE CONSUMPTION**

In 2010 and 2012, 63% of King County adults consumed a sugary drink at least once in the past month.

Sugary drink consumption is associated with obesity, diabetes, and diseases of the heart, kidneys, and liver.

- Blacks were 1.5 times more likely than Asians to consume sugar-sweetened beverages in the past month.
- Adults age 18-34 were 2.4 times as likely as those 65 and older to consume sugary beverages;
- Consumption decreased steadily with increasing age.

---

**Sugar sweetened beverage consumption (adults)**

**King County, 2010 & 2012 average**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>2010 &amp; 2012 Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>King County</td>
<td>63%</td>
</tr>
<tr>
<td>18-34</td>
<td>84%</td>
</tr>
<tr>
<td>35-44</td>
<td>65%</td>
</tr>
<tr>
<td>45-64</td>
<td>55%</td>
</tr>
<tr>
<td>65+</td>
<td>35%</td>
</tr>
<tr>
<td>AIAN**</td>
<td>72%</td>
</tr>
<tr>
<td>Asian</td>
<td>56%</td>
</tr>
<tr>
<td>Black</td>
<td>84%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>78%</td>
</tr>
<tr>
<td>Multiple</td>
<td>70%</td>
</tr>
<tr>
<td>NHP**</td>
<td>*</td>
</tr>
<tr>
<td>White</td>
<td>62%</td>
</tr>
</tbody>
</table>

Source: National Communities Putting Prevention to Work, Behavioral Risk Factor Surveillance System

** Alone or in combination with other races
YOUTH SODA CONSUMPTION

From 2008 to 2012, 30% of King County students in 6th, 8th, 10th, and 12th grades consumed one or more non-diet sodas daily.

- Males were more likely than females to drink soda daily.
- Hispanics, Native Hawaiians/Pacific Islanders, Blacks, and American Indians/Alaska Natives were more likely than Asians and whites to drink soda every day.
- South Region students were more likely to consume soda daily than students in the other 3 regions.
- From 2004 to 2012, rates of daily soda consumption decreased for students in the county overall and in all 4 regions.

Daily soda consumption (school-age)
King County, 2008-2012 average

Source: Healthy Youth Survey.
ADULT FRUIT & VEGETABLE CONSUMPTION

Eating fruits and vegetables lowers the risk of developing many chronic diseases and can support weight management. From 2011 to 2013, King County adults ate fruit a median of 1.1 times per day and vegetables 1.8 times per day.

- Women ate fruits and vegetables 20-30% more often than men.
- Adults age 65 and over ate fruits and vegetables 30% more often than adults age 18-24.

Preventable Causes of Death (Continued)

Fruit and vegetable consumption (adults)
King County, 2011-2013 average

Median intake (number of times per day)

Source: Behavioral Risk Factor Surveillance System.
KEY OBESITY, PHYSICAL ACTIVITY, AND NUTRITION ISSUES: COMMUNITY INPUT, RESOURCES, AND OPPORTUNITIES

Community input:

- Many low-income families report difficulty being physically active because of public safety issues, lack of exercise-related information in their own language, body-image stigma, cost, and lack of time.

- Recent community-based surveys of low-income women and women of color\textsuperscript{xvii} reported on the difficulty of purchasing healthy food with limited food assistance and/or limited income. In addition, low-income families often depend on public transportation when purchasing food, which can make grocery shopping a lengthy and difficult endeavor. Recent Metro bus service reductions may exacerbate this problem. There are fewer transportation options in suburban cities, especially for seniors.

Assets and resources include:

- Local parks, community centers, and pools offer public places for physical activities; some offer programs such as single-gender swim times and scholarships for children.

- The Healthy King County Coalition aims to reduce health inequities by improving nutrition, increasing physical activity, and decreasing smoking rates and other tobacco use.

- The CDC-funded Community Transformation Grant (CTG) is a multi-disciplinary partnership involving Seattle Children’s, Public Health, the Healthy King County Coalition, schools, local governments, hospitals, low-income housing groups, and childcare and youth organizations. CTG’s goal is to implement changes in communities so that healthy choices will be easier for children and families living in South King County and South Seattle.

- The CDC-funded Partnership to Improve Community Health (PICH) will build on efforts to increase access to healthy foods and physical activity, and reduce exposure to unhealthy foods, beverages, and tobacco products.

- Seven school districts (Auburn, Highline, Kent, Renton, Tukwila, Northshore, and Seattle) implemented new physical education programs to work toward meeting state standards.
Preventable Causes of Death
Continued

- Child care providers who care for 10,739 children in King County received training on actions they can take to improve physical activity at their sites.
- The Fresh Bucks program enables shoppers who receive Basic Food assistance to double their money at farmers’ markets.
- The Women Infant and Children Supplemental Nutrition program helps pregnant women, new mothers, and young children eat well, learn about nutrition, and stay healthy.
- Food banks and other feeding programs, sponsored by faith-based organizations, are working to provide healthier options to their customers.

Opportunities include:

- Providing information about free or low-cost cooking and exercise programs in languages read by immigrants and refugees.
- Improving access to places for physical activity, exemplified by ongoing efforts of employers, coalitions, agencies, and communities. These groups are attempting to change the local environment (e.g., by creating walking trails), build new exercise facilities, provide access to existing nearby facilities, and reduce the cost of opportunities for physical activity. Improved access is typically achieved in a particular community through a multi-component strategy that includes training or education for participants. http://www.countyhealthrankings.org/policies/access-places-physical-activity
- Offering fitness programs in a variety of community settings including community wellness, fitness, community, and senior centers. http://www.countyhealthrankings.org/policies/fitness-programs-community-settings
- Helping residents increase their earning capacity (and their ability to buy healthy food) by supporting job training programs, community economic development, and living wage ordinances.
TOBACCO USE

ADULT SMOKING

From 2009 to 2013, 14% of King County adults reported that they currently smoked cigarettes every day or some days.

