Our Mission
We believe all children have unique needs and should grow up without illness or injury. With the support of the community and through our spirit of inquiry, we will prevent, treat and eliminate pediatric disease.

Our Vision
We will be the best children’s hospital.
• We will provide patients and their families excellent care with compassion and respect.
• We will provide superior, accessible, cost-effective service.
• We will attract and retain the best talent at all levels of the organization.
• We will be one of the top five pediatric research institutions.
• We will be the nation’s premier pediatric educators.
• We will achieve worldwide prominence by integrating patient care, research, education and advocacy.
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Introduction

Seattle Children’s delivers exceptional patient care, advances new discoveries and treatments through pediatric research, and serves as the pediatric and adolescent medical center for the largest landmass of any children’s hospital in the country – Washington, Alaska, Montana and Idaho (the WAMI region). Consistently ranked as one of the best children’s hospitals in the country by U.S. News & World Report magazine, Children’s is made up of Seattle Children’s Hospital, Seattle Children’s Research Institute and Seattle Children’s Hospital Foundation.

Our Commitment to the Community

Children’s is dedicated to addressing the health needs of children and families in the region and throughout the world. Our advocacy and outreach efforts are based on the documented needs of our patient population and of the broader community.

Although this is our first comprehensive Community Health Needs Assessment (CHNA), we have been involved with smaller scale assessments over many years, including those aimed at:

- A specific disease, such as obesity
- A particular population, such as homeless families
- A geographic area with significant health disparities, such as South King County
- Preventable injuries, such as drowning

We work with many other organizations to develop targeted interventions aimed at improving children’s health and safety. We collectively determine our partnership and advocacy goals from a policy, resource, education and delivery standpoint, and we establish evaluation points to measure success. Children’s partners with other organizations and serves in a leadership role on a number of successful community projects, including the Health Coalition for Children and Youth, Global Alliance to Prevent Prematurity and Stillbirth (GAPPS), Safe Kids, VAX Northwest and the Childhood Obesity Prevention Coalition.

After this first thorough needs assessment, we will conduct one every three years to:

- Understand health and safety issues facing underserved populations who experience health disparities, using existing data and the perspectives of community stakeholders and families.
- Identify strengths, existing programs and activities that are helping the community thrive.
- Inform our community benefit efforts by determining where the community needs align with Children’s strategic plan or areas in which we have significant expertise.

The CNHA will help us focus our efforts on the most urgent community health needs. It lays the foundation for our overarching Community Benefit Plan, which will engage stakeholders, link to the hospital’s strategic plan, and support partnerships with community organizations and other healthcare providers.
Methodology

The CHNA was conducted by Children’s External Affairs and Guest Services Department, with guidance from the hospital’s Community Benefit and Advocacy Advisory Committee and support from Children’s leadership, internal stakeholders, community partners and family representatives. Children and teens face health problems that can require cultural and social intervention. To ensure we captured the complexities of childhood health in the region, we elicited and incorporated input from leaders and individuals within public health and community organizations. We gathered qualitative and quantitative data, which included compiling existing child and adolescent health data and generating 24 topic-specific reports through secondary data collection.

*(See Appendix, Figure 1: Seattle Children’s Community Health Needs Assessment Development Process.)*

Compiling Existing Data

Before we could begin collecting data, we had to define the scope of our community. Although Children’s serves the entire WAMI region, based on our patient population, for the purposes of the CHNA we defined our community as the children and youth in Washington state — specifically King County, with a focus on South King County due to its health disparities. In addition, the report provides a general overview of the status of regional healthcare access issues.
To attain secondary data about health indicators, health risk factors and demographics, we used a wide variety of local, county, state, regional and national resources, including:

- Centers for Disease Control and Prevention
- U.S. Census Bureau
- U.S. Department of Health and Human Services’ Healthy People 2020
- National Survey of Children with Special Health Care Needs – Data Resource Center for Child & Adolescent Health
- Kids Count Data Center (The Annie E. Casey Foundation)
- Washington State Department of Health
- Health Information Program of the Washington State Hospital Association
- Communities Count
- Public Health Seattle & King County
- Seattle Children’s Office of Knowledge Management

After reviewing the data (including input from Children’s physicians and staff leaders), we narrowed our focus to 24 topic areas of need, including asthma, autism, injuries, mental health, obesity, oral health, prematurity, access to care, and children with chronic conditions. To gather background on each topic area, we used the social-ecological model and the Spectrum of Prevention; these organizing tools identify multiple approaches — from the individual to the societal — to addressing public health needs.

### Theoretical models

**The Social-Ecological Model**

Used by the Centers for Disease Control, the Social-Ecological Model considers the complex interplay between individual, relationship, community and societal factors in gaining a better understanding of public health issues and the effect of potential strategies.

*(See Appendix, Figure 2: The Social-Ecological Model)*

**The Spectrum of Prevention Model**

Taking into consideration how prevention can have multiple points of impact within a community, the Spectrum of Prevention model pushes beyond the restricting definition of prevention as simply teaching healthy behaviors. The model includes six interconnected levels to help develop comprehensive prevention strategies.

By identifying activities that meet prevention objectives at each level of the model, people can achieve results in which the “whole is greater than the sum of its parts.” Meeting objectives at one level of the model has interrelated and positive effects at other levels.

*(See Appendix, Figure 3: The Spectrum of Prevention)*

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**Children’s Community Benefit and Advocacy Advisory Committee**

The Children’s Advocacy Advisory Committee serves as an ambassador for advocacy by carrying out the goals of the Advocacy Program: to advance child and family health and wellness by promoting injury prevention and healthy child development, make sure all children have access to quality healthcare, and meet the healthcare needs of children with chronic conditions in their local communities.

The multidisciplinary committee is composed of clinicians, staff and family members working on government affairs, diversity and health equity issues, child advocacy and community outreach.
Gathering community and public health input

We wanted our CHNA to go beyond simply identifying problems. We invited community stakeholders to be part of our research process to help us learn about and report on existing community assets and strengths.

Online survey

During July, August and September of 2011 we conducted an online survey (using SurveyMonkey®) to collect both qualitative and quantitative data. The survey made it possible to include participants who were unable to do phone interviews. We sent it to 70 organizations around the state. Children’s staff sent introductory emails to probable survey participants, explaining how Children’s planned to use the survey information. This personal approach ultimately led to higher than average participation—we received responses from 74 community leaders representing 57 organizations for a response rate of 81%.

The survey asked stakeholders to:

• Identify the most concerning health and safety problems that impact children in the community they serve
• Assess accessibility to healthcare services for children and youth
• Identify barriers that prevent families and children from living healthy lives
• Identify programs and initiatives that are currently working in the community
• Suggest possible improvements in the community
• Identify opportunities for Children’s to address health and safety issues in their community

Phone interviews

In a follow-up to the survey, we conducted phone interviews with 10 people representing 10 different organizations focused on diverse families, high-risk populations and children with special health care needs. About half of the interviewees work for organizations serving the entire state of Washington. The remaining participants work for organizations serving a smaller geographic area within the state, including the Yakima Valley, South King County and Seattle.

The interviews were designed to gain a deeper understanding of the health and safety issues facing children, adolescents and families. We sought input from organizations that serve traditionally underserved populations or groups experiencing health disparities, hoping to learn ways to improve child health.

Phone interviewees were asked to identify:

• Top health and safety concerns for children and adolescents in the community they serve
• Healthcare access issues that face children and adolescents in the community they serve
• Groups that are experiencing health disparities or inequalities
• Community resources that are available for children and families
• What can be done in the community to benefit the health of children
• Opportunities for Children’s to address their top health and safety concerns

Listening groups

Parents are key stakeholders in community health issues. To gain their perspective, we organized three parent listening groups, one English-speaking, one Spanish-speaking, and one with the hospital’s Family Advisory Council. All were existing groups that regularly provide hospital feedback. These parent groups helped us identify key health and safety issues facing families, gauge the availability of community
resources, and learn from personal stories regarding healthcare access.

**Limitations**

All research efforts face limitations; this section calls out the most important ones we faced. We collected CHNA data from agencies that use varying data sets. A particular challenge was inconsistent age groupings in epidemiological and outcome data. Data were also inconsistent in defining life-stage categories, such as when a child is considered an adult.

Inconsistencies in terminology and definitions made it difficult to make side-by-side comparisons. For example, the definition of “Hispanic” varies from one community to another. The definition of “community” also varies. Individuals participating in a CHNA likely define their community differently; a community can be a geographic area, a racial group, a school or a religious affiliation. This poses problems when analyzing interview and survey results.

We had fewer connections to community leaders in other areas of Washington state, so most of our respondents were from King County. While we gathered a great deal of community input from a wide range of stakeholders, limited resources made it impossible to reach all of our constituents.

For example, we held just three listening groups. While our English-speaking group was diverse in its makeup, we recognize the gap in holding listening groups with African American, Native American, Russian, Somali, Vietnamese or other stakeholder communities (the hospital provides interpreter services in more than 20 languages on a regular basis). We reached out to South King County community leaders, but could not connect with a broad representation of families there. These limitations may inadvertently reinforce health inequalities.

If hospitals rely on the same list of stakeholders for a variety of survey needs, engagement fatigue may influence participation. The 2010 Affordable Care Act requires hospitals to complete a CHNA every three years; stakeholders may be less willing to be surveyed if they’re asked frequently for input or if they don’t see their ideas being implemented.

**Our Community**

**Socioeconomic indicators**

Child and teen health are influenced by a variety of environmental and social factors. Social risk factors such as growing up in poverty, no health insurance coverage and racial/ethnic minority status are associated with poorer health outcomes for children.

**Washington state, King County and South King County**

**Age**

Of the more than 1.7 million people in Washington state, nearly 27% are under 20 years old. South King County has a slightly higher percentage of residents who are 19 and younger than Seattle and the state as a whole do.

* (See Appendix, Figure 4: Number of Children in the WAMI Region; Figure 5: Washington State Age Demographics 2010; and Figure 6: Age Demographics 2006-10: Washington State, King County and South King County.)

**Race and ethnicity**

With a population of 700,000, South King County is comparable in size to Snohomish County, the state’s third largest county. It is the most diverse part of King County’s three major subsections, with more than one-third persons-
of-color. Nearly a quarter of the residents are foreign-born, and more than 100 languages are spoken there.1

In the South King County city of Tukwila, 48% of families speak languages other than English at home, followed by 40% in SeaTac, 36% in Renton and 35% in Kent. The language barrier impacts residents’ ability to access healthcare, education and other support services. In Tukwila, 39% of the population is foreign-born, as is 31% in SeaTac.

The South King numbers are especially striking when compared to federal and state figures. In the U.S., 13% of the population is foreign-born and 20% speak a language other than English at home. Washington state data also shows 13% of the population as foreign-born, with 18% speaking a language other than English at home.

*(See Appendix, Figure 7: Race/Ethnicity: Washington, King County and South King County Cities: 2010; and Figure 8: Race/Ethnicity South King County Cities: 2010; and Figure 9: Foreign-Born and Language Other Than English National, Washington State, King County and South King County Cities, 2005-2010.)

Census data for 2010 show that over the previous decade, the percentage of minorities in South King County has increased dramatically. The number of people who identified themselves as either Asian, Hispanic, African American, Native American or belonging to two or more races increased 66%. The Latino population contributed most to this increase, with populations doubling or even tripling in some South King cities.2

*(See Appendix, Figure 10: Minority Population Growth 2000-2010, South King County Cities and Figure 11: People Speaking a Language Other Than English at Home in Southwest King County.)

Poverty

Children living in poverty: Washington state and King County

In Washington state, 18% of children live in poverty, while 7% live in extreme poverty (in families with incomes less than 50% of the federal poverty level). In King County, 15% of children live in poverty and 5% in extreme poverty.

*(See Appendix, Figure 12: Children Living in Poverty in the State of Washington; Figure 13: Children Living in Extreme Poverty in the State of Washington; Figure 14: Children Living in Poverty by Race; and Figure 15: Children Living in Poverty in King County (by Race/Ethnicity.)

Children living in poverty: South King County

Over the past decade, South King County has seen a marked increase in the number of households facing challenges accessing housing, food, jobs and healthcare. The South King cities of Tukwila, SeaTac, Kent, Federal Way, Auburn and Burien all have a greater percentage of families living in poverty than King County or Washington state, with nearly one out of four families in Tukwila living below the poverty level.3

*(See Appendix, Figure 16: Poverty Data for Washington, King County and South King County Cities.)

Poverty and SSI

More than half of Washington state families living at or below the poverty level who received Social Security Insurance and/or public assistance have a woman as head of household.

Poverty by race and ethnicity

American Indian, Black or African American, and Hispanic children make up the greatest percentage of children living in poverty in Washington state and King County.

Employment

Washington state unemployment numbers grew from 4.9% in 2006 to 9.2% in 2011, and 50,000 children live in homes with no working adults. The median income for Washington families with children was $63,981 in 2011.4 In South King County cities, unemployment averaged 8.4% in 2011, compared to 7.2% in all of King County, and 6.6% in Seattle.5

1  King County Performance, Strategy and Budget Data, 2011.
3  From “Access to Comprehensive Pediatric Resource for Low-income Families in S. King County”, Medical Legal Partnership, Odessa Brown Children’s Clinic, Seattle Children’s Hospital.
5  Numbers and rates are not seasonally adjusted. Margins of error for unemployment rate by city are large, so it is not appropriate to compare the rates between cities. http://data.bls.gov/pdq/querytool.jsp?survey=la. Accessed 3/2/2012 Produced by: Public Health - Seattle & King County; Assessment, Policy Development & Evaluation Unit.
Education

Childhood health is influenced by social factors including the education level attained by parents. School attendance is also a factor. When children attend school regularly, they are more likely to succeed academically and less likely to engage in at-risk behaviors.

In general, Washington state education statistics are close to national averages. High school graduation rates are almost 80% for all students in Washington state. They are affected by:

• Language: 66% of students with limited English proficiency graduate
• Income: 71% of low-income students graduate
• Health challenges: 71% of children with disabilities graduate

*(See Appendix, Figure 22: 2009 National Public High School Graduation Rates; Figure 23: Public High School Graduation Rates in the State and Nation; and Figure 24: 2008-09 State High School Graduation Rates by Income, Language, Health and Migration.)*

High school graduation (or equivalency) is a necessary step in the transition to college. Washington ranks 36th in the nation in public school graduation rates and 46th in the number of high school graduates attending college directly from high school. Out of every 100 ninth grade students in the state, four years later, 69 will graduate from public high schools. Out of 100 high school graduates (from either public or private high schools), 51 enroll in college.

Since 2005, graduation rates have increased across all ethnicities in Washington state and King County. American Indian, Black and Hispanic youth still have lower graduation rates than their Asian/Pacific Islander and White counterparts.

*(See Figure 17: Washington State and King County Unemployment; Figure 18: Washington State Median Family Income; Figure 19: Median Household Income in King County and South King County; Figure 20: Median Income by Race/Ethnicity King County, 2008-2010; and Figure 21: Washington State Children Living in Low-Income Households Where No Adults Work.)*

*(See Appendix, Figure 25: On-Time Graduation Rates by Race in Washington, 2005-2010.)*

While King County’s education figures are similar to those across the state, academic results in some areas of South King lag behind:

• While 65% passed the math WASL (Washington Assessment of Student Learning) countywide, this was true for only 30% in Tukwila and 42% in Enumclaw.

• In writing, 67% of King County fourth graders met the standard; this was true for 58% in South King.

*(See Appendix, Figure 26: King County High-School Graduation Rates by Race/Ethnicity 2005-2010 and Figure 27: Percent of fourth grade public school students meeting state standards in writing.)*

Educational attainment

Across the state of Washington, 31% of the population ages 25 and older hold college degrees. In King County, this is true for 45%. South King County presents the lowest rate of people over 25 with bachelor’s degree, graduate or professional degrees, falling below Washington state and national averages.

School engagement

School engagement consists of beliefs and behaviors that show students respect learning inside the classroom. Engagement improves students’ academic performance, promotes school attendance and inhibits risky adolescent behavior. Low rates of graduation and high rates of truancy mean low engagement. The statistics below show that engagement in high school is low but appears to be higher among children in the earlier years of their education.

As students advance in school, they are more likely to cut classes or skip school altogether. In 2010, this likelihood increased from 17% in sixth grade to 19% in eighth grade and from 21% in 10th grade to 28% in 12th grade, according to the Washington State Healthy Youth Survey.

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8 Ibid.
9 Ibid.
In addition, students seem to enjoy school less as they get older. In 2010, 32% of sixth graders, 20% of eighth graders, and 13% of 10th and 12th graders reported “almost always enjoying school.”

From 2008 to 2010, 6.2% of King County teens ages 16 to 19 (8.3% of Washington state) were not in school and not working.

Parents’ education
Nearly 30% of Washington children live in households where no one has education beyond high school, 38% live with at least one person who has attended but not completed college, and 35% live with at least one college graduate.

Housing
Housing affordability
In analyzing housing affordability, experts rely on the rule of thumb that renters should spend no more than 30% of their before-tax income on rent and utilities. In Washington state, the median gross rent as a percentage of household income is 30.6%.

The Urban Institute, a nonpartisan economic and social policy research organization, publishes Metro Trends, which grades the nation’s 100 biggest metropolitan areas on different indicators. The Seattle-Tacoma area received a “C” for its housing cost burden — rent and house prices compared to median family incomes.

The National Low Income Housing Coalition found a mismatch between the cost of living and the hourly wage of Washingtonians. The Fair Market Rent (FMR) of a two-bedroom apartment is $944. A minimum wage worker earns $9.04 an hour. To afford a FMR two-bedroom apartment — without paying more than 30% of income on housing — a minimum wage employee must work 80 hours a week every week of the year. Put another way, a household must earn wages equivalent to two full-time jobs at minimum wage.

*(See Appendix, Figure 28: Hours at Minimum Wage Needed to Afford Rent.)*

Very low-income households earned less than 30% of the household median income ($20,000) in 2010. These households could afford to pay only $496 per month in rent, considerably less than the average cost of the least-expensive (and smallest) available apartments.

Public subsidy housing
In addition to rental housing available to the general public, approximately 65,250 King County (including Seattle) rental units receive some form of public subsidy. About 62% of these units provide housing for low- and very low-income households (those earning less than 40% of area median income, or AMI). Another 22% support moderate-income households (those earning less than 50% of AMI). These subsidized rentals help reduce but do not eliminate the low-income rental shortage. For higher income families, available rentals meet or exceed countywide demand.

*(See Appendix, Figure 29: King County Rental Unit Supply and Demand.)*

Calculation of the affordability gap assumes that a “reasonable” monthly payment is no more than 25% of income for home buyers and 30% of income for renters. For renters, housing costs include monthly rent, utilities and fuel.

Across King County only South King meets the rental needs for those below 40% of AMI; the rest of the county lacks affordable low-income housing. The county’s east side has the least available housing for those 50% or below the median income. In 2008, South King median rents averaged $825 per month, compared to $930 in Seattle and Shoreline, and $1,156 in East King communities. Rural area monthly rentals averaged $1,295, the highest in the county.

*(See Appendix, Figure 30: King County Moderate and Low-Income Rental Availability and Figure 31: Housing Affordability in Seattle in 2011: Homeownership and Rental Market.)*

12 Ibid.
14 Rolf Pendall, Rental Affordability: Multiple Measures for a Complex Concept, posted: March 5th, 2012.
15 U.S. Census Bureau, 2010 American Community Survey.
The United Way reported increases in requests for rent assistance in the first three quarters of 2010, followed by a decrease in the fourth quarter and then moderately high levels of assistance requests ever since. As many as half of those requesting rent assistance do not qualify for the King County Housing Stability Project because their incomes are insufficient compared to their housing costs.  

Home foreclosures continue to be recorded at high rates in King County compared with those in the years before the recession; South King County is disproportionately affected by foreclosures.

### Homelessness

From 2008 to 2009, family homelessness in Washington state rose 9.2%, compared to a national increase of only 2.7%. An estimated 23,000 people are homeless on any given night across the state of Washington. A January 2009 survey identified 3,465 homeless families with children, made up of 10,696 people. Of these families, 385 had no shelter and the remaining 3,080 were using emergency or transition shelters. In addition, 211 unaccompanied youth were counted in state shelters.

The 2010 King County One Night Count identified 8,937 homeless people on one January night. This included 6,178 people in emergency shelters and transitional housing programs. Among those counted in shelters and transitional housing, 55% were families with children and less than 1% were unaccompanied youth.

### Health implications of homelessness

Without permanent homes, people are exposed to disease, violence, unsanitary conditions, malnutrition, stress and addictive substances. Consequently, their rates of serious illnesses and injuries are three to six times the rates of other people.

The Health Care for the Homeless Clinicians’ Network has identified other health implications for homeless youth, including:
- Homeless parents rate their children’s health as fair or poor more often than those who are poor but housed and the general population.
- Homeless children are more likely to be seen in an emergency department, be hospitalized and have multiple health problems.
- The living conditions of homeless families (often crowded spaces and less safe environments) pose them at increased risk for injury and common infectious diseases such as upper respiratory infections, ear infections and diarrhea.
- Homeless children are more likely to come from backgrounds of domestic violence, mental illness and substance abuse. In addition to homelessness and poverty, these stresses impact psychosocial well-being, which weakens normal development.

### School and homelessness

The rate of student homelessness in Washington rose by 29.7% between the 2006-07 and 2009-10 academic years. In the 2007-2008 school year, 18,670 state schoolchildren in kindergarten through 12th grade were living homeless with their families. Of these children, 5,306 lived in shelters, 11,069 lived with others, 1,268 lived in motels and 1,027 had no shelter.

*(See Appendix, Figure 32: One Night Count of People Who Are Homeless in King County)*

Organizations like Solid Ground, First Place School, Morningside and YouthCare provide critical support to homeless families and youth.

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16 United Way of King County, http://www2.uwkc.org/kcca/BasicNeeds/BasicNeeds.asp.
17 Ibid.
During the 2005-2006 school year, just over 1,700 South King County school students were identified as being homeless. Because of the difficulties in reaching homeless people, this number is thought to be lower than the actual total of homeless students.

*(See Appendix, Figure 33: Homeless Students in King County.)*

**Foster care**

Foster placement services are provided when children need short-term or temporary protection because they are abused, neglected or involved in family conflict. Of the approximately 1.5 million children who live in Washington, 10,136 are currently in foster care, 1,633 were adopted from foster care in the past year and 42,051 are being raised by their grandparents. The greatest number of state foster children live in Pierce, Snohomish, Spokane and King counties. About 400 children a year “age out” of foster care, meaning they turn 18 years old without having been adopted or reunited with their birth families.

African American and Native American children are overrepresented in the foster care system. In Washington, they make up 4.2% and 2% of the general population respectively, with 10.5% and 8.4% of children in foster care. In King County, they represent 8% of the child population, but they account for one-half of children who remain in foster care for more than four years.

In 2005, more than one-third of children in foster care had been there for longer than two years. In 2007, more than 25% of foster children moved more than two times between foster homes.

Organizations like Ryther, Mockingbird Society, Amara, Treehouse and Children’s Home Society advocate for and support the needs of foster children and youth.

**The Braam Settlement agreement**

In August 1998, a lawsuit was filed in Washington state on behalf of a class of foster children who had had three or more placements while in foster care. The lawsuit alleged that DSHS did not provide constitutionally required care to foster children. The parties reached an agreement in November 2004 with the goal of improving the conditions and treatment of children in the custody of DSHS Children’s Administration.

According to the Braam Oversight Panel summary report for 2011, the percentage of children and youth who received an annual mental health and substance abuse screening went from 72% in 2010 to 91%. Visits (two or more every month) from siblings placed apart went down from 50% in 2010 to 26%. And only 57% of medically fragile children (a decrease from 91% in 2010) were reported by their caregiver to be connected to ongoing and appropriate medical care and placed with caregivers who have specialized skills or receive ongoing training.

**Impact of foster care on child health**

Children in foster care have more serious and complex physical health, mental health and developmental problems.

While all foster children qualify for Medicaid and have the same benefits and challenges related to access to healthcare, coordination of care may be an issue because often no single adult knows a foster child’s complete medical history. A full medical evaluation is now required within 72 hours of placement in foster care, thanks to the Braam Settlement.

Use of mental health services by children in foster care is 8 to 11 times greater than that experienced by other low-income and generally

28 King County Coalition on Racial Disproportionality, 2005.
29 DSHS Children’s Administration: http://www.dshs.wa.gov/ca/about/imp_settlement.asp.
high-risk children in the Medicaid program.32 Children in foster care account for 25% to 41% of mental health expenditures for children within the Medicaid program, although they represent less than 3% of all enrollees.33 Foster children are significantly more likely to be prescribed antipsychotics than receive appropriate nonpharmacologic therapy for behavioral issues. The National Survey of Child and Adolescent Well-Being documented that 13.5% of children in the child welfare system were using psychotropic medication, two to three times the rate of other children in the community.34

Crime

The overall crime rate in Washington state has dropped steadily from a high of 52.9 offenses (per 1,000 citizens) in 2005 to 38.3 in 2011. *(See Appendix, Figure 34: Washington State Overall Crime Rate.)*

Gang activity

Nationwide, youth gangs are responsible for the majority of serious violent offenses. Gang activity in schools and neighborhoods creates a climate of fear and is associated with increases in violence and criminal behavior.35 Within the Northwest region comprising Washington, Oregon, Idaho, Montana, Wyoming and Alaska, gang activity occurs mainly in Washington and Oregon. Currently there are an estimated 2,093 gangs with more than 36,650 members of all ages in the region.

Current youth gang membership in the state of Washington is estimated to be around 20,000, with another 20,000 youth considered gang “associates.” Several groups that operate like gangs but do not officially call themselves gangs are also active in Washington. Nationwide, gangs are moving from urban areas to suburban and rural areas, which may be one explanation for the recent increase in gang activity.36 In 2008 in the state of Washington, there were 18 gang-related homicides; eight of those were juvenile gang killings.37 In 2010, there were 33 gang-related homicides.38

The King County Sheriff’s Office believes there are more than 10,000 gang members among an estimated 140 street gangs in King County. Gang-related crime has gone up 165% since 2005 and has shifted from Seattle to South King County. Gang-related violence has increased over the past three years. In 2008 and 2009, King County averaged 29 gang-related homicides and reported 200 gang-related shootings.39

In 2010, 5% to 7% of King County students in grades eight, 10 and 12 reported gang membership within the past year; among these students there were significant decreases in gang membership from 2008 to 2010. Eighth graders were more likely than 12th graders to have been gang members within the past year, and boys were more likely than girls to be in gangs.40

Weapons and school

Though carrying a weapon alone is not a violent behavior, it greatly increases the risk that an argument will result in death, disability or other serious injury. In 2010, 10% to 11% of students in grades eight, 10 and 12 reported carrying a weapon in the past 30 days “because they might need it in a fight.”

Juvenile arrests

In 2009, there were 29,187 juvenile arrests (ages 10 to 17) reported. There were 41 arrests for every 1,000 juveniles in the state, a decrease from 47 in 2008. The 2009 juvenile arrest rate

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33 MISSING TEXT - go back to original Word doc
was the lowest reported for Washington state since 1981. Juveniles composed approximately 12% of the total number of arrests statewide. The racial distribution of state juvenile arrests in 2009 was 83% White, 11% Black, 3% Native American, and 3% Asian. These rates include persons of Hispanic origin who can be of any race.

There was a 24% increase in Black youth arrests from 2000 to 2009, compared to a 1.5% decrease for White youth, an 11.8% decrease for Native American youth and a 19.4% decrease for Asian youth.

Food insecurity

Food security means having enough food at all times to meet basic needs for an active, healthy life. To be food-secure, a family or individual needs to be able to get acceptable foods in socially acceptable ways.

“Food insecurity” describes households financially stretched to the point where they cannot be certain that all household members will not go hungry. “Very low food security” describes households where at least one family member goes hungry at times because there is not enough money for food.

Washington’s state ranking for food insecurity for 2006 to 2008 was 17th out of 50, a significant increase from 34 the prior year. The state’s ranking for hunger also rose, from 28th in 2008 to 13th in 2009.

The 2008 Washington Healthy Youth Survey (HYS) found an increase in the number of students reporting that their family had cut back on or skipped meals in the prior year due to lack of money:

- 16% of eighth graders
- 21% of 10th graders (15% in 2004)
- 20% of 12th graders (17% in 2004)

Non-Hispanic American Indian youth (about 35%) were more likely than non-Hispanic White youth (about 19%) to report that their family skipped or reduced meals in the past year due to lack of money.

According to the Children’s Alliance, more than 367,000 households in Washington state struggled to put food on the table in 2009. The same year, an average of 695,059 people (about 10% of the state population) participated in the state’s Basic Food Program (formerly food stamps) on a monthly basis. This reflected a 24% increase over the prior year. About 42% of those participants were children, with an average age of 7.

Countywide, visits to food banks rose significantly during 2008 and have remained at high levels. The average number of monthly visits to food banks was 44% higher than those recorded in 2007. Some individual food banks saw increases as high as 30% during some months in 2008 compared to the same months in 2007. Seattle food banks reported that the largest increase in their client base was in children ages 0 to 2 years, followed by other children under 18.

Applications for the Basic Food Program increased steadily in late 2008 and early 2009. Approximately 10,000 King County residents apply to the program each month, and one in 20 of these are then enrolled in it. The program’s caseload grew by nearly 150% between October 2007 and October 2011. Since 2009, new applicants remain at high levels, and people require food assistance for longer periods.

