

## **Travel Vaccines Market to 2019**

**Hepatitis A, Japanese Encephalitis and Meningococcal Vaccine Segments to Drive Growth**



## GBI Research Report Guidance

- Chapter two gives an introduction to the travel vaccines market in the top seven markets.
- Chapter three details vaccine-preventable diseases, regulatory frameworks, and the vaccine manufacturing process.
- Chapter four includes data on market size from 2007–2019 and the key drivers and restraints of the travel vaccines market.
- Chapter five provides market size and market forecast data and details of the cost of vaccination for hepatitis A vaccines for the 2007–2019 period, as well as analysis of the pipeline in the top seven markets.
- Chapter six provides market size and market forecast data and details of the cost of vaccination for hepatitis B vaccines for the 2007–2019 period, as well as analysis of the pipeline in the top seven markets.
- Chapter seven provides market size and market forecast data and details of the cost of vaccination for JE vaccines for the 2007–2019 period, as well as analysis of the pipeline in the top seven markets.
- Chapter eight provides market size and market forecast data and details of the cost of vaccination for meningococcal vaccines for the 2007–2019 period, as well as analysis of the pipeline for the top seven markets.
- Chapter nine provides market size and market forecast data and details of the cost of vaccination for rabies vaccines for the 2007–2019 period, as well as analysis of the pipeline for the top seven markets.
- Chapter 10 provides market size and forecast data and details of the cost of vaccination for typhoid vaccines for the 2007–2019 period, as well as analysis of the pipeline for the top seven markets.
- Chapter 11 provides market size and forecast data and details of the cost of vaccination for yellow fever vaccines for the 2007–2019 period, as well as analysis of the pipeline for the top seven markets.
- Chapter 12 includes detailed analysis of the top companies operating in the travel vaccines market.
- Chapter 13 describes the major M&A deals that took place in the global travel vaccines market from 2009 to 2012 according to year, geography, type and value.
- Chapter 14 gives an overview of the Asia-Pacific markets of India, China and Australia, looking at regulatory frameworks and profiles of the top companies operating there. It also analyzes the pipelines and major M&A deals that took place between 2009 and 2013 according to year, type and value.

*The travel vaccines market in the top seven markets was worth \$XXm in 2012, is estimated to grow at a CAGR of XX% to \$XXm during the 2012–2019 forecast period*

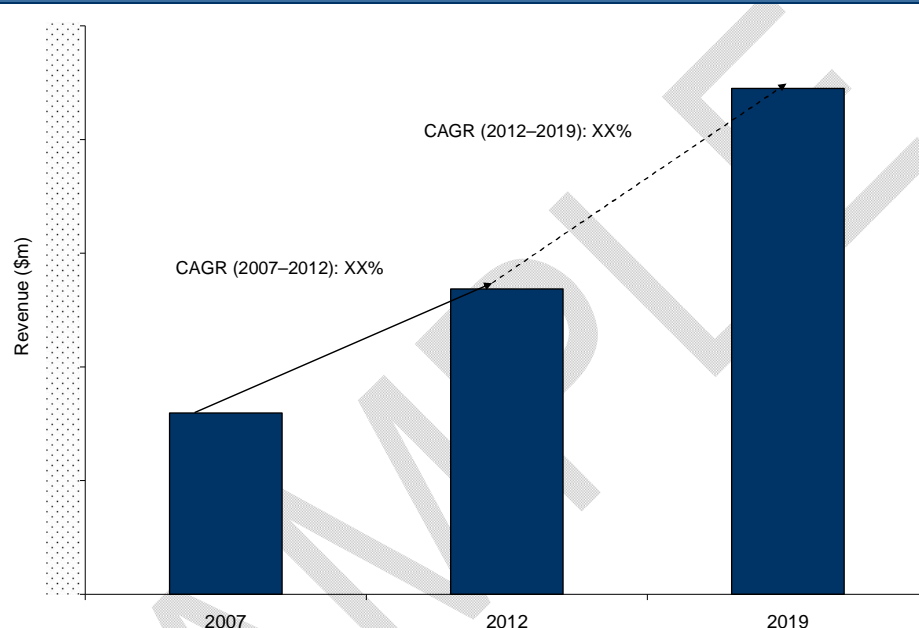
## Travel Vaccines Market to 2019: Executive Summary

