



UEFA Elite Club Injury Study

2016/17 season report

Team X

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1 Participating clubs

This season report contains results from July to May of the 2016/17 season for the 21 UEFA Champions League clubs that provided complete data for the whole season. The following teams are included: Arsenal FC, Bayer 04 Leverkusen, Borussia Dortmund, Celtic FC, Club Atlético de Madrid, Club Brugge, FC Barcelona, FC Basel 1893, FC København, FC Porto, GNK Dinamo Zagreb, Juventus, Leicester City FC, Manchester City FC, Paris Saint-Germain, PSV Eindhoven, Real Madrid CF, SL Benfica, Sporting Clube de Portugal, SSC Napoli and Tottenham Hotspur FC.

2 Presentation

The report is divided into nine sections, with data on exposure, general injury patterns, training injuries, match injuries, severe injuries, muscle injuries, ligament injuries, re-injuries, and squad attendance/availability and absence. Each injury section is split into four sub-sections:

- **Injury patterns:** the number of injuries of this type over the season and their relative distribution as a percentage of the total number of injuries, looking at injury location, type, mechanism, overuse/trauma, contact/non-contact, severity, re-injury rate, monthly distribution and injury occasion.
- **Injury rate:** the number of injuries of this type relative to exposure time, allowing the individual injury rate to be evaluated. Injury rate is expressed as the number of injuries per 1,000 hours of exposure.
- **Days' absence:** total number of days lost because of specific injuries and the minimum, maximum and average period of absence for such injuries.
- **Injury burden:** a combined measure of the frequency (injury rate) and severity (days' absence) of injuries giving the burden of injury for the player and the consequences for the team. Injury burden is expressed as the number of days of absence per 1,000 hours of exposure. Example: Team A, with 10 injuries in 5,000 hours, each resulting in an absence of 10 days on average, has an injury burden of 20 days for every 1,000 hours. Team B, with 20 injuries in 5,000 hours, each resulting in an absence of 5 days on average, also has an injury burden of 20 days per 1,000 hours.

3 Interpretation of results

When comparing your club's results with those of other participating clubs, please bear the following in mind:

- Because of the limited amounts of data collected over one season, the injury rates presented are sometimes based on just a few actual injuries. This means that some results should be interpreted with caution.
- The overall number of injuries varies between clubs, mainly because of the number of minor injuries. It is therefore important to look not only at the overall injury rate, but also at the data on severe injuries and squad availability, as these variables may have a greater impact on the club.
- In the case of players who were still injured at the end of the season, we have used either the club's estimated return date or an approximation of severity based on the mean absence for the particular injury. Some data on the number of days' absence and injury risk presented in the report could therefore be based on approximate values/estimates.

We hope that you will find this report useful in your daily work treating and preventing injuries at your club. Please do not hesitate to contact the Football Research Group (FRG) if you have any questions about how to interpret the results.

4 Exposure

A total of 170,000 hours of exposure were recorded during the 2016/17 season by the 21 UEFA Champions League clubs that provided complete data for the whole season, with approximately 145,000 training hours (85%) and 25,000 match hours (15%). Team X reported 8,500 hours of total exposure, with 7,500 training hours (88%) and 1,000 match hours (12%). On average, the teams reported 232 training sessions and 60 matches over the review period. Since the reporting period differed between teams, we have also calculated a monthly training and match load. On average, the teams had 21 training sessions and 5.5 matches each month, giving an average training-to-match exposure ratio of 6.3 hours of training for each hour of match play.

Figure 1. Number of training sessions per month

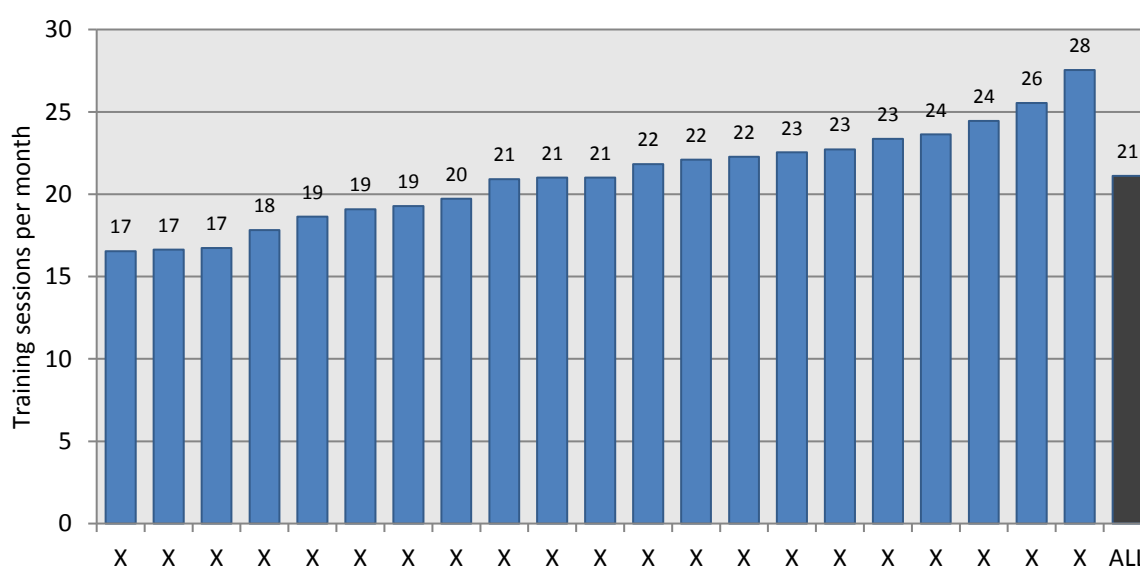


Figure 2. Number of matches per month

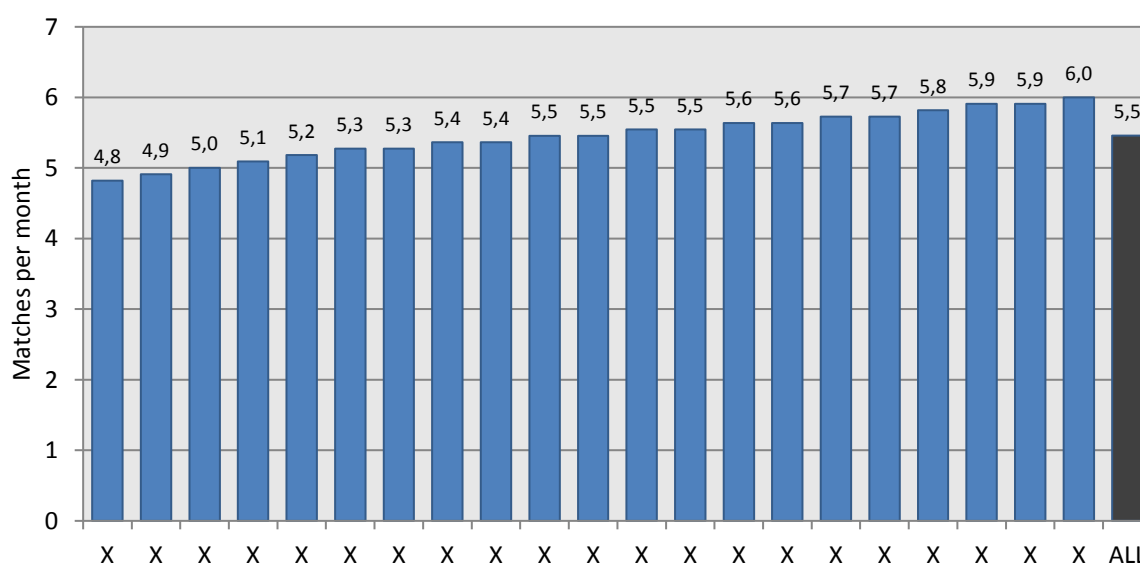


Figure 3. Ratio of training hours to match hours

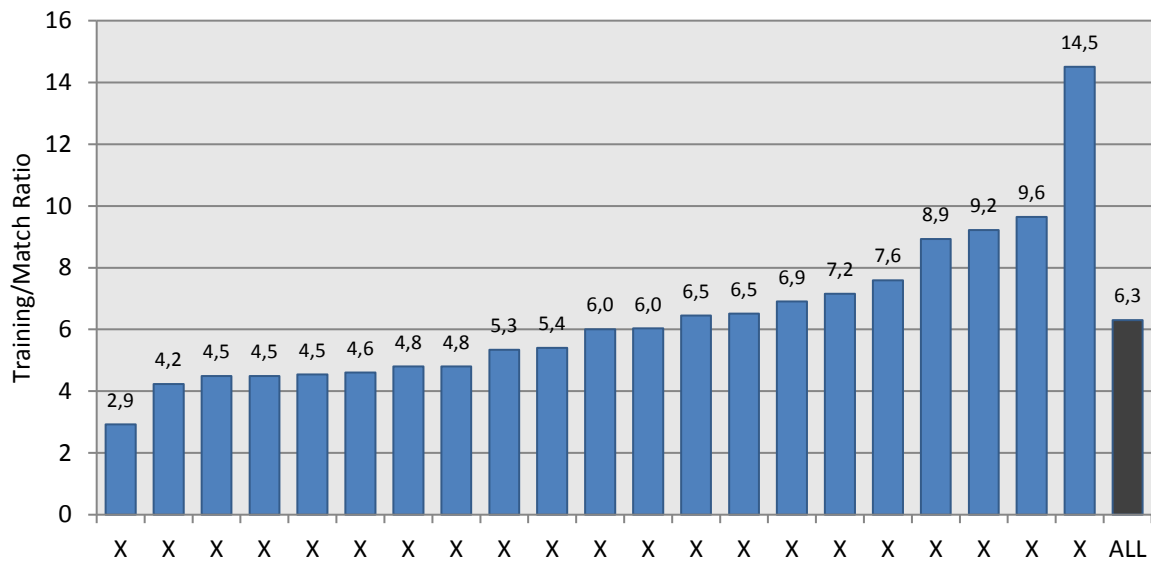
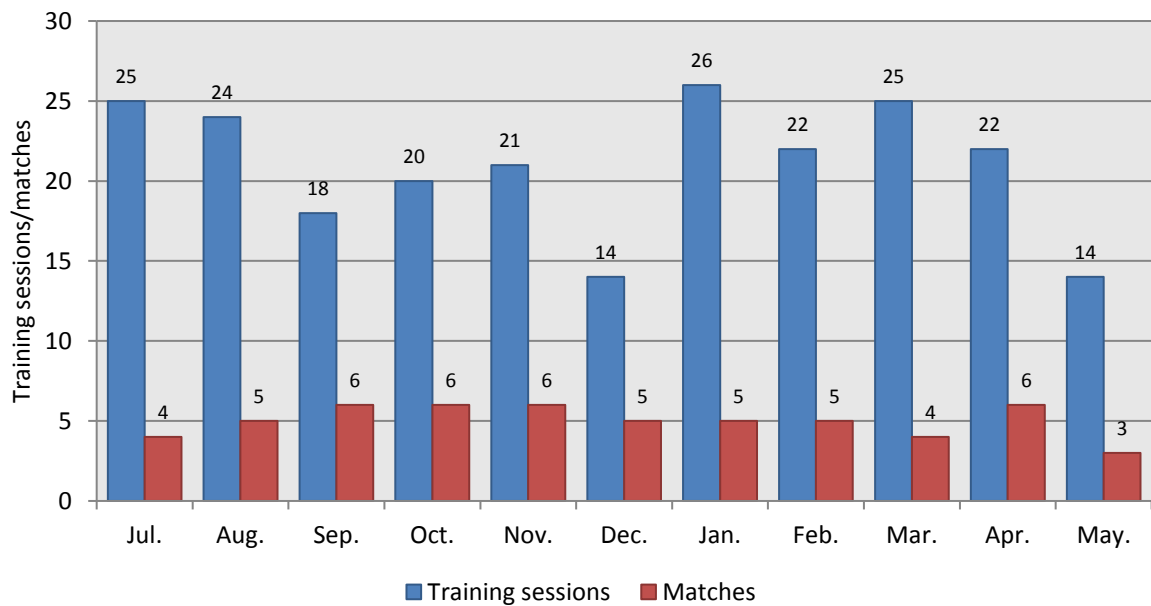


Figure 4. Number of **Team X's** training sessions (blue bars) and matches (red bars) throughout the season



5 General injury patterns

The tables below show the number (No.) and relative distribution (%) of different injuries. In total the 21 UEFA Champions League clubs that provided complete data for the whole 2016/17 season reported 795 injuries, with 339 training injuries (43%) and 456 match injuries (57%). There were 142 severe injuries (18%), 359 muscle injuries (45%) and 132 ligament injuries (17%).

Team X reported 40 injuries (18 training injuries and 22 match injuries) during the season, including 4 severe injuries, 15 muscle injuries and 7 ligament injuries.