- Adults with household income less than $15,000 were 4.4 times more likely than those with income at or above $75,000 to be current smokers.
- Adults in South Region were almost twice as likely as those in East Region to be current smokers.
- From 2000 to 2013, adult smoking rates declined for the county overall and for all regions except North Region. After 2005, the overall rate of decline slowed.

**Cigarette smoking (adults)**
King County, 2009-2013 average

<table>
<thead>
<tr>
<th>Region</th>
<th>2000</th>
<th>2005</th>
<th>2010</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>King County</td>
<td>24%</td>
<td>14%</td>
<td>8%</td>
<td>16%</td>
</tr>
<tr>
<td>AIAN</td>
<td>24%</td>
<td>16%</td>
<td>16%</td>
<td>17%</td>
</tr>
<tr>
<td>Asian</td>
<td>8%</td>
<td>8%</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Black</td>
<td>23%</td>
<td>23%</td>
<td>23%</td>
<td>23%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>16%</td>
<td>16%</td>
<td>16%</td>
<td>16%</td>
</tr>
<tr>
<td>Multiple</td>
<td>16%</td>
<td>16%</td>
<td>16%</td>
<td>16%</td>
</tr>
<tr>
<td>NHPI</td>
<td>17%</td>
<td>17%</td>
<td>17%</td>
<td>17%</td>
</tr>
<tr>
<td>White</td>
<td>13%</td>
<td>13%</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>East</td>
<td>9%</td>
<td>9%</td>
<td>9%</td>
<td>9%</td>
</tr>
<tr>
<td>North</td>
<td>13%</td>
<td>13%</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>Seattle</td>
<td>13%</td>
<td>13%</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>South</td>
<td>17%</td>
<td>17%</td>
<td>17%</td>
<td>17%</td>
</tr>
</tbody>
</table>

Source: Behavioral Risk Factor Surveillance System.
**YOUTH SMOKING**

School-age students were considered cigarette smokers if they smoked in the last month. This indicator did not include use of other tobacco products. From 2008 to 2012, 10% of students in 8th, 10th and 12th grades were current cigarette smokers.

- 1 in seven 12th graders were smokers.
- Native Hawaiians/Pacific Islanders, and American Indians/Alaska Natives were about 3 times more likely than Asian students to be current smokers.
- From 2004 to 2012, rates of youth cigarette smoking declined for King County and all 4 of the county’s regions.

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**Preventable Causes of Death**

**Continued**

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**Cigarette smoking (school-age) King County, 2008-2012 average**

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>King County</td>
<td>7%</td>
</tr>
<tr>
<td>AIAN</td>
<td>11%</td>
</tr>
<tr>
<td>Asian</td>
<td>4%</td>
</tr>
<tr>
<td>Black</td>
<td>9%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>8%</td>
</tr>
<tr>
<td>Multiple</td>
<td>8%</td>
</tr>
<tr>
<td>NHPI</td>
<td>13%</td>
</tr>
<tr>
<td>White</td>
<td>8%</td>
</tr>
<tr>
<td>Other</td>
<td>6%</td>
</tr>
<tr>
<td>East</td>
<td>6%</td>
</tr>
<tr>
<td>North</td>
<td>8%</td>
</tr>
<tr>
<td>Seattle</td>
<td>8%</td>
</tr>
<tr>
<td>South</td>
<td>8%</td>
</tr>
</tbody>
</table>

Source: Healthy Youth Survey.
KEY TOBACCO USE ISSUES: COMMUNITY INPUT, RESOURCES, AND OPPORTUNITIES

Community input:
Community members working to reduce tobacco use report an overall decline in resources for prevention and cessation and a corresponding leveling off of previous declines in smoking rates. Disparities persist among Black and American Indian/Alaska Native communities. Stakeholders also report an increase in uses of tobacco alternatives (including e-cigarettes and hookahs) by youth. According to Public Health compliance checks, tobacco retailers are illegally selling e-cigarettes to minors at more than twice the rate (16%) of cigarettes.*viii

Assets and resources include:
- Strong partners committed to reducing the prevalence of Tobacco, Marijuana, and Other Drugs (TMOD). These members are part of the Healthy King County Coalition TMOD committee and include Center for Multicultural Health, Asian Pacific Islander Coalition Against Tobacco, Entre Hermanos, Neighborhood House, Gay City, and the Seattle Indian Health Board.
- The Quitline.
- Cessation medication and counseling in combination – the most effective cessation method.
- Behavioral health providers who are increasingly addressing tobacco cessation with patients who have some of the highest smoking rates.

Opportunities include:
- Hospitals are communicating with the public about the ongoing need for tobacco prevention and cessation.
- Many hospitals already have strong tobacco-free policies. These policies could be combined with strong messaging to patients about the impacts of tobacco use.
- Brief tobacco screening and interventions in emergency departments, primary care, dental, and other healthcare settings can improve quit rates. This is an evidence based practice.
- Tobacco-cessation coverage varies by health plan. No mandated coverage standard exists in King County.
This section reports on hospitalizations and deaths from both intentional and unintentional injuries. For each case that results in hospitalization, many more injuries are never reported. Hospitalization data exclude cases where emergency department treatment was received but the patient was not admitted to the hospital.

