



# Current Findings on Student-Athlete Substance Use

NCAA Student-Athlete Health and Wellness Study (January 2024)



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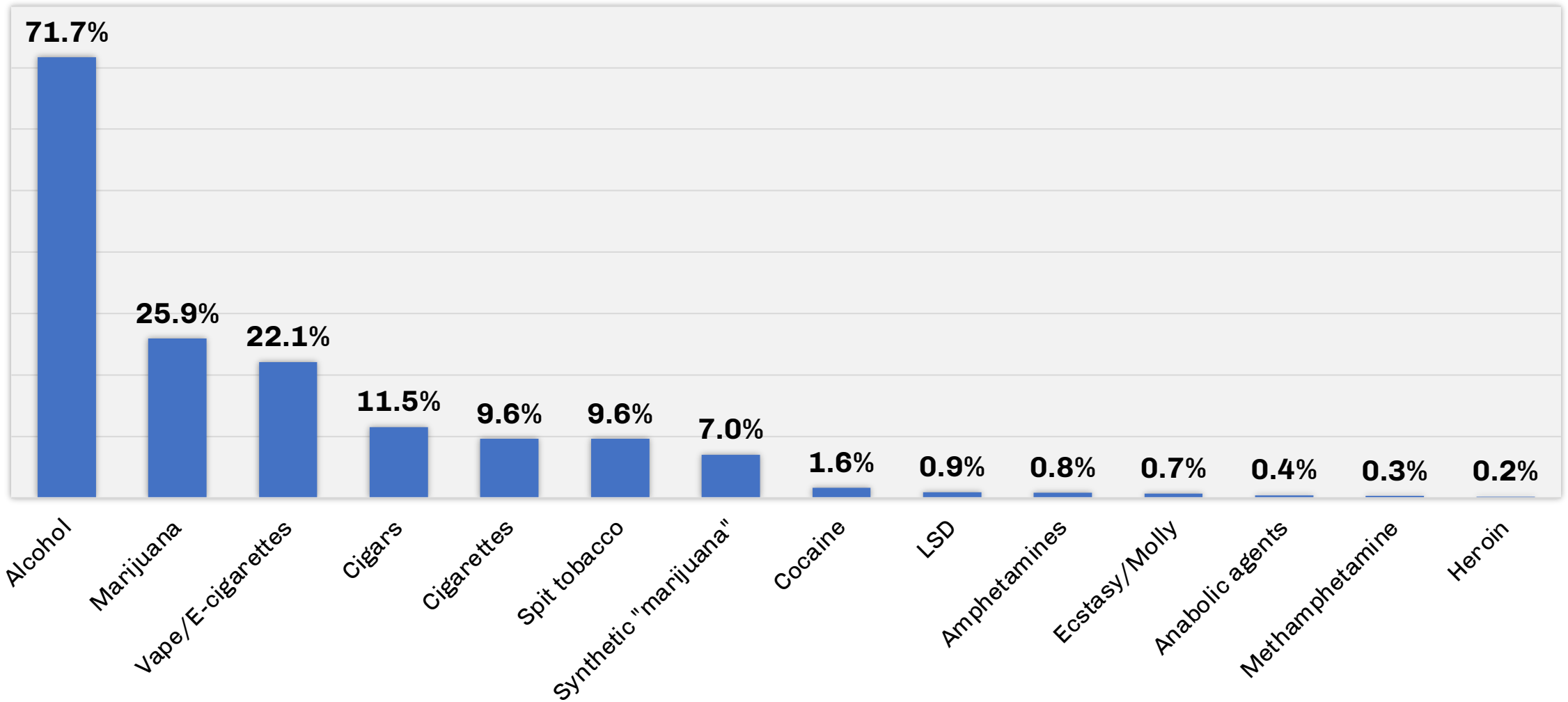
## Summary of Methodology

- This substance use study is based on data collected in a comprehensive [study](#) of student-athlete health and wellness during the 2022-23 academic year. This is the 10<sup>th</sup> study conducted by the NCAA since 1985 that has examined the use of drugs, alcohol and tobacco by student-athletes.
- Key items from the historical [NCAA Student-Athlete Substance Use Study](#) were subsumed within this instrument to monitor trends in substance use behaviors back to 2009.
- The study was administered by NCAA faculty athletics representatives (FARs) on behalf of NCAA Research.
- A total of 23,272 current student-athletes participated in the study; final data was weighted based on 2022-23 NCAA participation rates to ensure the representativeness of findings.



# Summary and Comparative Data

# Substance Use (Within the Last Year)



Note: Marijuana includes those who reported inhaling (e.g., smoke, vape, dab) or ingesting (e.g., edibles, oils, tinctures) "marijuana or other cannabis products." Synthetic marijuana includes Delta 8, K2, Spice, etc. Anabolic agents include related metabolic modulators (e.g., HGH, testosterone). Source: NCAA Student-Athlete Health and Wellness Study (2023).



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# Comparative Data, Student-Athletes vs. Nonathletes

(Use within the Last Year)

	NCAA <sup>1</sup> [2022-23]	ACHA-NCHA <sup>2</sup> [2023]	MTF <sup>3</sup> [2022]
Alcohol	71.7%	72.2%	80.5%
Marijuana	25.9%	38.4%	40.9%
Vaping nicotine/e-cigarettes	22.1%	-	26.4%
Cigarettes	9.6%	-	15.6%
Amphetamines	0.8%	-	4.8%
Cocaine	1.6%	-	3.3%
Ecstasy/Molly	0.7%	-	1.7%
LSD	0.9%	-	1.4%

<sup>1</sup>Representative sample of 23,272 NCAA student-athletes. Source: NCAA Student-Athlete Health and Wellness Study (2023).

<sup>2</sup>55,292 undergraduate students from 125 US Postsecondary Institutions. Source: American College Health Association. American College Health Association-National College Health Assessment III: Undergraduate Student Reference Group Data Report Spring 2023. Silver Spring, MD: American College Health Association; 2023. Retrieved from: [Spring 2023 UG Reference Group Data Report \(acha.org\)](https://www.acha.org/documents/2023/ug-reference-group-data-report-spring-2023)

<sup>3</sup>Representative sample of 800-1,500 full-time college students (ages 19 to 22) at a 2-year or 4-year college or university annually. Source: Patrick, M. E., Miech, R. A., Johnston, L. D., & O'Malley, P. M. (2023). Monitoring the Future Panel Study annual report: National data on substance use among adults ages 19 to 60, 1976-2022. Monitoring the Future Monograph Series. Ann Arbor, MI: Institute for Social Research, University of Michigan. Retrieved from: [mtfpanel2023.pdf \(monitoringthefuture.org\)](https://www.monitoringthefuture.org/mtfpanel2023.pdf).

# Alcohol

## Findings

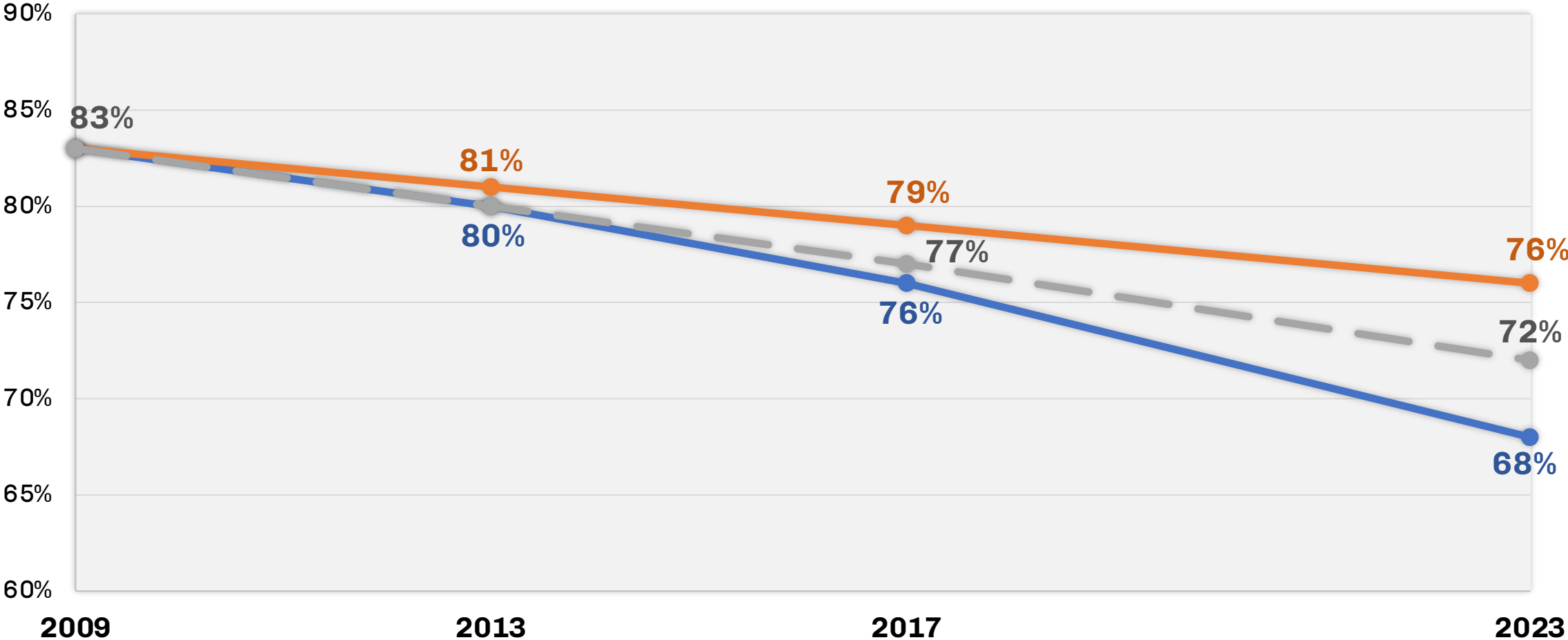
- Rates of alcohol use and binge drinking among student-athletes are lower currently than observed in any NCAA study conducted over the last several decades.
- 72% of student-athletes reported drinking alcohol in the past year, down 11 percentage points since 2009. Current national studies of the general college student body suggest that this student-athlete number is similar to the percentage of the student body that has reported drinking alcohol (72%, ACHA-NCHA; 81%, MTF Study).
- Binge drinking (four or more drinks for women and five or more drinks for men in one sitting) among student-athletes has decreased from 55% to 35% since 2009.
- The highest rates of reported binge drinking by sport were in ice hockey (men's, 63%; women's, 57%), lacrosse (men's, 61%; women's, 48%) and field hockey (47%).





# Alcohol Use by Sport Gender (Within the Last Year)

Men's Sports Women's Sports Overall

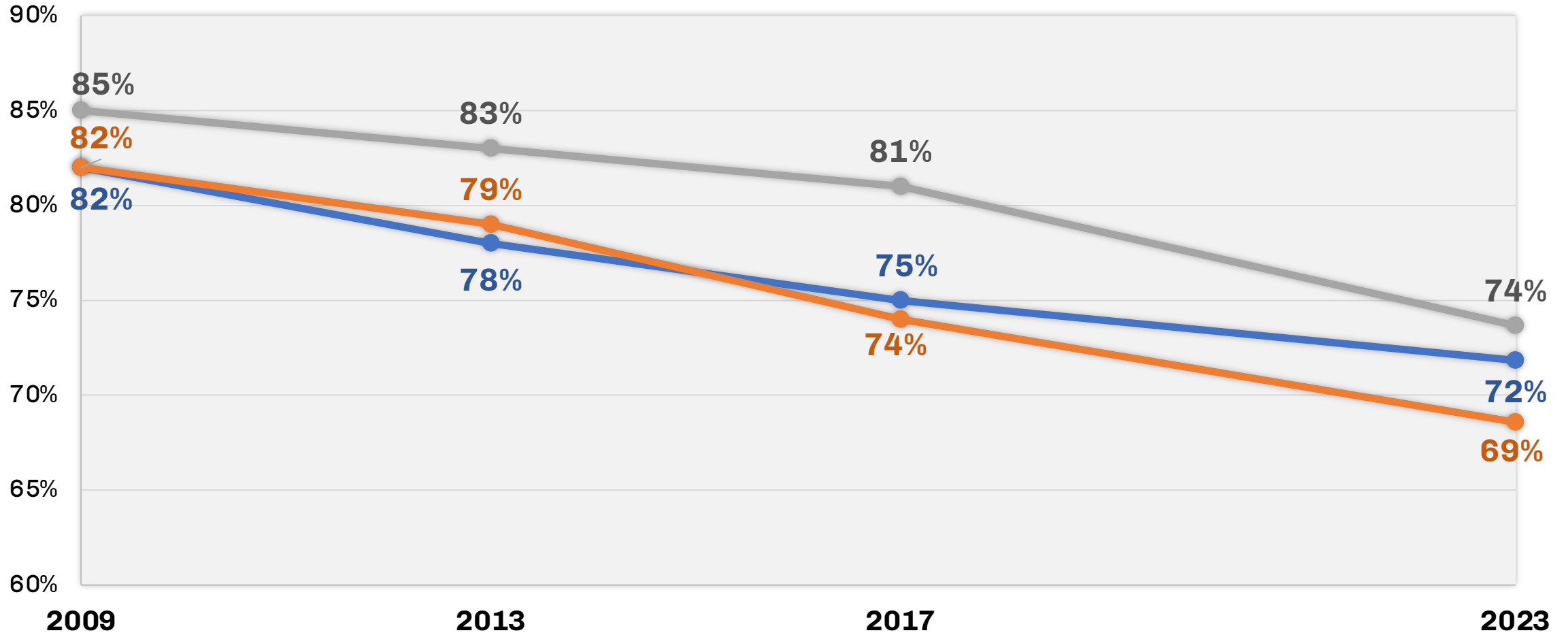


Sources: NCAA Student-Athlete Substance Use Studies (2009, 2013, 2017) and NCAA Student-Athlete Health and Wellness Study (2023).



