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Martucci, Pietro

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University of Plymouth

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## A service improvement project to discover the reasons behind outpatient non-attendance (DNA) in endoscopy

**Pietro Martucci<sup>1</sup>**

<sup>1</sup>Endoscopy Charge Nurse, University Hospitals Plymouth NHS Trust, Plymouth, PL6 8DH, UK.

Email: [p.martucci@nhs.net](mailto:p.martucci@nhs.net)

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### Background

Endoscopy at University Hospitals Plymouth runs a six-day service and completes over 15,000 procedures annually. Patient non-attendance (DNA) leads to decreased productivity, longer waiting times and increased costs. An audit over a six-month period identified 472 lost procedure slots through DNA, at an estimated cost of £87,000. The aim of this study was to analyse data, looking for trends and predictors to allow targeting improvement activity at higher risk patient groups of DNA.

### Methods

The plan-do-study-act tool was used to processes and analyse data, appraise patient communications, bookings, and pre-assessment processes to determine influences on attendance. Data was compared with trends found in other outpatient settings shown through published studies, these include the referral source, lack of a reminder service, age, and gender. Local data was analysed comparing percentage of DNA relating to each of these factors. No significant trends were found.

### Further analysis

Coastal towns with high deprivation rates have some of the worst health outcomes in England (Whitty, 2012). Trust data was compared to Plymouth's Index of Multiple Deprivation (IMD), a measure of various aspects of deprivation in a specific area (Hoad, and McLeod, 2019). Plymouth has some of the lowest ranked localities nationally for health and disabilities. 58% of areas in Plymouth are in the lowest four national deciles across all IMD domains, while 17% are within the most deprived 10% nationally.

Further analysis focused on patients living in the city of Plymouth booked for a diagnostic gastroscopy. 47% of DNAs come from the areas of Plymouth that are in the bottom 30% nationally for education. 54% are from the areas in the lowest 30% for employment. 58% are from the bottom 20% for health and disabilities.

## Discussion

The data suggests that there is a higher occurrence of non-attendance in patients who live in the most deprived areas of the city, with the least deprived areas yielding significantly fewer DNAs. Areas ranked lower in education, income, and employment present problems including transport costs and childcare, and suggests that the information we communicate to patients should be more accessible.

Possible resolutions and service improvement activities have been identified that include: allowing the booking team to have more autonomy to arrange nursing input with patients who would benefit from additional support; making patient communications and information more accessible; and making it easier to book, cancel or reschedule appointments. Other ideas explored are delivering mobile clinics visits in areas with higher deprivation to humanise the service, co-delivering health education and raising awareness of the importance of attending appointments. Improvement will be measured as changes are implemented and become embedded.

## References

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