

Northstowe Healthy New Town

Characteristics of the new village Cambourne and potential implications and forecasts for Northstowe

Work for Cambridgeshire County Council and
South Cambridgeshire District Council

Richard Potter, Analytics Cambridge Ltd.

Tel: 07547 132551

Email: richard.potter@analyticscambridge.co.uk

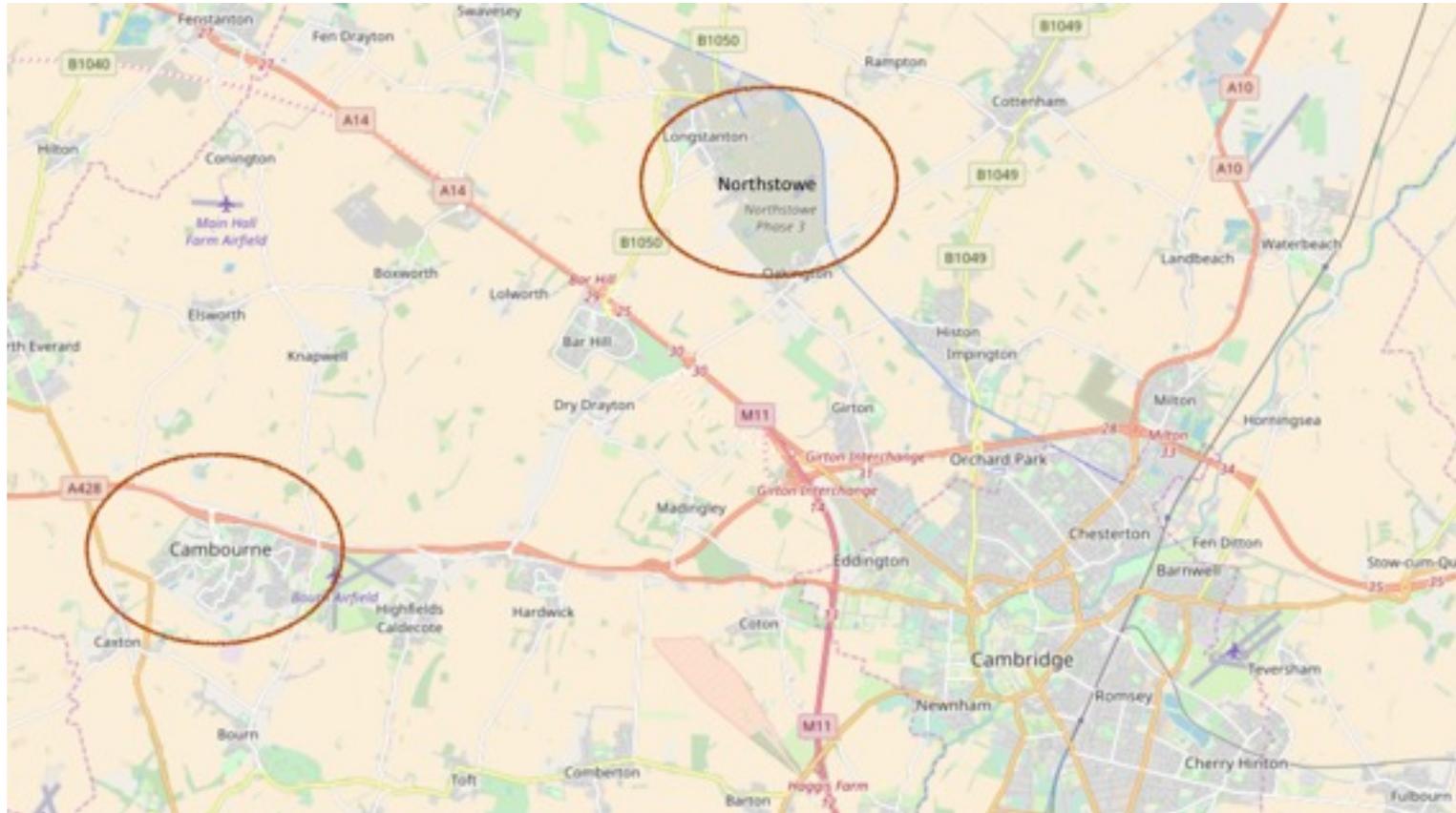
September 2018 adjusted May 2019

Introduction

- ❖ The aim is to summarise work on the new town of Northstowe using data from the neighbouring new village of Cambourne. Both are close to Cambridge
- ❖ Northstowe is a new town intended to be 10,000 dwellings. The first (92) have been built in 2017
- ❖ Cambourne is a new village located nine miles to the south west of Northstowe
- ❖ These slides support a fuller document

Northstowe and Cambourne

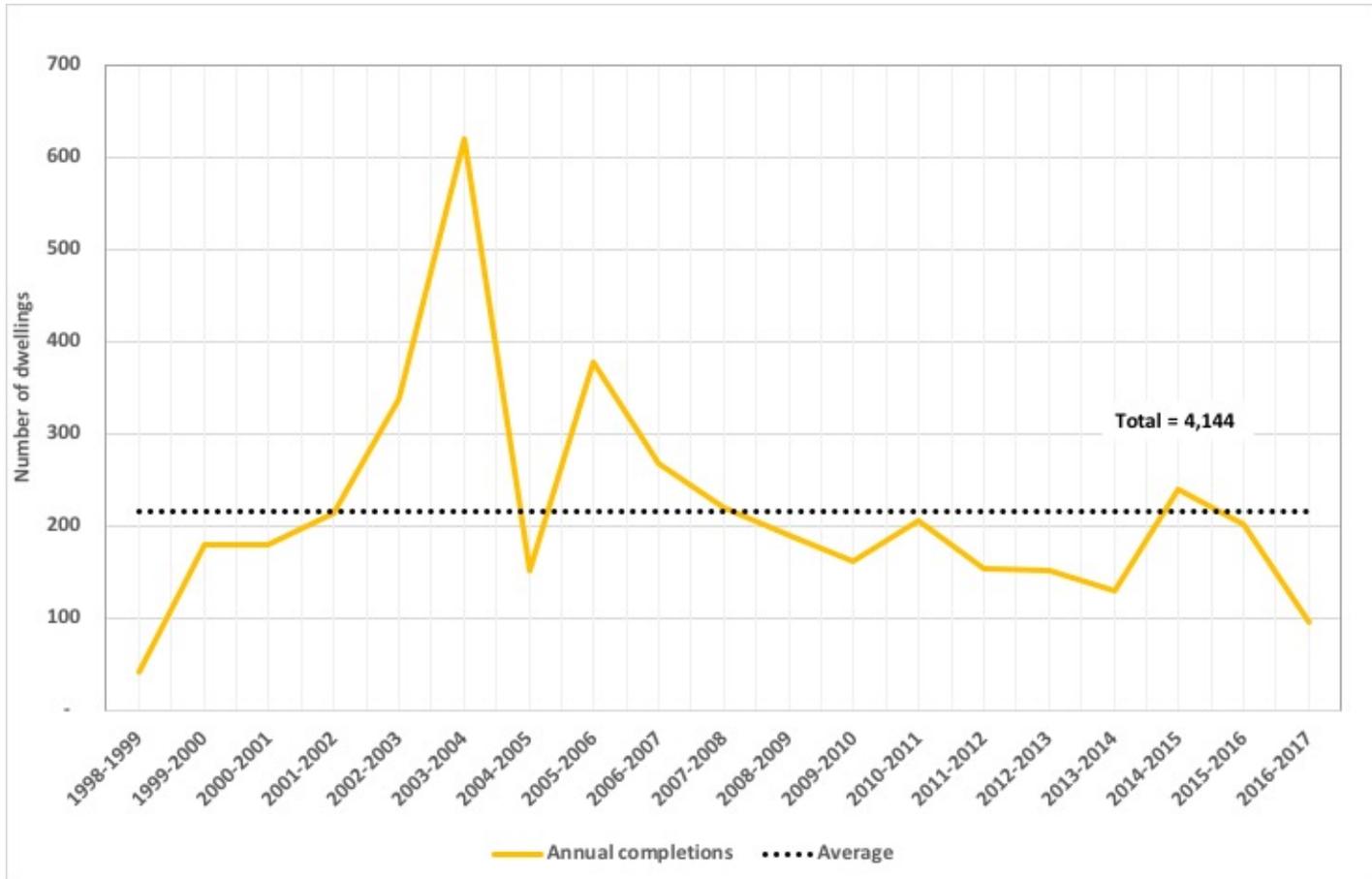
– located around nine miles apart



Development at Cambourne

Number of dwellings built each year, Cambourne

❖ From a zero, i.e. no settlement / housing before start



Numbers of patients and dwellings in Cambourne from 2013

Year	Number of patients	Number of houses
2013	9,013	3,579
2014	9,459	3,818
2015	9,994	4,019
2016	10,593	4,114
2017	10,932	
2018	11,387	

Disability, health and care, Cambourne and South Cambridgeshire, 2011

	Cambourne		South Cambridgeshire
	Number	Per cent	Per cent
All categories: Long-term health problem or disability	8,186		
Day-to-day activities limited a lot	221	2.7%	5.6%
Day-to-day activities limited a little	369	4.5%	8.4%
Day-to-day activities not limited	7,596	92.8%	86.1%
Day-to-day activities limited a lot: age 16 to 64	136	1.7%	2.0%
Day-to-day activities limited a little: age 16 to 64	222	2.7%	3.7%
Day-to-day activities not limited: age 16 to 64	4,973	60.8%	57.9%
Very good health	5,210	63.6%	52.5%
Good health	2,387	29.2%	33.7%
Fair health	428	5.2%	10.6%
Bad health	121	1.5%	2.5%
Very bad health	40	0.5%	0.7%
Provides no unpaid care	7,744	94.6%	89.9%
Provides 1 to 19 hours unpaid care a week	269	3.3%	7.5%
Provides 20 - 49 hours unpaid care a week	62	0.8%	0.9%
Provides 50+ hrs unpaid care a week	111	1.4%	1.6%

Types of dwellings in Cambourne and South Cambridgeshire, 2011

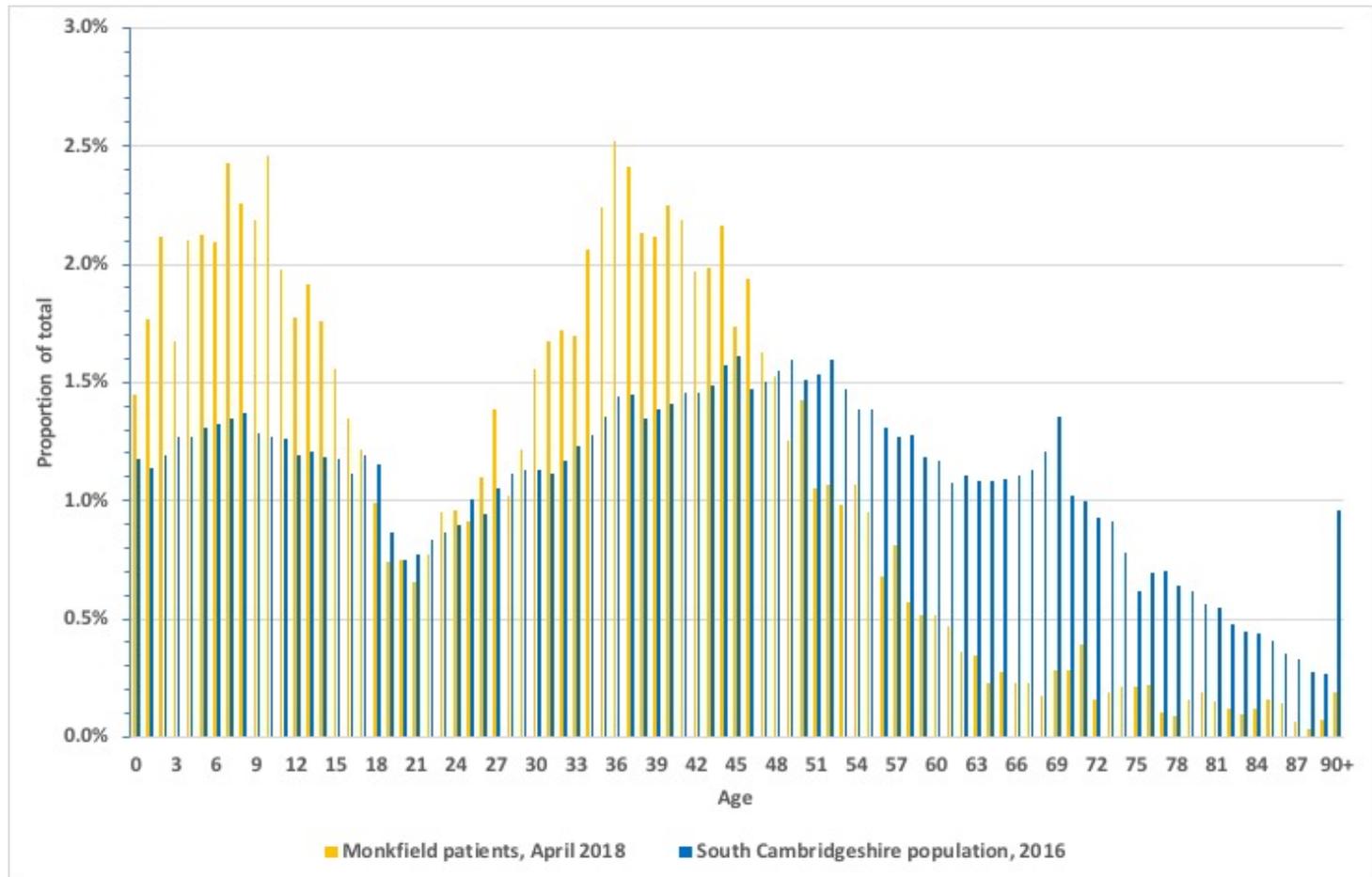
Dwelling Type	Cambourne		South Cambridgeshire
	Number	Per cent	Per cent
Detached	1,011	32.7%	41.4%
Semi-detached	694	22.4%	33.5%
Terraced (including end-terrace)	992	32.1%	17.7%
Flat or apartment	385	12.4%	5.0%
Flat or apartment: part of a shared house (including bed-sits)	5	0.2%	0.8%
Flat, maisonette or apartment: In a commercial building	6	0.2%	0.5%
Caravan or other mobile structure	1	0.0%	1.1%
Total	3,094		

Tenure of dwellings, Cambourne and South Cambridgeshire, 2011

Tenure	Cambourne		South Cambridgeshire
	Number	Per cent	Per cent
Owned	1,792	60.5%	70.3%
<i>Owned outright</i>	375	12.7%	34.6%
<i>Owned with a mortgage or loan</i>	1,417	47.8%	35.6%
Shared ownership (part owned and part rented)	234	7.9%	2.1%
Social rented	446	15.0%	14.3%
<i>Rented from council (Local Authority)</i>	25	0.8%	9.1%
<i>Other</i>	421	14.2%	5.1%
Private rented	472	15.9%	12.0%
<i>Private landlord or letting agency</i>	450	15.2%	10.4%
<i>Other</i>	22	0.7%	1.6%
Living rent free	20	0.7%	1.4%
Total	2,964		