# Alcohol Use by Division (Within the Last Year)

● Division I ● Division II ● Division III



Sources: NCAA Student-Athlete Substance Use Studies (2009, 2013, 2017) and NCAA Student-Athlete Health and Wellness Study (2023).

## Patterns of Alcohol Use in the Last Year by Sport (Men's Sports)

	2009	2013	2017	2023
Ice Hockey	96%	97%	93%	92%
Lacrosse	95%	93%	88%	85%
Swimming & Diving	86%	86%	84%	77%
Golf	91%	88%	88%	76%
Baseball	88%	86%	81%	75%
Tennis	86%	82%	77%	73%
Wrestling	84%	76%	78%	69%
Soccer	87%	82%	81%	66%
Football	83%	75%	72%	64%
Track & Field	70%	74%	67%	60%
Basketball	75%	73%	68%	58%

Sources: NCAA Student-Athlete Substance Use Studies (2009, 2013, 2017) and NCAA Student-Athlete Health and Wellness Study (2023).



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## Patterns of Alcohol Use in the Last Year by Sport (Women's Sports)

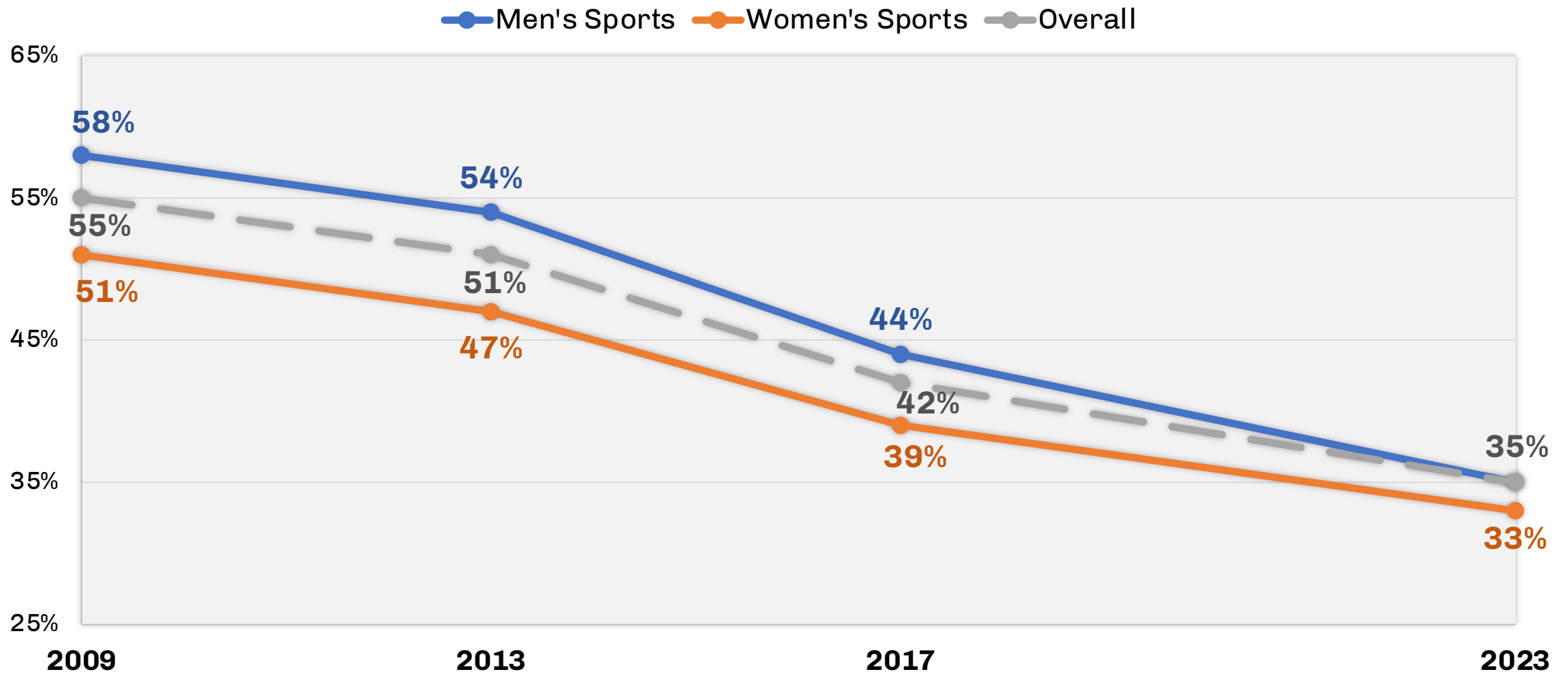
	2009	2013	2017	2023
Ice Hockey	95%	93%	91%	92%
Rowing	90%	87%	86%	89%
Field Hockey	94%	88%	85%	88%
Lacrosse	95%	92%	92%	86%
Swimming & Diving	86%	85%	86%	81%
Soccer	86%	84%	84%	80%
Softball	88%	79%	79%	77%
Volleyball	87%	84%	84%	77%
Gymnastics	N/A	74%	78%	73%
Basketball	79%	75%	71%	72%
Golf	90%	81%	74%	71%
Tennis	82%	85%	79%	70%
Track & Field	69%	74%	65%	64%

Note: N/A – sample size was too small to report. Sources: NCAA Student-Athlete Substance Use Studies (2009, 2013, 2017) and NCAA Student-Athlete Health and Wellness Study (2023).



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# Binge Drinking by Sport Gender

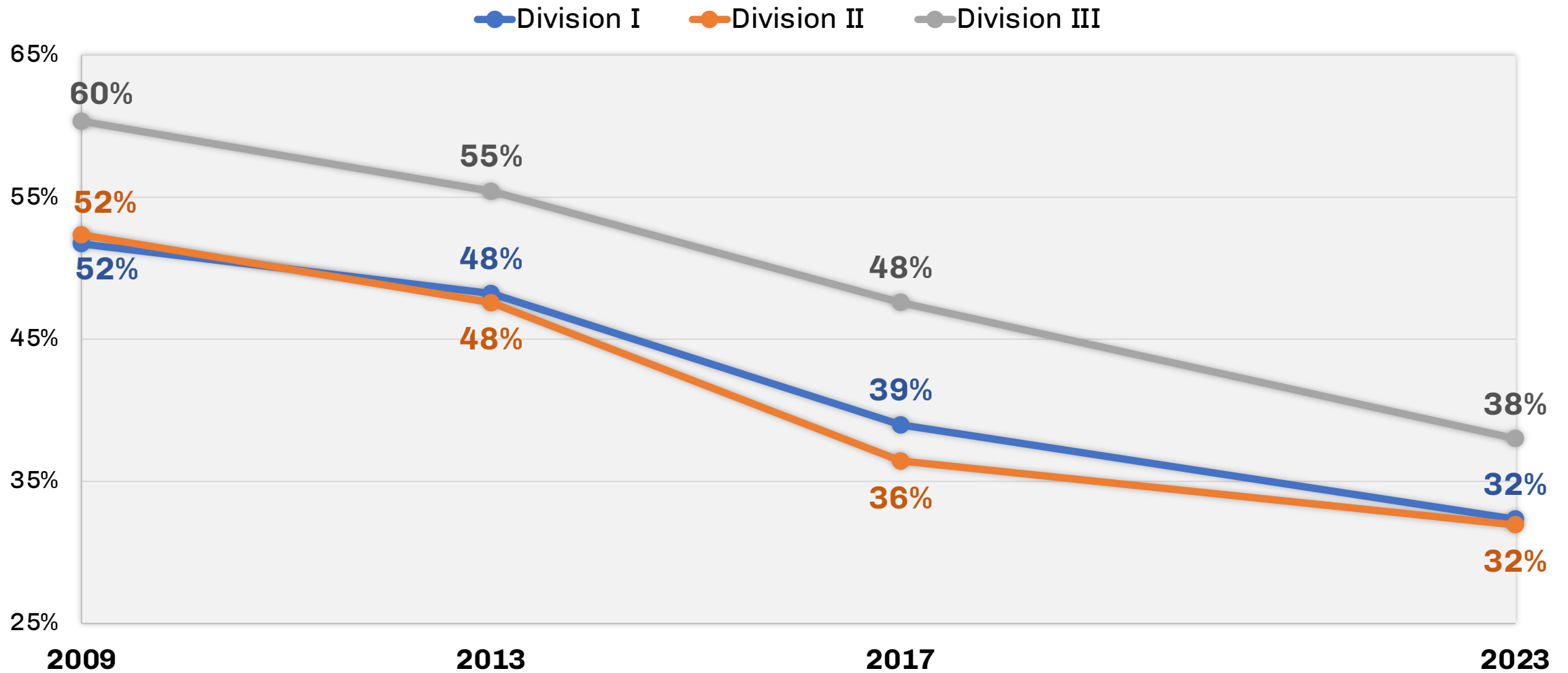


Note: Binge drinking is defined as women having four or more drinks and men having five or more drinks in one sitting.  
Sources: NCAA Student-Athlete Substance Use Studies (2009, 2013, 2017) and NCAA Student-Athlete Health and Wellness Study (2023).



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# Binge Drinking by Division



Note: Binge drinking is defined as women having four or more drinks and men having five or more drinks in one sitting.  
Sources: NCAA Student-Athlete Substance Use Studies (2009, 2013, 2017) and NCAA Student-Athlete Health and Wellness Study (2023).



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## Patterns of Binge Drinking by Sport (Men's Sports)

	2009	2013	2017	2023
Ice Hockey	84%	86%	64%	63%
Lacrosse	84%	78%	69%	61%
Swimming & Diving	67%	60%	55%	41%
Wrestling	66%	58%	50%	40%
Baseball	63%	61%	51%	38%
Football	60%	50%	44%	36%
Golf	64%	58%	42%	32%
Soccer	63%	55%	46%	30%
Tennis	46%	45%	37%	29%
Track & Field	38%	41%	27%	24%
Basketball	41%	40%	33%	24%

Note: Binge drinking is defined as women having four or more drinks and men having five or more drinks in one sitting.  
Sources: NCAA Student-Athlete Substance Use Studies (2009, 2013, 2017) and NCAA Student-Athlete Health and Wellness Study (2023).



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## Patterns of Binge Drinking by Sport (Women's Sports)

	2009	2013	2017	2023
Ice Hockey	83%	74%	56%	57%
Lacrosse	78%	64%	57%	48%
Field Hockey	73%	61%	47%	47%
Rowing	52%	45%	39%	38%
Softball	57%	44%	40%	38%
Soccer	60%	55%	45%	38%
Swimming & Diving	56%	52%	49%	37%
Volleyball	54%	53%	43%	33%
Basketball	48%	44%	33%	33%
Gymnastics	N/A	41%	27%	20%
Golf	48%	37%	23%	20%
Tennis	37%	36%	29%	20%
Track & Field	29%	34%	25%	19%

Note: N/A – sample size was too small to report. Binge drinking is defined as women having four or more drinks and men having five or more drinks in one sitting. Sources: NCAA Student-Athlete Substance Use Studies (2009, 2013, 2017) and NCAA Student-Athlete Health and Wellness Study (2023).



