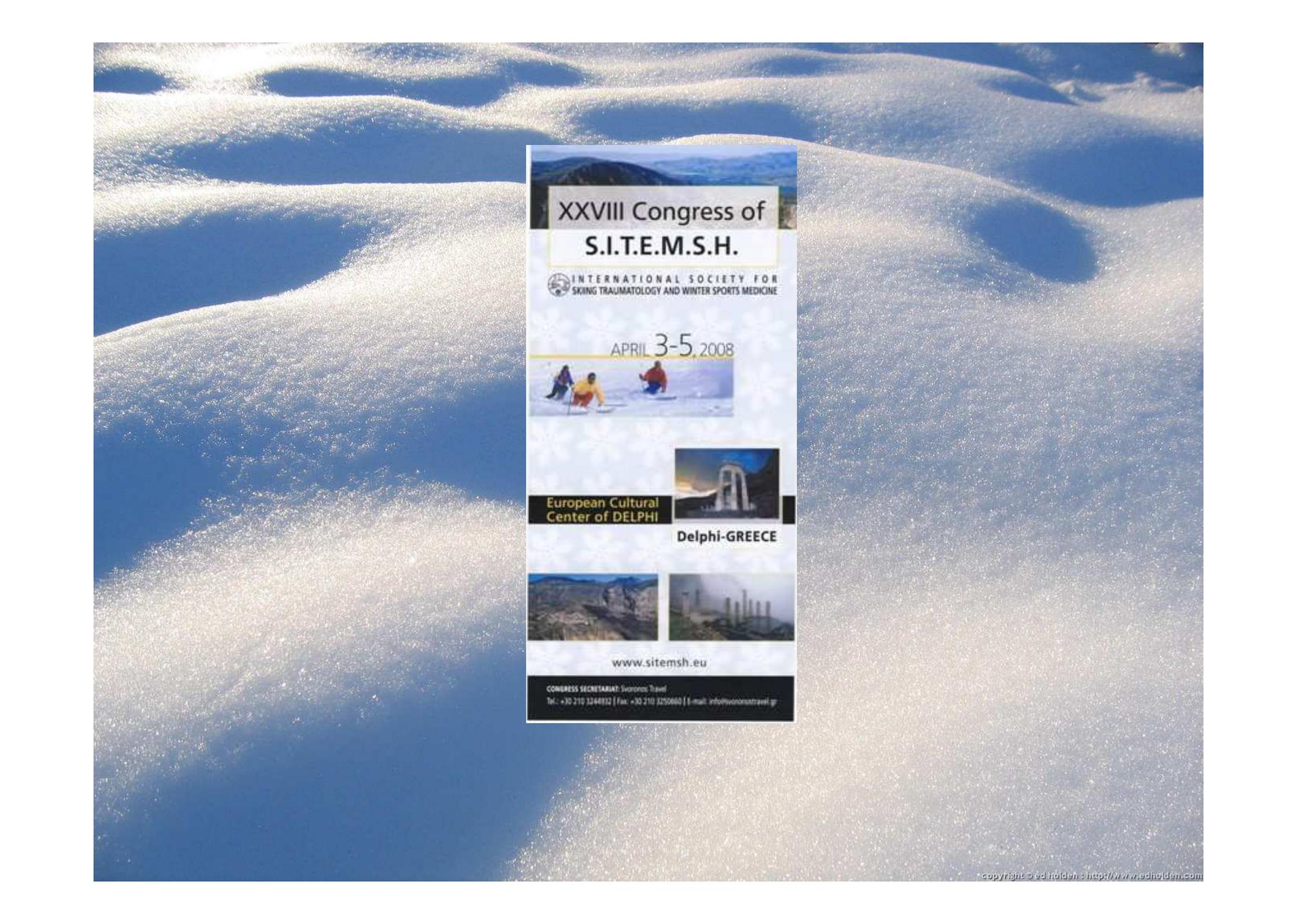


Knee injuries in statistics. A retrospective analysis of patients from 1980-81 to 2000-01 in Pas de la Casa-Grau Roig (Andorra)

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S.I.T.E.M.S.H.

 INTERNATIONAL SOCIETY FOR
SKIING TRAUMATOLOGY AND WINTER SPORTS MEDICINE

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INTRODUCTION

XGRANDVALIRA

- **Pas de la Casa - Grau Roig**
 - Is a part of GrandValira since 2003
 - This research took into account only skiers injured in Pas de la Casa and Grau Roig



