Asia Pacific (India, China, Australia, South Korea & Others) Insulin Market (Rapid Acting, Short Acting, Pre-Mixed, Long Acting, Type I & II Diabetes, Analogs & Recombinant Insulin) Analysis And Segment Forecasts To 2020

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Chapter 1 Executive Summary

TABLE 1 Insulin – Industry summary & Critical Success Factors (CSFs)

Key market intelligence	Market revenues: 2013 – USD xx Million, 2020 – USD xx Million		
Top Regional revenue contributors (revenue)	**Region**	**2013**	**2020**
	China	38.0%	xx %
	Japan	Xx%	xx%
	India	xx%	xx%
	Australia	xx%	xx%
Key industry trends	➢ Growing prevalence of diabetes coupled with growing market penetration rates of analogs and oral anti diabetic drugs. ➢ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx		
Key market opportunities	➢ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx ➢ Presence of high unmet needs in the emerging markets coupled with the introduction of favorable government initiatives.		
Key market players	Novo Nordisk, Eli Lilly & Co, Sanofi Aventis, Takeda Pharmaceuticals, Oramed Pharmaceuticals Inc, Merck & Co. Inc., Boehringer Ingelheim, Pfizer, Bristol-Myers Squibb and Halozyme Therapeutics		
PESTEL Analysis	*xxx*		
CSF	➢ Introduction of proprietary products ➢ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx		

Source: WHO, CDC, FDA, IDF, Annual Reports, Investor Presentations, Primary Interviews, Grand View Research

Insulin is a hormone and is the internal secretion of the pancreas formed by a group of cells referred to as the islets of Langerhans. The primary functions of this hormone are to enable the entry of glucose into the cells and provide energy and to help maintain blood glucose levels at appropriate levels. Insulin is administered to patients suffering from type I and type II diabetes. Type I diabetes was previously known as juvenile or insulin dependent diabetes and is marked by the body's inability to produce insulin. Patients with type II diabetes may also use insulin in cases where the body's demand for insulin surpasses insulin production. The Asia Pacific insulin market was valued at USD 4,867.1 million in 2013 and is expected to grow at a CAGR of xx% over the next six years.

TABLE 2 Asia Pacific Insulin Market, by Product, 2012 - 2020 (USD Million)

Product	2012	2013	2014	2015	2016	2017	2018	2019	2020	CAGR (2014-20)
Rapid acting	1,019.0	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Long acting	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Premixed	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Premixed analog	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Short acting	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Intermediate acting	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Total	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**

Source: WHO, CDC, FDA, IDF, Annual Reports, Investor Presentations, Primary Interviews, Grand View Research

TABLE 3 Asia Pacific Insulin Market, by Product, 2012 - 2020 (‘000 Units)

Product	2012	2013	2014	2015	2016	2017	2018	2019	2020	CAGR (2014-20)
Rapid acting	34,367.1	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Long acting	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Premixed	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Premixed analog	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Short acting	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Intermediate acting	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Total	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**

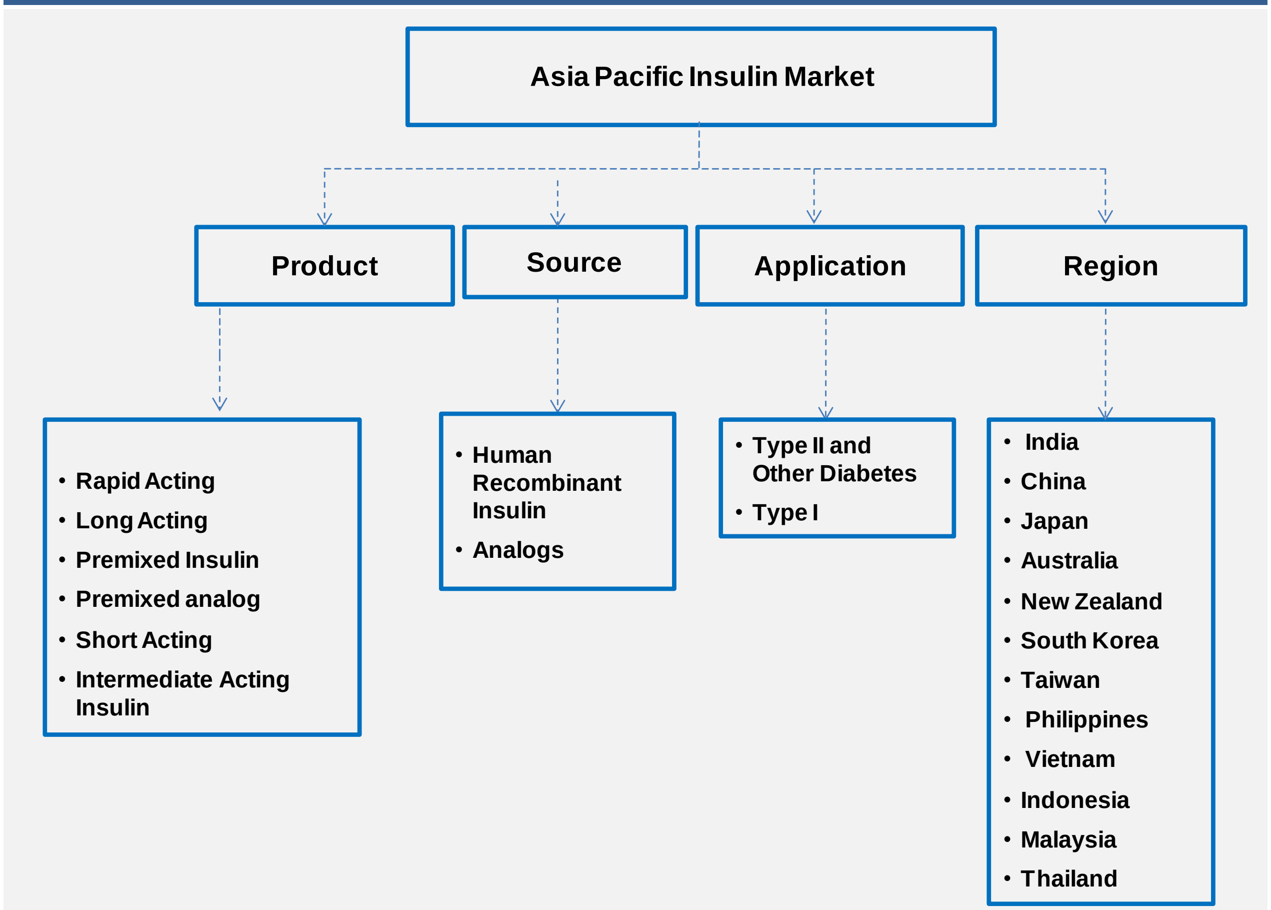
Source: WHO, CDC, FDA, IDF, Annual Reports, Investor Presentations, Primary Interviews, Grand View Research

