

# NCAA<sup>®</sup> Appendix B

# NCAA Injury Surveillance System Summary

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The NCAA Injury Surveillance System (ISS) was developed in 1982 to provide current and reliable data on injury trends in intercollegiate athletics. Injury data are collected yearly from a sample of NCAA member institutions, and the resulting data summaries are reviewed by the NCAA Committee on Competitive Safeguards and Medical Aspects of Sports. The committee's goal continues to be to reduce injury rates through suggested changes in rules, protective equipment or coaching techniques, based on data provided by the ISS.

## Sampling

Participation in the ISS is voluntary and limited to NCAA member institutions. ISS participation is available to the population of institutions sponsoring a given sport. Schools qualifying for inclusion in the final ISS sample are selected from the total participating schools for each ISS sport, with the goal of a minimum 10 percent representation of all three NCAA divisions. A school is selected as qualifying for the sample if they meet the minimum standards for data collection set forth by the ISS staff. For a more detailed explanation of ISS sampling methodology, see: National Collegiate Athletic Association Injury Surveillance Summary for 15 Sports, 1988-1989 Through 2003-2004. *J Athl Train.* 2007;42(2).

It is important to recognize that this system does not identify every injury that occurs at NCAA institutions in a particular sport. Rather, the emphasis is collecting all injuries and exposures from schools that voluntarily participate in the ISS. The ISS attempts to balance the dual needs of maintaining a reasonably representative cross-section of NCAA institutions while accommodating the needs of the voluntary participants.

## Injuries

A reportable injury in the ISS is defined as one that:

1. Occurs as a result of participation in an organized intercollegiate practice or competition;
2. Requires medical attention by a team athletic trainer or physician; and
3. Results in restriction of the student-athlete's participation or performance for one or more days beyond the day of injury.

## Exposures

An athlete exposure (A-E), the unit of risk in the ISS, is defined as one athlete participating in one practice or competition in which he or she is exposed to the possibility of athletics injury.

## Injury Rate

An injury rate is simply a ratio of the number of injuries in a particular category to the number of athlete exposures in that category. In the ISS, this value is expressed as injuries per 1,000 athlete exposures.

## All Sports Figures

The following figures outline selected information from the 16 sports currently monitored by the ISS.

Figure Nos. 1 and 2 compare the practice and competition injury rates across 16 sports without regard to severity. Comparisons of injury rates between sports are difficult because each sport has its own unique schedule and activities. If such comparisons are necessary, it may be best to use the game data for which the **intensity** variable is most consistent.

Figure Nos. 3 through 6 examine two measures of severity found in the ISS — time loss and injuries that required surgery. These combined practice and game data are presented to assist in decisions regarding appropriate medical coverage for a sport; however, each severity category has some limitations that should be considered.

**1. Time loss**—Figure Nos. 3 through 5 evaluate the rate of reported injuries

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that caused restricted or loss of participation of seven days or more. Limitations to this type of severity evaluation include:

- a. An injury that restricts participation in one sport may not restrict participation in another sport; and
- b. Injuries that occur at the end of a season can only be estimated with regard to time loss.

**2. Injuries that require surgery—** Figure Nos. 3, 4 and 6 evaluate the rate of reported injuries that required either immediate or postseason surgery. Limitations to this severity evaluation include:

