



NOT SO ELUSIVE:

MedAllies Direct advances interoperability, allowing clinicians to share data across systems, across providers, across the country

Issue Brief

What we've had in health care delivery is a failure to share and play well with others.

An electronic health record system typically can send referrals and consults within an organization. To date, however, they have not been successful at playing well with others—sending those messages beyond their own domain and into disparate provider systems across care settings. It has almost become a cliché to call what seems so simple—interoperability of electronic health records—the Holy Grail of health IT: long sought, but never found.

Communication of health information among health care organizations, providers and patients—if it happens at all—has generally been accomplished through mail, fax or using the patient as courier.

Until now.

Thanks to MedAllies' Direct Project, there's a simple, secure, scalable, standards-based way for providers to send authenticated, encrypted health information directly to known, trusted recipients via the Internet—an approach that will work across diverse EHR vendors.

The solution has emerged from the national Direct Project, an effort spearheaded by the Office of the

National Coordinator for Health Information Technology (ONC). This open-source, volunteer-driven initiative involves organizations across the health care IT continuum. The objective: Build consensus for standards and specifications related to secure universal health messaging for potential inclusion in the Nationwide Health Information Network.

Earlier this year, as one of only seven sites nationwide, MedAllies launched a Direct Project pilot in the Hudson Valley of New York to demonstrate a prototype for the delivery of critical clinical information across care settings. Now MedAllies stands ready to implement the full infrastructure, including the required technological backbone and support.

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About the project

MedAllies' Direct demonstration pilot deployed to 16 specific providers at hospitals, primary care and specialty practice sites in the Hudson Valley community. Technical testing and exchanges have been completed with all participating vendors. It is now rolling out to some practice sites. As feedback is gathered from the participating providers, MedAllies and its integration partners will refine the offering and expand the network's footprint to additional practices and hospitals nationally as these vendors release their Direct-compliant service packs or upgrades in production versions. PHRs will be added during the next phase.

The implementation process involved two tracks: a technical track focused on harmonizing the implementation of Direct messages and a common payload (coordinated through the technical track), and a clinical track focused on leveraging existing inpatient and ambulatory EHR workflows to incorporate Direct transactions in real-time clinical workflows. The tracks worked side-by-side and coordinated information to deploy a solution that was not only technically viable, but also included extensive clinical participation and insight for provider adoption and utilization.

Grasping that Grail

Direct represents a noteworthy breakthrough; it moves health IT one step closer to that once-elusive interoperability and helps physicians and hospitals meet federal Meaningful Use requirements.

The MedAllies connectivity model truly plays well with others—it crosses all provider types and locations, from small practices to integrated delivery networks. By connecting providers who have installed certified EHR systems nationwide, MedAllies can address real-world health care gaps—specifically, the lack of care coordination across care transitions. And it can do so in a way that is consistent with existing clinical workflows.

This approach leverages the government's investment in EHR adoption and Meaningful Use while resolving the

infrastructure needed to connect those systems, explains Leroy "Lee" Jones, MedAllies' CIO.

Today, it's being deployed in New York's Hudson Valley. MedAllies believes this approach and architecture can be expanded nationally within a year.

Timely transformation

Over the years, providers—especially those in the Hudson Valley, where EHR use is well above average—have grown more technologically sophisticated. But with increased physician adoption and use of EHRs has come a heightened need for interoperability. To ensure smooth transitions of care, primary care providers, specialists and hospitals want to receive pertinent clinical information on patients referred by other providers.

For Jones, one of the original members of the ONC team, interoperability has been a long time coming. In his many years in information technology and particularly health IT, he's seen quite a few efforts in that direction. What excites *him* about the Direct Project are two things that have, heretofore, been difficult to achieve. One, of course, is interoperability.

The other is consensus.

"The ONC's process brought consensus to the vendor community rapidly. After struggling with interoperability standards for the last few years, they were able to move the ball forward in this latest effort," Jones said. "It's an important advance, not because it's a new technological breakthrough; in fact, the whole idea was to use something that was commonly used in other scenarios. The breakthrough was the consensus that was backed up with implementation."

