UEFA Elite Club Injury Study

2014/15 season report

Team X

WE CARE ABOUT FOOTBALL

The UEFA Elite Club Injury Study was initiated by and is funded and supported by UEFA.

This report has been produced on behalf of the UEFA Medical Committee by:
Professor Jan Ekstrand, MD, PhD, Linkoping University
First vice-chairman of the UEFA Medical Committee

Correspondence should be addressed to:

Injury Study Group
Professor Jan Ekstrand
Hertig Karlsgatan 13B
58221 Linköping
Sweden
jan.ekstrand@telia.com
info.frg@telia.com

UEFA
Marc Vouillamoz
Head of Medical and Anti-Doping Unit
marc.vouillamoz@uefa.ch

Mike Earl
Medical and Anti-Doping Manager
mike.earl@uefa.ch

Route de Genève 46
1260 Nyon 2
Switzerland
+41 848 00 27 27
+41 22 707 27 34 (fax)

Contents

1 Participating clubs 4
2 Presentation 4
3 Interpretation of results 5
4 Exposure 6
5 General injury patterns 8
5.1 Training injury patterns 11
5.1.1 Training injury rate 11
5.1.2 Days' absence for training injuries 12
5.1.3 Burden of training injuries 12
5.2 Match injury patterns 13
5.2.1 Match injury rate 13
5.2.2 Days' absence for match injuries 14
5.2.3 Burden of match injuries 14
5.3 Severe injury patterns 15
5.3.1 Severe injury rate 15
5.4 Muscle injury patterns 16
5.4.1 Muscle injury rate 18
5.4.2 Burden of muscle injuries 18
5.4.3 Days' absence for muscle injuries 19
5.5 Ligament injury patterns 20
5.5.1 Ligament injury rate 22
5.5.2 Burden of Ligament injuries 22
5.5.3 Days' absence for Ligament injuries 23
5.6 Re-injury patterns ..... **Error! Bookmark not defined.**
5.6.1 Re-injury rate (%) 24
6 Squad attendance/availability and absences 25
6.1 Squad attendance/availability 25
6.2 Squad absences 26
6.3 Number of training sessions/matches missed because of injury 29
7 Analyses over 14 seasons 30
7.1 Injury rates over 14 seasons 30
7.2 Squad attendance/availability and absences over 14 seasons 35

1 Participating clubs

This season report contains results from July to May of the 2014/15 season for 23 clubs that qualified for the group stage of the UEFA Champions League and provided complete data for at least nine months. The following clubs have been included:

AFC Ajax, Arsenal FC, Athletic Club, Bayer 04 Leverkusen, Borussia Dortmund, Chelsea FC, Club Atlético de Madrid, FC Barcelona, FC Basel 1893, FC Bayern München, FC Porto, FC Shakhtar Donetsk, FC Zenit, Galatasaray AŞ, Juventus, Liverpool FC, Manchester City FC, NK Maribor, Paris Saint-Germain, Real Madrid CF, RSC Anderlecht, SL Benfica, Sporting Clube de Portugal.

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 absences. 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 (e.g. match/training and competitive level).

- **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 for every 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' absence for every 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/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/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.

- Only months where full data has been provided are included in this analysis. The number of months of data may therefore differ between teams, and this may influence the injury statistics in the report.

- 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 this 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 if you have any questions about how to interpret the results.

4 Exposure

In total, 175,000 hours of exposure were recorded during the 2014/15 season, with approximately 150,000 training hours (86%) and 25,000 match hours (14%). Team x reported 8,631 hours of total exposure, with 7,455 training hours (86%) and 1,176 match hours (14%).

On average, teams reported 231 training sessions and 61 matches over the reporting period. Since the reporting period differed between teams, we have also calculated a monthly training and match load. On average, teams had 22 training sessions and 5.7 matches each month, giving an average training-to-match exposure ratio of 5.7 hours of training for each hour of match play.

Figure 1. Number of training sessions per month

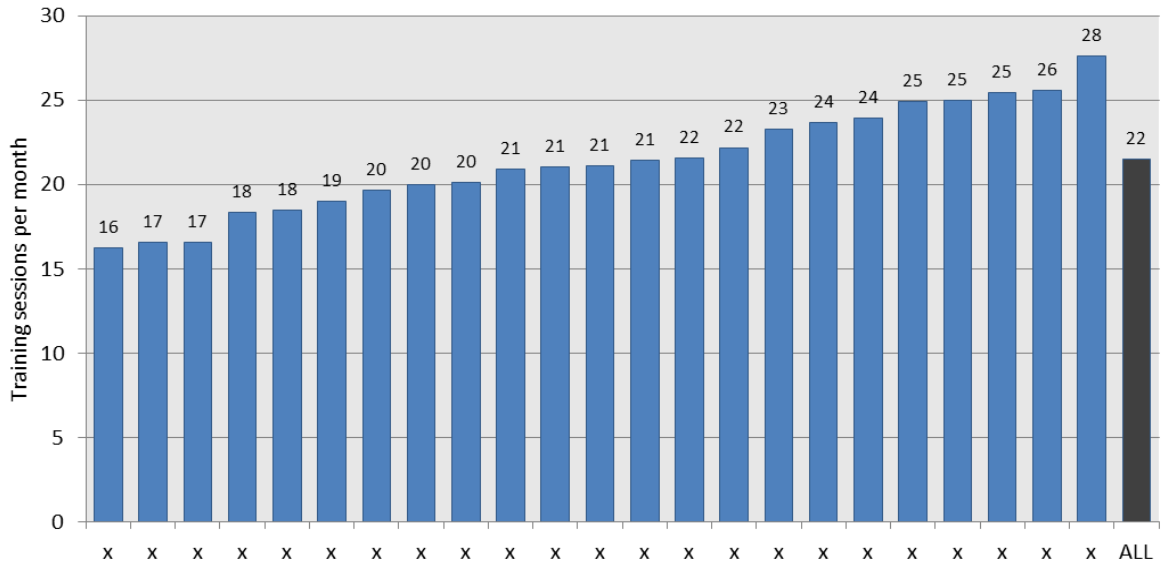


Figure 2. Number of matches per month

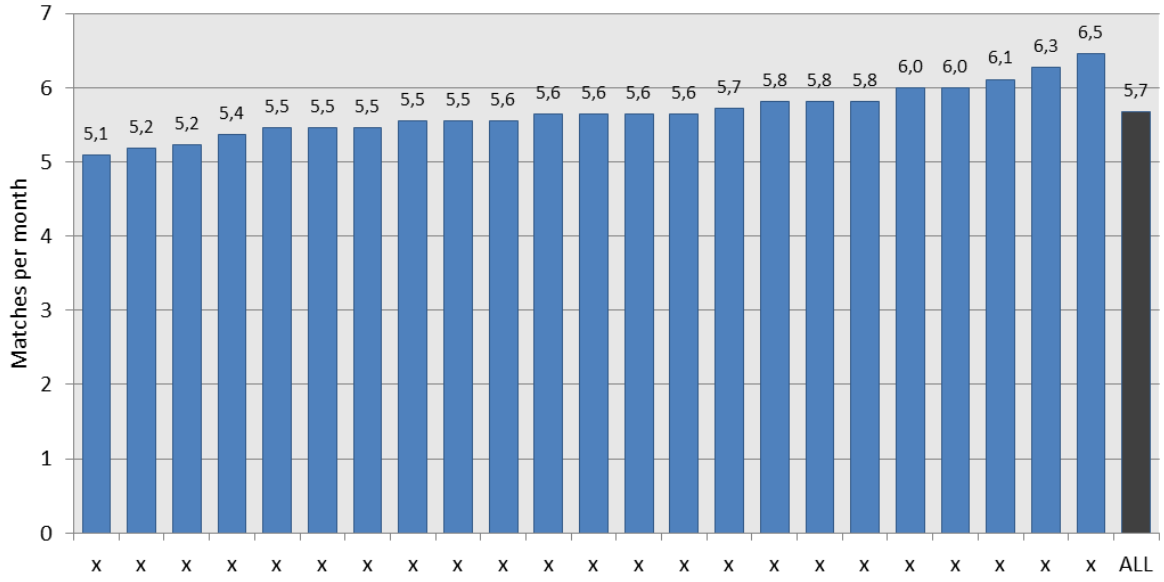


Figure 3. Ratio of training hours to match hours

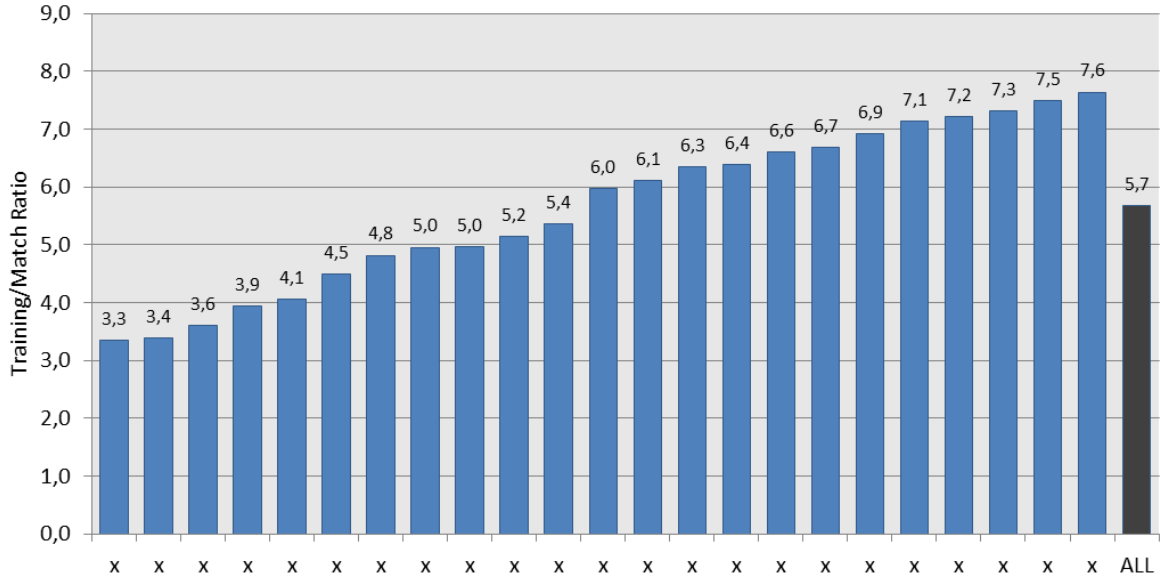
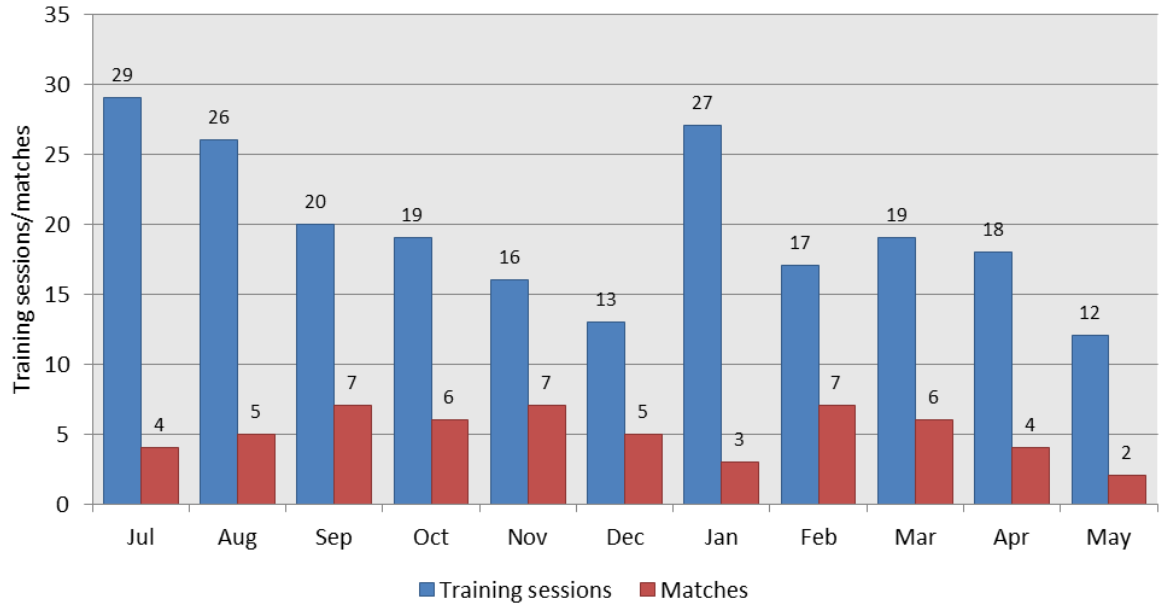


Figure 4. Number of training sessions (blue bars) and matches (red bars) for **Team X** over the season



5 General injury patterns

The tables below show the number (N) and relative distribution (%) of different injuries. In total, 939 injuries were reported, with 405 training injuries (43%) and 534 match injuries (57%). There were 149 severe injuries (16%), 378 muscle injuries (40%) and 138 ligament injuries (15%).

Team x reported 27 injuries (16 training injuries; 11 match injuries) during the season, including 4 severe injuries, 11 muscle injuries and 1 ligament injuries.

