

**BASCD 2022 ABSTRACT 03****Modelling access to dental care, exploring deprivation and rurality in NE England***Iafrate, L.F.,<sup>1\*</sup> Landes, D.P.<sup>2</sup>*<sup>1</sup>*Health Education England North East, UK;*<sup>2</sup>*NHS England and NHS Improvement, UK***Background:**

The NHS seeks to provide equity in service provision and reduce health inequalities. Access to dental care is key to this and it is essential to understand how far different communities travel to secure care.

**Objectives:**

To determine how far different population groups will travel for care segmented by socio-economic status and place of residence using the Index of Multiple Deprivation (IMD) and Rural/Urban classification (2011 classification).

**Methods:**

Secondary analysis of dental access data to identify distances travelled by patients in the North East of England described by population weighted centroid (PWC) of the Lower Super Output Area (LSOA) to the dental practice postcode (PP). Distances will be measured by straight-line using geographical information software (ArcGIS). Business Services Authority (BSA) datasets for treatment years 2014-2015 and 2015-2016 for unique patients identifying which dental practice they attended were used for each local authority (LA). 95% of the population accessing dental care were analysed. Sets of unique journeys from PWC to PP were generated. These journeys were mapped using ArcGIS and then tabulated alongside IMD and Rural/Urban classification; an average distance was calculated for each IMD decile.

**Results:**

Patients in lower IMD deciles travel less distance than in higher deciles. The greater the deprivation of a patient's residence, the less distance travelled to access dental care. Patients residing in rural settings travel greater distances.

**Conclusion:**

The data generated demonstrates the impact of deprivation on the distance travelled to access care. It may facilitate equitable resource allocation to deprived populations.

**Correspondence to:**

Lorenzo Iafrate

Email: [lorenzoiafratedental@gmail.com](mailto:lorenzoiafratedental@gmail.com)

[https://doi.org/10.1922/CDH\\_BASCD22\\_Abstract03](https://doi.org/10.1922/CDH_BASCD22_Abstract03)