

Seen and heard

Understanding frequent attendance at A&E

An analysis of linked data in Dorset



#FrequentAttendance
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The power
of kindness

Key findings



People who frequently attend A&E constitute a small and vulnerable minority of people in Dorset whose needs are consistently not being met. They make up a significant proportion of A&E attendances. 1.7 per cent of Dorset's population account for 13.8 per cent of the county's A&E attendances.



There is a clear relationship between socio-economic deprivation and frequent A&E attendance. People who frequently attend A&E are 1.7 times more likely to live in Dorset's most deprived areas.



Hospital visits among people frequently attending in Dorset are more likely to be classed as 'high acuity' (urgent) by clinicians. 62.7 per cent of A&E attendances by the frequently attending population were classified as such, compared to 52 per cent of the control group.



Two cohorts make up around 70 per cent of the frequently attending population in Dorset:

- Cohort One is aged 70+; 98.2 per cent of the cohort have two or more long-term conditions; and 44.5 per cent are recorded as being on a palliative care register.
- Cohort Two is aged 20-49 with slightly more females; there is a significant link with deprivation; depression, seizure, self-injury and substance misuse are particularly prevalent presentation reasons; and they are more than twice as likely as the control group to have two or more long-term conditions.



Both cohorts in Dorset are more likely to arrive by emergency ambulance than non-frequently attending people of the same age and sex.



For both cohorts in Dorset, **average monthly primary care attendance increases during a period of frequent hospital attendance** (including face-to-face as well as virtual appointments) and drops down afterwards:

- For Cohort One, primary care attendance doubles, from 1.1 to 2.2 times per month.
- For Cohort Two, primary care attendance is 2.5 times higher, rising from 0.71 to 1.8 times per month.



More than a third (36 per cent) of periods of frequent attendance by people in Cohort Two **required a new mental health referral**. 70.2 per cent of these were closed within seven days. This does not include 'did not attends'.



Both Dorset cohorts are more likely than the wider population to have an emergency admission to hospital, with Cohort Two 1.7 times more likely than the control group.



There are increased rates of frequent A&E attendance, primary care use and mental health referrals among children and young people aged 19 and under in the aftermath of Covid-19.

Recommendations

- 1.** Continue to roll out and expand HIU services.
- 2.** Increase the breadth and availability of accessible, linked data, and harness it to identify people at risk of frequent attendance and opportunities for targeted support.
- 3.** Improve availability of, and access to, mental health support, with a particular focus on community services.
- 4.** Further develop multidisciplinary proactive care in primary care for people with long-term conditions, prioritising those most at risk of experiencing poor health outcomes due to other risk factors.
- 5.** Align targets and funding to support sustainable action on health inequalities.
- 6.** Ensure that funding and performance measures support a preventative community-based approach that addresses non-clinical drivers of frequent attendance at A&E.



Acronyms

A&E	Accident and Emergency
CAMHS	Child and Adolescent Mental Health Services
COPD	Chronic obstructive pulmonary disease
Diis	Dorset Intelligence and Insight Service
ECDS	Emergency care data set
GP	General practitioner
HIU	High Intensity Use
IAPT	Improving Access to Psychological Therapies
ICS	Integrated care system
IMD	Index of multiple deprivation
LSOA	Lower super output area
LTC	Long-term condition
MHSDS	Mental health services data set
NHSE	NHS England
QoF	Quality and outcomes framework
SHAP	Shapley Additive Explanations
SMI	Serious mental illness
VCS	Voluntary and community sector

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1. Introduction

“ Every day is a struggle mentally or physically... Because I might look okay or seem relatively normal on the outside, and because they can't see what is going on inside of you, like they treat you as if you're fine and that you're perfectly normal and that you are just wasting everyone's time and looking for attention. ”

British Red Cross HIU client

In 2021, the British Red Cross published *Nowhere else to turn*¹, which provided evidence for the strong link between health inequalities and frequent attendance at Accident and Emergency (A&E). It found that only 0.67 per cent of the English population attend A&E frequently, but account for:

- 16 per cent of all A&E attendances,
- 29 per cent of all ambulance journeys,
- 26 per cent of all hospital admissions.

Frequent attendance at A&E – where an individual attends A&E at significantly higher than average levels – is, for many people, an issue of unmet clinical and non-clinical need. These unmet needs can drive a decline in physical and mental health, ending in crisis at A&E. Frequent attendance often serves as a litmus test for the accessibility of effective prevention; A&E too often serves as a last resort when someone has not received, or cannot access, appropriate care and support earlier. Our report called for improved access to HIU services, action to support people in the community before they fall into crisis and a cross-government approach to tackle health inequalities.

Since we published *Nowhere else to turn* progress has been made. Putting integrated care systems (ICSs) on a statutory footing² reflects the growing recognition that healthcare is just one component of promoting an individual's overall wellbeing.

There is also growing national recognition of the need to better support people experiencing health inequalities in order to reduce pressures on urgent and emergency care. For example, the Urgent and Emergency Care Recovery Plan³ and the 2024/25 NHS England (NHSE) Priorities and Operational Planning Guidance⁴ encourage ICSs to roll out NHSE High Intensity Use (HIU) programmes (more information in the box on page 10) to alleviate urgent and emergency care pathway pressures, while at the same time address health inequalities. As a result, there are now more HIU services and a greater awareness among ICS leaders of the need to support

people frequently attending A&E more effectively. The NHSE HIU programme has had a significant impact. For systems supported by the programme, 999 calls fell by up to 78 per cent, and A&E attendance and non-elective admissions reduced by up to 84% (for the cohort of people frequently attending).⁵

However, despite this progress, significant gaps in provision persist, the pressures on the health and care system are increasing and as a result too many people are not getting the care and support they need. HIU service coverage, while increasing, is still patchy. Not all NHS Trusts have access to a HIU service, and many integrated care boards (ICBs) struggle to commission services with adherence to the NHSE RightCare model originally developed in Blackpool.⁶ Even in Trusts that do have access, the service can be too small to reach everyone who needs it, especially people who attend A&E the most.

Pressure on urgent and emergency care services is at an all time high. In 2023/24, there were 26.2 million A&E attendances, compared with 21.6 million in 2011/12.⁷ A&E attendances at one trust tripled from 50,122 in 2003 to 154,076 in 2023.⁸ Demand on A&E services may continue to increase because of its link to socio-economic deprivation (demonstrated by British Red Cross research, as well as other studies such as the King's Fund⁹). The Covid-19 pandemic has exacerbated factors that contribute to frequent attendance, such as declining mental health¹⁰ and rising loneliness.¹¹ The cost-of-living crisis, with more people experiencing food insecurity¹² and struggling to heat their homes¹³, is also having an impact. *Health equity in England: the Marmot review 10 years on*¹⁴ and forecasts from the Health Foundation suggest that health inequalities will persist over the next two decades, with a greater prevalence of major illness among the working-age population in more deprived areas.¹⁵

The recommendations and findings from our 2021 research are as relevant as ever - the continued rollout of the national HIU programme is critical for supporting people frequently attending A&E and a coordinated

cross-government approach to addressing health inequalities remains crucial. At the same time, we must seek to identify people at risk much earlier and where possible support them in their communities before they reach crisis point. Too often, this is a group that are dehumanised and stigmatised, undermining the very real levels of clinical need that the findings demonstrate, but also the multifaceted difficulties that they face leaving them with nowhere else to turn.

This research outlined in this report aims to deepen our understanding of the needs of this population to:

- gain further insight into which groups are frequently attending A&E,
- explore their interactions with health and care services before, during and after a period of frequent attendance,
- build a clearer picture of opportunities for earlier identification and intervention.

The research was conducted in partnership with Dorset ICS. It involved analysis of an ICS-linked data set; interviews with people with lived experience of frequent attendance; and workshops with experts involved in delivering care and support. The British Red Cross partnered with Dorset ICS because of the quality of its linked health and care data and appetite for collaboration. This work demonstrates the value of integrated data from across the health and care system and collaboration between ICSs and VCS partners to better understand the needs of their population.

Addressing frequent A&E attendance is critical to the new UK government's mission to build a health and care system fit for the future. The findings and recommendations set out in this report reflect the importance of the government's ambitions to tackle health inequalities, address pressures and long waiting times in A&E, and increase focus on prevention, particularly at primary and community level.



Research approach

The term 'frequent attendance' refers to people accessing urgent and emergency care services (UEC) more than expected – this can include attending A&E, emergency admissions and ambulance calls and conveyances. The definition used in this report and for all the data analysis is: *the same individual attending A&E five times or more in a rolling 12-month period*. This builds on the definition we used in our previous report [Nowhere else to turn](#), where frequent attendance was calculated based on attendance during one calendar year. We calculated frequent attendance on a rolling basis for this project because it more accurately reflects people's real-life experiences. See Appendix A for further details.

We commissioned Dorset Intelligence and Insight Service (DiiS) to analyse linked health and social-care datasets to understand patterns of frequent attendance at A&E in Dorset.

Our analysis covered the period from 1 April 2018 to 31 October 2023, and included a sample of 770,527 individuals. We used three main approaches to the analysis:

- 1. Case-control matching:** We matched the records of people who attended A&E frequently with an equivalent number of records for non-frequently attending people of the same age and sex, to allow unbiased comparisons.
- 2. Machine learning:** We used an unsupervised machine-learning approach to explore both the identifiers and outcomes associated with frequent A&E attendance.
- 3. Analysis of variance:** We examined how patterns of frequent attendance changed before, during and after the Covid-19 pandemic by comparing means, rates and counts of various factors.

This approach allowed us to identify cohorts of people who frequently attend A&E, the services they use, and the outcomes they experience (see Appendix A for detailed methodology).

We also commissioned [Innovation Unit](#), a system-design social enterprise, to facilitate two workshops with national and local health and care stakeholders. These stakeholders ranged from frontline providers to system leaders and policy specialists, and across areas such as urgent and emergency care, population health, social care and housing. The workshops took place in January and February 2024 and aimed to:

1. explore the findings from the analysis of linked datasets, assessing the extent to which they resonated or were surprising, and to identify potential areas for further exploration
2. gather additional insights from participants based on their specific areas of expertise
3. prioritise areas for national and place-based policy recommendations aimed at improving support and outcomes for people who frequently turn to A&E services.

To further contextualise the findings and inform workshop design, Innovation Unit also conducted five semi-structured interviews with people with a history of frequent A&E attendance. Interviews took place between November 2023 and March 2024 and covered topics including:

- individuals' backgrounds,
- their health needs,
- their triggers for frequently attending A&E,
- their formal and informal support mechanisms,
- what they felt could help them in the future.

Profile of Dorset

Dorset is made up of two local authorities: Dorset Council and Bournemouth, Christchurch & Poole (BCP) Council.

The population is older than the English average: 30 per cent of Dorset Council and 21.8 per cent of BCP is over 65, compared to 18.3 per cent in England.¹⁶

Dorset also has a larger white population: 98 per cent in Dorset Council and 94.2 per cent in BCP, in comparison to the England average of 85.4 per cent.¹⁷

46 per cent of Dorset county's population live in predominantly rural areas compared to the 21.3 per cent across England.¹⁸

While Dorset is generally considered one of the less deprived areas in the UK, it contains significant pockets of deprivation. Specifically, 11 areas in Dorset are ranked among the top 20 per cent of the most deprived areas nationally.^{i, 19}

Coastal communities in Dorset, like many others across the UK, often experience high levels of deprivation because of factors such as seasonal employment, limited access to services, and geographic isolation.²⁰



ⁱ The English Indices of Multiple Deprivation divide the Dorset Council geography into 219 areas.

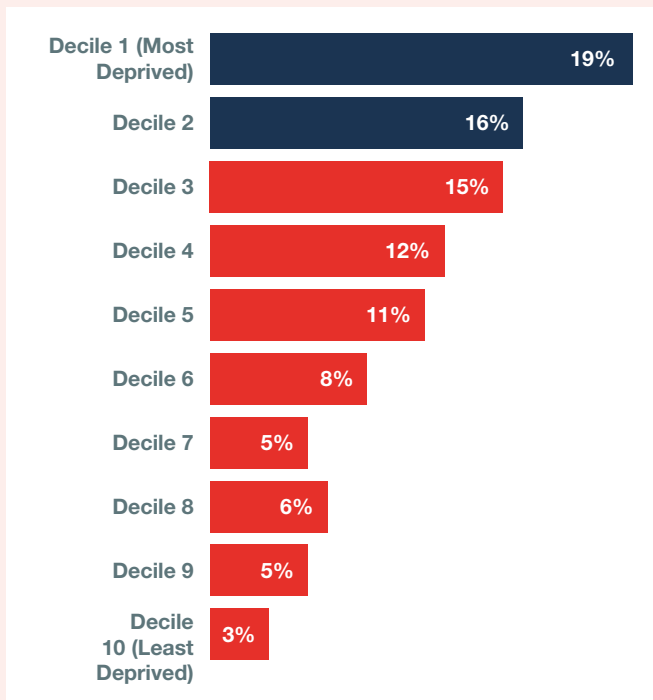
British Red Cross HIU programme

The British Red Cross is a leading provider of HIU services, delivering support across all seven NHS England regions and now developing services in the devolved nations. In 2023, our HIU services were working with data from 37 acute trusts, two mental health trusts and six primary care networks (PCNs) to deliver the programme, reaching over 1,700 people.

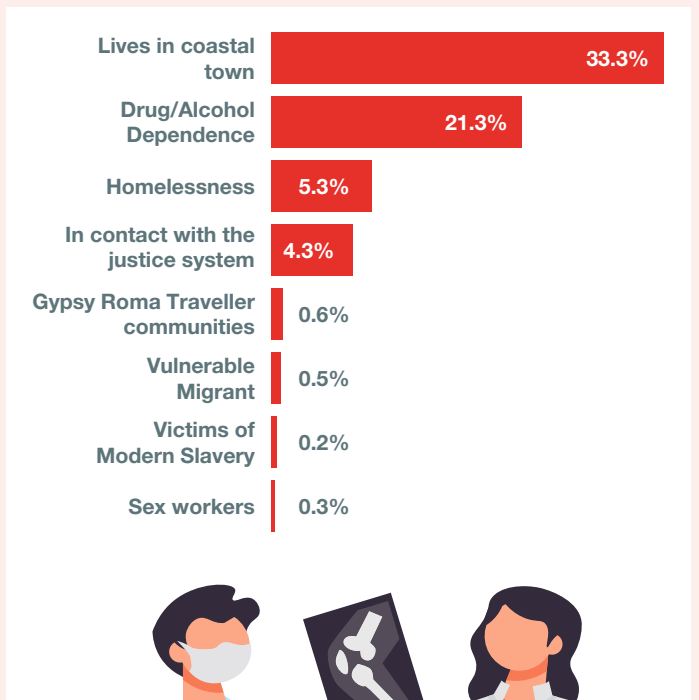
Based on data available from 1,734 people supported between Jan-Dec 2023:



Clients according to IMD Decile



Clients by inclusion groupⁱⁱ



35% of clients reside in Core20 areas

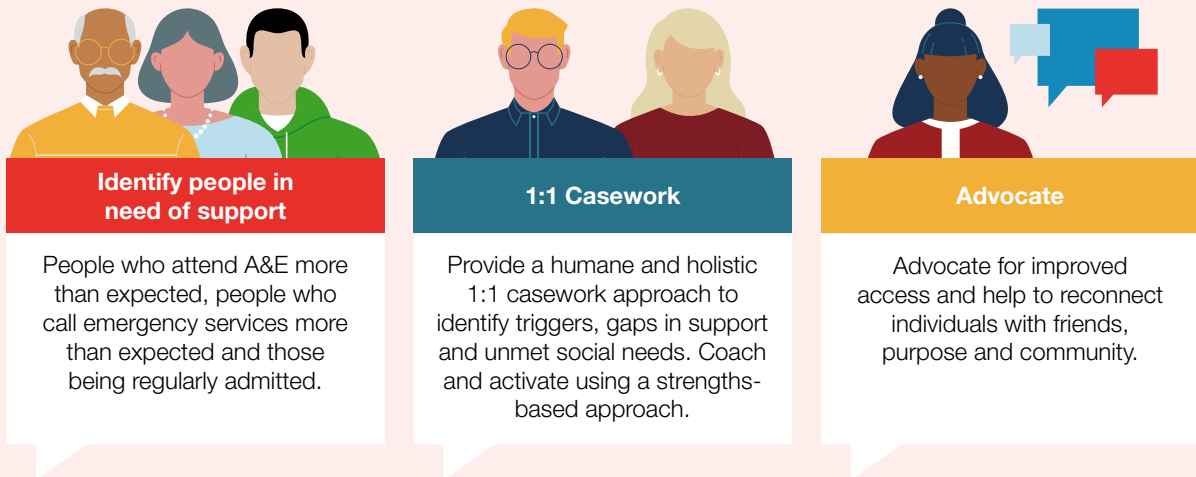


ⁱⁱ Based on data available.

BRC's approach is based on the NHS RightCare model, in which an agreed number of people who frequently attend A&E are identified by our practitioners for support, and asked if they would like to try something different. Once someone is accepted on to the programme, we take a person-centred and strengths-based approach to identify the unmet social needs that may be exacerbating their physical or mental health conditions, and leading them to attend A&E.

BRC's approach is de-medicalised and decriminalised. Everyone supported by HIU services starts with a 'clean sheet' – from the moment they accept support they can create a new narrative that no longer focuses on what is 'wrong with them' but rather what is 'right with them'.

Support is not time-limited and is based on what the individual needs. The model encompasses:



As the HIU service is part of the wider British Red Cross independent living offer, we are able to 'bolt on' additional assistance to the RightCare model, for example offering step-down support for people who are ready to move on from our HIU services, helping people engage in community activities, either through peer-led or social-prescribing support.

Our HIU model is now being deployed in a range of settings including:

- **Mental health services:** working with liaison psychiatry services, community mental health teams (CMHT) and with people detained under the Mental Health Act.
- **Primary care:** primary care networks are using the HIU model for people who need more intensive support than can be offered by social-prescribing services – this includes people with enduring mental health conditions, multiple long-term conditions and unmet social needs.

Of the people supported by our HIU programme, 93 per cent showed an increase in activation – meaning their view on their ability to manage their physical and mental health needs – with 89 per cent reporting an improvement in their wellbeing at the end of their support. During 2023, the service reported a 54 per cent reduction in A&E attendance, a 50 per cent reduction in ambulance conveyances, and a 40 per cent reduction in non-elective hospital admissions among service users. These reductions mean the service offers a return on investment of 351 per cent, with an average 'social value' (the self-reported wellbeing transposed into a financial value) for each client of £6,360 (based on Short Warwick Edinburgh Mental Well-Being Scale scores for completed support).

“ I have never felt more listened to. My support worker took the time to meet with me when and where it was convenient for me. They didn't make me feel guilty if I couldn't attend a meeting or punish me which some services seem to do. I understand myself and my problems so much better now and have so many more options for where I can turn if I need help. A weight has been lifted off me now my money problems are less. I don't know what I would have done if the Red Cross had not come into my life when they did. ”

British Red Cross HIU client

2. Findings

This chapter sets out the findings from the analysis of linked datasets. Section 2.1 covers attendance patterns among all people who frequently attend A&E in Dorset (referred to as the ‘frequently attending population’). Sections 2.2 to 2.7 present findings relating to the two main cohorts of people who attend A&E frequently. Section 2.8 explores how patterns of service use for those who frequently attend have changed since Covid-19.





2.1 Overview of frequently attending population

People who frequently attend A&E constitute a small and vulnerable minority of people in Dorset, yet make up a significant proportion of A&E attendances.

- During the investigation periodⁱⁱⁱ, 13,335 people attended A&E frequently^{iv} out of a total population of 770,527^v (Figure 1).
- They attended 123,467 times out of a total of 894,688 attendances for the population as a whole.
- That means only 1.7 per cent of people in Dorset attended A&E frequently during that time, yet accounted for 13.8 per cent of all A&E attendances (Figure 2).

Figure 1: Population of Dorset: frequently attending and non-frequently attending population

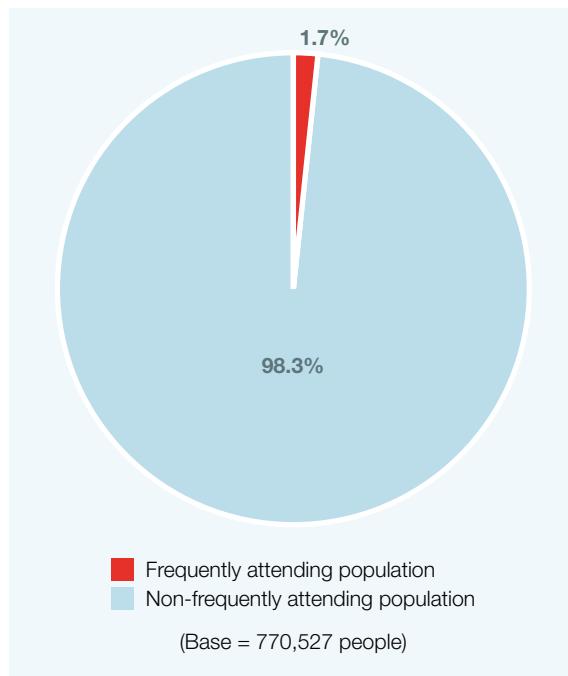
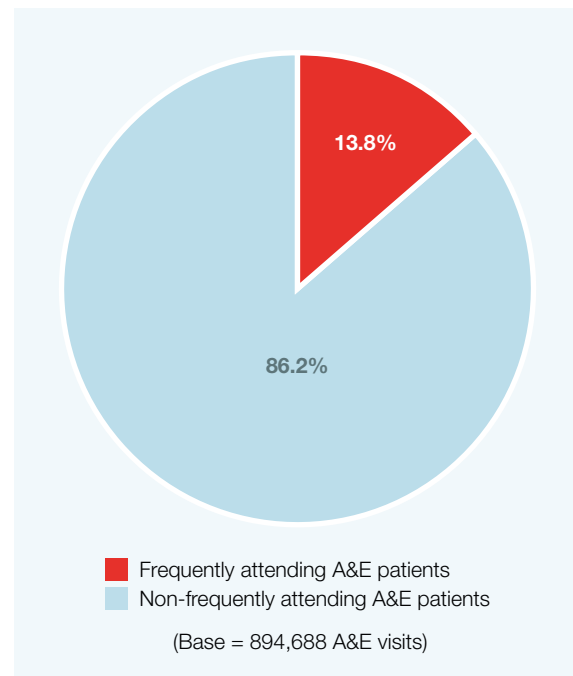


Figure 2: A&E attendances in Dorset: visits made by frequently attending and non-frequently attending population



Inside the analysis: case-control matching

- Records for people who attended A&E frequently (the case group) were matched with an equivalent number of records for non-frequently attending people of the same age and sex (the control group).
- Comparing the two groups allows us to understand the potential impact of different variables on people who frequently attend, while ruling out the impact of age and sex.

ⁱⁱⁱ The analysis was conducted retrospectively with data from 1 April 2018 – 31 October 2023 (referred to as the investigation period).

^{iv} For the purpose of this research, a period of frequent attendance is defined as five or more attendances within a rolling one-year timeframe. (See [Appendix A](#) for further details).

^v 770,527 people in Dorset were included in the analysis (See [Appendix A](#) for further details).

Age, sex and volume

As with our previous England-wide research, *Nowhere else to turn*, we found that the overall distribution of frequent attendance is fairly evenly split between male and female.^{vi}

Figure 3: Age and sex of people who frequently attend A&E in Dorset (shown as a percentage of total frequently attending population)

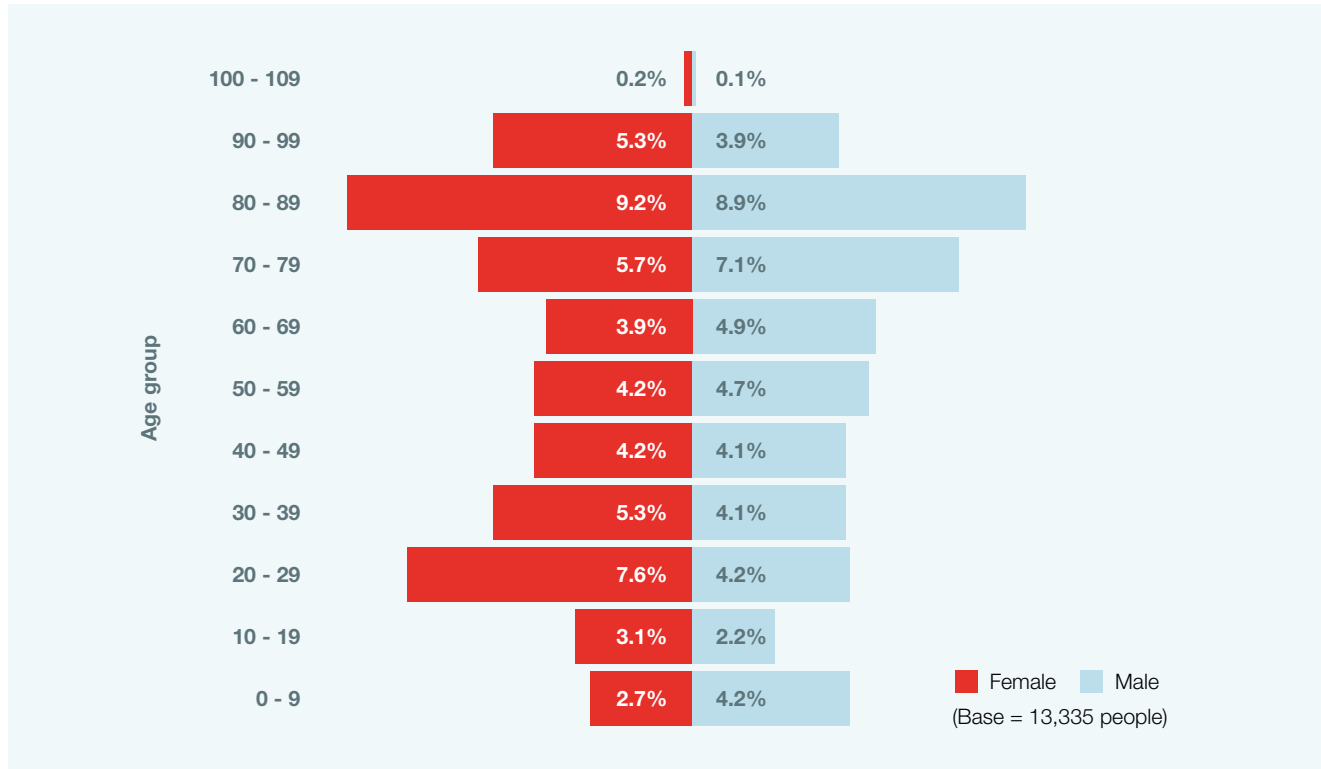
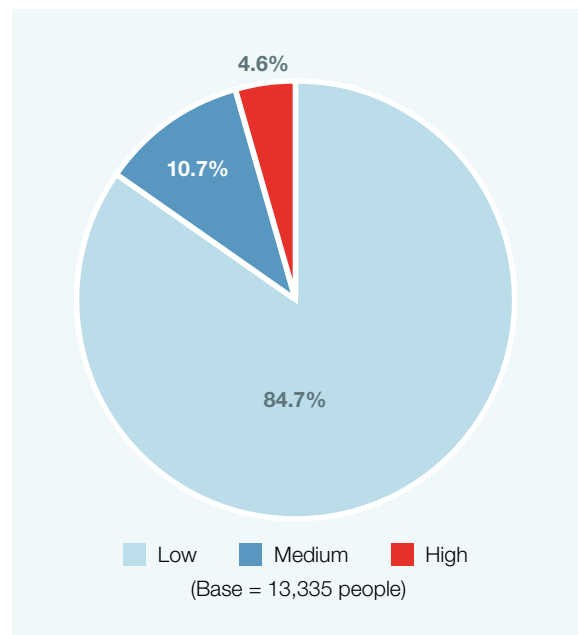


Figure 4: People who frequently attend A&E in Dorset, by volume



'Volume'^{vii} refers to the number of times a person attends A&E during a period of frequent attendance. As Figure 4 shows, **most people who frequently attend (84.7 per cent) fell into the low-volume category**, meaning that they attended between five and ten times during a period of frequent attendance. Around one in ten (10.7 per cent) were medium volume – attending between 11 and 19 times. Only 4.6 per cent were high volume – attending 20 or more times. One individual attended more than 300 times, but this is an extreme case.

^{vi} In *Nowhere else to turn*, the Hospital Episodic Statistic dataset showed an equal balance between females (51 per cent) and males (49 per cent). British Red Cross (2021) *Nowhere else to turn*. Retrieved from: <http://redcross.org.uk/about-us/what-we-do/we-speak-up-for-change/exploring-the-high-intensity-use-of-accident-and-emergency-services>

^{vii} People that had at least one period of 20+ attendances are classed as high volume, those that had at least one period of 11-19 but did not have a 20+ period are classed as medium volume, and the remainder (no periods with 11 or more attendances) are low volume (See [Appendix A](#) for further details).

The age and sex distribution of people who frequently attend varies according to volume. The low-volume group is largely older, with around two in five (42.7 per cent) aged 70 or older (Figure 5). The high-volume group has a younger age profile, with one in three (33.7 per cent) falling within the 20 to 39 age range (Figure 6). Females are also more prevalent than males in this high-volume group, whereas the low-volume group has a more even sex distribution.