42 Ibid.
48 United Way of King County, http://www2.uwkc.org/kcca/BasicNeeds/BasicNeeds.asp.
Organizations such as food banks, the Washington Food Coalition, Food Lifeline, Solid Ground and Hopelink assist families who are struggling with food insecurity.

LGBTQ Youth

It is difficult to accurately estimate the number of lesbian, gay, bisexual, transgendered or questioning (LGBTQ) youth because most national, state and local surveys do not collect information on sexual orientation. Adding to the complexity of gathering such data is the lack of standardized measures to assess sexual orientation, societal stigmatization, and the fact that many adolescents are unsure of their sexual orientation.

Some data on LGBTQ adults and youth is available: In the U.S. adult population, 3% to 10% of people identify as gay, lesbian or bisexual. In a national, population-based survey of junior-high and high-school students, 7% reported same-sex attractions or relationships.

Health disparities among lesbian, gay, bisexual, transgender and questioning (LGBTQ) youth

Adolescents face many challenges during their transition into adulthood; LGBTQ youth face additional challenges due to social stigma, which causes varying degrees of psychosocial stress. LGBTQ youth are:

- Two to three times more likely to attempt suicide. In one statewide representative survey of ninth to 12th graders, greater than 30% of LGBTQ youth had attempted suicide within the past year; 50% had considered suicide. LGBTQ youth who are bullied or rejected by their families after coming out, are at even greater risk. Protective factors for LGBTQ youth include family connectedness, caring adults and school safety.
- Significantly more likely to be homeless (20% to 40% of homeless youth identify as LGBTQ).
- More likely to skip school, drop out of school and get poor grades.
- Have increased rates of sexual intercourse, alcohol, tobacco and illicit drug use.
- Report higher rates of verbal, physical and sexual harassment and violence.

Health literacy and health disparities in low health literacy populations

Health literacy is “the degree to which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions.” Although the majority of research literature focuses on adults, the ability of a child’s caregivers to understand and act on health information is paramount to the safety and well-being of children.

Over one in three people have limited health literacy. Approximately 36% of Americans have basic or below-basic health literacy skills.

56 Ibid.
57 Ibid.
64 http://www.glsen.org/cgi-bin/iowa/all/news/record/2624.html.
Those with limited health literacy are more likely to be low-income, from a minority group, 65 or older, and more likely to require government assistance and have limited education.\textsuperscript{68}

The majority of health information for families far exceeds the average reading level. The average U.S. adult has a reading level of eighth or ninth grade, yet over half of medical instructions are written at a 10th-grade level or higher.\textsuperscript{69}

Providers and patients alike have difficulty gauging health literacy through observation alone.\textsuperscript{70} Shame is a major limitation to disclosure; 67% of illiterate people had never told their spouses of their inability to read.\textsuperscript{71} The Joint Commission recognizes health literacy as an avenue for increased medication safety.\textsuperscript{72}

Due to low literacy:

- Patients tend to poorly manage their chronic diseases such as diabetes, hypertension and HIV,\textsuperscript{73} tend to be less likely to be compliant with medications or understand indications\textsuperscript{74} and tend to be susceptible to increased medication-dosing error using a variety of dosing instruments.\textsuperscript{75}
- Mothers are less likely to breast-feed and understand the dangers of smoking during pregnancy.\textsuperscript{76,77}
- Teens have increased rates of obesity, substance abuse and school behavior problems.\textsuperscript{78}
- Patients tend to present with advanced stages of diseases such as cancer.\textsuperscript{79}
- Children are less likely to have a medical home\textsuperscript{80,81} or access to preventative health services.\textsuperscript{82}
- Parents are less likely to use assistance programs (14% vs. 50%),\textsuperscript{83} and children are less likely to have insurance.\textsuperscript{84}
- If their caregivers have low health literacy, children with asthma are likely to experience more emergency room visits, hospitalizations and missed days of school.\textsuperscript{85} All patients with low health literacy are at a higher risk for hospitalization.\textsuperscript{86}

Organizations like Reach Out and Read, Thrive by Five and the Foundation for Early Learning help support literacy in young children and families.

\textsuperscript{68} Ibid.
\textsuperscript{71} Parikh NS, Parker RM, Nursr JR, Baker DW, Williams MV. Shame and health literacy: the unspoken connection. Department of Medicine, Emory University School of Medicine, Atlanta, GA 30303, USA.
\textsuperscript{74} Williams MV, Parker RM, Baker DW, Coates W, J Nurss. The impact of inadequate functional health literacy on patients’ understanding of diagnosis, prescribed medications, and compliance. Acad Emerg Med. 1995;2:386.
\textsuperscript{77} Kaufman H, Skipper B, Small L, Terry T, McGrew M. Effect of literacy on breast-feeding outcomes. South Med J 2001; 94(3):293-
\textsuperscript{80} According to the Data Resource Center for Child & Adolescent Health (http://childhealthdata.org/browse/medicalhome/portal_more), “medical home” includes having a personal doctor or nurse, having a usual source of care, receiving family-centered and culturally-sensitive care, receiving needed referrals to specialty care and getting care that is coordinated across providers and services.
Socioeconomic indicators:
Seattle Children’s

Service region
Children’s serves as the pediatric and adolescent medical center for Washington, Alaska, Montana and Idaho — the largest region of any children’s hospital in the country.

In 2011, Seattle Children’s recorded 323,292 patient visits. This included 260,260 outpatient clinic visits, 36,200 Emergency Department visits and 14,118 hospital admissions. The hospital reported a total of 75,412 inpatient days, with an average length of stay of 4.94 days per patient.

*(See Appendix, Figure 36: Patient Hometown Demographics.)*

Race, ethnicity and language of patients
Since 2007, Seattle Children’s has experienced significant growth in the number of patients and families who speak languages other than English. The ethnic/racial diversity of our patients reflects that of our region (see page 8 for data on state and county ethnic/racial diversity).

When Children’s patients’ families are asked what language they speak at home or what language they prefer to speak when receiving healthcare, 16% indicated a language other than English. Children’s asks these questions to identify families likely to need a hospital interpreter, provided free of charge.

Languages spoken by Children’s patients who are non-native English speakers include:

- Spanish: 58.1%
- Somali: 6.2%
- Vietnamese: 5.4%
- Russian: 4.4%
- Other: 25.9%

*(See Appendix Figure 37: Seattle Children’s Patients by Race and Figure 38: Growth Rate of Seattle Children’s Patient Population by Race and Ethnicity.)*

Health needs of our community

After providing an overview of community health indicators, this section presents three major categories representing how we group Children’s advocacy work: Access to Quality Healthcare for All Children, Children with Chronic Conditions and Child Health and Development.

General health indicators

Leading causes of death
In 2009, unintentional injuries accounted for the greatest percentage of deaths to Washington children and youth ages 1 to 21, followed by suicide, cancer, homicide and birth defects.

From 2006-2010, the leading causes of injury deaths were suffocation, homicide and motor vehicle crashes in children birth to 1 in Washington State. In children ages 1 to 4, the leading causes of injury deaths were drowning, homicide and motor vehicle crashes. In children 5 to 14, they were motor vehicle crashes and drowning. In teens ages 15 to 19, the leading causes of injury deaths were motor vehicle crashes, suicide, homicide and poisoning.

Reducing adolescent deaths due to motor vehicle crashes, homicide and suicide are included in the 21 Critical Health Objectives for Adolescents and Youth Adults from the U.S. Department of Health and Human Services, Centers for Disease Control.

Washington state American Indian/Alaska Native youth ages 15 to 19 had nearly three times the injury death rate of White, Black or Asian/Pacific Islander youth. The unintentional injury death rate for American Indian/Alaska Native youth is 85.07 compared to 26.21 for White youth (per 100,000).

*(See Appendix, Figure 40: Leading Causes and Total 5-Year Incidence of Injury Deaths by Age Group, Washington, 2004-2008 and Figure 41: 10 Leading Causes of Death in King County Children, 2003-2007.)*

*(Source: Critical Health Objectives for Adolescents and Young Adults. http://www.cdc.gov/HealthyYouth/AdolescentHealth/NationalInitiative/pdf/21objectives.pdf.)*
Inpatient admission rates and diagnosis

Seattle Children’s 10 top reasons for inpatient admission reflect the state’s top categories. Of the Washington state top 20 inpatient diagnoses, Children’s shares the following eight: asthma, bronchiolitis, seizures, bacterial pneumonia, cellulitis, diabetic complications, acute gastroenteritis and acute appendicitis.

*(See Appendix, Figure 42: Washington State Inpatient Pediatric Discharges by Diagnosis Related Group (DRG) (ages 0 to 17) July 2009–June 2010.)*

**Figure 39: 10 Leading Causes of Death in Washington Children, 2009**

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<tr>
<th>RANK</th>
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<th>1-4</th>
<th>5-9</th>
<th>10-14</th>
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<td>Unintentional injuries 23</td>
<td>Malignant neoplasms 11</td>
<td>Unintentional injury 15</td>
<td>Unintentional injury 156</td>
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<td>Congenital anomalies ---</td>
<td>Unintentional injury 10</td>
<td>Malignant neoplasms 13</td>
<td>Suicide 72</td>
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<td>3</td>
<td>Short gestation 45</td>
<td>Heart disease ---</td>
<td>Homicide ---</td>
<td>Congenital anomalies</td>
<td>Homicide 27</td>
</tr>
<tr>
<td>4</td>
<td>Maternal pregnancy complications 27</td>
<td>Homicide ---</td>
<td>Benign neoplasms ---</td>
<td>Homicide ---</td>
<td>Malignant neoplasms 22</td>
</tr>
<tr>
<td>5</td>
<td>Unintentional injury 27</td>
<td>Malignant neoplasms ---</td>
<td>Diabetes mellitus ---</td>
<td>Suicide ---</td>
<td>Heart disease ---</td>
</tr>
<tr>
<td>6</td>
<td>Placenta cord membranes 25</td>
<td>Chronic lower respiratory disease ---</td>
<td>Influenza and pneumonia ---</td>
<td>Diseases of appendix ---</td>
<td>Congenital anomalies ---</td>
</tr>
<tr>
<td>7</td>
<td>Bacterial sepsis 12</td>
<td>Influenza and pneumonia ---</td>
<td>---</td>
<td>Heart disease ---</td>
<td>Septicemia ---</td>
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<tr>
<td>8</td>
<td>Circulatory system disease 11</td>
<td>Septicemia ---</td>
<td>---</td>
<td>Chronic lower respiratory disease ---</td>
<td>Anemias ---</td>
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<tr>
<td>9</td>
<td>Necrotizing enterocolitis ---</td>
<td>---</td>
<td>---</td>
<td>Septicemia ---</td>
<td>Influenza and pneumonia ---</td>
</tr>
<tr>
<td>10</td>
<td>Diarrhea ---</td>
<td>---</td>
<td>---</td>
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<td>Three tied ---</td>
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</tbody>
</table>

Note: For leading cause categories in this state-level chart, counts of less than 10 deaths have been suppressed (---).

Infant mortality rates

In 2009, the three leading causes of infant death in Washington state were birth defects (23%), sudden infant death syndrome (SIDS) (14%), and short gestation/low birth weight (11%). Infants born to African American and American Indian/Alaska Native women have two to three times higher infant mortality rates than those born to White and Asian women. South King County has a higher infant mortality rate than the rest of the county.

*(See Appendix, Figure 43: State and King County Infant Mortality Rates and Figure 44: King County and Seattle Infant Mortality Rates by Mother’s Race/Ethnicity.)*

South King County Health Indicator
Fast Facts

Compared to other regions of King County, South King has the highest rates of:

- Uninsured children birth to 17: 4.6% in South King County vs. 1.6% in Seattle
- Poor maternal and child health
  - Late or no prenatal care
  - Births in 15- to 17-year-olds
  - Smoking during pregnancy
  - Preterm births, low birth weight infants
  - Infant mortality
- Hospitalization for children ages 0 to 17 injured by motor vehicle crashes, firearms (unintentional and assault), poisoning, falls, and suffocation.
- Teen obesity and risk of overweight (lowest rates of meeting physical activity recommendations)

The following positive health outcomes are found in South King County compared to the rest of the county:

- Longer life expectancy: Burien, Des Moines/ Normandy Park
- Lower rates of low birth weight: Auburn
- Lower rates of adolescent birthrate: Covington
- Lower rates of excessive alcohol intake: Burien, Renton, Federal Way and East Federal Way, Auburn*
- Lower rates of infant mortality: Burien, East Federal Way, Des Moines/Normandy Park*
- Lower rates of car crashes: Kent, Renton, Federal Way, Covington*
- Lower rates of suicide: Renton, East Federal Way, Covington*
- Higher rates of dental visits: Renton, East Federal Way, Covington*
- Lower rates of low birth weight: Federal Way, East Federal Way*

*Outcomes are not statistically significant but better than rest of the county.

Access to quality healthcare for all children

The uninsured

Researchers have found a clear association between a lack of health insurance and the following behaviors or consequences:

- Delaying medical care
- Not obtaining appropriate screenings
- Not managing chronic disease
- Increased risk of poor health, hospitalization and premature death

Uninsured: nationally

Overall, the number of uninsured people in the United States is on the rise.**

According to 2010 U.S. Census data, an estimated 49.9 million Americans are uninsured. Throughout the country, uninsured children and adults are more likely to be poor, Hispanic, and foreign-born, with 35% of noncitizen children being uninsured. In Washington state, between 5% and 6% of children under 18 are uninsured, about half the national average rate.

*(See Appendix, Figure 45: National Uninsured.)

Uninsured: WAMI (Washington, Alaska, Montana and Idaho) region

Free or low-cost insurance options vary among WAMI states. The number of uninsured children is decreasing nationally and in all WAMI states except Alaska.

*(See Appendix, Figure 46: Children without Insurance, 1990-2009, WAMI and United States and Figure 47: Types of Insurance Coverage in the WAMI Region.)

Uninsured: Washington state

Approximately 97% of Washington children are privately insured or covered by Apple Health for Kids, the federal-state partnership that provides free or low-cost health insurance to kids who qualify for Medicaid and other public insurance programs. Apple Health for Kids has been hailed as a national model.

Approximately 14% of noncitizen children in Washington are uninsured. Children in families earning less than 300% of the federal poverty level are more likely to be uninsured compared to families earning over this mark (4.6% versus 1.9%). The region with the highest uninsured rate among children, 6.6%, was Puget Metro, which includes Kitsap and Thurston Counties.

The number of American Indian/Native American children who are uninsured is much higher than any other group. About one in five American Indian/Native American children in Washington state (22%) had no health insurance in 2008, compared to 18% of Hispanic children, 9% of Asian children, 8% of black children and 6% of white children. Many children in the state’s 29 federally recognized tribes are eligible for Apple Health for Kids, but parents are often unaware their kids are eligible.

**Uninsured: King County/South King County**

About 17,000 (4.3%) of King County children ages 0 to 17 did not have health insurance in 2008. South King County has the greatest percentage of children without health insurance. African American and Hispanic/Latino children are most likely to lack adequate health insurance coverage, as well as children in homes where family income is less than 300% of the federal poverty level.

**Access to care for all patients on Medicaid**

**Providers accepting Medicaid**

Medicaid patients, both adults and children, frequently have difficulty finding a primary care physician. Nationwide, physicians have been reluctant to serve these patients due to low Medicaid reimbursements. In a 2012 survey of pediatricians in Washington State, 47.9% reported accepting all new Medicaid patients. Low provider payment was the number one barrier to participation in Medicaid. (Ref: American Academy of Pediatrics. Pediatrician Participation in Medicaid, CHIP and VFC: Washington; 2011/12 AAP Member Survey. 9/12/2012.)

*(See Appendix, Figure 49: Washington State and King County Physician Medicaid Acceptance.)*

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96 Office of Financial Management.
Barriers to enrolling in Medicaid/finding a primary care provider

In Seattle there is a high density of community health centers and a well-developed mass transportation system, making it easier for patients to see their doctors. South King County residents face other health access barriers including transportation challenges, language, culture, and fear of punitive legal consequences among undocumented people.

Access to dental care

Three of the top 10 emergency room diagnoses for uninsured King County patients are emergency dental conditions. There are no available county-wide data regarding dental insurance rates for children.

Though reimbursement levels for dental service are generally low (rates for children under 6 are higher) there are many dentists in Washington state who accept children that are Medicaid insured. Over the last 10 years, the rate of Medicaid insured children receiving dental services has nearly doubled, from 22% to 43%. The challenge remains, however, in helping parents get connected to dental resources in their community to get their children into care. The Access to Baby Child Dentistry (ABCD) program is available in 37 of 39 counties to provide outreach so families with Medicaid-insured children can get connected to dental care in their community.

While there have been improvements in access to dental care for young children in King County (increase from 30% to 48% in the last 7 years), still over 50% do not access care. Certain areas within King County have more limited access, and some populations experience higher levels of oral disease.

In King County, 48% of Medicaid-insured children under age 20 received dental services. For children under age 6, only 43% received dental care.

Children of color, from low-income families, and those who do not speak English are almost twice as likely to have untreated tooth decay (20%, 23% and 23% respectively). Compared to other areas of the state, King County children are more likely to have no tooth decay and fewer fillings. In King County, 60% of elementary school children have no decay compared to 51% of children statewide. Eighty percent of King County residents have access to fluoridated water, which likely contributes to children having healthier teeth and less decay than in other parts of the state.

Dentists committed to working with low-income individuals and families are in particularly short supply. By 2013, half of Washington state dentists are expected to retire, and not all those who retire are being replaced.

Access to subspecialists

According to a 2009 Children’s Hospital Association (formerly National Association of Children’s Hospital and Related Institutions or NACHRI) survey, shortages of the following pediatric subspecialists have the greatest impact on a provider’s ability to deliver care:

- Pediatric neurologists
- Developmental behavioral pediatricians
- Pediatric gastroenterologists
- Pediatric general surgeons
- Pediatric pulmonologists

*(See Appendix, Figure 52: Existing Pediatric Care Centers in Washington State, Figure 53: Pediatric Subspecialists Lacking in WAMI States and Figure 54: Certified Pediatric Specialists—WAMI and National.)*

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101 King County Public Health Report: Access to Healthcare in King County for the Uninsured, Underinsured, and Medicaid Populations, 2008.
102 E-mail consultation with Sylvia Gil, Policy Analyst, Washington Dental Service Foundation, July 24, 2012.
103 Ibid.
105 Ibid.
106 King County Public Health Report: Access to Healthcare in King County for the Uninsured, Underinsured, and Medicaid Populations, 2008.
Access to care for specific populations

Mental health care

Nationwide, the leading reason for visiting a health center is mental health and substance abuse care combined. According to the Health Tracking Physician Survey, psychiatrists across the nation were much less likely to accept new patients, regardless of insurance type. Approximately 41% of psychiatric providers reported accepting all or most new Medicaid patients, while 46% accepted none.

If they meet certain statewide access to care standards, low-income children and adults in King County may qualify for publicly funded mental health services. In general, only those diagnosed with serious mental and emotional disorders qualify for publicly funded services. Eligible participants are enrolled in the mental health managed care plan called the Regional Support Network (RSN), which coordinates care through local community-based mental health agencies. Washington state contracts with King County Department of Community and Human Services to manage the King County RSN.

Obesity

In Washington state, while dietician visits for kids are covered under the Early Periodic Screening, Diagnosis, and Treatment (EPSDT) Program (the child health component of Medicaid), generally, obesity-related medical services are covered only if there are other diagnoses such as acanthosis nigricans, hypertension or sleep apnea. There is also a lack of access to affordable nutrition and fitness programs, as well as social work services. Read more on page 41.

*(See Appendix Figure 55 Medicaid Fee-for-Service Treatment of Obesity Interventions: Washington state.)*

Children with chronic conditions

Children with special health care needs are less likely to meet all criteria for a medical home, less likely to have easy access to obtaining needed referrals, and less likely to have adequate insurance to meet their healthcare needs. Read more on page 29.

Access to research

Research changes lives, the way illness is treated, and the way healthcare is practiced. Finding new ways to treat and prevent the illnesses of childhood and young adulthood is the driving force behind Seattle Children’s increasing emphasis on pediatric medical research.

In keeping with our dedication to family-centered care, we involve families throughout the research process. Hospital research-and-family liaisons work with families and research teams to encourage clear communication, provide information about the research process, and assist families in deciding whether they want to be part of a clinical trial or not. By demystifying the research process for families and helping researchers communicate clearly, these liaisons help Children’s uphold the highest possible research ethical standards.

Our goals include:

- Ensure that research benefits every patient at Children’s whether they directly participate or simply benefit from an advance in care made possible by research
- Ensure that every patient and family understands the research process and its value to patient care
- Offer every patient the opportunity to participate in safe, high-quality research studies

The Center for Clinical and Translational Research (CCTR) is developing plans for integrating research programs within the hospital and the research institute.

110 Ibid.
111 Adult data: from the King County Public Health Report: Access to Healthcare in King County for the Uninsured, Underinsured, and Medicaid Populations, 2008.
Seattle Children’s healthcare access strategies

Advocacy
Healthcare for children is an affordable investment with a great payoff. Regular healthcare, immunizations and early diagnosis reduce the likelihood of costly, disabling or life-threatening conditions. Paying the long-term healthcare costs associated with a lack of regular healthcare is more expensive than paying for children’s healthcare up front. Research shows that regular, preventive care for children enrolled in Medicaid decreases otherwise avoidable emergency room use and hospitalizations.

Seattle Children’s is a powerful advocate for healthcare for children and families. We are a founding member and active partner in the Health Coalition for Children and Youth (HCCY), which advocates for state and federal policies to help children get the healthcare and preventive services they need.

HCCY is a comprehensive coalition of over 40 organizations in Washington state that work to meet the health needs of children and youth, including medical, dental and mental health care. Members of HCCY include hospital associations, medical, dental, and mental health care providers, faith-based organizations, labor unions and public health organizations, including government public health agencies.

The coalition successfully championed Washington State’s 2007 Cover All Kids law, which expanded access to health coverage for children and launched Apple Health for Kids.

Financial services
Seattle Children’s provides necessary medical care to all children in our region, regardless of a family’s ability to pay. In 2012, Children’s provided $113.7 million in uncompensated care. Nearly half of Children’s patients were covered by the Apple Health for Kids Program, but the program reimbursed Children’s for just 68% of the real cost of treatment. Children’s uncompensated care program made up the difference — with a total of $103.1 million helping to fund the underpayment from the Apple Health for Kids Program. Another $10.6 million went to families with no ability to pay for their children’s care.

Seattle Children’s financial assistance programs cover all expenses for families earning less than 400% of the federal poverty level (FPL), which in 2012 was $92,200 annually for a family of 4. Families whose income exceeds 400% FPL and who have incurred significant account balances and are not eligible for funding from other sources may receive Children’s deductible financial assistance, where they pay a portion of their bill and financial assistance pays the rest.

Financial assistance program
Whether they come to Children’s for an inpatient stay, clinic visit, surgery or through the emergency department, information about the Financial Assistance Program is made available to every family that visits the hospital. Financial assistance signage is posted in the hospital’s four primary patient languages: English, Spanish, Russian and Vietnamese; and application forms are available in both English and Spanish. In-person interpreters provide information to families with limited English proficiency. Many families also access a Children’s Financial Assistance application form online.

Children’s financial counselors meet with families to help define possible financial support sources, including Apple Health for Kids, and to help them complete and submit forms. Social workers screen families for possible financial need and, when applicable, refer them to Children’s financial counselors.

Children’s provides a standard 25% discount on healthcare services to uninsured patient families. Additionally, the hospital works to accommodate U.S. families with reasonable payment plans.
Table 28: Seattle Children’s Fiscal-Year 2011 Payor Mix

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<td>Other</td>
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Source: Children’s Facts and Stats, Fiscal Year 2012, Seattle Children’s Hospital

Access to primary care

Seattle Children’s provides medical, dental and mental healthcare for babies, children and teens, and legal services to patient families through Odessa Brown Children’s Clinic and several other programs.

Odessa Brown Children’s Clinic

Odessa Brown Children’s Clinic (OBCC), a Seattle Children’s community clinic located in Seattle’s Central District, was established in 1970. Serving an urban, predominantly African American population insured primarily by Apple Health for Kids, OBCC’s staff members are strong advocates for multicultural families. OBCC’s mission is to be an enduring community partner dedicated to promoting culturally relevant quality pediatric care, family advocacy, health collaboration, mentoring and education. The clinic provides medical, dental, and mental health services at one site, in addition to school-based services. With 30,000 annual visits, OBCC predominantly serves Seattle Central District residents and an increasing number of South King County residents who have relocated from the Central District.

Medical-legal partnership for children

The Medical Legal Partnership for Children (MLPC) is a collaboration of pediatric clinicians, social workers and attorneys who address the unmet legal needs of patients and families. While this program model has been used in more than 30 states and 160 hospitals and clinics, MLPC is the first partnership of its kind in the Pacific Northwest. The program serves children and families from Odessa Brown Children’s Clinic and the Harborview Children and Teens’ Clinic. The MLPC was launched in 2008 with a Robert Wood Johnson Foundation start-up grant. The organization addresses unmet legal needs by:

- Training healthcare workers and other stakeholders to handle advocacy issues affecting vulnerable families
- Enabling constituents to identify potential legal issues and offering referrals
- Providing case consultation to providers and direct legal services to pediatric patient families (up to and including full-court representation when indicated)
- Participating in systemic advocacy efforts that promote child health and well-being

MLPC offers trainings for more than 260 healthcare staff on topics including social security applications and appeals, education, Medicaid, legal issues affecting adolescents, and landlord-tenant laws. These trainings have improved patient advocacy by doctors, residents and social workers, who help patients and families gain access to the services and programs they need to meet their basic needs.

Families most frequently requested legal assistance with housing, public benefits, education, family, enrolling in Medicaid and immigration.

MLPC advocacy efforts include mapping healthcare disparities in South King County; improving benefits for families applying for state support for developmentally disabled children; and supporting state legislation that institutes protections for students with disabilities, limited English proficiency, and those experiencing bullying and harassment.

Country Doctor Youth Clinic

The Country Doctor Youth Clinic provides free primary care to Seattle homeless people ages 13 to 23 two nights a week. As part of their Adolescent Medicine rotation, Seattle Children’s pediatric residents provide medical care at the
clinic for homeless youth, increasing their skills in working with both youth and the homeless.

Juvenile Detention Center and school-based clinics

Children’s Adolescent Medicine doctors, nurse practitioners, fellows and pediatric residents provide medical services at the King County Juvenile Detention Center. Providers are on call seven days a week and provide care at the health clinic five days a week. They offer acute care, Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) physical exams, immunizations, tuberculin skin test screenings, reproductive healthcare services and sexually transmitted disease screenings.

Children’s also provides school-based care at Garfield High School. The school-based and school-linked health center model is nationally recognized as one of the best ways to provide effective, efficient and appropriate healthcare services to adolescents. School-based and school-linked health centers are comprehensive primary care clinics that provide medical and mental health screening and treatment for young people on or near school grounds.

The clinics are staffed by experienced health professionals specially trained to work with adolescents. This clinic model effectively breaks down barriers that can discourage adolescents from accessing health services, including lack of confidentiality, inconvenient appointment times, prohibitive costs and apprehension about discussing personal health problems.

The centers target adolescents who are uninsured and underinsured — those who have nowhere else to go for medical care and counseling. They also serve youth with health insurance who desire confidential care and advice.  

Dental care

Children’s provides dental services at three Seattle locations (more on page 68):

- The Dental Surgery Center at the Center for Pediatric Dentistry
- Odessa Brown Children’s Clinic (OBCC) Dental Clinic
- Children’s Dental Clinic on the main hospital campus

Children’s is also a partner in operating the SmileMobile, a three-chair mobile dental office offering oral health services to low-income children with limited access to a dentist. Since 1995, the mobile clinic has treated more than 25,000 children throughout Washington. In 2011, the SmileMobile served 2,000 children, and with the help of 51 dentists, 20 hygienists and 45 assistants, provided 4,563 preventive and 1,240 treatment services.

Access to subspecialty care

Seattle Children’s Outreach Clinics

At select WAMI regional hospitals and clinics, Seattle Children’s specialists are available for in-person patient visits and are available to take calls or speak directly with providers about patient care issues. Close to 300 outreach clinics are held across the WAMI region, bringing specialty care closer to home for many patients.

Telemedicine

Seattle Children’s Telemedicine Program uses videoconferencing to connect remote patients and families with healthcare team members at the hospital in Seattle. Clinics throughout Washington, Alaska, Montana and Idaho are equipped with cameras, microphones and TV monitors that allow each family to consult with Children’s experts in real time, without the expense and stress of traveling far from home. Departments using telemedicine include:

- Psychiatry — for a wide variety of consultative, clinical and research purposes
- Cardiology — to improve prenatal diagnoses of congenital heart disease with prenatal echocardiograms

113 King County Public Health: “What is a school-based or linked teen health center?” http://www.kingcounty.gov/healthservices/health/child/yhs/thc.aspx.
114 Personal Communication with Yolanda Evans, Department of Adolescent Medicine. 3/21/12.
Many other departments and individual providers can increase the scope of their practices with telemedicine technology. It also enables primary care providers to more easily participate in discharge planning and care conferences. Providers in different locations can participate in educational and administrative meetings and conferences. The hospital also uses videoconferencing to help patients connect with friends and family back home.