Table 1. Injury locations

	Training				Match play				Total			
	Team X		Other teams		Team X		Other teams		Team X		Other teams	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Head/face	0	0.0	1	0.3	0	0.0	16	3.7	0	0.0	17	2.3
Neck/cervical spine	0	0.0	2	0.6	0	0.0	0	0.0	0	0.0	2	0.3
Shoulder/clavicle	1	4.8	0	0.0	0	0.0	8	1.9	1	2.2	8	1.1
Wrist	0	0.0	0	0.0	0	0.0	2	0.5	0	0.0	2	0.3
Hand/finger/thumb	0	0.0	1	0.3	0	0.0	4	0.9	0	0.0	5	0.7
Sternum/ribs/upper back	0	0.0	3	0.9	0	0.0	6	1.4	0	0.0	9	1.2
Abdomen	0	0.0	5	1.6	0	0.0	3	0.7	0	0.0	8	1.1
Lower back/pelvis/sacrum	0	0.0	19	6.0	2	8.3	11	2.6	2	4.4	30	4.0
Hip/groin	6	28.6	64	20.1	3	12.5	56	13.1	9	20.0	120	16.1
Thigh	4	19.0	88	27.7	8	33.3	124	28.9	12	26.7	212	28.4
Knee	2	9.5	45	14.2	3	12.5	74	17.2	5	11.1	119	15.9
Lower leg/Achilles tendon	4	19.0	44	13.8	2	8.3	36	8.4	6	13.3	80	10.7
Ankle	4	19.0	33	10.4	6	25.0	66	15.4	10	22.2	99	13.3
Foot/toe	0	0.0	13	4.1	0	0.0	23	5.4	0	0.0	36	4.8
Total	21	100.0	318	100.0	24	100.0	429	100.0	45	100.0	747	100.0

Table 2. Injury types

	Training				Match play				Total			
	Team X		Other teams		Team X		Other teams		Team X		Other teams	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Fracture	1	7.7	7	2.1	0	0.0	22	5.1	1	2.9	29	3.8
Other bone injury	0	0.0	3	0.9	0	0.0	0	0.0	0	0.0	3	0.4
Dislocation/subluxation	0	0.0	0	0.0	1	4.5	6	1.4	1	2.9	6	0.8
Sprain/ligament injury	3	23.1	35	10.7	5	22.7	89	20.6	8	22.9	124	16.4
Meniscus/cartilage	0	0.0	10	3.1	1	4.5	12	2.8	1	2.9	22	2.9
Muscle rupture/strain/cramps	5	38.5	169	51.8	12	54.5	173	40.1	17	48.6	342	45.2
Tendon injury/rupture/tendinosis	3	23.1	32	9.8	1	4.5	20	4.6	4	11.4	52	6.9
Haematoma/contusion/bruise	0	0.0	29	8.9	2	9.1	63	14.6	2	5.7	92	12.2
Laceration	0	0.0	1	0.3	0	0.0	6	1.4	0	0.0	7	0.9
Concussion	0	0.0	1	0.3	0	0.0	11	2.6	0	0.0	12	1.6
Nerve injury	0	0.0	1	0.3	0	0.0	1	0.2	0	0.0	2	0.3
Synovitis/effusion	0	0.0	7	2.1	0	0.0	9	2.1	0	0.0	16	2.1
Overuse not specified	0	0.0	26	8.0	0	0.0	14	3.2	0	0.0	40	5.3
Other injury	1	7.7	5	1.5	0	0.0	5	1.2	1	2.9	10	1.3
Total	13	100.0	326	100.0	22	100.0	431	100.0	35	100.0	757	100.0

Table 3. Injury mechanism

	Training				Match play				Total			
	Team X		Other teams		Team X		Other teams		Team X		Other teams	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Running/sprinting	7	25.9	55	19.4	3	20.0	80	19.7	10	23.8	135	19.5
Twisting/turning	3	11.1	21	7.4	0	0.0	32	7.9	3	7.1	53	7.7
Shooting	1	3.7	36	12.7	0	0.0	14	3.4	1	2.4	50	7.2
Passing/crossing	3	11.1	13	4.6	0	0.0	15	3.7	3	7.1	28	4.1
Dribbling	1	3.7	3	1.1	0	0.0	8	2.0	1	2.4	11	1.6
Jumping/landing	0	0.0	8	2.8	0	0.0	14	3.4	0	0.0	22	3.2
Falling/diving	1	3.7	6	2.1	0	0.0	8	2.0	1	2.4	14	2.0
Stretching	2	7.4	11	3.9	1	6.7	13	3.2	3	7.1	24	3.5
Sliding	0	0.0	5	1.8	0	0.0	13	3.2	0	0.0	18	2.6
Overuse	8	29.6	67	23.6	2	13.3	38	9.3	10	23.8	105	15.2
Hit by ball	1	3.7	4	1.4	0	0.0	5	1.2	1	2.4	9	1.3
Collision	0	0.0	8	2.8	0	0.0	26	6.4	0	0.0	34	4.9
Heading	0	0.0	0	0.0	0	0.0	1	0.2	0	0.0	1	0.1
Tackled	0	0.0	18	6.3	5	33.3	66	16.2	5	11.9	84	12.2
Tackling	0	0.0	4	1.4	0	0.0	15	3.7	0	0.0	19	2.7
Kicked	0	0.0	14	4.9	3	20.0	39	9.6	3	7.1	53	7.7
Blocked	0	0.0	1	0.4	1	6.7	5	1.2	1	2.4	6	0.9
Use of arm/elbow	0	0.0	0	0.0	0	0.0	4	1.0	0	0.0	4	0.6
Other acute	0	0.0	10	3.5	0	0.0	11	2.7	0	0.0	21	3.0
Total	27	100.0	284	100.0	15	100.0	407	100.0	42	100.0	691	100.0

Table 4. Overuse/trauma distribution

	Training				Match play				Total			
	Team X		Other teams		Team X		Other teams		Team X		Other teams	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Overuse	7	26.9	146	46.8	4	13.8	121	28.5	11	20.0	267	36.3
Trauma	19	73.1	166	53.2	25	86.2	303	71.5	44	80.0	469	63.7
Total	26	100.0	312	100.0	29	100.0	424	100.0	55	100.0	736	100.0

Table 5. Contact/non-contact distribution

	Training				Match play				Total			
	Team X		Other teams		Team X		Other teams		Team X		Other teams	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Non-contact	14	82.4	271	84.4	20	60.6	247	58.8	34	68.0	518	69.9
Contact player	2	11.8	44	13.7	12	36.4	164	39.0	14	28.0	208	28.1
Contact object	1	5.9	6	1.9	1	3.0	9	2.1	2	4.0	15	2.0
Total	17	100.0	321	100.0	33	100.0	420	100.0	50	100.0	741	100.0

Table 6. Injury severity

	Training				Match play				Total			
	Team X		Other teams		Team X		Other teams		Team X		Other teams	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Slight [0 days]	0	0.0	4	1.2	0	0.0	1	0.2	0	0.0	5	0.7
Minimal [1–3 days]	3	30.0	54	16.4	1	4.8	41	9.4	4	12.9	95	12.4
Mild [4–7 days]	0	0.0	90	27.4	4	19.0	93	21.4	4	12.9	183	24.0
Moderate [8–28]	6	60.0	135	41.0	8	38.1	213	49.0	14	45.2	348	45.5
Severe [>28 days]	1	10.0	46	14.0	8	38.1	87	20.0	9	29.0	133	17.4
Total	10	100.0	329	100.0	21	100.0	435	100.0	31	100.0	764	100.0

Table 7. Re-injury rate

	Training				Match play				Total			
	Team X		Other teams		Team X		Other teams		Team X		Other teams	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
No re-injury	25	83.3	282	91.3	17	94.4	407	92.9	42	87.5	689	92.2
Re-injury	5	16.7	26	8.4	1	5.6	28	6.4	6	12.5	54	7.2
Unknown	0	0.0	1	0.3	0	0.0	3	0.7	0	0.0	4	0.5
Total	30	100.0	309	100.0	18	100.0	438	100.0	48	100.0	747	100.0

Table 8. Monthly distribution of injuries

	Training				Match play				Total			
	Team X		Other teams		Team X		Other teams		Team X		Other teams	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
July	0	0.0	39	11.8	0	0.0	27	6.2	0	0.0	66	8.6
August	0	0.0	27	8.2	0	0.0	31	7.1	0	0.0	58	7.6
September	1	11.1	34	10.3	3	13.6	48	11.1	4	12.9	82	10.7
October	2	22.2	36	10.9	3	13.6	53	12.2	5	16.1	89	11.6
November	0	0.0	30	9.1	5	22.7	49	11.3	5	16.1	79	10.3
December	0	0.0	23	7.0	1	4.5	36	8.3	1	3.2	59	7.7
January	2	22.2	37	11.2	0	0.0	44	10.1	2	6.5	81	10.6
February	1	11.1	24	7.3	3	13.6	29	6.7	4	12.9	53	6.9
March	1	11.1	28	8.5	4	18.2	45	10.4	5	16.1	73	9.6
April	2	22.2	28	8.5	1	4.5	48	11.1	3	9.7	76	9.9
May	0	0.0	24	7.3	2	9.1	24	5.5	2	6.5	48	6.3
June	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total	9	100.0	330	100.0	22	100.0	434	100.0	31	100.0	764	100.0

Table 9. Injury occasion

	Training				Match play				Total			
	Team X		Other teams		Team X		Other teams		Team X		Other teams	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
First team	25	89.3	256	94.5	13	76.5	358	86.3	38	84.4	614	89.5
Reserve team	0	0.0	0	0.0	4	23.5	16	3.9	4	8.9	16	2.3
National team	3	10.7	15	5.5	0	0.0	41	9.9	3	6.7	56	8.2
Total	28	100.0	271	100.0	17	100.0	415	100.0	45	100.0	686	100.0

5.1 Training injury patterns

5.1.1 Training injury rate

The mean training injury rate for all teams was 2.3 injuries for every 1,000 training hours, with individual rates ranging from 0.1 to 4.2.

Figure 5. Training injury rate

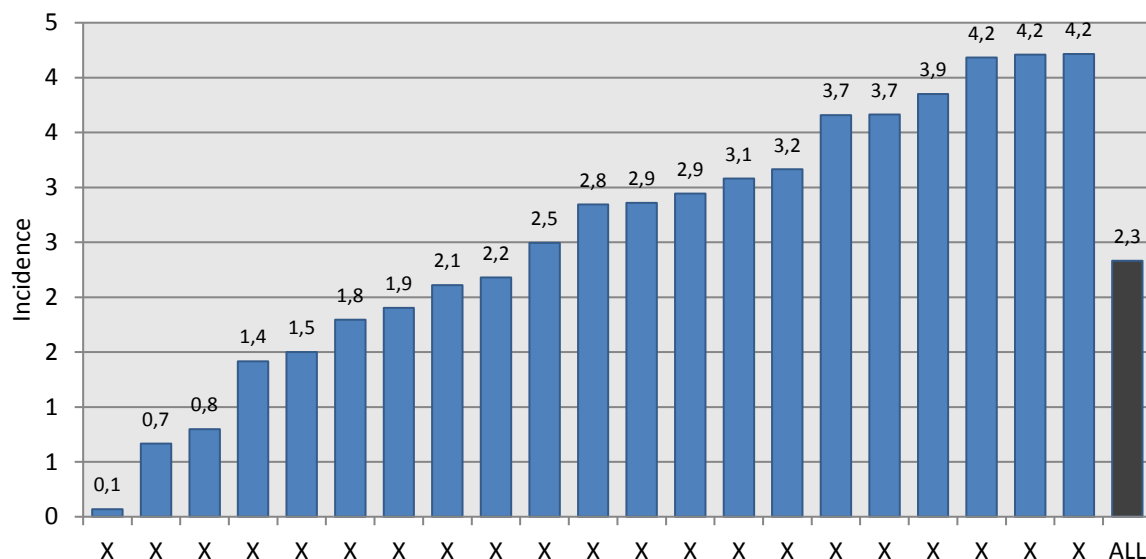
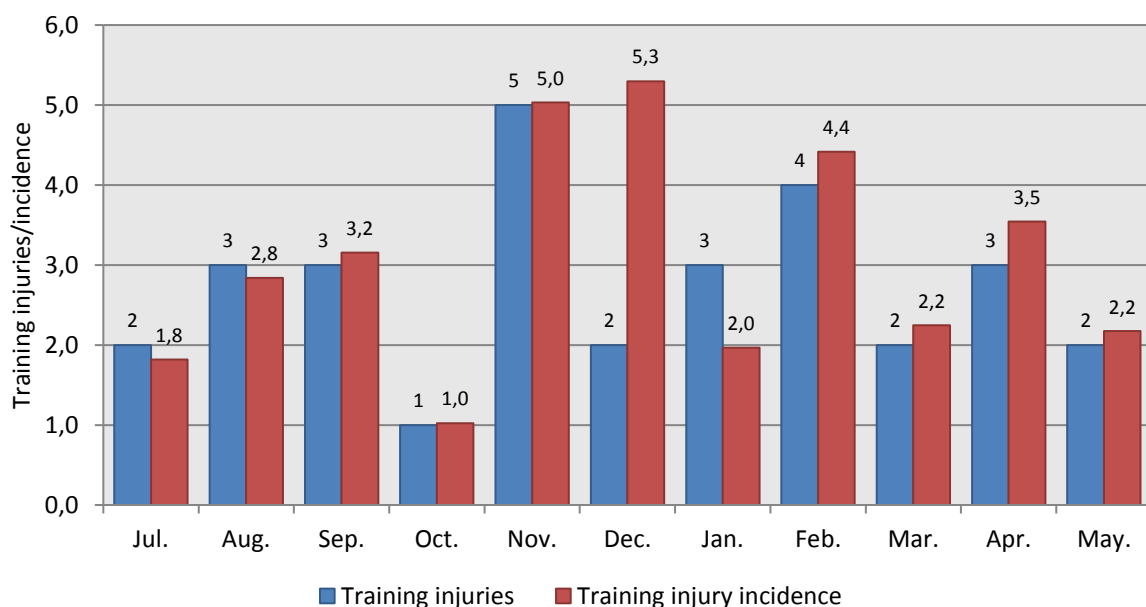