Figure 5: Age and sex of people who frequently attend A&E in Dorset – low volume (5-10 times per period) (shown as a percentage of total low-volume frequently attending population)

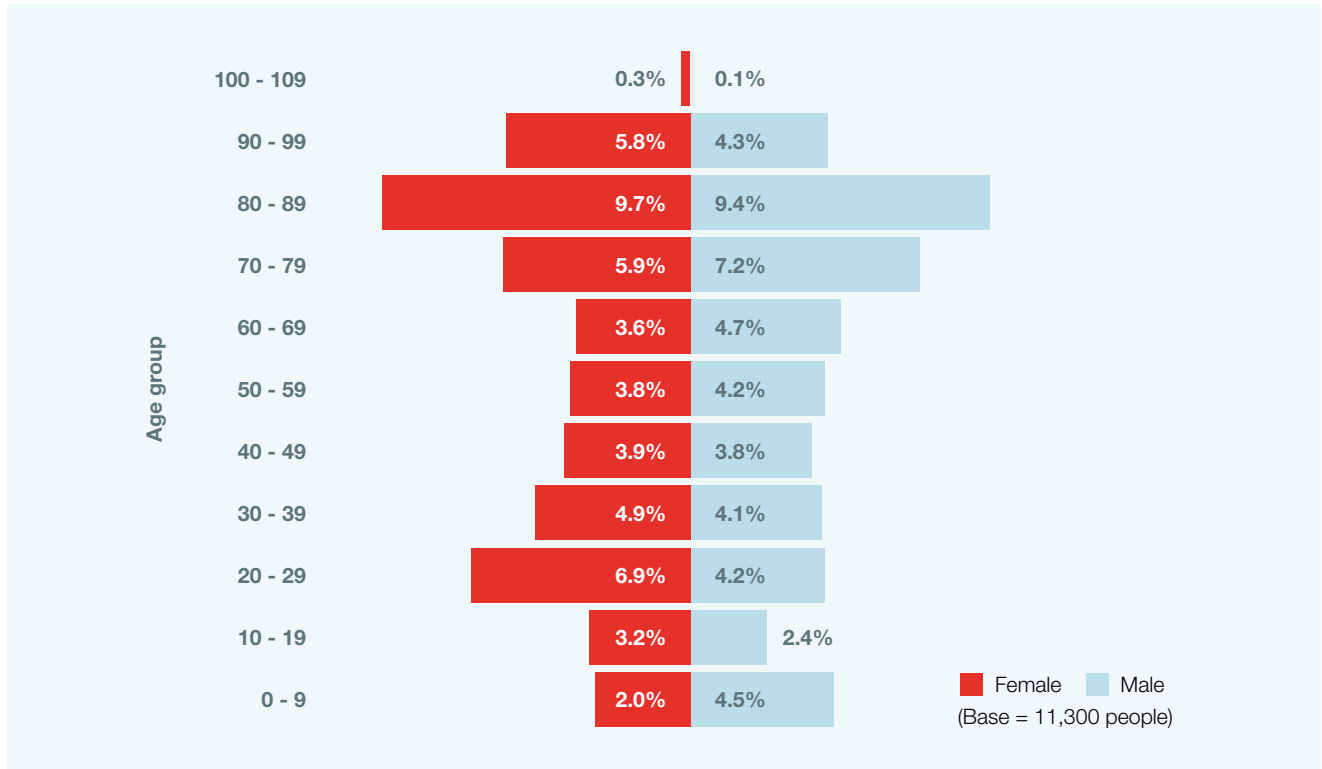
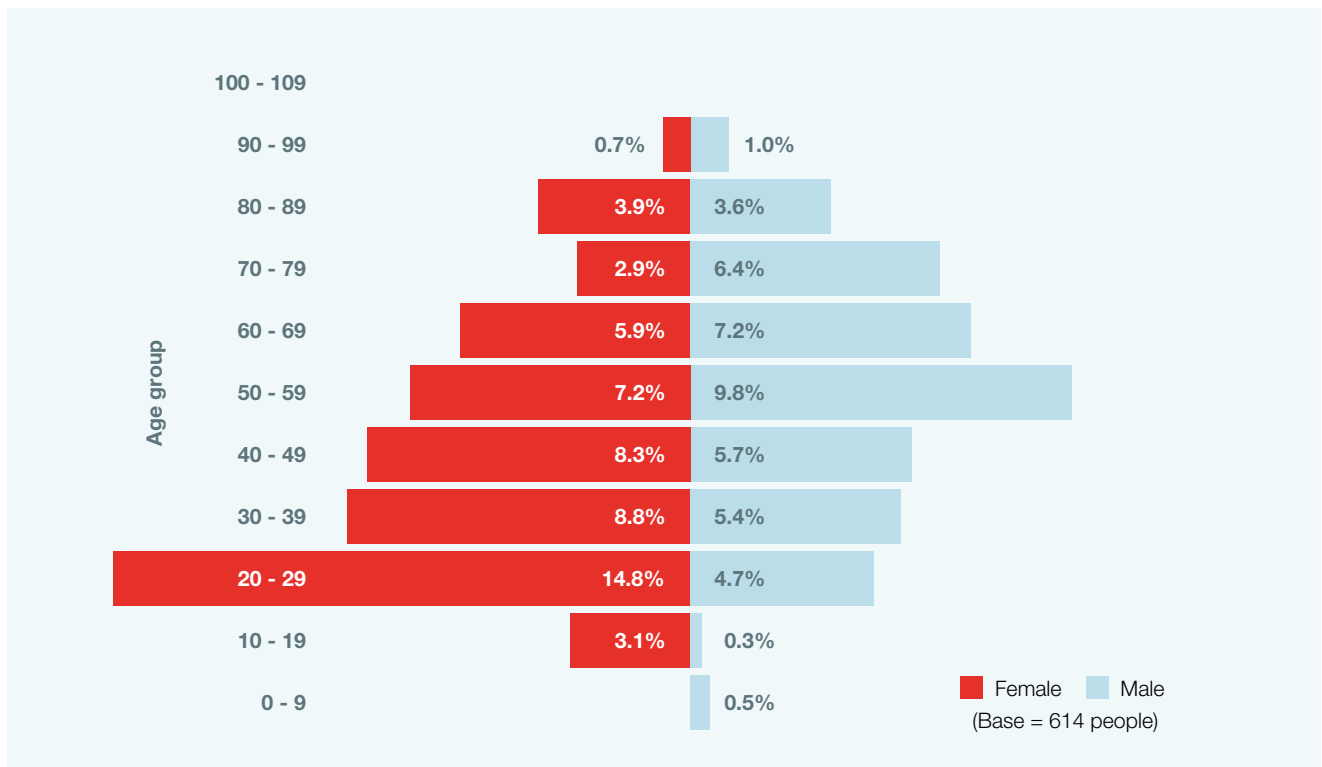


Figure 6: Age and sex of people who frequently attend A&E in Dorset – high volume (20+ times per period) (shown as a percentage of total high-volume frequently attending population)

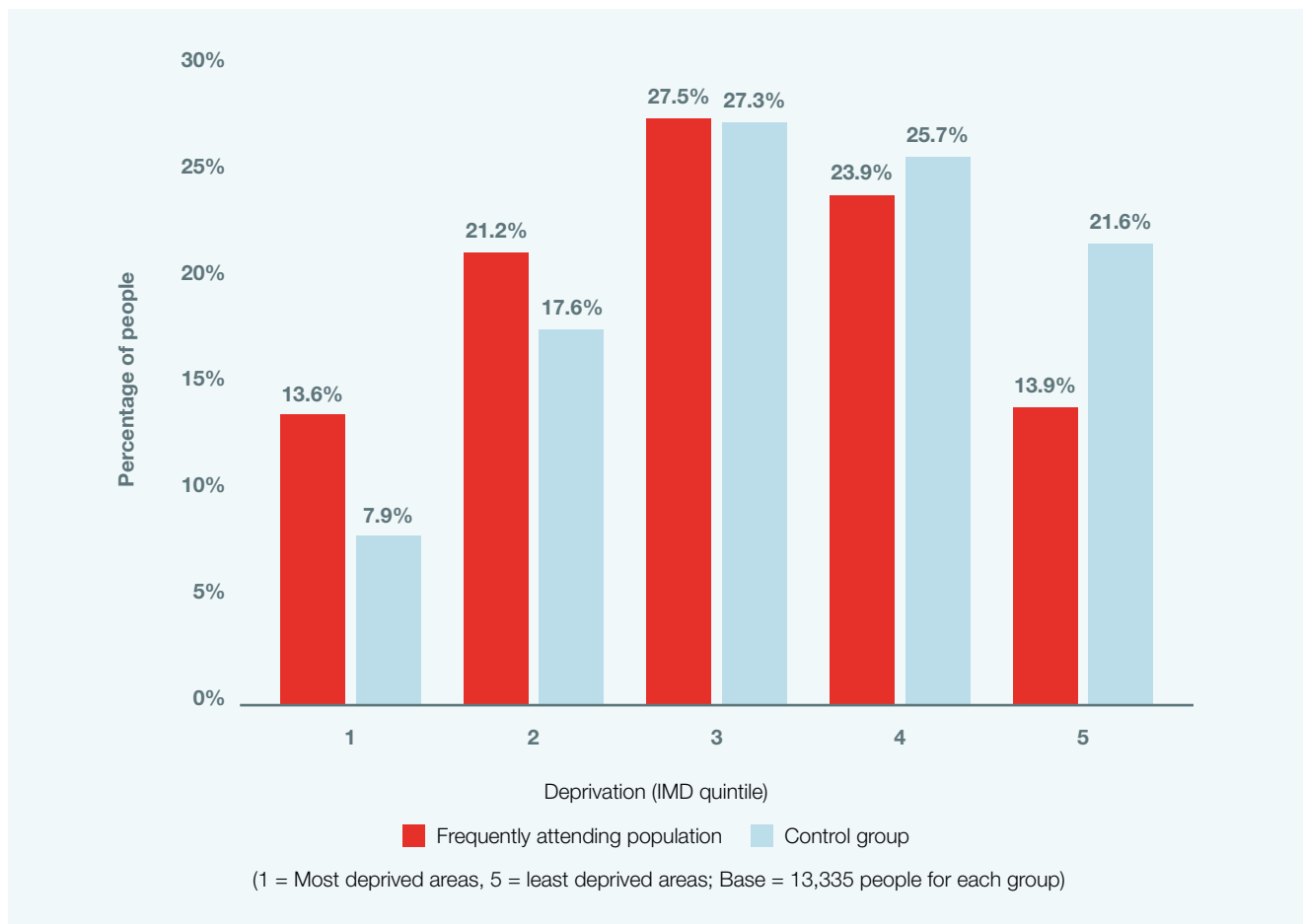


Socio-economic deprivation

People who frequently attend A&E are 1.7 times more likely to live in the most deprived areas.

As with our previous research, *Nowhere else to turn*, this analysis revealed a clear relationship between socio-economic deprivation^{viii} and frequent attendance of A&E. The difference is most pronounced in the most and least deprived areas. As Figure 7 shows, people who frequently attend A&E are 1.7 times more likely to live in the most deprived areas (Index of Multiple Deprivation – IMD – quintile one) than those who do not frequently attend (13.6 per cent of the frequently attending population live in the most deprived areas, versus 7.9 per cent of the control group). They are also less likely to live in the least deprived areas (IMD quintile five) (13.9 per cent of the frequently attending population, versus 21.6 per cent of the control group).

Figure 7: Deprivation level of frequently attending population and control group (non-frequently attending people of the same age and sex), by IMD quintile



The findings reflect the known association between living in more deprived areas and poorer health outcomes. This trend is well-established in the literature on health inequalities, including our own research *Nowhere else to turn*. The relationship between socio-economic status and health is complex and multifaceted, as evidenced by our interviews with people who frequently attend A&E and workshops with the professionals who work with them.

^{viii} Defined according to the Index of Multiple Deprivation (IMD) (See [Appendix A](#) for further details).

Coastal communities

We explored patterns of frequent attendance among Dorset's coastal communities. Around a third (32.4 per cent, or 4,324 people) of those frequently attending live in coastal communities, broadly reflecting the overall Dorset population (31.6 per cent).

Our analysis found that Dorset's coastal areas are more deprived than its non-coastal areas and have a higher prevalence of long-term conditions. We also assessed primary care use and mental health referrals and noticed no significant variation not already accounted for by deprivation. Therefore, we concluded that the differences observed in coastal communities are likely to be a reflection of deprivation levels.

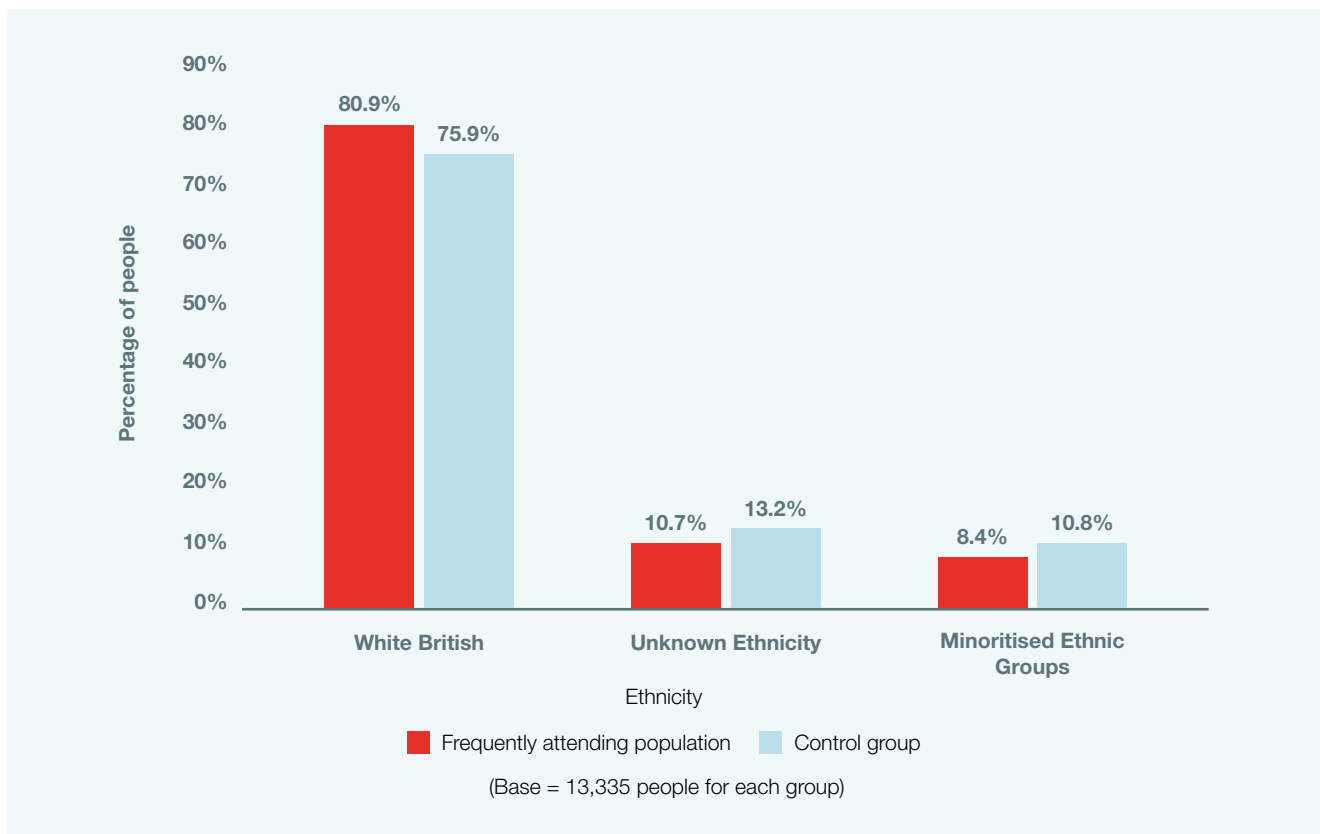


Ethnicity

In Dorset, we found that **people who frequently attend A&E are slightly more likely to be of White British ethnicity than people of the same age and sex who do not frequently attend (the control group)**. As Figure 8 shows, White British people account for 80.9 per cent of those who frequently attend, compared to 75.9 per cent of the control group. Similarly, people who frequently attend are slightly less likely to be from the unknown and minoritised ethnic groups^{ix} than those who do not attend frequently.

This research provides greater insight on ethnicity than *Nowhere else to turn*, which did not find a clear relationship between ethnicity and frequent A&E attendance in England.²¹

Figure 8: Ethnicity of frequently attending population compared to control group (non-frequently attending people of the same age and sex), split according to categorisation used by NHS Dorset

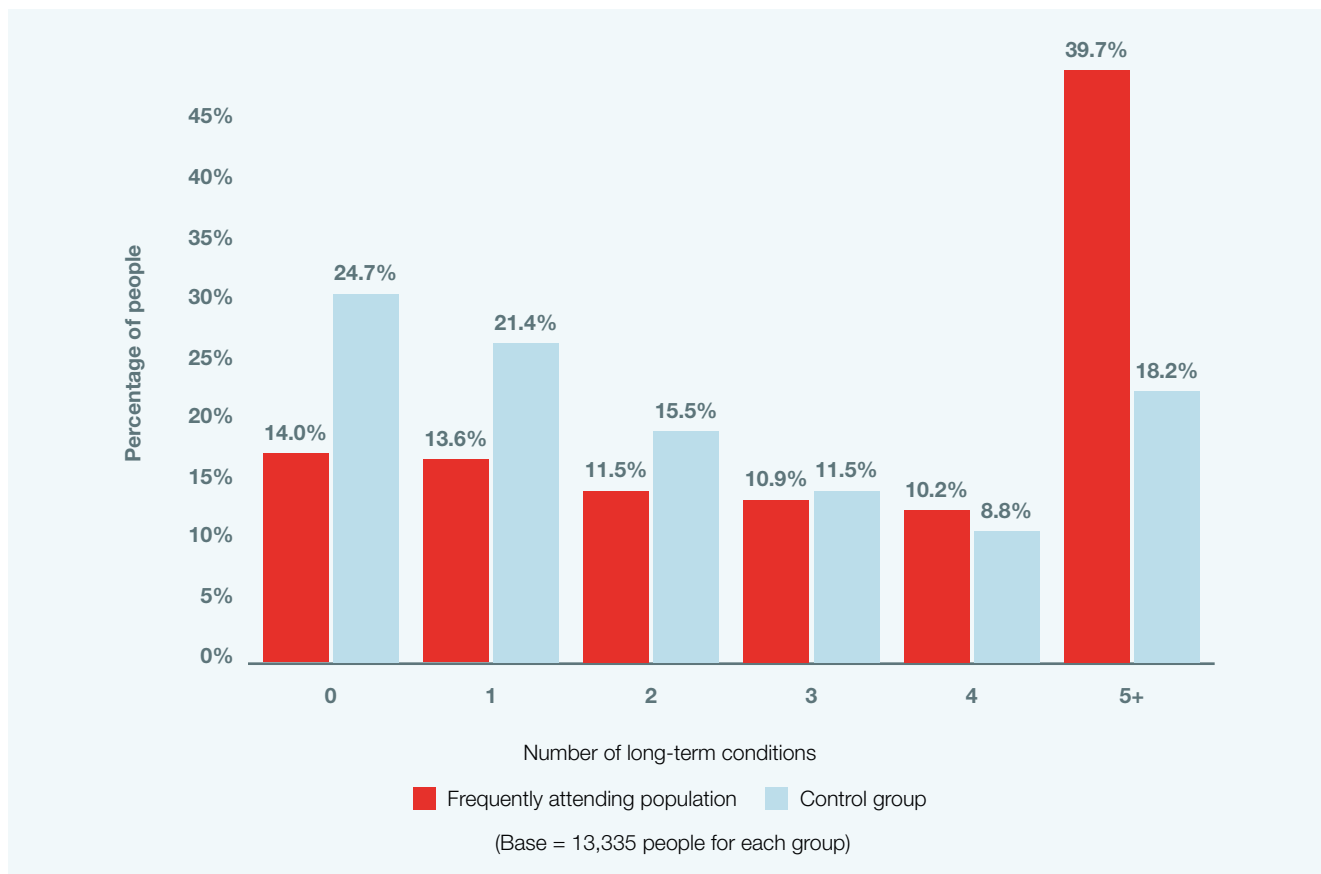


^{ix} 'Minoritised Ethnic Groups' (note this differs from the terminology used by NHS Dorset, which calls this group 'Community Minorities'). See [Appendix A](#) for further detail on the limitations of ethnicity data.

Long-term conditions

We found that people who frequently attend A&E are more likely to have two or more pre-existing long-term conditions (LTCs) on their primary care record than those who do not frequently attend. **As Figure 9 shows, 72.4 per cent of the frequently attending population have two or more pre-existing LTCs, whereas only 54 per cent of the control (non-frequently attending) group do.** They are more than twice as likely to have five or more pre-existing LTCs: 39.7 per cent of the frequently attending population had five or more LTCs, whereas only 18.2 per cent of the control (non-frequently attending) group do. These findings mirror the findings of our previous research in North West London.^x

Figure 9: Number of long-term conditions, frequently attending population and control group (non-frequently attending people of the same age and sex)



The proportion of people across the UK who have multiple LTCs is rising steadily.²² **One in four people in England are now living with at least two health conditions²³, and deprivation has a significant impact on both the prevalence of multiple LTCs and an earlier age of onset.²⁴**

The link between multiple LTCs and frequent A&E attendance resonated strongly with the health professionals who took part in our workshops. They highlighted that people with multiple LTCs are often required to navigate different services for each clinical need. This creates practical challenges for people who are already often facing a range of barriers, many of which stem from socio-economic deprivation. There was consensus among workshop participants that the health and social care system too often addresses an individual's needs in isolation rather than holistically, and so risks missing the underlying drivers of frequent attendance. It can also mean people have to retell their story multiple times, or are passed between disjointed services with a lack of consistency in their care.

^x In *Nowhere else to turn*, we found that people who frequently attended in the area were ten times more likely to have three or more medical conditions than to have no background medical history at all, with 51 per cent of people who frequently attended having at least one diagnosed condition, and 30 per cent having three or more.

The prevalence of multiple LTCs among this cohort offers ICSs a significant opportunity to advance NHS England's Core20PLUS5 approach.^{xi, 25}

Although each ICS decides their PLUS population focus based on local needs, many of the 42 ICSs have identified people with LTCs as a priority. NHSE guidance explicitly includes individuals with multiple LTCs and suggests that inclusion health groups should be considered.

In Figure 10^{xii} below, while palliative care is not technically a LTC, it is extracted into DiiS from clinical codes that are associated with palliative care in primary care records using the QoF. The actual condition/s a patient has been diagnosed with is also recorded.

Figure 10: Most common pre-existing LTCs among the frequently attending population, compared to control group (non-frequently attending people of the same age and sex)

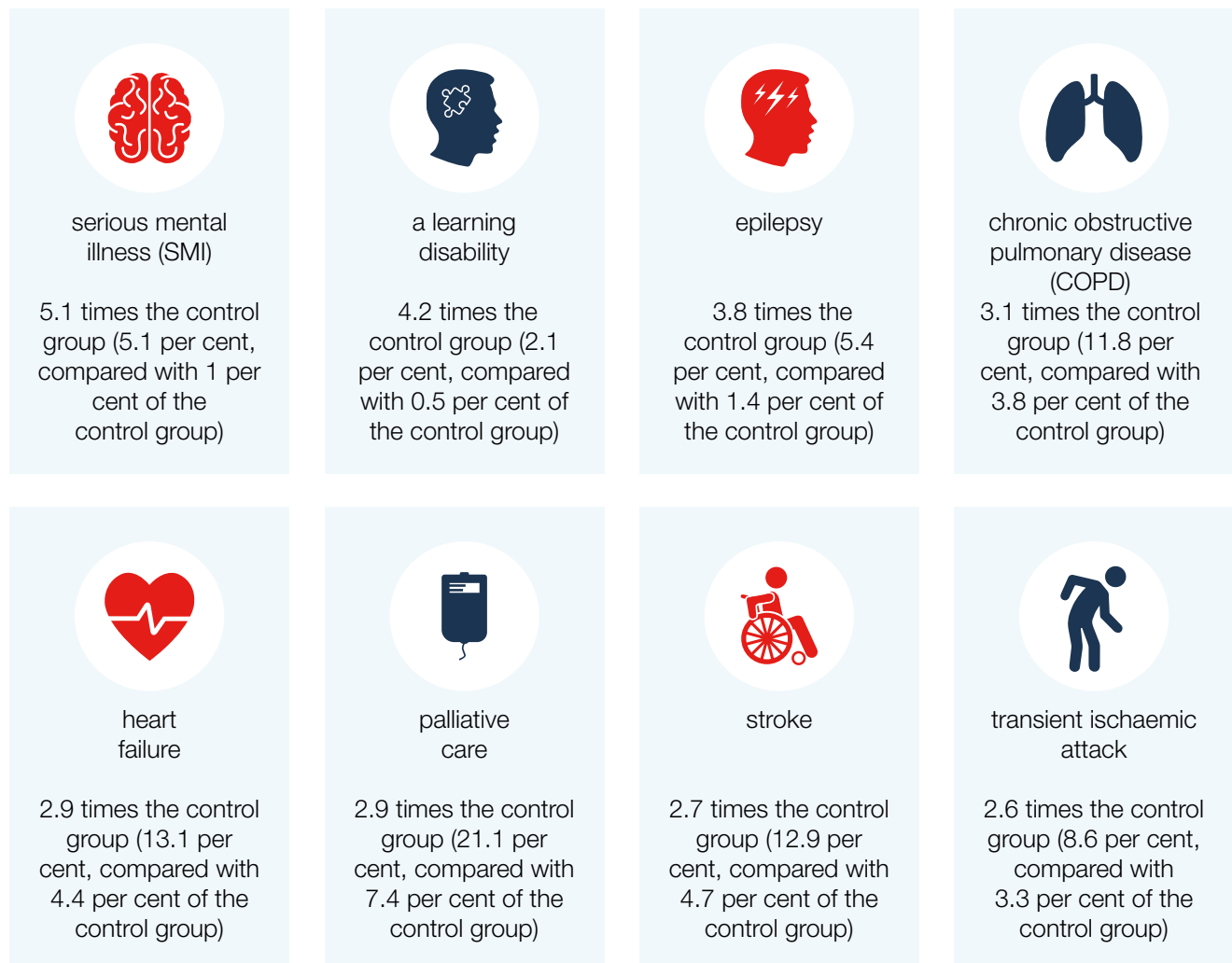
Percentage of patients with condition on primary care record			
Long-term condition	Frequently attending population (Base = 13,335 people)	Control group (Base = 13,335 people)	Difference between groups (no. times higher)
Depression	37.3%	16.4%	2.3
Hypertension	34.5%	27.8%	1.2
Asthma	21.3%	11.5%	1.9
Palliative care	21.2%	7.4%	2.9
Coronary heart disease	20.3%	9.4%	2.2
Diabetes	19.3%	9.7%	2.0
Chronic kidney disease (stage 3-5)	19.3%	13.2%	1.5
Atrial fibrillation	18.2%	8.5%	2.1
Cancer	18.0%	13.8%	1.3
Heart failure	13.1%	4.5%	2.9
Stroke	12.9%	4.7%	2.7
COPD	11.8%	3.8%	3.1
Dementia	10.3%	5.6%	1.8
Osteoporosis	10.1%	5.7%	1.8
Transient ischaemic attack	8.6%	3.3%	2.6
Epilepsy	5.4%	1.4%	3.8
Serious mental illness	5.1%	1.0%	5.1
Peripheral arterial disease	3.6%	1.5%	2.5
Learning disability	2.1%	0.5%	4.0
Rheumatoid arthritis	2.1%	1.1%	1.9

(The red and blue bars represent the prevalence of each condition within the respective group. Green cells signify the increase from the control to the frequently attending group, with a darker green shade representing a bigger difference.)

^{xi} CORE20PLUS5 is a framework aimed at addressing health inequalities. It focuses on two main components: (1) the 'CORE20', representing the most deprived 20 per cent of the population based on the Index of Multiple Deprivation (IMD) (2) the '5', which refers to the five clinical priorities outlined in the NHS Long Term Plan – hypertension, chronic respiratory disease, maternity, cancer and severe mental illness. (NHS England (2021). Core20PLUS5 – an approach to reducing health inequalities. Retrieved from: <https://www.england.nhs.uk/about/equality/equality-hub/national-healthcare-inequalities-improvement-programme/core20plus5/>)

^{xii} Figure shows LTCs where prevalence is one per cent or higher for frequently attending population.

Our analysis showed that **certain conditions are more than 2.5 times more prevalent among those who frequently attend compared to the control group.** Starting with the most pronounced contrast with the control group, these are:



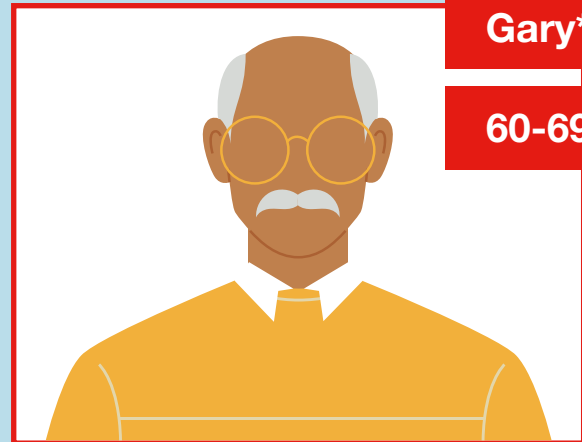
There are striking differences in the LTCs different cohorts of people have within the frequently attending population. This will be explored in Section 2.2.