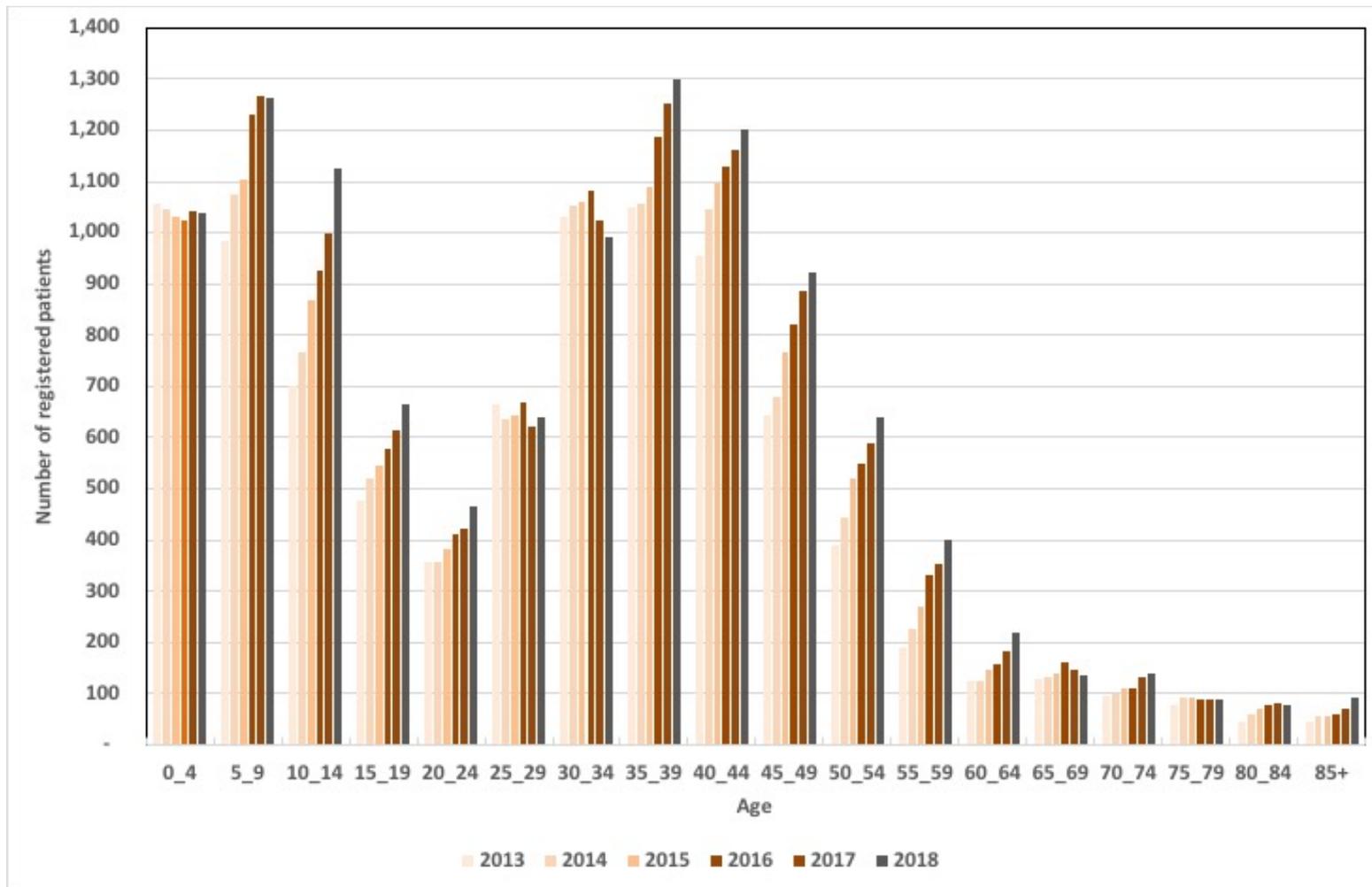
Age of patients

Age (patients) at Cambourne (Monkfield) and (people) South Cambridgeshire



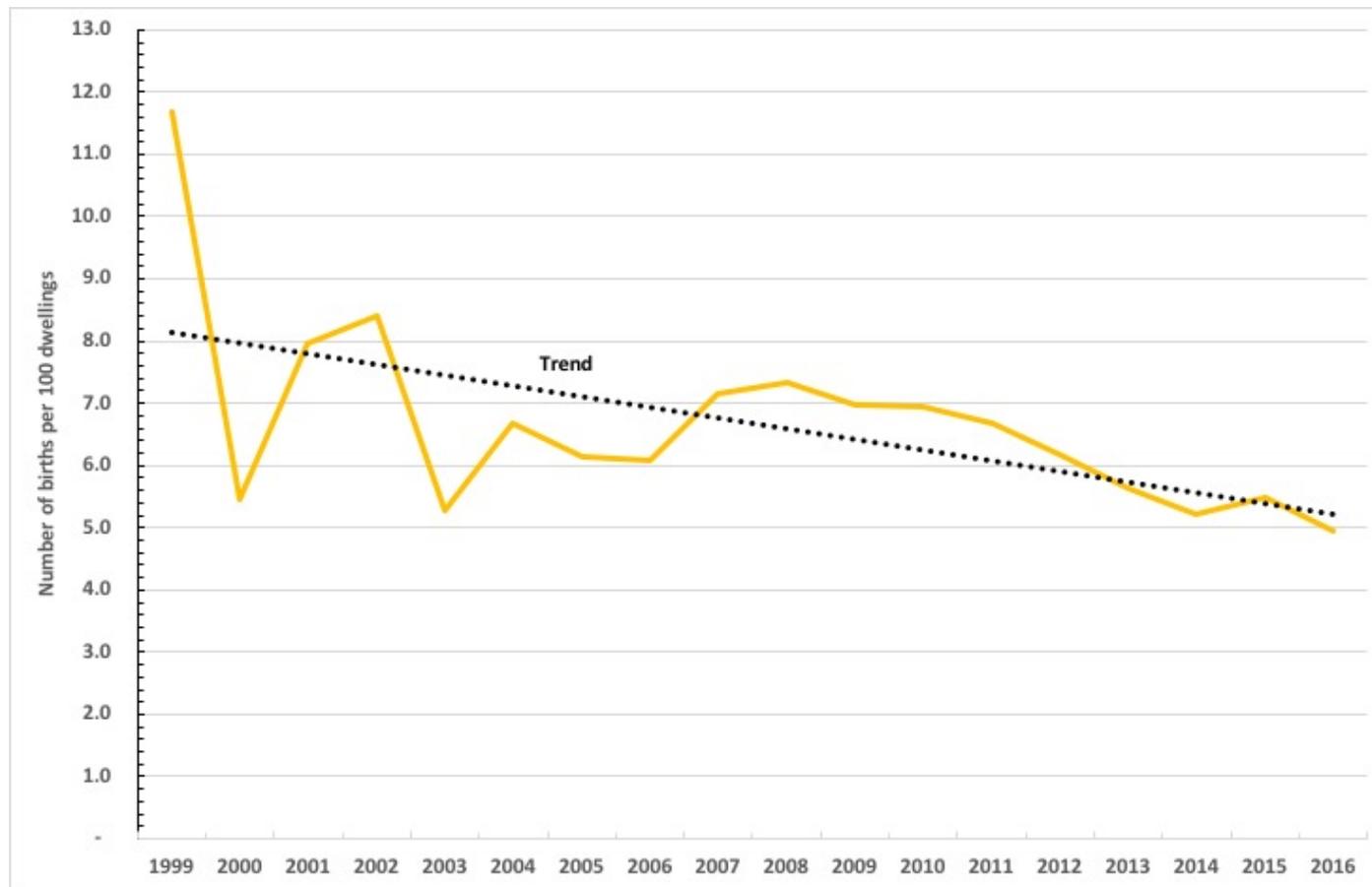
Monkfield Practice, NHS datahub, April 2018
Office for National Statistics, 2016 Mid Year Estimates

Age of patients at Cambourne (Monkfield) 2013 - 2017



Trends in births – per 100 dwellings 1999 - 2016

(Cambourne Parish)



Office for National Statistics and
South Cambridgeshire Annual
Monitoring reports

Ethnicity

Cambourne: Ethnicity, 2011

Ethnic group	Cambourne Parish		South Cambridgeshire
	Number	Per cent	Per cent
White	6,879	84.0%	93.3%
<i>English/Welsh/Scottish/Northern Irish/British</i>	6,175	75.4%	87.3%
<i>Irish</i>	63	0.8%	0.7%
<i>Gypsy or Irish Traveller</i>	22	0.3%	0.3%
<i>Other White</i>	619	7.6%	5.0%
Mixed/multiple ethnic groups	263	3.2%	1.7%
<i>White and Black Caribbean</i>	76	0.9%	0.4%
<i>White and Black African</i>	36	0.4%	0.2%
<i>White and Asian</i>	82	1.0%	0.7%
<i>Other Mixed</i>	69	0.8%	0.5%
Asian/Asian British	793	9.7%	3.7%
<i>Indian</i>	399	4.9%	1.5%
<i>Pakistani</i>	60	0.7%	0.3%
<i>Bangladeshi</i>	29	0.4%	0.1%
<i>Chinese</i>	169	2.1%	0.8%
<i>Other Asian</i>	136	1.7%	1.0%
Black/African/Caribbean/Black British	179	2.2%	0.9%
<i>African</i>	127	1.6%	0.5%
<i>Caribbean</i>	30	0.4%	0.2%
<i>Other Black</i>	22	0.3%	0.1%
<i>Other ethnic group</i>	72	0.9%	0.4%
<i>Arab</i>	50	0.6%	0.2%
<i>Any other ethnic group</i>	22	0.3%	0.3%
Total	8,186		

Source: Office for National Statistics, 2011 Census, via NOMIS website. ONS - 2011 Census (KS201EW)

Cambourne Village College:

Schools, pupils and their characteristics: January 2017

Ethnic Group	Number	Per centage
White British ethnic origin	507	70.4
Irish ethnic origin	2	0.3
Traveller of Irish heritage ethnic origin	0	0
Any other white background ethnic origin	38	5.3
Gypsy/Roma ethnic origin	1	0.1
White and black Caribbean ethnic origin	4	0.6
White and black African ethnic origin	4	0.6
White and Asian ethnic origin	9	1.3
Any other mixed background ethnic origin	14	1.9
Indian ethnic origin	19	2.6
Pakistani ethnic origin	7	1
Bangladeshi ethnic origin	1	0.1
Other Asian background ethnic origin	6	0.8
Caribbean ethnic origin	2	0.3
African ethnic origin	9	1.3
Any other black background ethnic origin	10	1.4
Chinese ethnic origin	5	0.7
Any other ethnic group ethnic origin	4	0.6
Pupils unclassified	78	10.8
Total Pupils	720	

Department for Education, school census data

Ethnicity of patients at Monkfield Practice, January 2018

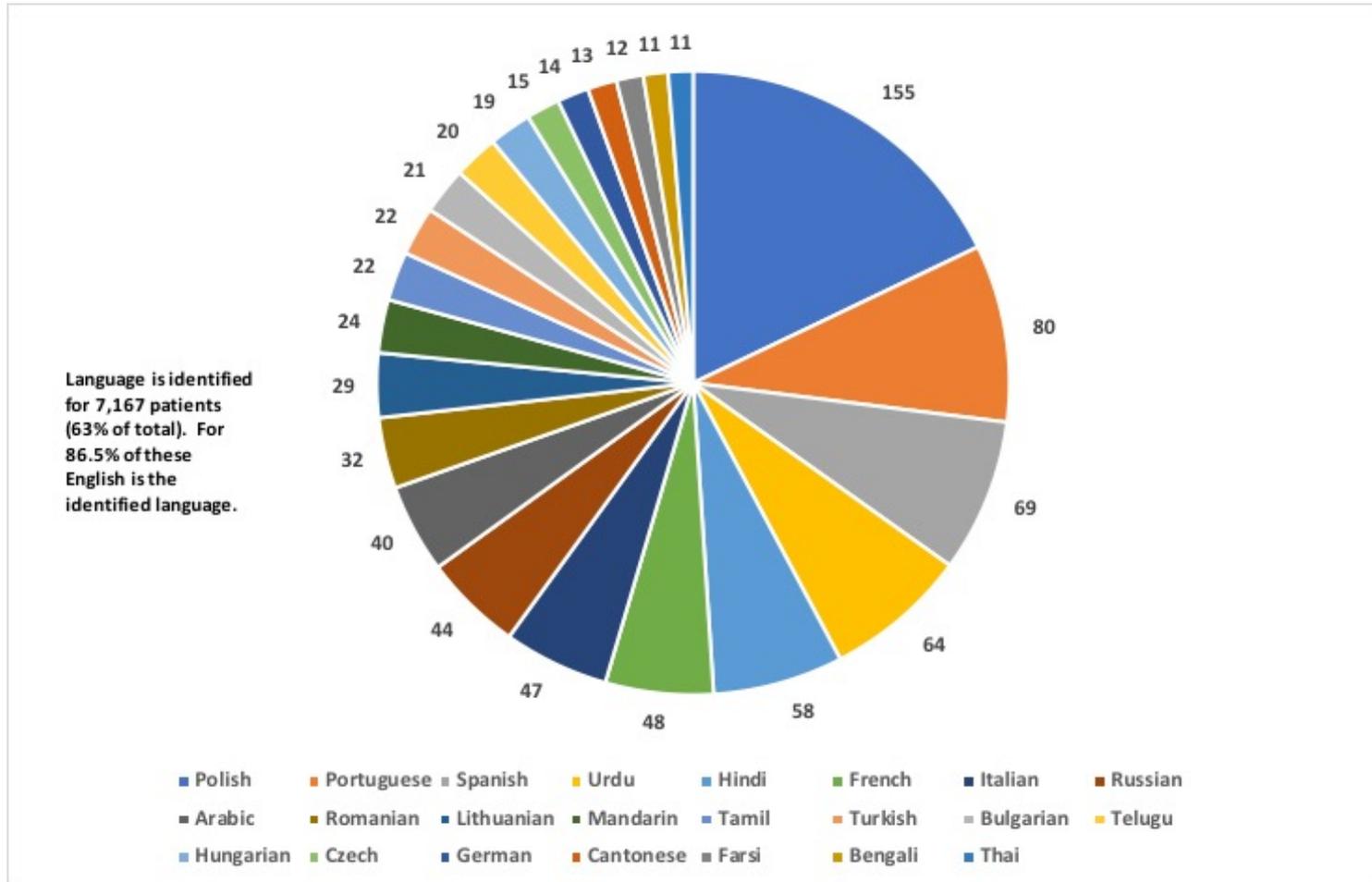
Ethnicity	Patient Count
(XaFwD) White British	3,995
(XaJQv) British or mixed British - ethnic category 2001 census	1,144
(XaQEa) White British - ethnic category 2001 census	687
(XaJQx) Other White background - ethnic category 2001 census	554
(9T...) Ethnicity and other related nationality data	476
(XaFwF) Other white ethnic group	410
(XaJRB) Ethnic category not stated - 2001 census	355
(XaJR2) Indian or British Indian - ethnic category 2001 census	293
(XaJSP) Oth White European/European unsp/Mixed European 2001 census	237
(XaJR5) Other Asian background - ethnic category 2001 census	209
(9S6..) Indian	185
(XaLNO) Patient ethnicity unknown	130
(XaJR9) Chinese - ethnic category 2001 census	117
(XaJR7) African - ethnic category 2001 census	114
(XaJR0) White and Asian - ethnic category 2001 census	104
(XaJR3) Pakistani or British Pakistani - ethnic category 2001 census	100
(XaJR1) Other Mixed background - ethnic category 2001 census	85
(9T1C.) Chinese	74
(XaFx0) Other Asian ethnic group	62
(9S...) Ethnic groups (census)	56
(9S7..) Pakistani	56
(9S3..) Black African	53
(XaJsg) Any other group - ethnic category 2001 census	52
(XaJRC) English - ethnic category 2001 census	50
(9SB4.) Other ethnic, other mixed orig	43
(XaJSE) Polish - ethnic category 2001 census	41
(XaFx1) Other ethnic group	37
(XaJR6) Caribbean - ethnic category 2001 census	36
(XaJQz) White and Black African - ethnic category 2001 census	32
(9SZ..) Ethnic groups (census) NOS	31
(XaJQw) Irish - ethnic category 2001 census	29
(XaFwE) White Irish	28
(9SB2.) Other ethnic, Asian/White orig	25
(9S1..) White - ethnic group	23
(XaIB6) Black African and White	22
(XaJR8) Other Black background - ethnic category 2001 census	22
(9SB..) Other ethnic, mixed origin	21
(XaJQy) White and Black Caribbean - ethnic category 2001 census	20
(XaJRA) Other - ethnic category 2001 census	19
(XaJR4) Bangladeshi or British Bangladeshi - ethn categ 2001 census	17
(9S2..) Black Caribbean	16
(XaIB5) Black Caribbean and White	16
(9S4..) Black, other, non-mixed origin	13

Source: Monkfield Practice

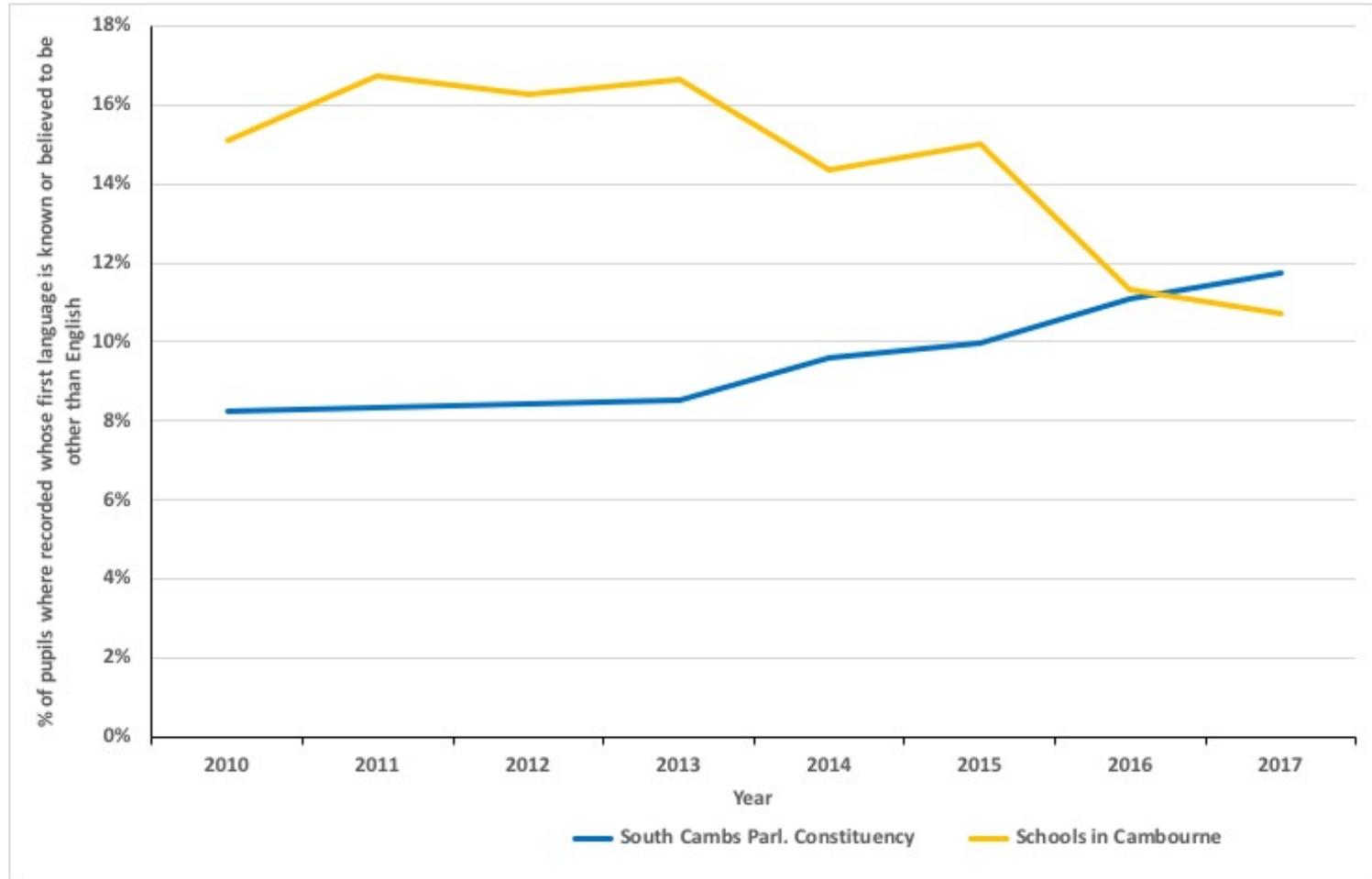
Note: using NHS codes, shows categories to which more than ten patients are assigned

