Primary Care Networks
Overview Pack

HARPENDEN HEALTH 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

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

Harpenden PCN can be seen with a younger and middle age population profile compared to England, also the younger adults ages 20-39 are significantly less than the National average. The majority of people live within the 2 least deprived deciles (9-10). 23.9% population have at least 1 Long Term Condition. 5.0% have more than 5 LTCs compared to 5.6% for the ICB.

A smaller proportion of people within younger adult age groups are living with long term conditions compared with the England profile, which coincides with the overall Population pyramid numbers, which suggests an older population with younger adults being affected by e.g. cost and housing services within Harpenden PCN.

Wider determinants analysis from Public Health Evidence and Intelligence shows Harpenden is amongst the least deprived of all the PCNs within the ICB across all indicators apart from Housing & Services.

The spread of patients for Harpenden PCN indicates 21.3% of the population are not located within the Hertfordshire & West Essex boundaries, the PCN has a middle rate of all Herts Valleys PCNs; this means that this population may be accessing services outside of the ICB and the impact of coterminous alignment with neighbouring ICBs must be taken into account for this population by the PCN.

Expected population growth for Harpenden adjusted for the Local Authority forecasts shows continued increase between 2023 through to 2034 which will bring additional demands for healthcare. Projections show an expected increase in the number of people over 65 from ~26k to ~30k.

When analysing the underlying Segmentation Model data the conditions with highest per 1,000 registered prevalence that are highlighted for Harpenden are Cancer, Hypertension, Stroke, Heart Disease, Atrial Fibrillation, CCD, Alzheimer's, Anxiety, and Mental Health. The presence of Mental Health recorded in Harpenden is one of the highest within the ICB, with Stroke & Cancer as being the highest, and Alzheimer's being second highest within the ICB. Further, Metastatic Cancer and Parkinson's disease prevalence is also the highest in the ICB.

Urgent & Emergency Care in 2022/23 has seen one of the lowest Harpenden A&E Attendance rates per 1,000 population, way below the HV rate. 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, Harpenden has one of the lowest rates per 1,000 population.

When looking at the ACS conditions for Harpenden the highest volume and cost is within the End of Life, Severe Frailty and Dementia in the over 65 age group and the highest volume is within the same age in the Advanced Disease and Complexity segment. ACSs of note for people aged over 65 with advanced disease and complexity within this analysis are Heart Failure, AF & Flutter. For those within the End of Life, Frailty & Dementia, Heart Failure & COPD is the ACS with the highest volume and cost.

14.8% of the general population in HWE ICB live within the 4 most deprived deciles, whilst 16.1% of the population in the EoL, severe frailty and severe dementia segment live within the 4 most deprived deciles. In Harpenden only 4.5% 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 Harpenden PCN is higher than the ICB, and the data shows slightly lower usage of Acute & GP services. The presence of Heart Disease, and Stroke being highlighted by the data as high, with Heart Failure chiming with the reason for admission within analysis for ACS conditions.

Emergency Admission Rates per 1,000 on the Disease Registers show that the PCN has higher rates for Diabetes and higher rates for Heart Failure 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
HARPENDEN PCN

Registered population		Demographics				Prevalence		Acute utilisation		Covid	
% of total	100.0%	% White	74.3%	% IMD top	0.0%	% with 1+ conditions	23.9%	% of annual activity (total 52,704)	100.0%	% one or more at risk conditions	13.4%
% of annual change	0.6%	% BAME	7.9%	% IMD bottom	85.3%	% with 5+ conditions	2.3%	% of annual cost (total £16M)	100.0%	% two or more at risk conditions	5.0%
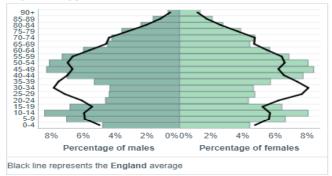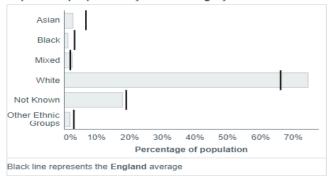
Population demographics — Snapshot as at: 30/06/2021
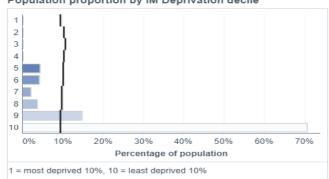
Choose benchmark: England

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
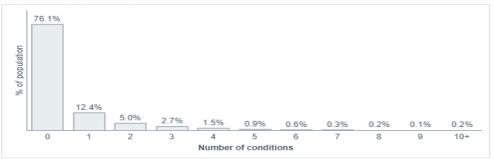
Population proportion by number of conditions

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.

Harpenden PCN can be seen with a younger & middle age population profile compared to England, also the younger adults ages 20-39 are significantly less than the National average. The majority of people live within the 2 least deprived deciles (9-10).

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

PCN Demographics - NHS England

LTC
HARPENDEN PCN

Snapshot as at: 30/06/2021

Registered population		Demographics				Prevalence		Acute utilisation		Covid	
% of total	21.0%	% White	90.4%	% IMD top	0.1%	% with 1+ conditions	100.0%	% of annual activity (total 26,067)	49.5%	% one or more at risk conditions	48.7%
% of annual change	5.0%	% BAME	6.3%	% IMD bottom	82.3%	% with 5+ conditions	5.0%	% of annual cost (total £6M)	41.3%	% two or more at risk conditions	15.1%
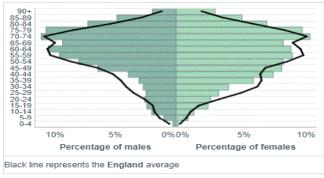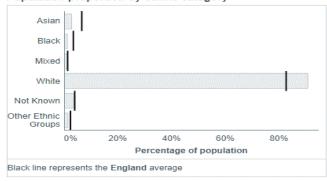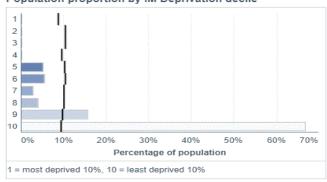
Population demographics - Snapshot as at: 30/06/2021

Choose benchmark: England

Population pyramid

Percentage of males / Percentage of females

Black line represents the England average

Population proportion by ethnic category

Percentage of population

Black line represents the England average

Population proportion by IM Deprivation decile

Percentage of population

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

Prevalence - Snapshot as at: 30/06/2021

Population proportion by number of conditions

Number of conditions	1	2	3	4	5	6	7	8	9	10+
% of population	57.0%	22.1%	10.5%	5.4%	2.7%	1.3%	0.5%	0.2%	0.1%	0.0%

Annual spend per capita by number of conditions

Financial Year: 2020/21

Number of conditions	1	2	3	4	5	6	7	8	9	10+
Annual acute spend per capita	£678	£1,028	£1,666	£2,123	£2,496	£2,843	£3,446	£5,830	£6,587	£5,191
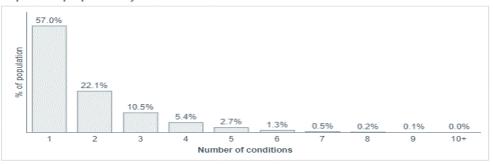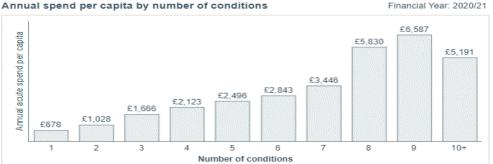
When compared with the overall PCN demographics on the previous page, those in the PCN whom have an LTC as defined by NHS England, are benchmarked against the English averages, the view for the PCN shows us that 23.9% population have at least 1 Long Term Condition. 5.0% have more than 5 LTCs compared to 5.6% for the ICB.

A smaller proportion of people within younger adult age groups are living with long term conditions compared with the England profile, which coincides with the overall Population pyramid numbers, which suggests an older population with younger adults being affected by e.g. cost and housing services within Harpenden PCN.

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

Practice Indicators - Triggers and Levels

Practice Indicators for **HARPENDEN HEALTH PCN**		DAVENPORT HOUSE SURGERY			ELMS MEDICAL PRACTICE			VILLAGE SURGERY		
Clinical Domain	**Indicator Name**	Latest Score	Time Period	Trigger Level	Latest Score	Time Period	Trigger Level	Latest Score	Time Period	Trigger Level
Clinical Diagnosis	Detection rate Cancer	0.652	2020/21	No Trigger	0.656	2020/21	No Trigger	0.649	2020/21	No Trigger
Coronary heart disease	% AF anticoagulation therapy CHADS2-VASc score >1	89.9	2020/21	Positive	88.3	2020/21	Positive	96.8	2020/21	Positive
	% CHD aged <=79 BP reading 140/90mmHg or less	69.2	2020/21	Level 1	62.9	2020/21	Level 1	74.6	2020/21	Level 1
	% CHD cholesterol 5 mmol/l or less	67.5	2021/22	No Trigger	77	2017/18	No Trigger	70.7	2021/22	No Trigger
	% hypertension aged <=79 BP reading 140/90mmHg or less	55.5	2020/21	Level 1	47.3	2020/21	Level 1	51.6	2020/21	Level 1
Diabetes	% Diabetes aged >=40 years no CVD history without moderate or severe frailty treated with statin	93.8	2020/21	No Trigger	65.3	2020/21	Level 1	81.8	2020/21	Level 1
	% Diabetes without moderate or severe frailty BP 140/80 mmHg or less	63.6	2020/21	Level 1	51.9	2020/21	Level 1	57.1	2020/21	Level 1
	% diabetes without moderate or severe frailty IFCC-HbA1c is 58 mmol/mol or less	71.2	2020/21	Level 1	49.4	2020/21	Level 2	58.8	2020/21	Level 1
Exception Rating	Overall Personalised Care Adjustment Rate	0.039	2020/21	No Trigger	0.047	2020/21	No Trigger	0.026	2020/21	No Trigger
Medicines Management	% antibiotics Co-amoxiclav, Cephalosporins, Quinolones	13.1	2021/22 Q4	Level 1	10.6	2021/22 Q4	Level 1	11.6	2021/22 Q4	Level 1
	% Naproxen and Ibuprofen	80.1	2021/22 Q4	No Trigger	72.6	2021/22 Q4	No Trigger	81.9	2021/22 Q4	No Trigger
	Antibacterial Items/Star Pu	0.719	2021/22 Q4	Positive	0.673	2021/22 Q4	Positive	0.806	2021/22 Q4	Positive
	Hypnotics ADQ/Star Pu	0.307	2021/22 Q4	No Trigger	0.598	2021/22 Q4	No Trigger	0.426	2021/22 Q4	No Trigger
	Oral NSAIDS ADQs/STAR-PU	2.515	2021/22 Q4	No Trigger	2.688	2021/22 Q4	No Trigger	2.591	2021/22 Q4	No Trigger
Mental Health	% first choice generic SSRIs	73.3	2021/22 Q4	No Trigger	74.3	2021/22 Q4	No Trigger	71.4	2021/22 Q4	No Trigger
	% MH comprehensive care plan	21.6	2020/21	Level 1	9.7	2020/21	Level 2	96.4	2020/21	No Trigger
	% SMI alcohol record	94.3	2018/19	No Trigger	92.6	2018/19	No Trigger	82.9	2020/21	Level 1
	% SMI BP record	37.8	2020/21	Level 2	38.7	2020/21	Level 2	65.5	2020/21	Level 1
	Dementia Face to Face review	39	2020/21	Level 1	24.2	2020/21	Level 1	91.8	2020/21	No Trigger
	Select antidepressants ADQs/STARPU	1.085	2021/22 Q4	No Trigger	1.264	2021/22 Q4	No Trigger	1.222	2021/22 Q4	No Trigger
Patient Experience	Confidence and trust in healthcare professional	97.3	2020/21	No Trigger	96.7	2020/21	No Trigger	98.6	2020/21	No Trigger
	Frequency seeing preferred GP	35.4	2020/21	No Trigger	48.9	2020/21	No Trigger	61.3	2020/21	No Trigger
	Healthcare professional treating with care and concern	89.5	2020/21	No Trigger	90.2	2020/21	No Trigger	95.4	2020/21	No Trigger
	Overall experience of your GP practice	83.2	2020/21	No Trigger	91.3	2020/21	No Trigger	90.7	2020/21	No Trigger
	Satisfaction with appointment times	70.6	2020/21	No Trigger	80.1	2020/21	No Trigger	71.1	2020/21	No Trigger
Public Health	% Child Imms DTaP/IPV/Hib/HepB (age 1 year)	96.8	2020/21	No Trigger	93.7	2020/21	Level 1	96.4	2020/21	No Trigger
	% Child Imms Hib/MenC booster	92.3	2020/21	Level 1	98	2020/21	No Trigger	93.8	2020/21	Level 1
	% Child Imms MMR (Age 2 yrs)	92.3	2020/21	Level 1	98	2020/21	No Trigger	93.8	2020/21	Level 1
	% Child Imms PCV Booster	90.6	2020/21	Level 1	97.5	2020/21	No Trigger	93.1	2020/21	Level 1
	Cervical Screening	74.4	2021/22 Q4	Level 1	75.5	2021/22 Q4	Level 1	80.7	2021/22 Q4	No Trigger
Respiratory	% Asthma review in last 6 mths	15	2020/21	Level 1	17.6	2020/21	Level 1	35.2	2020/21	Level 1
	% Asthma spirometry and one other objective test	0	2020/21	Level 2	25	2020/21	Level 1	0	2020/21	Level 2
	% COPD with review in last 12 mths	16.1	2020/21	Level 2	20.5	2020/21	Level 1	93.9	2020/21	No Trigger
	% LTC patients who smoke	5.9	2020/21	Positive	6.5	2020/21	Positive	6.1	2020/21	Positive
	% LTC Smoker offer support	79.8	2020/21	Level 1	84.9	2020/21	Level 1	95.6	2020/21	Level 1
	% Smoking patients over 15 recorded	66.8	2021/22	No Trigger	77.6	2017/18	No Trigger	71.4	2021/22	No Trigger
	% Smoking status recorded	88.5	2020/21	Level 1	91.1	2020/21	No Trigger	91.2	2020/21	No Trigger
	% w. MRC dyspnoea score >=3 w. offer of referral to pulm. rehab. Clinic	7.1	2020/21	Level 1	7.7	2020/21	Level 1	90.9	2020/21	No Trigger