### The Travel Vaccines Market is Forecast to Grow at a CAGR of XX% from 2012 to 2019

GBI Research estimated the travel vaccines market in the top seven markets (comprising the US, the UK, Spain, Italy, France, Germany and Japan) to be worth \$XXm in 2012, having grown at a Compound Annual Growth Rate (CAGR) of XX% from 2007. The Year-on-Year (YoY) market growth was XX%, with revenue of \$XXm in 2011. It is expected to reach \$XXm by 2019, having grown at a CAGR of XX% from 2012.

The hepatitis A travel vaccines market in the top seven markets was worth \$XXm in 2012 and is expected to reach \$XXm by 2019 at a CAGR of XX%. The meningococcal travel vaccines market accounted for \$XXm in 2012 and is expected to reach \$XXm by 2019 at a CAGR of XX%. The Japanese Encephalitis (JE) travel vaccines market accounted for \$XXm in 2012 and is expected to reach \$XXm by 2019 at a CAGR of XX%.

Travel Vaccines Market, Top Seven Markets, Revenue Forecast (\$m), 2007–2019



Source: GBI Research's Proprietary Epidemiology and Market Size Database [accessed February 6, 2013]; GBI Research's Proprietary Diseases Database [accessed February 6, 2013]

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SAMPLE

## 2 Travel Vaccines Market to 2019: Introduction

### 2.1 Overview

GBI Research's analysis shows that the travel vaccines market in the top seven markets (the US, the UK, Spain, Italy, France, Germany and Japan) is highly consolidated, with the top five companies (GlaxoSmithKline (GSK), Sanofi, Pfizer, Novartis, Merck) accounting for nearly XX% of the total market. It was valued at \$XXm in 2012, having grown at a Compound Annual Growth Rate (CAGR) of XX% from 2007. The Year-on-Year (YoY) market growth was XX%, with revenues of \$XXm in 2011. The market is expected reach \$XXm by 2019, growing at a CAGR of XX% from 2012.

The hepatitis A travel vaccines market in the top seven markets was worth \$XXm in 2012 and is expected to reach \$XXm by 2019 at a CAGR of XX%. The meningococcal travel vaccines market was worth \$XXm in 2012 and is expected to reach \$XXm by 2019 at a CAGR of XX%. The Japanese Encephalitis (JE) travel vaccines market was worth \$XXm in 2012 and is expected to reach \$XXm by 2019 at a CAGR of XX%.

The global travel vaccines market is highly dynamic, with numerous M&A, alliances and licensing deals to help develop innovative vaccines. Licensing deals accounted for XX% of the market activity, followed by M&A with XX% and partnership deals with XX% between 2009 and January 2013. Vaccine technologies and platforms are dispersed within the global vaccine market, with several important patents required for development lying in the hands of multiple players. As a result, the vaccines industry has witnessed a higher proportion of licensing deals to fast-track innovation.

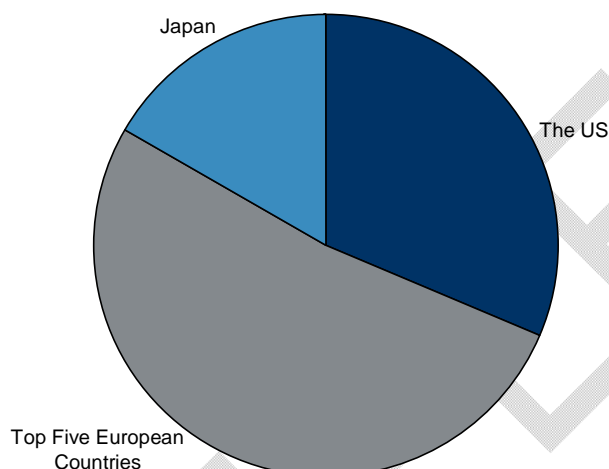
*Travel vaccines market dominated by the top five European countries, with a XX% share worth \$XXm in 2012. This is followed by the US with a XX% share worth \$XXm in 2012, and Japan with a XX% share worth around \$XXm in 2012*

### 4.3 Market Share by Geography

The travel vaccines market in the top seven markets is forecast to reach \$XXm by 2019, growing at a CAGR of XX% from 2012.