Language

Number of patients at Monkfield where not English language is noted



Pupils at schools in Cambourne where English is not first language



Department for Education, school census data

Languages for people registered at Monkfield where identified language is not English and is recorded for more than 10 patients

Language	Number	Per cent	Language	Number	Per cent
English	6,196	86.5%	Mandarin	24	0.3%
Polish	155	2.2%	Tamil	22	0.3%
Portuguese	80	1.1%	Turkish	22	0.3%
Spanish	69	1.0%	Bulgarian	21	0.3%
Urdu	64	0.9%	Telugu	20	0.3%
Hindi	58	0.8%	Hungarian	19	0.3%
French	48	0.7%	Czech	15	0.2%
Italian	47	0.7%	German	14	0.2%
Russian	44	0.6%	Cantonese	13	0.2%
Arabic	40	0.6%	Farsi	12	0.2%
Romanian	32	0.4%	Bengali	11	0.2%
Lithuanian	29	0.4%	Thai	11	0.2%
Mandarin	24	0.3%	Other language not English	101	1.1%

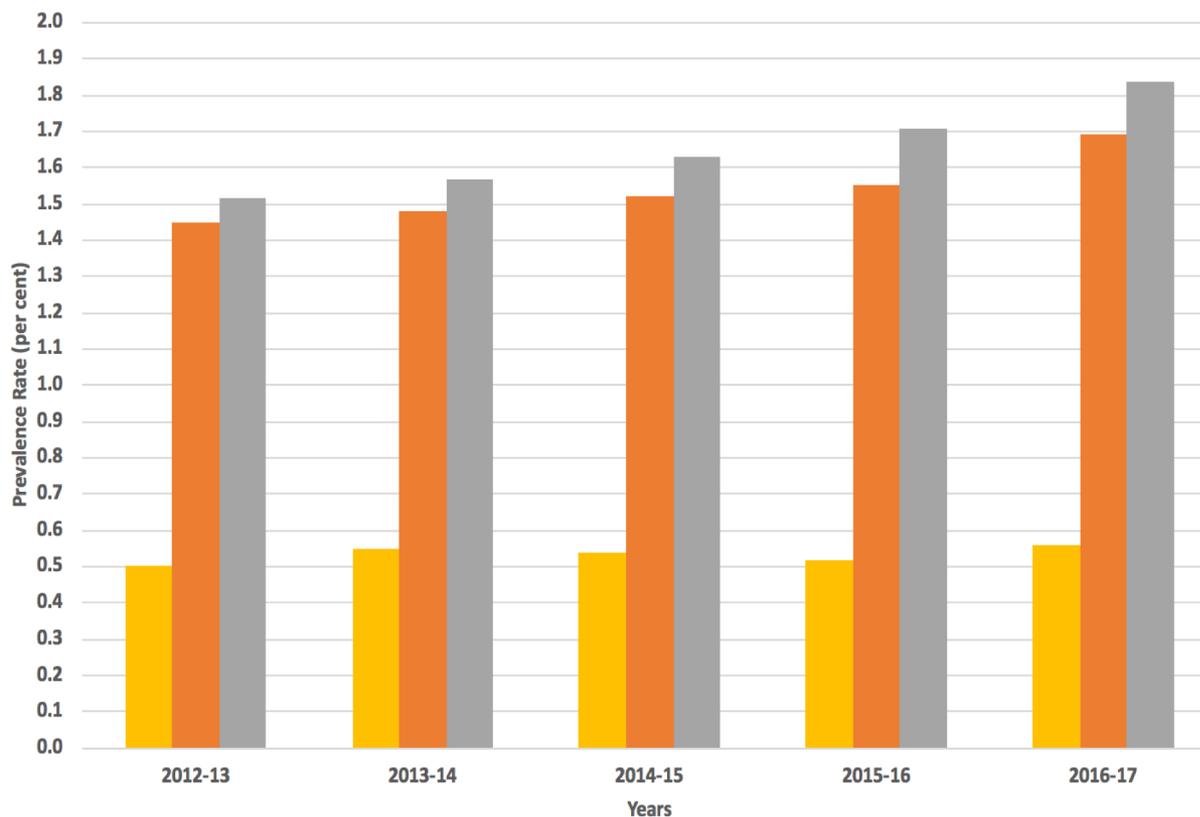
Prevalence of key health conditions: using Quality Outcomes Framework measures

Summary of prevalence in Cambourne, Cambs. and Peterborough CCG and England

- ❖ Cambourne has a higher prevalence for:
 - Asthma
 - Depression
- ❖ There are some conditions where the prevalence in Cambourne is becoming slightly closer to the CP CCG and England levels:
 - Coronary heart disease
 - Diabetes mellitus
- ❖ Where the prevalence in Cambourne is lower than that for England and the gap has grown larger:
 - Hypertension
 - Obesity
 - Cancer
 - Chronic kidney disease
 - Palliative care
 - Dementia

Cardiovascular

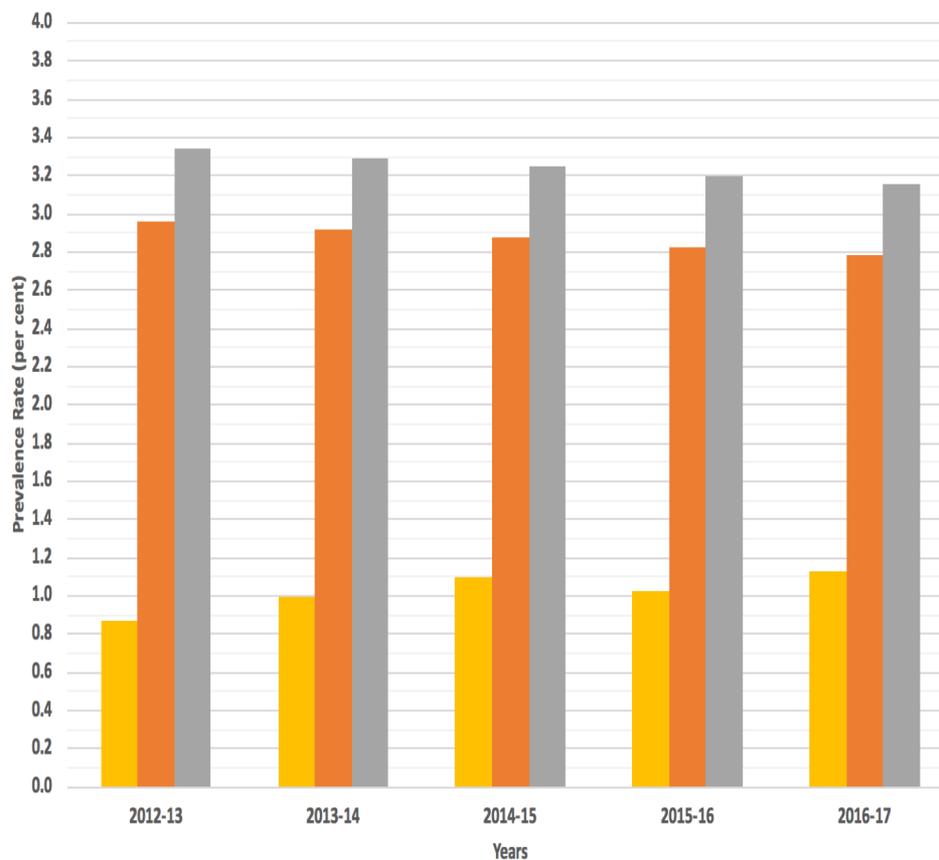
Comparison of atrial fibrillation at Monkfield, CP CCG and England



Source: NHS Digital Quality and Outcomes Framework prevalence data

■ Monkfield Practice ■ Cambs P'boro CCG ■ England

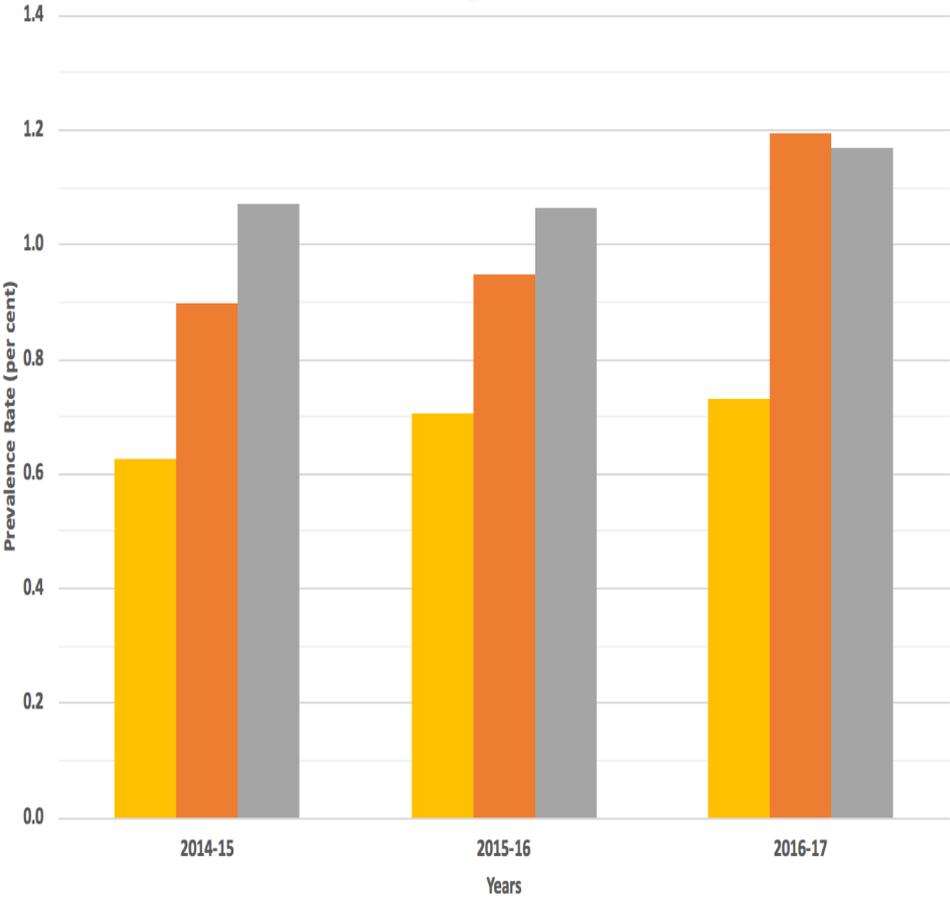
Comparison of coronary heart disease at Monkfield, CP CCG and England



Source: NHS Digital Quality and Outcomes Framework prevalence data

■ Monkfield Practice ■ Cambs P'boro CCG ■ England

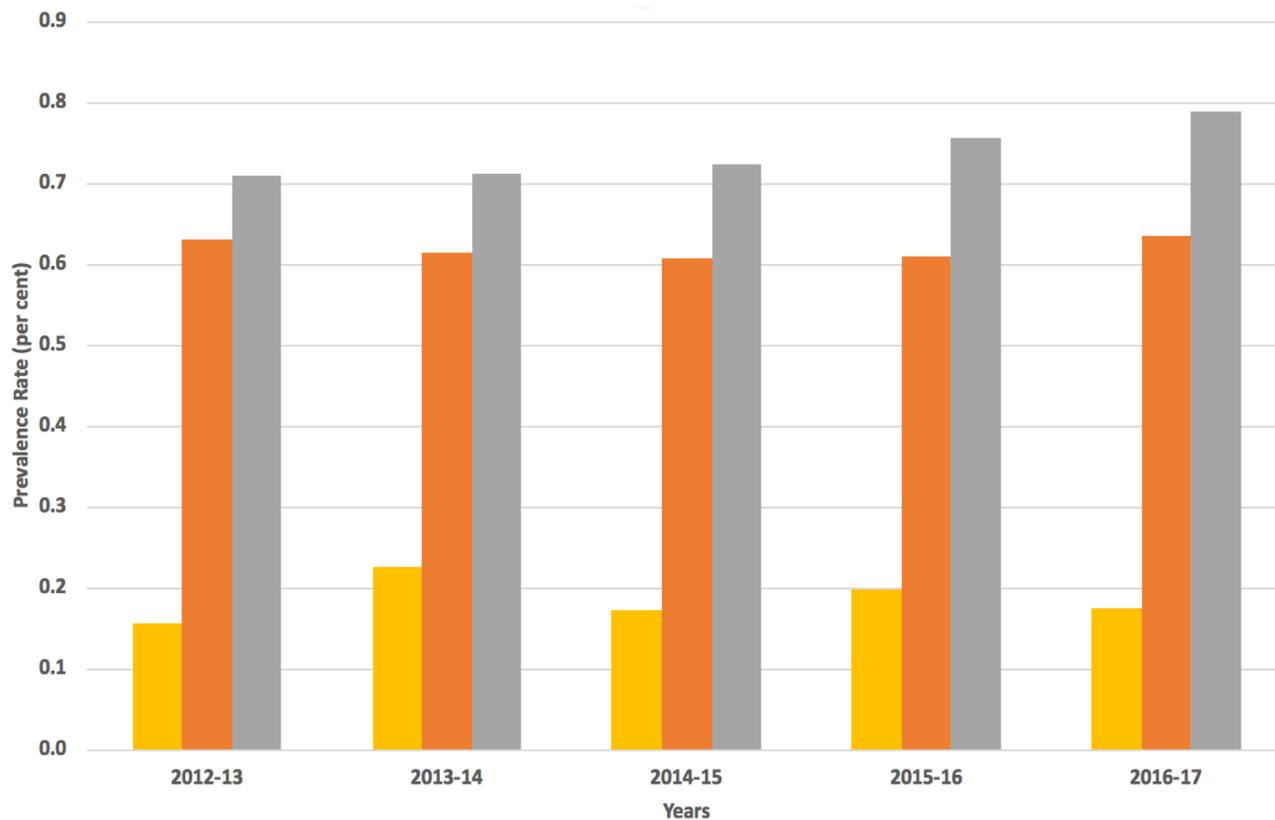
Comparison of cardiovascular disease at Monkfield, CP CCG and England, those aged 30-74



Source: NHS Digital Quality and Outcomes Framework prevalence data

■ Monkfield Practice ■ Cambs P'boro CCG ■ England

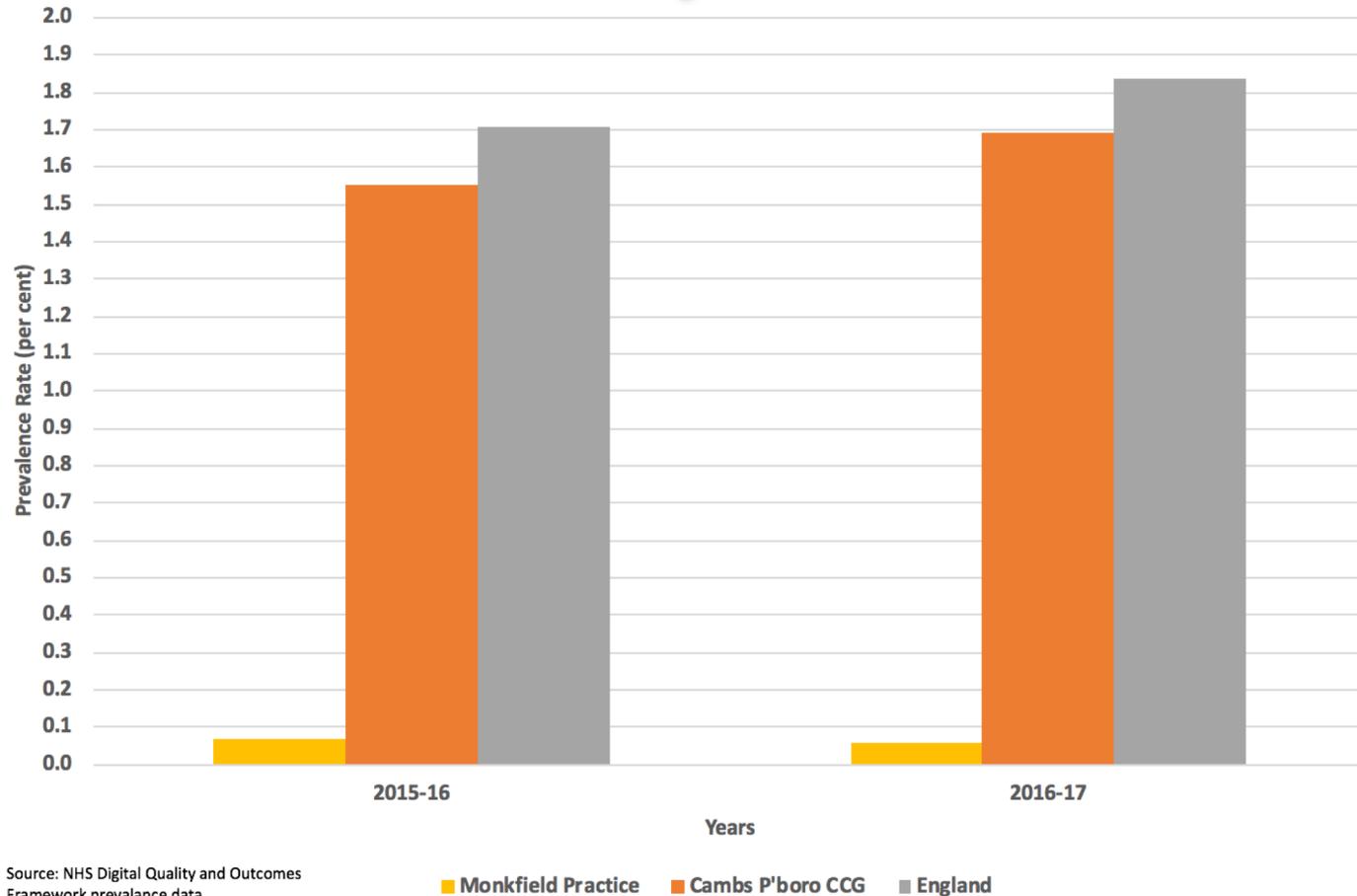
Comparison of heart failure at Monkfield, CP CCG and England



