



# Primary Care Networks Overview Pack

### **ALPHA 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.

### **Key Messages**



Alpha PCN can be seen with not only a younger, but also a significantly higher middle age population profile than England. The majority of people live within the least deprived deciles, (8-10); however there is a population within the low to medium deprivation deciles (4-7). 26.6% population have at least 1 Long Term Condition. 4.8% have more than 5 LTCs compared to 5.6% for the ICB.

A higher proportion of people within 70-79 age groups are living with long term conditions compared with the England profile suggesting people develop LTCs at a significantly higher rate in this age group within Alpha PCN.

Wider determinants analysis from Public Health Evidence and Intelligence shows Alpha is not amongst the most deprived PCNs within the ICB across the majority of indicators, apart from Housing & Services which shows some need to review.

The spread of patients for Alpha PCN indicates 46.7% of the population are not located within the Hertfordshire & West Essex boundaries, the PCN has the highest rate of all; 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 Alpha 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 ~28k to ~34k.

When analysing the underlying Segmentation Model data the conditions with highest prevalence that are highlighted for Alpha are Mental Health & Depression, Asthma, Hypertension, Atrial Fibrillation, Cancer, and higher prevalence of MS and Parkinson's Disease.

2022/23 has seen the one of the lowest rates for Alpha PCN for A&E Attendances per 1,000 population, compared to South West Herts PCNs.

When comparing the rates per 1,000 population between places, the South West Herts place has the highest rate in the ICB. Within South West Herts Place, Alpha has the lowest rate per 1,000 population of all the PCNs in this area.

When looking at the ACS conditions for Alpha PCN 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. Ambulatory Care Sensitive conditions of note for people aged over 65 within the End of Life, Frailty & Dementia is highlighted as COPD is the ACSs with the highest volume and cost. Heart Failure, AF and Flutter are also highlighted within the advanced disease and complexity cohort.

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 Alpha PCN, 4.3% of the population in the EoL, severe frailty and severe dementia segment live within the 4 most deprived deciles.

As we would expect the average number of acute and chronic conditions is significantly higher within this segment that the general population as are all activity measures. The average number of Chronic Conditions for people within Alpha PCN is similar to the ICB. Within this segment we can see the presence of Chronic Cardiac Disease, significant Hypertension, Diabetes, and Obesity as being highlighted which chimes with the reason for admission within previous analysis for ACS conditions.

For Alpha PCN the data shows lower rates than the place average.

Source: HWF 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**



#### **Total Population** ALPHA PCN

Registered population 100.0% % of total % of annual change

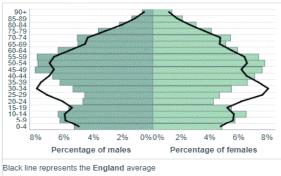
Demographics 77.4% % IMD top Prevalence 26.6% % with 1+ conditions % with 5+ conditions 2.5% Acute utilisation % of annual activity 100.0% (total 74,938) 100.0% (total £21M)

Covid 15.0% % one or more at risk conditions % two or more at risk conditions

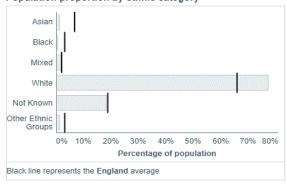
Snapshot as at: 30/06/2021

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

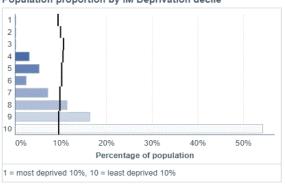
#### Population pyramid







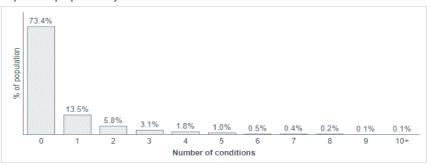
#### Population proportion by IM Deprivation decile



Choose benchmark:

#### Prevalence - Snapshot as at: 30/06/2021

#### Population proportion by number of conditions



#### Annual spend per capita by number of conditions



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.

Alpha PCN can be seen with not only a younger, but also a significantly higher middle age population profile than England. The majority of people live within the least deprived deciles, (8-10); however there is a population within the low to medium deprivation deciles (4-7).

### **PCN Demographics - NHS England**



LTC ALPHA PCN

Registered population
% of total 23.6%
% of annual change 6.3%

 Demographics

 % White
 91.8%
 % IMD top
 0.1%

 % BAME
 3.8%
 % IMD bottom
 68.5%

 % with 1+ conditions
 100.0%

 % with 5+ conditions
 4.8%

Acute utilisation

% of annual activity (total 37,900)

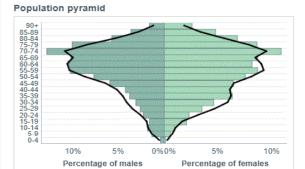
% of annual cost (total £9M)

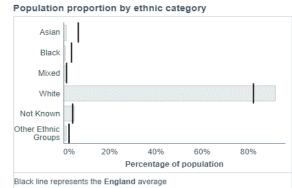
43.8%

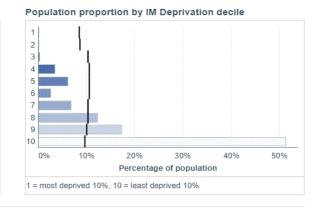
Covid
% one or more at risk conditions 49.3%
% two or more at risk conditions 16.0%

Snapshot as at: 30/06/2021

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



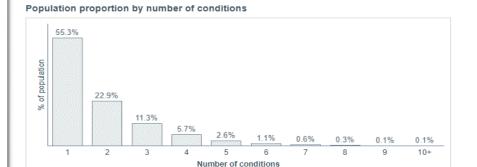




Choose benchmark:

Prevalence - Snapshot as at: 30/06/2021

Black line represents the England average





When compared with the overall PCN demographics on the previous page, those in the PCN whom have an LTC as defined by NHS England, are benchmarked against the English averages, the view for the PCN shows us that 26.6% of the population have at least 1 Long Term Condition. 4.8% have more than 5 LTCs compared to 5.6% for the ICB.

The population pyramid shows a similar profile to England for those living with long term, apart from a significant deviation within the 70 to 79 age range.

### **Practice Indicators - Triggers and Levels**

	NHS
NHS	Hertfordshire and
	West Essex

Practice Indicators for  ALPHA PCN  Clinical Domain Indicator Name		GOSS	OMS END SUR	RGERY	ROTHS	CHILD HOUSE	GROUP	THE MANOR STREET SURGERY			
Clinical Domain	I .	Latest Score	Time Period	Trigger Level	Latest Score	Time Period	Trigger Level	Latest Score	Time Period	Trigger Level	
Clinical Diagnosis	Detection rate Cancer	0.7	2020/21	No Trigger	0.547	2020/21	No Trigger	0.544	2020/21	No Trigger	
Coronary heart disease	% AF anticoagulation therapy CHADS2-VASc score >1	100	2020/21	Positive	93.8	2020/21	Positive	96.9	2020/21	Positive	
	% CHD aged <=79 BP reading 140/90mmHg or less	96.1	2020/21	Positive	61.8	2020/21	Level 1	65.3	2020/21	Level 1	
	% CHD cholesterol 5 mmol/l or less	73.1	2021/22	No Trigger	64.6	2021/22	No Trigger	34.4	2021/22	Level 2	
	% hypertension aged <=79 BP reading 140/90mmHg or less	86.3	2020/21	No Trigger	56.7	2020/21	Level 1	55.5	2020/21	Level 1	
Diabetes	% Diabetes aged >=40 years no CVD history without moderate or severe frailty treated with stati	96	2020/21	No Trigger	88.5	2020/21	Level 1	87.2	2020/21	Level 1	
	% Diabetes without moderate or severe frailty BP 140/80 mmHg or less	86.4	2020/21	No Trigger	47	2020/21	Level 1	75.9	2020/21	Level 1	
	% diabetes without moderate or severe frailty IFCC-HbA1c is 58 mmol/mol or less	77.5	2020/21	No Trigger	59.5	2020/21	Level 1	72.8	2020/21	Level 1	
xception Rating	Overall Personalised Care Adjustment Rate	0.054	2020/21	No Trigger	0.03	2020/21	No Trigger	0.079	2020/21	No Trigge	
Medicines Management	t % antibiotics Co-amoxiclav, Cephalosporins, Quinolones	4.7	2021/22 Q4	Positive	9.1	2021/22 Q4	No Trigger	10.1	2021/22 Q4	Level 1	
	% Naproxen and Ibuprofen	66.7	2021/22 Q4	No Trigger	74.5	2021/22 Q4	No Trigger	88.3	2021/22 Q4	No Trigge	
	Antibacterial Items/Star Pu	0.707	2021/22 Q4	Positive	0.743	2021/22 Q4	Positive	0.546	2021/22 Q4	Positive	
	Hypnotics ADQ/Star Pu	0.358	2021/22 Q4	No Trigger	0.369	2021/22 Q4	No Trigger	0.358	2021/22 Q4	No Trigge	
	Oral NSAIDS ADQs/STAR-PU	6.38	2021/22 Q4	No Trigger	3.188	2021/22 Q4	No Trigger	2.758	2021/22 Q4	No Trigge	
Mental Health	% first choice generic SSRIs	83.4	2021/22 Q4	Positive	75.6	2021/22 Q4	No Trigger	76.9	2021/22 Q4	Positive	
	% MH comprehensive care plan	76.5	2020/21	Level 1	71.7	2020/21	Level 1	96.2	2020/21	No Trigge	
	% SMI alcohol record	90.9	2018/19	No Trigger	91.3	2018/19	No Trigger	28.6	2020/21	Level 2	
	% SMI BP record	88.2	2020/21	Level 1	55.8	2020/21	Level 1	100	2020/21	No Trigge	
	Dementia Face to Face review	21.4	2020/21	Level 1	76.9	2020/21	No Trigger	100	2020/21	No Trigge	
	Select antidepressants ADQs/STARPU	1.246	2021/22 Q4	No Trigger	1.417	2021/22 Q4	No Trigger	1.213	2021/22 Q4	No Trigge	
atient Experience	Confidence and trust in healthcare professional	97.9	2020/21	No Trigger	99.3	2020/21	Positive	98.9	2020/21	No Trigge	
	Frequency seeing preferred GP	92.5	2020/21	Positive	57.9	2020/21	No Trigger	52.1	2020/21	No Trigge	
	Healthcare professional treating with care and concern	80.3	2020/21	No Trigger	89.9	2020/21	No Trigger	92.6	2020/21	No Trigge	
	Overall experience of your GP practice	90.4	2020/21	No Trigger	81.3	2020/21	No Trigger	95.7	2020/21	Positive	
	Satisfaction with appointment times	85.7	2020/21	No Trigger	69	2020/21	No Trigger	83.1	2020/21	No Trigge	
Public Health	% Child Imms DTaP/IPV/Hib/HepB (age 1 year)	94.4	2020/21	Level 1	93.9	2020/21	Level 1	89.7	2020/21	Level 1	
	% Child Imms Hib/MenC booster	91.7	2020/21	Level 1	95.2	2020/21	No Trigger	93.7	2020/21	Level 1	
	% Child Imms MMR (Age 2 yrs)	91.7	2020/21	Level 1	94.7	2020/21	Level 1	92.1	2020/21	Level 1	
	% Child Imms PCV Booster	91.7	2020/21	Level 1	95.2	2020/21	No Trigger	93.7	2020/21	Level 1	
	Cervical Screening	77.8	2021/22 Q4	Level 1	78.4	2021/22 Q4	Level 1	78.4	2021/22 Q4	Level 1	
Respiratory	% Asthma review in last 6 mths	21.3	2020/21	Level 1	24.3	2020/21	Level 1	90.9	2020/21	No Trigger	
	% Asthma spirometry and one other objective test	0	2020/21	Level 1	0	2020/21	Level 2	66.7	2020/21	Level 1	
	% COPD with review in last 12 mths	21.2	2020/21	Level 1	24.6	2020/21	Level 1	93.1	2020/21	No Trigger	
	% LTC patients who smoke	12.5	2020/21	No Trigger	8.8	2020/21	No Trigger	6.3	2020/21	Positive	
	% LTC Smoker offer support	100	2020/21	No Trigger	97	2020/21	No Trigger	94.4	2020/21	Level 1	
	% Smoking patients over 15 recorded	73.3	2021/22	No Trigger	72.1	2021/22	No Trigger	76.8	2021/22	No Trigger	
	% Smoking status recorded	98.8	2020/21	Positive	91.5	2020/21	No Trigger	93.3	2020/21	No Trigger	
	% w. MRC dyspnoea score >=3 w. offer of referral to pulm. rehab. Clinic	42.9	2020/21	Level 1	87.7	2020/21	Level 1	75	2020/21	Level 1	

Primary Care clinical domain indicators as provided by NHS England as highlighted here with Trigger Levels against each, and represents a consolidation of data sets, designed to reduce the burden on GPs following these outlier identification. This indicator set is to support quality assurance and improvement of GP services; here, the higher the Level indicated, the more indicative of risk that has been found for that indicator; please note there is no data available for The New Surgery.

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

Source: NHSE&I - https://www.primarycareindicators.nhs.uk/

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

### **Public Health - PCN Wider Determinants**





### **Wider Determinants**



In Alpha PCN an estimated:

- 6.2% of children live in poverty.
- 6.5% of older people live in poverty.
- 9.3% of households live in fuel poverty.
- 4.1% of households are overcrowded.
- 30% of people aged 65 and over live alone.
- 0.2% of people cannot speak English well.
- 2.4% of working age people are claiming out of work benefits.
- 14.9% of children aged 4-5 and 23.3% of children aged 10-11 are overweight.

PH.Intelligence@hertfordshire.gov.uk





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

Alpha PCN's wider determinants overall are are all above the ICB average and it is perceived as one of the least deprived PCNs; however as highlighted in the PAPI tool there are pockets of deprivation that are offset by pockets of affluence when looking at Alpha PCN patients as a whole.

