

## Remote Patient Monitoring Market to 2019

Potential to Reduce Healthcare Cost Burden and Improve Quality of Care to Drive Future Growth



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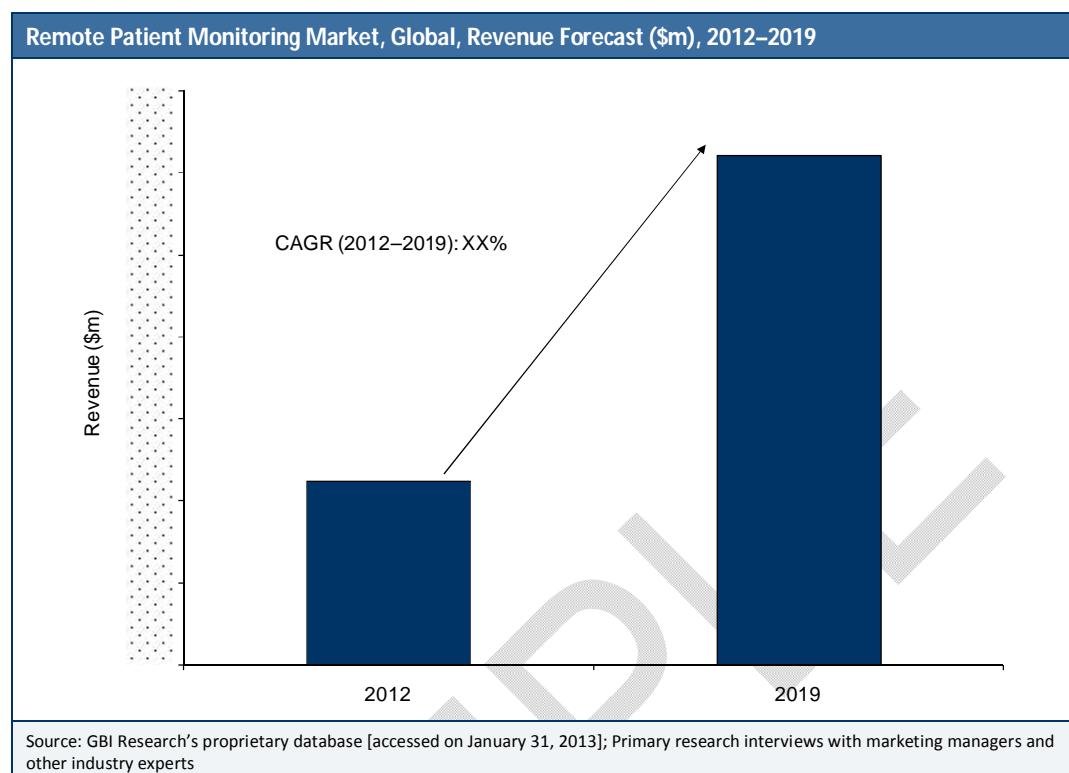
**GBI Research**  
Global Business Intelligence

## GBI Research Report Guidance

- This report begins with an executive summary, which captures the key points that determine the dynamics of the RPM market. It also covers competition in the industry and key categories, segments and geographical regions.
- Chapter two provides an introduction to the global remote patient monitoring devices report.
- Chapter three provides a device overview for the global remote patient monitoring devices market.
- Chapter four provides information on market size for the 2005–2012 historic period and the 2012–2019 forecast period. It also has information relating to RPM market trends, dynamics and the competitive landscape. In the market dynamics section, comprehensive information is provided on market drivers and restraints.
- Chapter five gives information on market size information for the 2005–2012 historic period and the 2012–2019 forecast period for the US, Canada, the UK, France, Germany, Italy, Spain, Japan, India, Australia and Brazil, with cross-country analysis.
- Chapter six profiles the leading companies in the global RPM market, along with the company's products, features and benefits.
- Chapter seven focuses on the pipeline products in a range of categories. Key pipeline products are listed and discussed in detail and product approval and expected launch dates are provided where available.
- Chapter eight discusses the consolidation landscape in the RPM industry, and looks at the total number of deals that took place between 2007 and 2012.

