Diabetes and Non-Diabetic Hyperglycaemia

Hertfordshire and West Essex ICB Insights Pack

Dr Alex Wilcox, Clinical Fellow

Dr Sam Williamson, Associate Medical Director
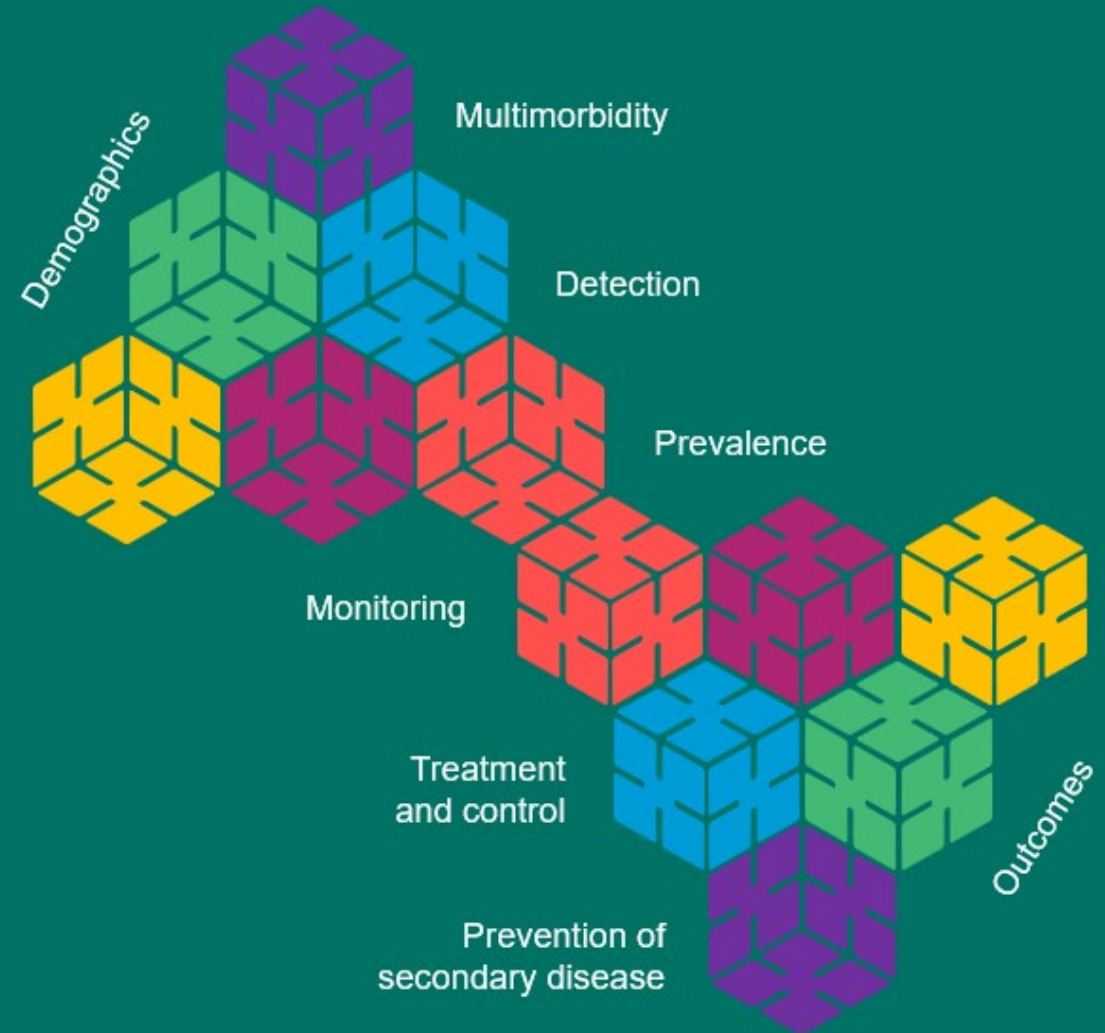
Jaron Inward, Senior PHM Champion
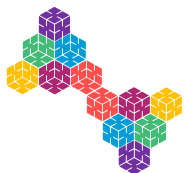
Working together
for a healthier future

Contents

Demographics

Multimorbidity

Detection

Prevalence

Monitoring

Treatment and control

Outcomes

Prevention of secondary disease

Hertfordshire and West Essex Integrated Care System

Key Messages and Recommendations

- Prevalence of diabetes and non-diabetic hyperglycaemia (NDH) continues to rise, and there remains a gap between the observed and expected prevalence of NDH and diabetes with variation by Place Area

  - *Proactively identifying patients through NHS Health Checks. Practices with low prevalence of diabetes should consider whether proactively identifying patients at risk of diabetes is part of their disease detection plans, in the Enhanced Commissioning Framework (ECF), and referring those with NDH to National Diabetes Prevention Programme (NDPP) and those identified with a diagnosis are adequately coded.*

  - *'Do nothing' scenario of maintaining current care provision will result in increased demand for services with already stretched capacity and increased prescribing costs. This warrants action to innovate pathways and develop new models of diabetes care, delivered at scale.*

- Ethnic minorities, and those living in deprivation are disproportionately represented in the diabetes cohort

  - *Continue to address health inequalities through programme workstreams such as the development of an integrated diabetes service.*

- Referral rates are continuing to rise for NDPP however there are a large proportion of people with NDH who are not being offered NDPP

  - *To consider a deep dive into practices or Primary Care Networks (PCNs) with low uptake to NDPP to understand common themes for patients either withdrawing or not signing up, and signposting patients to information webinars on providing further information around NDPP*

- 8 Care Processes (8CP) completion rates and proportion of people with diabetes meeting the 3 Treatment Targets (3TT) have increased from the previous year, however variation still exists between Place Areas. Across all place areas, type 2 diabetes has a higher rate of 8CP and 3TT when compared to type 1 diabetes.

  - *Increasing the threshold for all 8CP completed for patients with diabetes incentivising primary care to increase 8CP completion with compensation for the work they do.*
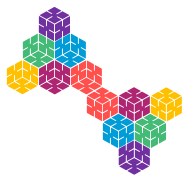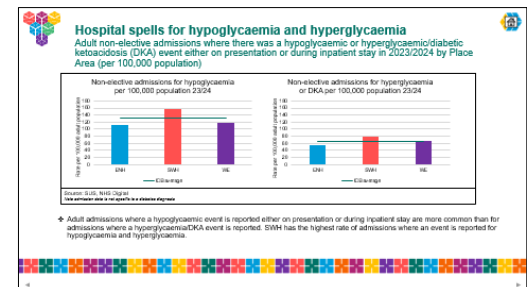

Hertfordshire and West Essex Integrated Care System
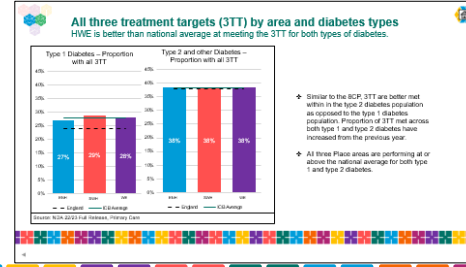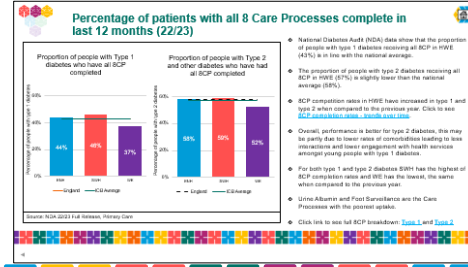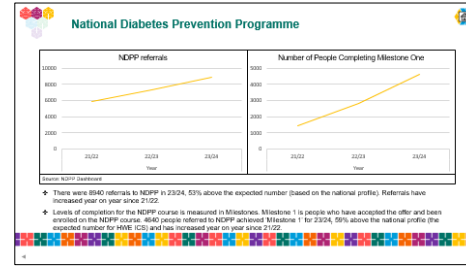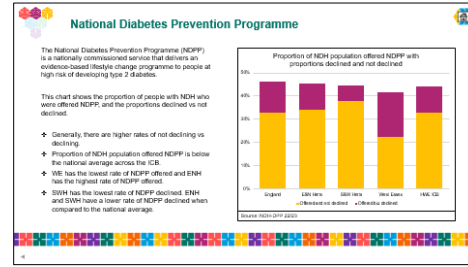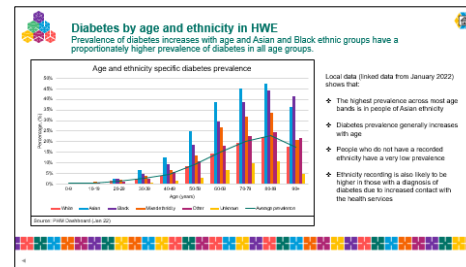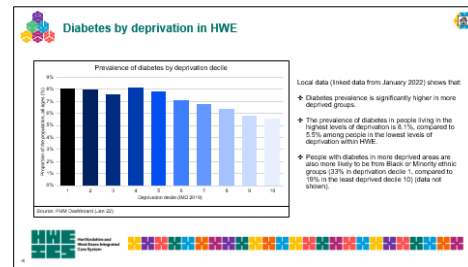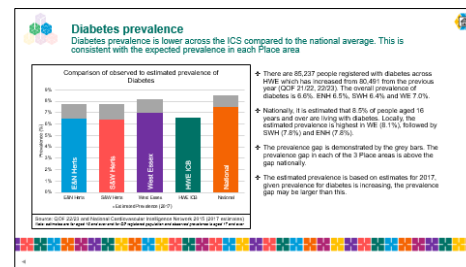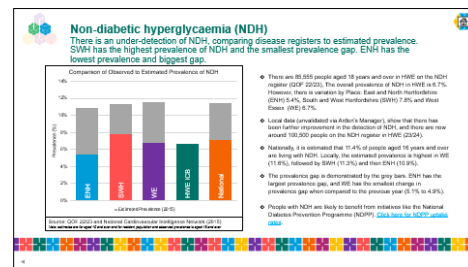
Key Messages and Recommendations

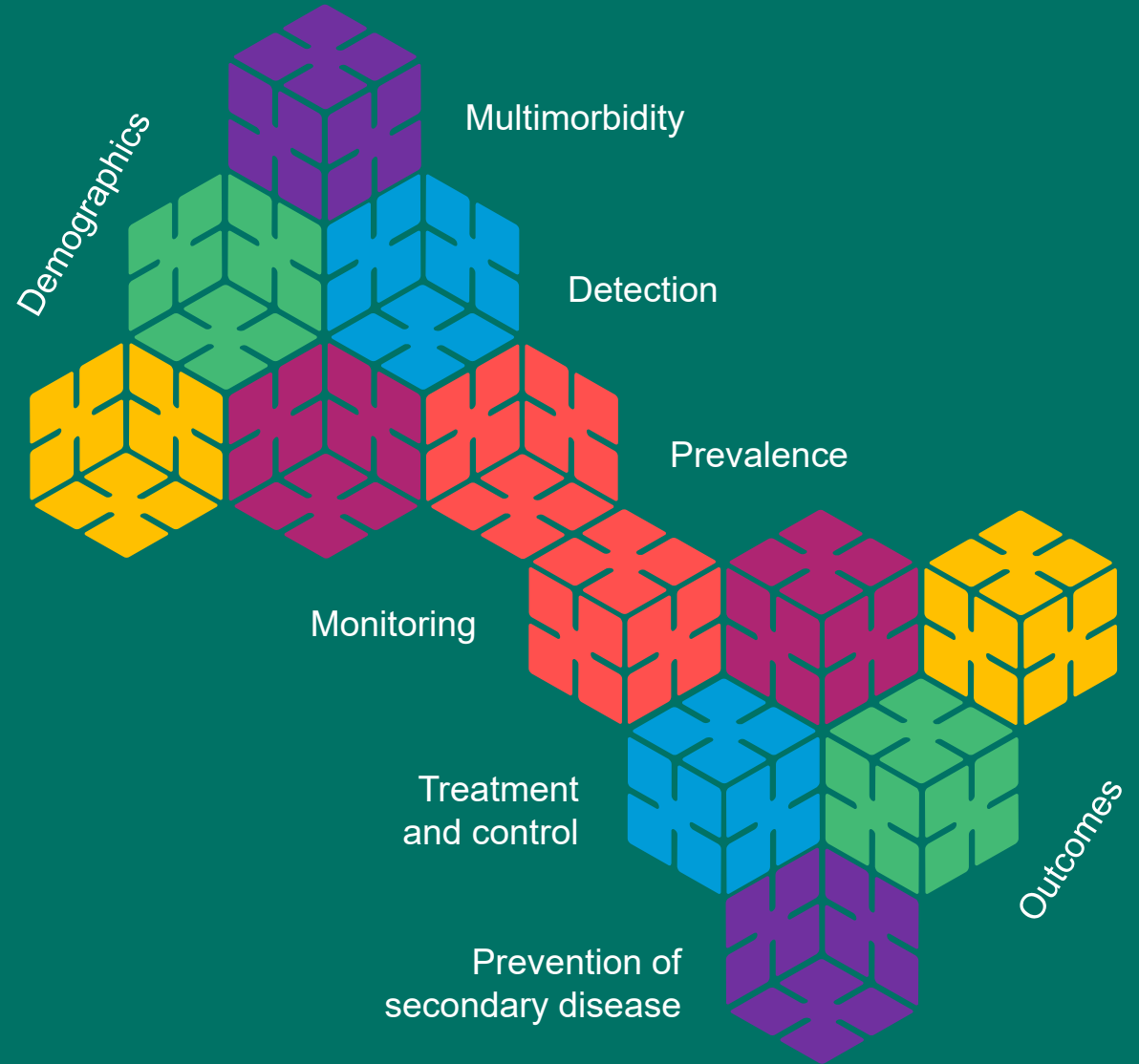- Those living in more deprived areas, people of Mixed ethnicity and those living with advanced disease/complexity, are less likely to have had care processes or annual reviews completed.

  - *Understand common themes around why people in these groups are less likely to have their care processes completed, for example, limited access to care during working hours, and look at solutions such as digital structured education.*

- Primary care prescribing spend for diabetes in HWE ICB is £35.3m, which is lower than the national median. NICE treatment algorithm for medicines in adults with Type 2 diabetes (NG28) has been approved for local use and advocates use of Sodium-Glucose co-transporter 2 inhibitors (SGLT2i) in patients with established cardiovascular disease (CVD) and those at high risk of CVD. Spend on SGLT2i is significantly increasing but will support improved cardiovascular outcomes for the eligible cohorts. Despite spend on technology to monitor blood glucose and ketones being lower than the national median, further savings can be made through the prescribing of cost-effective strips and lancets. However, due to CGM roll out in certain cohorts, this will likely impact an increase in overall prescribing spend.

  - *Providing comms to prescribers on a) use of the NICE treatment algorithm for medicines in Type 2 diabetes supporting use of SGLT-2i in eligible cohorts to improve cardiovascular outcomes and b) prescribing cost-effective testing strips and lancets.*

- Prescribing ACEi or ARBs for diabetic nephropathy is below the national median. Urine albumin is the poorest completed 8CP.

  - *Increasing uptake of urinary albumin rates and detecting kidney disease across HWE in the diabetic population through the ICB Minuteful Kidney pilot. Further scoping work would be required to understand under prescribing of ACEi or ARBs in diabetic nephropathy and whether awareness and training is required to improve prescribing levels.*

- Admission rates for diabetic complications, such as diabetic foot complications, varies between Place Area

  - *Training for HCAs in primary care for foot screening in diabetes was completed in 2022/23 with ongoing work through patient webinars on patient education for the importance of foot checks.*

Diabetic care

Primary care prescribing

ACE inhibitor and ARB prescribing in diabetic nephropathy

Hospital spells for hypoglycaemia and hyperglycaemia

Hertfordshire and West Essex Integrated Care System
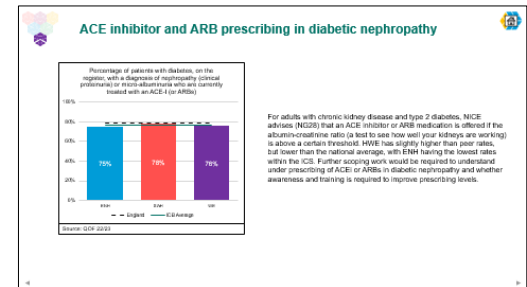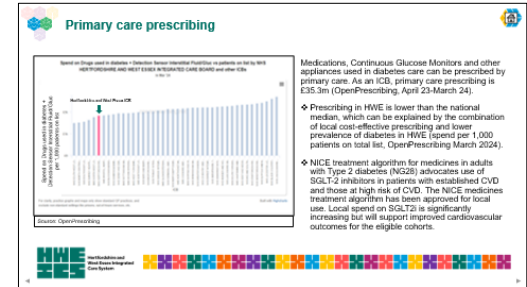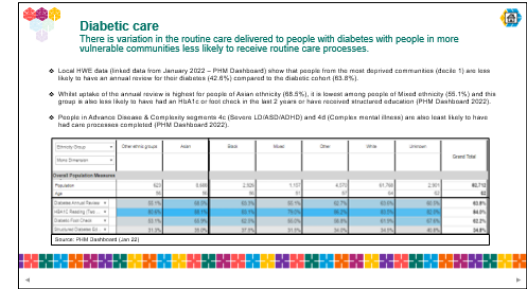
Prevalence and Detection

The following slides show prevalence and detection of Non-diabetic Hyperglycaemia and Diabetes within Hertfordshire and West Essex ICS

Working together
for a healthier future

Non-diabetic hyperglycaemia (NDH)

There is an under-detection of NDH, comparing disease registers to estimated prevalence. SWH has the highest prevalence of NDH and the smallest prevalence gap. ENH has the lowest prevalence and biggest gap.

Comparison of Observed to Estimated Prevalence of NDH

Prevalence (%)

Categories: ENH, SWH, WE, HWE ICB, National

Y-axis: 0% to 14%

Legend: ■ Estimated Prevalence (2015)

Source: QOF 22/23 and National Cardiovascular Intelligence Network (2015)
Note: estimates are for aged 16 and over and for resident population and observed prevalence is aged 18 and over
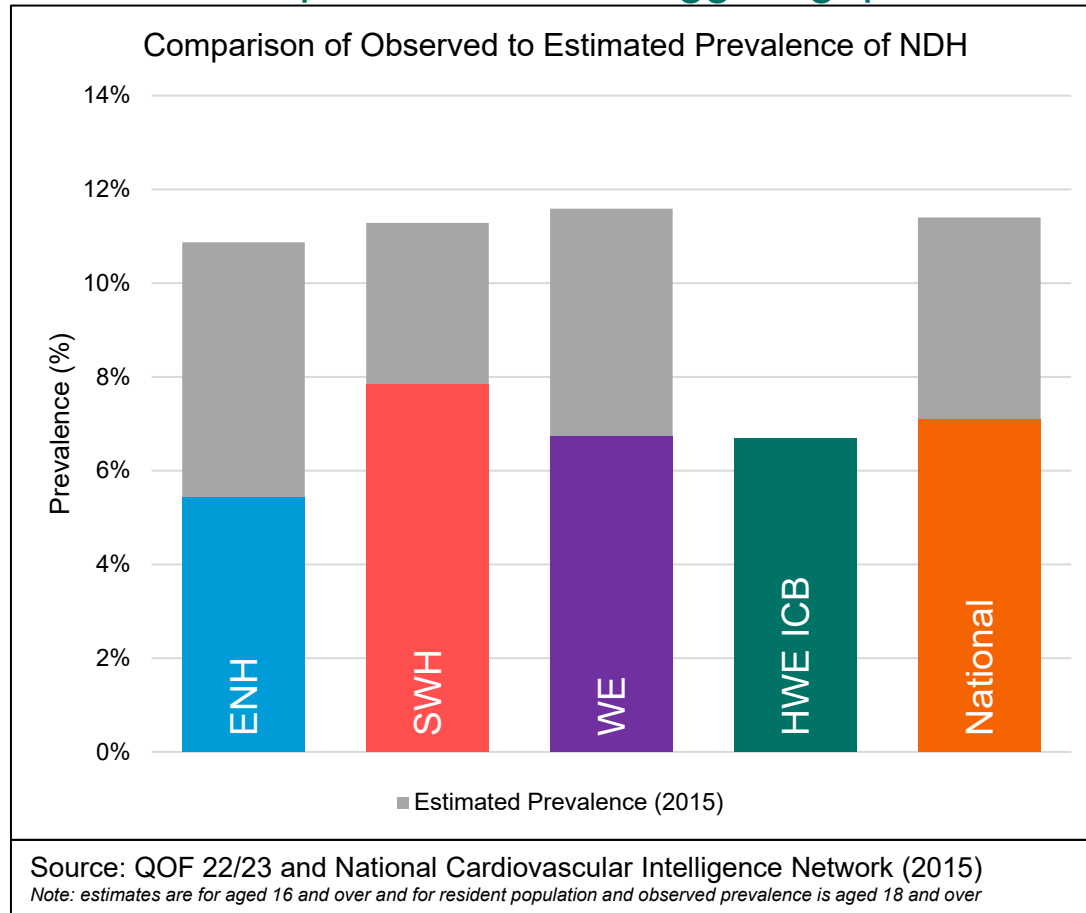
- ❖ There are 85,555 people aged 18 years and over in HWE on the NDH register (QOF 22/23), The overall prevalence of NDH in HWE is 6.7%. However, there is variation by Place: East and North Hertfordshire (ENH) 5.4%, South and West Hertfordshire (SWH) 7.8% and West Essex (WE) 6.7%.