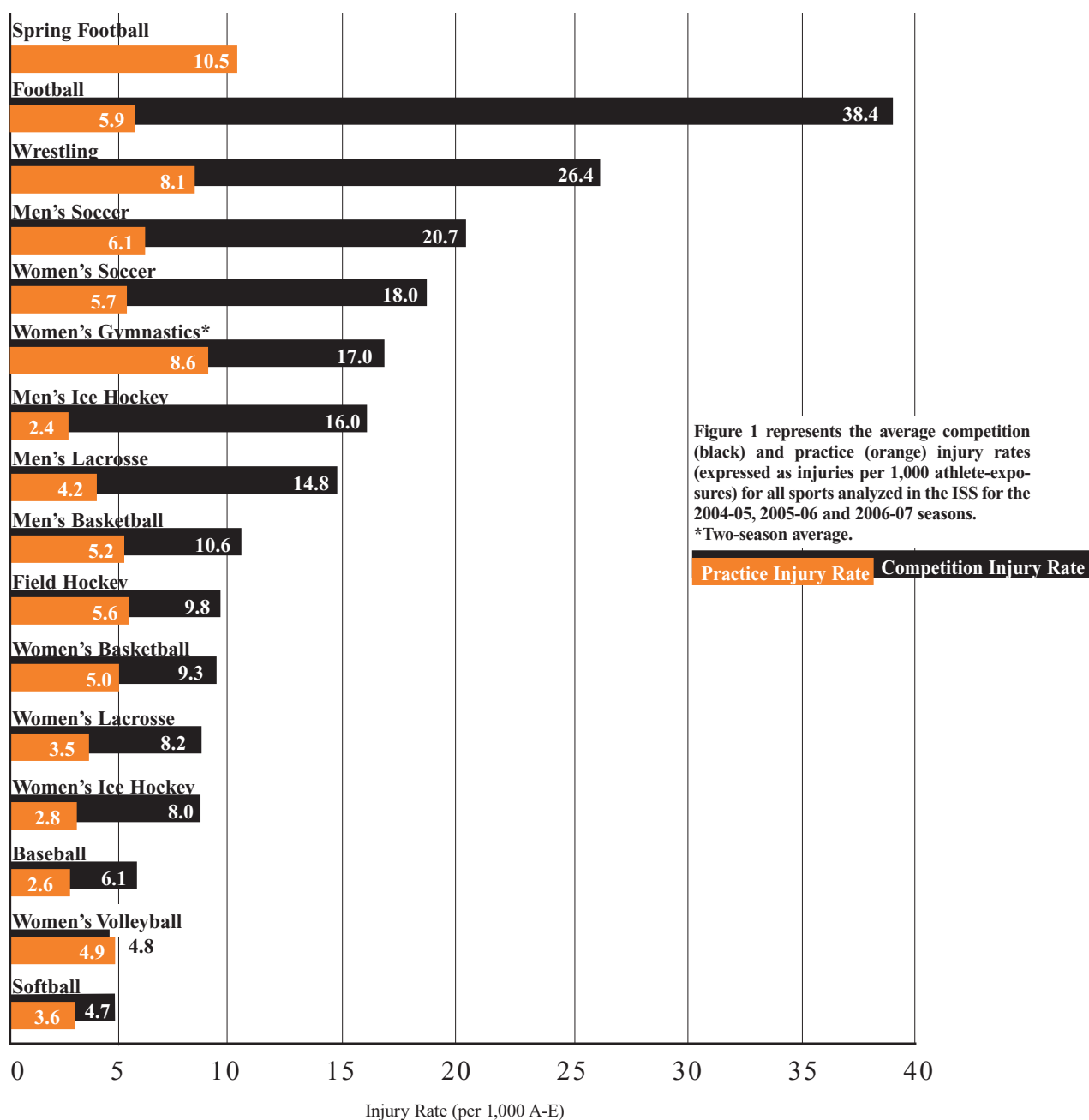
- a. The changing nature of surgical techniques and how they are applied;
- b. The assumption that all sports had access to the same quality of medical evaluation; and
- c. Injuries can occur that may be categorized as severe, such as concussions, that may not require surgery.

Any questions regarding the ISS or its data reports should be directed to: David Klossner, Director of Education Services, NCAA, P.O. Box 6222, Indianapolis, Indiana 46206-6222 (317/917-6222).

