



BCS, The Chartered Institute for IT (BCS), responds to the Health and Social Care Committee's Call for Evidence: *Digital Transformation in the NHS*

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The purpose of BCS, as defined by its Royal Charter, is to promote and advance the education and practice of computing for the benefit of the public. We bring together industry, academics, practitioners, and governments to share knowledge, promote new thinking, inform the design of new curricula, shape public policy and inform the public.

As the professional membership and accreditation body for Information Technology, we serve 65,000 members, including practitioners, businesses, academics, and students, in the UK and internationally. We accredit the computing degree courses in ninety-eight universities around the UK and as a leading IT qualification body, we offer a range of widely recognised professional and end-user qualifications.

Summary of BCS Position

There's a serious gap between the health sector and other sectors regarding data sharing and interoperability: health and care is far behind as pointed out by the Goldacre review¹. The NHS often operates as a discrete set of silos, with poor communication between NHS Trusts meaning patients sometimes receive suboptimal care. Digital and data driven technologies are key enablers for addressing these issues and improving NHS services to patients. More specifically, digital transformation in the NHS can significantly impact the service it provides, improving the ability healthcare practitioners have to deliver a fast, trusted and safe service to the citizen. This is something BCS, the Chartered Institute for IT, is a strong advocate for and is keen to collaborate with the NHS to support healthcare practitioners in the NHS to adopt such technologies.

- Transparent and properly funded cyber security and information governance frameworks will help the government effectively communicate the benefits of a digitalised NHS with the public while providing assurances for the security of their data
- Very little progress has been made in dealing with the proliferation legacy of IT systems in the NHS

¹ <https://www.gov.uk/government/publications/better-broader-safer-using-health-data-for-research-and-analysis>

- Increasing the use of US EPR²s (e.g. EPR vendors³ such as Cerner, Epic, Allscripts) may make NHS hospitals in England operationally more comparable to American ones, but it is not obvious that this would be a good thing. The US federal government has invested heavily in EPRs, but the US still ranks lowest in terms of healthcare outcomes compared to other developed nations⁴.
- Requiring agile procurement⁵ of all digital technologies and implementation of technology standards can help the government foster cooperation between the NHS and the private sector for the improvement of healthcare services. For example, by introducing interoperable and standardised information models⁶ and terminology such as FHIR and SNOMED CT.
- Ensuring there is a rigorous process for validating that symptom checkers are fit for purpose before being added to the NHS app is strongly recommended
- While there are some good regional records, for example in Hants and the Isle of Wight, aggregation is still very hard to navigate due to a lack of proper interoperability
- ‘What progress has been made on making data captured for care available for clinical research through digital transformation?’ It is not clear what this question is aiming to explore, since there is already extensive data gathered through current medical research programmes. However, if the question is asking whether gathering and sharing of data is being enabled through digital transformation then it is still the case⁷ that ‘managing complex interactions and data flows between trusts, systems and individuals too often falls on patients’.
- ‘What should be the timescale for incorporating genomic data into patients’ medical records?’ asks the wrong question. Instead, it ought to ask: ‘as the owner of this data, how can the citizen access it, what is the potential value and risks, and what are citizens concerned about?’ There’s a need for wide citizen consultation and education before thinking of a timescale.
- To minimise the chances of digital inequalities being embedded into or exacerbated in the digitalised healthcare system, all significant digital health projects need to be measured against a criterion designed to prevent such occurrences
- A connected system of computable knowledge and decision support needs to be developed to reduce clinical burden and enhance safety. The infrastructure required for developing such decision-support – translation of knowledge into computable formats – also opens the door to a further major development; that is, once computers can process healthcare knowledge and connect it to patient data, a truly learning healthcare system becomes possible

² Electronic Patient Records

³ <https://www.digitalmarketplace.service.gov.uk/g-cloud/services/415771948647468>

⁴ <https://www.commonwealthfund.org/publications/fund-reports/2021/aug/mirror-mirror-2021-reflecting-poorly>

⁵ <https://www.gov.uk/service-manual/agile-delivery/agile-government-services-introduction>

⁶ <https://confluence.ihtsdotools.org/download/attachments/110342265/FHIR%20FactSheet-Web-Final.pdf?api=v2>

⁷ According to the HNS Long Term Plan <https://www.longtermplan.nhs.uk/online-version/chapter-5-digitally-enabled-care-will-go-mainstream-across-the-nhs/>

