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Executive Summary

Highline Medical Center (Highline) serves primarily the communities of Burien, SeaTac, Des Moines, Boulevard Park, Normandy Park, and White Center in Southwest King County (the Service Area). The Hospital has 239 licensed beds and provides a comprehensive array of inpatient, outpatient, and diagnostic services. Highline’s emergency room is one of the busiest in Washington State, with about 52,000 visits in 2011. In addition to providing hospital services, the Highline Medical Group operates primary care clinics in Burien, Des Moines, Vashon Island, West Seattle and Seahurst. Highline has more than 1,500 employees and about 200 physicians on staff.

Highline’s mission is to improve the health of the community by delivering integrated care that is safe, high-quality and patient-centered. Our vision is to achieve excellence through exceptional quality and patient-centered care. Dedicated to the community, Highline provided over $8 million in charity care in 2010 and more than $32,000,000 in total community benefit.¹

Highline has a long history of assessing and addressing community need. This particular Community Health Needs Assessment (CHNA) was conducted in partnership with the Seattle King County Health Department and multiple other community and civic organizations.

The data analyzed as part of this CHNA demonstrates that there are significant disparities in health status and outcomes in Highline’s service area in comparison to the rest of King County. Other findings include:

- The socio-economics of the Highline Service Area (as well as other communities in South King County) differs from the rest of King County, with lower educational attainment, lower income and higher rates of uninsured. Residents of the diverse Service Area are more likely to be foreign-born and speak a language other than English.

- Overall, residents of the Service Area are more likely than residents of King County to engage in behaviors such as smoking, and have lower rates of consumption of fruits and vegetables. Residents of the Service Area have substantially higher rates of diseases such as diabetes, high blood pressure, and high cholesterol.

- Additionally, residents of these areas are more likely to experience food deserts—or areas where access to healthy food is restricted either due to geographic proximity or cost. There are also fewer public spaces for recreational activity located within the Service Area. For some local residents, these factors form a significant barrier to a healthy lifestyle.

This CHNA also demonstrates that within the past few years, significant community resources—calls to action—have been mobilized to address the identified disparities throughout South King County. In addition, and partially in response to this CHNA process, there has been a new awareness on the part of providers to collaborate and share resources and expertise.

As follow up to this CHNA, Highline will, in partnership with community providers, select one or more needs and develop an Implementation Plan identifying how it intends to deploy resources in an effort to improve health status. That Plan is intended to be completed during the first quarter of 2013.

¹ Includes contractual allowances from Medicare and Medicaid.
Study

Study Area Defined
Highline is based in Burien, in Southwest King County, Washington. Highline’s Service Area encompasses Boulevard Park, SeaTac, Normandy Park, Des Moines and Burien, as well as portions of Tukwila and White Center2. In total, the Service Area has a combined population of nearly 150,000, and is depicted in Figure 1.

Figure 1
Map of Service Area

2 Corresponding to zip codes 98146, 98148, 98166, 98198, 98188, and 98168.
Overview of Assessment Methods

In conducting this CHNA, Highline partnered with multiple local organizations including Public Health – Seattle & King County (PH-S&KC) and Seattle Children’s Hospital. The Hospital also reached out to local health care providers and civic and community organizations (including places of worship). Over the course of the process, three meetings at were held. The following organizations actively participated in the process:

- Global 2 Local
- City of Tukwila
- City of Burien
- City of SeaTac
- City of Des Moines
- Highline School District
- Tukwila School District
- Public Health – Seattle & King County
- Aging and Disability Services, Seattle Human Service Department
- SeaMar CHC
- HealthPoint CHC
- Seattle Children’s Hospital
- The Office of State Senator Karen Keiser
- Navos
- Group Health Cooperative

Taken together, these Community resources demonstrate that the strong commitment to improving health and reducing disparities in South King County. The current resources of these organizations are summarized in Attachment 1.

