**A quality improvement project to reduce community health clinician’s mileage & improve service efficiency**

**AIM**
To reduce the number of miles travelled, by 20%, across a ten-month period (January – October 2018).

**BACKGROUND**
- In the UK 50,000 deaths a year are attributed to air pollution, and Southampton is in the UK’s top five most polluted cities (Royal College of Physicians, 2016).
- The NHS in England alone has a carbon footprint that exceeds emissions from all planes departing Heathrow Airport (The Kings Fund, 2012).
- The NHS is an organisation that is widely publicized to suffer from a lack of funding (The Kings Fund, 2017).
- Interventions that aim to improve efficiency and reduce wastage are likely to be beneficial to the overall financial state of the NHS.
- There is currently a drive in NHS services to reduce the ‘carbon footprint’ omitted; Karl Marlow (Medical Director, Southern Health NHS Foundation Trust) has recently implemented an initiative to encourage teams to reduce their carbon footprint by 20% over six months.
- The more time spent travelling reduces clinician’s time delivering health care interventions to our service user group. This is likely to contribute to increased waiting lists and a delay in service users receiving care.

**1ST INTERVENTION**
- **P** = Reduce team mileage.
- **D** = Increase team’s awareness, active discussions, idea sharing.
- **S** = Monthly mileage rates monitored.
- **A** = Considered additional resources to help clinicians to reduce their mileage.

**2ND INTERVENTION**
- **P** = Provide clinicians with an IT tool to help reduce mileage.
- **D** = Store & Forward launched, staff training, S&F team champion.
- **S** = Monthly mileage rates monitored. Took on board staff feedback, liaised with IT.
- **A** = IT software not fit for purpose (minor reduction in mileage but increased time inefficiencies). Use of Store & Forward stopped.

**METHOD**
Two interventions were implemented over a ten-month period.
1. Concerted effort by the team to undertake a number of strategies to reduce team mileage.
2. Implementation of Store and Forward, a real time computer based program used to complete records on the go, reducing need to return to work base to complete patient records.
Staff travel claims were analysed to track mileage travelled across the year in light of the above interventions.

**RESULTS**

**ANALYSIS**
- The green oval (above) indicates a shift in the run chart – evidence of a positive non-random signal of change.
- Total mileage reduced from January to February (8.5%) and March to April (9.5%).
- January to July demonstrates a general downward trend in mileage rates, specifically Nursing being most significant.
- There was a significant drop of 1943 miles (monthly average) from July to August when Store & Forward was introduced. However unsure if linked to this intervention or the list annual leave taken by staff at this time.

**CONCLUSION**
The run chart provides evidence of a positive non-random signal of change, with the project demonstrating a 16% reduction between January and October’s total mileage. Although we have not quantified the cost benefits of reduced mileage at this time, we know it is multifaceted and significant.

**ANTICIPATED COST BENEFITS**
- Service users = increased clinician’s time to see service users leading to reduced waiting lists, quicker allocation from waiting list.
- Environment = reduced carbon footprint. Improved air quality contributing to helping protect the health and circulatory health of our local population.
- Cost = reduced financial cost to team and Trust, contributing to Trust’s Cost Improvement Programme.

**LIMITATIONS**
- Confounding variables that affected mileage, including; increased annual leave, reduced staffing in specific professional groups at different time periods and natural variation in mileage across months. Thus, it is difficult to attribute cause and affect.
- There were technical issues with Store and Forward, which affected its uptake by clinicians.

**WHAT NEXT?**
- Over the course of the coming year, the team will continue to track mileage and look for alternative interventions with the aim of meeting our 20% reduction in mileage, likely through group based health interventions to minimise travel.
- Disseminating information to the wider team to increase awareness of the financial and environmental impact of travel.