

2021

FLASH REPORT

PLAYER WORKLOAD & IMPACT DURING THE EMERGENCY CALENDAR

FIFPRO Player Workload Monitoring (PWM)

Women's football report



THE PLAYERS' VOICE

"After COVID hit, there was a lot of uncertainty regarding what would come next in terms of the league season and we also did not know if we would be able to join up with our national teams for matches. It was great that the League did what they could under the circumstances but it was really disruptive and mentally draining for us players not to know when we would be able to play again."

Rosie White
(OL Reign & New Zealand national team player)



"We have seen the adverse effects of the lack of enough playing opportunities and inadequate re-training conditions for female football players all over the world. It is important we look analytically at data to derive solutions that balance their needs and their health with the role of domestic and international competitions, which are essential for their careers as well as the sustainable growth of women's football worldwide."

Jonas Baer-Hoffmann
(FIFPRO General Secretary)



ABOUT

FIFPRO PWM PLATFORM

FIFPRO Player Workload Monitoring (“PWM”) is a player-centric, match scheduling and workload monitoring platform, developed and operated jointly by FIFPRO and KPMG Football Benchmark. It is part of [FIFPRO Player IQ Hub](#), a player-focused knowledge centre that aims to help shape decisions in the football industry and to protect and improve the careers and working lives of footballers.

FIFPRO PWM combines world-leading scientific knowledge with data insights to monitor player workload and match scheduling across different competitions. The platform is an analytics tool that will enable better decisions to be made in relation to future competitive scheduling, make competitions more sustainable and put players’ health, careers and performance first. The rich database held within FIFPRO PWM’s continuously evolving platform is the source of the analysis presented within this Flash Report.

The FIFPRO PWM platform is freely accessible at [FIFPRO’s Player IQ Hub website](#) and at the [KPMG Football Benchmark website](#). Please visit the platform to find out which 85 female players are the subject of the analysis in this Flash Report. Workload data and analysis on male players is also available on the PWM platform.

Match-level data (minutes played) presented in the FIFPRO PWM Platform is provided by Wyscout (Hudl).

FIFPRO PWM FLASH REPORTS

The Flash Report draws from the FIFPRO PWM data findings to provide scientific mid-season analysis on player workload and match schedule. This edition focuses on the specific impact of the global pandemic and the disrupted football calendar (during the emergency period, since May 2020) on player workload and recovery. The Report includes an overview of the competition calendar during this period and a multi-level analysis focused on players across different competitions. The analysis is based on appearances and workload of 85 selected female players from the FIFPRO PWM platform.

KPMG FOOTBALL BENCHMARK

KPMG Football Benchmark is a digital data & analytics platform that includes financial and operational performance data from over 200 European and South American professional football clubs and the social media performance metrics of hundreds of football clubs and players. The business intelligence tool also provides market value estimates for 5,800+ players from the best European and South American leagues.



The detailed description of all terms and definitions used in this report is on [Page 36](#).

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KEY FINDINGS

PLAYER UNDERLOAD & CALENDAR FRAGMENTATION

Player, coaches and the industry in general all suffer from a fragmented calendar, with insufficient competitive opportunities to enable player talent development and industry growth. FIFPRO PWM has demonstrated that this calendar fragmentation results in “player underload” (long competition breaks and periods without play) set against periodic congestion and shorts bursts of intense play, under challenging conditions.

Football's regulatory and governing bodies have not yet found a way to harmonise the calendar in women's football into a competitive and connected elite competition cycle. This was further exacerbated throughout the emergency period, where women's football was not always treated equally (or equitably) alongside the men's game, e.g. in terms of prioritisation to resume competitions, managing protocols and conditions safely, and allowing critical playing opportunities to return (e.g. international football).

PLAYER WORKLOAD PARAMETERS IN THE EMERGENCY PERIOD



1. PLAYERS EXPERIENCED UP TO 250 DAYS WITHOUT COMPETITIVE FOOTBALL

Due to the COVID-19 pandemic, around three quarter of women's domestic leagues were curtailed, reducing on-pitch minutes for players. The total minutes played between May 2020 and January 2021 by players featured in the FIFPRO PWM platform when compared to the nine-month period of July 2019 to March 2020 dropped from 142,715 to 113,695 (20% decrease). This significant reduction, with many players monitored having between 200 and 250 days without meaningful competition, can jeopardise talent development and sporting performance.



2. MINUTES PLAYED FOR NATIONAL TEAM FOOTBALL DECREASED BY 56%

COVID-19 made it difficult to organise events involving international travel, which led to the cancellation of national team tournaments and friendlies. In women's football these occasions are crucial for player development, providing much needed elite-level playing time. It is of major concern that national team minutes of female players featured in the FIFPRO PWM platform decreased to 11,604 during the May 2020 to January 2021 period, from 26,489 in the preceding nine months, a 56% decrease.



3. PLAYERS EXPERIENCED SHORT BURSTS OF INTENSE ACTIVITY WITH CRITICAL ZONE APPEARANCES RISING TO 50%, OFTEN WITH SUB-STANDARD CONDITIONS

Intense periods of multiple games in quick succession are alternated with longer periods with much fewer appearances. Combined with the long layoff forced by the COVID suspension, this fragmented calendar increases the risk of injuries and can be further aggravated when there is a lack of minimum or well-enforced medical standards and conditions.



THE EMERGENCY CALENDAR IN FOOTBALL



THE IMPACT ON THE RELATIVE IMPORTANCE OF COMPETITION TYPES

As discussed, the COVID-19 pandemic and the ensuing uncertainty undoubtedly hit women's football hard on all fronts, with many players not playing a single game for long periods of time. More than a year after the COVID suspension it is important to consider the impact on different types of competition around the world. Could / did some of them endure the challenges set by the emergency calendar better than others?

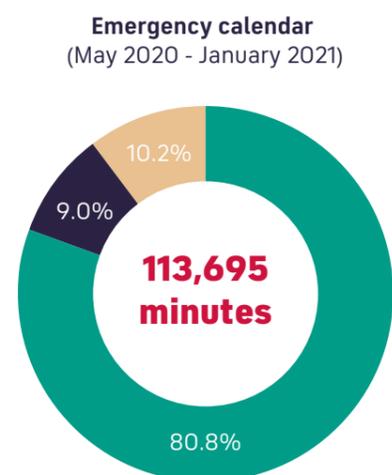
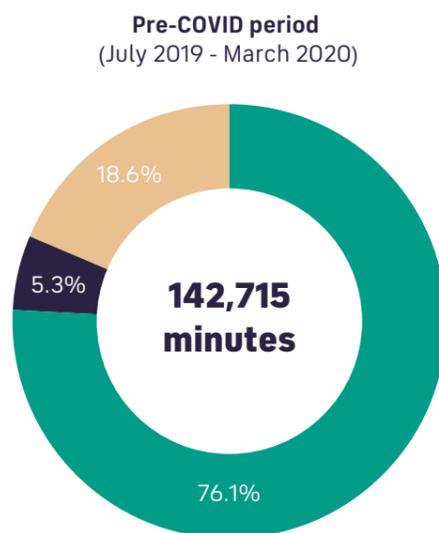
As well as discussing the status of domestic leagues, international club competitions and national team

tournaments, we also highlight three players whose stories are indicative of the impact of the emergency calendar.

First, in the graphs below, we assess the relative weight of these competitions in the match calendar. In this exercise we include the 85 female professional players who are part of the FIFPRO PWM platform. Total minutes played by these players in the 9 months preceding the pandemic is compared to the first 9 months of the emergency calendar.

Minutes played by competition type

Sample of all female players in the FIFPRO PWM platform



■ Club domestic matches ■ Club international matches ■ National team matches

Source: FIFPRO PWM platform, KPMG Football Benchmark analysis

KEY INSIGHTS



On average, international matches make up a higher proportion of female players' overall games than male footballers. In the 9 months preceding the COVID-19 outbreak, almost 20% of all appearances made by players in the FIFPRO PWM platform were national team games. For some players this could be above 30% in a given year. However, due to the cancellation or postponement of most international team tournaments and friendlies, this ratio dropped to 10% in the emergency calendar.



