Alertive

Recent events brought on by the pandemic have significantly changed the way we work and communicate, showing us that we need greater flexibility and mobile/remote access to information. Bring-your-own-device is a work practice that has increasingly gained momentum not just around the world, but across the UK, where 45% of organisations are encouraging it, including the NHS (the largest employer in the world with 1.3 million staff). As far back as 2014, three-quarters of hospitals across the US reported that they electronically exchanged health information with outside ambulatory providers or hospitals, contributing to a **productivity upsurge** of 74%. The NHS has an immense but achievable task ahead that will positively impact clinicians as well as patient care.

How does BYOD help clinicians?

For the general workforce using their personal device for work has meant a significant rise in productivity - **studies** have shown that employees using their own devices for work not only save 7.5 hours a week but **add** 2 hours of active work per day, as they are able to access and complete their tasks with ease, remotely and in their own time. Research shows that the average physician spends 37.1% of their time on documentation tasks and their biggest worry about adopting digital technology to reduce this time and allow for better patient care, is the difficulty of learning and using new systems. With BYOD one part of this process is made simpler, as they are able to integrate and use work-related applications on a device they are already familiar with. We have clear evidence that communicating on a personal device improves the productivity, flexibility, efficiency and workflow of clinical staff. According to **research** findings NHS staff would be (almost) 50% more likely to edit work documents, use self-help apps with patients and read and update patient records if allowed to use their own device for work. Other benefits include the fact that clinicians are more likely to own newer devices that are replaced/upgraded more frequently, thus ensuring they have

improved access to the latest device features. It also increases morale and motivation as they have the freedom to install and use apps that help them manage their workload, support their own well-being and improve patient interaction.

Challenges clinicians may face with BYOD:

With a wide range of digital solutions being marketed and adopted, clinicians have concerns about BYOD and its impact on their devices and personal time. Using their personal device for work can require the installation of third-party apps, that require them to grant complete access and control over their device to the hospital administrators. The use of such applications on their device can thus affect the integrity of personal information, documents and other content saved on their device. Clinical staff also express concerns that integrating work apps onto their personal device could lead to performance issues - such as the device slowing down, battery draining quicker and increased use of/need for phone storage. Most importantly, the biggest drawback they reported was about not being able to "log off", placing yet more demands on their time with an expectation that they would be "always-on" available to respond to work messages and their need for downtime would be disregarded.

How does BYOD help the NHS?

We believe the tipping point when Trusts will be able to justify the purchase of smart devices for all employees could be imminent. But in the interim using well-designed BYOD policies to regulate staff using personal devices in light of evidence-based benefits, is an important stepping-stone to rapidly improve communication for frontline and support staff so they can provide optimal care to patients. Furthermore, the NHS Long term Plan has set out a commitment to deliver care in new ways for the 21st century, with a focus on reducing carbon emissions. Their priority is to find safer, cleaner ways of ensuring clinicians across hospitals and in the community, "have access to mobile devices and digital services".

A robust and easy-to-follow BYOD framework can help achieve this and deliver a number of benefits. For Trusts it means significant financial savings due to lowered device and maintenance costs and a reduced need for training and IT support. It also helps them to regulate the use of personal mobile devices in a BYOD compliant way as staff may already be using their own devices which can expose the NHS data on them, to significant risks. BYOD also contributes significantly towards digitising the hospital's clinical communication, reducing dependency on paper and multiple devices and helps them work towards the NHS Carbon Net Zero Plan. Most importantly, a Trust endorsed BYOD framework ensures secure transmission and cloud storage of all shared information - they are able to monitor, track and control what applications are used, who has access to what information while protecting hospital infrastructure and data. Thus, for Trusts allowing clinicians to use their personal devices in a safe and auditable way can help mitigate huge financial costs whilst improving staff efficiency and patient care.

Challenges the NHS may face with BYOD:

Whilst the benefits are significant, security concerns about BYOD initiatives due to the potential lack of control over personal devices (and the sensitive data being shared), make it one of the biggest healthcare IT challenges for hospital administrations. Some of the biggest barriers for Trusts when it comes to blending personal device use and workplace requirements for security include: being able to control who has access to clinical data, securing network access and limiting the sharing and storage of confidential data on personal devices.

A research study conducted in 2020 found that 44% of Trusts said, "they allowed BYOD but didn't have a policy in place at all". Of those that did have policies, these were often confusing and difficult for users to understand, buried in long technical information, IT jargon and security policies.

What are the solutions to these challenges?

The NHS requires more flexible and practical BYOD frameworks which are centrally monitored to support ways of working that reflect current and modern communication needs, otherwise clinicians will employ their own solutions (and in many cases already have done so), posing serious security risks. The default response of organisations in such instances is to implement a mobile device management system (MDM), which faces significant resistance, as users are required to surrender complete access to their phone and its contents to the Trust.

Solutions for Trusts:

Trusts need to have a clear and implementable BYOD policy put together with the involvement of multidisciplinary teams (including HR and legal), to ensure factors such as employee eligibility and privacy, access to records, training and support, audit requirements, data usage, backup and termination policies are considered.

They are then able to adopt less intrusive, secure and robust external applications that can be loaded onto the personal device, allowing administrators to retain complete access to all the activity and data shared within the application itself, whilst protecting the privacy of the users' personal information and content. This also allows Trusts to control how the application integrates with their existing systems and address security concerns, manage and track who has access to what information (employee authentication) and what they can do with it, encrypt all data and communication and monitor how and where it is shared and stored, including an auditable archive of all activity (in the cloud or on-site).

Solutions for clinicians:

By taking advantage of BYOD policies, clinicians can reduce the stress of managing multiple devices and learning new systems at work. The use of well-designed applications can significantly reduce the "pressure" on a clinicians' personal device by saving all work-related communication, documents and data on the hospital servers or the cloud, freeing up device storage.

The team at Alertive has collated useful **guidance** on how to navigate BYOD frameworks in an implementable way and choose applications for work communications on personal devices, that are easily integrated, less intrusive and secure. We strongly feel that BYOD initiatives across the NHS need to be embraced in order to provide our frontline workers and clinical staff with efficient and safe access to information, as they respond to increasing patient needs and workload pressures in demanding conditions.