Phase_1_output

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Background/Project Details

Combined patient population health service needs

The first strand of our analysis will be to collate and summarise GP surgery patient lists for the given 8 practices. This will be achieved using publicly available data from NHS Digital, specifically data on the distribution of GP patients by gender, sex and LSOA along with the number of patients each practice has with selected health conditions specified by Quality Outcome Framework (QOF) returns. Without access to individual level GP data, we will not be able to account for multi-morbidity, that is, we will present the combined volume of patients across the 8 practices who are know to have heart disease for example, alongside the number of COPD, but not the number with both conditions. We will also estimate the volume and nature of referrals to community care for this combined patient population. A preliminary data query, using our Community Services Data Set would suggest our combined population were responsible for approximately 130,000 referrals to community services during 2019, primarily for footcare, MSK problems and the 'Healthy Child Pathway'. Discussions will be required to agree the most appropriate method of estimating 'existing' demand given changes to referrals and care seeking behaviour throughout the pandemic. This exercise will provide high level estimates of demographics and clinical need for the new patient population and will serve as a baseline to feed into our model when predicting wider service engagement and demand. To complete this analysis, we will also identify activity across other aspects of the health and care system used by patients at the 8 practices according to the Cavell Centre service model. This will include but is not necessarily restricted to:

- Outpatient appointments at RSH, PRH and other acute providers
- Appointments/rehab/therapies at RJAH/ShropCom
- Appointments/assessments/therapies at MPFT and other mental health providers
- Diagnostics at SaTH/RJAH/ShropCom
- Midwifery and antenatal care
- Any others from 'service spec'

The programme team will need to provide definitions of all the activity types and clinical areas that are relevant to the Cavell centre model for each of the above points of delivery so that only relevant data is extracted and counted.

Population demographics

Practice populations

Combined practices patient total:
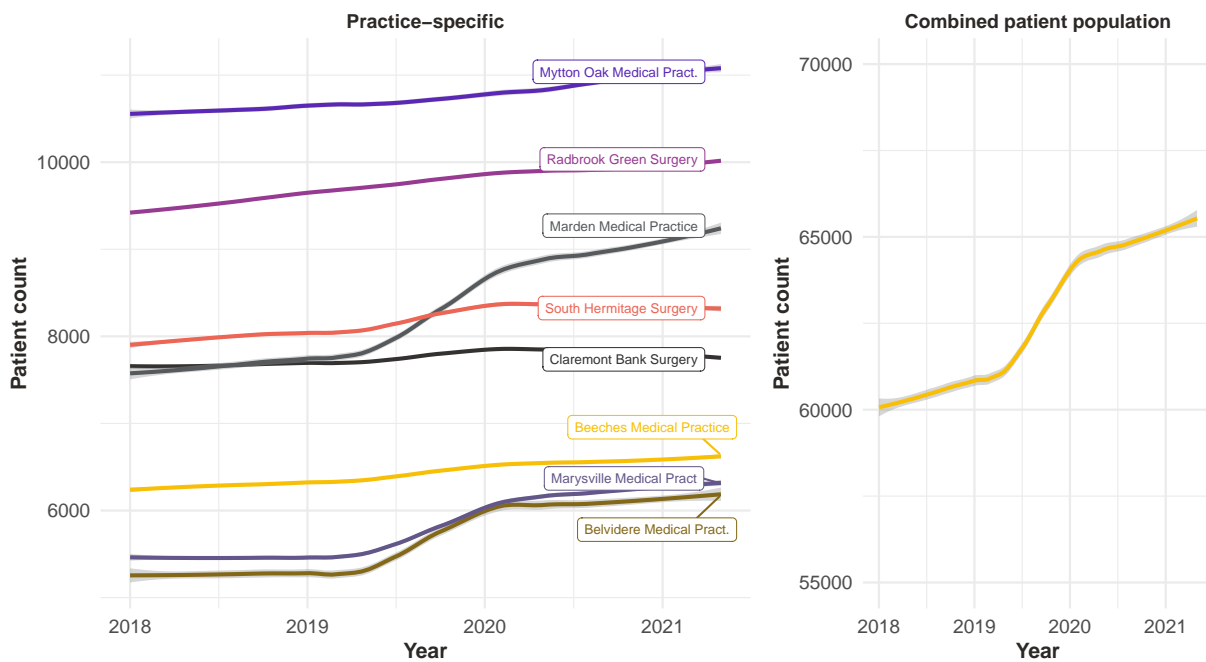
```
## # A tibble: 1 x 4
##   Population  Male Female total
##   <chr>      <dbl>  <dbl> <dbl>
## 1 Combined   32058  33505 65563
```

