

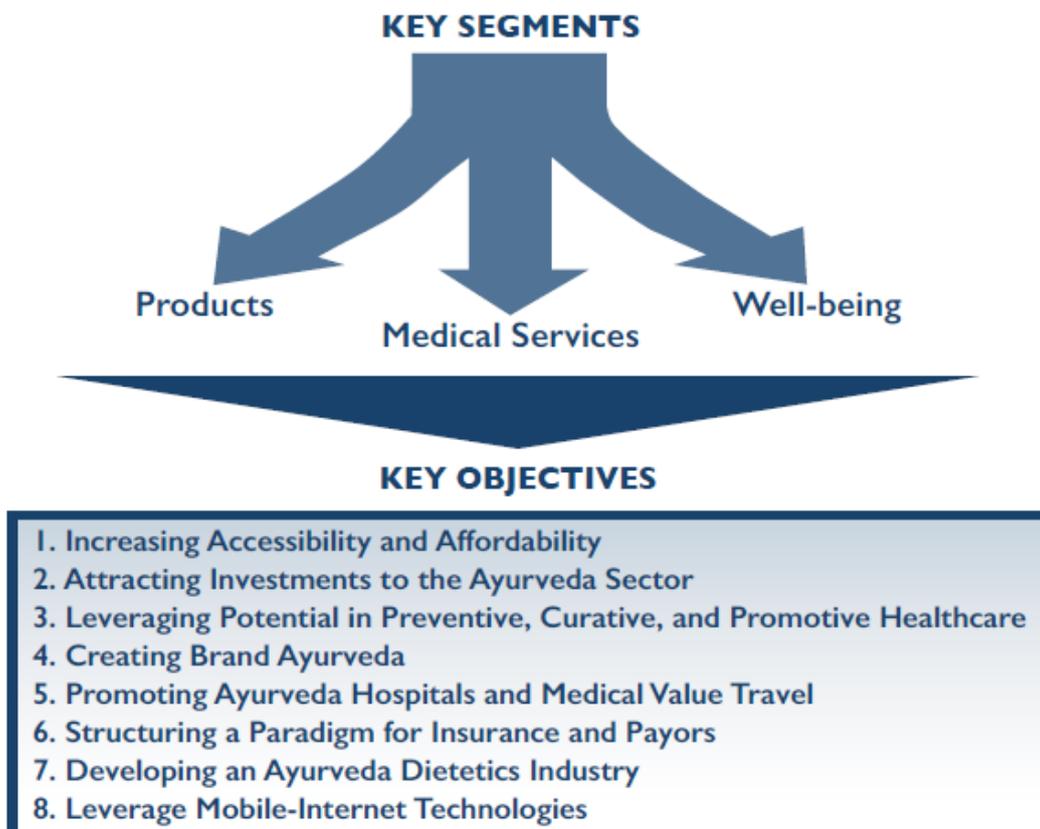
Vision Roadmap to Achieve \$9 billion by 2022

With the need for the Ayurveda industry to witness a transformation towards precision root cause diagnosis and treatment, certain key objectives need to be addressed. These include increasing the overall affordability and accessibility of care (medicines and services), attracting private investors, promoting Ayurveda hospitals and medical value travel, leveraging the potential of Ayurveda in preventative and curative healthcare and creating a well-defined network for insurance and payors.

Figure1 provides a strategic transformation framework to capitalize key market segments and define growth objectives. Its success will depend on all industry stakeholders taking responsibility for the plan, led by the Product Manufacturers, Services Providers and AYUSH Ministry.