NHSE's CORE20PLUS5 lists two of the LTCs above – serious mental illness (SMI) and chronic obstructive pulmonary disease (COPD) – as key clinical areas of health inequalities, which require accelerated improvement.²⁶ Chronic respiratory disease, which includes COPD, is the third leading cause of the life expectancy gap between the most and least deprived groups.²⁷ The prevalence of SMI in the most deprived areas is three times that of the least deprived areas.²⁸

Health professionals who attended the workshops agreed that the research findings on these conditions echoed frontline experiences, particularly the prevalence of mental ill health. They also highlighted that some of the conditions with a disproportionately high prevalence among people who frequently attend A&E (in addition to SMI and COPD) are strongly associated with health inequalities. For instance, heart and circulatory diseases. About 80 per cent of the cardiovascular disease burden can be attributed to modifiable risk factors, such as poor diet, smoking and medically manageable issues like high blood pressure, which are often influenced by people's access to health and care services, and their social and physical environment.²⁹

Case study

“I ask for help now, [but] I guess there's probably a lot of people who are still in the position of struggling to do that.”



Gary is recovering from alcohol addiction and has multiple long-term conditions, including bipolar disorder and diabetes. He lives alone and, with no family nearby, often feels isolated.

When he was drinking, Gary often collapsed. He was admitted to hospital 11 times in a four-month period. On several occasions, neighbours called an ambulance after finding him in the street or seeing him at home, through his window, unconscious. Other times, Gary called the ambulance himself after regaining consciousness. One admission saw him spend five days in intensive care.

Gary's experience with healthcare professionals has been mixed. While on some occasions he has received 'exemplary' care, at other times he has experienced negative or dismissive attitudes from hospital staff, particularly in relation to his drinking.

“You've still got the old stigmatisation from nursing staff – ‘Oh, you must not drink anymore’ – it's not as simple as that.”

Inclusion health group

Supported by the British Red Cross HIU service

Drinking alcohol used to be a coping mechanism for Gary. Now, he receives support from a psychologist and from a British Red Cross HIU lead who comes to his home and gives him 1:1 coaching.

Together with his HIU lead, Gary is looking ahead, and open to exploring new support services and therapies. He feels it is important for there to be a compassionate and understanding approach to people who frequently attend A&E, and for any underlying issues to be addressed. Gary believes that there needs to be greater awareness and support for individuals facing similar challenges.

“I've been dry for eight weeks, eight weeks! It's very helpful having the input from others. I just changed around being isolated and started getting engaged in other groups.”

*Not his real name

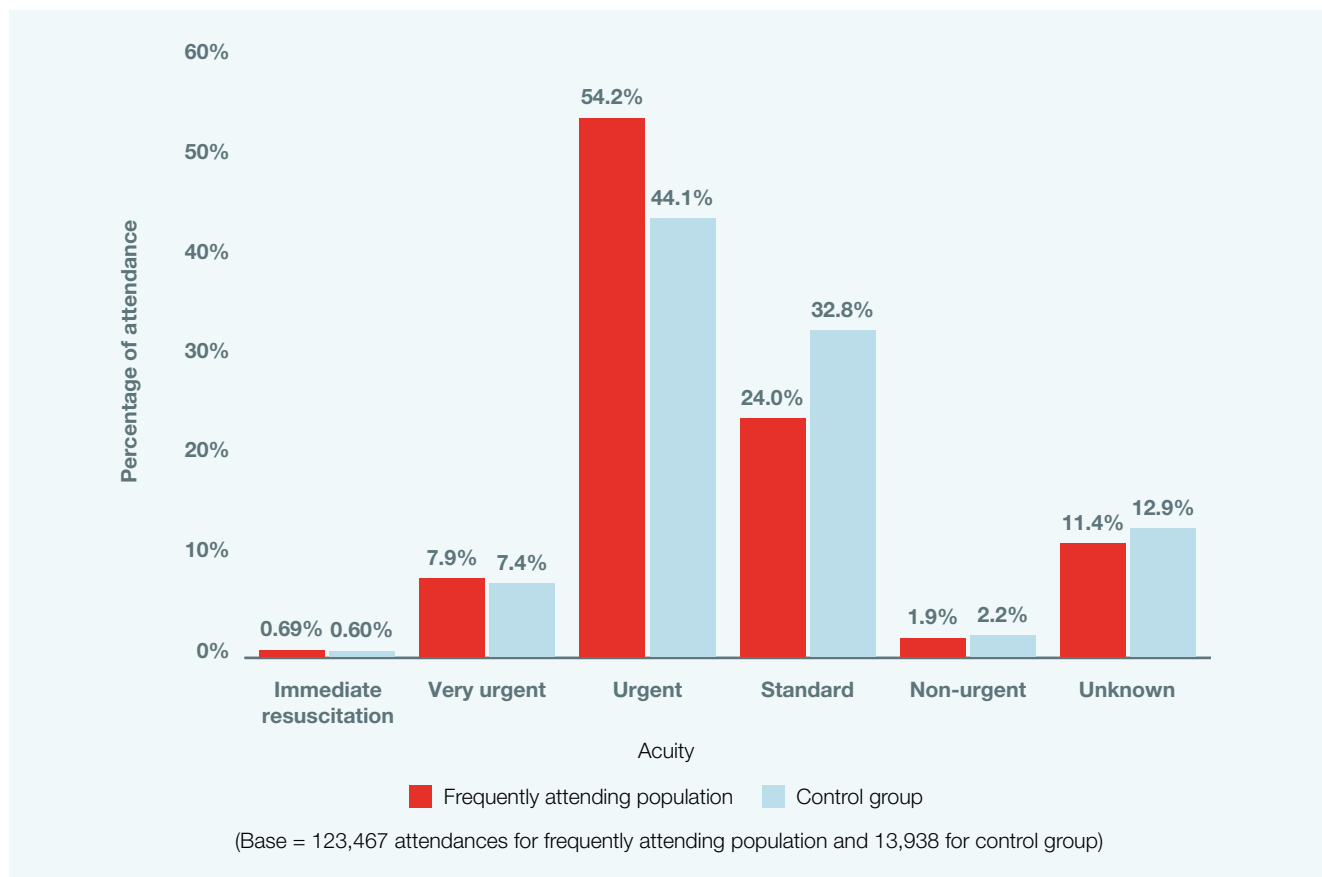
Acuity

Figure 11^{xiii} shows the recorded level of acuity (urgency) among people attending A&E, as assigned by clinicians.

We found that A&E attendances by people who frequently attend are more likely to be urgent than those of non-frequently attending people. In total, 62.7 per cent of attendances by the frequently attending population were classified as 'urgent', 'very urgent', or 'immediate resuscitation', compared to 52 per cent of the control group. By the same token, a slightly smaller percentage of the visits made by the frequently attending population were classed as non-urgent, compared to the control group (11.4 per cent and 12.9 per cent respectively).

These insights on acuity should go some way towards challenging the stigma associated with frequent A&E attendance. Too often among both the general public and staff working in a healthcare setting, there is a misconception that people frequently attending A&E are wasting people's time, are presenting for 'trivial' reasons rather than medical need, and are 'problem patients'. They can often be dehumanised, and the language around people frequently attending fails to reflect that people are presenting with very real concerns – and, as this data shows, often have a high level of clinical need. (See also Section 2.3 on A&E arrival method).

Figure 11: Acuity, frequently attending population and control group (non-frequently attending people of the same age and sex)



^{xiii} Acuity refers to the degree of urgency and severity of the condition that a patient presents at A&E with, as defined by the first clinician who assesses the patient. The classification of 'non-urgent' indicates cases that could have been addressed in primary care or another service.

Sustained frequent attendance

We have defined a sustained period of frequent attendance as one lasting longer than 12 months. More than one in three (37.3 per cent) of the frequently attending population have had at least one sustained period of frequent attendance, a total of 4,975 people. The age and sex distribution of those with sustained frequent attendance mirrored that of the frequently attending population as a whole, with some minor differences. There was a slightly higher percentage of females aged 20 to 39 in the sustained category (15.8 per cent compared to 12.9 per cent of the frequently attending population as a whole) and a slightly smaller percentage of people aged 70 or over (35.5 per cent compared to 40.4 per cent).

Workshop participants, while not surprised by the data, stressed that this identifies a need for more proactive support for people who have already started frequently attending. They felt that while individuals frequently attending A&E are often known to professionals working in A&E, it is often not clear who is responsible for and resourced to provide the appropriate support when someone is discharged.

Participants saw successful interventions such as the HIU programme as crucial in supporting people out of frequent attendance and preventing it from becoming or remaining sustained. However, with too few staff to meet the level of need, the service is restricted in its ability to provide preventative interventions, either when someone is at the lower level of frequent attendance (5-10 times in a year) or at an earlier point where someone is frequently attending primary care prior to turning to urgent and emergency care.

**More than one in three
of the people frequently
attending did so for
longer than a year**



Homelessness

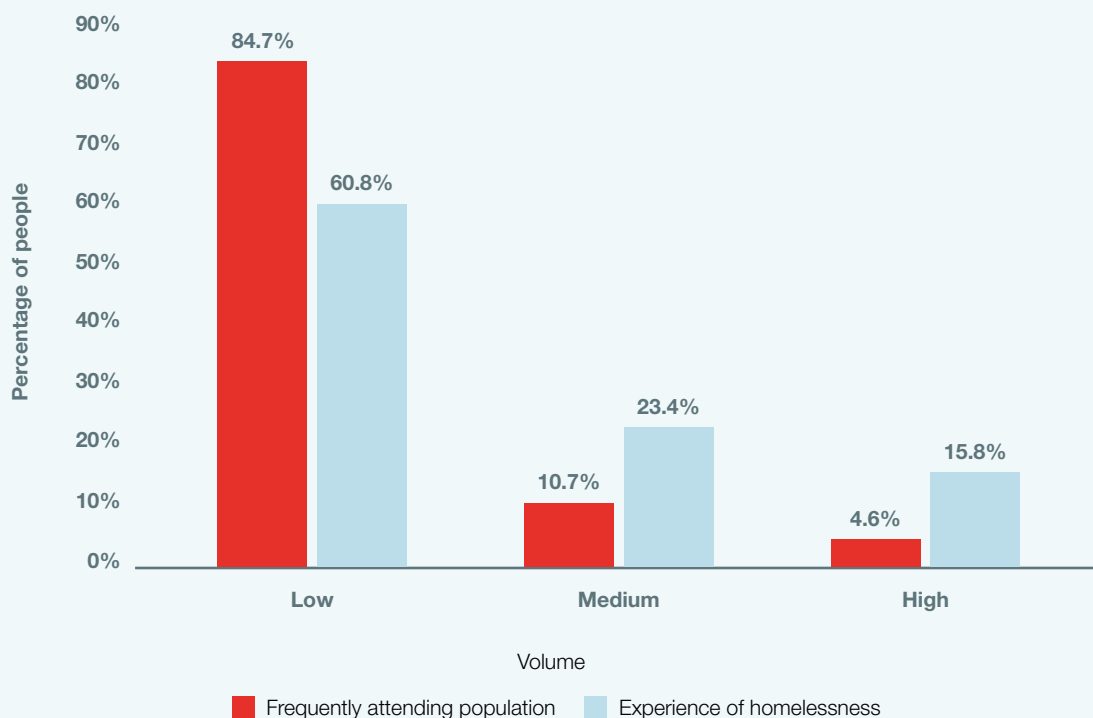
A small but significant percentage – 2.6 per cent (342 people) – of the frequently attending population in Dorset had experienced homelessness.^{xiv} Of these, around seven in ten (72.1 per cent) were male, which broadly reflects the national picture.³⁰ Three-quarters (75.7 per cent) were in the 30 to 59 age range.

We also found that **people who frequently attend A&E and have experienced homelessness are more likely to have certain pre-existing LTCs**. 67 per cent were recorded as having depression, a rate more than ten times higher than the control group^{xv} (6.1 per cent). SMI was also very prevalent among this group (more than 25 times higher than the control group – 15.5 per cent and 0.6 per cent respectively).

The data suggests that **people who frequently attend A&E and have experienced homelessness are more likely to fall into the ‘medium’ or ‘high’ volume category**, when compared to the frequently attending population as a whole (Figure 12). This highlights the complexity and severity of health issues those experiencing homelessness face, which may be exacerbated by factors such as limited access to regular healthcare, unstable living conditions and social isolation.³¹



Figure 12: Volume of frequent attendance, frequently attending population versus people who frequently attend and have experienced homelessness



(Base = 13,335 people for frequently attending population and 342 people with experience of homelessness)

^{xiv} Meaning that they had been recorded as homeless in the past through a healthcare outreach service that enables access to a GP and other services for those who are homeless. Not everyone experiencing homelessness will have been recorded as such. We also only had data for GP-registered Dorset residents, meaning the actual figure is likely to be higher. No data on housing insecurity more generally was available, but the topic was raised by interview participants.

^{xv} The control group in this instance refers to non-frequently attending people of the same age and sex (not necessarily people who have experienced homelessness).

Our findings in this section show that certain factors – including deprivation, age and pre-existing LTCs – are associated with different patterns of frequent attendance. This supports findings in previous British Red Cross research, *Nowhere else to turn*, which looked at the national picture in England.

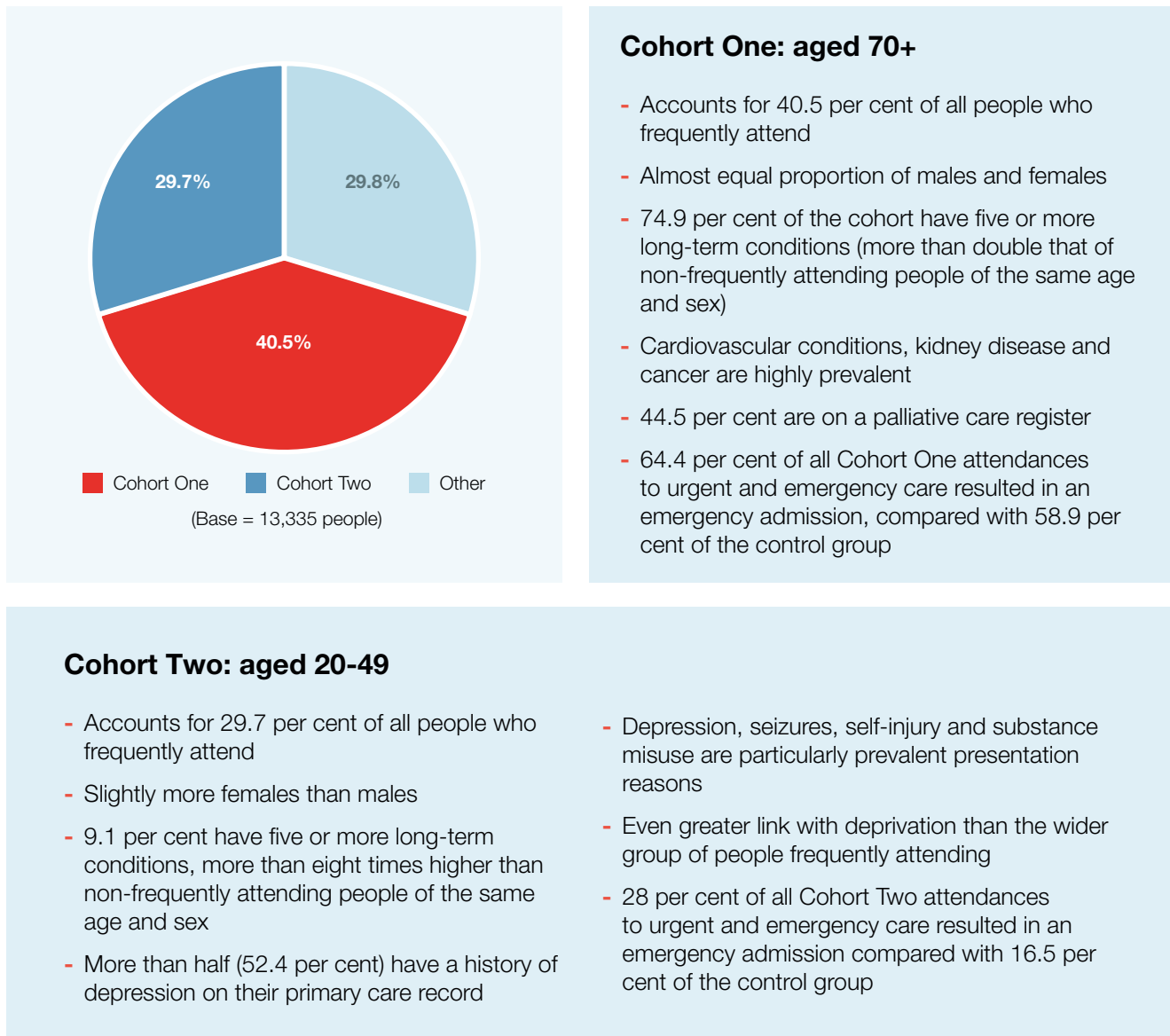
The findings here provide a clearer picture on sex and ethnicity than the previous research, and show a much stronger relationship with LTCs. In *Nowhere else to turn*, 30 per cent of those frequently attending were found to have three or more conditions^{xvi}; in this analysis, it is 60.8 per cent.

Throughout the analysis, a picture emerged of two identifiable cohorts who frequently attend A&E. Understanding the needs of different groups is essential for providing an effective response. The following section explores these cohorts in more detail.

Who are the two main cohorts frequently attending A&E?

The analysis identified two main cohorts of people who attend A&E frequently. Together, they account for 70.2 per cent of the frequently attending population in Dorset (Figure 13).

Figure 13: Frequently attending population in Dorset, Cohorts One, Two and other



^{xvi} We cannot be certain whether this stark difference is the result of population differences in Dorset, or differences in how data is recorded and shared across the system. It is clear, however, that LTCs are strongly associated with frequent attendance at A&E, making this an area that warrants further investigation.



2.2 Cohort One: people aged 70 and over

Figure 14: Cohort One Profile: demographics, volume of frequent attendance and LTCs (shown as a percentage of Cohort One) (Base = 5,401 people)

Figure 14.1

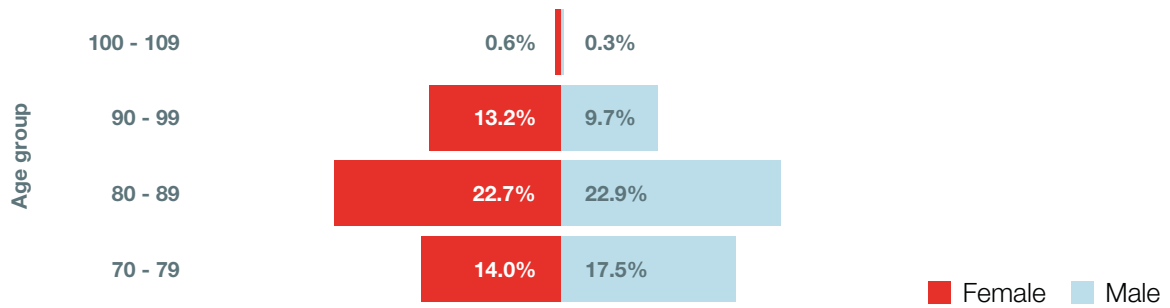


Figure 14.2

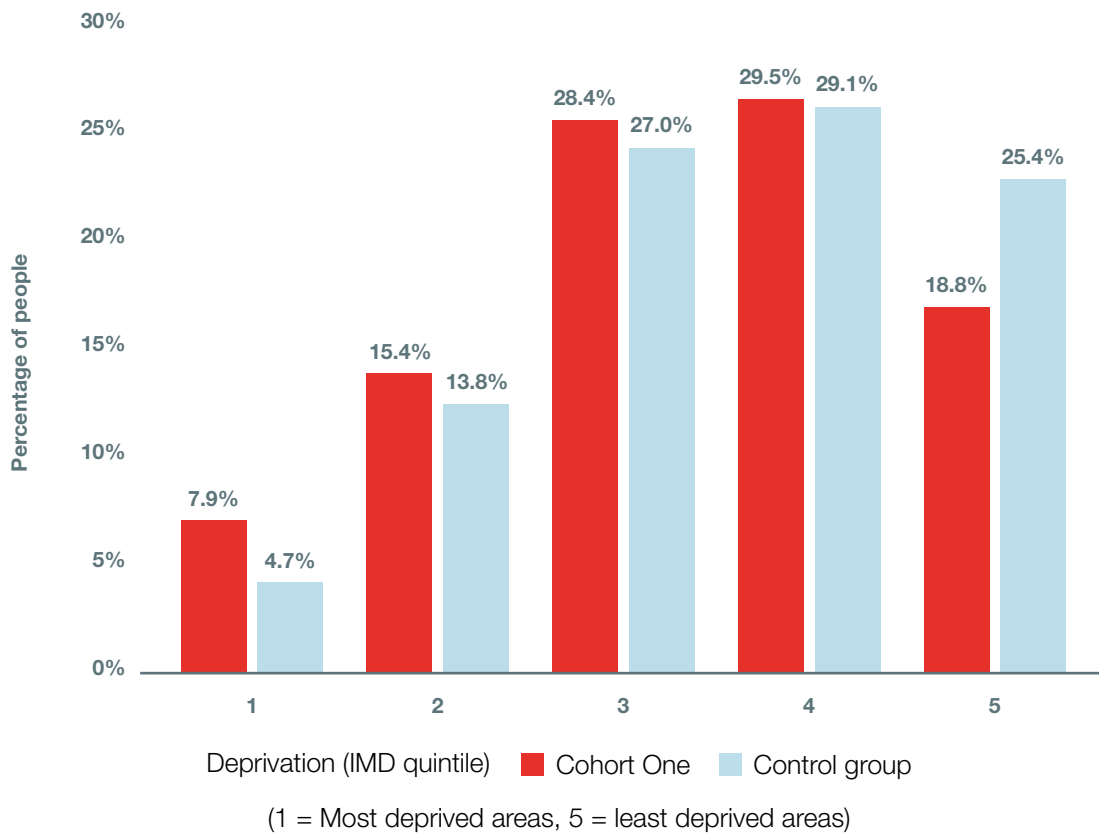


Figure 14.3

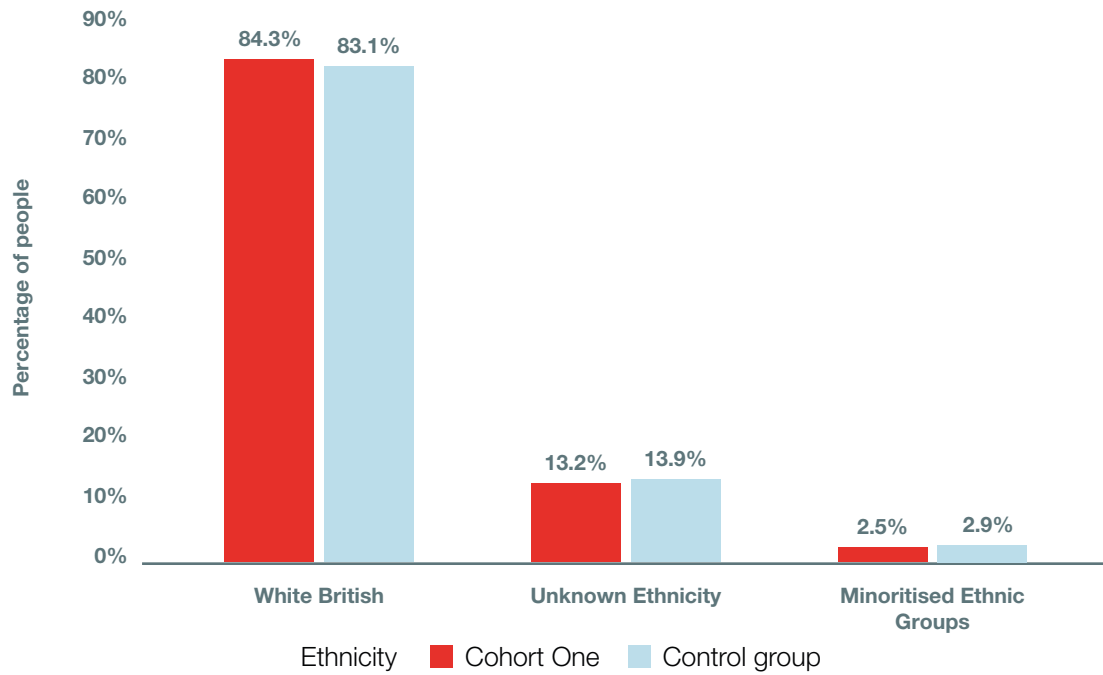
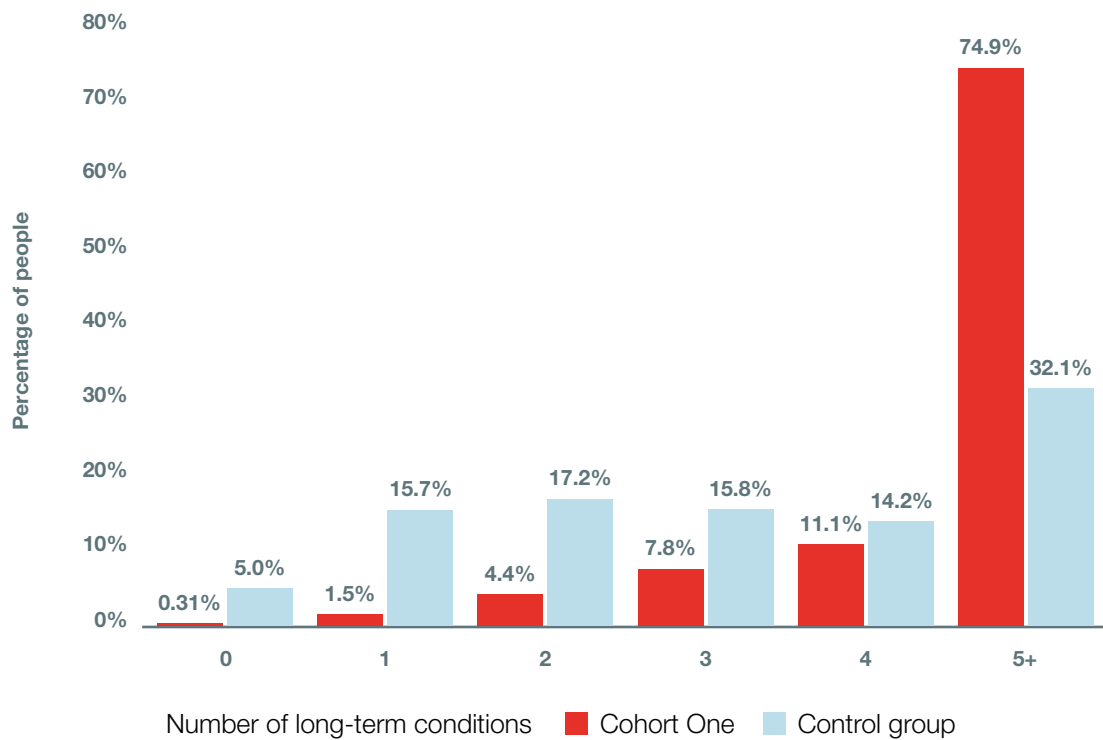


Figure 14.4



Age, sex and ethnicity

Cohort One is defined as people aged 70 or over (who attend A&E frequently). This group accounts for around two in five (40.5 per cent) of all people who frequently attend in Dorset (5,401 people).

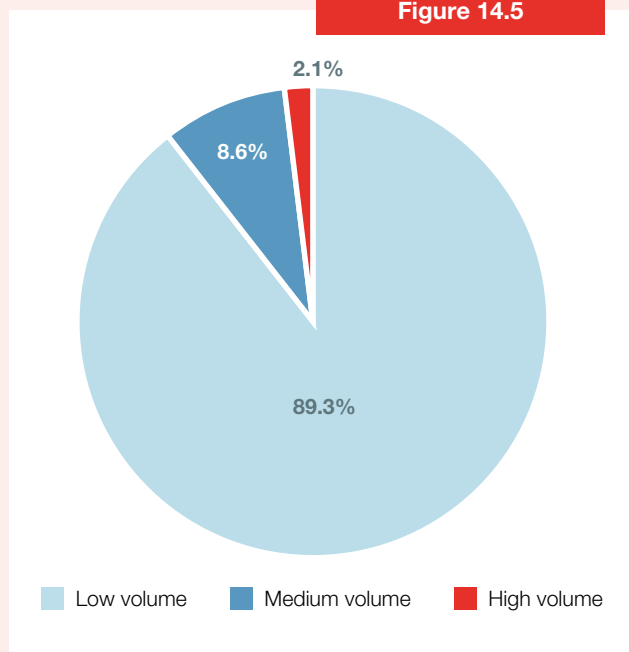
As Figure 14 shows, Cohort One contains almost an equal proportion males and females (50.5 per cent females, 49.5 per cent males) and the group's ethnic distribution is very similar to that of the control group.

