Enhance

Second Round Evaluation Report

Health and Care Evaluation Service

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Executive Summary

The Health and Care Evaluation Service were asked to conduct an evaluation of the Enhance Service in Leeds to develop a deeper understanding of two key areas about the Enhance service:

- Service User Demographics
- Supporting the Wider Health and Care System in Leeds

Service User Demographics

The evidence provided has presented a clear and consistent view that Enhance provides significant amount of support to elderly, frail residents of Leeds. Overall Enhance supports people in areas with higher levels of deprivation. The service supports large populations in the frailty, cancer, and long-term condition population cohorts, with many of those supported having multiple long-term conditions such as Hypertension, Osteoarthritis and Chronic Depression. In addition to this many have risk factors on their records and mild to moderate frailty with flags around Anaemia, Hypertension, being housebound, arthritis, CKD, and falls being most common across the populations.

Supporting the Wider Health and Care System in Leeds

There is evidence that the service is supporting the wider health and care system in Leeds through reducing A&E attendances, reducing hospital admissions, reducing readmissions, and supporting service users to use fewer bed days. This is based on statistically significant output from models using data six months before and after a person receives support for the Enhance service.

Conclusion & Recommendations

In conclusion, Enhance is supporting elderly and frail individuals across Leeds, specifically in areas of high deprivation. Statistical models suggest Enhance is supporting their service users to have fewer hospital admissions and if admitted have shorter hospital stays.

To develop a greater understanding of the topics highlighted in this report and further improve the Enhance service model, the Health and Care Service have developed the following set of recommendations:

- The programme steering group needs to consider if it wants to promote and continue the diversity of delivery model observed in this programme, or encourage the delivery partners to work toward a simple model with less variation;
- Delivery partners should continue to collect data on those they are supporting to give a clearer and more complete view of the service and its longer term benefits to the Leeds health and care system;
- The method and findings of this evaluation should be publicised and presented so it can be built on by other services;
- There should be further developments of the service to understand the benefits it brings to service users and the wider health and care system in Leeds using peer reviewed quality of life tools.

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Version Control

Version	Date	Author	Comments
0.01	07/03/2024	Gemma Howorth	1st Draft for Edits by Will Ridge
0.02	19/03/2024	Gemma Howorth	2nd Draft Following Comments by HaCE Team
Dv1.0	20/03/2024	Gemma Howorth	Draft for review by LOPF Colleagues
Fv1.0	28/03/2024	Gemma Howorth	Final Draft following review by LOPF

Terminology

LOPF – Leeds Older People Forum

Delivery Partners- 14 provider organisations which are contracted by Leeds Older People Forum to provide the Enhance service across Leeds

LCH – Leeds Community Healthcare NHS Trust

LDM – Leeds Data Model, the NHS Leeds linked data asset containing statuary and provider data

IMD – Indices of Multiple Deprivation

Report Structure

This report starts with a section describing the report and the Enhance service. This is followed by the two main results sections: Service User Demographics and Wider System Benefits, before a set of conclusions and recommendations.

Acknowledgments

Thank-you to all the people who contributed to the evaluation of the Enhance service. The following people were particularly important in this process:

Linda Glew (Programme Manager- LOPF), Lisa Fearn (Monitoring and Evaluation Officer- LOPF), Victoria Douglas-McTurk (Head of Business Intelligence and Performance- LCH), Allan Clay (Senior Information Analyst- LCH), Steve Creighton (Head of IG & DPO- LCH) and Michal Zybura (Information Manager (Business Intelligence- LCH).

We'd also like to thank all the delivery partners and people who consented for their information used in this evaluation.

1 About this report

Introduction

The Health and Care Evaluation Service have been asked to evaluate the Enhance service. This evaluation will identify the cohort the Enhance delivery partners support, along with the different populations they each support. Further analysis will be conducted on the impact of the Enhance service on the wider health and care system in Leeds.

Service Background

The Enhance programme supports the safe and sustainable discharge from hospital and neighbourhood teams into a secure home environment for older populations. It does this by creating links between Neighbourhood Teams with third sector organisations to enhance capacity in both sectors and avoid both delayed discharges and readmissions. Leeds Older People Forum (LOPF) are working with 14 third sector partners to deliver the service.

Enhance is part of a wider programme run by Leeds Community Health which aims to optimise the capacity of the health and social care sector by developing productive and strategic partnerships with the third sector. The programme will look at ways to support people in their own homes by working with third sector providers, Neighbourhood Teams and health and social care partners to improve the quality of care and overall experience for the individual.

Expected outcomes of this include:

1. Take a person-centred approach by coproducing flexible, effective and tailored cross-sector wrap-around welfare support which leads to improved outcomes for individuals
2. Empower more individuals to manage their own health needs and improve their own social connections, quality of life and/or wellbeing
3. Reduce pressure (planned and unplanned) on Neighbourhood Teams by investing in third sector services to complement clinical service provision
4. Develop stronger partnerships between third sector organisations and health and social care professionals in Leeds to support timely discharge from hospital and reduce pressure on the wider health system
5. Use a Test, Learn, Improve approach to build on our understanding of 'what works' in Leeds to develop partnership working with NTs, improve outcomes for individuals and to evaluate impact on individuals, NTs and the wider system

Aims and objectives of the evaluation

A set of evaluation subjects and indicators have been developed and are listed in below.

Table 1: Evaluation subjects and indicators	
Subject	**Indicators**
Service User Demographics	What are the demographics of those receiving support from Enhance? How frail are the individuals receiving support from Enhance? How many long-term conditions do the individuals receiving support from Enhance have? What are the demographics of those receiving support from each delivery partner?
Supporting the Wider Health and Care System in Leeds	Are Enhance service users experiencing fewer A&E attendances as a result of the support they receive from Enhance? Are Enhance service users making less emergency/ urgent care calls as a result of the support they receive from Enhance? Are Enhance service users experiencing fewer hospital readmissions following support from Enhance? Did Enhance service users use fewer inpatient bed days, in the six month following support, than individuals which have not received support from Enhance?

2 Service User Demographics

Data provided by delivery partners was joined to LCH referrals data and linked to the population health management cohort tables in the Leeds Data Model to provide summary statistics on the demographics of the cohort of individuals supported by Enhance. This linked data represents approximately 35% of the participants which have used Enhance since it began. This data is used to present the demographic data for the whole Enhance service.

Data from each delivery partner was then individually analysed to understand the similarities and differences in cohorts supported by delivery partners. Nine of the fourteen delivery partners provided data for the evaluation. Of the five delivery partners which did not provide data for the evaluation, three were not able to collect consent from participants to use their data for evaluation, and the others experienced contractual changes in year two of the Enhance programme precluding the need to collect consent. Delivery partners which provided data for analysis were Armley Helping Hands, Burmantofts Community Friends, Cross Gates and District Good Neighbours, Feel Good Factor, Health for All, Leeds Irish Health and Homes, MAECare, NET Garforth and Seacroft Friends and Neighbours. The amount of data provided by delivery partners ranged from 4 to 57, a comprehensive overview of the sample sizes is outlined in Appendix 1. A detailed demographic profile for each cohort supported by these delivery partners is described in Appendix 2.

Demographics of Enhance Cohort

Age by Gender

The Enhance cohort sample shows that they have been supporting more women than men (53.11% and 46.89% respectively). Figure 1 shows the age by gender split of the Enhance cohort. Figure 1 shows that across both men and women, the highest proportion of services users were aged 85 to 89 followed by individuals in the 75 to 79 age category.

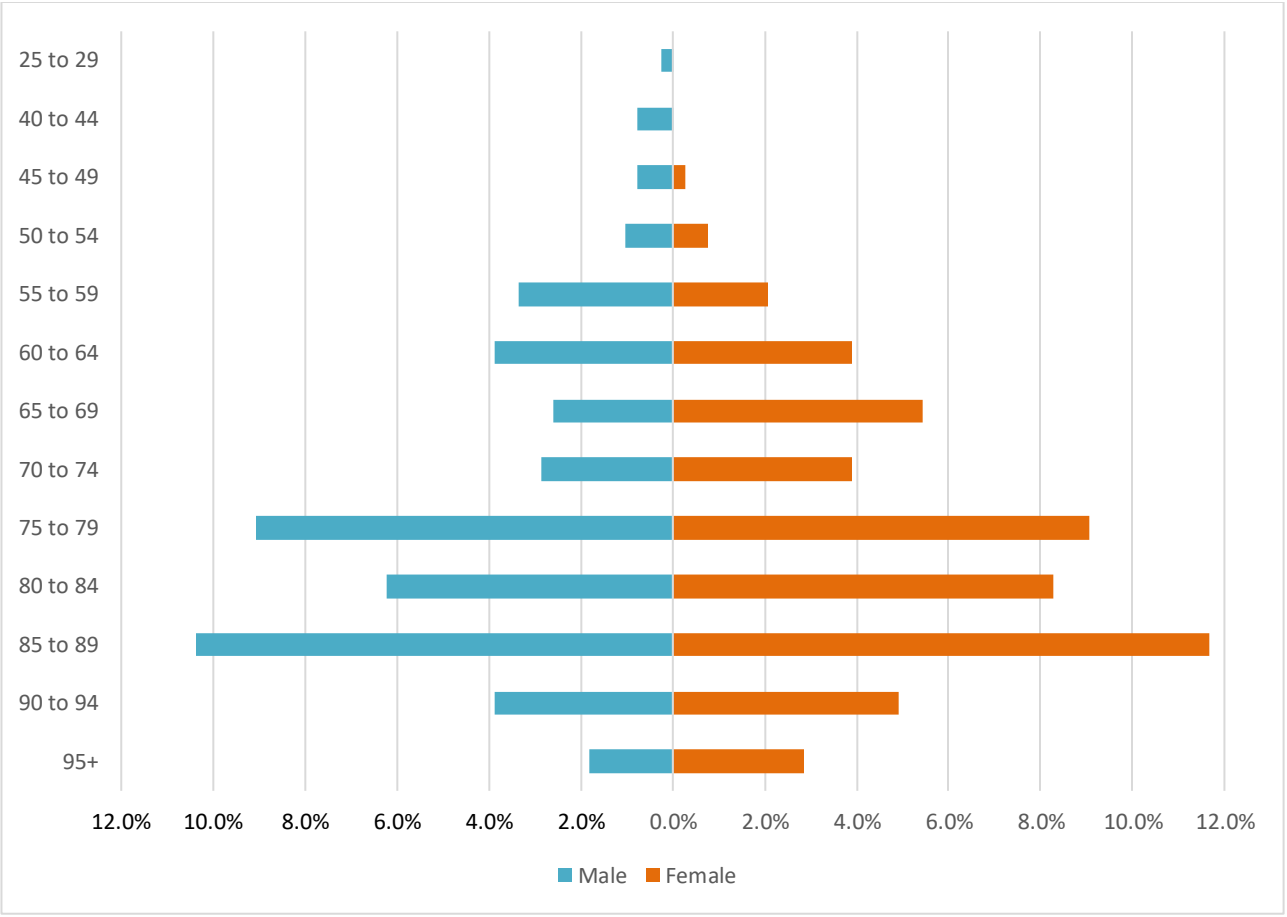

Figure 1: Proportion of Enhance Service Users in Each Age Category and Gender

Table 2 shows the average age of service users and proportion of service users with each gender supported by each delivery partner. This table shows that the delivery partner MAECare has the cohort with the highest average age, whilst delivery partner Burmantofts Community Friends has the youngest cohort.

