



# DCMS Grassroots Needs Assessment

Full Scoping Report

June 2022
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MIAMI

**Appendices**

| Ref | Title |
|---|---|
| A | Consultee list |
| B | The determinants of demand |
| C | The determinants of supply |
| D | Supply carrying capacity assumptions |
| E | Northern Ireland demand analysis |
| F | Scotland demand analysis |
| G | Wales demand analysis |
| H | Glossary of terms |
| I | Complete supply audit – see separate xls file |
| J | Stakeholder consultation notes – see separate xls file |

**Document version control**

| Version | Content | Date |
|---|---|---|
| Issued v1.0 | Full Scoping Report | 17.06.22 |

# 1 Introduction

This report has been produced by the team commissioned to deliver this project by the Department for Digital, Culture, Media, and Sport (DCMS). The delivery team is a consortium led by 4GLOBAL and supported by The Sport Industry Research Centre (SIRC) at Sheffield Hallam University, and The Sports Consultancy.

The scope of this project is defined in detail within section 2 of this report; however, the purpose of the project is to provide DCMS and the key partners in Northern Ireland, Scotland and Wales with an authoritative guide to the demand for, and the supply of, football/ and multi-sport opportunities in Northern Ireland, Scotland and Wales.

An executive summary of this report has been prepared and can be found as a separate document, which summarises the key points and recommendations contained within this full scoping report.

# 2 Project Context and Scope

## 2.1 Context

In support of the government's commitment to deliver the pitches every community needs by 2030, £25m of funding has been allocated between April 2021 and March 2022, to create and upgrade football and multi-use pitches and facilities across the UK. This is the first tranche of UK Government funding for this programme.

£21m of this year's funding is being delivered in England by the Football Foundation, based on detailed Local Football Facility Plans that exist for every local area. These provide a comprehensive supply and demand model across all Local Authority areas in England resulting in bespoke and well evidenced investment plans, which now set out a national pipeline of priority projects. In Northern Ireland, Scotland and Wales, where similar plans aren't currently available, £4m of this funding has been overseen by their respective Football Associations (FAs).

The Prime Minister has pledged that every community should have access to a decent pitch and a further £205m of government funding is committed over the next three financial years, 2022-25, to make progress towards that goal.

This project aims to provide detail on the needs and distribution of football and multi-sport facilities in Northern Ireland, Scotland and Wales, to provide a roadmap to full community coverage and support investment decision making by governments and local partners.

## 2.2 Objectives

At headline level terms, this project is concerned with the relationship between the demand for, and supply of, football and multi-sport facilities. This approach will allow key stakeholders within DCMS and Northern Ireland, Scotland and Wales to plan effectively and confidently, to make optimum use of the share of £205m, which will be made available for grassroots investment over the next three years, and beyond.

The outcomes of the project identify areas of greatest need, to support investment decision making and future-focussed facilities planning by governments and local partners. This project provides an unprecedented opportunity to complement the Local Football Facility Plans in England with an evidence base and set of recommendations across Northern Ireland, Scotland and Wales. The project has sought to answer four key questions:

- Currently, what is the **supply of grassroots football pitches and multi-sport facilities in Northern Ireland, Scotland and Wales**; how are they distributed and what are the characteristics? How many of them support multi-sport usage?
- What is the **current rate of demand and usage of those facilities** in Northern Ireland, Scotland and Wales and how is that demand for facilities likely to evolve in each nation by 2030?
- What are the **gaps (current and future) between supply and demand** for local facilities in Northern Ireland, Scotland and Wales?
- In order to meet the need identified in the first three questions, what is the facilities pipeline that grassroots investment must deliver in Northern Ireland, Scotland and Wales (i) over the next 3 years and (ii) by 2030?

## 2.3 Scope

### 2.3.1 Supply

The project focuses on grassroots football facilities, including grass pitches and artificial grass pitches (AGP). To be considered, grass pitches must be marked and maintained, at least during the traditional football season in the UK (approximately September to April). Different sizes of grass football pitches have been considered from small sided 5v5 pitches typically used by young children, through to full size 11v11. Section 6 provides more detail as to how grass pitches have been categorised and audited. For the purposes of this analysis, grass football pitches have been assumed to only cater for football demand and no multi-sport demand has been considered.

AGPs considered in scope are those with 3rd generation (3G) surfaces, as these are most suitable for either recreational or competitive football. Like grass pitches, differing sizes of AGPs have been included, from small-sided up to full sized pitches. Football players like to use a range of different facility types; therefore, it is important that we are open to the opportunity of investing in different facilities. In addition, AGPs cater for more multi-sport use than grass pitches.

### 2.3.2 Demand

To build a robust evidence base of demand, we have considered both recreational (informal) and competitive football, however the 'highest' level of football that has been deemed to be relevant to this grassroots project is semi-professional, with the specific highest league or facility category defined for each; Northern Ireland, Scotland and Wales.

To understand the full picture on the supply and demand of AGPs, we have also considered the usage of these facilities by the following sports, which is relevant to varying extents between Northern Ireland, Scotland and Wales:

- Rugby union and league
- American football
- Gaelic Games (specifically Gaelic Football and Hurling)
- Lacrosse.

# 3 Report Structure

The report has three key sections: firstly, we explain the process and methodology for calculating supply and demand; second, we analyse the current and future picture across Northern Ireland; and third, we develop and present the Investment Pipeline.

- Section 4: Project methodology
- Section 5 and 6: An explanation of the process for calculating supply and demand and where relevant, a sample of the outputs
- Section 7: A detailed analysis of Northern Ireland, explaining the baseline supply and demand analysis, as well as several potential scenarios
- Section 8: The Investment Pipeline summary
- Section 9 and 10: A summary of findings, recommendations and next steps.

The initial sections of this report, including the theoretical analysis of supply and demand, apply to and are relevant to the analysis for each of Northern Ireland, Scotland and Wales.

Following this, there are specific sections for Northern Ireland. Within these sections, reference is made to the general methodology sections, as well as the appendices.

# 4 Project Methodology

To achieve the stated objectives and deliver a robust evidence base, analysis and set of recommendations, we designed and implemented a detailed and proven methodology.

Figure 4.1 overleaf summarises the methodology that we have followed, which has been designed and adapted in collaboration with DCMS throughout the project. Further detail on the supply and demand modelling methodology is outlined in Section 5 and 6, supported by the appendices.

Our research approach has focussed on using the most current, up to date statistical information available on the supply of and demand for football and multi-sport pitches. The sections on supply and demand provide a detailed explanation of how this data has been collected and the data sources that we have used, which include but are not limited to:

- The Northern Ireland Continuous Household Survey for adults (annual) and the Children's Sport Participation and Physical Activity Study (ad hoc, 2018 used)
- The Scottish Household Survey (annual)
- The Welsh Sport and Active Lifestyle Survey and School Sport Survey (annual)
- Local authority playing pitch strategies, needs assessment and facility audits where available (approximately every 5 years per local authority)
- Extensive secondary research, using desktop data collection and satellite audits where required.

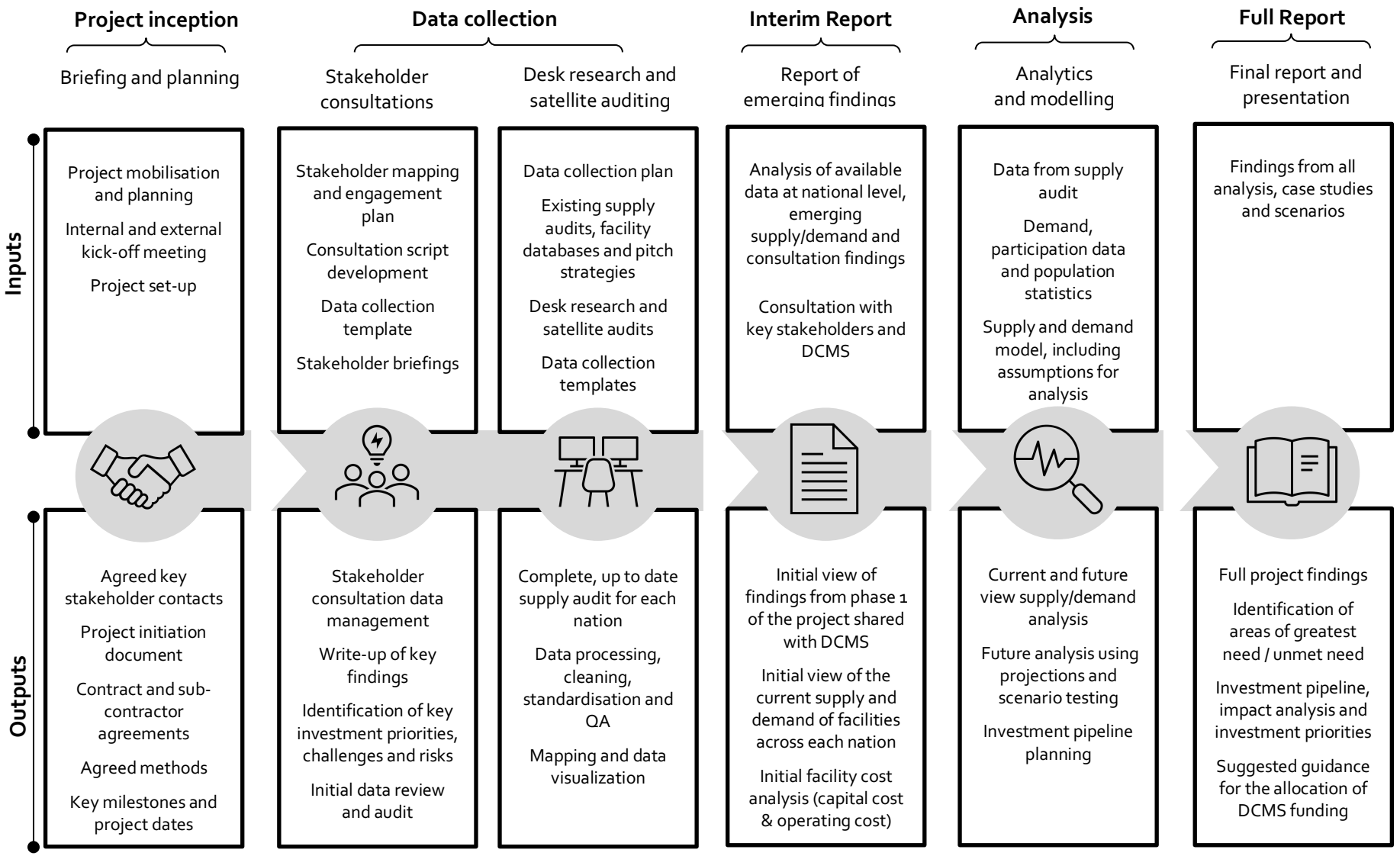
When using population or demographic data as part of the analysis, we have used the Office of National Statistics (ONS) mid-year estimates[1], which represents the most consistent and comprehensive data set available.

In undertaking the analysis, we have been required to make assumptions, for instance on the amount of play a grass pitch is able to withstand, to deliver a consistent set of outputs across Northern Ireland, Scotland and Wales. We have stated these clearly in the relevant sections, and explained where these assumptions have been tested and modelled within the scenario testing section of the report.

In all cases, the research team has sought to provide an impartial and balanced analysis, driven by a robust evidence base and the extensive experience and knowledge held within the team. Wherever possible, we have utilised previous research and evidence to inform our analysis, some of which is from different geographical areas, such as England. Where we have utilised data from outside Northern Ireland, Scotland and Wales, we have explained why this is the most relevant and robust data to use as a reference point.

[1] ONS mid-year estimates (Office of National Statistics: 2022) - https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates

**Figure 4.1: Research process summary**



# 5 Demand

## 5.1 What is meant by 'demand'?

Demand can be defined as "the amount of a service people consume or are predicted to consume at a given level of supply and price." In sport it is generally assumed that demand means 'participation'. However, as can be seen in Table 5.1 it is possible to describe demand in five different but related ways.

**Table 5.1: Methods of measuring demand applied to football**

| Measure | Definition | Example* |
|---|---|---|
| A. Participation Rate | The proportion of a defined population which engages in football over a given time period. | 6% of adults in Northern Ireland play football at least once every four weeks. |
| B. Number of Participants | The number of people who play football in a given time period. (i.e. A x the population). | There are c. 100,000 adults in Northern Ireland who play football once every four weeks. |
| C. The volume of activity (playing occasions or throughput) | The number of times members of a community play football in a specified time period. (B x Playing occasions per time period). | If each regular adult footballer plays once per week, then these players generate around 13.5 million playing occasions per year. |
| D. Time | The amount of time spent on football. (C x time per playing occasion). | If on average each playing occasion lasts for an hour, a regular adult footballer has a demand for 50 hours of football per year. |
| E. Expenditure | The amount of money spent on playing football over a given time period. (C x spend per playing occasion). | If playing occasion costs £5 on average, then every regular adult football player spends over £300 on playing fees per year. |

***All data is for illustrative purposes only**

The five measures of demand outlined in Table 5.1 are measures of what is known as 'expressed' demand or demand that is currently being met. It may well be the case that there are people who would wish to participate in football, but who are currently constrained from doing so – these are known as 'barriers' to participation. Unmet demand is said to be 'latent', or hidden, demand. Typical constraints or barriers for football participation might include: a lack of time, motivation, money, facilities, transport, or service delivery for specific cultural needs. If these barriers to participation can be overcome, then latent demand can be converted into expressed demand which in turn increases the number of footballers in the market and the throughput of players at facilities.

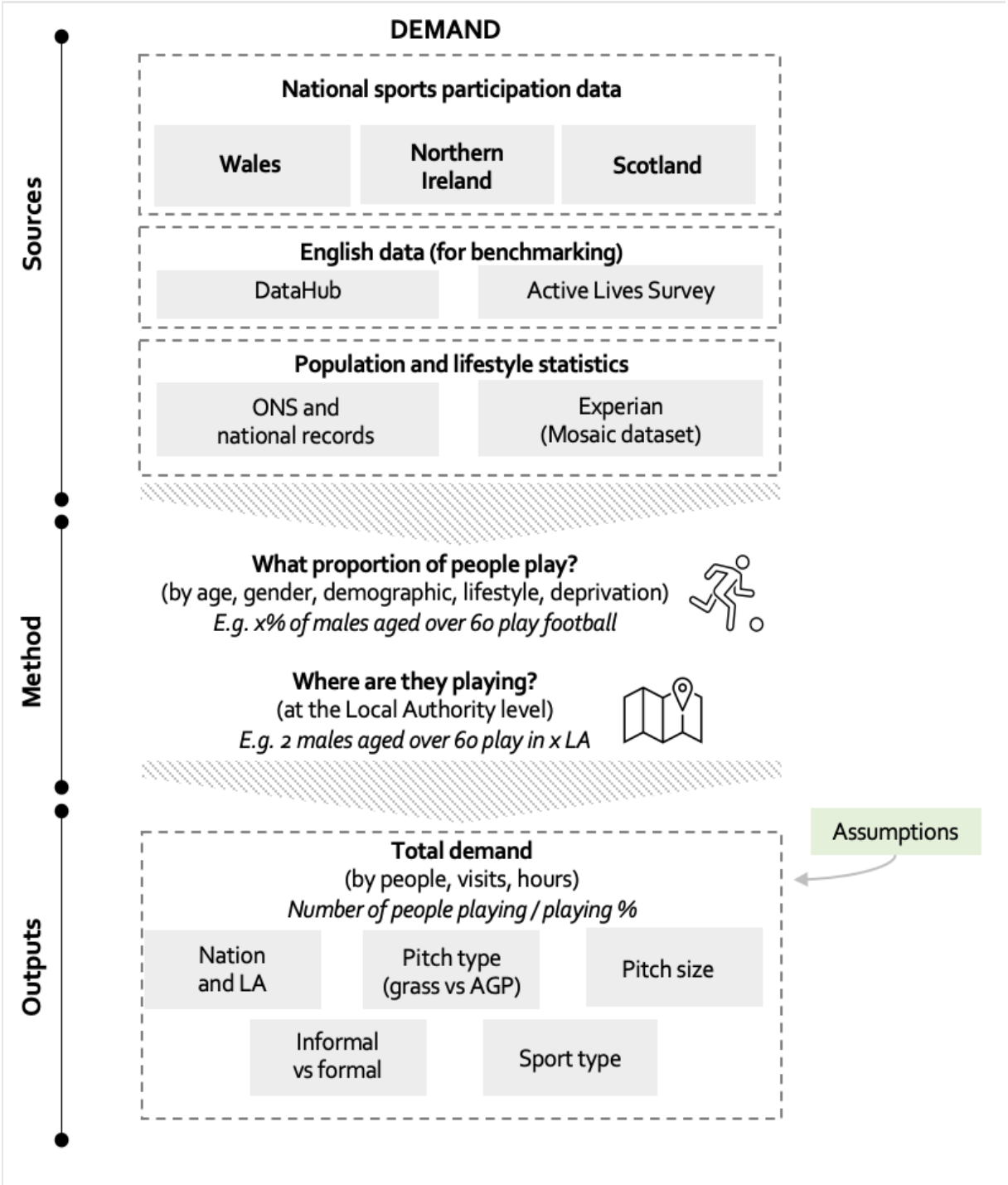
## 5.2 Building the demand model

To understand how pitches are currently used and how they will be used in the future, it is critical to undertake a comprehensive analysis of the demand for pitch facilities across Northern Ireland, Scotland and Wales. This approach enabled a more tailored and localised Investment Pipeline and

set of recommendations.

To build this picture of demand we have utilised data from a range of sources and used proven modelling techniques to allocate demand to different pitch typologies. The process followed is outlined in Figure 5.1 below and described further in section 6.

**Figure 5.1: Demand analysis process summary**




Each section of the diagram is explained in more detail overleaf.

### 5.2.1 Sources

To provide the most realistic and robust picture of demand, we aimed to calculate an individual's propensity to play (i.e. 'who is likely to participate and what sites they use'), combined with the projected frequency and duration of their visits (i.e. 'how often they play'). This provides us with a method of calculating and projecting demand across large volumes of players.

For this, we took into consideration multiple national datasets from Northern Ireland, Scotland and Wales (listed in full in Table 5.2; Sources B-E, G-J, L-N) to understand levels of sports participation, and the split between formal/informal play, usage by outdoor/indoor facilities, and usage by pitch typology.

Modelling was also informed by participation data from 4GLOBAL's DataHub – a sector initiative that aggregates live sport and physical activity data from venues across the UK leisure industry (Table 5.2.1; Source A). Live participation data from over 7.8 million AGP and Grass Pitch visits in 2019, across 1,300 venues, was used to understand how people use football and multi-sport facilities.

As a test of reasonableness, Active Lives Survey (Table 5.2; Source P) was used to benchmark participation levels against England standards, and to ensure relative alignment against Northern Ireland, Scotland and Wales outputs. Results were also tested against English facilities in the DataHub to ensure the parameters were accurate and reflected current market trends.

Furthermore, demographic and Experian Mosaic lifestyle segments (Table 5.2; Source Q) were used to understand how propensity to play is impacted by demographic factors. This allowed us to achieve a greater depth of understanding on people's tastes and preferences to play specific sports.

**Table 5.2: Data sources used for the demand model**

| Area | Source Title | Year | Description and Use |
|---|---|---|---|
| ALL | A. DataHub | N/A | Live participation data on AGP and Grass pitch visits in 2019. Used to measure propensity to play, usage split by informal/formal, indoor/outdoor, and pitch type. |
| Northern Ireland | B. Continuous Household Survey (CHS) | 2020 | National Survey around a variety of topics including sport participation. Used to inform propensity to play. |
| | C. Young Persons' Behaviour and Attitudes Survey (YPBAS) | 2019 | A school-based survey conducted among 11-16 year-olds. Used to inform propensity to play. |
| | D. Children's Sport Participation and Physical Activity Study (CSPPA) | 2018 | This survey focuses on children and participation in school and community sport.<br>Used to inform propensity to play (split by informal and formal sport types). |
| | E. Experience of sport by Adults in NI Ireland | 2020 | National survey around participation in sport.<br>Used to inform propensity to play in adults. |

| | | | |
|---|---|---|---|
| | F. NI Statistics & Research Agency | 2021 | Mid-year population estimates for Northern Ireland. |
| Wales | G. FAW Comet Player Data | 2022 | Associated Football Player details on 98,000 unique people across Wales. Used to inform propensity to play. |
| | H. Sport Wales Sport and Active Lifestyle Survey (SALS) | 2021 | National survey around participation in sport (Sub section of the National Survey for Wales). Used to inform propensity to play in adults. |
| | I. Wales School Sport Survey (SSS) | 2018 | National survey of 120,000, 8-16 year old pupils. Used to inform propensity to play in children. |
| | J. BE Football: Young People Survey Insight Report | 2021 | Summarises the response to the School Sport, PE and Physical Activity Survey, completed by 1500 young people. Used to inform propensity to play (split by informal and formal sport types). |
| Wales and England | K. Office for National Statistics | 2021 | Mid-2020 population estimates for Wales. England national population statistics used for benchmarking. |
| Wales and Scotland | L. UEFA National Association Research (Kantar) | 2019 | Survey based findings on football participation, usage and frequency of visit. Used to inform propensity to play (split by informal/formal and outdoor/indoor sport). |
| Scotland | M. Scottish Household Survey (SHS) | 2022 | Annual survey of Scottish households across a wide range of topics. Used to inform propensity to play. |
| | N. Scottish FA Club Data Report | 2022 | Details on clubs, alongside playing/ non-playing members across Scotland. Used to inform propensity to play. |
| | O. National Records of Scotland | 2021 | Mid-2020 Small Area Population Estimates for 2011 Data Zones |
| England | P. Active Lives Survey (Children and Adult) | 2021 | National Survey on participation in sport (one for adults 16+, and one for those aged 5-15). Used for benchmarking and to confirm propensity to play. |
| ALL | Q. Experian Mosaic Data Segmentation | 2021 | Lifestyle segmentation based upon an individual postcode combining over 500 indicators including personal/household income, family structure, car ownership and engagement with sport. Used to determine propensity to play. |

Drawing together the above data sources, alongside population statistics from each Local Authority (Table 5.2; Source F, K, O) enabled us to assess when, where and how people use facilities and participate in sports across each nation.

The methodology for calculating demand uses a statistical 'anchoring and adjustment' process allowing the inclusion of both national sporting surveys and where available, granular participation data. The modelling uses an initial "anchor" for the propensity of an individual to partake in a given sport and then is "adjusted" to reflect live trends, segmentation analysis alongside venue-based activity.

### 5.2.2 Creating an 'anchor' for propensity to play

To provide the most realistic and robust picture of demand, we calculated an individual's propensity to play (i.e. 'what % of the population is likely to participate`). For this, we took into consideration multiple national datasets from Northern Ireland, Scotland and Wales (listed in full in Table 5.2; Sources B-E, G-J, L-N), to understand total participation (combined figures across adult and child age groups) at the Local Authority level.

### 5.2.3 Adjustment to real-life figures

Live participation data on over 7.8 million AGP and Grass Pitch visits across 1,300 venues in 2019, collected from 4GLOBAL's DataHub (a sector initiative that aggregates live sport and physical activity data from venues across the UK leisure industry (Table 5.2; Source A)), alongside Experian Mosaic lifestyle segments (Table 5.2; Source Q), was used to understand how different demographics, with different tastes and preferences, participate in football and multi-sport facilities. This was achieved through a series of regression analyses, determining the strength of over 3,000 different demographic profiles and the propensity of these profiles to play sports.

The original propensity to play rates or 'anchor' (using national participation figures), were then adjusted using the DataHub data and Mosaic profiles, to create updated propensity to play figures that more closely reflect real-world tastes and preferences and venue-based participation. As a result, propensity rates were uplifted by an average of 2.9% across all Local Authorities (Scotland, Wales, Northern Ireland).

As a test of reasonableness and legitimacy, Sport England's Active Lives Survey (Table 5.2; Source P) was used to benchmark adjusted propensity levels against England standards, and to ensure relative alignment against Northern Ireland, Scotland and Wales outputs. Results were also tested against English facilities in the DataHub to ensure the parameters were accurate and reflected current market trends.

### 5.2.4 Total unique people

Population and demographic statistics (Table 5.2; Source F, K, O) provided baseline population figures for each Local Authority across Wales, Scotland, Northern Ireland. These were combined with each Local Authority's adjusted propensity to play to give demand in terms of 'total number of unique individuals/ people that participate in a given sport' within each area.

### 5.2.5 Total visits per year

This was calculated by local authority and was dependent on the demographic characteristics of an individual, the frequency of visits across the year and the length/duration per visit. Using DataHub, the average number of visits to a football pitch an individual makes was determined as between 1.15 – 1.20 visits per week. This figure fluctuates, depending on the participant profiles within a certain

Local Authority. The frequency of visits per week were aggregated up to calculate the number of visits an individual makes throughout the year, and then multiplied by the demand in terms of the number of unique people participating. This provided demand in terms of 'total yearly visits'.

### 5.2.6 Removal of irrelevant demand

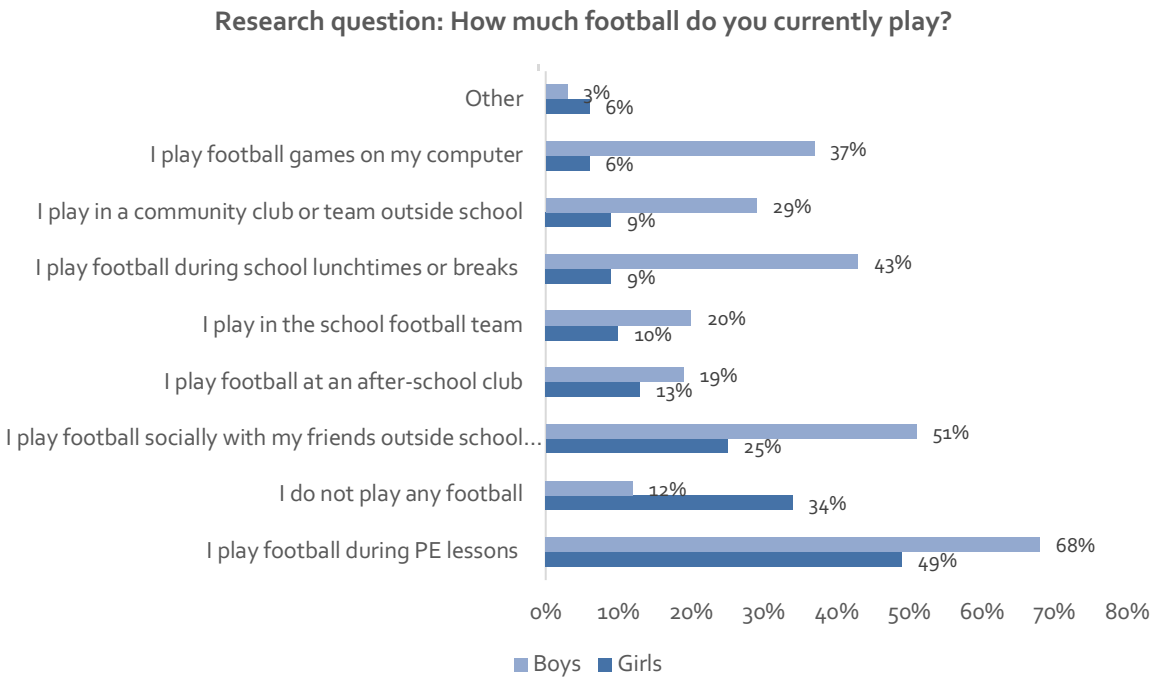
'Irrelevant' sources of football demand, including visits made for unstructured/social, indoor, and educational participation, were then subtracted from total demand. In addition, we estimated the demand crossover, where individuals are playing multiple formats of football. This is particularly important in facility planning, to determine the number of visits that will be generated by a certain number of unique individuals.

UEFA national data (Table 5.2; Source L), supplemented with information gathered through DataHub (Table 5.2; Source A) identified that adult football demand is split into three categories: indoor football (42% of football players that play); outdoor small-sided football (52%); and outdoor formal football (40%).

Probability calculations allowed us to determine all possible combinations of outdoor to indoor visits. From this, it was estimated that 18% of visits per year are accountable to indoor football, and were therefore discounted from total demand figures.

In addition, the Young People and Insight Report (Table 5.2; Source J – shown overleaf) alongside information gathered from DataHub (Table 5.2; Source A) allowed us to assess sources of irrelevant children's football participation. Probability calculations allowed us to determine that 26% of children's football participation was attributable to educational or casual participation, inside and outside of school hours (accounting for any overlap where an individual plays in multiple forms of involvement).

**Figure 5.2: Children's demand for football. Source: Wales Young People and Insight report**



It should be noted that the term 'irrelevant' only refers to the use of data within this report. The objective of this study was to understand the supply and demand of marked grassroots outdoor football pitches, therefore the demand data above is 'irrelevant' to this study. It is acknowledged that football demand from within the education setting or in purely casual settings are still critical to the game and should be explored as part of wider football development planning.

### 5.2.7 Aggregation to total Grass and AGP demand

Total grass pitch and AGP demand was then calculated using relevant demand (total demand minus irrelevant demand) and insight from DataHub (Table 5.2; Source A). It was assumed 79.7% of football demand across a year takes place on an AGP, and 20.1% on a grass pitch.

The same demand process was carried out to calculate 'relevant visits per year' for other AGP activities including Rugby, Lacrosse, American football, Gaelic Football, Hurling. The subsequent levels of multi-sport AGP demand were then combined with the AGP demand generated by football participation, to generate 'total AGP demand'. Note, hockey was excluded from this multi-sport demand calculation as it was assumed all hockey takes place on sand- or water-based AGPs, both of which were excluded from the modelling.

### 5.2.8 Total yearly hours

DataHub (Table 5.2; Source A) allowed us to identify that approximate visit duration (how long people stay at sites/ play for) varies by pitch typology, but also by the demographic make-up of the individual. On average this was calculated as 1.4 hours for an AGP pitch and 1.3 for a grass pitch, however this varied by Local Authority.

Total grass and AGP demand in 'visits per year' were then multiplied by the average visit time, to provide visits in 'total yearly hours' at the Local Authority level.

### 5.2.9 Summary

Total demand was established to understand the annual hours played in each Local Authority, split by typology of pitch (Grass and AGP).

The following equation was used to determine the total demand for football and multi-sport facilities:

P x F x Du x A = Demand

Where:

- P = Unique People in a given location
- F = Weekly frequency in which a person visits the facility
- D = Duration of a visit
- A = Annual number of visits a person makes to the facility.

# 6 Supply

## 6.1 What is meant by 'supply'?

Supply can be defined as "the amount of service providers are prepared to make available at a given level of demand and price." Most research into sports participation focuses on demand whereas relatively little attention is paid to supply. Arguably this is because measuring supply is difficult and in the absence of coordinated national data collation, such as the *Active Places* database in England, data are collected inconsistently and are confined to local level. The methods by which supply can be measured are shown in Table 6.1

**Table 6.1: Methods of measuring supply applied to football**

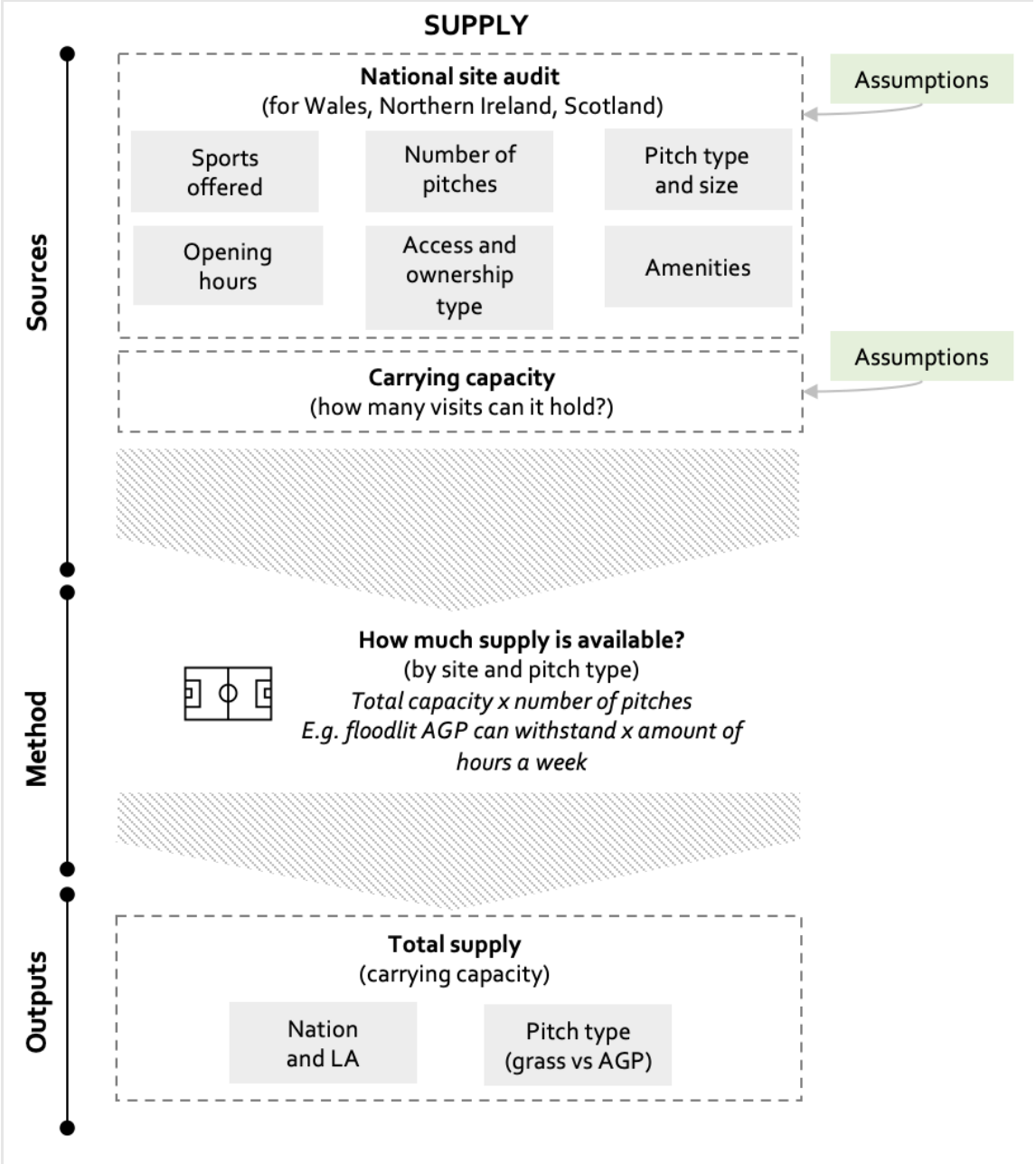
| Measure | Definition | Example |
|---|---|---|
| A. Number of pitches | The availability of supply as measured by an audit of pitches in a specified locality. | Local authority X has a playing pitch strategy which indicates that there are 80 sports pitches in the borough. |
| B. Facility mix | A refinement of A, which distinguishes between types of pitches such as grass and artificial. | In local authority X, the 80 pitches revealed by the audit are 70 grass pitches and 10 AGPs. |
| C. The amount of playing space provided by a pitch or pitches. | A typical full size football pitch will have a playing surface of 100m x 60m, giving a total playing area of 6,000m2, or 0.6 hectares. | In local authority X the 10 AGPs have a total area of 6 hectares. |
| D. Carrying capacity | The amount of activity that can take place on a pitch. | A grass pitch is marked for 11-a-side football only and has a carrying capacity of 22 per 90 mins. An AGP that has full size markings lengthways and 3 small-sided markings width ways can carry 22 people playing 11-a-side or 42 people width ways (3 x 7-a-side x 2 teams) |
| E. Availability | The amount of time that a facility is available for use. | A full-size standard quality grass pitch can accommodate two games per week, equating to 4 hours. A full size floodlit AGP can be available for 34 hours per week, during 'peak' time (midweek evenings and weekends). It should be noted that due to the short research window, we have not been able to identify how availability is categorised. For instance, peak vs off-peak or free vs paid. This will be explored in more detail later in this section. |
| F. Standards | Ratios that relate supply to external benchmarks, for example the number of pitches per 100,000 head of population. | Local authority X has a population of 180,000. Its 80 pitches equate to 44.44 pitches per 100,000 people. This value can be compared with national level data and other local authorities. |

## 6.2 Building the supply audit

To provide a robust analysis of supply and demand, it is critical to undertake a comprehensive audit of pitch supply across the three nations. To do this we have used a range of sources, as defined in the nation-specific analysis, to build a complete picture of the current supply and availability of pitches.

The process used to collect this supply audit is summarised in Figure 6.1 below, and the supporting commentary.

**Figure 6.1: Supply data collection process summary**



### 6.2.1 Supply modelling process

The supply modelling calculated the 'carrying capacity' of pitches across Northern Ireland, Scotland and Wales, seeking to define 'how much supply is available at a given pitch and facility'.

An audit of relevant facilities and pitch provision was undertaken for Northern Ireland, Scotland, and Wales. The research team conducted in-depth desk research as part of the audit, which involved 'data scraping' of relevant information, reviewing existing pitch strategies, and supporting the analysis with satellite imagery auditing and telephone calls with local stakeholders to fill gaps.

Data fields that were collected as part of the supply audit are listed in Table 6.2 below but focussed on key parameters across each nation including site location, pitch sizes, ownership type and amenity provision(s). Please note that no sites or pitches were visited in person as part of this project, however the research team has extensive experience in the area of grassroots site assessments and quality audits.

The audit was supported by existing facility data from previous research, national sports facility databases, recent local authority need assessments and playing pitch strategies. These included:

- Sport Wales National Facility Platform data
- **sport**scotland's Facilities Database
- Active Places NI.

**Table 6.2: Data fields collected as part of supply audit**

| | |
|---|---|
| | Site name |
| | Address |
| | Postcode |
| | Latitude and longitude |
| | Access type |
| | Availability for community use |
| | Ownership type |
| | Car parking |
| | Clubhouse/pavilion |
| | Disability |
| | Changing rooms |
| Football grass pitch details | Number of 11v11 pitches (*) |
| | Number of 7v7 pitches (*) |
| | Number of 5v5 pitches (*) |
| | Number of floodlit pitches |
| | Number of stadium pitches |
| | Grass pitch quality rating |

| | |
|---|---|
| | (from existing needs assessment if available) |
| Artificial grass pitches | Number of AGP (*) |
| | Total AGP pitch area (sqm) |
| | AGP surface type |
| | Number of small sided AGP |
| | Number of full size AGP |
| | Number of floodlit AGP |
| Other sports* | Number of rugby pitches |
| | Number of hockey pitches |
| | Number of lacrosse pitches |
| | Number of American football pitches |
| | Number of Gaelic football pitches |
| | Number of hurling pitches |
| | Other facility types on site |
| Opening hours | Weekday open hours |
| | Weekend open hours |
| Other details | Any other details |
| Status | Status (operational, closed etc) |

*Identified as relevant pitch sports for this study. This does not represent an exhaustive list of all pitch types available on audited facilities.

Table 6.3 overleaf provides a sample of the data collected in Belfast (for example purposes only), as a reference. This exercise has been completed for each LA across the three nations.