## Executive Summary

*The global Remote Patient Monitoring (RPM) market was valued at \$XXm in 2012 and is forecast to reach \$XXm by 2019 at a Compound Annual Growth Rate (CAGR) of XX%.*



The global Remote Patient Monitoring (RPM) market was valued at \$XXm in 2012 and is forecast to reach \$XXm by 2019 at a Compound Annual Growth Rate (CAGR) of XX%. The major drivers of growth will be the increasing awareness of RPM's importance in reducing the healthcare burden in countries where reimbursement is available, as well as reducing the number of hospitalizations, shortening the hospital stay, and improving the quality of patient care. Positive results from clinical studies supporting these factors will further boost healthcare providers' and insurers' confidence and encourage implementation during the forecast period. Companies are also expected to focus on developing interoperability between RPM and healthcare IT infrastructure, which will improve adoption, although concerns over privacy and safety issues associated with RPM may prove a limiting factor. An unfavorable reimbursement scenario in all major economies except the US, Germany and France is also expected to have a negative impact.

## The US is the Largest Market for Remote Patient Monitoring

The US is the largest market for RPM, valued at \$XXm in 2012 and forecast to reach \$XXm by 2019 at a CAGR of XX%. It also accounted for XX% of the global RPM market in 2012. The major factors driving the market are increased awareness of the importance of RPM in reducing the healthcare burden and the availability of reimbursement, which has been extended to all US states since 2006. The US Center for Medicare and Medicaid Services (CMS) reimburses one remote device interrogation performed by a physician per XX-day period. Concerns over the lack of reimbursement for remote device evaluation and data charges may negatively impact future growth.

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## 2 Introduction

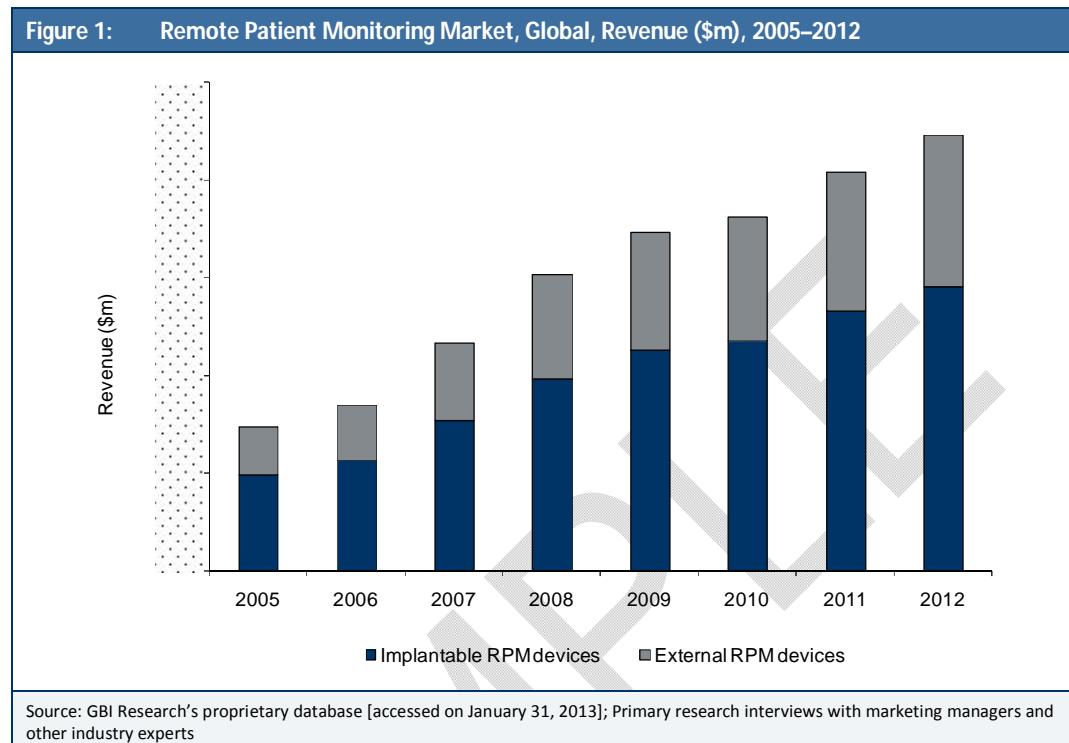
Remote Patient Monitoring (RPM) allows clinicians to remotely monitor and measure a patient's vital health indicators using sensors and detectors, which then transmit data to healthcare professionals. RPM also uses alerts, reminders, video conferencing and questioning to achieve the overall objective of providing better healthcare to patients. Its use is driven by the need to improve healthcare through increased access and support to patients, better education, improved health outcomes, and ultimately a higher standard of care.