Deprivation

People in Cohort One are 1.7 times more likely to live in the most deprived areas (7.9 per cent of Cohort One live in IMD quintile one – i.e. the 20 per cent most deprived areas – compared to 4.7 per cent of the control group). This also means that Cohort One is more likely to be part of the CORE20, highlighted in NHSE's CORE20PLUS5 approach.³²

This cohort is less likely to live in the least deprived areas (18.8 per cent live in IMD quintile five, compared to 25.4 per cent of the control group). However, with the exception of the top and bottom IMD quintiles, the distribution of deprivation among people in this group is similar to that of the control group (Figure 14).

Figure 14.5



Volume and sustained frequent attendance






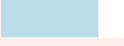
































We found that **people in Cohort One tend to attend A&E slightly less often and for less time than the frequently attending population as a whole.** Around nine out of ten people in Cohort One (89.3 per cent) are classed as low volume, meaning they attended in the lowest frequency category of between five and ten times in a single period (Figure 14). This is a slightly larger percentage than the frequently attending population as a whole (84.7 per cent, Figure 4). Around one in three (32.7 per cent) attended frequently on a sustained basis (i.e. longer than 12 months), which is slightly lower than the frequently attending population as a whole (37.3 per cent).

Long-term conditions

98.2 per cent of Cohort One have two or more LTCs, compared with 79.3 per cent of the control group. **Three-quarters of Cohort One (74.9 per cent) have five or more LTCs**, more than double that of the control group (32.1 per cent), and much higher than the frequently attending population as a whole (40.4 per cent, see Figure 9).

74.9 per cent of Cohort One have five or more long-term conditions, more than double that of the control group.

Figure 15: Most common pre-existing LTCs among Cohort One, compared to control group (non-frequently attending people of the same age and sex)

Percentage of patients with condition on primary care record				
Long-term condition	Cohort One (Base = 5,401 people)		Control group (Base = 5,401 people)	Difference between groups (no. times higher)
Hypertension	 64.9%		 56.0%	1.2
Palliative care	 44.5%		 17.5%	2.5
Chronic kidney disease (stage 3-5)	 42.7%		 31.2%	1.4
Atrial fibrillation	 39.8%		 19.6%	2.0
Coronary heart disease	 39.5%		 20.9%	1.9
Cancer	 35.0%		 29.4%	1.2
Diabetes	 30.3%		 17.6%	1.7
Depression	 28.8%		 15.0%	1.9
Heart failure	 27.8%		 10.4%	2.7
Stroke	 26.4%		 11.0%	2.4
Dementia	 24.5%		 13.7%	1.8
Osteoporosis	 21.1%		 13.0%	1.6
COPD	 20.4%		 8.1%	2.5
Transient ischaemic attack	 18.5%		 7.6%	2.4
Asthma	 16.0%		 10.1%	1.6
Peripheral arterial disease	 7.8%		 3.3%	2.4
Epilepsy	 4.5%		 1.6%	2.8
Rheumatoid arthritis	 3.8%		 1.9%	2.0
SMI	 3.0%		 1.0%	3.0

(The red and blue bars represent the prevalence of each condition within the respective group. Green cells signify the increase from the control to the frequently attending group, with a darker green shade representing a bigger difference.)

A very high proportion (44.5 per cent) are on a palliative care register, meaning they are usually in their last 12 months of life. This is the second most prevalent pre-existing ‘condition’ among Cohort One.

Figure 15 shows the most common^{xvii} pre-existing LTCs among Cohort One, as recorded on their primary care register. **Heart-related conditions, kidney disease and cancer are particularly prevalent among this group. A very high proportion (44.5 per cent) are on a palliative care register,** meaning they are usually in their last 12 months of life. This is the second most prevalent pre-existing ‘condition’ among Cohort One, at a rate 2.5 times higher than the control group (17.5 per cent).

^{xvii} Figure shows LTCs where prevalence is one per cent or higher for Cohort One.

Other conditions are also markedly more common among Cohort One. Starting with the most pronounced contrast with the control group, these include:



SMI

3 times the control group (3 per cent of people in Cohort One have this condition, compared with 1 per cent of the control group)



learning disability

3 times the control group (0.6 per cent, compared with 0.2 per cent of the control group)



epilepsy

2.8 times the control group (4.5 per cent, compared with 1.6 per cent of the control group)



heart failure

2.7 times the control group (27.8 per cent, compared with 10.4 per cent of the control group)



COPD

2.5 times the control group (20.4 per cent, compared with 8.1 per cent of the control group)

We found that 46.2 per cent of Cohort One members received at least one new LTC diagnosis during a period of frequent attendance. **Commonly diagnosed conditions mirrored the pre-existing conditions set out in this section. They included palliative care (17.5 per cent of all people in Cohort One),** cardiovascular-related conditions (atrial fibrillation – 8.9 per cent, heart failure – 8.4 per cent, stroke – 7.1 per cent, and coronary heart disease – 5.1 per cent), and dementia (5.8 per cent).





2.3 Cohort Two: people aged 20-49

Figure 16: Cohort Two profile: demographics, volume of frequent attendance and LTCs (Base = 3,957 people)

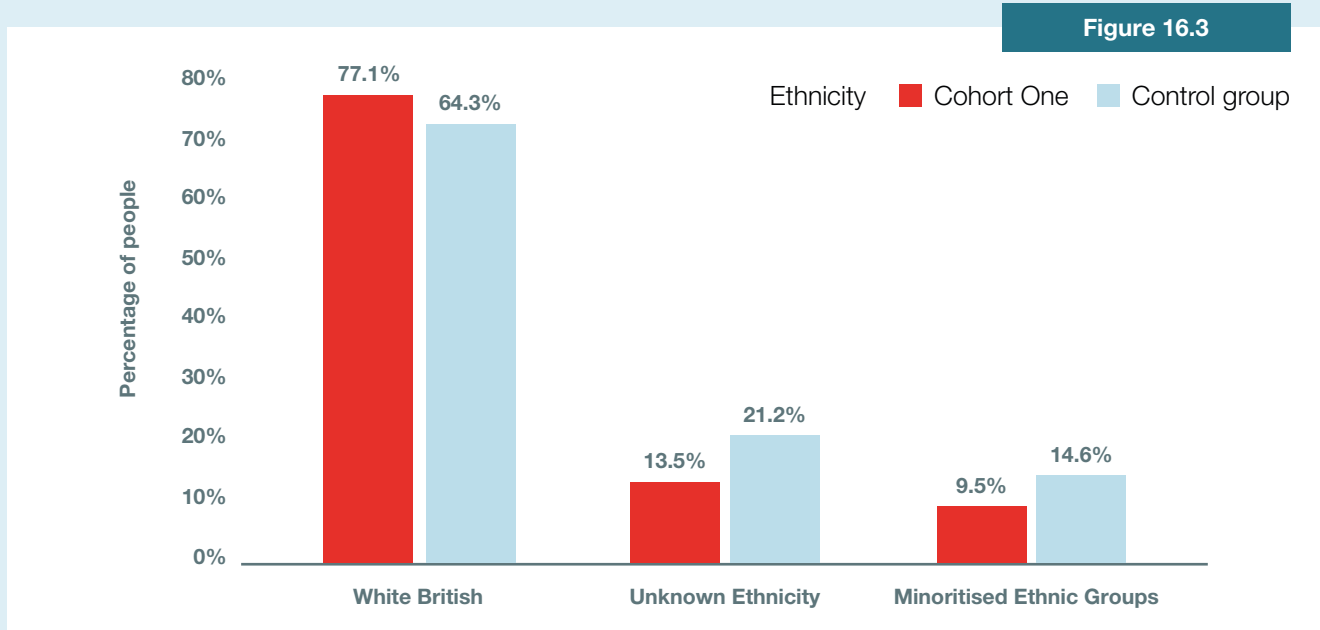
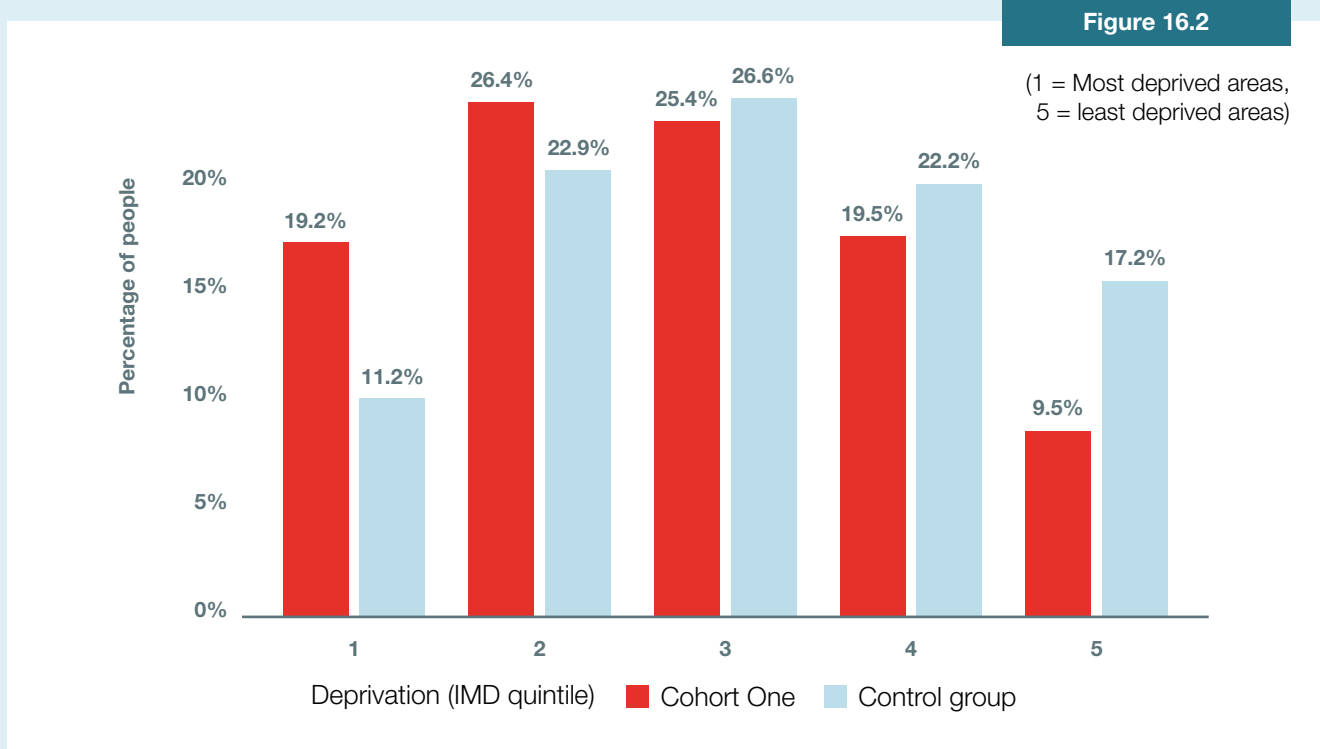
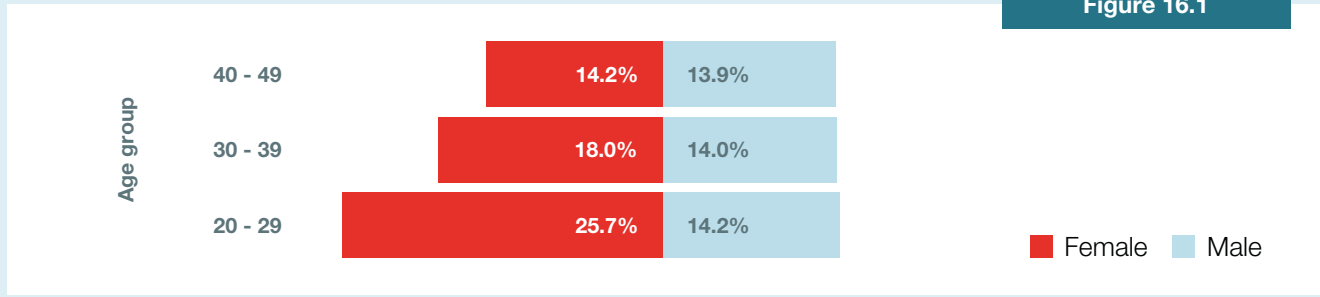


Figure 16.4

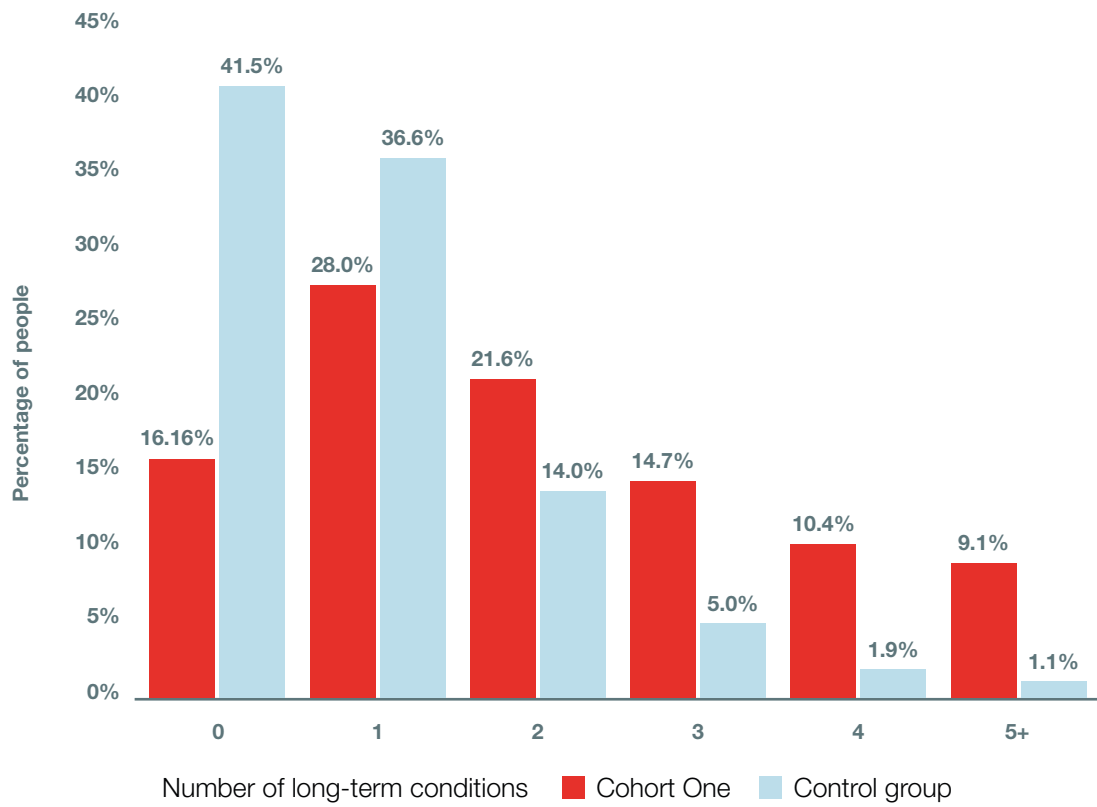
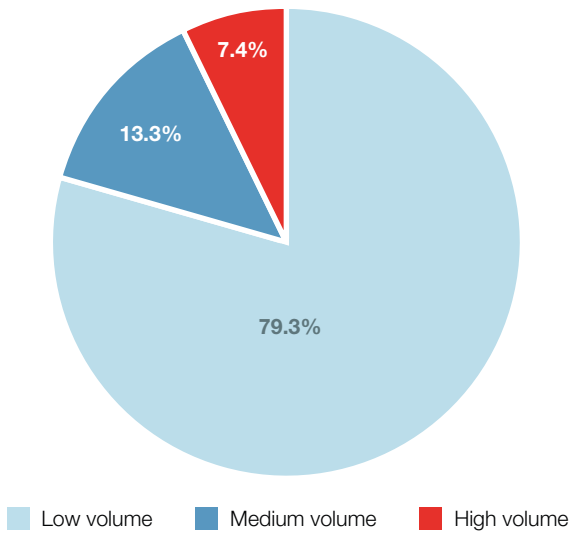


Figure 16.5



Age, sex and ethnicity

Cohort Two is defined as people aged 20-49 who attend A&E frequently. This group accounts for three out of ten (29.7 per cent, 3,957 cases) people who frequently attend in Dorset.

Females between the ages of 20-29 are particularly prominent within this group, accounting for one in four of the cohort.

As Figure 16 shows, Cohort Two contains more females (57.9 per cent) than males (42.1 per cent). Females between the ages of 20-29 are particularly prominent within this group, accounting for one in four of the cohort (25.7 per cent).^{xviii} Therefore, our findings reflect those of *Nowhere else to turn*, which showed that the most common age groups to attend A&E frequently were those aged 20 to 29 and those aged over 70. As with the frequently attending population as a whole, **Cohort Two members are slightly more likely to be of White British ethnicity than the control group** (77.1 per cent of Cohort Two are White British compared to 64.3 per cent of the control group).

Deprivation

We found a clear relationship between deprivation and frequent A&E attendance, mirroring the frequently attending population as a whole. **People in Cohort Two are more likely to live in the 20 per cent most deprived areas of Dorset than both Cohort One and the control group** (19.2 per cent of Cohort Two live in IMD quintile one compared to 11.2 per cent of the control group and 7.9 per cent of Cohort One).

This means members of this cohort are more likely to be part of the CORE20, as highlighted in NHS England's CORE20PLUS5 framework.³³ Similarly, they are less likely to live in the least deprived areas (9.5 per cent of Cohort Two live in IMD quintile five, compared to 17.2 per cent of the control group and 18.8 per cent of Cohort One) (Figure 16).

Long-term conditions

While the percentage of those in Cohort Two who have two or more LTCs is much smaller than in Cohort One (55.8 per cent compared to 98.2 per cent), the rate is still very high for their age – they are more than double as likely to be in this category than those in the control group (22 per cent) (Figure 16). This is even starker when we look at five or more LTCs: people in Cohort Two are eight times more likely than those in the control group (9.1 per cent versus 1.1 per cent) (Figure 16).

Figure 17: Most common pre-existing LTCs among Cohort Two, compared to control group (non-frequently attending people of the same age and sex)

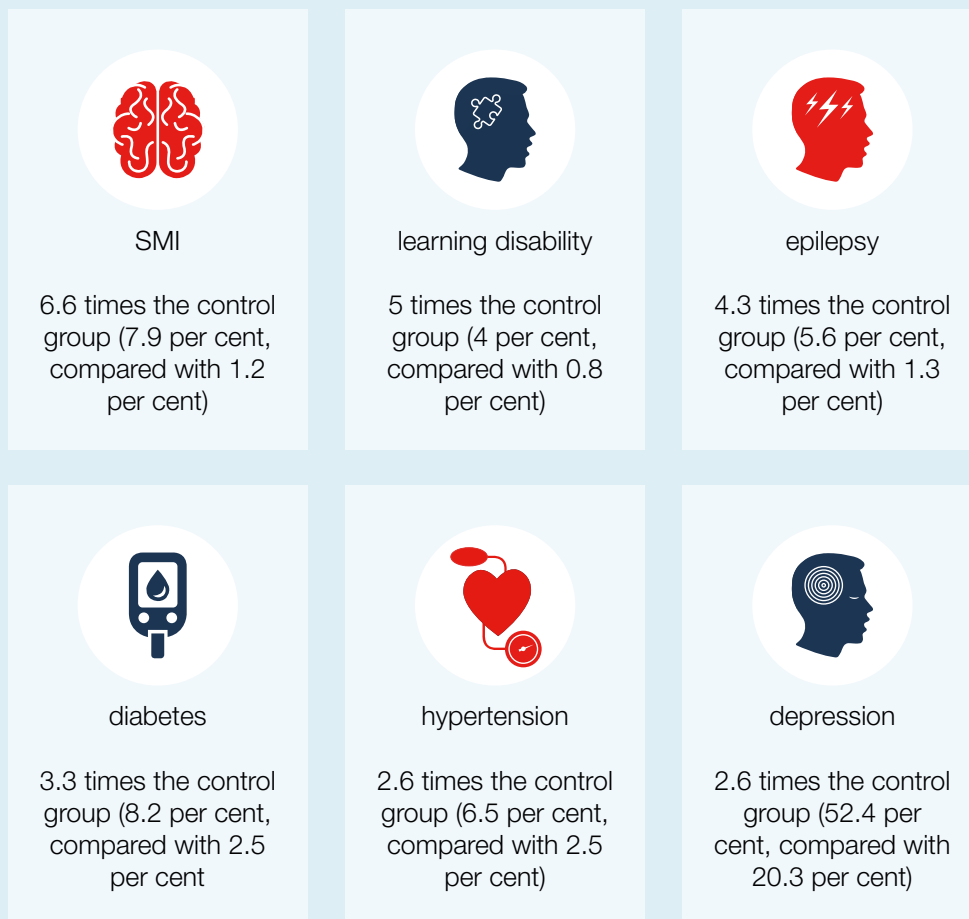
Percentage of patients with condition on primary care record				
Long-term condition	Cohort Two (Base = 3,957 people)	Control group (Base = 3,957 people)	Difference between groups (no. times higher)	
Depression	52.4%	20.3%	2.6	
Asthma	28.4%	14.8%	1.9	
Diabetes	8.2%	2.5%	3.3	
SMI	7.9%	1.2%	6.6	
Hypertension	6.5%	2.5%	2.6	
Epilepsy	5.6%	1.3%	4.3	
Learning Disability	4.0%	0.8%	5.0	
Cancer	3.0%	1.2%	2.5	

(The red and blue bars represent the prevalence of each condition within the respective group. Green cells signify the increase from the control to the frequently attending group, with a darker green shade representing a bigger difference.)

^{xviii} While frequent attendance was most pronounced among females aged 20-29, it was also observed among males and other age groups, in particular ages 30-49. Therefore, we define this cohort as all sexes aged 20-49.

Figure 17 shows the most common^{xix} pre-existing LTCs among Cohort Two, as recorded on their primary care record. **Depression is highly prevalent among this group, with over half (52.4 per cent) having a history of the condition – a rate 2.6 times higher than that of the control group (20.3 per cent).**

Other conditions are also markedly higher among Cohort Two. In order of the most pronounced contrast with the control group, these include:



SMI and hypertension are listed as the clinical areas of focus for NHSE's CORE20PLUS5 approach.³⁴ We found that a far smaller percentage of people in Cohort Two received a new LTC diagnosis during a period of frequent attendance than Cohort One members (10.9 per cent of Cohort Two received at least one LTC diagnosis, compared to 46.2 per cent of Cohort One). As with Cohort One, the most commonly diagnosed conditions reflected the most prevalent pre-existing conditions. They included depression (4.5 per cent of all people in Cohort Two), asthma (1.2 per cent), hypertension (1.1 per cent) and SMI (1 per cent).

Volume and sustained frequent attendance

We found that people in Cohort Two tend to attend A&E slightly more often and for slightly longer than the frequently attending population as a whole. People in Cohort Two are more likely to be classed as high volume, meaning they had at least one period of 20 or more attendances (7.4 per cent, compared to only 2.1 per cent of Cohort One and 4.6 per cent of the frequently attending population as a whole). Of Cohort Two, 13.3 per cent are classed as medium volume and 79.3 per cent as low volume (compared to 10.7 per cent and 84.7 per cent respectively among the frequently attending population as a whole) (Figure 16). Around two-fifths (41.6 per cent) of Cohort Two attended frequently on a sustained basis (longer than 12 months). This compares to 32.7 per cent of Cohort One and 37.3 per cent of the frequently attending population as a whole. Those in the cohort who frequently attended on a sustained basis were also more likely to be females (62.5 per cent) than males (37.5 per cent), though females are only slightly over-represented by comparison with Cohort Two as a whole (which is 57.9 per cent female, 42.1 per cent male).

^{xix} Figure shows LTCs where prevalence is one per cent or higher for Cohort Two.

Case study

“I would like to be understood a lot more, and for people to have a lot more patience and kindness.”

John lives in supported accommodation. He has multiple long-term conditions, including rheumatoid arthritis, fibromyalgia, sciatica, autism, and mental health conditions. He describes being in constant pain and facing daily challenges due to his health issues.

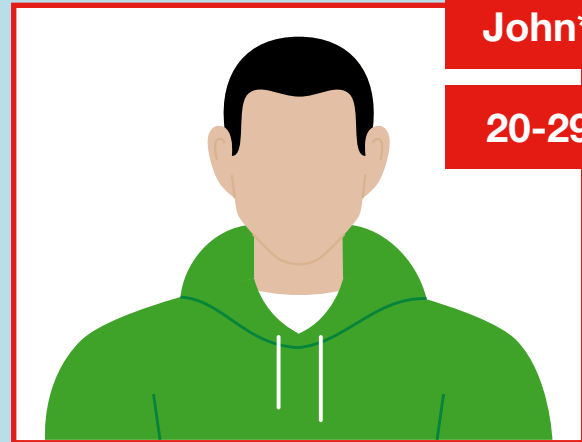
“Every day is a struggle mentally or physically. Some days I might just mentally not be able to function to go out of my room ... other days I can do everything. But I’ve always got a lot of pain, which makes my everyday living so much more difficult.”

John has found accessing adequate healthcare and support a significant challenge. Historically, he has attended A&E frequently for a combination of reasons relating to his physical and mental health, including suicidal thoughts and self-harm.

In the past, John has faced barriers when attempting to access mental health support directly through channels such as 111 or mental health helplines. As a result, he has often turned to A&E to get help in times of crisis. During a recent visit, he was referred to the mental health liaison team, which he felt was a turning point.

Inclusion health group

Supported by the British Red Cross HIU service



John*

20-29

“When I got put to the liaison team, that’s when all the help was given and all the understanding was there.”

On other occasions, John says that healthcare professionals at A&E have been dismissive of his problems.

John’s interactions with his GP and social worker have also been characterised by frustration and disappointment, leaving him feeling dismissed and unheard.

Often – as with John – the HIU lead works as the glue, bringing together other services and helping the person advocate for support that they need. John stresses healthcare professionals should receive improved training and information on the diverse needs of people with complex health conditions. By sharing his experiences, John hopes to inspire positive change and promote greater empathy and understanding in healthcare settings.

“Because I might look OK or seem relatively normal on the outside... they treat you as if you’re fine and that you are just wasting everyone’s time and looking for attention.”

*Not his real name

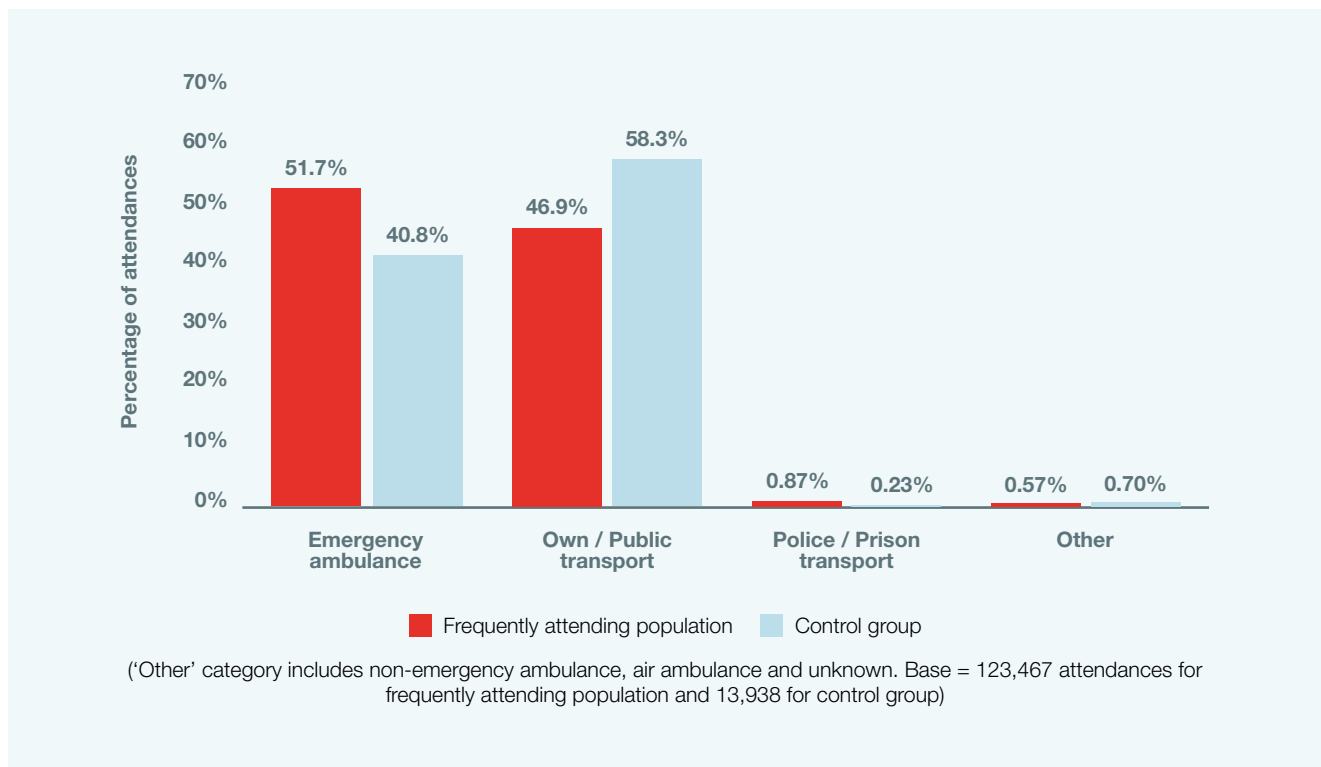
2.4 A&E arrival method

This section explores the ways in which the different cohorts arrived at A&E. A common pattern was that people who attend frequently are more likely to arrive by ambulance and less likely to arrive via their own or public transport. Below we look at how these patterns vary between the different cohorts.

