

# Kidney Transplantation



# The Team



Amanda Hinkle



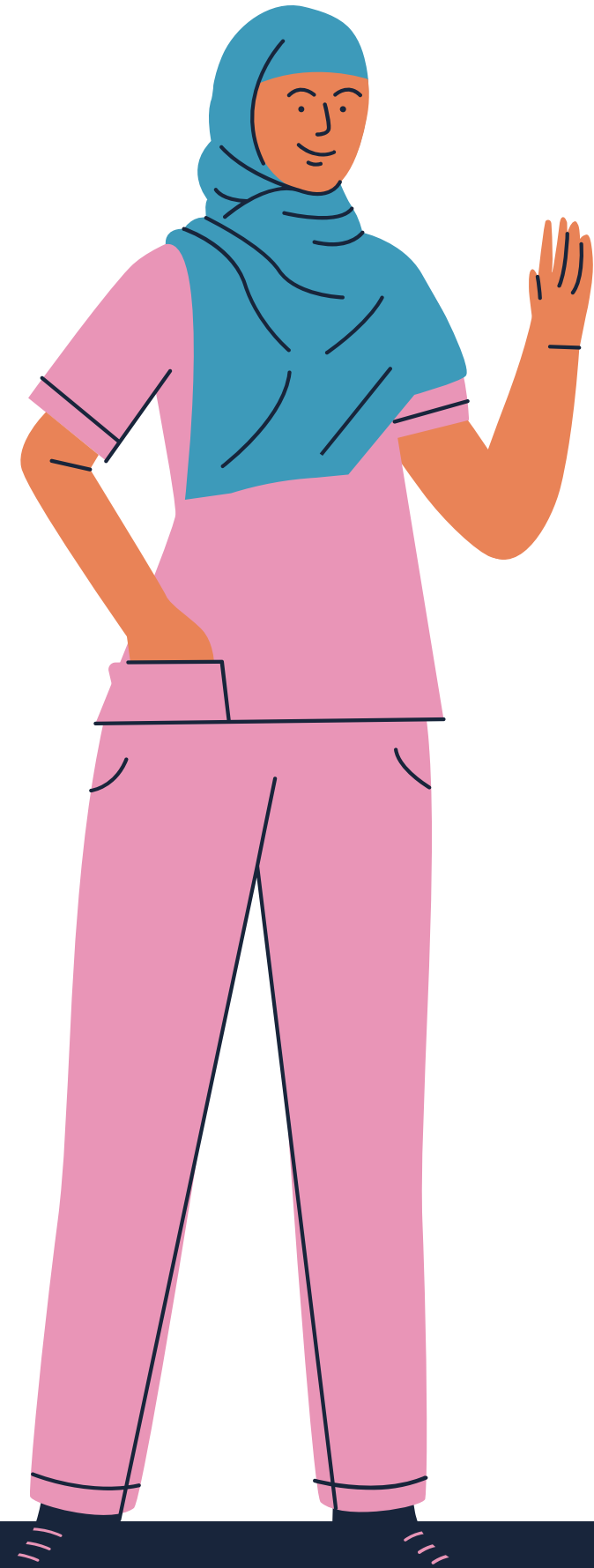
Amanda Pigman



Barb Rupps



Cory (Chapman) Houston



# Introduction

We are exploring wait times across various demographics.

We will compare the results from Oklahoma to the entire USA.

We wish to bring awareness on the importance of becoming a living donor.



# Our Null Hypothesis

Wait times are about the same for everyone who needs a kidney transplant.



# Data Exploration & Cleaning

## Research

Organ Procurement & Transplantation Network (OPTN)

## Data Cleaning

We filtered reports to focus on wait times and key factors that might influence them.

Removed duplicate information and incorrect formatting.



# Methodology

Explore the number of people waiting  
for a kidney donation across the US

Explore wait times for different  
demographic

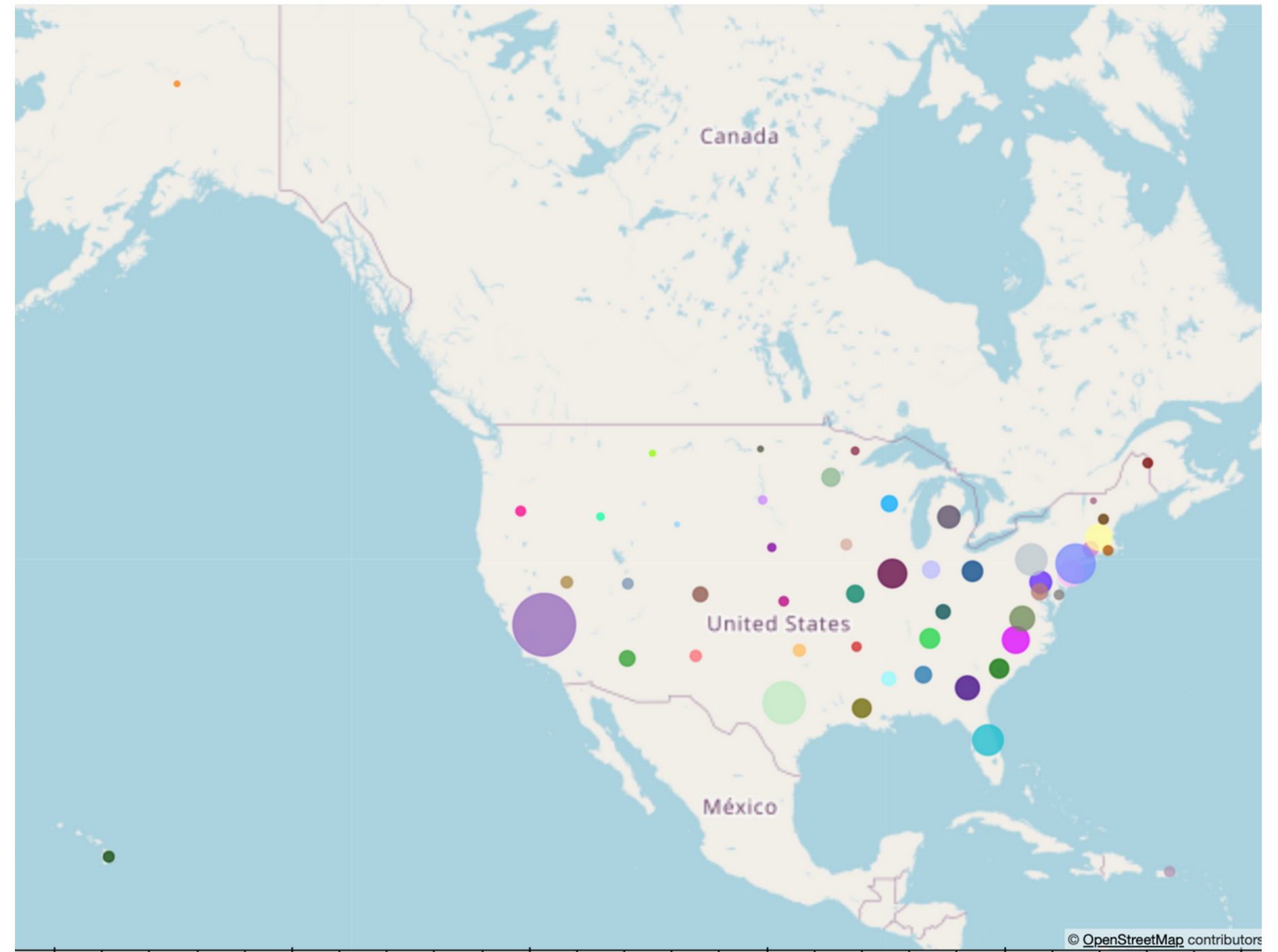
Compare values for each category  
between the state of Oklahoma and the  
entire USA.



# People waiting for Kidneys

As of December 8, 2023, **88,767** people are waiting for a kidney transplant in the USA.