XX dominated the overall market in terms of revenue, accounting for xx% of the total market in 2013. Analog revenue share is expected to increase to xx% by 2020. Type II and other diabetes forms, dominated the overall market in terms of revenue share in 2013 at xx%. High usage rates of insulin in treating type II diabetes coupled with the introduction of new drugs catering to this segment accounted for its large market share.

Chapter 2 Insulin Industry Outlook

2.1 Market Segmentation

FIG. 1 Insulin: Market Segmentation

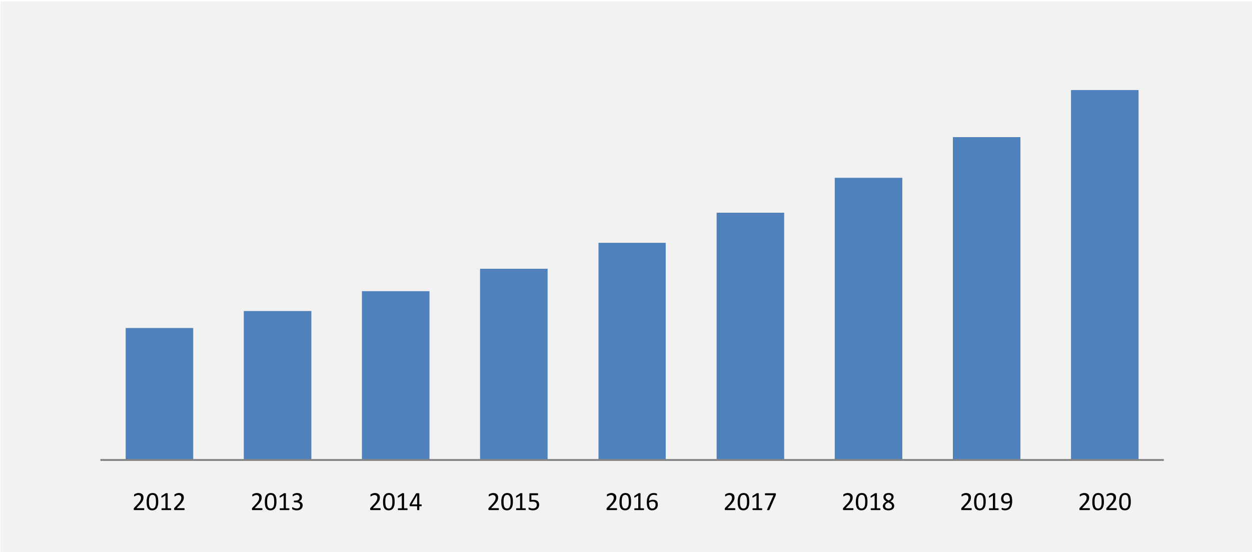


Source: WHO, CDC, FDA, IDF, Annual Reports, Investor Presentations, Primary Interviews, Grand View Research

We have estimated the overall insulin industry by segmenting the market on three levels. We have split the market based on products, source types, application and geography. The product segments analyzed in this report include rapid acting analogs, long acting analogs, premixed insulin, premixed analogs, short acting insulin and intermediate acting insulin. We have also segmented and estimated the market based on source, which includes human recombinant insulin and analogs. Application segments analyzed in this study include type II and others and type I diabetes. In addition, regional market estimates and forecasts for all the previously mentioned product and application segments are available in this report.

2.2 Market Size and Growth Prospects

FIG. 2 Asia Pacific Insulin Market Revenue, 2012 – 2020 (USD million)



Source: WHO, CDC, FDA, IDF, Annual Reports, Investor Presentations, Primary Interviews, Grand View Research

The Asia Pacific insulin market was valued at USD 4,867.1 million in 2013 and is expected to grow at a CAGR of xx% over the next six years. Growing global prevalence of diabetes (both type I and type II) is expected to be primary key driver for this market over the next six years. According to the estimates of International Diabetes Federation, global prevalence of diabetes is expected to increase from 366 million in 2011 to 552 million by 2030 and such a rapid growth in prevalence is expected to have a high impact on market growth over the forecast period. Other drivers of this market include growing prevalence of lifestyle induced disorders such as obesity, increasing global base of geriatric population and R&D initiatives aimed at developing new products.

2.3 Insulin – Market dynamics

FIG. 3 Insulin: Market Dynamics

Technology trends

- Introduction of rapid acting and long acting analogs and the subsequent rise in market penetration rates is expected to drive market growth during the forecast period.
- Introduction of new products such as ultra long acting analogs, SGLT-2 inhibitors and strong pipeline of oral antidiabetics

Disease prevalence trends

- Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

Insulin market

Regulatory trends

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Customer trends

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- xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

Source: WHO, IDF, Annual Reports, Investor Presentations, Primary Interviews, Grand View Research

