St. Joseph Medical Center
Community Health Needs Assessment

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Tacoma-Pierce County Health Department
Office of Assessment, Planning, and Improvement
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Key Findings

- Like many places, the service area is growing older and more racially and ethnically diverse. With aging comes greater need for health services and particularly services related to chronic conditions. Because managing and preventing chronic conditions is a cooperative effort between providers and patients, health communication will need to be tailored to the cultural needs of patients.

- The number of births in the service area had been growing, but very recently began a sharp decline. This drop has been reported across the nation and is thought to reflect changes in reproductive decisions brought by the economic recession. Preterm births are increasing by about 0.5% per year.

- Both for adults age 18-64 and for adults 65 and older the death rate from cardiovascular disease is higher in the service area than in Western Washington state. Smoking and obesity, two important risk factors for cardiovascular disease, are more common in the service area as well. This suggests the service area will continue to need high levels of preventive and therapeutic care related to cardiovascular disease.

- In keeping with the high levels of obesity, diabetes is also more prevalent in the service area than in Western Washington state; this will no doubt continue into the immediate future.

- Although mental health is no worse in the service area, a large proportion of adults and youth suffer from poor mental health. Suicide is a leading cause of death for both children age 1-17 and for adults 18-64.

- While the rate of death is in decline for children and adolescents and for the elderly, it is increasing about 1.3% per year for adults 18-64. This rise is not occurring in Western Washington state.

- Life expectancy, a broad indicator of population health, is increasing in the service area, but not as quickly as in all of Western Washington state.

- Indicators of health care access were similar in the service area and in Western Washington state. This suggests that the gap in mortality and life expectancy may be due to behavioral factors such as smoking, obesity and chronic disease management rather than due to therapeutic care.

Community members identified three broad directions that would most impact community health:

- Providing access to quality health care for all. This includes comprehensive mental health services, service equity for minority populations, and better coordination of care within and between the major health care systems in the area.

- Reducing preventable chronic conditions including substance abuse and obesity-related diseases such as diabetes.

- Meeting the needs of special populations, particularly military families and the homeless.
Introduction

A community health needs assessment is only one element in what necessarily must be a comprehensive planning process to strengthen Pierce County’s health care infrastructure and address community health priorities. The information contained in this assessment, both the quantitative and qualitative data, can provide a blueprint for the planning the hospital will need to do to best address the needs of the Pierce County community. Moving forward with a resource inventory and a current service gap analysis will assist in learning more specifically and strategically what the best means of health care planning are.

St. Joseph Medical Center is a 366-bed regional medical center located in Tacoma, Washington with its primary service area (representing 75% of individuals served) as shown in the figure below. This report presents quantitative data specific to the St. Joseph primary service area and qualitative community group data gathered from focus group-type meetings throughout Pierce County. The quantitative data are presented first, followed by the community group data and concluding with a description of the methods used to collect and analyze data.

Figure 1 Map of St. Joseph Medical Center primary service area
Quantitative Data

Demographic profile
Approximately 650,495 people live in the St. Joseph service area. The demographic characteristics of a community are strong predictors of health and of the magnitude and type of health service needs. The age distribution of residents in the service area has changed over the past decade (Figure 2). The low “center of gravity” in the 2000 pyramid reflects the relatively large younger population at that time. In 2009 the population had aged; the modal age was 45-49. As the population ages, chronic health conditions will become more prevalent and demand for health services associated with those conditions will grow. In addition to therapeutic services, there will be growing need for helping patients manage their chronic conditions, including care management and patient education.

![Population pyramid for service area, 2000 and 2009](image)

**Figure 2 Population pyramid for service area, 2000 and 2009**

With respect to race and ethnicity, the service area is predominately white non-Hispanic (Figure 3). All subgroups of race and ethnicity grew in size over the last two decades. The rate of growth from 1990 to 2009 was highest for Hispanic (179%) and Asian/Pacific Islander non-Hispanic (132%) groups. Health communication, which is vital to preventing and managing chronic conditions, will need to be tailored to the needs of these growing population subgroups.
In the service area, 12.3% of residents had incomes below the Federal Poverty Level, averaged over 2006-2010. This is higher than the Western Washington state prevalence of 10.8% over the same time period.

