Hertfordshire and West Essex Integrated Care System

NHS Hertfordshire and West Essex Integrated Care Board

Primary Care Networks
Overview Pack

HERTS FIVE 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

NHS Hertfordshire and West Essex Integrated Care Board

Herts Five PCN has a similar population profile compared to England except in the age categories 0-14 and 40-49 which is higher and lower in the age categories 20-34. The majority of people live within deciles 5-10.

26.2% population have at least 1 Long Term Condition. 5.9% have more than 5 LTCs compared to 5.6% for the ICB. The population pyramid shows similar profile to England for those living with LTCs, except the age categories 35-44 and 55-59 which is higher.

Wider determinants analysis from Public Health Evidence and Intelligence shows Herts Five is one of the mid range PCNs in terms of deprivation within the ICB across most indicators, except Housing and Services.

The spread of patients for Herts Five PCN indicates 25.24% of the population are not located within the Hertfordshire & West Essex boundaries; 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 Hertsmere 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 ~20k to ~24k.

When analysing the underlying Segmentation Model data the conditions with highest per 1,000 registered prevalence that are highlighted for Herts Five PCN are Diabetes, Dementia, Learning Disabilities, Hypertension, Atrial Fib, Depression, MH, Anxiety, Serious Mental Illness and Alzheimers.

Urgent & Emergency Care in 2022/23 for Herts Five PCN A&E Attendance rates per 1,000 population, is above South West Herts place.

When comparing the Ambulatory Care Sensitive rates per 1,000 population between places, the South West Herts place has the highest rate in the ICB. Within South West Herts place, Herts Five has a lower rate per 1,000 population, than the average.

When looking at the ACS conditions for Herts Five the highest volume and cost is within the End of Life, Frailty and Dementia segment in the over 65 age group and the next highest volume and cost is for the over 65 age group in the Advanced Disease and Complexity segment. It is to be noted that under Advanced Disease and Complexity and Lower Complexity segments there is a notable use by the 41-64 age group.

Ambulatory Care Sensitive conditions of note for people aged over 65 within the Advanced Disease and Complexity, is highlighted as Heart Failure, AF and Flutter and COPD with the highest volume and cost. For those people aged over 65 within the End of Life, Frailty & Dementia is highlighted as Heart Failure followed by COPD in terms of 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 Herts Five 11.6% 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 Herts Five PCN is above the ICB, and the data shows significantly lower usage of GP services.

Within this segment we can see the presence of Chronic Cardiac Disease, Chronic Respiratory Disease, Heart Disease, Diabetes, Obesity and Strokes 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 above the ICB.

For Herts Five the data shows higher Heart Failure rates which was identified as a theme within the ACS analysis.

Source: HWE PHM Team

Demographics, Conditions & Segment Overview

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

HERTS FIVE PCN

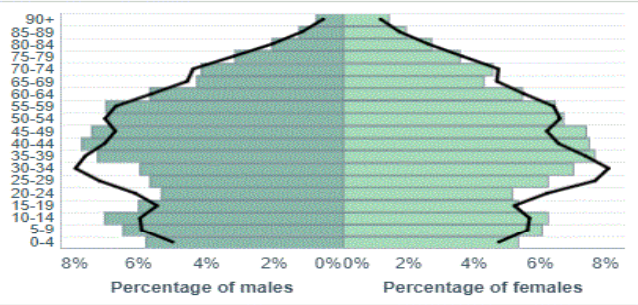
Snapshot as at: 30/06/2021

Registered population		Demographics				Prevalence		Acute utilisation		Covid	
% of total	100.0%	% White	65.3%	% IMD top	1.9%	% with 1+ conditions	26.2%	% of annual activity (total 115,866)	100.0%	% one or more at risk conditions	16.3%
% of annual change	0.9%	% BAME	16.3%	% IMD bottom	31.0%	% with 5+ conditions	3.1%	% of annual cost (total £31M)	100.0%	% two or more at risk conditions	6.5%

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

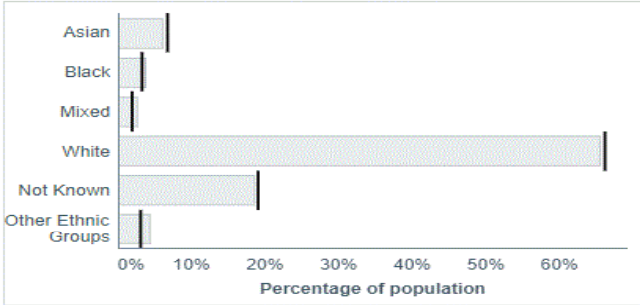
Choose benchmark: England

Population pyramid



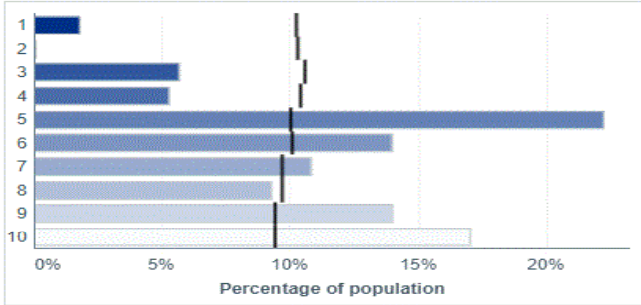
Black line represents the **England** average

Population proportion by ethnic category



Black line represents the **England** average

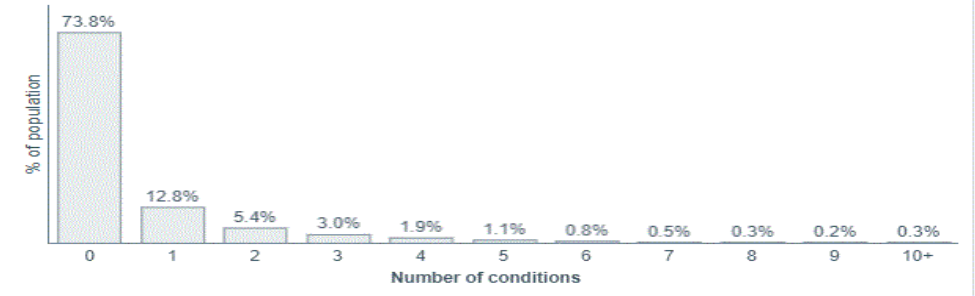
Population proportion by IM Deprivation decile



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

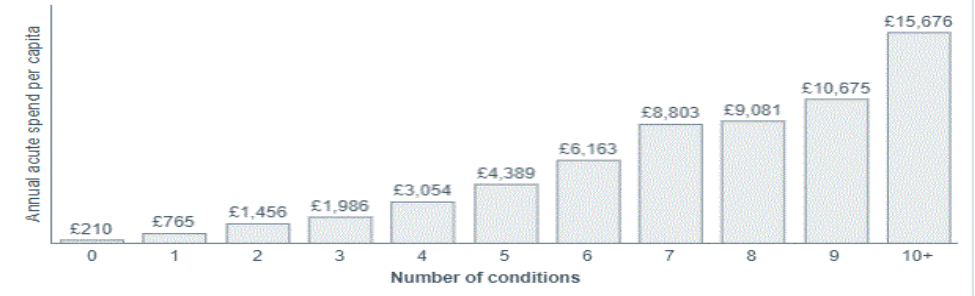
Prevalence - Snapshot as at: 30/06/2021

Population proportion by number of conditions



Annual spend per capita by number of conditions

Financial Year: 2020/21



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.

Herts Five PCN has a similar population profile compared to England except in the age categories 0-14 and 40-49 which is higher and lower in the age categories 20-34. The majority of people live within the deciles 5-10.

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

PCN Demographics - NHS England

NHS Hertfordshire and West Essex Integrated Care Board

LTC
HERTS FIVE PCN

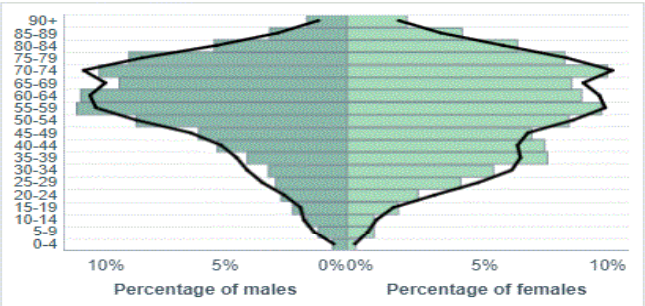
Snapshot as at: 30/06/2021

Registered population		Demographics				Prevalence		Acute utilisation		Covid	
% of total	22.4%	% White	80.3%	% IMD top	2.2%	% with 1+ conditions	100.0%	% of annual activity (total 52,413)	45.2%	% one or more at risk conditions	54.2%
% of annual change	4.7%	% BAME	15.9%	% IMD bottom	29.5%	% with 5+ conditions	5.9%	% of annual cost (total £12M)	38.7%	% two or more at risk conditions	17.7%

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

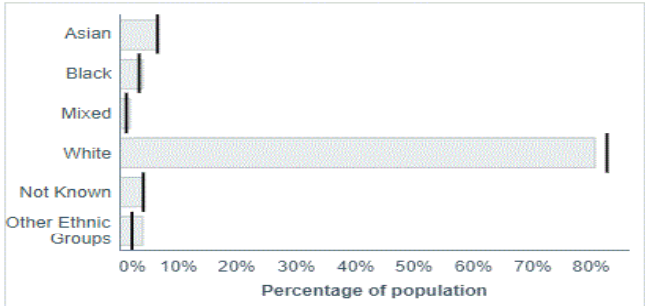
Choose benchmark: England

Population pyramid



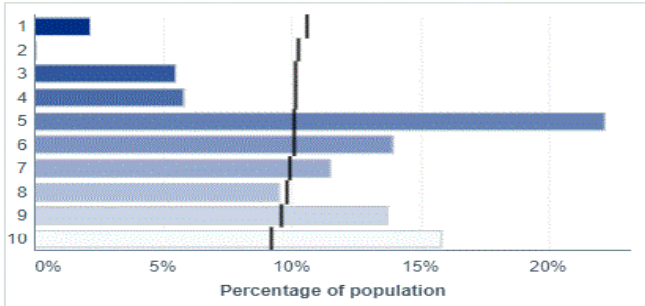
Black line represents the **England** average

Population proportion by ethnic category



Black line represents the **England** average

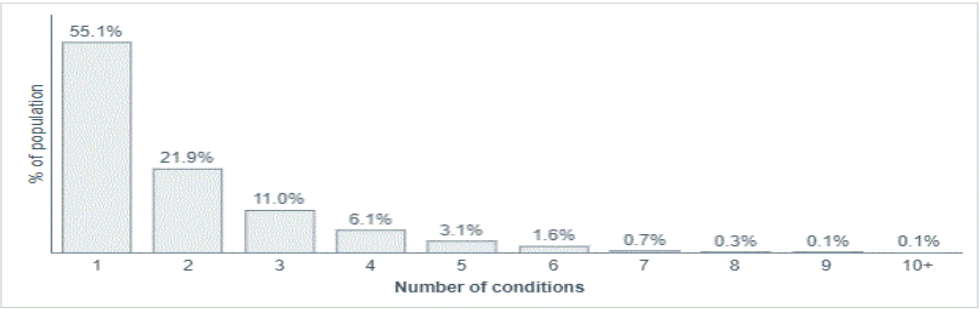
Population proportion by IM Deprivation decile



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

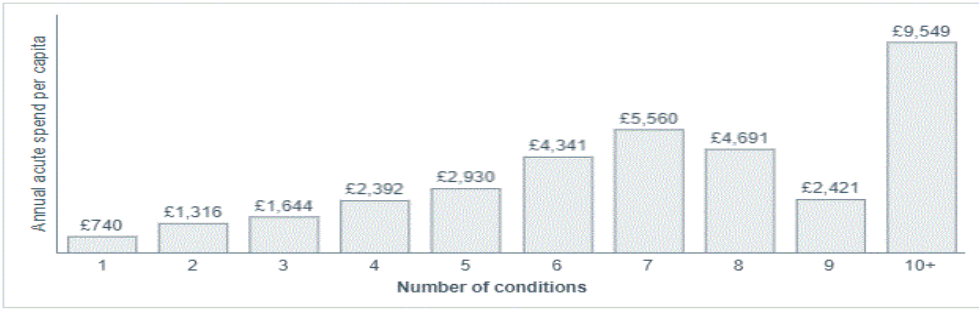
Prevalence - Snapshot as at: 30/06/2021

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 26.2% population have at least 1 Long Term Condition. 5.9% have more than 5 LTCs compared to 5.6% for the ICB.

The population pyramid shows similar profile to England for those living with LTCs, except the age categories 35-44 and 55-59 which is higher.

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 HERTS FIVE PCN		FAIRBROOK MEDICAL CENTRE			LITTLE BUSHEY SURGERY			SCHOPWICK SURGERY			THE GROVE MEDICAL CENTRE			THE RED HOUSE GROUP		
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	Latest Score	Time Period	Trigger Level
Clinical Diagnosis	Detection rate Cancer	0.607	2020/21	No Trigger	0.455	2020/21	No Trigger	0.62	2020/21	No Trigger	0.575	2020/21	No Trigger	0.494	2020/21	No Trigger
Coronary heart disease	% AF anticoagulation therapy CHADS2-VASc score >1	86.9	2020/21	Positive	90.6	2020/21	Positive	87.1	2020/21	Positive	77.5	2020/21	No Trigger	88	2020/21	Positive
	% CHD aged <=79 BP reading 140/90mmHg or less	46.9	2020/21	Level 1	73.3	2020/21	Level 1	44.5	2020/21	Level 1	36.9	2020/21	Level 2	33.7	2020/21	Level 2
	% CHD cholesterol 5 mmol/l or less	61.3	2021/22	No Trigger	77.9	2021/22	No Trigger	74.1	2021/22	No Trigger	61.9	2021/22	No Trigger	43.8	2020/21	No Trigger
	% hypertension aged <=79 BP reading 140/90mmHg or less	41.4	2020/21	Level 2	57	2020/21	Level 1	35.2	2020/21	Level 2	34.6	2020/21	Level 2	27.7	2020/21	Level 2
Diabetes	% Diabetes aged >=40 years no CVD history without moderate or severe frailty treated with statin	80.4	2020/21	Level 1	80.8	2020/21	Level 1	67.3	2020/21	Level 1	67.1	2020/21	Level 1	66.8	2020/21	Level 1
	% Diabetes without moderate or severe frailty BP 140/80 mmHg or less	58.9	2020/21	Level 1	79.4	2020/21	No Trigger	40	2020/21	Level 1	36.8	2020/21	Level 2	29.1	2020/21	Level 2
	% diabetes without moderate or severe frailty IFCC-HbA1c is 58 mmol/mol or less	42.7	2020/21	Level 2	70.9	2020/21	Level 1	51.7	2020/21	Level 1	38.7	2020/21	Level 2	40.7	2020/21	Level 2
Exception Rating	Overall Personalised Care Adjustment Rate	0.072	2020/21	No Trigger	0.028	2020/21	No Trigger	0.046	2020/21	No Trigger	0.037	2020/21	No Trigger	0.038	2020/21	No Trigger
Medicines Management	% antibiotics Co-amoxiclav, Cephalosporins, Quinolones	8.6	2021/22 Q4	No Trigger	3.7	2021/22 Q4	Positive	11.6	2021/22 Q4	Level 1	11.7	2021/22 Q4	Level 1	9	2021/22 Q4	No Trigger
	% Naproxen and Ibuprofen	80.5	2021/22 Q4	No Trigger	80	2021/22 Q4	No Trigger	69.4	2021/22 Q4	No Trigger	78.3	2021/22 Q4	No Trigger	63.7	2021/22 Q4	Level 1
	Antibacterial Items/Star Pu	0.99	2021/22 Q4	Positive	0.671	2021/22 Q4	Positive	1.028	2021/22 Q4	Positive	0.893	2021/22 Q4	Positive	0.731	2021/22 Q4	Positive
	Hypnotics ADQ/Star Pu	0.799	2021/22 Q4	No Trigger	1.249	2021/22 Q4	No Trigger	1.117	2021/22 Q4	No Trigger	1.01	2021/22 Q4	No Trigger	0.584	2021/22 Q4	No Trigger
	Oral NSAIDS ADQs/STAR-PU	3.135	2021/22 Q4	No Trigger	3.655	2021/22 Q4	No Trigger	2.177	2021/22 Q4	No Trigger	2.815	2021/22 Q4	No Trigger	2.355	2021/22 Q4	No Trigger
Mental Health	% first choice generic SSRIs	69.5	2021/22 Q4	No Trigger	68.4	2021/22 Q4	No Trigger	67.4	2021/22 Q4	No Trigger	71	2021/22 Q4	No Trigger	69.8	2021/22 Q4	No Trigger
	% MH comprehensive care plan	51.7	2020/21	Level 1	87.5	2020/21	Level 1	68.4	2020/21	Level 1	56.9	2020/21	Level 1	70.3	2020/21	Level 1
	% SMI alcohol record	88	2020/21	Level 1	97.7	2018/19	No Trigger	68.1	2020/21	Level 1	92.2	2018/19	No Trigger	66.9	2020/21	Level 1
	% SMI BP record	84.7	2020/21	Level 1	71.8	2020/21	Level 1	74.3	2020/21	Level 1	65.4	2020/21	Level 1	54.7	2020/21	Level 1
	Dementia Face to Face review	33.7	2020/21	Level 1	68.8	2020/21	Level 1	47.2	2020/21	Level 1	71	2020/21	No Trigger	57.4	2020/21	Level 1
	Select antidepressants ADQs/STARPU	1.666	2021/22 Q4	No Trigger	1.445	2021/22 Q4	No Trigger	1.626	2021/22 Q4	No Trigger	1.493	2021/22 Q4	No Trigger	1.431	2021/22 Q4	No Trigger
Patient Experience	Confidence and trust in healthcare professional	95.4	2020/21	No Trigger	93.3	2020/21	No Trigger	96.8	2020/21	No Trigger	97.4	2020/21	No Trigger	95.5	2020/21	No Trigger
	Frequency seeing preferred GP	24.1	2020/21	No Trigger	27.9	2020/21	No Trigger	39.8	2020/21	No Trigger	31.9	2020/21	No Trigger	57	2020/21	No Trigger
	Healthcare professional treating with care and concern	87.8	2020/21	No Trigger	85.9	2020/21	No Trigger	87.7	2020/21	No Trigger	88.2	2020/21	No Trigger	83.6	2020/21	No Trigger
	Overall experience of your GP practice	74.5	2020/21	No Trigger	83.7	2020/21	No Trigger	86.2	2020/21	No Trigger	68.8	2020/21	No Trigger	83.5	2020/21	No Trigger
	Satisfaction with appointment times	51.2	2020/21	No Trigger	67.2	2020/21	No Trigger	66	2020/21	No Trigger	54.8	2020/21	No Trigger	58.7	2020/21	No Trigger
Public Health	% Child Imms DTaP/IPV/Hib/HepB (age 1 year)	92.7	2020/21	Level 1	88.8	2020/21	Level 1	94.7	2020/21	Level 1	87.6	2020/21	Level 1	84.9	2020/21	Level 1
	% Child Imms Hib/MenC booster	86.1	2020/21	Level 1	95.7	2020/21	No Trigger	92.4	2020/21	Level 1	85	2020/21	Level 1	91.4	2020/21	Level 1
	% Child Imms MMR (Age 2 yrs)	85.3	2020/21	Level 1	95.7	2020/21	No Trigger	92.4	2020/21	Level 1	85.5	2020/21	Level 1	90	2020/21	Level 1
	% Child Imms PCV Booster	86.1	2020/21	Level 1	92.9	2020/21	Level 1	90	2020/21	Level 1	84.1	2020/21	Level 1	91.4	2020/21	Level 1
	Cervical Screening	71.2	2021/22 Q4	Level 1	76	2021/22 Q4	Level 1	74.4	2021/22 Q4	Level 1	62	2021/22 Q4	Level 2	72.9	2021/22 Q4	Level 1
Respiratory	% Asthma review in last 6 mths	3.9	2020/21	Level 1	74.7	2020/21	No Trigger	8.8	2020/21	Level 1	20.9	2020/21	Level 1	2.9	2020/21	Level 2
	% Asthma spirometry and one other objective test	0	2020/21	Level 2	0	2020/21	No Data Available	0	2020/21	Level 2	0	2020/21	Level 2	0	2020/21	No Data Available
	% COPD with review in last 12 mths	0.8	2020/21	Level 2	22.1	2020/21	Level 1	2.4	2020/21	Level 2	16.7	2020/21	Level 2	0	2020/21	Level 2
	% LTC patients who smoke	15.4	2020/21	No Trigger	7.3	2020/21	No Trigger	8.2	2020/21	No Trigger	13.2	2020/21	No Trigger	7.7	2020/21	No Trigger
	% LTC Smoker offer support	98.3	2020/21	No Trigger	97.4	2020/21	No Trigger	95.9	2020/21	Level 1	90.6	2020/21	Level 1	86	2020/21	Level 1
	% Smoking patients over 15 recorded	70.1	2021/22	No Trigger	78.6	2021/22	No Trigger	73.4	2021/22	No Trigger	69.9	2021/22	No Trigger	68	2020/21	No Trigger
	% Smoking status recorded	92.6	2020/21	No Trigger	95.4	2020/21	No Trigger	93.7	2020/21	No Trigger	86.1	2020/21	Level 1	92.9	2020/21	No Trigger
	% w. MRC dyspnoea score >=3 w. offer of referral to pulm. rehab. Clinic	14.3	2020/21	Level 1	100	2020/21	No Trigger	25.8	2020/21	Level 1	8.7	2020/21	Level 1	4	2020/21	Level 2

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

Hertfordshire and West Essex Integrated Care Board

Wider Determinants

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

In Herts Five PCN an estimated:

- 10.6% of children live in poverty.
- 12.7% of older people live in poverty.
- 10.3% of households live in fuel poverty.
- 8.8% of households are overcrowded.
- 30.7% of people aged 65 and over live alone.
- 1% of people cannot speak English well.
- 4.2% of working age people are claiming out of work benefits.
- 19.5% of children aged 4-5 and 32.1% 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 Herts Five

Wider determinants analysis from Public Health Evidence and Intelligence shows Herts Five is one of the mid range PCNs in terms of deprivation within the ICB across most indicators, except Housing and Services.

