

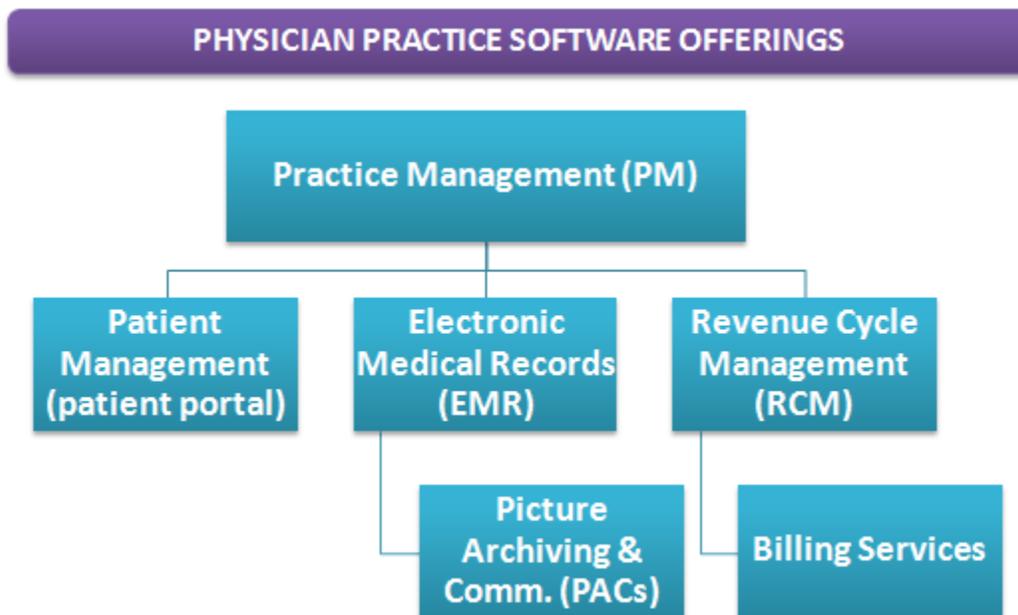
**RESEARCH NOTE**

**DATE:** November 4<sup>th</sup>, 2011  
**TO:** Catalyst Investors  
**FROM:** Susan Bihler, Tyler Newton  
**SUBJECT:** **Market Primer - Physician Practice Software Market**

**Physician Practice Software Market**

Like any other industry, the healthcare industry uses software to streamline its organization. By replacing paper charts and files, software systems allow medical offices to reduce expenses while improving patient record keeping and safety. The support of services such as electronic record management, revenue cycle management, online scheduling and billing services can be used to improve the management of a physician office and ultimately maximize revenue collections.

The chart below breaks out various software products available to physician practices:



The term **Practice Management (PM)** includes a wide range of software services, all of which refer to software used to handle the day to day operations of a physician's office. Typically known as office accounting systems, these services are used to

manage accounts payable, receivable, office inventory, purchasing, and payroll, scheduling and sometimes even medical billing and collections. Practice Management systems, similar to RCMs and several EMRs charge a monthly fee ranging from \$500-\$700 per seat (provider). Examples of Practice Management companies include Advanced MD, Merge Healthcare & Quality Systems (NExGen).

**Patient Management** tools, such as patient portals, allow patients to interact with practice management software, either to book appointments, submit forms or request information. These portals allow physician staff to manage their time elsewhere instead of primarily handling patient calls and correspondence, typically allowing patients to fill out necessary paperwork before arriving to their appointment.

The most effective patient management systems will also have the ability to automate outgoing communication to patients in the form of reminder calls, emails and text messages to reduce cancellation rates and no-shows as well as send patient satisfaction surveys, HIPAA compliance messaging, etc. A simplified software product with a refined UI tailored to patient needs will likely attract more patients to a specific practice. Examples of stand-alone Patient Management systems include Zoc Doc, Follow My Health (JarDogs), & PANDA Software (DoctorBase).

**Electronic Medical Records (EMR) or Electronic Health Records (EHR)** systems store, manipulate and distribute patient data. Patient data includes medical history, vital signs, doctor notes, referrals, blood/lab work, medication, radiology reports, etc. Distribution can include sending prescriptions to pharmacies and patient data to labs and referrals. EMRs can be general or vertical specific, i.e. designed for specialist physicians with different tools for internal medicine, chiropractic, surgery, urology, mental health, & oncology.

