



Customer: Stoke-on-Trent National Health Service Primary Care Trust

Web Site: www.stoke.nhs.uk

Number of Employees: 1,500

Country or Region: United Kingdom

Industry: Healthcare—Healthcare providers

Partner: Shoot Hill

Customer Profile

Stoke-on-Trent National Health Service (NHS) Primary Care Trust (PCT) is responsible for commissioning healthcare services for 279,000 people registered with doctors in the city of Stoke-on-Trent in the United Kingdom.

Software and Services

- Microsoft Office
 - Microsoft Office PerformancePoint Server 2007
 - Microsoft Office SharePoint Server 2007
- Microsoft Server Product Portfolio
 - Microsoft SQL Server 2008
- Bing Maps for Enterprise

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U.K. Trust Uses Mapping Technology to Target Services for People in Greatest Need

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John Uttley, Head of Health Intelligence, Stoke-on-Trent NHS PCT

Stoke-on-Trent National Health Service (NHS) Primary Care Trust (PCT) is using innovative mapping technology as part of its overall business intelligence solution to help analysts target NHS services at areas and people in greatest need of healthcare. Using Bing Maps for Enterprise, patients can now search for dentists, doctors' practices, and pharmacies using an Internet browser or mobile device. These innovations are helping the PCT improve its World Class Commissioning standards.

Business Needs

With an annual budget of £460 million (U.S.\$692 million), Stoke-on-Trent NHS PCT is responsible for improving the health of 279,000 people through investment and modernisation plans. As well as commissioning services, the PCT provides and manages key healthcare services, including doctors' practices, pharmacies, dental surgeries, opticians, community hospitals, and primary care centres.

When John Uttley, Head of Health Intelligence at Stoke-on-Trent NHS PCT, joined the organisation in 2008, he

launched an ambitious plan to significantly increase the health intelligence available to the organisation. The work has focused on creating a data warehouse and business intelligence solution, which uses Microsoft technologies, including Bing Maps for Enterprise, to access and map information stored within the warehouse.

In addition, a service locator service has been launched on the PCT Web site, which uses Bing mapping and tagging technology to send information about

services to patients with Internet access or mobile devices.

Internally, Uttley wanted to use mapping technology to compare medical and socio-economic data to help healthcare professionals plan the commissioning and location of services. Previously, analysis of this kind was extremely time consuming for his team, involving spreadsheet software and labour-intensive mapping packages. Uttley says: "For example, mapping the addresses of all the patients served by a particular doctor's practice could take half a day, whereas with the Bing Maps technology this could be produced immediately."

Uttley implemented an intranet and business intelligence solution based on Microsoft Office SharePoint Server 2007, Microsoft Office PerformancePoint Server 2007, and Microsoft SQL Server 2008 data management software with Bing Maps for the geographic information elements. Uttley says: "The goals for my team are to make more information available to healthcare colleagues and patients on a self-service basis, as well as to help deliver the core responsibilities of the PCT. We are supporting the PCT in its mission to achieve Level 3 World Class Commissioning competencies in all three health intelligence areas set by the U.K. Department of Health."

Solution

Microsoft Gold Certified Partner Shoothill designed an easy-to-use graphical user interface (GUI) using Office SharePoint Server 2007 to create a needs analysis tool for the PCT, which is being piloted. This is helping the PCT compare medical and socio-economic data to improve delivery of services so they reach the areas of greatest need.

Rod Plummer, Managing Director at Shoothill, says: "By instantly cross-referencing multiple datasets such as medical and socio-economic data, then representing these as multi-coloured heatmaps, the system helps staff easily

allocate health resources to where they are most needed. An example of this would be comparing the home addresses of breast cancer patients with the location of screening services. When viewed this way, anomalies or other discrepancies in the provision of healthcare services are easier to spot and action can be taken much faster."

The PCT also embraced Microsoft Tag technology, which makes it easier for healthcare professionals—and, eventually, patients—to access information from mobile devices. Tags are similar to barcodes, which are read by the camera in a mobile device. The image means the phone can store information relating to the Tag, open a Web site on the user's phone, or dial a telephone number—for example, a telephone number from a patient's appointment letter.

Uttley says: "The healthcare intelligence team at the PCT has already added Tags to individual e-mail signatures so that other colleagues can quickly capture their full details. We've also looked at our Web site to increase functionality and help patients search for medical practitioners using Bing Maps."

Benefits

With Bing Maps, PCT healthcare professionals can analyse medical and socio-economic data on a self-service basis for the first time, improving services without requiring help from the healthcare intelligence team. The result is a significant time saving and better use of healthcare data. Uttley says: "Decision making within the PCT will also improve. The availability of up-to-date information will result in better planning of service delivery, especially in the face of tight budgets and pressures on spending throughout the NHS."

- **Saves £1.5 million.** Uttley says: "The healthcare intelligence project overall, including the data warehouse and

mapping technology, has already paid for itself and resulted in a saving of between £1.5 million and £2 million."

- **Builds on World Class Commissioning competencies.** As a result of the advances in healthcare intelligence analysis, the PCT has now self assessed its performance at Level 3—compared to Level 1 previously—of the Department of Health targets.
- **Improves accuracy of service planning.** Plummer says: "The obvious value of the needs analysis tool is to help PCTs allocate scarce healthcare resources exactly where they're needed most."
- **Creates reputation for innovation.** The PCT is the first public sector organisation in the United Kingdom to introduce Microsoft Tag technology to benefit people across the city. The application is free for both the users and the organisations using or supplying the data. Uttley says: "It is now far simpler for the public to access and store important information about our services."