Practice list size:

```
## # A tibble: 8 x 4
##   Practice              Male Female Total
##   <chr>                <dbl>  <dbl> <dbl>
## 1 Mytton Oak Medical Pract.  5545   5484 11029
## 2 Radbrook Green Surgery     4858   5160 10018
## 3 Marden Medical Practice    4449   4856  9305
## 4 South Hermitage Surgery    3954   4389  8343
## 5 Claremont Bank Surgery     3783   3943  7726
## 6 Beeches Medical Practice   3282   3360  6642
## 7 Marysville Medical Pract   3134   3180  6314
## 8 Belvidere Medical Pract.   3053   3133  6186
```

Practice patient count over time, 2018–21

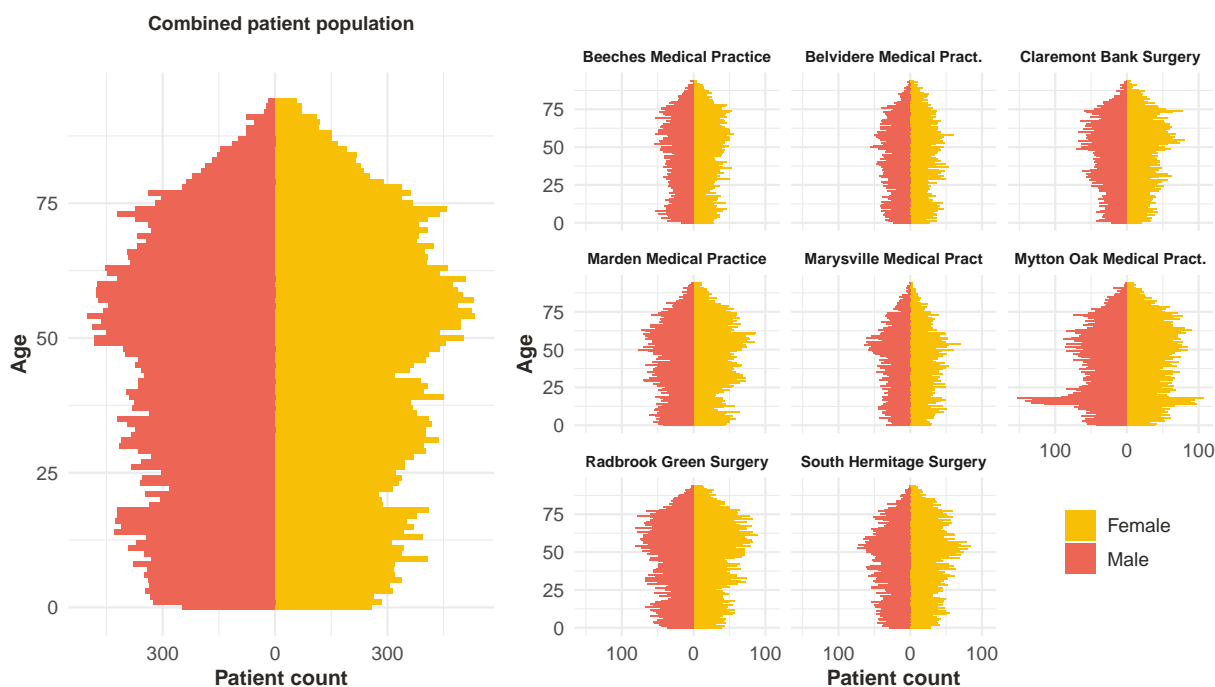*Changes in patient population from 8x practices included in Shrewsbury Cavell Centre planning*

Source: NHS Digital – Patients registered at a GP Practice

While practices differ in size/patient capacity, changes over time have been largely consistent between practices. All have seen gradual increases in patient population between 2013 and 2020.