Source: Public Health Team

### **Spread of Patients**

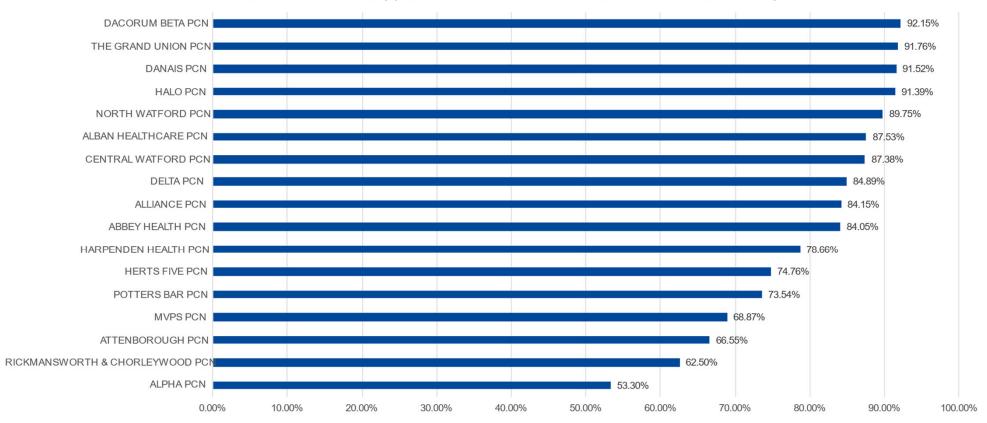


Correct as of July 2022

Source: NHS Digital (2022)

### SPREAD OF PATIENTS ACROSS ENGLAND CONT.





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

The spread of patients for Alpha PCN indicates a very large 46.7% of the population are not located within the Hertfordshire & West Essex ICB boundaries, the PCN has the highest rate of all; this means that this population may be accessing services outside of the ICB and the impact of coterminous alignment with neighbouring ICBs must be taken into account for this population by the PCN.

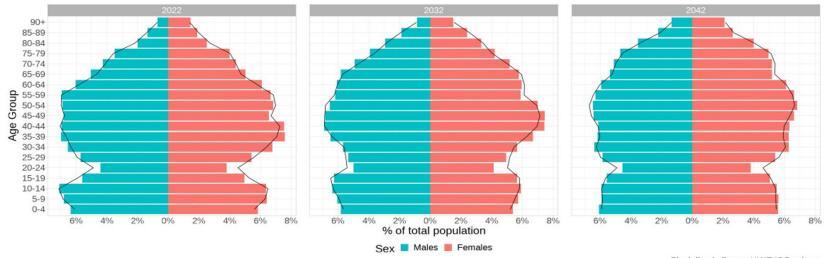
Source: Essex County Council PHM Team, NHS Digital (2022)

### **Public Health - Population Projections**





## **Projection Pyramids**



Black line indicates HWE ICS values.

Population pyramids and table shown for Dacorum 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	9,581	9,050	9,626
Under 24	45,285	45,492	44,180
24-64	83,652	81,742	82,679
65+	28,434	34,526	38,238
85+	4,253	5,368	6,853

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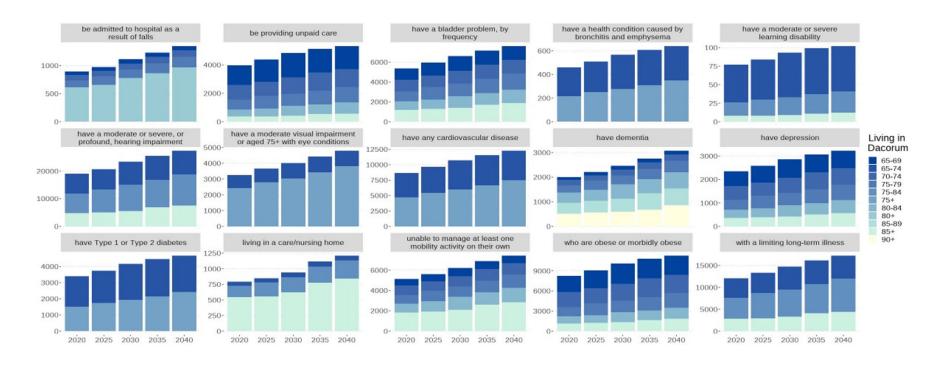
The above projection pyramids show the growth in population expected for Epping Forest District. These projections show an expected increase in the number of people over 65 from ~28k to ~34k.

### **Public Health - Projections on Conditions**





# People aged 65+ projected to...



PH.Intelligence@hertfordshire.gov.uk





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

Source: Public Health Team

### Segmentation within the ICB



### **Optum**

**HWE** 

Segment & Outcomes Framework Documentation

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### **PHM Segment Model - Overview**

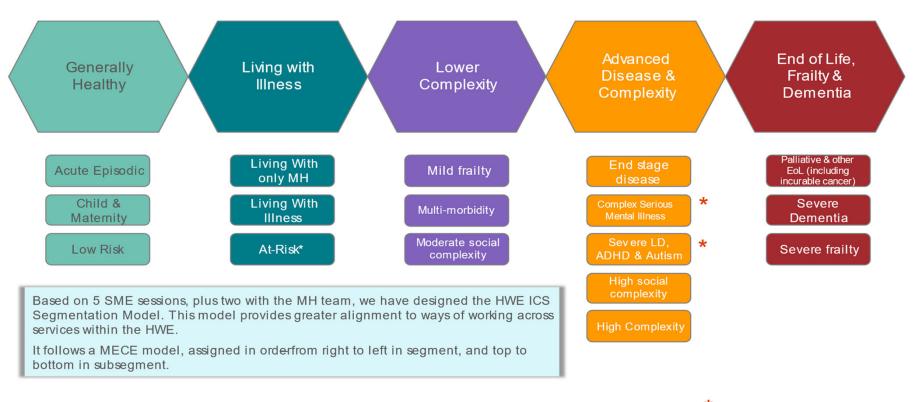


The ICB has worked in partnership with Optum to develop a Health Segmentation model using linked data covering 1.2m of our ICS population. As part of the process representation from different care settings and internal ICB teams were engaged.

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



awaiting finalisation of methodology

**Optum** 

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### **PHM Segment Model - Overview**



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 coeffide to be able to access clinical services.

#### "Generally healthy"

#### 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.

#### **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.

#### Living with Illness

#### 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.

#### 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.

#### **Lower Complexity**

#### Who is in this group?

 Includes people with moderate levels of morbidity and complexity. This is either as a result of: Multi-morbidity (24 long term conditions), Mild frailty and/or Social complexity.

#### 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.

### Advanced Disease & 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

#### 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 t general population.
- REDUCE proportion of whole population who are living with advanced disease and/or complexity.

### End of Life, Frailty & Dementia

#### 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.

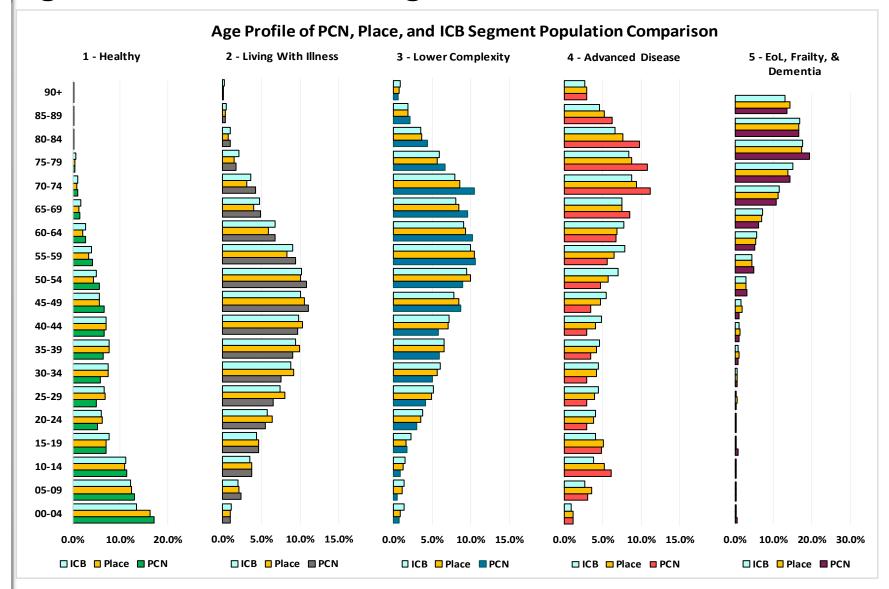
#### Social & Clinical Outcomes

- REDUCE dependency for emergency care services e.g A&E attendances and emergency admissions.
- INCREASE proportion of people who die in their preferred place of death.
- INCREASE identification of frail and complex patients, including those with dementia or at end of life.
- REDUCE proportion of days disrupted by emergency care in last year of life.
- INCREASE number of days spent at home in last year of life.
- INCREASE proportion of people supported at home instead of in residential care.

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

### **Age Profile and Health Segment**





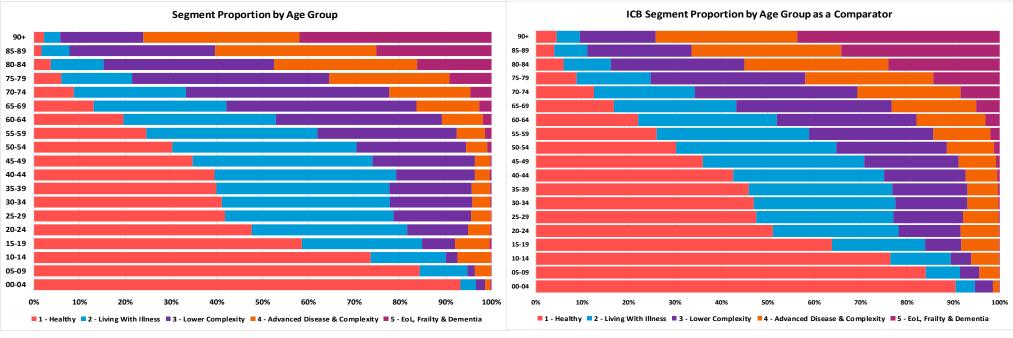
Each registered person is assigned to a segment and this can be cut by age group and also geographically by Place or PCN.

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

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

### Demographic Breakdowns - Segment & Deprivation Quintiles



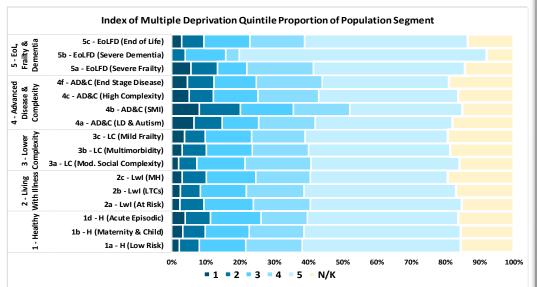


The ICB Health Segments here are broken down by total population and 5 year age groups; as expected with age the proportion of people within the healthy segment decreases.

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

Alpha PCN has a much larger Living With Illness segment particularly within the 25 to 55 year groups, also the Lower Complexity numbers are higher than the average between the 55 to 89 age groups.