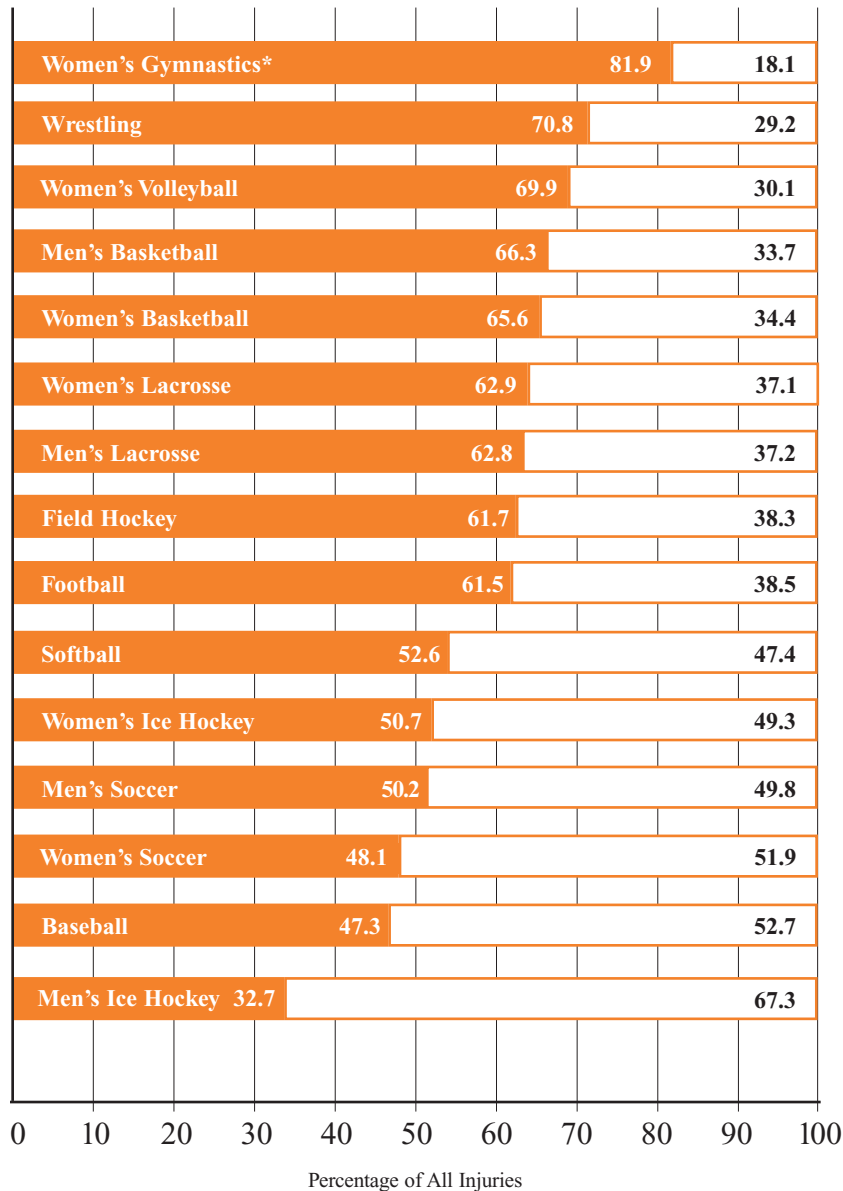


**Figure 1**

**Competition and Practice Injury Rates Summary (All Sports)**



**Figure 2**  
**Percentage of All Injuries Occurring in Practices and Competition**



**Figure 2** represents the average percentage of all injuries that occurred in practices and in competition in the 2004-05, 2005-06 and 2006-07 seasons. The relatively few injuries that occurred in the weight room were not included in the practice and competition percentages. It should be noted that these calculations are based only on the absolute number of injuries and do not take exposures into consideration.  
 \*Two-season average.

