Hertfordshire and West Essex Integrated Care System

NHS Hertfordshire and West Essex Integrated Care Board

Primary Care Networks
Overview Pack

BROXBOURNE ALLIANCE PCN

Pack produced - January 2023 - NHS Hertfordshire & West Essex ICB

Produced by Hertfordshire & West Essex ICB's - Population Health Management & Public Health Teams

Working together
for a healthier future

Population Health Management

NHS Hertfordshire and West Essex Integrated Care Board

Population Health Management (PHM) is a partnership approach across the NHS and other public services including councils, the public, schools, fire service, voluntary sector, housing associations, social services and police. All have a role to play in addressing the interdependent issues that affect people's health and wellbeing.

The coronavirus (COVID-19) pandemic has further highlighted the known link between poorer health outcomes, ethnicity and deprivation. Integrated care systems, working with the local authority and the voluntary sector, have used PHM to identify people who need more support and those with the most complex needs within their localities, so that efforts can be targeted to protect certain populations through personalised care models, public health advice, testing and vaccination programmes.

For the public, it should mean that health and care services are more proactive in helping people to manage their health and wellbeing, provide more personalised care when it's needed and that local services are working together to offer a wider range of support closer to people's homes.

For doctors, nurses, social care, therapists and other frontline staff, this should mean greater support and insight from integrated care systems to enable care and support to be designed and proactively delivered to meet individual needs – it should mean less duplication and a reduction in workload pressures as it ensures the right care is given at the right time by the right person.

For local councils, health care managers and clinicians who commission services – greater understanding of the local population will ensure they can better predict what residents need. PCNs are key to this, as health and care providers work together and take collective responsibility for the care and support offered to improve outcomes, they can use their resources to keep people healthier.

Source: HWE PHM Team, Cerner, England.nhs.uk

Key Messages

Hertfordshire and West Essex Integrated Care Board

Broxbourne Alliance PCN can be seen with a slightly younger population profile compared to England. The younger adults ages 25-39 are less than the National average. About 50% of people live within the 5 most deprived deciles (1-5).

28.4% population have at least 1 Long Term Condition. 5.7% have more than 5 LTCs compared to 5.6% for the ICB.

The population pyramid shows a similar profile to England for those living with long term .

Wider determinants analysis from Public Health Evidence and Intelligence shows Broxbourne Alliance is amongst the most deprived PCNs within the ICB across all indicators apart from Fuel poverty.

The spread of patients for Broxbourne Alliance PCN indicates 24.92% of the population are not located within the Hertfordshire & West Essex boundaries, the PCN has the 4th highest rate of all East & North PCNs; this means that this population may be accessing services outside of the ICB and the impact of coterminous alignment with neighbouring ICBs must be taken into account for this population by the PCN.

Expected population growth for Broxbourne adjusted for the Local Authority forecasts shows continued increase between 2023 through to 2034 which will bring additional demands for healthcare. Projections show an expected increase in the number of people over 65 from ~18k to ~20k.

When analysing the underlying Segmentation Model data the conditions with highest per 1,000 registered prevalence that are highlighted for Broxbourne Alliance PCN are Cancer, Hypertension, Obesity, Heart disease and Chronic Cardiac disease. Urgent & Emergency Care in 2022/23 for Broxbourne Alliance A&E Attendance rates per 1,000 population, is slightly below the place rate.

When looking at the ACS conditions for Broxbourne the highest volume and cost is within the End of Life, Frailty and Dementia in the over 65 age group and the next highest volume and cost is within the same age in the Advanced Disease and Complexity segment.

Ambulatory Care Sensitive conditions of note for people aged over 65 within the Advanced Disease and Complexity, is highlighted as Heart Failure and COPD, with the highest volume and cost. For those people aged over 65 within the End of Life, Frailty & Dementia segment, Heart Failure is highlighted with the highest volume and cost.

14.8% of the general population in HWE ICB live within the 4 most deprived deciles, whilst 16.1% of the population in the EoL, severe frailty and severe dementia segment live within the 4 most deprived deciles.

In Broxbourne 34.3% of the population in the EoL, severe frailty and severe dementia segment live within the 4 most deprived deciles.

As we would expect the average number of acute and chronic conditions is significantly higher within this segment that the general population as are all activity measures. The average number of Chronic Conditions for people within Broxbourne Alliance PCN is slightly lower than the ICB, and the data shows higher usage of GP services.

Within this segment we can see the presence of Chronic Cardiac Disease and Heart Disease being highlighted which chimes with the reason for admission within previous analysis for ACS conditions. It is to be noted that Hypertension is high across all deciles and higher than the ICB. MH flag is also to be noted.

For Broxbourne the data shows higher rates for AF and the highest Heart Failure rates within East & North which was identified as a theme within the ACS analysis.

Source: HWE PHM Team

Demographics, Conditions & Segment Overview

Hertfordshire and West Essex Integrated Care Board

National Tool View and Population Demographics and Projections

The following slides represent screen shots from the Nationally Available Tools provided via NHSE.

The information within these tools are used by NHSE to measure and monitor progress. There is some valuable information available within these tools, however the value of these tools is realised when the information within them is triangulated with local data and intelligence.

Public Health Wider Determinants

These provide context for understanding the wider population need, so as Integrated Neighbourhood Teams develop you have a shared understanding of the health and care needs of your population to inform the development of interventions for different patient groups.

PCN Demographics - NHS England

NHS Hertfordshire and West Essex Integrated Care Board

Total Population

BROXBOURNE ALLIANCE PCN

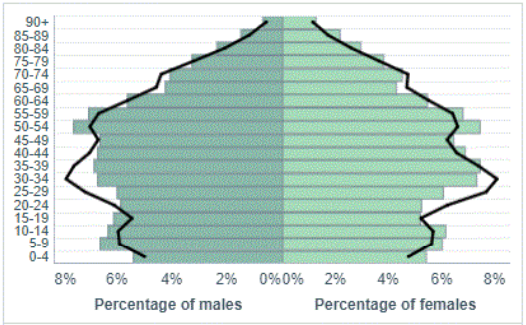
Snapshot as at: 30/06/2021

Registered population		Demographics				Prevalence		Acute utilisation		Covid	
% of total	100.0%	% White	71.9%	% IMD top	7.9%	% with 1+ conditions	28.4%	% of annual activity (total 96,637)	100.0%	% one or more at risk conditions	16.8%
% of annual change	0.5%	% BAME	16.1%	% IMD bottom	14.5%	% with 5+ conditions	2.9%	% of annual cost (total £22M)	100.0%	% two or more at risk conditions	6.3%

Population demographics - Snapshot as at: 30/06/2021

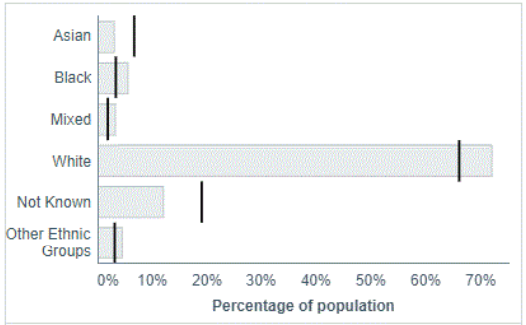
Choose benchmark: England

Population pyramid



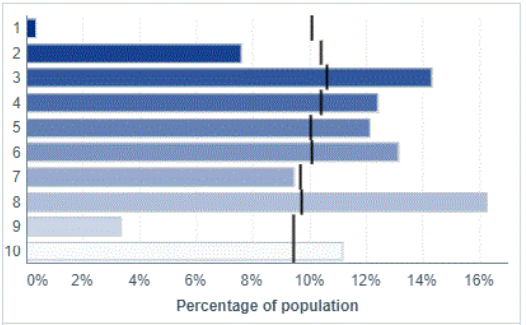
Black line represents the **England** average

Population proportion by ethnic category



Black line represents the **England** average

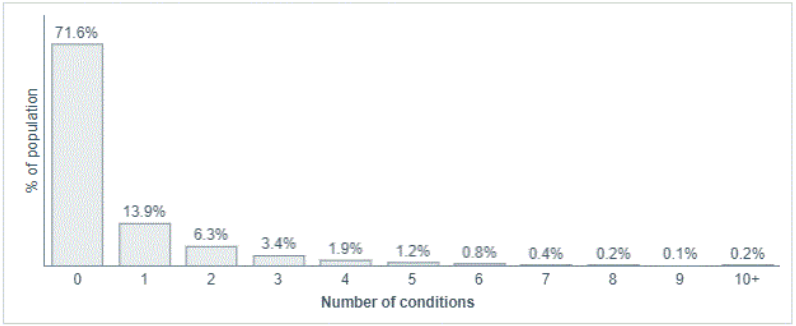
Population proportion by IM Deprivation decile



1 = most deprived 10%, 10 = least deprived 10%

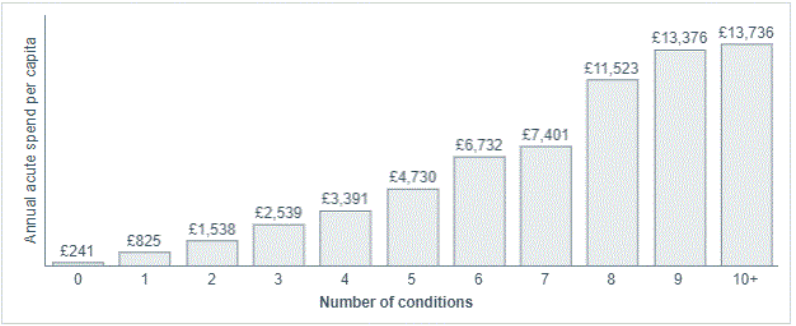
Prevalence - Snapshot as at: 30/06/2021

Population proportion by number of conditions



Annual spend per capita by number of conditions

Financial Year: 2020/21



The Population & Person Insights dashboard has provided good overall summary metrics on the PCN's total population, here we have benchmarked views on standardised demographics, such as deprivation deciles, and proportion of the PCN population by number of conditions.

Broxbourne Alliance PCN can be seen with a slightly younger population profile compared to England. The younger adults ages 25-39 are less than the National average. About 50% of people live within the 5 most deprived deciles (1-5).

Source: NHS Digital (2022) https://apps.model.nhs.uk/report/PaPi

PCN Demographics - NHS England

Hertfordshire and West Essex Integrated Care Board

LTC

BROXBOURNE ALLIANCE PCN

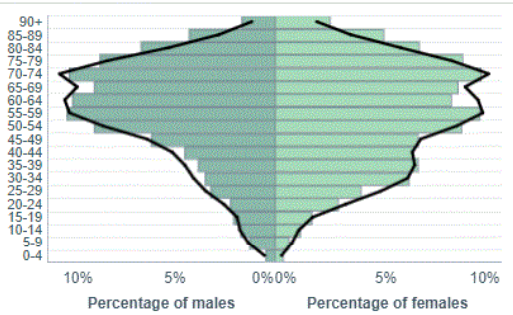
Snapshot as at: 30/06/2021

Registered population		Demographics				Prevalence		Acute utilisation		Covid	
% of total	25.0%	% White	83.4%	% IMD top	7.8%	% with 1+ conditions	100.0%	% of annual activity (total 47,589)	49.2%	% one or more at risk conditions	51.5%
% of annual change	3.8%	% BAME	14.0%	% IMD bottom	15.3%	% with 5+ conditions	5.7%	% of annual cost (total £10M)	43.7%	% two or more at risk conditions	16.5%

Population demographics - Snapshot as at: 30/06/2021

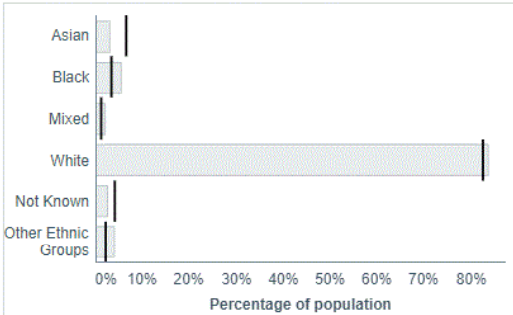
Choose benchmark: England

Population pyramid



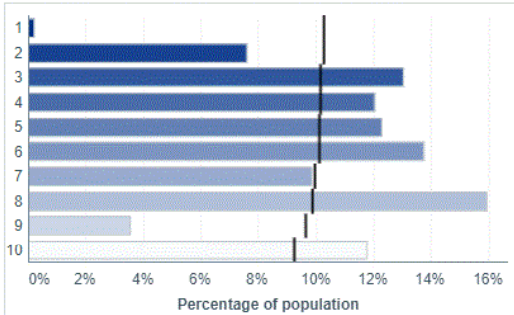
Black line represents the **England** average

Population proportion by ethnic category



Black line represents the **England** average

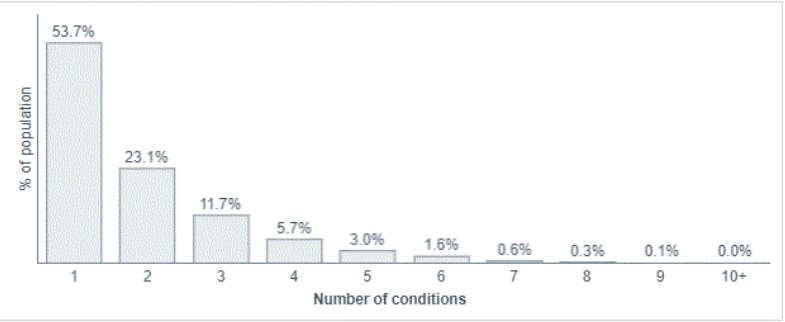
Population proportion by IM Deprivation decile



1 = most deprived 10%, 10 = least deprived 10%

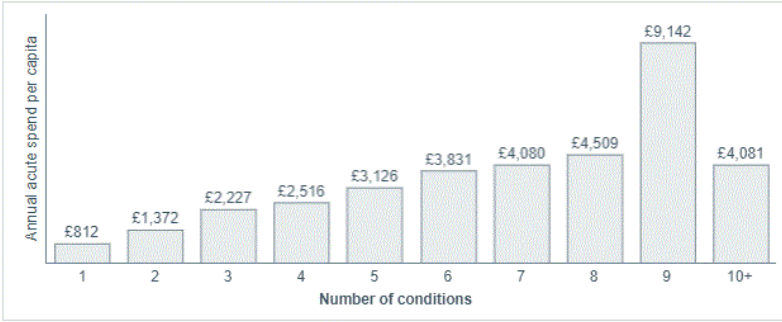
Prevalence - Snapshot as at: 30/06/2021

Population proportion by number of conditions



Annual spend per capita by number of conditions

Financial Year: 2020/21



When compared with the overall PCN demographics on the previous page, those in the PCN whom have an LTC as defined by NHS England, are benchmarked against the English averages, the view for the PCN shows us that 28.4% population have at least 1 Long Term Condition. 5.7% have more than 5 LTCs compared to 5.6% for the ICB.

The population pyramid shows a similar profile to England for those living with long term .

Source: NHS Digital (2022) https://apps.model.nhs.uk/report/PaPi

Practice Indicators - Triggers and Levels

NHS Hertfordshire and West Essex Integrated Care Board

Practice Indicators for BROXBOURNE ALLIANCE PCN		ABBEY ROAD SURGERY			CUFFLEY AND GOFFS OAK MEDICAL PRACTICE			THE MAPLES			WARDEN LODGE MEDICAL PRACTICE		
Clinical Domain	Indicator Name	Latest Score	Time Period	Trigger Level	Latest Score	Time Period	Trigger Level	Latest Score	Time Period	Trigger Level	Latest Score	Time Period	Trigger Level
Clinical Diagnosis	Detection rate Cancer	0.513	2020/21	No Trigger	0.597	2020/21	No Trigger	0.486	2020/21	No Trigger	0.52	2020/21	No Trigger
Coronary heart disease	% AF anticoagulation therapy CHADS2-VASc score >1	90.2	2020/21	Positive	86.9	2020/21	Positive	87.3	2020/21	Positive	88.1	2020/21	Positive
	% CHD aged <=79 BP reading 140/90mmHg or less	47.9	2020/21	Level 1	52.5	2020/21	Level 1	42.6	2020/21	Level 1	19.8	2020/21	Level 2
	% CHD cholesterol 5 mmol/l or less	40.8	2021/22	Level 1	68.7	2021/22	No Trigger	50.8	2021/22	No Trigger	48.9	2021/22	No Trigger
	% hypertension aged <=79 BP reading 140/90mmHg or less	36.4	2020/21	Level 2	48.4	2020/21	Level 1	43.1	2020/21	Level 1	16.7	2020/21	Level 2
Diabetes	% Diabetes aged >=40 years no CVD history without moderate or severe frailty treated with statin	76.8	2020/21	Level 1	72.7	2020/21	Level 1	75.8	2020/21	Level 1	70.8	2020/21	Level 1
	% Diabetes without moderate or severe frailty BP 140/80 mmHg or less	45.6	2020/21	Level 1	44.7	2020/21	Level 1	51.7	2020/21	Level 1	15.2	2020/21	Level 2
	% diabetes without moderate or severe frailty IFCC-HbA1c is 58 mmol/mol or less	50.4	2020/21	Level 2	44.4	2020/21	Level 2	48.7	2020/21	Level 2	27.1	2020/21	Level 2
Exception Rating	Overall Personalised Care Adjustment Rate	0.048	2020/21	No Trigger	0.026	2020/21	No Trigger	0.051	2020/21	No Trigger	0.025	2020/21	No Trigger
Medicines Management	% antibiotics Co-amoxiclav, Cephalosporins, Quinolones	8.7	2021/22 Q4	No Trigger	10.9	2021/22 Q4	Level 1	9.1	2021/22 Q4	No Trigger	8.1	2021/22 Q4	No Trigger
	% Naproxen and Ibuprofen	62.2	2021/22 Q4	Level 1	74.7	2021/22 Q4	No Trigger	79.5	2021/22 Q4	No Trigger	79.5	2021/22 Q4	No Trigger
	Antibacterial Items/Star Pu	0.934	2021/22 Q4	Positive	0.917	2021/22 Q4	Positive	0.91	2021/22 Q4	Positive	0.743	2021/22 Q4	Positive
	Hypnotics ADQ/Star Pu	1.264	2021/22 Q4	No Trigger	0.452	2021/22 Q4	No Trigger	0.597	2021/22 Q4	No Trigger	0.433	2021/22 Q4	No Trigger
	Oral NSAIDS ADQs/STAR-PU	6.643	2021/22 Q4	No Trigger	2.624	2021/22 Q4	No Trigger	2.792	2021/22 Q4	No Trigger	3.508	2021/22 Q4	No Trigger
Mental Health	% first choice generic SSRIs	64	2021/22 Q4	No Trigger	76	2021/22 Q4	No Trigger	72.2	2021/22 Q4	No Trigger	76.9	2021/22 Q4	Positive
	% MH comprehensive care plan	97.4	2020/21	No Trigger	26.7	2020/21	Level 1	33.9	2020/21	Level 1	17.6	2020/21	Level 1
	% SMI alcohol record	94.4	2018/19	No Trigger	91.1	2018/19	No Trigger	25	2020/21	Level 2	95	2018/19	No Trigger
	% SMI BP record	73.3	2020/21	Level 1	28.8	2020/21	Level 2	43.1	2020/21	Level 2	17.6	2020/21	Level 2
	Dementia Face to Face review	86.9	2020/21	No Trigger	41.3	2020/21	Level 1	35.1	2020/21	Level 1	73.7	2020/21	No Trigger
	Select antidepressants ADQs/STARPU	1.453	2021/22 Q4	No Trigger	1.148	2021/22 Q4	No Trigger	1.951	2021/22 Q4	No Trigger	1.661	2021/22 Q4	No Trigger
Patient Experience	Confidence and trust in healthcare professional	93	2020/21	No Trigger	95.4	2020/21	No Trigger	97.3	2020/21	No Trigger	97.7	2020/21	No Trigger
	Frequency seeing preferred GP	35.7	2020/21	No Trigger	48.5	2020/21	No Trigger	16.1	2020/21	Level 1	14.8	2020/21	Level 1
	Healthcare professional treating with care and concern	87	2020/21	No Trigger	85.2	2020/21	No Trigger	91.7	2020/21	No Trigger	91.6	2020/21	No Trigger
	Overall experience of your GP practice	77.1	2020/21	No Trigger	89.3	2020/21	No Trigger	82.8	2020/21	No Trigger	79.2	2020/21	No Trigger
	Satisfaction with appointment times	54.4	2020/21	No Trigger	66	2020/21	No Trigger	65.1	2020/21	No Trigger	44.8	2020/21	Level 1
Public Health	% Child Imms DTaP/IPV/Hib/HepB (age 1 year)	91.3	2020/21	Level 1	96.1	2020/21	No Trigger	94	2020/21	Level 1	94.1	2020/21	Level 1
	% Child Imms Hib/MenC booster	98.6	2020/21	No Trigger	98.8	2020/21	No Trigger	96.4	2020/21	No Trigger	91.2	2020/21	Level 1
	% Child Imms MMR (Age 2 yrs)	98.6	2020/21	No Trigger	96.4	2020/21	No Trigger	96.4	2020/21	No Trigger	91.2	2020/21	Level 1
	% Child Imms PCV Booster	97.9	2020/21	No Trigger	97	2020/21	No Trigger	95.9	2020/21	No Trigger	91.2	2020/21	Level 1
	Cervical Screening	69.6	2021/22 Q4	Level 1	82.6	2021/22 Q4	No Trigger	76.5	2021/22 Q4	Level 1	74	2021/22 Q4	Level 1
Respiratory	% Asthma review in last 6 mths	71.3	2020/21	No Trigger	37.1	2020/21	Level 1	76.3	2020/21	No Trigger	16.9	2020/21	Level 1
	% Asthma spirometry and one other objective test	0	2020/21	Level 2	0	2020/21	Level 2	0	2020/21	Level 2	0	2020/21	Level 2
	% COPD with review in last 12 mths	90.9	2020/21	No Trigger	46.6	2020/21	Level 1	82	2020/21	Level 1	11.1	2020/21	Level 2
	% LTC patients who smoke	15.4	2020/21	No Trigger	8.2	2020/21	No Trigger	12.6	2020/21	No Trigger	11.8	2020/21	No Trigger
	% LTC Smoker offer support	97.5	2020/21	No Trigger	62.7	2020/21	Level 1	97.6	2020/21	No Trigger	90.1	2020/21	Level 1
	% Smoking patients over 15 recorded	68.4	2021/22	No Trigger	76.4	2021/22	No Trigger	73.4	2021/22	No Trigger	68.2	2021/22	No Trigger
	% Smoking status recorded	94.9	2020/21	No Trigger	92.6	2020/21	No Trigger	91.1	2020/21	No Trigger	80.8	2020/21	Level 1
	% w. MRC dyspnoea score >=3 w. offer of referral to pulm. rehab. Clinic	100	2020/21	No Trigger	33.3	2020/21	Level 1	88.9	2020/21	Level 1	50	2020/21	Level 1

Primary Care clinical domain indicators as provided by NHS England as highlighted here with Trigger Levels against each, and represents a consolidation of data sets, designed to reduce the burden on GPs following these outlier identification. This indicator set is to support quality assurance and improvement of GP services; here, the higher the Level indicated, the more indicative of risk that has been found for that indicator.

The Practices have opportunities for every Level 1 indicated metric; however, any Level 2 indicator must be reviewed; guidance on this data set can be found in the below link, and for more up-to-date data, please log into your Ardens Manager (https://app.ardensmanager.com/).

Source: NHSE&I - https://www.primarycareindicators.nhs.uk/ https://www.primarycareindicators.nhs.uk/wp-content/uploads/2022/02/GPI-Tech-Guidance-v5.pdf

Public Health - PCN Wider Determinants

NHS Hertfordshire and West Essex Integrated Care Board

Wider Determinants

Where 1 is the most deprived in HWE ICB and 35 the least

In Broxbourne Alliance PCN an estimated:

- 15.2% of children live in poverty.
- 13.7% of older people live in poverty.
- 10.1% of households live in fuel poverty.
- 9% of households are overcrowded.
- 29.5% of people aged 65 and over live alone.
- 1.4% of people cannot speak English well.
- 4.7% of working age people are claiming out of work benefits.
- 22.8% of children aged 4-5 and 37.6% of children aged 10-11 are overweight.

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Hertfordshire Public Health Evidence & Intelligence Epidemiology

Hertfordshire

The above provides a summary of the wider determinants of health for Broxbourne Alliance.

Wider determinants analysis from Public Health Evidence and Intelligence shows Broxbourne Alliance is amongst the most deprived PCNs within the ICB across all indicators apart from Fuel poverty.

