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## Assessment of Trends in Population-Based Health Indicators in the Great Plain States

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# Assessment of Trends in Population-Based Health Indicators in the Great Plain States

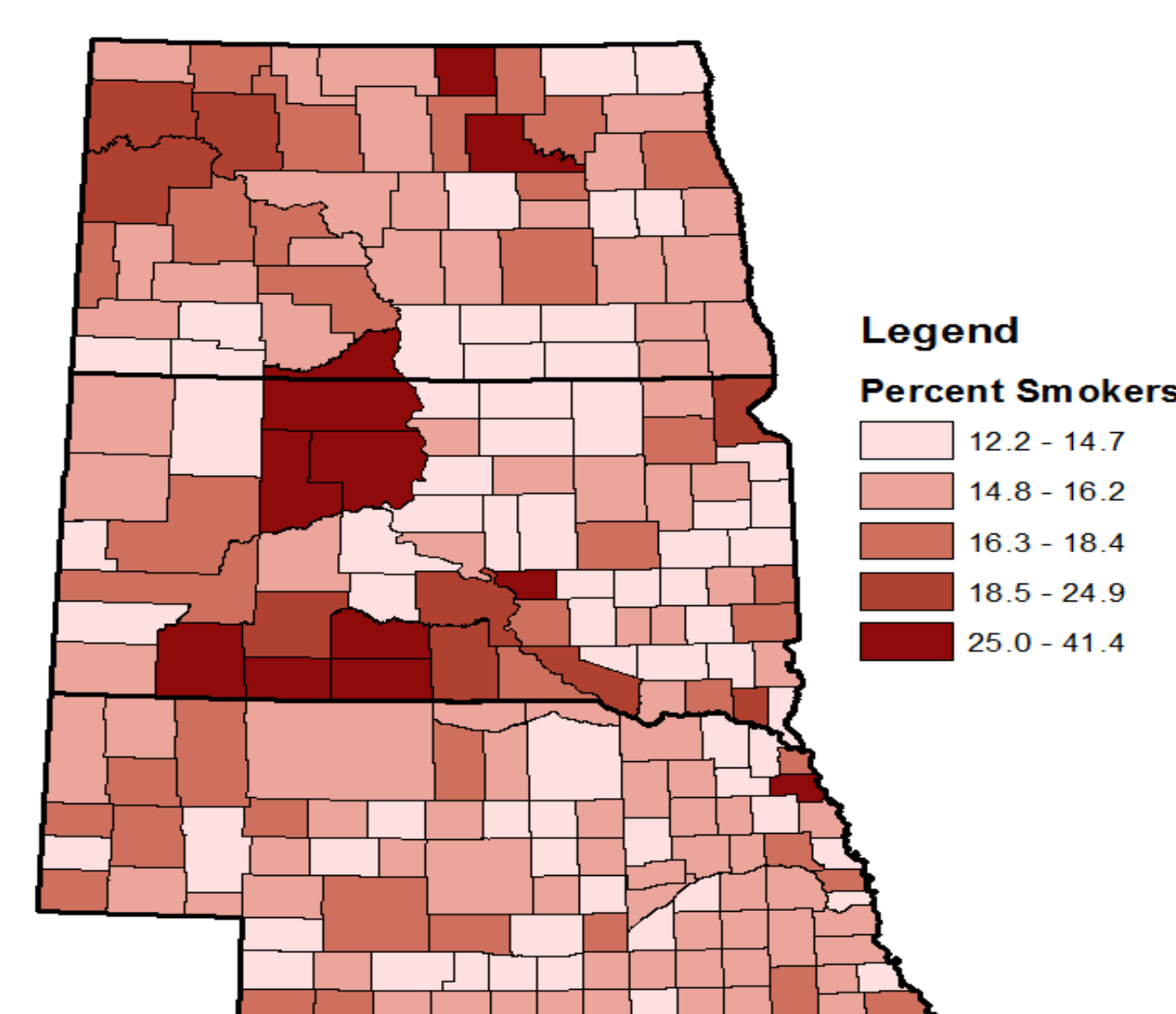
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## INTRODUCTION

Health determinants and indicators directly affect the health outcome on an individual and a population level. Inculcating social determinants such as gender, race along with the geographical based health determinants can help address the disparities existing among the subpopulations. Health of every sector of a population has its own distinct socio-demographic variation. Hence the nature of the public health intervention and policies also have need to be molded according to the needs and demands of the communities. The data can also provide a snapshot of the overall health of the population and provide a tool for evaluation of the existing policies. Influence new policymaking. Indicate the need for evaluations of the existing policies and interventions. Population trends give a representation of the success or failure of the health policies and interventions and gives an idea of the progress of the current healthcare programs and allocation of resources.

