As part of a comprehensive eight-country study, *Connected Health: The Drive to Integrated Healthcare Delivery*, Accenture looked at how very different health systems are progressing on the journey to healthcare—one that leverages the systematic application of healthcare information technology. The US has begun its journey with a boost from legislative activity, but there is still a long road ahead.

With a multi-billion dollar investment to further healthcare IT adoption and health information exchange usage, the US federal government is building momentum toward connected health. Recent government legislation—including the Affordable Care Act, which aims to extend access to healthcare while improving care quality and outcomes, and the American Recovery and Reinvestment Act (ARRA)—is providing a strong impetus for change. The Health Information Technology for Economic and Clinical Health Act (HITECH) sets aside $27 billion to foster physicians’ and hospitals’ use of electronic health records (EHR), providing incentives for healthcare providers that set up and demonstrate "meaningful use" of such medical record systems.

### Three stages of connected health

According to Accenture’s research, there are three distinct stages in the journey toward connected health: healthcare IT adoption, health information exchange (HIE) and insight driven healthcare. The US is making progress, but it has largely been described as “patchy” and “fragmented.”

#### Healthcare IT adoption

While ARRA stimulus funds have driven rapid progress in healthcare IT adoption over the past few years, there is still some way to go before adoption levels reach a point that enables comprehensive information sharing.

#### HIE

Despite recent government efforts to build momentum around health information exchange as a critical part of the Affordable Care Act, sharing health information widely across the system is still a distant goal.

### Insight driven healthcare

Given the fragmented picture of healthcare IT adoption and information exchange across the US healthcare system, it is perhaps unsurprising that value optimization is in the early stages. There is still optimism, however, over the potential value once the levels of meaningful use of healthcare IT matures.
Figure 1: Healthcare IT functions used within the practice

Accenture survey question: How often do you perform the following functions?

- Results show percentage of physicians that use “routinely.”
- Approximately 500 doctors in the US were surveyed.
- Note: 1=Primary care; 2=Secondary care.
- Violet shows the lowest score, green shows the highest score across all eight countries for each of the functions.

<table>
<thead>
<tr>
<th>Healthcare IT functionalities</th>
<th>Australia</th>
<th>Canada</th>
<th>England</th>
<th>France</th>
<th>Germany</th>
<th>Singapore</th>
<th>Spain</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>My organization uses electronic tools to reduce the administrative burden for delivering healthcare (e.g. e-scheduling or e-billing)</td>
<td>70%</td>
<td>44%</td>
<td>53%</td>
<td>47%</td>
<td>25%</td>
<td>57%</td>
<td>57%</td>
<td>55%</td>
</tr>
<tr>
<td>I enter patient notes electronically either during or after consultations</td>
<td>87%</td>
<td>26%</td>
<td>42%</td>
<td>29%</td>
<td>91%</td>
<td>16%</td>
<td>86%</td>
<td>47%</td>
</tr>
<tr>
<td>I receive electronic alerts/reminders while I am seeing my patients (e.g. prompts regarding contraindications or preventative care)</td>
<td>68%</td>
<td>12%</td>
<td>20%</td>
<td>13%</td>
<td>84%</td>
<td>7%</td>
<td>38%</td>
<td>16%</td>
</tr>
<tr>
<td>I use computerized clinical decision support systems to help make diagnostic and treatment decisions while I am seeing my patients (e.g. real-time access to evidence-based practice guidelines)</td>
<td>22%</td>
<td>12%</td>
<td>18%</td>
<td>11%</td>
<td>28%</td>
<td>13%</td>
<td>28%</td>
<td>18%</td>
</tr>
<tr>
<td>Healthcare IT adoption—average</td>
<td>62%</td>
<td>24%</td>
<td>33%</td>
<td>25%</td>
<td>63%</td>
<td>15%</td>
<td>50%</td>
<td>35%</td>
</tr>
</tbody>
</table>

The most frequently used functionalities within the connected clinical practice are electronic recording of patient notes and electronic tools to reduce the administrative burden of delivery. Basic decision support tools, such as e-reminders and alerts, are used relatively widely too, in particular within primary care in England and Australia.
Figure 2: HIE functions used to connect with other practitioners

Accenture survey question: How often do you perform the following functions?

- Results show percentage of physicians that use “routinely.”
- Approximately 500 doctors in the US were surveyed.
- Note: 1=Primary care; 2=Secondary care.
- Violet shows the lowest score, green shows the highest score across all eight countries for each of the functions.