Source: Public Health Team

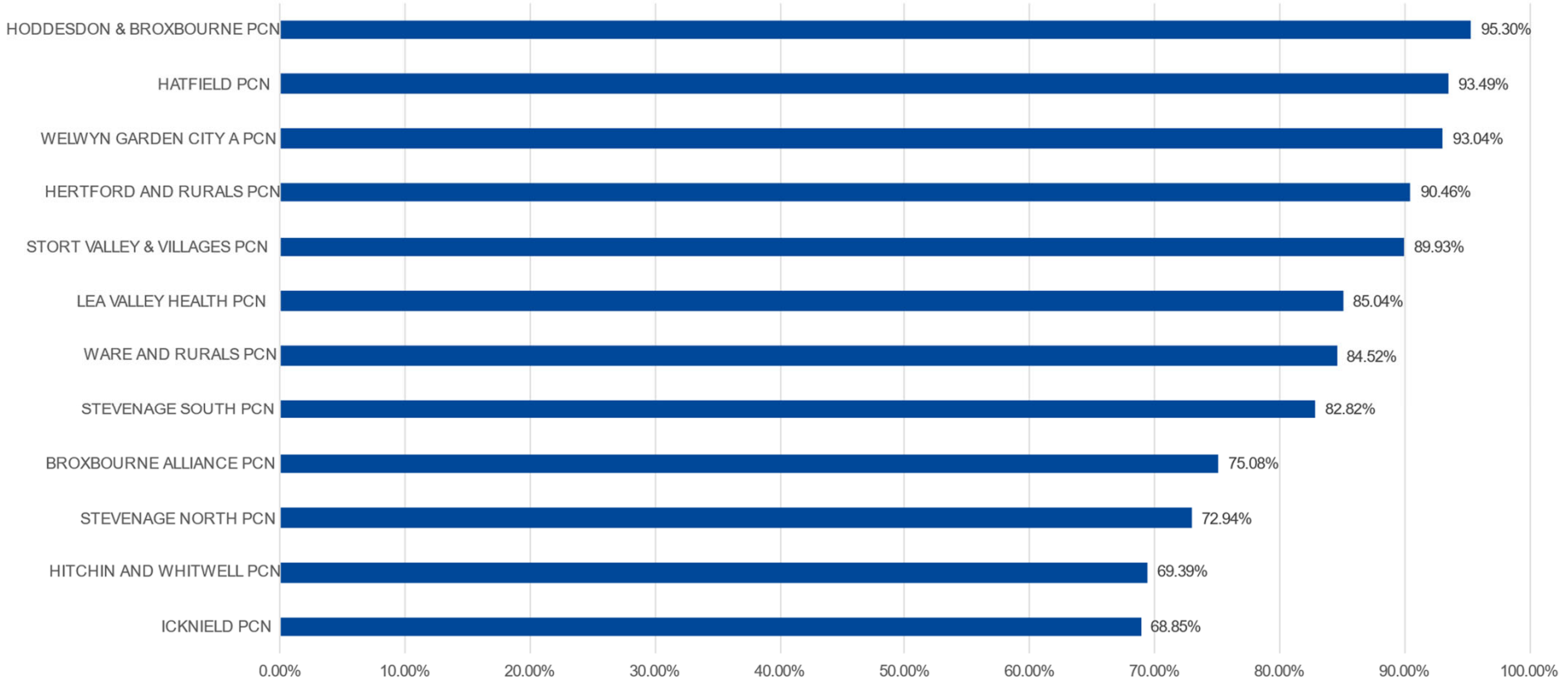
Spread of Patients

Hertfordshire and West Essex Integrated Care Board

Correct as of July 2022

Source: NHS Digital (2022)

SPREAD OF PATIENTS ACROSS ENGLAND CONT.



This chart shows the proportion of the registered population living within the ICB geographical boundary.

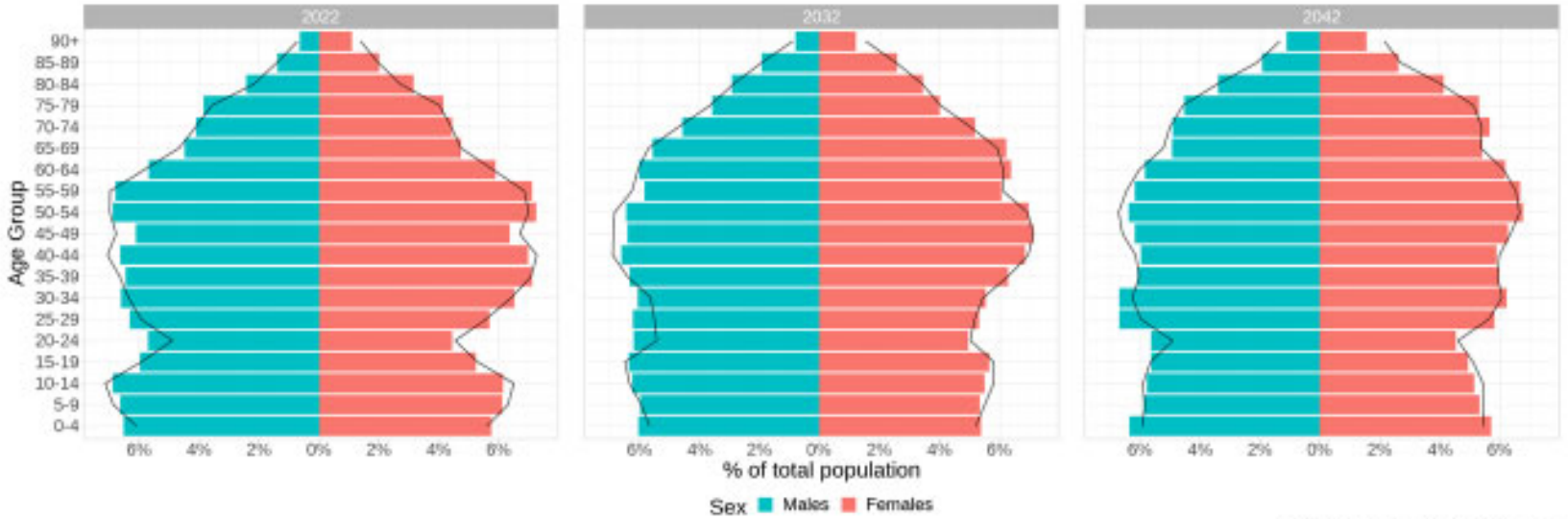
The spread of patients for Broxbourne Alliance PCN indicates 24.92% of the population are not located within the Hertfordshire & West Essex boundaries, and the PCN has the 4th highest rate of all East & North PCNs; this means that this population may be accessing services outside of the ICB and the impact of coterminous alignment with neighbouring ICBs must be taken into account for this population by the PCN.

Source: Essex County Council PHM Team, NHS Digital (2022)

Public Health - Population Projections

Hertfordshire and West Essex Integrated Care Board

Projection Pyramids



Black line indicates HWE ICS values.
Population pyramids and table shown for Broxbourne district.
District shown is based on the largest majority of the PCN's registered population.

Age Band	2022 Projection	2032 Projection	2042 Projection
Under 5	5,935	5,519	5,885
Under 24	28,732	27,875	26,774
24-64	50,592	48,681	48,782
65+	17,730	20,398	22,267
85+	2,511	3,175	3,534

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Hertfordshire Public Health Evidence & Intelligence Epidemiology

Hertfordshire

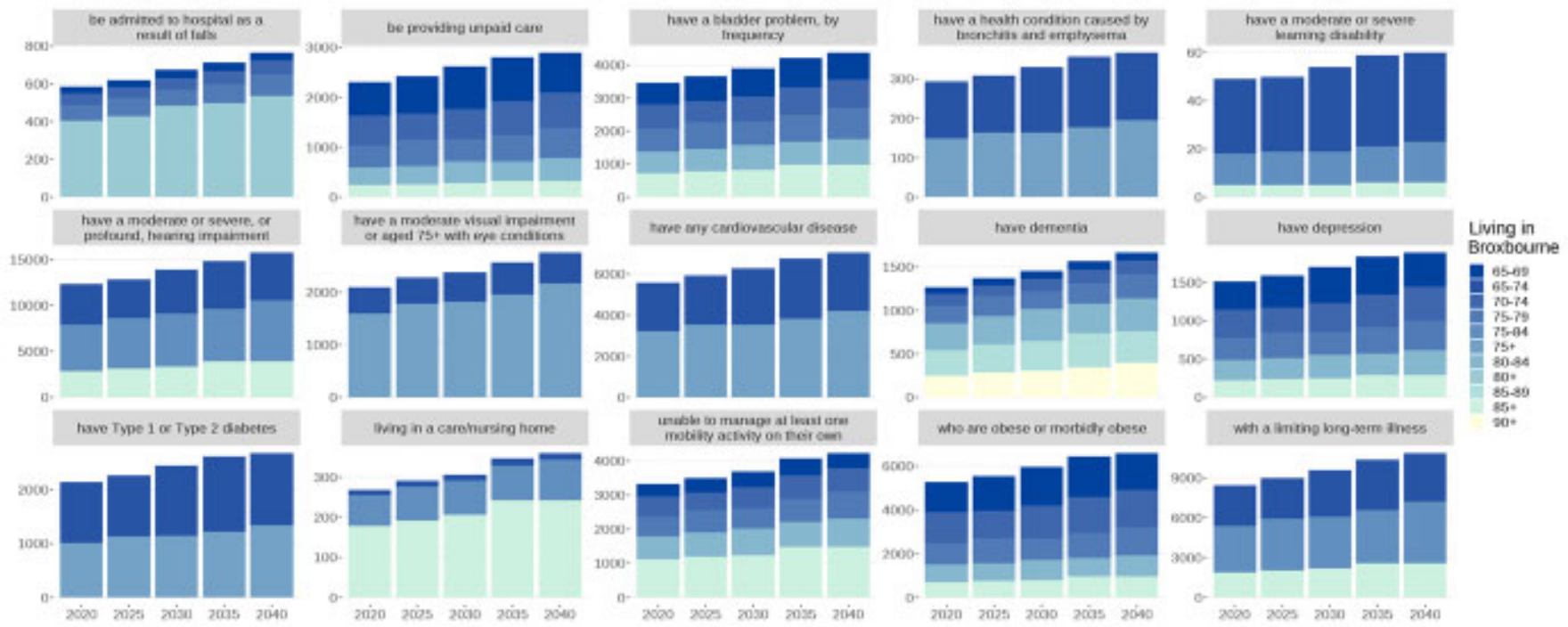
Expected population growth for Broxbourne district by the Local Authority, forecasts continued increase between 2023 through to 2034 which will bring additional demands for healthcare. Projections show an expected increase in the number of people over 65 from ~18k to ~20k.

Source: Public Health Team

Public Health - Projections on Conditions

Hertfordshire and West Essex Integrated Care Board

People aged 65+ projected to...



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Hertfordshire Public Health Evidence & Intelligence Epidemiology

Hertfordshire

The above shows the impact on health due to the expected increase in the number of people over 65.

Source: Public Health Team

Segmentation within the ICB

Optum

HWE

Segment & Outcomes
Framework Documentation

PHM Segment Model - Overview

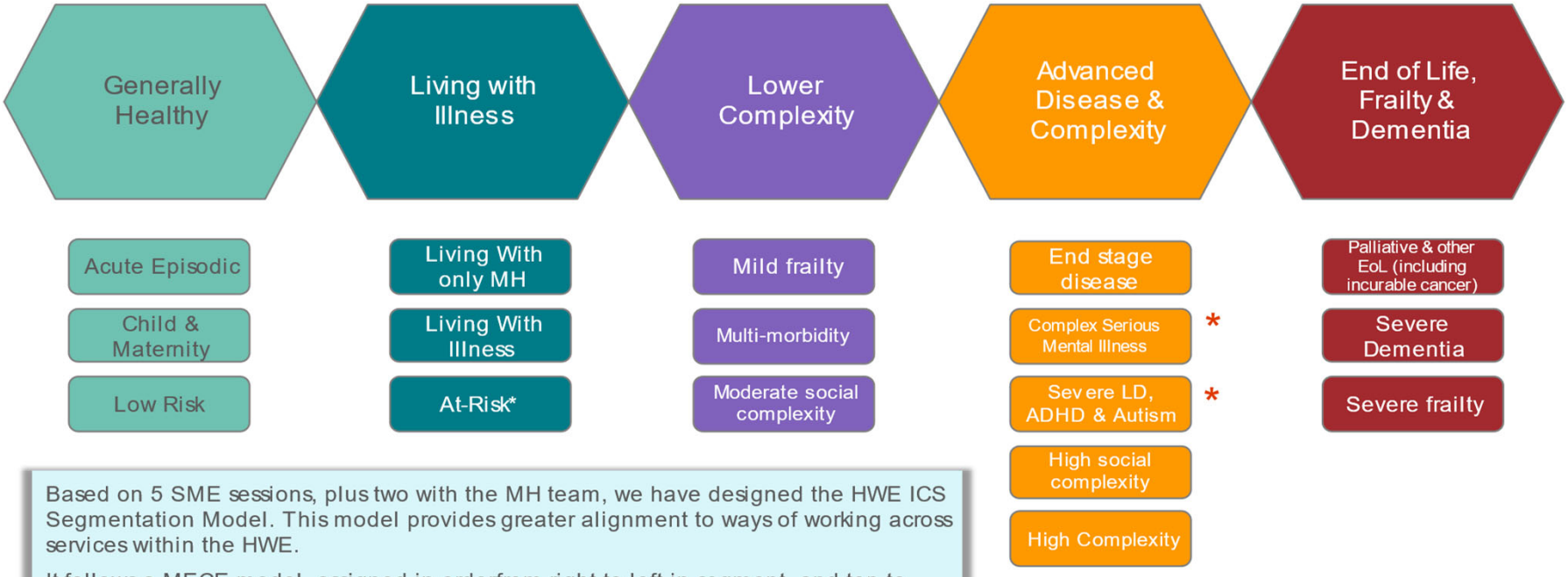
NHS Hertfordshire and West Essex Integrated Care Board

The ICB has worked in partnership with Optum to develop a Health Segmentation model using linked data covering 1.2m of our ICS population. As part of the process representation from different care settings and internal ICB teams were engaged.

Our core PHM and Population Segmentation model combines primary and acute care data with wider determinants and community, mental health and social care data where available. The model has been built with a view to include additional data sets as they become available. The segmentation model provides the foundations for advanced population health management analytics that goes beyond patient level risk stratification.

The below demonstrates the 5 high level segments and the sub segments beneath within the model.

Segmentation model – third iteration



Based on 5 SME sessions, plus two with the MH team, we have designed the HWE ICS Segmentation Model. This model provides greater alignment to ways of working across services within the HWE.

It follows a MECE model, assigned in orderfrom right to left in segment, and top to bottom in subsegment.

* awaiting finalisation of methodology

Optum

2

Source: Optum & HWE PHM Team - 14th Oct 2022

PHM Segment Model - Overview

NHS Hertfordshire and West Essex Integrated Care Board

The logic behind the ICB Health Segmentation model has been developed to allow the ICB to consider its whole population and the different interventions required to improve the outcomes of different groups of people with similar characteristics.

Alongside the segmentation logic an outcomes framework was developed.

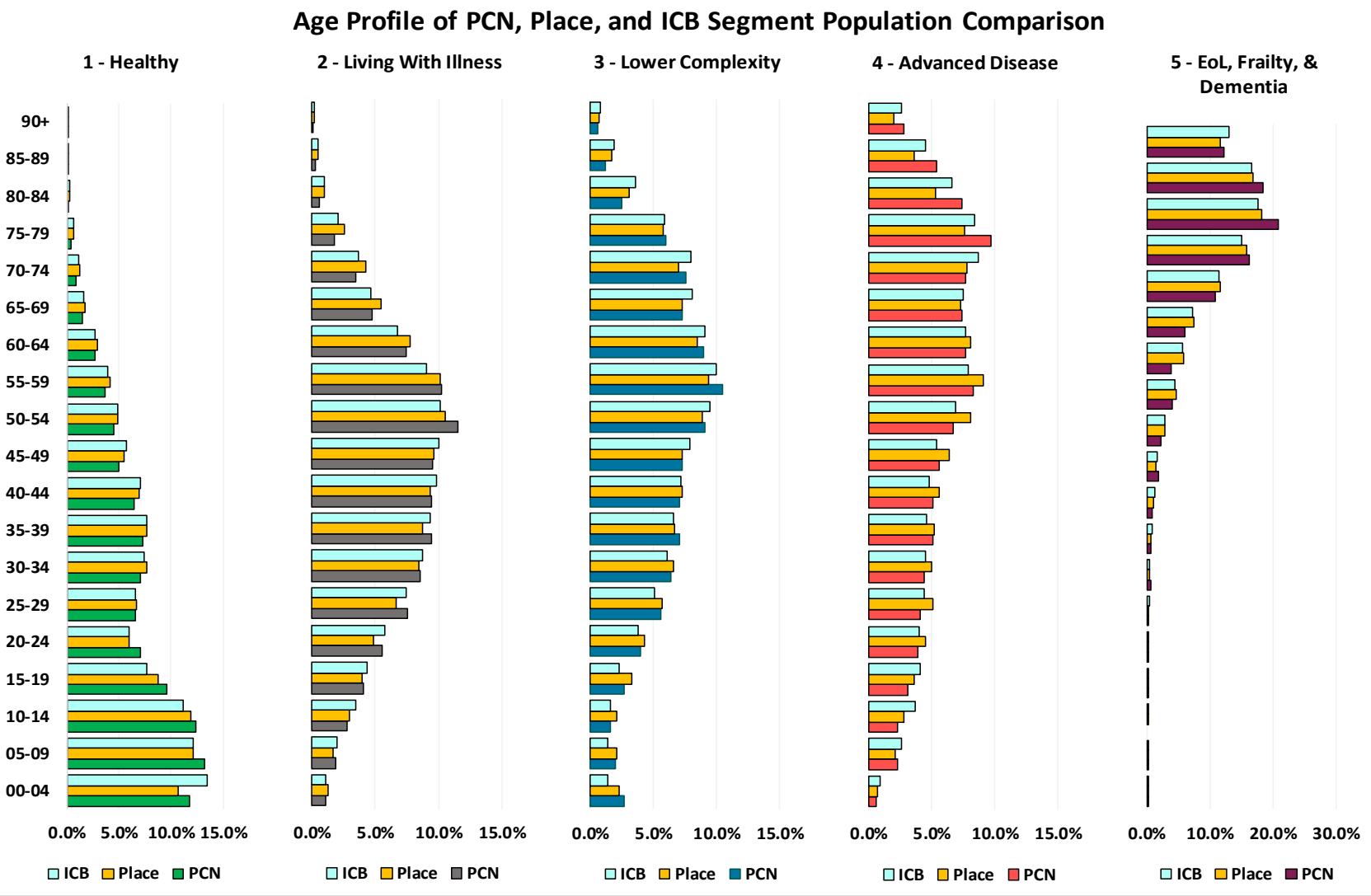
Whole Population Outcomes

- INCREASE life expectancy / INCREASE average age at death in adults.
- REDUCE gap in age at death between most and least deprived deciles.
- INCREASE disease-free life expectancy
- REDUCE rates of suicide
- REDUCE proportion of population who are digitally excluded either by lack of equipment, connectivity, skills, cost, or confidence to be able to access clinical services.

"Generally healthy"	Living with Illness	Lower Complexity	Advanced Disease & Complexity	End of Life, Frailty & Dementia
Who is in this group? • Children and adults in the general population who are not otherwise captured in other segments. • Most likely receive episodic care due to accidents and injuries or linked to maternity and CYP routine services. • No diagnosed conditions.	**Who is in this group?** • Includes people with single illnesses (including MH), that are currently controlled or able to self-manage and will receive most of their care in a planned way through primary care. • Includes people with social or behavioural risk factors for more advanced disease.	**Who is in this group?** • Includes people with moderate levels of morbidity and complexity. This is either as a result of: Multi-morbidity (2-4 long term conditions), Mild frailty and/or Social complexity.	**Who is in this group?** • Advanced disease and complexity represents a cohort of people with one or more significant illnesses that impact on their day to do functioning as well as people with significant risk from social complexity	**Who is in this group?** • End of Life, frailty and dementia is the first segment in the logic and is the first set of criteria on which people are assessed. The segment includes: people who are identified as being in their last year of life, or on the palliative disease register as well as people with incurable cancer. This segment also includes those with severe frailty and/or severe dementia.
Social & Clinical Outcomes • INCREASE screening. • IMPROVE experience of Maternity services. • REDUCE rates of childhood obesity in reception and year 6. • REDUCE rate of infant mortality. • REDUCTION in proportion of people diagnosed with low mood and/or depression.	**Social & Clinical Outcomes** • INCREASE proportion of patients who feel able to self-manage their condition. • REDUCE prevalence of behavioural risk factors for more advanced diseases, including: obesity, smoking status and drug abuse. • REDUCE episodes of ill -health requiring emergency admissions for long term condition. • INCREASE percentage of people with mental health problems in employment. • INCREASE proportion of people who are able to maintain life routines considered important to the individual, e.g work, .. • REDUCE emergency attendances due to alcohol -related harm.	**Social & Clinical Outcomes** • INCREASE proportion of patients who feel able to self-manage their condition. • REDUCE rate of emergency admissions for people with lower complexity. • INCREASE proportion of patients offered personalised care and support planning. • REDUCE prevalence of behavioural risk factors for more advanced diseases, including: obesity, smoking status and drug abuse.	**Social & Clinical Outcomes** • INCREASE five year survival from cancer. • REDUCE rate of emergency admissions in people with advanced disease or complexity. • REDUCE the difference in average age of death between people with learning disability/SMI compared to general population. • REDUCE proportion of whole population who are living with advanced disease and/or complexity.	**Social & Clinical Outcomes** • REDUCE dependency for emergency care services e.g A&E attendances and emergency admissions. • INCREASE proportion of people who die in their preferred place of death. • INCREASE identification of frail and complex patients, including those with dementia or at end of life. • REDUCE proportion of days disrupted by emergency care in last year of life. • INCREASE number of days spent at home in last year of life. • INCREASE proportion of people supported at home instead of in residential care.

Source: Optum & HWE PHM Team - 14th Oct 2022

Age Profile and Health Segment



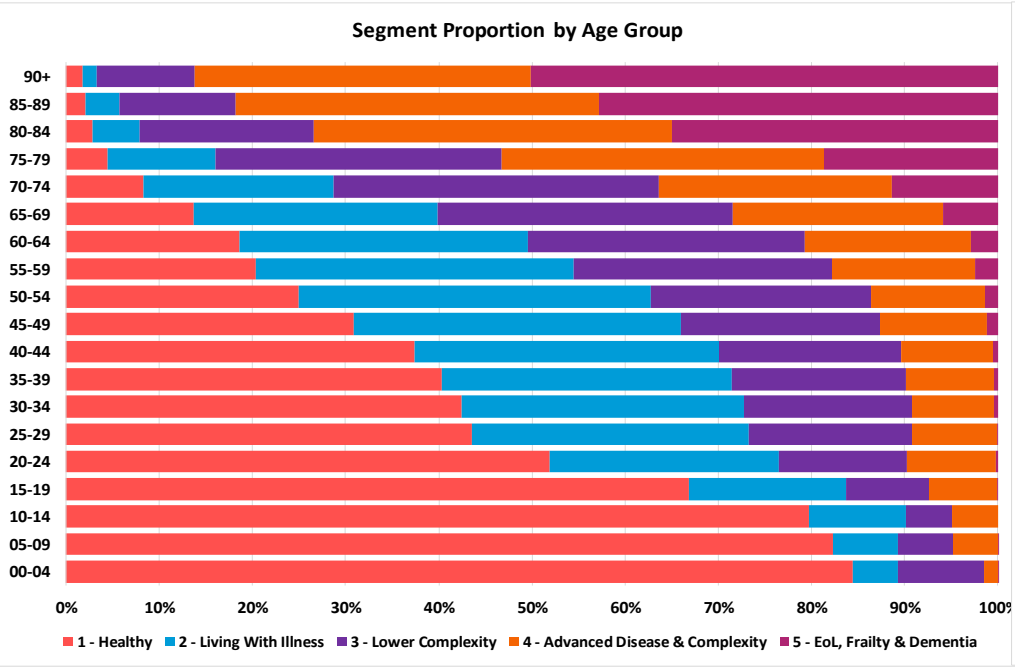
Each registered person is assigned to a segment and this can be cut by age group and also geographically by Place or PCN.

