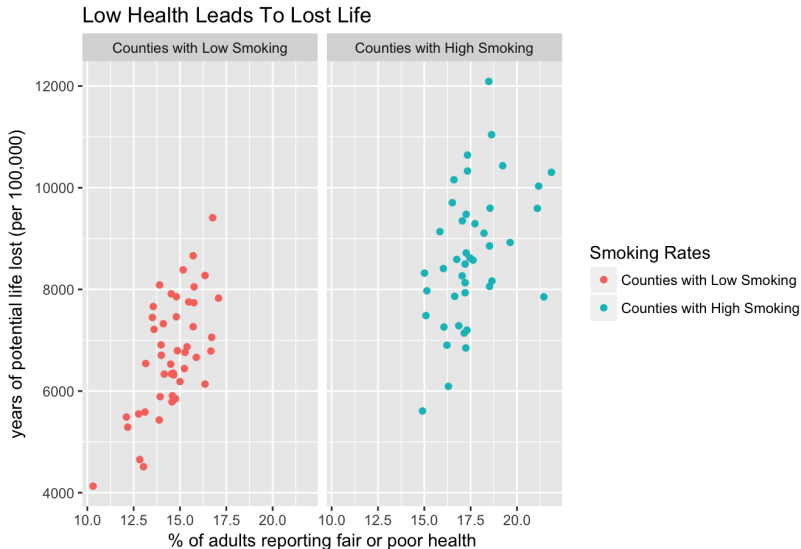# 2018 Student Visualizations of Ohio County Data

Thomas E. Love

2018-04-01

Faceted Scatterplots

Jack McDonnell, "Low Health Leads to Lost Life"
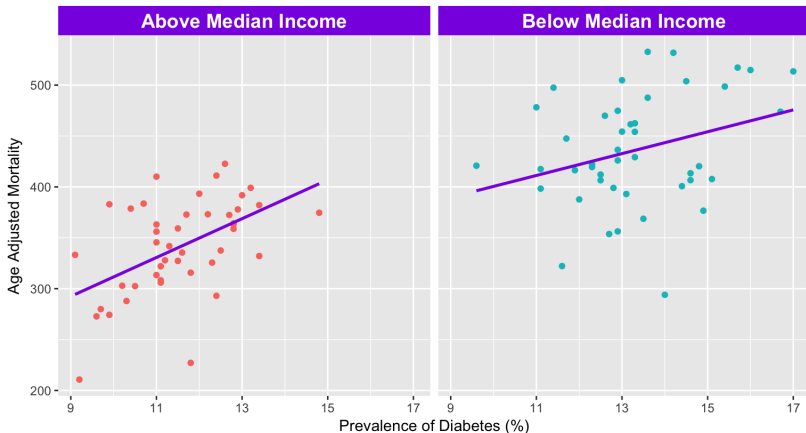

Low Health Leads To Lost Life

Source: Ohio County Health Rankings report, 2017

Carli Lehr, "Age-Adjusted Mortality, Diabetes Prevalence and Income"

Scatterplots of Age-Adjusted Mortality by Diabetes Prevalence
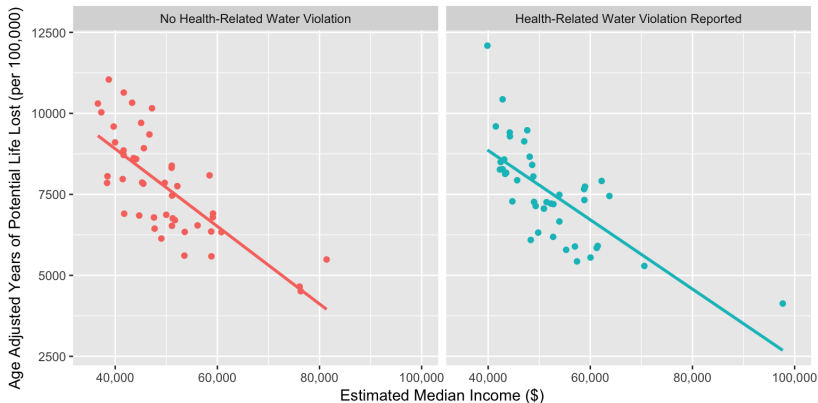Facetted by Above or Below Median Statewide Income

Age-adjusted mortality and prevalence of diabetes were generally lower in counties above the median income

Laura Baldassari, "Age-Adjusted Years of Potential Life Lost by Median Income and Water Violations"