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## Typical Drinks in One Sitting

	Men's Sports	Women's Sports	Division I	Division II	Division III
I do not drink alcohol	31%	25%	28%	31%	27%
1 drink	5%	9%	7%	7%	6%
2 drinks	9%	16%	14%	12%	11%
3 drinks	10%	17%	14%	12%	13%
4 drinks	9%	13%	11%	10%	11%
5 drinks	9%	9%	8%	8%	10%
6 drinks	8%	6%	7%	7%	7%
7 drinks	4%	2%	3%	3%	4%
8 drinks	5%	2%	3%	3%	4%
9 drinks	1%	0%	0%	0%	1%
10+ drinks	9%	1%	4%	6%	6%

Note: Participants were asked, "If you drink alcohol, typically how many drinks do you have in one sitting?" (One drink = 12 oz. beer, 4 oz. glass of wine, 12 oz. wine cooler, mixed drink with one shot, shot glass of liquor) Source: NCAA Student-Athlete Health and Wellness Study (2023).



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# **Marijuana and Other Cannabis Products**

## Findings

- Overall, the rate of marijuana use in the last year is similar to what student-athletes reported in 2017. Student-athletes continue to report lower rates of use than nonathlete college students (26%, NCAA vs. 38%, ACHA-NCHA; 41%, MTF Study).
- Use by methods of inhalation (e.g., smoke, vape, dab) has remained steady since 2017, while use by ingestion (e.g., edibles, oils, tinctures) has increased (from 11% to 17%). Synthetic marijuana (e.g., delta-8, K2, Spice, etc.) use also has increased from less than 1% to 7%.
- While Division I student-athletes reported the largest increase in marijuana use (from 18% in 2017 to 23%), use remains highest in Division III (30%) and among those who attend college in a state where cannabis use is fully legal (43%). At the sport level, use was highest among men's lacrosse (38%), rowing (37%), men's swimming and diving (35%) and ice hockey (men, 34%; women, 33%).
- 68% of cannabis users reported doing so for fun or enjoyment, 53% for relaxation, 38% to help with sleep and 17% for medical use (e.g., alleviate physical pain).



## Frequency of Cannabis Use

Method	Never Used	Daily	Weekly	Monthly	In the last year*	Used, but not in the last year
Inhale	68.9%	4.3%	3.7%	3.7%	11.3%	8.2%
Ingest	75.4%	0.7%	1.5%	3.5%	11.3%	7.6%
Skin application	93.6%	0.5%	0.6%	0.5%	2.1%	2.6%
Synthetic marijuana	90.0%	0.7%	0.8%	1.2%	4.3%	3.0%

Note: \*In the last year is not cumulative and indicates frequency less than a monthly basis. Examples for inhalation methods of marijuana or other cannabis products include smoke, vape or dab; edibles, oils or tinctures for ingestion; cannabis-infused lotions for skin application; Delta 8, K2, Spice, etc. for synthetic marijuana. Source: NCAA Student-Athlete Health and Wellness Study (2023).

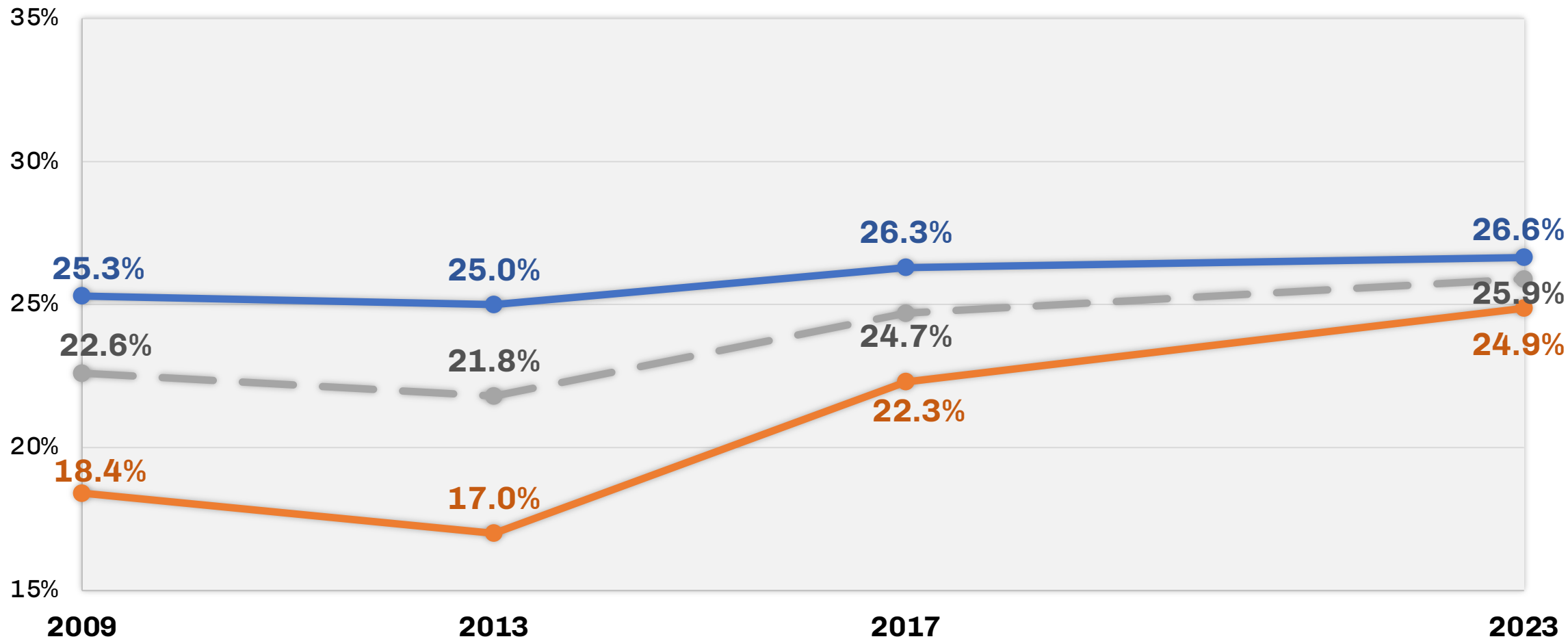


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# Marijuana Use by Sport Gender

## (Inhaled or Ingested Within the Last Year)

Men's Sports Women's Sports Overall

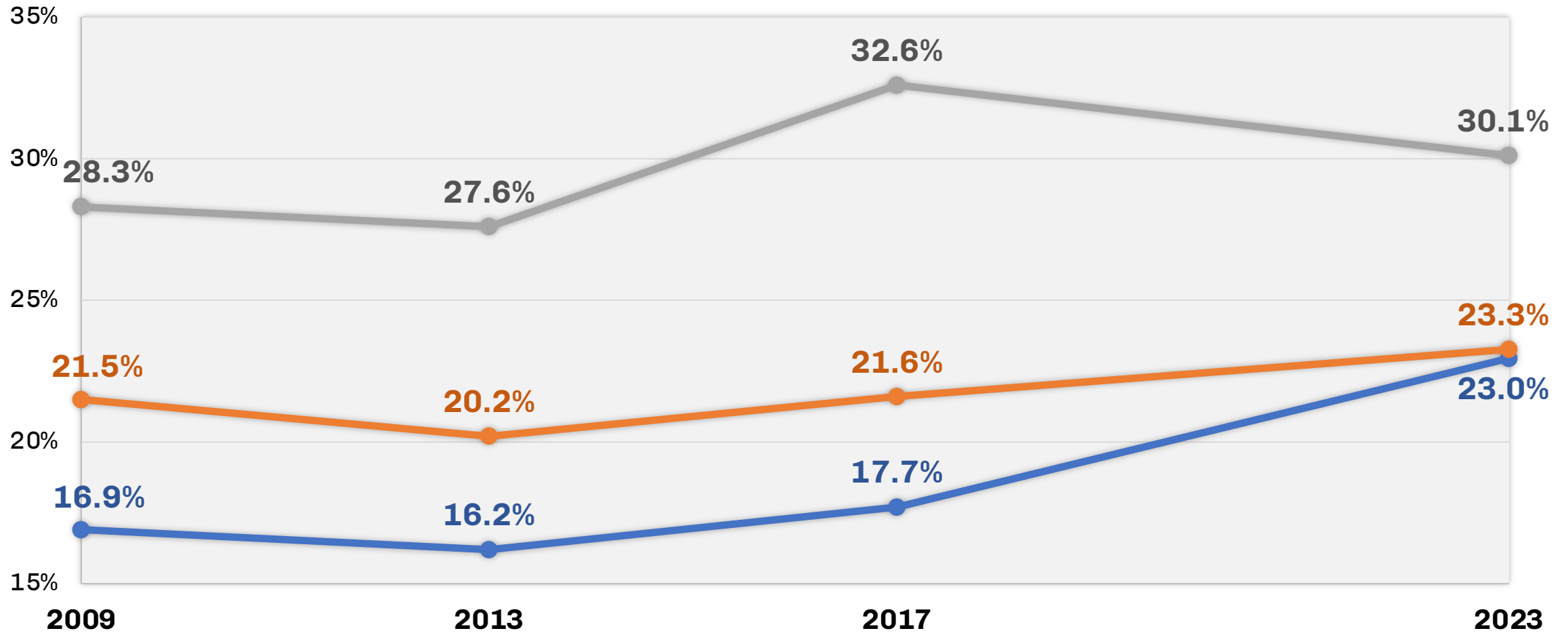


Note: Marijuana use includes those who reported inhaling (e.g., smoke, vape, dab) or ingesting (e.g., edibles, oils, tinctures) "marijuana or other cannabis products." The use of cannabis applied to skin (e.g., cannabis-infused lotions) or synthetic marijuana (e.g., Delta 8, K2, Spice) are not included in these rates. Sources: NCAA Student-Athlete Substance Use Studies (2009, 2013, 2017) and NCAA Student-Athlete Health and Wellness Study (2023).

# Marijuana Use by Division

(Inhaled or Ingested Within the Last Year)

● Division I ● Division II ● Division III



Note: Marijuana use includes those who reported inhaling (e.g., smoke, vape, dab) or ingesting (e.g., edibles, oils, tinctures) “marijuana or other cannabis products.” The use of cannabis applied to skin (e.g., cannabis-infused lotions) or synthetic marijuana (e.g., Delta 8, K2, Spice) are not included in these rates. Sources: NCAA Student-Athlete Substance Use Studies (2009, 2013, 2017) and NCAA Student-Athlete Health and Wellness Study (2023).

## Patterns of Marijuana Use in the Last Year by Sport (Inhaled or Ingested, Men's Sports)

	2009	2013	2017	2023
Lacrosse	49%	48%	50%	38%
Swimming & Diving	27%	32%	35%	35%
Ice Hockey	27%	29%	25%	34%
Football	27%	22%	25%	28%
Basketball	22%	20%	23%	27%
Wrestling	28%	23%	29%	26%
Soccer	29%	28%	27%	25%
Golf	23%	21%	19%	24%
Tennis	23%	20%	26%	23%
Baseball	22%	24%	24%	23%
Track & Field	16%	21%	23%	22%

Note: Marijuana use includes those who reported inhaling (e.g., smoke, vape, dab) or ingesting (e.g., edibles, oils, tinctures) “marijuana or other cannabis products.” The use of cannabis applied to skin (e.g., cannabis-infused lotions) or synthetic marijuana (e.g., Delta 8, K2, Spice) are not included in these rates. Sources: NCAA Student-Athlete Substance Use Studies (2009, 2013, 2017) and NCAA Student-Athlete Health and Wellness Study (2023).



