CO Awareness

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Phase 1 – How can we improve awareness?

▶ This research consisted of three knowledge capture activities. First, a ***literature review*** was conducted, covering academic and grey literature relating to CO poisoning and awareness campaigns.

▶ Following this, a ***qualitative survey*** was distributed to create an information repository of current and past CO awareness campaigns and overlooked sources of domestic CO. The purpose of the survey results was to address knowledge gaps through stakeholder input, and to inform the subsequent research components of this project.

▶ Further, a ***workshop*** was conducted to capture stakeholder opinions regarding understanding of CO, previously completed awareness work and ways to close knowledge gaps.

The research was conducted between July and November 2022.

Phase 1 – How can we improve awareness?

▸ Within the literature review, CO poisoning symptomatology and domestic sources were identified. ***The review of at-risk populations, however, was considerably limited due to a lack of epidemiological literature on CO poisoning***. Furthermore, our research into existing CO awareness campaigns identified a ***fragmented and unequal distribution of awareness activities across the UK, highlighting the need for a unified approach to raising awareness***.

▸ The survey and stakeholder workshops were distributed to and attended by individuals from a range of stakeholder organisations and served to confirm and extend some of the literature review findings, and to address remaining knowledge gaps. ***Attendees highlighted the lack of accountability over the problem of CO exposure in the UK.*** Additionally, the workshop drew out ***the issue of incomplete data in justifying further CO awareness activities.***

Phase 2 – Data Analysis using the Vulnerability Visualisation Tool

▶ We were given access to the Vulnerability Visualisation Tool (VVT) by Engida in order to provide supplementary data for this stage of the CO awareness project. This is a tool that has been developed for NGN and is designed to **identify where vulnerable customers might be and [gain] an understanding of the multiple, cumulative factors that might impact on their lives**.

▶ The VVT covers a wide range of data, and is not specifically targeted at CO awareness, specifically it contains data that is important and relevant when considering vulnerability, such as: **fuel poverty, Indices of Multiple Deprivation (IMD), income, air quality, EPCs, digital exclusion, population and heath data sets** and more.

▶ Complementary to this, we were given **CO callout data** by Northern Gas Networks, and SGN.
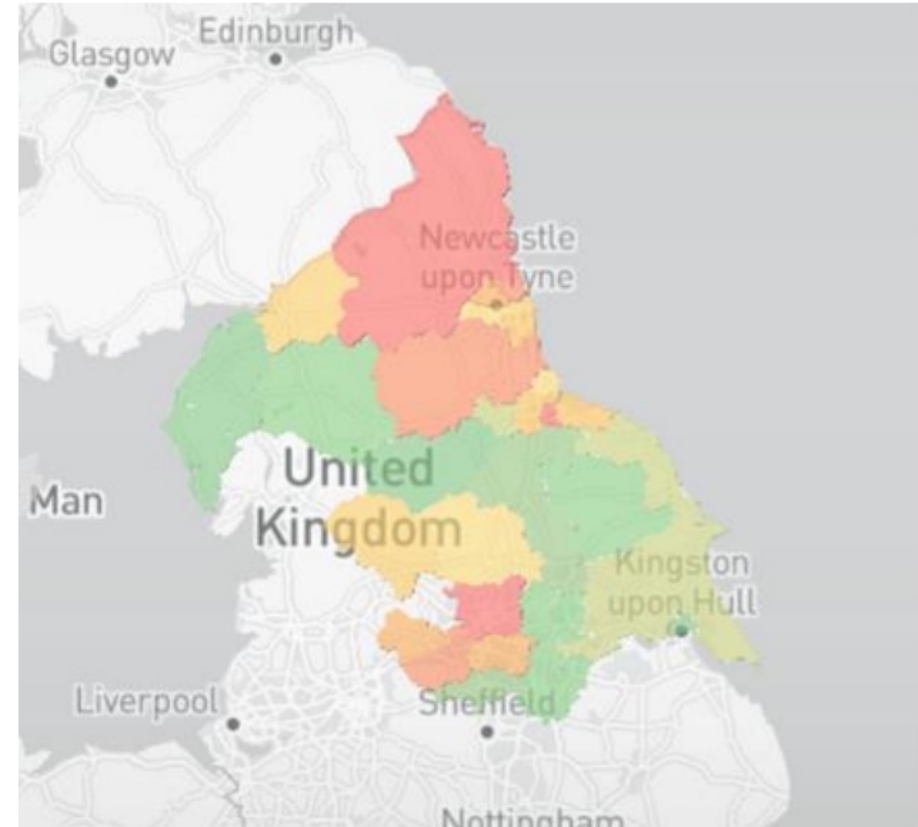
Phase 2 – Data Analysis Results

▸ We carried out two analysis activities using CO callout data, and the data provided to us by the VVT:

1. We used data analysis techniques to determine the key factors that were correlated with CO callouts.

2. We derived a metric that allowed us to predict the likelihood of a CO callout in a given local authority, relative to all other local authorities in the dataset.

NGN Dataset ranking	Correlation Coefficient
GP Health	0.792695
GDN Customers[1]	0.778533
Crime	0.77631
Dementia	0.764083
Gas Safe Appliances	0.762479

Figure 4-1: The top five correlation coefficients for NGN CO callout data against supplementary data.

Local Authorities	NGN Metric Value
Birmingham	0.541
Leeds	0.440
County Durham	0.314
Bradford	0.306
Sheffield	0.293

Figure 4-3 Table of top five ranking LAs by the metric calculated with the NGN correlation coefficients

Phase 3 – Conclusions and a roadmap for the future

▸ Several overarching conclusions have been drawn as a result of this research:

▸ 1. CO research is currently restricted to consumer symptomatology and domestic sources of CO, with *limited epidemiological research into CO poisoning*.

▸ 2. CO research would be strengthened by the presence of a *high quality, unified dataset* available to stakeholders in the UK.

▸ 3. CO awareness campaigns would benefit from a **unified approach, from a singular, trusted source and clear concise messaging**.

▸ 4. Stakeholders beneficial to engage in future awareness campaigns include *public sector stakeholders outside the All-Party Parliamentary Carbon Monoxide Group (APPCOG), manufacturers of fuel burning appliances and alarms, stakeholders in housing, and medical professionals.*

▸ TBC…

Thank you

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