Training and education

The University of Washington School of Medicine Pediatric Residency is the only pediatric residency program in the Washington, Alaska, Montana and Idaho (WAMI) region. In 2010, 732 residents from throughout the Northwest completed Children’s rotations. The hospital offers fellowships in more than 30 specialty areas. In 2010, 43 physicians completed subspecialty fellowships. More than half of all Children’s-affiliated graduates practice in the Pacific Northwest after completing their training. Resident programs include:

- WAMI Rotation: Every pediatric resident spends two months of their training in a rural primary-care setting.
- Pathway program: Eight residents per year participate in the Community Health and Global Health Pathways, which provides public health, clinical and research experience to understand and influence determinants of child health and health disparities at the community level.
- Alaska Track: Four residents per year with a primary-care focus spend one-third of their training in Alaska.

King County community healthcare access strategies

Access to affordable health coverage

WithinReach connects families in Washington to resources and information such as low-cost insurance and Women, Infants and Children (WIC) through programs such as Parenthelp123, 115 Seattle Children’s Community Benefit Report 2010. Children’s Alliance advocates for affordable health insurance for children and families. Children’s financial counselors work with families to identify and sign up for healthcare coverage.

Access to primary care

Core safety net medical providers

Core health safety net medical providers are community health centers, public health centers and other clinics with a primary mission to serve patients regardless of their health insurance status. This includes clients with no health insurance coverage, with Medicaid or other publicly sponsored coverage, and with sporadic coverage. Many of these providers receive federal, state and local financial assistance to help pay for care for the uninsured and clients with limited public coverage.

These providers target low-income populations including recent immigrants, public housing residents, and homeless individuals and families. In addition, a number of community health centers target their services to specific ethnic and racial groups. 116

There are nine core Safety Net Providers in King County of which seven are Federally Qualified Health Centers (FQHC):

- Community Health Centers of King County
- Country Doctor Community Health Centers
- Harborview Medical Center’s primary care clinics, including their children’s clinic (not a FQHC)
- International Community Health Services
- Odessa Brown Children’s Clinics (not a FQHC)
- Public Health–Seattle & King County (Public Health Centers)
- Puget Sound Neighborhood Health Centers
- Sea Mar Community Health Centers
- Seattle Indian Health Board

By law, FQHCs provide primary care and other services to medically underserved populations, must offer a sliding fee scale, and cannot deny services due to an individual’s inability to pay. They must also have patient majority boards.

Other King County providers with large Medicaid client caseloads include Highline Medical Group Roxbury Clinic and Burien Family Medicine, Valley Medical Center Valley Family Medicine, Northwest Physicians Network, Multicare Medical Group, UW Physicians Network, Pediatric Associates and Swedish Physicians Providence Clinic.

Teen Clinics

- **Teen Health Clinics** offered through Public Health–Seattle & King County provide teens under 21 of any sexual orientation with a safe, friendly and confidential place to get help and education. Services include free or low-cost birth control, STD and HIV tests, pregnancy tests and information about sexual health. Teen clinics are located in Auburn, South and North Seattle, Factoria, Federal Way, Renton and White Center.

- **The 45th Street Homeless Youth Clinic** serves youth ages 12 to 23 who are currently homeless or who have been homeless in the last 12 months. They provide medical and dental care, mental health counseling, drug and alcohol counseling, HIV counseling, acupuncture, yoga classes, naturopathy, meditation, massage, health education, social service referrals and outreach.

- **The Country Doctor Youth Clinic or Country Doctor Teen Clinic** provides free and confidential medical care to street youth ages 13 to 23. Services include general medical exams, STD and HIV testing and counseling, pregnancy testing and referral, birth control, TB testing, massage therapy and acupuncture, as well as dental, vision and mental health referrals.

Mental health

Organizations that provide mental health services for King County youth include:

**Children’s Crisis Outreach Response System (CCORS)**

Provides crisis services to children, youth and families who are not enrolled in the publicly funded King County Mental Health Plan.

**Consejo Counseling & Referral**

A mental health counseling program specializing in serving the Latino and Spanish-speaking population by providing bilingual services. They offer behavioral health services (group and individual therapy) and youth outpatient substance abuse treatment.

**Valley Cities**

Provides mental health counseling and family support therapy for residents of South King County at clinics in Auburn, Federal Way, Kent and Renton.

Care coordination

The following are some of the organizations that provide care coordination services for families of King County children and teens:

- **The Maternal-Child Health Bureau Program** offered through Public Health–Seattle & King County, this program provides coordination of services to children with special needs, as well as limited medical services and supplies based on financial eligibility.

- **The Center for Children with Special Health Care Needs**, in partnership with Seattle Children’s and the Washington State Department of Health, provides information to the families of and professionals who work with children who have chronic physical, developmental, behavioral or emotional conditions such as asthma, cancer, autism or cerebral palsy.

- **The Division of Developmental Disabilities** helps children with developmental disabilities and their families obtain services and support based on individual preference, capabilities and needs, to promote everyday activities,
than children without special needs. They are also less likely to have adequate insurance to meet their healthcare needs. Strategies for addressing these issues include promoting adequate reimbursement, working with families to assure insurance coverage, training providers in how to care for patients with special needs, and encouraging medical homes.

Nationally, 13.9% of children have special health care needs, compared to 14.3% in the state of Washington. Approximately 85% of CSHCN experience one or more functional difficulty, and 28% have four or more functional difficulties. While 27.2% of these children have health conditions that consistently greatly affect their daily activities, 9.1% experienced a period of time without insurance at some point during the past year. Of CSHCN families, 11.7% pay $1,000 or more in medical expenses per year, and 20.4% reported one or more unmet needs for specific healthcare services. Of CSHCN families, 12.6% spend 11 or more hours per week providing and/or coordinating healthcare for their child.

In the state of Washington, 47.1% of CSHCN reported that they received effective care coordination compared to 75.2% of non-CSHCN children. Of youth 12 to 17 years old with special needs, only half received services needed for transition to adult life, adult healthcare, work and independence. An estimated 24% of 10th grade youth have a physical, emotional or learning disability.

Access to services
Several factors restrict access to primary care for children with chronic conditions and

An overview of the children and youth with chronic conditions population
Washington state has more children with special health care needs than the national average. These children are more likely to have difficulty meeting the criteria for care for a medical home and obtaining needed referrals than children without special needs. They are also less likely to have adequate insurance to meet their healthcare needs. Strategies for addressing these issues include promoting adequate reimbursement, working with families to assure insurance coverage, training providers in how to care for patients with special needs, and encouraging medical homes.
special needs, including lack of reimbursement for required paperwork and documentation for Medicaid patients, and lack of adequate reimbursement for the care of young adults with special needs, particularly those with Medicaid. These children also lack transportation to and from appointments, community resources and a medical home.

Children with special health care needs are less likely to meet all criteria for a medical home, less likely to have easy access to obtaining needed referrals, and less likely to have adequate insurance to meet their healthcare needs. Children with chronic health conditions represent less than 2% of the population but can consume more than half of available children’s hospital resources. Nationally, 13.2% of CSHCN went with an unmet need in the past 12 months for any of 15 specific healthcare services or equipment.

Children with special health care needs who have a medical home experience fewer hospitalizations and fewer trips to the emergency department. When their child has a medical home, families of CSHCN report better care delivery and fewer missed work days. Approximately 55% of Washington children ages 12 to 17 get their care in a medical home compared to 53% nationally. In Washington state, 47.1% of CSHCN reported that they received effective care coordination compared to 75.2% of non-CSHCN children.

CSHCN families are also affected by a lack of respite for parents, government cuts to essential programs, and lack of child care for special needs children. In addition, fewer than half of CSHCN receive services for transition to adult care.133

Community assets and strengths

Washington State Children with Special Health Care Needs Program

Washington State Department of Health Children with Special Health Care Needs Program promotes integrated systems of care that assure children with special health care needs the opportunity to achieve the healthiest lives possible and develop to their fullest potential. The program provides and promotes family-centered, community-based and coordinated care for children with special health care needs, and helps develop community-based service systems for these children and their families.

The program evaluates its progress using six National Performance Measures:134

1. Families of children and youth with special health care needs are partners in decision making at all levels and are satisfied with the services they receive.
2. Children and youth with special health care needs receive coordinated ongoing comprehensive care within a medical home.
3. Families of children with special health care needs have adequate private and/or public insurance to pay for the services they need.
4. Children are screened early and continuously for special health care needs.
5. Community-based services for children and youth with special health care needs are organized so families can use them easily.
6. Youth with special health care needs receive the services necessary to make transitions to all aspects of adult life, including healthcare, work and independence.

130 The Health of Washington State, Health Care Services, 2007, Washington State DOH.
132 CHAMI (2007) 2007 NSCH Child Health and System Performance Profile. (Family received all care coordination wanted and is satisfied with communication among providers (children who used 2+ types of health service in past 12 months, age 0 to 17 years).
*(See Appendix, Figure 56: Washington vs. United States Transition Data.)*

**King County Children with Special Health Care Needs Program**

King County Children with Special Health Care Needs, a federally and state funded Title V Maternal-Child Health Bureau program offered through Seattle and King County Public Health, provides linkage and coordination of services to all children with special needs. The program provides limited direct medical services, and equipment and supplies to families that meet financial and other program eligibility requirements.

The program also offers public-health-nurse case-coordination services via home visits or by phone to families in King County, regardless of income. Nurses support families by offering medical screenings, referrals, healthcare consultation, help with transitions, and care coordination among different providers.

**Seattle Children’s assets and strengths**

**The Center for Children with Special Needs**

Through grants and contracts, the Center for Children with Special Needs (CCSN) works to improve care and increase access to health education materials and community resources in the WAMI region.

The CCSN’s mission is to improve and promote the health and well-being of children with special health care needs and their families, with a special focus on providing information to families and healthcare professionals. The center focuses on policy development, quality of care, education and family partnerships in healthcare.

Through its website, the CCSN provides tools for care management and information about available resources to help families manage their children’s healthcare and connect with community-wide resources and services.

**Sibshops for Siblings of Children with Special Health and Developmental Needs**

Seattle Children’s Sibshops are award-winning workshops that provide support and guidance to siblings of children with special medical or developmental needs. The Sibshop model mixes information and discussion activities with games and special guests. There are currently more than 200 Sibshops across the United States, Canada and elsewhere.

**Recommended strategies**

**Healthy People 2020**

Healthy People 2020 objectives related to children with special health care needs include:

- Increase the proportion of children with special health care needs who have access to a medical home
- Increase the proportion of children with special health care needs who receive their care in family-centered, comprehensive, coordinated systems.

**Reimbursement**

A major barrier for providers caring for Medicaid patients are the low reimbursement rate and non-reimbursed time. The Department of Health and partners are working to address this by interviewing providers about their needs; supporting legislation that assures coverage for more children and young adults and more billable components of services; and providing information to young adults and families about insurance options.

**Provider training**

Providers report training is helpful in caring for patients with special needs. The Washington State Department of Health and the University of Washington Center on Human Development and Disability continues to make available web-based information for providers and families.

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137 Ibid.
with community providers, which is generally unreimbursed.

**Community assets and strengths**

**Catholic Community Services**
Offer programs serving children and youth, including adoption, foster care, child care, youth tutoring, mental health services, counseling and emergency services.

**King County Children with Special Health Care Needs Program (CSHCN)**
The program provides coordination of services to all children with special needs. See page 30 for more information.

**Parent to Parent (P2P) Programs**
Support and information for families of children with developmental disabilities.

**WithinReach**
Helps families connect with insurance services and community resources.

**Child development centers**
These centers offer rehabilitation and physical therapy, early learning, and neurodevelopmental services. Examples include:
- Boyer Children’s Clinic in Seattle
- Kindering Center in Bellevue

**Seattle Children’s PlayGarden**
A Seattle outdoor play space where children of all abilities can play.

**Summer camps**
A directory of Washington state summer camps for children with special needs.

**Adolescent transition**
Of Washington children ages 0 to 17, 14% to 17% have special health care needs, including chronic childhood onset diseases or developmental disabilities. Over 90% of these children live past 21 years of age.

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139 Ibid.


138 Ibid.
yet most providers of adult healthcare are unfamiliar with how to care for individuals with a broad spectrum of chronic childhood-onset conditions. The adult-oriented healthcare system is fragmented, built on expectations of independence, and has few systems for coordinated care. Less than half of children with special healthcare needs in the WAMI region receive services for transition to adult care.140

Community assets and strengths
Seattle Children’s Center for Children with Special Needs provides teen-specific web-based resources including care plans, checklists, tips for how to communicate with care providers and how to share information with friends and family. The Adolescent Health Transition Project website is a resource for teens and young adults with special healthcare needs.

Recommended strategies142, 143
A successful transition process is all-encompassing, focusing on patients and their families, all of the patient’s pediatric providers, and the adult healthcare system the patient is entering. Children’s hospitals that report high healthcare transition success have developed centralized systems to support clinical departments, divisions and clinics by providing education and tools for clinicians, patients and families, as well as resources for adult care providers receiving the patients. These systems may include:

- Support for families in helping their adolescent navigate transition planning
- A teaching physical exam to inform the patient about their physical status, special problems and care needs
- A health history and transfer summary for the patient
- Referral to patient support groups
- An adolescent transition program that integrates and spans clinical areas by providing education and tools for all involved

Asthma and allergies
Asthma is one of the most common chronic childhood conditions. Although we have limited data on the prevalence of asthma in children, an estimated one in 12 Washington youth had current asthma in 2006.144 Nationally, food allergies are increasingly common among children. Children with food allergies are likely to have related conditions such as asthma and other allergies.

Air quality
Air pollution is a major public health concern because it can affect large portions of the population who have no choice but to be exposed to it. Most air quality problems in Washington state are caused by local sources of air pollution such as cars, diesel vehicles, wood stoves, fireplaces, outdoor burning, wildfires and industry. Cars and trucks are the largest source of air pollution, accounting for nearly 60% of the state’s air pollution. People living closer to sources of air pollution are likely to have higher exposures to pollutants than those who live farther away. State air quality is worse during the winter months. Some regions of the state have higher levels of air pollution.

Examples of Washington State Children with Special Health Care Needs Program Projects
- Autism Grant
- Epilepsia en Washington
- Washington Integrated Services Enhancement (WISE for CSHCN)
- Medical Home Leadership Network
- Children with Special Health Care Needs Assessment
- Birth Defects Surveillance
- Nutrition Services
- Feeding Team Services
- Adolescent Health Transition Project
than other regions. Infants and children, the elderly, and people with lung or cardiovascular disease or diabetes are especially sensitive to air pollution.147

*(See Appendix, Figure 57: King County Air Quality.)*

**Asthma and allergies in the United States**

Asthma is one of the most common chronic childhood diseases, affecting an estimated six million children in the country.146 According to the 2005-2006 National Survey of Children with Special Health Care Needs, 53% of children with special health care needs have asthma, and 53% have allergies.

Allergic rhinitis affects as many as 40% of children.148 About 27% of children who have a food allergy also have eczema or a skin allergy.149 Atopic dermatitis affects between 10% and 20% of children.150

In 2007, approximately three million children under the age of 18 reported a food or digestive allergy in the previous 12 months.151 Children with food allergies are two to four times more likely to have conditions such as asthma and other allergies.152 The prevalence of food allergies among children under the age of 18 increased 18% from 1997 to 2007.153

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152 Ibid.
153 Ibid.

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**Asthma in Washington state**154

Facts about Washington state children with asthma:

- According to the Centers for Disease Control, Washington state has one of the highest rates of asthma in the nation.
- In 2006, one in 12 youth had current asthma.
- Black youth were about 30% more likely to have current asthma than White youth.
- One in nine households with asthma had at least one child with current asthma.
- Youth who smoked cigarettes were about 30% more likely to have asthma than nonsmokers.
- Of 12th graders with asthma, about one in five smoked cigarettes.
- One in three youth with current asthma missed one or more school days due to asthma.
- Asthma hospitalizations for children younger than 5 years old dropped from 376 to 277 per 100,000 population. If this trend continues,
Washington should meet the Healthy People 2020 target of 250 for this age group.

- Of youth with current asthma, 21% had one or more asthma-related emergency department visits in 2006.
- Of children with asthma, 80% have allergies. \(^\text{155}\)
- Asthma was the number one reason for Seattle Children’s inpatient admission in 2009, with 542 admissions. \(^\text{156}\)

**Asthma in King County**

Asthma is the most common reason for children to be admitted to the hospital in King County, \(^\text{157}\) where an estimated 23,000 children under the age of 18 have asthma. \(^\text{158}\)

*(See Appendix, Figure 58: King County Asthma Hospitalizations, 2003-07; Figure 59: Current Asthma Among King County Children, 2004-08; and Figure 60: Asthma Hospitalizations in Children by Poverty Level, 2003-07.)*

**Seattle Children’s assets and strengths**

**Odessa Brown Children’s Clinic (OBCC) Asthma Clinic**

 Initiated in 1994 with a grant from the American Lung Association, the OBCC Asthma Clinic was created to empower and educate families to successfully manage their child’s asthma, increase successful primary care management of asthma in children, and improve access to both community and specialty-based care. The clinic also works to educate families about environmental triggers to asthma.

The program offers care provider spirometry trainings to expand their knowledge, skill and confidence with spirometry use and test interpretation. This training is offered regionally, nationally and internationally, with a focus on safety-net hospitals.

**Seattle Children’s Food Allergy Initiative**

In partnership with the Food Allergy Initiative (FAI) – Northwest, Seattle Children’s Food Allergy Community Health Education Program works to prevent adverse food allergy reactions through education and to provide tools that communities need to manage food allergies and assure children’s safety. The Initiative offers educational seminars to those caring for children with food allergies, including teachers, summer camp staff, licensed child care centers, parent groups and school nurses. More than 3,500 people have attended 160 food allergy management presentations since the inception of the program. The group also creates food-allergies standards with oversight from a community and family advisory board.

**Individual and patient education**

Asthma is the most common medical diagnosis among children admitted to Children’s. The Pulmonary Department treats babies, children and teens with asthma. Patients and families seen in Seattle Children’s Pulmonary Clinic receive a copy of the book, Living with Asthma, available in English and Spanish. The hospital website also provides pulmonary resources for families and children with asthma.

**Provider education**

Seattle Children’s Pulmonary Clinic provides expertise to local, regional and national programs that focus on children with special pulmonary healthcare needs. Services include consultation, research and education to community agencies and professional organizations. The clinic also provides telemedicine consultations to providers in rural communities.

**Research**

Researchers at Children’s are looking at Web- and mobile phone-based tools to help parents improve their children’s asthma treatment. In one study, parents used a website that provided feedback on their child’s asthma symptoms and allowed them to set treatment


goals. The website gathered information from parents about asthma severity, home care practices and parental beliefs related to administration of medicines. In another study, pulmonary specialists at Children’s worked with University of Washington researchers to develop a smartphone app that could ease home monitoring of lung diseases. While current smartphones can’t do all the needed analysis in real time, researchers foresee future phones will.

Community assets and strengths
Some community organizations that work on asthma and food allergies include:

- The Northwest Asthma and Allergy Center provides diagnostic testing and treatment of asthma, inhalant allergies and food reactions, as well as occupational and environmental reactions and eczema.
- Food Allergy Initiative (FAI) – Northwest supports food allergy research, clinical programs, public policy and education.
- Spirometry 360 provides online information and classes about how to use the spirometry method to measure lung function.
- The Medical-Legal Partnership for Children brings together medical providers, social workers and lawyers to help meet the legal needs of patients and families. The team has provided medical and legal counseling to families whose housing conditions aggravate their child’s asthma.

Recommended strategies

Healthy People 2020
Healthy People 2020 objectives that relate to asthma include:

- Reduce asthma deaths
- Reduce hospitalizations for asthma
- Reduce hospital emergency department visits for asthma
- Reduce activity limitations among persons with current asthma
- Reduce the proportion of persons with asthma who miss school or work days
- Reduce the proportion of children ages 5 to 17 years with asthma who miss school days
- Increase the proportion of persons with current asthma who receive formal patient education
- Increase the proportion of persons with current asthma who receive appropriate asthma care according to National Asthma Education and Prevention Program (NAEPP) guidelines

U.S. Preventive Services Task Force
The U.S. Preventive Services Task Force recommends asthma home visits for children with asthma. Home visits are a cost-effective way to improve asthma control when they:

- Identify asthma triggers in the home.
- Address more than one asthma trigger.
- Use multiple strategies to reduce triggers.
- Provide education on reducing triggers and controlling asthma.

American Lung Association state and community level public policy agenda

Every state should have an adopted and adequately funded comprehensive state plan to reduce asthma morbidity and mortality.

Every state should have an adequately funded statewide asthma program.

All healthcare systems, including public and private providers, purchasers and payers, should deliver services and medications consistent with National Asthma Education and Prevention Program guidelines.
Cancer incidence in children birth to 20 years in Washington state is 17.9 per 100,000 (U.S. incidence is 16.9 per 100,000). Thurston and Cowlitz counties have the highest cancer incidence rates at 23.2 per 100,000. On average, there are 304 cases of childhood cancer per year in the state.

Teens and young adults with cancer
Teens and young adults with cancer have different needs and different treatment challenges than children or older adults. Many teens fall into a gap between cancer treatment programs designed for children and those created for adults, increasing the time it takes for diagnosis and treatment. Teens and young adults are much less likely than children to get the most advanced treatments by taking part in research studies. Because of this, cancer survival rates for teens and young adults have not improved since the 1970s. For certain cancers, teens and young adults have much better results when they are treated at a pediatric hospital.

Children who survive cancer need careful attention for the rest of their lives. Up to two-thirds of childhood cancer survivors have treatment-related side effects months or even years later. These include organ damage, second cancers, and problems with mental tasks that can impact school and work performance.

Teachers and future employers may not understand the unique needs of childhood cancer survivors, or may have misconceptions about survivors’ abilities. Community physicians may also have limited knowledge of cancer survivors’ needs.

Children who have had cancer may experience decreased fertility as a result of their treatment. We lack resources, treatment guidelines and systems for treating pediatric cancer patients’ reproductive issues. Data shows that fertility preservation improves hope and resilience among cancer therapy patients.

Recommended strategies

Cancer survivorship
- Ensure that all cancer survivors have adequate access to high-quality treatment and other post-treatment services.
- Establish or maintain training for healthcare professionals to improve delivery of services and increase awareness of issues faced by cancer survivors.
- Identify appropriate mechanisms and resources for ongoing surveillance of people living with, through and beyond cancer.
- Increase awareness among the general public, policy makers, survivors, providers and others of cancer survivorship and its impact.

Healthy People 2020
Healthy People 2020 objectives related to cancer are:
- Reduce the overall cancer death rate. Target: 160.6 deaths per 100,000 population. Baseline: 178.4 cancer deaths per 100,000 population occurred in 2007.
- Increase the proportion of cancer survivors who are living five years or longer after diagnosis. Target: 72.8%. Baseline: 66.2% of persons with cancer were living five years or longer after diagnosis in 2007.
- Increase the mental and physical health-related quality of life of cancer survivors.

Community assets and strengths

Seattle Cancer Care Alliance
Seattle Cancer Care Alliance (SCCA) brings together Fred Hutchinson Cancer Research Center and the University of Washington to advance the fight against cancer.

163 Ibid.
Center, University of Washington Medicine and Seattle Children’s. Through the SCCA partnership, Children’s cares for more than 200 new pediatric cancer patients each year. Research has found that teenagers with cancer do better if they are given treatment plans designed for children. Through SCCA, teenagers can continue to be treated as they enter adulthood.

**Fred Hutchinson Cancer and Research Center**

The Fred Hutchinson Cancer and Research Center conducts research to improve prevention and treatment of cancer and related diseases. The Hutchinson Center pioneered bone marrow transplantation procedures.

**University of Washington**

University of Washington Medical Center provides care for patients from Washington, Wyoming, Alaska, Montana and Idaho. The UW School of Medicine has been ranked the best primary-care medical school in the country by *U.S. News & World Report* magazine for 18 years.

**Seattle Children’s assets and strengths**

**Seattle Children’s Cancer and Blood Disorders Center**

Seattle Children’s comprehensive, multidisciplinary team of pediatric cancer experts treats 230 children newly diagnosed with cancer every year — more than any other institution in the region — and provides follow-up care to more than 3,000 children and adolescents. In outpatient clinics and in the 33-bed inpatient unit, children receive advanced diagnosis and treatments, participate in state-of-the-art research studies and get specialized care.

Seattle Children’s is specifically:

- Implementing health awareness efforts targeting secondary cancer prevention (testicular, breast and skin cancers)
- Working to increase awareness and health promotion for Gardasil vaccine (for boys and girls)
- Promoting community education regarding Gardasil vaccine and skin cancer
- Addressing myths associated with sperm banking
- Providing web-based education to any cancer patient with materials such as: Fertility and Cancer, fertility preservation information video for girls and Having a Life With Cancer.
- Using social media for patient education and support

**Children’s providers:**

- Share practice guidelines, resources and systems with other healthcare institutions regarding fertility preservation and reproductive services for cancer patients.
- Provide consultation and share expertise, resources and guidelines through Continuing Medical Education to community practitioners about adolescent and young adult oncology, fertility preservation and other topics.

**Adolescent and Young Adults with Cancer (AYA) program**

This program provides expert medical care and support for teens and young adults with most forms of cancer into their late 20s. They sponsor a weekly Teen Hangout staffed by a hematology/oncology social worker where young people with cancer can meet peers and address their psychosocial needs. The AYA is open to anyone in the community. The group partners with other community organizations that provide support for young adult patients and survivors.

**Seattle Children’s Cancer Survivor Program**

Seattle Children’s Cancer Survivor Program is a follow-up program for childhood cancer survivors, whether they were treated at Seattle Children’s or elsewhere. It aims to keep survivors healthy throughout their lives by providing care and education about their health risks. About 80% of children who have cancer survive their disease. The Cancer Survivor Center...
Program was designed to meet the unique needs of survivors treated during childhood. The program serves survivors who are still children, as well as adults who were treated for cancer during childhood. It also gives survivors the chance to take part in research studies so we can learn more about the best ways to keep survivors well.

**Fertility preservation**
Children’s is a regional and national leader in fertility preservation services and education. In response to patient and family requests and community need, Children’s Cancer Center developed the fertility preservation program, providing fertility counseling and reproductive services for cancer patients. Children’s offers a standard process for sperm banking to all at-risk boys older than 12.

**Heart disease**
Congenital heart disease (CHD) is the most common birth defect. This chronic disorder requires lifelong ongoing heart care with a high risk of additional problems. The majority of children born with a congenital heart defect survive into adulthood, yet many require specialized and ongoing medical treatment. In early adolescence, patients with congenital heart disease should start preparing for the transition from pediatric to adult medical care. Sudden cardiac arrest (SCA) is the leading cause of sudden death in young athletes during sports participation and typically the result of undiagnosed structural or electrical cardiovascular disease. SCA is the first clinical manifestation of cardiac disease in up to 80% of athletes who suffer sudden death.

**Recommended strategies**

**Transition and lifelong care goals**
In early adolescence, CHD survivors needing lifelong congenital heart care should begin to transition to appropriate adult congenital heart disease care. CHD survivors should be educated on how to choose adult congenital heart care, and be made aware of care guidelines and the benefits of cardiac heart surveillance. A successful transition will include:
- Obtaining health insurance
- Selecting an adult care physician to provide and coordinate comprehensive care
- Receiving reproductive, genetic and career counseling
- Educating adult care health providers about the patient’s congenital heart disease
- Maintaining communication between patients, families and healthcare providers

**Cardiovascular screening in athletes**
The goal of performing cardiovascular screening of young athletes is to reduce sudden cardiac death through early detection and appropriate medical interventions, activity modification or withdrawal from athletic participation.

**Community assets and strengths**

**American Heart Association**
The American Heart Association’s mission is to build healthier lives free of cardiovascular diseases and stroke through advocacy, research and educational resources for healthcare providers, patients and families, and the community.

**Stanley Stamm Camp**
Stanley Stamm Camp provides a medically supported one-week overnight camp experience in an outdoor wilderness setting for children ages 6 to 14 with terminal or chronic illnesses. The camp is free to all who attend.

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170 Ibid.

171 Ibid.


Seattle Children’s assets and strengths

Seattle Children’s Heart Center is working on the following goals to improve heart health in the community:

- Create a Heart Center family advisory group.
- Build a stronger relationship with the Heart-to-Heart Congenital Heart Defects group.
- Address the need for heart services for Latino families from Central Washington.
- Provide pediatric heart-healthy-behavior community education.

The Heart Center promotes education through several programs, including:

- Heart-to-Heart, a monthly support group for families who are dealing with CHD, illness-related heart conditions or heart transplant.
- An adolescent transplant support group where teens can share concerns and providers can address noncompliance issues.
- Free, in-school cardiovascular screenings and electrocardiograms (ECGs) (in partnership with the Nick of Time Foundation) for student athletes — conducted every two months during the school year by volunteer physicians, ECG technicians and echocardiographers, with cardiologist referrals provided as needed.

The Heart Center also promotes provider education such as conferences for community primary-care providers about new developments in diagnosis.

Transplant

More than 110,000 people in the nation are waiting for a life-saving organ transplant. An average of 18 people — both children and adults — die each day from the lack of available transplant organs. Every 10 minutes another person is added to the national organ transplant wait list.

All patients waiting for a deceased-donor transplant in the United State have equal access to donated organs. Potential recipients who are waiting for a deceased donor organ are listed with the United Network for Organ Sharing (UNOS). UNOS manages a computerized network that impartially matches organ donors with potential transplant recipients. Transplant centers and organ recovery organizations across the country are part of this national network.