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

Wider Determinants

35 / 35 Income	35 / 35 Employment	35 / 35 Overall Deprivation
35 / 35 Older People in Poverty	35 / 35 Child Poverty	35 / 35 Fuel Poverty
35 / 35 Education, Skills, and Training	33 / 35 Environment	26 / 35 Housing and Services

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

In Harpenden Health PCN an estimated:

- 5.1% of children live in poverty.
- 5.3% of older people live in poverty.
- 8.6% of households live in fuel poverty.
- 3.9% of households are overcrowded.
- 29.5% of people aged 65 and over live alone.
- 0.3% of people cannot speak English well.
- 2.1% of working age people are claiming out of work benefits.
- 15.8% of children aged 4-5 and 18.7% of children aged 10-11 are overweight.

PH.Intelligence@hertfordshire.gov.uk

Hertfordshire Public Health Evidence & Intelligence Epidemiology

Hertfordshire

The above provides a summary of the wider determinants of health for Harpenden PCN.

Wider determinants analysis from Public Health Evidence and Intelligence shows Harpenden is amongst the least deprived of all the PCNs within the ICB across all indicators apart from Housing & Services.

Source: Public Health Team

NHS Hertfordshire and West Essex
Integrated Care Board
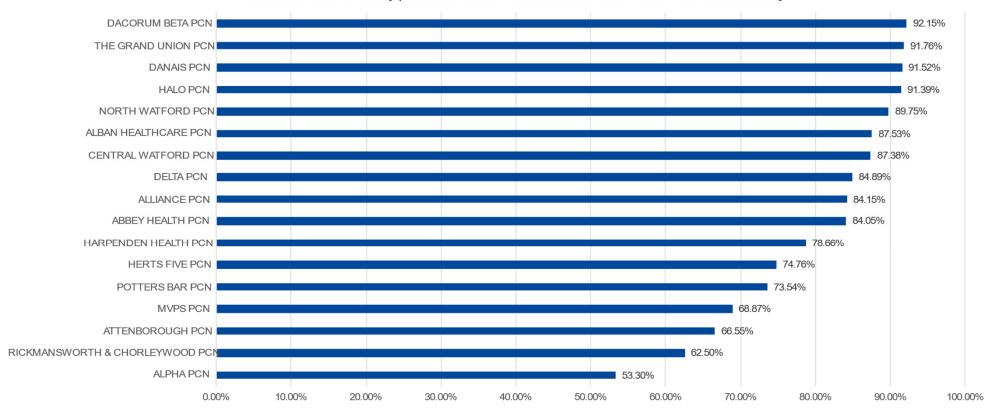
Correct as of July 2022
Source: NHS Digital (2022).

SPREAD OF PATIENTS ACROSS ENGLAND CONT.

Percent of Herts Valley patients within Hertfordshire and West Essex boundary

PCN	Percent
DACORUM BETA PCN	92.15%
THE GRAND UNION PCN	91.76%
DANAIS PCN	91.52%
HALO PCN	91.39%
NORTH WATFORD PCN	89.75%
ALBAN HEALTHCARE PCN	87.53%
CENTRAL WATFORD PCN	87.38%
DELTA PCN	84.89%
ALLIANCE PCN	84.15%
ABBEY HEALTH PCN	84.05%
HARPENDEN HEALTH PCN	78.66%
HERTS FIVE PCN	74.76%
POTTERS BAR PCN	73.54%
MVPS PCN	68.87%
ATTENBOROUGH PCN	66.55%
RICKMANSWORTH & CHORLEYWOOD PCN	62.50%
ALPHA PCN	53.30%

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

The spread of patients for Harpenden PCN indicates 21.3% of the population are not located within the Hertfordshire & West Essex boundaries, the PCN has a middle rate of all Herts Valleys PCNs; this means that this population may be accessing services outside of the ICB and the impact of coterminous alignment with neighbouring ICBs must be taken into account for this population by the PCN.
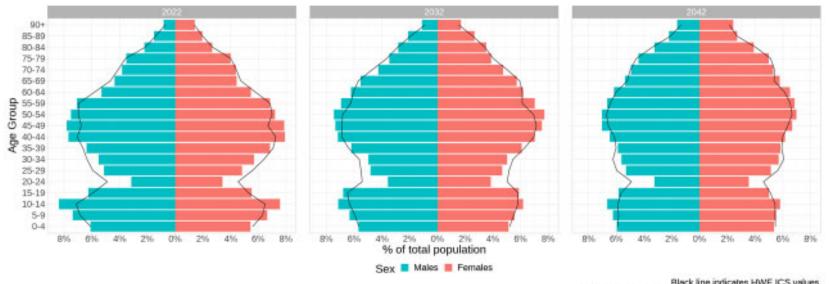
Source: Essex County Council PHM Team, NHS Digital (2022)

Projection Pyramids

Black line indicates HWE ICS values.
Population pyramids and table shown for St Albans 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	8,566	7,993	8,444
Under 24	44,413	41,481	39,572
24-64	77,983	75,685	74,534
65+	26,154	30,729	34,961
85+	4,278	5,620	6,676

PH.Intelligence@hertfordshire.gov.uk
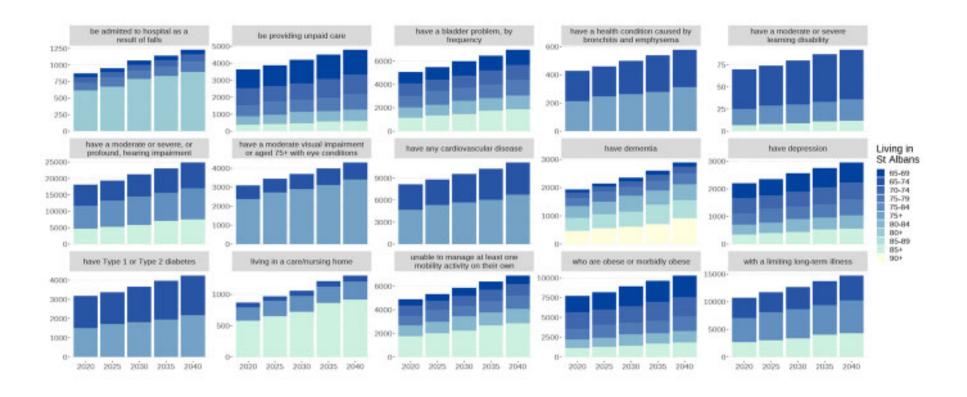
Hertfordshire Public Health
Evidence & Intelligence
Epidemiology

Hertfordshire

Expected population growth for Harpenden adjusted for the Local Authority forecasts shows continued increase between 2023 through to 2034 which will bring additional demands for healthcare. Projections show an expected increase in the number of people over 65 from ~26k to ~30k.

Source: Public Health Team

People aged 65+ projected to...

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

Source: Public Health Team

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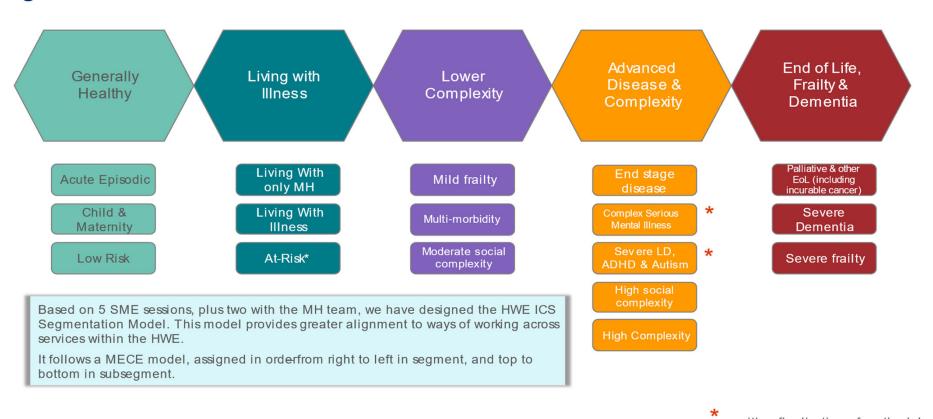
The ICB has worked in partnership with Optum to develop a Health Segmentation model using linked data covering 1.2m of our ICS population. As part of the process representation from different care settings and internal ICB teams were engaged.

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

Generally Healthy	Living with Illness	Lower Complexity	Advanced Disease & Complexity	End of Life, Frailty & Dementia
Acute Episodic	Living With only MH	Mild frailty	End stage disease	Palliative & other EoL (including incurable cancer)
Child & Maternity	Living With Illness	Multi-morbidity	Complex Serious Mental Illness *	Severe Dementia
Low Risk	At-Risk*	Moderate social complexity	Severe LD, ADHD & Autism *	Severe frailty
			High social complexity	
			High Complexity	

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 order from right to left in segment, and top to bottom in subsegment.

* awaiting finalisation of methodology

Optum

2

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 comfort 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

NHS Hertfordshire and West Essex Integrated Care Board

Age Profile of PCN, Place, and ICB Segment Population Comparison
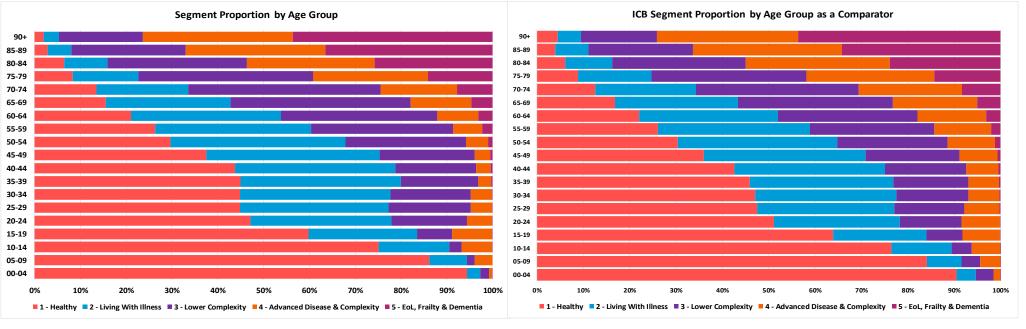
Each registered person is assigned to a segment and this can be cut by age group and also geographically by Place or PCN.

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

Demographic Breakdowns - Segment & Deprivation Quintiles

Segment Proportion by Age Group

ICB Segment Proportion by Age Group as a Comparator

Legend: 1 - Healthy | 2 - Living With Illness | 3 - Lower Complexity | 4 - Advanced Disease & Complexity | 5 - EoL, Frailty & Dementia
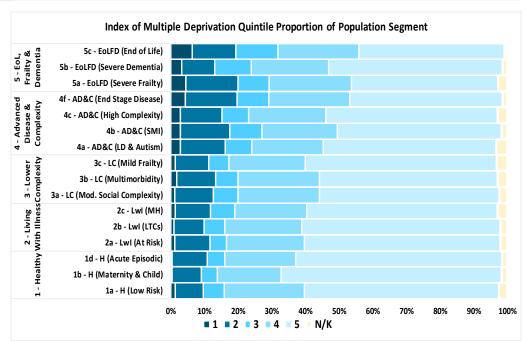
The ICB Health Segments here are broken down by total population and 5 year age groups; as expected with age the proportion of people within the healthy segment decreases.

