



Equity analysis audit of access and utilisation of Special Care Dental Services by ethnicity and social demographic markers

Saarah Kaba,¹ Joshua Quach,¹ Claire Turner² and Robert J. Emanuel¹

¹Special Care Dentistry, Sussex Community NHS Trust, Brighton General Hospital, UK; ²Public Health, Sussex Community NHS Foundation Trust, UK

Objective: To identify and investigate any differences in utilisation of the, Sussex Community NHSFT, Special Care Dental Service (SCDS) across multiple demographic factors, including ethnicity, socio-economic groups and age in the Crawley area. **Method:** Data were audited for all new patients seen at the Crawley Special Care Dental Centre from November 2020–October 2021. Demographic data were compared to population data from the 2011 Census. Deprivation data, using Index of Multiple Deprivation, were also examined against utilisation and failure to attend appointments. **Results:** A total of 1250 new patients accessed the Crawley SCDS between November 2020 and October 2021. The data suggests good equity to the service being utilised by the local community; the proportions of patients utilising the service over the course of a year from different ethnic groups reflected the demographic profile of Crawley. The proportion of failed appointments showed no correlation with deprivation decile. There was also no association between ethnic group and proportion of failed appointments. **Conclusion:** Ensuring equal utilisation of healthcare for all population groups has become a priority for healthcare providers. This audit found minimal inequities in utilisation of the Special Care Dental Service at Crawley.

Keywords: Ethnicity, access, audit, equality, special care dentistry

Initial Impetus for Action

Ensuring equitable utilisation of all aspects of health care is an essential part of healthcare planning and delivery (Department of Health and Social Care, 2021). Dentistry is involved in diagnosis and treatment of mostly preventable diseases and is particularly sensitive to inequity. Special Care Dentistry, is concerned with the improvement of oral health of individuals and groups in society who have a physical, sensory, intellectual, mental, medical, emotional or social impairment or disability (Fiske, 2006). The Sussex Community NHS Foundation Trust (the ‘Trust’) Special Care Dentistry Service (SCDS), whilst predominantly a paediatric service provide care to many adult patients from vulnerable groups.

For children, parental attitudes, which are influenced by ethnic diversity and cultural factors, may be an important factor in oral health behaviours (Adair *et al.*, 2004). As a large proportion of the work of the Trust SCDS is paediatric dentistry, these parental attitudes may have a bigger effect on dental health of the patient group than in General Dental Practice.

Additionally, inequities exist for patients from communities with high levels of deprivation accessing both preventive and restorative care (Cheema and Sabbah, 2016). To complicate the picture, Delgado-Angulo (2019) concluded that socio-economic associated adult dental health inequalities for patients of a non-white background did not exactly reflect those seen in White British patients. It is crucial that a dental service funded by public money can be utilised by all potential patients it has been set up

to serve, but additional should be taken when comparing performance in ethnically diverse areas.

Missed appointments are also an important factor that negatively impact clinical time available to those seeking care, and are an indicator of wasted resource. West *et al.* (2020) reported a positive correlations between both social deprivation and younger age groups and failed appointments in an NHS primary dental care service.

A report by Quality Watch (2017) noted that oral health, although better than elsewhere in England, was also seriously affected by social deprivation in the Southeast. Crawley, which is in this region, is a relatively affluent region. However, the town has areas of deprivation and is more ethnically diverse than other parts of the South East (Office for National Statistics, 2012).

Aim

The identify and investigate any differences in utilisation of the, Sussex Community NHSFT, Special Care Dental Service (SCDS) across multiple demographic factors, including ethnicity, socio-economic groups and age in the Crawley area. To meet this aim, this study had the following objectives:

1. To collect and compare demographic data from one year of dental attendance at the Crawley Special Care Dental Centre against the population profile of the local area.

2. Analyse the effect of demographic features on the utilisation of dental services.

3. To make recommendations on how the service can improve the local population utilising these services, especially for the ethnic groups highlighted in this analysis.