## Table 6.3: Example supply audit for Belfast, showing a selection of the collected data

| SITE NAME AND LOCATION DETAILS | | | | | SITE AMENITIES | | | | FOOTBALL GRASS PITCH DETAILS | | | | ARTIFICIAL GRASS PITCHES | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SITE NAME (*) | ADDRESS | POSTCODE (*) | LATITUDE (*) | LONGITUDE (*) | CAR PARKING | CLUBHOUSE / PAVILLION | DISABILITY | CHANGING ROOMS | NUMBER OF 11v11 PITCHES (*) | NUMBER OF 7v7 PITCHES (*) | NUMBER OF 5v5 PITCHES (*) | NUMBER FLOODLIT PITCHES | NUMBER AGP (*) | TOTAL AGP PITCH AREA (SQM) | AGP SURFACE TYPE | AGP AGE |
| Valentines Park / Bangor Aurora Leisure Centre | 3 Valentine Rd, Bangor | BT20 4TH | 54.65234 | -5.66414851 | Yes | No | Not known | Yes | 2 | 3 | 0 | 0 | 3 | 8437.5 | 3G | -10 yea |
| Aquinas Diocesan Grammar School | 518 Ravenhill Rd, Belfast | BT6 0BY | 54.57676 | 5.91168 | No | No | Not known | No | 0 | 0 | 0 | 0 | 2 | 8499 | 3G | |
| Ardravalley Scout Centre | 109 Old Milltown Rd, Castlereagh, E | BT8 7SP | 54.54841 | -5.94322 | No | No | No | No | 0 | 0 | 0 | 0 | 0 | | | |
| Ardoyne Kickhams GAC | Flax Street, Belfast, Antrim | BT14 7EJ | | | | | | | | | | | | | | |
| Ardoyne Youth Providers Forum | Old Beltex Mill, Flax Street, Belfast | BT14 7EJ | 54.6145 | 5.95524 | | | | | | | | | | | | |
| Ashfield Boys High School | Holywood Road, Belfast | BT4 2LY | 54.6096 | -5.86554 | Yes | Yes | Not known | No | 0 | 0 | 0 | 0 | 1 | 5922 | 3G | |
| Ashfield Girls High School | Holywood Road, Belfast | BT4 2LY | 54.6096 | -5.86554 | Yes | No | Not known | No | 0 | 0 | 0 | 0 | 1 | 5005 | Sand | |
| Ashley Park | Ashley Park, Dunmurry, Belfast | BT17 0AF | 54.55076 | -6.00961 | No | Yes | Not known | Yes | 1 | 0 | 0 | 0 | 0 | | | |
| Avoniel Leisure Centre | Avoniel Road, Belfast | BT5 4SF | 54.59564 | -5.89669 | Yes | No | Not known | Yes | 0 | 0 | 0 | 0 | 3 | 9450 | 3G | |
| Avoniel Primary School | | BT5 4SF | 54.59564 | -5.89669 | Yes | | | No | | | | | | | | |
| Ballysillan Leisure Centre | Ballysillan Rd, Belfast | BT14 7QP | 54.62242 | -5.9729 | Yes | No | Yes | Yes | 0 | 0 | 0 | 0 | 1 | 5170 | 3G | 1+yea |
| Ballysillan Playing Fields | Ballysillan Rd, Belfast | BT14 7QP | 54.62242 | -5.9729 | Yes | No | Not known | Yes | 3 | 1 | 0 | 0 | | | | |
| Ballywooley Playing Fields | Crawfordsburn Road, Bangor | BT19 1HY | 54.6608 | -5.71466373 | No | Yes | Not known | Yes | 2 | 0 | 0 | 0 | 0 | | | |
| Balmoral High School | | BT10 0NB | 54.55924 | -5.9992 | No | | | No | | | | | | | | |
| Bangor Academy and 6th Form College | 2 Castle Park Rd, Bangor | BT20 4TB | 54.6573 | 5.66446235 | Yes | No | No | Yes | 1 | 0 | 0 | 0 | 1 | 5005 | Sand | 1+yea |
| Bangor Amateur Football Club | Ballyvarnet, Clandeboye Road, Banc | BT20 3TW | 54.6511675 | -5.68577079 | Yes | No | Not known | No | 1 | 0 | 0 | 1 | 0 | | | |
| Bangor FC | Clandeboye Park, Clandeboye Rd, B | BT20 3JT | 54.65162 | -5.68440415 | No | Yes | Not known | Yes | 0 | 0 | 0 | 0 | 1 | 6250 | 3G | -10 yea |
| Bangor Grammar School | 84 Gransha Rd, Bangor | BT19 7QU | 54.64263 | 5.64773 | Yes | No | Not known | Yes | 0 | 0 | 0 | 0 | 1 | 5005 | Sand | 10 yea |
| Bangor Sportsplex | 292 Old Belfast Road, Bangor | BT19 1LU | 54.65051 | -5.70689 | Yes | Yes | Not known | Yes | 2 | 0 | 0 | 0 | 1 | 5225 | 3G | -5 year |
| Belfast Boys Model School | Mount Coole Park, Belfast | BT14 8JR | 54.63402 | -5.95598 | No | Yes | Not known | No | 0 | 0 | 0 | 0 | 1 | 4950 | 3G | 1+yea |
| Belfast Harlequins RFC | 45a Deramore Park, Belfast | BT9 5JX | 54.56441 | 5.94283 | No | Yes | Not known | Yes | 0 | 0 | 0 | 0 | 1 | 5005 | Sand | |
| Belfast Indoor Tennis Arena | Ormeau Embankment, Belfast | BT6 8LT | 54.58966 | -5.9151 | Yes | No | No | Yes | 0 | 0 | 0 | 0 | 0 | | | |
| Belfast Metropolitan College | 125–153 Millfield, Belfast | BT1 1HS | 54.60012 | -5.93646 | Yes | No | No | No | 0 | 0 | 0 | 0 | 0 | | | |
| Belfast Model School for Girls | 35 Dunowen Gardens, Belfast | BT14 6NQ | 54.6233 | 5.95605 | Yes | No | Not known | Yes | 0 | 0 | 0 | 0 | 2 | 6930 | Sand | 10 yea |
| Belfast Royal Academy | Craigavolgan Rd, Newtownabbey | BT36 4RB | 54.68892 | -6.01991 | Yes | Yes | Not known | Yes | 0 | 0 | 0 | 0 | 1 | 5005 | Sand | 1+yea |
| Ben Madigan Preparatory School | | BT14 6JJ | 54.6148 | -5.93908 | No | | | No | | | | | | | | |
| Blanchflower Park | 12 Holywood Road, Belfast | BT4 2HP | 54.61421 | -5.86391 | Yes | Yes | Not known | Yes | 1 | 0 | 0 | 0 | 2 | 11400 | 3G | der 1 y |
| Bloomfield Road Playing Fields | 93 Bloomfield Road, Bangor | BT20 4XA | 54.64944 | -5.66096 | Yes | Yes | Not known | Yes | 2 | 2 | 0 | 0 | 0 | | | |
| Boucher Road Playing Fields | Boucher Rd, Belfast | BT12 6LR | 54.57467 | -5.96974 | Yes | No | No | No | 3 | 0 | 0 | 0 | 0 | | | |
| Boys Brigade Recreation Centre | Belvoir Dr, Castlereagh, Belfast | BT8 7DH | 54.5509 | -5.93572 | No | Yes | No | No | 3 | 0 | 0 | 0 | 1 | 2400 | 3G | -10 yea |
| Brook Activity Centre | 32 Summerhill Rd, Dunmurry, Belfa | BT17 0RP | 54.54996 | -6.02237 | Yes | No | Yes | Yes | 0 | 0 | 0 | 0 | 1 | 14000 | 3G | -5 year |
| Cabin Hill School | Newtonards Road, Belfast | BT4 3HI | 54.5961 | -5.84849 | No | No | | No | | | | | | | | |
| Campbell College | Belmont Road, Belfast, Down | BT4 2ND | 54.60136 | -5.84778 | | | | | | | | | | | | |
| Cardinal O'Donnell's GAC | 43, Whitecrook Road, Belfast, Antrim | BT12 7PA | 54.59062 | 5.97573 | Yes | Yes | Not known | Yes | 0 | 0 | 0 | 0 | 0 | | | |
| Casement Park | Andersonstown Road, Belfast, Antrim | BT11 9AN | 54.57337 | -5.98307 | No | Yes | Not known | Yes | 0 | 0 | 0 | 0 | 0 | | | |
| Castlereagh College of F&HE | Montgomery Rd, Castlereagh, Belfa | BT6 9JD | 54.57756 | -5.89461 | Yes | No | Not known | Yes | 0 | 0 | 0 | 0 | 0 | | | |

### 6.2.2 Supply assumptions and exclusions

In summary the project team individually audited 5,188 sites, including 5,673 grass pitches and 1,935 AGPs across Northern Ireland, Scotland and Wales.

- Northern Ireland – 995 total sites audited, including 701 grass pitches and 327 AGPs
- Scotland – 2,949 total sites audited, including 3,210 grass pitches and 1,200 AGPs
- Wales – 1,244 total sites audited, including 1,762 grass pitches and 408 AGPs

The assumptions and exclusions made as part of the analysis and modelling are detailed in Table 6.4 below.

**Table 6.4: Supply assumptions and exclusions**

| Assumption | Explanation |
|---|---|
| Access type | Facilities identified as 'private use', or those that were 'unavailable for community use' were excluded. |
| Status | Any sites identified as 'primary schools', 'under construction', 'closed', or upon further inspection did not appear to exist were excluded. This is due to the operational model of primary school facilities, which largely does not allow for community use outside of school hours. Primary school facilities are also unlikely to be maintained sufficiently for community use, other than simple mowing and marking.<br>GAA clubs (and their accompanying facilities) were excluded (Northern Ireland only) as it is likely they use their AGPs solely for Gaelic Football and have no/limited provision for traditional football despite being a 3G surface. |
| Surface type | Sand or water based AGP pitches were not included in the audit as they are not fit for purpose for football usage. While it is expected that some sand-based provision will be used to service demand, especially informal, it is preferable that football is played on 3G, for reasons of safety and customer experience, and therefore the modelling only includes 3G provision. |

Full figures of sites and pitches that were excluded from modelling and analysis are outlined in Appendix D. Of the total audited sites identified above, a total of 2,589 sites, 3,674 grass pitches, and 1,020 AGPs were included in modelling and analysis.

Headline figures that were included in modelling/ analysis for each nation were as follows:

- Northern Ireland – 474 total sites modelled, including 538 grass pitches and 206 AGPs.
- Scotland – 1,234 total sites modelled, including 1,815 grass pitches and 616 AGPs.
- Wales – 881 total sites modelled, including 1,321 grass pitches and 198 AGPs.

### 6.2.3 Developing the view of carrying capacity across audited sites and pitches

As mentioned in Table 6.1, there are a range of methods for measuring supply applied to football. For this research, we followed method D, and calculated Carrying Capacity to determine 'the amount of activity that can take place on a pitch. A series of assumptions were made regarding carrying capacity against each pitch type. These are outlined in detail in Appendix D and summarised

in Table 6.5 below.

4GLOBAL's DataHub was used to assist generation of supply metrics, such as carrying capacity, visit frequency and duration. In addition, 2022 match data from Football Association Wales, and the All Wales AGP Vision and Guidance document (2015) was used to support assumptions on carrying capacity including pitch availability and usage.

**Table 6.5: Carrying capacity assumptions**

| Pitch type and size | Carrying capacity (players) | Availability (hours per week) | Availability (weeks per year) | Total availability (hours per year) |
|---|---|---|---|---|
| Grass 11v11 (full sized) | 26 | 2.7* | 38 | 2707.1 |
| Grass 7v7 | 16 | 2.7* | 38 | 1665.9 |
| Grass 5v5 | 12 | 2.7* | 38 | 1249.4 |
| AGP full sized | 26 | 16 | 50 | 20800 |
| AGP full sized (Floodlit) | 26 | 34 | 50 | 44200 |
| AGP small sized | 12 | 34 | 50 | 20400 |

*See Appendix D for further detail on the use of 2.7 hrs per week for carrying capacity.

Based upon the supply audit information and carrying capacity assumptions, the total annual supply (provision) was then calculated for each Local Authority.

### 6.2.4 2030 future supply assumptions

For the purposes of this project, it was assumed that supply will stay consistent over the study period, until 2030. The consultation phase identified a number of risks and external factors that may influence pitch quality over the study period, which could improve or reduce the quality of provision and the subsequent carrying capacity. Factors that may change include but are not limited to:

- Changes to the quality and regularity of maintenance
- Changes in long-term weather patterns or major weather events
- Changes to public policy on the provision of pitches
- Investment into new pitches or rationalisation (loss) of pitches or facilities.

In all of the above examples, the quality of pitch provision could improve or worsen depending on the specific external factor. The data and information available to the research team as part of this project meant that it was not possible to make robust evidence-based estimations or predictions of the future picture for pitch provision.

It was therefore agreed that the most reasonable approach would be to assume that the supply of pitch provision will not change, with the exception of Scenario 2, which tested the potential impact of pitches located at education sites and facilities being made unavailable for community use.

# 7 Supply and demand analysis for Northern Ireland

## 7.1 Priorities for grassroots facility investment in Northern Ireland

As part of the data collection phase of this project, we consulted with a range of stakeholders across Northern Ireland (see Appendix A for a full list of consultees), to understand the current priorities for grassroots facility investment. These have been used to lead and inform the Northern Ireland analysis, as well as the Investment Pipeline and recommendations that follow. The key points of insight generated from the consultation are listed below:

- Primary funding from Year 1 of the grassroots programme (£700k in 2021/22) was allocated as part of a series of small grants for clubs to come up with projects focused on improvement of facilities, in turn boosting participation. Other examples include £36.2m received in 2011 as part of the subregional facility funding, from which a vast majority of it was put towards developing Premiership and Championship clubs
- Success of facility investment is measured through post-project evaluations - this is the 'normal' mechanism for any scheme run by Sport NI. Success for local councils is measured in terms of outcome on participation and level of usage of facilities
- There has previously been a lack of mid-range investment (£30K-£100K 'tier' plans) – the majority of investment schemes fall below or above this range
- Going forward, a main investment target is participants from deprived areas and communities. In addition, the IFA identified women/girls, low income, ethnic minority, and disability groups as target groups
- Other priorities include developing rural pitches and a support mechanism to assist teams and players who are not part of formal or affiliated clubs
- A successful investment scheme would help to create long-term plans for investment, encouraging growth and development of and upgrades to existing facilities. In addition, sustainability (rather than growth) at grassroots level is important - making sure facilities are inclusive and accessible to all demographics, ensuring facility provision in rural areas, and focusing on future provision
- Challenges include ensuring pitch and auxiliary facilities can adapt for concurrent, multi-sport usage (aka maximising integration).

## 7.2 Supply

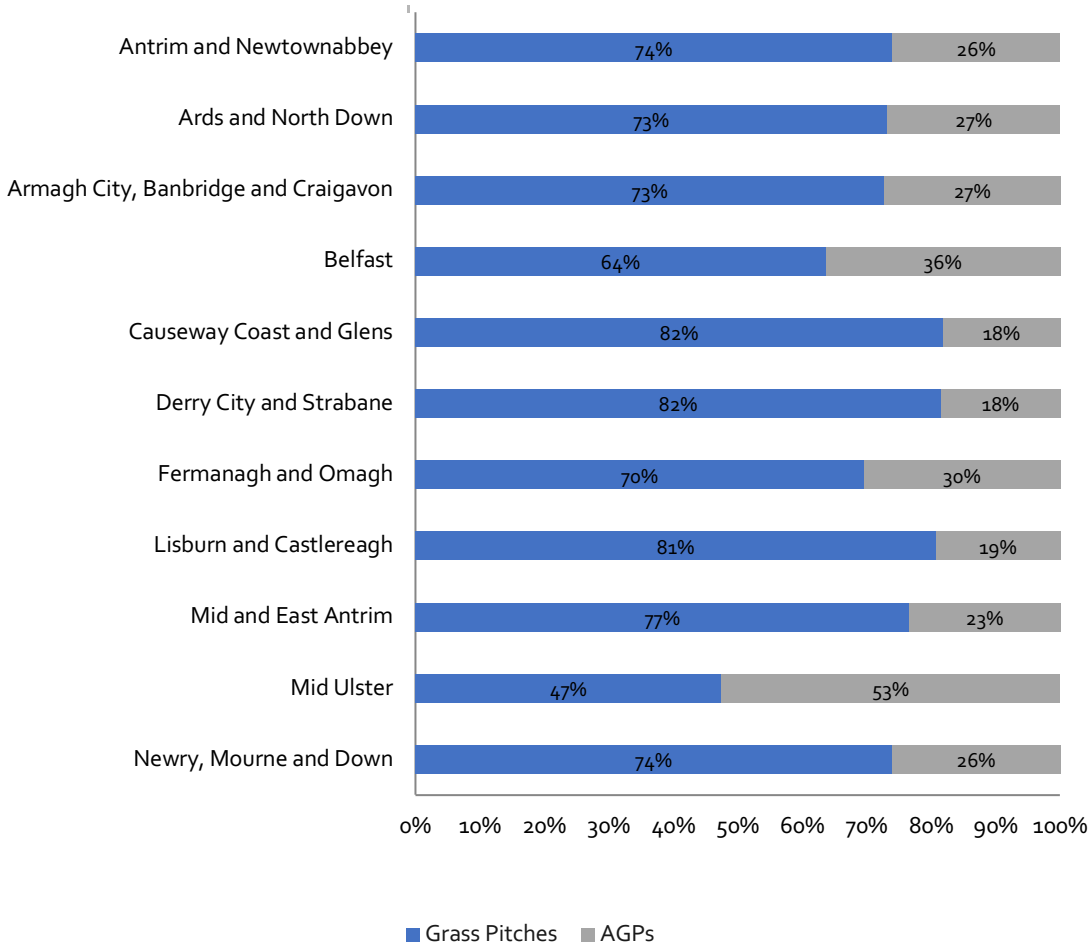
### 7.2.1 Understanding the characteristics and trends of pitch supply

Headline supply figures used in modelling (drawn from the supply audit) for facilities in Northern Ireland included 474 operational sites, with 538 grass pitches (72%) and 206 3G AGP (28%) pitches. Note these figures include sites where the operational status is unknown. Surface type was known for all AGPs across Northern Ireland. The complete supply audit is shown in Appendix H, however a further breakdown on supply at the local authority level is detailed below.

Figure 7.1 allows us to compare pitch supply at the local authority level and identify potential gaps in provision. For three local authorities, over eight in every ten pitches were grass in comparison to

3G AGPs (Lisburn and Castlereagh, 81%; Derry City and Strabane, 82%; Causeway Coast and Glens, 82%). Interestingly Mid Ulster had a greater proportion of 3G AGP to grass pitches (53% vs 47% accordingly).

**Figure 7.1: Supply analysis by pitch typology and local authority**

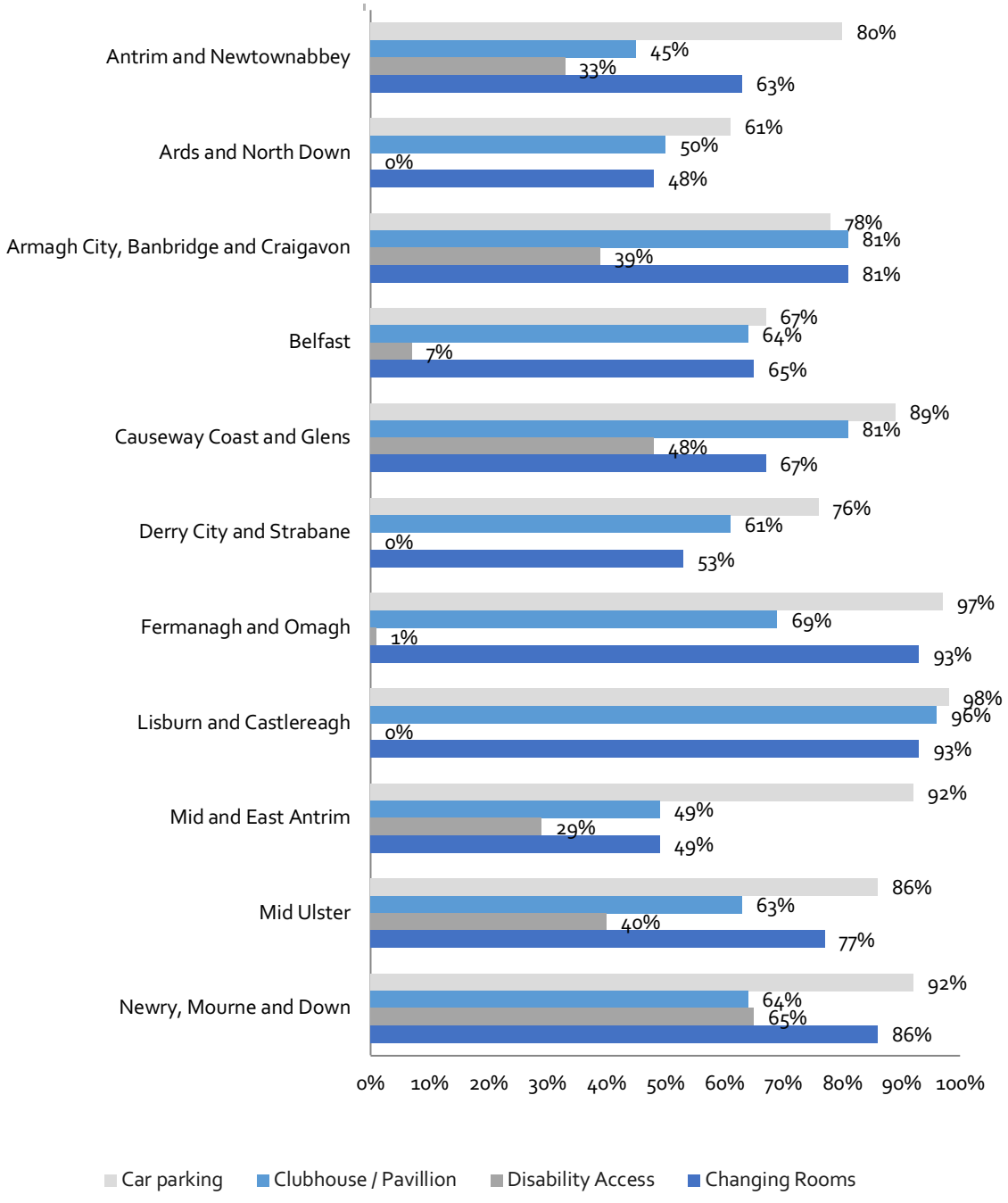



Across Northern Ireland's 11 local authorities, 83% of sites had car parking provisions, 67% of sites had a clubhouse or pavilion, 73% had changing room facilities, however only 27% of sites had appropriate disability access. Note these figures only represent where amenities were clearly identifiable via desk research and exclude any 'unknown' provision from analysis.

In particular the local authorities that had little or no known disability access across their sites were Lisburn and Castle Castlereagh (0% of sites) Fermanagh and Omagh (1%), Derry City and Strabane (0%), and Ards and North Down (0%). However, Lisburn and Castlereagh, and Fermanagh and Omagh, did have the highest proportion of sites with known changing room facilities (both 93%). Lisburn and Castle Castlereagh also had a high proportion of sites with known clubhouses (96%) and car parking (98%). 97% of Fermanagh and Omagh's sites had car parking available.

A full breakdown of amenity provision by local authority is shown in Figure 7.2 below.

**Figure 7.2: Supply analysis by amenity provision and local authority**




## 7.2.2 Assessing pitch provision by deprivation

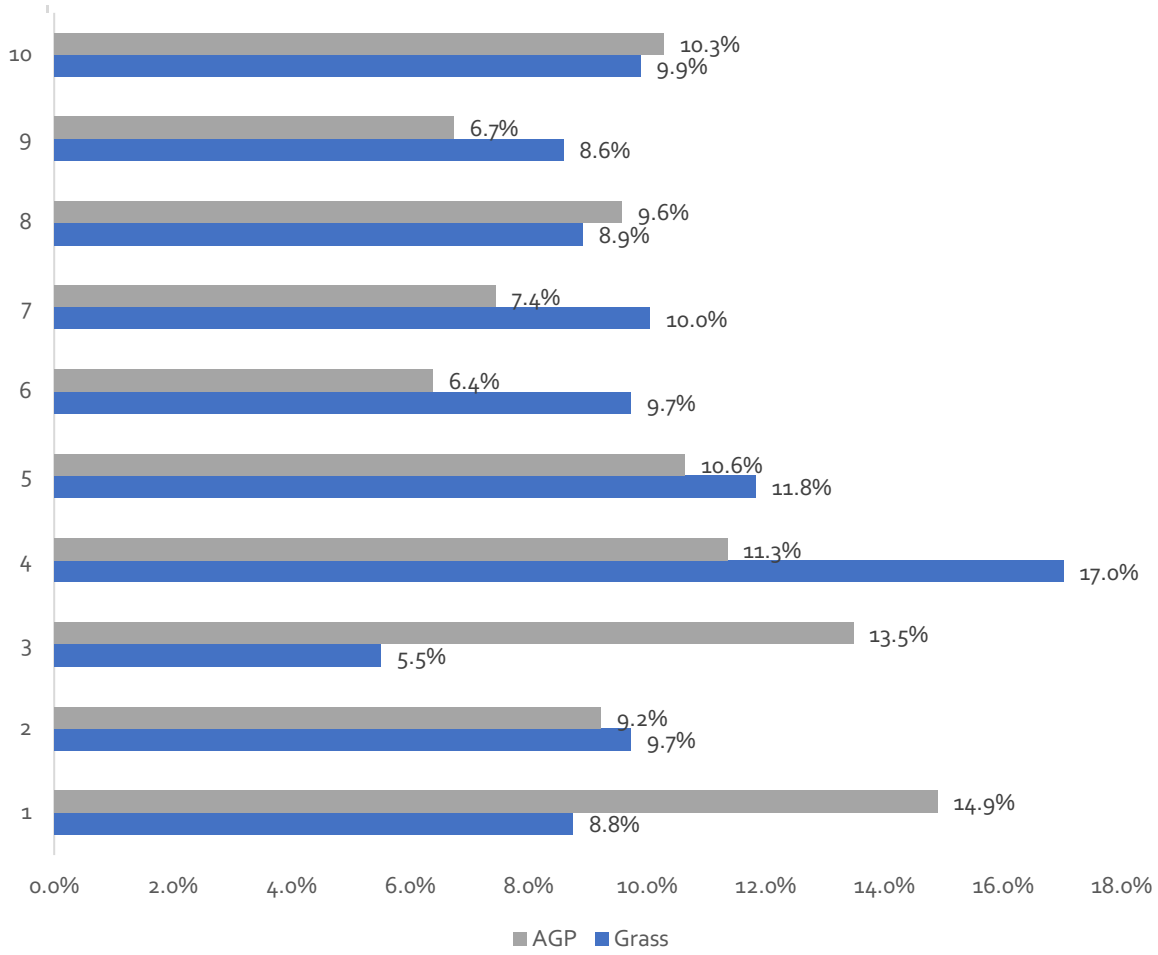
The quality of a pitch and the amenities that support that pitch are critical to how appealing it is to users and how likely it is to encourage and facilitate consistent physical activity. This is not, however, the only set of considerations that contribute to how well a pitch is used and whether it is able to service all of the population.

In addition to understanding the quality of pitches and the amenities that are available on site, it is also critical to understand where sites are located and how they serve local communities. We therefore undertook an analysis of deprivation, focussing on the proportion of facilities located in each of the Northern Ireland Multiple Deprivation Measure 2017[2] (NIMDM2017) deciles, to understand whether this is a consistent distribution for the different pitch typologies.

The NIMDM2017 is the official measure of relative deprivation in Northern Ireland. Decile 1 represents the most deprived 10% (or decile) areas and decile 10 represents the least deprived 10% (or decile) of areas.

Figure 7.3 shows the percentage of the total grass pitch supply within Northern Ireland located within each of the 10 deciles of deprivation, with 1 being the most deprived areas and 10 being the least deprived.

**Figure 7.3: Percentage of current grass pitch supply in Northern Ireland by NIMDM2017 deprivation decile (1 – Most deprived, 10 – Least deprived)**




Grass pitch deprivation analysis for Northern Ireland shows that the largest percentage of grass pitches (17%) are located within decile 4 and the lowest percentage of grass pitches (5.5%) are

[2]Northern Ireland Statistics and Research Agency. (2017). Northern Ireland Multiple Deprivation Measure

located within decile 3. The majority of grass pitch provision is located within the mid decile areas 4-7 totalling 48.6% of all pitch supply. 24% is located within the most deprived areas (decile 1-3) and 27.4% is located within the least deprived areas (deciles 8-10).

Analysis of the AGP deprivation data for Northern Ireland shows that there is a high percentage of AGP supply located within the most deprived areas, this includes the largest percentage of AGP supply (14.9%) which is located within the most deprived areas (decile 1). This is higher than grass pitch supply which only had 8.8% of all grass pitches located within decile 1. A possible reason for this could be due to a large proportion of AGP supply being concentrated within the more urban areas, such as towns and cities, where there tends to be higher levels of deprivation.

The majority of AGP provision (37.6%) is located within the most deprived areas (deciles 1-3) which is higher when compared to only 24% of all grass pitch provision. The mid decile areas of deprivation (decile 4-7) account for 35.8% of all AGP provision, compared to 48.6% of grass pitch provision.

The least deprived areas (deciles 8-10) account for 26.6% of AGP supply which is similar to grass pitch provision of 27.4%.

Areas that are more deprived, in general, experience higher levels of inactivity and lower levels of regular participation in sport and physical activity compared to those areas that are least deprived. The accessibility, affordability, and quality of experience with regards to grass pitch provision is therefore critical to help reduce barriers to entry for new participants whilst also sustaining regular participation for existing participants within these more deprived areas.

### 7.2.3 Assessing pitch provision by travel time and accessibility

To understand how far users currently travel to use pitches, we mapped the demand for grass and multi-pitch provision by lower super output area (LSOA), alongside a 15-minute drive-time and walk-time catchment for every pitch available for community use in the audit. This allowed us to understand the proportion of the demand that falls outside of a target catchment area for grass and AGP, as shown in Table 7.1 below.

**Table 7.1: Percentage of demand for grass and AGP pitches outside of a 15-minute drive and walk time**

| | Grass pitches | | AGPs | |
|---|---|---|---|---|
| | Including education sites | Excluding education sites | Including education sites | Excluding education sites |
| **Drive-time** | 8.9% | 9.1% | 17.1% | 20.7% |
| **Walk-time** | 59.5% | 62.1% | 73.1% | 76.0% |

It is to be expected that grass pitches will have a higher overall coverage of the population, as they have been historically seen as community assets, located in every town or village and across all urban areas. On the other hand, 3G AGP's have, until recently, been viewed by many as more of a destination facility, where higher cost and long travel distances are traded in for a high-quality experience and more consistency of use. The figure for the walk-time catchment shows that in the case of AGP's, approximately three quarters of demand is located outside of a 15 minute walk catchment, demonstrating there is a reliance on either car or public transport to reach and use these facilities.

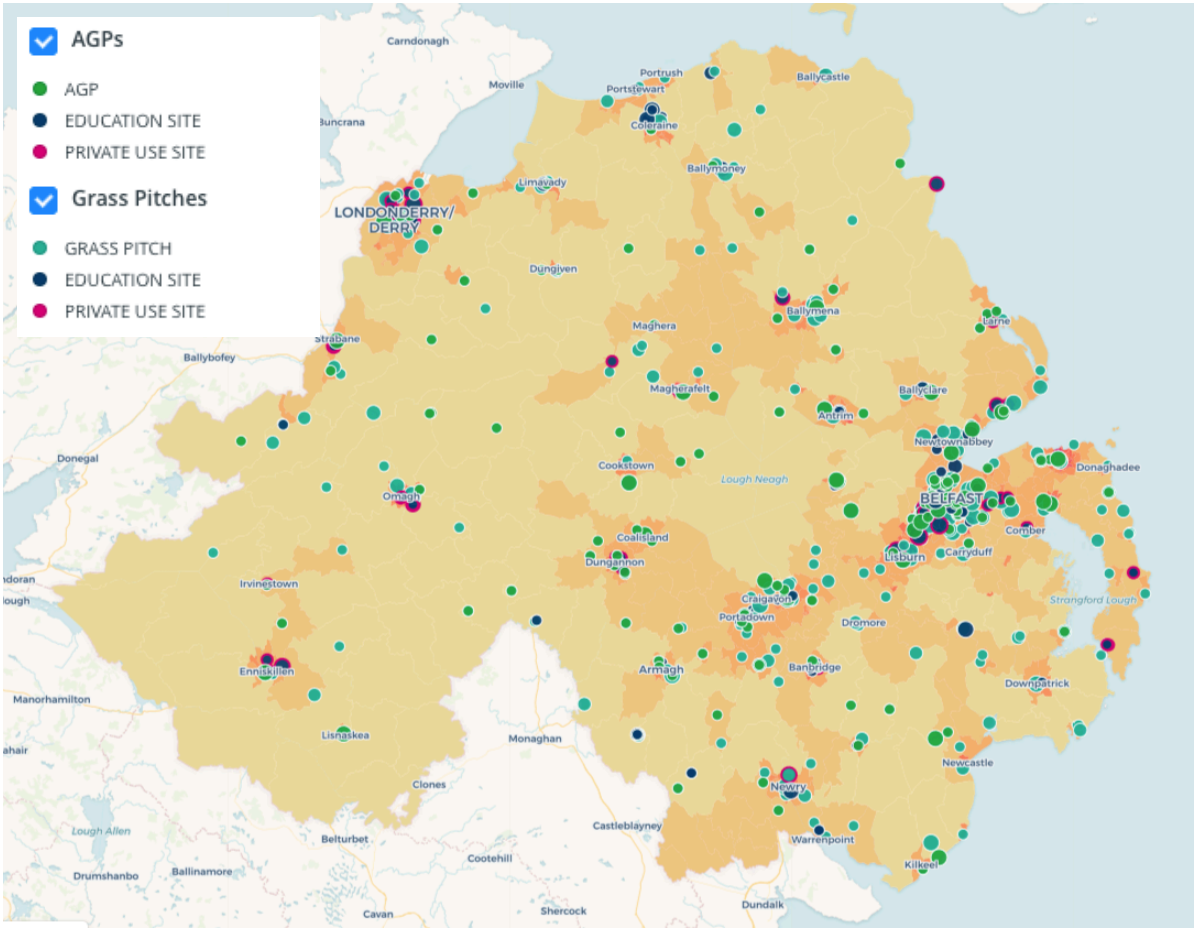
It is vital to consider how new or refurbished facilities can serve the whole population, while remaining financially sustainable. For instance, the opportunity of investing in facilities in more rural areas to reach local communities will have to be balanced with the risk of the facility having less total demand and therefore being subject to financial and operational challenges.

### 7.2.4 Assessing pitch provision spatially

Figure 7.4 overleaf provides a view of all audited pitches across Northern Ireland, showing the concentration of pitch supply around the urban areas. Some of the points overlap and therefore it is not possible to see every pitch, however those with the red outlines have been identified as private use and/or not available for community use.

The base map shows population density by lower super output area, with the darkest red areas having the highest population density.

**Figure 7.4: Northern Ireland pitch supply audit**



## 7.3 Demand: The current picture

### 7.3.1 Adult demand

The most authoritative data currently available on adult demand for participation in sport and physical activity in Northern Ireland is the Continuous Household Survey (CHS). The CHS has been in place since 1983 and routinely includes questions on Sport and Leisure. In 2020/21 the surveying was affected by the Covid-19 pandemic and the total sample was 1,885. This figure compares unfavourably with the 2019/20 CHS, which had a sample size of 5,918. As well as the effects of the pandemic, the sample size was reduced because of the change in administration from in-house interviews (CAPI) to telephone interviews (CATI).

The most current version of the CHS (2020/21) is published at headline level only and includes 12-monthly participation rates rather than 4-weekly rates, which are typically used to quantify the number of regular participants. The 2019/20 data do contain 4-weekly participation rates and are based on a much larger sample. For these reasons, we have assumed that the 2019/20 data are the most reliable for basing our adult demand estimates. In practice there is unlikely to be much difference in the football participation between the two data sets. In 2020/21 the 12-monthly rate is reported as 16% for males and 1% for females, whereas in the 2019/20 data the corresponding statistics are 17% and 1% respectively.

The headline figure for adult football participation in Northern Ireland in 2019/20 was 6.4%, which is very similar to Scotland and is reported as 6%. Mid-year population estimates for Northern Ireland in 2019 and 2020 indicate stability in the total population of 1.894m in 2019 and 1.896m in 2020. Using the 2020 figure of 1.896m, 79.1% are aged 16+, giving a total adult population of 1.500m. Of these, if 6.4% play football, then the total number of adult footballers in Northern Ireland is approximately 96,000. This total number of adult footballers has been adjusted to allow for demand from young people and to remove irrelevant demand (see section 5), to provide a total view of demand that was used within this report.

Appendix E contains a more detailed review of football demand in Northern Ireland, however the key findings from this analysis are summarised below:

- Since 2007/8 Northern Ireland's adult participation rate has remained relatively steady, at around 6%
- At 6%, football is Northern Ireland's most popular team sport
- Men (12%) have a much higher participation rate than women (1%)
- Participation declines with age as people have less ability to maintain high levels of physically intense sport. Consequently, relatively young adults aged 16-34 have a participation rate of 14%, which is more than twice the national average of 6%
- By contrast those aged 35-59 have a below average participation rate (5%) and for those aged 60+ the corresponding statistic is 1%
- When the headline participation rate is broken down by deciles of deprivation, we find that those in the most deprived areas and the least deprived areas have below average levels of participation with scores of 9% and 7% respectively. Those in the remaining eight deciles have average or above levels of participation.

### 7.3.2 Modelling demand for AGPs and grass pitches in Northern Ireland

Our analysis demonstrates that different demographic groups create different levels of demand for football, and it therefore follows that they will create different levels of demand for football facilities.

For us to understand how facilities are currently used and how they are projected to be used in the future, we have utilised the participation rates above and applied further analysis and assumptions to calculate how this demand can be allocated to different facility types. The process and associated assumptions are detailed in Section 6 of this report.

Table 7.2 provides a summary of the demand figures from football and multi-sport usage for AGP and grass pitch provision across Northern Ireland. It begins by identifying the number of unique people that are expected to generate demand by local authority, before converting this into total demand (yearly hours). *Please note that the total AGP demand (unique people) is the sum of football AGP demand and multi-sport AGP demand columns.

**Table 7.2: Demand for AGP and grass pitches in Northern Ireland by local authority area**

| Local authority | Demand (unique people) | | | | Total demand (yearly hours of play) | |
|---|---|---|---|---|---|---|
| | Football AGP | Football grass | Multi sport AGP | Total AGP* | AGP | Grass |
| Antrim & Newtownabbey | 5,666 | 2,043 | 1,580 | 7,246 | 561,067 | 122,000 |
| Armagh, Banbridge & Craigavon | 8,511 | 3,069 | 2,777 | 11,288 | 833,675 | 175,268 |
| Belfast | 13,701 | 4,941 | 3,537 | 17,238 | 1,530,532 | 337,351 |
| Causeway Coast & Glens | 5,891 | 2,124 | 2,212 | 8,103 | 590,973 | 119,626 |
| Derry and Strabane | 6,536 | 2,357 | 2,084 | 8,620 | 699,390 | 147,652 |
| Fermanagh & Omagh | 4,762 | 1,717 | 1,849 | 6,611 | 453,572 | 91,192 |
| Lisburn and Castlereagh | 5,344 | 1,927 | 1,425 | 6,769 | 502,179 | 110,151 |
| Mid & East Antrim | 5,303 | 1,913 | 1,622 | 6,925 | 517,080 | 110,236 |
| Mid Ulster | 6,228 | 2,246 | 2,543 | 8,771 | 608,895 | 120,465 |
| Newry, Mourne & Down | 7,524 | 2,714 | 2,820 | 10,344 | 737,415 | 149,578 |
| North Down and Ards | 5,978 | 2,156 | 1,726 | 7,704 | 583,114 | 125,826 |
| **Northern Ireland** | **75,444** | **27,207** | **24,175** | **9,619** | **7,617,892** | **1,609,345** |

When modelling demand for grass football pitches and AGPs, the demand in terms of unique people is 99,619, who generate an estimated 9 million hours of demand for football facilities per year, split over artificial and grass pitches.

## 7.4 Supply and demand analysis: The baseline

In calculating the supply of pitch provision and the demand for those pitches, we have used a common unit of 'carrying capacity', which is measured in hours per week and scaled up to summarise as annual hours. Under or over supply of pitch provision can then be calculated and recommendations can be made as to the best way of addressing this under or over provision.

In simple terms, if two grass pitches provide 8 hours of carrying capacity a week, but the demand for those pitches equates to 12 hours, there is a deficit of 4 hours. This deficit could be addressed by either a combination or one of the options below:

- Improving the quality of the existing pitches, so that they can sustain more play
- Creating a new grass pitch
- Moving some, or all, of the demand for this pitch onto an artificial grass pitch, which may in turn cause challenges with the capacity of artificial grass pitch provision.

In this section we have compared the supply and demand for pitch provision as part of the 'baseline' analysis, after which we have identified and tested several scenarios that help to provide more detail, context and flexibility to the baseline analysis.

For the purposes of this baseline analysis, the following assumptions have been made:

- All pitches identified within the audit are assumed to be available, and are therefore included in the supply and demand analysis, except for those identified as:
    - Located at or managed by primary schools
    - Sites identified as under construction
    - Unavailable for community use
    - Sand or water based AGP pitches
- In calculating the carrying capacity, the core assumptions stated within Section 6 of this report and the Appendix D are used. This includes assuming that 63% of grass pitches are poor quality and therefore have a carrying capacity of 2 hours per week
- The demand for football is based on 2019 data (pre-pandemic), as per the explanation in the early part of this section.

The analysis calculates the overall supply and capacity of grass pitches and AGPs by factoring in the demand generated from football, and other grass pitch sports, to provide an overall grass pitch and AGP balance in hours. The balance figure has been used to help demonstrate whether there is a current deficit or oversupply in grass pitch and AGP capacity in hours for each of the local authorities within Northern Ireland. The balance figure (in hours) has been converted into an equivalent number of full-size grass pitches and AGPs to help communicate the current pitch capacity surplus or deficit for each local authority area.

Table 7.3 details the supply and demand picture for each of the Northern Ireland local authorities, split by pitch typology. The colour coded cells provide a comparison, only relative to the other LAs. The final two columns provide an estimation of the total amount of additional provision (and therefore capacity) that would be needed to meet any deficit. If the figure is negative this identifies that the deficit requires additional provision, whereas if the figure is positive, this is spare capacity

expressed as total pitches.

It is key to note that in the case of grass pitches, the equivalent number of full-sized grass pitches assumes that any new pitch will be standard in quality, and therefore it will have a carrying capacity of 4 hours per week.

**Table 7.3: Supply and demand analysis for Northern Ireland**

| Local authority | Balance (hours per year) | | No. of full sized pitches | |
|---|---|---|---|---|
| | Grass | AGP | Grass | AGP (Floodlit) |
| Antrim and Newtownabbey | 17,401 | 135,642 | 6 | 3 |
| Ards and North Down | -41,694 | -259,462 | -15 | -6 |
| Armagh City, Banbridge & Craigavon | -22,340 | -288,522 | -8 | -7 |
| Belfast | -85,219 | 305,339 | -31 | 7 |
| Causeway Coast and Glens | -2,117 | -263,505 | -1 | -6 |
| Derry City and Strabane | -26,491 | -266,272 | -10 | -6 |
| Fermanagh and Omagh | -30,636 | -175,548 | -11 | -4 |
| Lisburn and Castlereagh | 29,588 | -210,220 | 11 | -5 |
| Mid and East Antrim | 4,126 | -73,032 | 2 | -2 |
| Mid Ulster | -70,640 | 81,246 | -26 | 2 |
| Newry, Mourne and Down | -34,782 | -357,146 | -13 | -8 |
| **Northern Ireland (TOTAL)** | **-262,804** | **-1,371,480** | **-97** | **-31** |

## 7.4.1 Key findings from the supply and demand analysis – baseline analysis

The supply and demand data identified the areas of Northern Ireland which have spare capacity or deficit for pitch provision, by local authority.

**Grass pitches**

- There is currently a deficit of grass pitch provision across most local authorities in Northern Ireland, with only three of the 11 LAs showing spare grass pitch capacity. Belfast shows the greatest deficit, which equates to 31 full size grass pitches
- The total deficit for grass pitch provision equates to an equivalent of 97 full sized grass pitches in Northern Ireland. This would imply that, overall, there is a significant deficit of grass pitches to support the current demand generated from football

**Artificial grass pitches**

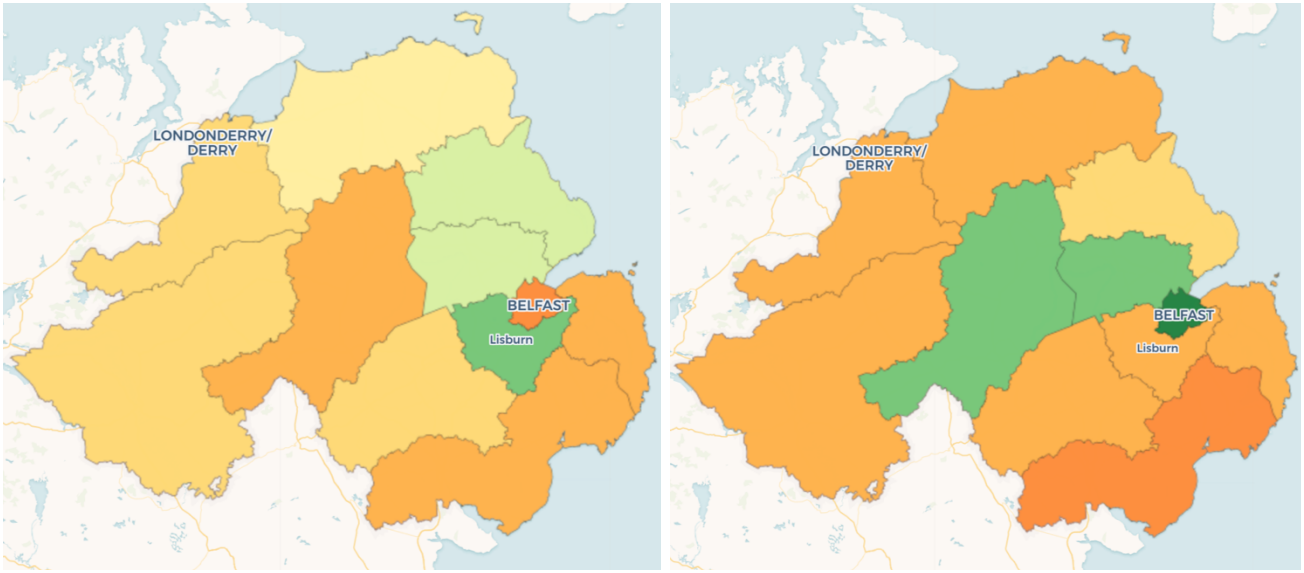
- The analysis highlights an overall deficit in full size floodlit AGP provision and capacity across 8 of the 11 local authorities in Northern Ireland. The total deficit equates to the equivalent of an extra 31 full size AGPs. This implies there is currently an insufficient capacity of full size AGPs to accommodate the current demand for their use

- Football and other grass pitch sports clubs and community groups rely on access to floodlit AGPs to accommodate their winter training, sport, and physical activity needs. A deficit in provision and capacity would suggest the current demand cannot be fulfilled which in-turn has detrimental impact on the physical activity, health, and wellbeing of these participation groups
- The largest deficit in capacity occurs within the local authorities of Armagh City, Banbridge and Craigavon (equivalent to 7 full size AGPs) and Newry, Mourne and Down (8 AGPs)
- The data for Belfast, despite being the largest city in Northern Ireland, shows there is a sufficient supply and capacity of AGPs in the city to cater for current demand. This contrasts with the findings for major cities in Wales and Scotland, as the urban areas have shown the greatest deficit for AGP provision.