Source: Public Health Team

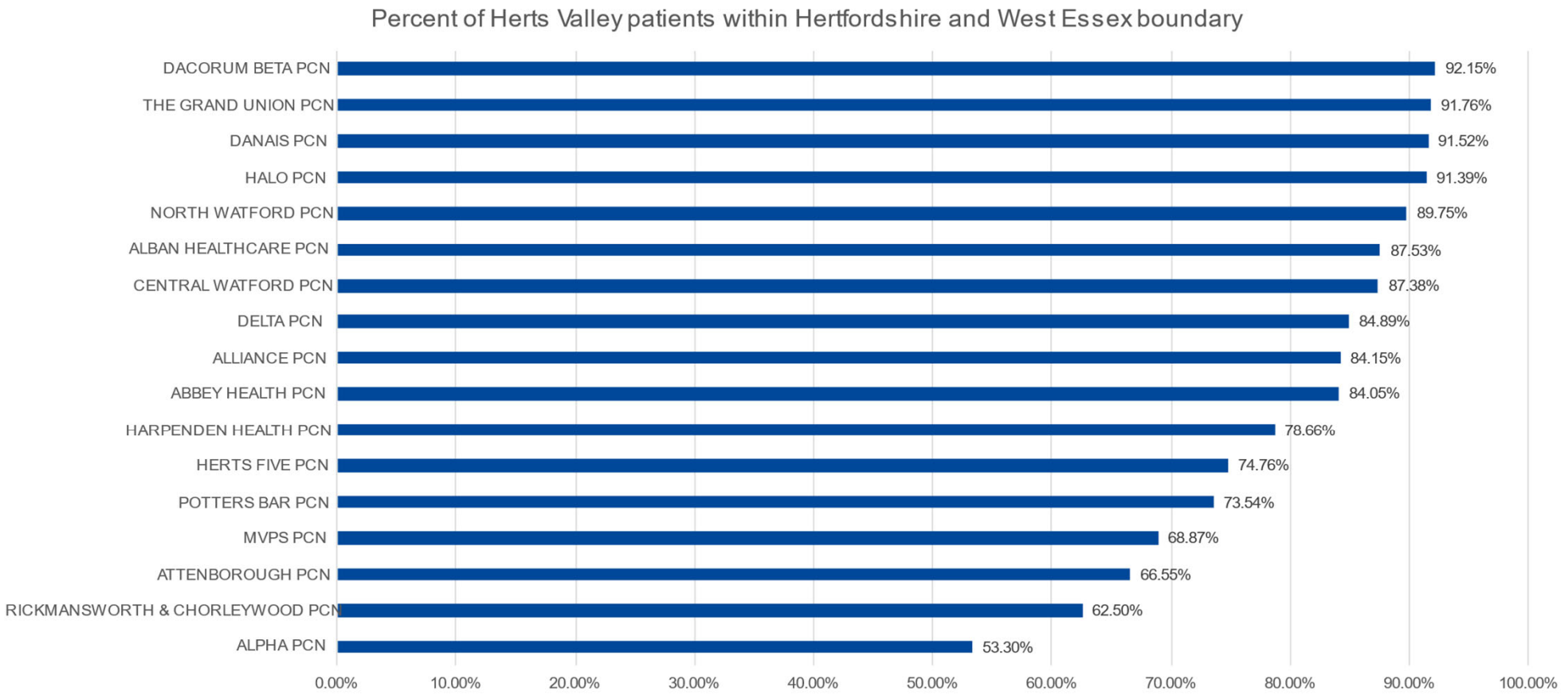
Spread of Patients

NHS 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.

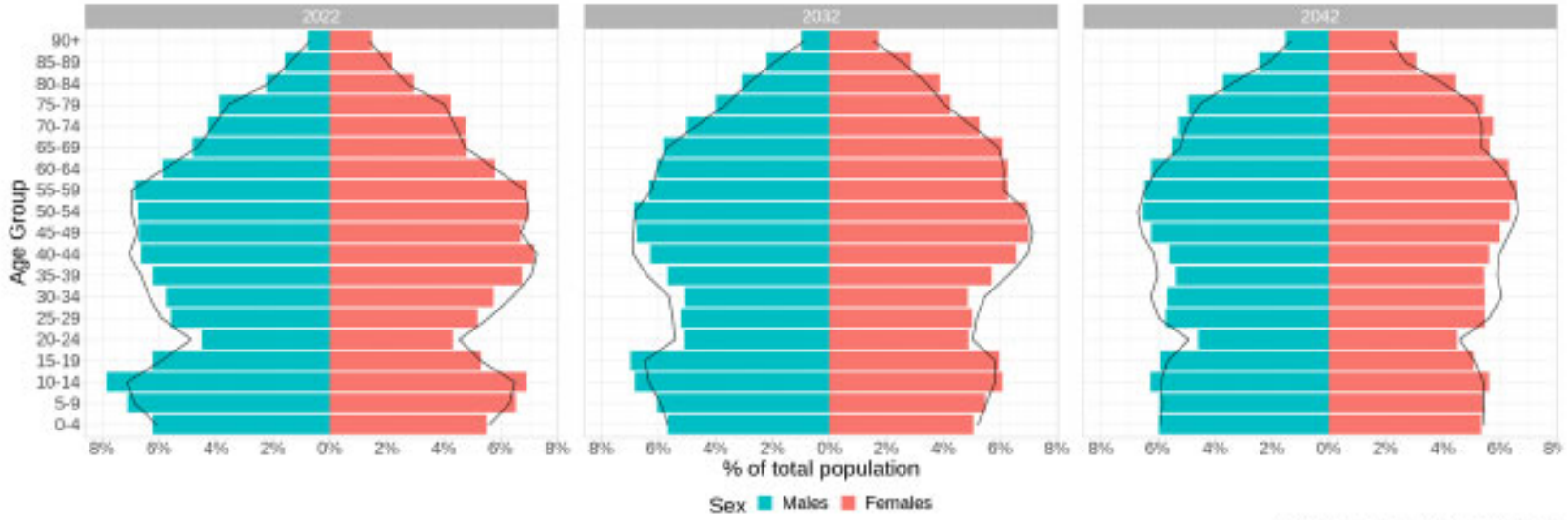
The spread of patients for Herts Five PCN indicates 25.24% of the population are not located within the Hertfordshire & West Essex boundaries; this means that this population may be accessing services outside of the ICB and the impact of coterminous alignment with neighbouring ICBs must be taken into account for this population by the PCN.

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

Public Health - Population Projections

NHS Hertfordshire and West Essex Integrated Care Board

Projection Pyramids



Black line indicates HWE ICS values.
Population pyramids and table shown for Hertsmere 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	6,168	5,720	6,146
Under 24	31,813	30,968	29,658
24-64	53,588	51,762	51,614
65+	20,069	24,163	27,303
85+	3,202	4,184	5,145

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Hertfordshire Public Health Evidence & Intelligence Epidemiology

Hertfordshire

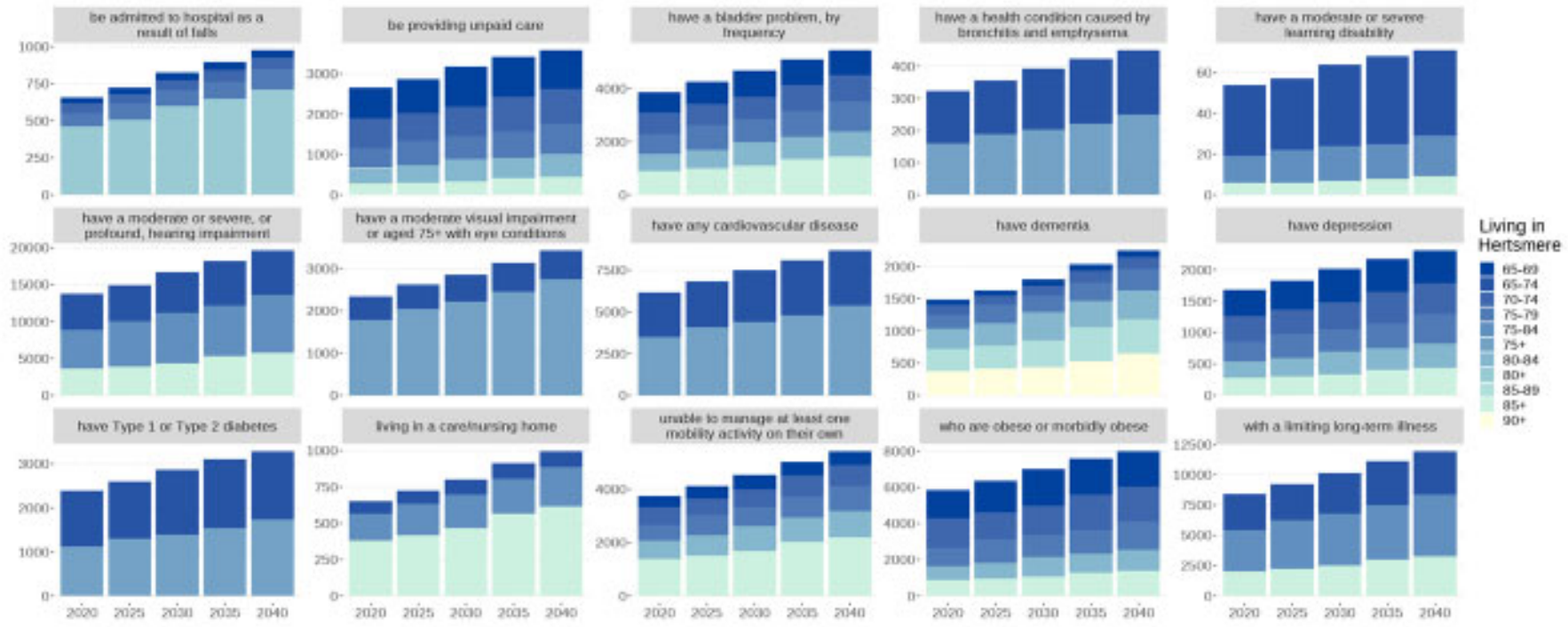
Expected population growth for Hertsmere district by the Local Authority, forecasts continued increase between 2023 through to 2034 which will bring additional demands for healthcare. Projections show an expected increase in the number of people over 65 from ~20k to ~24k.

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

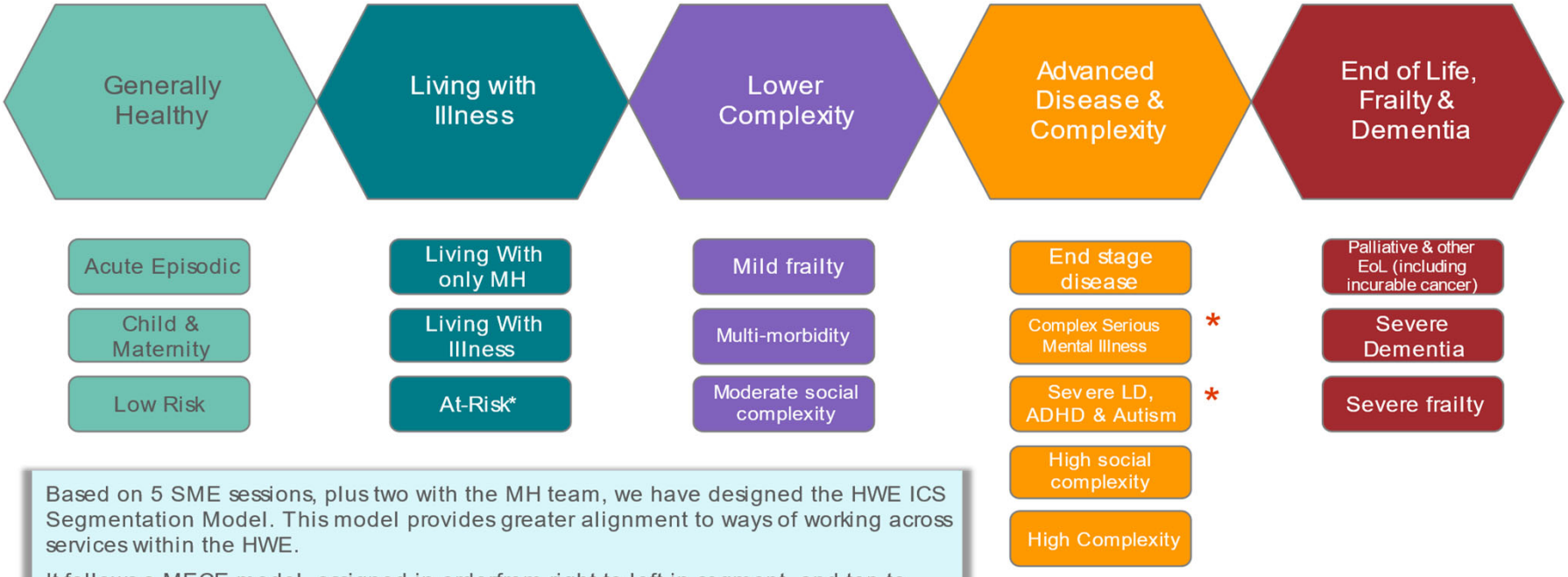
NHS Hertfordshire and West Essex Integrated Care Board

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.

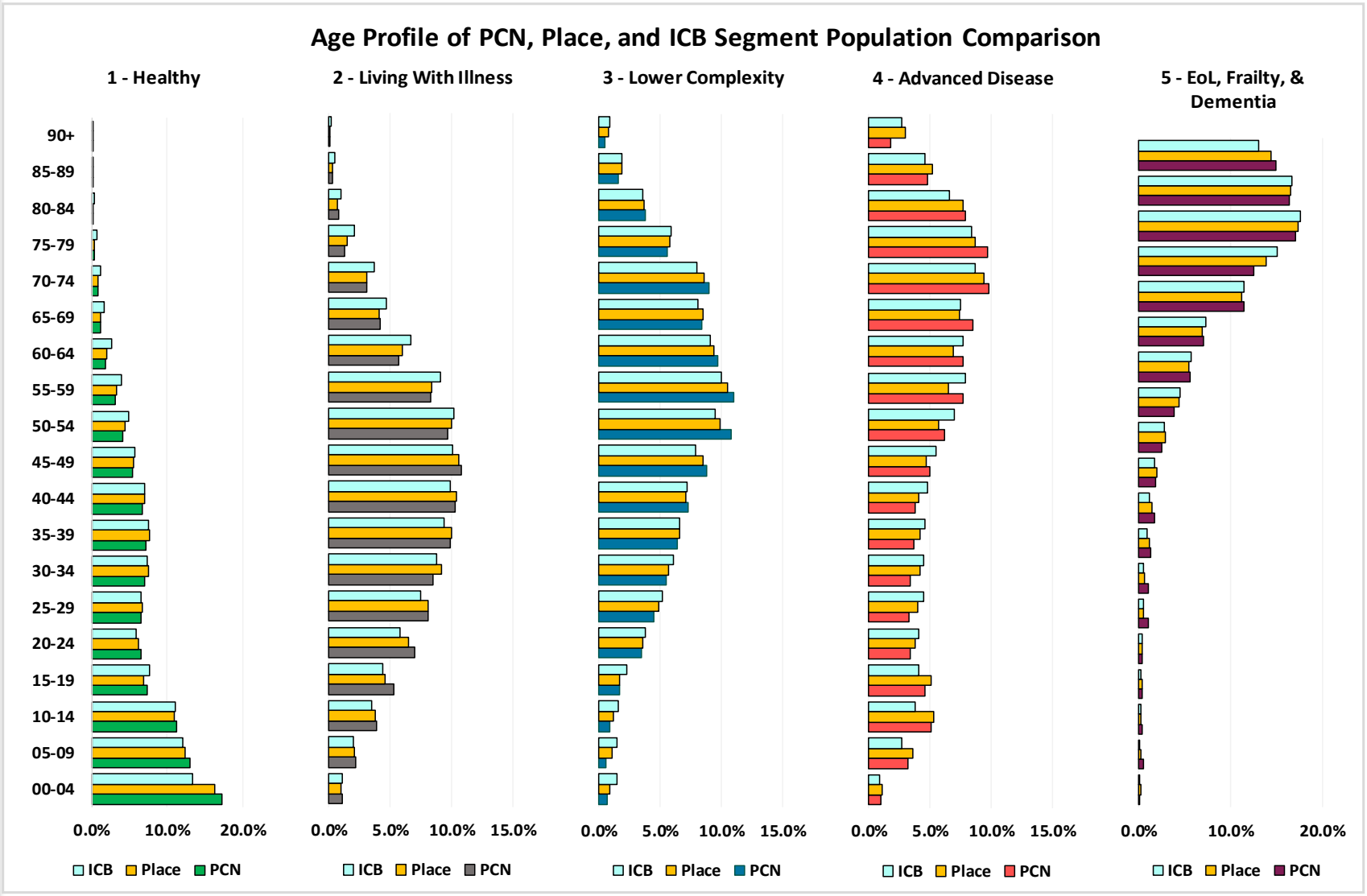
Whole Population Outcomes

- 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



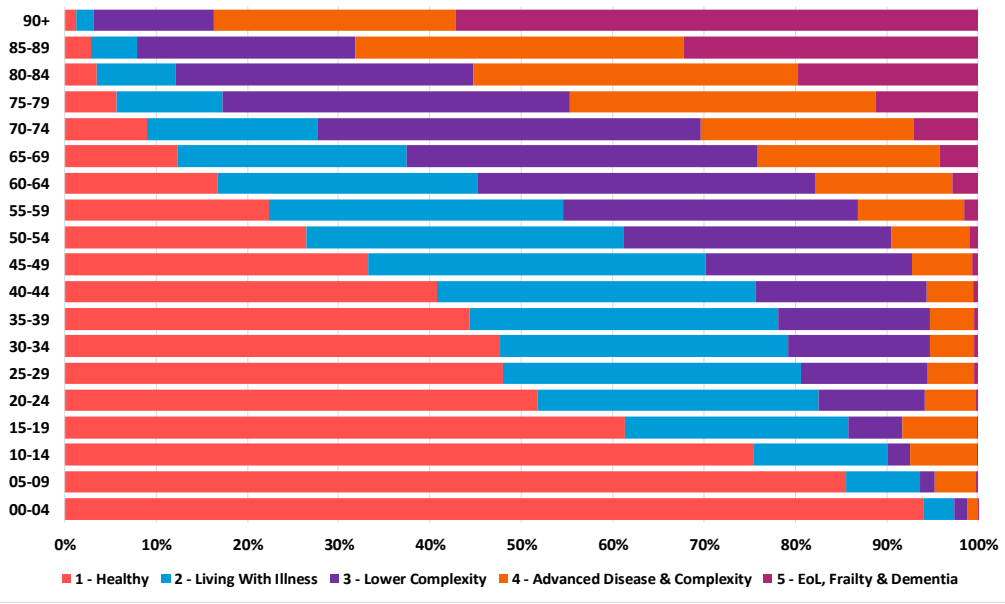
Each registered person is assigned to a segment and this can be cut by age group and also geographically by Place or PCN.

