



# The relationship between playing sports as an adolescent and having health issues as an adult



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## Introduction

- "Around 50% of the teenagers from 12 to 17 years have a sporting practice out-of-school besides the weekly three hours applied at school or college" (Pene, Sport and Health)
- "This current health problem in the US has long-term health consequences, including diabetes, heart disease, high blood pressure, cancer, asthma, musculoskeletal dysfunction, and pain" (Merkel, Youth Sport)
- "Average annual female participation is 42 percent lower than male participation: the average female participation rate between 2003 and 2016 is 22 percent, compared to 37 percent for males, although the gap appears to have narrowed in the most recent survey years" (The potential for youths to improve childhood outcomes)

## Research Questions

- Does playing sports as a child have an association with having health issues as an adult?
- Does the association between playing sports as a child have an association with having health issues as an adult differ by sex?

## Methods

### Sample

- Respondents (n=4121) were drawn from The U.S national Longitudinal Survey of Adolescent Health Study (ADDHEALTH). The first wave was collected in 1994-95 and is composed of citizens in a representative survey as adolescents in grades 7-12 in the United States that was followed over time. The fifth wave of ADDHEALTH was collected in 2016-2018, and the same participants are later in life, around their late 30's/early 40's.

### Measures

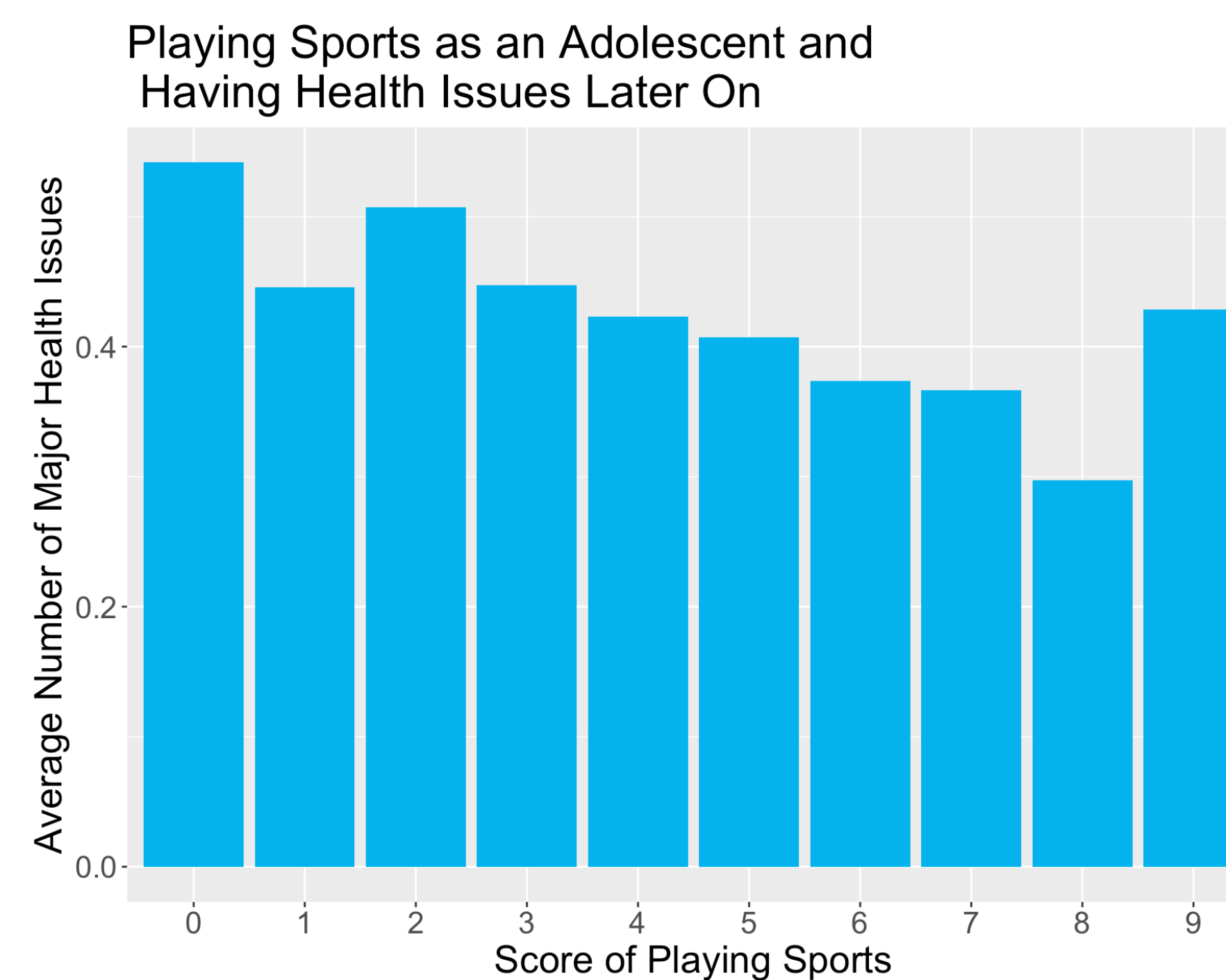
- Playing sports as an adolescent was measured from Wave 1 data using the sum of three questions about the number of times per week someone participated. Each response was coded on a scale of 0 to 3, then summed. Scores ranged from 0 (no exercise) to 9 (most exercise).
- Having health issues as an adult was also created using a sum of three questions about whether or not the person was diagnosed with a serious health problem. Scores ranged from 0 to 4.
- Biological Sex was coded as Male and Female.

