

# Designing RHIO's that Work: Five Pillars for Broad Provider Adoption

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July 2005

## **Audience:**

This paper is designed for both technical and non-technical readers interested in building or participating in RHIOs and “connecting healthcare communities” initiatives.

## **Overview:**

This paper discusses a number of reasons why RHIOs and connecting healthcare community initiatives rarely have a dramatic effect on their communities. It suggests that the acid test for RHIO success is massive provider adoption. It encourages RHIO builders to think in terms of automating work flows rather than data interchange. Readers are challenged to make their initiatives more practical and inclusive by incorporating existing electronic paper-based data exchange methods.



Empowering Online Communities

## Introduction

Improving the communication processes surrounding patient healthcare information exchange has become an issue of increasing local and national importance. A provider's ability to manage and structure its communications dramatically affects the quality of care, audit-ability, and associated administrative costs. Many well-sited studies have confirmed some disturbing facts. It is estimate that twenty-five to eighty-thousand deaths occur each year because timely access to a patient's medical record was not available. Former House Speaker and CEO of the Center for Healthcare Transformation, Newt Gingrich, puts it bluntly, "Paper kills and it is immoral for us to continue to use it." While Secretary of the Department of Health and Human Services, Tommy Thompson was quoted as saying that the healthcare industry could save as much as \$140 billion per year simply by utilizing more technology to manage its communication exchanges. Inefficient communications currently transacted via mail and fax machine affect the timeliness of care, revenue cycle, denials, and quality of chart information.

Due to these inefficiencies there has been an explosion in the number of RHIOs and other 'Connecting Healthcare Communities.' They can be based on a grant, healthcare association, consortium, not-for-profit, or even vendor created. Almost every state has some kind of healthcare communications initiative underway. RHIO's goals include:

- Increase access to patient medical records
- Aggregate patient data to improve quality of care
- Ease day-to-day communication inefficiencies
- Lower administrative costs
- Promote the use of technology especially electronic medical records

No one would disagree that there is an incredible amount of energy, time, and money being spent to build RHIOs and connecting healthcare community projects today. What is debatable is whether the current approach to RHIO building is creating long term, sustainable success.

## RHIO Track Records

If you talk to anyone associated with an RHIO you will most likely hear frustration. Many such organizations meet for years before they begin even a small demonstration project. There are many challenges in an effort which involves the participation of many stake holders, technologies, and standards. Even the RHIOs that are considered a big success are often only 'demonstration projects' connecting a few of the more technologically sophisticated providers in a geography.

When evaluating how successful a RHIO is we must ask ourselves the question, "Has this effort dramatically changed the way a healthcare community works." One RHIO success story touted that after spending hundreds of thousands of dollars over several years it had created the ability for four larger physician practices, (all with the same EMR), and the local hospital to share some patient data electronically. After looking more closely at the community, one will notice that there are over three-hundred physician practices, several smaller hospitals, hundreds of skilled nursing facilities, home healthcare agencies, pharmacies, and other stake holders. There is no doubt that this RHIO, in comparison to others that never generate a deliverable, was a success. But did the community at large benefit? Over ninety percent of the providers in the community do not have an EMR and have no path or plan to participate in the RHIO.

## The Massive Provider Adoption Test

Massive provider adoption could be considered the ultimate test for measuring RHIO success. Regardless of the technological advances or benefit it brings to a few participants, an argument could be made that if the RHIO efforts do not lead to massive provider adoption then it has been reduced to an academic exercise. What is the purpose of a “demonstration project” if not to demonstrate a way for everyone to successfully do something. If, after the demonstration project is complete, no one decides to adopt the model then it could be argued that the project successfully demonstrated a fundamentally wrong approach.

What is the 'end game' or ultimate goal in building online healthcare communities? Most would say the answer to this question is the complete structuring of all patient data based upon industry standards. This would allow electronic interchange of patient data and the indexing of that data for access and aggregation. If this were accomplished, it would satisfy the stated goals for almost every RHIO project. Without a plan for massive provider adoption this goal cannot be reached. Provider adoption of the demonstrated model could be the acid test when evaluating RHIO success. If we believe this then it behooves us to begin all RHIO projects first and foremost with a strong provider adoption strategy at the heart of our plan.

