



Netherlands Enterprise Agency

Healthcare Market in India

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HEALTHCARE MARKET IN INDIA

Opportunities from a Dutch industrial perspective:

Healthcare Delivery, Bio Pharma and Medtech

June 2014

Executive summary

The Indian healthcare industry is currently a \$65 billion industry, which is growing at a rate of 15% and is expected to touch \$260 billion by 2020. As an emerging market, the current health scenario in India shows aspects of both developing and of developed countries. Despite the challenges India still faces, it is clear that India's rapidly growing healthcare market represents an opportunity for the Netherlands.

The Netherlands is strong in the area of vaccines, therapeutics, diagnostics, medical devices and hospital design. This makes us an interesting partner for India both as a supplier of products and technologies as well as a knowledge partner. With the right market proposition in terms of pricing, long term focus and organizational flexibility, India could represent an interesting market opportunity for Dutch companies both from an exports and investment perspective.

For Dutch companies and institutions, India could be an important partner to work with when it comes to cost effective solutions for healthcare. India is already playing this role in pharma and the country has emerged as a source for innovation in cost effective healthcare delivery.

This document gives a short and to-the-point overview on the three main sectors of interest from Dutch industrial perspective: Healthcare Delivery, Bio Pharma and Medtech.

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The Indian Healthcare Sector: an overview

Growth drivers in India: The Indian healthcare sector, growing at a rate of 15% is expected to touch \$250 billion by 2020. In the last two decades, India's health system has undergone a major transformation from being a loosely knit, social sector supported by the Government to \$60 billion industry (in FY 2011-12).

The sector's growth was mainly driven by:

Demographic Transformation	•Growing population and rising life expectancies - particularly increasing need for maternity, child health and geriatric care
Changing disease profile	•Increasing incidence of lifestyle & non communicable diseases such as cardiac diseases, cancer and diabetes
Increased affordability	•Growing middle class, rising incomes and increased insurance penetration
Increased awareness	•More patients tapping healthcare services, particularly for preventive care and diagnostics
Influx of medical tourists	•Currently serving more than 850,000 foreign patients every year in areas like cardiology, joint replacement, orthopaedic surgery, transplants and urology
Increased penetration of private players	•Augmented by government initiatives, entry into Tier 2&3 cities, and evolving healthcare delivery models e.g. single specialty centres, wellness centres etc

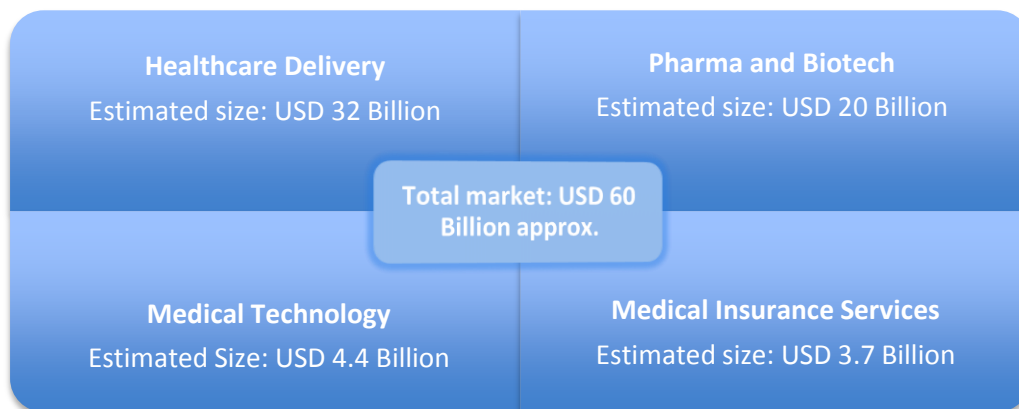
Source: KPMG

Today, the Indian Healthcare industry is a preferred sector for strategic and financial investments. The advent of major private players in the early 2000's and increasing investments from the Government have transformed the healthcare industry into one of the largest industries in terms of revenue and employment.