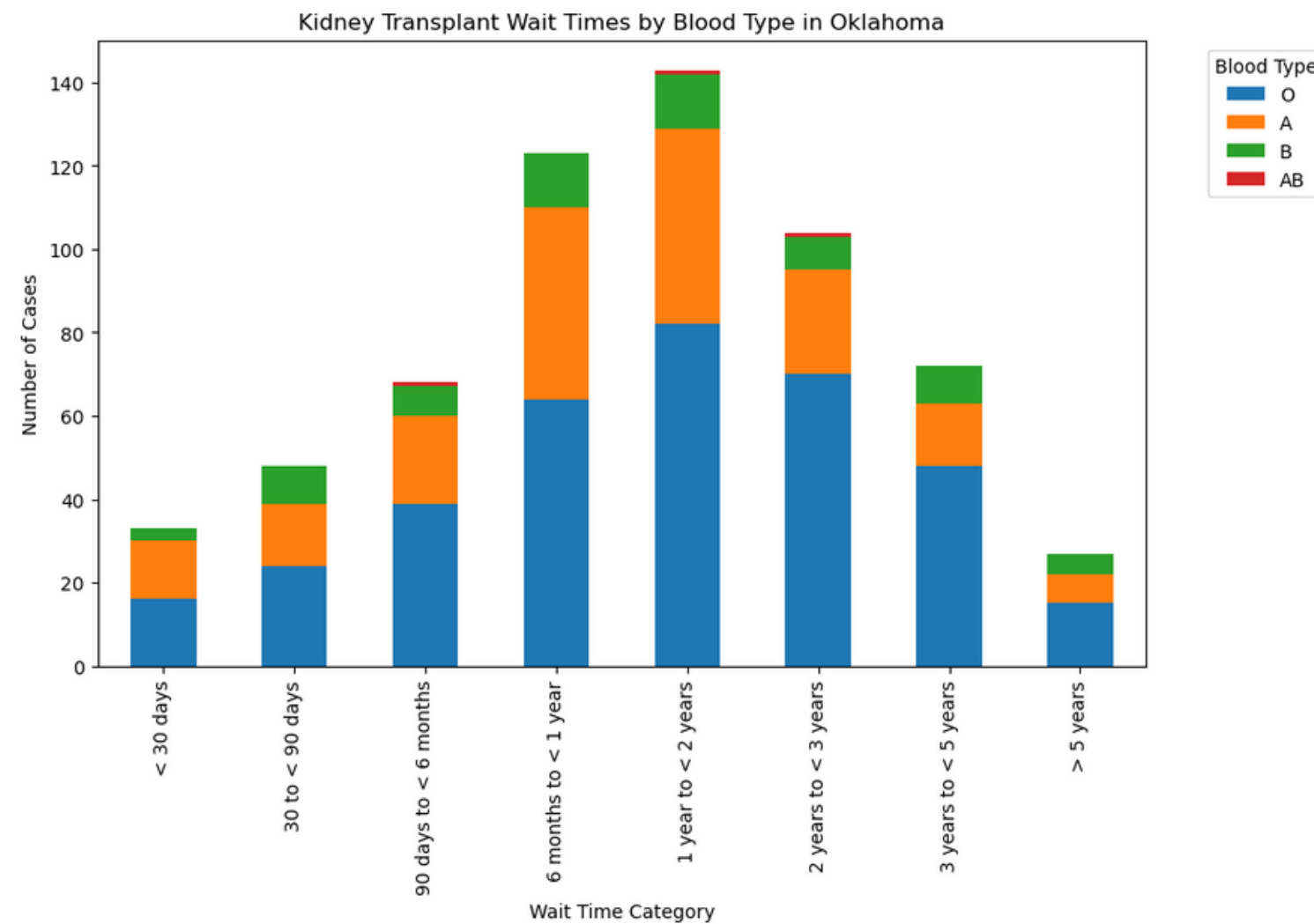
**597** in Oklahoma.



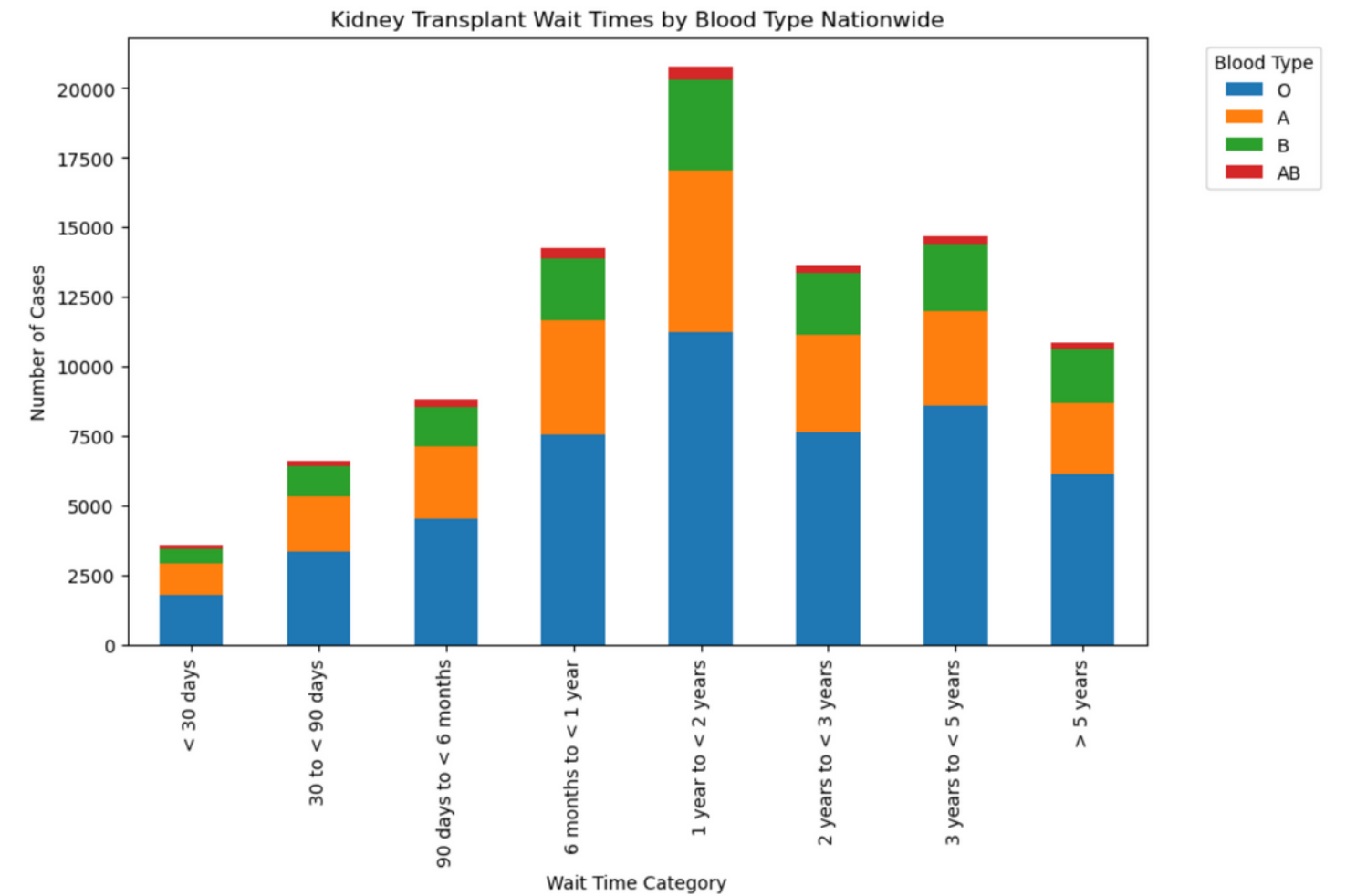
# Blood Types

The first demographic we will compare is blood type.  
Do certain blood types have a longer wait time than others?