Table 1. Injury location

	Training				Match play				Total			
	Team X		Other teams		Team X		Other teams		Team X		Other teams	
	N	%	N	%	N	%	N	%	N	%	N	%
Head/face	0	0,0	3	,8	1	9,1	16	3,1	1	4,2	19	2,1
Neck/cervical spine	0	0,0	1	,3	0	0,0	0	0,0	0	0,0	1	,1
Shoulder/clavicula	0	0,0	7	1,8	0	0,0	16	3,1	0	0,0	23	2,5
Elbow	1	7,7	1	,3	0	0,0	1	,2	1	4,2	2	,2
Forearm	0	0,0	0	0,0	0	0,0	1	,2	0	0,0	1	,1
Hand/finger/thumb	0	0,0	6	1,5	0	0,0	4	,8	0	0,0	10	1,1
Sternum/ribs/upper back	0	0,0	4	1,0	0	0,0	6	1,1	0	0,0	10	1,1
Abdomen	0	0,0	2	,5	0	0,0	3	,6	0	0,0	5	,5
Lower back/pelvis/sacrum	0	0,0	29	7,4	0	0,0	24	4,6	0	0,0	53	5,8
Hip/groin	1	7,7	70	17,9	1	9,1	55	10,5	2	8,3	125	13,7
Thigh	7	53,8	111	28,3	4	36,4	162	31,0	11	45,8	273	29,8
Knee	2	15,4	58	14,8	1	9,1	65	12,4	3	12,5	123	13,4
Lower leg/Achilles tendon	1	7,7	45	11,5	0	0,0	65	12,4	1	4,2	110	12,0
Ankle	0	0,0	39	9,9	2	18,2	73	14,0	2	8,3	112	12,2
Foot/toe	1	7,7	16	4,1	2	18,2	32	6,1	3	12,5	48	5,2
Total	**13**	**100,0**	**392**	**100,0**	**11**	**100,0**	**523**	**100,0**	**24**	**100,0**	**915**	**100,0**

Table 2. Injury type

	Training				Match play				Total			
	Team X		Other teams		Team X		Other teams		Team X		Other teams	
	N	%	N	%	N	%	N	%	N	%	N	%
Fracture	1	7,7	8	2,0	0	0,0	26	5,0	1	4,0	34	3,7
Other bone injury	0	0,0	1	,3	0	0,0	1	,2	0	0,0	2	,2
Dislocation/subluxation	0	0,0	7	1,8	0	0,0	14	2,7	0	0,0	21	2,3
Ligament injury	4	30,8	44	11,2	4	33,3	86	16,5	8	32,0	130	14,2
Meniscus/cartilage	0	0,0	26	6,6	1	8,3	12	2,3	1	4,0	38	4,2
Muscle injury/cramps	6	46,2	151	38,5	5	41,7	216	41,4	11	44,0	367	40,2
Tendon injury/rupture/tendinosis	1	7,7	33	8,4	2	16,7	20	3,8	3	12,0	53	5,8
Haematoma/contusion/bruise	0	0,0	34	8,7	0	0,0	70	13,4	0	0,0	104	11,4
Laceration	0	0,0	1	,3	0	0,0	7	1,3	0	0,0	8	,9
Concussion	0	0,0	0	0,0	0	0,0	7	1,3	0	0,0	7	,8
Nerve injury	0	0,0	0	0,0	0	0,0	1	,2	0	0,0	1	,1
Synovitis/effusion	0	0,0	10	2,6	0	0,0	7	1,3	0	0,0	17	1,9
Overuse unspec	0	0,0	61	15,6	0	0,0	45	8,6	0	0,0	106	11,6
Other injury	1	7,7	16	4,1	0	0,0	9	1,7	1	4,0	25	2,7
Dental Injury	0	0,0	0	0,0	0	0,0	1	,2	0	0,0	1	,1
Total	**13**	**100,0**	**392**	**100,0**	**12**	**100,0**	**522**	**100,0**	**25**	**100,0**	**914**	**100,0**

Table 3. Injury mechanism

	Training				Match play				Total			
	Team X		Other teams		Team X		Other teams		Team X		Other teams	
	N	%	N	%	N	%	N	%	N	%	N	%
Running/sprinting	5	27,8	70	21,2	6	27,3	114	24,4	11	27,5	184	23,1
Twisting/turning	1	5,6	20	6,1	1	4,5	33	7,1	2	5,0	53	6,6
Shooting	4	22,2	41	12,4	1	4,5	26	5,6	5	12,5	67	8,4
Passing/crossing	0	0,0	14	4,2	1	4,5	17	3,6	1	2,5	31	3,9
Dribbling	0	0,0	1	,3	0	0,0	3	,6	0	0,0	4	,5
Jumping/landing	1	5,6	15	4,5	4	18,2	32	6,8	5	12,5	47	5,9
Falling/diving	0	0,0	5	1,5	0	0,0	9	1,9	0	0,0	14	1,8
Stretching	1	5,6	11	3,3	0	0,0	5	1,1	1	2,5	16	2,0
Sliding	0	0,0	12	3,6	1	4,5	13	2,8	1	2,5	25	3,1
Overuse	0	0,0	70	21,2	2	9,1	46	9,8	2	5,0	116	14,5
Hit by ball	1	5,6	4	1,2	0	0,0	1	,2	1	2,5	5	,6
Collision	0	0,0	9	2,7	2	9,1	31	6,6	2	5,0	40	5,0
Heading	0	0,0	2	,6	0	0,0	0	0,0	0	0,0	2	,3
Tackled	0	0,0	23	7,0	2	9,1	81	17,3	2	5,0	104	13,0
Tackling	0	0,0	5	1,5	1	4,5	14	3,0	1	2,5	19	2,4
Kicked	1	5,6	18	5,5	0	0,0	24	5,1	1	2,5	42	5,3
Blocked	1	5,6	4	1,2	0	0,0	4	,9	1	2,5	8	1,0
Use of arm/elbow	0	0,0	0	0,0	0	0,0	8	1,7	0	0,0	8	1,0
Other acute mechanism	3	16,7	6	1,8	1	4,5	7	1,5	4	10,0	13	1,6
Total	**18**	**100,0**	**330**	**100,0**	**22**	**100,0**	**468**	**100,0**	**40**	**100,0**	**798**	**100,0**

Table 4. Overuse/trauma distribution

	Training				Match play				Total			
	Team X		Other teams		Team X		Other teams		Team X		Other teams	
	N	%	N	%	N	%	N	%	N	%	N	%
Overuse	9	42,9	174	45,3	7	23,3	150	29,8	16	31,4	324	36,5
Trauma	12	57,1	210	54,7	23	76,7	354	70,2	35	68,6	564	63,5
Total	**21**	**100,0**	**384**	**100,0**	**30**	**100,0**	**504**	**100,0**	**51**	**100,0**	**888**	**100,0**

Table 5. Contact/non-contact distribution

	Training				Match play				Total			
	Team X		Other teams		Team X		Other teams		Team X		Other teams	
	N	%	N	%	N	%	N	%	N	%	N	%
Non-contact	12	92,3	323	82,4	9	42,9	342	66,7	21	61,8	665	73,5
Contact player	1	7,7	66	16,8	12	57,1	169	32,9	13	38,2	235	26,0
Contact object	0	0,0	3	,8	0	0,0	2	,4	0	0,0	5	,6
Total	**13**	**100,0**	**392**	**100,0**	**21**	**100,0**	**513**	**100,0**	**34**	**100,0**	**905**	**100,0**

Table 6. Injury severity

	Training				Match play				Total			
	Team X		Other teams		Team X		Other teams		Team X		Other teams	
	N	%	N	%	N	%	N	%	N	%	N	%
Slight [0 days]	1	7,7	3	,8	0	0,0	2	,4	1	2,9	5	,6
Minimal [1-3 days]	3	23,1	85	21,7	8	38,1	85	16,6	11	32,4	170	18,8
Mild [4-7 days]	3	23,1	94	24,0	3	14,3	124	24,2	6	17,6	218	24,1
Moderate [8-28 days]	4	30,8	151	38,5	7	33,3	217	42,3	11	32,4	368	40,7
Severe [>28 days]	2	15,4	59	15,1	3	14,3	85	16,6	5	14,7	144	15,9
Total	**13**	**100,0**	**392**	**100,0**	**21**	**100,0**	**513**	**100,0**	**34**	**100,0**	**905**	**100,0**

Table 7. Re-injury rate

	Training				Match play				Total			
	Team X		Other teams		Team X		Other teams		Team X		Other teams	
	N	%	N	%	N	%	N	%	N	%	N	%
No re-injury	17	100,0	345	88,9	21	91,3	467	91,4	38	95,0	812	90,3
Re-injury	0	0,0	43	11,1	2	8,7	44	8,6	2	5,0	87	9,7
Total	**17**	**100,0**	**388**	**100,0**	**23**	**100,0**	**511**	**100,0**	**40**	**100,0**	**899**	**100,0**

Table 8. Monthly distribution of injuries

	Training				Match play				Total			
	Team X		Other teams		Team X		Other teams		Team X		Other teams	
	N	%	N	%	N	%	N	%	N	%	N	%
July	4	30,8	32	8,2	1	2,5	15	3,0	5	9,4	47	5,3
August	1	7,7	41	10,5	3	7,5	44	8,9	4	7,5	85	9,6
September	3	23,1	49	12,5	1	2,5	48	9,7	4	7,5	97	10,9
October	1	7,7	49	12,5	3	7,5	57	11,5	4	7,5	106	12,0
November	0	0,0	40	10,2	7	17,5	54	10,9	7	13,2	94	10,6
December	0	0,0	28	7,1	6	15,0	45	9,1	6	11,3	73	8,2
January	2	15,4	45	11,5	4	10,0	53	10,7	6	11,3	98	11,1
February	0	0,0	29	7,4	5	12,5	49	9,9	5	9,4	78	8,8
March	1	7,7	25	6,4	3	7,5	48	9,7	4	7,5	73	8,2
April	1	7,7	36	9,2	4	10,0	55	11,1	5	9,4	91	10,3
May	0	0,0	18	4,6	3	7,5	26	5,3	3	5,7	44	5,0
Total	**13**	**100,0**	**392**	**100,0**	**40**	**100,0**	**494**	**100,0**	**53**	**100,0**	**886**	**100,0**

Table 9. Injury occasion

	Training				Match play				Total			
	Team X		Other teams		Team X		Other teams		Team X		Other teams	
	N	%	N	%	N	%	N	%	N	%	N	%
First team	8	88,9	312	93,1	30	83,3	393	88,5	38	84,4	705	90,5
Reserve team	0	0,0	1	,3	6	16,7	24	5,4	6	13,3	25	3,2
National team	1	11,1	22	6,6	0	0,0	27	6,1	1	2,2	49	6,3
Total	**9**	**100,0**	**335**	**100,0**	**36**	**100,0**	**444**	**100,0**	**45**	**100,0**	**779**	**100,0**

5.1 Training injury patterns

5.1.1 Training injury rate

The mean training injury rate for all teams was 2.7 injuries for every 1,000 training hours, with individual rates ranging from 0.3 to 6.3.

Figure 5. Training injury rate

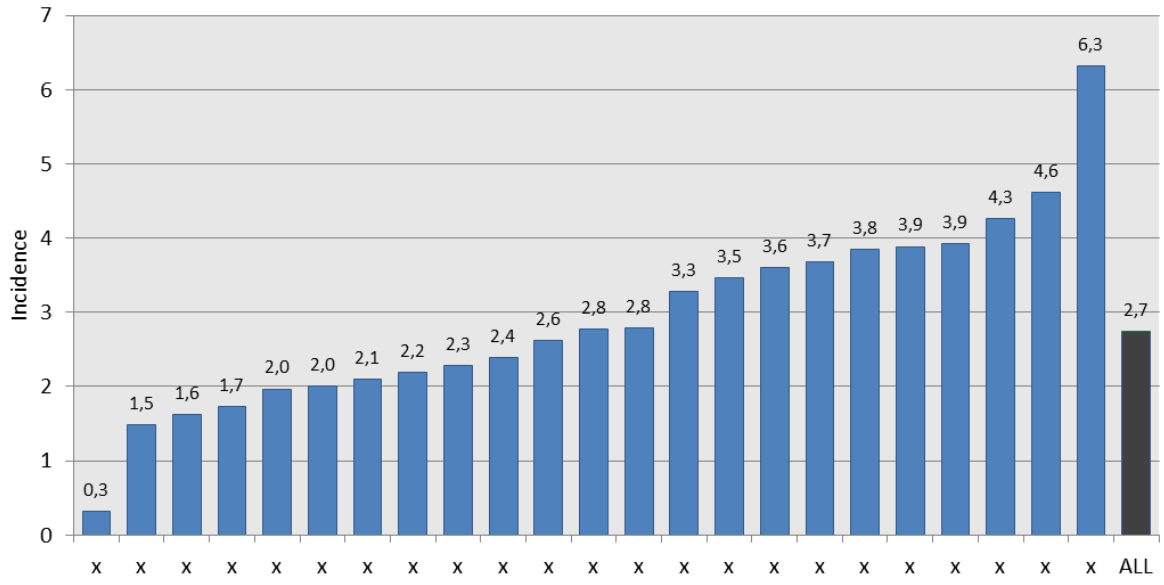
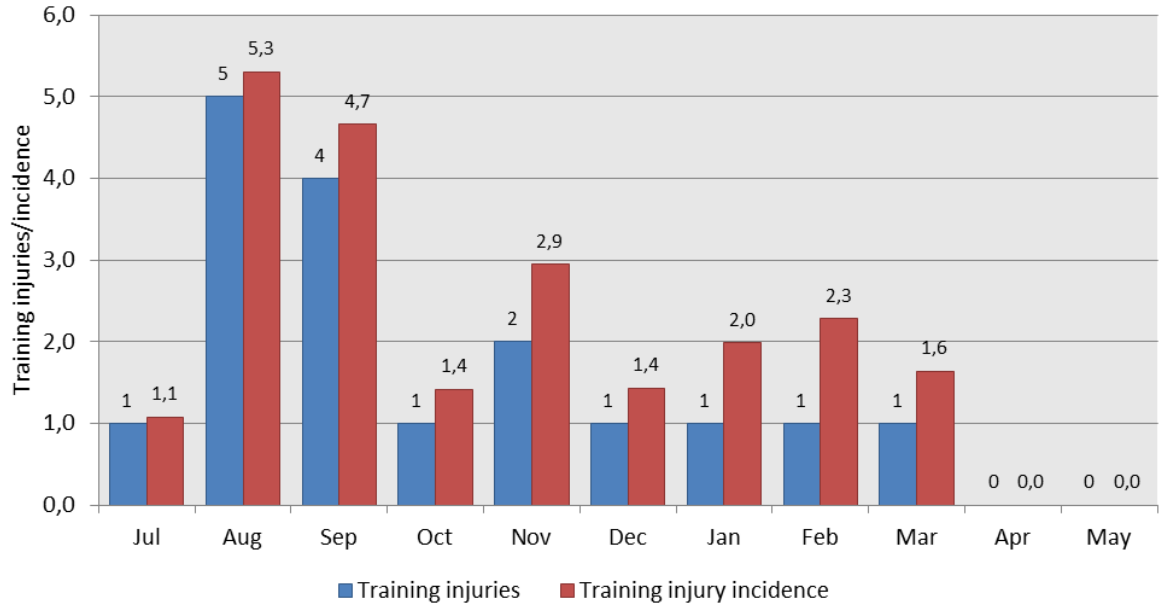


