

# The Association Between Epidemiological Determinants and Carpal Tunnel Syndrome in Albania

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## INTRODUCTION

Carpal Tunnel Syndrome (CTS) is a debilitating condition that if left untreated may result in loss of hand function due to the compression of the median nerve. Previous studies have reported that the prevalence of CTS varies significantly in patients of different occupations. Other epidemiological factors that might be associated with developing CTS are age and gender. Therefore, it is of paramount importance to examine the association between occupation, age, gender and the development of carpal tunnel syndrome.

## OBJECTIVE

The main objective of this study is to investigate the potential association between epidemiological determinants and carpal tunnel syndrome development:

- Focus on the association between occupation and CTS
- Examine the gender distribution of patients with CTS in each occupation
- Examine the age distribution and age median of patients with CTS in each occupation by gender

## METHODS

- 100 patients at the University Center “Mother Theresa” in Tirana, Albania were diagnosed with carpal tunnel syndrome in the span of three months.
- Once diagnosed, the patients were asked to complete a questionnaire that inquired their age, gender, occupation, co-morbidities, height, weight, highest education completed, and whether they resided in urban or rural areas.

Questionnaire  
Tirana, Albania

Name	
Age	
Gender	
Occupation	
Co-Morbidities	
Height (cm)	
Weight (kg)	
Highest education completed	
Place of residence (urban or rural)	

