

Clinical Drug Information

EHRs and Healthcare Information Technology:

The Solution for Smarter Decisions and Better Care in the United Kingdom



Healthcare organisations across the UK spent \$2.1 billion on healthcare information technology in 2015, with expectations it would continue to grow.

Are you ready?

According to a review of recent studies, global healthcare spending on EMR/EHR technology is expected to top **\$24.8 billion** USD in 2017 and continue growing to over \$29 billion by 2020.

The ongoing, worldwide increases in electronic health record (EHR) and electronic medical record (EMR) adoption and spending on healthcare information technology is spurred primarily by commitment to patient safety. Hospitals using EHR/EMR systems have a **3 to 4 per cent lower mortality rate** than those that don't, as EHRs help reduce prescription entry errors and provide access to clinical decision support in the workflow and medication error alerts.

There's financial incentive to expand healthcare technology as well. The average doctor spends 8 hours a week on paperwork. Studies estimate that during the first 15 years of implementation, EHR/EMR could **save around \$42 billion** USD each year in the costs of paper charting, in both materials and staff hours.ⁱ

RISE OF EHRs IN THE UK

Recognizing the advantages of EHR and healthcare information technology in controlling costs and maintaining care quality, healthcare organisations across the United Kingdom spent an estimated **\$2.1 billion USD** on EHR technology in 2015, following 4.1 per cent annual growth, making it the largest market for EHRs in all of Europe.

By 2012, some **97 per cent** of United Kingdom physicians were already reporting using EHRs in their practice, giving the UK the highest adoption rate out of the 10 regions surveyed by the Commonwealth Fund. In part, that is attributed to government EHR/EMR incentives, which are strongly dependent on achieving EHR use quality metrics. Established in 2004, these incentives now account for more than 20 per cent of a family practitioners' income.

England has been one of the fastest nations to digitise its healthcare records, having begun digitising general practitioner records in the 1980s. With nearly 100 per cent of these primary care records now electronic and more than 64.6 million UK patients using the National Health Service (NHS), which assigns them a unique patient identifier, it creates a potential for a more connected health information system. However, certain efficiencies, like linking health records between providers and enabling electronic access to health information and digital services for patients, are still not as widely available as many would like them to be.

Advisory groups estimate an average-sized trust needs at least five clinician-informaticists on staff.

Digitising secondary care records continues to be a stumbling block. In 2011, after several years in operation, the NHS abandoned its National Programme for Information Technology – an ambitious attempt to digitise all secondary care. The NHS and its trusts tried once again in 2013 to move forward with a plan to digitise key records by 2018 and have a universally paperless system by 2020. Despite a £4.2 billion allocation to support the programme, the 2018 target date was dropped in 2017, with government officials saying improving trusts' IT systems to accommodate universal digital care records likely could not be completed until 2022 or later.^{ix}

WHAT TECHNOLOGY IS MISSING IN UK HEALTHCARE?

UK provider trusts need to find ways to balance their individual healthcare information technology needs with the requirements of the NHS.

An essential component of a successful EHR is **Clinical Decision Support (CDS)**, including automated safety screenings and notifications to help alert clinicians to potential errors or contraindications before they write orders and administer treatments. Professionals using CDS report:

- Improvements in patient safety and quality of clinical services
- Increased adherence to guidelines by healthcare workers
- Reduction of serious medication error rates

The goal of a national paperless healthcare system has potential to improve CDS effectiveness, as observations recorded only on paper cannot be flagged and automatically included in future patient safety screenings. An audit of UK health professionals found only 70 per cent of medical observations were recorded on paper charts, whereas nearly 100 per cent of observations were entered into EHRs. This is because the EHR view makes gaps in information more visible, and mandatory steps can be programmed into the system that professionals must complete before moving on to the next step.