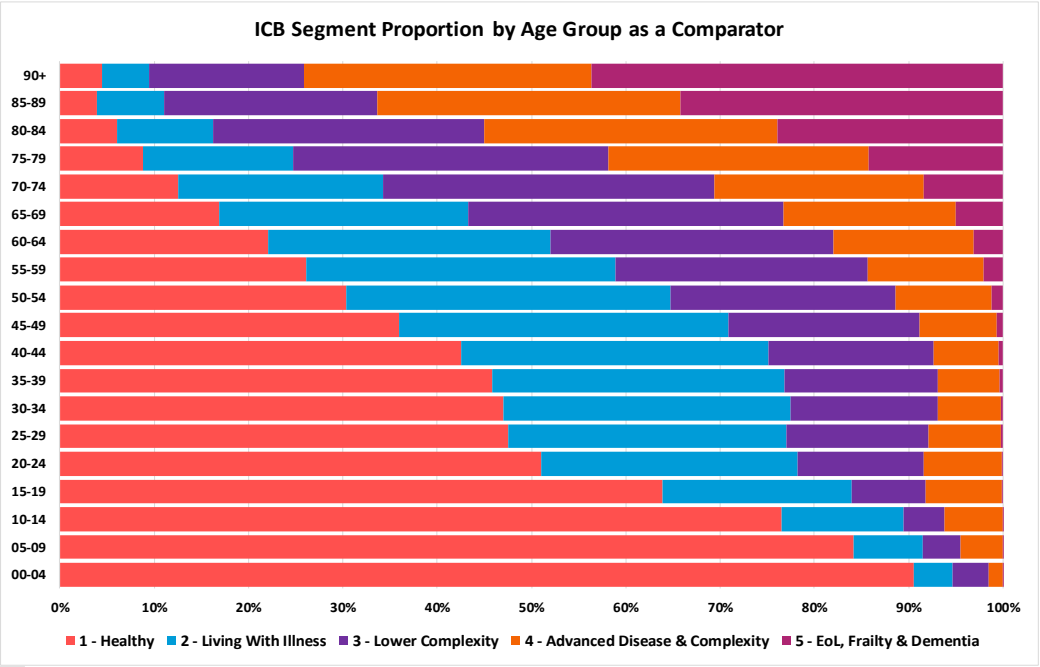
The above looks at the breakdown by age of people within each segment. It provides the PCN value against the Place and ICB value.

Source: HWE PHM Team, Combined population data re-extract via Optum

Demographic Breakdowns - Segment & Deprivation Quintiles

Hertfordshire and West Essex Integrated Care Board



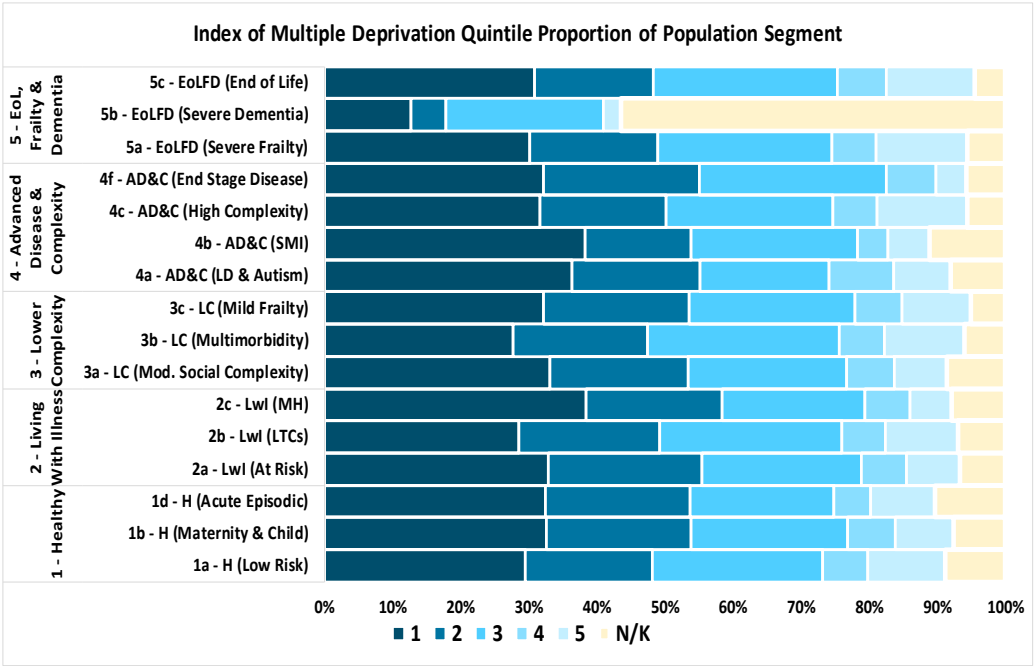


The ICB Health Segments here are broken down by total population and 5 year age groups; as expected with age the proportion of people within the healthy segment decreases.

The illustration on the left represents the PCN breakdown whilst the one on the rights shows the ICB breakdown.

In general Broxbourne Alliance PCN have a similar profile to the ICB population.

The illustration bottom right shows the Sub-Segments by Deprivation Quintile, here we can see the levels of deprivation illustrated within the earlier wider determinants slide demonstrated within this breakdown.



Source: HWE PHM Team, Combined population data re-extract via Optum

Major Conditions Comparison - Per 1,000 Registered

NHS Hertfordshire and West Essex Integrated Care Board

PCN NAME	COPD	Obesity	Asthma	Diabetes	Dementia	Cancer	Learning Disabilities	Hypertension	Stroke	Chronic Kidney Disease	Heart Disease	Heart Failure	AtrialFib	Chronic Cardiac Disease	Depression	MH	Anxiety	Serious Mental Illness	Alzheimers
ABBEY HEALTH	16.94	91.79	134.57	138.01	16.06	35.32	15.82	119.23	33.72	10.05	35.88	10.65	11.77	57.71	121.19	171.41	86.11	25.15	10.73
ALBAN HEALTHCARE	16.78	79.37	154.97	90.13	16.99	53.76	14.22	149.53	34.73	24.16	39.98	10.97	17.65	50.69	127.50	205.23	111.71	23.36	13.08
ALLIANCE	19.90	114.36	123.67	105.84	15.86	29.28	17.82	155.51	31.61	9.04	39.00	10.29	9.50	62.66	114.55	160.93	87.83	25.81	10.21
ALPHA	16.29	121.01	139.73	97.63	14.00	55.48	10.91	161.78	34.67	18.36	42.29	11.02	21.77	53.43	153.71	233.41	120.24	17.12	9.22
ATTENBOROUGH	18.14	113.20	126.85	105.43	15.54	36.21	11.81	130.54	33.07	15.51	42.51	11.91	11.43	50.85	118.02	176.61	95.74	19.13	8.70
BROXBOURNE ALLIANCE	20.30	160.08	122.01	81.19	7.50	61.16	6.46	171.90	29.87	23.09	49.05	11.84	19.50	68.57	135.43	191.17	116.76	7.91	4.09
CENTRAL WATFORD	17.17	97.89	108.55	152.70	20.12	25.21	13.25	123.19	30.90	8.01	34.88	10.09	16.32	46.23	98.31	132.67	62.41	20.54	8.28
DACORUM BETA	24.98	156.71	132.83	158.17	30.23	40.07	18.80	156.86	44.28	19.23	50.10	16.42	26.50	78.15	176.09	245.43	132.71	31.47	14.12
DANAIS	22.41	131.50	138.52	116.70	19.56	36.00	19.66	181.38	45.29	7.84	44.34	12.86	11.35	57.63	137.60	185.74	82.50	28.26	11.88
DELTA	16.90	150.87	135.59	125.22	17.35	45.07	13.06	152.28	34.37	21.60	42.61	10.85	19.87	55.43	142.21	222.46	128.07	22.98	10.97
HALO	18.22	93.22	137.55	112.78	20.85	47.83	20.12	137.28	37.23	16.03	41.35	11.68	16.94	85.83	149.64	217.88	111.29	29.96	14.75
HARLOW NORTH	32.17	113.01	160.55	104.04	9.63	65.83	5.80	185.36	41.56	27.03	59.02	17.64	18.36	73.07	152.95	249.04	129.75	8.61	4.78
HARLOW SOUTH	30.09	197.29	169.79	120.15	9.20	57.49	8.17	162.96	38.98	37.02	62.04	19.34	19.54	83.34	174.03	246.72	118.60	11.48	4.96
HARPENDEN HEALTH	21.78	81.60	149.03	107.08	23.86	69.52	12.79	172.72	49.21	21.85	55.34	17.04	25.35	73.71	145.13	230.18	127.83	21.83	14.49
HATFIELD	16.88	58.23	77.11	65.91	7.71	28.28	6.46	107.06	21.36	5.41	34.69	8.47	14.84	42.95	91.34	131.15	87.53	7.83	2.94
HERTFORD AND RURALS	16.86	116.98	126.99	67.48	7.52	54.51	5.99	147.29	25.97	13.35	42.51	10.83	20.25	52.05	138.84	203.98	117.47	7.46	3.97
HERTS FIVE	18.05	119.79	133.62	149.84	32.47	49.57	15.73	175.39	37.47	28.64	46.04	11.72	28.70	67.86	143.18	211.93	115.95	24.53	12.18
HITCHIN AND WHITWELL	21.11	126.63	141.53	80.38	10.25	64.91	5.36	160.97	32.99	22.56	48.88	11.81	23.23	63.10	146.25	217.69	134.47	9.83	6.42
HODDESDON & BROXBOURNE	22.63	163.45	129.18	88.31	9.82	69.33	6.52	182.13	32.80	23.48	54.65	14.88	26.00	65.08	128.92	211.87	124.10	7.19	5.53
ICKNIELD	20.58	132.39	147.83	85.32	11.91	60.97	6.57	164.18	31.52	35.00	51.59	12.61	22.87	68.86	140.93	220.11	121.08	8.97	7.19
LEA VALLEY HEALTH	23.93	166.87	126.46	86.47	6.11	51.75	9.26	172.10	28.22	18.66	48.18	13.17	18.01	57.90	154.32	231.01	165.70	10.89	5.53
LOUGHTON BUCKHURST HILL & CHIGWELL	15.51	82.36	108.00	75.16	9.75	48.63	3.25	126.39	27.64	12.08	48.45	12.73	24.57	58.16	115.48	166.39	109.95	7.20	4.74
MVPS	20.48	132.18	129.05	118.23	17.10	37.36	15.43	141.83	33.00	29.68	40.10	11.91	12.32	50.34	135.02	189.04	100.76	22.35	10.35
NORTH UTTLESFORD	15.67	23.10	103.62	50.30	8.89	35.46	3.02	82.42	26.01	0.19	40.66	8.29	27.47	50.49	94.73	129.90	109.54	4.31	4.09
NORTH WATFORD	21.96	115.98	140.15	136.45	18.26	39.04	14.64	168.63	39.54	20.47	47.73	15.48	20.13	64.24	142.44	194.02	96.65	24.51	9.80
POTTERS BAR	22.98	140.98	142.22	136.58	24.74	53.46	12.70	148.52	37.34	84.75	44.43	12.35	20.80	65.37	132.36	187.18	88.62	20.73	11.56
RICKMANSWORTH & CHORLEYWOOD	17.43	111.90	132.75	112.05	18.36	44.50	13.90	188.27	41.26	6.88	45.98	15.23	20.02	59.08	127.24	185.97	93.22	19.48	8.82
SOUTH UTTLESFORD	15.28	43.19	113.74	57.46	8.33	38.05	2.34	96.24	24.00	4.96	39.00	9.02	20.59	48.74	99.33	142.19	108.67	4.65	3.60
STEVENAGE NORTH	24.27	273.76	124.18	170.45	10.46	46.58	8.92	155.20	29.48	9.51	46.26	11.84	14.55	64.91	136.82	194.88	111.38	8.02	6.11
STEVENAGE SOUTH	23.31	128.57	101.25	75.88	9.99	44.87	6.69	144.52	30.88	15.08	46.63	12.90	13.69	62.56	105.37	151.85	76.49	7.45	6.03
STORT VALLEY & VILLAGES	17.85	122.87	132.49	65.60	7.18	53.86	6.92	144.16	26.39	19.45	44.05	13.41	19.82	60.97	120.51	203.15	127.69	6.34	3.43
THE GRAND UNION	17.43	143.73	135.30	134.24	19.14	42.21	12.89	149.94	36.78	28.86	46.99	12.45	19.10	62.75	138.79	195.84	95.98	20.23	9.53
WARE AND RURALS	18.09	163.30	165.40	77.77	7.63	58.28	5.79	154.35	27.24	22.49	47.89	12.74	20.82	60.01	132.46	198.85	108.67	6.62	4.13
WELWYN GARDEN CITY A	19.05	104.74	104.65	68.93	6.62	41.07	6.99	132.35	23.08	10.49	38.53	10.24	17.72	48.93	117.64	178.45	109.12	7.12	3.14

The data from the ICB model has been collated and the above provides a rate per 1,000 population with a recording of each condition. The darker the blue the higher the presence of the condition within the PCN's population.

Further information and tools that monitor identification and management of people with conditions are available in Ardens Manager rolled out to support the ICB's ECF. Searches available via Ardens can support with case finding and identifying people with management indicators that are due.

When analysing the underlying Segmentation Model data the conditions with highest per 1,000 registered prevalence that are highlighted for Broxbourne Alliance PCN are Cancer, Hypertension, Obesity, Heart disease and Chronic Cardiac disease.

Source: HWE PHM Team, Combined population data re-extract via Optum

Continued

NHS Hertfordshire and West Essex Integrated Care Board

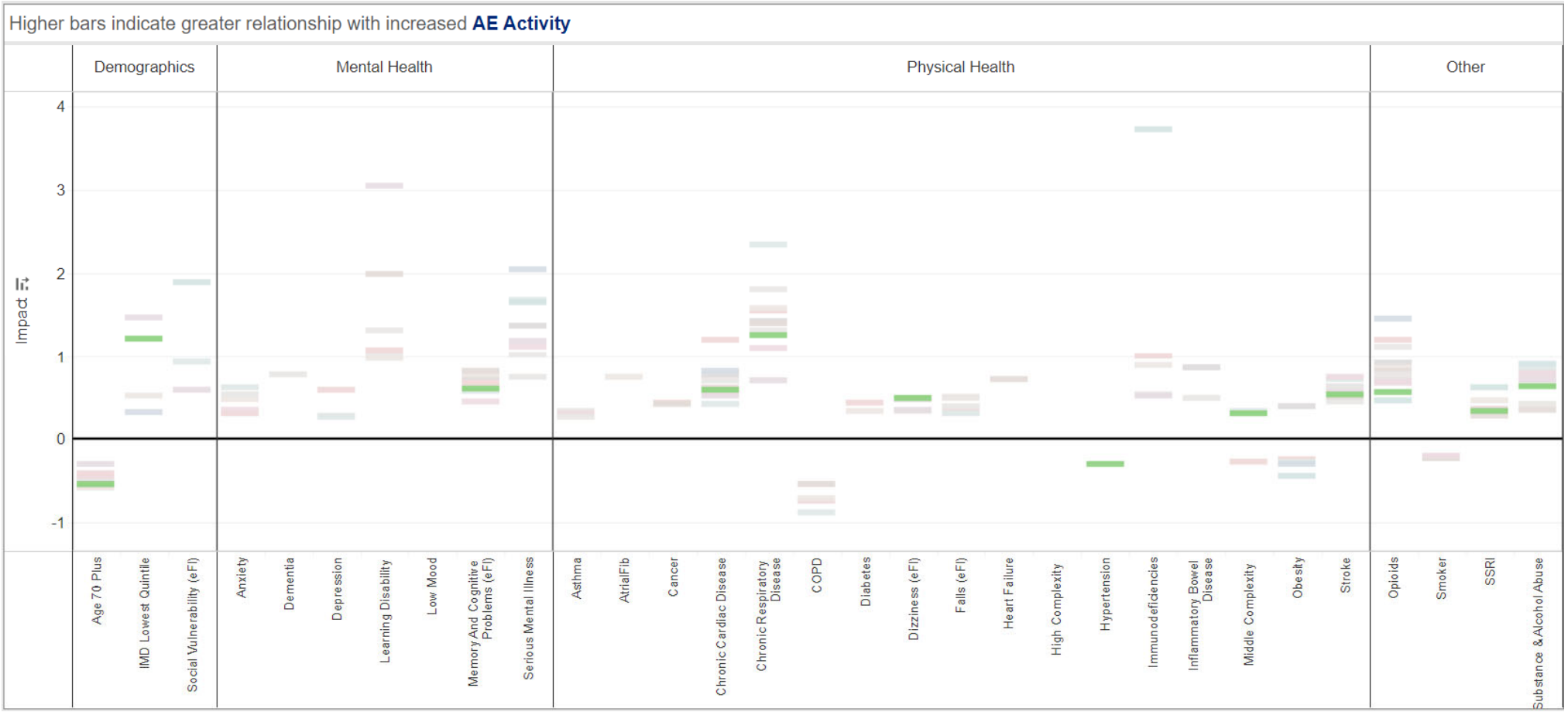
PCN NAME	ASD	Cerebral Palsy	Chronic Respiratory Disea	Cystic Fibrosis	Huntingtons Disease	Inflammatory Bowel Dise	Kidney Transplant	Metastatic Cancer	Multiple Sclerosis	Muscular Dystrophy	Myasthenia Gravis	Osteoporosis	Other Neurological Condit	Parkinsons Disease	Rheumatoid Arthritis	Lupus (SLE)	Sickle Cell Disease	Solid Organ Transplant	High BP
ABBEY HEALTH	14.98	1.20	20.95	0.40	0.04	9.37	2.04	2.48	1.56	0.52	0.28	14.46	1.20	2.08	7.53	0.92	0.44	1.48	25.51
ALBAN HEALTHCARE	13.61	1.20	22.10	0.77	0.23	11.13	2.30	3.02	1.73	0.30	0.33	24.28	1.10	2.77	8.39	1.43	0.28	1.34	31.80
ALLIANCE	17.30	1.66	25.28	1.73	0.04	10.85	2.45	3.01	1.13	0.19	0.15	10.55	1.06	2.60	9.01	1.24	1.70	1.09	30.03
ALPHA	11.10	0.64	21.64	0.66	0.13	10.97	2.67	2.41	2.46	0.36	0.30	20.86	1.30	3.14	9.41	1.22	0.17	1.39	35.30
ATTENBOROUGH	11.11	0.96	22.70	1.41	0.13	10.43	2.57	2.70	1.80	0.42	0.29	17.75	1.12	1.99	7.64	1.25	0.55	1.44	42.89
BROXBOURNE ALLIANCE	8.71	1.08	27.27	0.55	0.02	13.59	2.21	3.15	2.09	0.32	0.34	24.44	1.56	1.95	9.86	1.43	0.78	1.45	87.88
CENTRAL WATFORD	10.69	1.11	20.87	0.87	0.15	7.62	2.32	2.65	1.20	0.27	0.21	11.29	1.30	2.44	7.53	1.17	0.54	1.14	29.37
DACORUM BETA	17.95	1.28	29.89	1.09	0.15	11.68	2.62	4.19	2.11	0.53	0.10	17.54	1.16	3.61	9.52	1.33	0.75	1.60	36.87
DANAIS	16.34	1.18	26.91	0.79	0.26	10.93	2.13	3.22	1.77	0.39	0.30	8.73	1.31	2.92	10.14	1.21	0.89	1.71	39.02
DELTA	13.39	1.02	21.36	0.96	0.27	11.99	2.31	3.60	2.28	0.42	0.24	18.70	0.96	2.97	8.99	1.14	0.51	1.20	37.04
HALO	20.38	1.52	23.45	0.73	0.18	11.68	2.31	3.56	1.90	0.23	0.20	20.47	1.40	3.88	8.70	1.34	0.41	0.99	31.92
HARLOW NORTH	7.53	1.38	42.10	1.26	0.06	13.93	3.47	3.41	2.51	0.30	0.36	29.48	2.45	2.39	13.51	1.49	0.60	2.21	69.06
HARLOW SOUTH	11.58	2.48	42.29	0.93	0.10	13.55	2.38	4.24	1.65	0.52	0.52	40.02	2.27	2.38	13.55	2.48	0.31	1.86	95.65
HARPENDEN HEALTH	12.54	1.06	28.25	0.66	0.12	10.84	2.47	5.89	2.22	0.39	0.48	29.04	1.89	4.68	9.54	1.18	0.39	1.41	28.50
HATFIELD	6.55	0.76	21.97	0.47	0.06	10.21	2.74	1.89	0.90	0.32	0.23	19.79	1.43	1.51	6.72	1.25	0.84	1.54	71.96
HERTFORD AND RURALS	8.19	0.81	24.68	0.69	0.12	15.00	2.38	2.24	2.26	0.44	0.30	27.37	1.37	2.38	7.72	0.89	0.10	1.53	90.91
HERTS FIVE	13.79	1.39	23.04	0.77	0.13	12.86	2.98	2.86	2.45	0.25	0.36	22.67	1.69	3.63	17.88	1.26	0.62	1.66	34.03
HITCHIN AND WHITWELL	9.93	1.49	30.11	0.50	0.00	15.61	2.87	3.41	2.41	0.32	0.32	34.83	1.42	2.52	8.34	1.63	0.14	1.60	92.26
HODDESDON & BROXBOURNE	9.14	0.96	31.53	0.58	0.27	14.77	2.84	3.29	2.38	0.43	0.23	33.55	1.73	2.33	9.37	1.35	0.22	1.73	96.87
ICKNIELD	10.67	1.08	29.47	0.62	0.08	16.17	2.69	2.91	3.58	0.43	0.32	27.18	1.29	2.67	8.51	1.27	0.05	2.02	82.47
LEA VALLEY HEALTH	10.05	1.27	31.63	0.59	0.10	12.74	2.37	2.80	1.53	0.36	0.46	22.43	1.89	1.72	10.47	1.63	1.11	1.98	97.79
LOUGHTON BUCKHURST HILL & CHIGWELL	4.13	0.84	22.95	0.79	0.14	14.26	2.42	3.62	1.77	0.46	0.33	38.42	1.90	2.04	8.87	1.53	0.19	1.35	65.68
MVPS	14.28	1.17	34.30	10.11	0.07	11.35	2.43	3.60	2.06	0.30	0.15	15.86	1.17	2.47	8.53	1.69	0.59	1.30	32.96
NORTH UTTLESFORD	2.34	0.78	21.65	0.73	0.05	11.09	1.18	2.48	1.13	0.48	0.11	23.32	1.16	1.27	10.04	1.29	0.03	1.72	26.93
NORTH WATFORD	12.70	1.07	27.72	2.17	0.11	12.20	2.44	3.36	2.40	0.42	0.31	16.47	1.53	2.63	9.42	1.45	0.34	0.92	37.13
POTTERS BAR	12.98	0.76	27.06	0.62	0.17	8.31	1.90	2.70	2.01	0.38	0.48	21.07	1.49	3.25	7.96	1.07	0.42	1.28	33.70
RICKMANSWORTH & CHORLEYWOOD	11.74	1.12	23.30	2.02	0.25	9.40	2.45	3.20	1.33	0.54	0.18	15.52	0.97	2.88	7.38	0.97	0.11	1.51	32.44
SOUTH UTTLESFORD	3.05	1.02	21.93	0.53	0.02	10.61	1.97	2.44	1.89	0.28	0.22	29.23	1.34	1.71	10.30	1.48	0.08	2.01	24.13
STEVENAGE NORTH	12.22	1.43	32.98	0.27	0.05	16.52	3.40	2.92	2.23	0.64	0.27	15.67	1.81	2.71	7.06	1.27	0.48	1.54	94.81
STEVENAGE SOUTH	10.81	1.57	31.16	0.88	0.06	13.08	2.69	4.03	2.09	0.27	0.33	14.90	1.57	2.09	5.81	1.12	0.39	1.73	75.58
STORT VALLEY & VILLAGES	10.22	1.05	25.19	0.51	0.00	12.73	1.89	3.26	1.95	0.41	0.36	41.69	1.69	2.08	9.13	1.63	0.13	1.39	76.18
THE GRAND UNION	13.30	1.32	22.90	1.36	0.18	11.75	2.22	3.19	2.19	0.25	0.25	26.69	1.27	2.29	9.07	1.53	0.53	1.68	74.02
WARE AND RURALS	7.25	1.01	25.52	0.77	0.09	14.85	2.67	2.64	1.81	0.18	0.27	26.11	1.63	2.58	7.58	1.22	0.03	1.75	86.12
WELWYN GARDEN CITY A	9.18	0.77	25.87	0.71	0.05	13.17	2.65	2.13	1.92	0.46	0.20	20.42	1.30	1.37	7.02	1.11	0.38	1.55	89.89

On this page of conditions, we can see that the PCN has higher prevalence of Inflammatory Bowel disease, Sickle Cell disease and High BP.

Source: HWE PHM Team, Combined population data re-extract via Optum

PCN Benchmarking - A&E Activity

Hertfordshire and West Essex Integrated Care Board



The charts in the next two pages show activity for the PCN compared against all other PCNs at the Place level.