Frequently attending population (all)

As Figure 18 shows, **frequently attending people are more likely to arrive by emergency ambulance than non-frequently attending people of the same age and sex**, with over half arriving at A&E in this way (51.7 per cent, compared to 40.8 per cent of the control group). They are less likely to arrive via their own or public transport (46.9 per cent, compared to 58.3 percent of the control group). This could be attributed to the higher likelihood of frequently attending people’s visits being urgent, as discussed in Section 2.1.6 on Acuity.

Figure 18: A&E arrival method, frequently attending population and control group (non-frequently attending people of the same age and sex)

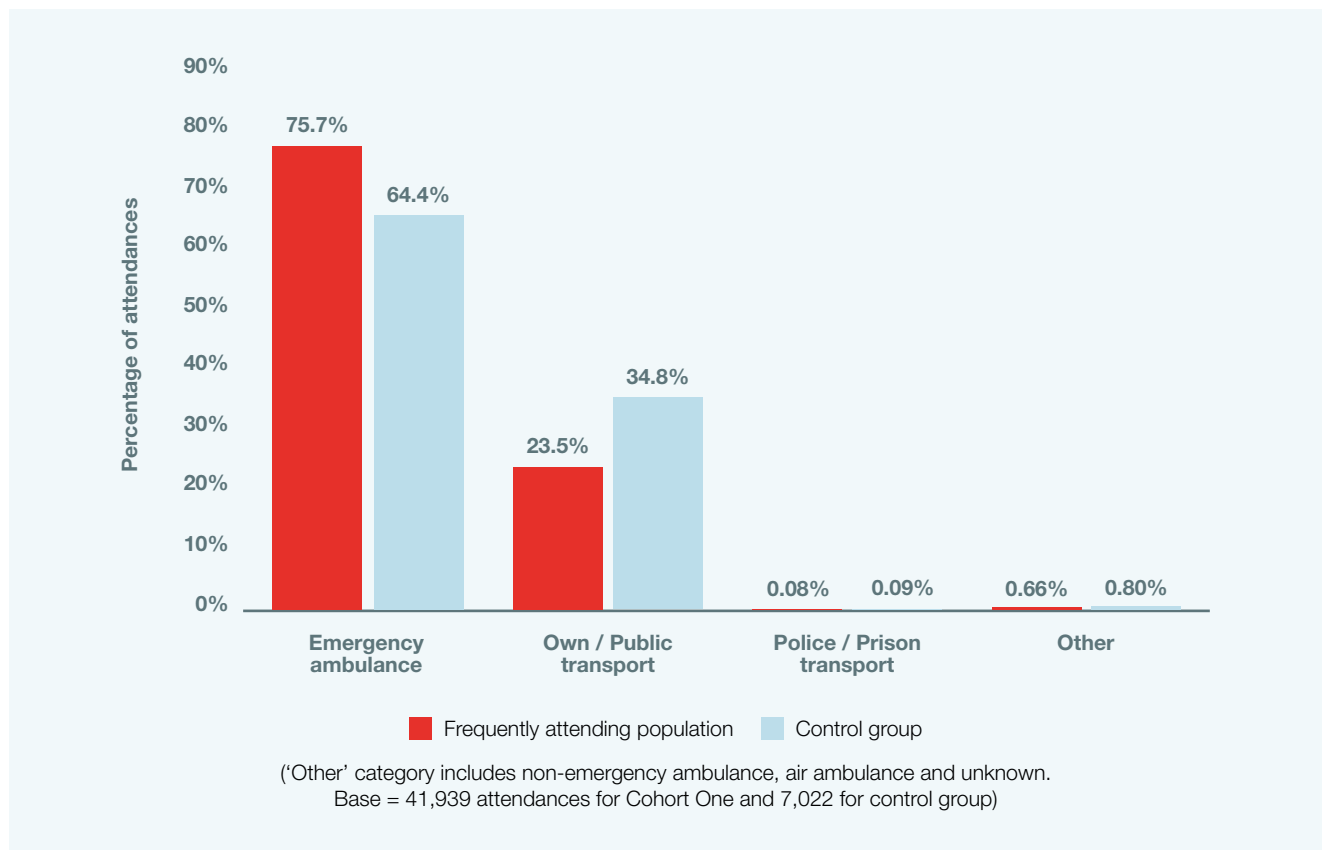


Our analysis also revealed that **frequently attending people were 3.8 times more likely to arrive at A&E via police and prison transport** – although it is important to note that the overall percentage of people arriving in this way is very small (0.87 per cent of the frequently attending population, versus 0.23 per cent of the control group). Below, we look at how these patterns of arrival vary between the different cohorts.

Cohort One

As Figure 19 shows, **people in Cohort One are more likely to arrive via ambulance than non-frequently attending people of the same age and sex** – 75.7 per cent compared with 64.4 per cent. Similarly, they are less likely to arrive via their own or public transport than the control group (23.5 per cent compared to 34.8 per cent). This suggests that their needs may be more acute than the control group.

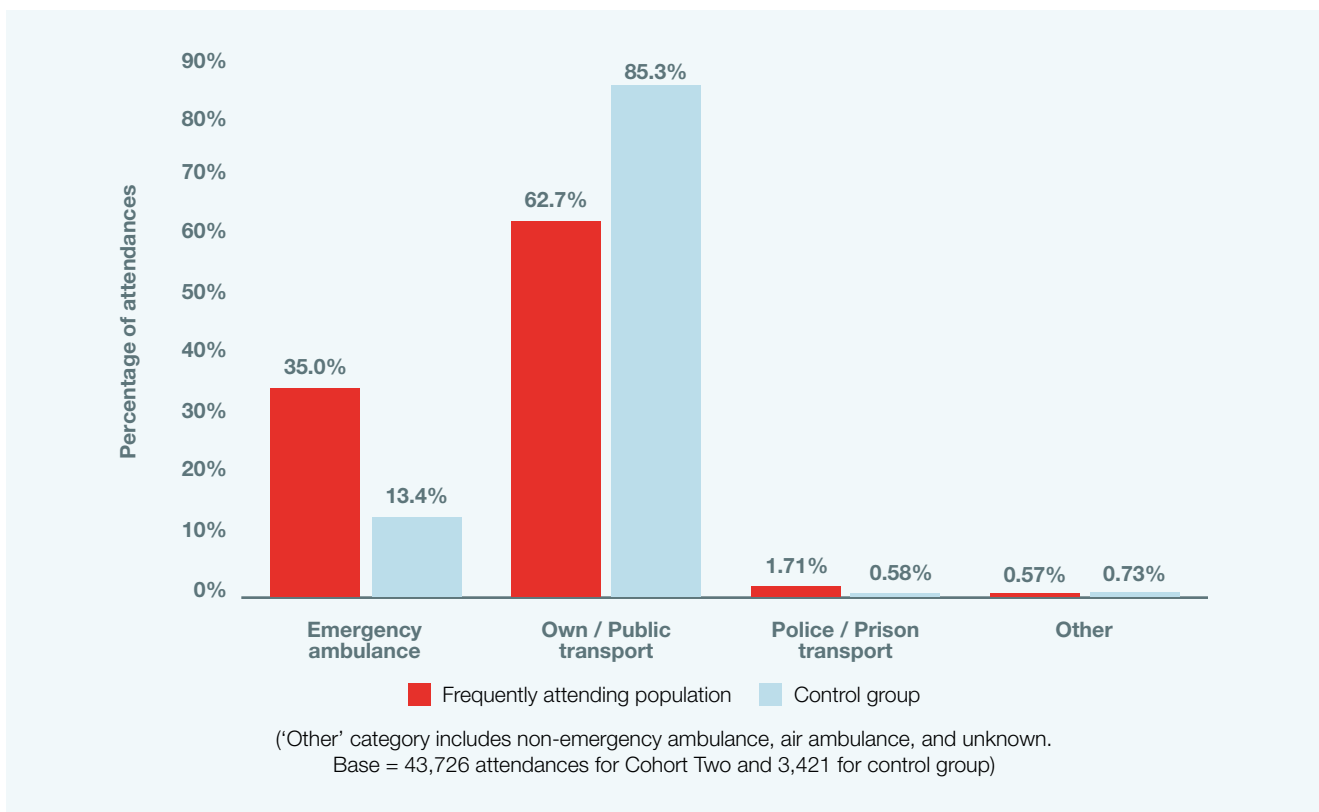
Figure 19: A&E arrival method, Cohort One and control group (non-frequently attending people of the same age and sex)



Cohort Two

Our analysis revealed that people in **Cohort Two are much more likely to arrive by emergency ambulance than non-frequently attending people of the same age and sex.** Over a third of the cohort (35 per cent) arrived at A&E in this way (Figure 20). While much lower than Cohort One, this is 2.6 times higher than the control group (13.4 per cent). Similar to Cohort One, they are even less likely to arrive via their own or public transport than the control group (62.7 per cent, compared to 85.3 per cent).

Figure 20: A&E arrival method, Cohort Two and control group (non-frequently attending people of the same age and sex)



Cohort Two are 2.9 times more likely than the control group to arrive via police or prison transport (1.7 per cent compared to 0.58 per cent). While the proportion of people arriving in this way is very low, the marked difference between groups is notable.

2.5 A&E coding for attendance

This section explores the coded reasons for people's presentation at A&E. We set out the most common A&E coding for presentations for the frequently attending population, before examining Cohort Two in detail. Findings for Cohort One are not included in this section, as the analysis revealed no notable differences in coded presentation reasons between Cohort One and the control group. It must also be noted that A&E coding is limited to clinical options rather than some of the non-clinical drivers of frequent attendance, including social and emotional factors such as grief or loneliness.

Frequently attending population (all)

Figure 21 shows some clear differences in presentation reasons between the frequently attending population and the control group, as recorded by the health professional that saw them. **Abdominal pain (10.2 per cent), chest pain (10.2 per cent), and dyspnoea, commonly referred to as shortness of breath (7.9 per cent) were the three most common reasons recorded by health professionals among the frequently attending population.** These were slightly more prevalent than among the control group (7 per cent, 7.5 per cent and 6.5 per cent respectively). These presentation reasons are consistent with some of the prevalent LTCs set out in Section 2.1.5.

Figure 21: 20 most common presentation reasons among frequently attending population, compared to control group (non-frequently attending people of the same age and sex)

Percentage of patients with condition on primary care record			
Presentation reason	Frequently attending population (Base = 123,467 attendances)	Control group (Base = 13,938 attendances)	Difference between groups (no. times higher)
Chest pain	10.2%	7.5%	1.4
Abdominal pain	10.2%	7.0%	1.5
Dyspnea	7.9%	6.5%	1.2
Injury of lower limb	4.0%	8.0%	0.5
Injury of head	3.8%	5.2%	0.7
Injury of upper extremity	3.7%	6.9%	0.5
Substance misuse	2.9%	0.6%	4.8
Self-injurious behaviour	2.7%	0.5%	5.4
Seizure	2.5%	0.7%	3.6
Asthenia	2.3%	2.1%	1.1
Fever	2.1%	2.7%	0.8
Pain in lower limb	2.0%	2.8%	0.7
Headache	1.8%	1.4%	1.3
Clouded consciousness	1.6%	1.6%	1.0
Vomiting	1.6%	1.1%	1.5
Near syncope	1.5%	1.9%	0.8
Difficulty breathing	1.4%	1.1%	1.3
Backache	1.3%	1.3%	1.0
Palpitations	1.2%	1.3%	0.9
Laceration - injury	1.2%	2.4%	0.5
Depression	1.2%	0.2%	6.0
Retention of urine	1.1%	0.8%	1.4
Pain in upper limb	1.1%	1.6%	0.7
Unknown	10.0%	11.6%	0.9

(The red and blue bars represent the prevalence of each presentation reason within the respective group. Green cells signify an increase from the control to the frequently attending group and red cells signify a decrease, with a darker shade representing a bigger difference)

Among the most common^{xx} presentation reasons, the following conditions showed the most pronounced differences compared to the control group:



depression

6 times the control group (1.2 per cent, compared with 0.2 per cent)



self-injurious behaviour

5.4 times the control group (2.7 per cent, compared with 0.5 per cent)



substance misuse

4.8 times the control group (2.9 per cent, compared with 0.6 per cent)



seizure

3.6 times the control group (2.5 per cent, compared with 0.7 per cent).

These presentation reasons, as highlighted above, are often linked to wider non-clinical drivers that have exacerbated poor physical and mental health. Health professionals in the workshops said that these findings reflected their experiences. Many had noticed a marked increase in the prevalence of both self-harm and mental ill health as presentation reasons.

We can see that **presentations for injuries^{xxi} are less common among the frequently attending population.** For example, lower-limb injuries are half as prevalent among people who frequently attend compared to the control group (4 per cent and 8 per cent respectively). Similarly, head injuries are less commonly recorded among people who frequently attend compared to the control group (3.8 per cent and 5.2 per cent respectively). The same is true of injuries to upper extremities (i.e. arms and hands) – 3.7 per cent, compared to 6.9 per cent of control group. This may be because fewer people frequently attending present with injuries or because another condition they present with is prioritised for coding instead.



^{xx} Figure shows presentation reasons where prevalence is one per cent or higher for the frequently attending population.

^{xxi} Including injuries of all kinds, other than those caused by self-injurious behaviour.

“A lot of my visits to A&E were happening because I was having seizures... it gets to a point where they’re stopping me from breathing because I’ve been seizing for five minutes straight. So my partner would call an ambulance.”

Dayo lives with friends in private rented accommodation and is studying for a degree in clinical psychology. She experiences chronic pain and non-epileptic seizures, and has recently been diagnosed with endometriosis.

Dayo first began having seizures a couple of years ago. By the summer of 2023, their frequency had increased dramatically. Around the same time, she also began experiencing problems with her uterus and severe pain in her legs, which greatly reduced her mobility and caused her mental health to deteriorate.

“I went from being an able-bodied person to not, in the span of a couple of months, and it really rocked my mental health... It was the first time I had worked with a crisis team. Just because things got that bad.”

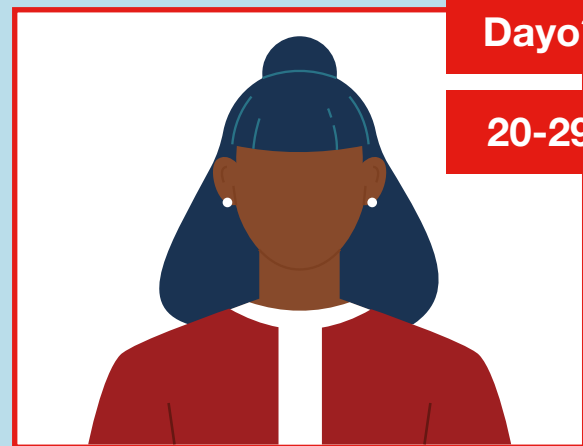
During this period, Dayo began attending A&E three or four times a week due to a combination of the frequent seizures, which affected her breathing, and bouts of intense pain, which left her immobile and unable to get out of bed.

Many of Dayo’s visits to A&E involved triage

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and investigation to understand the situation, followed by referral back to her GP. When her seizures occurred, paramedics would provide immediate assistance to open her airways before transporting her to A&E.

She is currently on a waiting list to see a rheumatologist, a neurologist, a physiotherapist and a pain management clinic, but hasn’t been able to access any of these services yet.

Dayo has found her HIU support worker crucial in providing ‘in-between’ assistance between A&E and the GP, and as a conduit to bring together other services. She says her HIU support worker listens to her wider needs and is proactively helps her with them.

“There was the massive ramp up in my uterus hurting. So I had to call an ambulance. I literally felt like I was dying. And that was the start of investigating the endometriosis.”

*Not her real name

Cohort Two

We can see from Figure 22 that **abdominal pain (14.2 per cent) and chest pain (7.5 per cent) are the most common presentation reasons for Cohort Two, which is also true for the frequently attending population as a whole** (Figure 21). These reasons are more common among Cohort Two than the control group (where the rate is 9.6 per cent and 5.9 per cent, respectively).

Figure 22: Most common presentation reasons among Cohort Two, compared to control group (non-frequently attending people of the same age and sex)

Presentation reason	Cohort Two (Base = 43,726 attendances)	Control group (Base = 3,421 attendances)	Difference between groups (no. times higher)
Abdominal pain	10.2%	7.5%	1.4
Chest pain	10.2%	7.0%	1.5
Substance misuse	7.9%	6.5%	1.2
Self-injurious behaviour	4.0%	8.0%	0.5
Injury of upper extremity	3.8%	5.2%	0.7
Injury of lower limb	3.7%	6.9%	0.5
Seizure	2.9%	0.6%	4.8
Dyspnea	2.7%	0.5%	5.4
Headache	2.5%	0.7%	3.6
Injury of head	2.3%	2.1%	1.1
Depression	2.1%	2.7%	0.8
Vomiting	2.0%	2.8%	0.7
Pain in lower limb	1.8%	1.4%	1.3
Backache	1.6%	1.6%	1.0
Gestation less than 20 weeks	1.6%	1.1%	1.5
Laceration - injury	1.5%	1.9%	0.8
Poisoning	1.4%	1.1%	1.3
Pain in upper limb	1.3%	1.3%	1.0
Palpitations	1.2%	1.3%	0.9
Asthenia	1.2%	2.4%	0.5
Unknown	1.2%	0.2%	6.0

(The red and blue bars represent the prevalence of each presentation reason within the respective group. Green cells signify an increase from the control to the frequently attending group and red cells signify a decrease, with a darker shade representing a bigger difference)

Among the most common^{xxii} presentation reasons, the rate of the following conditions contrasted most sharply between Cohort Two and the control group:



depression

5.3 times the control group (2.1 per cent, compared with 0.4 per cent for the control group)



seizure

4.6 times the control group (3.7 per cent, compared with 0.8 per cent)



self-injurious behaviour

4.3 times the control group (5.1 per cent compared with 1.2 per cent)



substance misuse

4.1 times the control group (5.3 per cent, compared with 1.3 per cent)



asthenia (physical weakness or lack of energy)

2.5 times the control group (1 per cent, compared with 0.4 per cent)



poisoning

2.2 times the control group (1.3 per cent, compared with 0.6 per cent).



^{xxii} Figure shows presentation reasons where prevalence is one per cent or higher for Cohort Two.

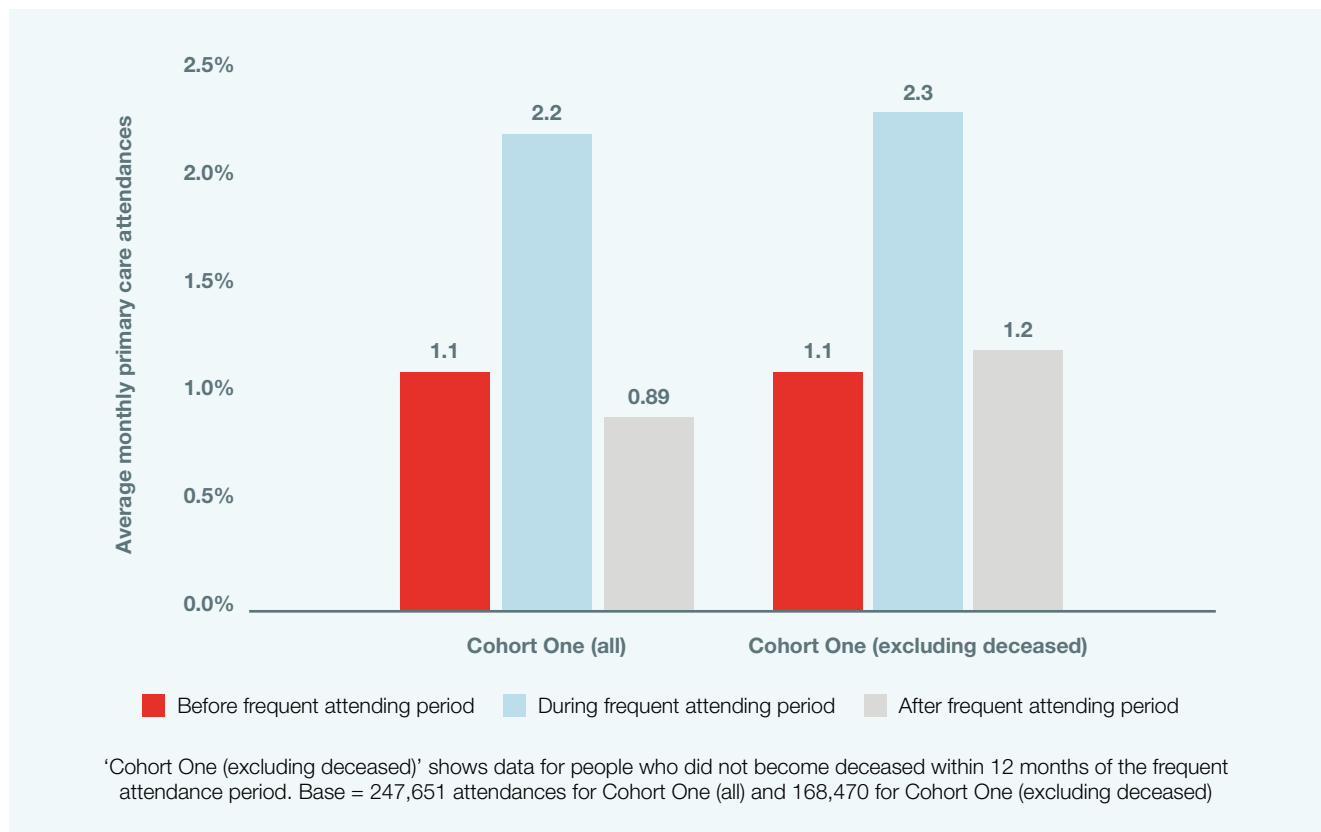
2.6 Primary care service use

For both Cohort One and Cohort Two, average monthly primary care use (including face-to-face and telephone appointments) increases during a period of frequent attendance and drops down afterwards.

Cohort One

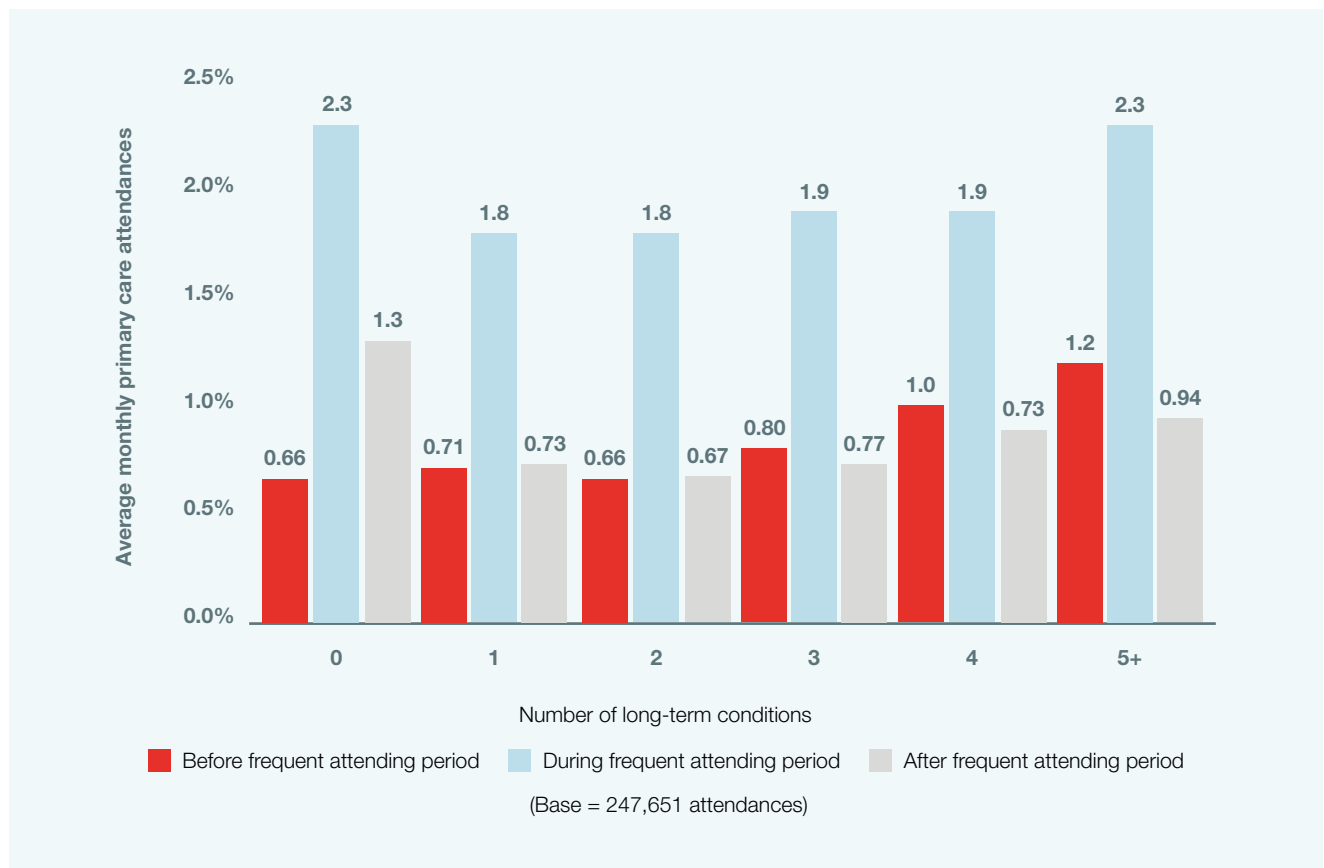
The **average number of monthly primary care attendances (including face-to-face and telephone appointments) for Cohort One doubles during a period of frequent attendance** from 1.1 to 2.2 times per month (Figure 24). When the period of frequent attendance ends, use appears to drop to a slightly lower-than-normal level (0.89 times per month), but this is due in part to some of those people dying – as reflected in the findings. Removing deceased people from the analysis shows a slight increase in primary care use following a period of frequent attendance compared to original levels (from 1.1 times per month before, to 1.2 times per month afterwards).

Figure 23: Average monthly primary care attendances before, during and after a period of frequent attendance, Cohort One



As Figure 24 shows, **people in Cohort One with five or more LTCs have the highest overall level of primary care attendance (when adding together monthly primary care attendances before, during and after a period of frequent attendance) compared to those with fewer LTCs.** When analysing by the number of LTCs a person has, the increase in primary care service use during the frequent attendance period is roughly proportionate to use before, ranging from 1.9 times to 2.7 times higher. This means that the groups that had more monthly primary care visits before their period of frequently attending A&E had more visits during it, too. This finding was consistent for all those who had one or more LTC. However, those with no LTCs saw a more marked increase in primary care appointments during their period of frequent attendance compared to before it, at 3.5 times higher. This group also exhibits a more significant increase in primary care use following a period of frequent attendance compared to those with diagnosed LTCs, even though some Cohort One members died during the investigation period (removing deceased individuals from the analysis shows a slightly bigger increase).

Figure 24: Cohort One average monthly primary care attendances before, during and after a period of frequent attendance, by number of LTCs



Cohort Two

The **average number of monthly primary care attendances (including face-to-face and telephone appointments) for Cohort Two is 2.5 times higher during a period of frequent attendance compared to before, increasing from 0.71 to 1.8 times per month (Figure 25)**. When the period of frequent attendance ends, use drops but remains slightly higher than it was initially (0.83 appointments).

We can see from Figure 26 that, **for Cohort Two, the more often someone frequently attends A&E, the more often they also attend primary care**. This differs from Cohort One, where there was limited variation in primary care use between low, medium and high volume groups.

