

## Report Overview

# Health Self-Monitoring: Technologies and Global Markets

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Jun 2015 • HLC185A

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### Use this report to:

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- Learn more about self-tracking usability by target groups such as seniors.
- Analyze mobile digital technologies that generate health-related data primarily for the user's personal consumption.
- Receive information about relevant patents through analysis.
- Gather knowledge about major companies taking part in self-monitoring healthcare.

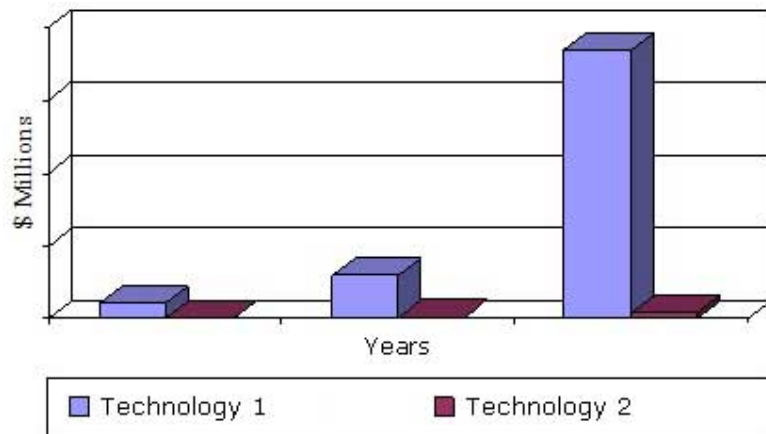
# Highlights


The global market for selected health self-monitoring technologies reached \$1.1 billion and nearly \$3.2 billion in 2013 and 2014, respectively. This market is forecast to grow at a compound annual growth rate (CAGR) of 42.9% to reach \$18.8 billion in 2019.

## This report provides:

- Overview the global markets and technologies for health self-monitoring.
- Analyses of global market trends, with data from 2013 and 2014, and projections of CAGRs through 2019.
- Identify and describe existing health self-monitoring technologies, as well as technologies that are under development.
- Analyze the major drivers and constraints that will influence the future development of the self-monitoring market.
- Project the market for major health self-monitoring technology platforms, devices, and software.
- Describe and evaluate different vendors' business models.
- Assess the potential impact of self-monitoring on the way medicine is practiced.

SAMPLE FIGURE  
GLOBAL MARKET FOR SELECTED HEALTH SELF-MONITORING TECHNOLOGIES, 2013-2019  
(\$ MILLIONS)



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## Introduction & Scope

### INTRODUCTION

#### STUDY BACKGROUND

Self-monitoring is a new trend in personal health where individuals use electronic devices and software technologies to collect, process and display a wide range of personal data to help them monitor and manage their personal health. The current, early generation of self-monitoring tools enables the user to monitor and record details of his or her everyday activity, from counting steps or miles walked, and floors climbed, to monitoring calorie consumption, as well daily patterns and hours of sleep. Future developments will expand the range of physiological variables that can be self-monitored and enhance the usefulness of the data thus collected.

The growing use of self-tracking, facilitated by recent advances in technology, heralds "the biggest shake-up in the history of medicine," according to Eric Topol, a prominent physician who has studied the uses of wireless technology to treat chronic disease.

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The market environment for healthcare information systems has shifted dramatically in recent years. After years of incremental steps toward a national healthcare information technology (IT) infrastructure, the American Recovery and Reinvestment Act (ARRA), the economic stimulus bill approved by Congress and signed into law in February 2009, provides more than \$19 billion for healthcare IT spending, including more than \$17 billion to promote the wider adoption of electronic health records (EHRs). The Obama administration has made it clear that this \$17 billion is only a down payment on the total cost of a national EHR system, which is generally estimated at \$100 billion or more.

Modernization of the nation's healthcare IT infrastructure is a cornerstone of the Patient Protection and Affordable Care Act (PPACA), the legislation that established a national healthcare system that was enacted into law in 2010. The PPACA does not include any specific measures to encourage the adoption of EHRs beyond those already contained in the ARRA, but EHRs are one of several clinical healthcare IT technologies that have the potential to increase the availability and quality of healthcare while contributing to lower costs.

In addition to the potential benefits in terms of the quality and cost of U.S. healthcare, this is obviously a significant opportunity for suppliers of healthcare IT and related technologies. U.S. healthcare providers presently spend approximately \$40 billion per year on all types of IT technologies.

