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August 2011

Providers' Perceptions: Mobility in Healthcare

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Executive Summary

"Mobility" is a broad concept that has many meanings to providers. Definitions range from device manufacturers (Apple, Samsung) to carriers (Verizon, AT&T) and software firms (core health information systems (HIS) firms such as Epic, Cerner, McKesson and niche players such as Patient Keeper). A wide spectrum of definitions exists, from the very simple surrounding devices to the more complex that enable actionable receipt and use of data on mobile devices at the point of care.

Definitions for the Porter Research and Billian's HealthDATA study, "*Providers' Perceptions: Mobility in Healthcare*," focused on two primary areas: wireless and/or mobile devices; and access to data anywhere for the end user - be it a provider, nurse or administrative staff member. Mobile technology is being utilized in many departments within the hospital, and is continuing to grow in its adoption as technology platforms and solutions delivered to the marketplace improve.

Porter Research expects that over the next five years, mobile phones, portable medical devices, laptops, sensor technology and associated applications will play a key role in connecting not only healthcare providers across care settings, but also patients with their providers. Healthcare organizations will need to develop or enhance their existing wireless strategies that support clinical and workflow processes.

Almost two-thirds of the organizations surveyed have developed an enterprise mobility strategy, with a quarter indicating this strategy has been in place for more than three years. A quarter of those surveyed plan to develop enterprise strategies in the near future, most likely due to the fact that in the last year – as healthcare reform deadlines have drawn nearer and new guidelines have been issued – 80% have placed a greater importance on mobile healthcare solutions than in previous years.

Key findings from the "*Providers' Perceptions: Mobility In Healthcare*" study include:

- Though many healthcare organizations have mobile strategies in place, those strategies are still in their infancy.
- Security, funding, connectivity and interoperability are among providers' top concerns with regard to implementing mobile solutions.
- Providers believe improvement in patient safety and care quality to be among the biggest benefits of mobile solution implementations.
- Nursing represents by far the largest area in which mobile solutions are currently being utilized on a daily basis, though Chief Nursing Officers have limited influence when it comes to final purchase/decision-making power.
- The majority of providers surveyed prefer to select mobile healthcare solutions from vendors that specialize in mobility, followed by their current HIS/ electronic medical record (EMR) vendor.

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Methodology

Porter Research and Billian's HealthDATA fielded a primary market research program aimed at understanding healthcare providers' perceptions regarding mobility in healthcare.

- Web-based survey designed by Porter Research
- Fielded May 2011
- Select titles targeted and pulled from Billian's HealthDATA's 150,000+ database of hospital decision-makers
- Participants represent hospitals and healthcare systems providing primarily acute-care services
- Respondents were typically at a C- (33%) or director-level (42%) within their organization
- Functionally, most participants had information technology (29%) or clinical (33%) responsibilities

About Billian's HealthDATA

Billian's HealthDATA is the leading provider of comprehensive market intelligence on the healthcare industry, covering facilities across the continuum of care - from Hospitals to Long-Term Care. Billian's dedication to providing high-quality data via products like the online Portal, coupled with partner company Porter Research's custom market research services, provides customers with healthcare business intelligence about multiple markets in scaleable formats.