Age and gender structure

Combined and practice–specific patient population by age and gender, June 2021

Patient population from 8x practices included in Shrewsbury Cavell Centre planning
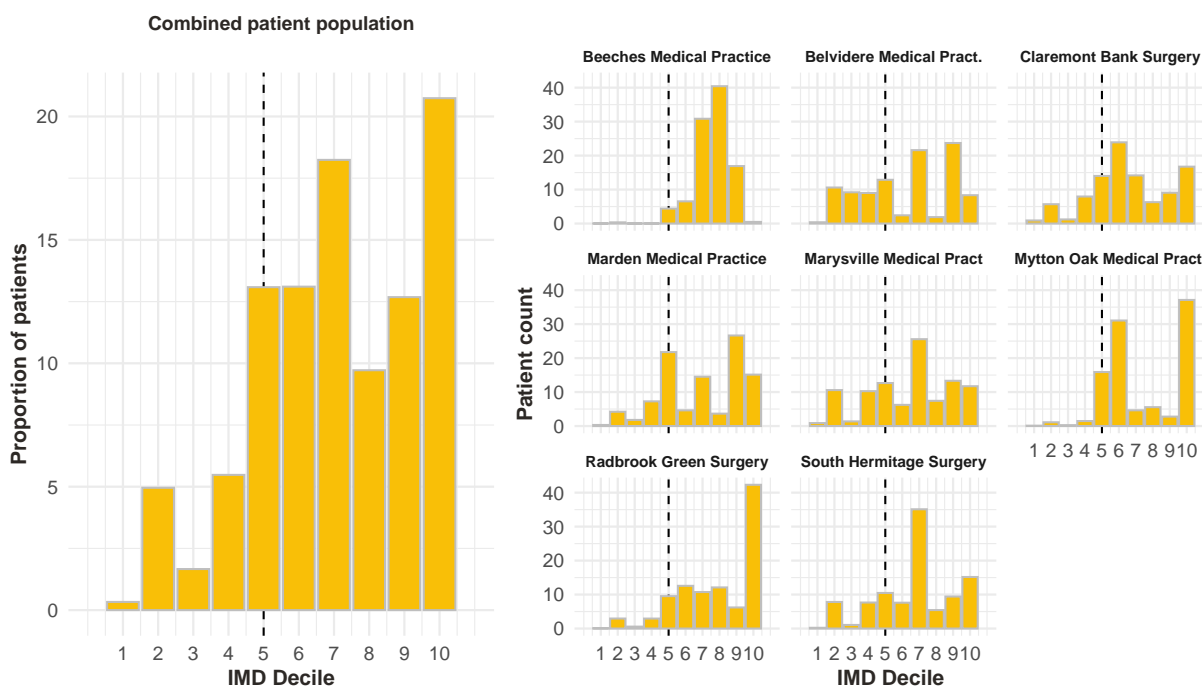

Source: NHS Digital – Patients registered at a GP Practice

The age and gender profiles are largely similar and a function of local demographics; we can see differing patient volumes but similar proportions of 50+ year old patients across all practices. Mytton Oak displays a particularly large count of under 25's compared to other practices however this has little impact of the profile of the combined patient population.

Deprivation

Combined and practice–specific patient population by Index of Multiple Deprivation (IMD) Decile, June 2021

Patient population from 8x practices included in Shrewsbury Cavell Centre planning
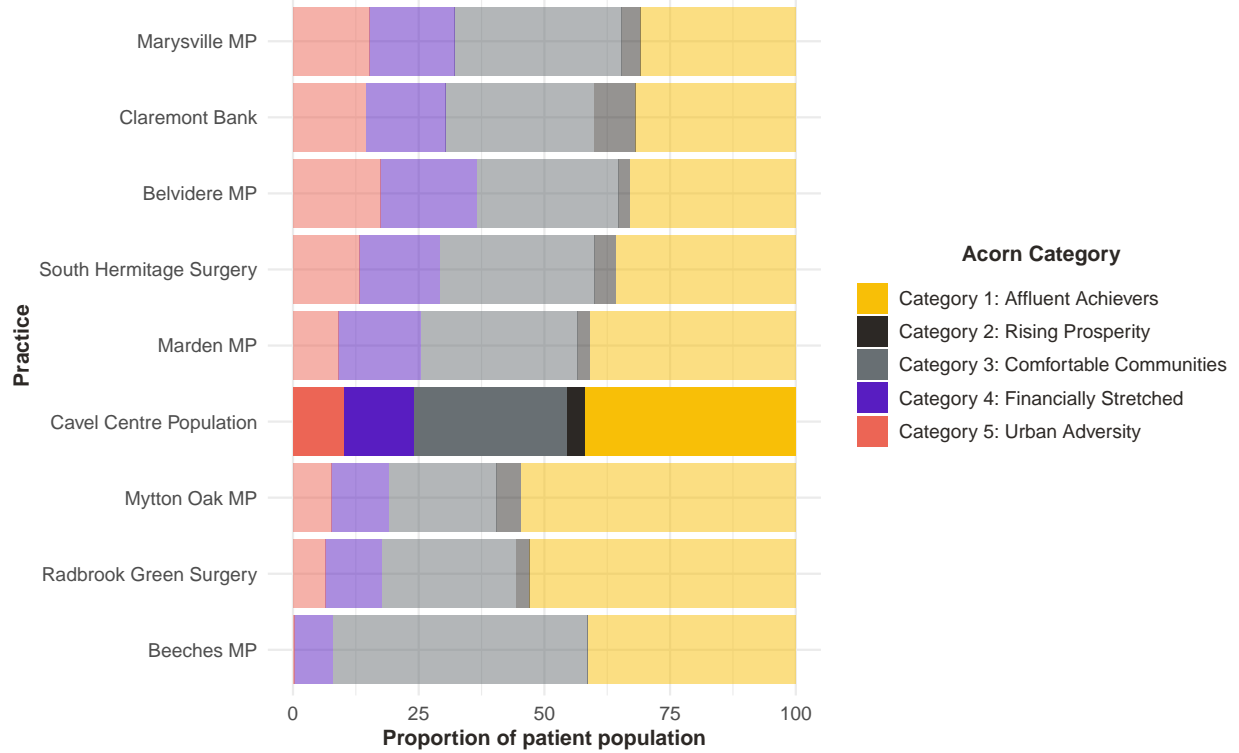