Table 2: Average Age of Service Users and Proportion of Service Users with Each Gender Supported by Each Delivery Partner

Delivery Partner	Average Age of Service User (years)	Proportion of Male Service Users	Proportion of Female Service Users
Armley Helping Hands	73.2	56.36%	43.64%
Burmantofts Community Friends	67.7	50%	50%
Cross Gates and District Good Neighbours	80.9	35.48%	64.52%
Feel Good Factor	72.7	0%	100%
Health for All	76.9	33.33%	66.67%
Leeds Irish Health and Homes	81.9	50%	50%
MAECare	86.7	33.33%	66.67%

NET Garforth	75.9	60%	40%
Seacroft Friends and Neighbours	83.3	14.29%	85.71%

Ethnicity

Table 3 shows the proportion of service users in each ethnic category in the sample provided. 93.92% of individuals supported by Enhance were from a White ethnic background. 3.04% of Enhance service users were from an Asian ethnic background, and of these 80% were from identified as Indian or British Indian. 2.74% of services were from a Black ethnic background, and less than 1% of service users described themselves as being from a Mixed Ethnic Background. Table 4 shows the proportion of service users from each ethnic group supported by delivery partners.

Table 3: Proportion of Enhance Service Users in Each Ethnic Category

Ethnicity	Proportion of Service Users
White Background	**94.04%**
White British	85.09%
Other White Background	7.86%
White Irish	1.08%
Asian Background	**2.71%**
Indian or British Indian	2.17%
Pakistani or British Pakistani	0.27%
Other Asian Background	0.27%
Black Background	**2.71%**
Black Caribbean	1.08%
Black African	1.08%
Other Black Background	0.54%
Mixed Background	**0.54%**
Mixed - White and Black Caribbean	0.54%

Table 4: Proportion of Service Users from Each Ethnic Group Supported by Each Delivery Partner				
Delivery Partner	**Proportion of Service Users from a White Ethnic Background**	**Proportion of Service Users from an Asian Ethnic Background**	**Proportion of Service Users from a Black Ethnic Background**	**Proportion of Service Users from a Mixed Ethnic Background**
Armley Helping Hands	98.18%	0%	1.82%	0%
Burmantofts Community Friends	100%	0%	0%	0%
Cross Gates and District Good Neighbours	96.77%	3.23%	0%	0%
Feel Good Factor	66.67%	33.33%	0%	0%
Health for All	100%	0%	0%	0%
Leeds Irish Health and Homes	85.71%	7.14%	0%	7.14%
MAECare	100%	0%	0%	0%
NET Garforth	100%	0%	0%	0%
Seacroft Friends and Neighbours	100%	0%	0%	0%

IMD

Based on the sample provided 41.67% of Enhance service users were from IMD 1. The lowest proportion of service users were from IMD 9 and IMD 10 (3.65% and 3.39% respectively). This suggests that the Enhance cohort are predominantly supporting people from the most deprived areas of Leeds (Figure 2). This data is likely to be skewed by the delivery partners who have submitted data on the service.

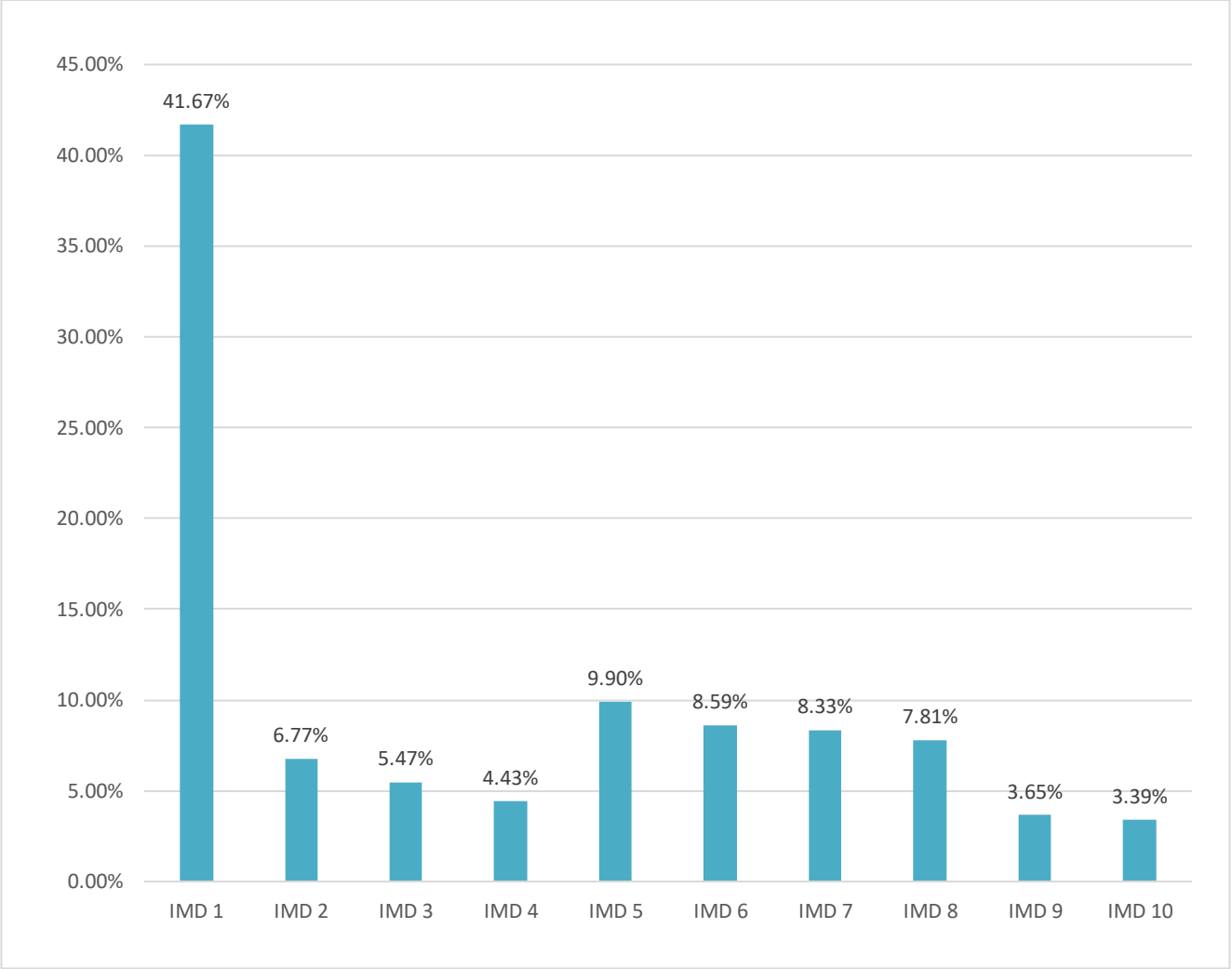

Figure 2: Proportion of Enhance Service Users in Each IMD Category

Figure 3 shows the proportion of service users from each IMD supported by each delivery partner. This figure indicates the variation across the cohorts supported by Enhance, with 100% of the cohorts supported by Feel Good Factor and Seacroft Friends & Neighbours being in IMD 1, compared to those supported by NET Garforth which were all in IMD 3 and above.

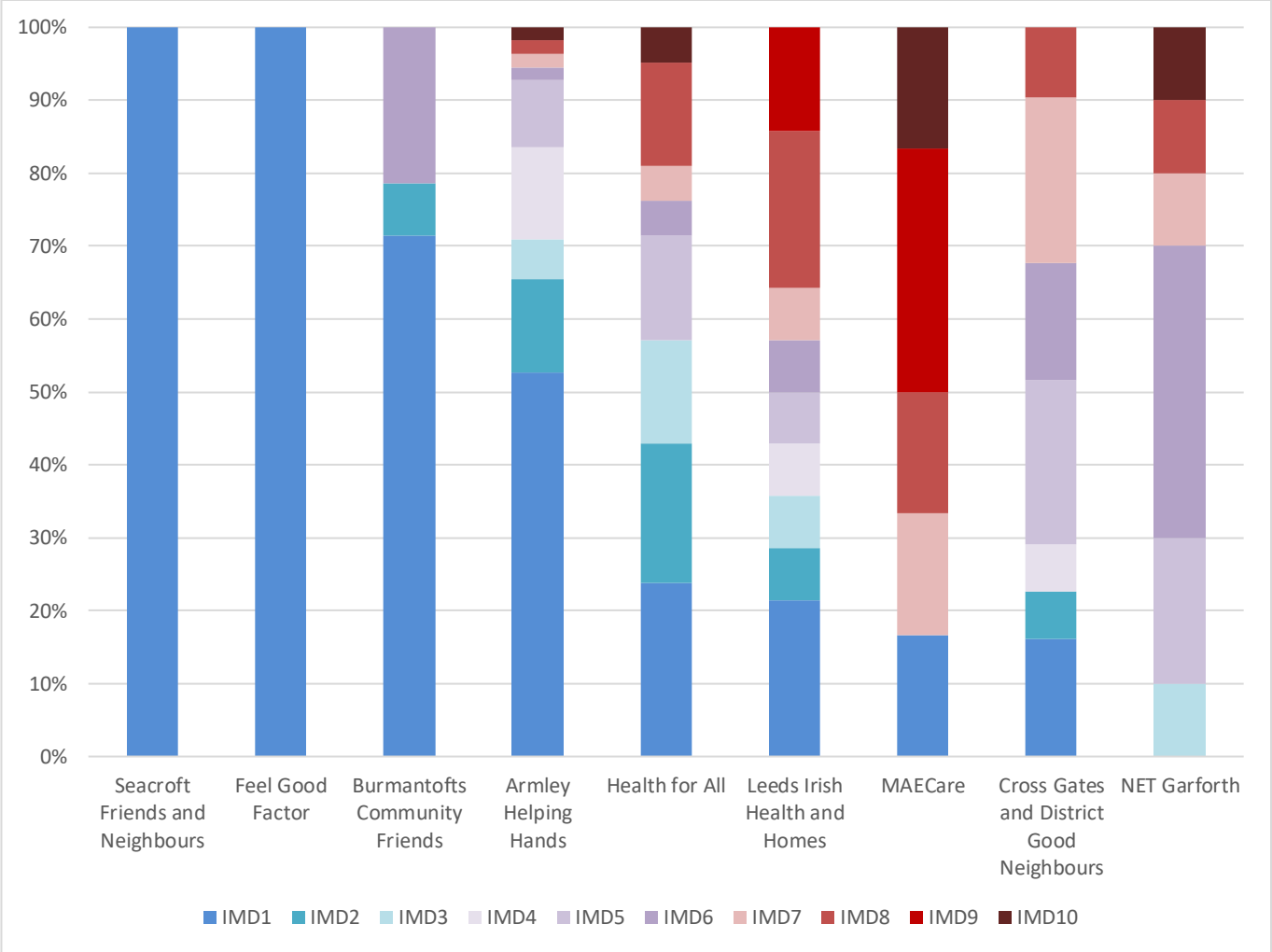

Figure 3: Proportion of Service Users from each IMD Supported by Each Delivery Partner

PCN

Figure 4 shows which PCNs Enhance service users in the sample data set are registered with. This shows that the highest proportion of service users were registered with Central North Leeds PCN (13.73%). 13.47% of service users were registered with Armley PCN. Over 10% of service users were registered with Burmantofts, Harehills & Richmond Hill (11.66%) and Cross Gates (10.36%) PCNs. Data collected suggests that less than 1% of service users were registered with Otley PCN (0.52%), Leeds Student Medical Practice & The Light PCN (0.26%), and Yeadon PCN (0.26%). This may be in part due to the delivery partners who submitted data for the evaluation but also suggests that these areas may have the lowest levels of engagement with the service.