In absolute terms this means that the 85 players' **combined national team minutes played dropped from around 26,500 to only 11,500** when comparing the 9-month period just preceding COVID to the first 9 months of the emergency calendar!



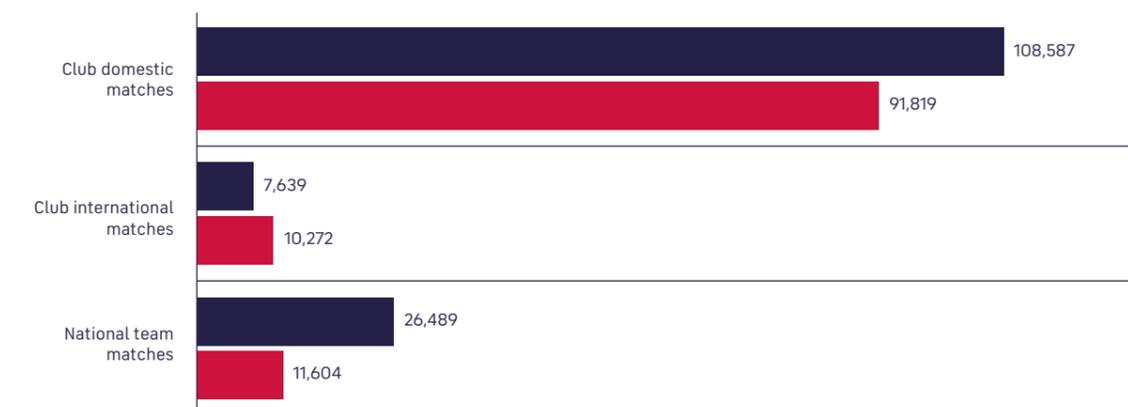
Interestingly, international club competition minutes actually increased over the same time span. The reason for this is the postponements of tournaments such as the UEFA Women's Champions League, where 2019/20 season matches from the quarter-finals stage had to be delayed and eventually took place during the emergency calendar period.



Players also played fewer domestic club football minutes during the first 9 months of the emergency calendar than in the preceding period. This is the product of various league and domestic cup cancellations and postponements. Although domestic club matches still increased their share of all minutes played, from 76.1% to 80.8% (for the average player), largely due to the dearth of national team opportunities during the emergency calendar.

Distribution of minutes by competition type

Sample of all female players in the FIFPRO PWM platform



■ Pre-COVID period (July 2019 - March 2020) ■ Emergency calendar (May 2020 - January 2021)

Source: FIFPRO PWM platform, KPMG Football Benchmark analysis

PLAYER IN FOCUS: CRYSTAL DUNN USA / Winger, Fullback / 28

North Carolina Courage & Portland Thorns FC, NWSL, USA



Crystal Dunn ended 2019 on a high, scoring for North Carolina Courage in the victorious NWSL final (later joining the Portland Thorns, in October 2020). After a relatively long break, Dunn then had Olympic qualifiers and SheBelieves Cup matches, with the USWNT in February and March 2020. Then the spread of the COVID-19 pandemic created serious fragmentation in her normal calendar.

With the regular NWSL season being cancelled because of the pandemic, Dunn and her peers were left with an uncertain outlook. Dunn eventually participated in the Challenge Cup in the summer of 2020, the first American major sports competition to return amidst the pandemic. She then had the opportunity to play in the 4-game NWSL Fall Series tournament in October, but decided to opt out.

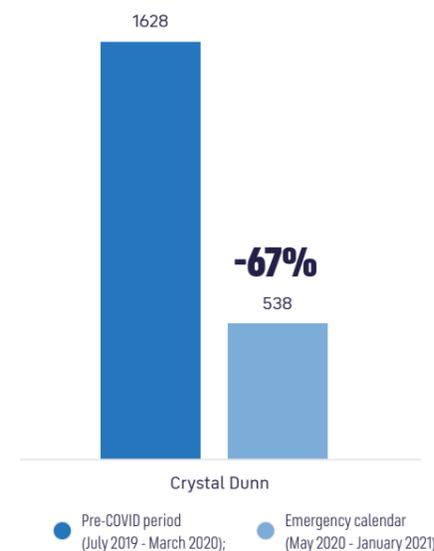
"I have been going full throttle for about 7 years now, and I never really get to take time for myself. Playing 4 more games is obviously really great and it's beneficial, but I think taking this time to really work and train individually also has a lot of benefits.", said Dunn.

Dunn played only 359 minutes of domestic club football in the calendar year of 2020, substantially less than previous years (1,240 domestic minutes in 2019).

PLAYER WORKLOAD INDICATORS OF THE EMERGENCY CALENDAR (1ST MAY 2020 – 31ST JAN. 2021)

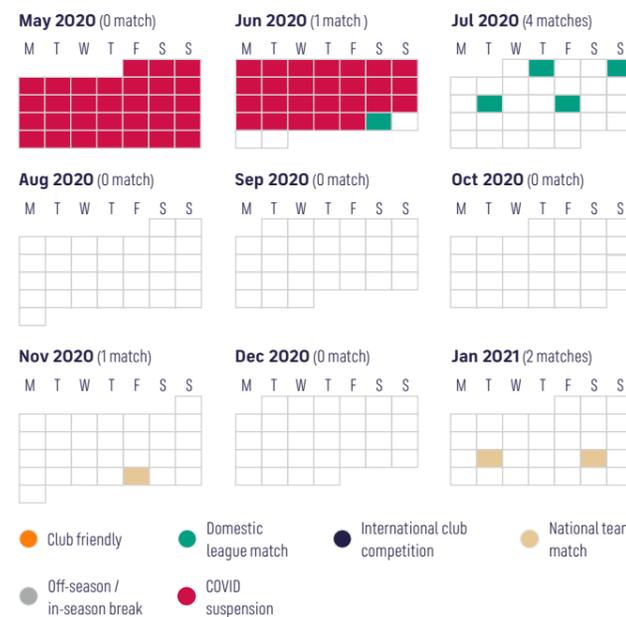
- 8** total appearances
- 538** minutes played (67.3 per app)
- 14.2** days between matches on average
- 13,872** km international travel

Total minutes played



Source: FIFPRO PWM platform, KPMG Football Benchmark analysis

Breakdown of appearances by competition



Empty, white cells on the calendar indicate days without a match appearance during the season.

Source: FIFPRO PWM platform, KPMG Football Benchmark analysis

DOMESTIC CLUB COMPETITIONS IN THE EMERGENCY CALENDAR

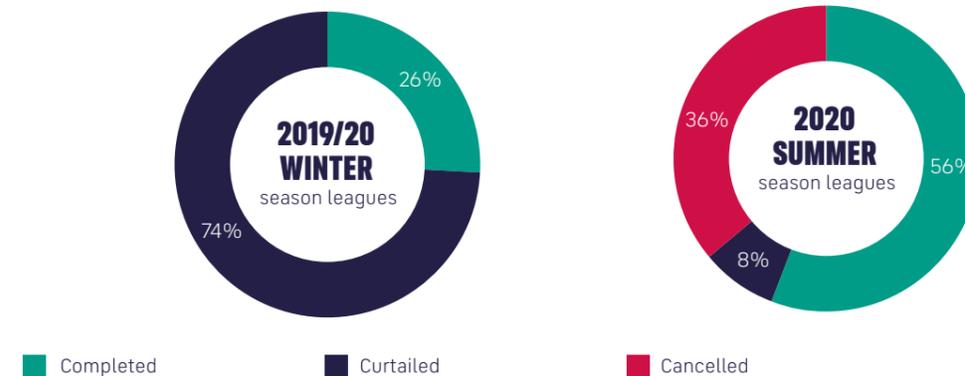
Women's domestic leagues and competitions were more heavily and disproportionately impacted than most men's competitions. The majority of leagues had to be curtailed, and many did not resume or finish their seasons after the COVID suspension period ended. In this section we review what happened to competitions in 60 countries, in both FIFPRO member countries and other major football markets.¹

Our research shows that 74% of the leagues that typically run between autumn and spring (2019/20 season) were curtailed due to COVID-19, meaning not all rounds of the competition could be played. In most cases the table-topping team at the time of the curtailment was declared as champion. Other competitions with similar schedules were either concluded after a postponement (e.g. Croatia) or the competition was already ended prior to the pandemic outbreak (e.g. Philippines).