Figure 25: Average monthly primary care attendances before, during and after a period of frequent attendance, Cohort Two

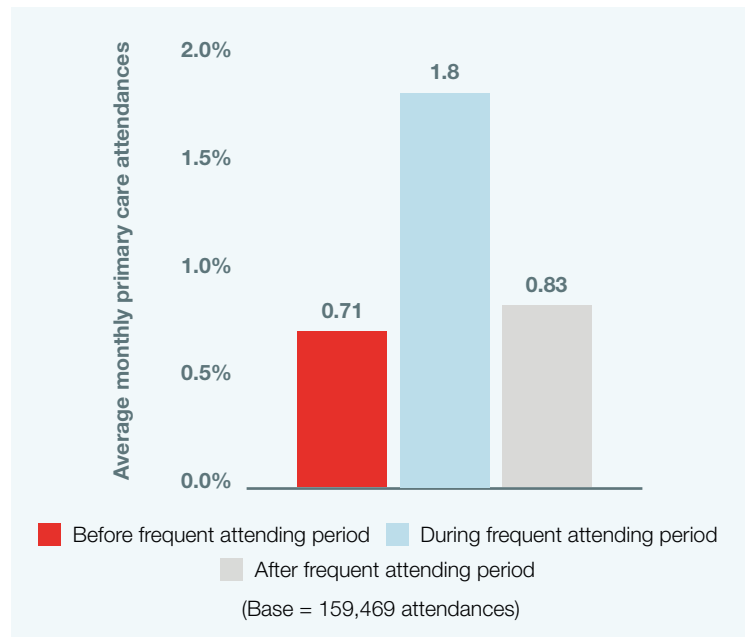
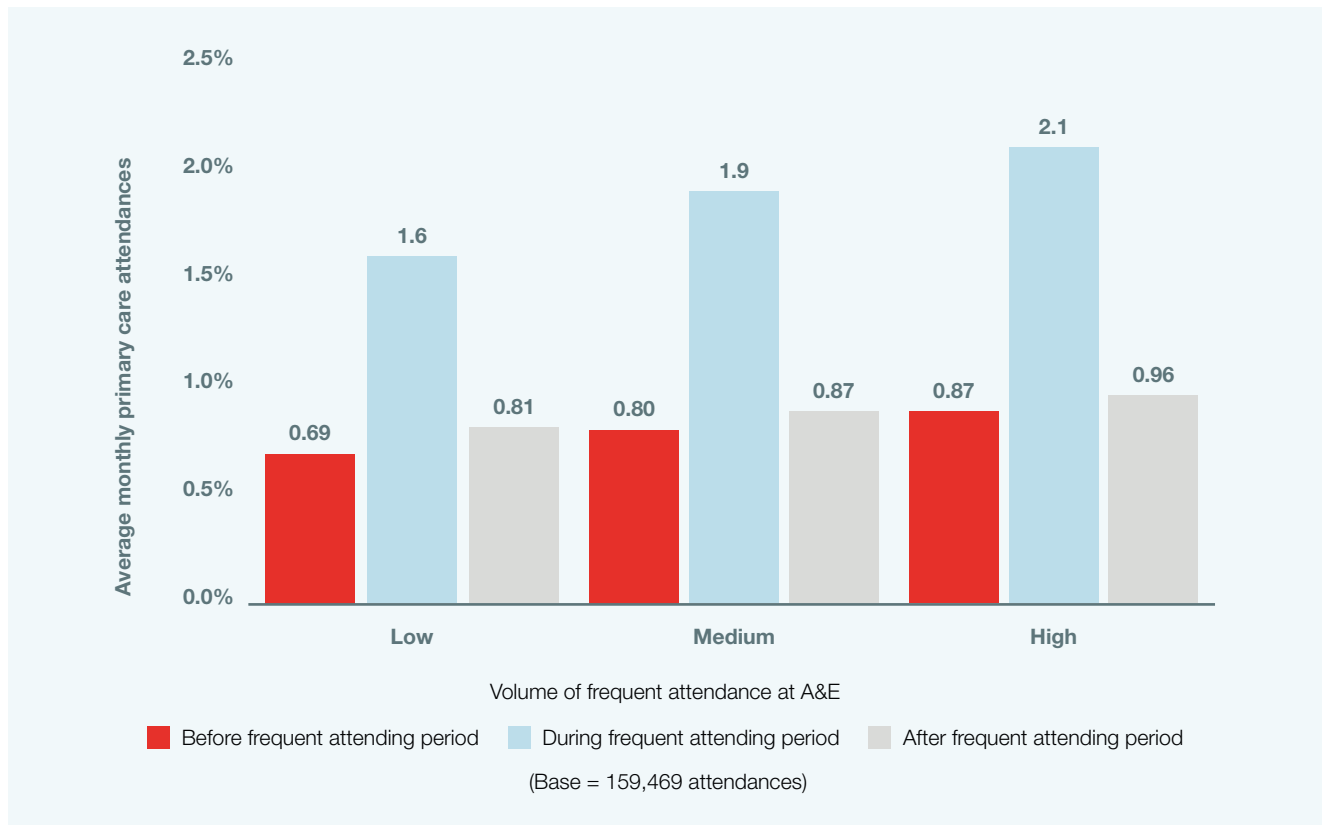


Figure 26: Cohort Two average monthly primary care attendances before, during and after a period of frequent attendance, by volume

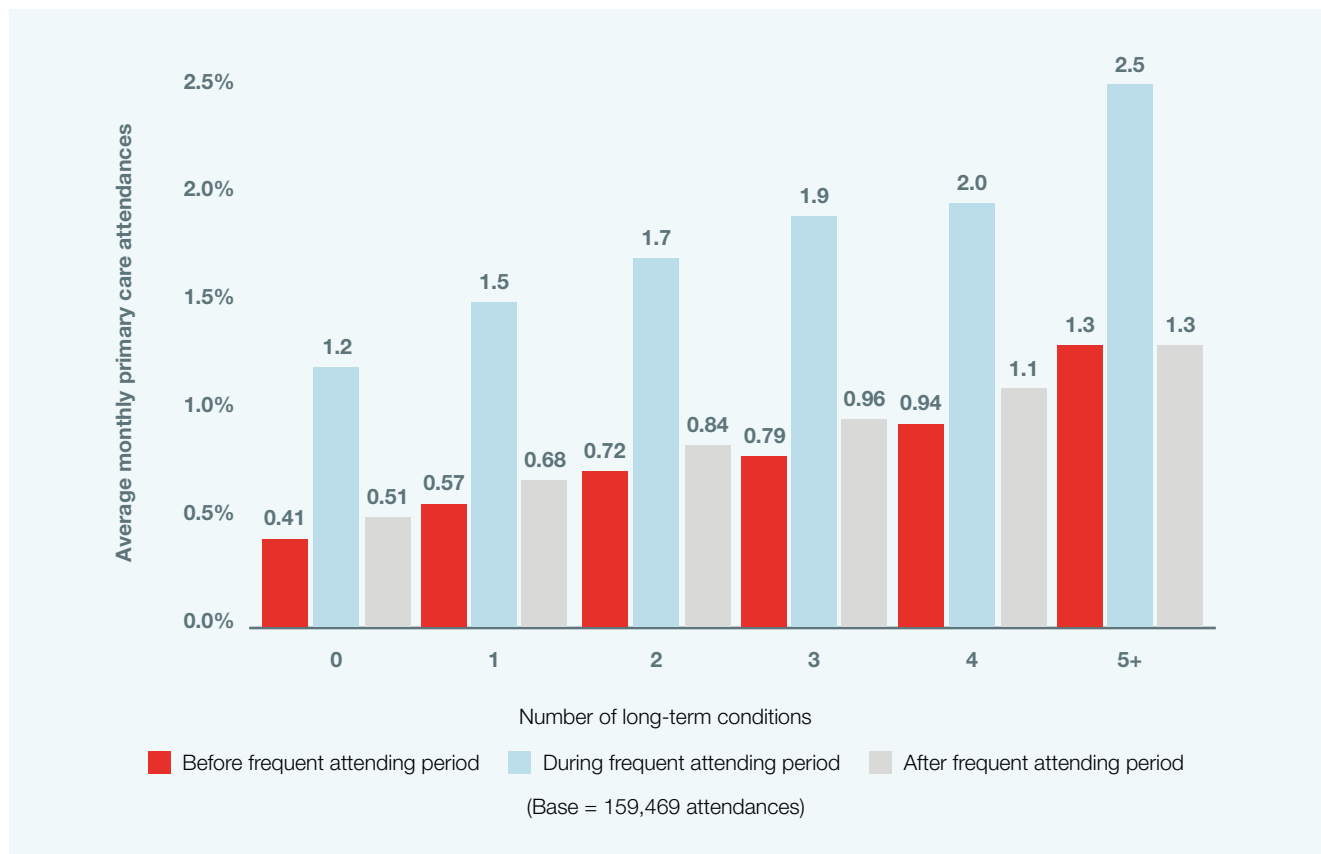


Our analysis shows that **primary care use among Cohort Two increases as the number of LTCs a person has increases** (Figure 27) – similar to our findings for Cohort One (Figure 24). Again, people with five or more LTCs have the highest overall level of primary care attendance.

The more LTCs an individual has, the more pronounced the increase in primary care use during a period of frequent attendance is (ranging from two times higher for people with no LTCs, up to 2.9 times higher for people with five or more LTCs). Following the end of a period of frequent attendance, primary care use for Cohort Two will return to near normal (or pre-frequent attendance) levels, irrespective of the number of LTCs they have.

Unlike Cohort One, people in Cohort Two without any LTCs exhibit a proportionate increase in primary care use during a period of frequent attendance. For Cohort Two, the highest levels of primary care use following a period of frequent attendance are among people with five or more LTCs. Whereas for Cohort One, the highest levels of primary care use following a period of frequent attendance are among those with no LTCs.

Figure 27: Cohort Two average monthly primary care attendances before, during and after a period of frequent attendance, by number of LTCs



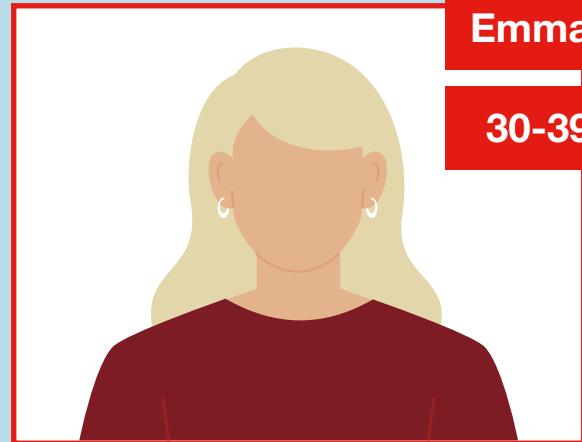
During the workshops, health and care professionals found the increase in primary care use during a period of frequent attendance surprising, given the current difficulties in accessing GP appointments.³⁵ Some suggested this may demonstrate issues in LTC management. Since a significant number of people frequently attending A&E have multiple LTCs, it may be that their attendance is linked to deterioration in these conditions, which should have been flagged and prevented at primary care stage.

Health and care professionals also thought long waits to see a specialist or receive treatment^{xxiii} were likely to have contributed to a deterioration, leading to emergency care visits alongside someone's regular interaction with primary care. They noted that exploring interventions within primary care settings was crucial to supporting earlier intervention.

^{xxiii} As of March 2024, the 'referrals to treatment' data showed that 309,300 people nationally were waiting more than 52 weeks, with 48,968 waiting more than 65 weeks. NHS England (2024) Consultant-led referral to treatment waiting times data 2024-25. Retrieved from: <https://www.england.nhs.uk/statistics/statistical-work-areas/rtt-waiting-times/rtt-data-2024-25/>

Case study

“My doctors were never helpful... when I needed help from them, they never gave it, so I always ended up in A&E.”



Emma*

30-39

Emma lives with her mother and siblings and her rescue dog, Bob. She has multiple long-term conditions including fibromyalgia, asthma and hypermobility – which heightens her risk of falls and fractures. She also suffers from panic attacks for which she takes medication daily.

Despite these challenges, Emma remains resilient. She has a strong support network in her church community and enjoys volunteering at a church-run youth group.

Emma has lived with chronic pain for almost 20 years. Her experience with primary care has been tumultuous, following her former GP's reluctance to prescribe stronger painkillers. This strained relationship resulted in Emma being barred from the GP surgery and turning to A&E instead.

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Emma has since found a new GP surgery where she feels heard, understood and supported.

This new doctor's surgery is really good. They just listen. They don't try and cut my painkillers each month... so I get the amount that I need.”

What Emma wanted most of all was for people to listen. She believes that more resources should be allocated to doctor-patient interactions, so that doctors have more time to help people.

“I'd been to A&E four times in one week, one time by ambulance, the pain literally paralysed me, I couldn't move at all. And I was so desperate for help. I needed something to stop the pain.”

*Not her real name



2.7 Mental health referrals for Cohort Two

The findings in this section focus primarily on Cohort Two due to the prominence of pre-existing mental health conditions and presentations at A&E for mental health-related problems among this group.

During the investigation, **40.2 per cent of the periods of frequent attendance by people in Cohort Two included either a new referral or an existing referral to mental health services**, which is more than double that of Cohort One (18.8 per cent).

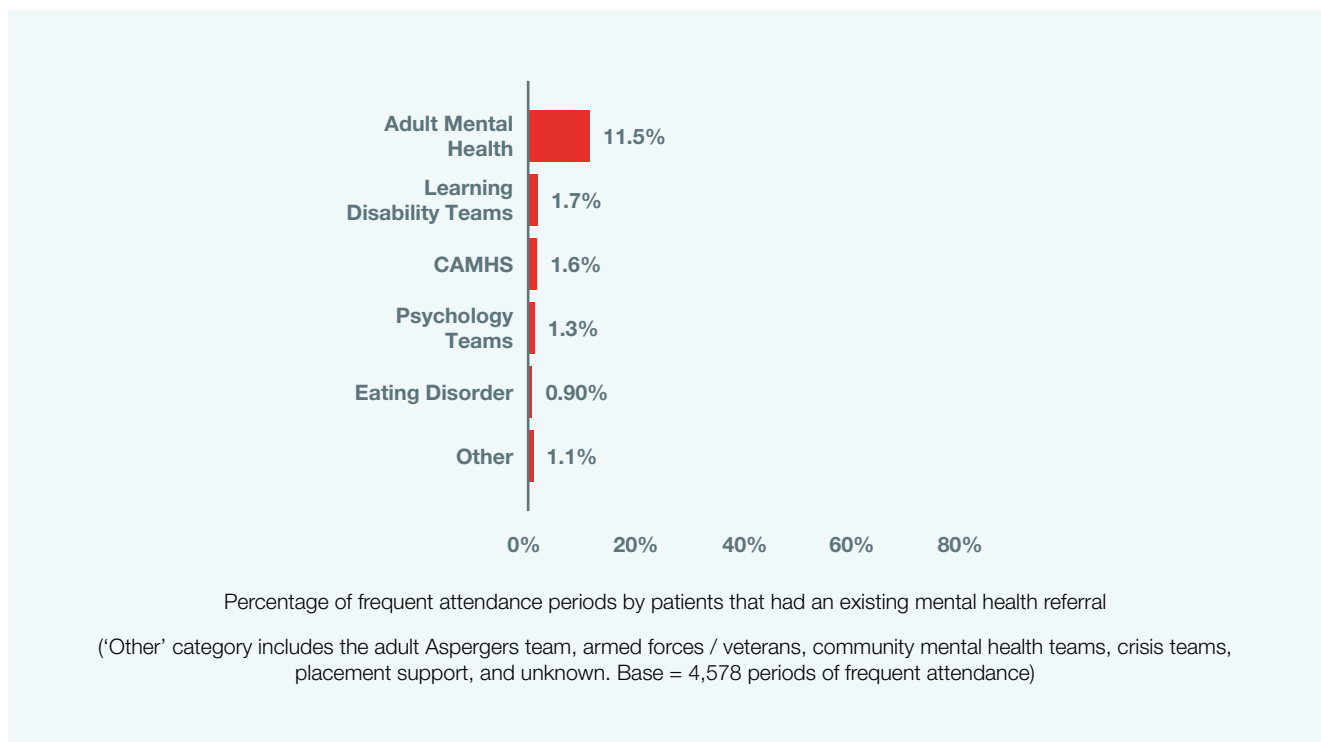
Existing referrals

15.7 per cent of frequent attendance periods in Cohort Two were among people with an existing mental health referral^{xxiv} (compared to only 5.7 per cent of frequent attendance periods among Cohort One, and 9.9 per cent of frequent attendance periods among the frequently attending population as a whole).

Figure 28 shows mental health referrals for Cohort Two, broken down by the team referred to. We can see that more than one in ten periods of frequent attendance (11.5 per cent) were among those in the cohort who had existing cases with adult mental health teams. A smaller percentage were among people who had existing cases with other mental health teams, including learning disabilities (1.7 per cent), child and adolescent mental health services (CAMHS) (1.6 per cent), psychology teams (1.3 per cent), and eating disorder teams (0.9 per cent). Attendances with other mental health teams among Cohort Two was minimal.

Note that while some CAMHS services can accept people up until age 25, Dorset CAMHS usually only accepts people up to age 18. In the workshop, participants working across mental health and social care said that the age cut-off meant that young people were often left facing a 'cliff edge' in support in the transition to adult services.

Figure 28: Cohort Two existing mental health referrals, by team referred to



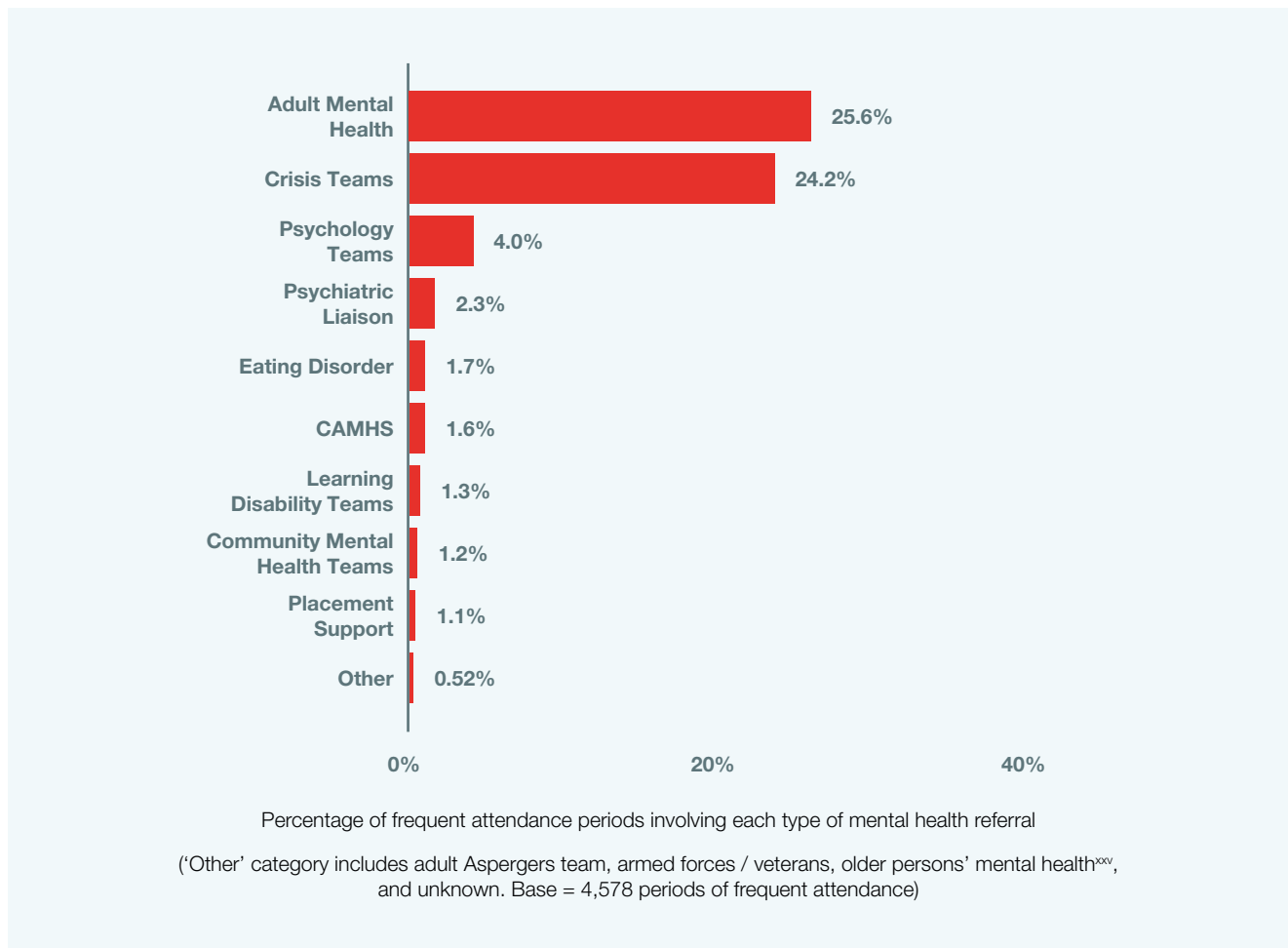
^{xxiv} As listed on the Mental Health Services Data Set (MHSDS) national dataset.

New referrals

More than a third of frequent attendance periods required a new mental health referral.

We can see from Figure 29 that mental health referrals increase dramatically during a period of frequent attendance for people in Cohort Two. While for 15.7 per cent of frequent attendance periods for this cohort there was an existing referral, **36 per cent involved a new mental health referral** (compared to 14.6 per cent of periods of frequent attendance for Cohort One, and 23.4 per cent of periods for the frequently attending population as a whole).

Figure 29: Cohort Two new mental health referrals made during a period of frequent attendance, by team referred to



As Figure 29 shows, around one in four (25.6 per cent) periods of frequent attendance for Cohort Two included a new referral to adult mental health teams. A similar percentage resulted in new referrals to crisis teams (24.2 per cent). A smaller percentage of periods of frequent attendance for Cohort Two involved new referrals to other mental health teams including psychology teams (4 per cent), psychiatric liaison (2.3 per cent), eating disorder teams (1.7 per cent), CAMHS (1.6 per cent), learning disability teams (1.3 per cent), community mental health teams (1.2 per cent) and placement support (1.1 per cent). The percentage of periods of frequent attendance involving new referrals to other mental health teams outside those listed was minimal.^{xxvi}

^{xxv} Referrals to older person's mental health services for people in this age band may relate to early onset dementia.

^{xxvi} NB. Percentages cited here may include referrals to multiple teams and / or different periods of frequent attendance pertaining to the same individual.

Case study

“The big thing for me is not being on my own. As long as I’m feeling lonely and isolated, something’s far more likely to happen.”

June is a maths student and lives alone. She has a diagnosis of borderline personality disorder and a history of severe self-harm. She has been on antipsychotic and antidepressant medication since turning 18 and has been sectioned several times. She also has suspected autism and lives with chronic pain due to a hernia.

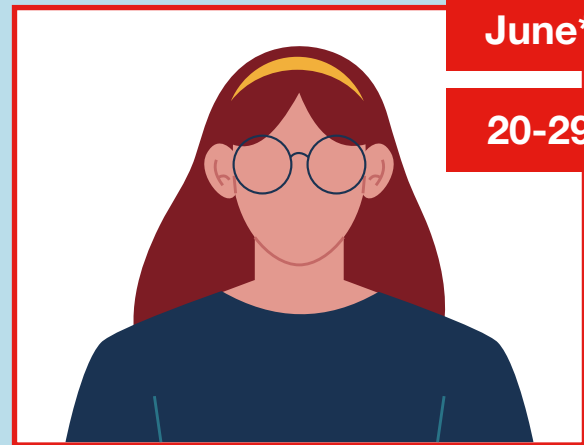
June has attended A&E frequently in the past following overdoses and self-harm episodes, when she struggled to access support due to being in a dissociative state.

June manages her mental health through keeping busy. In addition to her studies, she runs a knitting club, and is a member of two sports teams and a book club. She has regular contact with her grandmother, but is estranged from her parents and siblings.

Services play a pivotal role in June’s life. She sees a therapist weekly and attends group therapy sessions. She also has access to a helpline for support.

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This new doctor’s surgery is really good. They just listen. They don’t try and cut my painkillers each month... so I get the amount that I need.”

June thinks that there needs to be better communication between services. She found the transition from child to adult mental health services particularly challenging. She says she went from having intensive support to having none while she was waiting for her case to be picked up, which resulted in her being sectioned.

She also says she has found it very difficult to get a referral to mental health services, finding that things usually have to reach crisis point before a referral is made.

“I dissociate [from] things, so I don’t always know that it’s happened. So I would feel pain in my stomach, then I was being told I had to go to A&E. “

High volume referrals

Referrals to mental health services were higher still among high-volume frequently attending people in Cohort Two, with over three-quarters (78.5 per cent) of these periods resulting in a new mental health referral. That is 3.4 times the rate for the frequently attending population as a whole – 23.4 per cent. Figure 30 shows the specific teams people were referred to, with adult mental health and crisis teams being the most common again (66.8 per cent and 64.2 per cent respectively). With the number of people who frequently attend presenting for mental health reasons it seems likely that these referrals are only a short-term solution.

Figure 30: Cohort Two high-volume members, new mental health referrals made during a period of frequent attendance, by team referred to

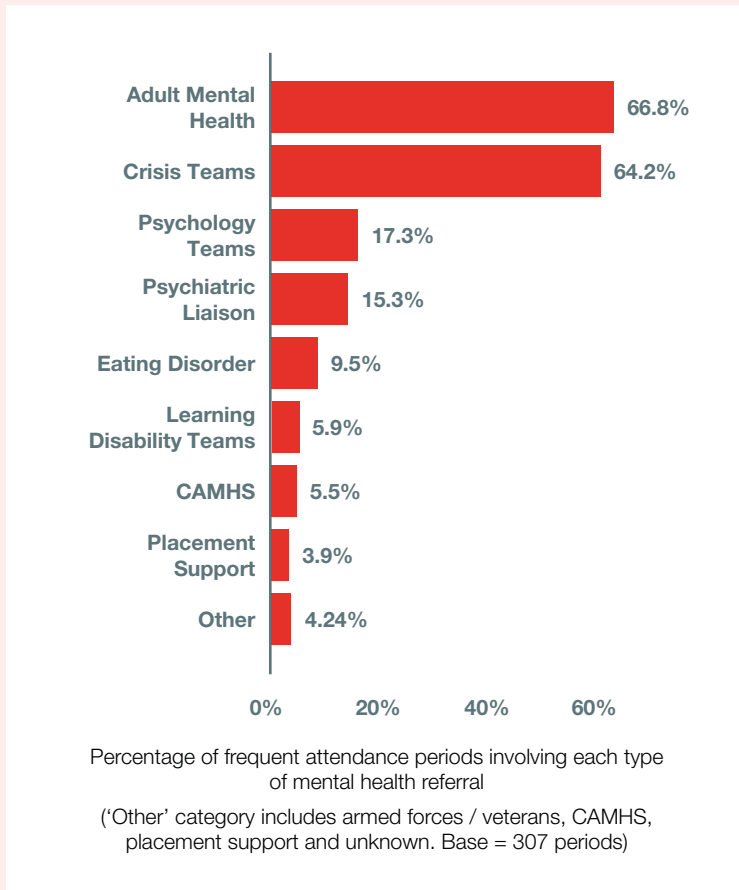
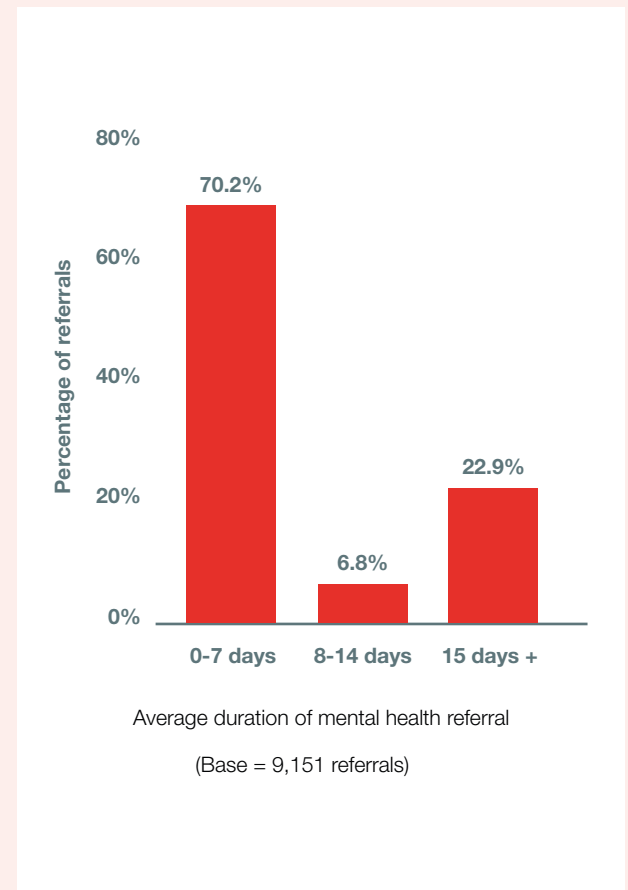


Figure 31: Cohort Two, average duration of mental health referrals made during a period of frequent attendance



Duration of referrals

Among Cohort Two members, 70.2 per cent of referrals to mental health teams were closed within seven days (compared to 66.1 per cent of referrals for the frequently attending population as a whole) (Figure 31).

Only 22.9 per cent of referrals to mental health teams remained open for more than two weeks. This reflects the short-term nature of crisis referrals, which often last for hours or days rather than weeks.