Transplant in the Northwest


*(See Appendix, Figure 61: Children and Youth on Waitlist for Organ Transplant in Washington State as of 07/13/12.)*

Recommended strategies

Healthy People 2020

Healthy People 2020 objectives related to transplant include:

- Increase the proportion of dialysis patients wait-listed and/or receiving a deceased donor kidney transplant within one year of end-stage renal disease start (among patients under 70 years of age).
- Increase the proportion of patients with treated chronic kidney failure who receive a transplant within three years of registration on the waiting list.

Community strategies

- Continue to raise awareness about organ donation and encourage people to become donors; the recipient need is larger than the number of available organs.
- Seattle Children’s must continue to act as a regional expert and partner resource for pediatric transplants.

Community assets and strengths

Washington State Medical Association: Organ donation

Washington State Medical Association offers information to inspire and facilitate organ donation.

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Among 10th graders, Hispanics, Non-Hispanic Pacific Islanders and Blacks were more likely than Non-Hispanic Whites to be obese.

From 2002-2008, obesity increased significantly for 12th graders, but remained consistent for eighth- and 10th-grade students during the same years.

Among 10th graders, obesity and overweight rates were significantly higher in Garfield, Grant, Mason, Okanogan and Yakima counties compared to counties in the rest of the state. These rates were significantly lower in Klickitat and Island counties.

Of Washington schools, 39% reported that students can purchase soda or fruit drinks that are not 100% juice from vending machines or school stores.

In 2008, about 68% of eighth graders, 75% of 10th graders and 69% of 12th graders reported that they had drunk nondiet soda, sports drinks and other sweetened drinks at school at least once in the past week.

Obesity in King County

Of high-school students in King County, 9% are obese, 21% are overweight and 86% do not meet physical activity recommendations. In addition, 72% have inadequate fruit and vegetable consumption, and 35% reported having one or more sodas yesterday.

Youth in South King County are more likely to be overweight or at risk of becoming overweight.

*(See Appendix, Figure 62: Obesity Among King County Students in Grades 8, 10 and 12, 2010 and Figure 63: Obesity Among King County Students in Grades 8, 10 and 12 by Region.)*

**Child health and development**

**Obesity**

Healthcare providers need resources to help them better communicate with families facing overweight and obesity issues. They lack training and efficient systems and tracking tools to support their efforts in treating overweight patients and their families.

**Obesity in Washington state**

Facts about obesity and Washington youth:

- Of high school students across the state, 11% are obese and 14%-16% are overweight.
- From 40%-60% of Washington youth do not meet recommendations for physical activity. Asian, Latino and multiracial youth are least likely to meet these guidelines.


178 Seattle Children's Obesity Program. (July, 2003). Summary report: Development of family and community based resources to provide clinical guidance for children with obesity.


180 Ibid.


184 Ibid.

Obesity in Seattle Children’s patients

Seattle Children’s subspecialty clinic patient data shows that over 30% of the hospital’s patient population is obese or overweight, reflecting national percentages. Of Odessa Brown Children’s Clinic (OBCC) patients 10 and older, 40% are overweight or obese (25% are obese). Of OBCC patients 2 to 9 years old, 34% are overweight or obese (17% are obese).

*(See Appendix, Figure 64: Seattle Children’s Subspecialty Clinic Patient Data 2005-2007.)*

**Recommended strategies**

- Encourage healthcare professionals and organizations to participate in community coalitions or partnerships to address obesity.

- Help communities increase opportunities for extracurricular physical activity and improve access to outdoor recreational facilities.

- Support health professional organizations in creating and disseminating evidence-based clinical guidelines and other educational materials on childhood obesity prevention and in advocating for childhood-obesity prevention initiatives through coordinated efforts.

- Have healthcare organizations advocate for improved access to fresh fruits and vegetables and for safe physical activity in communities and schools.

- Promote healthy eating and active living through community-wide campaigns with messages that motivate families to reduce children’s TV and screen time (as recommended in King County’s Overweight Prevention Initiative 10 Point Plan).

- Improve reimbursement/payment for obesity treatment services.

**Healthy People 2020**

The following Healthy People 2020 objectives relate to overweight and obesity in children and adolescents:

- Reduce the proportion of children and adolescents who are considered obese.

- Children aged 2 to 5 years—Target: 9.6%. Baseline: 10.7% of children aged 2 to 5 years were considered obese in 2005–08.

- Children aged 6 to 11 years—Target: 15.7%. Baseline: 17.4% of children aged 6 to 11 years were considered obese in 2005–08.

- Adolescents aged 12 to 19 years—Target: 16.1%. Baseline: 17.9% of adolescents aged 12 to 19 years were considered obese in 2005–08.

**Community assets and strengths**

Coalitions and initiatives dedicated to obesity prevention and treatment include:

**National**

- Childhood Obesity Action Network from the National Initiative for Children’s Healthcare Quality (NICHQ)

- Congressional Task Force on Childhood Obesity Prevention

- Children’s Hospital Association (formerly known as NACHRI): Focus on a Fitter Future — collaboration with 25 children’s hospitals to further define the role of children’s hospitals in pediatric obesity management and prevention to advance progress toward lowering obesity rates.

- Executive Committee for the National American Academy of Pediatrics Provisional Section on Obesity

**State**

- Washington State Childhood Obesity Prevention Coalition promotes policy changes such as enhanced nutritional standards in schools and child care programs, physical

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187 Ibid.


189 Ibid.

Public Health – Seattle & King County has a goal to protect and improve the health and well-being of all people in King County, as defined by each individual’s “healthy years lived.”

Others organizations focused on obesity prevention include the American Heart Association (AHA), Boys and Girls Clubs, Girls on the Run of Puget Sound, School of Acrobatics and New Circus Arts and Treeswing.

Seattle Children’s assets and strengths
Seattle Children’s is a local, regional and national leader and advocate for reducing pediatric overweight and obesity.

Community and individual education
• Children’s provides children and teens with age-specific healthy eating and physical activity education.
• In partnership with the YMCA of Greater Seattle we offer ACT! (Actively Changing Together), a three-month nutrition, physical activity and self-empowerment program for youth ages 8 to 14 who are overweight and their parents. Active in 14 YMCAs in three counties.
• Families from Odessa Brown Children’s Clinic (OBCC) and a local Boys & Girls Club work with an OBCC nutritionist to maintain seven raised garden beds at New Hope Baptist Church across the street from the clinic. Families and children enjoy using the vegetables and herbs they grow in monthly nutrition and cooking classes, and benefit from physical activity classes offered at OBCC.
• King County Food and Fitness Initiative, located in Delridge and White Center (Seattle), works to offer fresh produce at local corner grocers, engage youth in leading change, promote school-based efforts such as school gardens, and enhance the physical environment with projects like completed sidewalks.
• Let’s Do This is a campaign to inspire King County residents to work together for healthier places to live, learn, work and play.

Advocacy
• In 2009 we co-sponsored the first Statewide Obesity Summit on prevention and policy
(through partnership with the American Heart Association). We were also a key partner in the 2011 summit.

• Children’s is a member of the Childhood Obesity Prevention Coalition, a statewide coalition working on encouraging local and state policy change to prevent obesity.

• We have conducted provider advocacy training independently and as part of trainings for providers on obesity prevention and management.

• We were awarded $180,000 Communities Putting Prevention to Work grant from the Department of Health and Human Services and Public Health – Seattle & King County for “Everyone Swims.” This program leads changes in Parks and Recreation, YMCAs and community clinics in King County to improve access to swimming, water exercise and water recreation among low-income and culturally diverse families.

• Worked with the Healthy Kids, Healthy Communities program (funded by the Robert Wood Johnson Foundation and run by the Seattle Housing Authority) to increase access to healthy eating options and physical activity in underserved/under-resourced communities within four low-income housing sites in Seattle.

• Children’s worked with the King County Food and Fitness Initiative to improve healthy eating and active living in the White Center and Delridge neighborhoods and community by targeting schools, healthy retail, active environment and youth leadership.

• Children’s, Public Health - Seattle & King County and Healthy King County Coalition were awarded $3.6 million Community Transformation Grant from the U.S. Department of Health and Human Services (HHS). This collaborative effort aims to change systems so all residents can be physically active, have access to healthy foods and drinks and live in tobacco-free environments.

**Organization and community change**

• Children’s committed $2 million to bicycle and pedestrian improvements that link hospital and surrounding communities to larger walk and bike networks. These improvements will make biking and walking safer and more attractive for people of all ages and abilities (with Seattle Transportation).

• The Seattle Children’s Hospital Wellness Initiative is a comprehensive employee wellness program.

• Our healthy hospital work includes food/beverage changes in cafeteria, vending machines and patient menus. We have been recognized for healthy hospital efforts by the American Heart Association.

**Education, training and resources for healthcare providers**

• We consulted with primary care practices on quality improvement activities to promote an integrated approach to the prevention, assessment, identification and management of pediatric obesity within their clinics. Small Steps to Health Pediatric Obesity Toolkit was helpful in implementing the American Medical Association recommendations. (Partners include the Washington State Department of Health, Public Health–Seattle & King County, National Initiative for Children’s Healthcare Quality and payers.)

• Our obesity education kits help healthcare providers discuss and treat obesity concerns with patients and their families (partnership with the American Heart Association).

• We have trained primary care providers in how to treat overweight and obese children and communicate with parents — 245 primary care providers attended workshops held at Children’s Hospital main campus in Seattle, and in Burien, Tukwila and Spokane.

• The Children’s Nutrition Symposium is offered every other year.
Mental and behavioral health

In the United States, mental health issues affect approximately six million to nine million children and adolescents.\(^\text{191}\) By age 18, 20% of the population has had an episode of depression, while 65% of adolescents report transient or less severe depressive symptoms.\(^\text{192}\) In the U.S., an average of one youth dies by suicide nearly every two hours.\(^\text{193}\) In Washington state, an estimated 7.4% of children experience multiple symptoms of mental conditions\(^\text{194}\) and an average of two youth between the ages of 10 and 24, die by suicide each week.\(^\text{195}\)

The need for mental health services is significant. However, fewer than 20% of children who need mental health services receive them.\(^\text{196}\) A recent study led by Dr. Carolyn McCarty suggests suicidal teens aren't getting the mental health services they need. McCarty and her co-investigators from the University of Washington (UW) and Group Health Research Institute found that only 13% of teens ages 13 to 18 with suicidal thoughts visited a mental health professional through their healthcare network and only 16% received services the year after.

The shortage of outpatient treatment, continuum of care and inpatient beds continues statewide. According to the Health Tracking Physician Survey,\(^\text{197}\) psychiatrists across the nation were much less likely to accept new patients, regardless of insurance type. Approximately 41% of psychiatric providers reported accepting all or most new Medicaid patients, while 46% accepted none.\(^\text{198}\)

If they meet certain statewide access to care standards, low-income children and adults in King County may qualify for publicly funded mental health services. In general, only those diagnosed with serious mental and emotional disorders qualify for publicly funded services.\(^\text{199}\) Eligible participants are enrolled in the mental health managed-care plan called the Regional Support Network (RSN), which coordinates care through local community-based mental health agencies. Washington state contracts with King County Department of Community and Human Services to manage the King County RSN.

In addition to the lack of access to mental health service, awareness and acceptance that mental health illnesses are treatable and diagnosable continue to limit treatment.\(^\text{199}\)

*(See Appendix, Figure 65: The Mental Health of Children: A Portrait of Washington State and the Nation, 2007.)*

Access to mental health inpatient services

Across the state, community hospital beds available to admit acutely ill mental health patients are on the decline. The state is also suffering a critical shortage of involuntary-commitment beds. Of Washington's 39 counties, 25 have no community hospital or freestanding evaluation-and-treatment facility beds.\(^\text{200}\)

Autism

Autism is a complex neurological disorder that impacts brain development in social interaction, communication and repetitive behaviors. The definition of autism has broadened to be defined as a spectrum disorder that includes the disorders of autism, Asperger disorder and pervasive developmental disorder—not otherwise specified (PDD-NOS). According to the Centers for Disease Control, one in 110 children in the nation has an autism spectrum disorder (ASD).\(^\text{201}\) The Washington State Department of Health estimates that ASDs

196 Ibid.
198 Ibid.
affect from 8,000 to 12,000 children and youth in the state. In some Puget Sound region school districts, autism rates are estimated as high as one in 50.202

The National Survey of Children with Special Health Care Needs (NC-CSHCN) found that, compared with all families of children with special health care needs, ASD families were less likely to participate in decision-making with their providers and be satisfied with the services they receive, less likely to have a medical home, and less likely to find it easy to use community-based service systems.203

Depression

Nationally, only 2.1% of adolescents ages 12 to 17 were screened for depression during primary care physician office visits between 2005 and 2007.204 The NSCH found that one out of three youth ages 12 to 17 years (and up to one out of two Hispanic youth) who needed mental health services did not receive them. Washington state had similar results.205 The 2010 Washington State Healthy Youth Survey found that 25% of eighth graders, 30% of 10th graders and 28% of 12th graders reported having depressive feelings.206

Depressed youth are at higher risk of substance abuse (including nicotine dependence), legal problems, poor physical health, early pregnancy, and suicide as well as poor academic, work and psychosocial functioning.

Suicide

Nationally, suicide is the third leading cause of death for youth ages 10 to 24. In Washington state, it is the second leading cause of death in youth ages 15 to 19 and ages 20 to 24, with twice as many youth dying by suicide than homicide. Suicide is the fourth leading cause of death in youth ages 10 to 14.207 Among all states, Washington ranked 17th in youth suicide.208

Youth at increased risk for suicide include American Indians/Alaska Natives (AI/AN); those who identify as lesbian, gay, bisexual or transgender (LGBT); and victims of bullying (and the perpetrators).209 Girls and young women attempt suicide much more often than boys and young men, but males are three times more likely to die by suicide.

In 2006, the suicides of 120 Washington youth ages 10 to 24 cost an estimated $231 million in medical costs and lost future productivity. The 892 hospitalizations due to attempted suicides cost $18 million in medical care and lost short-term productivity.210

Recommended strategies

Healthy People 2020211

Related Healthy People 2020 objectives include:

- Mental health status improvement
  - Reduce suicide rate by 10%.
  - Reduce suicide attempts by adolescents by 10%.
  - Reduce the proportion of persons who experience major depressive episode (MDE) by 10%.

- Treatment expansion
  - Increase the proportion of children with mental health problems who receive treatment by 10%.

202 Seattle Children's autism case for support.
- Increase depression screening by primary care providers.
- Increase the proportion of primary care physician office visits that screen adults ages 19 years and older for depression.
- Increase the proportion of primary care physician office visits that screen youth ages 12 to 18 years for depression.
- Increase the proportion of juvenile residential facilities that screen admissions for mental health problems.
- Increase the proportion of persons with co-occurring substance abuse and mental disorders who receive treatment for both disorders.
- Increase depression screening by primary care providers.

Autism A.L.A.R.M guidelines
Adapted from policies developed by American Academy of Pediatrics and American Academy of Neurology to help physicians assure that children receive routine and appropriate screenings and timely interventions, the A.L.A.R.M. guidelines are: Autism is prevalent, Listen to parents, Act early, Refer and Monitor.

Community assets and strengths
There are several community mental health resources supported by the Department of Social and Health Services (DSHS), including the National Suicide Prevention Lifeline, the Washington Recovery Help Line, Crisis Lines in 40 counties and 13 Regional Support Networks (RSN) that provide public mental health services such as crisis intervention, community mental health treatment and support services.

There are also a number of community-based and private organizations that provide awareness, treatment and education to children, teens, parents and the community, including:

- Autism Outreach Project – Provides program development, placement and staff development activities for school districts, parents, agencies and students with autism spectrum disorders.
- FEAT of Washington – Provides hope and guidance to families of children with autism, helping these children reach their full potential.
- Youth Suicide Prevention Program (YSPP) – Focuses on public awareness, training and community organization around suicide prevention. YSPP is a private nonprofit that is supported by both public (Department of Health) and private funding.

Seattle Children’s assets and strengths
The Department of Psychiatry and Behavioral Medicine team diagnoses, treats and prevents problems with emotions and behavior. Services

Washington Autism Task Force priority recommendations
The task force recommends that individuals with autism spectrum disorders stay in their communities, receive a wide range of healthcare services, obtain ongoing suitable treatments, and receive:

- Evidence-based multidisciplinary interventions that are timely and individualized
- Culturally effective, family-centered support
- Legally required services


include outpatient mental health services, inpatient hospital stay, neuropsychology services and eating disorder services.

Through a contract and in partnership with DSHS, we provide primary care provider consultations via the Partnership Access Line (PAL). Our other services include:

- Telepsychiatry service, giving children in underserved communities access to psychiatrists
- Mental-health-care-provider trainings
- Patient and community education

The department’s vision and goals are to: be a leader in empirically based psychiatric assessment and treatment interventions; enhance access to services and the community’s capacity to serve families through education, training and research; establish research across priority areas; retain and recruit the best people; sustain nationally ranked Child and Adolescent Psychiatry and Psychology training programs; and be a local and national resource, advocating for and empowering families affected by mental illness.

Following are some of the ways we are working to meet these goals.

**Bed design and expansion**

As part of the strategic planning process, the Department of Psychiatry and Behavioral Health met with many community providers to try to improve the referral and care process. These community providers include Sound Mental Health (King County), Catholic Community Services (Pierce County), Compass Community Health (Snohomish and Island Counties), Valley Community Mental Health (South King County) and Navos (King County). The community centers identified a lack of pediatric inpatient psychiatric beds as the biggest gap in care. As a result, Children’s is increasing inpatient beds from 20 to 26-31 in 2014 and to 41 in 2015.

**Centers of Excellence**

At Children’s we are focusing our efforts in four Centers of Excellence that will serve healthcare providers in the community and patients with complex conditions:

- **Disruptive Behavior Disorders** - This area represents 30% to 40% of inpatient admissions to the hospital Inpatient Psychiatry Unit and 40% of outpatient evaluations and treatment. The goal is to strengthen the hospital’s ability to assist in continuum of care by partnering with community providers to identify resources in the community and to make sure that the care patients receive is evidence-based.

- **Mood Disorders**, including depression, bipolar and other mood disorders.

- **Pediatric Psychology** - This center treats the mental health component of Children’s patients with medical health conditions.

- **Autism Center** - Children’s Autism Center provides assessment, diagnosis, treatment and support for autism spectrum disorders. Its clinicians provide medical, psychiatric, behavioral and speech services for babies, children and young adults. Approximately 45% of families seeking autism services at Children’s lack adequate insurance coverage for their child’s care. The Autism Center offers provider and community education, as well as individual patient and family education. The center offers monthly support groups and community classes for parents and caregivers of children with autism on a variety of topics. Classes are available statewide through Children’s video and teleconferencing outreach program.

**Changing organizational practices**

**Emergency department mental health**

The Department of Psychiatry’s crisis response team expanded its role to provide support for emergency department (ED) staff and psychiatry residents 24 hours a day, seven days a week. A mental health evaluator and a pediatric mental health specialist assess children in the ED and work with the child and the family to create a plan on how to take care
of the child until their outpatient appointment. They also help ED staff follow the required steps to admit patients in the Inpatient Psychiatric Unit when there is a medical necessity.

**Community education and services**

**Telemental Health (TMH)**

Videoconferencing allows children with mental health care needs in underserved communities to talk with a psychiatrist in a distant center. TMH provides services through Seattle Children’s Tri-Cities Clinic, a small mental health clinic in north-central Oregon, and at the Alaska Psychiatric Institute in Anchorage to provide services to Alaska Native youth in remote areas of western Alaska.

**Education via media**

Children’s provides behavioral health education through media outlets such as network TV, local radio and online.

**Individual education**

The education services Children’s offers to families include:

- Meal support classes for parents with children or teens who have eating disorders
- Support groups for deaf and hard-of-hearing teens and preteens who have mental illness
- Support groups for parents of children who are going through dialectical behavior therapy or who have children on the autism spectrum
- The Shared Resources Line (SRL), which provides family support through phone calls, school visits and team reviews outside of outpatient visit. Families can call the SRL and speak with someone to get help with a crisis or question.

**Community partnerships and provider education**

**Partnership Access Line (PAL)**

A partnership between the Department of Social and Health Services and Seattle Children’s, the PAL program provides free child mental health consultation services to all primary care providers in the state of Washington. It serves around 400 community physicians in Washington. PAL also offers a downloadable mental healthcare resource for doctors, Primary Care Principles for Child Mental Health.

**Pastoral and spiritual care**

The Community Mental Health Council is working to educate and prepare pastors and spiritual leaders to support individuals with mental health issues.

**Community outreach lectures for physicians**

Children’s experts speak about mental health issues in the WAMI region and beyond.

**Developmental Pathways Research Program (DPRP)**

Children's partners with Seattle Public Schools to improve the recognition and management of mental health problems for middle school and high school students. The program includes training and consultation for 17 school-based mental healthcare providers in assessment and management of mental health concerns.

**Middle-School Support Project (MSSP)**

Launched in partnership with the Nesholm Family Foundation and Sound Mental Health, the goal of this program is to develop a school-based initiative to support students’ academic success by integrating behavioral health services into the schools’ existing student support systems. The MSSP provides full-time mental health professionals in schools with high levels of poverty and low student performance. The program offers crisis intervention, screening and referral, care management and comprehensive care.

**Injury**

In the state of Washington, injury is the leading cause of death for children over 1 year old. The leading injury-related hospitalizations are for falls, poisonings and motor vehicle crashes. The...
leading unintentional injury-related deaths are motor vehicle crashes, drowning and poisoning. Substantial disparities exist for childhood injury; there are higher injury rates for:

- Infants and teens 15 to 17 years old
- Boys
- African Americans
- Native Americans
- Alaskan Natives
- Children living in rural areas of the state
- Children living in areas with higher rates of poverty and lower rates of educational attainment

In South King County, rates of hospitalization from injuries are higher than state rates for falls, motor vehicle accidents, pedestrian/vehicle accidents, burns, cuts and drowning.

**Injury and children and youth with special needs**

Youth in Washington with disabilities are more likely than youth without disabilities to be at risk for unintentional injury. Compared to 10th grade youth without disabilities, Washington 10th graders with disabilities are more likely to never or rarely wear seatbelts and to drive after drinking alcohol. Similar results were found for eighth graders and 12th graders.

*(See Appendix, Figure 40: Leading Causes and Total 5-Year Incidence of Injury Deaths by Age Group, Washington, 2004-2008 and Figure 66: Hospitalizations Due to Injury: 0-17, South King County 2005-2009.)*

**Child maltreatment**

One in five U.S. children experience some form of child maltreatment. As the affected child grows older, child abuse and neglect increase the risk of delinquency, substance abuse, adolescent pregnancy, adverse health behaviors, suicide attempts and HIV-risk behaviors.

In 2006, 41,455 children were referred to Washington state’s Child Protective Services (CPS); that is 26.8 per 1,000 children under age 18. Across the state, children from 0 to 3 years old are at the greatest risk of any abuse. They have the highest abuse and neglect rates, and they are the most likely to experience recurrence of abuse and to die from abuse and neglect.

Neglect is defined as “a failure to provide the basic needs required to sustain and promote a child’s health, safety and well-being.” Neglect accounts for 70% of validated child maltreatment cases in the state.

**Recommended strategies**

- Provide support programs for parents (especially first-time parents). Train parents in promoting positive child and youth development.
- Provide public education about what abuse is and how to recognize and report it.
- Support efforts to educate and prevent Shaken Baby Syndrome.
- Teach parents positive child-rearing and management skills, and safe and nurturing strategies.
- Provide services that target primary prevention programs (for the general public), secondary prevention programs (targeted to high-risk families), and tertiary programs targeting families where abuse has occurred.

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218 Ibid.
220 Ibid.
222 Ibid.
Seattle Children’s assets and strengths

The complex medical, legal, social and psychiatric problems involved in every case of suspected child abuse and neglect require the help of knowledgeable and skilled professionals. The Seattle Children’s Protection Program assists hospital staff and community physicians in assessing whether reasonable cause for action exists and helps them determine the appropriate course of action.

The Protection Program is conducting a statewide assessment of parenting programs to understand needs and gaps in the state. This will help define what greater role Children’s might play regarding community advocacy and prevention of child maltreatment.

Education and Outreach

The Protection Program offers educational resources for parents, caregivers and healthcare providers. It distributes educational materials about healthy and safe parenting skills, including the Have a Plan video created in partnership with Strengthening Families Washington and Conscious Fathering.

Other materials the program distributes are aimed at abusive head trauma awareness and prevention, stress management, discipline and keeping families safe. The program offers information about and access to community agencies and services that protect and help children and families. It Educates Children’s staff and the community in identifying and responding appropriately to family violence, child abuse and neglect.

The Protection Program also promotes the Period of PURPLE Crying Approach to Shaken Baby Prevention and hosts a statewide taskforce to disseminate this information through state hospitals, clinics and agencies that have contact with pregnant women and their partners, as well as to parents and caregivers of newborns.

**Community assets and strengths**

- **Strengthening Families Washington** (formerly Council for Children & Families), an initiative of the Department of Early Learning, that focuses on helping families strengthen family bonds, understand child development and develop positive parenting skills.
- **Parent Trust for Washington Children**, which promotes health and safety in families and communities by offering free or low-cost classes, workshops, educational campaigns and coaching for families.
- **Childhaven**, a therapeutic nursery serving children who have experienced abuse and neglect.

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Head injuries and bike helmets
Head injury is the most common cause of death and serious disability in bicycle crashes. A correctly worn bicycle helmet reduces the risk of a head injury by nearly 85%. In a national study by Safe Kids, 41% of children observed were wearing a helmet while participating in wheeled sports. More than a third of child riders wearing helmets wore them improperly. There is a need for adolescent helmet education and awareness programs. By 12th grade, only 13% of students report wearing a bike helmet always or most of the time. In 2006, 45% of eighth graders, 27% of 10th graders and 30% of 12th graders who rode a bicycle in the past year wore a helmet most of the time or always.

Bicycle injuries among Washington children 0 to 17 years old account for an annual average of three deaths, 206 hospitalizations, and about 6,800 visits to hospital emergency rooms. Bicycle hospitalization rates were highest in the 10 to 14 age group. Bicycle injuries are the second leading cause of injury hospitalization for Washington children ages 5 to 14 years.

Though bike helmets are required by law in Seattle and King County, many children do not wear helmets when they ride. Many families cannot afford bike helmets and are unaware of the importance of wearing them. On average, a $12 bike helmet for children ages 3 to 14 generates $580 in benefits to society.

Recommended strategies
- Increase availability and accessibility of helmets.
- Provide bicycle helmets to families in need, and provide education to families about how bicycle helmets can prevent bicycle-related injuries.
- Provide education for the whole family on proper fit and use of helmets. Educational and promotional campaigns for bicycle helmet use are most effective when conducted at the local level.

Community assets and strengths
Some community assets around bike safety include:
- Safe Kids is a nationwide network working to prevent unintentional childhood injury by educating the community, providing safety devices to families, and advocating for laws to keep children safe. Safe Kids has several coalitions in Washington state, including Washington State Safe Kids, Safe Kids Seattle and Safe Kids South King.
- Cascade Bicycle Club provides education, consulting services and helmet fitting, and low-cost sale events in Seattle and King County with the goal of creating a better community through bicycling.
- City and county bike helmet laws: Since 1994, King County has required all bicyclists to wear a helmet. In 2003 the law was expanded to include Seattle, where bicyclists may be cited and fined for not wearing helmets.
- Harborview Injury Prevention & Research Center (HIPRC) led a statewide community campaign to promote the importance of wearing bicycle helmets.
- Kohl’s Through the Care for Kids program supports kids’ health and education initiatives in communities nationwide. It focuses primarily on injury prevention, immunization and nutrition programs.

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• Washington Bike Alliance advocates for bicyclists and a bike-friendly Washington through legislation, research, education and the built environment.

Seattle Children’s assets and strengths
Children’s has helped spearhead a statewide community education effort promoting the importance of wearing bicycle helmets. We have reached out to underserved communities across the state with the Kohl’s Health and Safety Van program. Children’s staff conducted helmet fittings and low-cost helmet sales for low-income and underserved families in the greater Seattle/King County region. Children’s is also a sponsor of Bike to Work Day.

In partnership with Harborview Injury Prevention and Research Center, Cascade Bicycle Club, Washington Bike Alliance, local elected officials and government agencies, Children’s designed and implemented a community intervention to increase bicycle helmet use. The bicycle helmet program has been widely cited as a national model.

The Odessa Brown Children’s Clinic Bike Helmet Program educates the community on the importance of wearing bike helmets, and it distributes and fits children with bike helmets.

Child passenger safety
Nationally, 43% of children ages 4 to 7 years are restrained in booster seats. 234 Child safety seats reduce the risk of death in passenger cars by 71% for infants and by 54% for children ages 1 to 4 years. 235 For children ages 4 to 7 years, booster seats reduce injury risk by 59% compared to seat belts alone. 236

Child-restraint systems are often used incorrectly. One study found that 72% of nearly 3,500 observed car and booster seats were misused in a way that could increase a child’s risk of injury during a crash. 237 Motor vehicle crashes remain the leading cause of injury and death for children and young adults in the state. 238 A risk factor for most causes of injury is drug or alcohol impairment in supervising adults and older children. More than two-thirds of fatally injured children were killed while riding with a drinking driver. 239 About 45% of Washington children and teens who died in crashes were unrestrained by a child safety seat or seatbelt. 240 Motor vehicle occupant injuries among Washington children 0 to 17 years old account for an annual average of 64 deaths, 355 hospitalizations and an estimated 10,600 visits to hospital emergency departments. 241 Of the 22 children 4 to 8 years old who died in car crashes, only one (5%) was in a booster seat. 242

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235 Harborview Medical Center, Seattle Children’s Hospital, Public Health Seattle & King County. (2004-2006). Injury Free Coalition for Kids Seattle. Report to the Community.
240 Ibid.
241 Ibid.
242 Ibid.
Washington State Passenger Safety Facts

- Teens ages 15 to 17 have the highest rate of motor vehicle occupant deaths and hospitalizations.
- Hospitalizations for child motor vehicle occupants are more likely to occur in rural areas.
- Data show lower safety restraint use among children killed in motor vehicle crashes in rural parts of Washington state compared to urban areas.
- Compared to 10th grade youth without disabilities, Washington 10th graders with disabilities are more likely to never or rarely wear seatbelts and to drive after drinking alcohol. Similar results were found for eighth and 12th graders.