The situation was significantly better for the summer 2020 season leagues because they were either just about to kick-off or had just started when the pandemic hit in February-March. As a result, 56% of these leagues were able to be completed, in most of the cases after a delayed start or with an adjusted competition format shortening the length of the season (meaning decreased playing opportunities for female players in some cases). 36% of the summer season leagues were left with no other option but to cancel their seasons due to the global health crisis, while the remaining 8% had to be curtailed (finishing earlier than planned).

These decisions can be attributed to various factors, such as the uncertainty of the spread of the coronavirus in the country, lack of funding, and the lack of professional status of the women's game in many countries. This curtailment and cancellation of games all around the world further reduced the already limited playing opportunity that is key for player development.

The impact of COVID-19 on the organisation of winter (2019/20) and summer (2020) season leagues²



Source: FIFPRO PWM platform, KPMG Football Benchmark analysis

In some first division leagues "stop-gap" solutions and transition competitions were introduced. For example, in the United States a one-off tournament called the NWSL Challenge Cup was introduced to replace the regular NWSL in the summer. This proved to be

successful and the competition was made a permanent part of the schedule within the 2021 calendar. The traditional NWSL competition returned with the 2021 edition on the weekend of 15-16 May.

¹ The following FIFPRO member countries are not part of the analysis due to insufficient information about their leagues: Botswana, Congo DR, Egypt, Gabon, Ivory Coast, Kenya, Honduras, Indonesia, Kyrgyzstan, Malaysia and Qatar. At the same time several non-FIFPRO member countries were added to the analysis: Brazil, China, Germany, Iceland, Poland, Russia and Slovakia.

² The name "winter" league refers to leagues that traditionally start in July or August and end in May or June the following year. "Summer" leagues generally start in March and run until November or December in non-pandemic times."

PLAYER IN FOCUS: SAKI KUMAGAI

Japan / Midfielder / 30

Olympique Lyonnais Division 1 Féminin, France



Saki Kumagai has been at Olympique Lyonnais since 2013 and has played a pivotal role in this exceptionally successful period of the club. In addition to domestic success, the club has also won the UEFA Women's Champions League (UWCL) 5 times in a row. Kumagai is a good example of an elite footballer that often appears in international club competitions.

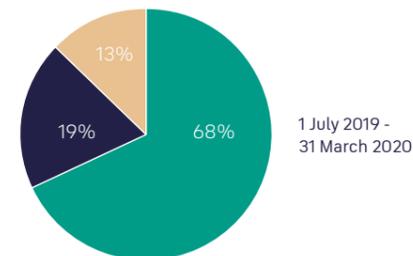
Looking at the past few seasons, at least a quarter or a third of all club football minutes played by Kumagai came in the UWCL, underlining the importance of that competition for players with a similar profile. This is why it was important for the 2019/20 UWCL to return in late August 2020 after the suspension enforced by COVID. Kumagai played for the maximum minutes possible, as Lyon won another title.

Missing from her match schedule during the emergency calendar were the Japanese national team games. Due to the pandemic **Japan's women's team did not have any games for over a year (between March 2020 and April 2021).**

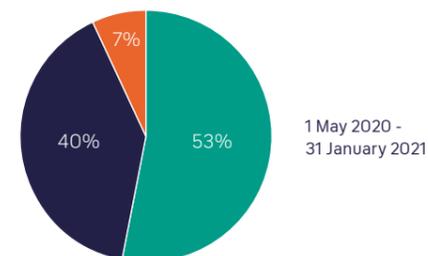
PLAYER WORKLOAD INDICATORS OF THE EMERGENCY CALENDAR (1ST MAY 2020 – 31ST JAN. 2021)

- 15** total appearances
- 1,207** minutes played (80.5 per app)
- 11.8** days between matches on average
- 1,825** km international travel

Saki Kumagai's minutes breakdown

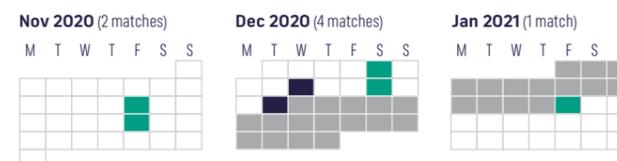


Large increase in club international minutes



No national team matches for Japan for over a year

Breakdown of appearances by competition



- Club friendly
- Domestic league match
- International club competition
- National team match
- Off-season / in-season break
- COVID suspension

Empty, white cells on the calendar indicate days without a match appearance during the season.

Source: FIFPRO PWM platform, KPMG Football Benchmark analysis

INTERNATIONAL CLUB COMPETITIONS IN THE EMERGENCY CALENDAR

Currently, the international club competition landscape offers far fewer opportunities for women's football than the domestic scene. Out of the 6 Confederations, currently only 2 (UEFA and CONMEBOL) have an international club competition in place.

The predecessor of the UEFA Women's Champions League (UWCL) was first played in the 2001/02 season. In 2009 it was rebranded to the Champions League and underwent a major format change in which the number of games increased from 68 to 103. The 2019/20 edition of the UWCL was suspended in mid-March, but the remaining matches of the knockout stage were completed in late August 2020 at neutral venues in Spain. Consequently, the start of the 2020/21 edition had to be delayed by 2 months to October 2020.

Coinciding with the rebranding of the UWCL, the CONMEBOL Libertadores Femenina was also launched in 2009, with the first 2 editions being played with only 10 participating clubs. The tournament eventually expanded to include further new teams, and has been contested by 16 clubs since 2019. In order to help the development of the women's game, 2019 also marked a significant policy change: clubs are now denied entry into the men's Libertadores if they don't also run a women's team. The 2020 CONMEBOL Libertadores Femenina was supposed to be held from September to late October 2020, but it was postponed and was eventually completed in March 2021. The next edition is currently scheduled to kick-off in late September 2021.

Other confederations also have plans to launch international club tournaments. For example, AFC (Asia) has already had a pilot competition organised in 2019, with 4 teams taking part. The second edition of the pilot (with 6 teams) was supposed to be held in 2020 but it was cancelled due to the pandemic. The 2021 pilot edition is planned to feature 8 invited teams and could be a further important step in the development path of women's football on the continent.

In Africa, the creation of the CAF Women's Champions League was approved at the CAF Executive Meeting in June 2020 with the first edition scheduled for 2021. Finally, in March 2021, CONCACAF announced their plans for continental club competitions for the North, Central American and Caribbean regions, but these are unlikely to materialise before 2023.

Besides competitive games, the women's international landscape often also includes friendly games between clubs of different countries. A prime example of such a tournament is the Women's International Champions

Cup. This 4-team event in 2019 featured the winner of the UWCL and the national champions of the United States, England and Spain. Similar events shall take place in the future, once the global health situation allows.

Number of participating clubs in major confederation-level club competitions (2020 & 2020/21)



No of clubs in international club competitions (2020)

- 1
- 2
- 3

Source: FIFPRO PWM platform, KPMG Football Benchmark analysis

Since currently only Europe (UEFA) and South America (CONMEBOL) hold a regular international club competition, the number of countries that have a club representative in them is quite limited (31 in total). This means that only a few players are able to get competitive experience at the highest level of club football.