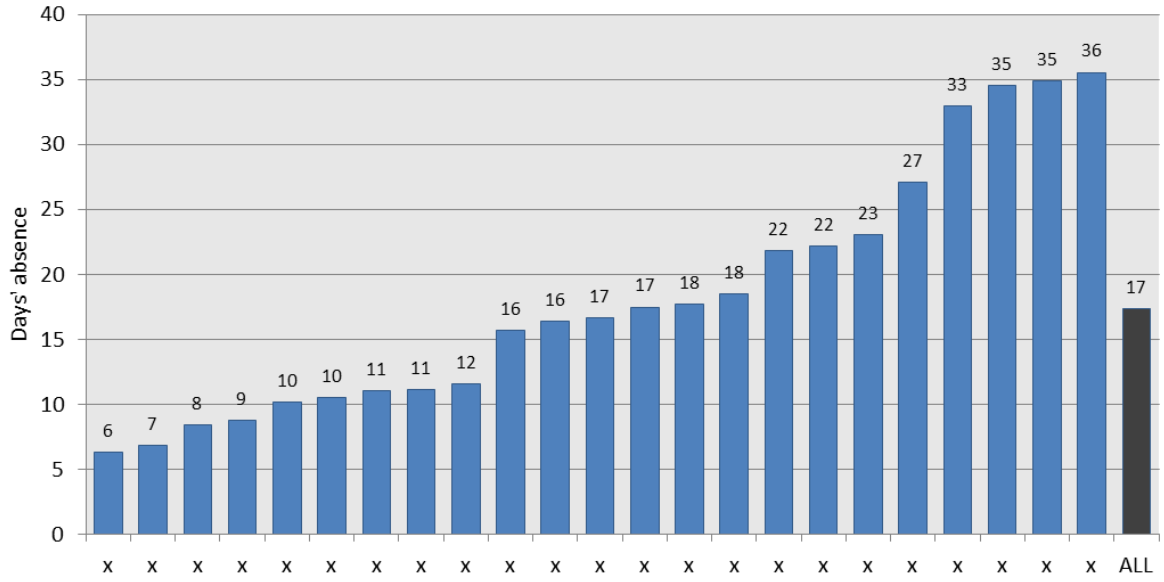
Figure 6. Monthly distribution of training injuries (blue bars) and training injury rates (red bars) for **Team X** across the season



5.1.2 Days' absence for training injuries

The average absence for training injuries among the teams was 17 days, ranging from 6 to 36 days.

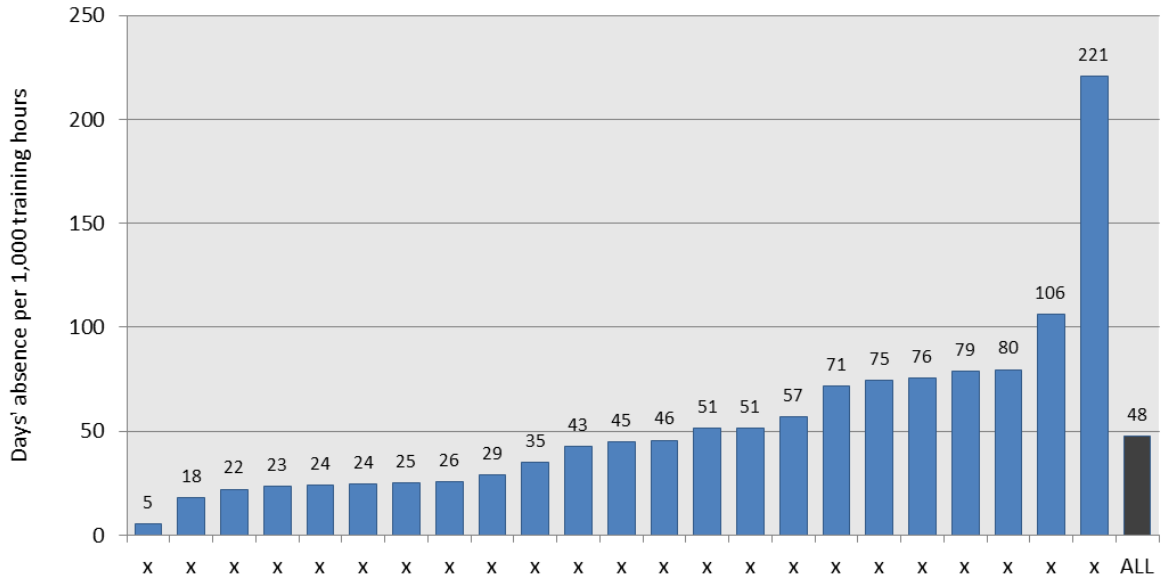
Figure 7. Days' absence for training injuries



5.1.3 Burden of training injuries

The mean injury burden in training was 48 days' absence/1,000 hours, ranging from 5 to 221.

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 20.5 injuries for every 1,000 match hours, with individual rates ranging from 8.8 to 40.5.

Figure 9. Match injury rate

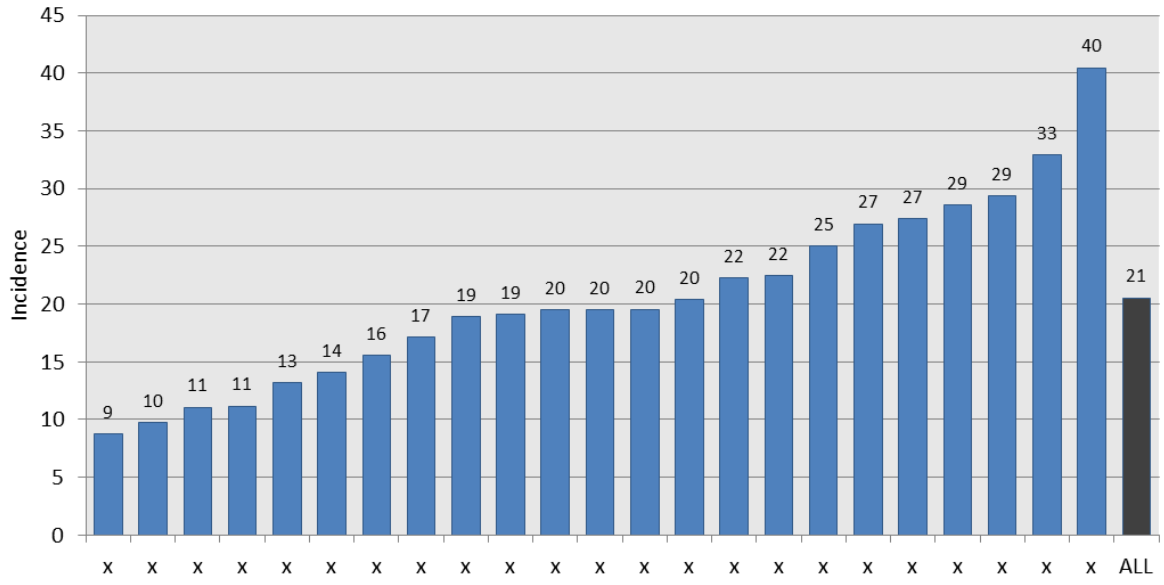
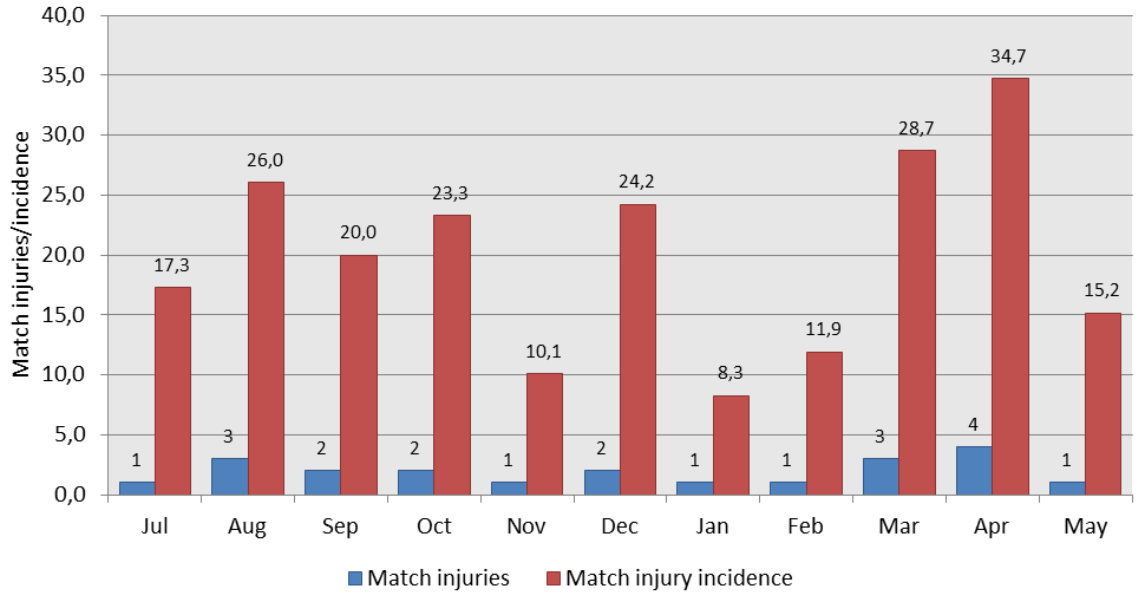


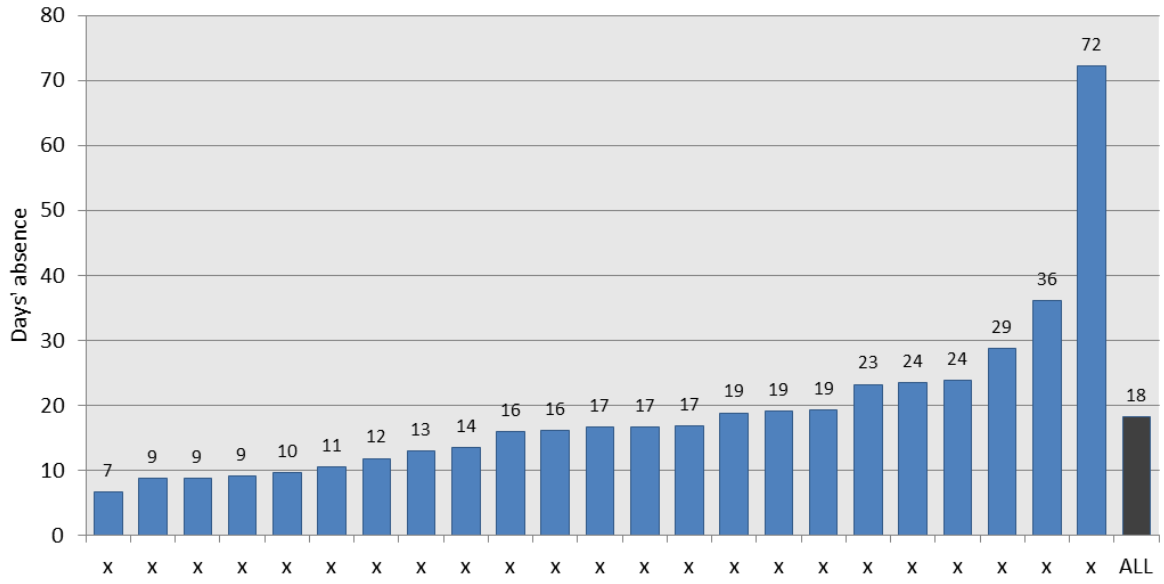
Figure 10. Monthly distribution of match injuries (blue bars) and match injury rates (red bars) for **Team X** across the season



5.2.2 Days' absence for match injuries

The average absence for match injuries among the teams was 18 days, ranging from 7 to 72 days.