## Oklahoma



## National

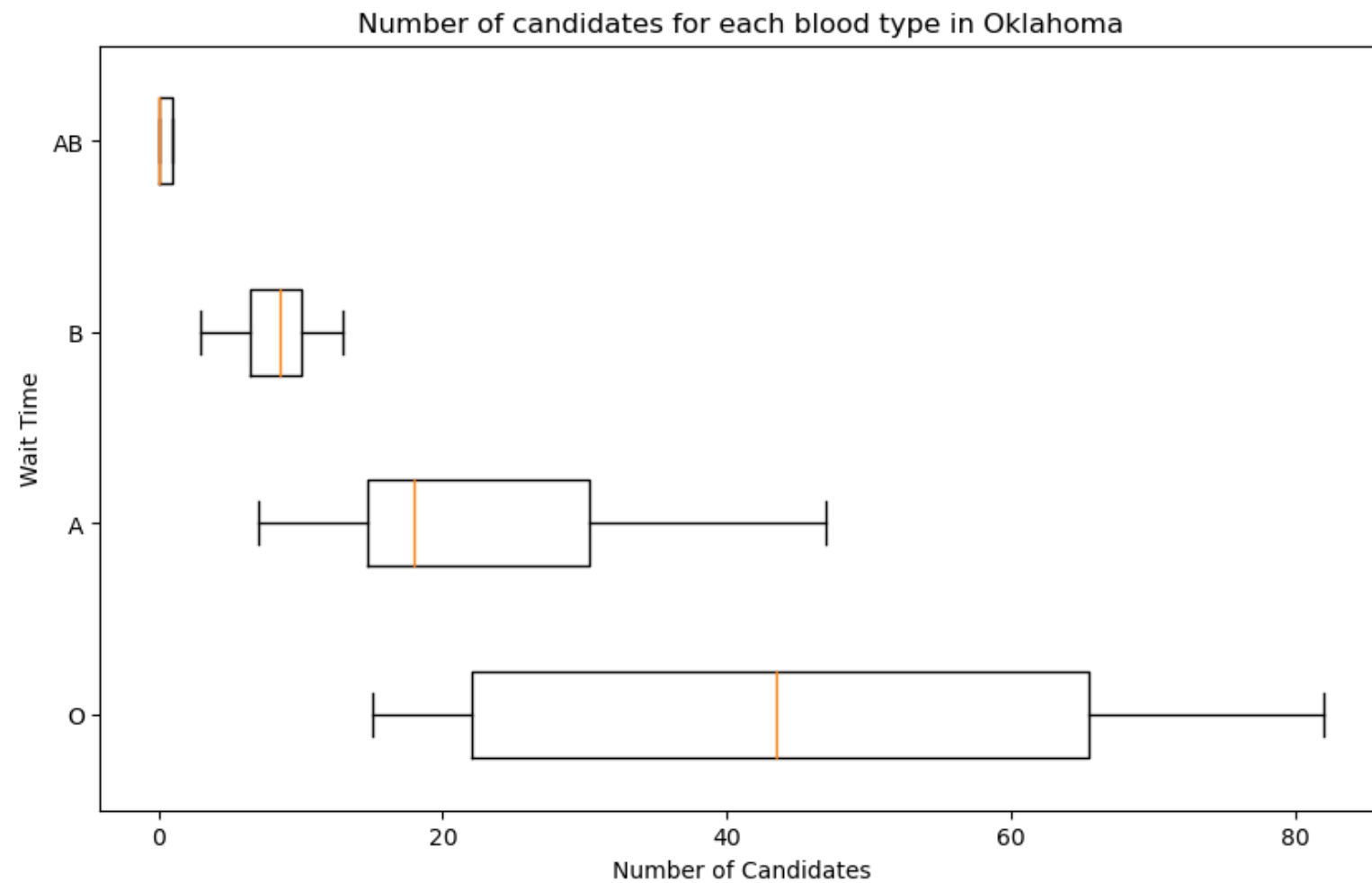




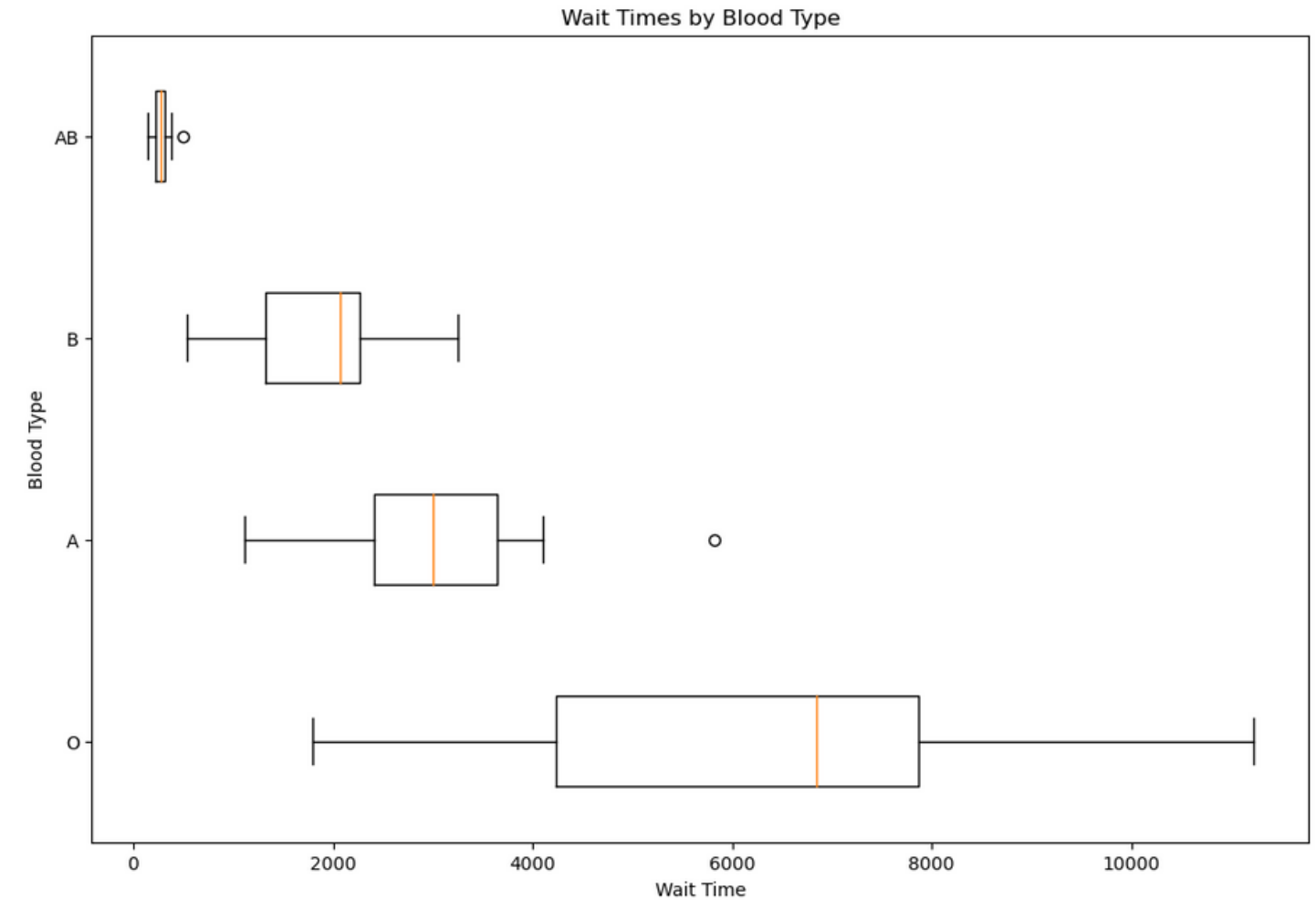
# Blood Types

We calculated box charts to determine median values for wait times based on blood types. Does blood type change the median?