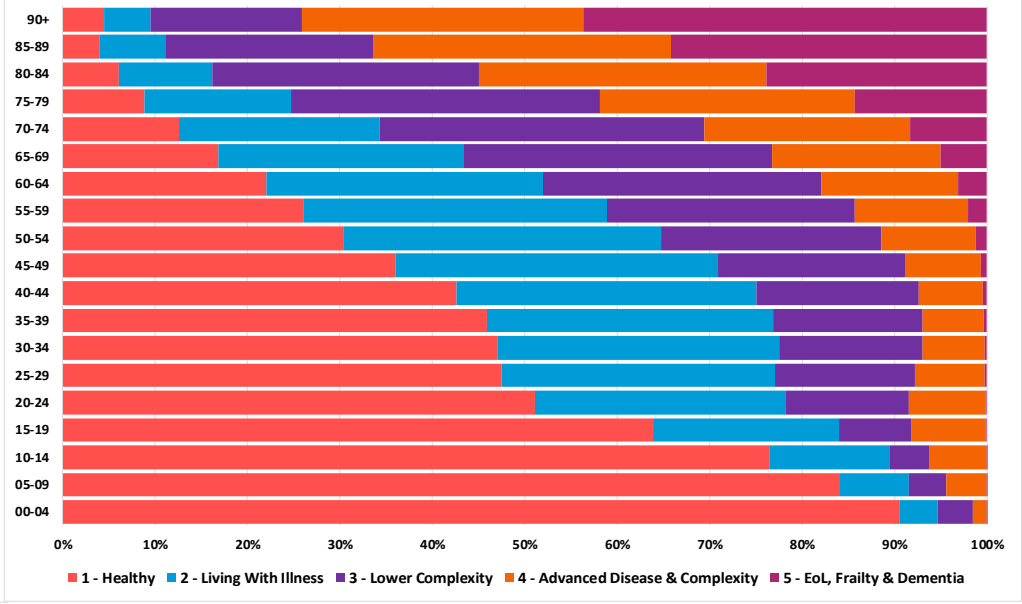
The above looks at the breakdown by age of people within each segment. It provides the PCN value against the Place and ICB value.

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

Demographic Breakdowns - Segment & Deprivation Quintiles

Hertfordshire and West Essex Integrated Care Board



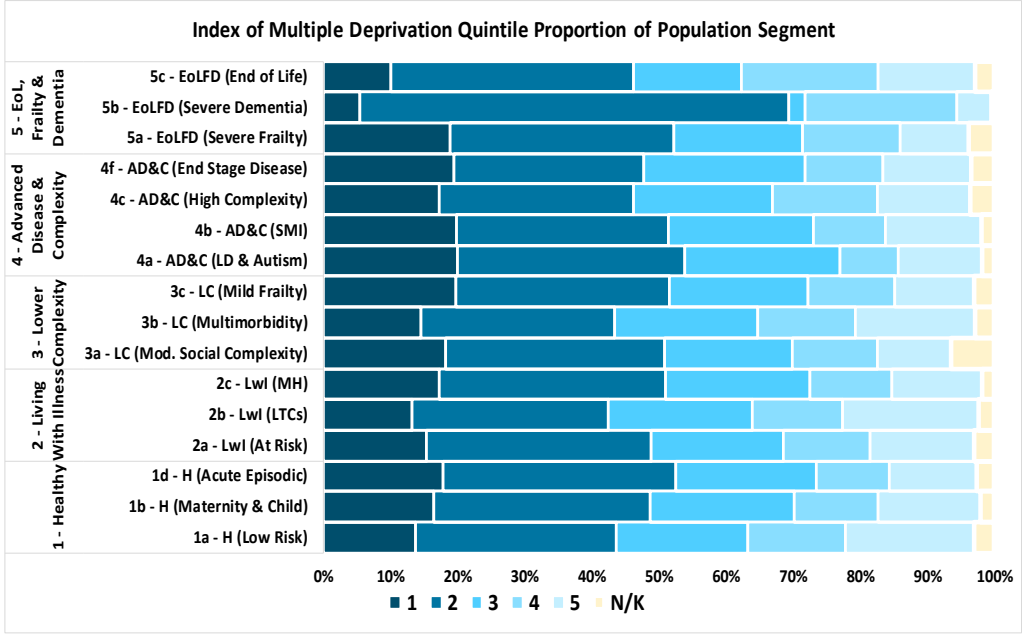


The ICB Health Segments here are broken down by total population and 5 year age groups; as expected with age the proportion of people within the healthy segment decreases.

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

Overall Herts Five has a higher profile for most age categories for segments 2 to 5, compared 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 Herts Five PCN are Diabetes, Dementia, Learning Disabilities, Hypertension, Atrial Fib, Depression, MH, Anxiety, Serious Mental Illness and Alzheimers.

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

Continued

NHS Hertfordshire and West Essex Integrated Care Board

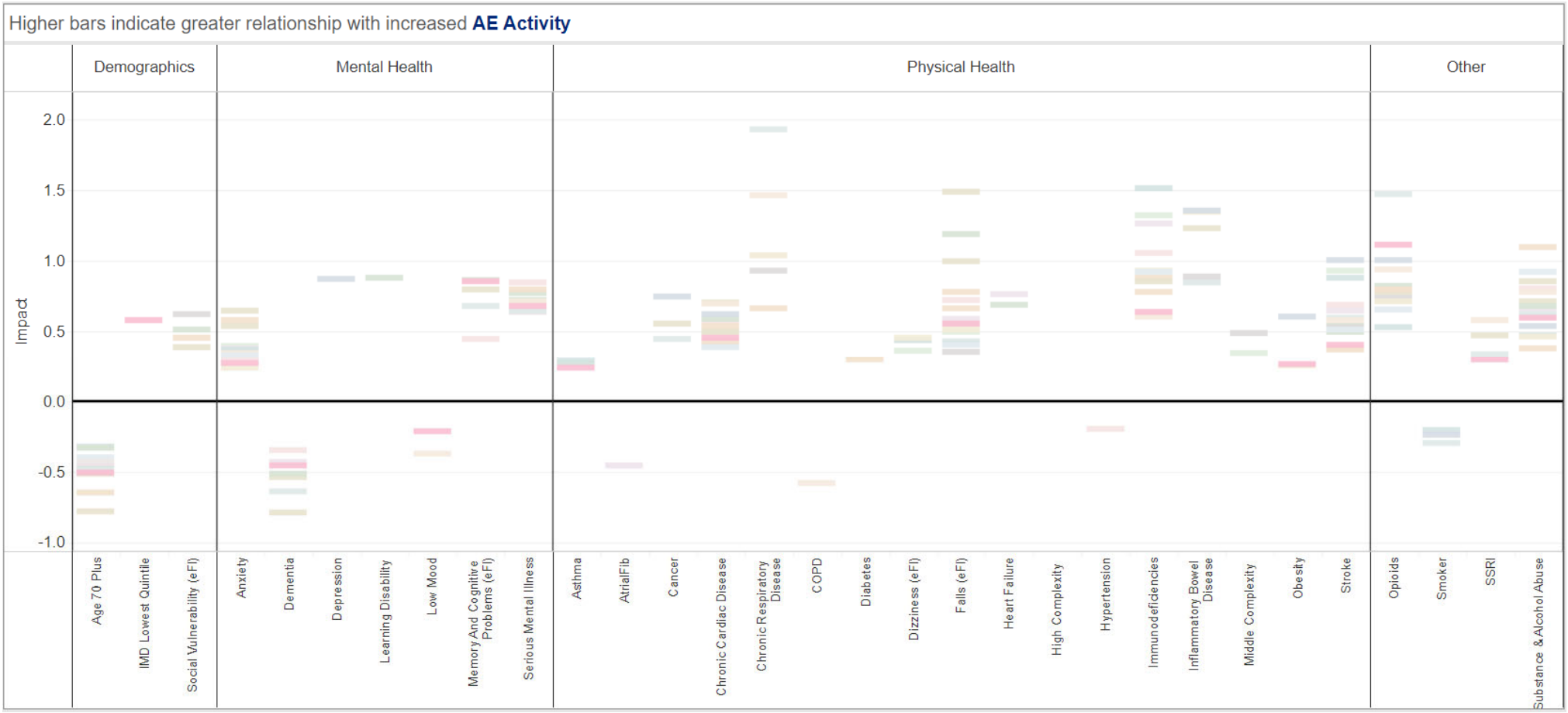
PCN NAME	ASD	Cerebral Palsy	Chronic Respiratory Disea	Cystic Fibrosis	Huntingtons Disease	Inflammatory Bowel Dise	Kidney Transplant	Metastatic Cancer	Multiple Sclerosis	Muscular Dystrophy	Myasthenia Gravis	Osteoporosis	Other Neurological Condi	Parkinsons Disease	Rheumatoid Arthritis	Lupus (SLE)	Sickle 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 Kidney Transplant, Parkinsons Disease and Rheumatoid Arthritis.

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.

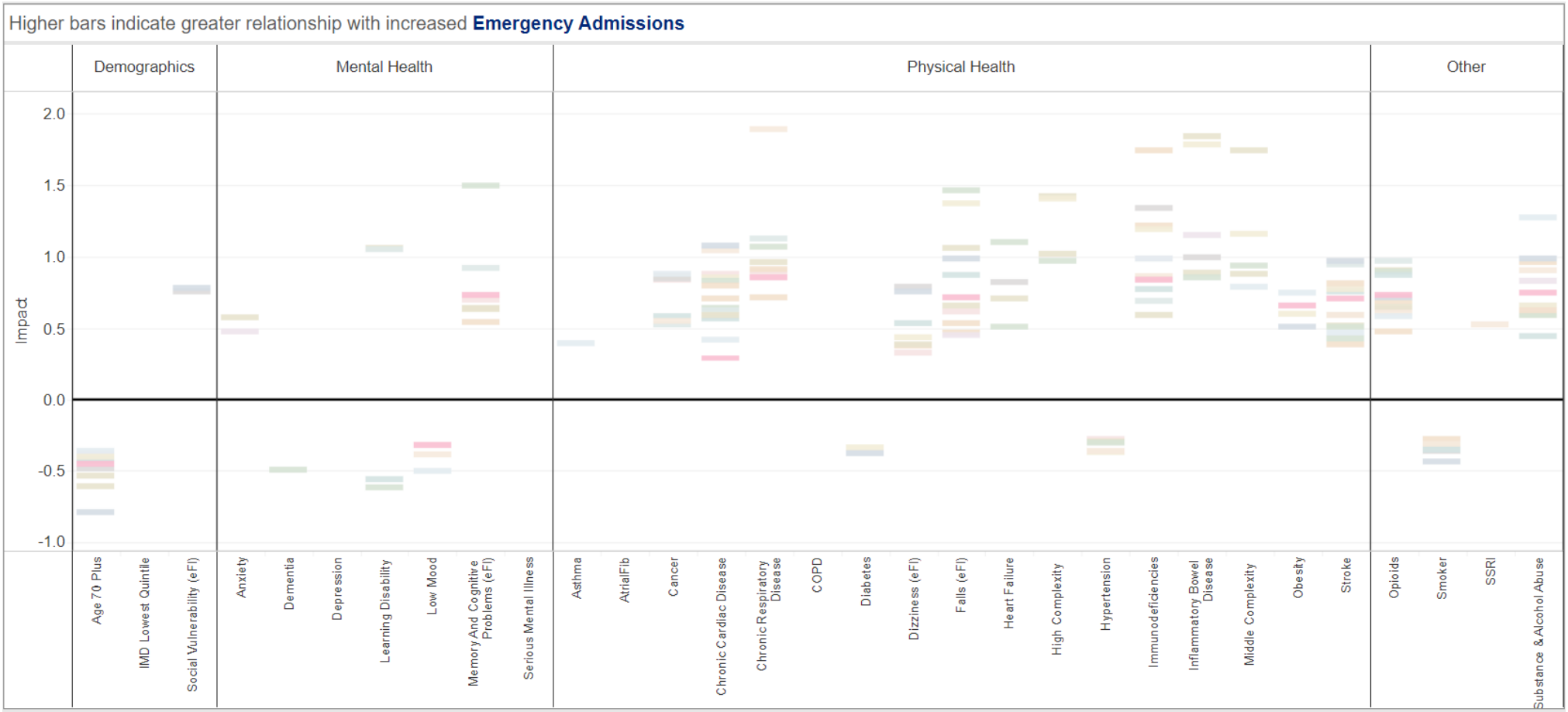
The Model - A statistical regression model is used to decide which Risk Factors correlate with a significant impact on the selected targets as presented in these charts, the height of the bar for each PCN relates to the correlation of a Risk Factor and an increase in impact on the selected target condition.

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

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 and West Essex Integrated Care Board

Hertfordshire & West Essex ICB – South & West A&E Summary – Who are attending and why?

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

223,830 A&E Attendances in 2021/22

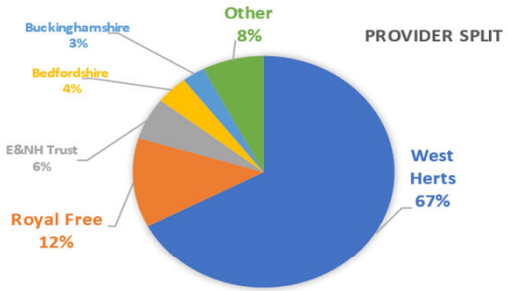
Children = 62,944 (28.1%)
Adults = 113,994 (50.9%)
Older People = 46,892 (20.9%)

141,377 people attended A&E in 2021/22

Children = 40,129 (28.4%)
Adults = 73,984 (52.3%)
Older People = 27,548 (19.5%)

84,710 (37.8%) of attendances resulted in no investigation and no treatment (includes Uncoded Activity)

Children = 31,599 (50.2%)
Adults = 42,719 (37.5%)
Older People = 10,392 (22.2%)



This translates to 1 in 5 people registered with South & West attending A&E

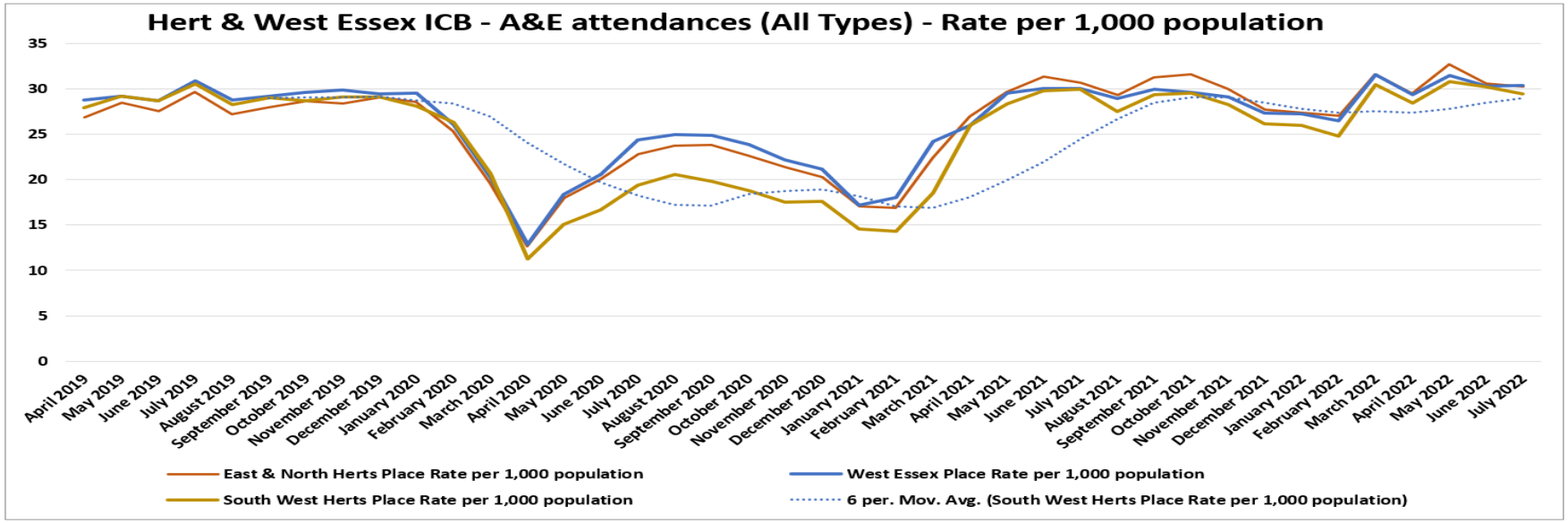
Children = 1 in 4 children
Adults = 1 in 5 adults
Older People = 1 in 4 older people

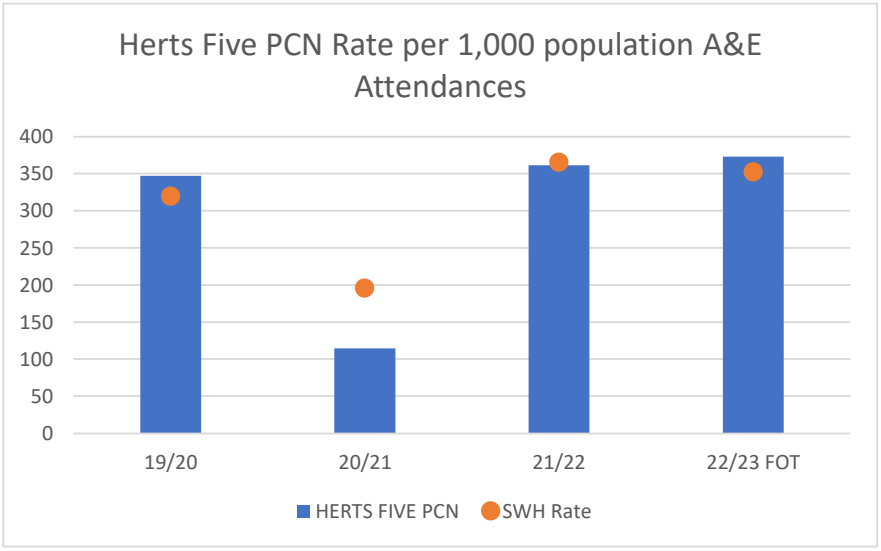
Hertfordshire and West Essex Integrated Care System

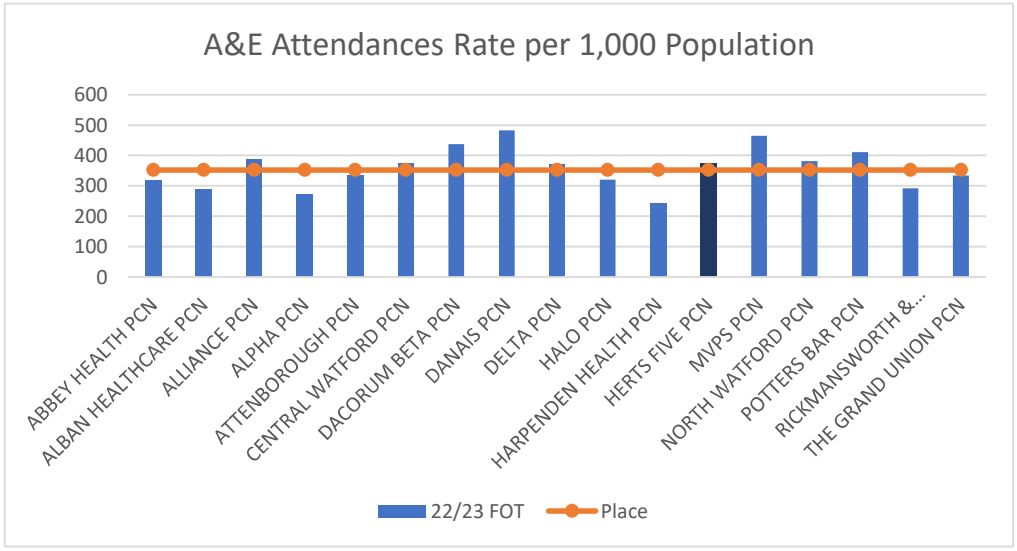
Source: SUS

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 Herts Five PCN A&E Attendance rates per 1,000 population, is just above South West Herts place average.

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 Herts Five PCN.

