



RAPPORTEUR REPORT FOR SYMHEALTH 2023

Session 1: Safe and Sustainable Hospitals.

28th April 2023, Track I Moringa Auditorium

Speaker: Ms Shweta Menon

Director & Principal Architect

ACME Consulting

Chennai

She started the session by talking about the evolution of hospitals and how in today's era, hospitals are becoming more technologically advanced, have patient-friendly designs and are expected to be capable of managing emergencies; then, she quoted "Build to Last" that an architect should keep in mind while building a hospital.

She further talked about the challenges in making safe hospitals, such as hospitals needing to prepare to handle emergencies.

Later she talked in detail about different aspects of the hospital's planning stage, including site selection, structural design, fire safety, layout & design and infection control.

Talking about sustainable healthcare, she mentioned how sustainability can be achieved at every stage of the hospital building.

She concluded the session by talking about how the hospital being safe and sustainable are cornerstones to building trust in society and ensuring financial viability.

She ended the session by answering queries about Laws related to the mandatory construction of ramps in hospitals in Tamil Nadu and how green building accreditation can be worth it for Hospitals.



**SYMHEALTH 2023: National Conference on
Stakeholder Engagement for Integrated Healthcare – Futuristic Approach**





**SYMHEALTH 2023: National Conference on
Stakeholder Engagement for Integrated Healthcare – Futuristic Approach**



Session 2: Medical Value Travel: India and the World
28th April 2023, Track I Moringa Auditorium

Speaker: Dr Upasana Arora

Managing Director

Yashoda Super Speciality Hospitals Ghaziabad

She started the session by discussing how India, which believes in "Atithi Devo Bhava", focuses on medical value travel attracting medical tourists from South East Asia, Africa and the Middle East.

She further spoke about the Global medical tourism market and how India is becoming one of the significant players stating that in India, prices are more affordable, have shorter waiting times, and patients get all-in-one solutions, including Yoga, Meditation etc.

She further spoke about how India is focusing on Wellness and Holistic Health and how India also has various traditional and contemporary therapy attract medical tourists.

She concluded the session by discussing how India has a promising future in medical value travel. She stated that new technology keeps coming into India and that the government is taking the proper steps to promote medical tourism in India.

She ended the session by answering queries regarding India's challenges, including frauds that can be countered by increasing government accreditation and another question about medical cases and medical negligence cases for which the government is developing a portal to deal with the same.



SYMHEALTH 2023: National Conference on
Stakeholder Engagement for Integrated Healthcare – Futuristic Approach



Session 3: Effective Healthcare Communication

28th April 2023, Track I Moringa Auditorium

Speaker: Col (Dr) MP Cariappa

Technical Advisor (Public Health)

Delta Zulu Consultancy, Pune

The session was focused on effective healthcare communication and started with target questions like what, who, when, where, why & how that can be used during communication. The speaker emphasised that healthcare communication is a balance of science and art, and it makes sense only when there is a basic understanding of the context. The context in healthcare communication includes patients, caregivers, medical students, healthcare professionals, and attendees.

The fundamental theories of communication are essential, and the speaker quoted the US Marine Corps, who use effective communication by adapting, adjusting, improving, and overcoming. The principles for effective communication include being accessible, actionable, credible, relevant, timely, and understandable.

The speaker also discussed health education under the Alma Mata Declaration, 1970, and the use of the IMG technique in healthcare communication processes. IMG stands for Informing, Motivating, and Guiding an individual or group. A healthcare professional must have five essential communication keys to effective listening, eliciting information, providing information, counselling patients, and making informed decisions.

The speaker stressed the importance of body language, avoiding defensiveness, and not considering disinformation during healthcare communication. Effective healthcare communication projects, such as the COVID-19 Communication campaign, were also highlighted.



**SYMHEALTH 2023: National Conference on
Stakeholder Engagement for Integrated Healthcare – Futuristic Approach**



Session 4: Systems Thinking & Health Systems Strengthening

28th April 2023, Track I Moringa Auditorium

Speaker: Dr Rahul Shidhaye

Senior Research Scientist and Associate Professor of Psychiatry,
Pravara Institute of Medical Sciences, Loni.

Sir began the session with, “ Why are we doing what we are doing?” He made the audience understand the difference between system thinking and analytical thinking and the use of the same for strengthening the systems. Sir said system thinking comprises taking small components of a problem and understanding the interlacing & interrelation & feedback loops.

Sir mentioned the Operation Cat drop in 1960 done in the United Kingdom to combat the plague of rats; while speaking about this, he pointed out how today's problems are due to yesterday's solution. This can be avoided if one adopts the use of system thinking. There are various theories, models and tools for systems thinking. He mentioned a few: General system theory, learning organisation theory, agent-based modelling network analysis and tools like process mapping and causal loop diagrams. System Thinking for health action can be done by understanding systems interconnections, understanding feedback, identifying leverage points and using models.

Sir ended the session using references to his projects from the past to understand the application of system thinking. He mentioned his projects like PRIME, VISHRAM & Emerald. Sir told the scaling up of PRIME Project by Madhya Pradesh Government and the change that has been brought about in the state concerning care for mental Health. Sir also mentioned that Government provides funds for various health care needs, but it is not utilised at their fullest because there is no system thinking utilisation done to use the funds effectively; this was remarked for mental health funds allocation as he has expertise in mental health.



SYMHEALTH 2023: National Conference on Stakeholder Engagement for Integrated Healthcare – Futuristic Approach



Session 5: Changing Landscapes of Healthcare Insurance

28th April 2023, Track I Moringa Auditorium

Speaker: Mr Bhaskar Nerurkar

Head, Health Administration Team

Bajaj Allianz General Insurance, Pune

Sir began the session by sharing stories about the hospitalisation incidents and aid to bill due to insurance. Importance of how insurance can aid and avoid out-of-pocket expenses. Sir then gave a brief on the evolution of the insurance sector in India from the beginning of the first company, Kolkata Oriental Insurance Company. Formation of the Malhotra Committee in 1993 and Indian Regulatory Department Authority of India in 2001. Stand Alone, health insurance companies entered the Indian market in 2006, and by the year 2104, there was good competition seen in Insurance.

Sir mentioned that as of today, there are 27 major players in the health insurance sector. Sir then said how health insurance is not a part of Life insurance in India and comes under General Insurance. In contrast, in Western countries, Health insurance is a part of Life insurance, and general insurance covers other insurance.

Sir wrapped up the session with some insight on government-sponsored health schemes, which are both the Central government level and state government. Sir said about Rashtra Swasthya Bima Yojna, launched in 2008. This Scheme was awarded for best technological advance globally. The scheme provides smart cards, which are used to avail beneficiaries.

Sir spoke about Pradhan Mantri Jana Arogya Yojna by the Central government. There is a provision for the general population, and they can avail of this scheme by paying a premium of Rs. 5000 and avail beneficiaries up to five lac rupees. With this provision, sir told about a noticeable increase in knee replacement surgeries in Gujrat.

In the Question & answer session, sir answered about cost analysis for the value and quality of treatment. He said various audits are conducted to check if the value of treatment commensurate with the quality of treatment.



SYMHEALTH 2023: National Conference on
Stakeholder Engagement for Integrated Healthcare – Futuristic Approach



Pre-Conference Track 2- Nutrition

28th April 2023, FOMHS Auditorium

Process owner:
Dr. Kavitha Menon
Professor and Head,
Nutrition and Dietetics Program, SIHS, SIU



SYMHEALTH 2023: National Conference on Stakeholder Engagement for Integrated Healthcare – Futuristic Approach



Contents

Session 1:	1
Dr. Prashanth Thankachan	1
Session 2:	3
Dr. A. Sreekumar	3
Session 3:	6
Dr. Suparna Ghosh-Jerath	6
Session 4:	11
Dr. Mansi Patil	11
Session 5:	1
Ms. Sayali Dindorkar	1



SYMHEALTH 2023: National Conference on Stakeholder Engagement for Integrated Healthcare – Futuristic Approach



Session 1:

Dr. Prashanth Thankachan

Associate Professor, St. John's Research Institute, Bangalore

Topic: Nutrition & Dietetics: yesterday, today & tomorrow

Dr. Prashanth Thankachan spoke on the evolution of the nutrition field. According to Dr. Thankachan, the Greek philosopher Anaxagoras (475 BC) mentioned Nutrition as "The body absorbed food and provided it with the generative components" and "Food is fuel for the human body". Dr. Thankachan mentioned the quote from Hippocrates of Kos (400 BC) – "Let food be thy medicine and medicine be thy food". Subsequently, he shared several sequential developments in the field of Nutrition from BC to the 1900s. Dr. Thankachan talked about the scientist Lavoisier, the Father of Modern Nutrition Science and the first scientist to design different laboratory equipment to test the impact of food after swallowing. Sir also briefed the audience about the history and discovery of vitamin deficiencies through the ages, such as from the early 1600s (Vitamin D deficiency causes Rickets) to the 1900s (Although pellagra disease was observed in the 1750s, it didn't arise in the United States until 1907). Sir shared the "Timeline of some discoveries in Nutrition Science" along with the "Stages of Transition in Nutrition"- 1970s- Food Shortage; 1980s – Reductionist Approach; 1990s- Lifestyle changes; 2000's- Tackling Disease; 2010-2020- Information and Education on. For the future, i.e. 2022 onwards- there is a need to follow the holistic approach in modern nutrition. A framework of Nutrition Research globally was well explained.

