HEALTHCARE SOLUTIONS_

PHA - Frailty Analysis

Methods Analytics_

AN ALTEN COMPANY

PHA - FRAILTY ANALYSIS

Frailty in the older population is recognised to pose a challenge to all parts of the health service.

WHO WE ARE

We are a team of data scientists and healthcare domain specialist that has grown out of an NHS team. We use the latest predictive modelling, AI and statistical methodologies to bring meaning to data, together with our national patient level data assets, working with you to inform decisions and drive improvement.

OPPORTUNITY

An opportunity for service improvement exists in identifying interventions to improve services to the frail elderly. In large areas with both urban and rural areas, identifying the concentration of frail patients in specific areas where there are higher rates is the first step in assessing the interventions available for these patients, undertaking impact analysis and so proving the viability of new service models.

OUR APPROACH

We examined frailty rates by Lower Super Output Area (LSOA) allowing the comparison of similar granular population sizes at a regional, CCG and small area level.
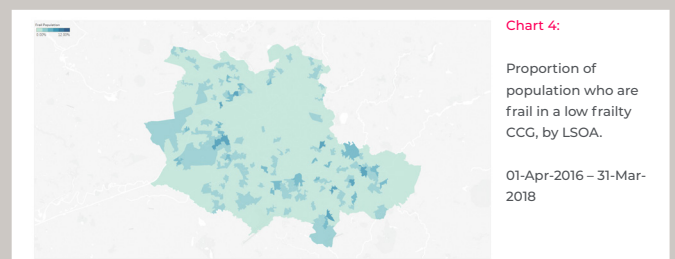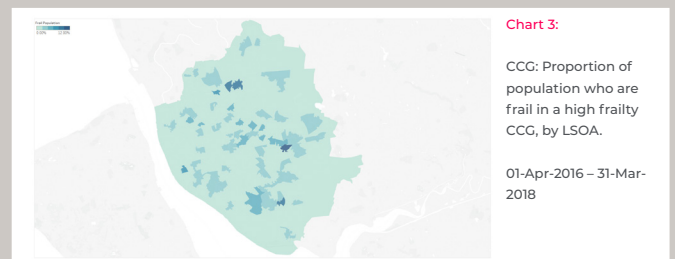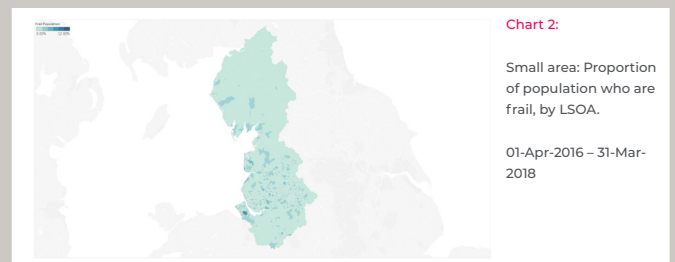
PHA - FRAILTY ANALYSIS

FINDINGS

We examined frailty rates by Lower Super Output Area (LSOA) allowing the comparison of similar granular population sizes at a regional, CCG and small area level.

Chart 1: Regional: Proportion of population who are frail, by CCG.
01-Apr-2016 – 31-Mar-2018

Chart 2:

Small area: Proportion of population who are frail, by LSOA.

01-Apr-2016 – 31-Mar-2018

Chart 3:

CCG: Proportion of population who are frail in a high frailty CCG, by LSOA.

01-Apr-2016 – 31-Mar-2018

Chart 4:

Proportion of population who are frail in a low frailty CCG, by LSOA.

01-Apr-2016 – 31-Mar-2018

At CCG level, the vast majority of CCGs have:

1-1.5% frailty

with the highest in this region being 2.0% and the lowest 0.9%.

However in this region 5 LSOAs had frailty rates above:

9%
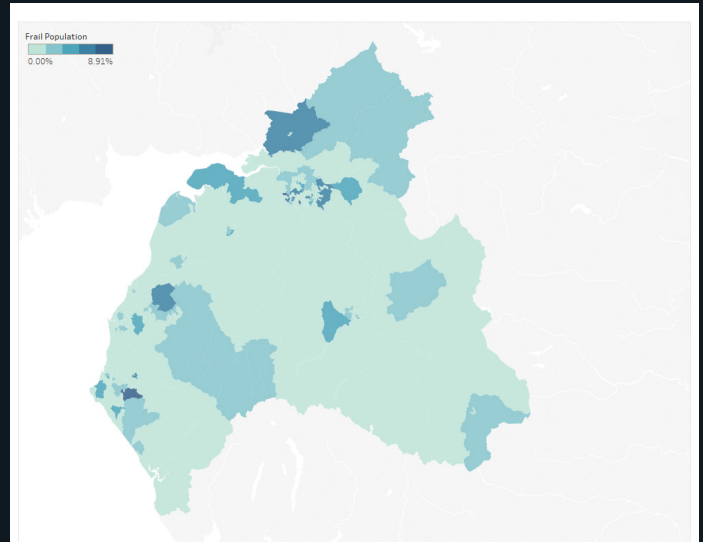
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Interpretation

The high frailty in the chart 3 CCG is driven in large part by a single potentially problematic LSOA with 7th highest frailty percentage (8.43%) nationally with a below-average total population spread out over a large area.

Secondary analysis

We proceeded to analyse ED attendance data from the HES AE dataset. This allowed us to identify attendances at ED where the patient was frail by mode of conveyance.

When looking at where these conveyances are focused, we find that some areas are more likely to have frail patients be conveyed by ambulance. One area contained an LSOA with over 20% of its ambulance demand for conveyance the ED being from frail patients.

SUMMARY

An analysis of frailty and the ambulance conveyances it requires identifies areas where early intervention to support frail patients can be impactful, potentially reducing conveyances and ED attendances by over 7000 in this region alone.

Reducing conveyances & ED attendances by over

7000

We're Methods Analytics – a specialist data services company. We use data to help public and private sector clients solve complex problems and do good things.

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