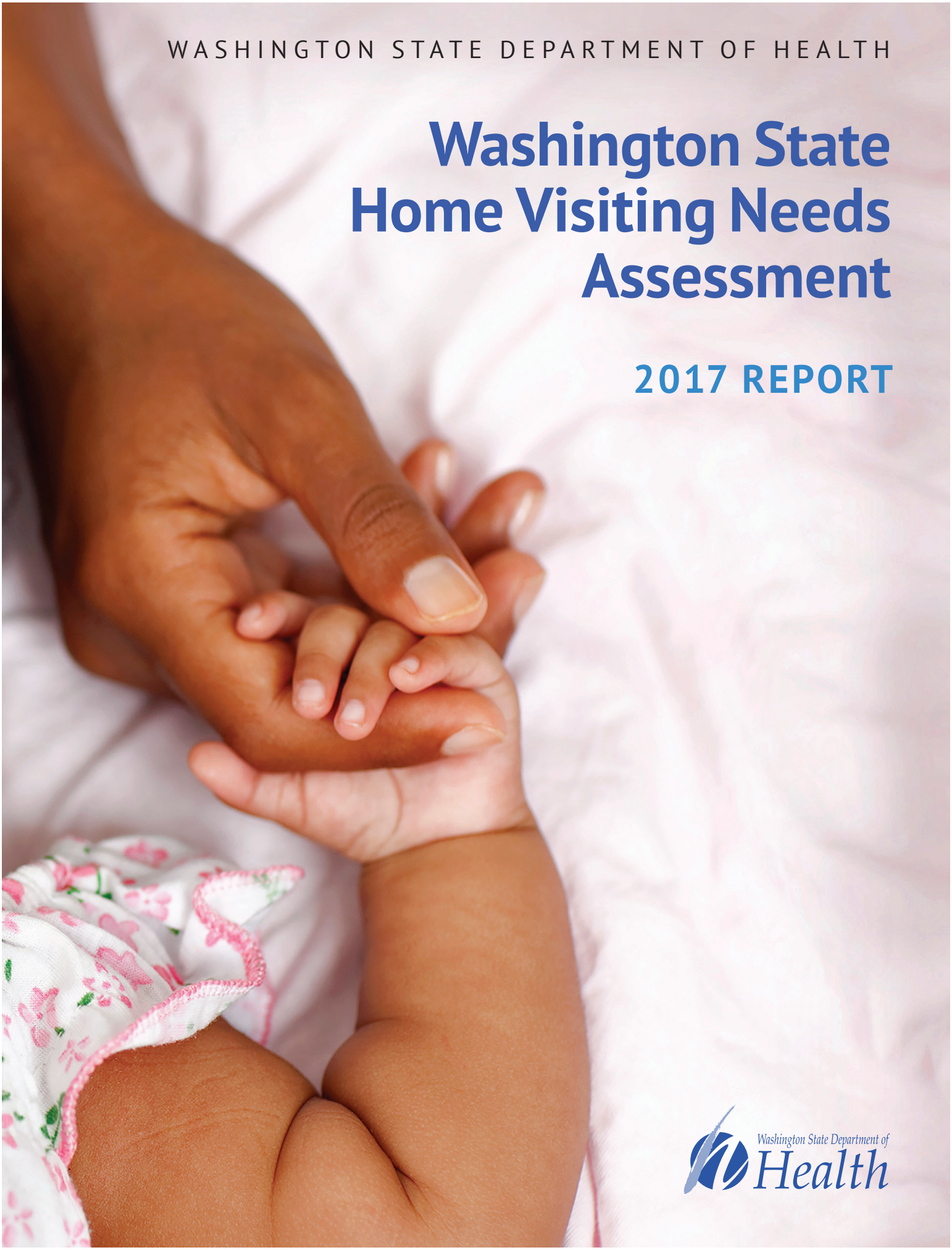

WASHINGTON STATE DEPARTMENT OF HEALTH

Washington State Home Visiting Needs Assessment

2017 REPORT

Washington State Department of Health

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Executive Summary

The Washington State Department of Health completed a Home Visiting Needs Assessment in 2017. The assessment has two primary goals: to estimate the distribution of families who may benefit from home visiting services across Washington State, and to explore new approaches for developing a comprehensive model of risk at the sub-county level to identify communities which may benefit from of home visiting services.

The Needs Assessment for 2017 creates estimates of potential need for home visiting services at the county level and school locale level as well as by race/ethnicity. School locales were developed by the Research and Data Analysis (RDA) group of the Department of Social and Health Services (DSHS). RDA defines locales as a school district or group of similar and geographically adjacent school districts with at least 20,000 residents. To estimate need, we abstracted data for Washington State, counties, school locales, and race/ethnicity from publically available data sources across five key domains: maternal and child health, socio-economic status, education, home environment, and drug and alcohol use. Specific risk factors were chosen based on consultation with key stakeholders, availability of data at sub-county level, and use in previous Needs Assessments.

The risk factors were first averaged within each domain and then the domains were averaged into indices to allow direct comparison between communities. This approach weighted each domain equally such that domains with more indicators did not have a larger impact on the overall index than domains with fewer indicators. The values of the indices were divided into equal quintiles: highest risk, higher risk, neutral, lower risk and lowest risk. Finally, we used the total number of low-income births in 2013-2015 to serve as a proxy for the number of families who could potentially benefit from home visiting services.

Using the County Model, the seven counties in the highest quintile of risk include Yakima, Adams, Franklin, Grant, Grays Harbor, Skamania, and Walla Walla. While identified as highest risk, two of these counties, Adams and Skamania, had less than 1000 low income births between 2013-2015. Only Yakima is in the highest quintile for number of low-income births.

The School Locale Model identifies the following areas as highest risk: the Spokane metro area, South King county and Pierce county along the I-5 corridor, coastal regions including Grays Harbor and Pacific county, and large portions of central–eastern Washington including areas of Okanogan, Douglas, Grant, Franklin, Yakima, Klickitat, Benton and Asotin counties. Of the 24 highest risk school locales, nine are also in the highest quintile for total number of low-income births including: Yakima, Toppenish, Tacoma, Sunnyside, Clover Park, Spokane, Franklin Pierce, Pasco, and Highline.

The Race/Ethnicity Model identifies Non-Hispanic Native Hawaiian and Other Pacific Islanders (NH-NHOPI) as the highest risk group. Non- Hispanic American Indian and Alaska Natives (NH-AIAN), Hispanics, and NH-Black communities were also at high risk compared to Washington State average.

Programs and organizations wishing to use the data to inform grants or programming, should carefully consider which model to use (county, school locale, or race/ethnicity). If interested in targeting economic and health disparities in populous counties (e.g., King, Pierce, Snohomish), the locale model will provide the detail needed to understand the heterogeneity of risk across the geography. If interested in the risk in smaller, less populous areas, the locale model will provide estimates for populations of at least 20,000 residents but these areas may be larger than one specific county or combine portions of two counties. The county model will provide a single, homogenous risk profile for the same catchment area of many programs and organizations. For all models, users should consider the number of low-income births in the community and whether there are enough families to support a home visiting program regardless of risk level associated with a geographic location.

Introduction

History of Home Visiting Programs in Washington State

Home visiting programs are family-focused services, providing physical, social and emotional health services and referrals to expectant mothers and families with young children, to optimize early childhood development. The federal government launched the Maternal Infant and Early Childhood Home Visiting (MIECHV) Program in 2010. Additionally, in 2010 the Washington State Legislature created the Home Visiting Services Account (HVSA) as private-public partnership between the Department of Early Learning (DEL) and Thrive Washington (Thrive). Administered by DEL, with support from Thrive, the Home Visiting Services Account (HVSA) brings together state, federal and private dollars to support a portfolio of high-quality proven and promising programs. With the launch of MIECHV, the Health Resources and Services Administration (HRSA) required a Needs Assessment to identify communities that could benefit from home visiting services in order to develop a plan to address the needs of these communities (**Needs Assessment Reports**). Washington state is now updating the Needs Assessment to better inform planning for services across the state. The economic and policy landscapes have shifted since the completion of the first Needs Assessment. Some changes include: the implementation of the Affordable Care Act, recovery from the 2008 – 2009 economic recession, and shifting demographics. The purpose of updating the Needs Assessment for 2017 is to support planning for distribution of home visiting services based on needs across communities in Washington and explore new approaches for future federally mandated Needs Assessments. The goals and objectives of the Needs Assessment are outlined below:

Goals and Objectives

Goals:

1. Estimate the distribution of families who may benefit from home visiting services in communities across Washington state.
2. Explore new approaches for developing a comprehensive index of risk at the sub-county level to identify communities in need of home visiting services.

Objectives:

1. Estimate, at the county and sub-county levels and by race/ethnicity, the prevalence of key risk factors predictive of need for home visiting services. Some factors include: measures of maternal and child health, socio-economic status, education, home environment, and community stability.
   - 1a. Identify county and sub-county areas where the combined risk across multiple indicators in a given community are higher than that of the state overall (high risk communities).
   - 1b. Create maps that visualize the distribution of key risk factors and high-risk population areas.
2. Estimate the number of families who may benefit from home visiting services by geographic community and race/ethnicity as defined by number of births among low income women.
3. Explore market penetration (i.e. model reach) by home visiting model within communities of need.

Overview of Washington State

Regions

Washington state encompasses over 66,000 square miles of the northwest corner of the United States. The Office of Financial Management (OFM) estimates the population of Washington state in 2016 to be 7,183,700, representing a 6.39 percent increase from the population in 2010. The Cascade Mountains divide the state into two distinct regions: western and eastern Washington. These sections differ in terms of geography, climate, economic resources, and health care infrastructure. Western Washington includes the state's three most populous counties: King, Pierce, and Snohomish. Together these counties represent 52 percent of the population and 53 percent of the births. In contrast, eastern Washington has large regions that are rural, sparsely populated and, in some cases, economically depressed. Typically, these areas have shortages of both primary and specialist care providers. Residents of rural counties in eastern Washington tend to have lower median household incomes, higher poverty rates, and higher unemployment rates. There is a higher percent of uninsured residents and those enrolled in Medicaid.

Race/Ethnicity

Eastern Washington counties have larger proportions of Hispanic people. Three have predominately Hispanic populations: Adams (61 percent), Franklin (52 percent) and Yakima (47 percent), although counties with the largest number of Hispanics in order are: King, Yakima, Pierce, and Snohomish (American Communities Survey (ACS) 2011-2015).

Other communities of color including Blacks, American Indian and Alaska Natives (AIAN), and Native Hawaiian and Other Pacific Islander (NHOPI) are predominantly located in urban areas west of the Cascades: 80 percent of Blacks, 35 percent of AIAN, and 79 percent of NHOPI live in King, Pierce and Snohomish counties (ACS 2011-2015).

Between 2010 and 2015, the population increase varied widely by race and ethnicity. The estimated population increase was 5.8 percent for White, 8.6 percent for Black, 12.9 percent for NHOPI, with a 12.4 percent decrease for AIAN. The estimated population increase for those of Hispanic origin was 9.5 percent between 2010 and 2015. The Hispanic population in Washington state has more than doubled between the 1990 and 2000 Census, from 214,570 in 1990, to 441,509 in 2000. The estimated Hispanic population in 2015 was 835,488.

Languages

According to the 2011–2015 ACS five-year estimates, approximately 18.9 percent of Washington's residents over age five speak a language other than English at home. Of these, 44.2 percent speak Spanish, 26.9 percent speak Asian and Pacific Islander languages, 19.3 percent speak other Indo-European languages, and 5.4 percent speak other languages.