Dr. Thankachan discussed with the audience the shift in Nutrition from a global scenario to Nutrition in India and said that it is more than hundred-year-old in our country. Sir Robert McCarrison, in 1918 founded the "Beri-Beri" enquiry unit in a single-room laboratory at the Pasteur Institute, Coonoor, Tamil Nadu. It later became the "Deficiency Disease Enquiry" unit, and since 1928, it has been known as the "Nutrition Research Laboratories" (NRL) with Dr. McCarrison as its first Director. In 1969 NRL was renamed as National Institute of Nutrition at Hyderabad. Sir discussed several National Programs and Policies such as the National prophylaxis programme against nutritional blindness due to vitamin A deficiency (NPPNB due to VAD) in 1969, the Balwadi Nutrition program in 1970-71 along with the beneficiaries, the component of the program and the outcome of the programme. Sir highlighted the Launch of the Mid-Day Meal Scheme across states in India.

Novel Isotopic tools that address the complex nutritional research practised in Nutrition at St. John's Research Institute were explained. He embarked on how isotopes generate vast data regarding many aspects, such as the bioavailability of nutrients. Sir highlighted that older studies used data from only men; hence more studies were done on other populations to get better references. He explained various isotopes used in research, how iron isotopes are tagged on food, their bioavailability is tracked, the isotopic method for TBW measurement, and the principles of the isotopic techniques. Sir explained how the addition of the isotope to the test meal, such as iron, must be in a chemical composition similar to the iron in the test. It should metabolise in the same way as the iron in the test meal. The isotope amount should be 25-39% of the net nutrients. It can be extrinsic or intrinsic. Sir elucidated the change in the isotopic composition of haemoglobin,

and the calculations related to the isotope dilution. Also, isotopic water was used to measure moisture in the human body.

Sir described fluid expansion and isotopic approach that needs to be used from "birth to the grave." Using nuclear techniques in Nutrition through different life stage cycles from infant to childhood to adolescent to adulthood to pregnancy and lactation and elderly was well presented. Several International Atomic Energy Agency (IAEA) human health series were discussed, such as "Introduction to body composition assessment using the deuterium dilution technique with Analysis of urine samples by Isotope Ratio Mass Spectrometry.", "Body composition assessment from birth to two years of age" and "Stable isotope technique to assess human milk intake in breastfed infants". Many nutrition studies at SJRI, such as Sensory and organoleptic studies of food, environmental enteric dysfunction etc., were very well elucidated during Dr. Thankachan's session at SymHealth 2023. The future of Nutrition was very well depicted on screen using a pictorial representation that described deep phenotyping and artificial intelligence leading to personalized health promotion and chronic disease prevention. The socio-ecological framework highlights individual, social and environmental dimensions, mentioning that sociodemographic characteristics influence our food choices, and enable healthy behaviour change tailored to individuals and their environment. The framework illustrated the multiple sizes to understand better dietary choices and how interaction with many individual factors might impact our health and wellbeing. The Precision Nutrition approach was highlighted, and Sir elucidated how Precision Nutrition loops start: personal data collection, data integration and interpretation, personalised recommendations, positive behavioural change, and improved health outcomes.

Dr. Thankachan ended the session by throwing light on the Future of Nutrition Experts:

- I am looking at food interacting with the individual and the entire micro and macrocosm, which is very similar to the holistic approach in Ayurveda.
- Comfortable using advanced hardware and software tools.
- Able to handle large and complex data sets, use AI and generate predictive models to synthesize food-based delivery to health needs.
- Last but not least – able to interact with other connected domains such as agriculture, manufacturing and processing, urban planners and policymakers etc.

Dr. Thankachan answered to few questions from the audience. The session ended with a vote of thanks by the speaker.

Session 2:

Dr. A. Sreekumar

Founder, Wellness Solutions, Kochi, Kerala

Topic: Precision nutrition for personalised health- The way forward for a better life

The formal introduction of the speaker was conducted by Ms. Radhika Kadam, M.Sc. Nutrition and Dietetics student, SIHS. Sir introduced actual and people perspectives concerning modern health care. He explained how 64 million people living with heart failure, 537 million people living with Type 2 diabetes, 850 million people with chronic kidney disease, 230 million affected with non-alcoholic steatohepatitis by 2030 and 17.9 million lives were lost to cardiovascular disease in 2019. Although adequate technology and knowledge are available, the basis has been forgotten. It later explains why modern health care fails, as most medical treatments have been designed with the average patient in mind. The approach worked for some patients and not all. Also, each person is unique. How we live, genetic makeup, family medical history, and lifestyle choices contribute to health and wellbeing. Thus, today the proof of merging precision medicine and precision prevention in precision health is giving incipient evidence of another game-changing vision-wellness genomics, which is prepared to achieve goals beyond healthcare. For, e.g. Mahatma Gandhi had 200-300 bp, yet he survived due to genetic makeup and lifestyle. Thus all are independent as a person and whole.

A case study was discussed (Figure 1), and concluded that an integrated wellness approach should be provided.



Figure 1: Dr. A Sreekumar sir explaining the case study to the audience.

Healthcare is evolving, and precision medicine and health are going in hand. For example- Why can we not match COVID virus? The RNA and DNA are evolving, and humans are blocking lifestyle patterns. The fast world needs precision. Need precision in physiology-clinical application of Nutrition and Pharmacology. Precision health achievement is the action plan. It involves approaches everyone can use to protect their health and steps that public health can take (sometimes called "precision public health"). Measure factors affecting genes like exercise, yoga,

diet supplements, job, habits and environment. Genes to epigenetics to action- Nutrients. Furthermore, designing programs to suit the above is precision health.

What is precision nutrition? It may sound like a new fad, but the National Institutes of Health support it under precision medicine. Microbes: Diets can determine the types of microbes that live in digestive tracts. The reverse was also true: the type of bacteria used in the house might choose how to break down certain foods and what foods most benefit our bodies. Microbes include bacteria, fungi, parasites and viruses. In a healthy person, they co-exist peacefully throughout the body, but the majority is in the gut. The plight and need of the genes work at any speed we need. More other molecules of action are required at sub-cellular levels. Need the basic knowledge of what's happening inside the cells. He also explained about human body. We believe we are intelligent, created separately and distinct from plants and other animals. However, the absolute truth is what we see from the outside is fake, and the truth is inside, which is the new whole-cell world.

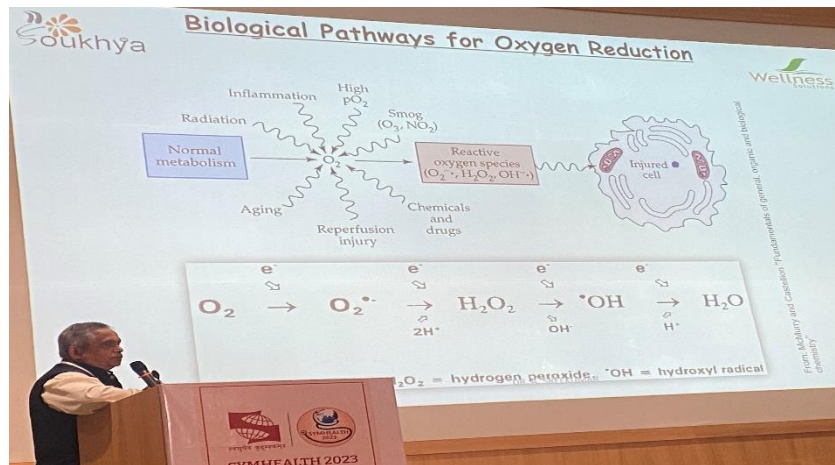


Figure 2: Biological pathways for oxygen reduction

O₂ – superoxide is essential for phagocytosis. Lowers aconitase enzyme interferes with Krebs cycle, reduces ATP and lowers NADH. Increased superoxide with high NO leads to peroxy nitrite and impaired vasodilator. Hence promoting diabetic vascular disease (Figure 2). Thus the clinical process needs to be modified.

What is nutrigenomics? The study of how food affects a person's genes and how a person's genes affect how the body responds to food. Nutrigenomics is used to learn more about how genes, diet, and diet may affect a person's health and risk of developing diseases such as cancer. Medical, fitness and nutritional professionals should have adequate knowledge of history, cellular metabolism, epigenetics, toxicology and disease processes. Why target epigenetics? It may be one of the most important molecular mechanisms linking the environment to foetal programming resulting in adulthood. These are reversible and attractive therapeutic targets—environment to epigenetic changes to health and disease.

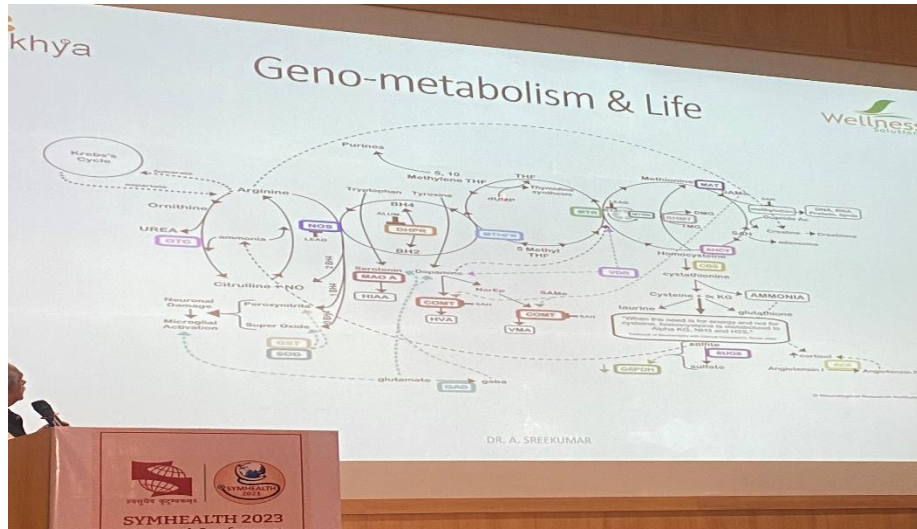


Figure 3: Geno-metabolism and life

Geno-metabolism of life decides fate (Figure 3). Thus it is most important to correct it. Diet and methylation- DNA methylation adds a chemical group to NA. Histone modification, DNA wraps around proteins called histone es. Non-coding NA. The DNA is used as instructions for making coding and non-coding NA. Thus only diet influences these epigenetic changes.