INTRODUCTION

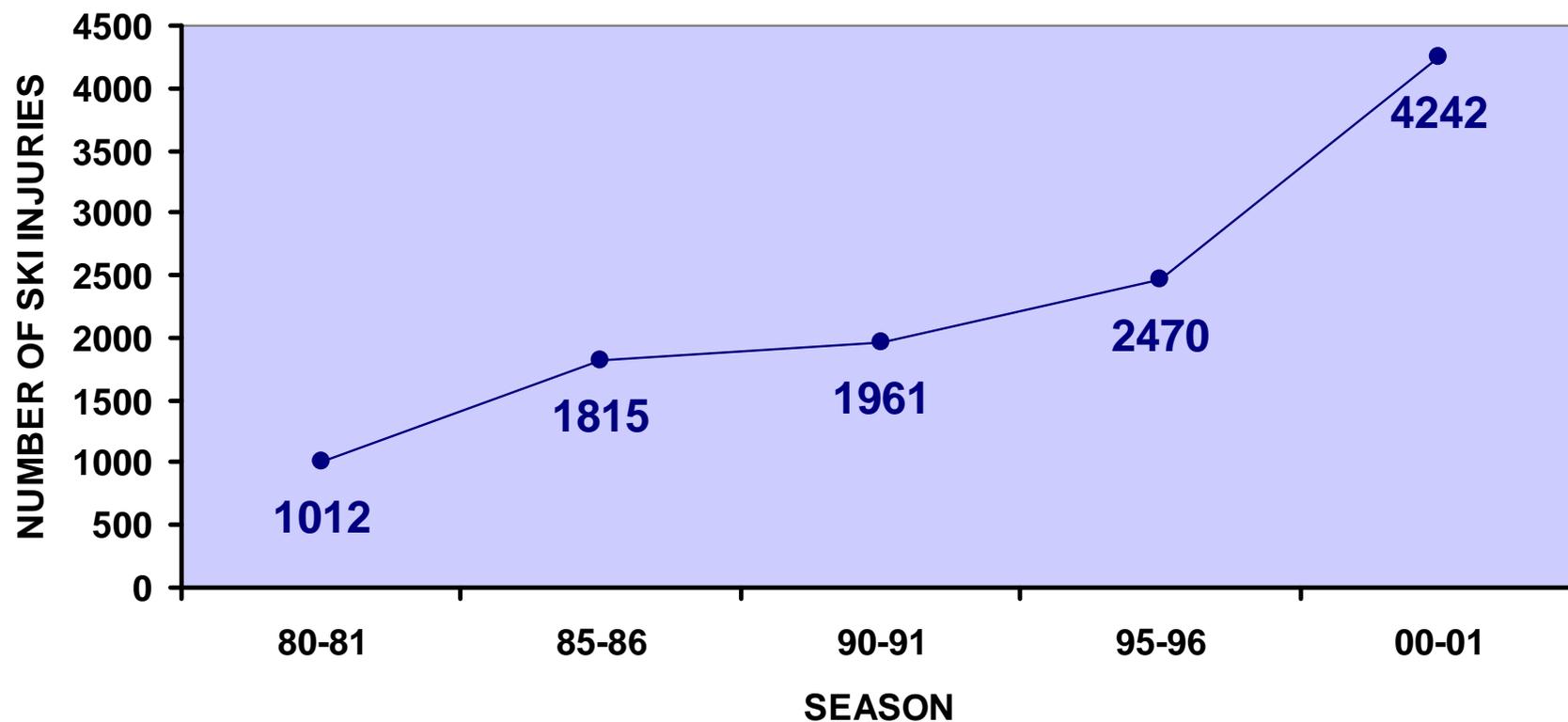
- **Increasing number of skiers**
 - This sport became increasingly popular during the 20-year period studied
- **Knee injuries**
 - We felt that these injuries have become the most prevalent among skiers
- **Two decades of evolution**
 - We researched between the 1980-81 season and the 2000-01 season