Method

This audit was registered and approved by the Sussex Community NHS Foundation Trust Area Governance Team in December 2021. An electronic retrospective dataset of all patients attending the Crawley Special Care Dental Centre over one year (between November 1st 2020 and October 31st 2021) was prepared by extracting patient level demographic data from the SCDS patient records system (Soel Health) into Microsoft Excel. Included within the dataset, were self-reported data on patient ethnicity, age, gender and deprivation decile. Alongside the demographic data, the number of completed or failed appointments was also recorded.

Patient ethnicity was derived from dental NHS Patient Record forms data using high level groupings for ethnicities: Asian or Asian British (Asian Or Asian British Indian; Asian Or Asian British Bangladeshi; Asian & Asian British Pakistani; Other Asian Background), White (White Other Background; White Irish; White British), Black or Black British (Black Or Black British African; Black & Black British Caribbean; Other Black Background), Mixed (White & Black Caribbean; White & Black African; White & Asian; Other Mixed Background), Other ethnic groups (Chinese ; Any Other Ethnic Group), Unknown (Missing), Patient declined.

Patient postcodes were linked to super output area (SOA) and allocated to deprivation deciles using the revised 2019 SOA level index of multiple deprivation (Ministry of Housing, Communities & Local Government, 2019).

The demographic profile of patient's using the service was then compared to local population profiles. We used the 2011 census data for age and ethnicity

(Office for National Statistics, 2012); the most recently reported census at the time of the study. Deprivation deciles were derived from the National statistics English indices (Ministry of Housing, Communities & Local Government, 2019).

Outcomes

In total, 1250 individual patients used the Crawley SCDS between November 2020 and October 2021. Patients were aged between 1 and 96 years old. Patients from all ethnic groups were represented. Almost three quarters (74%) were White, with the second highest group being Asian or Asian British (10%). The lowest represented ethnic group was Black or Black British (2%) (Figure 1). When comparing the ethnicities of patients with the Crawley census demographic data, minimal discrepancies between the two groups was found (Figure 1). 79.9% (n=85,171) of the Crawley population were White, 12.5% (n=13,324) Asian/Asian British, and 3.2% (n=3,411) were Black/Black British. This trend appears the same with ethnicities across all patient age groups.

Many age groups were seen at the SCDS, however, 77% were under the age of 20 years old. The largest age group seen were 5-9 year olds (37% of all patients n=458). This compared to only 7% of the Crawley population of this age.

Patients from each deprivation category were seen to attend the service (Figure 2). Thirteen per cent of patients attending amongst the most deprived group (10th decile), whilst only 5% of the Crawley population were from this decile.

The proportion of failed appointments showed no correlation with deprivation decile. There was also no association between ethnic group and proportion of failed appointments, with ethnic minority and white patient groups failing to attend similar proportions of appointments.