Closing the gap: India has come a long way from where it was two decades ago. But many challenges remain. The country still faces a shortage of hospitals, doctors, specialists and paramedical staff. The education sector has not kept pace with rapid technological developments in the medical field and quality issues exist in both public and private sector.

To overcome these challenges, the Indian government is doubling its expenditure on healthcare to 2.5% of GDP and investing heavily in public healthcare infrastructure. The private sector is also boosting its investments in healthcare delivery and is currently responsible for 80% of the new bed capacity. Every major private hospital chain has plans for expansion in the near future looking to enter Tier II & III cities. As India moves towards achieving its goals in health infrastructure expansion, there are numerous opportunities for Dutch companies in areas like hospital design, engineering and equipment.

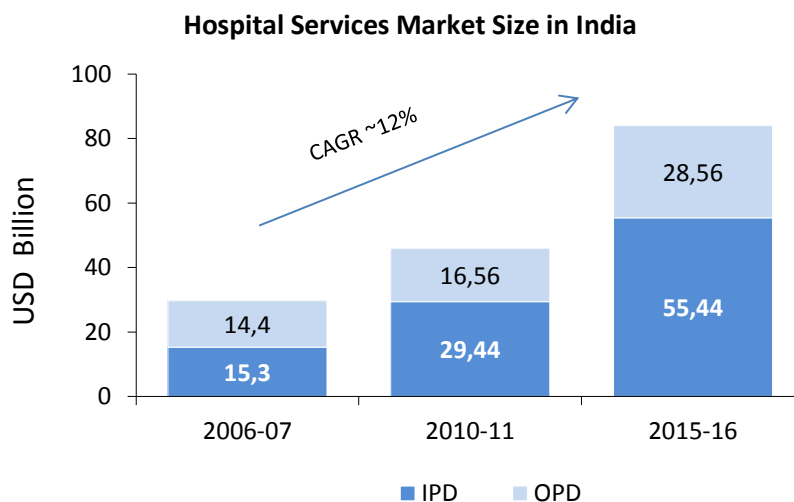
The booming healthcare market in India not only presents opportunities for Dutch companies in Healthcare Delivery, Medtech, and Bio Pharma but Education is a growth market as well.



Source: Grant Thornton report 2013

Health care delivery

Health care delivery is a sector seeing strong investment and growth. Looking at the figures of past and future growth, this segment could be extremely interesting for Dutch companies with the right price proposition.



Source: Crisil

80% of Healthcare expenditures already take place in private hospitals. And the private sector's share in total healthcare delivery is expected to reach 81% in 2015. That makes the private sector, the most vibrant force in the Indian healthcare delivery sector. The biggest hospital groups are listed below with number of beds and city of head office (state).

Hospital group:	Beds:	Based out of:	State:
Fortis Healthcare	12.000	New Delhi	Delhi NCR
Apollo Hospitals	8717	Chennai, Hyderabad	Tamil Nadu, A.P.
Manipal Group	4900	Bangalore	Karnataka
Aravind Eye Hospitals	4900	Several	Tamil Nadu
Max Hospital	1973	New Delhi	Delhi NCR

Focus areas: New Delhi, Hyderabad, Bangalore and Chennai.

Public (and multilateral) investments are much more limited and likely less feasible.

However, interesting options could be explored:

- 1) Central Government: Ministry of Health and Family Affairs, **New Delhi**.
- 2) State Government: The state of **Punjab** showed interest in setting up public hospitals and cancer treatment/research facilities.
- 3) Multilateral organizations: World Bank, Asian Development Bank and IFC (contacts to be established)

Observation: the projects initiated by the National Government normally are tender-based and generally have longer lead-times and additional complexities compared to projects initiated by private partners. However, there are interesting initiatives coming up in the field of PPP in health care delivery, which might be interesting to explore.

Education (as part of health care delivery): The medical education sector in India was valued at \$2.19 billion in the year 2012 (Business Standard). The sector is set to witness growth at CAGR 20 per cent and is likely to reach \$8.72 billion by 2020. More than 50% of the sector comprises of under-graduate and post-graduate medical education, followed by nursing, dental and paramedical training and education.