## SPECIFIC AIM AND HYPOTHESIS

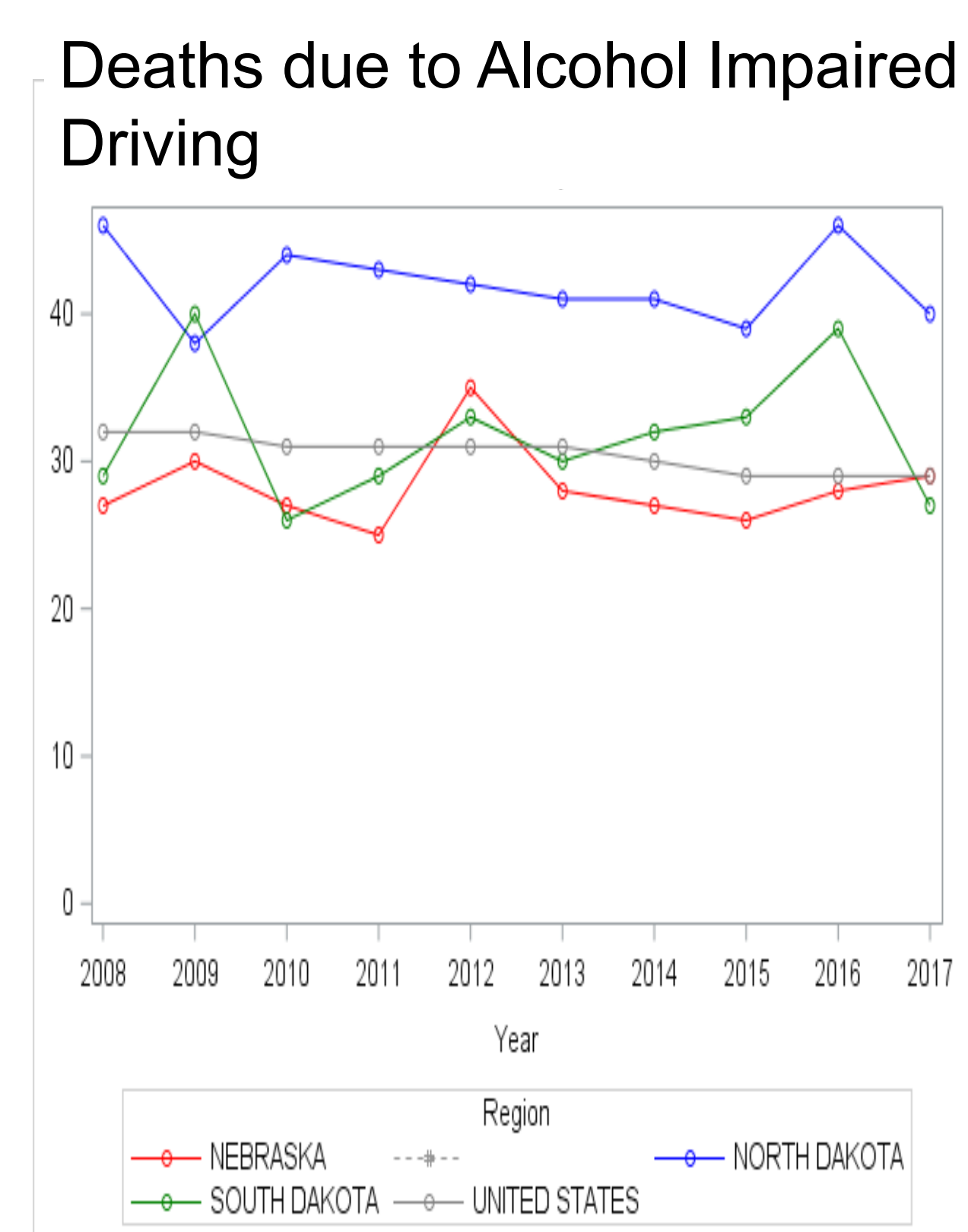
1. To graphically analyze the population health indicators in the three great plain states, which are Nebraska, North Dakota and South Dakota.
- 2.To create a resource depicting a comparative analysis of the social determinants, which include race, gender and age among three states.