While some types of injury have declined since the 1990s, recent increases in deaths due to falls, suicide, and poisoning raise new concerns. Among all age groups, falls are a leading cause of emergency department visits and hospital readmissions. Intentional injuries and deaths (assaults, homicides, and suicide) remain problematic for regional communities. And although motor vehicle fatalities have decreased sharply, distracted and impaired driving continue to endanger drivers, passengers, bicyclists, and pedestrians.

Opportunities include prevention-related primary care assessments and screenings, coordination between emergency department staff and law enforcement/first responders, sharing of emergency department data with the Department of Health, and training of community providers in suicide assessment and treatment interventions.
INTENTIONAL INJURIES

SUICIDE DEATHS

From 2008 to 2012, an average of 233 suicide deaths occurred in King County each year. The 2008-2012 average suicide death rate in King County was 11.5 per 100,000 population.

- The suicide death rate for adults age 45 and older was 1.5 times the county average.
- Males were 3.3 times more likely than females to die from suicide.
- The King County suicide death rate remained stable from 2000 to 2008, but has increased since 2008.
- This measure is also relevant to Behavioral Health.

Suicide deaths
King County, 2008-2012 average

- King County: 11.5
- AIAN: 14.5
- Asian: 5.3
- Black: 8.3
- Hispanic: 6.2
- Multiple: 5.7
- NHPI: 14.4
- White: 12.9
- East: 10.1
- North: 12.7
- Seattle: 12.0
- South: 11.6

Source: WA State DOH, Center for Health Statistics, Death Certificates.

*Rate = cases per 100,000 population, age-adjusted to the 2000 US population.
SUICIDE HOSPITALIZATIONS

From 2008-2012, an average of 834 non-fatal suicide hospitalizations occurred in King County each year. The 2008-2012 average rate for the county was 41.5 per 100,000 population.

- The suicide hospitalization rate for adults age 18-24 was 1.7 times the county average.
- Adults living in high-poverty neighborhoods were more than twice as likely as those in low-poverty areas to be hospitalized for suicide.
- Suicide hospitalization rates for the county as a whole did not change from 2000 to 2012. Over the same period, however, rates increased in East Region and decreased in South Region.
- This measure is also relevant to Behavioral Health.

Community input:

Strong community support was expressed for training all community providers -- including those in social work, medical, and mental health -- in suicide assessment and treatment interventions.

Assets and resources include:

- Forefront, a research organization based at the University of Washington, is training health professionals to develop and sharpen their skills in the assessment, management, and treatment of suicide risk.

Suicide hospitalizations
King County, 2008-2012 average

<table>
<thead>
<tr>
<th>Region</th>
<th>Rate^</th>
</tr>
</thead>
<tbody>
<tr>
<td>King County</td>
<td>41.5</td>
</tr>
<tr>
<td>High Poverty</td>
<td>72.8</td>
</tr>
<tr>
<td>Medium</td>
<td>40.6</td>
</tr>
<tr>
<td>Low</td>
<td>33.0</td>
</tr>
<tr>
<td>East</td>
<td>34.7</td>
</tr>
<tr>
<td>North</td>
<td>46.9</td>
</tr>
<tr>
<td>Seattle</td>
<td>48.8</td>
</tr>
<tr>
<td>South</td>
<td>38.9</td>
</tr>
</tbody>
</table>

Source: WA State DOH, Office of Hospital and Patient Data Systems.
^Rate = cases per 100,000 population, age-adjusted to the 2000 US population.
- House Bill 2315 and other bills passed over the past several years require school staff, behavioral healthcare providers, and other healthcare providers to participate in suicide prevention training as part of their licensure.

- The Youth Suicide Prevention Program provides training for students and educators.

- Children’s Crisis Outreach Response System (CCORS) provides mobile crisis outreach and crisis stabilization services for children and youth up to age 18.

- The Crisis Solutions Center offers a therapeutic option when police and medics are called to intervene in a behavioral healthcare crisis. The program minimizes inappropriate use of jails and hospitals and provides rapid stabilization, treatment, and referrals for up to 46 individuals.

**Opportunities include:**

- The National Action Alliance for Suicide Prevention’s Zero Suicide in Health and Behavioral Health Care initiative promotes a specific set of suicide-prevention tools and strategies. Healthcare systems around the country, including Henry Ford Health System, have implemented these strategies.

- The Suicide Prevention Resource Center provides updated protocols for suicide prevention for emergency medical service (EMS) providers and others whose jobs put them in contact with people who may be at risk of suicide. The center recommends that emergency departments adopt and adhere to their protocols, which address screening, risk assessment, discharge planning, safety planning and means restriction, patient and family education, and follow-up.

- Patient and family education, support groups, and classes for friends and families of people who are suicidal or have a mental illness or substance abuse disorder can help reduce stigma and make it easier for those in need to access care.

- Improvements in hospital discharge planning and “warm hand-off” referrals (in which primary care providers directly introduce clients to their behavioral healthcare providers at the time of their medical visits) can help transfer trust and rapport to the new relationship.

- Low-barrier mental health and substance-abuse screenings at health fairs can help identify more people at risk for suicide.
HOMICIDE DEATHS

From 2008 to 2012, an average of 53 homicides occurred in King County each year. The 2008-2012 average rate for the county was 2.7 per 100,000 population.

- From 2008 to 2012, the rate of homicide deaths for Blacks was 4.4 times the county average.
- Homicide deaths for teens and young adults ages 18-24 were 2.5 times the county average.
- From 2000 to 2012, homicide rates decreased in King County and Seattle. The county-wide rate is now one-third of its peak in the 1990s.
Assault Hospitalizations

From 2008 to 2012, an average of 502 assault hospitalizations occurred in King County each year (excluding fatalities and emergency-department-only visits). The 2008-2012 average rate for the county was 25.2 per 100,000.