If Dutch institutions, educational centers and companies want to enter the Indian market in education and especially vocational training, new and innovative concepts need to be invented. Educational budgets are low, too low to make it profitable for Dutch companies and institutions. Therefore, different approach like train-the-trainer concepts should be developed in India.

Bio Pharma

The Indian Pharmaceutical market was valued at \$15.6 billion in 2011 and is expected to grow to \$55 billion in 2020 (McKinsey). The Pharmaceutical industry in India is the world's third-largest in terms of volume and stands 14th in terms of value. India is already a global player when it comes to generics and is expected to play an important role in the rapidly growing market for Biologics and Bio-similars.

India exported pharmaceutical products worth \$14.5 billion in 2012-13, with exports increasing at an average rate of around 10% per year for the past 5 years. Pharmaceutical Export Promotion Council of India is targeting to increase exports to \$25 billion by 2014-15.

Top 10 Pharma 2013 ranked by revenue and information on HQ

S.No.	Name of the Company	Location
1	Cipla	Mumbai (Maharashtra)
2	Dr. Reddy's	Hyderabad (Andhra Pradesh)
3	Ranbaxy	National Capital Region
4	Lupin	Mumbai (Maharashtra)
5	Aurobindo	Hyderabad (Andhra Pradesh)
6	Sun	Mumbai (Maharashtra)
7	Cadila Health Care Ltd.	Ahmedabad (Gujarat)
8	Torrent Pharma	Ahmedabad (Gujarat)
9	Jubilant	National Capital Region
10	Wockhardt	Mumbai (Maharashtra)

Several of the major players in the sector are increasingly focused on innovation as a source of competitiveness. As a result, India's bio-pharma and bio-services industries are driving growth in the country's burgeoning biotech sector. Both segments have made important contributions to the biotech sector's compound annual growth rate of 24% over the past 7 years and have shown resilience, growing at a rate of 11% last year despite the global economic downturn. The total amount currently being spent on innovative discovery programs and development in the bio-pharma sector in India is about \$2 billion. Estimations by industry body ABLE indicate that this can grow to \$25 billion by 2025, if concerted efforts are made by various stakeholders like the government, academia and industry.

Top 10 Bio Pharmaceuticals ranked by revenue 2012

S.No.	Name of the Company	Location
1	Biocon	Bangalore (Karnataka)
2	Serum Institute of India	Pune (Maharashtra)
3	Panacea Biotec	National Capital Region
4	Reliance Life Sciences	Mumbai (Maharashtra)
5	Novo Nordisk	Mumbai (Maharashtra)
6	Shanta Biotech	Hyderabad (Andhra Pradesh)
7	Indian Immunologicals	Hyderabad (Andhra Pradesh)
8	Bharat Biotech	Hyderabad (Andhra Pradesh)
9	Eli Lilly	National Capital Region
10	Bharat Serums	Mumbai (Maharashtra)

Source: Biospectrum

The sector is already experiencing rising investments from domestic and foreign players and the Indian government is also increasing its expenditure in the field. In its 12th Five-Year Plan, the government aims to spend \$3.7 billion on biotechnology as compared to \$1.1 billion in the 11th Five-Year Plan. Government investment in the area of health and biotechnology research has created a strong science base. One of the major challenges the government is focusing on, while it ramps up its investment, is the translation of research from the bench to the bed side by increasing focus on public private R&D linkages.

The Indo-Dutch connect: The Netherlands is already an important logistics hub for the global pharmaceutical supply chain. The Netherlands also has an important position in the registration of medicine for the European market and has companies that can help facilitate this process for Indian pharma companies. Both the Netherlands and India are strong in clinical trials making them a good match for joint drug development. Indian companies like Glenmark and Piramal have conducted clinical trials in the Netherlands and Sun Pharma has its European HQ in the Netherlands.