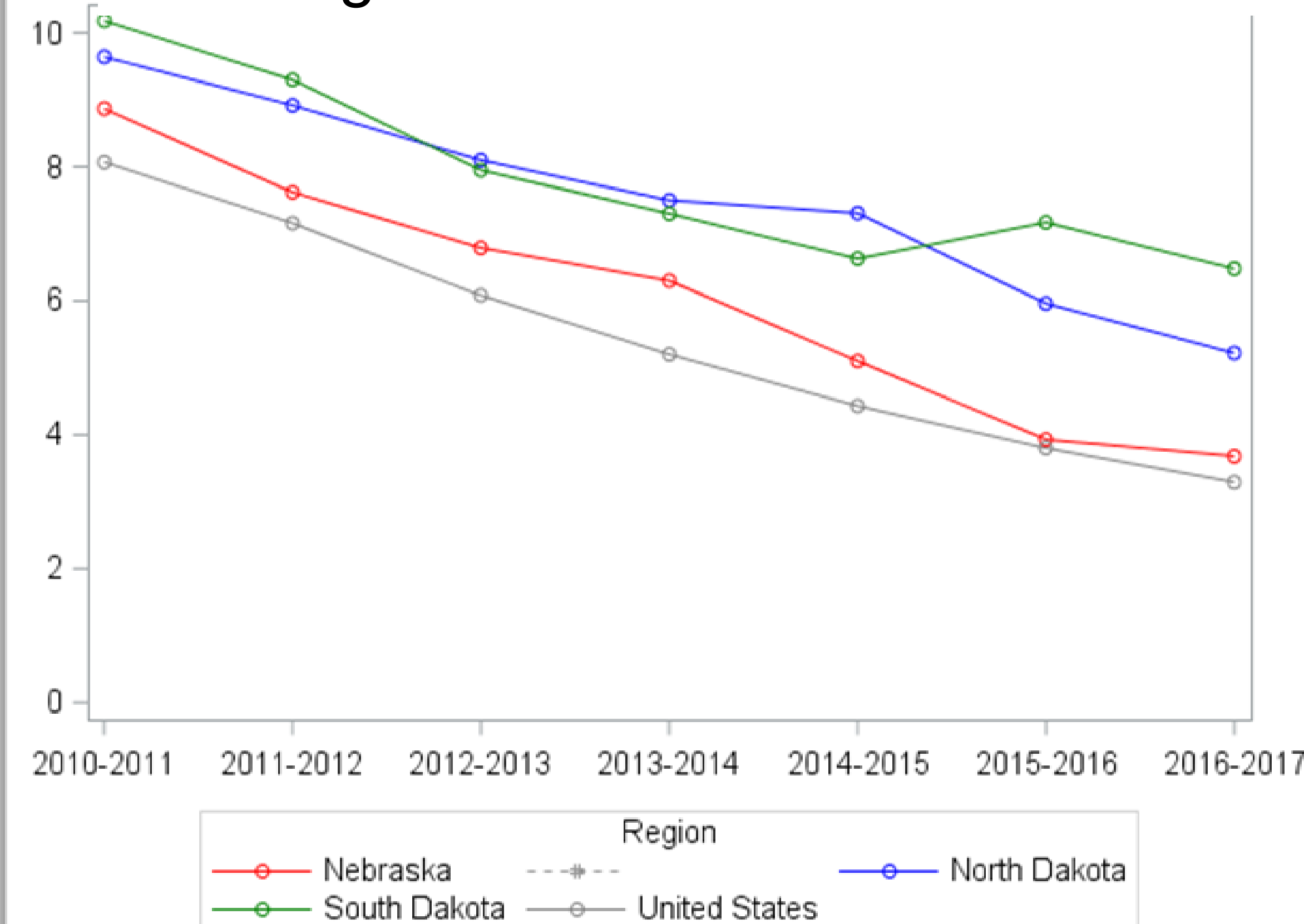
## METHODS

A retrospective study was conducted by utilizing the latest available data by accessing online databases which include BRFSS, America's Health Rankings, CDC NVSS, NIS teen, SAMSHA, NHTSA, NCHS and NSDUH. 10 Health indicators/determinants, namely, Obesity, Hypertension, Diabetes, Binge Alcohol use, Deaths due to driving under influence of alcohol, HPV immunization, Chlamydia prevalence, Youth cigarette use (ages between 12-17),colorectal cancer screening rates and violent crime rates were chosen and their