- ❖ Local data (unvalidated via Arden's Manager), show that there has been further improvement in the detection of NDH, and there are now around 100,500 people on the NDH register in HWE (23/24).

- ❖ Nationally, it is estimated that 11.4% of people aged 16 years and over are living with NDH. Locally, the estimated prevalence is highest in WE (11.6%), followed by SWH (11.3%) and then ENH (10.9%).

- ❖ The prevalence gap is demonstrated by the grey bars. ENH has the largest prevalence gap, and WE has the smallest change in prevalence gap when compared to the previous year (5.1% to 4.9%).

- ❖ People with NDH are likely to benefit from initiatives like the National Diabetes Prevention Programme (NDPP). Click here for NDPP uptake rates.

Non–diabetic hyperglycaemia prevalence and rate

NDH is increasing locally and nationally.

❖ NDH prevalence in HWE is increasing in line with national rates. As shown previously, the gaps between observed and expected prevalence are large, and this increase might reflect increased detection rather than as a higher proportion of the population being at risk of diabetes.

❖ The number of people on the NDH register has increased by more than 11,000 from 74,181 the previous year (QOF 21/22). All 3 areas in the ICB have seen an increase in prevalence, reflecting improved detection, with the greatest increase seen in SWH (increasing from 6.7%). Prevalence in ENH has increased from 4.6% whilst the lowest increase has been observed in WE (increasing by 0.2% from 6.5%).

❖ Practices can review their prevalence and compare to peers, and areas with low prevalence can use funding for disease detection in the ECF to support the identification of people with undetected NDH.

❖ As NDH increases, local providers of diabetes prevention programmes will need to have more capacity for people to join.

NDH prevalence over time

Source: NDA - DPP 22/23
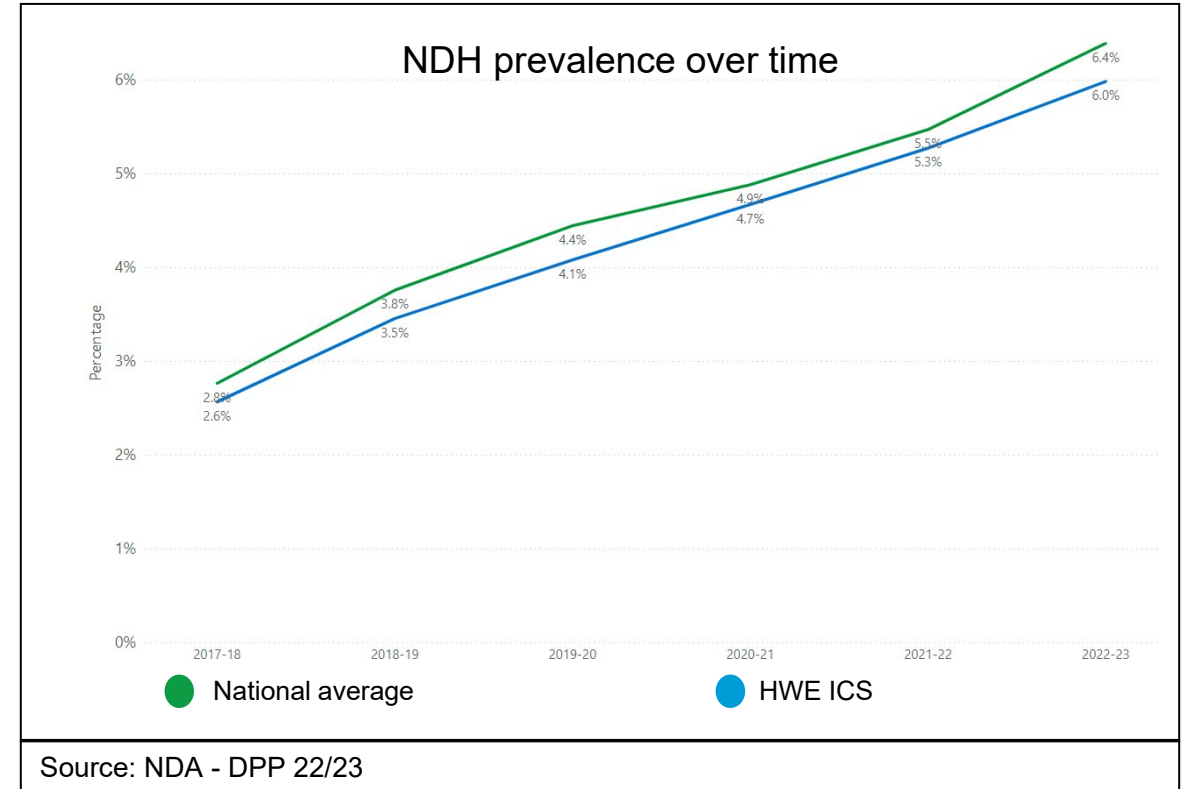
Diabetes prevalence

Diabetes prevalence is lower across the ICS compared to the national average. This is consistent with the expected prevalence in each Place area

Comparison of observed to estimated prevalence of Diabetes

Prevalence (%)

Bars: E&N Herts, S&W Herts, West Essex, HWE ICB, National

Legend: ■ Estimated Prevalence (2017)

Source: QOF 22/23 and National Cardiovascular Intelligence Network 2015 (2017 estimates)
Note: estimates are for aged 16 and over and for GP registered population and observed prevalence is aged 17 and over

- ❖ There are 85,237 people registered with diabetes across HWE which has increased from 80,491 from the previous year (QOF 21/22, 22/23). The overall prevalence of diabetes is 6.6%. ENH 6.5%, SWH 6.4% and WE 7.0%.

- ❖ Nationally, it is estimated that 8.5% of people aged 16 years and over are living with diabetes. Locally, the estimated prevalence is highest in WE (8.1%), followed by SWH (7.8%) and ENH (7.8%).

- ❖ The prevalence gap is demonstrated by the grey bars. The prevalence gap in each of the 3 Place areas is above the gap nationally.

- ❖ The estimated prevalence is based on estimates for 2017, given prevalence for diabetes is increasing, the prevalence gap may be larger than this.

Diabetes prevalence

Diabetes Observed Prevalence (aged 17 and over)

National Average:
- 2015-16: 6.54%
- 2016-17: 6.67%
- 2017-18: 6.79%
- 2018-19: 6.93%
- 2019-20: 7.08%
- 2020-21: 7.11%
- 2021-22: 7.25%
- 2022-23: 7.45%

HWE ICS:
- 2015-16: 5.57%
- 2016-17: 5.77%
- 2017-18: 5.91%
- 2018-19: 6.09%
- 2019-20: 6.20%
- 2020-21: 6.22%
- 2021-22: 6.38%
- 2022-23: 6.56%

Y-axis: Prevalence % (0% to 8%)
X-axis: Year

Legend: —— HWE ICS - - - National Average

Source: QOF data
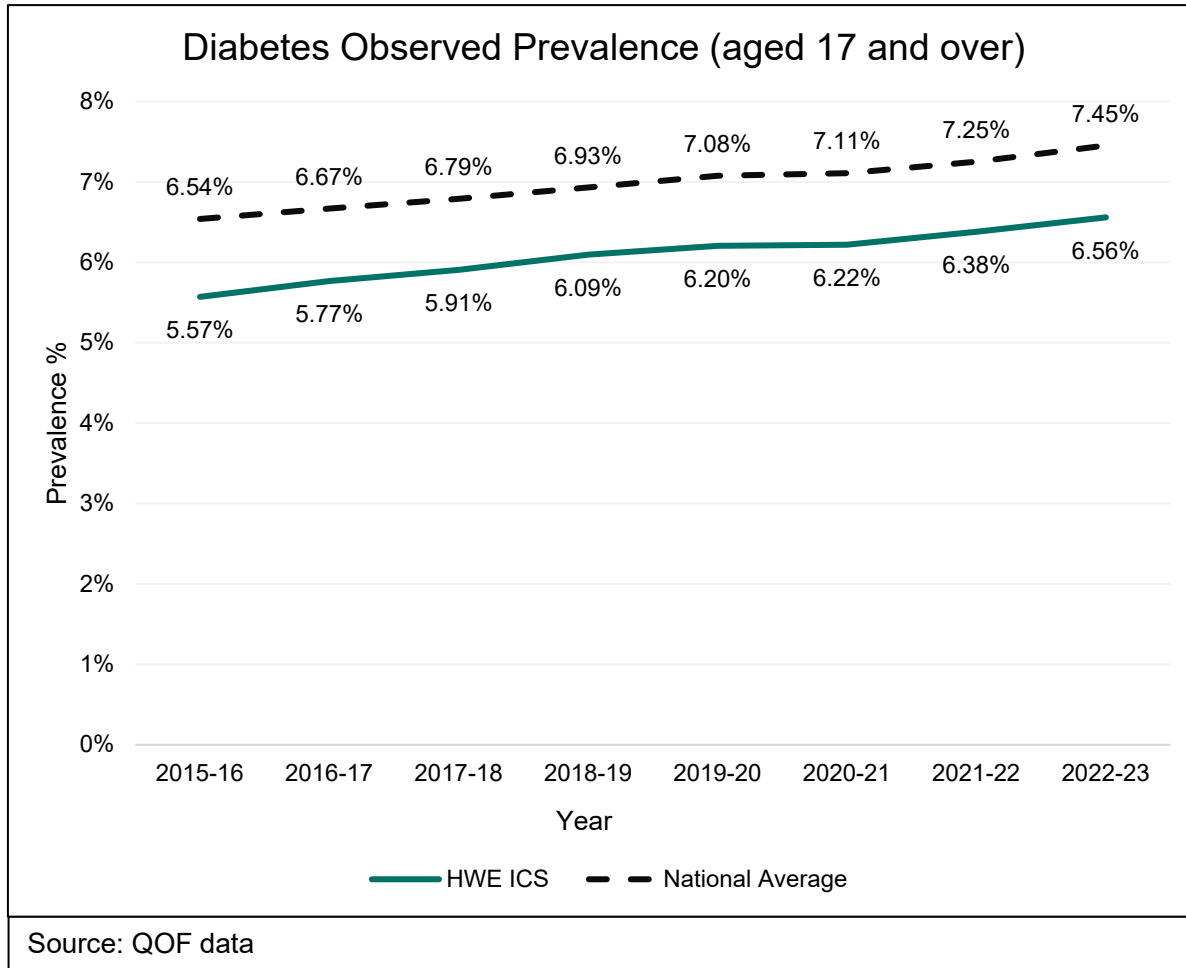
❖ The observed prevalence of diabetes in HWE is steadily increasingly, year on year.

❖ The gap between the prevalence in HWE and the national prevalence has slightly decreased from 0.97% in 2015/16 to 0.89% in 2022/23.

  ❖ This may partially be due to a smaller prevalence gap locally between observed and expected prevalence.

Estimated diabetes prevalence

Modelling from 2016 provides an estimated prevalence for each area over time. This shows that the upward trend in diabetes prevalence is predicted to continue as the population ages and risk factors for diabetes persist. By 2035, it is estimated that between 8.6-9.0% of the population will have diabetes.

Trends in estimated diabetes prevalence

Source: National Cardiovascular Intelligence Network (2016)
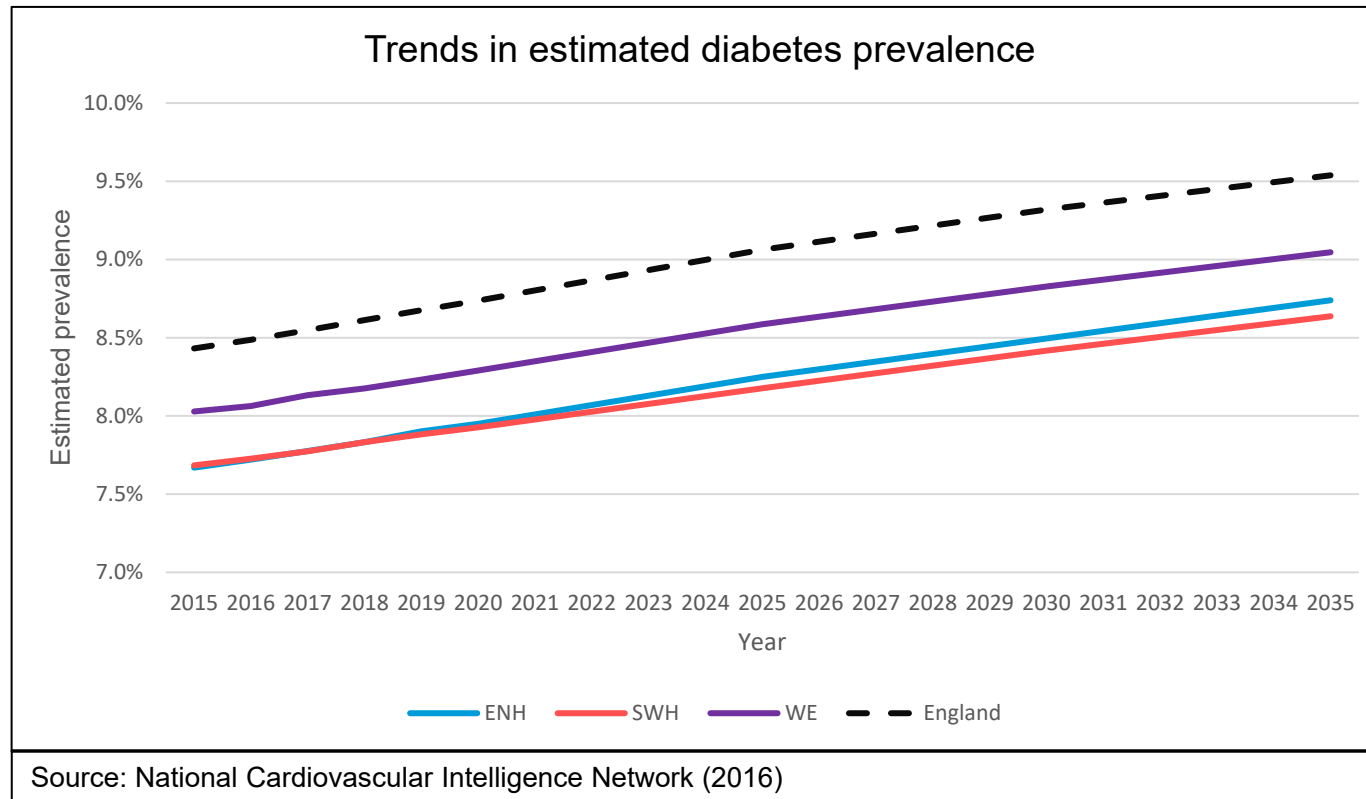
Demographics

The following slides show the demographics of the population with NDH and Diabetes

Working together
for a healthier future

Demographics

Multimorbidity

Detection

Prevalence

Monitoring

Treatment
and control

Outcomes

Prevention of
secondary disease
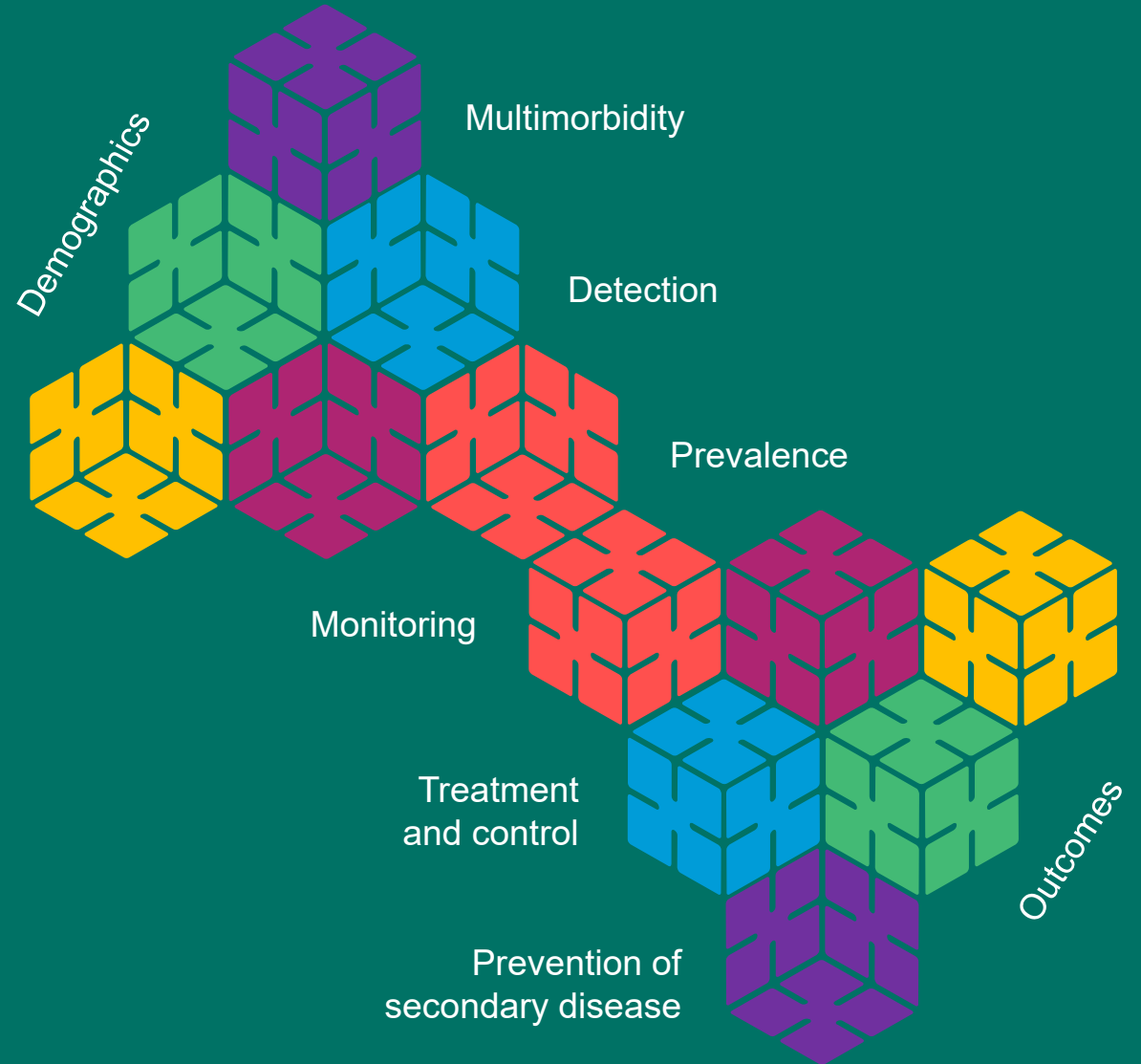
NDH demographics

The HWE NDH population largely reflects the general population in HWE. The proportion of those with Unknown Ethnicity has decreased, and the proportion of those with White or Other ethnicity has increased (when compared to 21/22 NDA-DPP data), which may be due to better reporting. The age distribution of NDH is similar to the age profile of people with Type 2 Diabetes.

