

Healthcare without Bounds: Mobile Computing for Physicians	
TITLE:	Healthcare without Bounds: Mobile Computing for Physicians
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INTRODUCTION	<p>Mobile Computing for Physicians focuses on how Physicians are using mobile computing solutions at the point of care to view referential materials, access clinical patient data, solve existing workflow inefficiencies and capture patient billing charges. The study uncovers strong opinions regarding the market opportunities and challenges for deploying mobile solutions within healthcare organizations today.</p> <p>The content for Mobile Computing for Physicians was derived from over 100 in-depth interviews with outpatient and hospital-based physicians across the United States. Physicians interviewed were predominately technology savvy and representative of a broad range of medical specialties and institution sizes.</p> <p>The telephone interviews were conducted over a 3-month period starting in September 2004. The purpose of the interviews was to identify their critical needs and requirements through discussions about existing workflow inefficiencies, usage of mobile devices and clinical applications today, and opportunities for mobile computing solutions in the future.</p> <p>Spyglass evaluated key vendor product offerings and identified early adopter organizations that have successfully deployed next generation mobile physician solutions at the point of care.</p>
TARGET AUDIENCE	<ul style="list-style-type: none"> • Software & hardware vendors, systems integrators and management consultants who are selling mobile computing devices, applications and services into the healthcare industry. • Hospital administrators and IT executives who are making strategic decisions to fund clinical information technology solutions including mobile computing. • Clinicians who are involved in informatics and clinical system evaluation and selection. • Investment banking and private equity investors

ABSTRACT:

Mobile computing solutions are enabling technologies that are poised to revolutionize the way medicine is delivered and practiced. With mobile solutions, physicians can access patient information quickly, efficiently and securely from any location, at any time. These solutions have been demonstrated to help improve patient safety, reduce the risk of medical errors and increase physician productivity and efficiency.

Physicians are working under significant pressure. There are over 640,000 physicians in the United States that control over 80 percent of the nation's healthcare spending through the delivery of patient services and referrals. Physicians work in high stress, high risk and data intensive environments that are dominated by paper-based processes and inefficient workflows. Physicians are mobile professionals that are under extreme time pressures and have a constant need to access clinical patient information as they travel between exam rooms, hospitals and their offices.

Mobile devices are emerging as the stethoscopes of the 21st century. Physicians nationwide are independently purchasing mobile devices with standalone clinical solutions to retrieve accurate, up to date information to help diagnose illnesses, determine treatment protocols and prescribe medications. Physicians are using a wide range of mobile devices including PDAs, Smartphones and TabletPCs.

No ideal mobile computing device. Healthcare organizations are finding out first hand that there is no ideal mobile computing device. The right device is dependent upon the healthcare environment, the task to be performed, the complexity of the applications, and physician's personal preferences.

TabletPC gaining support with outpatient physicians. Outpatient physicians are finding the TabletPC is more usable and capable than the PDA for accessing more complex clinical applications due to increased screen real estate, integrated communications, a full sized keyboard and advanced handwriting recognition. With TabletPC, outpatient physicians can access a patient's medical record; generate structured clinical documentation, initiate medical orders and view radiological images.

Significant challenges exist to deploy mobile solutions. Mobile computing usage faces a significant number of obstacles to widespread adoption within healthcare environments as the applications become more comprehensive requiring increased integration with existing legacy-based based systems. According to hospital administrators interviewed these obstacles including physician adoption, funding, and protection of patient information on handheld devices.

**ABOUT
SPYGLASS
CONSULTING
GROUP**

The **Spyglass Consulting Group** is a market intelligence firm and consultancy focused on the nexus of information technology and healthcare. Spyglass offers products and services in customer & market intelligence, strategic partnership development, product marketing and investment due diligence.

Spyglass' current research is entitled **Healthcare without Bounds** that focuses on the current and future potential of mobile computing and wireless technologies within the healthcare industry.