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



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

### Major Conditions Comparison - Per 1,000 Registered



		/	/		/		/	, iiiies /	/ /	Chonic Kigney n.	86986	/	/	Chanic Graige.	oseoso /	/	/	Senious Memory	ll ses
PCN NAME				\s	/ <u>%</u>		Leoming Dist.	is distribution of the second		Noujy.	Hear Disease	alling	/20		, Voj			Month of the state	Z. J. S.
	Ø /	4,500	Asthma	Diabetes	Dementia	/ so /	Leamin .	Hyperiension	Zige /		469TL	Heart Falluna	AtriolFib		Depression	HW	Amien	Serios Serios	Altheimers
ABBEY HEALTH	16.94	91.79	134.57	138.01	16.06	35.32	15.82	119.23	33.72	10.05	35.88	10.65	11.77	57.71	121.19	171.41	86.11	25.15	10.73
ALBAN HEALTHCARE	16.78	79.37	154.97	90.13	16.99	53.76	14.22	149.53	34.73	24.16	39.98	10.97	17.65	50.69	127.50	205.23	111.71	23.36	13.08
ALLIANCE	19.90	114.36	123.67	105.84	15.86	29.28	17.82	155.51	31.61	9.04	39.00	10.29	9.50	62.66	114.55	160.93	87.83	25.81	10.21
ALPHA	16.29	121.01	139.73	97.63	14.00	55.48	10.91	161.78	34.67	18.36	42.29	11.02	21.77	53.43	153.71	233.41	120.24	17.12	9.22
ATTENBOROUGH	18.14	113.20	126.85	105.43	15.54	36.21	11.81	130.54	33.07	15.51	42.51	11.91	11.43	50.85	118.02	176.61	95.74	19.13	8.70
BROXBOURNE ALLIANCE	20.30	160.08	122.01	81.19	7.50	61.16	6.46	171.90	29.87	23.09	49.05	11.84	19.50	68.57	135.43	191.17	116.76	7.91	4.09
CENTRAL WATFORD	17.17	97.89	108.55	152.70	20.12	25.21	13.25	123.19	30.90	8.01	34.88	10.09	16.32	46.23	98.31	132.67	62.41	20.54	8.28
DACORUM BETA	24.98	156.71	132.83	158.17	30.23	40.07	18.80	156.86	44.28	19.23	50.10	16.42	26.50	78.15	176.09	245.43	132.71	31.47	14.12
DANAIS	22.41	131.50	138.52	116.70	19.56	36.00	19.66	181.38	45.29	7.84	44.34	12.86	11.35	57.63	137.60	185.74	82.50	28.26	11.88
DELTA	16.90	150.87	135.59	125.22	17.35	45.07	13.06	152.28	34.37	21.60	42.61	10.85	19.87	55.43	142.21	222.46	128.07	22.98	10.97
HALO	18.22	93.22	137.55	112.78	20.85	47.83	20.12	137.28	37.23	16.03	41.35	11.68	16.94	85.83	149.64	217.88	111.29	29.96	14.75
HARLOW NORTH	32.17	113.01	160.55	104.04	9.63	65.83	5.80	185.36	41.56	27.03	59.02	17.64	18.36	73.07	152.95	249.04	129.75	8.61	4.78
HARLOW SOUTH	30.09	197.29	169.79	120.15	9.20	57.49	8.17	162.96	38.98	37.02	62.04	19.34	19.54	83.34	174.03	246.72	118.60	11.48	4.96
HARPENDEN HEALTH	21.78	81.60	149.03	107.08	23.86	69.52	12.79	172.72	49.21	21.85	55.34	17.04	25.35	73.71	145.13	230.18	127.83	21.83	14.49
HATFIELD	16.88	58.23	77.11	65.91	7.71	28.28	6.46	107.06	21.36	5.41	34.69	8.47	14.84	42.95	91.34	131.15	87.53	7.83	2.94
HERTFORD AND RURALS	16.86	116.98	126.99	67.48	7.52	54.51	5.99	147.29	25.97	13.35	42.51	10.83	20.25	52.05	138.84	203.98	117.47	7.46	3.97
HERTS FIVE	18.05	119.79	133.62	149.84	32.47	49.57	15.73	175.39	37.47	28.64	46.04	11.72	28.70	67.86	143.18	211.93	115.95	24.53	12.18
HITCHIN AND WHITWELL	21.11	126.63	141.53	80.38	10.25	64.91	5.36	160.97	32.99	22.56	48.88	11.81	23.23	63.10	146.25	217.69	134.47	9.83	6.42
HODDESDON & BROXBOURNE	22.63	163.45	129.18	88.31	9.82	69.33	6.52	182.13	32.80	23.48	54.65	14.88	26.00	65.08	128.92	211.87	124.10	7.19	5.53
ICKNIELD	20.58	132.39	147.83	85.32	11.91	60.97	6.57	164.18	31.52	35.00	51.59	12.61	22.87	68.86	140.93	220.11	121.08	8.97	7.19
LEA VALLEY HEALTH	23.93	166.87	126.46	86.47	6.11	51.75	9.26	172.10	28.22	18.66	48.18	13.17	18.01	57.90	154.32	231.01	165.70	10.89	5.53
LOUGHTON BUCKHURST HILL & CHIGWELL	15.51	82.36	108.00	75.16	9.75	48.63	3.25	126.39	27.64	12.08	48.45	12.73	24.57	58.16	115.48	166.39	109.95	7.20	4.74
MVPS	20.48	132.18	129.05	118.23	17.10	37.36	15.43	141.83	33.00	29.68	40.10	11.91	12.32	50.34	135.02	189.04	100.76	22.35	10.35
NORTH UTTLESFORD	15.67	23.10	103.62	50.30	8.89	35.46	3.02	82.42	26.01	0.19	40.66	8.29	27.47	50.49	94.73	129.90	109.54	4.31	4.09
NORTH WATFORD	21.96	115.98	140.15	136.45	18.26	39.04	14.64	168.63	39.54	20.47	47.73	15.48	20.13	64.24	142.44	194.02	96.65	24.51	9.80
POTTERS BAR	22.98	140.98	142.22	136.58	24.74	53.46	12.70	148.52	37.34	84.75	44.43	12.35	20.80	65.37	132.36	187.18	88.62	20.73	11.56
RICKMANSWORTH & CHORLEYWOOD	17.43	111.90	132.75	112.05	18.36	44.50	13.90	188.27	41.26	6.88	45.98	15.23	20.02	59.08	127.24	185.97	93.22	19.48	8.82
SOUTH UTTLESFORD	15.28	43.19	113.74	57.46	8.33	38.05	2.34	96.24	24.00	4.96	39.00	9.02	20.59	48.74	99.33	142.19	108.67	4.65	3.60
STEVENAGE NORTH	24.27	273.76	124.18	170.45	10.46	46.58	8.92	155.20	29.48	9.51	46.26	11.84	14.55	64.91	136.82	194.88	111.38	8.02	6.11
STEVENAGE SOUTH	23.31	128.57	101.25	75.88	9.99	44.87	6.69	144.52	30.88	15.08	46.63	12.90	13.69	62.56	105.37	151.85	76.49	7.45	6.03
STORT VALLEY & VILLAGES	17.85	122.87	132.49	65.60	7.18	53.86	6.92	144.16	26.39	19.45	44.05	13.41	19.82	60.97	120.51	203.15	127.69	6.34	3.43
THE GRAND UNION	17.43	143.73	135.30	134.24	19.14	42.21	12.89	149.94	36.78	28.86	46.99	12.45	19.10	62.75	138.79	195.84	95.98	20.23	9.53
WARE AND RURALS	18.09	163.30	165.40	77.77	7.63	58.28	5.79	154.35	27.24	22.49	47.89	12.74	20.82	60.01	132.46	198.85	108.67	6.62	4.13
WELWYN GARDEN CITY A	19.05	104.74	104.65	68.93	6.62	41.07	6.99	132.35	23.08	10.49	38.53	10.24	17.72	48.93	117.64	178.45	109.12	7.12	3.14

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

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

Conditions that are highlighted for Alpha are Mental Health & Depression, Asthma, Hypertension, Atrial Fibrillation, and Cancer.

### Continued



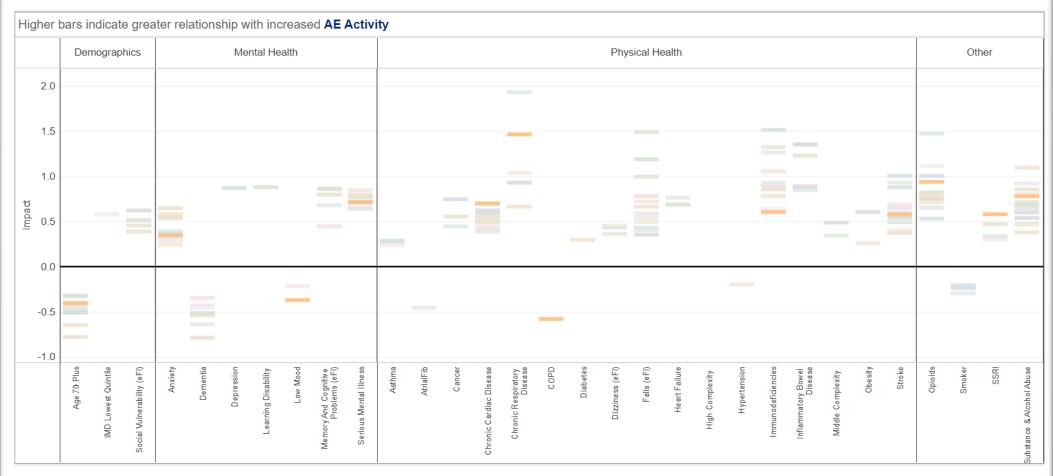
PCN NAME		<u> </u>	Chomic Respired	sign die		seasc. Valentuellul	Signal Dise	14. July 14.		, /	Mag.	\$ /s	Oher New Operior	TO O O O O O O O O O O O O O O O O O O	Art.	signing /			Jugasur.
PUN NAIVIE	450	Cerebral Palsi	Groniches,	Cystic Fibrosis	Munimerons Di.	Inflormator	emo state in the s	Wet as at ic Can	Multiple Scieross.	Muscular Option	Masthenia Grau	ostego osis	Orner Neuro	owinsons O's Sold of the Control of	theumatoid Arts	(3)s/snan7	Sichle GII Disess	Solido Gen Tra	High Bo
ABBEY HEALTH	14.98	1.20	20.95	0.40	0.04	9.37	2.04	2.48	1.56	0.52	0.28	14.46	1.20	2.08	7.53	0.92	0.44	1.48	25.51
ALBAN HEALTHCARE	13.61	1.20	22.10	0.77	0.23	11.13	2.30	3.02	1.73	0.30	0.33	24.28	1.10	2.77	8.39	1.43	0.28	1.34	31.80
ALLIANCE	17.30	1.66	25.28	1.73	0.04	10.85	2.45	3.01	1.13	0.19	0.15	10.55	1.06	2.60	9.01	1.24	1.70	1.09	30.03
ALPHA	11.10	0.64	21.64	0.66	0.13	10.97	2.67	2.41	2.46	0.36	0.30	20.86	1.30	3.14	9.41	1.22	0.17	1.39	35.30
ATTENBOROUGH	11.11	0.96	22.70	1.41	0.13	10.43	2.57	2.70	1.80	0.42	0.29	17.75	1.12	1.99	7.64	1.25	0.55	1.44	42.89
BROXBOURNE ALLIANCE	8.71	1.08	27.27	0.55	0.02	13.59	2.21	3.15	2.09	0.32	0.34	24.44	1.56	1.95	9.86	1.43	0.78	1.45	87.88
CENTRAL WATFORD	10.69	1.11	20.87	0.87	0.15	7.62	2.32	2.65	1.20	0.27	0.21	11.29	1.30	2.44	7.53	1.17	0.54	1.14	29.37
DACORUM BETA	17.95	1.28	29.89	1.09	0.15	11.68	2.62	4.19	2.11	0.53	0.10	17.54	1.16	3.61	9.52	1.33	0.75	1.60	36.87
DANAIS	16.34	1.18	26.91	0.79	0.26	10.93	2.13	3.22	1.77	0.39	0.30	8.73	1.31	2.92	10.14	1.21	0.89	1.71	39.02
DELTA	13.39	1.02	21.36	0.96	0.27	11.99	2.31	3.60	2.28	0.42	0.24	18.70	0.96	2.97	8.99	1.14	0.51	1.20	37.04
HALO	20.38	1.52	23.45	0.73	0.18	11.68	2.31	3.56	1.90	0.23	0.20	20.47	1.40	3.88	8.70	1.34	0.41	0.99	31.92
HARLOW NORTH	7.53	1.38	42.10	1.26	0.06	13.93	3.47	3.41	2.51	0.30	0.36	29.48	2.45	2.39	13.51	1.49	0.60	2.21	69.06
HARLOW SOUTH	11.58	2.48	42.29	0.93	0.10	13.55	2.38	4.24	1.65	0.52	0.52	40.02	2.27	2.38	13.55	2.48	0.31	1.86	95.65
HARPENDEN HEALTH	12.54	1.06	28.25	0.66	0.12	10.84	2.47	5.89	2.22	0.39	0.48	29.04	1.89	4.68	9.54	1.18	0.39	1.41	28.50
HATFIELD	6.55	0.76	21.97	0.47	0.06	10.21	2.74	1.89	0.90	0.32	0.23	19.79	1.43	1.51	6.72	1.25	0.84	1.54	71.96
HERTFORD AND RURALS	8.19	0.81	24.68	0.69	0.12	15.00	2.38	2.24	2.26	0.44	0.30	27.37	1.37	2.38	7.72	0.89	0.10	1.53	90.91
HERTS FIVE	13.79	1.39	23.04	0.77	0.13	12.86	2.98	2.86	2.45	0.25	0.36	22.67	1.69	3.63	17.88	1.26	0.62	1.66	34.03
HITCHIN AND WHITWELL	9.93	1.49	30.11	0.50	0.00	15.61	2.87	3.41	2.41	0.32	0.32	34.83	1.42	2.52	8.34	1.63	0.14	1.60	92.26
HODDESDON & BROXBOURNE	9.14	0.96	31.53	0.58	0.27	14.77	2.84	3.29	2.38	0.43	0.23	33.55	1.73	2.33	9.37	1.35	0.22	1.73	96.87
ICKNIELD	10.67	1.08	29.47	0.62	0.08	16.17	2.69	2.91	3.58	0.43	0.32	27.18	1.29	2.67	8.51	1.27	0.05	2.02	82.47
LEA VALLEY HEALTH	10.05	1.27	31.63	0.59	0.10	12.74	2.37	2.80	1.53	0.36	0.46	22.43	1.89	1.72	10.47	1.63	1.11	1.98	97.79
LOUGHTON BUCKHURST HILL & CHIGWELL	4.13	0.84	22.95	0.79	0.14	14.26	2.42	3.62	1.77	0.46	0.33	38.42	1.90	2.04	8.87	1.53	0.19	1.35	65.68
MVPS	14.28	1.17	34.30	10.11	0.07	11.35	2.43	3.60	2.06	0.30	0.15	15.86	1.17	2.47	8.53	1.69	0.59	1.30	32.96
NORTH UTTLESFORD	2.34	0.78	21.65	0.73	0.05	11.09	1.18	2.48	1.13	0.48	0.11	23.32	1.16	1.27	10.04	1.29	0.03	1.72	26.93
NORTH WATFORD	12.70	1.07	27.72	2.17	0.11	12.20	2.44	3.36	2.40	0.42	0.31	16.47	1.53	2.63	9.42	1.45	0.34	0.92	37.13
POTTERS BAR	12.98	0.76	27.06	0.62	0.17	8.31	1.90	2.70	2.01	0.38	0.48	21.07	1.49	3.25	7.96	1.07	0.42	1.28	33.70
RICKMANSWORTH & CHORLEYWOOD	11.74	1.12	23.30	2.02	0.25	9.40	2.45	3.20	1.33	0.54	0.18	15.52	0.97	2.88	7.38	0.97	0.11	1.51	32.44
SOUTH UTTLESFORD	3.05	1.02	21.93	0.53	0.02	10.61	1.97	2.44	1.89	0.28	0.22	29.23	1.34	1.71	10.30	1.48	0.08	2.01	24.13
STEVENAGE NORTH	12.22	1.43	32.98	0.27	0.05	16.52	3.40	2.92	2.23	0.64	0.27	15.67	1.81	2.71	7.06	1.27	0.48	1.54	94.81
STEVENAGE SOUTH	10.81	1.57	31.16	0.88	0.06	13.08	2.69	4.03	2.09	0.27	0.33	14.90	1.57	2.09	5.81	1.12	0.39	1.73	75.58
STORT VALLEY & VILLAGES	10.22	1.05	25.19	0.51	0.00	12.73	1.89	3.26	1.95	0.41	0.36	41.69	1.69	2.08	9.13	1.63	0.13	1.39	76.18
THE GRAND UNION	13.30	1.32	22.90	1.36	0.18	11.75	2.22	3.19	2.19	0.25	0.25	26.69	1.27	2.29	9.07	1.53	0.53	1.68	74.02
WARE AND RURALS	7.25	1.01	25.52	0.77	0.09	14.85	2.67	2.64	1.81	0.18	0.27	26.11	1.63	2.58	7.58	1.22	0.03	1.75	86.12
WELWYN GARDEN CITY A	9.18	0.77	25.87	0.71	0.05	13.17	2.65	2.13	1.92	0.46	0.20	20.42	1.30	1.37	7.02	1.11	0.38	1.55	89.89

On this page of conditions, we can see that the PCN has higher prevalence of MS & Parkinson's Disease.