It is dominated by the top five European countries, with a XX% share worth \$XXm in 2012. This is followed by the US with a XX% share worth \$XXm in 2012, and Japan with a XX% share worth around \$XXm in 2012. Top Five European Countries are estimated to grow at a CAGR of XX%, followed by the US and Japan at XX% and XX% respectively throughout the forecast period.

**Figure 5: Travel Vaccines Market, Top Seven Markets, Market Share by Geography (%), 2012**



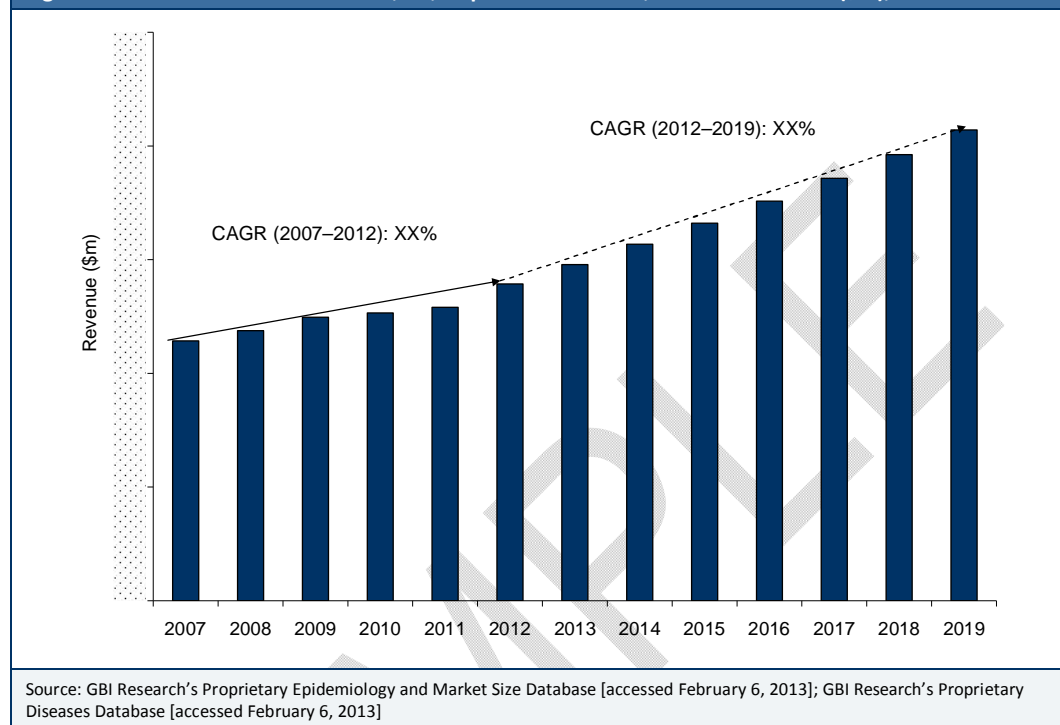
Source: GBI Research's Proprietary Epidemiology and Market Size Database [accessed February 6, 2013]; GBI Research's Proprietary Diseases Database [accessed February 6, 2013]

## 5.2 Market Forecasts

### 5.2.1 US

The hepatitis A travel vaccines market in the US was estimated to be worth \$XXm in 2012, having grown at a CAGR of XX% from 2007 to 2012. It is expected to grow at a CAGR of XX% during the forecast period to \$XXm in 2019.