Nutrients role for food- digestion and absorption – blood and cells – mitochondria – energy – intracellular structure es. Protein manufacture, intracellular structural function, sets in vibration- send signals – culminates in organ function and human life, which is controlled by the biochemistry of hormones. These hormones are chemical messengers of the human mind and DNA, the master's role. Nutrients play a pivotal role in metabolic causes. For example- vitamin C in epigenetic reprogramming, vitamin C in epigenetic therapy of cancer, the role of curcumin from Turmeric Rhizome: a potential modulator of DNA methylation machinery in breast cancer inhibition, nutritional modulation of gene expression and homocysteine utilization by vitamin B12, lead toxicity, DNA methylation changes induced by prenatal toxic metal exposure: an overview of epidemiological evidence, IDH gene mutation. Bioactive diet influences epigenetics, geography, habit, natural challenges, package products, environmental challenges and diseases. Epigenetics are affected by genetics, diet, fasting, smoking, medicines, low stomach acid, malabsorption and co-morbid condition such as hypothyroidism, kidney failure, cancer and pregnancy.

Conclusion- Precision Health Necessity: Health- personalized, proactive, predictive, precise and preventive. Fast life created by man. More fast- more health at cellular and genetic levels and not disease-oriented or organ-specific. Smart to replace hard in terms of work and health. Holistic health at the micro-level is the Need of the hour—personal medicine through precision medicine. Precision Nutrition – Nutrigenomics: Nutrigenomics is emerging as an objective, evidence-based tool for wellness genomics and personalised nutrition. Diseases-focused Nutrition is being replaced by real evidence-based healthcare through metabolomics. Specific nutrients are responsible for mitochondrial and intracellular biochemistry. Epigenetic health is very significant to driving.

Dr. A Sreekumar explained how they educate and empower health wellness educators. Geno-metabolic assessments are conducted. Geno-metabolic therapy includes detox, epigenetic diet, dietary supplements, and physical and mental empowerment. Conventional medical treatment, wellness monitoring systems, and quality added life in years for optimal health.

Session 3:

Dr. Suparna Ghosh-Jerath

Program Head, Nutrition, The George Institute for Global Health, New Delhi

Topic: Nutrition Transition

The lecture started at 11:20 am with Dr. Suparna Ghosh-Jerath. She explained how the nutrition transition affects our human and planetary health. The presentation outline was explained. The definition of nutrition transition was explained, i.e. The changes that populations experience in quality and quantity of dietary behaviours and patterns—shifts in diets and energy expenditure with economic, demographic, and epidemiological transitions. Go hand in hand with other lifestyle-related factors such as physical activity, work and family environments, and general health and socioeconomic wellbeing, ultimately influencing energy expenditure—modernization, urbanization, economic development, and increased wealth lead to predictable shifts in diet. Transitions are closely linked with the industrialization of food systems, technological change and globalization. Rising consumption of Ultra-processed foods (UPFs)- made from processed substances extracted or refined from whole foods, undergoing industrial processes. The stages of the nutrition transition are explained below (Figure 4). Many LMICs, including India, are rapidly moving from nutrition transition pattern 3 to 4 (end of famine to overconsumption)

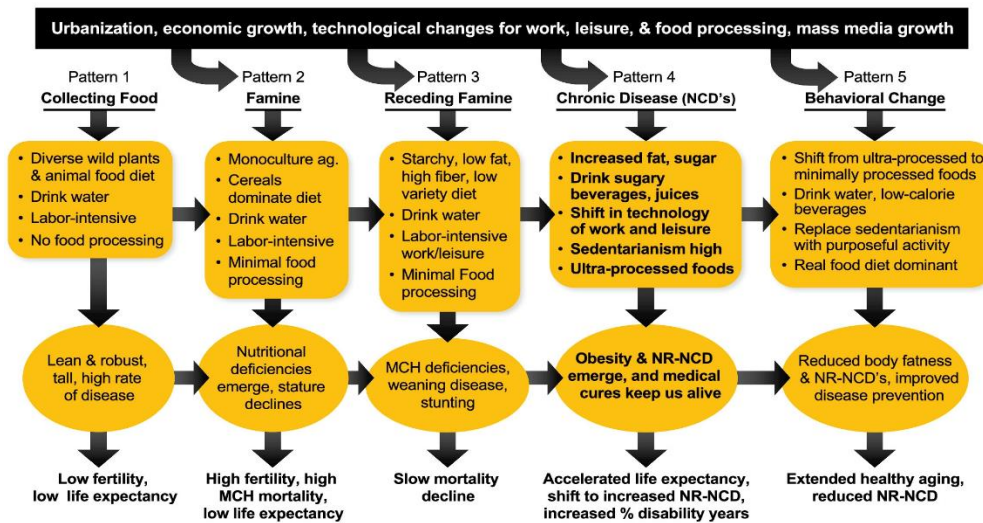


Figure 4: Stages of nutrition transition.

India is facing the consequences of complex patterns of food insecure ty. This transition is faster in vulnerable communities like rural and low-income groups due to the infiltration of cheap UPFs in remote rural areas, aggressive advertisements and marketing of UPFs, and migration leading to shifts in dietary patterns, relative food pricing and perception of aspirational foods. These factors

exacerbate existing health inequities due to high and long-term healthcare costs associated with DR-NCDs

What are food systems? Farm to the plate. Food systems produce, package, process, ship, and sell the food consumed worldwide. They are central to improving food security and Nutrition, ensuring social and gender equity, reducing rural poverty, promoting efficient management of natural resources, and improving the resilience of populations relying on them for their livelihoods. Food systems are meant to provide the diversity of food that makeup diets (Figure 5).

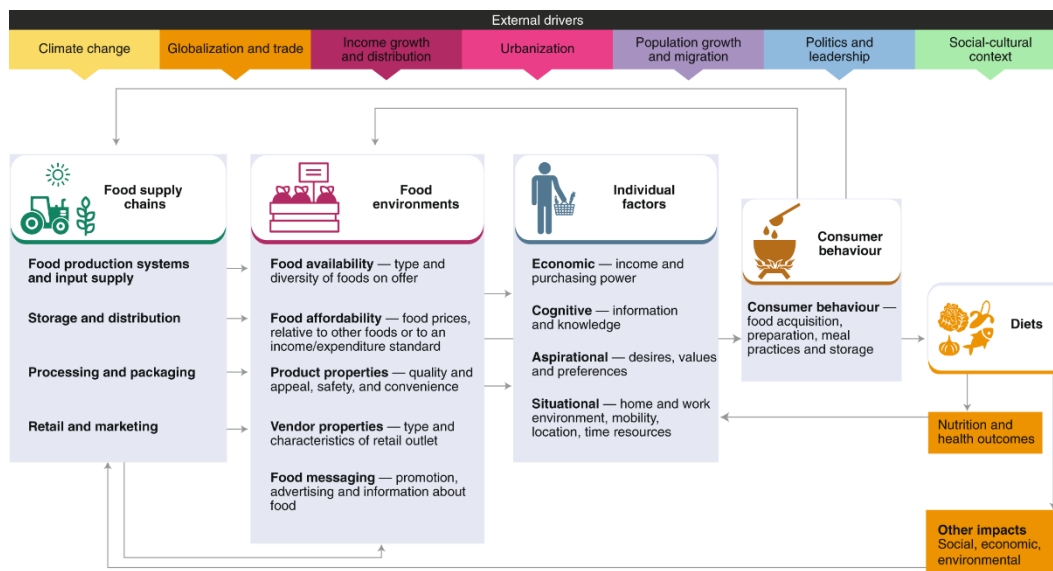


Figure 5: An overview of food systems

The way we interact with the food environment. Collective physical, economic, policy and socio-cultural surroundings, opportunities and conditions influence people's food and beverage choices and nutritional status. Food environments are the interface where people interact with the broader food system to acquire and consume for ds. Globally, diets low in whole grains are the most significant dietary risk factor for death and morbidity. The other top five rankings consist of dietary risk factors for diets low in fruits, vegetables, nuts, and seeds and diets high in sodium. The deaths and morbidities mainly comprise NCDs, including cardiovascular disease, diabetes, and cancer. These estimates suggest that not eating healthy foods is more detrimental to health status than eating unhealthy foods. Different food groups affect the environment to different extents: animal-source foods are responsible for about three-quarters of climate change effects, whereas staple crops, such as wheat, rice, and other cereals, are responsible for a third to a half of pressure on other environmental domains. Based on the current scenario, food production was projected to increase greenhouse-gas emissions, cropland use, freshwater use, and nitrogen and phosphorus application by 50–90% from 2010 to 2050 without dedicated mitigation measures.

Are we transitioning food systems in India? If we travel down our history of food production, we know that we experienced the Green Revolution of the 1960s, which made us self-sufficient an agricultural giant. This, along with the liberalization policies of the 1990s, has catalysed the country's remarkable growth in the last two decades. However, the limitations of green revolution



SYMHEALTH 2023: National Conference on Stakeholder Engagement for Integrated Healthcare – Futuristic Approach



technologies were that it was concentrated in high-potential regions and was limited to wheat and rice, so they paved the way to mono-cropping culture, which was not so positive and perhaps had environmental consequences. Why? The injudicious use of inputs like inorganic fertilizers and hybrids seeds leads to higher dependence on the market, reduced soil fertility and water table depletion in some regions. However, mechanisation of agricultural methods was a boon for the big farmers, while subsistence farmers had limited variable access.