GOALS

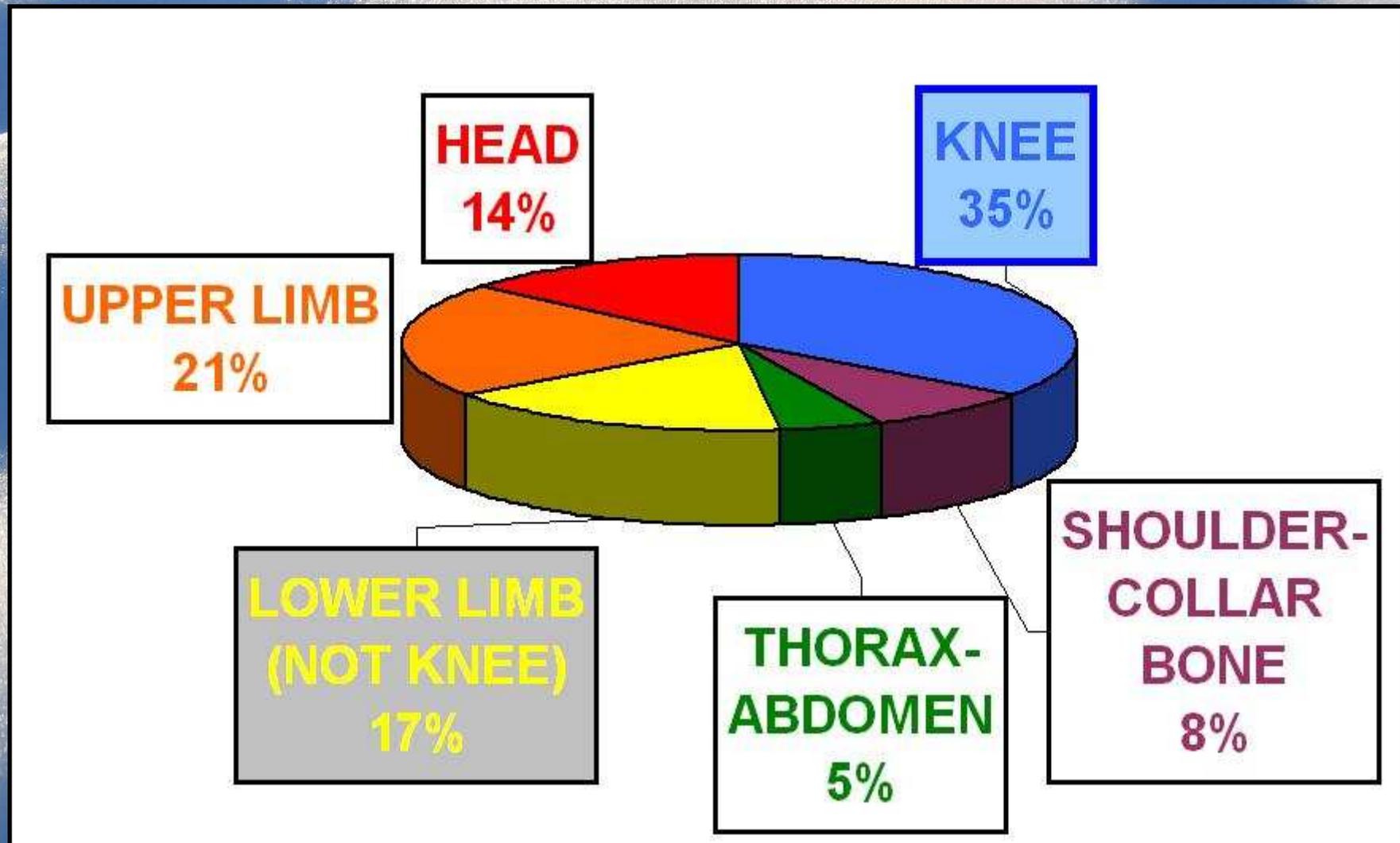
- **To observe the evolution of the number of injuries in this period**
- **To analyse the prevalence of knee injuries**
