Gujarat. Expectations maximized.

HEALTHCARE INDUSTRY
ACCESSIBLE & AFFORDABLE FOR ALL
1. Healthcare Sector: Indian Overview
Overview: **Factors for growth in healthcare**

- **Total global healthcare expenditure** represent around 10% of world GDP. Indian health sector is expected to create 40 million new jobs by 2020.

- **India’s medical device market** is currently the 4th largest in Asia with 700 medical device makers, and ranks among the top 20 in the world.

- **India has got many enabling factors** to support its growth in health sector. It is equipped to deliver on global demand.

- **418 State-of-the-art Maternal and Child Health Wings** have been sanctioned in 2012-13 across 11 States.

**Factors for projected growth in healthcare**

- Focus on PPP
- Increasing population
- Increasing disposable income
- Growing health issues
- Improving health insurance penetration
- Thrust on medical tourism
- Cheaper cost of treatment

Sources: [www.pib.nic.in](http://www.pib.nic.in)
<table>
<thead>
<tr>
<th>Strong Policy Support</th>
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</thead>
<tbody>
<tr>
<td><strong>Encouraging the private sector</strong></td>
</tr>
<tr>
<td>▪ The benefit of section 10 (23 G) of the IT Act has been extended to financial institutions that provide long-term capital to hospitals with 100 beds or more</td>
</tr>
<tr>
<td>▪ Government is encouraging the PPP model to improve availability of healthcare services and provide healthcare financing</td>
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<tr>
<td><strong>Encouraging investments in rural areas</strong></td>
</tr>
<tr>
<td>▪ The benefit of section 80-IB has been extended to new hospitals with 100 beds or more that are set up in rural areas; such hospitals are entitled to 100% deduction on profits for 5 years</td>
</tr>
<tr>
<td><strong>Tax incentives</strong></td>
</tr>
<tr>
<td>▪ Customs duty on life-saving equipment has been reduced to 5% from 25% and exempted from countervailing duty</td>
</tr>
<tr>
<td>▪ Import duty on medical equipment has been reduced to 7.5%</td>
</tr>
<tr>
<td><strong>Incentives in the medical travel industry</strong></td>
</tr>
<tr>
<td>▪ Incentives and tax holidays are being offered to hospitals and dispensaries providing health travel facilities</td>
</tr>
</tbody>
</table>

Sources: [www.ibef.org](http://www.ibef.org)
100% Foreign Direct Investment (FDI) is permitted for all health-related services under the automatic route. Demand growth, cost advantages and policy support have been instrumental in attracting FDI.

The health insurance premium has registered a CAGR of 32% for the past 8 financial years. Indian health insurance industry with gross premiums has increased by 16% from USD 2.1 Billion in 2011-12 to USD 2.4 Billion in 2012-13.

Sources: Department of Industrial Policy & Promotion (DIPP)
Opportunities in Healthcare

**Healthcare Infrastructure**
- Additional **1.8 million beds needed** for India to achieve the target of 2 beds per 1,000 people by 2025
- Additional **1.54 million doctors required** to meet the growing demand for healthcare
- Investment of **USD 86 billion** required to achieve these targets

**Health Insurance**
- Less than 15% of the Indian population is covered through health insurance
- The total market size of the insurance sector in India was USD 66.4 billion in FY 13. It is projected to touch USD 350–400 billion by 2020.

**Medical Tourism**
- Indian medical tourism industry is expected to register a **CAGR of more than 20% during 2013-2015**
- Cost of surgery in India is nearly **(1/10)th** of the cost in developed countries

**Research & Development**
- Contract research is a fast growing segment in the Indian healthcare industry
- Cost of developing new drug is as low as 60% of the testing cost in the USA
- About 60% of global clinical trials is outsourced to developing countries

Sources: From research report “Booming Medical Tourism in India”, [www.ibef.org](http://www.ibef.org)
2. Healthcare Sector : Gujarat Scenario
Gujarat state is in the forefront of establishing and maintaining good health infrastructure