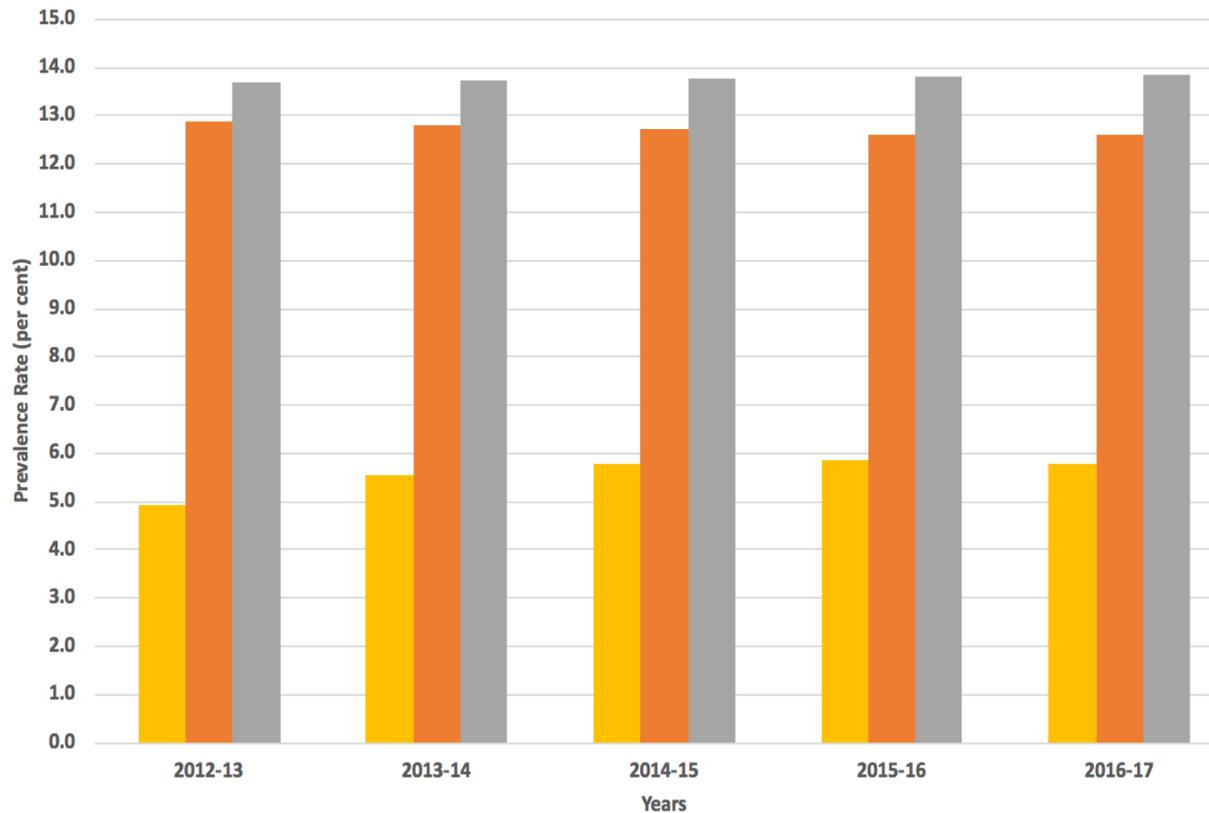
Source: NHS Digital Quality and Outcomes Framework prevalence data

■ Monkfield Practice ■ Cambs P'boro CCG ■ England

Trends and comparison of heart failure due to left ventricular systolic dysfunction at Monkfield, CP CCG and England



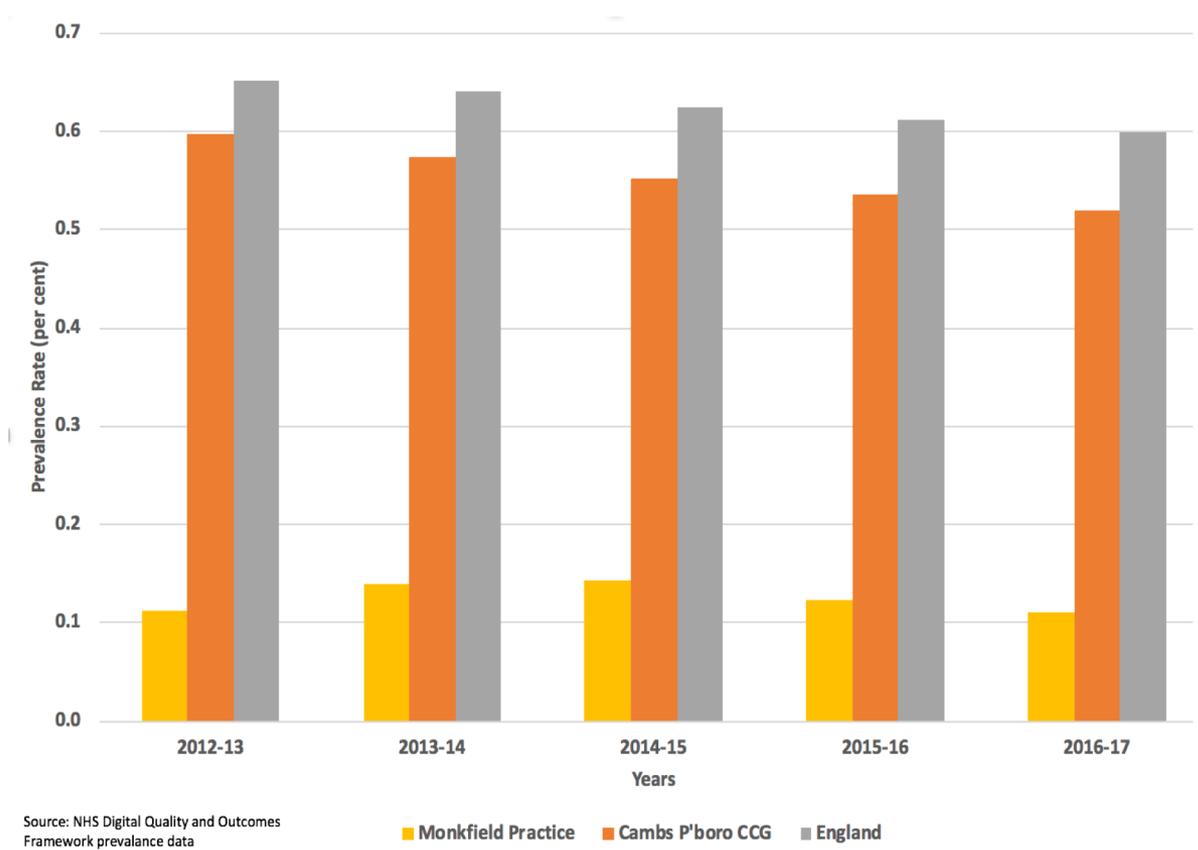
Comparison of hypertension due to left ventricular systolic dysfunction at Monkfield, CP and England



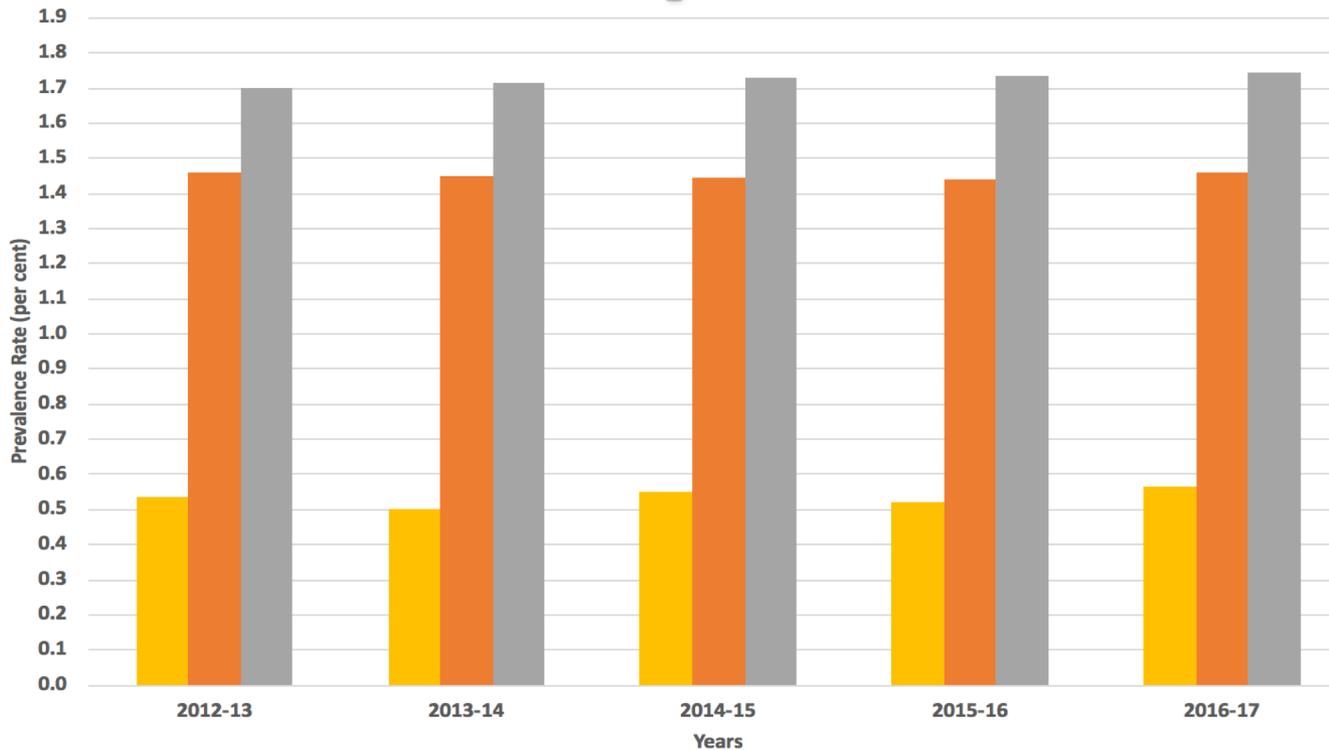
Source: NHS Digital Quality and Outcomes Framework prevalence data

■ Monkfield Practice ■ Cambs P'boro CCG ■ England

Trends and comparison of peripheral arterial disease at Monkfield, CP CCG and England



Comparison of stroke and transient ischaemic attack at Monkfield, CP CCG and England

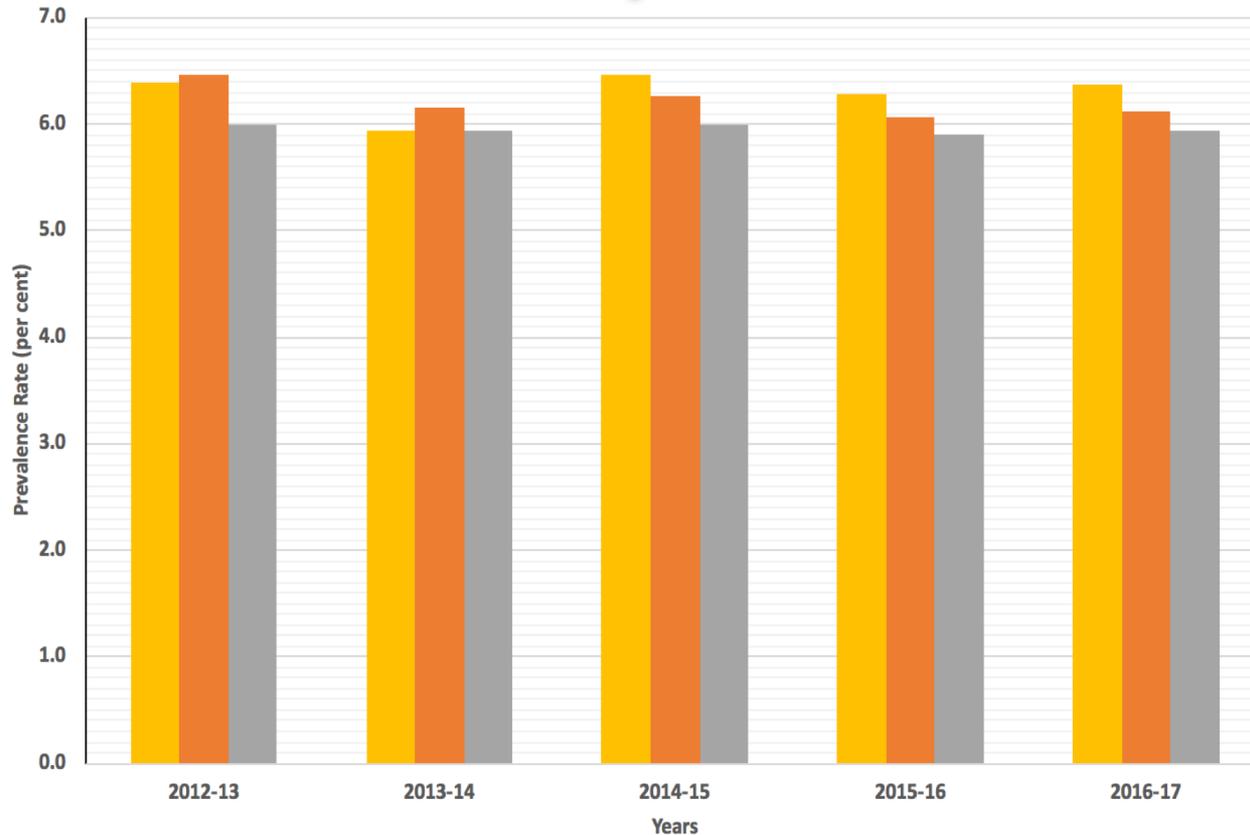


Source: NHS Digital Quality and Outcomes Framework prevalence data

■ Monkfield Practice ■ Cambs P'boro CCG ■ England

Respiratory

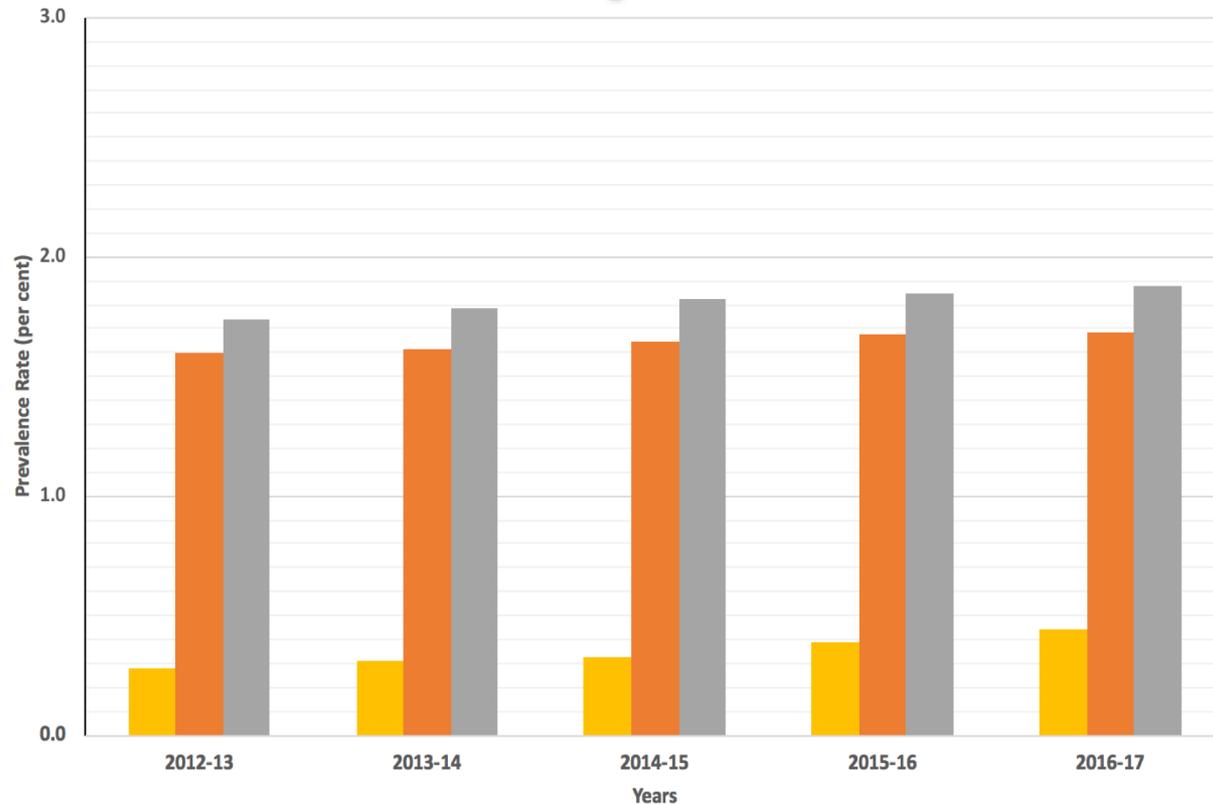
Comparison of asthma at Monkfield, CP CCG and England