**Pregnancy and childbirth**
Birth patterns in the service area have shifted over the past two decades (Figure 4). The recent decline in births, following on the tails of an upward trend, was seen in Western Washington state as well. Declining birth rates have been reported across the nation and are thought to reflect changes in reproductive decisions brought by the economic recession. Note that data for Western Washington state is plotted using the axis on the right.
Infants born preterm can face multiple acute health concerns and lifelong disabilities. Preterm births in the service area are increasing 0.5% per year (Figure 5). The trend is similar to that in Western Washington state, though the percent of preterm births is consistently lower regionally than in the service area.
Prevalence of selected health behaviors

Current health behaviors can help to predict future health for a community. Two major risk factors for cardiovascular disease, smoking and obesity, are more prevalent among adults in the service area than in Western Washington state (Table 1). There were no meaningful differences in smoking, substance use or obesity between 8th graders in the service area and those statewide.

Table 1 Prevalence of selected health behaviors (self-reported)

<table>
<thead>
<tr>
<th></th>
<th>Service area</th>
<th></th>
<th>Comparison area</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Percent</td>
<td>95% CI</td>
<td>n</td>
</tr>
<tr>
<td>Smoking</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of adults who currently smoke†</td>
<td>2876</td>
<td>18.5</td>
<td>16.5-20.5</td>
<td>26238</td>
</tr>
<tr>
<td>Percent of 8th graders who smoked in last 30 days*</td>
<td>5994</td>
<td>7.5</td>
<td>6.4-8.5</td>
<td>9495</td>
</tr>
<tr>
<td>Substance use</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of 8th graders who drank alcohol in last 30 days*</td>
<td>5971</td>
<td>14.7</td>
<td>13.4-16</td>
<td>9459</td>
</tr>
<tr>
<td>Percent of 8th graders who used an illegal drug in last 30 days*</td>
<td>5938</td>
<td>10.0</td>
<td>8.7-11.4</td>
<td>9419</td>
</tr>
<tr>
<td>Obesity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of adults who are obese†</td>
<td>2736</td>
<td>28.9</td>
<td>26.7-31.2</td>
<td>25110</td>
</tr>
<tr>
<td>Percent of 8th graders who are obese*</td>
<td>2451</td>
<td>12.2</td>
<td>10.6-13.8</td>
<td>4035</td>
</tr>
</tbody>
</table>

†Source: Behavioral Risk Factor Surveillance System, 2009-2010; comparison area: Western WA

Prevalence of selected chronic conditions

Diabetes is expected to grow in prevalence as a result of climbing levels of obesity. Currently, almost 10% of adults and 3.6% of 8th graders report being diagnosed with diabetes (Table 2). Diabetes prevalence among adults in the service is somewhat higher than among adults in Western Washington state, in keeping with the differences in obesity prevalence.

Mental illness is a common and frequently untreated condition that accounts for significant disability, productivity loss, and human suffering. In the service area, over a quarter of 8th graders reported symptoms consistent with clinical depression, while about 15% of adults reported experiencing periods of poor mental health recently (Table 2). There were no differences between service and comparison areas for these indicators of mental illness.
Table 2 Prevalence of selected chronic conditions (self-reported)

<table>
<thead>
<tr>
<th>Service area</th>
<th>Comparison area</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>Percent</td>
</tr>
<tr>
<td><strong>Diabetes</strong></td>
<td></td>
</tr>
<tr>
<td>Percent of adults with diabetes†</td>
<td>2894</td>
</tr>
<tr>
<td>Percent of adults with pre-diabetes†</td>
<td>2894</td>
</tr>
<tr>
<td>Percent of 8th graders with diabetes*</td>
<td>2504</td>
</tr>
<tr>
<td><strong>Mental health</strong></td>
<td></td>
</tr>
<tr>
<td>Percent of adults with poor mental health &gt;10 out of last 30 days†</td>
<td>2863</td>
</tr>
<tr>
<td>Percent of 8th graders with symptoms of depression (sad or hopeless for 2 weeks last 12 months)*</td>
<td>5542</td>
</tr>
</tbody>
</table>

