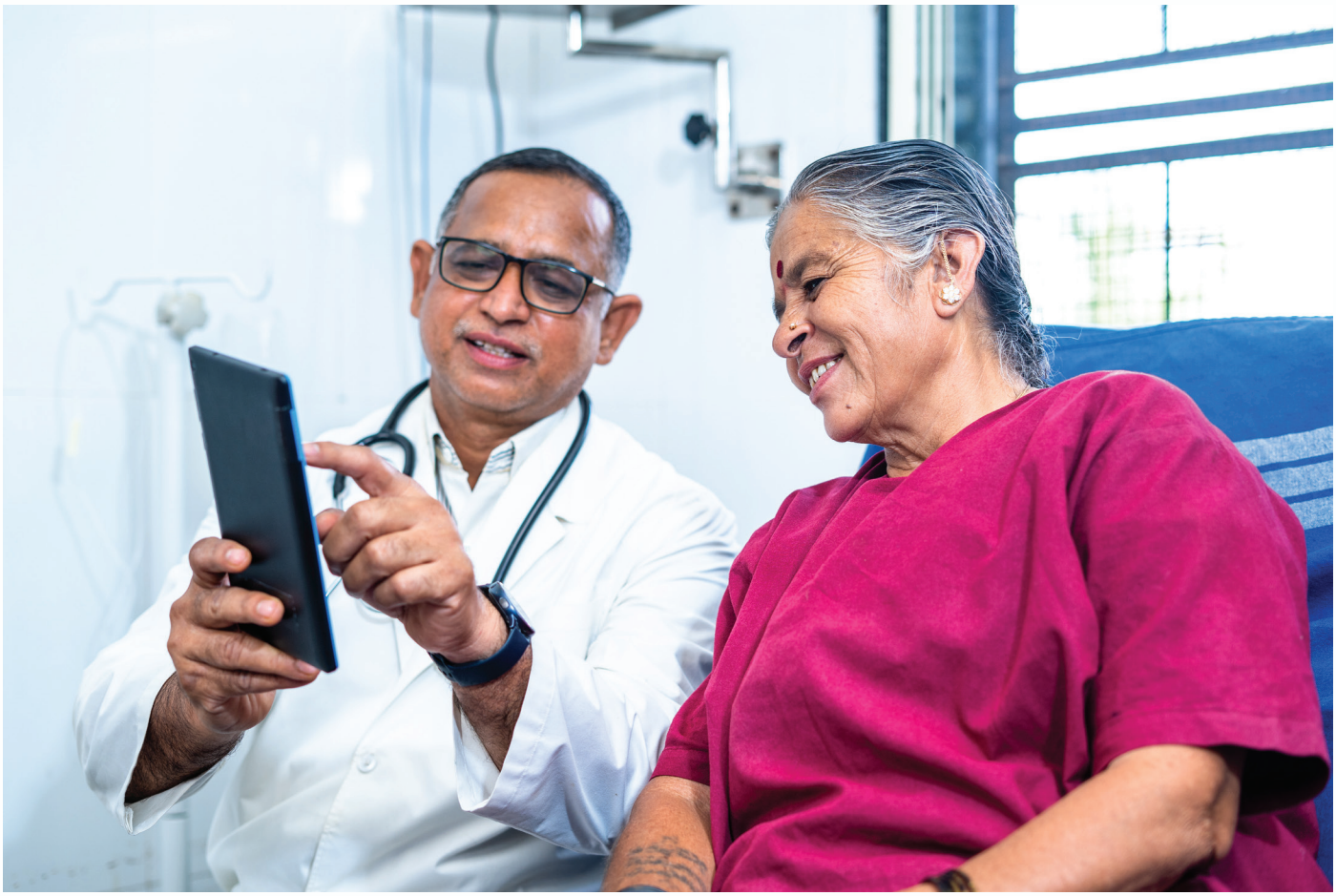
Sankala Foundation

Shaping the Future

Digital Solutions for Universal Health Coverage

Proceedings of the National Conference on
Universal Access to Healthcare: Digital Solutions

6 September 2024,
India Habitat Centre, New Delhi



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The National Conference on 'Universal Access to Healthcare: Digital Solutions' was organised by the Sankala Foundation in New Delhi on 6th September 2024. The conference was organised in collaboration with the National Human Rights Commission and with the support of NITI Aayog and the Ministry of Health and Family Welfare.

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Front cover : A doctor explains diagnostics to a patient through a tablet.
Design: Narender, Sankala Foundation

About Sankala Foundation

Sankala Foundation is a non-profit organisation dedicated to advancing research, training, and advocacy in the field of climate and sustainability. Sankala Centre for Climate and Sustainability, established by the Foundation, is working on climate resilience, water and sanitation, energy, public health, and education to improve the lives of marginalised communities. The Centre collaborates with government bodies, NGOs, and experts to develop innovative, evidence-based solutions that address climate change, resource management, and poverty eradication.

Role in Public Health

Transforming public health care is one of the core priorities of the Foundation. After the COVID-19 pandemic, the need for a more resilient healthcare system has become abundantly clear. The health sector faces several challenges, such as affordability and accessibility concerns, poor infrastructure, shortage of skilled health personnel, and low coverage of insurance. Sankala Foundation seeks to identify sustainable, practical, and replicable solutions that can address key gaps in the country's health system and improve the overall well being of people.

In this direction, Sankala Foundation studied a unique digital health initiative, namely the Digital Nerve Centre (DiNC) in Kolar, managed by Tata Medical and Diagnostics (Tata MD) in collaboration with the Department of Health and Family Welfare (DoHFW), Government of Karnataka. A report based on this study was released during the national conference. The report contributes to expanding the knowledge base on digital health innovations in practice and their impact, aiming to inspire further research and collaboration in this field.

Contents

Introduction

Health Scenario

A nation of 143 crore, India has walked a long distance in ensuring that quality healthcare services are accessible and affordable to all its citizens. Improvements in the infrastructure, skilled human resources and the increasing use of technology are visible, and the resultant outcomes are impactful. Reproductive, maternal, newborn, child, and adolescent health, and nutritional status (RMNCHA+N) that are central to the achievement of national health goals under the National Health Mission (NHM), have shown remarkable achievements in terms of declining Maternal Mortality Ratio (MMR) and Under-5 Mortality Rate (U5MR), reduced Total Fertility Rate (TFR) and better nutritional status of the population.