## Results

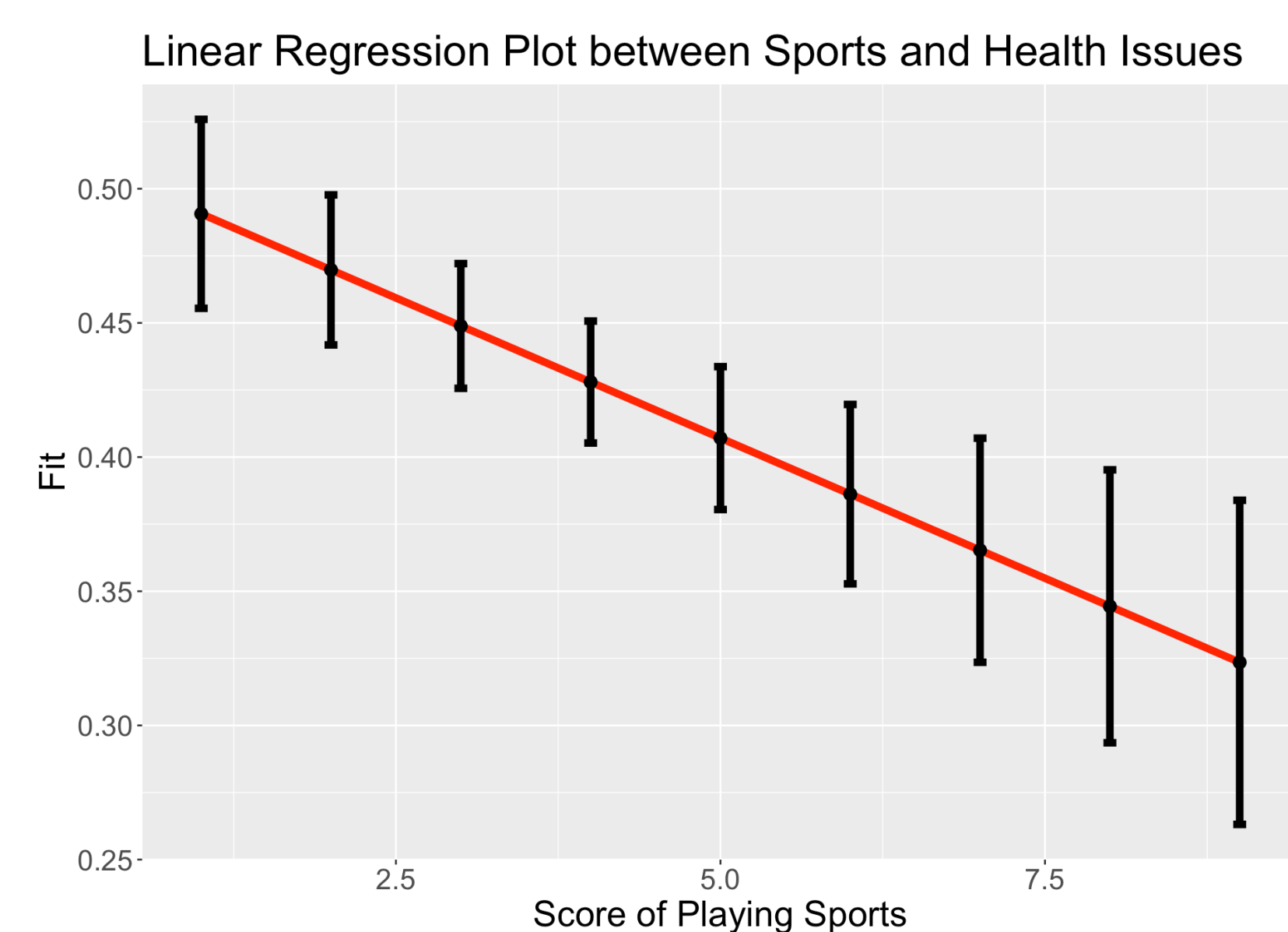
### Univariate

- 52.1% of participants played sports a maximum of 6x per week
- 26.7% of participants have 1 serious health issue