†Source: Behavioral Risk Factor Surveillance System, 2009-2010; comparison area: Western WA

**Mortality**

While death is unavoidable, premature death is sometimes preventable. Deaths among children 1-17 residing in the service area have been declining about 3.3% per year (Figure 6). The most common causes of death for this age group are injuries, cancer, and cardiovascular disease (Figure 7). There were no meaningful differences in child death rates between the service area and Western Washington state.

Death from homicide, however, is more common in the service area.

![Figure 6 Death rate among persons age 1-17](source)

*Source: Washington State Department of Health, Center for Health Statistics, Death Certificate Data*
Among adults age 18-64, the rate of death is now climbing 1.3% per year, following a period of decline (Figure 8). This is resulting in a growing gap in adult death rate between the service area and Western Washington state. The rise in deaths after 1996 may be attributable, in part, to the aging of the population within the 18-64 range (see Figure 2). Both chronic conditions and injuries are leading causes of death for this age group (Figure 9). Death from cardiovascular disease is 30% more common in the service area, consistent with the higher rates of obesity and smoking described above.
For the oldest residents in the service area, the death rate is declining by 1.1% per year (Figure 10). The trend for the service area is similar to that observed in Western Washington state, although the rate is consistently higher. Major chronic diseases claim the most lives for this age group (Figure 11).
Life expectancy is a broad summary measure of population health, calculated from mortality statistics. Life expectancy at birth in the service area is climbing at .15% per year (Figure 12). Life expectancy in the service area has not improved as rapidly as in Western Washington state, and in addition has been consistently lower. This is resulting in an increasing gap between the service area and the region.
Access to care
Individuals without health insurance and without a regular provider frequently do not receive needed health care, particularly preventive care. Health care access and service utilization were about the same in the service area and in Western Washington state (Table 3).

Table 3 Percent of adults reporting access to health care

<table>
<thead>
<tr>
<th>Service area</th>
<th>Western WA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>Percent of adults 18-64 with health insurance</td>
<td>2888</td>
</tr>
<tr>
<td>Percent of adults with a personal health care provider</td>
<td>2884</td>
</tr>
<tr>
<td>Percent of women 40-74 with a screening mammogram in last 2 years†</td>
<td>579</td>
</tr>
<tr>
<td>Percent of adults age 50+ who ever had a sigmoidoscopy or colonoscopy†</td>
<td>909</td>
</tr>
</tbody>
</table>

Source: Behavioral Risk Factor Surveillance System, 2009-2010

Community Input

Background
The Tacoma-Pierce County Health Department worked collaboratively with Franciscan Health System and MultiCare Health System to conduct a community health needs assessment that included input from key leaders and community residents representing multiple sectors and population groups in the community. The purpose of this qualitative portion of the community health needs assessment was to hear from the Pierce County community about the following five questions:

1. What makes a healthy community?
2. What would a healthy Pierce County look like?
3. What are the strengths, assets and resources of Pierce County?
4. What are the challenges to health in Pierce County?
5. What are the most important health issues that need to be addressed in a community health improvement plan?
Findings
The information from all three data collection methods (see “Community engagement methods”) were analyzed, themed and summarized to draw out the most important conclusions. These major finding include:

1. Significant and unique strengths of Pierce County are:
   - Coalitions and collaborations
   - Higher education network
   - Open minds to complementary care
   - Access to local food and farmers markets
   - Volunteer base
   - Faith communities
   - Health care systems
   - Natural assets
   - Arts and humanities

2. Three important factors that most affect the quality of life and health of a community are low crime and safe neighborhoods, good jobs and healthy economy, and good schools.