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

In general Harpenden PCN has a similar profile to the ICB population, although there is a slight increase in 20-35 age groups with the Lower Complexity health segment.

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.

Index of Multiple Deprivation Quintile Proportion of Population Segment

5 - EoL, Frailty & Dementia
- 5c - EoLFD (End of Life)
- 5b - EoLFD (Severe Dementia)
- 5a - EoLFD (Severe Frailty)

4 - Advanced Disease & Complexity
- 4f - AD&C (End Stage Disease)
- 4c - AD&C (High Complexity)
- 4b - AD&C (SMI)
- 4a - AD&C (LD & Autism)

3 - Lower Complexity
- 3c - LC (Mild Frailty)
- 3b - LC (Multimorbidity)
- 3a - LC (Mod. Social Complexity)

2 - Living With Illness
- 2c - LwI (MH)
- 2b - LwI (LTCs)
- 2a - LwI (At Risk)

1 - Healthy
- 1d - H (Acute Episodic)
- 1b - H (Maternity & Child)
- 1a - H (Low Risk)

Legend: 1 | 2 | 3 | 4 | 5 | N/K

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

Major Conditions Comparison - Per 1,000 Registered

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	10.99	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	194.00	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 prevalence that are highlighted for Harpenden are Cancer, Hypertension, Stroke, Heart Disease, Atrial Fibrillation, CCD, Alzheimer's, Anxiety, and Mental Health. The presence of Mental Health recorded in Harpenden is one of the highest within the ICB, with Stroke being the highest, and Alzheimer's being second highest.
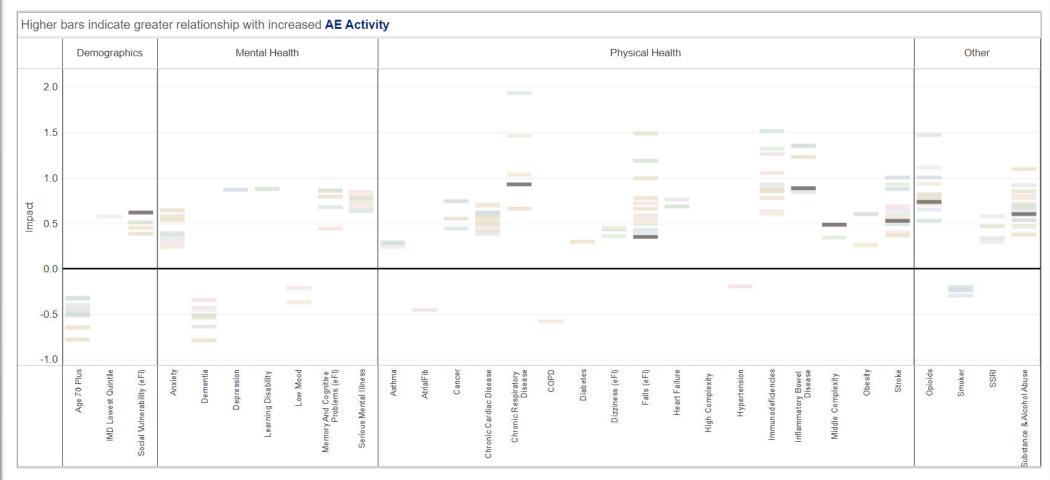
Source: HWE PHM Team, Combined population data re-extract via Optum

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

On this page of conditions, we can see that the PCN has Metastatic Cancer and Parkinson's disease prevalence as the highest in the ICB.

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

PCN Benchmarking - A&E Activity
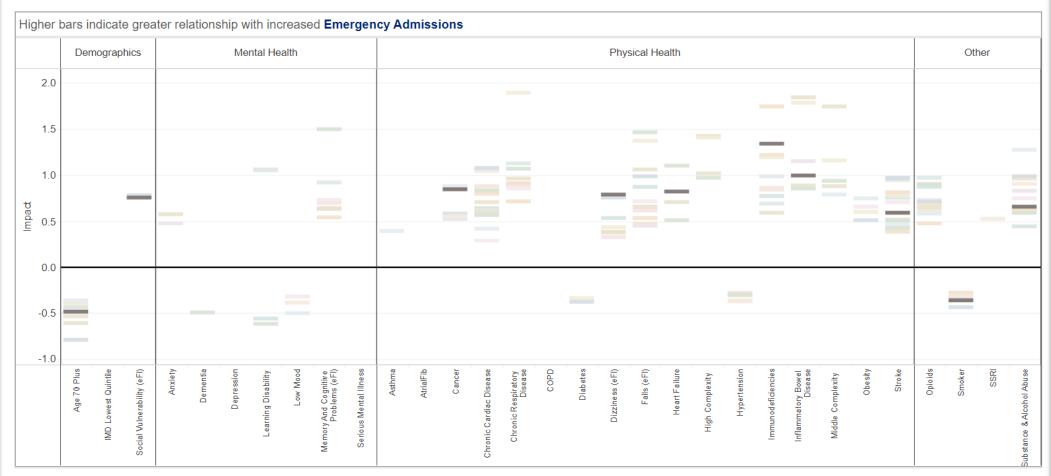
The charts in the next two pages show activity for the PCN compared against all other PCNs at the Place level.

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

Higher bars indicate greater relationship with increased **Emergency Admissions**

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.

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.

Hertfordshire & West Essex ICB – South & West

A&E Summary – Who are attending and why?
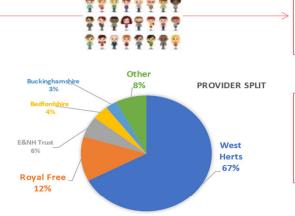
Children 0 -18
Adults 19 -64
Older People 65+

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

PROVIDER SPLIT

- Other 8%
- Buckinghamshire 3%
- Bedfordshire 4%
- E&NH Trust 6%
- West Herts 67%
- Royal Free 12%

Hertfordshire and West Essex Integrated Care System

Source: SUS

UEC

Hert & West Essex ICB - A&E attendances (All Types) - Rate per 1,000 population

- East & North Herts Place Rate per 1,000 population
- West Essex Place Rate per 1,000 population
- South West Herts Place Rate per 1,000 population
- 6 per. Mov. Avg. (South West Herts Place Rate per 1,000 population)

Harpenden Health PCN Rate per 1,000 population A&E Attendances

- HARPENDEN HEALTH PCN
- SWH Rate

A&E Attendances Rate per 1,000 Population

- 22/23 FOT
- Place

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 has seen one of the lowest Harpenden A&E Attendance rates per 1,000 population, way below the HV rate.

Unplanned Hospitalisation for Chronic Ambulatory Care Sensitive Conditions

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 Harpenden 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	67	59	£2,340	£156,757
CVD: Angina	20	18	£1,280	£25,606
CVD: Congestive Heart Failure	70	58	£4,442	£310,920
CVD: Hypertension	30	28	£609	£18,265
Diseases of the blood	26	21	£2,409	£62,626
Mental and Behavioural Disorders	10	10	£0	£0
Neurological Disorders	17	13	£3,166	£53,820
Nutritional, endocrine and metabolic	41	31	£3,015	£123,634
Respiratory: Asthma	38	27	£1,248	£47,412
Respiratory: COPD	50	37	£2,953	£147,645
Grand Total	369	292	£2,566	£946,685

Source: HWE PHM Team, SUS UEC data-sets

ACS Admission Rates per 1,000 Population by Place

Chronic Ambulatory Care Sensitive Conditions by Place
Rate per 1,000 Population
(Total Population)
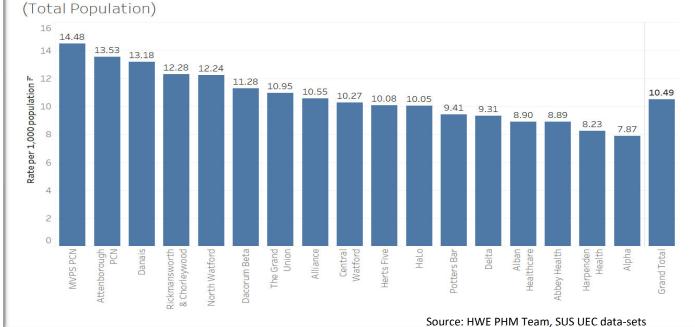
When comparing the rates per 1,000 population between places, the West Essex place has a slightly lower rate than the ICB.

Within South West Herts Place, Harpenden has one of the lowest rates per 1,000 population.

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

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

Source: HWE PHM Team, SUS UEC data-sets

Chronic ACS by Segment

ACS by segment_age

Segment IPRO

Age gr..	1 - Healthy	2 - Living With Illness	3 - Lower Complexity	4 - Advanced Disease & Co..	5 - EoL, Frailty & Dementia

Count of Sheet1
- 1
- 20
- 40
- 60
- 80
- 95

Tariff Total Pa..
685   314K

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 Harpenden the highest volume and cost is within the End of Life, Severe Frailty and Dementia in the over 65 age group and the highest volume is within the same age in the Advanced Disease and Complexity segment.

The following pages look at which ACSs contribute to this.

Source: HWE PHM Team, SUS UEC data-sets

UEC by Advanced Disease & Complexity, and EOL, Frailty & Dementia
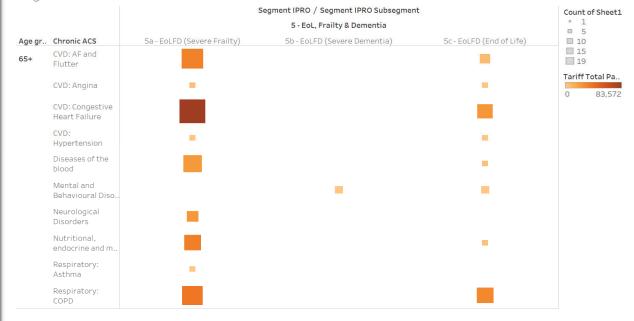
Segment 4

Segment IPRO / Segment IPRO Subsegment

4 - Advanced Disease & Complexity

Age groups	Chronic ACS	4c - AD&C (High Complexity)	4f - AD&C (End Stage Disease)
65+	CVD: AF and Flutter		
	CVD: Angina		
	CVD: Congestive Heart Failure		
	CVD: Hypertension		
	Diseases of the blood		
	Mental and Behavioural Diso..		
	Neurological Disorders		
	Nutritional, endocrine and m..		
	Respiratory: Asthma		
	Respiratory: COPD		

Count of Sheet1
- 1
- 2
- 4
- 6
- 8
- 10
- 11

Tariff Total Pa..
0 — 49,455

ACSs of note for people aged over 65 with Advanced Disease and Complexity within this analysis are Heart Failure, AF & Flutter.

For those within the End of Life, Frailty & Dementia, Heart Failure & COPD is the ACS with the highest volume and cost.