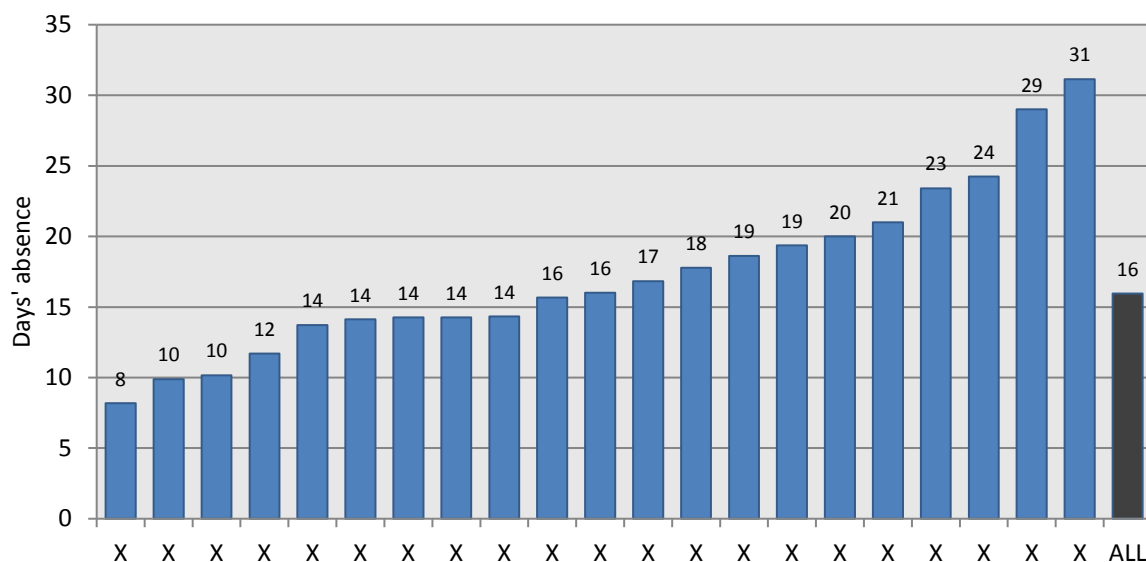
Figure 6. Monthly distribution of training injuries (blue bars) and training injury rates (red bars) for **Team X** across the season



5.1.2 Days' absence for training injuries

The average absence for training injuries among the teams was 16 days, with individual absences ranging from 8 to 31 days.

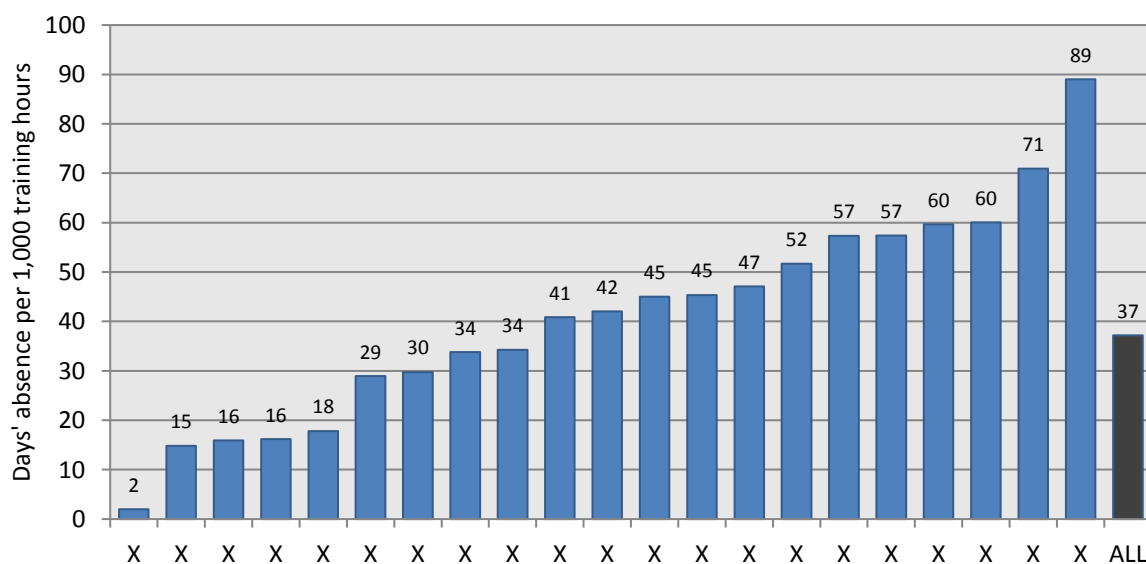
Figure 7. Days' absence for training injuries



5.1.3 Burden of training injuries

The mean injury burden in training was 37 days' absence per 1,000 hours, with individual absences ranging from 2 to 89 days.

Figure 8. Training injury burden



5.2 Match injury patterns

5.2.1 Match injury rate

The mean match injury rate for all teams was 19.8 injuries for every 1,000 match hours, with individual rates ranging from 7.1 to 37.6.

Figure 9. Match injury rate

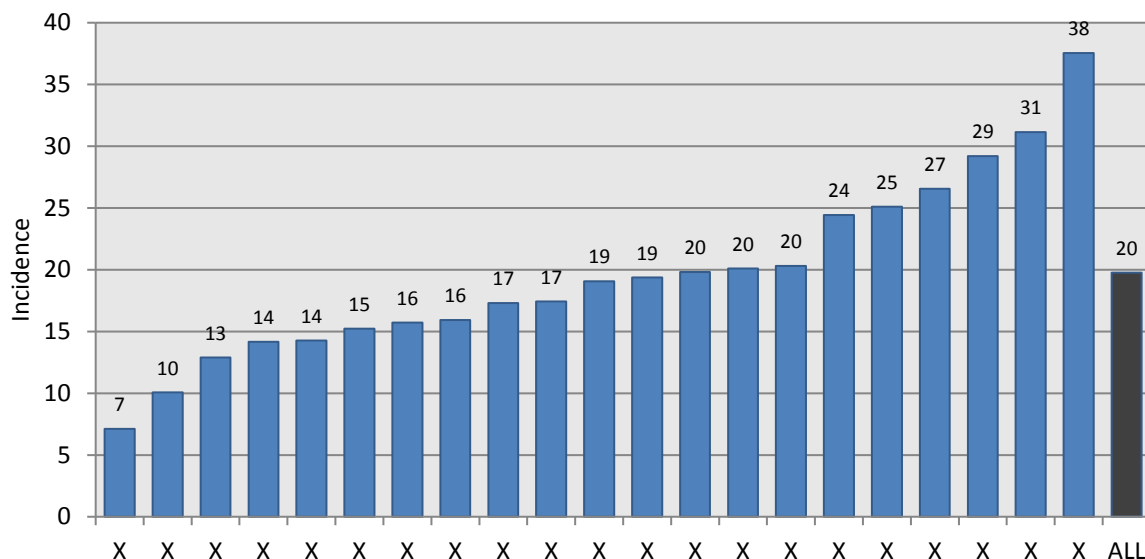
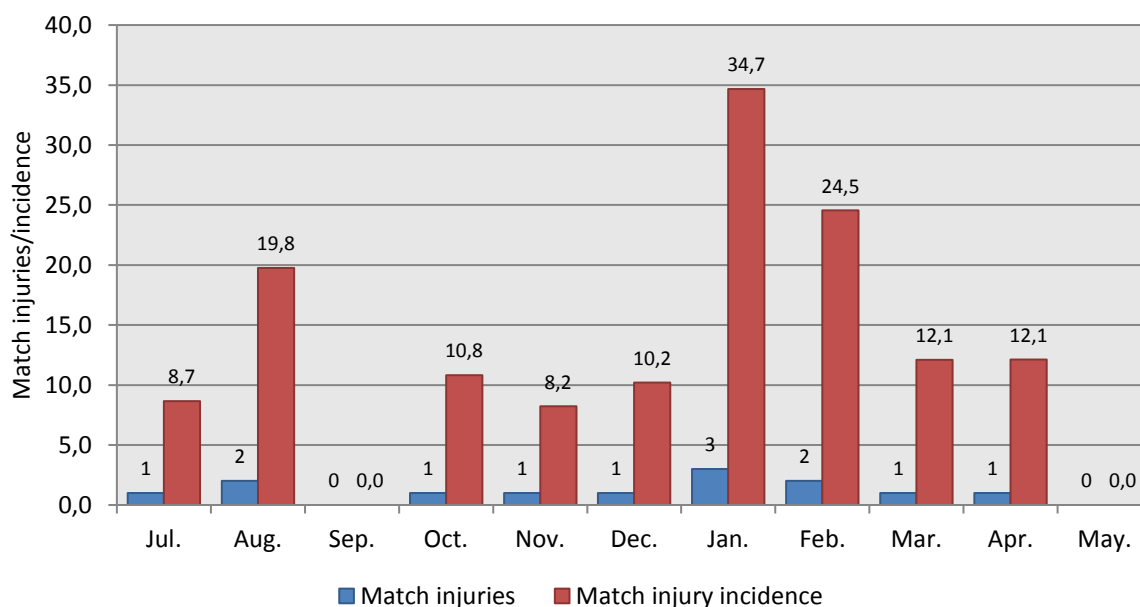


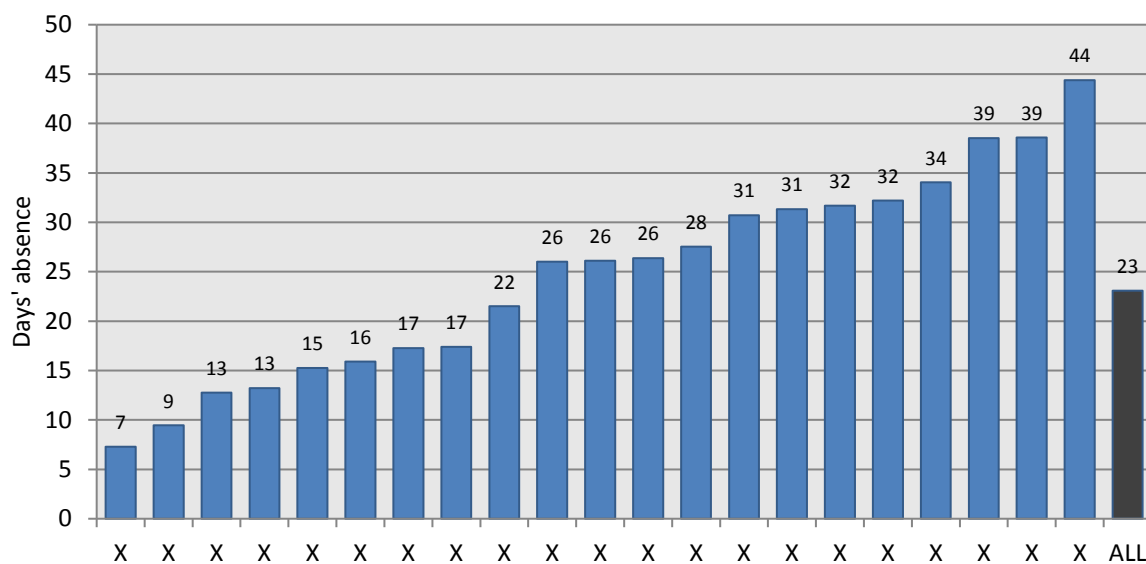
Figure 10. Monthly distribution of match injuries (blue bars) and match injury rates (red bars) for **Team X** across the season



5.2.2 Days' absence for match injuries

The average absence for match injuries among the teams was 23 days, with individual absences ranging from 7 to 44 days.

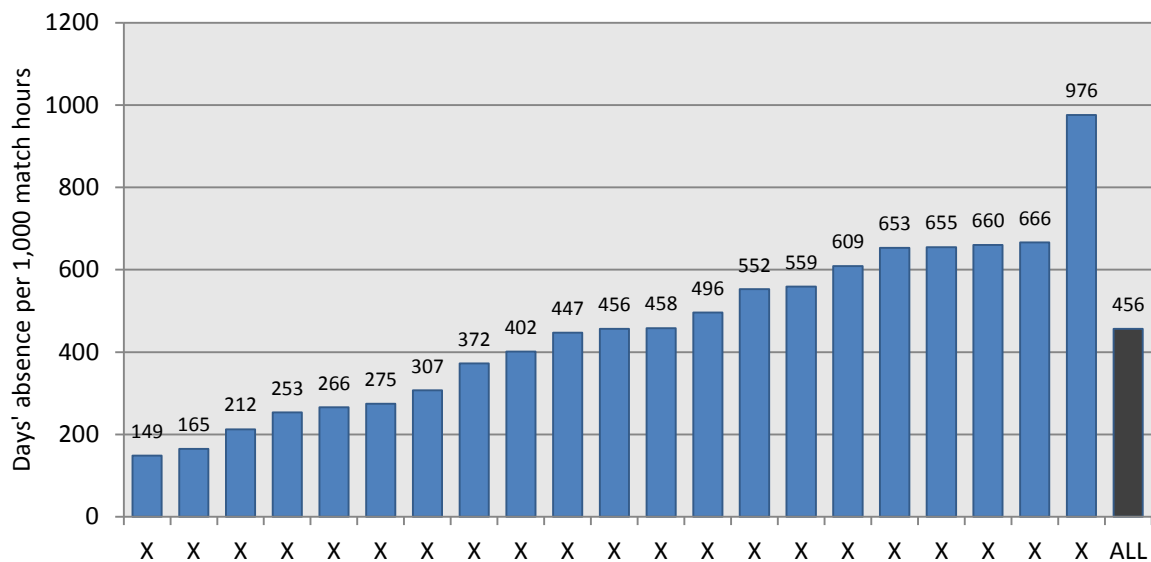
Figure 11. Days' absence for match injuries



5.2.3 Burden of match injuries

The mean injury burden in match play was 456 days' absence per 1,000 hours, with individual absences ranging from 149 to 976 days.

