



Summary of Kurukshetra

February 2022

Theme: Health

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Ayushman Bharat: Achieving Universal Health Coverage

Introduction

- For achieving the targets of Universal Health Coverage, the Government of India has implemented a flagship public health scheme – ‘Ayushman Bharat’.
- It aims to holistically address the healthcare system-covering prevention, promotion and ambulatory care at all levels - primary, secondary and tertiary.
- Ayushman Bharat has two major components namely:
 - Health and Wellness Centres (HWCs), and
 - Pradhan Mantri Jan Arogya Yojana (PM-JAY)
- Health being a fundamental human right and healthy individuals the foundation of a strong nation, India is committed to ensuring the highest attainable level of health for all its people through the mandate of Universal Health Coverage (UHC).
 - This would also help in meeting the targets of Sustainable Development Goals (SDGs), especially the SDG-3 (Good Health and Well Being).
 - According to the World Health organization (2021), Universal Health Coverage includes the full spectrum of essential quality health services - from health promotion to prevention, treatment, rehabilitation, and palliative care across the life span.
 - It aims at reducing morbidity and mortality by facilitating easy, economical and secure access to good quality health services to the masses.
- It is recommended that Universal Health Coverage (UHC) should particularly focus on:
 - The proportion of population (among the general and the most disadvantaged groups) that can access essential quality health services (SDG 3.8.1)
 - The proportion of population that spends a large amount of household income on health (SDG 3.8.2)



Universal Health Coverage Framework

To meet the SDGs targets, nations across the globe are trying to achieve UHC with a focus on its three major pillars:

- Service Delivery
- Health Financing
- Governance

Since different nations have their own unique health concerns, resource pool and challenges, they need to develop their need- specific framework of action keeping in mind the following aspects:

1. Finance

- Expand financial pool by promoting public-private partnerships and corporate- social responsibility
- Increase domestic resource mobilisation and budget re-allocation at frequent intervals
- Enhance affordability of health services, infrastructure, medicines and related items
- Provide financial protection to each citizen of the country
- Facilitate efficient and judicious time- bound utilisation of financial resources

2. Health Services

- Establish people-centric health services
- Ensure equity and bias-free health service
- Prioritise health services which are of most significance to reducing mortality and morbidity
- Promote partnerships between the civil society (community) with public/private sector so as to enhance access to key preventive, rehabilitative and curative health services
- Invest in pre-service medical and para- medical education
- Engage in multi-sectoral partnerships to address determinants of health

3. Equity

- Target vulnerable populations so to develop and implement health/nutrition programs tailored to their needs
- Expand service delivery for marginalised and vulnerable groups (age, gender, demography, etc.)
- Scale-up safety net approaches including vouchers and conditional cash-transfers which directly or indirectly support good health and well being
- Ensure fulfilment of basic rights especially of women, children and elderly



Reproductive, maternal, newborn and child health

- family planning
- antenatal and delivery care
- full child immunization
- health-seeking behaviour for pneumonia.

Infectious diseases

- tuberculosis treatment
- HIV antiretroviral treatment
- use of insecticide-treated bed nets for malaria prevention
- adequate sanitation.

Non-communicable diseases

- prevention and treatment of raised blood pressure
- prevention and treatment of raised blood glucose
- cervical cancer screening
- tobacco (non-) smoking

Service capacity and access

- **basic hospital access**
- **health worker density**
- **access to essential medicines**
- **health security: compliance with the International Health Regulations**

4. Preparedness

- Prepare and regularly improve National preparedness plans especially for natural disasters
- Promote adherence to the International Health Regulations
- Refer to international framework for monitoring and evaluation of policies and program which are directly or indirectly related to the health sector
- Enhance State level and international collaborations to prepare for and respond to public health emergencies such as epidemics/pandemics

5. Governance

- Establish platforms and processes which facilitate dialogue between various stakeholders (service providers and receivers)
- Ensure workable effective mechanisms for inter-sectoral dialogue and work
- Establish transparent monitoring and reporting on progress towards UHC and make it available on public domains



- Strengthen national institutions and organisations through capacity building
- Ensure that all citizens have access to data and information on UHC

Ayushman Bharat for Universal Health Coverage

- **Health and Wellness Centres (HWCs):**

- The major objective of HWCs would be to provide Comprehensive Primary Health Care (CPHC) closer to the residence/vicinity of the people.
- These centres would particularly aim at providing maternal and child health services along with delivery of health services for major non-communicable diseases.
- In addition, these centres will also provide free essential drugs and diagnostic services.