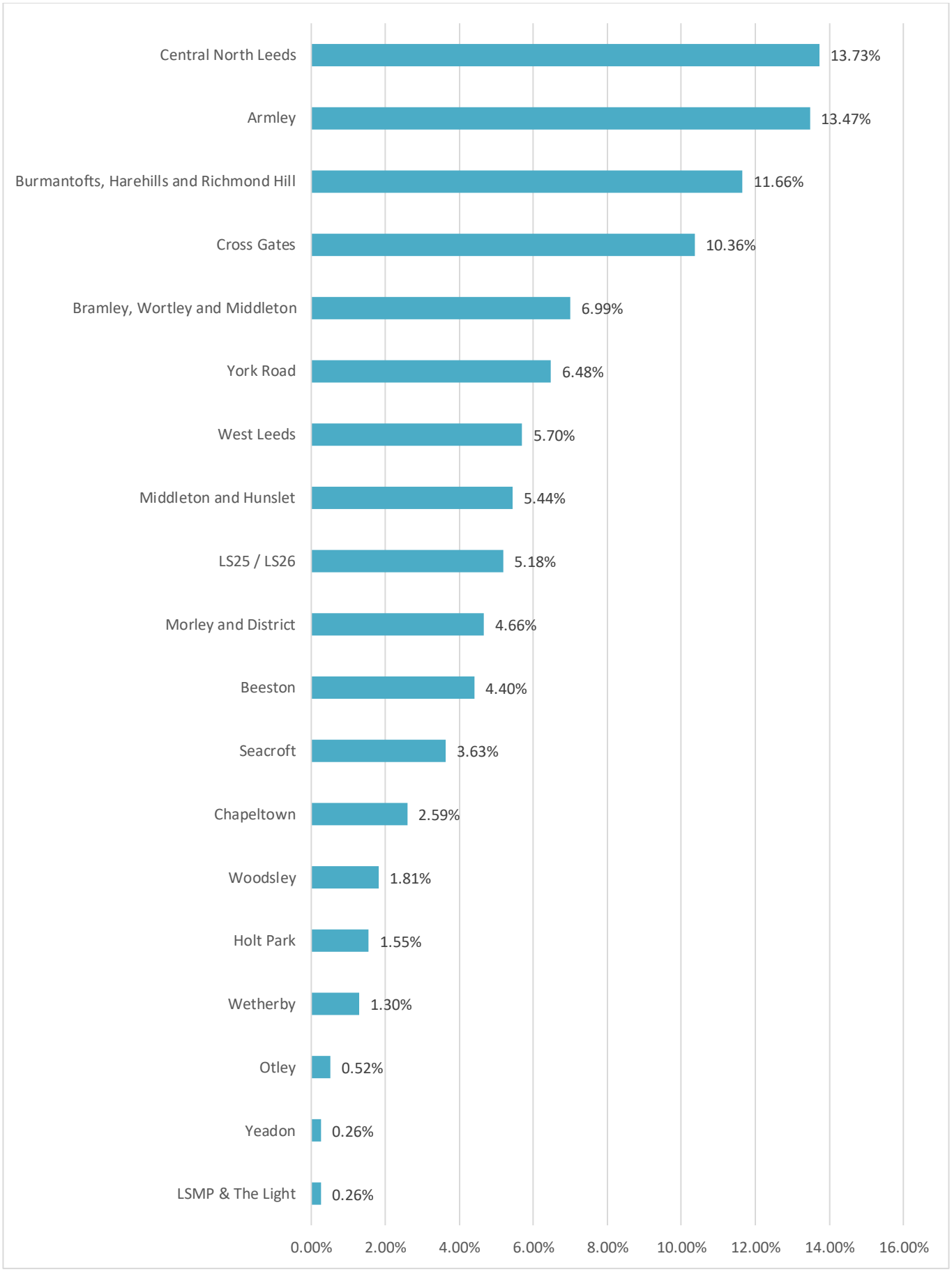

Figure 4: Proportion of Enhance Service Users Registered in Each PCN Locality

Population Segments

Figure 5 shows the proportion of service users in each population segment. The hierarchical segmentation model used by NHS West Yorkshire ICB in Leeds ensures that an individual can only be in one population segment at a time. The hierarchy of population segments is outlined in Table 5, which indicates that an individual with a cancer diagnosis and a serious mental illness diagnosis would be part of the serious mental illness population.

For the Enhance service, over half the of service users were in the frailty population cohort (58.55%), 14.25% were in the cancer population cohort, 11.40% were in the long-term conditions population cohort, 6.22% were in the serious mental illness cohort, 5.18% were in the end-of-life cohort, and less than 3% were in mostly healthy and learning disabilities & autism cohorts (2.59% and 1.81% respectively).

Table 5: Hierarchy of the Population Segmentation Model

Population Segment	Proportion of Enhance Service Users	Proportion of all Leeds patients	Colour in Figures 4
Children and Young People	0%	19.48%	
Maternity	0%	1.38%	
End of Life	5.18%	0.35%	
Serious Mental Illness	6.22%	1.40%	
Learning Disability and Autism	1.81%	0.63%	
Cancer	14.25%	3.19%	
Frailty	58.55%	7.13%	
Long Term Conditions	11.40%	27.40%	
Mostly Healthy	2.59%	39.04%	

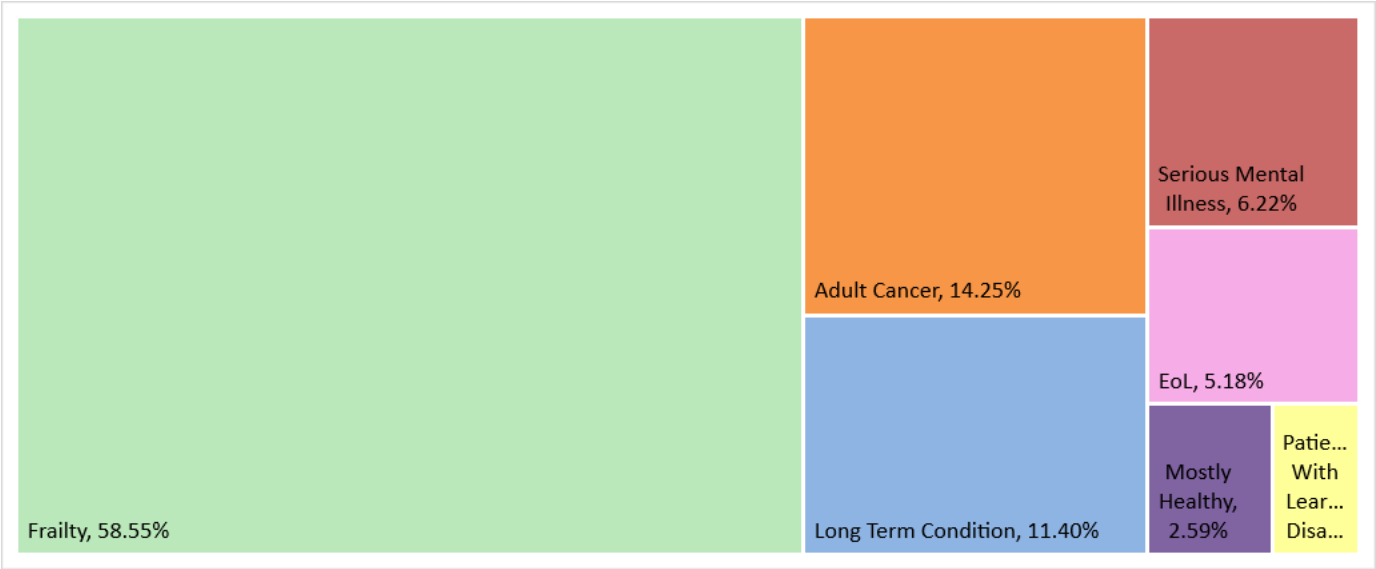

Figure 5: Proportion of Enhance Service Users in Each Population Segment

Table 6 shows the proportion of service users in each population cohort supported by each delivery partner. This table shows that there is a variation in the population cohorts supported by different delivery partners, with some delivery partners supporting individuals across multiple population cohorts and others supporting only individuals within the frailty cohort.

Table 6: Proportion of Service Users in Each Population Cohort Supported by Each Delivery Partner

Delivery Partner	Proportion of Service Users in Frailty population cohort	Proportion of Service Users in Long-Term Conditions population cohort	Proportion of Service Users in Cancer population cohort	Proportion of Service Users in Serious Mental Illness population cohort	Proportion of Service Users in End-of-Life population cohort	Proportion of Service Users in Mostly Healthy population cohort	Proportion of Service Users in Learning Disability and Autism population cohort
Armley Helping Hands	47.27%	21.82%	9.09%	7.27%	5.45%	5.45%	3.64%
Burmantofts Community Friends	35.71%	21.43%	21.43%	14.29%	0%	0%	7.14%
Cross Gates and District Good Neighbours	77.42%	3.23%	16.13%	3.23%	0%	0%	0%
Feel Good Factor	100%	0%	0%	0%	0%	0%	0%
Health for All	57.14%	4.76%	14.29%	19.05%	4.76%	0%	0%
Leeds Irish Health and Homes	71.43%	7.14%	21.43%	0%	0%	0%	0%
MAECare	66.67%	0%	33.33%	0%	0%	0%	0%
NET Garforth	70%	20%	0%	10%	0%	0%	0%
Seacroft Friends and Neighbours	71.43%	14.29%	0%	0%	0%	14.29%	0%

Long-Term Conditions

97.41% of service users had one or more long term condition. Figure 6 shows the proportion of service users with multiple long-term conditions. On average, service users had 4.89 long term conditions. Figure 7 shows the average number of long-term conditions present in the cohorts supported by each delivery partner. This figure shows that the cohort supported by Seacroft Friends and Neighbours have the highest average long-term condition count.