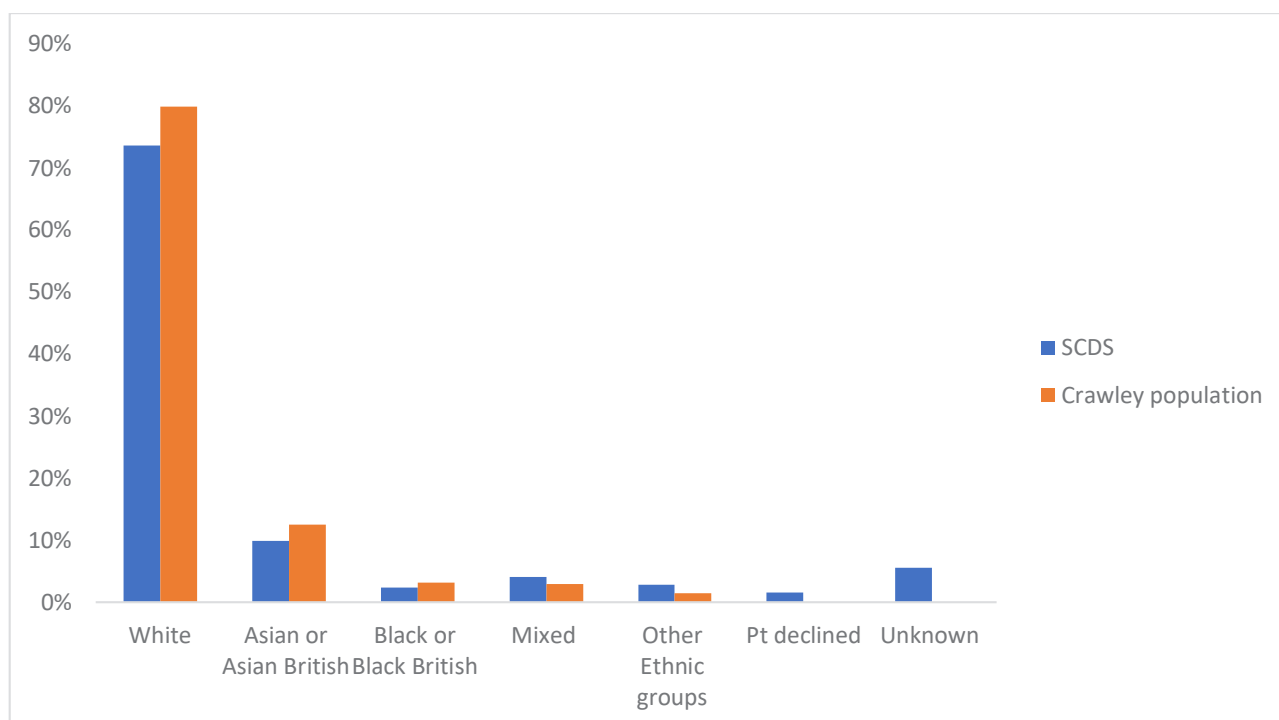


Figure 1. Ethnic profiles of patients at the Crawley SCDS and the Crawley population.

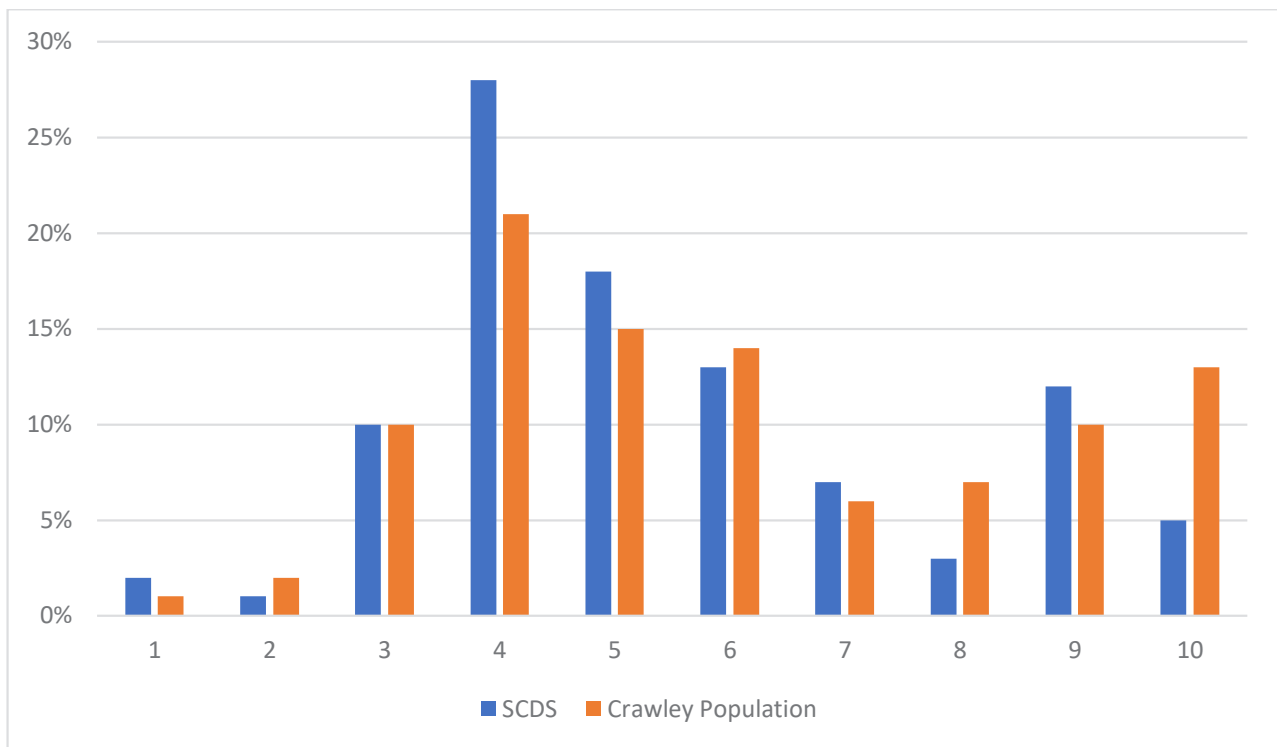


Figure 2. Deprivation deciles of patients attending the Crawley SCDS and the Crawley population.