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

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

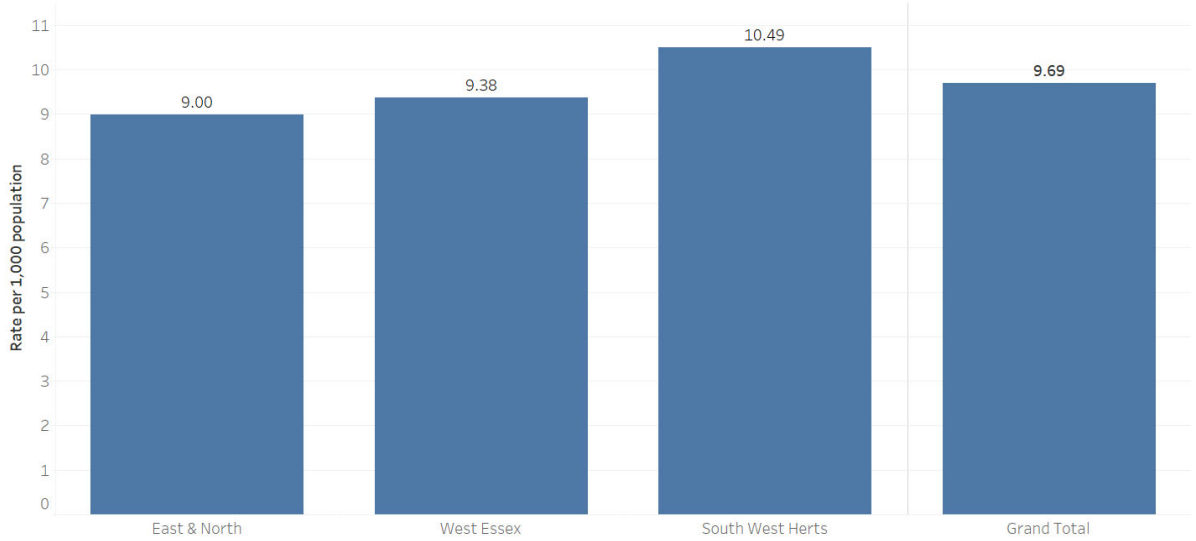
Chronic ACS	Admissions	People	Average cost of admission	Tariff Total Payment National
CVD: AF and Flutter	101	90	£2,341	£236,473
CVD: Angina	20	18	£1,745	£34,906
CVD: Congestive Heart Failure	186	150	£5,349	£994,912
CVD: Hypertension	49	46	£788	£38,589
Diseases of the blood	37	35	£3,598	£133,124
Mental and Behavioural Disorders	9	9	£0	£0
Neurological Disorders	40	31	£3,072	£122,894
Nutritional, endocrine and metabolic	78	70	£3,824	£298,267
Respiratory: Asthma	43	38	£1,497	£64,358
Respiratory: COPD	122	83	£3,262	£397,974
Grand Total	**685**	**537**	**£3,389**	**£2,321,497**

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)

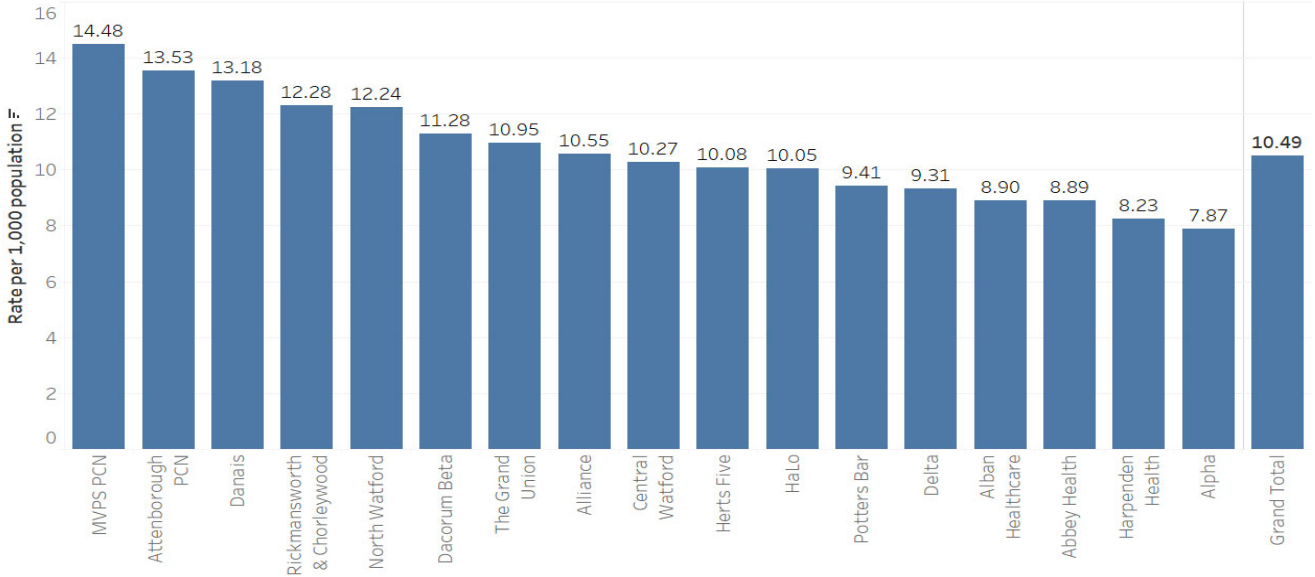


When comparing the Ambulatory Care Sensitive rates per 1,000 population between places, the South West Herts place has the highest rate in the ICB.

Within South West Herts place, Herts Five has a lower rate per 1,000 population, than the average.

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

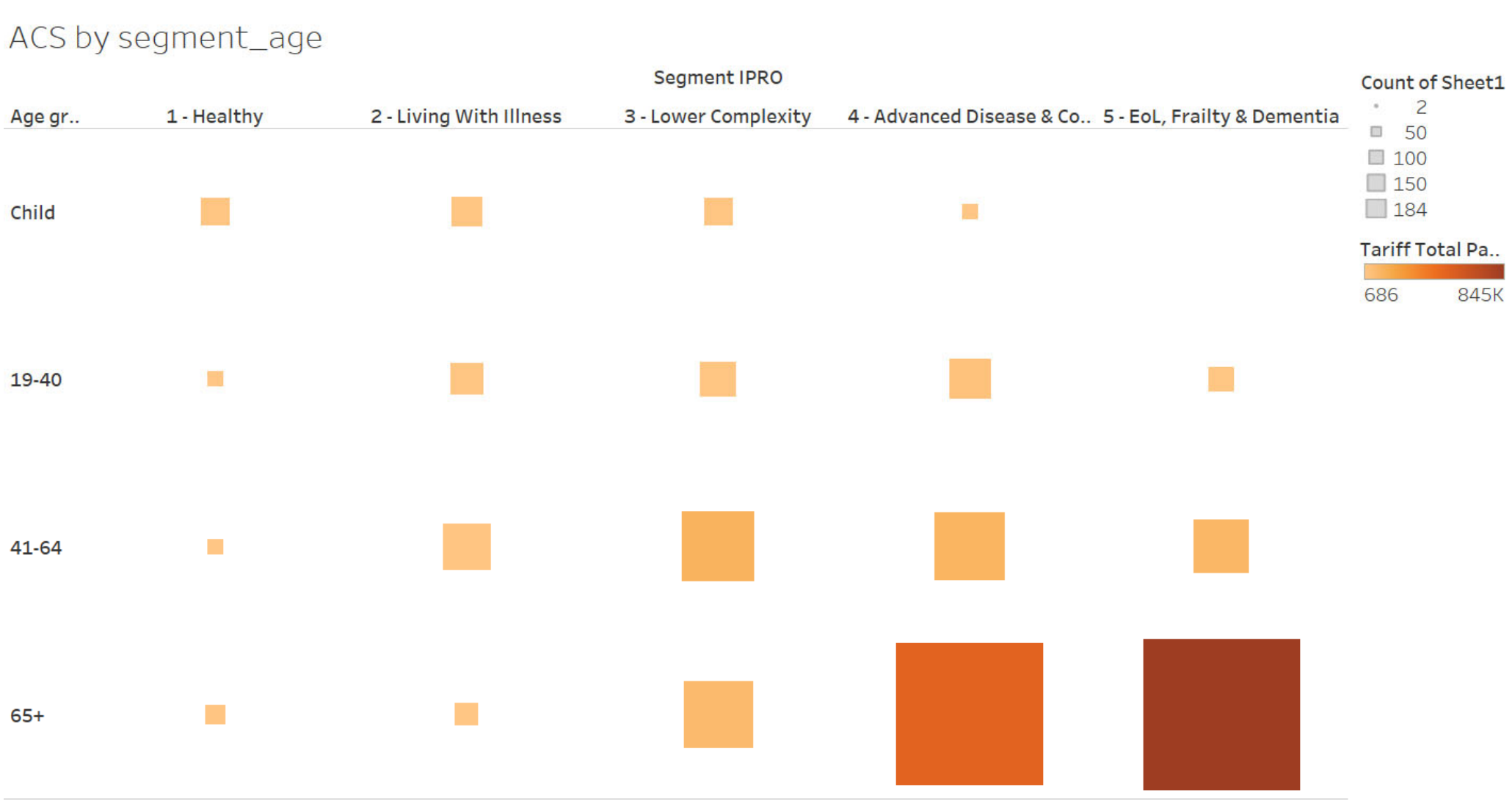
Chronic Ambulatory Care Sensitive Conditions by Place
Rate per 1,000 Population
(Total Population)



Source: HWE PHM Team, SUS UEC data-sets

Chronic ACS by Segment

NHS 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 Herts Five the highest volume and cost is within the End of Life, Frailty and Dementia segment in the over 65 age group and the next highest volume and cost is for the over 65 age group in the Advanced Disease and Complexity segment. It is to be noted that under Advanced Disease and Complexity and Lower Complexity segments there is a notable use by the 41-64 age group.

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

Segment 5

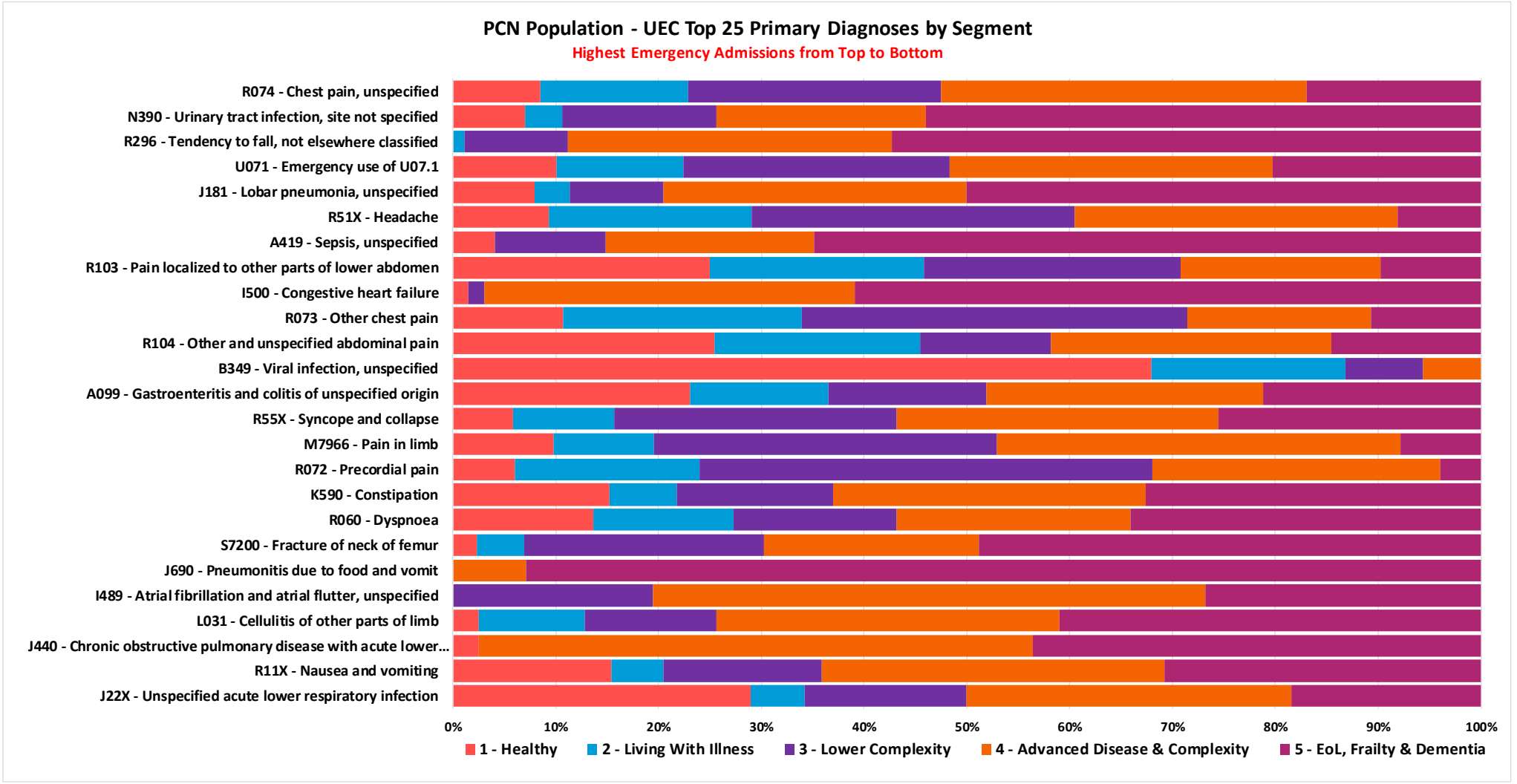
Ambulatory Care Sensitive conditions of note for people aged over 65 within the Advanced Disease and Complexity, is highlighted as Heart Failure, AF and Flutter and COPD with the highest volume and cost.

For those people aged over 65 within the End of Life, Frailty & Dementia is highlighted as Heart Failure followed by COPD in terms of volume and cost.

Source: HWE PHM Team, SUS UEC data-sets

UEC Diagnoses by Segment

NHS 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

NHS 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
Aldenham East	52	48	93	76	73	342
Aldenham West	51	55	77	104	74	361
Borehamwood Brookmeadow	49	61	81	92	83	366
Borehamwood Cowley Hill	88	98	116	183	216	701
Borehamwood Hillside	93	82	97	155	230	657
Borehamwood Kenilworth	53	50	85	88	85	361
Bushey Heath	38	53	79	191	182	543
Bushey North	12	12	18	24	9	75
Bushey Park	25	28	47	83	34	217
Bushey St James	15	15	28	48	14	120
Carpenders Park	2	1	1	2		6
Central			1	2		3
Cunningham	2	1				3
Elstree	43	40	52	72	120	327
Gade Valley				1		1
Grovehill			1			1
Holywell			1		4	5
Kings Langley		1				1
Leavesden	1					1
Leggatts	2				3	5
London Colney	12	5	12	6	9	44
Marshalswick North					1	1
Oxhey	1	5		2	3	11
Oxhey Hall & Hayling		2	1	1	2	6
Park Street	29	42	72	127	60	330
Penn & Mill End	1					1
Potters Bar Oakmere	1	1		5		7
Rosedale and Bury Green	2					2
Shenley	38	36	83	85	124	366
Sopwell			1	1	5	7
South Oxhey		2				2
St Peters	1					1
St Stephen	5	8	5	17	6	41
Unknown Ward	18	15	38	45	37	153
Grand Total	**634**	**661**	**989**	**1410**	**1374**	**5068**

UEC Patients Seen by Deprivation Quintile & Ward 1 = Most Deprived, 5 = Least Deprived	1	2	3	4	5	(blank)	Grand Total
Aldenham East				135	207		342
Aldenham West			250		111		361
Borehamwood Brookmeadow	147	121	98				366
Borehamwood Cowley Hill	416	285					701
Borehamwood Hillside	84	379	194				657
Borehamwood Kenilworth	66	212	83				361
Bushey Heath			153	230	160		543
Bushey North	31	19	10	15			75
Bushey Park			148		69		217
Bushey St James	29		32	59			120
Carpenders Park			1	2	3		6
Central		3					3
Cunningham				3			3
Elstree		153		174			327
Gade Valley			1				1
Grovehill	1						1
Holywell	1	4					5
Kings Langley				1			1
Leavesden			1				1
Leggatts		5					5
London Colney		14	27	3			44
Marshalswick North			1				1
Oxhey			4	7			11
Oxhey Hall & Hayling		6					6
Park Street		129	75	70	56		330
Penn & Mill End		1					1
Potters Bar Oakmere	2		5				7
Rosedale and Bury Green	2						2
Shenley	1	292			73		366
Sopwell	6		1				7
South Oxhey		2					2
St Peters				1			1
St Stephen			9		32		41
Unknown Ward						153	153
Grand Total	**786**	**1625**	**1093**	**700**	**711**	**153**	**5068**

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	HERTS FIVE PCN
Emergency admissions injuries due to falls in those aged 65+	2020/21	2026	2329.7
Emergency asthma, diabetes and epilepsy admissions (aged 0-18)	2020/21	130.8	78.4
Emergency admissions for children with lower respiratory tract infections (age 0-18)	2020/21	40.5	66.4
Emergency admissions for chronic ambulatory care sensitive conditions	2020/21	505.9	526.5
Mental health admissions (all ages)	2020/21	177.2	143.7
Emergency Cancer Admissions	2020/21	494.9	490.1
Emergency admissions for acute conditions shouldn't require admissions	2020/21	611.6	605.9

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.

Herts Five PCN rates are similar to rate of admissions for the ICB.