**Figure 8: Travel Vaccines Market, US, Hepatitis A Vaccines, Revenue Forecast (\$m), 2007–2019**



**Table 4: Travel Vaccines Market, US, Hepatitis A Vaccines, Revenue (\$m), 2007–2012**

	2007	2008	2009	2010	2011	2012	CAGR (%)
Revenue	XX	XX	XX	XX	XX	XX	XX

Source: GBI Research's Proprietary Epidemiology and Market Size Database [accessed February 6, 2013]; GBI Research's Proprietary Diseases Database [accessed February 6, 2013]

**Table 5: Travel Vaccines Market, US, Hepatitis A Vaccines, Revenue Forecast (\$m), 2012–2019**

	2012	2013	2014	2015	2016	2017	2018	2019	CAGR (%)
Revenue	XX	XX	XX	XX	XX	XX	XX	XX	XX

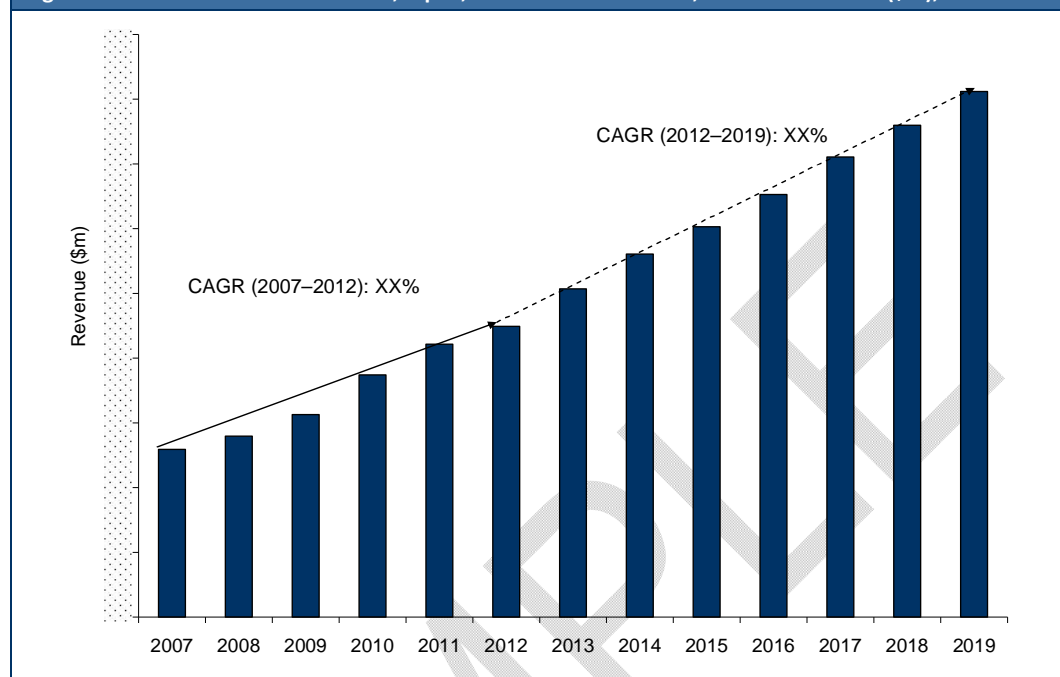
Source: GBI Research's Proprietary Epidemiology and Market Size Database [accessed February 6, 2013]; GBI Research's Proprietary Diseases Database [accessed February 6, 2013]



### 11.2.3 Japan

GBI Research estimated the yellow fever travel vaccines market in Japan to be worth \$XXm in 2012, having grown at a CAGR of XX% from 2007. It is expected to grow at a CAGR of XX% during the forecast period to \$XXm in 2019.