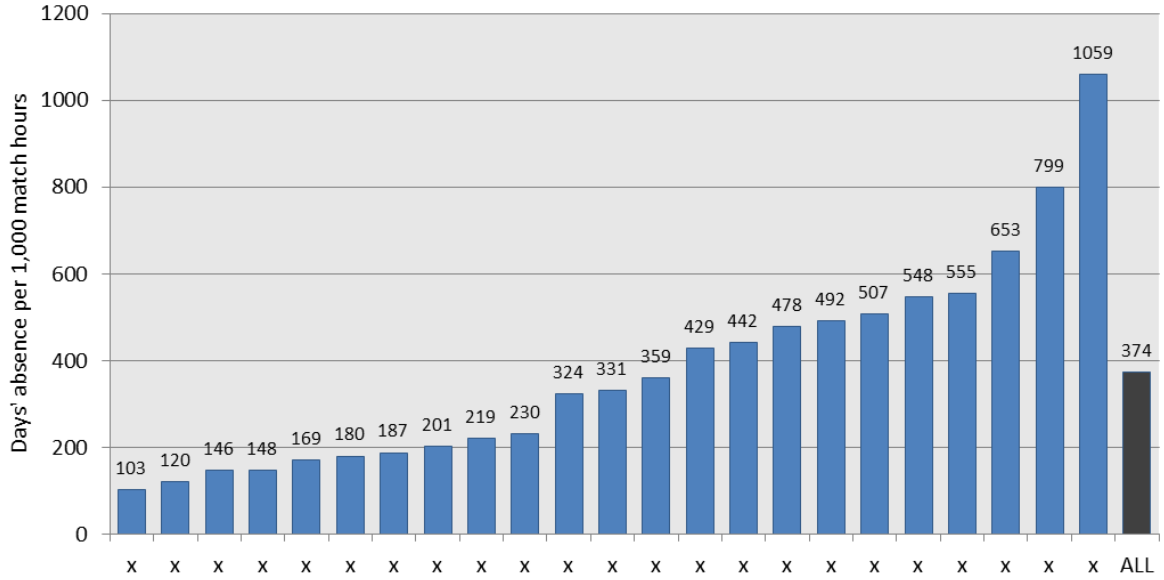
Figure 11. Days' absence for match injuries



5.2.3 Burden of match injuries

The mean injury burden in match play was 374 days' absence/1,000 hours, ranging from 103 to 1,059.

Figure 12. Match injury burden



5.3 Severe injury patterns

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

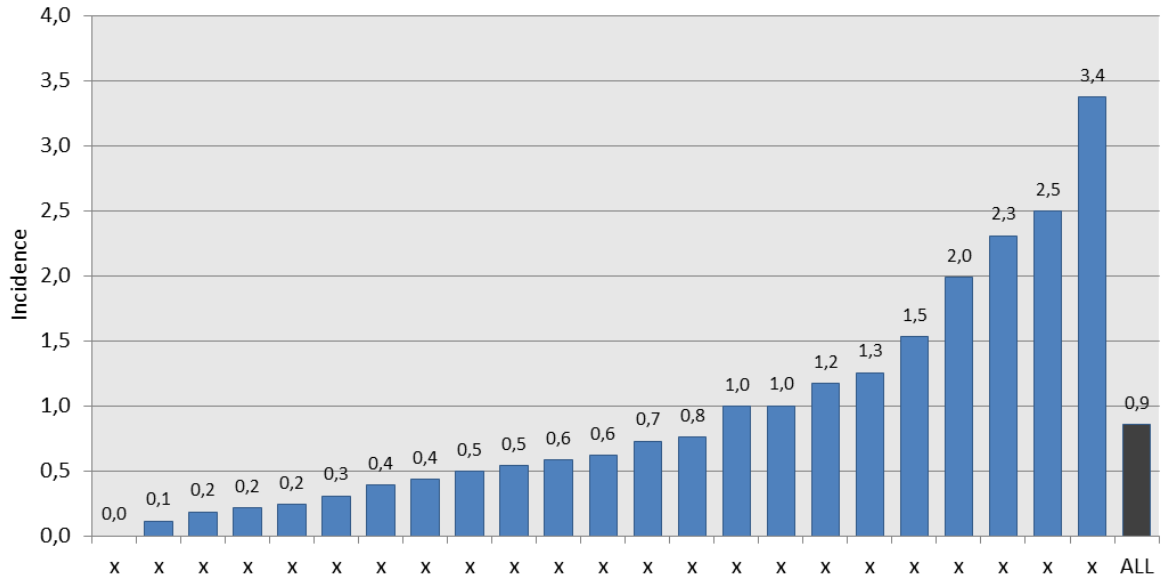
Table 10. Severe injury diagnoses

Diagnosis description	Team X		Other teams	
	N	%	N	%
[SDAX] Anteroinferior shoulder dislocation	1	20,0	2	1,4
[TMHS] Semimembranosis/tendinosis strain, grade 1 - 2	1	20,0	5	3,5
[TMQS] Rectus femoris strain	1	20,0	13	9,0
[TMAX] Adductor strain	1	20,0	1	,7
[KMXX] Knee Muscle Strain/Spasm/Trigger Points	1	20,0	0	0,0

5.3.1 Severe injury rate

The mean severe injury rate for all teams was 0.9 severe injuries for every 1,000 hours, with individual rates ranging from 0.0 to 3.4. Please note that since total absences are unknown where players 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	
	N	%	N	%
[GMXX] Hip and Groin Muscle Strain/Tear	1	4,0	21	5,9
[QMSX] Soleus Injury/strain	1	4,0	26	7,4
[QMYX] Calf muscle trigger points/spasm	1	4,0	3	,8
[BMGB] Gluteus medius/minimus strain	2	8,0	1	,3
[TMHX] Hamstring strain	2	8,0	18	5,1
[TMQX] Quadriceps Strain	2	8,0	6	1,7
[QMXX] Lower leg muscle Injury	2	8,0	8	2,3
[QMGX] Gastrocnemius muscle injury/strain	2	8,0	6	1,7
[TMQS] Rectus femoris strain	3	12,0	49	13,9
[TMYH] Hamstring trigger points	3	12,0	15	4,2
[TMHB] Biceps femoris strain, grade 1 - 2	6	24,0	86	24,4
Total	**25**	**100,0**	**353**	**100,0**

Table 12. Mechanism of muscle injuries

	Total			
	Team X		Other teams	
	N	%	N	%
Running/sprinting	6	40,0	156	47,7
Twisting/turning	2	13,3	13	4,0
Shooting	3	20,0	54	16,5
Passing/crossing	2	13,3	21	6,4
Dribbling	0	0,0	1	,3
Jumping/landing	0	0,0	16	4,9
Stretching	1	6,7	15	4,6
Sliding	0	0,0	11	3,4
Overuse	0	0,0	23	7,0
Collision	0	0,0	3	,9
Tackled	0	0,0	5	1,5
Tackling	0	0,0	4	1,2
Kicked	0	0,0	1	,3
Blocked	0	0,0	1	,3
Other acute mechanism	1	6,7	3	,9
Total	**15**	**100,0**	**327**	**100,0**

Table 13. Contact/non-contact muscle injuries

	Total			
	Team X		Other teams	
	N	%	N	%
Non-contact	19	100,0	351	97,8
Contact player	0	0,0	8	2,2
Contact object	0	0,0	0	0,0
Total	**19**	**100,0**	**359**	**100,0**

Table 14. Severity of muscle injuries

	Total			
	Team X		Other teams	
	N	%	N	%
Slight [0 days]	0	0,0	0	0,0
Minimal [1-3 days]	0	0,0	30	8,4
Mild [4-7 days]	6	30,0	80	22,3
Moderate [8-28 days]	13	65,0	192	53,6
Severe [>28 days]	1	5,0	56	15,6
Total	**20**	**100,0**	**358**	**100,0**

Table 15. Re-injury rate for muscle injuries

	Total			
	Team X		Other teams	
	N	%	N	%
No re-injury	19	95,0	325	90,8
Re-injury	1	5,0	33	9,2
Total	**20**	**100,0**	**358**	**100,0**

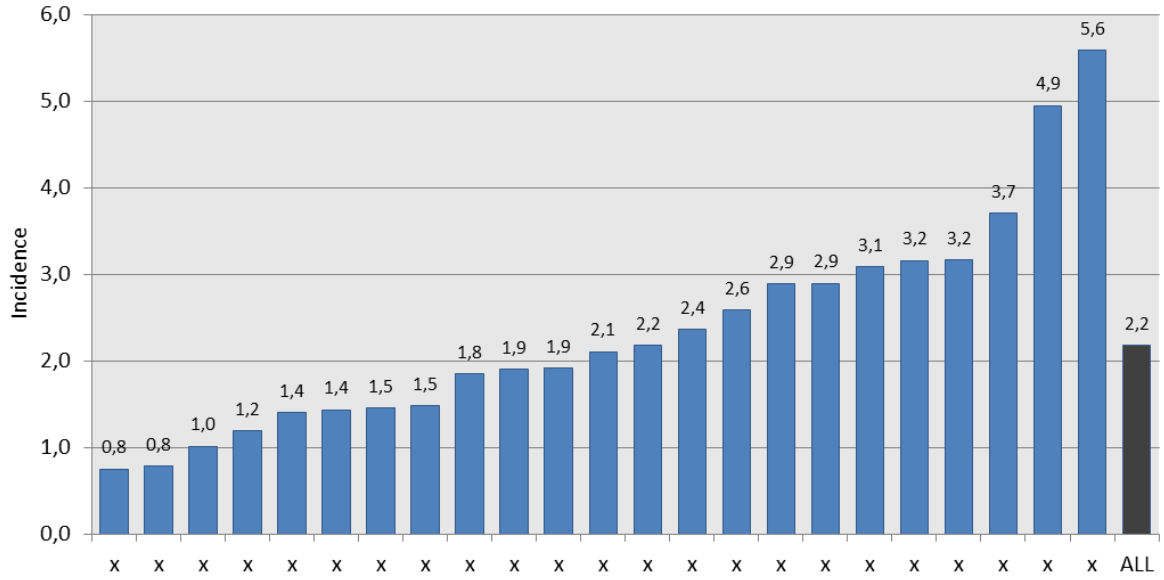
Table 16. Monthly distribution of muscle injuries

	Total			
	Team X		Other teams	
	N	%	N	%
July	2	18,2	16	4,4
August	2	18,2	28	7,6
September	1	9,1	46	12,5
October	1	9,1	44	12,0
November	0	0,0	42	11,4
December	2	18,2	34	9,3
January	0	0,0	36	9,8
February	0	0,0	34	9,3
March	0	0,0	27	7,4
April	1	9,1	37	10,1
May	2	18,2	23	6,3
Total	**11**	**100,0**	**367**	**100,0**

5.4.1 Muscle injury rate

The mean muscle injury rate for all teams was 2.2 muscle injuries for every 1,000 hours, with individual rates ranging from 0.8 to 5.6.

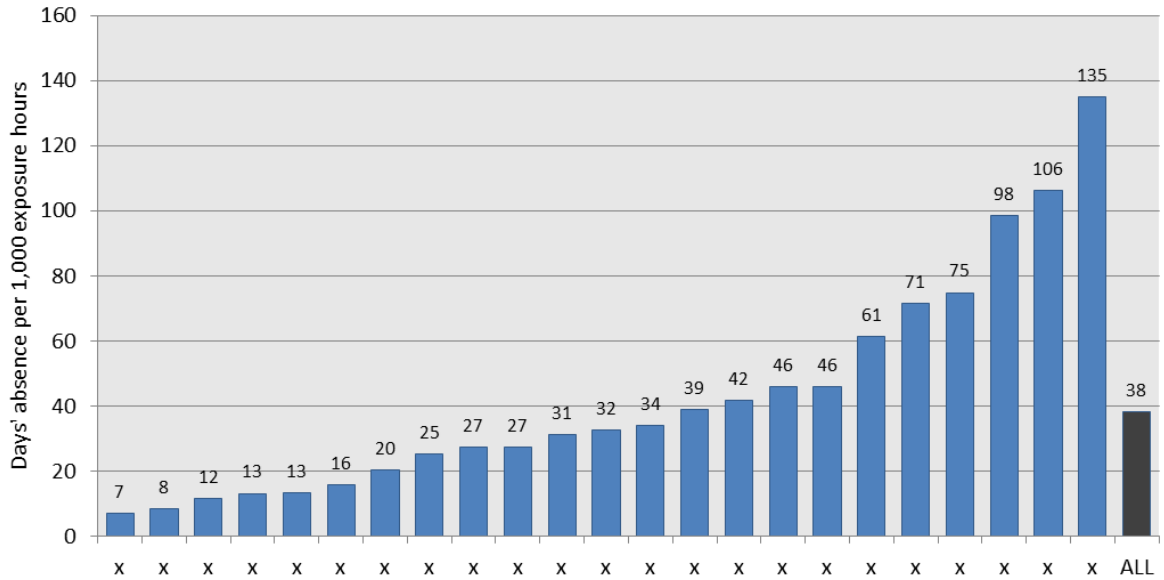
Figure 14. Muscle injury rate



5.4.2 Burden of muscle injuries

The mean injury burden for muscle injury was 38 days' absence/1,000 hours, ranging from 7 to 135.

