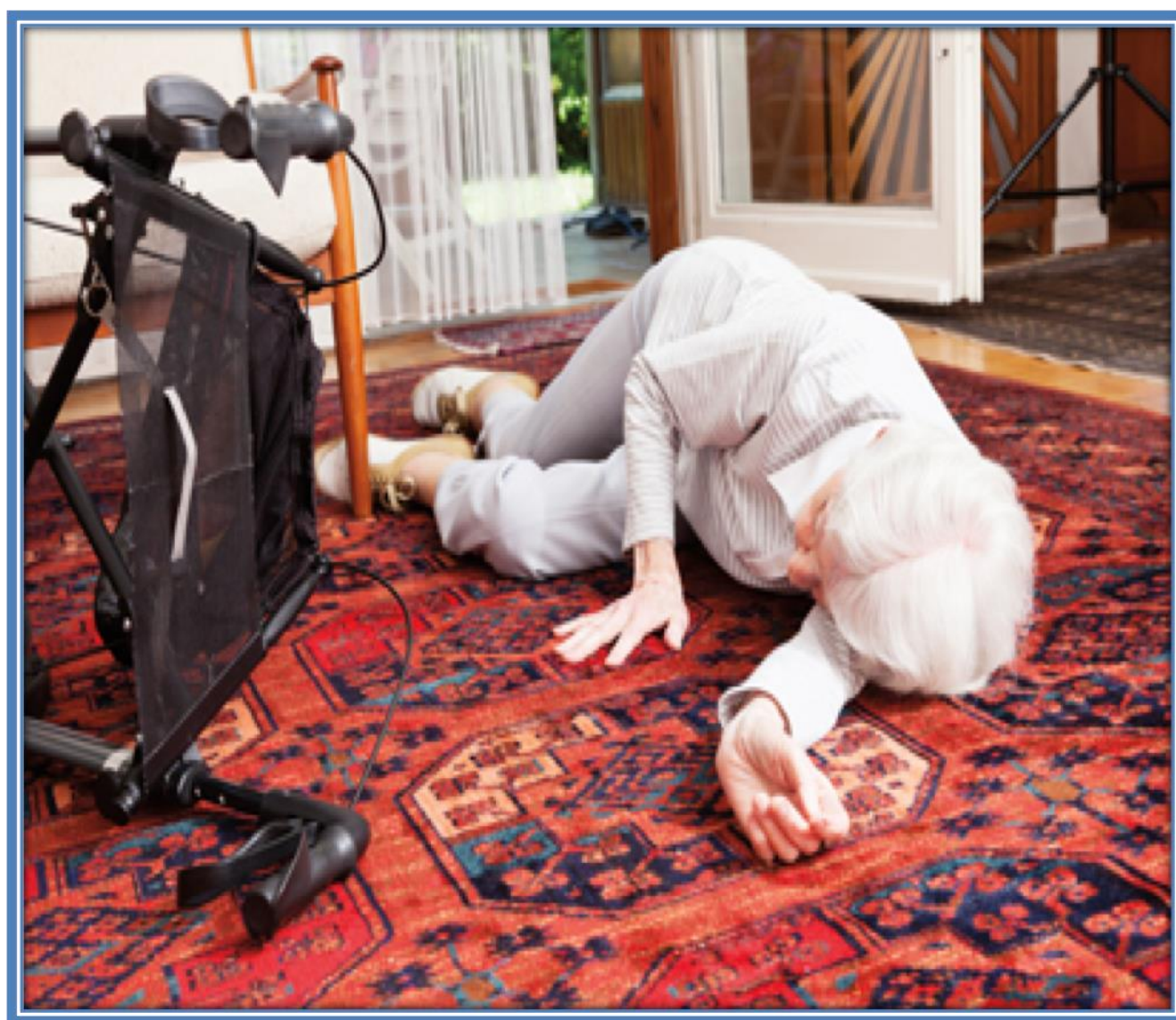


## INTRODUCTION

- Falls are the leading cause of doctor and ED visits, hospital and nursing home admissions, and accidental death in people 65 years and older. In the US, one in three elderly adults fall at least once per year and half fall repeatedly. The cost of fall related injuries for elderly adults totaled \$19 billion in 2000.
- Falls are the number one injury seen and treated at this rural level I trauma center. Elderly falls makes up the majority of this category of patients. In 2015, we evaluated 773 patients age 65 and older for ground level falls.