Segment 5

Segment IPRO / Segment IPRO Subsegment

5 - EoL, Frailty & Dementia

Age gr..	Chronic ACS	5a - EoLFD (Severe Frailty)	5b - EoLFD (Severe Dementia)	5c - EoLFD (End of Life)
65+	CVD: AF and Flutter			
	CVD: Angina			
	CVD: Congestive Heart Failure			
	CVD: Hypertension			
	Diseases of the blood			
	Mental and Behavioural Diso..			
	Neurological Disorders			
	Nutritional, endocrine and m..			
	Respiratory: Asthma			
	Respiratory: COPD			

Count of Sheet1
- 1
- 5
- 10
- 15
- 19

Tariff Total Pa..
0 — 83,572

Source: HWE PHM Team, SUS UEC data-sets

UEC Diagnoses by Segment

PCN Population - UEC Top 25 Primary Diagnoses by Segment
Highest Emergency Admissions from Top to Bottom

Diagnoses (top to bottom):
- N390 - Urinary tract infection, site not specified
- R296 - Tendency to fall, not elsewhere classified
- J181 - Lobar pneumonia, unspecified
- U071 - Emergency use of U07.1
- R103 - Pain localized to other parts of lower abdomen
- R074 - Chest pain, unspecified
- J22X - Unspecified acute lower respiratory infection
- L031 - Cellulitis of other parts of limb
- R51X - Headache
- R55X - Syncope and collapse
- S7200 - Fracture of neck of femur
- B349 - Viral infection, unspecified
- J039 - Acute tonsillitis, unspecified
- R073 - Other chest pain
- I500 - Congestive heart failure
- A419 - Sepsis, unspecified
- R072 - Precordial pain
- R104 - Other and unspecified abdominal pain
- I489 - Atrial fibrillation and atrial flutter, unspecified
- I214 - Acute subendocardial myocardial infarction
- I802 - Phlebitis and thrombophlebitis of other deep vessels of…
- J069 - Acute upper respiratory infection, unspecified
- J219 - Acute bronchiolitis, unspecified
- K590 - Constipation
- A099 - Gastroenteritis and colitis of unspecified origin

Legend: 1 - Healthy | 2 - Living With Illness | 3 - Lower Complexity | 4 - Advanced Disease & Complexity | 5 - EoL, Frailty & Dementia

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

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
Abbots Langley & Bedmond		2				2
Adeyfield East				1	6	7
Adeyfield West					7	7
Aldbury and Wigginton		2				2
Apsley and Corner Hall		4	5		3	12
Ashley		3	3	4	12	22
Ashridge					1	1
Batchwood	2	1	3	16	27	49
Bennetts End			2	2	1	5
Berkhamsted Castle					2	2
Berkhamsted East				1	3	4
Berkhamsted West	1		1		1	3
Bovingdon, Flaunden and Chipperfield			1	1		2
Boxmoor	1		1	1	1	4
Bushey Heath		5				5
Bushey North					2	2
Bushey Park	1					1
Bushey St James					4	4
Callowland					2	2
Carpenders Park		2				2
Chorleywood North & Sarratt					1	1
Clarence		2	6	3	4	15
Colney Heath	1	4	4	4		13
Cunningham		3	10	14	9	36
Durrants			5			5
Gade Valley					4	4
Gadebridge					3	3
Grovehill		3	2		2	7
Harpenden East	121	75	126	86	163	571
Harpenden North	94	72	109	102	77	454
Harpenden South	107	56	110	95	117	485
Harpenden West	93	60	111	141	115	520
Hatfield Villages		1	1			2
Hatfield West					1	1
Hemel Hempstead Town	1		2	4	1	8
Highfield		2	1	9	6	18
Hitchin Priory	4					4
Hitchwood, Offa and Hoo	1					1
Holywell			1			1
Kimpton	8	6	12	10	8	44
Kings Langley	1			1	6	8
Leavesden					10	10
Leggatts					1	1
Leverstock Green		3		3	5	11
London Colney	6	2	5	13	12	38
Marshalswick North	2	1	6	3	13	25
Marshalswick South	3	1	4	6	13	27
Nash Mills				1		1
Oxhey					2	2
Park				2	2	4
Park Street	1		3	9	10	23
Redbourn	18	12	26	29	47	132
Sandridge	1	2	9	6	9	27
Shenley			2			2
Sopwell	5	3	3	13	23	47
St Peters	3	2	2	6	23	36
St Stephen	1		8	8	8	25
Tring East	2					2
Verulam		6	3	6	21	36
Vicarage					1	1
Watling	8	9	20	11	12	60
Welwyn West				1		1
Wheathampstead	69	45	120	149	94	477
Woodhall Farm		4	2	2		8
Unknown Ward	6	10	30	17	16	79
Grand Total	560	400	754	785	915	3414

UEC Patients Seen by Deprivation Quintile & Ward 1 = Most Deprived, 5 = Least Deprived	1	2	3	4	5	(blank)	Grand Total
Abbots Langley & Bedmond					2		2
Adeyfield East	6		1				7
Adeyfield West	1		6				7
Aldbury and Wigginton					2		2
Apsley and Corner Hall	3	7	2				12
Ashley			7		15		22
Ashridge				1			1
Batchwood	7	25	4	13			49
Bennetts End	4		1				5
Berkhamsted Castle					2		2
Berkhamsted East				4			4
Berkhamsted West		1			2		3
Bovingdon, Flaunden and Chipperfield				1	1		2
Boxmoor			1	1	2		4
Bushey Heath		5					5
Bushey North		2					2
Bushey Park					1		1
Bushey St James				4			4
Callowland		2					2
Carpenders Park			2				2
Chorleywood North & Sarratt					1		1
Clarence			6		9		15
Colney Heath			1	1	11		13
Cunningham	9	9	12	6			36
Durrants				2	3		5
Gade Valley			3	1			4
Gadebridge		1	2				3
Grovehill	3	4					7
Harpenden East		150		133	288		571
Harpenden North			87		367		454
Harpenden South					485		485
Harpenden West				153	367		520
Hatfield Villages			1	1			2
Hatfield West			1				1
Hemel Hempstead Town	1	7					8
Highfield	18						18
Hitchin Priory				4			4
Hitchwood, Offa and Hoo			1				1
Holywell	1						1
Kimpton				44			44
Kings Langley			3		5		8
Leavesden		2	8				10
Leggatts		1					1
Leverstock Green	2	3			6		11
London Colney		18	13	7			38
Marshalswick North			6	4	15		25
Marshalswick South				1	26		27
Nash Mills		1					1
Oxhey			1	1			2
Park		4					4
Park Street		2	1	16	4		23
Redbourn		54		52	26		132
Sandridge			15		12		27
Shenley			2				2
Sopwell	7		17	8	15		47
St Peters			13		23		36
St Stephen			9	7	9		25
Tring East					2		2
Verulam				7	29		36
Vicarage		1					1
Watling		12	13		35		60
Welwyn West					1		1
Wheathampstead		133		203	141		477
Woodhall Farm		1	7				8
Unknown Ward						79	79
Grand Total	62	451	233	751	1838	79	3414

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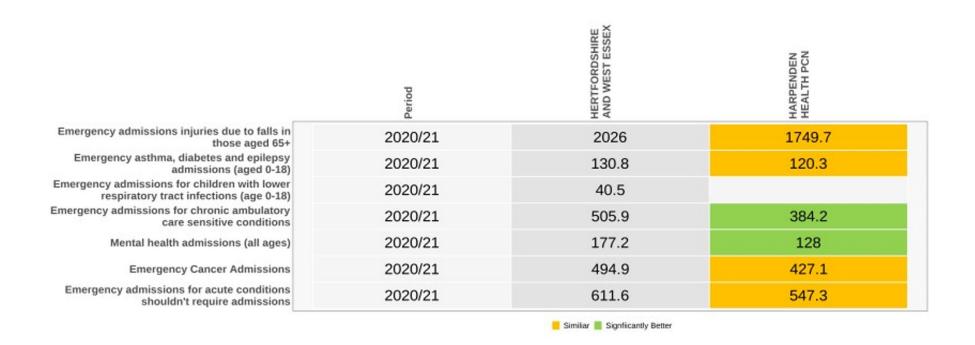
Source: HWE PHM Team, Combined population data re-extract via Optum, NHS England

Hospital Admissions

	Period	HERTFORDSHIRE AND WEST ESSEX	HARPENDEN HEALTH PCN
Emergency admissions injuries due to falls in those aged 65+	2020/21	2026	1749.7
Emergency asthma, diabetes and epilepsy admissions (aged 0-18)	2020/21	130.8	120.3
Emergency admissions for children with lower respiratory tract infections (age 0-18)	2020/21	40.5	
Emergency admissions for chronic ambulatory care sensitive conditions	2020/21	505.9	384.2
Mental health admissions (all ages)	2020/21	177.2	128
Emergency Cancer Admissions	2020/21	494.9	427.1
Emergency admissions for acute conditions shouldn't require admissions	2020/21	611.6	547.3

■ Similar   ■ Significantly Better

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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.

Harpenden Health PCN rates vary from Similar to Significantly Better rate of admissions to the ICB, dependent on Admission categories.

Source: Public Health Team

Frailty Segment - Detailed PCN Breakdown

	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		8	22	68	181	143	147	134	437	1046	4	2190	37725
% of population in cohort		0.4%	1.0%	3.1%	8.3%	6.5%	6.7%	6.1%	20.0%	47.8%	0.2%	100.0%	100.0%
Avg. Age		80.0	79.0	78.2	79.7	80.8	79.6	79.4	81.6	80.7	93.3	80.6	75.6
% BAME Where recorded		0%	18%	9%	8%	7%	13%	9%	7%	9%	0%	9%	8%
Avg. number of Acute and Chronic Conditions		6.6	7.0	5.9	6.7	6.2	6.4	5.9	5.9	5.9	5.5	6.1	5.5
Activity Measure													
Emergency Admissions		0.1	0.5	0.3	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.4	0.6
A&E Attendances		0.1	0.6	0.4	0.6	0.7	0.5	0.5	0.5	0.6	0.5	0.6	0.9
GP Encounters		24.9	26.6	24.5	36.1	36.5	33.4	25.3	31.4	40.0	9.3	35.7	103.4
Admitted Bed Days		3.1	3.5	3.6	3.9	4.9	4.5	2.5	3.8	4.0	4.0	3.9	4.2
Physical Health													
Asthma		37.5%	31.8%	29.4%	31.5%	23.1%	25.9%	25.4%	22.4%	25.1%	25.0%	25.3%	25.2%
Cancer		37.5%	36.4%	50.0%	37.6%	42.7%	40.8%	53.7%	46.0%	45.5%	0.0%	44.9%	32.8%
Chronic Cardiac Disease		62.5%	68.2%	57.4%	60.8%	56.6%	60.5%	59.7%	53.8%	53.5%	50.0%	55.5%	47.5%
Chronic Respiratory Disease		37.5%	36.4%	33.8%	30.4%	25.9%	32.7%	26.1%	24.5%	20.9%	0.0%	24.4%	22.2%
CKD		37.5%	18.2%	13.2%	19.9%	18.2%	24.5%	17.2%	19.9%	16.7%	25.0%	18.3%	20.7%
Heart Disease		37.5%	59.1%	41.2%	47.5%	46.2%	46.3%	47.0%	45.1%	43.3%	50.0%	44.7%	39.1%
Hypertension		100.0%	72.7%	75.0%	75.7%	80.4%	73.5%	70.1%	75.7%	70.8%	75.0%	73.2%	74.5%
Diabetes		37.5%	36.4%	51.5%	60.2%	52.4%	50.3%	39.6%	49.2%	43.2%	75.0%	46.9%	42.8%
Obesity		12.5%	4.5%	14.7%	27.6%	25.9%	21.1%	25.4%	18.3%	17.8%	0.0%	19.6%	32.8%
Rheumatoid Arthritis		12.5%	9.1%	2.9%	5.0%	4.2%	6.1%	3.7%	3.0%	4.5%	25.0%	4.3%	5.3%
Stroke		12.5%	59.1%	48.5%	46.4%	51.0%	40.8%	40.3%	43.0%	43.2%	25.0%	43.8%	34.5%
Mental Health													
Anxiety		37.5%	27.3%	23.5%	34.3%	18.9%	29.9%	27.6%	27.7%	24.2%	25.0%	26.0%	29.0%
Depression		50.0%	50.0%	32.4%	43.1%	35.7%	39.5%	31.3%	31.8%	34.7%	25.0%	35.1%	33.6%
Dementia		12.5%	27.3%	23.5%	24.9%	23.1%	26.5%	24.6%	22.7%	28.8%	75.0%	26.3%	18.6%
Serious Mental Illness		25.0%	13.6%	5.9%	14.9%	9.8%	8.2%	7.5%	6.9%	9.5%	0.0%	9.2%	6.5%
Low Mood		12.5%	22.7%	13.2%	23.8%	23.8%	22.4%	19.4%	20.8%	21.0%	25.0%	21.1%	18.5%
Suicide		0.0%	4.5%	4.4%	1.1%	1.4%	2.0%	1.5%	0.9%	1.2%	0.0%	1.4%	1.5%
Mental Health Flag		62.5%	63.6%	45.6%	56.9%	46.9%	53.1%	43.3%	48.3%	48.6%	50.0%	49.2%	48.8%
Screening and Verification Refusal													
Bowel Screening Refused		37.5%	27.3%	22.1%	23.8%	21.0%	21.8%	22.4%	15.3%	15.7%	0.0%	17.8%	25.5%
Cervical Screening Refused		0.0%	4.5%	4.4%	6.1%	4.9%	4.8%	7.5%	3.4%	4.0%	0.0%	4.4%	3.6%
Flu Vaccine Refused		25.0%	22.7%	32.4%	32.6%	33.6%	34.0%	29.9%	32.7%	30.9%	25.0%	31.6%	26.4%
Wider Indicators													
Has A Carer		12.5%	22.7%	20.6%	27.6%	23.8%	20.4%	21.6%	19.0%	20.4%	75.0%	21.1%	19.0%
Is A Carer		25.0%	13.6%	8.8%	8.8%	9.1%	6.8%	8.2%	6.4%	7.6%	50.0%	7.8%	11.9%
MED3 Not Fit For Work (ever)		12.5%	9.1%	14.7%	8.3%	9.8%	10.9%	14.2%	5.9%	7.2%	0.0%	8.1%	13.4%
MED3 Not Fit For Work (in Last Year)		0.0%	0.0%	1.5%	0.6%	0.7%	2.0%	2.2%	0.0%	1.2%	0.0%	1.0%	3.5%
MED3 Not Fit For Work (in Last Six Months)		0.0%	0.0%	1.5%	0.0%	0.7%	0.7%	2.2%	0.0%	1.1%	0.0%	0.8%	2.8%
Avg. number of eFI Deficits		11.8	13.2	11.8	13.3	12.3	12.5	11.8	11.8	12.3	14.5	12.3	13.4
eFI_Housebound		12.5%	13.6%	16.2%	16.0%	14.0%	15.6%	15.7%	9.2%	7.9%	0.0%	10.5%	10.9%
eFI_SocialVulnerability		25.0%	40.9%	33.8%	34.8%	32.2%	30.6%	32.1%	26.5%	27.3%	75.0%	29.0%	27.3%
People_ChildrenInPoverty			13.6				13.4	12.2	7.9	13.6		13.1	15.5
Housing_FuelPoverty		16.3	14.0	13.9	12.6	11.5	10.8	10.1	8.8	7.4		9.1	11.1
Housing_OnePersonHousehold		30.7	31.1	32.5	31.9	27.4	30.1	25.8	29.1	23.4		26.5	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 Harpenden 4.5% 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 Harpenden PCN is higher than the ICB, and the data shows slightly lower usage of acute & GP services.