Tribes and Maternal/Infant Health

There are 29 federally recognized American Indian Tribes in Washington with varying populations and land areas. Between 2010 and 2015, the American Indian/Alaska Native (AIAN) population decreased by 12.4 percent. AIANs are about 1.5 percent of the overall Washington population. American Indian reservation and trust lands are located in 19 of Washington's 39 counties; 13 in western Washington and six in eastern Washington. Based on information from the 2011–2015 ACS, only 16 percent of the AIAN population in Washington live on tribal lands.

The American Indian Health Commission in our state works to improve health by promoting increased Tribal-state collaboration. The commission and Tribal delegates at the 2008 Tribal Health Summit identified AIAN health disparities, particularly in infants and pregnant women as a serious problem. AIAN pregnant women are more likely than women in any other racial group to get late or no prenatal care, to smoke or abuse drugs or alcohol, have a mental health diagnosis, or have suffered abuse by a partner. Although Washington state leads the nation with one of the lowest infant mortality rates (IMR), this is not reflected in the state's AIAN population. From 2011–2015, the overall state IMR was 4.7 per 1,000 live births. The rate for the state's AIAN population was 8.4 per 1000 live births. In addition, Washington's AIAN IMR has risen since 1994, the only racial/ethnic group in which that has occurred.

Methods Summary

The Needs Assessment for 2017 creates estimates of potential need for home visiting services at the county level, and school locale level as well as by race/ethnicity. School locales were developed by the Research and Data Analysis (RDA) group of the Department of Social and Health Services (DSHS). RDA defines locales as a school district or group of similar and geographically adjacent school districts with at least 20,000 residents. Locales include school districts that are part of a single Education Service District and typically occupy connecting territory. In addition, they have similar population characteristics including proportions of students receiving a free or reduced lunch. Populous counties such as King and Pierce have multiple school locales within their borders, but less populous counties such as Garfield and Franklin are combined to make one school locale. Washington state's 296 school districts collapse into 118 school locales.

For the 2017 Needs Assessment, we selected five key domains of interest: maternal and child health, socio-economic status, education, home environment, and drug and alcohol use. We used multiple domains because there is not conclusive evidence on which risk factors are the biggest drivers for determining need for home visiting services. Next, we identified key risk factor indicators within each domain based on alignment with the previous Needs Assessment, recommendations from stakeholders, and data availability (**Table 1**). Data sources included: American Communities Survey (ACS) 2015 five-year estimates, geocoded Washington State Birth Certificate analytical file, the Smarter Balanced Assessment and Washington State Kindergarten Inventory of Development Skills (WaKIDS) data from the Office of Superintendent of Public Instruction (OSPI), the Healthy Youth Survey (HYS), and the Research and Data Analysis Division's (RDA) Community Outcome Risk Evaluation (CORE) Geographic Information System from the Department of Social and Health Services (DSHS). All data used is publically available upon request.

To build the county, school locale, and race/ethnicity models, the indicators were first averaged within each domain and then the domains were averaged into a single index score to allow direct comparison between communities. This approach weighted each domain equally such that domains with more indicators did not have a larger impact on the overall index than domains with fewer indicators. The indices' scores were divided into equal quintiles: highest risk, higher risk, neutral, lower risk and lowest risk to allow for easy comparison between geographies. There were approximately 8 counties per quintile, and approximately 24 school locales per quintile.

In addition, we used the total number of low-income births in 2013–2015 to serve as a proxy for the number of families who could potentially benefit from home visiting services. We defined low income births as births to women who used WIC and/or Medicaid during pregnancy. Total births from 2013-2015 were counted to estimate the number of families with either a pregnant woman or a child up to two years of age. Maps were produced to show the distribution of risk and communities in potential need of home visiting across Washington State.

Finally, we leveraged data from the **2017 Home Visiting Scan** to create maps that showed the distribution of home visiting services in a Washington state compared to the potential need for home visiting services based on the county model.

For detailed methods used for the Home Visiting Needs Assessment please refer to the Methods Supplement.

Table 1: Domains and Risk Factors Included in Models

Domains and Risk Factors	County Model	Locale Model	Race Model
Maternal and Child Health (MCH)			
Low Birth Weight (LBW)	X	X	X
Preterm	X	X	X
Late/No Prenatal Care	X	X	X
Teen Births	X		X
Infant Mortality	X		X
Socio-Economic Status (SES)			
Families in Poverty	X	X	X
Unemployment	X	X	X
Limited English	X	X	X
Female Headed Household Children Under 6	X	X	X
Education			
3rd Grade Math	X	X	X
3rd Grade English Language Assessment (ELA)	X	X	X
Washington Kindergarten Inventory of Developing Skills (WaKIDS)	X	X	X
Home Environment			
Domestic Violence	X	X	
Child Abuse	X	X	
Drug and Alcohol Use			
Drug Use	X	X	X
Binge Drinking	X	X	X

Results

County Model

The highest risk counties are Ferry, Yakima, Grant, Adams, Grays Harbor, Franklin, and Cowlitz using the County Model (**Table 2**, **Map 1**). While identified as highest risk, two of these counties, Adams and Ferry, had less than 1000 low income births from 2013 – 2015, suggesting that fewer than 1,000 families may meet the low income requirement for home visiting services.

Map 2 depicts the proportion of risk factors in the highest risk quintile in the community. For example, in Grays Harbor 9 of the 16 (56%) indicators measured are in the top quintile of risk for Washington State. Adams, Ferry, Yakima, Franklin, and Grays Harbor are all in the top quintile with the highest proportion of risk factors in the top quintile of risk in the community. Therefore, these communities are experiencing a density of risk spread across many risk factors instead of their high risk status in the model being driven by a single or small collection of risk factors. Only one county, Yakima, is in the top quintile for number of low-income births, the proxy measure of total families in need of services. King county has the largest number of low-income births but is in the lowest quintile of risk for the County Model, and only 6% of risk factors are in the highest risk. In addition, Clark, King, and Thurston are all in the lower or lowest risk quintiles for the model despite having large numbers of low-income births. This suggests that there may be pockets of high risk in an otherwise low risk county.

School Locale Model

The Spokane metro area, South King county and Pierce county along the I-5 corridor, coastal regions including Grays Harbor and Pacific county, and large portions of central-eastern Washington including areas of Okanogan, Douglas, Grant, Franklin, Yakima, Klickitat, Benton and Asotin counties are in the highest risk quintile for the Locale Model (**Table 3**, **Map 3**). Of the 24 highest risk school locales, nine are also in the highest quintile for number of low-income births including: Yakima, Toppenish, Tacoma, Sunnyside, Clover Park, Spokane, Franklin Pierce, Pasco, and Highline school districts.

Map 4 depicts the proportion of risk factors in the top quintile in the community. For example, in Centralia school district 10 out of 14 (71%) risk factors measured are in the top quintile compared to Washington state. Areas around Spokane, Pierce county, south-central Washington including sections of Yakima, Klickitat, Benton, Franklin, Grant and Okanogan counties, and areas along the Pacific coast including Clallam, Jefferson, Grays Harbor, and Pacific counties are all areas with high concentrations of risk. Of the 18 school locales in the top quintile of concentrated risk, eight are also in the top quintile for number of low-income births: Yakima, Toppenish, Sunnyside, Tacoma, Spokane, Franklin Pierce, Clover Park, and Pasco (**Table 3**). Therefore, these communities are experiencing a density of risk spread across many risk factors instead of their high risk status in the model being driven by a single or small collection of risk factors.

Table 2: County Results

County Name	Low Income Births 2013–2015	County Index	Percentage Risk Factors Above the State Mean	Percentage Risk Factors in Top Quintile	Total Risk Factors Measured
Adams	956	0.25	86%	71%	14
Asotin	442	0.15	75%	44%	16
Benton	4494	0.02	69%	19%	16
Chelan	1918	0.02	56%	19%	16
Clallam	1249	0.15	75%	38%	16
Clark	7705	– 0.07	38%	0%	16
Columbia	60	– 0.19	38%	25%	16
Cowlitz	2098	0.19	94%	44%	16
Douglas	1049	0.04	56%	25%	16
Ferry	136	0.29	69%	63%	16
Franklin	3383	0.23	71%	57%	14
Garfield	40	– 0.19	36%	7%	14
Grant	3332	0.25	75%	50%	16
Grays Harbor	1245	0.23	88%	56%	16
Island	1075	– 0.12	50%	6%	16
Jefferson	337	0.03	56%	31%	16
King	25750	– 0.20	13%	6%	16
Kitsap	3597	– 0.15	25%	0%	16
Kittitas	599	– 0.09	31%	6%	16
Klickitat	399	0.11	62%	31%	13
Lewis	1700	0.14	81%	31%	16
Lincoln	149	– 0.37	31%	6%	16
Mason	1248	0.12	69%	31%	16
Okanogan	1134	0.16	75%	44%	16
Pacific	338	0.17	81%	38%	16
Pend Oreille	244	0.17	75%	50%	16
Pierce	16963	0.07	75%	13%	16
San Juan	179	– 0.37	19%	6%	16
Skagit	2668	0.11	88%	6%	16
Skamania	168	0.11	60%	27%	15
Snohomish	11113	– 0.08	13%	6%	16
Spokane	10463	0.05	75%	6%	16
Stevens	808	0.09	69%	31%	16
Thurston	4131	– 0.07	25%	0%	16
Wahkiakum	48	– 0.12	50%	31%	16
Walla Walla	1136	0.18	75%	25%	16
Whatcom	3449	– 0.05	38%	0%	16
Whitman	573	– 0.21	25%	6%	16
Yakima	9781	0.29	94%	63%	16

Lowest
Higher
Low
Highest
Neutral

Index = Orignal model averaging sub indices together

Race/Ethnicity Model

The Race/Ethnicity Model includes all the risk factors used in the County and School Locale Indices except domestic violence and child abuse prevalence. Non-Hispanic Native Hawaiian and Other Pacific Islanders (NH-NHOPI) are the highest risk group. Non- Hispanic American Indian and Alaska Natives (NH-AIAN), Hispanics, and NH-Black communities are also at high risk compared to Washington state at large. The NH-AIAN community has the largest number of risk factors in the top quintile of risk (**Table 4**).

Distribution of Home Visiting Services

In 2017, the Department of Early Learning (DEL) completed a Home Visiting Scan which describes the distribution of home visiting programs operating across Washington state (**Full Report**). In total, 32 of 39 counties in Washington received any home visiting services from at least one program, with a total of 8,852 funded slots (i.e., clients or families) statewide. One-quarter of the slots in Washington are funded by the HVSA, the remainder receive a mix of private and other funds.

To inform our understanding of potential need and unmet need for services across the state, we examined two pieces of information: low income births and total home visiting slots funded. **Map 5** presents the potential need for home visiting services by county, indicated by the number of low income births from 2013-2015 (red shading). The second layer of data are the total number of funded home visiting slots by county, represented by the circles. The size of the circle is proportional to the number of funded slots, ranging from 10 slots in Skamania to 2,476 slots in King County. Seven counties have no funded home visiting services.

Using the number of slots and the low income birth data, we estimated the proportion of need met (number of funded slots divided by number of low income births) and the absolute number of potential families with unmet need (**Table 5**). The met need ranges from a high of 56% in Pend Oreille to 0% in seven counties without any funded home visiting slots: Asotin, Columbia, Ferry, Garfield, Lincoln, San Juan, and Stevens. The counties with the largest number of families potentially in need of services are King, Pierce, Snohomish, Spokane, and Yakima, defined as the difference between the number of low-income births 2013–2015 and the number of funded home visiting slots.