Gujarat Public Health Infrastructure

AYUSH Facilities:
- Ayurved Hospitals: 40; Ayu Dispensaries: 523; Homeopathy Hospitals: 4; Homeo Dispensaries: 216
- Grant-in-Aid (GAI) Hospitals: 119
Total of 19 Institutions with 2930 Seats
- 6 Government Colleges (1080 Seats)
- 5 Gujarat Medical Education & Research Society (GMERS) Medical Colleges (750)
- 4 Private Colleges (500 Seats)
- 3 Municipal Corporation College (450 seats)
- 1 Deemed University (150 Seats)

Total of 13 Institutions with 1240 Seats
- 2 Government Colleges (200 Seats)
- 1 SGDHER (100 seats)
- 1 Municipal Corporation College (100 Seats)
- 8 Private Colleges (740 Seats)
- 1 Deemed University (100 Seats)

Total of 41 Institutions with 1855 Seats
- 8 Government Colleges (390 Seats)
- 33 Private Colleges (1465 Seats)

Total of 34 Institutions with 1730 Seats
- 5 Government Colleges (360 Seats)
- 1 Municipal Corporation College (50 Seats)
- 26 Private Colleges (1270 Seats)
- 2 Deemed University (50 Seats)

As on 10th August, 2014
Para Medical Colleges & Indian System of Medicine & Homeopathy

As on 10th August, 2014

Total of 17 Institutions with 1625 Seats
- 4 Grant-in-Aid Colleges (400 Seats)
- 13 Self Financed Colleges (1225 Seats)

Total of 10 Institutions with 465 Seats
- 4 Government Colleges (180 Seats)
- 2 Grant-in-Aid Colleges (85 Seats)
- 3 Self Financed Colleges (150 Seats)
- 1 University Ayurveda College (50)

4 Self Financed Institutions with a total of 125 Seats

1 Government College with a total of 10 Seats
Chiranjeevi Yojna

Joint collaboration (PPP) between Government of Gujarat and Private Gynecologists/Trust Hospitals

Service Coverage through outsourcing - for normal delivery, Emergency Obstetric Care and Neonatal Care

Below Poverty line family and non-income tax paying Tribals

Voucher System (Cash Less)

A package of INR 3.80 lacs (USD 6333) is given for 100 deliveries

Linked with 108 emergency transport

Bal Sakha Yojna

- Provided facilities for proper check up of newborns and infants by pediatricians

Main aim of the scheme is to bring down the Infant Mortality Rate (IMR) and the Maternal Mortality Ratio (MMR)
Fostering Partnerships

Perinatal Referral Services 108: A PPP Initiative with GVK-EMRI

- Existing Fleet of: 525 Ambulances
- Total Emergencies Attended: 43,44,255
- Pregnancy Related Cases: 14,97,824
- Deliveries in Ambulance & at Scene: 45,272
- Response time: Urban areas 13.37 minutes & Rural areas 23.42 minutes

State of the Art – PPP Institutions

Current infrastructure + proposed investment + technology and management expertise = enhanced resource utilization and improved access to healthcare

KHILKHILAT”: Drop Back Services

A Free drop back facility service for deliveries in Government Health facility

CM – SETU: Chief Minister Services of Experts at Treatment Unit

- To address shortage of specialists, CM SETU scheme has been launched by the state. Experts from Private institutes like Gynecologist, Physician, Surgeon, Orthopedician, Pediatrician, Ophthalmic Surgeon, Anesthetist, ENT Surgeon, Dermatologist, Psychiatrist, Radiologist, Pathologist are outsourced to provide specialist services & patients' treatment cost is borne by the state government.
Mukhyamantri Amrutum (MA)

- **Mukhyamantri Amrutum**
  - Cashless hospitalization benefit of INR 200,000 (USD 3333) per BPL Family (5) per annum
  - 100% State funded Scheme
  - Provides tertiary care treatment for catastrophic diseases to all BPL families and all females and children up to 21 years of families having income less than 1.20 lacs (USD 2000)
  - Pre-existing diseases are covered from day one
  - 63 Super Specialty Hospitals Empanelled
  - Provision for transport allowance of Rs.300 per visit

