

# FUTURE HEALTHCARE



Published in support of

FROST & SULLIVAN

## ATA ON THE NEXT BIG THING

FURTHERING THE TELEMEDICINE EFFORT

## COMPUTER ASSISTED SURGERY

THE FUTURE OF THE OR

**\* FUTURE SURGERY**  
supplement p36



## BREATHE EASY

WITH TIPS FROM TUFTS

## EHR'S WIDENING WINDOW OF OPPORTUNITY

PLANNING YOUR ATTACK

## CCHIT WANTS YOU!

ROUND TWO OF CERTIFICATION

## KEY WORD: INTEGRATION

RIS/PACS PANEL MODERATED BY FROST & SULLIVAN'S ANTONIO GARCIA

## REVENUE CYCLE MANAGEMENT

HIMSS PREDICTS STORM CLOUDS ON THE HORIZON

# THE DIGITAL DOCTOR

COMPLETE HEALTHCARE A CLICK AWAY





# TELEMEDICINE 2.0 HAS ARRIVED.



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## The Body Area Network Provider

MedApps introduces “Healthcare Anywhere”™ (Ubiquitous Healthcare™) wireless technology (Telemedicine 2.0 as compared to the *wired* technology of Telemedicine 1.0), which is designed to help those patients who suffer from one or more chronic diseases such as diabetes, congestive heart failure (CHF), COPD, asthma or other diseases. This new technology can help healthcare professionals monitor and react to changes in a patient’s medical condition as they occur.

Wired monitoring systems helped open the door for “remote” patient monitoring, however, the patient’s mobility was limited due to the immobility of the devices as well as by the patient’s disease. MedApps is devoted to keeping patients with chronic diseases mobile and in better control of their conditions. The MedApps system continues what the older wired monitoring systems started, with the addition of greater mobility.

Now caregivers can monitor their patients while encouraging as active a lifestyle as possible. Patients who lose mobility and must curtail their daily activities transition the control of their lives from the patient to the disease. This loss of control signals a downward spiral toward immobilization, inpatient encounters and costly trips to the emergency room. MedApps aims to encourage more normal life styles, active routines and patient-control rather than disease-control.



*MedApps is designed to work with multiple external and internal devices. Patient data is collected, analyzed and forwarded, via cell phone “Hub” to MedApps servers, providing a more robust picture of the patient’s health. The MedApps System listens around and within the “Body Area Network” to help stabilize patient treatments and interventions with accurate, timely monitoring – bridging the gap between the patient and healthcare providers.*

**IMAGINE...**

*Jessica has diabetes and is also a heart failure patient. She has an implanted device that continually monitors her vital signs. The data is automatically recorded and transmitted to her healthcare provider, while she goes about her daily routine. MedApps gives Jessica and her family the peace of mind knowing that healthcare professionals are monitoring her as she maintains her everyday lifestyle. Should a problem arise, perhaps, even before Jessica feels any symptoms, the MedApps system detects subtle changes in her medical condition and alerts Jessica and/or her caregivers (via phone, PDA, etc.) of those changes.*

This is Telemedicine 2.0 and MedApps is the solution.

**THE MEDAPPS SOLUTION**

*The MedApps Monitoring System is developed with revolutionary software based on an open architecture for easy integration with large healthcare organizations.*

The MedApps software system remotely connects a patient to their healthcare providers or partners. When a clinical reading is taken, for example from a MedApps Bluetooth enabled glucose meter, the patient's information is instantly transmitted to their cell phone. The phone acts as a "hub," collecting readings from one or more patient devices (glucose, scale, blood pressure monitor, etc.), then transmitting the clinical result(s). This cell phone hub has the ability to collect, store and transmit the information in near real-time to the central MedApps server, which then forwards the data to a specified portal at the patient's healthcare providers' facility for review and action.