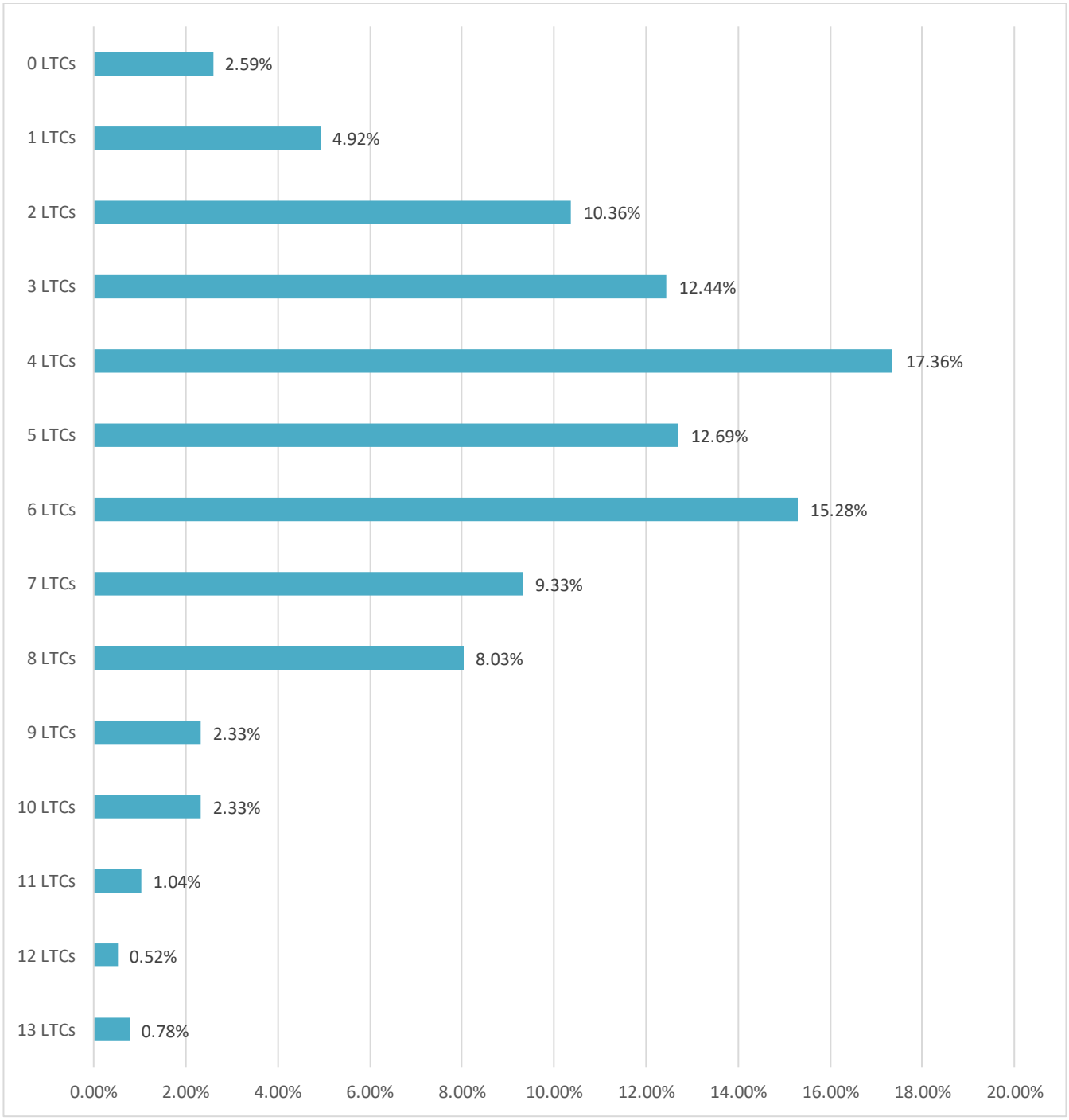

Figure 6: Proportion of Enhance Service Users with Multiple Long-Term Conditions

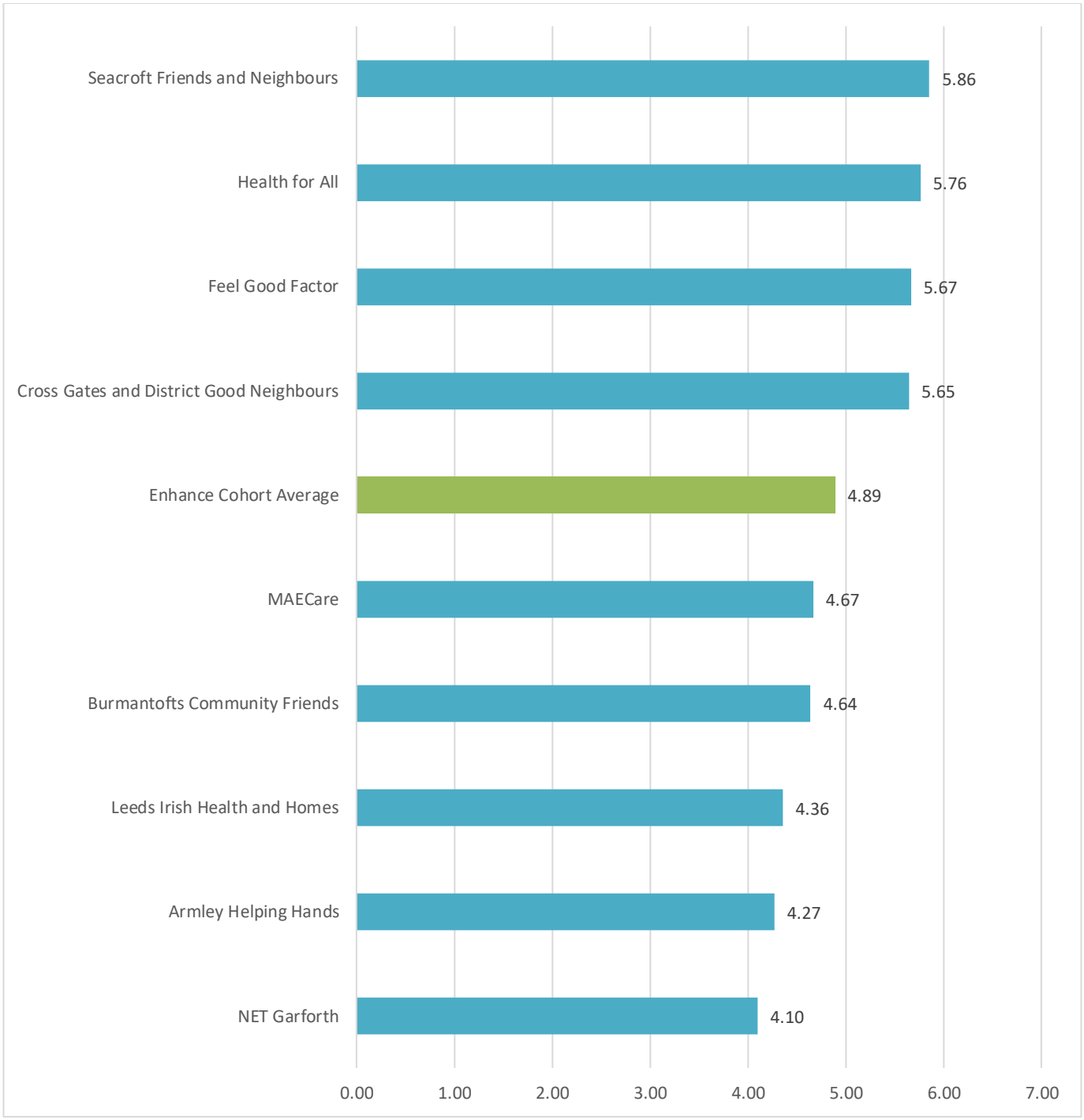

Figure 7: Average Long-Term Condition Count of the Service Users Supported by Each Delivery Partner

Figure 8 shows the proportion of service users diagnosed with each long-term condition. The most common long-term condition amongst the Enhance cohort was hypertension (diagnosed in 56.53% of service users) while 43.24% of service users had osteoarthritis and 31.53% had chronic depression. Table 7 outlines the two most prevalent long-term conditions in the cohorts supported by each delivery partner. This shows that hypertension is highly prevalent across cohorts supported by all delivery partners.

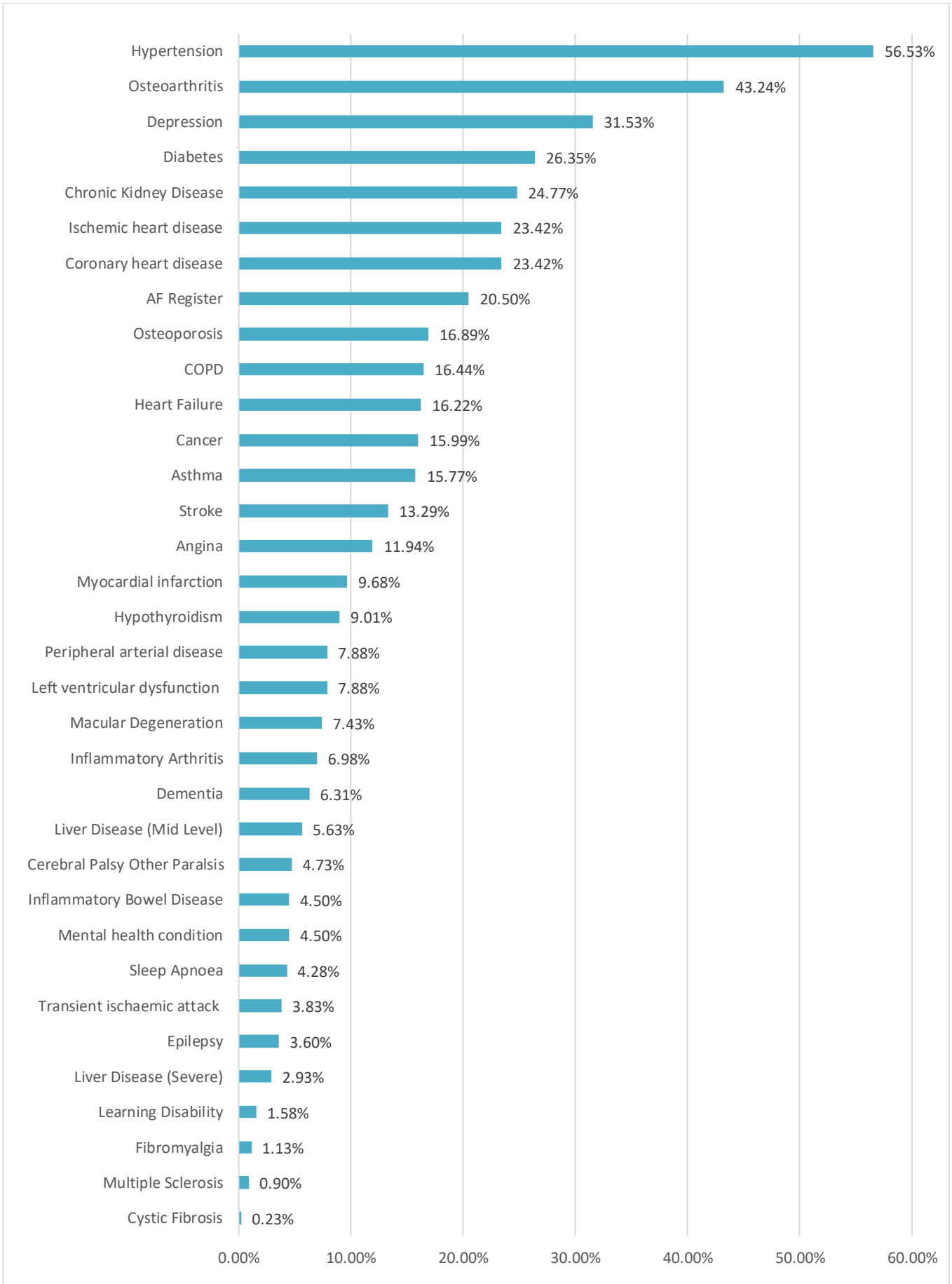

Figure 8: Proportion of Enhance Service Users with Each Long-Term Condition

Table 7: Most Prevalent Long-Term Conditions in the Cohorts Supported by Each Delivery Partner	
Delivery Partner	**Most Prevalent Long-Term Conditions (Prevalence)**
Armley Helping Hands	▪ Osteoarthritis (50.88%) ▪ Hypertension (43.86%)
Burmantofts Community Friends	▪ Depression (52.94%) ▪ Hypertension (52.94%)
Cross Gates and District Good Neighbours	▪ Hypertension (69.70%) ▪ Osteoarthritis (57.58%)
Feel Good Factor	▪ Osteoarthritis (75%) ▪ Osteoporosis (75%)
Health for All	▪ Hypertension (76.19%) ▪ Depression (66.67%)
Leeds Irish Health and Homes	▪ Hypertension (80%) ▪ Depression (40%)
MAECare	▪ Hypertension (66.67%) ▪ Osteoarthritis (66.67%)
NET Garforth	▪ Hypertension (72.73%) ▪ Chronic Kidney Disease (36.36%)
Seacroft Friends and Neighbours	▪ Hypertension (62.50%) ▪ Coronary Heart Disease (50%)

Risk Factors

There are known risk factors which are associated with a higher risk of developing long-term conditions and accelerating their progression. Interventions which target these risk factors may prevent, delay, or slow the progression of long-term conditions. Table 8 shows the proportion of service users with influential risk factors for long-term conditions. This table shows that according to their medical record over a third of service users smoke (39.64%), 28.15% have low level depression, and a quarter of service user have been flagged as needing community mental health support (26.35%).