Source: Public Health Team

Frailty Segment - Detailed PCN Breakdown

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	28	1	109	42	380	286	142	97	290	184	1	1560	37725
% of population in cohort	1.8%	0.1%	7.0%	2.7%	24.4%	18.3%	9.1%	6.2%	18.6%	11.8%	0.1%	100.0%	100.0%
Avg. Age	69.3	63.0	72.8	71.3	71.1	77.2	71.6	73.6	78.9	77.3	45.0	74.7	75.6
% BAME Where recorded	11%	0%	7%	17%	14%	15%	7%	10%	10%	10%	0%	12%	8%
Avg. number of Acute and Chronic Condition	7.9	6.0	7.4	6.3	6.7	6.4	6.9	6.8	6.6	6.6	1.0	6.7	5.5
Activity Measure													
Emergency Admissions	2.1	0.0	0.9	0.8	0.9	0.9	0.9	1.0	0.7	0.7	0.0	0.9	0.6
A&E Attendances	2.9	0.0	1.4	1.1	1.5	1.2	1.2	1.2	0.9	1.0	0.0	1.2	0.9
GP Encounters	103.3	49.0	82.7	71.4	73.4	76.4	69.5	72.4	72.2	65.5	8.0	73.5	103.4
Admitted Bed Days	13.5	0.0	5.8	3.3	7.5	7.1	4.4	5.7	5.3	3.0	0.0	6.0	4.2
Physical Health													
Asthma	42.9%	0.0%	41.3%	26.2%	25.3%	23.4%	31.7%	18.6%	24.5%	27.2%	0.0%	26.6%	25.2%
Cancer	35.7%	100.0%	34.9%	35.7%	26.3%	29.7%	30.3%	47.4%	33.1%	41.8%	0.0%	32.8%	32.8%
Chronic Cardiac Disease	60.7%	0.0%	56.9%	47.6%	52.4%	51.4%	66.2%	59.8%	55.5%	56.5%	0.0%	55.3%	47.5%
Chronic Respiratory Disease	39.3%	0.0%	28.4%	26.2%	25.0%	23.8%	19.7%	19.6%	21.7%	26.6%	0.0%	24.0%	22.2%
CKD	39.3%	0.0%	34.9%	21.4%	29.7%	22.4%	32.4%	36.1%	32.8%	32.6%	0.0%	30.2%	20.7%
Heart Disease	46.4%	0.0%	43.1%	35.7%	40.0%	42.0%	55.6%	50.5%	46.6%	49.5%	0.0%	44.9%	39.1%
Hypertension	82.1%	100.0%	88.1%	73.8%	81.6%	72.0%	83.8%	81.4%	76.2%	76.6%	0.0%	78.7%	74.5%
Diabetes	57.1%	100.0%	59.6%	61.9%	53.7%	46.2%	68.3%	56.7%	61.4%	64.1%	0.0%	57.2%	42.8%
Obesity	35.7%	0.0%	33.9%	40.5%	39.7%	30.4%	43.0%	28.9%	29.7%	20.7%	100.0%	33.1%	32.8%
Rheumatoid Arthritis	17.9%	0.0%	11.0%	9.5%	5.3%	7.0%	9.2%	13.4%	10.3%	15.8%	0.0%	9.4%	5.3%
Stroke	35.7%	0.0%	51.4%	52.4%	45.8%	48.3%	48.6%	47.4%	43.8%	42.9%	0.0%	46.2%	34.5%
Mental Health													
Anxiety	42.9%	0.0%	33.0%	38.1%	31.8%	28.3%	21.8%	28.9%	28.6%	19.6%	100.0%	28.5%	29.0%
Depression	71.4%	100.0%	49.5%	52.4%	48.4%	43.7%	38.7%	35.1%	33.4%	25.5%	0.0%	41.0%	33.6%
Dementia	21.4%	0.0%	25.7%	16.7%	38.4%	46.5%	23.9%	24.7%	42.4%	28.8%	0.0%	35.5%	18.6%
Serious Mental Illness	17.9%	0.0%	25.7%	14.3%	21.8%	18.2%	12.0%	15.5%	7.9%	11.4%	0.0%	16.0%	6.5%
Low Mood	35.7%	100.0%	20.2%	33.3%	25.3%	22.0%	19.7%	16.5%	17.9%	15.2%	0.0%	21.2%	18.5%
Suicide	14.3%	0.0%	1.8%	2.4%	2.9%	1.7%	4.9%	3.1%	1.0%	0.5%	0.0%	2.4%	1.5%
Mental Health Flag	75.0%	100.0%	64.2%	61.9%	63.7%	57.3%	47.9%	46.4%	48.3%	39.1%	100.0%	54.5%	48.8%
Screening and Verification Refusal													
Bowel Screening Refused	32.1%	100.0%	44.0%	33.3%	31.8%	29.4%	33.1%	25.8%	20.7%	23.9%	0.0%	29.0%	25.5%
Cervical Screening Refused	0.0%	0.0%	6.4%	7.1%	11.1%	3.8%	3.5%	5.2%	2.1%	2.7%	0.0%	5.4%	3.6%
Flu Vaccine Refused	42.9%	100.0%	49.5%	35.7%	37.9%	42.0%	39.4%	29.9%	36.2%	38.0%	0.0%	38.8%	26.4%
Wider Indicators													
Has A Carer	14.3%	0.0%	38.5%	2.4%	41.6%	32.5%	21.1%	27.8%	46.6%	25.5%	0.0%	34.4%	19.0%
Is A Carer	7.1%	0.0%	3.7%	2.4%	5.5%	8.4%	9.2%	8.2%	11.4%	12.0%	0.0%	8.2%	11.9%
MED3 Not Fit For Work (ever)	17.9%	0.0%	15.6%	21.4%	17.1%	8.0%	17.6%	14.4%	5.2%	4.9%	100.0%	11.7%	13.4%
MED3 Not Fit For Work (in Last Year)	3.6%	0.0%	0.9%	4.8%	3.7%	0.7%	2.8%	2.1%	0.3%	0.5%	0.0%	1.8%	3.5%
MED3 Not Fit For Work (in Last Six Months)	3.6%	0.0%	1.8%	2.4%	2.4%	0.7%	2.1%	1.0%	0.3%	0.5%	0.0%	1.3%	2.8%
Avg. number of eFI Deficits	14.4	7.0	14.6	11.4	13.2	12.3	13.1	12.1	12.1	11.8	1.0	12.7	13.4
eFI_Housebound	10.7%	0.0%	23.9%	7.1%	16.6%	14.3%	14.1%	17.5%	20.3%	16.3%	0.0%	16.8%	10.9%
eFI_SocialVulnerability	39.3%	100.0%	42.2%	19.0%	30.5%	25.9%	26.8%	19.6%	28.3%	29.3%	0.0%	28.8%	27.3%
People_ChildrenInPoverty		15.2		9.3	9.5		11.3		9.3			9.8	15.5
Housing_FuelPoverty	17.0	19.0	15.4	13.3	12.1	9.0	9.6	8.8	7.6	6.6		10.0	11.1
Housing_OnePersonHousehold	48.6	26.2	38.3	31.5	28.3	29.0	28.7	31.3	24.9	18.3		28.0	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 Herts Five 11.6% 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 Herts Five PCN is above the ICB, and the data shows significantly lower usage of GP services.

Within this segment we can see the presence of Chronic Cardiac Disease, Chronic Respiratory Disease, Heart Disease, Diabetes, Obesity and Stroke 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 above the ICB.

Source: HWE PHM Team, SUS UEC data-sets

Applying Machine Learning factors without our data platform

NHS 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:

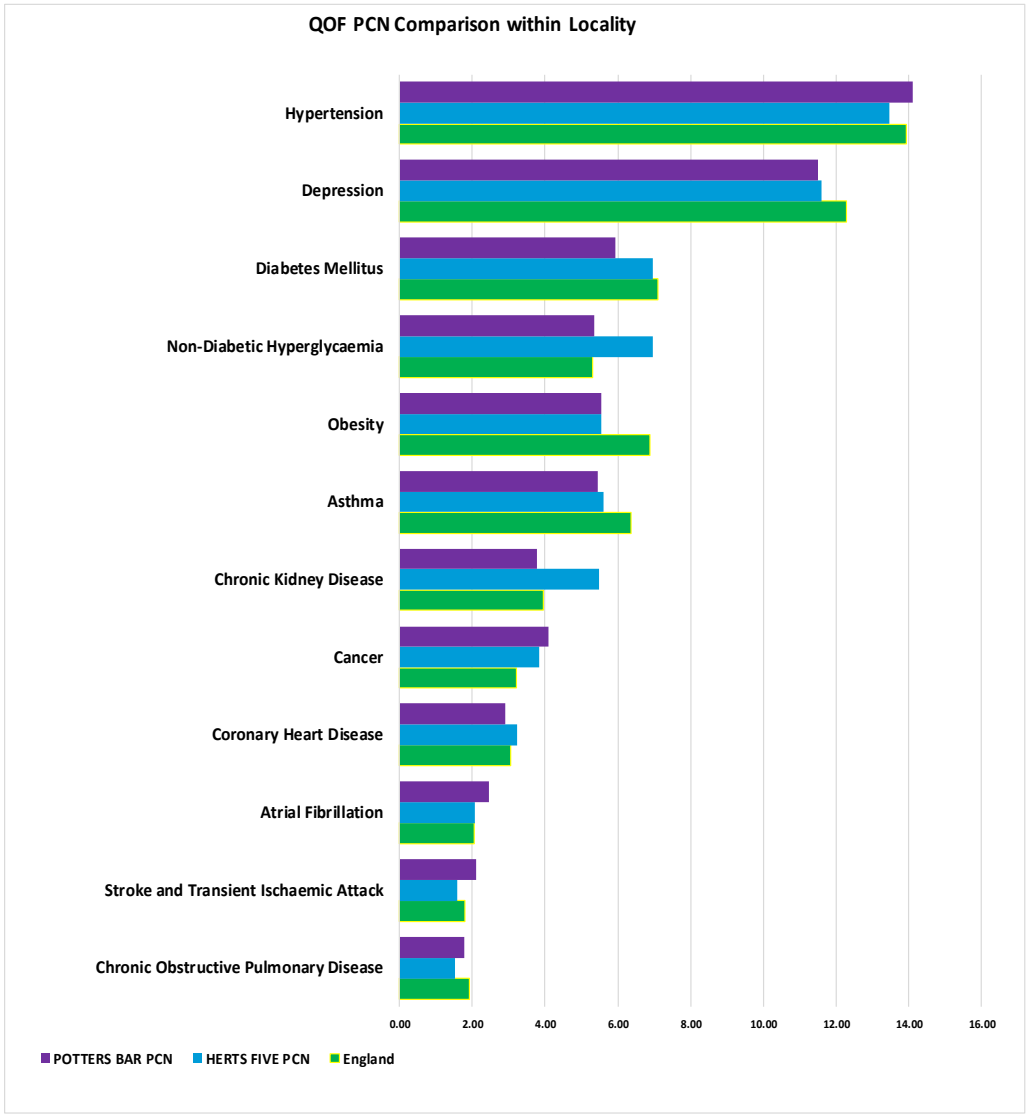
- QOF Local, Regional, & National Comparison

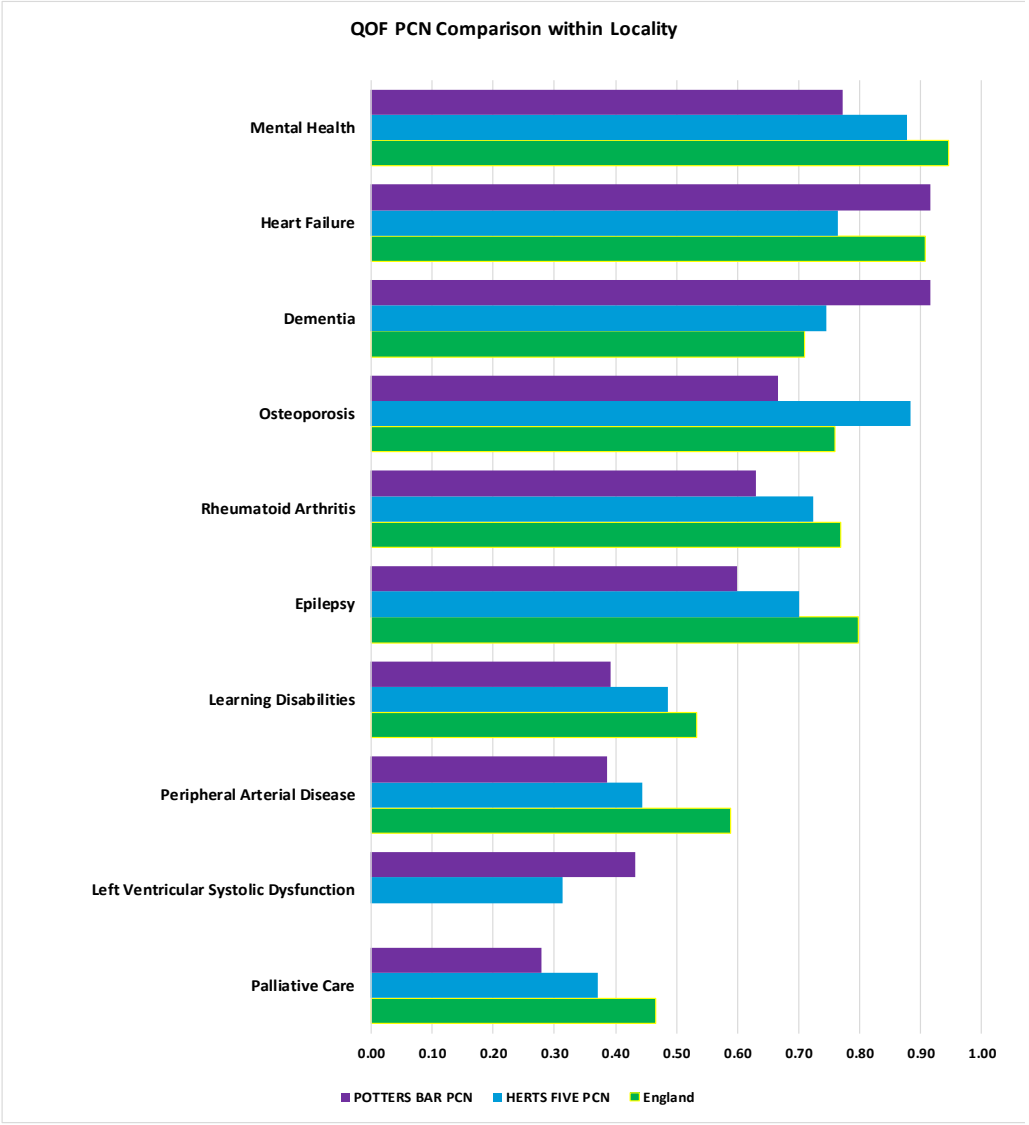
- QOF Locality & PCN Comparison

- QOF Missed Diagnoses & Admission Rates

- Admission Rates Benchmarking against ICB/Place

QOF - Locality & PCN Comparison



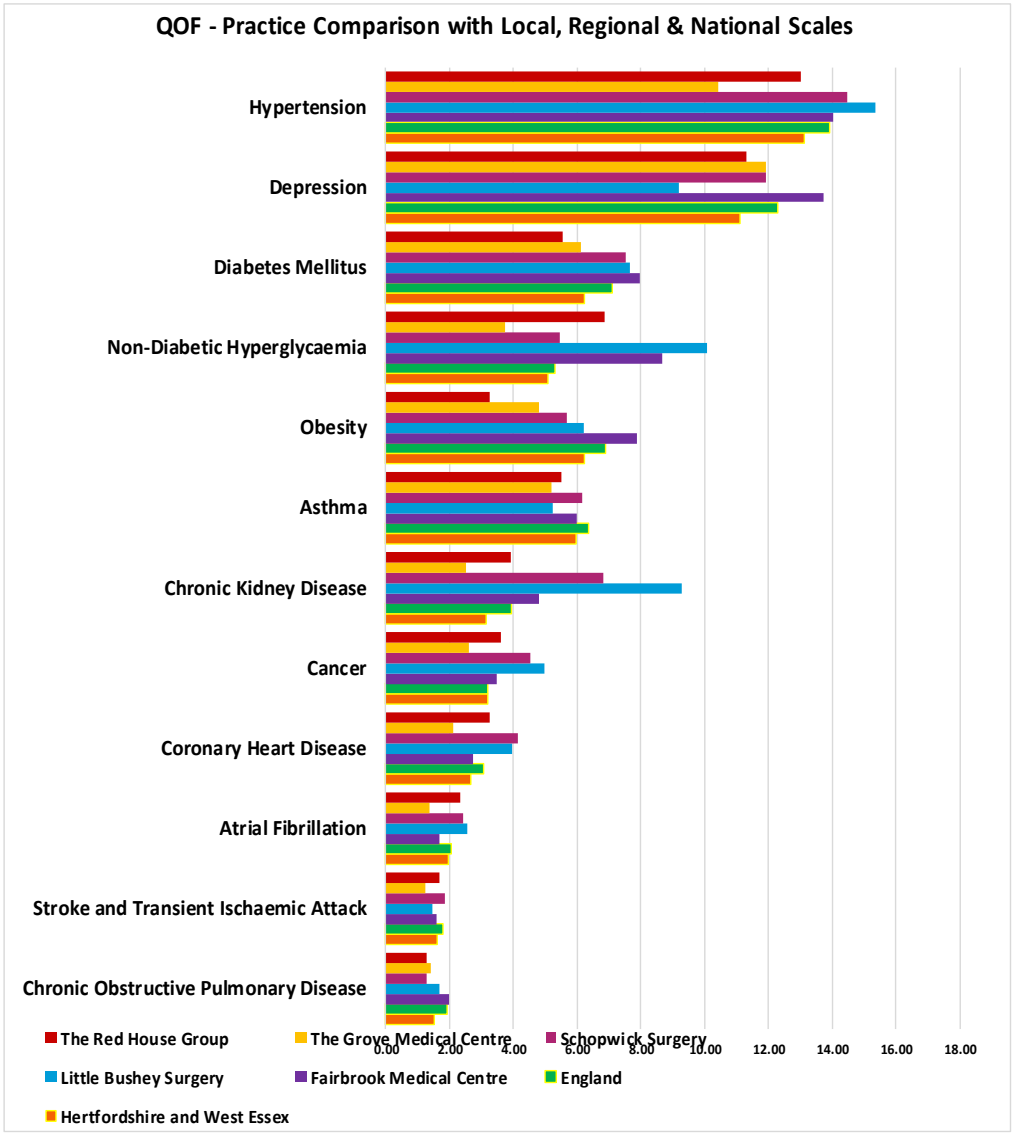


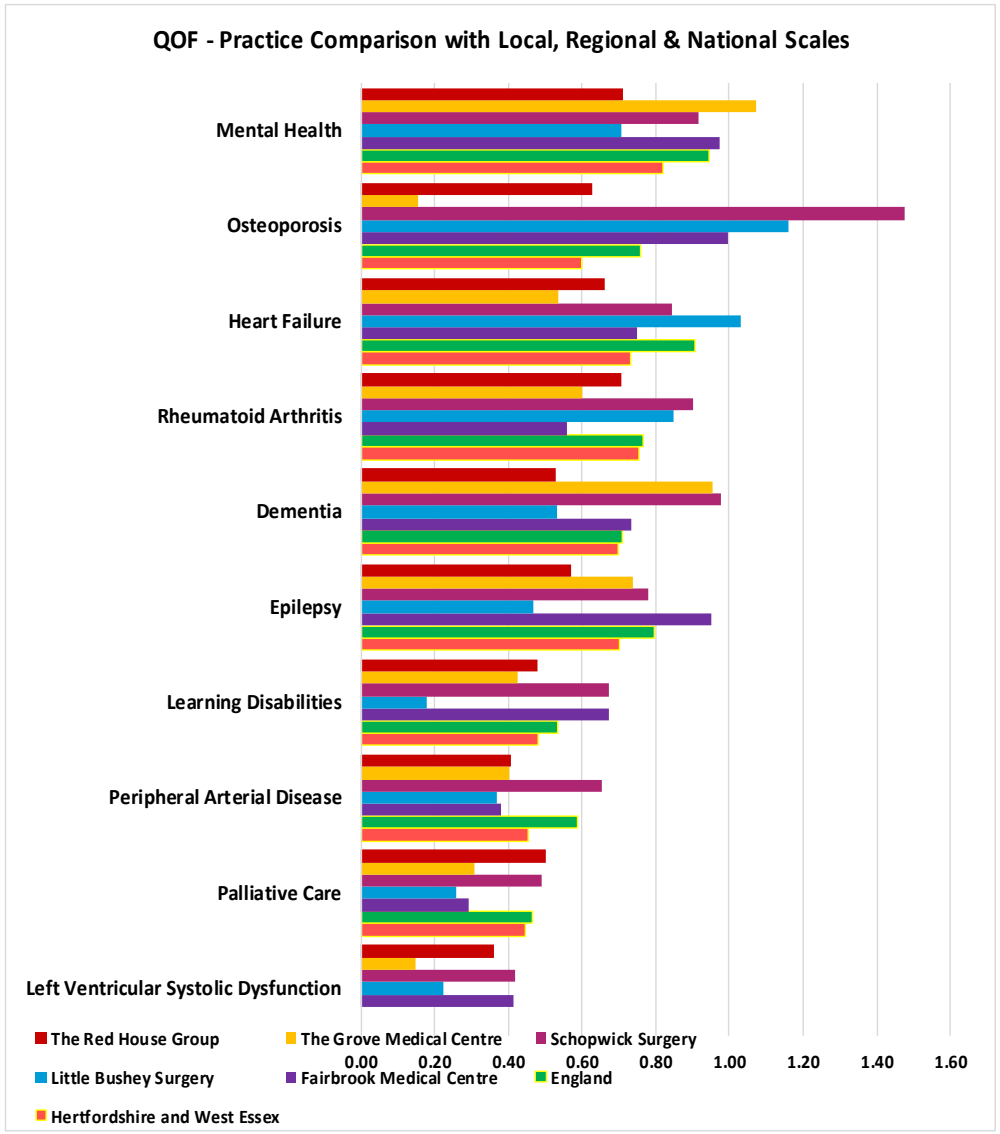
The Quality and Outcome Framework incorporates important benchmarking and scoring for all Practices across the county; we have combined a number of local, regional, and national data sets to highlight the areas that the PCN will need to consider.

