16-24 STUDENT POPULATION

COMMUNITY HEALTH PROFILE 2023

A BOLDER HEALTHIER BIRMINGHAM

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Abbreviations

ADHD	Attention deficit disorders
AS	Advanced Subsidiary
ASH	Action on Smoking and Health
ASSIT	A stop smoking in schools' trial
BCU	Birmingham City University
BED	Binge eating disorder
BMI	Body Mass Index
CYPMHS	Children and Young People Mental Health Service
DfE	Department for Education
EBacc	English Baccalaureate
EHCP	Education Health and Care Plan
EU	European Union
FE	Further Education
FSM	Free school meals
FTE	Full time equivalent
GCSE	General Certificate of Secondary Education
HE	Higher Education
HES	Hospital Episode Statistics
HESA	Higher Education Statistics Agency
HND	Higher National Diplomas
HPV	Human papillomavirus
LGBT	Lesbian, gay, bisexual, and transgender
MenACWY	Meningococcal ACWY
MMR	Measles, mumps, and rubella
NCSP	National Chlamydia Screening Programme
NEET	Young people who are not in education, employment, or training
NHS	National health system
NICE	National Institute for Health and Care Excellence
NSS	National Student Survey
NVQ	National Vocational Qualification
OfS	Office For Students
ONS	Office for National Statistics
PA	Physical activity
PHE	Public Health England
PSHE	Physical, social, health and economic
RSE	Relationships and sex education
SCIS	Student Covid Insight Survey
SCoLIS	Student Cost of Living Insights Study' survey
SEN	Special Education Needs
SEND	Special Education Needs and Disabilities
STI	Sexually transmitted infection
T1D	Type 1 Diabetes
UCAS	Universities and Colleges Admissions Service
UCL	University College London
UK	United Kingdom
UOB	University of Birmingham
UPP	University Partnerships Programme
WM	West Midlands

Community Evidence Summaries

As part of the Public Health Division's work to improve the understanding of the diverse communities of Birmingham, we are developing a series of evidence summaries to improve awareness of these communities and their needs.

There are common objectives for each of the evidence summaries, which are:

- To identify and summarise the physical health, mental health, lifestyle behaviour, and wider determinants of health-related issues affecting the specific community nationally and locally.
- To identify and summarise gaps in knowledge regarding the physical health, mental health, lifestyle, behavioural and wider determinants of health-related issues that may be affecting the specific community both nationally and locally.
- To collate and present this information under the ten key priority areas identified in the Health and Wellbeing Strategy for Birmingham 2022 to 2030.
- To engage with the local communities on the evidence found and any gaps.
- To promote the use of these summaries for Local Authority and wider system use for community and service development.
- To empower communities, by providing them with a summary of health inequalities, which can be used to advocate for change across local systems to improve outcomes.

Executive Summary

The Student Population Community Health Profile identifies and summarises the national and local evidence concerning the physical and mental health, lifestyle, behavioural and wider determinants of health affecting students aged 16 to 24. It should be noted however that for some of the health outcomes relating to students, there was limited evidence or data, particularly for student populations aged 16 to 24 living in Birmingham.

Birmingham is the most densely populated city in the West Midlands (WM) region. It has 82 secondary schools (11 to 18); 11 colleges; and 5 universities. In Birmingham, around 42 per cent of young people from English state schools enter further or higher education by the age of 19 with an estimated 80,000 full-time and sandwich students (students whose courses include a one-year placement within a relevant industry) across the 5 main universities located within the city.

Birmingham is the 7th most deprived city in England, with over a 5th of the city's population living in areas which are recognised as deprived. Selly Oak is the city's most popular student suburb, mainly due to its proximity to the University of Birmingham. Other areas such as Harborne, Edgbaston, and Kings Heath are also popular areas for student housing. These areas are between the 4th and 6th decile for deprivation.

A significant proportion of students attending universities in Birmingham are commuter students. These are students who live in and around the West Midlands and travel to and from the university each day. In the UK, commuter students are more likely to be the first generation in their families to enter higher education, have a lower income, be mature, and be from an ethnic minority background. Often these students live in the areas with higher deprivation where inequalities are well documented, compared with those who do not commute.

The key health inequalities and health of students aged 16 to 24 in Birmingham are:

- **Impact of health and wellbeing:** Students of all ages with better health and wellbeing are likely to achieve better academically.(1)
- **Mental health conditions:** Around 20% of university students have a diagnosed mental health issue, with students reporting that their difficulties started whilst at school.(2) Students report higher levels of mental health conditions than their non-student peers with anxiety and depression being the most common issues experienced.(3)
- **The impact of COVID:** The COVID-19 pandemic had a significant effect on the mental health and wellbeing of students with an increase in depression and reduction of wellbeing particularly during the first lockdown.(4)
- **High incidents of suicide:** Incidents of suicide at all universities in the UK are more highly reported than in the general

population. Suicide rates in Birmingham are higher in 20 to 24-year-olds than 15 to 19-year-olds.(5, 6)

- **Unhealthy diet and behaviours:** A high proportion of students' report eating an unhealthy diet which is also influenced by peers. Students with unhealthy diets are often report other behaviours detrimental to health such as smoking and low physical activity.(7)

- **Food insecurity:** 44% of students in the UK were classified as food insecure in one study. This is higher than when compared with the general population in the West Midlands, where a reported 16% of households were reported as being food insecure.(8)
- **High alcohol consumption:** There are high levels of alcohol consumption amongst students, particularly those at university. Alcohol (and other substance misuse) is often reported to be used as a means of 'fitting in' amongst peers; increasing confidence; and coping with the challenges of studying.(9)
- **Higher smoking prevalence:** A survey carried out at the University of Birmingham between 2016 and 2017 reported that 17% of students aged 17 to 24 were daily or intermittent smokers.(10) This compares to the Birmingham average, where it is estimated that 16% of the population were current smokers in 2021.

- **Lower rates of physical activity:** Nationally, 16- to 24-year-olds in education have lower levels of physical activity than the same age group not in education.(11)

Methodology

An exploratory search was undertaken by Birmingham City University using a range of sources such as the UK Health Security Agency, Office for Health Improvement and Disparities, National Data Sources, NOMIS (Office for National Statistics) and PubMed to identify health information on the student population within the 16 to 24-year-old age range. Topic areas, general search terms and specific search terms relevant to the themes were identified and are provided in **Appendix 1**. All references used within this profile are outlined in the References section. The following sources were examined:

a. National Data Sources

NOMIS data:

National and Birmingham data has been extracted by age, region, and relevant demographic details specific to the student population from the 2011 and 2021 Census rounds. It should be noted that the most recent available national data is from the 2011 and 2021 census rounds, any conclusions based on historical data should be considered with caution. The relevant category 'L15: Full Time Students' category in the 2021 census from 'National Statistics Socio-economic Classification (NS-SeC)' has been included in analysis within this report.

National Public Health (Public Health Profiles) and other government data sources:

Data has been extracted where relevant for the student population (aged 16 to 24) where community-level information was available.

National voluntary and community sector reports:

These have been identified through Google Scholar and national websites using the general and specific search terms (**Appendix 1**) and included where relevant student population (aged 16 to 24) community-level data was available.

- National Union of Students
- Sport England – Active Lives
- Department for Education
- Public Health England
- NHS Digital
- The Insight Network
- University Partnerships Programme (UPP) Foundation
- Association for Young People's Health
- YouGov
- National Student Survey
- Beat Eating Disorders
- Mind
- Cancer Research UK
- UK Health Security Agency
- Office of Health Improvement and Disparities (OHID)

b. Academic Database Search

In addition, a PubMed, Medline and CINAHL search was performed. All searches contained the general search terms in conjunction with specific search terms relevant to the topic theme. Examples of this are included in this Search Strategy (**Appendix 1**). Findings from international and national systematic reviews and large-scale epidemiological and qualitative research studies were considered for inclusion. International research findings were included if they were deemed to be comparable or relevant to the national population.

Additional papers were identified from reference lists using a "snowballing" approach. This is where additional relevant research was identified from the reference list and citations of the initial search or published article. Generally, searches were limited to literature from last 10 years; information from a further 5 to 10 years prior was included if the results were too limited.

c. Grey Literature

Where information sources had not been identified through a or b, further searching through Google, Google Scholar, and the electronic databases using specific search terms for each theme were carried out. Resources that were relevant to the UK were included, i.e., data and information stemming from local or national-level reports and/or surveys.

d. Data Consolidation and Analysis

Results retrieved from all searches were reviewed by the authors against the search strategy (**Appendix 1**) and the inclusion and exclusion criteria (**Appendix 2**). The team used a 'concept table' to frame the theme and identify keywords for searches. The articles utilised in this document were then analysed, identified, and cross referenced with other themes throughout the profile.

e. Caveats and Limitations

The student population is complex. It includes full time and part time students, as well as home, EU, and non-EU students (overseas or international students). Such a diverse population face different challenges and inequalities and may not all have the same educational experience. This experience can be influenced by multiple factors such as ethnicity, socioeconomic status, low household income and disability.

The Student Population Community Health Profile is limited by the data sources available. Some data captures students who are not aged 16 to 24, while some information includes people who are 16 to 24, but not students. Frequently, the profile also does not differentiate between students at different schools, colleges, apprenticeship workplaces, or universities within Birmingham, nor does it between the years of study. Where there is a lack of available local information, national information has been used. For this evidence, caution should be taken when inferring findings to students in Birmingham.

f. Statistics

This report draws on evidence from a variety of research studies with different methodologies and results. Data throughout this report

have been presented to two significant figures where possible; proportions may not add up to 100% due to rounding.

Below, is a brief overview of some key statistical terms to aid in interpretation of the findings.

In this report, "n" is used to represent the numerator of a percentage (e.g., the number of people with the event of interest) and "N" is used to represent the denominator (e.g., the population from which the numerator was drawn).

1. Introduction

1.1 Overview of the Student Community

This Community Health Profile will focus on the Birmingham student population aged 16 to 24, although detail will also be provided on students of this age group regionally and nationally to further demonstrate any differences between Birmingham students and those in other parts of the country.

A student is defined as a learner who is completing a course of study in an educational institution. There are different options for study available in the UK depending on age and relevant qualification background; often categorised as post 16 options (age range 16 to 18) and post 18 options (age range 18 to 24). This profile will focus on students aged 16 to 24, however the education sector in the UK is vast, and many people will be enrolled in study who fall outside of this age range such as adults returning to learning, parents, and practitioners. A description of post 16 and post 18 study options by provider and qualification for people aged 16 to 24 in Birmingham and the UK will be set out by Further Education (FE) and Higher Education (HE) sectors. Broadly, people can enter FE at any time between age 16 to 24 and may enter into HE once the relevant qualifications have been acquired, with the minimum age for this usually 18 (**Table 1**). In England, the entire FE and HE sector provides education in a wide range of vocational and academic subjects at qualification levels 1 to 8.(12)

Table 1: Educational sectors in the UK by usual age of entry, type and level of qualification level and provider type

Usual Age of Entry	Up to age 16	Ages 16 to 24	Ages 18 to 24
Qualification Level	Levels 1 to 2	Levels 1 to 3	Levels 4 to 8
Sector	Statutory Education	Statutory Education and/or Further Education	Higher Education
Provider	Secondary Schools	Secondary Schools, Colleges, Independent Providers, LA, Third Sector, Adult Community Education	Universities and some FE Providers
Qualification	GCSE's	GCSE's, A Levels, BTEC, Supported Internships*, Traineeships**, Apprenticeship, NVQs, Technical Certificate, T Levels*** etc.	Certificate or Diploma of Higher Education, Bachelor's degree, Master's Degree, Doctorate, Foundation Degree etc.

** Supported internships are a type of study programme for young people (aged 16 to 24) with Special Educations Needs and Disabilities (SEND)*

*** Traineeships are an educations and training programme not a qualification*

**** These qualifications won't usually have 'Tech Level' or 'Applied General' in their title. They are usually known by brand names such as BTECs or Cambridge Nationals/Technical*

Source: Birmingham City Council Public Health Communities Team[a]

1.1.1 Statutory Education

According to the Education Act 1996, every child in the UK is required be in full-time education until at least the age of 16.(13) Students who reach the age of 16 between 2 July and 31 August (inclusive) in any year, cannot leave school until the 30th of June of the following year. The main measures of progression for students aged 15 to 16 at Key Stage 4 are Attainment in English and Mathematics at grades 5 or above (GCSE), English Baccalaureate (EBacc) entry and achievement and destinations of pupils after Key Stage 4. Most students aged 16 in Key Stage 4 in Birmingham attend state-funded secondary schools, of which there are 446. Describing statutory provision of education in Birmingham is outside the remit of this profile.

Following completing full-time school at age 16, it is then required to complete one of the following until age 18:

- Stay in full-time education, for example at a college
- Start an apprenticeship or traineeship
- Spend 20 hours or more a week volunteering, while in part-time education or training

1.1.2 Further Education

There are several options for FE available to students once they reach the age of 16 and complete their statutory school education, with education and training in the UK free for young people until the age of 19.(13) Qualification levels 1 to 3 are usually entered from the age of 16 onwards and are achieved at FE providers include any institutions or organisations (other than schools or universities) that receive government funding to provide education and training. In Birmingham there are 11 FE colleges.(14)

The vast range of FE options from the age of 16 can be viewed in **Table 1**, but broadly they fall into the following main categories:(15)

- Further study to levels 2 and 3 attainments; this could be a qualification full-time taken at a sixth form, college or another FE provider, or part-time study with employment or volunteering.
- Apprenticeships: this involves working for an employer while studying for a FE qualification as part of the training. There are 2 parts to an apprenticeship; working for the employer makes up 80% of an apprenticeship and at least 20% (or one day a week) is involved with studying towards the qualification.

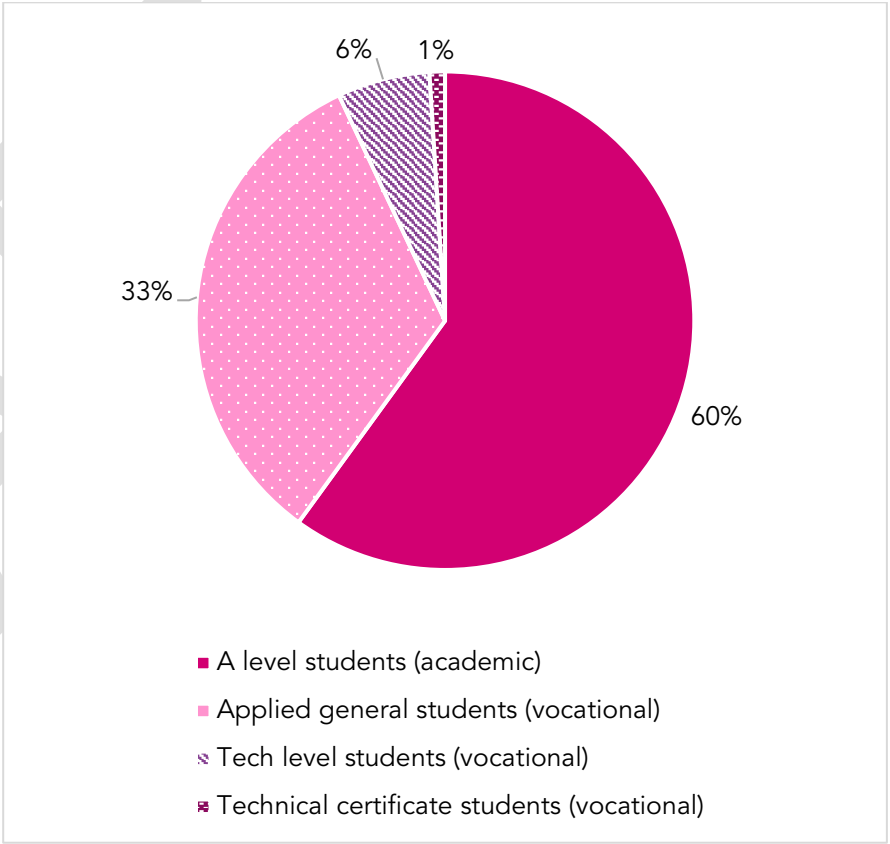
[a] More information on qualifications can be found in appendix 3.1

- Traineeships: this is an option for students who may not have the experience, skills, or qualifications to do an apprenticeship. Traineeships can last up to six months and involve a work placement. Support is given for Maths and English qualifications and with finding an apprenticeship.

There are 6 different types of FE provider which offer a vast range of education and training opportunities.(16) There are an estimated 227 FE colleges in England; 160 general FE colleges; 44 sixth form colleges; 11 land-based colleges; 10 specialist designated colleges and institutes of adult learning; and 2 art, design and performing arts colleges.(17) There are various application methods to access FE courses in the UK depending on age, current qualifications, and the type of course. For 16 to 18-years-olds, a direct application can be made to the college or provider. In the year 2022 to 2023, there were just over one million students at these colleges. In Birmingham, there are 11 FE colleges.

Level 3 qualifications are usually taken from the age of 16 onwards. In Birmingham, in 2021 to 2022, there were a total of 7,903 students aged 16 to 18 assessed in the academic and vocational level 3 qualification cohort in state-funded schools. Almost two thirds of these (60%) undertook academic qualifications (**Figure 1**, **Appendix 3.1**).(18) This has remained consistent over recent years.

Figure 1: Type of Level 3 academic and vocational qualifications undertaken among students aged 16 to 18: Birmingham, 2021 to 2022



Note: state-funded and colleges only

Source: Department for Education (18)

1.1.3 Apprenticeships and Traineeships

In Birmingham in 2022 to 2023, there were 1,410 apprenticeships and traineeships who were aged under 19 (15% of total apprenticeships and traineeships) and 3,330 aged 19 to 24 (35%).(18) This follows a similar trend over the last 3 years since 2020 to 2021. Birmingham level data for ethnicity was not available. In Birmingham in 2022 to 2023, of total apprenticeships and traineeships under the age of 24, approximately 30% were aged under 19, and 70% were aged 19 to 24 (**Table 2**). There was a similar proportion of under 19s who were male (51%) compared with female (49%). In the 19 to 24 age group, there was a slighter larger proportion who were male (53%) compared with female (47%).

Table 2: Total apprenticeships by age: Birmingham, 2020 to 2023

Age	2020 to 2021	2021 to 2022	2022 to 2023
Under 19	1,570 (14%)	1,760 (15%)	1,410 (15%)
19 to 24	3,890 (36%)	4,040 (35%)	3,330 (35%)
Total (all adults)	**10,920**	**11,540**	**9,580**

Source: Department for Education (18)

Looking at locality level in Birmingham, in 2022 to 2023 the highest number of apprenticeships and traineeships aged under 19 was 210 in both Yardley and Northfield (14.9% of all aged under 19 in Birmingham), and the highest number for apprenticeships and traineeships aged 19 to 24 was 440 in Hodge Hill (13.2%) (**Table 3**).(18)

Table 3: Total apprenticeships by age and ward: Birmingham, 2022 to 2023

Locality	Under 19	19 to 24	Total (under 19 to 24)
Edgbaston	90 (6.4%)	280 (8.4%)	370
Erdington	200 (14%)	370 (11%)	570
Hall Green	130 (9.2%)	320 (9.6%)	450
Hodge Hill	190 (14%)	440 (13%)	630
Ladywood	100 (7.1%)	410 (12%)	510
Northfield	210 (15%)	370 (11%)	580
Perry Barr	150 (11%)	370 (11%)	520
Selly Oak	130 (9.2%)	370 (11%)	500
Yardley	210 (15%)	400 (12%)	610
Total Birmingham	**1,410**	**3,330**	**4,740**

Note: percentage shows proportion of total apprenticeships in a ward within a specific age group

Source: Department for Education (18)

Full time and part time FE study provides access to a wide range of vocational and academic subjects at qualification levels 1 to 3. These qualifications then allow students to apply for work with employers or continue on to more advanced courses and qualifications in FE or HE at qualification levels 4 to 8.

1.1.4 Higher Education

Qualification levels 4 to 8 are generally entered by students aged 18 and over and are achieved at HE institutions and providers. These

can be Academic; Certificate of Higher Education or Diploma of Higher Education, Bachelor's degree, Master's degree, and Doctorate, and Vocational; Higher National Certificates or Diplomas Foundation Degrees Postgraduate Certificate of Education (**Table 1**). There are 5 HE providers in Birmingham: Aston University, Birmingham City University, Newman University, University of Birmingham, and University College Birmingham. In addition, there are 3 institutes for HE students which are Arden University; The Queens Foundation for Ecumenical Theological Education; and For Mission Ltd. At least 4 of the FE colleges in Birmingham deliver HE courses such as Business and Administrative studies, Education, Engineering and Technology.

The process of gaining a place at university is through a formal application made to the Universities and Colleges Admissions Service (UCAS), and degrees offered by universities and colleges (including integrated degree apprenticeships) are regulated by the Office for Students (OfS).