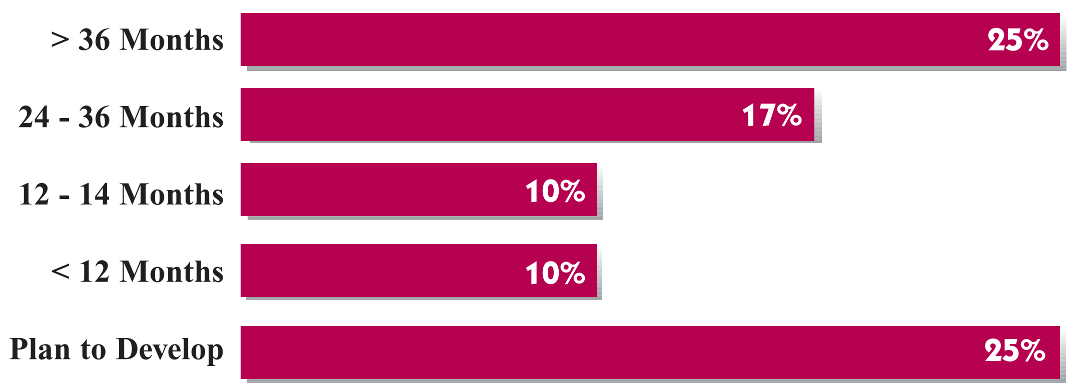
About Porter Research

Porter Research is a marketing, research and consulting company that helps clients become high-performance businesses within their industries by delivering actionable market intelligence and research insight. Over the past 20 years, Porter's research team has conducted over 150,000 interviews with executives in a variety of industry verticals: banking/financial services; consumers goods; high tech; healthcare; life sciences; retail; and utilities. Porter has significant experience in the healthcare vertical - technology, provider, payer and life sciences stemming from the depth of knowledge resident within Porter's leadership team with Fortune 500 healthcare clients and emerging ventures.

Provider Implementation of Mobile Solutions Continues to Grow

Though 62% of study respondents indicated they have an enterprise mobility strategy in place, less than half of that have had those strategies in place for more than three years *(Figure 1)*. These figures, coupled with the fact that 25% of respondents indicated they plan to develop a strategy, highlight the infancy in which mobile healthcare solutions find themselves. Room for growth is implicit in these statistics - both on the part of the providers that use these technologies and the vendors that create them. It is also evident, based on study results, that hospitals and health systems are increasingly recognizing the importance of mobility and the clinical and administrative benefits these solutions can bring. Porter Research believes this importance has increased due to external drivers such as the HITECH Act, with its focus on patient care and safety, and clinical efficacy.

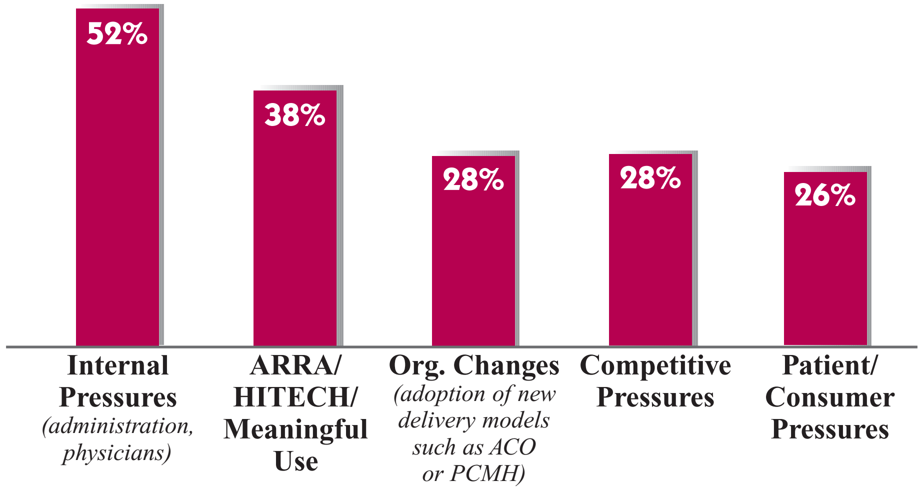
Figure 1: How long has your enterprise mobile strategy been in place?



Factors Impacting Mobile Technology Strategy

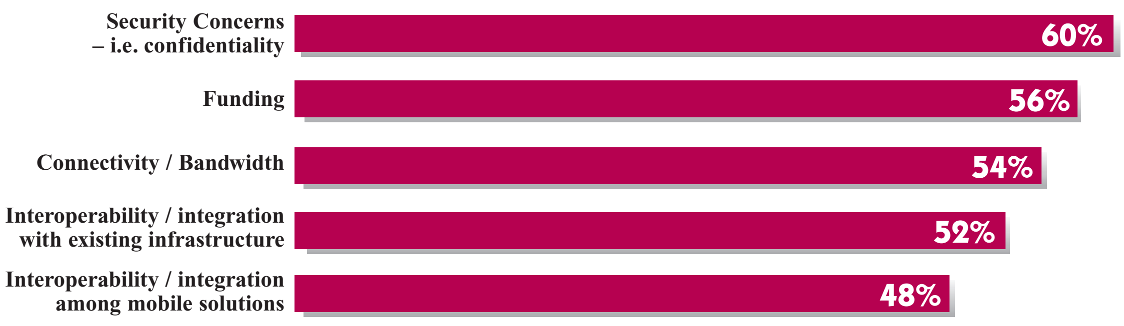
Recognition of mobile technology benefits is increasing, with respondents citing patient safety, care quality and reduced manual errors as the top three benefits derived from the deployment of mobile solutions *(Figure 2)*.