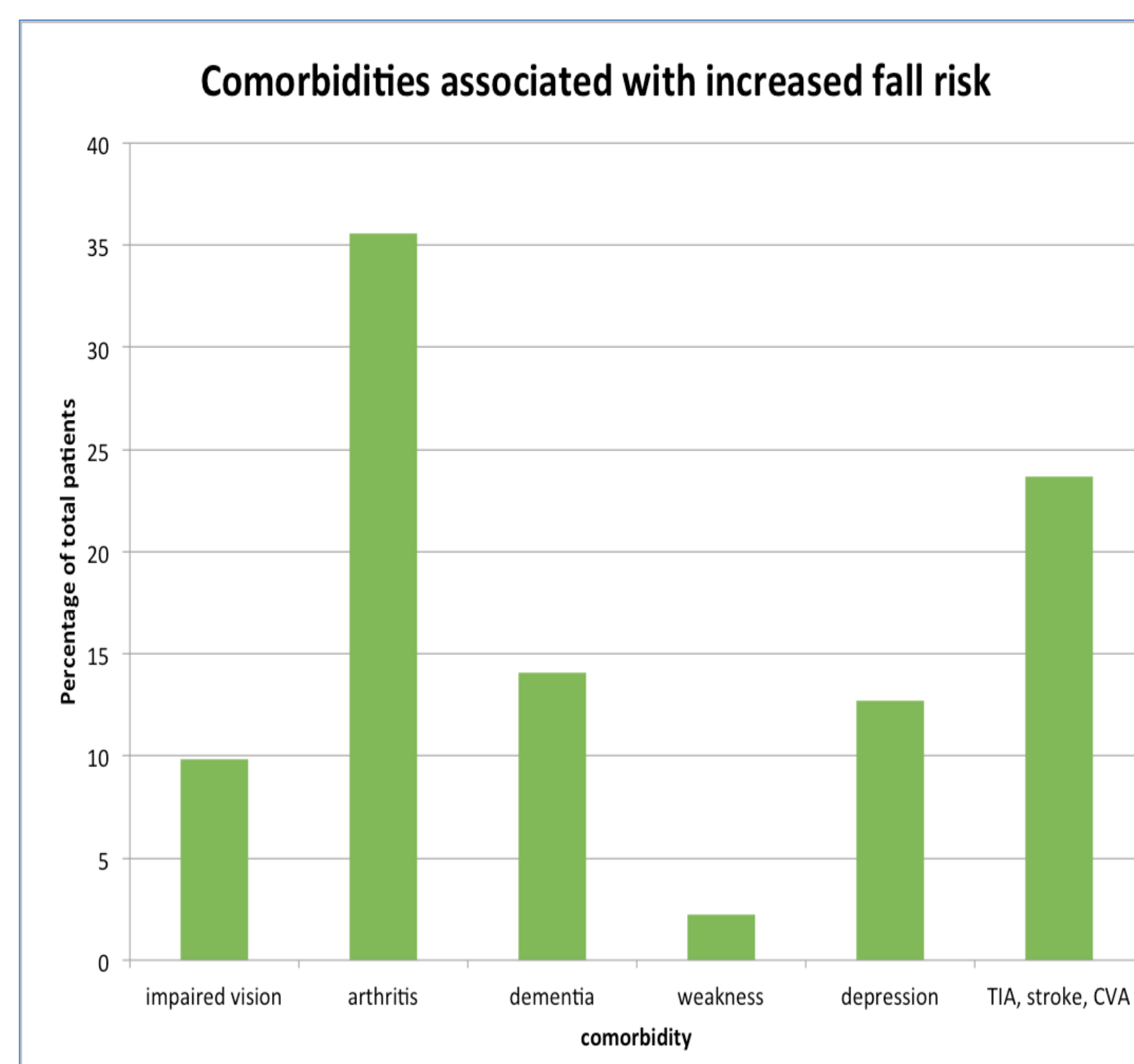
- Previous studies have shown the efficacy of a structured interdisciplinary approach, including occupational therapy assessment, to reduce the occurrence of falls in the geriatric population.
- This study aims to describe the current geriatric population seen for ground level falls so that potential high yield targets for a future falls prevention strategy can be identified.