## Oklahoma



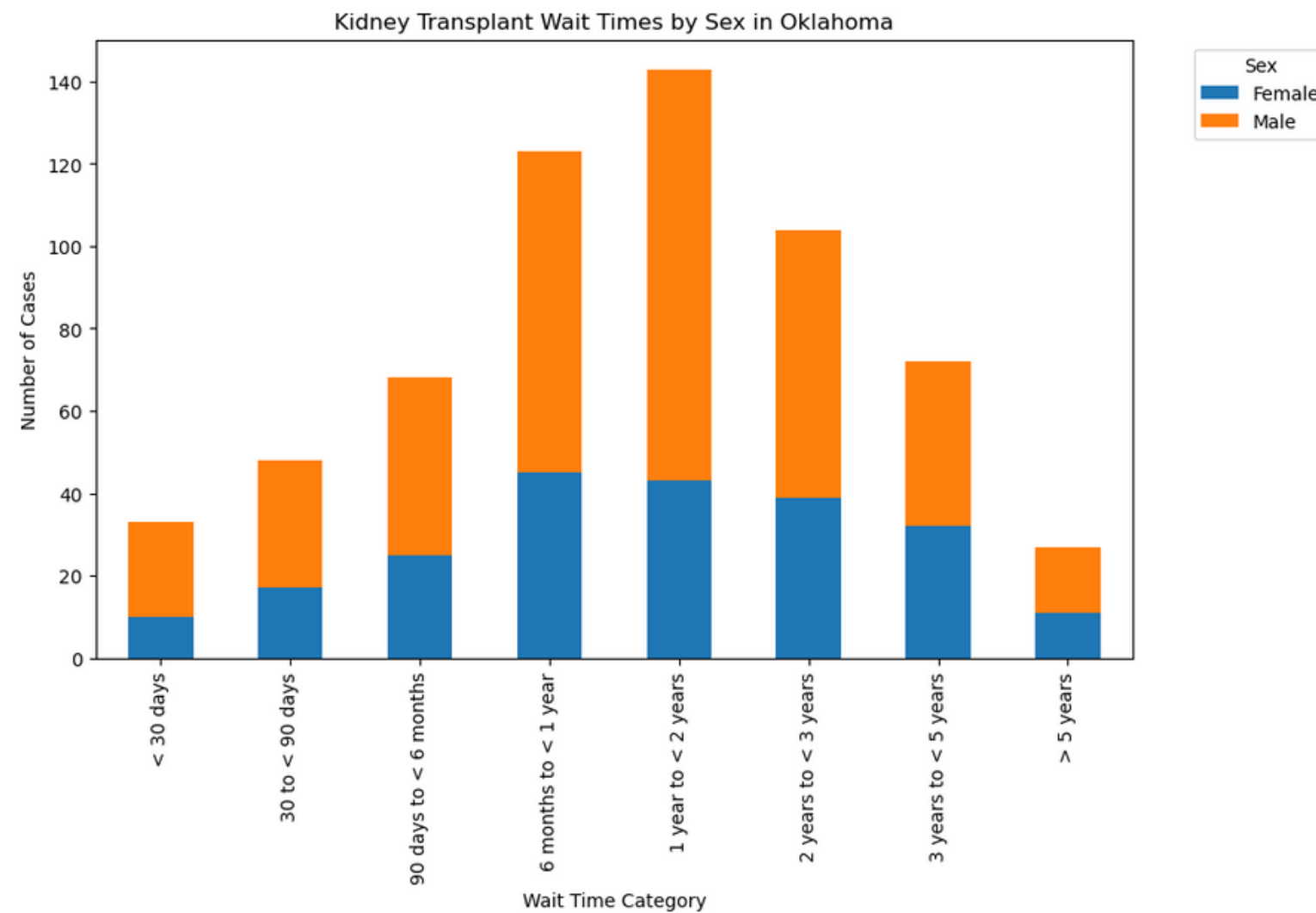
## National



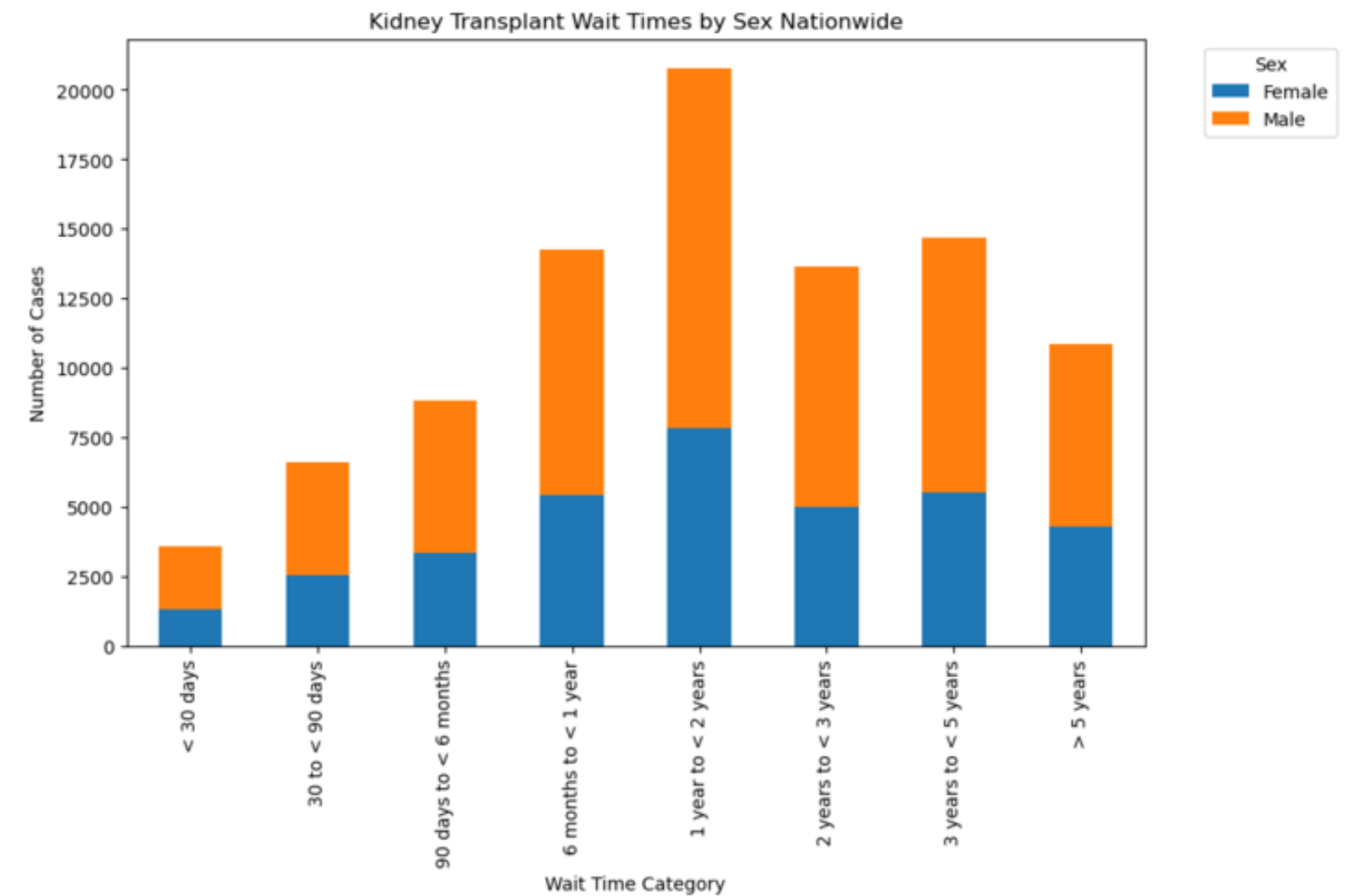
# Sex

The second demographic we considered was sex.  
Which sex has longer wait times?

## Oklahoma



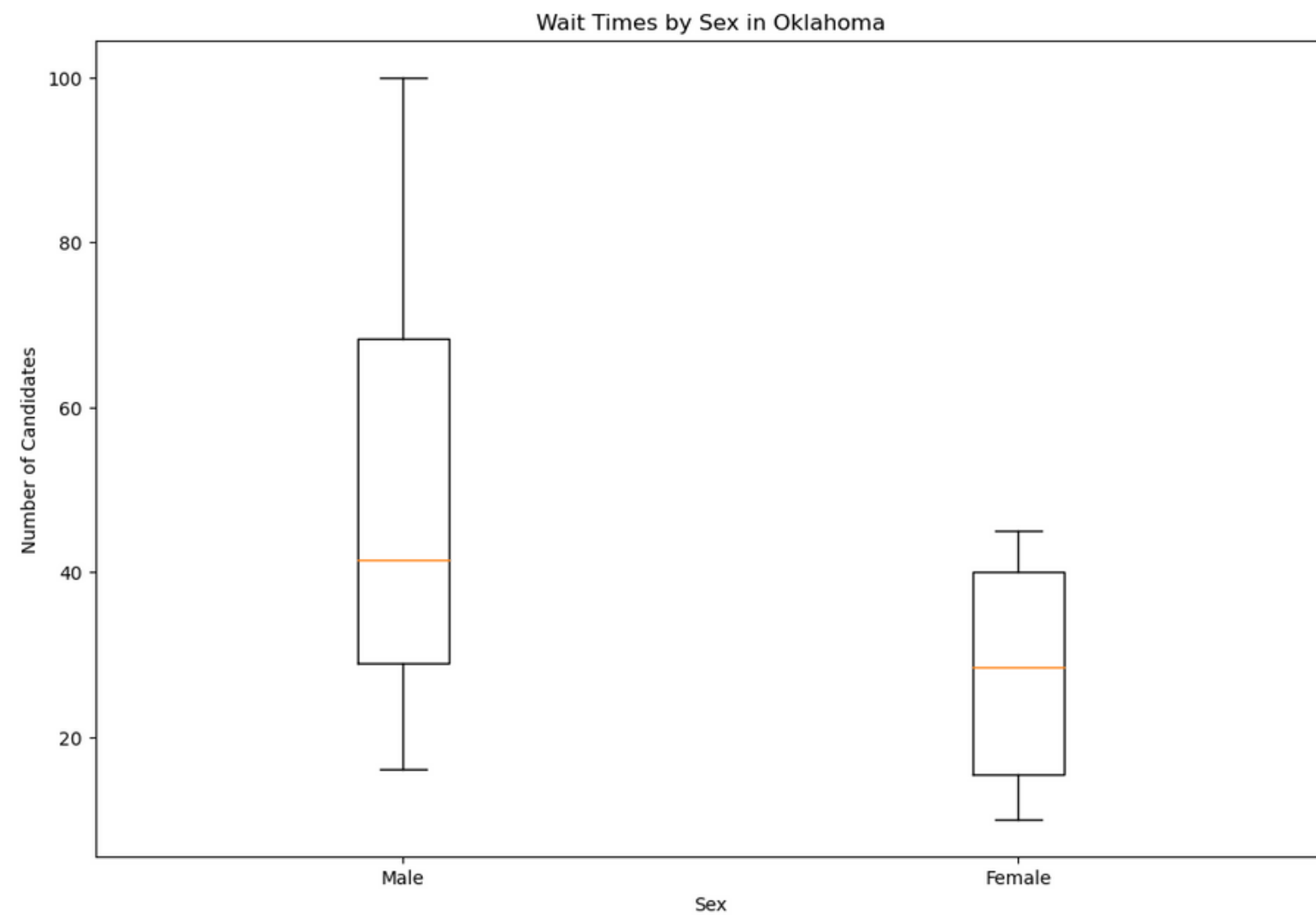
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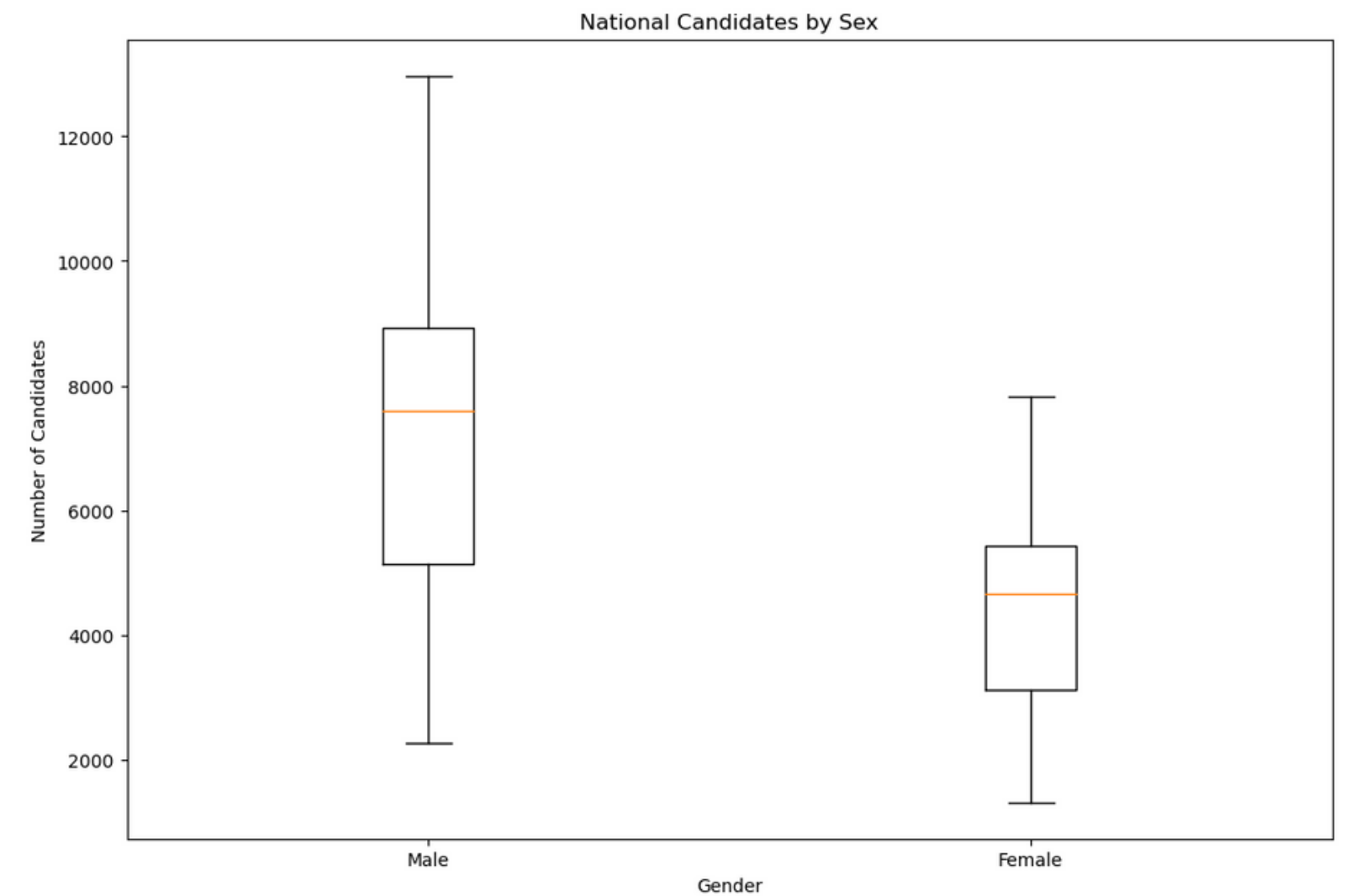
# Sex