The presence of Heart Disease, and Stroke being highlighted by the data as high, with Heart Failure chiming with the reason for admission within analysis for ACS conditions.

Source: HWE PHM Team, SUS UEC data-sets

Applying Machine Learning factors without our data platform

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
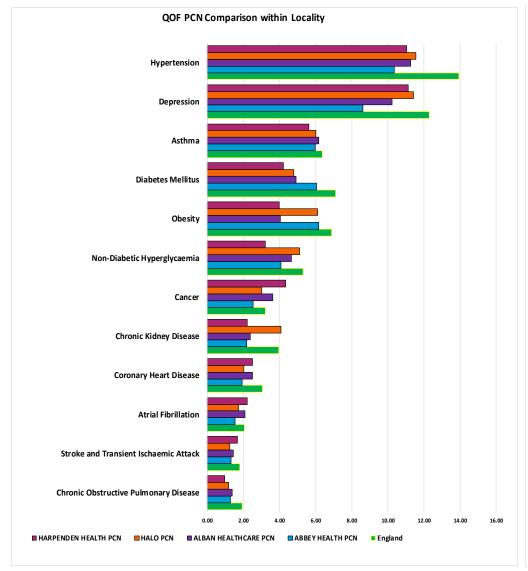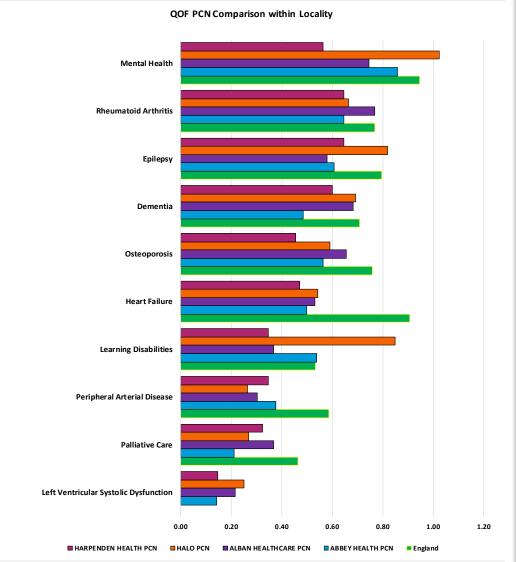
Quality & Outcomes Framework

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

QOF PCN Comparison within Locality

Categories (top to bottom): Hypertension, Depression, Asthma, Diabetes Mellitus, Obesity, Non-Diabetic Hyperglycaemia, Cancer, Chronic Kidney Disease, Coronary Heart Disease, Atrial Fibrillation, Stroke and Transient Ischaemic Attack, Chronic Obstructive Pulmonary Disease

Legend: HARPENDEN HEALTH PCN, HALO PCN, ALBAN HEALTHCARE PCN, ABBEY HEALTH PCN, England

QOF PCN Comparison within Locality

Categories (top to bottom): Mental Health, Rheumatoid Arthritis, Epilepsy, Dementia, Osteoporosis, Heart Failure, Learning Disabilities, Peripheral Arterial Disease, Palliative Care, Left Ventricular Systolic Dysfunction

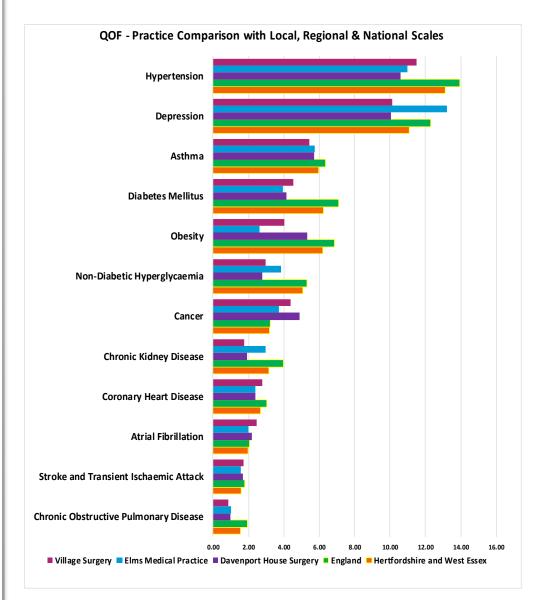Legend: HARPENDEN HEALTH PCN, HALO PCN, ALBAN HEALTHCARE PCN, ABBEY HEALTH PCN, England

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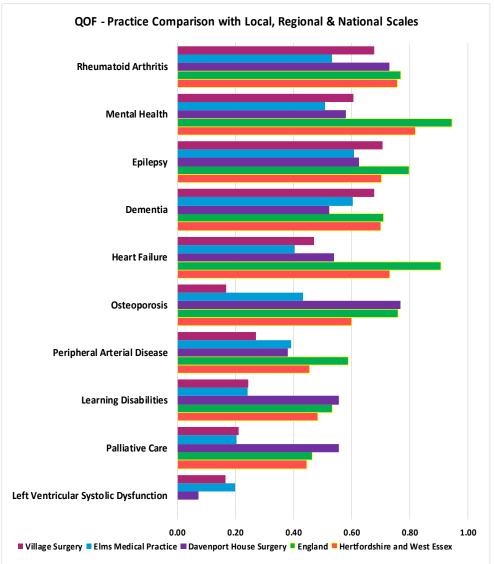
In this graph we have shown all your neighbouring PCNs within the Locality, and benchmarked against England's average.

Source: QOF National Figures, HWE PHM Team

QOF - Local, Regional, & National Comparison

QOF - Practice Comparison with Local, Regional & National Scales

QOF - Practice Comparison with Local, Regional & National Scales

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

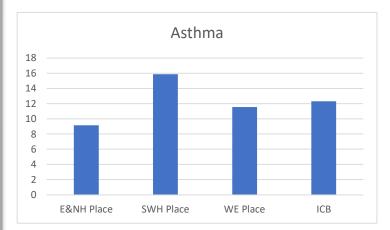| Disease	QOF List size 21-22	QOF Register 21-22	QOF Prevalence 21/22	Place prevalence	ICB prevalence	Modelled prevalence	New diagnoses to meet Place average	new diagnoses to meet ICB average	New diagnoses to meet estimated prevalence
Asthma	42007	2490	5.93%	5.89%	6.17%		-17	101	
COPD	44660	403	0.90%	1.38%	1.49%	1.60%	214	261	314
Diabetes	34345	1445	4.21%	6.26%	6.39%	7.77%	704	749	1225
Non-diabetic hyperglyaemia	33691	1414	4.20%	6.73%	5.87%	11.28%	852	564	2388
Hypertension	44660	4914	11.00%	12.66%	13.21%		741	987	
Atrial Fibrillation	44660	1019	2.28%	1.98%	2.02%	2.70%	-133	-116	187
Stroke and TIA	44660	752	1.68%	1.53%	1.61%		-69	-33	
Coronary Heart Disease	44660	1129	2.53%	2.60%	2.65%		33	56	
Heart failure	44660	202	0.45%	0.69%	0.75%	1.39%	107	135	418
Left Ventricular Systolic Dysfunction	44660	71	0.16%	0.29%	0.30%		58	63	
Chronic Kidney Disease	33691	791	2.35%	3.75%	3.21%		471	289	
Peripheral Arterial Disease	44660	154	0.34%	0.42%	0.44%		32	44	
Cancer	44660	1996	4.47%	3.38%	3.35%		-484	-502	
Palliative care	44660	114	0.26%	0.33%	0.43%		35	77	
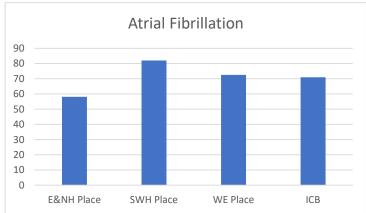
The table above shows the latest prevalence (2021/22 published August 20222) for the PCN alongside the place prevalence, ICB prevalence and the modelled prevalence for the PCN.
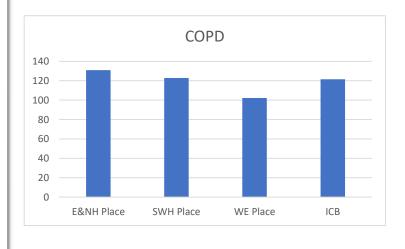
This table shows opportunities for further identification. It outlines the diagnoses to meet the place, ICB and estimated prevalence.
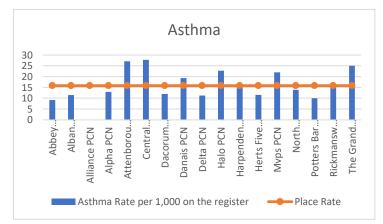
Within Ardens Manager there are case finding searches that can support PCN with identification.

Source: QOF National Figures, HWE PHM Team

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

Asthma

E&NH Place, SWH Place, WE Place, ICB (y-axis 0–18)

Asthma

Abbey..., Alban..., Alliance PCN, Alpha PCN, Attenborou..., Central..., Dacorum..., Danais PCN, Delta PCN, Halo PCN, Harpenden..., Herts Five..., Mvps PCN, North..., Potters Bar..., Rickmansw..., The Grand... (y-axis 0–30)

Asthma Rate per 1,000 on the register — Place Rate

Atrial Fibrillation

E&NH Place, SWH Place, WE Place, ICB (y-axis 0–90)

AF

Abbey..., Alban..., Alliance PCN, Alpha PCN, Attenborou..., Central..., Dacorum..., Danais PCN, Delta PCN, Halo PCN, Harpenden..., Herts Five..., Mvps PCN, North..., Potters Bar..., Rickmansw..., The Grand... (y-axis 0–140)

AF Rate per 1,000 on the register — Place Rate

COPD

E&NH Place, SWH Place, WE Place, ICB (y-axis 0–140)

COPD

Abbey..., Alban..., Alliance PCN, Alpha PCN, Attenborou..., Central..., Dacorum..., Danais PCN, Delta PCN, Halo PCN, Harpenden..., Herts Five..., Mvps PCN, North..., Potters Bar..., Rickmansw..., The Grand... (y-axis 0–250)

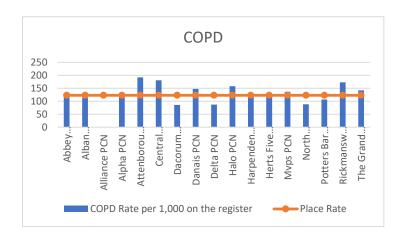COPD Rate per 1,000 on the register — Place Rate