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## Patterns of Marijuana Use in the Last Year by Sport (Inhaled or Ingested, Women's Sports)

	2009	2013	2017	2023
Rowing	24%	24%	22%	37%
Ice Hockey	31%	25%	29%	33%
Field Hockey	36%	21%	29%	30%
Swimming & Diving	20%	22%	26%	30%
Lacrosse	30%	23%	34%	29%
Soccer	23%	21%	27%	27%
Volleyball	19%	18%	27%	27%
Basketball	15%	15%	18%	25%
Softball	18%	13%	20%	22%
Track and Field	9%	13%	15%	19%
Tennis	16%	14%	18%	18%
Golf	19%	9%	15%	14%
Gymnastics	N/A	9%	15%	14%

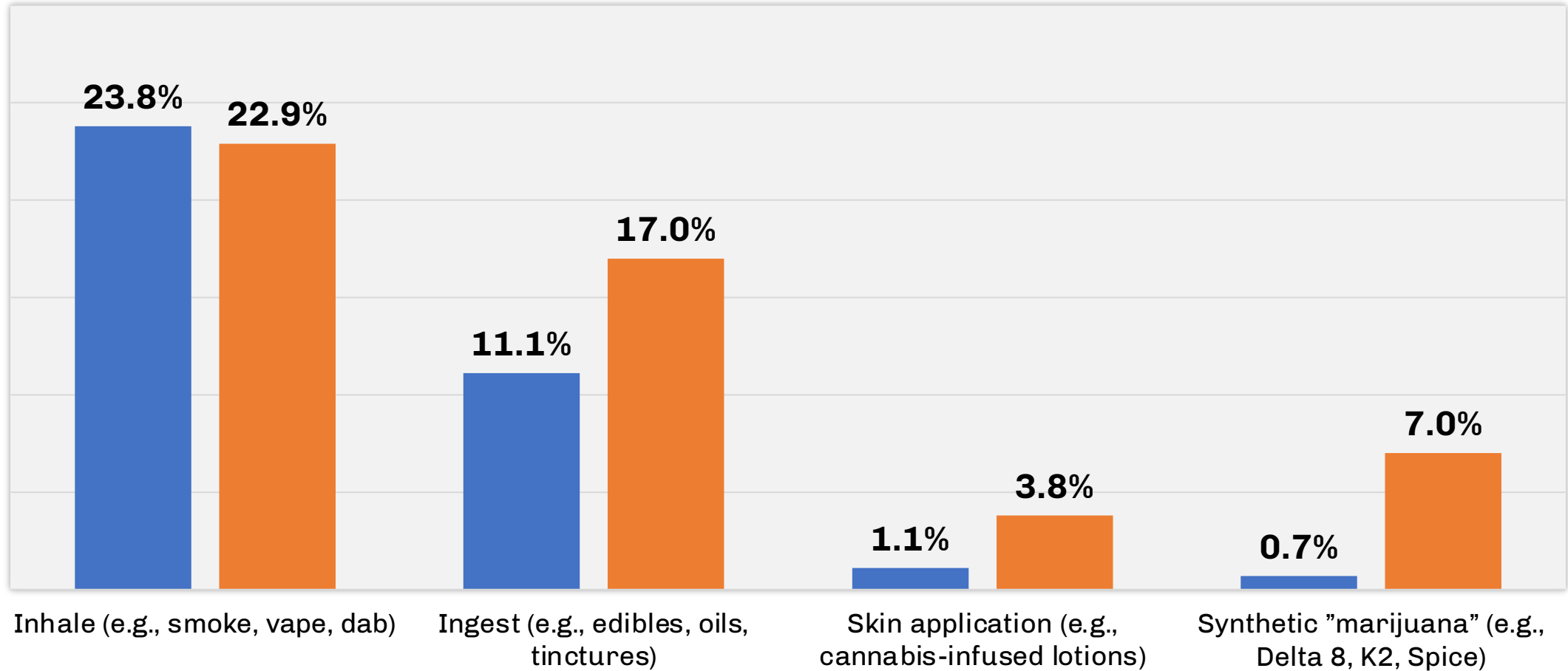
Note: N/A – sample size was too small to report. Marijuana use includes those who reported inhaling (e.g., smoke, vape, dab) or ingesting (e.g., edibles, oils, tinctures) “marijuana or other cannabis products.” The use of cannabis applied to skin (e.g., cannabis-infused lotions) or synthetic marijuana (e.g., Delta 8, K2, Spice) are not included in these rates. Sources: NCAA Student-Athlete Substance Use Studies (2009, 2013, 2017) and NCAA Student-Athlete Health and Wellness Study (2023).



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# Marijuana/Cannabis Use by Method (Within Last Year)

■ 2017      ■ 2023



# Marijuana Use by College State Legal Status

## (Within Last Year)

Method	Legal for personal and medical use	Legal for medical use	Not legal	I don't know
<b>Marijuana use</b> (Combined inhale/ingest)	43%	35%	28%	16%
<b>Inhale</b> (Smoke, vape, dab)	38%	33%	26%	13%
<b>Ingest</b> (Edibles, oils, tinctures)	31%	24%	18%	9%

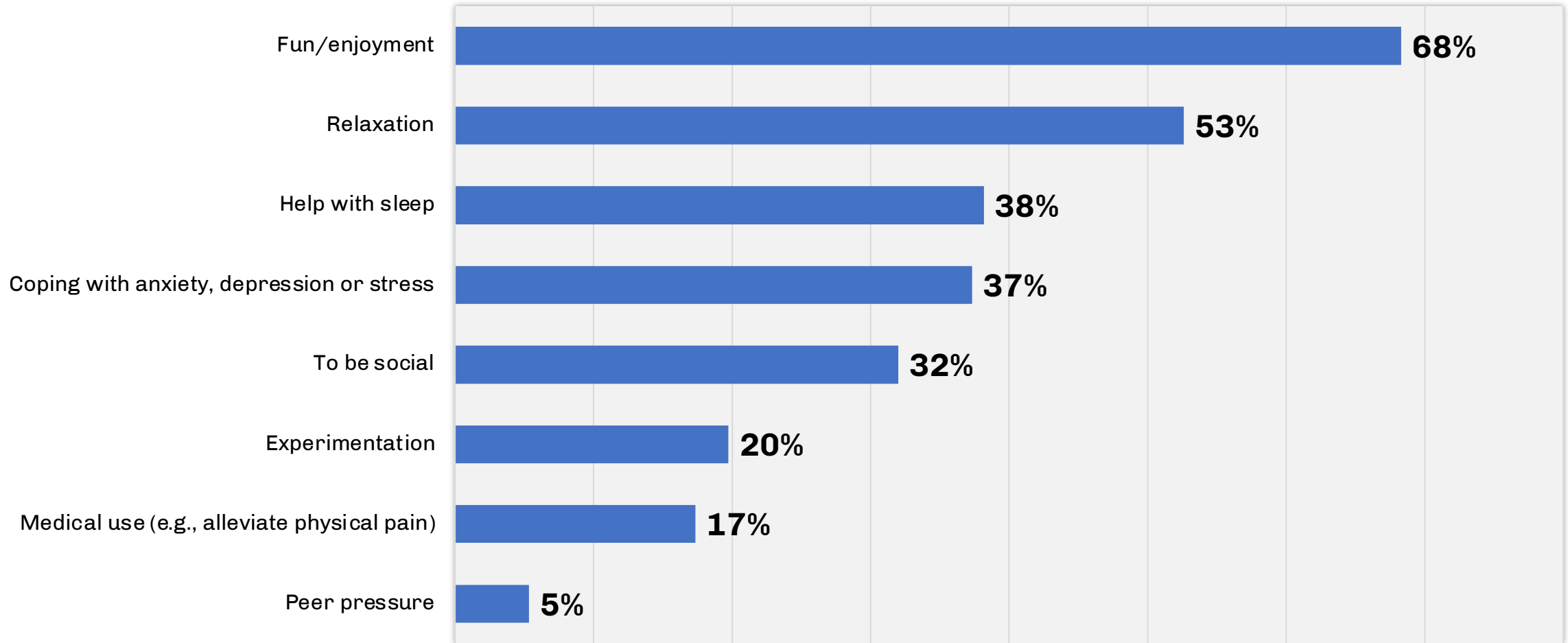
Note: The sample included 4,640 student-athletes (21%) attending a college in a state where marijuana was legal for personal (recreational) and medical use, 2,127 (10%) in a state with legal medical use, 4,934 (22%) in a state where marijuana is not legal and 10,655 (48%) were not aware of their marijuana state laws. Source: NCAA Student-Athlete Health and Wellness Study (2023).



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# Reasons for Cannabis Use

(Percentage of Participants Who Reported Any Method of Use within the Last Year)



Note: Limited to those who reported using marijuana or other cannabis products by any method (inhale, ingest, skin application or synthetic marijuana) at least once within the last year. Respondents were able to select multiple reasons. Sources: NCAA Student-Athlete Health and Wellness Study (2023).



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# Reasons for Cannabis Use

(Percentage of Participants Who Reported Any Method of Use within the Last Year by Division)

	Division I	Division II	Division III
Fun/enjoyment	67%	62%	73%
Relaxation	52%	54%	53%
Coping with anxiety, depression or stress	37%	38%	37%
Help with sleep	35%	39%	39%
To be social	32%	28%	34%
Experimentation	19%	18%	21%
Medical use (e.g., alleviate physical pain, headache)	17%	19%	17%
Peer pressure	4%	7%	5%

Note: Limited to those who reported using marijuana or other cannabis products by any method (inhale, ingest, skin application or synthetic marijuana) at least once within the last year. Respondents were able to select multiple reasons. Sources: NCAA Student-Athlete Health and Wellness Study (2023).



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# Narcotic and Stimulant Medications

## Findings

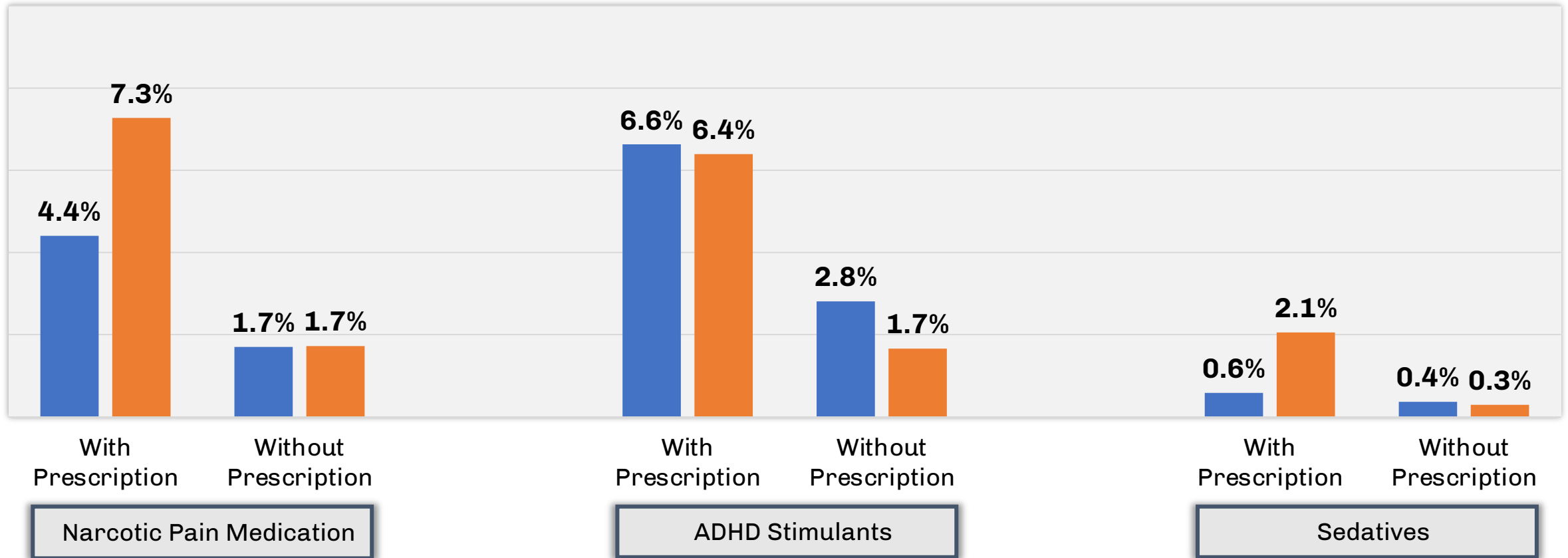
- Use of narcotic pain medication by student-athletes has decreased in the past decade: 6% reported using narcotic pain medication with a prescription within the last year, down from a high of 18% in 2013. Reported use without a prescription is down from a high of 6% in 2013 to 2% in this study. Less than 1% of student-athletes reported misusing narcotic pain medication.
- Women's gymnastics (8%) and softball (8%) were the highest reported users of narcotic pain medication (with or without a prescription), but use was down from 18% and 13% in 2017, respectively.
- Reported ADHD stimulant use without a prescription decreased to 2% (from 8% in 2017) while use with a prescription remained steady at 7%. Misuse of ADHD stimulants also decreased to 2% (6% reported in 2017).
- Student-athletes in men's lacrosse (17%), men's ice hockey (13%), men's swimming and diving (13%) and rowing (13%) reported using stimulants (with or without a prescription) at the highest rates.