Figure 12. Match injury burden



5.3 Severe injury patterns

Injuries resulting in more than four weeks' absence are classified as severe injuries.

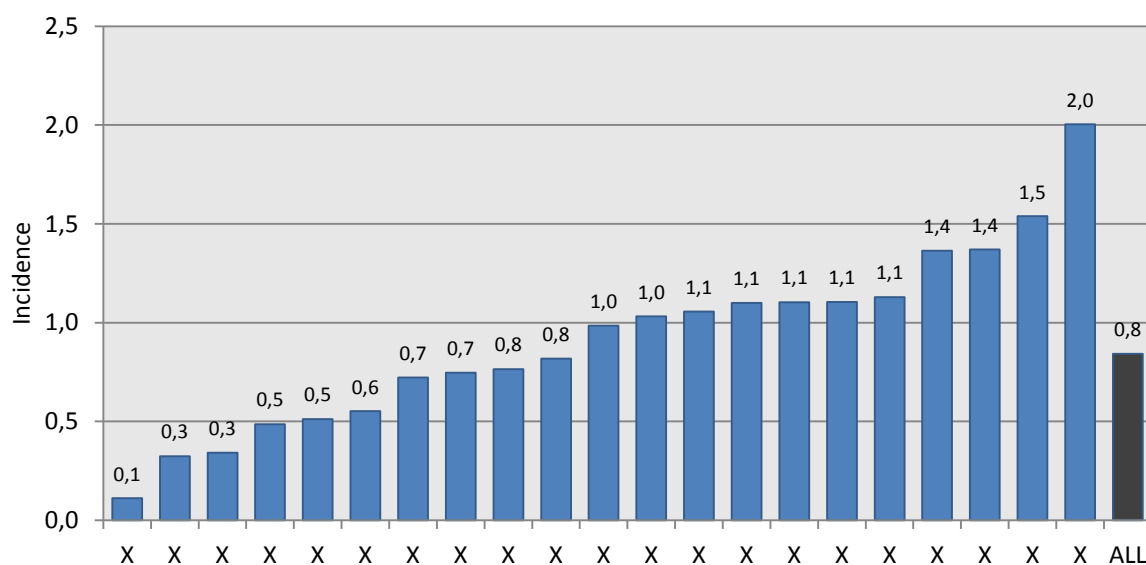
Table 10. Severe injury diagnoses

Diagnosis description	Team X		Other teams	
	No.	%	No.	%
[LZXX] Lumbar pain/Injury not specified	1	20.0	0	0.0
[TMHB] Biceps femoris strain, grades 1–2	1	20.0	8	5.9
[TMAL] Adductor longus strain	1	20.0	3	2.2
[KJMB] Grade 2 MCL tear	1	20.0	6	4.4
[KCML] Lateral meniscal tear	1	20.0	0	0.0
Total	5	100.0	142	100.0

5.3.1 Severe injury rate

The mean severe injury rate for all teams was 0.8 severe injuries for every 1,000 hours, with individual rates ranging from 0.1 to 2.0. Please note that, since total absences are unknown for players who were still injured at the time of writing, the true figures may differ slightly from those presented here.

Figure 13. Severe injury rate



5.4 Muscle injury patterns

Table 11. Muscle injury diagnoses

Diagnosis description	Team X		Other teams	
	No.	%	No.	%
[TMXX] Thigh muscle strain/spasm/trigger points	1	16.7	5	1.5
[TMHX] Hamstring strain	1	16.7	17	5.0
[TMQS] Rectus femoris strain	1	16.7	23	6.8
[TMQV] Other quadricep strain	1	16.7	4	1.2
[TMYA] Adductor trigger points	1	16.7	18	5.3
[QMXX] Lower leg muscle Injury	1	16.7	1	0.3
Total	6	100.0	338	100.0

Table 12. Mechanism of muscle injuries

	Total			
	Team X		Other teams	
	No.	%	No.	%
Running/sprinting	4	18.2	123	38.8
Twisting/turning	2	9.1	20	6.3
Shooting	1	4.5	40	12.6
Passing/crossing	3	13.6	18	5.7
Dribbling	0	0.0	6	1.9
Jumping/landing	1	4.5	3	0.9
Falling/diving	0	0.0	2	0.6
Stretching	2	9.1	22	6.9
Sliding	0	0.0	10	3.2
Overuse	8	36.4	50	15.8
Collision	0	0.0	5	1.6
Tackled	0	0.0	2	0.6
Tackling	0	0.0	4	1.3
Kicked	1	4.5	0	0.0
Blocked	0	0.0	1	0.3
Other acute mechanism	0	0.0	11	3.5
Total	22	100.0	317	100.0

Table 13. Contact/non-contact muscle injuries

	Total			
	Team X		Other teams	
	No.	%	No.	%
Non-contact	1	33.3	46	35.7
Contact player	2	66.7	76	58.9
Contact object	0	0.0	7	5.4
N/A	0	0.0	0	0.0
Total	3	100.0	129	100.0

Table 14. Severity of muscle injuries

	Total			
	Team X		Other teams	
	No.	%	No.	%
Slight [0 days]	0	0.0	2	0.6
Minimal [1–3 days]	2	18.2	32	9.2
Mild [4–7 days]	1	9.1	82	23.6
Moderate [8–28 days]	8	72.7	200	57.5
Severe [>28 days]	0	0.0	32	9.2
Total	11	100.0	348	100.0

Table 15. Re-injury rate for muscle injuries

	Total			
	Team X		Other teams	
	No.	%	No.	%
No re-injury	10	100.0	332	92.5
Re-injury	0	0.0	27	7.5
Total	10	100.0	359	100.0

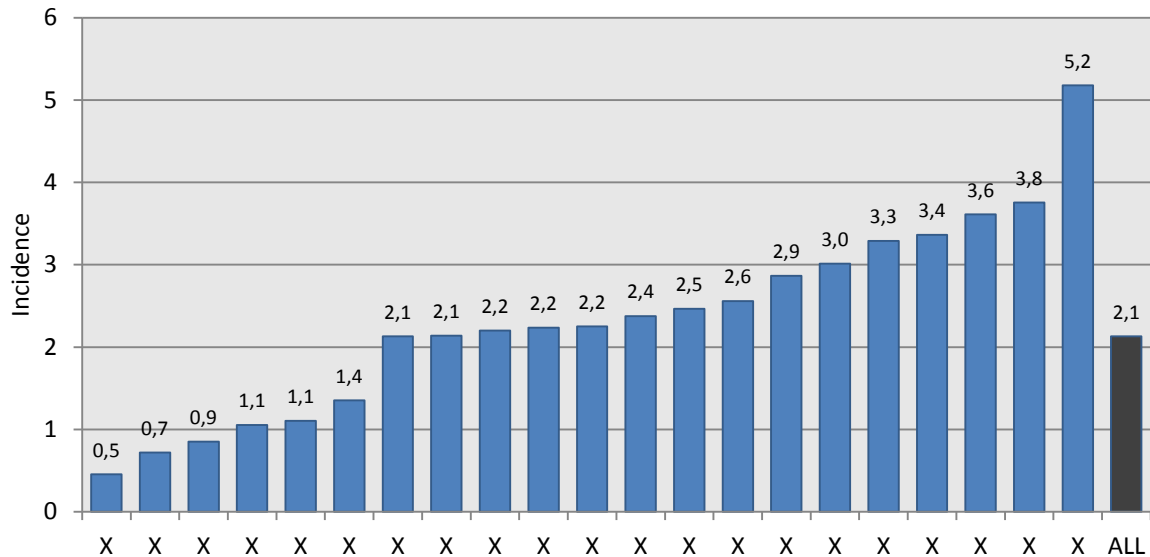
Table 16. Monthly distribution of muscle injuries

	Total			
	Team X		Other teams	
	No.	%	No.	%
July	7	31.8	16	4.7
August	1	4.5	29	8.6
September	4	18.2	34	10.1
October	0	0.0	40	11.9
November	3	13.6	30	8.9
December	1	4.5	29	8.6
January	0	0.0	35	10.4
February	1	4.5	30	8.9
March	2	9.1	37	11.0
April	3	13.6	32	9.5
May	0	0.0	25	7.4
June	0	0.0	0	0.0
Total	22	100.0	337	100.0

5.4.1 Muscle injury rate

The mean muscle injury rate for all teams was 2.1 injuries for every 1,000 hours, with individual rates ranging from 0.5 to 5.2.

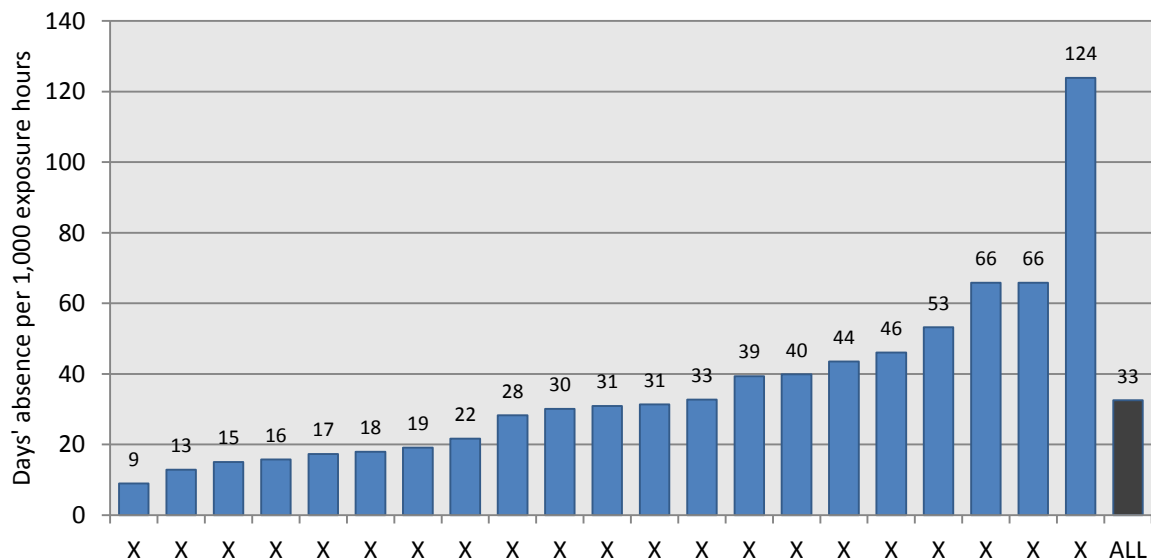
Figure 14. Muscle injury rate



5.4.2 Burden of muscle injuries

The mean injury burden for muscle injury was 33 days' absence per 1,000 hours, with individual absences ranging from 9 to 124 days.

Figure 15. Muscle injury burden



5.4.3 Days' absence for muscle injuries

Table 17. Days' absence for muscle injuries

Diagnosis description	Muscle injuries											
	Team X						Other teams					
	No.	Sum	Mean	Med	Min	Max	No.	Sum	Mean	Med	Min	Max
[OMMO] Oblique muscle strain	1	6	6.0	6.0	6	6	3	65	21.7	21.0	17	27
[TMHS] Semimembranosus/tendinosis strain	1	32	32.0	32.0	32	32	20	258	12.9	11.5	1	34
[TMQS] Rectus femoris strain	1	1	1.0	1.0	1	1	23	473	20.6	20.0	1	54
[TMYA] Adductor trigger points	1	2	2.0	2.0	2	2	18	89	4.9	5.0	1	12
[QMXX] Lower leg muscle Injury	1	14	14.0	14.0	14	14	1	19	19.0	19.0	19	19
[QMGX] Gastrocnemius muscle injury/strain	1	0	0.0	0.0	0	0	1	21	21.0	21.0	21	21
Total	22	171	7.8	6.0	0	32	337	5314	15.8	12.0	0	198

No. = number of injuries within each category

Sum = total number of days lost because of injury (consequences for the team)

Mean= average number of days' absence per injury (expected recovery time)

Med = median days' absence for all injuries within the category (expected recovery time)

Min = shortest absence for an injury

Max = longest absence for an injury

5.5 Ligament injury patterns

Table 18. Ligament injury diagnoses

Diagnosis description	Team X		Other teams	
	No.	%	No.	%
[AJSX] Ankle syndesmosis sprain	1	33.3	6	4.9
[AJLX] Ankle lateral ligament sprain	1	33.3	5	4.1
[AJDX] Ankle deltoid ligament sprain	1	33.3	6	4.9
Total	3	100.0	122	100.0

Table 19. Mechanism of ligament injuries

	Total			
	Team X		Other teams	
	No.	%	No.	%
Running/sprinting	7	35.0	120	37.6
Twisting/turning	0	0.0	22	6.9
Shooting	4	20.0	37	11.6
Passing/crossing	0	0.0	21	6.6
Dribbling	0	0.0	6	1.9
Jumping/landing	0	0.0	4	1.3
Falling/diving	0	0.0	2	0.6
Stretching	2	10.0	22	6.9
Sliding	1	5.0	9	2.8
Overuse	5	25.0	53	16.6
Collision	0	0.0	5	1.6
Tackled	0	0.0	2	0.6
Tackling	0	0.0	4	1.3
Kicked	0	0.0	1	0.3
Blocked	1	5.0	0	0.0
Other acute mechanism	0	0.0	11	3.4
Total	20	100.0	319	100.0

