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Darren Kirmond, System Development Manager for Community Health services,
Blackpool Teaching Hospitals NHS Foundation Trust

power to you

Tablet devices create better health outcomes for Blackpool NHS

NHS

Like every local Health Trust, Blackpool Teaching Hospitals NHS Foundation Trust has to create efficiencies to meet future demand, yet it must continue to improve the quality and quantity of patient care.

Working with Vodafone, the Trust has created a mobile solution to improve the efficiency of its 900 community health workers. Using secure Android tablet devices, workers are now able to access schedules, confirm appointments and conduct patient assessments remotely. The flexibility of the system will save up to one hour a day in administration and travel time, ensuring more face-to-face time with patients, resulting in increased capacity within community health services, which in turn should reduce hospital admission costs.

Blackpool Teaching Hospitals NHS Foundation Trust serves a community of around 469,000 people across the Blackpool and North Lancashire region. This population tends to be older than the UK average and swells each summer with seasonal holiday visitors. The Trust faces many of the challenges typical of the UK public sector: it must make savings in its operating budget while maintaining a high level of service to the community.

The community health challenge

Blackpool is the UK's most famous seaside resort, attracting more than 10 million tourists a year. It has the Tower, the Pleasure Beach and seven miles of beach.

It is also among one of the most densely packed towns in the country, with a disproportionately ageing population with high incidence of liver and heart disease.

Blackpool Teaching Hospitals NHS Foundation Trust manages the provision of community health services for the region's 469,000 residents. It must also help alleviate the strain on the town's acute services. Each hospital admission costs around £2,000 before treatment, and there are only a limited number of beds. With the seasonal visitors helping swell population numbers, it is important that the Trust treats residents in the community rather than in hospital where possible: saving costs and freeing bed space.

Patient records

The Trust completed an implementation of a new Patient Administration System (PAS) in 2010, part of the national electronic patient records programme. The PAS measures standard administration targets such as waiting times, missed appointments and follow-up appointments, plus quality and clinical indicators. The PAS also enables managers to produce management and performance reports based on the data input. But the system requires a huge amount of data input from community workers, eating into patient-facing time.

To be more effective and provide managers with the most up to date information, it was clear the community health workers needed to access and update real-time data whilst on patient visits. This would require a move away from paper-based systems to mobile solutions. The PAS could be updated in the field, allowing workers to spend less time in the office and more time on community visits.

The Trust had already examined the use of laptops, but rejected this option. "With a laptop, staff have to boot up, log on and find a secure connection. On a 15-minute appointment we were finding staff waiting 10 minutes to set up. The technology was not fit for purpose," says Paul Morris, Assistant Head of Informatics and Performance at the Trust. "It was obvious we needed an always-on solution, and smart devices could offer this."

"This tablet solution supports clinicians in helping to deflect demand on acute care. Treatment in the community helps keep people out of hospital."

Darren Kirmond, System Development Manager for Community Health services,
Blackpool Teaching Hospitals NHS Foundation Trust

Real-time data

It was at this point that tablet devices came onto the market, a technology, according to Morris, that met the Trust's requirements. Vodafone was the Trust's telecoms provider, though he says the search for an appropriate solution was thrown open to different providers: "Vodafone's sensitivity to our needs, their ability to find a solution that could evolve, but would work today, meant they were head and shoulders above the competition."

The proposal was for an initial trial of smartphones, testing email and appointment scheduling with community health workers, with a view to upgrading to Android tablet devices for a staggered roll-out to 400 of the Trust's community health workers. "We knew smartphones would be fine for email but suspected the screen would be too small for any clinically-rich data," says Morris. "The real opportunity, we felt, would be with 7" tablet devices. They were small enough to carry easily, but with enough screen estate to be usable."

The smartphone trial went as expected. The access to email and the 'live' view of monthly schedules was popular with staff, and worked well enough to prove the mobile solution was viable. Community health workers would usually need to come into the office to complete data entry or check emails. This could now be done on the move, saving up to 1 hour per day in travel time and administration – 1 hour per day equates to 1-2 additional patient visits. Having the information in real-time also helps managers plan schedules and resource allocation; geolocation helps map workers' location and plot availability. However, the device had its limitations.

"Unfortunately, the keyboard on the smartphones was too fiddly, the log in too complicated and the screen too small," says Darren Kirmond, System Development Manager for Community Health services. "Consequently, the staff were sold on the tablet as soon as they saw it."

"We're now better at capacity planning —and having more time to spend with patients means we're better able to spot problems and provide better advice, which leads to greater prevention."

Paul Morris, Assistant Head of Informatics and Performance, Blackpool Teaching Hospitals NHS Foundation Trust

Better patient outcomes

The roll out of 400 Samsung Galaxy Tab 7-Plus tablets has already begun with another 500 planned in the second phase. Staff are able to access the Trust's network, with no additional log on required. Vodafone Secure Device Manager allows Kirmond's team to monitor connectivity. "We will build up a detailed picture of staff usage," he says.

The goal is for community workers to be able to access pathology tests, the latest medical guidance, and for the Trust to develop electronic assessment tools. Patients, too, will be able to view treatment plans, scheduling and more interactive assessments.

He says the solution goes beyond connectivity issues. "There is a view that 'as long as the device connects, who cares about the network'. But the NHS is more demanding than that; we deal with extremely sensitive patient records. Vodafone was able to address every security concern that we had, whether on the device, or on remote connectivity. And it was the robustness of this solution, plugged into the existing infrastructure of the Trust that really stood out."

Morris says tablets will help the Trust meet its business and healthcare objectives, and expects a Return on Investment within 12-18 months: "This solution supports clinicians in helping to deflect demand on acute care. Treatment in the community helps keep people out of hospital. We're now better at capacity planning – and having more time to spend with patients means we're better able to spot potential health problems during community visits and provide better advice, which leads to greater prevention."

Significant Benefits

- Ensures security of sensitive patient data accessed via remote devices
- Provides remote access to scheduling, emails and health assessment advice, improving staff efficiency and patient experience
- Generates real-time data on community health activity, helping management planning and performance reporting
- Reduces administration and travel time for community health workers, meaning more time can be spent with patients

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