Highlights

- Maternal Mortality Ratio declines 77% during 1990-2015 to 130/1,00,000 live births as against the global decline of 44%.
- Maternal Mortality Ratio in 2022 was 97/1,00,000 live births.
- Under-five Mortality Rate declined 71% between 1990-2017 to 37/1,000 live births against a global decline of 59%.
- Under-five Mortality Rate in 2022 was 32/1,000.
- The number of medical colleges increased from 387 in 2014 to 731 in 2024.
- Undergraduate medical seats increased from 51,185 before 2014 to 1,12,112 in 2024.
- Postgraduate medical seats increased from 31,185 before 2014 to 72,627 in 2024.
- Ten crore Accredited Social Health Activists (ASHAs) trained to deliver basic healthcare.
- Over 20 crore tele-consultations held under eSanjeevani programme.
- Close to six lakh villages declared Open Defecation Free since 2014.
- 35 Open Defecation Free States/Uts as on 2024.
- Annually 7 crore under-five children covered through the Intensified Diarrhoea Control Fortnight as of 2022.
- Over 2.8 crore children dewormed annually under National Deworming Day.
- The National Adolescent Health Programme covers 25.3 crore adolescents.
- Annually 7 crore adolescents provided health services through 7,500 dedicated adolescent clinics.
- Iron Folic Acid tablets given to 4 crore adolescents every week.

Data source: Based on official press releases issued by the Press Information Bureau (http://pib.gov.in).

The past decade has witnessed a renewed focus towards communicable diseases, including Tuberculosis, for which the government has set a target of achieving a TB-Free India by 2025, ahead of the Sustainable Development Goals (SDGs).

The government has now committed to achieving Universal Health Coverage (UHC) by the year 2030. Target 3.8 of the SDGs is also about achieving universal health coverage, including financial risk protection, access to quality essential healthcare services and access to safe, effective, quality and affordable essential medicines and vaccines for all.

In rural India, the Primary Health Centres (PHCs) have been the first port of call for most citizens. The focus is now on delivering a package of comprehensive services. These centres deliver maternal and child health services, diagnostic services, and treatment for non-communicable diseases, closer to homes.

An ASHA worker shows to patients how a health app works

Key Challenges in Healthcare

The Indian healthcare system is a diverse and complex network of public and private sectors that provide a wide range of medical services to the Indians, accounting for 17.78% of the world's population. Despite these significant achievements, the system continues to face multiple challenges including geographical barriers, lack of infrastructure and the shortage of human resources in the rural areas and urban slums. This, coupled with the low coverage of health insurance places an immense burden on out-of-pocket expenditure (OOPE), especially for individuals seeking care from private facilities. Only 37% of the total Indian population is covered by health insurance. The most vulnerable groups include tribal populations, marginalized communities, women, and those residing in underdeveloped regions.

Unevenly distributed infrastructure and human resources, with much of it being concentrated around the urban settings, also form major roadblocks towards providing essential health care services to all. During the Coronavirus pandemic, the redirection of resources from non-COVID essential services towards pandemic response efforts led to poorer clinical outcomes for other health conditions, as access to care was significantly reduced. It was at this juncture that telemedicine saw widespread adoption for treatment while accelerating India's shift towards technology-enabled healthcare delivery models.

To achieve the target of providing Universal Health Coverage (UHC) by the year 2030, India needs to address these challenges. Strengthening the public health infrastructure, particularly at the grassroots levels and leveraging digital technology are the two critical first steps required to reach this ambitious goal of UHC that is based on three verticals – accessibility, affordability and quality.

Taking healthcare services to the most underserved, particularly the tribal population—many of whom still reside in the hard-to-reach geographies—and to those who cannot afford the private sector, has to be the priority. For people to access public healthcare services in rural areas, Primary Health Centres (PHCs) have to be provided with at least basic infrastructure, skilled manpower and internet connectivity.

Aligned with this, the government has set up over 1,50,000 Health and Wellness Centres (HWCs) that are delivering universal and free comprehensive primary healthcare closer to the homes. These centres function with a clear focus on preventive, promotive, curative, rehabilitative and palliative care. eSanjeevani –the National Telemedicine Service of India is connecting patients in remote areas with doctors using smartphones and via these Centres. It has resulted in close to 20 crore tele-consultations until 2023.

The initiative has been particularly useful for those living in remote and rural areas, and women for whom access to healthcare has been a challenge traditionally. Over 57% of these tele-consultations have been made by women and 12% by senior citizens.

The world's largest public-funded health insurance scheme, Ayushman Bharat– Pradhan Mantri Jan Arogya Yojana (PMJAY), has provided specialised cashless treatment to over 55 crore people who would otherwise not have been able to afford specialised secondary and tertiary care.

The Ayushman Bharat Digital Mission (ABDM) provides a seamless online platform to facilitate real-time exchange of information and interoperability that also supports the creation of an Ayushman Bharat Health Account (ABHA) for patients and is the basis of a nationwide e-health ecosystem.

The National Health Authority (NHA) acts as the apex body responsible for implementing India's flagship public health insurance scheme, building technological infrastructure, and implementing the 'National Digital Health Mission' to create a National Digital Health Eco-system, which is a major initiative of the government towards digitising healthcare. The Mission will help create an integrated nationwide database of health service providers, patient records over the care continuum and patient consent management using an open API framework. Technology will facilitate the comprehensive integration of data from diverse sources, thereby providing new insights for the formulation of future healthcare strategies and enhancing the overall well-being of the nation in the coming years.

Use of Digital Healthcare Globally

Technology has already revolutionised the public health systems in various parts of the globe by making health care more accessible, affordable, and responsive. It is important to remember that digital solutions are not a product of COVID-19 and have been around for a while. Digital health encompasses a broad spectrum of technologies and applications, ranging from electronic health records (EHRs) and telemedicine to wearable devices and artificial intelligence (AI). Many of these initiatives have revolutionised the public health systems in various parts of the globe by making health care more accessible, affordable, and responsive. The Nordic countries, Canada, Britain, South Korea and Japan are some of the leading examples in this regard.

The Nordic countries (Denmark, Finland, Herceland, Norway, Sweden, and the Faroe Herslands) have one of the highest adoption rates of EHRs. In Denmark, 90% of all clinical communication between primary and secondary health facilities has been undertaken digitally since 2010 (Kierkegaard, 2013). In Sweden, 99% of all medical records and prescriptions are digital in nature. This has helped track the incidence of diseases and predict future epidemics (International Trade Administration, n.d.).

In countries like Canada, the digital healthcare market covers a variety of tools, ranging from mobile health applications to wearables and AI tools, worth $16.8 billion (Insights10, 2022). Britain's public health care system has also achieved several milestones since the introduction of the National Health Service (NHS) app. Currently, in the sixth year of its operation, the NHS app now has 33 million registered users, who can view their health records online, manage hospital appointments, and nominate their preferred pharmacy (BBC News, 2024). Furthermore, Kenya has a Digital Health Act, 2023 that regulates digital health services. It points to the relevance of technology in enhancing health care amidst the growing significance of personal data, its protection, management and governance.

The use of mobile health (mHealth) apps, electronic health records (HER), telemedicine, health analytics and online pharmacies is widespread in Thailand. The country has established a collaborative funding model between tech corporates, entrepreneurs, and healthcare institutes. The model focuses on public-private partnerships to develop digital infrastructure and scalable reference care models.

Future of Digital Healthcare Models in India

In India, like in many other countries, people adopted digital alternatives to seek healthcare during and after the COVID-19 epidemic. Virtual consultations and telemedicine were adopted to serve the people. Over 87% of WHO member states now have a policy or strategy on digital health.