### 7.4.2 Analysing supply and demand spatially

The previous analysis provided a headline view of the supply and demand for pitches at a local authority level, however to understand if there were any geographical or spatial trends, we also mapped the supply and demand across Northern Ireland, as shown in Figure 7.5 below.

**Figure 7.5: Supply and demand of grass (left) and AGP (right) pitches in Northern Ireland**




With the darkest green identifying the highest amount of spare capacity and the darkest orange/ red showing the highest amount of deficit, it is clear there is a greater deficit for AGP provision, but that there are still 8 local authorities that have a deficit of grass pitch provision.

### 7.4.3 Analysing supply and demand by deprivation

The supply and demand analysis showed the significant variation in balance figures across Northern Irish local authorities, ranging from significant amounts of pitch deficit in some local authorities to spare capacity being demonstrated in others.

To understand whether there is a relationship or correlation between the findings of the supply and demand analysis, and the deprivation profile of Northern Ireland, this section and the table overleaf

ranks each of the local authorities by % of LSOAS (lower super output areas) that fall within the top 40% most deprived LSOAS across Northern Ireland, measured using the NIMDM2017. The pitch balance for grass pitches and AGPs was then compared, to see if there was any noticeable trend of correlation.

**Table 7.4: Supply and demand analysis by deprivation**

| Local authority | PERCENTAGE LSOAS IN TOP 40% NATIONALLY | | Pitch balance | |
|---|---|---|---|---|
| | % LSOAS IN TOP 40% | OVERALL RANK | Grass Pitch | AGP |
| Derry City and Strabane | 67 | 1 | -26491 | -266272 |
| Fermanagh and Omagh | 53 | 2 | -30636 | -175548 |
| Newry, Mourne and Down | 52 | 3 | -34782 | -357146 |
| Belfast | 52 | 4 | -85219 | 305339 |
| Causeway Coast and Glens | 43 | 5 | -2117 | -263505 |
| Armagh City, Banbridge and Craigavon | 34 | 6 | -22340 | -288522 |
| Mid and East Antrim | 31 | 7 | 4126 | -73032 |
| Mid Ulster | 31 | 8 | -70640 | 81246 |
| Ards and North Down | 27 | 9 | -41694 | -259462 |
| Antrim and Newtownabbey | 22 | 10 | 17401 | 135642 |
| Lisburn and Castlereagh | 10 | 11 | 29588 | -210220 |

Table 7.4 shows that that there is an emerging trend, especially for grass pitches, with the majority of the green LA's (those with the greatest positive balance for grass pitches), showing in the bottom half of the table, compared to mostly orange and red LAs in the top half. There does not appear to be a noticeable trend for AGP supply and demand).

## 7.5 Scenario 1: Reducing the allocation of supply to education facilities

### 7.5.1 Why is this scenario included?

Extensive research across the sector has demonstrated that football and multi-sport facilities located at secondary schools often have limited availability of use and/or limited security of tenure for community-based clubs or users. To varying extents, there is less local or national government influence on the operational model for sports facilities, and less ability to protect the security of tenure for community users. Removing a proportion of this supply from the overall equation assesses the potential impact on grass pitch and AGPs capacity, should sites be made unavailable for community use.

While primary school facilities are not included in this audit (see Appendix D), stakeholders from Scotland and Wales provided estate access data for secondary schools, which allowed the research team to estimate the supply and/or availability of pitches at education sites across Northern Ireland, Scotland and Wales. It should be noted that data was also provided for Northern Ireland, but it was unable to be factored in due to timing constraints.

### 7.5.2 Defining the scenario

For Scotland, data received included the School Estate Audit (Sport Scotland, 2013), which contained data from 2473 school central records. For Wales we used the Active Education Beyond the School Day Snapshot Survey Report (Sport Wales, 2021) which detailed results from a data capture survey issued to 20 of the 22 local authorities and completed by 1277 schools across Wales.

Based on responses from 329 secondary schools in Scotland, an average of 98% of facilities are available for community use. This includes for between 4-4.5 hours on a weekday (term time), 7-8 hours on a weekend (term time), and up to 12.4 hrs a day during school holidays.

Out of 176 secondary schools, a total of 70% have facilities available for community use in Wales (aka Active Education Settings). 55% have facilities open during the weekday (term time), 36% over the weekend (term time), and 37% during the school holidays.

For these reasons, for the purpose of Scenario 1 of this report, we utilised an average of total Scotland and Wales availability, equating to 84%. We therefore assumed that out of every 100 sites, 16 school facilities are not open and/or available for community use and these were excluded from the overall capacity figure, with reductions applied to each local authority relative to the total number of education facilities.

For the purposes of this scenario test, the following assumptions have been made:

- All pitches included are consistent with the baseline analysis except for:
    - 16% of pitch supply from education scenarios has been removed from the analysis, leaving 84% of available supply

All other assumptions are consistent with the baseline analysis. Table 7.5 below summarises the outputs of scenario 1.

**Table 7.5: Scenario test 1 summary**

| Local authority | Grass Pitch Balance | AGP Pitch Balance | Number of Full Sized Grass Pitch | Number of Full Sized AGP (Floodlit) |
|---|---|---|---|---|
| Baseline analysis (for reference) | -262,804 | -1,371,480 | -97 | -31 |
| Scenario 1 – Education reduced | -280,462 | -1,512,696 | -104 | -34 |

### 7.5.3 Key findings from the supply and demand analysis – scenario 1

- By reducing the amount of supply that can be provided by education-based grass pitches, this increased the existing deficit of grass pitch capacity identified across Northern Ireland from a deficit of 97 full size grass pitches to -104
- The total deficit in AGP capacity has increased, equating to a capacity deficit equivalent to 34 AGPs in Northern Ireland
- The same 8 out of 11 local authorities in Northern Ireland show a deficit in AGP capacity, when compared with the baseline analysis

- It should be noted that based on consultation with Northern Ireland stakeholders, the assumed available site figure of 84% was deemed to be optimistic for educational facilities, however it was not possible to consider any Northern Ireland specific data within the analysis window. The research provided by stakeholders suggested that around 50% of education facilities are available for community use.

## 7.6 Scenario 2 – the 2030 view

The baseline analysis and scenario 1 use the most current and relevant view of demand within the analysis, to identify the short-term issues and opportunities that can be addressed through investment.

Within this section, we have sought to predict how the current supply and demand of pitch provision will be influenced and impacted by changes to population numbers and potential changes to trends in demand for football. This future analysis, which uses 2030 for all modelling, provides a forward view and enables more considered and effective investment and support from stakeholders.

There are several variables that can change over time, which can influence the supply and demand of sports facilities, including but not limited to:

- Population changes (total number) across different age groups. In recent times this has typically been positive change (growth), however it is dependent on locality, with urban areas tending to have greater population than rural areas
- Demographic changes, such as shifts in deprivation or the structure of populations. In the case of this report, if all other things remained equal then a shift towards a younger population would be likely to lead to increase demand for football over time, and vice versa
- Changes in trends and demand profiles for sport and physical activity, including growth or reduction in participation rates for specific sports
- Substantive changes in the supply or availability of facilities, which may lead to increased or reduced usage, for instance a major nationwide investment programme focussed on changing provision and access for disabled participants could contribute to increased participation among these groups
- Major policy changes or wider societal changes, which could make it easier or harder for people to utilise facilities, therefore having a longer term impact on supply and demand.

For the purposes of this report, we have focussed on the first three points, to test how they may influence the supply and demand of pitches. For consistency we have assumed that pitch stock will remain consistent, and no changes have been modelled in the supply side. Within the analysis we have commented on the potential for major investment to influence increased demand, known as supply-led demand, however it has been assumed that the available stock of provision will remain consistent.

We have used the baseline analysis, as evaluated previously, as the starting point for this analysis, before applying the low, medium and high estimate for demand in 2030.

### 7.6.1 Developing a low, medium and high estimate

As shown in this commentary, changes can have positive or negative effects on the demand and supply of sports facilities, and it is not possible to determine a single position or scenario for 2030. With this in mind, we have modelled a low, medium and high estimate for 2030, taking into consideration how demand may change over the analysis period.

For this analysis, we have applied ONS population projections, which are the most accurate and respected population projections available. We have therefore applied a consistent growth rate of 3% (average across all age groups). While there is an overall increase, this is heavily weighted in the favour of older adults, with 60+ projected to grow by 19%, compared to reductions of 21% and 9% for 0-4 and 5-15 respectively.

This means that the total number of football players is projected to reduce by 2030, if demand stays consistent.

**Table 7.6: Estimate details**

| | | |
|---|---|---|
| | 1.9% reduction in total football demand, across all players | A 1.9% reduction in total football demand is calculated as worst case, as although Northern Ireland data shows demand has stayed consistent since 2015/16, demand has reduced across the rest of the UK. This low estimate therefore reflects UK-wide trends, however it is likely to be too pessimistic for Northern Ireland. |
| | 2019 participation figures | As a medium estimate, we have assumed that participation rates will recover back to 2019 levels (as used throughout this report) and then stay consistent over the analysis period to 2030. |
| | Growth split by age group and gender<br>● 0-15 age group<br>○ 5% growth (total) in female participation by 2030<br>○ 3% growth (total) in male participation by 2030<br>● 15-64 age group<br>○ 3% growth (total) in female participation by 2030<br>○ 1% growth (total) in male participation by 2030<br>● 65+ age group | There are a number of potential positive influences, which may increase the demand for football facilities over the study period, including but not limited to:<br>a) growth in the number of participants, especially women and girls, playing football that takes place under the auspices of national Football Associations;<br>b) induced demand that may occur because of improved facilities;<br>c) demonstration effects that might occur because of the UK hosting UEFA Women's EUROs 2022;<br>d) continued success by all home nations in European and World level women's tournaments at all age groups;<br>e) continued representation in the Olympic Games of a Team GB Women's football team;<br>f) the effects of the 'levelling up' agenda resulting from reduced deprivation, better education, more well paid jobs, increased income and better local infrastructure, notably for |

| | | |
|---|---|---|
| | ○ 0% growth (total) in participation by 2030 | ethnically diverse communities and those in the areas with greatest deprivation; and<br>g) substitution effects caused by people switching from some activities such as going to the gym in favour of outdoor team sports.<br>Given the lack of robust modelling on future football participation rates, we have made some simple assumptions that reflect the strategic objectives of the stakeholders we have consulted with.<br>With declining participation rates in the adult game, we have weighted our projected growth in favour of younger player groups. Given the investment and focus on the women and girls game, we have also projected slightly higher demand in this area. This reflects the base level participation analysis we have undertaken, which demonstrates the huge room for growth among female players. |

### 7.6.2 Future analysis

Table 7.7 below shows the summary of the low, medium and high analysis, taking into consideration the different projected changes in population and demand. Data per individual local authority are available in Appendix E, however this has not been detailed in the main report due to space constraints.

**Table 7.7: Analysis summary**

| Local authority | Grass Pitch Balance | AGP Pitch Balance | No of Full Sized Grass Pitch | No of Full Sized AGP (Floodlit) |
|---|---|---|---|---|
| Baseline analysis (for reference) | -262,804 | -1,371,480 | -97 | -31 |
| Low estimate | -28,225 | -525,890 | -10 | -12 |
| Medium estimate | -208,709 | -1,176,485 | -77 | -27 |
| High estimate | -526,845 | -2,323,277 | -195 | -53 |

The analysis shows the significant range, with the low estimate demonstrating that there will be a lower requirement for pitch provision across Northern Ireland, should this estimate be the most accurate. The medium estimate is relatively consistent with the current baseline, however there is a marginally less deficit for grass pitches and a lower deficit for AGPs.

The high estimate shows that, should the sector be successful in growing participation, especially among young people and across the women's game, there will be a greater need for provision by 2030, with the deficit of AGPs rising by 22 full sized pitches, from 31 to 53.

## 7.7 Analysing the supply and demand of AGPs using deprivation data

The supply and demand analysis demonstrated that there is a deficit of AGP provision across Northern Ireland, which has been addressed and evaluated in the Investment Pipeline (see Section 8) and recommendations sections of this report.

Consultations undertaken during the research phase of this project identified that while artificial pitch provision is central to the growth of football and the creation of sustainable facilities, there are still challenges and risks associated with investing in AGP provision.

One of these challenges is the typical cost of hire, which is directly correlated with the high cost of building AGP facilities and the requirement for operators to 'invest' in a sinking fund, to ensure the carpet can be replaced when it is at end of life, approximately 5-10 years depending on the intensity of usage. Stakeholders advised that the cost of hiring AGP pitches is typically considerably higher than grass pitches, however given the short research window, it was not possible to validate this with high quality raw data from Northern Ireland, Scotland and Wales.

A key objective of DCMS's grassroots facility investment programme is to allocate 50% of funding into a large proportion of the most deprived areas of the UK, however it is critical that regardless of the location of facilities, facilities are utilised by those who live in the most deprived areas.

### 7.7.1 Evaluating the usage patterns of AGPs

To understand how AGPs are currently used and how this can help to influence the funding requirements and operating model of new facilities, we undertook an analysis of existing AGP's across England, to evaluate whether the participants using the facilities were representative of their local communities, specifically in the case of deprivation.

Data from this exercise is from the DataHub, a sector-wide initiative that aggregates usage data from across the public leisure sector. For this analysis, demand data from 1596 sites with AGP facilities was utilised from January 2019 to December 2021 inclusive. Across this period, usage data from 105,000 unique individuals was analysed, with participants attributed to English IMD deciles based on their age, gender and postcode. We then mapped a 15-minute drive-time around each of the 1596 sites and calculated the breakdown of residents within the site catchment area by IMD decile.

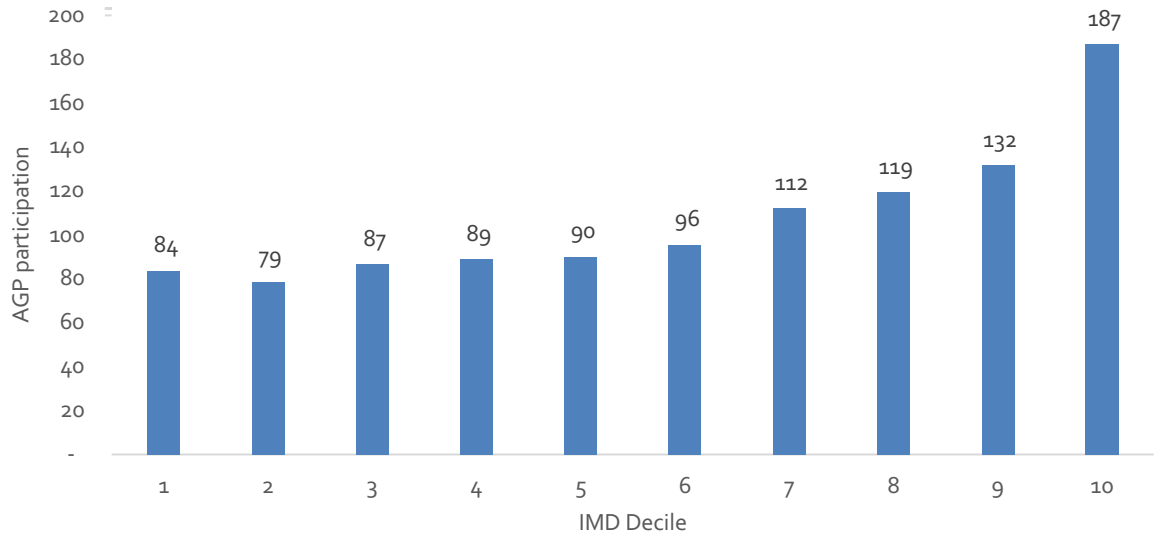
The split of **participants** by IMD decile was then compared to the split of **residents** by IMD decile, to analyse whether the users of AGP's were representative of the local population. Table 7.8 and Figure 7.6 show the findings of this analysis, with IMD decile 1 being the most deprived and decile 10 being the least deprived. Regarding the index value, note that 100 equals perfect representation.

It should be noted that all 1596 sites are located in England and the IMD data used is the England Indices of Multiple Deprivation, therefore while the findings are relevant to this report, they are not statistically applicable to Northern Ireland, Scotland and Wales. English data was used for the purposes of this analysis as equivalent data was not available in Northern Ireland, Scotland and Wales.

**Table 7.8: AGP user deprivation analysis**

| IMD decile | Participant split | Catchment population split | % raw difference | % change | Index value |
|---|---|---|---|---|---|
| 1 | 16.0% | 19.1% | -3.1% | -16.3% | 84 |
| 2 | 10.1% | 12.8% | -2.7% | -21.2% | 79 |
| 3 | 9.7% | 11.2% | -1.5% | -13.3% | 87 |
| 4 | 9.6% | 10.8% | -1.2% | -11.1% | 89 |
| 5 | 8.2% | 9.0% | -0.9% | -9.9% | 90 |
| 6 | 7.9% | 8.2% | -0.4% | -4.4% | 96 |
| 7 | 9.1% | 8.1% | 1.0% | 12.1% | 112 |
| 8 | 8.6% | 7.2% | 1.4% | 19.5% | 119 |
| 9 | 9.5% | 7.2% | 2.3% | 31.8% | 132 |
| 10 | 11.9% | 6.4% | 5.5% | 86.9% | 187 |
| **Top 40% Most Deprived** | **45.3%** | **53.8%** | **-8.5%** | **-15.8%** | **84** |
| **Top 40% Least Deprived** | **39.1%** | **28.9%** | **10.2%** | **35.4%** | **135** |

**Figure 7.6: AGP user deprivation analysis - indexed graph (index – 100 = perfect representation of local catchment)**




The table and figure show participants from less deprived areas are over-represented when compared with the local catchment, with the inverse being true for participants from more deprived areas. This is particularly striking when compared with the analysis undertaken in the supply section of this report, which demonstrated that a greater proportion of AGPs are located in deprived areas.

Overall, it can be concluded that when we consider England data only, while there is a greater number of AGPs in more deprived areas, participation from people who live in these areas is not representative of the local catchment. The picture may be different in Northern Ireland, Scotland and Wales however unfortunately the data was not available to prove or disprove the same analysis. Therefore, for the purpose of this report we have used these findings to shape the recommendations and next steps, while noting that specific national data would help to understand the local context.

# 8 Supply and demand analysis for Scotland

## 8.1 Priorities for grassroots facility investment in Scotland

As part of the data collection phase of this project, we consulted with a range of stakeholders across Scotland (see Appendix A for a full list of consultees), to understand the current priorities for grassroots facility investment. These have been used to lead and inform the Scotland analysis, as well as the Investment Pipeline and recommendations that follow. The key points of insight generated from the consultation are listed below:

- The primary funding that has been used to support capital projects or facilities that encourage sports participation over the last few years is the Sports Facilities Fund (SFF), which invests Scottish Government and National Lottery funding. Until DCMS funding in 2021, and the subsequent introduction of the Scottish FA Grassroots Pitch and Facilities Replacement Fund, there has been limited recent grassroots-specific investment
- Girls and women (of all ages) are the current strategic focus and investment target. Other target groups include those from under-represented groups, including low-income backgrounds, ethnic minorities, with SEND requirements - with an overarching aim to address community-level inequalities
- A key priority for future grassroots investment is to develop a more 'holistic' approach to funding allocation through creating a range of structured funding streams and investment categories. However, challenges to delivering this include the nature of timescales, governance, strength of organisational relationships, and conflicting club priorities
- While developing new facilities is important to meet current and future demand, there is a greater focus and priority on improving the existing facility stock and ensuring that facilities meet the needs of local communities
- Sustainability is the key indicator of success for facility investment, including finding methods to develop and maintain existing infrastructure and creating long-term efficiency of facilities. This is moving away from the previous focus on growth and facility expansion
- Creating a shift in mindset of clubs to 'do more' at local and community levels and develop opportunities/initiatives to participate in/ engage with the game for longer (both on and off pitch) will help target the inactive or fairly active groups.

## 8.2 Supply

### 8.2.1 Understanding the characteristics and trends of pitch supply

As detailed in Section 6, the research team conducted an extensive audit of grassroots pitches, using a range of sources and data collection techniques.

The complete supply audit, which is shown in Appendix H, enables us to draw out headline figures for facilities in Scotland and provides a basis for comparing supply at the local authority level to identify potential gaps in provision.

For the analysis and modelling, 1,234 operational sites, with a total of 2,431 pitches across the 32 local authorities were identified across Scotland. Overall, there is greater provision of grass pitches

across the country (75% out of 2,431) than 3G AGPs (25%). Note these figures include sites where the operational status and AGP surface type is unknown. Surface type was unknown for 12 AGPs across Scotland.

As shown in Figure 8.1 below, the proportion of grass pitches to 3G AGPS varies by local authority, with Glasgow City and Inverclyde having the highest percentage of AGPs (45% and 43% respectively).

**Figure 8.1: Supply analysis by pitch typology and local authority**

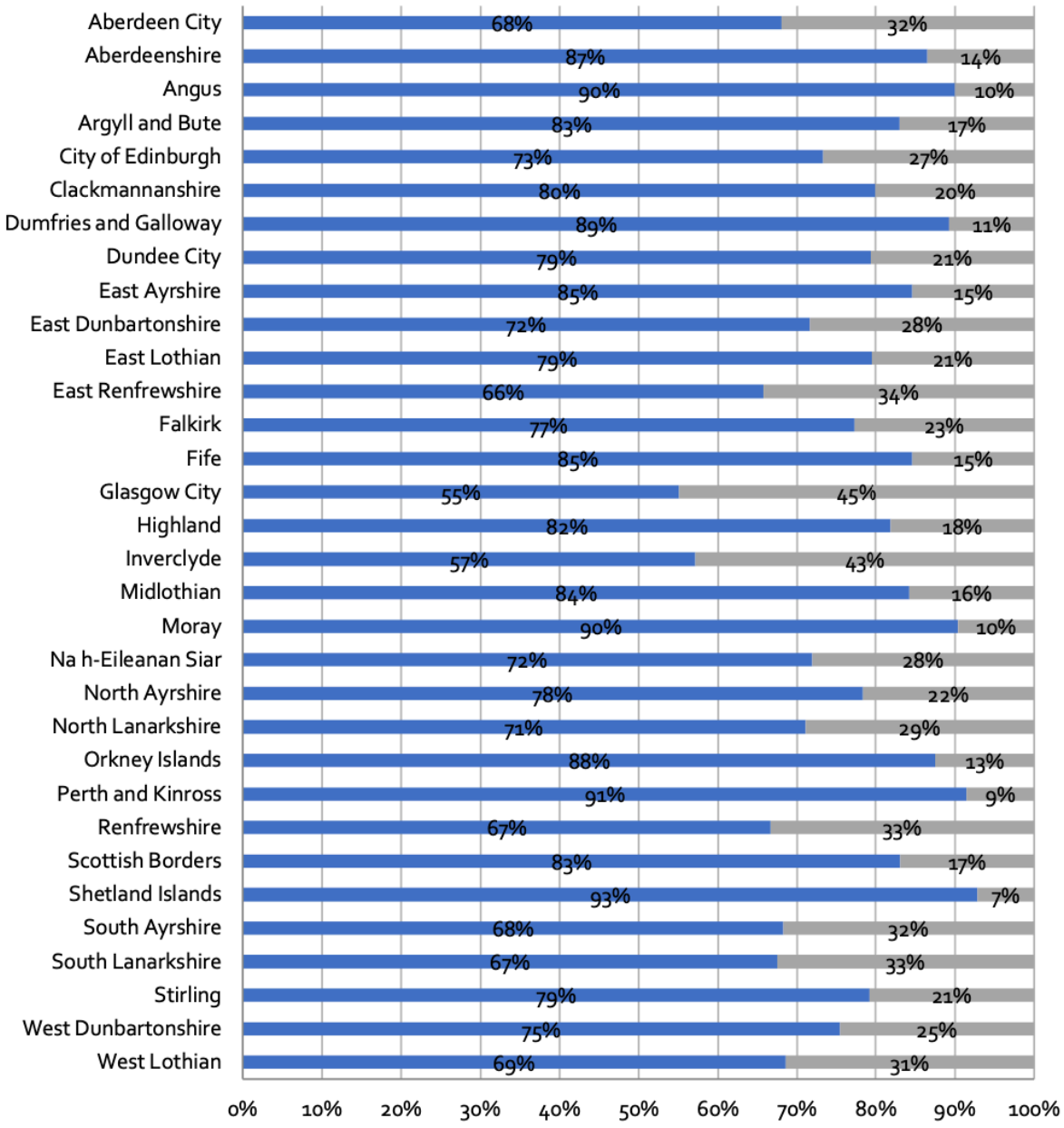
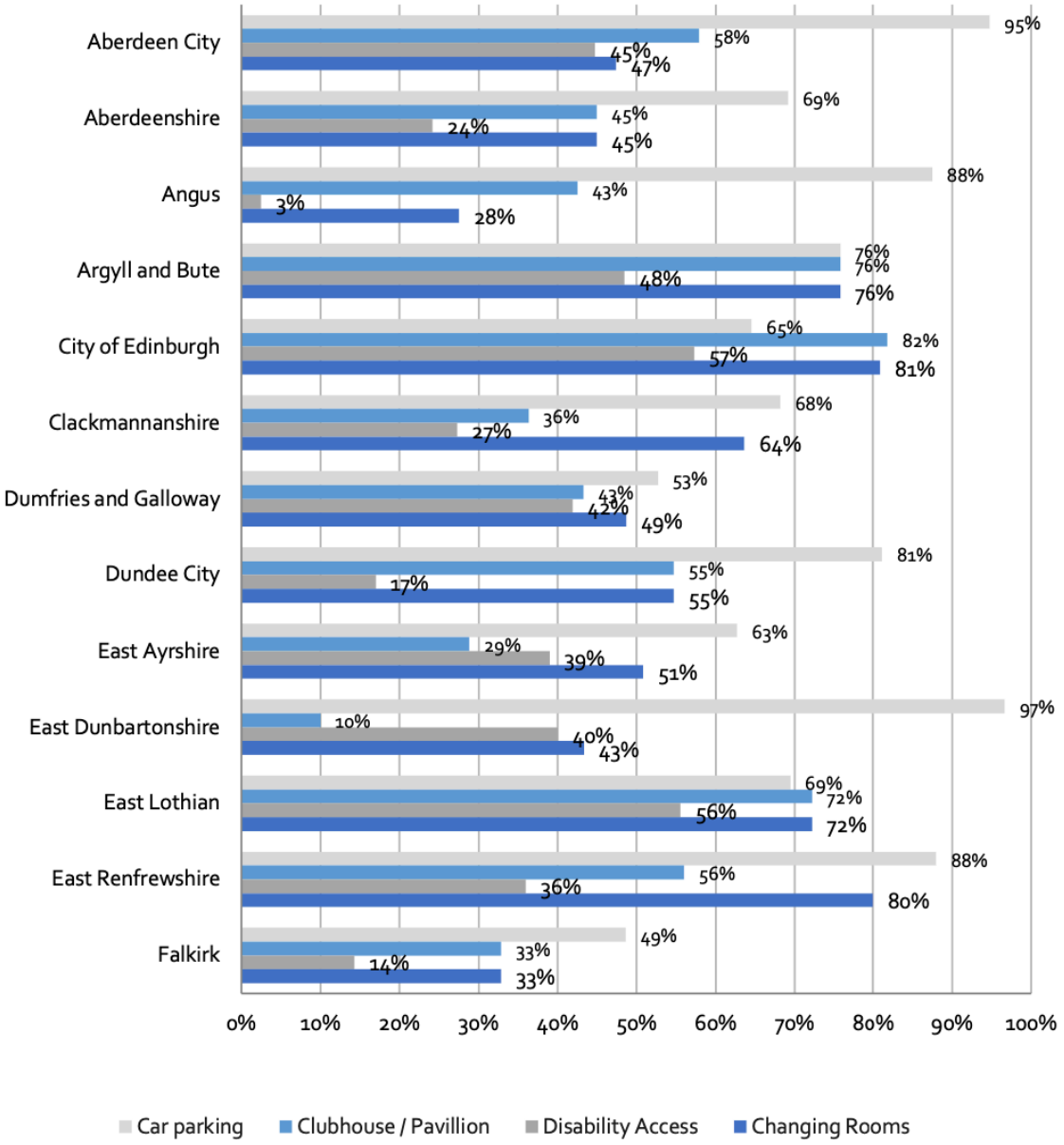


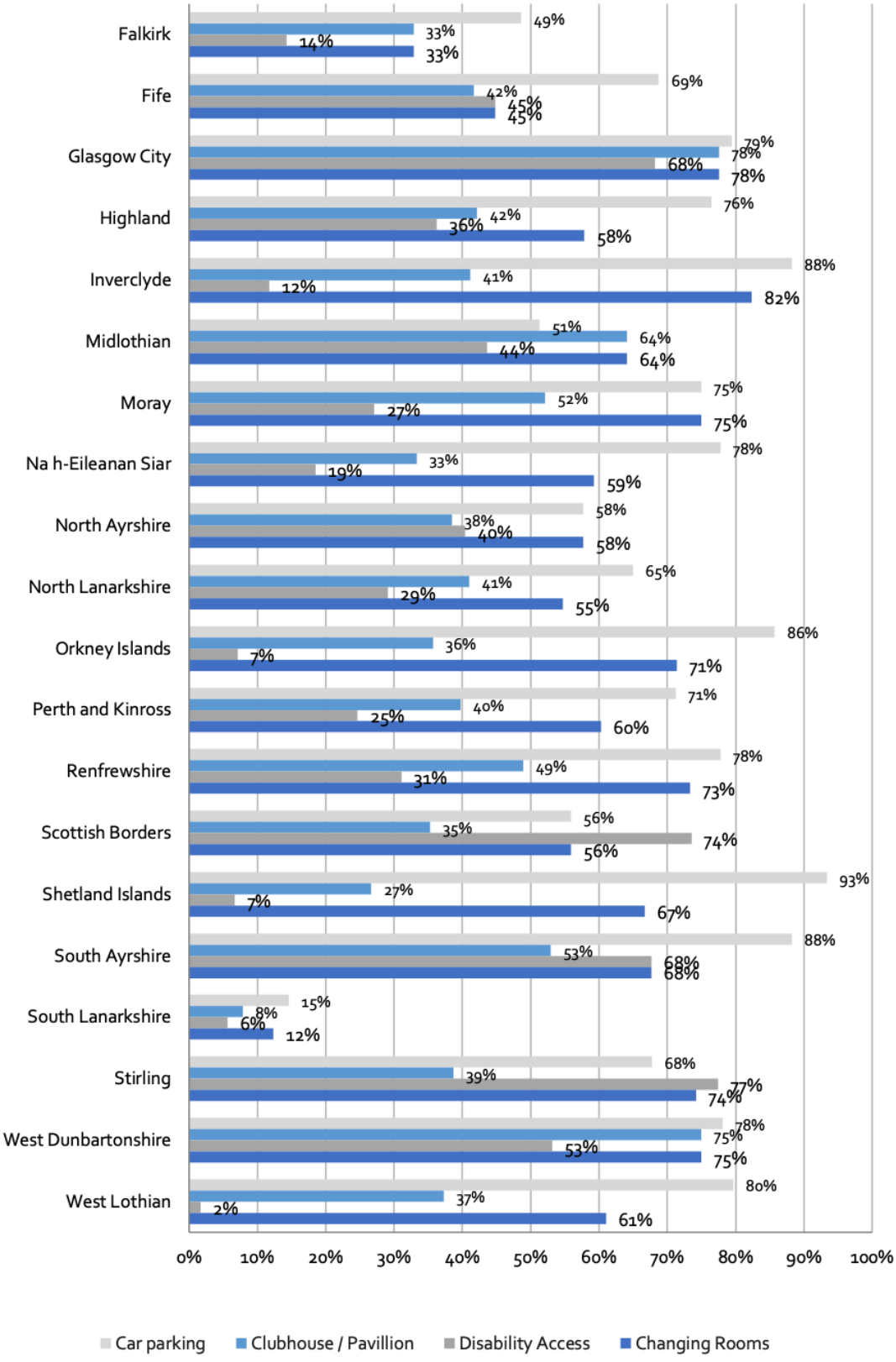

Figure 8.2 shows that the availability of amenities also varies between local authorities. Overall, 68% of sites in Scotland have car parking, 47% have a clubhouse or pavilion, 35% have disability access, and 57% have changing rooms available. Note these figures only represent where amenities were clearly identifiable via desk research and exclude any 'unknown' provision from analysis.

Notably five local authorities have less than 10% of sites with known disability access available (Angus, Orkney Islands, Shetland Island, South Lanarkshire, and West Lothian). In addition, known changing rooms are available at less than 50% of sites for eight local authorities (Aberdeen City, Aberdeenshire, Angus, Dumfries and Galloway, East Dunbartonshire, Falkirk, Fife, and South Lanarkshire). 15% of South Lanarkshire's sites have known on-site car parking available, and 8% of their sites have a known clubhouse or pavilion.

**Figure 8.2: Supply analysis by amenity provision and local authority**




Graph continued overleaf (Falkirk repeated for consistency).


Falkirk
49%
33%
14%
33%
Fife
69%
42%
45%
45%
Glasgow City
79%
78%
68%
78%
Highland
76%
42%
36%
58%
Inverclyde
88%
41%
12%
82%
Midlothian
51%
64%
44%
64%
Moray
75%
52%
27%
75%
Na h-Eileanan Siar
78%
33%
19%
59%
North Ayrshire
58%
38%
40%
58%
North Lanarkshire
65%
41%
29%
55%
Orkney Islands
86%
36%
7%
71%
Perth and Kinross
71%
40%
25%
60%
Renfrewshire
78%
49%
31%
73%
Scottish Borders
56%
35%
74%
56%
Shetland Islands
93%
27%
7%
67%
South Ayrshire
88%
53%
68%
68%
South Lanarkshire
15%
8%
6%
12%
Stirling
68%
39%
77%
74%
West Dunbartonshire
78%
75%
53%
75%
West Lothian
80%
37%
2%
61%
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Car parking
Clubhouse / Pavillion
Disability Access
Changing Rooms

### 8.2.2 Assessing pitch provision by deprivation

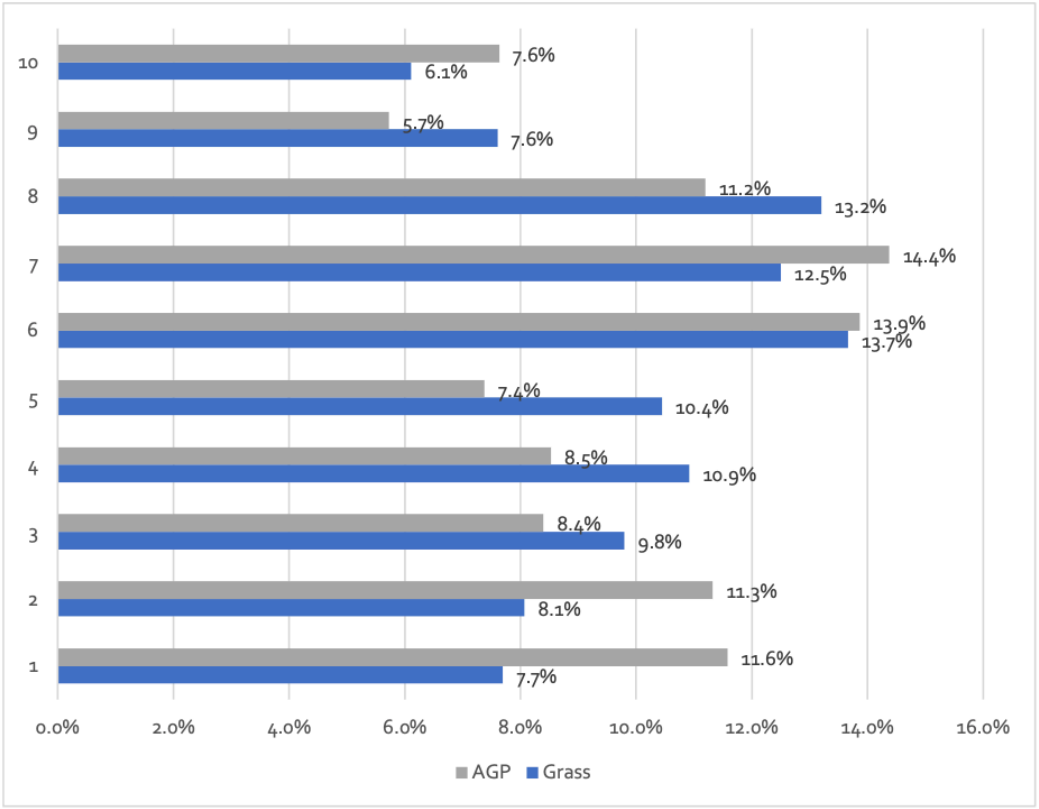
The quality of a pitch and the amenities that support that pitch are critical to how appealing it is to users and how likely it is to encourage and facilitate consistent physical activity. This is not, however, the only set of considerations that contribute to how well a pitch is used and whether it is able to service all of the population.

In addition to understanding the quality of pitches and the amenities that are available on site, it is also critical to understand where sites are located and how they serve local communities. We therefore undertook an analysis of deprivation, focussing on the proportion of facilities located in each of the Scottish Index of Multiple Deprivation (SIMD[2]) deciles, to understand whether this is a consistent distribution for the different pitch typologies.

SIMD is the official measure of relative deprivation in Scotland. Decile 1 represents the most deprived 10% (or decile) areas and decile 10 represents the least deprived 10% (or decile) of areas.

Figure 8.3 shows the percentage of the total grass pitch supply within Scotland located within each of the 10 deciles of deprivation, with 1 being the most deprived areas and 10 being the least deprived.

**Figure 8.3: Percentage of current grass pitch supply in Scotland by NIMDM2017 deprivation decile (1 – Most deprived, 10 – Least deprived)**




Grass pitch deprivation analysis for Scotland shows that the largest percentage of grass pitches (13.7%) are located within decile 6 and the lowest percentage of grass pitches (6.1%) are located within decile 10. The majority of grass pitch provision is located within the mid decile areas 4-7 totalling 47.5% of all pitch supply. 25.6% is located within the most deprived areas (decile 1-3) and 26.9% is located within the least deprived areas (deciles 8-10).

Analysis of the AGP SIMD data for Scotland shows that there is a high percentage of AGP supply located within the most deprived areas, such as decile 1 (11.6%). This is higher than grass pitch supply which only had 7.7% of all grass pitches located within decile 1. A possible reason for this could be due to a large proportion of AGP supply being concentrated within the more urban areas, such as towns and cities, where there tends to be higher levels of deprivation.

The total percentage of AGP supply within the more deprived areas (deciles 1-3) equates to 31.3%, compared to 25.6% of all grass pitch provision within the more deprived areas (deciles 1-3). The least deprived areas (deciles 8-10) account for 24.6% of AGP supply which is similar to grass pitch provision of 26.9%.

Areas that are more deprived, in general, experience higher levels of inactivity and lower levels of regular participation in sport and physical activity compared to those areas that are least deprived. The accessibility, affordability, and quality of experience with regards to grass pitch provision is therefore critical to help reduce barriers to entry for new participants whilst also sustaining regular participation for existing participants within these more deprived areas.

### 8.2.3 Assessing pitch provision by travel time and accessibility

To understand how far users currently travel to use pitches, we mapped the demand for grass and multi-pitch provision by lower super output area (LSOA), alongside a 15-minute drive-time and walk-time catchment for every pitch available for community use in the audit. This allowed us to understand the proportion of the demand that falls outside of a target catchment area for grass and AGP, as shown in Table 8.1 below.