2.3.1 Market Driver Analysis

TABLE 4 Insulin – Key market driver analysis

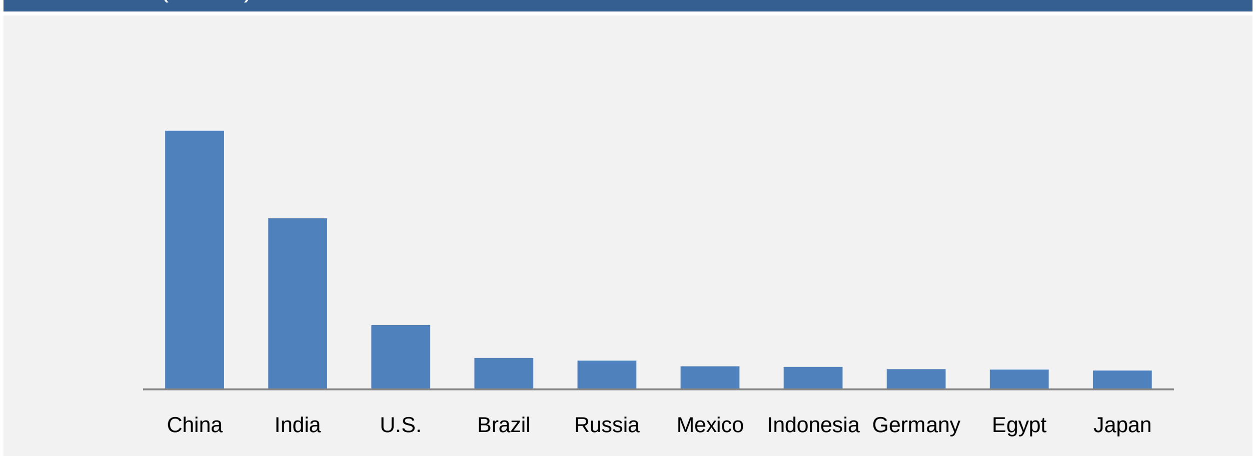
Market drivers	2014-16	2016-18	2018-20
	Impact		
Growing prevalence of diabetes			
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx			
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx			

Source: WHO, IDF, Annual Reports, Investor Presentations, Primary Interviews, Grand View Research

2.3.1.1 Growing prevalence of diabetes

The growing worldwide prevalence of diabetes (both type I and type II) is expected to be the primary driver of this market during the forecast period. According to the estimates of International Diabetes Federation, the Asia Pacific prevalence of diabetes is expected to increase from 366 million in 2011 to 552 million by 2030 and such a rapid growth in prevalence is expected to have a high impact on market growth over the forecast period. The below graph illustrates the prevalence of diabetes in the top 10 countries:

FIG. 4 Diabetes prevalence of top 10 countries in 2013 in the age group of 20 to 79 years (million)



Source: IDF, Grand View Research

2.4 Industry Analysis – Porter's

FIG. 5 Insulin Market – Porter's Analysis

Threat of new entrants	8
Threat of new entrants is expected to remain high throughout the forecast period for this market. Patent expiration of key products such as Lantus in 2015 is expected to attract generic manufacturers to enter the market with cost effective biosimilars. Government support and the need for cheaper antidiabetics is also expected to encourage new manufacturers to enter this market over the next six years.	

Supplier power	x
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Industry rivalry	x
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Buyer power	x
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Threat of substitutes	x
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Source: WHO, IDF, Annual Reports, Investor Presentations, Primary Interviews, Grand View Research

1 – 3 ---> Weak market forces	4 – 6 ---> Medium market forces	7 – 10 ---> Strong market forces

2.5 Insulin – PESTEL Analysis

FIG. 6 Insulin Market – PESTEL Analysis

Political

- Introduction of government reforms such as the 12th Five Year Plan in China, to promote healthcare facilities across the country are some notable political trends witnessed in this market.
- Expansion of public health insurance in the emerging markets to build a robust and sophisticated healthcare infrastructure is expected to drive market growth during the forecast period.

Economic

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Social

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Technological

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Legal

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Environmental

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Summary

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Source: WHO, CDC, FDA, IDF, Annual Reports, Investor Presentations, Primary Interviews, Grand View Research

2.6 Insulin Market – Pipeline Overview

The presence of an extensive product pipeline portfolio is expected to serve this market as a lucrative future growth opportunity. Key players such as Novo Nordisk, Eli Lilly and Sanofi hold rigorous R&D initiatives and therefore have a strong product pipeline portfolio. A comprehensive list of all such products is presented in the table below:

TABLE 5 Insulin Market – Pipeline Overview

.	Name of Company	Name of Brand/Molecule	Phase	Description	Approval
1	Novonordisk				
2	Novonordisk				
3	Novonordisk				
4	Novonordisk				
5	Novonordisk				
6	Novonordisk				
7	Sanofi				
8	Sanofi				experiencing

					me low
9	Sanofi				
10	Eli Lily				
11	Eli Lily				
12	Bristol-Myers Squibb				
13	Novartis				
14	Novartis				
15	Novartis				
16	Novartis				
17	Takeda Pharmaceuticals				
18	Takeda Pharmaceuticals				
19	Takeda Pharmaceuticals				
20	Boehringer Ingelheim	ND			DA 63016

21	Biocon	Oral Insulin IN 105	Phase 2	Innovative and painless insulin meant to cure	
22	Biocon	Ins			
23	Biocon				
24	Biocon				
25	Oramed Pharmaceuticals				
26	Halozyme Therapeutics				

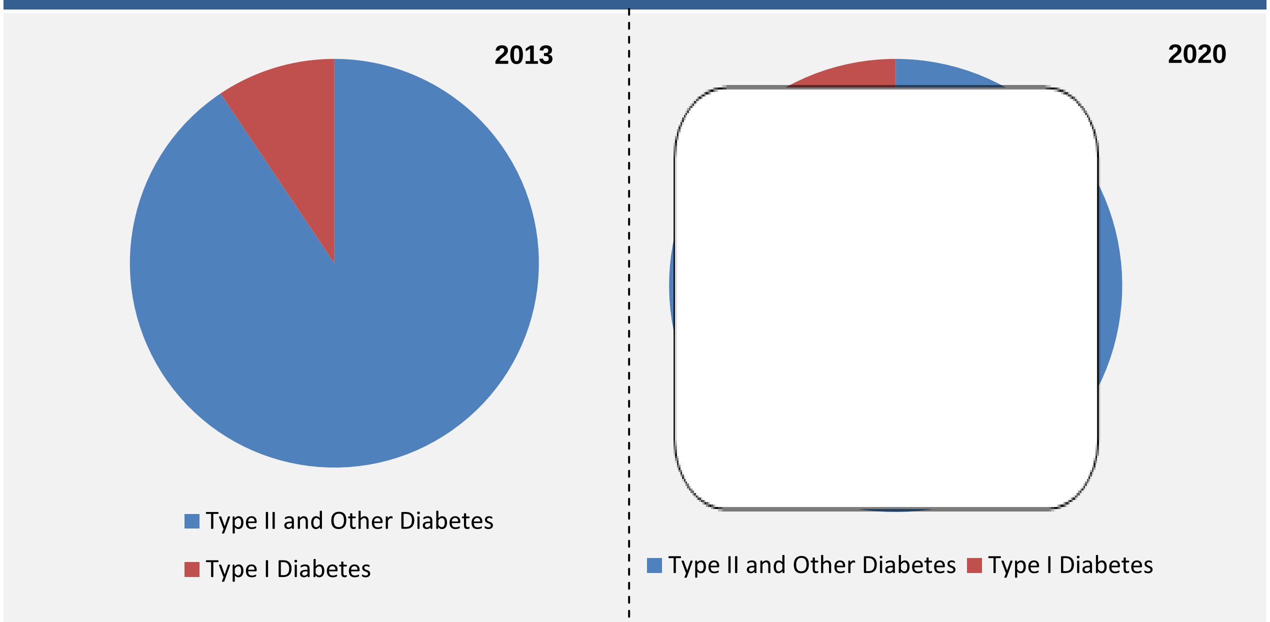
Source: WHO, CDC, FDA, IDF, Annual Reports, Investor Presentations, Primary Interviews, Grand View Research