India launched the Global Initiative on Digital Health (GIDH) with the WHO during the G20 Health Ministerial Meeting, in 2023. As a WHO Managed Network, GIDH aims to consolidate and amplify recent and past gains in global digital health while strengthening mutual accountability and serving as a vehicle for implementing the Global Strategy on Digital Health 2020–25. The initiative is expected to act as a knowledge hub and neutral broker to align resources and efforts towards establishing digital public infrastructure for health to achieve sustainable and evidence-based national digital health transformation.

Image source: Tata MD

About the National Conference

With close to 65% of the country's population living in rural areas and only a quarter of the health facilities available there, India has a huge potential to adopt and adapt digitisation to ensure achieving the Universal Health Coverage target. There is a need to identify newer and innovative methods and technologies which can bridge the gaps in health care and foster equitable access to treatment. With the proliferation of smartphones and the ubiquity of the internet, digital solutions have the potential to revolutionise healthcare in India by enhancing access, delivery, and quality of healthcare services, thus improving health outcomes.

It is in this context that a National Conference on 'Universal Access to Healthcare: Digital Solutions' was organised in New Delhi on 6th September 2024 by the Sankala Foundation in collaboration with the National Human Rights Commission, India and with the support of NITI Aayog and the Ministry of Health and Family Welfare.

The conference aligns seamlessly with the Foundation's mission to transform public healthcare through innovative, sustainable, and community-centred approaches. By bringing together healthcare practitioners, policymakers, domain experts, innovators and thought leaders in the field of health and health technology, the event served as a platform to discuss and deliberate upon the potential of digital solutions in addressing specific healthcare challenges. The conference also served as a means for policymakers and experts to envision a roadmap with specific goals for advancing digital health in India.

Conference Objectives

i. **Promote collaborative solutions:** Foster dialogue among policymakers, practitioners, and innovators to advance universal health coverage through digital health technologies.

ii. **Address gaps in healthcare access:** Highlight strategies for leveraging technology to provide quality healthcare to underserved populations in remote and challenging geographies.

iii. **Explore future frontiers in digital health:** Showcase emerging trends, innovative models, and technologies that can enhance healthcare delivery systems.

iv. **Align with global goals:** Reinforce commitments to achieving Universal Health Coverage (UHC) by 2030 through scalable and inclusive digital interventions.

Three technical sessions were convened as part of the national conference.

Programme
Welcome Address by Dr. Malvika Kaul, Director, Sankala Foundation
Opening Remarks by Mr Bharat Lal, Secretary General, National Human Rights Commission, India
Keynote Address by Mr Apurva Chandra, Secretary, Ministry of Health and Family Welfare
Inaugural Address by Dr V K Paul, Member (Health), NITI Aayog
Session I – Models of Change in Healthcare
Chair: Mr Bharat Lal, Secretary General, National Human Rights Commission, India
Mr Basant Garg, Additional CEO, National Health Authority
Mr Madhukar Kumar Bhagat, Joint Secretary (eHealth), MoHFW
Mr Girish Krishnamurthy, CEO and Managing Director, Tata MD
Mr Chevvuru Hari Kiran, Department of Health & Family Welfare, Govt. of Andhra Pradesh (Online)
Session II – Future Frontiers in Digital Health
Chair: Dr Rajiv Bahl, Secretary, Department of Health Research and DG, ICMR
Co-chair: Ms Debjani Ghosh, Fellow, NITI Aayog and President, NASSCOM
Mr Lav Agarwal, Resident Commissioner, Govt. of Andhra Pradesh and former Addl. Secretary, MoHFW
Mr Shashank N D, Chair, Digital Health Committee, CII and Co-founder & CEO, Practo
Mr Jagdeep Singh Gambhir, Co-founder and CEO, Karma Healthcare Ltd.
Session III – Technology-enabled Universal Health Coverage
Chair: Dr V K Paul, Member (Health), NITI Aayog
Mr C K Mishra, Former Secretary, MoHFW and Advisor, IPE Global
Mr S Krishnan, Secretary, Ministry of Electronics & Information Technology
Dr Manohar Agnani, Professor, Public Health, Azim Premji University, Bhopal, and former Additional Secretary, MoHFW
Dr Pavana Murthy, Lead, IHIP Project, WHO
Concluding remarks by Dr V K Paul, Member (Health), NITI Aayog

The conference was inaugurated by Dr. V. K. Paul, Member (Health), NITI Aayog, in the presence of Mr. Apurva Chandra, Secretary, Ministry of Health and Family Welfare, and Mr Bharat Lal, Secretary General, National Human Rights Commission, India

Key Insights from the National Conference on Digital Solutions

Inaugural Session

Inaugural Address by Dr V K Paul, Member (Health), NITI Aayog

The conference began with a call for strengthening the primary healthcare system in the country and adopting digital technology for universal access and affordability of health services. Digital technology could be the `leapfrog' factor for achieving the goal of Universal Health Coverage.

It was emphasised that digital solutions must be inclusive, secure, and designed to improve ease of living and quality of life. Without such considerations, technology can further exacerbate the digital divide. An individual's full potential cannot be realised without access to basic healthcare.

Dr V K Paul, Member (Health), NITI Aayog, delivered the inaugural address at the conference

Dr V K Paul, Member (Health), NITI Aayog, called for:

- Using digital technologies and scaling it to make healthcare available to all, particularly for those who do not have access or cannot afford quality healthcare.
- Creating new technologies such as robotics and Artificial Intelligence (AI) while making sure that it does not widen the digital divide.
- Ensuring solutions are within the ambit of rights and promote inclusivity, protection of human rights and further democratisation.
- Enhancing the quality of life, embracing well-being, including through traditional knowledge, and accelerating healthcare actions.

Opening Remarks by Mr Bharat Lal, Secretary General, National Human Rights Commission, India

Mr Bharat Lal, Secretary General, National Human Rights Commission, India, delivered the opening remarks

Mr Bharat Lal, Secretary General of the National Human Rights Commission, India, said that healthcare is a basic human right without which the full potential of a human being cannot be realised. "Digital technologies hold tremendous promise for leapfrogging towards the achievement of the goal of universal healthcare", Mr Lal said while emphasising the importance of engaging with all the stakeholders towards improving the quality of life through such solutions. There is a need for various stakeholders in the health sector to come together to ensure that healthcare for all becomes a reality. Technology has the potential to deliver healthcare facilities and improve the quality of life.

Mr Lal said that the NHRC, India, is also focussing on improving the lives of the poor and the marginalized sections of society such as the people suffering from mental health issues, leprosy, older persons, widows, and beggars so that their human rights are safeguarded. The Commission works with the approach that no one is left behind. He appreciated the government's efforts in reaching out to all individuals irrespective of where they reside.

