

In-Vitro Diagnostics Global Market

[Products (Instruments, Reagents, Services & Data Management Systems), Techniques (Immunology, Point-Of-Care, Molecular Diagnostics, Haematology, Coagulation, Microbiology, and Other Clinical Instruments) & Applications (Diabetes, Oncology, Cardiology, Sexually Transmitted Diseases, Autoimmune Disease, Nephrology, and Drug Testing)], End Users (Hospitals, Laboratories, Patient Self Testing, Point-of-Care Testing, Academics and Others)]

2014

– Forecast to 2020



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1.1 REPORT DESCRIPTION

IN-VITRO diagnostics are tests that diagnose and prevent diseases, conditions or infections. IVD tests are performed outside body in an artificial environment on samples such as blood, urine, tissue isolated from human body. IVD is classified into three types namely: clinical laboratory testing, near-patient testing, self-testing. IVD market is segmented by-techniques (including immunology, point-of-care, molecular diagnostics, haematology, coagulation, microbiology, microbiology and other clinical instruments), -products (including instruments, reagents, services, data management systems), -applications (including diabetes, oncology, cardiology, sexually transmitted diseases, autoimmune disease, nephrology, drug testing), -end-users (including hospitals, laboratories, academics) and -geography (globally).

The global IVD market was reported with high revenue in previous years and hence expected to grow at high CAGR values by 2020. The overall revenue share was highly held by North America. North America is the largest while Asia-Pacific is the fastest revenue generating region. The BRIC (Brazil, Russia, India, and China) region showed increased growth rate for the IVD market.

IVD market growth is driven by factors such as increase in incidences of chronic and infectious diseases across all age cohorts, genetic diseases, aging population, rising acceptance of personalized medicine, rise in healthcare awareness in patients and high unmet medical needs in diagnosing diseases. Screening initiatives and high investment in healthcare infrastructures mainly contributes to market growth, whereas difficulty in rendering rapid diagnostic results, stringent regulatory policies, reimbursement issues and economic crisis are the major restraints. Different geography is an opportunistic factor which improved IVD market growth.