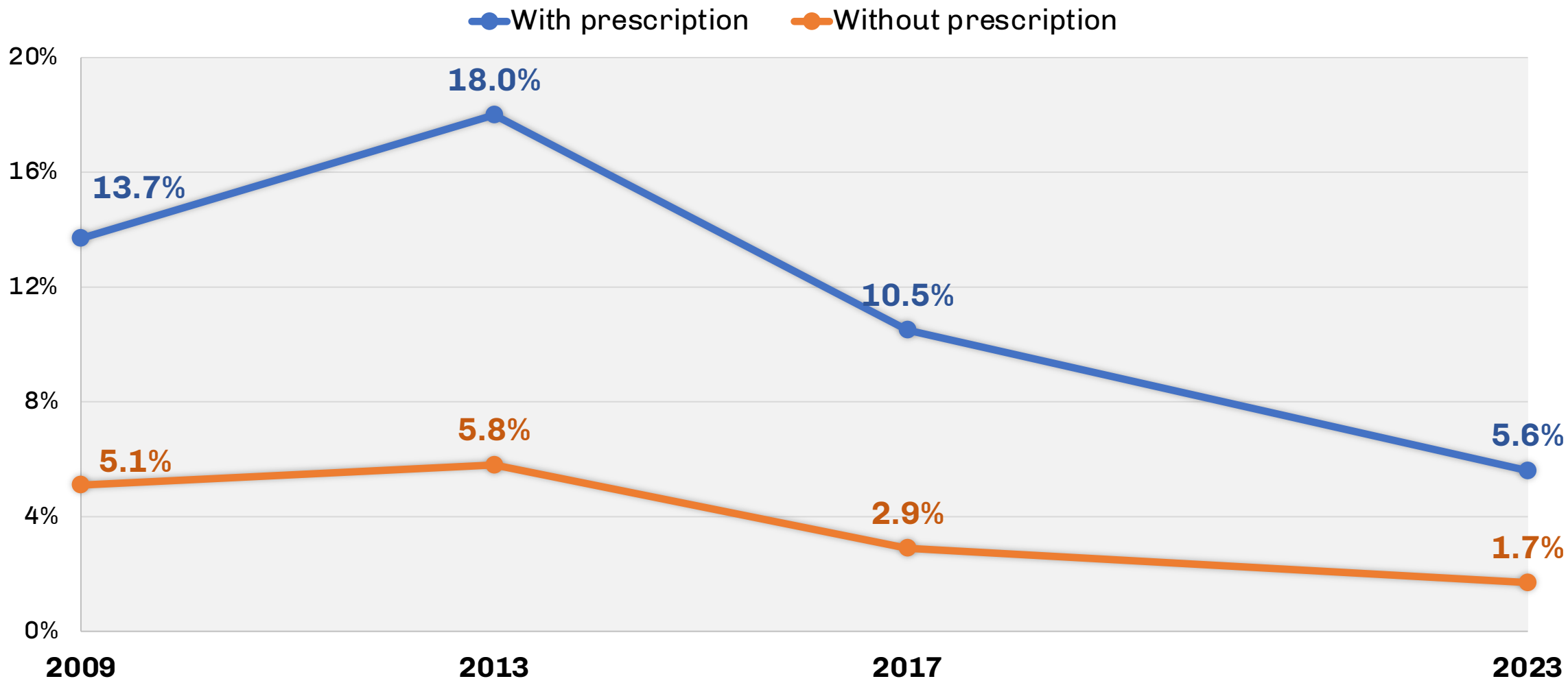
# Medication Use by Sport Gender (Within the Last Year)

■ Men's Sports ■ Women's Sports



Note: Examples of narcotic pain medication include Vicodin, Oxycontin, Percocet, Dilaudid, Fentanyl, Morphine and Tylenol with Codeine. Examples of ADHD stimulants include Adderall, Ritalin, Concerta and Vyvanse. Examples of sedatives include Xanax, Valium and Klonopin. Source: NCAA Student-Athlete Health and Wellness Study (2023).

# Narcotic Pain Medication Use (Within Last Year)



Note: Examples of narcotic pain medication include Vicodin, Oxycontin, Percocet, Dilaudid, Fentanyl, Morphine and Tylenol with Codeine. Sources: NCAA Student-Athlete Substance Use Studies (2009, 2013, 2017) and NCAA Student-Athlete Health and Wellness Study (2023).

# Change in Narcotic Pain Medication Use by Sport, 2017 to 2023

## (Men's Sports, Within Last Year)

	2017	2023
Lacrosse	17%	5%
Ice Hockey	13%	3%
Wrestling	12%	5%
Football	11%	5%
Golf	9%	3%
Baseball	9%	4%
Swimming & Diving	8%	6%
Track & Field	8%	3%
Soccer	8%	4%
Basketball	7%	4%
Tennis	7%	4%

Note: Data includes any reported narcotic pain medication use (with or without prescription). Examples of narcotic pain medication include Vicodin, Oxycontin, Percocet, Dilaudid, Fentanyl, Morphine and Tylenol with Codeine. Source: NCAA Substance Use Study, 2017; NCAA Student-Athlete Health and Wellness Study, 2023.



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# Change in Narcotic Pain Medication Use by Sport, 2017 to 2023

## (Women's Sports, Within Last Year)

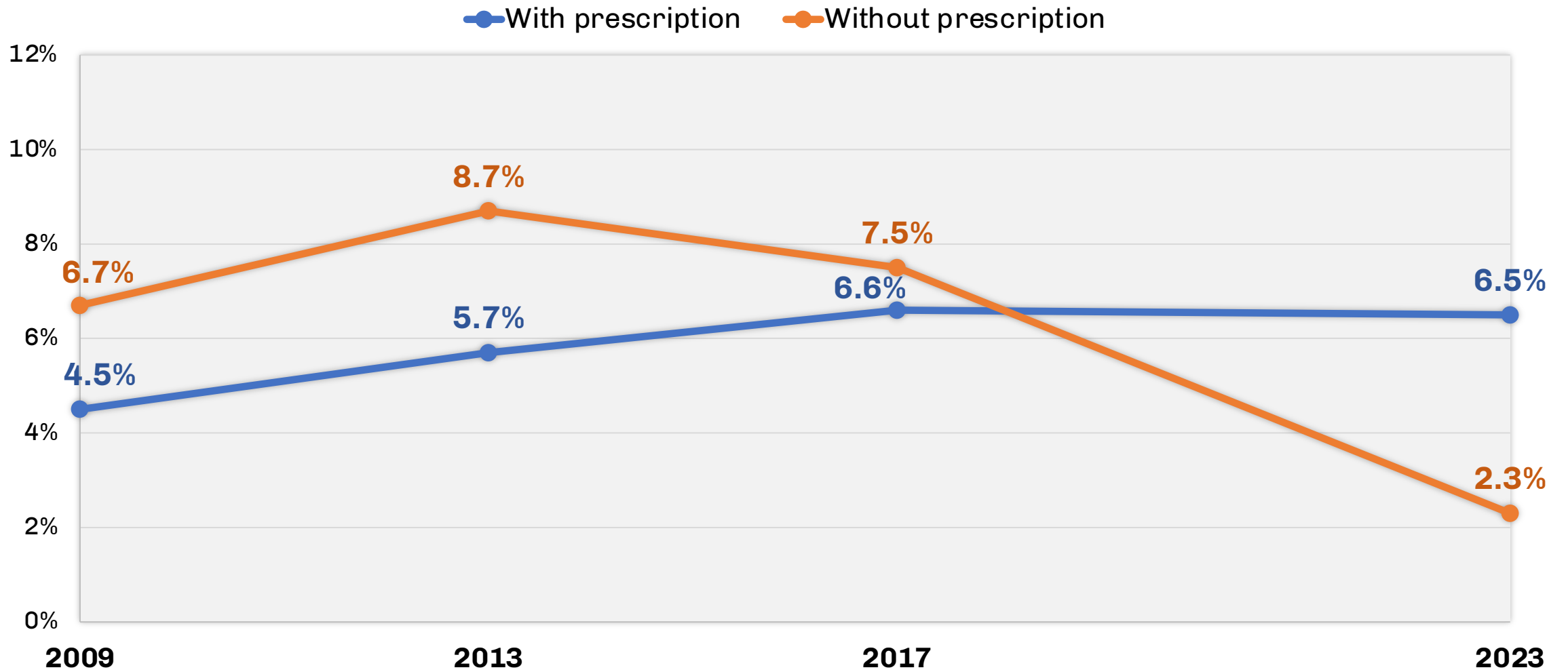
	2017	2023
Gymnastics	18%	8%
Softball	13%	8%
Ice Hockey	13%	4%
Lacrosse	12%	6%
Rowing	11%	4%
Swimming & Diving	11%	7%
Volleyball	11%	6%
Soccer	11%	7%
Field Hockey	11%	5%
Golf	10%	5%
Basketball	10%	6%
Tennis	10%	5%
Track & Field	7%	3%

Note: Data includes any reported narcotic pain medication use (with or without prescription). Examples of narcotic pain medication include Vicodin, Oxycontin, Percocet, Dilaudid, Fentanyl, Morphine and Tylenol with Codeine. Source: NCAA Substance Use Study, 2017; NCAA Student-Athlete Health and Wellness Study, 2023.



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# ADHD Stimulant Use (Within Last Year)



Note: Examples of ADHD stimulants include Adderall, Ritalin, Concerta and Vyvanse. Sources: NCAA Student-Athlete Substance Use Studies (2009, 2013, 2017) and NCAA Student-Athlete Health and Wellness Study (2023).

# Change in ADHD Stimulant Use by Sport, 2017 to 2023

## (Men's Sports, Within Last Year)

	2017	2023
Lacrosse	36%	17%
Ice Hockey	21%	13%
Swimming & Diving	15%	13%
Wrestling	22%	11%
Baseball	20%	8%
Golf	12%	8%
Football	13%	7%
Tennis	11%	7%
Soccer	14%	6%
Track & Field	10%	5%
Basketball	9%	5%

Note: Data includes any reported ADHD stimulant use (with or without prescription). Examples of ADHD stimulants include Adderall, Ritalin, Concerta and Vyvanse. Source: NCAA Student-Athlete Health and Wellness Study (2023).

# Change in ADHD Stimulant Use by Sport, 2017 to 2023

## (Women's Sports, Within Last Year)

	2017	2023
Rowing	9%	13%
Lacrosse	19%	11%
Field Hockey	12%	10%
Ice Hockey	12%	9%
Swimming & Diving	9%	8%
Softball	10%	7%
Soccer	10%	6%
Track & Field	5%	6%
Volleyball	9%	6%
Golf	9%	5%
Gymnastics	8%	5%
Basketball	5%	5%
Tennis	8%	4%

Note: Data includes any reported ADHD stimulant use (with or without prescription). Examples of ADHD stimulants include Adderall, Ritalin, Concerta and Vyvanse. Source: NCAA Student-Athlete Health and Wellness Study (2023).



## Change in Medication Misuse, 2017 to 2023 (Within Last Year)

	2017	2023
Ibuprofen, naproxen, aspirin or other nonsteroidal anti-inflammatory drugs	23.6%	28.1%
Tylenol or acetaminophen	12.0%	17.5%
Adderall, Ritalin, Concerta or Vyvanse	5.5%	2.2%
Vicodin, Oxycontin, Percocet, Dilaudid, Morphine or Tylenol with Codeine	2.1%	0.6%
Xanax, Valium or Klonopin	--	0.4%
Injectable Toradol or Ketorolac	0.1%	0.5%
Ultracet, Ultram or Tramadol	0.2%	0.1%
I have not used pain management medications beyond their intended use within the last year	67.2%	71.1%

Note: Participants were asked, “Within the last year, have you taken any of the following medications outside of their intended use, taking a dosage different from or taking it longer than what was prescribed or recommended?”

Sources: NCAA Student-Athlete Substance Use Study (2017) and NCAA Student-Athlete Health and Wellness Study (2023).



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# Tobacco and Other Nicotine Products

## Findings

- The most frequently used tobacco or nicotine products were e-cigarettes or vapes (22% of student-athletes vaped at least once in the past year) followed by cigars (11%), spit tobacco (10%) and cigarettes (10%). Reported use of these products was highest among student-athletes participating in men's sports. Historically, use of tobacco has been much lower among student-athletes than the general college student population.
- Rates of spit tobacco use have dropped significantly in many men's sports with historically high rates. Baseball (28%), men's lacrosse (25%) and wrestling (20%) have decreased by 10 percentage points or more since 2017. Men's ice hockey student-athletes remain the highest users of spit tobacco (47%) and have shown little change in the past decade.
- While the use of nearly all products is down, vaping nicotine has increased 14 percentage points since 2017. Despite this increase, other studies suggest that student-athletes are using e-cigarettes or vapes less than the college student population (22%, NCAA vs. 26%, MTF Study). The highest rates of vape use by sport were in lacrosse (men 37%, women 29%), ice hockey (men 34%, women 30%) and men's golf (31%).