Even with successful implementation of CDS, a challenge that arises is “**alert fatigue**,” the negative perception clinicians develop of EHR alerts because there are simply too many alerts being generated. Clinicians get into the habit of overriding most alerts without really examining them, increasing the likelihood they will miss a vital warning. To combat alert fatigue, UK providers need to also implement customized filtering to help produce more meaningful alerts with fewer unwanted, “noise” alerts.

As part of efforts to optimize EHRs and CDS alerts, advisory groups recommend developing staff specifically trained in clinical informatics, estimating an average-sized trust needs at least five clinician-informaticists on staff.^{xi}

LOOKING AHEAD

The population of England is expected to grow by around 8 million in the next 20 years. Those gains, coupled with increased life expectancy, will create an overall older population. Over the next 20 years, population aged 65-84 is likely to increase by 39 per cent, while the cohort over age 85 will increase 106 per cent.^{xii}

These increases in both the size and age of the population are expected to tax the NHS. The publicly-funded healthcare system estimates that rising costs and demands for service will create a £30 billion funding gap by 2020.^{xii} Smart investments in healthcare technology will be essential to increase efficiency and cost-effectiveness of healthcare in the UK while maintaining and raising levels of quality.

What will the future of healthcare information technology look like for the UK? Experts to see some of the following trends:

- **Technological advancements** to support and help professionals better understand clinical decision making
- Growth in development and popularity of **mobile apps and hubs** to connect professionals to CDS, diagnostic tools, and hospital records, as well as those to help patients track and monitor their own health

- Greater focus on **private insurance options**, particularly if the NHS isn't able to cover more innovative – thus more expensive – treatments being developed (e.g., treatments involving genomic sequencing, stem cell or regenerative medicine, robotics and “smart” medical devices)
- Expansion of **telehealth** services, such as video-conference consultations and remote patient monitoring. While this technology could become essential for those living in remote areas or who are too infirm to always see practitioners in-person, it may also become a trend with those who are more avid consumers on technology and digital services
- Improvements in **collecting and analysing patient data** to help identify health and healthcare trends. Alongside this comes increased attention on protecting patient **privacy** and data security

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Despite being an advanced and high performing healthcare system, the industry in the United Kingdom continues to evolve along with healthcare technology, and trusts need partners to help them succeed. Healthcare information technology vendors that are committed to global best practices, scientific research, implementation support, and solution innovation can help a health system reach its EHR goals for improved efficiency, cost savings, and enhanced patient care.

Wolters Kluwer's Clinical Effectiveness solutions help healthcare professionals measurably improve the quality and effectiveness of care. We provide evidence-based clinical content and advanced decision support technology wherever healthcare professionals are working so they can make the best possible decisions for their patients. Solutions include Lexicomp® drug references, Medi-Span® drug data, and UpToDate® clinical decision support, all of which integrate into EMRs and clinical workflows to provide proactive, efficient access to valuable decision support at the point of care.

ⁱ <http://blog.soliant.com/healthcare-it/ehremr-facts-and-amazing-statistics/>

ⁱⁱ <https://www.idc.com/getdoc.jsp?containerId=AP245697>

ⁱⁱⁱ <https://www.linkedin.com/pulse/healthcare-10-minutes-review-ehr-systems-across-countries-nichol?trkSplashRedir=true&forceNoSplash=true>

^{iv} <https://ama.com.au/position-statement/shared-electronic-medical-records-revised-2016>

^{ix} <http://www.ukauthority.com/health-care/entry/6882/government-drops-target-for-paperless-nhs-by-2018>

^{xi} <https://www.gov.uk/government/publications/using-information-technology-to-improve-the-nhs/making-it-work-harnessing-the-power-of-health-information-technology-to-improve-care-in-england>

^{xii} <https://www.kingsfund.org.uk/time-to-think-differently/trends/demography>

^{xiii} <http://www.cnbc.com/2016/07/05/brexit-impact-uks-nhs-still-faces-funding-challenges-after-referendum-vote.html>



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