3. The community problems that have the greatest impact on overall community health are:
   - Substance abuse
   - Mental health/behavioral health issues
   - Access and availability top quality health care
   - Availability of and accessibility to quality medical care and treatment services
   - Chronic diseases (ex., diabetes, cancer, heart disease, hypertension,)
   - Coordination across systems/ addressing the medical care provider shortage
   - Disparities of services for minorities
   - Adult and childhood obesity
   - Needs of military personnel and families
• Needs of the homeless

4. Health improvement planning should focus on strengths not just deficits.

5. Health improvement planning should consider the mind, body, and spirit.

6. Strengthen the community-based systems in Pierce County that are working to improve health, e.g., community health workers and patient navigators.

Methods

Quantitative data methods
This study uses data from 30 zip codes that represent 75% of inpatients seen at St. Joseph Medical Center. When possible, we used Western Washington state as a comparison population. This area includes 19 counties west of the Cascade mountain range: Whatcom, Skagit, Snohomish, King, Pierce, Thurston, Lewis, Skamania, Clark, Cowlitz, Wahkiakum, Pacific, Mason, Grays Harbor, Jefferson, Clallam, Kitsap, San Juan and Island counties.

We included six broad indicators of current population health and of future health and health care utilization: demographics, pregnancy and childbirth, health behaviors, mortality and access to health care. Error bars in the figures show 95% confidence intervals. These indicate the margin of error for the value estimated. We used Joinpoint regression models to evaluate time trends. Black lines in the figures show trends over time for the service area. Additional detail about data sources and how they were used follow. Much of the data in this report come from a few key sources. These sources and their limitations are briefly described below.

Behavioral Risk Factor Surveillance System
The Behavioral Risk Factor Surveillance System (BRFSS) is an ongoing national telephone survey conducted by the Centers for Disease Control and Prevention. The survey includes adults age 18 years and older and provides state- and county-level data for each calendar year. Topics are wide ranging and include disease prevalence, health care access and use, health behaviors and demographics. There are several biases inherent to BRFSS. First, cell phone-only households are excluded. These households tend to be younger and poorer than households with landlines. Second, BRFSS excludes people in institutions such as hospitals and nursing homes and so may underreport responses from people who are ill or in poor health. Third, data are self-reported and so are subject to social desirability bias and recall error. Finally, BRFSS is conducted in English and Spanish, and so underreports responses from speakers of other languages.

Healthy Youth Survey
This school-based survey is administered in even numbered years throughout Washington State. The survey includes grades 6, 8, 10 and 12. For this report, we included data from schools that were physically located in the service area, recognizing that this may include responses of students residing outside the service area and exclude information about students living in the service area but attending school elsewhere. Topics include health risk behaviors, family, community risk and protective factors, and current health conditions. Like other survey data, it is subject to social desirability bias and recall error.

Death certificate data
For death certificates, funeral directors collect information about the deceased person, including race and ethnicity, from an informant who is usually a family member or close personal friend of the deceased person. A certifying physician, medical examiner, or coroner generally provides cause-of-death information. Cause-of-death data come from underlying causes of death and not immediate causes. For example, if a person dies of a complication or metastasis of breast cancer, breast cancer would be the underlying cause of death. Data are compiled by the Washington State Department of Health, Center for Health Statistics.

Birth certificate data
The birth certificate system contains records on all births occurring in the state and nearly all births to residents of the state. Information is gathered about the mother, the father, the pregnancy, and the child. The information is collected in hospitals and birth centers from worksheets completed by parents or medical staff, from medical charts, or by a combination of these sources. Midwives and family members who deliver a baby complete the birth certificate and collect the information from a parent or from their records. Data are compiled by the Washington State Department of Health, Center for Health Statistics.

American Community Survey
The American Community Survey (ACS) is a mailed survey conducted every year by the U.S. government to estimate a wide variety of social and economic data for the U.S. population. The ACS replaces the long form of the census for collecting detailed population data and has the advantage of being released annually rather than at 10-year intervals. ACS location of residence is based on census tracts, which don’t align with zip code boundaries. A census tract was considered to be in the hospital service area if the centroid of the census tract was within the service area.

