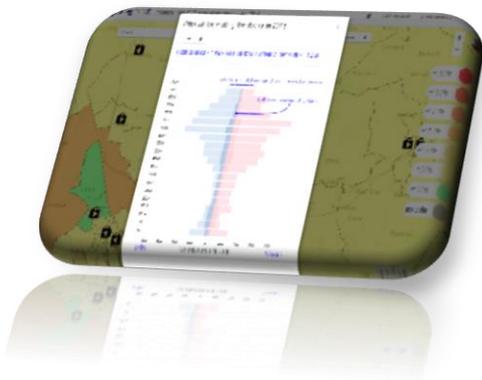


Healthcare Data Solutions

Health Infrastructure: Predictive Analytics of Pressure Points and Exploration of Scenarios



The Problem

The Nquiringminds' Open City Data Platform (OCDP) is a secure data integration and visualisation tool that allows users to construct their own dashboards, using static and real time, Internet of Things data and then at the click (or two) of the button deploy them to their website. The platform then allows administrators, elected officials, businesses and citizens the ability to make maximum use of the disparate and often inaccessible "open" data. We champion the notion of extracting value by bringing together data for operation management, strategic decisions and governance transparency. We took the problem of the pressure of demand by the population on GP appointments as a starting point for extracting value from open data in Hampshire using the OCDP.

Data and Tools used

- LSOA Geographic boundaries from the Hampshire Hub
- Population forecasts from Hampshire County Council.
- GP consultation rates per demographic segment from Health and Social Care Information Centre
- GP Surgery locations and capacity from NHS Choices
- Nquiringminds OCDP

Scenario

Taking data from the Small Area Population Forecasts (SAPF) from Hampshire County Council Demographers, Office for National Statistics, Hampshire Hub, QResearch and NHS Choices, the technologists at nquiringminds have shown how

demand for surgery appointments may be affected by ageing, birthrates, migration and planning changes.

The idea is to be a useful tool, based on a data analytics and visualization platform, to allow both the general public and strategic decision makers to quickly and flexibly combine open data sources to see the consequence of time and policy changes on GPs in Hampshire. The model has been created to allow people to play with scenarios and visually see the affects over time.

The idea behind the project came from the need to do something with vast quantity of data out in the public domain and resting in separate areas of government and census departments. This tool can potentially be used with many issue, not just GPs, but also schools, poverty, housing, traffic and

transport and is meant to be a tool for people to play with, in the spirit of Open Data.

Outcome

NquiringMinds, has looked at the pressure on GP surgeries across Hampshire and created a map that takes account of multiple data sources to forecast pressure points over the next 5 years. Under certain scenarios the model takes current age group consultation profiles and based on current patterns of behavior shows that areas in Winchester, Rushmoor, Portsmouth and Southampton will see a doubling of demand by 2020. Only 25% of GP practices across Hampshire will stay within current demand or will see a reduction in pressure by 2020.



Gamma House, Enterprise Road
Southampton Science Park
Chilworth Hampshire SO16 7NS
UK



www.nquiringminds.com



info@nquiringminds.com



[@nquiringminds](https://twitter.com/nquiringminds)



+44(0) 2381 159 585