**Table 8.1: Percentage of demand for grass and AGP pitches outside of a 15-minute drive and walk time**

| | Grass pitches | | AGPs | |
|---|---|---|---|---|
| | Including education sites | Excluding education sites | Including education sites | Excluding education sites |
| **Drive-time** | 6.9% | 8.6% | 14.7% | 17.9% |
| **Walk-time** | 34.7% | 38.5% | 60.6% | 69.7% |

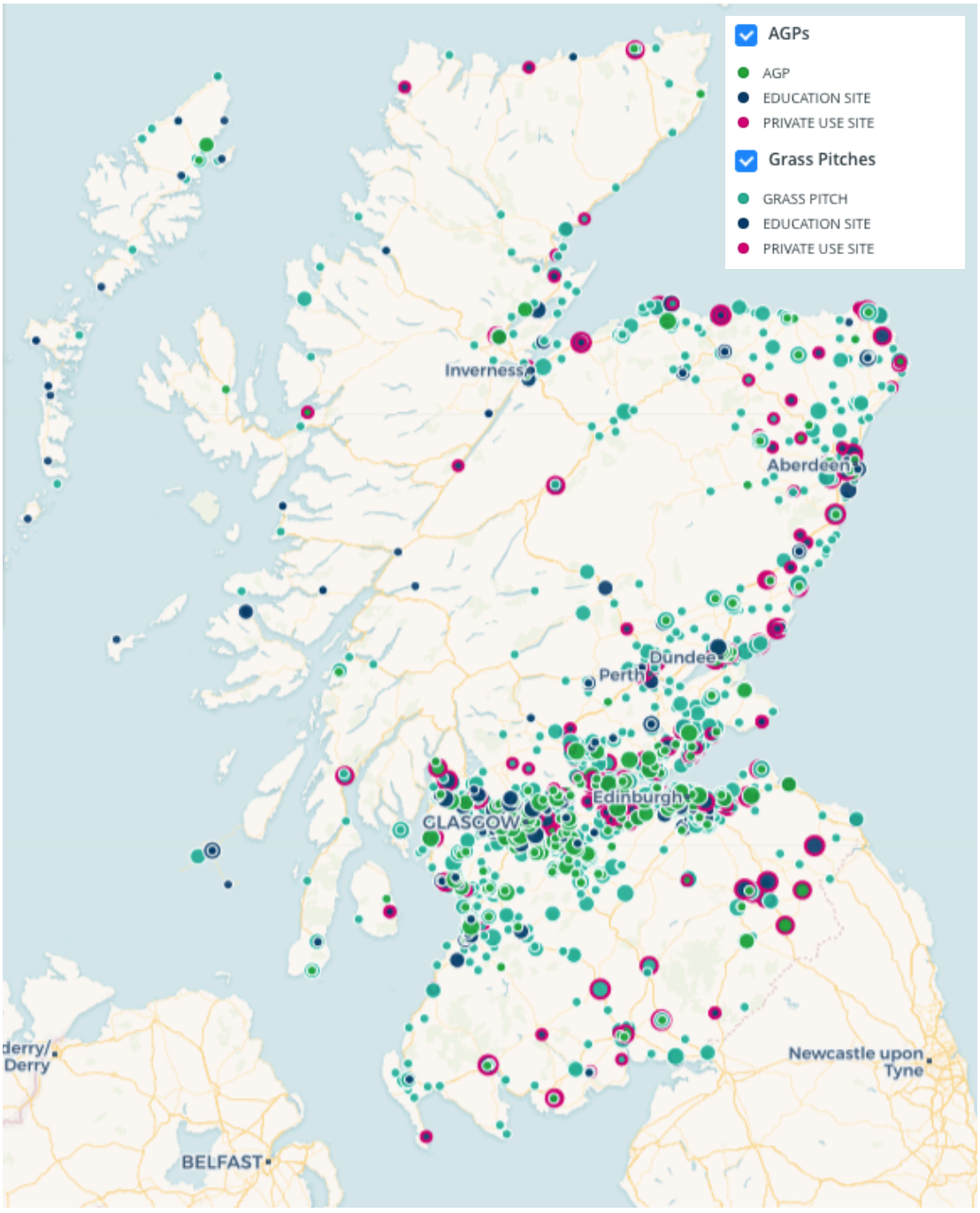
It is to be expected that grass pitches will have a higher overall coverage of the population, as they have been historically seen as community assets, located in every town or village and across all urban areas. On the other hand, 3G AGP's have, until recently, been viewed by many as more of a destination facility, where higher cost and long travel distances are traded in for a high-quality experience and more consistency of use. The figure for the walk-time catchment shows that in the case of AGP's, approximately two thirds of demand is located outside of a 15 minute walk catchment, demonstrating there is a reliance on either car or public transport to reach and use these facilities.

It is still vital to consider how new or refurbished facilities can serve the whole population, while remaining financially sustainable. For instance, the opportunity of investing in facilities in more rural areas to reach local communities will have to be balanced with the risk of the facility having less total demand and therefore being subject to financial and operational challenges.

### 8.2.4 Assessing pitch provision spatially

Figure 8.4 overleaf provides a view of all audited pitches across Scotland, showing the concentration of pitch supply around the urban areas. Some of the points overlap and therefore it is not possible to see every pitch, however those with the red outlines have been identified as private use and/or not available for community use.

**Figure 8.4: Scotland pitch supply audit**



## 8.3 Demand: The current picture

### 8.3.1 Adult demand

The most authoritative data currently available on adult demand for participation in sport and physical activity in Scotland is The Scottish Household Survey (SHS), which is published under the title Scotland's People. The SHS interviews around 9,700 adults aged 16+ on a continuous basis throughout a year in all 32 of Scotland's local authorities. The fact that the survey takes place over a year is important because it has the effect of smoothing out seasonality effects which can be highly significant in sport.

The most up to date version of the SHS is the data set that was collected in 2020 over a compressed period of time. In this survey the headline figure was that 5% of adults in Scotland played football at least once in the last four weeks. In our view this figure is unreliable and non-comparable with previous versions of the SHS. It is unreliable because the data were collected during the Covid-19 pandemic during which time restrictions were in place that negatively impacted on team sports such as football. The data are non-comparable with previous editions because the survey was not continuous throughout the year; it involved a mixture of in person interviewing (pre-lockdown) and telephone interviewing (during lockdown); and the sample sized achieved was smaller than in previous years. For these reasons, we recommend that that most appropriate data for this Football Needs Assessment research is the 2019 data.

The headline figure for adult football participation in Scotland in 2019 was 6% (1 percentage point or 20% higher than the figure found in 2020). Mid-year population estimates for Scotland in 2019 and 2020 indicate stability in the total population of 5.463m in 2019 and 5.466m in 2020. Using the 2020 figure of 5.466m, 83.2% are aged 16+, giving a total adult population of 4.549m. Of these, if 6% play football, then the total number of adult footballers in Scotland is approximately 273,000. This total number of adult footballers been adjusted to allow for demand from young people and to remove irrelevant demand (see section 5), to provide a total view of demand that was used within this report.

Appendix F contains a more detailed review of football demand in Scotland, however the key findings from this analysis are summarised below:

- Since 2007/8 Scotland's adult participation rate has declined progressively from 9% to 6% in 2019
- At 6%, football is Scotland's most popular team sport
- Men (12%) have a much higher participation rate than women (1%). In round numbers, the total of adult males playing football in Scotland is 250,000 and there are approximately 23,000 women
- Participation declines with age as people have less ability to maintain high levels of physically intense sport. Consequently, relatively young adults aged 16-34 have a participation rate of 14%, which is more than twice the national average of 6%
- By contrast those aged 35-59 have a below average participation rate (5%) and for those aged 60+ he corresponding statistic is 1%

- Those in the 20% most deprived areas of Scotland have a participation rate equal to the national average, and those in the 20% least deprived areas have a marginally higher score of 7%. Football is played equally by all deprivation groups across Scotland.

### 8.3.2 Modelling demand for AGPs and grass pitches in Scotland

Our analysis demonstrates that different demographic groups create different levels of demand for football, and it therefore follows that they create different levels of demand for football facilities.

For us to understand how facilities are currently used and how they are projected to be used in the future, we have utilised the participation rates above and applied further analysis and assumptions to calculate how this demand can be allocated to different facility types. The process and associated assumptions are detailed in Section 6 of this report.

Table 8.2 provides a summary of the demand figures from football and multi-sport usage for AGP and grass pitch provision across Scotland. It begins by identifying the number of unique people that are expected to generate demand by local authority, before converting this into total demand (yearly hours). The formatting provides a comparison of each LA, relative to the rest of Scotland.

*Please note that the total for demand (unique people) is less than the sum of the previous three columns, as a proportion of users utilise multiple different facility types, either for football or across different sports.

**Table 8.2: Demand for AGP and grass pitches in Scotland by local authority area**

| | Demand (unique people) | | | | Total demand (yearly hours of play) | |
|---|---|---|---|---|---|---|
| Local authority | Football AGP | Football grass | Multisport AGP | Total* | AGP | Grass pitch |
| Aberdeen City | 9,691 | 3,495 | 2,268 | 11,959 | 983,592 | 221,115 |
| Aberdeenshire | 10,456 | 3,771 | 3,679 | 14,135 | 980,065 | 201,436 |
| Angus | 4,405 | 1,589 | 1,396 | 5,801 | 442,613 | 93,511 |
| Argyll and Bute | 3,278 | 1,182 | 1,174 | 4,452 | 341,131 | 70,153 |
| Clackmannanshire | 2,036 | 734 | 560 | 2,596 | 213,752 | 46,448 |
| Dumfries and Galloway | 5,285 | 1,906 | 1,981 | 7,266 | 538,899 | 109,208 |
| Dundee City | 6,075 | 2,191 | 1,506 | 7,581 | 650,187 | 144,461 |
| East Ayrshire | 4,781 | 1,724 | 1,491 | 6,272 | 504,437 | 106,735 |
| East Dunbartonshire | 4,036 | 1,455 | 1,069 | 5,105 | 391,986 | 85,848 |
| East Lothian | 4,064 | 1,466 | 1,274 | 5,338 | 408,998 | 86,591 |
| East Renfrewshire | 3,812 | 1,375 | 988 | 4,800 | 362,527 | 79,765 |
| Edinburgh, City of | 22,460 | 8,100 | 5,167 | 27,627 | 2,197,225 | 495,354 |
| Eilean Siar (Western Isles) | 991 | 357 | 444 | 1,435 | 108,696 | 20,854 |
| Falkirk | 6,493 | 2,341 | 1,732 | 8,225 | 682,405 | 149,012 |

| Local authority | Demand (unique people) | | | | Total demand (yearly hours of play) | |
|---|---|---|---|---|---|---|
| | Football AGP | Football grass | Multisport AGP | Total* | AGP | Grass pitch |
| Fife | 14,598 | 5,265 | 4,205 | 18,803 | 1,537,791 | 331,443 |
| Glasgow, City of | 26,754 | 9,649 | 6,609 | 33,363 | 2,903,303 | 645,262 |
| Highland | 8,902 | 3,210 | 3,346 | 12,248 | 914,049 | 184,881 |
| Inverclyde | 3,080 | 1,111 | 857 | 3,937 | 329,155 | 71,372 |
| Midlothian | 3,597 | 1,297 | 1,034 | 4,631 | 375,266 | 80,735 |
| Moray | 3,856 | 1,391 | 1,380 | 5,236 | 399,526 | 82,016 |
| North Ayrshire | 5,243 | 1,891 | 1,543 | 6,786 | 561,874 | 120,436 |
| North Lanarkshire | 14,695 | 5,300 | 3,928 | 18,623 | 1,582,974 | 345,572 |
| Orkney Islands | 834 | 301 | 389 | 1,223 | 91,396 | 17,291 |
| Perth and Kinross | 5,595 | 2,018 | 1,876 | 7,471 | 549,201 | 114,710 |
| Renfrewshire | 6,997 | 2,524 | 1,853 | 8,850 | 728,422 | 159,533 |
| Scottish Borders | 4,044 | 1,458 | 1,508 | 5,552 | 404,953 | 82,213 |
| Shetland Islands | 950 | 342 | 414 | 1,364 | 100,952 | 19,515 |
| South Ayrshire | 3,993 | 1,440 | 1,246 | 5,239 | 412,049 | 87,274 |
| South Lanarkshire | 12,474 | 4,499 | 3,473 | 15,947 | 1,293,076 | 280,400 |
| Stirling | 3,740 | 1,349 | 1,095 | 4,835 | 378,677 | 81,622 |
| West Dunbartonshire | 3,674 | 1,325 | 1,014 | 4,688 | 403,033 | 87,486 |
| West Lothian | 7,689 | 2,773 | 2,059 | 9,748 | 802,788 | 175,119 |
| **Scotland (TOTAL)** | **218,578** | **78,829** | **62,558** | **281,136** | **22,574,998** | **4,877,371** |

When modelling demand for grass football pitches and AGPs, the demand in terms of unique people (both adults and children) is 281,136, who generate an estimated 27 million hours of demand for football facilities per year, split over artificial and grass pitches.

## 8.4 Supply and demand analysis: The baseline

In calculating the supply of pitch provision and the demand for those pitches, we have used a common unit of 'carrying capacity', which is measured in hours per week and scaled up to summarise as annual hours. Under or over supply of pitch provision can then be calculated and recommendations can be made as to the best way of addressing this under or over provision.

In simple terms, if two grass pitches provide 8 hours of carrying capacity a week, but the demand for those pitches equates to 12 hours, there is a deficit of 4 hours. This deficit could be addressed by either a combination or one of the options below:

- Improving the quality of the existing pitches, so that they can sustain more play

- Creating a new grass pitch
- Moving some, or all, of the demand for this pitch onto an artificial grass pitch, which may in turn cause challenges with the capacity of artificial grass pitch provision.

In this section we compare the supply and demand for pitch provision as part of the 'baseline' analysis, after which we have identified and tested several scenarios that help to provide more detail, context and flexibility to the baseline analysis.

For the purposes of this baseline analysis, the following assumptions have been made:

- All pitches identified within the audit are assumed to be available, and are therefore included in the supply and demand analysis, except for those identified as:
  - Located at or managed by primary schools
  - Sites identified as under construction
  - Unavailable for community use
  - Sand or water-based AGP pitches
- In calculating the carrying capacity, the core assumptions stated within Section 6 of this report and the Appendix D are used
- The demand for football is based on 2019 data (pre-pandemic), as per the explanation in the early part of this section.

The analysis calculates the overall supply and capacity of grass pitches and AGPs by factoring in the demand generated from football, and other grass pitch sports, to provide an overall grass pitch and AGP balance in hours. The balance figure has been used to help demonstrate whether there is a current deficit or over-supply in grass pitch and AGP capacity in hours for each of the local authorities within Scotland. The balance figure (in hours) has been converted into an equivalent number of full-size grass pitches and AGPs to help communicate the current pitch capacity surplus or deficit for each local authority area.

Table 8.3 overleaf details the supply and demand picture for each of Scotland's local authorities, split by pitch typology. The colour coded cells provide a comparison, only relative to the other LAs in Scotland. The final two columns provide an estimation of the total amount of additional provision (and therefore capacity) that would be in needed to meet any deficit. If the figure is negative this identifies that the deficit requires additional provision, whereas if the figure is positive, this is spare capacity expressed as total pitches.

**Table 8.3: Supply and demand analysis for Scotland**

| | Balance (hours per year) | | Equivalent full sized pitches | |
|---|---|---|---|---|
| Local authority | Grass | AGP (Floodlit) | Grass | AGP (Floodlit) |
| Aberdeen City | -118,012b | -425,737 | -43.6 | -9.6 |
| Aberdeenshire | -55,793 | -412,456 | -20.6 | -9.3 |
| Angus | 19,134 | -164,766 | 7.1 | -3.7 |
| Argyll and Bute | 21,369 | -41,271 | 7.9 | -0.9 |
| City of Edinburgh | -241,330 | -771,372 | -89.1 | -17.5 |

| Local authority | Balance (hours per year) | | Equivalent full sized pitches | |
|---|---|---|---|---|
| | Grass | AGP (Floodlit) | Grass | AGP (Floodlit) |
| Clackmannanshire | 7,208 | -39,120 | 2.7 | -0.9 |
| Dumfries and Galloway | 61,269 | - 275,694 | 22.6 | -6.2 |
| Dundee City | 70,205 | -174,064 | 25.9 | -3.9 |
| East Ayrshire | 51,584 | 85,596 | 19.1 | 1.9 |
| East Dunbartonshire | 21,988 | 143, 179 | 8.1 | 3.2 |
| East Lothian | -15,206 | -109,616 | -5.6 | -2.5 |
| East Renfrewshire | 16,915 | 196, 085 | 6.2 | 4.4 |
| Falkirk | 29,489 | -373,643 | 10.9 | -8.5 |
| Fife | 51,207 | -706,461 | 18,9 | -16.0 |
| Glasgow City | -387,448 | -587,969 | -143.1 | -13.3 |
| Highland | -125,786 | -212,169 | -46.5 | -4.8 |
| Inverclyde | -27,633 | 193,556 | -10.2 | 4.4 |
| Midlothian | 6,091 | -29,337 | 2.2 | -0.7 |
| Moray | 22,051 | -182,005 | 8.1 | -4.1 |
| Na h-Eileanan an Lar | 31,208 | 98,983 | 11.5 | 2.2 |
| North Ayrshire | 57,819 | 119,992 | 21.4 | 2.7 |
| North Lanarkshire | -39,771 | 111,449 | -14.7 | 2.5 |
| Orkney Islands | 21,582 | 17,407 | 8.0 | 0.4 |
| Perth and Kinross | 35,139 | -375,949 | 13.0 | -8.5 |
| Renfrewshire | 16,250 | 50,471 | 6.0 | 1.1 |
| Scottish Borders | -6,199 | -184,295 | -2.3 | -4.2 |
| Shetland Islands | 8,759 | - 14,660 | 3.2 | -0.3 |
| South Ayrshire | 6,233 | 254,421 | 2.3 | 5.8 |
| South Lanarkshire | -15,168 | 160,300 | -5.6 | 3.6 |
| Stirling | -32,299 | -171, 479 | -11.9 | -3.9 |
| West Dunbartonshire | 15,986 | 162,477 | 5.9 | 3.7 |
| West Lothian | -52,027 | -346,057 | -19.2 | -7.8 |
| **Scotland (TOTAL)** | **-545,189** | **-4,004,654** | **-201** | **-91** |

### 8.4.1 Key findings from the supply and demand analysis – baseline analysis

The supply and demand data identified key challenges, issues and opportunities to invest effectively into grassroots provision in Scotland.

**Grass pitches**

- There is currently a deficit of grass pitch provision across approximately a third of the local authorities in Scotland, which are largely located around the urban areas. The total deficit for grass pitch provision equates to an equivalent of -201 full sized grass pitches in Scotland.
- There are 32 local authorities in Scotland of which 12 have an identified deficit in grass pitch capacity, these include Glasgow City (equivalent to 143 grass pitches), City of Edinburgh (89), Highland (47) and Aberdeen City (44).

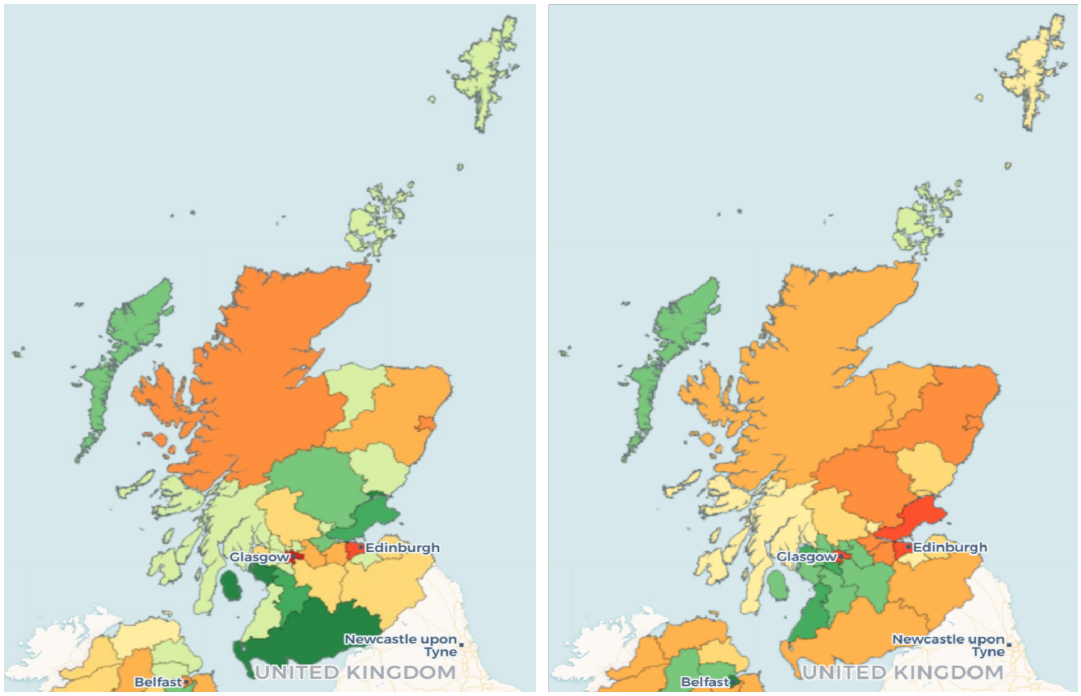
**Artificial grass pitches**

- The analysis highlights an overall deficit in full size floodlit AGP provision and capacity across most local authorities in Scotland. In Scotland, the total deficit equates to the equivalent of an extra 91 full size AGPs. There is an insufficient capacity of full size AGPs to accommodate the current demand for their use. The analysis of AGPs shows that there is a deficit in current AGP capacity across 20 of the 32 local authorities in Scotland.
- The largest deficit in capacity occurs within the local authorities of City of Edinburgh (equivalent to 17.5 full size floodlit AGPs), Glasgow City (-13.3 AGPs), Fife (-16 AGPs), and Aberdeen City (-9.6 AGPs)
- Football and other grass pitch sports clubs and community groups rely on access to floodlit AGPs to accommodate winter training, sport and physical activity needs. A deficit in provision and capacity indicates the current demand cannot be fulfilled which in-turn has detrimental impact on the physical activity, health, and wellbeing of these participants.

### 1.1.1 Analysing supply and demand spatially

The previous analysis provided a headline view of the supply and demand for pitches at a local authority level, however to understand if there were any geographical or spatial trends, we also mapped the supply and demand across Scotland, as shown in Figure 7.5 overleaf.

**Figure 8.5: Supply and demand of grass (left) and AGP (right) pitches in Scotland**




With the darkest green identifying the highest amount of spare capacity and the darkest orange/ red showing the highest amount of deficit, it is clear there is a greater deficit for AGP provision, but that there are still 12 local authorities that have a deficit of grass pitch provision.

### 8.4.2 Analysing supply and demand by deprivation

The supply and demand analysis showed the significant variation in balance figures across Scottish local authorities, ranging from significant amounts of pitch deficit in some local authorities to spare capacity being demonstrated in others.

To understand whether there is a relationship or correlation between the findings of the supply and demand analysis, and the deprivation profile of Scotland, this section and the table overleaf ranks each of the local authorities by % of LSOAS (lower super output areas) that fall within the top 40% most deprived LSOAS across Scottish, measured using the Scottish Indices of Multiple Deprivation (SIMD). The pitch balance for grass pitches and AGPs was then compared, to see if there was any noticeable trend of correlation.

**Table 8.4: Supply and demand analysis by deprivation**

| | LSOAS IN TOP 40% NATIONALLY | | Pitch balance | |
|---|---|---|---|---|
| Local authority | % LSOAS | OVERALL RANK | Grass Pitch | AGP |
| West Dunbartonshire | 65 | 1 | 15986 | 162477 |
| Glasgow City | 63 | 2 | -387448 | -587969 |
| North Lanarkshire | 61 | 3 | -39771 | 111449 |
| North Ayrshire | 59 | 4 | 57819 | 119992 |
| Inverclyde | 59 | 5 | -27633 | 193556 |

| Local authority | LSOAS IN TOP 40% NATIONALLY | | Pitch balance | |
|---|---|---|---|---|
| | % LSOAS | OVERALL RANK | Grass Pitch | AGP |
| Dundee City | 57 | 6 | 70205 | -174064 |
| East Ayrshire | 56 | 7 | 51584 | 85596 |
| Clackmannanshire | 51 | 8 | 7208 | -39120 |
| Renfrewshire | 46 | 9 | 16250 | 50471 |
| South Lanarkshire | 45 | 10 | -15168 | 160300 |
| Midlothian | 45 | 11 | 6091 | -29337 |
| West Lothian | 44 | 12 | -52027 | -346057 |
| South Ayrshire | 41 | 13 | 6233 | 254421 |
| Fife | 40 | 14 | 51207 | -706461 |
| Falkirk | 40 | 15 | 29489 | -373643 |
| East Lothian | 36 | 16 | -15206 | -109616 |
| Dumfries and Galloway | 34 | 17 | 61269 | -275694 |
| Aberdeen City | 33 | 18 | -118012 | -425737 |
| Argyll and Bute | 27 | 19 | 21369 | -41721 |
| Angus | 27 | 20 | 19134 | -164766 |
| Highland | 27 | 21 | -125786 | -212169 |
| Stirling | 26 | 22 | -32299 | -171479 |
| City of Edinburgh | 26 | 23 | -241330 | -771372 |
| Scottish Borders | 22 | 24 | -6199 | -184295 |
| East Dunbartonshire | 22 | 25 | 21988 | 143179 |
| Perth and Kinross | 21 | 26 | 35139 | -375949 |
| Orkney Islands | 21 | 27 | 21582 | 17407 |
| Moray | 20 | 28 | 22051 | -182005 |
| Na h-Eileanan Siar | 17 | 29 | 31208 | 98983 |
| East Renfrewshire | 16 | 30 | 31208 | 98983 |
| Aberdeenshire | 11 | 31 | -55793 | -412456 |
| Shetland Islands | 7 | 32 | 8759 | -14660 |

Table 8.4 doesn't appear to show any emerging trends or correlation between local authority deprivation and the supply and demand picture for grass and AGP pitches. Further analysis may be required at a local level to identify whether more deprived communities or localities require specific provision to meet local needs.

## 8.5 Scenario 1: Reducing the allocation of supply to education facilities

### 8.5.1 Why is this scenario included?

Extensive research across the sector has demonstrated that football and multi-sport facilities located at secondary schools often have limited availability of use and/or limited security of tenure

for community-based clubs or users. To varying extents, there is less local or national government influence on the operational model for sports facilities, and less ability to protect the security of tenure for community users. Removing a proportion of this supply from the overall equation assesses the potential impact on grass pitch and AGPs capacity, should sites be made unavailable for community use.

While primary school facilities are not included in this audit (see Appendix D), stakeholders from Scotland and Wales provided estate access data for secondary schools, which allowed the research team to estimate the supply and/or availability of pitches at education sites across Northern Ireland, Scotland and Wales. It should be noted that data was also provided for Northern Ireland, but it was unable to be factored in due to timing constraints.

### 8.5.2 Defining the scenario

For Scotland, data received included the School Estate Audit (Sport Scotland, 2013), which contained data from 2473 school central records. For Wales we used the Active Education Beyond the School Day Snapshot Survey Report (Sport Wales, 2021) which detailed results from a data capture survey issued to 20 of the 22 local authorities and completed by 1277 schools across Wales.

Based on responses from 329 secondary schools in Scotland, an average of 98% of facilities are available for community use. This includes for between 4-4.5 hours on a weekday (term time), 7-8 hours on a weekend (term time), and up to 12.4 hrs a day during school holidays.

Out of 176 secondary schools, a total of 70% have facilities available for community use in Wales (aka Active Education Settings). 55% have facilities open during the weekday (term time), 36% over the weekend (term time), and 37% during the school holidays.

For these reasons, for the purpose of Scenario 1 of this report, we utilised an average of total Scotland and Wales availability, equating to 84%. We therefore assumed that out of every 100 sites, 16 school facilities are not open and/or available for community use and these were excluded from the overall capacity figure, with reductions applied to each local authority relative to the total number of education facilities.

For the purposes of this scenario test, the following assumptions have been made:

- All pitches included are consistent with the baseline analysis except for:
    - 16% of pitch supply from education scenarios has been removed from the analysis, leaving 84% of available supply

All other assumptions are consistent with the baseline analysis. Table 8.5 below summarises the outputs of scenario 1.

**Table 8.5: Scenario test 1 summary**

| Local authority | Grass Pitch Balance | AGP Pitch Balance | Number of Full Sized Grass Pitch | Number of Full Sized AGP (Floodlit) |
|---|---|---|---|---|
| Baseline analysis (for reference) | -545,189 | -4,004,654 | -201 | -91 |
| Scenario 1 – Education reduced | -617,423 | -4,843,438 | -228 | -110 |

### 8.5.3 Key findings from the supply and demand analysis – scenario 1

- By reducing the amount of supply that can be provided by education-based grass pitches, this increased the existing deficit of grass pitch capacity identified across Scotland from a deficit of 201 full size grass pitches to -228
- The total deficit in AGP capacity has increased, equating to a capacity deficit equivalent to 110 AGPs in Scotland
- The same 8 out of 10 local authorities in Scotland show a deficit in AGP capacity, when compared with the baseline analysis

## 8.6 Scenario 2 – the 2030 view

The baseline analysis and scenario 1 use all the most current and relevant view of demand within the analysis, to identify the short-term issues and opportunities that can be addressed through investment.

Within this section, we have sought to predict how the current supply and demand of pitch provision will be influenced and impacted by changes to population numbers and potential changes to trends in demand for football. This future analysis, which uses 2030 for all modelling, provides a forward view and enable more considered and effective investment and support from stakeholders.

There are several variables that can change over time, which can influence the supply and demand of sports facilities, including but not limited to:

- Population changes (total number) across different age groups. In recent times this has typically been positive change (growth), however it is dependent on locality, with urban areas tending to have greater population than rural areas
- Demographic changes, such as shifts in deprivation or the structure of populations. In the case of this report, if all other things remained equal then a shift towards a younger population would be likely to lead to increase demand for football over time, and vice versa
- Changes in trends and demand profiles for sport and physical activity, including growth or reduction in participation rates for specific sports
- Substantive changes in the supply or availability of facilities, which may lead to increased or reduced usage, for instance a major nationwide investment programme focussed on changing provision and access for disabled participants could contribute to increased participation among these groups
- Major policy changes or wider societal changes, which could make it easier or harder for people to utilise facilities, therefore having a longer term impact on supply and demand.

For the purposes of this report, we have focussed on the first three points, to test how they may influence the supply and demand of pitches. For consistency we have assumed that pitch stock will remain consistent, and no changes have been modelled in the supply side. Within the analysis we have commented on the potential for major investment to influence increased demand, known as supply-led demand, however it has been assumed that the available stock of provision will remain consistent.

We have used the baseline analysis, as evaluated previously, as the starting point for this analysis,

before applying the low, medium and high estimate for demand in 2030.

### 8.6.1 Developing a low, medium and high estimate

As shown in this commentary, changes can have positive or negative effects on the demand and supply of sports facilities, and it is not possible to determine a single position or scenario for 2030. With this in mind, we have modelled a low, medium and high estimate for 2030, taking into consideration how demand may change over the analysis period.

For this analysis, we have applied ONS population projections, which are the most accurate and respected population projections available. We have therefore applied a consistent growth rate of 3% (average across all age groups). While there is an overall increase, this is heavily weighted in the favour of older adults, with 60+ projected to grow by 19%, compared to reductions of 21% and 9% for 0-4 and 5-15 respectively.

This means that the total number of football players is projected to reduce by 2030, if demand stays consistent.

**Table 8.6: Estimate details**

| Estimate | Detail | Explanation and justification |
|---|---|---|
| Low | 1.5% reduction in total football demand, across all players | A 1.5% reduction in total football demand is calculated as worst case, as it reflects the trend in demand from 2007 to 2019. |
| Medium | 2019 participation figures | As a medium estimate, we have assumed that participation rates will recover back to 2019 levels (as used throughout this report) and then stay consistent over the analysis period to 2030. |
| High | Growth split by age group and gender<br>● 0-15 age group<br>○ 5% growth (total) in female participation by 2030<br>○ 3% growth (total) in male participation by 2030<br>● 15-64 age group<br>○ 3% growth (total) in female participation by 2030<br>○ 1% growth (total) in male participation by 2030<br>● 65+ age group<br>○ 0% growth (total) | There are a number of potential positive influences, which may increase the demand for football facilities over the study period, including but not limited to:<br><br>a) growth in the number of participants, especially women and girls, playing football that takes place under the auspices of national Football Associations;<br><br>b) induced demand that may occur because of improved facilities;<br><br>c) demonstration effects that might occur because of the UK hosting UEFA Women's EUROs 2022;<br><br>d) continued success by all home nations in European and World level women's tournaments at all age groups;<br><br>e) continued representation in the Olympic Games of a Team GB Women's football team;<br><br>f) the effects of the 'levelling up' agenda resulting from reduced deprivation, better education, more well paid jobs, increased |

| | | |
|---|---|---|
| | in participation by 2030 | income and better local infrastructure, notably for ethnically diverse communities and those in the areas with greatest deprivation; and<br><br>f) substitution effects caused by people switching from some activities such as going to the gym in favour of outdoor team sports.<br><br>Given the lack of robust modelling on future football participation rates, we have made some simple assumptions that reflect the strategic objectives of the stakeholders we have consulted with.<br><br>With declining participation rates in the adult game, we have weighted our projected growth in favour of younger player groups. Given the investment and focus on the women and girls game, we have also projected slightly higher demand in this area. This reflects the base level participation analysis we have undertaken, which demonstrates the huge room for growth among female players. |

### 8.6.2 Future analysis

Table 8.7 below shows the summary of the low, medium and high analysis, taking into consideration the different projected changes in population and demand. Data per individual local authority are available in Appendix F-H, however this has not been detailed in the main report due to space constraints.

**Table 8.7: Analysis summary**

| Local authority | Grass Pitch Balance | AGP Pitch Balance | No of Full Sized Grass Pitch | No of Full Sized AGP (Floodlit) |
|---|---|---|---|---|
| Baseline analysis (for reference) | -545,189 | -4,004,654 | -201 | -91 |
| Low estimate | 74,226 | -1,771,836 | 27 | -40 |
| Medium estimate | -378,155 | -3,402,545 | -140 | -77 |
| High estimate | -1,381,181 | -7,018,175 | -510 | -159 |

The analysis shows the significant range, with the low estimate demonstrating that there will be a lower requirement for pitch provision across Scotland, should this estimate be the most accurate. The medium estimate is relatively consistent with the current baseline, however there is a lower deficit for grass pitches and for AGPs.

The high estimate shows that, should the sector be successful in growing participation, especially among young people and across the women's game, there will be a greater need for provision by 2030, with the deficit of AGPs rising by 68 full sized pitches.

## 8.7 Analysing the supply and demand of AGPs using deprivation data

The supply and demand analysis demonstrated that there is a deficit of AGP provision across Scotland, which has been addressed and evaluated in the Investment Pipeline (see Section 10) and recommendations sections of this report.

Consultations undertaken during the research phase of this project identified that while artificial pitch provision is central to the growth of football and the creation of sustainable facilities, there are still challenges and risks associated with investing in AGP provision.

One of these challenges is the typical cost of hire, which is directly correlated with the high cost of building AGP facilities and the requirement for operators to 'invest' in a sinking fund, to ensure the carpet can be replaced when it is at end of life, approximately 5-10 years depending on the intensity of usage. Stakeholders advised that the cost of hiring AGP pitches is typically considerably higher than grass pitches, however given the short research window, it was not possible to validate this with high quality raw data from Northern Ireland, Scotland and Wales.

A key objective of DCMS's grassroots facility investment programme is to allocate 50% of funding into a large proportion of the most deprived areas of the UK, however it is critical that regardless of the location of facilities, facilities are utilised by those who live in the most deprived areas.

### 8.7.1 Evaluating the usage patterns of AGPs

To understand how AGPs are currently used and how this can help to influence the funding requirements and operating model of new facilities, we undertook an analysis of existing AGP's across England, to evaluate whether the participants using the facilities were representative of their local communities, specifically in the case of deprivation.

Data from this exercise is from the DataHub, a sector-wide initiative that aggregates usage data from across the public leisure sector. For this analysis, demand data from 1596 sites with AGP facilities was utilised from January 2019 to December 2021 inclusive. Across this period, usage data from 105,000 unique individuals was analysed, with participants attributed to English IMD deciles based on their age, gender and postcode. We then mapped a 15 minute drive time around each of the 1596 sites and calculated the breakdown of residents within the site catchment area by IMD decile.

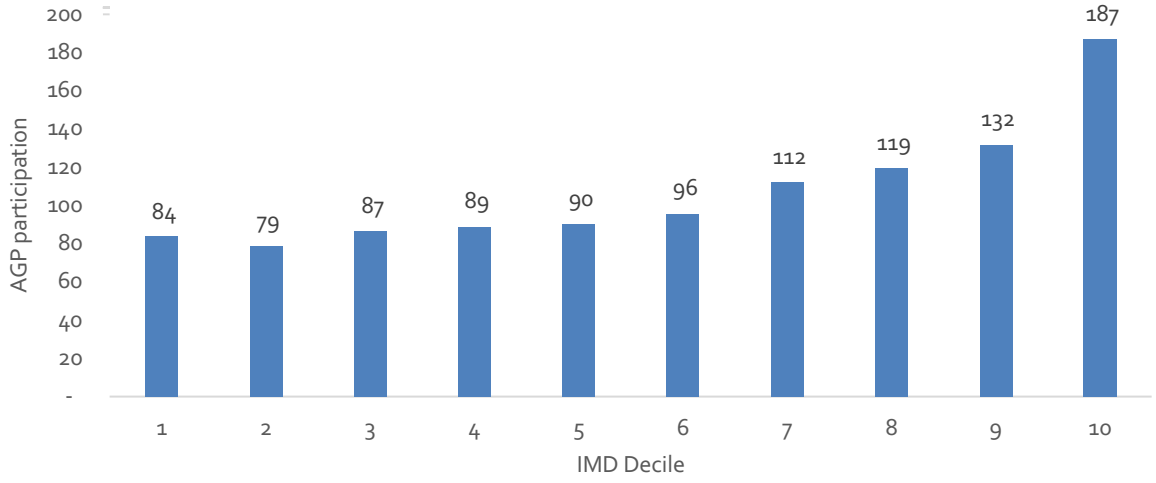
The split of **participants** by IMD decile was then compared to the split of **residents** by IMD decile, to analyse whether the users of AGP's were representative of the local population. Table 8.8 and Figure 8.6 show the findings of this analysis, with IMD decile 1 being the most deprived and decile 10 being the least deprived. Regarding the index value, note that 100 equals perfect representation.

It should be noted that all 1596 sites are located in England and the IMD data used is the England Indices of Multiple Deprivation, therefore while the findings are relevant to this report, they are not statistically applicable to Northern Ireland, Scotland and Wales. English data was used for the purposes of this analysis as equivalent data was not available in Northern Ireland, Scotland and Wales.

**Table 8.8: AGP user deprivation analysis**

| IMD decile | Participant split | Catchment population split | % raw difference | % change | Index value |
|---|---|---|---|---|---|
| 1 | 16.0% | 19.1% | -3.1% | -16.3% | 84 |
| 2 | 10.1% | 12.8% | -2.7% | -21.2% | 79 |
| 3 | 9.7% | 11.2% | -1.5% | -13.3% | 87 |
| 4 | 9.6% | 10.8% | -1.2% | -11.1% | 89 |
| 5 | 8.2% | 9.0% | -0.9% | -9.9% | 90 |
| 6 | 7.9% | 8.2% | -0.4% | -4.4% | 96 |
| 7 | 9.1% | 8.1% | 1.0% | 12.1% | 112 |
| 8 | 8.6% | 7.2% | 1.4% | 19.5% | 119 |
| 9 | 9.5% | 7.2% | 2.3% | 31.8% | 132 |
| 10 | 11.9% | 6.4% | 5.5% | 86.9% | 187 |
| **Top 40% Most Deprived** | **45.3%** | **53.8%** | **-8.5%** | **-15.8%** | **84** |
| **Top 40% Least Deprived** | **39.1%** | **28.9%** | **10.2%** | **35.4%** | **135** |

**Figure 8.6: AGP user deprivation analysis - indexed graph (index – 100 = perfect representation of local catchment)**




The table and figure show participants from less deprived areas are over-represented when compared with the local catchment, with the inverse being true for participants from more deprived areas. This is particularly striking when compared with the analysis undertaken in the supply section of this report, which demonstrated that a greater proportion of AGPs are located in deprived areas.

Overall, it can be concluded that when we consider England data only, while there is a greater number of AGPs in more deprived areas, participation from people who live in these areas is not

representative of the local catchment. The picture may be different in Northern Ireland, Scotland and Wales however unfortunately the data was not available to prove or disprove the same analysis. Therefore, for the purpose of this report we have used these findings to shape the recommendations and next steps, while noting that specific national data would help to understand the local context.

# 9 Supply and demand analysis for Wales

## 9.1 Priorities for grassroots facility investment in Wales

As part of the data collection phase of this project, we consulted with a range of stakeholders across Wales (see Appendix A for a full list of consultees), to understand the current priorities for grassroots facility investment. These have been used to lead and inform the Wales analysis, as well as the Investment Pipeline and recommendations that follow. The key points of insight generated from the consultation are listed below:

- All data are for 'formal' football, which can be explained as anything associated with an affiliated league structure, is managed through a platform called 'COMET, which stores demographic and participation information of every registered player, alongside information at a venue, club, and team level. There are over 1221 venues, and 7000 teams registered
- One limitation is that only facilities affiliated to the FA are included (excludes education), and there is a lack of information on ancillary facilities and pitch quality
- There has been considerable work over the past two years to analyse the current environment and develop investment plans for future funding. Consultations with 21 out of 22 local authorities and subsequent analysis undertaken by FAW revealed a significant investment gap in grassroots facilities
- Developing the junior game and encouraging under-represented groups into the game (such as females and ethnic minorities) are current investment targets
- There is a need to invest in developing existing facilities - creating better quality grass pitches and ancillary facilities, and higher numbers of 3G community football hubs. This will support grass pitch demand, maintenance budgets, player retention and make the sport more welcoming/ 'attractive for all'.

## 9.2 Supply

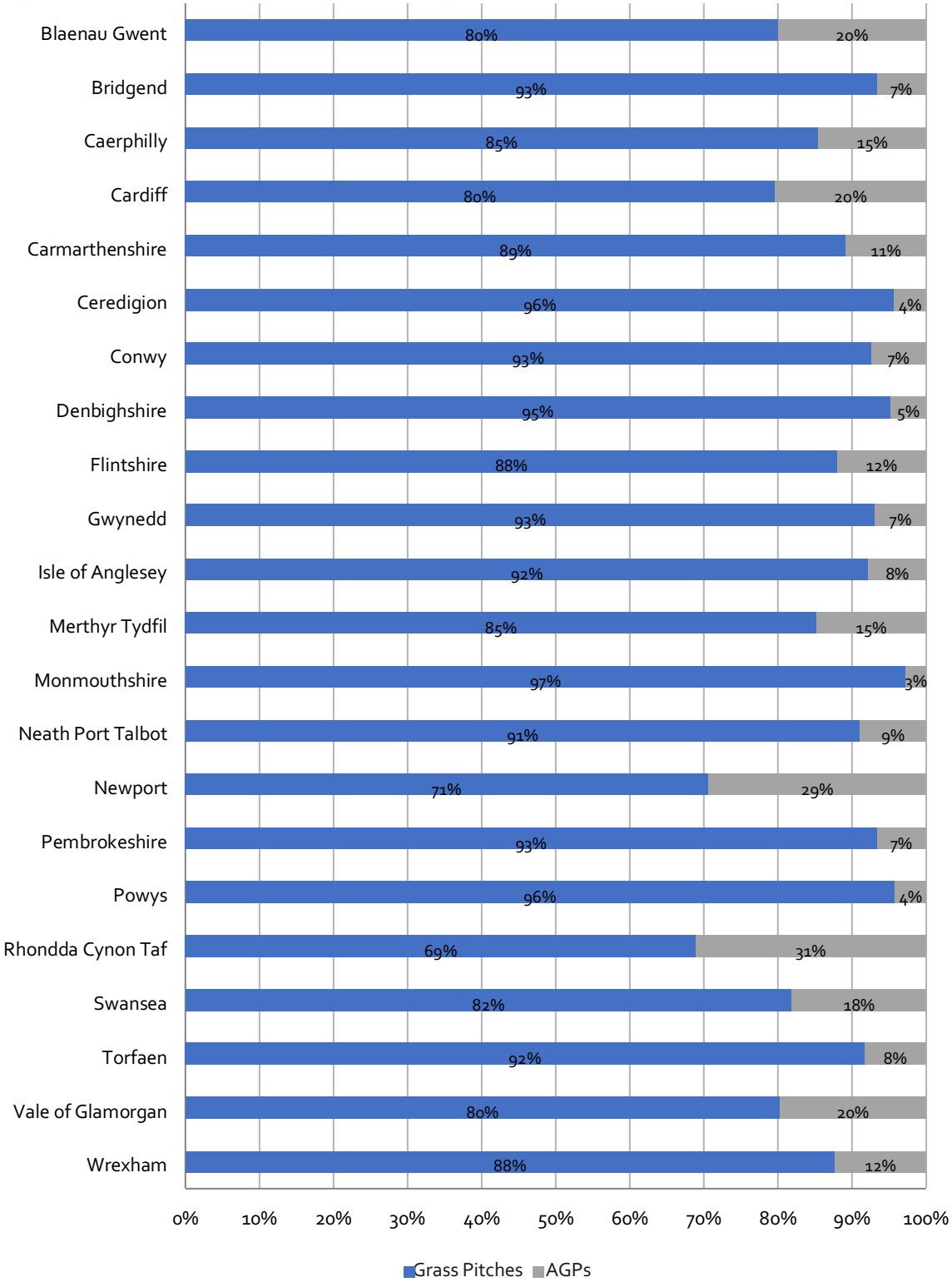
### 9.2.1 Understanding the characteristics and trends of pitch supply

The complete supply audit for Wales is detailed in Appendix H. This has been used to draw out headline figures for facilities and compare supply at the local authority level.