Hundreds of EMR/EHR systems have now been “certified,” which means they have been evaluated by the Office of the National Coordinator for Health Information Technology (ONC) to be sure the systems are equipped with standard features (such as electronic prescribing & Computerized Physician Order Entry (CPOE)). Certification is required in this industry in order for an EMR product to take advantage of new financial benefits due to recent legislation (*further described on page 4 and page 19*). Examples of large companies in the EMR/HER space include Allscripts (EHR, PM, RCM, Billing, etc), Cerner, Epic and Quality Systems (NExGen).

EMRs also connect to **Picture Archiving and Communication systems (PACS)** used to manage and store images such as patient X-rays, MRI, CAT scans, etc. These files are incredible large and therefore require a separate database to hold the documents for each patient. An EMR system can choose to hold only the truly relevant pictures or

images per patient. Apollo PACS, Brit Systems, Global Care Quest, Merge Healthcare Solutions and PACS Health are all examples of companies that provide PAC systems.

**Revenue Cycle Management (RCM)** systems integrate with Practice Management systems to handle clinical processes that support workflow, coding and documentation. These software systems capture patient demographics, insurance information, referrals and point-of-service payments. As coding protocol and claims processing changes with the new regulatory environment (dramatic increases in codes from roughly 18,000 to more than 145,000 expected over the next few years), providers are more apt to use RCM software to handle these increasingly complex functions to optimize coding accuracy and ultimately increase physician office revenue. Examples of RCM companies include Accretive Health and Emdeon (recently acquired by Blackstone).

**Billing Services** are typically a separate arm of the doctor's offices administration. Depending on how large of a practice, this service can be outsourced or handled by an internal billing department whose job is to handle and process claims. Billing services are critical to the health care provider's revenue streams as they are the intermediary between an office and the insurance company who ultimately pays the doctor. Billing Services are typically more service based vs. software based, but rely on the RCM or PM systems for patient data including coding and claim information. Billing services typically charge a fee on the amount of revenue they collect for a physician's practice. Billing companies include AthenaHealth, Medisoft (McKesson) and Medinotes (Escipys -Allscripts).

## **SIGNIFICANT TRENDS AFFECTING HEALTHCARE SOFTWARE ADOPTION**

### **1. Regulation – HITECH ACT & PPACA**

Through the HITECH ACT of 2009, the Government has provided financial incentives for reaching a certain level of "Meaningful Use." Meaningful Use is a term used to describe the level of adoption of an Electronic Health records (EHR)/Electronic Medical Records (EMR) platform within a physicians practice. Physicians must have a certain level of functionality and use by Q3 2012 in order to be certified and eligible for up to \$44,000 in financial incentives. Practices will actually be penalized if their system is not up to necessary adoption levels in 2015 and beyond. The HITECH act is expected to drive a compressed adoption cycle reaching over 80% adoption in as few as five years.<sup>1</sup> *Please see page 19 for more detail on the HITECH ACT and Meaningful Use.*

The Patient Protection and Affordable Care Act (PPACA), signed into law in March 2010, was designed to improve the quality of patient care and expand patient

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<sup>1</sup> William Blair & Company, *HITECH + Reform Intensifies HCIT Scarcity*, January 2011.

coverage. The main impact on a physician practice is the delivery system reform developed by PPACA that correlates payments to the quality of treatment vs. procedural volume. In order to effectively manage this change, software systems have to be in place to properly account for each treatment (i.e. calculating reimbursement on multiple metrics (not just transaction volume) for multiple payers (Medicare, Medicaid, managed care, and private insurers). Treatment codes are expected to increase from roughly 18,000 to more than 145,000 driving demand for more-complex RCM solutions that can handle the new policies and more accurately generate revenue for the practice.

Furthermore, several payers including Aetna, Highmark, Humana, United Health Group are launching programs and pilots to consider tying reimbursements to achievement of meaningful use, further requiring that practices have a functioning EMR/EHR system that can accurately report the correct codes and patient data for maximum reimbursement.