Chapter 3 Insulin Application Outlook

3.1 Insulin Revenue Share by Application, 2013 & 2020

Type II and other diabetes dominated the overall market in terms of revenue share in 2013 at xx%. The high usage rates of insulin in treating type II diabetes coupled with the introduction of new drugs catering to this segment accounted for its large market share. However, growing use of insulin by type I diabetes patients is expected to increase this segment's revenue share from xx in 2013 to xx% in 2020.

FIG. 7 Insulin revenue share by application, 2013 & 2020



Source: WHO, CDC, FDA, IDF, Annual Reports, Investor Presentations, Primary Interviews, Grand View Research

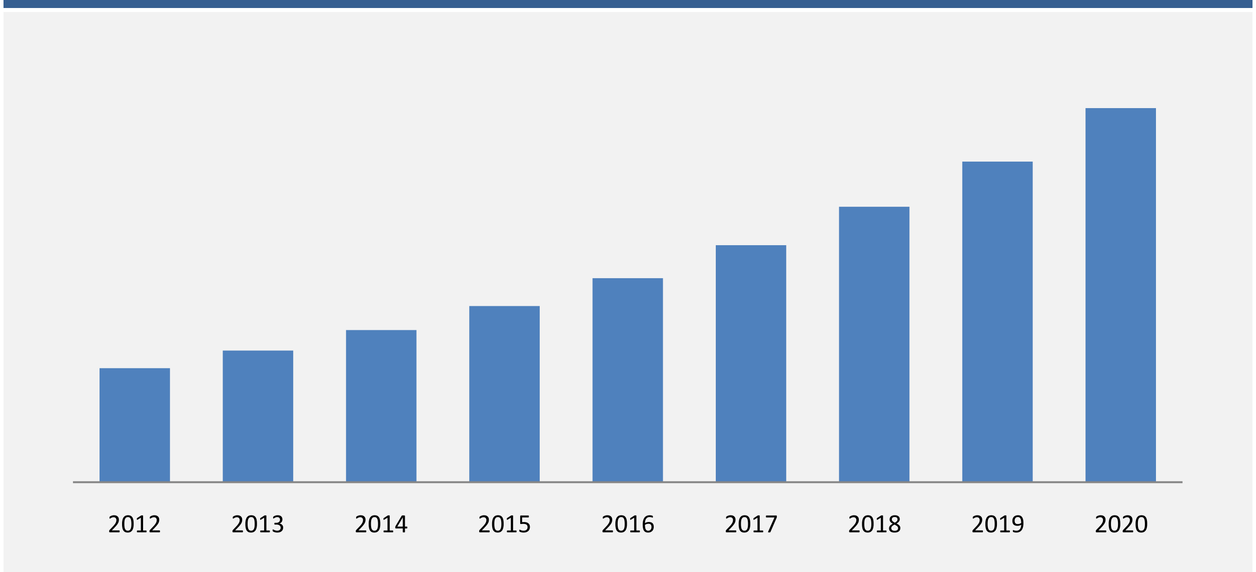
TABLE 6 Asia Pacific Insulin Market, by Applications, 2012 – 2020 (USD Million)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	CAGR (2014-20)
Type II Diabetes and Others	xx	4,326.9	xx	xx	xx	xx	xx	xx	xx	**xx%**
Type I Diabetes	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Total	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**

Source: WHO, CDC, FDA, IDF, Annual Reports, Investor Presentations, Primary Interviews, Grand View Research

3.1.1 Insulin for Type II and Other Diabetes Market, 2012 – 2020 (USD Million)

FIG. 8 Insulin for Type II and Other Diabetes Market, 2012 – 2020 (USD Million)



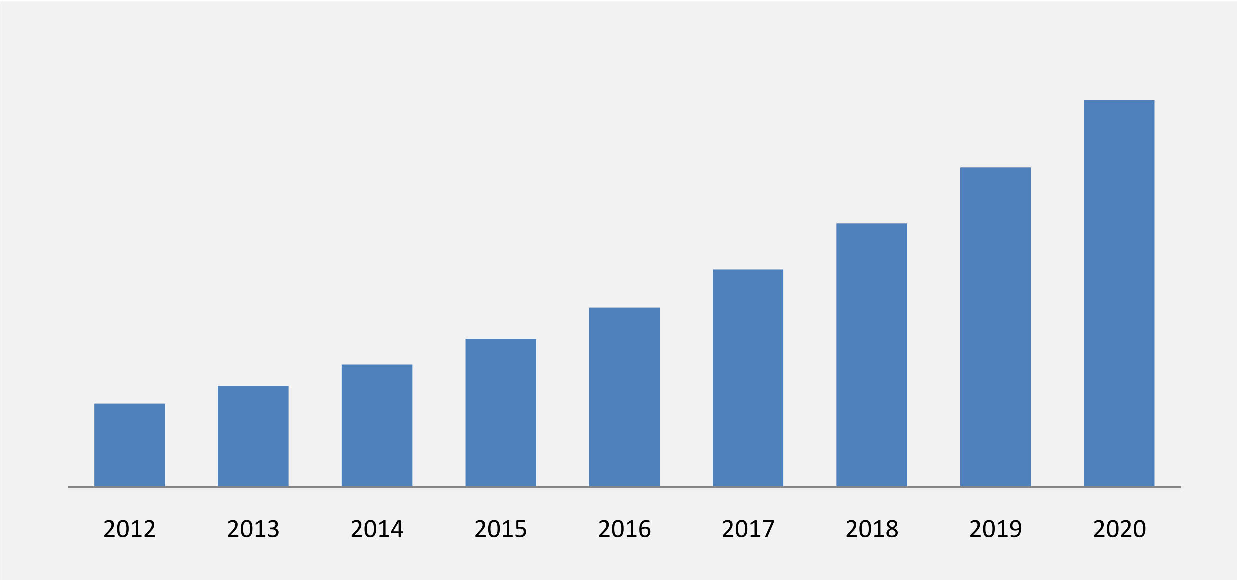
Source: WHO, CDC, FDA, IDF, Annual Reports, Investor Presentations, Primary Interviews, Grand View Research