The supply audit identified 881 operational sites and 1,519 pitches (87% grass and 13% 3G AGP) across Wales. Note these figures include sites where the operational status is unknown. Surface type was known for all AGPs across Wales.

Figure 9.1 shows the variation across the 22 local authorities in terms of split between grass to 3G AGP pitch provision. Half (11/22) of the local authorities had over 90% of grass pitches (compared to 3G AGP). Monmouthshire, Powys, and Ceredigion local authorities had the highest proportion of grass to 3G AGP pitches (97%, 96%, 96% grass respectively). Rhondda Cynon Taf and Newport had the highest proportion of 3G AGPs (31% and 29% of their pitches vs grass respectively).

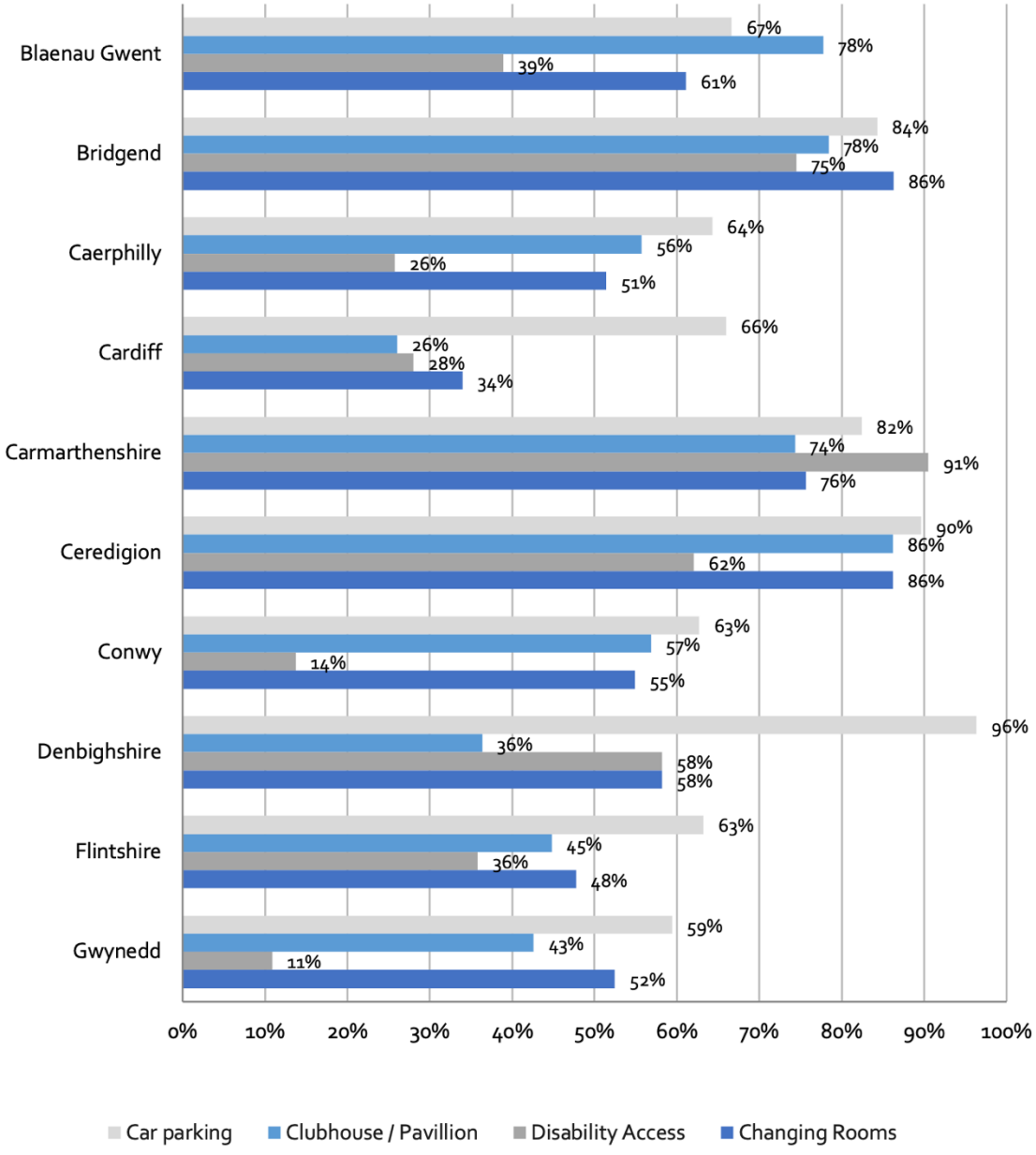
**Figure 9.1: Supply analysis by pitch typology and local authority**

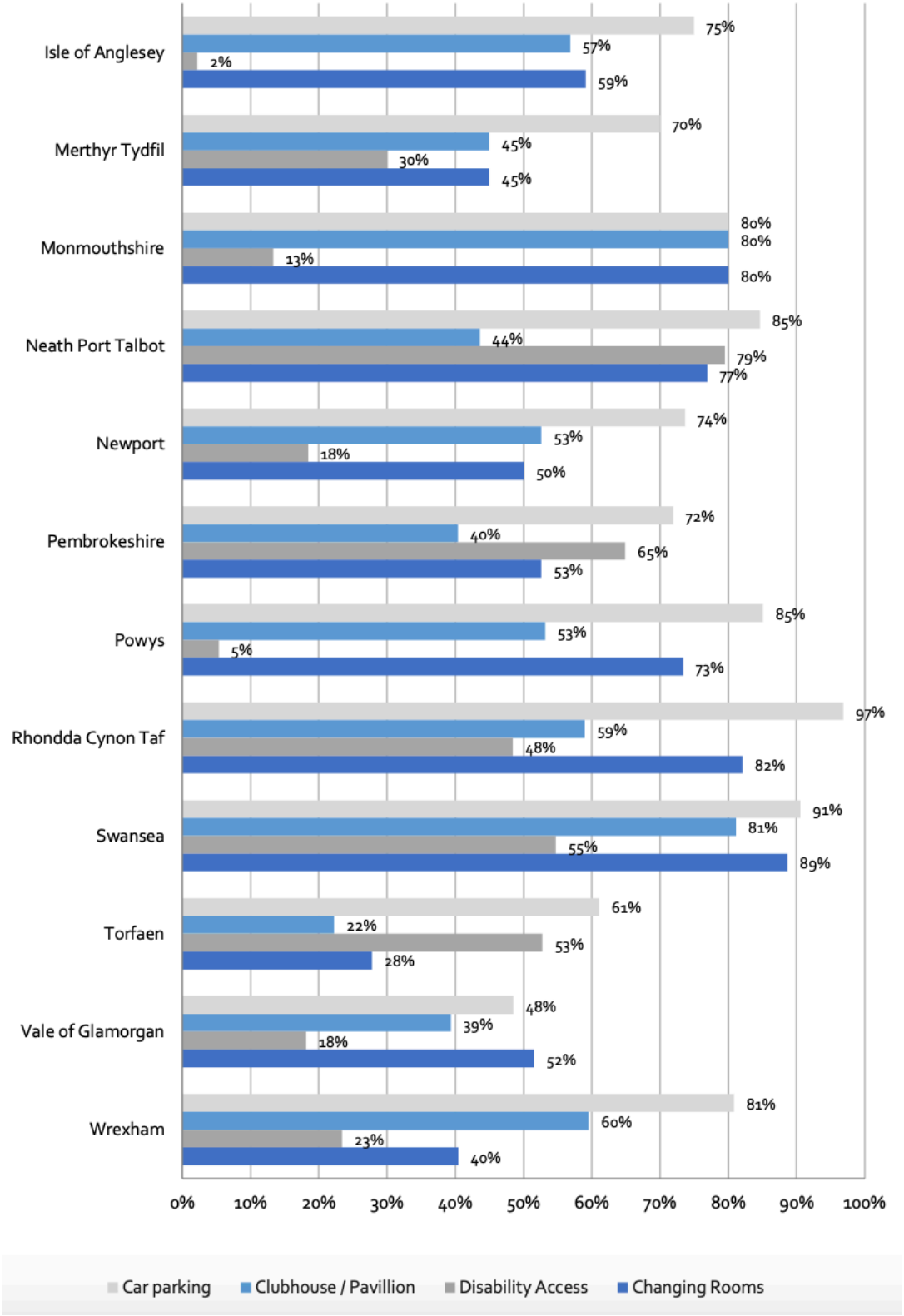


In regard to amenity availability, 76% of sites across Wales had car parking facilities, 54% had a clubhouse or pavilion, 38% had disability access, and 62% had changing rooms. Note these figures only represent where amenities were clearly identifiable via desk research and exclude any 'unknown' provision from analysis.

Figure 9.2 shows the breakdown of this by local authority. Rhondda Cynon Taf and Denbighshire local authorities had the highest proportion of sites with known available car parking (97% and 96% respectively). Torfaen and Cardiff had the lowest numbers of known clubhouses or pavilions attached to sites (22% and 26% respectively). Carmarthenshire had the highest number of sites with disability access (91%), in comparison to Isle of Anglesey and Powys who had 2% and 5% of sites with access respectively.

**Figure 9.2: Supply analysis by amenity provision and local authority**




Isle of Anglesey
75%
57%
2%
59%
Merthyr Tydfil
70%
45%
30%
45%
Monmouthshire
80%
80%
13%
80%
Neath Port Talbot
85%
44%
79%
77%
Newport
74%
53%
18%
50%
Pembrokeshire
72%
40%
65%
53%
Powys
85%
53%
5%
73%
Rhondda Cynon Taf
97%
59%
48%
82%
Swansea
91%
81%
55%
89%
Torfaen
61%
22%
53%
28%
Vale of Glamorgan
48%
39%
18%
52%
Wrexham
81%
60%
23%
40%
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Car parking
Clubhouse / Pavillion
Disability Access
Changing Rooms

### 9.2.2 Assessing pitch provision by deprivation

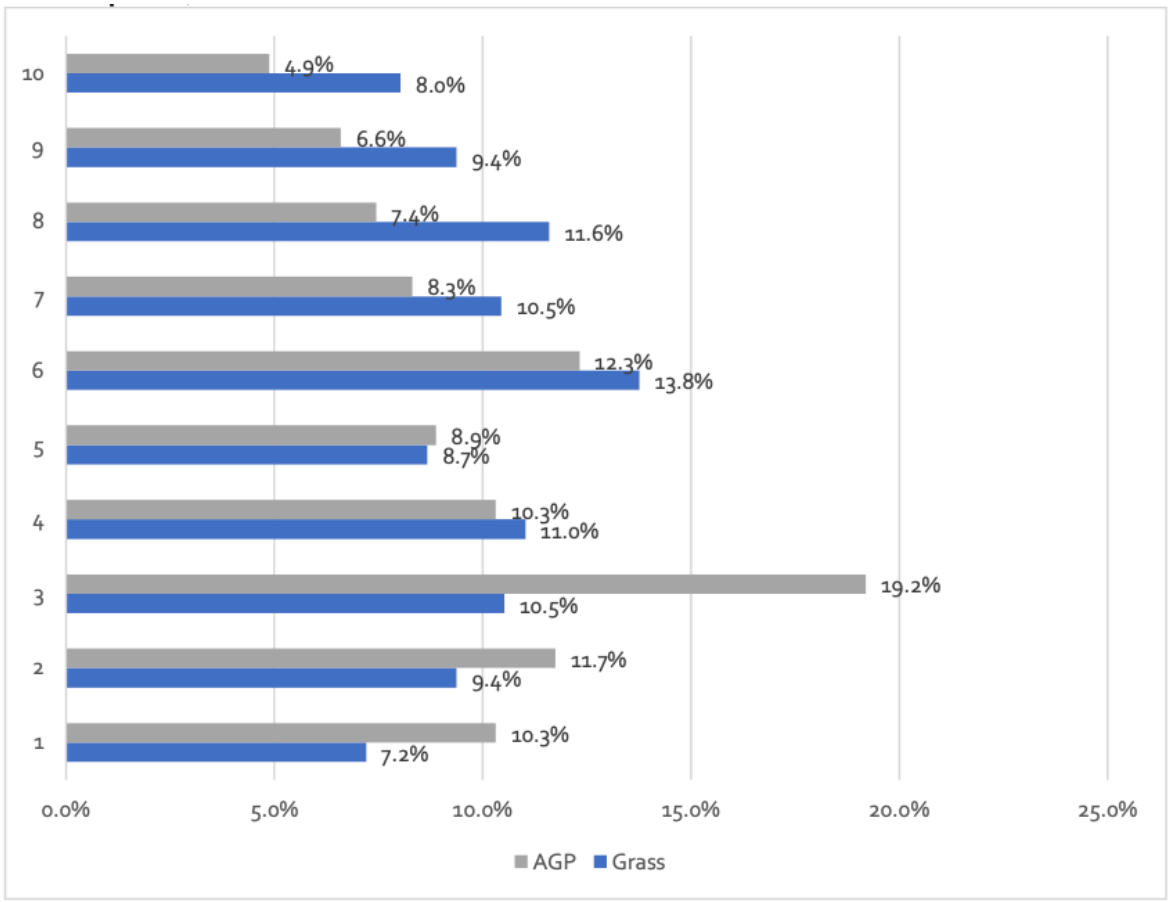
The quality of a pitch and the amenities that support that pitch are critical to how appealing it is to users and how likely it is to encourage and facilitate consistent physical activity. This is not, however, the only set of considerations that contribute to how well a pitch is used and whether it is able to service all of the population.

In addition to understanding the quality of pitches and the amenities that are available on site, it is also critical to understand where sites are located and how they serve local communities. We therefore undertook an analysis of deprivation, focussing on the proportion of facilities located in each of the Welsh Index of Multiple Deprivation (WIMD[2]) deciles, to understand whether this is a consistent distribution for the different pitch typologies.

WIMD is the official measure of relative deprivation, decile 1 represents the most deprived 10% (or decile) areas and decile 10 represents the least deprived 10% (or decile) of areas.

Figure 9.3 shows the percentage of the total grass pitch supply within Wales located within each of the 10 deciles of deprivation, with 1 being the most deprived areas and 10 being the least deprived.

**Figure 9.3: Percentage of current grass pitch supply in Wales by NIMDM2017 deprivation decile (1 – Most deprived, 10 – Least deprived)**




Grass pitch deprivation analysis for Wales shows that the largest percentage of grass pitches (13.8%) are located within decile 6 and the lowest percentage of grass pitches (7.2%) are located within

decile 1. The majority of grass pitch provision is located within the mid decile areas 4-7 totalling 43.9% of all pitch supply. 27.1% is located within the most deprived areas (decile 1-3) and 29% is located within the least deprived areas (deciles 8-10).

The total percentage of AGP supply within the more deprived areas (deciles 1-3) equates to 41.3%, compared to 27.1% of all grass pitch provision within the more deprived areas (deciles 1-3). This is partly due to the largest percentage of AGP supply within Wales (19.2%) being located within decimal 3 more deprived areas. Analysis of the AGP WIMD data for Wales shows that there is a higher percentage of AGP supply located within the more deprived areas, such as decile 1 (10.3%), than compared to grass pitch supply, (7.2% for decile 1).

The mid decile areas of WIMD (decile 4-7) account for 39.8% of all AGP provision, compared to 43.9% of all grass pitch provision. The least deprived areas (deciles 8-10) account for 18.9% of AGP compared to 29% of all grass pitch provision.

Areas that are more deprived, in general, experience higher levels of inactivity and lower levels of regular participation in sport and physical activity compared to those areas that are least deprived. The accessibility, affordability, and quality of experience with regards to grass pitch provision is therefore critical to help reduce barriers to entry for new participants whilst also sustaining regular participation for existing participants within these more deprived areas.

### 9.2.3 Assessing pitch provision by travel time and accessibility

To understand how far users currently travel to use pitches, we mapped the demand for grass and multi-pitch provision by lower super output area (LSOA), alongside a 15-minute drive-time and walk-time catchment for every pitch available for community use in the audit. This allowed us to understand the proportion of the demand that falls outside of a target catchment area for grass and AGP, as shown in Table 9.1 below.

**Table 9.1: % of demand for grass and AGP pitches outside of a 15-minute drive and walk time**

| | Grass pitches | | AGPs | |
|---|---|---|---|---|
| | Including education sites | Excluding education sites | Including education sites | Excluding education sites |
| **Drive-time** | 4.6% | 4.9% | 21.6% | 22.9% |
| **Walk-time** | 42.5% | 44.9% | 80.5% | 83.7% |

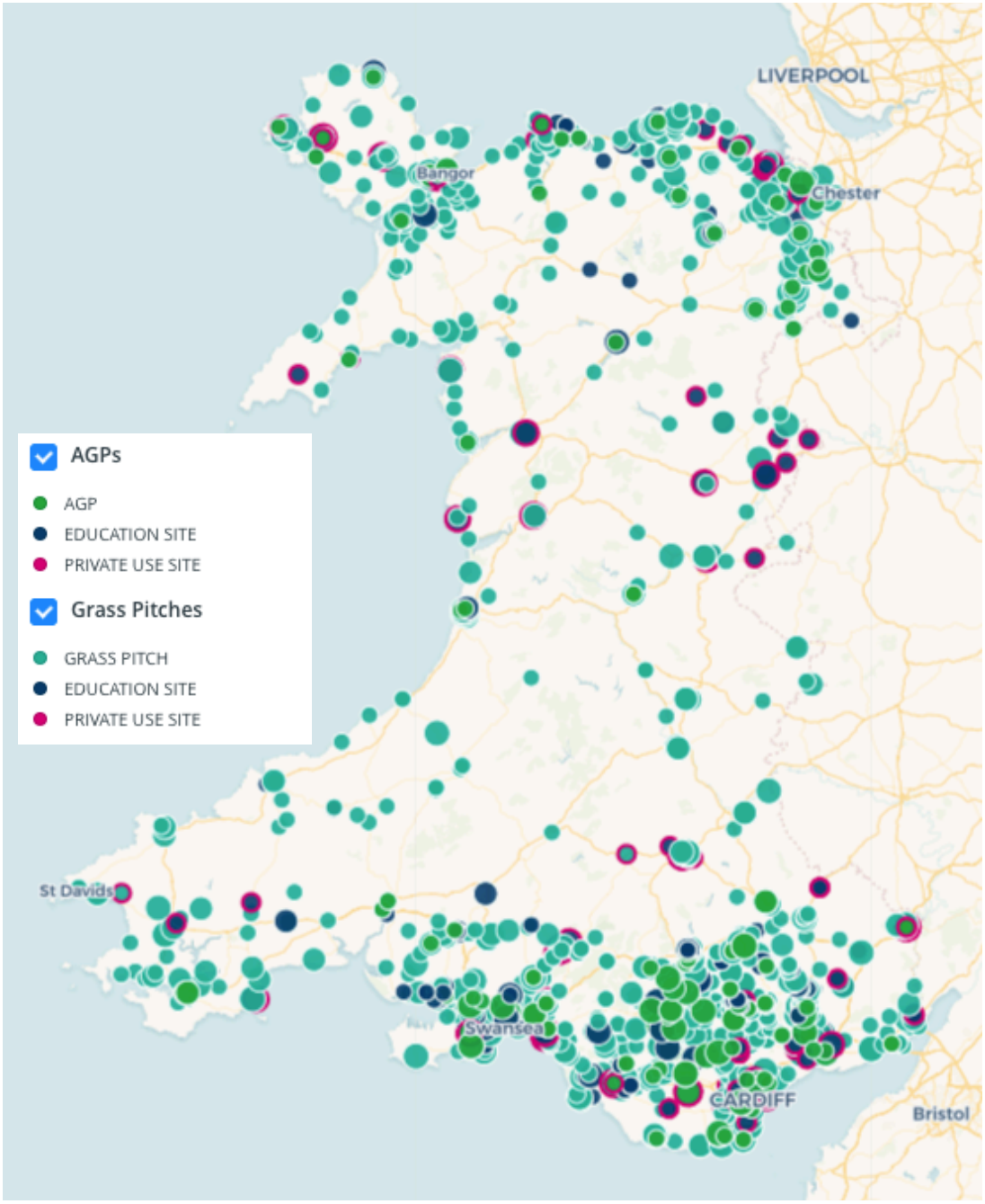
It is to be expected that grass pitches will have a higher overall coverage of the population, as they have been historically seen as community assets, located in every town or village and across all urban areas. On the other hand, 3G AGP's have, until recently, been viewed by many as more of a destination facility, where higher cost and long travel distances are traded in for a high-quality experience and more consistency of use. The figure for the walk-time catchment shows that in the case of AGP's, approximately four fifths of demand is located outside of a 15 minute walk catchment, demonstrating there is a reliance on either car or public transport to reach and use these facilities.

It is still vital to consider how new or refurbished facilities can serve the whole population, while remaining financially sustainable. For instance, the opportunity of investing in facilities in more rural areas to reach local communities will have to be balanced with the risk of the facility having less total demand and therefore being subject to financial and operational challenges.

### 9.2.4 Assessing pitch provision spatially

Figure 9.4 overleaf provides a view of all audited pitches across Wales, showing the concentration of pitch supply around the urban areas. Some of the points overlap and therefore it is not possible to see every pitch, however those with the red outlines have been identified as private use and/or not available for community use.

**Figure 9.4: Wales pitch supply audit**



## 9.3 Demand: The current picture

### 9.3.1 Adult demand

The most authoritative data currently available on adult demand for participation in sport and physical activity in Wales is The National Survey for Wales. Within this survey is a module of questions focused on sport and physical activity, which are reported separately by Sport Wales as the Sport and Active Lifestyle Survey (SALS). Data are available on a consistent basis from 2016/17 to 2019/20 and is typically based on a sample of c. 10,000 adults. The 2019/20 SALS was completed in April 2020 and was only partially affected by the national lockdown implemented on 23rd March 2020. For this reason, we consider the 2019/20 data the most suitable for assessing demand for football and other pitch sports on as 'normal' a basis as possible.

The headline figure for adult football participation in Wales in 2019/20 was 7%, which is comparable to both Scotland (6%) and Northern Ireland (6%). Mid-year population estimates for Wales in 2020 indicate stability in the total population of 3.153m. Using the 2020 figure of 3.153m, 82.1% are aged 16+, giving a total adult population of 2.589m. Of these, if 7% play football, then the total number of adult footballers in Wales is approximately 181,000.

Regular adult participation in football in Wales has declined from 9% in 2016/17 to 7% in 2019/20. Men (13%) have a much higher participation rate than women (2%) and the apparent recent decline in the participation rate has been driven by both men and women.

Appendix G contains a more detailed review of football demand in Wales, however the key findings from this analysis are summarised below:

- Since 2007/8 Wales's adult participation rate has declined steadily from 9% to 7% in 2019
- At 7%, football is Wales's most popular team sport
- Men (13%) have a much higher participation rate than women (2%)
- Data from the School Sports Survey shows that football is the second most popular sport played outside of school with a participation rate of 25.5%, which is marginally behind swimming at 27.4%.

### 9.3.2 Modelling demand for AGPs and grass pitches in Wales

Our analysis demonstrates that different demographic groups create different levels of demand for football, and it therefore follows that they create different levels of demand for football facilities.

For us to understand how facilities are currently used and how they are projected to be used in the future, we have utilised the participation rates above and applied further analysis and assumptions to calculate how this demand can be allocated to different facility types. The process and associated assumptions are detailed in Section 6 of this report.

Table 9.2 provides a summary of the demand figures from football and multi-sport usage for AGP and grass pitch provision across Wales. It begins by identifying the number of unique people that are expected to generate demand by local authority, before converting this into total demand (yearly hours).

*Please note that the total for demand (unique people) is less than the sum of the previous three columns, as a proportion of users utilise multiple different facility types, either for football or across different sports.

**Table 9.2: Demand for AGP and grass pitches in Wales by local authority area**

| Local authority | Demand (unique people) | | | | Total demand (yearly hours of play) | |
|---|---|---|---|---|---|---|
| | Football AGP | Football grass | Multi sport AGP | Total AGP* | AGP | Grass |
| Blaenau Gwent | 2,431 | 877 | 729 | 3,160 | 277,300 | 59,115 |
| Bridgend | 5,291 | 1,908 | 1,394 | 6,685 | 543,164 | 119,042 |
| Caerphilly | 7,033 | 2,536 | 1,896 | 8,929 | 750,149 | 163,650 |
| Cardiff | 16,395 | 5,913 | 3,979 | 20,374 | 1,736,999 | 387,483 |
| Carmarthenshire | 6,759 | 2,437 | 2,419 | 9,178 | 684,259 | 140,515 |
| Ceredigion | 3,124 | 1,127 | 1,098 | 4,222 | 301,815 | 62,773 |
| Conwy | 3,995 | 1,441 | 1,220 | 5,215 | 402,145 | 85,820 |
| Denbighshire | 3,468 | 1,251 | 1,146 | 4,614 | 349,292 | 73,213 |
| Flintshire | 5,925 | 2,137 | 1,691 | 7,616 | 597,612 | 129,340 |
| Gwynedd | 4,759 | 1,716 | 1,845 | 6,604 | 473,422 | 94,906 |
| Isle of Anglesey | 2,488 | 897 | 984 | 3,472 | 244,643 | 48,787 |
| Merthyr Tydfil | 2,112 | 762 | 629 | 2,741 | 235,016 | 50,137 |
| Monmouthshire | 3,330 | 1,201 | 1,039 | 4,369 | 316,026 | 67,248 |
| Neath Port Talbot | 5,143 | 1,855 | 1,606 | 6,749 | 552,234 | 116,841 |
| Newport | 5,802 | 2,092 | 1,534 | 7,336 | 618,259 | 135,488 |
| Pembrokeshire | 4,437 | 1,600 | 1,685 | 6,122 | 440,673 | 89,083 |
| Powys | 4,732 | 1,707 | 1,926 | 6,658 | 459,850 | 90,987 |
| Rhondda Cynon Taf | 8,750 | 3,156 | 2,415 | 11,165 | 935,323 | 202,899 |
| Swansea | 9,664 | 3,485 | 2,510 | 12,174 | 1,028,749 | 226,752 |
| Torfaen | 3,499 | 1,262 | 949 | 4,448 | 376,538 | 82,085 |
| Vale of Glamorgan | 5,017 | 1,809 | 1,390 | 6,407 | 495,458 | 107,908 |
| Wrexham | 5,214 | 1,880 | 1,563 | 6,777 | 542,631 | 116,053 |
| **Wales (TOTAL)** | **119,368** | **43,049** | **35,647** | **155,015** | **12,361,557** | **2,650,125** |

When modelling demand for grass football pitches and AGPs, the demand in terms of unique people is 155,015, who generate an estimated 15 million hours of demand for football facilities per year, split over artificial and grass pitches.

## 9.4 Supply and demand analysis: The baseline

In calculating the supply of pitch provision and the demand for those pitches, we have used a common unit of 'carrying capacity', which is measured in hours per week and scaled up to summarise as annual hours. Under or over supply of pitch provision can then be calculated and recommendations can be made as to the best way of addressing this under or over provision.

In simple terms, if two grass pitches provide 8 hours of carrying capacity a week, but the demand for those pitches equates to 12 hours, there is a deficit of 4 hours. This deficit could be addressed by either a combination or one of the options below:

- Improving the quality of the existing pitches, so that they can sustain more play
- Creating a new grass pitch
- Moving some, or all, of the demand for this pitch onto an artificial grass pitch, which may in turn cause challenges with the capacity of artificial grass pitch provision.

In this section we compare the supply and demand for pitch provision as part of the 'baseline' analysis, after which we have identified and tested several scenarios that help to provide more detail, context and flexibility to the baseline analysis.

For the purposes of this baseline analysis, the following assumptions have been made:

- All pitches identified within the audit are assumed to be available, and are therefore included in the supply and demand analysis, except for those identified as:
  - Located at or managed by primary schools ○
  - Sites identified as under construction
  - Unavailable for community use
  - Sand or water-based AGP pitches
- In calculating the carrying capacity, the core assumptions stated within Section 6 of this report and the Appendix D are used
- The demand for football is based on 2019 data (pre-pandemic), as per the explanation in the early part of this section.

The analysis calculates the overall supply and capacity of grass pitches and AGPs by factoring in the demand generated from football, and other grass pitch sports, to provide an overall grass pitch and AGP balance in hours. The balance figure has been used to help demonstrate whether there is a current deficit or over-supply in grass pitch and AGP capacity in hours for each of the local authorities within Wales. The balance figure (in hours) has also converted into an equivalent number of full-size grass pitches and AGPs to help communicate the current pitch capacity surplus or deficit for each local authority area.

Table 9.3 details the supply and demand picture for each of the Wales local authorities, split by pitch typology. The colour coded cells provide a comparison, only relative to the other LAs. The final two columns provide an estimation of the total amount of additional provision (and therefore capacity) that would be needed to meet any deficit. If the figure is negative this identifies that the deficit requires additional provision, whereas if the figure is positive, this is spare capacity expressed as total pitches.

**Table 9.3: Supply and demand analysis for Wales**

| | Balance (hours per year) | | Equivalent full sized pitches | |
|---|---|---|---|---|
| Local authority | Grass | AGP (Floodlit) | Grass | AGP (Floodlit) |
| Blaenau Gwent | -5,052 | -87,081 | -1.9 | -2.0 |
| Bridgend | -21,348 | -386,292 | -7.9 | -8.7 |
| Caerphilly | 19,710 | -428,343 | 7.3 | -9.7 |

| Local authority | Balance (hours per year) | | Equivalent full sized pitches | |
|---|---|---|---|---|
| | Grass | AGP (Floodlit) | Grass | AGP (Floodlit) |
| Cardiff | -153,901 | -1,171,849 | -56.9 | -26.5 |
| Carmarthenshire | 42,480 | -447,402 | 15.7 | -10.1 |
| Ceredigion | 30,110 | -212,170 | 11.1 | -4.8 |
| Conwy | 46,482 | -238,871 | 17.2 | -6.4 |
| Denbighshire | 103,340 | -195,334 | 38.2 | -4.4 |
| Flintshire | 75,538 | -302,382 | 27.9 | -6.8 |
| Gwynedd | 50,988 | -232,455 | 18.8 | -5.3 |
| Isle of Anglesey | 66, 496 | -135,383 | 24.6 | -3.1 |
| Merthyr Tydfil | -4,629 | -192,119 | -1.7 | -4.3 |
| Monmouthshire | 78,366 | -262,722 | 28.9 | -5.9 |
| Neath Port Talbot | -14,215 | -427,597 | -5.3 | -9.7 |
| Newport | -29,506 | -261,697 | -10.9 | -5.9 |
| Pembrokeshire | 66,072 | -244,145 | 24.4 | -5.5 |
| Powys | 93,207 | -363,228 | 34.4 | -8.2 |
| Rhondda Cynon Taf | 73,880 | 98,159 | 27.3 | 2.2 |
| Swansea | -34,264 | -591,967 | -12.7 | -13.4 |
| Torfaen | 49,967 | -251,125 | 18.5 | -5.7 |
| Vale of Glamorgan | 9,539 | -396,561 | 3.5 | -9.0 |
| Wrexham | 41,955 | -274,704 | 15.5 | -6.2 |
| **Wales (TOTAL)** | **585,216** | **-7,050,270** | **216** | **-160** |

### 1.1.2 Key findings from the supply and demand analysis – baseline analysis

The supply and demand data identified the areas of Wales which have spare capacity or deficit for pitch provision, by local authority.

**Grass pitches**

- There is spare capacity in the current stock of grass pitch provision across Wales, with 15 of the 22 LAs showing spare grass pitch capacity. The remaining 7 LAs show a deficit, with the most significant being in Cardiff, equating to 57 full size grass pitches
- In total the spare capacity across Wales equates to the equivalent of +216 full sized grass pitches, demonstrating that overall, there are enough grass pitches to support the current demand generated from football.

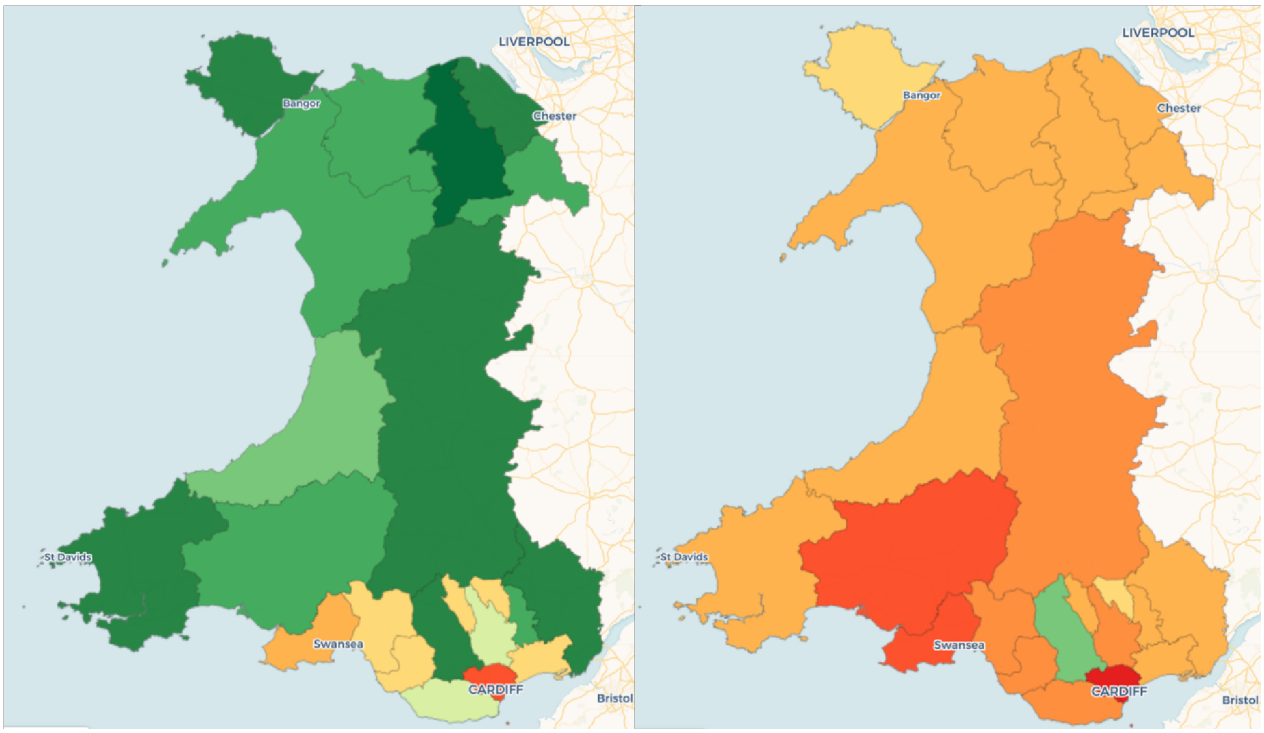
**Artificial grass pitches**

- The analysis highlights an overall deficit in full size floodlit AGP provision and capacity across 21 of the 22 local authorities in Wales. The total deficit equates to the equivalent of 160 full size AGPs. This implies there is currently an insufficient capacity of full size AGPs to accommodate the current demand for their use
- Football and other grass pitch sports clubs and community groups rely on access to floodlit AGPs to accommodate their winter training, sport, and physical activity needs. A deficit in provision and capacity would suggest the current demand cannot be fulfilled which in-turn has detrimental impact on the physical activity, health, and wellbeing of these participation groups
- The largest deficit in capacity occurs within the local authorities of Cardiff, Swansea and Carmarthenshire, with a combined deficit that is the equivalent of 50 full size AGPs.

### 9.4.1 Analysing supply and demand spatially

The previous analysis provided a headline view of the supply and demand for pitches at a local authority level, however, to understand if there were any geographical or spatial trends, we also mapped the supply and demand across Wales, as shown in Figure 9.5 below.

**Figure 9.5: Supply and demand of grass (left) and AGP (right) pitches in Wales**




With the darkest green identifying the highest amount of spare capacity and the darkest orange/ red showing the highest amount of deficit, it is clear there is a greater deficit for AGP provision, but that where there is a deficit of grass pitch provision, it is located in southern Wales, around the urban areas of Cardiff, Newport and Swansea.

### 9.4.2 Analysing supply and demand by deprivation

The supply and demand analysis showed the significant variation in balance figures across Welsh local authorities, ranging from significant amounts of pitch deficit in some local authorities to spare capacity being demonstrated in others.

To understand whether there is a relationship or correlation between the findings of the supply and demand analysis, and the deprivation profile of Wales, this section and the table overleaf ranks each of the local authorities by % of LSOAS (lower super output areas) that fall within the top 40% most deprived LSOAS across Wales, measured using the Welsh Indices of Multiple Deprivation (WIMD). The pitch balance for grass pitches and AGPs was then compared, to see if there was any noticeable trend of correlation.

**Table 9.4: Supply and demand analysis by deprivation**

| | LSOAS IN TOP 40% NATIONALLY | | Pitch balance | |
|---|---|---|---|---|
| Local authority | % LSOAS IN TOP 40% | OVERALL RANK | Grass Pitch | AGP |
| Blaenau Gwent | 45% | 1 | -5052 | -87081 |
| Merthyr Tydfil | 35% | 2 | -4629 | -192119 |
| Rhondda Cynon Taf | 33% | 3 | 73880 | 98159 |
| Neath Port Talbot | 32% | 4 | -14215 | -427597 |
| Caerphilly | 31% | 5 | 19710 | -428343 |
| Torfaen | 29% | 6 | 49967 | -251125 |
| Newport | 28% | 7 | -29506 | -261697 |
| Bridgend | 24% | 9 | -21348 | -386292 |
| Cardiff | 24% | 8 | -153901 | -1171849 |
| Swansea | 20% | 10 | -34264 | -591967 |
| Carmarthenshire | 16% | 11 | 42480 | -447402 |
| Wrexham | 14% | 12 | 41955 | -274704 |
| Denbighshire | 13% | 13 | 103340 | -195334 |
| Conwy | 13% | 14 | 46482 | -283871 |
| Flintshire | 12% | 15 | 75538 | -302382 |
| Pembrokeshire | 11% | 18 | 66072 | -244145 |
| Vale of Glamorgan | 11% | 17 | 9539 | -396561 |
| Isle of Anglesey | 11% | 16 | 66496 | -135383 |
| Gwynedd | 6% | 19 | 50988 | -232455 |
| Ceredigion | 5% | 20 | 30110 | -212170 |
| Powys | 4% | 21 | 93207 | -363228 |
| Monmouthshire | 2% | 22 | 78366 | -262722 |

Table 9.4 shows that that there is an emerging trend, especially for grass pitches, with the majority of the green LA's (those with the greatest positive balance for grass pitches), showing in the bottom half of the table, compared to mostly orange and red LAs in the top half. There does not appear to be a noticeable trend for AGP supply and demand.

## 9.5 Scenario 1: Reducing the allocation of supply to education facilities

### 9.5.1 Why is this scenario included?

Extensive research across the sector has demonstrated that football and multi-sport facilities located at secondary schools often have limited availability of use and/or limited security of tenure for community-based clubs or users. To varying extents, there is less local or national government influence on the operational model for sports facilities, and less ability to protect the security of tenure for community users. Removing a proportion of this supply from the overall equation assesses the potential impact on grass pitch and AGPs capacity, should sites be made unavailable for community use.

While primary school facilities are not included in this audit (see Appendix D), stakeholders from Scotland and Wales provided estate access data for secondary schools, which allowed the research team to estimate the supply and/or availability of pitches at education sites across Northern Ireland, Scotland and Wales. It should be noted that data was also provided for Northern Ireland, but it was unable to be factored in due to timing constraints.

### 1.1.3 Defining the scenario

For Scotland, data received included the School Estate Audit (Sport Scotland, 2013), which contained data from 2473 school central records. For Wales we used the Active Education Beyond the School Day Snapshot Survey Report (Sport Wales, 2021) which detailed results from a data capture survey issued to 20 of the 22 local authorities and completed by 1277 schools across Wales.

Based on responses from 329 secondary schools in Scotland, an average of 98% of facilities are available for community use. This includes for between 4-4.5 hours on a weekday (term time), 7-8 hours on a weekend (term time), and up to 12.4 hrs a day during school holidays.

Out of 176 secondary schools, a total of 70% have facilities available for community use in Wales (aka Active Education Settings). 55% have facilities open during the weekday (term time), 36% over the weekend (term time), and 37% during the school holidays.

For these reasons, for the purpose of Scenario 1 of this report, we utilised an average of total Scotland and Wales availability, equating to 84%. We therefore assumed that out of every 100 sites, 16 school facilities are not open and/or available for community use and these were excluded from the overall capacity figure, with reductions applied to each local authority relative to the total number of education facilities.

For the purposes of this scenario test, the following assumptions have been made:

- All pitches included are consistent with the baseline analysis except for:
    - 16% of pitch supply from education scenarios has been removed from the analysis, leaving 84% of available supply

All other assumptions are consistent with the baseline analysis. Table 9.5 below summarises the outputs of scenario 1.