Both secondary and primary data were used to paint a comprehensive picture of the Service Area, the community’s health status and its health care needs. In terms of secondary data, the Behavioral Risk Factor Surveillance Survey (BRFSS), a valuable tool conducted by the State of Washington on behalf of the Centers for Disease Control and Prevention (CDC), identifies health status and behaviors within the community. Data from BRFSS specific to Highline’s service area were analyzed by PH-S&KC. Other data from PH-S&KC were obtained, including health status and outcomes throughout the County, and leading causes of death in the Service Area. Demographic data were obtained from the 2010 US Census and the American Community Survey (ACS). Other data were obtained from presentations from community partners. In addition, primary data were collected. These primary data included interviews with representatives from local faith-based organizations. These interviews sought input on local needs. Finally, Highline sought input and collaboration with organizations in the community including local government and healthcare organizations.

3 Representatives from Public Health – Seattle & King County included the following: Eva Wong PhD, Policy Development & Evaluation Unit; Marguerite Ro, DrPH, Chief, Assessment, Policy Development, and Evaluation; and Erin MacDougall, Program Manager, Healthy Eating and Active Living.
Findings

Demographics

Demographic factors have a strong effect on health status, health care usage, and healthcare access. With the exception of Normandy Park, every city within the Service Area has a lower rate of high school graduation than the State. Normandy Park is also the outlier on poverty – every other city in the Service Area has a poverty rate that is higher than the State rate; Boulevard Park has the highest rate in the Service Area. The Service Area is also home to more residents who were born abroad and who speak a language other than English at home. Individuals who are foreign born can have increased difficulty navigating the American healthcare system, while those who speak a language other than English at home may have difficulty accessing healthcare due to language barriers. The foreign born population is most prominent in Tukwila, where over a third of residents are foreign born and nearly half speak a language other than English at home. Throughout the Service area, the unemployment rate is higher than the County rate, but below the State rate.

<table>
<thead>
<tr>
<th>City</th>
<th>High School Diploma</th>
<th>Poverty Rate</th>
<th>Unemployment Rate March 2012†</th>
<th>Foreign Born</th>
<th>Median Household Income</th>
<th>Language other than English spoken at home</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boulevard Park</td>
<td>83.10%</td>
<td>41.5%</td>
<td>N/D</td>
<td>15.4%</td>
<td>$41,435</td>
<td>26.9%</td>
</tr>
<tr>
<td>Burien</td>
<td>85.30%</td>
<td>14.6%</td>
<td>7.30%</td>
<td>22.1%</td>
<td>$51,995</td>
<td>27.7%</td>
</tr>
<tr>
<td>Des Moines</td>
<td>87.50%</td>
<td>13.9%</td>
<td>8.70%</td>
<td>18.7%</td>
<td>$59,577</td>
<td>24.1%</td>
</tr>
<tr>
<td>Normandy Park</td>
<td>95.60%</td>
<td>3.9%</td>
<td>N/D</td>
<td>12.2%</td>
<td>$73,333</td>
<td>10.8%</td>
</tr>
<tr>
<td>SeaTac</td>
<td>80.80%</td>
<td>13.3%</td>
<td>8.50%</td>
<td>31.0%</td>
<td>$48,341</td>
<td>39.8%</td>
</tr>
<tr>
<td>Tukwila</td>
<td>78.60%</td>
<td>23.8%</td>
<td>N/D</td>
<td>36.2%</td>
<td>$44,271</td>
<td>48.0%</td>
</tr>
<tr>
<td>White Center</td>
<td>77.60%</td>
<td>25.0%</td>
<td>N/D</td>
<td>29.9%</td>
<td>$42,448</td>
<td>44.2%</td>
</tr>
<tr>
<td>King County</td>
<td>91.90%</td>
<td>10.2%</td>
<td>7.10%</td>
<td>19.8%</td>
<td>$68,065</td>
<td>24.3%</td>
</tr>
<tr>
<td>State</td>
<td>89.60%</td>
<td>12.1%</td>
<td>8.80%</td>
<td>12.7%</td>
<td>$57,244</td>
<td>17.5%</td>
</tr>
</tbody>
</table>

Health Status
Leading causes of death are an important component in the health status picture. Elevated death rates due to preventable causes may indicate a heightened disease burden or an unmet need for health services that treat these diseases. As depicted in Table 2, within the Highline Service Area, the age-adjusted top causes of death were cancer and heart disease, and while these two diseases are the top causes of death in the County, the County death rates are lower (cancer and heart disease were 155.8 and 130.0 respectively). In addition, the diabetes death rate for King County was 16.2 per 100,000, making the service area’s rate more than 50% higher than the County rate; similarly, the King County death rate for Chronic Lower Respiratory Diseases is 27.9.