In using this data, it is important to consider first the risk in the community using the County Model, then the number of low income births, and finally the proportion of need met. Note proportion of need met does not take into account that additional services, such as Early Childhood Education and Assistance (ECEAP), other Pre-Kindergarten services, or access to health care which may be more available in urban centers than rural areas. Illustrating this concept, King County is in the lowest quintile of the index for the County Model, yet has 2,476 home visiting slots and 25,750 low income births, which represents 10% coverage of the potential need. In comparison, Pierce County is in the neutral quintile of risk for the County Model, has 425 home visiting slots and 16,963 low income births, representing 4% coverage of the potential need. Both of these counties have large urban centers and potentially good access to otherservices such as ECEAP, but Pierce county has only 4% compared to 10% in King county of thepotential home visiting need met. This comparison can also be made in rural

of the potential need. Both of these counties have large urban centers and potentially good access to otherservices such as ECEAP, but Pierce county has only 4% compared to 10% in King county of thepotential home visiting need met. This comparison can also be made in rural areas. For example,Franklin county is the top quintile of risk for the County Model, has 170 funded home visitingslots, and 3,383 low income births, representing 5% of the potential need met. In comparison,Ferry County is in the highest quintile of risk, has no funded home visiting slots, and 136 lowincome births, representing 0% of the need met. While Ferry county has 0% of its potential needmet, there are only approximately 136 families potentially in need of services compared withover 3,000 in Franklin county.

Discussion

Interpreting the Results

The two geographic models, county and school locale, provide different lenses to support planning for distribution of home visiting services across Washington state. The county model provides risk estimates at the same geography used for planning many public health interventions and is similar to the methods used in 2011 with results mirroring those from the 2011. Most of the geographies identified as high risk in 2011 are high risk in 2017. Furthermore, the geographies identified as highest risk in 2011 continued to be highest risk in 2017.

With very few exceptions, counties identified as highest risk in the county model contain school locales in the highest risk quintile as well. Of the eight counties with the highest number of low-income births (King, Pierce, Snohomish, Spokane, Yakima, Clark, Benton, and Thurston), only one is in the highest risk quintile in the County Model. Therefore, the County Model is better able to identify smaller population counties with high relative risk compared to the state, than counties with diverse, large populations and pockets of high risk.

The school locale model provides the ability to identify high risk areas within counties that on average appear to be low or neutral risk. This is important for larger and diverse counties. While the locale model identifies sub-county areas within King, Snohomish, Pierce, and Spokane counties to be high risk, in the county model they are in the neutral and lower risk quintiles. For example, the Locale Model identifies two highest risk school locales in the Spokane metro area, but in the County Model Spokane is a neutral risk county. In addition, three school locales in South King county are identified as the highest or second highest risk quintile in the Locale Model, but King county is in the lowest risk category as a whole in the County Model. Nine of the school locales with the highest number of low-income births are also in the highest risk quintile for the Locale Model.

Although the Locale Model is an effective way to identify high risk pockets in large counties it may be difficult to use in rural areas. In order to ensure that all school locales had at least 20,000 residents, some school locales include multiple counties. For example school locale number 26 includes Garfield, Columbia, and portions of Walla Walla and Franklin counties. In rural, sparsely populated areas, school locales may cover too large a geographic area to support an individual program.

Both the County and Locale models compare the relative need for home visiting in each geography to Washington state as a whole. Neither captures the total number of potential families who may benefit from services, or absolute need, such that school locales may have a low relative risk, but a high number of families potentially may benefit from home visiting services. For example, Seattle school district and Central Valley are both classified as low risk school locales; however, both are in the top quintile for number of low-income births.

The race/ethnicity model highlights the increased risk faced by diverse populations, especially: American Indian/Alaska Native, Native Hawaiian/Other Pacific Islanders, Hispanic and Black communities irrespective of where they live.

How to Use the Data

Organizations wishing to use this report to inform grants or programming, should first carefully consider which model to use: County, School Locale or Race/Ethnicity. If interested in populous counties (i.e. King, Pierce, Snohomish), the locale model will provide the detail needed to understand the heterogeneity of risk across the geography. If interested in serving an entire county, the county model will provide a homogenous risk estimate and allow for comparisons of risk across counties. Finally, if interested in serving a specific race or ethnic groups, the race/ethnicity model will be ideal.

One approach to using the data is to look at locales within a specific county of interest. **Map 6** shows all of the school locales with at least some portion of the locale within Yakima county. Yakima county is in the highest risk quintile for the County Model, but when using the Locale Model the risk is not uniformly distributed across the county. Instead, the highest risk is centered in the Southern portion of the county. Note, school locale boarders can cross county borders. One highest risk locale is split between Yakima and Klickitat counties. This may highlight opportunities to collaborate with organizations in other counties or redefine service catchment areas. Next, organizations should consider the number of low-income births in the area as a proxy for number of families who may potentially benefit from services. If the number of low-income births is small, there may not be enough families to support a home visiting program. In these cases, expanding the service area to cover more families may be warranted. Finally, organizations should consider the findings from the Home Visiting Scan. Yakima currently has 804 funding home visiting slots which represents 8% of the potential need.

For organizations that want to better understand the factors driving the risk in their communities, Supplemental Tables 1, 2, and 3 show the prevalence of each of the risk factors used in the County, Locale, and Race/Ethnicity Models, respectively. For example, organizations may be interested in the prevalence of birth outcomes such as low birth weight and preterm birth to understand the need for home visiting services in their communities.

Conclusions

The 2017 Needs Assessment provides data for communities, organizations and policy makers about potential unmet need for home visiting services In Washington State. Jurisdictions with existing services can use the information to review how the risk profile of families may have changed or identify smaller communities within their service area. In the event that additional funding becomes available, this report can be used to identify emerging areas with higher risk that could benefit from home visiting services.

Data Sources

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3. Research and Data Analysis, Department of Social and Health Services. *Community Outcome Risk Evaluation (CORE)* (2011-2015). Available upon request.

4. US Census Bureau. American Community Survey Five Year Estimates, 2011-2015 (2016). Available Online: **https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml**.

5. Washington State Department of Health. *Washington State Geocoded Birth File* (2011-2015). Available upon request.

6. Washington State Department of Health. *Healthy Youth Survey* (2016). Available upon request.

Table 3 (a): Locale Indices (Locales 1 – 41)

Largest School District	Locale	Low Income Births 2013–2015	Index	Percentage Risk Factors Above the State Mean	Percentage Risk Factors in Top Quintile	Total Risk Factors Measured
Spokane	1	5746	0.28	83%	58%	12
Central Valley	2	1505	– 0.12	21%	0%	14
Mead	3	747	– 0.14	38%	23%	13
Pullman	4	400	– 0.35	21%	21%	14
East Valley (Spokane)	5	611	0.03	69%	23%	13
West Valley (Spokane)	6	375	0.07	75%	25%	12
Cheney	7	1051	– 0.15	45%	18%	11
Riverside	8	502	– 0.14	62%	23%	13
Colville	9	328	0.10	71%	36%	14
Newport	10	452	0.15	79%	50%	14
Kettle Falls	11	280	0.05	67%	42%	12
Reardan	12	275	– 0.30	21%	0%	14
Colfax	13	173	– 0.21	33%	8%	12
Yakima	14	3617	0.43	93%	79%	14
West Valley (Yakima)	15	444	– 0.23	8%	8%	13
Sunnyside	16	2131	0.32	86%	64%	14
Ellensburg	17	390	– 0.00	50%	14%	14
Cle Elum– Roslyn	18	961	0.14	57%	43%	14
Selah	19	754	– 0.00	62%	15%	13
Goldendale	20	566	0.41	93%	79%	14
East Valley (Yakima)	21	804	– 0.01	54%	23%	13
Toppenish	22	1644	0.43	86%	71%	14
Othello	23	1248	0.23	86%	64%	14
Prosser	24	603	0.21	83%	67%	12
Kennewick	25	2746	0.13	86%	36%	14
Columbia (Walla Walla)	26	267	0.09	83%	17%	12
Walla Walla	27	980	0.12	64%	29%	14
Clarkston	28	442	0.24	86%	43%	14
Pasco	29	3002	0.23	79%	57%	14
Richland	30	1127	– 0.05	36%	7%	14
Tonasket	31	351	0.23	64%	43%	14
Omak	32	508	0.21	64%	29%	14
Grand Coulee Dam	33	558	0.30	82%	55%	11
Ephrata	34	897	0.24	79%	50%	14
Lake Chelan	35	602	0.11	38%	38%	13
Cascade	36	337	– 0.09	23%	0%	13
Eastmont	37	808	0.03	50%	29%	14
Wenatchee	38	1237	0.16	57%	43%	14
Moses Lake	39	1385	0.23	64%	50%	14
Lynden	40	632	– 0.05	50%	14%	14

Lowest
Higher
Low
Highest
Neutral

Index = Orignal model averaging sub indices together

Table 3 (b): Locale Indices (Locales 42 – 82)

Largest School District	Locale	Low Income Births 2013 – 2015	Index	Percentage Risk Factors Above the State Mean	Percentage Risk Factors in Top Quintile	Total Risk Factors Measured
Mount Baker	41	747	– 0.01	46%	15%	13
San Juan Island	42	179	– 0.16	43%	21%	14
Anacortes	43	252	– 0.09	36%	7%	14
Burlington Edison	44	490	0.12	64%	36%	14
Sultan	45	602	0.02	77%	38%	13
Mt Vernon	46	1251	0.16	64%	29%	14
Arlington	47	619	– 0.03	62%	0%	13
South Whidbey	48	207	– 0.15	46%	15%	13
Edmonds	49	2120	– 0.06	29%	7%	14
Everett	50	2237	0.04	64%	0%	14
Ferndale	51	690	0.11	57%	29%	14
Bellingham	52	1380	– 0.06	29%	7%	14
Lake Stevens	53	512	– 0.12	21%	0%	14
Marysville	54	1363	0.14	86%	14%	14
Monroe	55	521	– 0.10	31%	8%	13
Mukilteo	56	2263	0.12	77%	23%	13
Oak Harbor	57	737	– 0.06	57%	0%	14
Sedro Woolley	58	563	0.16	79%	36%	14
Snohomish	59	427	– 0.25	0%	0%	13
Stanwood	60	363	– 0.20	31%	8%	13
Riverview	61	116	– 0.38	0%	0%	13
Renton	62	3013	0.08	79%	21%	14
Peninsula	63	544	– 0.15	38%	8%	13
University Place	64	717	– 0.15	29%	0%	14
Puyallup	65	2321	– 0.04	50%	0%	14
Sumner	66	684	– 0.22	23%	0%	13
Eatonville	67	386	– 0.11	62%	0%	13
Seattle	68	5483	– 0.13	36%	14%	14
Tacoma	69	5033	0.34	92%	58%	12
Lake Washington	70	852	– 0.44	7%	7%	14
Kent	71	3802	0.03	71%	29%	14
Federal Way	72	3313	0.10	64%	29%	14
Highline	73	3676	0.22	75%	42%	12
Bellevue	74	647	– 0.26	21%	14%	14
Northshore	75	771	– 0.34	7%	7%	14
Clover Park	76	3154	0.31	93%	57%	14
Bethel	77	2124	0.06	85%	15%	13
Issaquah	78	361	– 0.39	0%	0%	13
Auburn	79	2481	0.18	79%	36%	14
Shoreline	80	580	– 0.28	14%	0%	14

Lowest Low Neutral
Higher Highest

Index = Orignal model averaging sub indices together

Table 3 (c): Locale Indices (Locales 83 – 118)