## Frequency of Tobacco/Nicotine Use

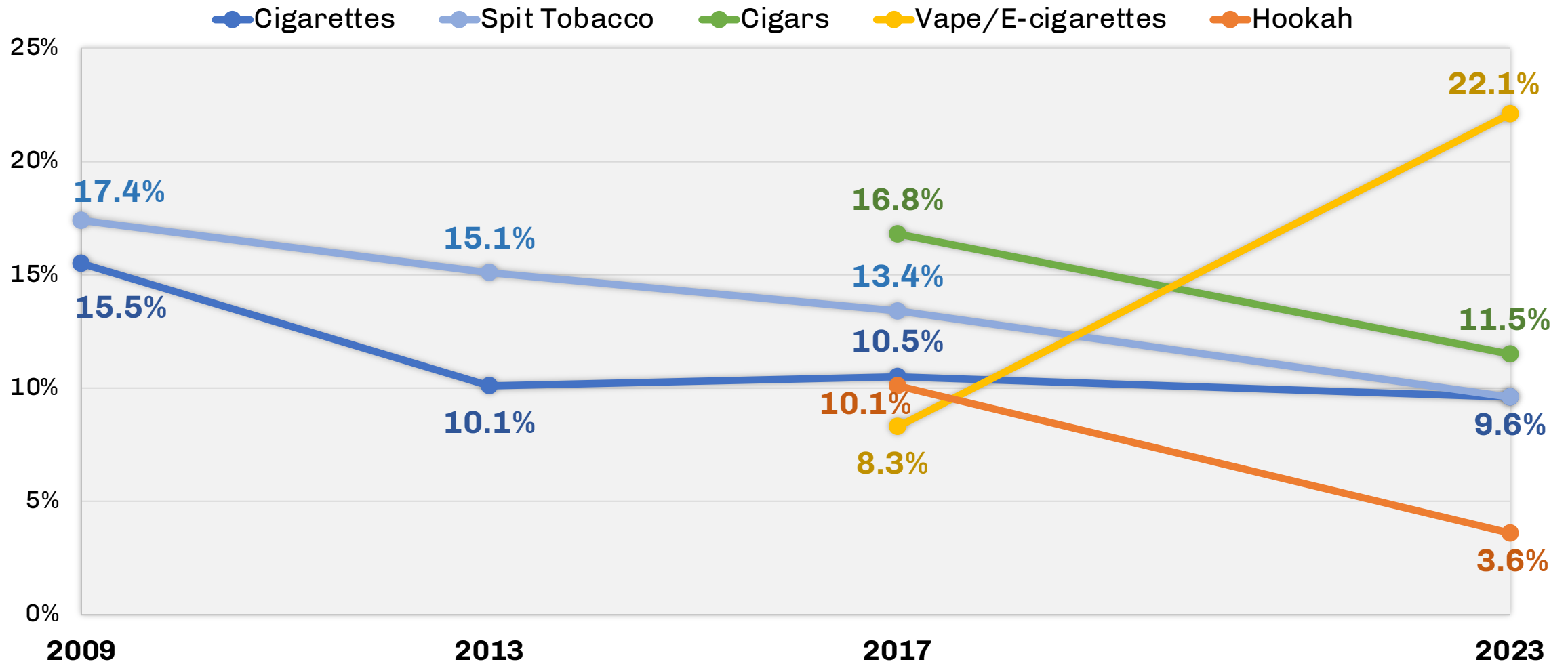
Method	Never Used	Daily	Weekly	Monthly	In the last year*	Used, but not in the last year
Cigarettes	86.0%	0.3%	0.7%	1.7%	6.9%	4.5%
Cigars	82.3%	0.3%	0.4%	1.5%	9.4%	6.2%
Vape/E-cigarettes	70.3%	6.0%	3.6%	3.3%	9.2%	7.6%
Hookah	92.2%	0.3%	0.2%	0.4%	2.7%	4.2%
Spit tobacco	87.4%	3.0%	1.8%	1.4%	3.3%	3.0%
Other products	93.9%	1.2%	0.7%	0.6%	1.6%	1.9%

Note: \*In the last year is not cumulative and indicates frequency less than a monthly basis. Examples of spit tobacco include dip, chew or pouch; dissolvables or gum for other products. Source: NCAA Student-Athlete Health and Wellness Study (2023).



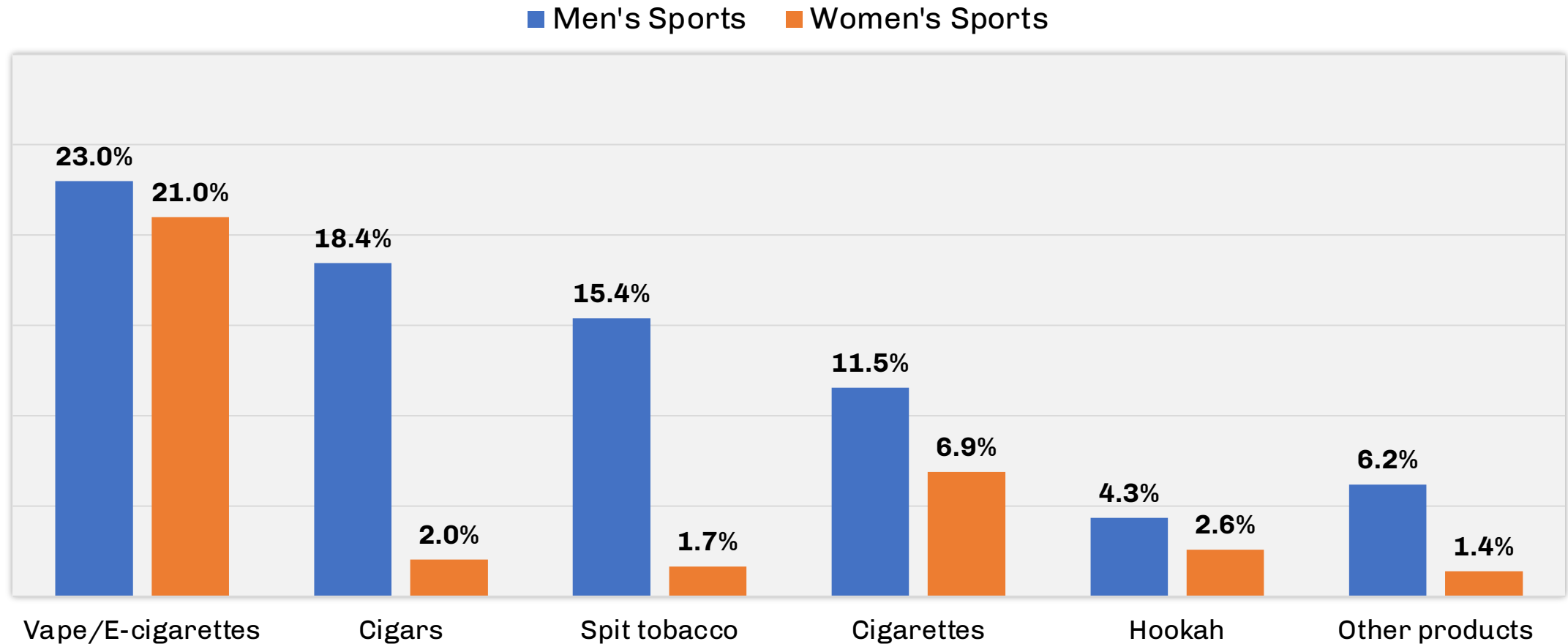
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# Tobacco/Nicotine Use (Within the Last Year)



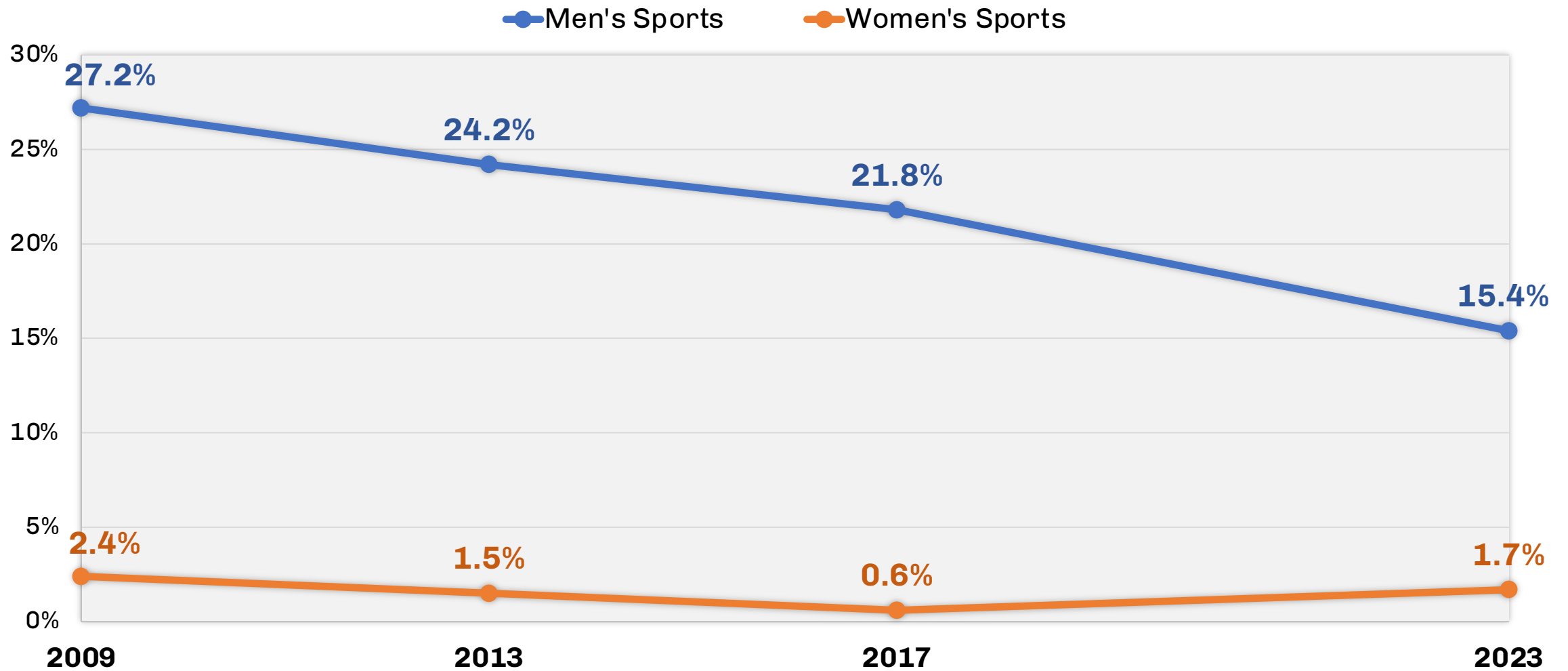
Note: Studies prior to 2017 only asked about cigarette and spit tobacco use. In 2023, the survey changed “e-cigarettes” to “vape/e-cigarettes.” Sources: NCAA Student-Athlete Substance Use Studies (2009, 2013, 2017) and NCAA Student-Athlete Health and Wellness Study (2023).

# Tobacco/Nicotine Use by Sport Gender (Within the Last Year)



Note: Examples of spit tobacco include dip, chew or pouch; dissolvables or gum for other products. Source: NCAA Student-Athlete Health and Wellness Study (2023).

# Spit Tobacco Use by Sport Gender (Within the Last Year)



Note: Examples of spit tobacco include dip, chew or pouch. Sources: NCAA Student-Athlete Substance Use Studies (2009, 2013, 2017) and NCAA Student-Athlete Health and Wellness Study (2023).

## Patterns of Spit Tobacco Use in the Last Year by Sport (Men's Sports)

	2009	2013	2017	2023
Ice Hockey	54%	50%	46%	47%
Baseball	52%	48%	44%	28%
Lacrosse	41%	40%	35%	25%
Wrestling	48%	37%	33%	20%
Golf	31%	30%	23%	19%
Football	28%	23%	22%	15%
Swim & Dive	13%	15%	12%	12%
Soccer	16%	14%	12%	8%
Tennis	11%	10%	8%	8%
Basketball	11%	9%	8%	5%
Track & Field	9%	9%	9%	4%

Note: Examples of spit tobacco include dip, chew or pouch. Sources: NCAA Student-Athlete Substance Use Studies (2009, 2013, 2017) and NCAA Student-Athlete Health and Wellness Study (2023).



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## Patterns of Spit Tobacco Use in the Last Year by Sport (Women's Sports)

	2009	2013	2017	2023
Ice Hockey	15%	12%	13%	6%
Golf	3%	1%	1%	3%
Rowing	1%	<1%	1%	2%
Lacrosse	3%	2%	1%	2%
Swimming	2%	1%	1%	2%
Field Hockey	3%	2%	<1%	2%
Basketball	2%	1%	1%	2%
Soccer	2%	2%	1%	2%
Volleyball	3%	1%	<1%	1%
Softball	6%	4%	2%	1%
Tennis	1%	<1%	<1%	1%
Track	1%	1%	<1%	<1%
Gymnastics	N/A	<1%	<1%	0%

Note: N/A – sample size was too small to report. Examples of spit tobacco include dip, chew or pouch. Sources: NCAA Student-Athlete Substance Use Studies (2009, 2013, 2017) and NCAA Student-Athlete Health and Wellness Study (2023).