NDH by IMDq

	HWE total pop	HWE NDH pop
5 - least deprived	35.40%	34.60%
4	22.20%	23.10%
3	24.70%	25.50%
2	15.70%	15.10%
1 - most deprived	2.00%	1.80%

NDH by age

	HWE NDH pop
80 and over	15.90%
65 to 79	36.20%
40 to 64	42.80%
Under 40	5.10%

NDH by Ethnicity

	HWE total pop	HWE NDH pop
Ethnicity - White	79.00%	76.10%
Ethnicity - Unknown	4%	6.80%
Ethnicity - Other	17.00%	17.20%
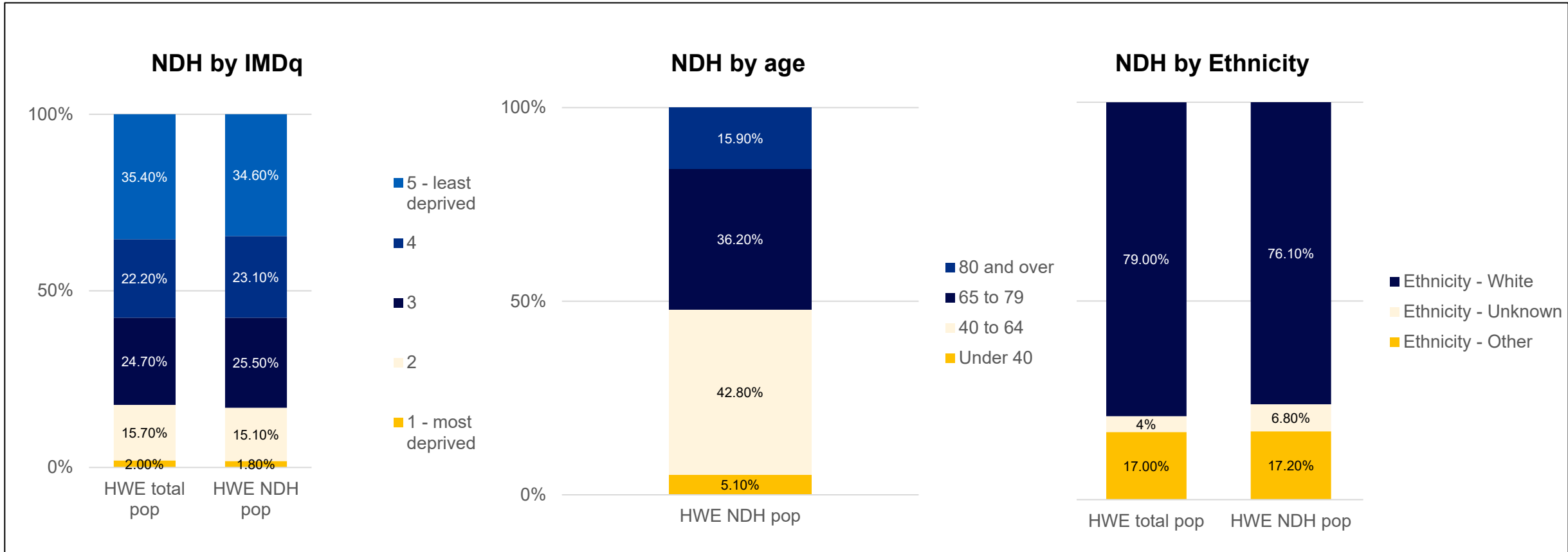
Source: NDA NDH Dashboard 22/23

Diabetes by age

The age of the population living with diabetes varies with type. Most of the population with Type 1 Diabetes is under 65, and for Type 2 Diabetes, the majority of people are 65 and over. Comparing to previous analysis, the proportion within each age band is largely unchanged.

Type 1 diabetes

	England	HWE
80 and Over	3%	3%
65 to 79	12%	11%
40 to 64	40%	42%
Under 40	45%	44%

Type 2 and other diabetes

	England	HWE
80 and Over	14%	16%
65 to 79	37%	37%
40 to 64	44%	43%
Under 40	4%	4%

Legend:
- Under 40
- 40 to 64
- 65 to 79
- 80 and Over

Source: NDA 22/23

Diabetes by deprivation in HWE

Prevalence of diabetes by deprivation decile

Source: PHM Dashboard (Jan 22)
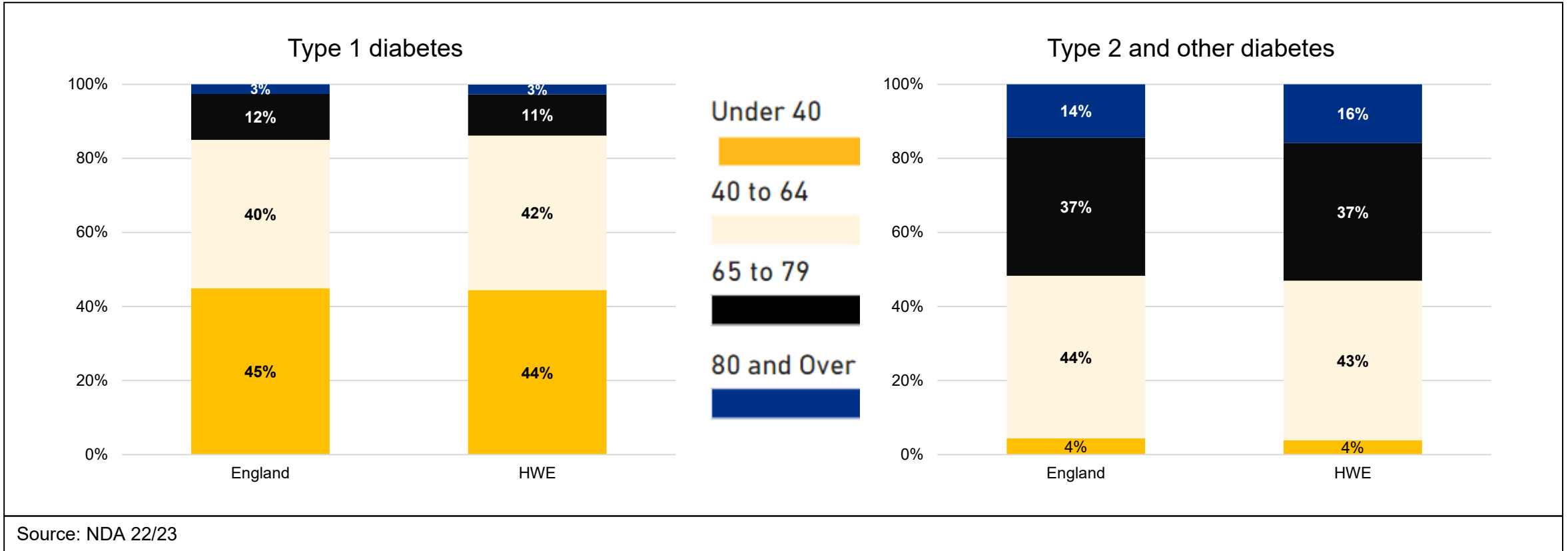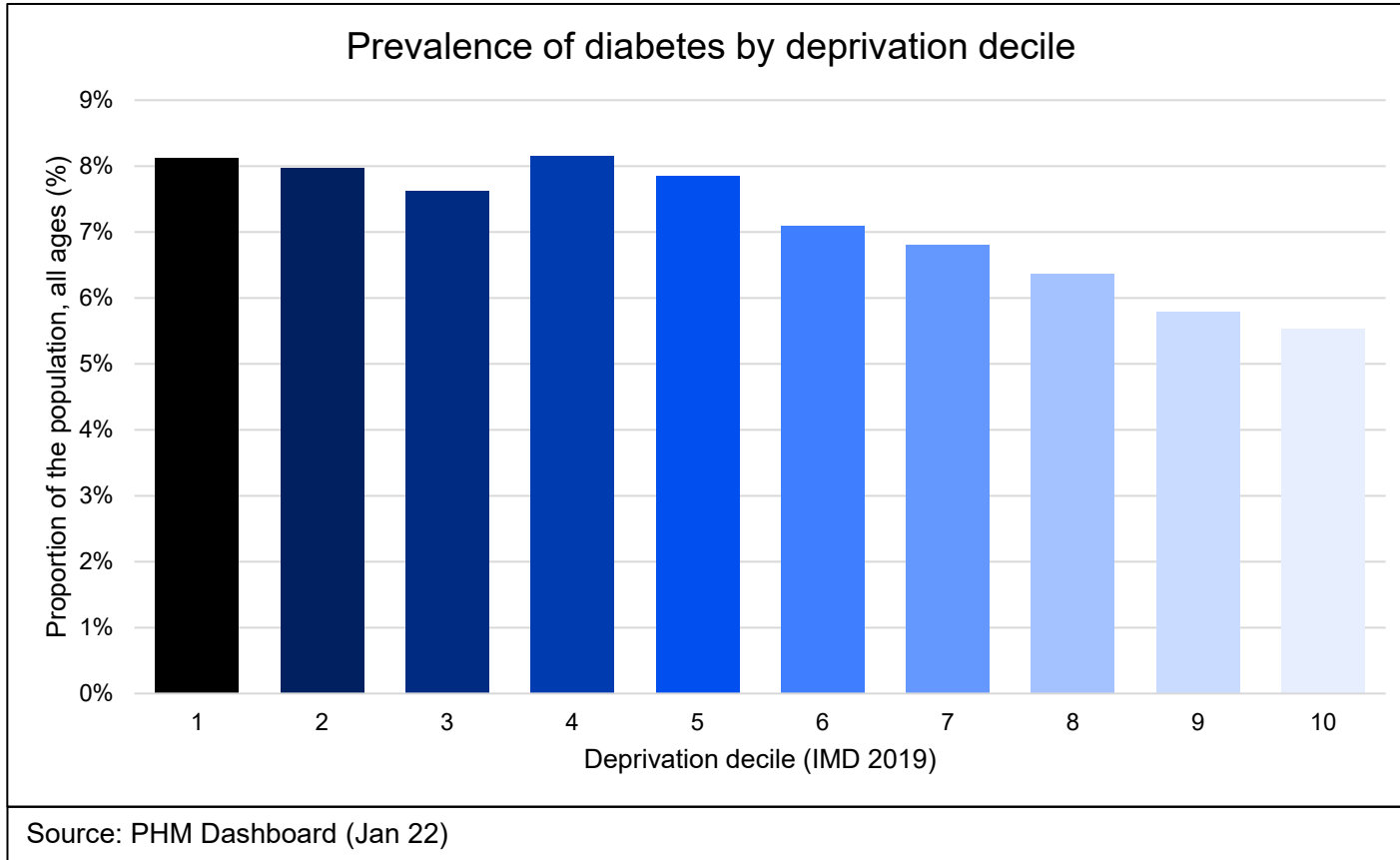
Local data (linked data from January 2022) shows that:

❖ Diabetes prevalence is significantly higher in more deprived groups.

❖ The prevalence of diabetes in people living in the highest levels of deprivation is 8.1%, compared to 5.5% among people in the lowest levels of deprivation within HWE.

❖ People with diabetes in more deprived areas are also more likely to be from Black or Minority ethnic groups (33% in deprivation decile 1, compared to 19% in the least deprived decile 10) (data not shown).

Diabetes by Type and IMD Quintile

Source: NDA 22/23 Full Release, Primary Care
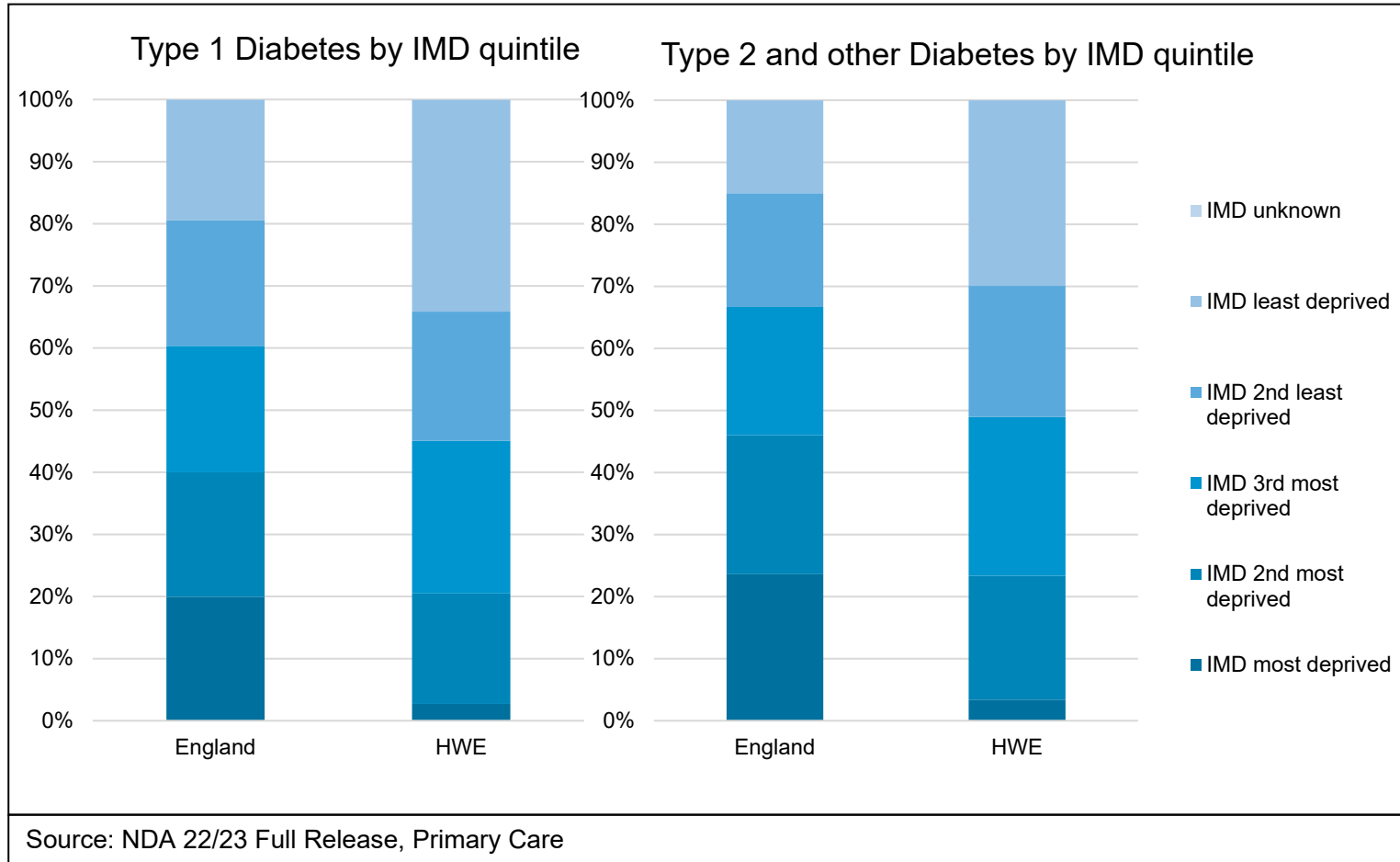
These charts show the total population with diabetes split by IMD quintile. This NDA 22/23 data shows:

❖ Type 2 diabetes generally impacts a higher proportion of those in the more deprived quintiles when compared Type 1 Diabetes.

Diabetes by age and ethnicity in HWE

Prevalence of diabetes increases with age and Asian and Black ethnic groups have a proportionately higher prevalence of diabetes in all age groups.

Age and ethnicity specific diabetes prevalence

Source: PHM Dashboard (Jan 22)
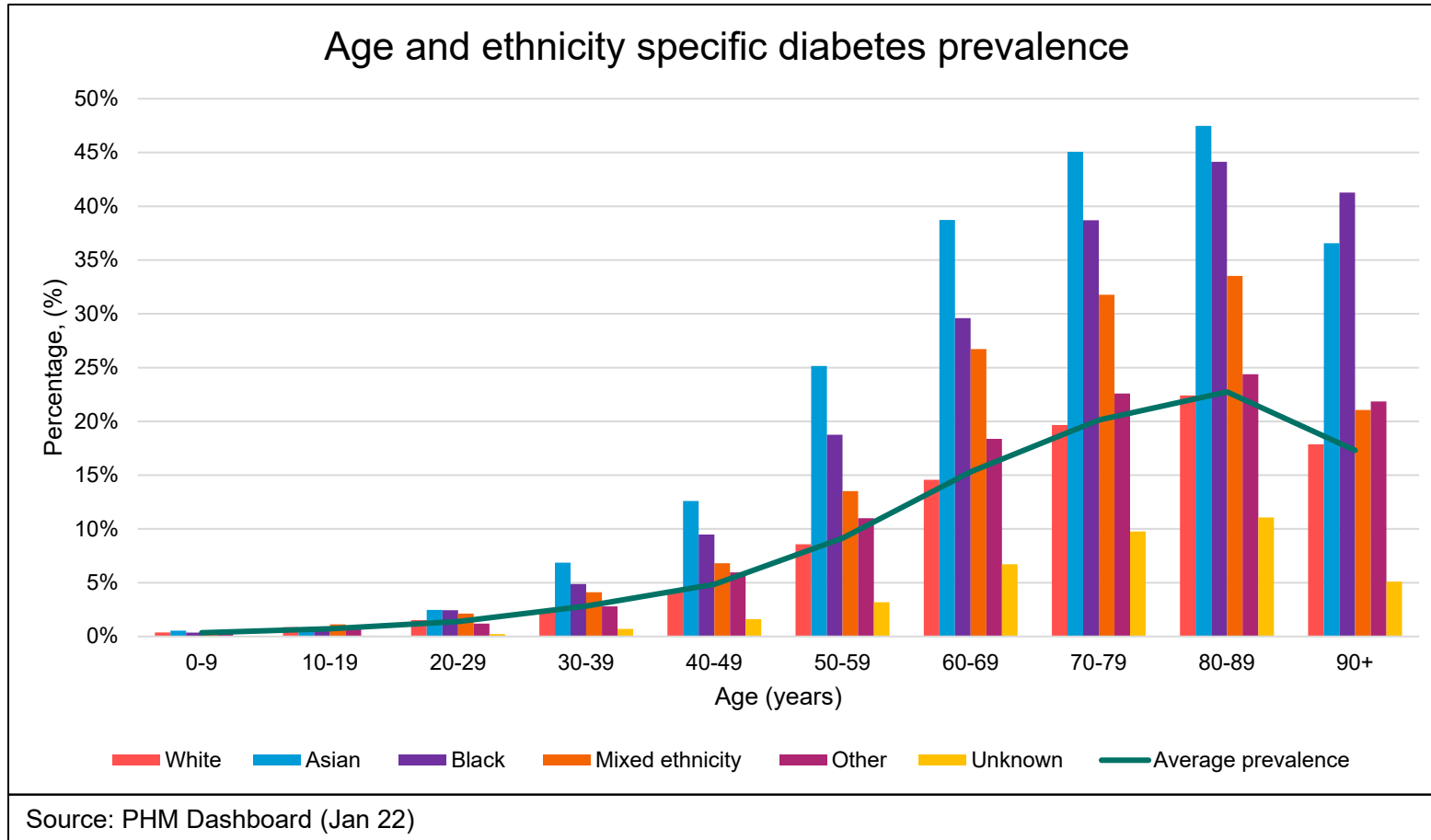
Local data (linked data from January 2022) shows that:

❖ The highest prevalence across most age bands is in people of Asian ethnicity

❖ Diabetes prevalence generally increases with age

❖ People who do not have a recorded ethnicity have a very low prevalence

❖ Ethnicity recording is also likely to be higher in those with a diagnosis of diabetes due to increased contact with the health services

Diabetes by Type and ethnicity
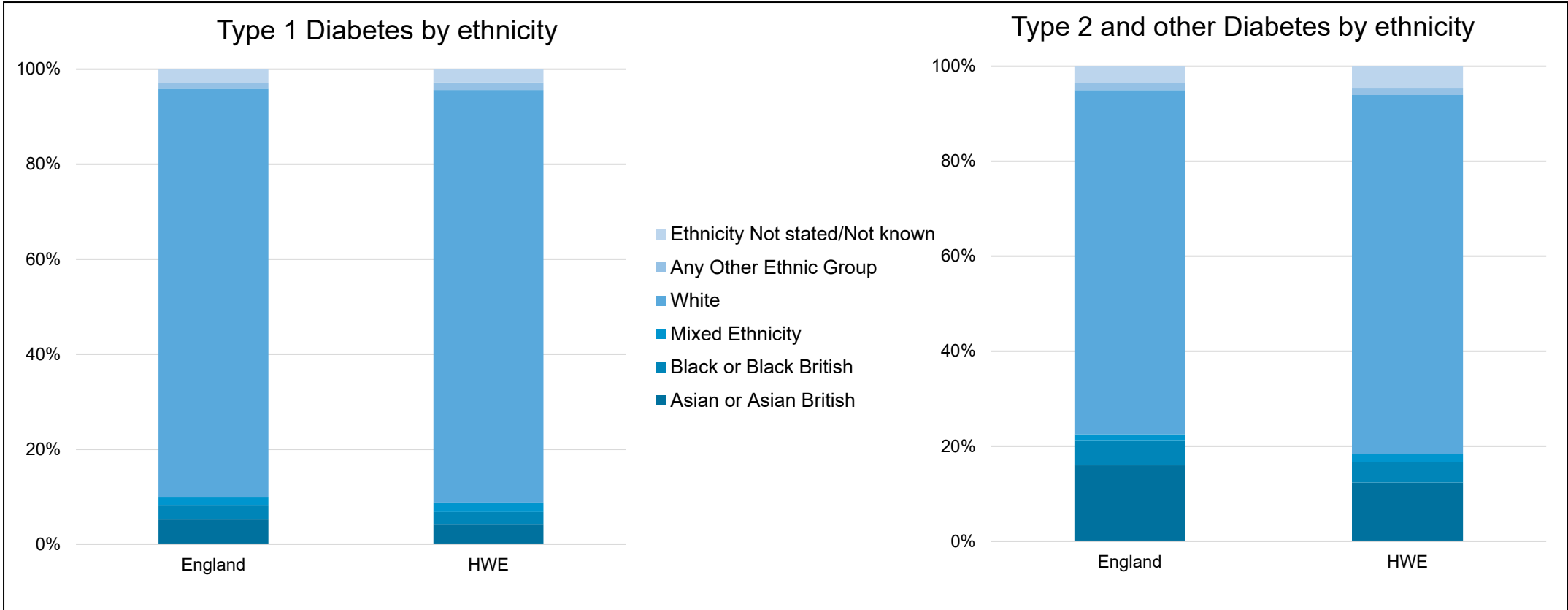
Type 1 Diabetes by ethnicity

(Bar chart showing England and HWE, y-axis 0% to 100%)

Type 2 and other Diabetes by ethnicity

(Bar chart showing England and HWE, y-axis 0% to 100%)

Legend:
- Ethnicity Not stated/Not known
- Any Other Ethnic Group
- White
- Mixed Ethnicity
- Black or Black British
- Asian or Asian British

Source: NDA 22/23 Full Release, Primary Care

These charts show the total population with diabetes, split by ethnicity. This NDA 22/23 data shows Type 2 diabetes impacts a higher proportion of ethnic minorities than in Type 1 Diabetes, which is similar when compared to the previous year.