- **Current Status of the Scheme**
  - More than 2.144 Million BPL families enrolled
  - 544 procedures in the Private/ Government Empanelled Hospital
  - 35,607 claims amounting to INR 71.08 Crores (USD 11.84 million) have occurred till August 2014

- **Current Status**
  - 63 Super Specialty Hospitals Empanelled
Beneficiaries Bouquet “Newborn to 18 Years”

Covers More than 15.6 Million children of Gujarat, about 26% of total population

All districts and Corporations are involved in this program & Community Awareness and Participation Activities are organized

Health and Life-Skills education

Health & Referral Card with tracking for Super-Specialty Referrals

Health Screening and Medical check up based on 4D’s: Defects at Birth, Diseases, Deficiencies and Disabilities

Super-Specialty treatment for Heart, Kidney and Cancer Disease including Renal Transplant, Liver transplant, Cochlear implant and Clubfoot (2013-14)

SHP to School Health Week: A Flagship Programme

Free Spectacles Distribution

Primary School
Children: 90,26,049

Secondary and Higher Secondary School Children: 25,56,287

New born to 6 years Angan Wadi Children: 39,55,276

Non School going children: 65,295

Madressa: 16,318

Children/ Juvenile Home etc: 3,050
Crisis Management
- Supportive & Referral Treatment
- Regular follow up and counseling
- Pneumococcal vaccination

Early Diagnosis through
- New Born Screening
- Prenatal Diagnosis
- Antenatal Screening
- Adolescent Screening
- Mass Screening on mission mode

Components of the Program

Prevention through:
- Marriage Counseling
- Genetic Counseling
- Building Community Awareness

Regular Training
- Doctors and Paramedical staff
- Health care providers & ASHA
- VHSNC members & Teachers

Tribal Population is the target group

SCA seen in all 14 tribal districts – all covered under Sickle Cell Anemia Control Program

But any person suffering from Sickle Cell Anemia is the main beneficiary

>50% of the world Sickle gene carriers in India

30% of sickle disease children among the tribal community die before they reach adulthood

20% of Sickle disease children die by the age of two years

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>50% of the world Sickle gene carriers in India

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More than **6.3 Million tribals screened** of which **5,80,580 Sickle Cell trait** and **29584 sickle cell disease detected**

Quantum Jump since 2012-13 after outsourcing

Recipient of the **Prime Minister Award** for Excellence in Public Administration
National Vector Borne Disease Control Programme (NVBDCP): During 2012, 0.36 Million Long Lasting Insecticide treated Nets (LLINS) were distributed in high risk areas. 0.9 Million beneficiaries were protected.

Revised National T.B. Control Programme (RNTCP): Total 0.16 Million lives saved since the inception of RNTCP.

National Leprosy Eradication Programme: 4597 leprosy patients are under treatment in the State.

National Blindness Control Programme: In 2012-13 up to October-12, state has performed 0.4 Million cataract operations. Out of which, 99.41% were operated with IOL.

Sources: Socio-Economic Review 2012-13
Gujarat Medical Service Corporation Limited (GMSCL)

- Rational Use of Drugs and Standard Treatment Guidelines
- Procurement of quality Branded Generic Drugs/ Promotion of Generic Drugs
- Procurement of Medical Instruments and Maintenance
- Diagnostics Centers and Services
- Strengthen Supply Chain Management to ensure smooth and timely supply of Drugs & Instruments to Public Health Institutes
Information and Communication Technology (ICT) Enabled Services
Healthcare Sector: Awards and Accolades

**Prime Minister Award** for Excellence in Public Administration for the year 2009-10 to **Sickle Cell Anemia Control Program**, Gujarat