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

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

These are continued on the following place.
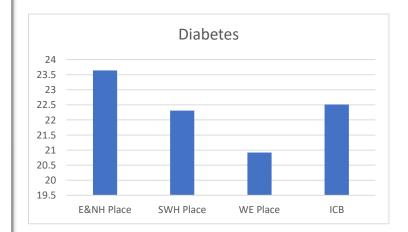
Rates may be high due to a number of factors which may include low identification.
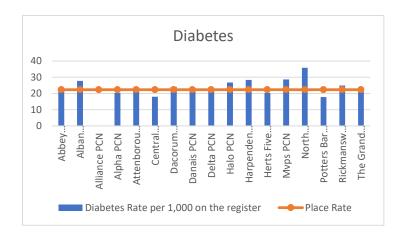
For Harpenden the data shows higher rates for Diabetes and higher rates for Heart Failure which was identified as a theme within the ACS analysis.
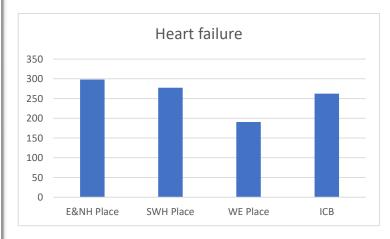
Source: HWE PHM Team, SUS data
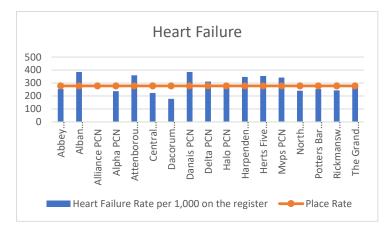
Emergency Admission Rates per 1,000 population on the Disease Register

Diabetes

Diabetes

Heart failure

Heart Failure

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

Ethnicity Group / Complexity	Other Ethnic Groups Low	Middle	High	Asian Low	Middle	High	Black Low	Middle	High	Mixed Low	Middle	High	Other Low	Middle	High	White Low	Middle	High	Unknown Low	Middle	High	Grand Total
Overall Population Measures																						
Population	329	90	6	932	621	87	347	201	25	610	242	35	1,847	1,379	176	17,796	16,029	3,170	5,004	2,669	160	51,755
Age	29	46	81	28	46	67	28	42	60	16	36	41	26	46	63	30	52	72	34	54	84	42
Male %	45.6%	51.1%	33.3%	46.0%	45.6%	57.5%	49.9%	44.8%	44.0%	50.7%	45.9%	57.1%	52.9%	46.0%	47.2%	51.0%	45.5%	49.3%	57.3%	56.1%	56.3%	49.8%
IMD	9.3	8.8	7.0	9.0	8.9	7.7	8.6	8.3	8.2	9.1	8.8	9.1	9.2	9.0	8.9	9.2	9.0	8.6	9.2	9.2	8.9	9.1
% BAME (where recorded)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%	0%	0%	100%	100%	100%	17%
Multimorbidity (acute & chronic)	0.0	1.4	6.7	0.0	1.7	6.8	0.0	1.7	7.4	0.0	1.7	7.2	0.0	1.8	6.8	0.0	1.9	6.9	0.0	1.6	6.0	1.2
Finance and Activity Measures																						
Spend Total	£0.0M	£0.0M	£0.0M	£0.2M	£0.4M	£0.1M	£0.1M	£0.1M	£0.1M	£0.1M	£0.2M	£0.1M	£0.4M	£0.7M	£0.3M	£3.9M	£10.9M	£8.6M	£0.2M	£0.2M	£0.0M	£27.0M
PPPY - Total	£59	£552	£6,127	£256	£592	£1,640	£212	£689	£4,693	£220	£703	£2,111	£237	£540	£1,839	£221	£678	£2,721	£46	£91	£155	£521
Acute Elective	£6	£18	£273	£86	£306	£507	£85	£315	£456	£67	£230	£607	£73	£160	£485	£76	£299	£682	£8	£14	£14	£181
Acute Non-Elective	£3	£431	£5,455	£96	£143	£670	£68	£215	£3,271	£90	£225	£501	£90	£224	£903	£75	£222	£1,645	£4	£14	£80	£220
GP Encounters	£48	£87	£400	£70	£131	£212	£59	£129	£353	£56	£128	£195	£70	£134	£205	£68	£134	£235	£35	£59	£41	£99
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	£1	£17	£0	£4	£12	£249	£0	£30	£612	£6	£120	£809	£4	£21	£246	£2	£22	£153	£0	£3	£20	£21
Social Care	£0	£0	£0	£0	£0	£2	£0	£0	£0	£0	£0	£0	£0	£1	£0	£0	£1	£7	£0	£0	£0	£1
GP PPPY	8	14	71	11	21	35	10	21	58	9	21	32	12	22	33	11	22	38	6	10	7	16
Beddays PPPY - Acute EM	0	1	29	0	2	1	0	0	14	0	0	1	0	0	2	0	0	3	0	0	0	0
Physical Health																						
Diabetes	0.0%	24.4%	66.7%	0.0%	33.2%	74.7%	0.0%	23.4%	72.0%	0.0%	17.8%	45.7%	0.0%	15.0%	48.9%	0.0%	17.0%	53.3%	0.0%	12.9%	48.8%	10.7%
COPD	0.0%	0.0%	0.0%	0.0%	0.5%	12.6%	0.0%	0.0%	20.0%	0.0%	1.7%	8.6%	0.0%	1.5%	19.3%	0.0%	1.4%	24.4%	0.0%	0.6%	17.5%	2.2%
Chronic Respiratory Dis...	0.0%	0.0%	0.0%	0.0%	1.8%	21.8%	0.0%	0.5%	20.0%	0.0%	2.9%	14.3%	0.0%	2.0%	21.0%	0.0%	2.3%	29.0%	0.0%	1.0%	18.8%	2.8%
Hypertension	0.0%	23.3%	66.7%	0.0%	27.9%	69.0%	0.0%	30.8%	84.0%	0.0%	16.9%	68.6%	0.0%	22.7%	72.7%	0.0%	28.3%	77.4%	0.0%	36.4%	80.6%	17.3%
Obesity	0.6%	2.2%	14.9%	0.8%	6.6%	14.9%	2.0%	8.0%	20.0%	0.8%	5.0%	22.9%	2.2%	6.9%	14.8%	3.7%	13.5%	24.9%	1.9%	7.9%	10.6%	8.2%
Mental Health																						
Anxiety/Phobias	0.0%	27.8%	50.0%	0.0%	15.9%	40.2%	0.0%	8.5%	40.0%	0.0%	23.1%	51.4%	0.0%	28.6%	44.9%	0.0%	25.3%	38.2%	0.0%	21.0%	33.1%	12.8%
Depression	0.0%	34.4%	66.7%	0.0%	19.5%	40.2%	0.0%	18.4%	64.0%	0.0%	28.5%	62.9%	0.0%	30.7%	48.9%	0.0%	28.1%	47.2%	0.0%	22.1%	43.8%	14.5%
Learning Disability	0.0%	0.0%	33.3%	0.0%	0.6%	14.9%	0.0%	1.5%	28.0%	0.0%	2.5%	54.3%	0.0%	0.8%	15.9%	0.0%	1.1%	11.7%	0.0%	0.8%	4.4%	1.3%
Dementia	0.0%	1.1%	33.3%	0.0%	1.4%	31.0%	0.0%	1.0%	32.0%	0.0%	1.2%	42.9%	0.0%	1.4%	30.7%	0.0%	1.4%	25.9%	0.0%	1.0%	10.6%	2.4%
Other Characteristics																						
Housebound (eFI)	0.0%	0.0%	0.0%	0.1%	0.3%	6.9%	0.0%	0.5%	4.0%	0.0%	0.0%	0.0%	0.1%	0.7%	4.0%	0.0%	0.5%	6.0%	0.0%	0.7%	2.5%	0.6%
Social Vulnerability (eFI)	0.6%	5.6%	0.0%	1.7%	4.5%	23.0%	0.9%	7.0%	40.0%	1.0%	7.0%	22.9%	0.9%	3.8%	19.3%	0.8%	5.0%	22.5%	0.5%	2.5%	15.6%	3.9%
History of Smoking (Tw...)	3.3%	6.7%	16.7%	1.6%	5.2%	6.9%	2.9%	6.5%	16.0%	0.5%	5.8%	8.6%	3.6%	8.0%	9.7%	4.3%	8.3%	8.3%	2.1%	3.5%	1.3%	5.5%
Not Fit for Work (In Year)	0.0%	1.1%	0.0%	1.0%	3.5%	3.4%	3.2%	9.0%	12.0%	0.7%	7.9%	11.4%	1.5%	5.3%	2.8%	1.0%	3.8%	2.7%	0.5%	1.3%	0.6%	2.2%
On a Waiting List	3.0%	2.2%	0.0%	6.3%	8.2%	12.6%	4.0%	9.0%	20.0%	4.3%	10.7%	11.4%	4.2%	7.3%	11.9%	4.4%	8.8%	15.9%	1.4%	1.9%	1.3%	6.3%

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

Life Course Segment / Subsegment	1 - Healthy			2 - Living With Illness			3 - Lower Complexity			4 - Advanced Disease & Complexity					5 - EoL, Frailty & Dementia			Grand Total
	1a - H (Low Risk)	1b - H (Maternity & Child)	1c - H (Acute Episodic)	2a - Lwl (At Risk)	2b - Lwl (LTCs)	2c - Lwl (MH)	3a - LC (Mod. Social Co..)	3b - LC (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	20,458	1,102	1,011	3,431	6,436	2,640	468	5,768	4,428	2,294	522	72	435	500	839	213	1,138	51,755
Age	29	8	20	45	45	39	42	51	60	68	72	28	31	68	81	86	79	42
Male %	53.3%	40.9%	52.8%	51.5%	55.8%	40.8%	44.4%	45.7%	40.8%	46.4%	42.5%	48.6%	48.5%	55.4%	40.9%	38.5%	48.5%	49.8%
IMD	9.2	9.3	9.2	9.1	9.2	9.0	9.0	8.9	9.0	8.8	8.6	8.7	8.8	8.6	8.5	8.9	8.5	9.1
% BAME (where recorded)	21%	17%	25%	15%	17%	15%	19%	14%	13%	11%	10%	13%	17%	10%	7%	5%	10%	17%
Multimorbidity (acute & chronic)	0.0	0.0	0.0	0.0	1.0	1.0	0.4	2.4	2.0	4.7	3.3	3.7	6.3	5.6	7.0	6.5	5.3	1.2
Finance and Activity Measures																		
Spend — Total	£1.5M	£0.6M	£1.5M	£1.2M	£2.3M	£0.7M	£0.1M	£3.1M	£3.4M	£3.4M	£0.4M	£0.2M	£0.9M	£1.4M	£2.7M	£0.5M	£3.2M	£27.0M
PPPY - Total	£72	£557	£1,459	£339	£351	£274	£284	£545	£775	£1,496	£718	£2,678	£2,034	£2,775	£3,162	£2,286	£2,783	£521
Acute Elective	£17	£81	£620	£139	£157	£85	£111	£240	£350	£641	£199	£521	£166	£1,098	£762	£215	£599	£181
Acute Non-Elective	£6	£381	£719	£87	£100	£87	£75	£164	£255	£639	£350	£826	£314	£1,336	£2,022	£1,707	£1,984	£220
GP Encounters	£46	£95	£112	£109	£92	£93	£96	£127	£163	£199	£137	£252	£204	£205	£296	£203	£166	£99
Community	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
Mental Health	£2	£0	£8	£4	£2	£8	£2	£14	£7	£16	£10	£958	£1,329	£135	£78	£149	£27	£21
Social Care	£0	£0	£0	£0	£0	£0	£0	£0	£0	£2	£22	£122	£22	£1	£4	£11	£7	£1
GP PPPY	8	16	19	18	15	15	16	21	26	32	23	41	33	34	48	36	27	16
Beddays PPPY - Acute EM	0	1	1	0	0	0	0	0	0	1	1	3	4	2	4	9	4	0
Physical Health																		
Diabetes	0.0%	0.0%	0.0%	0.0%	12.6%	0.0%	2.6%	23.1%	20.5%	42.3%	25.3%	15.3%	32.4%	39.8%	59.8%	42.3%	38.2%	10.7%
COPD	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%	1.5%	9.4%	6.7%	1.4%	1.4%	54.4%	22.2%	11.7%	18.3%	2.2%
Chronic Respiratory Dis...	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.2%	2.8%	2.5%	11.6%	8.4%	2.8%	2.5%	60.4%	26.7%	16.4%	24.3%	2.8%
Hypertension	0.0%	0.0%	0.0%	0.0%	22.3%	0.0%	10.0%	32.1%	38.7%	66.8%	53.6%	22.2%	31.5%	64.8%	84.9%	70.0%	65.3%	17.3%
Obesity	0.0%	0.0%	0.0%	21.9%	7.9%	6.5%	8.3%	13.4%	17.0%	22.8%	13.8%	18.1%	15.2%	24.6%	26.2%	16.9%	15.3%	8.2%
Mental Health																		
Anxiety/Phobias	0.0%	0.0%	0.0%	0.0%	0.0%	46.3%	4.5%	41.7%	24.7%	33.9%	18.8%	36.1%	66.7%	22.6%	34.8%	25.4%	19.7%	12.8%
Depression	0.0%	0.0%	0.0%	0.0%	0.0%	48.2%	10.0%	46.9%	26.5%	38.6%	25.3%	38.9%	80.0%	29.8%	45.3%	38.0%	27.1%	14.5%
Learning Disability	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	0.9%	1.0%	0.4%	4.4%	13.2%	61.1%	48.0%	6.0%	4.4%	15.0%	3.0%	1.3%
Dementia	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	13.3%	10.5%	13.9%	53.3%	11.2%	16.7%	100.0%	19.6%	2.4%
Other Characteristics																		
Housebound (eFI)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	17.4%	1.4%	0.2%	1.4%	10.7%	13.1%	9.9%	0.6%
Social Vulnerability (eFI)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	70.7%	3.0%	6.6%	11.3%	24.9%	18.1%	21.8%	13.4%	33.6%	42.7%	23.1%	3.9%
History of Smoking (Tw...	0.0%	0.0%	0.0%	27.4%	6.5%	8.4%	7.1%	10.2%	5.7%	7.6%	5.6%	9.7%	11.7%	13.6%	5.4%	1.4%	3.5%	5.5%
Not Fit for Work (In Year)	0.0%	0.0%	0.0%	6.9%	1.9%	3.9%	5.1%	4.9%	4.4%	4.1%	1.3%	9.7%	6.0%	2.4%	1.0%	0.0%	1.2%	2.2%
On a Waiting List	2.8%	4.2%	10.2%	6.5%	5.1%	4.5%	7.3%	8.0%	11.1%	17.3%	7.5%	20.8%	10.8%	19.0%	21.8%	6.1%	5.4%	6.3%