ONC has sponsored efforts to reconcile standards and develop specifications for five years, he said. "They had lots of heads nodding." But this time was different, because the Direct Project went beyond garnering consensus. "Our goal is not to get you to agree; it's to implement the agreement."

MedAllies, in the role of health information services provider without a vendor bias, helped cement that vendor consensus, and proved its worth through implementation.

MedAllies—vendor and clinician workflow ally

Direct has the potential to facilitate seamless interoperability, and exchange of data, across all vendors. MedAllies actively advanced this vision. Rather than wait for vendors to initiate the process, MedAllies reached out to them, engaging them in the vision. “It’s exciting because vendors are saying ‘yes,’” Jones said.

“MedAllies is very aligned with the interests of the EHR vendors,” he said. “The vendors had already invested money over the years in trying to move down a particular interoperability path.”

Direct *could* have undermined that—and, in fact, there was a push among some participants from regions outside the Hudson Valley to move toward e-mail-based protocols rather than EHR-based ones. But MedAllies recognized the wisest approach was to continue on the path physicians and EHR vendors were already following.

E-mail is fine, Jones explained—and MedAllies Direct will support SMTP-based transactions—but Meaningful Use addresses EHRs. “EHRs have the eyeballs of doctors. Doesn’t it make sense to make this a solution they can conform to?”

Jones and his MedAllies colleagues certainly thought so, and they made that clear to their collaborators in Washington. “We went to bat for EHR vendors to make sure the Direct protocols included what they could use,” he said. “We were really the most vocal champions of the use of established protocols for interoperability.”

As a result, the Direct XDR and XDM are in line with an approach the greater EHR vendor community has been working toward over the last four years—one it has already embraced.

“We tried very hard to preserve the existing EHR workflows because the vendors designed their tools to behave in particular ways, and the clinician users selected those tools in part because of those workflows,” he said. “This way, our transmission of documents would be a natural extension of activities already being performed. We also utilized this approach because it involved direct push of information from a sender to a specific, designated recipient. That

resolves a lot of the privacy challenges typically found in electronic data exchange, and also mirrors information exchanges that currently happen out of band through fax and other means.”

Simply put, MedAllies’ approach met EHR vendors at their current capability, resulting in a very short timeline to implement Direct. All vendors, including small ambulatory practice systems, were able to exchange information in a matter of only a few months.

Not only has that resulted in a more effective protocol, but it has allowed vendors to see MedAllies as a true ally in the quest for interoperability.

“MedAllies’ perspective has been very EHR-centric,” he noted. “Physicians, like vendors, have invested considerable time in these tools.” To suddenly introduce totally different standards would, Jones said, be a step backward. (This focus on physicians should come as no surprise: The other members of MedAllies’ leadership team are both physicians: Chief Executive Officer A. John Blair III, MD, and Chief Medical Officer Holly Miller, MD, MBA, FHIMSS.)

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Making it easy

Because Direct Project uses open-source code, vendors don’t have to build everything from scratch. They simply need to download the appropriate modules (in either Java or .Net format). “A lot of the work has already been done. It’s relatively straightforward and vendors can add Direct capability without lots of effort.”

The open-source approach helped foster collaboration among competitors, and drives innovation. MedAllies’ EHR

vendors—both in-patient and ambulatory (particularly small-practice EHR vendors)—were quite capable of readily developing this.

The same is true for providers: In the MedAllies scenario, providers only need their vendor to turn the switch on that capability—they can use the tools they already have. It's like buying a telephone and plugging it into the jack. That technical simplicity contrasts with having to join a RHIO or have the vendor implement a local proprietary protocol.

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Championing coordinated care

With consensus on the protocols reached, the effort went local, and each of the seven pilot sites took the technology in its own direction. MedAllies focused on care coordination and health system transformation in the Hudson Valley.

That focus falls in line with what is happening with other quality improvement initiatives such as accountable care and advanced primary care development, as well as the patient-centered medical home. Each recognizes that multiple providers are involved in the care of a patient. As realized by MedAllies, Direct is a tool to advance primary care models which emphasize care coordination and improved care transitions.