Human Rights and Healthcare

Universal access to healthcare has also emerged as a basic human right. The National Human Rights Commission (NHRC), India, is actively engaged with various stakeholders, including governments, parastatal organisations, NITI Aayog, domain experts, medical professionals, from human rights perspective. The Commission also has a Core Group on Healthcare that advises the Commission on issues related to availability, affordability and accessibility of health care to the people. It reviews the Government laws, policies, rules and orders concerning health and mental health related matters from a human rights perspective and makes suggestions for changes for their better implementation.

Keynote Address by Mr Apurva Chandra, Secretary, Ministry of Health & Family Welfare, Govt. of India

Mr Apurva Chandra, Secretary, Ministry of Health & Family Welfare, delivered the keynote address at the conference. Also seen in the picture are Mr Bharat Lal, Secretary General, NHRC, India (centre), and Dr V K Paul, Member (Health), NITI Aayog (to the right)

Acknowledging that India's leadership in digital technology had been accepted globally, the launch of the Global Initiative on Digital Health (GIDH) with the WHO during the G20 Health Ministerial Meeting last year, was a testimony to this. As a WHO Managed Network, GIDH aims to consolidate and amplify recent and past gains in global digital health while strengthening mutual accountability and serving as a vehicle for implementing the Global Strategy on Digital Health 2020–25.

Mr Apurva Chandra, Secretary, Ministry of Health & Family Welfare, announced the government's decision to replicate the CoWIN App, used during the COVID-19 pandemic, as U-WIN App to track the health record of every child born in India. This digital initiative, under the Ayushman Bharat Digital Mission (ABDM), would keep a health record of 3 crore mothers and 2.7 crore children born in the country every year through their entire life cycle. It would be an Aadhar-enabled initiative where a record of the immunisation, nutrition and general health of an individual would be maintained. To be launched by the end of this month, a permanent digital health record of 27-30 crore young Indians will be available through this technology in the next 10 years. The government will issue Bal-Aadhar cards to the children that would be linked to Anganwadi Centres, Poshan Tracker and school health programmes.

He said the government had scanned 27 health-related portals where ASHAs were filling the data. This is a huge challenge. The government is now in the process of combining these portals into a single portal to make it easy for field-level workers. Efforts are also on to bring major digital programmes such as telemedicine, TeleManas, and eRaktKosh into a single portal. Digital leap is the answer to streamline, monitor and maintain this data so that it can be purposefully used.

Release of the Sankala Foundation Report

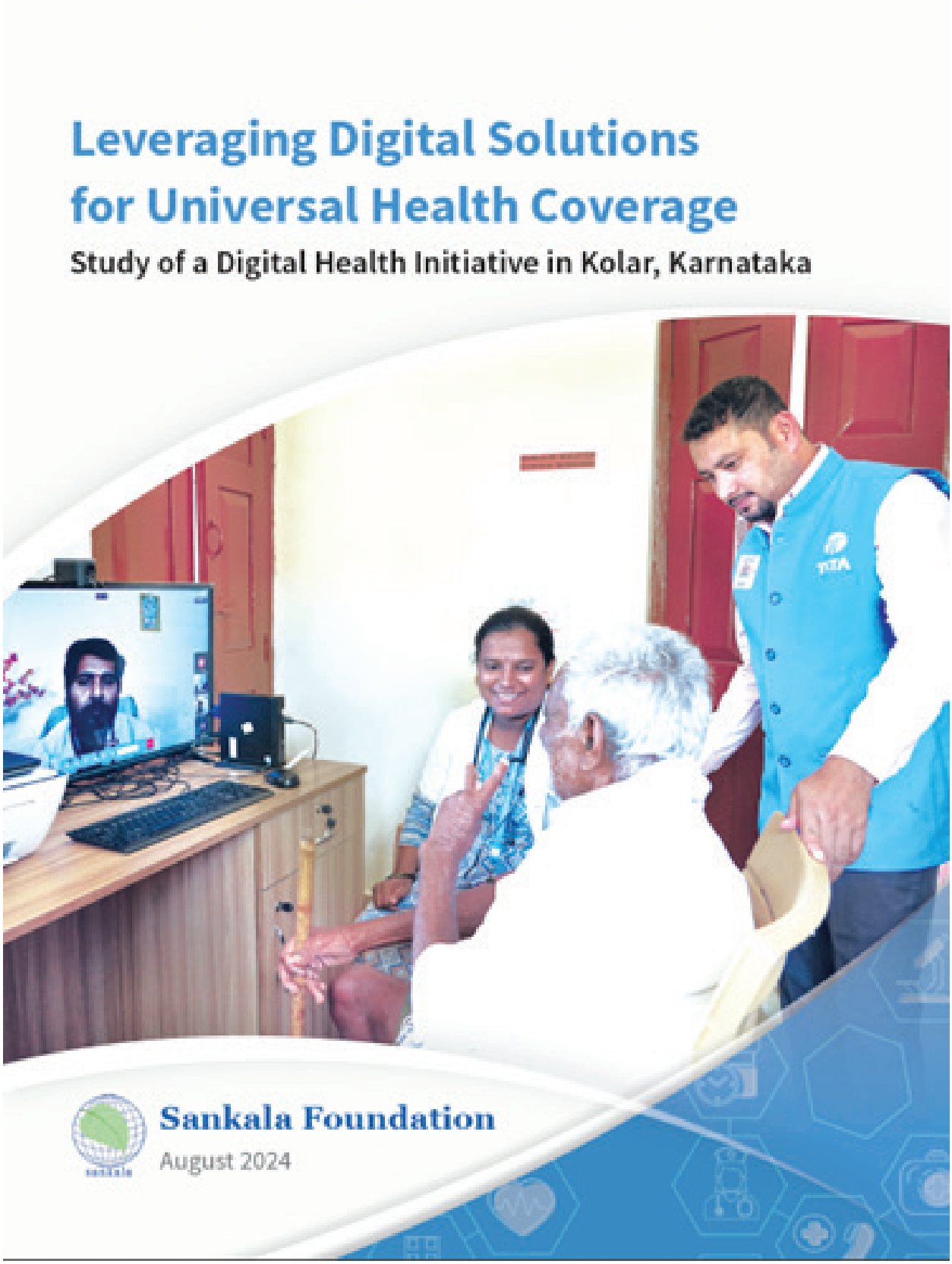
A report titled 'Leveraging Digital Solutions for Universal Health Coverage: Study of a Digital Health Initiative in Kolar, Karnataka', prepared by Sankala Foundation, was released at the conference

A report titled 'Leveraging Digital Solutions for Universal Health Coverage: Study of a Digital Health Initiative in Kolar, Karnataka', prepared by Sankala Foundation, was also released on the occasion. The report is about a digital healthcare model being implemented in Kolar district of Karnataka. It is based on the Digital Nerve Centre (DiNC), a unique healthcare delivery model that has streamlined processes in public health facilities, reduced patient overload in secondary and tertiary hospitals, and increased the utilisation of primary health centres (PHCs). It has been devised and is being implemented by the TATA Medical and Diagnostics (TATA MD) since 2017 in collaboration with the Department of Health and Family Welfare, Government of Karnataka.