Pre-set thresholds are established for each patient by their healthcare providers. When a reading occurs that is outside of these thresholds, an alert may occur and the patient may be contacted using a predetermined mode. One such mode is an interactive voice response system which may ask for additional behavioral information such as, "Have you exercised today?" and "Have you taken your medication?" The responses to these questions, combined with previously collected biometric data, will give medical professionals the ability to have greater insight into a patient's immediate health. Due to the flexibility of the MedApps system, teenagers may request text messaging (to reduce peer influences) while the elderly may require a phone message or a direct call from their caregiver.

The MedApps system is a dynamic new way to assist patients with chronic diseases, enabling them to live a more active lifestyle at work, school or in their recreational activities, while being assured that they are effectively monitored from a distance by their healthcare provider. Using a Telemedicine 2.0 wireless system, like the MedApps system, delays the complications of the patient's loss of mobility, loss of control and onset of deeper depression symptoms, or a need to increase coping mechanisms (which all increase healthcare costs). It is invisible health monitoring integrated seamlessly into the user's everyday life.

**UPCOMING GLOBAL DEMAND**

As general usage of telephone landlines continues to decline, with over 70 percent of Americans owning cell phones, the estimated demand for wireless remote monitoring systems to help care for the sick is projected to increase from a \$78 billion global market in 2006 to a \$345 billion market by 2010 (source: Wireless Medical Technologies).

**THE MEDAPPS MISSION**

The MedApps system will connect people to their healthcare providers and allow ubiquitous monitoring of these patients at all times. The system enables early intervention whereby medical conditions can be detected prior to a patient showing symptoms, and can even avert an inpatient admission by "fine tuning" the patient's therapy.

MedApps envisions their "Healthcare Anywhere" products being available to patients suffering from a wide assortment of diseases who could benefit from continuous or episodic clinical monitoring.

*The MedApps system is designed to fit and adapt with future development in an ever-changing healthcare industry.*

**THE BODY AREA NETWORK**

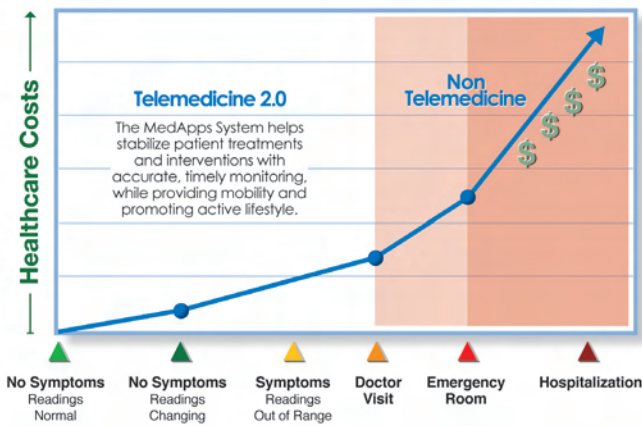
The MedApps system is designed for external (glucose meters, scale, blood pressure monitors, spirometers, ECG, etc.) and internal devices (pacemakers, defibrillators, loop recorders, etc.). The output of multiple devices can be collected, analyzed and forwarded resulting in a picture of the patient's entire body network. As patient data is collected and sent via the cell phone "hub" on to the MedApps server, it can be configured to what healthcare providers or caregivers need. Rapidly changing conditions, such as asthma, may require instant communication; slower moving conditions, such as heart failure data, may need trending prior to transmitting to a provider. The goal for the "Body Area Network" communication system is to help stabilize a patient's treatments, minimize the need for interventions and educate patients about their specific medical condition. Accurate and timely monitoring can reduce the need for constant office visits or episodes of care.