Table 20. Contact/non-contact ligament injuries

	Total			
	Team X		Other teams	
	No.	%	No.	%
Non-contact	25	100.0	317	94.9
Contact player	0	0.0	15	4.5
Contact object	0	0.0	2	0.6
N/A	0	0.0	0	0.0
Total	25	100.0	334	100.0

Table 21. Severity of ligament injuries

	Total			
	Team X		Other teams	
	No.	%	No.	%
Slight [0 days]	0	0.0	2	0.6
Minimal [1–3 days]	2	12.5	32	9.3
Mild [4–7 days]	4	25.0	79	23.0
Moderate [8–28 days]	8	50.0	200	58.3
Severe [>28 days]	2	12.5	30	8.7
Total	16	100.0	343	100.0

Table 22. Re-injury rate for ligament injuries

	Total			
	Team X		Other teams	
	No.	%	No.	%
No re-injury	10	100.0	110	90.2
Re-injury	0	0.0	12	9.8
Total	10	100.0	122	100.0

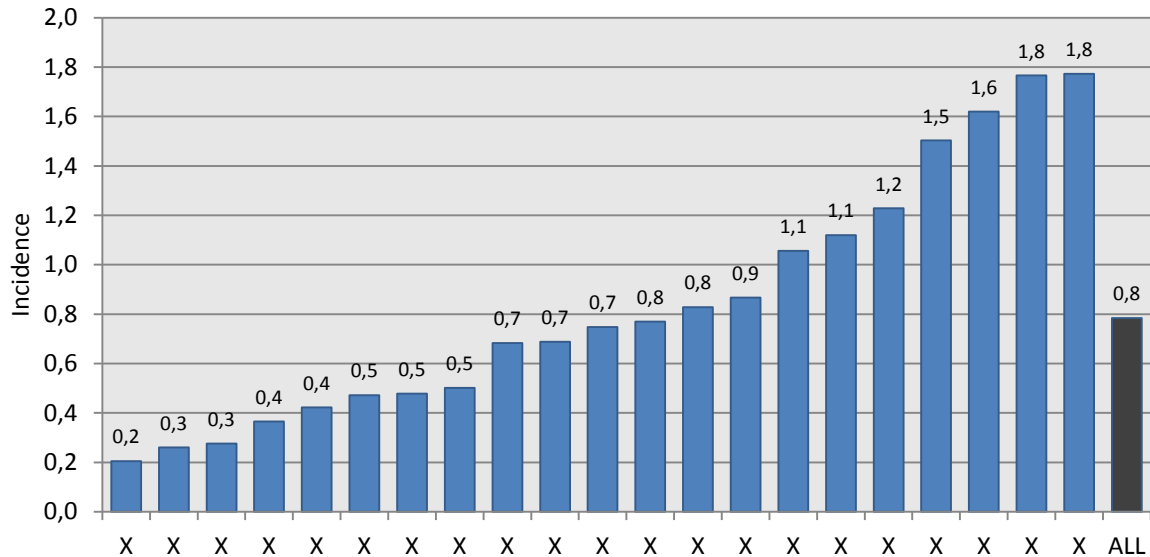
Table 23. Monthly distribution of ligament injuries

	Total			
	Team X		Other teams	
	No.	%	No.	%
July	3	14.3	20	5.9
August	1	4.8	29	8.6
September	1	4.8	37	10.9
October	6	28.6	34	10.1
November	1	4.8	32	9.5
December	2	9.5	28	8.3
January	2	9.5	33	9.8
February	0	0.0	31	9.2
March	2	9.5	37	10.9
April	3	14.3	32	9.5
May	0	0.0	25	7.4
June	0	0.0	0	0.0
Total	21	100.0	338	100.0

5.5.1 Ligament injury rate

The mean ligament injury rate for all teams was 0.8 injuries for every 1,000 hours, with individual rates ranging from 0.2 to 1.8.

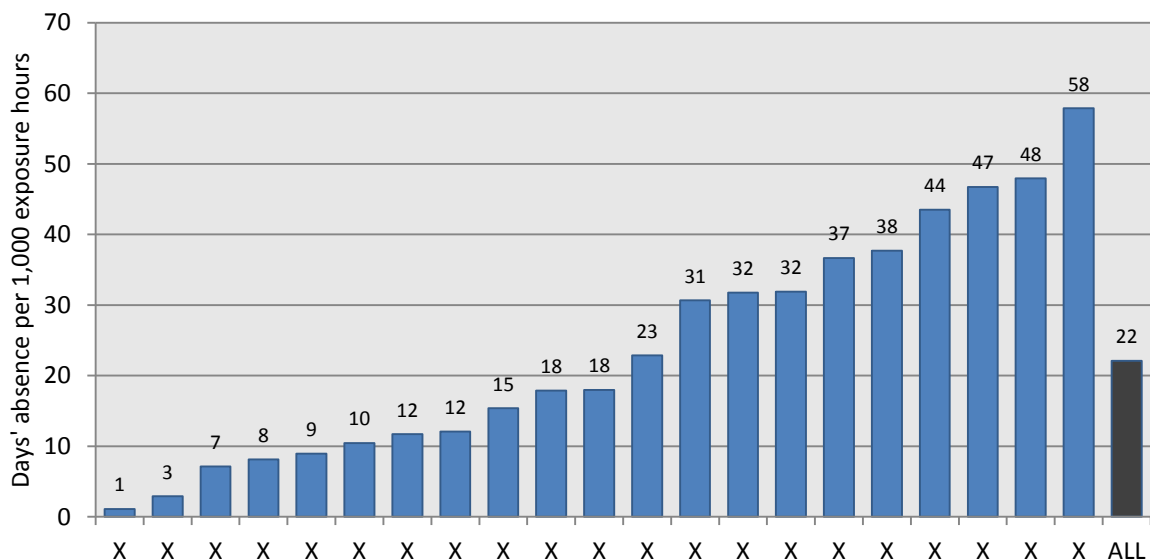
Figure 16. Ligament injury rate



5.5.2 Burden of ligament injuries

The mean burden for ligament injury was 22 days' absence per 1,000 hours, with individual absences ranging from 1 to 58 days.

Figure 17. Ligament injury burden



5.5.3 Days' absence for ligament injuries

Table 24. Days' absence for ligament injuries

Diagnosis description	Ligament injuries											
	Team X						Other teams					
	No.	Sum	Mean	Med	Min	Max	No.	Sum	Mean	Med	Min	Max
[KJLL] LCL strain/rupture	2	103	51.5	51.5	7	96	6	229	38.2	24.5	7	96
[AJSX] Ankle syndesmosis sprain	2	5	2.5	2.5	2	3	5	251	50.2	46.0	12	103
[AJXX] Ankle sprains	5	14	2.8	3.0	1	4	15	130	8.7	6.0	1	23
Total	9	122	13.6	3.0	1	96	123	3602	29.3	18.0	1	238

5.6 Re-injury patterns

Table 25. Re-injury diagnoses

Diagnosis description	Team X		Other teams	
	No.	%	No.	%
[TMHB] Biceps femoris strain, grades 1–2	1	50.0	7	12.1
[AJMX] Ankle multiple ligaments sprain	1	50.0	0	0.0
Total	2	100.0	58	100.0

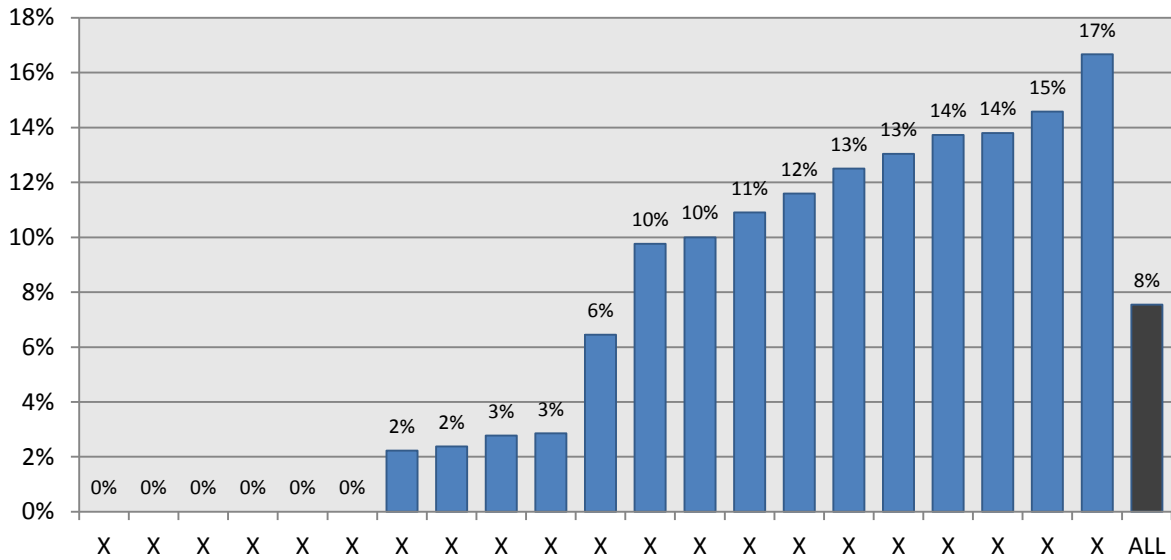
Table 26. Severity of re-injuries

	Total			
	Team X		Other teams	
	No.	%	No.	%
Slight [0 days]	0	0.0	0	0.0
Minimal [1–3 days]	0	0.0	3	5.2
Mild [4–7 days]	0	0.0	12	20.7
Moderate [8–28 days]	2	100.0	31	53.4
Severe [>28 days]	0	0.0	12	20.7
Total	2	100.0	58	100.0

5.6.1 Re-injury rate (%)

On average, 8% of injuries sustained were re-injuries, with individual rates ranging from 0% to 17% at the various clubs.

Figure 18. Re-injury rate



6 Squad attendance/availability and absence

All data in the charts in this section is in the form of percentages.

6.1 Squad attendance/availability

Squad attendance/availability refers to the average percentage of players who participated in training sessions or were available for match selection over the review period. An attendance/availability rate of 100% would mean that no player was absent because of injury, illness, international duty or any other reason.