- The rate of assault hospitalizations for adults age 18-24 was 2.3 times the county average.
- The rate of assault hospitalizations for adults living in high poverty areas was 9.8 times higher than those in low-poverty neighborhoods.
- From 2000 to 2012, assault hospitalization rates decreased in King County, North Region, and Seattle.

Assault hospitalizations
King County, 2008-2012 average

<table>
<thead>
<tr>
<th>Area</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>King County</td>
<td>25.2</td>
</tr>
<tr>
<td>High Poverty</td>
<td>67.6</td>
</tr>
<tr>
<td>Medium</td>
<td>25.0</td>
</tr>
<tr>
<td>Low</td>
<td>6.9</td>
</tr>
<tr>
<td>East</td>
<td>7.2</td>
</tr>
<tr>
<td>North</td>
<td>14.0</td>
</tr>
<tr>
<td>Seattle</td>
<td>36.6</td>
</tr>
<tr>
<td>South</td>
<td>30.0</td>
</tr>
</tbody>
</table>

*Rate = cases per 100,000 population, age-adjusted to the 2000 US population.

Source: WA State DOH, Office of Hospital and Patient Data Systems.
UNINTENTIONAL INJURIES

Unintentional injuries include those due to falls, motor vehicle collisions, poisoning, fire, firearms, drowning, and suffocation. Most of these injuries, and the deaths they cause, are preventable. The sections below summarize data on deaths and hospitalizations from all types of unintentional injuries, then on three specific types of injury – those from motor vehicle collisions, falls, and poisoning.

UNINTENTIONAL INJURY DEATHS

From 2008 to 2012, an average of 605 deaths due to unintentional injury occurred in King County each year. The county’s average 2008-2012 unintentional-injury death rate was 30.5 per 100,000 population.

- The unintentional injury death rate for adults age 65 and older was 3.5 times the county average.
- Rates for the county as a whole did not change from 2000 to 2012, but have increased in East Region since 2005.
UNINTENTIONAL INJURY HOSPITALIZATIONS

From 2008 to 2012, King County hospitals reported an average of 10,144 hospitalizations for unintentional injuries each year (excluding fatalities). The county’s 2008-2012 average rate was 526.9 per 100,000 population.

- For adults age 65 and older, the rate of hospitalization for unintentional injury was 4.1 times the county average.
- For Seattle and East Region, rates have declined since 2000. For North Region and South Region, and King County overall, rates have declined since 2005-2006.
**MOTOR VEHICLE DEATHS**

Motor vehicle deaths result from motor vehicle collision (MVC) and include deaths of vehicle occupants, motorcyclists, bicyclists, and pedestrians. From 2008 to 2012, an average of 107 King County residents died from motor vehicle collisions each year. The 2008-2012 county average rate was 5.5 per 100,000 population.

- The MVC death rate for American Indians/Alaska Natives was 3 times the county average.
- Between 2000 and 2012, MVC death rates declined in King County, Seattle, North Region, and South Region. The rate in East Region began its decline in 2005.

---

**Motor vehicle deaths**

King County, 2008-2012 average

<table>
<thead>
<tr>
<th>Category</th>
<th>Rate^</th>
</tr>
</thead>
<tbody>
<tr>
<td>King County</td>
<td>5.5</td>
</tr>
<tr>
<td>AIAN</td>
<td>16.4</td>
</tr>
<tr>
<td>Asian</td>
<td>3.6</td>
</tr>
<tr>
<td>Black</td>
<td>7.0</td>
</tr>
<tr>
<td>Hispanic</td>
<td>6.8</td>
</tr>
<tr>
<td>Multiple</td>
<td>2.3</td>
</tr>
<tr>
<td>NHPI</td>
<td>11.4^</td>
</tr>
<tr>
<td>White</td>
<td>5.7</td>
</tr>
<tr>
<td>East</td>
<td>3.8</td>
</tr>
<tr>
<td>North</td>
<td>3.9</td>
</tr>
<tr>
<td>Seattle</td>
<td>4.2</td>
</tr>
<tr>
<td>South</td>
<td>7.9</td>
</tr>
</tbody>
</table>

*Rate^ = cases per 100,000 population, age-adjusted to the 2000 US population.*
MOTOR VEHICLE INJURY HOSPITALIZATIONS

From 2008 to 2012, an average of 857 King County residents were hospitalized for non-fatal motor vehicle collisions (MVC) each year. The 2008-2012 average rate for the county was 43.1 per 100,000 population.

- Adults in high poverty areas were 2 times more likely than those in low-poverty neighborhoods to be hospitalized for MVC.
- The rate of MVC hospitalization for adults age 18-24 was 1.6 times the county average.
- Rates have been decreasing in King County overall and Seattle since 2006, and in the other three regions since 2000.

Motor vehicle injury hospitalizations
King County, 2008-2012 average

Source: WA State DOH, Office of Hospital and Patient Data Systems.
*Rate = cases per 100,000 population, age-adjusted to the 2000 US population.
Community input:
- Law enforcement officials and community members said they were increasingly concerned about texting, talking, and other uses of mobile devices while driving.
- Law enforcement officials expressed concern about a possible rise in impaired driving related to the legalization of marijuana. They also said that quickly testing the blood of drivers arrested for suspicion of DUI is critical to accurately assessing the level of impairment.

Assets and resources include:
- Law Enforcement: High-visibility patrols by law enforcement; internal coordination; use of skilled drug-recognition experts; use of the Mobile Impaired Driving Unit (MIDU), a self-contained mobile DUI processing center and incident command post.
- Education campaigns.
- Employer-based policies for cell-phone use by drivers.
- The Target Zero Task Force, which focuses on reducing traffic crashes and traffic-related injuries to zero by the year 2030.