Hertfordshire and West Essex Integrated Care System

Hertfordshire and West Essex Integrated Care System

Demographics

Multimorbidity

Detection

Prevalence

Monitoring

Treatment and control

Outcomes

Prevention of secondary disease
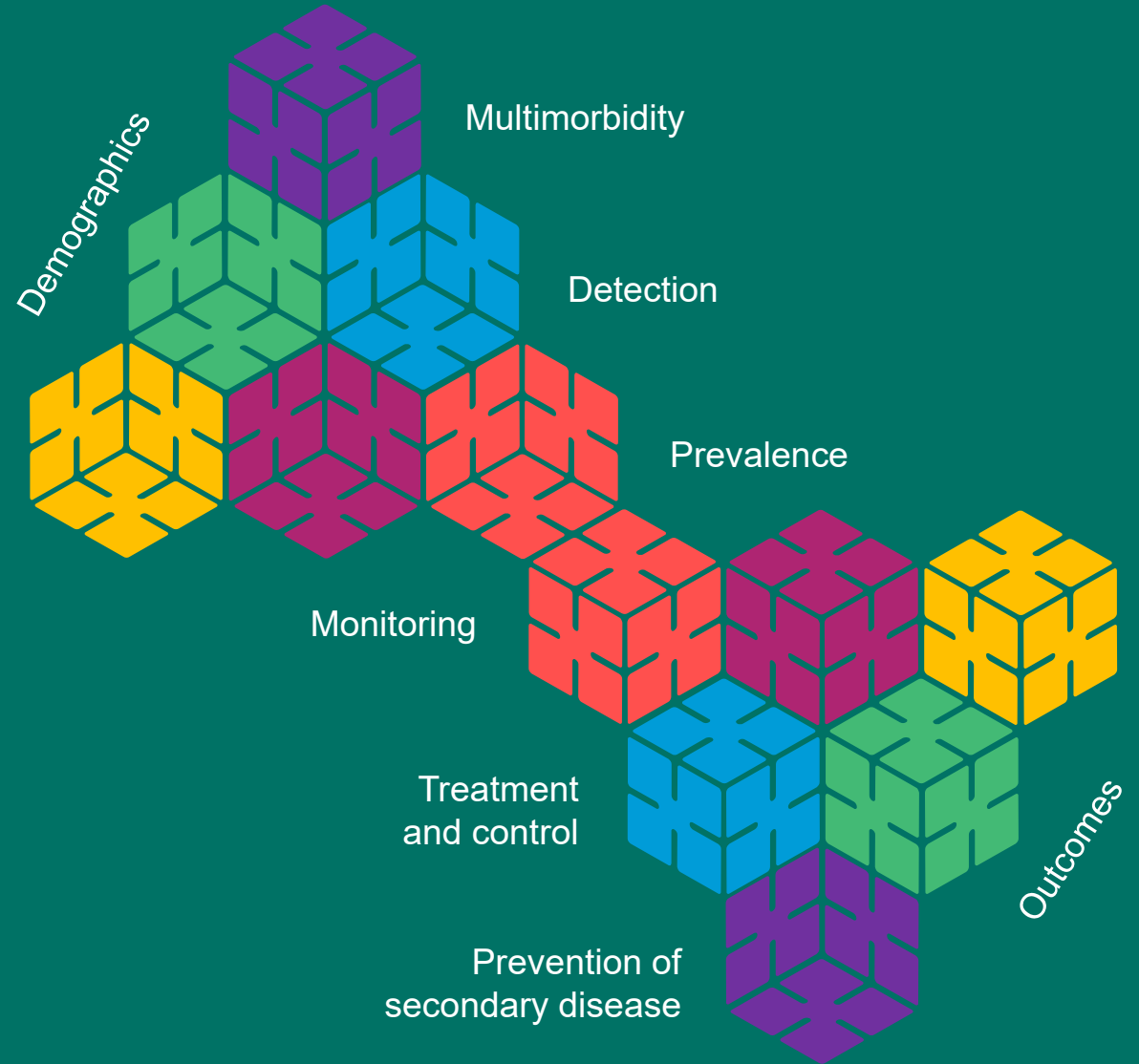
Monitoring and Care Processes

The following slides outline the monitoring of NDH and the 8 Care processes for Diabetes in the ICS

Working together
for a healthier future

Monitoring - NDH

This graph shows the Quality and Outcomes Framework (QOF) indicator by Place Area compared to National rates.

❖ Overall, rates of HbA1c/glucose monitoring have risen since the previous year from 74% to 85% nationally (QOF 21/22 and 22/23).

❖ By Place area, WE has the lowest proportion (80%) followed by ENH (83%), with SWH performing best (84%). Local rates have increased compared to the previous year.

The percentage of patients with NDH who have had an HbA1c or fasting blood glucose performed in the preceding 12 months

Percentage of NDH population (%)

	ENH	SWH	WE
	83%	84%	80%

85%
83%

HWE — — England

Source: QOF 22/23
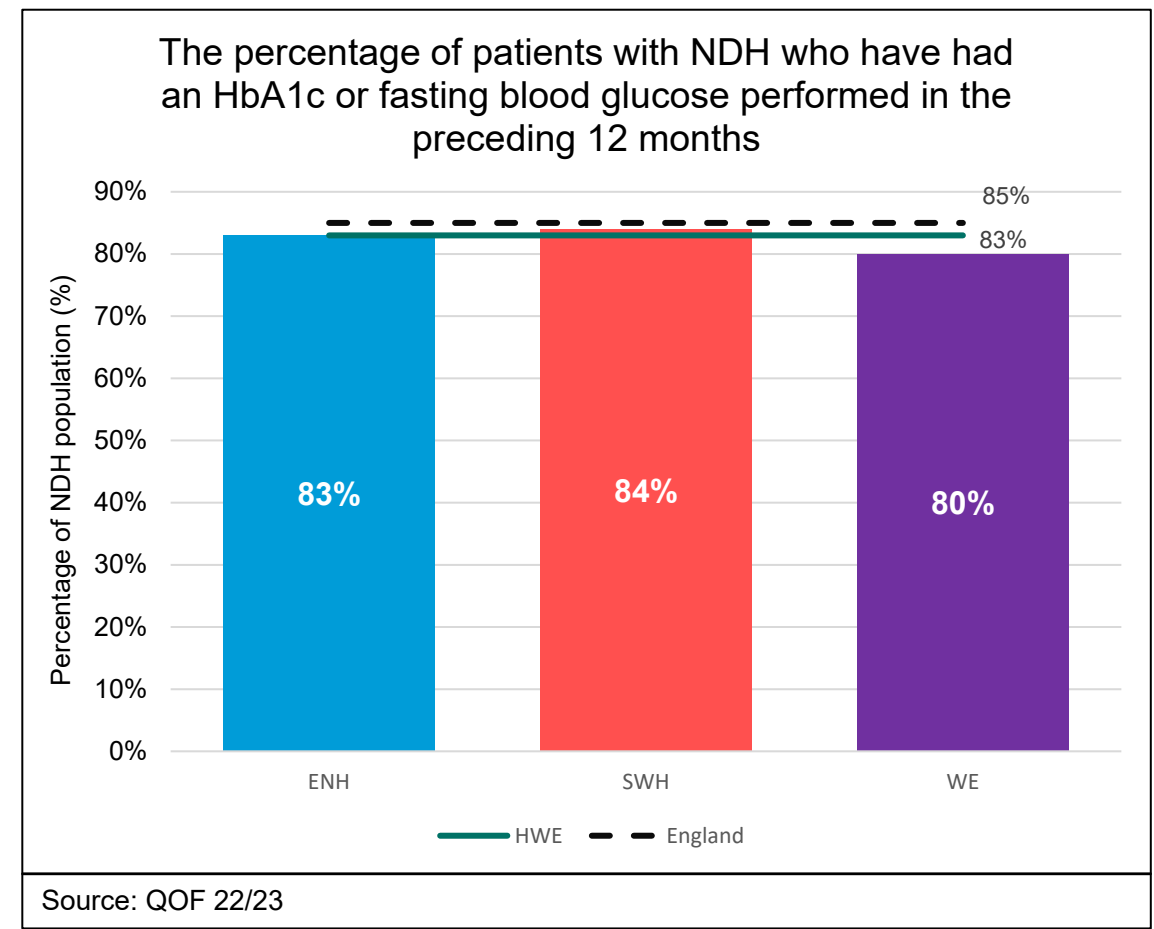
National Diabetes Prevention Programme

The National Diabetes Prevention Programme (NDPP) is a nationally commissioned service that delivers an evidence-based lifestyle change programme to people at high risk of developing type 2 diabetes.
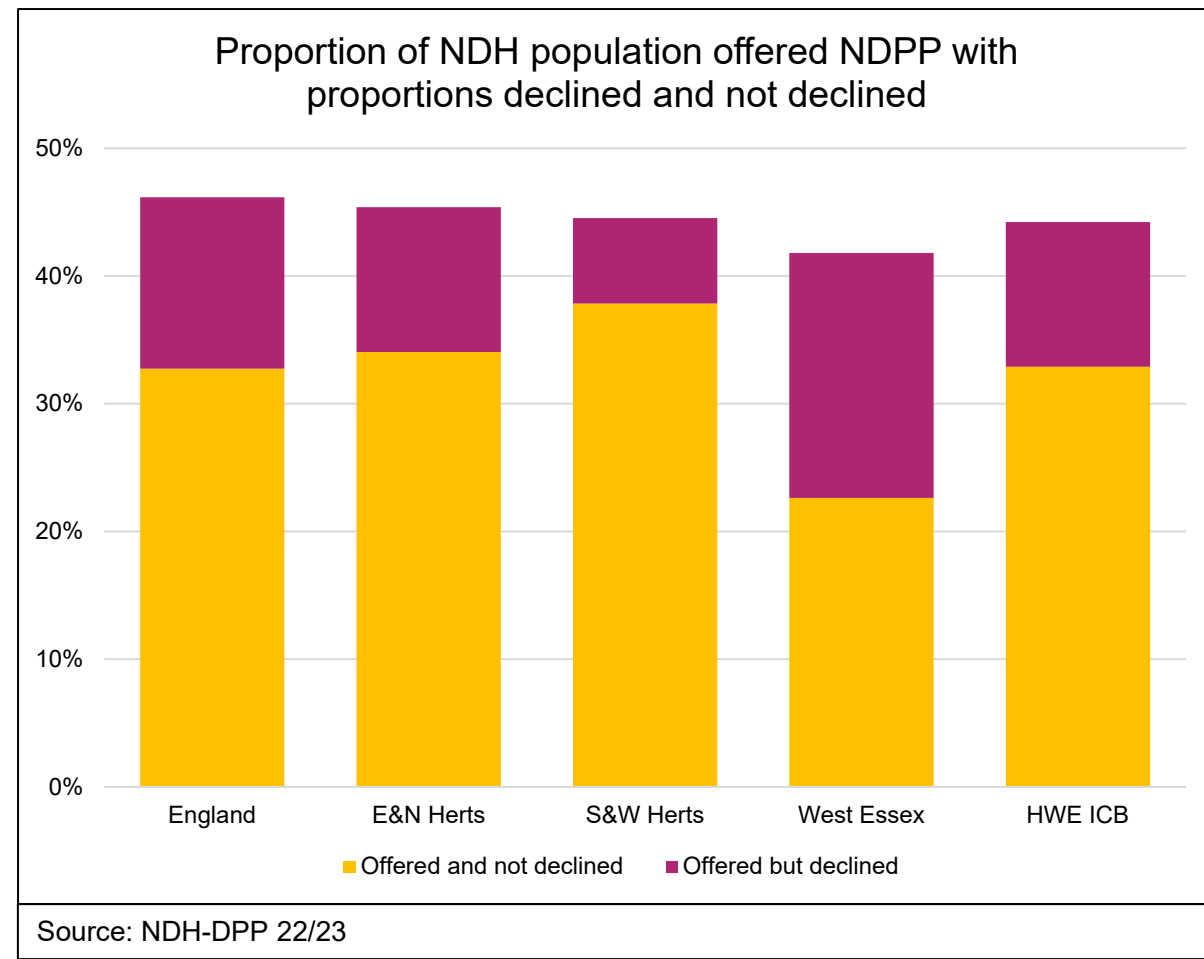
This chart shows the proportion of people with NDH who were offered NDPP, and the proportions declined vs not declined.

❖ Generally, there are higher rates of not declining vs declining.

❖ Proportion of NDH population offered NDPP is below the national average across the ICB.

❖ WE has the lowest rate of NDPP offered and ENH has the highest rate of NDPP offered.

❖ SWH has the lowest rate of NDPP declined. ENH and SWH have a lower rate of NDPP declined when compared to the national average.

Proportion of NDH population offered NDPP with proportions declined and not declined

Chart categories: England, E&N Herts, S&W Herts, West Essex, HWE ICB

Legend:
- Offered and not declined
- Offered but declined

Source: NDH-DPP 22/23

National Diabetes Prevention Programme

NDPP referrals

Number of People Completing Milestone One

Source: NDPP Dashboard
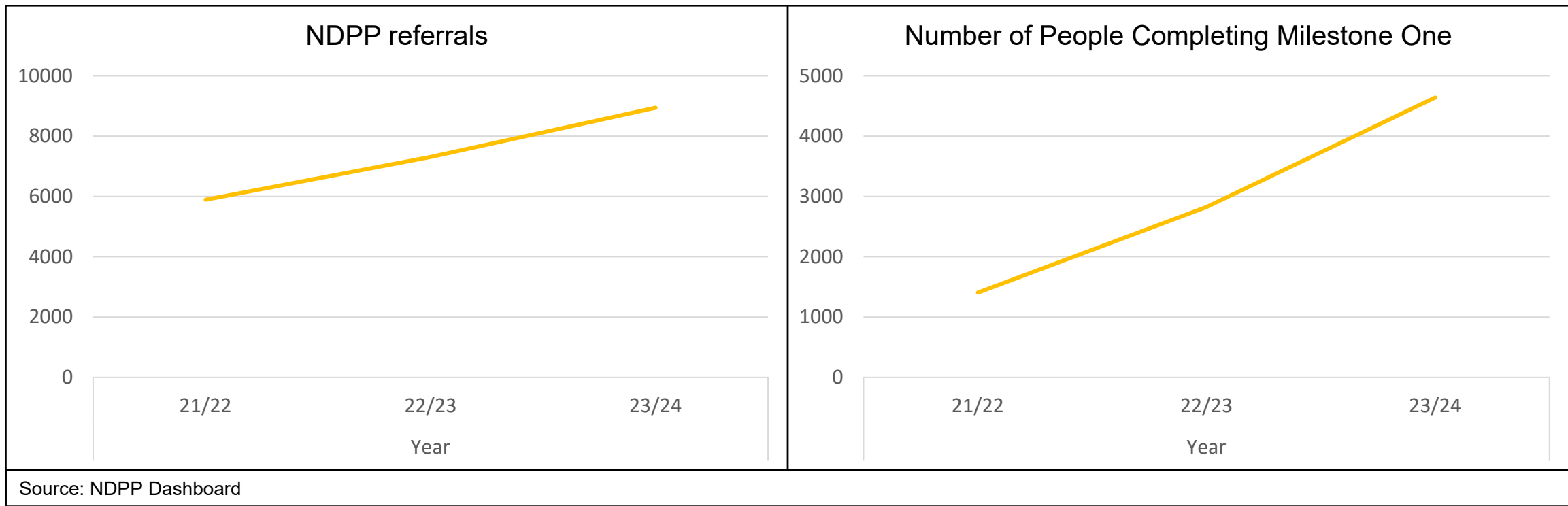
- ❖ There were 8940 referrals to NDPP in 23/24, 53% above the expected number (based on the national profile). Referrals have increased year on year since 21/22.

- ❖ Levels of completion for the NDPP course is measured in Milestones. Milestone 1 is people who have accepted the offer and been enrolled on the NDPP course. 4640 people referred to NDPP achieved 'Milestone 1' for 23/24, 59% above the national profile (the expected number for HWE ICS) and has increased year on year since 21/22.

National Diabetes Prevention Programme

Patients accepting the offer of NDPP can either complete a face-to-face or digital course.

❖ Completion of NDPP varies locally as well as nationally for face-to-face vs digital courses.

❖ On average, 60% of people in HWE on the digital pathway complete the course (compared to 61% completion rate nationally for 22/23) and 53% of people on the face-to-face pathway complete the course (compared to 48% completion rate nationally for 22/23).

Weight loss

❖ On average, people in HWE who complete the course lost 2.2kg, statistically similar to the weight loss achieved nationally (2.4kg).

❖ People who completed at least 60% of the course on average lost more weight (3.7kg).