IMD decile 1: Most deprived 10% of the populaton. IMD decile 10: Most affluent 10% of the population

The above graph suggests relatively low levels of deprivation in the Cavell centre patient population with the majority of patients living in more affluent areas of the country. The deprivation level of a patient here is a function of their LSOA of residence; this is not an individual level statistic and as such there may be highly deprived patients, in relative or absolute terms, living in the catchment area.

Local authority data and/or population segmentation tools such as Acorn may educate the analysis to small areas of localised deprivation in the combined population.
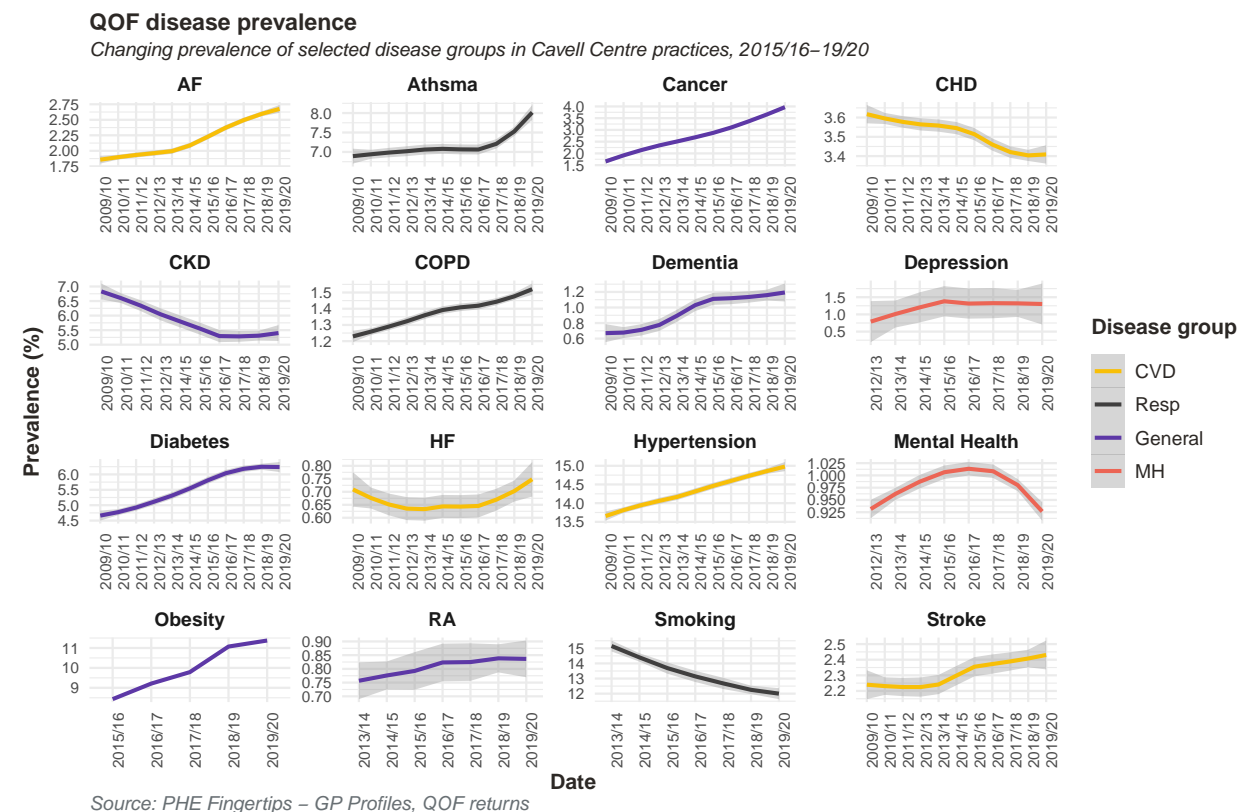
Cavell Centre GP population by Acorn population segmentation