Excluding qualifying rounds, only 21 European countries had at least one representative in the 32-club 2020/21 UEFA Women's Champions League. For half of them this experience lasted for only two games, because the structure of the competition involves knock-out rounds only, without a group stage. In South America all 10 confederations had at least one club in the 16-team CONMEBOL Copa Libertadores Femenina, all of them playing at least 3 matches, as the competition starts with a 4-team group stage.

PLAYER IN FOCUS: LUDMILA DA SILVA Brazil / Forward / 26

Atlético de Madrid, Primera División Femenina, Spain



Ludmila is an elite level player that combines club football with national team duties, often involving long-distance travel. She made her debut in the Brazilian national side in 2017 and has been an important part of the team ever since, making an appearance in all four matches at the 2019 FIFA Women's World Cup. Just before the COVID-19 pandemic halted the professional sporting world in March 2020, Ludmila participated in a series of friendlies for Brazil.

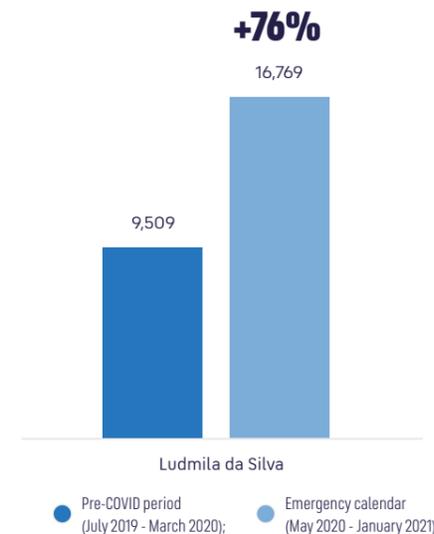
It took a long while for national team football to return, meaning that Ludmila (and Brazil) did not play until the end of November 2020. She travelled from Madrid to São Paulo to take part in 2 friendlies against Ecuador, accumulating a significant amount of air travel.

A mere 3 days after the Brazil games Ludmila was already back in Spain, playing 78 minutes in the Primera División Femenina. The Spanish league restarted in October, later than usual, leading to quite a congested league calendar, with Ludmila playing 17 matches already by the end of January.

PLAYER WORKLOAD INDICATORS OF THE EMERGENCY CALENDAR (1ST MAY 2020 – 31ST JAN. 2021)

- 19** total appearances
- 1,493** minutes played (78.6 per app)
- 7.7** days between matches on average
- 16,769** km international travel

Total international travel distance (kilometers)



Source: FIFPRO PWM platform, KPMG Football Benchmark analysis

Breakdown of appearances by competition



Empty, white cells on the calendar indicate days without a match appearance during the season.

Source: FIFPRO PWM platform, KPMG Football Benchmark analysis

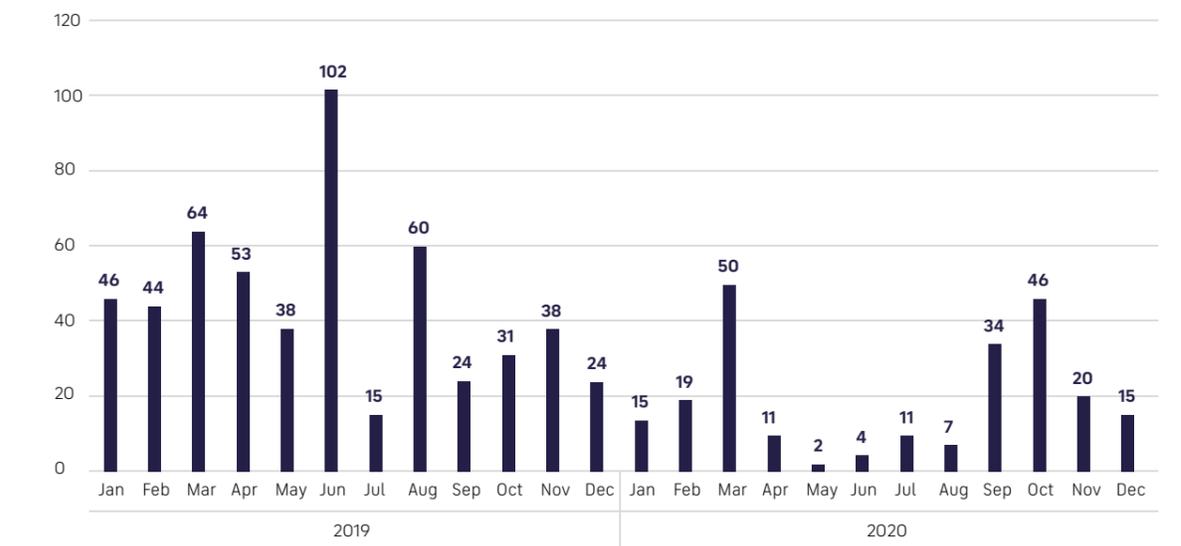
NATIONAL TEAM COMPETITIONS IN THE EMERGENCY CALENDAR

As we have already established, national team competitions are fundamental in providing much needed playing time in the women's game. However, as a consequence of the pandemic, the most prominent event of 2020 – the Summer Olympic Games in Tokyo – had to be postponed by a full year, creating a huge gap in the calendar. Generally, the Olympics are much more important for the women's game than for the men's, providing great exposure, visibility and playing opportunities in an elite competitive environment. In contrast to the men's Olympic tournament, the women's tournament involves senior players from their national team squads, giving it a quality level and prestige that is comparable to the FIFA Women's World Cup.

The pandemic had a domino effect on the line-up and order of national team events around the world;

- **Europe:** underlining the importance of the Olympics, the UEFA Women's Euro 2021 was rescheduled to the summer of 2022
- **Africa:** the 2020 Africa Women Cup of Nations was cancelled in response to the pandemic. It would have featured 12 teams instead of 8 for the first time in history. The next edition is currently scheduled for 2022. This cancellation could be damaging to the progress of women's football on the African continent
- **Rest of the world:** The AFC Women's Asian Cup, the Copa América Femenina, the CONCACAF Women's Championship and the OFC Women's Nations Cup were all originally scheduled for 2022, thus were largely unaffected by the pandemic (as it stands).

No of matches played by 42 selected women's national teams (2019-2020)



Source: FIFPRO PWM platform, KPMG Football Benchmark analysis

Yearly invitational friendly tournaments are also a vital part of women's football, creating match opportunities for a host of talented players. The majority of those competitions are usually held in the first few months each year. As shown by the chart, apart from the FIFA Women's World Cup in June 2019, the January-March periods were the busiest.²

The main reason for this is that many friendly tournaments are organised in these slots, e.g. the Algarve Cup (Portugal), Cyprus Cup (Cyprus), Pinatar Cup (Spain), She Believes Cup (USA), Tournoi de France (France) and Turkish Women's Cup (Turkey). All of these

tournaments were played in 2020, but games had to be played behind closed doors. Most of the tournaments could eventually be completed before football came to a halt globally. The main exception was the Algarve Cup, with the German team winning the final (off the pitch) as their opponents, the Italian team, decided to return home as the COVID-19 situation worsened.

Ultimately, 2020 was also a bad year for national team football, with no games played between April and September due to the pandemic, and the total number of matches significantly lower than in 2019 (even after excluding the World Cup).³

² The relatively high match number in August 2019 is mainly due to many European national sides playing European Championship qualifiers.
³ The 42 national teams selected for this analysis are those that took part in the international friendly tournaments listed in this section in 2019 or 2020

PLAYER IMPACT I
UNDERLOAD &
COMPETITION
BREAKS



PLAYER IMPACT I UNDERLOAD & COMPETITION BREAKS

Prior to the pandemic, women's football had been witnessing an extraordinary rise in popularity worldwide, with participation increasing, new competitions emerging, leagues stepping on the path to professionalism, and viewing figures growing year on year. In order for these encouraging developments to continue, we are going to need targeted attention and a nuanced understanding of the workload of female players.