Type 1 and Type 2 Diabetes care

❖ National Institute for Health and Care Excellence (NICE) guidance recommends that all patients with diabetes receive the following checks (known as the **8 Care Processes**) each year:

1. Urine Albumin
2. Foot surveillance
3. Body Mass Index
4. Smoking status

5. HbA1c, checking current diabetic control
6. Blood pressure
7. Cholesterol
8. Serum creatinine

❖ Performance of these checks is monitored each year through the National Diabetes Audit and incentivised through QOF. In recent years, the QOF targets have changed, within only some of the 8 care processes (8CP) now incentivised.
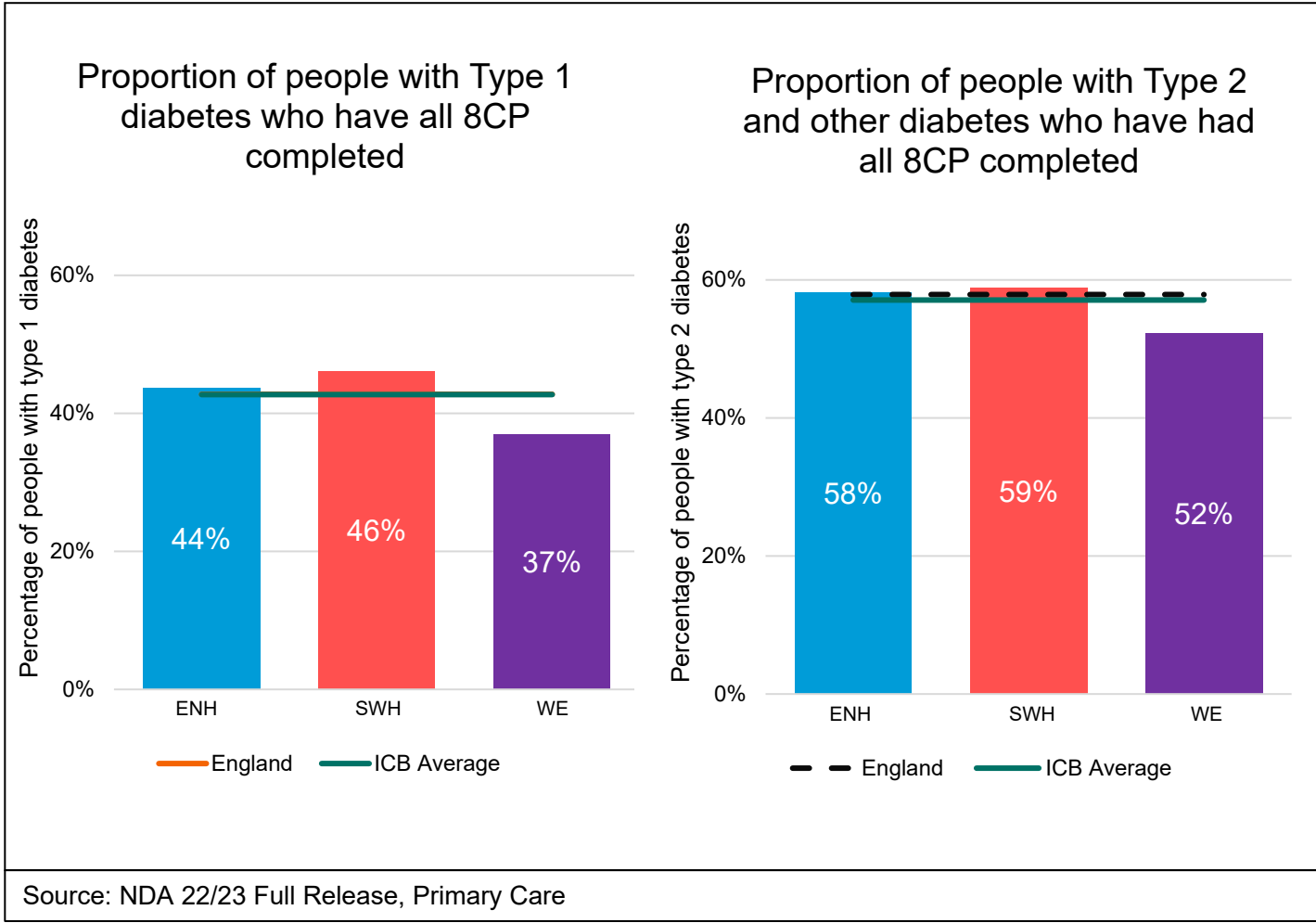
❖ The following charts use information from National Diabetes Audit data for HWE and England.

Hertfordshire and West Essex Integrated Care System

Percentage of patients with all 8 Care Processes complete in last 12 months (22/23)

Proportion of people with Type 1 diabetes who have all 8CP completed

Percentage of people with type 1 diabetes

- ENH: 44%
- SWH: 46%
- WE: 37%

Legend: England (orange), ICB Average (teal)

Proportion of people with Type 2 and other diabetes who have had all 8CP completed

Percentage of people with type 2 diabetes

- ENH: 58%
- SWH: 59%
- WE: 52%

Legend: England (dashed black), ICB Average (teal)

Source: NDA 22/23 Full Release, Primary Care

- ❖ National Diabetes Audit (NDA) data show that the proportion of people with type 1 diabetes receiving all 8CP in HWE (43%) is in line with the national average.

- ❖ The proportion of people with type 2 diabetes receiving all 8CP in HWE (57%) is slightly lower than the national average (58%).

- ❖ 8CP competition rates in HWE have increased in type 1 and type 2 when compared to the previous year. Click to see 8CP completion rates - trends over time.

- ❖ Overall, performance is better for type 2 diabetes, this may be partly due to lower rates of comorbidities leading to less interactions and lower engagement with health services amongst young people with type 1 diabetes.

- ❖ For both type 1 and type 2 diabetes SWH has the highest of 8CP completion rates and WE has the lowest, the same when compared to the previous year.

- ❖ Urine Albumin and Foot Surveillance are the Care Processes with the poorest uptake.

- ❖ Click link to see full 8CP breakdown: Type 1 and Type 2

Diabetic care

There is variation in the routine care delivered to people with diabetes with people in more vulnerable communities less likely to receive routine care processes.

❖ Local HWE data (linked data from January 2022 – PHM Dashboard) show that people from the most deprived communities (decile 1) are less likely to have an annual review for their diabetes (42.6%) compared to the diabetic cohort (63.8%).

❖ Whilst uptake of the annual review is highest for people of Asian ethnicity (68.5%), it is lowest among people of Mixed ethnicity (55.1%) and this group is also less likely to have had an HbA1c or foot check in the last 2 years or have received structured education (PHM Dashboard 2022).

❖ People in Advance Disease & Complexity segments 4c (Severe LD/ASD/ADHD) and 4d (Complex mental illness) are also least likely to have had care processes completed (PHM Dashboard 2022).

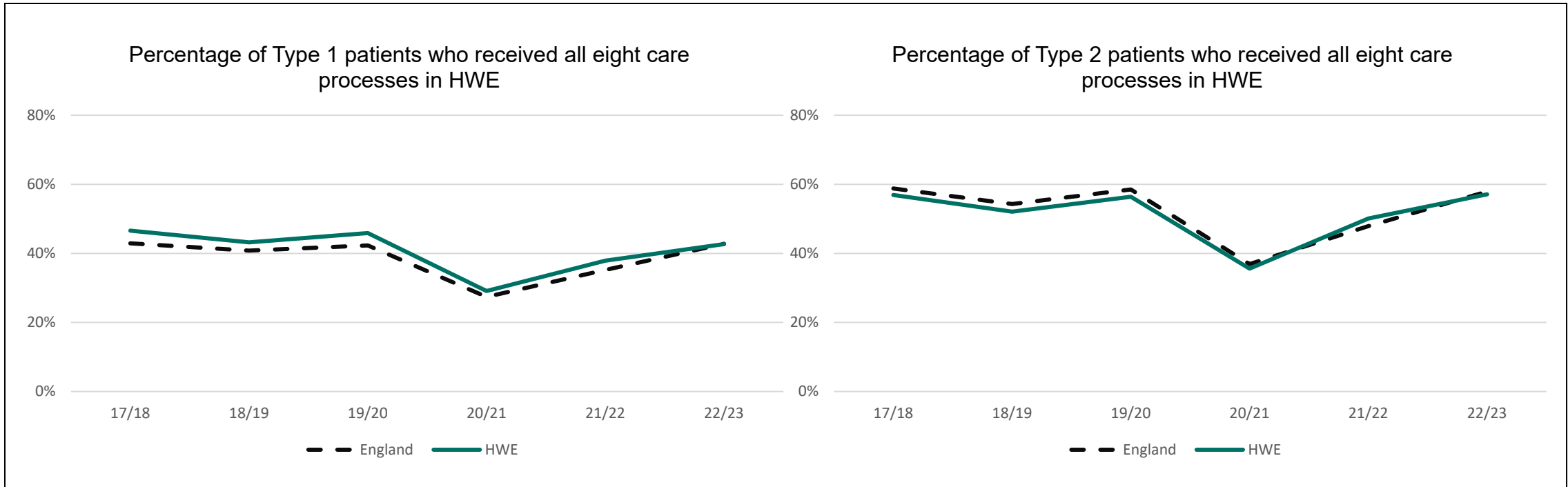| Ethnicity Group ▼	Other ethnic groups	Asian	Black	Mixed	Other	White	Unknown	Grand Total
Mono Dimension ▼								
Overall Population Measures								
Population	623	8,688	2,926	1,157	4,570	61,768	2,901	**82,712**
Age	56	56	56	51	57	64	62	**62**
Diabetes Annual Review ▼	55.1%	68.5%	63.3%	55.1%	62.7%	63.6%	60.5%	**63.8%**
HBA1C Reading (Two ... ▼	80.6%	88.1%	83.1%	79.0%	86.2%	83.5%	82.0%	**84.0%**
Diabetic Foot Check ▼	53.1%	65.9%	62.5%	55.0%	58.8%	61.9%	67.6%	**62.2%**
Structured Diabetes Ed... ▼	31.3%	35.0%	37.5%	31.5%	34.0%	34.5%	40.8%	**34.8%**

Source: PHM Dashboard (Jan 22)

Trends in completion of 8 Care Processes
Care processes have been significantly affected during the pandemic.

Percentage of Type 1 patients who received all eight care processes in HWE

Percentage of Type 2 patients who received all eight care processes in HWE

Source: NDA data 17/18-22/23 *see Methodology and Data Validation for further information*

❖ Completion of care processes were significantly affected during the pandemic and care process completion rates in HWE have typically followed national trends.

❖ There has been recovery of the proportion of people with type 1 and type 2 diabetes receiving all care processes.

❖ Local unvalidated data (ECF via Arden's Manager) shows for 23/24 all 8CP completion rates was 56.6% across patients with diabetes (not broken down by type), an increase from 47.2% the previous year. This indicates that all 8CP completion rates will have likely increased for type 1 and type 2 diabetes but await further breakdown in the NDA data release.
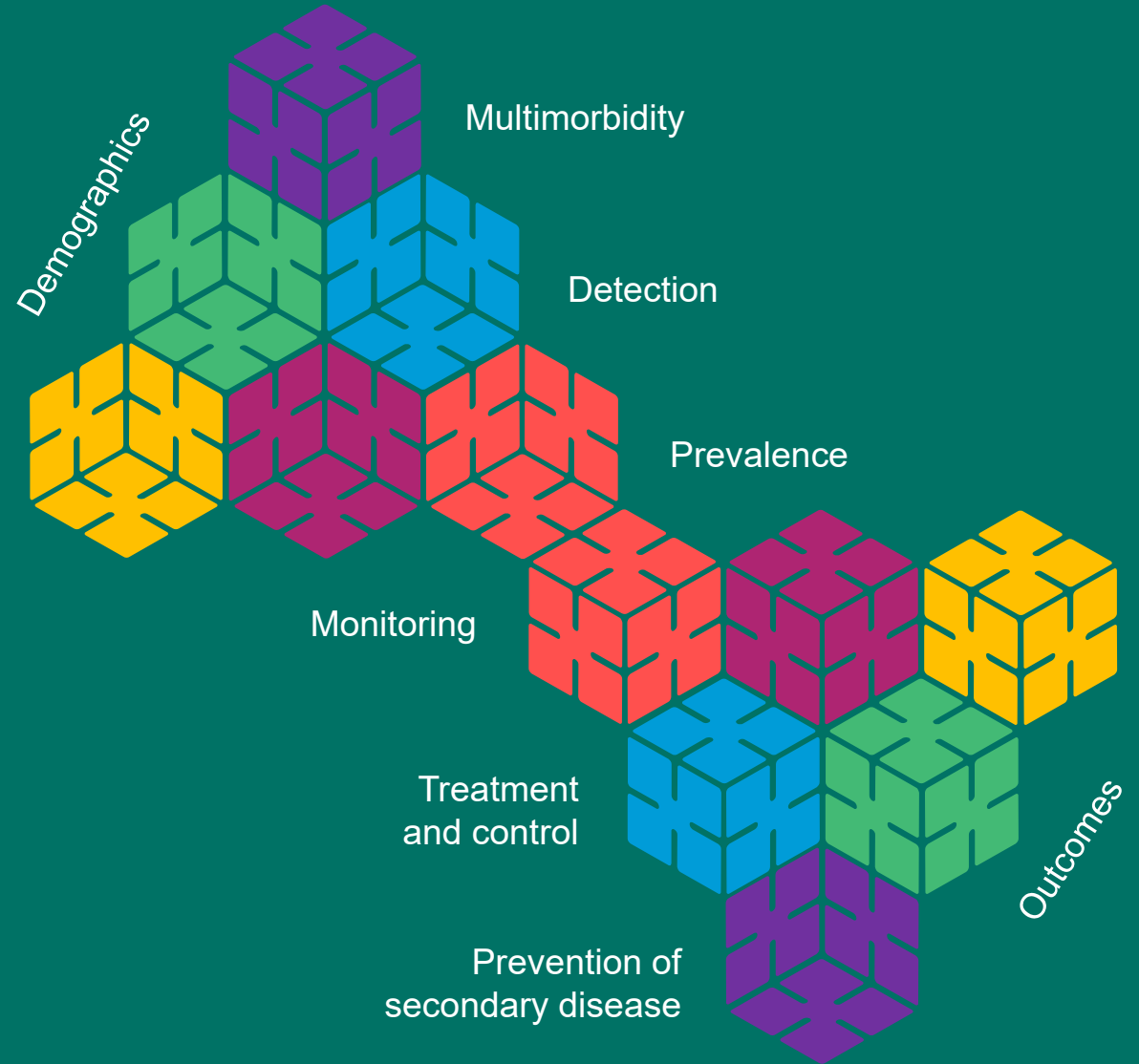
Treatment and Control

The following slides show the data for 3 Treatment Targets for Type 1 and 2 Diabetes and Structured Education rates

Working together
for a healthier future

Demographics

Multimorbidity

Detection

Prevalence

Monitoring

Treatment and control

Outcomes

Prevention of secondary disease

Diabetic control – 3 Treatment Targets (3TT)

In addition to the 8CPs, the NDA reports the following treatment targets, consistent with NICE guidance:

1. HbA1c control

❖ HbA1c ≤ 58 mmol/mol

2. Blood pressure measurement

❖ ≤ 140/80 mmHg

3. Cholesterol

❖ Prescribed a statin for primary (age 40-80 yr) or secondary (established cardiovascular disease) prevention
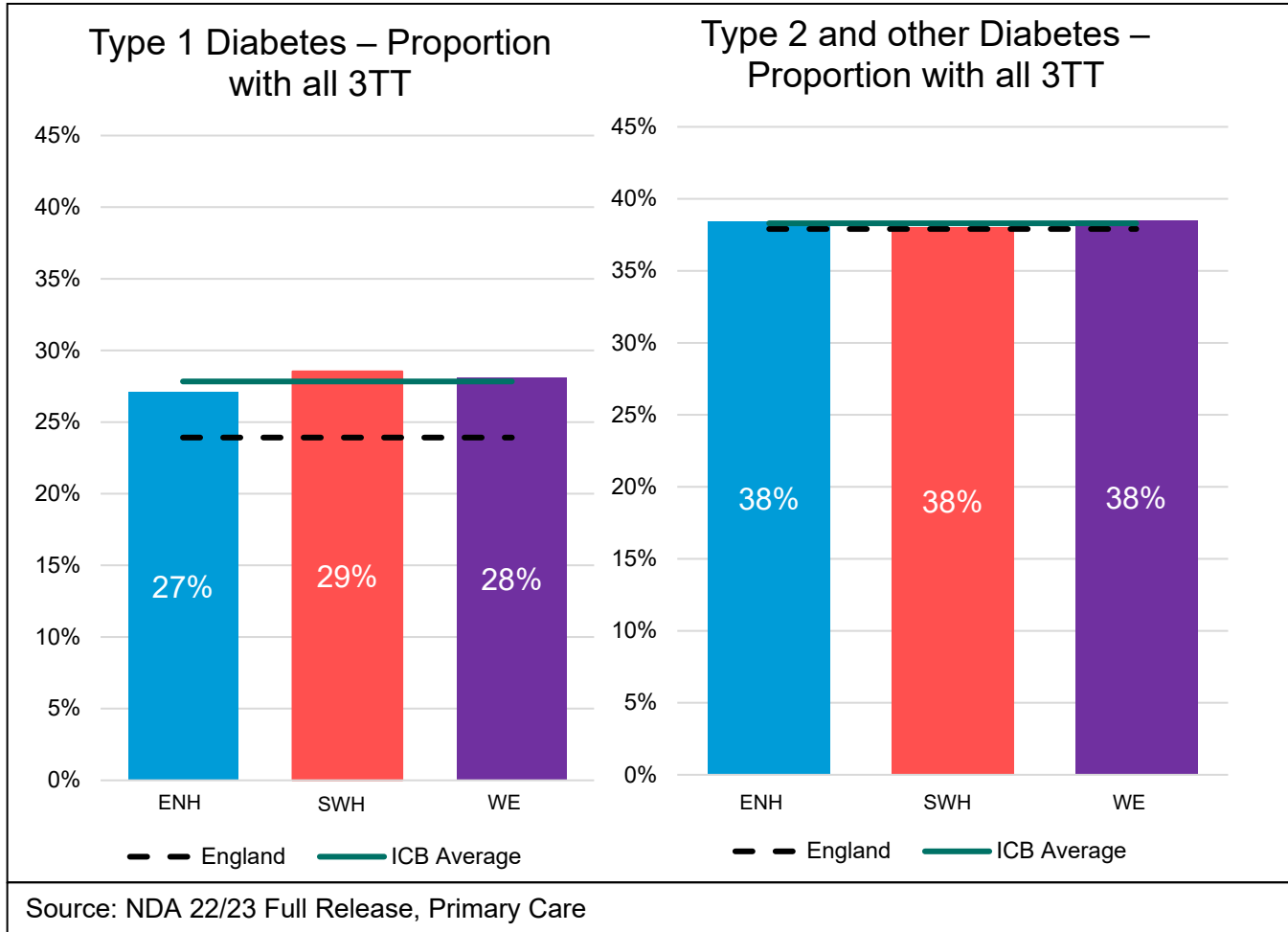
In addition to the above, expanding provision of **Structured Education** is encouraged to better support patient self-management.

All three treatment targets (3TT) by area and diabetes types

HWE is better than national average at meeting the 3TT for both types of diabetes.

Type 1 Diabetes – Proportion with all 3TT

Bar chart with values:
- ENH: 27%
- SWH: 29%
- WE: 28%

Legend: England (dashed), ICB Average (solid line)

Type 2 and other Diabetes – Proportion with all 3TT

Bar chart with values:
- ENH: 38%
- SWH: 38%
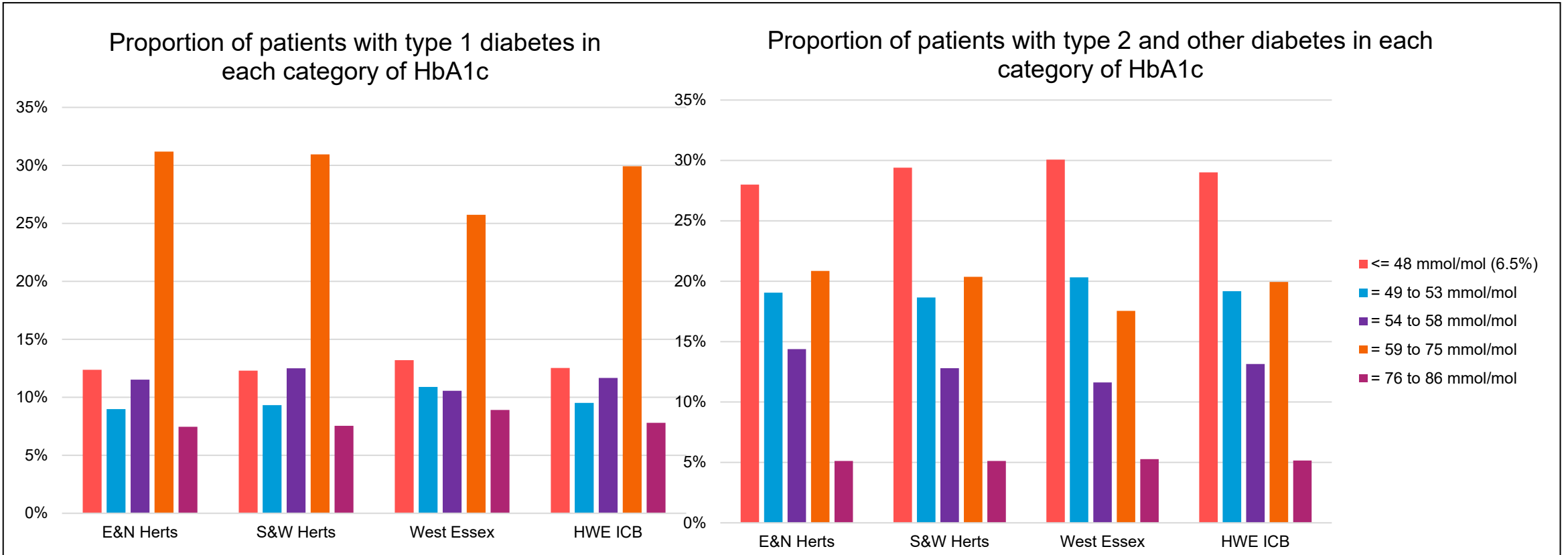- WE: 38%

Legend: England (dashed), ICB Average (solid line)

Source: NDA 22/23 Full Release, Primary Care

❖ Similar to the 8CP, 3TT are better met within in the type 2 diabetes population as opposed to the type 1 diabetes population. Proportion of 3TT met across both type 1 and type 2 diabetes have increased from the previous year.