Practice  
 Competition

**Figure 3**  
**Competition Injury Rates Summary (All Sports)**

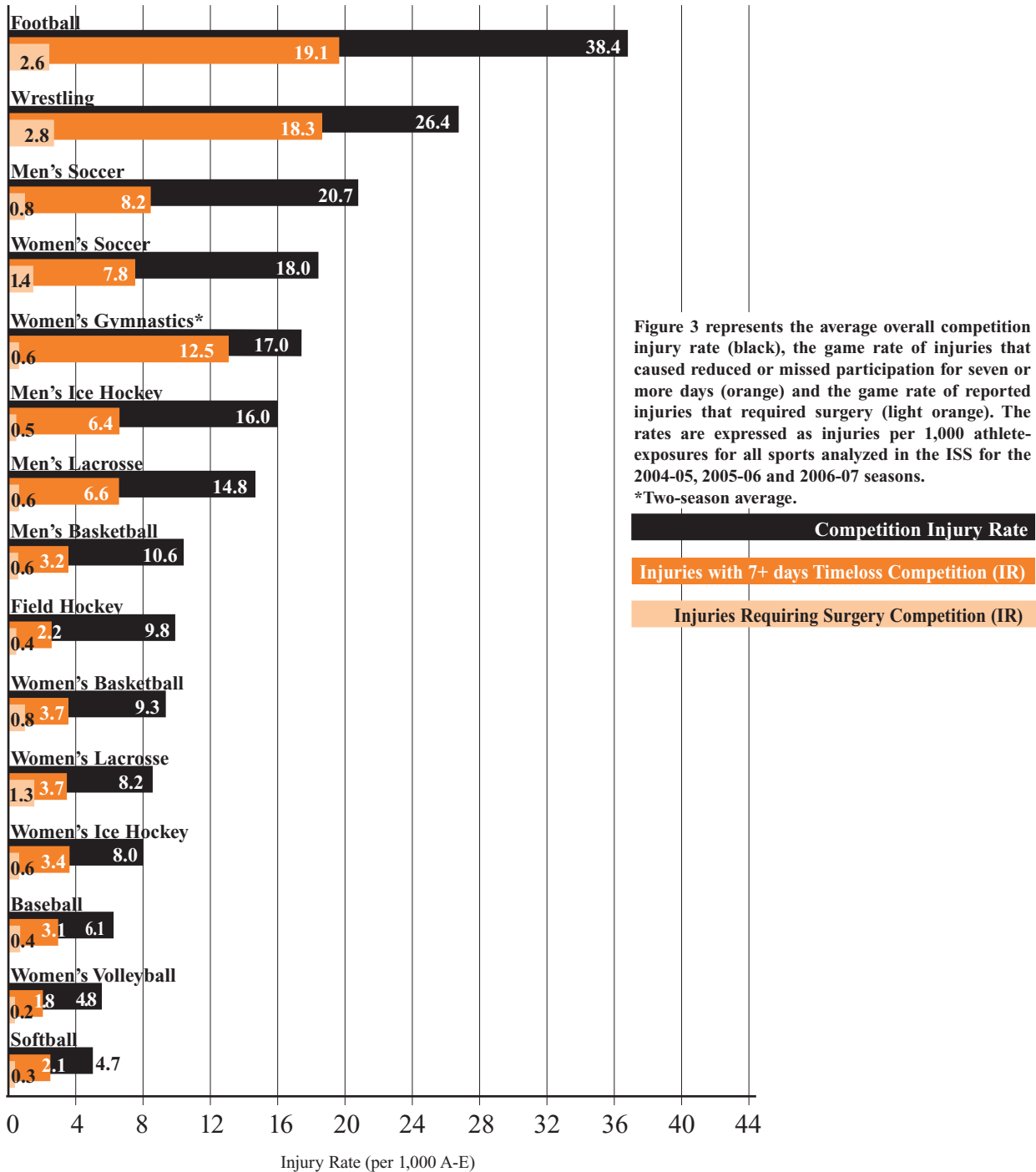


Figure 3 represents the average overall competition injury rate (black), the game rate of injuries that caused reduced or missed participation for seven or more days (orange) and the game rate of reported injuries that required surgery (light orange). The rates are expressed as injuries per 1,000 athlete-exposures for all sports analyzed in the ISS for the 2004-05, 2005-06 and 2006-07 seasons.

\*Two-season average.