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

	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	3,936	3,225	1,067	1,254	290	19	3,195	692	28	3,359	989	36	5,848	2,875	112	9,273	13,160	2,397	51,755
Age	37	62	83	19	41	61	19	36	55	25	41	37	30	45	44	34	52	68	42
Male %	55.8%	51.1%	54.0%	53.1%	60.3%	57.9%	57.9%	65.0%	50.0%	60.2%	61.6%	69.4%	54.6%	54.9%	61.6%	43.7%	41.8%	46.9%	49.8%
IMD	8.5	8.3	8.1	9.2	9.1	8.5	9.3	9.0	8.4	9.3	9.2	8.2	9.3	9.3	8.6	9.3	9.1	8.8	9.1
% BAME (where recorded)	20%	14%	9%	22%	20%	6%	23%	20%	14%	22%	18%	6%	19%	15%	17%	18%	14%	10%	17%
Multimorbidity (acute & chronic)	0.0	2.0	6.8	0.0	1.4	7.6	0.0	1.3	7.6	0.0	1.3	7.5	0.0	1.5	7.2	0.0	1.9	6.8	1.2
Finance and Activity Measures																			
Spend - Total	£0.2M	£0.6M	£0.2M	£0.0M	£0.0M	£0.0M	£0.1M	£0.0M	£0.0M	£0.2M	£0.1M	£0.0M	£0.7M	£0.4M	£0.1M	£3.9M	£11.5M	£8.9M	£27.0M
PPPY - Total	£53	£180	£216	£10	£33	£28	£29	£33	£1,314	£54	£64	£863	£123	£133	£1,183	£415	£875	£3,718	£521
Acute Elective	£41	£105	£63	£2	£11	£0	£6	£11	£0	£13	£18	£14	£36	£46	£60	£134	£369	£940	£181
Acute Non-Elective	£11	£73	£141	£2	£15	£0	£8	£4	£1,118	£14	£17	£586	£40	£32	£768	£144	£287	£2,206	£220
GP Encounters	£0	£0	£0	£6	£6	£7	£15	£16	£17	£26	£27	£29	£46	£48	£51	£133	£186	£341	£99
Community	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
Mental Health	£1	£2	£12	£0	£1	£21	£0	£2	£179	£0	£2	£233	£1	£6	£304	£5	£31	£223	£21
Social Care	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£1	£0	£2	£9	£1
GP PPPY	0	0	0	1	1	1	3	3	3	4	5	5	8	8	8	22	31	55	16
Beddays PPPY - Acute EM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	2	0	1	5	0
Physical Health																			
Diabetes	0.0%	15.1%	50.2%	0.0%	5.9%	63.2%	0.0%	7.2%	46.4%	0.0%	7.0%	44.4%	0.0%	10.2%	37.5%	0.0%	20.3%	55.8%	10.7%
COPD	0.0%	2.5%	29.2%	0.0%	0.3%	31.6%	0.0%	0.1%	28.6%	0.0%	0.4%	5.6%	0.0%	0.8%	14.3%	0.0%	1.2%	21.2%	2.2%
Chronic Respiratory Dis…	0.0%	3.4%	35.5%	0.0%	1.0%	42.1%	0.0%	0.6%	28.6%	0.0%	0.7%	5.6%	0.0%	1.5%	15.2%	0.0%	2.1%	25.0%	2.8%
Hypertension	0.0%	37.1%	82.2%	0.0%	27.2%	78.9%	0.0%	17.3%	75.0%	0.0%	19.7%	47.2%	0.0%	20.2%	61.6%	0.0%	30.0%	75.9%	17.3%
Obesity	1.3%	6.7%	13.5%	0.3%	3.1%	21.1%	0.8%	3.5%	25.0%	1.1%	2.3%	16.7%	2.8%	6.3%	10.7%	5.8%	15.9%	28.6%	8.2%
Mental Health																			
Anxiety/Phobias	0.0%	18.2%	25.6%	0.0%	20.0%	36.8%	0.0%	22.0%	42.9%	0.0%	22.8%	61.1%	0.0%	24.9%	58.0%	0.0%	26.4%	43.0%	12.8%
Depression	0.0%	24.6%	34.1%	0.0%	23.8%	57.9%	0.0%	22.8%	57.1%	0.0%	21.6%	83.3%	0.0%	25.8%	68.8%	0.0%	28.9%	51.4%	14.5%
Learning Disability	0.0%	0.8%	4.2%	0.0%	0.7%	31.6%	0.0%	0.7%	25.0%	0.0%	1.0%	44.4%	0.0%	1.0%	42.9%	0.0%	1.1%	13.6%	1.3%
Dementia	0.0%	4.0%	23.6%	0.0%	1.4%	36.8%	0.0%	0.7%	53.6%	0.0%	0.4%	61.1%	0.0%	0.3%	50.9%	0.0%	1.1%	24.6%	2.4%
Other Characteristics																			
Housebound (eFI)	0.1%	2.1%	8.7%	0.0%	0.0%	0.0%	0.0%	0.0%	7.1%	0.0%	0.1%	0.0%	0.0%	0.2%	2.7%	0.0%	0.3%	4.5%	0.6%
Social Vulnerability (eFI)	0.4%	5.4%	19.8%	0.3%	2.8%	10.5%	0.6%	2.5%	21.4%	0.7%	2.0%	25.0%	0.7%	2.5%	19.6%	1.2%	5.2%	23.3%	3.9%
History of Smoking (Tw…	0.2%	0.6%	0.4%	0.7%	3.1%	10.5%	1.0%	2.7%	7.1%	2.6%	4.1%	0.0%	4.2%	5.3%	3.6%	6.4%	10.3%	11.9%	5.5%
Not Fit for Work (In Year)	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	2.8%	0.4%	0.8%	0.9%	2.4%	5.7%	4.1%	2.2%
On a Waiting List	1.9%	2.2%	2.0%	0.5%	0.0%	0.0%	1.1%	1.2%	0.0%	1.2%	1.2%	0.0%	2.1%	2.3%	3.6%	8.2%	11.4%	21.8%	6.3%

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.

Matrix Data - Health Segment & Deprivation

Life Course Segment / Deprivation	1 - Healthy				2 - Living With Illness				3 - Lower Complexity				4 - Advanced Disease & Complexity				5 - EoL, Frailty & Dementia				Grand Total
	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	19,731	2,737	72	31	10,645	1,788	56	18	8,808	1,754	96	6	2,999	777	42		1,617	539	30		51,755
Age	27	28	32	43	44	42	39	51	55	52	50	60	65	62	58	81	81	80	79	93	42
Male %	52.8%	51.6%	48.6%	54.8%	51.2%	52.3%	60.7%	55.6%	43.8%	42.9%	43.8%	33.3%	47.5%	47.6%	33.3%	20.0%	45.5%	42.3%	40.0%	50.0%	49.8%
IMD	9.7	5.7	2.7		9.7	5.8	2.7		9.7	5.8	2.8		9.6	5.7	2.8		9.6	5.7	2.7		9.1
% BAME (where recorded)	21%	22%	27%	25%	16%	18%	22%	8%	13%	14%	25%	50%	11%	12%	19%	0%	8%	9%	13%	0%	17%
Multimorbidity (acute & chronic)	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.7	2.1	2.3	2.3	2.7	4.7	5.0	5.3	3.6	5.9	6.4	6.9	5.5	1.2
Finance and Activity Measures																					
Spend Total	£3.1M	£0.4M	£0.0M	£0.0M	£3.5M	£0.6M	£0.0M	£0.0M	£5.5M	£1.2M	£0.1M	£0.0M	£5.0M	£1.2M	£0.1M	£0.0M	£4.7M	£1.5M	£0.1M	£0.0M	£27.0M
PPPY - Total	£159	£143	£284	£53	£330	£340	£334	£174	£624	£662	£559	£236	£1,679	£1,510	£1,531	£41	£2,907	£2,862	£1,729	£2,789	£521
Acute Elective	£47	£47	£211	£36	£139	£125	£89	£116	£280	£277	£282	£85	£621	£466	£223	£0	£698	£438	£68	£91	£181
Acute Non-Elective	£58	£50	£46	£0	£90	£118	£169	£0	£193	£226	£149	£0	£649	£679	£920	£0	£1,919	£2,151	£1,484	£2,627	£220
GP Encounters	£53	£44	£27	£17	£98	£89	£75	£58	£142	£139	£107	£151	£197	£176	£154	£41	£230	£196	£122	£71	£99
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	£0	£0	£3	£9	£0	£0	£9	£20	£21	£0	£203	£180	£231	£0	£57	£62	£50	£0	£21
Social Care	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£9	£10	£3	£0	£3	£15	£6	£0	£1
GP PPPY	9	7	5	3	16	15	13	9	23	23	19	26	32	30	25	8	36	34	26	9	16
Beddays PPPY - Acute EM	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	0	5	4	4	4	0
Physical Health																					
Diabetes	0.0%	0.0%	0.0%	0.0%	6.6%	6.0%	3.6%	0.0%	20.8%	22.6%	19.8%	66.7%	37.2%	39.8%	59.5%	60.0%	44.5%	54.4%	36.7%	75.0%	10.7%
COPD	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%	2.6%	3.1%	0.0%	12.8%	17.1%	26.2%	0.0%	17.2%	24.1%	36.7%	0.0%	2.2%
Chronic Respiratory Dis...	0.0%	0.0%	0.0%	0.0%	0.3%	0.1%	0.0%	0.0%	2.4%	3.2%	3.1%	0.0%	15.6%	18.5%	31.0%	0.0%	22.3%	30.2%	36.7%	0.0%	2.8%
Hypertension	0.0%	0.0%	0.0%	0.0%	11.7%	10.1%	7.1%	16.7%	34.0%	33.3%	27.1%	50.0%	59.7%	60.5%	61.9%	80.0%	72.1%	76.3%	80.0%	75.0%	17.3%
Obesity	0.0%	0.0%	0.0%	0.0%	10.9%	14.8%	8.9%	22.2%	13.7%	19.6%	15.6%	16.7%	19.7%	24.8%	31.0%	0.0%	18.6%	23.7%	6.7%	0.0%	8.2%
Mental Health																					
Anxiety/Phobias	0.0%	0.0%	0.0%	0.0%	9.9%	9.1%	14.3%	11.1%	32.2%	36.5%	42.7%	50.0%	33.6%	36.2%	35.7%	20.0%	25.4%	27.6%	30.0%	25.0%	12.8%
Depression	0.0%	0.0%	0.0%	0.0%	9.7%	12.8%	16.1%	5.6%	34.7%	46.5%	53.1%	83.3%	38.7%	46.1%	52.4%	40.0%	33.6%	38.8%	50.0%	25.0%	14.5%
Learning Disability	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	0.0%	0.0%	0.7%	1.1%	3.1%	0.0%	11.7%	12.9%	4.8%	0.0%	4.3%	5.8%	10.0%	0.0%	1.3%
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%	17.8%	15.7%	9.5%	0.0%	26.8%	24.7%	23.3%	75.0%	2.4%
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%	2.4%	3.5%	4.8%	0.0%	8.9%	15.4%	13.3%	0.0%	0.6%
Social Vulnerability (eFI)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.9%	10.1%	9.4%	16.7%	14.8%	14.5%	11.9%	20.0%	27.5%	32.8%	36.7%	75.0%	3.9%
History of Smoking (Tw...)	0.0%	0.0%	0.0%	0.0%	11.6%	18.5%	16.1%	16.7%	6.7%	16.0%	7.3%	33.3%	7.5%	13.0%	7.1%	0.0%	4.0%	4.1%	3.3%	0.0%	5.5%
Not Fit for Work (In Year)	0.0%	0.0%	0.0%	0.0%	3.4%	5.4%	3.6%	0.0%	4.1%	7.6%	7.3%	16.7%	3.1%	6.3%	7.1%	0.0%	1.0%	1.1%	0.0%	0.0%	2.2%
On a Waiting List	3.2%	3.7%	2.8%	0.0%	5.4%	5.4%	3.6%	0.0%	9.2%	9.3%	6.3%	0.0%	16.4%	12.5%	9.5%	0.0%	12.1%	10.9%	6.7%	0.0%	6.3%

