



# Key design principles for digital hospitals

**INSIGHTS INTO THE DEVELOPMENT OF THE WORLD'S FIRST  
DIGITAL HOSPITAL STANDARD**

In late 2015, Standards Australia launched a new project to develop the world's first Digital Hospitals Handbook, with the purpose to create a set of principles and recommendations that inform the design and implementation of digital hospitals throughout Australia.

With the final stages of the handbook now near completion and set to be published in March 2017, the new standards will ensure health facilities of the future are designed with digital in mind and will enable innovative ways to provide healthcare services for both stakeholders and patients in the coming years.

Ahead of the **Digital Healthcare Summit** taking place at **Australian Healthcare Week 2017**, Dr. Bronwyn Evans, CEO at Standards Australia explores the underlying principles of what a 'digital hospital' actually is, the core elements of the new Digital Hospitals Handbook and the impact it will have for the design, construction and commissioning of healthcare facilities in the future.



# The vision behind the world's first digital hospital standard

“The idea behind the Digital Hospitals Standard is to address how technology can be used to deliver more efficient services to hospitals. The aim of the project is to create a set of principles and recommendations for what a digital hospital is for stakeholders who are undertaking the design and implementation of a health facility project.

The handbook sets out to ensure project teams can align the benefits of taking a digital hospital approach with the design, construction and commissioning of the facility. It aims to set out the principles and how they line up with implementing a new facility.”

## Recommendations informing the design and implementation of digital hospitals

“The Standards Committee used a case study from Australia’s first Digital Hospital at St Stephen’s Hervey Bay as the genesis of the project. St Stephen’s Hervey Bay is a new fully-digital integrated hospital launched by Uniting Care Health and it was the first in Australia to achieve Stage 6 certification.

Benchmarking against this case study has made our journey a lot easier. The committee that is working on the handbook is a representative body across the various lifecycles within hospitals – including consumer associations, Government and scientific and academic institutions. It also includes groups like the Department of Health, Nursing and Midwifery Associations, the Information Industry Association, Engineers Australia, Health Informatics and more.



Each of these groups reviewed the St Stephen's Hervey Bay case study and then built their own perspectives of that case study as a set of recommendations to include in the standard.”

## Applying technology effectively to the delivery of healthcare

“The most important thing to remember when it comes to the different delivery mechanisms is to ensure you are considering the people in the system – the users, the health providers and the support staff.

It is also important to have a good governance framework. There needs to be clear ownership and understanding of decision making, information flows and a clear process when engaging with all people involved. It is essential to have good project management, people, governance, engagement and process.

Some of these areas are going to be new, so it is also important to recognise these new environments need development around information, technology and up-skilling staff. It's important to bring all of these elements together in a clear plan in what will be a complex and challenging environment. It is about looking at all the different elements that make up the overall healthcare system.”



# Steps to develop models of care that compliment the design of digital hospitals

“When it comes to models of care, it is important to have a systematic approach to things. This involves engagement and configuration strategies, as well as looking at all of your users and understanding the challenges they might face when using the new model or new technology. Understand the people you need to engage – their requirements and their constraints.

Another key element is a rigorous testing regime. Healthcare projects are some of the highest profile projects and they can't afford to be disrupted once they go live – especially when it comes to risks or errors which might affect patient safety.

When it comes to designing a model of care for a digital hospital, change management is really important. Investigate typical environments people are working in and what is going to be different. Your change management program and training should address those differences. If you're going to introduce new systems, make sure people know how to use them and who they can escalate issues to if they have any questions or doubts.

Also, when you go live, you need to be ready. Undertake an independent review to ensure you're ready. It's the engagement, the testing, the change management, the training and ensuring you are equipped to go live that are the core elements of rolling out a digital hospital.

While designing a digital hospital is a very exciting concept, it is a new one. So it is important that people understand what it means. Learn from existing groups and current research.



Another key element is having executive sponsorship for the overall program. Whether it is the Department of Health or Management, make sure that the project is understood and owned at the most senior parts of the organisation, then there is a really good chance of a successful outcome.”

## The role of data and analytics in the development of digital hospitals

“One of the biggest benefits of digital hospitals is the information gathered about so many different parts of the operation of the building, the equipment and your patients. It is important to ensure you have the systems, people and mechanisms in place to use the data. It is also important to have a series of questions you want answered from the data so you can pull the intelligence out – and be prepared to be surprised by some of the answers you might get.

Big data and analytics is something being discussed in a wide range of sectors, so it is important to partner with key groups who understand how to take advantage of that large volume of data. But be willing to learn along the way.

If you have engagement with all the different stakeholders right from the start, they can also help you utilise the data. Data and analytics provides an exciting opportunity to look for potential correlations that could assist healthcare professionals in the future to provide better care.”





# DIGITAL HEALTHCARE

## Interested in learning more?

Join Dr Bronwyn Evans at the **Digital Healthcare Summit** taking place at **Australian Healthcare Week 2017** where she will further explore:

- The development of a set of principles and recommendations that inform the design and implementation of digital hospitals
- The value of applying technology to the delivery of healthcare – benefits/realisation framework
- Governance and the role of vendors in the early development stage
- Creating a standardised model of care that can guide the design and development of digital hospital
- Technology implementation and future proofing design

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