At present, 90 health facilities including 82 PHCs, two community health centres (CHCs), five taluka (Sub-District) hospitals (TH), and one district hospital (DH) are covered by the DiNC.

The DiNC enables quick access to primary health care and provides a well-coordinated continuum of care for citizens visiting government health facilities. A toll-free number enables citizens to connect with the DiNC personnel and patient coordinators (PCC) at health facilities help service users have a seamless and uninterrupted care experience.

The initiative leverages existing public healthcare infrastructure, with the key objective of increasing the utilisation of public health facilities, digitising patient health data, reducing out-of-pocket expenditure and promoting the acceptability and adoption of various national health programmes. It combines patient navigation, care coordination, telehealth, and health promotion functions. It comprises three crucial



Cover Page of the report titled 'Leveraging Digital Solutions for Universal Health Coverage: Study of a Digital Health Initiative in Kolar, Karnataka', prepared by Sankala Foundation

elements—healthcare centres (including those in rural and remote areas), a nerve centre, and a virtual network of care providers—underpinned by technology, people and processes.

The DiNC's innovative use of digital technologies has encouraged greater utilisation of public health facilities by helping service providers more effectively manage hospital processes. The initiative has been able to streamline administrative processes through the use of the digital application, called HealthX.

The Concentric Data Repository (CDR), a centralised platform, complements HealthX by consolidating data from multiple healthcare units and providing a comprehensive view of patient's medical records for robust clinical assessments. This digitisation has contributed to increasing the overall efficiency of the healthcare system in Kolar.

The provision of connecting with the nerve centre using a toll-free number has shown several advantages. Patients who would previously hesitate to visit public health facilities due to long queues and complex procedures can now seek informational support, book appointments, and have other queries addressed through a quick call to the nerve centre. Subsequently, a comprehensive population enumeration drive, led by Accredited Social Health Activists (ASHA) workers, has enabled better healthcare planning and resource allocation.

This initiative ensures proactive engagement, follow-up, and a continuum of care for service users. The doctors can meet more patients in a day. Virtual pod (V-POD) rooms built in each health facility enable uninterrupted service delivery, sometimes even in the absence of doctors. The increasing use of DiNC's video consultation at PHCs showcases its potential to deliver care in remote areas. These efforts are supplemented by nurses at the Nerve Centre (known as digi-nurses) who provide virtual counselling emphasising accurate nutrition and healthy lifestyle practices.

The DiNC initiative has also promoted various national health schemes, increasing their adoption and acceptability among citizens. The DiNC has demonstrated the ability to reduce out-of-pocket expenditure for patients by reducing the need for private healthcare services and has displayed economic efficiency with the relatively low marginal cost of adding additional PHCs to the network. Cumulatively, these unique and innovative features of the DiNC have reduced waiting hours, improved appointment booking, and increased service utilisation and community engagement while restoring faith in the public health system.

Session – I : Models of Change in Healthcare

Panelists
Chair: Mr Bharat Lal, Secretary General, National Human Rights Commission, India
Mr Basant Garg, Additional CEO, National Health Authority
Mr Madhukar Kumar Bhagat, Joint Secretary (eHealth), MoHFW
Mr Girish Krishnamurthy, CEO and Managing Director, Tata MD
Mr Chevvuru Hari Kiran, Department of Health & Family Welfare, Govt. of Andhra Pradesh (Online)
Q&A
Concluding Remarks by the Chair

This session discussed the people-centric initiatives being taken by the government, some in collaboration with the private sector, in using technology to make quality healthcare accessible and affordable to the people. The health sector is not only about medical and medicine but technology also plays a huge role in healthcare delivery. For the use of technology to be successful, it would also require capacity-building and training of human resources and monitoring of data. The effort of the government now is to re-imagine healthcare delivery services for better verifiability, accessibility, information and better health, the speakers said.

Speakers at the session on 'Models of Change in Healthcare' (left to right): Mr Bharat Lal, Secretary General, NHRC, India, Mr Madhukar Kumar Bhagat, Joint Secretary (eHealth), MoHFW, Mr Girish Krishnamurthy, CEO and Managing Director, Tata MD and Mr Basant Garg, Additional CEO, National Health Authority

Mr Basant Garg, Additional CEO, National Health Authority (NHA), informed the audience that the government was working towards a Unified Health Interface that would make accessing healthcare easy, bring in equity and prevent fraud. He stated that the NHA placed the patient at the forefront of all its solutions, thereby facilitating a seamless and efficient journey to the hospital. Here, he cited the example of Scan and Share services for OPD registrations in hospitals that have substantially reduced the waiting period for patients.

The NHA is in the process of finding a similar solution to reduce the waiting period outside payment counters, pharmacies and even outside doctor's rooms.

Mr Basant Garg, Additional CEO, National Health Authority spoke in the session on 'Models of Change in Healthcare'

Nearly 55 crore people have benefitted from the Ayushman Bharat-Pradhan Mantri Jan Aarogya Yojana who otherwise would have been deprived of secondary and tertiary care. In the past six years, approximately Rs 1,00,000 crore have been spent under the scheme whereas an additional Rs 45,000 crore have been saved that would have otherwise been spent on traditional systems of treatment including transportation. Similarly, under the Ayushman Bharat Digital Mission, 66 crore Indians have created their Ayushman Bharat Health Accounts (ABHA ID), thereby digitising their health records. He said digital technology had helped the government reach far-flung areas and provide people with healthcare services.

Mr Madhukar Kumar Bhagat, Joint Secretary (eHealth), Ministry of Health and Family Welfare, expressed that lack of access to quality healthcare is a violation of a key human right of citizens. In this context, digital health is a force multiplier that helps in making healthcare available in rural areas, integrating health records and making these interoperable across various platforms. However, capacity building and training of human resources, standardisation and planning and monitoring are critical for a system to be successful.

Mr Girish Krishnamurthy, CEO & Managing Director, Tata MD, explained the usefulness of AI as the core of the healthcare delivery system and not just an enabler. Citing from a project where AI had been used to create electronic records of 6,000 patients with 97% accuracy, he said that this had eliminated the need for the doctors to key in the health records of the patients.

Mr Madhukar Kumar Bhagat, Joint Secretary (eHealth), Ministry of Health and Family Welfare, also spoke in the session on 'Models of Change in Healthcare'

Mr Girish Krishnamurthy, CEO and Managing Director, Tata Medical and Diagnostics shared about various 'Models of Change in Healthcare'

Mr Chevvuru Hari Kiran, Director, Department of Health and Family Welfare, Andhra Pradesh, spoke in detail about how the State is using digital technology not only in providing treatment but also monitoring and maintaining bio-medical equipment, and monitoring all public healthcare facilities from Health and Wellness Centres to super speciality hospitals.

Mr Chevvuru Hari Kiran, Director, Department of Health and Family Welfare, Govt. of Andhra Pradesh, shared details on how the State uses digital technology to serve multiple healthcare functions

Digital technology as adopted by DoHFW, Andhra Pradesh

Over 65% people in Andhra Pradesh are using public health services and technology is used extensively to ensure access to quality treatment to citizens.