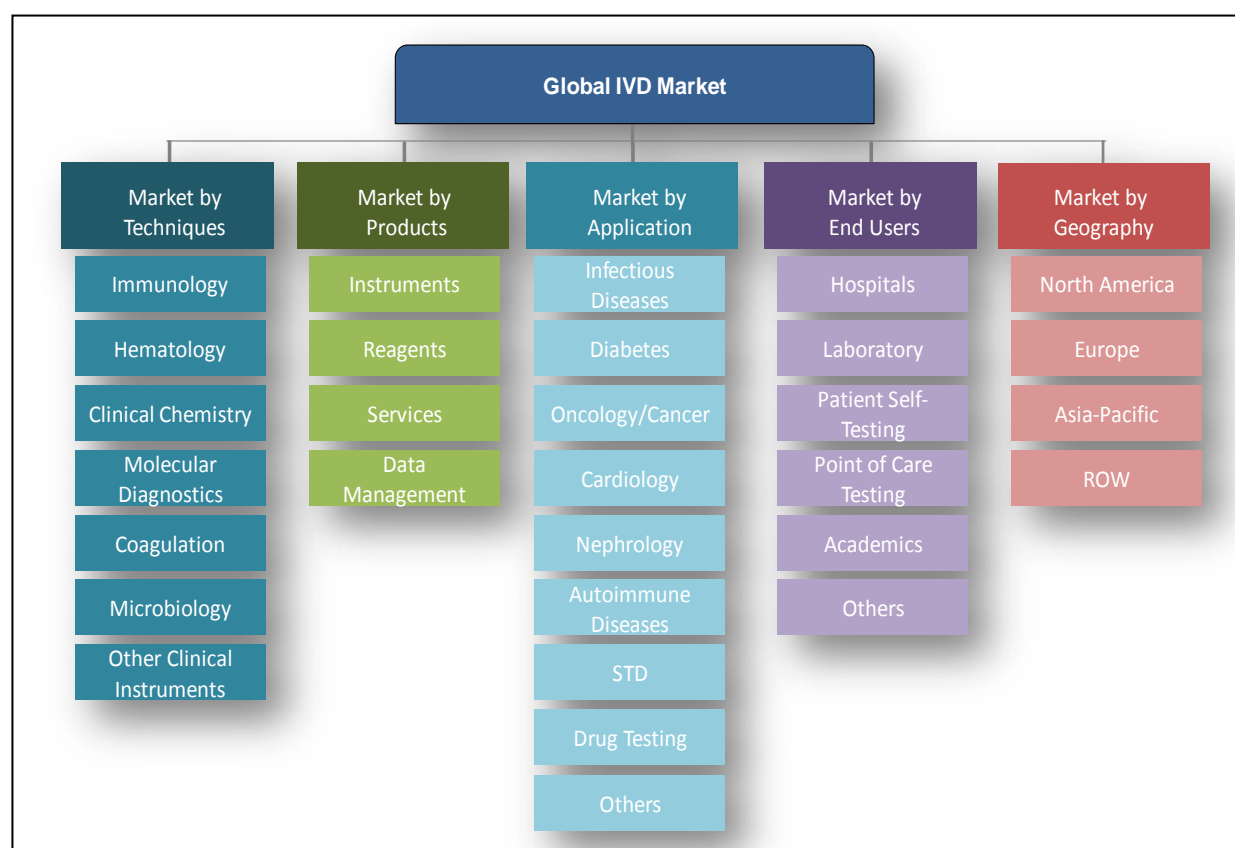
Roche diagnostics (Basel, Switzerland) is the largest player in the market with a share of XX%, followed by Siemens and Abbott, who hold XX% of the market. The IVD market is highly consolidated, with the major players holding close to XX% market share. Top ten major players are Roche Diagnostics, Siemens Healthcare(Erlangen, Germany), Abbott(Abbott Park, Illinois), Johnson and Johnson(New Jersey), Beckman Coulter(Massachusetts), Becton Dickinson(U.S.), BioMerieux (France), Bayer Diabetes (Germany), Sysmex (U.S.) and Bio-Rad (California). Key players such as Thermo Fisher Scientific, Inc., QIAGEN N.V., and ARKRAY, Inc. have established new manufacturing facilities and R&D units in China to grow IVD market.

The focus of this research report description was on various levels of analysis, industry trends, market shares, supply chain, porters five force analysis and company profiles which together comprise and augment about competitive landscape, emerging and high growth segments of IN-VITRO diagnostic (molecular diagnostics & point of care testing), emerging technologies.