## MATERIALS & METHODS

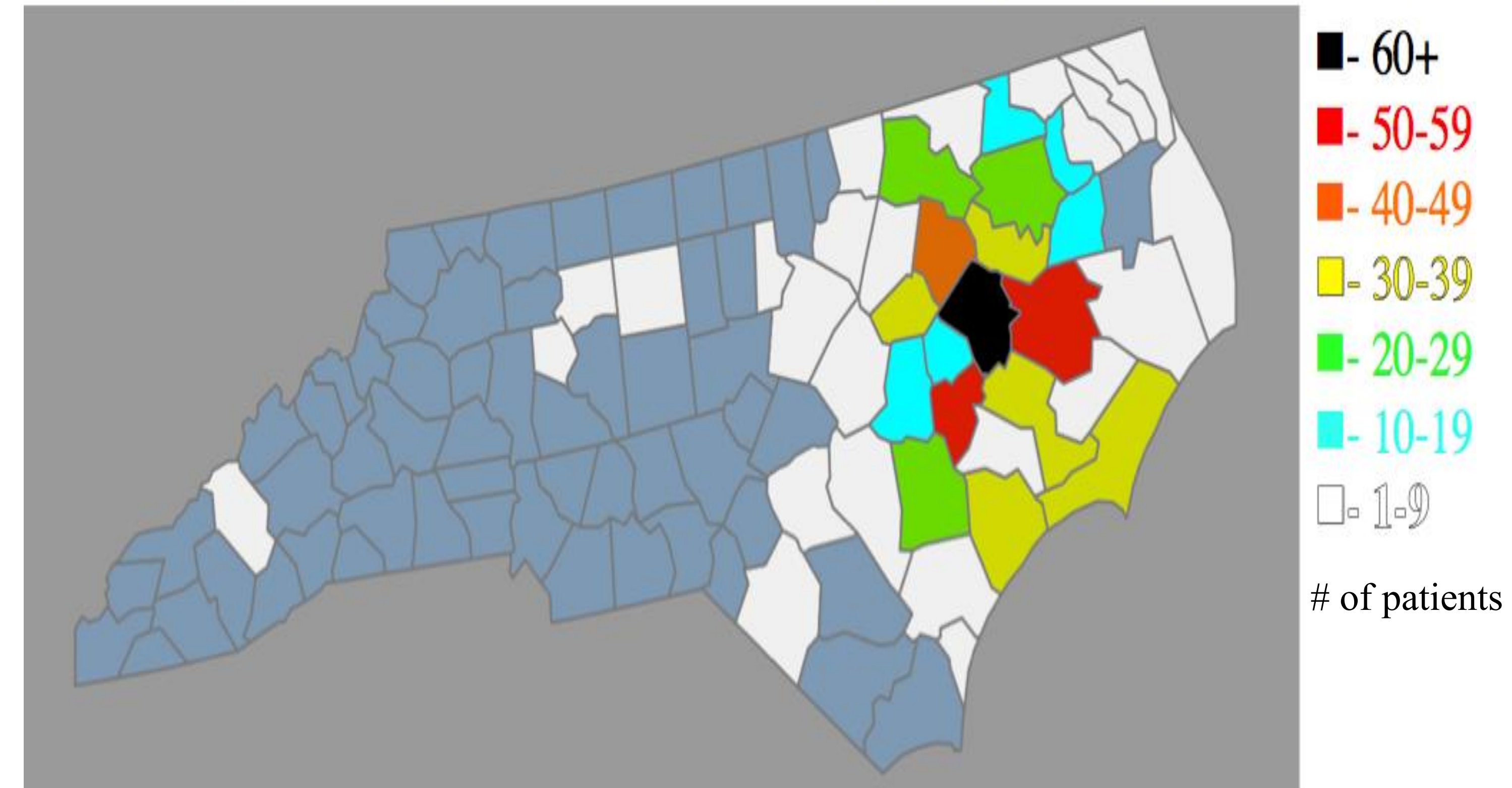
After obtaining an IRB review, this retrospective chart review analyzed the demographic and clinical characteristics of 773 patients aged 65 and older that were seen and treated for ground level falls during 2015. Data was collected from patient charts and the trauma registry.