Table 8: Proportion of Service Users with Influential Risk Factors for Long Term Conditions	
Risk Factor	**Proportion**
Smoking	39.64%
Low Level Depression	28.15%
Community Mental Health Indicator (No depression)	26.35%
Obesity	8.11%
Alcohol Consumption	4.73%
History of Self-Harm	2.25%

Frailty Levels

The level of frailty of the sample of Enhance service users, according to the Electronic Frailty Index, has been analysed. Figure 9 shows the proportion of service users in each frailty category. The largest group (30.6%) had a mild level of frailty. A quarter of service users (25.4%) were classified as moderately frail. 29.27% of service users were classified as severely frail. Only 14.77% of service users were classified as fit.

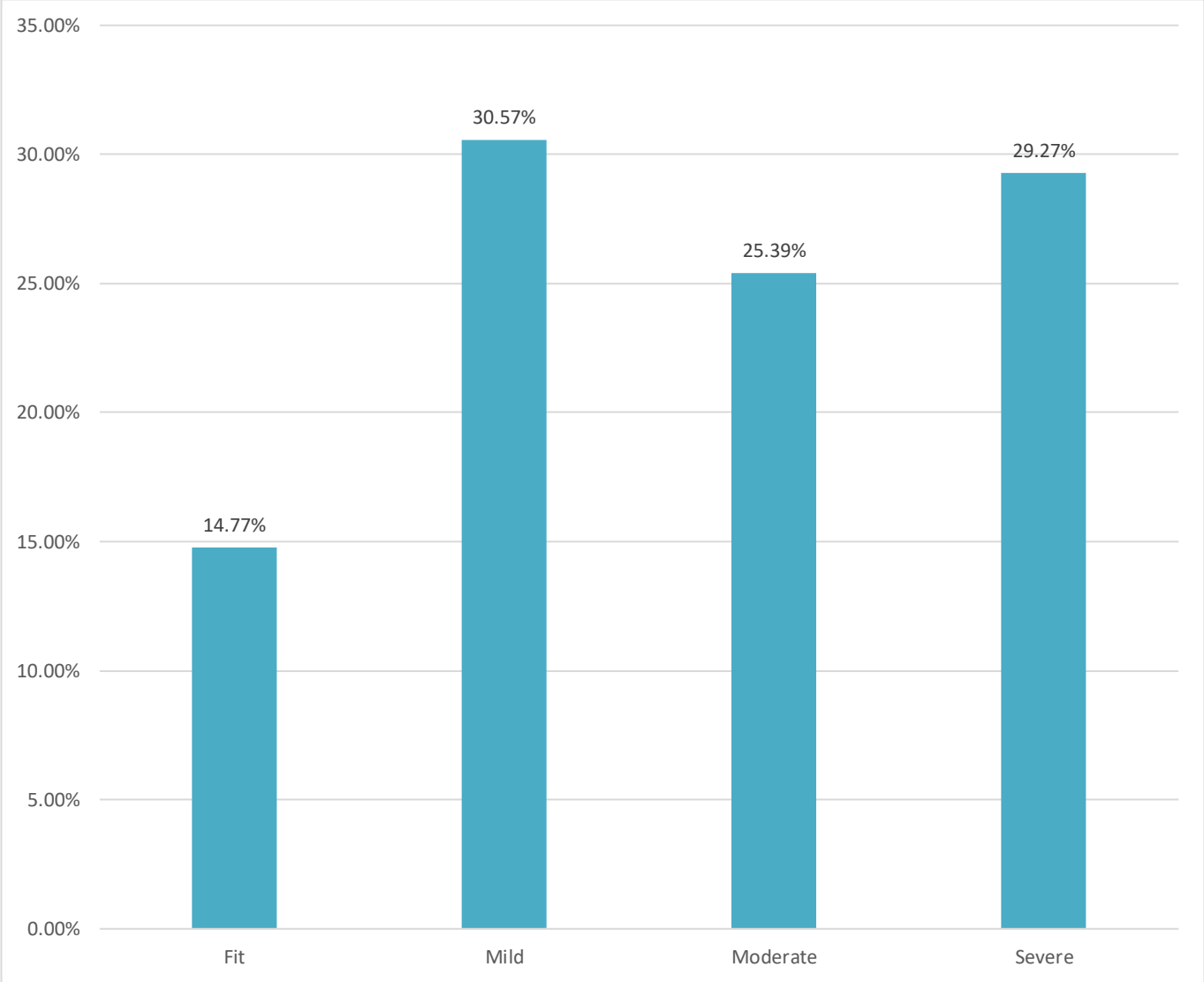

Figure 9: Proportion of Enhance Service Users in Each Frailty Category

Figure 10 shows the proportion of service users in the sample with multiple EFI frailty indicators recorded on their GP record. On average service users presented with 9.69 frailty indicators (out of a potential 36). Only 1.55% of service users had no frailty indicators recorded on their health records. Figure 11 shows the average number of frailty indicators recorded on the health records of the cohorts supported by each service user. This figure indicated that the cohort supported by Feel Good Factor are the most frail.

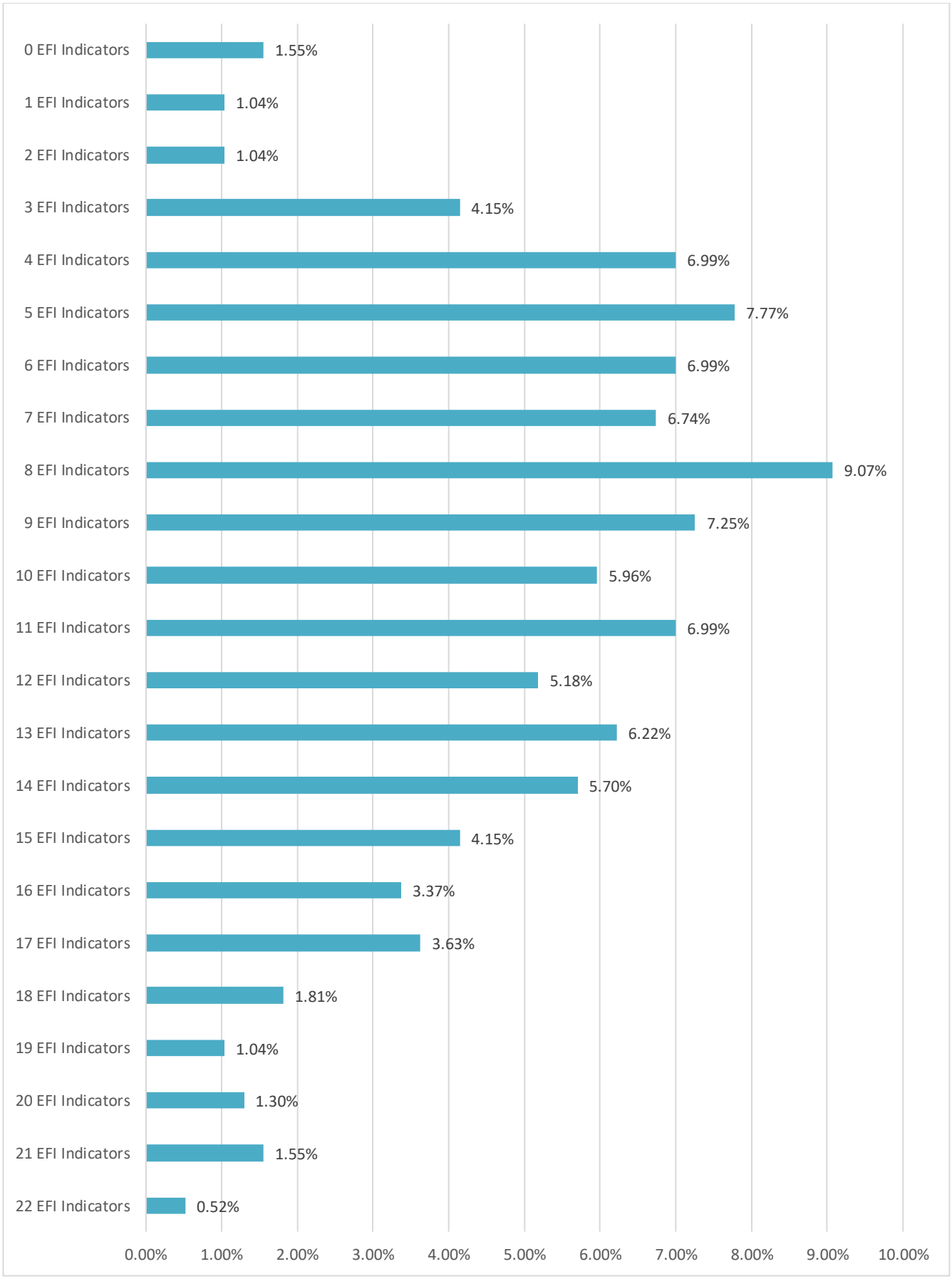

Figure 10: Proportion of Enhance Service Users with Multiple EFI Indicators

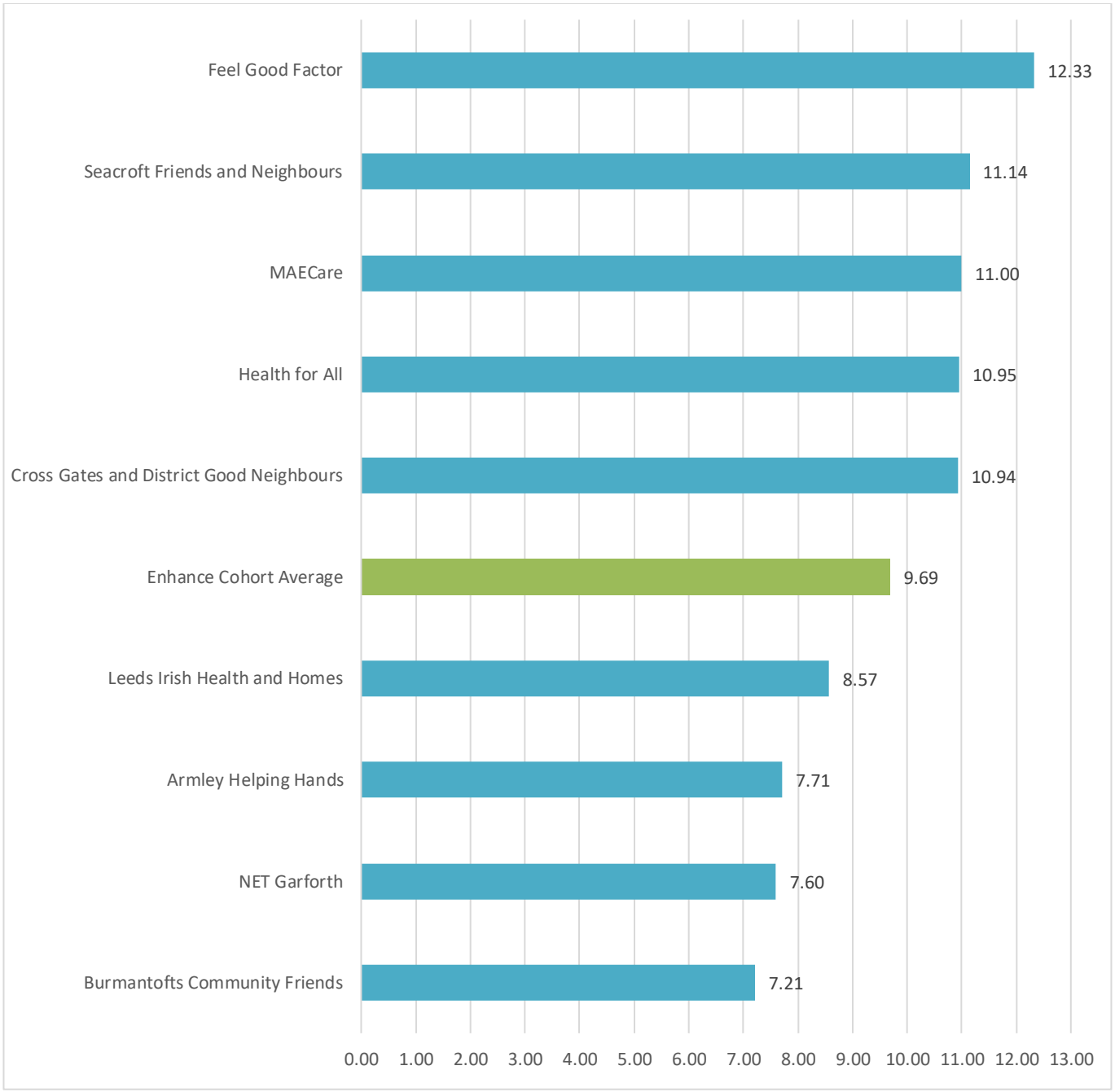

Figure 11: Average Frailty Indicator Count of the Service Users Supported by Each Delivery Partner

