EXHIBIT M

<u>Drew R. Herndon</u> Name of person signing

PROVISIONAL APPLICATION COVER SHEET

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INVENTOR(s)/APPLICANT(s)					
LAST NAME	FIRST NAME	MIDDLE INITIAL	RESIDENCE (CITY AND EITHER STATE OR FOREIGN COUNTRY)		ATE OR
QUY	Roger	J.	Mill Valley, California USA		
TITLE OF THE INVENTION (280 characters max)					
Method and Apparatus for Health and Disease Management Combining Patient					
Data Monitoring with Wireless Internet Connectivity					
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ENCLOSED APPLICATION PARTS (check all that apply)					
	Number of Pages 3 Number of Sheets 2		Small Entity Statement Other (specify)		
METHOD OF PAYMENT (check one)					
A check or money order is enclosed to cover the Provisional filing fees. The Commissioner is hereby authorized to charge filing fees and credit Deposit Account Number: 23-2415 (Docket No. 24450-701)			PROVISIONAL FILE FEE AMOUNT (\$	- 1	00
The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government. No. Yes, the same of the U.S. Government agency and the Government contract numbers are: Respectfully submitted, Date: December 17, 1999					
TYPED or PRINTED NAME Paul Davis REGISTRATION NO. 29,294					
(if appropriate) Additional inventors are being named on separately numbered sheets attached hereto. **PROVISIONAL APPLICATION FILING ONLY**					



DECLARATION OF INVENTION FOR PROVISIONAL PATENT APPLICATION

Method and Apparatus for Health and Disease Management Combining Patient <u>Data Monitoring with Wireless Internet Connectivity</u>

Background of the Invention

Previous inventions by the Inventor addressed the need to reduce health care costs through providing educational health care information and interactive physiological monitoring in the home environment by means of a user-friendly, interactive system (Patent #5,601,435 & CIPs). The previous inventions were based on a video game console, or a multimedia player (such as that manufactured by Philips/Magnavox) using a conventional television screen as the display device to achieve a system which is simpler to use than systems based on a personal computer.

Although the personal computer is prevalent is the U.S., it is too expensive for a consumer physiological monitoring system and there are many people who find it too complicated to set up and use for that purpose. High-risk, chronically ill patients, with diseases such as diabetes, asthma or cardiac abnormalities are responsible for more than half of health care costs in the US and form the fastest growing segment as a result of our aging population. However, it is the aging, chronically ill patient who is most likely not to be able to afford or use a system built around a personal computer.

The initial embodiment of the previous inventions utilized a compact disc to provide interactive information for disease management. In subsequent embodiments, the information could also be delivered from a server via a multimedia appliance with an Internet connection to the World Wide Web. The advent of television sets with built-in connections to the Internet (e.g. WebTV) provided yet another embodiment. Various medical devices, such as a blood glucose monitor, blood pressure recorder, respiratory flow meter or ambulatory ECG recorder, could be connected to the system. The data from the medical devices could control the display of information presented to the patient and be stored for review by a health care provider.

With the growing adoption of the Internet, there has been a rapid increase in the number of patients using it to obtain health care information relating to both the management of diseases such as diabetes, or to the development of a healthy life style, such as by exercise and diet. There are thousands of health care related web sites available and there are many companies collecting health care information and providing interactive information to patients via the Internet.

The advent of technology for wireless Internet connectivity enables an alternative system for interactive physiological monitoring and providing health-related information that is even less expensive and easier to use than one based on a television display. In addition,



the deployment of voice processing technology will enable the ultimate user interface: i.e. one to which patients can talk. One type of a wireless web device (WWD) currently available is the personal digital assistant (PDA) equipped with a wireless modem (e.g. Palm Pilot). Anther type of WWD is the web-enabled cell-phone (WEP) and the new generation of WEPs also offers a voice-activated interface. A third type of WWD under development is a combination of both a computer and a cell-phone.

Software can be downloaded to the WWD from a server to provide a personalized display for the user, update information from health and disease management service companies, and control devices connected via a dataport to the WWD. The information supplied by health care web sites must be specially designed to suit the constraints of the small display screens of WWDs. However, the early adoption of such devices in Europe has demonstrated that their use to display information derived from the web is acceptable to consumers.

Wireless Internet connectivity has the advantage that the patient is not constrained to the place where the personal computer, information appliance or television set is located. For example, a diabetic could connect a blood glucose meter to a web-enabled cell phone while away from home and download data to a Diabetes Management Company's server and in response receive quitance displayed on the screen (or by voice) about choices for the next meal. Alternatively, the same person may take the WWD to the local gymnasium, send data output from various exercise machines over the Internet and receive a personalized response from the server of a company specializing in Health & Lifestyle Management. The connection of the WWD to a medical device, exercise machine or other health care equipment could be via a standardized data port, an adapter to extant interfaces such as RS232, infra red, radio frequency, or by default, the patient inputting data on the keypad.

Several companies have developed interactive voice response systems (IVR) for disease management which use extensive telephone menu trees, but these do not provide for connections to medical devices or the interactive display of data. Other companies provide medical devices equipped with modems, but these also do not provide the interactive display of health management information. Some companies (e.g. Health Hero Network Inc.) do offer systems with medical devices connected to the Internet to collect data and provide interactive patient information. However, these systems use a personal computer, a television screen, or proprietary appliance for the user interface and not a WWD; hence they are more expensive, more complicated to use, and lack mobility in comparison to the present invention.

Summary of the Invention

The present invention is a method and system for assisting patients to manage a disease or maintain a healthy lifestyle by collecting patient data and providing information in response to those data by means of a wireless device designed to display interactive information through an connection to the Internet.



In the preferred embodiment of the present invention, a web-enabled wireless phone (e.g. Sprint PCS Phone) is coupled to a medical monitoring device, such as (but not limited to) a blood glucose meter. An adapter is used if necessary to convert the output signal of the medical data monitor to a suitable input signal for the phone. The patient connects to a specific Internet site and a software program, resident on a remote server located on the Internet, downloads an interactive user interface for that patient and the measurement of the physiological data. Further information may be provided to the patient in response to the data or to other inputs that have been entered by voice or keypad.

In place of a conventional medical monitoring device, the web-enabled wireless phone may be coupled to other devices which provide health related information data, such as an electronic scale, a body fat gauge, biofeedback devices, physio-therapy or chiropractic equipment, or any type of exercise machine. The user connects to the Internet and a software program, resident on a remote server located on the Internet, captures data from the coupled device and downloads interactive information that relates to health management. Further information may be provided to the user in response to the data or to other inputs that have been entered by voice or keypad.

In an alternative embodiment of the present invention the web-enabled wireless phone is replaced in the above applications by a palm computer or "personal digital assistant" (PDA) that is equipped with a wireless modem and a web interface (e.g., the Palm Pilot Internet models).

In an alternative embodiment of the present invention, the web-enabled wireless phone, or wireless PDA, is replaced in the above applications by a device that combines the functions of a computer, PDA and a telephone, such as the next generation of cell-phones or satellite phones that have been demonstrated by several manufacturers.

Inventor

I hereby declare that I am the Inventor of the above-described invention on this date.

Signed,

Roger J. Quy Ph.D.

Date, November 6th, 1999.



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