Proportion of practice registered population by Acorn population segmentation 'Category', 2019

Acorn Category

- Category 1: Affluent Achievers
- Category 2: Rising Prosperity
- Category 3: Comfortable Communities
- Category 4: Financially Stretched
- Category 5: Urban Adversity

Clinical profiles

QOF derived

QOF disease prevalence

Changing prevalence of selected disease groups in Cavell Centre practices, 2015/16–19/20

Source: PHE Fingertips – GP Profiles, QOF returns

Practice data

Practice data will offer insight on the volume and rate of patients with comorbidities as well as appointment type, duration and staffing to inform phase 2 modelling.
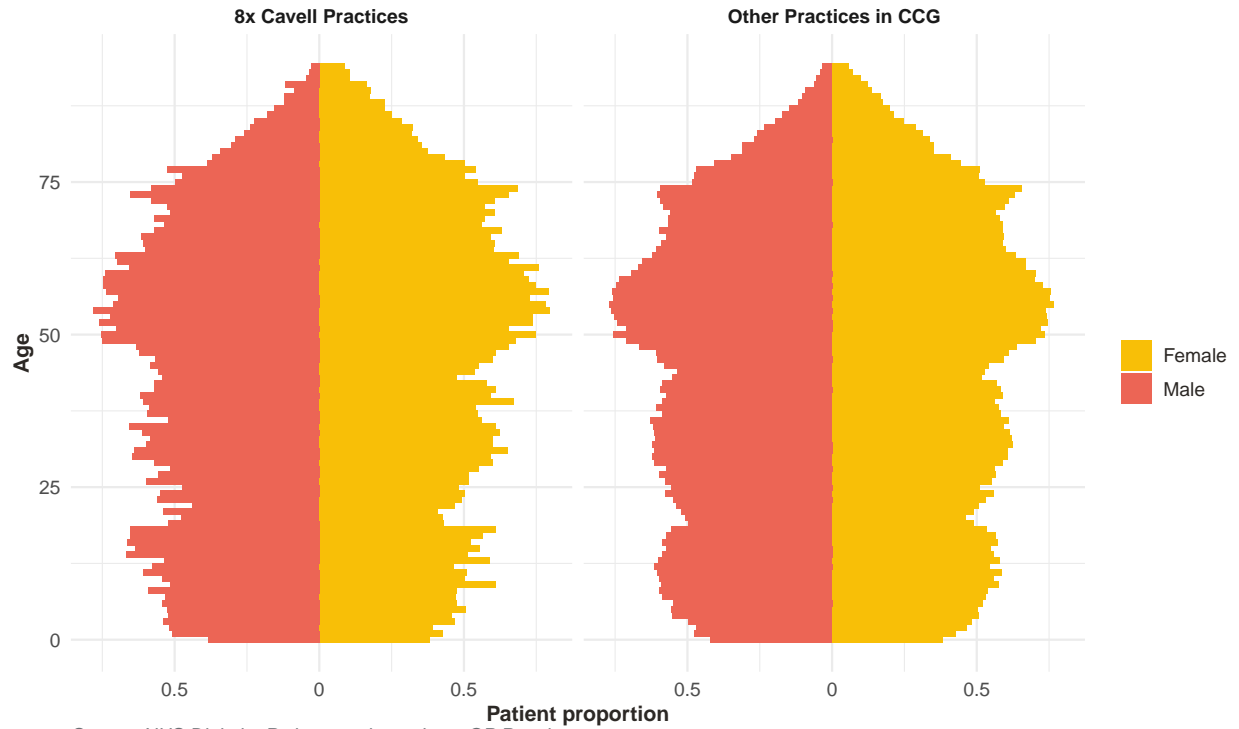
Consultation data

Consultation data is available from NHS Digital at: https://digital.nhs.uk/data-and-information/publications/statistical/appointments-in-general-practice

Lowest geography data is available at is CCG; as such we assess the age and gender profile of our 8 practices against that of the wider CCG (excluding our patients) to decide if we can directly discount CCG values by the proportion our patients represent and assume similar care utilisation.