## RESULTS

The Proportion of Patients with Carpal Tunnel Syndrome by Occupation

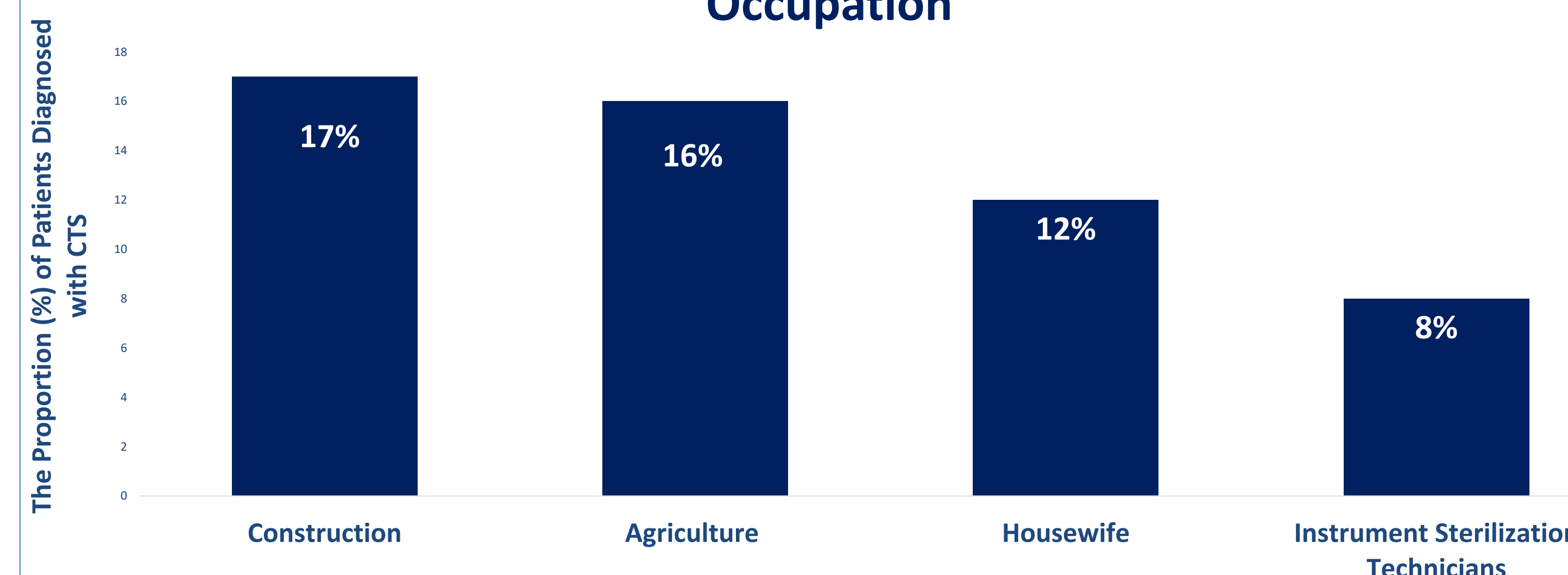


Figure 1: The Proportion of Patients with Carpal Tunnel Syndrome by Occupation in Albania

The Proportion of Men and Women with CTS in Agriculture

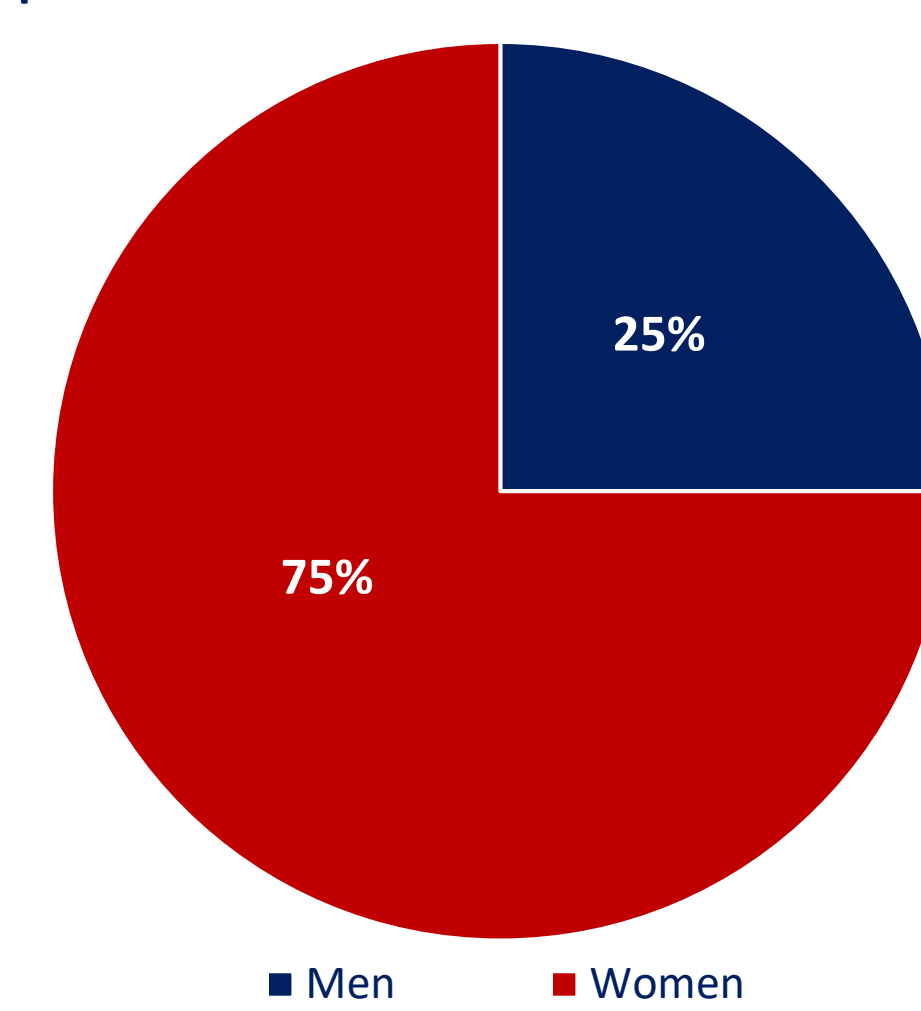


Figure 2: The Proportion of Patients with Carpal Tunnel Syndrome by Gender in Agriculture