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	63436	3736	5.89%	5.89%	6.17%		-1	177	
COPD	67921	1008	1.48%	1.38%	1.49%	2.06%	-70	1	392
Diabetes	53787	3833	7.13%	6.26%	6.39%	7.77%	-467	-398	348
Non-diabetic hyperglyaemia	52942	3910	7.39%	6.73%	5.87%	11.28%	-349	-802	2064
Hypertension	67921	9250	13.62%	12.66%	13.21%		-649	-276	
Atrial Fibrillation	67921	1440	2.12%	1.98%	2.02%	2.56%	-93	-67	299
Stroke and TIA	67921	1109	1.63%	1.53%	1.61%		-70	-16	
Coronary Heart Disease	67921	2189	3.22%	2.60%	2.65%		-421	-387	
Heart failure	67921	526	0.77%	0.69%	0.75%	1.35%	-56	-13	394
Left Ventricular Systolic Dysfunction	67921	220	0.32%	0.29%	0.30%		-24	-17	
Chronic Kidney Disease	52942	2747	5.19%	3.75%	3.21%		-764	-1049	
Peripheral Arterial Disease	67921	305	0.45%	0.42%	0.44%		-22	-4	
Cancer	67921	2642	3.89%	3.38%	3.35%		-343	-369	
Palliative care	67921	293	0.43%	0.33%	0.43%		-67	-2	

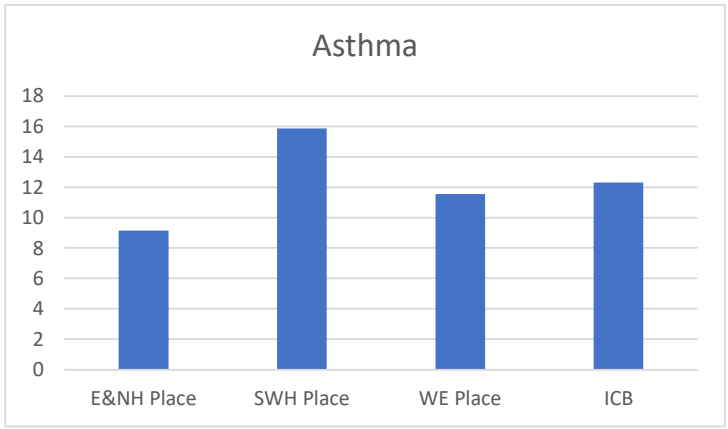
The table above shows the latest prevalence (2021/22 published August 20222) for the PCN alongside the place prevalence, ICB prevalence and the modelled prevalence for the PCN.

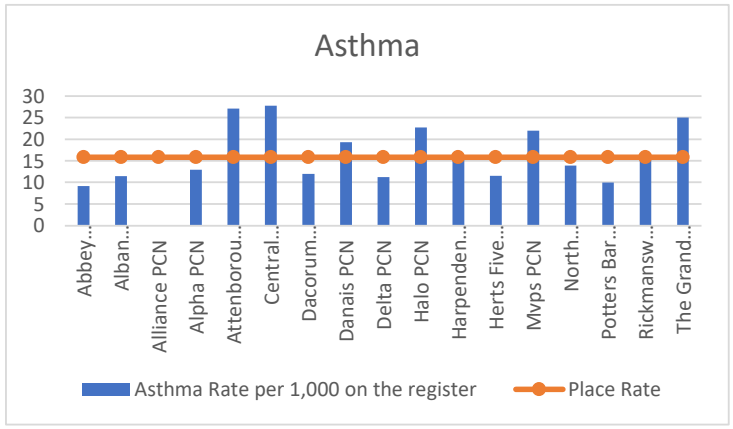
This table shows opportunities for further identification. It outlines the diagnoses to meet the place, ICB and estimated prevalence.

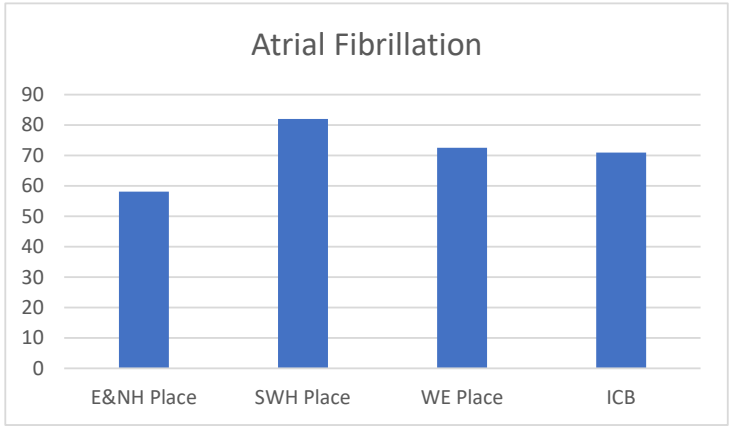
Within Ardens Manager there are case finding searches that can support PCN with identification.

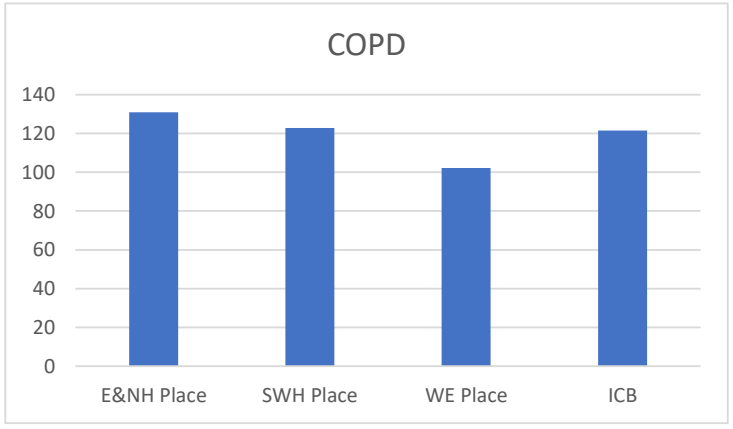
Source: QOF National Figures, HWE PHM Team

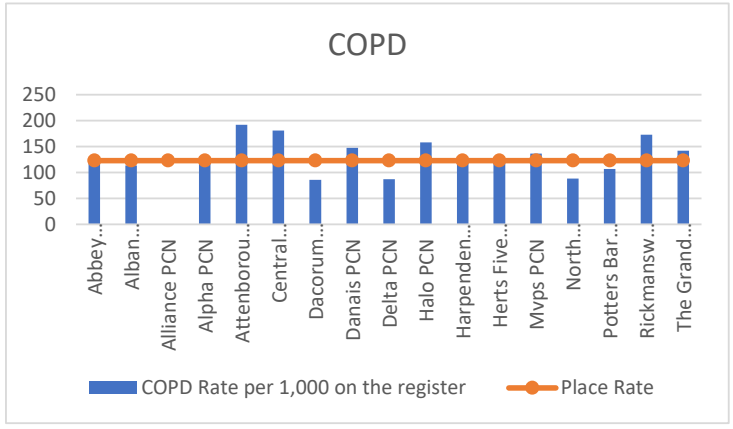
Emergency Admission Rates per 1,000 population on the Disease Register











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.

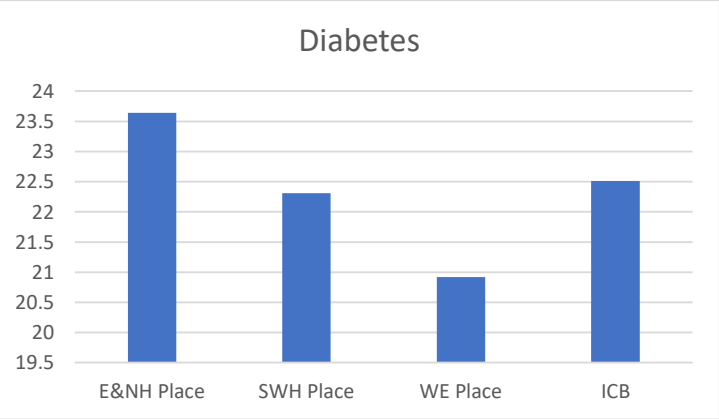
These are continued on the following page.

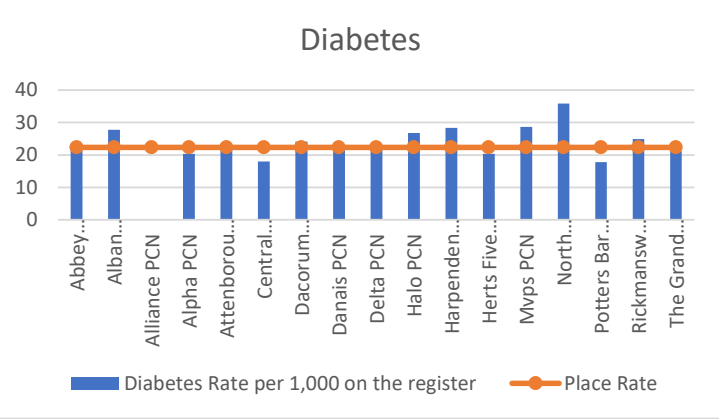
Rates may be high due to a number of factors which may include low identification.

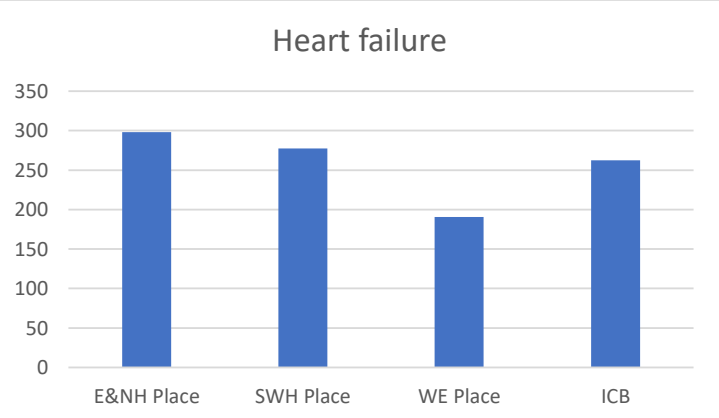
For Herts Five the data shows higher Heart Failure rates which was identified as a theme within the ACS analysis.

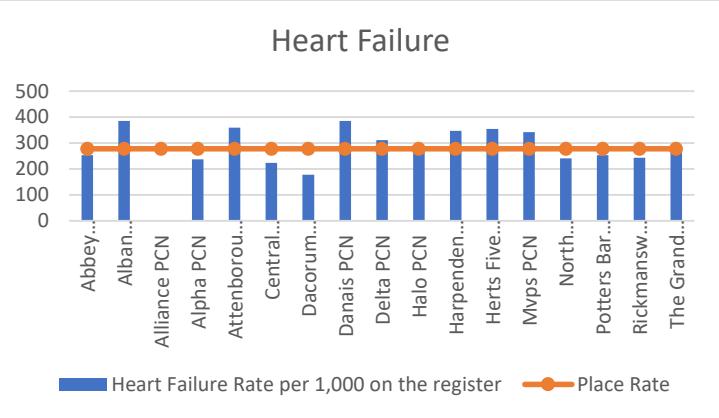
Source: HWE PHM Team, SUS data

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









Source: HWE PHM Team, SUS data

Appendices

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

Contents:

- **Matrix by Ethnicity**
- **Matrix by Health Segment & Subsegment**
- **Matrix by GP Activity**
- **Matrix by Health Segment & Deprivation**
- **Matrix by Practice & Deprivation**
- **Bubble Matrix on Conditions**
- **Bio-Psycho-Social Example**
- **Risk Factors by Prevalence against GP Activity & A&E**
- **Public Health Cancer Screening**
- **Public Health Mortality**
- **Public Health Life Expectancy**
- **Public Health Projection on Populations**

Matrix Data - Ethnicity

NHS Hertfordshire and West Essex Integrated Care Board

Ethnicity Group	Other Ethnic Groups			Asian			Black			Mixed			Other			White			Unknown			Grand Total
Complexity	Low Complexity	Middle Complexity	High Complexity	Low Complexity	Middle Complexity	High Complexity	Low Complexity	Middle Complexity	High Complexity	Low Complexity	Middle Complexity	High Complexity	Low Complexity	Middle Complexity	High Complexity	Low Complexity	Middle Complexity	High Complexity	Low Complexity	Middle Complexity	High Complexity	
Overall Population Measures																						
Population	627	211	23	2,940	1,715	227	1,439	894	81	1,030	433	44	2,769	1,776	238	22,072	18,737	3,801	3,307	986	30	63,380
Age	30	51	67	27	46	63	26	44	50	18	36	51	24	46	59	27	49	66	32	46	69	38
Male %	55.3%	48.3%	43.5%	49.1%	44.6%	51.5%	49.1%	43.8%	56.8%	52.4%	45.3%	52.3%	53.4%	46.2%	51.3%	51.9%	44.8%	45.5%	63.5%	58.9%	43.3%	49.5%
IMD	6.3	6.2	5.6	6.9	7.1	7.3	5.8	5.5	5.7	6.7	6.5	6.8	6.7	6.8	6.6	6.9	6.9	6.7	6.9	6.8	7.2	6.8
% BAME (where recorded)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%	0%	0%	100%	100%	100%	25%
Multimorbidity (acute & chronic)	0.0	1.5	7.2	0.0	1.8	6.6	0.0	1.7	6.9	0.0	1.7	6.7	0.0	1.8	6.7	0.0	1.9	6.9	0.0	1.5	6.2	1.2
Finance and Activity Measures																						
Spend - Total	£0.1M	£0.1M	£0.1M	£0.8M	£1.3M	£0.7M	£0.4M	£0.8M	£0.3M	£0.3M	£0.3M	£0.2M	£0.8M	£1.2M	£0.7M	£5.7M	£14.5M	£14.1M	£0.2M	£0.1M	£0.0M	£42.5M
PPPY - Total	£94	£262	£4,798	£258	£753	£3,045	£257	£925	£4,230	£250	£610	£4,857	£288	£667	£3,115	£260	£773	£3,699	£47	£118	£269	£671
Acute Elective	£14	£79	£26	£73	£306	£792	£72	£434	£966	£65	£188	£1,686	£81	£224	£921	£77	£310	£1,009	£5	£27	£91	£221
Acute Non-Elective	£15	£44	£4,107	£104	£243	£1,706	£115	£281	£2,224	£110	£168	£1,982	£122	£254	£1,578	£102	£259	£2,099	£6	£4	£9	£290
GP Encounters	£62	£132	£330	£79	£172	£320	£69	£175	£357	£69	£157	£279	£82	£164	£303	£77	£172	£343	£36	£85	£166	£128
Community	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
Mental Health	£3	£8	£335	£2	£30	£227	£2	£33	£663	£5	£96	£873	£3	£25	£296	£4	£30	£234	£0	£2	£3	£31
Social Care	£0	£0	£0	£0	£1	£0	£0	£2	£20	£0	£1	£37	£0	£1	£16	£0	£3	£13	£0	£0	£0	£2
GP PPPY	11	24	61	14	30	57	12	30	63	12	26	48	14	28	52	13	29	60	6	14	30	22
Beddays PPPY - Acute EM	0	0	15	0	0	3	0	1	5	0	1	5	0	0	3	0	0	4	0	0	0	0
Physical Health																						
Diabetes	0.0%	29.4%	52.2%	0.0%	43.8%	78.0%	0.0%	32.0%	63.0%	0.0%	27.7%	54.5%	0.0%	28.3%	58.0%	0.0%	25.5%	63.4%	0.0%	16.1%	70.0%	15.0%
COPD	0.0%	0.0%	8.7%	0.0%	0.4%	11.5%	0.0%	0.4%	14.8%	0.0%	0.0%	18.2%	0.0%	0.7%	13.0%	0.0%	1.3%	20.6%	0.0%	0.7%	13.3%	1.8%
Chronic Respiratory Dis...	0.0%	0.9%	17.4%	0.0%	0.9%	15.4%	0.0%	0.9%	18.5%	0.0%	0.7%	20.5%	0.0%	1.2%	16.8%	0.0%	2.0%	24.4%	0.0%	0.9%	16.7%	2.3%
Hypertension	0.0%	38.4%	69.6%	0.0%	32.9%	86.8%	0.0%	44.5%	71.6%	0.0%	20.8%	75.0%	0.0%	27.3%	73.1%	0.0%	30.4%	79.7%	0.0%	26.4%	90.0%	17.5%
Obesity	2.9%	14.2%	17.4%	2.1%	8.8%	17.6%	4.7%	17.3%	23.5%	1.7%	9.7%	18.2%	3.0%	11.7%	19.7%	5.9%	20.5%	36.9%	1.0%	5.7%	6.7%	12.0%
Mental Health																						
Anxiety/Phobias	0.0%	13.7%	39.1%	0.0%	13.3%	27.8%	0.0%	9.1%	33.3%	0.0%	17.3%	45.5%	0.0%	22.8%	47.9%	0.0%	24.0%	41.7%	0.0%	20.0%	36.7%	11.6%
Depression	0.0%	19.4%	60.9%	0.0%	15.5%	36.6%	0.0%	14.0%	48.1%	0.0%	22.4%	65.9%	0.0%	27.0%	61.8%	0.0%	29.4%	53.0%	0.0%	22.0%	40.0%	14.3%
Learning Disability	0.0%	1.9%	17.4%	0.0%	0.9%	8.4%	0.0%	1.0%	23.5%	0.0%	4.6%	22.7%	0.0%	1.6%	20.2%	0.0%	1.5%	13.6%	0.0%	1.2%	10.0%	1.6%
Dementia	0.0%	2.4%	82.6%	0.0%	4.3%	41.9%	0.0%	2.5%	33.3%	0.0%	3.0%	47.7%	0.0%	2.0%	39.1%	0.0%	2.3%	31.0%	0.0%	3.3%	60.0%	3.2%
Other Characteristics																						
Housebound (eFI)	0.0%	0.5%	17.4%	0.0%	0.3%	4.8%	0.0%	0.1%	4.9%	0.0%	0.2%	0.0%	0.0%	0.3%	4.6%	0.0%	0.6%	5.9%	0.0%	0.4%	0.0%	0.6%
Social Vulnerability (eFI)	0.8%	4.7%	34.8%	1.0%	2.2%	13.2%	0.7%	2.5%	18.5%	1.0%	3.9%	11.4%	0.3%	2.9%	15.5%	0.5%	3.8%	16.8%	0.2%	0.9%	10.0%	2.8%
History of Smoking (Tw...	4.3%	5.7%	8.7%	2.2%	5.9%	10.1%	1.9%	5.4%	13.6%	2.7%	9.2%	20.5%	3.1%	8.7%	16.8%	3.5%	9.7%	15.5%	1.0%	6.3%	6.7%	6.3%
Not Fit for Work (In Year)	1.1%	2.4%	4.3%	2.0%	6.5%	6.6%	2.6%	7.6%	18.5%	1.0%	6.7%	13.6%	2.7%	7.5%	7.6%	1.6%	6.5%	5.5%	0.2%	2.8%	10.0%	3.8%
On a Waiting List	2.1%	1.9%	13.0%	4.2%	10.8%	18.9%	4.7%	9.5%	30.9%	6.0%	9.2%	13.6%	4.8%	8.1%	16.8%	4.6%	10.6%	23.2%	1.1%	1.9%	0.0%	7.7%