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## 4 Global Remote Patient Monitoring Market: Market Characterization

### 4.1 Global Remote Patient Monitoring Market, Revenue (\$m), 2005–2012

The following figure shows the revenue generated by the various sectors of the global RPM market from 2005 to 2012.



The following table shows the revenue generated by the various segments of the global RPM market from 2005 to 2012.

**Table 1: Remote Patient Monitoring Market, Global, Revenue (\$m), 2005–2012**

	2005	2006	2007	2008	2009	2010	2011	2012	CAGR (%)
Implantable RPM devices	~750	~850	~1000	~1250	~1500	~1750	~2000	~2250	~15%
External RPM devices	~250	~150	~100	~150	~200	~250	~300	~350	~10%
Overall market	~1.0	~1.0	~1.1	~1.4	~1.7	~2.0	~2.3	~2.6	~15%

Source: GBI Research's proprietary database [accessed on January 31, 2013]; Primary research interviews with marketing managers and other industry experts

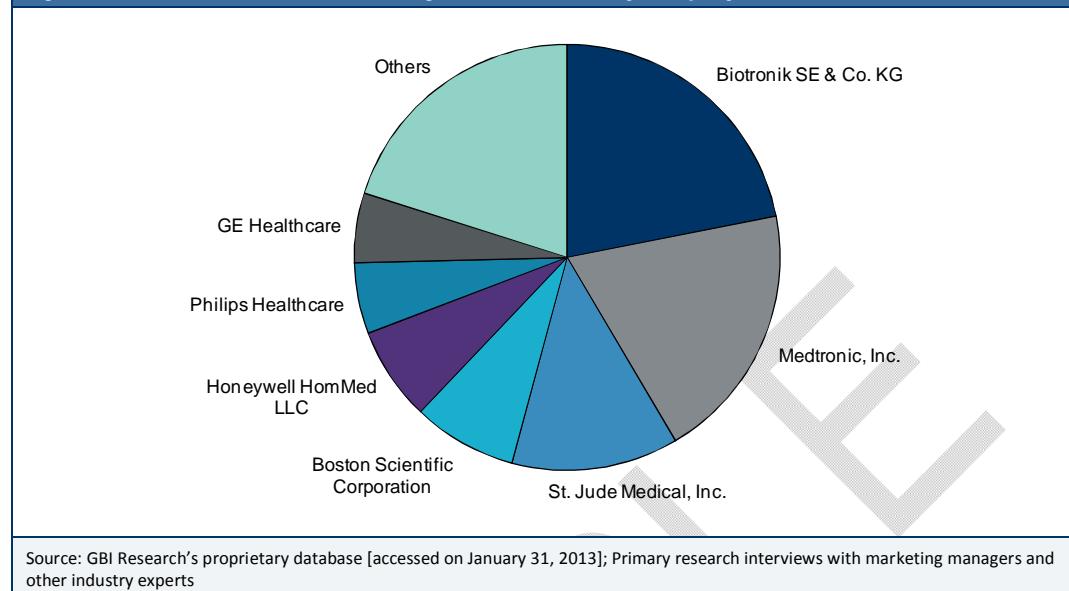
The global RPM market was valued at \$XXm in 2005 and grew to \$XXm in 2012 at a Compound Annual Growth Rate (CAGR) of XX%. The global implantable RPM market was valued at \$XXm in 2005 and grew to \$XXm in 2012 at a CAGR of XX%. The global external RPM market was valued at \$XXm in 2005 and grew to \$XXm in 2012 at a CAGR of XX%. RPM's potential to reduce the number of clinic visits and hospitalizations and reduce the duration of hospital stay is the primary driver for market growth, as is the need for governments in developed economies such as the US and Europe to reduce their healthcare cost burdens.