In the academic year 2020 to 2021 92,655 students were enrolled at these universities (**Table 4**).(19, 20) This large student population includes those who come to live and study in Birmingham from other cities and countries, in addition to 'commuter students', whose home address is in or around Birmingham, enabling daily travel to their university. Selly Oak is the city's most popular student suburb, mainly due to its proximity to the University of Birmingham. Other areas such as Harborne, Edgbaston, and Kings Heath are also popular areas for student housing, alongside the new purpose-built student blocks which are spread across the city.(21)

Table 4: Number of HE student enrolments by provider: Birmingham, 2020 to 2021

University	UK Students	Non-UK Students	Total
Aston University	14,145 (84%)	2,655 (16%)	**16,795**
Birmingham City University	25,665 (86%)	4,330 (14%)	**29,995**
University of Birmingham	28,220 (75%)	9,530 (25%)	**37,750**
University College Birmingham	3,800 (72%)	1,470 (28%)	**5,270**
Newman University	2,820 (99%)	20 (0.7%)	**2,845**
Total	**74,650**	**18,005**	**92,655**

Note: percentages show proportion of home or non-UK students at a given higher education institution in the UK

Source: Higher Education Statistics Agency (20)

The number of HE students registered at FE and HE providers in England in 2021 to 2022 was 2,432,895 (**Table 5**).(19) The proportion of students studying at postgraduate level has increased yearly from 2017 to 2022, whilst the proportion of other undergraduate and 'first degree' students has decreased slightly during this time.

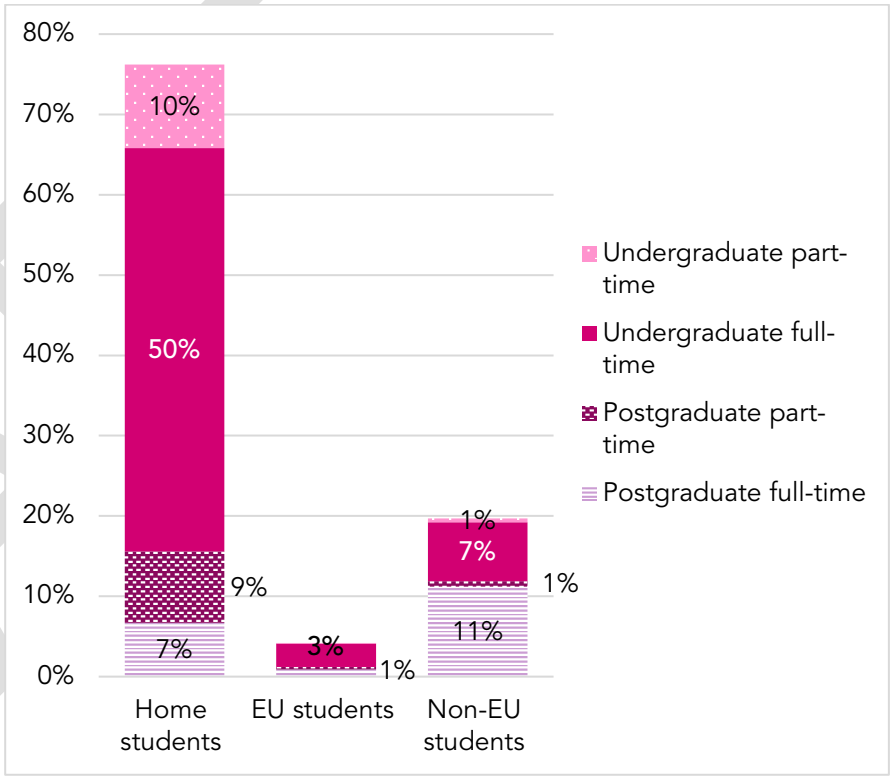
Table 5: Number of HE student enrolments at HE and FE providers per year by level of study: England, 2017 to 2022

Year of Study	First Degree	Other Under-graduates	Postgraduate	Total
2017 to 2018	1,394,095	226,555	486,065	**2,106,715**
2018 to 2019	1,419,445	208,315	501,540	**2,129,300**
2019 to 2020	1,458,945	192,350	532,515	**2,183,810**
2020 to 2021	1,555,220	190,705	612,195	**2,358,120**
2021 to 2022	1,585,665	179,870	667,360	**2,432,895**

Source: Higher Education Statistics Agency (19)

A further breakdown of HE student numbers in England during the academic year 2021 to 2022 (**Figure 2**, **Appendix 3.3**) showed that 60% of all students were studying full-time UG courses.(19) Of these full-time undergraduate students, 83% were home students whose permanent residence was in England followed by non-EU students (12%), and EU students (5%). In addition, non-EU students made up the largest cohort of full-time postgraduate courses (59%), compared with only 7% of postgraduate part-time courses. Home students made up the largest student cohort, accounting for 76% of all HE students.

Figure 2: Number of HE student enrolments by level and mode of study: England, 2021 to 2022



Note: percentage given as % of total enrolments

Source: Higher Education Statistics Agency (19)

Key trends over time in HE student applications in the UK:(22)

- Applicant numbers fell in 2012 as tuition fees increased from around £3,375 to £9,000 a year for 2012 to 2013 academic year.

- Since 2013, rates of applications have steadily increased to a record high between 2020 and 2022 despite concerns that undergraduate application rates would fall as a result of coronavirus restrictions.
- There were 767,000 applications for full-time undergraduate places through UCAS in 2022, a new record level, of which 560,000 applications were accepted.
- Applications from home students (students who are resident and living in the UK) were up by approximately 2% in 2020 and 5% in 2021.
- A consequence of Brexit resulted in students from EU countries facing higher fees from 2021 and restricted eligibility for fee loans. The number of EU students starting full time undergraduate courses fell by 65% between 2020 and 2022 to its lowest level since 1994.
- Applications from other overseas students increased to record levels in 2020, 2021, and 2022, which may be due to an increased use of online learning since the start of the pandemic.

1.1.4.1 Impact of Coronavirus Pandemic on HE Student Applications

There was wide concern within the HE sector that the coronavirus pandemic would lead to a drop in student numbers because of restrictions on travel, a sudden change to exclusively online learning and a drastic change to the overall, typical student experience. However, the total number of applicants increased for all types of courses in 2020 to 2021 compared with previous years.(22) The total number of applicants in 2020 was 728,780, an increase of 3.2% (22,300) from 2019 to 2020. Home applications (UK based students) increased by 2.1% whilst those from the EU reduced by 0.4%. Overseas applicants from outside the EU increased by 12% (10,800) with China applicants up by 24% (5,200). In the following academic year 2021 to 2022, the overall number of applicants increased further by 20,800 to another record high; home applicants by 5%; and overseas applicants outside the EU by 13%. There was, however, a large reduction in applicants from the EU which was down by 40%.

1.2 Demographics

1.2.1 Sex

The Department for Education recorded 12,368 students aged 16 to 19 in all types of Birmingham schools in 2021 to 2022, studying any qualification at levels 1 to 3.(18) At each age, there is consistently a greater number of girls, except for at ages 18 and 19 (**Table 6**).

Table 6: Number of pupils aged 16 to 19 in all schools: Birmingham 2021 to 2022

Age	Boys	Girls	Total
16	2,678 (44%)	3,358 (56%)	6,036
17	2,550 (45%)	3,129 (55%)	5,679
18	363 (57%)	269 (43%)	632
19	16 (76%)	5 (24%)	21

Note: % given indicates the % of people within age group that are male or female

Source: Department for Education (18)

In Birmingham, in 2021 to 2022, there were consistently more females (59%) than males (41%) assessed in an academic level 3 qualification (A level).(18) In terms of vocational level 3 qualifications, there were more females (60%) than males (40%) in the applied general cohort, and more males in both the tech level (66%) and technical certificate (52%) cohorts than females (34% and 48% respectively) (**Table 7**).

Table 7: Number of 16- to 18-year-olds sitting level 3 academic and vocational qualifications: Birmingham, 2021 to 2022

Type of Level 3 Qualification	Female	Male	Total
Number of A level students	2,776 (59%)	1,951 (41%)	**4,727**
Number of applied general students	1,595 (60%)	1,050 (40%)	**2,645**
Number of tech level students	166 (34%)	317 (66%)	**483**
Number of technical certificate students	23 (48%)	25 (52%)	**48**

Note: % given indicates the % of people within age group that are male or female

Source: Department for Education (18)

In the UK HE sector, over the last 5 academic years from 2017 to 2022, female students have consistently outnumbered male students in both undergraduate and postgraduate courses at the UK level.(19) The proportion of female students has remained between 57% to 59% compared with 41% to 42% for male students. In Birmingham, there is a similar split by sex seen across all 5 HE providers, with more female than male students enrolled at all providers except for Aston University, which has a more even split (**Table 8**).

Table 8: Number of students enrolled at HE providers, by gender: Birmingham, 2021 to 2022

Provider	Female	Male	Other
Birmingham City University	19,250 (64%)	10,980 (36%)	60 (0.2%)
The University of Birmingham	21,785 (57%)	16,165 (43%)	45 (0.1%)
University College Birmingham	3,370 (65%)	1,795 (35%)	5 (0.1%)
Aston University	8,315 (47%)	9,275 (53%)	5 (0.03%)
Newman University	2,110 (76%)	650 (24%)	5 (0.2%)

Note: % given indicates the % of people within age group that are male, female or other gender

Source: Higher Education Statistics Agency (19)

1.2.2 Age

There were 6,036 16-year-olds, 5,679 17-year-olds, 632 18-year-olds and 21 19-year-olds enrolled in all Birmingham schools in 2021 to 2022.(19) At the HE UK level, the overall trend of student enrolments sees a general yearly increase of 16 to 19-year-olds and 20 to 24-year-olds enrolling in HE in England between 2017-2022. UK HE student enrolment of 16 to 19-year-olds steadily increases between 2017 and 2022, with the highest enrolment seen in the most recent academic year 2021 to 2022. This is in slight contrast to the steady rise of enrolments of students aged 20 to 24 until a drop in 2021 to 2022 (**Table 9**, **Table 10**, **Table 11**). Interestingly, the number of EU students in age groups 16 to 19 and 20 to 24 increased yearly between 2017 and 2021, although there was a drop in both age groups during the 2021 to 2022 academic year.

Table 9: Number of HE student enrolments by age group: UK, 2019 to 2020

Age	UK	EU	Non-EU	Total
16 to 19	436,865 (82%)	32,335 (6.1%)	60,950 (12%)	530,155
20 to 24	562,005 (80%)	45,215 (6.5%)	96,130 (14%)	703,365

Note: % given indicates the % of people within age group that are from the UK, EU, or non-EU countries

Source: Higher Education Statistics Agency (19)

Table 10: Number of HE student enrolments by age group: UK, 2020 to 2021

Age	UK	EU	Non-EU	Total
16 to 19	456,855 (83%)	33,335 (6.0%)	63,415 (12%)	553,615
20 to 24	581,590 (80%)	47,235 (6.5%)	99,230 (14%)	728,100

Note: % given indicates the % of people within age group that are from the UK, EU, or non-EU countries

Source: Higher Education Statistics Agency (19)

Table 11: Number of HE student enrolments by age group: UK, 2021 to 2022

Age	UK	EU	Non-EU	Total
16 to 19	473,175 (84%)	20,920 (3.7%)	66,385 (12%)	560,480
20 to 24	575,060 (79%)	42,180 (5.8%)	108,075 (15%)	725,320

Note: % given indicates the % of people within age group that are from the UK, EU, or non-EU countries

Source: Higher Education Statistics Agency (19)

This trend is seen also at the 5 HE providers in Birmingham, with a greater proportion of all students between 18 and 24 enrolled highest in the lower age bracket of age 20 and under.(19) Students aged 24 and under make up to majority of total students across all providers, with Newman College having the lowest proportion of the student cohort aged under 24 (59%), and Aston University the greatest (79%) (**Table 12**).

Table 12: Number of students enrolled by HE providers, by age: Birmingham, 2021 to 2022

Provider	Aged 20 and under	Aged 21 to 24	Total (all ages)
Aston University	8,525 (49%)	5,300 (30%)	17,595
Birmingham City University	12,750 (49%)	7,950 (26%)	30,285
University of Birmingham	18,715 (49%)	10,920 (29%)	37,990
University College Birmingham	2,015 (39%)	1,580 (31%)	5,170
Newman University	900 (33%)	715 (26%)	2,760

Note: % given indicates the % of people within age group at each university

Source: Higher Education Statistics Agency (19)

1.2.3 Disability

There is limited data available on the proportion of school aged children who have long term health conditions and/or disabilities. However, the proportion of pupils at Birmingham's schools with Education Health Care Plans (EHCP) and SEN support gives an indication of the level of need. EHCPs address the health and social care needs of the child or young person as well as their educational needs and can be in force from the ages of 0 to 25. SEN support is extra or different help from that provided as part of the school's

usual curriculum without a formal assessment process. The proportion of pupils at secondary schools with EHCPs and SEN support is similar to the national average and to the other English core cities.(23) **Table 13** shows there is a higher proportion of students with SEN support in vocational level 3 qualifications (8.3%) compared with academic level 3 qualification (3.8%), with 8.7% of applied general students, 9.5% of tech level students and 8.3% of technical certificate students with SEN support compared with 3.8% of A level students.(18) **Table 13** also shows that overall, the proportion of students with an EHC plan or statement of SEN is low across vocational and academic level 3 qualifications.

Table 13: 16- to 18-year-olds at level 3 academic and vocational qualifications by SEN provision: Birmingham, 2021 to 2022

SEN provision	Number of A level students	Number of applied general students	Number of tech level students	Number of technical certificate students
Total EHC plans and statements of SEN	22 (0.5%)	11 (0.4%)	4 (0.8%)	1 (2.1%)
Total SEN support	181 (3.8%)	229 (8.7%)	46 (9.5%)	4 (8.3%)
Total No identified SEN	4,340 (92%)	2,302 (87%)	408 (85%)	36 (75%)
Not known or not recorded	184 (3.9%)	103 (3.9%)	25 (5.2%)	7 (15%)

Note: % indicates the % of people that have SEN provision per qualification

Source: Department for Education (18)

The number of HE students reporting a disability has increased between 2017 and 2022 from 15% to 20% (**Table 14**);(19) this information is not reported by age. The most commonly reported disability between 2017 and 2022 amongst UK home undergraduate students has consistently been a specific learning difficulty, with 6.2% of students reporting this disability in 2021 to 2022. The

reported prevalence of a mental health condition has almost doubled over the last 5 years.

Table 14: Number of HE enrolments by disability: UK, 2017 to 2022

Types of disability	2017 to 2018	2018 to 2019	2019 to 2020	2020 to 2021	2021 to 2022
A specific learning difficulty	92,180 (5.9%)	93,065 (5.9%)	93,820 (5.9%)	101,390 (6.0%)	107,960 (6.2%)
Blind or serious visual impairment	2,550 (0.2%)	2,650 (0.2%)	2,690 (0.2%)	2,740 (0.2%)	2,940 (0.2%)
Deaf or serious hearing impairment	4,190 (0.3%)	4,380 (0.3%)	4,545 (0.3%)	5,215 (0.3%)	5,320 (0.3%)
Physical impairment or mobility issues	6,935 (0.4%)	6,725 (0.4%)	6,755 (0.4%)	6,730 (0.4%)	6,825 (0.4%)
Mental health condition	59,155 (3.8%)	72,715 (4.6%)	83,160 (5.2%)	94,515 (5.6%)	100,745 (5.8%)
Social communication or Autistic spectrum disorder	10,055 (0.6%)	11,615 (0.7%)	12,780 (0.8%)	14,590 (0.9%)	16,310 (0.9%)
Long-standing illness or health condition	22,075 (1.4%)	23,005 (1.5%)	24,365 (1.5%)	26,395 (1.6%)	27,525 (1.6%)
Two or more conditions	26,065 (1.7%)	29,410 (1.9%)	35,560 (1.3%)	41,060 (1.4%)	47,310 (1.4%)
Another disability, impairment, or medical condition	19,300 (1.2%)	19,615 (1.2%)	20,660 (1.3%)	23,230 (1.4%)	25,140 (1.4%)
No known disability	1,327,420 (85%)	1,315,280 (83%)	1,305,495 (82%)	1,377,595 (81%)	1,394,730 (80%)
Total	**1,569,930**	**1,578,455**	**1,589,820**	**1,693,460**	**1,734,805**

Note: % indicates the % of people with a disability per qualification

Source: Higher Education Statistics Agency (19)

HE providers in Birmingham have a similar profile to the national context, although type of disability is not reported by the provider (**Table 15**).(19) However, of all undergraduate, postgraduate taught and postgraduate research students at the University of Birmingham (UoB) in 2020, a snapshot study found that 10% of students reported a disability, of which mental health difficulties were the most common form followed by learning difficulties and long-standing illness.(24)

Table 15: Number (%) of enrolled students by disability status in HE providers: Birmingham, 2021 to 2022

Provider	Known to have a disability	No known disability
Aston University	1,495 (8.5%)	16,100 (92%)
Birmingham City University	4,325 (14%)	25,960 (86%)
University of Birmingham	5,140 (14%)	32,850 (87%)
University College Birmingham	595 (12%)	4,575 (89%)
Newman University	660 (24%)	2,105 (76%)

Source: Higher Education Statistics Agency (19)

1.2.4 Ethnicity

Birmingham has a much more ethnically diverse secondary school student cohort than nationally, which reflects the diversity of the city overall.(18) In Birmingham, 24% of all students aged 11 to 18 at state-funded secondary schools were White British, compared with 64% nationally; 3.4% of students were Black Caribbean compared with 1.5% nationally. Overall, 26% of students were Pakistani compared with 4.6% nationally.

When looking at further education cohort of 16 to 18-year-olds at level 3 qualification, broad ethnicity categories are reported and shows that this ethnic diversity is also seen specifically in further education. Across all level 3 academic and vocational qualifications, the highest proportion of students are of Asian or Asian British ethnicity, followed by of White ethnicity (**Table 16**).

Table 16: Number of 16 to 18 year-olds at level 3 academic and vocational qualifications by ethnicity: Birmingham 2021 to 2022

Ethnic group	A level students	Applied general students	Tech level students	Technical certificate students
Any other ethnic group	222 (4.7%)	128 (4.8%)	15 (3.1%)	1 (2.1%)
Asian or Asian British	1,933 (41%)	1,274 (48%)	198 (41%)	19 (40%)
Black or Black British	475 (10%)	314 (12%)	75 (16%)	1 (2.1%)
Chinese	37 (0.8%)	4 (0.2%)	1 (0.2%)	0 (0%)
Mixed	317 (6.7%)	134 (5.1%)	28 (5.8%)	2 (4.2%)
Unknown ethnicity	245 (5.2%)	135 (5.1%)	29 (6.0%)	9 (19%)
White	1,498 (32%)	656 (25%)	137 (28%)	16 (33%)
Total	**4,727**	**2,645**	**483**	**48**

Note: % given indicates the % of ethnic group within each qualification

Source: Department for Education (18)

In 2021 to 2022, the largest proportion of students in UK HE were White (72%), followed by Black or Black African (6.0%), Mixed (4.4%), and Asian or Asian British Pakistani (3.7%) (**Table 17**).(19) There has been a gradual increase in student numbers for most ethnicities yearly over the last 5 academic years, apart from students of White and Black Caribbean ethnicities, which have seen a decrease between 2017 to 2022.

Table 17: Number of HE student enrolments by ethnicity: UK, 2017 to 2022

Ethnic group	2017 to 2018	2018 to 2019	2019 to 2020	2020 to 2021	2021 to 2022
White	1,448,610 (75%)	1,449,560 (74%)	1,444,130 (73%)	1,554,545 (72%)	1,563,145 (72%)
Black or Black British - Caribbean	30,910 (1.6%)	30,500 (1.6%)	29,435 (1.5%)	30,895 (1.4%)	30,745 (1.4%)
Black or Black British - African	108,935 (5.6%)	112,085 (5.7%)	115,150 (5.8%)	127,350 (5.9%)	131,715 (6.0%)
Other Black background	7,830 (0.4%)	7,975 (0.4%)	7,885 (0.4%)	8,635 (0.4%)	9,160 (0.4%)
Asian or Asian British - Indian	64,740 (3.3%)	65,465 (3.3%)	66,650 (3.4%)	72,150 (3.4%)	74,990 (3.4%)
Asian or Asian British - Pakistani	59,570 (3.1%)	63,370 (3.2%)	68,290 (3.5%)	77,350 (3.6%)	81,715 (3.7%)
Asian or Asian British - Bangladeshi	28,655 (1.5%)	29,985 (1.5%)	31,830 (1.6%)	37,275 (1.7%)	39,935 (1.8%)
Chinese	16,055 (0.8%)	16,210 (0.8%)	16,290 (0.8%)	17,070 (0.8%)	17,010 (0.8%)
Other Asian background	40,785 (2.1%)	42,370 (2.2%)	43,685 (2.2%)	48,270 (2.2%)	51,015 (2.3%)
Mixed	74,755 (3.8%)	78,590 (4.0%)	82,370 (4.2%)	91,905 (4.3%)	96,675 (4.4%)
Other	31,770 (1.6%)	32,885 (1.7%)	35,895 (1.8%)	41,160 (1.9%)	45,625 (2.1%)
Not known	32,940 (1.7%)	31,325 (1.6%)	33,485 (1.7%)	39,870 (1.9%)	40,840 (1.9%)
Total	**1,945,560**	**1,960,320**	**1,975,100**	**2,146,475**	**2,182,560**

Note: % given indicates the % of ethnic group within each year of enrolment

Source: Higher Education Statistics Agency (19)

Birmingham HE providers have a more ethnically diverse student cohort than nationally (**Table 18**).(19) The University of Birmingham has the most similar ethnic profile compared with nationally. The highest proportions of Asian students of the total cohort are at Aston University (50%), and Birmingham City University (44%).