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

### **PCN Benchmarking - A&E Activity**





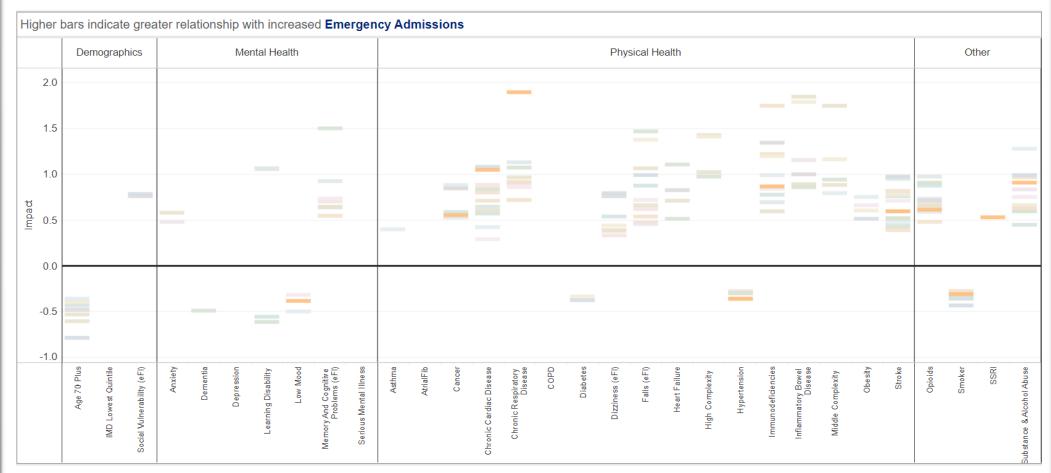
The charts in the next two pages show activity for the PCN compared against all other PCNs at the Place level.

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

### **PCN Benchmarking - 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.

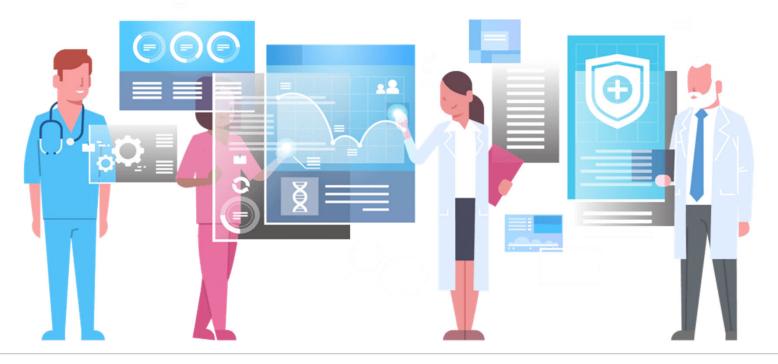
#### Overall aim

\* 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.



### **UEC Overview**



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

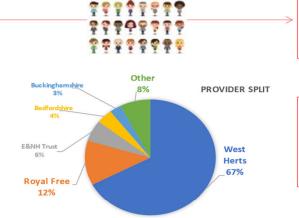
Children 0 -18 Adults 19 -64 Older People 65+

223,830 A&E Attendances in 2021/22

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

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%)



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%)

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

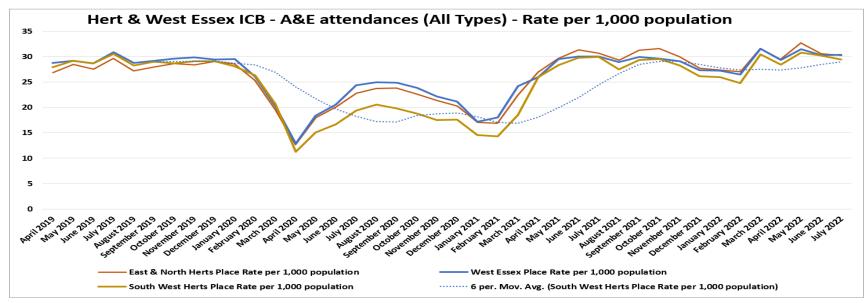


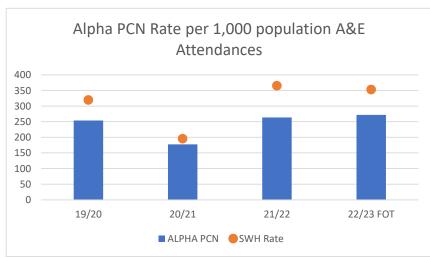


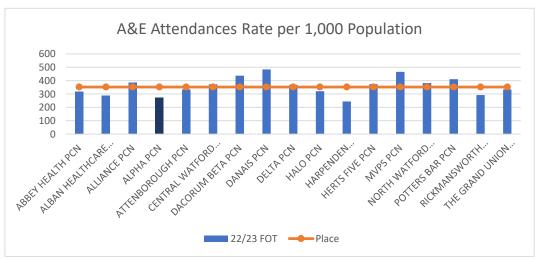
Source: SUS

### **UEC**









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

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

2022/23 rates for Alpha PCN are one of the lowest within South West Herts overall.

# **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 Alpha PCN.

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

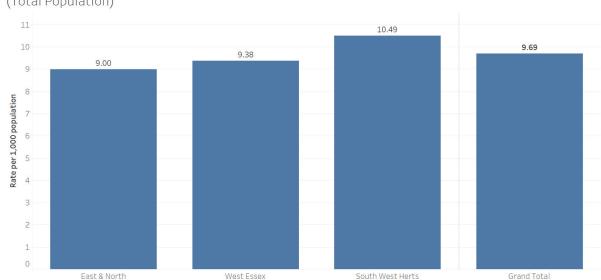
Chronic ACS	Admissions	People	Average cost of admission	Tariff Total Payment National
CVD: AF and Flutter	84	78	£2,356	£197,881
CVD: Angina	12	12	£2,804	£33,650
CVD: Congestive Heart Failure	90	81	£4,903	£441,301
CVD: Hypertension	36	36	£799	£28,777
Diseases of the blood	20	18	£2,035	£40,700
Mental and Behavioural Disorders	4	4	£0	£0
Neurological Disorders	29	22	£2,404	£69,704
Nutritional, endocrine and metabolic	45	35	£2,530	£113,847
Respiratory: Asthma	43	31	£1,459	£62,741
Respiratory: COPD	81	58	£2,702	£218,843
Grand Total	444	368	£2,719	£1,207,444

<sup>\*</sup> Average cost for Mental and Behavioural is not representative as non-PbR

### ACS Admission Rates per 1,000 Population by Place





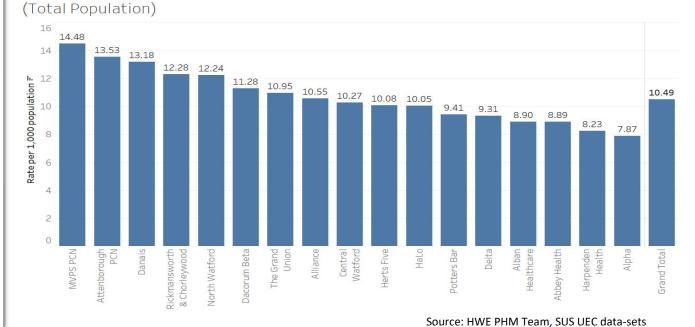


When comparing the rates per 1,000 population between places, the South West Herts place has the highest rate in the ICB.

Within South West Herts Place, Alpha has the lowest rate per 1,000 population of all the PCNs.

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

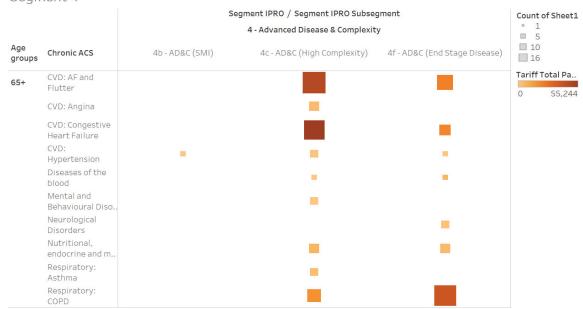


### **Chronic ACS by Segment** Hertfordshire and West Essex Integrated Care Board ACS by segment\_age Segment IPRO Count of Sheet1 1 1 - Healthy 2 - Living With Illness 3 - Lower Complexity 4 - Advanced Disease & Co.. 5 - EoL, Frailty & Dementia Age gr.. 20 **40** 60 80 Child 106 Tariff Total Pa... 1,484 408K 19-40 41-64 65+ 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 Alpha PCN 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.

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







Ambulatory Care Sensitive conditions of note for people aged over 65 within the End of Life, Frailty & Dementia is highlighted as COPD is the ACSs with the highest volume and cost.

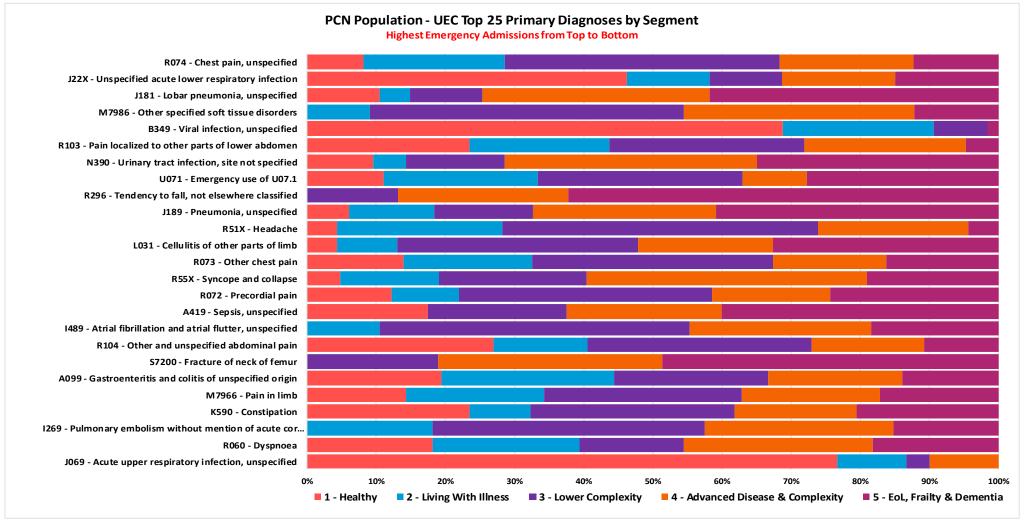
Heart Failure, AF and Flutter are also highlighted within the advanced disease and complexity cohort.

#### Segment 5



### **UEC Diagnoses by Segment**





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.

### **UEC & Segmentation + Deprivation by Ward**



UEC Patients Seen by Segment & Ward	1 - Healthy	With Illness	3 - Lower Complexity	Disease & Complexity		Grand Total
Adeyfield East	2		4		6	12
Aldbury and Wigginton	30	14	40	69	31	184
Apsley and Corner Hall		2	2			4
Ashridge	26	33	32	43	45	179
Berkhamsted Castle	74	55	119	81	75	404
Berkhamsted East	79	60	98	95	68	400
Berkhamsted West	78	77	104	119	122	500
Bovingdon, Flaunden and Chipperfield	3	2	5			15
Boxmoor	1	2	3	3		9
Bushey Heath					6	6
Chaulden and Warners End	1	3	5	3		12
Gadebridge				2		2
Harpenden South	1					1
Hemel Hempstead Town				4	2	6
Highfield	4		2	1		7
Leverstock Green		1	1			2
Northaw and Cuffley			1			1
Northchurch	21	29	62	54	78	244
Redbourn	1		2	4		7
Rickmansworth Town					1	1
Tring Central	65	65	120	114	70	434
Tring East	44	35	55	61	54	249
Tring West and Rural	78	83	109	102	111	483
Verulam				2		2
Watling	40	38	48	56	60	242
Woodhall Farm	1					1
Unknown Ward	146	129	186	164	101	726
Grand Total	695	628	998	979	833	4133

UEC Patients Seen by Deprivation		2			5	(blank	Grand
Quintile & Ward	1	2	3	4	5	)	Total
1 = Most Deprived, 5 = Least Deprived							
Adeyfield East	12						12
Aldbury and Wigginton				184			184
Apsley and Corner Hall	2		2				4
Ashridge			88	91			179
Berkhamsted Castle					404		404
Berkhamsted East			208		192		400
Berkhamsted West		146			354		500
Bovingdon, Flaunden and Chipperfield				14	1		15
Boxmoor				2	7		9
Bushey Heath			6				6
Chaulden and Warners End		4		8			12
Gadebridge		2		_			2
Harpenden South					1		1
Hemel Hempstead Town		6					6
Highfield	7						7
Leverstock Green		2		_			2
Northaw and Cuffley					1		1
Northchurch				121	123		244
Redbourn		6			1		7
Rickmansworth Town					1		1
Tring Central	182		131		121		434
Tring East					249		249
Tring West and Rural		112		129	242		483
Verulam					2		2
Watling		43	97	102			242
Woodhall Farm			1				1
Unknown Ward						726	726
Grand Total	203	321	533	651	1699	726	4133

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.

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.