Racial and ethnic subgroups

There are significant disparities in unintentional injury rates among racial and ethnic population subgroups. In Washington state and nationally, injury death rates increase as poverty increases and as educational attainment decreases.

Injury disproportionally affects children of Southeast and Central Seattle, the city’s multi-ethnic core. The rate of hospitalization due to unintentional injury is greater for children in Washington than for children in King County as a whole. The following disparities relate to safety restraints.

A study of booster seat use among Latino children found they were one-third less likely to use a booster seat than were non-Latino children. They were also more likely to be completely unrestrained.

No retail stores in Central and Southeast Seattle report carrying car or booster seats. A lack of access to safety seats and economic resources make families in Central and Southeast Seattle less likely to use these safety devices.

Individuals with few economic resources or little formal education are less likely to use safety devices due to lack of money. They are more likely to lack transportation to a store where they could purchase safety devices, to lack control over housing conditions, and to believe that injuries are preventable.

Recommended strategies

Child safety seat distribution and education programs are effective in increasing child safety-seat use. On average, a $35 booster seat generates $2,500 in benefits to society, and child safety seats yield an estimated cost savings of $2,200 for an average cost of only $52. These strategies could help increase safety-seat use:

- Increase the availability and accessibility of car seats and education to parents.
- Provide education along with child safety seats and booster seats to low-income

References:

244 Ibid.
247 Harborview Medical Center, Seattle Children’s Hospital, Public Health Seattle & King County. (2004-2006). Injury Free Coalition for Kids Seattle: Report to the Community.
parents through low-cost seat sales, giveaways or short-term loans.\textsuperscript{256}

- Train Spanish-speaking car-seat technicians.
- Increase number of car-seat-check events and car-seat education programs in Seattle and Southeast King County.

**Healthy People 2020\textsuperscript{257}**

The following Healthy People 2020 objectives relate to child passenger safety:

- Reduce motor vehicle crash-related deaths.
- Reduce nonfatal motor vehicle crash-related injuries.
- Increase age-appropriate vehicle restraint system use in children:
  - Birth to 12 months. Target: 95%. Baseline: 86% of children ages 0 to 12 months were restrained in rear-facing child safety seats in 2008.
  - Children ages 1 to 3 years. Target: 79%. Baseline: 72% of children ages 1 to 3 years were restrained in front-facing child safety seats in 2008.
  - Children ages 4 to 7 years. Target: 47%. Baseline: 43% of children ages 4 to 7 years were restrained in booster seats in 2008.
  - Children ages 8 to 12 years. Target: 86%. Baseline: 78% of children ages 8 to 12 years used safety belts in 2008.

**Community assets and strengths**

- The Safety Restraint Coalition collaborates with families, law enforcement, healthcare providers, government agencies and advocates to promote seat belt and car seat use.
- Car-seat checks offered at hospitals in Seattle and South King County.
- Strong laws supporting child passenger safety in Washington state: the child passenger restraint law and the seat belt law.
- Harborview Injury Prevention and Research Center (HIPRC) co-sponsored with Children’s the Latino child-passenger safety campaign to serve minority populations in Western and Eastern Washington.
- www.Boosterseat.org, a website maintained by HIPRC and created by the Washington State Booster Seat Coalition.
- Safe Kids works with local organizations and families to prevent unintentional injuries, including promoting child passenger safety.
- Washington Traffic Safety Commission coordinates Washington’s traffic safety efforts by working with communities to identify and help resolve traffic safety issues, analyzing data, distributing state and federal traffic safety funds, and conducting education campaigns.
- Allstate Foundation, Schuck’s Auto Supply and the Seattle Mariners, among others, have provided funding for community car seat programs.

**Seattle Children’s assets and strengths**

For the past decade, Seattle Children’s has been a strong child passenger safety advocate, with a focus on promoting booster seat use in children between 4 and 8 years old. Children’s developed and instigated an award-winning community intervention campaign, the Campaign to Promote Booster Seat Usage in Targeted Communities. The Latino version of this program, Coalición por la Seguridad Vial de los Niños y Niñas en Washington, serves minority populations in Western and Eastern Washington and is a national injury prevention model.

Children’s and Odessa Brown Children’s Clinic provide low-cost car seats and booster seats to patients and the community. Children’s staff members hold car seat safety checks at the hospital and conduct educational programs and low-cost seat sales in partnership with Seattle Head Start programs. In 2000, Seattle Children’s worked to promote and pass the

\textsuperscript{256} Ibid.
Washington state primary child safety seat law, the first booster seat law in the nation.

Community and individual education

• Provides low-cost booster and car seats to hospital patient and Emergency Department families (25% of these seats are given to non-English-speaking families), and teaches parents how to use them correctly.

• Co-sponsored the Latino child-passenger safety campaign with Harborview Injury Prevention and Research Center to serve minority populations in Western and Eastern Washington.

• Provides low-cost or free booster seats to children and their families at Seattle Head Start locations, reaching underserved, minority and low-income families in King County (in partnership with Odessa Brown Children’s Clinic, Schuck’s and PEMCO).

• Provides on-site quarterly public car-seat-check events to review individual car seats for proper installation and to educate parents. Children’s is the only Seattle organization providing regular free car-seat checks and targeting culturally diverse and underserved families.

• Provides technicians trained in how to fit and use car seats for children with special health care needs.

• Sponsors an infant car-seat class for expectant parents four times a year. The class is taught by a certified child-passenger safety expert who shows parents-to-be how to install their baby’s car seat and safely secure the baby in the seat.

• Children’s Center for Diversity and Health Equity provides car and booster seat education

Educational resources

• Booster Seat Education (easy-to-read flyer in 14 languages)

• Buckle Up! Your Bundles of Love (car seat class for expectant parents)

Drowning prevention

Drowning is the second leading cause of injury death for Washington children ages 1 to 17 years. Among children in the state, drowning accounts for an annual average of 27 deaths, 30 hospitalizations and about 110 visits to a hospital emergency department. Drowning death rates are highest in children 1 to 4 years old and in adolescents 15 to 17 years old. Most drowning in the state occurs in open water like lakes or rivers.

Key state drowning findings include:

• Infants are most likely to drown in a bathtub.

• Children 1 to 4 years old most often drown in open water; most of the swimming-pool deaths occurred in this age group.

• None of the private pools or hot tubs involved in a child drowning had a locked gate.

• A lifeguard was present in only three of the 58 drowning deaths that occurred in open water or in a pool.

• 89% of children birth to 5 years, 80% of children 6 to 12 years and 50% of youth 13 to 17 years wear life jackets in boats.

• In a review of child and youth drowning from 1999-2003, the Washington State Child Death Review determined that 85% were preventable. Interventions such as life jackets, learning to swim and lifeguards could have prevented deaths.

• The risk for drowning increases among individuals with less formal education and

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higher poverty rates and disproportionally affects minorities.\textsuperscript{262, 263}

- Compared to 10th graders without disabilities, Washington 10th graders with disabilities are less likely to use a life vest when in a small boat.\textsuperscript{264}

- Persons with a seizure disorder have a higher risk of drowning. Children and adolescents with a history of seizure disorder are at particular risk and need close monitoring and supervision when bathing and when in or near the water. Of the child drowning deaths reviewed, seven of the children (10\%) either had a history of seizure disorder or seizure was listed on the death certificate.\textsuperscript{265}

\section*{Recommended strategies}

\section*{Healthy People 2020 objectives}\textsuperscript{266}

- Reduce drowning deaths. \textit{Target:} 1.1 drownings per 100,000 population. \textit{Baseline:} 1.2 drownings per 100,000 population occurred in 2007 (ages adjusted to the year 2000 standard population).

\section*{State drowning prevention recommendations}

- Provide education and awareness programs for children and adults.\textsuperscript{267}

- Encourage policies and regulations.\textsuperscript{268}

- Provide parent education focused on supervision, safety issues for open water, and life-jacket use.\textsuperscript{269}

- Increase life-jacket use in boats and while swimming in open water where no lifeguard is present.\textsuperscript{270}

- Increase access to free and low-cost life jackets for both children and adults.\textsuperscript{271}

- Develop and implement culturally competent water safety education campaigns to reach ethnically and racially diverse populations.\textsuperscript{272}

- Increase access to swimming lessons for low-income and culturally diverse children, youth and families.\textsuperscript{273}

\section*{Community assets and strengths}

Community assets include:

- \textit{Parks departments, YMCA}s and other organizations that provide swimming lessons, single gender swims and lifeguarded pools and beaches.

- \textit{Washington State Parks Boating Program} helps coordinate and set up boating safety and life jacket loaner programs.

- \textit{Public Health Seattle & King County} tracks drowning deaths and has water safety information on their website.

- \textit{Safe Kids} helps to coordinate life jacket loaner programs at the county and state level.

- \textit{Seattle Parks and Recreation Department} supports water safety efforts by teaching parent child swim lessons and selling low-cost life jackets.

- \textit{U.S. Coast Guard} develops and maintains national and international lifesaving standards for commercial ships and recreational boats and works to minimize the loss of life, personal injury, property damage and environmental impact associated with the use of recreational boats through prevention.

\textsuperscript{262} Ibid.


\textsuperscript{268} Ibid.

\textsuperscript{269} Ibid.

\textsuperscript{270} Ibid.


Seattle Children’s drowning-prevention goals are to:

- Serve as a local, state, national and international leader in drowning prevention.
- Identify and promote the use of effective data collection, surveillance and community outreach for drowning prevention.
- Develop and advocate for effective drowning prevention policy and systems.
- Increase access to and use of life jackets.
- Increase awareness of drowning risk and prevention, particularly in open water.
- Increase capacity and coordination for drowning prevention in Washington state and nationally.
- Increase drowning prevention among culturally diverse communities.

Sports injuries and concussions

Nationally, about 38 million children and adolescents participate in organized sports, and about one in 10 receives medical treatment for a sports injury. Half of the injuries sustained by youth while playing sports are likely preventable. Each year, U.S. emergency departments treat an estimated 135,000 sports- and recreation-related traumatic brain injuries (TBIs), including concussions, among children ages 5 to 18. Increased awareness of TBI risks, prevention strategies and the importance of timely identification and management are essential for reducing the incidence, severity and long-term negative health effects of this type of injury. Athletes who have had a concussion are at increased risk for another concussion, and children and teens are more likely to get a concussion and take longer to recover than adults. Parents, players and
coaches lack training, skills and knowledge in sports injury and concussion prevention. Nearly 18% of athletic injuries treated by Seattle Children’s athletic trainers in the Seattle public schools are concussions.

**Community assets and strengths**

Community assets regarding sports injuries include:

- **Brain Injury Association of Washington (BIAWA)** works to prevent brain injury and increase awareness, support and hope for those affected by brain injury through education, assistance and advocacy.
- **Safe Kids** goals are to prevent unintentional childhood injuries, including brain injury.

**Seattle Children’s assets and strengths**

Seattle Children’s assets include the Orthopedics and Sports Medicine Department, which has developed an advocacy and outreach model for sending athletic trainers to work with young athletes in Seattle-area high schools. Children’s is also involved in ongoing community education and outreach through programs focused on ski-helmet safety and concussion prevention.

**Individual, community and provider education**

Children’s provides education and training on sports injury, concussion prevention and nutrition to more than 460 coaches, parents, athletic trainers, student athletes and school nurses. As part of this outreach effort, we have:

- Provided sports participation exams to youth athletes in South Seattle.
- Presented injury prevention and stretching techniques to new coaches in the Girls on the Run program.
- Attended community and school health fairs to share information about how to prevent head and other sports injuries.
- Co-created a concussion video developed for coaches to help them identify concussions in youth athletes and understand the Lystedt Law.
- Provided community education via events, web materials and seminars in partnership with Seattle Safe Kids. Events included hosting sports safety booths and a Harborview concussion-prevention clinic.

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• Provided training to Seattle school nurses on head injuries and sports injuries.
• Helped develop concussion care and treatment guidelines and the return-to-play criteria for treatment centers. Children’s is one of three hospitals in the Seattle area that can treat concussions and determine if an athlete is ready to return to play.
• Helped create standards for tracking (and managing) students with injuries and concussions to improve safety and reduce risk liability for the region’s high school student athletes.
• Helped develop the Washington state Lystedt Law (requiring all school districts to develop guidelines and informational forms to educate coaches, youth athletes and their parents about the nature and risk of concussion and head injury).

Pedestrian safety
Pedestrian injuries are the third leading cause of injury death for Washington children ages 1 to 9. Statewide, pedestrian injuries in children 0 to 17 years old account for an annual average of 13 deaths, 116 hospitalizations and about 1,240 hospital visits. Pedestrian death rates were highest in children ages 0 to 4 and 15 to 17. The majority of these deaths occurred on a driveway or city street and involved motor vehicles; three of the deaths involved trains.

Recommended strategies
• Educate and train parents and their children about safe pedestrian skills.
• Advocate for enforcement of state and local laws.
• Advocate for funds dedicated to safer walking environments (e.g., more pedestrian bridges, streetlights, playgrounds, sidewalks, paths and trails) at the federal, state and local levels.
• Enhance community infrastructure to support walking.
• Increase the number of active community environments in Washington.
• Both Federal Highway Administration and the Washington State Department of Transportation require that bicycle and pedestrian facilities be part of new construction and reconstruction projects in all urban areas, absent exceptional circumstances.

Healthy People 2020
Healthy People 2020 objectives relating to pedestrian safety:
• Reduce pedestrian deaths on public roads. Target: 1.3 deaths per 100,000 population. Baseline: 1.4 pedestrian deaths per 100,000 population occurred on public roads in 2008.
• Reduce nonfatal pedestrian injuries on public roads. Target: 20.3 injuries per 100,000 population. Baseline: 22.6 nonfatal pedestrian injuries per 100,000 population occurred on public roads in 2008.

Community assets and strengths
• Feet First advocates for safe walking in neighborhoods and cities, and raises concerns of pedestrians in conversations with government agencies and community groups.
• Seattle Community Council Federation is a coalition of neighborhood groups working together to educate one another about issues affecting different communities in the Seattle area and to identify ways to address them.
• Transportation Choices Coalition believes the current transportation system is environmentally, economically and socially unsustainable and encourages
Washingtonians to make alternate transportation choices like taking a bus or train, riding a bike or walking.

**Seattle Children’s assets and strengths**

Until funding ended in 2011, Children’s was a partner of the Injury Free Coalition–Seattle, which sponsored a “walking school bus” to encourage urban kids to exercise safely. In the program, parent volunteers walk groups of children to school, stopping at set spots along the way to collect more kids. The program started at one elementary school in 2005 and expanded to four others. The coalition included Seattle Public Schools, Feet First and Public Health–Seattle & King County.

Seattle Children’s current efforts related to pedestrian safety are part of the hospital’s comprehensive transportation plan, which includes significant investments in capital projects that support biking and walking in northeast Seattle. Changes will connect schools and parks with the Burke-Gilman Trail and encourage people of all ages and abilities to bike and walk. Strategies include linking the hospital and surrounding community to larger walking and biking networks and hosting community events that promote pedestrian safety.

Children’s researchers are conducting studies on the epidemiology and prevention of pedestrian injuries, environmental influences on physical activity and eating behaviors, and on the psychosocial factors that influence individual choice for weight-related behaviors. This work includes examining how the neighborhood environment impacts weight, physical activity and dietary behaviors across the life span.

**Adolescent health**

Sexual activity, school achievement, obesity and eating disorders, and tobacco, alcohol and drug use continue to be the areas of most concern regarding adolescent health.

Adolescents with behavioral and mental health issues are more likely to be sexually active and engage in other risky behaviors such as drug use. High school dropout rates are also highest in this group of adolescents, which contributes to a lifetime of lowered health status and poverty. The majority of youth ages 12 to 19 report that they wish they had waited longer to have sex, and nearly 70% of surveyed Washington new mothers younger than 20 years old reported their pregnancies were unintended.

While there have been some recent national and state decreases noted, alcohol abuse and under-age drinking continue to be the state’s biggest drug problem. One-fifth of Washington high school seniors reported being drunk or high at school in the past year. Among youth, alcohol use has been linked to unintentional injuries, physical fights, academic and occupational problems and illegal behavior.

Marijuana continues to be the drug of choice in Washington state for adolescents who undergo drug treatment. Over 39% of high school youth report ever abusing marijuana, and about one in eight seniors used prescription pain relievers to get high in the past year.

While the rate is lower than that of many states, almost 10% of Washington state youth ages 12 to 17 smoke tobacco. Both binge drinking and tobacco use are listed in the 21 National Critical Health Objectives for Adolescents and Young Adults.

**Adolescent reproductive health**

**Sexual activity and teenage pregnancy**

- According to the 2011 Youth Risk Behavioral Surveillance Survey, about 48% of high school students in the United States had ever had sexual intercourse. The 2010 Healthy Youth Survey reports that about 31% of 10th graders and 53% of 12th graders in Washington state had ever had sexual intercourse.

- About 18% of currently sexually active youth reported using birth control pills to prevent pregnancy. Birth control pill use was highest

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291 Youth Risk Behavior Surveillance, United States 2011, Youth Online: High School YRBS.
among white students (24%), girls (23%), and 12th graders (25%).

• Sexually active teens are more likely to engage in other risky behaviors such as smoking, drinking and illegal drug use.

• About 67% of youth ages 12 to 14 and 57% of youth ages 15 to 19 wish they had waited longer to have sex. From 2005-2007, 68% of surveyed Washington new mothers younger than 20 years old reported their pregnancies were unintended.

• In 2007, birth rates in 15- to 17-year-olds were higher among teens living in rural areas of the state. Birth rates were higher among Hispanic, Non-Hispanic Black and Non-Hispanic American Indian teens, and significantly lower among Non-Hispanic Asian/Pacific Islander teens compared to Non-Hispanic White teens.

*(See Appendix, Figure 67: King County Birth Rates Among Girls Ages 15 to 17, 2004-06 and Figure 68: King County Adolescent Pregnancy, 2007.)

Sexually transmitted diseases (STDs)

• Chlamydia is the most commonly reported STD, and gonorrhea is the second most commonly reported STD in both Washington state and the nation.

• Nationally, HPV infection is more prevalent among women living below the poverty line, Black or Hispanic women, and unmarried women.

• Among Washington teens ages 15 to 19, reported chlamydia rates are nearly six times higher in females compared to males.

• Chlamydia rates among 15- to 19-year-olds significantly increased from 1998 to 2008. This may be due to improved testing methods, more screenings and improved surveillance, in addition to a possible increase in risky sexual behaviors.

• In 2007, the rate of gonorrhea per 100,000 people was 74.7 for 10- to 19-year-olds.

• Despite a lack of data on race/ethnicity, there is a disparity in gonorrhea infections between black adolescents and all other races.

• In 2008, 47% of girls in Washington had been vaccinated against HPV, compared to 37% nationally.

• Between 2004-2008, there were about nine new HIV cases per year among youth ages 10 to 19.

*(See Appendix, Figure 69: Sexually Transmitted Disease (STD) Infection Incidence Rates in Washington State.)

Recommended strategies

Healthy People 2020

Healthy People 2020 objectives relating to STDs, including HIV, are:

• Reduce the proportion of adolescents and young adults with Chlamydia trachomatis infections.

• Increase the proportion of sexually active females ages 24 years and under who are screened for genital Chlamydia infections during the measurement year.

• Reduce the proportion of females ages 15 to 44 years who have ever required treatment for pelvic inflammatory disease (PID).

• Reduce the proportion of young adults with genital herpes infection due to herpes simplex type 2.

• Reduce the number of new HIV diagnoses and infections among adolescents and adults.

293 Youth Risk Behavior Surveillance, United States 2011, Youth Online: High School YRBS.

294 National Campaign to Prevent Teen Pregnancy, The Sexual Behavior of Young Adolescents Fact Sheet: http://www.thenationalcampaign.org/resources/pdf/ss/ss3_YoungAdols.pdf.

295 Ibid.


298 Ibid.


300 Ibid.

301 Ibid.

302 Ibid.


304 Ibid.

• Reduce the rate of HIV transmission among adolescents and adults.
• Reduce the number of new AIDS cases among adolescents and adults.
• Increase the proportion of HIV-infected adolescents and adults who receive HIV care and treatment consistent with current standards.
• Increase the proportion of sexually active persons who use condoms.

**Seattle Children’s assets and strengths**

• Children’s holds a weekly clinic at Youth Care’s Orion Center, a multi-service facility open to homeless youth ages 13 to 22 that provides a range of services, from meals to case management.
• Children’s acts as a medical resource for Ryther Child Center, a 24/7 treatment facility for children ages 6 to 12 with significant histories of abuse and neglect and resultant behavioral and emotional challenges. Ryther brings children to Children’s for STD screening and testing, as well as general healthcare needs.
• Children’s provides medical coverage at Seattle Children’s Home, an organization that serves the mental health needs of children and their families throughout Seattle, King County and Washington state.
• Doctors, nurses and other staff regularly speak in schools and community settings on adolescent sexual health for males and females. The *For Boys Only: The Joys and Challenges of Growing Up* and *For Girls Only: A Heart-to-Heart Talk on Growing Up* classes, taught by experts in adolescent medicine and sponsored by Children’s, teach thousands of youth each year about body changes, puberty, sexuality and social issues.

**Substance and tobacco use**

Alcohol is used by more young people in the United States than tobacco or illicit drugs. Among youth, alcohol use has been linked to unintentional injuries, physical fights, academic and occupational problems, and illegal behavior. Almost 10% of Washington state youth ages 12 to 17 smoke tobacco.

• Since 2008, there are 11,000 fewer youth drinking alcohol in Washington state.
• In 2010, 16% of 10th graders and 19% of 12th graders reported being drunk or high at school in the past year.
• Since 1990, 8th graders are drinking less: from 29% to 14% in 2010.
• About 22% of 10th graders and 23% of 12th graders rode in a vehicle with a driver who had been drinking. 7% of 10th graders and 12% of 12th graders drove after drinking.
• In 2010, 8% of 12th graders abused prescription drugs (down from 12% in 2008).
• In 2010, 12.7% of 10th graders and 19.6% of 12th graders reported cigarette use in the past 30 days, similar to the smoking rate in 2008 (14.4% and 20% respectively).
• More than 15,000 students (including 1 in 4 12th graders) used cigarettes or other tobacco products in the past month.

*(See Appendix, Figure 70: Percent of Public School Students Who Used Tobacco in the Past 30 Days, By Grade, King County, 2010; Figure 71: Current Youth Cigarette Smoking by Grade, Washington State, 2010; Figure 72: Current Youth Cigarette Smoking by Grade and Figure 73: Illicit Drug Use by Washington 10th Graders, 2008.)*

**Recommended strategies**

**Healthy People 2020**

Binge drinking is one of the 21 National Critical Health Objectives for Adolescents and Young

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309 Ibid.
310 Ibid.
311 Ibid.
312 Ibid.
313 Ibid.
Adults. The Healthy People 2020 objective is to decrease binge drinking among 12- to 17-year-olds in the past 30 days to no more than 2%

Tobacco use is also one of the 21 National Critical Health Objectives for Adolescents and Young Adults. The Healthy People 2020 objective is to reduce current smoking in grades nine through 12 to no more than 16%. Additional related Healthy People 2020 objectives related to illegal drug, alcohol and tobacco use are:

- Reduce the proportion of adolescents who have been offered, sold or given an illegal drug on school property.
- Increase the proportion of adolescents never using substances and who disapprove of substance abuse.
- Increase the proportion of adolescents who perceive great risk associated with substance abuse.
- Reduce tobacco use, steroid use and inhalant use among adolescents.
- Reduce the past-year nonmedical use of prescription drugs.
- Reduce the initiation of tobacco use among children, adolescents and young adults.
- Increase smoking cessation attempts by adolescent smokers.

**Community assets and strengths**

**Prevention WINS Coalition**

Through a Drug Free Communities grant from the Substance Abuse and Mental Health Services Administration, the Prevention WINS Coalition, in partnership with Children’s, is working to reduce alcohol and marijuana use among students at Eckstein Middle School and Roosevelt and Nathan Hale High Schools in Seattle. Strategies include:

- Alcohol purchase surveys to reduce retail sales of alcohol to minors.
- A social norms marketing campaign reflecting the true anti-drug norms among parents in northeast Seattle.
- Legislative advocacy to ensure that current and proposed laws and policies support healthy and safe youth development.

The Prevention WINS Coalition has implemented the following prevention programs and strategies:

- Guiding Good Choices parenting workshops offered in partnership with University Family YMCA, Seattle Children's and Seattle Public Schools.
- Life Skills Training curriculum put into practice at Eckstein Middle School.
- Drug Free Homes Parent Pledge and Parent Resource Guide distributed to Eckstein Middle School parents/guardians.
- Enforcement & Consequences Roundtable: During these regular meetings, representatives from the Seattle Police Department, Seattle City Attorney’s Office, King County Juvenile Court Services, Washington State Liquor Control Board, and others who work with law enforcement work on how to improve communication and cooperation.

Prevention Wins is in part credited with a greater than expected decrease of underage drinking in northeast Seattle.

**Country Doctor Homeless Teen Clinic**

Since the 1970s, Country Doctor has provided medical and social services to street-involved youth ages 12 to 23.

**New Traditions**

New Traditions is a Seattle-based nonprofit organization that works with low-income women and mothers to prevent chemical dependency.

**Auburn Youth Resources (AYR)**

AYR is a private, nonprofit organization that focuses on drug abuse prevention, intervention and treatment.

**YouthCare**

YouthCare has been working for nearly 40 years with Seattle's homeless youth, many of whom struggle with drug and alcohol addiction.
Collaborative School-based Mental Health and Substance Abuse Services Project

Children’s and Eckstein Middle School have partnered to provide a full-time chemical dependency counselor who screens for substance use, provides brief intervention and year-long educational offerings for family and students. The project is funded by a Mental Illness and Drug Dependency grant from King County.

Seattle Children’s assets and strengths

Adolescent Substance Abuse Program

This Children’s outpatient clinic cares for teens and young adults up to 20 years old who use alcohol, drugs, tobacco or other substances in ways that are harmful to their health. It partners with Children’s Psychiatry and Behavioral Medicine program, Harborview Medical Center’s substance abuse program and the Washington Department of Social and Health Services’ Division of Alcohol and Substance Abuse.

Healthcare of LGBTQ youth

Several organizations recommend that preventive healthcare visits for all adolescents include private, confidential and nonjudgmental discussions of sexuality and sexual orientation. Despite these recommendations, studies consistently demonstrate low rates of disclosure of sexual orientation to providers, primarily because providers simply do not ask. Most physicians do not regularly discuss sex, sexuality or sexual orientation with adolescent patients. In general, LGBTQ adolescents will not initiate a discussion about sexual orientation with their providers.

Recommended strategies

Healthy People 2020

Sexual orientation is included in 19 Healthy People 2020 objectives spanning 13 focus areas, including access to care, educational programs, family planning, HIV, immunization and infectious disease, injury and violence prevention, mental health and mental disorders, sexually transmitted diseases, nutrition, substance abuse and tobacco use. Healthy People 2020 objectives include:

- Increase the number of population-based data systems used to monitor Healthy People 2020 objectives that include in their core a standardized set of questions that identify lesbian, gay, transgender and bisexual populations.
- Increase the number of population-based data systems used to monitor Healthy People 2020 objectives that include in their core a standardized set of questions that identify transgender populations.


The AAP “Office Practice Guidelines” state that physicians are responsible for ensuring a safe and supportive environment and offering comprehensive healthcare to all adolescents. This includes appropriate medical care and anticipatory guidance, connecting the adolescent to appropriate community support services, assuring the patient of his or her confidentiality, and offering additional screening and education as indicated for each adolescent’s sexual activity.

Seattle Children’s assets and strengths

The following Seattle Children’s departments and materials provide support to LGBTQ youth and their families:

- Adolescent Medicine
- Psychiatry and Behavioral Medicine
- Teenology 101 (blog)
- Sexual Attraction and Orientation (for youth)
- Sexual Attraction and Orientation (for parents)

Community assets and strengths
The following are some of the community organizations that provide support to LGBTQ youth and their families:

- **The Youth Suicide Prevention Program** is a private, nonprofit organization dedicated to reducing youth suicide attempts and deaths in Washington state.

- **The Trevor Project** is dedicated to ending suicide among LGBTQ youth. It offers a nationwide 24/7 crisis-intervention lifeline, and guidance and resources for youth, parents and educators.

- **www.StopBullying.gov** provides information on how kids, teens, young adults, parents, educators and others in the community can recognize and prevent or stop bullying.

- **The It Gets Better Project** was created to reach out to and support LGBT youth who are being bullied, let them know they are not alone, and reassure them that if they are able to get through this tough time, it will get better.

- **Gay-Straight Alliance (GSA) Network** empowers youth activists to help fight school discrimination, harassment and violence related to sexual orientation and gender identity.