Table 18: Number of students enrolled at HE providers by broad ethnicity groups: Birmingham, 2021 to 2022

Provider	White	Black	Asian	Mixed	Other	Not known
Aston University	3,825 (26%)	2,255 (16%)	7,250 (50%)	580 (4.0%)	420 (2.9%)	200 (1.4%)
Birmingham City University	1,810 (12%)	4,445 (29%)	6,850 (44%)	1,370 (8.9%)	530 (3.4%)	445 (2.9%)
University of Birmingham	18,390 (65%)	1,900 (6.7%)	5,600 (20%)	1,500 (5.3%)	455 (1.6%)	580 (2.0%)
University College Birmingham	2,130 (54%)	680 (17%)	720 (18%)	260 (6.6%)	100 (2.5%)	65 (1.6%)
Newman University	1,515 (55%)	375 (14%)	600 (22%)	180 (6.6%)	60 (2.2%)	10 (0.4%)

Note: % indicates the % of ethnic group at each university provider

Source: Higher Education Statistics Agency (19)

1.2.5 Other Demographics

Of all undergraduate, postgraduate taught and postgraduate research students at the University of Birmingham in 2020, a snapshot study found that approximately 8% of students identified as LGB.(24) In terms of religious belief, 24% were Christian; 3% Hindu; 1% Jewish; 10% Muslim; 2% Sikh; 1% Buddhist; 51%; no religion; 7% unknown; and 2% reported any other religion or belief. A similar demographic snapshot study in 2020 at Birmingham City University showed a greater proportion of females (63%), fewer students identifying as LGB (4%), and a higher proportion of Muslim students (22%) compared with the University of Birmingham.(25)

1.3 International HE Students

In 2021 to 2022, there were 679,970 international HE students studying in the UK.(26) Approximately 120,000 of these were from EU countries and 560,000 from non-EU countries. In the year ending September 2022, there were 463,315 sponsored study visas granted. This is the highest annual number of study visas granted on record and represents both a recovery from the lower number of visas granted during the COVID-19 pandemic and an increase on pre-pandemic levels. These numbers indicate that international students make up around 20% of all HE students. In 2021 to 2022, Chinese students made up the largest group of international students in the UK, followed by India, with students from France and Italy making up the two largest cohorts from the EU. Numbers of international students studying in Birmingham were not available.

2. Community Profile

2.1 Getting the Best Start in Life

- The under 18s conception rate in Birmingham in 2021 was 13.5 per 1,000; slightly lower than the national average (13.1 per 100,000).
- In 2009, it was estimated that 8% of full-time and 36% of part-time students in England had parenting responsibilities (National Union of Students).
- In a 2018 Department for Education study, only half (50%) of students surveys describe relationship and sex education (RSE) as 'fairly useful' or 'very useful', with nearly 1 in 5 'not useful at all'.
- 18 to 19-year-olds in England who did not receive RSE in schools were more likely to: have sex before the legal age of consent (16 years old), have sex without a condom, have an increased likelihood of being diagnosed with a sexually transmitted infection (STI).

There is limited information presented in this Community Health Profile on 'Getting the Best Start in Life'. In other profiles, this section usually covers individuals aged under 16 or 18, depending on the measure and data source. However, as this profile is dedicated to young people aged 16 to 24, the 'Getting the Best Start in Life' section has minimal content, as any relevant content will be captured by national and local reports on children and young people.

2.1.1 Under 18s Conception

Multiple factors are associated with higher rates of conception for those under the age of 18 years, including child poverty, education, unemployment rates and socioeconomic status.(27)

Birmingham has had a higher under 18s conception rate than nationally since 2014, and in 2021 (latest available data) it was 13.5 per 1,000 which was lower than the West Midlands average (15.2 per 1,000) but slightly higher than the national average (13.1 per 1,000).(28) In 2020 in Birmingham, there was 45% of under 18 conceptions leading to abortion, which is lower than the West Midlands (51%) and England (53%).

2.1.2 Parenting Responsibilities

There is limited understanding of the number of students with parenting responsibilities in the UK, and no reports which investigate students with parenting responsibilities among to 16 to 24 age group. However, the 2009 'meet the parents' report from the National Union of Students provides some insights into the experiences of parents in further and higher education (N=2,167).(29)

In 2009, it was estimated that approximately 8% of full-time and 36% of part-time students in England were parents; however, the majority were mature students (89%). Some of the key experiences identified by the report included:

- Almost two thirds (60%) of students with parenting responsibilities had considering leaving their course.

- Almost half of the respondents had reported being late (49%) for a lecture/lesson or had missed lessons (49%).
- Students with parenting responsibilities highlighted the importance of online resources and catch-up materials to support their studies alongside their childcare responsibilities.
- Despite the barriers faced to education, three quarters of respondents felt that being a student parents was a positive experience for them and their family.

2.1.3 Relationships and Sex Education

In 2020, Relationships and Sex Education (RSE) in addition to Health Education became a compulsory part of the national curriculum in schools.(30) These focus on educating and promoting awareness of healthy relationships and sexual reproductive health. Parents have the right to request to withdraw their child from sex education delivered as part of RSE in secondary schools.

A Department for Education's study from 2018 with 18 to 19 year olds in England on their attitudes to RSE reported:(31)

- Those who did not receive RSE in schools were more likely to have sex before the legal age of consent (16 years old); have sex without a condom; and have an increased likelihood of being diagnosed with an STI.
- Those whose parents identified as non-religious were more likely to say they learnt about sexual matters from family members, whilst those from religious backgrounds were more likely to rely on different sources of information.
- Just under 50% described RSE at school as 'fairly useful' or 'very useful', with nearly 1 in 5 'not at all useful'.
- Those of minority sexual orientations (described in the study as gay, lesbian, bisexual or other); disabilities; and those who participated in risky behaviours were considerably more likely to say that school RSE was 'not at all useful'.
- Those who said that they were taught about consent, lesbian, gay, bisexual, and transgender (LGBT) relationships and relationships in general, were more likely to describe RSE as useful than those did not teach these topics.
- 1 in 10 young people eligible for free school meals (FSM) did not learn about STIs, consent, LGBT relationships or relationships in general in their school RSE, which is higher than those who were not eligible for FSM (around 1 in 20).
- 25% had sex before turning 16 compared with 34% in 2009.
- Sex before the legal age of consent was slightly more prevalent in those who had a long-term disability (34%) than those with no disability (23%); those eligible for FSM (31%) than those not FSM eligible (23%); those who binge drink (27%) than those who did not binge drink (19%).

- Young people who experienced higher psychological distress at ages 14 or 15 were 12% more likely to have sex before the legal age of consent compared with those who not distressed.

In terms of HE students (18 to 25 years), a UK study across different universities in relation to behaviour in seeking and obtaining sexual health information and treatment found:(32)

- Almost half (49%) used the internet as the sole source of sexual health advice; 38% obtained information from the GP; a quarter accessed local sexual health clinics for information.
- More female students sought advice and treatment from health services compared with male students, who relied on the internet for information.

2.2 Mental Wellness and Balance

Key Findings

- Students report higher levels of mental distress than their non-student peers.
- In 2018, 1 in 5 university students had a diagnosed mental health problem
- Anxiety and depression are the most common mental health issues amongst students, with first year female university students reporting mental health difficulties more often than other student groups.
- In 2018, 1 in 3 university students experienced a serious psychological issue for which they felt they needed professional help, up by just under 1% compared to 2017.
- In 2018, around 1 in 8 students who had experienced psychological difficulties for which they needed professional help did not receive a diagnosis.
- In 2018, 76% of university students with a mental health condition concealed their symptoms due to fears of stigma.
- University students are more likely to drink alcohol at levels deemed harmful compared to non-student groups.

2.2.1 Mental Health

- Between 2016 to 2017 and 2019 to 2020, the estimated rate of death by suicide amongst undergraduates aged 20 and under (1.6 to 3.9 per 100,000) was lower than the rates seen in undergraduates aged 21 to 24 (2.5 to 6.7 per 100,000).
- The use of e-cigarettes (vaping) amongst those aged 11 to 1 in Britain 7 has increased over the last 3 years with 29% of those aged 11 to 17 and 41% of those aged 18 having tried vaping in 2022.
- Drug use amongst university students has been shown to increase through ages 18 and 19 and peaked at age 20, before decreasing by age 23.
- There was an increase in depression in university students during the first lockdown compared to before the pandemic.

The NHS Mental Health of Children and Young People in England 2021 Report examines the mental health of children and young people up to the age of 23 living in England in 2021.(33) Despite this survey not reporting on the student-status of young people aged 16 to 24, it provides useful information as to the prevalence of mental health problems in the profile population, particularly for students aged 16 to 18. Key findings from this study are:

- Rates of probable mental health disorders have increased in 17 to 19 year olds from one in ten (10%) in 2017 to one in six (17%) in 2021.

- Among 17 to 23 year olds, 53% experienced deterioration in mental health, and 15% experienced improvement in mental health since 2017.

- Problems with sleep on three or more nights of the previous seven affected over half (57%) of 17 to 23-year-olds. This figure was much higher in those with a probable mental health disorder (87%).

2.2.1.1 Mental Health and Wellbeing of Students Aged 16 to 18 in Birmingham

A large-scale mental wellbeing census was conducted in 19 secondary schools in Birmingham during the summer term of 2022 capturing data from 6,935 pupils between the ages of 11 to 18 years using the Warwick-Edinburgh Mental Wellbeing Scales (WEMWEBS), scores range from 14 to 70.(34) Participating schools included 14 academies, 3 maintained schools, 1 free school, and 1 independent school, spanning North (n=8), South (n=7) and East (n=4) of the city.

Amongst secondary schools for all pupils aged 11 to 18, overall wellbeing had dropped in 2022 (overall average WEMWEBS 45.9) compared with 2021 (46.8).(34) This finding was also slightly lower than a 2020 UK population average found for adolescents of 48.1.(35) In 2022, there was also variation in overall wellbeing by area of Birmingham, with secondary schools in the North having higher wellbeing (overall average WEMWEBS 46.8) compared with secondary schools in the South (-1.4 difference) and East (-2.3 difference) of Birmingham.(34) An overall relationship was found between secondary school pupil wellbeing and school year with wellbeing decreasing as school year increased. In Year 11 (119 students aged 15 to 16), the overall average WEMWEBS was 44.2, this was similar to Year 12 (384 students aged 16 to 17) average score of 44.5, and higher than the Year 13 (38 students aged 17 to 18) average score of 43.9.

Overall, female pupils reported lower mental wellbeing (43.7) than male pupils (48), a substantial and meaningful difference of -4.7 between groups. Pupils of White ethnicity reported slightly lower average wellbeing (44.3) compared with all other recorded ethnicities. Pupils with a communication and interaction SEN reported slightly lower wellbeing scores (43.5) than those reporting no SEN (45.9), as did those in receipt of free school meals (FSM) (45.2) compared with not in receipt (46.5) These figures include all students aged 11 to 18 and so may not fully represent findings for the 16 to 18 year old population.

From the Birmingham schools census data, it was found that wellbeing appeared to be positively related to school connectedness, and whilst the exact relationship can be determined, school connectedness is often cited as a driver of wellbeing. Consequently, attempts to improve how connected pupils aged 16 to 18 to their school will likely be positively associated with wellbeing in this age group.

2.2.1.2 Hospital Admissions

Hospital Episode Statistics (HES) show that admissions in England due to mental and behavioural disorders between 2017 to 2018 and

2021 to 2022 generally decreased in those aged 16 to 24 (**Table 19**).(36) Admissions due to mood [affective] disorders between 2017 to 2018 and 2021 to 2022 remained relatively stable for those aged 16 to 19 but decreased in those aged 20 to 24. Admissions due to behavioural and emotional disorders with onset usually occurring in childhood and adolescence between 2017 to 2018 and 2021 to 2022 increased in 16 to 18 year olds but decreased in those aged 20 to 24. Although the data does not specify that this age group were students, the age range potentially includes young people attending further and higher education settings.

Table 19: Total hospital admissions, by age: England, 2017 to 2022

Reason for admission	Aged 16	Aged 17	Aged 18	Aged 19	Aged 20 to 24
Mental and Behavioural disorders*	281 (388)	317 (451)	437 (558)	520 (570)	2,923 (3,148)
Mood [affective] Disorders*	282 (254)	324 (315)	205 (295)	212 (308)	1,381 (1,861)
Behavioural and emotional disorders with onset usually occurring in childhood and adolescence*	102 (85)	64 (86)	41 (25)	20 (23)	87 (105)

** Total admissions in England 2021 to 2022, compared with 2017 to 2018 figures in brackets*

Source: NHS Digital (36)

In Birmingham, Hospital Episode Statistics from the Office for National Statistics, show that hospital admissions for mental health conditions in young people aged 15 to 17 decreased between the period of 2013 to 2018 (**Table 20**).(37) The rate of hospital admissions for mental health conditions in 2013 to 2014 was 212 per 100,000 but fell to 139 per 100,000 in 2017 to 2018. Rates in Birmingham were below those seen in the West Midlands and nationally across this period, with no change seen in West Midlands and nationally between 2013 to 2018. Note, the Hospital Episode Statistics data presented includes students and non-students.

Table 20: Hospital admission rates per 100,000 population for mental health conditions in young people aged 15 to 17: Birmingham, West Midlands, and England between 2013 to 2018

Year	Birmingham	West Midlands	England
2013 to 2014	212	213	260
2014 to 2015	201	211	272
2015 to 2016	203	225	273
2016 to 2017	182	207	252
2017 to 2018	139	213	261

Source: Hospital Episode Statistics, Office for National Statistics (37)

2.2.1.3 Mental Health of HE Students Aged 18 to 24

It is well documented that student life can be a cause of mental distress, with increasing evidence revealing that students report higher levels of mental distress than their non-student peers.(38) Data and awareness on the mental health of students has shown an increased incidence of mental health conditions over the past

decade within the UK; however, exact figures are difficult to obtain as many mental health conditions go undiagnosed due to lack of disclosure and fears of stigma.

Over the last 7 years, the prevalence of mental health conditions among UK HE students has nearly doubled, with 42,505 cases (2.3%) in 2015 to 2016 to 119,480 cases (5.5%) cases in 2021 to 2022 (**Table 21**).(39) Most cases were reported by undergraduate students; the number of postgraduates with a mental health condition has also increased between 2015 to 2022.

Table 21: Number of domiciled undergraduate and postgraduate student enrolment with a mental health condition: UK, 2015 to 2022

Mental Health Condition	2015 to 2016	2020 to 2021	2021 to 2022
First year undergraduate	13,135	30,735	30,890
Other year undergraduate	24,800	63,780	69,855
First year postgraduate	2,665	11,240	11,145
Other year postgraduate	1,905	6,120	7,590
Total (% of total student population)	**42,505 (2.3%)**	**111,875 (5.2%)**	**119,480 (5.5%)**

Source: HESA (39)

Students are at higher risk of developing mental health problems, especially when transitioning to university. This is due to added challenges of dealing with finances, moving away from home, meeting and living with new people, maintaining past relationships, and having a lack of a support network.(3) Research shows that anxiety and depression are the most common mental health disorders affecting students. Mind, one of the leading charities for mental health in England and Wales, report that around three quarters of adults with a mental health problem have their first mental health episode before turning 25.

A large-scale study of 37,544 UK HE students (85% aged 18 to 22, 67% in their first year of study) by the Insight Network, investigated the prevalence of student mental illness within UK universities in 2018.(2) Key findings from this insight report revealed:

- 1 in 5 (22%) had a diagnosed mental health illness.
- 1 in 3 (34%) experienced a serious personal, emotional, behavioural, or mental health problem for which they required professional help; an increase of around 1% compared with 2017. This is a higher percentage than had received a mental health diagnosis, suggesting that about 1 in 8 students had experienced psychological difficulties for which they needed professional help but did not receive a diagnosis.
- The most common diagnoses were depression (10% of the sample) and anxiety disorders (8.4%), followed by bipolar disorder (0.55%), eating disorders (0.54%), borderline personality disorder (0.25%), autism spectrum disorders (0.24%), and attention-related disorders (0.19%).
- The students who were most likely to report past psychological issues for which they needed professional help identify as female, are in their first year of university, aged between 18 and 20, from the UK, and ethnically White.

- 50% reported thoughts about self-harm with 1 in 10 (9.4%) of those admitting they thought about self-harm often or always.
- Almost 1 in 5 with a mental health diagnosis reported their mental health problem had emerged whilst at university.
- Stigma may be a major factor in obstructing access to psychological support. More than three-quarters (76%) of those reporting a prior mental health problem reported that they had concealed their symptoms from those around them for fear of stigmatisation.

A study at a university college in Birmingham in 2010, found that psychological stress was high amongst their student sample (410 students, average age 22.9), with females experiencing greater psychological stress and less physical activity than male students.(7) Psychological stress was associated with unhealthy behaviours relating to physical activity, diet and levels and patterns of alcohol consumption, affirming that health behaviours should not be considered in isolation from one another. However, the study had limitations due to the small sample size.

2.2.1.4 Support and Services

Within the UK, it is a national statutory requirement to teach physical, social, health and economic (PSHE) education throughout key stages 1 to 5 (ages 5 to 18). The Department for Education (DfE) provides guidance to schools as part of the Education Act to ensure that relationships and sex education (RSE) and health education for key stages 4 (aged 15 to 16) are covered as part of the curriculum. Good quality teaching of PSHE and RSE throughout key stages 1 to 5 can help to positively shape the mental wellbeing of those who continue into FE and HE.

A challenge 16 to 24 years olds may face is the transition from Children and Young People Mental Health Service (CYPMHS) to an adult mental health support service, which usually happens at the age of 18 in England. This service is usually the Adult Mental Health support via a general practitioner (GP doctor) or another service in the local area, for example a student wellbeing service run by their university. This transition can be a daunting time for young people as the teams they know and trust change. It is important that everyone involved in the transition process is well prepared and supported by the CYPMHS team.

A range of easily accessible mental health support services are also available specifically for patients aged 16 to 24 in Birmingham and Solihull via keyworkers, telephone, or live chat.(40) Specific support can be found via Forward Thinking Birmingham who have partnerships with the National Health System (NHS) Birmingham Women's and Children's Hospital and other organisations. Support can be accessed via Pause, a self-referral service offering face-to-face drop-in sessions, group workshops and 1:1 session for those up to age 25 with specific topics on mental health at university and mental health support for students. In addition, Kooth[b], can be a

[b] A free digital counselling service for those aged 11 to 25 which is accredited by the British Association for Counselling and Psychotherapy

useful service.(40) Universities and colleges within the area of Birmingham also provide well established mental health services to their students if required. Despite the mental health support available, Mental Health Foundation report that 75% of children and young people (aged 12 to 24) in the UK who experience mental health problems are not getting the help they need.(41)

2.2.1.5 Suicide and Self-Harm

In Birmingham, mortality rates between 2017 and 2021 due to suicide and injury or poisoning of undetermined intent (which includes deaths with an underlying cause of intentional self-harm and deaths with an underlying cause of event of undetermined intent, based on the assumption that the majority of these deaths will be suicide), were generally below the national average and rates seen in the West Midlands, particularly in those aged 20 to 24 (**Table 22**).(5) The Office for National Statistics (ONS) does not categorise this age group into students and non-students and so it is difficult to determine the prevalence of suicide amongst students aged 16 to 24 in Birmingham.

Table 22: Standardised mortality rate due to suicide and injury or poisoning per 100,000 population: Birmingham, West Midlands, and England, 2017 to 2021

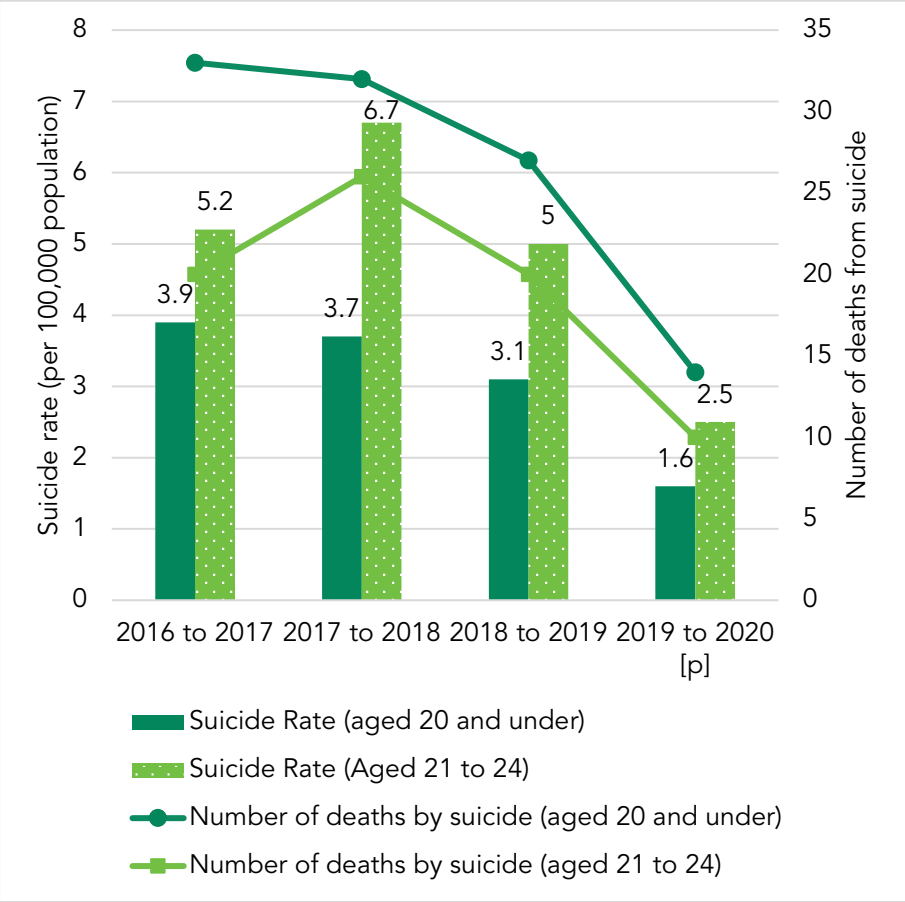
Geography	2017	2018	2019	2020	2021
Birmingham (ages 15 to 19)	[-]	3.8	3.8	5.0	3.5
West Midlands (ages 15 to 19)	3.8	4.1	6.2	4.7	7.6
England (ages 15 to 19)	5.0	5.8	5.7	4.7	6.2
Birmingham (ages 20 to 24)	3.8	4.8	2.9	6.7	6.5
West Midlands (ages 20 to 24)	6.4	8.4	6.9	9.8	8.3
England (ages 20 to 24)	7.4	10	11	8.8	11

[-] = figures missing

Source: ONS (5)

ONS provides data on estimated rates of death by suicide among HE students in England and Wales between academic years 2016 to 2017 and 2019 to 2020 (**Figure 3**, **Appendix 3.4**).(6) Estimated rates of death by suicide amongst undergraduates aged 20 and under is lower than those rates seen in undergraduates aged 21 to 24 throughout the period of 2016 to 2020.