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

### **Public Health - Nationally Reported Admissions**





## **Hospital Admissions**

	Period	HERTFORDSHIRE AND WEST ESSEX	ALPHA PCN
Emergency admissions injuries due to falls in those aged 65+	2020/21	2026	1855.3
Emergency asthma, diabetes and epilepsy admissions (aged 0-18)	2020/21	130.8	85.4
Emergency admissions for children with lower respiratory tract infections (age 0-18)	2020/21	40.5	77.6
Emergency admissions for chronic ambulatory care sensitive conditions	2020/21	505.9	396.5
Mental health admissions (all ages)	2020/21	177.2	143.4
Emergency Cancer Admissions	2020/21	494.9	435.5
Emergency admissions for acute conditions shouldn't require admissions	2020/21	611.6	564.4
		Similar Significantly Worse Significantly Better	

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

Alpha PCN show a lower rate of admissions, compared to the ICB.

Source: Public Health Team

### Frailty Segment - Detailed PCN Breakdown

	NHS
NHS	Hertfordshire and
	West Essex
	Integrated Care Board

	Most dep	rived							Мо	st affluent		
Index of Multiple Deprivation Decile	1	2	3	4	5	6	7	8	9	10	PCN	ICS
Overall Population Measures												
Population			2	44	62	25	63	119	175	589	1079	37725
% of population in cohort			0.2%	4.1%	5.7%	2.3%	5.8%	11.0%	16.2%	54.6%	100.0%	100.0%
Avg. Age			63.5	72.1	72.1	71.9	71.7	71.2	74.5	77.2	75.1	75.6
% BAME Where recorded			0%	5%	11%	4%	8%	4%	4%	5%	6%	8%
Avg. number of Acute and Chronic Condition	ons		5.5	6.4	5.7	7.0	6.0	5.4	6.0	5.7	5.8	5.5
Activity Measure												
Emergency Admissions			2.5	0.8	0.8	1.0	0.8	0.7	0.8	0.6	0.7	0.6
A&E Attendances			2.0	1.0	1.0	1.3	0.9	0.9	1.1	0.8	0.9	0.9
GP Encounters			90.0	57.5	63.4	76.0	53.3	64.6	64.0	60.7	61.7	103.4
Admitted Bed Days			9.0	5.5	5.1	7.0	7.7	5.4	6.7	4.4	5.2	4.2
Physical Health												
Asthma			0.0%	38.6%	27.4%	44.0%	25.4%	26.1%	22.9%	23.3%	24.9%	25.2%
Cancer			100.0%	22.7%	43.5%	40.0%	41.3%	33.6%	44.0%	44.8%	42.3%	32.8%
Chronic Cardiac Disease			100.0%	61.4%	45.2%	64.0%	52.4%	42.0%	48.0%	50.1%	49.6%	47.5%
Chronic Respiratory Disease			0.0%	29.5%	25.8%	28.0%	27.0%	22.7%	22.9%	17.7%	20.8%	22.2%
CKD			50.0%	36.4%	14.5%	32.0%	14.3%	19.3%	25.1%	20.2%	21.2%	20.7%
Heart Disease			50.0%	54.5%	38.7%	52.0%	42.9%	38.7%	42.9%	42.1%	42.4%	39.1%
Hypertension			50.0%	84.1%	77.4%	88.0%	65.1%	68.9%	79.4%	73.7%	74.5%	74.5%
Diabetes			0.0%	65.9%	35.5%	68.0%	44.4%	45.4%	50.9%	45.5%	47.0%	42.8%
Obesity			50.0%	56.8%	32.3%	44.0%	33.3%	31.9%	35.4%	23.6%	29.4%	32.8%
Rheumatoid Arthritis			0.0%	2.3%	4.8%	16.0%	4.8%	5.0%	7.4%	6.8%	6.5%	5.3%
Stroke			50.0%	31.8%	43.5%	60.0%	41.3%	35.3%	40.6%	41.1%	40.6%	34.5%
Mental Health												
Anxiety			100.0%	27.3%	25.8%	24.0%	31.7%	27.7%	25.1%	26.0%	26.5%	29.0%
Depression			50.0%	47.7%	38.7%	36.0%	34.9%	35.3%	40.6%	34.0%	36.1%	33.6%
Dementia			0.0%	13.6%	14.5%	12.0%	30.2%	16.8%	13.7%	22.8%	19.9%	18.6%
Serious Mental Illness			0.0%	9.1%	8.1%	8.0%	11.1%	5.0%	10.3%	6.3%	7.3%	6.5%
Low Mood			0.0%	36.4%	22.6%	28.0%	17.5%	17.6%	20.6%	19.5%	20.4%	18.5%
Suicide			0.0%	0.0%	3.2%	0.0%	0.0%	0.0%	0.6%	0.5%	0.6%	1.5%
Mental Health Flag			100.0%	54.5%	53.2%	52.0%	46.0%	47.9%	50.9%	46.9%	48.5%	48.8%
Screening and Verification Refusal												
Bowel Screening Refused			50.0%	36.4%	33.9%	32.0%	20.6%	26.1%	22.3%	21.1%	23.4%	25.5%
Cervical Screening Refused			0.0%	0.0%	1.6%	4.0%	7.9%	5.0%	5.7%	3.9%	4.3%	3.6%
Flu Vaccine Refused			0.0%	38.6%	46.8%	32.0%	52.4%	33.6%	33.7%	37.7%	37.8%	26.4%
Wider Indicators												
Has A Carer			0.0%	25.0%	25.8%	28.0%	31.7%	28.6%	23.4%	20.5%	23.2%	19.0%
Is A Carer			0.0%	18.2%	16.1%	4.0%	20.6%	6.7%	11.4%	13.8%	13.1%	11.9%
MED3 Not Fit For Work (ever)			0.0%	15.9%	16.1%	28.0%	15.9%	14.3%	12.0%	8.8%	11.5%	13.4%
MED3 Not Fit For Work (in Last Year)			0.0%	4.5%	1.6%	0.0%	3.2%	5.0%	3.4%	1.5%	2.4%	3.5%
MED3 Not Fit For Work (in Last Six Months	)		0.0%	2.3%	1.6%	4.0%	3.2%	4.2%	2.9%	0.8%	1.9%	2.8%
Avg. number of eFI Deficits			5.0	13.4	11.6	13.4	11.1	11.7	12.1	11.6	11.8	13.4
eFI_Housebound		Ì	0.0%	9.1%	11.3%	12.0%	14.3%	13.4%	21.1%	7.5%	11.1%	10.9%
eFI_SocialVulnerability		İ	0.0%	43.2%	35.5%	28.0%	33.3%	37.8%	35.4%	27.7%	31.4%	27.3%
People_ChildrenInPoverty			13.6		12.2		14.1	12.2	ĺ		12.6	15.5
Housing_FuelPoverty		Ì	12.0	13.8	14.6	14.0	13.7	9.8	8.7	7.3	9.0	11.1
Housing OnePersonHousehold		i	36.9	36.6	28.3	27.4	26.9	28.1	32.0	24.5	27.1	28.3

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

In Alpha PCN, 4.3% of the population in the EoL, severe frailty and severe dementia segment live within the 4 most deprived deciles.

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

As we would expect the average number of acute and chronic conditions is significantly higher within this segment that the general population as are all activity measures. The average number of Chronic Conditions for people within Alpha PCN is similar to the ICB.

Within this segment we can see the presence of Chronic Cardiac Disease, Heart Disease, significant Hypertension, Diabetes, and Obesity as being highlighted which chimes with the reason for admission within previous analysis for ACS conditions.

### 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
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
- $\rightarrow$  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
	<ul> <li>Drug: Pain Management AND eFI: Falls AND ONE OF:-</li> <li>Stroke AND eFI: Memory and Cognitive Problems</li> <li>Stroke AND Substance Abuse</li> <li>End Stage Disease</li> </ul>
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**



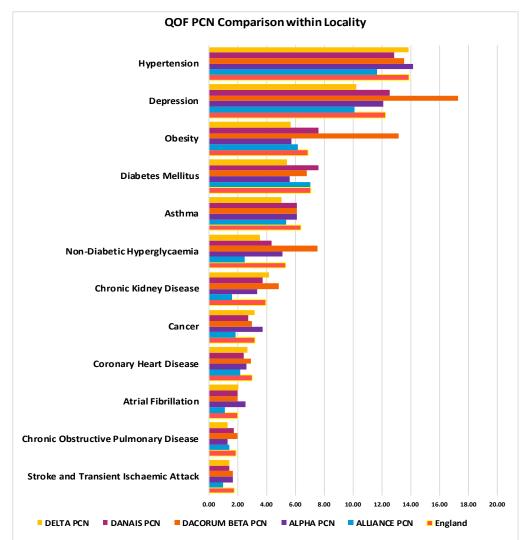
#### **Contents:**

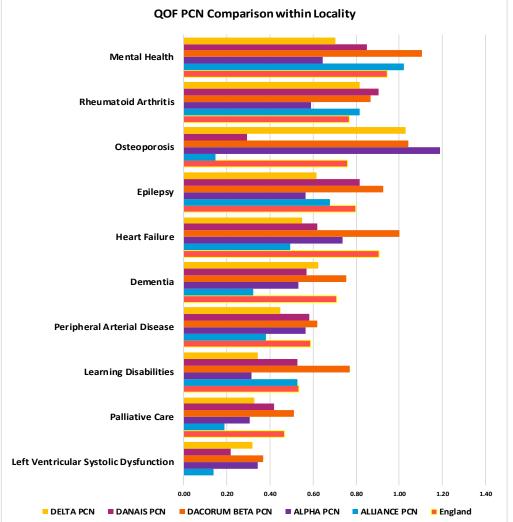
- QOF Local, Regional, & National Comparison
- QOF Locality & PCN Comparison
- QOF Missed Diagnoses & Admission Rates
- Admission Rates Benchmarking against ICB/Place



### **QOF - Locality & PCN Comparison**





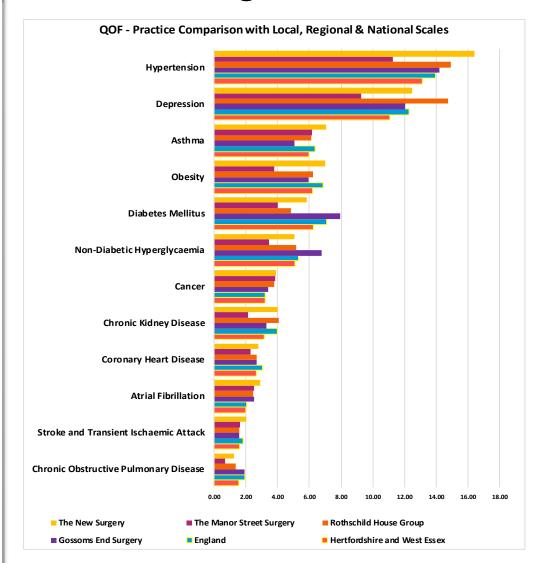


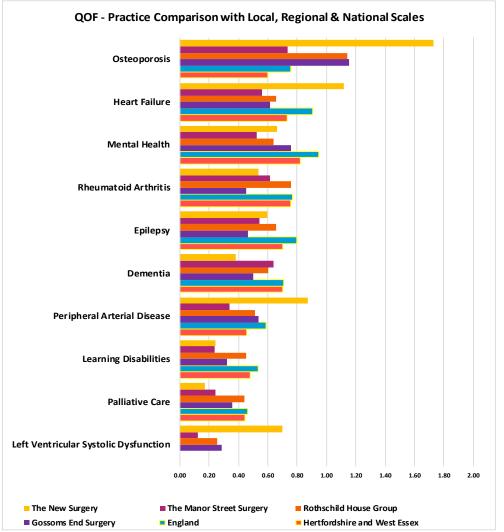
The Quality and Outcome Framework incorporates important benchmarking and scoring for all Practices across the county; we have combined a number of local, regional, and national data sets to highlight the areas that the PCN will need to consider.

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

### QOF - Local, Regional, & National Comparison







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

### **QOF - Missed Diagnoses & Admission Rates**



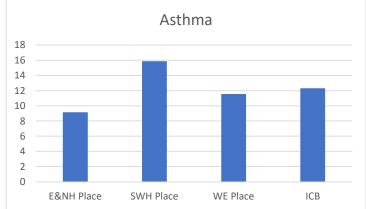
Disease	QOF List size 21-22	QOF Register 21- 22	QOF Prevalence 21/22	Place prevalence	ICB prevalence	Modelled prevalence	New diagnoses to meet Place average	new diagnoses to meet ICB average	New diagnoses to meet estimated prevalence
Asthma	52424	3322	6.34%	5.89%	6.17%		-236	-89	
COPD	55945	677	1.21%	1.38%	1.49%	1.76%	95	154	308
Diabetes	44669	2212	4.95%	6.26%	6.39%	7.77%	583	641	1260
Non-diabetic hyperglyaemia	43996	2531	5.75%	6.73%	5.87%	11.28%	428	52	2433
Hypertension	55945	8002	14.30%	12.66%	13.21%		-918	-610	
Atrial Fibrillation	55945	1420	2.54%	1.98%	2.02%	2.83%	-311	-289	165
Stroke and TIA	55945	914	1.63%	1.53%	1.61%		-58	-14	
Coronary Heart Disease	55945	1487	2.66%	2.60%	2.65%		-31	-3	
Heart failure	55945	380	0.68%	0.69%	0.75%	1.46%	7	42	439
Left Ventricular Systolic Dysfunction	55945	167	0.30%	0.29%	0.30%		-6	0	
Chronic Kidney Disease	43996	2043	4.64%	3.75%	3.21%		-395	-632	
Peripheral Arterial Disease	55945	288	0.51%	0.42%	0.44%		-55	-40	
Cancer	55945	2416	4.32%	3.38%	3.35%		-522	-544	
Palliative care	55945	242	0.43%	0.33%	0.43%		-56	-2	

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

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

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

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



90

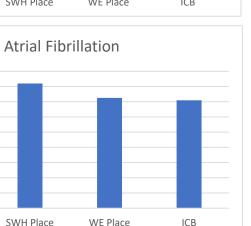
80 70

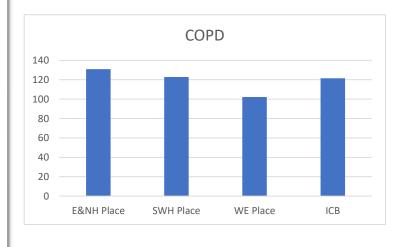
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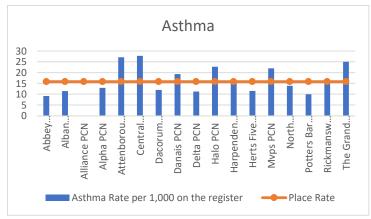
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40

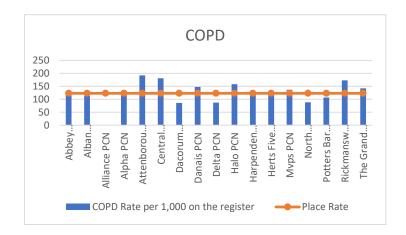
**E&NH Place** 













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.