**Figure 4**  
Practice Injury Rates Summary (All Sports)

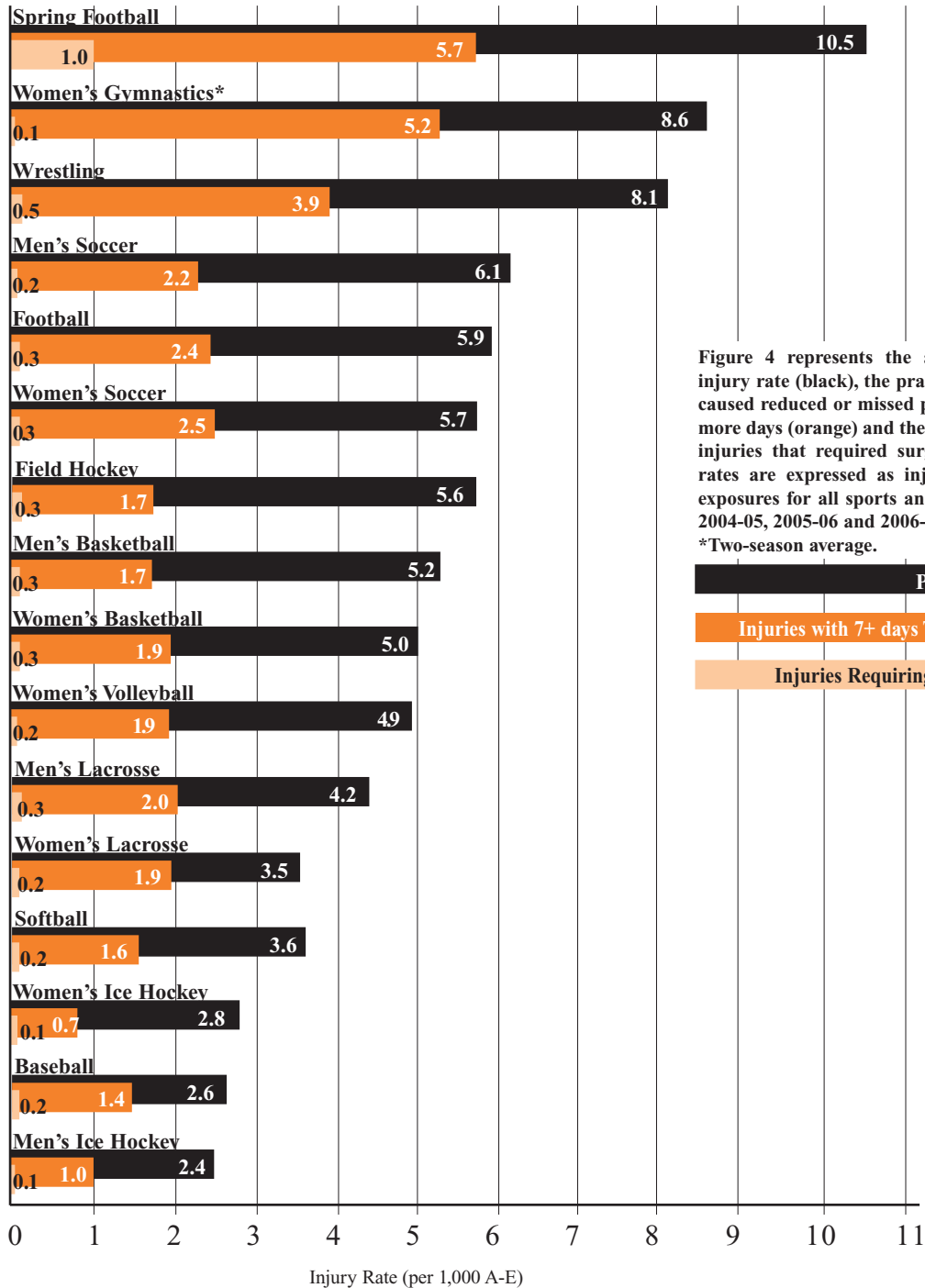
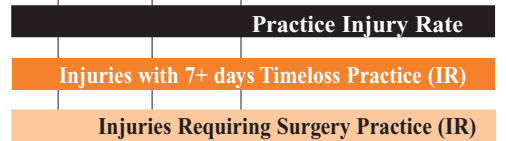