### 4.3 Global Remote Patient Monitoring Market, Key Company Share (%), 2011

In 2011, the top four companies accounted for more than XX% of the global market and are the only ones to have presence in the global implantable RPM market

The following figure shows key companies' shares in the global RPM market in 2011.

Figure 3: Remote Patient Monitoring Market, Global, Key Company Share (%), 2011



The following table shows key companies' shares in the global RPM market in 2011.

Table 3: Remote Patient Monitoring Market, Global, Key Company Share (%), Revenue (\$m), 2011

Company Name	Market Share	Revenue
Biotronik SE & Co. KG		
Medtronic, Inc.		
St. Jude Medical, Inc.		
Boston Scientific Corporation		
Honeywell HomMed LLC		
Philips Healthcare		
GE Healthcare		
Others		

Source: GBI Research's proprietary database [accessed on January 31, 2013]; Primary research interviews with marketing managers and other industry experts

Biotronik led the global RPM market in 2011 with a share of XX%, followed by Medtronic with XX%, St. Jude Medical with XX%, Boston Scientific with XX% and Honeywell HomMed with XX%. The top four companies accounted for more than XX% of the global market and are the only ones to have presence in the global implantable RPM market. Honeywell HomMed leads the global external RPM market with an overall share of XX% in the RPM market, followed by GE Healthcare and Philips Healthcare with XX% each.

Increasing awareness of RPM's importance in reducing healthcare costs, improving procedure outcomes, reducing the number of hospitalizations, and shortening hospital stay will provide a significant opportunity for companies to sustain top-line revenue growth during the forecast period. The availability of reimbursement in the US and European countries such as France and Germany will also allow companies to sustain revenue growth.

## 9 Appendix

### 9.1 Definitions

#### 9.1.1 Remote Patient Monitoring

RPM devices are used to retrieve and transmit data through a wireless system to a monitoring station or a physician's office for further analysis and interpretation. This category includes implantable RPM and external RPM devices.

##### 9.1.1.1 External Remote Patient Monitoring Devices

External RPM devices retrieve data from external measurement devices such as glucose meters, blood pressure monitors, pulse oximeters, weight scales and ECG and transmit it through a wireless system to a monitoring station or a physician's office for further analysis and interpretation. This segment includes the external module or transmitter which receives the data from the external measurement devices. One external RPM device consists of one external module or transmitter.

##### 9.1.1.2 Implantable Remote Patient Monitoring Devices

Implantable RPM devices retrieve data from the implantable sensor and transmit it through a wireless system to a monitoring station or physician's office for further analysis and interpretation. This segment includes the external module or transmitter which receives the data only from the implantable sensors used for arrhythmia and heart failure management. One implantable RPM device consists of one external module or transmitter.