## RESULTS

- Most patients fall in their own home (59.5%)
- Most patients were residents of Pitt County (32%)
- 24.8% of all patients MOI recorded as "slip-trip fall"
- Patients were predominantly white (84.7%) and majority were women (63.5%)
- One quarter of all the patients had a hx of a previous fall within the prior 12 months (24.8%)
- Risk factors that were most common in falls patients were the following:
  - patients taking  $\geq 4$  medications (82.7%)
  - patients with history of arthritis (36.5%)
  - patients with history of stroke/CVA (23.7%)
  - patients with impaired cognition (14.1%)
- The most prevalent medications shown to have the strongest links to an increased risk of falling being taken prior to falling were:
  - serotonin-reuptake inhibitors (28.7%)
  - benzodiazepines (28.2%)
  - anticonvulsants (21.5%)
  - antidepressants (19.5%)
  - neuroleptic agents (12.4%)

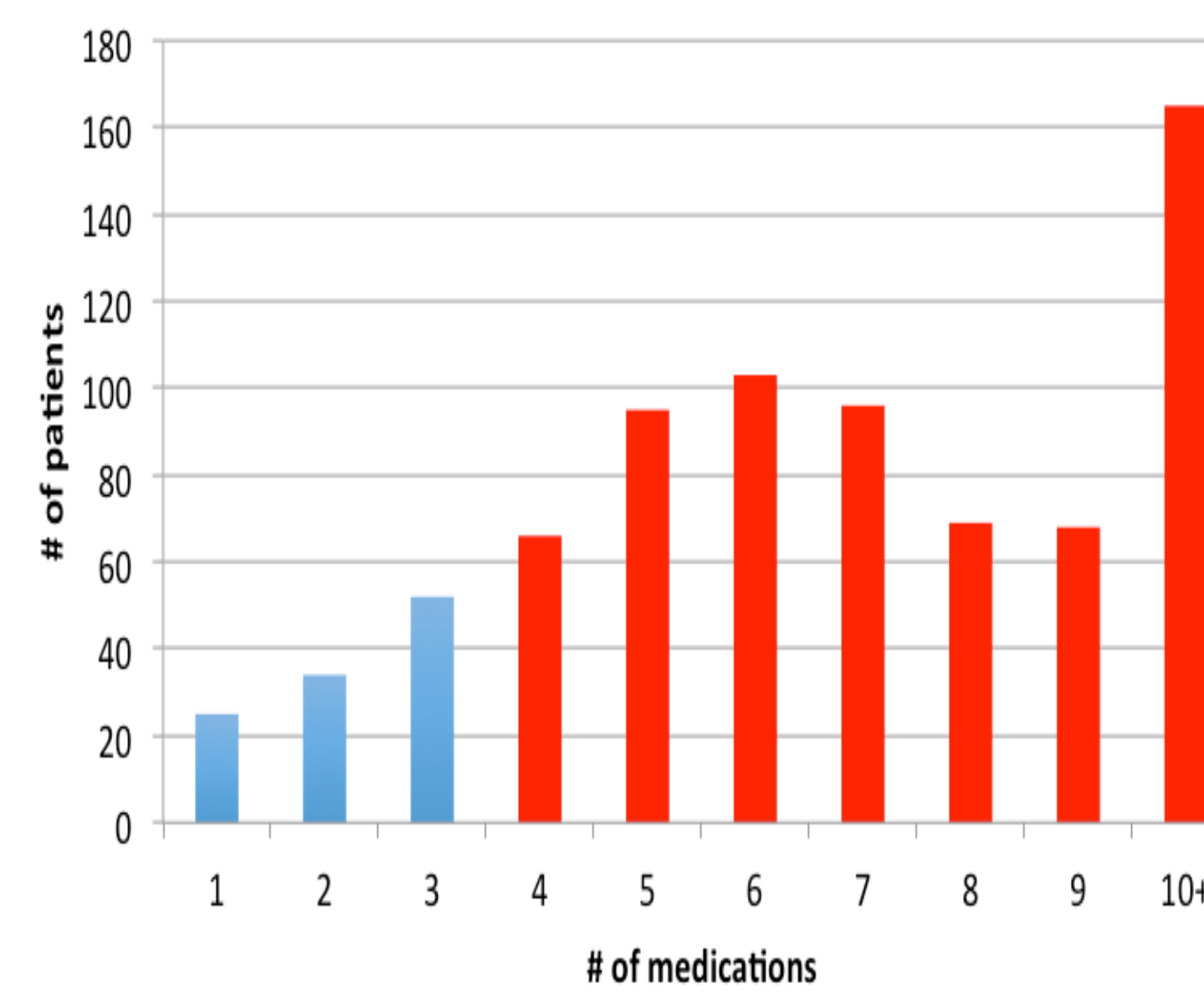


### Distribution of patients seen for ground level falls by county of residence

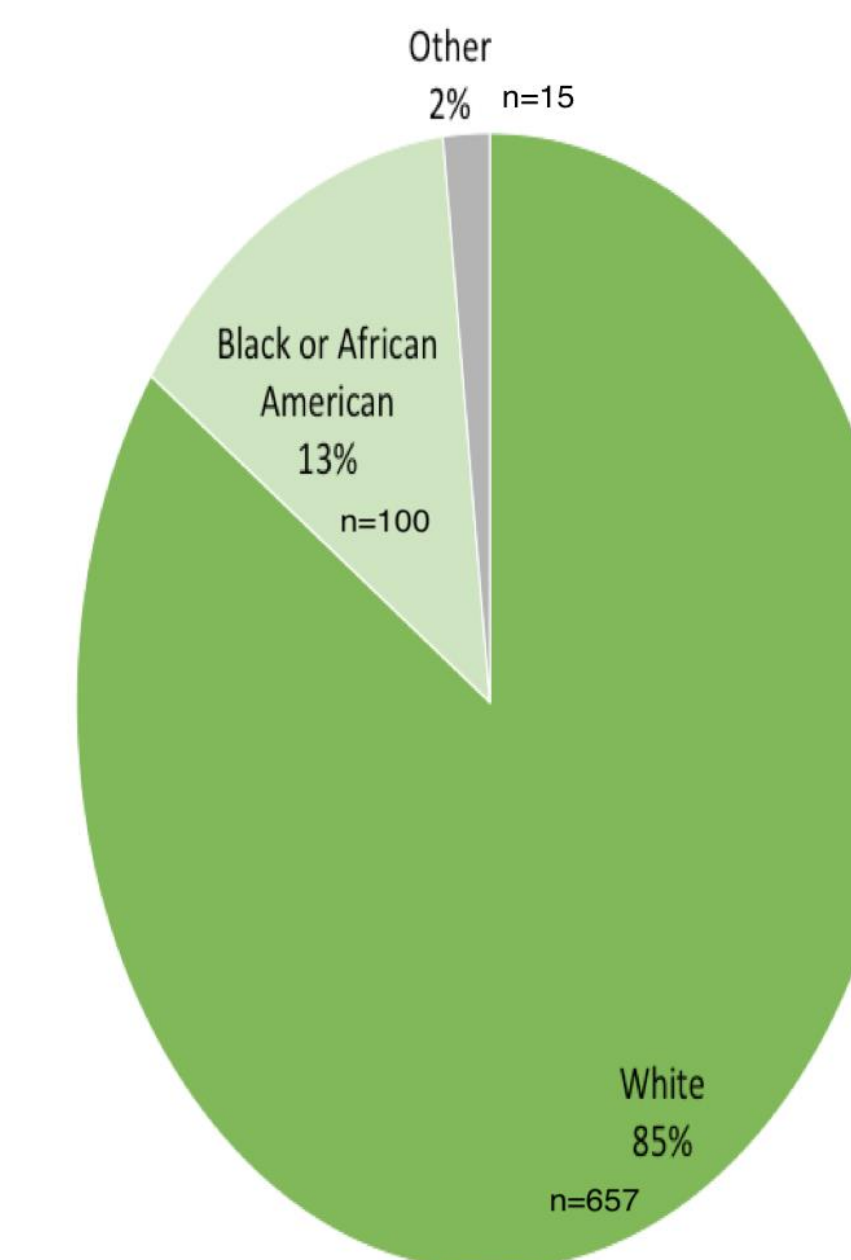


Most prevalent counties: Pitt (247), Beaufort (53), Lenoir (53), Edgecombe (42), Wilson (38)

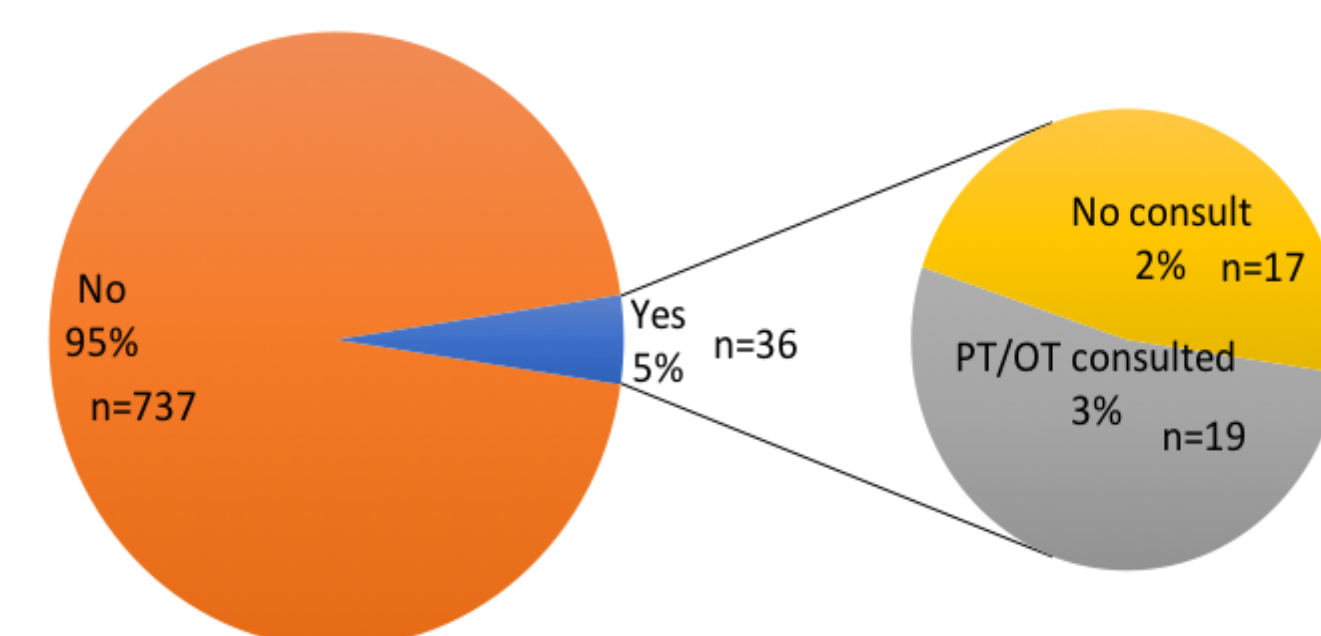
### Total medications prescribed prior to fall