- **Pradhan Mantri Jan Arogya Yojana (PM-JAY):**

- popularly known PM-JAY, it is the other equally important component of Ayushman Bharat.
- Launched in 2018, it is the largest government funded health assurance scheme in the world which aims at providing a health cover of Rs. 5 lakhs per family per year for secondary and tertiary care hospitalisation to over 10.74 crore poor and vulnerable families
- The key features of PM-JAY, thus, include:
 - It is the world's largest health insurance/assurance scheme fully financed by the government which provides a cover of Rs. 5 lakhs per family per year for secondary and tertiary care hospitalisation across public and the empanelled private hospitals in India.
 - Over 10.74 crore poor and vulnerable entitled families (approximately 50 crore beneficiaries) are eligible for these benefits. There is no restriction on the family size, age or gender.
 - PM-JAY provides cashless access to healthcare services for the beneficiary at the point of service i.e. the hospitals. Thus, it envisions to help mitigate catastrophic expenditure on medical treatment which pushes nearly 6 crore Indians into poverty each year.
 - It covers up to 3 days of pre-hospitalisation and 15 days post-hospitalisation expenses incurred on diagnostics and medicines. All pre-existing conditions are covered from day one.
 - Benefits of the scheme are portable across the country i.e. a beneficiary can visit any empanelled public or private hospital in India to avail cashless treatment.
 - Services include approximately 1,393 procedures covering all the costs related to treatment -



including but not limited to drugs, supplies, diagnostic services, physician's fees, room charges, surgeon charges, OT and ICU charges, etc.

- Public hospitals are reimbursed for the healthcare services at par with the private hospitals.
- Since its inception, Ayushman Bharat has been trying to successfully meet its objectives of ensuring comprehensive coverage for catastrophic illnesses, reduce catastrophic out-of-pocket expenditure, improved access to hospitalisation/health-care, reduce unmet needs, and converging various health insurance schemes across the different states of India.

Yoga for Good Health

- Recognising the global appeal of Yoga, the United Nations on December 11, 2014 by resolution 69/131 proclaimed June 21 as International Yoga Day.
- The practice of Yoga is believed to have started with the very dawn of civilisation.
- It was revealed by Patanjali, a great Indian sage, over 2000 years ago in the classic text known as *Yoga Sutras*. Patanjali defined Yoga as “the cessation of the movements of consciousness.”
- Yoga originated in ancient India. The late B.K.S. Iyengar defined Yoga as ‘meditation in action.’ He started Yoga after suffering various diseases in his childhood.
- India is blessed to have had many inspiring Yoga Gurus including Tirumalai Krishnamacharya, Swami Sivananda Saraswati, Swami Kavalayananda, Paramahansa Yogananda, Maharishi Mahesh Yogi, Swami Rama, Krishna Pattabhi Jois, Sadhguru Jaggi Vasudev, Sri Sri Ravi Shankar and Baba Ramdev.
- From the time the pandemic began, the community of Yoga practitioners has grown manifold. Many people took to Yoga during the pandemic to deal effectively with respiratory problems, obesity, stress, anxiety and overcome depression which
- were common problems during lockdown. As India is now facing the third wave of the pandemic, the relevance of Yoga has increased even more as it is known to boost immunity.
- There are many documented examples of effective healing by Yoga.
 - Yoga and relaxation have been successfully used to check high blood pressure and coronary artery disease.
 - Dr R Nagarathna, from the SVYASA (Swami Vivekanand Yoga Anusandhan Sansthan) in



Bengaluru (Karnataka) has achieved remarkable success in curing hundreds of patients of cardiovascular and chest related problems with the help of yogic *asanas* and *kriyas*.