Spyglass customers include leading high technology vendors such as **IBM, McKesson, Cerner, Philips Medical, Cardinal Health, Sprint, NEC, Palm, RIM, Symantec, Sybase iAnywhere, Citrix, Foundry Networks, PriceWaterhouseCoopers, and Cap Gemini.**

Mr. Gregg Malkary is the **founder** and **Managing Director** of the **Spyglass Consulting Group**. He has over 20 years experience in the high technology industry working with Fortune 2000 companies to help them use information technology for competitive advantage. Mr. Malkary has domain expertise in mobile computing, wireless and broadband technologies with direct experience in the healthcare, government, manufacturing, communications and entertainment markets.

Prior to founding **Spyglass Consulting Group** in August 2002, Mr. Malkary was an Associate Partner at a venture capital firm, **Outlook Ventures** that focused on early stage investments in enterprise software and communications companies. Mr. Malkary has also held consulting and senior management roles in business development, strategic planning and product marketing for public and private technology companies including **IBM, Hewlett Packard, Accenture, Silicon Graphics, SkyTel Communications and Exodus Communications.**

Mr. Malkary is a frequent speaker at regional and national conferences focused on mobile computing, wireless technologies and healthcare related issues. He has been written about and quoted in numerous industry publications such as Network World, eWeek, Wireless Week, MIT Technology Review, Health Data Management, Modern Physician, Health Management Technology, Healthcare IT News and ADVANCE for Health Information Executives.

Mr. Malkary is an honors graduate of **Brown University** having earned a MS and BA in Computer Science. He was awarded the prestigious North American Philips Corporation Fellowship for his graduate research work in graphical simulation environments.

For additional information about this study, please contact Gregg Malkary at gmalkary@spyglass-consulting.com.

Customer Testimonials	<p><i>Trends in Mobile Computing is an excellent review. People of your caliber should be recognized at national meetings for your valuable contribution of legitimate end-user based research, so we can all better understand the market realities of mobile technology in healthcare. Your findings are both encouraging to those trying to advance the usage of mobile technologies, and words of caution to those who extrapolate or make assumptions solely based on anecdotal success stories.</i></p> <p>Andrew Barbash, MD Bethesda, MD Director of Mobile Health Program Medical Records Institute (Boston, MA)</p> <p><i>Trends in Mobile Computing is engaging, comprehensive and thorough. It provided us with valuable insights and perspectives on we can effectively use mobile computing today to automate clinician workflow and processes at the point of care. I recommend this report to healthcare organizations who are looking to make new investments in clinical IT to improve the quality and safety of patient care.</i></p> <p>Richard G. Ellenbogen, MD, FACS Chairman, Department of Neurological Surgery University of Washington School of Medicine Theodore S. Roberts Endowed Chair in Pediatric Neurological Surgery The Children's Hospital and Regional Medical Center Seattle, WA</p> <p><i>"The Spyglass report offers one of the best overviews of the promises and pitfalls of mobile computing solutions for the healthcare community. It is useful for both vendors and providers; helping us plan together to make the best of a promising technology. It is well researched and thoughtful."</i></p> <p>Kevin Whelan Director of Product Marketing, Mobile Solutions McKesson Corp</p> <p><i>"Trends in Mobile Computing provided us with an interesting early view of an emerging market segment that we are sure will evolve to become a significant component of healthcare industry. The Spyglass study provided us with provocative information that we are hoping can be further developed with additional research studies as the market continues to evolve."</i></p> <p>Victor Camlek Director, Market Intelligence Thomson Scientific & Healthcare</p> <p><i>"Mobile medicine through clinicians' use of wireless networks and handheld devices has emerged as a compelling application for healthcare organizations who want to improve care while reducing costs. Gregg Malkary stands out among industry experts following wireless in healthcare-- he's done extensive a priori research (talking to mobile users and those who deploy WLANs; analyzed the results and made worthwhile conclusions that will be of interest to HCOs contemplating wireless rollouts as well as valuable to vendors targeting health IT as a market."</i></p> <p>Patrick Rafter Vice President of Marketing Bluesocket</p>
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Mobile Computing for Physicians January 2005

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