Age and gender structure of Cavell Centre patients is similar to wider CCG patients
NHS Shropshire and Telford and Wrekin CCG Patient population by age and gender, June 2021
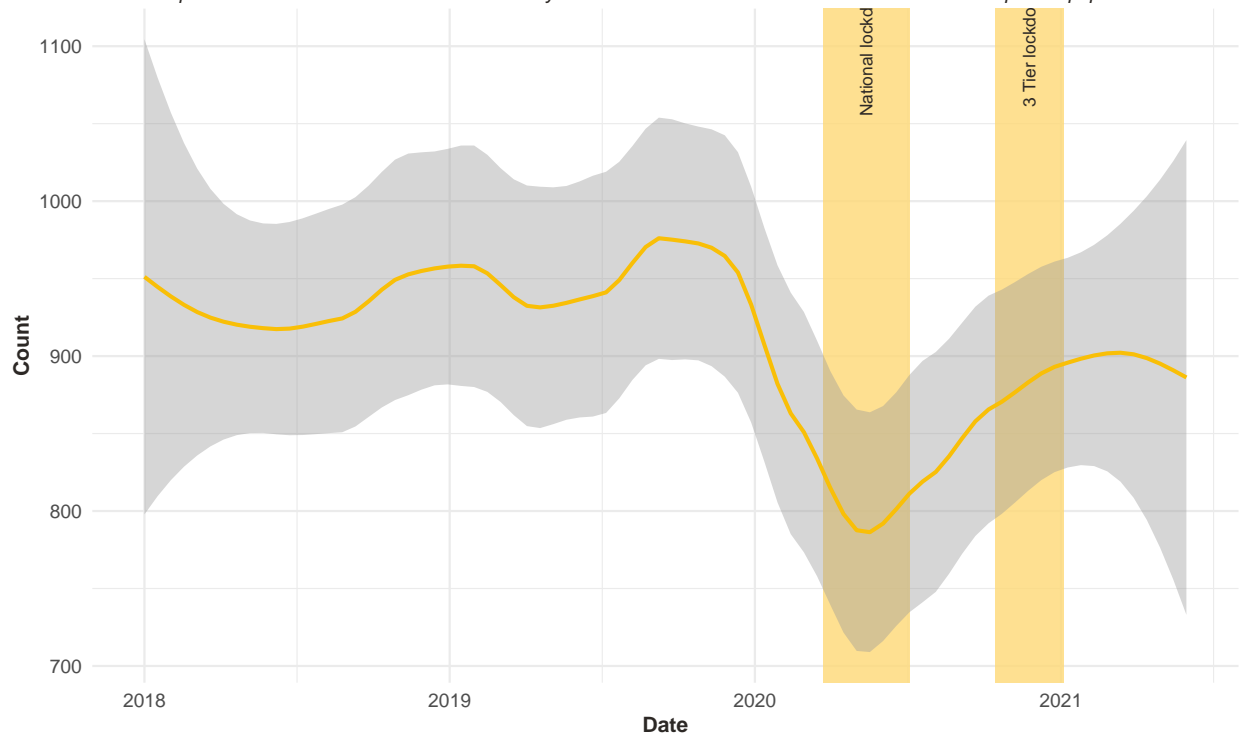
Cavel Centre patient population accounts for 12.8% of CCG patients/consultations. Having multiplied CCG-level, monthly consultation counts by 0.128, we can estimate the volumes attributed to the 8 Cavell Centre practices.
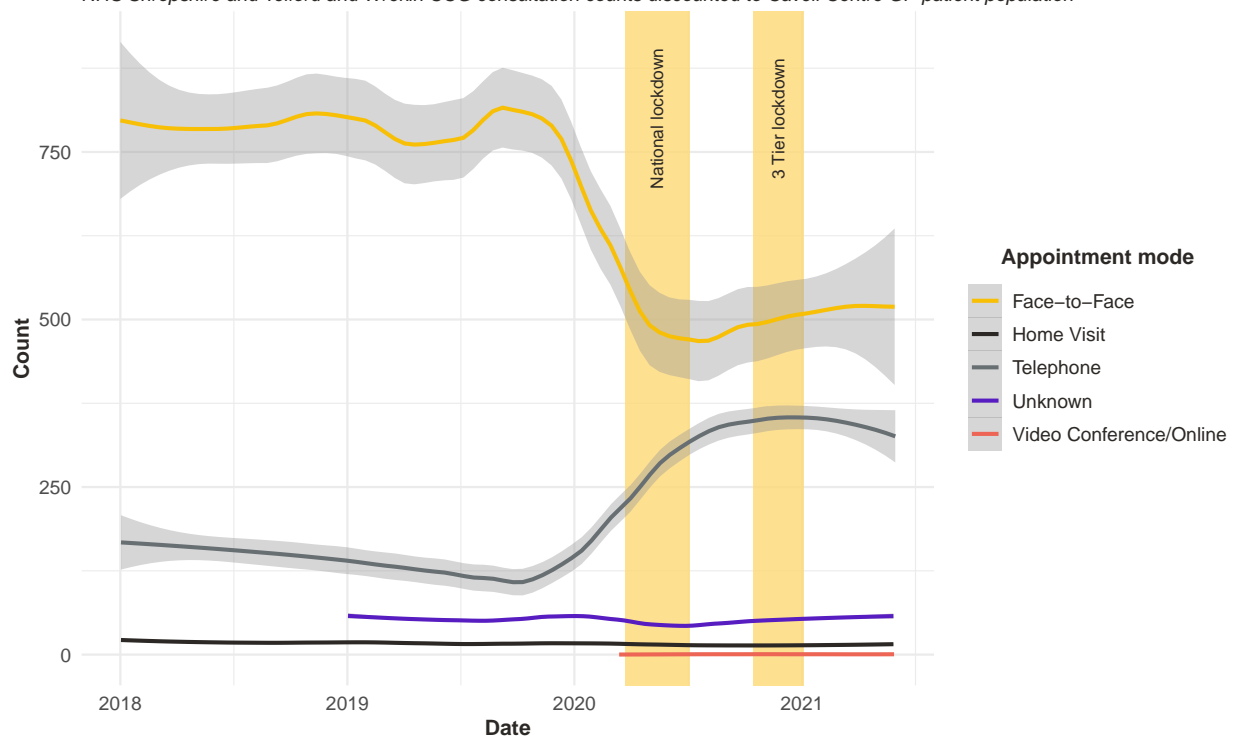
Changing count of consultations in Cavell Centre practices
NHS Shropshire and Telford and Wrekin CCG monthly consultation counts discounted to Cavell Centre GP patient population