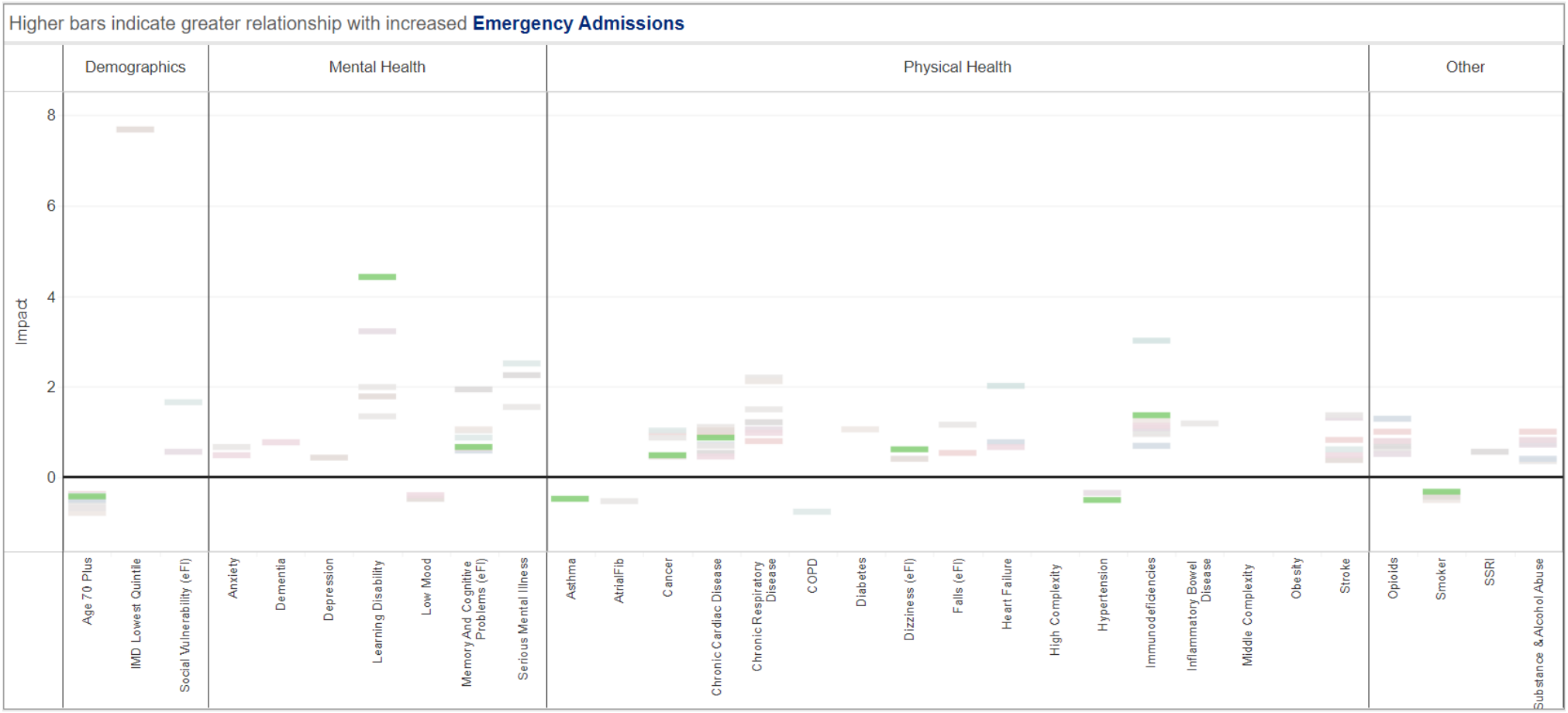
The Model - A statistical regression model is used to decide which Risk Factors correlate with a significant impact on the selected targets as presented in these charts, the height of the bar for each PCN relates to the correlation of a Risk Factor and an increase in impact on the selected target condition.

The impact for the PCN is given and will vary for each characteristic; a wide variance may indicate differences in care or good practice which could be shared; some impacts are positive. Higher bars indicate a greater relationship with increased A&E attendances

Source: HWE PHM Team modelled data, phm.optum.co.uk - Calendar Year 2021

PCN Benchmarking - Emergency Admissions

Hertfordshire and West Essex Integrated Care Board



This uses the same principles as the previous slide but looks at Emergency Admission.

Learning Disability admissions shows the most variance across all PCNs, meaning that characteristic has a high impact on emergency admissions.

Source: HWE PHM Team modelled data, phm.optum.co.uk - Calendar Year 2021

Urgent and Emergency Care

Hertfordshire and West Essex Integrated Care Board

As part of the ICB Urgent and Emergency Care Programme a needs analysis was undertaken.

Overall aim

* To understand what and where the need is for access to urgent and emergency care in Hertfordshire and West Essex

Objectives

* To build a comprehensive picture of **who** needs to access UEC in HWE and who could be better cared for in alternative settings.
* To understand the root causes of **why** people are accessing UEC when there could have been more appropriate alternative pathways
* To build consensus among stakeholders around what the key issues in UEC are
* To draw conclusions based on public health intelligence and triangulation of data to inform a successful and achievable UEC strategy

Some of the initial outputs from this work have been included within the next few pages, providing the PCN benchmarking.

UEC Overview

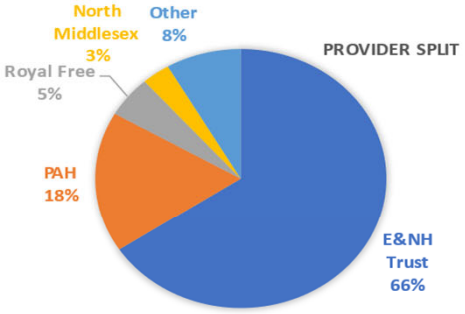
Hertfordshire & West Essex ICB – East & North

A&E Summary – Who are attending and why?

Children 0 -18
Adults 19 -64
Older People 65+

218,296 A&E Attendances in 2021/22

Children = 56,287 (25.8%)
Adults = 111,219 (50.9%)
Older People = 50,790 (23.3%)



128,296 people attended A&E in 2021/22

Children = 34,197 (26.5%)
Adults = 68,101 (52.8%)
Older People = 26,873 (20.8%)

57,811 26.5% of attendances resulted in no investigation and no treatment (includes Uncoded Activity)

Children = 19,082 (34%)
Adults = 30,658 (27.6%)
Older People = 6,944 (15.9%)

This translates to 1 in 5 people registered with East & North attending A&E

Children = 1 in 4 children
Adults = 1 in 5 adults
Older People = 1 in 4 older people

Hertfordshire and West Essex Integrated Care System

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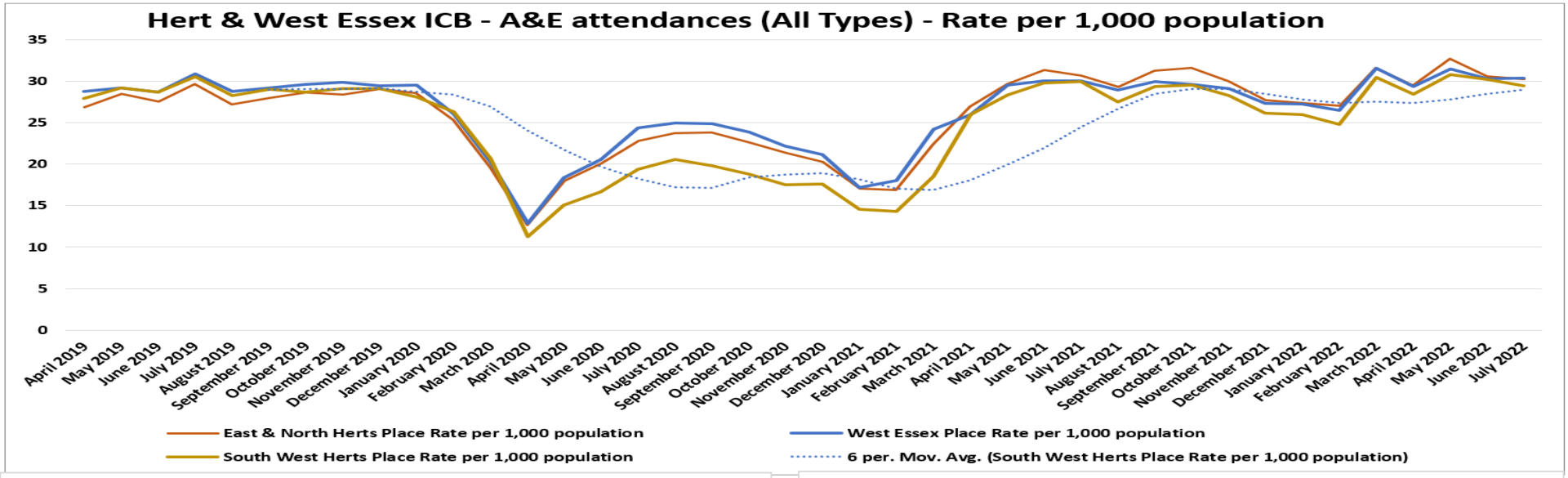
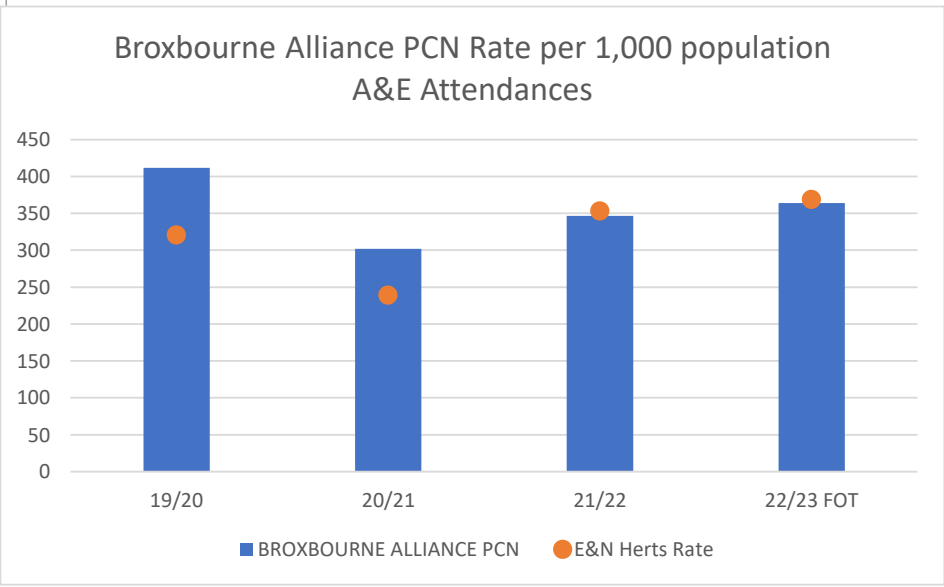
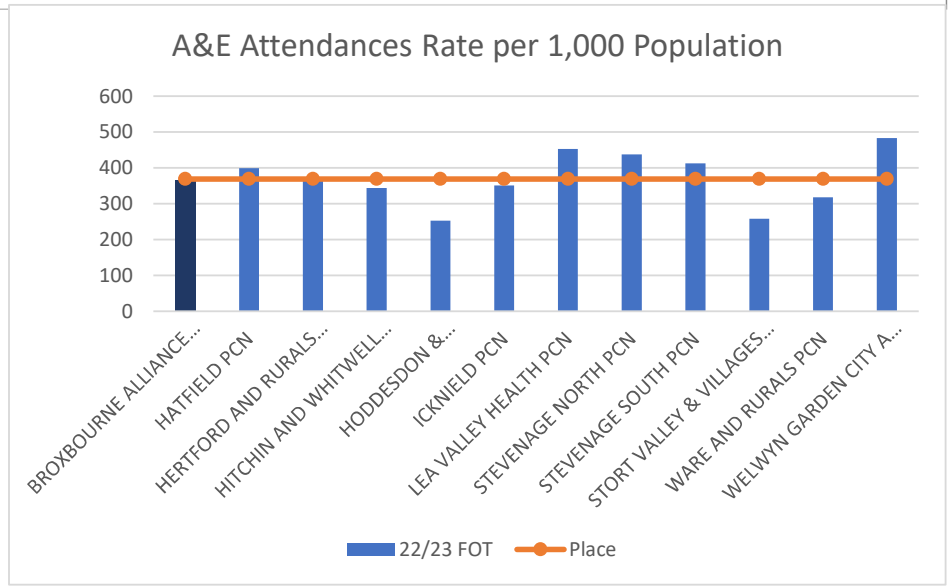
Source: SUS

Source: HWE PHm Team, SUS Data Sets

UEC







Rates of A&E attendances across the ICB have returned to pre covid levels and above.

The impact of covid can clearly be seen in the top left chart.

Urgent & Emergency Care in 2022/23 for Broxbourne Alliance A&E Attendance rates per 1,000 population, is slightly below the place rate.

Source: HWE PHM Team modelled data, phm.optum.co.uk - Calendar Year 2021

Unplanned Hospitalisation for Chronic Ambulatory Care Sensitive Conditions

Hertfordshire and West Essex Integrated Care Board

This analysis looks at Unplanned hospitalisation for chronic ambulatory care sensitive conditions NHS Outcomes Framework Methodology.

Between April 2021 and September 2022 there have been 11,953 people admitted 15,563 times for chronic ambulatory care sensitive conditions across the ICB.

Costed at tariff the value was approximately £42 million.

The table here shows the breakdown for Broxbourne Alliance PCN.

*** Average cost for Mental and Behavioural is not representative as non-PbR**

Chronic ACS admissions
April 2021 - September 2022
Herts & West Essex ICB

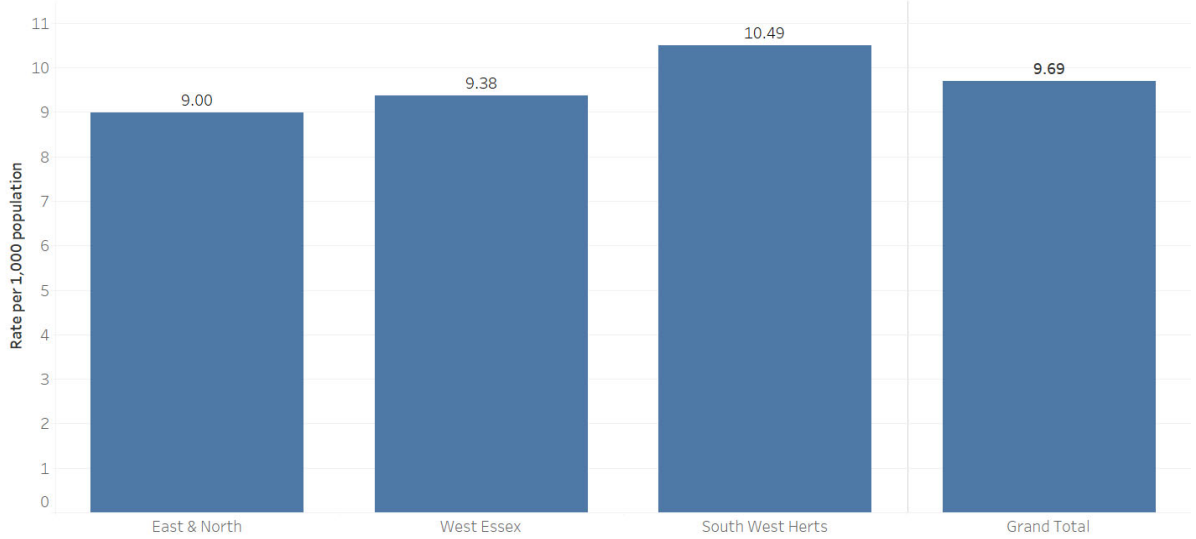
Chronic ACS	Admissions	People	Average cost of admission	Tariff Total Payment National
CVD: AF and Flutter	62	53	£2,686	£166,514
CVD: Angina	8	6	£1,643	£13,147
CVD: Congestive Heart Failure	134	105	£5,324	£713,387
CVD: Hypertension	21	20	£810	£17,007
Diseases of the blood	31	30	£3,130	£97,043
Mental and Behavioural Disorders	1	1		
Neurological Disorders	36	24	£2,839	£102,186
Nutritional, endocrine and metabolic	54	47	£3,270	£176,576
Respiratory: Asthma	20	18	£1,488	£29,760
Respiratory: COPD	78	58	£3,172	£247,400
Grand Total	**445**	**338**	**£3,512**	**£1,563,020**

Source: HWE PHM Team, SUS UEC data-sets

ACS Admission Rates per 1,000 Population by Place

Hertfordshire and West Essex Integrated Care Board

Chronic Ambulatory Care Sensitive Conditions by Place
Rate per 1,000 Population
(Total Population)

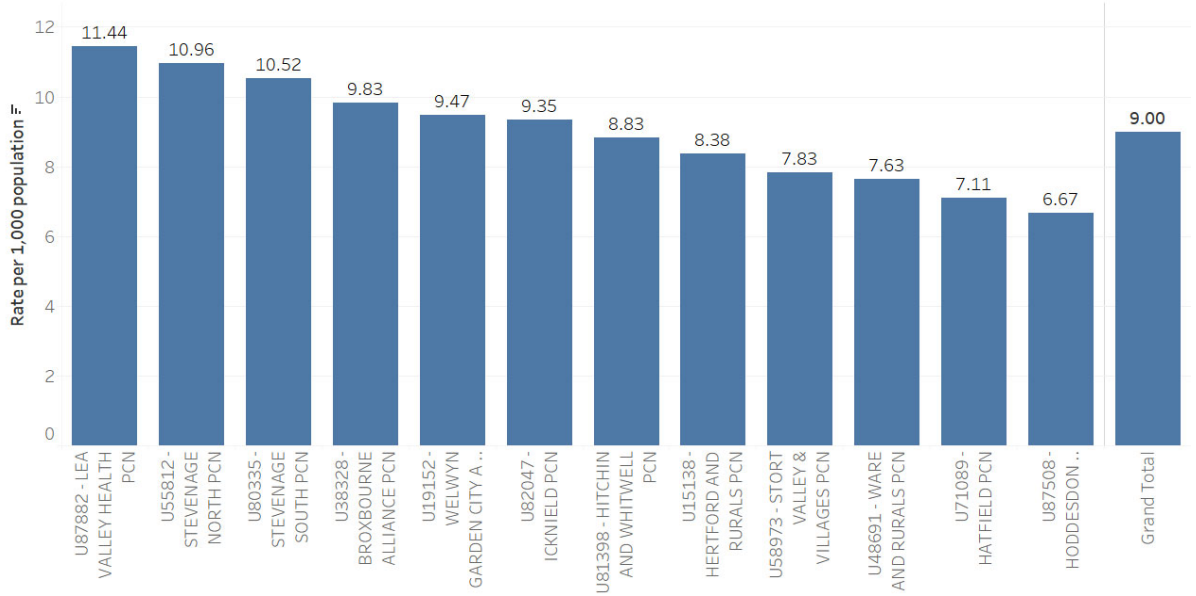


When comparing the rates per 1,000 population between places, the East & North place has the lowest rate in the ICB.

Within East & North Place, Broxbourne has one of the highest rates per 1,000 population.

The following slides look at how this is broken down by the different ACSs and how the patients fall within the different segments.

Chronic Ambulatory Care Sensitive Conditions by Place
Rate per 1,000 Population
(Total Population)



Source: HWE PHM Team, SUS UEC data-sets

Chronic ACS by Segment

Hertfordshire and West Essex Integrated Care Board

The above chart looks at the ACS admissions by age and segment. The size reflects volume and the depth of colour reflects cost.

When looking at the ACS conditions for Broxbourne the highest volume and cost is within the End of Life, Frailty and Dementia in the over 65 age group and the next highest volume and cost is within the same age in the Advanced Disease and Complexity segment.

The following pages look at which ACSs contribute to this.

Source: HWE PHM Team, SUS UEC data-sets

UEC by Advanced Disease & Complexity, and EOL, Frailty & Dementia

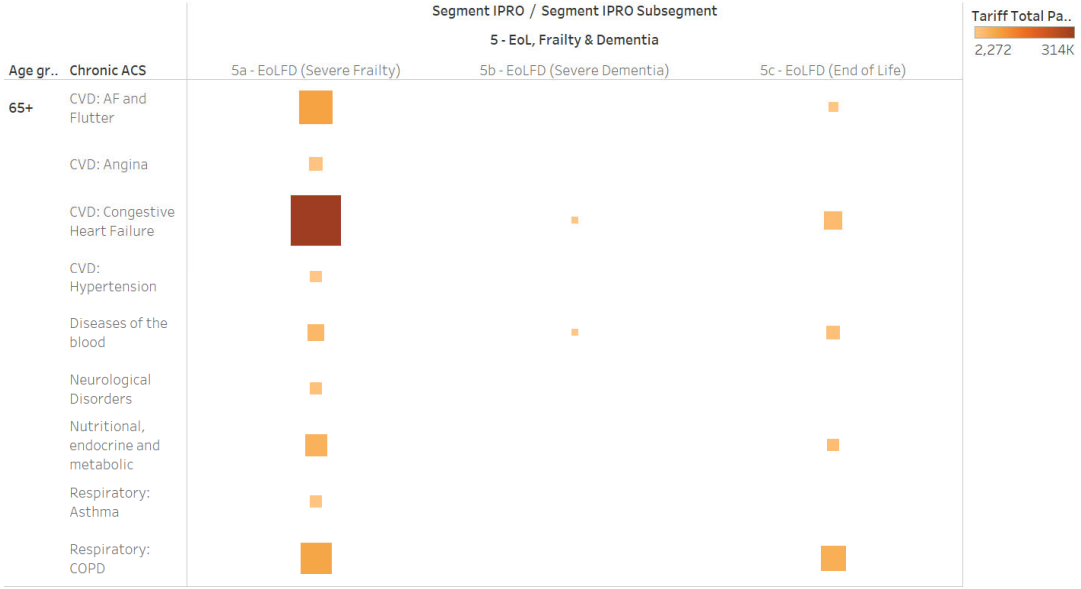
Hertfordshire and West Essex Integrated Care Board

Segment 4

Ambulatory Care Sensitive conditions of note for people aged over 65 within the Advanced Disease and Complexity, is highlighted as Heart Failure and COPD, with the highest volume and cost.

For those people agedover 65 within the End of Life, Frailty & Dementia segment, Heart Failure is highlighted with the highest volume and cost.

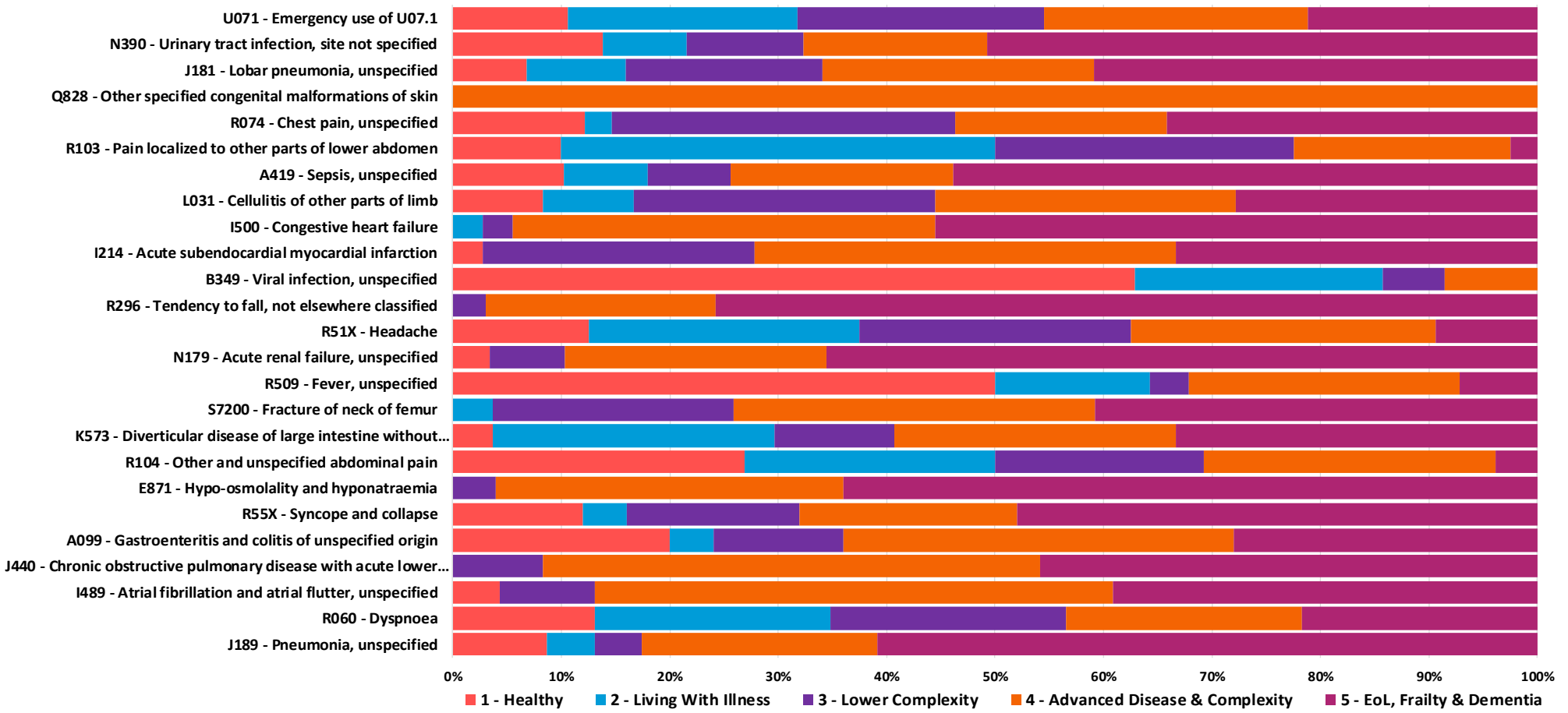
Segment 5



Source: HWE PHM Team, SUS UEC data-sets

UEC Diagnoses by Segment

Hertfordshire and West Essex Integrated Care Board



Here we have identified the top 25 primary diagnoses for the PCN's population, for all UEC admissions - and then these diagnoses split these by the health segments that each patient falls into to see where outliers are for the PCN.