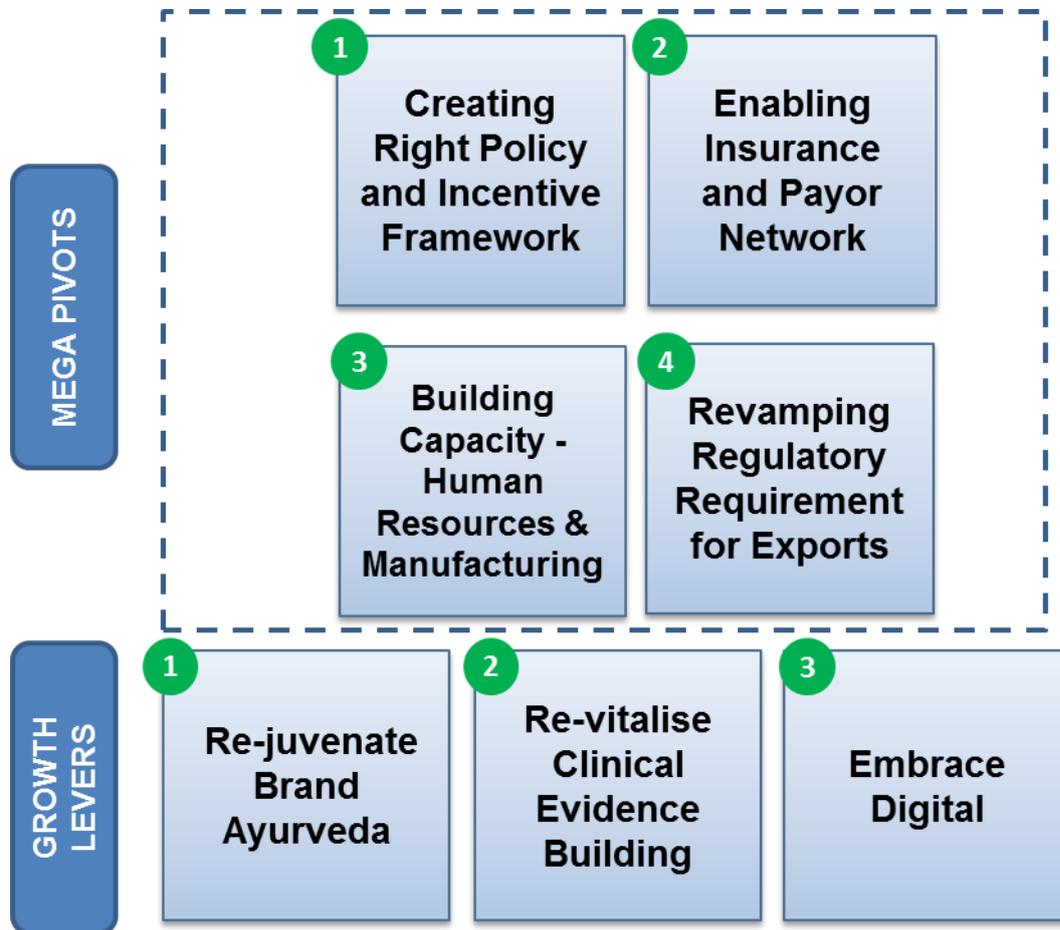
"Ayurveda industry must be positioned as a precision, root-cause diagnosis and health management system for disease cure and sustained wellbeing."- Mr. Rajiv Vasudevan, CEO AyurVAID Hospitals

Figure 1: Ayurveda Industry, Strategic Transformation Framework



This roadmap focuses on reshaping critical capabilities needed to transform the Ayurveda industry. Achieving Mega Pivots and Growth Levers (figure 2) is not automatic, nor will they emerge if the industry continues on its present trajectory. Acting upon these mega pivots and growth levers will enable the industry to realize the vision of tripling the Ayurveda market by 2022.

Figure 2: Ayurveda Industry, Mega Pivots & Growth Levers



Call to Action

The strategy will revolve accelerating leadership in *traditional* “products” markets while exploring growth opportunities in *sunrise* “services” markets. While the former provides double digit growth, the latter can offer triple digit growth.