- **To analyse the prevalence of knee injuries by gender**
- **To analyse women's knee injuries by age group**

RESULTS

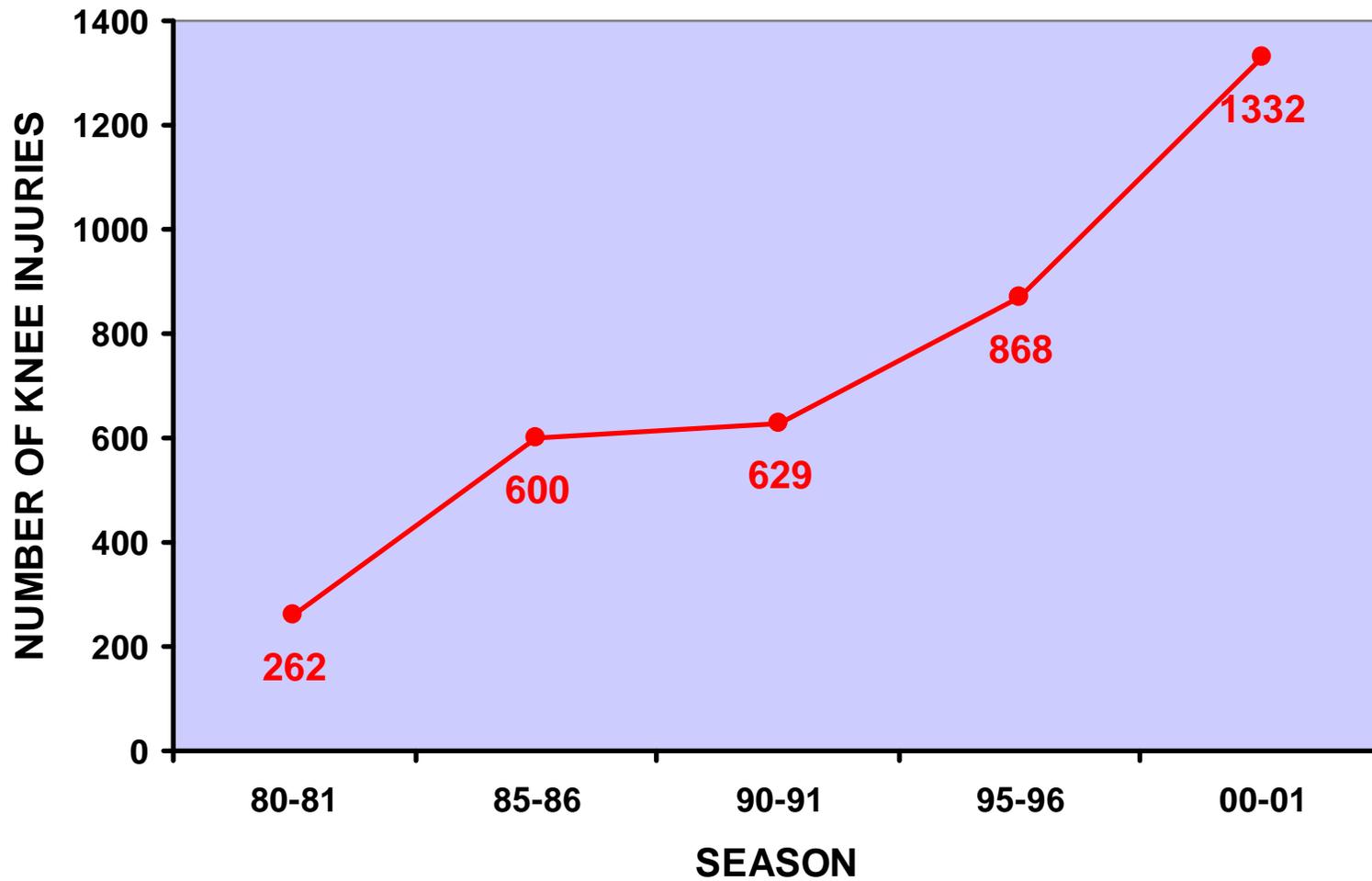
EVOLUTION OF SKI INJURIES FROM 80-81 TO 00-01