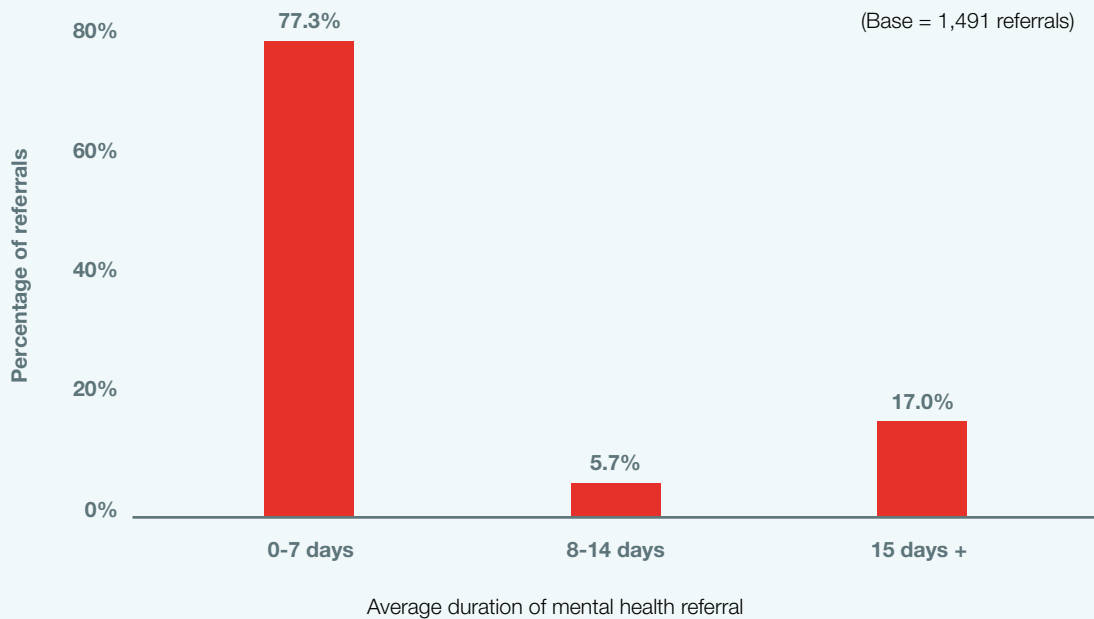


People who attend frequently and have experienced homelessness: mental health referrals

People with experience of homelessness were over twice as likely to be referred to mental health services during a period of frequent attendance compared to the frequently attending population as a whole. Over half of periods of frequent attendance by people in this group (56.3 per cent) resulted in some form of mental health referral, compared to around a quarter (23.4 per cent) of the frequently attending population as a whole.

Periods of frequent attendance by people with experience of homelessness most commonly result in a referral either to adult mental health teams (45.5 per cent) or crisis teams (38.2 per cent). This is 1.8 and 1.6 times higher than we saw among Cohort Two, respectively.

Figure 32: Average duration of mental health referrals made during a period of frequent attendance, people who attend frequently and have experienced homelessness



The high prevalence of mental health conditions among Cohort Two members strongly suggests a connection between their mental health conditions and frequent attendance. While the data cannot tell us precisely what is not working, it does indicate gaps or inadequacies in the support people are receiving to help them manage their mental health condition.

The data also reflects the high thresholds for community mental health service support (due to limited capacity). This means people often need to reach crisis point before they receive support, rather than getting preventative help, which may have stopped their needs from escalating.

The fact the majority of referrals close within seven days also suggests an issue – possibly that many people are being referred to the wrong team. This may also explain the high number of new referrals made during periods of frequent attendance – if people are referred to the wrong team and, as a result, their referral is then closed, some will be referred again to another team, creating another new referral.

Mental health experts highlighted that mental health services tend to only deal with mental illness. While people may present to A&E with acute distress, for example, they may not have a mental illness but be dealing with a social, emotional or practical issue such as family breakdown. Such referrals are closed rapidly because mental health services are not seen as appropriate. A wider range of support is needed for such cases, particularly when it comes to issues that affect mental health, such as housing, domestic violence, unemployment and poverty.

2.8 Emergency admissions and bed days

Challenges the stigma around frequent attendance, and the idea that people who frequently attend are not in legitimate need of urgent care.

People in both Cohort One and Cohort Two were more likely to have an emergency admission than the wider population. As with diagnoses in Section 2.2.2, this data shows people's mental and physical health has reached crisis point when they start frequently attending A&E, and they are in severe clinical need. As with many of the findings from our research, this challenges the stigma around frequent attendance, and the idea that people who frequently attend are not in legitimate need of urgent care.

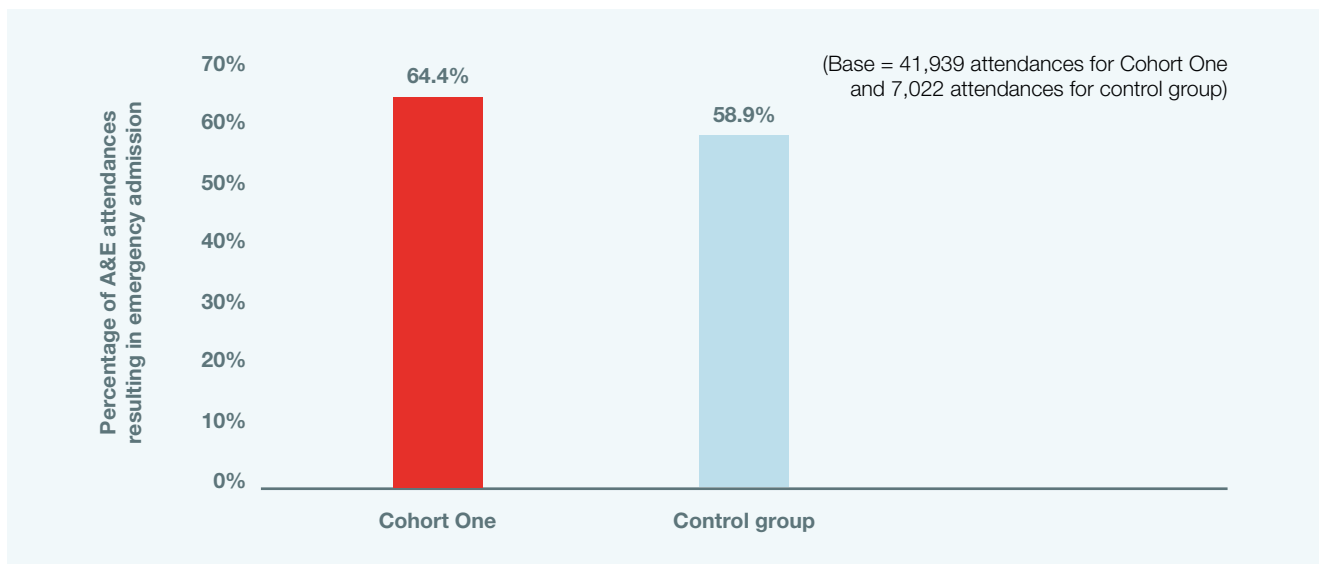
Cohort One

We found that people in Cohort One are slightly more likely to be admitted but spend less time on average in hospital than non-frequently attending people of the same age and sex.

In total, 96.8 per cent of Cohort One members had at least one emergency admission during the investigation period (5,229 out of total of 5,401 people). While this figure is high, the percentage of all Cohort One attendances that resulted in an admission was only slightly higher than for the control group^{xxvii} (64.4 per cent compared to 58.9 per cent) (Figure 33).

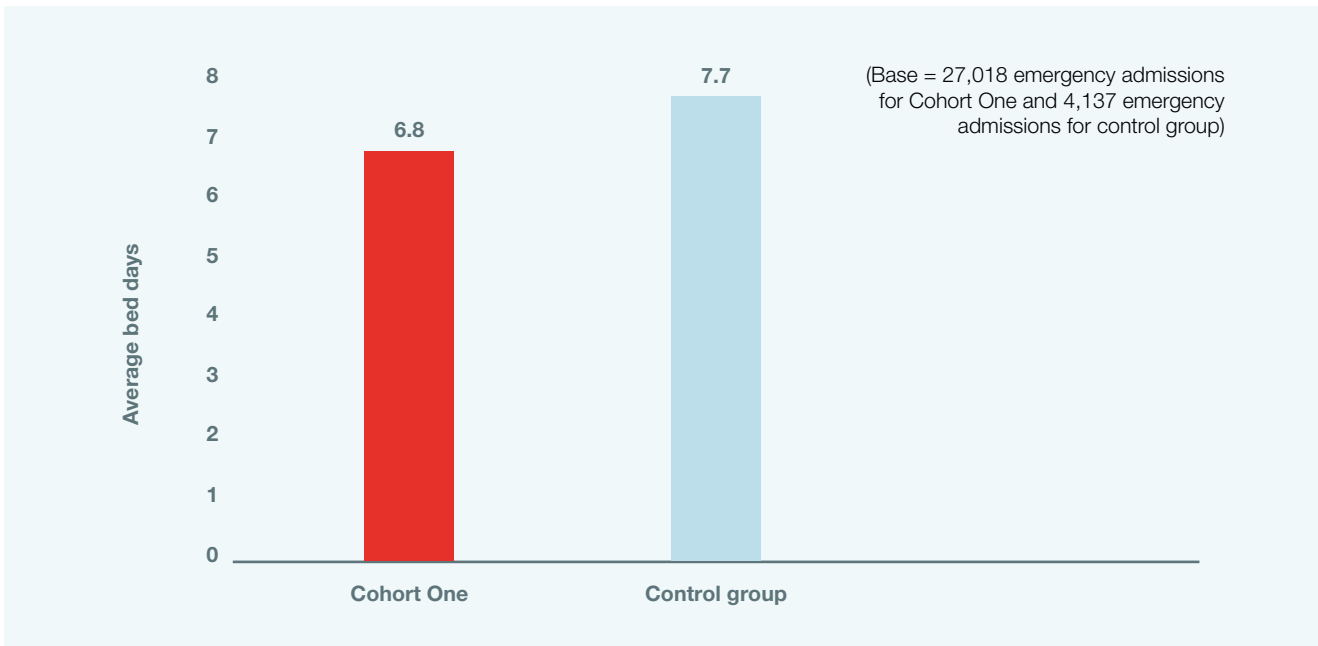
As Figure 34 shows, the average number of bed days for Cohort One members who were admitted to hospital was 6.8, compared to 7.7 among the control group. The top two reasons for admissions for Cohort One were urinary tract infections (UTIs) and falls, while COPD was also common.

Figure 33: Cohort One emergency admission rate



^{xxvii} The control group in here refers to non-frequently attending people of the same age and sex who attended A&E during the investigation period.

Figure 34: Cohort One average bed days



Cohort Two

We found that people in Cohort Two are both more likely to be admitted and to spend more time on average in hospital than non-frequently attending people of the same age and sex.

The admission rate for Cohort Two is 1.7 times higher than would be expected for people of the same age and sex.

74 per cent of Cohort Two members had at least one emergency admission during the investigation period (2,928 out of a total of 3,957 people). For the cohort, 28 per cent of all attendances resulted in an admission, compared to 16.5 per cent of the control group (Figure 35). So while the overall rate of admission is much lower for Cohort Two than for Cohort One, the contrast with the control group is more pronounced: the admission rate for Cohort Two is 1.7 times higher than would be expected for people of the same age and sex. We also found that average bed days for Cohort Two were 1.4 times higher than for the control group (2.5 days compared to 1.8) (Figure 36).

Figure 35: Cohort Two emergency admission rate

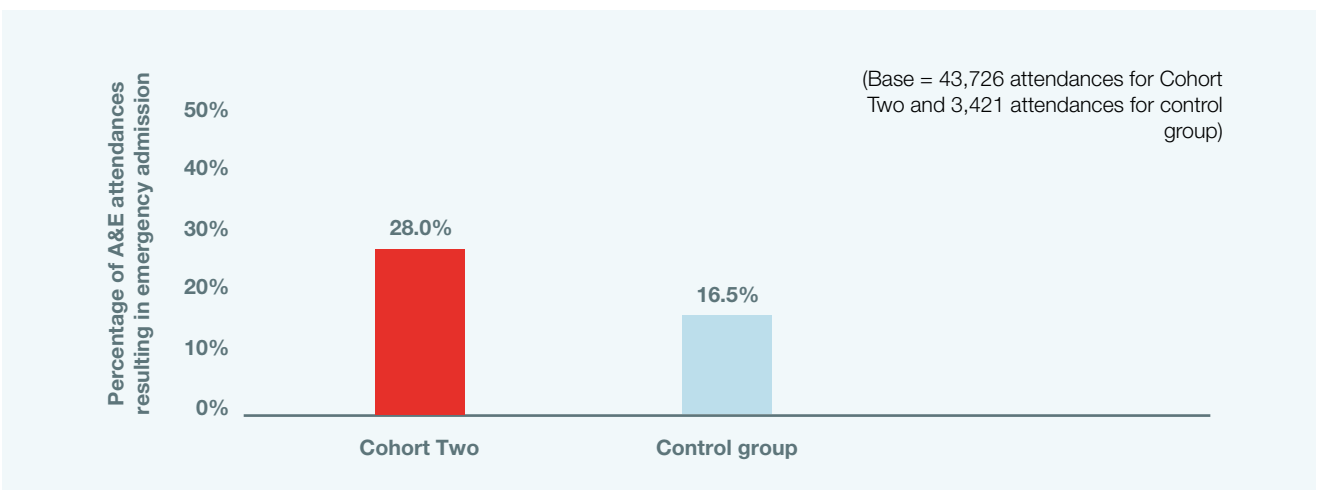
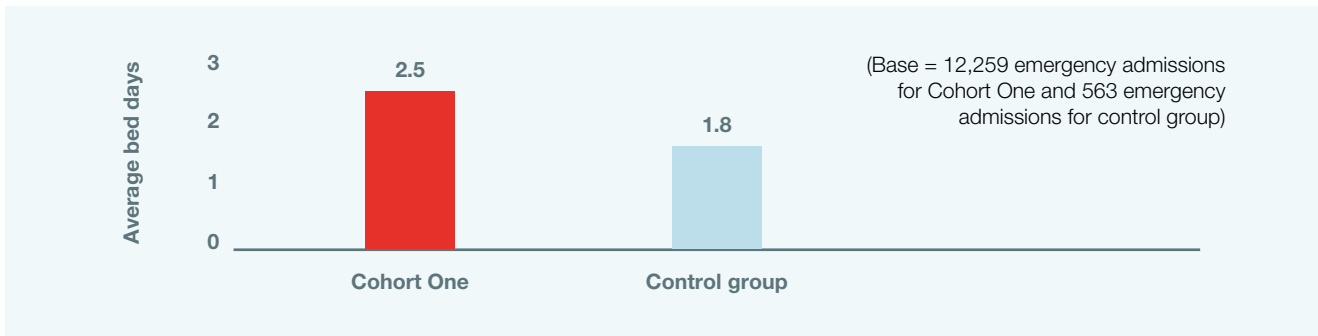


Figure 36: Cohort Two average bed days



The top two reasons for admissions among Cohort Two were alcohol-related mental ill health and poisoning. 14.6 per cent were admitted for drug- and alcohol-related issues, often linked to mental ill health. During the workshops, participants suggested that – while support for people with co-existing drug, alcohol and mental health issues has improved – barriers to accessing services remain. Workshop participants pointed out that, as well as being a direct reason for admissions for people frequently attending A&E, substance misuse also hinders people's ability to access community-based support for other issues. For example, access to some mental health services requires individuals to first address their substance misuse. People with substance misuse issues can also face practical difficulties in attending appointments.

The findings on the impact of substance use and mental ill health on admissions requires further analysis to better understand the underlying challenges facing this population.



Inside the analysis: unsupervised machine learning

What we did:

- We used an unsupervised machine-learning approach to explore both the identifying features and outcomes associated with frequent A&E attendance.
- The approach identified groups or 'clusters' of people based on patterns or similarities in the data. A machine-learning algorithm was used to determine the make-up of the clusters and a separate approach was employed to show how important each identifying feature was in making predictions about who is at risk of frequently attending and outcomes.^{xxviii}

What we did:

1. Verifying findings

The analysis revealed two broad groups that closely aligned with Cohorts One and Two, with just a few slight variations.^{xxix} In this way, the analysis verified the findings of the case-control matching outlined in Section 2.2.

2. Identifying common issues

The analysis revealed some additional factors associated with frequent A&E attendance:

- **Negative health outcomes:** Members of Cohort One are more likely than the control group to experience serious negative health outcomes following a period of frequent attendance. They have a high likelihood of dying within two years of the end of a period of frequent attendance.
- **Frequent primary care attendance:** Cohort One members are likely to attend primary care more regularly (20 or more attendances in a year) following a period of frequent attendance.
- **Safeguarding:** For Cohort Two, the recording of safeguarding concerns in primary care was strongly associated with subsequent periods of frequent attendance. Further safeguarding concerns were then often recorded after frequent attendance.
- **Mental health referrals:** Cohort Two members are more likely to be referred to mental health services following a period of frequent attendance. Females in Cohort Two are more likely to use services such as NHS Talking Therapies/IAPT.
- **Frequent attendance of primary care:** Females in Cohort Two are also more likely to attend primary care frequently.

While this analysis provided valuable insights, further research is required to understand the outcomes associated with frequent attendance in greater depth.

^{xxviii} See Appendix A for further detail on the approach.

^{xxix} The machine-learning model identified ten individual clusters, which the research team manually categorised into three broad groups. Two of these aligned closely with Cohorts One and Two, and the third showed no long-term consequences of a period of frequent attendance. The groups identified are referred to as Cohorts One and Two here for simplicity.



2.9 Covid-19

The pandemic and its resulting lockdowns happened during the investigation period. Many frontline providers say the pandemic had a significant impact on service provision and the make-up of the people using health and care services. The findings support this, particularly for the 0 to 19 age group.

This section will examine changes in frequent attendance before, during and after Covid-19. It will also look at mental health referrals among the 0 to 19 age group (given the distinctive impact of the pandemic on it) and 70+ age groups (Cohort One) in more detail.

Inside the analysis: analysis of variance

- The analysis looked at how patterns of frequent attendance changed before, during and after the height of the Covid-19 pandemic in the UK (according to the three timeframes set out in Appendix A).
- We categorised people who frequently attend A&E into groups based on demographics, service use, outcomes or diagnosis.
- We directly compared the means, rates and counts of these groups across the three timeframes. This enabled us to observe variations and determine whether any changes have been sustained.



Changes in frequent attendance

Figure 37 shows the age distribution of people who frequently attended A&E in each of the three Covid-19 timeframes^{xxx}, as a percentage of the overall frequently attending population. There are some interesting variations by age and sex among people who frequently attend.

Figure 37: Frequent attendance of A&E before, during and after Covid-19, by age and sex.^{xxxi}

Percentage of frequently attending population						
Age group (females)	Before Covid-19 (Base = 5,195 people)	During Covid-19 (Base = 5,435 people)	After Covid-19 (Base = 3,555 people)	Difference pre- to during Covid-19 (no. times bigger)	Difference pre- to post-Covid-19 (no. times bigger)	
0-9	2.0%	2.6%	3.0%	1.3	1.5	
10-19	2.2%	3.1%	4.7%	1.4	2.1	
20-29	8.2%	7.8%	8.3%	1.0	1.0	
30-39	5.7%	5.5%	5.3%	1.0	0.9	
40-49	4.6%	4.5%	4.2%	1.0	0.9	
50-59	4.8%	4.4%	3.9%	0.9	0.8	
60-69	4.0%	3.5%	4.3%	0.9	1.1	
70-79	5.4%	5.3%	6.4%	1.0	1.2	
80-89	9.5%	9.0%	7.7%	0.9	0.8	
90-99	5.8%	5.5%	3.4%	0.9	0.6	
100-109	0.3%	0.2%	0.1%	0.7	0.3	
Age group (males)						
0-9	3.0%	4.2%	5.0%	1.4	1.7	
10-19	1.7%	1.9%	3.0%	1.1	1.8	
20-29	4.3%	4.0%	4.9%	0.9	1.1	
30-39	4.1%	4.3%	4.1%	1.0	1.0	
40-49	4.4%	4.6%	4.1%	1.0	0.9	
50-59	5.1%	4.9%	4.2%	1.0	0.8	
60-69	4.8%	4.9%	5.1%	1.0	1.1	
70-79	7.2%	6.8%	7.1%	0.9	1.0	
80-89	8.7%	8.7%	8.1%	1.0	0.9	
90-99	4.1%	4.1%	2.9%	1.0	0.7	
100-109	0.2%	0.0%	0.2%	NA	1.0	

The blue bars represent the percentage of the frequently attending population falling within each category. Green cells signify an increase between groups and red cells signify a decrease, with a darker shade representing a bigger difference.

^{xxx} Before Covid-19: 1 April 2018 – 31st December 2019; During Covid-19: 1 January 2020 – 31 December 2021; After Covid-19: 1 January 2022 – 31 October 2023. (See Appendix A for further details).

^{xxxi} The three Covid-19 time periods used in this analysis ('before', 'during' and 'after') vary in length (see Appendix A for further details). So while percentages between periods can be compared, total numbers of people attending are not comparable and varying base sizes do not reflect variation in rates of frequent attendance. The groups identified are referred to as Cohorts One and Two here for simplicity. identified are referred to as Cohorts One and Two here for simplicity.

After Covid-19

For many age groups, frequent A&E attendance decreased after Covid-19, compared to before. The most marked decrease was among females aged 90-109 (dropping by around two-thirds, from 0.3 percent to 0.1 percent).

However, compared to before Covid-19, frequent attendance among younger people increased after Covid-19, for both males aged 0-29 and females aged 0-19. The most marked increase was among females aged 10-19, whose frequent attendance levels more than doubled (from 2.2 per cent to 4.7 per cent).

Mental health referrals

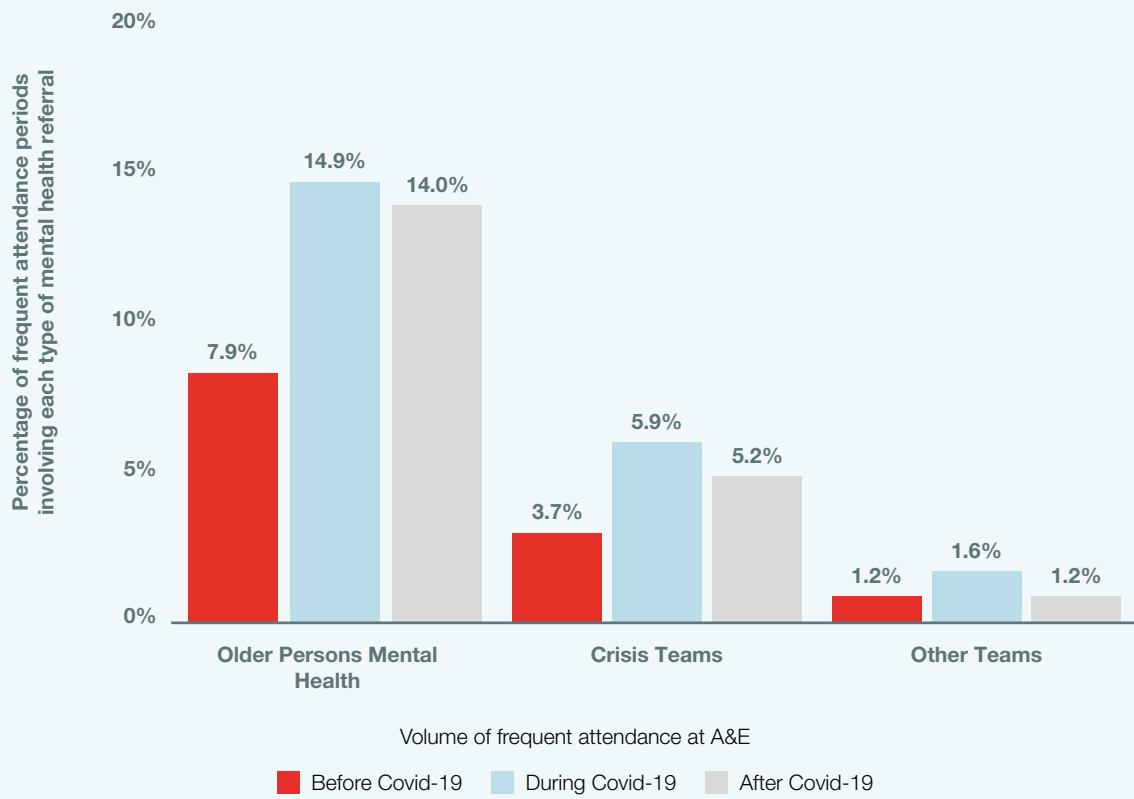
Among the 0-19 age group, mental health referrals increased during Covid-19 and continued to rise after Covid-19.

Among the 0-19 age group, mental health referrals increased during Covid-19 and continued to rise after Covid-19 (Figure 38). Adult mental health teams saw referral rates from before to after Covid-19, reaching a level 2.1 times higher. Across the same period, referrals to CAMHS also increased, and were 1.6 times higher after Covid-19. Referrals to other teams, including crisis teams, also increased, although the numbers being referred were small. This reflects a general trend in increasing mental ill health across the population.³⁶

Figure 38: 0-19 age group, new mental health referrals made during a period of frequent attendance before, during and after Covid-19, by team referred to



Figure 39: 70+ age group (Cohort One), new mental health referrals made during a period of frequent attendance before, during and after Covid-19, by team referred to.



('Other' category includes adult Aspergers team, adult mental health, armed forces / veterans, community mental health teams, eating disorder team, learning disabilities teams, psychiatric liaison, and psychology teams. Base = 2,216 periods of frequent attendance before Covid-19, 2,255 periods during Covid-19, and 1,311 periods after Covid-19).



3. Workshop Themes

This section sets out the findings from two workshops we held with national and local stakeholders, ranging from frontline providers to system leaders and policy specialists, and across specialisms such as urgent and emergency care, population health management, social care and housing.



As part of our research, the workshops aimed to:

- contextualise and explore the findings from the analysis of the linked datasets
- gather attendees' insights on the findings
- help identify areas for national and place-based policy recommendations.

The workshops had a strong grounding in the lived experience of the people we interviewed, drawing on their anonymised stories and experiences to foster discussions.

The workshop discussions focused on Cohort Two, as the drivers for its members' frequent attendance are often more complex and less well understood than for Cohort One. Cohort Two also has a stronger link with deprivation, so it has more relevance for ICS' work on addressing health inequalities.

The range of professional experiences in these workshops enabled us to gather a holistic view of the needs and experiences of Cohort Two, and to examine current systemic barriers and potential solutions.

The two workshops allowed us to identify the following six key themes. They will help us interpret our research findings, and complement the analysis of the linked dataset in Section 2.

The impact of health inequalities

While workshop participants were unsurprised by the link between deprivation and frequent A&E attendance, they were struck by how clearly the data demonstrated this connection. Frontline professionals said they often see firsthand the impact deprivation has on people frequently attending A&E, both in relation to service provision and as a direct driver of frequent attendance.

Workshop attendees also highlighted important links with experiences of the criminal justice system, drug and alcohol service use, and insecure housing, which they perceived to be drivers. The participants stressed that these should be included in the linked datasets.

Lack of effective joined-up care

Participants agreed that opportunities for intervention before needs escalate are missed because no single professional or service has the full picture of a person's needs. For example, when people miss appointments, they are often discharged from a service, rather than

their absence prompting a discussion to explore the underlying reasons and what support might be needed to ensure future attendance. Frontline professionals reflected on how impactful a simple conversation can be on an individual's wellbeing.

Participants also noted that links between services – crucial to providing joined-up care – rely heavily on close working relationships between individuals from different services, and connections between teams. Therefore, when there is a change in personnel, the flow of information across teams about individuals can be lost.

Attendees reflected that ICS structures should ensure the delivery of fully joined-up care, but new structures and ways of working need time to become properly established and drive improvement. However, some attendees were concerned that existing funding mechanisms can result in services competing with one another for limited resources. In the absence of pooled budgets, this means some providers feel the need to gatekeep resources.

Barriers to using data effectively

Participants strongly emphasised the value of data being used more effectively to support personalised care. NHS Dorset's linked dataset is comparatively advanced in terms of its breadth and use for research and decision-making. However, while participants felt there have been improvements in data sharing, they reflected that this is still largely restricted to health data, and insights on broader service use are limited. Non-statutory providers are often not part of the same system of data-sharing as statutory providers, meaning they cannot access each other's data. As a result, people are required to repeat their stories and are not aware of what is known about them. Workshop attendees also felt that VCS organisations' data can be undervalued, in particular qualitative data based on insights from frontline staff and people they support.

Insufficient attention paid to non-clinical needs

Both clinical and non-clinical professionals agreed there is insufficient regard among the wider system to wider non-clinical factors that impact people's physical and mental health. While many frequently attending individuals require clinical support – as the data on emergency admissions and bed days shows – the consensus was that unmet social needs are often the root cause. For example, treating respiratory conditions in isolation without addressing the damp

housing that caused them is not a sustainable, long-term solution.

Participants explained that limited capacity often means frontline staff are only able to focus on the presenting need. As a result, individuals may feel unheard, or that their needs are not being fully understood and addressed.

Approaches were raised to address this. For example, establishing Make Every Contact Count^{xxxii} across all services within the system, supported in clinical settings through providing key questions on holistic needs that should be considered at all service interactions, e.g. social environment, last hot meal, heating etc; and providing clear information on signposting to relevant support services. Or ensuring that in-person integrated community hubs/centres create clear and simple 'one stop shops' with a focus on improving health equity.

Even where someone's wider non-clinical needs have been identified, there are limited ways to ensure these are met beyond referring them on to another service. While referring someone may often be appropriate, it can result in a continuous chain of referrals to other services, described by participants as 'passing the buck'. Attendees felt this process can exacerbate feelings of neglect among people who frequently attend A&E, or make them feel overwhelmed as they navigate multiple services and support options. And even when referral is the appropriate step – for example, when a GP refers someone to a community mental health support team – the appropriate service is often not available due to funding constraints among community services.

Barriers to accessing services

Another central challenge emerged from the workshops: services not being tailored to the needs of people who face significant barriers to access, including many of those at risk of attending frequently. Participants highlighted ways in which residency and housing status can impact an individual's access to services. For example, GP surgeries often ask new patients for proof of address when registering, despite NHS guidance specifically stating it is not needed.³⁷ Transport cost and availability were also highlighted as an obstacle to accessing services, particularly for those on low incomes.