### 9.2 Acronyms

CAGR: Compound Annual Growth Rate

CMS: Centers for Medicare and Medicaid Services

CONNECT: Clinical Evaluation of Remote Notification to Reduce Time to Clinical Decision

CRT-D: Cardiac Resynchronization Therapy-Defibrillator

EHR: Electronic Health Records

EMR: Electronic Medical Records

GDP: Gross Domestic Product

HL7: Health Level Seven International

ICD: Implantable Cardiac Defibrillator

ICM: Implantable Cardiovascular Monitor

IEEE: Institute of Electrical and Electronics Engineers

REFORM: Remote Follow-up of Patients Receiving Implantable Cardioverter Defibrillator for Prophylactic Therapy

RPM: Remote Patient Monitoring

TRUST: The Lumos-T Safely RedUceS RouTine Office Device Follow-Up

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#### **9.4 Research Methodology**

GBI Research's dedicated research and analysis teams consist of experienced professionals in marketing and market research with consulting backgrounds in the medical devices industry and advanced statistical expertise.

GBI Research adheres to the codes of practice of the Market Research Society ([www.mrs.org.uk](http://www.mrs.org.uk)) and the Strategic and Competitive Intelligence Professionals ([www.scip.org](http://www.scip.org)).

All GBI Research databases are continuously updated and revised. The following research methodology is followed for all databases and reports.

##### **9.4.1 Secondary Research**

The research process begins with exhaustive secondary research on internal and external sources being carried out to source qualitative and quantitative information relating to each market.

The secondary research sources that are typically referred to include, but are not limited to:

- Company websites, annual reports, financial reports, broker reports, investor presentations and SEC filings.
- Industry trade journals, scientific journals and other technical literature.
- Internal and external proprietary databases.
- Relevant patent and regulatory databases.
- National government documents, statistical databases and market reports.
- Procedure registries.
- News articles, press releases and web-casts specific to the companies operating in the market.

#### **9.4.2 Primary Research**

GBI Research conducts hundreds of primary interviews a year with industry participants and commentators in order to validate its data and analysis. A typical research interview fulfills the following functions:

- It provides first-hand information on the market size, market trends, growth trends, competitive landscape and future outlook.
- It helps in validating and strengthening the secondary research findings.
- It further develops the analysis team's expertise and market understanding.

Primary research involves email correspondence, telephone interviews and face-to-face interviews for each market, category, segment and sub-segment across geographies.

The participants who typically take part in such a process include, but are not limited to:

- Industry participants: CEOs, VPs, marketing/product managers, market intelligence managers and national sales managers.
- Hospital stores, laboratories, pharmacies, distributors and paramedics.
- Outside experts: investment bankers, valuation experts, research analysts specializing in specific medical equipment markets.
- Key opinion leaders: physicians and surgeons specializing in different therapeutic areas corresponding to different kinds of medical equipment.

#### **9.4.3 Models**

Where no hard data is available GBI Research uses modeling and estimates in order to produce comprehensive data sets. The following rigorous methodology is adopted:

Available hard data is cross-referenced with the following data types to produce estimates:

- Demographic data: population, split by segment.
- Macro-economic indicators: Gross Domestic Product, Inflation rate. .
- Healthcare Indicators: health expenditure, physicians base, healthcare infrastructure and facilities.
- Selected epidemiological and procedure statistics.

Data is then cross-checked by the expert panel.

All data and assumptions relating to modeling are stored and are available to clients on request.

#### **9.4.4 Forecasts**

GBI Research uses proprietary forecast models. The following four factors are utilized in the forecast models:

- Historic growth rates.
- Macro indicators such as population trends and healthcare spending.
- Forecast epidemiological data.
- Qualitative trend information and assumptions.

Data is then cross-checked by the expert panel.

#### **9.4.5    Expert Panels**

GBI Research uses a panel of experts to cross verify its databases and forecasts.

GBI Research's expert panel comprises marketing managers, product specialists, international sales managers from medical device companies; academics from research universities, KOLs from hospitals, consultants from venture capital funds and distributors/suppliers of medical equipment and supplies.

Historic data and forecasts are relayed to GBI Research's expert panel for feedback and adjusted in accordance with this feedback.

#### **9.6    *Disclaimer***

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