Figure 19. Squad attendance rates for training

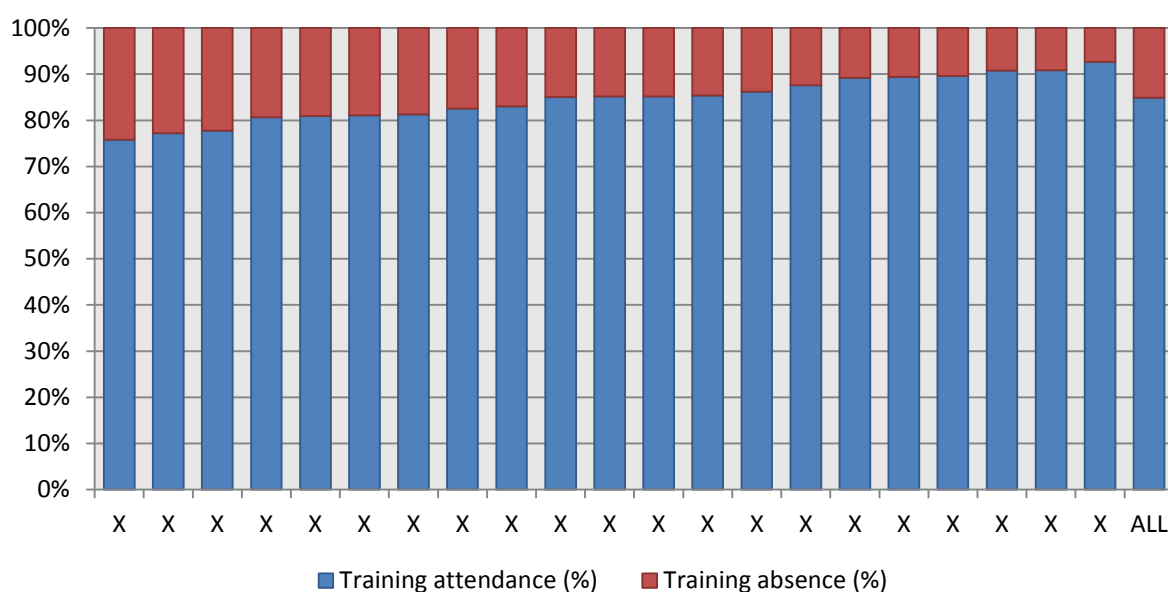


Figure 20. Squad availability rates for matches

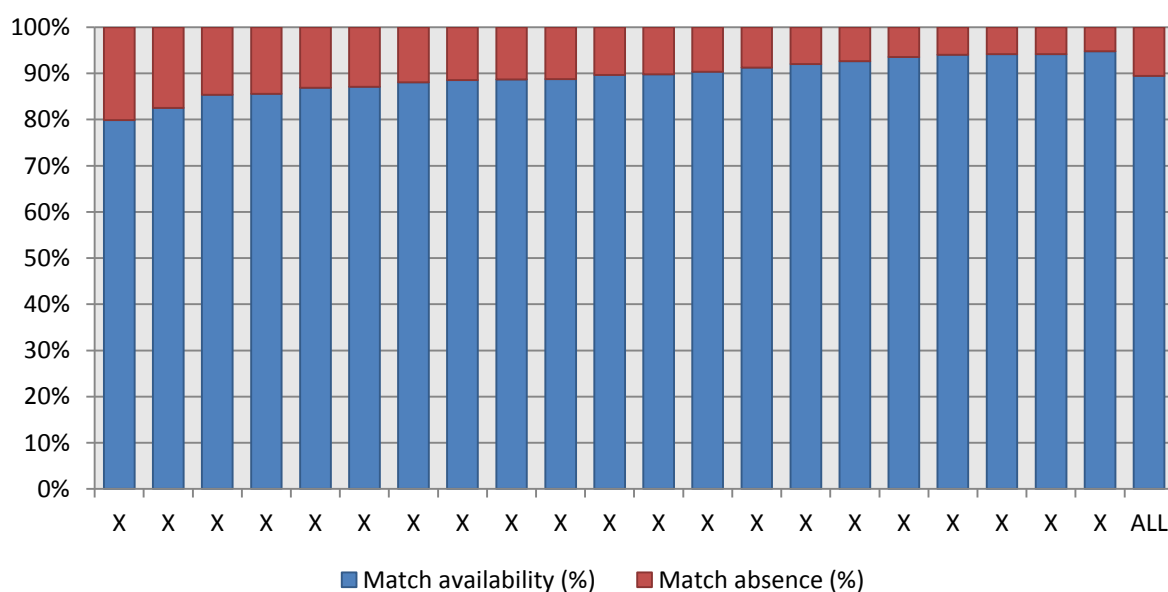
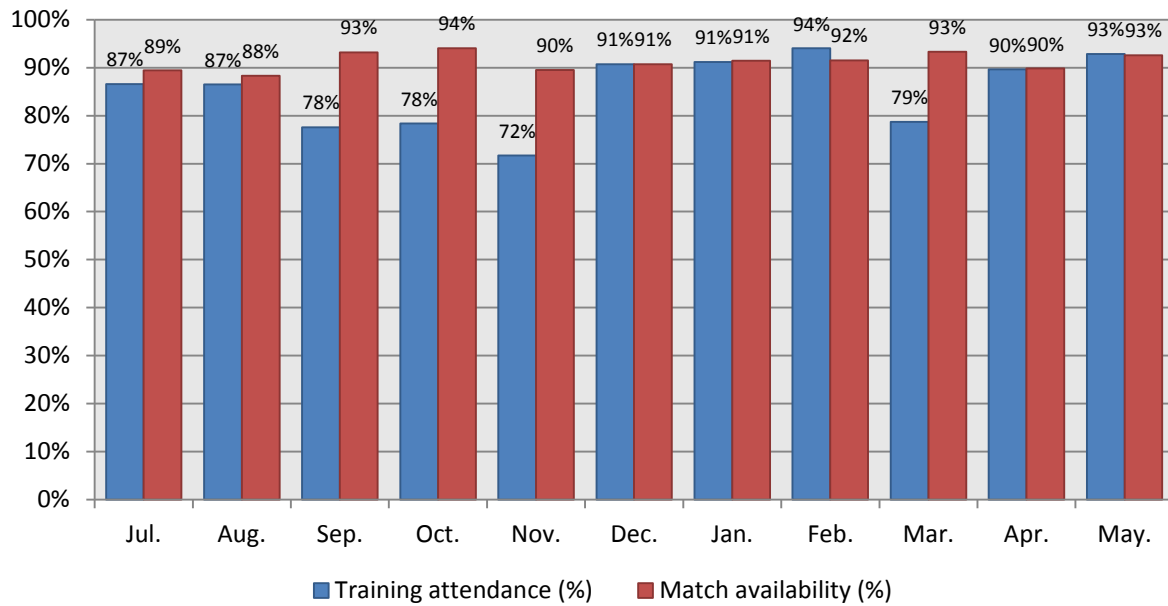


Figure 21. Team X's overall squad attendance in training (blue bars) and availability for matches (red bars) over the season



6.2 Squad absences

The charts below break players' absences down by reason.

Figure 22. Reasons for absence from training sessions

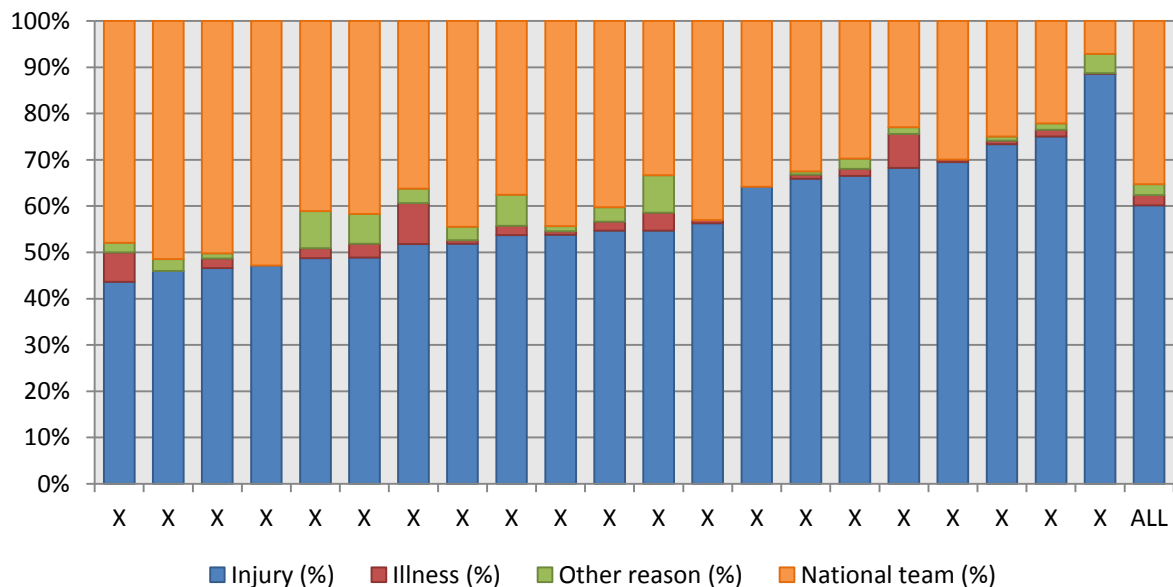


Figure 23. Reasons for absence from matches

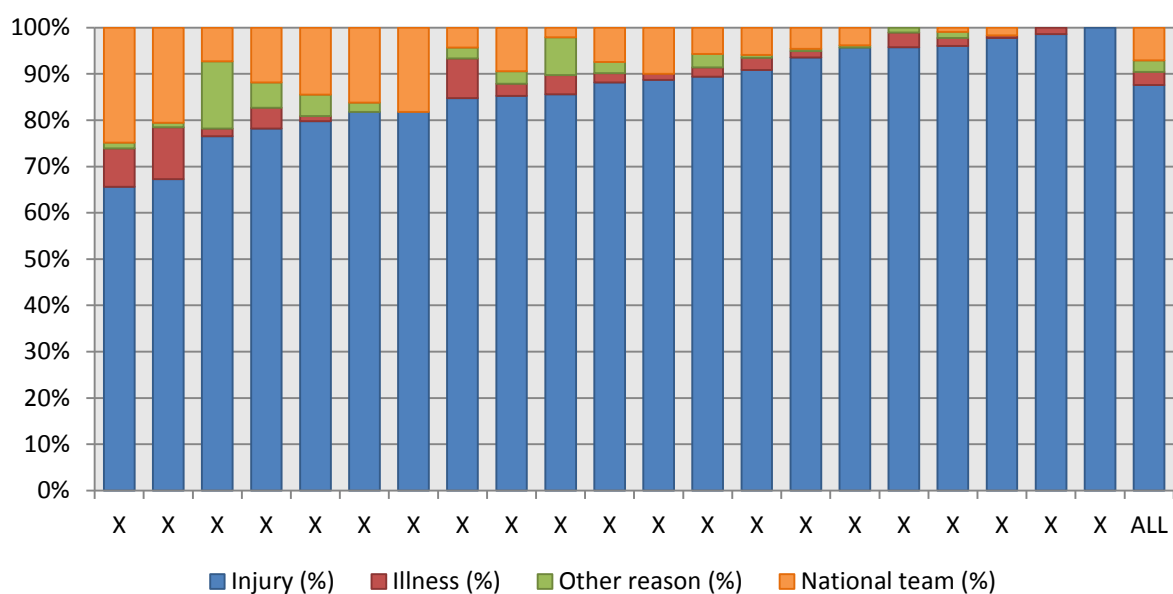


Figure 24. Reasons for absence from training sessions in **Team X** over the season

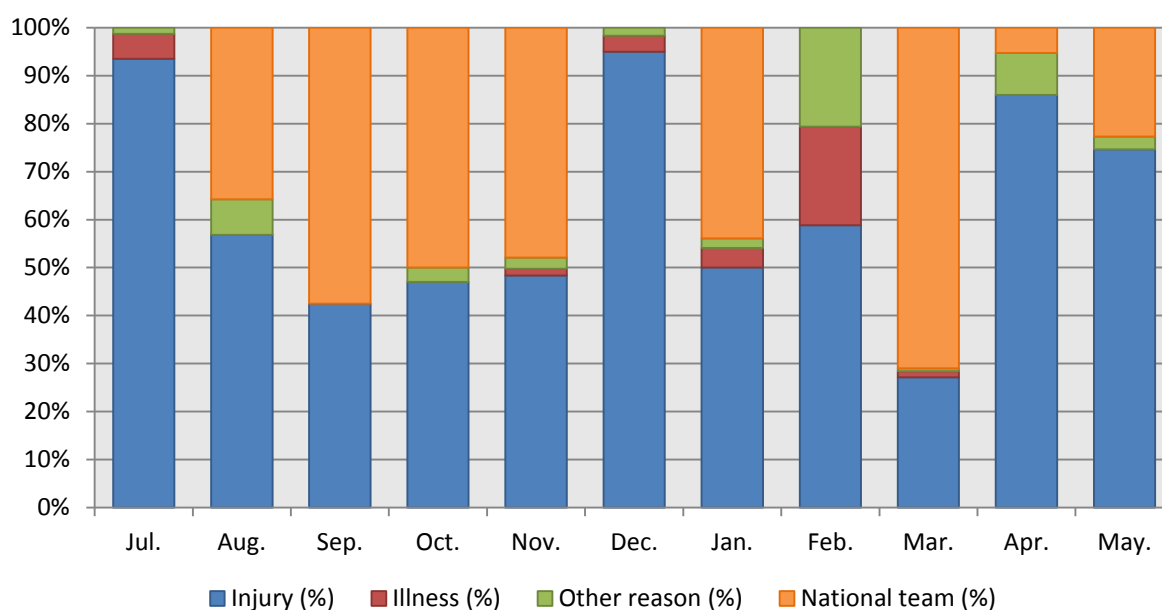
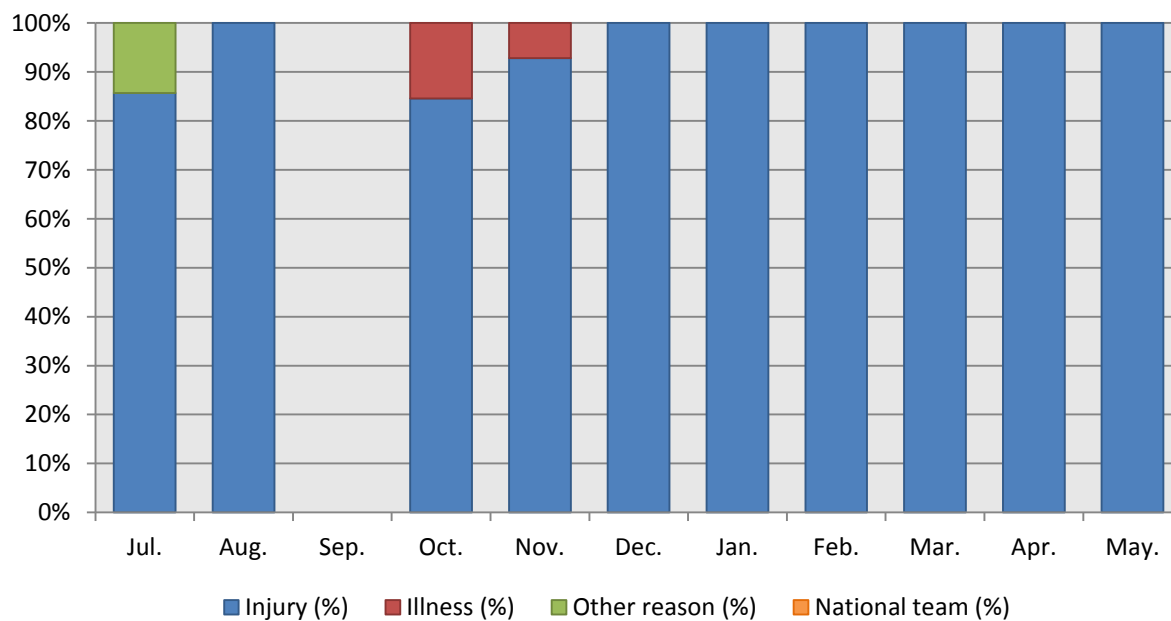


Figure 25. Reasons for absence from matches in **Team X** over the season



6.3 Number of training sessions/matches missed because of injury

The consequences of injuries have also been assessed in terms of the number of training sessions and matches that players missed during the review period. On average, across all clubs, each player missed 1.9 training sessions and 0.5 matches each month because of injury. Data specific to each club is presented below.