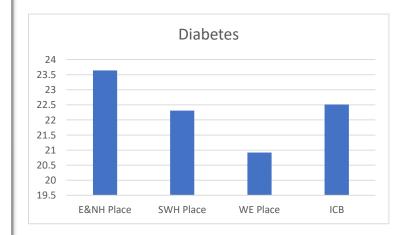
Rates may be high due to a number of factors which may include low identification.

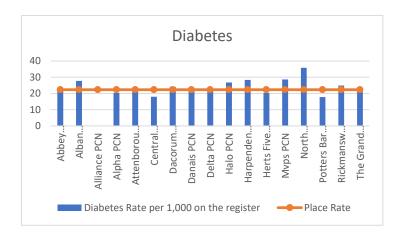
For Alpha PCN the data shows lower rates than the place average.

Source: HWE PHM Team, SUS data

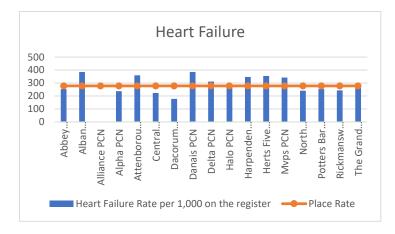
#### Emergency Admission Rates per 1,000 population on the Disease Register











Source: HWE PHM Team, SUS data

## **Appendices**



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

#### **Contents:**

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



### **Matrix Data - Ethnicity**



Ethnicity Group ▼	Othe	r Ethnic Gr	oups		Asian			Black			Mixed		67	Other			White			Unknown		
Practice ▼	Gossoms End Surgery	Rothschild House Group	The Manor Street	Gossoms End Surgery	Rothschild House Group	The Manor Street	Gossoms End Surgery	Rothschild House Group	The Manor Street	Gossoms End Surgery	Rothschild House Group	The Manor Street	Gossoms End Surgery	Rothschild House Group	The Manor Street	Gossoms End Surgery	Rothschild House Group	The Manor Street	Gossoms End Surgery	Rothschild House Group	The Manor Street	Grand Tota
Overall Population Measures				and the same of th																		
Population	36	241	57	97	498	165	35	189	44	55	503	130	376	4,160	1,727	2,233	29,176	8,254	19	4,185	972	53,15
Age	28	34	33	38	39	35	32	36	37	25	21	23	33	34	33	40	42	42	33	35	32	
Male %	52.8%	49.8%	50.9%	46.4%	47.6%	43.0%	57.1%	46.0%	54.5%	52.7%	45.5%	38.5%	51.3%	52.2%	51.8%	51.1%	48.1%	48.2%	52.6%	57.0%	54.1%	49.
IMD	8.9	8.5	9.2	8.6	8.8	9.2	7.4	8.2	9.0	8.6	8.5	9.2	8.2	8.8	9.0	8.5	8.8	9.1	8.8	8.9	9.2	
% BAME (where recorded)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%	0%	0%	100%	100%	100%	1
Multimorbidity (acute & chronic)	0.2	0.3	0.4	0.9	0.9	0.7	0.9	0.8	1.0	0.7	0.7	0.7	0.8	0.9	0.8	1.1	1.3	1.1	0.1	0.5	0.3	
Finance and Activity Measu	res		0				120	- 10					***				10					-200
Spend - Total	£0.0M	£0.0M	£0.0M	£0.0M	£0.3M	£0.1M	£0.0M	£0.1M	£0.0M	£0.0M	£0.2M	£0.0M	£0.1M	£1.6M	£0.6M	£1.5M	£21.7M	£5.3M	£0.0M	£0.4M	£0.1M	£32.
PPPY - Total	£89	£106	£265	£399	£618	£434	£541	£574	£393	£320	£474	£300	£273	£381	£325	£687	£745	£644	£51	£88	£66	£6
Acute Elective	£9	£6	£19	£90	£235	£132	£90	£183	£126	£37	£161	£56	£41	£114	£92	£192	£261	£246	£0	£18	£16	£
Acute Non-Elective	£0	£2	£170	£148	£206	£178	£284	£201	£109	£84	£146	£144	£103	£117	£117	£341	£288	£262	£0	£4	£3	£
GP Encounters	£49	£97	£62	£130	£165	£104	£161	£172	£126	£101	£122	£90	£108	£135	£95	£131	£177	£113	£51	£65	£45	£,
Community	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	
Mental Health	£31	£0	£14	£31	£9	£19	£6	£17	£30	£98	£45	£10	£12	£15	£19	£21	£18	£21	£0	£1	£2	
Social Care	£0	£0	£0	£0	£2	£0	£0	£0	£3	£0	£0	£0	£8	£0	£2	£2	£1	£1	£0	£0	£0	
GP PPPY	8	12	10	22	20	17	27	21	20	17	15	15	18	17	15	22	22	18	9	8	7	
Beddays PPPY - Acute EM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
Physical Health																						
Diabetes •	2.8%	5.8%	3.5%	14.4%	16.9%	9.1%	25.7%	13.2%	6.8%	7.3%	5.8%	4.6%	6.9%	6.6%	5.2%	11.8%	11.7%	8.3%	0.0%	5.1%	1.7%	9.8
COPD •	0.0%	0.0%	0.0%	2.1%	0.8%	0.0%	2.9%	1.1%	0.0%	0.0%	0.6%	0.8%	2.7%	1.1%	0.4%	2.2%	2.1%	1.5%	0.0%	0.2%	0.0%	1.0
Chronic Respiratory Dis ▼	0.0%	0.0%	0.0%	2.1%	1.4%	0.6%	2.9%	1.1%	2.3%	0.0%	0.6%	0.8%	2.7%	1.3%	0.9%	2.8%	2.7%	2.2%	0.0%	0.4%	0.0%	2.
Hypertension ▼	2.8%	4.1%	7.0%	13.4%	13.3%	7.3%	22.9%	12.2%	18.2%	5.5%	6.0%	6.2%	11.4%	11.1%	9.7%	16.4%	19.3%	15.7%	0.0%	9.3%	5.1%	16.
Obesity •	2.8%	1.2%	0.0%	1.0%	6.8%	3.0%	14.3%	10.1%	4.5%	5.5%	3.8%	5.4%	2.9%	7.4%	3.4%	11.1%	15.9%	9.2%	0.0%	7.0%	1.1%	12.
Mental Health	2.070	1.270	0.070	1.070	0.070	3.070	14.570	10.170	4.570	5.576	3.070	5.470	2.570	7.470	3.470	11.170	10.070	5.270	0.070	7.070	1.170	12.
Anxiety/Phobias ▼	0.0%	3.7%	5.3%	7.2%	10.0%	7.9%	0.0%	9.5%	11.4%	9.1%	8.9%	8.5%	10.1%	13.4%	9.4%	11.0%	13.7%	10.9%	0.0%	7.1%	4.1%	12.0
Depression ▼	2.8%	3.7%	5.3%	7.2%	11.2%	7.3%	2.9%	13.2%	6.8%	7.3%	12.1%	8.5%	12.2%	16.2%	12.3%	13.2%	18.0%	13.5%	0.0%	8.3%	3.3%	15.4
Learning Disability •	2.8%	0.0%	0.0%	4.1%	0.8%	0.6%	0.0%	0.5%	4.5%	1.8%	2.0%	0.8%	0.8%	1.3%	1.5%	1.1%	1.2%	1.2%	0.0%	0.4%	0.1%	1.
Dementia •	0.0%	0.0%	0.0%	3.1%	0.6%	0.6%	0.0%	0.5%	2.3%	1.8%	0.8%	2.3%	1.3%	1.0%	1.7%	1.7%	1.6%	1.7%	0.0%	0.4%	0.1%	1.
Other Characteristics	0.076	0.476	0.0%	3.170	0.076	0.076	0.076	0.5%	2.376	1.076	0.076	2.370	1.376	1.076	1.770	1.770	1.076	1.770	0.0%	0.076	0.276	1.4
Housebound (eFI)	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.19/	0.2%	0.5%	0.4%	0.0%	0.1%	0.0%	0.:
7 .77				200105000									400000000000000000000000000000000000000		0.1%		100000					10000
Social Vulnerability (eFI)   Uninters of Smoking (True	0.0%	0.8%	1.8%	4.1%	2.8%	3.0%	0.0%	4.8%	4.5%	5.5%	3.2%	3.8%	1.6%	2.0%	2.1%	2.6%	3.7%	3.6%	0.0%	0.8%	1.3%	
History of Smoking (Tw ▼	2.8%	11.2%	8.8%	11.3%	7.4%	4.2%	5.7%	6.3%	6.8%	7.3%	3.6%	6.2%	10.4%	5.2%	5.3%	9.4%	6.2%	5.5%	15.8%	3.5%	4.1%	5.
Not Fit for Work (In Year) ▼	0.0%	1.2%	1.8%	4.1%	3.8%	3.6%	5.7%	7.4%	6.8%	1.8%	2.2%	6.2%	2.4%	3.9%	3.8%	2.5%	3.2%	2.6%	5.3%	0.8%	0.7%	2.
On a Waiting List 🔻	2.8%	3.7%	1.8%	6.2%	6.2%	11.5%	8.6%	5.3%	4.5%	3.6%	7.2%	4.6%	6.6%	5.3%	4.7%	6.8%	7.8%	7.6%	0.0%	1.9%	1.3%	6.

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.

### Matrix Data - Segment & Sub-Segment



Life Course Segment	*		1 - Healthy		2 - L	iving With Illr	ess	3 -	Lower Comple	exity		4 - Advanc	ed Disease &	Complexity		5 - Eol	., Frailty & De	ementia	
Life Course Subsegmen	nt 🕶	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	Grand Total
Overall Population Mea	asures																		
Population		20,429	1,464	1,291	4,280	6,995	2,831	490	6,740	3,979	1,937	682	84	350	521	490	76	513	53,152
Age		28	6	19	43	45	40	43	50	62	67	57	20	31	67	79	84	70	4
Male %		53.7%	41.9%	52.4%	51.7%	55.6%	38.3%	44.5%	45.1%	39.6%	44.1%	39.0%	57.1%	41.7%	53.9%	40.2%	26.3%	36.5%	49.5%
IMD		8.9	8.7	8.8	8.7	8.9	8.7	8.8	8.8	8.8	8.7	8.7	8.2	8.4	8.6	8.7	9.3	8.8	8.8
% BAME (where recorded	d)	22%	14%	26%	17%	17%	17%	17%	15%	12%	9%	10%	21%	20%	9%	4%	11%	6%	189
Multimorbidity (acute & ch	ronic)	0.0	0.0	0.0	0.0	1.0	1.0	0.4	2.4	2.2	4.8	2.7	2.8	5.7	5.2	6.9	5.7	4.8	1.
Finance and Activity N	Measure	es																	
Spend v Total		£1.8M	£0.9M	£2.0M	£1.7M	£2.9M	£0.9M	£0.2M	£5.1M	£3.9M	£3.7M	£0.9M	£0.2M	£0.8M	£2.1M	£2.4M	£0.2M	£2.5M	£32.2N
PPPY - T	Total	£89	£605	£1,520	£396	£411	£330	£421	£754	£983	£1,927	£1,333	£2,057	£2,319	£3,970	£4,878	£2,422	£4,924	£605
Acute Elective		£17	£68	£594	£118	£148	£86	£150	£310	£440	£802	£406	£243	£240	£1,578	£1,314	£62	£1,508	£209
Acute Non-Elective		£7	£415	£768	£138	£121	£97	£140	£225	£276	£784	£622	£767	£447	£1,905	£3,020	£1,679	£2,918	£23:
GP Encounters		£64	£122	£151	£137	£140	£140	£129	£203	£258	£326	£263	£245	£289	£376	£501	£403	£466	£14
Community		£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£
Mental Health		£1	£1	£8	£3	£2	£7	£2	£16	£8	£14	£16	£744	£1,311	£108	£37	£268	£29	£17
Social Care		£0	£0	£0	£0	£0	£0	£1	£0	£0	£1	£26	£57	£31	£2	£5	£9	£3	£
GP PPPY		9	16	20	18	19	18	17	26	33	42	34	32	38	48	63	54	61	19
Beddays PPPY - Acute EN	M	0	1	1	0	0	0	0	0	0	1	1	1	3	4	6	3	7	(
Physical Health																			
Diabetes	*	0.0%	0.0%	0.0%	0.0%	11.7%	0.0%	5.3%	23.0%	23.9%	45.4%	24.3%	10.7%	28.0%	35.5%	61.8%	30.3%	35.3%	9.8%
COPD	•	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	1.5%	9.3%	3.4%	0.0%	2.3%	57.6%	23.1%	2.6%	13.5%	1.6%
Chronic Respiratory Dis		0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.2%	2.7%	2.6%	12.1%	4.8%	1.2%	3.4%	63.0%	26.3%	6.6%	17.5%	2.2%
Hypertension	•	0.0%	0.0%	0.0%	0.0%	22.6%	0.0%	7.6%	32.2%	48.4%	70.3%	39.7%	11.9%	32.3%	63.0%	90.0%	67.1%	60.8%	16.2%
Obesity	*	0.0%	0.0%	0.0%	29.6%	13.5%	10.5%	8.4%	21.7%	26.6%	33.1%	24.3%	7.1%	16.3%	33.8%	38.8%	9.2%	23.4%	12.1%
Mental Health	-	0.070	9.975	0.070	20.070	10.070	10.070		211170	20.070	00.170	21.070		10.070	55.575	1 00.070	0.270	20.110	12.17
Anxiety/Phobias	*	0.0%	0.0%	0.0%	0.0%	0.0%	36.3%	3.7%	45.1%	21.2%	34.4%	20.8%	28.6%	63.7%	23.4%	28.8%	26.3%	24.4%	12.0%
Depression	•	0.0%	0.0%	0.0%	0.0%	0.0%	57.5%	6.9%	52.4%	27.9%	43.0%	28.6%	21.4%	76.9%	30.5%	41.2%	43.4%	30.2%	15.4%
Learning Disability	•	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	0.4%	1.2%	0.4%	43.0%	13.3%	56.0%	44.9%	5.0%	4.3%	15.8%	2.7%	1.19
Dementia	÷	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.4%	14.1%	6.6%	11.9%	44.9%	8.6%	12.2%		15.4%	1.17
Other Characteristics	1000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.1%	0.0%	11.9%	44.6%	0.0%	12.2%	100.0%	15.4%	1.49
		0.00/	0.00/	0.00/	0.00/	0.00/	0.00/		0.00/	0.00/		0.00/	2 10/	0.00/	4.00/	44.00/	40.50/	40.50	0.00
Housebound (eFI)	*	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.2%	2.4%	0.0%	1.3%	11.8%	10.5%	10.5%	0.39
Social Vulnerability (eFI)	•	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	71.6%	2.2%	6.9%	13.5%	18.3%	6.0%	20.0%	16.7%	42.4%	32.9%	20.7%	3.19
History of Smoking (Tw	*	0.0%	0.0%	0.0%	19.6%	6.4%	6.5%	5.7%	11.6%	8.8%	11.6%	7.6%	100000	17.1%	21.1%	8.8%	1.3%	6.6%	5.9%
Not Fit for Work (In Year)	•	0.0%	0.0%	0.0%	8.0%	2.2%	5.4%	4.1%	6.7%	4.9%	4.1%	4.8%	3.6%	12.9%	7.5%	1.8%	0.0%	3.3%	2.99
On a Waiting List	•	2.8%	6.1%	9.1%	5.8%	6.0%	6.6%	7.8%	8.6%	13.0%	17.3%	12.5%	7.1%	13.7%	23.4%	27.3%	5.3%	18.9%	6.89