### **GOALS AND OBJECTIVES**

The goal of the report is to examine market opportunities for health self-monitoring products and technologies that are now on the market or that are likely to enter the market over the rest of the decade. Specific objectives of the report include analyzing the following:

- Identify and describe existing health self-monitoring technologies, as well as technologies that are under development.
- Estimate the 2014 market for these technologies.
- Analyze the major drivers and constraints that will influence the future development of the self-monitoring market.
- Project the market for major health self-monitoring technology platforms, devices and software.
- Describe and evaluate different vendors' business models.
- Assess the potential impact of self-monitoring on the way medicine is practiced.

### **INTENDED AUDIENCE**

The report has been written explicitly for those with an interest in health self-monitoring, including the following:

- Manufacturers and distributors.
- Healthcare professionals.
- Regulators and health insurers.
- Investors.
- The financial and analyst community.

The report is tailored especially for readers with an interest in the marketing, financial and management dimensions of the health self-monitoring industry. However, readers with a more general interest in the ways in which technology enables individuals to track their exercise, diet, weight and other aspects of their personal health may find it interesting and useful as well.

### **SCOPE AND FORMAT**

BCC Research has published studies of several related topics, including wearable computing (IFT071A), telemedicine (HLC014E), patient monitoring (HLC038D), smart textiles (AVM050B) and healthcare IT (HLC048D). The present study complements, rather than duplicates, these studies.

For example, the wearable computing study (IFT071A) discusses the likelihood that

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“activity monitoring applications” for sports and fitness will expand to other health and wellness markets but does not discuss these health and wellness application in much detail. IFT071A also discusses “wearable healthcare devices and safety monitors,” but the latter are intended more for third-party (e.g., caregiver) monitoring rather than self-monitoring. The same is true of the patient monitoring technologies analyzed in HLC038D, HLC014E and AVM050B.

The present report focuses specifically on technologies that enable the individual to monitor his or her own health. Third-party monitoring technologies thus are specifically excluded, except to the extent that the individual being monitored has direct access to the data, in a form useful for self-monitoring. Apps that extract data from an individual’s EHR and format and display those data on the individual’s self-monitoring device are covered in the report, but not EHRs per se. The latter are covered in BCC Research report HLC048D.

Additional, unique topics covered in this report include:

- Self-tracking’s usability by target groups such as seniors.
- Vendor business models (e.g., many self-tracking apps are free. How are vendors going to make money in this market?).
- Structural impacts on the healthcare industry.

The study format includes these major elements:

- Executive summary.
- Overview (definitions, enabling technologies, market segmentation).
- Market environment (demographic, economic, epidemiological, legal/ regulator, healthcare industry).
- Major health self-monitoring platforms.
- Health self-monitoring hubs.
- Peripherals.
- Software.
- Company profiles.
- Patent analysis.

## **METHODOLOGY**

Both primary and secondary research methodologies were used in preparing this study. The findings and conclusions of this report are based on information gathered from developers, providers, integrators and users of self-monitoring technologies. Interview data were combined with information gathered through an extensive review of secondary sources (e.g., trade publications, trade associations, company literature, online databases) to produce the baseline market estimates contained in this report.

The base year for analysis and projection is 2013. The market projections for 2014–2019 are based on a consensus among the primary contacts combined with BCC Research’s understanding of the key market drivers and their impact from a historical and analytical perspective. The analytical methodologies used to generate the market estimates are described in detail below.

All dollar projections presented in this report are in 2013 constant dollars.

## **ANALYST’S CREDENTIALS**

Andrew McWilliams is a partner with 43rd Parallel LLC, a Boston, Mass.-based international technology and marketing consulting firm. He is also the author of several other BCC Research studies in areas related to health self-monitoring, including:

- HLC124A Emerging Diagnostic Technologies in the Changing U.S. Market.
- HLC014G Global Markets for Telemedicine Technologies.
- HLC082A Emerging Markets for Advanced Medical Technologies.
- HLC070A Preventive Healthcare Technologies, Products and Markets.
- HLC066C Medical Automation Technologies, Products and Markets.
- HLC016D Microelectronic Medical Implants: Products, Technologies and Opportunities.

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- HLC038C Patient Monitoring.
- HLC054C The Home Medical Equipment Market.

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