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

	Davenport House Surgery				Elms Medical Practice				Village Surgery				Grand Total
Practice / 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	
Overall Population Measures													
Population	10,987	921	9	8	20,033	4,756	285	42	12,780	1,918		14	51,755
Age	39	37	30	49	43	48	48	54	40	37	10	54	42
Male %	50.6%	50.1%	22.2%	75.0%	50.2%	48.7%	47.0%	54.8%	49.1%	48.1%	50.0%	21.4%	49.8%
IMD	9.7	5.8	2.4		9.6	5.7	2.8		9.8	5.8	3.0		9.1
% BAME (where recorded)	21%	21%	40%	25%	17%	18%	22%	20%	14%	14%	50%	0%	17%
Multimorbidity (acute & chronic)	1.0	1.3	0.8	0.1	1.4	1.9	2.4	1.3	0.9	1.1	0.5	0.9	1.2
Finance and Activity Measures													
Spend — Total	£5.3M	£0.6M	£0.0M	£0.0M	£9.6M	£3.0M	£0.2M	£0.0M	£7.0M	£1.3M	£0.0M	£0.0M	£27.0M
PPPY - Total	£484	£618	£79	£11	£479	£625	£730	£372	£545	£696	£103	£131	£521
Acute Elective	£179	£230	£0	£0	£163	£166	£206	£83	£207	£227	£0	£41	£181
Acute Non-Elective	£175	£207	£14	£0	£217	£350	£386	£250	£201	£302	£0	£0	£220
GP Encounters	£112	£126	£65	£11	£81	£85	£90	£39	£114	£128	£103	£91	£99
Community	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
Mental Health	£18	£48	£0	£0	£18	£23	£46	£0	£23	£39	£0	£0	£21
Social Care	£1	£7	£0	£0	£0	£2	£1	£0	£1	£0	£0	£0	£1
GP PPPY	17	19	10	2	13	14	16	6	20	23	15	17	16
Beddays PPPY - Acute EM	0	0	0	0	0	1	1	0	0	0	0	0	0
Physical Health													
Diabetes	8.2%	10.2%	0.0%	0.0%	10.8%	16.9%	20.0%	19.0%	10.3%	11.0%	0.0%	14.3%	10.7%
COPD	1.4%	1.6%	0.0%	0.0%	2.4%	5.3%	8.8%	0.0%	1.2%	2.2%	0.0%	0.0%	2.2%
Chronic Respiratory Dis...	1.9%	2.1%	0.0%	0.0%	3.3%	6.2%	9.5%	0.0%	1.6%	2.6%	0.0%	0.0%	2.8%
Hypertension	12.7%	14.0%	0.0%	0.0%	20.1%	26.1%	28.1%	26.2%	13.9%	14.5%	0.0%	14.3%	17.3%
Obesity	7.3%	13.4%	22.2%	0.0%	7.0%	11.9%	11.6%	7.1%	8.2%	12.6%	0.0%	14.3%	8.2%
Mental Health													
Anxiety/Phobias	12.9%	20.2%	33.3%	0.0%	14.8%	17.7%	24.2%	14.3%	7.2%	10.8%	50.0%	7.1%	12.8%
Depression	12.3%	20.6%	11.1%	0.0%	16.4%	23.3%	33.7%	16.7%	9.1%	16.4%	0.0%	14.3%	14.5%
Learning Disability	1.3%	2.5%	0.0%	0.0%	1.1%	2.1%	2.8%	0.0%	1.1%	1.5%	0.0%	0.0%	1.3%
Dementia	1.5%	2.2%	0.0%	0.0%	3.0%	4.0%	3.9%	7.1%	1.5%	2.4%	0.0%	0.0%	2.4%
Other Characteristics													
Housebound (eFI)	0.2%	0.2%	0.0%	0.0%	0.9%	2.2%	2.1%	0.0%	0.2%	0.2%	0.0%	0.0%	0.6%
Social Vulnerability (eFI)	3.5%	5.9%	0.0%	0.0%	3.9%	7.0%	8.8%	9.5%	2.6%	4.2%	0.0%	7.1%	3.9%
History of Smoking (Tw...	1.9%	6.2%	0.0%	0.0%	2.3%	4.9%	7.0%	4.8%	11.3%	23.2%	0.0%	21.4%	5.5%
Not Fit for Work (In Year)	1.9%	4.8%	22.2%	0.0%	1.8%	3.1%	3.5%	0.0%	2.0%	4.8%	0.0%	7.1%	2.2%
On a Waiting List	6.5%	7.8%	0.0%	0.0%	5.7%	6.3%	5.6%	0.0%	6.6%	7.4%	0.0%	0.0%	6.3%

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

x% also have

Other Conditions

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
Alzheimers Disease		34%	11%	7%	48%	87%	15%	22%	29%	1%	6%	4%
Asthma	3%		7%	3%	21%	5%	3%	16%	16%	1%	1%	44%
COPD	7%	49%		19%	25%	12%	6%	42%	23%	3%	5%	0%
Heart Failure	6%	23%	24%		22%	15%	3%	56%	16%	3%	8%	1%
Anxiety	5%	25%	4%	3%		8%	6%	17%	38%	1%	1%	21%
Dementia	53%	29%	11%	11%	41%		12%	28%	28%	2%	9%	2%
Alcohol Abuse	10%	23%	6%	3%	36%	14%		16%	24%	1%	1%	18%
ABCD Prescription	3%	20%	7%	8%	18%	6%	3%		21%	1%	2%	19%
Anti-Depressive Prescription	4%	24%	5%	3%	49%	7%	5%	26%		1%	2%	21%
Activity Limitation (eFI)	4%	22%	17%	12%	19%	9%	3%	22%	14%		6%	10%
Housebound (eFI)	15%	24%	18%	21%	18%	33%	2%	40%	23%	4%		4%

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.
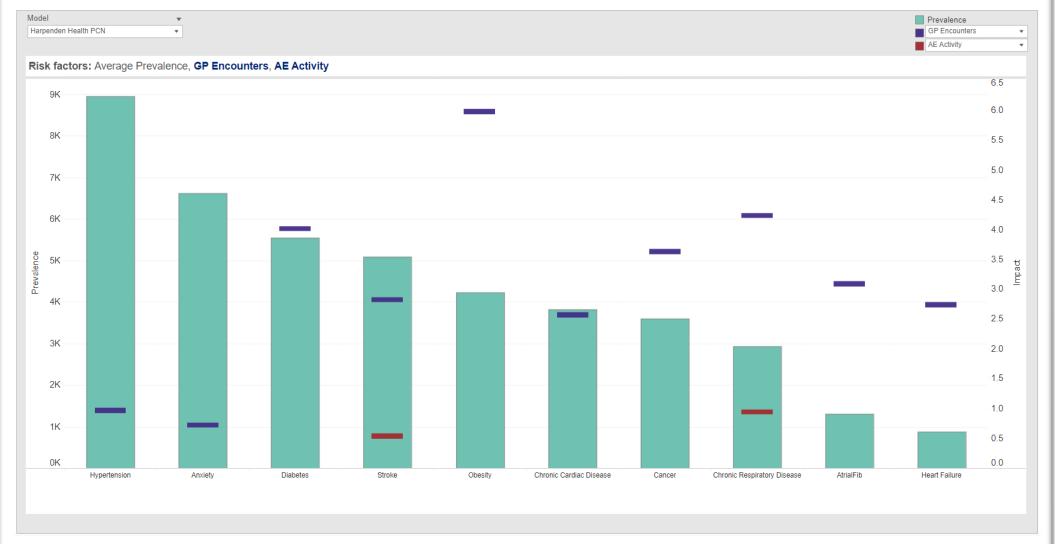
Bio-Psycho-Social Indicators - Example

	Total	1 - Healthy	2 - Living With Illness	3 - Lower Complexity	4 - Advanced Disease & Com..	5 - EoL, Frailty & Dementia
Alcohol & Substance Abuse	7.3%	0.0%	7.6%	9.9%	28.3%	30.6%
High Cholesterol (Two Years)	6.3%	0.0%	12.6%	11.3%	9.9%	5.1%
Activity Limitation (eFI)	0.4%	0.0%	0.0%	0.0%	0.9%	8.3%
On a Waiting List	6.3%	3.2%	5.4%	9.2%	15.5%	11.7%
History of Smoking	23.1%	9.0%	31.0%	36.3%	36.2%	36.4%
Housebound (eFI)	0.6%	0.0%	0.0%	0.0%	2.6%	10.5%
NHS Health Check (5 Years)	8.1%	4.7%	13.4%	11.0%	5.4%	2.9%
Hypertension Annual Review	2.5%	0.0%	1.2%	5.5%	9.0%	10.5%
Q Risk Moderate (Two Years)	1.8%	0.3%	2.8%	4.0%	2.1%	1.0%
History of Smoking	23.1%	9.0%	31.0%	36.3%	36.2%	36.4%

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

Model
Harpenden Health PCN

Prevalence
GP Encounters
AE Activity

Risk factors: Average Prevalence, **GP Encounters, AE Activity**

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

Cancer Screening

	Period	HERTFORDSHIRE AND WEST ESSEX	HARPENDEN HEALTH PCN	VILLAGE SURGERY	ELMS MEDICAL PRACTICE	DAVENPORT HOUSE SURGERY
Women, aged 25-49, with a record of cervical screening in the last 3.5 yrs (denominator includes PCAs)	2020/21	73.3	80.3	79.3	86.6	72.4
Women, aged 50-64, with a record of cervical screening in the last 5.5 yrs (denominator includes PCAs)	2020/21	78.2	85.1	79.9	95.2	78.8
Persons, 25-49, attending cervical screening within target period (3.5 year coverage, %)	2020/21	73	75.4	79	74.1	72.7
Persons, 50-64, attending cervical screening within target period (5.5 year coverage, %)	2020/21	77	79.6	80.2	80.9	77.4
Persons, 50-70, screened for breast cancer in last 36 months (3 year coverage, %)	2020/21	63.9	73.4	75	72.3	72.7
Persons, 50-70, screened for breast cancer within 6 months of invitation (Uptake, %)	2020/21	61.3	40	41.7	40.7	37
Persons, 60-74, screened for bowel cancer within 6 months of invitation (Uptake, %)	2020/21	72.1	78.2	80.7	74.6	79
Persons, 60-74, screened for bowel cancer in last 30 months (2.5 year coverage, %)	2020/21	68.8	75.2	77.1	72.9	75.3

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Hertfordshire Public Health Evidence & Intelligence Epidemiology

Hertfordshire

Source: Public Health Team

Mortality

	Period	Hertfordshire CCGs	NHS HERTFORDSHIRE AND WEST ESSEX ICB - 06N	HARPENDEN HEALTH PCN
Percentage of deaths that occur at home (All age)	2021	25.3	23.9	32.7
PYLL - Neoplasms	2021	505	498.3	458.4
PYLL - Diseases of the circulatory system	2021	737.5	690.5	156.4
PYLL - All Cause	2021	1537.7	1496.4	647.8
Premature Mortality - Respiratory Disease	2021	19.2	19	
Premature Mortality - Liver Disease	2021	14.6	14.4	
Premature Mortality - Cardiovasular Disease	2021	53.8	51.4	
Premature Mortality - Cancer	2021	98.5	97.1	69.1
Premature Mortality - All Cause	2021	269.6	262.3	150.7

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Hertfordshire Public Health
Evidence & Intelligence
Epidemiology

Hertfordshire

Source: Public Health Team

Life Expectancy

Working together
for a healthier future