It's a mission MedAllies, in collaboration with Taconic IPA and THINC, has been working toward for a decade. These three organizations are part of the Hudson Valley Initiative, an effort to transform the health care system, first locally and eventually nationwide. They seek to revolutionize health care delivery through a shared vision to improve the quality, safety and efficiency of health care in the community.

The Hudson Valley experience with the patient-centered medical home (more than 300 Hudson Valley primary care providers have been recognized by NCQA as Level 3 medical homes) demonstrates the Hudson Valley's commitment

to coordinated, accessible models of care—and its commitment to leverage health IT in support of these goals.

Patient focused, provider driven

The Hudson Valley Initiative's focus on coordination and transitions comes at a crucial time.

The lack of coordinated care is one of health care's most pressing problems. Of particular concern are the gaps in patient transitions across care environments. They are often a result of failures to share information. One cause is the lack of an appropriately secure flow of critical clinical information; this has a negative impact on patient safety, care quality and cost. The MedAllies Direct Project seeks to bridge the gap in care coordination by providing connectivity between providers on disparate EHR systems.

"The good thing about Direct is that it is payload agnostic. It doesn't care what you send," Jones said. Labs, quality measures, clinical summaries—they can all be sent by the

Beyond HIE, beyond geography

Direct, in many respects, resembles a health information exchange. But it is not one. The fundamental difference from HIEs is that HIEs have largely been premised on an agreement of some group, in a particular geography, that wants to exchange information, Jones explained.

Direct is different than most HIE projects. It is a national service not dependent on a community organizer to recruit and orchestrate exchange among clinicians. It is more like a feature that can be turned on within one's EHR to enable specific exchanges with others. "We believe this is much more efficient and useful to doctors; they can control their electronic communications themselves without wading into the complexities of community exchanges."

This is a much different approach than traditional HIE. It is far less complex and expensive. Also, it serves a different purpose. HIEs continue to serve as a community record for look-up for a patient in an emergency room. But, Jones added, the notion of what an HIE represents is starting to transform, incorporating elements such as Direct.

Direct protocols. “Any two entities can agree *what* moves. What we’re focused on is *how* to move.”

MedAllies’ Direct had clearly defined aims: integrating the clinical workflows of a provider’s EHR and preserving the practice-specific roles and responsibilities of the end users at each provider organization, providing the ability to send and receive messages for transitions of care. Consequently, user training was minimal; providers already were trained on their EHR systems, and the introduction of Direct messaging did not alter provider end-user roles and responsibilities.

With each release, the EHR vendor systems will continue to enhance their functionality around Direct messaging capabilities. For example, the next phase will include a personal health record component. Enhancements will be included in future vendor product releases and providers can be trained as needed. Jones anticipates minimal training will be required.

“It is now possible to achieve EHR-to-EHR transmission of clinical documents for care coordination purposes in a manner that is natural to their current workflow, and results in more efficient doctor-to-doctor communication about patient care,” Jones said. “Because MedAllies has secured such a broad swath of participating EHR vendors, the ability to have ubiquitous care coordination using the MedAllies Direct service will enable the entire community to benefit without everyone having to buy identical EHR products.”

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That’s an important element of all this: It’s not the EHR vendor telling providers what to send. It’s not the government. It’s not MedAllies. It is the providers themselves who choose what data is shared, and with whom.

EHR vendors “need to understand that this approach, in all likelihood, will be part of [EHR Meaningful Use] certification. It behooves them to pay attention to this and make a plan to incorporate Direct protocols.”

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Perhaps most important, the providers don’t have to think about the technology. Their focus remains the clinical issues. “Providers don’t care what protocol is used for transporting data. They just want to know whatever tools they buy will support it,” Jones said.

No time to waste

Jones has a message for vendors who are still on the sidelines. “They need to understand that this approach, in all likelihood, will be part of [EHR Meaningful Use] certification. It behooves them to pay attention to this and make a plan to incorporate Direct protocols.”

Vendors don’t have to reinvent the wheel—much has already been done in terms of the open-source code that’s currently available.

It’s also good business. “The whole purpose of Direct is interoperability. The questions are: Who, as a vendor, would you be interoperable with? Who does your client want to be interoperable with?”