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					
	N	Sum	Mean	Med	Min	Max	N	Sum	Mean	Med	Min	Max
[TMAX] Adductor strain	1	4	4,0	4,0	4	4	10	166	16,6	10,5	7	39
[TMYH] Hamstring trigger points	1	5	5,0	5,0	5	5	17	83	4,9	4,0	1	10
[TMXX] Thigh Muscle strain/Spasm/Trigger Points	2	10	5,0	5,0	3	7	7	40	5,7	6,0	3	8
[TMQS] Rectus femoris strain	2	12	6,0	6,0	4	8	50	1268	25,4	21,0	1	88
[TMHB] Biceps femoris strain, grade 1 - 2	5	47	9,4	7,0	3	21	87	1428	16,4	12,0	2	79
Total	**11**	**78**	**7,1**	**7,0**	**3**	**21**	**367**	**6524**	**17,8**	**13,0**	**1**	**158**

N = 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	
	N	%	N	%
[AJSX] Ankle syndesmosis sprain	1	100,0	7	5,1
Total	**1**	**100,0**	**137**	**100,0**

Table 19. Mechanism of ligament injuries

	Total			
	Team X		Other teams	
	N	%	N	%
Running/sprinting	0	0,0	3	2,4
Twisting/turning	1	12,5	19	15,2
Shooting	0	0,0	5	4,0
Passing/crossing	0	0,0	3	2,4
Jumping/landing	1	12,5	13	10,4
Falling/diving	1	12,5	1	,8
Sliding	0	0,0	8	6,4
Overuse	0	0,0	1	,8
Hit by ball	0	0,0	3	2,4
Collision	1	12,5	7	5,6
Tackled	3	37,5	41	32,8
Tackling	0	0,0	6	4,8
Kicked	0	0,0	6	4,8
Blocked	1	12,5	4	3,2
Other acute mechanism	0	0,0	5	4,0
Total	**8**	**100,0**	**125**	**100,0**

Table 20. Contact/non-contact ligament injuries

	Total			
	Team X		Other teams	
	N	%	N	%
Non-contact	4	50,0	53	40,8
Contact player	4	50,0	74	56,9
Contact object	0	0,0	3	2,3
Total	**8**	**100,0**	**130**	**100,0**

Table 21. Severity of ligament injuries

	Total			
	Team X		Other teams	
	N	%	N	%
Slight [0 days]	0	0,0	0	0,0
Minimal [1-3 days]	1	9,1	22	17,3
Mild [4-7 days]	2	18,2	28	22,0
Moderate [8-28 days]	3	27,3	50	39,4
Severe [>28 days]	5	45,5	27	21,3
Total	**11**	**100,0**	**127**	**100,0**

Table 22. Re-injury rate for ligament injuries

	Total			
	Team X		Other teams	
	N	%	N	%
No re-injury	9	81,8	117	92,1
Re-injury	2	18,2	10	7,9
Total	**11**	**100,0**	**127**	**100,0**

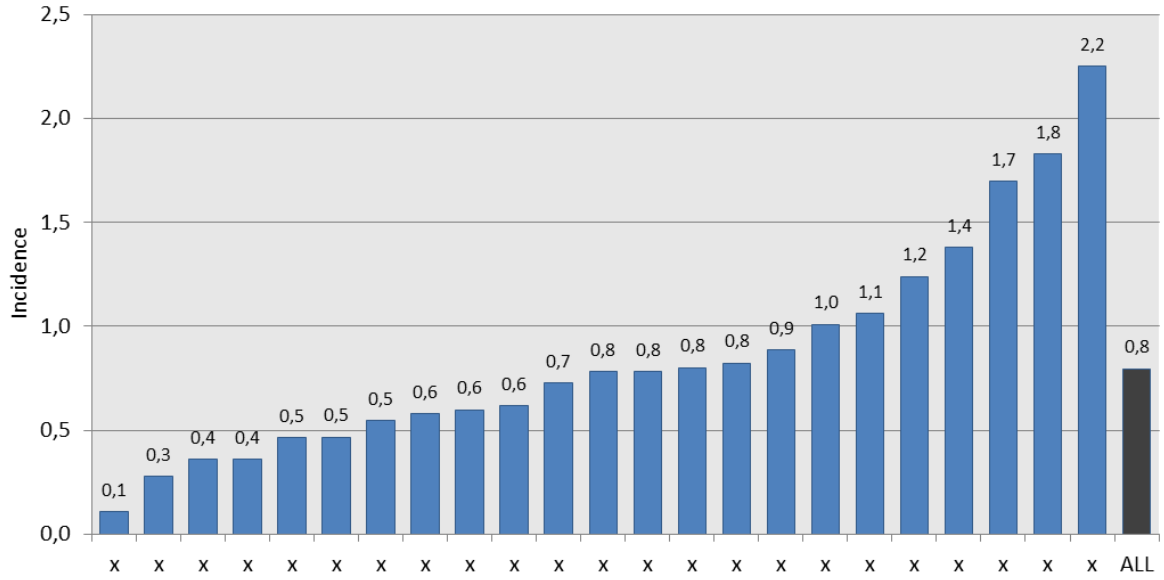
Table 23. Monthly distribution of ligament injuries

	Total			
	Team X		Other teams	
	N	%	N	%
July	1	12,5	10	7,7
August	2	25,0	15	11,5
September	0	0,0	14	10,8
October	0	0,0	10	7,7
November	0	0,0	9	6,9
December	0	0,0	11	8,5
January	0	0,0	11	8,5
February	2	25,0	8	6,2
March	1	12,5	22	16,9
April	2	25,0	15	11,5
May	0	0,0	5	3,8
Total	**8**	**100,0**	**130**	**100,0**

5.5.1 Ligament injury rate

The mean ligament injury rate for all teams was 0.8 ligament injuries for every 1,000 hours, with individual rates ranging from 0.1 to 2.2.

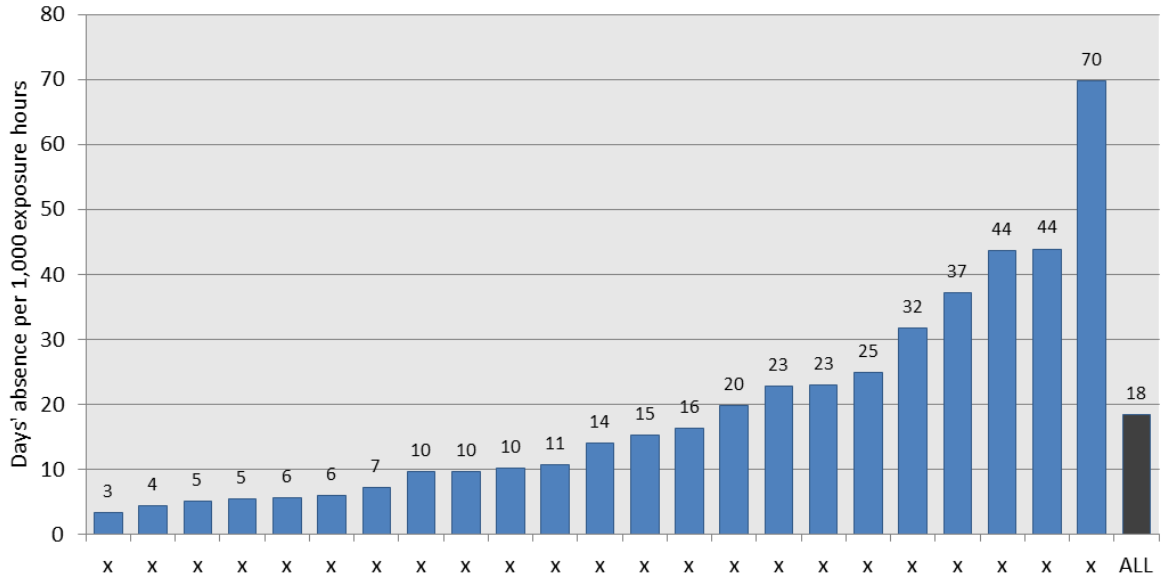
Figure 16. Ligament injury rate



5.5.2 Burden of ligament injuries

The mean burden for ligament injury was 18 days' absence/1,000 hours, ranging from 3 to 70.

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					
	N	Sum	Mean	Med	Min	Max	N	Sum	Mean	Med	Min	Max
[AJLX] Ankle lateral ligament sprain	1	20	20,0	20,0	20	20	6	46	7,7	4,5	1	22
[AJDX] Ankle deltoid ligament sprain	1	19	19,0	19,0	19	19	3	18	6,0	5,0	4	9
[AJXX] Ankle Sprains	2	14	7,0	7,0	3	11	30	286	9,5	5,0	1	81
[AJMX] Ankle multiple ligaments sprain	4	43	10,8	9,0	9	16	6	182	30,3	19,5	5	84
Total	**8**	**96**	**12,0**	**10,0**	**3**	**20**	**130**	**3081**	**23,7**	**10,0**	**1**	**251**

5.6 Re-injury patterns

Table 25. Re-injury diagnoses

Diagnosis description	Team X		Other teams	
	N	%	N	%
[KCCX] Knee osteochondral injury	1	100,0	0	0,0
Total	**1**	**100,0**	**88**	**100,0**

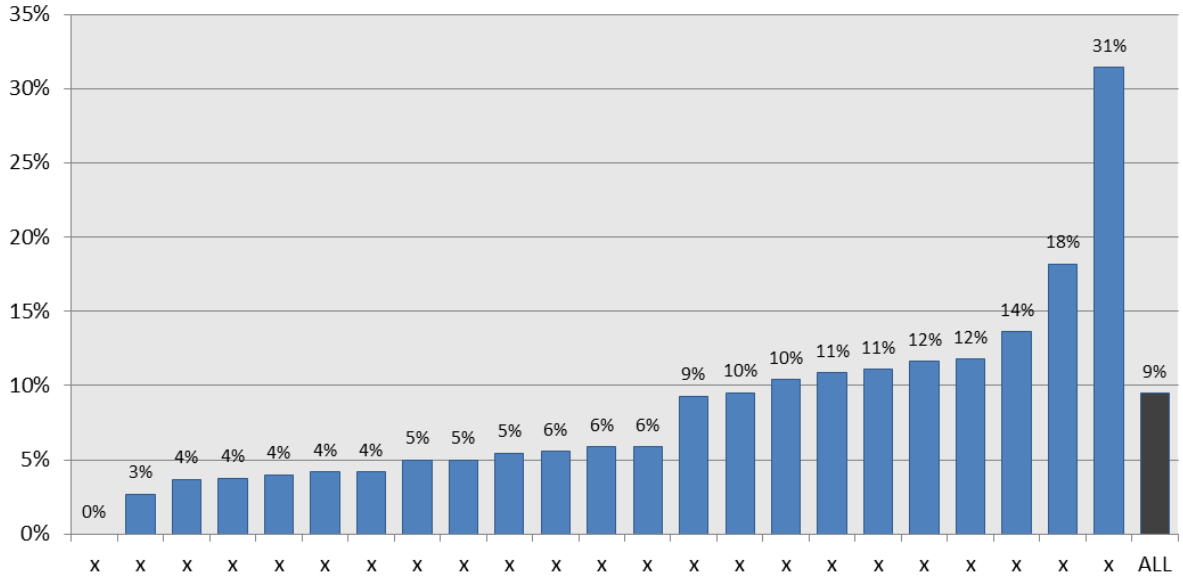
Table 26. Severity of re-injuries

	Total			
	Team X		Other teams	
	N	%	N	%
Slight [0 days]	0	0,0	0	0,0
Minimal [1-3 days]	0	0,0	16	18,2
Mild [4-7 days]	0	0,0	16	18,2
Moderate [8-28 days]	1	100,0	36	40,9
Severe [>28 days]	0	0,0	20	22,7
Total	**1**	**100,0**	**88**	**100,0**

5.6.1 Re-injury rate (%)

On average, 9% of injuries sustained were re-injuries, ranging from 0% to 31% at the various clubs.

Figure 18. Re-injury rate



6 Squad attendance/availability and absences

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, national team duty or any other reason.