Indian companies are increasingly showing interest to tap into the Dutch Life Science Innovation system. There are an increasing number of partnerships between Dutch knowledge institutes and SMEs that make up the most dynamic part of our Life Science industry. The industry can benefit from partnering with increasingly cash rich Indian companies that are looking to enhance their innovation pipeline.

Indian pharmaceutical players such as Piramal, Dr. Reddy's have shown interest to partner in the areas of cancer & diabetes and vaccine manufacturers such as the Serum Institute, Bharat Biotech, Biological-e, Bharat Immunologicals and Gennova have shown interest to partner in the area of infectious diseases & vaccines. Most have indicated an interest to be

approached at a stage where proof of concept has been established and some have even shown a willingness to come on board at an earlier stage.

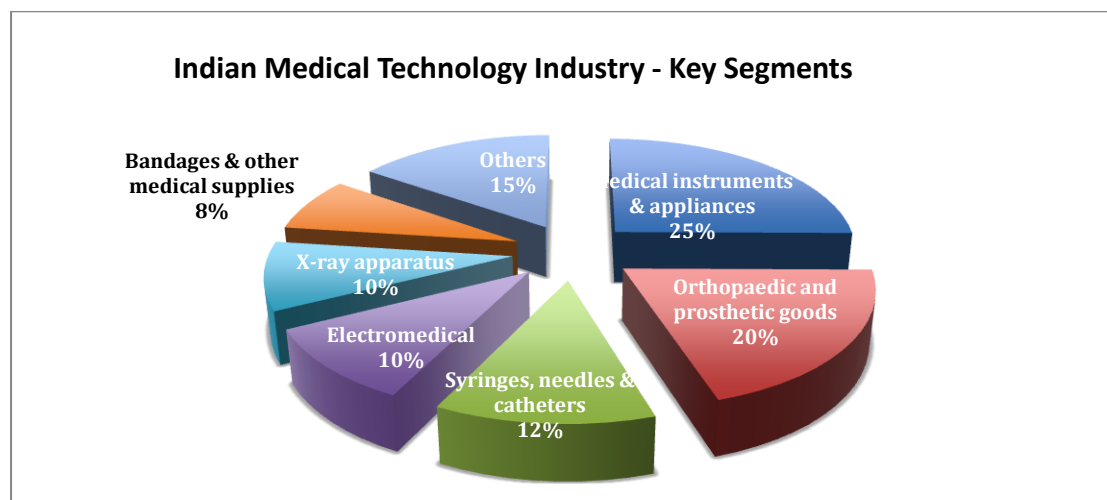
The 2012 acquisition of Bilthoven Biologicals by the Serum Institute (SII) and the acquisition of Octoplus by Dr Reddy's show that such a partnership can create value. Both acquisitions have proven to be successful - Bilthoven biological is an integral part in the efforts of SII to drive down the cost for its Polio vaccine and Octoplus is emerging as a major R&D center for Dr. Reddy's in the area of injectables. The recent acquisition of Dutch drug delivery company Nanomi by Lupin signals that the trend is continuing.

Focus areas: Bangalore, Hyderabad and Mumbai-Pune are major clusters that are at the center of bio-pharma and bio-services industry. Delhi-NCR is of additional importance as major government funding agencies are based there.

Medical technology

The 'Medtech' industry was valued at \$4.4 billion in the FY 2012-13 and is expected to grow to around \$5.8 billion by 2013-14 and \$7.8 billion by 2015-16 growing at a CAGR of 15.5%, according to a report from Grant Thornton. India's medical device market is currently the fourth largest market in Asia with 700 medical device makers, and ranks among the world's top 20, according to data from India Semiconductor Association.

The Indian device market consists of medical instruments, orthopedic and ophthalmic devices, syringes, needles, catheters, scanning devices (X Ray, CT scan), bandages. A Cygnus study on the sector in 2010 provided the market distribution of the device industry, which is given in the following figure.



