The If's, the But's, the Hope and the Hype... Is the PCEHR implementation practical, ambitious or unrealistic?

Part 2

In Part 1 we established what a medical record is, how it was created and managed within a holistic clinical process and how it pertains to the PCEHR and the PCEHR system that the Federal government is intending to implement around July 2012.

The focus of Part 2 will be what are the advantages, disadvantages, issues and impediments associated with the implementation of this ambitious PCEHR project?

This will also relate to the reader issues that are very likely to have a significant impact on whether this PCEHR implementation will be successful or not-whether in the government time frame for implementation of as a patient care entity.

There will be the good the bad and the ugly interactions as the PCEHR project moves forward with a strong potential for cross party political animosities that are very likely to set back e-Health developments in Australia for decades.

From a political will perspective the existing attitudes are reflected in the statement, this is apparent through the comments of a Federal politician;

"What we are trying to do (in health) has nothing to do with patient care. It is all about the money and getting re-elected."

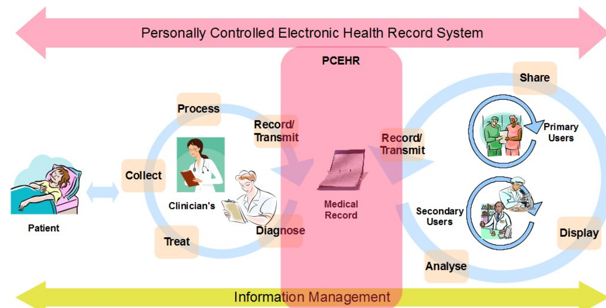
This one-eyed view makes me think what will become of the billions of dollars already invested in e-Health? We need to set in stone the advantages of the current e-Health plan so that they are unable to be dismantled by political whims.

Let's get the ground work laid here. What is not in dispute is that the PCEHR project as a concept can be considered an "ideal" to be achieved for the betterment of patient care in Australia, but can it realistically be done by July 2012?

Or is it just false hope, the big hype or the road to hell as discussed in the *InformaticsInsider* May 2010, No.1 (http://austemrs.com.au/files/informaticsinsider_may_2010_no_1.pdf)

Recalling Figure 2 from Part 1 of my dissertations on the PCEHR, lets us consider aspects of the "information management" in the use of the PCEHR in the current health scene that demonstrates how difficult a process this is.

Figure 2 - The PCEHR and the PCEHR System



To have effective "*information management that supports clinical decision making*" individuals need the correct and adequate data collection in standardised formats that can be distributed across the health system(s) in a timely manner and can be understood by those who use it. These are clinicians such as nurses, doctors, pharmacists, allied health, emergency services and patients.

What is needed within this PCEHR project are individuals who know how to effectively interact with and integrate the relevant health integration technologies that allow for necessary decision support tools to be delivered in real time to the clinical decision makers.

The *InformaticsInsider* has intentionally made the clinical processes that create the medical record/ PCEHR in Figure 2 above look relatively simple, however this is not implying

that these clinical processes are anything but simple!

These clinical processes in real life are very complex, and the failure to adequately address the myriad of factors inherent in the complex processes of health care has lead to the wasting of billions of dollars around the world in implementing e-Health. These international failures create significant resistance in the introduction of health integration technologies in the clinical workplace from an end-user perspective, aka the clinician, therefore ultimately affecting the outcome of patient care.

This brings us full circle to the importance of understanding the implicit link between clinical decision making and information management within the clinical process.

This raises the reality that Australia is very likely to waste billions on health integration technology projects as the complexity of the clinical process, its information management needs and impact on the quality of patient care is being ignored or not being taken into account.

Having said all that, lets consider the issues that are very likely to have a significant impact on whether this PCEHR implementation will be successful or not. If the PCEHR implementers want to have a set of successful clinical outcomes then they need to seriously consider the following historical issues.

- **Issue 1:** The patient is the "source" of the data and information necessary for their care.
- **Issue 2:** This data and information is "extracted" by the clinician in the direct patient encounter.
- **Issue 3:** The "integration" of all these data inputs is then attempted by the clinician in the Clinical Decision Making processes.

Looking at Issue 1 there is adequate evidence that the historical formats for history taking are unable to meet the needs of modern medical care and a major rethink of this essential activity needs to occur.

Looking at Issue 2, evidence confirms that clinicians can do this appropriately and inappropriately. Not extracting adequate data and information and extracting too much information to get the diagnosis. A phenomenon described in the New England Journal of Medicine as "*the diagnosis of uncertainty*". The more tests we order the further we get away from the diagnosis and accounts for one of the major dysfunctional processes in health care delivery called "*variation in care*". This process has been well documented by Donald Berwick and Brent James.

Looking at Issue 3, the integration of patient care data requires systems that can communicate (interoperability) and share data that is decipherable and readable by all integrated systems (standardisation).

Currently in Australia this level of uniformity does not exist and almost guarantees the failure the share data and information between the patient and their provider(s). This discussion raises the importance of standardisation of patient data throughout the clinical process.

This poses the question, what does standardisation have to do with patient care and the PCEHR?

Standardisation is necessary if patient data is to be exchanged between different health care professionals. It also allows patients to travel or move from one region or country with adequate record access and enables clinicians to adapt their e-health records for their own requirements. Therefore the aim of this standardisation effort is not to specify the e-health record systems as such but to bring structure to the data stored in such records

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that is relevant to the given health care location.

The most important message out of this is;

"*if the clinicians cannot get it right then how do we expect the patients to get it right (in a PCEHR)*?"

In closure, here are some other startling facts that are likely to be major impediments to the success of the Australian PCEHR system implementation.

- **Fact 1:** The use and adoption of e-Health systems by physicians in Australia is low as documented by Miles Osborne and others in 2009 and this reflects overseas experiences.
- **Fact 2:** With clinicians being the primary collectors and integrators of patient care information we have an enormous hurdle to jump to achieve any successful communication between patients and clinicians. Leape in 2005 noted that the '*culture of medicine*' amongst physicians is one of the greatest impediments to effective change that will reduce harm in health care.
- **Fact 3:** Knowing that clinicians have enormous troubles getting "*their act together*" how are patients responding?
- **Fact 4:** A recent report in the USA revealed that of USA citizens who have access to the Internet some 80% get their health information from the Internet and of these 60% share this information with another citizen who is not a doctor! At that time only 15% of USA-based doctors access their health information from the Internet!

Now we can see that there advantages, disadvantages and impediments associated with the implementation of this ambitious PCEHR project.

So the message from the *InformaticsInsider* relating to the PCEHR in Australia reflects a appropriate quote by Dr. Mark Smith, CEO of the non-profit Californian Health Care Foundation (CHCF).

" Are we living in Hope, relying on the Hype or are we on another Road to Hell?"

The *InformaticsInsider* is written by a well respected Clinical Associate Professor, Physician and past President of ACHI who has over 30 years international and national experience in Health Informatics

If you wish to provide commentary on the above article, drop an email to the *InformaticsInsider* at InformaticsInsider@austemrs.com.au

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