3.2 Type I Diabetes Market

Type I diabetes or diabetes mellitus refers to a chronic condition in which the pancreas stops producing insulin. Insulin acts as a carrier of glucose into the cells and therefore, lack on insulin in the human body causes rise in sugar levels owing to the fact that glucose does not get delivered to the cells. The Asia Pacific type I diabetes market was valued at USD xx million in 2013 and is expected to reach an estimated value of USD xx million in 2020, growing at a CAGR of xx % during the forecast period.

3.2.1 Insulin for Type I Diabetes Market, 2012 – 2020 (USD Million)

FIG. 9 Insulin for Type I Diabetes Market, 2012 – 2020 (USD Million)



Source: WHO, CDC, FDA, IDF, Annual Reports, Investor Presentations, Primary Interviews, Grand View Research

Chapter 4 Insulin Product Outlook

Key product segments analyzed and estimated in this study include rapid acting analog, long acting analog, premixed insulin, premixed analog, short acting insulin and intermediate insulin. Major characteristics and brands of each of these products are listed in the table below:

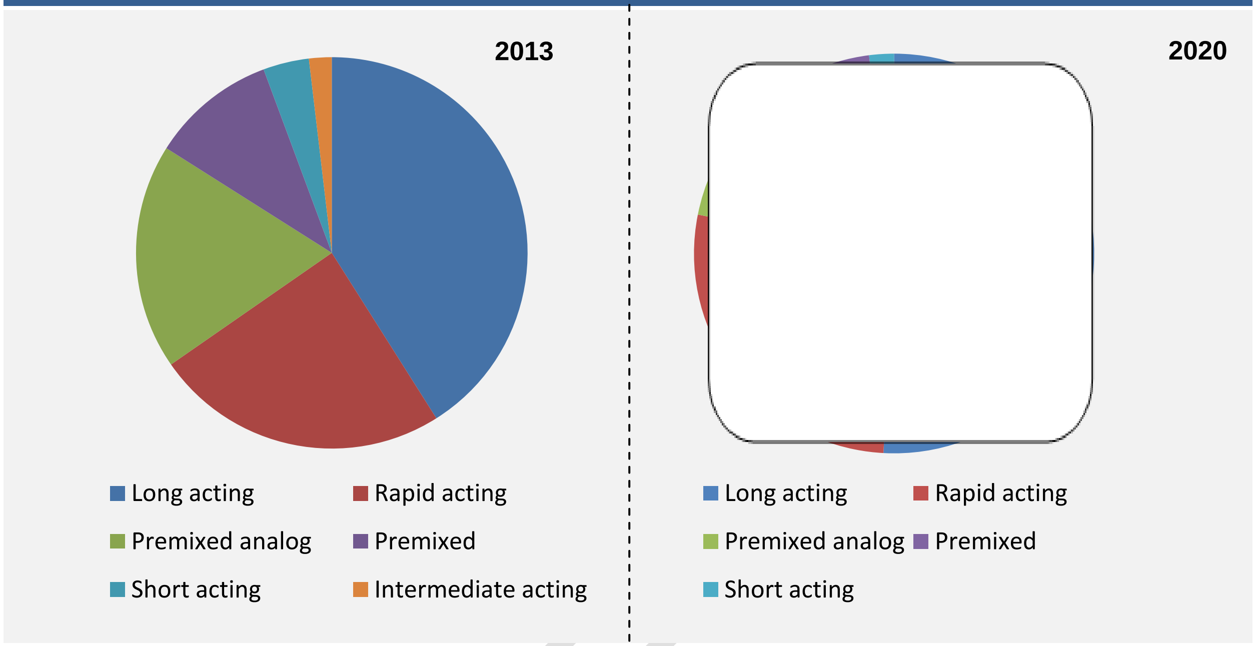
TABLE 7 Insulin Types and Brands

Type	Brand	Onset	Peak	Duration	Role in Sugar Management
Rapid Acting Analog	Hum				eals
Long Acting Analog					
Premixed					
Short Acting Insulin					
Intermediate Acting Insulin	N				short-acting insulin.