The government has been using e-ASHA mobile application that is also linked to the Panchayats and municipalities. Any picture or information regarding hygiene-related issues posted by an ASHA reaches the concerned department, and the action taken on it is reported back to the ASHA. A similar mobile application by the name of ANM AP Health is used by the ANMs to keep a track of reproductive and child health, communicable and non-communicable diseases, adolescent and student health screening, sanitation and PMJAY data.

Under the Integrated Electronic Health Records (EHR) scheme, there is a centralised repository for patient information, continuity of care across various healthcare settings, and timely access to accurate patient information that helps in improving treatment outcomes. Health records of over 85% of the citizens are available with the government. Over 4 crore people had already got their ABHA cards made in a population of 5 crore.

Most important is the Bio-medical Equipment Management and Maintenance Program (BEMMP) that monitors and maintains all public healthcare facilities right from the sub-centre to tertiary care institutions. All assets in the facilities are tagged and monitored for maintenance and replacement. As of now, 1,30,318 assets are monitored under the programme comprising 95% of the government assets.

Session – II : Future Frontiers in Digital Health

Key Speakers
Chair: Dr Rajiv Bahl, Secretary, Department of Health Research and DG, ICMR **Co-chair:** Ms Debjani Ghosh, Fellow, NITI Aayog and President, NASSCOM
Mr Lav Agarwal, Resident Commissioner, Govt. of Andhra Pradesh and former Addl. Secretary, MoHFW
Mr Shashank N D, Chair, Digital Health Committee, CII and Co-founder & CEO, Practo
Mr Jagdeep Singh Gambhir, Co-founder and CEO, Karma Healthcare Ltd.
Q&A Concluding Remarks by the Chair
Mr Madhukar Kumar Bhagat, Joint Secretary (eHealth), MoHFW

Dr Rajiv Bahl (third from left), Secretary, Department of Health Research and DG, ICMR, chaired the technical session on 'Future Frontiers in Digital Health'. Also seen in the picture (left to right): Mr Jagdeep Singh Gambhir, Co-founder and CEO, Karma Healthcare, Mr Lav Agarwal, Resident Commissioner, Government of Andhra Pradesh and Former Addl. Secretary, MoHFW, Ms Debjani Ghosh, Fellow, NITI Aayog and President, NASSCOM, and Mr Shashank N. D., Chair, Digital Health Committee, CII and Co-founder & CEO, Practo,

The key takeaway from this session was the critical role of the private sector in developing and implementing technology for healthcare delivery and the need for public-private partnerships. The importance and need of taking the lead in digital health and Artificial Intelligence in the healthcare sector, collaboration between the public and private sector in promoting digital health, improving the quality of data, and scaling up of available models for public good were some other suggestions made in this session.

The participants also allayed the fears that AI and digitisation would take over the role of physicians. "Technology has never taken over the job of a doctor. All it does is make the task of a doctor easy and improve the quality of treatment", it was said. The session concluded with the recommendations for creating systems for validation, regulation and making technology cost-effective. The need for improving the quality of data for use in health research and AI, and the steps being taken towards this were also discussed.

Dr Rajiv Bahl, DG, ICMR, said that technology had the potential to bridge the gap between too many inequities in India, be it socio-economic divide or geographic in terms of remote vs accessible areas or rural-urban. Given the advance made by India in the field of information technology, it should not miss the Artificial Intelligence revolution.

Allaying fears that technology would take over the role of a physicians, he said that technology has improved the quality of care and made the task easier for the doctors by reducing errors and omissions. It is increasing access to services and improving the quality of care. Drawing attention towards the advantages of AI, he said is useful if the data that is fed into it is structured and of high quality.

Dr Rajiv Bahl, Secretary, Department of Health Research and DG, ICMR spoke during the session on 'Future Frontiers in Digital Health'

ICMR's contributions to research, governance, and standard-setting

On its part, the ICMR is working with the Indian Institute of Science to create a gold standard for datasets that can be used for research and Artificial Intelligence. The National Health Research Data Repository will have structured data that can be used as a resource for the future AI solutions.

Dr Bahl mentioned that the National Institute of Medical Statistics under the Council had been disbanded and converted into a National Institute of Health and Artificial Intelligence that would promote the use of technology in health sector. Dr Bahl also advocated for the establishment of regulations to validate and govern data accessibility for research purposes, as well as guidelines for the ethical application of AI in health research.

Ms Debjani Ghosh, Fellow, NITI Aayog and President, NASSCOM, spoke during the session on 'Future Frontiers in Digital Health'

Ms Debjani Ghosh, Fellow, NITI Aayog, and President, NASSCOM, said a breakthrough has to be exponential to make an impact. Citing the example of how DeepMind was now ushering in a new era of drug discovery by reducing the timeline from years to months, she highlighted the impact of AI. She asserted such innovations to be the true frontier of technology research.

She emphasised that India must reconsider its approach to healthcare. The country needs to embrace a mindset of abundance, as frugal innovations alone will not suffice in determining the necessary steps to achieve universal healthcare. Cracking this code would not only benefit India but also have global implications.

According to Ms. Ghosh, technology should not pose an obstacle. India must define its objectives and adopt an abundant mindset in research and development, even if it requires breaking a few rules. This will also entail substantial financial investments and may involve setbacks. She remarked that India faces a choice: to become a significant healthcare market or to influence the direction of healthcare itself, noting that this transformation cannot occur without collaboration with the private sector.

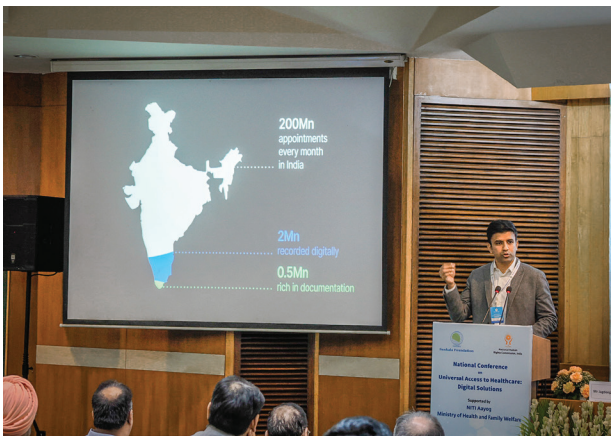
Mr Lav Agarwal, Resident Commissioner, Government of Andhra Pradesh and Former Addl. Secretary, MoHFW and Dr Rajiv Bahl, Secretary, Department of Health Research and DG, ICMR, spoke during the session on 'Future Frontiers in Digital Health'

Calling for the integration of data, Mr Lav Agarwal, Resident Commissioner, Andhra Pradesh Government, said that the government's approach should be to take the private sector along. The electronic health records of people, if used well, can lead to precision in treatment and drug discovery and ensure the continuity of treatment at the primary, secondary and tertiary levels. He suggested India create its own ChatGPT for the health sector and the private sector can take the lead in this.