## **2. Technology – Simple & Integrated**

*Physician offices*, which can range from one practicing MD to a network of MDs, want simple software that helps them manage day to day operations. Medical providers have complex rules, regulations and admin processes needed to run their business and at the same time costs are increasing and reimbursement rates are declining. Software solutions allow doctor and staff to reallocate their time spent booking appointments, organizing calendars, submitting and reviewing claims to more time spent treating and caring for patients. Small physician practices are looking for an affordable solution to help them go digital quickly, minimizing or eliminating the disruptions of lengthy implementation and training times.<sup>2</sup>

*Extended/Long Term Care Facilities* have similar needs to standard physician practices which include managing confidential patient information, claim management & referrals. As these facilities typically concentrate on chronically ill patients, outbound patient management systems that provide communications and helpful reminders to patients and their families are essential to improving patient care.

## **3. Physician Practice Consolidation**

*Hospitals* are constantly under pressure to reduce costs while improving service levels. A typical hospital has more than 200 different information systems for everything from clinical diagnoses to billing and human resources. Many are built on proprietary

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<sup>2</sup> Vishal Wanchoo, president and CEO of GE Healthcare's information technology business.

platforms that restrict information sharing across multiple systems.<sup>3</sup> In order to keep everyone within the same network, hospitals push their EMRs and Information Systems down to their affiliated physician offices, and sometimes even subsidize the cost of their preferred system. (Due to the severity of HIPAA regulations with regard to patient data, hospitals prefer on-premise software products vs. SaaS, making practice adoption difficult without significant upfront capital.)

Taken to the next level, hospitals are also consolidating or partnering with physician practices as they can achieve synergies through vertical alignment and have greater access to data under one integrated delivery system.<sup>4</sup> This close affiliation or consolidation of hospitals and physician practices is already occurring and is likely to continue as providers look for scale and better resources to coordinate care. Smaller practices will have a harder time handling the changing regulatory environment without the proper funds and support potentially found in a larger partner or acquirer.

#### **4. Consumer Behavior – Reactionary care vs. Preventative approach**

Patient behavior has changed; patients are now taking a more proactive approach to managing their healthcare. Not only are they researching symptoms and treatments online before appointments, but they want to engage in proactive dialog with their physicians. Patient portals that allows patients to schedule appointments, access billing statements, request prescription refills and lab results are extremely valuable to patients as well as to the medical office, saving time and money. Patient Management systems allow practices to have patient-facing capabilities and these features are now expected by patients vs. seen as a privilege.

To continue the preventative theme, patient management systems with mobile abilities that send automated email and text messaging reminders to patients regarding their appointments, medical plan, prescription plans (i.e. BLI Messaging) could also be used to remind patients to take their medicine at the right time each day. Therefore, there is tremendous upside with the use of patient management systems that support the government's plan to continue down the path toward less expensive healthcare – not getting sick in the first place and implementing preventative care vs. reactionary care.

#### **5. Real time connectivity – Health Information Exchange**

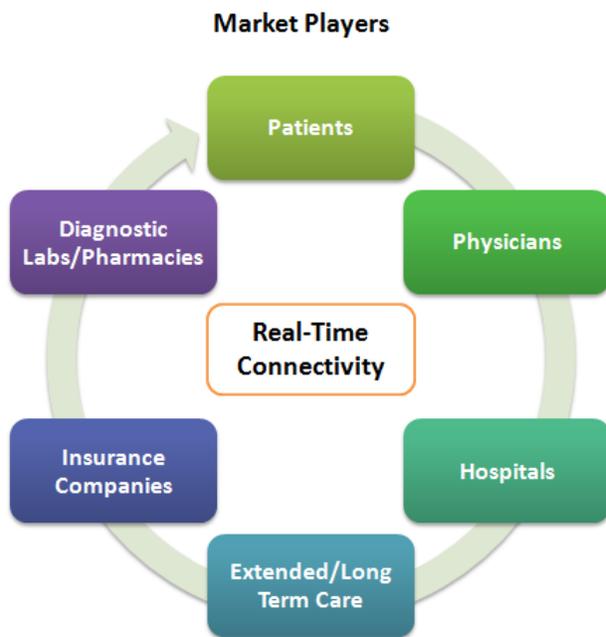
The idea behind Health Information Exchange (HIE) is that there will be significant costs savings if care is better coordinated between all providers (i.e. patients, physicians, hospitals, specialists, etc). According to a study by the Rand Group, it is estimated that

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<sup>3</sup> "Healthcare: Improving operational efficiency through integrated business solutions." Microsoft Dynamics. 2006.