Largest School District	Locale	Low Income Births 2013–2015	Index	Percentage Risk Factors Above the State Mean	Percentage Risk Factors in Top Quintile	Total Risk Factors Measured
Franklin Pierce	81	1540	0.25	100%	58%	12
Tahoma	82	280	– 0.47	25%	8%	12
Snoqualmie Valley	83	172	– 0.34	0%	0%	13
Enumclaw	84	291	– 0.09	31%	15%	13
White River	85	253	– 0.17	31%	15%	13
Mercer Island	86	38	– 0.71	0%	0%	14
Bainbridge Island	87	73	– 0.49	21%	14%	14
North Thurston	88	1744	– 0.03	43%	0%	14
Olympia	89	779	– 0.09	36%	0%	14
Tumwater	90	546	– 0.05	50%	14%	14
Yelm	91	588	– 0.02	62%	8%	13
Centralia	92	726	0.39	93%	71%	14
Rochester	93	510	0.01	69%	15%	13
Shelton	94	672	0.04	69%	15%	13
Onalaska	95	337	0.09	69%	38%	13
Chehalis	96	558	0.01	50%	8%	12
Ocosta	97	274	0.24	69%	62%	13
Elma	98	391	0.10	71%	29%	14
Aberdeen	99	656	0.32	86%	71%	14
Pioneer	100	495	0.03	73%	27%	11
Central Kitsap	101	1307	– 0.13	23%	0%	13
Port Angeles	102	933	0.09	64%	14%	14
Port Townsend	103	273	0.03	57%	14%	14
South Kitsap	104	912	– 0.09	54%	15%	13
Bremerton	105	1047	0.30	93%	64%	14
North Kitsap	106	511	– 0.19	23%	0%	13
Quillayute Valley	107	380	0.13	55%	55%	11
Vancouver	108	3080	0.08	62%	23%	13
Evergreen (Clark)	109	2710	– 0.00	46%	8%	13
Battle Ground	110	1102	– 0.22	23%	0%	13
Longview	111	1048	0.24	64%	64%	14
Kelso	112	632	0.19	71%	50%	14
Ocean Beach	113	211	0.01	64%	14%	14
Woodland	114	470	– 0.05	36%	7%	14
Ridgefield	115	241	– 0.15	15%	0%	13
Camas	116	321	– 0.37	0%	0%	14
Washougal	117	270	– 0.08	33%	8%	12
White Salmom	118	353	0.08	50%	33%	12

Lowest Low Neutral
Higher Highest

Index = Orignal model averaging sub indices together

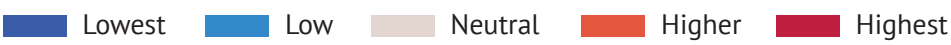
Table 4: Race and Ethnicity Indices

Race	MCH Index	Reduced MCH Index (No Death or Teen Births)	Education Index	Drug and Alcohol Index	SES Index
Hispanic Only	0.20	0.09	0.39	0.18	0.78
NH White Only	– 0.15	– 0.13	– 0.12	– 0.11	– 0.31
NH Black Only	0.36	0.40	0.30	0.37	0.43
NH Amer Ind Only	0.59	0.53	0.55	0.40	0.31
NH Asian Only	– 0.38	0.05	– 0.26	– 0.71	0.21
NH NHOPI Only	0.42	0.51	0.51	0.25	0.51
NH Multiple Race	0.26	0.15	– 0.07	0.11	0.01

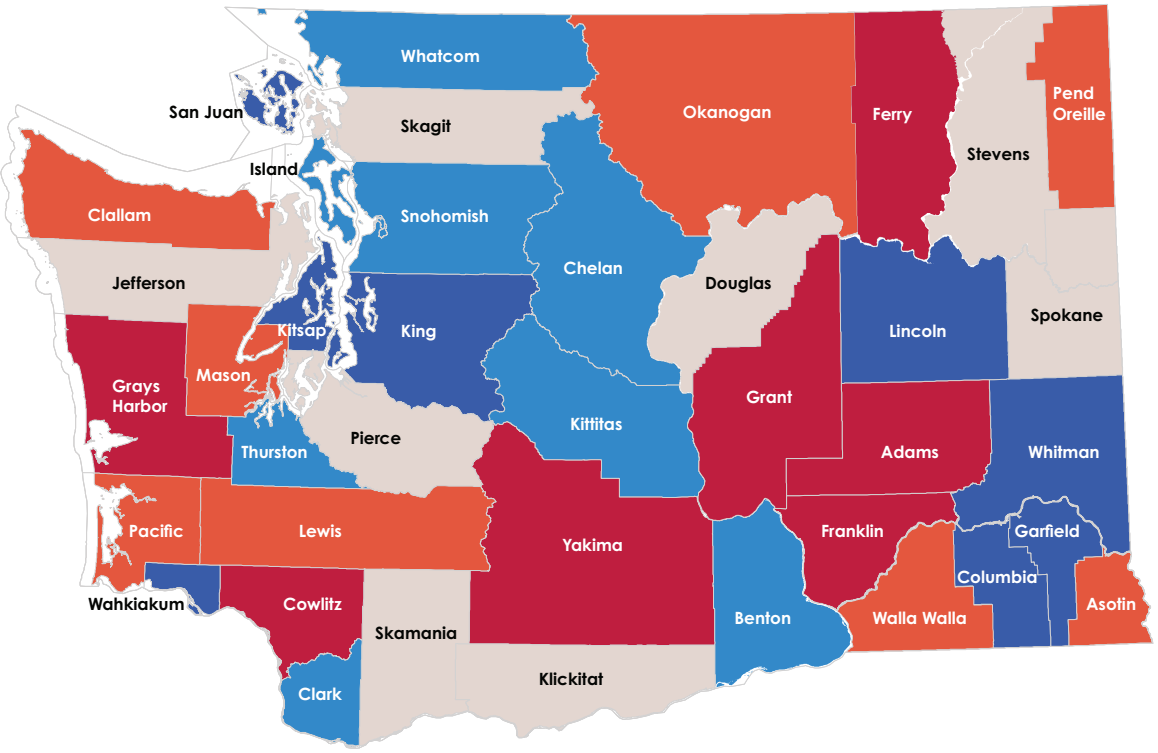
Race	Low income Births 2013 – 2015	Race Index	Total Risk Factors Above the State Mean	Total Risk Factors in Top Quartile
Hispanic Only	37718	0.33	13	3
NH White Only	61617	– 0.14	0	0
NH Black Only	8227	0.33	12	6
NH Amer Ind Only	2986	0.35	13	12
NH Asian Only	6183	– 0.24	3	1
NH NHOPI Only	2545	0.45	14	8
NH Multiple Race	5718	0.12	10	0

Table 5: Low Income Births and Met and Unmet Needs

County Name	Home Visiting Slots	Low Income Births 2013–2015	Percentage Need Met	Absolute Unmet Need
Adams	130	956	14%	826
Asotin	0	442	0%	442
Benton	180	4494	4%	4314
Chelan	50	1918	3%	1868
Clallam	211	1249	17%	1038
Clark	295	7705	4%	7410
Columbia	0	60	0%	60
Cowlitz	276	2098	13%	1822
Douglas	14	1049	1%	1035
Ferry	0	136	0%	136
Franklin	170	3383	5%	3213
Garfield	0	40	0%	40
Grant	242	3332	7%	3090
Grays Harbor	268	1245	22%	977
Island	11	1075	1%	1064
Jefferson	25	337	7%	312
King	2476	25750	10%	23274
Kitsap	277	3597	8%	3320
Kittitas	38	599	6%	561
Klickitat	36	399	9%	363
Lewis	101	1700	6%	1599
Lincoln	0	149	0%	149
Mason	143	1248	11%	1105
Okanogan	214	1134	19%	920
Pacific	100	338	30%	238
Pend Oreille	136	244	56%	108
Pierce	425	16963	3%	16538
San Juan	0	179	0%	179
Skagit	140	2668	5%	2528
Skamania	10	168	6%	158
Snohomish	602	11113	5%	10511
Spokane	448	10463	4%	10015
Stevens	0	808	0%	808
Thurston	325	4131	8%	3806
Wahkiakum	25	48	52%	23
Walla Walla	122	1136	11%	1014
Whatcom	199	3449	6%	3250
Whitman	16	573	3%	557
Yakima	804	9781	8%	8977