Figure 3: Number and rate of death by suicide of undergraduate students by age group: England and Wales, 2016 to 2020



[p] = provisional.

Source: Office for National Statistics (6)

HES show that hospital admissions due to self-harm in those aged 15 to 19 in Birmingham, West Midlands and nationally have been relatively stable over the last 10 years, ranging from 360 to 490 per 100,000, 560 to 660 per 100,000 and 590 to 660 per 100,000 respectively (**Table 23**).(42) Rates in Birmingham are notably lower than those rates seen regionally and nationally in this age group as well as rates for those aged 20 to 24. Hospital admissions due to self-harm in those aged 20 to 24 are lower than rates for those aged 15 to 19, both in Birmingham, regionally and nationally. Rates have been relatively stable over the last 10 years in those aged 20 to 24 in Birmingham, West Midlands, and England, ranging from 270 to 340 per 100,000, 300 to 450 per 100,000 and 390 to 450 per 100,000 respectively. It is important to note that the HES data presented includes students and non-students.

Table 23: Hospital admission rates due to self-harm in young people aged 15 to 19 and 20 to 24: Birmingham, West Midlands, and England, 2013 to 2021

Year	Birmingham (ages 15 to 19)	WM* (ages 15 to 19)	England (ages 15 to 19)	Birmingham (ages 20 to 24)	WM* (ages 20 to 24)	England (ages 20 to 24)
2013 to 2014	490	598	597	320	399	429
2014 to 2015	417	569	591	280	390	391
2015 to 2016	490	658	652	322	408	416
2016 to 2017	434	630	617	307	375	398
2017 to 2018	369	596	649	281	345	406
2018 to 2019	452	664	660	344	450	446
2019 to 2020	441	630	665	271	387	434
2020 to 2021	440	576	653	291	307	401

**WM= West Midlands*

Source: Hospital Episode Statistics (42)

Access to local services by students aged 16 to 24 with regards to suicide and self-harm was not available at the time of profile completion. Therefore, is difficult to understand the prevalence of suicide and self-harm amongst students in Birmingham.

2.2.1.6 COVID-19 and Mental Health

The mental wellbeing of students was a growing concern even before the COVID-19 pandemic occurred, with increasing numbers of students aged 16 to 24 experiencing mental health problems.(4) The effect of COVID-19 on the mental health of the population has either further increased existing mental health issues or resulted in the emergence of a new mental health diagnoses.

Mind's 2021 coronavirus survey reported that 30% of adults aged 25 and above and 34% of young people aged 13 to 24 stated that their mental health was worse during the pandemic.(43) In addition, more than half of young people aged 13 to 24 (59%) said they would enjoy school, college or university more once restrictions eased.

Other published findings include:

- National Union of Students (NUS) survey of 4,500 students in 2020 identified that over half (52%) of HE students described their current mental health and wellbeing as worse compared with before the pandemic.(44)
- The 2020 Student Covid Insight Survey of 2,700 students, also reported that more than half (57%) of students aged 16 to 24 stated that their well-being and mental health had become slightly or much worse since September 2020, with lower levels of life satisfaction and happiness, and higher levels of anxiety, compared with the general population aged 16 to 24.(45, 46)

- A study comparing the mental health of 254 UK undergraduate HE students (average age 19.8) before and during the pandemic reported an increase in the number of students being classed as clinically depressed during the first lockdown of April and May 2020 (34%) when compared with before the pandemic in 2019 (14%).(47)

- A university online survey (1,173 students, average age 25.7) in the North of England in 2020 found that 87% of participants reported at least one adverse effect of the pandemic (average 2.3 per student) and 26% scored low in resilience, with no students scoring high in resilience.(48) This was thought to be due to the lack of outlets and activities to engage in helpful coping strategies, such as socialising during the pandemic.

In 2019, a national programme was launched by the charity Mind and Goldman Sachs Gives, to address mental health across the university student body and HE education network.(49) The aim of the programme was to provide support and specialist training to equip university students and staff with the knowledge, skills, and confidence to support their own mental health and that of others. Participants were mostly UK or EU students (86%), aged 16 to 24 (77%) with personal experience of mental health problems (58%). The programme consisted of a range of workshops such as tools and techniques for mental health and a four-week resilience-building intervention. The programme was adapted through the pandemic and highlighted the increased need for mental health and wellbeing support for university students, and even more so during the pandemic. Findings from the report include:

- Around 90% of students had a better understanding of mental health problems and wellbeing after the programme and over 90% of students felt more confident looking after their own mental health.

- Students felt that the programme promoted a sense of community and peer support, which was especially valuable during lockdown.

- Students felt that remote delivery of the courses placed a limitation on the range of activities that were offered, and so face-to-face delivery remained of crucial importance for the success of future programmes.

The findings from the evaluation will be useful to inform future work with students aged 16 to 25, as well as contributing to sector-wide knowledge of what effective mental health and wellbeing support looks like in HE institutions.

2.2.2 Alcohol Consumption

Determining the patterns and level of alcohol consumption in 16 to 18 year-old students in Birmingham is difficult due to available data and classification of data by student status. The rate of admission episodes for alcohol-specific conditions in under 18s in Birmingham in 2018 to 2019 to 2021 to 2022 was 21.5 per 100,000 females and 13.5 per 100,000 males (lower than the national and regional rates).(50) Overall, the rates of under 18 alcohol specific admissions in Birmingham have decreased since 2008 to 2009, which is comparable to the national trend. In 2014, 6.3% of 15 year olds

reported that they had been drunk in the last 4 weeks and 33% of 15 year olds reported ever having had an alcoholic drink, both figures were lower than the national and regional averages. A 2020 study involving 46 secondary schools, sixth form and college students (aged 16 to 20 with intentions to study at university) in the Northwest of England found that 38% of students consumed alcohol monthly or less, 48% two to four times a month, 19% two to three times a week and 5% four or more times a week.(9)

Alcohol plays an important role for many HE students aged 18 and older as part of university life, and research has found that university students report a higher drinking level than non-students of the same age.(51) Determining the patterns and level of alcohol consumption in HE students aged 18 and older in Birmingham is difficult due to available data. Up to two thirds of students sampled within universities in the UK and Ireland in 2014 reported drinking alcohol at levels deemed harmful (e.g. exceeding weekly recommended limits or binge drinking).(52) The large-scale Insight University Student Mental Health Survey in 2018, found that around 45% of university students in the UK consumed alcohol as means of coping with difficulties in their lives, with 1 in 10 (9.5%) saying they do this regularly or always, and 1 in 15 (6.9%) reported using drugs or alcohol to help with falling asleep.(2)

High levels of alcohol consumption amongst students appears to be the norm and is viewed as a way of 'fitting-in'.(9) This is a concern as it has been shown that students are at a higher risk of experiencing mental health disorders and alcohol consumption is a contributing factor to the development of mental health issues.(53-55) A small study of 99 students who drink alcohol at the University of Birmingham found that the top three reported benefits of drinking were social life, fun or humour, and self-confidence, and that motivational factors, particularly the expectation of increased self-confidence, played an important role in the maintenance of heavy student drinking.(56)

Other UK university studies have looked at student's attitudes towards drinking alcohol at specific universities. A study in the Southwest of England with students aged 18 to 29 in 2018 found that drinking was a way of strengthening group identity and a hangover was seen as a valued aspect of the drinking experience.(57) Another 2019 UK study with university students aged 18 to 20 from the Northwest of England found that regrettable incidents following excessive alcohol consumption were common but did not affect future drinking decisions and respondents preferred these regrettable experiences over the fear of missing out on drinking events.(58)

2.2.3 Drug Use

The use of recreational drugs by young people is a risk to mental health including potential increases in suicide, depression, and disruptive behaviour disorders. In 2014 to 2015, 0.2% of 15 year olds in Birmingham reported taking any drugs (excluding cannabis) in the last 4 weeks, which was lower than the national and regional averages.(42)

The ONS overview on drug use in England and Wales in 2021 to 2022 reported:(59)

- Around 20% of young people aged 16 to 24 reported drug use, which was similar to the previous year of 2020 to 2021, with the prevalence of any drug use highest among those aged 20 to 24 compared with 16 to 19.
- 4.7% of young people aged 16 to 24 reported using Class A drugs; a decrease from the previous year (7.4%)
- 4.0% of young people aged 16 to 24 years reported using ecstasy, which was an increase from the previous year (1.1%).
- The prevalence of nitrous oxide (laughing gas) use in adults aged 16 to 24 was 3.9%, which was a decrease from the previous year (8.7%).

HES data show that the rate of hospital admissions in Birmingham due to substance misuse in those aged 15 to 24 was consistently lower than national and regional averages between 2008 and 2021 (**Table 24**).(60) Rates have substantially decreased between 2015 and 2021 both locally, regionally, and nationally. Although HES does not specify the student-status of the population within this age group, the data potentially includes students aged 16 to 24.

Table 24: Hospital admission rates per 100,000 population due to substance misuse in those aged 15 to 24: Birmingham, West Midlands, and England from 2008 to 2021

Period	Birmingham	West Midlands	England
2008 and 2009 to 2010 and 2011	57	65	64
2009 and 2010 to 2011 and 2012	57	65	69
2010 and 2011 to 2012 and 2013	60	68	77
2011 and 2012 to 2013 and 2014	57	70	83
2012 and 2013 to 2014 and 2015	59	74	91
2013 and 2014 to 2015 and 2016	63	79	95
2014 and 2015 to 2016 and 2017	63	74	92
2015 and 2016 to 2017 and 2018	56	71	88
2016 and 2017 to 2018 and 2019	52	69	83
2017 and 2018 to 2019 and 2020	51	71	85
2018 and 2019 to 2020 and 2021	51	67	81

Source: Hospital Episode Statistics (60)

There have been reports that drug use is high amongst HE university students.(2, 61, 62) A large-scale UK study in 2018 of 37,544 students identified that drug use increased through ages 18 and 19 and peaked at age 20, before decreasing by age 23.(2) A study of 2,800 students (68% aged 18 to 22) across the UK by the National Union of Students in 2018 reported that: (63)

- 56% reported ever having used drugs, with 39% currently using drugs and 17% having used drugs in the past.
- 94% of students who reported using drugs reported using cannabis at some point, with 50% reporting using it once a month or more.
- The second most frequently used drug was ecstasy/MDMA (67% of those students who had reported using drugs).
- Just over 50% of those who used drugs reported using cocaine and nitrous oxide (laughing gas) at some point.
- 20% of those who used drugs had used 'study drugs' (e.g., Modafinil and Ritalin) to improve focus and motivation and 6% reported using these regularly (at least once a month).
- 80% used drugs for recreational purposes, 39% to enhance social interactions, 31% to deal with stress and 22% to self-medicate for an existing mental health problem.

2.2.4 Smoking

Most smokers start smoking when they are children and those who start smoking earliest are more likely to become heavy smokers and find giving up harder.(64) Among adult smokers, about two-thirds report that they took up smoking before the age of 18 and over 80% before the age of 20. Smoking initiation in adolescence is highly influenced by the smoking habits of parents, siblings, and other household members, through modelled behaviours and the

availability of tobacco products. Overall, 4.4% of 15 year olds in Birmingham were current smokers in 2014 to 2015, which was lower than the national average (8.2%).(65) In the UK, the proportion of children who have ever smoked continues to decline. In 2018, 16% of 11 to 15-year-olds (23% in 2012) had smoked at least once; the lowest proportion since 1982 (53%).

The Health Survey for England 2019 estimated smoking prevalence amongst 16 to 24 year old men at 23%, down from 27% in 2013, and 19% in women aged 16 to 24, which is the same rate was for 2013.(66) The Office for Health Improvement and Disparities estimates that the rate of current adult (18+) smokers in Birmingham in 2021 was 16.1%.(67) A survey carried out at the University of Birmingham between 2016 and 2017 reported that 17% of students aged 17 to 24 were daily or intermittent smokers.(10) This study at the University of Birmingham also found that overall, 66% of participants (students and staff) supported a smoke-free campus; 69% endorsed restrictions for tobacco sales and just under half of respondents 47% supported a ban for electronic cigarettes or vaping device use on campus.

The emergence of vaping (e-cigarettes, refill containers and e-liquids) is of importance in the student population aged 16 to 24. The Health Survey for England 2019 reported 7% of men and 5% of women aged 16 to 24 using e-cigarettes in 2019.(66) A survey conducted by Action on Smoking and Health (ASH) in 2022 looked at the use of e-cigarettes in Britain amongst those aged 11 to 18.(68) The survey sample included 776 16 to 17 year olds and 502 18 year olds. Key findings from this report are:

- 16% of 11 to 17 year olds reported they had tried vaping in 2022, an increase from 2021 (11%) and 2020 (14%).
- 7.0% reported they were current users in 2022, an increase from 2021 (3.3%) and 2020 (4.1%).
- In the UK in 2022, 10% of 11 to 15 year olds have tried vaping, compared with 29% of 16 to 17 year olds and 41% of 18 year olds.
- 65% who didn't smoke reported their main reason for using an e-cigarette was 'just to give it a try'.
- 18% who smoked reported their main reason for using an e-cigarette was because they 'enjoy the experience', with 11% reporting they are 'trying to quit smoking' and 10% reporting that they are 'addicted to them'.
- 42% believed that e-cigarettes were less harmful than cigarettes.

Additionally, over half of all 11 to 17 year olds reported awareness of some form of e-cigarette promotion (56%), and of those who reported seeing e-cigarettes promoted online the most common place was on TikTok (45%). Adverts on e-cigarettes, legalised in the UK, have increased the social acceptability of smoking amongst students and encouraged both e-cigarette and conventional cigarette use in young smokers and non-smokers.(69)

In 2017, the Department of Health announced a tobacco control plan to reduce smoking in England, with the aim of creating a

smoke-free generation where no more than 3% of young people would smoke regularly by 2022.(64) The objectives were to reduce the number of those aged 15 who regularly smoked from 8% to 3% or less and smoking among adults from 16% to 12% or less by the end of 2022. Details on the outcome of the tobacco control plan for England were not available at the time of writing this Community Health Profile. Public Health England (PHE) announced in 2019 that the enforcement of age of sale regulations for vaping and smoking needs to be improved to help reduce the numbers of young adults smoking and the misperceptions of the relative harms of smoking and vaping need be addressed.(70)

2.2.5 Domestic Violence

Domestic abuse is defined in the UK by the Domestic Abuse Act 2021. The definition of domestic abuse is behaviour of a person ("A") towards another person ("B") if: (a) A and B are each aged 16 or over and are "personally connected" to each other, and (b) the behaviour is abusive. Behaviour is "abusive" if it consists of any of the following:

- Physical or sexual abuse
- Violent or threatening behaviour
- Controlling or coercive behaviour
- Economic abuse (acquiring, using, or maintaining money or other property, or obtaining goods or services)
- Psychological, emotional, or other abuse

There is limited evidence for the rates of domestic abuse and violence in student populations aged 16 to 24, living in the UK. However, a rapid review of 133 universities in the UK, found that in the academic year 2019 to 2020, 162,073 full or part-time university students experienced domestic abuse.(71) Although this would include people over the age of 24, it would be assumed that students aged 16 to 24 at university may be at risk of experiencing domestic abuse. The review also found that only 1.5% of universities have specific domestic abuse policies. This suggests that students may not have the necessary support from their university if they have experienced domestic abuse.

2.2.6 Hate Crimes and Discrimination

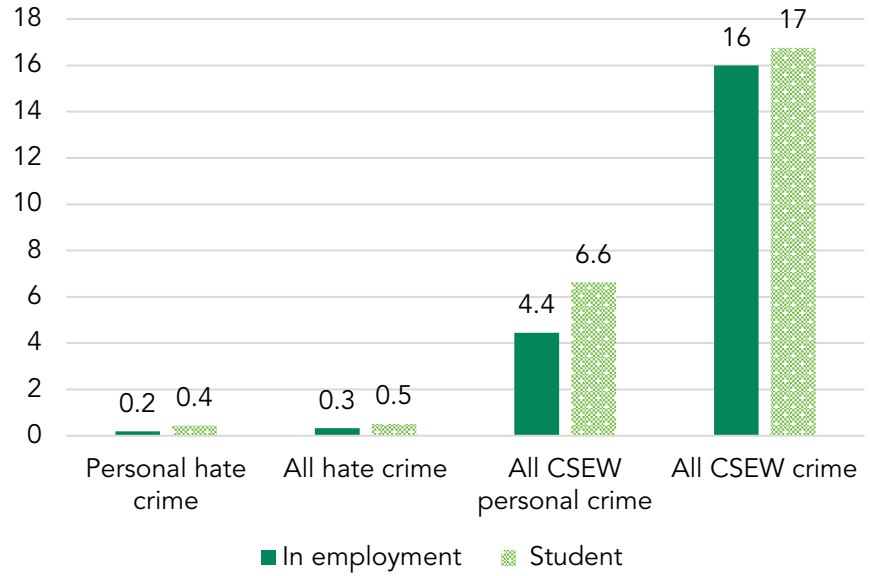
2.2.6.1 All Forms of Crime

When looking at hate crimes and discrimination, the Office for National Statistics produces findings for people by employment status, which includes students.(72) **Figure 4** (**Appendix 3.5**) below compares the percentages of students who are victims of crime, compared with those in employment in the academic year 2019 to 2020.(73) 17% of students were a victim of all crimes identified in the Crime Survey for England and Wales (CSEW), slightly higher than employed people (16%). All CSEW personal crime was higher in students (6.6%) compared with employed people (4.4%). All hate crime[c] was similar (students = 0.5%, employed = 0.3%), as was

[c] A crime, typically one involving violence, that is motivated by prejudice on the basis of ethnicity, religion, sexual orientation, or similar grounds.

personalised hate crime (students = 0.4%, employed = 0.2%). Overall, this suggests that a higher percentage of students are victims of crime, compared with those in employment.

Figure 4: Percentage of those who are a victim of crime, students compared with those in employment: England, and Wales, 2019 to 2020



Source: Home Office (73)

2.2.6.2 Crime Amongst HE Students

University College London (UCL) produced an online page which summarised higher educational research into harmful behaviours and student experiences.(74) The following was reported by UCL:

- A report produced by Durham University found that the highest percentage of those experiencing unwanted behaviour was those who identify with a disability (45%), followed by those identifying as trans, non-binary, or 'other gender' (38%). 30% of those from minority ethnic communities (BAME within the study) reported that they had experienced unwanted behaviour. *Note: the original report is now not available online, so it is not clear if these included universities in Birmingham.*

- **Racial abuse:** In 2019, the Equality and Human Rights Commission report on tackling racial harassment in HE institutions found that 20% of students had been attacked and 56% had been racially harassed (racist name-calling, insults, and jokes).(75) *Note: this survey included respondents from Aston, Birmingham City University, University College Birmingham, and The University of Birmingham.*

- **LGBT:** The National Union of Students (NUS) reported in 2014 that 1 in 5 LGBT students had experienced harassment in universities. This figure was 1 in 3 amongst trans respondents (76). *Note: it is not clear if these included universities in Birmingham.*

- **Females:** A survey reported by Drinkaware found that 54% of 18 to 24-year-old female students experienced sexual harassment on nights out, with half of these women saying that it happens most or every time that they go out. This was comparable to 15% of male students of the same age experiencing sexual harassment on nights out.(77) The NUS have also reported pack mentality in sports and heavy alcohol consumption which leads to banter that is sexist, misogynist, or homophobic.(78) *Note: it is not clear if these included universities in Birmingham.*

2.3 Healthy and Affordable Food

Key Findings

- A high proportion of students report that they eat an unhealthy diet.
- Those students who eat an unhealthy diet, often exhibit other lifestyle risk factors such as smoking, low physical activity, and high take away consumption.
- Female students tend to have better intentions for eating healthily and are more likely to eat 4 to 5 fruit and vegetables a day compared to male students, however female students tend to eat more high sugar foods than male students.
- Social influence can affect the eating behaviours of university students such as eating in the presence of an unhealthy partner
- Between 2020 and 2021, 12% of the population aged 18 to 24 were classified as obese in England.
- Amongst 16 to 24-year-olds, 28% of women and 14% of men screened positive for a possible eating disorder.
- An estimated 32% of students with an eating disorder were diagnosed at university.
- Research suggests that 25% of eating disorder cases in the UK are male and highest in those aged 25 to 34 in 2019.