❖ All three Place areas are performing at or above the national average for both type 1 and type 2 diabetes.

HbA1c targets

Proportion of patients with type 1 diabetes in each category of HbA1c

Proportion of patients with type 2 and other diabetes in each category of HbA1c

Legend:
- <= 48 mmol/mol (6.5%)
- = 49 to 53 mmol/mol
- = 54 to 58 mmol/mol
- = 59 to 75 mmol/mol
- = 76 to 86 mmol/mol

Source: NDA 22/23 Full Release, Primary Care

❖ HbA1c is used as an indicator for glucose control. Targets are generally <48mmol/mol (or 6.5%).

❖ The HbA1c profiles of patients with T1 and T2 diabetes highlight that those with T2 Diabetes generally have a lower (better) HbA1c.

❖ WE has the highest proportion of people with T1 and T2 Diabetes with <48mmol/mol.

Structured Education (SE) offered and attended within 12 months of diagnosis for diabetes

Dark bars represent percentage offered out of number of new diagnoses. Light bars represent percentage attended out of newly diagnosed.
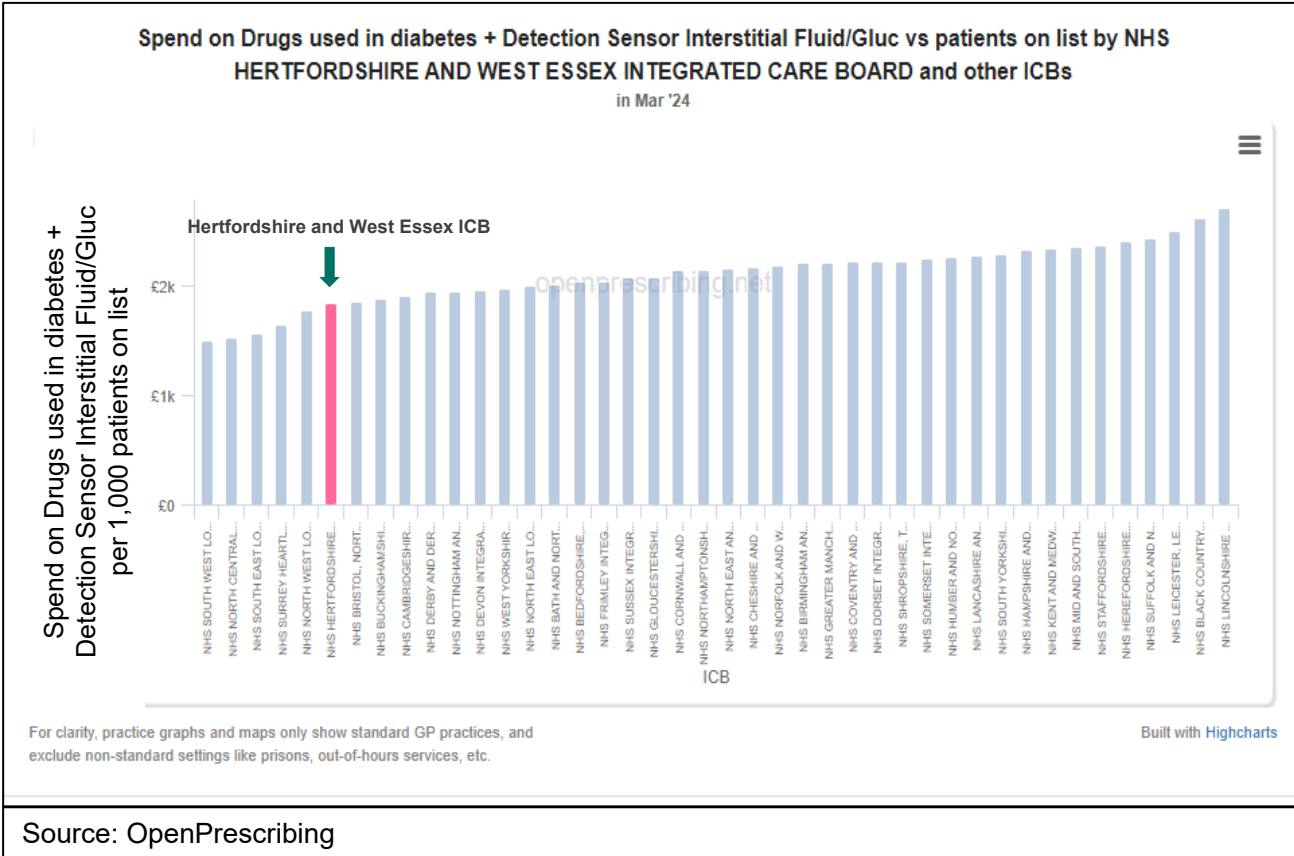

SE offered (dark bars) and attended (light bars) within 12 months of diagnosis for Type 1 Diabetes

SE offered (dark bars) and attended (light bars) within 12 months of diagnosis for Type 2 and other Diabetes

Source: NDA 22/23 Full Release, Primary Care
Note: Data for 2021 year

❖ Across all parts of the ICB, SE is offered proportionately less in type 1 compared to type 2 diabetes.
❖ HWE is performing above the national average for offering structured education for type 1 and below the national average for type 2.

Primary care prescribing

Spend on Drugs used in diabetes + Detection Sensor Interstitial Fluid/Gluc vs patients on list by NHS HERTFORDSHIRE AND WEST ESSEX INTEGRATED CARE BOARD and other ICBs in Mar '24

Source: OpenPrescribing

Medications, Continuous Glucose Monitors and other appliances used in diabetes care can be prescribed by primary care. As an ICB, primary care prescribing is £35.3m (OpenPrescribing, April 23-March 24).

❖ Prescribing in HWE is lower than the national median, which can be explained by the combination of local cost-effective prescribing and lower prevalence of diabetes in HWE (spend per 1,000 patients on total list, OpenPrescribing March 2024).

❖ NICE treatment algorithm for medicines in adults with Type 2 diabetes (NG28) advocates use of SGLT-2 inhibitors in patients with established CVD and those at high risk of CVD. The NICE medicines treatment algorithm has been approved for local use. Local spend on SGLT2i is significantly increasing but will support improved cardiovascular outcomes for the eligible cohorts.
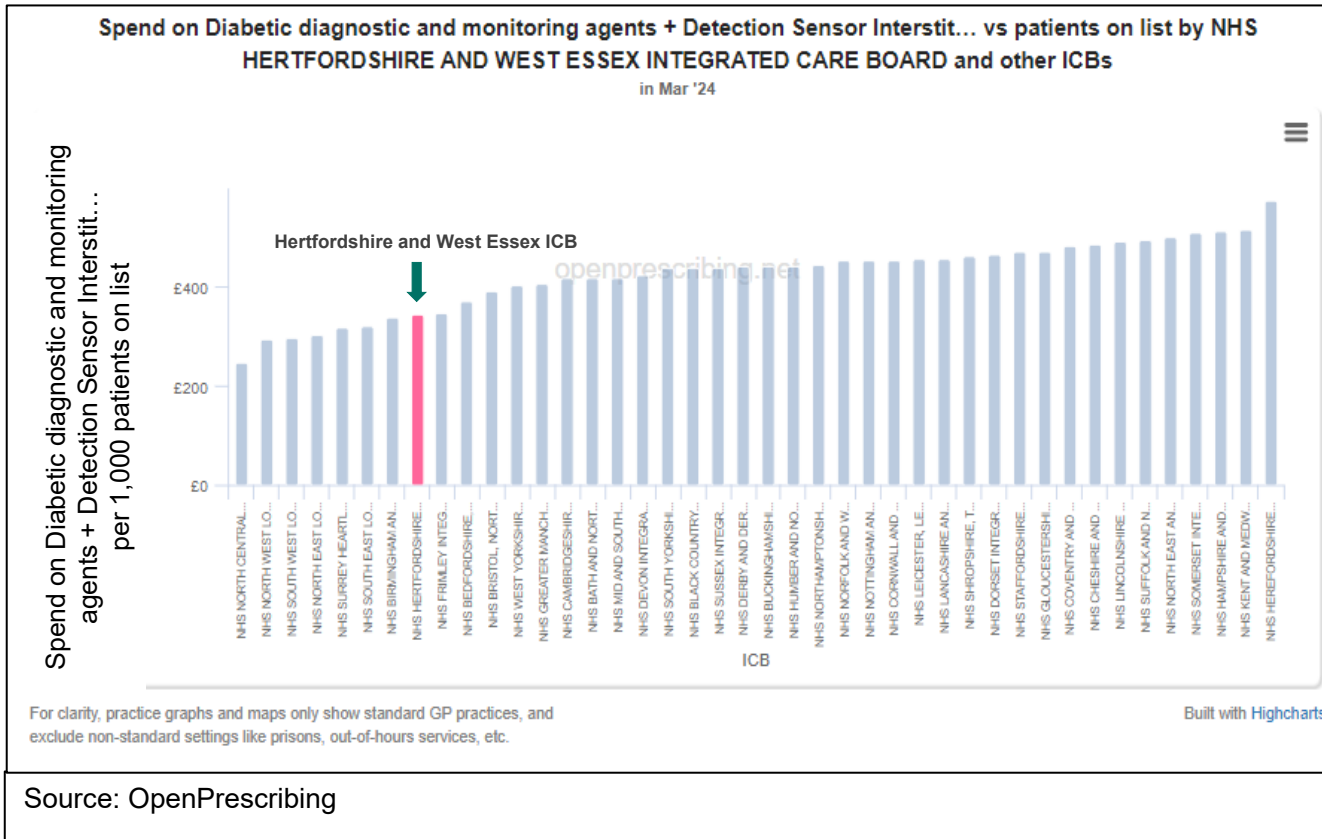
Hertfordshire and West Essex Integrated Care System

Prescribing in diabetes – Diabetes technology

Spend on Diabetic diagnostic and monitoring agents + Detection Sensor Interstit… vs patients on list by NHS HERTFORDSHIRE AND WEST ESSEX INTEGRATED CARE BOARD and other ICBs in Mar '24

Hertfordshire and West Essex ICB

For clarity, practice graphs and maps only show standard GP practices, and exclude non-standard settings like prisons, out-of-hours services, etc.

Built with Highcharts

Source: OpenPrescribing

Many people with diabetes test their blood glucose levels using a blood glucose meter requiring a testing strip and lancet, or a continuous glucose monitor (CGM). Overall, HWE ICB spend £6.59m in primary care on these technologies. Spend on CGM (£3.9m) in primary care is lower than the national average while spend on blood glucose/ketone strips (£2.7m) in primary care is marginally higher (OpenPrescribing, April 23 – March 24).

❖ NICE guidance and technology appraisals (NG17, NG28, NG18, NG3 and TA943) support the increased uptake of CGM in specific cohorts of patients. The roll out of CGM in specific cohorts, is expected to have a significant impact on spend for CGM, and hence overall spend on prescribing in diabetes.

❖ NHS England has published commissioning guidelines recommending specific testing strips and lancets, which are of high quality and cost-effective. Data from OpenPrescribing shows HWE is an outlier for prescribing a large proportion of testing strips and lancets not recommended by NHS England, above the national median. HWE are improving on this indicator, however there are further savings to be released from use of cost-effective blood glucose meter and related lancets, which is a focus locally.

❖ There are other ongoing work programmes targeting medicines optimisation efficiency and to support reduced prescribing costs where possible without impacting patient care.

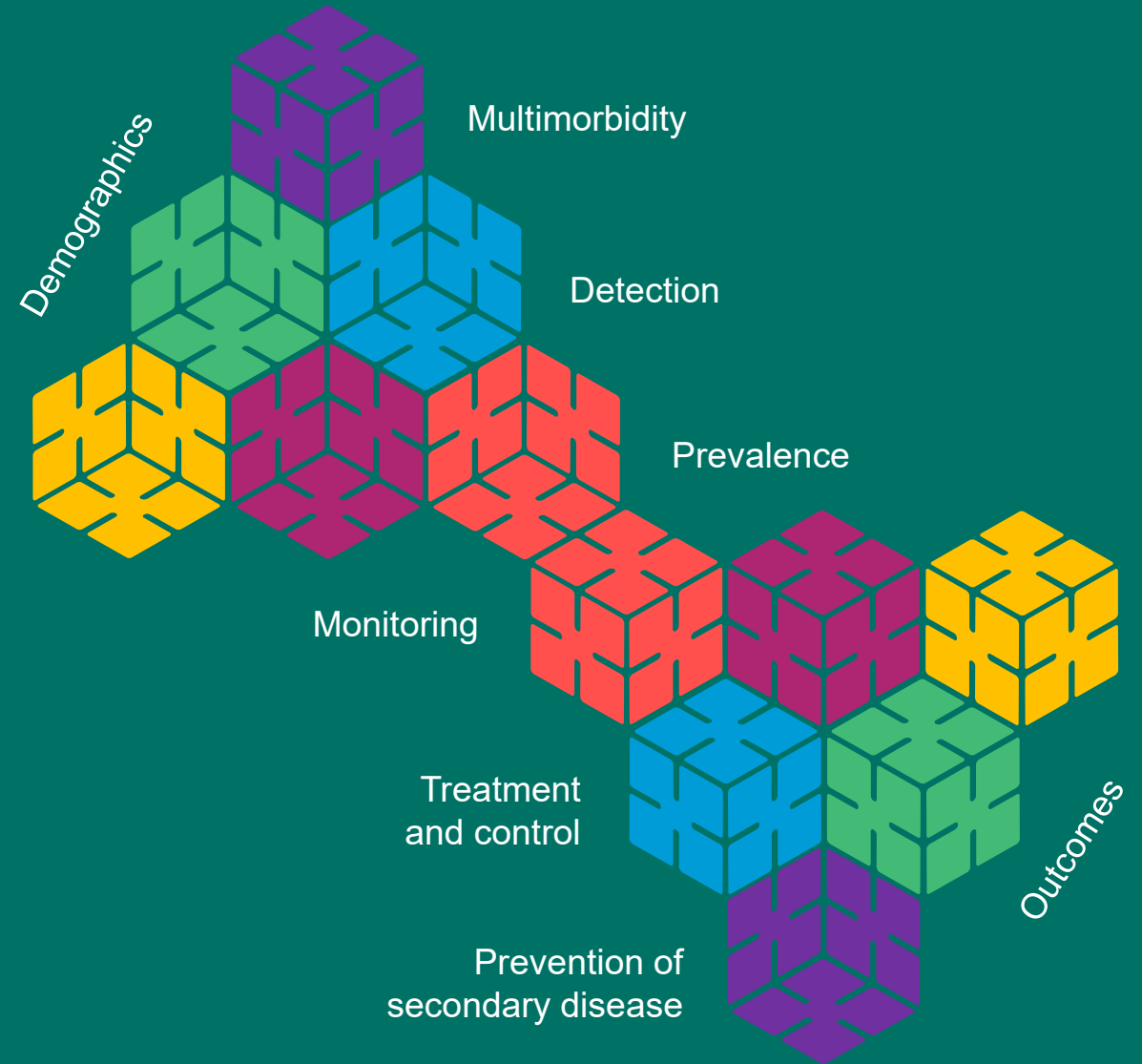**Hertfordshire and West Essex Integrated Care System**

Secondary prevention

The following slides outline the data for Secondary prevention within the Diabetes population of HWE ICS

Working together
for a healthier future

Demographics

Multimorbidity

Detection

Prevalence

Monitoring

Treatment and control

Outcomes

Prevention of secondary disease

Primary and secondary prevention of cardiovascular disease

Primary Prevention of CVD:

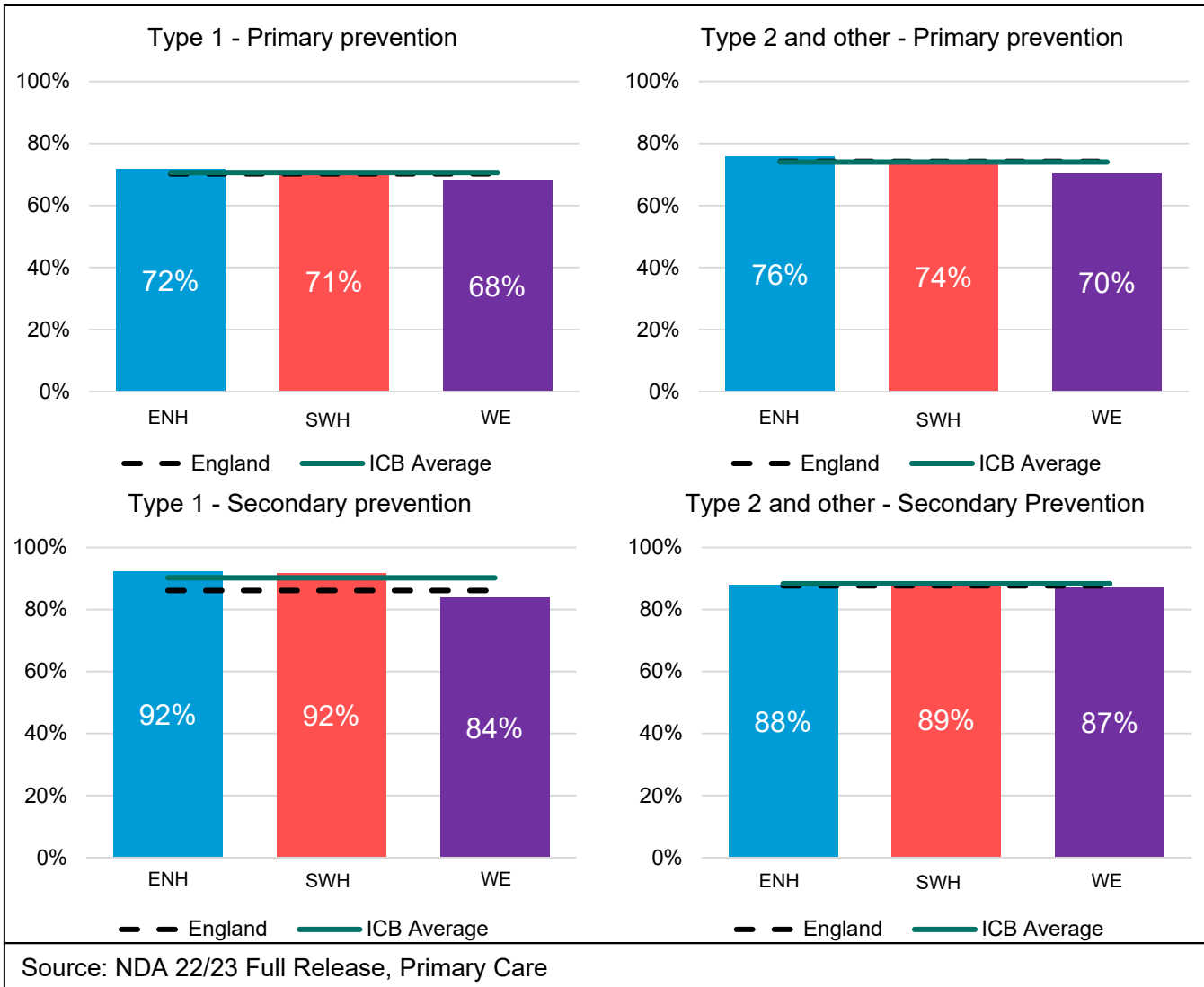NICE recommends (NG238) to offer statin treatment for the primary prevention of CVD to adults with type 1 diabetes who:

- ❖ are older than 40 years or
- ❖ have had diabetes for more than 10 years or
- ❖ have established nephropathy or
- ❖ have other CVD risk factors

Statins are recommended for the primary prevention of CVD to people with type 2 diabetes who have a 10-year QRISK3 score of 10% or more.