Source: HWE PHM Team, SUS UEC data-sets

UEC & Segmentation + Deprivation by Ward

Hertfordshire and West Essex Integrated Care Board

UEC Patients Seen by Segment & Ward	1 - Healthy	2 - Living With Illness	3 - Lower Complexity	4 - Advanced Disease & Complexity	5 - EoL, Frailty & Dementia	Grand Total
Ashridge					1	1
Bishop's Stortford All Saints			2			2
Brookmans Park and Little Heath	3	3	5	6	3	20
Broxbourne and Hoddesdon South	3	1	3		4	11
Cheshunt North	41	47	66	117	134	405
Cheshunt South and Theobalds	39	52	67	111	143	412
Flamstead End	35	27	66	62	49	239
Goffs Oak	53	43	80	105	118	399
Hatfield East			1			1
Hemel Hempstead Town					1	1
Hertford Kingsmead					1	1
Hertford Rural South	1		1			2
Hoddesdon North		1	1			2
Knebworth					5	5
Lower Nazeing				1		1
Netteswell	1					1
Northaw and Cuffley	49	22	29	53	88	241
Panshanger				1		1
Rosedale and Bury Green	29	26	33	111	98	297
Royston Heath			1			1
Sumners and Kingsmoor	1					1
Waltham Abbey Honey Lane				2	6	8
Waltham Abbey North East			4	1	3	8
Waltham Abbey Paternoster		4			2	6
Waltham Abbey South West	1		4	1		6
Waltham Cross	51	47	76	91	138	403
Wormley and Turnford	34	48	53	115	53	303
Unknown Ward	33	37	19	47	57	193
Grand Total	**374**	**358**	**511**	**824**	**904**	**2971**

UEC Patients Seen by Deprivation Quintile & Ward 1 = Most Deprived, 5 = Least Deprived	1	2	3	4	5	(blank)	Grand Total
Ashridge				1			1
Bishop's Stortford All Saints					2		2
Brookmans Park and Little Heath			18	2			20
Broxbourne and Hoddesdon South				11			11
Cheshunt North	166	168	71				405
Cheshunt South and Theobalds	170		145	97			412
Flamstead End	83	27	58	71			239
Goffs Oak		54	232		113		399
Hatfield East	1						1
Hemel Hempstead Town		1					1
Hertford Kingsmead			1				1
Hertford Rural South			2				2
Hoddesdon North			1	1			2
Knebworth				5			5
Lower Nazeing				1			1
Netteswell	1						1
Northaw and Cuffley			50		191		241
Panshanger					1		1
Rosedale and Bury Green	165	132					297
Royston Heath				1			1
Sumners and Kingsmoor		1					1
Waltham Abbey Honey Lane	8						8
Waltham Abbey North East	3		5				8
Waltham Abbey Paternoster	2	4					6
Waltham Abbey South West	6						6
Waltham Cross	278	75	50				403
Wormley and Turnford	59	229	15				303
Unknown Ward						193	193
Grand Total	**942**	**691**	**648**	**190**	**307**	**193**	**2971**

It is also useful to note under which Wards that the PCNs population are linked to, and specifically here, where the admissions are highest.

The indication then for these patients split by health segments also adds a layer of importance when considering how the District Councils may help you investigate your population and where the wider determinants and health inequalities may be present.

It is also important to know that a Ward may be made up of different LSOAs, and therefore have different levels of deprivation as found in the Indices of Multiple Deprivation scoring given to us be the Government; in the graph quintile 1 is the Highest or Most deprived, and quintile 5 is the Least deprived.

Source: HWE PHM Team, Combined population data re-extract via Optum, NHS England

Public Health - Nationally Reported Admissions

Hertfordshire and West Essex Integrated Care Board

Hospital Admissions

	Period	HERTFORDSHIRE AND WEST ESSEX	BROXBOURNE ALLIANCE PCN
Emergency admissions injuries due to falls in those aged 65+	2020/21	2026	1725.5
Emergency asthma, diabetes and epilepsy admissions (aged 0-18)	2020/21	130.8	
Emergency admissions for children with lower respiratory tract infections (age 0-18)	2020/21	40.5	
Emergency admissions for chronic ambulatory care sensitive conditions	2020/21	505.9	452
Mental health admissions (all ages)	2020/21	177.2	150
Emergency Cancer Admissions	2020/21	494.9	388.7
Emergency admissions for acute conditions shouldn't require admissions	2020/21	611.6	488.1

Similar Significantly Worse Significantly Better

PH.Intelligence@hertfordshire.gov.uk

Hertfordshire Public Health Evidence & Intelligence Epidemiology

Hertfordshire

The above table produced by the Hertfordshire Public Health Evidence and Intelligence team shows the emergency admissions data within fingertips.

Broxbourne Alliance PCN show a similar rate and significantly better rate of admissions to the ICB, dependent on the type of admission.

Source: Public Health Team

Frailty Segment - Detailed PCN Breakdown

NHS Hertfordshire and West Essex Integrated Care Board

	Most deprived								Most affluent				
Index of Multiple Deprivation Decile	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**NULL**	**PCN**	**ICS**
Overall Population Measures													
Population	3	153	213	262	229	223	205	255	54	241	6	1844	37725
% of population in cohort	0.2%	8.3%	11.6%	14.2%	12.4%	12.1%	11.1%	13.8%	2.9%	13.1%	0.3%	100.0%	100.0%
Avg. Age	63.0	74.2	74.9	75.6	76.0	77.7	79.2	78.1	76.7	79.7	81.2	77.0	75.6
% BAME Where recorded	0%	17%	9%	9%	7%	7%	9%	11%	9%	4%	0%	9%	8%
Avg. number of Acute and Chronic Condition	7.3	5.2	5.4	5.3	4.9	5.0	4.7	4.9	4.9	5.1	4.0	5.1	5.5
Activity Measure													
Emergency Admissions	0.7	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.3	0.4	0.2	0.5	0.6
A&E Attendances	2.7	1.0	1.0	1.0	0.8	0.9	0.6	0.7	0.6	0.7	0.3	0.8	0.9
GP Encounters	125.3	111.0	127.2	111.1	105.9	116.3	103.3	98.3	94.0	94.7	83.8	107.6	103.4
Admitted Bed Days	2.7	4.1	4.5	3.2	3.7	3.2	3.8	3.4	2.4	2.9	0.7	3.5	4.2
Physical Health													
Asthma	66.7%	30.1%	24.4%	20.2%	20.5%	18.4%	16.6%	20.0%	27.8%	22.0%	0.0%	21.4%	25.2%
Cancer	0.0%	30.1%	30.5%	28.2%	36.7%	35.9%	33.7%	37.6%	44.4%	39.4%	16.7%	34.4%	32.8%
Chronic Cardiac Disease	66.7%	47.7%	48.4%	48.5%	39.7%	45.3%	44.9%	49.8%	51.9%	59.8%	33.3%	48.3%	47.5%
Chronic Respiratory Disease	66.7%	26.8%	26.3%	19.1%	21.8%	27.4%	14.6%	15.7%	16.7%	18.3%	16.7%	20.8%	22.2%
CKD	33.3%	25.5%	29.6%	29.4%	25.8%	22.4%	25.4%	21.2%	16.7%	19.9%	0.0%	24.5%	20.7%
Heart Disease	33.3%	38.6%	39.4%	39.3%	34.1%	35.9%	36.6%	36.5%	40.7%	44.4%	16.7%	38.1%	39.1%
Hypertension	66.7%	75.2%	78.4%	82.1%	78.6%	78.0%	79.5%	83.9%	83.3%	81.7%	83.3%	80.1%	74.5%
Diabetes	33.3%	37.9%	41.3%	41.2%	35.4%	42.2%	35.6%	34.1%	31.5%	27.4%	16.7%	36.6%	42.8%
Obesity	66.7%	37.3%	41.3%	39.7%	29.3%	39.5%	33.7%	30.6%	40.7%	34.4%	16.7%	35.7%	32.8%
Rheumatoid Arthritis	33.3%	6.5%	6.6%	6.5%	7.0%	4.9%	3.9%	5.9%	5.6%	3.3%	16.7%	5.6%	5.3%
Stroke	33.3%	28.1%	27.2%	29.4%	31.4%	29.1%	27.8%	24.7%	29.6%	32.8%	33.3%	28.9%	34.5%
Mental Health													
Anxiety	66.7%	35.3%	25.8%	26.0%	26.2%	21.5%	23.9%	27.1%	22.2%	25.7%	16.7%	26.0%	29.0%
Depression	66.7%	41.8%	36.6%	32.1%	31.0%	33.2%	27.8%	27.1%	27.8%	25.7%	33.3%	31.3%	33.6%
Dementia	0.0%	7.2%	7.5%	20.2%	8.3%	8.1%	14.1%	8.6%	3.7%	7.5%	16.7%	10.2%	18.6%
Serious Mental Illness	0.0%	5.2%	4.7%	3.4%	2.2%	0.9%	0.5%	0.8%	1.9%	1.2%	0.0%	2.2%	6.5%
Low Mood	66.7%	17.0%	19.2%	19.5%	16.6%	18.4%	14.6%	8.2%	20.4%	17.4%	33.3%	16.5%	18.5%
Suicide	0.0%	2.0%	1.4%	1.1%	1.7%	0.0%	2.0%	0.8%	0.0%	2.5%	0.0%	1.4%	1.5%
Mental Health Flag	66.7%	54.2%	45.5%	46.6%	45.0%	43.0%	41.0%	35.7%	37.0%	36.5%	33.3%	42.7%	48.8%
Screening and Verification Refusal													
Bowel Screening Refused	0.0%	26.8%	28.6%	32.8%	30.6%	26.5%	20.0%	19.6%	31.5%	22.4%	0.0%	26.0%	25.5%
Cervical Screening Refused	0.0%	3.9%	4.7%	4.2%	3.5%	4.0%	3.4%	3.1%	7.4%	0.8%	0.0%	3.5%	3.6%
Flu Vaccine Refused	33.3%	24.8%	27.7%	23.3%	24.5%	22.9%	15.6%	16.5%	11.1%	3.7%	0.0%	19.3%	26.4%
Wider Indicators													
Has A Carer	66.7%	22.2%	20.2%	29.0%	21.0%	19.3%	26.3%	17.3%	14.8%	21.2%	0.0%	21.9%	19.0%
Is A Carer	0.0%	13.1%	16.4%	14.5%	18.8%	19.7%	18.5%	16.5%	22.2%	26.6%	33.3%	18.3%	11.9%
MED3 Not Fit For Work (ever)	33.3%	16.3%	16.4%	14.5%	15.7%	11.7%	7.3%	7.8%	16.7%	8.3%	0.0%	12.2%	13.4%
MED3 Not Fit For Work (in Last Year)	33.3%	3.9%	3.8%	4.6%	4.4%	3.6%	2.0%	1.2%	1.9%	1.2%	0.0%	3.0%	3.5%
MED3 Not Fit For Work (in Last Six Months)	33.3%	3.3%	2.8%	3.1%	4.4%	3.6%	1.0%	0.4%	3.7%	0.4%	0.0%	2.4%	2.8%
Avg. number of eFI Deficits	17.3	14.3	15.0	15.0	14.5	14.7	14.4	14.6	14.3	14.6	14.0	14.6	13.4
eFI_Housebound	0.0%	11.1%	10.3%	12.2%	10.9%	8.5%	9.3%	5.9%	11.1%	15.4%	0.0%	10.4%	10.9%
eFI_SocialVulnerability	0.0%	33.3%	40.4%	26.0%	34.1%	36.8%	27.8%	27.1%	22.2%	26.1%	33.3%	30.8%	27.3%
People_ChildrenInPoverty	32.6	31.6	25.5	22.5	19.7	9.1	9.5		7.1			24.8	15.5
Housing_FuelPoverty	19.7	16.9	13.8	14.1	9.9	8.7	10.3	7.8	7.6	6.7		10.7	11.1
Housing_OnePersonHousehold	26.2	37.4	34.2	27.0	27.4	26.6	24.3	20.4	17.4	18.8	26.6	26.1	28.3

14.8% of the general population in HWE ICB live within the 4 most deprived deciles, whilst 16.1% of the population in the EoL, severe frailty and severe dementia segment live within the 4 most deprived deciles.

In Broxbourne 34.3% of the population in the EoL, severe frailty and severe dementia segment live within the 4 most deprived deciles.

The average age of a person within the Frail and End of life segment increases with affluence, ranging from 69 in the most deprived decile to 77 within the most affluent decile within the ICB.

As we would expect the average number of acute and chronic conditions is significantly higher within this segment that the general population as are all activity measures. The average number of Chronic Conditions for people within Broxbourne Alliance PCN is slightly lower than the ICB, and the data shows higher usage of GP services.

Within this segment we can see the presence of Chronic Cardiac Disease and Heart Disease being highlighted which chimes with the reason for admission within previous analysis for ACS conditions. It is to be noted that Hypertension is high across all deciles and higher than the ICB. MH flag is also to be noted.

Source: HWE PHM Team, SUS UEC data-sets

Applying Machine Learning factors without our data platform

Hertfordshire and West Essex Integrated Care Board

Why Machine Learning?

With limited capacity available across the ICB available to review lists of patients it is important that the data available is used to its maximum to refine our process and target our resources where they will have the most impact.

The aim is to build the features identified from the machine learning in to system searches for EMIS and SystmOne.

Approach

- Trained several machine learning models on ~1 million linked patient records across ~200 features from the ICS segmentation dataset, for binary A&E risk prediction (will this patient use A&E within the next year?).

- Selected a final twin ensemble model with a binary classification accuracy of 81.3%.

- Extracted output probabilities for each class to estimate a risk score for each patient, and generated risk scores for all of the patients in the segmentation data. We can think of the risk score as the model's confidence in a patient requiring A&E.

- Partitioned the patient population into 3 distinct grades, Low, Medium and High risk, based on the machine learning predictions:

Risk grade	Range of predicted risk scores	Number of patients in grade	% of population in grade
High	0.8 to 1.0	22603	1.8
Medium	0.6 to 0.8	100446	8.1
Low	0.0 to 0.6	1115544	90.1

Creating search logic from significant features

- Features input to the predictive model include demographic features, diagnosis codes, prescribed medication, waitlist information and environmental factors such as housing and proximity to healthcare.
- Used feature rankings learned by the model to reduce the set of ~200 features to the 30 most significant features that best explain the variance in the predicted class (requiring A&E or not).
- Trained secondary machine learning models, 5-split decision trees, to classify patients into each of the three risk grades based on these 30 significant features.
- Extracted decision tree logic to create search filters for patients by risk grade. 5 splits → 2^5 = 32 unique rules. These rules have been merged and prioritised (by considering individual accuracies and sample sizes) to maximise precision and recall in the final search filters.

Feature	Relative significance (%)
Age	15.03
Drug: Pain Management	10.22
Substance Abuse	4.19
Med3 Not Fit For Work	3.41
Stroke	3.03
eFI: Falls	2.23
Air Rank Quality	2.01
Waiting List Count All	1.83
...	...

Risk Grade: High	**Age < 3** AND **Drug: Salbutamol** AND **eFI: Dyspnoea**
	Med3 Not Fit For Work (last six months) AND **Substance Abuse** AND ONE OF:- • **Drug: Pain Management** AND **eFI: Peptic Ulcer** • **Chronic Cardiac Disease**
	Drug: Pain Management AND **eFI: Falls** AND ONE OF:- • **Stroke** AND **eFI: Memory and Cognitive Problems** • **Stroke** AND **Substance Abuse** • **End Stage Disease**
Risk Grade: Medium	**Age < 3** AND ONE OF:- • **Drug: Salbutamol** AND NO **eFI: Dyspnoea** • **On any waiting list**
	Med3 Not Fit For Work (last six months) AND **Substance Abuse** AND NO **Chronic Cardiac Disease**
	Age < 45 AND **Med3 Not Fit For Work (last six months)** AND **Drug: Pain Management**
	Drug: Pain Management AND **Substance Abuse** AND **ONE OF:** • **Drug: Opioids** • **eFI: Falls** AND NO **Stroke** AND NO **End Stage Disease**
Risk Grade: Low	All others

Source: HWE PHM Team

Quality & Outcomes Framework

Hertfordshire and West Essex Integrated Care Board

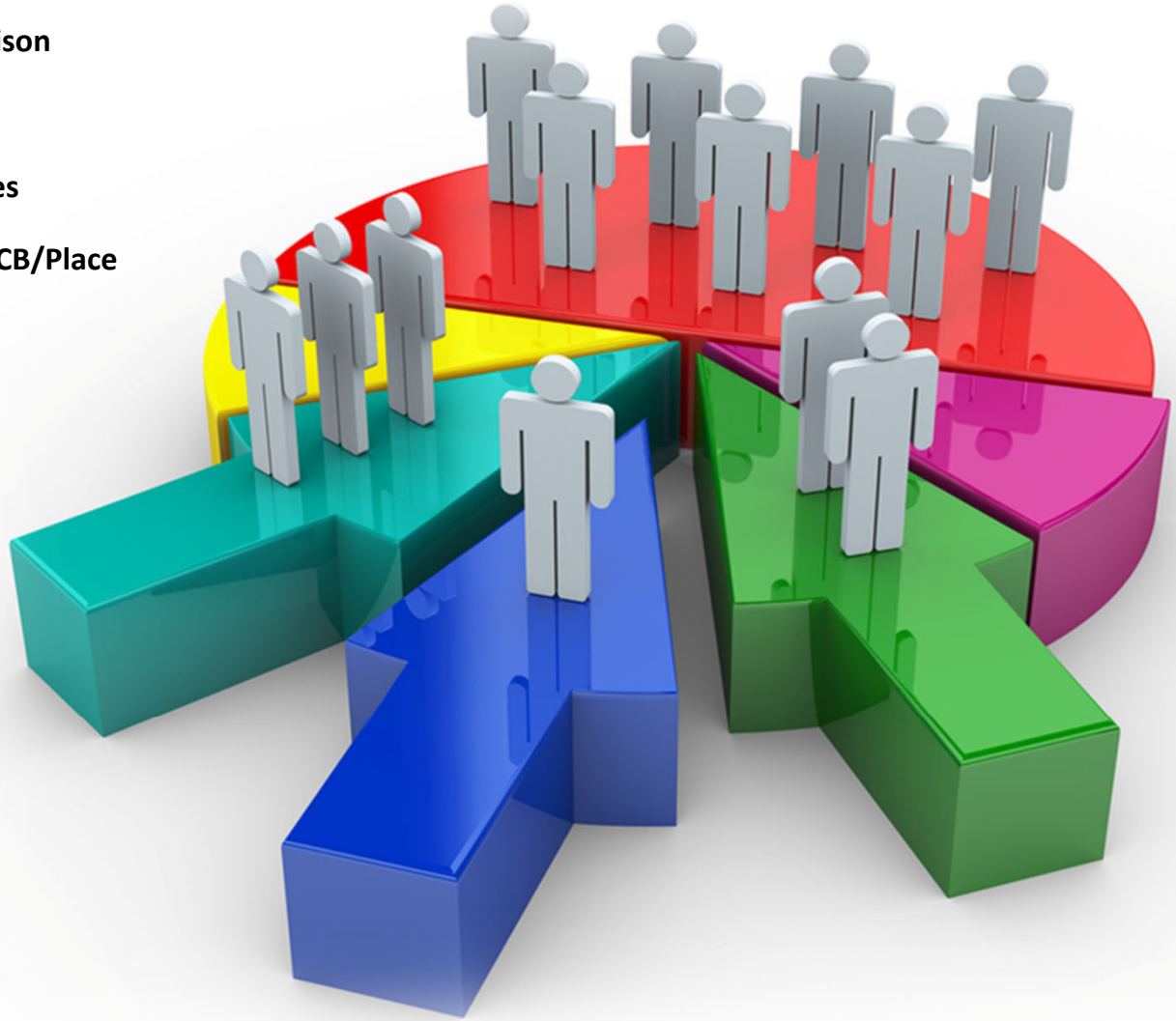
Contents:

- QOF Local, Regional, & National Comparison

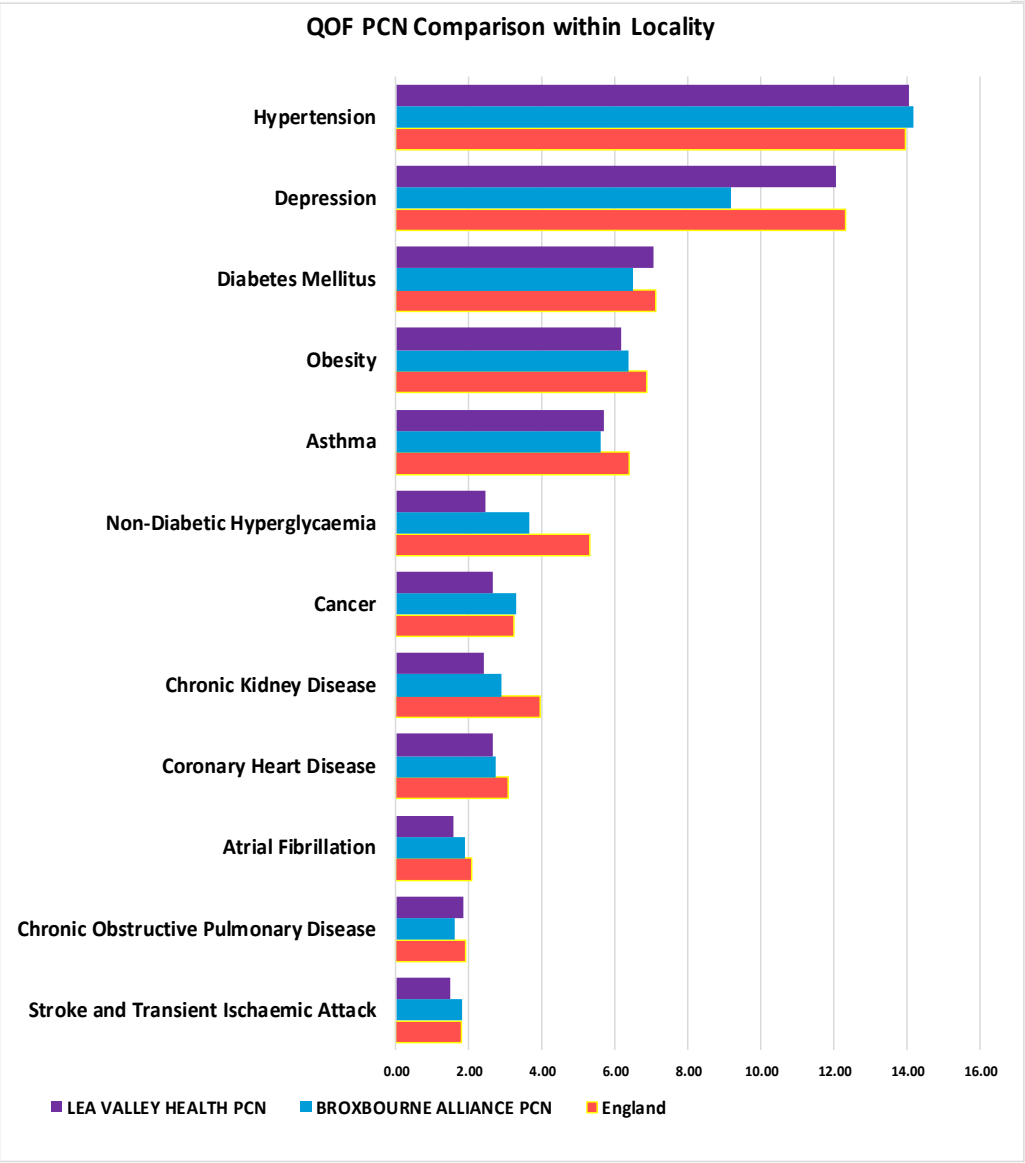
- QOF Locality & PCN Comparison

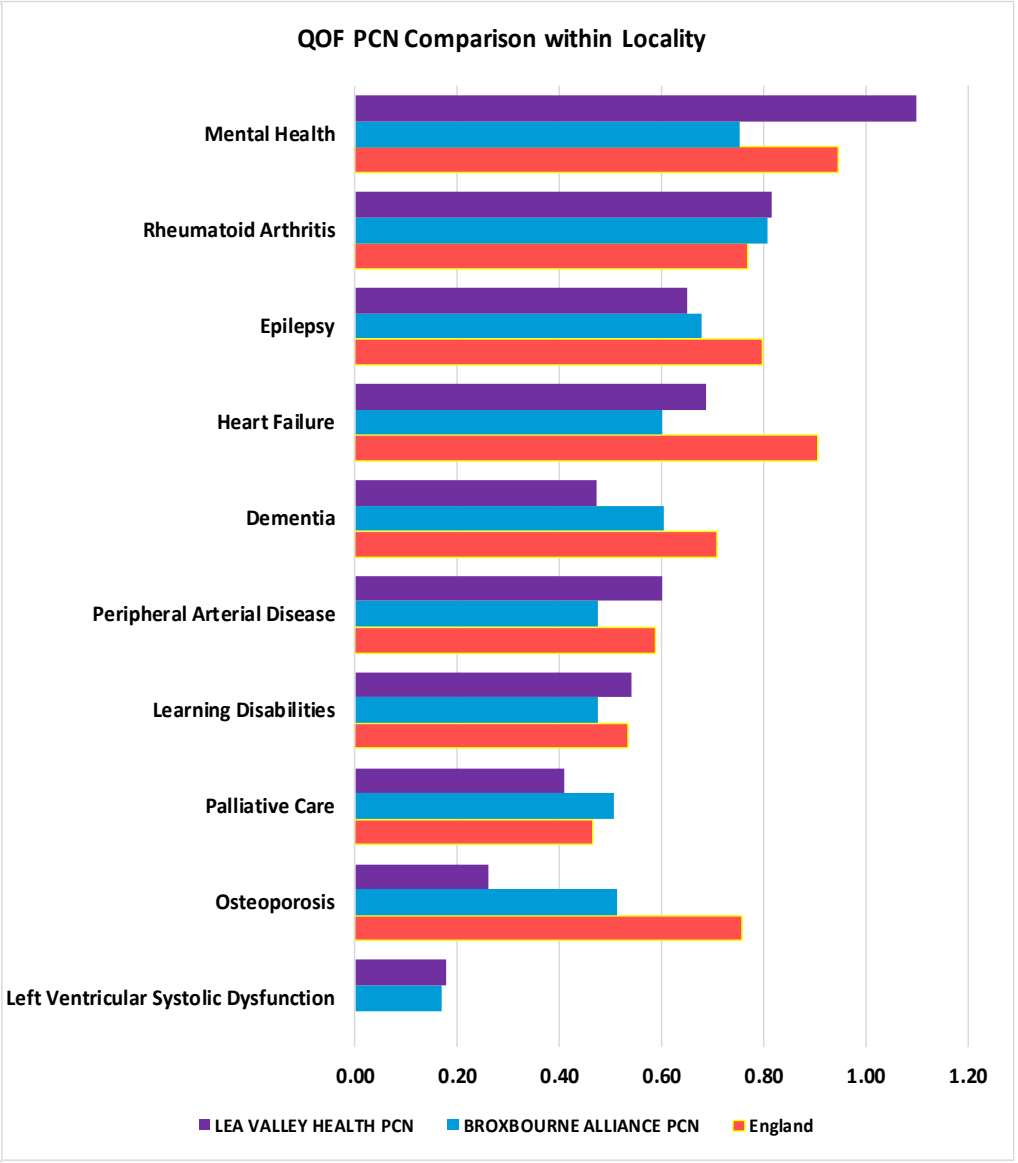
- QOF Missed Diagnoses & Admission Rates