2.3.1 Diet and Nutrition

The UK's Eatwell Guideline recommends that everyone should eat at least five portions of fruit and vegetables each day.(79) Despite the health benefits of consuming fruit and vegetables being widely advertised within the UK, intake levels amongst the general population are still below the recommended guidelines.(80)

In 2014 to 2015, 54% of 15 years olds in Birmingham reported that they ate five portions or more of fruit or vegetables a day compared with the national average of 52%.(81) There is limited data on the consumption of other nutritional indicators such as fat, salt and sugar and dietary patterns of the student population aged 16 to 18 in Birmingham, with most evidence looking at HE students aged 18 and older.

A school-based UK study in 2010 showed that year 12 students (aged 16 to 17) were influenced by their perceived norms of what peers in their year group consumed regarding intake of fruit and vegetables, sugar-sweetened drinks and unhealthy snacks; with misperceptions of peers' food intake being associated with the respondents' own intake.(82) Thus, interventions to correct misperceptions have the potential to improve adolescents' diets.(82-84)

HE university students face many challenges such as dealing with finances, moving away from home, meeting and living with new people, maintaining past relationships, and having a lack of support network, which can all have significant effects on diets.(3)

A cross sectional study between 2013 and 2015 involving 1,448 students (average age 21.5, 74% female) across five UK universities looked at dietary patterns of students generated from food frequency intake data.(85) Dietary analysis revealed four major dietary patterns:

1) 'Health-conscious': consumption of foods typically associated with improved health (vegetables, fish, low fat yoghurts, beans, pulses etc)
2) 'Vegetarian': a clear tendency towards consumption of non-meat protein sources and avoidance of all meat and fish products
3) 'Snacking': consumption of snack-type foods that generally did not represent components of main meals, requiring no preparation and offer many options for mobile consumption (cakes, biscuits, sweets, pizza, crisps etc)
4) 'Convenience, red meat and alcohol': high consumption of red meat and savoury foods and alcoholic drinks

The study reported:

- A substantial proportion of students followed the 'health-conscious' pattern, the most nutrient dense diet high in micronutrients such as biotin, vitamin B12, vitamin D and selenium, as opposed to 'vegetarian'; 'snacking'; and 'convenience, red meat and alcohol' patterns.

- Female students were more likely to follow the 'vegetarian' dietary pattern, often low in iron with an increased risk of anaemia, whilst male students were more likely to follow the 'convenience, red meat and alcohol' pattern, associated with high intake of saturated fat and increased risk of weight gain and high blood pressure.

- Those that followed the less healthy dietary patterns ('snacking' and 'convenience, red meat and alcohol') also reported other lifestyle risk factors for long-term health problems including smoking, low physical activity, and high take-away consumption.

- Over half (55%) reported cooking a wide range of meals from raw ingredients, with 73% consumed self-cooked meals from raw ingredients 'every' or 'most' days. These students mostly followed the 'health-conscious' and 'vegetarian' eating patterns.

- One in four (25%) reported consuming meals cooked from pre-prepared foods (assumed to represent convenience foods) on 'most days' or 'everyday'.

- Around 30% reported skipping breakfast most days.

A previous study in 2008 at Newman University College in Birmingham (410 students, average age 22.8) looked at the prevalence and grouping of five lifestyle risk factors in students and reported 3 subgroups regarding their eating habits:(7)

1. 'Unhealthy or high risk': high psychological stress, low physical activity (PA), low fruit and vegetable intake and high percentage of occasional/regular smoking.

2. 'Moderately healthy or moderate risk': moderate proportion of psychological stress, PA and fruit and vegetable intake, binge drinking more than twice in a seven-day period with a large percentage considered regular smokers compared with the other groups.

3. 'Healthy or low risk': low psychological stress, high PA, high fruit, and vegetable intake (meeting the five-a-day recommendation), moderate alcohol consumption and mainly non-smokers.

Of the total sample population, 70% did not meet the recommended guidelines of PA, 66% ate less than the recommended servings of fruit and vegetables per day, and 56% reported binge drinking at least once in a seven-day period. The study demonstrated that unhealthy behaviours do not occur in isolation but are often associated with other behavioural factors such as high psychological stress, low physical activity, and high alcohol consumption.

A study of 105 female students, (average age 19.9) attending the University of Birmingham in 2012 found that social influence can affect eating behaviours and eating in the presence of an unhealthy partner can steer students towards eating unhealthily.(84)

A 2011 study of 3,706 undergraduate students in the UK showed that female students appear to place a greater importance on healthy eating compared with male students.(86) Female students were also more likely to eat more servings of fruit or vegetables per day, whilst fewer male students consumed sweets (chocolate, candy, etc.) several times a day, daily, or several times per week compared with females.

2.3.2 Obesity

Obesity is a complex public health issue and is associated with a range of chronic diseases including cardiovascular disease, type 2 diabetes, cancer, liver disease, respiratory disease, mental health problems and reduced life expectancy.(81) The prevalence of obesity in the adult population in Birmingham is increasing, with 27% of adults aged 18 and over classified as obese in 2020 to 2021, higher than the national average of 25%.(81)

The Health Survey for England 2019 estimates the prevalence of obesity from self-reported height and weight amongst 16 to 24 year old males at 14%, and in females at 12%.(66) There is limited data on excess weight and obesity in students aged 16 to 18 in Birmingham, with most evidence looking at HE students aged 18 and older.

A study across four UK universities including the University of Birmingham in 2011 reviewed the changes in weight, waist measurements and body composition of first year undergraduate students (average age 19, 16% from the University of Birmingham) during their first year of university and the eating habits possibly related to weight gain.(87) The study reported that students gained a small but temporary amount of weight in the first three months of starting university which did not remain at 12 months, with BMI scores averaging at 21.9 at the start of university, increasing to 22.2 at 3 months and falling to 21.8 at 12 months. The variability in weight

change observed amongst study participants was large suggesting individual differences in susceptibility to gain weight needs to be considered.

Eating behaviour traits thought to influence the tendency to overconsume were also assessed in this study and included measures of hedonic responsiveness (sensitivity to reward and power of food), conscious control overeating (cognitive restraint) and loss of control and/or excessive eating (disinhibition and binge eating). Loss of control and/or excessive eating was associated with small but substantial increases in measures of percentage body fat at three months and 12 months, while physical activity levels and the power of food were associated with increases in the percentage of fat-free mass (body's water, bone, organs and muscle content). Increases in the percentage of body fat mass were related to opportunistic eating and the tendency to overconsume, while increases in the percentage of fat-free mass was related to consistent physical activity levels. This study identified specific psycho-behavioural drivers underlying changes in body composition during a critical life period for weight gain and highlights the need for strategies to promote self-regulation in young adults starting university.

2.3.3 Eating Disorders

Eating disorders are a mental health condition where controlling food intake, such as eating too much or too little or worrying about weight, is used as a coping mechanism to deal with feelings and other challenging situations.(88) The most common eating disorders in the UK are

1) Bulimia: characterised by eating large amounts of food within a very short time period, then taking extreme action, such as making vomiting, taking laxatives or excessively exercising, so as not to put on weight,
2) Anorexia nervosa: characterised by controlling weight by eating little and excessively exercising, and
3) Binge eating disorder (BED): characterised by eating large amounts of food until you feel uncomfortably full.

The Health Survey for England 2019 reported: (66)

- 1 in 5 women and 1 in 8 men over the age of 16 screened positive for a possible eating disorder.
- Amongst 16 to 24-year-olds, 28% of women and 14% of men screened positive for a possible eating disorder.
- The proportion screening positive for an eating disorder increased as household income decreased.
- 5% of women and 3% men reported their relationship with food had interfered with ability to work, meet personal responsibilities, or enjoy a social life.

The leading UK eating disorder charity Beat, reported that 32% of university HE students with an eating disorder were first diagnosed at university.(89) The prevalence of eating disorders in university students may be increasing due to the overall growth of the UK student population, the increasing proportion of female students

and the increased pressures of cultural factors such as social media, which have been found to fuel eating disorders.(90)

A qualitative study of seven male and seven female students attending the University of Birmingham in 2020 found that students exhibited a poor understanding of eating disorder signs and symptoms, causes and sources of help.(91) The students perceived eating disorders as a problem mainly affecting women and believed that there was a stigma towards eating disorders. Some men in this study viewed eating disorders as a sign of weakness but also identified that they had limited knowledge regarding the subject.

2.3.4 Food Insecurity

Household food insecurity refers to whether a household can acquire an adequate quality or sufficient quantity of food in socially acceptable ways.(92) Food insecurity has been exacerbated by the UK "cost-of-living crisis". Between June and July 2022, of the 91% of adults who reported an increase in their cost of living, 95% reported that their food bill had increased, while 44% reported that they had reduced spend on essentials, including food.(92)

In 2023, the Food Standards Agency explored food behaviours in the UK student population.(8) Within 2,921 undergraduate students in England, Wales, Northern Ireland, and Scotland it was found:

- 44% of students included in the study were classified as food insecure, with the highest levels (60%) from students in the North West of England. This is higher than when compared with the general population in the West Midlands, where 16% of households were classified as food insecure.(93)
- Students also may not be able to afford provisions which will ensure a high-quality diet. Some respondents reported that they stored food at room temperature in their bedroom or non-kitchen area, which should be kept in a fridge (9%) or freezer (6%). 37% of students reported that they have got their food from the bins or waste area of a supermarket or shop.

2.4 Active at Every Age and Ability

Key Findings

- Regular participation in physical activities results in better physical health, academic performance, and psychological and social development in students.
- Students who were more physically active were 48% more to have higher mental well-being and 25% less likely to feel socially isolated.
- In 2020 to 2021, levels of physical activity in those aged 16 to 24 in Birmingham were slightly higher (66%) than regional levels (66%) but lower than national levels (69%).
- In 2020 to 2021, levels of physical activity in those aged 16 to 24 in Birmingham (66%) exceeded pre-pandemic (2018 to 2019) levels (62%), despite the reduction in activity seen during the pandemic.
- In Birmingham, those aged 16 to 24 in education had higher levels of physical activity compared to those aged 16 to 24 not in education.
- In Birmingham 2020 to 2021, levels of physical inactivity in those aged 16 to 24 were higher (26%) than regional (24%) and national figures (21%).
- Students reported higher levels of motivation regarding participation in physical activity than other age groups.
- COVID-19 pandemic resulted in a decrease in self-reported physical activity and an increase in sedentary behaviour in university students during the first five weeks of lockdown.

2.4.1 Physical Activity

National guidelines for physical activity (PA) from 2019 recommend that children and young people (aged 5 to 18) should engage in moderate to vigorous intensity PA for at least 60 minutes per day.(94) For adults aged 19 to 64, the aim is at least 150 minutes of moderate intensity activity (e.g. brisk walking or cycling) or 75 minutes of vigorous intensity activity (e.g. running) or even shorter durations of very vigorous intensity activity (e.g. sprinting or stair climbing) a week.

Regular participation in PA not only benefits physical health and fitness in children and young people, including students, but is also associated with improved academic performance and improved psychological and social development, thus improving overall well-being.(94, 95) Regular exercise also has protective effects in adults for a range of chronic conditions including heart disease, obesity, type 2 diabetes and mental health problems.(94)

The Active Lives Children and Young People Survey 2021 to 2022 reported that in Birmingham in 2021 to 2022, 67% of school children in years 10 and 11 (aged 14 to 16) were considered active (an

average of 60 minutes or more per day), which is higher than in 2019 to 2020 (41%), and higher than the national and regional average.(11)

Sport England's Active Lives Adult Survey 2020 to 2021 reported on levels of PA in 16 to 24 year olds in Birmingham by education status.(96) 66% of people aged 16 to 24 in Birmingham were considered active (at least 150 minutes a week), which was similar to regional (66%) and national figures (69%). The proportion of active people aged 16 to 24 in 2021 exceeded pre-pandemic (2018 to 2019) levels (62%), despite the reduction in activity seen during the pandemic (2019 to 2020, 61%). There was a higher proportion of active 16 to 24-year-olds in education (63%) compared 16 to 24 year olds not in education in Birmingham (50%).

Sport England's Active Lives Adult survey 2020 to 2021 also reported on the proportion of 16 to 24 year olds who were physically inactive (less than 30 minutes per week) in Birmingham by education status. Overall, 26% of 16 to 24-year-olds in Birmingham were inactive, which was higher than regional (24%) and national figures (21%). The proportion of physically inactive 16 to 24 year olds in Birmingham was lower in 2021 compared with pre-pandemic (2018 to 2019) levels (31%). In Birmingham, those aged 16 to 24 in education had lower levels of physical inactivity (26%) compared with those aged 16 to 24 not in education (36%)

A study looking at PA in 11,650 HE students in the UK reported that between 2016 and 2017, students who were more physically active were 48% more likely to have higher mental well-being, 47% more likely to have higher personal well-being and 25% less likely to feel socially isolated compared with those who were less physically active.(97)

A study of 736 undergraduate students in Northwest of England from 2014 found that students aged over 23 reported higher levels of motivation regarding participation in free-time exercise, sport, and PA compared with students under 23.(98) This study reported positive health and weight management (health-related reasons) as the most important motives for participation in free-time PA, exercise or sport. However, the study is limited as the types of PA were not recorded and the sample selection included a high proportion of students enrolled on either sport or health related courses and therefore, may not be totally representative of a 'typical' UK-based university student.

2.4.2 Mobility

Sport England's Active Lives Adult Survey 2020 to 2021 reports that the proportion of 16 to 24 year olds with a mobility condition who were physically inactive (less than 30 minutes per week) in Birmingham was 48%, which is higher than 16 to 24 year olds overall (26%).(96) The proportion of 16 to 24-year-olds with a mobility condition who were considered active (at least 150 minutes a week) was 37%, lower than that for 16 to 24 year olds overall (66%).

2.4.3 Impact of COVID-19 on Physical Activity

During the COVID-19 pandemic, the UK population was advised by the Government to only go outside once per day. UK university campuses closed, and students returned home during this time. The

introduction of COVID secure measures resulted in restricted PA in all ages groups across the UK due to the closure of gyms and swimming pools, the cancellation of team sports, reduced social interactions, and guidelines to only leave the house when necessary. These changes impacted an estimated 2.4 million students aged 18 years or older.(99)

A longitudinal cohort study at a university in the East Midlands with 214 students (average age 20, 65% aged 21 and under), between 2019 and 2020 found that the COVID-19 pandemic resulted in a decrease in self-reported PA and an increase in sedentary behaviour, especially in the first five weeks of lockdown.(97) Another UK university-based study monitored students (aged 20 to 25) PA using a mobile PA tracker following the start of lockdown and subsequent restriction easing.(100) Females showed a decrease in the number of miles run throughout the period, while males showed no such change. The results from the two studies highlight changes in PA in students during the pandemic which may have implications for physical health.

2.5 Living, Working, and Learning Well

Key Findings

- In 2021 to 2022, 68% of pupils in Birmingham achieved a standard pass (9-4 grade at GCSE) which was higher than the national average (64%).
- In Birmingham, in 2020 to 2021, the proportion of disadvantaged pupils who achieved grades 4 or above in English or mathematics GCSES was lower (58%) compared to those pupils who were not classified as disadvantaged (78%).
- In 2021 to 2022, Birmingham had a Progress 8 (0.07) was above the national average (-0.06) , meaning that pupils in Birmingham made more progress from key stage 2 to the end of key stage 4 (up to age 16) than those with a similar starting point nationally.
- Between 2016 and 2021, average Attainment 8 scores for children in care in Birmingham were higher than those scores in the West Midlands and England at Key Stage 4.
- In Birmingham in 2020 to 2021, 71% of young people aged 16 to 25 had attained level 2 qualifications in both English and maths which is lower than the national average of 73%.
- In Birmingham in 2020 to 2021, 62% of young people aged 16 to 25 had attained Level 3 by 19, which was higher than the national average of 60%
- Of those young people aged 16 to 25 achieving Level 3 attainment in Birmingham in 2020 to 2021, 35% reached this through academic qualifications (such as A level) and 27% through vocational qualifications.
- In 2020 to 2021 in Birmingham, the lowest average A level results were seen in the disadvantaged (C+) and eligible for free school meals (C+) groups, and the highest average A level results were seen in the Chinese ethnic group (B+).
- In 2022 the proportion of 16-year-olds not in education, employment, or training (NEET) was 3.9% compared to 4.6% nationally, the proportion of 17-year-olds NEET was 11% compared to 9.6% nationally. Girls are less likely to be NEET at age 16 and age 17 compared to boys.
- More pupils in Birmingham aged 16 to 18 are permanently excluded compared to the national average, and less pupils are than suspended on a fixed-term basis.
- In the UK, 1 in 8 students in HE self-reported having at least one disability.
- In 2020 to 2021, over 50% of all students between 16 to 24 years old were living with parents in Birmingham. About 51% of Birmingham, HE students were registered to their local GP in 2021 in comparison to 57% of all the students in England and Wales.

2.5.1 Education, Qualification, Skills, and Training

2.5.1.1 Education

In 2022, the estimated proportion of 16 year olds in Birmingham in education or training was 97% 15,173 (95% nationally) and 17 year olds was 14,175 (89%) (90% nationally).(18) At 16, a higher percentage of females were in education or training (97%) compared with males (96%) and at 17 females (92%) compared with males (87%).

2.5.1.2 Key Stage 4 Attainment

In England, approximately 1.2 million students took GCSE, AS level, and A Level examinations in 2022.(101) Approximately 69% of students who sat the GCSE were aged 16; and for AS Levels 77% were aged 17.(102)

Key Stage 4 attainment is assessed usually at the end of year 11 by the age of 16, by standard pass (GCSE grade 9 to 4 or equivalent) including English Baccalaureate (EBacc), Progress 8 and Attainment 8 average scores.(103) Attainment 8 is a measure ranging from 0 to 60, showing the average academic performance of a secondary school. It is calculated by adding together pupils' highest scores across eight government approved school subjects. A Progress 8 score ranges from -1 to 1, with a score of 1.0 meaning pupils in the group make on average approximately a grade more progress than the national average; a score of -0.5 meaning they make on average approximately half a grade less progress than average. These measures are designed to encourage schools to offer a broad and well-balanced curriculum.

In 2019, the proportion of pupils in Birmingham achieving a strong pass (9 to 5 grade at GCSE) (43%) and achieving a standard pass (9 to 4 grade at GCSE) (62%) in English and Maths was below the national average (43% and 65% respectively).(102) Due to the COVID-19 pandemic, the summer exam series for the 2020 to 2021 academic year was cancelled. Instead, for 2020 to 2021, pupils were only assessed on the content they had been taught for each course. Schools were given flexibility to decide how to assess their pupils' performance, for example, through mock exams, class tests, and non-exam assessment already completed. GCSE grades were then determined by teachers based on the range of evidence available and they are referred to as teacher-assessed grades. In 2021 to 2022, the proportion of pupils achieving a standard pass (9 to 4 grade at GCSE) improved (68%) and was higher than the national rate (64%) (**Table 25**).

Table 25: Attainment at key stage 4 and number of pupils achieving GCSE grades 4 and above in English and maths: UK, 2021 to 2022

Location	Average Attainment 8 score of all pupils	Average Progress 8 score of all pupils	Percentage of pupils achieving grades 4 or above in English and mathematics GCSEs
Birmingham	49	0.07	9,716 (68%)
National	47	-0.06	415,920 (64%)

Source: Department for Education (18)

In 2021 to 2022, Birmingham's Progress 8 score of 0.07, which was above the national average of -0.06, meant that pupils in Birmingham made more progress from key stage 2 to the end of key stage 4 (up to age 16) than those with a similar starting point nationally. In 2021 to 2022, Birmingham's average Attainment 8 score was 49, slightly higher the national average of 47. Comparisons, however, cannot be made with scores in 2018 due to changes in grading method (**Table 26**).

In Birmingham, in 2021 to 2022, pupils who were eligible for free school meals had a lower average Attainment 8 score (41) compared with pupils who were not eligible (53), and a lower Average Progress 8 score (-0.21) compared with not eligible (0.21). In 2021 to 2022, the proportion of pupils eligible for free school meals who achieved grades 4 or above in English and Mathematics GCSE (55%) was lower than those who were not eligible (75%). Disadvantaged students have been classified by eligibility for free school meals (FSM), being part of Post looked After Arrangement (PLAA) through adoption, a guardianship order, or a child arrangement, or being looked after for at least one day during the year. In Birmingham, in 2021 to 2022, disadvantaged students had a lower average Attainment 8 score (42) and lower average Progress 8 score (-0.13) compared with not disadvantaged (54 and 0.27 respectively). The proportion of disadvantaged pupils who achieved grades 4 or above in English or mathematics GCSES was lower (58%) compared with those pupils who were not disadvantaged (78%).