Secondary Prevention of CVD:

Statins are recommended for patients with a history of CVD and diabetes.

- ❖ Primary and secondary prevention is generally similar to the previous year.

- ❖ There has been an increase in the proportion of people with type 1 diabetes in HWE on secondary prevention, when compared to 21/22 NDA data.

- ❖ Achievement is best in ENH and SWH with similar rates, with WE having the lowest rates.
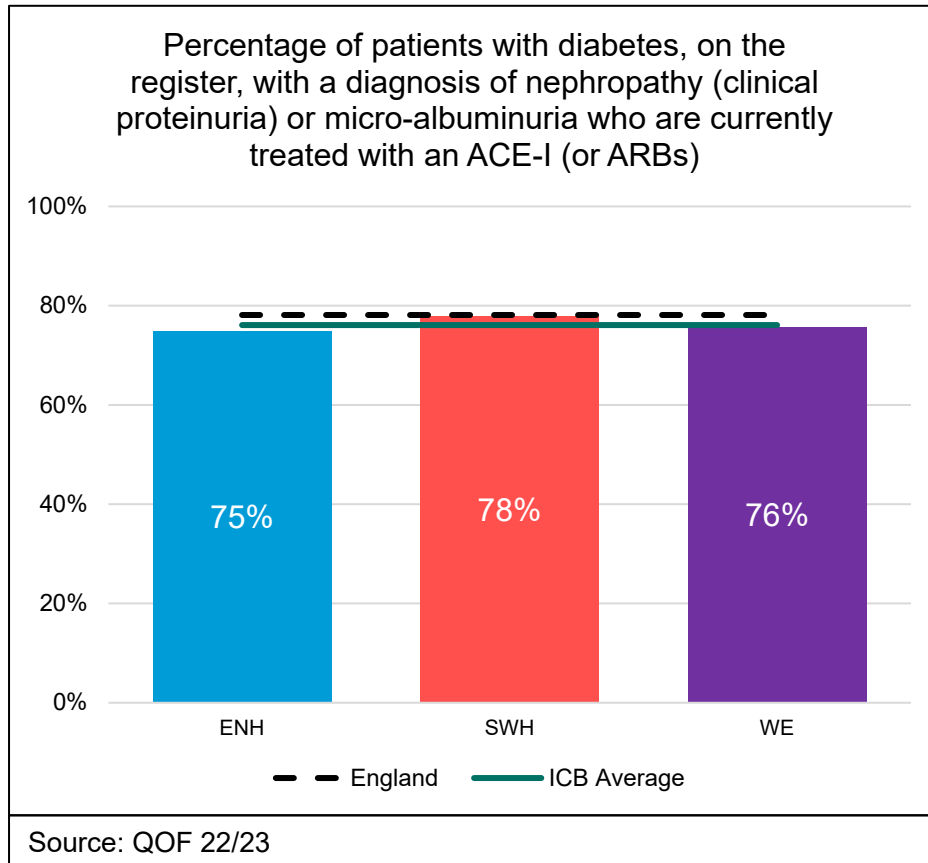
Type 1 - Primary prevention

	ENH	SWH	WE
	72%	71%	68%

England — — ICB Average ———

Type 2 and other - Primary prevention

	ENH	SWH	WE
	76%	74%	70%

England — — ICB Average ———

Type 1 - Secondary prevention

	ENH	SWH	WE
	92%	92%	84%

England — — ICB Average ———

Type 2 and other - Secondary Prevention

	ENH	SWH	WE
	88%	89%	87%

England — — ICB Average ———

Source: NDA 22/23 Full Release, Primary Care

Hertfordshire and West Essex Integrated Care System

ACE inhibitor and ARB prescribing in diabetic nephropathy

Percentage of patients with diabetes, on the register, with a diagnosis of nephropathy (clinical proteinuria) or micro-albuminuria who are currently treated with an ACE-I (or ARBs)


Source: QOF 22/23

For adults with chronic kidney disease and type 2 diabetes, NICE advises (NG28) that an ACE inhibitor or ARB medication is offered if the albumin-creatinine ratio (a test to see how well your kidneys are working) is above a certain threshold. HWE has slightly higher than peer rates, but lower than the national average, with ENH having the lowest rates within the ICS. Further scoping work would be required to understand under prescribing of ACEi or ARBs in diabetic nephropathy and whether awareness and training is required to improve prescribing levels.

Complexity and comorbidity

The following slides describe the population with diabetes in terms of their complexity and comorbidities

Working together
for a healthier future
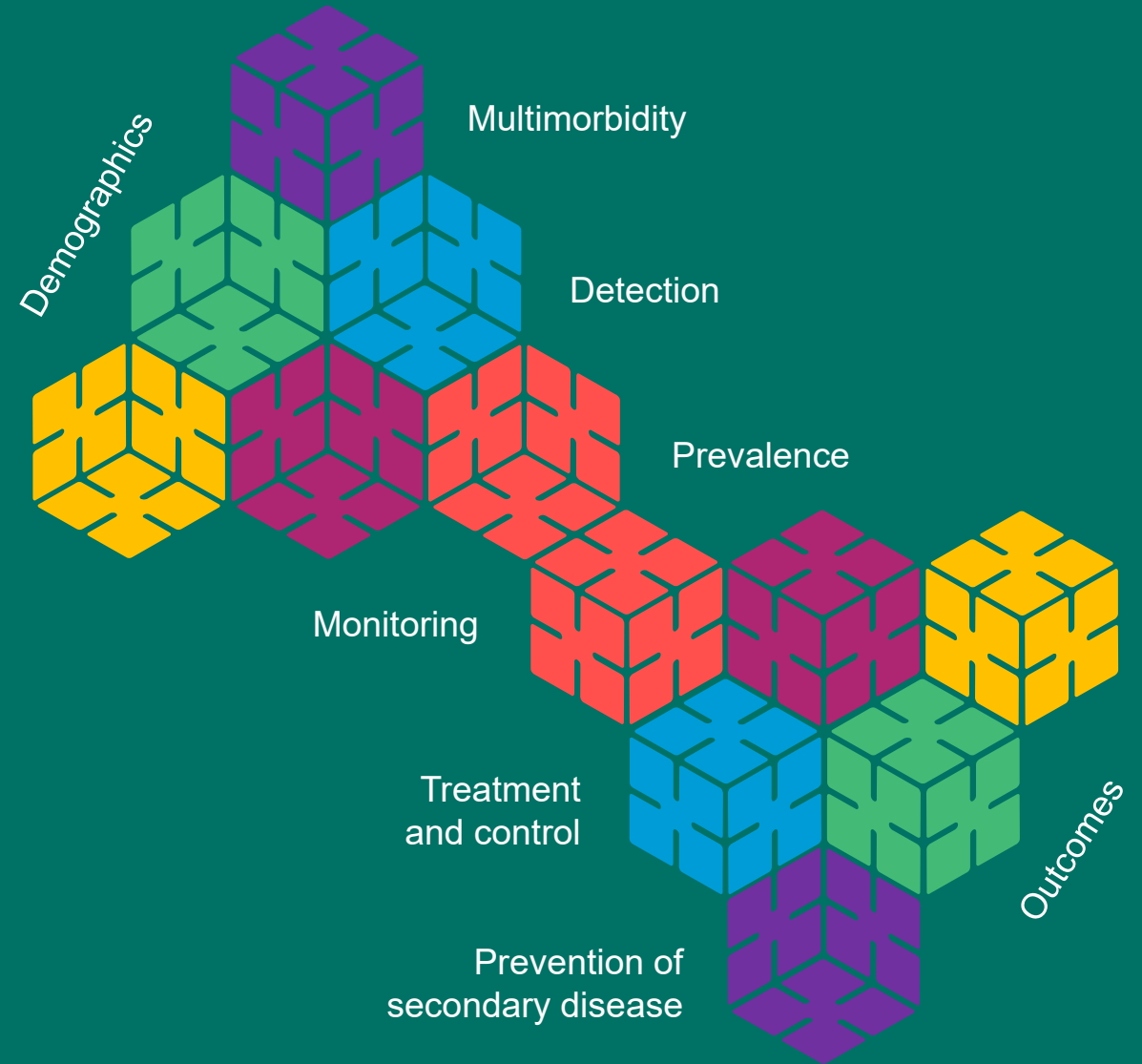
Risk stratification of Type 2 diabetes

The UCL Partners/CEG Risk Stratification Tool prioritises patients based on HbA1c, complications, co-morbidity, social factors and ethnicity in-order-to help with pressures during the Covid-19 pandemic.

High risk	
Priority One Hba1c >90 OR Hba1c >75 WITH any of the following: • BAME • Social complexity** • Severe frailty • Insulin or other injectables • Heart failure ** Social complexity includes Learning disability, homeless, housebound, alcohol or drug misuse	**Priority Two** Hba1c >75 OR Any HbA1c WITH any of the following: • Foot ulcer in last 3 years • MI or stroke/TIA in last 12 months • Community diabetes team codes • eGFR < 45 • Metabolic syndrome (Except patients included in Priority 1 group)

❖ In HWE, recent searches (April 2024 via Ardens) identified the number of people with Type 2 diabetes who are high risk:

Area	Number of people (ECF, 23/24)
HWE	22,740
SWH	9777
ENH	8973
WE	3990

Diabetes by HWE segment

❖ The table below shows the distribution of the diabetic population across the HWE Health Segmentation Model.

❖ Approximately one in six people (15.8%) with diabetes are living with only diabetes. The remaining people have additional health or social issues.

❖ Over a third of people (39.5%) with diabetes have low levels of complexity (either additional physical or mental health conditions or social complexity) and over a quarter (29.6%) have advanced disease or significant complexity.

❖ Nearly one in six people with diabetes are also living with severe frailty, severe dementia or are on an end of life register or receiving palliative care.

Life Course Segment ▼	2 - Living With Illness	3 - Lower Complexity			4 - Advanced Disease & Complexity					5 - EoL, Frailty & Dementia			
Life Course Subsegment ▼	2b - Lwl (LTCs)	3a - LC (Mod. Social Complexity)	3b - LC (Multimorbidity)	3c - LC (Mild Frailty)	4a - AD&C (High Complexity)	4b - AD&C - High Social Complexity	4c - AD&C (Severe LD/ASD/ADHD)	4d - AD&C (Complex SMI)	4e - AD&C (End Stage Disease)	5a - EoLFD (Severe Frailty)	5b - EoLFD (Severe Dementia)	5c - EoLFD (End of Life)	Grand Total
Overall Population Measures													
Population	13,083	308	19,596	12,777	17,279	2,356	128	1,094	3,598	9,114	607	2,772	**82,712**
Age	49	55	57	64	65	70	42	39	69	76	80	75	**62**
Male %	54.2%	51.3%	55.9%	51.3%	52.9%	45.3%	38.3%	47.4%	58.8%	47.3%	37.7%	46.8%	**52.6%**
IMD	6.9	6.8	7.0	7.0	6.9	6.8	6.8	6.7	6.7	6.9	7.1	7.0	**6.9**
% BAME (where recorded)	38%	36%	27%	22%	19%	17%	27%	23%	14%	11%	10%	12%	**23%**
Multimorbidity (acute & chronic)	1.0	1.0	2.6	2.8	4.7	4.1	5.0	7.2	6.3	6.5	7.9	6.6	**3.7**

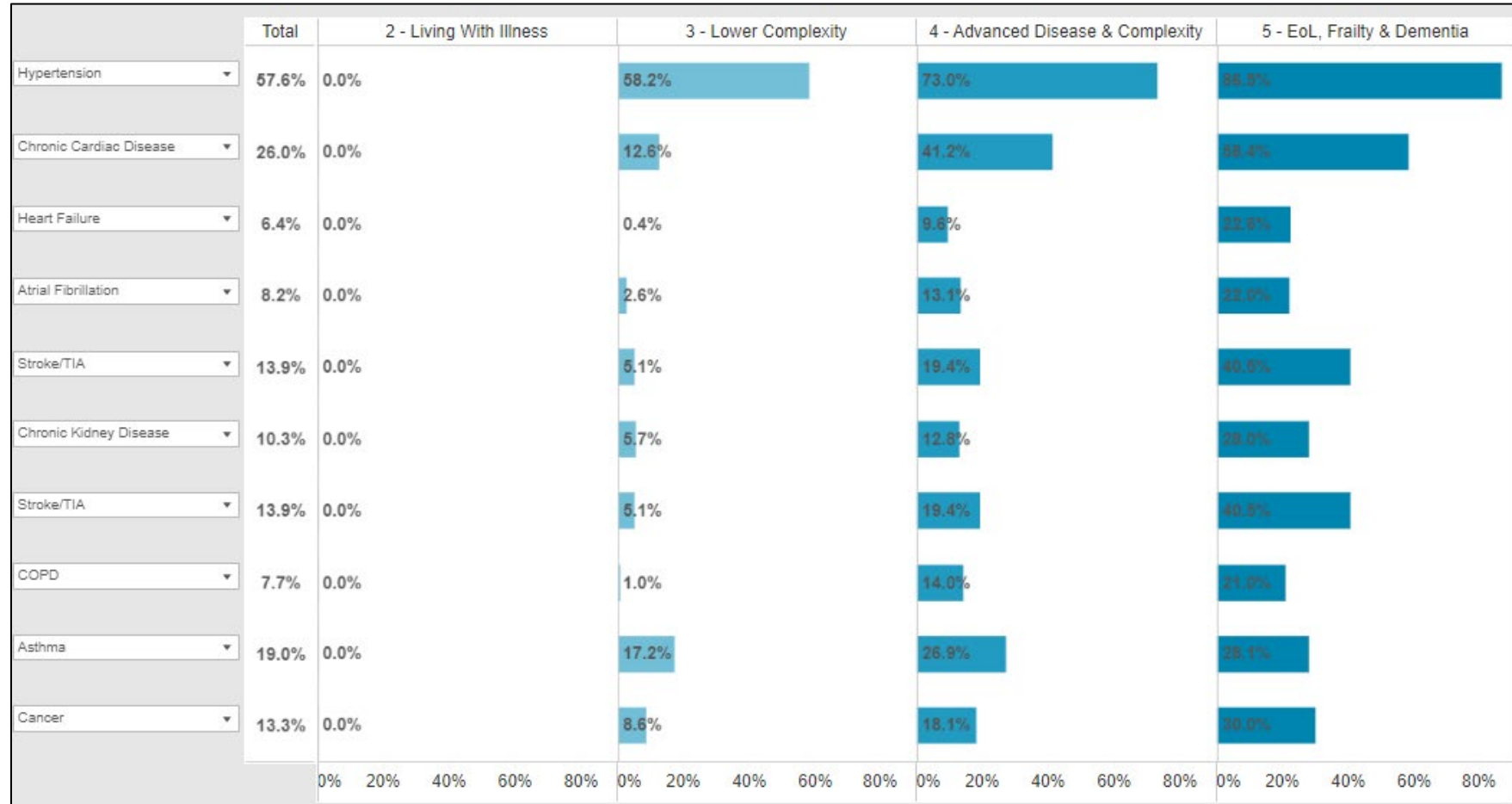Source: PHM Dashboard (Jan 22)

HWE Hertfordshire and West Essex Integrated Care System

Diabetes by comorbidity type

- ❖ Respiratory and cardiac conditions are common among people with diabetes.
  - ❖ Nearly 3 in every 5 people with diabetes have coexisting hypertension
  - ❖ Over a quarter have chronic cardiac disease

- ❖ Mental illness also disproportionately affects people with diabetes.
  - ❖ Nearly a quarter of people with diabetes have depression.
  - ❖ A higher proportion of people with diabetes have a diagnosis of SMI (4.2%) compared to the general population (1.6%).
  - ❖ 5.9% have coexisting dementia (data not shown).

	Total	2 - Living With Illness	3 - Lower Complexity	4 - Advanced Disease & Complexity	5 - EoL, Frailty & Dementia
Hypertension	57.6%	0.0%	58.2%	73.0%	86.5%
Chronic Cardiac Disease	26.0%	0.0%	12.6%	41.2%	58.4%
Heart Failure	6.4%	0.0%	0.4%	9.6%	22.6%
Atrial Fibrillation	8.2%	0.0%	2.6%	13.1%	22.0%
Stroke/TIA	13.9%	0.0%	5.1%	19.4%	40.0%
Chronic Kidney Disease	10.3%	0.0%	5.7%	12.8%	28.0%
Stroke/TIA	13.9%	0.0%	5.1%	19.4%	40.0%
COPD	7.7%	0.0%	1.0%	14.0%	21.0%
Asthma	19.0%	0.0%	17.2%	26.9%	28.1%
Cancer	13.3%	0.0%	8.6%	18.1%	30.0%

Source: PHM Dashboard (Jan 22)

Outcomes

The following slides review the outcomes of the diabetes population regarding use of secondary care

Working together
for a healthier future
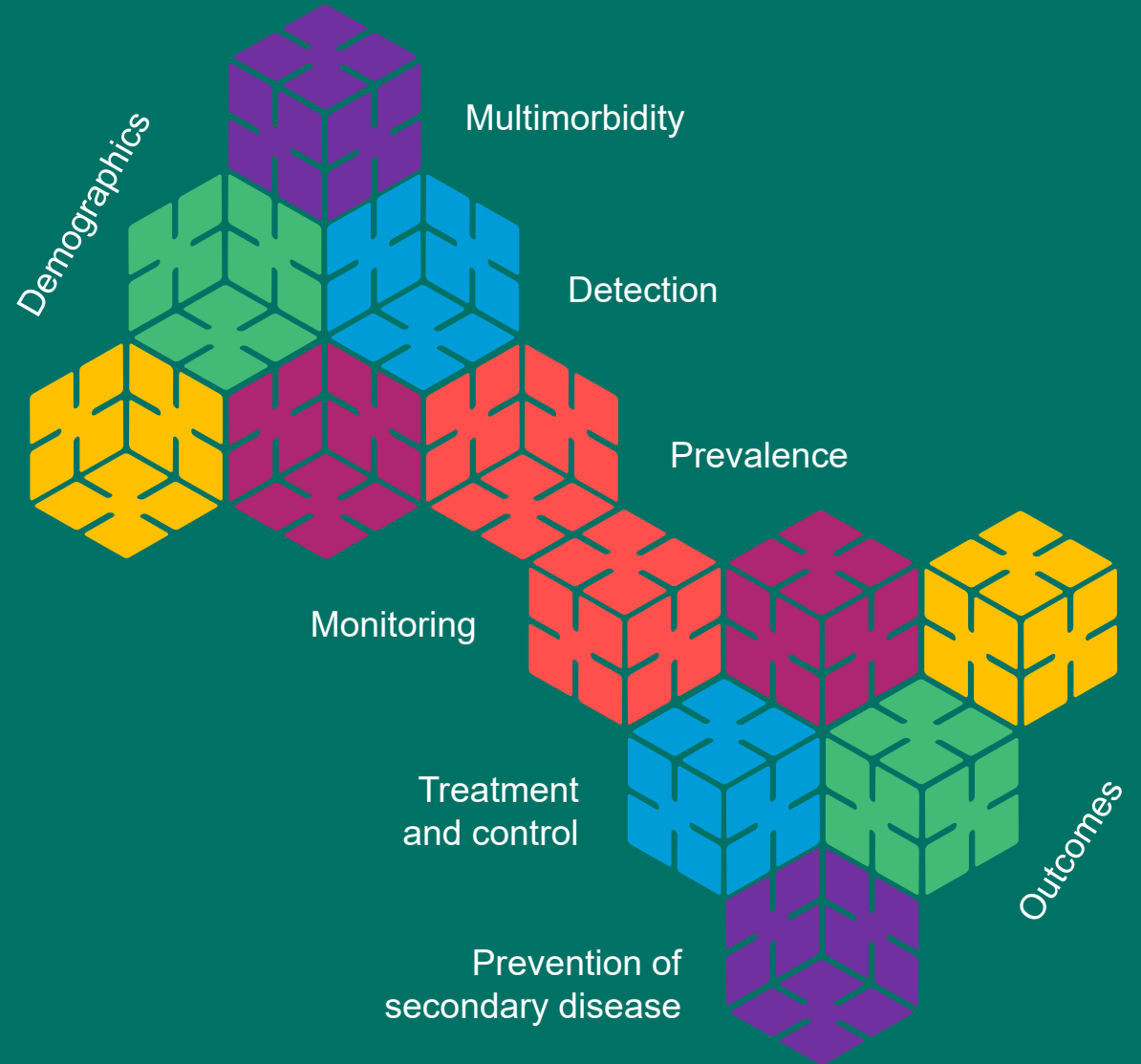
Emergency care (all causes) for people with diabetes

❖ Local data shows that the average cost of emergency care (emergency department attendances and emergency admissions) for people with diabetes was over £1000 per person per year (pppy).