**Table 9.5: Scenario test 1 summary**

| Local authority | Grass Pitch Balance | AGP Pitch Balance | No of Full Sized Grass Pitch | No of Full Sized AGP (Floodlit) |
|---|---|---|---|---|
| Baseline analysis (for reference) | 585,216 | -7,050,2 | 216 | -160 |
| Scenario 1 – Education reduced | 539,536 | -7,224,446 | 199 | -163 |

### 9.5.2 Key findings from the supply and demand analysis – scenario 1

- By reducing the amount of supply that can be provided by education-based grass pitches, this reduced the existing spare capacity of grass pitch capacity identified across Wales from a deficit of 216 full size grass pitches to 199
- The total deficit in AGP capacity has slightly increased, equating to a capacity deficit equivalent to 163 AGPs in Wales
- The same 7 out of 22 local authorities in Wales show a deficit in AGP capacity, when compared with the baseline analysis

## 9.6 Scenario 2 – the 2030 view

The baseline analysis and scenario 1 use the most current and relevant view of demand within the analysis, to identify the short-term issues and opportunities that can be addressed through investment.

Within this section, we have predicted how the current supply and demand of pitch provision will be influenced and impacted by changes to population numbers and potential changes to trends in demand for football. This future analysis, which uses 2030 for all modelling, provides a forward view and enables more considered and effective investment and support from stakeholders.

There are several variables that can change over time, which can influence the supply and demand of sports facilities, including but not limited to:

- Population changes (total number) across different age groups. In recent times this has typically been positive change (growth), however it is dependent on locality, with urban areas tending to have greater population than rural areas
- Demographic changes, such as shifts in deprivation or the structure of populations. In the case of this report, if all other things remained equal then a shift towards a younger population would be likely to lead to increase demand for football over time, and vice versa
- Changes in trends and demand profiles for sport and physical activity, including growth or reduction in participation rates for specific sports
- Substantive changes in the supply or availability of facilities, which may lead to increased or reduced usage, for instance a major nationwide investment programme focussed on changing provision and access for disabled participants could contribute to increased participation among these groups
- Major policy changes or wider societal changes, which could make it easier or harder for people to utilise facilities, therefore having a longer term impact on supply and demand.

For the purposes of this report, we have focussed on the first three points, to test how they may influence the supply and demand of pitches. For consistency we are going to assume that pitch stock will remain consistent, and no changes is modelled in the supply side. Within the analysis we have commented on the potential for major investment to influence increased demand, known as supplied demand, however it has been assumed that the available stock of provision will remain consistent.

We have used the baseline analysis, as evaluated previously, as the starting point for this analysis, before applying the low, medium and high estimate for demand in 2030.

### 9.6.1 Developing a low, medium and high estimate

As shown in this commentary, changes can have positive or negative effects on the demand and supply of sports facilities, and it is not possible to determine a single position or scenario for 2030. With this in mind, we have modelled a low, medium and high estimate for 2030, taking into consideration different potential factors, as shown in Table 9.6 below.

For this analysis, we have applied ONS population projections, which are the most accurate and respected population projections available. We have therefore applied a consistent growth rate of 2.4% (average across all age groups). While there is an overall increase, this is heavily weighted in the favour of older adults, with 60+ projected to grow by 13%, compared to reductions of 10% and 11% for 0-4 and 5-15 respectively.

This means that the total number of football players is projected to reduce by 2030, if demand stays consistent.

**Table 9.6: Estimate details**

| Estimate | Detail | Explanation and justification |
|---|---|---|
| Low | 1.4% reduction in total football demand, across all players | A 1.4% reduction in total football demand is calculated as worst case, as it reflects the trend in demand from 2015/16 to 2019/20. |
| Medium | 2019 participation figures | As a medium estimate, we assumed that participation rates will recover back to 2019 levels (as used throughout this report) and then stay consistent over the analysis period to 2030. |
| High | Growth split by age group and gender<br>● 0-15 age group<br>○ 5% growth (total) in female participation by 2030<br>○ 3% growth (total) in male participation by 2030<br>● 15-64 age group<br>○ 3% growth (total) in female participation by | There are a number of potential positive influences, which may increase the demand for football facilities over the study period, including but not limited to:<br>a) growth in the number of participants, especially women and girls, playing football that takes place under the auspices of national Football Associations;<br>b) induced demand that may occur because of improved facilities;<br>c) demonstration effects that might occur because of the UK hosting UEFA Women's EUROs 2022;<br>d) continued success by all home nations in European and World level women's tournaments at all age groups; |

| Estimate | Detail | Explanation and justification |
|---|---|---|
| | 2030<br>○1% growth (total) in male participation by 2030<br>● 65+ age group<br>○0% growth (total) in participation by 2030 | e) e) continued representation in the Olympic Games of a Team GB Women's football team;<br>f) the effects of the 'levelling up' agenda resulting from reduced deprivation, better education, more well paid jobs, increased income and better local infrastructure, notably for ethnically diverse communities and those in the areas with greatest deprivation; and<br>g) substitution effects caused by people switching from some activities such as going to the gym in favour of outdoor team sports.<br>Given the lack of robust modelling on future football participation rates, we have made some simple assumptions that reflect the strategic objectives of the stakeholders we have consulted with.<br>With declining participation rates in the adult game, we have weighted our projected growth in favour of younger player groups. Given the investment and focus on the women and girls game, we have also projected slightly higher demand in this area. This reflects the base level participation analysis we have undertaken, which demonstrates the huge room for growth among female players. |

### 9.6.2 Future analysis

Table 9.7 below shows the summary of the low, medium and high analysis, taking into consideration the different projected changes in population and demand.

**Table 9.7: Analysis summary**

| Local authority | Grass Pitch Balance | AGP Pitch Balance | No of Full Sized Grass Pitch | No of Full Sized AGP (Floodlit) |
|---|---|---|---|---|
| Baseline analysis (for reference) | 585,216 | -7,050,270 | 216 | -160 |
| Low estimate | 850,461 | -6,094,133 | 314 | -138 |
| Medium estimate | 629,222 | -6,891,639 | 232 | -156 |
| High estimate | 100,357 | -8,798,054 | 37 | -199 |

The analysis shows the significant range, with the low estimate demonstrating that there will be a lower requirement for pitch provision across Wales, should this estimate be the most accurate. The medium estimate is relatively consistent with the current baseline, however there is a marginally more spare capacity for grass pitches and a lower deficit for AGPs.

The high estimate shows that, should the sector be successful in growing participation, especially among young people and across the women's game, there will be a greater need for provision by 2030, with the deficit of AGPs rising by 39 full sized pitches.

## 9.7 Analysing the supply and demand of AGPs using deprivation data

The supply and demand analysis demonstrated that there is a deficit of AGP provision across Wales, which has been addressed and evaluated in the Investment Pipeline (see Section 10) and recommendations sections of this report.

Consultations undertaken during the research phase of this project identified that while AGP provision is central to the growth of football and the creation of sustainable facilities, there are still challenges and risks associated with investing in AGP provision.

One of these challenges is the typical cost of hire, which is directly correlated with the high cost of building AGP facilities and the requirement for operators to 'invest' in a sinking fund, to ensure the carpet can be replaced when it is at end of life (approximately 5-10 years depending on the intensity of usage). Stakeholders advised that the cost of hiring AGP pitches is typically considerably higher than grass pitches, however given the short research window, it was not possible to validate this with high quality raw data from Northern Ireland, Scotland and Wales.

A key objective of DCMS's grassroots facility investment programme is to allocate 50% of funding into a large proportion of the most deprived areas of the UK, however it is critical that regardless of the location of facilities, facilities are utilised by those who live in the most deprived areas.

### 9.7.1 Evaluating the usage patterns of AGPs

To understand how AGPs are currently used and how this can help to influence the funding requirements and operating model of new facilities, we undertook an analysis of existing AGP's across England, to evaluate whether the participants using the facilities were representative of their local communities, specifically in the case of deprivation.

Data from this exercise is from the DataHub, a sector-wide initiative that aggregates usage data from across the public leisure sector. For this analysis, demand data from 1596 sites with AGP facilities was utilised from January 2019 to December 2021 inclusive. Across this period, usage data from 105,000 unique individuals was analysed, with participants attributed to English IMD deciles based on their age, gender and postcode. We then mapped a 15 minute drive time around each of the 1596 sites and calculated the breakdown of residents within the site catchment area by IMD decile.

The split of **participants** by IMD decile was then compared to the split of **residents** by IMD decile, to analyse whether the users of AGP's were representative of the local population. Table 9.8 and Figure 9.6 show the findings of this analysis, with IMD decile 1 being the most deprived and decile 10 being the least deprived. Regarding the index value, note that 100 equals perfect representation.

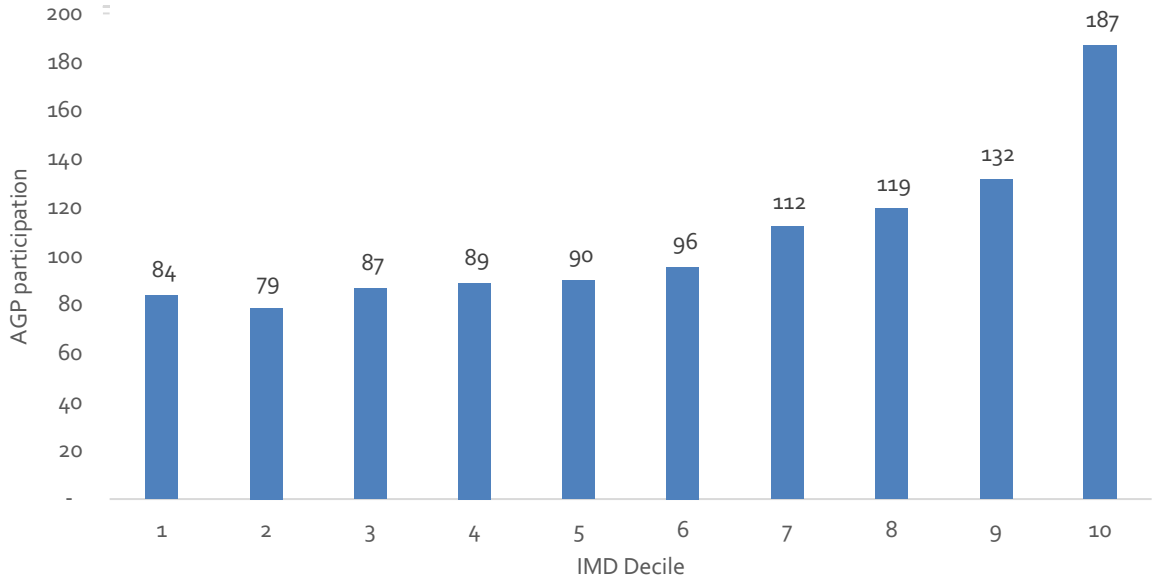
It should be noted that all 1596 sites are located in England and the IMD data used is the England Indices of Multiple Deprivation, therefore while the findings are relevant to this report, they are not statistically applicable to Northern Ireland, Scotland and Wales. English data was used for the purposes of this analysis as equivalent data was not available in Northern Ireland, Scotland and Wales.

**Table 9.8: AGP user deprivation analysis**

| IMD decile | Participant split | Catchment population split | % raw difference | % change | Index value |
|---|---|---|---|---|---|
| 1 | 16.0% | 19.1% | -3.1% | -16.3% | 84 |

| IMD decile | Participant split | Catchment population split | % raw difference | % change | Index value |
|---|---|---|---|---|---|
| 2 | 10.1% | 12.8% | -2.7% | -21.2% | 79 |
| 3 | 9.7% | 11.2% | -1.5% | -13.3% | 87 |
| 4 | 9.6% | 10.8% | -1.2% | -11.1% | 89 |
| 5 | 8.2% | 9.0% | -0.9% | -9.9% | 90 |
| 6 | 7.9% | 8.2% | -0.4% | -4.4% | 96 |
| 7 | 9.1% | 8.1% | 1.0% | 12.1% | 112 |
| 8 | 8.6% | 7.2% | 1.4% | 19.5% | 119 |
| 9 | 9.5% | 7.2% | 2.3% | 31.8% | 132 |
| 10 | 11.9% | 6.4% | 5.5% | 86.9% | 187 |
| **Top 40% Most Deprived** | **45.3%** | **53.8%** | **-8.5%** | **-15.8%** | **84** |
| **Top 40% Least Deprived** | **39.1%** | **28.9%** | **10.2%** | **35.4%** | **135** |

**Figure 9.6: AGP user deprivation analysis - indexed graph (index – 100 = perfect representation of local catchment)**




The table and figure show participants from less deprived areas are over-represented when compared with the local catchment, with the inverse being true for participants from more deprived areas. This is particularly striking when compared with the analysis undertaken in the supply section of this report, which demonstrated that a greater proportion of AGPs are located in deprived areas.

Overall, it can be concluded that when we consider England data only, while there is a greater number of AGPs in more deprived areas, participation from people who live in these areas is not representative of the local catchment. The picture may be different in Northern Ireland, Scotland and Wales however unfortunately the data was not available to prove or disprove the same analysis. Therefore, for the purpose of this report we have used these findings to shape the recommendations and next steps, while noting that specific national data would help to understand the local context.

# 10 Investment Pipeline

## 10.1 Introduction

The purpose of the Investment Pipeline is to put capital cost estimates against the findings of the supply and demand analysis. This informs the level of investment required in the Northern Ireland based on the evidenced need. It provides a basis for decisions taken on the allocation of funding in Northern Ireland.

The analysis has been split into two sections:

- Capital Costs
- Operating Costs.

Given that the funding available is for capital projects, the former category is the focus of this section; however, consideration is also given to the operating costs to provide an indication of the ongoing financial implications of any investment.

## 10.2 Facility cost analysis (capital costs)

### 10.2.1 Existing project data analysis

For the capital cost analysis, the starting point was data provided by DCMS on previous grant awards to football projects in England, Northern Ireland, Scotland and Wales. In total, there were 176 projects ranging from new full-size 3G pitches to minor changing room upgrades and maintenance equipment.

Each project was then assessed based on the improvements it included. The objective of this was to facilitate the grouping of projects (and their associated costs) in several categories that could then be used as a basis for building the Investment Pipeline. The criteria of the assessment included factors such as whether the project included a 3G pitch, what size it was, whether it was new or a refurbishment/upgrade, were floodlights included, etc.

Having completed this exercise, the following overall categories were identified:

### 10.2.2 New facilities

- Full-size 3G pitch (new) + floodlights
- Full-size 3G pitch (new) + floodlights + changing facilities
- Youth 3G pitch (new)
- Mini 3G pitch (new) + floodlights.

### 10.2.3 Refurbished facilities

- Full-size 3G pitch (refurbishment)
- Full-size 3G pitch (refurbishment) + floodlights
- Youth 3G pitch (refurbishment)

- Youth 3G pitch (refurbishment) + floodlights
- Mini 3G pitch (refurbishment)
- Mini 3G pitch (refurbishment) + floodlights.

### 10.2.4 Ancillary facilities and maintenance

- Floodlights only
- Changing facilities (new)
- Changing facilities (refurbishment)
- Grass pitch works
- Maintenance equipment.

For clarity, the three pitch categories relate to the following:

- Full-size 3G pitch: 100 x 60 yards (91.44 x 54.86 meters) and above
- Youth 3G pitch: 9 v 9 pitches and small 11 v 11 (90 yards x 55 yards [82.30 x 50.29 meters]) pitches
- Mini 3G pitch: 7 v 7 pitches and below.

A summary of the above analysis is provided below in Table 10.1.

**Table 10.1: Summary of facility capital cost analysis**

| Category | No. of Projects | Rounded Cost per Project |
|---|---|---|
| New | | |
| Full-size 3G pitch (new) + floodlights | 27 | £790,000 |
| Full-size 3G pitch (new) + floodlights + Changing Facilities | 3 | £1,230,000 |
| Youth 3G pitch (new) | 1 | £570,000 |
| Mini 3G pitch (new) + floodlights | 1 | £270,000 |
| Refurbishment | | |
| Full-size 3G pitch (refurbishment) | 19 | £210,000 |
| Full-size 3G pitch (refurbishment) + floodlights | 2 | £540,000 |
| Youth 3G pitch (refurbishment) | 3 | £50,000 |
| Youth 3G pitch (refurbishment) + floodlights | 3 | £430,000 |
| Mini 3G pitch (refurbishment) | 2 | £90,000 |
| Mini 3G pitch (refurbishment) + floodlights | 4 | £210,000 |

| Category | No. of Projects | Rounded Cost per Project |
|---|---|---|
| Other | | |
| Floodlights only | 10 | £160,000 |
| Changing Facilities (new) | 18 | £660,000 |
| Changing Facilities (refurbishment) | 19 | £170,000 |
| Grass pitch works | 10 | £50,000 |
| Maintenance Equipment | 10 | £40,000 |

## 10.3 Building the investment pipeline

To create the Investment Pipeline, the project capital cost data analysis presented above was applied to the findings of the supply and demand analysis for Northern Ireland, Scotland and Wales to give a total estimated capital investment requirement by local authority and aggregated across each of the three countries and in total.

Rather than creating a separate Investment Pipeline for each of the supply and demand modelling scenarios, just two scenarios were created based on the following assumptions:

### 10.3.1 Scenario A:

- For grass pitches, the investment required in each local authority was based on the unmet demand from the baseline analysis, which assumed that 63% of grass pitches are of poor quality. It was then assumed that 90% of the unmet demand would be addressed through grass pitch upgrades excluding floodlighting and 10% would include floodlighting
- For AGPs, the investment required in each local authority was based on the unmet demand from the baseline analysis (63% of pitches are assumed to be poor quality) with 100% of investment going to new facilities on the basis that AGPs have a significantly greater carrying capacity than grass pitches and therefore the focus should be on increasing supply. It was further assumed that 50% of these projects would involve changing facility improvements and 50% would exclude them
- For both grass pitches and AGPs, if the supply and demand analysis indicated an overprovision of facilities, the level of investment required was set to £0.

### 10.3.2 Scenario B:

- For grass pitches, the same assumption as Scenario A applies
- For AGPs, the investment required in each local authority was based on a mixed approach of 50% of investment being in new facilities and 50% being in upgrading or refurbishing existing facilities. For the new facilities, the same assumption as in Scenario A regarding changing facilities was applied

- For both grass pitches and AGPs, if the supply and demand analysis indicated an overprovision of facilities, the level of investment required was set to £0.

The assumptions above derived an Investment Pipeline based on the **current** supply and demand position in the three countries. The same approach was then applied to the Future (High) supply and demand scenario to derive a **future** Investment Pipeline. In this future scenario, the capital cost estimates set out in Table 10.1 were inflated to 2030 based on an annual inflation rate of 3.68%. This figure is derived from construction cost inflation data that is specific to capital costs for the 2021-22 financial year[3].

The **current** Investment Pipeline for Northern Ireland is summarised inTable 10.2 below.

**Table 10.2: Current Investment Pipeline summary Northern Ireland**

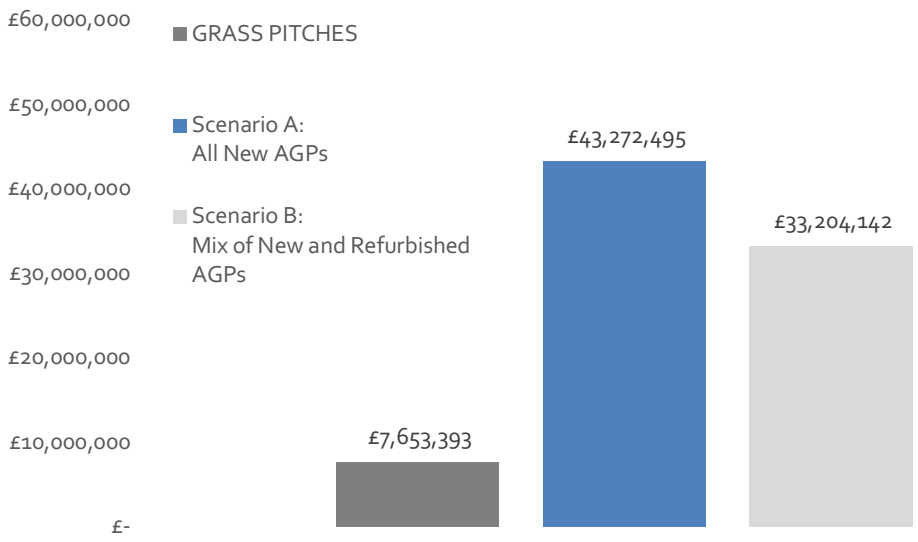
| | Grass pitches | Full sized AGPs | |
|---|---|---|---|
| | | Scenario A All new AGPs | Scenario B Mix of new and refurbished AGPs |
| Northern Ireland | £7,653,393 | £43,272,495 | £33,204,142 |

For the purposes of creating the Investment Pipeline, the current summary provided in Table 10.2 aggregates as follows:

- Scenario A (grass pitches plus AGP Scenario A): £60 million
- Scenario B (grass pitches plus AGP Scenario B): £41 million.

The current Investment Pipeline for Northern Ireland is summarised graphically in Figure 10.1 below.

**Figure 10.1: Current Investment Pipeline summary for Northern Ireland**




[3] https://costmodelling.com/construction-indices#:~:text=Tender%20Price%20Indices%20represent%20the,materials%2C%20i.e.%20cost%20to%20contractor

The **future** Investment Pipeline for Northern Ireland is summarised in Table 10.3 below.

**Table 10.3: Future Investment Pipeline summary Northern Ireland**

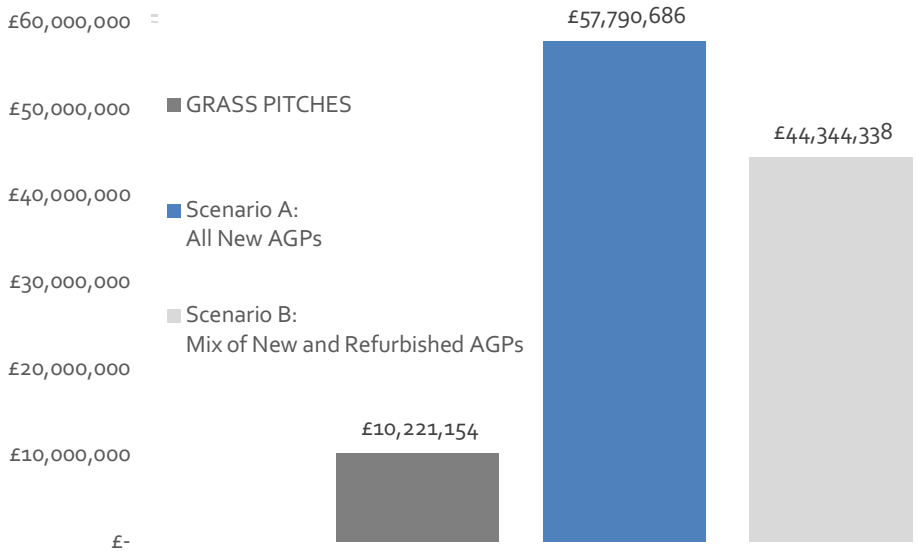
| | Grass pitches | Full sized AGPs | |
|---|---|---|---|
| | | Scenario A All new AGPs | Scenario B Mix of new and refurbished AGPs |
| Northern Ireland | £10,221,154 | £57,790,686 | £44,344,338 |

For the purposes of creating the Investment Pipeline, the future summary provided in Table 10.3 aggregates as follows:

- Scenario A (grass pitches plus AGP Scenario A): £16 million
- Scenario B (grass pitches plus AGP Scenario B): £55 million.

The future Investment Pipeline for Northern Ireland is summarised graphically in Figure 10.2 below.

**Figure 10.2: Future investment pipeline summary Northern Ireland**




The **current** Investment Pipeline for Scotland is summarised in Table 10.4 below.

**Table 10.4: Current investment Pipeline summary Scotland**

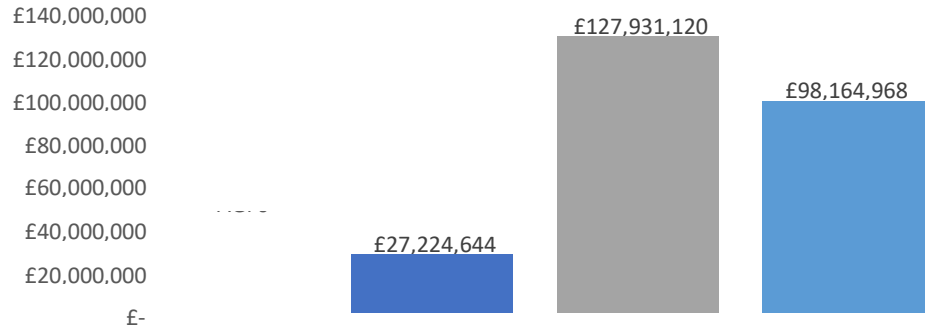
| | Grass pitches | Full sized AGPs | |
|---|---|---|---|
| | | Scenario A All new AGPs | Scenario B Mix of new and refurbished AGPs |
| Scotland | £27,224,644 | £127,931,120 | £98,164,968 |

For the purposes of creating the Investment Pipeline, the current summary provided in Table 10.4 aggregates as follows. The current Investment Pipeline is summarised graphically in Figure 10.3 below.

- Scenario A (grass pitches plus AGP Scenario A): £155 million
- Scenario B (grass pitches plus AGP Scenario B): £125million.

The current Investment Pipeline for Scotland is summarised graphically in Figure 10.3 below.

**Figure 8.3: Current Investment Pipeline summary for Scotland**




The **future** Investment Pipeline for Scotland is summarised in Table 10.5 below.

**Table 10.5: Future investment pipeline summary Scotland**

| | Grass pitches | Full sized AGPs | |
|---|---|---|---|
| | | Scenario A All new AGPs | Scenario B Mix of new and refurbished AGPs |
| Scotland | £36,358,681 | £170,852,803 | £131,099,923 |

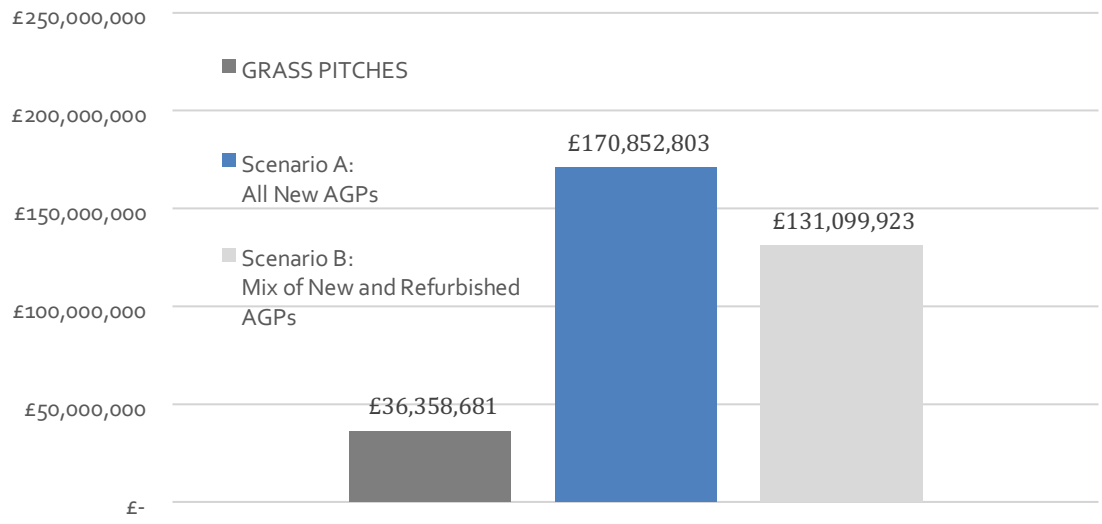
For the purposes of creating the Investment Pipeline, the future summary provided in Table 10.5 aggregates as follows:

- Scenario A (grass pitches plus AGP Scenario A): £207 million
- Scenario B (grass pitches plus AGP Scenario B): £167 million.

[3] https://costmodelling.com/construction-indices#:~:text=Tender%20Price%20Indices%20represent%20the,materials%2C%20i.e.%20cost%20to%20contractor

The **future** Investment Pipeline for Scotland is summarised graphically in Figure 10.4 below.

**Figure 10.4: Future Investment Pipeline summary Scotland**




The **current** Investment Pipeline for Wales is summarised in Table 10.6 below.

**Table 10.6: Current Investment Pipeline summary Wales**

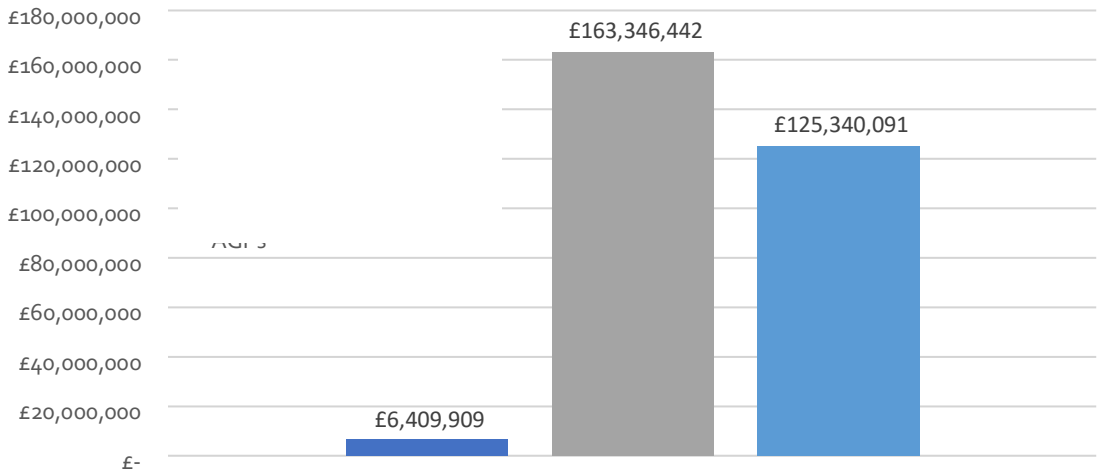
| | Grass pitches | Full sized AGPs | |
|---|---|---|---|
| | | Scenario A All new AGPs | Scenario B Mix of new and refurbished AGPs |
| Wales | £6,409,909 | £163,346,442 | £125,340,091 |

For the purposes of creating the Investment Pipeline, the current summary provided in Table 10.6 aggregates as follows:

- Scenario A (grass pitches plus AGP Scenario A): £170 million
- Scenario B (grass pitches plus AGP Scenario B): £132 million

The current Investment Pipeline for Wales is summarised graphically in Figure 10.5 below.

**Figure 10.5: Current Investment Pipeline summary for Wales**




The **future** Investment Pipeline for Wales is summarised in Table 10.7 below.

**Table 10.7: Future Investment Pipeline summary Wales**

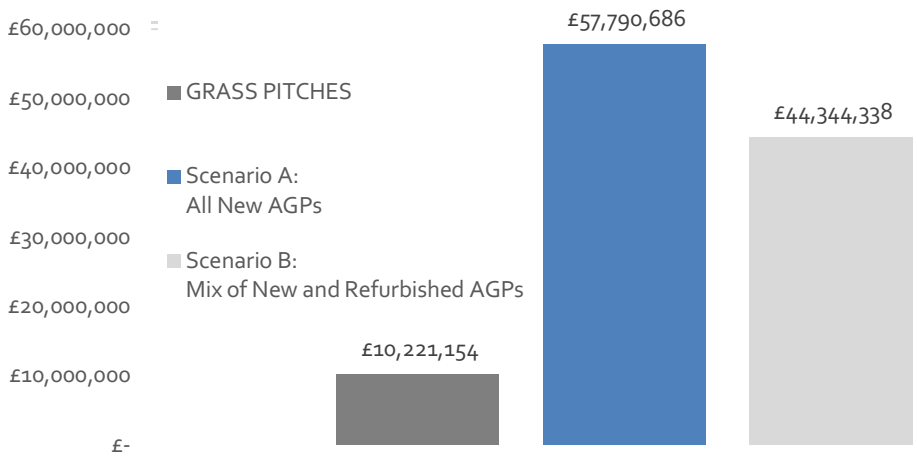
| | Grass pitches | Full sized AGPs | |
|---|---|---|---|
| | | Scenario A All new AGPs | Scenario B Mix of new and refurbished AGPs |
| Wales | £8,560,473 | £218,150,185 | £167,392,469 |

For the purposes of creating the Investment Pipeline, the future summary provided in Table 10.7 aggregates as follows:

- Scenario A (grass pitches plus AGP Scenario A): £227 million
- Scenario B (grass pitches plus AGP Scenario B): £176 million.

The future Investment Pipeline for Wales is summarised graphically in Figure 10.6 below.

**Figure 10.6: Future Investment Pipeline summary Wales**




## 10.4 Operating costs

The focus of this project is understanding the need to invest capital funding in sports facilities, to meet the existing and future demand across Northern Ireland, Scotland and Wales. As part of the Investment Pipeline, we have therefore focussed on these capital costs as part of the Investment Pipeline.

Although not part of the Investment Pipeline, the costs estimated above will necessitate ongoing operational expenditure to maintain the quality of the facilities in question. In this section, consideration is given to potential ongoing operational costs. Given that each site will have a different staffing and management structures in place, the focus was on the additional running and operational costs, rather than staffing and administrative expenditure.

It is important to understand the longer-term impact and influences of operating costs, as these will have a significant impact on the long-term financial sustainability of facilities. 'Natural' sports facilities in particular, such as grass pitches, typically require high operational costs in order to maintain them to a high standard.

The estimates have been split into two broad categories to reflect the basis of the supply and demand modelling and Investment Pipeline as follows:

- 3G pitches (including floodlighting)
- Grass pitches (including floodlighting).

The following assumption have been made as part of this analysis:

- Full size pitch dimensions: 7,700 sq yards [7,040 sq meters] (area)
- Youth 3G pitch dimensions: 4,463 sq yards [4,080 sq meters] (area)
- Mini 3G pitch dimensions: 1,750 sq yards [1,600 sq meters] (area)

For 3G pitches, the cost items included in the analysis were as follows:

- Utilities (on floodlights)
- Annual maintenance contract
- Regular maintenance
- Rubber crumb top-up
- Pitch testing
- Equipment Replacement
- Floodlight lamp replacement
- Floodlight maintenance
- Carpet replacement (sinking fund), not including an allowance for a shockpad, used for full contact rugby union, rugby league and GAA.

**Table 10.9: Summary of base operational costs estimate for 3G pitches**

| | | | | Total |
|---|---|---|---|---|
| Utilities (on floodlights) | *Floodlighting* | *£4.50* | *per hour* | £6,273 |
| Annual Maintenance Contract | *R&M* | *£4,500* | | £4,500 |
| Regular maintenance | *R&M* | *£3,800* | | £3,800 |
| Rubber crumb top-up | *R&M* | *£2,000* | | £2,000 |
| Pitch testing | *R&M* | *£1,300* | *every 3 year(s)* | £433 |
| Equipment Replacement | *R&M* | *£2,000* | | £2,000 |
| Lamp Replacement | *Floodlighting* | *£600* | | £600 |
| Maintenance | *Floodlighting* | *£500* | | £500 |
| Carpet Replacement | *Sinking fund* | *£30,000* | | £30,000 |
| | | | **TOTAL:** | **£50,106** |

**SUMMARY**

| | |
|---|---|
| *Floodlighting* | *£7,373* |
| *R&M* | *£12,733* |
| *Sinking fund* | *£30,000* |

For grass pitches, the cost items included in the analysis were as follows:

- Utilities (on floodlights)
- Slitting
- Fertiliser Application
- Vertidraining
- Weedkiller application
- Topdressing
- Overseeding
- Scarification
- Pitch replacement (sinking fund).

**Table 10.10: Base operational costs estimate for grass pitches**

| | | | | Total |
|---|---|---|---|---|
| Utilities (on floodlights) | *Floodlighting* | *£4.50* | *per hour* | £1,080 |
| | | **Total** | **Cost per unit** | |
| Slitting | *R&M* | *2* | *£220* | £440 |
| Fertiliser Application | *R&M* | *3* | *£275* | £825 |
| Vertidraining | *R&M* | *2* | *£330* | £660 |
| Weedkiller application | *R&M* | *1* | *£275* | £275 |
| Topdressing | *R&M* | *1* | *£2,700* | £2,700 |
| Overseeding | *R&M* | *1* | *£1,000* | £1,000 |
| Scarification | *R&M* | *1* | *£300* | £300 |
| Lamp Replacement | *Floodlighting* | | *£600* | £600 |
| Maintenance | *Floodlighting* | | *£500* | £500 |
| Sinking fund | *Sinking Fund* | | £3,300 | £3,300 |
| | | | **Total cost:** | **£11,680** |

**SUMMARY**

| | |
|---|---|
| *Floodlighting* | *£2,180* |
| *R&M* | *£6,200* |
| *Sinking fund* | *£3,300* |

To provide estimates for the overall operational cost implication of the Investment Pipeline, the per pitch information set out in the Tables above was then applied to the supply and demand and Investment Pipeline modelling for both the **current** and **future** supply and demand.

For this, it has been assumed that the operational costs for new AGPs and refurbished AGPs would be the same and, hence, there are not the separate scenarios A and B.

The future operational costs have been based on the information set out in the Tables above and inflated forward based on an annual rate of 3.40%. This rate has been informed by the UK government's Office for Budgetary Responsibility GDP Deflator Data for Q2 2022[4].

The operational costs for the **current** Investment Pipeline for Northern Ireland (see Table 10.2) are summarised in Table 10.11.

**Table 10.11: Aggregate operational costs for current Investment Pipeline**

| Geographical Area | Grass pitches | AGPs |
|---|---|---|
| Northern Ireland | £1,356,738 | £2,146,744 |

The operational costs for the **future** Investment Pipeline for Northern Ireland (see Table 10.3) are summarised in Table 10.12.

**Table 10.12: Aggregate operational costs for future Investment Pipeline**

| Geographical Area | Grass pitches | AGPs |
|---|---|---|
| Northern Ireland | £1,773,127 | £2,805,590 |

The operational costs for the **current** Investment Pipeline for Scotland (see Table 10.4) are summarised in Table 10.13.

**Table 10.13: Aggregate operational costs for current Investment Pipeline**

| Geographical Area | Grass pitches | AGPs |
|---|---|---|
| Scotland | £4,826,187 | £6,346,650 |

The operational costs for the **future** Investment Pipeline for Scotland (see Table 10.5) are summarised in Table 10.14.

[4] https://obr.uk/forecasts-in-depth/the-economy-forecast/inflation/#deflator

**Table 10.14: Aggregate operational costs for future Investment Pipeline**

| Geographical Area | Grass pitches | AGPs |
|---|---|---|
| Scotland | £6,307,366 | £8,294,466 |

The operational costs for the **current** Investment Pipeline for Wales (see Table 10.6) are summarised in Table 10.15

**Table 10.15: Aggregate operational costs for current Investment Pipeline**

| Geographical Area | Grass pitches | AGPs |
|---|---|---|
| Wales | £1,136,302 | £8,103,601 |

The operational costs for the **future** Investment Pipeline for Wales (see Table 10.7) are summarised in Table 10.16.

**Table 10.16: Aggregate operational costs for future Investment Pipeline**

| Geographical Area | Grass pitches | AGPs |
|---|---|---|
| Wales | £1,485,038 | £10,590,633 |

# 11 Summary of findings

This report has detailed the methodology and outcomes of an extensive research and analysis project, which has focussed on defining and evidencing how and where investment into grassroots pitch provision should be allocated across Northern Ireland, Scotland and Wales .

To provide a headline view of the project's findings, commentary has been added to each of the 4 key objectives, agreed at the beginning of the project.

## 11.1 What is the supply of grassroots football pitches and multi-sport facilities in Northern Ireland, Scotland and Wales; how are they distributed and what are the characteristics? How many of them support multi-sport usage?

A summary of the pitch supply across Northern Ireland, Scotland and Wales is shown below, with further detail provided in the full audit, contained within Appendix H. Within this audit data from up to 35 fields has been collected for each site and pitch, including the proportion that support multi-sport usage.

- Northern Ireland - 995 total sites audited, including 701 grass pitches and 327 AGPs
- Scotland – 2,949 total sites audited, including 3,210 grass pitches and 1,200 AGPs.
- Wales – 1,244 total sites audited, including 1,762 grass pitches and 408 AGPs

## 11.2 What is the current rate of demand and usage of those facilities in Northern Ireland, Scotland and Wales, and how is that demand for facilities likely to evolve in each nation by 2030?

Overall, adult football participation sits at around 6.4% in Northern Ireland, 6% in Scotland and 7% in Wales, however this level of participation varies significantly across ages and genders. This drives demand for football facilities, which has been split between grass pitches and AGPs using our understanding of how people currently use facilities and mapping this against the demographics of Northern Ireland, Scotland and Wales.

The summary table shows the total number of people and the demand that they are projected to create, by pitch typology. This demand also includes demand for AGP facilities by other sports, including both codes of Rugby, Lacrosse, American Football and Gaelic Games among others.

**Table 11.1: Summary of demand in Northern Ireland**

| | Total demand (unique people) | Total demand (yearly hours of play) | |
|---|---|---|---|
| | | AGP | Grass pitch |
| Northern Ireland | 99,619 | 7,617,892 | 1,609,345 |

By 2030, the population of Northern Ireland will see small population growth, to a maximum of around 3%. This alone is not expected to lead to a growth in the demand for football and multi-sport facilities, as the population growth in all three cases is likely to be dominated by a growth in 65+,

which have been demonstrated to have the lowest levels of demand for football facilities.

In addition, the long-term demand statistics for Northern Ireland show a steady decrease in the demand for football over the past 5 – 15 years. The low estimate for 2030 therefore projected this demand trend will continue and combined with the ageing population, that less pitches will be required to satisfy demand, compared with the current baseline.

The medium estimate used the same ONS population projections but assumes that participation rates will recover to 2019 levels and then stay consistent between now and 2030. The outcome of this scenario is a slightly smaller investment need than demonstrated in the baseline analysis.

The high estimate again used the same ONS population projections but assumed that there would be a growth in football participation, driven by investment into facilities and programmes across Northern Ireland. Demand growth was split by gender and age group, with female participation projected to grow more quickly than male participation, and for growth to be higher in younger age groups. The outcome of this estimate was an increase in the need for investment into grass pitches and multi-sport facilities across Northern Ireland.

**Table 11.2: Summary of demand in Scotland**

| | Total demand (unique people) | Total demand (yearly hours of play) | |
|---|---|---|---|
| | | AGP | Grass pitch |
| Scotland | 281,136 | 22,574,998 | 4,877,371 |

By 2030, the population of Scotland will see small population growth, to a maximum of around 3%. This alone is not expected to lead to a growth in the demand for football and multi-sport facilities, as the population growth in all three cases is likely to be dominated by a growth in 65+, which have been demonstrated to have the lowest levels of demand for football facilities.

In addition, the long-term demand statistics for Scotland show a steady decrease in the demand for football over the past 5 – 15 years. The low estimate for 2030 therefore projected this demand trend will continue and combined with the ageing population, that less pitches will be required to satisfy demand, compared with the current baseline.

The medium estimate used the same ONS population projections but assumes that participation rates will recover to 2019 levels and then stay consistent between now and 2030. The outcome of this scenario is a slightly smaller investment need than demonstrated in the baseline analysis.