### Bivariate



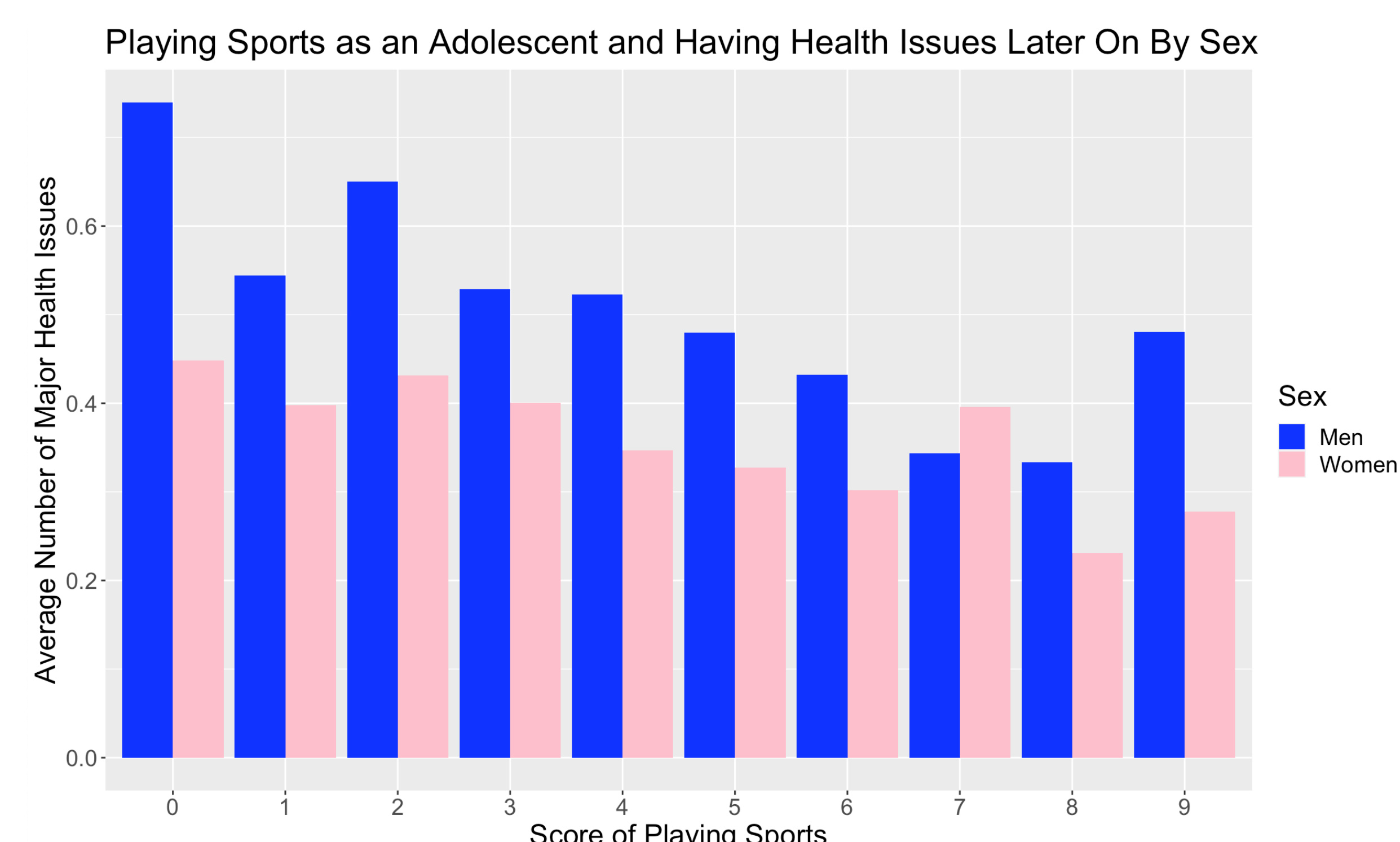
- A Pearson correlation test showed that **frequency of playing sports as a child** were significantly and negatively associated with **number of health issues** ( $r=-0.061$ ,  $p<0.001$ ).



- Playing sports as an adolescent is negatively and significantly associated with the number of major health issues someone has later on in life.
- On average, **the more that someone plays sports per week** as an adolescent, they are expected to have **-0.02 less health issues** as an adult ( $p<0.001$ ).

### Multivariate

- **Sex is a moderator** between playing sports as an adolescent and having health issues later on in life.
- After controlling for sex, playing sports remains significantly and negatively associated with the number of health issues someone will have ( $p<0.001$ )
- Additionally, when controlling for sports, being female is significantly and negatively associated with health issues later on in life ( $p<0.001$ )



## Discussion

- Although there is a significant negative relationship between the two variables, the coefficient of the regression was very small
- Because Wave 1 was collected in 1994, the data collection was not as modern as it could have been
- Further research could be done to look at a wider variety of health issues, as this research only focused on high blood pressure, diabetes, high cholesterol, and heart problems