Award for **best practices in Healthcare delivery** in 2011 in Ahmedabad

**Chiranjeevi Yojna:**

Asia Innovation Award 2006 (Singapore)

**Prime Minister’s Award**, Administrative Excellence in 2009

**Award at IndiZen 2014 for operational excellence** in Pune

**FICCI Healthcare excellence Award** for CHC Bardoli 2013
Gujarat – The Pharmaceutical Hub

- 70% of India’s cardiac stents manufactured is from Gujarat
- 50% of India’s intraocular lenses manufactured is from Gujarat
- ~40% of India’s machinery for pharma sector manufactured is from Gujarat
- 58% India’s orthopedic implants manufactured is from Gujarat
- 80% of world’s Isoniazid (used for treatment of tuberculosis) is produced in Gujarat
- 80% of world’s Isoniazid (used for treatment of tuberculosis) is produced in Gujarat
- Only manufacturer of Doxorubicin HCL Liposome injection in the World at present
- Only manufacturer of Vitamin C and Dapsone in India
- Produces 35% of India’s Diagnostic Reagent
- 33% of India’s pharma sector turnover; 28% of India’s pharma export
- 40% of CRAMS Companies
- 3324 manufacturing licenses; ~40% of CRO in the country

Gujarat, an established manufacturing base for bulk drugs and formulations, is poised to capture global opportunities to become a Global Pharmaceuticals Hub
**Gujarat – The Pharmaceutical Hub**

<table>
<thead>
<tr>
<th>Manufacturing Units in Gujarat (till March, 2014)</th>
<th>Allopathic</th>
<th>Ayurvedic</th>
<th>Cosmetics</th>
<th>Homeopathic</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2313</td>
<td>625</td>
<td>394</td>
<td>8</td>
<td>3339</td>
<td></td>
</tr>
</tbody>
</table>

Gujarat's Pharma Exports

- **40%** Formulation
- **60%** Bulk Drugs

**Pharma Exports from Gujarat USD million**

- 2004: 178
- 2013: 2820

- 1584% increase in exports

Gujarat manufactures and exports different dosage forms including generic drugs, intricate vaccines, r-DNA products, cytotoxic drugs external preparations, sex hormone drugs, small and large volume parenteral, APIs, hi-tech cardiac stents bio-pharma products etc.
Ahmedabad cluster
Manufacturing Base:
✓ APIs
✓ Formulations
✓ Biologicals
✓ Contract manufacturing

Ankleshwar cluster
Manufacturing Base:
✓ APIs
✓ Formulations
✓ Vaccines

Vadodara cluster
Manufacturing Base:
✓ Formulations
✓ Biogenerics

Bharuch and Vapi/Valsad cluster
Manufacturing Base:
✓ Formulations
✓ APIs
Pharmaceutical Sector: Special Economic Zones ("SEZ") and Special Investment Regions ("SIR")

Zydus Infrastructure Pvt. Ltd.
Location: Ahmedabad
Area: 49 hectare
Likely activities: Pharmaceuticals

CPL Infrastructure Pvt. Ltd.
Location: Ahmedabad
Area: 122 hectare
Likely activities: Biologicals, APIs & Pharmaceuticals

HBS Pharmaceuticals SEZ
Location: Bharuch
Area: 125 hectare
Likely activities: R&D, Bulk drugs, Intermediates & Contract manufacturing

Dishman Infrastructure Ltd.
Location: Ahmedabad
Area: 106 hectare
Likely Activities: Bulk drugs

Dahej SEZ
Location: Dahej
Area: 1125 hectares
Pharma related activities: APIs, Intermediates, bulk drugs and various pharmaceutical formulations

Industrial Parks:
Gujarat Pharma Techno Park
Location: Ahmedabad
Area: 17.07 hectare
Likely activities: Pharmaceutical