Opportunities include:
- Primary-care intake assessments that include questions about cell-phone use while driving, seat-belt use, and driving while impaired.
- Regular communication between law enforcement and emergency department staff to promote shared understanding of legal issues, policies, and efficient blood testing of impaired-driving suspects.
DEATHS FROM FALLS

Deaths are attributed to falls if they were caused by unintentional slipping, tripping, stumbling, or falling. From 2008 to 2012, an average of 183 King County residents died from falls each year. The 2008-2012 average rate for the county was 9.6 deaths per 100,000 population.

- The rate of deaths from falls for adults age 65 and older was 7.4 times the county average.
- From 2000 to 2012, the rate of deaths from falls increased in North Region, Seattle, and King County overall.

### Fall deaths
King County, 2008-2012 average

<table>
<thead>
<tr>
<th>Category</th>
<th>Rate^</th>
</tr>
</thead>
<tbody>
<tr>
<td>King County</td>
<td>9.6</td>
</tr>
<tr>
<td>AIAN</td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>8.5</td>
</tr>
<tr>
<td>Black</td>
<td>4.0</td>
</tr>
<tr>
<td>Hispanic</td>
<td>4.2</td>
</tr>
<tr>
<td>Multiple</td>
<td></td>
</tr>
<tr>
<td>NHPI</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>10.1</td>
</tr>
<tr>
<td>East</td>
<td>8.7</td>
</tr>
<tr>
<td>North</td>
<td>11.0</td>
</tr>
<tr>
<td>Seattle</td>
<td>10.3</td>
</tr>
<tr>
<td>South</td>
<td>9.0</td>
</tr>
</tbody>
</table>

Source: WA State DOH, Center for Health Statistics, Death Certificates.
^Rate = cases per 100,000 population, age-adjusted to the 2000 US population.
HOSPITALIZATIONS FROM FALLS

From 2008 to 2012, an average of 5,531 King County residents were hospitalized for non-fatal falls each year. The 2008-2012 average rate for the county was 293.0 hospitalizations per 100,000 population.

- The fall hospitalization rate for adults age 65 and older was 5.7 times the county average.
- From 2000 to 2012, fall hospitalization rates decreased in North Region and King County overall. The Seattle rate has declined since 2007.

Fall hospitalizations
King County, 2008-2012 average

<table>
<thead>
<tr>
<th>Region</th>
<th>Rate^</th>
</tr>
</thead>
<tbody>
<tr>
<td>King County</td>
<td>293.0</td>
</tr>
<tr>
<td>High Poverty</td>
<td>343.1</td>
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<tr>
<td>Medium</td>
<td>289.6</td>
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<tr>
<td>Low</td>
<td>275.4</td>
</tr>
<tr>
<td>East</td>
<td>260.2</td>
</tr>
<tr>
<td>North</td>
<td>309.3</td>
</tr>
<tr>
<td>Seattle</td>
<td>302.0</td>
</tr>
<tr>
<td>South</td>
<td>304.5</td>
</tr>
</tbody>
</table>

Source: WA State DOH, Office of Hospital and Patient Data Systems.
^Rate = cases per 100,000 population, age-adjusted to the 2000 US population.
Community input:
Falls are a leading cause of emergency department use and hospital readmissions, and their occurrence among all age groups is a top concern. For seniors, physical activity is critical for preventing falls.

Assets and resources include:
- One Step Ahead is a fall-prevention program.
- Harborview Injury Prevention and Research Center is an international leader in injury-prevention research that focuses on reducing the personal impact of trauma and broadening the effectiveness of injury-prevention programs.
- Community and senior centers offer physical-activity programs such as SilverSneakers and EnhanceFitness.

Opportunities include:
- Primary-care settings use the STEADI toolkit (created by the CDC) to assess seniors’ risk of falling.
- Environmental modifications in seniors’ homes can reduce the risk of readmissions for repeat falls.
POISONING DEATHS

From 2008 to 2012, an average of 206 King County residents died from unintentional poisonings each year. The 2008-2012 average rate for the county was 9.8 deaths per 100,000 population.

- The unintentional-poisoning death rate for American Indians/Alaska Natives was 17.4 times the rate for Asian residents.
- From 2000 to 2006, death rates from poisoning increased in King County overall, but have flattened out since then. The South Region rate began to plateau in 2008, but the rate continues to increase in East Region.

### Poisoning deaths

King County, 2008-2012 average

<table>
<thead>
<tr>
<th>Group</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>King County</td>
<td>9.8</td>
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<tr>
<td>AIAN</td>
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<td>Asian</td>
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<td>Black</td>
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<td>Hispanic</td>
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<tr>
<td>Multiple</td>
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<tr>
<td>NHPI</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>10.7</td>
</tr>
<tr>
<td>East</td>
<td>5.4</td>
</tr>
<tr>
<td>North</td>
<td>10.3</td>
</tr>
<tr>
<td>Seattle</td>
<td>11.8</td>
</tr>
<tr>
<td>South</td>
<td>11.0</td>
</tr>
</tbody>
</table>

Source: WA State DOH, Center for Health Statistics, Death Certificates.

*Rate = cases per 100,000 population, age-adjusted to the 2000 US population.
**POISONING HOSPITALIZATIONS**

From 2008 to 2012, an average of 729 King County residents were admitted to hospitals for unintentional, non-fatal poisoning each year. The 2008-2012 average rate for the county was 36.3 per 100,000 population.