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

NHS 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 - LwI (At Risk)	2b - LwI (LTCs)	2c - LwI (MH)	3a - LC (Mod. Social Co..	3b - LC (Multimorbidi	3c - LC (Mild Frailty)	4a - AD&C (High Complexity)	4b - AD&C - High Social Co..	4c - AD&C (Severe LD/ASD/..	4d - AD&C (Complex SMI)	4e - AD&C (End Stage Dis..	5a - EoLFD (Severe ..	5b - EoLFD (Severe ..	5c - EoLFD (End of Li..	
Overall Population Measures																		
Population	25,312	1,869	1,870	4,418	7,922	2,696	394	7,920	3,931	3,145	744	146	653	800	741	252	567	63,380
Age	26	6	17	41	43	37	42	50	58	63	55	26	34	64	77	75	71	38
Male %	54.3%	40.8%	54.9%	50.9%	51.4%	42.4%	45.4%	45.1%	37.0%	45.4%	44.1%	56.8%	46.9%	52.0%	39.9%	35.7%	41.8%	49.5%
IMD	6.9	6.4	6.5	6.7	7.1	6.6	6.5	7.0	6.5	6.8	6.7	6.3	6.2	6.6	6.4	6.4	7.1	6.8
% BAME (where recorded)	30%	29%	32%	24%	27%	19%	30%	20%	18%	17%	18%	19%	21%	11%	11%	18%	10%	25%
Multimorbidity (acute & chronic)	0.0	0.0	0.0	0.0	1.0	1.0	0.4	2.5	2.3	5.1	2.9	3.0	6.0	5.7	7.6	6.9	5.4	1.2
Finance and Activity Measures																		
Spend - Total	£2.1M	£1.1M	£2.5M	£1.9M	£3.3M	£1.0M	£0.2M	£5.4M	£4.3M	£5.6M	£1.1M	£0.3M	£1.6M	£2.7M	£4.9M	£1.1M	£3.3M	£42.5M
PPPY - Total	£84	£584	£1,331	£436	£422	£368	£554	£686	£1,104	£1,780	£1,432	£2,376	£2,413	£3,411	£6,546	£4,258	£5,854	£671
Acute Elective	£18	£121	£465	£137	£165	£113	£234	£275	£504	£759	£328	£310	£251	£1,294	£1,505	£265	£1,612	£221
Acute Non-Elective	£9	£365	£725	£167	£134	£123	£186	£220	£359	£735	£771	£730	£381	£1,614	£4,424	£3,217	£3,728	£290
GP Encounters	£55	£98	£134	£124	£122	£118	£131	£172	£226	£263	£260	£244	£263	£324	£465	£384	£396	£128
Community	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
Mental Health	£2	£1	£7	£8	£1	£15	£4	£18	£14	£22	£35	£904	£1,496	£176	£139	£350	£109	£31
Social Care	£0	£0	£0	£0	£0	£0	£0	£1	£0	£2	£38	£187	£21	£4	£12	£43	£10	£2
GP PPPY	9	16	22	21	20	20	22	29	39	47	44	42	44	54	82	66	65	22
Beddays PPPY - Acute EM	0	1	1	0	0	0	0	0	1	1	2	10	2	3	7	8	7	0
Physical Health																		
Diabetes	0.0%	0.0%	0.0%	0.0%	22.7%	0.0%	7.4%	35.4%	32.3%	57.9%	31.3%	18.5%	36.0%	48.0%	70.4%	48.4%	43.7%	15.0%
COPD	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%	1.1%	6.4%	3.0%	0.0%	1.4%	55.9%	25.8%	15.5%	13.8%	1.8%
Chronic Respiratory Dis...	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	2.2%	1.8%	8.9%	4.8%	0.7%	2.0%	60.9%	30.5%	17.5%	18.5%	2.3%
Hypertension	0.0%	0.0%	0.0%	0.0%	19.5%	0.0%	6.3%	36.4%	48.3%	77.7%	39.2%	15.1%	37.8%	66.5%	92.6%	70.6%	64.0%	17.5%
Obesity	0.0%	0.0%	0.0%	33.6%	11.9%	11.0%	8.6%	19.6%	29.7%	31.1%	23.9%	19.9%	23.4%	32.6%	39.1%	27.8%	27.5%	12.0%
Mental Health																		
Anxiety/Phobias	0.0%	0.0%	0.0%	0.0%	0.0%	42.9%	3.8%	38.4%	21.7%	32.4%	22.7%	34.2%	60.3%	26.0%	31.2%	31.7%	23.6%	11.6%
Depression	0.0%	0.0%	0.0%	0.0%	0.0%	50.3%	7.4%	44.8%	29.1%	40.4%	31.0%	34.2%	78.7%	37.4%	44.1%	48.8%	33.3%	14.3%
Learning Disability	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.3%	1.4%	0.2%	3.7%	18.5%	63.7%	43.0%	6.9%	7.8%	19.4%	7.4%	1.6%
Dementia	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	32.6%	7.9%	4.8%	49.3%	11.3%	19.4%	100.0%	27.9%	3.2%
Other Characteristics																		
Housebound (eFI)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	13.7%	3.4%	0.3%	2.0%	19.7%	11.5%	15.3%	0.6%
Social Vulnerability (eFI)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	71.8%	2.1%	5.6%	7.8%	22.4%	23.3%	17.6%	11.0%	33.3%	34.5%	20.3%	2.8%
History of Smoking (Tw...	0.0%	0.0%	0.0%	22.7%	6.6%	6.9%	8.4%	10.7%	10.9%	11.7%	10.1%	10.3%	22.8%	21.0%	11.3%	10.7%	9.7%	6.3%
Not Fit for Work (In Year)	0.0%	0.0%	0.0%	11.7%	3.3%	7.3%	6.1%	7.9%	8.5%	7.5%	3.5%	7.5%	11.9%	8.8%	1.2%	0.0%	3.4%	3.8%
On a Waiting List	3.0%	6.5%	10.2%	6.8%	6.1%	5.7%	8.6%	10.1%	16.1%	18.4%	18.1%	16.4%	12.6%	26.1%	34.5%	13.1%	19.6%	7.7%

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

NHS 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	High Complexity	Low Complexity	Middle Complexity	High Complexity	Low Complexity	Middle Complexity	High Complexity	Low Complexity	Middle Complexity	High Complexity	Low Complexity	Middle Complexity	High Complexity	
Overall Population Measures																			
Population	1,410	150	9	1,934	269		4,146	599	12	3,979	946	21	8,460	3,126	104	14,255	19,662	4,295	63,380
Age	23	35	62	22	35	31	20	34	39	23	37	45	27	42	43	31	50	65	38
Male %	62.1%	66.0%	22.2%	56.7%	70.3%	33.3%	60.3%	62.4%	41.7%	60.7%	61.0%	66.7%	58.2%	57.3%	59.6%	43.9%	41.8%	46.1%	49.5%
IMD	6.8	6.9	5.9	6.9	6.6	7.3	6.9	6.8	8.0	6.9	7.0	7.0	6.8	7.0	6.6	6.8	6.8	6.7	6.8
% BAME (where recorded)	32%	28%	0%	32%	26%	67%	29%	27%	45%	28%	23%	24%	29%	22%	15%	29%	21%	14%	25%
Multimorbidity (acute & chronic)	0.0	1.3	7.0	0.0	1.3	5.0	0.0	1.3	6.7	0.0	1.4	6.7	0.0	1.5	7.0	0.0	2.0	6.8	1.2
Finance and Activity Measures																			
Spend: Total	£0.0M	£0.0M	£0.0M	£0.0M	£0.0M	£0.0M	£0.1M	£0.0M	£0.0M	£0.3M	£0.1M	£0.0M	£1.1M	£0.5M	£0.1M	£6.6M	£17.6M	£16.1M	£42.5M
PPPY - Total	£2	£2	£267	£12	£24	£7	£30	£41	£334	£72	£111	£748	£131	£151	£778	£462	£896	£3,740	£671
Acute Elective	£1	£1	£0	£3	£8	£0	£6	£9	£0	£14	£24	£15	£31	£38	£207	£140	£361	£1,017	£221
Acute Non-Elective	£1	£1	£0	£2	£5	£0	£8	£13	£0	£29	£47	£264	£52	£54	£230	£182	£297	£2,113	£290
GP Encounters	£0	£0	£0	£7	£7	£7	£16	£17	£17	£28	£30	£31	£47	£51	£53	£133	£200	£348	£128
Community	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
Mental Health	£0	£0	£267	£0	£4	£0	£1	£2	£317	£1	£9	£438	£1	£7	£288	£6	£35	£248	£31
Social Care	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£3	£13	£2
GP PPPY	0	0	0	1	1	1	3	3	3	4	5	5	8	8	8	23	34	61	22
Beddays PPPY - Acute EM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	4	0
Physical Health																			
Diabetes	0.0%	7.3%	33.3%	0.0%	5.2%	66.7%	0.0%	9.3%	25.0%	0.0%	16.9%	52.4%	0.0%	19.5%	46.2%	0.0%	29.6%	64.4%	15.0%
COPD	0.0%	2.0%	22.2%	0.0%	0.0%	0.0%	0.0%	0.3%	16.7%	0.0%	0.3%	23.8%	0.0%	0.5%	15.4%	0.0%	1.3%	19.6%	1.8%
Chronic Respiratory Dis...	0.0%	3.3%	22.2%	0.0%	0.4%	0.0%	0.0%	1.0%	16.7%	0.0%	0.6%	28.6%	0.0%	0.8%	18.3%	0.0%	1.9%	23.4%	2.3%
Hypertension	0.0%	6.7%	66.7%	0.0%	21.9%	66.7%	0.0%	14.2%	66.7%	0.0%	15.8%	57.1%	0.0%	18.7%	53.8%	0.0%	34.0%	80.3%	17.5%
Obesity	0.5%	1.3%	22.2%	0.5%	1.9%	33.3%	0.8%	4.0%	0.0%	1.5%	4.9%	4.8%	3.8%	8.2%	12.5%	8.1%	21.1%	35.0%	12.0%
Mental Health																			
Anxiety/Phobias	0.0%	19.3%	22.2%	0.0%	20.4%	66.7%	0.0%	18.7%	66.7%	0.0%	18.2%	47.6%	0.0%	20.1%	60.6%	0.0%	23.0%	40.6%	11.6%
Depression	0.0%	18.7%	33.3%	0.0%	20.1%	66.7%	0.0%	22.0%	75.0%	0.0%	21.8%	61.9%	0.0%	24.0%	70.2%	0.0%	28.3%	52.1%	14.3%
Learning Disability	0.0%	1.3%	33.3%	0.0%	0.7%	0.0%	0.0%	1.8%	50.0%	0.0%	2.3%	28.6%	0.0%	1.2%	37.5%	0.0%	1.5%	13.2%	1.6%
Dementia	0.0%	0.7%	44.4%	0.0%	2.2%	66.7%	0.0%	0.8%	75.0%	0.0%	2.7%	42.9%	0.0%	1.2%	47.1%	0.0%	2.7%	32.1%	3.2%
Other Characteristics																			
Housebound (eFI)	0.0%	0.0%	11.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	4.8%	0.0%	0.1%	1.0%	0.0%	0.6%	5.9%	0.6%
Social Vulnerability (eFI)	0.4%	1.3%	22.2%	0.2%	1.5%	0.0%	0.2%	1.3%	8.3%	0.3%	1.5%	14.3%	0.3%	1.4%	17.3%	0.9%	4.0%	16.6%	2.8%
History of Smoking (Tw...	0.4%	0.7%	0.0%	0.4%	1.1%	0.0%	1.2%	1.0%	0.0%	1.5%	3.1%	0.0%	2.8%	4.4%	6.7%	4.8%	10.5%	15.6%	6.3%
Not Fit for Work (In Year)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.3%	0.0%	0.4%	0.7%	0.0%	3.6%	8.0%	6.2%	3.8%
On a Waiting List	0.2%	0.0%	0.0%	0.4%	0.7%	0.0%	0.7%	0.5%	0.0%	1.5%	1.2%	0.0%	1.9%	2.2%	1.9%	8.3%	12.1%	23.2%	7.7%

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

NHS 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	11,832	15,052	2,120	47	6,101	7,961	963	11	4,934	6,414	883	14	2,111	2,895	479		571	850	138		63,380
Age	27	23	21	23	44	39	37	45	56	50	48	37	63	55	51	5	77	73	72	45	38
Male %	53.0%	53.6%	54.5%	63.8%	48.3%	50.5%	51.2%	45.5%	44.1%	41.3%	42.5%	35.7%	48.9%	45.1%	45.7%	100.0%	44.7%	37.3%	36.2%	100.0%	49.5%
IMD	9.2	5.6	2.5		9.2	5.6	2.5		9.2	5.6	2.4		9.2	5.6	2.4		9.2	5.6	2.6		6.8
% BAME (where recorded)	28%	31%	36%	19%	23%	26%	32%	30%	19%	19%	24%	23%	17%	17%	19%	67%	10%	14%	8%	0%	25%
Multimorbidity (acute & chronic)	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.5	2.4	2.3	2.3	2.0	5.0	4.9	4.8	0.0	6.6	6.6	7.5	1.0	1.2
Finance and Activity Measures																					
Spend: Total	£2.0M	£3.2M	£0.5M	£0.0M	£2.1M	£3.7M	£0.4M	£0.0M	£3.6M	£5.5M	£0.8M	£0.0M	£4.3M	£6.1M	£0.9M	£0.0M	£2.8M	£5.6M	£0.9M	£0.0M	£42.5M
PPPY - Total	£171	£214	£217	£183	£350	£463	£440	£1,513	£737	£858	£958	£280	£2,040	£2,101	£1,931	£164	£4,841	£6,549	£6,607	£36	£671
Acute Elective	£47	£58	£52	£30	£116	£172	£135	£711	£313	£366	£410	£35	£754	£656	£801	£45	£1,189	£1,471	£1,209	£0	£221
Acute Non-Elective	£57	£91	£104	£78	£104	£166	£176	£665	£227	£282	£330	£74	£796	£901	£507	£0	£3,129	£4,462	£4,520	£0	£290
GP Encounters	£64	£63	£59	£75	£124	£120	£120	£138	£186	£190	£195	£143	£261	£275	£291	£86	£395	£437	£495	£36	£128
Community	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
Mental Health	£2	£2	£2	£0	£5	£6	£8	£0	£10	£20	£22	£29	£208	£262	£304	£33	£118	£172	£282	£0	£31
Social Care	£0	£0	£0	£0	£0	£0	£1	£0	£1	£0	£2	£0	£21	£7	£28	£0	£10	£7	£100	£0	£2
GP PPPY	10	11	10	12	20	20	21	20	31	32	35	22	45	48	52	17	70	74	87	8	22
Beddays PPPY - Acute EM	0	0	0	0	0	0	0	1	0	0	0	0	2	2	1	0	5	8	8	0	0
Physical Health																					
Diabetes	0.0%	0.0%	0.0%	0.0%	15.8%	9.5%	8.5%	9.1%	39.0%	30.3%	26.5%	14.3%	53.4%	46.9%	44.9%	0.0%	61.5%	54.0%	59.4%	0.0%	15.0%
COPD	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	1.3%	1.6%	7.1%	9.7%	14.2%	13.2%	0.0%	17.7%	20.0%	26.8%	0.0%	1.8%
Chronic Respiratory Dis...	0.0%	0.0%	0.0%	0.0%	0.2%	0.1%	0.1%	0.0%	2.2%	1.8%	2.5%	7.1%	12.9%	16.4%	14.8%	0.0%	22.9%	23.8%	30.4%	0.0%	2.3%
Hypertension	0.0%	0.0%	0.0%	0.0%	9.4%	10.7%	11.9%	18.2%	39.1%	39.3%	40.5%	21.4%	68.3%	62.8%	57.4%	0.0%	77.2%	78.4%	87.0%	0.0%	17.5%
Obesity	0.0%	0.0%	0.0%	0.0%	13.5%	21.0%	23.7%	9.1%	16.1%	26.6%	29.3%	14.3%	23.2%	32.0%	37.8%	0.0%	26.6%	37.2%	34.1%	100.0%	12.0%
Mental Health																					
Anxiety/Phobias	0.0%	0.0%	0.0%	0.0%	7.4%	8.0%	7.3%	9.1%	29.0%	33.9%	33.9%	28.6%	29.2%	35.4%	41.5%	0.0%	25.7%	29.3%	34.8%	100.0%	11.6%
Depression	0.0%	0.0%	0.0%	0.0%	7.2%	10.0%	12.4%	9.1%	32.3%	42.2%	46.3%	42.9%	35.8%	47.0%	51.8%	0.0%	31.2%	45.4%	54.3%	0.0%	14.3%
Learning Disability	0.0%	0.0%	0.0%	0.0%	0.3%	0.3%	0.0%	0.0%	1.0%	1.0%	0.9%	7.1%	9.4%	13.3%	20.7%	0.0%	7.7%	9.1%	20.3%	0.0%	1.6%
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%	31.4%	25.7%	20.3%	0.0%	35.0%	37.6%	24.6%	0.0%	3.2%
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%	2.7%	1.8%	3.5%	0.0%	18.6%	14.9%	21.0%	0.0%	0.6%
Social Vulnerability (eFI)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.4%	5.9%	8.0%	21.4%	10.8%	11.8%	17.1%	0.0%	27.1%	27.8%	42.0%	0.0%	2.8%
History of Smoking (Tw...	0.0%	0.0%	0.0%	0.0%	9.2%	12.6%	15.4%	9.1%	7.7%	11.9%	18.3%	7.1%	8.6%	16.8%	22.1%	0.0%	5.8%	12.5%	19.6%	0.0%	6.3%
Not Fit for Work (In Year)	0.0%	0.0%	0.0%	0.0%	4.3%	7.8%	10.0%	9.1%	5.0%	10.0%	10.6%	0.0%	4.2%	9.5%	12.1%	0.0%	0.7%	2.6%	1.4%	0.0%	3.8%
On a Waiting List	3.3%	4.0%	3.4%	6.4%	5.4%	6.8%	6.9%	9.1%	10.9%	13.0%	10.9%	0.0%	17.8%	19.4%	19.0%	0.0%	21.9%	26.6%	35.5%	0.0%	7.7%

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	Fairbrook Medical Centre				Little Bushey Surgery				Schopwick Surgery				The Grove Medical Centre				The Red House Group				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	1,537	9,549	2,065	6	4,152	1,325	105	18	6,544	6,048	576	11	1,521	9,264	1,557	11	11,795	6,986	280	30	63,380
Age	35	37	34	48	42	38	30	22	44	35	36	25	33	34	34	23	40	38	36	32	38
Male %	49.3%	49.3%	50.0%	16.7%	47.9%	50.0%	46.7%	61.1%	48.9%	49.4%	50.7%	63.6%	51.7%	49.5%	49.6%	81.8%	50.4%	48.9%	52.9%	53.3%	49.5%
IMD	8.3	5.3	2.5		9.2	5.7	2.8		9.1	5.7	2.7		8.6	5.4	2.4		9.5	6.1	2.8		6.8
% BAME (where recorded)	27%	27%	32%	50%	25%	30%	12%	33%	25%	26%	23%	18%	33%	29%	32%	22%	21%	20%	27%	17%	25%
Multimorbidity (acute & chronic)	1.1	1.4	1.4	0.3	1.2	1.1	0.8	0.4	1.7	1.4	1.7	0.6	0.9	1.0	1.1	0.1	1.0	1.1	1.0	0.6	1.2
Finance and Activity Measures																					
Spend — Total	£0.9M	£7.6M	£1.7M	£0.0M	£2.7M	£0.9M	£0.0M	£0.0M	£4.2M	£4.7M	£0.4M	£0.0M	£0.9M	£6.3M	£1.2M	£0.0M	£6.1M	£4.6M	£0.2M	£0.0M	£42.5M
PPPY - Total	£579	£800	£833	£8	£657	£656	£293	£240	£635	£776	£684	£175	£624	£676	£794	£264	£521	£657	£662	£683	£671
Acute Elective	£188	£247	£260	£0	£236	£240	£90	£63	£205	£279	£172	£79	£226	£198	£280	£21	£181	£219	£253	£254	£221
Acute Non-Elective	£234	£386	£376	£0	£263	£267	£91	£78	£269	£340	£255	£0	£240	£303	£345	£137	£196	£285	£278	£303	£290
GP Encounters	£116	£129	£138	£8	£132	£126	£108	£94	£134	£127	£139	£96	£123	£137	£135	£106	£121	£122	£119	£113	£128
Community	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
Mental Health	£27	£37	£50	£0	£25	£23	£5	£6	£24	£29	£98	£0	£34	£37	£34	£0	£22	£30	£13	£13	£31
Social Care	£14	£1	£8	£0	£0	£0	£0	£0	£3	£1	£20	£0	£0	£1	£1	£0	£1	£0	£0	£0	£2
GP PPPY	23	26	27	2	25	24	20	18	28	26	28	20	18	20	20	15	16	16	16	15	22
Beddays PPPY - Acute EM	1	1	1	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0
Physical Health																					
Diabetes	11.2%	14.9%	15.7%	0.0%	27.0%	24.2%	11.4%	5.6%	17.9%	13.9%	16.7%	9.1%	7.8%	9.2%	9.3%	0.0%	15.1%	15.5%	12.9%	3.3%	15.0%
COPD	0.9%	2.5%	3.1%	16.7%	2.1%	2.0%	1.0%	0.0%	1.7%	1.7%	1.7%	0.0%	0.9%	1.8%	2.3%	0.0%	1.2%	1.9%	1.1%	0.0%	1.8%
Chronic Respiratory Dis...	1.5%	2.9%	3.7%	16.7%	2.4%	2.3%	1.0%	0.0%	2.6%	2.2%	2.3%	0.0%	1.4%	2.1%	2.8%	0.0%	1.7%	2.4%	1.1%	0.0%	2.3%
Hypertension	19.4%	23.1%	22.1%	0.0%	17.5%	14.5%	4.8%	16.7%	24.0%	17.1%	20.7%	18.2%	14.6%	16.1%	17.0%	0.0%	13.3%	13.3%	7.9%	0.0%	17.5%
Obesity	16.7%	22.0%	20.8%	0.0%	10.3%	11.4%	10.5%	11.1%	9.5%	12.6%	13.4%	9.1%	7.4%	9.8%	10.7%	0.0%	7.1%	9.8%	11.1%	3.3%	12.0%
Mental Health																					
Anxiety/Phobias	10.8%	12.6%	13.3%	0.0%	7.9%	9.1%	7.6%	5.6%	13.9%	14.4%	16.7%	0.0%	8.7%	10.9%	12.6%	0.0%	9.4%	12.4%	15.0%	16.7%	11.6%
Depression	13.0%	17.5%	18.9%	0.0%	10.3%	12.2%	10.5%	5.6%	14.4%	16.0%	21.0%	9.1%	10.7%	15.2%	18.5%	9.1%	10.5%	14.9%	14.3%	13.3%	14.3%
Learning Disability	1.5%	1.9%	2.6%	0.0%	1.2%	1.3%	1.9%	0.0%	1.3%	1.4%	8.2%	0.0%	1.1%	1.7%	1.8%	0.0%	1.1%	1.7%	1.8%	3.3%	1.6%
Dementia	1.4%	2.2%	2.6%	0.0%	1.8%	0.9%	1.9%	0.0%	9.0%	7.8%	8.9%	0.0%	1.5%	2.7%	1.3%	0.0%	1.3%	1.7%	1.1%	0.0%	3.2%
Other Characteristics																					
Housebound (eFI)	0.3%	0.6%	1.2%	0.0%	1.0%	0.2%	0.0%	0.0%	1.2%	0.5%	0.9%	0.0%	0.6%	0.8%	1.1%	0.0%	0.3%	0.2%	0.0%	0.0%	0.6%
Social Vulnerability (eFI)	1.6%	3.3%	4.3%	0.0%	2.7%	2.3%	1.9%	5.6%	3.4%	2.9%	10.6%	9.1%	2.2%	3.0%	3.3%	9.1%	1.7%	2.3%	2.5%	0.0%	2.8%
History of Smoking (Tw...	4.8%	7.8%	11.2%	0.0%	5.1%	6.9%	9.5%	0.0%	6.2%	8.5%	9.7%	18.2%	4.4%	6.7%	8.7%	0.0%	3.4%	5.6%	3.6%	0.0%	6.3%
Not Fit for Work (In Year)	4.0%	5.4%	6.3%	0.0%	2.9%	4.8%	1.9%	0.0%	2.0%	4.4%	4.0%	0.0%	3.1%	4.5%	5.3%	0.0%	2.0%	4.2%	4.3%	3.3%	3.8%
On a Waiting List	8.3%	8.8%	9.0%	0.0%	7.9%	9.1%	2.9%	5.6%	6.8%	8.3%	8.7%	9.1%	7.6%	7.9%	7.4%	0.0%	6.3%	8.2%	7.5%	6.7%	7.7%