1. Greater industry and government collaboration to globalise Brand Ayurveda
2. Ayurveda Health is not just a Diet, Lifestyle & Medical issue. The clinical determinants, social impact and economic benefits of “Therapy” needs to be clearly articulated
3. A major goal is to reduce the disease burden of three Chronic Diseases (Hypertension, Diabetes & Arthritis) to manageable levels
4. Human capacity is key: Doctors, nurses, paramedical staff, and community health workers need to be appropriately trained, managed and deployed where they are most needed

MEGA PIVOTS:

1. Creating Right Policy and Incentive Framework

Policy Initiatives

- **FORMULATE A COMPREHENSIVE AYURVEDA INDUSTRY POLICY**
- **Leverage IT and Biotech sector policy frameworks & initiatives** to attract big ticket (>100 Crore) investments from Indian and Global MNCs. Draw upon enabling inputs (monetary and non-monetary) for the Ayurveda sector, similar to successful precedents in IT/BT sectors.
- **AYUSH Ministry to spearhead Public Private Partnerships** by opening up the Ayurveda public health infrastructure to the private sector. Establishing standard guidelines for evaluation of clinical trials and pharmacovigilance centres for data collection and assessment of Ayurveda medicines.

CEO's Quotes:

"The Government and the stakeholders together should take initiatives to improve the level of awareness about Ayurveda and its special capabilities among the general public at large and particularly among the younger generation of our population for the future growth of the System."- Dr. P.M. Varier, Chief Superintendent & Addl. Chief Physician, Arya Vaidya Sala

Suggestions:

- **Infrastructure Upgradation by Transitioning to GMP certified centers and Quality control processes by means of soft loans** or grants to the industry would propel funding.
- **Provision of liberal tax incentives, new schemes (re-activated) and GST exemption** for promotion of R&D, fund randomized controlled trials and manufacturing automation. Encourage private investment including incentives for large healthcare companies.
- **Budgetary support and financial schemes** to enable establishment of secondary-tertiary care Ayurveda Hospitals and Ayurveda doctor owned/operated day care centres/clinics for the next 5 years.

"Ayurveda Dietitics & Foods show a huge potential and they need to be considered as a separate market opportunity for focused development", Dr. J.L.N. Sastry, Head, Healthcare Research, Dabur

2. Enabling Insurance and Payor Networks

Insurance coverage for Ayurveda treatment practices will foster its demand and will be instrumental to bring it into the mainstream healthcare system.

Suggestions:

- **Uniform inclusion of Ayurveda** in 6 National Health Insurance schemes (RSBY, ESIS, CGHS, AABY, JBY, UHIS) and other proposed schemes.
- **Implement the Government order dated 29.10.2016 relating to Guidelines for Insurance Coverage.** Get the insurance sector to initiate compliance with the government's guidelines document.
- Showcase credible data to establish safety, efficacy, and cost for Ayurveda treatment of major chronic diseases - hypertension, diabetes, arthritis, etc. to enable design of new insurance products based on full, unqualified inclusion of Ayurveda medical care.

"Current Insurance market covers only inpatient, hospitalization typically for chronic diseases and rehabilitation. There is a market opportunity beyond this, which is outpatient care and holistic care"

- Ms Vidya Hariharan, Director-Group Strategy, Vidal Healthcare

3. Building Capacity– Human Resources & Manufacturing

Human Resources:

Nurturing a base of well-trained and motivated human resources is an essential prerequisite for even a modest scale-up of the Ayurveda sector. Even if the current output of Ayurveda doctors of approximately 14,000 doctors per annum were to be trained that could make a significant impact. In 3-4 years a base of about 40,000 doctors could be developed. Similarly, a concerted effort has to be taken for training para-medical staff- the engine of Ayurveda medical care provision. Ayurveda may take a leaf out of what has been achieved in the IT/BT sectors by aligning undergraduate, post-graduate, and continuing education with the needs of industry and government (products, services, pure & applied research). Bright talent must be motivated to join this sector. Finishing schools must be separately developed to help already graduated doctors to hone their understanding and clinical skills. Privileging of doctors and paramedical staff can be considered through planned programs in consultation with the NSDC and NABH/QCI. **The Government, with participation and support from Ayurveda industry and academia, must take up Ayurveda HRD on a mission mode.**

Suggestions:

Establish partnerships between Rashtriya Ayurveda Vidyapeeth and MOOCs, e-learning solution providers for the provision of certification courses in Ayurveda through for beginners, amateurs and doctors.