The Proportion of Men and Women with CTS in Construction

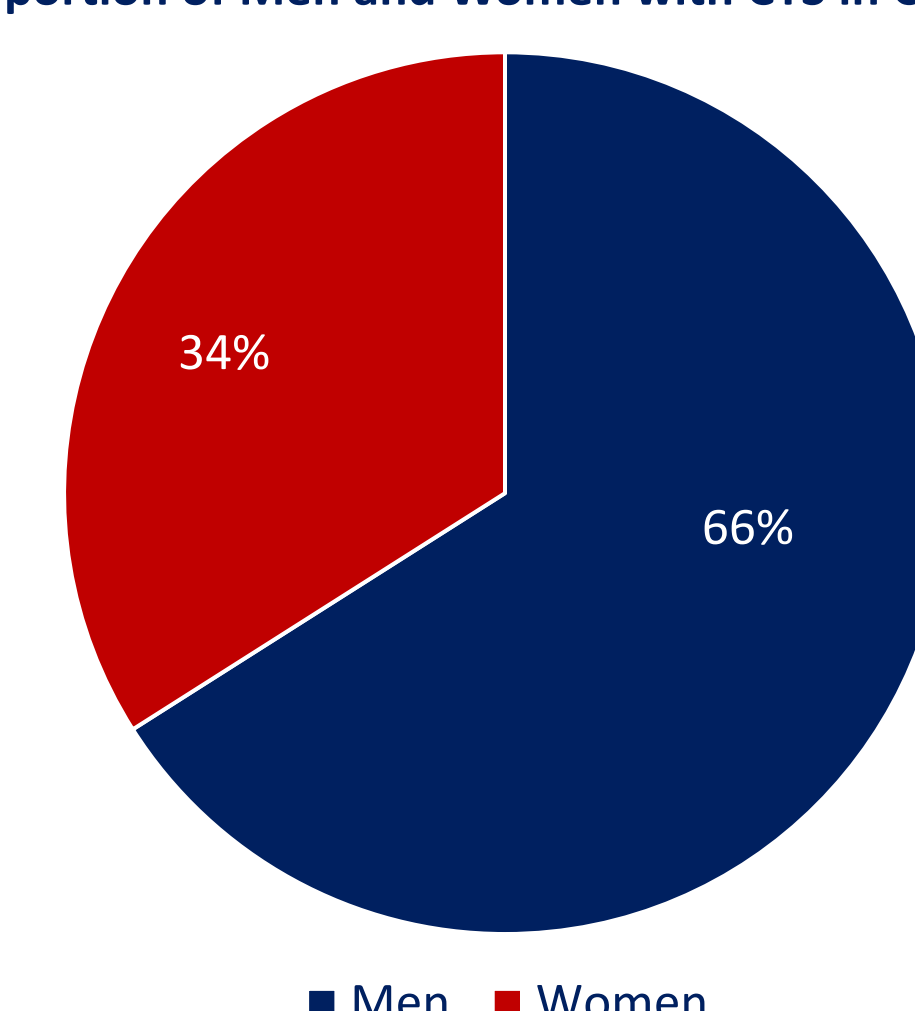


Figure 2: The Proportion of Patients with Carpal Tunnel Syndrome by Gender in Construction