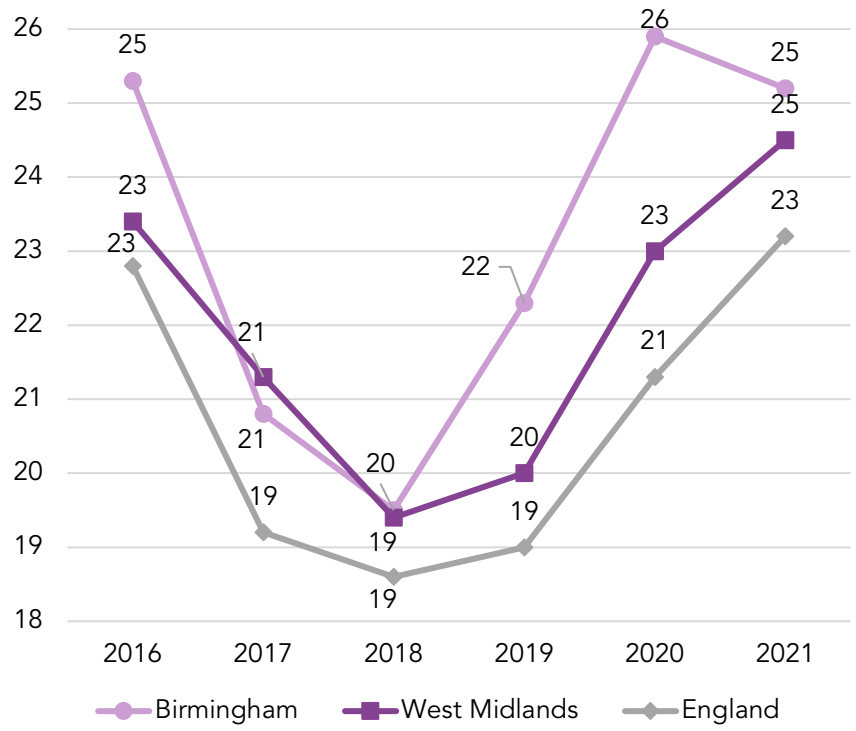
Table 26: Attainment at key stage 4 and number of pupils achieving GCSE grades 4: UK, 2021 to 2022

Eligibility for free-school meals	Average Attainment 8 score of all pupils	Average Progress 8 score of all pupils	Number (%) of pupils achieving grades 4 or above in English and mathematics GCSEs
Eligible for free-school meals	41	-0.21	2,686 (55%)
Not eligible for free school meals	53	0.21	7,030 (75%)
Dis-advantaged	42	-0.13	4,042 (58%)
Not disadvantaged	54	0.27	5,674 (78%)
Total	**49**	**0.07**	**9,716 (68%)**

Source: Department for Education (18)

Although average Attainment 8 scores in Birmingham were lower than those in the West Midlands and England between 2016 and 2021, average Attainment 8 scores for children in care in Birmingham was higher than scores in the West Midlands and England between 2016 and 2021 (**Figure 5**, **Appendix 3.6**).(18)

Figure 5: Average attainment 8 score of children in care: Birmingham, West Midlands, and England, 2016 to 2021



Source: Department for Education (18)

A Public Health England report into the link between pupil health and wellbeing and attainment in 2014, including key stage 4 pupils, identified that:(1)

- Pupils with better health and wellbeing are likely to achieve better academically.

- Effective social and emotional competencies are associated with greater health and wellbeing, and better achievement.
- The culture, ethos and environment of a school influences the health and wellbeing of pupils and their readiness to learn.
- A positive association exists between academic attainment and physical activity levels of pupils.

2.5.1.3 Level 2 and 3 Attainment

Attainment at level 2 is categorised as 5 GCSEs at A* to C (9 to 4) or equivalent, and attainment at level 3 as 2 A levels or equivalent.(18) As can be seen in **Table 1**, level 2 attainment may include GCSEs, apprenticeships, vocational qualifications outside of apprenticeships, whilst level 3 attainment includes A-Levels (including applied A levels/AVCEs/Pre-U Principal Subject), AS Levels, advanced apprenticeships, vocational qualifications outside of apprenticeship and International Baccalaureate.

Attainment by age 19 is the chosen focus as this is the age most young people have achieved these levels and enter the labour market post formal education.

In Birmingham in 2020 to 2021, 81% of young people aged 16 to 25 had attained Level 2 by age 19, with 71% attaining level 2 in both English and Maths (**Table 27**).(18) These are both lower than the national average of 82% for level 2 attainment and 73% for both English and Maths. In Birmingham in 2020 to 2021, 62% of young people aged 16 to 25 had attained Level 3 by 19, which was higher than the national average of 60%.

Table 27: Number of learners at various attainment levels 2 and 3 by age of 19 within young people aged 16 to 25: Birmingham, 2017 to 2021

Attainment level	2017 to 2018	2018 to 2019	2019 to 2020	2020 to 2021
Level 2	10,008 (81%)	9,891 (81%)	10,019 (81%)	9,918 (81%)
Level 2 in English and maths	8,438 (68%)	8,334 (69%)	8,448 (68%)	8,654 (71%)
Level 3	7,175 (58%)	7,199 (59%)	7,440 (60%)	7,569 (62%)

Note: % given as % of the population who had obtained each level of attainment by 19-years-old

Source: Department for Education (18)

When looking at those young people aged 16 to 25 achieving Level 3 attainment in Birmingham in 2020 to 2021 by type of qualification, 4,252 (35%) reached attainment level 3 at 19 with A/AS levels or International Baccalaureate, and 3,317 (27%) through vocational qualifications.(18)

In Birmingham in 2020 to 2021, 4,129 (73%) of young people aged 16 to 25 who were classified as disadvantaged reached attainment level 2 by 19, compared with 5,789 (87%) of non-disadvantaged students.(18) 2,907 (52%) of achieved attainment level 3, compared with 4,662 (70%) of non-disadvantaged young people aged 16 to 25.

As more recent data is published, the cancellation of summer 2020 and 2021 exams due to COVID-19 and the new method of awarding grades will affect statistics at age 19 in 2022 to 2023 and 2023 to 2024.

Trends prior to the year 2020 to 2021 cannot be compared as due to the COVID-19 pandemic, the summer exam series for the 2020 to 2021 academic year was cancelled. Instead, for 2020 to 2021, pupils were only assessed on the content they had been taught for each course. Prior to the pandemic, Birmingham's overall A Level performance indicators in 2019 were better than national and regional rates,(102) with 23% of A Level students achieved at least AAB grades in Birmingham compared with 20% nationally. 14% of students in Birmingham achieved at least 3 or more A levels of A* to A compared with 12% nationally and 87% of students in Birmingham achieved 'at least 2 substantial level 3 qualifications' compared with 87% nationally. In terms of A level student characteristics in 2019, boys in Birmingham achieved higher than the national average, whilst the attainment of girls was in line with national figures.

From 2020 to 2021, A-level results showed that on average 88% of all state-funded students in Birmingham achieved level 3 qualification equivalent with 2 or more A levels with an average A level result of B-.(18) The lowest average A level results were seen in the disadvantaged (C+) and eligible for free school meals (C+) groups, and the highest average A level results were seen in the Chinese ethnic group (B+) (**Table 28**).

Table 28: Attainment at A-level by student characteristics: Birmingham, 2021 to 2022

Classification of student	% achieving ≥2 A levels	Average A level result
Total state-funded students	88	B-
Disadvantaged	85	C+
Non-Disadvantaged	89	B
Any other ethnic group	94	B-
Asian or Asian British	88	B-
Black or Black British	87	B-
Chinese	97	B+
Mixed	88	B-
Unknown ethnicity	89	B-
White	87	B
Eligible for FSM	83	C+
Not eligible for FSM	89	B
Female	88	B
Male	88	B-
Total EHC plans and statements of SEN	86	B-
Total No identified SEN	89	B
Total SEN support	83	B-

Source: Department for Education (18)

2.5.1.4 School Exclusions

There are three types of exclusion that a school pupil can face, with the two more severe being a fixed-term exclusion or suspension (when a pupil is officially and temporarily removed from school for a fixed period due to disciplinary reasons), and a permanent exclusion (when a pupil is removed from the school permanently and their name is taken off the school enrolment list due to a serious breach in school policy).

Permanent exclusion rates have overall been consistently higher in Birmingham compared with the national average between 2016 and 2021 for ages 16 to 18, and in 2021 to 2021, 0.06 per 10,000 16 year olds were permanently excluded in Birmingham compared with 0.01 nationally.(18) Suspension rates have overall been lower in Birmingham compared with the national average between 2018 and 2021, and in 2020 to 2021 in Birmingham, the suspension rate was 0.60 per 10,000 16 year olds (compared with 0.65 nationally), 0.33 per 10,000 17 year olds (compared with 0.40 nationally), and 0.20 per 10,000 18 year olds (compared with 0.52 nationally). These trends would suggest that pupils in Birmingham aged 16 to 18 are more likely to be permanently excluded rather than suspended on a fixed-term basis

2.5.1.5 Not in Education, Employment, or Training (NEET)

Once a young person completes statutory education at age 16, they are required to choose to either continue in full time education, start an apprenticeship or traineeship, or spend 20 hours or more a week working or volunteering if in part-time education or training until the age of 18. Research has shown that time spent not in education, employment or training (NEET) during this time can have a detrimental effect on physical and mental health.(104)

In the past four years, there has been a rise in the number of people of age group 16 to 24 years that are NEET. Statistics show that in 2021, 728,000 people aged 16 to 24 in the UK were NEET, representing 11% of all people in this age group.(105) In 2021, the average estimated percentage of people aged 16 to 24 who were NEET with disabilities was 27%.(106)

Local authority figures are available for the 16-to-17-year age group NEET. The proportion of 16 and 17 year olds NEET in Birmingham decreased yearly between 2020 and 2022, but has been consistently higher than national rates.(107) In 2022 the proportion of 16-year-olds NEET was 3.9% compared with 4.6% nationally (**Table 29**), and the proportion of 17-year-olds NEET was 11% compared with 9.6% nationally. Between 2020 and 2022, there has been a consistently lower proportion of females NEET compared with males at age 16 and age 17. In 2022, in Birmingham, 3.1% of females were NEET at age 16 compared with 3.9% of males, and 8.2% of females compared with 13% of males were NEET at age 17.

Table 29: Number of 16- to 17-year-olds not in education, employment, or training (NEET) or whose activity is unknown: Birmingham and England, 2020 to 2022

Year	Age 16 Birmingham	Age 16 England	Age 17 Birmingham	Age 17 England
2020	395 (5.0%)	26728 (4.6%)	1765 (12%)	58139 (10%)
2021	398 (5.0%)	25060 (4.2%)	1831 (12%)	55082 (9.4%)
2022	304 (3.9%)	27966 (4.6%)	1698 (11%)	57831 (9.6%)

Notes: % given as % NEET within each age group and location

Source: Department for Education (107)

Care leavers are defined by the Office for Students (OFS) as those aged between 16 and 25 who have been in social care of the local authority (LA) from the age of 13 years or older.(108) Birmingham City University (BCU), and the University of Birmingham (UOB) have been working closely with LA in supporting the accessibility to HE in facilitating some of the barriers of this population as well as support with accommodation and stipend to empower these students to complete their education.(108, 109)

2.5.1.6 Impact of COVID-19 on Education and Learning

Analysis of the YouGov and Understanding Society survey data in May 2020 by the Health Foundation, reported:(110)

- Those aged 12 to 24 were three times more likely to report not enjoying day-to-day activities in April 2020 compared with 2017 to 2018.
- An increase of 12 to 24 years olds reported an inability to concentrate in April 2020 (47%), a rise from 22% in 2017 to 2018.
- 10% of 12 to 24 year olds were living in households with either insufficient desk space or a quiet table space to work at.

A study at University of Nottingham in UK, 2021, found that university students (average age 19.7) reported struggling with the shift to online education, adapting to the new expectations for university life and reported missing out on professional and social experiences due to the enforced restrictions.(111) Students expressed concern over the impact of online teaching on educational outcomes with varied emotional responses to self-isolation with some feeling unaffected whilst others experienced lowered mood and loneliness.

The ONS reported on data from the Opinions and Lifestyle survey on coronavirus and the social impact on young people in Great Britain in 2020 (6,400 adults) and identified that:(112)

- Around 75% of those aged 16 to 24 who were unable to attend their educational settings due to the pandemic, felt that their future life plans would be negatively affected.
- Almost 50% of this age group in education reported that home education was negatively affecting their well-being and were not

confident they could continue their studies effectively from home.

- More than a fifth of those aged 16 to 24 in education indicated they did not have access to resources needed to continue their studies from home.

- ONS also reported that the common use of online teaching also added to feelings of isolation and loneliness, with more than 50% of students reporting dissatisfaction with their social experiences during the autumn term.(113)

A study of 407 secondary school pupils in Wales aged 11 to 18 years (45% aged 15 to 18) conducted an online survey comparing pupils' normal classroom experience to learning online during the first national lockdown in the United Kingdom (March to July 2020), and found that pupils' learning experiences (concentration, engagement, ability to learn, and self-worth from learning), were notably lower for online learning compared with classroom learning with:(114)

- 20% of pupils reporting 'no distraction' in classroom learning compared with 9.6% for online learning.

- Distraction by devices such as phones or computers were reported more during online learning (51%) than in classroom learning (14%).

- Distraction by family (38%) and pets (31%) were rated as frequent distractions for online learning.

2.5.2 Employment

A 2015 study conducted of 357 students in two UK universities explored the benefits of employment whilst completing HE courses and found:(115)

- A positive and significant relationship between part time work and career aspiration.

- Students who work part-time strive to enhance their employability.

- Part time students have clearer career goals than full time students and those not in employment.

- Full time students were more focussed on completing their degrees before seeking employment.

A 'Student Cost of Living Insights Study' survey (SCoLIS) by the Office for National Statistics (ONS) conducted in 2022 highlighted that 91% of students in the UK reported that their cost of living had increased.(116) Increases were noted in energy bills, as well as the price of basic amenities like food and travel. Around 50% of surveyed students reported being very worried and 42% somewhat worried about the rising costs. In addition, around 35% were very concerned and 43% somewhat concerned that the rising cost of living would affect their studies, with many deciding they would travel less to the HE provider location (27%), attend lectures remotely where possible (21%), and spend more time studying at home to save on costs (40%).

A recent breakdown of graduate outcomes demonstrated the value of gaining a relevant qualification in terms of job opportunities and higher salaries.(117) Working-age graduates (those who have completed an undergraduate degree) and postgraduate (those who have completed a higher qualification after their degree such as a Master or Doctorate) continue to have higher employment rates than non-graduates and this gap is widening. In 2021, the employment rate for working-age graduates in the UK was 87%, an increase of 0.4% from 2020.(117) The postgraduate employment rate was 88%, an increase of 0.1% from 2020; for working-age non-graduates the rate was 70%, a decrease of 0.9% from 2020. Around 65% of working-age graduates were in highly skilled jobs (defined as jobs that require specialist skills, training, or knowledge), compared with 77% of postgraduate and 24% of non-graduates.

A report by Prospects Luminate which utilised statistics from the Department for Education showed that the annual average salary for graduates (those with a degree) was £34,000 compared with the non-graduate average salary of £25,000.(118) Postgraduates received the largest average salary of around £42,000, which was around £8,000 more than graduates. It is important to note that some areas of the country, such as London, have higher salaries, however, the cost of living is also higher.

2.5.3 Student Housing

FE and HE students in Birmingham live in different types of accommodation depending on age, type and level of study and location of education provider. In 2021 to 2022, over half (49,622 students, 56%) of students aged 16 to 24 were living with parents, and of these, the largest proportion were aged 16 to 17 (51%).(119) 22% of all 18 to 19-year-old students living in university halls and 11% of all 18 to year old students live in in all student households. The majority of students aged 20 to 24 lived in all student households (39%) (**Table 30**).

Table 30: Number of FE and HE students aged 16 to 24 by accommodation type and age group: Birmingham, 2021 to 2022

All categories	Age 16 to 17	Age 18 to 19	Age 20 to 24	Total
Living with parents	25,073 (96%)	14,442 (59%)	10,107 (27%)	49,622 (56%)
Living in a communal establishment: University (e.g., halls of residence)	20 (0.1%)	5,485 (22%)	5,332 (14%)	10,837 (12%)
Living in a communal establishment: Other	124 (0.5%)	659 (2.7%)	721 (1.9%)	1,504 (1.7%)
Living in all student household	117 (0.4%)	2,679 (11%)	14,504 (39%)	17,300 (20%)
Student living alone	82 (0.3%)	368 (1.5%)	1,461 (3.9%)	1,911 (2.2%)
Living in other household type	778 (3.0%)	1,003 (4.1%)	4,998 (14%)	6,779 (7.7%)
Total of students per Age	**26,194**	**24,636**	**37,123**	**87,953**

Note: % given as % in each accommodation type per age group

Source: Office of National Statistics (119)

A student money survey in 2021 (3,161 students) identified that at least half of those who were not living with family struggled to keep up with rent costs which had a negative impact on their health and educational performance.(120)

2.5.4 Physical Health

2.5.4.1 Diabetes

Diabetes refers to the condition where blood glucose levels are too high and can be caused by the body not producing insulin (type 1 diabetes (T1D)) or producing insufficient or ineffective insulin (type 2).(121) Diabetes UK suggests that more than 4.9 million adults in the UK in 2021 were living with diabetes; 850,000 of whom were undiagnosed.(122) Type 2 diabetes contributes to around 90% of all cases of diabetes. In Birmingham, diabetes prevalence was around 8.6% in 2017 and 2018, compared with 6.8% nationally in the UK.(123)

From 2017 to 2021, there were 57,060 people with T1D in England between 15 and 25 years of age.(124) According to the National Institute for Health and Care Excellence (NICE) guidelines, those diagnosed with T1D should complete "care processes" which are key to helping with monitoring and treatment of this health condition.(124) Data from the Adolescent and Young People T1D audit showed that those aged 16 and 17 had the highest rates of completing their care process.(124) Those aged 19 and 20 had the lowest rate of completion in 2019. A systematic review of 21 studies showed that adolescents with T1D were capable of adhering to treatment and successfully self-managing their diabetes with

continuous support from family, psychosocial support, and health education.(125) These factors are important in improving resilience to life stressors such as school, peer perception whilst growing up, and becoming independent and self-managing their condition. Moreover, self-management provided more independence whilst being at university.

2.5.4.2 Cancer

Cancer is an illness when abnormal cells in the human body divide in an uncontrolled way with some cancers eventually spreading into other tissues across the body.(126) There are more than 200 different types of cancer, and 1 in 2 people in the UK will get cancer in their lifetime.

Cancer incidence amongst young adults aged 16 to 24 years is uncommon in comparison to other age groups.(127) According to Cancer Research UK, approximately 1% of all new cases diagnosed between 2016 and 2018 were young adults aged 16 to 25 years, with the highest cancer incidence amongst the 20 to 24 age group.(127) In the UK, melanoma (skin cancer), and lymphomas (lymphatic system cancer) were the most common type of cancer in young adults (16 to 24 years old). Whilst the UK is not a hot country, it is thought that during the summer period, young adults are exposed to risk factors for skin cancer such as increased sunlight (and ultraviolet light) and lack of appropriate sunscreen protection.

2.5.4.3 Physical Disability

The Equality Act 2020 defines people with disabilities as those who have a self-reported long-term illness which affects them from completing daily activities.(128) In England, SEN and SEND are specific to schools and colleges. An Education Health and Care Plan (EHCP) is a legal document to support SEN students including those who are young adults (aged 16 to 25 years) that have health and social care needs.(19) In Birmingham, there were 33,353 SEN students in the 2021 to 2022 academic year.(18)

In HE the word 'disability' is used when referring to the services supporting students with disabilities and considers any physical, mental, or sensory impairment which has a substantial impact on daily life, and which is long-standing lasting more than 12 months.(129) In the academic year 2018 to 2019 in England, more than 14% of HE students reported living with at least one disability (physical or sensory impairment, cognitive and/or learning difficulties).(130) In 2020 to 2021, 19% of undergraduate students declared a disability (**Table 31**) which was a similar value to postgraduate students declaring a disability (16%).