What has happened to your processing and retailing? The expansion of the modern food retail industry is one of the key drivers of food systems and future food demand in India. With an annual growth of around 15%, India's food retail industry is ranked the sixth largest in the world. It contributes to a substantial part of the overall economic output. It has grown because of favourable demographic changes and increasing disposable incomes of the ever-growing middle-income group. A more significant share of households in urban and rural India now relies on markets to access food. Can we think of some trade-off for this growth and high market dependence? Yes, the rise in food prices and price volatility is due to the longer supply chains. Protein-rich items such as pulses and animal-based products have increased costs and volatility. This was famously referred to as "protein inflation" What is the other thing: nutrition transition? This transition is perhaps slower and more variable across regions in India than in countries like China or Latin America. Still, the influence of the forces of globalization on Indian dietary habits cannot be denied.

People of India have easier access to fat and sugar-rich food items which appeal to their innate sensory preferences and are often valued more (thanks to marketing). Since the 1990s, there has been a more significant shift towards the consumption of "convenience food" along with the greater consumption of processed food, beverages and other packaged items which have higher salt, fat or sugar content and high frequency of eating out thanks to technology and the food apps. All this is associated with the incidence of chronic non-communicable diseases (NCDs). And this contributes to the dual burden of malnutrition, where we are still struggling to bring down undernutrition with a simultaneous rise in the prevalence of NCDs. In traditional, rural food systems, people can access more locally produced foods and less highly processed food. Populations living in these systems tend to be more vulnerable to infectious diseases, wasting and/or stunting, high maternal and child mortality, and other factors resulting in a shorter life expectancy. In transition economies, urbanization and income growth influence lifestyle changes and changing mixed food systems. Populations may be dealing with multiple burdens of malnutrition, but overall, being overweight, obesity, and non-communicable disease replace the high burdens of undernutrition. This outcome results in longer life spans but higher disability with suboptimal quality of life. In more progressive, "modern" food systems, there is a plethora of food outlets – some healthy, some not as healthy – with a heavy reliance on hyper- and supermarkets. In these progressive places, people are more concerned with their health, consciously eat more nutritious foods, and increase their physical activity levels, facilitating healthy ageing. As a result, the life span is long, and disability decreases.

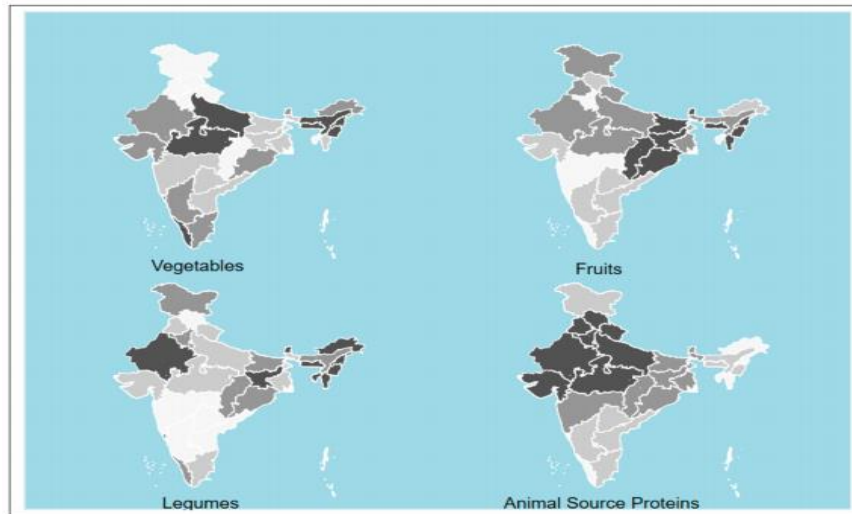


Figure 6: Indian diets fall short of EAT-Lancet recommendations

Darker colour depicts a higher calorie deficit between actual consumption and EAT-Lancet reference diet. The reference diet should have an optimal caloric intake and consist mainly of a diversity of plant-based foods, low amounts of animal-source foods, unsaturated rather than saturated fats, and limited amounts of refined grains, highly processed foods and added sugars.



Figure 7: Nutrition transition

The Nutrition Transition model was meant to be descriptive, not prescriptive! Each stage does not have to cover a specific period, nor is the staging unidirectional or linear. With political will/commitment and well-designed integrated/multisectoral policies and programs, it is possible to slow or stop these trends. Countries and populations suffering a prolonged and unhealthy Stage 4 are not inevitable. Countries/Regions that have yet to become overrun by unhealthy food choices learn lessons and leapfrog past the negative stages of the nutrition transition. To shorten/minimize Stage 4 (Figure 7), Large-scale government programs and policies to promote a healthier food environment that better supports human and planetary health is critical. Increased physical activity



SYMHEALTH 2023: National Conference on Stakeholder Engagement for Integrated Healthcare – Futuristic Approach



and reduced sedentary time are crucial for promoting better human health, but dietary shifts are central.

What are the potential solutions to address the negative impact of nutrition transit? Engaging with stakeholders- Individuals, social groups, civil society organizations (CSOs), governments, or larger multilateral organizations can push a policy/set of policies to attempt to arrest or turn back the effects of Stage 4 with higher nutrition-related NCDs. Entities like food company organizations must share the responsibility to support impactful public health initiatives toward healthier eating voluntarily.

Policies to enable healthy food purchases by all- Country specific food-based dietary guidelines (FBDG): explicitly recommend reducing intakes of UPFs while recommending increasing intakes of whole and minimally processed foods and beverages, with additional support for less advantaged popular—voluntary positive labels with very high standards. For example, Israel introduced a green label indicating minimally processed healthy foods. Early research on the use and influence of the positive "green" labels on consumer purchase intentions appears promising. Food procurement policies- In Brazil, Impactful food procurement and feeding policies $\geq 30\%$ of food procured for schools must come from local family farmers—a mandatory farm-to-school component to increase healthy food in schools and support local farmers and economies.

Marketing control policies- The Chilean government introduced a marketing ban first on children-focused marketing of warning labelled foods during children's television shows and a complete ban on all marketing of those foods from 6 a.m. to 10:00 am. The United Kingdom plans to introduce legislation as part of the 2021 Health and Care Bill to limit the marketing of foods excessively high in fat, salt, and sugar.

Fiscal policies- Fiscal policies have focused on SSBs (sugar-sweetened beverages). Over 45 countries and selected cities and regions have introduced SSB taxes ranging from minuscule taxes with minimum effect in the range of 3–5% to impactful taxes of 50%– 5%. This effort began with Mexico, and subsequently, these taxes have had significant impacts across the globe on SSB purchases comparable with their taxation levels.

Conclusion: Through the collective actions of individuals, small groups, civil society organizations, governments, and multi-lateral organizations, it is possible to leapfrog along the transition to stage 5. But this is perhaps not so simple.



SYMHEALTH 2023: National Conference on Stakeholder Engagement for Integrated Healthcare – Futuristic Approach



Session 4:

Dr. Mansi Patil

Chief Program Officer, Hypertension, Core group, IAPEN
Topic: Millet-based approach for ensuring food security

Participants in this session learned from eminent speaker Dr. Mansi Patil - the Millet-Based Approach To Ensuring Food Security. Dr. Patil emphasised that we should inculcate the habit of using the millets in our diet. She highlighted that trying out is essential and we should not overdo the millets. Millets that were once considered the poor man's diet are presently becoming famous as the rich man's diet, and this has happened with the increase in people's socioeconomic status. Dr. Patil explained that we must identify why the population is food insecure. What kind of challenges are they facing? Identifying the core areas that lead to food insecurity is important. She elucidated on the "Challenges for India – Food security". She discussed how food Unavailability, food Un-accessibility and food Un-stability are responsible for food insecurity and how Increased food availability, accessibility and stability can lead to food security. Madam compared India with the United States of America concerning the determinants of food security in rural United States and the determinants of food security in rural India regarding food availability, access and utilization. She elaborated on the massive millet production (170 lakh tons) in India, which is 80% of Asia's millet production and 20% of the world's output of millets. Overall global production millets is 863 lakh tons. She discussed millets by showing the millet map of India and emphasized that India is a multicultural country and traditionally, Indians have consumed millets through the ages. We should refer to the Indian-based local studies for millets. Despite excellent production across India, the acceptability of millet has decreased drastically. Dr Patil reiterated that we should identify which millet is grown in which part of our country and promote the local millet in the specific region rather than generalising that everyone should eat all millet. She highlighted that we must make regional choices and promote locally grown millets in any area.

Later she discussed the types of millets and how the millets are classified as significant millets (jowar, bajra and ragi), minor millets (cheena, kodo, kangani, sanwa and kutki) and pseudo millets (kuttu and chauli). Further, Dr. Patil discussed the health benefits of nutri-cereals, including detoxifying the body, lowering cholesterol levels, helping prevent type 2 diabetes, preventing breast cancer, effectively reducing blood pressure etc. Millets should be processed before we consume them; however, the over-processing of millets should be traced. There are a lot of over-processed millet-based food items in the market, and their consumption will be detrimental to health. She added that "nutrition education" is essential and should be imparted to create awareness about different aspects of millets. While imparting nutrition education, for example, about the quality of millets that should be consumed, the message should be precise, clear and crisp. Dr. Patil reiterated that we could not make any blanket statement about millet and that none of the meta-analyses shows that every millet gives all the benefits. Therefore, we should be careful whenever we advise anyone regarding including millets in the diet. We should be practical and decide when, how and to whom we should advise millets.