### HIE functionalities

<table>
<thead>
<tr>
<th>Function</th>
<th>Australia</th>
<th>Canada</th>
<th>England</th>
<th>France</th>
<th>Germany</th>
<th>Singapore</th>
<th>Spain</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>I communicate electronically with clinicians in other organizations (e.g. secure email)</td>
<td>15%</td>
<td>35%</td>
<td>12%</td>
<td>28%</td>
<td>32%</td>
<td>47%</td>
<td>29%</td>
<td>35%</td>
</tr>
<tr>
<td>I am electronically notified of my patients’ interactions with other health organizations (e.g. hospital admissions)</td>
<td>24%</td>
<td>6%</td>
<td>14%</td>
<td>11%</td>
<td>41%</td>
<td>9%</td>
<td>11%</td>
<td>13%</td>
</tr>
<tr>
<td>I electronically send or receive referrals to/from health professionals in other organizations (e.g. specialist appointments)</td>
<td>20%</td>
<td>12%</td>
<td>16%</td>
<td>16%</td>
<td>52%</td>
<td>19%</td>
<td>17%</td>
<td>21%</td>
</tr>
<tr>
<td>I have electronic access to clinical data about a patient who has been seen by a different health organization (e.g. hospital, laboratory)</td>
<td>24%</td>
<td>28%</td>
<td>27%</td>
<td>34%</td>
<td>51%</td>
<td>31%</td>
<td>23%</td>
<td>36%</td>
</tr>
<tr>
<td>I electronically send prescriptions to pharmacies (e-Prescribing)</td>
<td>6%</td>
<td>3%</td>
<td>10%</td>
<td>7%</td>
<td>11%</td>
<td>14%</td>
<td>5%</td>
<td>17%</td>
</tr>
<tr>
<td>I receive clinical results electronically that populate my patients’ electronic medical record</td>
<td>84%</td>
<td>40%</td>
<td>35%</td>
<td>37%</td>
<td>90%</td>
<td>38%</td>
<td>61%</td>
<td>43%</td>
</tr>
<tr>
<td>I electronically send order requests (e.g. lab, radiology or diagnostic tests) to other health organizations</td>
<td>28%</td>
<td>17%</td>
<td>14%</td>
<td>22%</td>
<td>46%</td>
<td>43%</td>
<td>12%</td>
<td>21%</td>
</tr>
</tbody>
</table>

The extent to which key HIE functionalities—connecting to clinicians in other organizations—are used across primary and secondary care.
Pain points
There are two main barriers holding back healthcare IT adoption in the US. One is the need to encourage behavioral change across the system to address physician skepticism (including cultural and workflow changes). The other is the need to provide incentives for sharing information in what is essentially a competitive system. Other challenges include:

- **Cost**: According to some experts, one of the fundamental problems with connected health is that investment in healthcare IT does not pay immediate dividends, therefore organizations are reluctant to invest in it.

- **Lack of interoperability standards**: While technical challenges are not considered to be insurmountable, the interoperability of electronic health systems is critical to the success of connected health to avoid a situation one expert characterizes as “the Tower of Babel where each EMR is speaking a different language,” with no real possibility for connectivity and health information exchange.

- **Privacy and security concerns**: Most experts agree that privacy and security issues pose challenges to the progress of connected health, but some argue that the majority of patients are in fact willing to share their personal information, assuming their data is being kept secure, in return for improved service delivery.

The prognosis
To attain its connected health goals in the next five years, experts say the US must develop an infrastructure that allows for a core set of patient information to be captured. This information should be able to “follow the patient” through the healthcare system, enabling any authorized medical professional to access appropriate levels of information to improve individual, community and population health. It should also have appropriate privacy and access controls in place.

Most healthcare leaders agree that the government will continue to play a critical role in connected health development, specifically in setting the strategy, vision and direction, setting standards and providing incentives for adoption and usage. This is particularly important if the US’s proposed Nationwide Health Information Network (NwHIN) is to become a reality. However, most feel that if the federal government is overly prescriptive and micromanages the process, it could stifle progress and innovation at the local level.

To build and sustain momentum for further progress, the key challenges will have to be addressed, particularly those relating to sustainability of funding and payment models and overcoming physician skepticism to change.

This is a summary of findings in Accenture’s full connected health study of the US. As part of its research, Accenture set out to determine the distinguishing characteristics of connected health systems in eight countries: Australia, Canada, England, France, Germany, Singapore, Spain and the United States.

For more information, or to see the full Connected Health: The Drive to Integrated Healthcare Delivery study, please contact:

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