Map 1: County Model of Need for Home Visiting Services

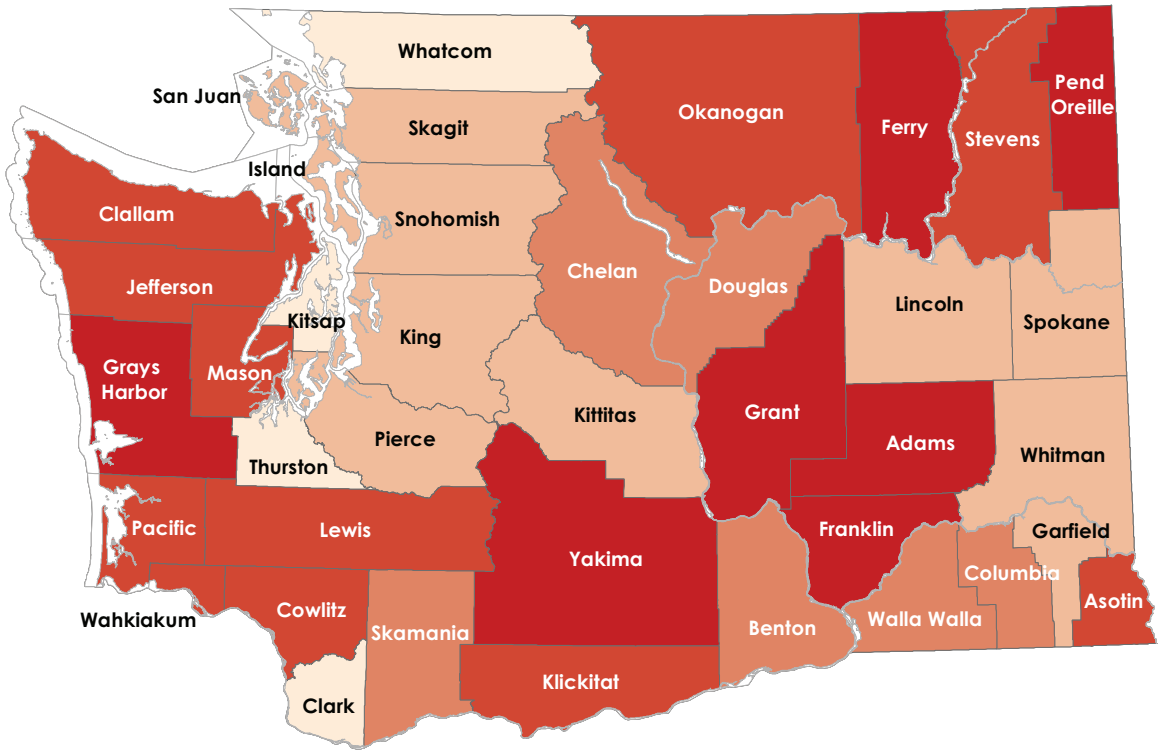


Legend

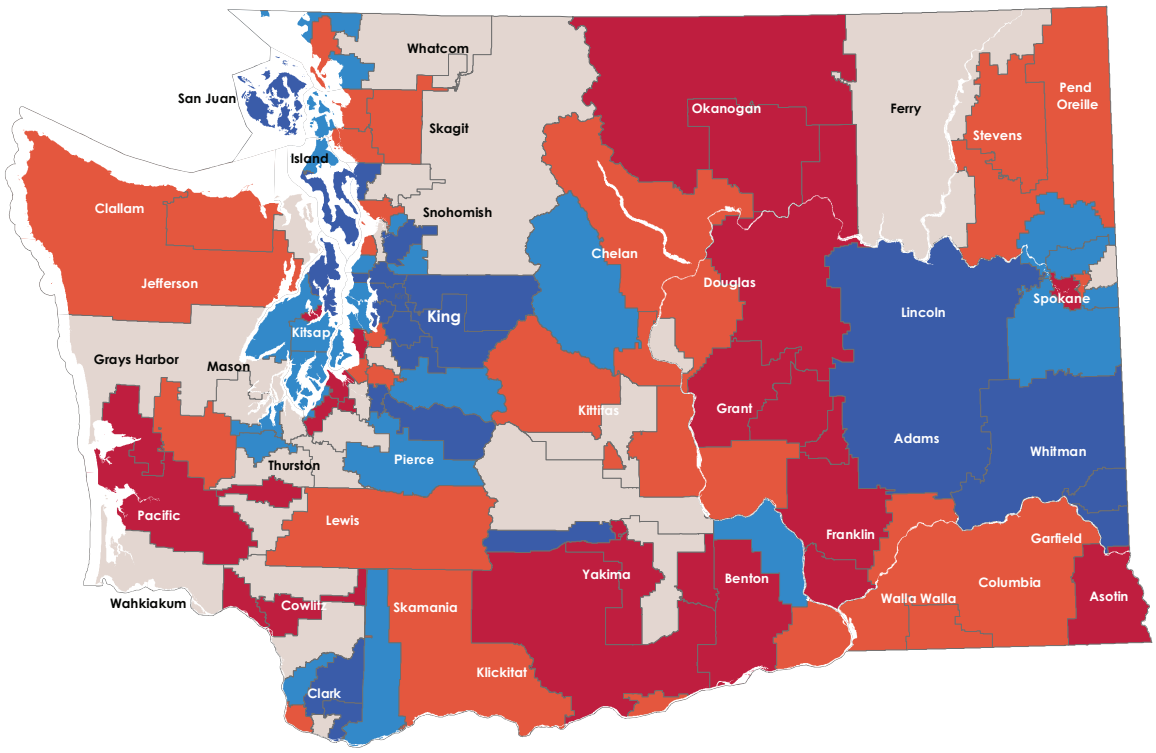
Lowest | Low | Neutral | Higher | Highest

Risk Factors used include LBW, preterm birth, late/no prenatal care, teen births, infant deaths, poverty, unemployment, female headed households with children under age 6, speak English less than very well, SBA ELA, SBA Math, WA KIDS, child abuse, IPV, 10th grade drug use, 10th grade binge drinking

Map 2: Proportion of Risk Factors in Top Quintile



Map 3: School Locale Model of Need for Home Visiting Services

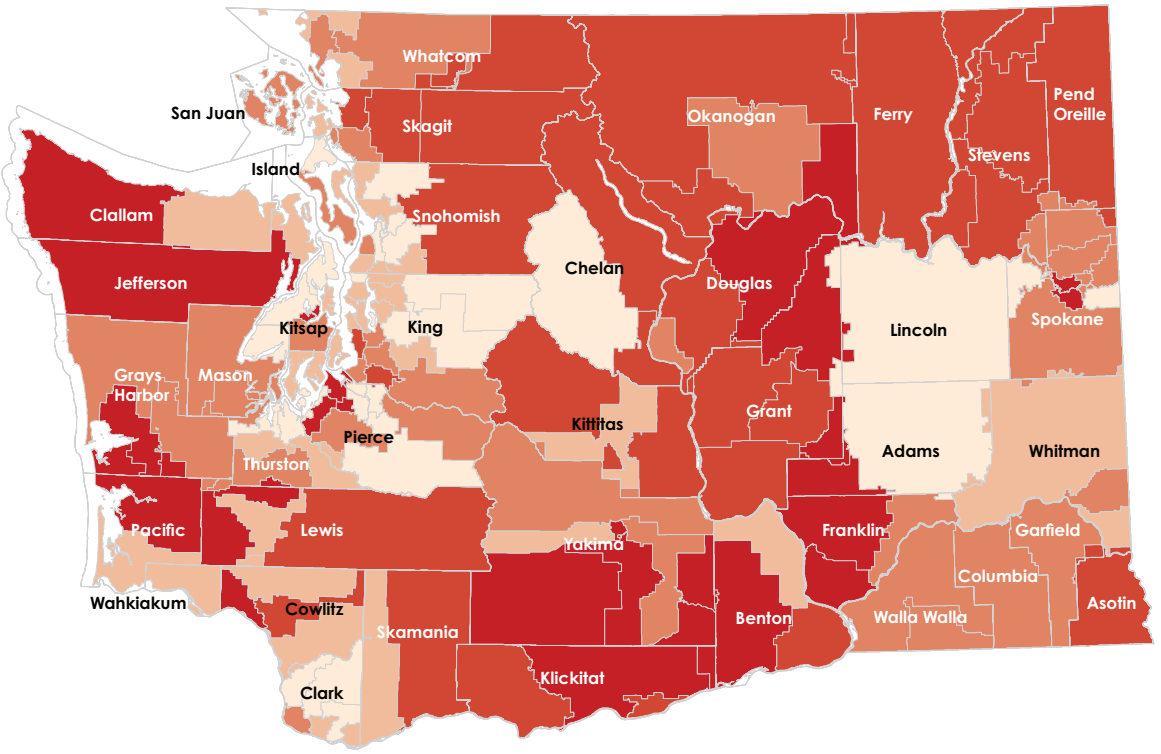


Legend

Lowest | Low | Neutral | Higher | Highest

Risk Factors used include LBW, preterm birth, late/no prenatal care, teen births, infant deaths, poverty, unemployment, female headed households with children under age 6, speak English less than very well, SBA ELA, SBA Math, WaKIDS, child abuse, IPV, 10th grade drug use, 10th grade binge drinking

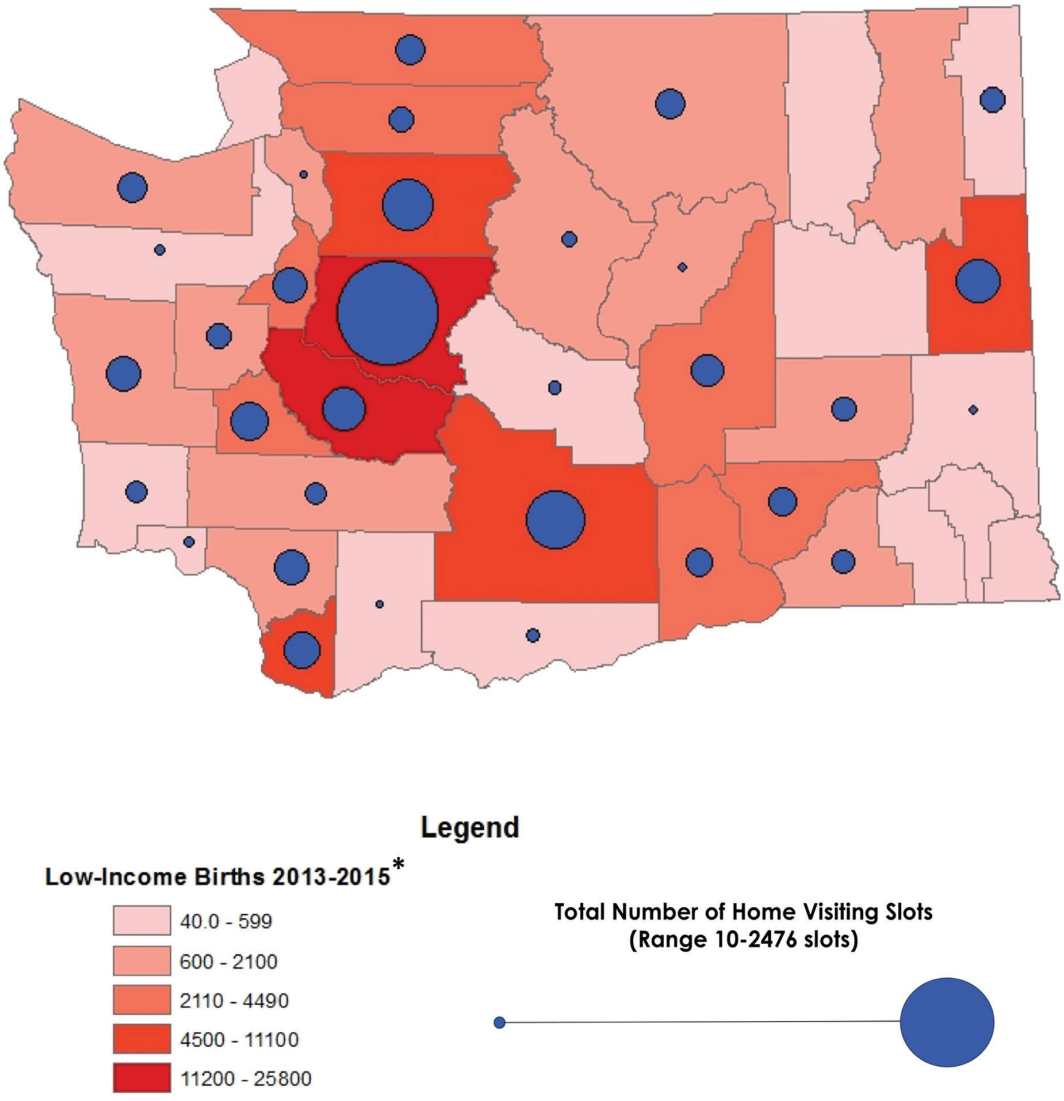
Map 4: Proportion of Risk Factors in the Top Quintile