- **YouthCare** provides a wide range of services to homeless youth in Seattle including outreach, basic services, emergency shelter, housing, counseling, education and employment training.

Immunizations
Immunizations for healthy children and adults provide protection to the person receiving them and to children who are too young, have special health care needs or who are immunocompromised and may not be able to receive vaccinations. Children who receive their first immunizations after three months of age are more likely to remain under-immunized by 24 months. Many children remain unprotected until they receive vaccinations required for school entry. This leaves infants and toddlers unprotected when they are at greater risk for complications from vaccine-preventable diseases. In the National Immunization Survey, lower immunization rates occur among children with family incomes that are categorized as negative/poor, near poor/low, and middle compared to children with family incomes that are categorized as high.

- There is a high number of parents in Washington state who are vaccine hesitant. The 2009-10 school entry exemption rate (6.2%) doubled over the past 10 years and was the highest in the nation. Some counties experience greater than 10% exemption rates.

- Outbreaks of vaccine-preventable disease are often traced to susceptible children whose parents have claimed an exemption from school or child care immunization regulations.

- Providers report that they lack adequate knowledge and resources to address parental concerns and want tools to help them communicate with parents.

- Washington state rates for the 4:3:1:3:3:1 vaccination series is 66% among children 19 to 35 months old (lower than the national rate of 76%). The Healthy People 2020 objective for this vaccination series is 80%.

- Immunization rates in school-age children have declined over the past eight years. Contributing to this decline may be growing

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anti-immunization sentiment as well as additional vaccine requirements.\textsuperscript{324}

**Vaccine hesitancy and provider needs**

A 2009 survey of vaccine-hesitant Washington mothers showed that they are influenced by high-profile anti-vaccine messages that present misinformation about vaccine dangers. The survey also showed that parents want open discussion with their providers about the pros and cons of vaccines and that they felt providers lacked the latest research on immunizations and seemed unprepared or unwilling to respond to their questions.\textsuperscript{325}

Healthcare providers across the state report a growing number of parents are hesitant to fully vaccinate. Negotiating or delaying an infant’s immunization schedule is fast becoming more common behavior.\textsuperscript{326} Providers report that they lack adequate knowledge and resources to address parental concerns, are limited by time constraints, and want tools to help them communicate more effectively with parents.\textsuperscript{327} In focus groups conducted with parents who had fully vaccinated their children, findings suggest parents who immunize their children, when educated about community immunity and local immunization rates, become concerned about others opting out.\textsuperscript{328}

**Recommended strategies**

- Encourage healthcare providers to solicit questions, build trusting relationships and provide educational materials to vaccine-hesitant parents.\textsuperscript{329}
- Continue support for an immunization registry. This gives providers a tool to support clinical decision-making for individual patients, and to provide community and statewide coverage data to drive interventions and support outbreak response.\textsuperscript{330}

(Continue to support Washington State Immunization Information System – formerly CHILD Profile.)\textsuperscript{331, 332, 333}

- Target communication and social marketing to make “the right immunizations at the right time” a cultural norm.\textsuperscript{334}
- Develop clinic and community assessments to measure rates, provide feedback and promote best practices.\textsuperscript{335}
- Tighten exemption requirements in schools and child care centers.\textsuperscript{336}

**Healthy People 2020**\textsuperscript{337}

Health People 2020 objectives related to vaccination/immunization include:

- Reduce, eliminate or maintain elimination of cases of vaccine-preventable diseases.
- Achieve and maintain effective vaccination coverage levels for universally recommended vaccines among young children.
- Increase the proportion of children ages 19 to 35 months who receive the recommended doses of DTaP, polio, MMR, Hib, hepatitis B, varicella and PCV vaccines. Target: 80%.
- Increase routine vaccination coverage levels for adolescents:
  - One dose of tetanus-diphtheria-acellular pertussis (Tdap) booster vaccine by 13 to 15 years. Target: 80%.
  - Three doses human papillomavirus vaccine (HPV) for females by age 13 to 15 years. Target: 80%.
- Increase the proportion of children and adults who are vaccinated annually against seasonal influenza.

\textsuperscript{324} Ibid.
\textsuperscript{326} Ibid.
\textsuperscript{327} Ibid.
\textsuperscript{328} Vax Northwest (June 2010). Focus Group Data conducted by Porer Novelli. Unpublished data.
\textsuperscript{332} Immunization Action Coalition of Washington (2010). Seven essential components to achieving high immunization rates.
\textsuperscript{333} Ibid.
\textsuperscript{334} Ibid.
\textsuperscript{335} Ibid.
Community assets and strengths

Immunization Action Coalition of Washington

The Immunization Action Coalition of Washington works to increase immunization knowledge and rates in Washington state, including:

• Increasing and sustaining public awareness about the importance of immunizations across the life span in preventing disease, disability and death.
• Promoting optimal immunization of adults, teens and all children, especially those under 2 years old and in areas where there is most need based on current epidemiology.
• Assuring improved timely access to immunizations for infants, children, adolescents and adults.

VAX Northwest

VAX Northwest is a partnership of Seattle Children’s, Group Health Foundation, Within Reach, Community Pediatric Foundation of Washington and the Washington State Department of Health. The goal is to increase timely immunizations in children from birth to 24 months by:

• Addressing parental hesitancy by focusing on the provider-parent interaction by helping providers more effectively address parents’ immunization concerns.
• Reinforcing the pediatric care provider as the principle immunization resource for parents.
• Establishing a new social norm and parent advocates supporting full immunizations in target communities.

Seattle Children’s assets and strengths

Children’s provides expert consultation to state, national and international clinical guideline and immunization advisory committees. Children’s is working to extend best practice guidelines for tracking seasonal influenza and pneumococcal vaccinations in patients. We will also continue to provide expertise and leadership in developing clinical guidelines (at national and state levels) and in implementing community and provider education. Community education efforts include Seattle Mama Doc blog entries on immunization issues and fact sheets for families in target populations.

Children’s offers the influenza vaccination to any patient ever seen at Children’s and to adult household members free of charge.

Oral health

Rates of tooth decay in Washington state children are higher today than in 1994 and 2000. Significant oral health disparities exist for minority, low-income, non-English-speaking children, and children with special health care needs. These groups have the highest levels of dental disease and the lowest levels of access to preventive and restorative services. Tooth decay in children leads to an increase in missed school, pain, discomfort and difficulty with daily activities.

National

• Dental disease was called the “silent epidemic” by the U.S. Surgeon General in 2000, and it remains one of the most common diseases of childhood. It is five times as common as asthma and seven times more common than hay fever.

• Children and adolescents living in poverty are twice as likely to suffer from tooth decay as their more affluent peers, and their disease is more likely to go untreated.

• More than 51 million school hours are lost each year due to dental-related illness.

Washington

• Of Washington third graders, 58% have tooth decay in primary and permanent teeth.
• Nearly 40% of Washington children start kindergarten with tooth decay and nearly 15% have rampant decay.

338 Ibid.
339 Ibid.
• Children from low-income families are more likely to have more decay experience, rampant decay, and treatment needs than those from families with higher incomes.
• Children who are Hispanic and speak another language at home (especially Spanish) are second most likely to have more decay experience, rampant decay and treatment needs.

Dental care access
• Only 31% of King County children under 6 with Medicaid received any dental services in 2004. 341
• About 30% of Washington dentists are Medicaid providers, with the majority of them seeing only a small number of Medicaid patients annually. 342
• Two state mobile dental services help improve access to dental care in rural and underserved areas. 343
• There are about 62 safety-net dental clinics (including community health centers, free clinics, and Seattle–King County Public Health clinics) in the state. There are also 22 tribal dental clinics and 10 dental clinics in correctional facilities. 344

Recommended strategies

Healthy People 2020

Healthy People 2020 objectives related to dental care include:
• Reduce the proportion of children and adolescents who have dental cavity experience in their primary or permanent teeth and untreated dental decay.
• Increase the proportion of children and adolescents who have received dental sealants on their molar teeth.

• Increase the proportion of children, adolescents and adults who used the oral health care system in the past year.
• Increase the proportion of low-income children and adolescents who received any preventive dental service during the past year.
• Increase the proportion of school-based health centers with an oral health component.

Washington state oral health plan strategies 346

For individuals, families and caregivers:
• Provide information that is supportive of healthy lifestyle choices made at the home and community levels.
• Educate people about the links between oral and general health, and help them find and use dental care.

For system infrastructure:
• Share relevant populations’ oral health status information with decision makers.
• Increase the number of community groups and services related to oral health.
• Promote preventive activities, such as water fluoridation, sealants, fluorides, oral health education, tobacco cessation, healthy nutrition and oral-cancer screenings.
• Rebuild capacity in dental public health at the local, regional and state levels.
• Increase public-private partnerships to mobilize resources to sustain these strategies.

Community assets and strengths

Center for Pediatric Dentistry

The Center for Pediatric Dentistry is a partnership between Children's, the University of Washington School of Dentistry, Washington Dental Service and the Washington Dental Service Foundation. It serves the combined needs of Seattle Children’s Department of Dentistry and the University of Washington’s Department of Pediatric Dentistry. The patient base includes

341 Public Health Seattle & King County (February, 2008). Access to health care in King County for the uninsured, underinsured and Medicaid populations.
342 Ibid.
344 Ibid.
children across the state with a specific focus on children with special health care needs.

The four key areas of interest for the Center for Pediatric Dentistry are research, teaching, healthcare delivery systems and public policy/advocacy efforts.

The Center for Pediatric Dentistry conducts a variety of community outreach events that focus on the importance of early childhood oral health:

**Washington Dental Service (WDS)**

WDS is the state's leading dental benefits company. WDS created the Washington Dental Service Foundation, which works with partner organizations to develop programs and public policies to improve the oral health of Washington's residents.

**Washington State Department of Health, Oral Health Program**

This department works to prevent dental disease and promote good oral health among Washingtonians.

**Washington's ABCD Program**

This nationally recognized program is a partnership of dentists, educators, public health agencies, Medicaid representatives and philanthropic leaders working to better inform parents about oral health issues and to increase the number of dental offices prepared for and willing to care for Medicaid-eligible children under 6 years old.

**Seattle Children's assets and strengths**

Children's Department of Dentistry has three locations: The Center for Pediatric Dentistry, Odessa Brown Children's Clinic (OBCC) and the Dental Clinic at Seattle Children's. Through clinical outreach, community and provider education, Children's is increasing awareness about oral health issues and working to improve access to oral health services for low-income children and children with special health care needs.

**The Dental Surgery Center at the Center for Pediatric Dentistry at Magnuson Park**

The Dental Surgery Center is a day surgery center that provides dental and oral surgery and recovery for patients over 3 years old. Services include implants, biopsies, fracture and dislocation treatment, removal of impacted teeth and other minor surgeries. Housed in the Center for Pediatric Dentistry, the Dental Surgery Center has three operating rooms staffed and operated by Children's.

**Odessa Brown Children's Clinic Dental Clinic**

OBCC Dental Clinic offers dental exams, preventive services and treatment for children ages 12 months to 15 years, including exams for children in Head Start programs. Over 80% of patients treated at the OBCC Dental Clinic are covered under the state's Medicaid program. Some highlights of the OBCC Dental Clinic’s accomplishments include:

- OBCC produced a dental-care video, “Making Healthy Smiles for a Lifetime,” to help prepare parents for their child's first dental appointment. OBCC staff works with local Head Start and Early Childhood Education Centers, providing classroom education as well as staff and parent training upon request. Members of the OBCC dental staff serve on Health Advisory Committees for several Head Start or ECEAP programs in Seattle.

- The American Academy of Pediatric Dentistry and Head Start are partnering with dentists to provide Head Start children with dental homes. OBCC Serves 300 children through Seattle Public School Head Start programs and 400 in other Head Start programs.

- OBCC helps train medical healthcare providers to screen infants and children for early signs of poor oral health with the hope of preventing decay. As a result, these medical providers can play an integral role in improving the oral health of their patients.

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young patients. OBCC is a training site for the Access to Baby and Child Dentistry (ABCD) program, which conducts trainings for general dentists who wish to practice pediatric dentistry. Children’s medical students and pediatric residents attend Oral Health 101 at OBCC one day a year.

- OBCC is a member of the Dental Society Access Committee, the State of Washington Oral Health Plan and Oral Health Coalition and the Head Start Preschool Program Advisory Board.

**The Dental Clinic at Seattle Children's Hospital**

Children’s Dental Clinic on the main hospital campus sees patients referred from other hospital clinics such as Craniofacial, Autism, Hematology/Oncology and Transplant. It also sees urgent cases from Children’s Emergency Department. Some highlights of the clinic’s community education and outreach efforts include:

- Children’s is one of more than 132 members of the Watch Your Mouth Campaign, funded by the Washington Dental Foundation. This campaign works to raise awareness about children’s oral health by promoting these issues:
- Dental Camp is an oral health-career awareness program for middle-school-age youth from across the state. Target participants include racial and ethnic groups underrepresented in the oral health workforce, and students from under-resourced school districts. Program partners include Children’s, University of Washington’s School of Dentistry, Seattle Central Community College’s Dental Hygiene Program and Seattle Vocational Institute’s Dental Assisting Program.
- Children’s completed the Healthy Smiles Project (funded by the Washington Dental Service Foundation), to engage pediatricians and family physicians in providing oral health prevention services. Healthy Smiles increased access to oral health services in areas of great need.

- The SmileMobile, a three-chair dental office on wheels, brings dental services to children around the state. The mobile clinic has treated more than 25,000 children since 1995. The mobile is powered by a partnership between Children’s, Washington Dental Service and Washington Dental Service Foundation.

**Prematurity**

Preterm birth is now the leading cause of death in the first month of life and the second leading cause of death in children up to age 5 around the world. Even in the U.S., almost one in eight babies is born preterm — before 37 completed weeks of pregnancy. Prematurity rates among Blacks and Native Americans are nearly twice as high as those for Whites or Asian Americans. At $26 billion annually, preterm birth is a leading U.S. healthcare expenditure and the largest contribution to pediatric hospital-based expenses.

In addition to an increased risk of death in the neonatal period, prematurity is associated with short-term and long-term morbidity. Short-term medical problems faced by these infants include respiratory distress, necrotizing enterocolitis and increased risk of bacterial sepsis. Longer-term challenges include seizure disorders and brain damage, chronic lung diseases, learning disabilities and Attention Deficit Hyperactivity Disorder. Treatment of these long-term effects is a major contributor to the economic burden of health care.

While treatment of infants born prematurely has improved, a fundamental lack of knowledge of the causes and mechanisms of preterm birth inhibits the ability to develop interventions that will prevent it.

351 Ibid.
Washington State

In 2010, there were 8,572 preterm births in Washington state out of 86,480 total births. State costs related to prematurity exceeded $400 million in 2005 for medical care, delivery, and lost labor and productivity. This economic burden is shouldered by the government, businesses, communities and families and cannot reflect the personal suffering experienced by families.

Disparities persist for Black and Native American women who are more than twice as likely to deliver prematurely as Whites. Washington’s average rates of preterm birth vary by race and ethnicity: Native Americans (14.8%), Blacks (13.4%), Whites and Asian Americans (10.4%). The causes of preterm birth differ by ethnicity, environment and gestational age. Black infants born preterm are nearly twice as likely to die as White or Hispanic infants.

By maternal age, the highest preterm birth rates in the state are among the 45 to 49 (12.5%) and 15 to 17 (18.4%) age groups. Women on Medicaid who received cash assistance also had a significantly higher rate of singleton preterm delivery than other women (Medicaid and non-Medicaid).

King County

In 2010, there were 2,287 preterm births in King County out of a total of 24,514 births. Preliminary 2010 race/ethnicity rates show 10.78 per 100 live births in non-Hispanic Whites, 17.15 in non-Hispanic Blacks, 13.60 in the American Indian or Alaskan Native population, 10.69 in Asian or Pacific islanders and 11.79 in the Hispanic population. In a county report looking at causes of African American infant deaths from 2000-2002, 26% were due to prematurity compared to 17% for Non-Hispanic Whites.

There are also geographic differences within King County. Looking at 2003-2007 combined data, South King recorded 10% of live births before 37 weeks gestation, compared to 9% in East King. During the same time period, women receiving late or no prenatal care represented 6.6% of live births in South King compared to 3.1% in East King and 2.9% in North King.

Recommended strategies

Smoking cessation for all pregnant women and progesterone therapy for women with prior preterm deliveries are the two best studied interventions proven to prevent preterm birth. Additionally, a reduction in provider-initiated elective cesarean deliveries before 39 weeks would impact the rate of preterm births. The trend toward elective cesarean section deliveries contributes to preterm births, given the possibility of inaccurate dating. Assisted reproductive technology, or ART, (in vitro fertilization, ovulation induction, etc.) also contributes to preterm births by increasing the risk of having twins or higher-order multiples such as triplets. Limiting embryo transfers to a single embryo during IVF for most patients has been demonstrated to reduce the risks of a multiple pregnancy.

A commitment to biomedical research into the causes and mechanisms of preterm birth is essential to develop new strategies for prevention of preterm birth and improved care for the
preterm infant. The strength of local efforts lies in biomedical research, support of high-risk mothers and appropriate neonatal care for preterm babies.

**Healthy People 2020**

The Healthy People 2020 objective for the preterm birth rate was set at 11.4%, a 10% improvement from the 2007 rate of 12.7%.\(^{364}\) Although Washington state has already reached this goal, future work needs to address significant racial, geographic and socioeconomic disparities.

**Community assets and strengths**

**Equal Start Community Coalition**

This advocacy and service organization provides outreach workers to seek out women who would otherwise fall between the cracks of perinatal care. Members advocate for recognition of institutionalized racism as a factor in infant mortality.\(^{365}\)

**Public Health Seattle & King County**

The Public Health Department collects and evaluates state and county prematurity rates and supports data analysis by race/ethnicity, socioeconomic status and location.

**Open Arms Perinatal Services**

Open Arms Perinatal Services is a nonprofit organization that provides community-based support for women through pregnancy, birth and postpartum and up to two years after the baby is born. They provide services in 17 languages.

**University of Washington Division of Neonatology**

The Neonatal Perinatal Database within the University of Washington Division of Neonatology supports review of morbidity, mortality and trends over time. This data allows for longitudinal research, which could be used to educate and inform practices to reduce short and long-term morbidity.

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First Steps

First Steps offers a variety of services for low-income pregnant women and their infants, including:

- **Maternity Support Services:** education, nutritional counseling and case management for women at risk for poor infant outcomes due to socioeconomic status or other risk factors.
- **Infant Case Management:** available for high-risk women and infants.
- **The Nurse Family Partnership:** connects first-time mothers with registered nurses for the duration of the pregnancy and the first two years of the infant’s life.\(^{366}\)

**Seattle Children’s assets and strengths**

Children’s works to prevent prematurity and stillbirth through local, national and international initiatives including:

**Global Alliance to Prevent Prematurity and Stillbirth (GAPPS)**

An initiative of Seattle Children’s, GAPPS is dedicated to improving understanding of the causes of prematurity and stillbirth, as a foundation for developing successful prevention and treatment strategies.\(^{367}\) GAPPS is home to a large repository of specimens collected from a large and diverse group of pregnant women. These specimens are available to investigators worldwide who aim to understand the biological mechanisms of prematurity and stillbirth.\(^{368}\) GAPPS stewards the Preventing Preterm Birth initiative, a Grand Challenge in Global Health from the Bill & Melinda Gates Foundation, designed to unite the scientific community to combat and prevent prematurity. The Perinatal Interventions Program (PIP) will improve survival and reduce disability of newborns and mothers by standardizing the care of preterm infants and improving maternal conditions that lead to preterm birth, stillbirth and other life threatening and disabling conditions.

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365 Conversation with Maria Carlos Program Manager, Infant Mortality Prevention Program, Seattle, King County Public Health on March 19, 2012.


368 Ibid.
What the Community Tells Us: Gathering Community and Public Health Input

In keeping with Seattle Children’s mission, our community benefit priorities are guided not only by statistics, but by the communities and families we serve. Children’s CHNA team gathered information from community leaders representing a wide range of interests, with an emphasis on organizations with public health expertise. Families, community members and organizations shared their perspectives on key health and safety issues that impact children through an online survey, phone interviews and listening groups.

Online survey key findings

We gathered input from 74 community leaders representing 57 organizations through an online survey. Over half of the survey respondents selected poverty, mental health, obesity and lack of parent education as top health and safety issues in their communities:

- Poverty was identified by 65.7% in “select all top issues”; 37.9% in “choose two top issues”
- Mental health was chosen by 62.7% in “select all”; 22.7% in “choose two”
- Obesity was chosen by 55.2% in “select all”; 19.7% in “choose two”

*(See Appendix, Figure 79: Top Statewide Health Issue Concerns.)*

Opportunities for improvement

Stakeholders identified the following opportunities for improvement:

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**Children’s Center for Childhood Infections and Prematurity Research**

This research center investigates mechanisms of infection-related premature birth and the multidisciplinary factors that predispose women to preterm labor and delivery. 369

**Center for Developmental Therapeutics**

The center identifies and develops new drugs and treatments that will be safer and more effective for children. Its Neonatal Respiratory Support Technologies (NeoRest) team is developing affordable, easy-to-use and easy-to-maintain respiratory support solutions that can be used in developing countries. These include respiratory support devices such as the Hansen Ventilator and the bubble Sea-Pap, and artificial pulmonary surfactant (a surface-tension-lowering fluid that coats the inside of a patient’s lungs and permits efficient gas exchange). The team is also working to improve antenatal corticosteroids therapy, which accelerates lung development prior to birth in premature infants.

**High Risk Infant Follow-Up Clinic in Seattle Children’s Division of Developmental Medicine**

The High Risk Infant Follow-Up Clinic in Seattle Children’s Division of Developmental Medicine is a multidisciplinary clinic that follows children after discharge from the Neonatal Intensive Care Unit. Infants and children are seen at 4, 12, 24, 36 and 54 months and at 6 years and 8 years; 600 patients are seen each year. The clinic helps coordinate patient services and measures longitudinal outcome variables. The Division of Neonatology has focused research efforts on neurodevelopmental outcomes. 370

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In the community

- Educate parents, kids, community and healthcare providers
- Add community clinics and increase their hours
- Provide assistance for immigrants/refugees such as translations, explaining the healthcare system and culturally relevant services
- Provide mobile health units to serve schools and churches, for example

Seattle Children’s

- Education programs for teachers, health providers, parents and children
- Provide more services in schools (such as health clinics in high schools)
- Hold community outreach fairs to communicate about available resources and to make sure eligible children apply for Medicaid
- Improve communication with community organizations via website and listservs
- Create substance abuse programs for teens, possibly in a community setting (go to them)

Access to services and information

We presented a series of statements focused on family access to health services for children and teens. Respondents were asked to agree or disagree with each statement; options ranged from "strongly agree" to "strongly disagree." Participants could also choose to answer “not sure” and add their written comments.

A large number of participants responded that for children/teens, there is a lack of access to enough doctors who accept Medicaid and to pediatric specialists, mental health providers, dental care and emergency care.

*(See Appendix, Figure 80: Lack of Access to Pediatric Care.)

When respondents were asked to respond to the statement that it is easy to get information on how to be healthy and safe (Figure 81), 43% of participants “strongly disagreed” and “disagreed” with this statement.

*(See Appendix, Figure 81: Responses to “It is easy for children, adolescents and families to get information on how to be healthy and safe.”)

The final access statement addressed immunizations (Figure 82); 65% of respondents “agreed” and “strongly agreed” that it is easy to access immunizations for children and teens.

*(See Appendix, Figure 82: Responses to “It is easy to get immunizations and vaccinations for children and adolescents.”)

Possible solutions

The final four questions were open-ended. The first one asked what participants believed to be the largest barrier or challenge to accessing healthcare for children, adolescents and families. Some of the key ideas that emerged include:

- Poverty
- Lack of Medicaid coverage/high cost without obtaining coverage
- Language issues
- Lack of culturally sensitive programs
- Not understanding how to access healthcare/healthcare system is complex
- Parents don’t know where to find resources
- Lack of transportation
- Appointments conflict with parents’ work schedules
- High mobility of families/not having a medical home

The next question asked for ideas about what could be done in the community to benefit children or adolescents with chronic conditions or special health care needs. The answers centered around these themes:

- Increase coverage for kids that receive care through Medicaid
- Develop more low-cost or free community clinics
- Provide effective patient care coordinators to link community resources, the health facility and the family
- Educate parents about available resources
- Offer transportation or pay for gas costs
- Educate the community about chronic conditions to reduce stigmatization
- Develop student leaders to serve as peer educators
- Develop obesity prevention programs
- Provide safe places to be physically active
- Increase primary care clinic hours of operation
- Help educate immigrant families about the healthcare system
- Educate parents, teens and children about how to prevent chronic diseases
- Have mobile healthcare units visit neighborhoods and schools
- Improve communication between providers, families and schools
- Ensure that children are enrolled in health insurance programs
- Enhance and develop culturally relevant care
- Offer resources in languages in addition to English

The final two questions addressed what Seattle Children’s can do to make children and families healthier. First, respondents offered ideas for possible hospital partnerships:

- Primary care facilities
- Local businesses to give discounts for safety items such as bike helmets
- Organizations that serve sexual, racial and ethnic minority children to develop trainings for physicians about how to better help these children
- Community organizations to get materials out to communities that currently are unaware of the resources, including immigrants and economically challenged families
- Develop sex education programs
- School nurses
- Community centers, schools and churches to bring providers into the community through mobile healthcare
- Sponsor and attend community outreach fairs
- Local media organizations to develop media campaigns to educate the community about health issues
- School districts, especially regarding mental health, immunizations, dental care and educating parents about how to access resources

Finally, respondents were asked what Seattle Children’s can do to address the top health concerns. The answers can be grouped into several shared themes:

- Enhance culturally relevant programs, including more translated materials
- Develop better communication with primary care clinics, focusing on better follow-up, updates and records
- Develop parent education programs about resource access and how to prevent chronic disease
- Provide more support groups for parents of children with special health concerns
- Participate more in the community through partnerships with organizations and nonprofits
- Expand services into rural areas of Washington
- Collaborate with schools to give families consistent information
- Develop programs to education children about the importance of good nutrition and physical activity
- Make the Seattle Children’s website easier to use for community organizations, healthcare facilities and families
• Emphasize not only the child’s health but also the parent’s health
• Offer free immunizations around Washington
• Expand youth substance abuse prevention, intervention and treatment services

Interview key findings

Public health experts and community leaders expanded on important health and safety issues identified in the survey through a series of telephone interviews. We asked participants what is needed to improve health and quality of life for children and families, and what Children’s can do to address unmet needs. Nine themes emerged from these interviews:
• Poverty is a barrier to good health.
• Access to services can be a challenge.
• Communication between providers, schools and families is often inadequate.
• Rural and South King County are underserved geographic areas.
• Obesity is a major health concern.
• Mental health care is limited.
• Parents have many questions about their child’s health.
• Adolescents lack services, both perceived and real.
• Refugees and immigrant families are especially underserved.

Barriers to accessing healthcare

All interviewees suggested that poverty played a major role in families’ ability to access services. For example, many healthcare providers do not accept new children on Medicaid, and this limits the types and range of services a child can receive. Poverty is also associated with obesity, poor housing, stress, limited transportation and unsafe neighborhoods, all of which can directly and indirectly impact children’s health. Parents in low-income households may be working several jobs both day and night, limiting their ability to bring children to clinic appointments. Many interviewees said children of families with incomes just above the poverty level (“the working poor”) are at a significant disadvantage because they don’t qualify for many social safety-net programs. One individual stated, “Many of the key health and safety problems stem from the conditions the families live in; there is not much the health centers can do in that sense.”

Related to poverty is access to needed health services. One concern is that families are priced out of necessary services, especially those not covered by Medicaid. For families without employer-based insurance, there are many restrictions on coverage, and they cannot afford to pay out-of-pocket for additional services. In some situations, the perceived cost discourages families from seeking care. In some areas of Washington, healthcare services (such as mental health) are not available.

Another barrier to access is the distance between available health services and the families who need them. Many families struggle with transportation to clinics, especially in low-income neighborhoods, South King County and rural Washington. The public transportation system can be unreliable, inconvenient or difficult to understand.

A need for better communication pathways and care coordination

Several interviewees mentioned the need for improved communication between various providers, parents and schools, saying that community organizations don’t know about all of the services available. Since these organizations generally disseminate health information to the community, families may be uninformed. Those interviewed also mentioned a need for improved communication between community clinics and Seattle Children’s; several referred to “silos” (working in isolation).
both within Seattle Children’s and between the hospital and other organizations. Several people interviewed said it was difficult for families to manage their children’s health history records since so many children lack a primary care provider.

South King County and rural Washington are considered notably underserved geographic locations. According to one interviewee, there is no health center in Tukwila, so residents must travel to SeaTac, Renton or White Center for health services. Both South King County and rural Washington have limited public transportation options, making it difficult to get to appointments. Interviewees also noted safety concerns related to limited transportation; one interviewee stated, “Many young people must walk one to two miles to school or take Metro; there are a variety of safety issues there.”

Obesity is a shared concern
Most interviewees were concerned about widespread obesity, noting factors contributing to this problem such as unhealthy foods in schools, limited school-based physical education, neighborhoods that are not conducive to physical activity, a lack of healthy foods in local stores, and the high cost of sports and recreation opportunities. A related concern is that families and children need information, support and skills related to eating healthy foods and being physically active.

Access to mental health services is lacking
Mental health care was frequently mentioned as either insufficient or nonexistent. Mental health services are not locally available, cost too much money or are difficult to find. In addition, mental health services may not be culturally relevant for many populations. Several interviewees mentioned that individuals do not seek mental health services because of the stigma associated with mental illness.