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

NHS Hertfordshire and West Essex Integrated Care Board

x% also have

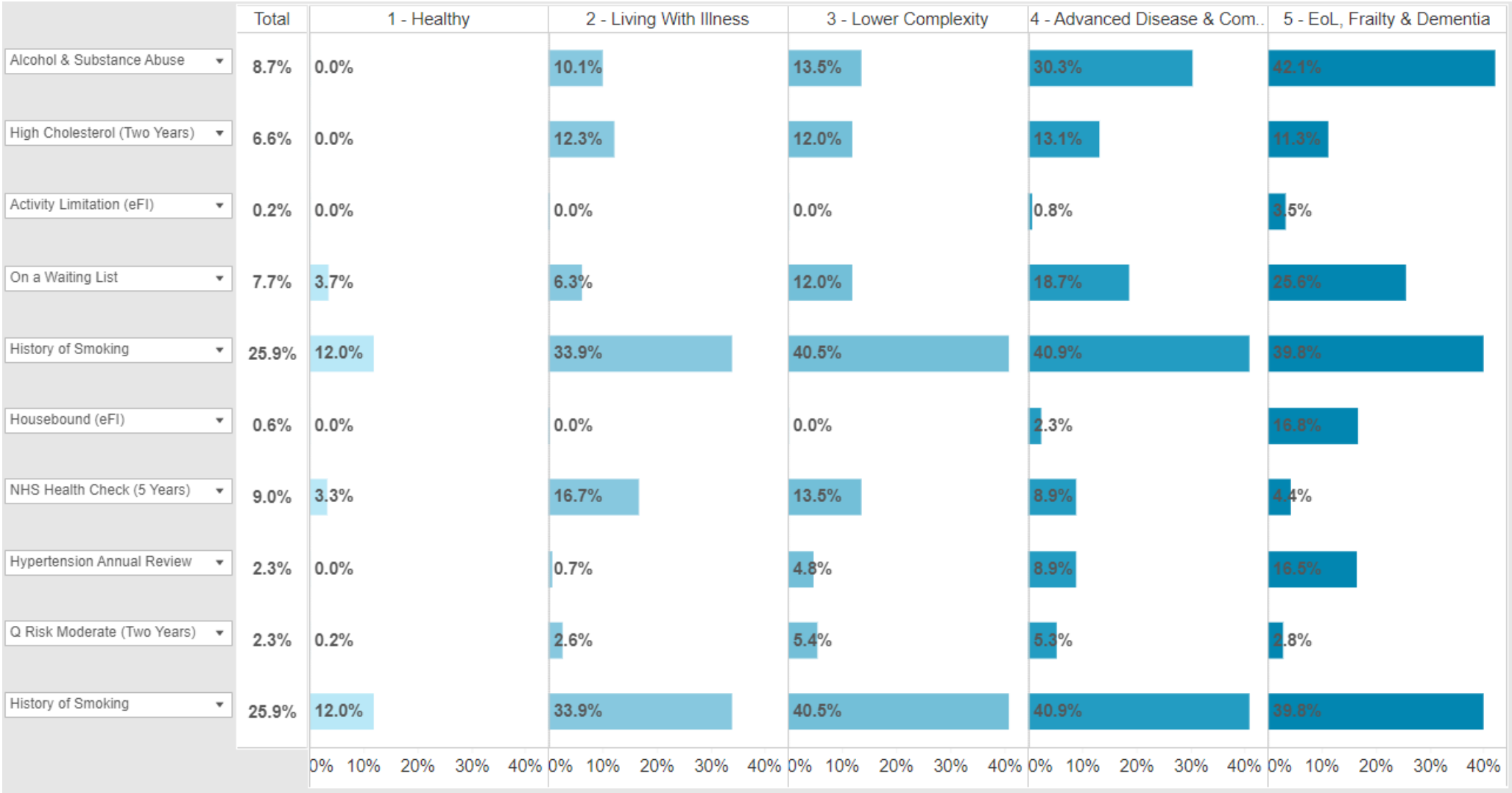
For people with this condition

Initial Condition	Alzheimers Disease	Asthma	COPD	Heart Failure	Anxiety	Dementia	Alcohol Abuse	ABCD Prescription	Anti-Depressive Prescription	Activity Limitation (eFI)	Housebound (eFI)	No Other Condition
	Other Conditions											
Alzheimers Disease		33%	9%	5%	56%	87%	17%	28%	42%	1%	4%	4%
Asthma	3%		7%	2%	22%	7%	4%	20%	22%	0%	1%	41%
COPD	6%	48%		13%	28%	17%	8%	57%	37%	1%	6%	0%
Heart Failure	5%	24%	20%		19%	16%	5%	90%	30%	1%	12%	0%
Anxiety	6%	25%	4%	2%		10%	6%	22%	49%	0%	1%	17%
Dementia	33%	28%	9%	6%	36%		10%	41%	35%	1%	5%	1%
Alcohol Abuse	8%	20%	6%	2%	27%	12%		20%	29%	1%	1%	29%
ABCD Prescription	2%	18%	7%	7%	17%	9%	4%		24%	0%	3%	16%
Anti-Depressive Prescription	4%	25%	6%	3%	48%	10%	6%	29%		0%	2%	17%
Activity Limitation (eFI)	5%	28%	14%	9%	26%	18%	10%	46%	39%		18%	7%
Housebound (eFI)	7%	24%	18%	22%	22%	26%	5%	71%	39%	5%		6%

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



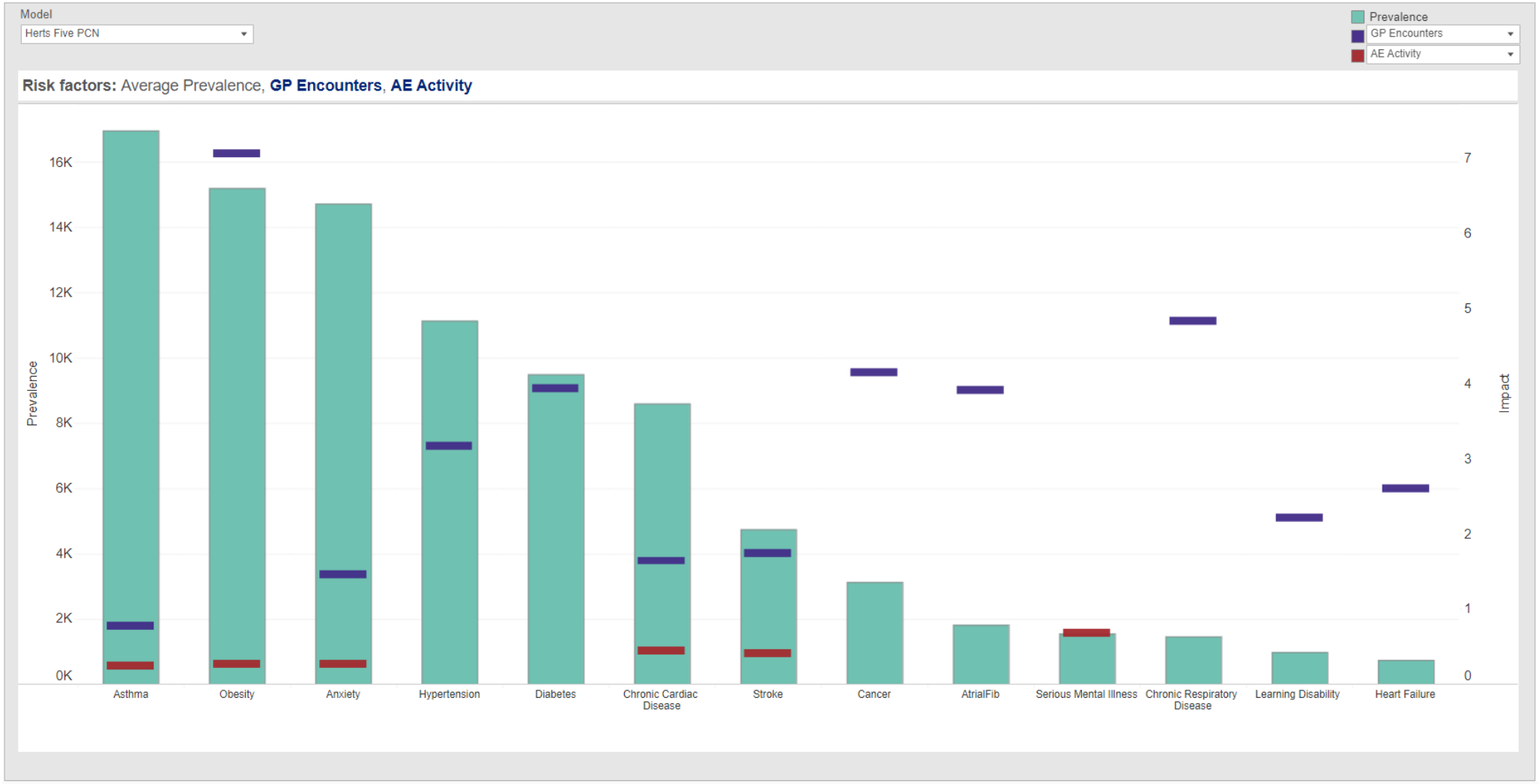
This chart gives a comparison across various selected risk conditions or characteristics, within the health segments of the PCN's population.

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

Hertfordshire and West Essex Integrated Care Board

Cancer Screening

	Period	HERTFORDSHIRE AND WEST ESSEX	HERTS FIVE PCN	FAIRBROOK MEDICAL CENTRE	SCHOPWICK SURGERY	THE RED HOUSE GROUP	THE GROVE MEDICAL CENTRE	LITTLE BUSHEY SURGERY
Women, aged 25-49, with a record of cervical screening in the last 3.5 yrs (denominator includes PCAs)	2020/21	73.3	68.6	67.6	72.3	70.8	60.8	77.5
Women, aged 50-64, with a record of cervical screening in the last 5.5 yrs (denominator includes PCAs)	2020/21	78.2	75.1	71.6	78	78.5	66.9	79.4
Persons, 25-49, attending cervical screening within target period (3.5 year coverage, %)	2020/21	73	68.3	67.5	71.6	71.1	60.6	75.2
Persons, 50-64, attending cervical screening within target period (5.5 year coverage, %)	2020/21	77	73.5	71.1	76.1	76.4	66	76.6
Persons, 50-70, screened for breast cancer in last 36 months (3 year coverage, %)	2020/21	63.9	69.1	71	71.2	69.9	62.6	68.7
Persons, 50-70, screened for breast cancer within 6 months of invitation (Uptake, %)	2020/21	61.3	30.2	38.5	25	37.5	17.6	14.3
Persons, 60-74, screened for bowel cancer within 6 months of invitation (Uptake, %)	2020/21	72.1	66.8	65	65.1	71.8	62	66
Persons, 60-74, screened for bowel cancer in last 30 months (2.5 year coverage, %)	2020/21	68.8	63.7	61.3	61.7	68.1	58.7	65.9

Similar Significantly Worse Significantly Better

PH.Intelligence@hertfordshire.gov.uk

Hertfordshire Public Health Evidence & Intelligence Epidemiology

Hertfordshire

Source: Public Health Team

Public Health - Mortality

NHS Hertfordshire and West Essex Integrated Care Board

Mortality

	Period	Hertfordshire CCGs	NHS HERTFORDSHIRE AND WEST ESSEX ICB - 06N	HERTS FIVE PCN
Percentage of deaths that occur at home (All age)	2021	25.3	23.9	23.2
PYLL - Neoplasms	2021	505	498.3	439.4
PYLL - Diseases of the circulatory system	2021	737.5	690.5	777.6
PYLL - All Cause	2021	1537.7	1496.4	1515.4
Premature Mortality - Respiratory Disease	2021	19.2	19	23.8
Premature Mortality - Liver Disease	2021	14.6	14.4	
Premature Mortality - Cardiovasular Disease	2021	53.8	51.4	47.4
Premature Mortality - Cancer	2021	98.5	97.1	89.8
Premature Mortality - All Cause	2021	269.6	262.3	264.5

Similar Significantly Worse Significantly Better

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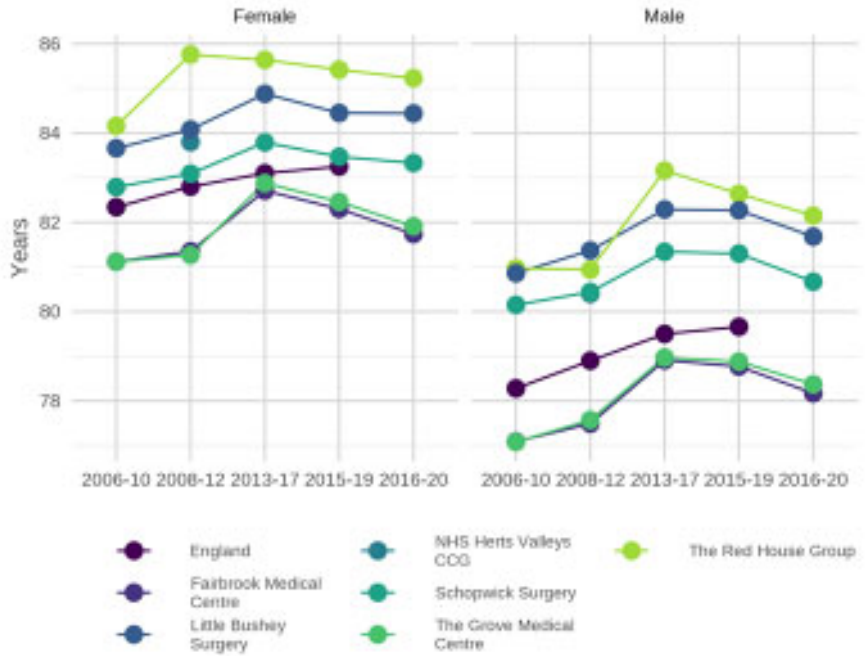
Hertfordshire Public Health Evidence & Intelligence Epidemiology

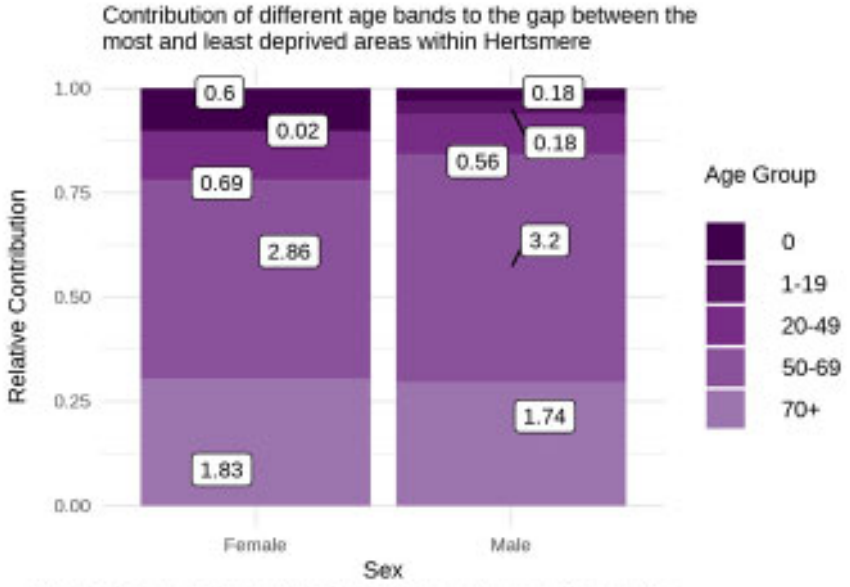
Hertfordshire

Source: Public Health Team

Public Health - Life Expectancy

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 6 years and for males is 5.86 years.

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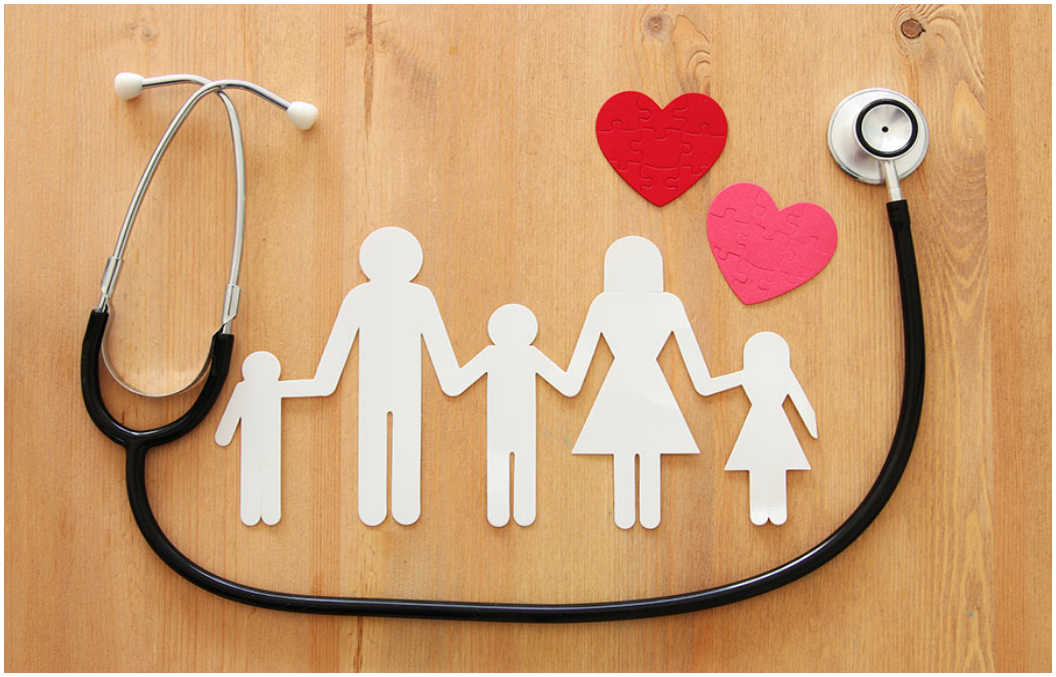
Source: Public Health Team

Hertfordshire and
West Essex Integrated
Care System

NHS
Hertfordshire and
West Essex
Integrated Care Board



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for a healthier future