Table 31: Students with known disabilities in HE: UK, 2020 to 2021

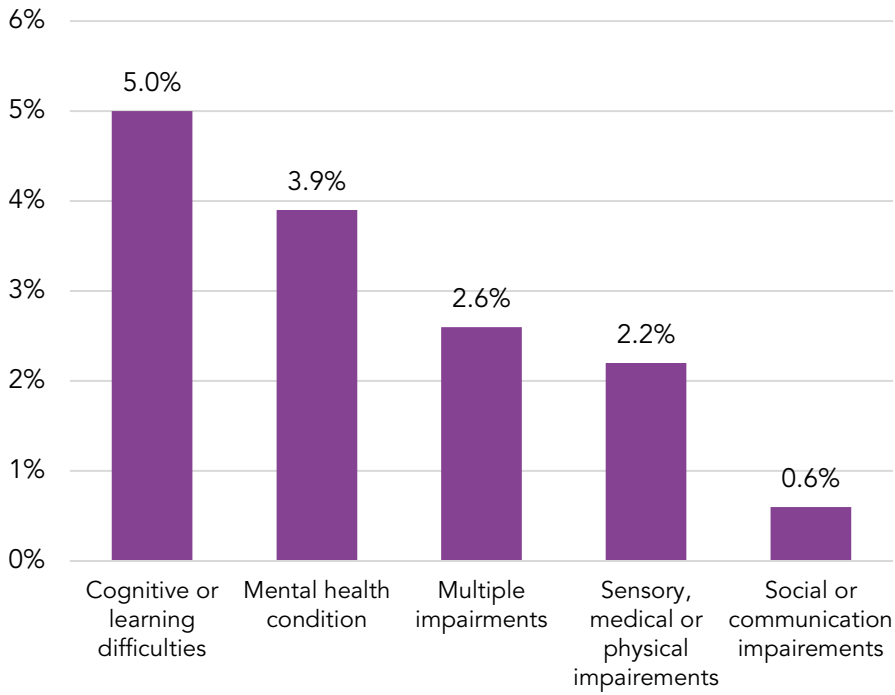
Level of study	Known with disabilities	Not known with disabilities	Total
All undergraduate	251,085 (19%)	1,088,380 (81%)	1,339,465
All postgraduate	56,980 (16%)	299,835 (84%)	356,815

Note: % given as % with a disability in each degree classification

Source: Office for Students (130)

Cognitive or learning difficulties (5%, n=103,780) were the most frequently self-reported disabilities for HE students in the UK in 2020 (**Figure 6**, **Appendix 3.7**), followed by mental health conditions (3.9%, n=80,685). Learning and cognitive difficulties include neurodivergent conditions such as attention deficit disorders (ADHD), autism, dyslexia and dyspraxia.

Figure 6: Proportion of students who declared a disability by type of impairment: England, 2018 to 2019



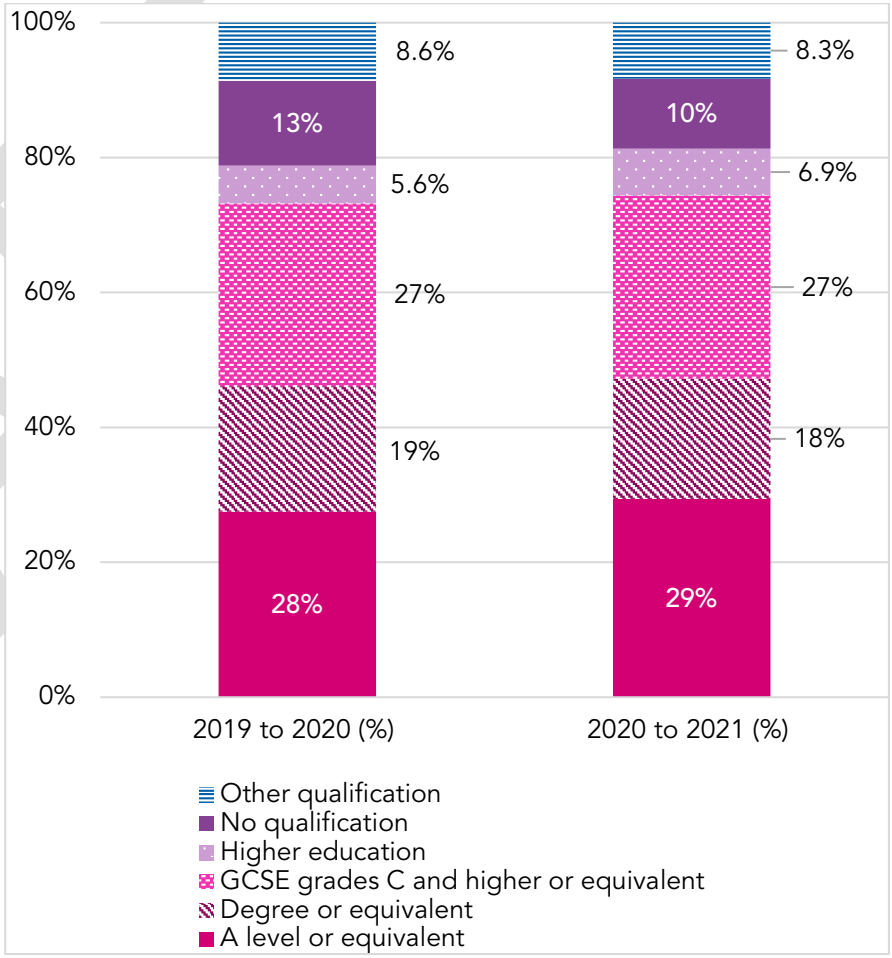
Source: Office for Students (130)

Having a disability can affect educational attainment. A UK survey in 2022 highlighted a 10% gap between young adults with a disability in comparison to young adults without a disability in obtaining the same qualification.(131)

Figure 7 (**Appendix 3.8**) shows the highest level of qualification among young people with disabilities (aged 21 to 24) in the West

Midlands from 2019 to 2021;(130) data for Birmingham was not available. Since 2019, there has been a slight improvement in the proportion of young people with a disability gaining GCSE and A levels. However, whilst the proportion with disabilities reaching higher qualification levels, including a degree or equivalent, has decreased, the numbers of young people with disabilities achieving no qualification have reduced by 2.2% in 2020 to 2021.

Figure 7: Highest level of qualification of students aged 21 to 24 by disability status for years: West Midlands, 2019 to 2020 and 2020 to 2021



Source: Office for Students (130)

2.5.5 Access to Health and Social Care Services

A study conducted in England and Wales in 2021 found that more than half of students (57%) were registered with healthcare services during term time.(132) In Birmingham, 51% of HE students were registered with a healthcare service in 2021. Whilst this number appears low, it could be that commuter students, those who travel to their university on a daily basis, remain registered with their own GP. Updating healthcare registry is important for students, particularly if they have a medical condition requiring monitoring and treatment as any impact on health and wellbeing could affect attainment.(120)

2.6 Protect and Detect

Key Findings

- In Birmingham, the chlamydia detection rate in 2021 among 16 to 24-year-olds was 182 per 100,000 people, slightly higher than the national rate (178 per 100,000)
- There has been a steady decline in the number of detected chlamydia cases over the past 10 years in Birmingham amongst 16 to 24-year-olds, which could be due to accessibility to timely testing, usage, and changes to the screening programme.
- Compared to 2019, in 2020, there was a decline in the rate of gonorrhoea and genital warts diagnoses amongst teenagers aged 15 to 19 in the West Midlands.
- New university entrants are at particular risk of getting invasive meningococcal disease diagnosis, and in Birmingham the diagnosis rate was 0.1 per 100,000 residents in July 2020 to June 2021, consistent with the national rate.
- Around 11% of students in a UK based study were against receiving the 'measles, mumps, and rubella' (MMR) vaccine and 26% of students were reluctant to receive the meningococcal vaccine, despite promotional awareness sessions about the importance of vaccines.

2.6.1 Vaccination

Students may be at a greater risk of some infectious diseases due to factors including lifestyle, behaviours, accommodation and interactions with wider community.(133)

UK university students' attitudes towards vaccination have revealed vaccine hesitancy. Around 11% of students in a UK based study were against receiving the 'measles, mumps, and rubella' (MMR) vaccine despite it being an effective method of protection against these 3 diseases.(134) Additionally, 26% of students were reluctant to receive the meningococcal vaccine regardless of promotional awareness sessions about the importance of the vaccines. A lack of understanding of the requirements and benefits of receiving vaccinations, and a lack of trust in vaccines and its impact on wellbeing were the main reasons for non-vaccination. International students reported less vaccine hesitancy than UK students after the same promotional awareness session.

2.6.1.1 Meningococcal Disease

A national Meningococcal vaccination programme was introduced in 1999 to respond to a rapid increase in cases of a highly aggressive form of the invasive meningococcal disease among young adults.(135)

New university entrants are at particular risk of getting the disease as they are likely to mix with a high number of new people, some of whom may unknowingly carry the meningococcal bacteria. The UK Health Security Agency (UKHSA) urges parents and students to

ensure they are up to date with vaccinations before term begins. According to the local authority health protection profile of Birmingham, the invasive meningococcal disease diagnosis rate was 0.1 per 100,000 residents in July 2020 to Jun 2021, which was consistent with the national rate.(135)

2.6.1.2 Human papillomavirus (HPV)

HPV is one of the most common sexually transmitted infections (STIs).(136) Although it does not cause symptoms in most people, some types can cause genital warts or cancer. HPV types linked to cervical, anal, penile, vulval and vaginal cancers are called high-risk types. Nearly all cervical cancers are caused by an infection from high-risk types of HPV.

The HPV vaccination programme began offering vaccinations to females aged 12 to 13 years in England in 2008 and extended the offer to include males in 2019. Surveillance of type-specific HPV infections in 2018 demonstrated the success of the programme; reducing the prevalence of high-risk HPV strains in sexually active 16 to 18 year old females that had been vaccinated at age 12 to 13 to less than 2%, compared with over 15% prior to the vaccination programme in 2008.(137)

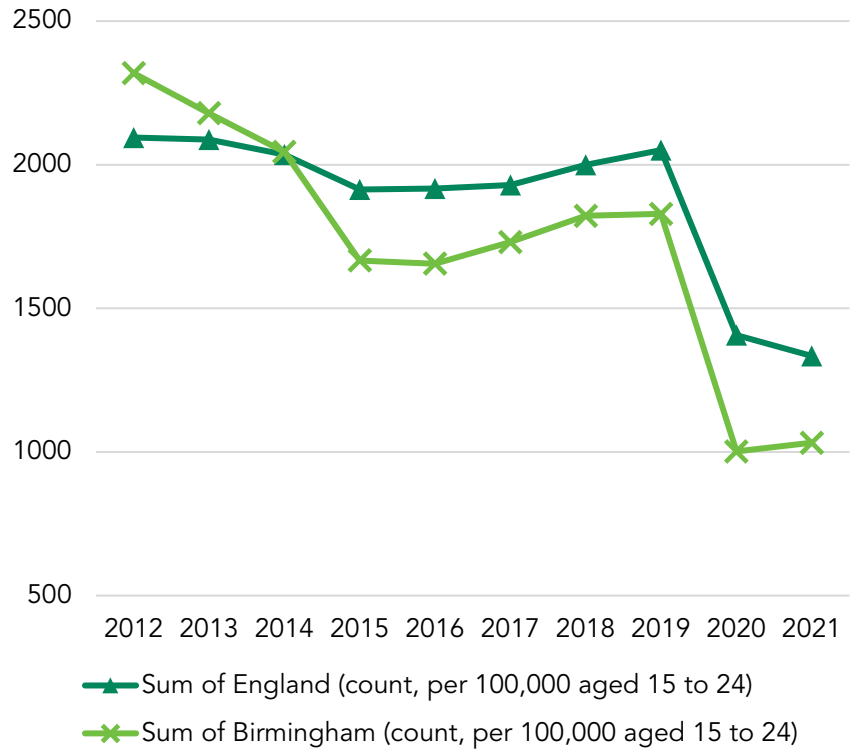
2.6.2 Sexual Health

2.6.2.1 Sexually Transmitted Infections

The National Chlamydia Screening Programme (NCSP), was established to prevent, detect, and reduce the harm of untreated chlamydia infection.(138)

In 2021, there was a 4% increase in the total number of chlamydia tests taken among young adults (16 to 24 years) totalling 978,307 tests in the UK.(28) In Birmingham, the chlamydia detection rate in 16 to 24 year olds was 182 per 100,000, slightly higher than the national rate (178 per 100,000) (**Figure 8**, **Appendix 3.9**). However, there has been a steady decline in the number of detected chlamydia cases over the past 10 years in Birmingham, which could be due accessibility to timely testing, usage, and changes to the screening programme.

Figure 8: Chlamydia diagnoses in people aged 15 to 24 years: Birmingham 2012 to 2020



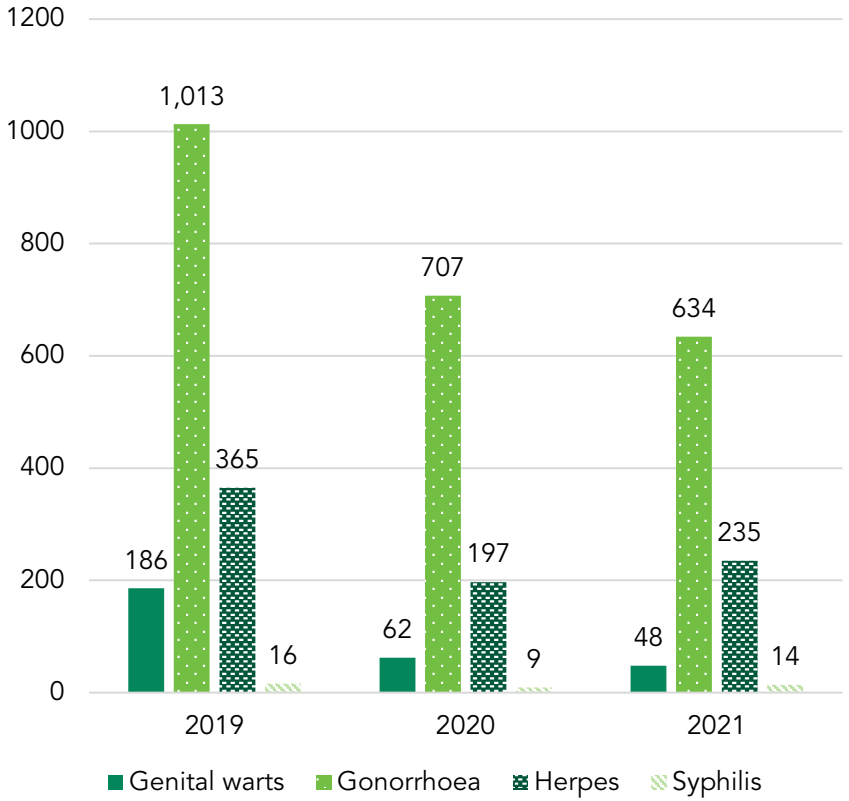
Source UK Health Security Agency (28)

At the start of the COVID-19 pandemic in 2020, there was a 14% decrease in STI testing in the West Midlands region, compared with the previous year.(139) In 2021, 124,734 people aged 15 to 24 in the West Midlands were tested for a range of STI's including Chlamydia, Gonorrhoea. Umbrella is a free sexual health service for young people in Birmingham and the West Midlands partnering with GPs, pharmacies, and some community centres, to reach out to all community members, with a strong focus on 16 to 24 year olds, including students.(140)

Compared with 2019, in 2020 there was a decline in the rate of gonorrhoea and genital warts diagnoses amongst teenagers aged 15 to 19 in the West Midlands (**Figure 9**, **Appendix 3.10**).(139) A possible reason could be reduced testing and detection rates due to the pandemic, however rates continued to decrease in 2021.

In 2021 there was an increase in new cases of herpes and syphilis by 235 and 14 (per 100,000) respectively compared with 2020;(139) however, cases did not reach pre-pandemic levels.

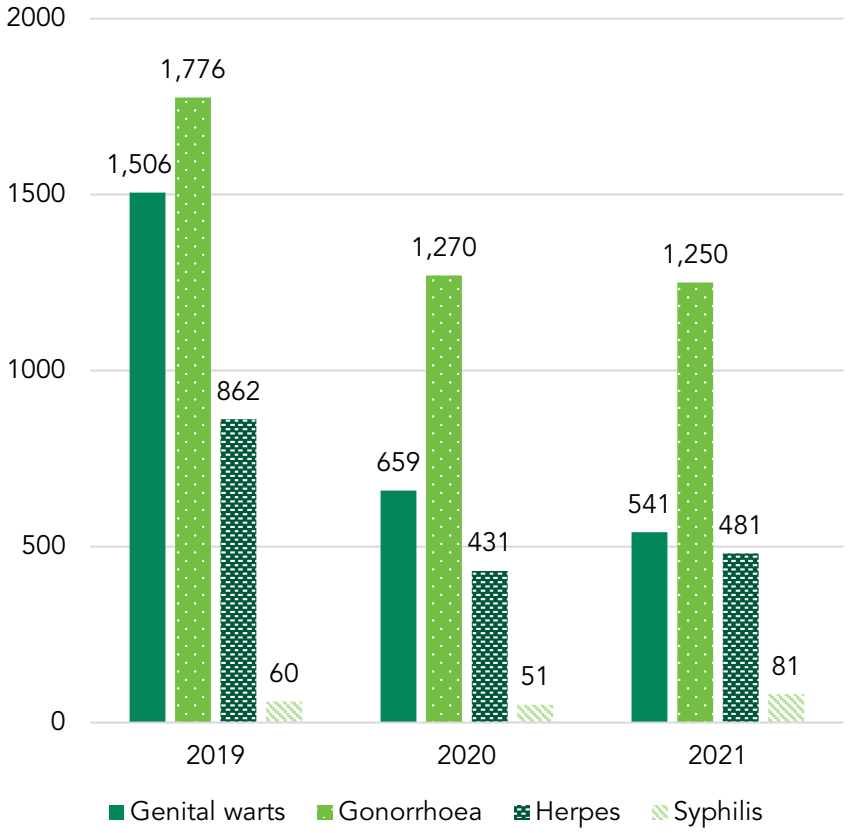
Figure 9: New diagnoses of gonorrhoea, herpes, syphilis, genital warts in 15 to 19 year olds: West Midlands, from 2019 to 2021



Source: UK Health Security Agency (139)

In 2021, there was an increase in STI diagnosis rates for the 20 to 24 age group in the West Midlands (**Figure 10**, **Appendix 3.11**) compared with 2020, except for gonorrhoea.(139) However, the rate of new cases of gonorrhoea, herpes, and genital warts were still lower than pre-pandemic levels in 2019.

Figure 10: New diagnoses of gonorrhoea, herpes, syphilis, genital warts in 20 to 24 year olds: West Midlands, from 2019 to 2021



Source: UK Health Security Agency (139)

In Birmingham in 2021, gonorrhoea detection rate for those aged 16 to 25 was 120 per 100,000, higher than the national average of 90 per 100,000. For genital warts, the detection rate among all ages was 25.1 per 100, 000 population in Birmingham, which was lower than the national rate of 38 per 100,000.

2.6.3 COVID-19

Based on the UK COVID-19 Dashboard (February 2023), 63% of adolescents aged 16 to 17 years had received at least one COVID-19 vaccination since the start of the pandemic.(141) By comparison, 71% of the population aged 18 to 24 years had received at least one dose of the vaccine within the same period.

According to the ONS, by January 2022, 70% of students in England aged 16 to 17 years had received at least one dose of COVID-19 vaccine, while 46% had received two doses.(142) The rates of students aged 16 to 17 years receiving 3 doses of the vaccine in 2022 was 29% which was notably lower than in 2021 (72%).

According to an ONS survey in 2022, most HE students in the UK (92%) reported having received at least one COVID-19 dose by the end of 2022, a slight increase from 90% in 2021.(143) Factors associated with vaccine hesitancy were ethnic background, living at home and influence from families, as well as concerns around the vaccines' side effects and lack of sufficient information about the vaccines.(134)

2.7 Ageing Well and Dying Well

Key Findings

- Mortality rates for those aged 20 to 24 in Birmingham between 2017 and 2021 (25.72 to 33.45 per 100,000) were lower compared to national rates (31.51 to 37.51 per 100,000).
- The leading cause of death in those aged 15 to 19 and 20 to 24 in England between 2018 to 2021 was suicide and injury/poisoning of undetermined intent.
- Mortality rates for those aged 20 to 24 dying from suicide and injury/poisoning of undetermined intent in Birmingham between 2017 and 2021 (3.81 to 6.67 per 100,000) was higher than rated for those aged 15 to 19 (3.76 to 5.03 per 100,000).
- COVID related deaths in 2020 and 2021 in England were higher in 20 to 24-year-olds (0.78 and 1.38 per 100,000) than those aged 15 to 19 (0.32 and 0.84 per 100,000).

2.7.1 Mortality

Between 2017 and 2021, mortality rates in Birmingham for 15 to 19 year olds have been similar to England rates, with 25 per 100,000 in Birmingham and 24 per 100,000 in England in 2021 (**Table 32**).(5) However, mortality rates in those aged 20 to 24 are lower in Birmingham than the national average during the same time period, with 27 per 100,000 in Birmingham and 38 per 100,000 in England in 2021.

Table 32: Age-standardised mortality rates: Birmingham and England, 2017 to 2021

Year	Birmingham (Aged 15 to 19)	Birmingham (Aged 20 to 24)	England (Aged 15 to 19)	England (Aged 20 to 24)
2017	25	27	23	32
2018	19	33	25	36
2019	21	28	22	36
2020	20	26	20	32
2021	25	27	24	38

Notes: figures given per 100,000

Source: Office for National Statistics (5)

ONS data for the leading causes of death in those aged 15 to 19 and 20 to 24 in England and Birmingham is missing for some years and causes. From the available data, accidents, cancer, homicide and probable homicide, suicide, and injury or poisoning of undetermined intent (which includes deaths with an underlying cause of intentional self-harm and deaths with an underlying cause of event of undetermined intent) and COVID-19 related deaths are recorded (**Table 33**, **Table 34**).

National data for all leading causes of death in 15 to 19 and 20 to 24-year-olds show that suicide and injury or poisoning of undetermined intent was the most common cause of death between

2019 and 2021 in both age groups. The rate of 20 to 24-year-olds dying from suicide and injury or poisoning of undetermined intent in England in 2021 was higher (11 per 100,000) than those aged 15 to 19 (6.2 per 100,000).