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## Change in Vape/E-cigarette Use by Sport, 2017 to 2023 (Men's Sports, Within Last Year)

	2017	2023
Lacrosse	33%	37%
Ice Hockey	5%	34%
Golf	16%	31%
Baseball	12%	29%
Swimming & Diving	16%	26%
Tennis	12%	24%
Football	10%	23%
Wrestling	15%	23%
Soccer	10%	19%
Basketball	7%	15%
Track & Field	7%	11%
<b>Men's Sports Overall</b>	<b>11%</b>	<b>23%</b>

Note: In 2023, the survey changed “e-cigarettes” to “vape/e-cigarettes.” Source: NCAA Substance Use Study, 2017; NCAA Student-Athlete Health and Wellness Study, 2023.

# Change in Vape/E-cigarette Use by Sport, 2017 to 2023

## (Women's Sports, Within Last Year)

	2017	2023
Ice Hockey	9%	30%
Lacrosse	8%	29%
Softball	4%	28%
Field Hockey	4%	27%
Volleyball	5%	24%
Golf	4%	23%
Soccer	3%	22%
Swimming & Diving	5%	21%
Tennis	4%	20%
Basketball	2%	19%
Rowing	3%	17%
Gymnastics	2%	14%
Track & Field	1%	10%
<b>Women's Sports Overall</b>	<b>4%</b>	<b>21%</b>

Note: In 2023, the survey changed “e-cigarettes” to “vape/e-cigarettes.” Source: NCAA Substance Use Study, 2017; NCAA Student-Athlete Health and Wellness Study, 2023.

## Change in Cigar Use by Sport, 2017 to 2023 (Men's Sports, Within Last Year)

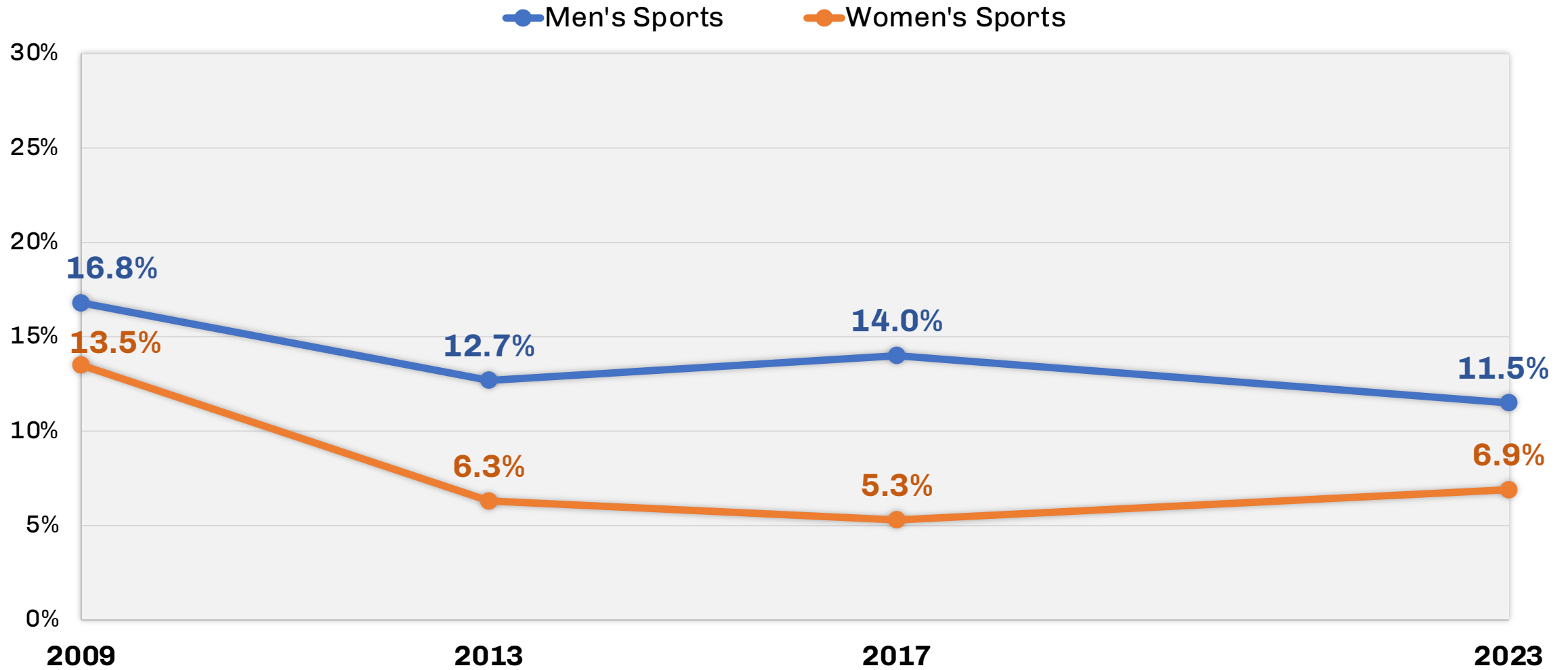
	2017	2023
Lacrosse	46%	29%
Ice Hockey	30%	29%
Swimming & Diving	28%	24%
Baseball	31%	22%
Football	27%	22%
Wrestling	27%	21%
Golf	39%	20%
Tennis	20%	13%
Soccer	18%	11%
Basketball	16%	10%
Track & Field	17%	8%
<b>Men's Sports Overall</b>	<b>25%</b>	<b>18%</b>

Source: NCAA Substance Use Study, 2017; NCAA Student-Athlete Health and Wellness Study, 2023.

## Change in Cigar Use by Sport, 2017 to 2023 (Women's Sports, Within Last Year)

	2017	2023
Ice Hockey	10%	4%
Lacrosse	4%	4%
Rowing	3%	3%
Golf	4%	3%
Swimming & Diving	4%	2%
Basketball	5%	2%
Soccer	4%	2%
Softball	5%	2%
Field Hockey	6%	2%
Track & Field	2%	2%
Tennis	2%	1%
Volleyball	4%	1%
Gymnastics	1%	<1%
<b>Women's Sports Overall</b>	<b>4%</b>	<b>2%</b>

# Cigarette Use by Sport Gender (Within the Last Year)



Sources: NCAA Student-Athlete Substance Use Studies (2009, 2013, 2017) and NCAA Student-Athlete Health and Wellness Study (2023).

## Patterns of Cigarette Use in the Last Year by Sport (Men's Sports)

	2009	2013	2017	2023
Ice Hockey	25%	24%	23%	24%
Lacrosse	32%	24%	38%	24%
Swimming & Diving	17%	17%	19%	17%
Golf	33%	21%	23%	15%
Tennis	23%	15%	16%	14%
Football	15%	10%	11%	12%
Baseball	19%	15%	16%	11%
Wrestling	17%	11%	13%	11%
Soccer	17%	14%	15%	10%
Basketball	9%	6%	7%	5%
Track & Field	8%	6%	9%	5%

Sources: NCAA Student-Athlete Substance Use Studies (2009, 2013, 2017) and NCAA Student-Athlete Health and Wellness Study (2023).



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## Patterns of Cigarette Use in the Last Year by Sport (Women's Sports)

	2009	2013	2017	2023
Ice Hockey	25%	8%	9%	17%
Field Hockey	16%	6%	6%	14%
Lacrosse	18%	13%	10%	13%
Rowing	13%	9%	6%	11%
Swimming & Diving	14%	7%	6%	9%
Golf	26%	11%	8%	9%
Tennis	15%	8%	9%	8%
Soccer	15%	5%	5%	6%
Softball	17%	10%	6%	6%
Volleyball	16%	6%	6%	5%
Track & Field	4%	3%	3%	4%
Basketball	11%	4%	3%	4%
Gymnastics	N/A	2%	1%	1%

Note: N/A – sample size was too small to report. Sources: NCAA Student-Athlete Substance Use Studies (2009, 2013, 2017) and NCAA Student-Athlete Health and Wellness Study (2023).



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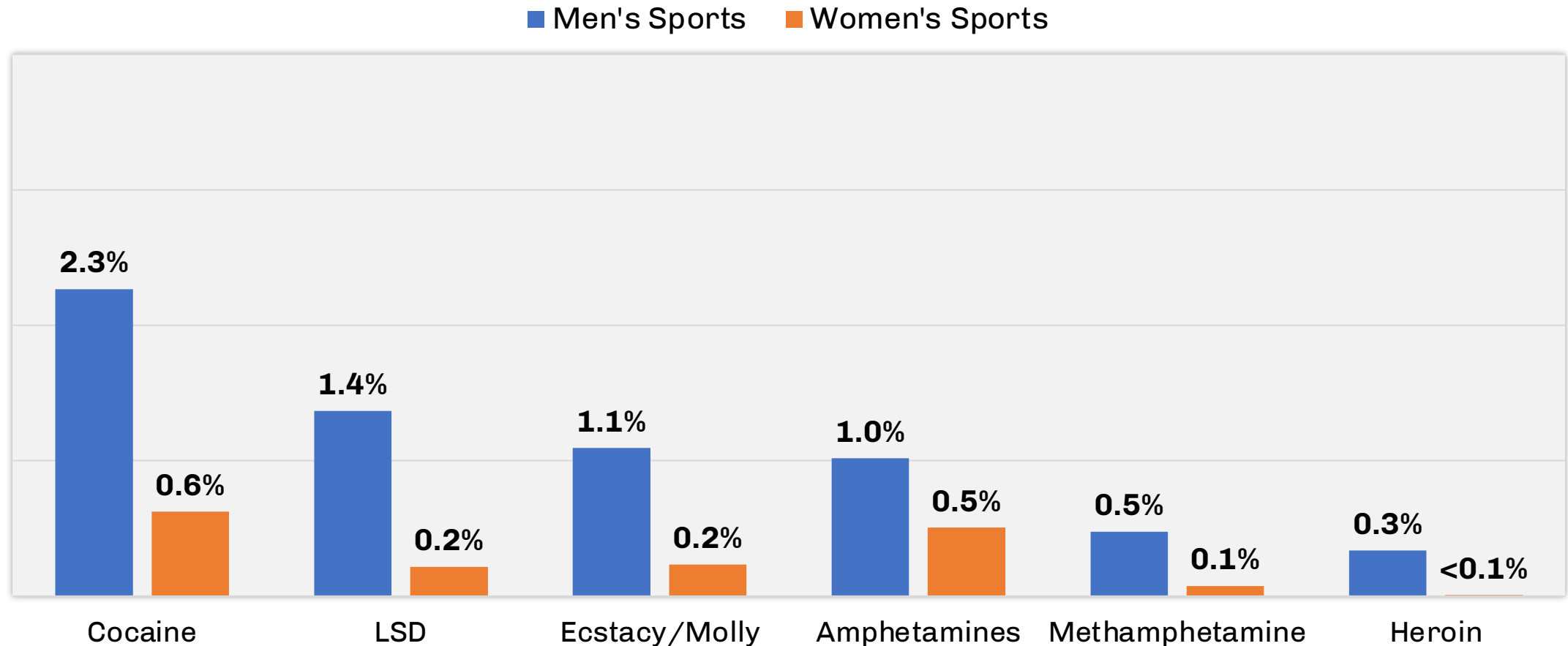
# Illegal Recreational Drugs

## Findings

- Generally, the use of illegal recreational drugs among student-athletes remains very low. This includes substances like cocaine, LSD, ecstasy/molly, and amphetamines. Historically, student-athletes use these substances at lower rates than other college students.
- Reported cocaine use by student-athletes in the past year decreased to 1.6% (down from 3.8% in 2017) and is lower among student-athletes than the general college student population (3.3%, MTF Study).
- Amphetamine use is low and has decreased since 2013. Reported use by student-athletes also continues to be lower than college students generally (0.8% vs. 4.8%, MTF Study).