- The poisoning hospitalization rate for adults age 65 and older was 2.1 times the county average.
- Adults living in high-poverty areas were 3 times more likely than those in low-poverty neighborhoods to be hospitalized for poisoning.
- Poisoning hospitalization rates have been flat from 2000 to 2012 in King County overall, and from 2005 to 2012 in North Region. However, rates in Seattle and South Region increased from 2000 to 2012.

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**Poisoning hospitalizations**  
**King County, 2008-2012 average**

<table>
<thead>
<tr>
<th>Area</th>
<th>Rate^</th>
</tr>
</thead>
<tbody>
<tr>
<td>King County</td>
<td>36.3</td>
</tr>
<tr>
<td>High Poverty</td>
<td>76.4</td>
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<tr>
<td>Medium</td>
<td>35.3</td>
</tr>
<tr>
<td>Low</td>
<td>24.3</td>
</tr>
<tr>
<td>East</td>
<td>22.6</td>
</tr>
<tr>
<td>North</td>
<td>40.2</td>
</tr>
<tr>
<td>Seattle</td>
<td>44.0</td>
</tr>
<tr>
<td>South</td>
<td>38.8</td>
</tr>
</tbody>
</table>

Source: WA State DOH, Office of Hospital and Patient Data Systems.  
^Rate = cases per 100,000 population, age-adjusted to the 2000 US population.
KEY VIOLENCE AND INJURY PREVENTION ISSUES

Community input:
Community members expressed the need for increased regional coordination and standard implementation of best practices in violence and injury prevention.

Assets and resources include:

- The Central EMS and Trauma Care Council, which promotes and supports a system of emergency medical and trauma care services in King County.
- Safe Kids Washington (locally, Safe Kids Eastside, Safe Kids Seattle/South King County) implements evidence-based programs, such as car-seat checkups and safety workshops, to help prevent childhood injuries.

Opportunities include:

- Prevention-related primary-care assessments/screenings.
- Coordination between emergency department staff and law enforcement/first responders, including meetings to discuss challenges and opportunities of working with people who are homeless and/or have serious mental illnesses.
- Sharing of emergency department data with the Department of Health to provide a more complete understanding of violence and injury impacts.


xiiQuality assurance and evaluation of the Affordable Care Act in King County, Washington. Assessment, Policy Development, & Evaluation, Public Health-Seattle & King County, 2014.

xiiiHad Fecal Occult Blood Test (FOBT) within 1 year; sigmoidoscopy within 5 years and FOBT within 3 years; or colonoscopy within 10 years.


xviiiPersonal communication, Scott Neal, Tobacco Program Manager, Public Health-Seattle & King County, 7/25/14.
Report methods are summarized in the introduction and explained in detail below.

**Identification of Health Needs and Selection of Indicators**

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 (see Figure 1) 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.

HHC representatives 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, public health, community organizations and communities are key to successful strategies to address common health needs.

HHC and other representatives were subject matter experts who helped identify population-level health needs. 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. Each hospital may also gather additional data and community input to address more specific service areas such as cancer care, pediatrics and rural health.

HHC representatives developed criteria to select indicators for the King County CHNA, recognizing that the CHNA is not intended to provide all of the data necessary for each specialized topic. All topic areas were previously identified as areas of concern in other needs assessments. They used the criteria below to identify indicators other than those specified in the mandated topic areas.
Appendix A: Methods

Continued

1. 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.

2. **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.

3. Ability to make valid **comparisons** to a baseline or benchmark.

4. **Prevention orientation** with clear sense of direction for **action by hospitals** for individual, community, system, health service, or policy interventions that will lead to community health improvement.

5. 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.

6. Alignment with local and national **health care reform** efforts including the triple aim.

**Description of the Data**

Quantitative data used in this report are high quality, population-based data sources and were analyzed by PHSKC Assessment, Policy Development & Evaluation Unit. Data come 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. Data sources for each indicator are shown in the corresponding graph and full details for each indicator are online. Some data, such as births, deaths, and hospitalizations, are based on information for each event in King County. Other data sources based on surveys follow rigorous sample design and complex survey analysis in order to present population-based percentages. 95% confidence intervals were calculated in order to assess reliability of rates. Additional definitions of data terms are found in Appendix C.
Appendix A: Methods

Continued

Community Input

This community health needs assessment takes into account input from people who represent the broad interests of the communities served by HHC hospitals and health systems. Three methods of gathering information from community members about identified health needs and assets were used.

1. Interviews were conducted by PHSKC staff between January and July of 2014 with stakeholder coalitions with broad representation. This method maximized the number and diversity of stakeholders who could provide input. Coalitions were identified that have expertise on health needs identified through quantitative data, have diverse membership, and have a regional or subregional focus. Stakeholders included those who represent the broad interests of the community, representatives of medically underserved, low-income and minority populations, and populations with chronic disease needs, as well as representatives from the local health department. Stakeholder groups included human service providers, community health centers, behavioral health providers, state, county, and local government staff, fire departments, law enforcement, advocacy organizations, hospital staff, groups focused on health disparities in communities of color, faith communities, labor, and managed care organizations.

A total of 11 coalitions and 99 individual organizations or key informants provided information.

2. An online survey was also available for those who were unable to attend the respective coalition meeting and wished to provide input in writing. Thirty-one individuals responded to the survey.

3. Recent reports on health needs were also reviewed for themes and relevant assets and resources.

The following interview questions were used for the in-person interviews and online survey.

1. What are the main concerns you or your organization have about (topic) right now?

2. What are the people, places, and things that make your community healthy, safe, and strong and tell us why these people, places, and things are important? These could include organizations, leaders, coalitions, initiatives, policies, or physical/environmental attributes.