Challenges Addressed

This small scale audit looked specifically at the patients seen within the Crawley Special Care Dental Centre. It was chosen to limit this audit rather than combine patient data across all clinics in West Sussex to allow for more accurate comparisons to local population data. The time frame (a year) allowed for an appreciable number of patients to be sampled.

The data suggest good service utilisation equity; the ethnic profile of patients mirrored that of Crawley well. This contrasts with the 2009 Adult Dental Health Survey, as Arora et al. (2017) reported that people from non-white groups were less-likely to attend dental services than their white counterparts, so it is promising to see our results are in contradiction to this negative finding.

Six percent of patients utilising the SCDS were of an unknown ethnicity. This was considered missing data, where patient ethnicity was not recorded at the time of the appointment and may account for the slight discrepancies with the Crawley demographic data. However, the gaining ethnicity data for 94% of patients, matches that of a recent study by the Nuffield Trust (2021) which reported a figure of 83% across NHS outpatient appointments.

One limitation of using high level ethnicity groupings is that the white patient group was very broad, encompassing both minority and non-minority groups. In the 2011 census, 6.8% of the white category were “white other”, with people from Poland being the largest group. Polish is the second most common language spoken in Crawley (2%). This audit could not identify whether patients from non-British population utilised the service differently to those in the White British population.

Thirteen per cent of patients seen were from the most deprived groups. Patients seen in the Special Care Dental Service often have high dental needs, reflecting the

relationship between deprivation and oral health (Watt & Sheiham, 1999). Patients from more deprived backgrounds were also less likely to access private dental care, and it is encouraging that they are accessing the SCDS.

A limitation of this audit is that the demographic profile of Crawley is outdated, as the 2021 census data has not yet been published (expected 2023). Therefore, the population ethnicity data used for this evaluation, were from the 2011 census. It is therefore possible that differences in utilisation across ethnic groups may come to light when the 2021 are published.

The Special Care Dental Service cares for many children, with more than one third (37%) of patients aged 5-9 years old. This is not surprising as recent a recent publication by NHS digital reports that ‘tooth decay remains the leading reason for hospital admissions among 5 to 9 year olds’ (PHE, 2021). Early intervention and dental appointments within this age group allows for prevention of pain and dental decay, as well as the opportunity to provide oral health education from a young age. It was encouraging to see that older patients among the highest age groups (90+) were also seen. These are an extremely vulnerable group for whom both access and being fully able to utilise services can be severely complicated, but they are a core group of patients for the SCDS, whether seen in the clinic or on a domiciliary basis.

Learning Points and Future Recommendations

Ensuring equitable utilisation of healthcare for all population groups has become a priority for many healthcare providers. This audit hopefully shows that within our Crawley Clinic, patients from a wide range of ethnic backgrounds and age groups were utilising the SCDS and were able to receive specialist primary care dentistry in what we believe is a friendly and inclusive environment.

The main purpose of Special Care Dentistry is to care for vulnerable patients who are at risk of being missed by core health services and these results show that in Crawley at least, this was not the case with our SCDS.

In future a broader study could use these methods to examine equity in other dental clinics run by SCFT, including those in West Sussex and Brighton/Hove, and in other regional special care dental services too.

For West Sussex, further comparisons between groups with the highest dental need (as reported by national epidemiological studies), and those attending SCDS could also yield interesting observations and ensure the service is meeting the needs of the local population. Further data such as patient experience and outcome measures and input from Healthwatch may be useful to identify areas that patients feel could be improved.

Registration and Approval

This audit was registered and approved by the Sussex Community NHS Foundation Trust Area Governance Team in December 2021.

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