The high estimate again used the same ONS population projections but assumed that there would be a growth in football participation, driven by investment into facilities and programmes across, Scotland. Demand growth was split by gender and age group, with female participation projected to grow more quickly than male participation, and for growth to be higher in younger age groups. The outcome of this estimate was an increase in the need for investment into grass pitches and multi-sport facilities across Scotland.

**Table 11.3: Summary of demand in Wales**

| | Total demand (unique people) | Total demand (yearly hours of play) | |
|---|---|---|---|
| | | AGP | Grass pitch |
| **Wales** | 155,015 | 12,361,557 | 2,650,125 |

By 2030, the population of Wales will be subject to population growth, to a maximum of around 3%. This alone is not expected to lead to a growth in the demand for football and multi-sport facilities, as the population growth is likely to be dominated by a growth in the 65+ age group, which have been demonstrated to have the lowest levels of demand for football facilities.

In addition, the long-term demand statistics for Wales show a steady decrease in the demand for football over the past 5 – 15 years. The **low estimate** for 2030 therefore projected this demand trend will continue and combined with the ageing population, that less pitches will be required to satisfy demand, compared with the current baseline.

The **medium estimate** used the same ONS population projections but assumed that participation rates will recover to 2019 levels and then stay consistent between now and 2030. The outcome of this scenario is a slightly smaller investment need than demonstrated in the baseline analysis.

The **high estimate** again used the same ONS population projections but assumed that there would be a growth in football participation, driven by investment into facilities and programmes across Wales. Demand growth was split by gender and age group, with female participation projected to grow more quickly than male participation, and for growth to be higher in younger age groups. The outcome of this estimate was an increase in the need for investment into grass pitches and multisport facilities across Wales.

## 11.3 What are the gaps (current and future) between supply and demand for local facilities in Northern Ireland, Scotland and Wales?

The baseline supply and demand analysis, which considered all pitch supply that was categorised as available for community use, shows that across Northern Ireland there is a deficit of grass pitch provision to meet current demand, equating to 97 full sized grass pitches.

The supply and demand picture for AGP provision shows a deficit of provision, equivalent to 31 full sized floodlit AGPs. There are a number of contributing factors in this, including demand for other sports and the unavailability of private facilities, however it represents a significant investment requirement, in order to address the current deficit.

**Table 11.4: Supply and demand summary – baseline analysis**

| | Pitch balance (yearly hours) | | No. of full sized pitches under or over supply | |
|---|---|---|---|---|
| | Grass Pitch | AGP | Grass Pitch | AGP (floodlit) |
| **Northern Ireland** | -262,804 | -1,371,480 | -97 | -31 |

To understand how the supply and demand of pitches could change between now and 2030, we analysed how the current supply and demand of pitch provision will be influenced and impacted by changes to population numbers and potential changes to trends in demand for football. This future analysis, which uses 2030 for all modelling, provided a forward view and enabled more considered and effective investment and support from stakeholders.

There are several variables that can change over time, which can influence the supply and demand of sports facilities, including but not limited to:

- Population changes (total number) across different age groups. In recent times this has

typically been positive change (growth), however it is dependent on locality, with urban areas tending to have greater population than rural areas

- Demographic changes, such as shifts in deprivation or the structure of populations. In the case of this report, if all other things remained equal then a shift towards a younger population would be likely to lead to increase demand for football over time, and vice versa
- Changes in trends and demand profiles for sport and physical activity, including growth or reduction in participation rates for specific sports
- Substantive changes in the supply or availability of facilities, which may lead to increased or reduced usage, for instance a major nationwide investment programme focussed on changing provision and access for disabled participants could contribute to increased participation among these groups
- Major policy changes or wider societal changes, which could make it easier or harder for people to utilise facilities, therefore having a longer term impact on supply and demand.

For the purposes of this report, we focussed on the first three points, to test how they may influence the supply and demand of pitches. For consistency we assume that pitch stock will remain consistent, and no changes have been modelled in the supply side. Within the analysis we have commented on the potential for major investment to influence increased demand, known as supply-led demand, however the available stock of provision will stay consistent.

As shown in this commentary, changes can have positive or negative effects on the demand and supply of sports facilities, and it is not possible to determine a single position or scenario for 2030. With this in mind, we have modelled a low, medium and high estimate for 2030, taking into consideration different potential factors. For the purposes of this section, we have summarised the findings from the high estimate, as the low and medium provide a very similar output to the baseline analysis.

Table 11.5 shows the findings from the high estimate analysis, where population growth is combined with an expected growth in demand for football facilities. The figures show that the deficit of grass pitches is projected to increase across Northern Ireland. In Northern Ireland, the deficit of AGP provision is projected to increase, if there is no improvement to existing facilities or development of new provision.

**Table 11.5: Supply and demand summary – 2030 view (high estimate)**

| | Pitch balance (yearly hours) | | No. of full sized pitches under or over supply | |
|---|---|---|---|---|
| | Grass Pitch | AGP | Grass Pitch | AGP (floodlit) |
| **Northern Ireland** | -526,845 | -2,323,277 | -195 | -53 |

**For Scotland,** the baseline supply and demand analysis, which considered all pitch supply that was categorised as available for community use, shows that across Scotland there is a deficit of grass pitch provision to meet current demand, equating to 201 (Scotland) full sized grass pitches.

The supply and demand picture for AGP provision shows a deficit of provision, equivalent to 91 (Scotland) full sized floodlit AGPs. There are a number of contributing factors in this, including demand for other sports and the unavailability of private facilities, however it represents a

significant investment requirement, in order to address the current deficit.

**Table 11.6: Supply and demand summary – baseline analysis**

| | Pitch balance (yearly hours) | | No. of full sized pitches under or over supply | |
|---|---|---|---|---|
| | Grass Pitch | AGP | Grass Pitch | AGP (floodlit) |
| **Scotland** | -545,189 | -4,004,654 | -201 | -91 |

To understand how the supply and demand of pitches could change between now and 2030, we analysed how the current supply and demand of pitch provision will be influenced and impacted by changes to population numbers and potential changes to trends in demand for football. This future analysis, which uses 2030 for all modelling, provided a forward view and enabled more considered and effective investment and support from stakeholders.

There are several variables that can change over time, which can influence the supply and demand of sports facilities, including but not limited to:

- Population changes (total number) across different age groups. In recent times this has typically been positive change (growth), however it is dependent on locality, with urban areas tending to have greater population than rural areas
- Demographic changes, such as shifts in deprivation or the structure of populations. In the case of this report, if all other things remained equal then a shift towards a younger population would be likely to lead to increase demand for football over time, and vice versa
- Changes in trends and demand profiles for sport and physical activity, including growth or reduction in participation rates for specific sports
- Substantive changes in the supply or availability of facilities, which may lead to increased or reduce usage, for instance a major nationwide investment programme focussed on changing provision and access for disabled participants could contribute to increased participation among these groups
- Major policy changes or wider societal changes, which could make it easier or harder for people to utilise facilities, therefore having a longer term impact on supply and demand.

For the purposes of this report, we focussed on the first three points, to test how they may influence the supply and demand of pitches. For consistency we assume that pitch stock will remain consistent, and no changes have been modelled in the supply side. Within the analysis we have commented on the potential for major investment to influence increased demand, known as supply-led demand, however the available stock of provision will stay consistent.

As shown in this commentary, changes can have positive or negative effects on the demand and supply of sports facilities, and it is not possible to determine a single position or scenario for 2030. With this in mind, we have modelled a low, medium and high estimate for 2030, taking into consideration different potential factors. For the purposes of this section, we have summarised the findings from the high estimate, as the low and medium provide a very similar output to the baseline analysis.

Table 11.7 shows the findings from the high estimate analysis, when population growth is combined with an expected growth in demand for football facilities. The figures show that the deficit of grass pitches is projected to increase Scotland. In Scotland, the deficit of AGP provision is projected to increase, if there is no improvement to existing facilities or development of new provision.

**Table 11.7: Supply and demand summary – 2030 view (high estimate)**

| | Pitch balance (yearly hours) | | No. of full sized pitches under or over supply | |
|---|---|---|---|---|
| | Grass Pitch | AGP | Grass Pitch | AGP (floodlit) |
| **Scotland** | -1,381,181 | -7,018,175 | -510 | -159 |

In the case of **Wales,** the baseline supply and demand analysis, which considered all pitch supply that was categorised as available for community use, shows that for Wales there is spare capacity for grass pitches, equivalent to 216 full sized grass pitches.

The supply and demand picture for AGP provision shows a deficit of provision, equivalent to 160 full sized floodlit AGPs. There are a number of contributing factors in this, including demand for other sports and the unavailability of private facilities, however it represents a significant investment requirement, in order to address the current deficit.

**Table 11.8: Supply and demand summary – baseline analysis**

| | Pitch balance (yearly hours) | | No. of full sized pitches under or over supply | |
|---|---|---|---|---|
| | Grass Pitch | AGP | Grass Pitch | AGP (floodlit) |
| **Wales** | 585,216 | -7,050,270 | 216 | -160 |

To understand how the supply and demand of pitches could change between now and 2020, we analysed how the current supply and demand of pitch provision will be influenced and impacted by changes to population numbers and potential changes to trends in demand for football. This future analysis, which used 2030 for all modelling, provided a forward view and enabled more considered and effective investment and support from stakeholders.

There are several variables that can change over time, which can influence the supply and demand of sports facilities, including but not limited to:

- Population changes (total number) across different age groups. In recent times this has typically been positive change (growth), however it is dependent on locality, with urban areas tending to have greater population than rural areas
- Demographic changes, such as shifts in deprivation or the structure of populations. In the case of this report, if all other things remained equal then a shift towards a younger population would be likely to lead to increase demand for football over time, and vice versa
- Changes in trends and demand profiles for sport and physical activity, including growth or reduction in participation rates for specific sports
- Substantive changes in the supply or availability of facilities, which may lead to increased or reduced usage, for instance a major nationwide investment programme focussed on changing provision and access for disabled participants could contribute to increased participation among these groups
- Major policy changes or wider societal changes, which could make it easier or harder for people to utilise facilities, therefore having a longer term impact on supply and demand.

For the purposes of this report, we focussed on the first three points, to test how they may influence the supply and demand of pitches. For consistency we assumed that pitch stock will remain consistent, and no changes have been modelled in the supply side. Within the analysis we have commented on the potential for major investment to influence increased demand, known as

supplied demand, however it is assumed that the available stock of provision will remain consistent.

As shown in this commentary, changes can have positive or negative effects on the demand and supply of sports facilities, and it is not possible to determine a single position or scenario for 2030. With this in mind, we have modelled a low, medium and high estimate for 2030, taking into consideration different potential factors. For the purposes of this section, we have summarised the findings from the high estimate, as the low and medium provide a very similar output to the baseline analysis.

Table 11.9 shows the findings from the high estimate analysis, when population growth is combined with an expected growth in demand for football facilities. The figures show the spare capacity of grass pitches in Wales is projected to be reduced to the equivalent of 37 pitches.

**Table 11.9: Supply and demand summary – 2030 view (high estimate)**

| | Pitch balance (yearly hours) | | No. of full sized pitches under or over supply | |
|---|---|---|---|---|
| | Grass Pitch | AGP | Grass Pitch | AGP (floodlit) |
| **Wales** | 100,357 | -8,798,054 | 37 | -199 |

## 11.4 In order to meet the need identified in the first three questions, what is the facilities pipeline that grassroots investment must deliver in Northern Ireland, Scotland and Wales (i) over the next 3 years and (ii) by 2030?

The Investment Pipeline utilised industry-best-practice data and cost data from the DCMS grassroots investment programme so far, to provide standardised capital cost estimates for a range of potential site improvements.

We then applied these capital costs to the supply and demand analysis, to calculate the total amount of investment that is required to address any deficit of provision. Tables 11.10 below shows the total amount of investment required to meet the deficit of AGPs shown in the current baseline.

Scenario A shows the value that is required if 100% of deficit is to be met with new full sized 3G AGPs at new sites or in addition to existing pitches. Scenario B shows the value that is required to meet the deficit if 50% of the required AGPs are new sites and 50% are re-surfaced sand based AGPs.

**Table 11.10: Investment pipeline summary– current baseline**

| | Grass pitches | Full sized AGPs | |
|---|---|---|---|
| | | Scenario A All new AGPs | Scenario B Mix of new and refurbished AGPs |
| Northern Ireland | £7,653,393 | £43,272,495 | £33,204,142 |
| Scotland | £27,224,644 | £127,931,120 | £98,164,968 |
| Wales | £6,409,909 | £163,346,442 | £125,340,091 |

The same calculation was carried out for the 2030 view, using the projected increase in demand summarised in the previous section. Tables 11.11 summarises the investment pipeline for 2030, taking into consideration inflation but assuming that there is no change to the existing supply of pitches.

**Table 11.11: Future Investment Pipeline summary Northern Ireland – 2030 view**

| | Grass pitches | Full sized AGPs | |
|---|---|---|---|
| | | Scenario A All new AGPs | Scenario B Mix of new and refurbished AGPs |
| Northern Ireland | £10,221,154 | £57,790,686 | £44,344,338 |
| Scotland | £36,358,681 | £170,852,803 | £131,099,923 |
| Wales | £8,560,473 | £218,150,185 | £167,392,469 |

# 12 Recommendations and next steps

This report provides a clear view of the requirement for investment into grassroots football and multi-sport pitches across Northern Ireland, Scotland and Wales. As demonstrated in section 11 of this report, each of the four key research objectives have been met, culminating in the current and future Investment Pipeline required to meet deficits calculated during the research period.

## 12.1 Limitations of the methodology

It is key to understand that due to the requirements of the investment and funding process, the research and analysis window for this project was shorter than would typically be required to undertake such a complex and resource-intensive project. With this in mind, the following methodology limitations should be considered when evaluating the findings:

- The supply audit process utilised secondary data provided by relevant stakeholders, which was cross-checked and updated by the research team. No on-site pitch assessments were undertaken as part of the research process and some pitch or site amenity data is likely to require refinement. It is not expected that these changes would make a substantive difference on the outcomes and findings of the report
- The process for calculating pitch demand uses the most robust longitudinal participation data available in Northern Ireland, Scotland and Wales which have been adjusted where appropriate using additional datasets provided by stakeholders. Assumptions for how demand is allocated to different pitches are included with the demand sections (sections 7, 8, 9 and Appendix B) of this report, however a more nuanced approach would have been possible had there been the equivalent of Sport England's Active Lives data available in Northern Ireland
- The research team has made assumptions to support the analysis process, based on industry best-practice and research undertaken across the UK, including in England. To enable comparisons to be made across Northern Ireland, Scotland and Wales the majority of these assumptions have been consistent across the whole study area, which in some cases will supersede nation-specific analysis discussed during the consultation phase
- The future scenario considered how the demand for football is likely to evolve and change between now and 2030, and the effect that this will have on the overall supply and demand. As detailed in paragraph 6.2.4, this future scenario assumes that supply will stay consistent and does not take into consideration any future degradation or improvement of pitch quality or availability, which could be caused by factors such as changes in maintenance, weather patterns, public policy or climate change.

## 12.2 Priorities for investment

The primary concern for this project is the relationship between the demand for, and supply of, football and multi-sport facilities, and identifying geographical areas of greatest need, to support investment decision making and future-focussed facilities planning by governments and local partners.

With a view to supporting the investment decision making process across Northern Ireland,

Scotland and Wales, we have identified the key priorities at a national level that each of the three nations should consider, to help deliver the investment into grassroots facilities:

- There is a need to invest in new AGPs to meet the deficit of supply shown in the report. Currently the latest and most appropriate type of AGP is 3G and this should be the surface of choice until more modern and surfaces are developed and introduced to the mass market. A local needs assessment and consultation exercise should be carried out by each of the nations to define how those AGPs should be split between small sided and full sized pitches and where they are best located
- Where possible, each of the nations should seek to resurface existing sand-based or macadam surfaces as 3G AGPs, to increase the capacity for football and other sports referenced within the report. It is critical, however, that the relevant hockey clubs and the hockey governing bodies in Northern Ireland, Scotland and Wales are consulted with as part of any resurfacing of sand based AGPs. Hockey cannot be played on 3G AGPs due to safety risks and for player experience, and this investment should not have an adverse effect on those that currently use sand based AGPs for hockey, or any other sport that may use these facilities
- Where new AGPs are developed or existing facilities are refurbished, local partners and those responsible for the ongoing operations of the facility should ensure that it's accessible to all user-groups and without access barriers (e.g. costs), with a particular regard for under-represented groups. This might include, but is not limited to, developing a clear set of funding requirements that ensures hire costs are capped for specific user-groups or at certain times of the day to enable participation without barriers
- In addition to developing grass and AGP pitches, a proportion of the investment should go towards the amenities and secondary facilities that support the use of pitches and improve the experience of players. Funding should seek to invest in and develop welcoming and high-quality destinations that can be used and accessed by male and female players, those with disabilities and the overall wider community
- Investment should be used to improve the quality of existing grass pitches, both through improving the existing drainage and pitch infrastructure, as well as improving maintenance procedures and materials
- Where there is a deficit of grass pitch provision that can't be met by improving existing grass pitches, investment into new grass pitches should be explored, with investment decisions taking into consideration the balance between lower maintenance costs and lower capacity for year-round use. External factors such any requirement for planning permission, land costs and local need should also be considered.

## 12.3 Next steps

In order to deliver effectively against these key priorities, we encourage that the following steps are taken by stakeholders and government:

- In all cases, this piece of work provides a national picture of the areas of greatest need and therefore further local analysis and consultation is required, undertaken in partnership with Sport Northern Ireland, Sportscotland, Sport Wales and the IFA, Scottish FA and the FAW to identify the specific investment projects that will have the greatest impact for local

communities and players of all ages

- It will be necessary to engage with the governing bodies and associations responsible for the other sports that have been considered within the multi-sport demand analysis but have not been consulted with as part of this project mainly due to timing constraints. This will ensure that future investment plans and strategies are aligned and consistent across the sport and physical activity sector, ultimately ensuring the most coordinated approach
- Revisit the analysis in 2025, to understand how the supply baseline has changed and to measure how successful the IFA, Scottish FA, the FAW and key partners has been in contributing to increase football participation, as this will have a significant impact on the long-term supply and demand picture for grassroots facilities.

# 13 Appendices

## 13.1 Appendix A: Consultee list

We would like to thank the following organisations and stakeholders, who were consulted with as part of this project.

**Table A.1: Consultee list**

| Organisation | Name | Role |
|---|---|---|
| Sport NI | Richard Archibald | Director Of Sport |
| Sport NI | Aaron McGrady | Infrastructure Manager |
| Northern Ireland Government | Shirley Chambers | Head Of Soccer |
| Northern Ireland Government | Kathryn Hill | Head Of Business Planning & Corporate Governance |
| Northern Ireland Government | Karen McFarland | Councils Representative |
| Northern Ireland Government | Patricia Allen | Councils Representative |
| Northern Ireland Government | Wendy McCullough | Councils Representative |
| Northern Ireland Government | Tony Murphy | Head Sport Branch For Communities |
| Irish FA | Patrick Nelson | Chief Executive Officer |
| Irish FA | Alfie Wylie | Head of Performance |
| Irish FA | Sean Murphy | Chief Operating Officer |
| Irish FA | Leigh Sillery | Head of Football Regulation |
| Irish FA | Leanne McCready | Facilities Compliance and Development Manager |
| DCMS | Michael Livingston | Deputy Director Major Sport Events |
| DCMS | James Wurr | Head of Sports Participation |
| DCMS | Matthew Scott-Clark | Economic Advisor for Sport, Major Sporting Events, Gambling & Lotteries and Ceremonies |
| DCMS | Chris Gallagher | Head of the Multi-Sport Grassroots Facilities Programme Management Office |
| DCMS | Rachel Pinfield | Head of Multi-Sport Grassroots Facilities |

| Organisation | Name | Role |
|---|---|---|
| Sport Scotland | Mark Cowan | Head Of Facilities |
| Scottish Government | Duncan Mackay | Strategic Football Lead, Active Sport Division |
| Scottish FA | Danny Bisland | Public Affairs Strategic Lead |
| Scottish FA | Cameron Watt | Football Facilities Manager |
| DCMS | Michael Livingston | Deputy Director Major Sport Events |
| DCMS | James Wurr | Head of Sports Participation |
| DCMS | Matthew Scott-Clark | Economic Advisor for Sport, Major Sporting Events, Gambling & Lotteries and Ceremonials |
| DCMS | Chris Gallagher | Head of Multi-Sport Grassroots Facilities Programme Management Officer |
| DCMS | Rachel Pinfield | Head of Multi-Sport Grassroots Facilities |
| Sport Wales | Brian Davis | Chief Executive Officer |
| Welsh Government | Steffan Roberts | Deputy Director for Culture, Sport and Tourism |
| Welsh Government | Sharon Davies | Head Of Education |
| Welsh FA | Alan Hamer | Head of Special Projects |
| Welsh FA | Daniel Jose | Special Projects Manager and Senior Team Liaison Officer |
| Welsh FA | Noel Mooney | Chief Executive Officer |
| Welsh FA | Aled Lewis | Head Of Football Development |
| Welsh FA | Sara Green | Principal Consultant/Director |
| DCMS | Michael Livingston | Deputy Director Major Sport Events |
| DCMS | James Wurr | Head of Sports Participation |
| DCMS | Matthew Scott-Clark | Economic Advisor for Sport, Major Sporting Events, Gambling & Lotteries and Ceremonials |
| DCMS | Chris Gallagher | Head of the Multi-Sport Grassroots Facilities Programme Management Office |

| Organisation | Name | Role |
|---|---|---|
| DCMS | Rachel Pinfield | Head of Multi-Sport Grassroots Facilities |

## 13.2 Appendix B: The determinants of demand

This section provides further depth to section 5 of this report, focussing on the determinants of demand and how this could and should influence how money is invested into sports facilities. It is generally accepted that there are four determinants of demand, these are:

- The price of a commodity
- The income of potential users
- The availability and price of alternatives
- The tastes and preferences of consumers.

It is worth considering each of these briefly in turn in the context of football.

### 13.2.1 Price

The direct price of football is the amount paid in the form of admission charges by 'pay and play' customers and the cost of club memberships for regular players. Measuring demand for football is complicated by the fact that three costs are often not accounted for when reviewing participation, namely the "composite" cost of all facets of playing football; the time cost of taking part; and the cost of "entry" to the football market.

The direct price of football is often a relatively small component of the cost of playing, which may also include the cost of travel, parking and secondary expenditure on food and drink. It is the presence of these indirect costs in addition to the direct cost of participation that leads to the description of football having a "composite" cost. It is often found in sport and leisure that indirect costs considerably outweigh the direct costs of participation. Often the financial cost is a relatively minor barrier to taking part in football and the biggest barrier is more likely to be a time constraint.

In addition, certain aspects of taking part in sport and active recreation require considerable investment in specialist footwear, clothing, and equipment. Football is not exempt from these expenses, particularly at more serious levels of the sport.

### 13.2.2 Income

The level of income determines how much discretionary income an individual enjoys, which in turn determines the price that individuals are prepared to pay for sport and leisure opportunities. For those on lower incomes, expenditure on playing football costs the same in absolute terms as those on higher incomes, but in relative terms it consumes a greater proportion of their discretionary income. Thus, it is not surprising that for most cultural pursuits, those on lower incomes tend to have lower participation rates than those on higher incomes.

As people's incomes increase, particularly those who are hourly paid or who have overtime opportunities, the 'cost' of leisure time increases as people trade off the opportunity to earn extra money against leisure time. Experience in the UK indicates that when presented with the opportunity to earn more money by working longer hours or doing overtime, generally people have been prepared to sacrifice leisure time in return for higher incomes. Not only does this phenomenon restrict the time available for leisure, it also establishes an 'opportunity cost' for leisure time. Thus, the cost of playing football is not just for match fees and indirect costs, it also includes the cost of

wages forgone as a result of deciding to use time for football rather than working.

### 13.2.3 The availability and price of alternatives

The market for leisure time and leisure expenditure is highly competitive. In sport and active recreation there are many competing products for people's time and money. Football is one of the more popular sports among adults and children, but the proportion of people who participate are a minority of the overall population, notably amongst adults. Within sport and active recreation, there appears to have been a post-pandemic shift towards solo outdoor activities such as walking, cycling, and running and a shift away from indoor sports and highly organised activities such as team sports.

Unless products such as football compete by continually adapting their offerings and taking a more customer focused approach, then it is inevitable that stagnation and decline will follow at the hands of more dynamic products. For the proposed DCMS investment in grassroots football there is the twin challenge of retaining existing players whilst simultaneously attracting new players, notably those who were previously inactive.

### 13.2.4 The tastes and preferences of consumers

Tastes, preferences, and fashions are perhaps the most complex determinants of demand to analyse and understand. The football industry has responded to the challenges of market segmentation by creating new products such as small-sided games, opportunities for women and girls, opportunities for those with disabilities, commercial leagues, walking football, and AGPs. The complexity of the influences on consumers' tastes and preferences in determining demand for leisure goods and services is shown in Table B.1.

**Table B.1: Factors determining peoples' tastes and preferences**

| Personal | Social & Circumstantial | Opportunity Factors |
|---|---|---|
| Age | Occupation | Resources available |
| Gender | Disposable income | Awareness |
| Dependents and ages | Car ownership / mobility | Access and location |
| Personal obligations | Time available | Choice of activity |
| Attitudes and motivation | Friends and peer group | Transport |
| Interests / preoccupations | Social roles and contacts | Costs before, during, after |
| Skills and ability, physical, social and intellectual | Environment and mass leisure factors | Management: policy and support |
| Culture born into | Education factors | Marketing / programming |
| Upbringing / background | Cultural factors | Political policies |

In the case of football, there is evidence to illustrate that all three of the groups of factors in Table B.1 have an influence on participation, for example:

- Men are more likely to play than women (Personal category)
- People in education are more likely to play than people in full time employment occupations (Social and Circumstantial category)
- People who have access to conveniently located facilities (supply) are more likely to play than people from areas with relatively low levels of supply (Opportunity Factors category).

In the leisure industry it is widely held that of the four determinants of demand, the two most influential factors are consumers' tastes and preferences and the availability and price of substitutes. In the context of increasing the demand for football, we can put these two factors together to pose the question: 'How can we persuade people to value playing football more than they value the leisure activities in which they currently engage?

# 13.3 Appendix C: The determinants of supply

## 13.3.1 The price of a commodity

Price influences the chances of profitability for entrepreneurs and has a significant impact on cost for public and voluntary sector provision. It is assumed that the reason why people engage in particular business enterprises is to maximise their profits. Thus, if the price paid for playing football and other pitch sports is attractive, suppliers will be attracted to the market. We can modify this assumption to public sector provision of sports pitches by saying that pitches are provided to deliver social or welfare benefits and that usage fees are a contribution towards some or all of the cost of provision. The justification for subsidising the cost of football is the claimed resultant social benefits such as physical and mental health benefits, which would otherwise not occur because of 'market failure'.

## 13.3.2 The costs of provision

The cost of providing football in both capital and revenue terms is expensive compared with other forms of active recreation such as walking or using parks. If this cost is not recoverable either via a subsidy or charging subsequent users of a pitch, then there is no incentive to 'produce' more opportunities or supply of pitches. The average cost of a brand-new full size 3G playing pitch is around £600k, and it will need to be replaced every ten years. To enable replacement, the business model is to create a 'sinking fund' to ringfence the investment needed to keep a pitch usable. Sinking funds can be viewed as an expense of sustainable operation or the amount of surplus required for long term survival. The initial capital costs and the ongoing running costs plus sinking fund requirements, require sites to generate a high volume of income, which can only be achieved through the prices charged and the amount of time a facility is available for use. The importance of availability is in turn reflected in the need for floodlighting to extend the time facilities can be kept open to generate income.

## 13.3.3 Abnormal political influences

Government, local authority or indeed any other agency intervention in the market can affect supply. In the case of football, the current Prime Minister's objective that all people should have access to a high-quality pitch, or Government targets to increase physical activity levels are positive examples of how abnormal political influence might stimulate the supply of football opportunities.

## 13.3.4 The tastes and preferences of suppliers

Finally, in the same way that consumers have tastes and preferences, so do suppliers. Thus, to increase supply, providers of sports pitches need to be favourably disposed towards doing so. Factors likely to have a positive influence on pitch providers' propensity to supply are trading conditions in which the selling price is higher than the cost and there are good long term prospects for an acceptable return on investment.

Having provided a brief overview of what supply is, how it can be measured, and its main determinants, we now proceed to putting the theory into practice by looking at the balance of demand and supply for football pitches in Northern Ireland, Scotland and Wales.

# 13.4 Appendix D: Supply assumptions and exclusions

## 13.4.1 Supply exclusions

As mentioned in the main body of the report, the project team individually audited 5,188 sites, including 5,673 grass pitches and 1,935 AGPs across the three countries. Of those figures, a total of 2,589 sites, 3,674 grass pitches, and 1,020 AGPs were included in modelling and analysis.

The assumptions and exclusions made as part of the analysis and modelling are detailed in Table D.1 below.

**Table D.1: Supply assumptions and exclusions**

| | | |
|---|---|---|
| | Facilities identified as 'private use', were excluded. | 587 sites |
| | Facilities that were 'unavailable for community use' were excluded | 683 sites |
| | Any sites identified as 'primary schools' were excluded. This is due to the operational model of primary school facilities, which largely does not allow for community use outside of school hours. Primary school facilities are also unlikely to be maintained sufficiently for community use, other than simple mowing and marking. | 1270 sites |
| | Any sites identified as 'under construction' or 'closed' were excluded. | 161 sites (including 1 under construction) |
| | Sites that on further inspection appeared not to exist, were removed from the audit. | 134 sites |
| | Any facilities where their pitches were unmarked (and therefore not suitable for football) were removed from the audit. | 383 sites |
| | GAA clubs (and their accompanying facilities) were excluded (Northern Ireland only) as it is likely they use their AGPs solely for Gaelic Football, and have no/limited provision for traditional football despite being a 3G surface. | 147 sites |
| Surface type | Sand or water based AGP pitches were not included in the audit as they are not fit for purpose for football usage. While it is expected that some sand-based provision will be used to service demand, especially informal, it is preferable that football is played on 3G, for reasons of safety and customer experience, and therefore the modelling only includes 3G provision. | 347 pitches |

## 13.4.2 Carrying capacity

As seen in the main body of the report, we have made a series of assumptions relating to carrying capacity for supply modelling. These are summarised in Table D.2 and outlined in more detail in sections below.

**Table D.2: Assumptions summary**

| Pitch type and size | Carrying capacity (players) | Availability (hours per week) | Availability (weeks per year) | Total availability (hours per year) |
|---|---|---|---|---|
| Grass 11v11 (full sized) | 26 | 2.74 | 38 | 2707.12 |
| Grass 7v7 | 16 | 2.74 | 38 | 1665.92 |
| Grass 5v5 | 12 | 2.74 | 38 | 1249.44 |
| AGP full sized | 26 | 16 | 50 | 20800 |
| AGP full sized (Floodlit) | 26 | 34 | 50 | 44200 |
| AGP small sized | 12 | 34 | 50 | 20400 |

### 13.4.3 Capacity by players

For pitch carrying capacity, we have assumed a pitch will be used by different numbers of people based on its size:

- 26 for an adult full-sized 11v11 pitch – this is based on two teams of 11 per side (22 people) plus a minimum of two additional substitute players per team (4 people)
- 16 for a youth 7v7 sized pitch – based on two teams of 7 per side plus a minimum of one substitute player per team (2 people)
- 12 for a junior 5v5 sized pitch – based on two teams of 5 per side plus a minimum of one substitute player per team (2 people).

### 13.4.4 Weekly availability for usage

**For grass pitches**

Table D.3 below highlights the difference in football grass pitch capacity based on their size and quality (consistent with Sport England 2013 guidance[5]).

**Table D.3: Football grass pitch capacity based on quality and pitch type**

| Pitch quality rating | Adult football pitch | Youth football pitch | Mini soccer pitch |
|---|---|---|---|
| | Number of match equivalent sessions a week | | |
| Good | 3 | 4 | 6 |
| Standard | 2 | 2 | 4 |
| Poor | 1 | 1 | 2 |

- A good quality adult grass pitch can be used, on average, 3 times a week during a 40-week season
- A standard (average quality) adult grass pitch can be used, on average, 2 times a week

[5] Sport England Playing Pitch Strategy Guidance (2013) and accompanying FA Appendix 2 (2013). Retrieved from https://www.sportengland.org/how-we-can-help/facilities-and-planning/planning-for-sport?section=assessing_needs_and_playing_pitch_strategy_guidance

during a 40-week season

- A poor-quality adult grass pitch can be used on average 1 time per week during a 40-week season
- Based on FA rules and guidance[6], each of these pitch sessions will take on average 2 hours (the time required on average to play 1 x full adult match, including two halves of 45 mins, and allowing for half-time). Junior and youth pitches would take less time for a full match (U7 & U8 age groups 40 mins max duration for a match, U9-U12 60 mins, U13 & U14 70 mins, U15 & U16 80 mins, U17+ 45mins).

Extensive research (Football Foundation, 2018-19[7]) evidenced by hundreds of local authority Playing Pitch Strategies and Local Football Facility Plans, states that 63% of all grass pitches are deemed to be of 'poor' quality and therefore unable to withstand the amount of demand of a 'standard' quality pitch. In addition, data suggests only 9% of all grass pitches are floodlit[8], and therefore considered appropriate or used for mid-week training demand during a normal football season.

For this project we have therefore applied a 'poor' pitch quality rating to 63% of grass pitches, and a 'standard' pitch quality rating to the remaining 37% of grass pitches. Therefore, all grass pitches have an assumed carrying capacity/availability of 2.74 hours per week (63% of pitches being available for 1 match per week (poor) + 37% being available for 2 matches per week (standard) x 2 hours a session).

**For AGPs**

We have assumed a floodlit 3G AGP is available for the community for an average of 34 hours per week during the football season (over weekdays and weekends). This is based on the overall peak period being Monday to Thursday 5pm – 9pm; Friday 5pm – 7pm; Saturday and Sunday 9am – 5pm (Sport England, 2013[9]).
A non-floodlit 3G AGP available for community use would only be available for 16 hours per week during the football season. This is based on Saturday and Sunday 9am – 5pm (as above).

### 13.4.5 Annual availability for usage

**For grass pitches**

The length of football season varies depending on the nation, county association and competition type (adult or junior). There are also variations in league start and finish dates depending on which

[6] Football Association. Standard code of rules for youth competitions. Retrieved from https://www.thefa.com/~/media/Files/TheFAPortal/governance-docs/rules-of-the-association/standard-code-of-rules-for-youth-competitions.ashx#:~:text=For%20Youth%20football%20%E2%80%93%20The%20duration,18%2C%2045%20minutes%20each%20half

[7] Football Foundation. Local Facility Football Plans. Manchester Report Example. Retrieved from https://localplans.footballfoundation.org.uk/local-authorities-index/manchester/manchester-local-football-facility-plan/#tab-section-improved-grass-pitches

[8] 4GLOBAL Northern Ireland grass pitch supply audit data collected for the purpose of this report

[9] Sport England Playing Pitch Strategy Guidance (2013) and accompanying FA Appendix 2 (2013). Retrieved from https://www.sportengland.org/how-we-can-help/facilities-and-planning/planning-for-sport?section=assessing_needs_and_playing_pitch_strategy_guidance

country the league is based within; however, the majority of leagues take place between August and April (see Table D.4 below).

For the purpose of this research, we have assumed all grass pitches are available for 38 weeks per year. This is the median for an adult season length league across England, Northern Ireland, Scotland and Wales.

**Table D.4: Adult league length by geographical area**

| Area | Adult League | Junior League |
|---|---|---|
| Scotland | Scotland League one – 2021-22 season: 31st July 2021 - 30th April 2022 (40 weeks) https://spfl.co.uk/league/league-one/results?page=17# | Scotland Junior League: 17th July 2021 – 30th April 2022 (41 weeks) https://www.scottishjuniorfa.com/east-region/fixtures/ |
| N. Ireland | NI Premier intermediate league: 17th August 2021 – 7th May 2022 (37 weeks) https://www.nifootballleague.com/premier-intermediate/2021-2022/fixtures/ | Junior – Academy League U16: 14th August 2021 – 7th May 2022 (37 weeks) https://www.nifootballleague.com/academy-league-u16/2021-2022/fixtures/ |
| Wales | Cymru North adult league – 24th July 2021 – 23rd April 2022 (39 weeks) https://www.cymrufootball.wales/cymru-north/fixtures/ | Cymru Junior Development League North: 1st August 2021 – 13th April 2022 (37 weeks) https://www.allwalessport.co.uk/youth-football.aspx?cid=10599 |
| England | Manchester Football League (Premier & Div 1, 2, 3, 4): 7th August 2021 – 17th May 2022 (40 weeks) http://www.manchesterleague.co.uk/match-info/fixtures/2022-05 Note: Manchester leagues taken as some of the largest leagues in England. | East Manchester Junior Football League: 12th September 2021 – 5th June 2022 (38 weeks) https://fulltime.thefa.com/fixtures.html?league=8335132&selectedSeason=789420766&selectedDivision=454793085&selectedCompetition=0&selectedFixtureGroupKey=1_234527330 |

**For AGPs**

We have assumed AGP pitches are available all year round, apart from various closures due to maintenance or over public holiday periods. Therefore, have applied 50 weeks availability to all AGP pitches.

## 13.5 Appendix E: Northern Ireland demand analysis

The following section provides further detail on the demand for football across Northern Ireland, which was not included in the main report due to space constraints.

Northern Ireland's 4-weekly adult participation rate in football has been measured for the period 2015/16 to 2019/20. Regular adult participation in Northern Ireland has been remarkably static at 6% between 2015/16 and 2019/20.

The 4-weekly participation rate data in Northern Ireland is not broken down by demographic variables other than gender, which consistently shows a score of 10% to 13% for males and 0% for females. Closer inspection of the data reveals that a score of '0%' actually means above zero but less than 0.5%.

Participation declines with age as can be seen in the two broad age categories of 16-44 (15%) and 45+ (2%). People have less ability to maintain such high levels of physically intense sport. Given the identical participation rates in Northern Ireland and Scotland at national level, we can assume that participation by age follows a similar pattern and use the same age categories and participation rates as we did in Scotland, to model demand at local authority level in Northern Ireland.

When the headline participation rate is broken down by deciles of deprivation, we find that those in the most deprived areas and the least deprived areas have below average levels of participation with scores of 9% and 7% respectively. Those in the remaining eight deciles have average or above levels of participation. These findings reinforce the notion that the familiar social gradient often seen in sport participation is not pronounced in Northern Ireland.

There is no data in the CHS reported on the frequency, duration and intensity with which adults in Northern Ireland play football, and thus the high-level demand assessment is limited to an estimate of the absolute number of adults who play at least once every four weeks. Playing occurs in many forms ranging from leagues that fall within the control of the Irish Football Association (IFA) to informal kickabouts. As with the other nations in the study we have examined IFA records to estimate the level of demand that can be said to be formal demand.

To put the demand for playing football in Northern Ireland into context, it is worth examining the broader picture of participation rates across all forms of sport and physical activity measured on the CHS.

Just under half (49%) of adults in Northern Ireland take part in recreational walking, which is by far the most popular physical activity, with Keepfit / Aerobics / Yoga and Dance exercise combined the next most popular at 12%. Football at 6% is the seventh most popular sport and by some margin the most popular pitch sport. The relative popularity of the other pitch sports will be important considerations for implementing the 30% multi-use requirement specified for DCMS funding.

### 13.5.1 Modelling adult demand for AGPs and grass pitches in Northern Ireland

Figure 2 showed that in Northern Ireland age is a demographic variable with considerable variation in participation as it is in Scotland. The greatest variation in football participation occurs in gender (men 17% versus women 1%). However, there is little variation in the proportion of men and women in the population relative to age and therefore we consider age to be the most suitable variable by which to model demand. In the absence of the 4-weekly participation rate in football being reported by demographic variables, we assume that as the 4-weekly participation rate in Northern Ireland is

identical to that in Scotland (both 6%). There is merit in applying the age group participation rates from Scotland to the mid-year population estimates in Northern Ireland to derive participation levels and rates at local authority level. Adopting this approach, it is possible to produce an analysis of demand at local authority level for each of Northern Ireland's 11 local authorities as shown in Table E.1.

**Table E.1: Adult demand for football in Northern Ireland by local authority area based on age**

| Location | Age Bandings | | | | Participation Measures | |
|---|---|---|---|---|---|---|
| | 16 34 | 35 59 | 60+ | All | Participation Rate % | % of Players |
| Antrim and Newtownabbey | 4,606 | 2,415 | 327 | 7,348 | 6.5% | 7.5% |
| Ards and North Down | 4,593 | 2,677 | 457 | 7,727 | 5.9% | 7.9% |
| Armagh City, Banbridge and Craigavon | 7,016 | 3,607 | 461 | 11,084 | 6.6% | 11.3% |
| Belfast | 13,562 | 5,382 | 698 | 19,643 | 7.2% | 20.0% |
| Causeway Coast and Glens | 4,560 | 2,390 | 360 | 7,310 | 6.3% | 7.5% |
| Derry City and Strabane | 5,101 | 2,510 | 317 | 7,929 | 6.7% | 8.1% |
| Fermanagh and Omagh | 3,577 | 1,938 | 276 | 5,791 | 6.3% | 5.9% |
| Lisburn and Castlereagh | 4,554 | 2,496 | 344 | 7,395 | 6.3% | 7.5% |
| Mid and East Antrim | 4,260 | 2,322 | 358 | 6,939 | 6.2% | 7.1% |
| Mid Ulster | 4,951 | 2,457 | 296 | 7,704 | 6.7% | 7.9% |
| Newry, Mourne and Down | 5,856 | 2,972 | 394 | 9,222 | 6.6% | 9.4% |
| Northern Ireland (TOTAL) | 62,637 | 31,166 | 4,290 | 98,092 | 6.5% | 100% |

When modelling football participation by age, the total number of adult players is 98,092, which is marginally above the national figure of 96,000 reported. This minor anomaly is caused by participation rates in the various age categories being rounded to integers. Table E.1 shows a national level participation rate of 6.5% derived from our modelling based on age, which is consistent with the figure of 6.4% reported in the CHS data.

As was found in Scotland, the local authority areas that include major cities have participation rates above the national average. These are Belfast and Derry City & Strabane with participation rates of 7.2% and 6.7% respectively. Belfast is distinguished by being home to 20% of all adult football players in Northern Ireland. These data provide a reasonable basis for comparing demand with supply at local authority level to identify potential gaps in provision in high level terms.