Figure 12 shows the proportion of service users with each EFI indicator recorded on their health record. Over half of the service users had hypertension, and anaemia/ haematinic deficiency; 44.14% had arthritis and 42.12% had chronic kidney disease. A high proportion of service users were recorded as being housebound (45.27%) and having a history of falls (40.77%).

Table 9 outlines the most prevalent EFI indicators in the cohorts supported by each delivery partner. This table demonstrates the variation in conditions which delivery partners are supporting, however hypertension and arthritis are prevalent across the majority of cohorts. For greater detail on the frailty indicators present across each cohort, see Appendix 2.

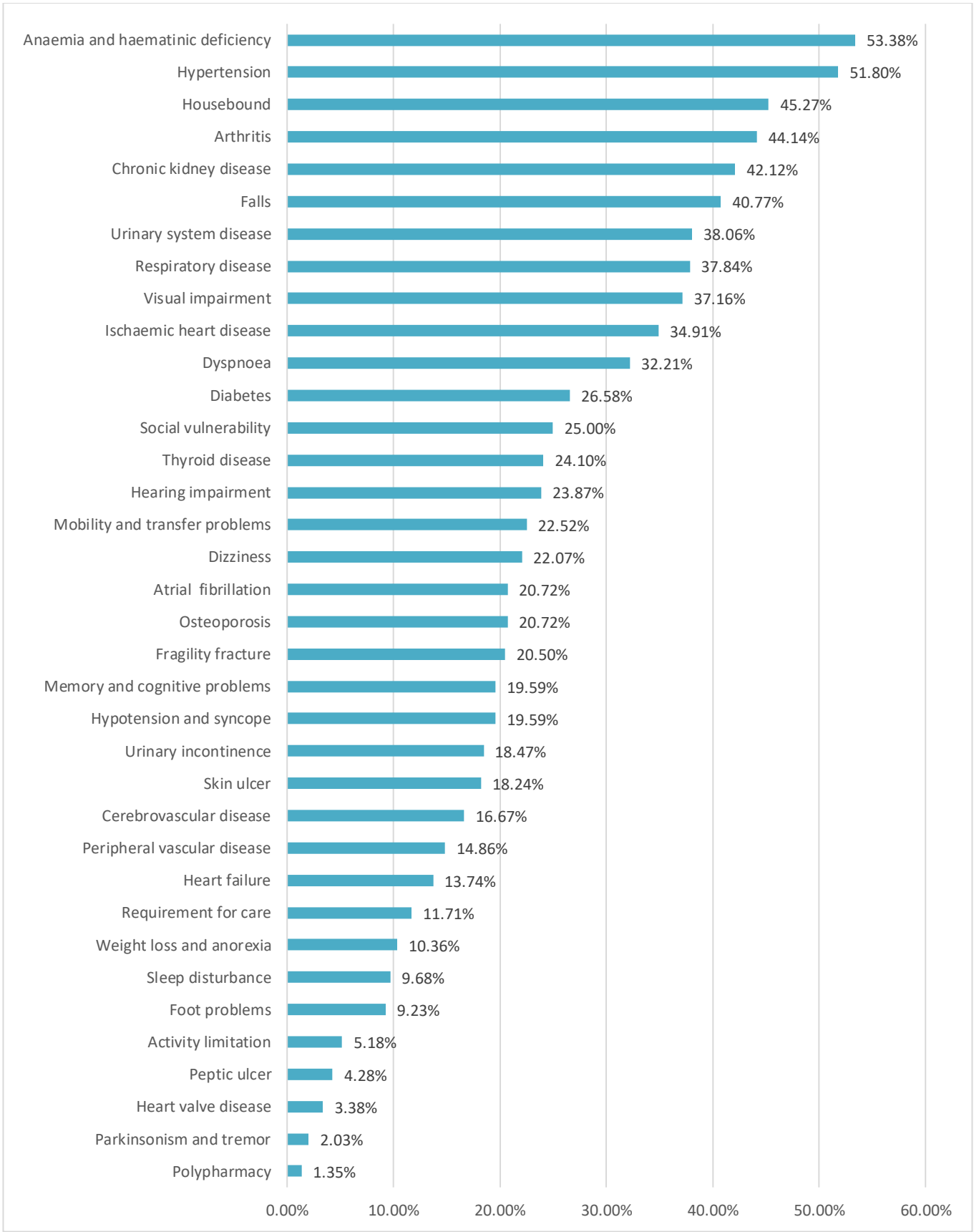

Figure 12: Proportion of Service Users with Each Frailty Indicator

Table 9: Most Prevalent Frailty Indicators in the Cohorts Supported by Each Delivery Partner	
Delivery Partner	**Most Prevalent EFI Frailty Indicators (Prevalence)**
Armley Helping Hands	▪ Anaemia and haematinic deficiency (61.40%) ▪ Arthritis (49.12%) ▪ Hypertension (40.35%)
Burmantofts Community Friends	▪ Hypertension (52.94%) ▪ Anaemia and haematinic deficiency (47.06%) ▪ Arthritis (35.29%)
Cross Gates and District Good Neighbours	▪ Hypertension (69.70%) ▪ Arthritis (57.58%) ▪ Ischaemic heart disease (57.58%)
Feel Good Factor	▪ Arthritis (75%) ▪ Falls (75%) ▪ Osteoporosis (75%)
Health for All	▪ Hypertension (76.19%) ▪ Depression (66.67%) ▪ Osteoarthritis (61.90%)
Leeds Irish Health and Homes	▪ Hypertension (80%) ▪ Anaemia and haematinic deficiency (53.33%) ▪ Visual Impairment (53.33%)
MAECare	▪ Anaemia and haematinic deficiency (66.67%) ▪ Arthritis (66.67%) ▪ Falls (66.67%)
NET Garforth	▪ Hypertension (63.64%) ▪ Anaemia and haematinic deficiency (54.55%) ▪ Mobility and transfer problems (36.36%)
Seacroft Friends and Neighbours	▪ Housebound (75%) ▪ Visual Impairment (75%) ▪ Arthritis (62.50%)

4 Supporting the Wider Health and Care System in Leeds

Using linked data from the Leeds data model, logistic regression models were run to understand how support from Enhance effected an individual's healthcare usage, with a specific focus on A&E attendances, use of emergency calls and inpatient hospital stays.

A&E Attendances

Data collected on the number of A&E attendances each individuals had six months before first contact with Enhance and six months after showed that on average service users attended A&E 1.43 times in the six months before support from Enhance, and this reduced to 1.37 attendances following support. Output from logistic regressions models show that there is a 29% probability (OR = -0.88, p p<0.05) that an individual would attend A&E less following support from Enhance.

Overall, these results suggest that Enhance may be supporting service users to reduce their A&E attendance following support from their service.

Emergency and Urgent Care Calls

Data collected on the number of 999, 111 and other urgent health service calls[1] each individual made six months before first contact with Enhance and six months after showed that on average service users made 1.74 calls to 999 before support from Enhance, which slightly increased to 1.94 calls following support. A similar trend was observed in 111 and other urgent health service calls; individuals made 1.10 calls on average within the six months before support, which slightly increased to 1.46 calls following support. Output from logistic regression models were not statistically significant for this dataset suggesting a high degree of variation within this dataset.

As this increase in emergency and urgency care calls does not correlate with increase in A&E attendances or hospital admissions (see below), further research is recommended to understand the reason behind the increase in emergency and urgent care calls in this cohort.

Inpatient Hospital Stays

Hospital Admissions

Data collected on the number of hospital inpatient admissions each individual had six months before first contact with the Enhance service and six months after show that on average service users had 1.52 admissions before support from Enhance, and this reduced to an average of 1.26 admissions following support. 20.94% of Enhance service users were admitted to hospital within 6 months of the first contact with the Enhance service. Output from logistic regression models show that the probability that an individual would be readmitted to hospital reduced by 35% (OR= -0.60, p<0.05) following support from Enhance.

Overall, these results suggest that Enhance may be supporting service users to stay out of hospital following support from their service.

Bed Days

[1] Other services included in this dataset include the police, fire service, council health care professionals, nursing homes, and other ambulance services.

Data collected on the number of inpatient bed days used by individuals supported by Enhance six months before the beginning of their support and six months following support shows that the average bed days used before support from Enhance was 13.96 days, with an average cost per hospital stay of £4,007.75[2]. Following support from Enhance this reduced to 9.18 days, with an average cost per hospital stay of £3,519.39. Output from logistic regression models show that there was a 34.6% probability that an individual will use fewer bed days during an inpatient stay following support from Enhance (OR= -0.52, $p<0.05$). Through the support Enhance provide, service users may be healthier when they are admitted to hospital. Service users may also feel more supported to leave hospital sooner, however further research is required to understand this association fully.

[2] Based on NHS England Tariff costs

5 Conclusion and recommendations

Conclusions

This evaluation has addressed two key areas about the Enhance service:

- Service User Demographics
- Supporting the Wider Health and Care System in Leeds

The evidence provided has presented a clear and consistent view that Enhance provides significant amount of support to elderly, frail residents of Leeds. Based on the sample data provided for the evaluation, the populations supported by Enhance are generally aged 75 or older and the majority are from a white ethnic background- broadly in line with the make up of this age group. Overall Enhance does support more people in areas with higher levels of deprivation. The service supports large populations in the cancer, frailty and long term condition population cohorts, with many of those supported having multiple long term conditions such as Hypertension, Osteoarthritis and Chronic Depression. In addition to this many have risk factors on their records and mild to moderate frailty with flags around Anaemia, Hypertension, being housebound, arthritis, CKD, and falls being most common across the populations.

The different delivery partners support a range of populations broadly in line with the locality they support for example in Seacroft the service supports an older population with a greater level of frailty and deprivation than Garforth where the population supported is markedly less deprived and frail. The range and variation across the delivery partners is a strength of the model in that the nature of the support provided is relevant to the population of that locality. This can make it difficult to carry out 'simple' comparison of the delivery partners due to the significant diversity in how the service is delivered and to whom. This is, in part at least, a product of the populations and geographies the service supports.