Source: Webmd.com, Grand View Research

4.1 Insulin Revenue Share by Source, 2013 & 2020

FIG. 10 Insulin revenue share by products, 2013 & 2020



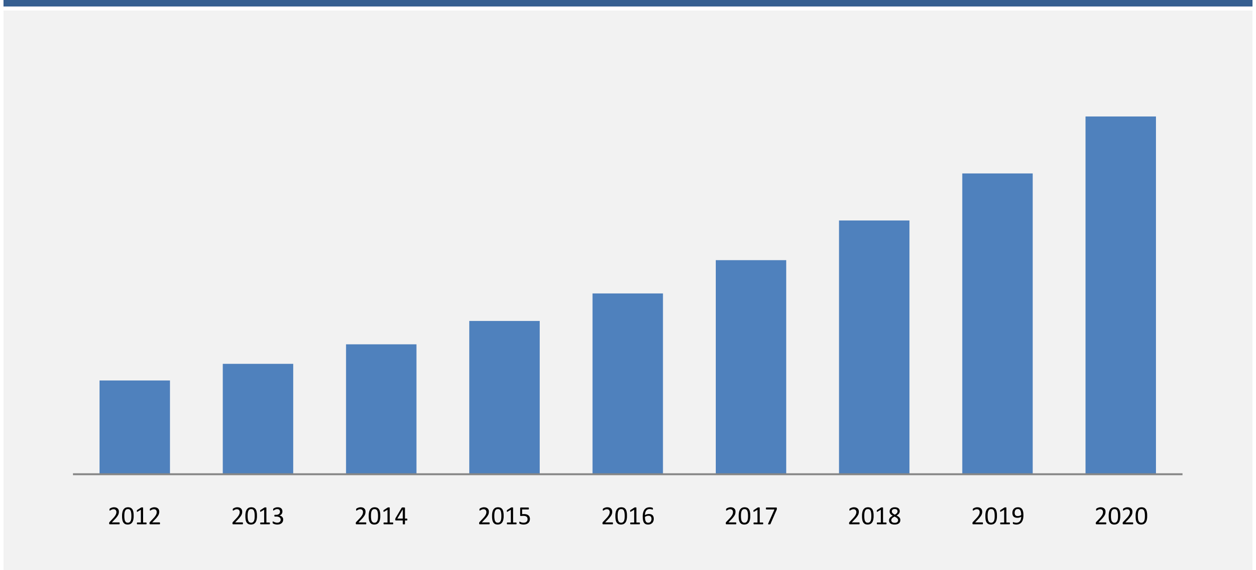
Source: WHO, CDC, FDA, IDF, Annual Reports, Investor Presentations, Primary Interviews, Grand View Research

4.2 Rapid Acting Analog Market

The Asia Pacific rapid acting analog market was valued at USD xx million in 2013 and is expected to grow at a CAGR of xx % during the forecast period to reach an expected value of USD xx million in 2020.

4.2.1 Rapid Acting Analog Market, 2012 – 2020 (USD Million)

FIG. 11 Rapid Acting Analog Market, 2012 – 2020 (USD Million)



Source: WHO, CDC, FDA, IDF, Annual Reports, Investor Presentations, Primary Interviews, Grand View Research

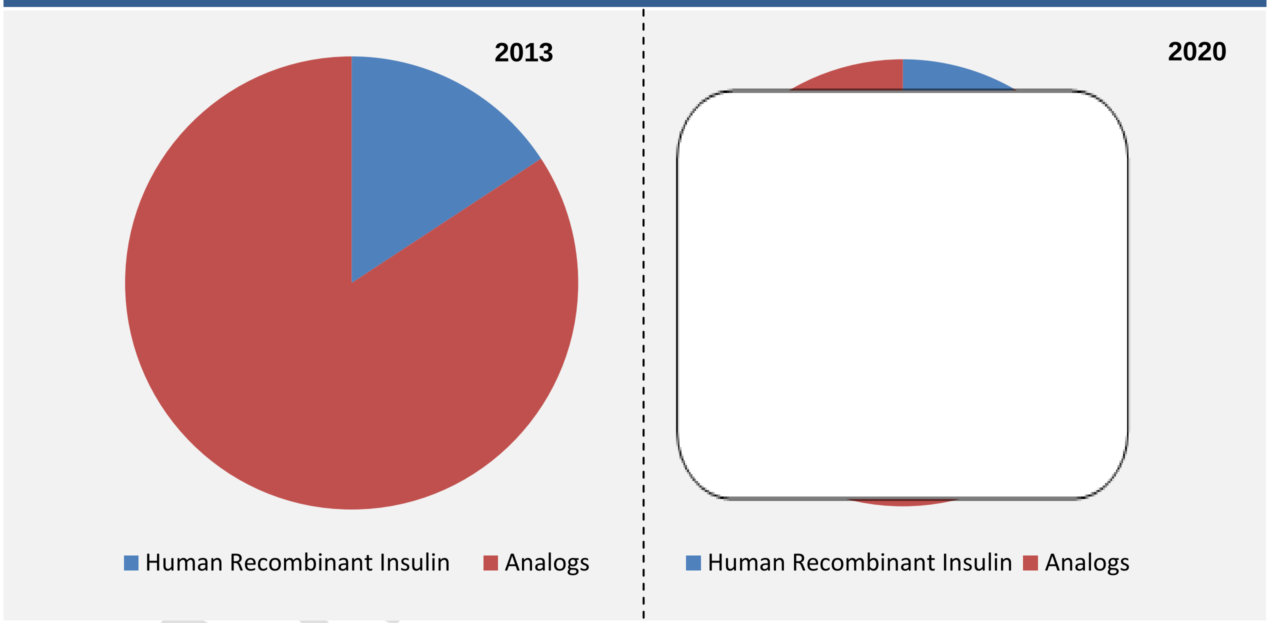
Chapter 5 Insulin Source Outlook

Key source segments analyzed and estimated in this study include human recombinant insulin and analogs.

5.1 Insulin Revenue Share by Source, 2013 & 2020

Analogs dominated the overall market in terms of revenue share at xx% in 2013. Moreover, its revenue share is expected to increase to xx % by 2020 owing to factors such as the following:

FIG. 12 Insulin revenue share by source, 2013 & 2020

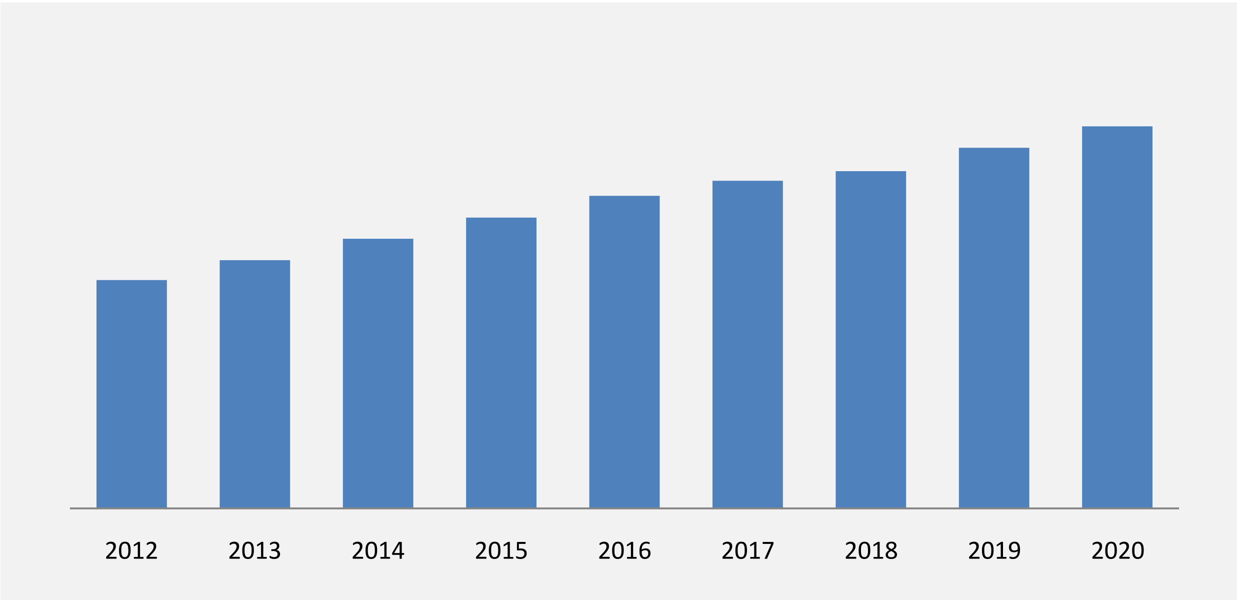


Source: WHO, CDC, FDA, IDF, Annual Reports, Investor Presentations, Primary Interviews, Grand View Research

5.2 Human Recombinant Insulin Market

5.2.1 Human Recombinant Insulin Market, 2012 – 2020 (USD Million)

FIG. 13 Human Recombinant Insulin Market, 2012 – 2020 (USD Million)



Source: WHO, CDC, FDA, IDF, Annual Reports, Investor Presentations, Primary Interviews, Grand View Research

Chapter 6 Insulin Regional Outlook

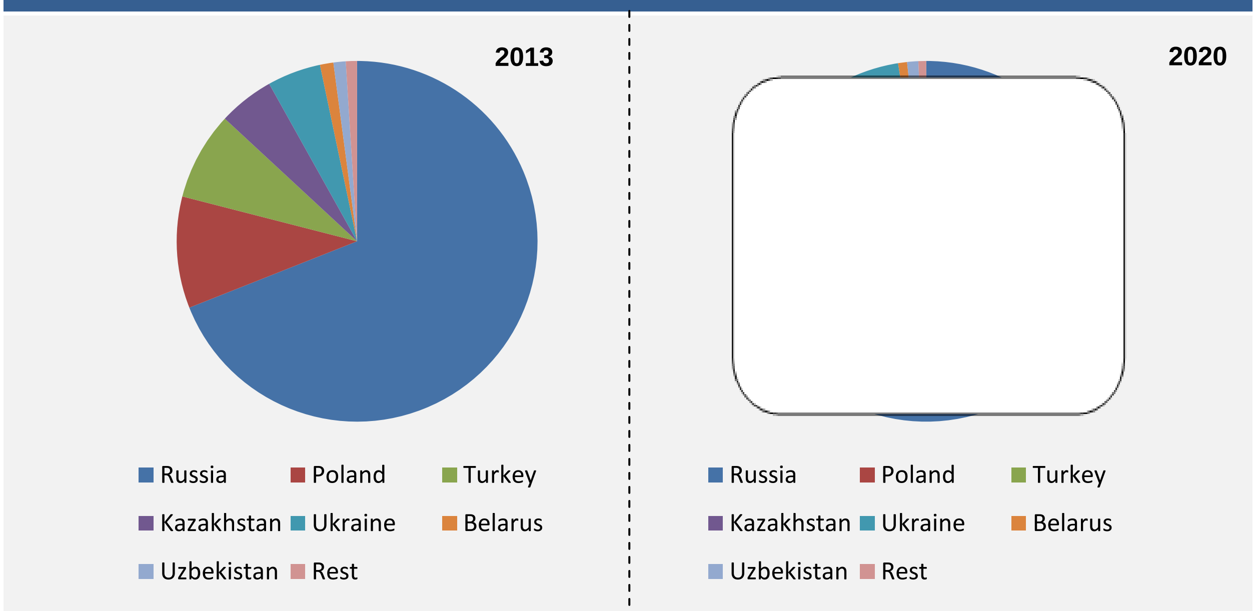
6.1 Asia Pacific

Key Asia Pacific countries analyzed in this study include India, China, Australia, New Zealand, South Korea, Taiwan, Philippines, Vietnam, Indonesia, Japan, Malaysia and Thailand.

6.1.1 Asia Pacific Insulin Revenue Share by Country, 2013 & 2020

Japan dominated the overall Asia Pacific insulin market with a revenue share of xx.x% owing to the high consumption of innovator brands in this country. Moreover, the presence of high patient disposable income and healthcare expenditure is expected to drive market growth during the forecast period. However, its share is expected to decline to xx.x% by 2020 on account of rapid growth experienced in emerging Asia Pacific markets of India and China.

FIG. 14 Asia Pacific insulin revenue share by country, 2013 & 2020



Source: WHO, CDC, FDA, IDF, Annual Reports, Investor Presentations, Primary Interviews, Grand View Research

TABLE 8 Asia Pacific Insulin Market, by Countries, 2012 – 2020 (USD Million)

Country	2012	2013	2014	2015	2016	2017	2018	2019	2020	CAGR (2014-20)
India	687.5	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
China	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Australia	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
New Zealand	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
South Korea	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Taiwan	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Philippines	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Vietnam	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Indonesia	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Japan	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Malaysia	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Thailand	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Rest	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Total	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**

Source: WHO, CDC, FDA, IDF, Annual Reports, Investor Presentations, Primary Interviews, Grand View Research

TABLE 9 Asia Pacific Insulin Market, by Products, 2012 – 2020 (USD Million)

Product	2012	2013	2014	2015	2016	2017	2018	2019	2020	CAGR (2014-20)
Rapid acting	1,019.0	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Long acting	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Premixed	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Premixed analog	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Short acting	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Intermediate acting	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**
Total	xx	xx	xx	xx	xx	xx	xx	xx	xx	**xx%**

Source: WHO, CDC, FDA, IDF, Annual Reports, Investor Presentations, Primary Interviews, Grand View Research

6.1.2 India

India insulin market was valued at USD xx million in 2013 and is expected to grow at a CAGR of xx% during the forecast period to reach an estimated value of USD xx million in 2020.