Dr. Patil quoted a Kannada saying, "The rice eater is weightless like a bird, the one who eats jowar is strong like a wolf, the one who eats ragi remains 'Nirogi' throughout the life." Further, she



SYMHEALTH 2023: National Conference on Stakeholder Engagement for Integrated Healthcare – Futuristic Approach



discussed the nutritional properties of millets, such as gluten-free, good micronutrient profile, and rich in calcium, magnesium etc. Biofortified varieties of millet are higher in protein and mineral content. She referred to millet as the super crop to grow and nutritious to eat. She elaborated on millets being the cheaper and sturdier crops that do not require crop rotation, and the carbon footprints will go down with all these factors. She added that we should promote pseudo and minor millets by improving their availability and acceptability. The acceptance of millets is region-specific as locally grown millets are more available for consumption and therefore more readily acceptable by people. Madam also raised the point of appropriate remuneration for the farmers. She addressed various challenges concerning millets, including compliance, variety, cooking skills, availability, consistency, and acceptability.

Dr. Patil emphasized that we must use a balanced approach for millet as it has several nutritional advantages and the capability to control and prevent several diseases. It takes care of over Nutrition and provides enough fibre in diet. Millets are helpful in the control of many diseases, as well. She gave an example of a foxtail millet that reduces systolic blood pressure but not diastolic blood pressure.

She added "Nutrition insecurity – A Global Challenge", which focused on 21st-century challenges like population growth, climate change, water scarcity and increase in food prices. The triple burden of malnutrition is also a global challenge today. Why decline in Millets? It was explained well by justifying the factors on the demand side and the factors on the supply side. The Great Small Millets Bottleneck slide that showcased the greater demand for processed minor millets was very well presented. Short-term and long-term strategies to increase production and productivity were well addressed. Dr. Patil explained to the audience how to create mass awareness about the millets and also on millets as an approach to sustainable agriculture and a healthy world. She focused on some contemporary millet-based recipes.

Dr. Patil ended the session by discussing the Seven Sutras: for successful Millet Abhiyaan that were – enhancement of production and productivity; value addition, processing, and recipe development; entrepreneurship startup and joint development; nutrition and health benefits; awareness creation; international outreach and policy intervention.

There was no question-answer session due to the time crunch.



SYMHEALTH 2023: National Conference on
Stakeholder Engagement for Integrated Healthcare – Futuristic Approach



Session 5:

Ms. Sayali Dindorkar

Nutrition Consultant, Founder of SHWAS 4 U

Topic: Food and Mood

Ms. Sayali Dindorkar started the session by introducing food and mood to the audience. She tried to explain the intricate relationship between food and philosophy by saying that mood can influence the choice of food that we choose to eat. Ms. Dindorkar noted that changes in eating behaviour across the globe impose both negative and positive effects on human health. She elaborated on how our mood is connected to the five senses, and our emotional reactions are guided by sensory information. Bitterness, sweetness, creaminess, and colour impact the person's emotional interpretation. She highlighted that "food is entirely a sensory experience." Food is much more than we think, i.e., it is a multi-model perception of taste, touch, sight, sound, and um mi. She reiterated the human response towards food by using the senses of taste (mainly influenced by other senses), sight (saves food memory), sound (essential for judging the freshness), touch (usually felt by our fingers, tongue, teeth, and palate) and smell (identifies odour and flavour of food).

Ms. Dindorkar discussed the food, mood, and regulatory hormones at length. She explained that leptin and ghrelin are associated with multiple physiological functions where leptin suppresses food intake. In other words, we can say that it gives the feeling of satiety. In contrast to leptin, the ghrelin hormone stimulates the appetite, and it is rightly called the "hunger hormone". Besides being the hunger hormone, ghrelin is also involved in rewards and motivation. The speaker explained how the interaction of the two hormones, ghrelin and leptin, activates the hypothalamus and regulates hunger and satiety, ultimately leading to energy homeostasis. She also discussed how an imbalance or decreased sensitivity to ghrelin or leptin could cause various problems. She also discussed the negative implications and the pathophysiology of the ghrelin and the leptin hormones. An imbalance in the two hormones can result in diverse pathophysiology related to weight imbalance and improper energy homeostasis. She explained how impaired leptin signalling pathways lead to obesity in individuals. She also explained various eating disorders, especially bulimia nervosa and anorexia nervosa. Individuals with anorexia nervosa and bulimia nervosa have higher ghrelin levels (hormone component) and the psychiatric component. She further added the dual role of leptin hormone as anti-inflammatory and proinflammatory. The leptin hormone was found to be high in patients with rheumatoid arthritis and helps to regulate joint damage.

Ms. Dindorkar reiterated that the leptin hormone reduces symptoms of depression. The Ghrelin hormone regulates glucose homeostasis through hepatic glucose output, regulates energy homeostasis, and plays a role in bone formation and metabolism. She also introduced the serotonin hormone to the audience by explaining that the serotonin hormone produced in the gastrointestinal tract is a neurotransmitter. It regulates sleep and appetite, mediates moods and inhibits pain. She explained that the production of serotonin is influenced by hundreds of good bacteria that comprise the intestinal microbiome. She also highlighted that the gut-brain axis has connected with diet and disease. She addressed that the gastrointestinal tract is sensitive to emotions, anger, anxiety, and sadness. She also discussed functional foods and how they are categorised into conventional foods (fruits, vegetables, nuts, seeds, seafood, beverages, fermented foods, herbs and spices, and prebiotics) and modified foods. She highlighted foods that can boost the mood, like caffeine, chocolate and other sweets, protein-rich foods, vegetables, fruits, water, and micronutrients. She also enlisted a few



SYMHEALTH 2023: National Conference on Stakeholder Engagement for Integrated Healthcare – Futuristic Approach



points that depict how mood is enhanced with food, such as: eating food till you feel full, starting dinner with soup, adding nuts to your diet, adding a cup of milk and milk products in your daily diet, drinking plain water when thirsty and add fresh fruits to your meals. Ms. Dindorkar ended her session by reemphasizing "mindful eating."

April 28, 2023; Track III: SMCW Lecture Hall 1

Session 1:

The first session focused on the topic: “**Regulatory Landscape of Pharmaceutical industry**” by the eminent speaker Dr. Manjusha Rajarshi. She is the founder of Regulus Healthcare, is based in Mumbai. She holds a Doctor of Philosophy degree in Pharmacology from the Open International University for Complimentary Medicine in Kolkata.

Dr. Manjusha Rajarshi delivered a talk on the regulatory framework of the pharmaceutical industry at the SYMHEALTH 2023 conference. She discussed the challenges and key factors influencing regulatory principles and emphasized the need to ensure safety, efficacy, quality, appropriate use, and accurate information to stakeholders.

She also highlighted the importance of a cooperative culture in drug development and stressed the need for measuring specific parameters in clinical trials. Challenges such as cost of innovation, weaker patent laws in certain parts of the world, supply chain issues, changing regulations, governmental controls, and geo-political issues were discussed.

Dr. Rajarshi further discussed the risks associated with the pharmaceutical industry such as the emergence of poor-quality generics, price controls, data breaches, and counterfeit medicines. She also discussed the industry's growth and newer trends, including digital and AI-assisted progr

increased patient engagement through digital platforms, and biotechnology, biologicals, and targeted therapies.

In conclusion, she emphasized that the pharmaceutical industry is huge and highly regulated, with government controls in terms of regulations, compliance, and price issues to continue. The demand for trained and skilled professionals will increase, and drug regulations will become stricter with high compliance requirements. The goal is to bring effective, safe, and quality products at affordable prices to the market.

Session 2:

Following the first session, a stalwart in the clinical trial and research sector, Dr. Sanish Davis delivered a speech on the “**Emerging trends in clinical trials**”. He is the Director of Research & Development and Global Clinical Operations at Johnson & Johnson India. He holds a Doctorate of Medicine in Clinical Pharmacology from GS Medical College and KEM Hospital, Mumbai University, Maharashtra. He has diversified experience from leading pharma companies like Pfizer and Glenmark.

Dr. Davis discussed the emergence of IBM Watson in clinical trials. He explained how the platform is being used to analyze large volumes of data and identify trends that can help researchers make better decisions. He emphasized the importance of incorporating artificial intelligence and machine learning into the clinical trial process.

Traditional Brick and Mortar Model in Clinical Trials:

He talked about the traditional brick-and-mortar model in clinical trials, where patients must visit a physical location to participate. He highlighted the drawbacks of this model, such as limited geographic reach, low patient participation, and high costs.

He then talked about the concept of decentralized clinical trials, where patients can participate remotely using digital technologies. He explained how this approach can improve patient participation, increase diversity in clinical trials, and reduce costs.

Data Collection for Decentralized Trials Using Wearable Devices:

He highlighted using wearable devices for data collection in decentralized clinical trials. He explained how these devices can collect real-time data on a patient's vital signs and activity levels, which can then be analyzed using artificial intelligence and machine learning.

Importance of Cancer Studies That Cannot be done via Decentralized Trials

Dr. Davis emphasized the importance of cancer studies that cannot be done via decentralized trials. He explained how these studies require specialized equipment and procedures that can only be done in a traditional brick-and-mortar setting.

Actigraphy and Virtual Patient Concierge:

Dr. Davis also talked about the use of actigraphy and virtual patient concierge services in clinical trials. He explained how actigraphy can be used to monitor a patient's activity levels, while virtual

patient concierge services can provide patients with support and guidance throughout the trial process. Finally, Dr. Davis highlighted the use of decentralized local labs in clinical trials. He explained how these labs can provide faster and more efficient analysis of patient samples, reducing the time and cost of the clinical trial process.