Figure 2: What issues have the greatest impact on your mobile solution strategy?



As recognition of these benefits grow, so too do internal pressures at peer institutions to implement mobile solutions – from administration, providers and others. These pressures outweigh the impact the HITECH Act and Meaningful Use have on respondents' implementation considerations. Organizational changes related to adoption of new delivery models such as accountable care tied with competitive pressures as additional issues of impact *(Figure 3)*.

Figure 3: How great a concern is each of the following in your implementation of mobile technology solutions?



It will be interesting to see if these figures fluctuate as accountable care regulations are finalized in the coming months. Along with benefits, of course, come concerns. Respondents cited security, funding and connectivity/bandwidth, and interoperability/fit with existing infrastructures as the most significant adoption barriers.

Types of Mobile Devices Currently Deployed

The top four mobile devices already in place at respondents' healthcare facilities include computers on wheels (COWs), handheld barcoding devices, portable medical monitoring equipment and mobile laptops/netbooks. COWs are a natural choice, as this is how many clinical solutions are deployed, enabling multiple providers to access patient care solutions on the floor and at the bedside. Surprisingly, smart phones are being used by only 67% of surveyed providers. This figure is likely to increase in accordance with the aforementioned respondents' plans to implement mobile strategies, as well as the trend towards more coordinated, mobile care amongst varied types of healthcare providers. In fact, *Healthcare IT News* recently reported that 84% of providers are expected to own an iPhone by the end of 2011.

Figure 4: Clinical Mobility Solutions – Planned Deployment

Respondents have already implemented the typical clinical and administrative mobile solutions. These include imaging, medication administration and EMRs on the clinical side; and supply/inventory management, financial analytics and personal contacts/calendars on the administrative side. Respondents' planned deployments of mobile solutions paint a clear picture of just how much healthcare reform is influencing their respective facilities' plans for interoperability. Solutions for health information exchange, e-prescribing and computerized physician order entry round out the top three mobile clinical solutions physicians plan to deploy *(Figure 4)*.

Figure 5: Administrative Mobility Solutions – Planned Deployment

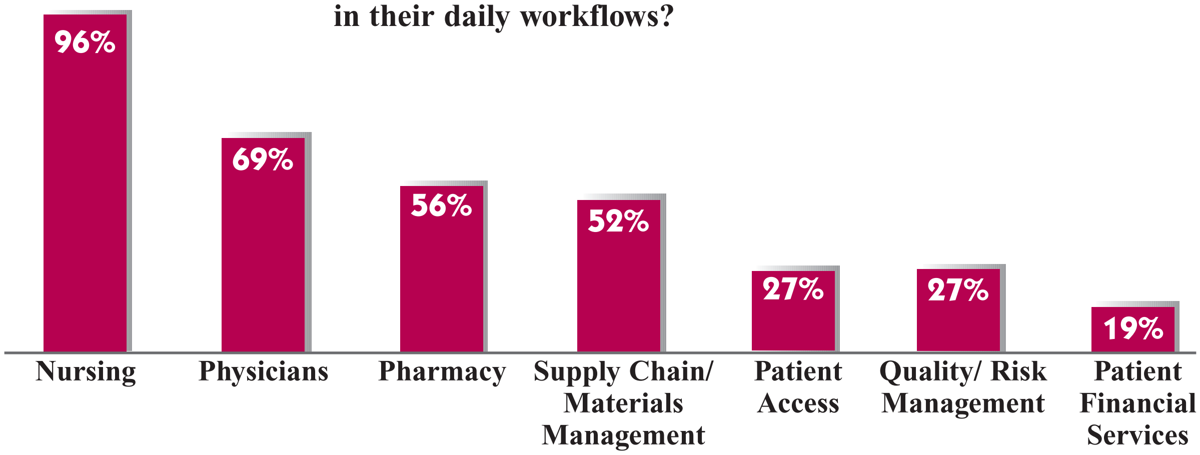
Real-time location systems, patient scheduling, and patient check-in and -out solutions make up the top three administrative solutions that physicians plan to implement *(Figure 5)*.