Figure 19. Squad attendance rates for training

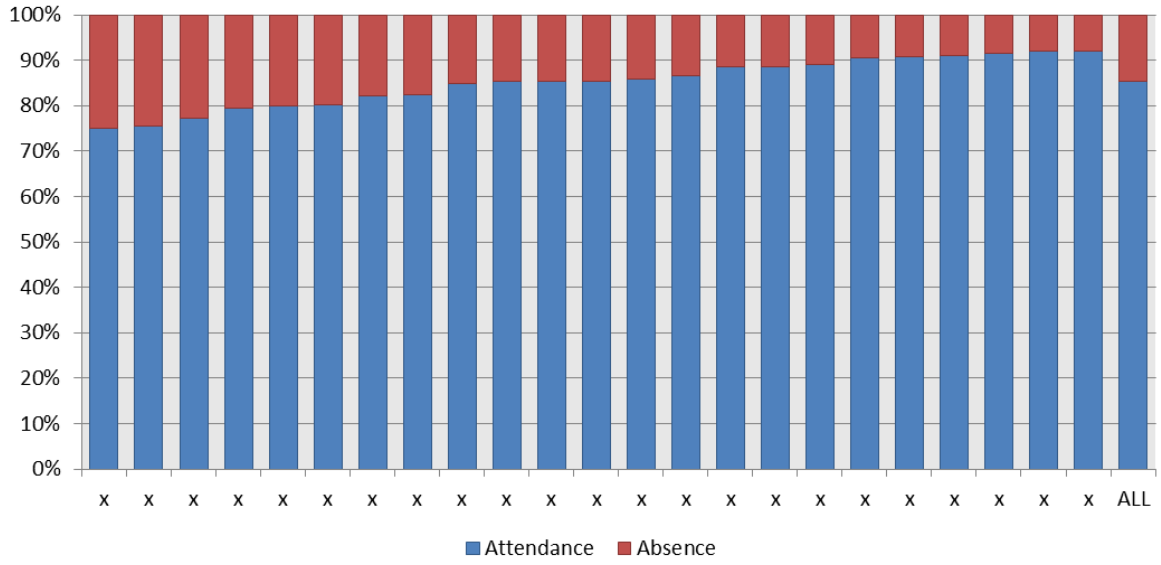


Figure 20. Squad availability rates for matches

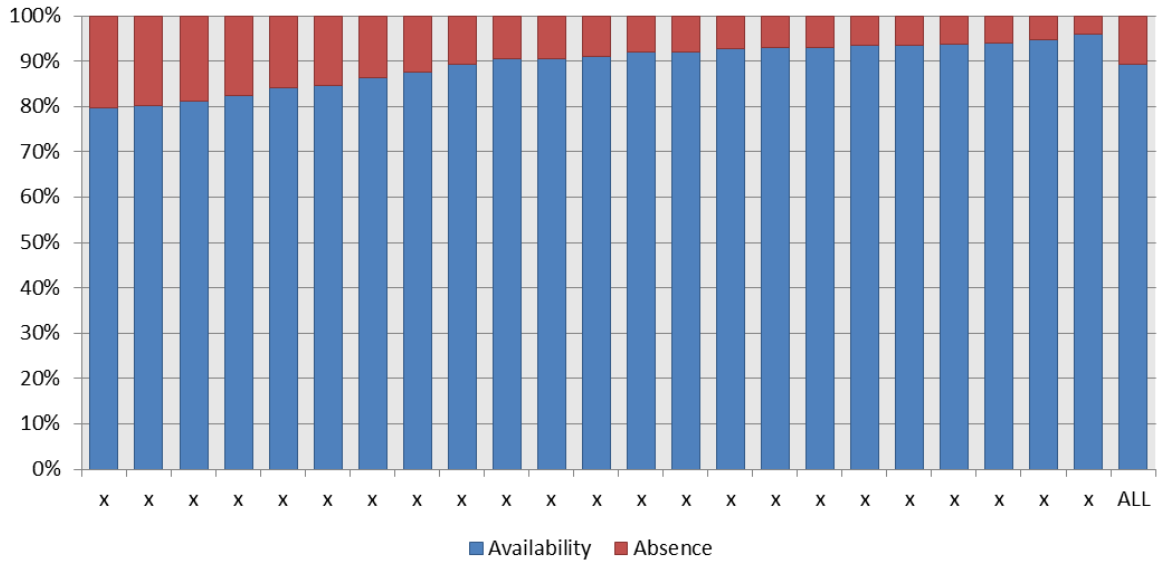
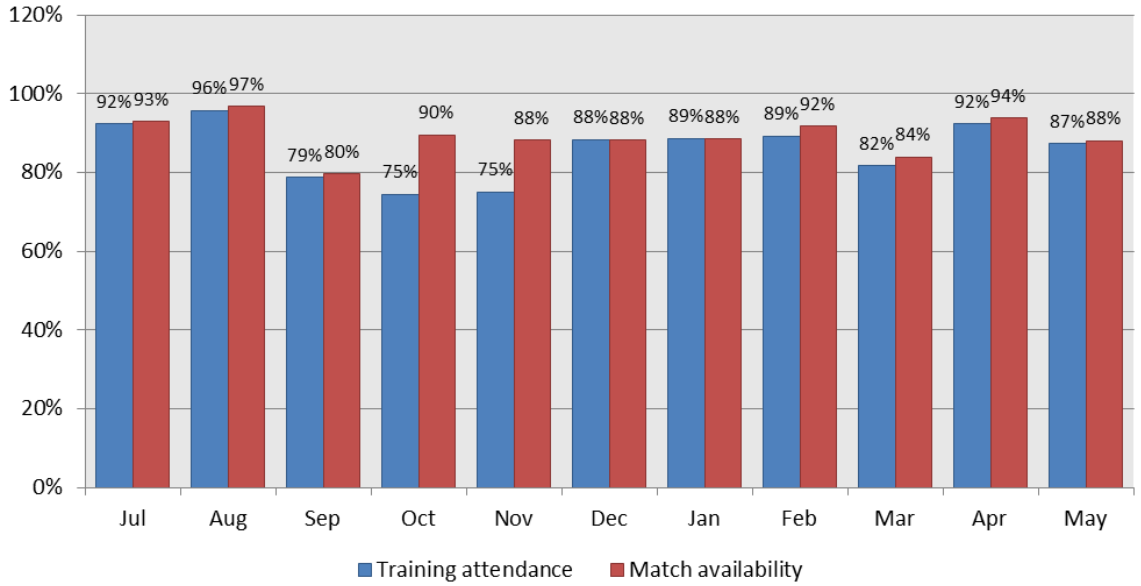


Figure 21. **Team X**'s overall squad attendance in training (blue bars) and availability for matches (red bars) over the season



6.2 Squad absences

The charts below break players' absences down by reason.

Figure 22. Reasons for absence from training sessions

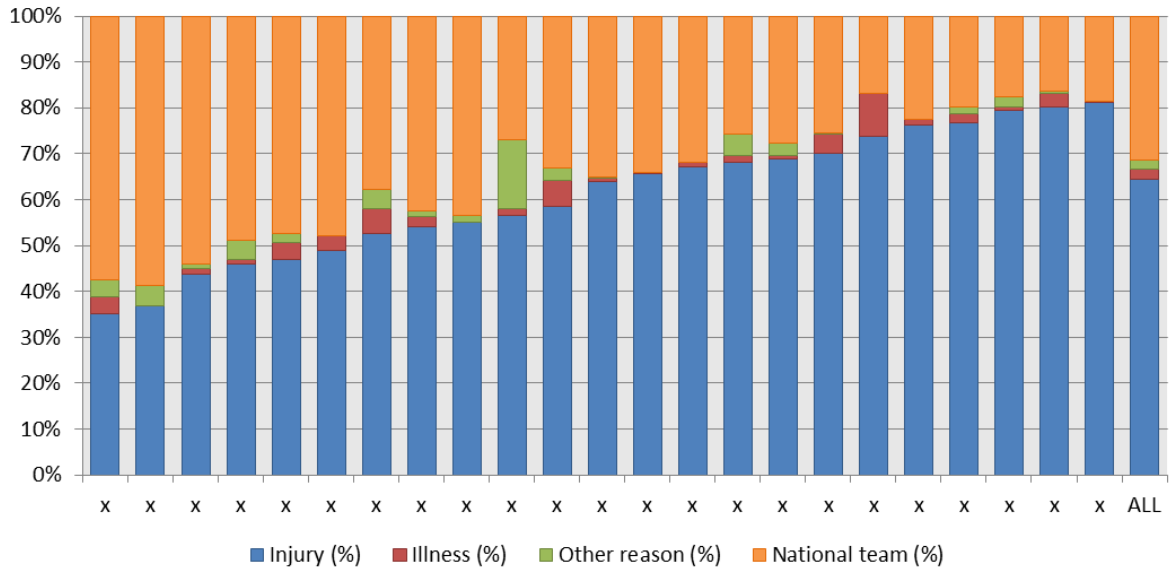


Figure 23. Reasons for absence from matches

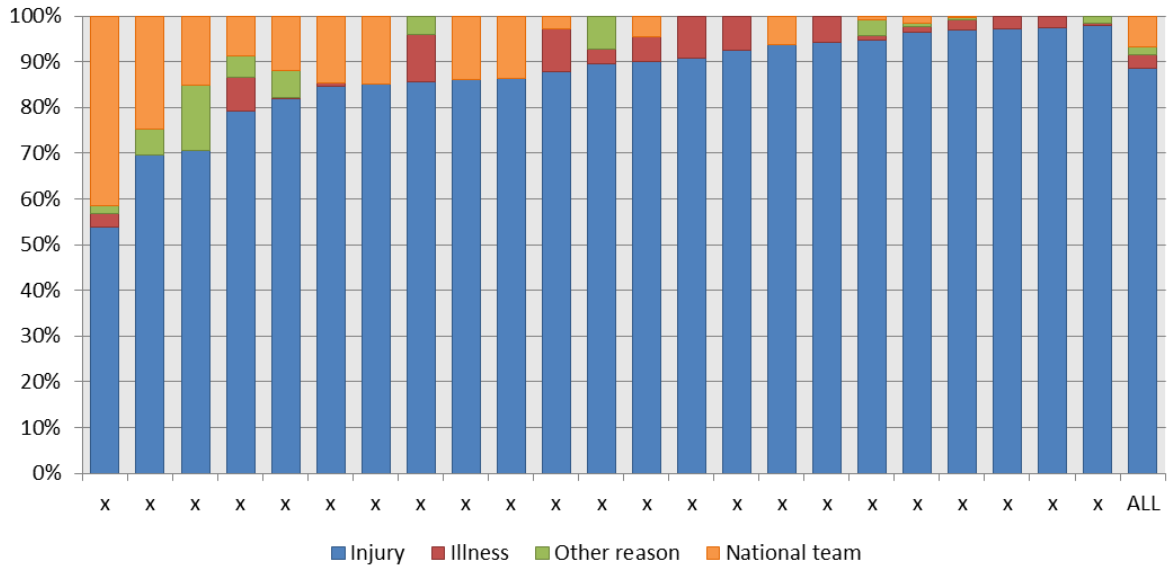


Figure 24. Reasons for absence from training sessions in **Team X** over the season

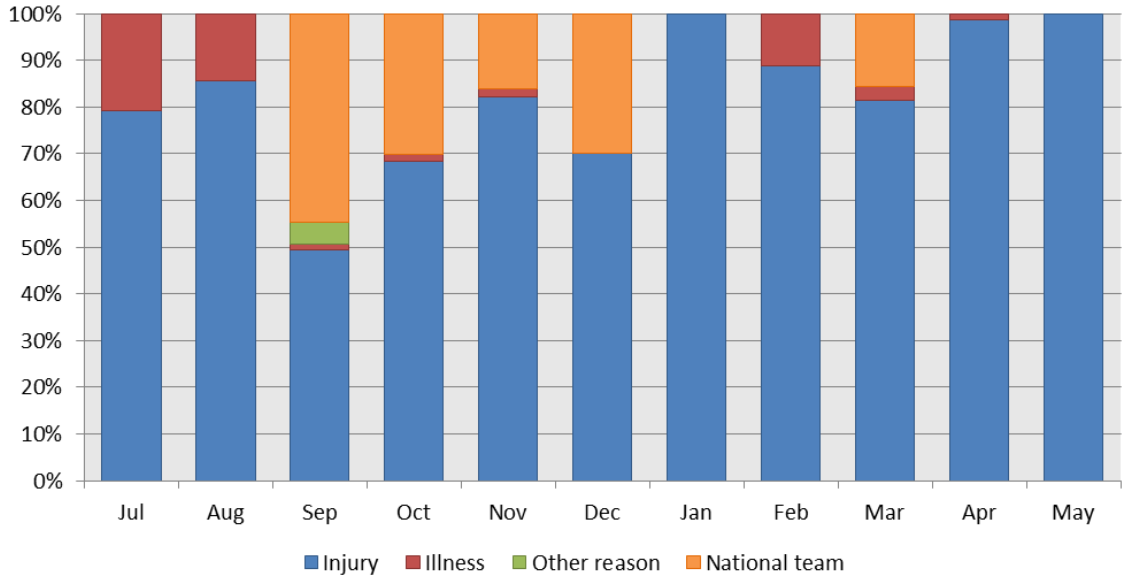
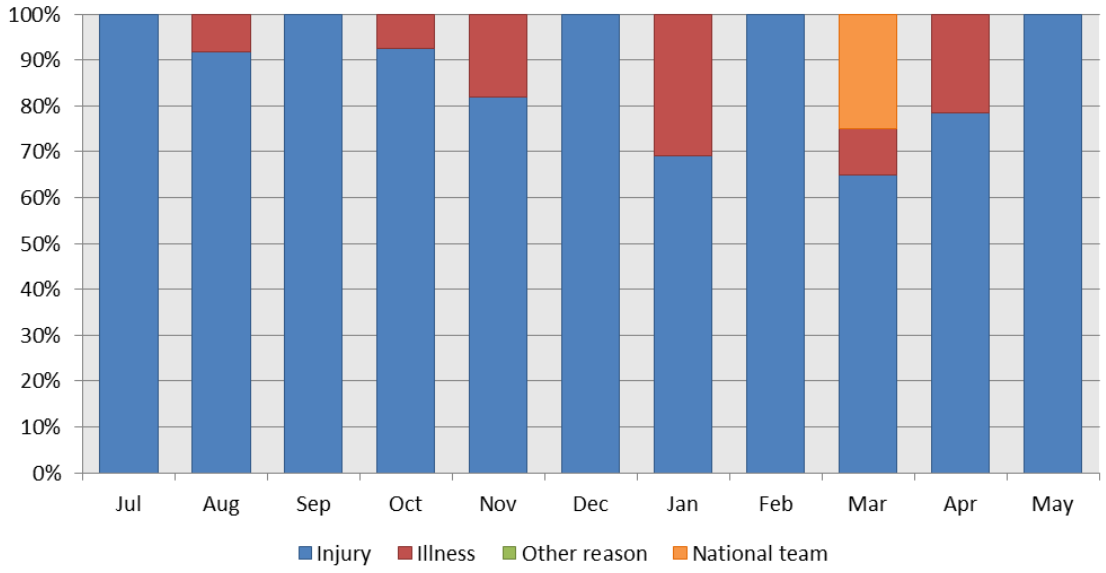


Figure 25. Reasons for absence from matches in **Team X** over the season



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 2.0 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