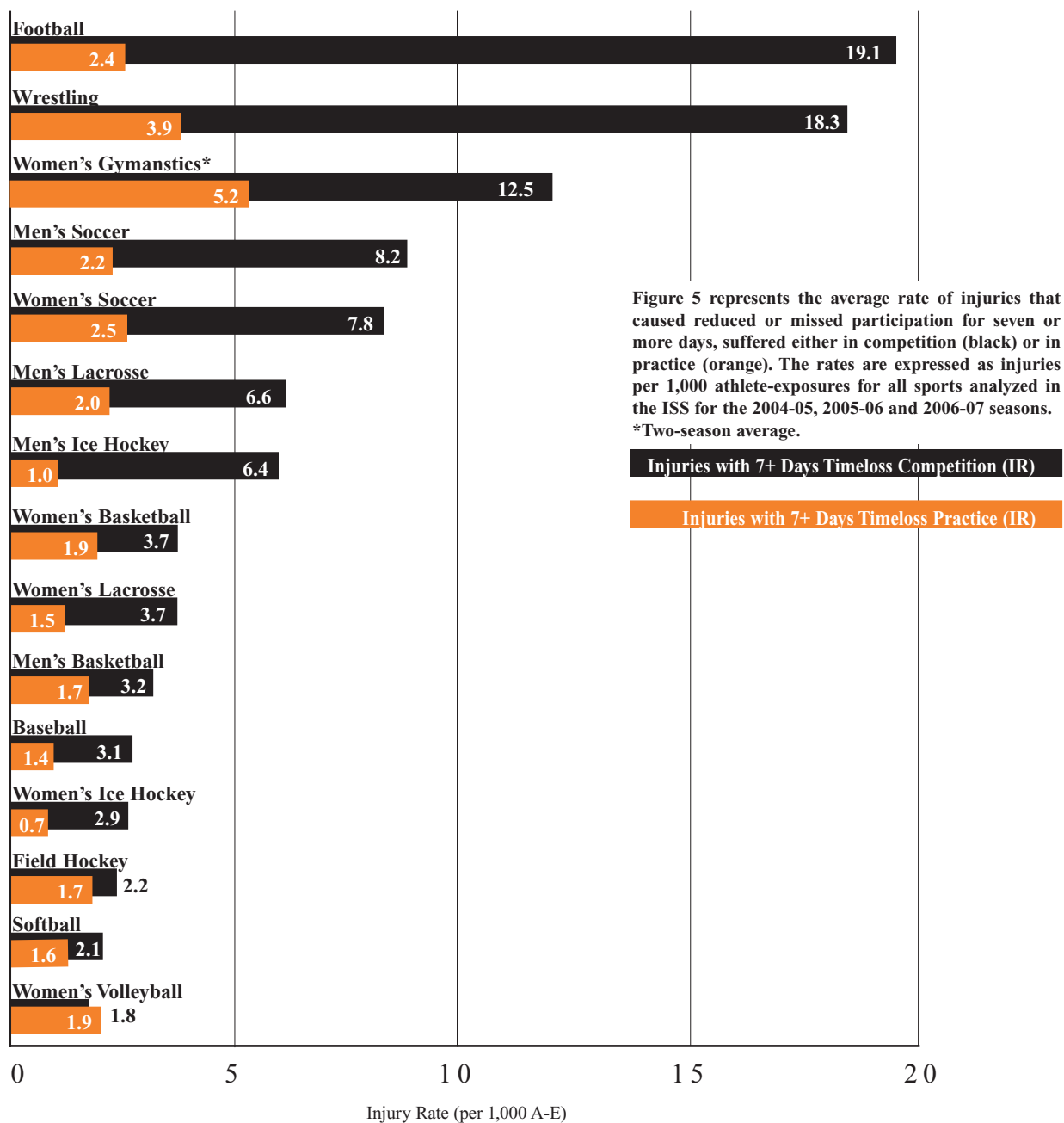
Figure 4 represents the average overall practice injury rate (black), the practice rate of injuries that caused reduced or missed participation for seven or more days (orange) and the practice rate of reported injuries that required surgery (light orange). The rates are expressed as injuries per 1,000 athlete-exposures for all sports analyzed in the ISS for the 2004-05, 2005-06 and 2006-07 seasons.

\*Two-season average.