**Figure 38: Travel Vaccines Market, Japan, Yellow Fever Vaccines, Revenue Forecast (\$m), 2007–2019**



Source: GBI Research's Proprietary Epidemiology and Market Size Database [accessed February 6, 2013]; GBI Research's Proprietary Diseases Database [accessed February 6, 2013]

**Table 88: Travel Vaccines Market, Japan, Yellow Fever Vaccines, Revenue (\$m), 2007–2012**

	2007	2008	2009	2010	2011	2012	CAGR (%)
Revenue	XX	XX	XX	XX	XX	XX	XX

Source: GBI Research's Proprietary Epidemiology and Market Size Database [accessed February 6, 2013]; GBI Research's Proprietary Diseases Database [accessed February 6, 2013]

**Table 89: Travel Vaccines Market, Japan, Yellow Fever Vaccines, Revenue Forecast (\$m), 2012–2019**

	2012	2013	2014	2015	2016	2017	2018	2019	CAGR (%)
Revenue	XX	XX	XX	XX	XX	XX	XX	XX	XX

Source: GBI Research's Proprietary Epidemiology and Market Size Database [accessed February 6, 2013]; GBI Research's Proprietary Diseases Database [accessed February 6, 2013]

## 15 Travel Vaccines Market to 2019: Appendix

### 15.1 Market Definitions

**Travel vaccines market:** This refers to the sum of the revenue of vaccines catering to those traveling from the following countries: the US, Top Five European Countries (Germany, Spain, Italy, France, the UK) and Japan.

**Top Seven Markets:** The top seven markets are the US, Top Five European Countries (Germany, Spain, Italy, France, the UK) and Japan.

**Asia-Pacific:** The Asia-Pacific markets are India, China and Australia.

### 15.2 Abbreviations

AIDS:	Acquired Immunodeficiency Syndrome
ARTG:	Australian Register of Therapeutic Goods
ASHA:	Accredited Social Health Activist
BEL:	Biological E. Limited
CAGR:	Compound Annual Growth Rate
CDE:	Center for Drug Evaluation
CNBG:	China National Biotech Group
DNA:	Deoxyribonucleic Acid
DTP:	Diphtheria, Tetanus and Pertussis
EPI:	Expanded Programme on Immunization
FDA:	Food and Drug Administration
GSK:	GlaxoSmithKline
HBPCL:	Haffkine Bio-Pharmaceutical Corporation
HIV:	Human Immunodeficiency Virus
HPV:	Human Papilloma Virus
IAP:	Indian Academy of Pediatrics
IIL:	Indian Immunologicals Limited
IND:	Investigational New Drug
JE:	Japanese Encephalitis
JNJ:	Johnson & Johnson
MHLW:	Ministry of Health, Labor, and Welfare
MMR:	Measles, Mumps and Rubella
NICBPB:	National Institute for the Control of Pharmaceutical and Biological Products
NRHM:	National Rural Health Mission
NUHM:	National Urban Health Mission
PCV:	Pneumococcal Conjugate Vaccine
SFDA:	State Food and Drug Administration
SIIL:	Serum Institute of India Limited
TB:	Tuberculosis
TGA:	Therapeutic Goods Administration

VHL: Virax Holdings Limited  
 WHO: World Health Organization  
 YoY: Year on Year

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### 15.4 Research Methodology

GBI Research's dedicated research and analysis teams consist of experienced professionals with backgrounds in marketing, market research, and consulting 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.

#### 15.4.1 Coverage

The objective of updating GBI Research's coverage is to ensure that it represents the most up-to-date vision of the industry possible.

Changes to the industry taxonomy are built on the basis of extensive research of the company, association and competitor sources.

Company coverage is based on three key factors: market capitalization, revenues, and media attention/innovation/market potential.

- An exhaustive search of 56 member exchanges is conducted, and companies are prioritized on the basis of their market capitalization;
- The estimated revenues of all major companies, including private and governmental, are gathered and used to prioritize coverage; and,
- Companies which are making the news, or which are of particular interest due to their innovative approach, are prioritized.

GBI Research aims to cover all major news events and deals in the medical industry, with its databases updated on a daily basis.

The coverage is further streamlined and strengthened with additional inputs from GBI Research's expert panel (see below).

#### 15.4.2 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 US Securities and Exchanges Commission (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 webcasts specific to the companies operating in the market.