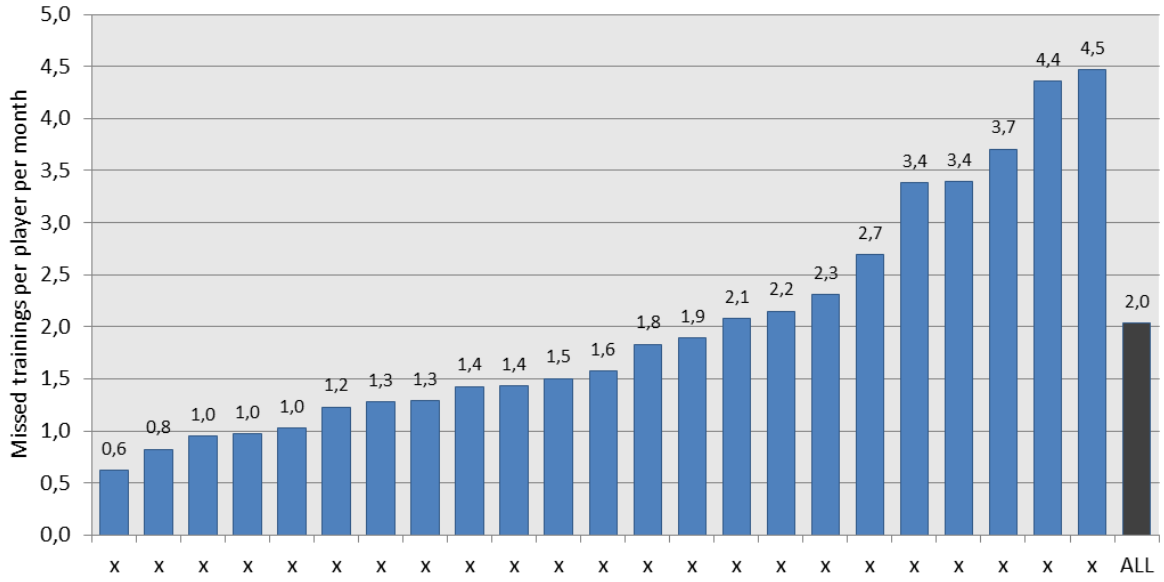
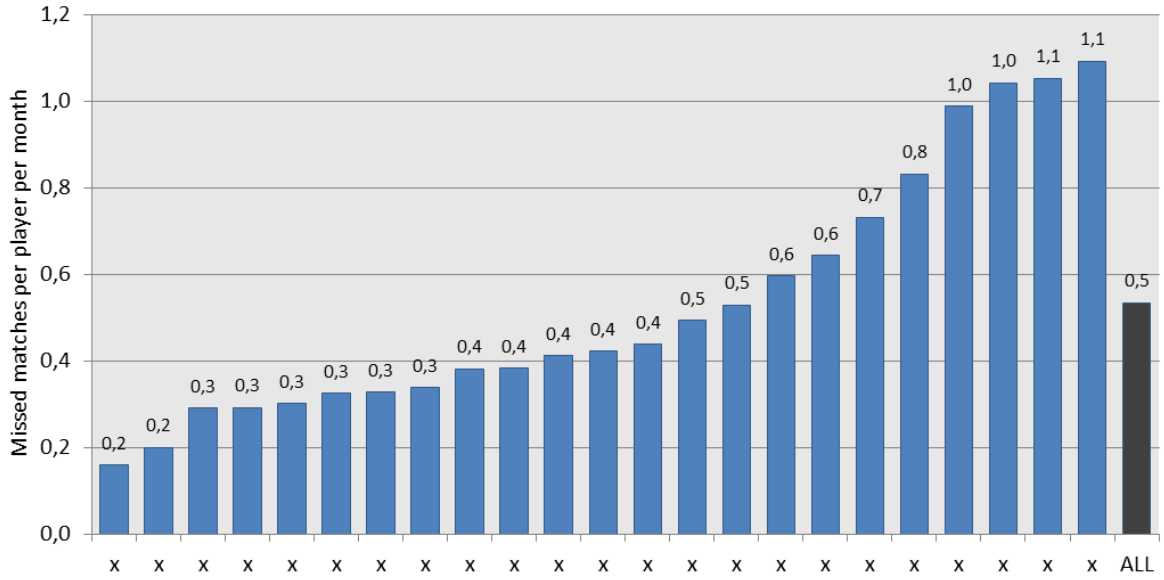


Figure 27. Number of matches missed per player per month owing to injury



7 Analyses over 14 seasons

UEFA's injury study has now recorded approximately 12,000 injuries and 1,700,000 hours of exposure over 14 seasons. Close to 50 teams from 18 different countries have participated at some point during these 14 seasons. This section contains results based on data from all seasons of the study.

7.1 Injury rates over 14 seasons

Your own club's injury rate each season (blue bars) is shown together with the mean injury rate for all teams (red line) for the purposes of comparison.

Figure 28. Training injury rate [14 seasons]

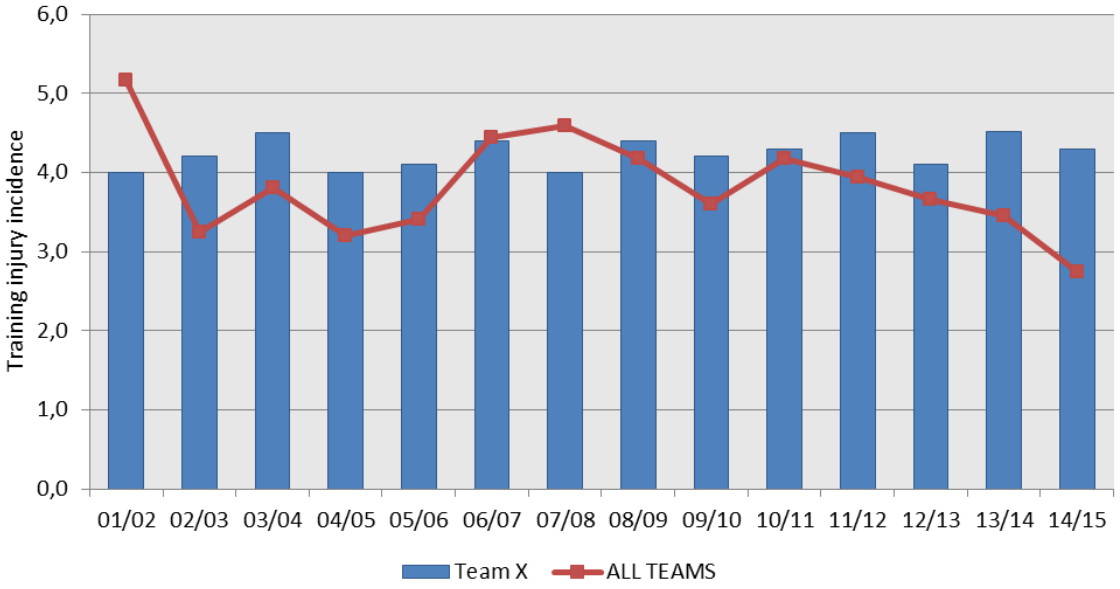


Figure 29. Match injury rate [14 seasons]

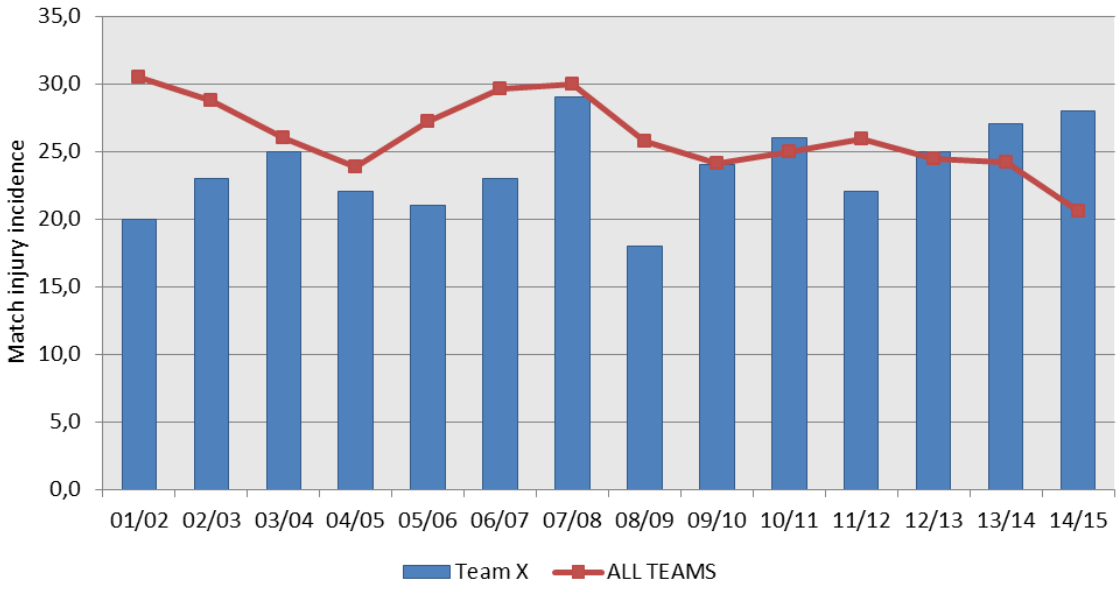


Figure 30. Total injury rate [14 seasons]

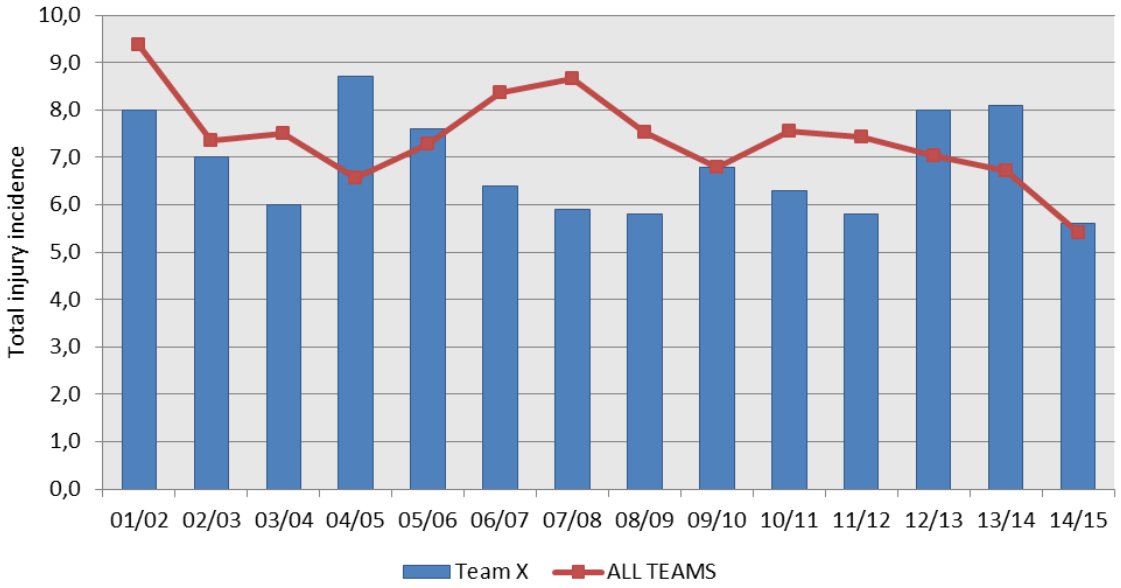


Figure 31. Severe injury rate (>4 weeks' absence) [14 seasons]

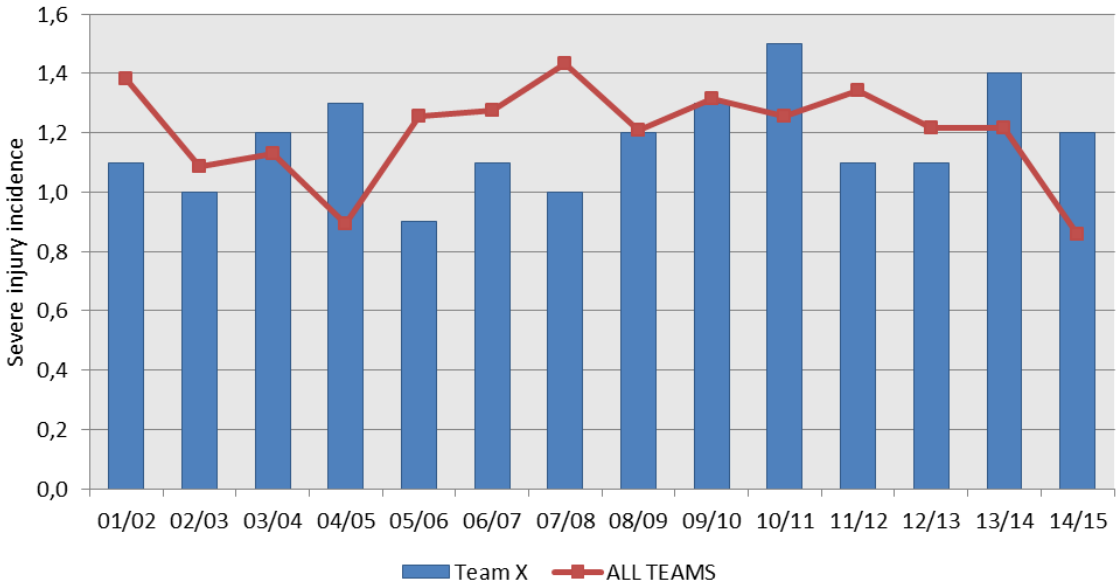


Figure 32. Muscle injury rate [14 seasons]