**Figure 5**

– Competition and Practice 7+ Days Time Loss Injury Rates Summary (All Sports)



**Figure 6**  
**Competition and Practice Injuries Requiring Surgery Rate Summary (All Sports) —**

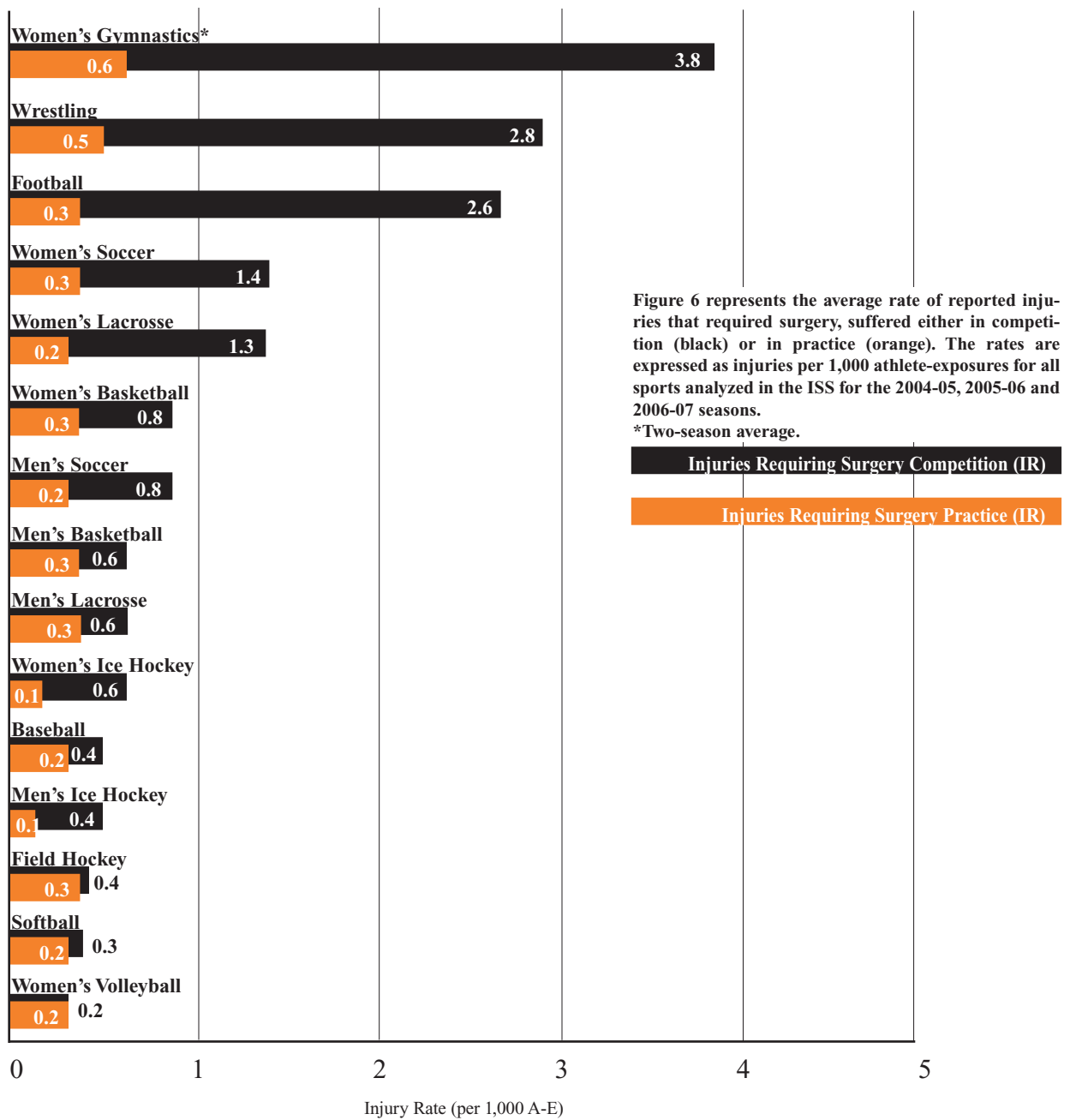


Figure 6 represents the average rate of reported injuries that required surgery, suffered either in competition (black) or in practice (orange). The rates are expressed as injuries per 1,000 athlete-exposures for all sports analyzed in the ISS for the 2004-05, 2005-06 and 2006-07 seasons.

\*Two-season average.



16 years of injury data across 15 sports published in the Journal of Athletic Training, 2007.

For more information about the NCAA Injury Surveillance System, visit our Web site at  
[NCAA.org/iss](http://NCAA.org/iss).