The likely answer to both, he said, is other providers with technology that is different from yours. “Find an HISP that has a broad representation of the technology you would be asked to exchange with,” he said.

“That’s where MedAllies shines: The doctors have EHRs. They don’t all want to buy the same ones. We’ll go get them all. If you want to communicate with the leading EHR systems, you should plug into the MedAllies HISP.” ■



A. John Blair III, MD

Blair is president of Taconic IPA (TIPA), a nearly 4,000-member physician group at the forefront of transforming health care delivery in the Hudson Valley through meaningful use of health IT and pay-for-performance incentives. TIPA’s mission is to optimize the value of medical services through patient-centered care while maximizing physician satisfaction. Blair also serves as CEO of MedAllies, which facilitates physician adoption of health IT for care coordination, patient-provider communication, public health and quality reporting. MedAllies built and operates the Hudson Valley Community Health Integration Platform (CHIP), which operates under the direction of Taconic Health Information Network and Community (THINC). On the national scene, Blair is a key thought leader for health IT and care transformation. He serves on the Privacy and Security Workgroup and the NHIN Workgroup of the Policy Committee of the Office of the National Coordinator. He is a member of the National Committee on Quality Assurance (NCQA) Committee on Performance Measurement, and serves on the Health Information Technology Advisory Committee (HITAC) for the National Quality Forum.



Holly Miller, MD, MBA, FHIMMS

As chief medical officer for MedAllies, Miller optimizes MedAllies’ strategic implementations of certified EHR systems to improve patient quality and outcomes and enhance care coordination. The implementations are designed not only to meet the efficiency needs of time-pressed physicians, but also to fulfill government requirements for meaningful use of EHR systems. She is the MedAllies physician liaison for all implementation projects and works closely with the team to design a change management program ensuring optimal utilization of the EHR tools within different practice environments. Miller develops organizational structure and strategic vision, approves and oversees staffing to implement all aspects of MedAllies’ consumer initiatives. Miller is a frequent presenter at national meetings on health IT and personal health records, and serves as vice chair on the HIMSS board of directors. She is the lead author on a book about PHRs, *Personal Health Records, The Essential Missing Element in 21st Century Health Care*, published in 2009.



Leroy "Lee" Jones

Jones is chief information officer for MedAllies. He also provides thought leadership to the New York eHealth Collaborative, the statewide initiative to enable widespread secure health information exchange. Jones is involved on the national level in a number of broader health information exchange industry initiatives. He serves as the program manager on behalf of the American National Standards Institute (ANSI) to manage the Health Information Technology Standards Panel (HITSP), a national initiative to harmonize health care technical standards to enable interoperability among disparate health IT systems across the entire health care industry. As a member of the RHIO Federation Taskforce formed by the Health Information and Management Systems Society (HIMSS), Jones is the co-editor of a guidebook for RHIOs to use as a source of practical advice and direction as they form and mature, the *Guide to Establishing a Regional Health Information Organization*. Jones has authored several other publications regarding effective deployment of technology for the betterment of health care.



About the Hudson Valley Initiative

Each of the organizations behind the Hudson Valley Initiative plays a fundamental role in transforming health care delivery and promoting advanced primary care.



TIPA’s medical home transformation work has been an essential building block for care coordination. TIPA, a

nearly 4,000-physician IPA, was part of the effort to help more than 300 Hudson Valley primary care providers become recognized by NCQA as Level 3 patient-centered medical homes—one of the highest concentrations in the nation.



MedAllies is the health information services provider that facilitates physician practice redesign to improve

efficiency and effectiveness of health care through health information technology, and operates the technical backbone for health information exchange. Its expertise has been essential to creating the virtual integration necessary in a community that lacks a large integrated delivery network. Since 2007, more than 700 Hudson Valley physicians have implemented EHRs.



THINC fosters collaboration and encourages transparency. It brings together providers

and payers in a neutral forum that leaves individual concerns at the door. Building on an accountable finance model, it has partnered with six health plans and a major employer (IBM) in a value-based purchasing program to reward physician practices for reaching quality and care coordination benchmarks.