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Connected Health: People, Technology and Processes
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Healthcare is also going through an evolution where due to increasing computerisation. From my research into technology in healthcare, I am watching this evolution. I see it happening within hospitals and in the community. I see technology being used by people who are well and those who are ill. Over the past decade, my research has included various aspects of software quality, software in Medical Device companies and software in healthcare.

Through my research projects, I recognise that Health professionals are making increasing use of technology to monitor, diagnose, prescribe, maintain patient records, and generally enhance their healthcare practice. This use of technology within healthcare is now commonly known as Connected Health (see Figure 1) which I define as:

***Connected Health** is where patient-centred care results from process-driven health care delivery undertaken by healthcare professionals, patients and/or carers who are supported by the use of technology (software and/or hardware).*

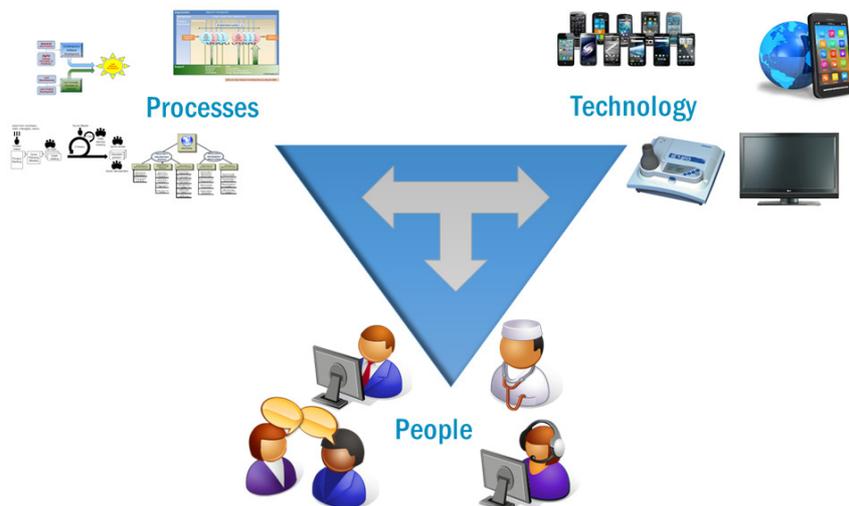


Figure 1: Connected Health Components: People, Processes, Technology

Within the medical domain, the patient will continue to be the most important. It is required that the healthcare pathway results in quality outcomes for the patient, and to do this, *patient-centred care* must be provided. Healthcare pathways propose the process for the efficient delivery of care to the patient. In some cases, sections of the traditional pathway will continue to be followed. For example, a surgeon will continue to carry out operations. In other cases, sections of the traditional pathway will be replaced by a connected health solution. The combination of the traditional with the technological pathway requires *process-driven health care delivery*, so that each person within the pathway understands the

role of people and the role of technology within that pathway. Following the healthcare pathway can be carried out by one or all of the groupings - *healthcare professionals, patients and/or carers*. There may be a connected health system where the healthcare professional is required, such as when medicine needs to be prescribed. There are others, where that professional input is not required, as their knowledge has been included in a decision support system. An example of this would be when a patient monitors physiological symptoms, the decision support system can automatically track inputs, and highlight deviations directly to the patient. Once this has been highlighted, the patient can then make a decision to involve the healthcare professional if they so wish. For this healthcare to be 'connected', it must be supported by *technology*. This includes software and /or hardware. Using technology is what allows significant changes to be made to the healthcare pathway.

For Connected Health to be implemented successfully and efficiently, each of these three components must work together. Therefore, it is incumbent on healthcare professionals, patients, carers (formal and informal), and technologists to develop solutions together. And for solutions to work, processes have to be defined. Connected Health solutions have the ability to improve care for the patient – but to do this, all components need to be included.