<sup>4</sup> William Blair & Company, *HITECH + Reform Intensifies HCIT Scarcity*, January 2011.

nearly \$5 billion is spent annually on duplicative or unnecessary radiology and/or lab testing that could be eliminated with the adoption of interoperable EHR systems. In addition to substantial costs savings, the number of deaths per year due to medical errors could be reduced as care is coordinated among different providers (i.e. a hospital might admit a patient who was in a serious car accident but be unaware of that patient's medication allergies).<sup>5</sup> This risk could be avoided if real-time connectivity were available to all market players.



The US market consists of hundreds of thousands of disparate physician groups, thousands of hospitals and other specialty providers, and more than 1,000 different health plans. According to eHealth Initiative's 2010 survey, there are roughly 70 operational HIE systems in the US. The limited adoption of EMR/EHR systems and the immaturity of those systems (inadequate functionality) are a few of the barriers to the development of HIE's. As software systems improve and usage increases over the next few years, the adoption and development of HIE's should also increase. HIE activity is expected to accelerate substantially in 2013 as meaningful use drives EMR &

EHR adoption.

<sup>5</sup> William Blair & Company, *HITECH + Reform Intensifies HCIT Scarcity*, January 2011.

**INDUSTRY OVERVIEW – LARGE & FRAGMENTED MARKET**

*Healthcare expenditures projected to reach 20% of GDP by 2019 <sup>6</sup>*

EMR and PM solutions are not new to the HCIT industry. Many physician practices use some type of PM solution to manage the scheduling, administrative and finance aspects of their business, however their workflows are still paper based and therefore not integrated into the PM solution.

Adoption for EMR/PM solutions have lagged for many reasons, the main reasons include (i) Disruption; physicians and their staff do not want to disrupt how they do business and any change is seen as increasing the complexity of their workflow, (ii) Support; a lack of IT resources to implement and support HCIT products is a major factor, especially for small practices and (iii) Cost; budget constraints limit the adoption of expensive EMR and PM solutions, precluding small and midsized practices from acquiring a solution.

Of the 235K small and midsized physician practices in the US (<25 physicians), it is estimated that only 37% of these practices have currently deployed and are actively using an integrated EMR/PM solution. According to the American Recovery and Reinvestment Act (ARRA), the Congressional Budget Office (CBO) estimates that by 2019, 65% of physicians and 45% of hospitals will have adopted certified healthcare IT systems. Additionally, according to a recent survey, 33% of practices that have deployed an EMR solution are planning on replacing their current solution with a new solution better tailored for their needs.

The market for physician practice management systems and EMR systems is very fragmented, growing at 20+%. As seen in the chart below, the market opportunity for the EHR and PM space is approximately \$8.6 billion.

Practice Size	Total # of Practices	% of Total Market	Unique Physician Count	EHR Penetration	Addressable Physician Market	Addressable Market (\$)
1-3 physicians	190,039	80.6%	221,189	31.8%	150,851	\$ 5,294,866,520
4-9 Physicians	33,100	14.0%	134,024	53.8%	61,919	\$ 2,173,359,989
10-25 Physicians	12,703	5.4%	86,624	63.7%	31,445	\$ 1,103,702,371
<b>Total</b>	<b>235,842</b>	<b>100.0%</b>	<b>441,837</b>	<b>36.6%</b>	<b>244,214</b>	<b>\$ 8,571,928,880</b>

Source: SK&A October 2011. Addressable Market assumes a monthly fee of \$585 for 5 years per physician.

<sup>6</sup> According to the Centers for Medicare & Medicaid Services.

The certification process for meaningful use costs approximately ~\$20,000 to \$30,000. As meaningful use moves from stage to stage, more complex technology will be required to meet the standards of meaningful use and therefore will likely reduce the number of players in the market. In January 2011, William Blair reported 120 products that met the government certification standards for a full EHR system, a number which is expected to steadily increasing over 2011.

### **Billing**

The billing industry is also a very fragmented space (estimated 4,000+ companies in the space) and according to Healthcare Financial Management Association, 30% of all healthcare costs go to administrative functions such as claims, billing and collections. According to Compass Advisors, the US Medical Billing industry is forecast to be a \$4-6 billion revenue industry which serves the revenue cycle of \$2.7 trillion in National Health Expenditures.