Source: NHS Digital Quality and Outcomes Framework prevalence data

■ Monkfield Practice ■ Cambs P'boro CCG ■ England

Comparison of chronic obstructive pulmonary disease at Monkfield, CP CCG and England

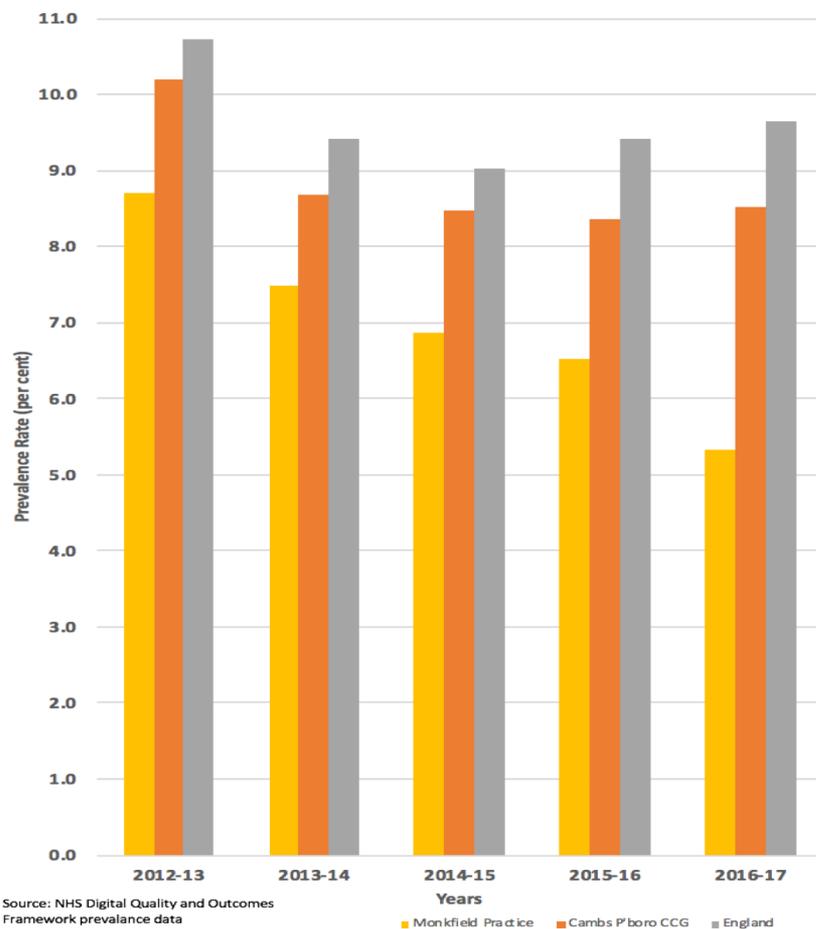


Source: NHS Digital Quality and Outcomes Framework prevalence data

■ Monkfield Practice ■ Cambs P'boro CCG ■ England

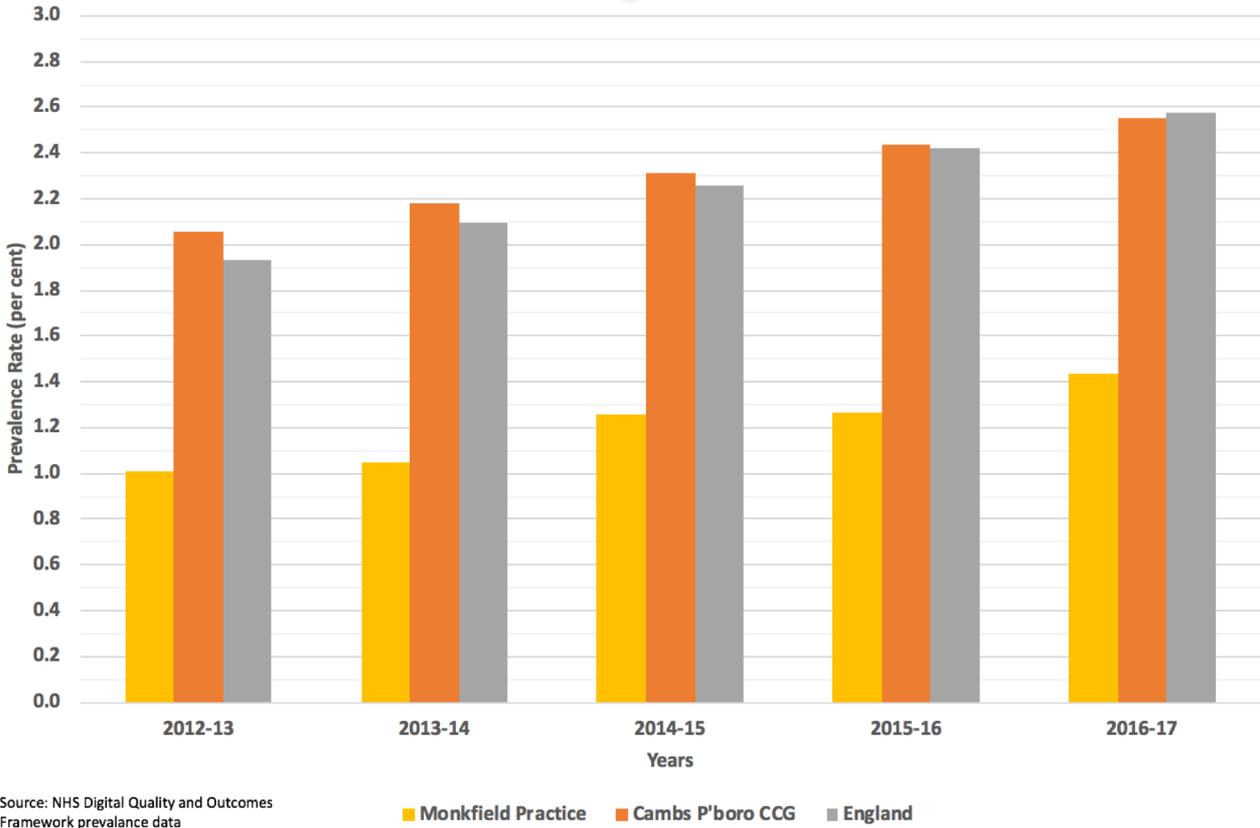
Lifestyle

Comparison of obesity, those aged 18 or over, Monkfield, CP CCG and England

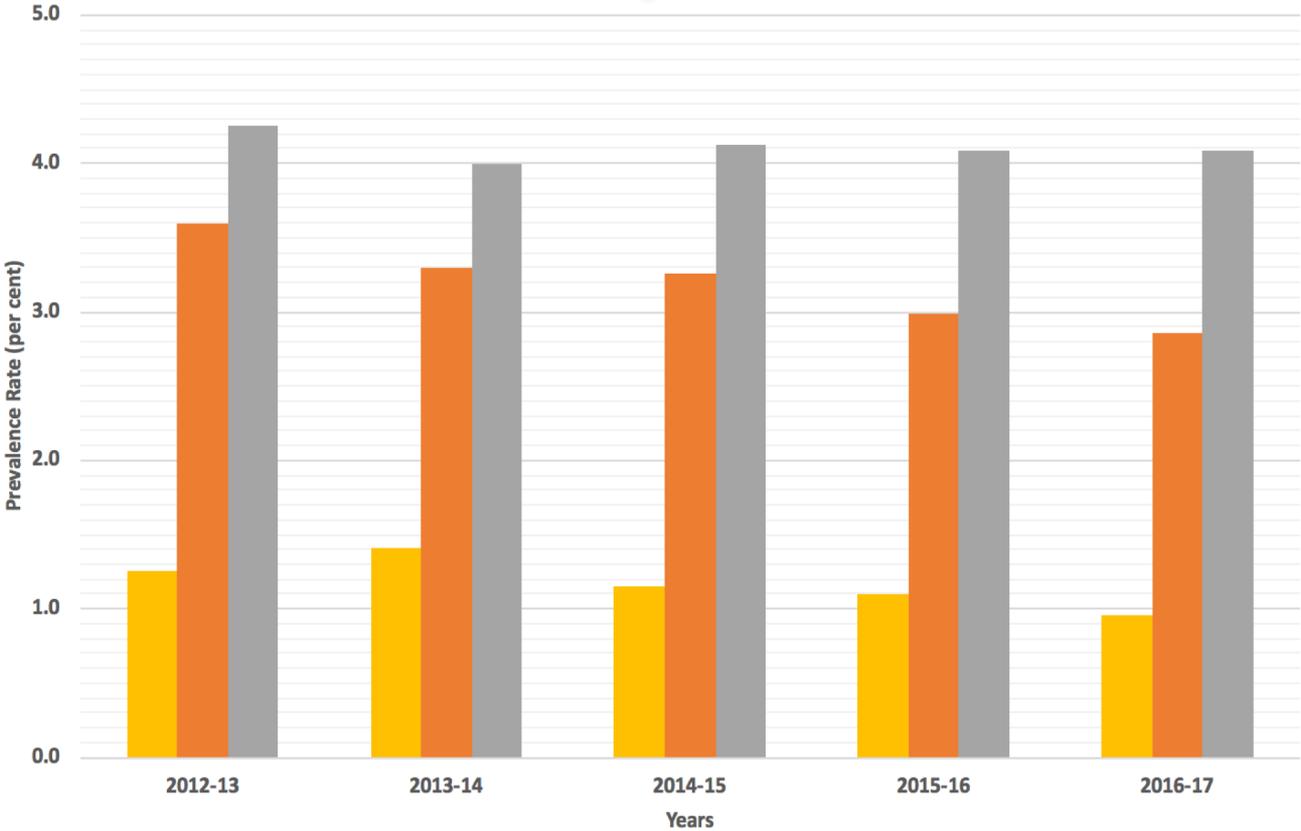


High dependency and other long term conditions

Comparison of cancer at Monkfield, CP CCG and England



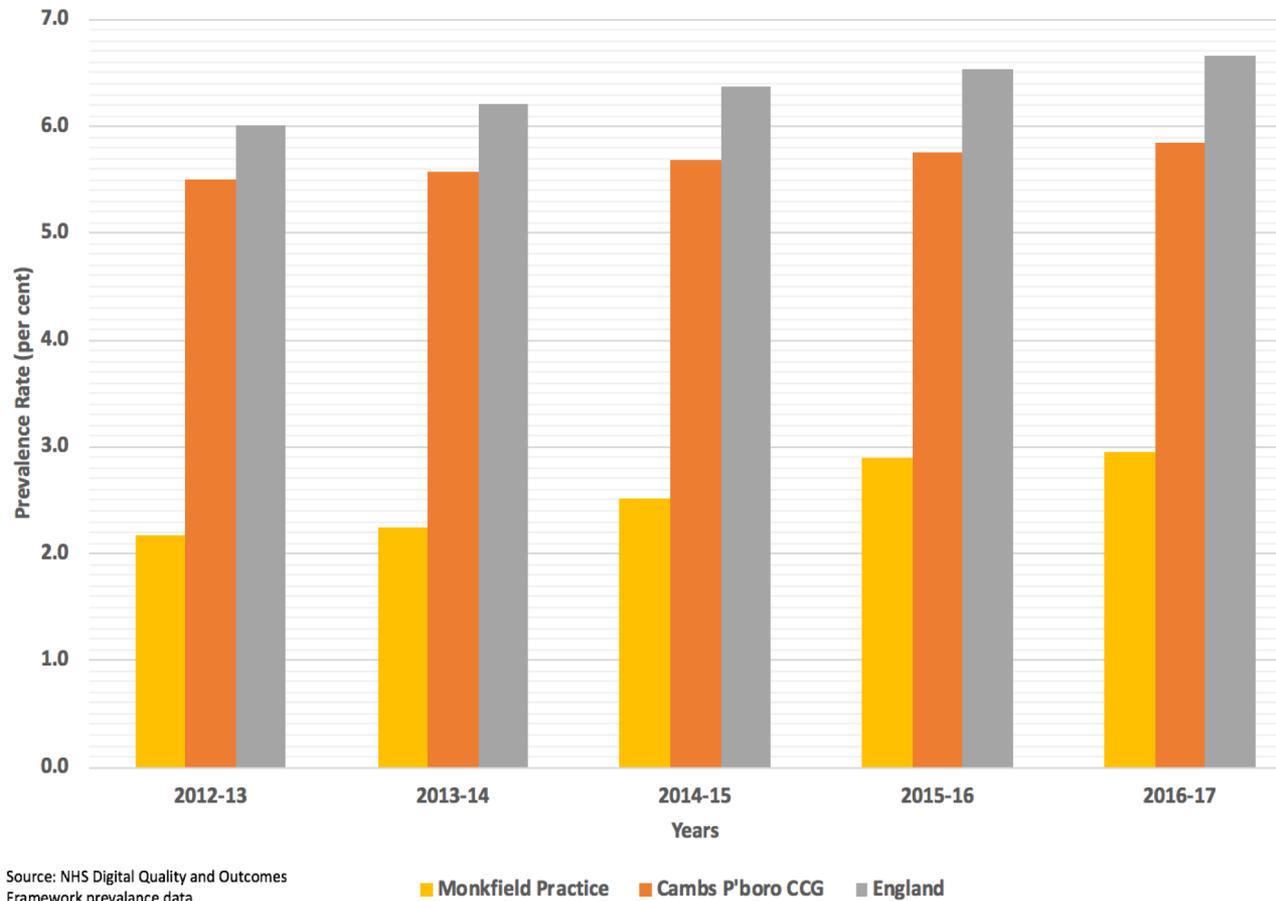
Comparison of chronic kidney disease, those aged 18 or over at Monkfield, CP CCG and England



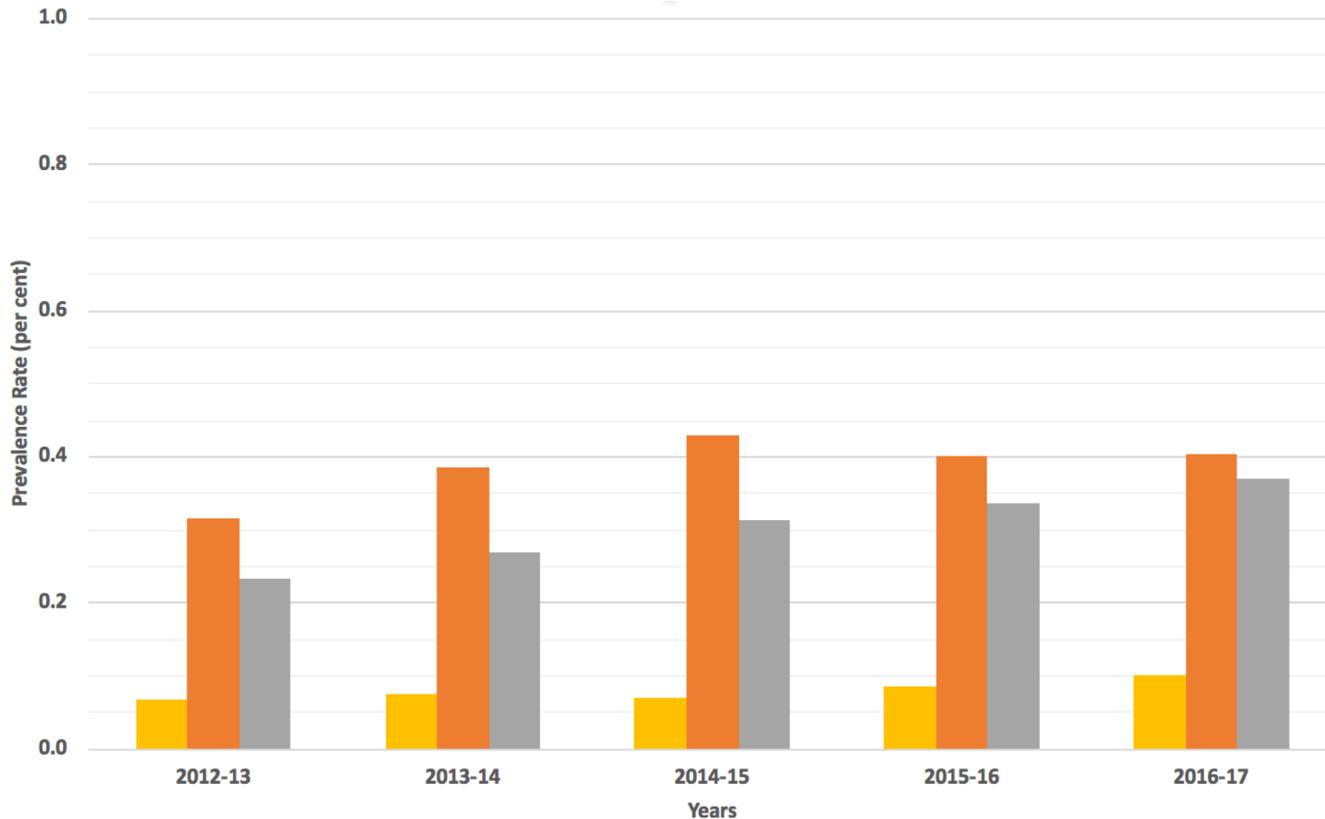
Source: NHS Digital Quality and Outcomes Framework prevalence data