Figure 26. Number of training sessions missed per player per month owing to injury

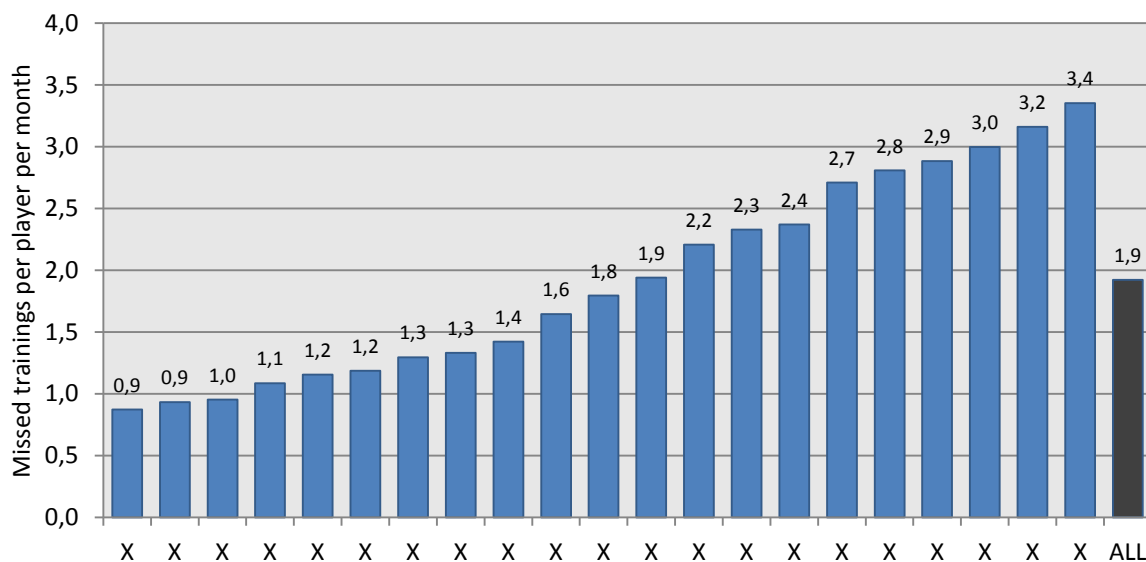
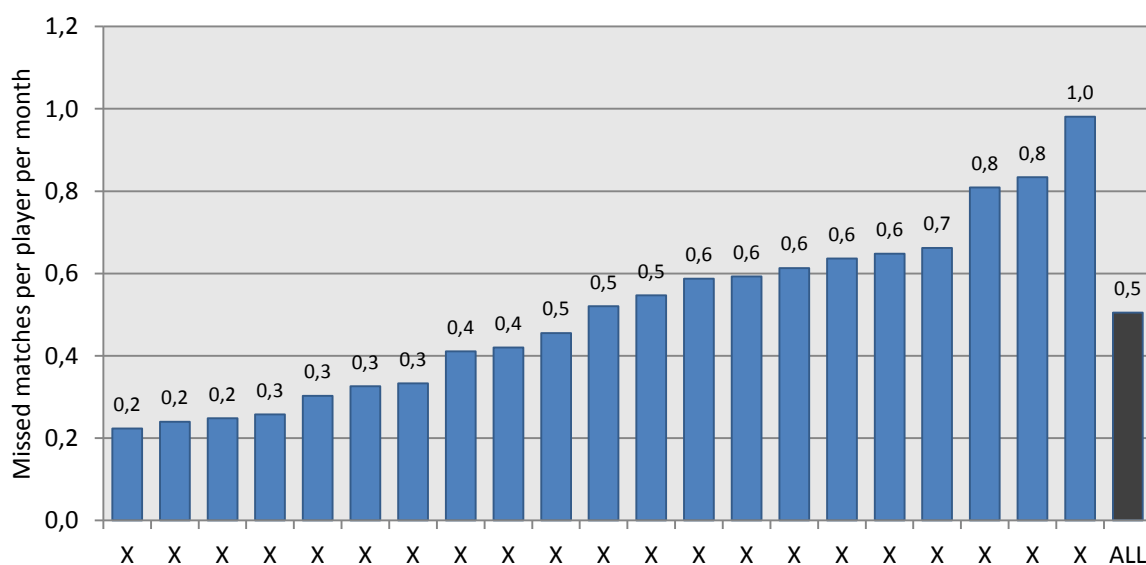


Figure 27. Number of matches missed per player per month owing to injury



7 Analyses over 16 seasons

UEFA's injury study has now recorded approximately 14,000 injuries and more than 2,000,000 exposure hours over 16 seasons. Over 50 teams from 18 different countries have participated at some point during these 16 seasons. This section contains results based on data from all of the seasons featuring in the study.

7.1 Injury rates over 16 seasons

Injury rates for each season are shown for your own club (blue bars), together with the mean injury rate for all teams (red line) for the purposes of comparison.

Figure 28. Training injury rate

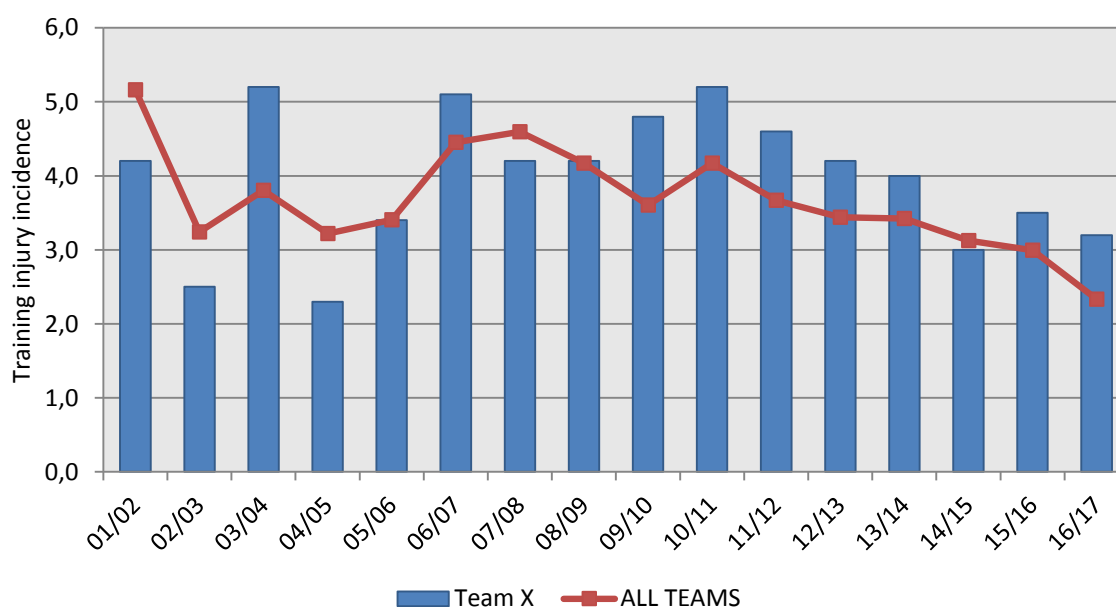


Figure 29. Match injury rate

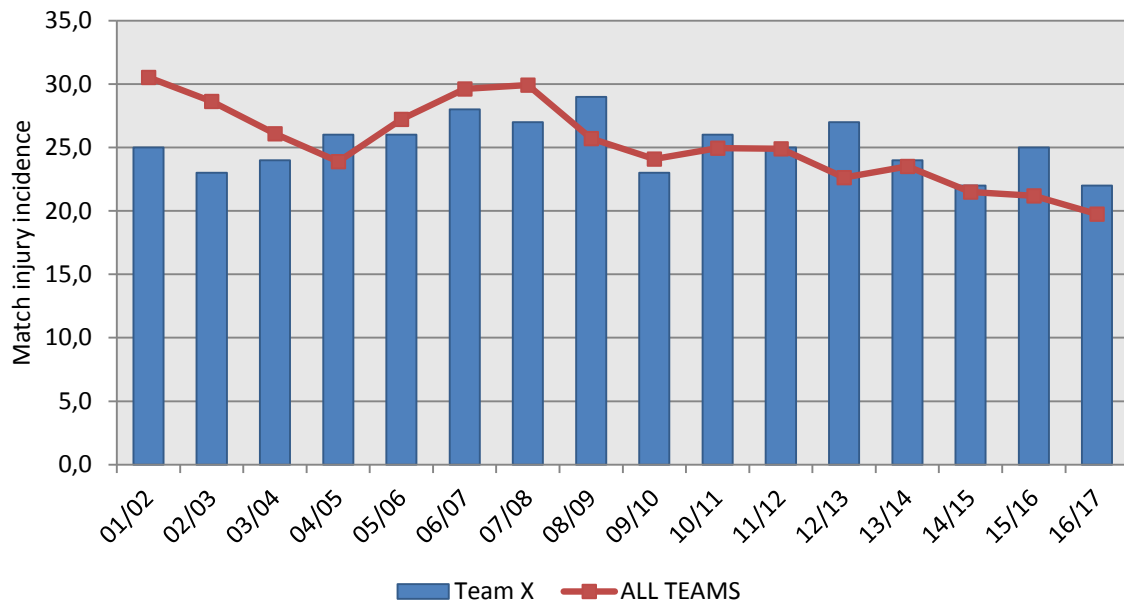


Figure 30. Total injury rate

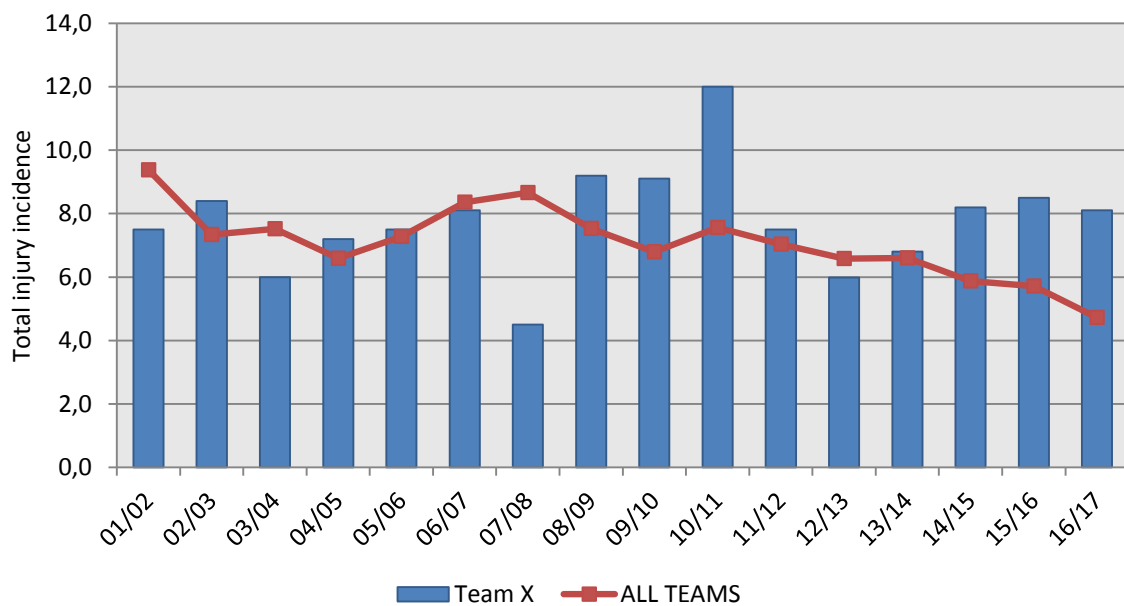


Figure 31. Severe injury rate (>4 weeks' absence)

