



# EDITORIAL

- TOM R. CLOSSON, GUEST EDITOR -

## Striking the Balance: Provincial versus Regional EHRs Do we have it right?

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A basic prerequisite for the success of any system is end-user adoption. Moreover, end-user adoption is not a sure thing! We all can recount numerous hospital or regional electronic health record (EHR) projects that have stalled or failed due to limited physician adoption.

Canada Health Infoway has as its mission “to foster and accelerate the development and adoption of electronic health information systems with compatible standards and communication technologies on a pan-Canadian basis...” I am certain that we all agree that this is a worthy goal but how do we get there? How do we achieve end-user adoption and balance that with the desire for compatible standards and possibly even provincial or national application systems?

This is not just a Canada Health Infoway question. The same question plays out in the planning for the implementation of electronic health records in every province. I question whether the current balance is appropriate in some provinces. I suggest that we will increase the likelihood of adoption if we place greater emphasis on regional rather than provincial or national EHRs particularly in provinces with large populations. Most people get almost all of their care within their local region so that patients and providers realize the majority of benefits through patient information sharing at the regional level. Standards are important to ensure compatibility beyond the region but let's make sure that the desire for standardization does not stifle local adoption.

Information systems often fail. The Standish Group report (1999) from the United States tells us that organizations cancel nearly one-third of IT projects. My experience suggests that big systems projects that cover many users in many settings are the most likely to fail. That is because we standardize them to the point where they are not useful to the people who work at the local level. All data input is local and it is very difficult to get the end-users to input the data if the system does not achieve sufficient benefits versus costs for them personally.

Adoption can only happen locally: not provincially and not nationally! Another U.S. based study (The Importance of Leadership in the Clinical Information System Implementation Process-2001), found that the two factors that are consistently associated with successful implementations are clinician involvement and top management support. Both of these factors are difficult to achieve when implementing provincial systems where standardization is the norm rather than designing to meet local needs. Local and regional solutions develop around “communities of interest”. This in itself makes them more likely to achieve a higher rate of adoption.

My advice is for the provinces and Canada Health Infoway to rebalance their IT investments towards the regions particularly in provinces with large populations. Historically, governments in many provinces have been reluctant to invest directly in local hospital or regional health authority information systems. This was primarily because they didn't want other provider organizations to expect to receive these same investments. It was also because the province saw its role as developing provincial systems to be used by all. However, in many cases the uptake by front line clinicians for these provincial systems has been less than ideal.

To be more specific, I believe that we should only standardize the following at the provincial level:

- Data standards
- Registries (patients and providers)
- Basic security policies and technologies
- WANs
- Data centres
- Hardware - at least back end
- Some applications that are straightforward like PACS
- A thin EHR
- Messaging and querying standards
- Integration layer provisioning
- Secure messaging

We should fund and develop regionally those items that require clinician involvement and local top management support. These include:

- Specific applications
- Repositories of information
- Project management
- Change management
- Desktop/portal selection and management

We will increase the likelihood of adoption if we place greater emphasis on regional rather than provincial or national EHRs.