A shift in device allocation is likely in the next few years, with COWs likely to be replaced with tablets that offer greater mobility, extended battery life and increased versatility as devices improve and new applications become available.

Current Mobile Technology Deployment Within Provider User Communities

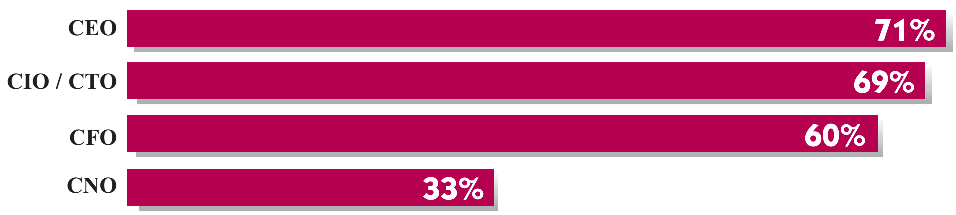
Nursing, physicians, pharmacy and supply chain/materials management make up the top three user groups of mobile solutions. Nearly all respondents (96%) have mobility implemented in nursing. The focus in the nursing community has been to augment care workflow processes with the implementation of clinical documentation, medication administration and patient medical monitoring devices with deployment of mobile devices.

Figure 6: What user communities are utilizing mobile solutions in their daily workflows?



Though nursing staff at nearly every respondent's facility use mobile solutions in their daily workflows *(Figure 6)*, only 33% of respondents listed their Chief Nursing Officer (CNO) as a final decision-maker for mobile technology purchases *(Figure 7)*. This figure may grow as nurses are increasingly pulled into more IT-driven roles such as clinical and nursing informatics. It will be key for end-user clinical and administrative users to express the workflow needs of their communities to senior management to ensure the mobile devices selected not only integrate into the current infrastructure, but also meet the needs of individual constituents.

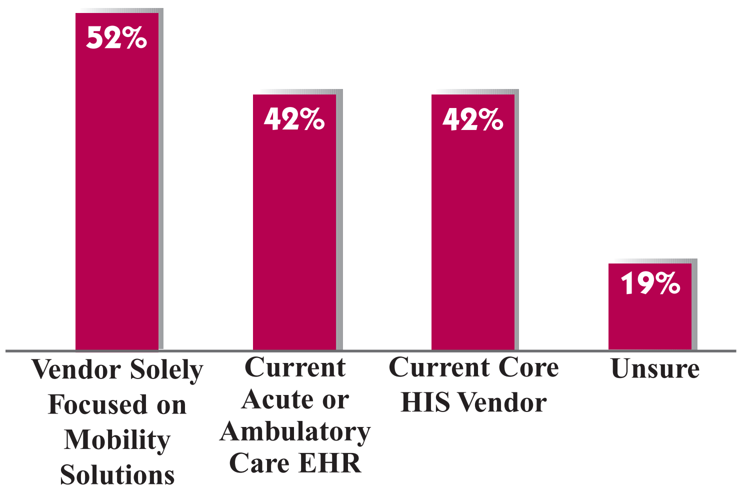
Figure 7: What roles within your organization have final purchasing/ decision-making power regarding mobile technology purchases?



Preferred Market Channel

There is no predominant leader in this market. Just over half of all respondents prefer to do business with vendors that specialize in mobility solutions. Providers' current HIS and EMR vendors tied for their second choice *(Figure 8)*. There does seem to be ample opportunity in the market for vendors to make their expertise in mobility more widely known to the provider community.

Figure 8: What type of organization would you like to obtain mobile technology solutions from?



The attributes providers perceive to be most important to their mobility vendor relationship include track record/proven solution, price, reliability, integration/interoperability and support.