1.2 MARKET SEGMENTATION

FIGURE 1

IVD MARKET: MARKET SEGMENTATION



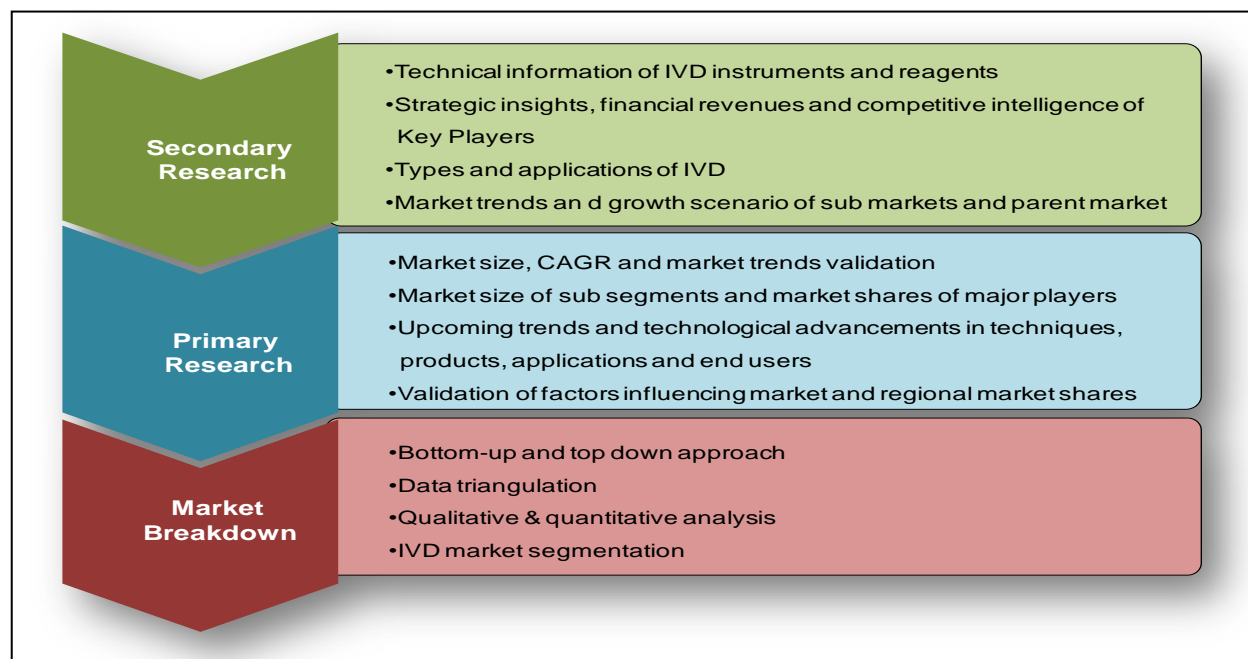
Source: Annual/Financial Reports, SEC Filings, Investor/Corporate presentations, Global IVD Associations and Journals, European Diagnostic Manufacturers Association (EDMA), American Association for Clinical Chemistry (AACC), WHO, BIVDA, JACRI, Industry Expert Interviews, and IQ4I Analysis

Each segment of this report offers market values for its sub segments and geographies as well. It also provides market dynamics with respect to drivers, restraints, and opportunities and performance of major key players.

1.3 RESEARCH METHODOLOGY

The research on IVD market involved both widespread secondary and primary research. The secondary research was carried out on company websites, annual reports, SEC filings, diagnostic associations, articles, press releases, journals and paid sources to identify and collect both the qualitative and quantitative data related to IVD. The primary sources were experts from supply side such as CEOs, directors, strategic growth managers, international/regional marketing managers, marketing executives and from demand side such as reference laboratory heads, hospitals, and purchase managers. All the primary sources were interviewed to acquire and verify critical qualitative and quantitative information and also to assess the future forecast of the all segments of the IVD market. Along with these the additional information extracted was about the key players in this industry with their market revenues, products and developments. The factors responsible for growth and restriction of the IVD market along with the future opportunities were also determined through secondary research and verified through primary sources.

The following illustrative figure shows the market research methodology applied in making this report on the global IVD market.