❖ Average cost per person increases with complexity. Whilst there are fewer people with diabetes in higher complexity segments, the average cost of emergency care greatly increases.

❖ The emergency care costs for people in segment 5 is over half of the total emergency care costs for people with diabetes.

❖ It is important to note that this represents all emergency care activity for people with diabetes and is not restricted to diabetic emergencies.

Average cost of emergency care across HWE segments for people with diabetes

Source: PHM Dashboard (Jan 22)
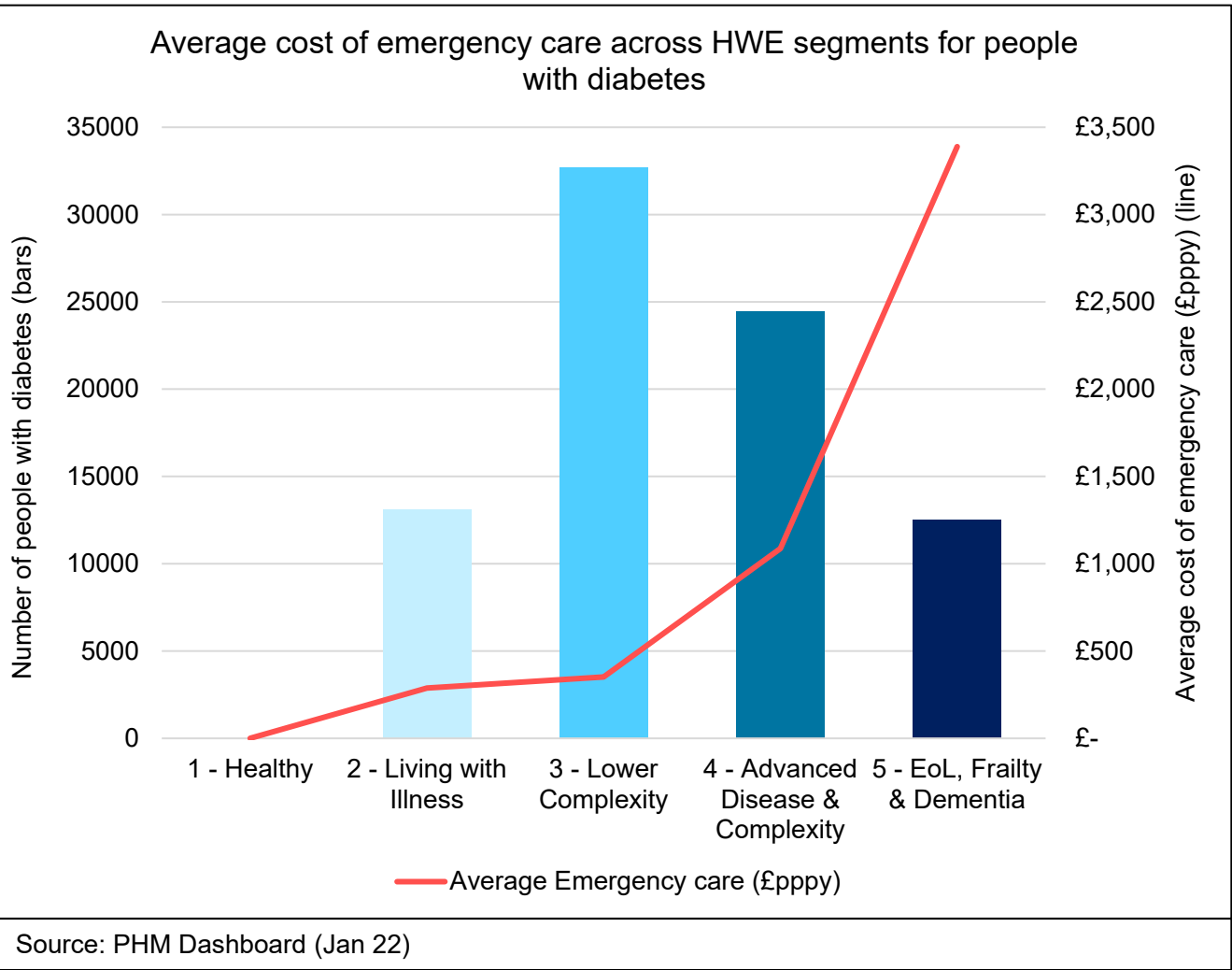
Hospital spells for hypoglycaemia and hyperglycaemia

Adult non-elective admissions where there was a hypoglycaemic or hyperglycaemic/diabetic ketoacidosis (DKA) event either on presentation or during inpatient stay in 2023/2024 by Place Area (per 100,000 population)

Non-elective admissions for hypoglycaemia per 100,000 population 23/24

Rate per 100,000 adult population

ENH   SWH   WE

— ICB average

Non-elective admissions for hyperglycaemia or DKA per 100,000 population 23/24

Rate per 100,000 adult population

ENH   SWH   WE

— ICB average

Source: SUS, NHS Digital
Note admission data is not specific to a diabetes diagnosis
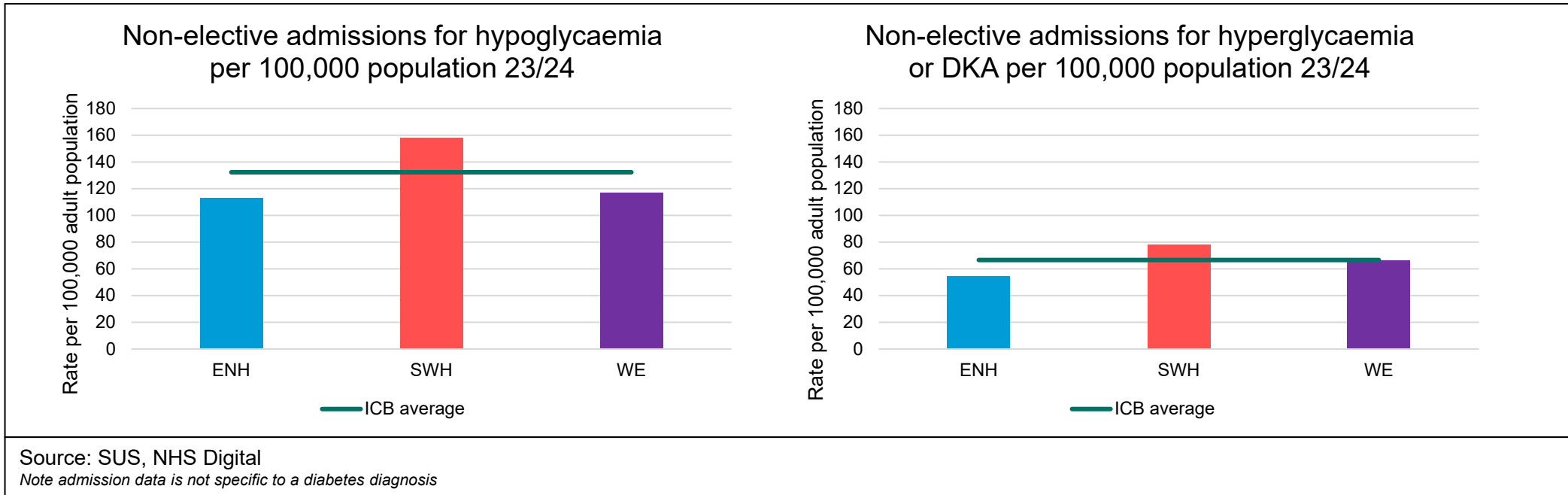
❖ Adult admissions where a hypoglycaemic event is reported either on presentation or during inpatient stay are more common than for admissions where a hyperglycaemia/DKA event is reported. SWH has the highest rate of admissions where an event is reported for hypoglycaemia and hyperglycaemia.

Hospital spells for foot disease (18/19 – 20/21)

Hospital spells for foot disease for people with diabetes
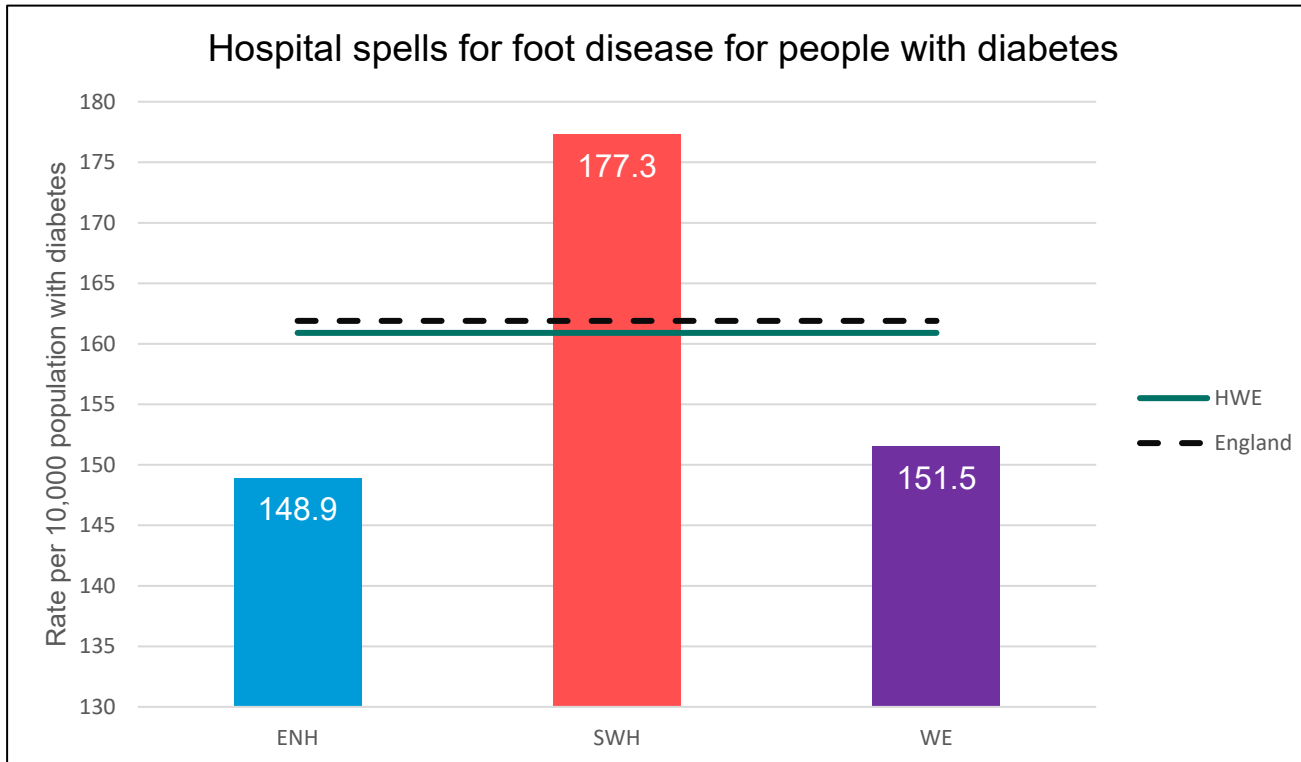
Source: HES and QOF via Fingertips (18/19 – 20/21)

Note: the rate has been calculated using the sum of 3 years of the QOF registered population with diabetes aged 17 and over and likely the same individuals will be summed together, therefore Fingertips advise viewing as proxy measure for person-years at risk.

❖ ENH and WE both have a lower rate of admission for diabetic foot disease compared to the national average.

❖ SWH have a higher than national rate.

❖ Foot disease is a problem that occurs over time; this data may reflect previously poor foot surveillance.

❖ Click to see foot surveillance for:
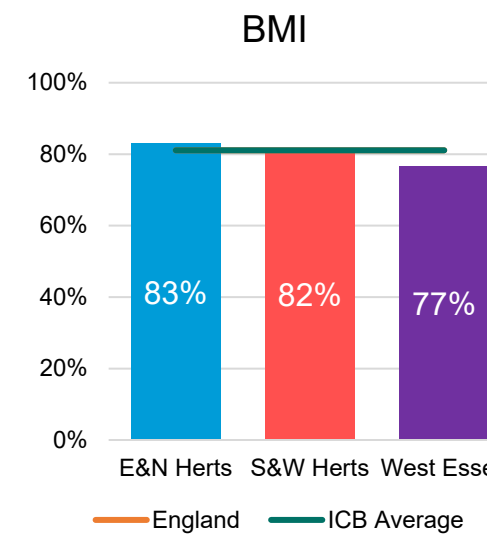   ❖ Type 1 and Type 2

Minor diabetic lower limb amputations (18/19 – 20/21)
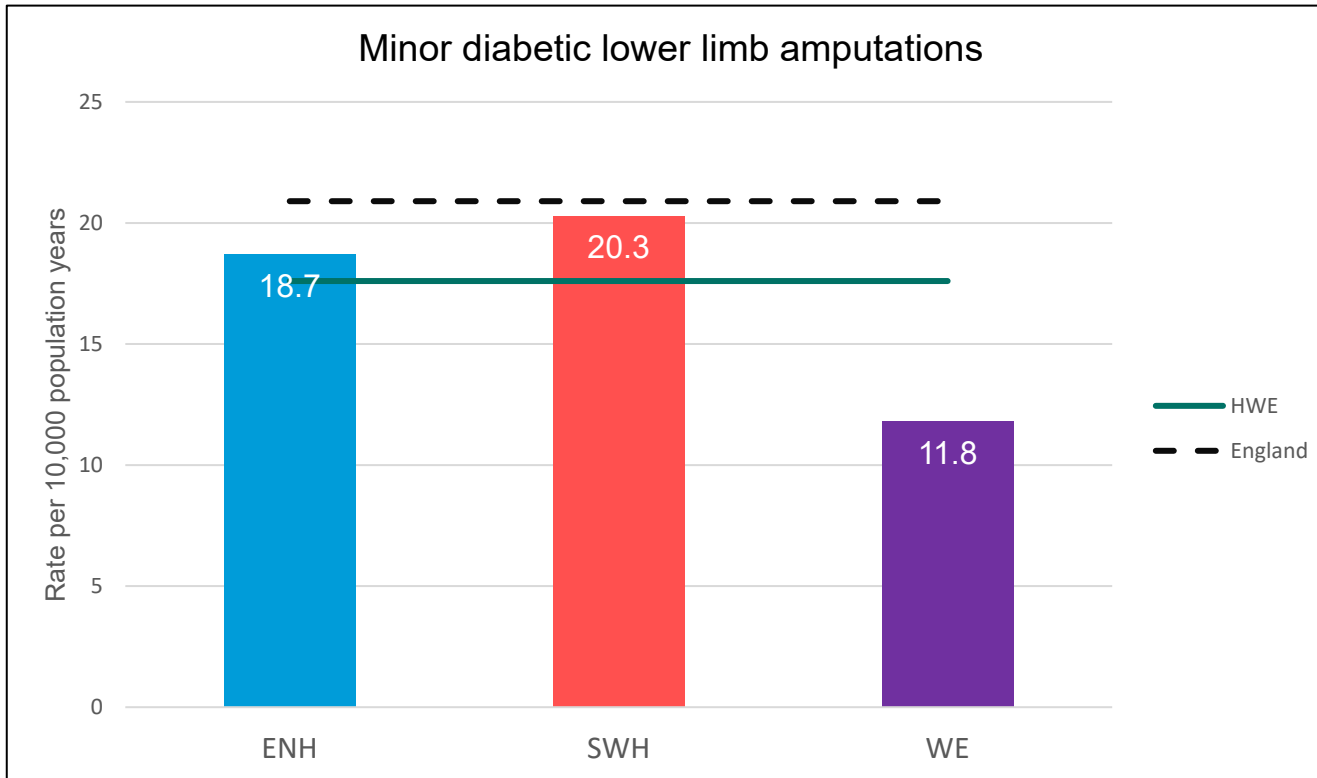
Minor diabetic lower limb amputations

Source: HES, NDA and QOF via Fingertips (18/19 – 20/21)
Note: the rate has been calculated using the sum of 3 years of the QOF registered population with diabetes aged 17 and over, stratified by ethnicity and age, and likely the same individuals will be summed together, therefore Fingertips advise viewing as proxy measure for person-years at risk.

❖ In SWH, the higher rates of diabetic foot admissions translate into higher rates of minor lower limb amputations (defined as at the level of the ankle or below) compared to the rest of the ICS.

❖ Despite being called "minor" lower limb amputations, an amputation of this type has big effects on balance, mobility and overall quality of life.

❖ Rates have decreased across all three place areas when compared to 17/18 – 19/20.

Hertfordshire and West Essex Integrated Care System

Major diabetic lower limb amputations (18/19 – 20/21)

Major diabetic lower limb amputations

Source: HES, NDA and QOF via Fingertips (18/19 – 20/21)
Note: the rate has been calculated using the sum of 3 years of the QOF registered population with diabetes aged 17 and over, stratified by ethnicity and age, and likely the same individuals will be summed together, therefore Fingertips advise viewing as proxy measure for person-years at risk.

❖ Major diabetic amputations are an indicator of poorly controlled chronic disease.

❖ Rates in SWH and WE have reduced when compared to 17/18 – 19/20 and rates have remained the same in ENH when compared to 17/18 – 19/20.

HWE IES
Hertfordshire and
West Essex Integrated
Care System

Type 1 Diabetes with 8CP

Urine Albumin
- E&N Herts: 59%
- S&W Herts: 53%
- West Essex: 48%

Foot Surveillance
- E&N Herts: 74%
- S&W Herts: 66%
- West Essex: 64%

Cholesterol
- E&N Herts: 77%
- S&W Herts: 76%
- West Essex: 76%

Serum Creatinine
- E&N Herts: 86%
- S&W Herts: 81%
- West Essex: 81%

BMI
- E&N Herts: 83%
- S&W Herts: 82%
- West Essex: 77%

Blood Pressure
- E&N Herts: 85%
- S&W Herts: 85%
- West Essex: 83%

HbA1c
- E&N Herts: 80%
- S&W Herts: 81%
- West Essex: 79%

Smoking
- E&N Herts: 92%
- S&W Herts: 89%
- West Essex: 88%

Legend: England, ICB Average

Source: NDA 22/23 Full Release, Primary Care (Jan 22-March 23)

Type 2 and other Diabetes with 8CP

Source: NDA 22/23 Full Release, Primary Care (Jan 22-March 23)

Methodology and Data Validation

Data used in this Insights Pack include data from a range of sources, as referenced throughout, including publicly available data platforms, and local data.

The National Diabetes Audit year runs from January to March, for example 22/23 data contains data from January 2022 – March 2023.

There are some limitations with this data. National Diabetes Audit data publishes practice level data. This was used to estimate Place Area performance for 22/23 using current practice lists (Q4 23/24). The Place Area data is therefore a best estimate of performance.

Data for 8 Care Processes Trends is from the National Diabetes Audit (audit years 17/18 – 22/23). Practice participation varies for each year. There was a potential issue with codes to identify which patients had had their serum creatinine care process check in 2019/20 and 2020/2021 NDA data, affecting a small number of health economies, which has the potential to influence 8CP completion rates.

For some of these sources there is a lag in the data, so for some data, including the National Diabetes Audit data, there is a lag of 1 year, and Diabetic Foot Admission data, where the time period is 18/19-20/21.

The Population Health Management (PHM) Dashboard is an Optum aggregated data set pulled from multiple locally derived registers and other national data sheets including Secondary User Services (SUS) datasets. This is a dataset for ~1.2 million people, not representative of the total ICB population. This dataset is for the full calendar year 2021, with the data being published in 2022.