



# Diabetes Prevalence in the United States (2011 – 21)

EPH189

Dr. Subhan Khalid  
Harrisburg University and IQVIA Inc.

## BACKGROUND

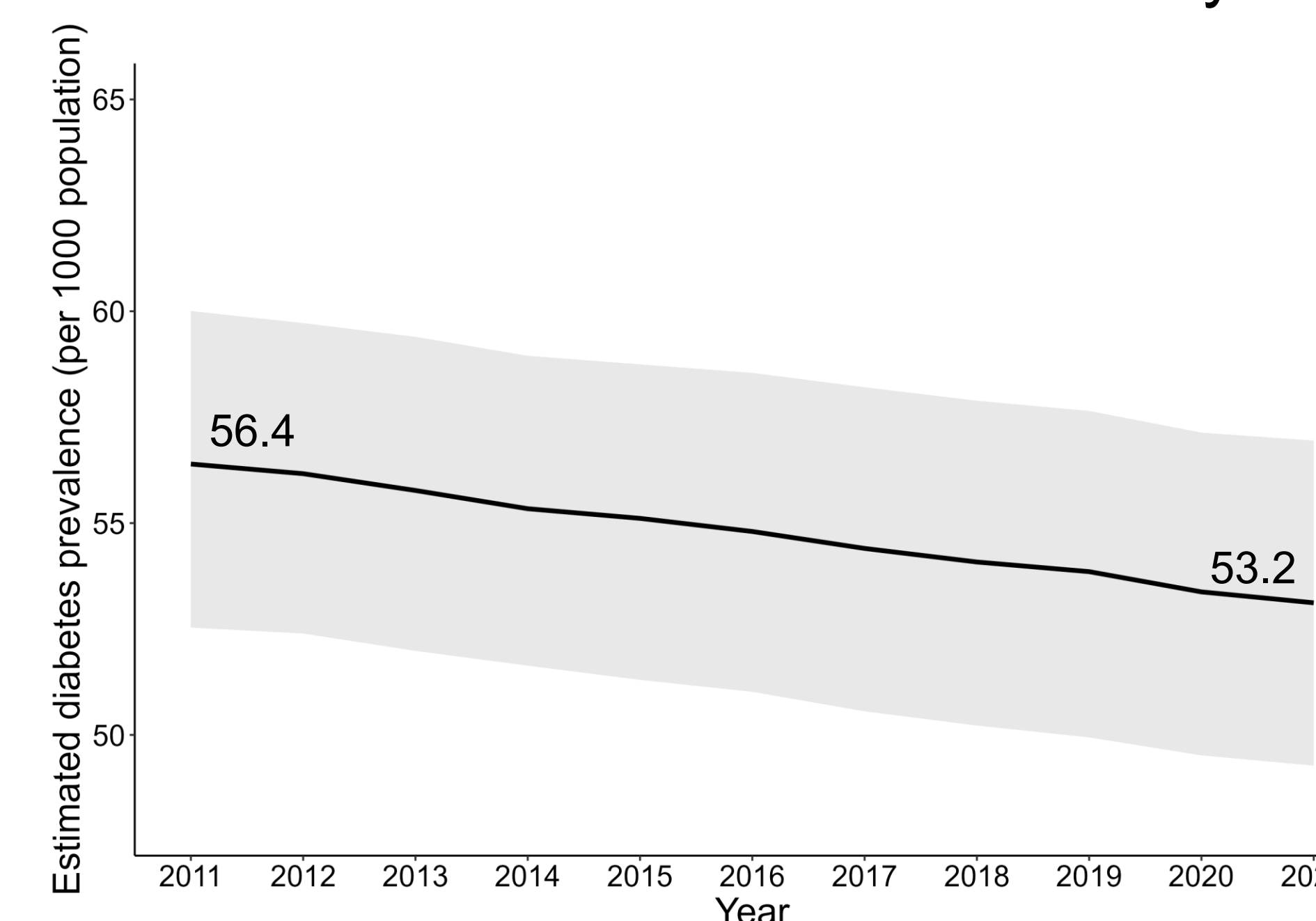
Diabetes is a leading cause of various adverse health outcomes, and the literature shows its prevalence has risen substantially in the United States in the last few decades

We analyzed the spatial and temporal trends of diabetes prevalence in the United States and identified geographic disparities.