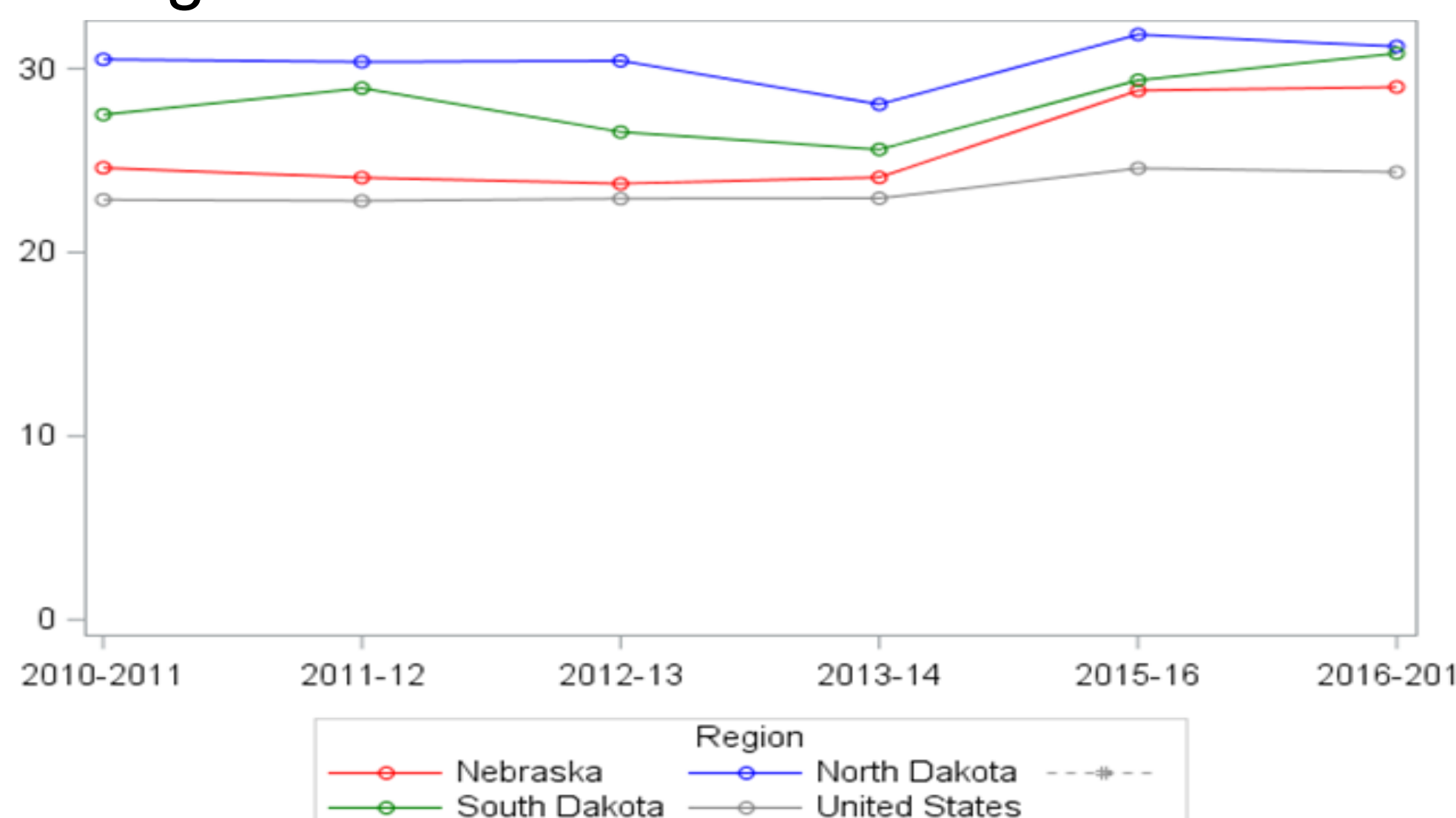
Percentages were tabulated in an excel sheet for the years ranging from 2007 to 2017. A statistical analysis ? was done using SPSS/SAS?Graphs were plotted in SAS to represent the. A histogram/graph/chart was plotted/created to understand the disparities associated with these social determinants and to compare the percentages of each of these subgroups across the three states.