Pharmaceuticals are identified as a potential sector in 3 SIRs

<table>
<thead>
<tr>
<th>Name</th>
<th>District</th>
<th>Area (sq km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changodar</td>
<td>Ahmedabad</td>
<td>319</td>
</tr>
<tr>
<td>Viramgam</td>
<td>Ahmedabad</td>
<td>190</td>
</tr>
<tr>
<td>Okha</td>
<td>Jamnagar</td>
<td>206</td>
</tr>
</tbody>
</table>

Source: GIDC, GIDB
Pharmaceutical Sector
Gujarat: Educational Infrastructure

Education / research institutes
- L M College of Pharmacy, Ahmedabad
- Institute of Pharmacy - Nirma University, Ahmedabad
- National Institute for Pharmaceutical Education and Research (NIPER) - Ahmedabad
- Faculty of Pharmacy, MS University, Vadodara

Research and development
- Zydus Cadila Healthcare Ltd.
- Claris Life sciences Ltd.
- Cadila Pharmaceuticals Ltd.
- Intas Pharmaceutical Ltd.
- Sun Pharma
- Torrent Pharmaceuticals Ltd.
- Dishman Pharmaceuticals
- Abott Laboratories
- Wyeth
- Jubilant Organosys
- Lambda Therapeutics
- Quintiles Research (India) Private Limited
- Kendle INC Research
- Thermofisher Biopharma Services (i) Pvt. Ltd.
- Synchron Research Services Private Limited
- B A Research India Limited

Manufacturing

Marketing and exports

Contract research organizations

Provisional Intake Capacity of Pharmacy Colleges in Gujarat (2013-14)

<table>
<thead>
<tr>
<th>Govt./GIA or Self Financed</th>
<th>No. of Colleges</th>
<th>Intake Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Govt./GIA</td>
<td>4</td>
<td>235</td>
</tr>
<tr>
<td>Self Financed</td>
<td>78</td>
<td>4890</td>
</tr>
<tr>
<td>Total</td>
<td>82</td>
<td>5125</td>
</tr>
</tbody>
</table>

Source: The Admission Committee for Professional Courses
Pharmaceutical Sector

Gujarat: Investment Opportunities

- **Manufacturing**
  - Contract manufacturing organisation (CMO)
  - Manufacturing of new dosage forms like patches
  - Manufacturing of recombinant DNA based products
    - Manufacturing of intermediates and fine chemicals
    - Manufacturing of medical devices
  - Manufacturing of active pharmaceutical ingredient
  - Manufacturing of allopathic products
  - Manufacturing of cosmetic products
  - Manufacturing of biopharmaceuticals
  - Manufacturing of oncology products
  - Manufacturing of ayurvedic preparations

- **In Research and Development**, opportunities for investment lies in Contract Research Organization (CRO), Clinical research, Genetic engineering and Setting of R&D Centres & CoEs
- There are opportunities for investment in **Retail Stores** and **Pharmacy Chain** too.
Pharmaceutical Sector
FDCA: Awards and Accolades

Award for **Swarnim Swanthah Sukhaya Project** – 2012 in Category “To make more competent and incorruptive system of public

**C S I - IT Excellence Award 2012** (Health – Infra & Solutions)

**National e-Governance Gold Award 2013**, by Government of India

**e-INDIA Gold Award** in Health Sector, Hyderabad, 2013

Selected for **National Rapid Roll-Out Programme in 2013** by DeiTY, Government of India
Medical Tourism in Gujarat

State Medical Tourism policy was announced in 2006. The following factors can further boost medical tourism:

- Assisted healthcare institutions such as day care centres
- Support services such as nursing associations
- Linkages with infrastructure facilities for transportation of patients from airports and railway stations
- Linkages with organisations/NGOs, etc., in overseas countries to acquire knowledge and leverage opportunities

Key facilitators for Advantage Gujarat

- Zero waiting periods for all patient either requiring emergency treatment or otherwise
- Good roads and infrastructure compared to other states of India. Well connected with the base metros like Delhi and Mumbai
- Large percentage of Non Resident Gujaratis (NRG) among Non Resident Indians (NRI)
- Gujarati doctors participating in world medical conferences which helps them to know latest developments in the medical field
- (1/10)th - (1/20)th of the costs involved for medical treatment in USA or UK. Knowledge of English is an additional advantage

Good roads and infrastructure compared to other states of India. Well connected with the base metros like Delhi and Mumbai.