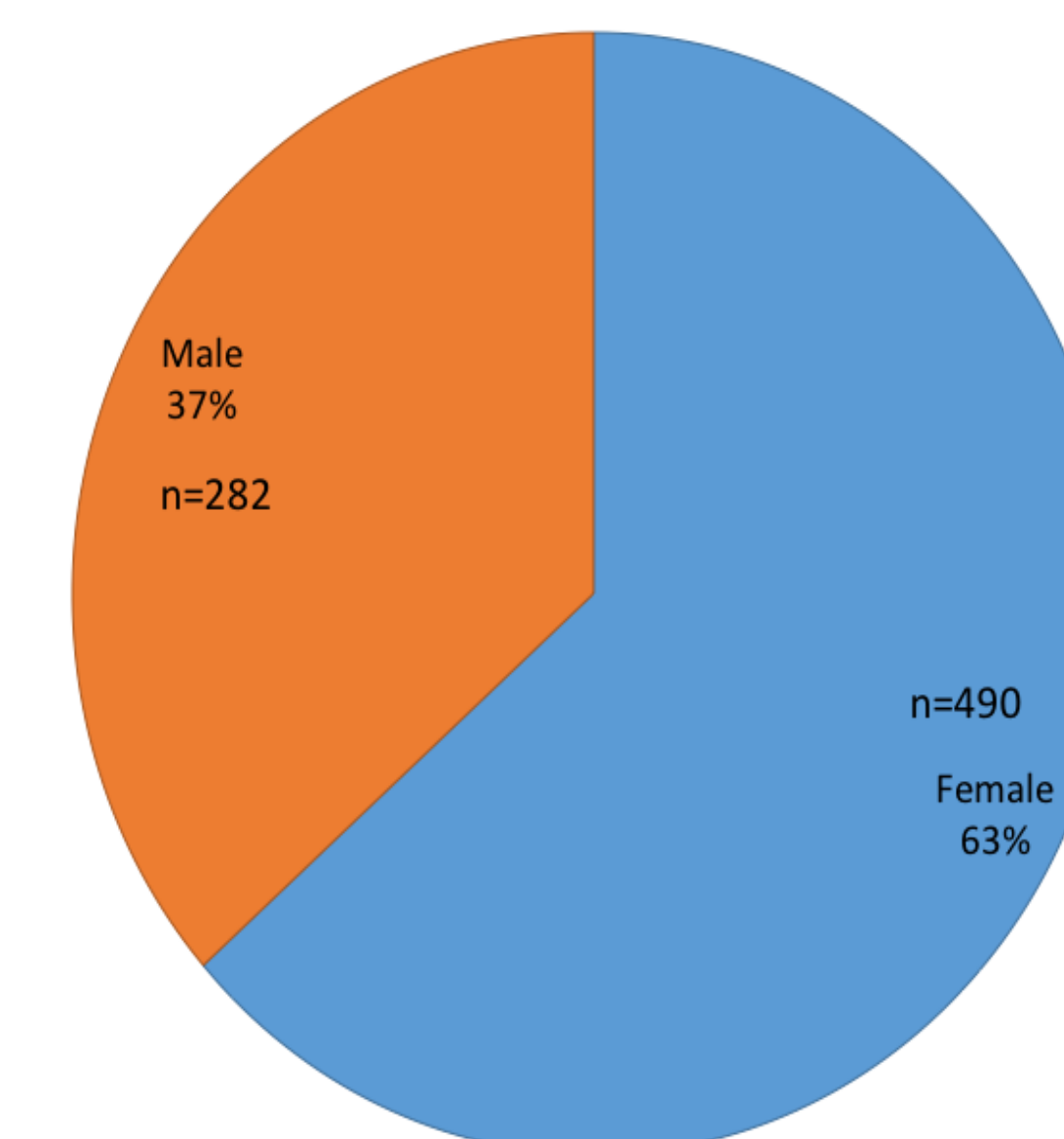
### Ethnicity of patients



### Did patients have a medical non-fall admission w/in the past 30 days prior to their fall admission?



### Gender of patients



## DISCUSSION

- This study suggests a significant portion of patients being evaluated and treated for ground level falls have predisposing factors known to increase the risk of subsequent falls, including the use of 4 or more prescription medications, CVA, arthritis, and impaired cognition.
- Further analysis will use these observed characteristics to implement a fall prevention strategy that will aim to target high-risk individuals. This strategy will utilize current partners and resources including, local falls clinic, The Council on Aging, and coordinators from the injury prevention program.
- Directing efforts toward these high-risk individuals should allow for a more efficient use of limited resources to reduce the overall occurrences of falls and associated morbidity and mortality.

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