The economic realities of the sport have inevitable consequences on how the game is organised on the pitch. This manifests as fewer viable professional opportunities for female players around the world, reducing player workload. This is linked to the fact that the number of competitions in women's football is still relatively limited, especially when compared to the men's game. While there are countries that have seen the welcome addition of new, professionally organised women's competitions in recent years, many countries have not yet reached this stage. Moreover, even where there is a professional women's league, there are generally fewer teams participating than in men's top divisions in the same country, and the seasons tend to be shorter as a result.

Ultimately, this creates an environment in which even the very best female professional footballers may

struggle to get enough playing time. We define this situation as "underload" in the analysis.

This is one of the primary challenges for the future of the women's game. The impact of underload in women's football is not only detrimental to the development and wellbeing of individual female players, but to the development and wellbeing of the sport. Players in the women's game require adequate playing time to ensure sustainable careers and enable them to reach their sporting peaks. Consistent playing opportunities are needed to maintain and support the overall growth and development of players and the game.

In this chapter, several aspects of underload are examined with an additional focus on the changes brought forth by the COVID-19 suspension and emergency calendar.



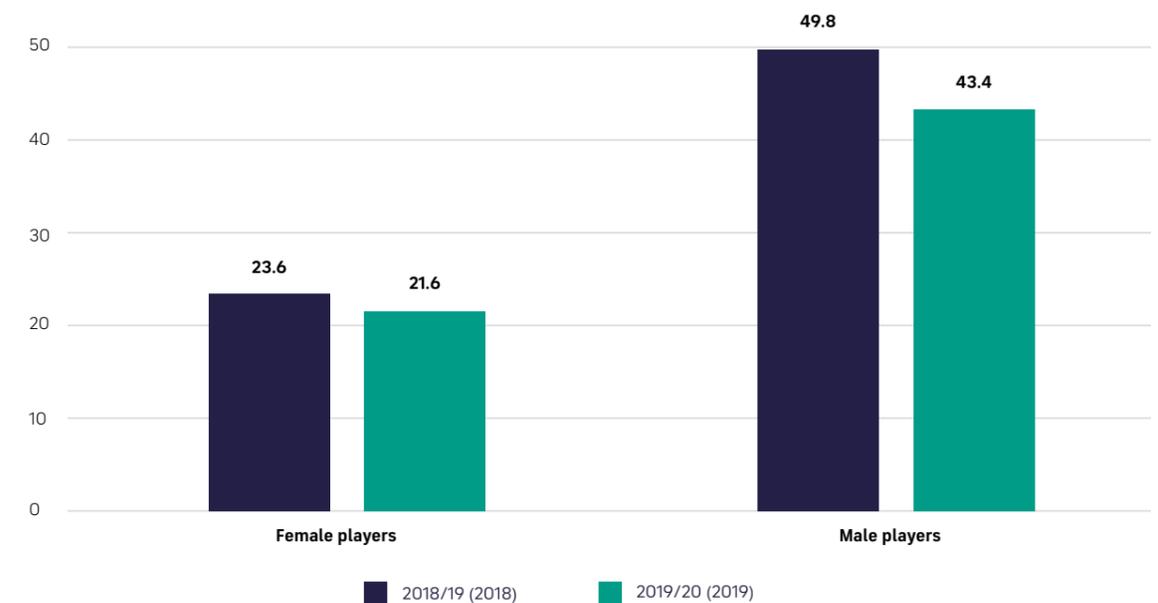
PLAYING OPPORTUNITIES ARE FEW AND FAR BETWEEN

How often do professional women footballers compete (on average) and how can we capture the meaning of underload in numerical terms? The most basic indicator here is the number of match appearances, irrespective of minutes played.

When comparing all female and male footballers featured in the FIFPRO PWM platform, the results are quite telling. The findings show that female professionals play **significantly less** than their male counterparts – over the last 2 full seasons female players on average accumulated a little over 20 match appearances per season, vs more than twice that amount for the men.

Average number of match appearances by season and gender

Sample of all players in the FIFPRO PWM platform



Source: FIFPRO PWM platform, KPMG Football Benchmark analysis

This phenomenon was particularly acute in the 2019/20 season, when many women's competitions were promptly shut down in the wake of the COVID-19 outbreak. These decisions were made easier in the cases of many women's competitions as they had non-professional status. For example, the Spanish football federation allowed the men's La Liga to continue, but cancelled all amateur football competitions in early May 2020, the latter category including the women's Primera División Femenina. While most men's football competitions were allowed to conclude after a considerable hiatus in most countries, this was rarely afforded to the women's competitions (see previous chapter for more details).

However, it should also be noted that the lack of playing opportunities has actually blighted women's football for a long time. This overall asymmetry leads many female

players to switch clubs in search of playing opportunities, often playing in 2 leagues whose scheduling does not overlap during the same calendar year (e.g. Caitlin Foord, a player of Portland Thorns in the NWSL, spending the interim of the 2018 and 2019 NWSL seasons in the Australian W-League at Sydney FC).

All in all, these findings suggest that there would be ample room for more meaningful matches in the women's football calendar. However, more matches on their own are not enough. The level of play and the infrastructure around the game also needs to be improved to bring about lasting, sustainable change.

LEAGUE CASE STUDY

NWSL – FRAGMENTED CALENDAR

The National Women's Soccer League (NWSL) in the United States runs from spring to autumn, with each team playing 24 games in the regular season, as well as a maximum of 2 playoff games. The usual format of the competition had to be changed dramatically as a result of the COVID-19 pandemic. The 2020 season was scheduled to start on the 18th of April, but pre-season preparations were cancelled on March 12th as league organizers put the health and safety of players and staff first.

This led to the very real prospect of a long hiatus from play which could have been detrimental for the growth and future of the league. To combat this challenge, plans were put in place to organise a shorter "stop-gap" tournament as soon as possible. Eventually, the NWSL Challenge Cup was introduced, which became the first professional team sports tournament in the US to resume play, on June 27th. All but one of the NWSL franchises took part, with Orlando Pride having to withdraw before the start due to a COVID outbreak within the team. In the end, the tournament concluded with zero positive cases among the 8 participating teams, and the comprehensive health and safety protocols employed for a bubble-like environment became the blueprint for other sports leagues to follow in the months to come.

However, the Challenge Cup only lasted 1 month, which created the need for another competition later in the year, the NWSL Fall Series friendly tournament. This started on 5th of September and consisted of 4 matches for all 9 NWSL teams. Both of these

competitions were a success, generating record TV ratings and providing a much-needed platform for the players to showcase themselves. The 2020 Challenge Cup Final between Houston and Chicago averaged a TV rating of 0.44 and had 653,000 viewers. This equates to a 293% increase from the 2019 NWSL Final, which had a viewership of 190,000.

While these 2 tournament-style competitions created excitement for the fans, it was not optimal from a player perspective. Firstly, the 2020 season kicked off with the Challenge Cup after the longest off-season break in NWSL history, with 244 days between official games (40 days more compared to the previous season). This meant that players required more time to return to full fitness, often in fragmented and small group environments due to broader societal COVID restrictions, perhaps even leading to a decrease in the quality of play during the initial stages.

Furthermore, a regular NWSL season consists of at least 24 matches for all clubs, but the maximum amount of games a team could play in the Challenge Cup and the Fall Series combined was only 11.

Finally, the players were not accustomed to the unusual "stop-start" rhythm that was created by the introduction of a tournament in June-July and then another short one in September. Given the long breaks between seasons and tournaments, players had to manage very different schedules in terms of playing appearances and peak performance management.

PRIMERA DIVISIÓN FEMENINA – DELAYED START AND FIXTURE CONGESTION

The Spanish first division, Primera División Femenina, did not have such success in reorganising the competition following the pandemic. What was usually a 30-game season became a 21-game season instead as it was curtailed on 15th March, along with many other European women's leagues.

Extraordinary measures were implemented following the official announcement, with the league leaders crowned champions and the relegation system scrapped. As no teams were relegated, the 2020-21 season was expanded in size by 2 teams, from 16 to 18. This is only a temporary solution and the league will return to its previous size for the next season.