As on September 12, 2024, 66.70 crore Ayushman Bharat Health Accounts have been created with 42.01 crore Health Records linked to it.

Mr Jagdeep Singh Gambhir, Co-founder and CEO, Karma Healthcare spoke during the session on 'Future Frontiers in Digital Health'

Mr Jagdeep Singh Gambhir, Co-founder and CEO of Karma Healthcare Ltd., said that while technology can be an enabler, it cannot replace the compassion of a doctor. He sought better clarity regarding the Clinical Establishment Act and ensuring quality assurance processes in addition to rationalising compliance requirements for digital interventions. "Integrating pathways with secondary care will add significant value to the continuum of care", he added while calling for developing modules for longitudinal care.



Mr Shashank N. D., Chair, Digital Health Committee, CII and Co-founder & CEO, Practo, spoke during the session on 'Future Frontiers in Digital Health'

Need for quality healthcare data

Mr Shashank N D, Chair, Digital Health Committee, CII, and Co-founder and CEO, Practo, pointed out that only 0.5 million patient data available in India was structured to be used for digitisation. He stated that the AI system developed for doctors demonstrated an efficiency rate of 98%, and this technology could be applied across healthcare facilities, from primary to tertiary levels. He said technology can solve the gaps in healthcare delivery.

He noted that while India records 200 million appointments annually, only 0.5 million health records are structured for AI, representing just 1% of the data, leaving 99% unusable. If this issue can be resolved, India can create its own AI, with its population being its biggest tool. Discussing the potential of AI to address various challenges, he stated that it would offer round-the-clock access, enhance consultation duration, and record patients' health details without requiring the doctor to type. Additionally, real-time translation would eliminate language barriers. According to him, technology will reduce the care cost to one paisa per consultation.

Practo is a start-up that is making quality healthcare affordable and accessible for crores of Indians. This application provides users with comprehensive, and curated information and care, enabling them to make better healthcare decisions.

It has a comprehensive medical directory with detailed and verified information of more than a lakh doctor partners across the country, available round-the-clock. Over 30 crore patients have used this facility so far. Since its launch in 2016, it has booked online appointments with over 9,000 leading hospitals and clinics through doctors who use Practo Prime. Online consultations were booked with doctors across 20 specialities. It also has a connect with Practo Assisted laboratories and facilities for medicine delivery which is being extensively used by the citizens.

Session – III : Technology-enabled Universal Health Coverage

Key Speakers
Chair: Dr V K Paul, Member (Health), NITI Aayog
Mr C K Mishra, Former Secretary, MoHFW and Advisor, IPE Global Mr S Krishnan, Secretary, Ministry of Electronics & Information Technology
Dr Manohar Agnani, Professor, Public Health, Azim Premji University, Bhopal, and former
Additional Secretary, MoHFW
Dr Pavana Murthy, Lead, IHIP Project, WHO
Q&A

Dr Manohar Agnani, Former Additional Secretary, MoHFW and Professor, Azim Premji University, Bhopal spoke at the technical session on 'Technology-enabled Universal Health Coverage'. Also seen in the image are (left to right) Dr Pavana Murthy, Lead, IHIP project, WHO, Mr C K Mishra, Former Secretary, MoHFW and Advisor, IPE Global,Dr V. K. Paul, Member (Health), NITI Aayog, and Mr S. Krishnan, Secretary, Ministry of Electronics & Information Technology

The session discussed the impact of technology which is changing at an unprecedented speed and how India should respond to it by way of appropriate policy framework, creating pathways and finding solutions so that the governments work towards making health a basic right. The speakers strongly called for using technology to strengthen the primary health system. Reiterating that technology cannot be a replacement for human touch, compassion, and communication offered by a healthcare professional, the speakers also called for strong regulations and institutional frameworks for ensuring data privacy and protection from cyber fraud.

Mr C K Mishra, Former Secretary, MoHFW and Advisor, IPE Global, spoke during the session on 'Technology-enabled Universal Health Coverage'

Mr C K Mishra, Former Secretary, Ministry of Health & Family Welfare, pointed out that while technology has revolutionised the healthcare system, it is equally important to ascertain whether technology is being delivered where it is needed. It can fill the gaps in service delivery and act as an enabler, but it cannot replace the human resource. It also needs to be seen whether the use of technology has influenced the health-seeking behaviour of people.

He said that while technology is available in abundance, whether it is being used to deliver healthcare is critical. Technology will help in delivering services quicker and more efficiently, particularly, in remote and inaccessible regions, and for those who cannot afford healthcare. He advocated the use of technology for accessing services at the Primary Health Centres, ensuring the continuum of care and reducing the out-of-pocket expenses on healthcare. "We also need to use it in preventive and promotive healthcare", he said.

Functional Ayushman Arogya mandir

1,74,543

SHC	PHC	UPHC	AYUSH	UHWC
1,27,617	**23,903**	**5,123**	**12,178**	**5,632**

Mr S. Krishnan, Secretary, Ministry of Electronics & Information Technology spoke during the session on 'Technology-enabled Universal Health Coverage'

Mr S Krishnan, Secretary, Ministry of Electronics & Information Technology, reiterated that technology is just an enabler and can help in enhancing efficiency and reducing the cost of healthcare. However, it can never be a substitute for the content provided by the healthcare worker. He also cautioned about the ill effects of technology including issues related to data protection and concerns over cyber security.

He noted that while technology is applied in hi-tech tertiary diagnostic tools and therapeutic devices, it should also be used for preventive healthcare such as screening, creating awareness and encouraging better health-seeking behaviour to address healthcare challenges more effectively.

Mr Krishnan said that the recently launched 'India AI Mission' will provide data computing facilities to make data usable. Of the data available under the Mission, the largest chunk is from healthcare. He said AI and the National Supercomputing Mission are being used for drug discovery to reduce the timelines.

Dr Manohar Agnani, Former Additional Secretary, MoHFW and Professor, Azim Premji University, Bhopal, spoke during the session on 'Technology-enabled Universal Health Coverage'