Further work could be done to look at the success of these different models and to consider if it would be beneficial to have a more consistent, one size fits all approach or to allow, and potentially encourage the diversity across the different localities and delivery partners.

Finally, there is some emerging evidence that the service is supporting the wider health and care system in Leeds through reducing A&E attendances, reducing hospital admissions, reducing readmissions, and supporting service users to use fewer bed days. This is based on statistically significant output from models using data six months before and after a person receives support for the Enhance service.

Recommendations

The following section includes a set of recommendations for the development of the Enhance service model:

- The programme steering group should consider if it wants to promote and continue the diversity of delivery model observed in this programme, or encourage the delivery partners to work toward a simple model with less variation;
- Delivery partners should continue to collect data on those they are supporting to give a clearer and more complete view of the service and its longer term benefits to the Leeds health and care system;

- The method and findings of this evaluation should be publicised and presented so it can be built on by other services;
- There should be further developments of the service to understand the benefits it brings to service users and the wider health and care system in Leeds using peer reviewed quality of life tools.

Appendix 1: Evaluation Approach

Method overview

Table 10: Method Overview		
Strand	**Activity**	**Volume/ sample**
Quantitative data on the people accessing Enhance	Activity data provided by Enhance from January 2022 to December 2023 inclusive.	There were 444 individuals included in the linked Enhance dataset.
Quantitative data on people accessing Enhance via each delivery partner	Delivery partners provided data to the linked dataset including NHS numbers of their service users	9 delivery partners provided data: There were 57 individuals included in the Armley Helping Hands dataset. There were 17 individuals included in the Burmantofts Community Friends dataset. There were 33 individuals included in the Cross Gates and District Good Neighbours dataset. There were 4 individuals included in the Feel Good Factor dataset. There were 21 individuals included in the Health for All dataset. There were 15 individuals included in the Leeds Irish Health and Homes dataset. There were 6 individuals included in the MAECare dataset. There were 11 individuals included in the NET Garforth dataset. There were 8 individuals included in the Seacroft Friends and Neighbours dataset.
Linked data in the Leeds Data Model	Activity data was linked via the Leeds data model to demographic data, SUS inpatient datasets, SUS A&E datasets, and Yorkshire Ambulance Service callouts datasets.	There were 444 data points linked on the demographics data, corresponding to all individuals. There were 2478 data points linked on the SUS inpatient dataset, corresponding to 376 individuals. There were 703 data points linked on the SUS A&E dataset, corresponding to 251 individuals. There were 1156 data points linked on the Yorkshire Ambulance Service callout dataset, corresponding to 242 individuals.

Appendix 2: Demographic Profile of Service Users Supported by Each Delivery Partner

Breakdown by delivery partner

The following section provides a brief breakdown of data by the nine different delivery partners who submitted data for this evaluation. It provides an analysis of the demographics of the populations, frailty levels and long-term conditions for each delivery partner. There is a significant amount of variation in the sample sizes provided by different delivery partners with the largest covering 57 individuals and the smallest four. When data is presented broken down by delivery partners the findings related to those who have submitted larger samples will be more robust and reliable than those who have presented smaller samples.

Armley Helping Hands

Armley Helping Hands provided a sample of 57 individuals to the linked dataset. This accounts for a sample of 29.38% of the participants which have used this delivery partner since Enhance began. The sample provided indicates that 56.36% of the service users supported by this delivery partner were male, and 43.64% were female. The average age of individuals supported by Armley Helping Hands was 73 years old. 98.18% of the sample population were from a White ethnic background, and 1.82% were from a Black ethnic background.

For the cohort of individuals supported by this delivery partner, almost half were in the frailty population (47.27%), 21.82% were in the long-term conditions population cohort, 9.09% were in the cancer population cohort, 7.27% were in the serious mental illness cohort, 5.45% were in the mostly healthy cohort and the same amount were in end-of-life cohort. 3.64% of individuals supported by this delivery partner were in the learning disabilities and autism population cohort.

Over half of the service users supported by this delivery partner were from IMD 1 (52.73%). The majority of individuals were registered with Armley PCN (54.55%), 21.82% were registered with Bramley Wortley & Middleton PCN, a fifth of service users were registered with West Leeds PCN and 3.64% were Burmantofts, Harehills & Richmond Hill PCN.

Frailty Levels

A third of individuals supported by this delivery partner were classified as fit and 30.91% were classified as having a mild level of frailty. There were 18.18% of service users supported by this delivery partner classified as moderately frail and severely frail respectively. On average service users supported by this delivery partner presented with 7.71 frailty indicators, which is below the overall sample average of 9.69 frailty indicators.

61.40% of service users supported by this delivery partner had anaemia & haematinic deficiency. Almost half of the cohort had arthritis, and 40.35% had hypertension. Over a third of this cohort were recorded as being housebound, having respiratory disease, urinary system disease (38.60% respectively).

Long Term Conditions

94.74% of service users had one or more long term condition. On average, service users supported by this delivery partner had 4.27 long term conditions, which is slightly below the average seen in the overall sample (4.89 long term conditions). This cohort had high levels of influential risk factors for long-

term conditions. Over half of this cohort smoke (54.39%), 31.58% have low level depression, over a third of service user have been flagged as needing community mental health support (35.09%), and 10.53% had low level obesity. The most common long-term condition amongst the individuals supported by this delivery partner was osteoarthritis (diagnosed in 50.88% of service users). 43.86% of service users had hypertension and 35.09% had chronic depression.

Burmantofts Community Friends

Burmantofts Community Friends provided a sample of 17 individuals to the linked dataset. This accounts for a sample of 13.28% of the participants which have used this delivery partner since Enhance began. The sample provided indicates that half the cohort supported by this delivery partner were male and half were female. The average age of individuals supported by Burmantofts Community Friends was 67.7 years old. All of the sample population were from a White ethnic background.

For the cohort of individuals supported by this delivery partner, over a third were in the frailty population (35.71%), 21.43% were in the long-term conditions population cohort and the same proportion were in the cancer population cohort. 14.29% were in the serious mental illness cohort, and 7.14% of individuals supported by this delivery partner were in the learning disabilities and autism population cohort.

71.43% of the service users supported by this delivery partner were from IMD 1, and a quarter were from IMD 6 (21.43%). The majority of individuals were registered with Burmantofts, Harehills & Richmond Hill PCN (42.86%), and 28.57% were registered with York Road. Individuals supported by this delivery partner were also registered by Woodsley, Seacroft, Bramley Wortley & Middleton, and Leeds Student Medical Practice & The Light PCNs.

Frailty Levels

Almost two thirds of service users supported by Burmantofts Community Friends were classified as having a mild level of frailty (64.29%). There were 14.29% of service users supported by this delivery partner classified as moderately frail and 7.14% classified as severely frail. On average service users supported by this delivery partner presented with 7.21 frailty indicators, which is below the overall cohort average of 9.69 frailty indicators.

Over half of service users supported by this delivery partner presented with the frailty indicator hypertension (52.94%), 47.06% had anaemia & haematinic deficiency. Over a third of this cohort were recorded as having frailty indicators associated with arthritis, hypotension, chronic kidney disease, respiratory disease, and ischaemic heart disease.

Long Term Conditions

All service users supported by this delivery partner had one or more long term condition. On average, service users supported by this delivery partner had 4.64 long term conditions, which is slightly below the average seen in the Enhance cohort (4.89 long term conditions). Influential risk factors for long-term conditions in this cohort included low level depression (52.94%), smoking (47.06%), requiring community mental health support (29.41%), excessive alcohol consumption (11.76%) and obesity (11.76 The most common long-term condition amongst the individuals supported by this delivery partner were hypertension and chronic depression (52.94%). Another common condition in this cohort was

osteoarthritis, with over a third of service users support by Burmantofts Community Friends being diagnosed with it (35.29%)

Cross Gates and District Good Neighbours

Cross Gates and District Good Neighbours provided a sample of 33 individuals to the linked dataset. This accounts for a sample of 34.02% of the participants which have used this delivery partner since Enhance began. The sample provided indicates that 64.52% of the cohort were female and 35.48% were male. The average age of individuals supported by Cross Gates and District Good Neighbours was 81 years old. 96.77% of the sample population were from a White ethnic background, and 3.23% were from an Asian ethnic background.

For the cohort of individuals supported by this delivery partner, three quarters of the cohort were in the frailty population (77.42%), 16.13% were in the cancer population cohort, 3.23% were in the long-term conditions population cohort and the same proportion were in the serious mental illness population cohort (3.23%).

The greatest proportion of service users supported by this delivery partner were from IMD 5 and IMD 7 (22.58%). 16.13% of the cohort were from IMD 1. The majority of individuals were registered with Cross Gates PCN (67.74%). Individuals supported by this delivery partner were also registered with Burmantofts, Harehills & Richmond Hill PCN (12.90%), York Road PCN (12.90%), and Seacroft PCN (6.45%).

Frailty Levels

There was an equal proportion of service users supported by Cross Gates and District Good Neighbours which were classified as having a mild and severe levels of frailty (35.48% respectively). A quarter of this cohort were classified as moderately frail. Only 3.23% of service users supported by this delivery partner were classified as fit. On average service users supported by this delivery partner presented with 10.94 frailty indicators, which is above the overall Enhance cohort average of 9.69 frailty indicators.

The most common frailty indicator recorded in this cohort was hypertension (69.70% service users). Over half of service users supported by this delivery partner recorded as having frailty indicators associated with arthritis (57.58%), ischaemic heart disease (57.58%), urinary system disease (57.58%) and chronic kidney disease (54.55%). Other common frailty indicators observed in this cohort were visual impairment (45.45%), dizziness (42.42%), and a history of falls (42.42%).

Long Term Conditions

All service users supported by this delivery partner had one or more long term condition. On average, service users supported by this delivery partner had 5.65 long term conditions, which is higher than the average number of long-term conditions observed in the overall Enhance cohort (4.89 long term conditions). Influential risk factors for long-term conditions in this cohort included smoking (39.39%), requiring community mental health support (30.30%), low level depression (15.15%), and obesity (9.09%). Hypertension and osteoarthritis were the most common long-term conditions diagnosed in the cohort supported by Cross Gates and District Good Neighbours (69.70% and 57.58% respectively). 39.39% of this cohort had diabetes, and 36.36% had chronic kidney disease. Cardiovascular diseases were also common amongst this cohort, specifically diagnoses of coronary heart disease (42.42%), ischaemic heart disease (42.42%), and angina (30.30%) were common in this cohort.

Feel Good Factor

Feel Good Factor provided a sample of 4 individuals to the linked dataset. This accounts for a sample of 12.12% of the participants which have used this delivery partner since Enhance began. The sample cohort was female only. Data provided suggests that the average age of individuals supported by Feel Good Factor was 73 years old. 100% of this cohort were in the frailty population. 66.67%% of the cohort were from a White ethnic background, and 33.33% were from an Asian ethnic background, on service user did not supply an ethnicity. The sample cohort were all registered with Chapeltown PCN and from IMD 1.

Frailty Levels

Two thirds of the cohort supported by Feel Good Factor were classified as being moderately frail, whilst 33.33% were considered to be severely frail. On average service users supported by this delivery partner presented with 12.33 frailty indicators, which is above the overall Enhance cohort average of 9.69 frailty indicators. The most common frailty indicators recorded in this cohort were osteoporosis, arthritis and a history of falls (75% of service users respectively). Half of service users supported by this delivery partner recorded as having frailty indicators associated with visual impairment, dizziness, hypotension, anaemia & haematinic deficiency, dyspnoea, respiratory disease, thyroid disease, and urinary incontinence.