Parent health education lacking
Another concern for interviewees is that parents don’t have the information and education they need about their child’s health. Parents face challenges with navigating the healthcare system. One interviewee said that parents aren’t sure when to go to urgent care, primary care or the dentist. Parents also are unaware of available healthcare services. There is a healthcare knowledge gap between what researchers and professionals know, and what families receive. Several interviewees expressed the need for new parent-education programs, especially those focused on how to prevent chronic disease and navigate the healthcare system, as well as those that teach skills like healthy cooking.

Several interviewees focused on the health needs of adolescents. Specifically, they were concerned about LGBTQ, racial minority and homeless youth. Cost and prior bad experiences with doctors are barriers to youth accessing available healthcare services. Other areas of concern include treatment for chemical abuse and mental health issues. They felt like some unique health concerns facing teens are not currently being addressed, including unsafe relationships, unsafe sex, bullying, low self-esteem and physical violence.

Refugee and immigrant populations at risk
Most interviewees expressed concern for the health of refugee, immigrant and non-English speaking families. While all families face challenges in navigating the healthcare system, families who do not speak English have significantly more difficulty. This is magnified when they come from countries where there are very few health services. Information about available services is not reaching refugee and immigrant communities, and culturally relevant services are lacking.

Many immigrant groups don’t have mental health services in their home countries and are unfamiliar with the concept, and some cultures
view mental health differently. Some immigrant groups, especially undocumented individuals, are afraid to seek out services. Families either believe their child needs to be a U.S. citizen to receive care, or they’re worried about being reported to immigration. In general, immigrant and refugee families lack culturally relevant services and interpreted materials.

**Listening group key findings**

Parent listening groups helped us better understand current health and safety issues for children and teens in our communities. Seven themes emerged from these groups:

- Mental health services are difficult to find
- Parent education is inadequate
- Grandparents lack resources to be caregivers
- Providers sometimes don’t accept Medicaid
- High cost of recreational activities is prohibitive
- Limited English skills are a barrier for seeking health services
- Junk food is easily available outside the home

**English-Speaking parent listening group key findings**

This group’s primary concerns were access to mental health services and parent education. One parent recalled a situation when she needed to find mental health services for her son. While she did have employer-based insurance, the process of finding a mental health provider to meet her son’s needs was complicated and time consuming. She felt the situation would be exacerbated if her family did not have insurance, or if their insurance did not have mental health coverage.

Parent/caregiver education was another concern for parents who feel information is not readily available to them about how to keep their children safe and healthy. They said they had to search extensively to obtain relevant information and it was hard to identify good sources of information on the Internet.

These parents were concerned about grandparents as caregivers, saying there are few resources geared toward grandparents. Parents felt that grandparents tend to use “outdated information” and are reluctant to change, despite updated guidelines. This parent group said their children do have access to areas in which be physically active, healthy foods and safety items such as car seats.

This group expressed concerns about these health and safety issues in their communities:

- Lack of healthy food at schools
- Distracted driving
- Allergies and food allergies
- Grandparents as caregivers
- Immunizations/community immunity
- Bullying
- Healthcare access
  - Mental health services not covered by insurance
  - Providers not accepting Medicaid and not paying for interpreters
  - Lack of a helpful nurse advice line

**Spanish-speaking parent listening group key findings**

This group echoed the English-speaking parents’ concern about lack of health information. They said language was a barrier in obtaining information about how to keep their children safe and healthy. These parents also said it was unclear to them what services are available for individuals who are not U.S. citizens. Citizen status was a perceived barrier for a wide range of services and activities.

Several parents also expressed concern about the law that limits visits to the emergency room for children with Medicaid. Recreation and sports activity costs are also prohibitive for these families.
We will also be sustaining four other community benefit programs:

- Adolescent Health
- Injury Prevention (intentional and unintentional)
- Services for Children with Special Needs
- Parent/Family Education and Resources

We will continue to encourage community benefit programs at all levels of the organization. We developed a framework to help us make progress on our community benefit priorities, so that they are:

- Linked to Seattle Children’s mission, vision, strategic plan and Continuous Improvement philosophy
- Accomplished through strategic partnerships
- Focused on addressing health disparities and identified gaps (geographic, population, literacy and topic specific)
- Integrated into our clinical care, community programs, research and education
- Meant to empower children, teens, families, healthcare providers, communities and the government
- Set to optimize our role as advocates, educators and experts

These priorities have been approved by the board of trustees (the ultimate governing board of the organization) and will be incorporated into the hospital’s operating and strategic initiatives.

As we conclude the CHNA process, we are now drafting our community benefit implementation plan (CBIP). The CBIP will include a definition of the priority community benefit areas, a plan for addressing them, metrics to track progress, and an explanation of why the hospital will not be addressing other identified needs.
Seattle Children’s 2013-2016 Community Benefit Priorities

**Value Statement:** Ensure patients have exceptional service and equal access to high quality care while addressing identified child health needs in the community

**Framing Guidelines**

<table>
<thead>
<tr>
<th>Accomplished through:</th>
<th>Focused on:</th>
<th>Integrated in:</th>
<th>Linked to:</th>
<th>Meant to empower:</th>
<th>Set to optimize our role as:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Partnerships</td>
<td>Addressing health disparities and identified gaps (geographic, population and topic-specific)</td>
<td>Clinical Care Community programs Research Education</td>
<td>Mission Vision Strategic Plan CPI Philosophy</td>
<td>Children Teens Families Healthcare providers Communities Government</td>
<td>Advocates Educators Experts</td>
</tr>
</tbody>
</table>

**Community Benefit Priorities**

- Access to High Quality Healthcare
- Coordinated Care for Children and Teens with Chronic Conditions
- Health Equity and Access in South King County
- Obesity
- Mental and Behavioral Health

**Sustained Community Benefit Programs**

- Adolescent Health
- Injury Prevention Intentional and Unintentional
- Programs and Services for Children with Special Needs
- Parent and Family Education and Resources
Acknowledgements

Our thanks to the many people and community partners who made this report possible. They include:

Asian Counseling and Referral Service (ACRS)
Auburn Food Bank
Auburn Head Start
Bellevue Schools Foundation
Benton-Franklin Health District
Catholic Community Services of Western Washington
Center for Pediatric Dentistry
Children’s Alliance
Community Schools Collaboration
Country Doctor Community Health Centers
Foundation for Early Learning
Girls on the Run of Puget Sound
Harborview Injury Prevention and Research Center
Harborview Medical Center Pediatric Clinic, Injury Center
Human Services Council
International Community Health Services (ICHS)
Julia Acheson, Parent
Madison Middle School, Seattle Public Schools
Meredith Mathews YMCA
Muckleshoot Indian Tribe
Native American Women’s Dialog on Infant Mortality
Northwest Harvest
Northwest Immigrant Rights Project
Olga Owens, Parent
Parent Trust for Washington Children
ParentMap
Pediatric Clinics at Harborview Medical Center
People for People
Prevention Works in Seattle
Program for Early Parent Support (PEPS)
Public Health - Seattle & King County
Renton School District
Ryan Educational Resources
Safe Kids Washington
Safe Schools Coalition
Sarah Wandler, MSW
Sea Mar Community Health Centers
Seattle Indian Health Board
Seattle Parks and Recreation
Seattle School District
Seattle Women’s Commission
Seattle Young People’s Project
Somali Community Services Coalition
Teen Feed
The American Indian Health Commission for Washington State
University Congregational United Church of Christ
University of Washington
UW Institute of Translational Health Sciences
Washington Dental Service Foundation
Washington State Department of Health
Washington State University Extension 4-H Youth Development Program
Wellspring Family Services
WithinReach
Yakama Nation Women, Infant, Children Program
Yakima Valley Farm Workers Clinic
Yakima Valley Memorial Hospital
YMCA of Greater Seattle
Youth in Focus
YouthCare
Appendix: Figures, Graphs and Charts

CHNA Methodology

Figure 1: Seattle Children’s Community Health Needs Assessment Development Process

- Compile Secondary Data
- Gather Primary Data
- Determine Priorities
- Community Health Needs Assessment
- Develop Implementation Strategy
- Implement Evaluate
- Publish CHNA Report

Figure 2: The Social-Ecological Model

- Societal
- Community
- Relationship
- Individual

Figure 3: The Spectrum of Prevention

- Influencing Policy and Legislation
- Changing Organizational Practices
- Fostering Coalitions and Networks
- Educating Providers
- Promoting Community Education
- Strengthening Individual Knowledge and Skills

## Socioeconomic Indicators

### Age

#### Figure 4: Number of Children in the WAMI Region

<table>
<thead>
<tr>
<th>State</th>
<th>% Children Under 20</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washington</td>
<td>26.7%</td>
<td>1,721,457</td>
</tr>
<tr>
<td>Alaska</td>
<td>29.3%</td>
<td>207,840</td>
</tr>
<tr>
<td>Montana</td>
<td>25.3%</td>
<td>251,036</td>
</tr>
<tr>
<td>Idaho</td>
<td>30.4%</td>
<td>475,281</td>
</tr>
</tbody>
</table>

#### Figure 5: Washington State Age Demographics 2010

*South King represents the average of the following cities: Auburn, Burien, Covington, Des Moines, Federal Way, Kent, Renton, SeaTac and Tukwila*
Race and Ethnicity

Figure 7: Race/Ethnicity: Washington, King County and South King County 2010

<table>
<thead>
<tr>
<th>Geographic Area</th>
<th>% White</th>
<th>% Black</th>
<th>% AI/AN</th>
<th>% Asian</th>
<th>% Native Hawaiian/OPI</th>
<th>Other Race</th>
<th>% Hispanic or Latino</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>74.8</td>
<td>13.6</td>
<td>1.7</td>
<td>5.6</td>
<td>0.4</td>
<td>7.0</td>
<td>16.3</td>
</tr>
<tr>
<td>Washington State</td>
<td>81.4</td>
<td>4.8</td>
<td>3.0</td>
<td>9.0</td>
<td>1.0</td>
<td>6.0</td>
<td>11.2</td>
</tr>
<tr>
<td>King County</td>
<td>72.9</td>
<td>7.7</td>
<td>2.0</td>
<td>17.1</td>
<td>1.2</td>
<td>4.7</td>
<td>8.9</td>
</tr>
<tr>
<td>Seattle</td>
<td>73.9</td>
<td>9.5</td>
<td>2.1</td>
<td>16.5</td>
<td>0.8</td>
<td>3.0</td>
<td>6.6</td>
</tr>
<tr>
<td>South King County</td>
<td>62.5</td>
<td>12.1</td>
<td>2.8</td>
<td>16.0</td>
<td>2.7</td>
<td>9.3</td>
<td>15.8</td>
</tr>
</tbody>
</table>

Figure 8: Race/Ethnicity South King County Cities: 2010

<table>
<thead>
<tr>
<th>Geographic Area</th>
<th>% White</th>
<th>% Black</th>
<th>% AI/AN</th>
<th>% Asian</th>
<th>% Native Hawaiian/OPI</th>
<th>Other Race</th>
<th>% Hispanic or Latino</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auburn</td>
<td>75.0</td>
<td>6.7</td>
<td>3.8</td>
<td>10.9</td>
<td>2.3</td>
<td>7.2</td>
<td>12.9</td>
</tr>
<tr>
<td>Burien</td>
<td>68.4</td>
<td>7.7</td>
<td>3.3</td>
<td>12.1</td>
<td>2.5</td>
<td>12.8</td>
<td>20.7</td>
</tr>
<tr>
<td>Covington</td>
<td>81.3</td>
<td>5.9</td>
<td>2.4</td>
<td>11.1</td>
<td>1.1</td>
<td>4.8</td>
<td>9.3</td>
</tr>
<tr>
<td>Des Moines</td>
<td>68.1</td>
<td>10.9</td>
<td>2.5</td>
<td>12.9</td>
<td>3.1</td>
<td>8.8</td>
<td>13.1</td>
</tr>
<tr>
<td>Federal Way</td>
<td>62.9</td>
<td>12.4</td>
<td>2.5</td>
<td>16.8</td>
<td>3.6</td>
<td>9.5</td>
<td>16.2</td>
</tr>
<tr>
<td>Kent</td>
<td>60.9</td>
<td>13.7</td>
<td>2.6</td>
<td>17.7</td>
<td>2.7</td>
<td>9.7</td>
<td>16.6</td>
</tr>
<tr>
<td>Renton</td>
<td>59.4</td>
<td>12.9</td>
<td>1.9</td>
<td>23.8</td>
<td>1.3</td>
<td>7.3</td>
<td>13.1</td>
</tr>
<tr>
<td>SeaTac</td>
<td>50.7</td>
<td>18.7</td>
<td>3.1</td>
<td>16.9</td>
<td>4.3</td>
<td>13.0</td>
<td>20.3</td>
</tr>
<tr>
<td>Tukwila</td>
<td>48.3</td>
<td>20.2</td>
<td>2.8</td>
<td>21.3</td>
<td>3.5</td>
<td>10.6</td>
<td>17.5</td>
</tr>
</tbody>
</table>

Figure 9: Foreign-Born and Language Other Than English National, Washington State, King County and South King County Cities, 2005-2010

<table>
<thead>
<tr>
<th>Geographic Area</th>
<th>% Foreign-born</th>
<th>% Speak language other than English at home</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Washington State</td>
<td></td>
<td></td>
</tr>
<tr>
<td>King County</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auburn</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burien</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Covington</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Des Moines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal Way</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Renton</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SeaTac</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seattle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tukwila</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

377 Ibid.
378 U.S. Census Bureau, 2006-2010 American Community Survey.
Figure 10: Minority Population Growth 2000-2010, South King County Cities

Figure 11: Percent Speak Language Other than English at Home, by Census Tract, with Cities

Percent Speak Language Other Than English at Home by Census Tract, with Cities, King County, Washington, 5-year Average 2006-2010

Legend
- King County border
- Cities
- Water

Percent Population Ages 5+
- 0% - 13.6%
- 13.7% - 22.8%
- 22.9% - 32.5%
- 32.6% - 45.8%
- 45.9% - 70%

Data Source: US Census Bureau, 2006-2010 American Community Survey
Produced by: Public Health - Seattle & King County; Assessment, Policy Development & Evaluation Unit, 6/26/2012

Poverty

Figure 12: Children Living in Poverty in the State of Washington, 2006 to 2010

Figure 13: Children Living in Extreme Poverty* in the State of Washington

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage</td>
<td>6.6%</td>
<td>6.5%</td>
<td>6.7%</td>
<td>7.1%</td>
</tr>
<tr>
<td>Number</td>
<td>99,179</td>
<td>97,960</td>
<td>102,356</td>
<td>109,144</td>
</tr>
</tbody>
</table>

*Extreme poverty indicates those with incomes less than 50% of the federal poverty level.

Figure 14: Washington Children in Poverty by Race (average of 2008-2010)

<table>
<thead>
<tr>
<th>Race</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>6.6%</td>
</tr>
<tr>
<td>Two or More Races</td>
<td>7.4%</td>
</tr>
<tr>
<td>Total</td>
<td>7.5%</td>
</tr>
<tr>
<td>Some Other Race</td>
<td>7.5%</td>
</tr>
<tr>
<td>Non-Hispanic White</td>
<td>7.5%</td>
</tr>
<tr>
<td>Non-Hispanic Native Hawaiian and Other Pacific Islander</td>
<td>7.5%</td>
</tr>
<tr>
<td>Non-Hispanic Black</td>
<td>7.5%</td>
</tr>
<tr>
<td>Asian</td>
<td>4.5%</td>
</tr>
<tr>
<td>Non-Hispanic American Indian and Alaska Native</td>
<td>4.5%</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>4.5%</td>
</tr>
</tbody>
</table>

382 Ibid.
Figure 15: Children Living Under Poverty Level in King County (by Race/Ethnicity)

Children (birth to 17 years of age), living in households with income below the Federal Poverty Level by Race and Ethnicity, King County, 2006-2010

<table>
<thead>
<tr>
<th>Children in Poverty</th>
<th>Approx. Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American alone</td>
<td>11,734</td>
<td>38.10%</td>
</tr>
<tr>
<td>Other race alone</td>
<td>5,373</td>
<td>29.30%</td>
</tr>
<tr>
<td>American Indian, Alaska Native alone</td>
<td>972</td>
<td>29.10%</td>
</tr>
<tr>
<td>Native Hawaiian, Pacific Islander alone</td>
<td>1,080</td>
<td>27.40%</td>
</tr>
<tr>
<td>Two or more races</td>
<td>4,586</td>
<td>11.90%</td>
</tr>
<tr>
<td>Asian alone</td>
<td>5,458</td>
<td>9.70%</td>
</tr>
<tr>
<td>White alone</td>
<td>20,780</td>
<td>8.40%</td>
</tr>
<tr>
<td>Hispanic/Latino ethnicity, any race</td>
<td>13,555</td>
<td>25.90%</td>
</tr>
</tbody>
</table>

Notes: In 2010, the national poverty threshold for a family of four including two related children was an annual household income of less than $22,113.

Figure 16: Poverty Data for Washington, King County and South King County Cities

POVERTY STATUS IN THE PAST 12 MONTHS
2006-2010 American Community Survey 5-Year Estimates

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Employment

Figure 17: Unemployment in Washington State and King County, 2007 to 2011

Figure 18: WA State Median family income for families with children (Currency)

<table>
<thead>
<tr>
<th>Year</th>
<th>Median Family Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>$56,462</td>
</tr>
<tr>
<td>2006</td>
<td>$60,821</td>
</tr>
<tr>
<td>2007</td>
<td>$62,363</td>
</tr>
<tr>
<td>2008</td>
<td>$66,818</td>
</tr>
<tr>
<td>2009</td>
<td>$64,206</td>
</tr>
<tr>
<td>2010</td>
<td>$63,981</td>
</tr>
</tbody>
</table>

Figure 19: Median Household Income in King County and South King County

Median Household Income for King County, Seattle and Selected South King County Cities 2008-2010

<table>
<thead>
<tr>
<th>City</th>
<th>Median Income in Dollars</th>
<th>90% Margin of Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>King County</td>
<td>67,711</td>
<td>+/-735</td>
</tr>
<tr>
<td>Seattle</td>
<td>60,619</td>
<td>+/-893</td>
</tr>
<tr>
<td>Auburn</td>
<td>52,164</td>
<td>+/-3,117</td>
</tr>
<tr>
<td>Burien</td>
<td>51,440</td>
<td>+/-3,809</td>
</tr>
<tr>
<td>Des Moines</td>
<td>61,613</td>
<td>+/-2,505</td>
</tr>
<tr>
<td>Federal Way</td>
<td>56,259</td>
<td>+/-2,505</td>
</tr>
<tr>
<td>Kent</td>
<td>52,704</td>
<td>+/-2,505</td>
</tr>
<tr>
<td>Renton</td>
<td>62,949</td>
<td>+/-2,763</td>
</tr>
<tr>
<td>SeaTac</td>
<td>46,595</td>
<td>+/-4,153</td>
</tr>
</tbody>
</table>

387 Ibid.
388 American Community Survey, 2008-2010. Produced by: Public Health - Seattle & King County; Assessment, Policy Development & Evaluation Unit 3/2012.
Figure 20: Median Income by Race/Ethnicity King County, 2008-2010

- Hispanic or Latino origin (of any race): $48,392
- Two or more races: $59,533
- Some other race: $46,931
- American Indian and Alaska Native: $42,744
- Black or African American: $38,301
- Native Hawaiian and Other Pacific Islander: $60,382
- White: $71,578
- Asian: $72,497
- All races and ethnic origins: $67,711

Figure 21: Washington State Children Living in Low-Income Households Where No Adults Work

Ibid.
Ibid.
Education

Figure 22: Public High School Graduation Rates – 2009

Figure 23: Public High School Graduation Rates in the State and Nation

392 Ibid.
Figure 24: 2008-09 State High School Graduation Rates by Income, Language, Health and Migration

Figure 25: On-Time Graduation Rates by Race in Washington, 2005-2010

393 U.S. Department of Education.
Figure 26: King County High School Graduation Rates by Race/Ethnicity 2005-2010

Figure 27: Percent of Fourth-grade Public School Students Meeting State Standards in Writing
Housing

Figure 28: Hours at Minimum Wage Needed to Afford Rent

In no state can a minimum-wage worker afford a two-bedroom unit at Fair Market Rent, working a standard 40-hour work week.

Figure 29: King County Rental Unit Supply and Demand


398 Dupre + Scott and ACS 2010. Data on the housing affordability gap and affordable rental housing stock are from AIMS High 2009, the October 2010 Dupre + Scott Apartment Vacancy Report, the Washington Center for Real Estate Research (WCRER) and the 2011 Draft Technical Appendix B, King County Comprehensive Plan for Housing 2009-2012. Income range and housing cost data about owners and renters in unaffordable housing are from the 2010 American Community Survey. Prepared for Communities Count.
### Figure 30: King County Moderate- and Low-Income Rental Availability

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Median Rent</th>
<th>Estimated Number of Rental Units</th>
<th>&lt;80%</th>
<th>&lt;50%</th>
<th>&lt;40%</th>
</tr>
</thead>
<tbody>
<tr>
<td>East</td>
<td>$1,156</td>
<td>56,768</td>
<td>74.3%</td>
<td>7.4%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Rural Cities</td>
<td>$1,295</td>
<td>4,062</td>
<td>51.5%</td>
<td>24.2%</td>
<td>2.8%</td>
</tr>
<tr>
<td>South</td>
<td>$825</td>
<td>86,318</td>
<td>96.4%</td>
<td>51.1%</td>
<td>14.0%</td>
</tr>
<tr>
<td>Seashore</td>
<td>$930</td>
<td>160,552</td>
<td>82.8%</td>
<td>34.6%</td>
<td>7.7%</td>
</tr>
<tr>
<td>Uninc. King County</td>
<td>$980</td>
<td>26,545</td>
<td>85.6%</td>
<td>25.1%</td>
<td>5.5%</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>$940</strong></td>
<td><strong>334,245</strong></td>
<td><strong>85.4%</strong></td>
<td><strong>33.8%</strong></td>
<td><strong>8.3%</strong></td>
</tr>
</tbody>
</table>

### Figure 31: Housing Affordability in Seattle in 2011: Homeownership and Rental Market

#### Paycheck to Paycheck: Seattle, WA
- **2011 Median Home Price:** $276,000
- Third Quarter 2011 Homeownership Market

- **2011 Fair Market Rent:** 1BR $977/month, 2BR $1,176/month

---


Homelessness

Figure 32: One Night Count of People Who Are Homeless in King County

![Bar Chart showing the one night count of people who are homeless in King County from October 2002 to January 2010. The chart includes data for sheltered and unsheltered street counts.](image)

Figure 33: Homeless Students in King County School Districts 2005-2006 School Year

![Line graph showing the number of homeless students in King County school districts from Kindergarten to 12th grade over the 2005-2006 school year.](image)

401 Seattle King County Coalition for the Homeless, 2010.
402 OSPI. South King County Response to Homelessness: A Call for Action, 2008. Committee to End Homelessness in King County. [http://www.cehkc.org/DOC_reports/SouthKingCounty.pdf](http://www.cehkc.org/DOC_reports/SouthKingCounty.pdf).

96 Community Health Needs Assessment Report 2013
Crime

Figure 34: Washington State Overall Crime Rate

Socioeconomic Indicators: Seattle Children’s

Figure 36: Patient Hometown Demographics: Where Our Patients Come From (2011)

Figure 37: Seattle Children’s Patients by Race

General Health Indicators

Figure 40: Leading Causes and Total 5-Year Incidence of Injury Deaths by Age Group, Washington, 2004-2008

Note: All mechanisms of suicide and homicide were combined according to intent. Each listed mechanism is unintentional except those otherwise noted. **** indicates that the cell values range from 1-10 and are suppressed for data confidentiality purposes.
Figure 41: 10 Leading Causes of Death in King County Children, 2003–2007

<table>
<thead>
<tr>
<th>Rank</th>
<th>Age &lt;1</th>
<th>Age 1-14</th>
<th>Age 15-24</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Perinatal Conditions Avg. 47.8</td>
<td>Unintentional Injury Avg. 10.6</td>
<td>Unintentional Injury Avg. 59.6</td>
</tr>
<tr>
<td>2</td>
<td>Congenital Malformations Avg. 26.6</td>
<td>Cancer Avg. 6.4</td>
<td>Suicide Avg. 22.8</td>
</tr>
<tr>
<td>3</td>
<td>Heart Disease Avg. 2.2</td>
<td>Congenital Malformations Avg. 3.4</td>
<td>Homicide Avg. 17.2</td>
</tr>
<tr>
<td>4</td>
<td>Homicide Avg. 2.0</td>
<td>Homicide Avg. 3.0</td>
<td>Cancer Avg. 8.8</td>
</tr>
<tr>
<td>5</td>
<td>Septicemia Avg. 1.2</td>
<td>Heart Disease Avg. 1.6</td>
<td>Heart Disease Avg. 3.2</td>
</tr>
<tr>
<td>6</td>
<td>Unintentional Injury Avg. 1.2</td>
<td>Influenza &amp; Pneumonia Avg. 1.2</td>
<td>Congenital Malformations Avg. 3.0</td>
</tr>
<tr>
<td>7</td>
<td>---</td>
<td>---</td>
<td>Stroke Avg. 1.0</td>
</tr>
<tr>
<td>8</td>
<td>---</td>
<td>---</td>
<td>Influenza &amp; Pneumonia Avg. 0</td>
</tr>
<tr>
<td>9</td>
<td>---</td>
<td>---</td>
<td>Pregnancy/Childbirth</td>
</tr>
<tr>
<td>10</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>

### Figure 42: Washington State Inpatient Pediatric Discharges by Diagnosis-Related Group (DRG) (ages 0 to 17) July 2009-June 2010

<table>
<thead>
<tr>
<th>DRG</th>
<th>DRG Description</th>
<th>Discharges</th>
<th>Patient Days</th>
<th>Mean LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>795</td>
<td>Normal newborn</td>
<td>59,387</td>
<td>99,162</td>
<td>1.670</td>
</tr>
<tr>
<td>794</td>
<td>Neonate w other significant problems</td>
<td>13,397</td>
<td>28,479</td>
<td>2.126</td>
</tr>
<tr>
<td>792</td>
<td>Prematurity w/o major problems</td>
<td>3,589</td>
<td>23,030</td>
<td>6.417</td>
</tr>
<tr>
<td>793</td>
<td>Full term neonate w major problems</td>
<td>3,516</td>
<td>19,699</td>
<td>5.603</td>
</tr>
<tr>
<td>203</td>
<td>Bronchitis &amp; asthma w/o CC/MCC</td>
<td>2,869</td>
<td>5,746</td>
<td>2.003</td>
</tr>
<tr>
<td>791</td>
<td>Prematurity w major problems</td>
<td>1,539</td>
<td>27,005</td>
<td>17.547</td>
</tr>
<tr>
<td>343</td>
<td>Appendectomy w/o complicated principal diag w/o CC/MCC</td>
<td>1,431</td>
<td>1,963</td>
<td>1.372</td>
</tr>
<tr>
<td>790</td>
<td>Extreme immaturity or respiratory distress syndrome, neonate</td>
<td>1,233</td>
<td>45,377</td>
<td>36.802</td>
</tr>
<tr>
<td>775</td>
<td>Vaginal delivery w/o complicating diagnoses</td>
<td>1,220</td>
<td>2,467</td>
<td>2.022</td>
</tr>
<tr>
<td>195</td>
<td>Simple pneumonia &amp; pleurisy w/o CC/MCC</td>
<td>1,190</td>
<td>2,596</td>
<td>2.182</td>
</tr>
<tr>
<td>885</td>
<td>Psychoses</td>
<td>1,094</td>
<td>11,487</td>
<td>10.500</td>
</tr>
<tr>
<td>392</td>
<td>Esophagitis, gastroent &amp; misc digest disorders w/o MCC</td>
<td>1,092</td>
<td>2,936</td>
<td>2.689</td>
</tr>
<tr>
<td>202</td>
<td>Bronchitis &amp; asthma w CC/MCC</td>
<td>1,074</td>
<td>3,498</td>
<td>3.257</td>
</tr>
<tr>
<td>789</td>
<td>Neonates, died or transferred to another acute care facility</td>
<td>1,062</td>
<td>6,532</td>
<td>6.151</td>
</tr>
<tr>
<td>101</td>
<td>Seizures w/o MCC</td>
<td>931</td>
<td>1,907</td>
<td>2.048</td>
</tr>
<tr>
<td>153</td>
<td>Otitis media &amp; URI w/o MCC</td>
<td>919</td>
<td>1,797</td>
<td>1.955</td>
</tr>
<tr>
<td>194</td>
<td>Simple pneumonia &amp; pleurisy w CC</td>
<td>857</td>
<td>2,737</td>
<td>3.194</td>
</tr>
<tr>
<td>641</td>
<td>Nutritional &amp; misc metabolic disorders w/o MCC</td>
<td>849</td>
<td>2,309</td>
<td>2.720</td>
</tr>
<tr>
<td>690</td>
<td>Kidney &amp; urinary tract infections w/o MCC</td>
<td>711</td>
<td>1,931</td>
<td>2.716</td>
</tr>
<tr>
<td>603</td>
<td>Cellulitis w/o MCC</td>
<td>700</td>
<td>1,776</td>
<td>2.537</td>
</tr>
<tr>
<td>639</td>
<td>Diabetes w/o CC/MCC</td>
<td>571</td>
<td>1,427</td>
<td>2.499</td>
</tr>
<tr>
<td>134</td>
<td>Other ear, nose, mouth &amp; throat O.R. procedures w/o CC/MCC</td>
<td>568</td>
<td>859</td>
<td>1.512</td>
</tr>
<tr>
<td>847</td>
<td>Chemotherapy w/o acute leukemia as secondary diagnosis w CC</td>
<td>513</td>
<td>1,487</td>
<td>2.899</td>
</tr>
<tr>
<td>918</td>
<td>Poisoning &amp; toxic effects of drugs w/o MCC</td>
<td>387</td>
<td>604</td>
<td>1.561</td>
</tr>
<tr>
<td>494</td>
<td>Lower extrem &amp; humer proc except hip, foot, femur w/o CC/MCC</td>
<td>364</td>
<td>597</td>
<td>1.640</td>
</tr>
<tr>
<td>340</td>
<td>Appendectomy w complicated principal diag w/o CC/MCC</td>
<td>347</td>
<td>1,398</td>
<td>4.029</td>
</tr>
<tr>
<td>866</td>
<td>Viral illness w/o MCC</td>
<td>316</td>
<td>786</td>
<td>2.487</td>
</tr>
</tbody>
</table>