Access
Insurance is an important factor in meeting health needs. Individuals who are uninsured may have to pay out-of-pocket for medical services and as a result, may go without care. In the Service Area, the latest data suggests that 21% lack medical insurance and 36% lack dental insurance, as indicated in Figure 2 below. In contrast, only 12% of King County residents lacked insurance.

Table 2
Leading Causes of Death in the Highline Service Area 2006-2010

<table>
<thead>
<tr>
<th>Rank</th>
<th>Cause</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cancer</td>
<td>179.3</td>
</tr>
<tr>
<td>2</td>
<td>Heart Disease</td>
<td>146.0</td>
</tr>
<tr>
<td>3</td>
<td>Unintentional Injury</td>
<td>42.5</td>
</tr>
<tr>
<td>4</td>
<td>Chronic Lower Respiratory Disease</td>
<td>39.1</td>
</tr>
<tr>
<td>5</td>
<td>Alzheimer’s Disease</td>
<td>35.5</td>
</tr>
<tr>
<td>6</td>
<td>Stroke</td>
<td>35.7</td>
</tr>
<tr>
<td>7</td>
<td>Diabetes</td>
<td>24.6</td>
</tr>
<tr>
<td>8</td>
<td>Chronic Liver Disease and Cirrhosis</td>
<td>15.7</td>
</tr>
<tr>
<td>9</td>
<td>Influenza and Pneumonia</td>
<td>13.4</td>
</tr>
<tr>
<td>10</td>
<td>Suicide</td>
<td>11.3</td>
</tr>
</tbody>
</table>

Per 100,000 population, age adjusted.
Source: Public Health Seattle & King County.


Figure 2
Uninsured in the Service Area

![Uninsured in the Service Area](image)


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4 Washington State Mortality Table 2010.
In comparison to King County, Service Area residents are significantly less likely to have health insurance. The communities of Tukwila, SeaTac, and Des Moines have some of the highest rates of uninsured in the County, indicating significant health disparities exist within the County, as indicated in Figure 3. The Affordable Care Act (ACA) can help alter the situation for these individuals with the expansion of Medicaid and the expansion of the population buying health insurance individually through insurance exchanges.

Behavioral Risk Factors
A host of factors contribute to general health status, among them behavioral factors. It has been estimated that nearly 40% of all deaths in the United States are a result of behavioral factors.\(^5\)

Some of the behavioral factors with the greatest effect on general health status are the use of substances, with alcohol and tobacco the most critical in the nation due to their widespread use. While moderate drinking has been shown to reduce the risk of heart disease and is associated with increased longevity, excessive alcohol consumption – consumption of more than four of five drinks on an occasion (binge drinking) or consumption of more than one or two drinks on a daily basis (heavy drinking) – can cause a host of social and health problems. In the Service Area, 22% of all residents engage in excessive drinking\(^6\), a rate higher than the King County rate of 18% reported by PH—S&KC\(^7\). In general, males are more likely than females to engage in risky behaviors. This is evident in excessive drinking, as males (30%) are more than twice as likely as females (14%) to engage in this behavior. Senior citizens are far less likely to engage in these harmful behaviors than younger adults.