- Admission Rates Benchmarking against ICB/Place



QOF - Locality & PCN Comparison



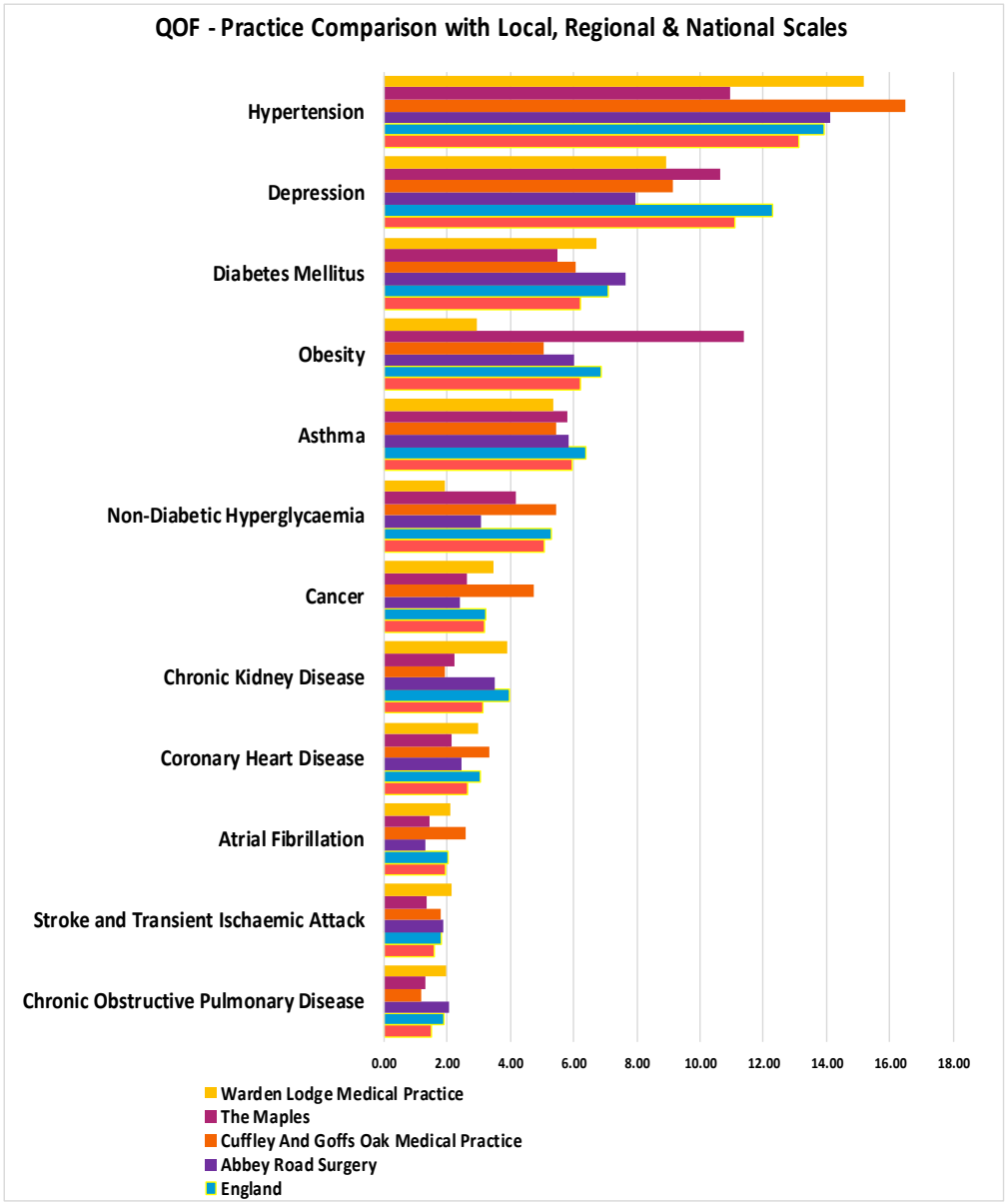


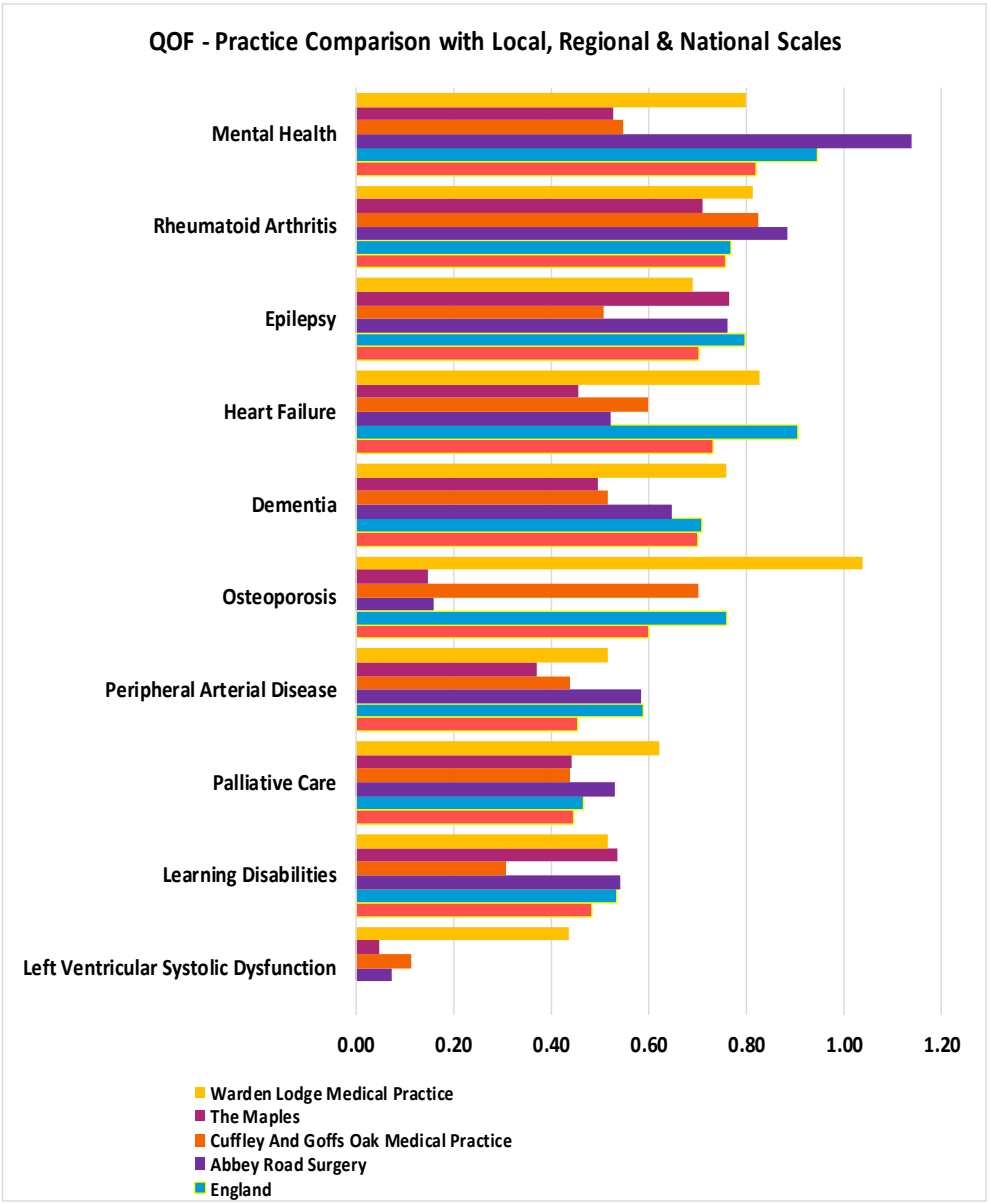
The Quality and Outcome Framework incorporates important benchmarking and scoring for all Practices across the county; we have combined a number of local, regional, and national data sets to highlight the areas that the PCN will need to consider.

In this graph we have shown all your neighbouring PCNs within the Locality, and benchmarked against England's average.

Source: QOF National Figures, HWE PHM Team

QOF - Local, Regional, & National Comparison





The charts here are similar to the previous slide but provides the comparison between practices within the PCN.

Source: QOF National Figures, HWE PHM Team

QOF - Missed Diagnoses & Admission Rates

NHS Hertfordshire and West Essex Integrated Care Board

Disease	QOF List size 21-22	QOF Register 21-22	QOF Prevalence 21/22	Place prevalence	ICB prevalence	Modelled prevalence	New diagnoses to meet Place average	new diagnoses to meet ICB average	New diagnoses to meet estimated prevalence
Asthma	42346	2516	5.94%	6.39%	6.17%		189	96	
COPD	45430	686	1.51%	1.54%	1.49%	2.23%	12	-11	328
Diabetes	36165	2418	6.69%	6.29%	6.39%	7.78%	-143	-108	394
Non-diabetic hyperglyaemia	35636	1555	4.36%	4.63%	5.87%	10.87%	95	537	2320
Hypertension	45430	6627	14.59%	13.25%	13.21%		-606	-625	
Atrial Fibrillation	45430	891	1.96%	2.01%	2.02%	2.58%	24	27	279
Stroke and TIA	45430	823	1.81%	1.70%	1.61%		-51	-92	
Coronary Heart Disease	45430	1202	2.65%	2.62%	2.65%		-10	3	
Heart failure	45430	290	0.64%	0.71%	0.75%	1.43%	33	53	357
Left Ventricular Systolic Dysfunction	45430	107	0.24%	0.20%	0.30%		-16	29	
Chronic Kidney Disease	35636	965	2.71%	2.53%	3.21%		-63	178	
Peripheral Arterial Disease	45430	205	0.45%	0.46%	0.44%		3	-4	
Cancer	45430	1594	3.51%	3.33%	3.35%		-82	-74	
Palliative care	45430	201	0.44%	0.50%	0.43%		27	-6	

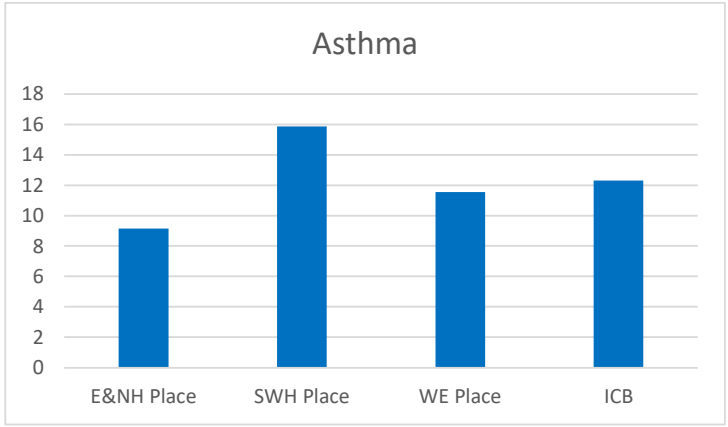
The table above shows the latest prevalence (2021/22 published August 20222) for the PCN alongside the place prevalence, ICB prevalence and the modelled prevalence for the PCN.

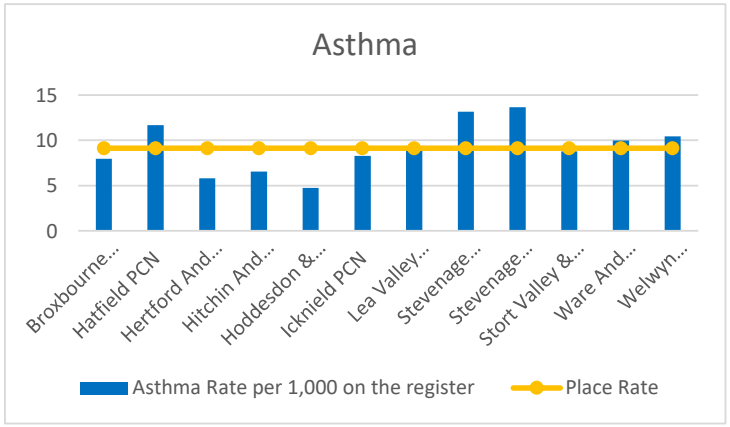
This table shows opportunities for further identification. It outlines the diagnoses to meet the place, ICB and estimated prevalence.

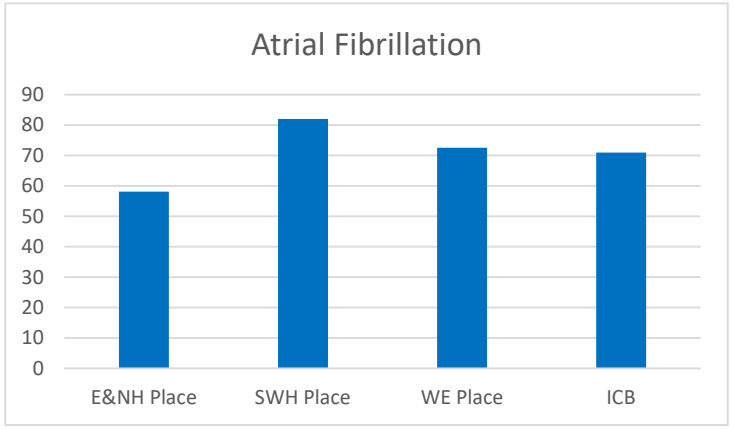
Within Ardens Manager there are case finding searches that can support PCN with identification.

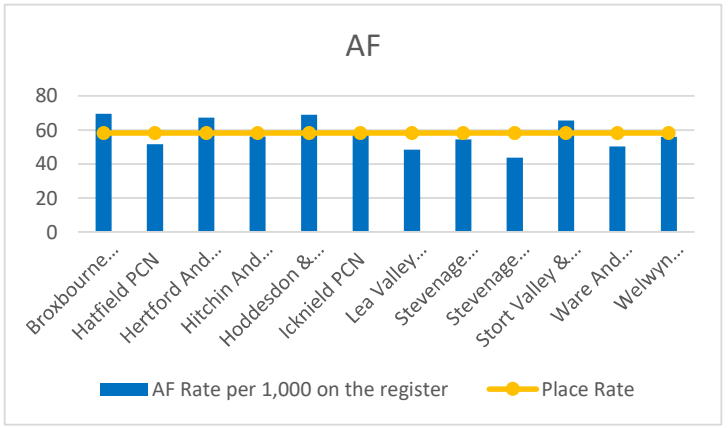
Source: QOF National Figures, HWE PHM Team

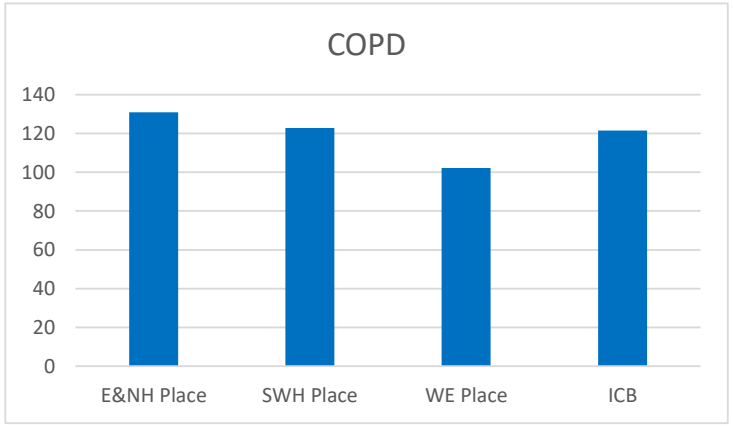
Emergency Admission Rates per 1,000 population on the Disease Register

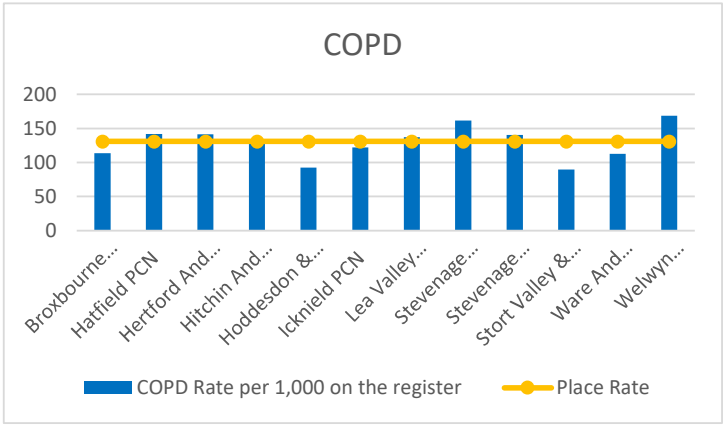












The charts on the left shows the Emergency Admissions Rates per 1,000 population on the disease register.

It shows the places compared with the ICB on the left and on the right it show the PCNs within a Place.

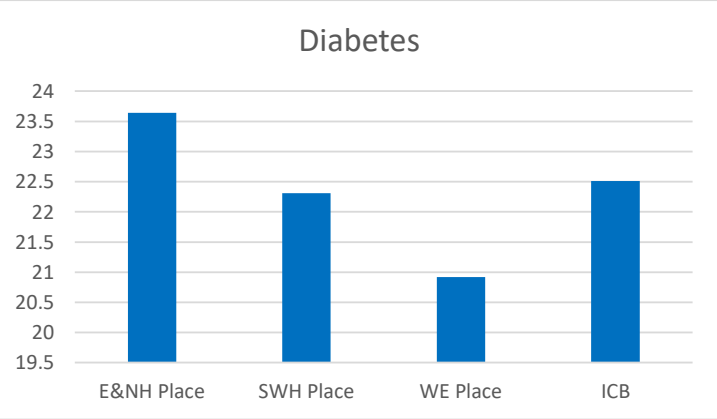
These are continued on the following place.

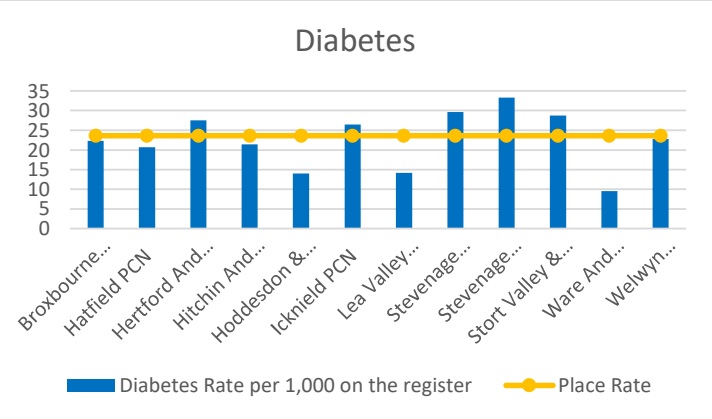
Rates may be high due to a number of factors which may include low identification.

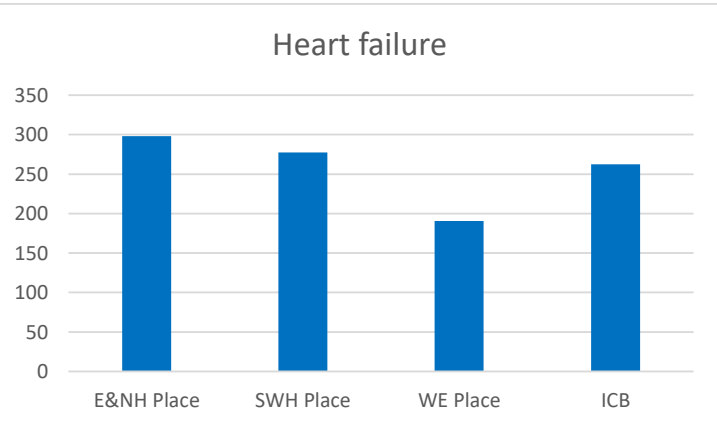
For Broxbourne the data shows higher rates for AF and the highest Heart Failure rates within East & North which was identified as a theme within the ACS analysis.