### Figure 43: Washington State and King County Infant Mortality Rates

<table>
<thead>
<tr>
<th>Location</th>
<th>Infant Mortality Rate (per 1,000 live births) 5 yr average 2003-2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy People 2010 Objective</td>
<td>4.5 (2007 only)</td>
</tr>
<tr>
<td>Washington</td>
<td>4.8 (2007 only)</td>
</tr>
<tr>
<td>King County</td>
<td>4.5</td>
</tr>
<tr>
<td>Seattle</td>
<td>4.5</td>
</tr>
<tr>
<td>South King County</td>
<td>5.5</td>
</tr>
<tr>
<td>East King County</td>
<td>2.8</td>
</tr>
<tr>
<td>North King County</td>
<td>3.8</td>
</tr>
</tbody>
</table>


Figure 44: King County and Seattle Infant Mortality Rates by Mother’s Race/Ethnicity

<table>
<thead>
<tr>
<th>Mother’s Race/Ethnicity</th>
<th>Seattle and King County Infant Mortality Rate (per 1,000 live births) 5 yr average 2003–2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>8.6</td>
</tr>
<tr>
<td>American Indian/AN</td>
<td>13.7</td>
</tr>
<tr>
<td>Asian/PI</td>
<td>3.8</td>
</tr>
<tr>
<td>Hispanic/Latina</td>
<td>4.2</td>
</tr>
<tr>
<td>White</td>
<td>3.8</td>
</tr>
</tbody>
</table>

Access to Healthcare

Figure 45: National Uninsured, 1987 to 2011

Figure 46: Children without Insurance, 1990-2009, WAMI and United States

408 Ibid.
410 KIDS Count Data Center. kidscount.org/datacenter.
Figure 47: Types of Insurance Coverage in the WAMI Region

<table>
<thead>
<tr>
<th>Population*</th>
<th>Alaska 678,081</th>
<th>Idaho 1,584,985</th>
<th>Montana 957,586</th>
<th>Washington 6,546,149</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 18 years:</td>
<td>183,261</td>
<td>418,172</td>
<td>220,411</td>
<td>1,569,540</td>
</tr>
<tr>
<td>With private health insurance coverage only</td>
<td>56% (104,393)</td>
<td>58% (244,530)</td>
<td>58% (128,716)</td>
<td>59% (937,795)</td>
</tr>
<tr>
<td>Type of Insurance Coverage*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With public health coverage only</td>
<td>25% (45,225)</td>
<td>26% (111,235)</td>
<td>25% (56,895)</td>
<td>28.9% (454,026)</td>
</tr>
<tr>
<td>With both private and public health coverage</td>
<td>4.7% (8,650)</td>
<td>3.6 % (15,436)</td>
<td>2% (6,330)</td>
<td>4% (70,179)</td>
</tr>
<tr>
<td>No health insurance coverage</td>
<td>13.6 % (24,993)</td>
<td>11% (46,971)</td>
<td>12.9% (28,470)</td>
<td>6.8 % (107,540)</td>
</tr>
</tbody>
</table>

Figure 48: No Health Insurance Among King County Children Ages 0-17, by Region, 2004, 2006, 2008 Combined

Figure 49: Washington State and King County Physician Medicaid Acceptance

<table>
<thead>
<tr>
<th>Geographic Area</th>
<th>Percent Accepting New Medicaid Patients</th>
<th>Percent Not Accepting New Medicaid Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washington State (Minus King County)</td>
<td>55%</td>
<td>39%</td>
</tr>
<tr>
<td>King County</td>
<td>56%</td>
<td>43%</td>
</tr>
<tr>
<td>National Data*</td>
<td>53% (all providers)</td>
<td>28% (all providers)</td>
</tr>
<tr>
<td>*(different data source)</td>
<td>57% (pediatricians)</td>
<td>18% (pediatricians)</td>
</tr>
</tbody>
</table>

411 U.S. Census Bureau, 2009 American Community Survey.
### Figure 52: Existing Pediatric Care Centers in Washington State

<table>
<thead>
<tr>
<th>Hospital Name</th>
<th>City, WA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gray’s Harbor Community Hospital</td>
<td>Aberdeen, WA</td>
</tr>
<tr>
<td>Island Hospital</td>
<td>Anacortes, WA</td>
</tr>
<tr>
<td>Cascade Valley Hospital</td>
<td>Arlington, WA</td>
</tr>
<tr>
<td>Auburn Regional Medical Center</td>
<td>Auburn, WA</td>
</tr>
<tr>
<td>Overlake Hospital Medical Center</td>
<td>Bellevue, WA</td>
</tr>
<tr>
<td>PeaceHealth St. Joseph Medical Center</td>
<td>Bellingham, WA</td>
</tr>
<tr>
<td>Harrison Medical Center</td>
<td>Bremerton, WA</td>
</tr>
<tr>
<td>Okanogan Douglas District Hospital</td>
<td>Brewster, WA</td>
</tr>
<tr>
<td>Highline Medical Center</td>
<td>Burien, WA</td>
</tr>
<tr>
<td>Providence Centralia Hospital</td>
<td>Centralia, WA</td>
</tr>
<tr>
<td>Lake Chelan Community Hospital</td>
<td>Chelan, WA</td>
</tr>
<tr>
<td>Providence St. Joseph’s Hospital</td>
<td>Chewelah, WA</td>
</tr>
<tr>
<td>Tri-State Memorial Hospital</td>
<td>Clarkston, WA</td>
</tr>
<tr>
<td>Whitman Hospital and Medical Center</td>
<td>Colfax, WA</td>
</tr>
<tr>
<td>Providence Mount Carmel Hospital</td>
<td>Colville, WA</td>
</tr>
<tr>
<td>Whidbey General Hospital</td>
<td>Coupeville, WA</td>
</tr>
<tr>
<td>Lincoln Hospital</td>
<td>Davenport, WA</td>
</tr>
<tr>
<td>Dayton General Hospital</td>
<td>Dayton, WA</td>
</tr>
<tr>
<td>Kittitas Valley Community Hospital</td>
<td>Ellensburg, WA</td>
</tr>
<tr>
<td>St. Elizabeth Hospital</td>
<td>Enumclaw, WA</td>
</tr>
<tr>
<td>Columbia Basin Hospital</td>
<td>Ephrata, WA</td>
</tr>
<tr>
<td>Providence Regional Medical Center</td>
<td>Everett, WA</td>
</tr>
<tr>
<td>St. Francis Hospital</td>
<td>Federal Way, WA</td>
</tr>
<tr>
<td>Forks Community Hospital</td>
<td>Forks, WA</td>
</tr>
<tr>
<td>St. Anthony Hospital</td>
<td>Gig Harbor, WA</td>
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<tr>
<td>Klickitat Valley Health</td>
<td>Goldendale, WA</td>
</tr>
<tr>
<td>Coulee Medical Center</td>
<td>Grand Coulee, WA</td>
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<tr>
<td>Ocean Beach Hospital</td>
<td>Ilwaco, WA</td>
</tr>
<tr>
<td>Kennewick General Hospital</td>
<td>Kennewick, WA</td>
</tr>
<tr>
<td>Evergreen Hospital Medical Center</td>
<td>Kirkland, WA</td>
</tr>
<tr>
<td>Fairfax Hospital</td>
<td>Kirkland, WA</td>
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<tr>
<td>St. Clare Hospital</td>
<td>Lakewood, WA</td>
</tr>
<tr>
<td>Cascade Medical Center</td>
<td>Leavenworth, WA</td>
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<tr>
<td>PeaceHealth St. John Medical Center</td>
<td>Longview, WA</td>
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<tr>
<td>Mark Reed Health Care District</td>
<td>McLeary, WA</td>
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<tr>
<td>Valley General Hospital</td>
<td>Monroe, WA</td>
</tr>
<tr>
<td>Morton General Hospital</td>
<td>Morton, WA</td>
</tr>
<tr>
<td>Samaritan Healthcare</td>
<td>Moses Lake, WA</td>
</tr>
<tr>
<td>Skagit Valley Hospital</td>
<td>Mount Vernon, WA</td>
</tr>
<tr>
<td>Newport Hospital &amp; Health Services</td>
<td>Newport, WA</td>
</tr>
<tr>
<td>Odessa Memorial Healthcare Center</td>
<td>Odessa, WA</td>
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<td>Capital Medical Center</td>
<td>Olympia, WA</td>
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<tr>
<td>Providence St. Peter Hospital</td>
<td>Olympia, WA</td>
</tr>
<tr>
<td>Mid-Valley Hospital</td>
<td>Omak, WA</td>
</tr>
<tr>
<td>Othello Community Hospital</td>
<td>Othello, WA</td>
</tr>
<tr>
<td>Lourdes Medical Center</td>
<td>Pasco, WA</td>
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<tr>
<td>Garfield County Public Hospital District</td>
<td>Pomeroy, WA</td>
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<tr>
<td>Olympic Medical Center</td>
<td>Port Angeles, WA</td>
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<tr>
<td>Jefferson Healthcare</td>
<td>Port Townsend, WA</td>
</tr>
<tr>
<td>Prosser Memorial Hospital</td>
<td>Prosser, WA</td>
</tr>
<tr>
<td>Pullman Regional Hospital</td>
<td>Pullman, WA</td>
</tr>
<tr>
<td>MultiCare Good Samaritan Hospital</td>
<td>Puyallup, WA</td>
</tr>
<tr>
<td>Quincy Valley Medical Center</td>
<td>Quincy, WA</td>
</tr>
<tr>
<td>Valley Medical Center</td>
<td>Renton, WA</td>
</tr>
<tr>
<td>Ferry County Memorial Hospital</td>
<td>Republic, WA</td>
</tr>
<tr>
<td>Kadlec Regional Medical Center</td>
<td>Richland, WA</td>
</tr>
<tr>
<td>East Adams Rural Hospital</td>
<td>Ritzville, WA</td>
</tr>
<tr>
<td>Fred Hutchinson Cancer Research Center</td>
<td>Seattle, WA</td>
</tr>
<tr>
<td>Harborview Medical Center</td>
<td>Seattle, WA</td>
</tr>
<tr>
<td>Navos - Seattle, WA</td>
<td>Seattle, WA</td>
</tr>
<tr>
<td>Northwest Hospital &amp; Medical Center</td>
<td>Seattle, WA</td>
</tr>
<tr>
<td>Puget Sound Blood Center</td>
<td>Seattle, WA</td>
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<tr>
<td>Seattle Cancer Care Alliance</td>
<td>Seattle, WA</td>
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<tr>
<td>Swedish Medical Center</td>
<td>Seattle, WA</td>
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<tr>
<td>University of Washington Medical Center</td>
<td>Seattle, WA</td>
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<tr>
<td>Virginia Mason Hospital</td>
<td>Seattle, WA</td>
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<tr>
<td>Mason General Hospital</td>
<td>Shelton, WA</td>
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<tr>
<td>Snoqualmie Valley Hospital</td>
<td>Snoqualmie, WA</td>
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<tr>
<td>Willapa Harbor Hospital</td>
<td>South Bend, WA</td>
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<tr>
<td>Deaconess Medical Center</td>
<td>Spokane, WA</td>
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<tr>
<td>Providence Holy Family Hospital</td>
<td>Spokane, WA</td>
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<tr>
<td>Providence Sacred Heart Medical Center</td>
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<td>Providence Sacred Heart Children’s Hospital</td>
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</tr>
<tr>
<td>Shriners Hospital for Children</td>
<td>Spokane, WA</td>
</tr>
<tr>
<td>St. Luke’s Rehabilitation Institute</td>
<td>Spokane, WA</td>
</tr>
<tr>
<td>Valley Hospital and Medical Center</td>
<td>Spokane Valley, WA</td>
</tr>
<tr>
<td>Sunnyside Community Hospital</td>
<td>Sunnyside, WA</td>
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<td>Madigan Army Medical Center</td>
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<td>MultiCare Allenmore Hospital</td>
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<td>MultiCare Mary Bridge Children’s Hospital</td>
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<td>MultiCare Tacoma General Hospital</td>
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<td>St. Joseph Medical Center</td>
<td>Tacoma, WA</td>
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<td>North Valley Hospital</td>
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<td>Toppenish Community Hospital</td>
<td>Toppenish, WA</td>
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<td>Legacy Salmon Creek Medical Center</td>
<td>Vancouver, WA</td>
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<td>PeaceHealth Southwest Medical Center</td>
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<td>Providence St. Mary Medical Center</td>
<td>Walla Walla, WA</td>
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<td>Central Washington Hospital</td>
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<tr>
<td>Wenatchee Valley Hospital</td>
<td>Wenatchee, WA</td>
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<tr>
<td>Skyline Hospital</td>
<td>White Salmon, WA</td>
</tr>
<tr>
<td>Yakima Regional Medical and Cardiac Center</td>
<td>Yakima, WA</td>
</tr>
<tr>
<td>Yakima Valley Memorial Hospital</td>
<td>Yakima, WA</td>
</tr>
</tbody>
</table>
### Figure 53: Pediatric Subspecialists Lacking in WAMI States

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Alaska</th>
<th>Idaho</th>
<th>Montana</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adolescent Medicine</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Cardiology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critical Care</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developmental-Behavior</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergency Medicine</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Endocrinology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gastroenterology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hematology-Oncology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infectious Diseases</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Neonatal-Perinatology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nephrology</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Pulmonology</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Rheumatology</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

Includes ABP-certified diplomats, as of December 2011, under 66-years-old with a known address in that state.

### Figure 54: Certified Pediatric Specialists—WAMI and National

<table>
<thead>
<tr>
<th>Specialty</th>
<th>IDAHO</th>
<th>MONTANA</th>
<th>WASHINGTON</th>
<th>NATIONAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adolescent Medicine</td>
<td>Number</td>
<td>1</td>
<td>0</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Ratio</td>
<td>429,437</td>
<td>n/a</td>
<td>93,138</td>
</tr>
<tr>
<td>Cardiology</td>
<td>Number</td>
<td>3</td>
<td>3</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Ratio</td>
<td>143,146</td>
<td>74,498</td>
<td>49,480</td>
</tr>
<tr>
<td>Child Abuse</td>
<td>Number</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Ratio</td>
<td>429,437</td>
<td>223,493</td>
<td>395,838</td>
</tr>
<tr>
<td>Critical Care</td>
<td>Number</td>
<td>5</td>
<td>2</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>Ratio</td>
<td>85,887</td>
<td>111,747</td>
<td>40,599</td>
</tr>
<tr>
<td>Developmental-Behavior</td>
<td>Number</td>
<td>2</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Ratio</td>
<td>214,719</td>
<td>223,493</td>
<td>87,964</td>
</tr>
<tr>
<td>Emergency</td>
<td>Number</td>
<td>1</td>
<td>0</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>Ratio</td>
<td>429,437</td>
<td>n/a</td>
<td>33,688</td>
</tr>
<tr>
<td>Endocrinology</td>
<td>Number</td>
<td>0</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Ratio</td>
<td>n/a</td>
<td>n/a</td>
<td>105,557</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>Number</td>
<td>4</td>
<td>1</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Ratio</td>
<td>107,359</td>
<td>223,493</td>
<td>98,960</td>
</tr>
<tr>
<td>Hematology-Oncology</td>
<td>Number</td>
<td>4</td>
<td>1</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Ratio</td>
<td>107,359</td>
<td>223,493</td>
<td>42,793</td>
</tr>
<tr>
<td>Infectious Diseases</td>
<td>Number</td>
<td>2</td>
<td>0</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>Ratio</td>
<td>214,719</td>
<td>n/a</td>
<td>60,898</td>
</tr>
<tr>
<td>Neonatal-Perinatal Medicine</td>
<td>Number</td>
<td>10</td>
<td>9</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>Ratio</td>
<td>42,944</td>
<td>24,833</td>
<td>25,538</td>
</tr>
<tr>
<td>Nephrology</td>
<td>Number</td>
<td>1</td>
<td>0</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Ratio</td>
<td>429,437</td>
<td>n/a</td>
<td>93,138</td>
</tr>
<tr>
<td>Pulmonology</td>
<td>Number</td>
<td>1</td>
<td>0</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Ratio</td>
<td>429,437</td>
<td>n/a</td>
<td>87,964</td>
</tr>
<tr>
<td>Rheumatology</td>
<td>Number</td>
<td>0</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Ratio</td>
<td>n/a</td>
<td>n/a</td>
<td>131,946</td>
</tr>
</tbody>
</table>


104 Community Health Needs Assessment Report 2013
Figure 55: Medicaid Fee-for-Service Treatment of Obesity Interventions: Washington State

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight Loss Services:</td>
<td>Prenatal Care: Extended services for pregnant women include maternity support services such as nutrition assessment and/or counseling visit by a state-certified dietitian, as well as a community health worker visit by community health educators.</td>
<td>EPSDT: EPSDT services include nutritional counseling. Screenings must include a comprehensive health and development history, a nutritional assessment, a health evaluation, and counseling. If an EPSDT screening provides suspects or establishes a medical need for medical nutrition therapy, eligible clients may be referred to a certified dietitian to receive outpatient medical nutrition therapy.</td>
<td>Disease Management Services: Provided through opt-in to certain populations, including but not limited to those with diabetes, heart failure, coronary artery disease, and asthma. Includes all Medicaid State Plan services, plus disease management services and assistance in locating a primary care provider for clients in the high-risk group. Disease management services include a nurse advice line and education and disease management services.</td>
<td>Weight Loss Drugs: No coverage of drugs when used for weight loss.</td>
<td>Covered Procedures: Covers all medically necessary bariatric surgery for eligible clients: 1) age of 21-59; 2) BMI ≥ 35 and a specified co-morbid condition such as diabetes; 3) Patients must engage in a weight loss program prior to surgery and must achieve at least five percent weight loss to demonstrate adherence to diet and lifestyle changes required after bariatric surgery.</td>
</tr>
<tr>
<td>Children with Chronic Conditions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 56: Washington vs. United States Transition Data

<table>
<thead>
<tr>
<th>Transition to Adult Care</th>
<th>Community-Based Services</th>
<th>Early &amp; Continuous Screening</th>
<th>Adequate Health Insurance</th>
<th>Medical Home</th>
<th>Family Professional Partnership</th>
</tr>
</thead>
<tbody>
<tr>
<td>WA</td>
<td>47%</td>
<td>85%</td>
<td>69%</td>
<td>65%</td>
<td>48%</td>
</tr>
<tr>
<td>US</td>
<td>41%</td>
<td>89%</td>
<td>64%</td>
<td>62%</td>
<td>47%</td>
</tr>
</tbody>
</table>

NOTE: Washington rates of early and continuous screening and youth transition to adult services are statistically higher than the national rate. All other Washington National Performance Measure data are similar to national data.

415 George Washington University Department of Health Policy, Medicaid Fee-for-Service Treatment of Obesity Interventions. 50 State & District of Columbia Survey, page 64. 2010
Asthma

Figure 57: King County Air Quality

Figure 58: Asthma Hospitalizations in Children Under 18 in King County, 2003-07

Figure 59: Current Asthma Among King County Children Aged 0 to 17, 2009-2010

Figure 60: Asthma Hospitalizations in Children Under 18 by Poverty Level, 2003-07

418 Washington State Department of Health, Office of Hospital and Patient Data. Produced by: Public Health – Seattle & King County; Assessment, Policy & Evaluation. 7/09.
420 Ibid.
Transplant

Figure 61: Children and Youth on Wait List for Organ Transplant in Washington State as of 07/13/12

<table>
<thead>
<tr>
<th></th>
<th>All Organs</th>
<th>Kidney</th>
<th>Liver</th>
<th>Pancreas</th>
<th>Kidney/Pancreas</th>
<th>Heart</th>
<th>Lung</th>
<th>Heart/Lung</th>
<th>Intestine</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1 year</td>
<td>5</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1-5 years</td>
<td>16</td>
<td>1</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>6-10 years</td>
<td>7</td>
<td>5</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>11-17 years</td>
<td>14</td>
<td>9</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Obesity

Figure 62: Obesity Among King County Students by Race/Ethnicity in Grades 8, 10 and 12, 2010

Figure 63: Obesity Among King County Students in Grades 8, 10 and 12 by Region, 2010

423 Ibid.
Figure 64: Seattle Children's Subspecialty Clinic Patient Data 2005-2007

% obesity

- All
- Pulmonary
- Nephrology
- Endocrinology
- Neurology
- Otolaryngology
- Hematologic/Oncology
- Orthopedics
- Adolescent
- Surgery
- Cardiac

Legend:
- 85-94%ile
- >=95%ile
### Mental Health

**Figure 65: The Mental Health of Children: A Portrait of Washington State and the Nation, 2007**

<table>
<thead>
<tr>
<th>Category</th>
<th>State %</th>
<th>National %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children aged 2-17 years who have one or more emotional, behavioral or developmental conditions</td>
<td>12.2</td>
<td>11.3</td>
</tr>
<tr>
<td><strong>Prevalence by Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age 6-11 years</td>
<td>12.7</td>
<td>12.1</td>
</tr>
<tr>
<td>Age 12-17 years</td>
<td>15.7</td>
<td>14.9</td>
</tr>
<tr>
<td><strong>Prevalence by Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>16.1</td>
<td>14.5</td>
</tr>
<tr>
<td>Female</td>
<td>8.2</td>
<td>7.9</td>
</tr>
<tr>
<td><strong>Prevalence by Poverty Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100-199% FPL</td>
<td>13</td>
<td>13.1</td>
</tr>
<tr>
<td>200-399% FPL</td>
<td>13.7</td>
<td>10</td>
</tr>
<tr>
<td>400% FPL or more</td>
<td>9.8</td>
<td>9.5</td>
</tr>
<tr>
<td><strong>Prevalence by Insurance Type</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>15.9</td>
<td>17.5</td>
</tr>
<tr>
<td>Private</td>
<td>10.5</td>
<td>9</td>
</tr>
<tr>
<td><strong>Children aged 2-17 years with emotional, behavioral, or developmental conditions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Who have two or more conditions</td>
<td>43.1</td>
<td>40.3</td>
</tr>
<tr>
<td>Who received coordinated, ongoing, comprehensive care within a medical home</td>
<td>35.1</td>
<td>40.2</td>
</tr>
<tr>
<td>Whose health insurance is adequate to meet their needs</td>
<td>63</td>
<td>70.6</td>
</tr>
<tr>
<td>Who received mental health treatment or counseling in the past year</td>
<td>51.5</td>
<td>45.6</td>
</tr>
</tbody>
</table>

---

Injury

Figure 66: Hospitalizations Due to Injury: 0-17, South King County 2005-2009

<table>
<thead>
<tr>
<th>Injury</th>
<th>Number</th>
<th>Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Falls</td>
<td>588</td>
<td>69.03</td>
</tr>
<tr>
<td>Motor Vehicle-Traffic</td>
<td>241</td>
<td>28.29</td>
</tr>
<tr>
<td>Fire/Burn</td>
<td>148</td>
<td>17.38</td>
</tr>
<tr>
<td>MV-Occupant</td>
<td>145</td>
<td>17.02</td>
</tr>
<tr>
<td>Poisoning</td>
<td>114</td>
<td>13.38</td>
</tr>
<tr>
<td>MV-Pedestrian</td>
<td>61</td>
<td>7.16</td>
</tr>
<tr>
<td>Natural Environment</td>
<td>54</td>
<td>6.34</td>
</tr>
<tr>
<td>Cut/Pierce</td>
<td>37</td>
<td>4.34</td>
</tr>
<tr>
<td>Suffocation</td>
<td>20</td>
<td>2.35</td>
</tr>
</tbody>
</table>

Adolescent Health

Figure 67: King County Birth Rates Among Girls Ages 15 to 17 by Region and School District, 2004-2006

**Figure 68: King County and Washington State Adolescent Pregnancy, 2007**

<table>
<thead>
<tr>
<th>Region</th>
<th>Incidence per 1,000 Females Ages 15-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy People</td>
<td>43.0</td>
</tr>
<tr>
<td>2010 Objective</td>
<td></td>
</tr>
<tr>
<td>Washington State</td>
<td>29.6</td>
</tr>
<tr>
<td>King County, WA</td>
<td>26.3</td>
</tr>
</tbody>
</table>

**Figure 69: Sexually Transmitted Disease (STD) Infection Incidence Rates (per 100,000) in Washington State**

- Incidence of gonorrhea has decreased significantly in Washington state since 2006.
- Incidence of syphilis has decreased significantly in Washington since 2008.

---


Figure 70: Public School Students Who Used Tobacco in the Past 30 Days, By Grade. King County, 2010

Data Source: Washington State Healthy Youth Survey. Produced by: Public Health-Seattle & King County; Assessment, Policy Development & Evaluation Unit, 5/2012

Figure 71: Current Youth Cigarette Smoking by Grade, Washington State, 2010

NH = non-Hispanic. Data Source: Washington State Healthy Youth Survey. Produced by: Public Health-Seattle & King County; Assessment, Policy Development & Evaluation Unit, 5/2012

Figure 72: Current Youth Cigarette Smoking by Grade

Figure 73: Illicit Drug Use by Washington 10th Graders, 2008

<table>
<thead>
<tr>
<th>Type of Drug</th>
<th>Lifetime (ever used) WA % (± margin of error)</th>
<th>Past 30 Days WA % (± margin of error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marijuana</td>
<td>31% (± 2)</td>
<td>19% (± 1)</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>5% (± 1)</td>
<td>4% (± 1)</td>
</tr>
<tr>
<td>Inhalants</td>
<td>9% (± 1)</td>
<td>6% (± 1)</td>
</tr>
<tr>
<td>Cocaine/Crack</td>
<td>7% (± 1)</td>
<td>*</td>
</tr>
<tr>
<td>Pain killers to get high</td>
<td>*</td>
<td>9% (± 1)</td>
</tr>
<tr>
<td>Ritalin</td>
<td>*</td>
<td>5% (± 1)</td>
</tr>
</tbody>
</table>

NH = non-Hispanic. Data Source: Washington State Healthy Youth Survey. Produced by: Public Health-Seattle & King County; Assessment, Policy Development & Evaluation Unit, 5/2012


431 Ibid.

432 Washington State Department of Health Adolescent Needs Assessment.
Prematurity

Figure 74: Singleton Preterm Deliveries by Maternal Race/Ethnicity, Washington State Birth Certificate Data, 2006-2008

*Am Indian/Alaska Native
*Asian/Pacific Islander
*Black
Hispanic
*White

0 5 10 15 20

Percent

Figure 76: Singleton Preterm Medicaid Deliveries, Washington First Steps Database, 2006-2008

Non-Medicaid
S-Women
TANF
Non-Citizens

0 5 10 15 20

Percent

Figure 75: Preterm Births by Region - King County 2003-2007

East 10.0
South 9.4
Seattle 9.3
North 9.0


Figure 77: Late or No Prenatal Care by Region, King County, 2003-2007

East 3.1
South 6.6
Seattle 3.7
North 2.9

Community and Public Health Input

Figure 78: Late or No Prenatal Care Comparing Washington State (2007), King County (2007), and Similar U.S. Counties (2005)

Data Sources: UW National Center for Health Statistics, UW Office of Disease Prevention and Health Promotion and WA State Department of Health. Produced by Public Health-Seattle & King County: Assessment, Policy Development & Evaluation, 5/09

Community Health Needs Assessment Report 2013
Figure 80: Lack of Access to Pediatric Care

- **Enough doctors who accept Medicaid**: 44% Disagree
- **Enough pediatric specialists**: 57% Disagree
- **Enough mental health providers for children/teens**: 59% Disagree

- **Enough dental care available for children/teens**: 38% Disagree
- **Enough emergency care available for children/teens**: 31% Disagree

Figure 81: Responses to “It is easy for children, adolescents and families to get information on how to be healthy and safe.”

<table>
<thead>
<tr>
<th>Response Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not sure</td>
<td>10.3%</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>10.3%</td>
</tr>
<tr>
<td>Disagree</td>
<td>32.4%</td>
</tr>
<tr>
<td>Agree</td>
<td>45.6%</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

Figure 82: Responses to “It is easy to get immunizations and vaccinations for children and adolescents.”

<table>
<thead>
<tr>
<th>Response Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not sure</td>
<td>16.2%</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>4.4%</td>
</tr>
<tr>
<td>Disagree</td>
<td>14.7%</td>
</tr>
<tr>
<td>Agree</td>
<td>54.4%</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>10.3%</td>
</tr>
</tbody>
</table>