We calculated box charts to determine median values for wait times based on sex. Does the median change based on sex?

## Oklahoma



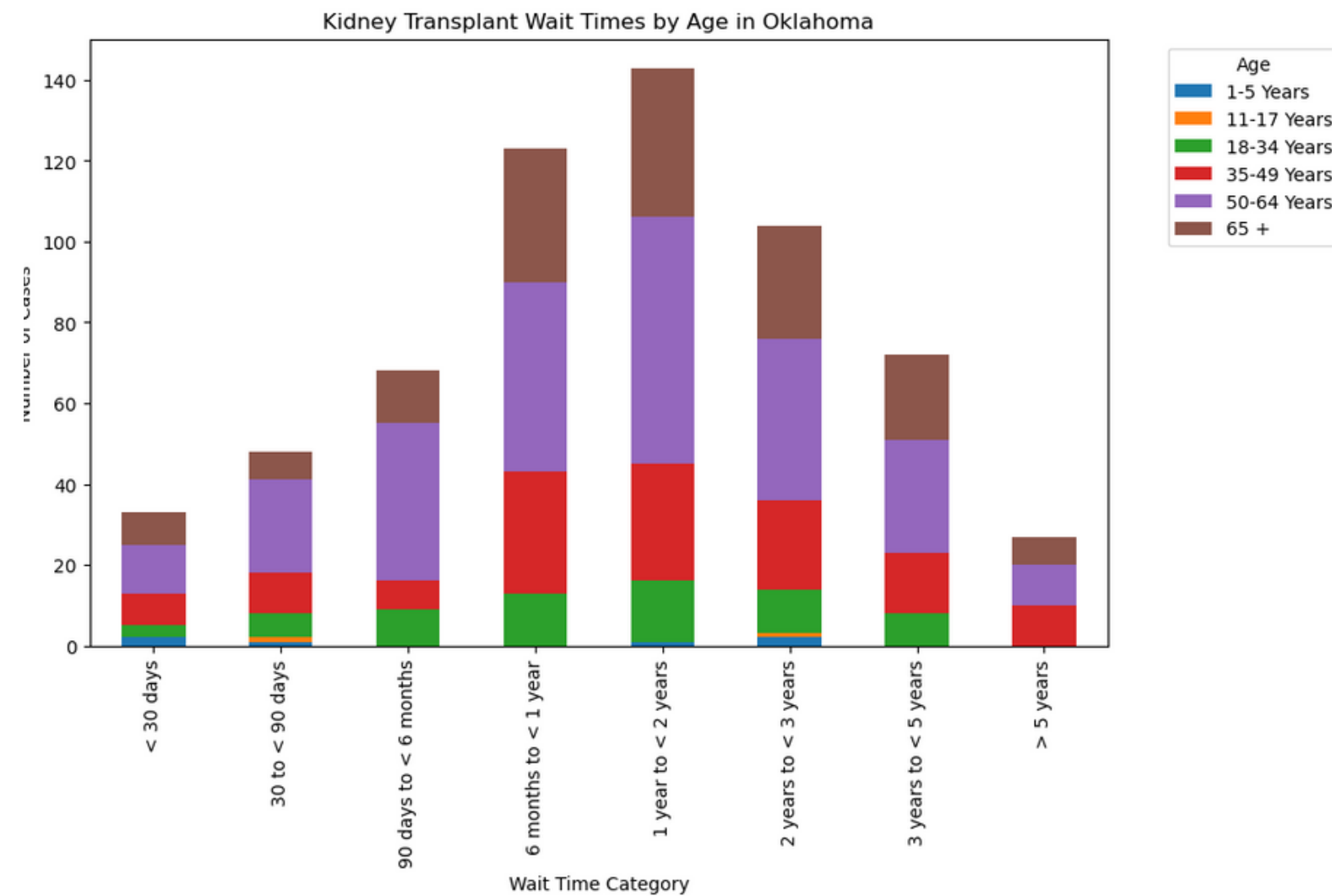
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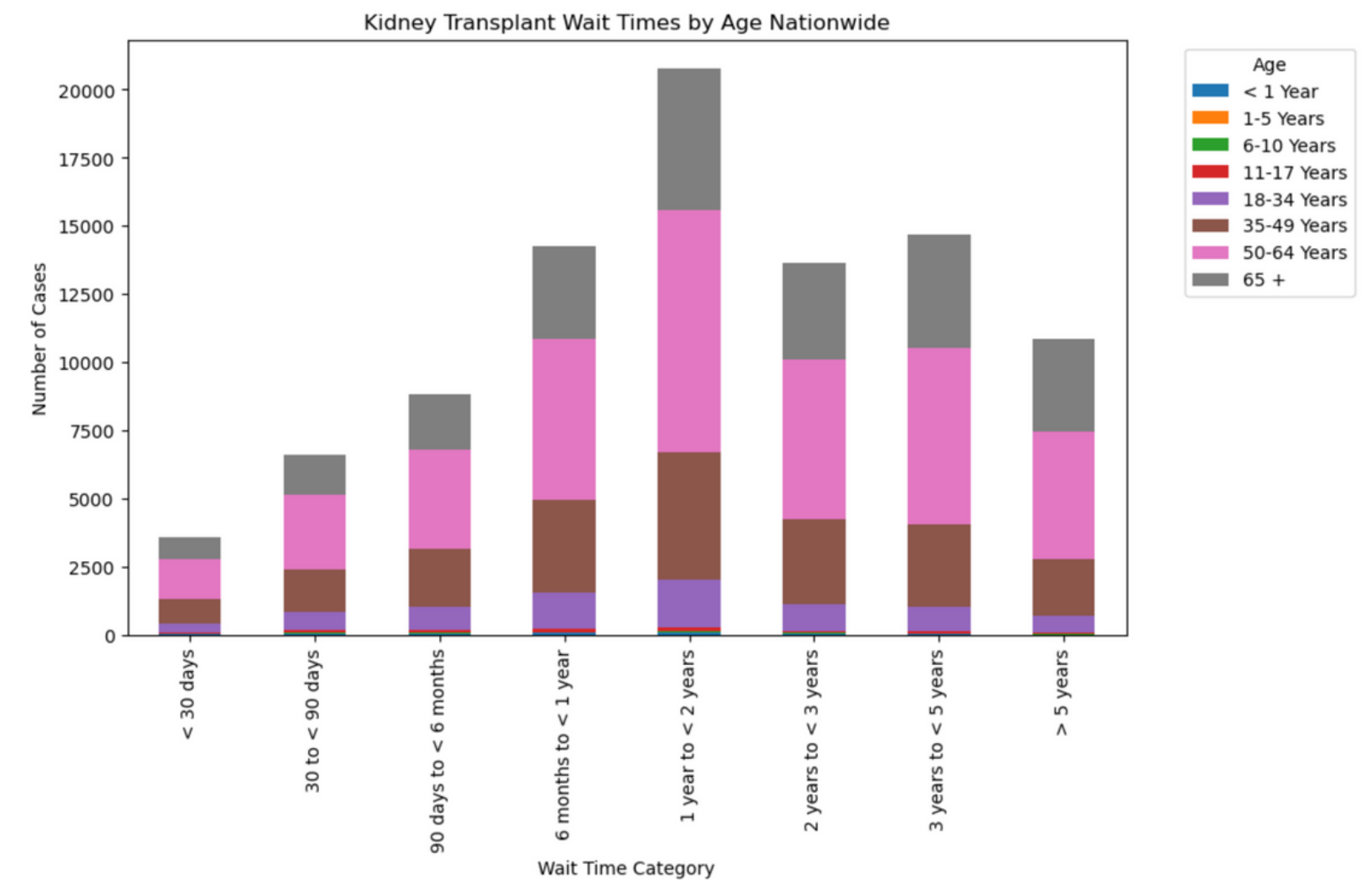
# Age

The second demographic we considered was age.  
What age group has longer wait times?