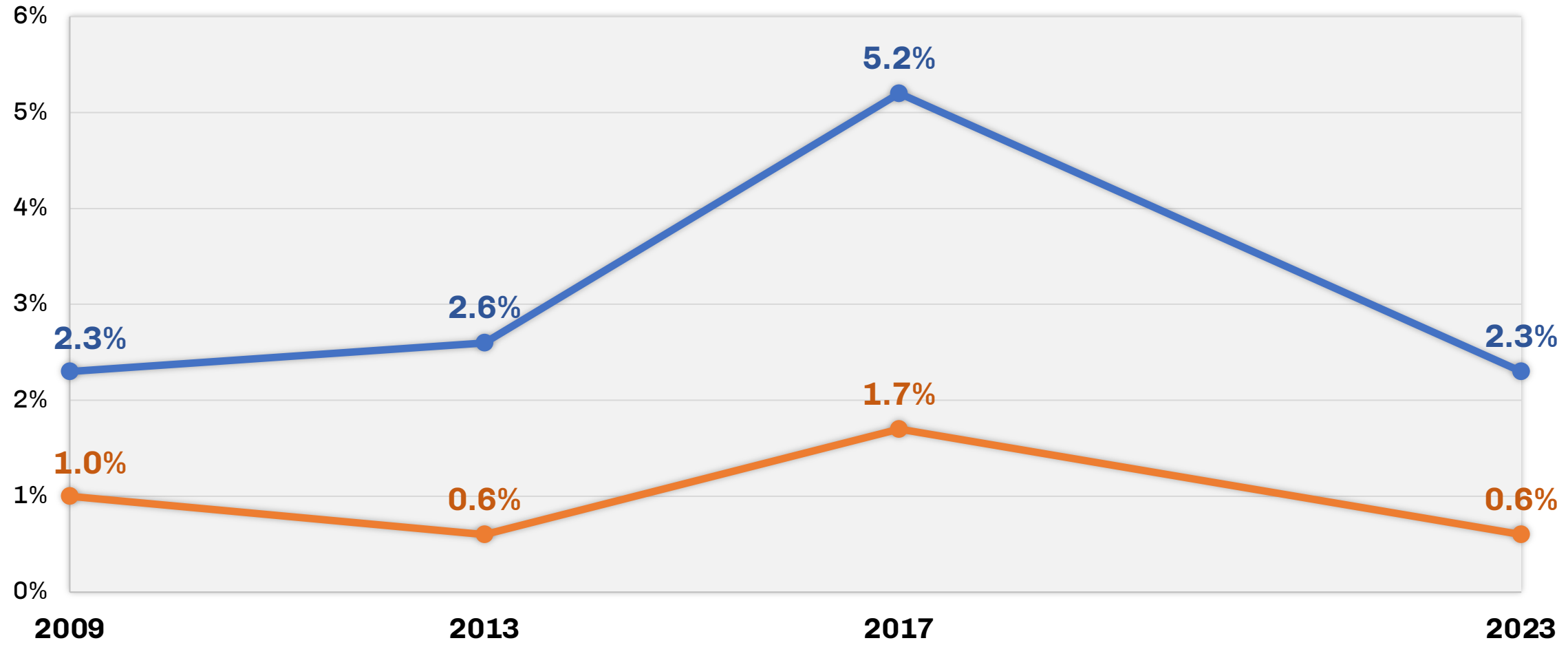
# Illegal Recreational Drug Use by Sport Gender (Within the Last Year)



Note: Anabolic agents include related metabolic modulators (e.g., HGH, testosterone). Source: NCAA Student-Athlete Health and Wellness Study (2023).

# Cocaine Use by Sport Gender (Within the Last Year)

Men's Sports      Women's Sports



Sources: NCAA Student-Athlete Substance Use Studies (2009, 2013, 2017) and NCAA Student-Athlete Health and Wellness Study (2023).



## Patterns of Cocaine Use in the Last Year by Sport (Men's Sports)

	2009	2013	2017	2023
Ice Hockey	4%	6%	7%	9%
Lacrosse	10%	10%	22%	7%
Swimming & Diving	2%	2%	7%	3%
Football	2%	2%	4%	2%
Soccer	3%	4%	6%	2%
Baseball	1%	2%	4%	2%
Basketball	1%	1%	2%	2%
Wrestling	4%	4%	7%	1%
Golf	3%	1%	5%	1%
Track & Field	1%	2%	2%	1%
Tennis	2%	2%	4%	1%

## Patterns of Cocaine Use in the Last Year by Sport (Women's Sports)

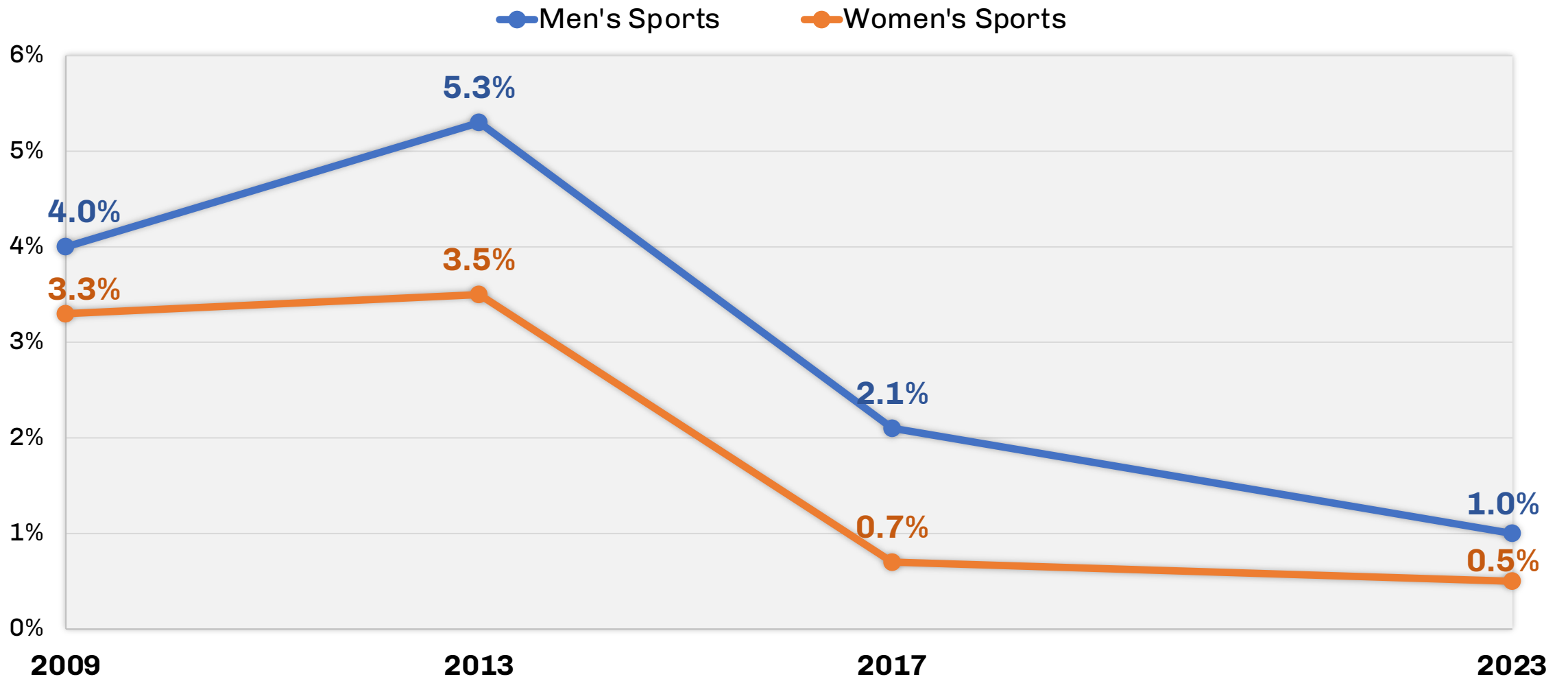
	2009	2013	2017	2023
Ice Hockey	2%	1%	4%	2%
Lacrosse	4%	1%	6%	2%
Field Hockey	2%	1%	1%	1%
Swimming & Diving	1%	1%	3%	1%
Golf	<1%	<1%	1%	1%
Soccer	1%	1%	2%	1%
Basketball	1%	<1%	1%	1%
Rowing	1%	<1%	2%	1%
Softball	1%	1%	1%	1%
Gymnastics	N/A	<1%	<1%	<1%
Tennis	1%	<1%	2%	<1%
Track & Field	<1%	1%	1%	<1%
Volleyball	1%	<1%	2%	<1%

Note: N/A – sample size was too small to report. Sources: NCAA Student-Athlete Substance Use Studies (2009, 2013, 2017) and NCAA Student-Athlete Health and Wellness Study (2023).



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# Amphetamine Use by Sport Gender (Within the Last Year)



Sources: NCAA Student-Athlete Substance Use Studies (2009, 2013, 2017) and NCAA Student-Athlete Health and Wellness Study (2023).

## Patterns of Amphetamine Use in the Last Year by Sport (Men's Sports)

	2009	2013	2017	2023
Tennis	4%	3%	2%	2%
Wrestling	8%	11%	3%	1%
Football	4%	4%	1%	1%
Lacrosse	12%	11%	7%	1%
Golf	3%	6%	2%	1%
Track & Field	1%	3%	1%	1%
Swimming & Diving	4%	6%	2%	1%
Baseball	4%	8%	3%	1%
Basketball	2%	2%	1%	1%
Soccer	4%	5%	2%	1%
Ice Hockey	7%	8%	3%	1%



## Patterns of Amphetamine Use in the Last Year by Sport (Women's Sports)

	2009	2013	2017	2023
Rowing	5%	3%	<1%	1%
Lacrosse	10%	7%	2%	1%
Track & Field	1%	1%	1%	1%
Softball	2%	5%	1%	1%
Soccer	5%	4%	<1%	1%
Field Hockey	6%	5%	1%	1%
Basketball	2%	3%	<1%	<1%
Swimming & Diving	3%	3%	1%	<1%
Gymnastics	N/A	4%	1%	<1%
Volleyball	3%	4%	<1%	<1%
Golf	3%	3%	2%	<1%
Ice Hockey	11%	6%	1%	<1%
Tennis	3%	3%	1%	<1%

Note: N/A – sample size was too small to report. Sources: NCAA Student-Athlete Substance Use Studies (2009, 2013, 2017) and NCAA Student-Athlete Health and Wellness Study (2023).



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# Performance Enhancers and Dietary Supplements

## Change in Performance Enhancer Use, 2017 to 2023 (Within Last Year)

	2017	2023
Andro or norandro	0.1%	0.2%
Clenbuterol	0.1%	0.1%
Dehydroepiandrosterone (DHEA)	0.1%	0.1%
DHCMT (oral turinabol)	--	0.1%
Epitestosterone	0.1%	0.1%
Erythropoietin (EPO)	0.1%	0.1%
Human chorionic gonadotrophin (HCG)	0.1%	<0.1%
Human growth hormone (HGH) – Injected	0.1%	0.1%
Human growth hormone (HGH) – Oral	0.1%	0.1%
Insulin	0.3%	0.1%
Prohormones	0.1%	0.0%
SARMs (e.g., LGD-4033, ostarine)	--	0.2%
Testosterone boosters	0.7%	0.2%
Other anabolic agents	0.2%	0.3%

Note: Participants were asked, “Within the last year, have you taken any of the following medications outside of their intended use, taking a dosage different from or taking it longer than what was prescribed or recommended?” 99.2% of participants in 2023 did not take any of the performance enhancers listed within the last year. Sources: NCAA Student-Athlete Substance Use Study (2017) and NCAA Student-Athlete Health and Wellness Study (2023).



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## Change in Dietary Supplement Use, 2017 to 2023 (Within Last Year)

	2017	2023
Protein products (e.g., whey, casein, soy)	42%	44%
Energy drinks (e.g., Red Bull, Monster)	31%	44%
General multivitamin	41%	41%
Creatine	13%	23%
Multivitamin/mineral with additives (e.g., caffeine)	16%	22%
Non-prescription sleep aid (e.g., Melatonin)	19%	20%
Iron	15%	19%
Fish oil	19%	18%
Calcium	16%	13%
Probiotic	9%	13%
Amino acids (e.g., BCAAs)	13%	12%
Herbal supplements (e.g., turmeric, Echinacea)	6%	7%
Weight gain products	6%	3%
Prescription sleep aid (e.g., Ambien, Ativan)	3%	2%

Note: 1% of student-athletes in 2023 reported using brain/memory enhancers, sexual enhancers, thermogenic/fat burners/weight loss products, glucosamine and/or chondroitin or diuretics. 30% of participants in 2023 did not take any of the items listed within the last year. Sources: NCAA Student-Athlete Substance Use Study (2017) and NCAA Student-Athlete Health and Wellness Study (2023).



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# Detailed Methodology

- This substance use study is based on data collected in a comprehensive [study](#) of student-athlete health and wellness during the 2022-23 academic year. This is the 10th study conducted by the NCAA since 1985 that has examined the use of drugs, alcohol and tobacco by student-athletes.
- Key items from the historical [NCAA Student-Athlete Substance Use Study](#) were subsumed within this instrument to monitor trends in substance use behaviors back to 2009.
- Faculty athletics representatives at all active member schools were asked to survey one to three pre-specified teams on campus. Selected teams were determined by a stratified random sampling procedure.
- The study was administered anonymously and on paper only (taking about 30 minutes to complete).
- Data collection began in October 2022 and concluded in June 2023.
- A total of 23,272 current student-athletes participated in the study; final data was weighted based on 2022-23 NCAA participation rates to ensure the representativeness of findings.
  - ▶ Responses by sport:
    - 14,001 men's sports student-athletes.
    - 9,271 women's sports student-athletes.
  - ▶ Responses by division:
    - 8,965 Division I student-athletes.
    - 5,902 Division II student-athletes.
    - 8,405 Division III student-athletes.





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