■ Monkfield Practice ■ Cambs P'boro CCG ■ England

Comparison of diabetes mellitus, those aged 17 or over, at Monkfield, CP CCG and England



Comparison of palliative care at Monkfield, CP CCG and England

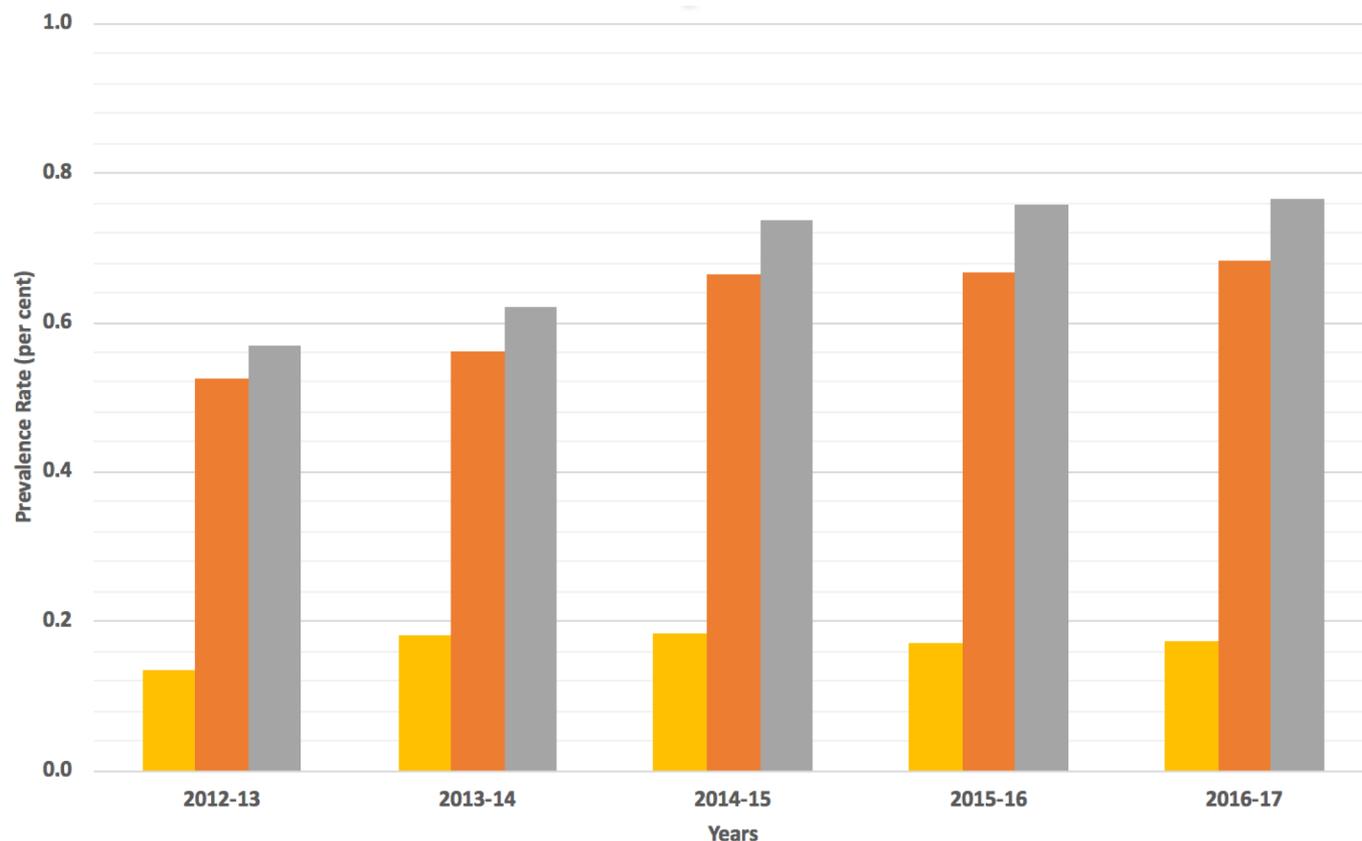


Source: NHS Digital Quality and Outcomes Framework prevalence data

■ Monkfield Practice ■ Cambs P'boro CCG ■ England

Mental health and neurology

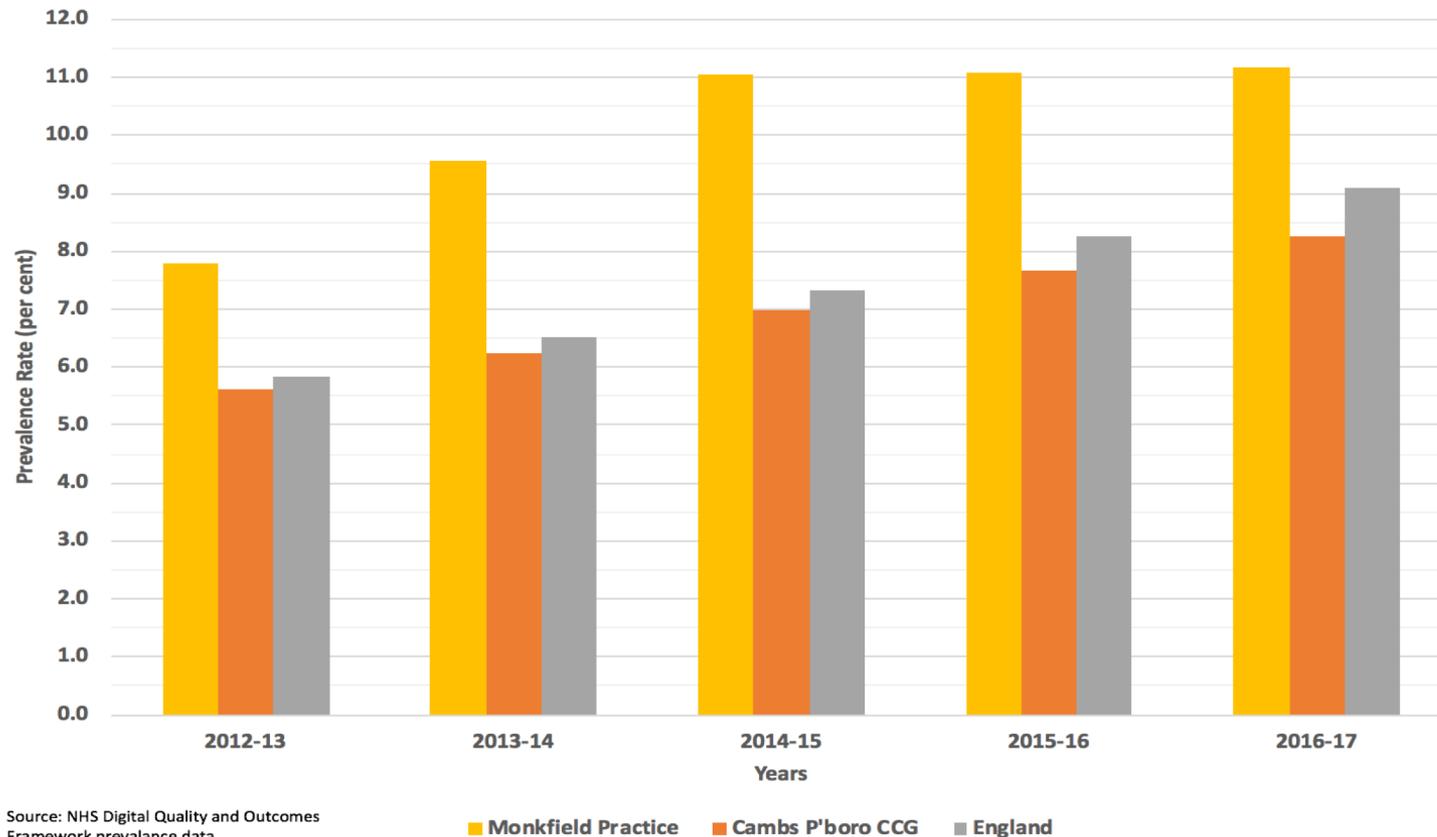
Comparison of dementia at Monkfield, CP CCG and England



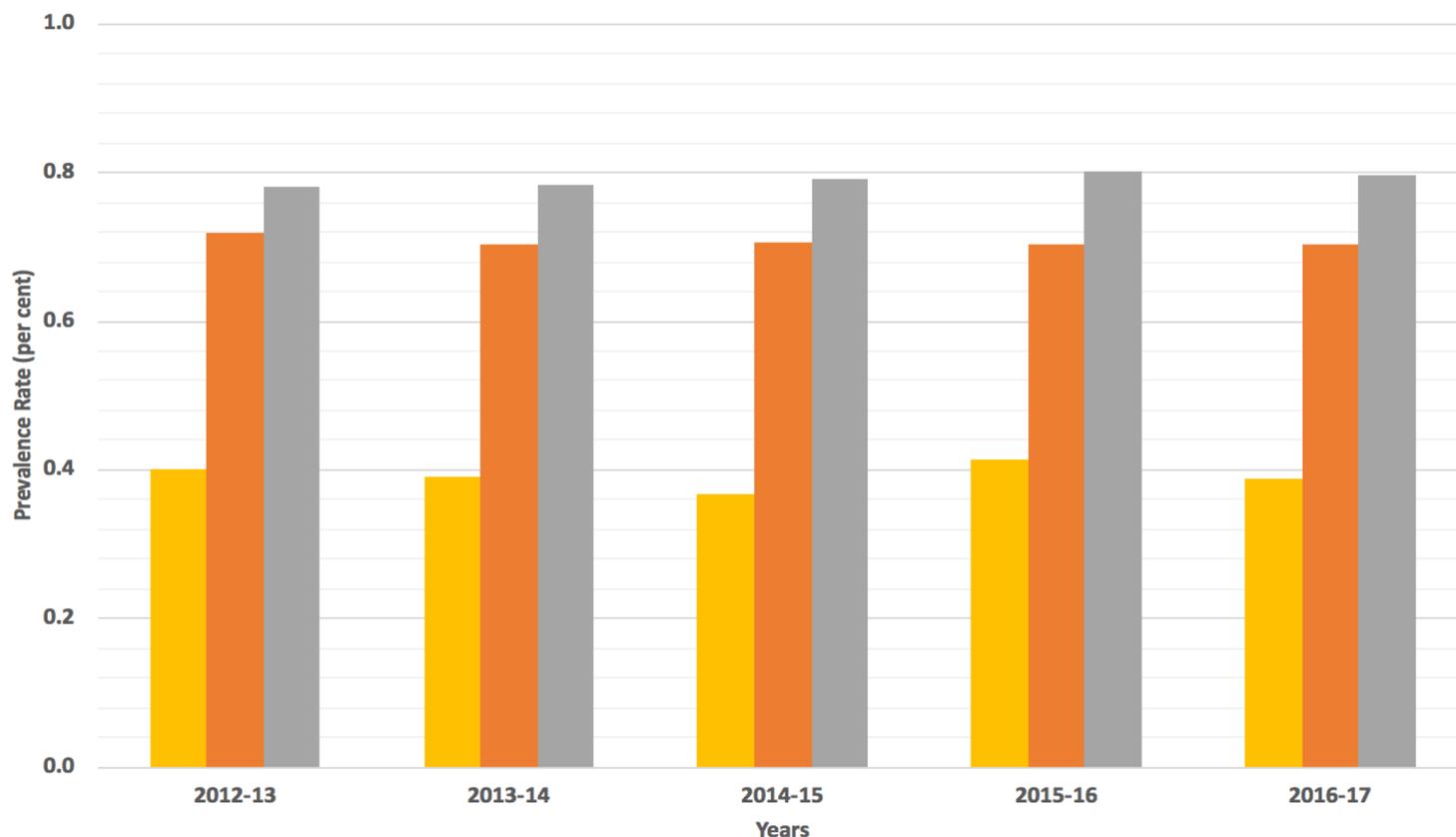
Source: NHS Digital Quality and Outcomes Framework prevalence data

■ Monkfield Practice ■ Cambs P'boro CCG ■ England

Comparison of depression, those aged 18 or over at Monkfield, CP CCG and England



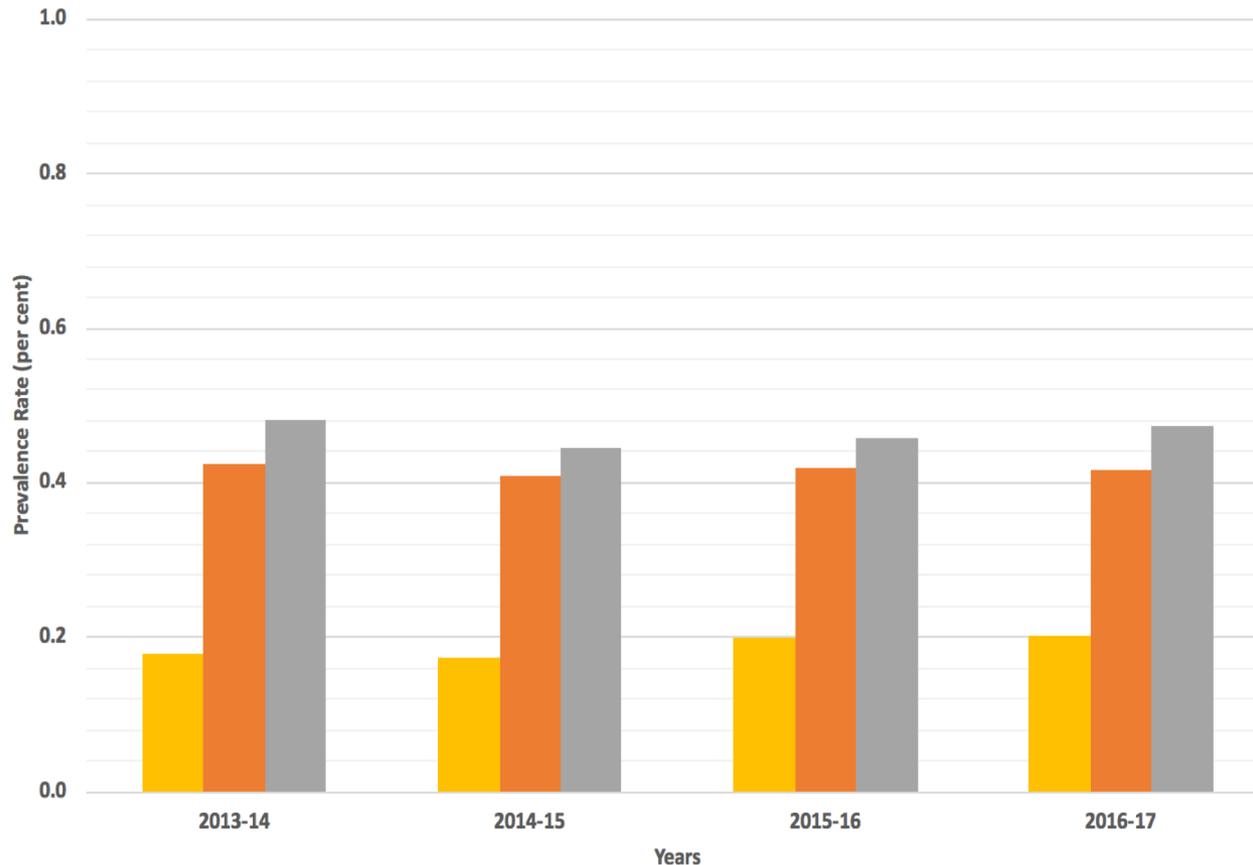
Comparison of epilepsy, those aged 18 or over at Monkfield, CP CCG and England