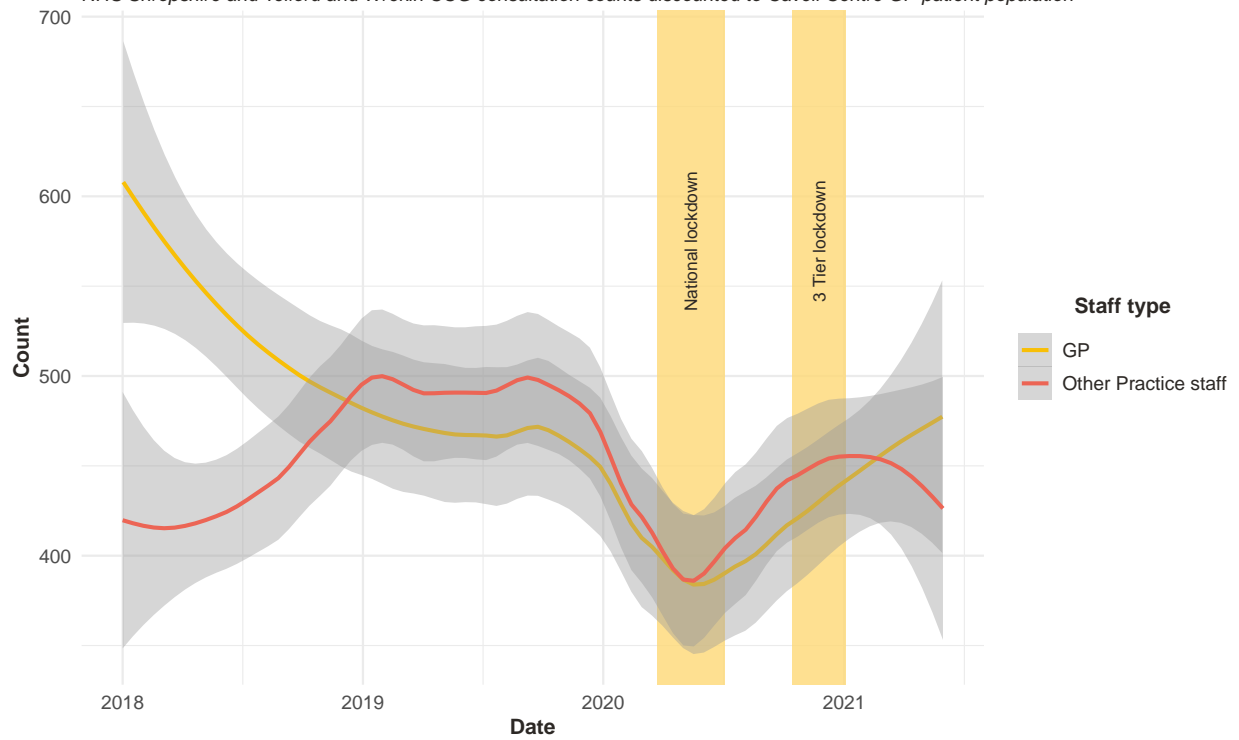*Source: NHS Digital – Appointments in General Practice*