Appropriately integrated Ayurveda and Allopathy as primary solution to deliver **“Co-Managed Treatments”** for treatment of chronic diseases and neglected (yet critical) care pathways such as post-surgery or post-trauma rehabilitation, mental health, infectious diseases and antibiotic resistant treatments is the way of the future. Human resource capacity building measures should also take into account this integrative aspect of Ayurveda and appropriately strengthen Ayurveda doctors and para-medics to work together collaboratively with modern medicine counterparts.

Ayurveda doctors and paramedical staff will have to step into the role as the **primary and secondary healthcare** providers across the country. Focused training in this respect that prepares them to effectively treat and managed the disease and health needs prevalent on region/state-wise basis.

Raw Materials/Inputs:

National Medicinal Plants Board (NMPB) to:

- **Guarantee 100% resource availability** for minerals/metals/animal bi-products/wildlife classified species/imports. Government to encourage and support small scale cultivation of herbs in the rural regions which would open up employment opportunities for youth.
- *Establish a corporation for procurement and trading of medicinal plants.* This entity will
 - Cover various aspects of procurement of the genuine drug, collection, distribution, export and research.
 - Bring the trade of medical plants under a single roof thereby guaranteeing reasonable pricing and high quality raw materials.
- **Align efforts of State Medicinal Plants Board** and herbal medicine manufacturers to focus on essential herbs cultivation through the 80:20 principle.
- **Institute a certification mechanism for raw materials**, and form a market supply system. Establishment of government-certified raw-material supply centers in every state which would help the manufacturers procure certified raw materials and extracts that comply with standards of Ayurveda pharmacopoeia of India.

CEO's Quote:

"Mass cultivation of medicinal herbs is a potential market in the future. This will also help the industry for a sustainable collection of raw materials. R & D innovation should always be encouraged and newer dosage forms of herbal medicines must be encouraged by AYUSH Ministry."- Dr. Vijendra Prakash, General Manager, Regulatory, Corporate Affairs, The Himalaya Drug Company

"The biggest promotion of Ayurveda would be to have many large hospitals in urban India demonstrating Ayurveda to the masses "

– Mr. Ranjit Puranik, CEO, Shree Dhoot Papeshwar Ltd

4. Catalysing Ayurveda Products Industry

Suggestions:

- **Creation of and propagation of a list of "Generally Considered Safe" herbs** at the international level by only including the absolutely non-controversial safe herbs. This has to be published by the Indian government along with Pharmacopoeia standards meeting International standards. This list should then be widely publicised in India and abroad to create trust.
- **Streamline and establish uniform and efficient licensing** procedure for Ayurvedic products across the country. Permit branding of generics (traditional products) to encourage quality based competition among Ayurvedic manufacturers as in Allopathic medicine without further need for clinical studies.

- **Encourage innovations in formulations of traditional products** by granting the status of traditional products if the active ingredients are not changed.
- **Decide on a priority list of diseases** for which Ayurveda has traditionally effective and safe disease-specific products based on the 'Generally Considered Safe' herbs. Thereafter, subject them to rigorous clinical studies as per internationally accepted protocols to validate their efficacy and safety and publish the results in peer reviewed journals. This will permit the use of these formulations by the entire Indian medical profession, which, in turn will pave the way for greater level of cooperation and integration between practitioners of Allopathy and Ayurveda and will help in mainstreaming Ayurveda in India and thereafter globally.
- **Developing standard monographs for international Pharmacopoeia** (with the inclusion of modern methodologies such as TLC, GC and PC electrophoresis) to ensure uniformity in the ingredient usage thus avoiding variations in batches.
- **Harmonization of drug registration requirements** aimed at maintaining quality and safety of herbal products would help promote trade across the USA. **Centralization of Drug and Cosmetics Acts (DCA) policies** would ensure GMP guidelines adherence by all companies.
- Rectifying the Indian patent office “guidelines for processing of patent applications relating to traditional knowledge and biological material.”