Primera División Femenina was in an unfortunate position when the pandemic hit as it was not yet recognised as a professional league. Therefore, when the Spanish government decided to cancel all non-professional sports leagues, it had no choice but to follow suit, whereas the men's La Liga could eventually return to play and finish their season in June. Importantly, through extensive and persistent campaigning, the league has now been recognised as a professional competition.

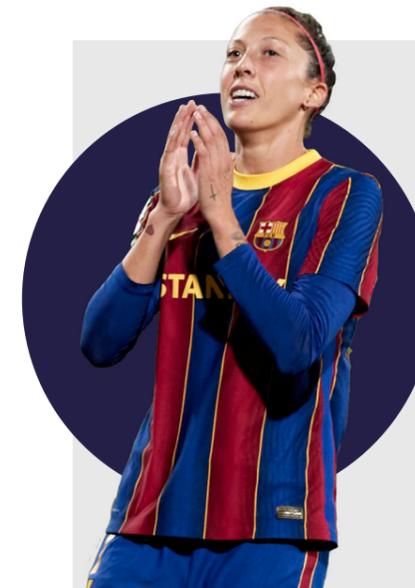
The curtailment of the 2019/20 season meant that players and teams missed out on 9 league games, in addition to the semi-finals and finals of the domestic cup, which were delayed to the next season. As such, the league (and the players) experienced the longest off-season break in its history before the 2020/21 season, with 216 days between official matches. Such a long break in play often leads to problems for the players as they struggle to get back to their normal level of match fitness, as training cannot compensate for lack of actual playing time.

The league is still experiencing the effects of the pandemic in 2020/21, with many games being postponed due to positive Covid-19 cases. Players have even taken to social media channels to issue a joint statement urging the football federation to put better health and safety protocols in place. The statement said: "(...) we ask for the help of the federation, responsible for the league, to modify the protocol as needed and guarantee that our competition can continue and avoid being an adulterated league full of uncertainty. (...) We believe that it is of vital importance that the league has a protocol that protects us and above all allows us to continue our competition."



PLAYER STORY SOPHIE SCHMIDT (HOUSTON DASH)

A key member of the Challenge Cup-winning Houston Dash team, Sophie Schmidt, participated in all 11 domestic club matches in 2020 that were organised for NWSL clubs. This was still a huge drop compared to what she was used to. In the 9 months preceding the COVID pandemic she played 1,805 minutes, while this fell to only 946 in the 9 months following. The Canadian international also suffered from the cancellation of national team events, with the Canada team not playing any matches for almost a full year.



PLAYER STORY JENNIFER HERMOSO (FC BARCELONA FEMENÍ)

A contender for the Ballon d'Or Féminin, Jennifer Hermoso, is a key player of the FC Barcelona side that has just won back-to-back Spanish league titles, as well as the 2020/21 UEFA Women's Champions League. Hermoso was badly affected by last season's curtailment in March 2020, which led to a long break in play. In the 9 months before the COVID pandemic the Spanish international played regularly for club and country, amassing 30 games and 2,254 minutes in that timeframe. However, in the 9 months afterwards (during the emergency calendar) she recorded only 15 appearances, totaling 1,091 minutes.

PLAYER IMPACT II

PERIODIC CONGESTION



PLAYER IMPACT II

PERIODIC CONGESTION

A major issue for many players (and teams) in women's football today is lack of match consistency. One might assume that a limited number of matches would prevent calendar congestion and reduce the strain on players, but this is not the case. On the contrary, periods characterized by unusually high match workload have been a regular occurrence, even in women's football, especially during the emergency calendar.



THE CRITICAL ZONE: CUMULATIVE WORKLOAD FOR PLAYERS

The term 'critical zone' refers to matches that potentially put too much strain on players (see 'Terms & Definitions' for more details) and result in too little time for recovery over a long period. Occasional matches played in the critical zone are considered to be acceptable (even optimal) for the performance and development of an athlete. However, if critical zone appearances become a frequent occurrence and players must regularly participate in back-to-back matches without adequate rest and recovery periods, this can have detrimental effects on players' health and performance.

In the men's football 2021 Flash Report we highlighted that during the emergency calendar 44.3% of all appearances (of the FIFPRO PWM sample) fell into the critical zone category, a considerable increase over the pre-COVID period. This is a worrying finding, indicating that many elite players are having to contend with extremely high workload, and the situation was only worsened due to the pandemic.

How does this look in women's football?

For players in the FIFPRO PWM platform, the share of appearances falling into the critical zone in women's football **increased from 19% to 24%** before and after

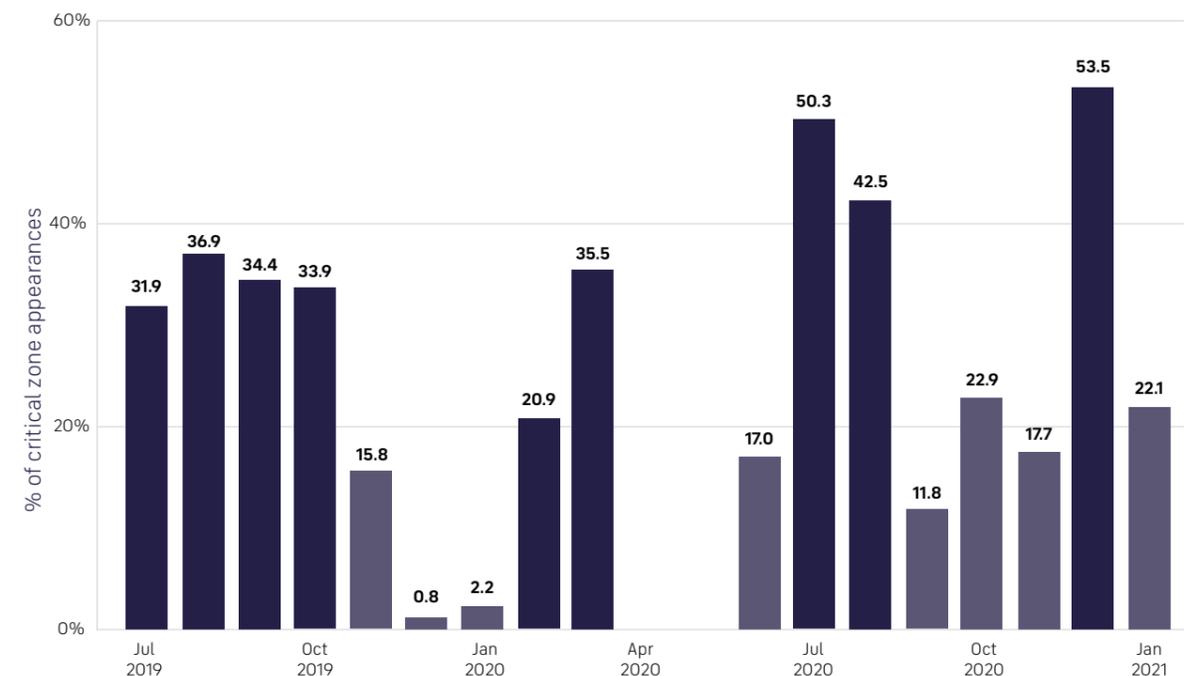
the pandemic outbreak (comparing the July 2019 - March 2020 period to the May 2020 - January 2021 period). Even though this is lower than the figure for male players, that does not tell the full picture.

Due to changes to the competition schedule, players often experienced these critical zone appearances in **periodic congestions**, i.e. where matches with high workload are concentrated within a few weeks, while other periods are characterized by insufficient game time and irregular appearances ("too long breaks in play"). We found that the COVID-19 pandemic made these congested periods more common because in many cases delayed league starts resulted in a more intense schedule.

When analysing all matches of the PWM women's (85-player) sample it quickly became clear that, for most players, certain months were much busier in the post-Covid period than before, while other months did not present them with enough playing time. The peaks in the percentage of critical zone appearances came in July and December 2020, reaching levels above 50%, i.e. more than half of the games in these months were characterized by peak workload.

