

Enabling the Patient Centered Medical Home

For the past decade, healthcare providers have strived towards Connected Healthcare as a means for coordinating the many care elements associated with each patient encounter. With the emergence of the Patient Centered Medical Home (PCMH), these challenges are poised to grow as this connectivity must now be extended the final mile into the patient's hands.

A number of factors are driving demands for PCMH. Many believe that those suffering from complex chronic diseases, psychiatric disorders, and diseases of unknown etiology are served most effectively by a team approach for the multiple dimensions of care needs.

While challenging the traditional gatekeeper care management model, PCMH also recognizes that effective coordination between providers and the patient is crucial to obtaining quality care and outcomes. This is truer than ever as PCMH emphasizes participatory healthcare. Critical capabilities that make it possible for patients and their families to be effective partners in their healthcare include remote information access, regular communications between the patient and provider team, and active community support. Therefore, health information technology and mobile healthcare are key components of the success of PCMH.

While integration of mobile devices into the healthcare environment is just beginning, the long-term importance of this trend is impossible to ignore. Gartner¹ calls out the integration of mobile devices into hospital and clinical care delivery processes as one of the key areas on which Chief Information Officers should be focusing in the next three to five years. These devices, when integrated with the Electronic Health Record (EHR), allow for 'real-time' access to health data, effective communications, and efficient multitasking environments. This is particularly true in the telehealth sector, where widespread lack of broadband access has often hindered efforts to deliver care remotely.

What's making many aspects of PCMH even more viable is the emergence of more open, standards-based and flexible portable computing devices, such as smart phones and tablets based on Apple's iOS and Google's Android operating systems. If you view them simply as communications devices, you are missing the significant potential that they offer. In an increasingly dynamic work environment, they can provide always on, always there access to critical healthcare computing resources.

In terms of creating enterprise health IT solutions, they also offer a number of significant advantages over single-purpose devices:

- **Rich User Interface:** A more intuitive and engaging user experience streamlines adoption, improves productivity and delivers greater insight.
- **Multi-purpose v. Single Application:** By supporting multiple computing requirements simultaneously, they provide a more productive and valuable work environment while eliminating the need for redundant devices.
- **High Performance Computing:** Dollar for dollar and pound for pound, these devices often beat legacy mobile systems handily in terms of processing power, battery life, screen resolution, transmission speeds and many other attributes.
- **Extensibility:** Both applications and devices can be more readily upgraded to take advantage of new advances in computing.
- **Sensor Aware:** The inclusion of sensors – GPS, cameras, altimeters, barcode readers and iris scanners to name just a few examples – makes them critical nodes within a computing network.

An Agilex Perspective

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Patient Centered Medical Home (bold is facilitated by mobile HIT)

- ❖ Personal physician
- ❖ **Physician directed medical practice**
- ❖ Whole person orientation
- ❖ **Care is coordinated and/or integrated**
- ❖ **Quality and safety**
- ❖ **Enhanced access**
- ❖ Payment

Ultimately, what these devices can offer right out of the box is 70, 80 or even 90% of a solution to a critical healthcare challenge. The table below lists some of the most applicable features and their healthcare potential:

FEATURE	APPLICATION
Phone	Provider-to-provider/patient communications, voicemail
E-Mail	Secure messaging – provider-to-provider/patient communications and collaboration, sharing of pictures and clinical notes
Integrated Calendars	Clinical and Administrative calendars integrated into one, patient check-in differentiation
Text Messaging (w/images)	Secure messaging – provider-to-provider/patient communications and collaboration, sharing of pictures and clinical notes
Internet	References, Agency Online Health Portals, other Agency web service sites
Voice Recording	Clinical encounter notes
Word Processing	Clinical encounter notes, finding tasks
Camera	Clinical documentation (rashes, injuries, wound care progress, home care issues, disaster triage and ID)
HD Video	Clinical documentation (rashes, injuries, wound care progress, home care issues, disaster triage and ID), clinical consultations, video conferencing, clinical progress monitoring, patient teaching
GPS	Driving directions, geotagging, locating resources
Barcode Scanner	Patient ID, medication delivery, disaster patient and belonging tracking
Smart Keyboard	Enhanced typing
eBooks	CME, journals, reference library, clinical practice guidelines
MP3 Player	CME, reference materials, lectures
Accessibility Features	Support for most impairments
Security	Encryption, complex passwords, remote wiping
Authentication	Fingerprint, Iris

Beyond the device itself, several other elements are critical to the remote delivery of care using mobile devices:

- **Integration with Healthcare Systems and Data** – From a reporting and information access perspective, real-time integration and data synchronization with a variety of systems and repositories is critical to enabling collaborative care.
- **Enterprise Management** – Continued compliance with stipulations like HIPAA requires centralized management and monitoring to enforce usage standards and secure the device even if it is lost.

Many excellent commercial healthcare applications are already available for both patients and providers. In addition, many organizations have found it relatively easy and advantageous to create their own applications, integrating their healthcare and non-healthcare data into custom applications with brilliant new presentations and functionality for users. Simple but powerful examples include mobile Lab/Rx graphing and the integration of the providers clinic schedule with their administrative calendar on a mobile device; an unsolved problem until now.



About Agilex

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