Legend

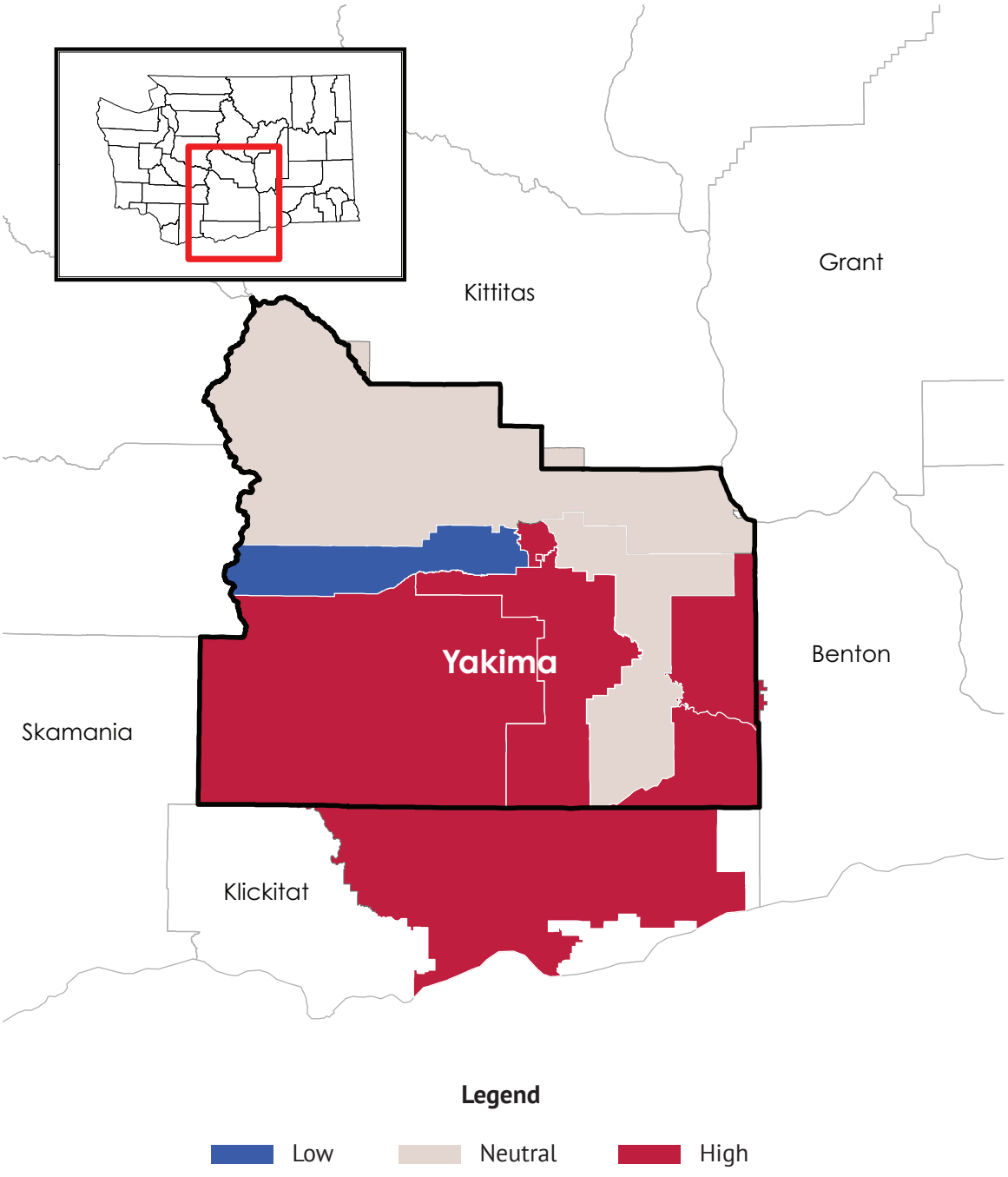
0% 1%–14% 15%–29% 30%–49% 51%–79%

Map 5: Concentration of Home Visiting Services in Washington State



*Defined as the total number of births to women from 2013-2015 who gave birth in Washington State and reported using WIC/ and/or Medicaid during pregnancy (source: Washington State Birth File). The three year total gives us the number of low income pregnant women and women with a child under two which serves as a our proxy for families potentially in need of services.

Map 6: School Locales that Overlap with Yakima County



Supplemental Table 1: County Prevalences

County Name	Failed 3rd Grade ELA	Failed 3rd Grade Math	Failed WaKIDS	IPV Rate Per 1000	Child Abuse Per 1000 (Age 0–17)	Female Headed Households With Children Under 6	Unemployment	Speak English "Less Than Very Well"
Washington State	46%	41%	53%	6.14	33.38	5.8%	7.9	7.7
Adams	66%	55%	67%	9.35	17.38	7.1%	9.6	27.1
Asotin	47%	50%	67%	9.18	68.93	6.2%	9.6	0.6
Benton	49%	44%	56%	5.48	28.66	6.9%	6.9	8.0
Chelan	59%	54%	60%	6.16	25.48	4.5%	7.5	10.0
Clallam	49%	43%	49%	9.63	52.18	9.6%	9.9	2.0
Clark	44%	42%	54%	6.49	26.32	4.7%	8.6	5.9
Columbia	33%	29%	35%	2.81	44.76	4.2%	10.4	1.6
Cowlitz	56%	49%	64%	8.76	54.55	7.7%	10.7	2.8
Douglas	47%	51%	59%	4.70	27.25	4.4%	6.5	13.1
Ferry	62%	63%	48%	5.54	51.22	7.0%	12.2	0.6
Franklin	71%	62%	59%	6.87	22.29	8.9%	7.2	23.5
Garfield	28%	48%	19%	7.65	68.06	6.6%	7.4	0.8
Grant	67%	61%	62%	9.68	36.12	5.3%	10.1	18.2
Grays Harbor	58%	53%	43%	8.09	53.63	8.2%	14.3	3.9
Island	48%	43%	49%	3.77	38.44	5.6%	9.0	2.4
Jefferson	54%	48%	52%	5.75	48.04	3.5%	9.5	1.1
King	37%	33%	39%	4.24	24.67	4.7%	6.3	10.5
Kitsap	42%	37%	49%	5.33	31.53	5.6%	8.0	2.3
Kittitas	42%	44%	54%	5.22	35.72	5.0%	7.8	3.2
Klickitat	68%	61%	66%	5.62	50.27	7.0%	7.0	3.4
Lewis	52%	42%	54%	7.68	48.50	7.2%	12.1	4.2
Lincoln	52%	37%	46%	5.62	37.65	2.9%	4.8	0.4
Mason	58%	47%	52%	5.26	49.90	5.8%	12.9	3.8
Okanogan	57%	54%	51%	6.05	42.79	8.6%	8.9	7.7
Pacific	58%	61%	50%	6.44	57.97	5.9%	8.9	4.6
Pend Oreille	51%	38%	46%	10.57	63.15	5.9%	10.3	0.6
Pierce	50%	44%	49%	9.03	37.19	6.7%	9.2	5.7
San Juan	31%	24%	37%	2.20	36.59	6.6%	5.9	2.0
Skagit	53%	47%	56%	8.43	41.44	6.9%	8.2	6.5
Skamania	77%	70%		6.23	58.07	6.3%	8.3	2.0
Snohomish	44%	41%	51%	5.35	31.90	5.4%	7.5	7.9
Spokane	46%	41%	57%	8.07	49.42	6.3%	8.4	3.1
Stevens	58%	56%	64%	8.16	47.10	6.2%	9.4	0.8
Thurston	45%	40%	46%	4.80	29.27	5.4%	8.5	4.7
Wahkiakum	49%	40%	23%	4.90	45.51	3.3%	10.6	0.5
Walla Walla	55%	52%	57%	6.42	37.27	5.7%	6.4	8.5
Whatcom	50%	44%	46%	5.06	44.61	5.8%	8.2	4.8
Whitman	30%	26%	29%	4.62	29.82	7.6%	8.8	4.5
Yakima	66%	57%	67%	9.11	36.66	8.2%	9.0	16.6

Lowest Low Neutral Higher Highest Missing one or more indicator(s)

Supplemental Table 1: County Prevalences (continued)

County Name	Families Living in Poverty	Infants Born With Low Birth Weight Per 100 Live Births	Infants Born Preterm Per 100 Live Births	Mothers With Late or No Prenatal Care Per 100 Live Births	Births to Teen Mothers (15– 19) Per 100 Live Births	Infants Deaths Per 1000 Live Births	10th Grade Drug Use (Including Marijuana)	10th Grade Binge Drinking
Washington State	8.9	6.43	9.55	6.38	0.05	4.60	18.0	10.7
Adams	17.6	7.24	13.63	6.70	0.12	2.65		
Asotin	10.0	6.10	8.61	5.44	0.09	6.93	23.6	17.5
Benton	10.6	6.71	11.13	7.51	0.07	4.97	17.7	10.0
Chelan	10.0	5.52	9.67	6.14	0.07	3.94	16.4	11.9
Clallam	8.8	6.23	12.04	7.53	0.07	9.38	20.4	13.3
Clark	7.9	6.11	9.99	5.24	0.05	3.52	16.4	10.1
Columbia	10.8	12.84	12.84	5.66	0.05	9.17	15.0	5.3
Cowlitz	12.5	6.63	10.01	6.39	0.08	5.87	19.7	13.1
Douglas	9.8	5.61	9.57	5.24	0.07	2.55	22.9	17.2
Ferry	14.0	6.34	10.40	5.76	0.09	9.76	57.1	33.3
Franklin	15.4	5.46	10.94	8.96	0.08	4.06		
Garfield	4.4	2.70	8.11	4.05	0.03	0.00	0.0	11.4
Grant	12.7	5.80	8.89	6.62	0.09	3.82	20.6	14.1
Grays Harbor	11.7	7.80	10.98	8.17	0.07	4.77	25.1	14.8
Island	6.6	5.14	7.46	7.56	0.04	5.17	18.6	11.0
Jefferson	6.0	6.96	8.73	8.15	0.04	8.70	28.8	16.9
King	7.0	6.65	8.98	5.77	0.02	4.07	14.1	8.9
Kitsap	7.0	6.57	9.13	6.92	0.04	5.35	15.2	8.2
Kittitas	12.0	6.22	8.89	2.54	0.03	4.15	16.0	14.9
Klickitat	10.9	4.71	9.71	6.17	0.06	0.00	0.0	0.0
Lewis	10.5	6.93	9.33	5.86	0.08	8.74	19.0	11.8
Lincoln	9.7	5.15	7.61	2.81	0.07	6.87	8.2	5.7
Mason	10.8	5.79	9.24	8.87	0.08	5.46	22.0	12.5
Okanogan	15.3	6.86	10.91	9.91	0.09	2.00	19.1	13.4
Pacific	10.2	7.07	10.83	7.82	0.07	8.83	17.9	13.2
Pend Oreille	17.5	6.70	11.73	5.29	0.08	16.76	21.4	16.3
Pierce	8.9	6.65	9.70	7.73	0.05	5.54	18.5	10.3
San Juan	7.5	3.19	2.89	7.64	0.04	3.55	11.4	9.7
Skagit	10.9	5.92	9.83	6.77	0.06	4.64	18.8	12.1
Skamania	9.7	6.01	9.54	6.34	0.07	3.53	8.0	15.8
Snohomish	6.8	6.10	9.22	6.87	0.03	3.55	17.3	9.4
Spokane	10.3	7.09	10.28	4.64	0.05	5.39	18.6	11.3
Stevens	13.0	5.75	9.07	5.63	0.08	4.48	22.4	14.0
Thurston	8.5	6.02	9.55	6.85	0.04	5.38	19.7	9.8
Wahkiakum	10.8	7.41	6.17	9.09	0.10	12.35	14.3	9.7
Walla Walla	12.3	6.34	10.41	6.30	0.08	5.90	31.2	14.8
Whatcom	10.1	5.48	8.03	6.17	0.04	3.91	17.1	9.1
Whitman	12.1	5.61	7.29	3.66	0.02	6.73	11.0	9.9
Yakima	16.5	6.62	11.01	6.07	0.10	4.88	21.4	12.0

Lowest Low Neutral Higher Highest Missing one or more indicator(s)

Supplemental Table 2 (a): School Locale Prevalences (Locales 1–39)