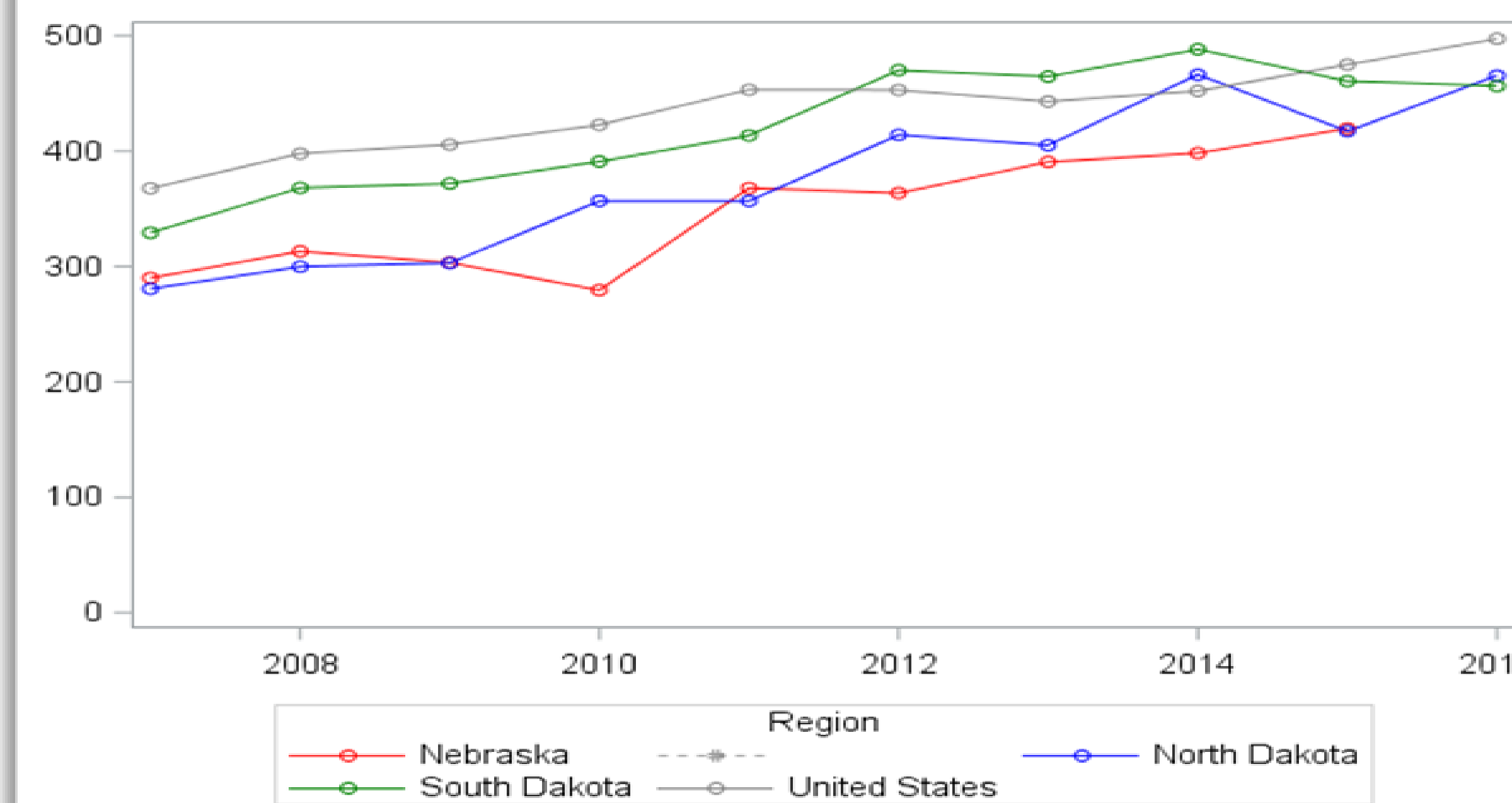
### Youth cigarette use



### Binge Alcohol Use



### Violent Crime Rates



## CONCLUSION & FUTURE DIRECTION

The incidences of death due to alcohol-impaired driving and Chlamydia were significantly higher than the national average. The use of cigarettes among youths between the age range of 12-17 has shown a steep decline over the years. There is a remarkable increase in the HPV vaccination rates among males, especially in the state of Nebraska. The data suggests a need for better reforms in policies to control chlamydia infections and to reduce the amount of fatalities associated with drunk driving.

1. <https://www.cdc.gov/brfss/brfssprevalence/index.html>