### 15.4.3 Primary Research

GBI Research conducts hundreds of primary interviews each 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 interactions, 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

The report consists of the following four major sections:

Therapeutic Landscape

Geographic Landscape

Pipeline Analysis

Competitive Analysis

### 15.4.4 Model for Estimation of Vaccine Market

GBI Research adopted a different approach compared to the treatment flow model used for estimation of markets for other therapeutic indications. The model developed for estimation of vaccine market in a particular nation takes into account the following:

- Population of the country and its break-up by age groups
- Vaccination coverage rates, which means the proportion of population getting vaccinated) and the age break-up by age group
- Average number of doses by age group administered per person per year for the country
- The government and private contribution for vaccination in terms of number of doses administered
- Cost of one dose of vaccine for the government and the retail/private price for the same

After getting values for all these parameters along with the forecasts, an evaluation of the market size is conducted and forecasts are made.

The values of the parameters are obtained using various sources through primary and secondary research. The following figure gives an idea of the methodology adopted for market estimation, using an example of an estimation of the vaccine market for a country.

**Figure 54: GBI Research Market Forecasting Model**

Age Group	Population
	Age Group 12 years – 17 years
	Age Group 18 years – 26 years
	Age Group 18 years – 50 years
	Age Group 51 years – 60 years
	Age Group 60+ years
<b>Vaccinated Population Contribution</b>	
	Age Group 12 years – 17 years
	Age Group 18 years – 26 years
	Age Group 18 years – 50 years
	Age Group 51 years – 60 years
	Age Group 60+ years
<b>Vaccination Coverage</b>	
	Age Group 12 years – 17 years
	Age Group 18 years – 26 years
	Age Group 18 years – 50 years
	Age Group 51 years – 60 years
	Age Group 60+ years
<b>Number of Doses per Person</b>	
	Age Group 12 years – 17 years
	Age Group 18 years – 26 years
	Age Group 18 years – 50 years
	Age Group 51 years – 60 years
	Age Group 60+ years
<b>Compliance Rate</b>	
	Age Group 12 years – 17 years
	Age Group 18 years – 26 years
	Age Group 18 years – 50 years
	Age Group 51 years – 60 years
	Age Group 60+ years
<b>Number to Total Doses</b>	
	Age Group 12 years – 17 years
	Age Group 18 years – 26 years
	Age Group 18 years – 50 years
	Age Group 51 years – 60 years
	Age Group 60+ years
<b>Doses Contribution - Private</b>	
<b>Doses Contribution - Public</b>	
<b>Cost of Vaccine/Dose – Private</b>	
<b>Cost of Vaccine/Dose – Public</b>	
<b>Market Size – Private</b>	
<b>Market Size – Public</b>	
<b>Total Market = Private Market Size+ Public Market Size</b>	

Source: GBI Research

### **15.5 Geographical Landscape**

GBI Research analyzes seven major geographies, namely the US, the top five countries in Europe (the UK, Germany, France, Spain and Italy), and Japan. The total market size for each country is provided, which is the summarized value of the market sizes of all the indications for that particular country.

Articles are used from research journals and agency publications, the World Health Organization (WHO), the Global Alliance for Vaccines and Immunization (GAVI), the Centers for Disease Control and Prevention (CDC) and others. The marketed drugs section is constructed from company websites and internal databases.

### **15.6 Pipeline Analysis**

This section provides a list of molecules in different stages of development for various indications. The product pipeline is sourced from internal databases and validated for the accuracy of phase and mechanism of action from clinicaltrials.gov and company websites.

### **15.7 Competitive Landscape**

Profiles of leading players are provided. An analysis of strengths, weaknesses, opportunities and threats of each company with is also listed.

GBI Research aims to cover all major M&A, licensing and co-development deals related to the market. This section is sourced from the companies' websites, company annual reports and internal databases.

#### **15.7.1 Expert Panel Validation**

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, and key opinion leaders from hospitals.

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

### **15.9 Disclaimer**

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