CEO's Quotes:

“GMP WHO standards for manufacturing medicines are in place and gradually will be absorbed by the industry. Similarly, clinical trials of medicines before introducing in the market should be enforced gradually at least for diseases like blood pressure, diabetes, heart disease and dyslipidemia, cancer and many more.”- Dr. Rohit Sane, Founder, Madhavbaug Clinics & Hospitals

GROWTH LEVERS:

1. Rejuvenate Brand Ayurveda

A clear brand identity for 'Ayurveda' is a sine qua non for building correct awareness, market acceptance, and to propel dynamic growth across it. Since different sub-segments constitute the larger Ayurveda sector, and with a global spread of demand and supply of Ayurveda products and services spanning casual-leisure applications to the most rigorous healthcare provision in hospital settings, backed by insurance/payors, misconceptions abound about the true nature and scope of Ayurveda. Further, Ayurveda in spite of being the mother system of medicine of the world with its origins in the Indian heartland is yet in danger of being arrogated by other countries in the region. Further, as in the case of Yoga, multiple Ayurveda variants may emerge across the world, diffusing and diluting the quintessential Indian identity of Ayurveda and the scope-quality of breakthrough healthcare that it offers to the people of the world.

Suggestions:

- The Ayurveda brand has to be systematically and scientifically studied by a team of experts in the area (branding and domain) constituted by the Ministry of AYUSH, Government of India and experts from industry and academia leading to a clear

articulation of brand dimensions, followed by laying out a strategic roadmap to achieving this.

- An Ayurveda brand development action plan has to be centrally conceived and governed led by the Ministry of AYUSH with appropriate participation by industry stakeholders. By consensus, industry stakeholders from industry, government, and NGO sectors will be urged to comply with the recommended brand communication guidelines.
- Geographical Indication protection is to be obtained for Ayurveda as originating from India. Further, a team of legal experts should systematically evaluate copyright protection and intellectual property protection of Ayurveda ideas and concepts.
- **Setting up Ayurveda Chairs at country level** would help obtain MOUs from promising markets such as Malaysia, Trinidad & Tobago, Hungary, US etc. promoting Indian herbal medicines in foreign countries through exhibitions and trade fairs, exchange of scholars, funding research, and providing technical support to universities.
- **Conforming to International Drug Regulatory requirements** to ensure strict uniformity in composition, appearance, taste and action for all Ayurveda drugs. Upgradation of Indian Pharmacopeia keeping the global regulators informed in order to streamline the market access process.
- **Accreditation of Ayurveda courses** conducted by foreign institutions to enable correct dissemination of the science across countries and to prevent progressive dilution-degradation of Ayurveda.

CEO's Quotes:

"Propagating Ayurveda as a curative and preventive system of medicine with a scientific basis, in addition to its well accepted promotive health aspects, would bring about a positive change in the mind set of people and help expand Ayurveda and its holistic benefits not just in India but across International borders.." *Mr. Jose Dominic, Chief Executive Officer, CGH Earth*

"Medical tourism in Ayurveda is an outcome of positioning Ayurveda as a science of healing."- *Dr. Partap Chauhan, Director, Jiva Ayurveda*

"Kerala has promoted Ayurveda for the Medical Tourism sector as a disease reversal and a wellbeing concept. Need to replicate that across India, especially across the coastal states of Goa, Tamil Nadu, hilly states where there is a major influx of tourists."- *Mr. Arjun Sharma, Chairman of Select Group*

2. Revitalise Clinical Evidence Building

Evidence-based research shall support the establishment of safety and efficacy of Ayurveda products and services both in the domestic as well as the export market. This has been a challenge for many years now. However, the solution lies in evidence building that is consistent with the intrinsic character of Ayurveda and yet meets

stringent scientific process expectations. Increasingly, with NABH accredited Ayurveda hospitals and clinics abounding, thorough documentation of process, safety, and health outcomes of Ayurveda healthcare has become a reality. Merely following western/external imposed frameworks blindly will lead to the state of limbo persisting. Clinical evidence even at the level of observational studies, black-box studies, and importantly treat to target studies should be scaled up in sample size and number of studies.