Unfortunately, almost all RHIO projects begin with a narrow focus on the limited data available that is currently electronic. RHIO meeting attendees most often have EDI and technical backgrounds. With this skill set as the 'hammer' every RHIO initiative begins to look like a electronic data 'nail.' RHIO committees often lack the marketing and PR expertise in the group to develop a strategy for driving massive provider adoption by all of the community stake holders including the majority paper-based ones. What would happen if we considered data interoperability as a by-product of our RHIO rather than the goal? How would this change the approach, methods, and track record? If we want different or improved results then we must apply different ways of thinking about RHIO's and connecting healthcare communities projects.

## Designing RHIO's that Work: Pillar One *Inclusiveness*

Healthcare communities are composed of both large and small providers, electronic and paper-based data, those with IT support personnel and those without. If an RHIO is to ever break out of the 'demonstration project' box, it must be *inclusive*. If it's a 'community project' then it needs to involve the whole community or at least be structured so that everyone in the community can participate if they elect.

If the vast majority of providers in the community are unable to participate in the RHIO then they will take no ownership. RHIOs often become proprietary interoperability for the most wealthy facilities and leave the majority of the providers and patients out. Healthcare communities will not embrace a RHIO demonstration project as their community healthcare communication platform unless they are included in the initial design and see near and long term benefits.

## **Designing RHIO's that Work: Pillar Two**

### ***Incorporate Paper-Based Data***

To ensure wide provider adoption, it's imperative that RHIO's incorporate paper-based transactions as the first deliverable. Over ninety percent of healthcare transactions today are paper-based and conducted via phone, fax, and postal mail. It's hard to solve a problem while ignoring ninety percent of the issue. This thinking will artificially limit our project scope and potential. In order to build inclusive healthcare communities, RHIO's must accommodate current communication methods of providers and other stakeholders.

Unfortunately, almost all RHIO projects begin with a narrow focus on electronic data. Rather, RHIO builders must ask: How can we drive massive provider adoption? This narrow focus may be the result of vendor-driven objectives that wish to ensure the inclusion of their clinical systems within the RHIO. This often leads to a RHIO focused on data exchange between providers who use the clinical systems being represented. RHIO success ultimately depends more on massive provider adoption than on proprietary vendor interoperability.

Because most providers are still using paper files and fax machines, even the participating RHIO providers with electronic data systems will still find themselves dealing most often with paper-based communication. For example, the hospital mentioned previously in the 'successful' RHIO project was able to receive some chart information electronically from the participating practices. Unfortunately, the majority of its three-hundred outpatient orders received each day still arrived as paper-based data (faxes). Excluding paper-based transactions in a RHIO model precludes most providers ability to participate. Without provider participation in the RHIO, the hospital is forced to maintain both the new and old work flows. This either/or thinking about data no longer needs to be the model. Advancements in browser-based applications, virtual print drivers, and dynamic form generators are helping to bridge the gap between electronic and paper-based transactions.

Ignoring paper-based data leads to failure because it begins with the intended result rather than where providers are today. What is needed is an approach that incorporates a migration strategy for the masses; a technology and methodology that begins with current communication methods and successfully moves them to pure structured data exchange.

## **Designing RHIO's that Work: Pillar Three**

### ***Create Immediate Practical Value***

If the secret to lasting and meaningful RHIO success is massive provider adoption then RHIO strategies must be built around creating short and long term practical value for everyone. Providers work on very thin margins and often do not have the resources or the time to make long term investments. RHIO's must demonstrate how participation in the online community reduces operational costs and enhances revenue cycle performance, while expediting the exchange of information throughout the entire care delivery process.

The healthcare industry is unique in that providers are very interdependent on one another. Many common work flows require multiple communications with multiple entities. It is rare that anyone can simply do their job independently. For example, before an admissions representative can proceed with admitting, they must first communicate with the payor for authorization. Herein lies the problem and opportunity for RHIO builders. Healthcare workers find great value in expedited communication flow rather

then the type of communication transport.

Healthcare employees find it difficult to manage information requests and to match replies with the original requester. This is made more difficult when one realizes that there are many commonly used communication transports for these requests such as phone, mail, fax, EDI, and proprietary web portals. Most healthcare workers are eager for and would support any community effort that brings accountability in tracking information requests and responses. If an RHIO project creates a single interface that integrates traditional communication transports there will be immediate and practical value to drive the ultimate goal of massive provider adoption.