Large percentage of Non Resident Gujaratis (NRG) among Non Resident Indians (NRI).

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Zero waiting periods for all patient either requiring emergency treatment or otherwise.

(1/10)th - (1/20)th of the costs involved for medical treatment in USA or UK. Knowledge of English is an additional advantage.
Investment Opportunities

- PPP for Healthcare facilities in Rural Areas of State
- Computer navigated surface replacement surgery of the hip and knee-joint
- Setting up of Super specialty hospitals
- Healthcare Infrastructure
- Clinical research and trials
- Hospital supplies
- Equipment Manufacturing Units
- Reform Strategy – Institutional Management, Collaboration with the private sector (PPP)

- Integrated medicity
- Tele-medicine and Tele-radiology projects
- Non-Emergency Ambulance transport service
- Computer navigated surface replacement surgery of the hip and knee-joint
- Hospital management on rehabilitate, operate and transfer (ROT) basis
- Low cost paid surrogacy through in vitro Fertilization
- Establishing chain of primary public / community centers
- Holistic wellbeing – yoga, physiotherapy, acupressure
- Upgraded IT Services for Healthcare
- Diagnostic services
- Rehabilitation Center
- Holistic wellbeing – yoga, physiotherapy, acupressure
- Hospital supplies
- Equipment Manufacturing Units
- Reform Strategy – Institutional Management, Collaboration with the private sector (PPP)
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>PPP</td>
<td>Public–Private Partnership</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>FDI</td>
<td>Foreign Direct Investment</td>
</tr>
<tr>
<td>USD</td>
<td>US Dollar</td>
</tr>
<tr>
<td>INR</td>
<td>Indian Rupee</td>
</tr>
<tr>
<td>CAGR</td>
<td>Compounded annual growth rate</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-governmental organization</td>
</tr>
<tr>
<td>ASHA</td>
<td>Accredited Social Health Activist</td>
</tr>
<tr>
<td>SCA</td>
<td>Sickle Cell Anemia</td>
</tr>
<tr>
<td>VHSNC</td>
<td>Village Health, Sanitation and Nutrition Committee</td>
</tr>
<tr>
<td>IOL</td>
<td>IntraOcular Lens</td>
</tr>
<tr>
<td>CHC</td>
<td>Community Health Centres</td>
</tr>
<tr>
<td>FICCI</td>
<td>Federation of Indian Chambers of Commerce and Industry</td>
</tr>
<tr>
<td>CRAMS</td>
<td>Contract Research and Manufacturing Services</td>
</tr>
<tr>
<td>CRO</td>
<td>Contract Research Organization</td>
</tr>
<tr>
<td>API</td>
<td>Active Pharmaceutical Ingredients</td>
</tr>
<tr>
<td>CoE</td>
<td>Centre of Excellence</td>
</tr>
<tr>
<td>SGDHER</td>
<td>Society for Gujarat Dental Health, Education and Research</td>
</tr>
<tr>
<td>GVK-EMRI</td>
<td>GVK Emergency Management and Research Institute</td>
</tr>
<tr>
<td>CM SETU</td>
<td>Chief Minister Services of Experts at Treatment Unit</td>
</tr>
<tr>
<td>BPL</td>
<td>Below Poverty Line</td>
</tr>
<tr>
<td>RBSK</td>
<td>Rashtriya Bal Swasthya Karyakram</td>
</tr>
<tr>
<td>MRI</td>
<td>Magnetic Resonance Imaging</td>
</tr>
<tr>
<td>CT Scan</td>
<td>Computerized Tomography Scan</td>
</tr>
</tbody>
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Note: 1 USD = 60 INR
Health and Family Welfare Department

Government of Gujarat, INDIA

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