Source: Cygnus

Over 75% of the medical devices used in India are currently imported. The Indian market is often seen as a market for selling current mature market products by global devices companies (in some cases, even refurbished equipment), mostly developed and manufactured outside of India. Key categories of items that are imported into India include imaging equipment, pacemakers, orthopedic and prosthetic appliances, breathing and respiration apparatus, and dental equipment. Growing local production is mostly concentrated around certain regions and cities.

What:	Where:
Medical equipment	Southern states: Bangalore, Hyderabad and Pune
Medical implants	Bangalore, Hyderabad
Medical disposables and furniture	Northern states: Chandigarh (Punjab), Faridabad, Ballabgarh (Haryana) and Menasar (Rajasthan)

Innovation opportunity: India has been emerging as a country where companies combine the advantages of local production and India's talent pool to help drive innovations in product technology, service delivery and operating models. A combination of western technology with Indian knowledge and skills in engineering can help bring down cost and drive innovation in the area of affordable healthcare. This way, India represents an opportunity to open up new markets for Dutch Medtech companies that currently focus on high end & niche products.

Some recent innovations are given below:

Company name:	Product:	Result:
MediVed	Pacemaker	Cost is \$400 to \$500 below the comparable pacemakers produced by international companies
Bigtec Labs	MicroPCR	A miniaturized, no-frills and portable version of the bulky PCR (polymerase chain reaction) machine Costs Rs 1 lakh (\$2000) compared to a conventional PCR's price tag of Rs 15 lakh (\$30,000)
Perfint Healthcare	PIGA-CT	Uses robotics to make image-guided, soft-tissue biopsies simpler, safer and more accurate At Rs 15 lakh (\$30,000) a machine, it is less expensive than other imported alternatives (such as fluoroscopes) which are double the cost
Skarray	X-ray imaging	High-frequency digital X-rays with radiation leakage control Cost is a fraction of the imported equipment

The Indian government is proactively stimulating innovation for affordable healthcare and is funding programs specifically targeting development in medical devices and diagnostics.

Bilateral-Cooperation

There are two framework agreements between the Dutch and Indian government that facilitate the activities of the Dutch Life Science sector in India.

The Dutch Ministry of Health, Welfare and Sport cooperates with the Indian Ministry of Health and Family Welfare. This MoU enables the Netherlands and India to work together in jointly defined priority areas in the field of healthcare. The MoU creates opportunities to reduce market barriers through closer cooperation between regulatory bodies. The MoU, which was signed with the central government also supports public private partnerships in the field of healthcare and can act as an enabler for projects at state level.

The Dutch Ministry of Economic Affairs cooperates with the Indian Ministry of Science and Technology. This MoU creates funding opportunities for joint R&D and innovation in the areas defined under the Dutch LSH roadmap. Through this partnership, the top sector Life Science and Healthcare can help define bi-lateral funding priorities and initiate strategic innovation partnerships with India.

With these MoU's, the Dutch government is ready to support the top sector in its internationalization efforts in India. There are opportunities for a coordinated approach by the sector and funding instruments available to help the sector achieve its goals. The Dutch trade network, which consists of the Embassy, Consulate's and Netherlands Business Support offices are ready to support such a coordinated approach and can also aid individual companies in their efforts in India.

Conclusion

Indian Healthcare industry has evolved over the years from being a social sector supported by the Government to being one of the largest industries in the country and a preferred sector for strategic and financial investments. Developments in India provide ample opportunities for the companies and knowledge institutes that make up the Top Sector Life Science and Health. There are opportunities for export of medical devices, hospital design and engineering, collaboration in R&D in the area of bio-pharma and medical devices and market opportunities in areas such as education.

With the right market proposition in terms of pricing, long term focus and organizational flexibility, India might be interesting for Dutch companies for exports as well as a local presence. Due to its private sector dominance, doing business in the healthcare sector might be less complicated than other, Government dominated areas. For Dutch companies and institutions, India could also be an important partner to work with when it comes to cost effective solutions for health care.

The Dutch government and its representatives at the Embassy, Consulate's and Netherlands Business Support offices in India are ready to support the sector in a coordinated approach to India. The trade network is also ready to help individual companies with advice, market scans, business partner search and matchmaking.



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