In conclusion, Dr. Davis's talk on the emerging trends in clinical trials provided valuable insights into the use of digital technologies and decentralized approaches in clinical trials. His emphasis on the importance of incorporating artificial intelligence and machine learning into the process highlighted the need for innovation in the field.

Session 3:

The third session focused on “**Good Practices in Clinical Trial**” by Dr. Arun Bhatt. Dr. Arun Bhatt is a consultant in Clinical Research & Drug Development, based in Mumbai. He has made a notable contribution to the clinical research fraternity and was awarded the International Centre for the Study of Radicalisation (ICSR) Special Award in 2017. Dr. Bhatt received his MD in Medicine and MBBS from Mumbai University. With his extensive knowledge and experience in the field, Dr. Bhatt has made significant contributions to the advancement of clinical research and drug development.

Dr. Bhatt started by defining Good Clinical Practices (GCP) as a standard for clinical studies or trials that encompasses the design, conduct, monitoring, termination, audit, analyses, reporting, and documentation of the studies. He explained how GCP guidelines ensure that clinical trials are conducted ethically, and the results are credible and accurate. Dr. Bhatt emphasized the importance of complying with GCP guidelines to ensure patient safety, data integrity, and regulatory approval.

Evolution of Ethics and Regulatory Guidelines

He talked about the evolution of ethics and regulatory guidelines in the field of clinical research. He discussed the Declaration of Helsinki 1964, which is a statement of ethical principles for medical research involving human subjects, developed by the World Medical Association. He also talked about the GCP guidelines, which were developed by the International Conference on Harmonisation (ICH) to standardize the conduct of clinical trials globally.

Indian GCP Guidelines and Bridging the Gap:

He highlighted the Indian GCP guidelines and how they were developed by the Central Drugs Standard Control Organization (CDSCO) to ensure that clinical trials conducted in India comply with international standards. He emphasized the importance of bridging the gap between Indian GCP guidelines and international guidelines to ensure that Indian clinical trials are globally accepted.

Critical Path of Clinical Trial

Finally, he discussed the critical path of clinical trials, which is the sequence of steps from drug discovery to FDA approval. He emphasized the importance of optimizing the critical path to reduce the time and cost of drug development. He discussed various strategies to optimize the critical path, such as using biomarkers, adaptive trial designs, and real-world evidence.

In conclusion, Dr. Bhatt's talk on Good Clinical Practices and the Critical Path of Clinical Trials provided valuable insights into the importance of complying with GCP guidelines and optimizing the critical path to reduce the time and cost of drug development. His emphasis on bridging the gap between Indian GCP guidelines and international guidelines highlighted the need for harmonization in the field of clinical research.

Session 4:

The next session focused on the topic: **“Leveraging technologies for Pharmacovigilance”** by Mr. Moin Don. He is the CEO and Founder of Pharmacovigilance Consulting Private Limited (PVCON) based in Mumbai. He completed his B. Pharma from K. M. Kundnani College of Pharmacy in Mumbai, Maharashtra. Mr. Don has made significant contributions to the field of pharmacovigilance and drug safety, and he received the Pharma Ratan 2016 - Lifetime Achievement Award for his exceptional contribution in this field. The award was presented to him by the Drug Controller General, India, recognizing his significant achievements and contributions in the area of pharmacovigilance and drug safety.

Mr. Moin Don gave a talk on pharmacovigilance. Pharmacovigilance involves all activities and obligations that a pharmaceutical company is required to ensure that its medicinal products are safe to use and have a favorable benefit-risk balance. The market for pharmacovigilance is vast, and it is considered a quality umbrella and a pharmacovigilance juggernaut.

The enormous amount of data generated in pharmacovigilance makes it impossible to manage through manual processes. Hence, he emphasized the importance of technology in managing pharmacovigilance data. He highlighted various technologies such as software for ADR reporting from devices, databases such as Argus/ARISg, Learning Management Systems, Document Management Systems, deployment of AI/ML, cloud-based SaS, and eData-enabled tools to enable paperless case processing and reporting using AI and its signal detection.

He also discussed the life cycle management of SOPs/Policies/Template repositories using soft copies, shared local drives across territories, active portals, archiving of obsolete documents, temporary access to auditors, and monitoring/periodic review. He stressed the importance of ease of logistics without paper/hard copies and assured confidentiality in pharmacovigilance. Overall, the talk provided a comprehensive overview of the importance of pharmacovigilance and the role of technology in managing pharmacovigilance data.

Session 5: Role of real-world evidence in clinical trials:

Ms. Indrani Kakade is a consultant specializing in clinical trials, data management, and analytics. She holds a B.Pharm and M.Pharm from Poona College of Pharmacy, Pune, and has certifications in ICH-GCP, Quality, and Six Sigma. Ms. Kakade has been recognized for her expertise in the field and has been invited to serve as a panelist on the Scientific expert committee for Biotechnology Industry Research Assistance Council (BIRAC) - National Biopharma Mission, Government of India. She brings a wealth of knowledge and experience to the field of clinical trials and is committed to ensuring high-quality data management and analytics in the pharmaceutical industry.

Ms. Indrani Kakade delivered a talk on clinical trials, focusing on the phases, process, timelines, and key growth drivers. Clinical trials are studies conducted to collect data on the safety and efficacy of a new drug molecule, biologic, or a medical device. The speaker explained the different phases of clinical trials and their timelines. She also highlighted the growing demand for novel drugs due to the increasing prevalence of chronic diseases and new infectious diseases, an increase in cancer cases globally, a growing geriatric population, growing R&D budgets, and growing opportunities for conducting clinical trials in the Asia Pacific.

The talk also covered real-world data (RWD) and real-world evidence (RWE), which are important aids to randomized controlled trials (RCTs). The speaker emphasized the importance of RWE and its potential benefits to clinical research. However, she also discussed the challenges and barriers in RWE adoption.

As a case study, the talk focused on COVID-19 trials and the use of RWD as of February 2021. She noted that 2024 trials, encompassing a total enrollment of more than 500,000 patients, were registered on ClinicalTrials.gov and WHO databases, with many of these trials using RWD to answer some of the questions for better study planning and execution. Overall, the talk provided valuable insights into clinical trials, RWE, and the challenges and opportunities in the field.



Symhealth 2023: National Conference on
Stakeholder Engagement for Integrated Healthcare – Futuristic Approach



Common Track Day 1: April 28, 2023

Inaugural Function

28th April 2023, SIU Auditorium

Keynote Address: Mr. Siddhartha Bhattacharya

Country Director, Access Health International President, NATHEALTH

The session started with a thank you for the invitation note from the speaker to all the dignitaries and the Provost of FOMHS, Dr. Rajiv Yeravdekar.

Later on, he said that healthcare is now becoming more integrated and there is a lot of distance to go. He also said about the integrated patient-centric policy which is the main goal to achieve in the year of 2035. He talks about 4 points namely National Screening Program Design (community-based screening programme), Infra / Business Model Requirements (new models with NGOs , civil society etc.), Digital Health Stack Requirements (incentives for tech) , Health Seeking Behaviour/Incentives (health awareness campaign). If we apply integrated healthcare service it will save money , increase productivity, makes multiple health professionals work together, ensures that data flows smoothly among healthcare providers as it is the patient centric approach. There are 5 types of care in integrated healthcare approach which are Preventive, Promotive, Curative, Palliative and Rehab. These will help in growing the economy as well as these will improve quality and outcomes and also lower fragmentation of demand occurs. Furthermore , 4 levels of care including community health facility (provides the primary healthcare), referral hospital (secondary level of care to manage difficult cases) , referral transport (bringing the patient from one facility to another) and tertiary hospitals (provides super-specialty care) are there which aim on better and quick services.

This integrated healthcare approach has multiple advantages as it will decrease the cases of morbidity , cost and parallel increase the productivity , demand and opportunities for non curative service providers . It shows the multiple direction of health service demand which gives better outcomes. As our country has about 1.4 billion people , to apply integrated healthcare approaches

is really a challenging task for healthcare providers as there are shortage of doctors, nurses, primary care, tertiary care, supplies, training facilities and allied health services. Many public sector has taken initiatives to apply the integrated approaches i.e. Health and wellness centre (Health Sub Centres and Primary Health Centres upgraded into Health and Wellness Centres and here patient care is the main motive), Ayushman Bharat Digital Mission (multiple health registries like ABHA, HPR, HFR provide single source of truth for multiple healthcare services) and Policy for Integration of Healthcare(reducing cost with added benefits of AYUSH).

If we take an example of private sector, Apollo Healthcare is the best option as it has single Digital Front Door by which they provide services like pan India hospitality, one patient one record system, diagnostic services, medicine services, retail healthcare services, telemedicine, tele radiology, tele pathology services, virtual clinical research, health check service which implies that Apollo Healthcare is the best value-based and outcomes driven care delivery model.

Now there are many opportunities in India to apply this particular healthcare approach as the population of India is expected to grow by 2028, India will have more no. of senior citizens by 2050 , Indian healthcare industry is projected to grow by 2025. This can be happened if we start tech enabled integrated care, engaging private sector, starting new startups in health techs and increasing burden of non communicable diseases. During past few years, care delivery programs focused on treatment of patients , hospital based care and facility centric but now it totally focuses on health of citizens , community based care and patient centric. During this digital era about 400 mn people use several digital health applications i.e. online pharmacies , online doctor consultation, fitness and wellness , home healthcare and recovery management and e - diagnostics. The Ayushman Bharat Digital Mission is the first step of industry based digital transformation . The goal of this mission is to provide a unified health interface and as well as it gives several benefits to patients , healthcare professionals and providers and policy makers. For this reason the number of India's digital health users will be around 1000 million in 2030 .