### 13.5.2 Children's demand

In Northern Ireland there is data available concerned with the participation of children and young people. The Department for Communities (DfC) commissions the Young Persons' Behaviour and Attitudes Survey (YPBAS), which interviews a sample of school children in Years 8-12. The most recent publicly available data are from 2019 and show that 60% of respondents played football in the last 12 months, with boys (76%) having double the participation rate of girls (38%). These figures relate to any participation in any context with unspecified frequencies. They are helpful in diagnosing that football is the most popular sport amongst children of this age with a participation rate more than double the second most popular pitch sport, Gaelic Football (29%).

More detailed information is contained within the Children's Sport Participation and Physical Activity Survey (CSPPA) conducted in 2018. This survey focuses on children and young people aged 10-18 and makes the distinction between sport played in school and community sport. The headline figures for the six most popular pitch sports played at least once a year in a community setting are shown in Table E.2.

**Table E.2: Most popular sports played in the community by C&YP aged 10-18**

| Sport | All | Boys | Girls |
|---|---|---|---|
| Soccer | 22% | 34% | 10% |
| Gaelic Football | 11% | 13% | 9% |
| Hockey | 10% | 3% | 10% |
| Rugby | 9% | 14% | 4% |
| Hurling | 4% | 7% | 2% |
| Camogie | 3% | 1% | 5% |

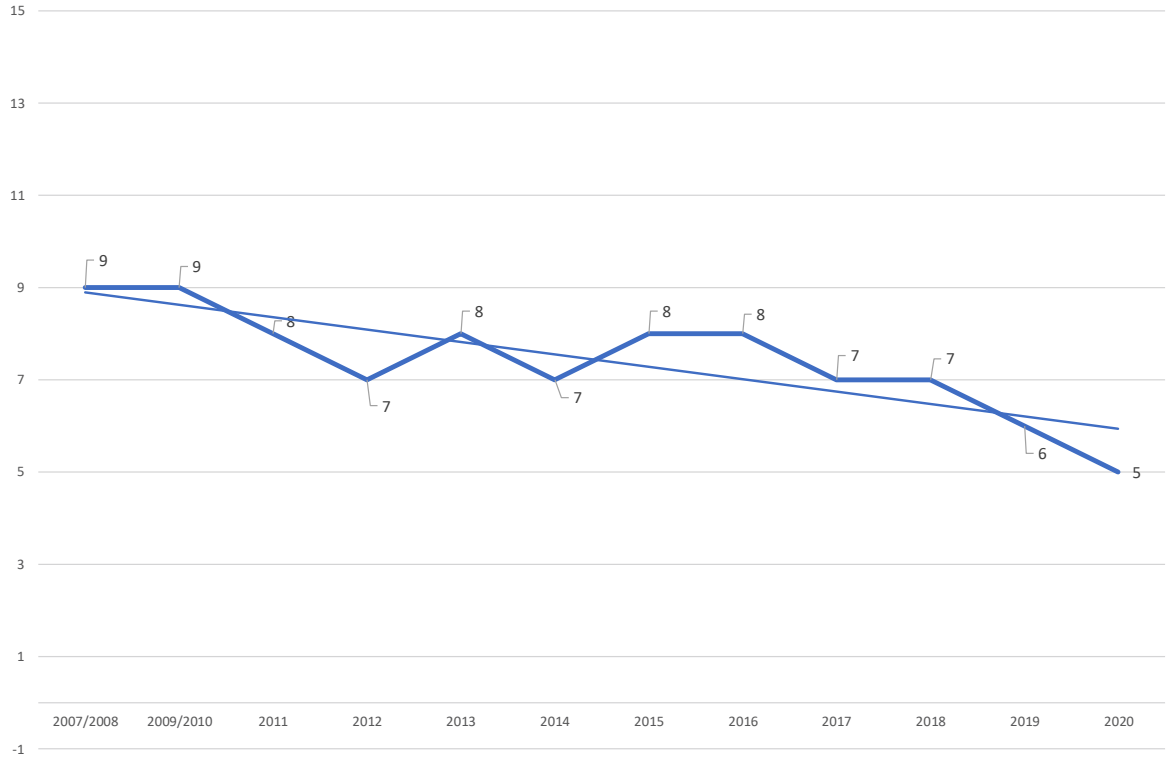
The CSPPA data has some limitations that prevent building a picture of young people's demand, similar to that for adults. First, the demand by young people aged 16-18 will be already picked up in the CHS and it is important to avoid double counting. Second, the regularity of participation is not comparable (4-weekly versus 12-monthly participation rates. Third, there is no data for young people under 10 years of age. Fourth, it cannot be assumed that there is any demand for children aged 0-4 (that is, pre-school).

The pragmatic solution is to focus solely on young people aged 5-15 years, and to assume that the participation rate of 22% is an acceptable proxy measure.

## 13.6 Appendix F: Scotland demand analysis

Figure 1 provides an overview of Scotland's adult participation rate in football over the period 2007/8 to 2019. The 2020 data point is shown for transparency purposes but is discounted on the grounds of the limitations discussed above.

**Figure F.1: The headline football participation rate amongst adults in Scotland**




Since 2007/8 Scotland's adult participation rate has declined progressively from 9% to 6% in 2019. The dotted trend line shows a downward trend although it should be noted that at 6%, football is Scotland's most popular team sport. Furthermore, the sports and activities that have higher participation rates such as swimming, gym, keep fit, running and cycling are all sports or activities that can be done on a solo basis (see Figure 8.5).

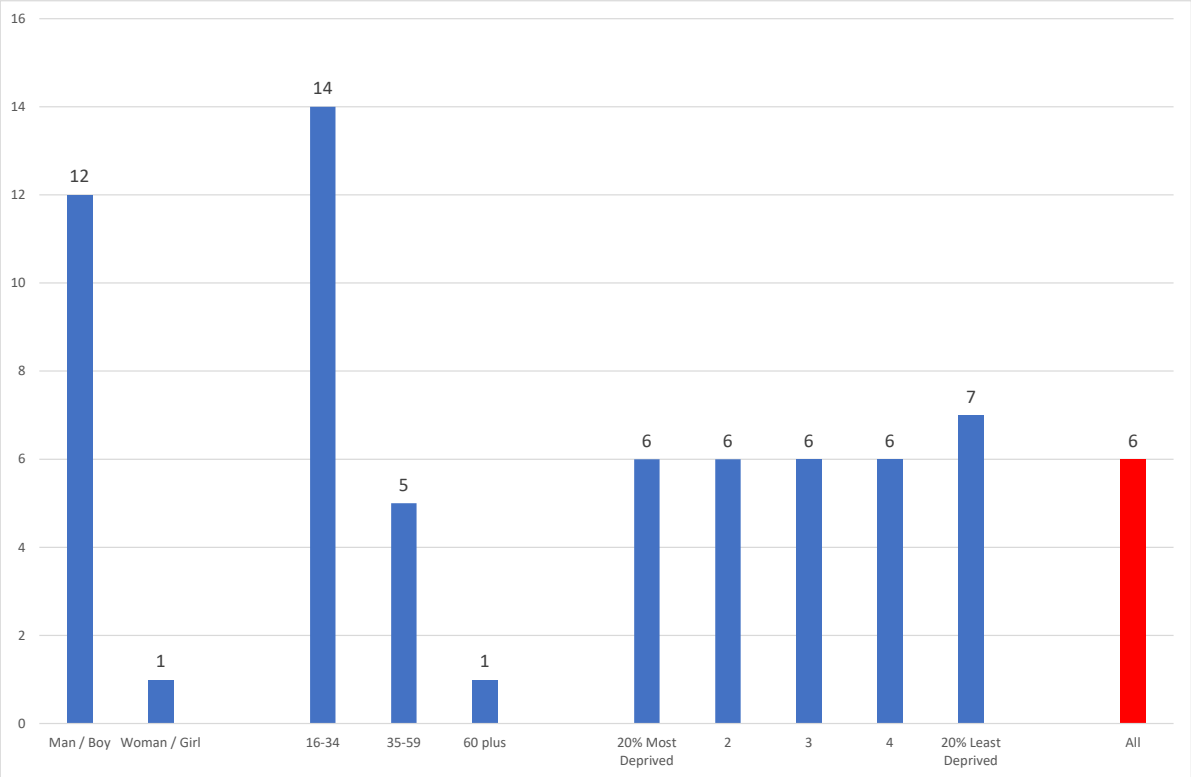
If the data are cross tabulated by the reported demographic variables, some helpful patterns emerge about the broad nature of adult football participation. Men (12%) have a much higher participation rate than women (1%), which in turn helps to frame the argument that much of any future growth is likely to come in the form of demand by women and girls. In round numbers, the total of adult males playing football in Scotland is 250,000 and there are approximately 23,000 women.

Football is largely played at vigorous to moderate levels of physical activity intensity. It is perhaps therefore of no surprise that participation declines with age as people have less ability to maintain such high levels of physically intense sport. Consequently, relatively young adults aged 16-34 have a participation rate of 14%, which is more than twice the national average of 6%. By contrast those aged 35-59 have a below average participation rate (5%) and for those aged 60+ he corresponding statistic is 1%. This is a very important finding because when we estimate demand at local authority level, it is most likely to be the age structure of the population which has the biggest influence on

the level of demand.

Finally, football is a sport that people from all strata of society participate in. When the headline participation rate is broken down by quintiles of deprivation, we find that those in the 20% most deprived areas of Scotland have a participation rate equal to the national average, and those in the 20% least deprived areas have a marginally higher score of 7%. All other quintiles are at the national average of 6%. This finding is unusual as sport tends to demonstrate considerable social gradients, with higher socioeconomic status tending to have higher participation rates than those with lower socioeconomic status. This finding about football in Scotland is positive given the policy context of tackling inequalities in sport.

**Figure F.2: Football participation in Scotland by key demographic variables (12-Monthly)**

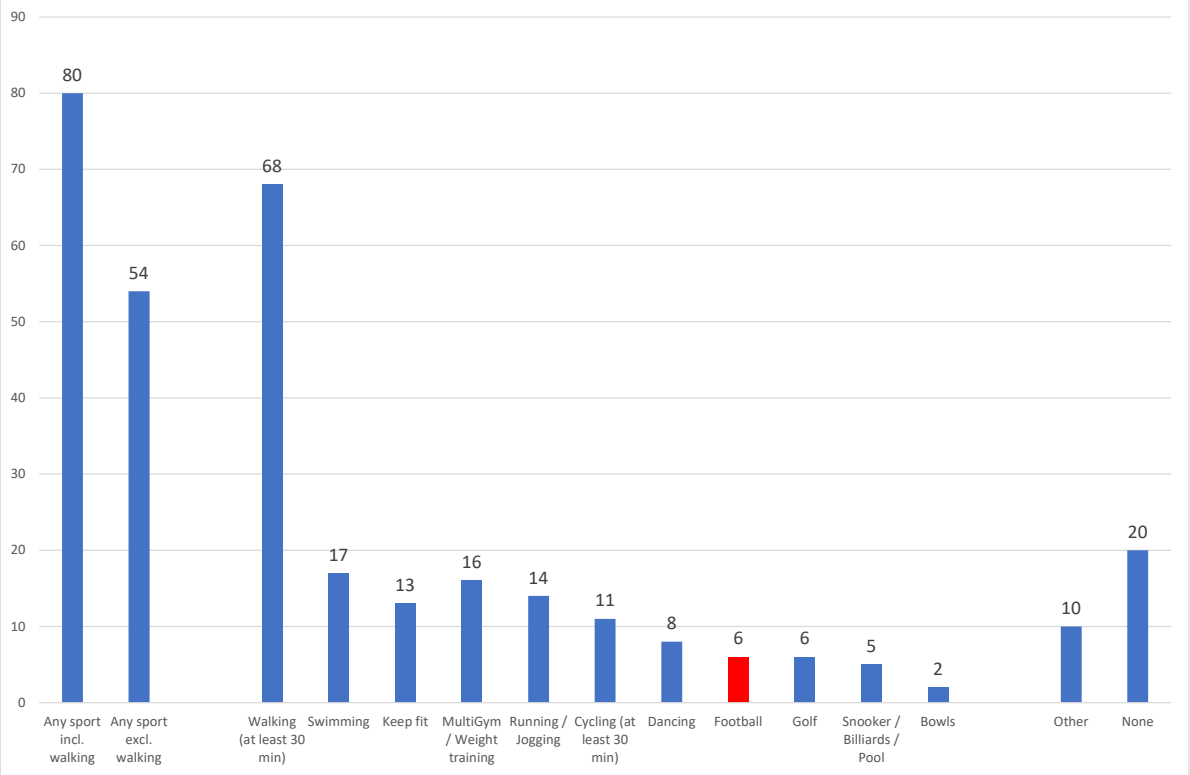



An additional demographic variable in the SHS asks respondents whether they have a physical or mental health condition or illness and the extent to which any such condition or illness limits their participation in sport and physical activity. In the 2019 SHS those adults with no condition or illness had a football participation rate of 8%, whereas for those with a non-limiting and limiting condition had participation rates of 3% and 1% respectively.

There are no data in the SHS reported on the frequency, duration and intensity with which adults in Scotland play football. Thus, the high level demand assessment is limited to an estimate of the absolute number of adults who play at least once every four weeks. Playing will occur in many forms ranging from leagues and competitions that fall within the control of the Scottish Football Association (SFA) to informal kickabouts played in parks by groups of friends. An important development to the analysis then is to examine SFA records to estimate the level of demand that can be said to be formal demand.

To put the demand for playing football in Scotland into context, it is worth examining the broader picture of participation rates across all forms of sport and physical activity measured on the SHS. Figure F.3 provides an analysis of all the sports and activities reported in 2019

**Figure F.3: Participation rates across all sports and activities reported in 2019/20.**




Most adults in Scotland take part in some form of sport and physical activity (including walking) 80% (54% excluding walking). Walking is the most popular activity at 68% and there is a large drop to the next most popular sport, swimming at 17%. Football at 6% is the eighth most popular sport and significantly it is the only 'pitch' sport that is reported on its own. Other pitch sports such as rugby, hockey and cricket are included in the figure of 10% reported as 'other'. As a point of reference, participation in these three sports in England is around 1%.

### 13.6.1 Modelling adult demand for AGPs and grass pitches in Scotland

Figure F.2 showed that age is a demographic variable with considerable variation in participation by age, which in turn forms a useful basis for modelling demand at local authority based on age structure. The greatest variation occurs in gender (men 12% versus women 1%), however, there is little variation in the proportion of men and women in the population relative to age and therefore we consider age to be the most suitable variable by which to model demand. Using the age structures provided in the 2020 mid-year estimates and the participation rate in football for the three age groups reported, it is possible to produce an analysis of demand at local authority level for each of Scotland's 32 local authorities as shown in Table F.1.

**Table F.1: Adult demand for football in Scotland by local authority area based on age**

| Location | Age Bandings | | | | Participation Measures | |
|---|---|---|---|---|---|---|
| | 16 34 | 35 59 | 60+ | All | Participation Rate % | % of Players |
| Aberdeen City | 9,638 | 3,549 | 727 | 13,913 | 7.2% | 5.3% |
| Aberdeenshire | 7,015 | 2,523 | 508 | 10,047 | 4.7% | 3.8% |
| Angus | 3,174 | 1,131 | 227 | 4,532 | 4.7% | 1.7% |
| Argyll and Bute | 2,258 | 802 | 161 | 3,220 | 4.4% | 1.2% |
| City of Edinburgh | 23,750 | 8,730 | 1,790 | 34,271 | 7.6% | 12.9% |
| Clackmannanshire | 1,503 | 538 | 108 | 2,148 | 5.1% | 0.8% |
| Dumfries and Galloway | 3,890 | 1,390 | 278 | 5,558 | 4.4% | 2.1% |
| Dundee City | 6,452 | 2,346 | 476 | 9,274 | 7.4% | 3.5% |
| East Ayrshire | 3,664 | 1,313 | 264 | 5,241 | 5.2% | 2.0% |
| East Dunbartonshire | 2,948 | 1,047 | 209 | 4,204 | 4.7% | 1.6% |
| East Lothian | 3,023 | 1,080 | 218 | 4,321 | 4.9% | 1.6% |
| East Renfrewshire | 2,621 | 918 | 182 | 3,721 | 4.9% | 1.4% |
| Falkirk | 4,866 | 1,757 | 354 | 6,978 | 5.3% | 2.6% |
| Fife | 11,763 | 4,217 | 847 | 16,827 | 5.4% | 6.4% |
| Glasgow City | 29,362 | 10,763 | 2,199 | 42,324 | 7.9% | 16.0% |
| Highland | 6,482 | 2,324 | 468 | 9,274 | 4.7% | 3.5% |
| Inverclyde | 2,302 | 821 | 165 | 3,288 | 5.1% | 1.2% |
| Midlothian | 2,834 | 1,024 | 208 | 4,065 | 5.4% | 1.5% |
| Moray | 2,796 | 1,005 | 201 | 4,002 | 5.0% | 1.5% |
| Na h-Eileanan Siar | 630 | 222 | 44 | 896 | 4.0% | 0.3% |
| North Ayrshire | 3,924 | 1,399 | 278 | 5,600 | 5.0% | 2.1% |
| North Lanarkshire | 10,968 | 3,936 | 792 | 15,696 | 5.6% | 5.9% |
| Orkney Islands | 598 | 217 | 43 | 859 | 4.6% | 0.3% |
| Perth and Kinross | 4,242 | 1,523 | 307 | 6,071 | 4.8% | 2.3% |
| Renfrewshire | 5,855 | 2,115 | 428 | 8,398 | 5.6% | 3.2% |
| Scottish Borders | 2,872 | 1,021 | 204 | 4,097 | 4.2% | 1.5% |
| Shetland Islands | 664 | 237 | 47 | 948 | 5.1% | 0.4% |
| South Ayrshire | 2,994 | 1,069 | 214 | 4,276 | 4.5% | 1.6% |
| South Lanarkshire | 9,527 | 3,430 | 694 | 13,651 | 5.1% | 5.2% |
| Stirling | 3,368 | 1,196 | 239 | 4,804 | 6.1% | 1.8% |
| West Dunbartonshire | 2,797 | 1,008 | 203 | 4,008 | 5.5% | 1.5% |
| West Lothian | 5,763 | 2,074 | 419 | 8,256 | 5.6% | 3.1% |
| **Scotland (TOTAL)** | 184,542 | 66,724 | 13,502 | 264,768 | 5.8% | 100.0% |

When modelling football participation by age, the total number of adult players is 264,768, which is marginally (3%) below the national figure of 273,000 reported below Figure 8.3. This minor anomaly is caused by rounding, as the headline figure of 6% is reported as an integer and could in fact be anywhere between 5.5% and 6.4%. Table F.1 shows a national level participation rate of 5.8% derived from our modelling based on age, which is consistent with the rounded figure of 6% reported in the SHS.

A key finding from the table is that there are five local authority areas that have a participation rate above the national average and that these authorities account for nearly 40% of all adult players as shown in Table F.2.

**Table F.2: Local authorities with above average adult participation rates**

| Location | Age Bandings | | | | Participation Measures | |
|---|---|---|---|---|---|---|
| | 16 34 | 35 59 | 60+ | All | Participation Rate % | % of Players |
| Glasgow City | 29,362 | 10,763 | 2,199 | 42,324 | 7.9% | 16.0% |
| City of Edinburgh | 23,750 | 8,730 | 1,790 | 34,271 | 7.6% | 12.9% |
| Dundee City | 6,452 | 2,346 | 476 | 9,274 | 7.4% | 3.5% |
| Aberdeen City | 9,638 | 3,549 | 727 | 13,913 | 7.2% | 5.3% |
| Stirling | 3,368 | 1,196 | 239 | 4,804 | 6.1% | 1.8% |

The local authorities in Table F.2 represent Scotland's largest cities, which are characterised by having a relatively young population, which in turn is linked to the likelihood of playing football. These data provide a reasonable basis for comparing with supply at local authority level to identify potential gaps in provision at a broad level.

### 13.6.2 Children's demand

The latest publicly available data on children's participation in football in Scotland is dated (see football.doc (live.com)) and more robust data is required. In the absence of more contemporary data, taking proxies from the other nations might have to be the pragmatic solution.

There is also no data available on latent demand for football in Scotland.

## 13.7 Appendix G: Wales demand analysis

The following section provides further detail on the demand for football across Wales, which was not included in the main report due to space constraints.

Regular adult participation in football in Wales has declined from 9% in 2016/17 to 7% in 2019/20. Men (13%) have a much higher participation rate than women (2%) and the apparent recent decline in the participation rate has been driven by both men and women.

The 4-weekly participation rate data in Wales is not broken down by demographic variables other than gender. However, Sport Wales has provided additional analysis by age, of which the data available is shown in Figure G.2.

**Figure G.1: The headline football participation rate amongst adults in Wales**

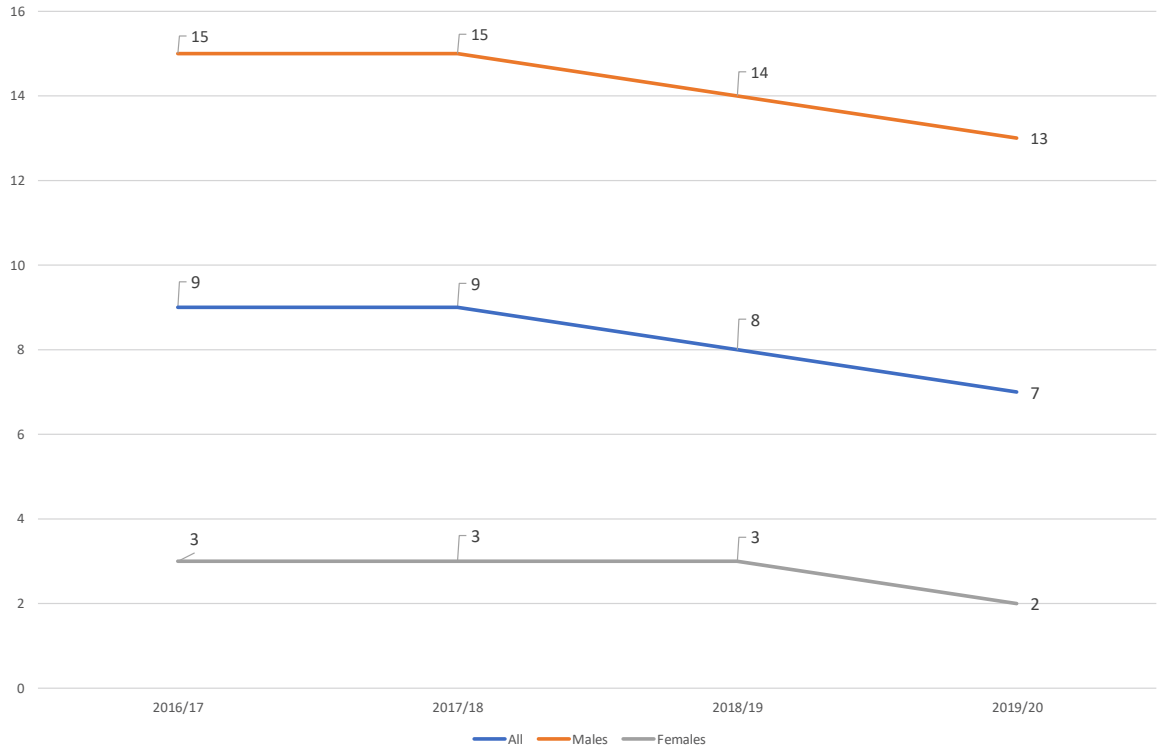
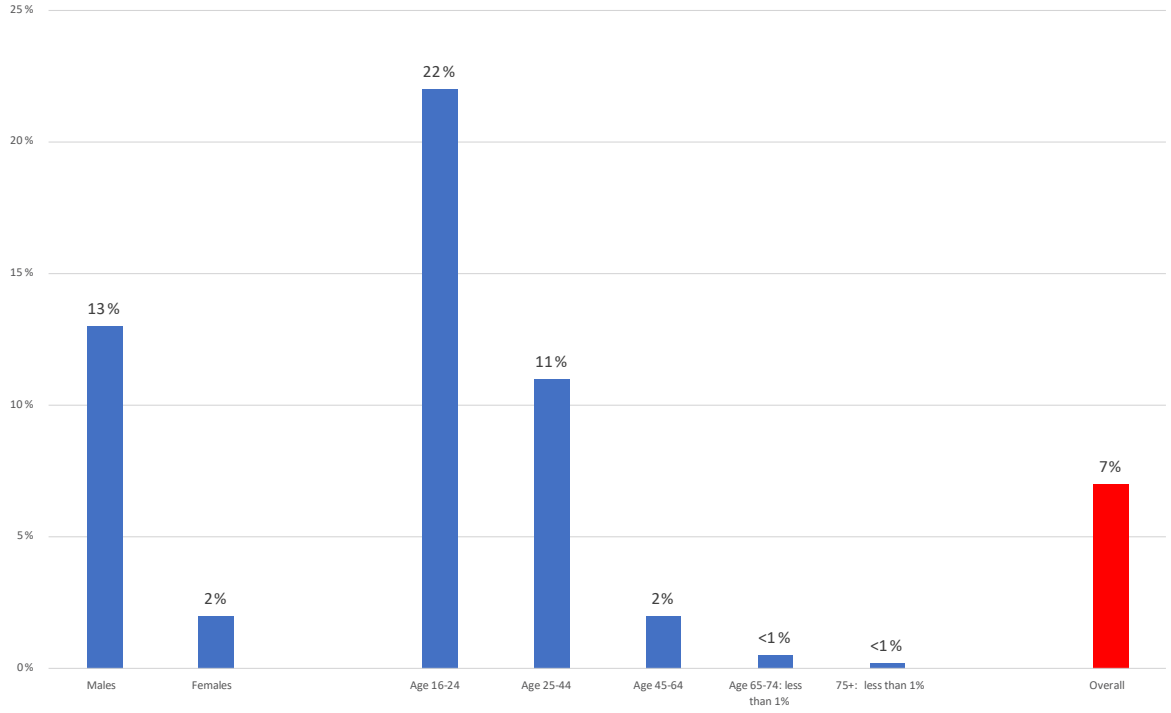


**Figure G.2: Football participation in Wales by key demographic variables (12-Monthly)**




The data in Figure G.2 is consistent with the data in the other nations. Men participate more than women and participation decreases significantly with age.

There is no data in the SALS reported on the frequency, duration and intensity with which adults in Wales play football, and thus the high-level demand assessment is limited to an estimate of the absolute number of adults who play at least once every four weeks.

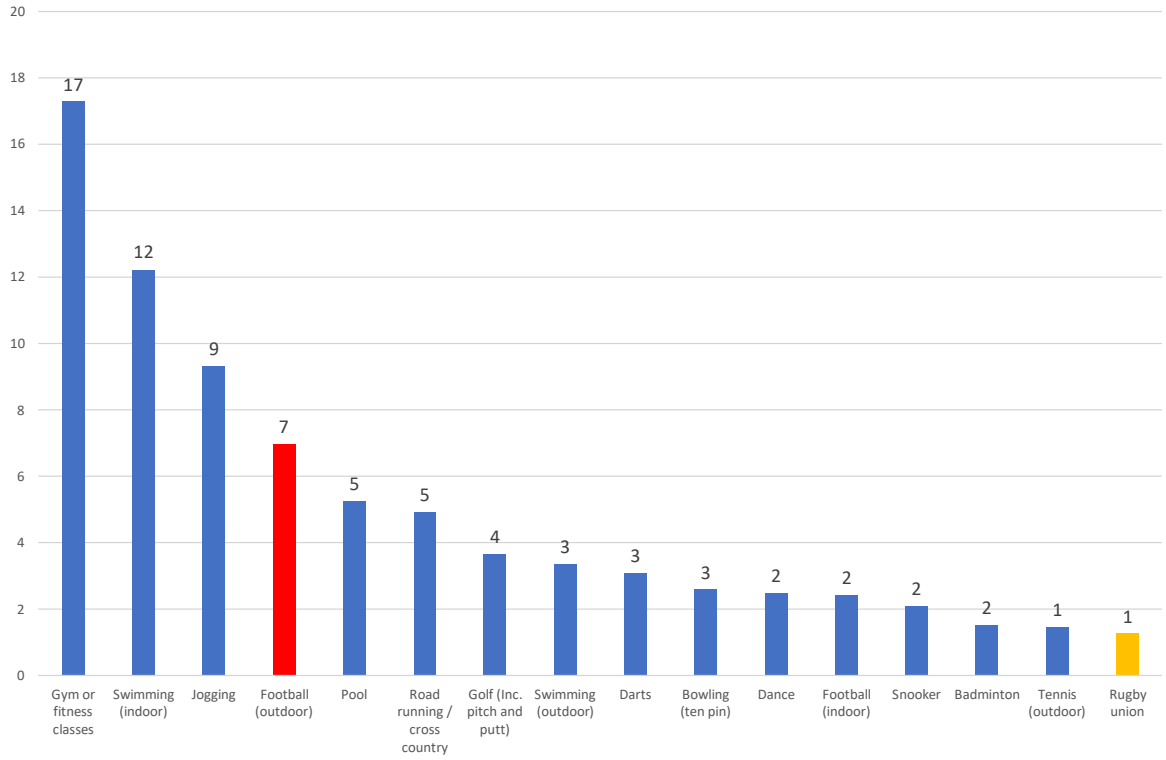
Data from the Football Association of Wales (FAW) shows that there are 35,705 players aged 17+ registered on COMET – an internet-based football competition management system. This finding therefore implies that the FAW's market share of adult demand for football is around 20% of the adult participation base (that is, 35,705/181,000). The 20% of adult players registered on COMET take place in FAW sanctioned leagues and competitions at all levels within the pyramid system.

The remaining 80% of adult players take part in a variety of participation modes such as Sunday League football, commercial provision (e.g., goals); local authority leisure centre provision; and informal games and kickabouts in parks. To be classed as an adult football player in the SALS, respondents are simply required to report that they have played football in any format at least once in the last four weeks.

The relevance of those on the COMET system is that the information helps to refine thinking about the volume of high quality 11-a-side pitches required to satisfy the demand for full sided games. Simply because 7% of all adults in Wales meet the definition of being an adult footballer does not necessarily mean that they require a full-sized pitch on which to play.

To put the demand for playing football in Wales into context, it is worth examining the broader picture of participation rates across all forms of sport and physical activity measured on the SALS. Figure G.3 provides an analysis of all the sports and activities reported in 2019/20.

**Figure G.3: Participation rates across all sports and activities reported in Wales.**




The most popular sport or physical activity amongst adults in Wales, excluding recreational walking, is going to the gym or taking part in fitness classes (17%). Football at 7% is fourth most popular sport and as in the other nations, by some margin the most popular pitch sport. The only other pitch sport that features in Figure G.3 is rugby union (1%).

### 13.7.1 Modelling adult demand for AGPs and grass pitches in Wales

Figure G.2 showed that in Wales age is a demographic variable with considerable differences in the participation rate for football. The greatest variation in football participation occurs in the various age categories with those aged 16-34 having a participation rate of 22%, whereas for those aged 65+ the corresponding statistic is less than 1%. Using the age structures provided in the 2020 mid-year estimates and the participation rate in football for the three age groups reported for Northern Ireland and Scotland, it is possible to produce an analysis of demand at local authority level for each of the 22 Wales Local Authorities as shown in Table G.1.

**Table G.1: Adult demand for football in Wales by local authority area based on age**

| | Age Bandings | | | | Participation Measures | |
|---|---|---|---|---|---|---|
| Location | 16 34 | 35 59 | 60+ | All | Rate % | % of players |
| Blaenau Gwent | 1481 | 1911 | 503 | 3895 | 6.8% | 2.2% |
| Bridgend | 3195 | 4000 | 1049 | 8244 | 6.8% | 4.6% |
| Caerphilly | 3914 | 5013 | 1258 | 10185 | 6.9% | 5.6% |
| Cardiff | 13477 | 11751 | 1968 | 27197 | 9.1% | 15.1% |
| Carmarthenshire | 3779 | 4479 | 1464 | 9722 | 6.3% | 5.4% |
| Ceredigion | 2333 | 1507 | 563 | 4403 | 7.1% | 2.4% |

| Location | Age Bandings | | | | Participation Measures | |
|---|---|---|---|---|---|---|
| | 16 34 | 35 59 | 60+ | All | Rate % | % of players |
| Conwy | 2077 | 2535 | 986 | 5598 | 5.7% | 3.1% |
| Denbighshire | 1826 | 2210 | 749 | 4786 | 6.1% | 2.7% |
| Flintshire | 3137 | 4046 | 1142 | 8325 | 6.5% | 4.6% |
| Gwynedd | 3546 | 3023 | 902 | 7471 | 7.2% | 4.1% |
| Isle of Anglesey | 1260 | 1588 | 568 | 3416 | 5.9% | 1.9% |
| Merthyr Tydfil | 1319 | 1707 | 409 | 3435 | 7.0% | 1.9% |
| Merthyr Tydfil | 1319 | 1707 | 409 | 3435 | 7.0% | 1.9% |
| Monmouthshire | 1775 | 2083 | 784 | 4642 | 5.9% | 2.6% |
| Neath Port Talbot | 3114 | 3854 | 1035 | 8003 | 6.8% | 4.4% |
| Newport | 3362 | 4590 | 987 | 8938 | 7.3% | 5.0% |
| Pembrokeshire | 2412 | 2809 | 1018 | 6239 | 6.0% | 3.5% |
| Powys | 2430 | 2750 | 1128 | 6308 | 5.7% | 3.5% |
| Rhondda Cynon Taff | 5657 | 6754 | 1638 | 14049 | 7.2% | 7.8% |
| Swansea | 7520 | 6806 | 1637 | 15964 | 7.8% | 8.8% |
| Torfaen | 2011 | 2537 | 664 | 5212 | 6.8% | 2.9% |
| Vale of Glamorgan | 2688 | 3500 | 972 | 7160 | 6.6% | 4.0% |
| Wrexham | 2727 | 3671 | 961 | 7359 | 6.7% | 4.1% |
| **Wales (TOTAL)** | 75040 | 83126 | 22384 | 180550 | 7.0% | 100.0% |

When modelling football participation by age, the total number of adult players is 180,550, which is closely in line with the total of 181,000 reported above Figure G.1. Table G.1 shows a national level participation rate of 7.0% derived from our modelling based on age, which is consistent with the figure of 7% reported in the SALS data. As found in the other nations, the local authority areas that include major cities have participation rates above the national average. In the case of Wales, these are Cardiff, Newport and Swansea which have participation rates above the national average. These three local authorities are also host to 29% of all adult players in Wales as shown in Table G.2.

**Table G.2: The top three local authorities in Wales for adult participation in *football***

| Location | Age Bandings | | | | Participation Measures | |
|---|---|---|---|---|---|---|
| | 16 34 | 35 59 | 60+ | All | Participation Rate % | % of Players |
| Cardiff | 13477 | 11751 | 1968 | 27197 | 9.1% | 15.1% |
| Newport | 3362 | 4590 | 987 | 8938 | 7.3% | 5.0% |
| Swansea | 7520 | 6806 | 1637 | 15964 | 7.8% | 8.8% |

### 13.7.2 Children's demand

In Wales there is data available concerned with the participation of children and young people in sport. Sport Wales commissions the School Sport Survey (SSS), which in its last edition (2018)

interviewed around 120,00 children in Years 3-11 (8 to 16 years of age). The SSS occurs at a point in time rather than continuously throughout the year and therefore focuses on participation in the last year, rather than the last four weeks. Helpfully, the questions make the distinction between 'in school' and 'out of school' and specifically ask about playing in a community club setting outside of school.

In this context, football is the second most popular sport played outside of school with a participation rate of 25.5%, which is marginally behind swimming at 27.4%. In addition to football, other pitch sports have participation rates of 15.8% rugby; 7.8% cricket; and 5.5% hockey. Boys have higher participation rates in pitch sports than girls. With the exception of rugby, children in Years 36 have slightly higher participation rates than those in Years 7-11. Although the data are four years old, it is the best available as the 2022 survey is currently in the process of being launched.

To gain a sense of the number of school-aged participants in football in Wales, the pragmatic solution is to focus on those for whom we have data (ages 8-16) and to assume that the community club participation rate of 25.5% is an acceptable proxy measure. The benefit of the SSS is that it provides a local authority specific participation rate based on up to 6,000 responses per authority. Using this data, the number of children and young people in Wales aged 8-16 who play football in a community club setting is shown in Table G.3.

**Table G.3: Football Players aged 8-16 in Wales by local authority**

| Authority | Participation rate % | C&YP Aged 8 16 | Footballers |
|---|---|---|---|
| Blaenau Gwent | 21.7 | 6,222 | 1,350 |
| Bridgend | 22.6 | 13,248 | 2,994 |
| Caerphilly | 22.0 | 17,579 | 3,867 |
| Cardiff | 26.2 | 33,220 | 8,704 |
| Carmarthenshire | 27.6 | 17,482 | 4,825 |
| Ceredigion | 30.6 | 5,830 | 1,784 |
| Conwy | 27.1 | 9,986 | 2,706 |
| Denbighshire | 23.9 | 9,053 | 2,164 |
| Flintshire | 25.2 | 15,306 | 3,857 |
| Gwynedd | 28.4 | 11,000 | 3,124 |
| Isle of Anglesey | 29.8 | 6,162 | 1,836 |
| Merthyr Tydfil | 23.3 | 5,656 | 1,318 |
| Monmouthshire | 24.8 | 8,394 | 2,082 |
| Neath Port Talbot | 29.1 | 12,838 | 3,736 |
| Newport | 21.7 | 15,488 | 3,361 |
| Pembrokeshire | 28.4 | 11,501 | 3,266 |
| Powys | 28.8 | 11,307 | 3,256 |
| Rhondda Cynon Taff | 25.1 | 22,892 | 5,746 |
| Swansea | 24.4 | 21,321 | 5,202 |
| Torfaen | 22.0 | 8,922 | 1,963 |
| Vale of Glamorgan | 27.2 | 12,840 | 3,492 |
| Wrexham | 26.3 | 13,562 | 3,567 |
| **Wales (TOTAL)** | 25.5 | 289,809 | 73,901 |

In the case of children and young people, participation rates do not match the adult picture, with above average rates apparent in Ceredigion (30.6%), Anglesey (29.8%), Neath Port Talbot (29.1%) and Powys (28.8%). Notably below average rates can be seen in Blaenau Gwent (21.7%), Newport (also 21.7%), Caerphilly and Torfaen (both 22.0%). In the cases of Blaenau Gwent, Newport and Torfaen, these are some of the most deprived local authority areas in Wales. Whilst the two major cities of Cardiff and Swansea do not have particularly high participation rates, they do have the highest and third highest number of players respectively, because of the absolute size of the population in each area.

There are 73,901 children and young people who belonged to a community football club in the last year. This figure compares interestingly with the FAW COMET data which reveals that there are 62,649 players aged 11 and under to 16 on the system. For this market segment the FAW has a share of around 85%. The major implication of this finding is that any investment in children and young people's provision should involve the FAW as a major stakeholder in this market.

Making these assumptions we can update our data at national and local authority level to derive an approximate level of aggregate demand for all relevant ages, as shown in Table G.4.

**Table G.4: Overall demand for football in Wales**

| | Age Based Participation Rate | | | | |
|---|---|---|---|---|---|
| | Locally Specific | 22% | 11% | c. 1.4% | |
| Location | 8 16 | 16 34 | 35 59 | 60+ | All |
| Blaenau Gwent | 1,350 | 1481 | 1911 | 503 | 5,245 |
| Bridgend | 2,994 | 3195 | 4000 | 1049 | 11,238 |
| Caerphilly | 3,867 | 3914 | 5013 | 1258 | 14,052 |
| Cardiff | 8,704 | 13477 | 11751 | 1968 | 35,901 |
| Carmarthenshire | 4,825 | 3779 | 4479 | 1464 | 14,547 |
| Ceredigion | 1,784 | 2333 | 1507 | 563 | 6,187 |
| Conwy | 2,706 | 2077 | 2535 | 986 | 8,304 |
| Denbighshire | 2,164 | 1826 | 2210 | 749 | 6,949 |
| Flintshire | 3,857 | 3137 | 4046 | 1142 | 12,182 |
| Gwynedd | 3,124 | 3546 | 3023 | 902 | 10,595 |
| Isle of Anglesey | 1,836 | 1260 | 1588 | 568 | 5,252 |
| Merthyr Tydfil | 1,318 | 1319 | 1707 | 409 | 4,753 |
| Monmouthshire | 2,082 | 1775 | 2083 | 784 | 6,724 |
| Neath Port Talbot | 3,736 | 3114 | 3854 | 1035 | 11,739 |
| Newport | 3,361 | 3362 | 4590 | 987 | 12,299 |
| Pembrokeshire | 3,266 | 2412 | 2809 | 1018 | 9,505 |
| Powys | 3,256 | 2430 | 2750 | 1128 | 9,565 |
| Rhondda Cynon Taf | 5,746 | 5657 | 6754 | 1638 | 19,795 |
| Swansea | 5,202 | 7520 | 6806 | 1637 | 21,166 |

| | Age Based Participation Rate | | | | |
|---|---|---|---|---|---|
| | Locally Specific | 22% | 11% | c. 1.4% | |
| Location | 8 16 | 16 34 | 35 59 | 60+ | All |
| Torfaen | 1,963 | 2011 | 2537 | 664 | 7,175 |
| Vale of Glamorgan | 3,492 | 2688 | 3500 | 972 | 10,653 |
| Wrexham | 3,567 | 2727 | 3671 | 961 | 10,926 |
| **Wales (TOTAL)** | 73,901 | 75040 | 83126 | 22384 | 254,452 |

Our overall estimate of the demand for football in Wales is 254,452 based on the preceding analysis of the demand by adults and children and young people.

As the supply data comes on stream, it will be possible to compare demand with supply to make a national level assessment of the relationship between the two and to provide a basis for a more granular analysis of need.

## 13.8 Appendix H: Glossary of terms

The following table provides a list of key terms included in the report, which are either deemed to be 'technical' or specific to this report.

| Term | Explanation |
|---|---|
| 3G AGP | Third Generation Artificial Grass Pitch |
| Carrying capacity | The amount of supply that a pitch can provide, calculated using specific assumptions for different typologies and sizes of pitch. For each local authority, total carrying capacity has been calculated in yearly playing hours. |
| Pitch typology | The different surfaces of pitch, in this report limited to grass and artificial grass |

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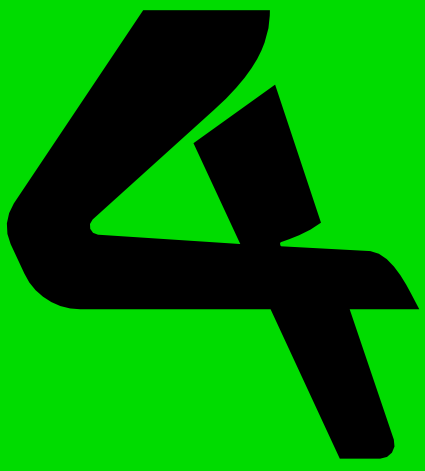

LONDON
ISTANBUL
MIAMI