Locale	Largest School District in Locale	Child Abuse Per 1000 (Age 0– 17)	IPV Rate Per 1000	Families Living in Poverty	Speak English "Less Than Very Well"	Unemployment	Female Headed Households Wtih Children Under 6	Moved Counties in the Past Year
	Washington State	33.36	5.83	0.09	0.08	0.08	0.06	0.03
1	Spokane	83.97	11.18	0.20	0.04	0.09	0.09	0.03
2	Central Valley	40.29	5.15	0.12	0.03	0.08	0.04	0.01
3	Mead	37.40		0.09	0.02	0.08	0.04	0.03
4	Pullman	29.16	4.10	0.40	0.06	0.10	0.08	0.23
5	East Valley (Spokane)	50.13		0.15	0.03	0.07	0.05	0.01
6	West Valley (Spokane)			0.12	0.03	0.09	0.06	0.02
7	Cheney	43.28		0.17	0.03	0.09	0.04	0.08
8	Riverside	39.19		0.12	0.01	0.07	0.02	0.03
9	Colville	69.52	7.89	0.19	0.01	0.08	0.09	0.02
10	Newport	69.23	9.16	0.21	0.01	0.12	0.05	0.04
11	Kettle Falls	62.23	6.44	0.21	0.00	0.12	0.08	0.05
12	Reardan	45.98	5.50	0.13	0.02	0.06	0.04	0.04
13	Colfax	47.70	5.60	0.13	0.01	0.05	0.07	0.05
14	Yakima	59.44	10.37	0.27	0.21	0.12	0.12	0.02
15	West Valley (Yakima)	30.94		0.07	0.05	0.06	0.03	0.01
16	Sunnyside	28.21	6.53	0.23	0.23	0.10	0.11	0.01
17	Ellensburg	41.92	5.19	0.28	0.04	0.07	0.07	0.15
18	Cle Elum– Roslyn	27.38	5.23	0.17	0.24	0.09	0.04	0.03
19	Selah	35.00		0.14	0.08	0.06	0.07	0.01
20	Goldendale	72.13	6.18	0.22	0.08	0.12	0.10	0.02
21	East Valley (Yakima)	42.32		0.14	0.10	0.07	0.04	0.01
22	Toppenish	53.28	9.85	0.32	0.21	0.09	0.05	0.01
23	Othello	16.14	6.00	0.23	0.30	0.09	0.09	0.05
24	Prosser	30.54	4.66	0.18	0.17	0.10	0.06	0.02
25	Kennewick	37.46	5.28	0.16	0.09	0.07	0.08	0.05
26	Columbia (Walla Walla)	42.38	4.96	0.15	0.05	0.09	0.08	0.04
27	Walla Walla	49.19	6.21	0.18	0.09	0.06	0.08	0.06
28	Clarkston	84.25	9.09	0.15	0.01	0.10	0.08	0.01
29	Pasco	29.28	7.36	0.18	0.23	0.07	0.08	0.05
30	Richland	34.72	5.67	0.10	0.04	0.06	0.08	0.03
31	Tonasket	57.03	5.45	0.19	0.06	0.10	0.08	0.02
32	Omak	67.22	7.41	0.22	0.05	0.07	0.08	0.03
33	Grand Coulee Dam	44.75		0.20	0.12	0.12	0.08	0.04
34	Ephrata	35.57	7.88	0.19	0.21	0.10	0.08	0.02
35	Lake Chelan	24.97		0.19	0.16	0.06	0.08	0.02
36	Cascade	23.43		0.14	0.07	0.08	0.08	0.02
37	Eastmont	34.60	4.41	0.14	0.11	0.07	0.08	0.04
38	Wenatchee	35.99	5.78	0.13	0.10	0.08	0.08	0.05
39	Moses Lake	62.08	11.71	0.15	0.09	0.10	0.08	0.04

Lowest Low Neutral Higher Highest Missing one or more indicator(s)

Supplementary Table 2 (a): School Locale Prevalences (Locales 1–39) (continued)

Locale	Largest School District in Locale	Changed School Mid Year (Elementary)	Failed 3rd Grade ELA	Failed 3rd Grade Math	Failed WaKIDS	Infants Born With Low Birth Weight	Infants Born Preterm	Mothers with Late or No Prenatal Care
	Washington State	0.07	0.46	0.41	0.53	0.06	0.09	0.05
1	Spokane	0.09	0.49	0.45	0.66	0.07	0.11	0.04
2	Central Valley	0.07	0.41	0.33	0.46	0.06	0.09	0.03
3	Mead	0.04	0.35	0.29	0.51	0.07	0.11	0.03
4	Pullman	0.07	0.31	0.24	0.32	0.05	0.08	0.03
5	East Valley (Spokane)		0.55	0.53	0.40	0.08	0.10	0.05
6	West Valley (Spokane)	0.05	0.52	0.43	0.60	0.07	0.08	0.04
7	Cheney	0.07	0.44	0.39	0.41	0.07	0.11	0.02
8	Riverside	0.06	0.48	0.42	0.70	0.06	0.09	0.03
9	Colville	0.05	0.52	0.50	0.68	0.05	0.09	0.04
10	Newport	0.10	0.55	0.50	0.57	0.07	0.12	0.04
11	Kettle Falls	0.08	0.66	0.61	0.47	0.06	0.09	0.04
12	Reardan	0.05	0.48	0.39	0.43	0.06	0.08	0.03
13	Colfax	0.04	0.27	0.29	0.22	0.07	0.07	0.02
14	Yakima	0.08	0.70	0.65	0.74	0.07	0.11	0.03
15	West Valley (Yakima)	0.06	0.38	0.29	0.50	0.06	0.10	0.02
16	Sunnyside	0.06	0.74	0.58	0.71	0.06	0.10	0.07
17	Ellensburg	0.05	0.43	0.44	0.55	0.06	0.09	0.02
18	Cle Elum– Roslyn	0.08	0.72	0.67	0.65	0.06	0.09	0.06
19	Selah	0.06	0.51	0.40	0.55	0.06	0.09	0.02
20	Goldendale	0.08	0.78	0.76	0.70	0.06	0.13	0.06
21	East Valley (Yakima)	0.08	0.58	0.46	0.58	0.05	0.09	0.04
22	Toppenish	0.08	0.75	0.71	0.74	0.08	0.13	0.05
23	Othello	0.06	0.71	0.58	0.68	0.06	0.13	0.06
24	Prosser	0.06	0.59	0.44	0.72	0.07	0.11	0.07
25	Kennewick	0.08	0.54	0.53	0.56	0.07	0.12	0.06
26	Columbia (Walla Walla)	0.06	0.52	0.49	0.62	0.06	0.09	0.06
27	Walla Walla	0.05	0.54	0.51	0.54	0.06	0.10	0.04
28	Clarkston	0.08	0.47	0.50	0.67	0.06	0.09	0.04
29	Pasco	0.08	0.71	0.62	0.58	0.05	0.11	0.07
30	Richland	0.06	0.38	0.30	0.49	0.07	0.10	0.06
31	Tonasket	0.09	0.55	0.45	0.64	0.06	0.08	0.06
32	Omak	0.19	0.53	0.55	0.41	0.06	0.10	0.07
33	Grand Coulee Dam	0.10	0.67	0.63	0.49	0.06	0.10	0.08
34	Ephrata	0.09	0.67	0.57	0.79	0.05	0.08	0.06
35	Lake Chelan	0.09	0.61	0.58	0.52	0.06	0.11	0.08
36	Cascade	0.05	0.43	0.41	0.38	0.04	0.08	0.04
37	Eastmont	0.06	0.42	0.47	0.61	0.05	0.09	0.03
38	Wenatchee	0.07	0.64	0.58	0.70	0.06	0.09	0.05
39	Moses Lake	0.08	0.59	0.55	0.52	0.06	0.09	0.04

Lowest Low Neutral Higher Highest Missing one or more indicator(s)

Supplemental Table 2 (b): School Locale Prevalences (Locales 40– 79)

Locale	Largest School District in Locale	Child Abuse Per 1000 (Age 0– 17)	IPV Rate Per 1000	Families Living in Poverty	Speak English "Less Than Very Well"	Unemployment	Female Headed Households Wtih Children Under 6	Moved Counties in the Past Year
40	Lynden	37.91	3.58	0.09	0.05	0.06	0.08	0.01
41	Mount Baker	57.97		0.12	0.07	0.08	0.08	0.02
42	San Juan Island	45.10	2.28	0.12	0.02	0.06	0.08	0.03
43	Anacortes	45.95	6.69	0.10	0.01	0.06	0.08	0.04
44	Burlington Edison	43.85	8.69	0.16	0.08	0.06	0.08	0.04
45	Sultan	61.71		0.11	0.02	0.09	0.08	0.02
46	Mt Vernon	49.25	8.39	0.17	0.11	0.08	0.08	0.04
47	Arlington	38.94		0.10	0.03	0.09	0.08	0.03
48	South Whidbey	38.67		0.10	0.01	0.08	0.08	0.04
49	Edmonds	32.93	4.89	0.10	0.11	0.07	0.08	0.04
50	Everett	45.98	6.00	0.12	0.08	0.08	0.08	0.04
51	Ferndale	66.75	7.65	0.14	0.04	0.09	0.08	0.01
52	Bellingham	56.75	4.46	0.20	0.04	0.09	0.08	0.06
53	Lake Stevens	37.34	6.02	0.08	0.03	0.07	0.08	0.02
54	Marysville	63.51	6.40	0.11	0.05	0.09	0.08	0.02
55	Monroe	30.21		0.08	0.06	0.07	0.08	0.06
56	Mukilteo	42.87		0.13	0.15	0.08	0.08	0.03
57	Oak Harbor	51.35	4.61	0.11	0.04	0.09	0.08	0.04
58	Sedro Woolley	56.47	7.47	0.15	0.01	0.11	0.08	0.04
59	Snohomish	25.85		0.06	0.03	0.06	0.08	0.02
60	Stanwood	34.31		0.08	0.01	0.08	0.08	0.05
61	Riverview	19.22		0.07	0.02	0.07	0.08	0.01
62	Renton	37.75	5.06	0.14	0.17	0.07	0.08	0.02
63	Peninsula	24.71		0.06	0.02	0.08	0.08	0.03
64	University Place	32.03	6.17	0.10	0.04	0.09	0.08	0.02
65	Puyallup	34.97	6.55	0.09	0.05	0.08	0.08	0.03
66	Sumner	35.00		0.08	0.02	0.06	0.08	0.04
67	Eatonville	36.77		0.10	0.01	0.09	0.08	0.03
68	Seattle	30.23	3.43	0.14	0.09	0.06	0.08	0.02
69	Tacoma	61.17	13.17	0.17	0.08	0.10	0.08	0.04
70	Lake Washington	15.21	2.60	0.06	0.09	0.06	0.08	0.01
71	Kent	36.12	6.26	0.12	0.15	0.07	0.08	0.02
72	Federal Way	45.95	5.63	0.14	0.12	0.08	0.08	0.03
73	Highline	48.42	5.45	0.17	0.17	0.08	0.08	0.01
74	Bellevue	20.82	2.35	0.08	0.16	0.06	0.08	0.01
75	Northshore	18.44	2.80	0.06	0.07	0.06	0.08	0.04
76	Clover Park	65.35	12.97	0.19	0.10	0.13	0.08	0.04
77	Bethel	43.11		0.10	0.04	0.09	0.08	0.02
78	Issaquah	13.56		0.04	0.07	0.05	0.08	0.01
79	Auburn	55.10	7.23	0.16	0.10	0.09	0.08	0.03

Lowest Low Neutral Higher Highest Missing one or more indicator(s)

Supplemental Table 2 (b): School Locale Prevalences (Locales 40– 79) (continued)