FIGURE 2**RESEARCH METHODOLOGY: IN-VITRO DIAGNOSTICS MARKET**

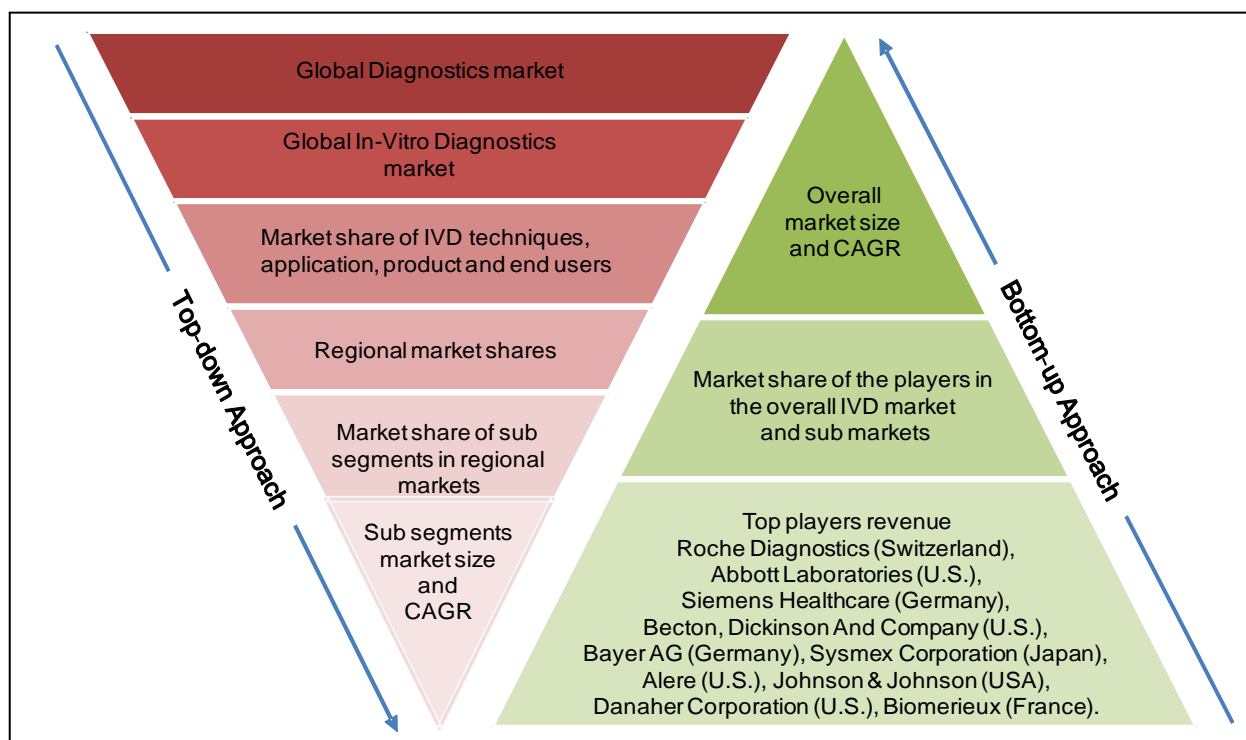
Source: Annual/Financial Reports, SEC Filings, Investor/Corporate presentations, Global IVD Associations and Journals, European Diagnostic Manufacturers Association (EDMA), American Association for Clinical Chemistry (AACC), WHO, BIVDA, JACRI, Industry Expert Interviews, and IQ4I Analysis

1.3.1 MARKET SIZE ESTIMATION

The size of the global IVD market and its various segments and sub-segments were estimated and validated through secondary and primary research. All the IVD market percentage shares, splits, and breakdowns were determined using secondary sources and verified through primary sources to get the final quantitative and qualitative data. This data is consolidated and added with detailed inputs and analysis from IQ4I and presented in this report.