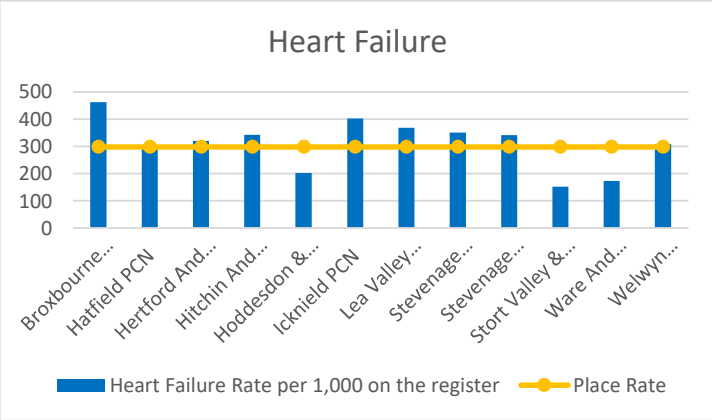
Source: HWE PHM Team, SUS data

Emergency Admission Rates per 1,000 population on the Disease Register









Source: HWE PHM Team, SUS data

Appendices

Hertfordshire and West Essex Integrated Care Board

The following pages provide additional information breakdowns relating to the segmentation and population data

Contents:

Matrix Data - Ethnicity

NHS Hertfordshire and West Essex Integrated Care Board

Ethnicity Group	Other Ethnic Groups			Asian			Asian or Asian British		Black			Mixed			Other			White			Unknown			Grand Total
Complexity	Low Complexi	Middle Complexit	High Complexi	Low Complexi	Middle Complexit	High Complexi	Low Complexi	Middle Complexi	Low Complexi	Middle Complexi	High Complexi	Low Complexit	Middle Complexi	High Complexi	Low Complexit	Middle Complexi	High Complexi	Low Complexi	Middle Complexit	High Complexi	Low Complexi	Middle Complexit	High Complexi	
Overall Population Measures																								
Population	916	240		751	457	48	98	19	1,552	910	52	707	305	15	919	708	77	16,827	13,877	1,996	2,292	714	7	**43,490**
Age	31	46	65	27	46	68	29	45	28	45	65	20	36	58	28	47	68	31	52	74	30	47	78	**40**
Male %	53.2%	40.8%	66.7%	47.7%	45.1%	37.5%	57.1%	63.2%	47.9%	44.7%	36.5%	48.4%	42.6%	66.7%	55.2%	45.9%	62.3%	50.6%	44.5%	47.5%	55.5%	57.3%	28.6%	**48.5%**
IMD	5.1	5.3	7.0	5.3	5.5	5.6	5.3	5.1	4.5	4.5	4.3	5.4	5.2	5.6	5.3	5.7	5.8	5.9	6.0	6.0	6.1	6.1	5.3	**5.8**
% BAME (where recorded)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%	0%	0%				**19%**
Multimorbidity (acute & chronic)	0.0	1.5	5.3	0.0	1.7	6.2	0.0	1.4	0.0	1.6	6.0	0.0	1.6	6.3	0.0	1.8	6.4	0.0	1.9	6.4	0.0	1.5	6.1	**1.0**
Finance and Activity Measures																								
Spend - Total	£0.1M	£0.0M	£0.0M	£0.2M	£0.4M	£0.1M	£0.0M	£0.0M	£0.4M	£0.8M	£0.3M	£0.2M	£0.2M	£0.0M	£0.4M	£0.7M	£0.4M	£4.7M	#####	£7.1M	£0.2M	£0.1M	£0.0M	#####
PPPY - Total	£86	£180	£178	£330	£836	£2,410	£259	£298	£260	£868	£5,446	£338	£643	£2,833	£437	£1,007	£4,758	£278	£842	£3,569	£70	£194	£4,018	**£647**
Acute Elective	£22	£49	£118	£119	£303	£1,410	£53	£150	£91	£369	£3,090	£118	£330	£642	£215	£514	£2,438	£104	£397	£1,324	£20	£73	£2,178	**£274**
Acute Non-Elective	£15	£13	£0	£135	£353	£591	£144	£6	£103	£330	£1,970	£156	£165	£1,822	£145	£313	£1,971	£102	£271	£1,877	£6	£26	£1,574	**£249**
GP Encounters	£50	£119	£60	£76	£180	£409	£62	£142	£67	£169	£386	£65	£147	£369	£77	£180	£349	£72	£175	£368	£45	£96	£266	**£124**
Community	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	**£0**
Mental Health	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	**£0**
Social Care	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	**£0**
GP PPPY	14	33	18	21	49	111	17	44	18	46	101	18	42	106	22	51	97	21	50	103	13	28	78	**35**
Beddays PPPY - Acute EM	0	0	0	0	0	1	0	0	0	1	5	0	0	8	0	1	4	0	1	4	0	0	2	**0**
Physical Health																								
Diabetes	0.0%	19.6%	66.7%	0.0%	28.0%	68.8%	0.0%	26.3%	0.0%	23.7%	61.5%	0.0%	15.4%	80.0%	0.0%	15.1%	55.8%	0.0%	13.8%	43.4%	0.0%	10.2%	57.1%	**8.1%**
COPD	0.0%	0.4%	0.0%	0.0%	1.1%	20.8%	0.0%	0.0%	0.0%	0.3%	15.4%	0.0%	1.3%	26.7%	0.0%	1.4%	20.8%	0.0%	2.1%	26.5%	0.0%	0.7%	28.6%	**2.0%**
Chronic Respiratory Dis...	0.0%	0.8%	33.3%	0.0%	2.2%	20.8%	0.0%	0.0%	0.0%	1.8%	25.0%	0.0%	3.3%	26.7%	0.0%	2.8%	27.3%	0.0%	3.1%	32.0%	0.0%	1.0%	28.6%	**2.7%**
Hypertension	0.0%	23.3%	100.0%	0.0%	31.1%	85.4%	0.0%	31.6%	0.0%	37.7%	88.5%	0.0%	21.3%	73.3%	0.0%	28.4%	85.7%	0.0%	33.1%	84.2%	0.0%	29.4%	100.0%	**17.2%**
Obesity	4.8%	18.8%	0.0%	3.9%	15.1%	16.7%	1.0%	15.8%	5.6%	25.4%	34.6%	3.1%	14.1%	46.7%	6.3%	19.6%	39.0%	8.8%	26.5%	40.3%	3.4%	12.3%	42.9%	**16.0%**
Mental Health																								
Anxiety/Phobias	0.0%	23.8%	33.3%	0.0%	17.5%	29.2%	0.0%	21.1%	0.0%	14.7%	34.6%	0.0%	20.3%	53.3%	0.0%	25.4%	35.1%	0.0%	26.0%	36.3%	0.0%	21.6%	42.9%	**11.7%**
Depression	0.0%	25.0%	66.7%	0.0%	18.8%	39.6%	0.0%	15.8%	0.0%	15.1%	26.9%	0.0%	26.2%	60.0%	0.0%	27.7%	39.0%	0.0%	30.3%	43.3%	0.0%	25.8%	57.1%	**13.5%**
Learning Disability	0.0%	0.8%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	2.1%	0.0%	0.0%	2.3%	6.7%	0.0%	1.0%	1.3%	0.0%	1.3%	2.5%	0.0%	1.1%	0.0%	**0.6%**
Dementia	0.0%	0.0%	33.3%	0.0%	0.4%	4.2%	0.0%	0.0%	0.0%	0.3%	7.7%	0.0%	0.0%	0.0%	0.0%	0.8%	9.1%	0.0%	0.8%	9.4%	0.0%	0.6%	28.6%	**0.7%**
Other Characteristics																								
Housebound (eFI)	0.0%	0.0%	0.0%	0.0%	0.2%	8.3%	0.0%	5.3%	0.0%	0.2%	1.9%	0.0%	0.3%	6.7%	0.0%	0.4%	2.6%	0.0%	0.7%	7.7%	0.0%	0.3%	14.3%	**0.6%**
Social Vulnerability (eFI)	2.1%	0.8%	0.0%	1.9%	2.8%	18.8%	8.2%	5.3%	0.8%	4.0%	15.4%	0.7%	2.0%	13.3%	0.5%	3.8%	13.0%	1.2%	5.5%	26.2%	0.6%	2.9%	14.3%	**3.9%**
History of Smoking (Tw...	9.1%	10.8%	0.0%	3.7%	9.8%	16.7%	6.1%	10.5%	3.0%	8.8%	13.5%	3.8%	11.1%	33.3%	6.6%	12.6%	18.2%	7.8%	14.1%	17.0%	5.5%	12.3%	0.0%	**10.1%**
Not Fit for Work (In Year)	2.0%	7.5%	0.0%	2.4%	10.7%	10.4%	0.0%	5.3%	5.7%	10.7%	11.5%	2.7%	9.5%	0.0%	3.3%	11.2%	5.2%	2.8%	7.3%	4.3%	1.1%	5.5%	14.3%	**4.8%**
On a Waiting List	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**

PHM is underpinned by good linked data, with an appropriate method of extracting segmented or patients under key metrics; this matrix is showing the complexity of ethnic groups is broadly categorised across the PCN.

Source: HWE PHM Team modelled data, phm.optum.co.uk - Calendar Year 2021

Matrix Data - Segment & Sub-Segment

Hertfordshire and West Essex Integrated Care Board

Life Course Segment	1 - Healthy			2 - Living With Illness			3 - Lower Complexity			4 - Advanced Disease & Complexity			5 - EoL, Frailty & Dementia			Grand Total
Life Course Subsegment	1a - H (Low Risk)	1b - H (Maternity & Child)	1c - H (Acute Episodic)	2a - Lwl (At Risk)	2b - Lwl (LTCs)	2c - Lwl (MH)	3a - LC (Mod. Social Co..	3b - LC (Multimorbidity	3c - LC (Mild Frailty)	4a - AD&C (High Complexity)	4b - AD&C - High Social Complexity	4e - AD&C (End Stage Disease)	5a - EoLFD (Severe Frailty)	5b - EoLFD (Severe Dementia)	5c - EoLFD (End of Life)	
Overall Population Measures																
Population	15,910	477	1,059	4,115	4,833	1,493	476	4,307	3,722	3,777	1,105	372	1,497	39	308	**43,490**
Age	27	13	21	44	43	38	46	50	48	54	69	68	77	85	74	**40**
Male %	53.9%	28.1%	54.0%	50.0%	55.0%	44.8%	52.9%	45.6%	37.9%	36.7%	43.7%	53.0%	39.7%	15.4%	41.2%	**48.5%**
IMD	5.8	5.5	5.5	5.6	5.9	5.3	5.6	6.0	5.8	5.6	7.0	5.6	5.9	4.7	6.0	**5.8**
% BAME (where recorded)	24%	26%	23%	19%	20%	17%	21%	15%	18%	14%	9%	9%	9%	8%	9%	**19%**
Multimorbidity (acute & chronic)	0.0	0.0	0.0	0.0	1.0	1.0	0.4	2.4	1.4	2.4	2.8	4.7	5.1	5.4	4.8	**1.0**
Finance and Activity Measures																
Spend - Total	£1.3M	£0.6M	£1.4M	£1.7M	£2.3M	£0.5M	£0.3M	£3.0M	£3.1M	£4.9M	£1.4M	£1.2M	£4.7M	£0.1M	£1.7M	**£28.1M**
PPPY - Total	£82	£1,168	£1,364	£412	£483	£352	£716	£689	£820	£1,287	£1,248	£3,105	£3,151	£2,813	£5,538	**£647**
Acute Elective	£22	£253	£602	£166	£212	£146	£385	£333	£385	£619	£594	£1,452	£1,107	£154	£2,056	**£274**
Acute Non-Elective	£11	£807	£640	£145	£156	£97	£207	£195	£267	£445	£431	£1,339	£1,669	£2,144	£3,057	**£249**
GP Encounters	£48	£108	£122	£101	£115	£109	£124	£161	£169	£223	£223	£314	£375	£516	£425	**£124**
Community	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	**£0**
Mental Health	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	**£0**
Social Care	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	**£0**
GP PPPY	14	30	33	29	33	31	37	46	48	63	63	87	105	139	116	**35**
Beddays PPPY - Acute EM	0	1	1	0	0	0	0	0	0	1	1	3	4	3	7	**0**
Physical Health																
Diabetes	0.0%	0.0%	0.0%	0.0%	11.8%	0.0%	4.4%	15.7%	14.1%	20.4%	18.6%	24.5%	38.1%	28.2%	30.2%	**8.1%**
COPD	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.3%	1.2%	4.6%	3.4%	57.5%	18.0%	7.7%	13.6%	**2.0%**
Chronic Respiratory Dis...	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%	3.4%	1.9%	6.5%	4.5%	64.8%	21.3%	10.3%	19.8%	**2.7%**
Hypertension	0.0%	0.0%	0.0%	0.0%	25.5%	0.0%	11.8%	32.0%	29.0%	38.7%	53.9%	53.5%	83.2%	66.7%	66.9%	**17.2%**
Obesity	0.0%	0.0%	0.0%	35.9%	18.9%	14.1%	16.4%	26.3%	24.4%	30.8%	25.4%	37.6%	37.9%	15.4%	27.9%	**16.0%**
Mental Health																
Anxiety/Phobias	0.0%	0.0%	0.0%	0.0%	0.0%	37.2%	2.3%	49.7%	16.7%	26.4%	17.4%	21.5%	26.5%	23.1%	24.0%	**11.7%**
Depression	0.0%	0.0%	0.0%	0.0%	0.0%	49.8%	2.9%	53.8%	19.6%	31.9%	17.9%	28.0%	31.6%	28.2%	30.5%	**13.5%**
Learning Disability	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%	1.3%	1.6%	0.4%	1.0%	9.2%	1.1%	0.7%	5.1%	1.9%	**0.6%**
Dementia	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	5.0%	2.2%	7.5%	100.0%	12.0%	**0.7%**
Other Characteristics																
Housebound (eFI)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.7%	1.1%	9.8%	20.5%	12.3%	**0.6%**
Social Vulnerability (eFI)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	73.1%	2.2%	5.2%	6.6%	14.8%	22.3%	32.9%	20.5%	22.1%	**3.9%**
History of Smoking (Tw...	0.0%	0.0%	0.0%	34.5%	9.8%	15.0%	13.7%	15.8%	13.6%	16.7%	8.0%	22.0%	12.2%	5.1%	7.8%	**10.1%**
Not Fit for Work (In Year)	0.0%	0.0%	0.0%	13.0%	4.8%	9.0%	4.6%	10.0%	7.1%	9.9%	2.4%	5.1%	2.7%	0.0%	5.2%	**4.8%**
On a Waiting List	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**

This matrix is important in defining the PCN's main segment and sub-segment health classifications, giving simple volumes but also linking how many as a percentage of each subsegment, have defined and diagnosed conditions.

Source: HWE PHM Team modelled data, phm.optum.co.uk - Calendar Year 2021

Matrix Data - GP Activity

Hertfordshire and West Essex Integrated Care Board

GP Activity	0			1		2-3		4-5			6-9			10+			Grand Total
Complexity	Low Complexity	Middle Complexity	High Complexity	Low Complexity	Middle Complexity	Low Complexity	Middle Complexity	Low Complexity	Middle Complexity	High Complexity	Low Complexity	Middle Complexity	High Complexity	Low Complexity	Middle Complexity	High Complexity	
Overall Population Measures																	
Population	1,514	177		569	65	1,768	245	1,821	304		4,221	957		14,169	15,482	2,186	**43,490**
Age	24	32	74	23	30	19	29	22	31	82	27	36	71	34	53	73	**40**
Male %	60.8%	72.9%	60.0%	58.2%	66.2%	56.2%	73.1%	59.3%	67.1%	50.0%	59.3%	62.5%	40.0%	45.5%	42.7%	47.7%	**48.5%**
IMD	5.2	5.6	6.4	5.2	5.6	5.5	5.3	5.7	5.8	6.0	5.8	5.7	5.6	5.8	5.9	6.0	**5.8**
% BAME (where recorded)	30%	25%	0%	33%	25%	27%	23%	25%	19%	50%	22%	21%	20%	21%	15%	9%	**19%**
Multimorbidity (acute & chronic)	0.0	1.3	6.6	0.0	1.3	0.0	1.3	0.0	1.3	5.5	0.0	1.3	5.4	0.0	1.9	6.4	**1.0**
Finance and Activity Measures																	
Spend - Total	£0.0M	£0.0M	£0.0M	£0.0M	£0.0M	£0.0M	£0.0M	£0.1M	£0.0M	£0.0M	£0.3M	£0.1M	£0.0M	£5.8M	£13.8M	£7.9M	**£28.1M**
Spend - PPPY - Total	£14	£98	£1,366	£8	£4	£22	£21	£38	£56	£25	£78	£104	£2,128	£407	£893	£3,633	**£647**
Acute Elective	£6	£47	£399	£4	£0	£6	£7	£11	£18	£0	£20	£41	£0	£155	£417	£1,410	**£274**
Acute Non-Elective	£8	£51	£968	£1	£0	£8	£6	£12	£23	£0	£31	£36	£2,093	£146	£288	£1,854	**£249**
GP Encounters	£0	£0	£0	£4	£4	£8	£8	£15	£15	£25	£27	£27	£35	£105	£187	£369	**£124**
Community	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	**£0**
Mental Health	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	**£0**
Social Care	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	**£0**
GP PPPY	0	0	0	1	1	2	2	4	4	5	8	8	9	30	53	103	**35**
Beddays PPPY - Acute EM	0	0	1	0	0	0	0	0	0	0	0	0	7	0	1	4	**0**
Physical Health																	
Diabetes	0.0%	2.8%	40.0%	0.0%	1.5%	0.0%	4.1%	0.0%	2.6%	50.0%	0.0%	4.9%	40.0%	0.0%	15.9%	45.2%	**8.1%**
COPD	0.0%	0.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	0.2%	20.0%	0.0%	2.0%	25.9%	**2.0%**
Chronic Respiratory Dis...	0.0%	1.1%	40.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.7%	50.0%	0.0%	0.8%	20.0%	0.0%	3.1%	31.3%	**2.7%**
Hypertension	0.0%	9.0%	80.0%	0.0%	1.5%	0.0%	5.3%	0.0%	5.3%	50.0%	0.0%	11.6%	80.0%	0.0%	35.3%	84.4%	**17.2%**
Obesity	1.1%	6.2%	20.0%	0.9%	6.2%	1.2%	4.5%	1.7%	6.3%	0.0%	4.0%	7.6%	0.0%	11.0%	27.0%	39.8%	**16.0%**
Mental Health																	
Anxiety/Phobias	0.0%	22.6%	40.0%	0.0%	20.0%	0.0%	18.8%	0.0%	26.3%	50.0%	0.0%	22.6%	40.0%	0.0%	25.1%	36.2%	**11.7%**
Depression	0.0%	20.3%	20.0%	0.0%	32.3%	0.0%	19.6%	0.0%	22.4%	50.0%	0.0%	23.6%	60.0%	0.0%	29.4%	42.9%	**13.5%**
Learning Disability	0.0%	0.6%	0.0%	0.0%	1.5%	0.0%	0.4%	0.0%	2.0%	0.0%	0.0%	0.6%	0.0%	0.0%	1.4%	2.3%	**0.6%**
Dementia	0.0%	0.6%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	20.0%	0.0%	0.8%	9.1%	**0.7%**
Other Characteristics																	
Housebound (eFI)	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	7.4%	**0.6%**
Social Vulnerability (eFI)	0.4%	0.6%	0.0%	0.2%	1.5%	0.2%	0.4%	0.0%	0.3%	50.0%	0.3%	0.6%	0.0%	1.8%	5.5%	25.2%	**3.9%**
History of Smoking (Tw...	0.5%	0.0%	0.0%	0.7%	1.5%	5.6%	10.6%	3.8%	8.9%	0.0%	5.7%	9.5%	40.0%	9.0%	14.0%	17.0%	**10.1%**
Not Fit for Work (In Year)	0.0%	0.0%	0.0%	0.4%	0.0%	0.2%	0.0%	0.2%	0.7%	0.0%	0.7%	1.4%	0.0%	4.5%	8.4%	4.7%	**4.8%**
On a Waiting List	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**

Whilst the previous GP activity matrix was to investigate HIUs, this matrix has split out the GP activity by order of complexity; another method of looking at distinct patient volumes coming into the PCN which may be managed in a different way.

Source: HWE PHM Team modelled data, phm.optum.co.uk - Calendar Year 2021

Matrix Data - Health Segment & Deprivation

Hertfordshire and West Essex Integrated Care Board

Life Course Segment	1 - Healthy				2 - Living With Illness				3 - Lower Complexity				4 - Advanced Disease & Complexity				5 - EoL, Frailty & Dementia				Grand Total
Deprivation	Low Deprivation	Middle Deprivation	High Deprivation	Not known	Low Deprivation	Middle Deprivation	High Deprivation	Not known	Low Deprivation	Middle Deprivation	High Deprivation	Not known	Low Deprivation	Middle Deprivation	High Deprivation	Not known	Low Deprivation	Middle Deprivation	High Deprivation	Not known	
Overall Population Measures																					
Population	5,340	7,908	4,112	86	2,948	5,019	2,429	45	2,678	4,003	1,792	32	1,614	2,451	1,171	18	550	919	369	6	43,490
Age	28	26	24	29	46	43	40	42	51	48	45	47	64	57	52	59	79	77	75	81	40
Male %	52.7%	53.2%	54.0%	40.7%	51.3%	51.6%	51.9%	51.1%	43.9%	42.8%	40.2%	53.1%	42.3%	39.1%	35.7%	38.9%	44.4%	39.1%	33.1%	33.3%	48.5%
IMD	8.8	5.4	2.6		8.8	5.4	2.6		8.8	5.4	2.6		8.9	5.5	2.6		9.0	5.4	2.6		5.8
% BAME (where recorded)	16%	24%	33%	19%	13%	18%	28%	18%	12%	17%	22%	17%	9%	12%	18%	17%	8%	8%	12%	0%	19%
Multimorbidity (acute & chronic)	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.7	2.0	1.8	1.7	2.0	2.8	2.7	2.5	2.9	5.0	5.0	5.3	4.0	1.0
Finance and Activity Measures																					
Spend - Total	£1.0M	£1.5M	£0.8M	£0.0M	£1.2M	£2.2M	£1.1M	£0.0M	£2.0M	£3.0M	£1.3M	£0.0M	£2.3M	£3.4M	£1.7M	£0.0M	£1.9M	£3.2M	£1.4M	£0.0M	£28.1M
PPPY - Total	£185	£187	£199	£182	£415	£438	£457	£491	£740	£753	£750	£618	£1,431	£1,388	£1,425	£1,017	£3,456	£3,451	£3,923	£2,017	£647
Acute Elective	£65	£62	£66	£30	£198	£175	£186	£273	£366	£369	£324	£394	£772	£670	£545	£452	£1,421	£1,132	£1,258	£1,670	£274
Acute Non-Elective	£66	£69	£80	£100	£110	£155	£161	£102	£214	£221	£262	£40	£444	£481	£643	£340	£1,695	£1,929	£2,219	£47	£249
GP Encounters	£55	£55	£53	£52	£108	£108	£110	£116	£160	£163	£164	£184	£214	£236	£237	£225	£340	£390	£446	£300	£124
Community	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
Mental Health	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
Social Care	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
GP PPPY	16	16	15	15	31	31	30	35	47	47	45	52	62	67	64	68	96	109	120	84	35
Beddays PPPY - Acute EM	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1	4	4	5	1	0
Physical Health																					
Diabetes	0.0%	0.0%	0.0%	0.0%	4.8%	5.9%	5.3%	6.7%	13.9%	14.7%	14.5%	9.4%	19.6%	19.6%	22.7%	16.7%	30.9%	38.7%	39.8%	16.7%	8.1%
COPD	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	2.0%	1.8%	0.0%	5.9%	8.7%	9.9%	5.6%	13.6%	16.9%	22.5%	16.7%	2.0%
Chronic Respiratory Dis...	0.0%	0.0%	0.0%	0.0%	0.3%	0.6%	0.5%	0.0%	1.9%	3.0%	2.4%	3.1%	8.2%	10.8%	11.6%	5.6%	16.9%	20.8%	26.8%	16.7%	2.7%
Hypertension	0.0%	0.0%	0.0%	0.0%	15.3%	10.8%	9.3%	22.2%	33.4%	29.0%	25.1%	21.9%	50.2%	41.4%	36.3%	33.3%	82.9%	79.7%	77.0%	83.3%	17.2%
Obesity	0.0%	0.0%	0.0%	0.0%	23.0%	25.6%	25.8%	24.4%	23.3%	25.7%	25.7%	28.1%	27.1%	30.4%	33.9%	33.3%	33.3%	35.7%	39.8%	16.7%	16.0%
Mental Health																					
Anxiety/Phobias	0.0%	0.0%	0.0%	0.0%	4.5%	5.4%	6.3%	2.2%	36.0%	30.5%	32.1%	40.6%	22.1%	24.5%	26.4%	22.2%	26.0%	24.5%	30.1%	16.7%	11.7%
Depression	0.0%	0.0%	0.0%	0.0%	5.7%	7.2%	8.6%	6.7%	38.6%	34.3%	35.6%	43.8%	24.5%	29.0%	33.7%	33.3%	26.5%	31.1%	39.0%	33.3%	13.5%
Learning Disability	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	0.3%	0.0%	1.0%	0.9%	1.5%	6.3%	1.7%	3.1%	3.3%	11.1%	0.4%	1.3%	1.1%	0.0%	0.6%
Dementia	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.0%	2.7%	1.7%	11.1%	7.6%	12.9%	7.3%	16.7%	0.7%
Other Characteristics																					
Housebound (eFI)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%	1.8%	1.3%	0.0%	10.5%	10.3%	10.6%	0.0%	0.6%
Social Vulnerability (eFI)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.9%	8.7%	8.6%	12.5%	8.3%	10.5%	8.5%	11.1%	26.2%	31.0%	37.1%	33.3%	3.9%
History of Smoking (Tw...	0.0%	0.0%	0.0%	0.0%	14.1%	22.5%	23.4%	13.3%	12.9%	14.0%	18.9%	21.9%	10.7%	16.1%	19.6%	22.2%	7.1%	11.8%	16.5%	0.0%	10.1%
Not Fit for Work (In Year)	0.0%	0.0%	0.0%	0.0%	6.2%	9.2%	10.5%	2.2%	5.7%	8.9%	11.5%	12.5%	4.0%	8.5%	12.5%	5.6%	1.3%	3.7%	4.1%	0.0%	4.8%
On a Waiting List	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Deprivation is an important marker for a variety of issues and not just in health, and this matrix has taken the PCN's population split them by health segment, and then further by high, middle, or low deprivation groupings - this may further allows the PCNs to target that selected cohort of individuals to find where the determinants may be, and where a targeted approach from local partners, could be directed.