\(^5\) McGinnis JM et al, The Case For More Active Policy Attention To Health Promotion hlthaff.21.2.78 Health Aff March 2002 vol. 21 no. 2 78-93.
\(^6\) BRFSS 2007-2010.
\(^7\) BRFSS 2006-2010.
Despite the dramatic drop in smoking rates since the Surgeon General’s report linking smoking to lung cancer in 1964, tobacco remains the leading cause of preventable death in the United States. In the Service Area, 17% of all adult residents smoke, in contrast to 10% of King County residents. As with excessive alcohol consumption, younger adults and men are more likely to smoke. Figure 4 maps smoking rates throughout western King County. Boulevard Park, SeaTac, and Tukwila have some of the highest rates of smoking within the County, and the remainder of the service area also has elevated rates of smoking.

Obesity is another important factor in overall health; it raises the risk of heart disease, arthritis, some cancers, and most prominently, Type II diabetes. Figure 5 maps obesity in King County. As with smoking rates, some of the highest obesity rates are in SeaTac and Tukwila, and the rest of the Service Area has elevated rates of obesity in comparison to the County as a whole. Within the Service Area, 27% of adults are obese and 39% are overweight, rendering those of a healthy weight a minority. Men were more likely to be overweight, at 42% than women, of whom only 33% were overweight; the obesity rates for men (28%) and women (27%) were similar. One caveat with these rates is that they rely on the BRFSS study, in which interviewees provide their height and weight, and self-reports frequently understate BMI.

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8 King County Public Health Data Watch, May 2012.
For many people, the struggle with weight begins in childhood. Childhood obesity raises the risk of obesity in adulthood. Additional negative effects on health include a heightened risk of metabolic syndrome, high blood pressure, and the possibility of developing diabetes in childhood. Figure 6 depicts childhood obesity in the Highline School District (the largest in the service area) and Washington State. In the Highline school district, 30% of all 12th graders are either overweight or obese, compared to only 25% of Washington State 12th graders. Even more alarming, 14% were overweight in comparison to 16% who were obese.

Individuals who are overweight or obese are more likely to suffer from high cholesterol and high blood pressure. In the Service Area, 45% of adults have high cholesterol and 28% have high blood pressure. In contrast, in King County, only 36% and 23% have high cholesterol and high blood pressure, respectively.

In addition to high blood pressure and cholesterol, one of the biggest risks of obesity and overweight is Type II diabetes. The rate of diabetes has been rising over the past ten years. Diabetes is of major concern because the disease raises the risk of developing other common chronic diseases such as cardiovascular disease. Overall, a person with diabetes has twice the risk of dying as a person of the same age who does not have diabetes. Figure 7 displays the rate of diabetes within the Service Area and County. Overall, 8% of residents have diabetes, and this rate is the same for men and women. The rate of diabetes rose with age – only 6% of adults under 65 had the disease, but 17% of senior citizens, more than twice the rate of younger adults reported having been diagnosed with the disease. In contrast 6% of King County residents have been diagnosed with the disease.

These rates should be interpreted with caution, as the American Diabetes Association estimates that more than a third of Americans with diabetes do not know that they have the disease.

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13 King County Chronic Disease Profile, Washington State Department of Health.
15 King County Chronic Disease Profile, Washington State Department of Health.
Diabetes hospitalizations are often indicative of poor control of diabetes in the ambulatory setting; and the Agency for Healthcare Research and Quality (AHRQ) considers diabetes hospitalizations to be preventable hospitalizations. High rates of hospitalization for diabetes can indicate unmet needs of multiple types such as lack of timely diagnosis, lack of education on controlling diabetes, an inability to afford medications or testing supplies, or lack of regular monitoring. Figure 8 maps hospitalizations for diabetes in King County. Higher rates of diabetes hospitalizations are found in southern King County. The SeaTac and Tukwila area is among the top three areas in the County for diabetes hospitalization rates.

Healthy diet is an important component of weight control, and lifestyle changes such as increased physical activity and adoption of a healthier diet can reverse or slow the progress of diabetes. Healthy diets include generous quantities of fruits and vegetables, which are nutrient dense, high fiber, and low in calories. Only 27% of residents of the Service Area met the recommendations to consume at least five fruits and vegetables daily. In contrast, 28% of King County Residents and 26% of Washington State Residents consumed sufficient servings of fruits and vegetables.