FIGURE 3

IVD MARKET: TOP-DOWN AND BOTTOM-UP APPROACH

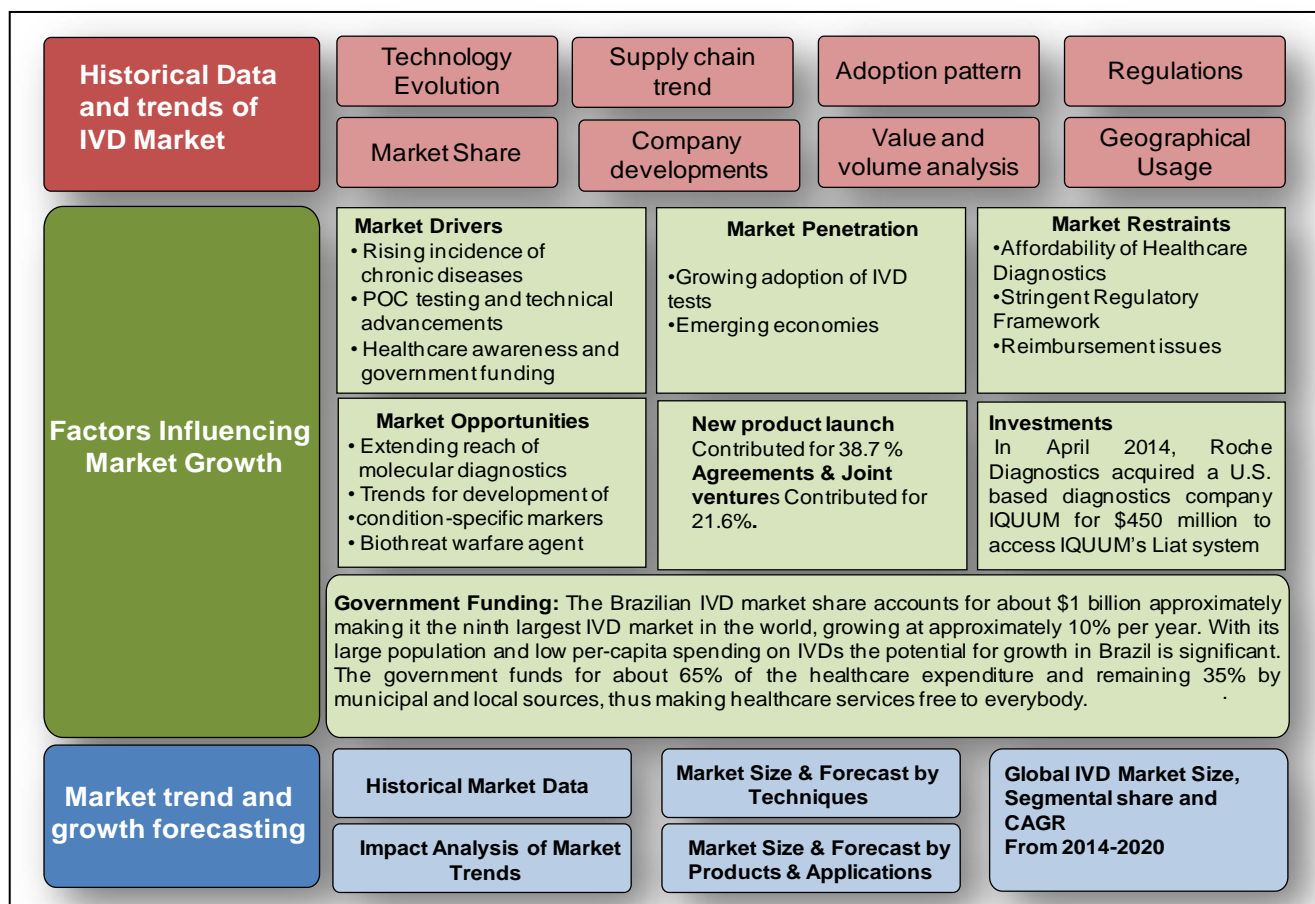


Source: Annual/Financial Reports, SEC Filings, Investor/Corporate presentations, Global IVD Associations and Journals, European Diagnostic Manufacturers Association (EDMA), American Association for Clinical Chemistry (AACC), WHO, BIVDA, JACRI, Industry Expert Interviews, and IQ4I Analysis

The top-down approach was used to derive the global IVD market as well as the IVD market by technology, applications, end-users, and products. Different percentage splits were applied for different segments of the IVD market. This percentage split was assumed to be same for geography.