## RESULTS

Our findings highlight the need for continued public health efforts, such as reducing rates of obesity and improving health care access.



*We estimated that diabetes prevalence rates declined in the United States from 2011 to 2021*

## DATA

We used CDC's Chronic Disease Indicator (CDI) data for this analysis.

Topic column in the CDI data was filtered to Diabetes

Question column to "Adults with diagnosed diabetes aged >= 18 years who have taken a diabetes self-management course"

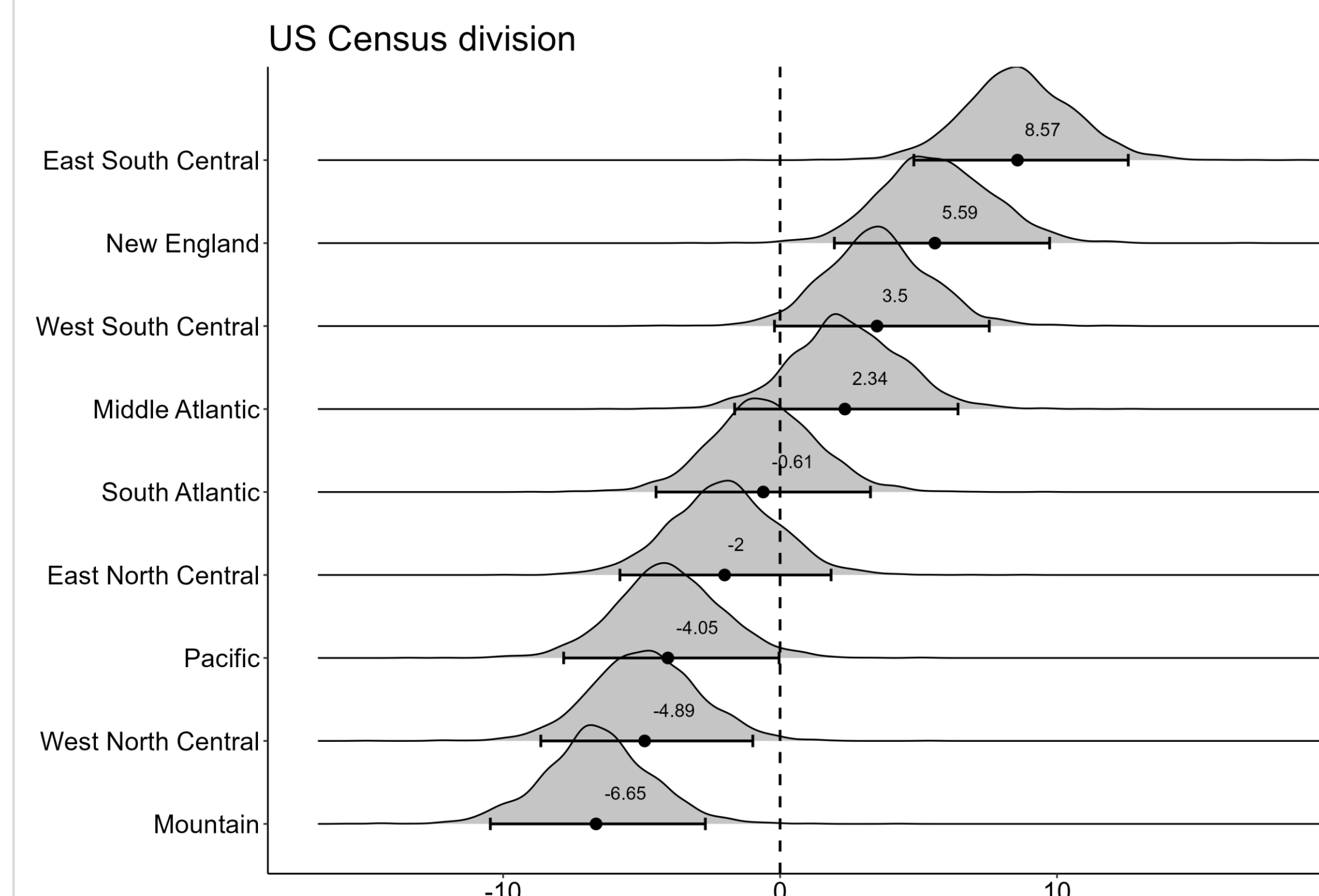
Data value type to Crude Prevalence

State level data summarized at the nine US Divisions using weighted mean

Data were available from year 2011 to 2021

### Analysis Data

N = 186 observations, one data point for each year, division, and gender



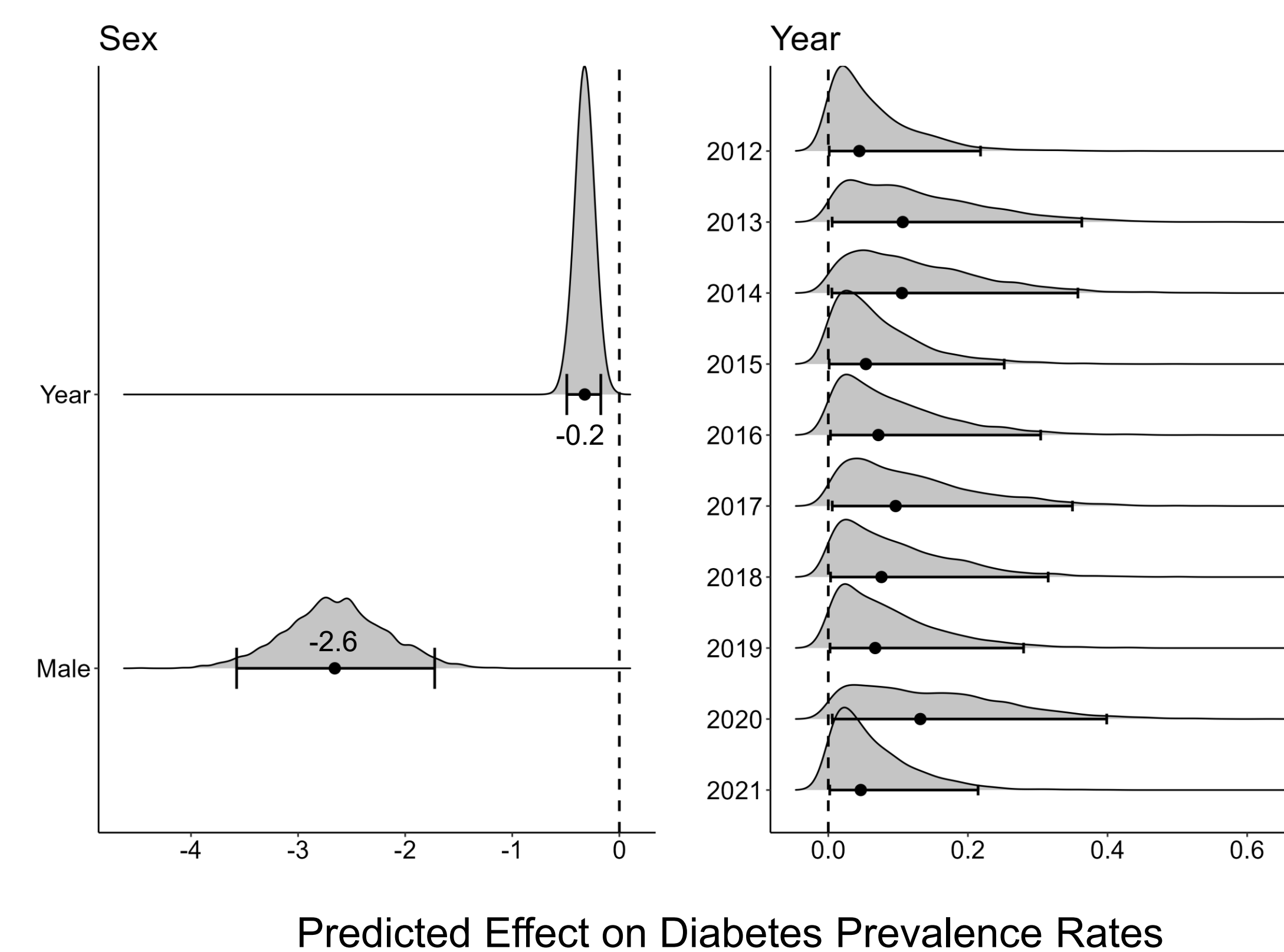
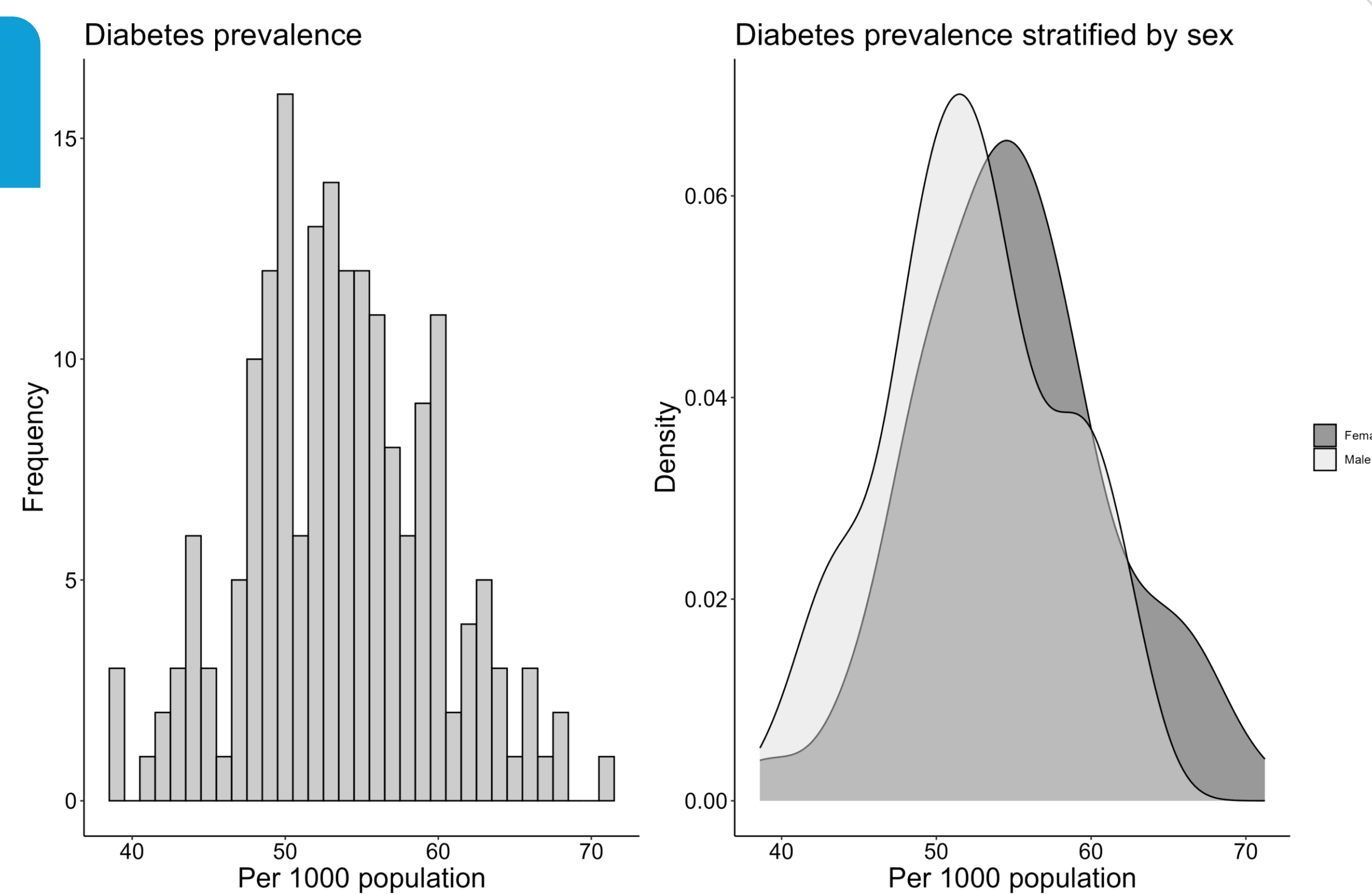
*The East South-Central division had a high prevalence rate, followed by New England and West South Central*

*The Mountains, Pacific and West North Central exhibited lower rates*

## METHODS

We used a Bayesian hierarchical model to assess changes in diabetes prevalence by including U.S. division as varying intercepts

Year was included as a monotone variable to assess the trend



*The estimated rate was higher among men*

*The yearly estimates show the division of prevalence decrease across the years*

*The year 2020 showed greater variability*