



Society for Clinical Data Management  
DATA DRIVEN

Theme:  
Capabilities | Collaboration |  
Change on the way to Clinical Data Science

**SCDM** **Live**

India conference

2<sup>nd</sup> - 3<sup>rd</sup> December 2022  
Radisson Blu Hotel, Bengaluru

Opportunities & Trends in Clinical Data Sciences

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# Rapidly changing business environment

- Global geopolitical upheavals
- Scientific paradigm shifts accelerated by the COVID experience
- Socioeconomic transformation in India
- Tech innovation necessary to make healthcare available for all in India
- Evolving Indian startup ecosystem
- Healthcare in India needs to get “future-ready” for both local and global opportunities

# Global realignments

- Partial decoupling of China from Western economies
- Russian embargos and regionalization due to supply chain disruptions
- Learnings from the pandemic can accelerate drug development and solve global problems
- India emerging as the world's third largest economy in 5 years
- Profound impact on the healthcare industry due to scientific breakthroughs and geopolitical churn happening simultaneously

# Transformative effects of COVID

## **It takes a pandemic to transform a conservative industry!**

- Learnings from adversity – rapid adaptation
- Vaccine and drug development vaulted the legacy curve
- Legacy structures around funding, scientific investigation, regulatory norms, manufacturing and distribution were rewritten
- Rise of spin-off technologies
  - RNA vaccines
  - Vaccines and drugs for cancer treatment
  - Malaria vaccine
- Unprecedented cooperation between governments and the private sector

# India – Socioeconomic Changes

- India is now the world's fifth largest economy having surpassed the UK in GDP terms
- The World Economic Outlook of the IMF predicts that India will be the world's third largest economy by 2027, ahead of Germany and Japan
- Population expected to be 1.66B by 2050 with 20% over the age of 60
- Although our future is suggestive of more affluence, we will also have a 60+ population of over 300 million and a higher burden of chronic disease (cancer, cardiac, diabetes etc)
- Lifestyle/chronic diseases will account for 74% of total morbidity by 2030, up from 56% in 2008

# India – Healthcare Challenges

- No real emphasis on preventive healthcare and early diagnosis
- Lack of critical infrastructure for healthcare, particularly in rural areas
- Availability and distribution of doctors is a challenge
- NITI Aayog data suggests that ~30% of the population (42 crore people) are uninsured
- Lack of standards for out-of-hospital and home healthcare
- National insurance system integrated with private healthcare providers needs to mature alongside reform of insurance rules

# A Novel Approach for a New Era

- Focus on building India-specific solutions that are scalable and affordable
- Build for India and help solve global problems related to health
- Emphasis on preventive care and early diagnosis
- Patient-centric solutions that create consumer trust
- Indian startups are increasingly focusing on discovery and early-stage research
- Disruptive tech-based solutions that enable frugal innovation in healthcare

# Opportunities for Indian Healthcare

## **China's partial decoupling with Western economies –India is ideally poised for new partnerships**

- Global manufacturing hub
- Bulk drugs and specialty chemicals
- Pharma products, biotech and bio-generics
- Specialized contract manufacturing (cell therapies, CAR-T etc)
- Pre-clinical research
- IT services and data centres
- CoEs for AI, deep learning, quantum computing etc.
- Clinical research and clinical data sciences



# Opportunities for Indian Healthcare

## **Regionalization of supply chains is driving government support and collaborative opportunities with partner nations**

- Data exchange agreements with trusted nations
- Free trade agreements under negotiation with individual countries and the EU bloc
- Government incentives for localizing supply chains
- Collaborative research for accelerated drug development
- Reciprocity agreements among regulatory agencies
- Trusted supply chains will de-risk manufacturing and enable research

# Opportunities for Indian Healthcare

- Opportunity to significantly scale clinical research and data sciences for local and global requirements
- Validated tech-based platforms for healthcare delivery across India and worldwide
- Platform for delivery of protocol-based home healthcare
- Opportunities for clinical research and data collection in a distributed setting
- India's evolving startup ecosystem (e.g. TeleRad, Predible, Bugworks, Eystem, ImmunoACT, CloudPhysician etc)



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# Thank You

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