FIGURE 4

IVD MARKET: FORECASTING MODEL

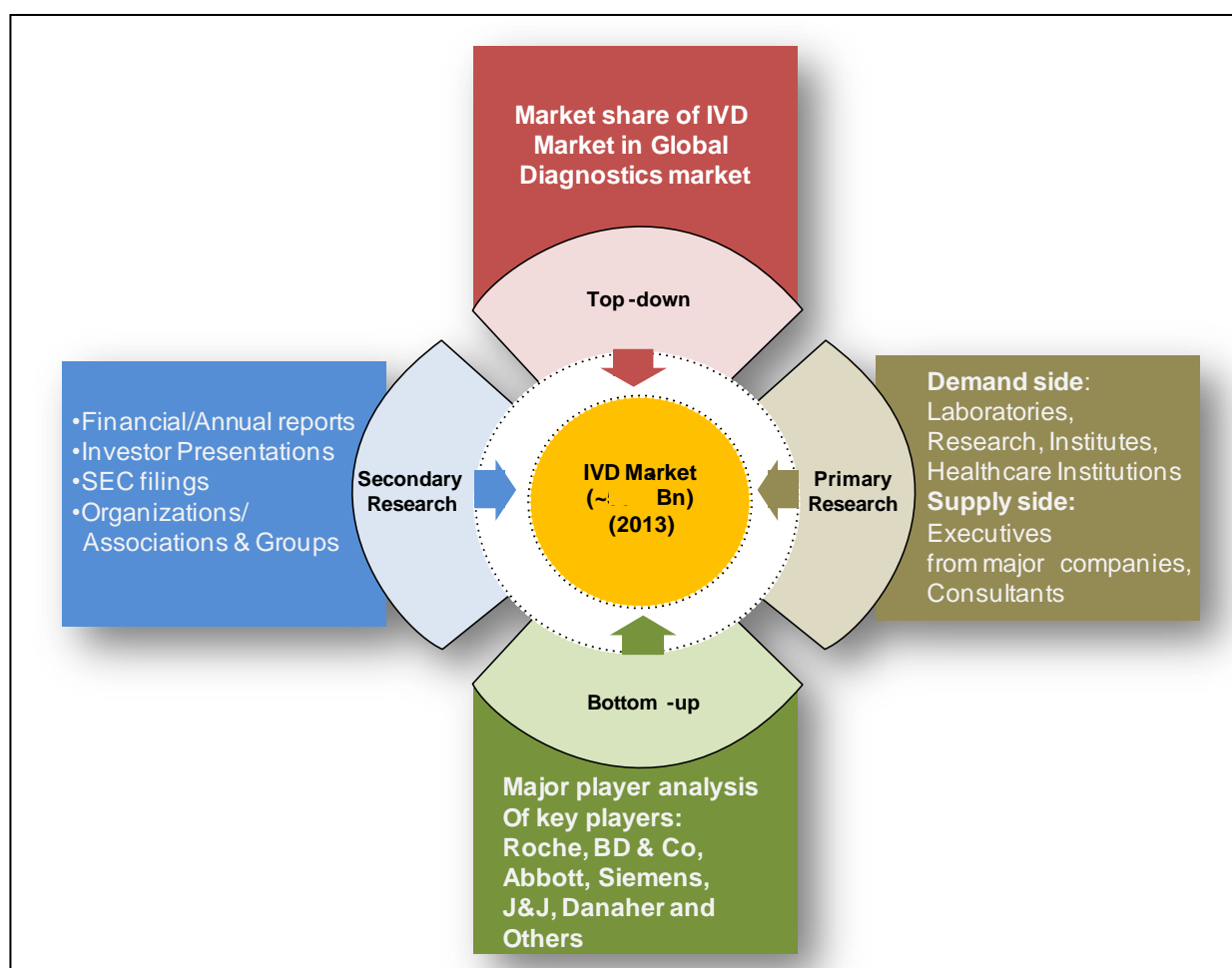


Source: Annual/Financial Reports, SEC Filings, Investor/Corporate presentations, Global IVD Associations and Journals, European Diagnostic Manufacturers Association (EDMA), American Association for Clinical Chemistry (AACC), WHO, BIVDA, JACRI, Industry Expert Interviews, and IQ4I Analysis

1.3.2 MARKET BREAKDOWN AND DATA TRIANGULATION

FIGURE 5

IVD MARKET: MARKET BREAKDOWN & DATA TRIANGULATION



Source: Annual/Financial Reports, SEC Filings, Investor/Corporate presentations, Global IVD Associations and Journals, European Diagnostic Manufacturers Association (EDMA), American Association for Clinical Chemistry (AACC), WHO, BIVDA, JACRI, Industry Expert Interviews, and IQ4I Analysis

The data was triangulated by studying various factors and trends from both the demand side and the supply side. Along with this, the market was validated using both top-down and bottom-up approaches.