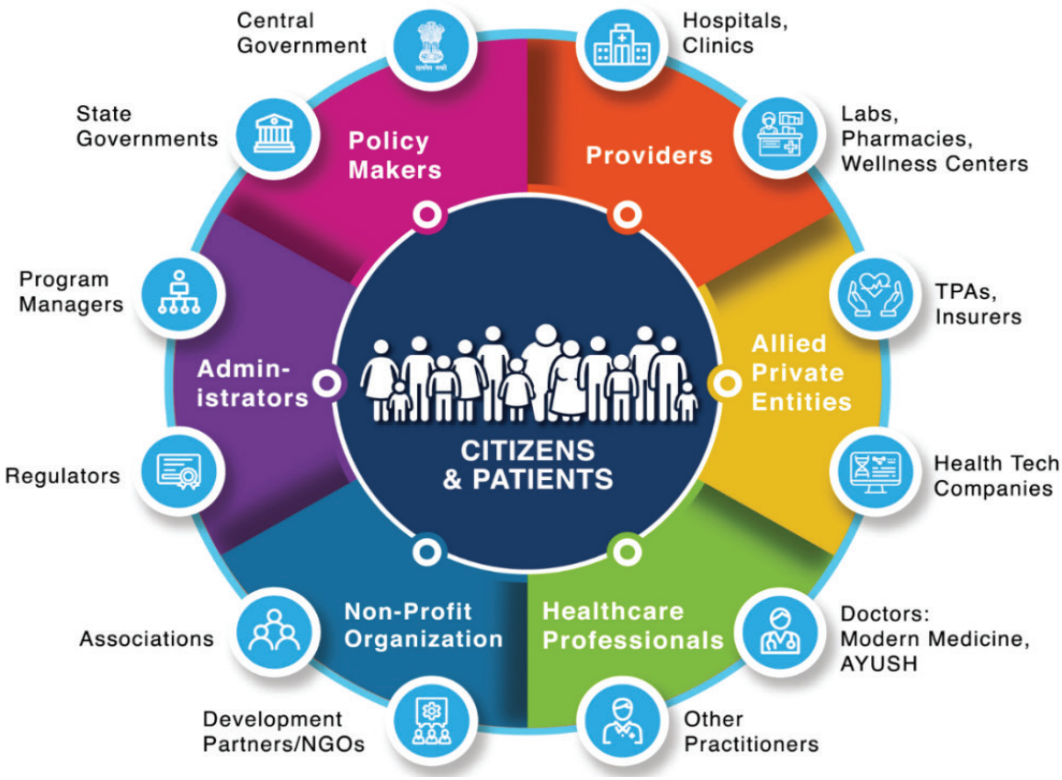
Dr Manohar Agnani, Former Additional Secretary, Ministry of Health & Family Welfare, and Professor at Azim Premji University, Bhopal, pointed out that technology could be exploitative and create digital divides and, thereby, deepen inequities. These issues need to be addressed.

However, he said there were many models to demon-

Dr Pavana Murthy, Lead, IHIP project, WHO, spoke during the session on 'Technology-enabled Universal Health Coverage'

strate how technology had improved surveillance and provided equitable access to services. Pointing towards the gap in the perspectives of policy-makers and technology experts, he said the two need to understand each other better for improved use of technology.

Dr Pavana Murthy, Lead, Integrated Health Information Portal (IHIP) Project, WHO, said that the IHIP portal ensures real-time surveillance of diseases, allowing the government to take responsive action. It helps in the early detection of outbreaks and prompts a faster response, thereby preventing small outbreaks from becoming epidemics. The portal has integrated 10 national programmes into it. It helps collect, integrate and analyse data from across the country from the health sub-centre to the Central level.



Stakeholders involved in the Ayushman Bharat Digital Mission

Closing Session

Dr Manohar Agnani, Former Additional Secretary, MoHFW and Professor, Azim Premji University, Bhopal spoke during the session on 'Technology-enabled Universal Health Coverage'

Recommendations and the Way Forward

i.) The time is appropriate for more efficient and compre hensive use of digital and AI-enabled solutions in the primary health care system. This should be done along with improving the quality of tele-consultations using AI tools and ensuring continuity of health consultations. Continuity and quality of consultations are issues that need to be addressed. The existing models of healthcare delivery at the primary level such as the one in Kolar and Andhra Pradesh can be replicated. This also focuses on the need to engage with the private sector in healthcare delivery.

ii.) India should not be the biggest market but a generator of digital health solutions so that it emerges as a leader in digital health care. However, this would require deeper discussions, resources and mindset change as well as involving the private sector in taking digital health solutions to the primary level.

iii.) There is a need to validate data and frame stringent standards and regulations for the use of AI in the health sector. This can be done by creating an enabling ecosystem and capacities of hardware. Concerns over digital divide and cyber fraud also need to be addressed.

iv.) Some changes will also have to be incorporated in medical education to keep pace with the transformations in health education. It needs to adapt the use of technology into the curriculum.

v.) India is at the cusp of unveiling the 'Amrit Kaal' ver sion 2.0 of digital health transformation. To take it further, various stakeholders must meet more often, share the developments, and bring in convergence.

All in all, digital health is a blessing for India, envisioning a future where citizens can access basic health services from the comforts of their homes through smartphones and other digital devices, thus revolutionising health care delivery. With a growing focus on Ayushman Bharat Digital Mission (ABDM) and digital health integration, India must ensure equitable adoption across regions to address emerging health issues, with a focus on reaching remote and marginalised populations like tribal communities, who bear a disproportionate burden of communicable diseases like malaria and tuberculosis.

Digital technology can be a means to make access to healthcare more inclusive, equitable, and gender-friendly. One of the foremost concerns should be to reduce the digital divide between the rich and the poor, men and women, as well as the youth and the elderly. Telemedicine initiatives like eSajeevani can play a pivotal role in reaching rural, remote, and marginalised populations at lower costs while reducing the need for physical travel. Simultaneously, with a vast amount of health data available digitally, both providers and citizens can make more informed decisions, thereby creating a more citizen-centric health system.

The ABDM is crucial in this context. To boost the adoption of ABDM and other digital schemes, efforts are needed to raise awareness among citizens that addresses their concerns and reservations effectively. Strict implementation of data privacy laws and regulations, considering the sensitive nature of patient data, can ease citizens into the digital framework. This entails specifying the forms and the extent to which the patient health records are accessible to healthcare professionals. Campaigns and workshops for citizens can help increase awareness about user authorisation and consent management practices.

Thus, by optimising the benefits of technology, India can accelerate its journey towards universal health coverage (UHC).

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Healthcare · 3 Min Read

National conference on Universal Access to Healthcare and Digital Solutions kicks off in New Delhi

ThePrint

India

NITI Ayog, NHRC organise conference on 'Universal Access to Healthcare' in New Delhi

The day-long conference focused on digital health solutions & strengthen health networks.

THEPRINT TEAM 06 September, 2024 01:42 pm IST

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National Conference In New Delhi Highlights Digital Solutions For Universal Healthcare; U-Win App, AI Integration Among Key Initiatives

The National Conference 'Universal Access to Healthcare: Digital Solutions' in New Delhi concluded with several key suggestions optimizing the use of technology to achieve Universal Health Coverage.

FPJ News Service | **Updated:** Friday, September 06, 2024, 10:37 PM IST

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गांव और दूरदराज के लोगों को कैसे मिल सकता है सस्ता और अच्छा इलाज? एक्सपर्ट्स ने दिए सुझाव

राष्ट्रीय मानवाधिकार आयोग के महासचिव भरत लाल ने कहा, "स्वास्थ्य सेवा एक बुनियादी मानव अधिकार है और अच्छे स्वास्थ्य के बिना, मनुष्य की पूरी क्षमता का एहसास नहीं किया जा सकता है."

Reported by: पल्लवी मिश्रा देश सितंबर 06, 2024 14:00 pm IST

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