Locale	Largest School District in Locale	Changed School Mid Year (Elementary)	Failed 3rd Grade ELA	Failed 3rd Grade Math	Failed WaKIDS	Infants Born With Low Birth Weight	Infants Born Preterm	Mothers with Late or No Prenatal Care
40	Lynden	0.05	0.46	0.39	0.46	0.06	0.09	0.05
41	Mount Baker	0.07	0.62	0.55	0.48	0.04	0.07	0.05
42	San Juan Island	0.05	0.31	0.24	0.37	0.03	0.03	0.06
43	Anacortes	0.06	0.27	0.30	0.43	0.05	0.08	0.05
44	Burlington Edison	0.07	0.60	0.55	0.59	0.05	0.09	0.05
45	Sultan	0.08	0.49	0.39	0.62	0.07	0.12	0.06
46	Mt Vernon	0.07	0.60	0.53	0.57	0.06	0.09	0.04
47	Arlington	0.07	0.48	0.44	0.53	0.06	0.08	0.06
48	South Whidbey	0.07	0.36	0.39	0.37	0.06	0.07	0.06
49	Edmonds	0.05	0.40	0.39	0.46	0.06	0.09	0.05
50	Everett	0.08	0.38	0.36	0.53	0.06	0.10	0.06
51	Ferndale	0.06	0.59	0.55	0.64	0.05	0.09	0.04
52	Bellingham	0.06	0.44	0.39	0.40	0.06	0.07	0.04
53	Lake Stevens	0.05	0.33	0.29	0.42	0.05	0.08	0.04
54	Marysville	0.07	0.55	0.49	0.54	0.06	0.10	0.07
55	Monroe	0.05	0.48	0.52	0.53	0.06	0.09	0.04
56	Mukilteo	0.09	0.52	0.47	0.61	0.06	0.10	0.05
57	Oak Harbor	0.10	0.52	0.45	0.53	0.04	0.07	0.06
58	Sedro Woolley	0.07	0.50	0.41	0.54	0.06	0.13	0.06
59	Snohomish	0.04	0.42	0.38	0.44	0.05	0.08	0.05
60	Stanwood	0.06	0.45	0.34	0.56	0.05	0.07	0.05
61	Riverview	0.05	0.38	0.27	0.19	0.05	0.07	0.02
62	Renton	0.08	0.56	0.46	0.57	0.08	0.10	0.05
63	Peninsula	0.05	0.38	0.36	0.42	0.06	0.08	0.06
64	University Place	0.09	0.36	0.27	0.46	0.06	0.09	0.05
65	Puyallup	0.07	0.53	0.49	0.45	0.06	0.09	0.05
66	Sumner	0.05	0.28	0.21	0.43	0.06	0.09	0.04
67	Eatonville	0.08	0.51	0.48	0.43	0.05	0.09	0.05
68	Seattle	0.05	0.34	0.32	0.31	0.07	0.08	0.03
69	Tacoma	0.11	0.57	0.52	0.48	0.07	0.10	0.07
70	Lake Washington	0.04	0.20	0.18	0.34	0.06	0.08	0.03
71	Kent	0.08	0.50	0.45	0.54	0.07	0.10	0.06
72	Federal Way	0.09	0.61	0.51	0.49	0.06	0.10	0.07
73	Highline	0.08	0.63	0.50	0.45	0.07	0.11	0.06
74	Bellevue	0.06	0.27	0.21	0.37	0.07	0.08	0.05
75	Northshore	0.04	0.25	0.23	0.30	0.07	0.08	0.03
76	Clover Park	0.24	0.52	0.44	0.52	0.08	0.11	0.06
77	Bethel	0.10	0.53	0.44	0.52	0.07	0.10	0.05
78	Issaquah	0.04	0.25	0.23	0.24	0.06	0.08	0.03
79	Auburn	0.09	0.34	0.33	0.65	0.07	0.11	0.07

Lowest Low Neutral Higher Highest Missing one or more indicator(s)

Supplemental Table 2 (c): School Locale Prevalences (Locales 80– 118)

Locale	Largest School District in Locale	Child Abuse Per 1000 (Age 0–17)	IPV Rate Per 1000	Families Living in Poverty	Speak English "Less Than Very Well"	Unemployment	Female Headed Households Wtih Children Under 6	Moved Counties in the Past Year
80	Shoreline	30.30	2.42	0.10	0.08	0.08	0.08	0.03
81	Franklin Pierce			0.16	0.08	0.11	0.08	0.03
82	Tahoma	22.91	1.67	0.05	0.02	0.08	0.08	0.01
83	Snoqualmie Valley	17.69		0.05	0.03	0.05	0.08	0.02
84	Enumclaw	30.53		0.10	0.04	0.07	0.08	0.03
85	White River	30.74		0.11	0.02	0.08	0.08	0.04
86	Mercer Island	7.44	1.10	0.05	0.05	0.05	0.08	0.00
87	Bainbridge Island	7.27	1.79	0.05	0.01	0.05	0.08	0.03
88	North Thurston	33.86	4.28	0.10	0.07	0.08	0.08	0.05
89	Olympia	38.38	4.14	0.14	0.04	0.09	0.08	0.04
90	Tumwater	32.24	4.66	0.12	0.03	0.08	0.08	0.05
91	Yelm	36.29		0.16	0.02	0.09	0.08	0.05
92	Centralia	78.34	11.06	0.22	0.07	0.14	0.08	0.08
93	Rochester	45.65		0.13	0.02	0.11	0.08	0.06
94	Shelton	62.15		0.17	0.05	0.09	0.08	0.07
95	Onalaska	55.40		0.12	0.03	0.12	0.08	0.04
96	Chehalis	47.32	5.96	0.15	0.04	0.10	0.08	0.04
97	Ocosta	71.32		0.21	0.05	0.13	0.08	0.09
98	Elma	51.70	5.53	0.16	0.02	0.17	0.08	0.03
99	Aberdeen	77.45	7.94	0.21	0.06	0.12	0.08	0.03
100	Pioneer	61.56		0.15	0.01	0.18	0.08	0.04
101	Central Kitsap	39.36		0.08	0.03	0.08	0.08	0.03
102	Port Angeles	63.81	9.19	0.14	0.01	0.09	0.08	0.02
103	Port Townsend	54.78	5.61	0.11	0.01	0.09	0.08	0.04
104	South Kitsap	38.84		0.12	0.01	0.10	0.08	0.03
105	Bremerton	79.14	7.07	0.20	0.04	0.10	0.08	0.04
106	North Kitsap	24.76		0.07	0.02	0.06	0.08	0.02
107	Quillayute Valley	69.45		0.20	0.04	0.12	0.08	0.06
108	Vancouver	46.91		0.14	0.07	0.10	0.08	0.02
109	Evergreen (Clark)	29.70		0.12	0.08	0.09	0.08	0.01
110	Battle Ground	23.56		0.09	0.04	0.07	0.08	0.01
111	Longview	77.80	10.01	0.21	0.03	0.11	0.08	0.03
112	Kelso	75.46	8.30	0.18	0.03	0.11	0.08	0.02
113	Ocean Beach	64.41	5.46	0.16	0.02	0.09	0.08	0.04
114	Woodland	43.21	6.03	0.11	0.03	0.10	0.08	0.02
115	Ridgefield	23.87		0.08	0.03	0.06	0.08	0.02
116	Camas	17.39	5.58	0.04	0.03	0.07	0.08	0.02
117	Washougal	40.22	7.59	0.09	0.01	0.09	0.08	0.01
118	White Salmon	58.60	4.96	0.14	0.04	0.06	0.08	0.01

Lowest Low Neutral Higher Highest Missing one or more indicator(s)

Supplemental Table 2 (c): School Locale Prevalences (Locales 80– 118) (continued)

Locale	Largest School District in Locale	Changed School Mid Year (Elementary)	Failed 3rd Grade ELA	Failed 3rd Grade Math	Failed WaKIDS	Infants Born With Low Birth Weight	Infants Born Preterm	Mothers with Late or No Prenatal Care
80	Shoreline	0.03	0.25	0.23	0.28	0.05	0.07	0.03
81	Franklin Pierce	0.12	0.59	0.57	0.66	0.08	0.10	0.07
82	Tahoma	0.04	0.25	0.21	0.56	0.07	0.09	0.03
83	Snoqualmie Valley	0.03	0.31	0.31	0.28	0.06	0.08	0.02
84	Enumclaw	0.04	0.41	0.46	0.32	0.04	0.06	0.05
85	White River	0.05	0.42	0.36	0.50	0.05	0.07	0.03
86	Mercer Island	0.02	0.16	0.15	0.29	0.06	0.08	0.03
87	Bainbridge Island	0.03	0.27	0.23	0.39	0.08	0.10	0.04
88	North Thurston	0.09	0.51	0.44	0.40	0.06	0.10	0.05
89	Olympia	0.08	0.32	0.26	0.47	0.06	0.09	0.05
90	Tumwater	0.07	0.42	0.42	0.48	0.07	0.09	0.05
91	Yelm	0.11	0.53	0.47	0.51	0.06	0.10	0.05
92	Centralia	0.09	0.58	0.46	0.70	0.08	0.09	0.05
93	Rochester	0.08	0.46	0.43	0.51	0.05	0.10	0.05
94	Shelton	0.07	0.54	0.46	0.54	0.04	0.08	0.05
95	Onalaska	0.09	0.56	0.38	0.47	0.07	0.10	0.05
96	Chehalis	0.06	0.45	0.43	0.48	0.06	0.09	0.03
97	Ocosta	0.06	0.62	0.64	0.49	0.06	0.11	0.08
98	Elma	0.07	0.48	0.43	0.40	0.07	0.09	0.06
99	Aberdeen	0.08	0.60	0.56	0.49	0.09	0.13	0.07
100	Pioneer	0.09	0.63	0.55	0.40	0.07	0.08	0.06
101	Central Kitsap	0.08	0.43	0.40	0.49	0.06	0.09	0.05
102	Port Angeles	0.06	0.46	0.45	0.52	0.06	0.11	0.05
103	Port Townsend	0.06	0.54	0.48	0.50	0.06	0.08	0.06
104	South Kitsap	0.08	0.48	0.37	0.52	0.06	0.09	0.06
105	Bremerton	0.11	0.46	0.43	0.54	0.08	0.10	0.07
106	North Kitsap	0.06	0.39	0.36	0.49	0.05	0.06	0.05
107	Quillayute Valley	0.08	0.59	0.33	0.42	0.06	0.13	0.06
108	Vancouver	0.09	0.41	0.46	0.66	0.06	0.10	0.05
109	Evergreen (Clark)	0.06	0.52	0.45	0.60	0.06	0.10	0.04
110	Battle Ground		0.47	0.42	0.38	0.06	0.09	0.03
111	Longview	0.11	0.66	0.59	0.71	0.07	0.09	0.06
112	Kelso	0.10	0.49	0.44	0.70	0.07	0.11	0.04
113	Ocean Beach	0.08	0.52	0.47	0.39	0.08	0.10	0.05
114	Woodland	0.08	0.49	0.41	0.47	0.07	0.09	0.05
115	Ridgefield	0.04	0.38	0.33	0.51	0.06	0.11	0.04
116	Camas	0.04	0.27	0.24	0.32	0.06	0.10	0.03
117	Washougal	0.06	0.42	0.36	0.52	0.07	0.10	0.05
118	White Salmon	0.08	0.73	0.65	0.51	0.05	0.10	0.04

Lowest Low Neutral Higher Highest Missing one or more indicator(s)

Supplemental Table 3: Race/Ethnicity Prevalences

Race	10th Grade Binge Drinking	10th Grade Drug Use	Failed WaKIDS	Failed 3rd Grade ELA	Failed 3rd Grade Math	Unemployment	Families in Poverty
Hispanic Only	12.9	22.4	0.68	0.65	0.58	0.10	0.18
NH White Only	9.6	16.8	0.47	0.38	0.34	0.07	0.07
NH Black Only	15.5	27	0.58	0.63	0.60	0.12	0.18
NH Amer Ind Only	16	27.9	0.68	0.74	0.66	0.14	0.22
NH Asian Only	5.2	9.3	0.42	0.27	0.21	0.06	0.08
NH NHOPI Only	14.9	22.4	0.72	0.67	0.63	0.13	0.13
NH Multiple Race	13	19.4	0.49	0.41	0.38	0.12	0.09
Washington State	10.8	18.6	0.53	0.46	0.41	0.08	0.09

Race	Female Headed House With Kids Under 6	Limited English	Moved Counties	LBW	Preterm	Late/no Prenatal Care	Teen births (15– 19)	Infant Death
Hispanic Only	0.13	0.29	0.07	6.10	10.49	7.91	9.51	4.54
NH White Only	0.05	0.04	0.07	5.86	8.67	5.21	3.43	4.09
NH Black Only	0.13	0.06	0.08	10.08	12.59	10.20	4.45	8.50
NH Amer Ind Only	0.10	0.04	0.06	8.37	16.58	13.72	10.06	7.80
NH Asian Only	0.04	0.33	0.06	8.16	9.70	5.61	0.77	3.54
NH NHOPI Only	0.13	0.11	0.12	6.70	14.41	18.62	6.20	5.86
NH Multiple Race	0.09	0.04	0.09	7.38	10.38	7.85	8.02	5.96
Washington State	0.06	0.08	0.07	6.41	9.52	6.33	4.64	4.46

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