3. What programs or projects are happening or planned that are most relevant to the identified needs?

4. How can hospitals and health systems be involved in addressing the issues you have identified?

5. What are the most significant gaps in resources, coordination, etc. in this area?
6. Is there anything else you would like to add?

The information collected through these methods was analyzed for themes about key issues, available assets and resources, and opportunities. The findings were included in this report.

Interviews were conducted with individuals belonging to the following coalitions, agencies, and organizations:

**Those who represent the broad interests of the community**

**Eastside Human Services Forum**
Aging & Disability Services
The Arc of King County
City of Bellevue
City of Kirkland
City of Redmond
Friends of Youth
Hopelink
Issaquah Human Services Commission
Issaquah Sammamish Interfaith Coalition
King County Council
Kirkland City Council
Overlake Medical Center
Redmond City Council
Youth Eastside Services
YWCA Seattle-King-Snohomish

**North Urban Human Services Alliance**
Center for Human Services
City of Lake Forest Park
City of Shoreline Human Services
Hopelink
Northshore/Shoreline Community Network
Shoreline Community College

**Seattle Human Services Coalition**

**South King Council of Human Services**

**King County Traffic Safety Task Force**
Burien Police Department
Kent Police Department
Kirkland Police Department
Issaquah Police Department
Maple Valley Police Department
Newcastle Police Department
Redmond Police Department
Renton Police Department
Seatac Police Department
King County Emergency Medical Services

**Safe Kids Seattle/South King County**
Feet First Pedestrian Safety Coalition
Harborview Spine Center and Concussion Program
Appendix A: Methods

Safe Kids Eastside
Brain Injury Alliance
CarSafe Kids
Duvall Fire Department
Eastside Aid Community
EvergreenHealth
Nick of Time Foundation
Olympic Physical Therapy

Central Region EMS & Trauma Care Council
EvergreenHealth Emergency Department
Group Health Emergency Department
Harborview Medical Center Emergency Department
Highline Medical Center Emergency Department
Multicare Auburn Emergency Department
Northwest Hospital Emergency Department
Overlake Medical Center Emergency Department
Seattle Children’s Hospital Emergency Department
Snoqualmie Valley Hospital Emergency Department
St. Elizabeth Hospital Emergency Department
St. Francis Emergency Department
Valley Medical Center Emergency Department
Airlift Northwest
AMR Ambulance
Falck Northwest Emergency Medical Services
Tri-Med Ambulance

Washington Ambulance Association
Public Health-Seattle & King County Emergency Medical Services
Washington State Department of Health

Representatives of medically underserved, low-income and minority populations, and populations with chronic disease needs

Carol Allen, Coordinator, Access to Baby and Child Dentistry Program, Public Health-Seattle & King County

Behavioral Health Partnership Group
Asian Counseling and Referral Services
Catholic Community Services
Community House Mental Health
Community Psychiatric Clinic
Consejo Counseling
DESC
EvergreenHealth
Harborview Mental Health
NAVOS
Seattle Counseling Service
Sound Mental Health
Valley Cities Counseling
YMCA
King County Mental Health Chemical Abuse and Dependency Services
Appendix A: Methods

Continued

Country Doctor Community Health Center
SeaMar Community Health Center
Forefront
Equal Start Community Coalition
Children's Alliance
Local Hazardous Waste Management
Open Arms Perinatal Services
Native American Women's Dialogue on Infant Mortality
Center for Multicultural Health
YWCA
Odessa Brown Children's Clinic

Health Coalition for Children and Youth
Cedar River Group
Childhood Obesity Prevention Coalition
Children's Alliance
Community Health Network of Washington
Molina Healthcare
Neighborhood House
Northwest Health Law Advocates
Odessa Brown Children's Clinic
Partners for our Children
Seattle Children's Hospital
Service Employees International Union Healthcare 1199NW

Washington Chapter, American Academy of Pediatrics
Washington Dental Service Foundation
Washington State Hospital Association
WithinReach

Sallie Neillie, Executive Director, Project Access Northwest

Those with expertise in public health and representatives from the local health department

Alan Abe, Program Manager – Injury Prevention, King County Emergency Medical Services

Jennifer DeYoung, Health Reform Analyst, Public Health-Seattle & King County

Tony Gomez, RS, Manager, Violence and Injury Prevention, Public Health-Seattle & King County

Scott Neal, Tobacco Program Manager, Public Health-Seattle & King County

Lisa Podell, Interim Health Reform Analyst, Public Health-Seattle & King County

Whitney Taylor, Firearm Violence Prevention/Child Fatality Review Program Manager, Public Health-Seattle & King County
Appendix A: Methods

Continued

Crystal Tetrick, Parent Child Health Manager, Public Health-Seattle & King County

Sharon Toquinto, Prevention and Treatment Manager, Mental Health Chemical Abuse & Dependency Services Division, King County

Jim Vollendroff, Division Director, Mental Health Chemical Abuse & Dependency Services Division, King County

Review of existing reports

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. Preliminary information from the King County Accountable Community of Health (ACH) exploration
2. Delridge Women’s Food Access report, 2014
3. Duwamish Valley Cumulative Health Impacts Analysis, 2013
4. Distracted driving report card, 2013
5. Got Green Food Access report, 2014
6. High School Outcomes for DSHS involved youth, 2012
7. Ina Maka Family Program Community Needs Assessment 2012
8. King County Equity and Social Justice report, 2013
9. King County Strategic Plan community adults report, 2014
11. Regional Equity Network Grantee Recommendations, 2013
15. United Way of King County Investment Plan, 2013
18. Washington State Department of Health Strategic Plan, 2014
Appendix A: Methods

Continued

22. Franciscan St. Francis Community Health Needs Assessment, 2013
23. Highline Medical Center Community Health Needs Assessment, 2013
27. Overlake Community Health Needs Assessment, 2011
28. Seattle Children’s Hospital Community Health Needs Assessment, 2013
29. Seattle Cancer Care Alliance Community Health Needs Assessment, 2013
30. Snoqualmie Valley Hospital District Community Health Needs Assessment, 2013
31. Swedish Hospital Community Health Needs Assessments, 2013
32. Virginia Mason Community Health Needs Assessment, 2013

Evidence Based Practices

Additional information on evidence based practices is available from the following sources. Hospitals should consult these guides when planning interventions.