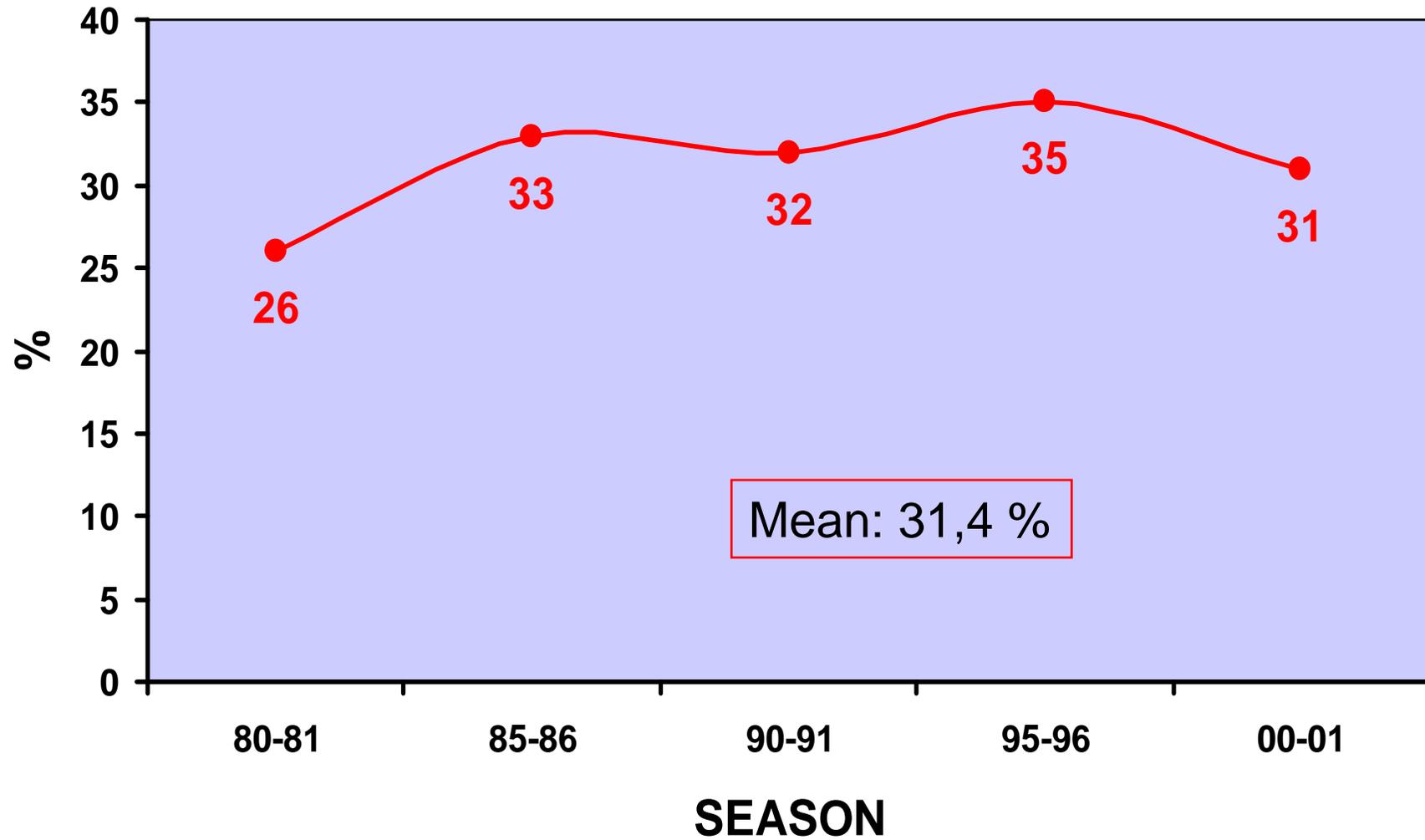
SKI INJURIES IN 95-96 SEASON



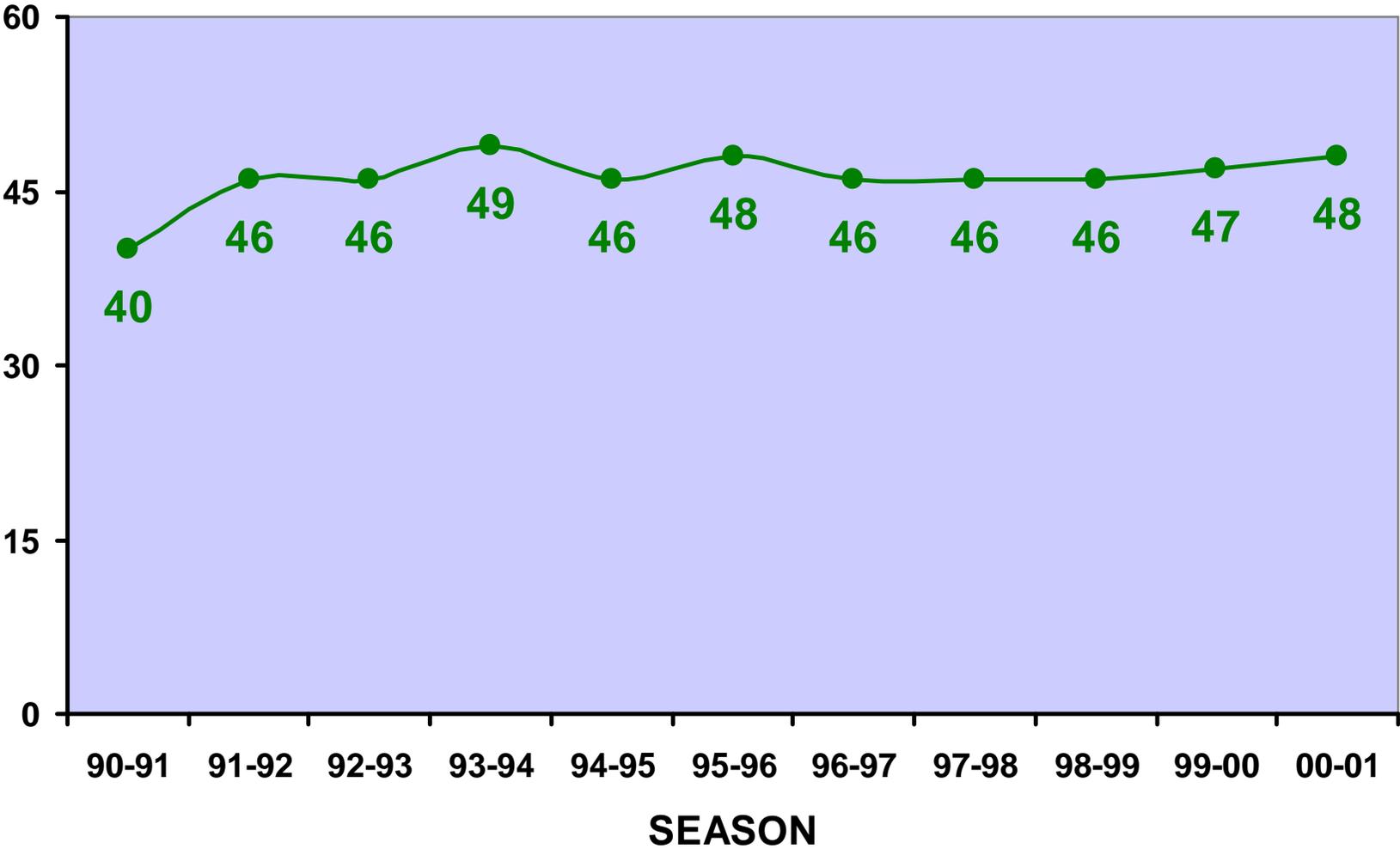
EVOLUTION OF KNEE INJURIES FROM 80-81 TO 00-01