Share of appearances in the critical zone by month

All female players



Source: FIFPRO PWM platform, KPMG Football Benchmark analysis

THE CRITICAL ZONE: LEAGUE-LEVEL COMPARISON

How does this issue look at league level? To demonstrate periodic congestions in different countries we analysed 5 major domestic leagues since 2019 and calculated the percentage of league appearances that were in the critical zone. Again, only appearances made

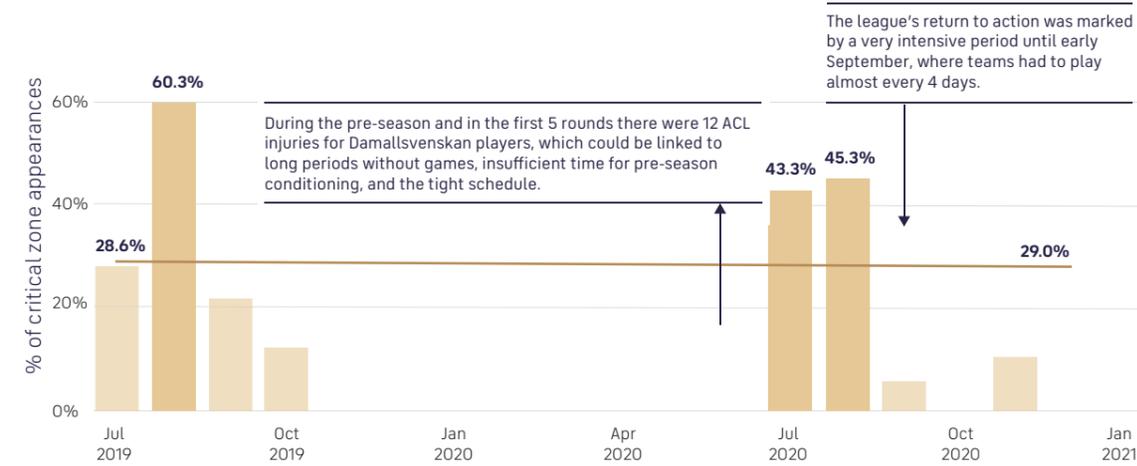
by players featuring in the FIFPRO PWM platform were considered. As such, these charts do not provide an average for all players in the leagues, rather they highlight the workload situation of their most prominent players.

Source: FIFPRO PWM platform, KPMG Football Benchmark analysis

DAMALLSVENSKAN (SWEDEN)

Share of appearances in the critical zone by month

Damallsvenskan (Sweden)

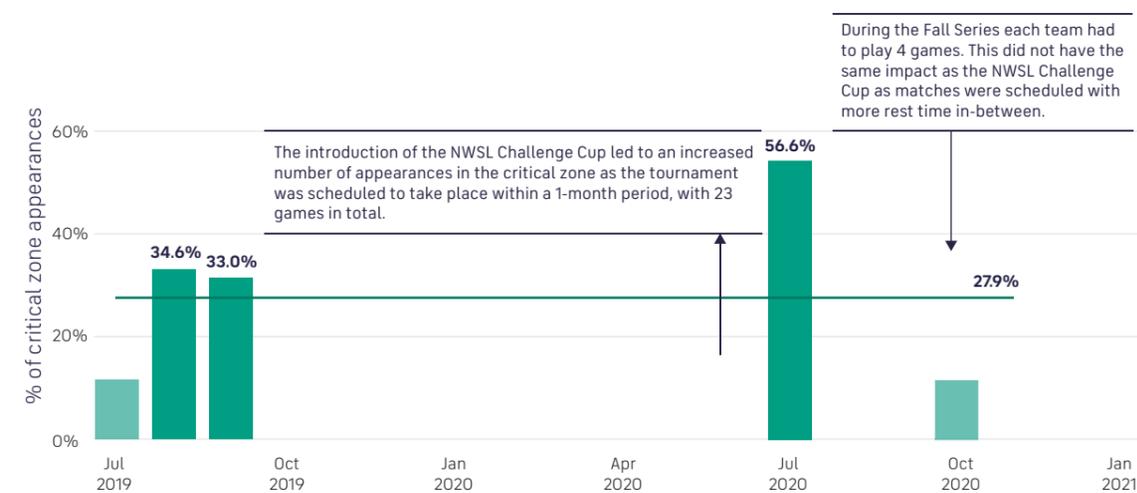


Source: FIFPRO PWM platform, KPMG Football Benchmark analysis

NWSL (UNITED STATES)

Share of appearances in the critical zone by month

NWSL, Challenge Cup & Fall Series (United States)



Source: FIFPRO PWM platform, KPMG Football Benchmark analysis

DIVISION 1 FÉMININE (FRANCE)

Share of appearances in the critical zone by month

Division 1 Féminine (France)



PRIMERA DIVISIÓN FEMENINA (SPAIN)

Share of appearances in the critical zone by month

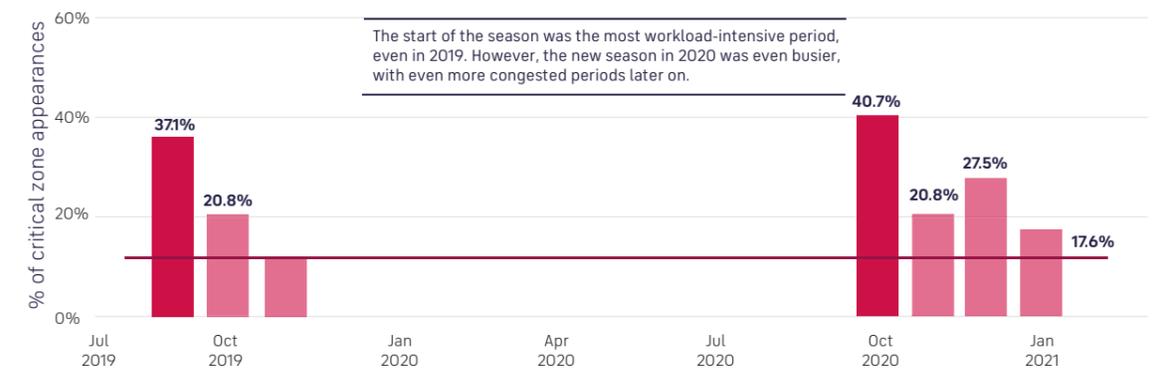
Primera División Femenina (Spain)



FA WOMEN'S SUPER LEAGUE (ENGLAND)

Share of appearances in the critical zone by month

FA Women's Super League (England)



Source: FIFPRO PWM platform, KPMG Football Benchmark analysis

PLAYER IMPACT III
RE-TRAINING
CONDITIONS AND
INJURY RISK



PLAYER IMPACT III

RE-TRAINING CONDITIONS AND INJURY RISK

FIFPRO has released extensive reporting into the conditions, standards, and lack of consistency in facilities, both across leagues and around the world in women's football. In our 2020 study, "COVID-19: IMPLICATIONS FOR PROFESSIONAL WOMEN'S FOOTBALL", we discussed the vulnerability of the women's football industry to external threats. The pandemic has highlighted and sometimes even accelerated this fragility, with its precarious position becoming more evident and impacting on the players.

One emerging trend was the prevalence of long-term serious injuries, such as tears to anterior cruciate ligaments (ACLs), occurring during the re-training and competition resumption phase. As already highlighted, the extended periods without matches should have required an appropriately adjusted, graded and well-managed return to play schedule. However, this was often not possible, or simply not implemented. When coupled with inconsistent, and / or a lack of minimum acceptable conditions, this resulted in an unprecedented number of serious long-term injuries to players.