Decennial United States Census
The census, unlike other surveys, includes responses from the entire population, not just a representative sample. And unlike the ACS, census data are available by zip code. The census collects limited demographic information (age, sex, race, ethnicity, family and housing).

Community engagement (qualitative) methods
The Health Department worked collaboratively with Franciscan Health System and MultiCare Health System to conduct a community health needs assessment that included collecting input from key leaders and community residents representing multiple sectors and population groups in the community. The needs assessment included conducting a community survey, as well as the community engagement process described below.

Pierce County community survey
In December 2011, the Health Department commissioned the Pierce County Community Study, conducted by the Gilmore Research Group in Seattle. More than five hundred Pierce County residents were surveyed; 384 (73%) via the internet, 100 from phone calls (19%) and 41 (8%) via intercept surveys conducted at several Pierce County food banks. The Community Study sought Pierce County resident’s views on issues related to health care, economic opportunity, important health issues, and issues that impact community health.

Community engagement process
To complement the community survey, a community engagement process was implemented to further solicit input from the Pierce County public. This process included three stages:
1. Hold key leader focus groups to gain input on main questions, listening for top themes;
2. Hold community workshops, listening for important health issues in Pierce County; and
3. Invite key leaders to reflect on qualitative and selected quantitative data.

Focus groups utilized the “world cafe” meeting format to allow participants the opportunity to share their observations and reflections. Groups were facilitated by Karen Meyer, Community Liaison Specialist with the Health Department. A key element in all three parts of the community engagement process was the use of a visual (or graphic) facilitator. This allowed for comments to be captured immediately. Furthermore, by utilizing a graphic recorder, all participants were able to be engaged in the process. If participants provided an email address, they received a copy of the meeting map, thus building momentum and keeping them engaged in the process. In addition, participants were encouraged to suggest any corrections they felt were necessary.

Key leader focus groups
A series of four key leader focus groups (32 participants) were held in October and November 2012 to solicit input on the strengths, assets and resources, as well as health priorities for Pierce County. Key leaders represented multiple sectors, including local government, education, business, social and health services, and the military. Meetings were held in Puyallup, at the University of Washington-Tacoma, at the Sea Mar Health Clinic (Tacoma) and with the leadership group from the Pierce County Cross Cultural Collaborative (Musk Ox Goat Herd).

Community workshops
Seven community workshops were held between December 2012 and January 2013 in Puyallup, Gig Harbor, Tacoma, Bonney Lake, and Lakewood, as well as with the Pierce County Cross Cultural Collaborative. Approximately 80 Pierce County residents attended the community workshops, which were broadly advertised through local print, radio and television media (including on-line) and with multiple community partners.

Participants were asked to consider the challenges to health in Pierce County. After thinking about challenges, participants were asked to address the following, working in small groups:
- Which priorities have the greatest impact (i.e., impact the greatest number of Pierce County residents)?
- Which priorities allow for greatest equity?
- Which priorities are we most ready to address?

Key leader review meeting
Finally, the assessment process involved inviting key leaders (see above definition) to meet again in January 2013 at the Health Department to review the results of the previous community input, as well as some relevant quantitative data. During this meeting, attendees were asked to work in small groups and share their reflections on the data presented, their impressions of the common threads, and to consider what might be missing in terms of health issues that should be included in a community health improvement plan going forward.
Conclusion
Nonprofit health care organizations are expected to contribute to overall health in the communities they serve. A systematic approach to assessing community needs can help shape the community benefit strategies developed to meet those needs. The 2010 Affordable Care Act defines explicit expectations for community health needs assessments, such as gathering input from persons who represent the broad interests of the community – including public health — and considering the needs of the most vulnerable populations. The hope is that this report will be a helpful tool in providing specific and local information to decision makers working on behalf of the best interest of the hospital and the community.