Birmingham rates were also higher in those aged 20 to 24 (6.5 per 100,000) compared with those aged 15 to 19 (3.5 per 100,000) in 2021. In 2021, deaths from accidents were higher among 20 to 24-year-olds (9.1 per 100,000) compared with those aged 15 to 19 (5.4 per 100,000). Cancer death rates in 2021 were slightly higher in those aged 20 to 24 (3.8 per 100,000) compared with those aged 15 to 19 (2.6 per 100,000). However, this trend was not consistent between 2017 and 2021. Nationally, COVID-19 related deaths in 2020 and 2021 were much higher in 20 to 24-year-olds (0.78 and 1.4 per 100,000 respectively) compared with than those aged 15 to 19 (0.32 and 0.84 per 100,000 respectively).

Table 33: Age-standardised mortality rates for people aged 15 to 19: Birmingham and England (in brackets), 2017 to 2021

Cause of death	2017	2018	2019	2020	2021
Accidents	5.0 (5.3)	3.8 (6.6)	6.3 (5.3)	[-] (4.0)	[-] (5.4)
Cancer	6.3 (3.0)	3.8 (3.0)	[-] (2.0)	[-] (2.8)	[-] (2.6)
Homicide and probable Homicide	[-] (1.7)	3.8 (1.6)	3.8 (1.5)	5.0 (2.1)	5.9 (2.1)
Suicide and injury or poisoning of undetermined intent	[-] (5.0)	3.8 (5.6)	3.8 (5.7)	5.0 (4.7)	3.5 (6.2)
COVID-19	[-] ([-])	[-] ([-])	[-] ([-])	[-] (0.32)	[-] (0.84)

Figures given per 100,000

[-] = figures missing/not applicable

Source: Office for National Statistics (5)

Table 34: Age-standardised mortality rates for people aged 20 to 24: Birmingham and England (in brackets), 2017 to 2021

Cause of death	2017	2018	2019	2020	2021
Accidents	8.6 (9.4)	6.7 (10)	7.6 (8.9)	[-] (7.8)	4.3 (9.0)
Cancer	[-] (2.9)	6.7 (4.2)	5.7 (3.8)	2.9 (2.7)	4.3 (3.8)
Homicide and probable Homicide	5.7 (2.0)	3.8 (1.9)	2.6 (2.9)	2.9 (1.9)	[-] (2.6)
Suicide and injury or poisoning of undetermined intent	3.8 (7.4)	4.8 (10)	2.9 (11)	6.7 (8.8)	6.5 (11)
COVID-19	[-] ([-])	[-] ([-])	[-] ([-])	[-] (0.78)	[-] (1.4)

Figures given per 100,000

[-] = figures missing/not applicable

Source: Office for National Statistics (5)

2.8 Contributing to a Green and Sustainable Future

Key Findings

- Birmingham has 591 parks and open spaces. Physical activities and visiting blue and green spaces have a positive impact on young adults' self-esteem and their moods. In 2018 a study reported students were 17% more energetic while exercising outdoors than indoors.
- Young people aged 18 to 24 report higher overall distress levels in response to the climate crisis as compared to the COVID-19 pandemic.
- Future Parks Accelerator project in Birmingham is in process and one of its aims is to incorporate green spaces within students' education, and improve accessibility and availability of green space to students in deprived areas.
- In 2022, Birmingham City Council introduced a clean air zone in Birmingham city centre to reduce the emissions and air pollutants that would affect the community, schools, colleges, and universities within the city centre.
- In 2022, only 2 universities in Birmingham have managed to meet all sustainability requirements which cover social and environmental justice based on the People & Planet University League.
- Birmingham City University ranked third in the West Midlands and 23rd out of all English universities, with staff and students managed to reduce 48% of carbon dioxide (CO_2) emissions, reuse and recycle 75% of waste, and achieve water reduction per person by 67%.

2.8.1 Access to Green and Blue Spaces

Birmingham has 591 parks and open spaces, in addition to blue spaces including many lakes throughout the city.(144) According to a 2019 national study, young adults (16 to 24 years) were less likely visit to blue spaces than older age groups, unless they were visiting for specific activities such as walking, or water sports.(145)

Another UK study in 2018, examined the psychological impact for undergraduate students exercising outdoors in parks and green spaces and reported students were 17% more energetic while exercising outdoors than indoors.(146) It also observed benefits in boosting their mood, positive attitude, and self-esteem. Moreover, there is positive correlation between students' attainment and physical activity.(1)

Currently, Birmingham City Council is working toward a sustainable future for urban green spaces via projects including the "Future Parks Accelerator" project.(147) The aim is to increase equal access to green spaces to all people (including those living in deprived areas), to promote a positive attitude in the community towards

green spaces and to ensure these spaces are incorporated within education settings.

The environmental justice map defines access to green space as "within 1,000m and at least 2 hectares".(148) Selly Oak, Harborne, Kings Heath, and Edgbaston (areas where students in Birmingham tend to reside) are all areas which have 2 hectares of green space per 1,000m of land.

2.8.2 Flood Risk

The Future Parks Accelerator project has been measuring environmental justice in Birmingham and one of the outcomes will be indicating the current and future situation for the students.(147) It is the first UK Local Authority to develop specific tools to measure environmental justice according to local multiple deprivation indices.(148) These measures include access to a green space within 1,000m and flood risk, and will help the city council to assess and support the community including an effectively, including impact on the student population within Birmingham.

2.8.3 Air Pollution

The negative impact of air pollution on the health and wellbeing of the population, particularly vulnerable age groups including children is well established.(149) To attempt to address this, Birmingham City Council worked in collaboration with different stakeholders to introduce the clear air zone strategy.(150) As part of this, the clean air zone tax in the city centre in 2021 aimed to reduce the emissions and air pollutants that would affect the health of the community including a number of schools, colleges and universities located within the city centre. None of the areas Selly Oak, Harborne, Edgbaston, or Kings Heath are within the top 10 most heavily polluted areas in Birmingham.(148)

2.8.4 Rising Temperatures and Heat Stroke

In 2022, a UK study of 530 young people aged 18 to 24 looked at the impact of climate change on overall distress (based on the total score for the distress scales; ranging 0 to 32) in response to the climate crisis as compared with the COVID-19 pandemic.(151) Although respondents perceived the direct impact of climate change on their personal lives as less severe, their overall distress was slightly, but significantly, more pronounced for climate change (average distress score 13.08) than for the COVID-19 pandemic (average distress score 11.55, $p<0.0001$). Women reported greater distress than men (average distress score 12.44) compared with men (average distress score 9.63). The study found that climate change was more likely to evoke emotions such as interest and engagement, guilt, shame, anger, and disgust in the young adults. Consequently, there may be need for mental health practitioners, policy makers, and other societal actors to account for the complex relationship between climate agency, distress, and mental wellbeing in young people.

2.8.5 Recycling

There is little research into student recycling behaviours and limited literature concerning halls of residence, especially in the UK. Environmental knowledge among students is impacted by many

factors including influence from those they share a house with; peers' behaviour; and personal attitudes and motivation to adopting pro-environmental behaviour.(152) A UK qualitative study in 2021 found from 12 in-depth interviews with university students in halls of residence, that students' recycling behaviours were found to be limited through lack of perceived ability, lack of facilities (such as clear labels and information about the size of bins within their university accommodation) and unconfident knowledge.(153) The study recommends a holistic approach including peer influence, education and information, physical structures and influencing attitudes and motivations to improve recycling behaviours in university students.

2.8.6 Sustainability

People and Planet's University League is compiled annually by the UK's largest student campaigning network and is the only comprehensive and independent league table of UK universities ranked by various environmental and ethical performance domains.(154) In 2022, only two universities in Birmingham have managed to meet all sustainability requirements which cover social and environmental justice based on the People and Planet University League. Birmingham City University ranked third in the West Midlands and 23rd out of all English universities, with staff and students managed to reduce 48% of carbon dioxide (CO_2) emissions, reuse and recycle 75% of waste, and achieve water reduction per person by 67%. Aston University ranked 4th in the West Midlands and 27th out of all English universities. The other universities in Birmingham "failed" the audit; University College Birmingham, University of Birmingham and Newman University did not meet the emission reduction target in 2022.

3. Closing the Gaps

There is currently a mixed understanding of the intersectional experiences of students aged 16 to 24, depending on the intersectional identity investigated and the data collected by different governing bodies e.g., the Department for Education.

There is some data which suggests that female students typically outnumber male students among HE institutions, students have similar levels of reported disability as the England and Wales population, Birmingham educational institutions are more ethnically diverse than national averages, and more students aged 16 to 24 identify as LGB+. Some of these intersectional experiences can be attributed to geography; Birmingham has been labelled a 'superdiverse' city with regards to the ethnic identities of the population, therefore this is likely represented across age groups. Whereas some of these intersectional factors, such as larger LGB+ populations may be attributed to younger cohorts potentially having increased social awareness of non-heterosexual identities and increased safety to disclose and self-identity without fear of criminalisation and pathologisation.

Intersectional data on gendered experiences within education are more comprehensive than other minority identities, such as ethnicity and disability. For example, ethnicity data is limited to population sizes of students in educational institutions, and there is a paucity of research included in this report which evaluates the experiences of minority ethnic groups in education. However, specific experiences of other ethnic groups is explored in other relevant Community Health Profiles.

4. Conclusion

An evidence-based approach has been used to describe the health of the student population aged 16 to 24 within Birmingham. Whilst there is available literature and data on students in the UK, a particular challenge was to distil this data to obtain relevant information relating specifically to students in the 16 to 24 age range and specifically to students in Birmingham. In some instances, data was presented that included information from non-students, or students who were not in the 16 to 24 age range, as the data were not available specifically for students.

Rates of mental health conditions are high amongst students aged 16 to 24. Around 20% of university students have a diagnosed mental health issue, with students reporting that their difficulties started whilst at school. Incidents of suicide at all universities in the UK are more highly reported than in the general population, while suicide rates in Birmingham are higher in 20 to 24-year-olds than 15 to 19-year-olds. The COVID-19 pandemic had a significant effect on the mental health and wellbeing of students with an increase in depression and reduction of wellbeing particularly during the first lockdown.

A high percentage of students engage in unhealthy behaviours. For example, many students report eating an unhealthy diet, which is influenced by peers. Students with unhealthy diets are often report other behaviours detrimental to health, such as smoking and low physical activity. Alcohol (and other substance misuse) is often

reported to be used as a means of 'fitting in' amongst peers; increasing confidence; and coping with the challenges of studying. A survey conducted at the University of Birmingham between 2016 and 2017 reported that 17% of students aged 17 to 24 were daily or intermittent smokers, while 16 to 24-year-olds in education have lower levels of physical activity than the same age group not in education.

The Community Health Profile provides an evidence summary for communities and partners to start and co-produce solutions and address these long standing inequalities to create better environments and services to support the student population aged 16 to 254 in Birmingham to live healthier and happier lives.

5. Appendices

Appendix 1: Search Strategy

Topic Area	General Search Terms	Specific Search Terms
Mental Wellness and Balance	"student" or "aged 16-24" and or "mental*" or "wellbeing" or "wellness" or "access" or "balance"	"student" or "aged 16-24" and "mental illness" or "depression" or "suicide" or "anxiety" or "eating disorder" and "prevalence" or "service" or "access" or "hospital admission" or "shame" or "stigma" or "stress" or "alcohol*" or "drinking*" or "abstention" or "substance misuse" or "substance abuse" or "addiction" or "tobacco" or "cannabis" or "cigarette" or "drugs*" or "smoking"
Healthy and Affordable Food	"student" or "aged 16-24" and "food" or "diet" or "obesity" or "meat" or "vegetarian" or "nutrition" or "vegan"	"student" or "aged 16-24" and "food*" or "dietary" or "obesity" or "overweight" or "BMI" or "weight" or "waist-height ratio" or "insecurity" or "poverty"
Active at Every Age and Ability	"student" or "aged 16-24" and "physical activity" or "activity" or "exercise" or "inactivity"	"student" or "aged 16-24" and "vigorous exercise" or "moderate exercise" or "walking" or "running" or "sports" or "cardiovascular" or "health promotion" or "barrier*" or "facilitator*"
Living, Working and Learning Well	"student" or "aged 16-24" and "working" or "education" or "qualification" or "training" or "skill" or "housing" or "living" or "economic" or "health" or	"student" or "aged 16-24" and "apprenticeships" or "level 1,2,3,4 qualification" or "degree" or "NEET" or "secondary school" or "primary school" or "full-time education" or "profession" or "career choice" or "household income" or "homeownership" or "bad health" or "learning disability" or "physical disability" or "neurodivergence" or "ADHD" or "autism" or "ASD" or "diabetes" or

	"illness" or "disability" or "long standing health" or "depriv*" or "poverty"	"cardiovascular disease" or "CVD" or "Chronic Obstructive Pulmonary Disease" or "COPD" or "Hypertension" or "cancer" or "quality of life" or "access"
Protect and Detect	"student" or "aged 16-24" and "protect" or "detect" or "screening" or "vaccin*" or "sexual health" or "infectious disease" or "oral health"	"student" or "aged 16-24" and "STI" or "sexually transmitted infection" or "sex education" or "transmission" or "sexual health services" or "genitourinary medicine" or "HIV" or "Hepatitis" or "Tuberculosis" or "TB" or "COVID-19" or "coronavirus" or "SARS-CoV-2" or "bowel" or "HPV" or "Human Papilloma Virus" or "dental"
Ageing Well and Dying Well	"student" or "aged 16-24" and "ageing" or "aging" or "dying"	"student" or "aged 16-24" and "death" or "mortality"
Contributing to a Green and Sustainable Future	"student" or "aged 16-24" and "sustainability" or "green future" or "sustainable" or "environment"	"student" or "aged 16-24" and "recycling" or "environmentally friendly" or "tree planting" or "sustainable development" or "energy consumption" or "green space" or "blue space" or "white space" or "pollution" or "flood" or "climate" or "heat" or "heat stroke" or "urban"

Appendix 2: Exclusion and Inclusion Criteria

Age group	Language	Publication type	Availability	Time limit
16 to 24	English Language	Pieces of peer reviewed and high-quality grey literature, academic or scientific literature, whether a journal or article, report or documents relating to the specified health and wider determinants issues amongst "student" or "aged 16 to 24" in the UK. Publications exclusive to people from "student" or "aged 16 to 24" Publications with at least 25% "student" or "aged 16 to 24" population sample representation.	All articles including DOI/HTML links (include articles behind paywalls).	Searches were restricted to articles published in the last 10 years, not including 2011 Census and 2001 Census.

Appendix 3: Raw Data

Appendix 3.1. Table 1 (Additional Information): Qualification type by level of qualification: UK

Entry Level	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8
Each entry level qualification is available at three sub-levels - 1, 2 and 3. Entry level 3 is the most difficult. Entry level qualifications are: Entry level award entry level certificate (ELC) Entry level diploma Entry level English for	First certificate GCSE – grades 1,2,3 or grades D, E Level 1 award Level 1 certificate Level 1 diploma Level 1 ESOL Level 1 essential skills Level 1 functional skills Level 1 national	CSE - grade 1 GCSE - grades 9,8,7,6,5,4 or grades A*, A, B, C Intermediate apprenticeship Level 2 award Level 2 certificate Level 2 diploma Level 2 ESOL Level 2 essential skills Level 2 functional skills Level 2 national certificate	A level Access to higher education diploma Advanced apprenticeship Applied general AS level International Baccalaureate diploma Level 3 award Level 3 certificate Level 3 diploma Level 3 ESOL Level 3 national certificate	Certificate of higher education (CertHE) Higher apprenticeship Higher national certificate (HNC) Level 4 award Level 4 certificate Level 4 diploma Level 4 NVQ	Diploma of higher education (DipHE) Foundation degree Higher national diploma (HND) Level 5 award Level 5 certificate Level 5 diploma Level 5 NVQ	Degree apprenticeship Degree with honours - for example bachelor of the arts (BA) hons, Bachelor of Science (BSc) hons Graduate certificate Graduate diploma Level 6 award Level 6 certificate Level 6 diploma Level 6 NVQ	Integrated master's degree, for example Master of Engineering (MEng) Level 7 award Level 7 certificate Level 7 diploma Level 7 NVQ Master's degree, for example Master of Arts (MA), Master of Science (MSc) Postgraduate certificate	Doctorate, for example Doctor of Philosophy (PhD or DPhil) Level 8 award Level 8 certificate Level 8 diploma

speakers of other languages (ESOL) Entry level essential skills Entry level functional skills Skills for Life	vocational qualification (NVQ) Music grades 1, 2 and 3	Level 2 national diploma Level 2 NVQ Music grades 4 and 5 O level - grade A, B, or C	Level 3 national diploma Level 3 NVQ Music grades 6,7 and 8 T Level Tech level			Ordinary degree without honours	Postgraduate certificate in education (PGCE) Postgraduate diploma	

Appendix 3.2. Figure 1: Number of Level 3 academic and vocational qualification students aged 16 to 18: Birmingham, 2021 to 2022

Type of level 3 qualification	Number (%) of students aged 16 to 18
Number of A level students (academic)	4,727 (60%)
Number of applied general students (vocational)	2,645 (34%)
Number of tech level students (vocational)	483 (6.1%)
Number of technical certificate students (vocational)	48 (0.6%)
Total	**7,903**

Source: Department for Education

Appendix 3.3. Figure 2: Number of HE student enrolments by level and mode of study: England, 2021 to 2022

Level and mode of study	Home students	EU students	Non-EU students
Undergraduate full-time	1,437,575 (50%)	83,045 (2.9%)	207,580 (7.3%)
Undergraduate part-time	297,230 (10%)	3,380 (0.1%)	13,460 (0.5%)
Postgraduate full-time	192,930 (6.7%)	25,275 (0.9%)	320,160 (11%)
Postgraduate part-time	254,830 (8.9%)	8,440 (0.3%)	18,630 (0.7%)
Total	**2,182,565**	**120,140**	**559,830**

Source: Higher Education Statistics Agency

Appendix 3.4. Figure 3: Number and rate of death by suicide of undergraduate students by age group: England and Wales, 2016 to 2020

Academic Year	Number of deaths by suicide (Aged 20 and under)	Rate of deaths per 100,000 students by suicide (Aged 20 and under)	Number of deaths (Aged 21 to 24)	Rate of deaths per 100,000 students by suicide (Aged 21 to 24)
2016 to 2017	33	3.9	20	5.2
2017 to 2018	32	3.7	26	6.7
2018 to 2019	27	3.1	20	5.0
2019 to 2020 [p]	14	1.6	10	2.5

Source: Office for National Statistics

Appendix 3.5. Figure 4: Percentage of those who are a victim of crime, students compared with those in employment, England, and Wales, 2019 to 2020

Employment status	Personal hate crime	All hate crime	All CSEW personal crime	All CSEW crime
In employment	0.2	0.3	4.4	16
Student	0.4	0.5	6.6	17

Source: Home Office

Appendix 3.6. Figure 5: Average attainment 8 score of children in care: Birmingham, West Midlands, and England, 2016 to 2021

Year	Birmingham	West Midlands	England
2016	25	23	23
2017	21	21	19
2018	20	19	19
2019	22	20	19
2020	26	23	21
2021	25	25	23

Source: Department for Education

Appendix 3.7. Figure 6: Proportion of students studying in England who declared a disability by type of impairment, 2018 to 2019

Cognitive or learning difficulties	Mental health condition	Multiple impairments	Sensory, medical, or physical impairments	Social or communication impairment
103,780 (5.0%)	80,685 (3.9%)	53,925 (2.6%)	44,815 (2.2%)	12,130 (0.6%)

Source: Office for Students

Appendix 3.8. Figure 7: Highest level of qualification of students aged 21 to 24 by disability status for years: West Midlands, 2019 to 2020 and 2020 to 2021

Highest level of Qualification	2019 to 2020 (%)	2020 to 2021 (%)
No qualification	13%	10%
GCSE grades C and higher or equivalent	27%	27%
A level or equivalent	28%	29%
Higher education	5.6%	6.9%
Degree or equivalent	19%	18%
Other qualification	8.6%	8.3%

Source: Office for Students

Appendix 3.9. Figure 8: Chlamydia detection rate per 100,000 aged 15 to 24

Year	Birmingham	England
2012	2,319	2,095
2013	2,179	2,088
2014	2,044	2,035
2015	1,666	1,914
2016	1,656	1,917
2017	1,730	1,929
2018	1,822	1,999
2019	1,829	2,050
2020	1,002	1,407
2021	1,032	1,334

Source: UK Health Security Agency

Appendix 3.10. Figure 9: New diagnoses of gonorrhoea, herpes, syphilis, genital warts in 15 to 19 year olds: West Midlands, from 2019 to 2021

STI	2019 (per 100,000)	2020 (per 100,000)	2021 (per 100,000)
Gonorrhoea	1,013	707	634
Herpes	365	197	235
Syphilis	16	9	14
Genital warts	186	62	48

Source: UK Health Security Agency

Appendix 3.11. Figure 10: New diagnoses of gonorrhoea, herpes, syphilis, genital warts in 20 to 24 year olds: West Midlands, from 2019 to 2021

STI	2019 (per 100,000)	2020 (per 100,000)	2021 (per 100,000)
Gonorrhoea	1,776	1,270	1,250
Herpes	862	431	481
Syphilis	60	51	81
Genital warts	1,506	659	541

Source: UK Health Security Agency

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