1. The Robert Wood Johnson Foundation’s What Works for Health
2. The Centers for Disease Control and Prevention’s Community Guide to Preventive Services
3.Blueprints for Healthy Youth Development
4. The Substance Abuse and Mental Health Services Administration (SAMHSA)’s National Registry of Evidence-based Programs and Practices
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 can 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**

**Obesity & diabetes:**
More than half of King County residents are overweight or obese, and diabetes is one of the leading causes of death. Members already address these issues through screening, treatment and education programs. As a first step together, they have pledged to increase access to healthy food and beverages for their patients, families, and staff.

**Access to care:**
About 180,000 King County residents will soon be eligible for free or low-cost health coverage. Members will ensure that residents have access to new health insurance options through Washington Healthplanfinder.

**Needs assessment:**
Members are working together to assess health needs among communities in King County and will develop strategies to address these priority areas. The collaborative report will be presented and available to the public in 2015. Individual hospitals will also be publishing their own community health needs assessments.
Appendix B: About Hospitals for a Healthier Community

Continued

Participating Hospitals and Health Systems

EvergreenHealth

CHI Franciscan Health
St. Elizabeth Hospital
St. Francis Hospital
Highline Medical Center
Regional Hospital

Group Health Cooperative

MultiCare Health System
Auburn Medical Center

Navos

Overlake Medical Center

Seattle Cancer Care Alliance

Seattle Children’s Hospital

Snoqualmie Valley Hospital District

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
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
- A list of sub-populations that have a statistically significant higher burden of risk, disease, or injury than the overall King County population.

The technical appendix includes more complete information for each indicator including (where applicable):

- A table and bar chart of multiple-year averaged estimates by all demographics (e.g. age, gender, race/ethnicity, income or neighborhood poverty level as a measure of socioeconomic status, region)
- A table and bar chart comparing King County to Washington State, the United States, and the Healthy People 2020 Objective
- A table of multiple-year averaged estimates by King County Health Reporting Area (HRA)

- A map of multiple-year averaged estimates by HRA, ZIP code, or region
- Trend chart for King County and regions

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, results are reported with a 90% confidence interval, showing the range that includes the true value 90% of the time.

Crude, Age-Specific, and Age-Adjusted Rates

- Rates are usually expressed as the number of events per 100,000 population per year. When this applies to the total population (all ages), the rate is called the crude rate.
- 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.

Some graphs have an * or § symbol. An * means that there are too few cases to protect confidentiality and/or report reliable rates. A § denotes that while rates are presented, there are too few cases to meet a precision standard, and results should be interpreted with caution.

**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.

**Health Reporting Areas (HRAs):**

In 2011, new King County Health Reporting Areas (HRAs) were created to coincide with city boundaries in King County. HRAs are based on aggregations of U.S. Census Bureau-defined blocks. Where possible, HRAs correspond to neighborhoods within large cities, and delineate unincorporated areas of King County. The new HRAs were designed to help cities and planners as they consider issues related to local health status or healthy policy. HRAs are used whenever we have sufficient sample size to present the 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 $22,050 in 2010; in 2013 it was $23,550.
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.
- Medium poverty: 5% to 19% of households below poverty threshold.
- Low poverty: fewer than 5% of households below poverty threshold.

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: Hispanic or Latino, Not Hispanic or Latino, White alone (Not Hispanic or Latino), Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian or Other Pacific Islander, White, Some Other Race, and Two or More Races. Persons of Hispanic ethnicity can be of any race and are included in other racial categories. Racial/ethnic groups are sometimes combined when sample sizes are too small for valid statistical comparisons of more discrete groups.

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

- Terms: Hispanic, Non-Hispanic, White Non-Hispanic, Black, American Indian/Alaska Native (AIAN), Asian, Native Hawaiian/Pacific Islander (NHPI), White, and Multiple Race (Multiple).
**Rolling averages:**

When the frequency of an event varies widely from year to year, rates are sometimes aggregated into averages – often in 3-year intervals – to smooth out the peaks and valleys of the yearly data in order to view the trend. For example, for events occurring from 2001 to 2010, rates may be graphed as three-year rolling averages: 2001-2003, 2002-2004…2008-2010. Adjacent data points will contain overlapping years of data. Statistical tests comparing data points with overlapping times are not appropriate.

**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.
Appendix D: Data for Report Indicators

Description of Community

Life Expectancy and Leading Causes of Death

Chronic Illnesses

Access to Care, Use of Clinical Preventive Services, and Oral Health

Insurance Coverage
Workforce Capacity
Clinical Preventive Services
Oral Health
Preventable Hospitalizations

Behavioral Health
Mental Health
Substance Abuse & Chemical Dependency

Maternal and Child Health

Preventable Causes of Death
Obesity, Physical Activity, and Nutrition
Tobacco Use

Violence and Injury Prevention
Intentional Injuries
Unintentional Injuries

Additional indicators are online at www.kingcounty.gov/health/indicators.