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

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

#### **Matrix Data - GP Activity**



GP Activity		0		1			2-3			4-5			6-9			10+		100000000000000000000000000000000000000
Complexity	Low Complexity	Middle 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	Grand Total
Overall Population Measure	s																	
Population	1,000	119	1,440	227		3,324	552	12	3,754	869	10	7,938	3,260	72	10,746	17,300	2,526	53,15
Age	23	36	21	34	20	18	33	32	25	39	17	32	44	47	34	53	68	4
Male %	58.6%	68.1%	57.5%	66.5%	66.7%	58.2%	63.0%	50.0%	62.3%	61.4%	60.0%	57.4%	55.3%	55.6%	42.0%	42.8%	45.7%	49.5
IMD	8.8	8.8	8.8	8.9	6.3	8.8	8.5	9.1	8.9	8.8	8.5	8.9	8.9	8.8	8.8	8.8	8.7	8
% BAME (where recorded)	21%	24%	21%	20%	67%	26%	21%	8%	25%	20%	30%	21%	16%	17%	18%	14%	8%	18
Multimorbidity (acute & chronic)	0.0	1.3	0.0	1.3	6.0	0.0	1.3	6.3	0.0	1.3	8.5	0.0	1.4	6.6	0.0	1.9	6.6	1
Finance and Activity Measu	ıres																	
Spend - Total	£0.0M	£0.0M	£0.0M	£0.0M	£0.0M	£0.1M	£0.0M	£0.0M	£0.3M	£0.1M	£0.0M	£0.9M	£0.4M	£0.0M	£5.4M	£15.8M	£9.1M	£32.21
PPPY - Total	£0	£8	£13	£10	£7	£34	£36	£82	£68	£71	£423	£114	£124	£355	£504	£912	£3,622	£60
Acute Elective	£0	£8	£3	£2	£0	£9	£7	£24	£16	£13	£0	£24	£29	£85	£147	£360	£1,140	£20
Acute Non-Elective	£0	£0	£3	£1	£0	£8	£10	£16	£21	£21	£48	£34	£28	£50	£191	£289	£1,918	£23
GP Encounters	£0	£0	£7	£7	£7	£17	£18	£18	£32	£33	£35	£56	£59	£66	£162	£236	£414	£14
Community	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£
Mental Health	£0	£0	£0	£0	£0	£0	£1	£25	£0	£2	£340	£1	£8	£149	£4	£25	O CONTRACTOR	£1
Social Care	£0	£0	£0	£0	£0	£0	£0	£0		£1	£0	£0	£0	£6	£0			£
GP PPPY	0	0	1	1	1	3	3	2	2.1.000	5	5	8	8	9	22	31	53	1
Beddays PPPY - Acute EM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	4	
Physical Health																		
Diabetes •	0.0%	5.0%	0.0%	4.4%	0.0%	0.0%	5.6%	50.0%	0.0%	7.0%	40.0%	0.0%	9.6%	47.2%	0.0%	19.6%	52.6%	9.8
COPD •	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	10.0%	0.0%	0.5%	19.4%	0.0%	1.5%	22.4%	1.69
Chronic Respiratory Dis ▼	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.8%	20.0%	0.0%	0.8%	22.2%	0.0%	2.5%	26.4%	2.2
Hypertension ▼	0.0%	15.1%	0.0%	10.6%	33.3%	0.0%	11.1%	41.7%	0.0%	13.5%	50.0%	0.0%	18.2%	61.1%	0.0%	33.4%	77.5%	16.29
Obesity •	0.6%	0077-077	0.8%	4.0%	0.0%	1.0%	4.7%	8.3%	2.7%	6.1%	0.0%	4.3%	11.9%	8.3%	7.9%	21.7%		12.19
Mental Health																		
Anxiety/Phobias ▼	0.0%	11.8%	0.0%	18.1%	66.7%	0.0%	17.2%	58.3%	0.0%	20.4%	100.0%	0.0%	22.3%	48.6%	0.0%	24.6%	40.7%	12.09
Depression ▼	0.0%	18.5%	0.0%	21.1%	100.0%	0.0%	23.4%	83.3%	0.0%	24.6%	100.0%	0.0%	28.3%	69.4%	0.0%	31.7%		15.49
Learning Disability •	0.0%		0.0%	1.8%	33.3%	0.0%	1.4%	8.3%	0.0%	2.1%	80.0%	0.0%	1.3%	36.1%	0.0%	1.1%	E SPECIAL PROPERTY.	1.19
Dementia •	0.0%		0.0%	0.9%	66.7%	0.0%	0.5%	66.7%	0.0%	0.6%		0.0%	0.6%	38.9%	0.0%	0.9%		1.4
Other Characteristics	0.070	0.076	1 0.076	0.370	00.170	0.076	0.576	00.176	0.076	0.076	30.076	0.076	0.076	30.576	1 0.076	0.570	20.2/0	1.4
Housebound (eFI)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.2%	2.8%	0.0%	0.4%	4.2%	0.3
Social Vulnerability (eFI)			550000			10000000		100000000000000000000000000000000000000	1000000							120000000000000000000000000000000000000		3.1
	0.3%		0.9%	0.9%	0.0%	0.3%	2.5%	8.3%	0.7%	1.6%	30.0%	0.7%	2.4%	13.9%	1.1%	4.5%		
History of Smoking (Tw ▼	0.1%		0.6%	0.9%	0.0%	1.2%	3.1%	8.3%		3.8%	0.0%	3.1%	6.1%	6.9%	4.6%	9.9%		5.9
Not Fit for Work (In Year) ▼	0.0%	9,000,000,000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100,000,000	0.1%	0.0%	0.4%	0.6%	0.0%	3.1%	5.9%		2.9
On a Waiting List	0.5%	0.0%	0.3%	0.0%	0.0%	1.0%	0.9%	0.0%	1.3%	1.0%	0.0%	2.1%	2.0%	4.2%	7.6%	11.1%	21.0%	6.8

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	•	1 -	Healthy			2 - Living V	Vith Illness			3 - Lower (	Complexity		4 - Adv	vanced Dise	ase & Comp	olexity	5 - EoL	Frailty & D	ementia	No. and and a second
Deprivation	▼ Low Depriva	Middle ion Deprivation	High on Deprivation	Not known	Low Deprivation	Middle Deprivation	High Deprivation	Grand Total												
Overall Population Meas	ures					+									-					
Population	19,1	43 3,96	2 51	28	11,528	2,530	35	13	9,100	2,058	41	10	2,815	745	8	6	883	194		53,152
Age		27 2	5 17	26	44	42	39	39	55	52	48	41	62	55	55	39	76	72	64	4
Male %	52.6	% 54.69	6 58.8%	32.1%	51.2%	50.0%	51.4%	53.8%	43.0%	43.6%	48.8%	30.0%	44.6%	45.1%	50.0%	16.7%	37.3%	38.1%	50.0%	49.5%
IMD		1.5 5.	8 2.7		9.5	5.8	2.7		9.5	5.7	2.6		9.5	5.5	2.6		9.5	5.6	3.0	8.8
% BAME (where recorded)	22	% 229	6 28%	9%	17%	19%	6%	18%	14%	15%	13%	20%	11%	11%	38%	0%	5%	8%	0%	18%
Multimorbidity (acute & chro	nic) (	.0 0.	0.0	0.0	0.7	0.7	0.7	0.8	2.2	2.2	2.1	2.3	4.5	4.5	4.6	5.3	5.7	6.1	5.5	1.1
Finance and Activity Me	asures																			
Spend v Total	£3.8	M £0.91	M0.0M	£0.0M	£4.4M	£1.1M	£0.0M	£0.0M	£7.5M	£1.7M	£0.1M	£0.0M	£6.2M	£1.5M	£0.0M	£0.0M	£3.9M	£1.1M	£0.0M	£32.2N
PPPY - Tot	al £1	96 £22	3 £354	£255	£383	£423	£264	£176	£820	£815	£1,353	£426	£2,194	£2,014	£868	£1,920	£4,447	£5,852	£19,125	£605
Acute Elective	£	52 £5	4 £64	£82	£125	£135	£49	£36	£358	£311	£257	£157	£795	£694	£261	£63	£1,235	£1,678	£3,202	£209
Acute Non-Elective	£	70 £9	4 £190	£96	£118	£138	£59	£0	£231	£269	£713	£12	£918	£760	£0	£851	£2,682	£3,638	£15,307	£233
GP Encounters	£	72 £7	2 £93	£77	£137	£144	£156	£139	£218	£224	£263	£257	£317	£309	£482	£306	£478	£475	£617	£145
Community		£0 £	0 £0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0		£
Mental Health		£1 £	3 £6	£0	£3	£6	£0	£0	£13	£10	£120	£0	£154	£239	£125	£700	£48	£58	£0	£17
Social Care		£0 £			327	£0	£0	£0		£1	£0	£0		£13	£0	£0	£4	£3	1000	
GP PPPY		10 1				19	20	18		29	35	35		40	60	38	62	60		
Beddays PPPY - Acute EM		0	0 0	0	0	0	0	0	0	0	1	0	2	1	0	1	6	7	12	0
Physical Health																				
Diabetes	· 0.0	% 0.09	6 0.0%	0.0%	6.1%	4.2%	2.9%	7.7%	22.4%	23.4%	22.0%	10.0%	37.2%	38.4%	37.5%	16.7%	46.5%	49.5%	0.0%	9.8%
COPD	▼ 0.0	% 0.09	6 0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	2.1%	0.0%	0.0%	13.7%	16.8%	0.0%	0.0%	15.9%	22.7%	0.0%	1.6%
Chronic Respiratory Dis	▼ 0.0	% 0.09	6 0.0%	0.0%	0.2%	0.2%	0.0%	0.0%	2.5%	2.7%	2.4%	0.0%	16.4%	19.7%	0.0%	0.0%	19.4%	27.3%	0.0%	2.2%
Hypertension	▼ 0.0			853333	11.1%	11.7%	8.6%	0.0%	37.4%	34 4%	39.0%	20.0%	60 4%	50.3%	62.5%	50.0%	74.2%	76.3%	50.0%	16.2%
Obesity	<b>▼</b> 0.0				17.2%	20.5%	25.7%	15.4%	22.0%	26.6%	36.6%	20.0%	28.2%	33.3%	50.0%	16.7%	27.1%	39.7%		12.1%
Mental Health			0.070	0.070	11.270	20.070	20.170	10.170	22.070	20.070	00.070	20.070	20.270	55.575		10.170	21.170	50.770	00.010	121171
Anxiety/Phobias	<b>▼</b> 0.0	% 0.09	6 0.0%	0.0%	7.4%	7.0%	0.0%	0.0%	34.4%	36.4%	41.5%	60.0%	31.8%	37.0%	37.5%	66.7%	26.0%	27.8%	100.0%	12.0%
	▼ 0.0	27 27	0.000	0.0%	11.3%	12.3%	22.9%	23.1%	41.3%	43.5%	43.9%	70.0%	39.6%	46.7%	62.5%	66.7%	35.4%	39.2%		15.4%
	▼ 0.0				0.2%	0.3%	0.0%	0.0%	0.8%	1.0%	0.0%	0.0%	10.4%	14.2%	25.0%	33.3%	3.7%	7.2%	100000000000000000000000000000000000000	1.1%
	▼ 0.0		-		0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.7%	14.8%	37.5%	33.3%	20.2%	19.1%		1.4%
Other Characteristics	- 0.0	70 0.0	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	14.770	14.070	31.370	33.370	20.270	13.170	0.076	1.47
	▼ 0.0	% 0.09	6 0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	2.3%	0.0%	0.0%	11.0%	11.9%	0.0%	0.3%
	· 0.0			0.0%	0.0%	0.0%	0.0%	0.0%	6.8%	7.0%	14.6%	20.0%	14.9%	16.8%	25.0%	33.3%	30.6%	35.6%	0.0%	3.1%
History of Smoking (Tw										15.5%	17.1%			18.5%		16.7%				
	▼ 0.0				9.7%	13.5%	17.1%	15.4%	9.1%			20.0%	11.2%		0.0%		6.6%	10.3%		5.9%
	▼ 0.0				4.2%	6.2%	14.3%	0.0%	5.5%	7.9%	17.1%	0.0%	4.9%	8.2%	0.0%	16.7%	2.4%	2.6%		2.9%
On a Waiting List	▼ 3.2	4.09	6 3.9%	0.0%	6.1%	6.2%	5.7%	0.0%	9.7%	11.8%	12.2%	0.0%	17.4%	13.7%	50.0%	0.0%	22.5%	18.6%	0.0%	6.8%

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.