High thresholds for services, in particular mental health services, were flagged as another significant barrier. According to participants, when people initially seek access to mental health services their needs are often deemed 'too low'. At the workshop, we heard of people trying to take their own life before

they could access help. Some are told their needs are 'too complex' and they require another service first. For example, someone who has coexisting alcohol dependency and mental ill health may be told by a mental health service that they need to first address their substance use to be eligible for support. It was stressed that this is often not the fault of particular teams, but rather a lack of capacity.

Referral processes can also present barriers. For example, in many areas, non-clinical professionals are not authorised to refer to clinical services, such as mental health teams. Attendees who work in housing and social work reported that they had been unable to refer people to mental health services directly, instead having to do so via a GP. This resulted in additional demands on an already stretched primary care system and delays for the individual.

Trauma-informed services

The lack of trauma-informed support was raised as an important issue. People who frequently attend A&E have often experienced trauma, and there is a significant link with mental ill health.³⁸ A lack of trauma-informed care can re-traumatise individuals and aggravate their needs.^{39, 40}

The NHS inclusion health framework reflects this, highlighting the need for the workforce to understand trauma-informed practice.⁴¹ Yet workshop attendees had received mixed levels of training in trauma-informed care, with several frontline professionals having never had any. It was felt that a lack of training on trauma-informed care can aggravate the stigma surrounding people who frequently attend A&E. If they are not aware that trauma often underpins frequent attendance, staff may dismiss those who frequently attend as 'time wasters' or assume their regular visits to A&E are a 'cry for attention'. This exacerbates the very real difficulties many are facing – as shown by the data in Section 2 – and can mean that they do not receive the support they need. It can also diminish confidence in the system among individuals who are frequently attending.

^{xxxii} Making Every Contact Count (MECC) is a national, long term public health strategy in England. It supports public-facing workers to use opportunities during routine contacts to enable healthy lifestyle changes. In this context, it was xxxx

4. Conclusion

This research reaffirms the findings of *Nowhere else to turn*, highlighting that although individuals who frequently attend A&E constitute a small (1.7 per cent) yet vulnerable minority in Dorset, they account for a significant proportion (13.8 per cent) of A&E attendances. Pressures in urgent and emergency care are a symptom of chronic unmet needs: identifying and supporting those who frequently attend A&E, or are at risk of doing so, provides a clear focus for systems to alleviate pressures. Analysing the linked dataset in Dorset provides valuable insights into the key needs – both clinical and non-clinical – linked to frequent A&E attendance. Understanding these drivers of frequent attendance enables tailored interventions that directly address the root causes of frequent A&E use, ensuring that support is both targeted and effective.

Focusing on these root causes will not only alleviate pressure on urgent and emergency care, but will also advance the broader objectives of reducing health and healthcare inequalities. By identifying and providing targeted support for people frequently attending urgent and emergency care, we can inform a strategic preventative approach to helping inclusion health groups and those facing multiple disadvantage and health inequalities. While ICS strategies and joint forward plans (JFP)⁴² reflect a strong commitment to addressing health and healthcare inequalities^{xxxiii}, these initiatives are still in the early stages. They face significant barriers to turning strategy into action at a time when systems are contending with increasing levels of need.

Supporting those frequently attending urgent and emergency care will enable ICSs to take concrete steps toward fulfilling the commitments set out by the National Healthcare Inequalities Improvement Programme team, including the CORE20PLUS5 approach and the Inclusion Health Framework.⁴³ This work is also well aligned with the strategic focus of the new government on prevention and keeping people well – moving more care out of hospital and into primary care and community services.⁴⁴ The recent development of ICSs over the past two years, and a new government in the process of setting direction and priorities for health and social care through the 10 year plan, presents a critical opportunity to address these challenges – and do so in a way tailored to the specific needs of local populations.

Crucially, High Intensity Use services are already proven to be effective. These therefore need to be available to everyone who needs them, and of sufficient quality to service the need required. In addition we need to further an approach that prevents people from getting to crisis point in the first place by tackling the underlying systemic causes.

Tackling the underlying causes can be achieved through supporting a community-based preventative approach and sustainable action on health inequalities. Alongside this, Integrated Care Systems need to carry out data driven analysis as to whether the cohorts frequently attending in their areas reflect the ones identified in Dorset and, if they do, look to improve their community mental health and proactive anticipatory care services for people with multiple long-term conditions.

Preventing people from reaching crisis point and having nowhere else to turn but A&E is the driving force of this work. The British Red Cross will continue to work with partners in Dorset and nationally, using this research as a springboard to further develop and refine what we have learnt.

^{xxxiii} NHS Providers research shows that “78% of trusts reported that health inequalities are embedded within their organisational strategy and priorities, and half of trusts (50%) have developed a specific trust strategy for addressing health inequalities.” NHS Providers (2024) Review of NHS trust strategies for addressing health inequalities

5. Recommendations for action

The below recommendations aim to assist national and local leaders responsible for health and care to better understand and support the needs of people who frequently attend A&E. The priorities emerge from the data and insight gathered as part of this research and build on recommendations that have been highlighted elsewhere or work that is already underway but needs to go further.

During the course of discussions with professionals in Dorset a wide range of additional priorities were identified including action to consistently roll-out trauma informed care across a wider range of services, further progress on the Make Every Contact Count approach and improving access to innovative service models such as community wellbeing hubs. These represent widely recognised system improvements to support person-centred care. However, they are not consistently implemented across health and care systems, often relying on individual providers. There must be continued progress in these areas to support the needs of this population. However, the focus of the recommendations below is on the key themes highlighted in this research. Further specific actions that should be taken depend on ICS' individual populations – which can be identified through a similar analysis to the one conducted in Dorset. The following recommendations provide an overarching blueprint for common next steps for ICSs.

1.

Continue to roll out and expand HIU services.

HIU services play a critical role in supporting people frequently attending A&E and reducing pressure on acute services.

ICSs should:

- Continue to roll out HIU services in line with national guidance, and expand existing services to increase the number of people they can support. Initially Core20 locations with the highest health inequalities should be prioritised. Local areas should explore funding new or expanded services through use of their existing health inequalities funding allocation.
- Expand the scope and capacity of the HIU service teams where they exist, so that a HIU lead can support key local multidisciplinary teams, forums and interventions that will promote a preventative approach to frequent A&E attendance. For example, ensure a HIU lead is sitting in a mental health alliance, an integrated neighbourhood team and a primary care's multidisciplinary proactive care team.

NHS England should:

- Specify in the NHS England HIU service principles that local rollout of HIU services should be based on attendance lists from the emergency department they are serving, rather than referrals. It should also specify that services should have expanded capacity to support the 250 people who attend most frequently within three months, as a minimum. It should also be clear that services must follow the Right Care model.

NHS England and Department for Health and Social Care should:

- Ensure that national policy and guidance – including the forthcoming 10 Year Plan for NHS reform, future iterations of the NHS operational planning guidance and a potential UEC strategy – clearly recommend ICSs to deliver quality HIU services as part of their work on addressing health inequalities and UEC pressures.

2.

Increase the breadth and availability of accessible, linked data, and harness it to identify people at risk of frequent attendance and opportunities for targeted support.

This analysis has provided data-driven insights needed to design a comprehensive action plan and effectively allocate resources to address frequent A&E attendance. Effective population health management and public health approaches rely on the data that is available to the system. While there is widespread agreement on the need for linked datasets, they are currently limited in cross-sectoral scope. While there are not insubstantial challenges in developing and using extensive linked datasets, particularly those that include non-healthcare data – including infrastructure, culture, governance, and data quality – the capability is critical means to addressing frequent A&E attendance, reducing pressures in A&E and taking tangible steps to addressing health inequalities.

ICSs should:

- Seek to analyse the data relating to people frequently attending A&E in the local area, ensuring that it includes wider non-clinical data where available. The findings should be discussed across the system, examining whether trends in this research are replicated in their area, and what operational, policy or system changes are likely to make an impact.
- Develop linked datasets to ensure that they are effectively helping local systems understand and address health inequalities. This process of dataset development should include:
 - more comprehensive data-sharing with non-statutory providers
 - expanding the breadth of linked datasets beyond healthcare data – e.g. social care, drug and alcohol services, and housing – in partnership with local experts in health inequalities, including VCSE
 - exploring enablers to widening lined datasets, such as extending use of NHS numbers across wider ICS organisations including social care.
 - addressing any potential issues in sharing information that could adversely impact the care people receive – for example, ensuring that service notes do not reinforce any discriminatory views towards someone.
- Use their data to develop place-based preventative approaches, particularly in left-behind neighbourhoods, taking action in a defined area to address non-clinical issues that lead to frequent attendance. For example, tackling poor housing conditions where this is flagged as a recurring issue among people frequently attending.

NHS England should:

- Ensure the Federated Data Platform being developed pays due regard to health inequalities.
- Provide guidance to ICSs on how the Federated Data Platform rollout can support their work on tackling health inequalities, providing assistance where necessary. This assistance may include guidance for integrating datasets outside NHS and adult social care, particularly on the contractual arrangements needed and the use of confidential patient information to trace NHS numbers within respective secure local data environments in the ICS infrastructure.

3.**Improve availability of, and access to, mental health support, with a particular focus on community services.**

While improving community mental health support is already a central objective for health systems, and featured prominently in the NHS Long Term Plan, this research shows that many people are still not receiving the support they need to prevent them reaching crisis point.

ICSs should:

- Review where there may be gaps or inadequacies in the mental health support or services for people frequently attending A&E in their area, particularly focusing on ensuring timely access to quality mental health support in the community. This includes providing enhanced support for people in a crisis wherever they seek support and on discharge from hospital to reduce the risk of re-attendance based on mental ill health; and where there may be better join-up with drug and alcohol services.
- Continue working towards the vision for community services set out in the Community Mental Health Framework. This includes advancing the implementation of joined-up community mental health services, ensuring that the system follows a ‘no wrong door’ approach, where NHS clinical, local authority, VCS and lived experience experts work as one team across sectors.
- Bring together key local system stakeholders to review pathways into mental health services in relation to frequent attendance, and ensure there are clear and agreed pathways for transfers of care. This review should also seek to broaden who can refer people into mental health services where appropriate.
- Ensure support mechanisms for people with long-term conditions and mental ill health – such as health psychologists and NHS Talking Therapies/IAPT pathways for long-term conditions – are accessible and meet the needs of this cohort.

The Department for Health and Social Care and NHS England should:

- Identify ways of continuing the progress made through the community mental health transformation programme, including ensuring that community mental health teams are appropriately funded and that funding is protected. It may also include exploring accountability mechanisms for systems that are not using relevant protected funding for its intended purpose.

The Department for Health and Social Care should:

- Ensure that the government's commitment to recruit 8,500 new mental health staff includes those focused on community-based support, including non-clinical staff.

4.

Further develop multidisciplinary proactive care in primary care for people with long-term conditions, prioritising those most at risk of experiencing poor health outcomes due to other risk factors.

Proactive care focuses on people with LTCs or complex needs, and helps them manage their conditions in the community and prevents them from needing acute care.

ICCs should:

- Encourage primary care to use their multidisciplinary teams to prioritise the needs of people with LTCs.
- Support PCNs to predict and identify those who may start frequently attending A&E and are most in need of proactive care. PCNs should focus on the areas of need this research identifies, including mental ill health, learning disabilities, epilepsy, heart failure and COPD, combined with other risk factors such as socioeconomic deprivation.

The Department for Health and Social Care should:

- Reinstate the funding previously allocated to the Aging Well programme, which would help ICBs support the needs of older people who are living with LTCs and at risk of frequently attending A&E.

5.

Align targets and funding to support sustainable action on health inequalities.

This research builds on existing evidence and further improves our understand about the links between frequent attendance and health inequalities. People who frequently attend A&E are far more likely to live in the most deprived areas and experience a range of other inequalities.

The Department for Health and Social Care and NHS England should:

- Ensure that nationally-set targets give local areas the freedom and flexibility to take a long-term approach to addressing health inequalities.

The Department for Health and Social Care, NHS England and the Treasury should:

- Increase and ringfence the health inequalities allocation, dedicating a portion to HIU service roll-out.
- Increase the weighting of the health inequalities and unmet need adjustment, and review the adjustment formula.

The UK government should:

- Commission a national cross-government strategy to reduce health inequalities, which recognises the need for action across departments to address wider factors influencing health. This will support the government's stated commitment to tackle the social determinants of health.

6.

Ensure that funding and performance measures support a preventative community-based approach that addresses non-clinical drivers.

ICSs should:

- Ensure effective leveraging of existing funding streams such as the Better Care Fund and mechanisms such as provider collaboratives to incentivise partnership working between clinical and non-clinical services to support people who are at risk of frequently attending A&E.
- Increase sustained investment in non-clinical services that sit outside of clinical settings, including through VCSE providers.

NHS England should:

- Explore ways to embed appropriate activation - knowledge, skills and confidence that a person has to manage their own health - measures in ICB performance management frameworks, which will support an increased focus on prevention and the provision of community based services. Explicit measurement of high-quality community care service provision in addition to the focus on performance management of the acute and emergency care system should be appropriately reflected in the metrics in the NHS Oversight and Assessment Framework.

Department of Health and Social Care should:

- Simplify section 75 arrangements to make the Better Care Fund more accessible and improve integrated care. It should also be extended to a wider range of organisations including VCSE and housing.
- Explore ring-fenced funding options that boost sustained investment in non-clinical community-based services that help to meet the holistic needs of people who would be at risk of frequently attending A&E.



Areas for further analysis

While this research has shed considerable new light on patterns of frequent attendance, it has also highlighted areas requiring further exploration. These will deepen our understanding of the experiences of this group, and effective solutions to the issues they face, both within Dorset and across other ICSs – which would benefit from replicating this data analysis.

- Primary care

- The cohort frequently attending A&E has also frequently attended primary care beforehand, and that during a period of frequent attendance the use of primary care also increases alongside it. Professional workshop attendees felt this could be due to a lack of suitable primary care support, particularly for non-clinical needs, which primary care is not designed to address. They also flagged the possibility of people being on waiting lists for already-diagnosed conditions, but needing urgent support during the period of waiting.
- There needs to be further research on why these primary care interactions are not preventing frequent A&E attendance, and why they are actually increasing alongside A&E visits. Any such research would ideally identify what effective actions can be taken at primary-care level to prevent frequent A&E attendance, for example extending available appointment times.

- Mental health

- While this analysis allowed us to explore both the number and duration of mental health referrals, data on readmissions to mental health teams and on attendance rates was lacking, and should be examined further. Our analysis has not been able to definitively determine how effective these interventions are, and whether people are being caught in a referral loop, where being referred is viewed as a result in itself, even where no impactful change is achieved for the individual.
- Sector experts and those with lived experience highlighted that the age cut-off in CAMHS causes difficulties in continuity of support. It would be beneficial to explore the problem and potential solutions further.
- High thresholds for accessing services should be explored further, looking at the current picture in local areas, the rationale, the impact it has on people who need support, and potential solutions.



Appendix A: Analysis of linked datasets

This appendix provides information on our approach to the analysis of linked datasets in Dorset. We set out the steps we took to choose the location and research partner for the analysis. We also outline our approach to analysis, before setting out data definitions and limitations.

Area selection

During the scoping phase of the research in early 2023 we approached a number of ICSs about participating in this research. Dorset was selected due to the availability of high-quality linked data and the presence of a British Red Cross HIU service in the area. This allowed us to build on operational insights for the area, as well as easily identify people with lived experience of frequently attending A&E who wished to participate and who we could adequately support. Since our previous report *Nowhere else to turn*, ICSs had become statutory with the Health and Care Act 2022. We saw this as an opportunity to work with a specific ICS and explore it in detail, enabling a depth of insight that would not have been possible had the research been conducted on a national scale.

While patterns of frequent attendance will of course vary locally, we are confident that the insights in this report have broader implications and applicability. We expect them to contribute to the advancement of policy and practice across the whole health and care system in England, as well as more broadly across the devolved nations.

Research partner

The British Red Cross commissioned DiiS to conduct the data analysis that forms the basis of this research report.

Hosted by NHS Dorset, DiiS collects and collates data from a variety of sources across Dorset's health and social care system. This includes data from primary and secondary health services, social care services, public health, and demographics.

Dorset's population is distributed over two local authorities (Dorset Council and Bournemouth, Christchurch & Poole Council) and three NHS Foundation Trusts (University Hospitals Dorset, Dorchester County Hospital and Dorset Healthcare).

Approach to analysis

Case-control matching

- In Sections 2.1 to 2.7, we conducted a standard analysis of variance between different sub-groups

within the frequently attending population, combined with a case-control approach.

- The case-control approach involved matching the age and gender of every individual from the frequently attending population to an equivalent record in the same population pool of 770,527 in Dorset. Within this, where there were multiple matches, we used a random sampling method to select from within each pool. By using this undersampling approach we mitigated the risk of any distortion in comparing different group sizes and removed any gender and age bias.

Unsupervised machine learning

- We used an unsupervised machine-learning approach called K-Means clustering⁴⁵ to explore the identifiers and outcomes associated with frequent A&E attendance (this is outlined on page 57). K-Means was used to separate people into several cohorts, assigning them to the closest cohort to their varying characteristics. The optimal number of cohorts was created by using the elbow curve⁴⁶ method to test various numbers of cohorts ranging from 2 to 20.
- To understand the importance of features within each cluster, several approaches were assessed. CatBoost⁴⁷ – an algorithm for gradient boosting on decision trees – was selected as the best performing. From this we used SHAP⁴⁸ (SHapely Additive exPlanations) values to break down the prediction into the importance of each analysis feature. From within each pool. By using this undersampling approach we mitigated the risk of any distortion in comparing different group sizes and removed any gender and age bias.
- Outcomes were analysed two years after the end date of the period of frequent attendance (we chose two years as a compromise between long-term outcomes and data credibility – our data spanned a period of around five years, so extending beyond two years would have greatly reduced our sample size). Where this was not possible due to time limitations, the latest outcome information available was used.

Analysis of variance

- In Section 2.8, we assessed the variance of people frequently attending with a focus on how they were attending before, during and after Covid-19. We directly compared the means, rates and counts of a range of analysis factors to assess where there had been a change in a person's patterns of frequent attendance during Covid-19 and where patterns had been sustained or had continued to change post

Data definitions

Variable definitions

Acuity	The recorded levels of acuity in the emergency care data set (ECDS). These are immediate resuscitation, very urgent, urgent, standard, non-urgent and null (unknown).
Age	The last age the person reached according to primary care record, as at the end of the analysis period.
Arrival method at A&E	The recorded method of arrival in the ECDS.
Coastal area	Registered address is in a lower super output area (LSOA) within one mile of the coast.
Cohort One	People aged 70 or over who attend A&E frequently.
Cohort Two	People aged 20 to 49 who attend A&E frequently.
Minoritised ethnic groups	White British or unknown. Note this differs from the terminology used by NHS Dorset, which categorises this group as 'Community Minorities'. See below section on ethnicity data.
Presentation reason	The person's primary clinical reason for attending A&E, as recorded on the ECDS.
Frequently attending population	The 13,335 people who attended A&E frequently in Dorset during the investigation period (1 April 2018 - 31 October 2023).
GP appointments	All face-to-face and telephone/virtual primary care appointments on the primary care system.
Homeless	Someone who has been recorded as homeless in the past through a healthcare outreach service that enables access to a GP and other services for those who are homeless (see below section on historical LTCs and homelessness).
Index of Multiple Deprivation (IMD)	A measure of relative deprivation as defined by the Office of National Statistics. ⁴⁹
Long-term condition (LTC)	Long-term conditions are conditions for which there is currently no cure, and that are managed with drugs and other treatments. The recorded CTV3 read codes in the primary care record matched to quality and outcomes framework (QoF) registers. Read codes are a coded thesaurus of clinical terms used in the NHS.
Mental health referral duration	Time from referral opened to referral closed.
Mental health referrals	Data from the Mental Health Services Data Set (MHSDS).
Palliative care register	A record of people who have been recorded as at or near end of life within primary care.
Period of frequent attendance	A period where the volume of attendance is equal to or greater than five in a rolling year timeframe (see section below on frequent attendance periods).
Safeguarding	A record of safeguarding in the primary care record.
Sex	Registered sex according to primary care record (see section below on sex data).
Sustained frequent attendance	A period of frequent attendance lasting longer than 12 months.
Volume	The number of times a person attends A&E during a period of frequent attendance, categorised as low (5-10 attendances), medium (11-19 attendances) or high (20 or more attendances). Frequently attending people that had at least one period of 20 or more attendances are classed as high volume. Those that had at least one period of 11-19 attendances but no periods of 20 or more attendances are classed as medium and the remainder are low (at least one period of 5-10 attendances but no periods with 11 or more attendances).

Frequent attendance periods

Frequent attendance is traditionally defined by NHSE as five or more attendances at A&E within a calendar year. Some limitations of this definition are:

- Potential to overstate the timeframe for frequent attendance: for example, if a patient attends A&E ten times in three months with no attendances in the other nine months of the year, they would be classified as someone who frequently attends for the entire 12 months.
- Understating the number of people frequently attending around the beginning or end of the calendar year: for example, if a patient attends three times in December and three times in January they would not be classed as someone who frequently attends, despite visiting A&E six times in two months.

To address these limitations, we opted for a definition we felt more accurately reflected people's real-life experiences of frequent attendance:

- A period of frequent attendance: a period where the volume of attendance is equal to or greater than five in a rolling-year timeframe.
- Start date of a period of frequent attendance: the first attendance after a gap of at least six months in attendance.
- End date of a period of frequent attendance: the last attendance before a gap of at least six months in attendance.

Covid-19 time periods

Before Covid-19	1 April 2018 – 31 December 2019
During Covid-19	1 January 2020 – 31 December 2021
After Covid-19	1 January 2022 – 31 October 2023

The exact definition of Covid-19 time periods is open to interpretation. For the purpose of the analysis, we defined the 'during Covid-19' period as the entire calendar years of 2020 and 2021. This is because it was during these years that the pandemic began and the UK government's lockdowns and related measures were in effect.⁵⁰ In February 2022, the UK government removed all legal restrictions, including the legal requirement to self-isolate following a positive test.⁵¹ Therefore, we chose to define January 2022 onwards as the 'after Covid-19' period. A limitation of this approach is that counts from the different periods are not directly comparable as they vary in length.

Historical LTCs and homelessness

Some LTC diagnoses, including depression and hypertension, tend to remain active on someone's primary care record, and therefore may indicate historical rather than current conditions. For this reason, the term 'pre-existing condition(s)' has been used throughout the report to describe all LTCs – which may be either current or have concluded prior to the start of a period of frequent attendance.

Similarly, 'homeless' signifies a historical recording of homelessness in the dataset. For accuracy, these individuals have been described throughout the report as 'people with experience of homelessness'.

Mental health services

- Child and Adolescent Mental Health Services (CAMHS) offer assessment and treatment to children and young people up to the age of 18, and in some cases (although not in Dorset) up to the age of 25. However, CAMHS also support families and carers who need advice or help, therefore some referrals in Dorset may relate to people over the age of 18

- The 'crisis team' grouping is based on a number of mental health teams taken from the MHSDS dataset matched to Dorset Healthcare's team list. The following teams have been grouped as crisis teams:
 - Crisis Home Treatment Team
 - Crisis Response & Home Treatment West Team
 - Dedicated General Hospital Liaison (Crisis) – Liaison Bournemouth Dedicated General Hospital
 - Dedicated General Hospital Liaison (Crisis) – Liaison Dorset
 - Dedicated General Hospital Liaison (Crisis) – Liaison Poole Dedicated General Hospital
 - Home Treatment Team Forston
 - Home Treatment Team St Ann's
 - Out Of Hours West Dorset
 - The Connection

Other

- Where any of the research states an 'unknown' data entry this should be interpreted as 'not recorded' or 'refused'.
- All figures have been rounded to one decimal place except for values lower than 1 which have been rounded to 2 decimal places, where this level of detail was available.
- In charts showing mental health referral data, categories containing 40 or fewer units (periods) have been grouped together into an 'other' category. The exception is for Figures 30, 41, and 42 which have smaller base sizes; in these charts, categories containing 10 or fewer units (periods) have been grouped together into an 'other' category.
- Some of the data on A&E arrival method has also been grouped into an 'other' category due to small sample sizes (Figures 18, 19 and 20).

Data limitations

Non-Dorset registered patients

A key part of the analysis relies on primary care records, therefore only people registered with a GP in Dorset could be included.

Those living outside of Dorset ICS boundaries also cannot have their records linked to other data sources (except for acute hospital care). This means that the experiences of non-Dorset registered individuals (including tourists and residents of neighbouring counties Hampshire, Wiltshire, Somerset and Devon) could not be included in the analysis. Data from 2022/23 indicates this group of non-Dorset-registered individuals accounted for around 10.9 per cent of all hospital attendances, with variations by A&E location and time of year.

Sex data

Any reference to sex reflects what is recorded on someone's primary care record. These records are taken from the form that people complete when registering with a GP, which has two tick boxes 'male' and 'female'. This binary categorisation represents a limitation as it does not account for those who do not identify as male or female, or those who would prefer not to answer.

While it is possible for sex to be recorded as 'unknown' or 'indeterminate', this typically requires a specific request to the GP practice. Due to the very small number of individuals categorised as such, we focused exclusively on 'male' and 'female'. While this represents a limitation, it was essential to protect confidentiality.

Ethnicity data

The majority of people in Dorset are recorded as 'White British' or 'unknown' (indicating where data is not recorded or refused). Because of the small proportion of people being recorded as from minoritised ethnic groups (categorised by NHS Dorset as 'community minorities'), all other ethnicities are grouped together in our analysis. This group makes up about 13 per cent of the Dorset-registered population (for comparison, in the 2021 Census, 25.7 per cent of people in England and Wales identified their ethnic group as something other than White British⁵²). This represents a limitation with the data, as it does not enable a more nuanced understanding of the experiences of people from different ethnic groups.

Appendix B: Interviews and workshops

Research partner

The British Red Cross commissioned Innovation Unit to conduct interviews and facilitate workshops with key stakeholders in Dorset, building on insights derived from the analysis of linked datasets outlined above.

Interviews

Five semi-structured interviews were conducted with people with a history of frequently attending A&E to contextualise the findings and inform workshop design.

These interviews took place between November 2023 and March 2024. They were conducted in-person, online or over the phone, depending on participants' preferences. Each interview lasted around an hour. All interviews were audio-recorded and transcribed.

Participants were recruited via British Red Cross HIU services. Due to the challenges in recruiting people who frequently attend, not all participants lived in Dorset. However, all of them lived in the south of England (three in Dorset and two in Brighton). We recruited as diverse a sample as possible with regards to age, sex, ethnicity and experience, and were also led by the cohorts identified in the analysis of linked datasets. Due to the small sample size, it is not possible to generalise from the experiences of interview participants, but it was not our intention to do so.

Workshops

Two half-day, in-person, workshops were held in Dorset with key local and national stakeholders. These included representatives from Dorset's ICS, urgent and emergency care, public health, primary care, mental health, population health management, housing, social care, drugs and alcohol services, as well as NHSE HIU leads, British Red Cross HIU service leads, and colleagues from other VCS organisations working with people who experience health inequalities and multiple disadvantages.

The first workshop took place in January 2024 and was attended by 20 people. It aimed to generate insight to help understand and contextualise the data. British Red Cross presented key findings from the analysis of linked datasets. Innovation Unit then facilitated a series of small group discussions, including a creative ideation session using personas.

The second workshop took place in February 2024 and was attended by 27 people, 19 of whom had also attended the first workshop. The aim was to begin the process of co-designing potential solutions. Participants were presented with themes for solutions identified in the first workshop and developed further by the British Red Cross policy team. After workshop participants agreed on the themes, Innovation Unit facilitated several small group activities to hone them further. This included participants being split into groups of mixed professional expertise to discuss barriers and solutions, as well as any current work.

Data from the workshops was captured by facilitators sitting within each group taking notes, and by the participants themselves via sticky notes, worksheets and flipchart paper.

Recommendation development

Recommendations in this report are based on a combination of insights from the analysis of linked datasets, interviews, further conversations with local and national stakeholders, and workshops, as well as insights from British Red Cross operational and policy teams. They have gone through a series of refinements in cooperation with various stakeholders. The development of recommendations is always an iterative process. The British Red Cross will continue to refine them and work on their practical implementation with partners in Dorset and nationally.

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We are grateful to Dorset ICS for carrying out this work in partnership with us. We look forward to continuing to work together on the next steps to support people who are, or who are at risk of, frequently attending A&E. Special thanks go to the following individuals in Dorset for their invaluable support: Andrew Poole, Paul Wilding, Wilson Otitonaiye, Emma Wilson, Lou Crockett, Jane Simkin, Becky Whale, Janine Ord, Anita Counsell, Sam Crowe and Paul Johnson.

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⁵² Office for National Statistics (2022) statistical bulletin, Retrieved from: <https://www.ons.gov.uk/peoplepopulationandcommunity/culturalidentity/ethnicity/bulletins/ethnicgroupenglandandwales/census2021>

For more information, see [redcross.org.uk](https://www.redcross.org.uk) or
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