To conclude , applying digital health will increase the efficiency in the organization and give digital supply chain management , value based procurement solutions and standalone facilities throughout the industry.

Lastly he talked about his own organization NATHEALTH which focuses on 3 things - Health, Patient and Care. The session ended with a vote of thanks by the speaker.



Symhealth 2023: National Conference on
Stakeholder Engagement for Integrated Healthcare – Futuristic Approach



Session 1: Finding the Leader Within
28th April 2023, SIU Auditorium

Speaker: Dr. Anupam Sibal
Group Medical Director
Apollo Hospital, New Delhi.

Participants in this session learned from eminent speaker Dr. Anupam Sibal how to discover your inner leader. He gave many examples and persuaded the audience that leaders are created, not born. He told Abraham Lincoln's inspiring tale of desiring to serve the people and becoming president of the United States. Abraham Lincoln teaches us the importance of listening carefully. Further discussed values that help us to be good listeners. Gandhi ji once stated that to encounter other virtues in life, humility must physically manifest.

Sanjay Shakthy Kandaswamy, an infant from Kanchipuram who was the recipient of India's first successful paediatric liver transplant, was another case addressed by the speaker. Sanjay is currently a doctor in Bengaluru, exactly 24 years later. which is an outstanding illustration of leadership.

Moreover, the account of the operation made Ben Carson well-known. The fact that "the pressure never goes away I have learned how to feel off pressure" was the key to his success, as mentioned by the speaker.

Later he explained how to never complain, citing Jody as an example, a girl who experiences 100 seizures per hour and is a teacher despite having only half of her brain.

We make a living by what we get, but we make a life by what we give. He contrasted the comment to a nurse who stood by him even after her shift was over and the patient was alone as he took his final breath.

Further, he mentioned an example of Richard Branson 'Dyslexia Is My Superpower: How Learning Differently Helped Richard Branson Become a Rule-Breaking Billionaire'



Symhealth 2023: National Conference on
Stakeholder Engagement for Integrated Healthcare – Futuristic Approach



Later he explained the young South African Christian Barnard dreamed of going far. After a difficult childhood, he made his dream come true by becoming the first surgeon to perform a heart transplant. 18 days after his initial operation, the patient passed away, but this did not deter him from performing a heart transplant again, and this is how heart transplantation was first practiced in the world.

Understand the power of “gratitude” since Arthur Ashe's unfortunate and untimely demise, his thoughts still strike a chord with tennis fans. "When I was holding the cup, I never asked God, 'Why me?'" - Arthur Ashe's emotional letter to a fan during his last days. This a powerful example of gratitude.

Lastly, instead of a round of questions and answers, the audience congratulated him for such a motivational speech.

Session 2: Digital Mental Health

28th April 2023, SIU Auditorium

Speaker: Dr. Suresh Bada Math

Director of Digital Psychiatry
NIMHANS, Bangalore.

He started the session with the need to take mental health awareness to the doorstep using the internet and other sources like mobile phones to provide services that will come under Digital Mental Health. He shared that there is a need to regulate not only the doctors but also the people that are within the Process that comes in between the Doctor and the Patients.

As the patient can record the consultations, he emphasized on how mental digital health is visioned across the world with regard to

1. Access to Mental healthcare – as it is a challenge due to the stigma in patients. Telemedicine will ensure that access to care will improve.
2. Privacy – of the data and reports.
3. Decreases the cost of the patient and the accompanying person.
4. Redistribution of the Resources.
5. Quality of Services will be improved with the digital era.
6. Nature of the Services will change as the way the patient is going to relate with the health sector changes.

Digital Tools will act as an Interface and it will work as a Hybrid Model which is a combination of In-person consultation and Telemedicine. Artificial Intelligence and GPT will act as mediators between the Patient and the doctors.

He mentioned the National Mental Health Survey conducted 2014 & 2016 by NIMHANS in collaboration with MoHFW wherein Psychiatric morbidity was found to be 13.7% lifetime and 10.6% current mental morbidity and severe mental disorders was 0.8%. Treatment gap for mental disorders ranged between 70% and 86% for different disorders.

He then shared light on the increasing substance abuse, alcohol use, cannabis, opioids, cocaine, amphetamines, hallucinogens, inhalants and death by suicides.

He concluded the session by talking about NIMHANS Digital Academy which is formed to fill the gap and also shared about TeleMANAS (Tele-Mental Health Assistance and Networking Across States) which is a comprehensive mental healthcare service that will amalgamate with the National Mental Health program DMHP (District Mental Health Program).

- **SPEAKER:** Dr Sanjeev K. Singh
Medical Superintendent at Amrita School of Medicine, Kochi
- **TOPIC:** Health Leadership and Workforce Management
- **TIME:** 9.30 am to 10.15 am
- **VENUE:** SIU Auditorium, Hill-Top

The session starts with a description of a beautiful campus of symbiosis.

Later on, he started the session with an example - if a cow eats grass, it gives cow dung, if a horse eats grass it gives fibrous material which means the input is the same but the output is different. He connected this example with leadership by saying every human being is born and has a few gray cells. Then it is the greatest gift of mankind and he is a great leader.

He started the main session with the question if we met any leader in our life other than our teachers, or mother. He considered leadership as utopian. In an organization, there are 3 things - friction, confusion & underperformance. For the rest of things, we want leadership. We require that one person should step back, strategies, and correct a few things to make a positive environment. Leadership problem is defined as too little time (TLT) where people think that working and being busy is the best way to communicate with the world and it is a great job. The

one who will be a people's person and connect with the rest of the world, he or she will be able to make a difference; otherwise, he or she will be mediocre. Stating about the most precious moment of him, he said the power of now. If you have to do something, you should start from now. He gave his wife's example as she has post-ERCP pancreatitis, haemorrhagic and necrotizing, and multiple adhesions, when she visited a doctor and told these issues, the doctor said that she had told a lie. The person has created problems with his insensitive attitude toward the patient. So, if anyone wants to be a good leader, he or she must have ethics in the blood i.e., the doctor is giving opportunity to patient's autonomy, is the doctor asking about norm vs benefit, is there any justice in whatever the doctor is doing. So, if a leader is doing wrong, the whole group is always doing wrong. The happiness of our life depends on the quality of our thoughts and the leader has to have brilliant thoughts even if we are depressed, we are anxious, a leader has to take a deep breath, has to take a step away, and has to plan as he or she has more number people working in his or institution. To do this, he or she has to use time and always be cheerful.

Leadership always starts with self-awareness, what is the positive thing and what is the negative thing, there 40% of the time must be spent. We have so much knowledge, that is powerful information but that is of no use. So, we have to unlearn something. As a leader when we are planning something we should ask strategic questions if we want to improve our strategic thinking skills. We should also consider opposing ideas and embrace formal training. Leaders are also innovators because they have to think differently. Leaders have to create a network and nexus. For example, Penicillin was developed as an antibacterial drug. The network of ideas, technology, people, organizations, policies, and other resources that made up and enabled penicillin was a new one, and the nexus is the management involved in the widespread synthesis of penicillin. He also gives examples of the UBER flagship model, AIRBNB innovative model, and Netflix to show how a strategic idea can have a big impact on the market. Talking about strategic thinking in healthcare, he told us to focus on digital health, precision health, and big data as they are the future. India's health workforce has a crisis as there is a shortage of doctors, nurses, and allied health professionals. It is expected that in 2047 the gap between supply and demand will be reduced. For this govt. Has taken some agendas like - embedding governance mechanisms and frameworks, upskilling the healthcare workforce and faculty, fostering and monetization of healthcare educational infrastructure, incentivization and social safeguards for the healthcare workforce, leveraging digital universities and institutes, and unlocking the potential of emerging technologies.

The session ended with a vote of thanks by the speaker.



Symhealth 2023: National Conference on
Stakeholder Engagement for Integrated Healthcare – Futuristic Approach



Session 3: Forging, scaling, and assessment of Outcomes in healthcare collaborations

28th April 2023, SIU Auditorium

Speaker: Mr. Lalit Mistry

Partner and Co-Head, Healthcare Sector
KPMG, Mumbai.

Lalit Mistry spoke on the topic of forging, scaling and assessment of outcomes on healthcare collaborations and public-private partnerships in healthcare system, which helped healthcare ecosystem to be less chaotic and contributing rather than competing with each other. The cruxes of partnerships are providing business and services to each individual. He mentioned on how digital acceptance rate has increased after covid-19 pandemic by giving “care on demand” by various collaborations.

Mr. Mistry also gave incites about active healthcare partners which are medical device industry, pharmaceutical companies, health insurance companies and majorly Information technology industries which are now working on Internet on things (IoT) to monitor patient care. He concluded by saying “Various health models are there and they modify according to the land’s situation, and it is a matter of time.”

- **SPEAKER:** Mr. Mudit Dandwate
Founder & CEO of “Dozee” – A Contactless Remote Patient Monitoring System, Bangalore
- **TOPIC:** “Dozee” – A Contactless Remote Patient Monitoring System – A New Healthcare Start-up.
- **TIME:** 10.15 am to 11.00 am
- **VENUE:** SIU Auditorium, Hill-Top

10:15 AM:

Comperes Ms Revatinanada and Ms. Anjali briefed about the session and introduced session moderator

Dr. Mudit Dandwate, Founder & CEO of “Dozee” – A Contactless Remote Patient Monitoring System, Bangalore.