Long Term Conditions

Data suggest that all service users supported by this delivery partner had one or more long term conditions. On average, service users supported by this delivery partner had 5.67 long term conditions, which is higher than the average number of long-term conditions observed in the overall Enhance cohort (4.89 long term conditions). There were high proportion of influential risk factors observed in the sample cohort with 50% of the cohort being smokers, and 25% being obese, 25% having a history of self-harm, 25% having low level depression, and 25% requiring community mental health support. The most common long-term conditions diagnosed in this cohort were osteoporosis and osteoarthritis (75% of service users). Other common long-term conditions diagnosed in this cohort were asthma, COPD, and chronic depression (50% of service users respectively).

Health for All

Health for All provided a sample of 21 individuals to the linked dataset. This accounts for a sample of 10.66% of the participants which have used this delivery partner since Enhance began. The sample provided indicates that 66.67% of the service users supported by this delivery partner were female, and 33.33% were male. The average age of individuals supported by Health for All was 77 years old. All of the sample population were from a White ethnic background.

For the cohort of individuals supported by this delivery partner, 57.14% were in the frailty population, 19.05% were in the serious mental illness cohort, 14.29% were in the cancer population cohort, and less than 5% of the individuals supported by this delivery partner were in the mostly healthy and the end-of-life cohorts (4.76% respectively).

Most of the service users supported by this delivery partner were from IMD 1 and IMD 2 (23.81% and 19.05% respectively). The majority of individuals were registered with Morley and District PCN (47.62%), 19.05% were registered with Middleton and Hunslet PCN, 14.29% were registered with LS25/26 PCN,

14.29% were registered with Beeston PCN and 4.76% were registered with Bramley, Wortley and Middleton PCN.

Frailty Levels

A third of service users in this delivery partner's sample were classified as moderately frail and another third were classified as severely frail. 23.81% were classified as having a mild level of frailty. Only 9.52% were classified as fit. On average service users supported by this delivery partner presented with 10.95 frailty indicators, which is above the overall Enhance cohort average of 9.69.

Two thirds of service users supported by Heath for All had the frailty indicators associated with hypertension, respiratory disease, and being housebound recorded on their health records. 61.90% of service users had frailty indicators associated with falls, arthritis, and anaemia & haematinic deficiency. Other common frailty indicators observed in the service users supported by Health for All were visual impairment (47.62%), dyspnoea (47.62%), urinary system disease (52.38%), and chronic kidney disease (42.86%).

Long Term Conditions

All of service users supported by Health for All had one or more long term condition. On average, service users supported by this delivery partner had 5.76 long term conditions, which is above the average seen in the Enhance cohort (4.89 long term conditions). This cohort had high levels of influential risk factors for long-term conditions. 61.90% had low level depression, over a quarter of service user have been flagged as needing community mental health support (28.57%), 23.81% were smokers, and 9.52% had low level obesity. The most common long-term condition amongst the individuals supported by this delivery partner was hypertension (diagnosed in 76.19% of service users). Two thirds of service users had chronic depression and 61.90% had osteoarthritis. A third of service users had been diagnosed with diabetes, and a third of service users supported by this delivery partner had osteoporosis.

Leeds Irish Health and Homes

Leeds Irish Health and Homes provided a sample of 15 individuals to the linked dataset. This accounts for a sample of 18.99% of the participants which have used this delivery partner since Enhance began. The sample provided indicates that half the cohort supported by this delivery partner were male and half were female. The average age of individuals supported by Leeds Irish Health and Homes was 82 years old. 85.71% of the cohort were from a White ethnic background, 7.14% were from an Asian ethnic background, and 7.14% of the cohort described themselves as being from a Mixed ethnic background.

For the cohort of individuals supported by this delivery partner, 71.43% were in the frailty population, 21.43% were in the cancer population cohort and 7.14% were in the long-term conditions cohort.

21.43% of the service users supported by this delivery partner were from IMD 1, however 21.43% were also from IMD 8. 14.29% of the service users were from IMD 9. The majority of individuals were registered with Central North PCN (64.29%), and 21.43% were registered with Burmantofts, Harehills and Richmond Hill PCN. Individuals supported by this delivery partner were also registered by Woodsley and Chapeltown PCNs.

Frailty Levels

The greatest proportion of service users supported by Leeds Irish Health and Homes were classified as having mild levels of frailty (42.86%). 35.71% of this cohort were classified as moderately frail,

and 14.29% were classified as severely frail. Only 7.14% of service users supported by this delivery partner were classified as fit. On average service users supported by this delivery partner presented with 8.57 frailty indicators, which is below the overall Enhance cohort average of 9.69 frailty indicators.

The most common frailty indicator recorded in this cohort was hypertension (80% service users). Over half of service users supported by this delivery partner recorded as having frailty indicators associated with visual impairment (53.33%) and anaemia & haematinic deficiency (53.33%). Other common frailty indicators observed in this cohort were a history of falls (46.67%), being housebound (40%), ischaemic heart disease (40%) and urinary system disease (40%).

Long Term Conditions

All service users supported by this delivery partner had one or more long term condition. On average, service users supported by this delivery partner had 4.36 long term conditions, which is lower than the average number of long-term conditions observed in the overall Enhance cohort (4.89 long term conditions). Influential risk factors for long-term conditions in this cohort included smoking (40%), requiring community mental health support (20%), and low-level depression (13.33%). Hypertension was the most common long-term conditions diagnosed in the cohort supported by Leeds Irish Health and Homes (80%). 40% of this cohort had diabetes, and 33.33% had osteoarthritis.

MAECare

MAECare provided a sample of six individuals to the linked dataset. This accounts for a sample of 8.33% of the participants which have used this delivery partner since Enhance began. The sample provided indicates that 66.67% of the cohort were male and 33.33% were female. The average age of individuals supported by MAECare was 87 years old. All of the sample population were from a White ethnic background. Two thirds of the cohort supported by this delivery partner were in the frailty population (66.67%), and one third were in the cancer population cohort (33.33%).

The greatest proportion of service users supported by this delivery partner were from IMD 9 (33.33%). 83.33% of service users were from IMD deciles 7 to 10. Only 16.67% of the cohort were from IMD 1. The majority of individuals were registered with Central North PCN (66.67%), and a third of individuals supported by this delivery partner were registered with Burmantofts, Harehills & Richmond Hill PCN.

Frailty Levels

Half of service users supported by MAECare were classified as having severe levels of frailty. A third of this cohort were classified as having mild levels of frailty, and 16.67% were classified as moderately frail. No service users supported by this delivery partner were classified as fit. On average service users supported by this delivery partner presented with 11 frailty indicators, which is above the overall Enhance cohort average of 9.69 frailty indicators.

The frailty indicators associated with falls, being housebound, osteoporosis, arthritis, and anaemia & haematinic deficiency were recorded in two thirds of the service users supported by MAECare. Half of the service users were recorded as having fragility fractures, visual impairment, memory or cognitive problems, respiratory disease, urinary system disease, chronic kidney disease, dyspnoea, and hypertension.

Long Term Conditions

All service users in this delivery partner's sample had one or more long term condition. On average, service users supported by this delivery partner had 4.66 long term conditions, which is slightly lower than the average number of long-term conditions observed in the overall Enhance cohort (4.89 long term conditions). Influential risk factors for long-term conditions in this cohort included requiring community mental health support (33.33%) and smoking (16.67%). Hypertension and osteoarthritis were the most common long-term conditions diagnosed in the cohort supported by MAECare (66.67% of service users).

NET Garforth

NET Garforth provided a sample of 11 individuals to the linked dataset. This accounts for a sample of 12.09% of the participants which have used this delivery partner since Enhance began. The sample provided indicates that 60% of the cohort were male and 40% were female. The average age of individuals supported by NET Garforth was 76 years old. All of the sample population were from a White ethnic background. 70% of the cohort supported by this delivery partner were in the frailty population, 20% of the cohort were in the long-term conditions cohort and 10% were in the serious mental illness population cohort.

The greatest proportion of service users supported by this delivery partner were from IMD 6 (40%). 30% of service users were from IMD deciles 7 to 10. No service users in this cohort were from IMD 1. The majority of individuals were registered with LS25/26 PCN (90%), and 10% were registered with Seacroft PCN.

Frailty Levels

30% of service users supported by NET Garforth were classified as having mild frailty. A fifth of this cohort were classified as having moderate levels of frailty, and another fifth were classified as severely frail. 30% service users supported by this delivery partner were classified as fit. On average service users supported by this delivery partner presented with 7.6 frailty indicators, which is below the overall Enhance cohort average of 9.69 frailty indicators.

63.64% of service users supported by NET Garforth had the frailty indicator hypertension. Over half had anaemia & haematinic deficiency were recorded on their medical records (54.55%). Other common frailty indicators observed in this cohort were of the service users were atrial fibrillation, ischaemic heart disease, dyspnoea, chronic kidney disease, urinary system disease, and mobility & transfer issues.

Long Term Conditions

All service users supported by this delivery partner had one or more long term condition. On average, service users supported by this delivery partner had 4.66 long term conditions, which is slightly lower than the average number of long-term conditions observed in the overall Enhance cohort (4.89 long term conditions). Influential risk factors for long-term conditions in this cohort included smoking (54.55%), requiring community mental health support (45.45%), and low-level depression (27.27%). Hypertension was the most common long-term conditions diagnosed in the cohort supported by NET Garforth (72.73% of service users). Over a third of service users had chronic kidney disease and 36.36% had chronic depression.

Seacroft Friends and Neighbours

Seacroft Friends and Neighbours provided a sample of eight individuals to the linked dataset. This accounts for a sample of 13.11% of the participants which have used this delivery partner since Enhance began. The sample provided indicates that 85.71% of the cohort were female and 14.29% were male. The average age of individuals supported by Seacroft Friends and Neighbours was 83 years old. All of the sample population were from a White ethnic background. Most of the cohort supported by this delivery partner were in the frailty population (71.43%), 14.29% were in the long-term conditions population cohort, and 14.29% were in the mostly healthy population cohort.
All of the cohort were from IMD 1. The majority of individuals were registered with Cross Gates PCN (57.14%), 28.57% of individuals supported by this delivery partner were registered with Seacroft PCN, and 14.29% were registered with York Road PCN.

Frailty Levels

Over half of service users supported by Seacroft Friends and Neighbours were classified as having severe levels of frailty (57.14%). 14.29% of this cohort were classified as having mild levels of frailty. 28.57% of service users supported by this delivery partner were classified as fit. On average service users supported by this delivery partner presented with 11.14 frailty indicators, which is above the overall Enhance cohort average of 9.69 frailty indicators.

The frailty indicators associated with visual impairment and being housebound were recorded in three quarters of the service users supported by Seacroft Friends and Neighbours. 62.5% of service users were recorded as having arthritis. Half of the service users were recorded as having frailty indicators associated with hearing impairment, respiratory disease, hypertension, and ischaemic heart disease.

Long Term Conditions

All service users supported by this delivery partner had one or more long term condition. On average, service users supported by this delivery partner had 5.87 long term conditions, which is higher than the average number of long-term conditions observed in the overall Enhance cohort (4.89 long term conditions). This cohort had high levels of influential risk factors for long-term conditions. Half of the service users have been flagged as needing community mental health support, 37.5% were smokers, and 12.5% had low level depression. Hypertension was the most common long-term conditions diagnosed in the cohort supported by Seacroft Friends and Neighbours (62.5% of service users). Half of the individuals supported by Seacroft Friends and Neighbours had been diagnosed with osteoarthritis. Cardiovascular diseases were also common amongst this cohort, half of the cohort had long term condition diagnoses of coronary heart disease, ischaemic heart disease, and atrial fibrillation.