## Oklahoma



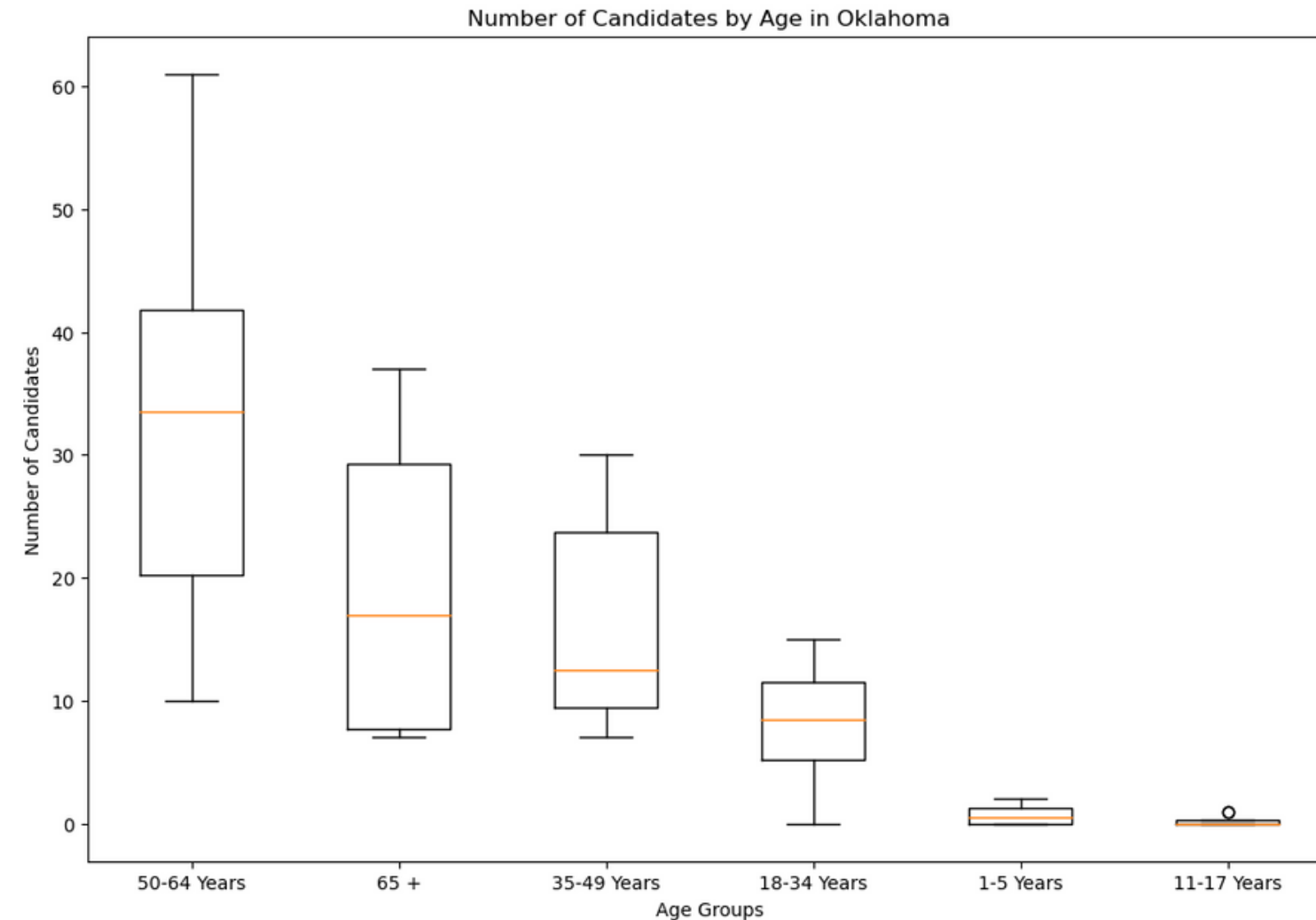
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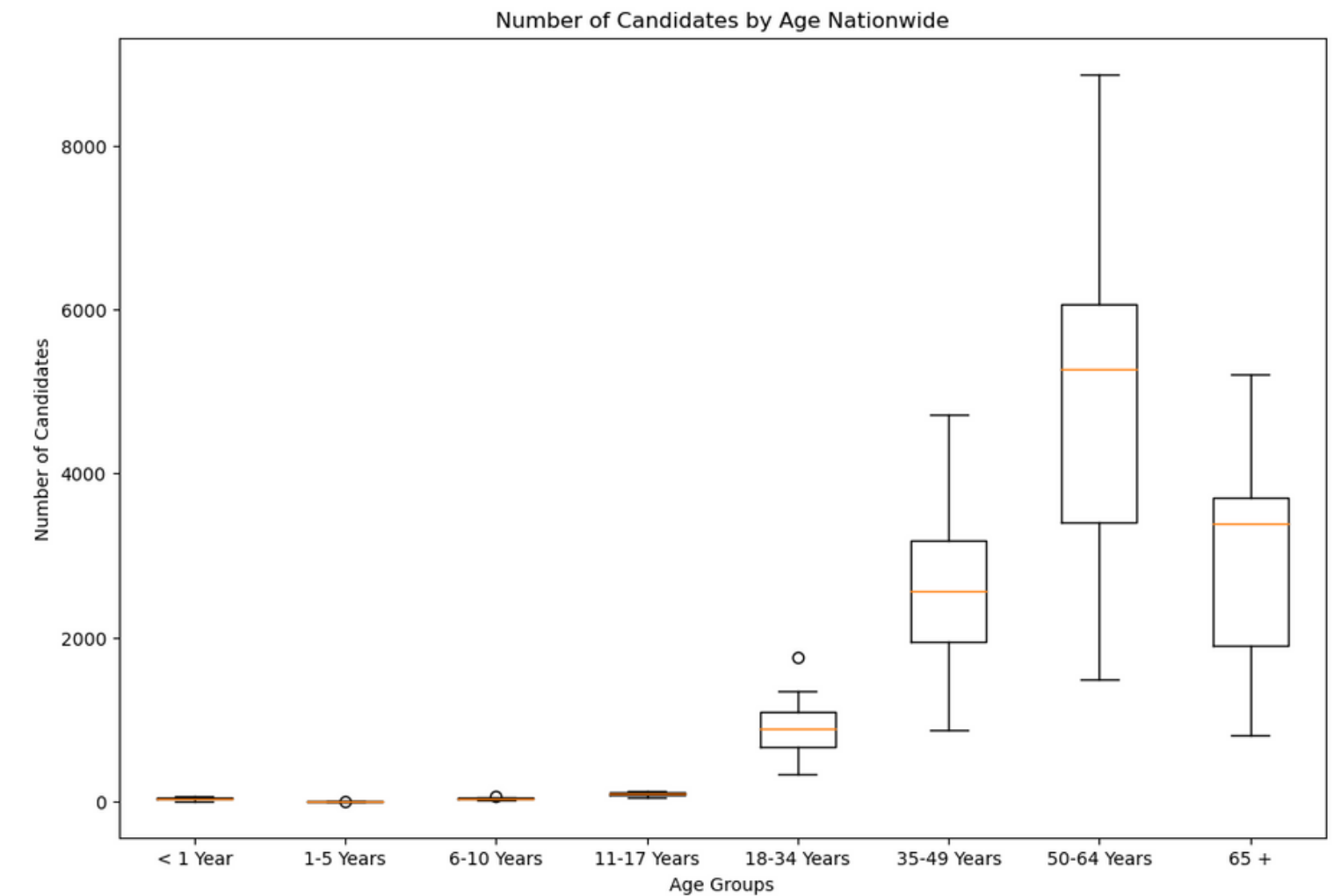
# Age

We calculated box charts to determine median values for wait times based on age. Does the median change based on age?

