WASHINGTON STATE
Statistical Analysis Center
Informing a data-driven justice system

SAC Mapping Tool Data Definitions

- **"Household income less than 45k, Rate per 1,000"** answers the question: For every 1,000 households in a county, how many had a combined income that was less than $45,000 per year? Although not a true measure of poverty, this rate does provide a sense of the overall prevalence of lower income household within a county. A higher rate means there are more lower-income households; a lower rate means there are fewer. These data come from the U.S. Census Bureau's American Community Survey (table B19001), and are based upon a five year estimate of household incomes from 2010 to 2014. The estimated incomes are shown in 2014 inflation-adjusted dollars.

- **"Adverse Childhood Experiences – Significance Test"** is a complex measure based upon a common sense finding: emotional, physical and sexual abuse in childhood affects peoples' behaviors and their health throughout their lives. Adverse Childhood Experiences or ACEs are identified through nine survey questions and during the annual Behavioral Risk Factors Surveillance System (BRFSS) phone survey a random subset of adults being interviewed are asked those questions. Because the sample size is small, the percentages calculated for some counties can be misleading. Rather than show those percentages, we used a statistical test to see which counties had percentages that were significantly higher than expected and which had percentages that were lower. Those counties that were not identified as high or low did not have percentages that significantly differed from what would be expected. The data used for these maps come from the 2009 and 2010 BRFSS surveys, and significance was based upon a p-value of 0.05 or less.

- **"Education HS/GED or Less"** shows the percent of adults ages 25 and over whose highest educational attainment was high school graduation or equivalency (GED). Higher percentages for this measure mean overall lower educational attainment. These data come from the U.S. Census Bureau's American Community Survey (table S1501), and are based upon five years-combined survey data, 2010 to 2014.

- **"Median Income"** is the mid-point of the range of household incomes in a county. The median is often used instead of the average because it is less affected by the outliers on the extremes of the range. Higher values means higher household income in a county. These data come from the U.S. Census Bureau's American Community Survey (table S1903), and are based upon-five years combined survey data, 2010 to 2014.

- **"Unemployment"** equals the percent of people ages 16 and older who are in the labor force but are unemployed. The higher the percent, the higher the estimated unemployment rate. These data come from the U.S. Census Bureau's American Community Survey (table S2301), and are based upon-five years combined survey data, 2010 to 2014.

- **"Poverty"** shows the percent of people living at or below 100% of the Federal Poverty Level (FPL). These data come from the U.S. Census Bureau's American Community Survey (table S1701), and are based upon-five years combined survey data, 2010 to 2014.

- **"Population"** includes the 2014 population estimates for the counties. These data come from the Office of Financial Management's estimates of April 1 population by age, sex, race and Hispanic origin.

- **"Hospitalizations for Violent Crimes"** involves a different look at crimes. These data come from 2010-14 hospital discharge records (known as CHARS) and includes patients with inpatient stays or observation unit stays for conditions coded with a cause of injury indicating assault through fight or brawl (E960.0), rape (E960.1 or diagnoses codes 995.83 and V71.5), firearms (E965.0), cutting or piercing objects (E966), child, spousal or elder abuse (E967.0- E967.9), or blunt or thrown objects (E968.2).

  Using the number assault-related patients residing within each ZIP code area, the age- and sex-specific populations of all of the ZIP code areas and a geographic cluster identification software package (SaTScan), areas comprising large regions or small neighborhoods have been identified as having statistically significantly more hospitalizations ($p \leq 0.05$), shown in red on the maps, or fewer hospitalizations, shown in blue, than what would be expected given the experience seen outside those areas.

  In this map, a concentrated sector of Spokane City, a substantial portion of Tacoma and a larger area around the Yakima City environs were found to have residents with significantly more assault-related hospitalizations than expected. Conversely, large regions in the northern Puget Sound and northern central Washington areas, as well as the whole southeast Washington region, were found to have fewer hospitalizations than expected.

- **"Hospitalization for Brawl Crimes"** uses the same methods described in "Hospitalizations for Violent Crimes" but focuses only on injuries sustained due to fights or brawls (E960.0). In this instance, residents of three ZIP code areas in downtown Seattle, a sector of Tacoma and a larger region around Yakima were found to have higher than expected hospitalizations due to brawls or fights. Residents in the northern Puget Sound and north central regions of the state, as well as eastern south central Washington were found to have fewer than expected hospitalizations.

- **"Hospitalization for Firearm Crimes"** also uses the same methods described in "Hospitalizations for Violent Crimes" but focuses only on injuries sustained due to assaults with firearms (E965.0). Two regions in the state were found to have higher than expected hospitalizations: The Seattle/Tacoma environs and the south central sector of the state. Nearly all of southwest, north central and eastern sectors of the state were found to have fewer than expected hospitalizations.

- **"Hospitalization for Abuse Crimes"** also uses the same methods described in "Hospitalizations for Violent Crimes" but focuses only on injuries sustained due to child, elder or spousal abuse (E967.0-E967.9). Two ZIP code areas in Spokane City, 99201 and 99204, and one ZIP code area in Tacoma, 98405, were found to have higher than expected hospitalizations. The whole northern Puget Sound and central Washington region was found to have fewer than expected hospitalizations.