Given the importance of good nutrition in achieving good health, access to healthy food is an important factor in health status. The United States Department of Agriculture (USDA) has developed the concept of the food desert, defined as an area in which there are no healthy food outlets within one (urban) or ten (rural) miles. As with other factors affecting health and access to health services, the map in Figure 9 demonstrates that there are disparities in access to healthy food within King County. Burien, SeaTac, Tukwila, and Des Moines all have food deserts.

17 King County Chronic Disease Profile, Washington State Department of Health, BRFSS 2007, 2009.
Another important piece of the healthy lifestyle puzzle is exercise. Neighborhoods that are walkable and safe encourage physical activity. Health clubs and gyms can be expensive, while public parks and public pools are free or low cost. As a result, the presence of clean, safe parks and other open space can create an environment where physical activity is “easy” and convenient to engage in. Figure 10 maps Parks Open Space and Regional Trails in the Cities of King County. While much of Seattle is within a quarter mile of open space, most of SeaTac is far from open space. Smaller parts of Tukwila and Burien are also absent parks and open space, indicating that public recreational resources are lacking in the Service Area.

Figure 10
Open Spaces in King
Communities Within Quarter-Mile of Parks, Open Space, and Regional Trails
Within the Urban Growth Area 2011

Source: King County Equity and Social Justice Report, 2012.
Primary Data:

In addition to data obtained from other sources, Highline sought the input of local houses of worship. In total, representatives from nine houses of worship were interviewed. The houses of worship varied in their congregations and in their income levels. Overall, two main themes emerged: the affordability of health care and a healthy lifestyle.

Affordability of health services was repeatedly cited as a concern. Many places of worship noted that the community has large number of residents that work jobs that do not provide health insurance and pay such low wages that families cannot afford to purchase insurance on their own. However, these residents often made too much money to qualify for Medicaid; therefore they were responsible for paying all medical expenses out of pocket. Speaking about low-income residents, one interviewee commented “They wait until it’s a crisis and then go to the Emergency Room.”

Another challenge mentioned by many interviewees was the ability to afford healthy food and maintain a healthy lifestyle. Most interviewees stated that while healthy food was available, it was expensive. Exercise opportunities were also a challenge. One of the more telling insights came from the pastor that noted that when the YMCA relocated it had left low income children without a place to go to play sports, and for adults who wanted to exercise, there were not any low cost gyms in the area.

Some of the churches interviewed are members of Transform Burien, a faith-based organization that is dedicated to serving the community. The organization provides basic needs including food and clothing to Burien residents. In addition, Transform Burien has begun to collaborate with other organizations to provide basic medical care, mental health treatment, and diabetes screenings. Basic medical care is met via a Mobile Medical Program twice a month, while dental services are provided monthly.

Conclusion

This CHNA demonstrates that the Highline Service Area, consistent with the overall status of South King County experiences significant health disparities in comparison to the rest of the County. Disparities include smoking, obesity, access to healthy foods, an environment that makes physical activity less convenient and rates of insurance. Many of these disparities are related to the less affluent, more diverse nature of the area—many residents are uninsured because their jobs do not provide insurance and they cannot afford to purchase insurance. These health disparities correlate with a community that tends to be poorer than King County overall. Despite these disparities, the area has many organizations that are dedicated to serving the community.
Attachment 1

**PH-S&KC, Healthy King County Collation (HKCC), and Seattle Children’s Hospital:**
Collectively these organizations are recipients of a Community Transformation Grant “Transforming the Health of South King County: Working with Small Communities to Reduce Regional Health Inequities”. This grant will focus on several Cities within the Service area -- Des Moines, SeaTac and Tukwila. The major focuses are Nutrition, Physical Activity, and Tobacco. One of the key components is to reduce the consumption of sugar-sweetened beverages such as soda; consumption of soda has been linked to increased weight gain. As a result, these organizations are encouraging the adoption of “Soda-free Sunday”. Another effort is to increase access of healthy, locally-produced foods in local institutions such as schools. Overall, these efforts will help to narrow the disparities in South King County.