## Oklahoma



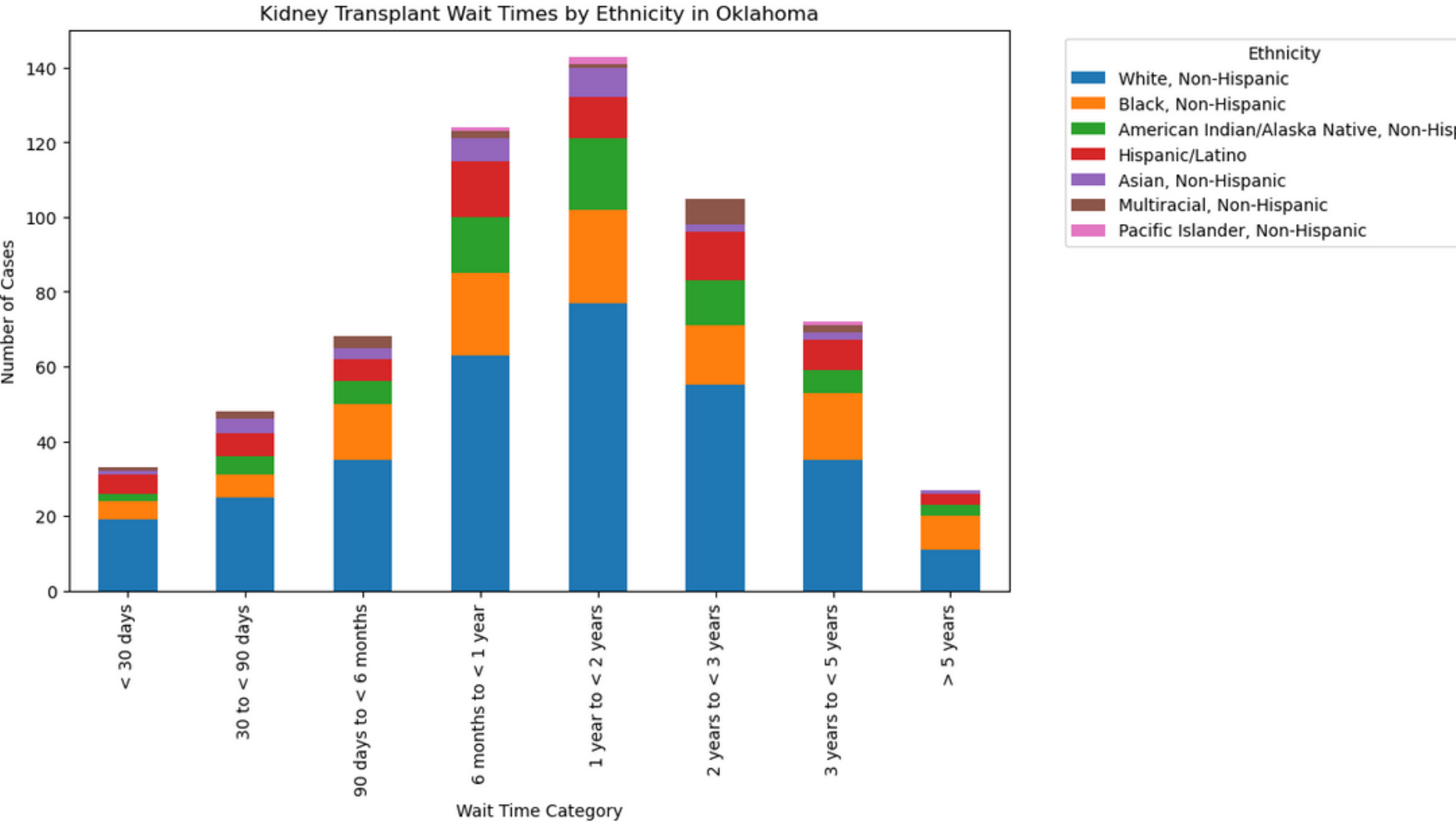
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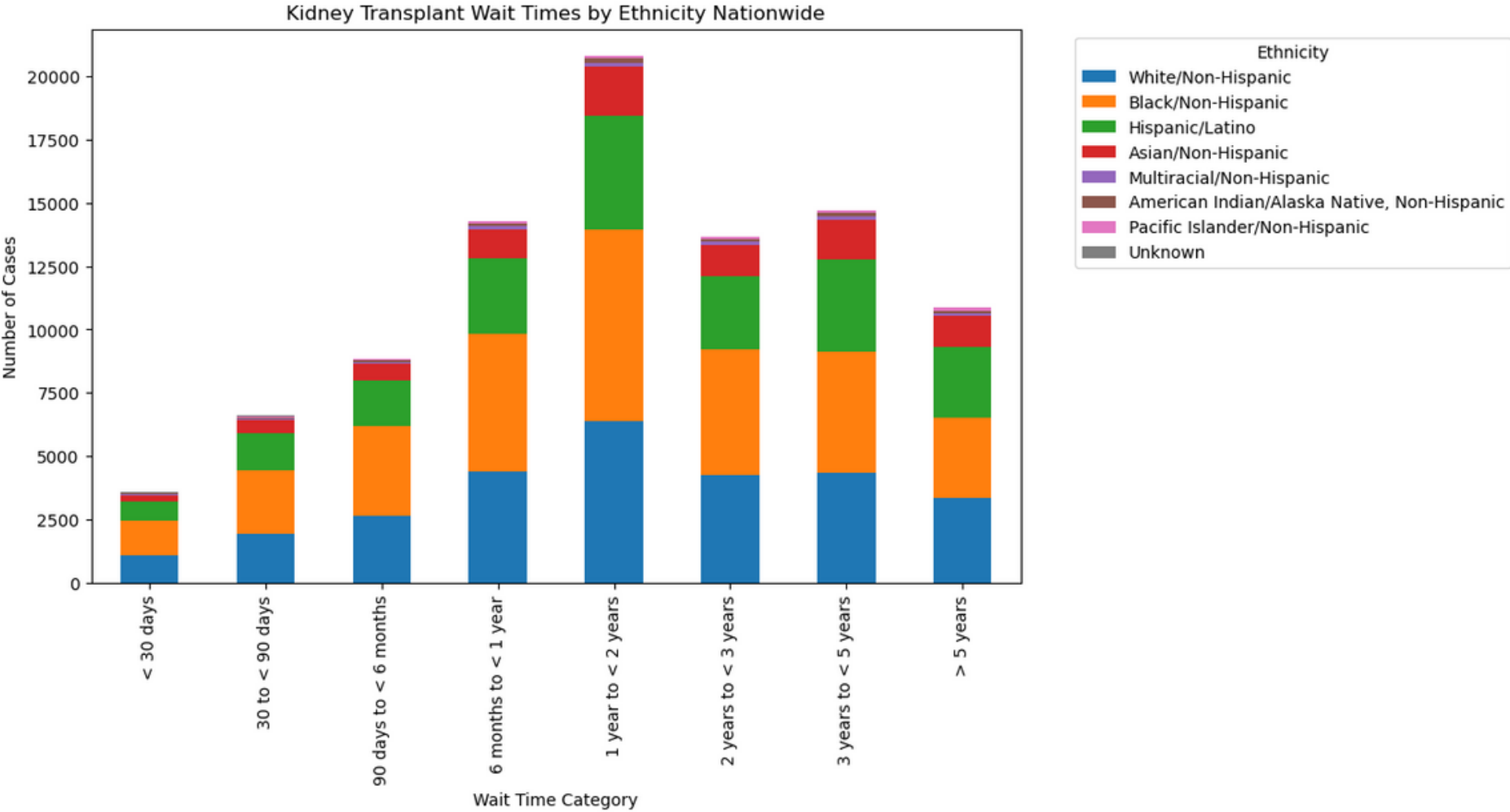
# Ethnicity

The fourth demographic we considered was ethnicity.  
Do particular ethnicities wait longer than others?

