

Protecting patient access to community pharmacies

NHS South, Central and West

The Challenge

- Ensure a high level of access to pharmacy services
- Allocate funding fairly to eligible pharmacies based on walking distances
- Create a repeatable and evidencable process

The Benefits

- A complete, end-to-end process to support the funding scheme
- Targeted allocation of funding to reduce health inequalities through assured access to services
- Greater transparency about how decisions are made
- A more structured and efficient review process
- Targeted and cost effective use of limited funding resources

Working on behalf of a wide range of NHS stakeholders, NHS South, Central and West has developed an end-to-end solution to support the equitable allocation of funding to community pharmacies throughout England. Built using ArcGIS, the solution is helping the Department of Health and Social Care to reduce health inequalities and ensure 89% of the population lives within a 20-minute walk of a pharmacy.

The Challenge

There are over 11,600 community pharmacies in England, and around 1.6 million people visit a pharmacy every day for healthcare advice, medications, and healthcare services like vaccinations¹. The Department of Health and Social Care aims to ensure that everyone throughout England has access to a pharmacy near where they live, work or shop. To support this aim, it provides financial support for pharmacies in more remote locations that may be less viable as businesses but that are nonetheless incredibly valuable to the communities they serve.

The Department of Health and Social Care wanted to know the distance between each pharmacy and the closest five other pharmacies, so that it could use this information as part of its funding criteria. It approached NHS South, Central and West (SCW) and asked it to analyse data to help determine which pharmacies would be eligible for support through the Pharmacy Access Scheme (known as PhAS). Whilst the department's initial request was for a spreadsheet showing the results of this analysis, SCW proposed a more innovative approach that far exceeded the department's expectations.

The Solution

SCW's big idea was to develop an end-to-end solution to support the entire PhAS process using Esri's ArcGIS suite of products. It worked closely with a large number of stakeholders to deliver this solution, including the Department of Health and Social Care, 13 regional teams at NHS England, as well as the Pharmaceutical Services Negotiating Committee, representing community pharmacies.

Initially, SCW was able to geocode the locations of all 11,600 pharmacies in England and created an accurate pharmacy dataset using Esri's ArcGIS Pro. It then used the network analysis capabilities of ArcGIS Pro together with Ordnance Survey's highways network data to calculate walking distances from each pharmacy to the five closest pharmacies.

SCW next built an interactive web portal, using ArcGIS Hub, to enable all stakeholders, including the individual pharmacy owners, to see the results of the analysis. With NHS branding and links to supplementary information about PhAS, the ArcGIS Hub site includes an embedded ArcGIS Online web app enabling users to zoom into any pharmacy and see the walking route calculated to other nearby pharmacies.

Recognising that some pharmacies may want the decisions made to be reviewed, SCW subsequently built an online form using ArcGIS Survey123 that is easily accessible from the ArcGIS Hub site. Now, if pharmacies spot a problem, such as a walking route that has been plotted via unsafe steps or unlit pathways, they can use this online form to upload information and evidence.

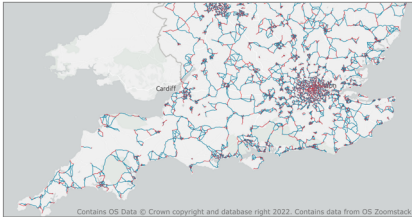
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Cliff Mwando, Geospatial Technical Manager, NHS South Central and West



An analysis of community pharmacies across England, conducted with ArcGIS Pro

Finally, SCW built an Esri Dashboard using ArcGIS Enterprise, called the Reviewer Dashboard, which enables regional teams within NHS England to review details relating to decisions made. This dashboard draws in information from the ArcGIS Survey123 forms and provides easy access to all the information that reviewers need to make a balanced judgement. “What Esri UK has enabled us to do is bring together a huge range of technical solutions in one easy-to-use final product,” says Clare Scarborough, Principal Geospatial Analyst at SCW.

The Benefits

A complete, end-to-end process to support the PhAS funding scheme

SCW’s solution is a single, end-to-end process for allocating funding to community pharmacies through PhAS providing a far greater level of information than a simple spreadsheet of distances. Developed in collaboration with all key stakeholders, the solution met the desired requirements – from identifying eligible pharmacies to handling reviews. Justly proud of his team’s achievements, Cliff Mwando, Geospatial Technical Manager at SCW, commented, “The Pharmaceutical Services Negotiating Committee signed the project off as the best they had seen so far in terms of PhAS work.”

Targeted allocation of funding to relieve health inequalities

The use of ArcGIS Pro for analysis ensured that all funding decisions were objective, based on evidence and a consistently-applied policy. As a result, the Department of Health and Social Care could be confident that its budget was being targeted at the right pharmacies to maintain equitable access to pharmacists and reduce health inequalities. The department could better understand walking distances between pharmacies, helping it to ensure that 89% of the population has access to a community pharmacy within a 20-minute walking distance.

Greater transparency about how decisions were made

ArcGIS Hub significantly improved the transparency of PhAS, by enabling all stakeholders and each individual pharmacy owner to see the walking routes calculated. The Reviewer Dashboard also provided an accurate record of which pharmacies asked for reviews, what decisions were made and why. Both solutions enable users to view and interrogate the data, helping them to better understand the decision making process.

A more structured and efficient review process

By incorporating the review process into the end-to-end solution, SCW has provided stakeholders with an effective way to engage with pharmacies and respond to queries on a case-by-case basis. “The SCW team has enabled us to deliver a robust and transparent review process for community pharmacy contractors; and the portal has delivered a streamlined and largely automated process,” says Stephen Riley, Senior Policy Lead at NHS England. “Overall, this led to an efficient process and contributed to consistent decision making, supporting appropriate access to the Pharmacy Access Scheme.”

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¹ PSNC 2022