Source: HWE PHM Team modelled data, phm.optum.co.uk - Calendar Year 2021

Matrix Data - Practice & Deprivation

NHS Hertfordshire and West Essex Integrated Care Board

Practice	Abbey Road Surgery				Cuffley And Goffs Oak Medical Practice				The Maples				Warden Lodge Medical Practice				Grand Total
Deprivation	Low Deprivation	Middle Deprivation	High Deprivation	Not known	Low Deprivation	Middle Deprivation	High Deprivation	Not known	Low Deprivation	Middle Deprivation	High Deprivation	Not known	Low Deprivation	Middle Deprivation	High Deprivation	Not known	
Overall Population Measures																	
Population	447	4,325	4,391	16	9,092	3,100	294	89	1,772	7,229	3,040	41	1,819	5,646	2,148	41	43,490
Age	44	40	37	37	44	41	40	42	38	38	34	36	42	44	39	40	40
Male %	53.5%	48.9%	48.5%	62.5%	48.9%	48.8%	49.0%	42.7%	47.4%	47.8%	47.8%	43.9%	49.7%	48.6%	47.3%	43.9%	48.5%
IMD	8.4	4.8	2.4		9.0	6.4	2.6		8.5	5.4	2.9		8.1	5.3	2.8		5.8
% BAME (where recorded)	18%	29%	36%	67%	13%	13%	21%	10%	10%	17%	20%	13%	20%	16%	19%	24%	19%
Multimorbidity (acute & chronic)	1.2	1.1	1.0	0.6	1.2	1.1	1.2	1.0	0.9	0.9	0.8	0.8	1.0	1.2	1.1	1.0	1.0
Finance and Activity Measures																	
Spend: Total	£0.3M	£3.1M	£2.8M	£0.0M	£5.9M	£1.9M	£0.1M	£0.0M	£1.0M	£4.5M	£1.9M	£0.0M	£1.3M	£3.8M	£1.6M	£0.0M	£28.1M
Spend: PPPY - Total	£621	£709	£630	£78	£650	£625	£505	£503	£545	£620	£626	£485	£690	£669	£732	£537	£647
Acute Elective	£307	£264	£228	£21	£314	£263	£242	£273	£247	£274	£236	£222	£282	£282	£288	£291	£274
Acute Non-Elective	£181	£311	£281	£8	£218	£251	£146	£105	£176	£220	£266	£122	£289	£256	£315	£155	£249
GP Encounters	£133	£134	£122	£49	£119	£111	£117	£124	£122	£126	£124	£141	£119	£131	£128	£91	£124
Community	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
Mental Health	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
Social Care	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
GP PPPY	33	33	30	13	35	32	34	36	35	36	36	41	36	40	39	28	35
Beddays PPPY - Acute EM	0	0	1	0	0	1	0	0	0	0	1	0	0	0	1	0	0
Physical Health																	
Diabetes	7.8%	8.8%	7.9%	0.0%	7.4%	8.0%	8.2%	2.2%	6.3%	6.9%	7.1%	4.9%	10.2%	10.5%	10.0%	14.6%	8.1%
COPD	3.4%	2.8%	2.4%	0.0%	1.4%	1.7%	2.7%	1.1%	1.5%	1.7%	1.7%	0.0%	1.7%	2.7%	3.2%	2.4%	2.0%
Chronic Respiratory Dis...	3.8%	3.6%	3.0%	0.0%	2.2%	2.3%	2.7%	2.2%	1.9%	2.5%	2.2%	0.0%	2.1%	3.5%	3.8%	2.4%	2.7%
Hypertension	21.3%	16.1%	13.9%	18.8%	21.1%	19.1%	16.7%	15.7%	13.5%	13.3%	10.5%	4.9%	19.9%	21.2%	19.0%	22.0%	17.2%
Obesity	23.0%	18.6%	18.1%	0.0%	14.1%	14.7%	17.0%	13.5%	16.0%	18.8%	16.7%	19.5%	13.9%	13.5%	12.9%	17.1%	16.0%
Mental Health																	
Anxiety/Phobias	15.2%	12.8%	12.3%	6.3%	13.0%	14.2%	18.7%	15.7%	10.4%	8.9%	9.1%	9.8%	8.9%	11.9%	12.9%	0.0%	11.7%
Depression	14.1%	13.5%	14.4%	12.5%	14.0%	14.8%	20.4%	18.0%	12.2%	11.5%	12.6%	9.8%	10.8%	15.2%	14.5%	7.3%	13.5%
Learning Disability	0.9%	1.1%	0.9%	0.0%	0.4%	0.7%	1.0%	2.2%	0.7%	0.5%	0.4%	2.4%	0.5%	0.5%	1.1%	2.4%	0.6%
Dementia	0.9%	1.3%	0.3%	6.3%	0.7%	0.5%	1.0%	1.1%	0.3%	0.7%	0.5%	0.0%	1.0%	1.1%	0.8%	2.4%	0.7%
Other Characteristics																	
Housebound (eFI)	0.4%	0.7%	0.3%	0.0%	0.8%	0.5%	0.3%	0.0%	0.3%	0.6%	0.6%	0.0%	0.4%	0.9%	0.9%	0.0%	0.6%
Social Vulnerability (eFI)	5.1%	3.3%	2.8%	0.0%	2.6%	2.5%	2.4%	3.4%	3.4%	4.6%	3.5%	4.9%	5.1%	6.0%	7.2%	7.3%	3.9%
History of Smoking (Tw...	6.5%	9.8%	10.1%	0.0%	6.4%	6.3%	9.9%	7.9%	8.5%	11.3%	13.1%	14.6%	11.3%	13.4%	15.2%	9.8%	10.1%
Not Fit for Work (In Year)	4.3%	6.0%	7.3%	6.3%	2.9%	3.7%	5.4%	4.5%	4.6%	5.6%	6.1%	2.4%	2.5%	4.9%	4.6%	0.0%	4.8%
On a Waiting List	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

This detailed table is offering actionable insight across the PCN's population for each Practice and where their populations are in terms of a High, Medium, or Low deprivation ranking; deprivation is levied from the IMD 2019 scoring per LSOA, and is applied for every individual registered within the PCN's borders.

Source: HWE PHM Team modelled data, phm.optum.co.uk - Calendar Year 2021

Bubble Matrix - Conditions

Hertfordshire and West Essex Integrated Care Board

x% also have

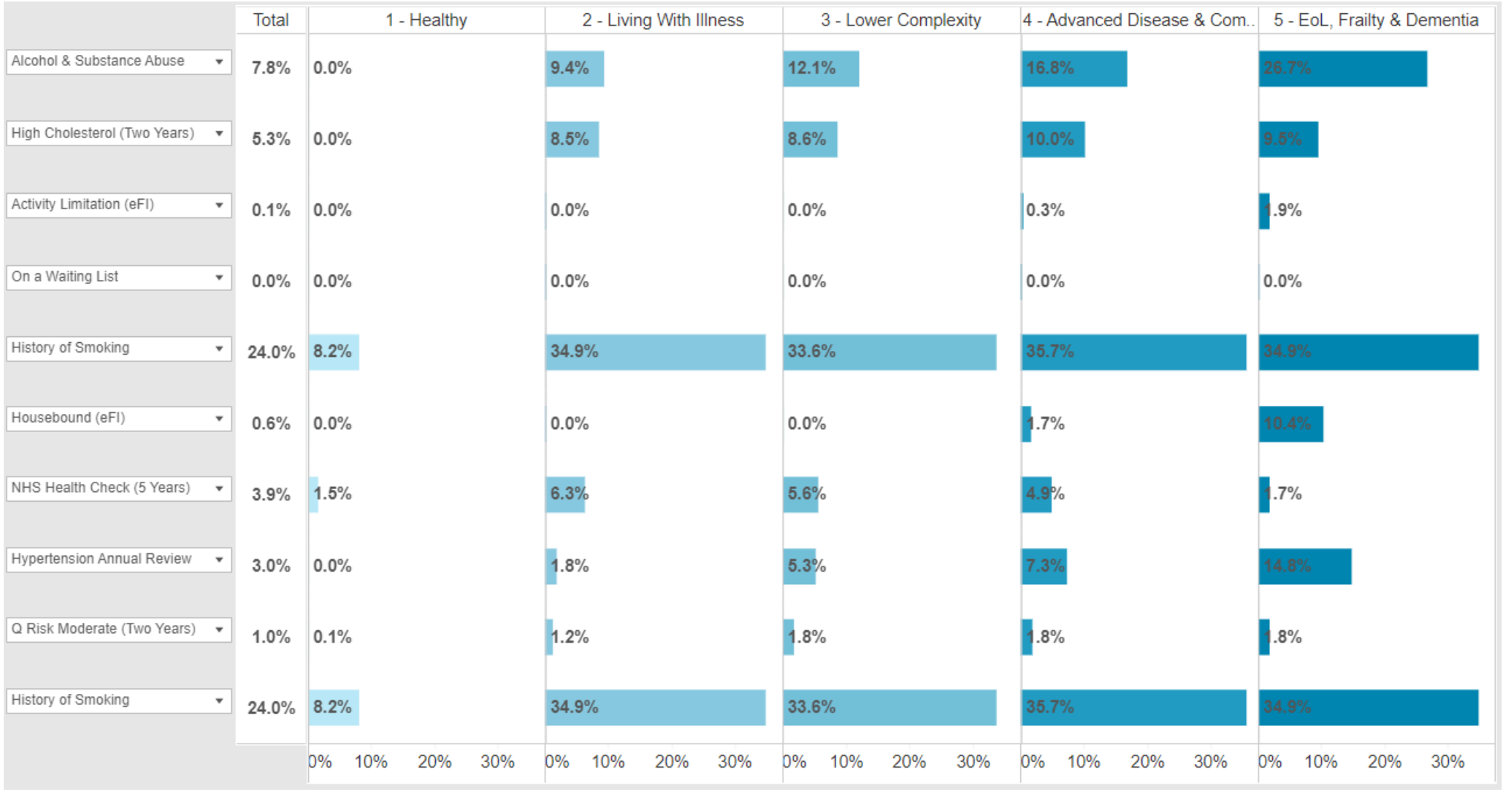
For people with this condition

Initial Condition	Alzheimers Disease	Asthma	COPD	Heart Failure	Anxiety	Autism Spectrum Disorder	Dementia	Alcohol Abuse	ABCD Prescription	Anti-Depressive Prescription	Activity Limitation (eFI)	Housebound (eFI)	No Other Condition
	Other Conditions												
Alzheimers Disease		16%	10%	10%	24%	1%	94%	3%	60%	38%	1%	17%	2%
Asthma	1%		7%	2%	19%	1%	1%	3%	20%	22%	0%	1%	49%
COPD	2%	45%		11%	24%	1%	4%	6%	58%	32%	1%	6%	0%
Heart Failure	3%	18%	18%		18%	1%	7%	6%	91%	25%	2%	12%	0%
Anxiety	1%	19%	4%	2%		1%	2%	6%	25%	55%	0%	1%	14%
Autism Spectrum Disorder	0%	18%	2%	1%	15%		1%	2%	7%	14%	1%	1%	43%
Dementia	52%	17%	11%	11%	25%	1%		3%	64%	40%	1%	17%	3%
Alcohol Abuse	0%	16%	5%	3%	27%	1%	1%		36%	31%	0%	1%	21%
ABCD Prescription	1%	15%	7%	6%	18%	0%	3%	5%		24%	1%	3%	21%
Anti-Depressive Prescription	1%	20%	5%	2%	48%	1%	2%	6%	30%		0%	2%	19%
Activity Limitation (eFI)	2%	22%	22%	16%	33%	4%	6%	2%	73%	43%		12%	6%
Housebound (eFI)	11%	18%	17%	21%	25%	1%	20%	4%	75%	39%	2%		10%

When targeting specific conditions to look into, a simple Bubble matrix helps us understand that a single condition will rarely be occurring by itself; this chart then highlights the PCN's linked conditions and breaks down the common diseases linked together in the PCN.

Source: HWE PHM Team modelled data, phm.optum.co.uk - Calendar Year 2021

Bio-Psycho-Social Indicators - Example



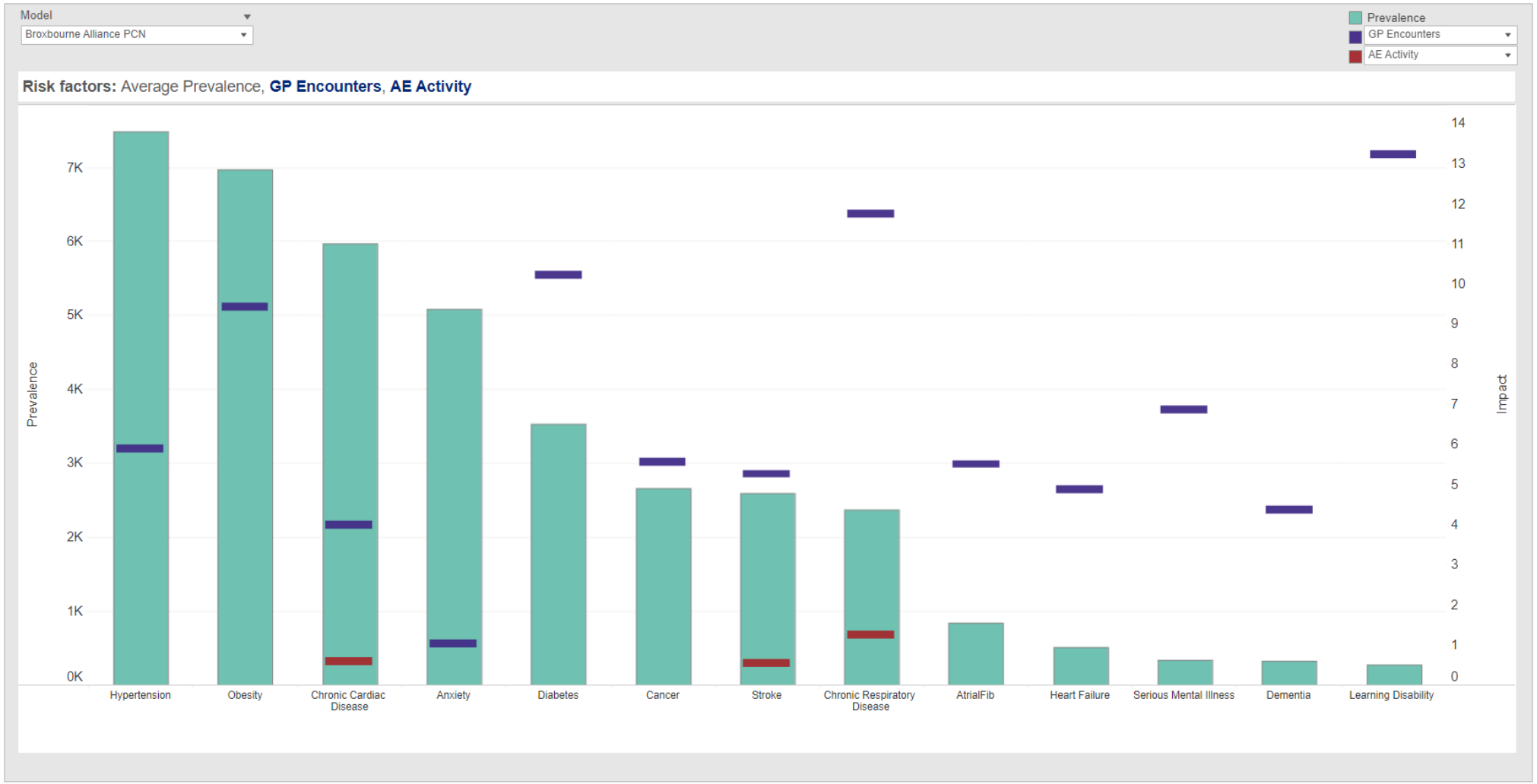
This chart gives a comparison across various selected risk conditions or characteristics, within the health segments of the PCN's population.

Here we have selected a few characteristics within the PCN's data as an example, within each segment the percentage with that risk condition is highlighted proportionately by the shaded bars in the chart.

Source: HWE PHM Team modelled data, phm.optum.co.uk - Calendar Year 2021

Risk Modelling - Prevalence against GP Activity & A&E

Hertfordshire and West Essex Integrated Care Board



This Risk Model looks at the PCN's prevalence for major conditions, and this chart illustrates the number of people with certain risk factors, and also shows the impact on service utilisation, that these factors have. The height of each bar for each risk factor, shows the number of people who meet that criteria, as shown on the left hand axis; the horizontal lines relate to the correlation of a risk factor and an increase in impact on the selected target, shown on the right hand axis.

Source: HWE PHM Team modelled data, phm.optum.co.uk - Calendar Year 2021

Public Health - Cancer Screening

NHS Hertfordshire and West Essex Integrated Care Board

Cancer Screening

	Period	HERTFORDSHIRE AND WEST ESSEX	BROXBOURNE ALLIANCE PCN	ABBEY ROAD SURGERY	THE MAPLES	CUFFLEY AND GOFFS OAK MEDICAL PRACTICE	WARDEN LODGE MEDICAL PRACTICE
Women, aged 25-49, with a record of cervical screening in the last 3.5 yrs (denominator includes PCAs)	2020/21	73.3	74.3	69.9	75.9	79	71.4
Women, aged 50-64, with a record of cervical screening in the last 5.5 yrs (denominator includes PCAs)	2020/21	78.2	79.6	73.7	78	85.4	77.8
Persons, 25-49, attending cervical screening within target period (3.5 year coverage, %)	2020/21	73	74	68.8	76.5	78.6	70.9
Persons, 50-64, attending cervical screening within target period (5.5 year coverage, %)	2020/21	77	77.5	70.1	76.1	83.8	76.3
Persons, 50-70, screened for breast cancer in last 36 months (3 year coverage, %)	2020/21	63.9	57.7	17.1	71.5	72.8	55.3
Persons, 50-70, screened for breast cancer within 6 months of invitation (Uptake, %)	2020/21	61.3	63.7	38.9	45.9	50	69.9
Persons, 60-74, screened for bowel cancer within 6 months of invitation (Uptake, %)	2020/21	72.1	73	63.7	74.5	77.7	72.4
Persons, 60-74, screened for bowel cancer in last 30 months (2.5 year coverage, %)	2020/21	68.8	69.8	60.9	70.3	74.2	69.9

Similar Significantly Worse Significantly Better

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Hertfordshire Public Health Evidence & Intelligence Epidemiology

Hertfordshire

Source: Public Health Team

Public Health - Mortality

Hertfordshire and West Essex Integrated Care Board

Mortality

	Period	Hertfordshire CCGs	NHS HERTFORDSHIRE AND WEST ESSEX ICB - 06K	BROXBOURNE ALLIANCE PCN
Percentage of deaths that occur at home (All age)	2021	25.3	26.8	33.6
PYLL - Neoplasms	2021	505	509.8	514.2
PYLL - Diseases of the circulatory system	2021	737.5	782.8	994.1
PYLL - All Cause	2021	1537.7	1574	1941.6
Premature Mortality - Respiratory Disease	2021	19.2	19.5	35.8
Premature Mortality - Liver Disease	2021	14.6	14.6	
Premature Mortality - Cardiovasular Disease	2021	53.8	56.1	71.6
Premature Mortality - Cancer	2021	98.5	99.9	105.5
Premature Mortality - All Cause	2021	269.6	276.1	353

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Hertfordshire Public Health Evidence & Intelligence Epidemiology

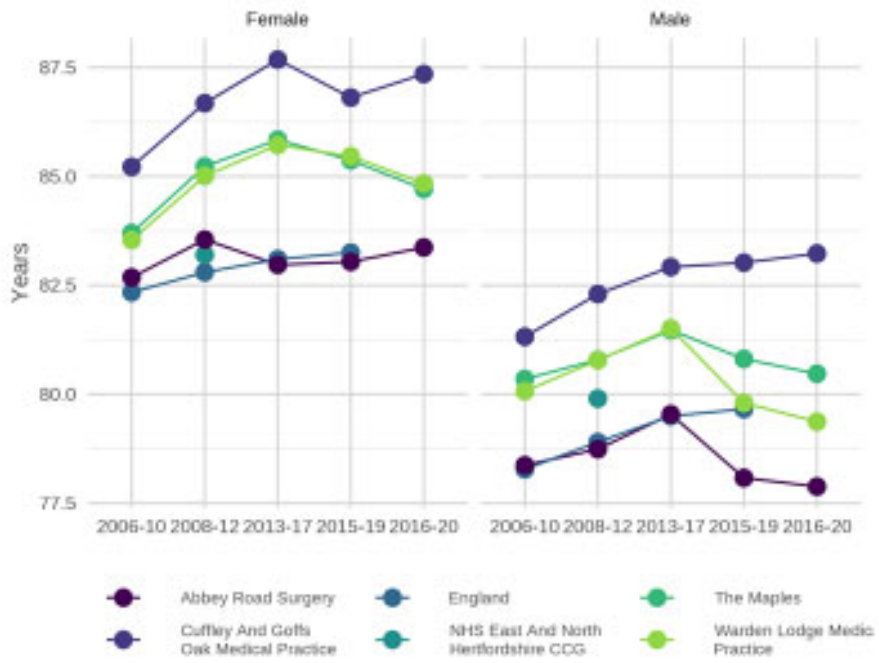
Hertfordshire

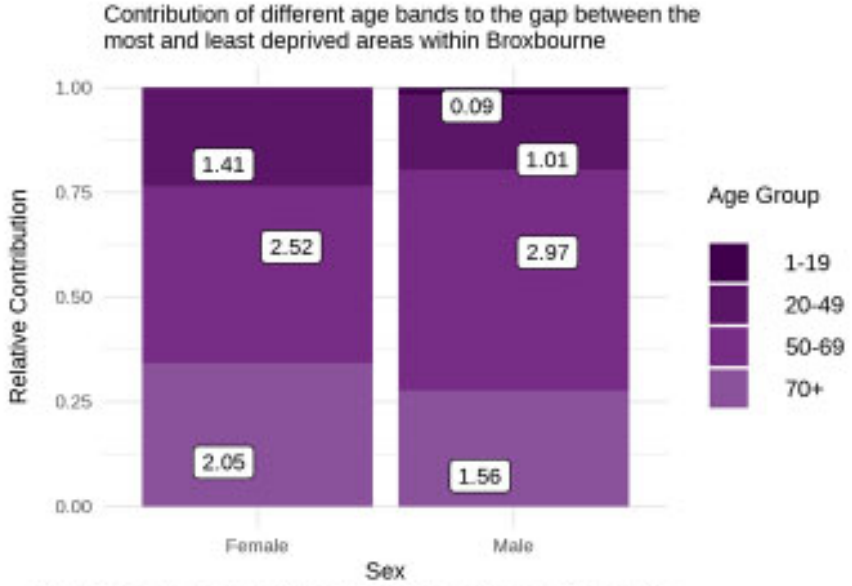
Source: Public Health Team

Public Health - Life Expectancy

Hertfordshire and West Essex Integrated Care Board

Life Expectancy





Labels inside bar indicate contribution to the life expectancy gap in years for each age group. This can be used to target interventions at age groups with the biggest inequality in life expectancy. The gap in life expectancy at birth for females is 5.68 years and for males is 5.39 years.

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Hertfordshire Public Health Evidence & Intelligence Epidemiology

Hertfordshire

Source: Public Health Team

Hertfordshire and
West Essex Integrated
Care System

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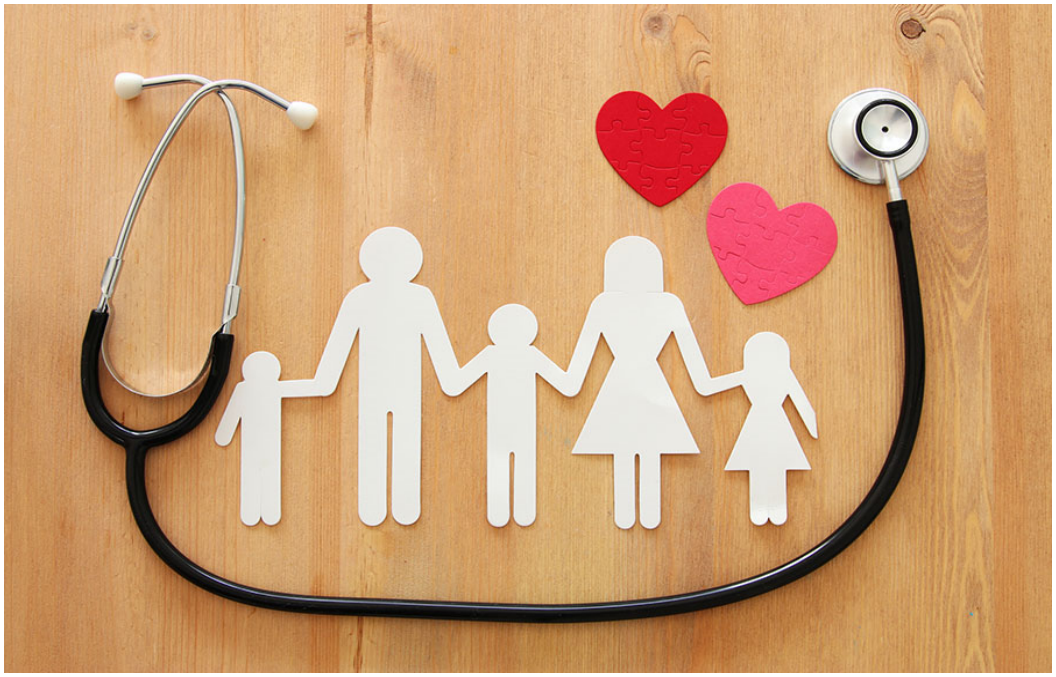

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