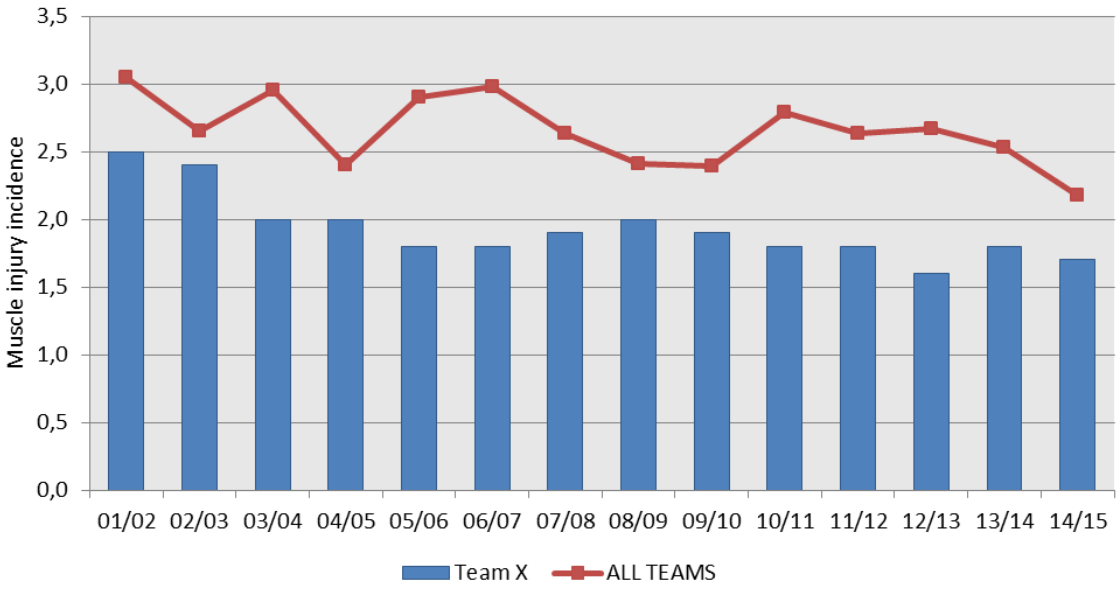


Figure 33. Ligament injury rate [14 seasons]

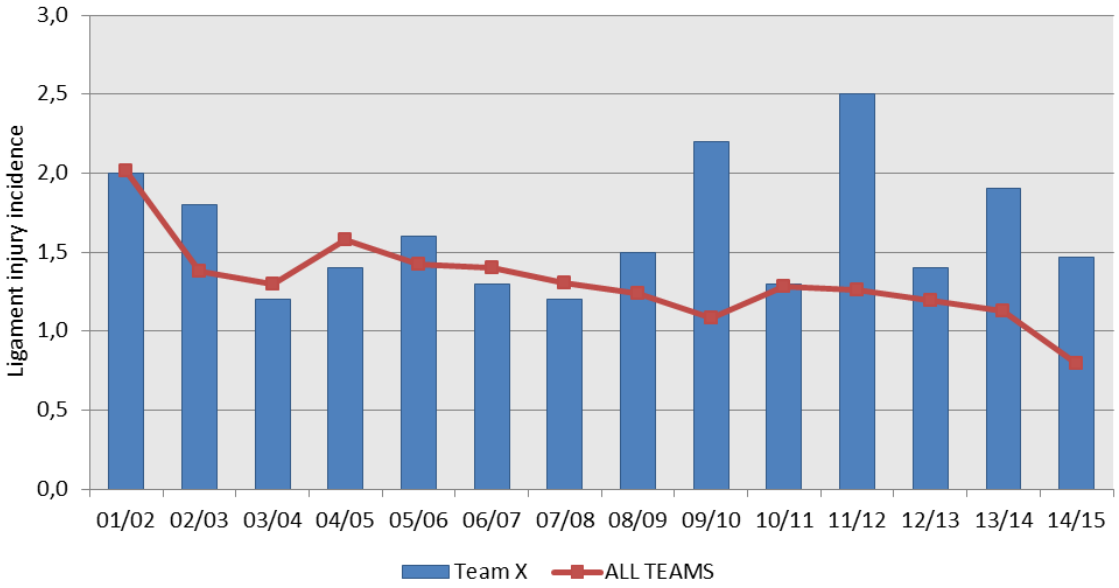
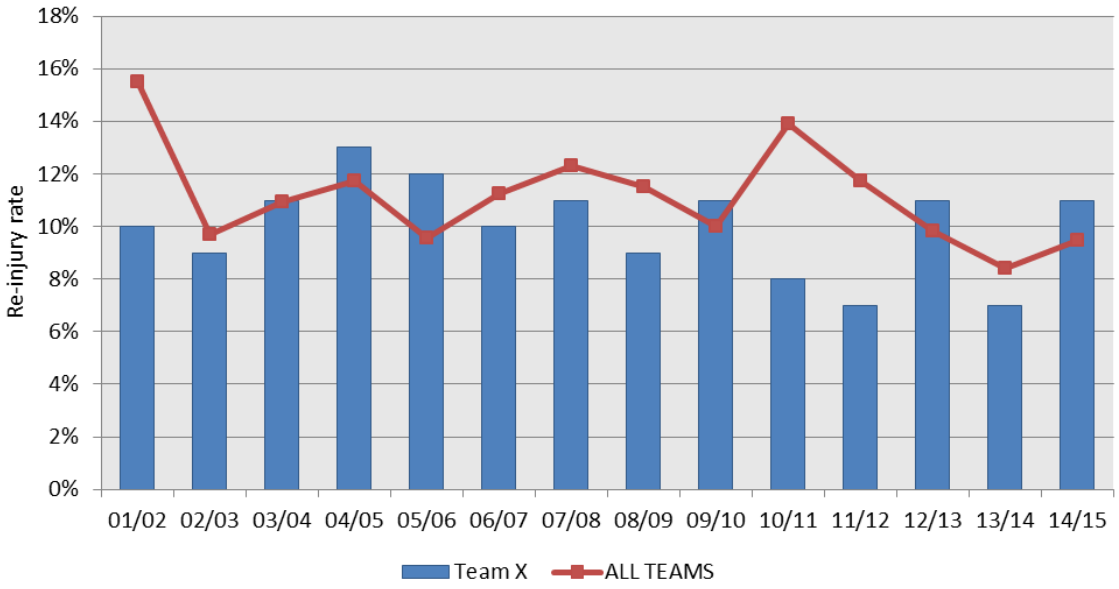


Figure 34. Re-injury rate [14 seasons]



7.2 Squad attendance/availability and absences over 14 seasons

Your own club's squad attendance/availability and absences due to injury is shown for each season (blue bars), together with the mean attendance/availability and absences due to injury for all teams (red line) for the purposes of comparison.

Figure 35. Squad attendance rates for training [14 seasons]

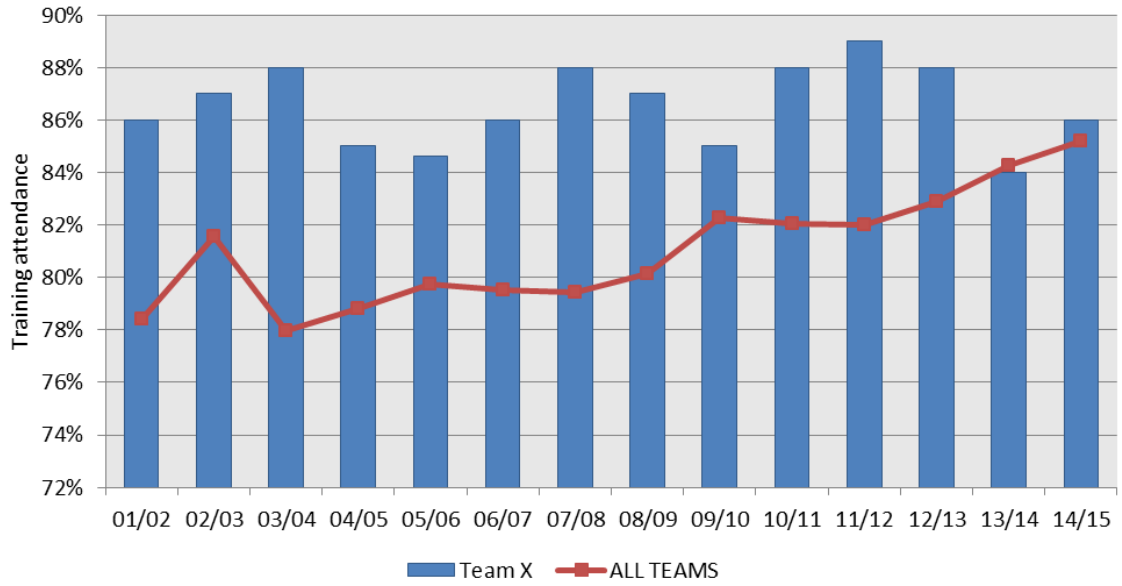


Figure 36. Squad availability rates for matches [14 seasons]

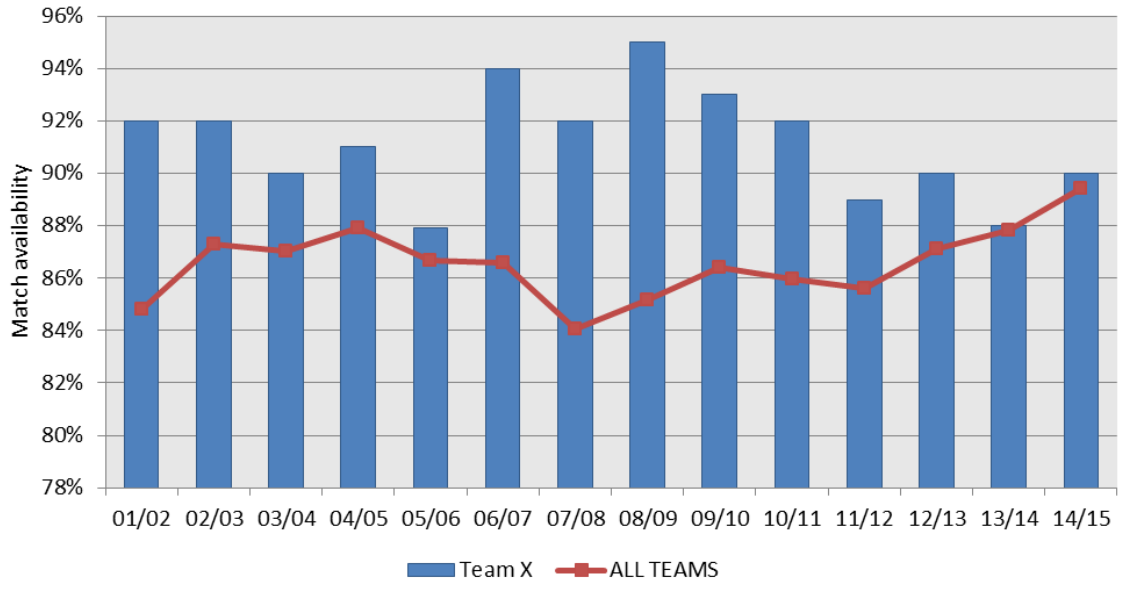


Figure 37. Squad absences from training due to injury [14 seasons]

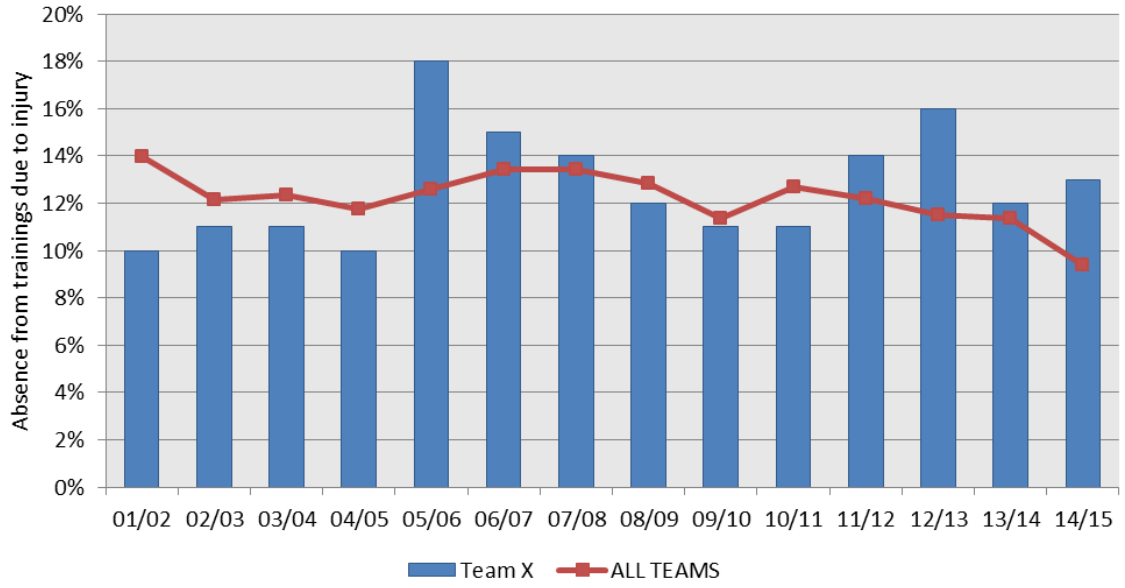


Figure 38. Squad absences from matches due to injury [14 seasons]