## Oklahoma



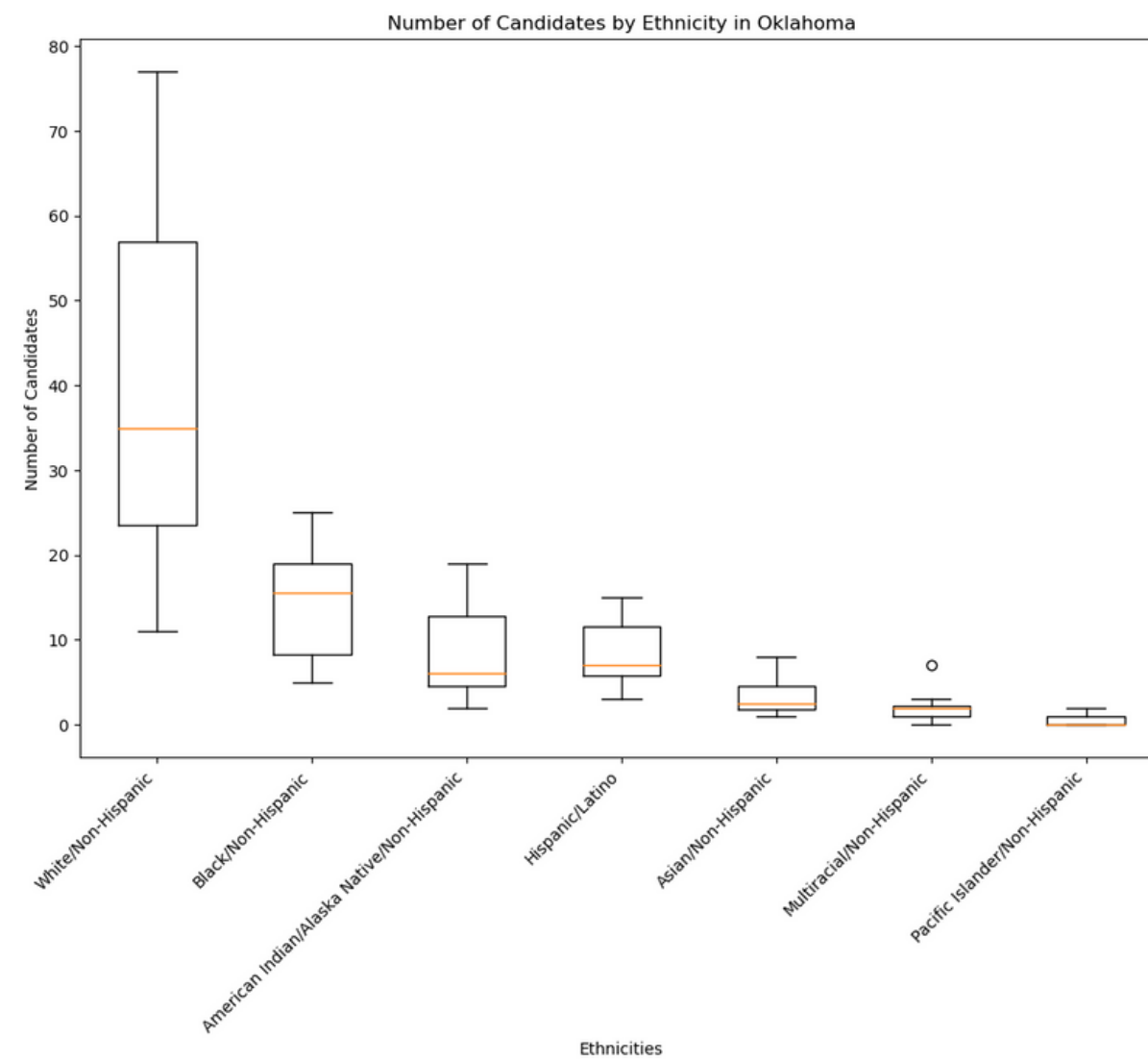
## National



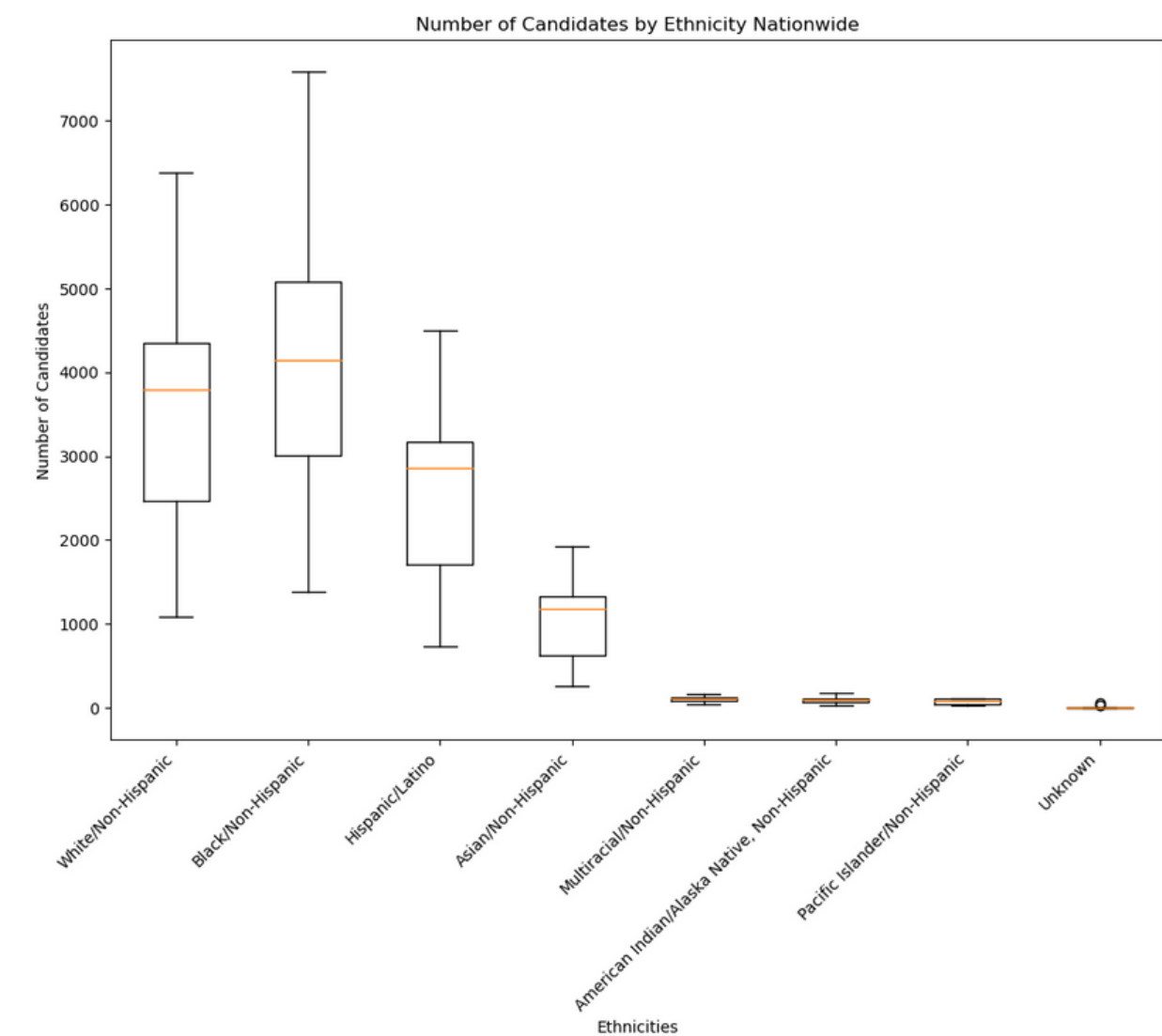
# Ethnicity

We calculated box charts to determine median values for wait times based on age. Does the median change based on ethnicity?

## Oklahoma

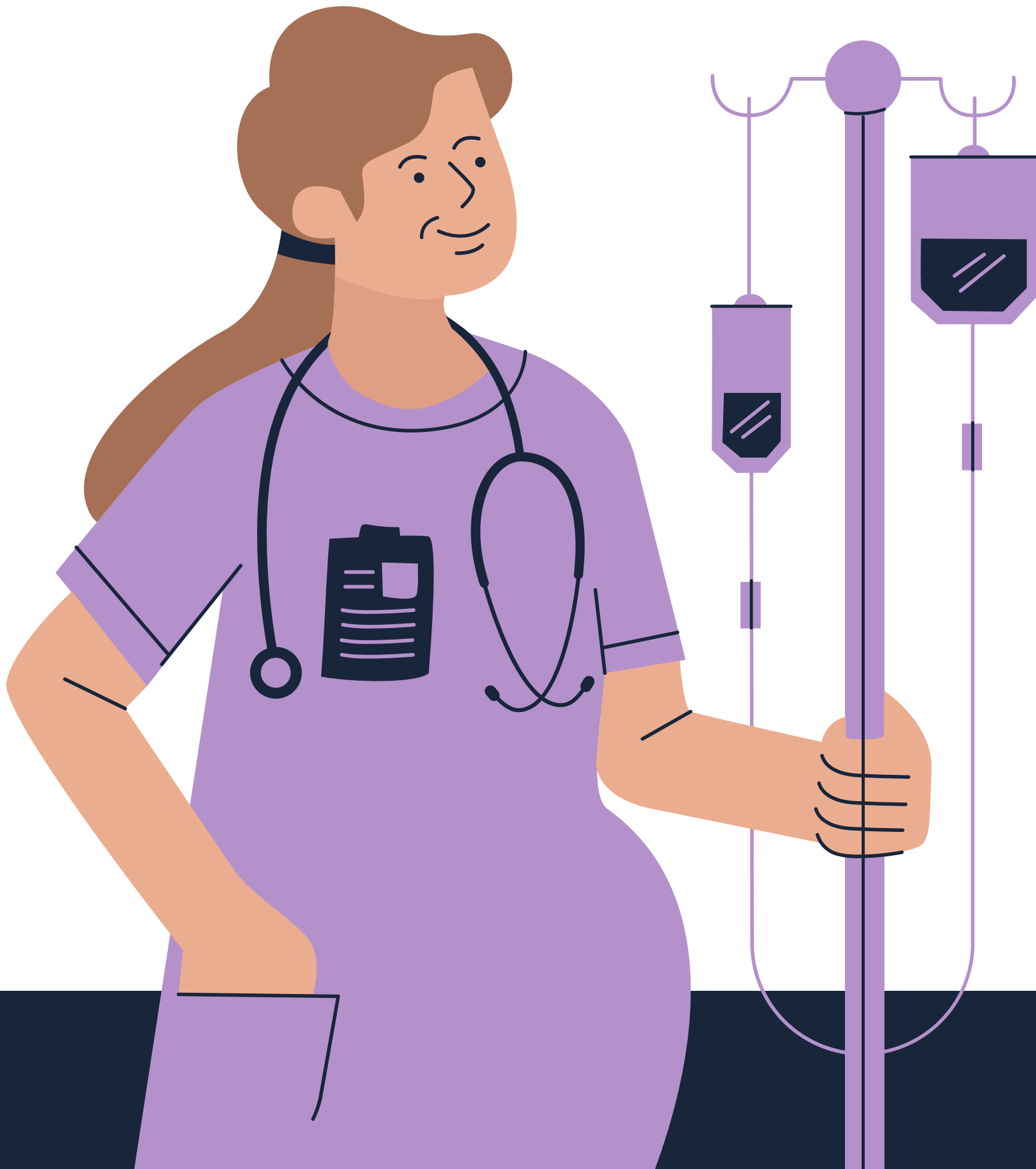


## National



# Conclusion

According to our research, we reject the null hypothesis as we have found that there are, indeed, factors that contribute to wait times for receiving a kidney transplant.





# Demographics with the Longest Wait Times



**Type O Blood** (OK & USA)

**Men** (OK & USA)

**50 – 64 Years Old** (OK & USA)

**White/Non-Hispanic** (OK)  
**Black** (USA)

# Call To Action

## Become an Organ Donor

- Become one when you renew your license
- Sign up at [www.LifeShareRegistry.org](http://www.LifeShareRegistry.org)

## Share Your Spare

You may even choose to go a step further and become a living donor. You only need one kidney to live a healthy life. Consider “sharing your spare.”



# Questions?