## **Designing RHIO's that Work: Pillar Four**

### ***Focus on Workflow***

One of the physician practices participating in the successful RHIO example mentioned previously was pleased to see electronic data coming in from one of its communication partners. However, after a few weeks, staff confirmed that over ninety percent of their transactions, (referrals, medical records requests, claims attachments, orders, etc.), were still coming in via fax and mail. This occurred because the majority of their communication partners were still paper-based. In fact, the RHIO project had made their staff less efficient because now they were managing two work flows: one for paper-based communication partners and one for electronic communication partners. This is not a scalable model for providers. Massive provider adoption can only be obtained when RHIO initiatives are focused on creating a single workflow for all communication types.

RHIO builders must realize that access to data is not work flow. Just because one can access part of a chart electronically from another RHIO participant does not necessarily mean that I have an improved work flow. Take a typical discharge planning work flow for example. There are several communications that must occur: a discharge form completed, a physician signature, a referral package created containing the paper documents, a payor authorization, etc. It is wonderful that part of the patient chart can be sent electronically to a fellow RHIO participant, but has this significantly improved the overall work flow and process? Will the critical length-of-stay metric be reduced as a result of this expensive IT interoperability project? Probably not. However, a community network connecting all of the communication partners touching this work flow and allowing the exchange of paper-based images could dramatically improve this process and reduce the length-of-stay metric.

The Internet is an excellent format for business partner collaboration, coordination, and document exchange. If RHIO projects begin by mapping out and analyzing workflows rather than the data exchange, we will begin the process of creating practical value. Ultimately, demonstrating practical value is the key to massive provider adoption; the acid test of RHIO success.

## **Designing RHIO's that Work: Pillar Five**

### ***RHIO succeeds FAX as Community Workflow Tool***

The fax machine today is the hub of most healthcare work flows forcing a costly, paper intensive environment. RHIO projects cannot drive massive provider adoption without first becoming the community work flow tool, and we cannot become the work flow tool until we take it away from the local fax machines. Fax machines remove just enough of the

pain related to paper-based environment to keep providers from making the move to Internet-based communications and ultimately to pure electronic data transactions. Because of this, no online community initiative can truly succeed without first successfully integrating the predominate fax-based work flows.

The majority of physicians today may not be ready to make the leap to electronic medical records. However, they are more likely to take the less invasive and less expensive intermediate step of managing their paper communications, documents, and work flows via the Internet. A simple browser-based technology that requires no special hardware, software, or IT support is within reach of even the smallest physician practices.

Until recently, fax servers were not practical for small providers who lacked IT support for this mission critical system. With the recent advances in virtual fax technology, any provider with basic Internet access can have all of the advantages of an on-site fax server by simply forwarding phone lines to a virtual fax imaging service. This technique allows providers to continue to run their business in the way that they are most comfortable while creating a network of connected healthcare providers. This approach creates a network for managing information requests and expedites the sharing of patient and other information using the Internet. This approach creates a truly paperless office for small providers while serving as the lowest common denominator between those with electronic systems and those that are paper-based.

Incorporating fax-back cover page technology and bar code routing allows providers to have a single paperless work flow for managing both online and fax-based information exchanges. This is critically important if we are going to create practical value for providers in the near term and a smooth migration to more electronic communications in the long term.

Once providers are using the Internet to manage information requests and transports, the RHIO infrastructure has been established. Add the ability to create and manage online forms and other data request and suddenly we are building a RHIO that:

1. Incorporates both electronic and electronicpaper-based data
2. Creates immediate practical value
3. Includes all stake holders regardless of their technical sophistication
4. Becomes the work flow for common community communications
5. Is the migration strategy to electronic data
6. Drives massive provider adoption

Although paper-based data cannot be aggregated, an index of all of the locations of a patient's medical record can be maintained. This is the first step to building a community-wide master patient index and the only index that can be built when the majority of the data is only available in paper format. As more and more providers adopt electronic medical records over time, the RHIO becomes increasingly more valuable for the exchange of electronic data, but the RHIO is not dependent on everyone having an EMR before the network can be built.

## **Conclusion**

Most RHIO builders begin with the reasoning, “If we establish standards and structure data then we can build an online healthcare community.” This is true but it is also a very long, difficult, and expensive path to success. When deciding which RHIO approach to use, the question will be , “Should we start by building a completely electronic data solution for the few or a less electronic solution for the masses?” Focusing on the latter will position your RHIO as an inclusive platform for connecting all of the community's stakeholders. It will lay the foundation necessary to build better electronic data solutions. This approach will create the immediate and practical value required to pass the one true test of RHIO success; massive provider adoption.

## **Additional Information**

For additional Information about this white paper and RHIO-enabling technologies contact:

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