Suggestions:

- **Strengthen National Ayurveda clinical database** thereby enabling a cohesive pull/push of innovative research methodologies to generate right evidence applicable for Ayurveda concepts and research.
- **Standardise treatment protocols** by means of documentation of clinical practices throughout all Ayurveda hospitals and clinics and by systematic data collection and compilation.
- **Focus on research to establish safety and efficacy of Ayurveda Chikitsa** (health management comprising personalised diet-lifestyle-medicine-treatments) and not just a discrete/single component of the total Ayurveda intervention, to make it the treatment of choice for select diseases.
- **Practice Based Research Networks** of Ayurveda physicians adopting standardised diagnostic processes and medical management protocols for focus conditions shall lead to generation of large amount of standardised clinical data.
- **Documentation of scientific evidence** to support efficacy, safety profiles will drive market authorization in US & Europe.
- **Focus on 3 diseases on a mission basis the building of robust evidence of safety and health outcomes.**
- **Digital-Cloud-Mobile technologies** should be leveraged for recording and storing Ayurveda clinical data generated across dispersed geographies.
- **International Conformance** with International Drug Regulatory requirements to ensure strict uniformity in composition, appearance, taste and action for all Ayurveda drugs.
- **Supporting Clinical Trials (RCTs)** for demand generation on well-studied and promising Indian medicinal plants like *Withania somnifera*, *Andrographis*, *Ocimum*, *Emblica*, *Trigonella*, etc. Support preparation of **comprehensive safety reviews to achieve self-affirmed GRAS status** – this should include Phase 1 clinical studies in healthy volunteers and any missing animal toxicity studies on non-proprietary herbal preparations / products.

“The western research methods for traditional medicine cannot be blindly copied for Ayurveda research as the principles and goals of therapy are different. So research methods have to be modified to fit into Ayurveda concepts and principles.”- Dr. Eknath Naik, MD, PhD, FACP, Assistant Director and Staff Physician, Emergency Department James A Haley Veterans Hospital

3. Catalyse Ayurveda Services Sector

Well-being Services: Ayurveda originally committed itself to a two-fold purpose-disease reversal and health promotion. The latter, health promotion, segment is experiencing a paradigm shift brought on by a shift in consumer mindset - from trying

to achieve mere physical wellness to adapting a “wellbeing” approach which takes into account physical, mental/psychological, and spiritual health. With many countries incorporating spa therapies including Ayurveda massages as part of their tourism promotion strategy the unique differentiation potential of authentic Ayurveda wellbeing services has diminished in the last couple of decades. A radical new strategy is required to reposition Indian Ayurveda wellbeing services as a high value, scientific and quality systems driven service. The introduction of NABH accreditation standards for Wellness/Wellbeing centres is a powerful enabler available to Indian wellbeing industry to differentiate itself from regional/global competitors and take a quantum leap from the current mass 'massage' (USD 150-250 per day) market to a 'high volume-high value' (USD 500-1000 per day) wellbeing market.

Therapeutic Services: Ayurveda is renowned for its ability to diagnose and manage disease(s) at the root-cause level, particularly when the causes and affecting factors are multiple and dynamic. Ayurveda is able to achieve this since it is the highest level of systems thinking applied to the health of a human(living) being, a fact that is relatively unknown. Thus far from being folk medicine it is a highly evolved-mature and complete health management science. This systems thinking approach lends itself well for management of NCDs and chronic diseases, in addition to select communicable diseases. Ayurveda can be equally and rightfully considered as the treatment of choice for all stages of care excluding emergency medical care, i.e. for primal-primary-secondary-tertiary prevention in addition to treating several acute diseases-conditions.