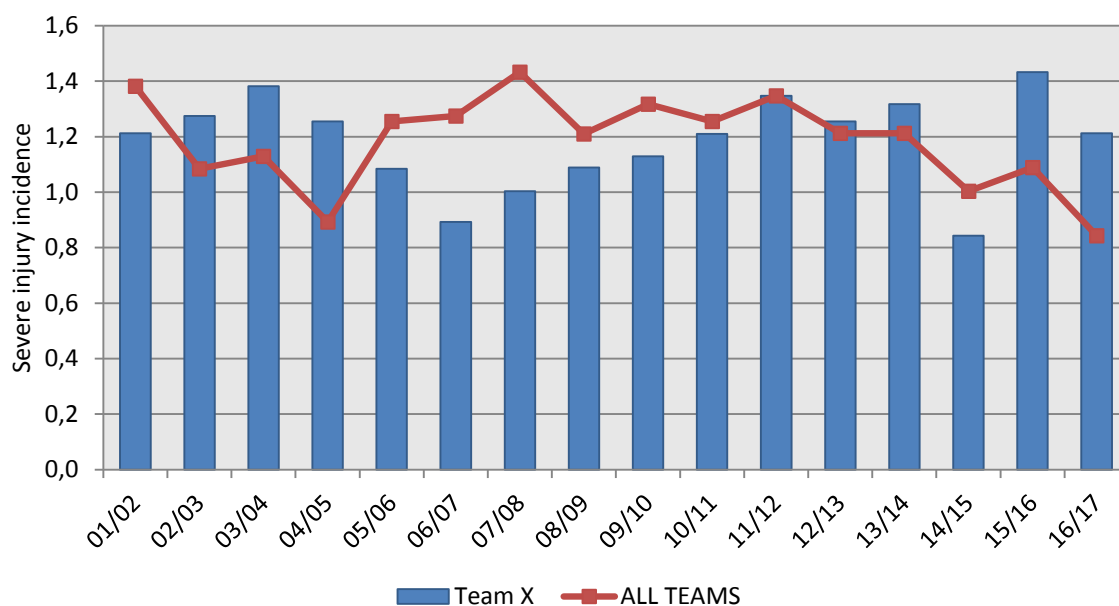


Figure 32. Muscle injury rate

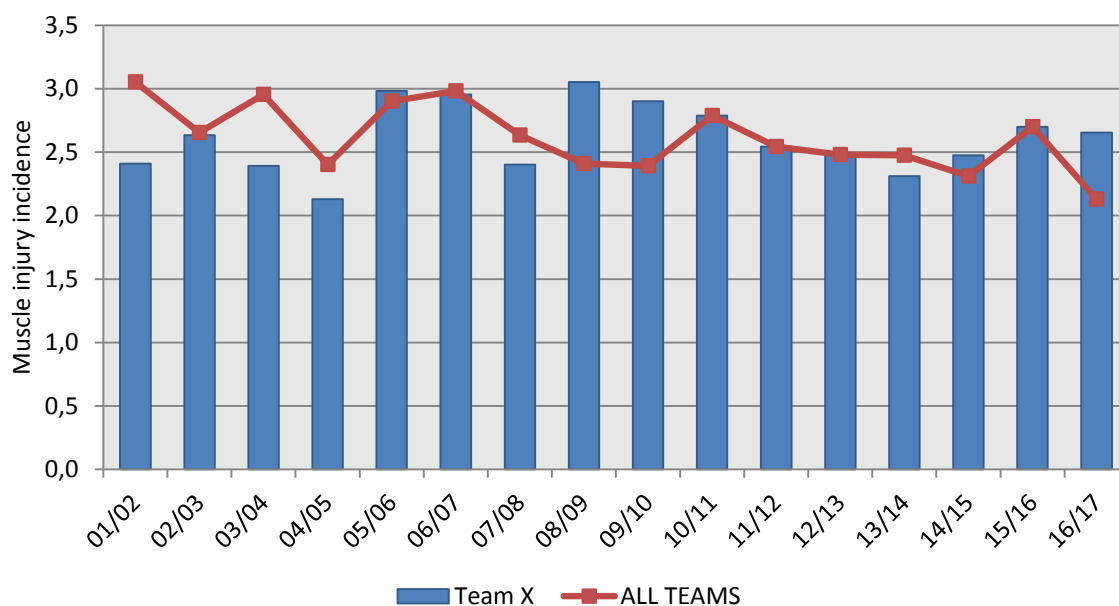


Figure 33. Ligament injury rate

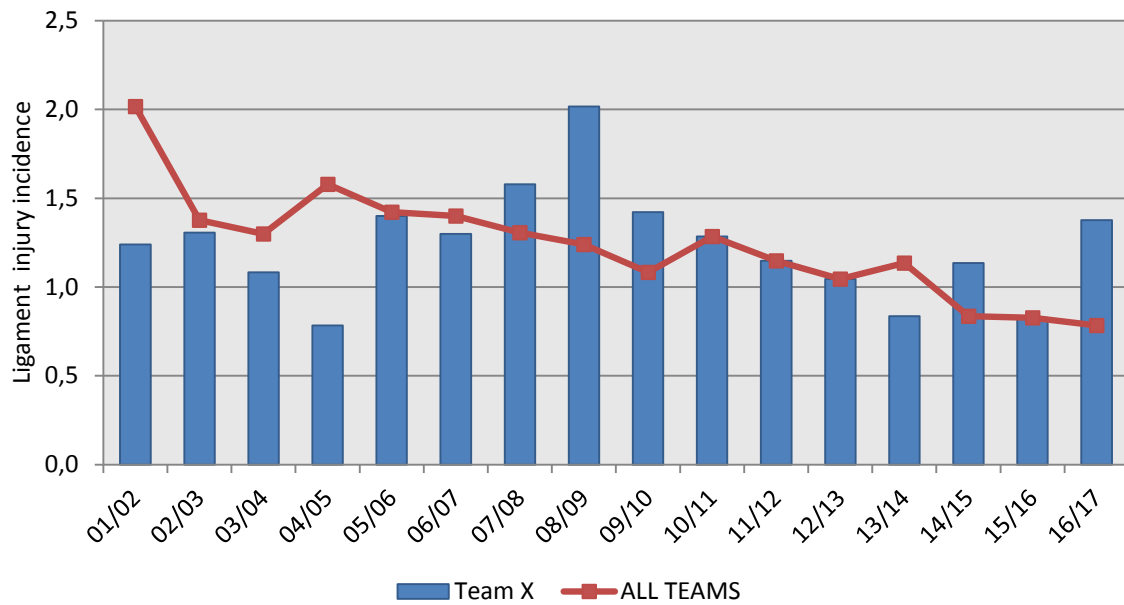
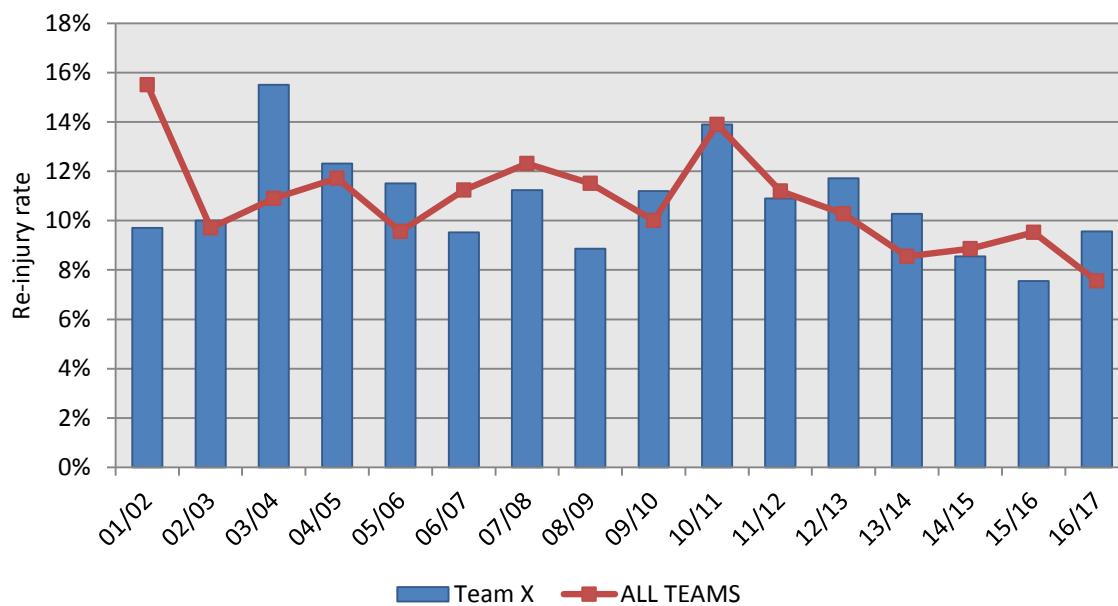


Figure 34. Re-injury rate



7.2 Squad attendance/availability and absence due to injury over 16 seasons

Squad attendance/availability and absence due to injury each season is shown for your own club (blue bars), together with the mean attendance/availability for all teams (red line) for the purposes of comparison.

Figure 35. Squad attendance rates for training

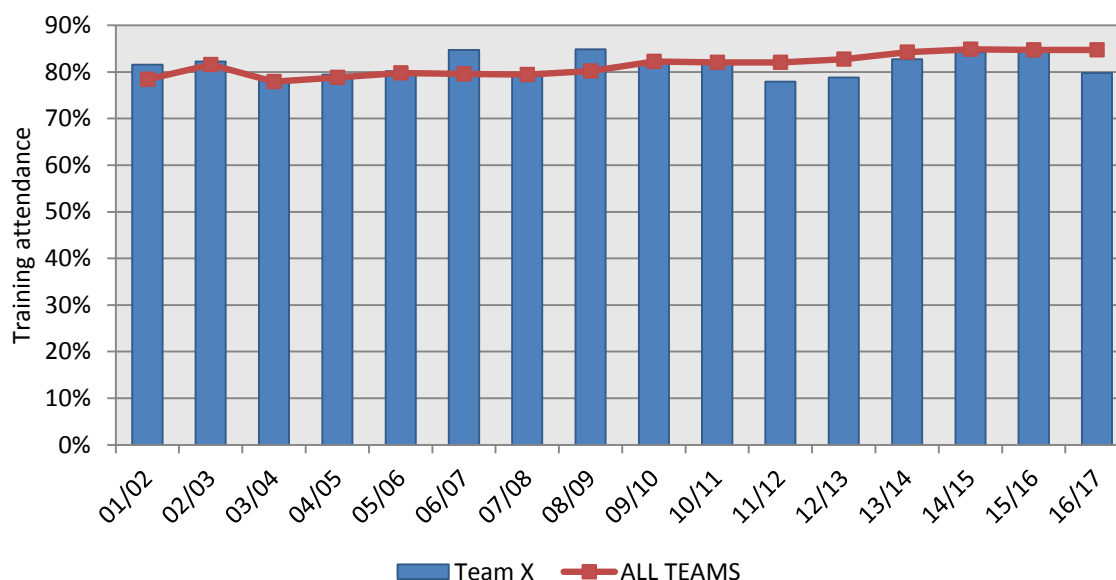


Figure 36. Squad availability rates for matches

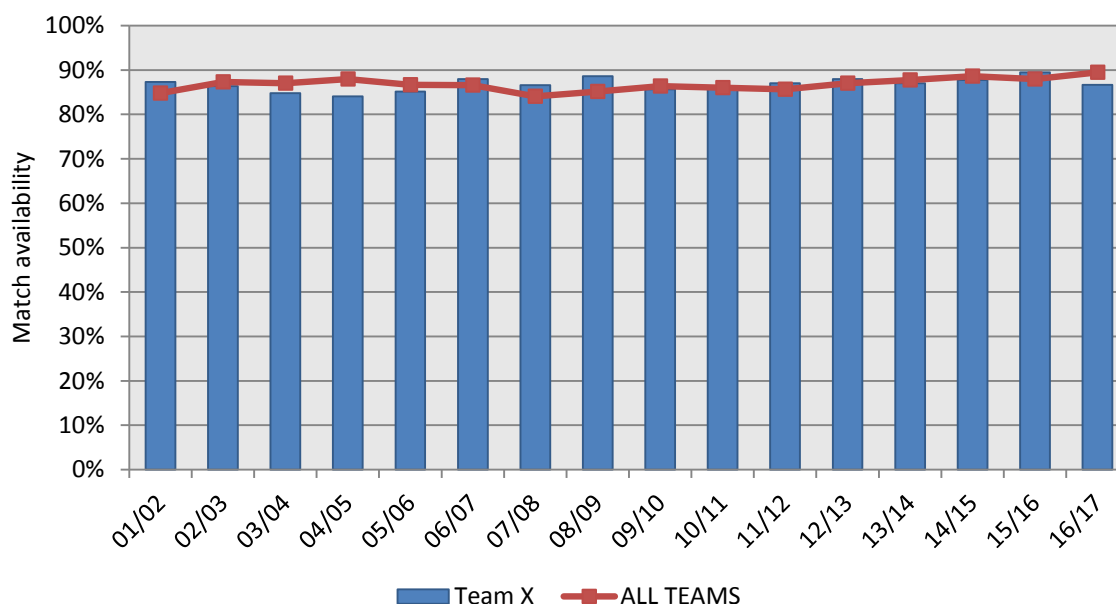


Figure 37. Squad absence from training due to injury

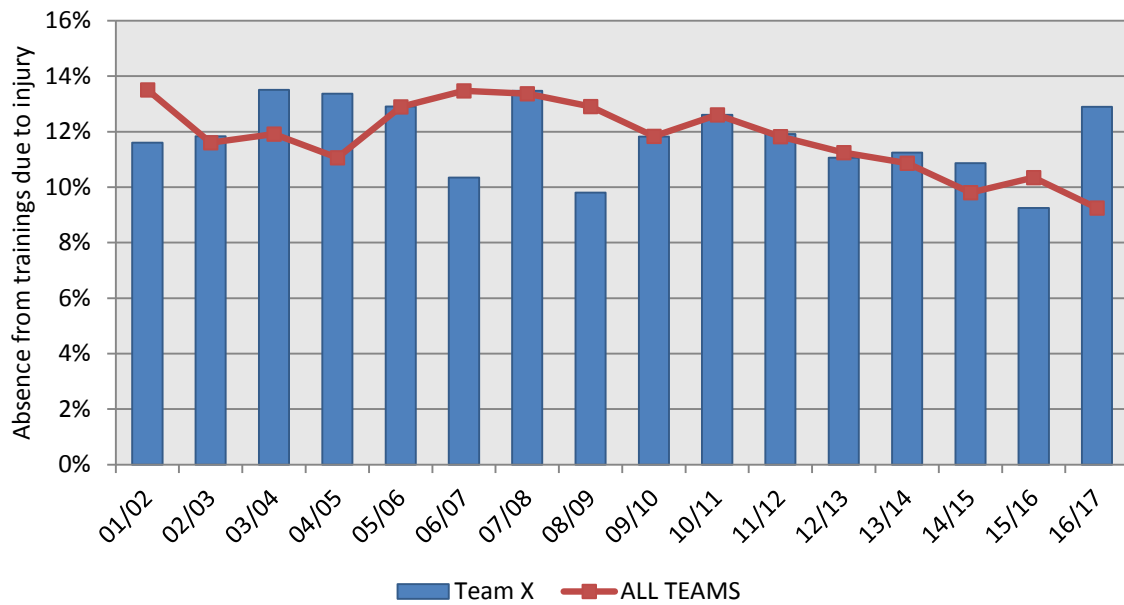


Figure 38. Squad absence from matches due to injury