2 EXECUTIVE SUMMARY

IN-VITRO diagnostics are the tests performed outside the human body by isolating blood and tissue specimens for detection of body's condition which was useful in preventing/controlling disease. The global IVD market is valued at \$XX billion in 2013 and is expected to grow at a CAGR of XX% to reach \$ XX billion by 2020. The IVD market is mainly segmented by techniques, products, applications, end-users and geography. IVD market is basically driven by increased incidence of chronic and infectious disease, demand for POCT devices, technological advancement, personalized medicine approach, cost-effectiveness and healthcare awareness. However intensified competition, reimbursement issues, affordability of healthcare diagnostics is hampering the IVD market growth.

The global IVD market by technique is segmented into clinical chemistry, immunology, haematology, coagulation, microbiology, molecular diagnostics and other clinical instruments. Immunology accounted for the largest revenue of \$ XX billion in 2013 and is poised to reach \$ XX billion by 2020, at a CAGR of XX%. Further, molecular diagnostics market segment is expected to grow at the highest CAGR of XX% during the forecast period. IVD products market is segmented based on instruments, reagents, data management system software/hardware and services. Reagent commanded the largest market of \$ XX billion in 2013 and is expected to grow at a CAGR of XX% followed by services market. Instruments accounted for the second largest market share in 2013.

The global IVD market by application is segmented into diabetes, infectious disease, oncology, cardiology, nephrology, autoimmune disease, drug testing, sexually transmitted disease and others. Infectious disease holds the largest market of \$ XX billion and is expected to reach \$XX billion by 2020, at a CAGR of XX%. Oncology segment is expected to grow at the highest CAGR of XX% during the forecast period. IVD market by end-users is sub segmented into laboratory, hospitals, academics and patient self-testing. Hospital accounted for the largest market of \$ XX billion in 2013 and is expected to reach \$ XX billion by 2020 at a CAGR of XX%.

Based on geography, IVD market is divided into North America, Europe, Asia-Pacific and Rest of the world. Developed regions such as North America commanded the largest market of \$ XX billion in 2013 and are expected to reach \$ XX billion by 2020 at a CAGR of XX %. High investments in healthcare infrastructures, availability of government funds improved market growth in this region. However, Asia-pacific region is expected to grow at the highest

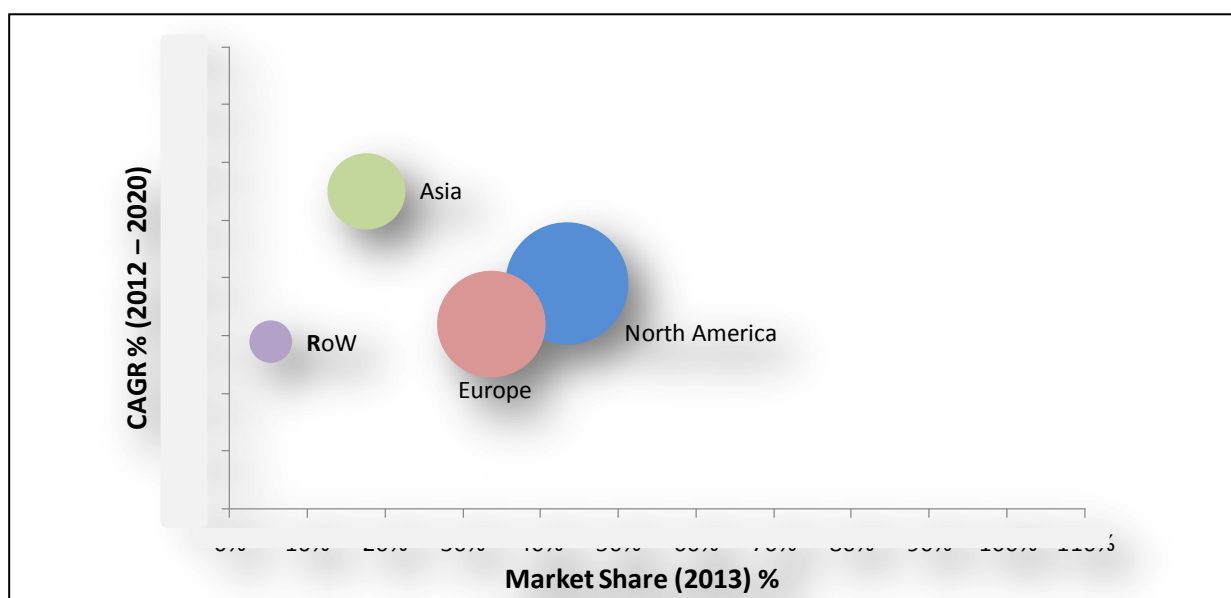
CAGR of XX% during the forecast period due to increased healthcare awareness, improved economic growth and increasing disposable incomes. Significant mergers and acquisitions, collaborations, joint ventures are the industry trends that are playing a major role for the market growth.