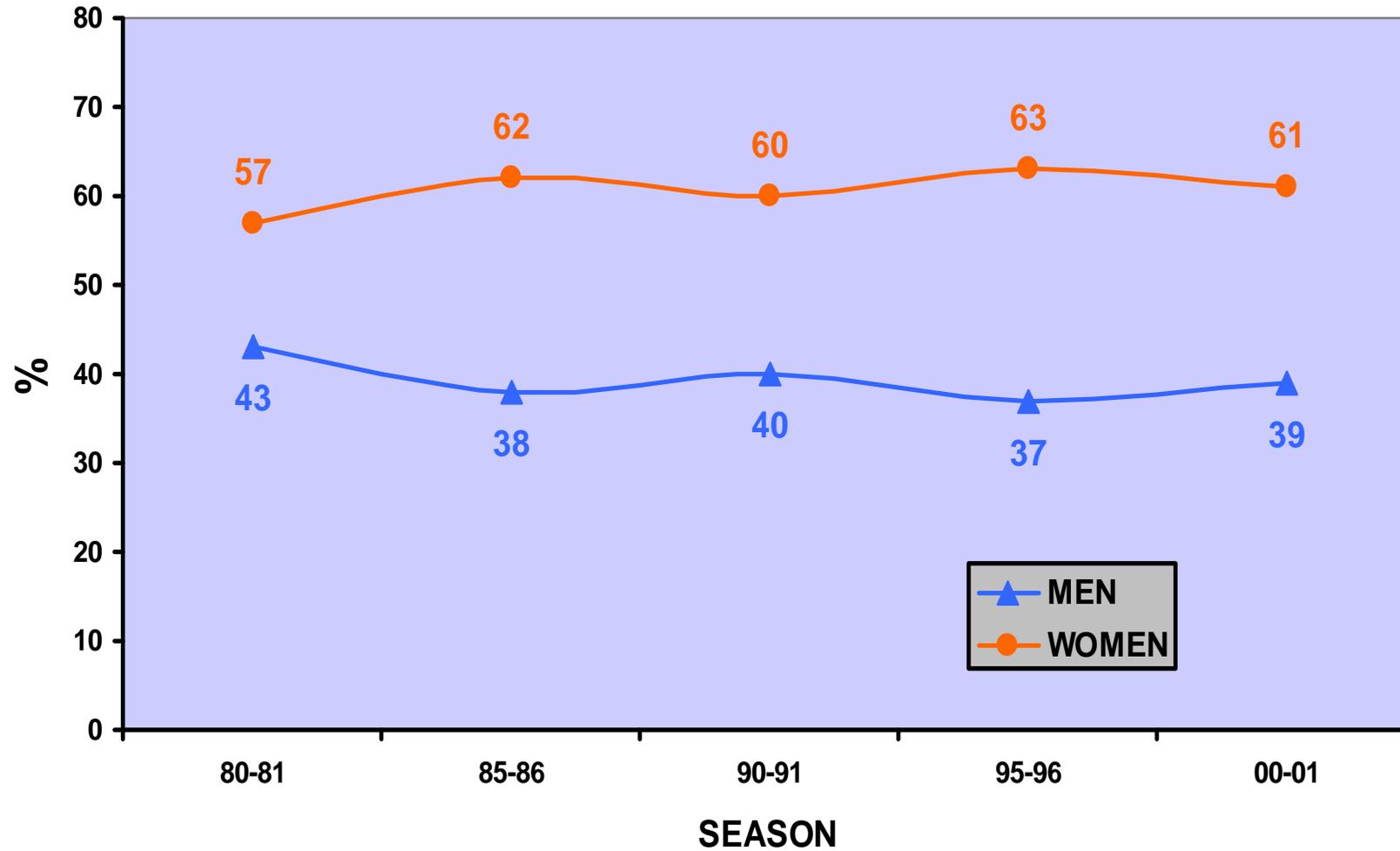
EVOLUTION OF KNEE INJURIES (%)