#### **Matrix Data - Practice & Deprivation**



Practice	•	Gossoms E	nd Surgery			Rothschild H	ouse Group			The Manor St	reet Surgery		
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	Grand Total
Overall Population Measure	s												
Population	2,037	794	19		32,095	6,692	112	53	9,337	2,003	6		53,152
Age	39	37	41	35	40	39	35	32	40	37	15	47	40
Male %	51.1%	50.6%	73.7%	0.0%	49.4%	49.9%	50.0%	35.8%	48.9%	49.8%	50.0%	33.3%	49.5%
IMD	9.6	5.6	2.4		9.5	5.6	2.7		9.7	6.4	2.2		8.8
% BAME (where recorded)	20%	23%	26%	100%	16%	16%	15%	9%	21%	24%	33%	50%	18%
Multimorbidity (acute & chronic)	0.9	1.1	2.3	3.0	1.1	1.2	1.0	1.1	0.9	1.0	0.7	1.0	1.1
Finance and Activity Meas	ures												
Spend - Total	£1.2M	£0.5M	£0.0M	£0.0M	£19.5M	£4.8M	£0.1M	£0.0M	£5.0M	£1.0M	£0.0M	£0.0M	£32.2M
PPPY - Total	£593	£609	£1,195	£982	£607	£711	£870	£450	£541	£511	£1,301	£128	£605
Acute Elective	£178	£121	£21	£624	£211	£236	£189	£77	£201	£182	£415	£0	£209
Acute Non-Elective	£277	£317	£694	£0	£223	£285	£491	£147	£218	£193	£575	£39	£233
GP Encounters	£125	£128	£169	£358	£157	£168	£190	£146	£104	£102	£261	£89	£145
Community	£0	£0	£0	£0	£0	£0	£0	£0		£0	£0	£0	£(
Mental Health	£12	£37	£311	£0	£15	£21	£0	£79	£16	£32	£50	£0	£17
Social Care	£2	£5	£0	£0	£1	£1	£0	£0	£1	£1	£0	£0	£1
GP PPPY	21	21	28	58	19	21	23	19	17	17	42	15	19
Beddays PPPY - Acute EM	0	0	1	0	0	0	0	0	0	0	0	0	(
Physical Health													
Diabetes •	10.2%	13.5%	15.8%	0.0%	10.3%	10.8%	8.9%	3.8%	7.3%	6.9%	0.0%	33.3%	9.8%
COPD ▼	2.0%	2.8%	0.0%	0.0%	1.6%	2.3%	0.0%	0.0%	1.0%	1.8%	0.0%	0.0%	1.6%
Chronic Respiratory Dis ▼	2.4%	3.5%	0.0%	0.0%	2.1%	2.9%	0.9%	0.0%	1.7%	2.0%	0.0%	0.0%	2.2%
Hypertension •	14.8%	15.9%	36.8%	0.0%	17.0%	17.3%	16.1%	9.4%	13.9%	12.2%	0.0%	0.0%	16.2%
Obesity ▼	8.7%	11.0%	15.8%	100.0%	13.1%	16.2%	22.3%	7.5%		10.9%	16.7%	0.0%	12.1%
Mental Health													
Anxiety/Phobias ▼	9.4%	12.3%	26.3%	100.0%	12.6%	13.5%	13.4%	17.0%	9.4%	12.6%	33.3%	0.0%	12.0%
Depression ▼	11.0%	15.1%	36.8%	100.0%	16.1%	18.0%	21.4%	24.5%	11.6%	15.2%	16.7%	0.0%	15.4%
Learning Disability ▼	0.8%	1.9%	10.5%	0.0%	1.0%	1.5%	0.0%	3.8%		1.7%	0.0%	0.0%	1.1%
Dementia •	1.2%	2.6%	10.5%	0.0%	1.3%	1.3%	0.0%	3.8%		1.8%	0.0%	0.0%	1.49
Other Characteristics	1.270	2.0%	10.5%	0.0%	1.5%	1.3%	0.9%	3.0%	1.5%	1.070	0.0%	0.0%	1.4%
Housebound (eFI)	0.2%	0.0%	0.0%	0.0%	0.3%	0.5%	0.0%	0.0%	0.3%	0.3%	0.0%	0.0%	0.3%
											202.50		
Social Vulnerability (eFI)   Vistage of Omething (Text	2.8%	1.6%	0.0%	0.0%	3.0%	4.0%	7.1%	7.5%	3.2%	2.8%	0.0%	0.0%	3.19
History of Smoking (Tw ▼	8.7%	11.1%	15.8%	0.0%	5.3%	8.4%	7.1%	9.4%	4.7%	8.4%	33.3%	0.0%	5.9%
Not Fit for Work (In Year) ▼	2.1%	3.7%	10.5%	0.0%	2.7%	4.1%	8.0%	1.9%	2.4%	4.0%	16.7%	0.0%	2.9%
On a Waiting List	5.8%	8.6%	5.3%	0.0%	6.7%	7.4%	8.9%	0.0%	6.6%	6.5%	33.3%	0.0%	6.8%

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												
							Othe	er Condit	ions	_	_		_	
For people	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
with this condition	Alzheimers Disease		30%	7%	4%	46%		80%	16%	30%	42%	0%	2%	8%
	Asthma	2%		6%	2%	20%		3%	3%	19%	21%	1%	0%	47%
	COPD	4%	47%		13%	24%		8%	8%	60%	33%	2%	3%	0%
	Heart Failure	4%	22%	19%		17%		11%	5%	89%	21%	2%	7%	1%
	Anxiety	4%	23%	3%	2%			5%	5%	21%	50%	1%	1%	17%
	Dementia	53%	29%	10%	9%	44%			13%	41%	43%	2%	5%	1%
	Alcohol Abuse	7%	22%	6%	2%	31%		8%		22%	28%	1%	1%	19%
	ABCD Prescription	2%	17%	6%	6%	16%		4%	3%		22%	1%	2%	21%
	Anti-Depressive Prescription	3%	23%	4%	2%	47%		5%	5%	26%		1%	1%	22%
	Activity Limitation (eFI)	1%	22%	8%	7%	28%		8%	4%	47%	32%		5%	17%
	Housebound (eFI)	5%	13%	15%	22%	25%		21%	3%	72%	42%	5%		5%

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**



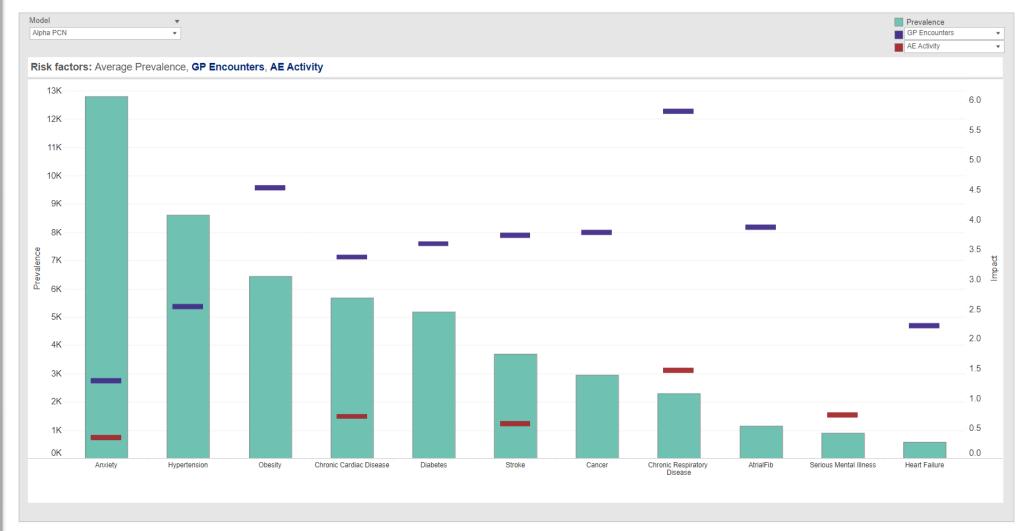
	Total	1 - Healthy	2 - Living With Illness	3 - Lower Complexity	4 - Advanced Disease & Com	5 - EoL, Frailty & Dementia
Alcohol & Substance Abuse ▼	7.5%	0.0%	8.5%	12.3%	29.1%	35.5%
High Cholesterol (Two Years) ▼	7.0%	0.0%	12.3%	13.0%	11.1%	12.2%
Activity Limitation (eFI)	0.3%	0.0%	0.0%	0.0%	3.3%	6.1%
On a Waiting List	6.8%	3.3%	6.1%	10.1%	16.7%	21.8%
History of Smoking ▼	23.8%	10.8%	30.8%	36.1%	38.2%	34.7%
Housebound (eFI) ▼	0.3%	0.0%	0.0%	0.0%	1.8%	11.1%
NHS Health Check (5 Years) ▼	11.7%	7.1%	17.7%	15.3%	8.4%	<mark>4.5</mark> %
Hypertension Annual Review 🔻	1.6%	0.0%	1.1%	3.7%	<b>5.3</b> %	7.8%
Q Risk Moderate (Two Years) ▼	1.7%	0.2%	2.7%	3.6%	2.0%	1.1%
History of Smoking ▼	23.8%	10.8%	30.8%	36.1%	38.2%	34.7%
		0% 10% 20% 30% 40%	0% 10% 20% 30% 40%	0% 10% 20% 30% 40%	0% 10% 20% 30% 40%	0% 10% 20% 30% 40%

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.

## Risk Modelling - Prevalence against GP Activity & A&E





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.

### **Public Health - Cancer Screening**





# **Cancer Screening**

	Period	HERTFORDSHIRE AND WEST ESSEX	ALPHA PCN	ROTHSCHILD HOUSE GROUP	THE MANOR STREET SURGERY	THE NEW SURGERY	GOSSOMS END SURGERY
Women, aged 25-49, with a record of cervical screening in the last 3.5 yrs (denominator includes PCAs)	2020/21	73.3	78.4	78.1	78.9	77.8	79.6
Women, aged 50-64, with a record of cervical screening in the last 5.5 yrs (denominator includes PCAs)	2020/21	78.2	78.4	78.9	76.7	76.5	77.6
Persons, 25-49, attending cervical screening within target period (3.5 year coverage, %)	2020/21	73	78.9	78.5	80.2	77.8	78.8
Persons, 50-64, attending cervical screening within target period (5.5 year coverage, %)	2020/21	77	77.7	78.3	76.6	76	73.5
Persons, 50-70, screened for breast cancer in last 36 months (3 year coverage, %)	2020/21	63.9	73.8	74.8	70.5	71.9	71.4
Persons, 50-70, screened for breast cancer within 6 months of invitation (Uptake, %)	2020/21	61.3	68	70	56.9	41.7	44.4
Persons, 60-74, screened for bowel cancer within 6 months of invitation (Uptake, %)	2020/21	72.1	76.5	76.5	78.7	80.2	66
Persons, 60-74, screened for bowel cancer in last 30 months (2.5 year coverage, %)	2020/21	68.8	73.2	73	75.4	75	66.4
			Similar	Significantly Worse 📕 Si	ignflicantly Better		

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# **Public Health - Mortality**





	Period	Hertfordshire	NHS HERTFORDSHIRE AND WEST ESSEX ICB - 06N	ALPHA PCN
Percentage of deaths that occur at home (All age)	2021	25.3	23.9	24.8
PYLL - Neoplasms	2021	505	498.3	309.9
PYLL - Diseases of the circulatory system	2021	737.5	690.5	494
PYLL - All Cause	2021	1537.7	1496.4	1027.4
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	35.4
Premature Mortality - Cancer	2021	98.5	97.1	77.7
Premature Mortality - All Cause	2021	269.6	262.3	186.8

Similiar Significantly Worse Significantly Better

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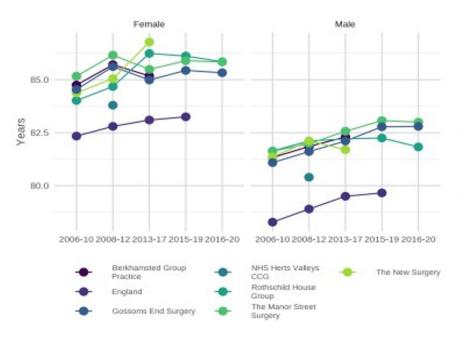


#### **Public Health - Life Expectancy**

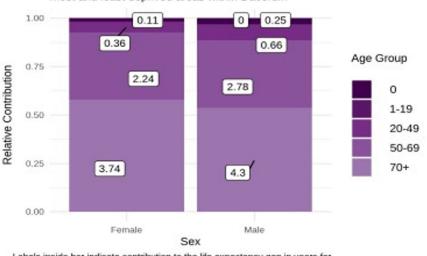




# **Life Expectancy**



Contribution of different age bands to the gap between the most and least deprived areas within Dacorum



Labels inside bar indicate contribution to the life expectancy gap in years for each age group. This can be used to target interventions at age groups with the biggest inequality in life expectancy. The gap in life expectancy at birth for females is 6.27 years and for males is 7.99 years.

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