Major players in IVD market include Roche Diagnostics Limited (Switzerland), Bio-Rad Laboratories (U.S.), Becton, Dickinson And Company (U.S.), Bayer AG (Germany), Sysmex Corporation (Japan), Alere (U.S.), Abbott Laboratories Inc (Illinois), Siemens Healthcare (Germany), Johnson & Johnson (USA), Danaher Corporation (U.S.), Biomerieux (France). Roche diagnostics is a dominant player with a share of XX%, followed by Becton, Dickinson and company, Abbott laboratories, Siemens healthcare and Johnson and Johnson.

The report analyzes IVD market globally with detailed information of various segments. It further discussed market dynamics, industry trends, and challenges of IVD market.

FIGURE 6

**EXECUTIVE SUMMARY: GLOBAL IVD MARKET SHARE,
BY GEOGRAPHY (2013)**



Source: Annual/Financial Reports, SEC Filings, Investor/Corporate presentations, Global IVD Associations and Journals, European Diagnostic Manufacturers Association (EDMA), American Association for Clinical Chemistry (AACC), WHO, BIVDA, JACRI, Industry Expert Interviews, and IQ4I Analysis

TABLE 1

**IVD INSTRUMENTS & REAGENTS GLOBAL MARKET REVENUE,
BY GEOGRAPHY, (2012-2020) (\$BN)**

Region	2012	2013	2014	2020	CAGR (2014-2020)
North America	XX	XX	XX	XX	XX
Europe	XX	XX	XX	XX	XX
Asia-Pacific	XX	XX	XX	XX	XX
RoW	XX	XX	XX	XX	XX
Total	XX	XX	XX	XX	XX

Source: Annual/Financial Reports, SEC Filings, Investor/Corporate presentations, Global IVD Associations and Journals, European Diagnostic Manufacturers Association (EDMA), American Association for Clinical Chemistry (AACC), WHO, BIVDA, JACRI, Industry Expert Interviews, and IQ4I Analysis

North America commanded the largest revenue of \$XX billion of the global IVD market, by geography in 2013. The market is expected to grow at a CAGR of XX% from 2014 to 2020 to reach \$ XX billion by 2020. The Asia Pacific is expected to grow at the highest CAGR of XX% during the forecast period.

TABLE 2

**IVD INSTRUMENTS & REAGENTS GLOBAL MARKET REVENUE,
BY TECHNIQUE, (2012-2020) (\$BN)**

Techniques	2012	2013	2014	2020	CAGR (2014-2020)
Immunology	XX	XX	XX	XX	XX
Hematology	XX	XX	XX	XX	XX
Clinical Chemistry	XX	XX	XX	XX	XX
Molecular Diagnostics	XX	XX	XX	XX	XX
Coagulation	XX	XX	XX	XX	XX
Microbiology	XX	XX	XX	XX	XX
Other Clinical Instruments	XX	XX	XX	XX	XX
Total	XX	XX	XX	XX	XX

Source: Annual/Financial Reports, SEC Filings, Investor/Corporate presentations, Global IVD Associations and Journals, European Diagnostic Manufacturers Association (EDMA), American Association for Clinical Chemistry (AACC), WHO, BIVDA, JACRI, Industry Expert Interviews, and IQ4I Analysis

Immunology segment commanded the largest revenue of \$XX billion in 2013 and is expected to grow at a CAGR of XX% to reach \$XX billion by 2020. Molecular diagnostics is expected grow at the highest CAGR of XX% during the forecast period.

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