**Seattle Children’s Hospital:**
In addition to its role in the Community Transformation Grant (CTG grant), Seattle Children’s Hospital has recently conducted its own CHNA. As a result of their process, Seattle Children’s Hospital has chosen to focus on coordinating care, health disparities in South King County, mental health, and obesity. As part of the effort to combat obesity, the hospital is partnering with other organizations to encourage children from diverse backgrounds to take up swimming. In addition, Seattle Children’s is partnering with Group Health to encourage vaccination of children.

**Group Health Cooperative:**
Group Health has also recently conducted its own CHNA and identified the following priorities: disparities in South King County, access to care, and healthy lifestyles. As part of its involvement in the community, Group Health partners with local organizations to encourage physical fitness, and sponsors events to help children become physically active.

**SeaMar Community Health Centers (CHCs):**
SeaMar CHC provides services to a population that is primarily Latino and provides services on a sliding scale, and nearly 75% of all clients have family incomes that are at or below the Federal Poverty Level (FPL).

**HealthPoint Community Health Centers (CHCs):**
HealthPoint CHC also operates in the Service Area with a clinic in SeaTac. Highline has recently provided space to HealthPoint at our Specialty Campus to offer walk-in clinic services. HealthPoint provides primary medical care, behavioral services, and primary dental care to community members. The organization is also active in the community, including outreach to populations that are homeless or in shelters. In addition to this outreach, HealthPoint CHC is a partner of Global 2 Local.

**Global 2 Local:**
This program is a partnership between the Washington Global Health Alliance and other local organizations (including PH-S&KC, HealthPoint CHC, the Cities of Seattle and Tukwila and Swedish Medical Center) to increase access to healthcare and the health of residents using strategies developed by the Global Health Community. Current priorities include community outreach, diabetes, health education, and community cafes. Tukwila, SeaTac, and Seattle have been chosen to participate in this program. Currently, Global 2 Local is using technology to reach residents focusing on community partnerships and the social determinants of health, with future projects focusing on economic development in the Community.
City of SeaTac:
The city of SeaTac has been very proactive in Highline’s CHNA process. Both the City Manager and the Manager of Human Services attended and participated in meetings. The Human Services Department has worked closely with the CHNA committee to identify the specific needs of the residents of SeaTac and has worked to secure resources for the recreation and exercise needs of the residents of SeaTac. The City is also a partner in the Global 2 Local initiative.

City of Burien:
As part of the effort to encourage physical activity, the Department of Parks, Recreation and Cultural Studies will be working with partners to encourage residents of Burien to engage in more recreational activity and improve the options for physical activity.

PH-S&KC:
In addition to analyzing data, PH-S&KC publishes Communities Count, which presents a broad view of public health in the County, including data on school readiness and housing affordability, as well as rates of smoking and diabetes. King County Organizations, including County Hospitals are working on an initiative, along with WSHA to address obesity and diabetes.

Highline School District:
The school district serves over 17,500 students from Normandy Park, Burien, and Des Moines. Currently, it is taking part in the joint CTG grant aimed at reducing childhood obesity in southern King County. Highline School District also has an ongoing relationship with Navos to provide early intervention services.

Tukwila School District:
The Tukwila school district is the most diverse in the nation, over 70 languages are spoken by the children attending Tukwila School District’s schools. Tukwila School District is also participating in the CTG grant.

Navos:
One of the major providers of mental health services in King County, Navos is focused on providing services to individuals who are either below or close to the poverty line. Navos also has specific services targeted toward the elderly, and importantly for a community as diverse as the Highline Service Area, immigrants.

Aging and Disability Services of King County:
A division of the Seattle Human Services Department, Aging and Disability Services of King County works with King County and the local United Way toward the goals of supporting caregivers, improving both the health and quality of life for adults with disabilities and senior citizens, and matching these individuals with resources.

King County:
King County publishes the Equity and Social Justice Annual Report, which presents many of the social and economic factors that influence health and health outcomes.