Source: NHS Digital Quality and Outcomes Framework prevalence data

■ Monkfield Practice ■ Cambs P'boro CCG ■ England

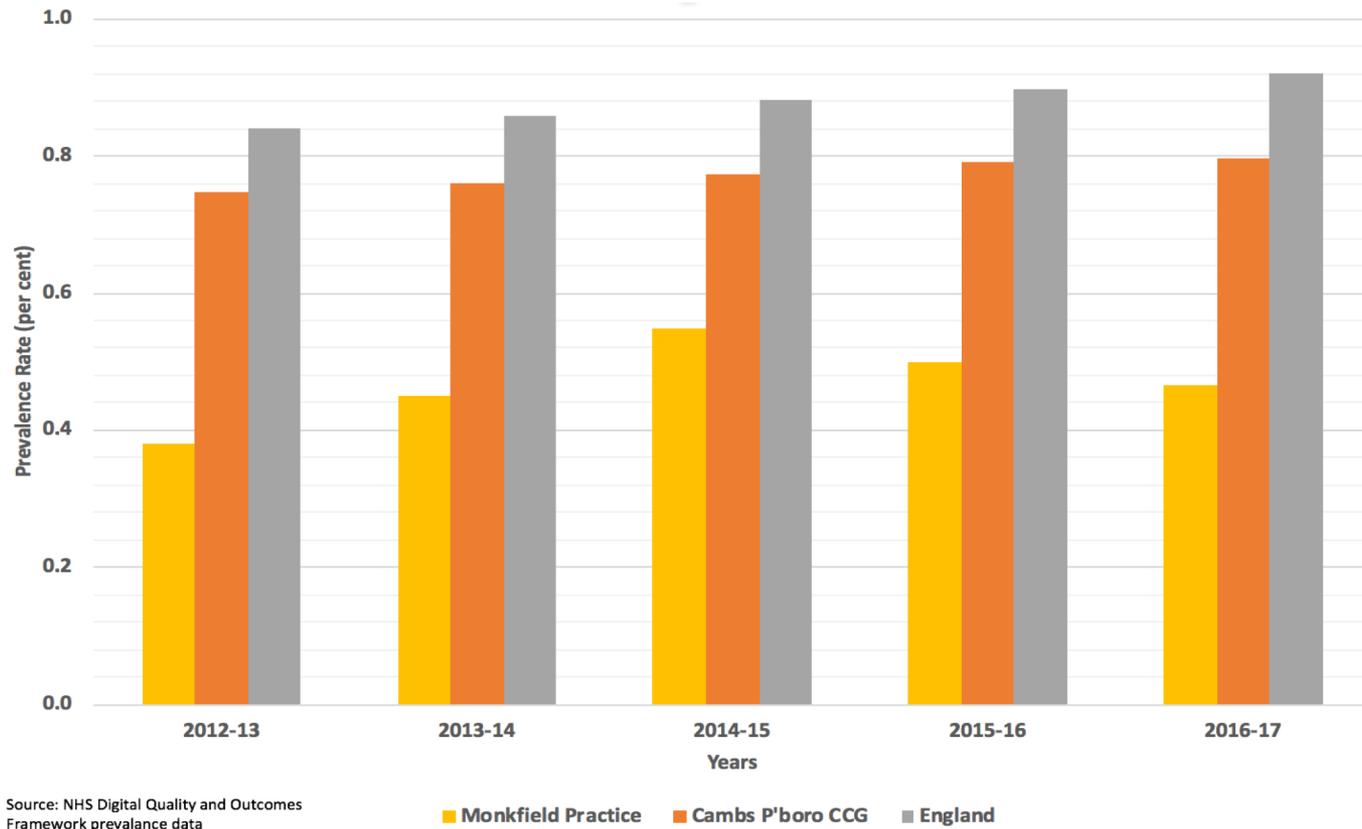
Comparison of learning disabilities at Monkfield, CP CCG and England



Source: NHS Digital Quality and Outcomes Framework prevalence data

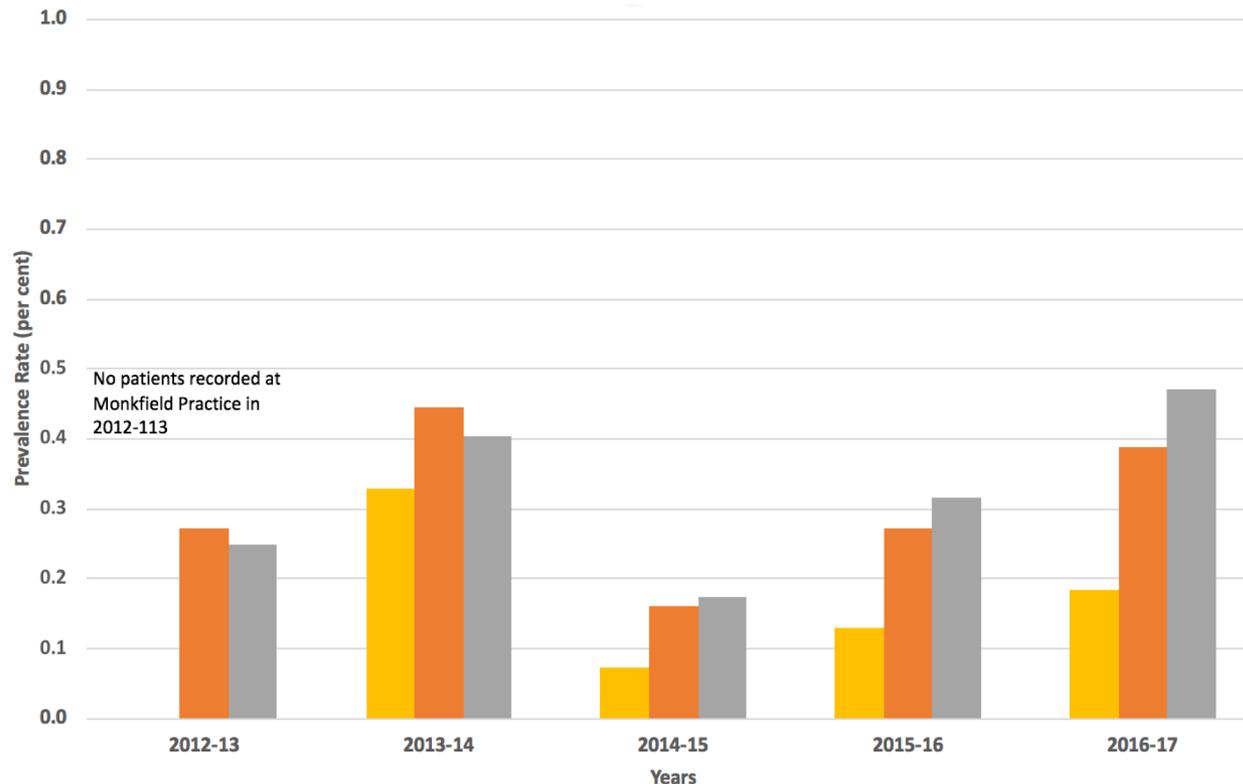
■ Monkfield Practice ■ Cambs P'boro CCG ■ England

Comparison of mental health at Monkfield, CP CCG and England



Musculoskeletal

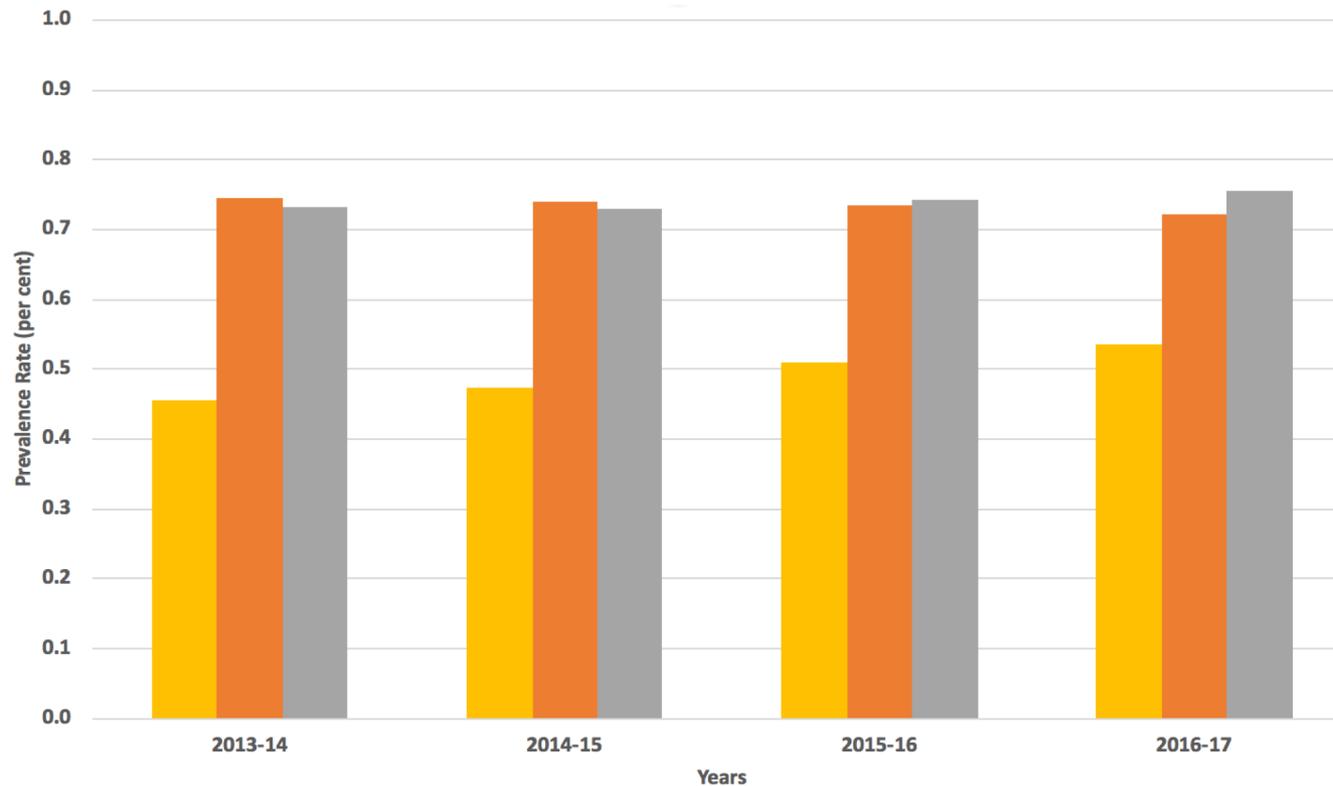
Comparison of osteoporosis, those aged 50 or over, at Monkfield, CP CCG and England



Source: NHS Digital Quality and Outcomes Framework prevalence data

■ Monkfield Practice ■ Cambs P'boro CCG ■ England

Comparison of rheumatoid arthritis, those age 16 or over at Monkfield, CP CCG and England



Source: NHS Digital Quality and Outcomes Framework prevalence data

■ Monkfield Practice ■ Cambs P'boro CCG ■ England

Monkfield Practice – workforce, NHS funding, appointments and Quality and Outcomes Framework

Number of patients and GPs at Monkfield, 2012 – 2017

Year	Number of patients	GP headcount	GP (full time equivalent)	Ratio of patients to GP (full time equivalent)
2012	8,817	5	4.6	1,917
2013	9,055	6	5.6	1,617
2014	9,568	7	6.6	1,450
2015	10,386	4	3.7	2,807
2016	10,850	Not available	Not available	Not available
2017	11,186	6	5.2	2,151

Number of nurses at Monkfield, 2013 – 2017

Year	Number of patients	Nurses (full time equivalent)	Ratio of patients to nurses (full time equivalent)
2013	9,055	3.6	2,534
2014	9,568	3.1	3,054
2015	10,386	2.9	3,557
2016	10,850	Not available	Not available
2017	11,186	4.7	2,377

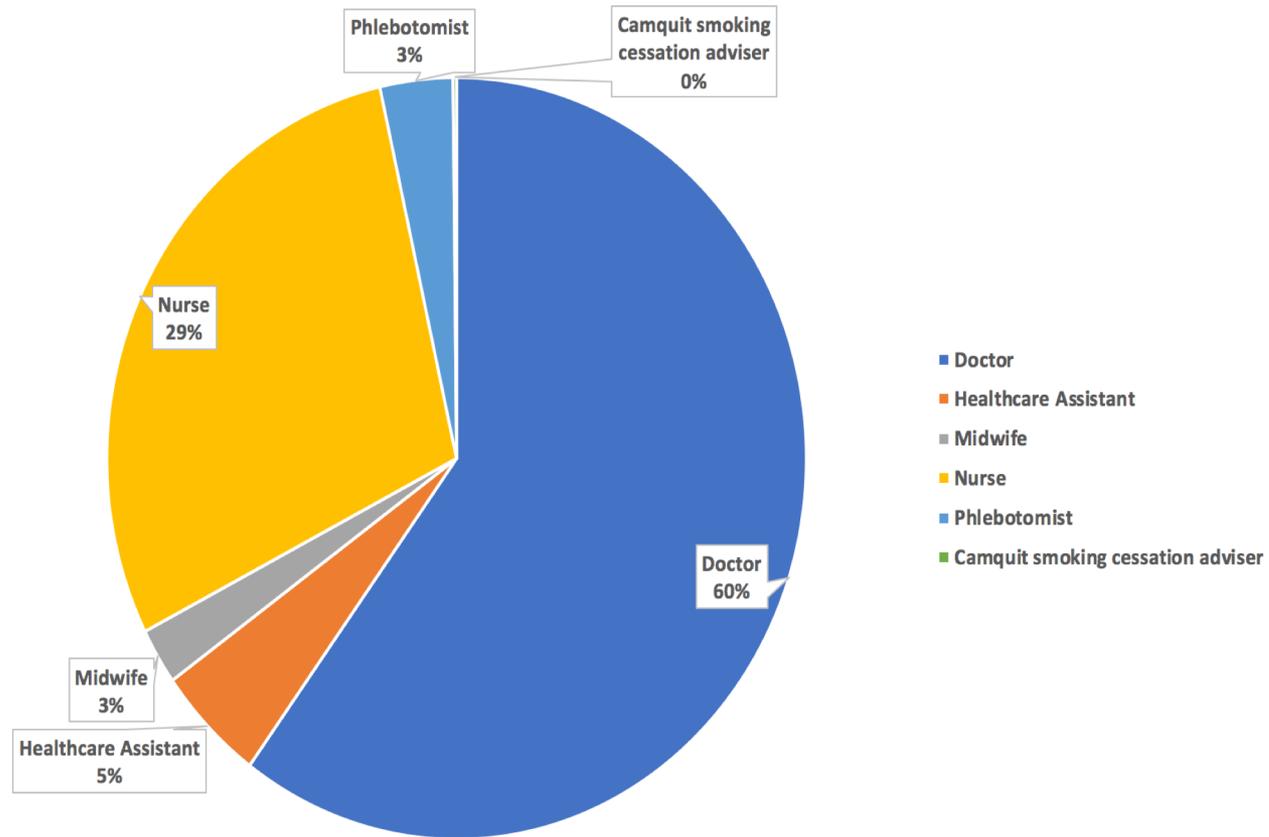
Number of administrative staff at Monkfield, 2013 – 2017

Year	Number of patients	Administrative Staff (full time equivalent)	Ratio of patients to Administrative Staff (full time equivalent)
2013	9,055	7.9	1,151
2014	9,568	8.7	1,094
2015	10,386	10.7	974
2016	10,850	Not available	Not available
2017	11,186	10.6	1,059

NHS payments to Monkfield Practice

Year	Number of Registered Patients	Average Payment per Registered Patient	Premises Payments	Total NHS Payments Minus Deductions
2013/14	9,055	£167	£328,210	£1,380,249
2014/15	9,568	£167	£327,764	£1,431,028
2015/16	10,194	£155	£334,510	£1,513,764
2016/17	10,856	£150	£332,236	£1,529,403