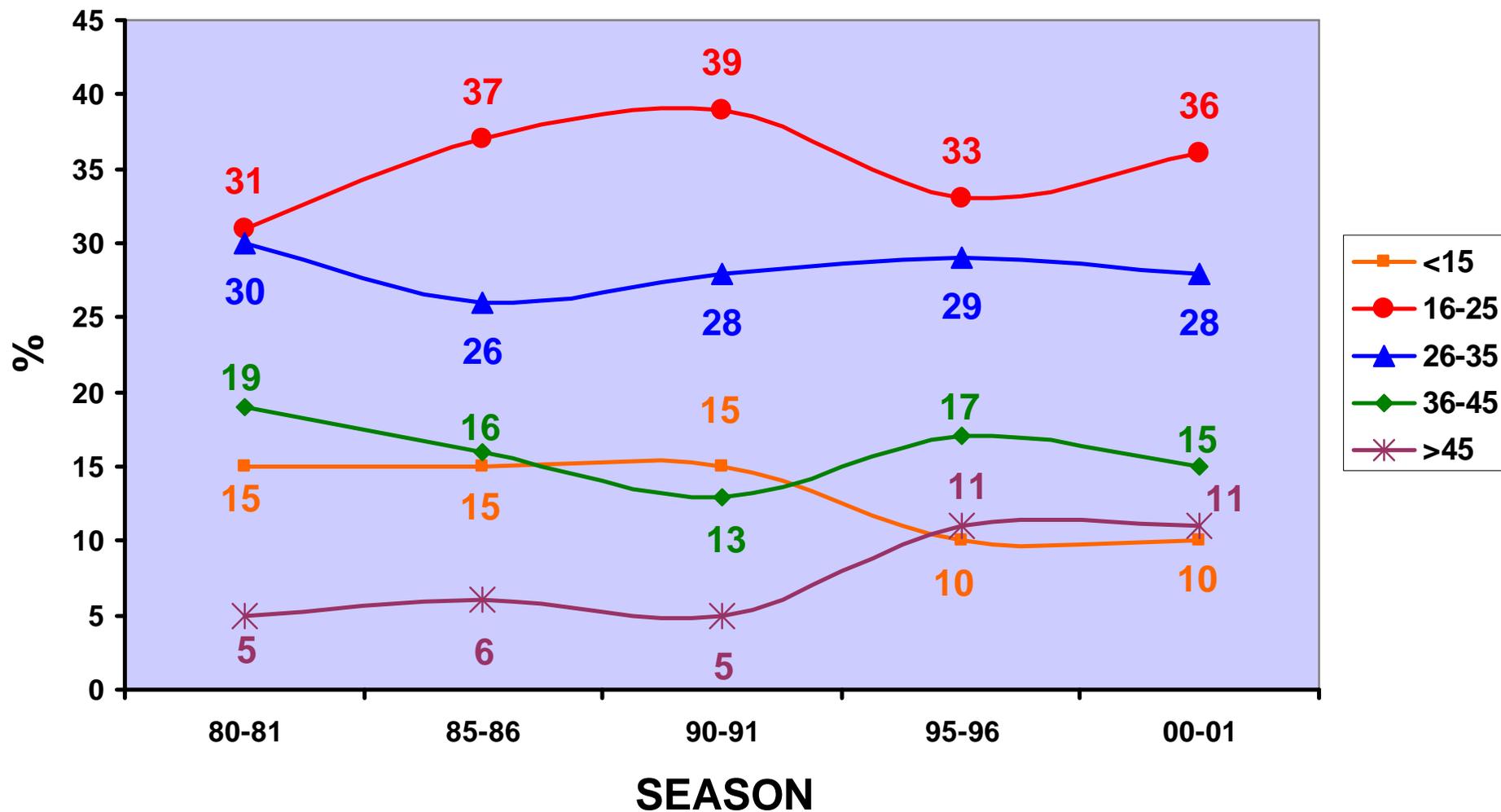
% REPRESENTING KNEE OF THE TOTAL OF INJURIES THAT NEEDED SNOW-BOAT



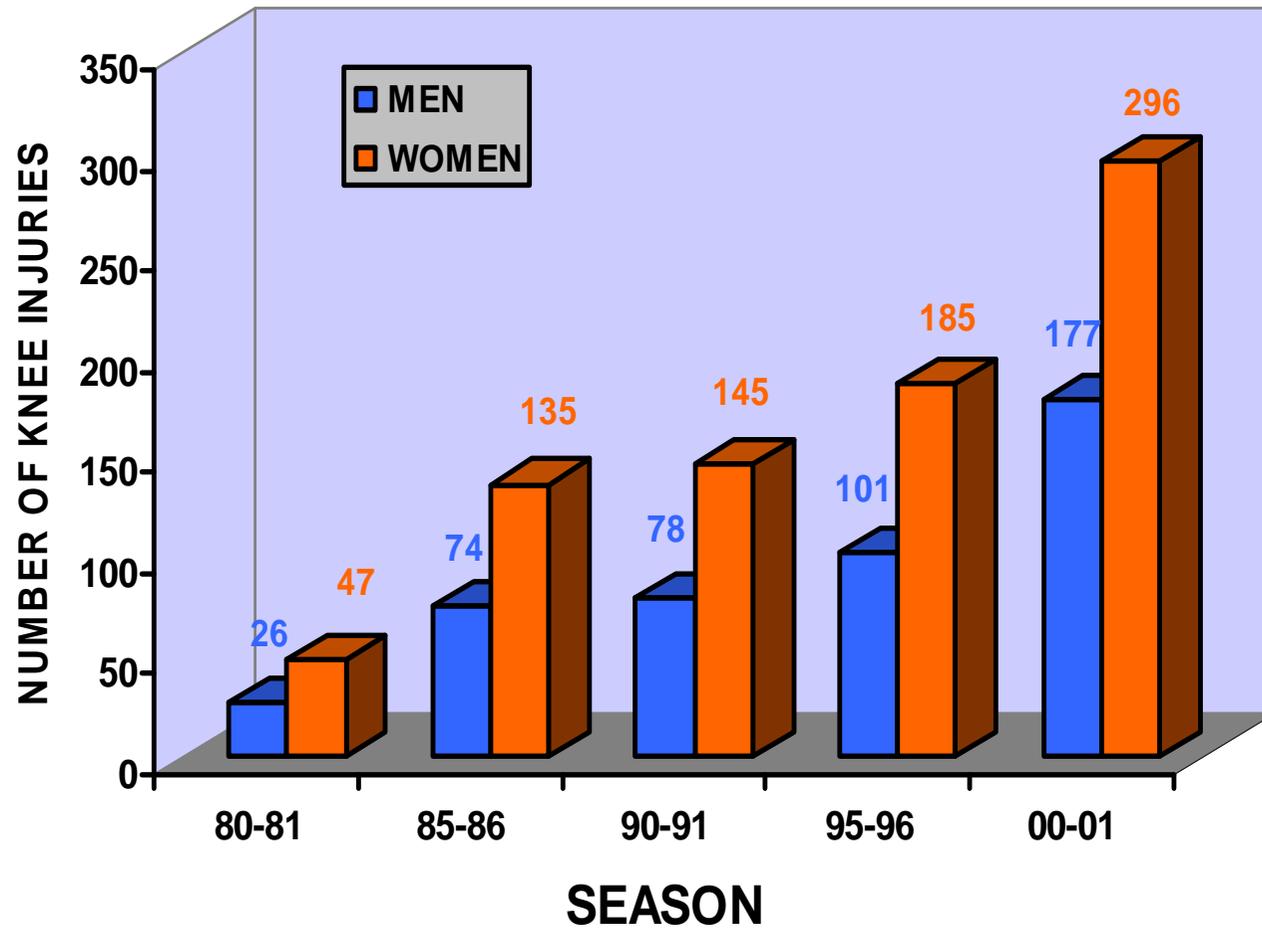
DIFFERENCES BETWEEN MEN AND WOMEN



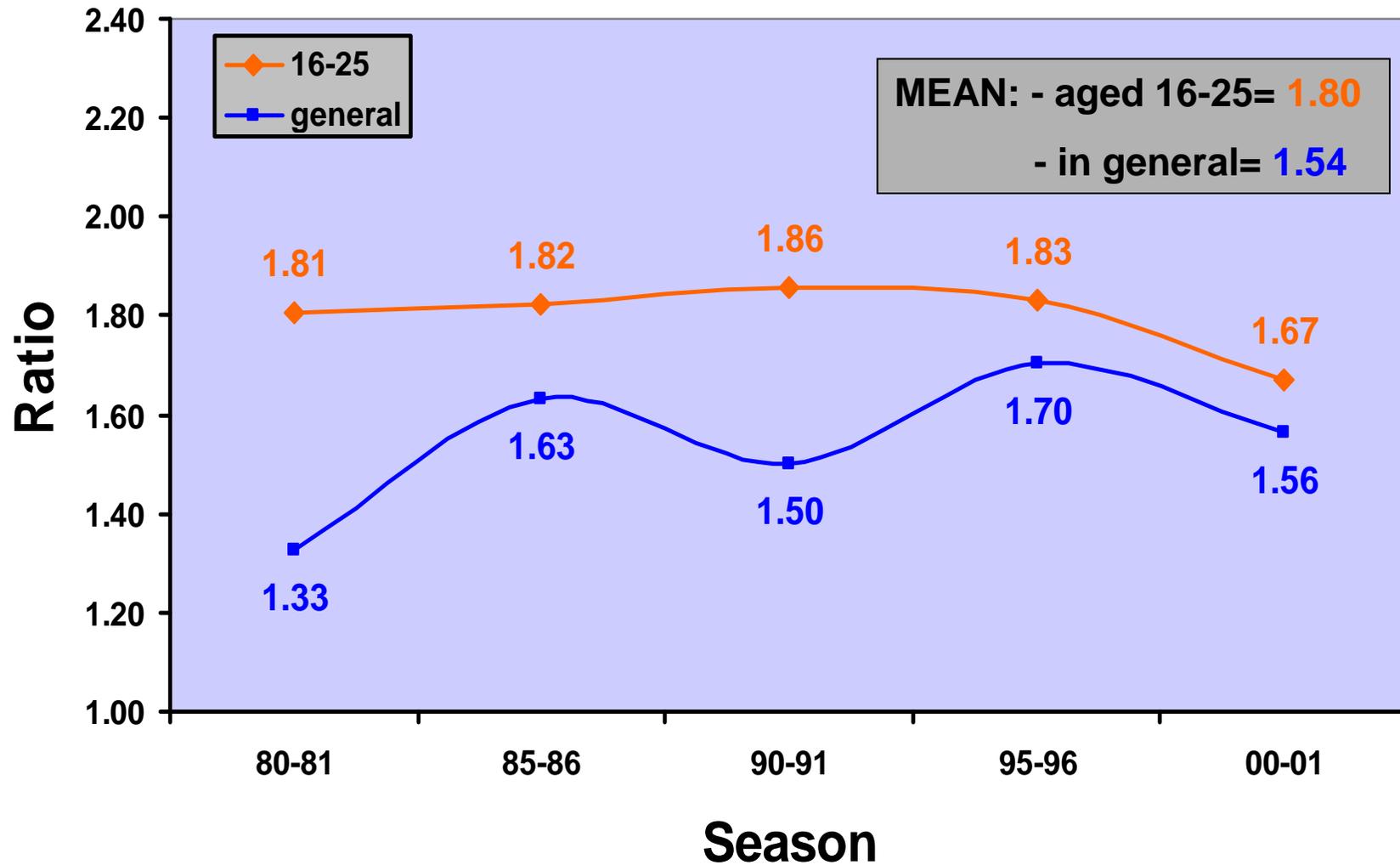
WOMEN'S KNEE INJURIES BY AGE GROUP



COMPARISON BETWEEN MEN AND WOMEN AGED 16-25



Comparison: Ratio Women/Men by age



RESULTS SUMMARY

- **In these two decades the number of skiing injuries rose significantly**
- **The proportion of knee injuries increased more during the 80s and seemed to stabilize as 1/3 of the total injuries**
- **Women are more likely to injure their knees**
- **Ratio is 1,5:1, but it is higher in the 16-25 age group; almost 2:1**

CONCLUSIONS

- **The knee is the part of the body which suffers most injuries in our ski resort**
 - **Reasons:**
 - **Evolution of ski bindings**
 - **Not having the ski bindings checked by a professional once a year**
 - **Evolution of ski boots (injuries have moved up to the knee)**



- **Women are more vulnerable to knee injuries**

- **Reasons:**

- **Women (generally speaking) are more sedentary, less fit and less sporty in recreational sports than men**
- **Women have a smaller quadriceps muscular mass**
- **Women have a higher prevalence of *genu valgum***

- 
- **Prevention is the best way to reduce knee injuries**
 - **Skiers have to be in good shape (specially leg muscles)**
 - **Have your ski bindings checked by a professional every season**
 - **Preventive measures should be shown on mass media**

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THANKS!!
(MOLTES GRÀCIES!!)