10:20 AM: Mr. Mudit Dandwate commenced her topic of “ Dozee – A Contactless Remote Patient Monitoring ” and elaborated the Objective behind starting this company during the Covid -19 Pandemic. He also mentioned that How Dozee device is become a popular option to monitor the patient remotely amid the huge shortage of nursing staff.

He discussed about Accuracy, Mechanism of action of Device, & Comfortability of device to the patient. And He also mentioned about biggest Order that he got from Lt. Gen. Dr. Madhuri Kanitkar of Indian Army Hospital, Pune.

10:30 PM: Mr. Mudit Dandwate opened and moderated the question and answer session which lasted for 10 minutes.

Question addressed, by some of Delegate are “ Does Dozee device work for Paediatric patient i.e for both Mother & Newborn? Cost ,Maintenance, Backup of Device?, Does it Works Properly in ambulance?

And Mr. Mudit Dandwate Has given answer of all question and made them fully satisfied. And He is still Working on some challenges to make this device more convenient for paediatric,& ambulanc.

10:40 AM And briefed about the , mission of his company is to make every Indian bed A Dozee Bed to secure the health of everyone with slogan “*Har Bed Dozee Bed*”. And As unique point of view of he said This is the first company who introduced such innovative device in the world of healthcare market.

10:55 PM: Second Speaker of Symhealth 2023 was concluded with felicitation of guest speakers Mr. Mudit Dandawate by Dr. Rajeev Yeravadekar with Vote of thanks and a group photograph.

11:00PM: SYMHEALTH -2023 second Speaker Session ended.

SPEAKER: Dr. Lallu Joseph

Quality Manager and Associate General Superintendent, Christian Medical College Vellore

- **TOPIC:** Quality & Organizational Excellence
- **TIME:** 11.15 am to 12.00 noon
- **VENUE:** SIU Auditorium, Hill-Top

She started the session by introducing herself and how she transitioned from the field of mechanical engineering to that quality management, which helped her to bring a new viewpoint. Most of the time, quality management is mistaken for accreditation; Accreditation is just the by-product and not the end product. She discussed several circumstances the quality manager had to deal with as well as the underlying causes of them. In the healthcare industry, quality managers are expected to be “Superheroes” who can put everything in place. She suggested the mantra that she has derived from her prior experience i.e. to go with different groups with different approaches. She emphasized greatly the fact that the approach should be supported with evidence or data.

Talked about patient psychology as they are not in a correct position to assess the technical needs of quality, however, they are happy if the clinical outcomes are achieved.

The role of quality management is crucial as it will facilitate clinical outcomes.



Symhealth 2023: National Conference on
Stakeholder Engagement for Integrated Healthcare – Futuristic Approach



She discussed the various quality gurus' philosophies, such as the absolutes of quality and the cost of quality, and their effects on obtaining quality. She also talked ~~about the advantages of quality management systems and how they would ultimately~~ help the organization. She shared her experience working at a Bhubaneswar hospital where staff members were unaware of the SOP to follow in the event of a fire and evacuation. She also described a hospital from Hyderabad where visiting family members of patients were prohibited from going inside the operating room, which helped raise the facility's standards of excellence. She explained that Quality management should be viewed as a stepping stone towards Operational Excellence. The practices to achieve quality should be done in the right spirit and understanding of the intent of such practices. She discussed some strategies to reach Operational excellence. Ended her talk by quoting Avedis Donabedian that System awareness and systems design are important for health professionals, but are not enough. Ultimately the secret of quality is love. She appreciated Symbiosis International University for providing her the platform to speak and also praised the beauty of the campus and the hospitality.



Symhealth 2023: National Conference on
Stakeholder Engagement for Integrated Healthcare – Futuristic Approach



- **SPEAKER:** Mr. Gaurav Gupta
Navia Life Care , New Delhi
- **TOPIC:** Embedded finance in Healthcare Systems
- **TIME:** 12.00 noon to 12.45 pm
- **VENUE:** SIU Auditorium, Hill-Top

Mr. Gaurav Gupta, co-founder, Navia Life Care, New Delhi spoke on the topic “Embedded finance in healthcare system” which refers to integration of financial services like banking, lending, payments, insurance into non-financial platform. He spoke on how these have been seamlessly integrated into hospital settings.

Though the payments by patients became easy due to embedded finance, but there were few challenges which are being faced which are mainly: expertise, distributions and supply.

-
- **SPEAKER: Dr. Darshan Shah**
- **TOPIC: Biomedical Engineering, Research, Innovation and Opportunities**
- **TIME: 1.00 pm to 1.45pm**
- **VENUE: SIU Auditorium, Hill-Top**

1.00-1.20 Participants learned about what precisely is biomechanics. Different types of biomechanics and how it is structured based on levels. His approach was more focused on the muscular skeleton system.

First, he briefly described his background. He graduated from IIT Bombay with a dual degree in mechanical engineering and later switched to bioengineering, where he completed his Ph.D. After that, he worked as a biomechanist at a Belgium institution.

1.20-1.30 Outlined numerous biomechanical processes

Design is the first stage, which deals with how mechanical technology and biological systems interact.

Testing (finite element analysis) is the second stage, which includes

In vivo, analysis is essentially survey-based, including device creation, and kinematic and kinetic tracking, and serves as a standard for all kinds of investigations.

In vitro- optimizes between in vivo and Insilco, separated into static and dynamic research. Intrusive sensors were brought up, allowing the extraction of human joint angles from body-worn sensors.

1.30-1.35 He also explained about Computational modelling, which uses computers to simulate and study complex systems using mathematics, physics, and computer science, is one of the design analysis tools included in Insilco.

Statistical modelling, on the other hand, is a mathematical model that embodies a set of statistical assumptions regarding the generation of sample data.

Insilco was poorly optimized and was written with numerous assumptions. There could be iterations. He also mentioned flying stimulators.

1.35-1.45 He has established a course on the human body from a biomechanics perspective. The textbooks that medical students use for the course such as human anatomy and biomechanics are included in his course as well. People from the community who want to change the world are invited to give a guest lecture. The session ended with a vote of thanks by the speaker.

- **SPEAKER: Dr. Vivek Singh**
Health Specialist, UNICEF, New Delhi
- **TOPIC: Health Sector Reforms and SDGs**
- **TIME: 2.30 pm to 3.15 pm**
- **VENUE: SIU Auditorium, Hill-Top**

Dr. Vivek Singh, Health Specialist, UNICEF, New Delhi. Spoke on Health Sector Reforms and Sustainable Development Goals (SDGs) of India mainly on Millennium development goals which leads to social determinants of health. Goal-3 of SDG is the indicator for universal health coverage. Dr Singh grabbed audience attention towards the social protection issues for universal health coverage which are as follows

- reaching everyone,

-Minimal essential Health Services

And, Economic burden should not be there.

There are various health coverage payers around the world such as, single payers, multiplayers, Multiplayer with No UHC and No National Health Mission.

Sir also explained on different types of models of healthcare, which are

- Beveridge (ex: Spain)
- Bismarck (ex: Germany)
- National Health Mission (ex: Taiwan)
- Out of Pocket (ex: India)

As, much of the population doesn't know about Canada Vs United States Public health model, sir gave incites about how they are being compared and one of them is chosen as a base model for various countries' health models. Basically, WHO and World Bank monitor health coverage regularly. Workforce of healthcare, Finance, Equipment and revenue generated and collected are important components of health sector forms.

Dr. Singh also pinched upon how India has very strong national health policy and has a technical advisory group. India has improved a lot in-terms of amount health money, but GDP is been very low.

He concluded, that India already been practicing preventive, promotive and protective services while other countries are practicing now and also told that why India needs reforms in health sector, because, of climate change, physical education and standardization of Processes. Lastly, he said about Decade of action-2030.

SPEAKER: Dr. Sanjay Gupte

Founder, Gupte Hospitals Pune & Medico legal expert

- **TOPIC: Legislative Reforms in Healthcare**
- **TIME: 3.15 pm to 4.00 pm**
- **VENUE: SIU Auditorium, Hill-Top**

He started with the session telling the importance of the legislative reforms in healthcare while talking about the High Court of Mumbai and Kerala and the implementation of the Right to Protection of the Doctors and doing so with the help of Judiciaries.

He then mentioned the importance of healthcare professionals being aware of legislative changes and their interpretations.

He emphasized on the six-building block of healthcare – Service delivery, medical equipment, Manpower, Information & awareness, Financing, and Co-ordinated leadership.

He also talked about the major inadequacies in Healthcare – Lack of awareness, Lack of access, Workforce shortage, and Lack of affordability and accountability.

He then discussed about the challenges in the Healthcare sector– Improvement in the healthcare sector, Regulations, Addressing problems of the public, Hospital reforms and Health Financing.



Symhealth 2023: National Conference on
Stakeholder Engagement for Integrated Healthcare – Futuristic Approach



He shared light on the National Health Policy (NHP) 2017, the 12th National Plan (2012-2017), Universal Health Coverage, the National Accreditation Board for Hospitals and Healthcare (NABH), Ayushman Bharat, The National Health Mission, Indian Public Health Standard 2022, Clinical Establishments Act 2012, Medical colleges in Each District and the Uniform Code of Pharmaceutical Marketing Practices (UCPMP) 2015 and National Medical Commission.

He concluded the session by discussing the key highlights of the National Digital Health Mission, the Medical Termination of Pregnancy (MTP) Act Amendment 2021 the ART Bill, and Surrogacy Bill. He shared about the recent reforms - The Right to Health Bill and the importance of the National Medical Devices Bill.



Symhealth 2023: National Conference on
Stakeholder Engagement for Integrated Healthcare – Futuristic Approach