TABLE 10 India Insulin Market, by Products, 2012 – 2020 (USD Million)

Product	2012	2013	2014	2015	2016	2017	2018	2019	2020	CAGR (2014-20)
Rapid acting	46.1	xx	xx	xx	xx	xx	xx	xx	xx	xx%
Long acting	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx%
Premixed	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx%
Premixed analog	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx%
Short acting	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx%
Intermediate acting	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx%
Total	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx%

Source: WHO, CDC, FDA, IDF, Annual Reports, Investor Presentations, Primary Interviews, Grand View Research

Chapter 7 Competitive Landscape

7.1 Sanofi Aventis

7.1.1 Company Overview

Established in 2004, Sanofi is a France-based multi-national conglomerate involved in the business of manufacturing, marketing and R&D of healthcare products across the world. As of 2014, the company has customer presence in 110 countries with 120 manufacturing units and more than 20 R&D centers across the globe. Sanofi mainly caters to segments such as pharmaceuticals, animal health and vaccines. Sanofi's product portfolio includes consumer healthcare products, insulin, generic drugs, enzymes, syrups, tablets, therapeutical solutions intended for use in curing diseases such as diabetes, oncology, multiple sclerosis and diseases related to animal health. Sanofi offers insulin and the medical devices to insert insulin including injection pens and reusable pens under the brand name of Solostar, Allstar and Clickstar.

7.1.2 Financial Performance

2012	2013
USD XX Billion	USD XX Billion

1 Euro = 1.38 USD

7.1.3 Product Benchmarking

Brand	
Lantus	
Apidra	
Insuman	
Amaryl/Amarel	
Lyxumia	

7.1.4 Strategic Initiatives

- In April 2014, Sanofi launched new half-unit insulin reusable pen device under the name Junior Star, intended for use with Lantus, Apidra and Insuman
- In June 2013, Sanofi started the production from its new plant at India which has capacity of producing 30 million filled insulin pens per year

Note: The final report will contain profiles of the following companies based on the above mentioned attributes (revenue, products, applications and strategic developments):

1. **Takeda Pharmaceuticals**
2. **Eli Lilly**
3. **Oramed Pharmaceuticals Inc.**
4. **Nanjing Xinbai Pharmaceutical Co., Ltd.**
5. **Gan & Lee Pharmaceuticals Co. Ltd.**
6. **Boehringer Ingelheim**
7. **Merck & Co. Inc.**
8. **Dongbao Enterprises Group Co. Ltd.**
9. **Halozyme Therapeutics**
10. **Novo Nordisk**
11. **Bristol-Myers Squibb**
12. **Biocon**
13. **Wanbang Biopharmaceuticals**

Chapter 8 Methodology and Scope

8.1 Research Methodology

We have implemented a mix of primary and secondary research for our market estimate and forecast. Secondary research formed the initial phase of our study, where we conducted extensive data mining, referring to verified data sources such as independent studies, government and regulatory published material, technical journals, trade magazines paid data sources.

For forecasting, the following parameters were considered,

- Market drivers and restraints, along with their current and expected impact
- Technological scenario and expected developments
- End-use industry trends and dynamics
- Trends in consumer behavior
- Disease prevalence pattern
- Healthcare spending, per capita healthcare expenditure
- Healthcare reforms and regulatory frameworks
- Export import policies

We assigned weights to these parameters and have quantified their market impact using weighted average analysis, to derive an expected market growth rate.

All our estimates and forecasts were verified through exhaustive primary research with Key Industry Participants (KIPs) which typically include,

- Market leading companies
- Healthcare practitioners

The key objectives of primary research are as follows,

- To validate our data in terms of accuracy and acceptability
- To gain an insight in to the current market and future expectations

8.2 Research Scope & Assumptions

- The report provides market value for base year 2013 and a yearly forecast to 2020 in terms of revenue (USD Million). Market for each product has been provided on a regional basis for the above mentioned forecast period.
- Inflation has not been taken in to account for our estimates and forecasts.
- Key industry dynamics, regulatory scenario, major technological trends and application markets are evaluated to understand their impact on demand for the forecast period. Growth rates are estimated using correlation, regression and time-series analysis.
- We have used a mix of top-down and bottom-up approach for market sizing, analyzing key regional markets, dynamics and trends for various end-uses. ASIA PACIFIC market is estimated by integrating regional markets.
- All market estimates and industry analysis is then validated through exhaustive primary research with key industry participants and consumers.
- **Prices** were estimated on the basis of the following parameters:
    - Market penetration of each product
    - Reimbursement policies
    - Tender prices as procured from primary initiatives
    - Paid online databases and surveys
- As per our secondary research and primary validation through key industry experts, the industry expects that intermediate acting insulin market will be phased out by 2017 in developed markets and by 2018 in emerging and underdeveloped markets. However, these products will continue to find use in premixed segment. Moreover, on account of the previously mentioned statement the CAGR for this product for the forecast period is not calculated for this study.
- Volume and prices for the ASIA PACIFIC markets have not been calculated owing to high price differences across the countries. Moreover, the total product, application and source type markets are a summation of the individual countries mentioned in this study.
- **1 unit = 1000 international units**

8.3 Limitations

- Due to lack of organized data points in emerging and underdeveloped markets pertaining to their public sectors this study accounts for data points published by government agencies and world bodies such as WHO and IDF only
- All the tender prices were not available as governments of certain countries and the competitors are bound by confidentiality agreements
- Insulin in the public sector is available free of cost and in such cases tender prices are considered while estimating the market

8.4 List of Data Sources

List of **secondary** sources include but are not limited to:

- xxxxxx
- xxxxxx
- xxxxxx
- xxxxxx

List of **primary** sources include but are not limited to:

- xxxxxxx
- xxxxxxx
- xxxxxxx
- xxxxxxx

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