Age-Adjusted Years of Potential Life Lost by Median Income in Ohio Counties

By presence of health-related drinking water violation, with fitted linear regression model
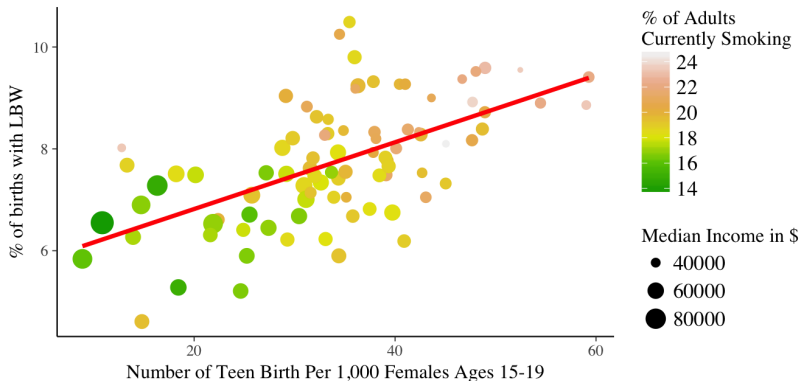
Counties in Ohio with a higher estimated median income had lower age-adjusted years of potential life lost. This association did not appear to be impacted by the presence of a health-related water violation (Pearson r = -0.75 & -0.72 for association without and with water violation, respectively)

Using Size and Shading

Khaled Alayed, "Low Birth Weight Births and Teen Births, Income and Smoking"

The Relationship Between LBW Births
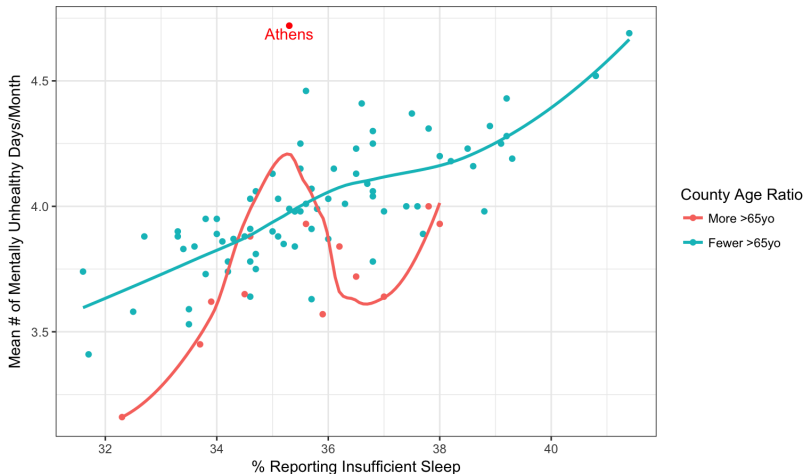and Teen Births, Income and Smoking in All Ohio Counties

This is an illustration for the relationship between
percentage of LBW births in Ohio counties
with number of teen births per 1,000 females
ages 15-19 (x-axis point position), estimated median
income (point size) and % of adults currently smoking (point color).
The line is linear regression between new
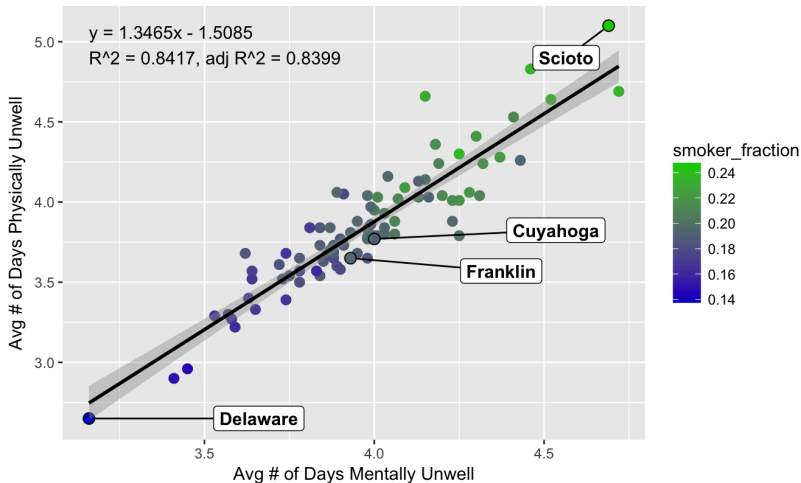fitted values and teen births.

Labeled Scatterplots

Jenny Feng, "Age, Sleep and Mental Health"

Association Between Age, Sleep, and Mental Health

Elina Misicka, "Average Number of Days Spent Unwell by Ohio County"

Average Number of Days Spent Unwell by Ohio County

y = 1.3465x - 1.5085
R^2 = 0.8417, adj R^2 = 0.8399

Scioto

Cuyahoga

Franklin

Delaware

smoker_fraction

0.24
0.22
0.20
0.18
0.16
0.14

Avg # of Days Physically Unwell
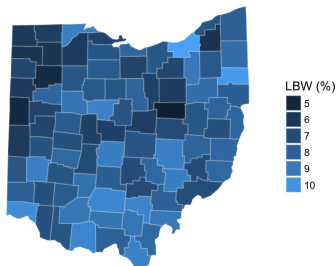
Avg # of Days Mentally Unwell

There is a strong correlation between mean days spent physically unwell and mean days spent mentally unwell per month by county. As a county's fraction of adult smokers increases, so does the number of days spent unwell.

Using a Map to Describe the Most Important Issue

Katherine Dobbs, "Low Birth Weight, Poverty and % African-American"

A

Ohio Rates of Low Birth Weight, 2017

LBW (%)
5
6
7
8
9
10

B

County Low Birth Weight and Poverty

African Amer. pop.
— + 1 SD
— — Mean
······ - 1 SD