TO CATALYZE THIS SECTOR

Suggestions:

- Foster demand by inclusion of Ayurveda in all government health schemes (CGHS, RSBY, Universal Health Coverage Schemes), without discrimination/restriction. Doctors, entrepreneurs, modern medicine hospitals all shall build the supply capacity to serve this demand.
- Ensure implementation through IRDA and the health insurance companies active implementation of the AYUSH guidelines (of September 2016) on recommended rates for Ayurveda hospitalization under insurance coverage.
- Foster demand amongst the common man for Ayurveda as a scientific medical care system through correct branding and communication strategy.
- Focus on Ayurveda based high value medical travel to India through a concerted demand generation activity. Organize Ayurveda familiarization tours to select countries as in the case of other Indian industries.
- Put in place a graded quality accreditation framework under the aegis of NABH/QCI for Ayurveda hospitals and Panchakarma Clinics so that more and more service providers join the quality movement in Ayurveda.

Launch a quality movement for Ayurveda clinics (doctors' consultation with or without pharmacy) to standardize protocols and to train Ayurveda physicians for patient care at the primary health level. This shall enable an army of high quality general practitioners to come up across the country. Insurance linkages can be explored to enable a quantum leap for thousands of independent Ayurveda doctors to earn an honourable livelihood while serving the community.

Embrace Digital

India is a global leader in IT and digital transformation. Our nation's prowess can be uniquely leveraged to enable the Ayurveda sector to leapfrog, to scale exponentially to achieve its true potential- this is not an option but an imperative. An imperative since without Ayurveda playing a larger role India's public health needs will not be met.

India is one of the largest smart phone markets in the world and about 1/3rd of the population is connected digitally. This connectivity can be leveraged to create the awareness and effectively respond to demand for Ayurveda products and services.

- **AyurTeleMed:** Telemedicine (over Smart Phones/Laptops/Mobile Health Vans) will enable to extend quality Ayurveda clinical expertise to Tier 2 & 3 cities, in addition to rural areas, and address the burgeoning demand for chronic diseases and non-communicable disease care across the country. This can be a breakthrough initiative from the Government of India and generate considerable employment for Ayurveda doctors.
- **AyurClinCloud:** Develop a cloud based large-scale clinical information system that can host the lakhs of Ayurveda clinical services providers across government and private sectors.
- **AyurNET:** Leverage digital technologies across the value chain of Ayurveda products and services from farms/forests to factory to store to hospitals to home to enhance quality and efficiency for benefit of all stakeholders.
- **AyurECom:** E-commerce is the future of Digital India. Develop an Ayurveda specific e-commerce market place that hosts sellers and buyers across products (finished & raw material) and services.
- **AyurBigData:** Big Data and Analytics will play a crucial role in transition to "high value innovative (bio prospecting) products" and support decision making to choose "combination therapy" (Allopathic medicine + Ayurveda).

CEO's Quotes:

"We need to promote Telemedicine initiatives to bring Ayurveda consultation and Ayurveda products to citizens through collaboration with rural CSC networks and Anganwadis."- Dr. P.M. Varier, Chief Superintendent & Additional Chief Physician, Arya Vaidya Sala



Confederation of Indian Industry

The Confederation of Indian Industry (CII) works to create and sustain an environment conducive to the development of India, partnering industry, Government, and civil society, through advisory and consultative processes.

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The CII theme for 2017-18, **India Together: Inclusive. Ahead. Responsible** emphasizes Industry's role in partnering Government to accelerate India's growth and development. The focus will be on key enablers such as job creation; skill development and training; affirmative action; women parity; new models of development; sustainability; corporate social responsibility, governance and transparency.

With 67 offices, including 9 Centres of Excellence, in India, and 11 overseas offices in Australia, Bahrain, China, Egypt, France, Germany, Iran, Singapore, South Africa, UK, and USA, as well as institutional partnerships with 344 counterpart organizations in 129 countries, CII serves as a reference point for Indian industry and the international business community.

Confederation of Indian Industry

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