**EXTERNAL AND INTERNAL DEVICES**

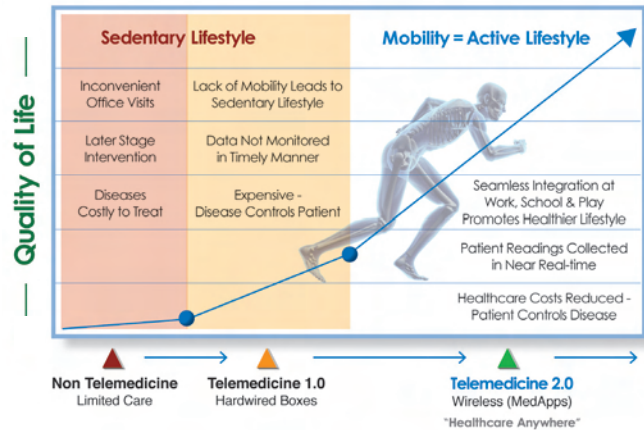
MedApps has developed BluePAL™ technology which transmits data wirelessly (via Bluetooth®) from the most popular glucose devices manufactured to a central server. (BluePAL will be available in the latter part of 2007.) This innovative technology has been designed for the disease management organizations (DMO) to let patients use their existing glucose meters with the MedApps Remote Patient Monitoring System. Implantable devices will use the MedApps BlueMICS™ technology to enable existing monitoring equipment to seamlessly integrate into the MedApps System, listening to the "Body Area Network" on a regular basis, analyzing trends and detecting anomalies. When patients are not required to change the monitoring equipment they are familiar with, their acceptance of adding new MedApps technologies is high.



### Telemedicine 2.0 Allows Early Intervention/Reduces Healthcare Costs



### The Evolution of Telemedicine Enhances Quality of Life



### FUTURE SOLUTIONS

The MedApps “Healthcare Anywhere” System is an ideal solution for DMOs and co-morbidity patients. It provides the ability to connect more patients to healthcare providers, central nursing call centers and healthcare partners at a significant cost reduction, compared to the Telemedicine 1.0 solutions currently in place today.

Millions of patients are under disease management (DM) care in the U.S. today. DM outcomes are twofold: first, they are designed to lengthen a patient’s quality of life, and second, they decrease healthcare costs. Remote patient monitoring addresses both goals and represents a total U.S. market of more than 60 million people who suffer from one or more chronic diseases. In light of this, DMOs will be a primary focus for MedApps, as they are the driving force to buy and operate MedApps services. In turn, the DMOs operating costs are reduced, profitability will increase and better care will be provided to patients.

### OPPORTUNITIES

The MedApps system offers many benefits to the private practitioner, the medical investigation market, private nursing homes and other medical facilities, and can play an important role in pilot studies and clinical trials. It is the perfect solution for the future development of specialized nursing centers that will focus on specialized disease care throughout the U.S.

*MedApps has already been recognized and named one of the Top 10 Healthcare IT Innovators for 2007 by Fierce Health IT (www.fiercehealthit.com/innovators/2007).*

### MEDAPPS SYSTEMS AND SERVICES

MedApps has focused on introducing a cost-effective wireless remote patient monitoring system that utilizes multiple methods of wireless and cellular technologies to effectively connect patients to their healthcare provider. The MedApps system allows patients mobility and freedom to transmit their personal healthcare readings with wireless, near real-time monitoring, to a community-based healthcare provider. The system is designed to help promote an active, healthy lifestyle for patients who would otherwise be sedentary and restricted to a “point of care.”



*If you are interested in learning more about advancements in Telemedicine 2.0 or how you can utilize the MedApps Remote Patient Monitoring System for “Healthcare Anywhere,” please contact Kent Dicks, President/CEO of MedApps, at [kent.dicks@medapps.net](mailto:kent.dicks@medapps.net).*

▶▶▶ **TELEMEDICINE 2.0 HAS ARRIVED.**

## “Healthcare Anywhere”™

Can you tell which one of these people is a heart failure patient with diabetes, whose vital signs are being monitored right now?

Neither can anyone else.



**MedApps**™  
[www.medapps.net](http://www.medapps.net)

### **Introducing MedApps Remote Patient Monitoring System™**

The MedApps Remote Patient Monitoring System utilizes Telemedicine 2.0 technology, which enables an individual with a chronic disease to live a more active lifestyle. It is truly invisible, near real-time health monitoring, integrated seamlessly into the users every day life. Only the patient and the doctor have to know.