There were an unusually high number of serious ligament injuries in the 2020 calendar year in women's football. Many players and clubs had shortened and disrupted re-training times as well as sub-optimal general medical conditions, access to facilities, and lack of elite sports science resources



As stated previously, the lack of professional status impacted on the re-start of competitions as well as medical standards, with many leagues not setting (or enforcing) minimum acceptable requirements. This left clubs to set their own standards, leading to large variance in quality



The disruption to normal scheduling, particularly in Sweden and the USA, had a devastating impact on some players. This was particularly the case where players were only semi-professional, thus having to take on the additional mental strain of managing second jobs, study, and family commitments



A shortened re-training schedule, combined with inadequate and unenforced medical standards and protocols, resulted in a reported total of 15 ACL injuries in the 2020 Damallsvenskan season, and a reported 6 serious ligament injuries (5 ACL's and one torn meniscus) in the build-up to and during the NWSL Challenge Cup

THE COACHES' VOICE

"I'm a little bit frustrated that we're playing three game weeks, we've just had three weeks off and we're coming back into a season where yes, we're in a good place [physically], but as much as you can give players individual training programs, you cannot replicate the game so we are going to pick up niggles. (...)

I look at other squads who have less resources and less players, and wonder how are they going to cope this week? I don't think player welfare is being considered very well, if I'm honest."

Casey Stoney

(manager) in October 2020 talking about playing three matches in seven days after the international break with 8 players already out with an injury



TERMS & DEFINITIONS

The following terms are used throughout the report to illustrate the workload situation of professional football players. The same principles are applied in the FIFPRO PWM platform.

GLOBAL PLAYER AND COMPETITIONS (FIFPRO PWM SAMPLE)

 the Flash Report analyses match schedule and workload data of players that are part of the FIFPRO PWM platform. This diverse group currently represents 6 different domestic leagues and 28 different player nationalities. All matches played by these players are covered in the analysis, including official club and national team matches, as well as friendlies.

EMERGENCY CALENDAR

 the unprecedented period in professional football caused by the global COVID-19 pandemic, bringing major disruptions and changes to football calendars. With numerous games postponed, cancelled or reorganised in a different format or different location, football players' work and match schedules were significantly impacted.

PLAYER WORKLOAD

 this term covers all applicable workload indicators, such as match workload, rest & recovery and travel. The concepts of overload and underload are related to the imbalance between the load induced on players (match workload and travel log indicators) and their recovery (rest & recovery indicator). It is important to note that it is the cumulative exposure to over- or underload that constitutes an issue for player health, performance and career longevity.

MATCH WORKLOAD

 **Minutes played and appearances** - the number of minutes spent on the pitch by a player in a match. Extra time at the end of the first and second halves are included in the calculation, as well as extra time for competitions, where applicable. If a player plays for any length of time during a match, then that match is counted as an appearance.

 **Match type** - matches played by a player are divided into various categories based on the side they played for, including domestic league, domestic cup, international club competition, club friendlies and national team matches.

 **Critical zone** - a match is considered to fall into the "critical zone" if the player was on the pitch for at least 45 minutes, had played a minimum of 45 minutes in the previous game and did not have at least 5 days of rest and recovery time between these 2 appearances. It is important to note that it is the cumulative exposure to matches in the critical zone, together with travel, and potentially shortened off-season and in-season breaks, that constitutes an issue for a player's health, performance and career longevity.

REST & RECOVERY

 **Rest time** - the period (expressed in hours and days) between the end of a player's match and the start of his next match. This is generally the time allocated to rest & recovery and training. According to FIFPRO's 'At the Limit' study from 2019, players need at least 120 hours (5 days) between games to perform at their best over a season, and to manage injury risk.

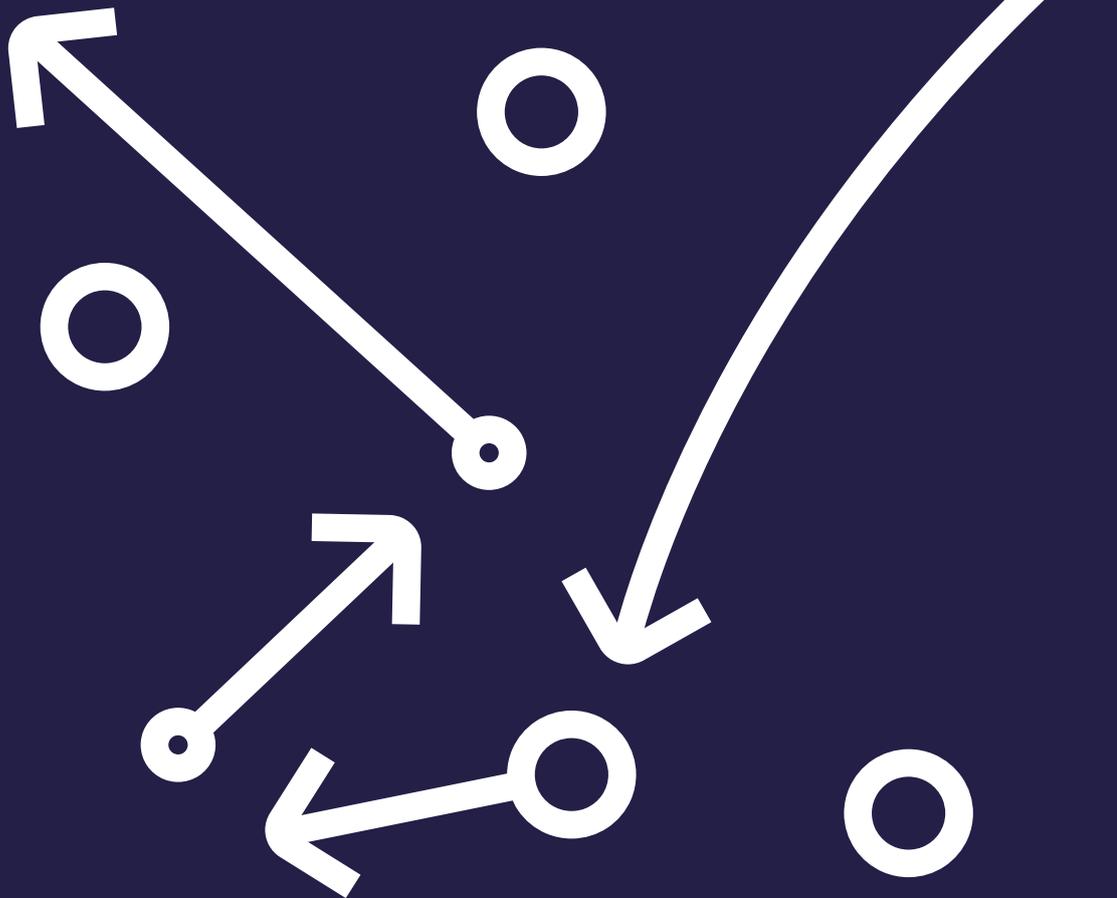
 **Off-season break** - the period given to players between 2 seasons, without training or matches, in order to recover and regenerate. Off-season breaks are mandatory, should last at least 5 weeks (combination of physically inactive and active weeks) and must take place outside the club and national team environment. In women's football this criteria is almost always met due to the shorter season length.

 **In-season break** - the period (in calendar days) that a player is permitted to take without matches or training during a season. In-season breaks are mandatory and should last 2 weeks. In women's football this criteria is almost always met due to the shorter season length.

 **Re-training** - following the off-season break / holiday period, a minimum acceptable period of time for re-training and preparation must be guaranteed to all players before participation in future competitive matches. The optimal duration of a re-training period depends on various factors including the physical status of the player and the duration of the break itself. However, it is generally considered that a re-training period lasting at least 4 weeks is needed in order to work on injury prevention and optimize future performances.

 **Underload** - this is one of the main challenges for the future of the women's game. Underload periods occur when a player is presented with so few opportunities and playing time that it becomes detrimental to their overall development and wellbeing as an athlete. This could occur for individual reasons, e.g. not being selected by the coach, but it is usually used when external factors are at play, e.g. short seasons, overly long breaks between games, etc.





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