Changing count of consultations in Cavell Centre practices by appointment mode
NHS Shropshire and Telford and Wrekin CCG consultation counts discounted to Cavell Centre GP patient population

Source: NHS Digital – Appointments in General Practice

Changing count of consultations in Cavell Centre practices by healthcare professional type
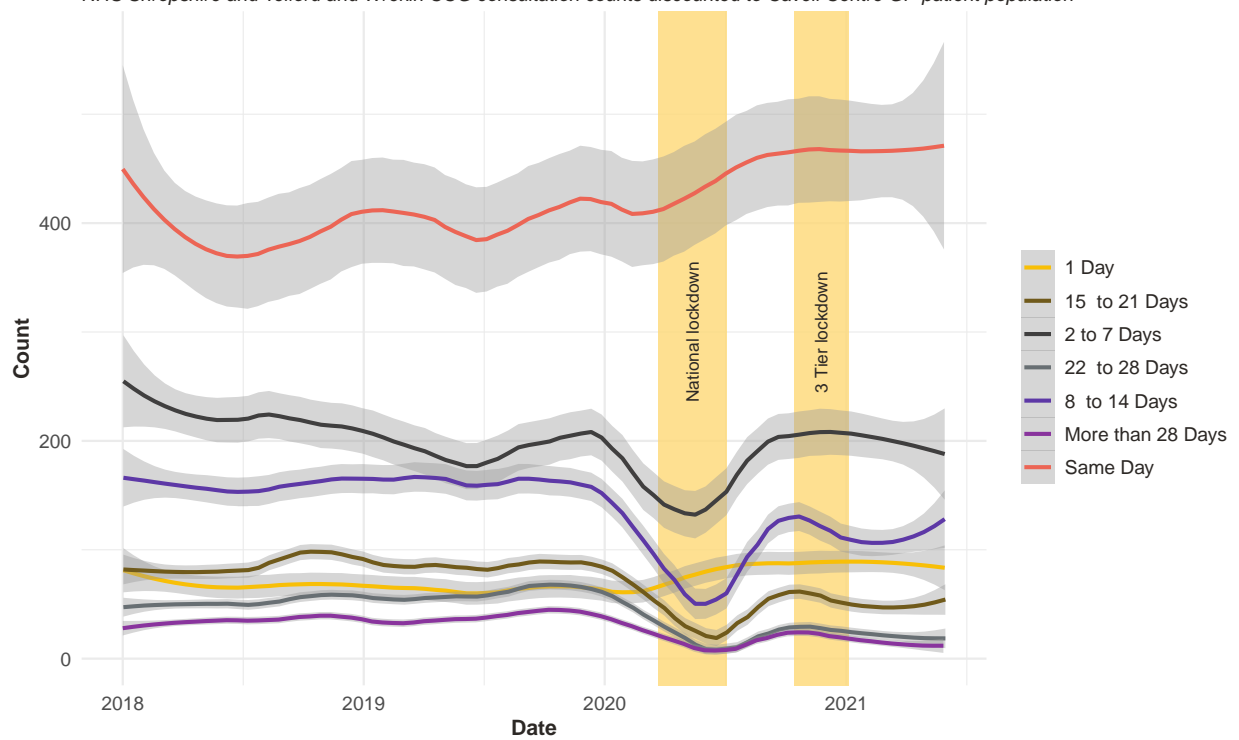*NHS Shropshire and Telford and Wrekin CCG consultation counts discounted to Cavell Centre GP patient population*

Source: NHS Digital – Appointments in General Practice

Changing count of consultations in Cavell Centre practices by time between booking and appointment
NHS Shropshire and Telford and Wrekin CCG consultation counts discounted to Cavell Centre GP patient population

Source: NHS Digital – Appointments in General Practice