Median Age of Men and Women with CTS in Each Occupation

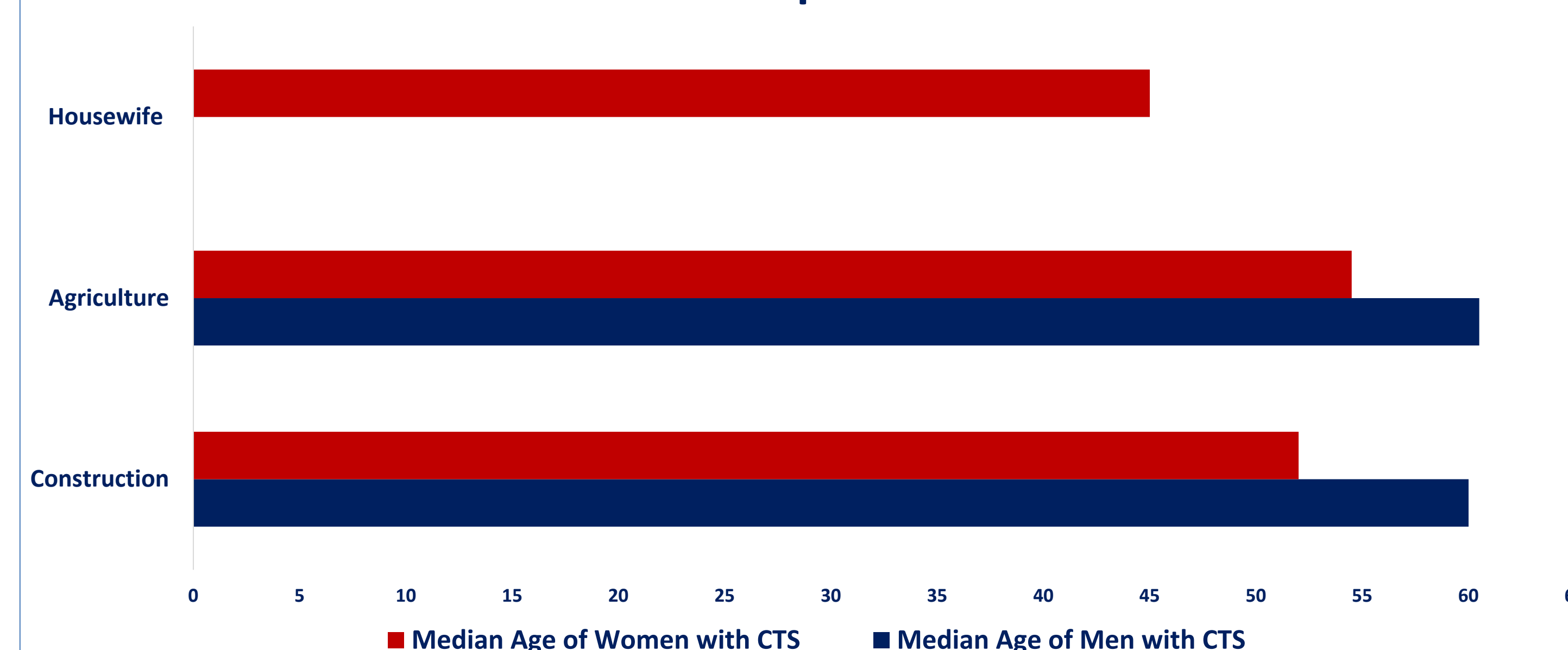


Figure 2: The Median Age of Men and Women with Carpal Tunnel Syndrome in Each Occupation

## CONCLUSION

- Previous studies report a higher prevalence of CTS among women compared to men. This may be explained by certain risk factors including:
  - Hand anatomical characteristics in women that make them more susceptible of developing CTS
  - Metabolic changes
  - Hormonal changes during pregnancy and menopause
- The occupations with higher CTS were reported to be construction and agriculture, followed by housewife and instrument sterilization technicians.
- In agriculture, 75% of the patients with CTS were women.
- In construction, 66% of the patients with CTS were men.
  - Construction: male dominated occupation in Albania
- The median age for women with CTS in agriculture was 54.5 years old, while the median age for men with CTS in agriculture was 60.5 years old.
- The median age for women with CTS in construction was 52 years old, while the median age for men with CTS in construction was 60 years old.
- The median age for housewives with CTS was 45 years old.
  - Lowest mean and median age out of all occupations
- Most women in Albania are involved in occupations that require frequent hand manipulation and repetitive hand movements that might be responsible for the development of CTS.
- This study may be beneficial in implementing effective screening interventions that may result in a better prognosis and outcome of CTS.

## REFERENCES

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