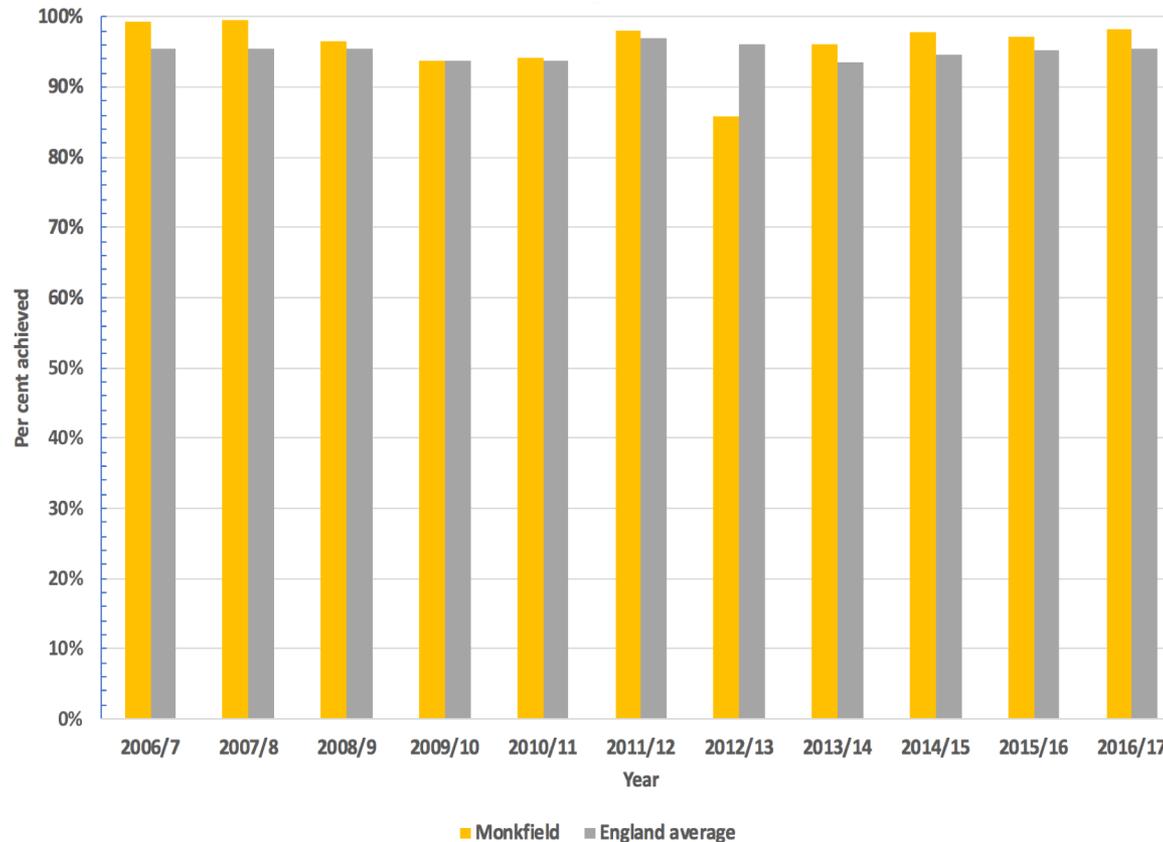
Appointments at Monkfield, January 2018



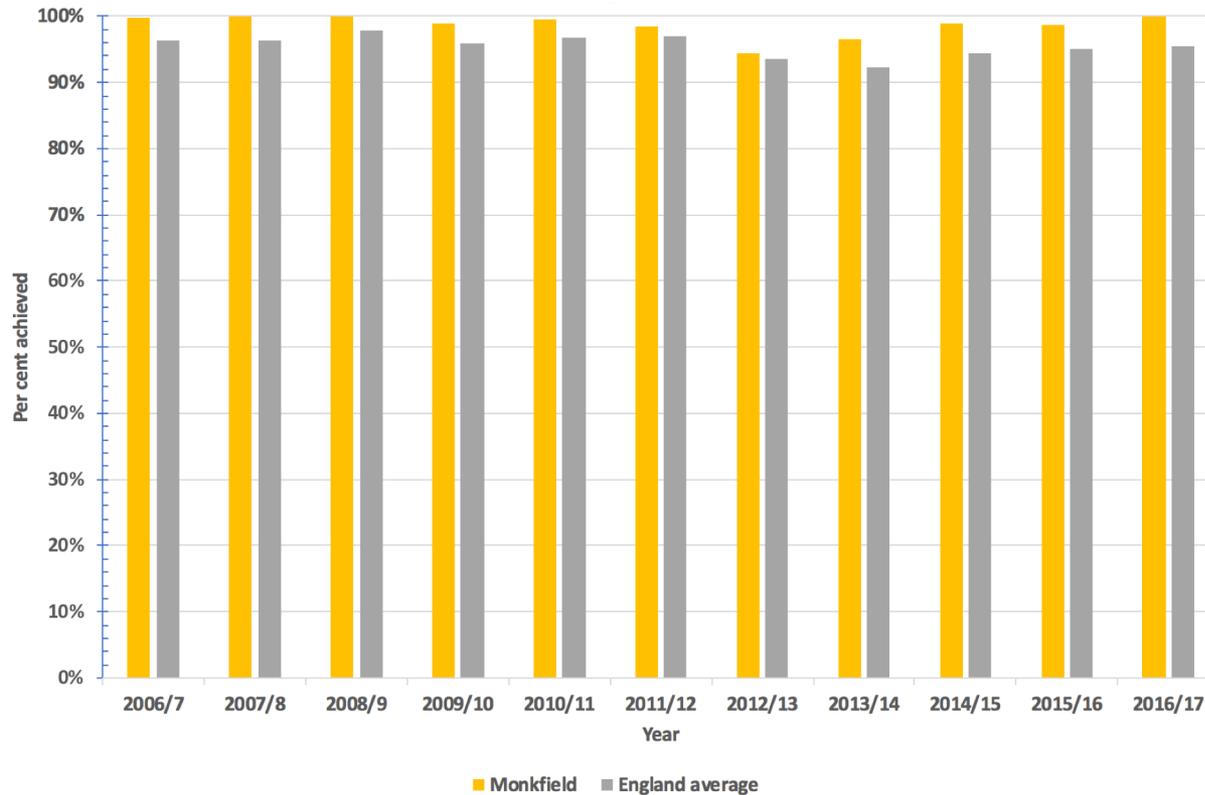
Monkfield Practice: proportion of appointments with health care professionals

Role	2013 (Dec.)	2014 (Dec.)	2015 (Dec.)	2016 (Dec.)	2018 (Jan.)
Clinical Pharmacist	3%	2%	2%	0%	0%
Doctor	35%	66%	65%	58%	60%
Healthcare Assistant	8%	5%	9%	11%	5%
Midwife	4%	2%	2%	3%	2%
Nurse	22%	26%	24%	27%	29%
Phlebotomist	0%	0%	0%	0%	3%
<u>Camquit</u> smoking cessation adviser	2%	0%	0%	0%	0%
Urgent Access Clinic	30%	0%	0%	0%	0%

Overall Quality and Outcomes Framework scores for Monkfield and England

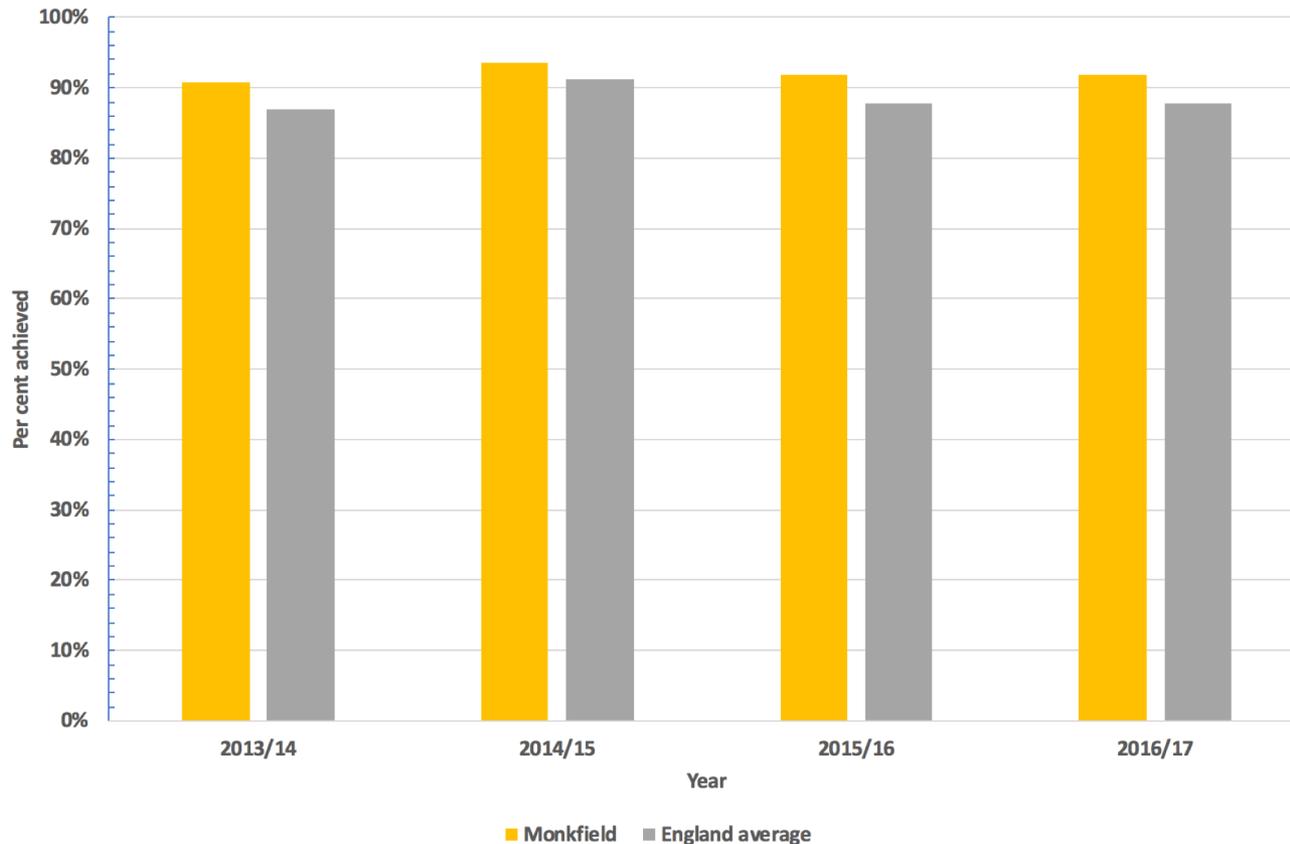


Clinical Quality and Outcomes Framework scores for Monkfield and England



Public Health Quality and Outcomes

Framework scores for Monkfield and England

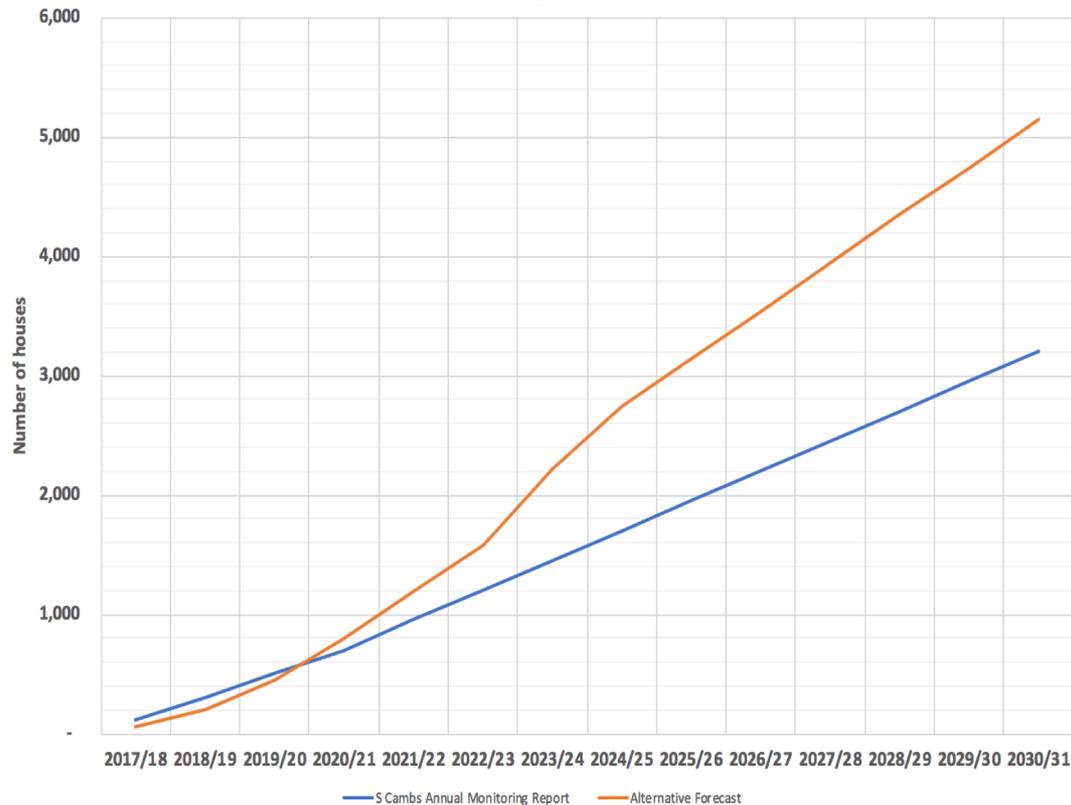


Forecasts of number of patients, GPs, nurses and administrative staff at Northstowe

Forecasting housebuilding at Northstowe

- ❖ Nathaniel Lichfield & Partners have reviewed the housebuilding at 70 “large sites”. Concludes “*The annual average build-rate for the largest sites ... is circa 161 dwellings per annum*”
- ❖ For Northstowe the Local Plan forecasts 3,535 dwellings by 2030/31 with a remaining 5,965 dwellings after this. The 2017 South Cambs. Annual Monitoring Report has 250 completions each year from 2021
- ❖ An alternative forecast is being considered by the Cambridgeshire and Peterborough Sustainability and Transformation Partnership (STP) and Homes England. By 2030/31 these might have annual completions at Northstowe of around 430 a year from 2021 onwards

Forecasts of housebuilding in Northstowe



Northstowe is assumed to come to 10,000 houses. How quickly they might be built can vary greatly

Numbers of registered patients in a dwelling

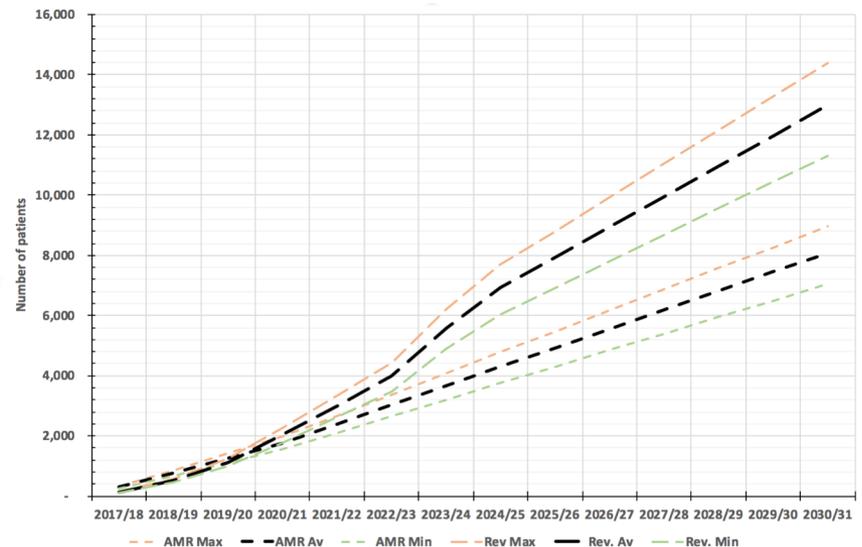
Area	Date	Number of patients	Dwellings	Patients per dwelling
Cambourne	2012	8,817	3,450	2.56
Cambourne	2013	9,055	3,579	2.53
Cambourne	2014	9,568	3,818	2.51
Cambourne	2015	10,386	4,019	2.58
Cambourne	2016	10,850	4,114	2.64
Central Cambourne	2018, January	1,209	548	2.20
Great Cambourne	2018, January	3,686	1,323	2.80
Lower Cambourne	2018, January	2,252	895	2.50
Upper Cambourne	2018, January	4,151	1,590	2.60
Newark and Sherwood	N/A			2.30
Maximum				2.80
Average				2.52
Minimum				2.20

Forecasts of patients in Northstowe

Forecasts of the potential number of patients from the completion of 10,000 dwellings at Northstowe are between 22,000 and 28,000 patients.

The average patient / dwelling ratio forecasts 25,200 patients to be in a new settlement of 10,000 dwellings.

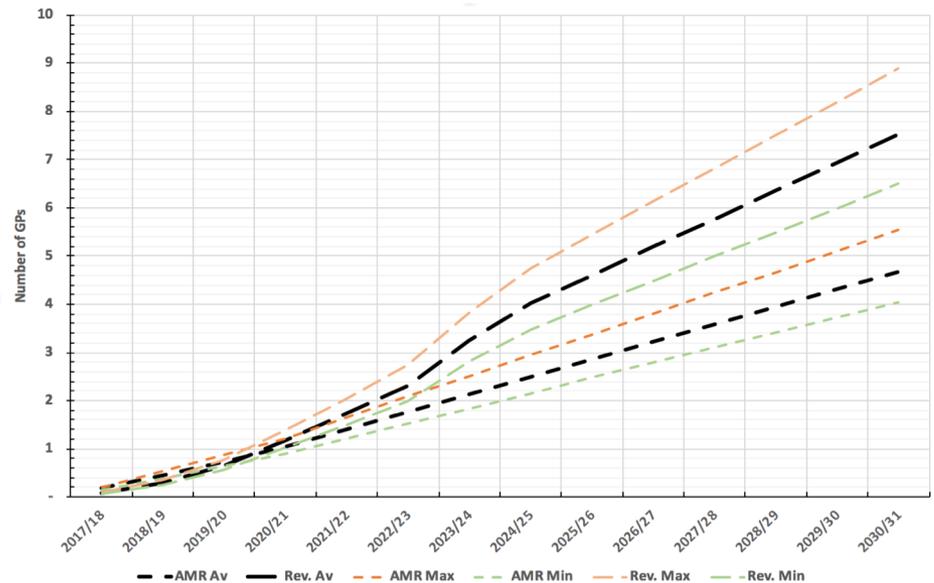
The differences in *when* these might be needed comes from differences on how quickly the houses might be built.



Forecasts of GPs in Northstowe

The number of patients gives the number of GPs possible for 10,000 dwellings at Northstowe. The range is between 12.6 and 17.3. The average between all four forecasts used, based on Monkfield, is 14.5 GPs.

The differences in when these might be needed comes from differences on how quickly the houses might be built.



Forecast of nurses and “administrative staff” in Northstowe

- ❖ The ratios of the number of nurses to number of patients can be applied to the potential 25,000 patients in Northstowe. The high and low ratios give forecasts of between 7 and 10.5 nursing staff.
- ❖ The number of administrative staff at Monkfield is related to the number of patients at Monkfield gives a range of between one full time equivalent (fte) member for staff for 1,151 patients to one for 974 patients.
- ❖ This gives forecasts of between 22 and 26 administrative staff.
- ❖ As previously noted, when the demand might be there depends greatly on how many houses are built each year

These slides accompany a fuller report which has sources and references for data

~ end ~