- She has also healed asthma patients by helping them practice specific *pranayamas* and breathing exercises.
- *Asanas* like *Vrikshasana*, *Tadasana*, *Vajrasana*, *Shashankasana*, *Shavasana*, *Uttan padasana*, *Makarasana* coupled with *pranayama* like *anulom- vilom*, on a regular basis, helps to flush out all the negative thoughts and mental fatigue.
- A study conducted by doctors of AIIMS in 2020 found that yoga can reduce not just migraine but even lower treatment cost of the disease. The study, ‘Effect of Yoga as Add-on Therapy in Migraine’, was published in the online issue of Neurology, the medical journal of the American Academy of Neurology.
- A lesser known fact is that Yoga can also contribute to treatment of epilepsy. Peptic ulcer can be efficiently managed with naturopathy and Yoga, without any side-effects.
- Performing *asanas* can help in improving blood circulation to the digestive organs, which leads to the increase in the recovery.
- *Pranayamas* like *Nadhishuddhi pranayama* (alternate nostril breathing), *Shitali*, *Shitakari* (cooling *pranayamas*) can help to reduce the abdominal burning sensation, pain and enhance the recovery by relieving acute and chronic stress.
- Yoga experts recommend that the concept of yogic diet— “*Ahara*”. It should be therefore merged well with the current set of practices.
- The AYUSH Ministry has been coming up with innovative ways to propagate Yoga. It has launched the ‘Namaste Yoga’ App to help people find Yoga teachers.
 - The App is an information platform for those looking for Yoga centres, events and trainers.
 - The App also provides a platform for Yoga centres and trainers to promote themselves.
 - Certified trainers can register themselves and their business address on the App that is geo tagged to the location. This enables people to find yoga centres or classes in their neighbourhood.
 - Last September, the Union Minister of AYUSH, launched the ‘Yoga break’ App, a mobile app to enable professionals de-stress at workplace.



National Family Health Survey-5

Introduction

- The National Family Health Survey-5 (NFHS-5) provides data on a range of indicators pertaining to health and nutrition, among others, from over 6 lakh sample households.
- The data is disaggregated to the level of districts to enable identification of areas where progress has been made as well as provide direction for future policy action.
- Availability of disaggregated data on a regular basis can enable the development of specific plans for districts that have a disproportionate burden of diseases.

Total Fertility Rate

- Across most states in the country, the Total Fertility Rate (TFR) has declined since NFHS-4. Replacement fertility levels have been achieved in 19 out of 22 States and UTs, with only Manipur (2.2), Meghalaya (2.9) and Bihar (3.0) having a TFR above replacement levels.
- The prevalence rate of contraceptives has also increased considerably in the majority of States/UTs and unmet family planning needs have witnessed a declining trend in many of the States/UTs.
- Further, full immunisation coverage among children between 12-23 months has improved substantially, driven to a great extent by the success of the Government's flagship 'Mission Indradhanush' programme.
- Various indicators pertaining to antenatal care have also progressed in the right direction.
- For instance, the percentage of women receiving the recommended four or more Antenatal Care visits by health providers has improved in many States/ UTs. Similarly, institutional births have increased significantly.

Child Nutrition

- With respect to child nutrition indicators, the progress is mixed.
- This is also to be expected partly because changes in outcome indicators like wasting and stunting often take place over longer periods of time.
- Nevertheless, States/UTs where progress has been slow must intensify efforts to promote both supply



and demand side interventions in the nutrition sector.

- This is also important for mitigating the adverse impact of the COVID-19 pandemic.

Misc.

- The NFHS-5 results have also highlighted some important public health concerns including high blood glucose levels, hypertension, obesity and tobacco use.
- It is estimated that nearly a fourth of all men and women are overweight or obese (BMI > 25.0 kg/m²).
- Additionally, 38 percent of men in the Survey have been reported to be using some kind of tobacco.
- Data illustrates that men are likely to have slightly higher blood glucose levels and hypertension, compared to women.

Curbing household Air Pollution

- The ongoing health situation in the form of the COVID-19 pandemic has exacerbated stress especially for those with pre-existing conditions.
- The presence of co-morbidities is correlated with an increased need for hospitalisation, medical complications as well as higher risk of mortality.
- The World Health Organisation (WHO) identifies chronic respiratory diseases and ischaemic heart diseases as co-morbid conditions that can worsen the impact of COVID.
- It is estimated that there are more than 300 million cases of chronic obstructive pulmonary disease (COPD) in the community worldwide that are more vulnerable to not only catching the infection but also developing a more severe form of COVID-19.
- Extensive research has shown that household air pollution from the widespread use of inefficient cooking fuels produces a range of health-damaging pollutants and is a major contributor to COPD and ischaemic heart diseases.
- Globally, 3.8 million deaths every year can be attributed to household air pollution.
- Data from the Global Burden of Disease Study, 2019 published in the Lancet, suggests that 37 percent of 1.67 million deaths in India in 2019 due to air pollution were attributable to household air pollution.
- Recognising the need to promote the use of clean cooking fuels, the Government of India has



implemented a variety of initiatives that includes providing fiscal relief such as tax credits, subsidies, and other incentives to encourage the growth of alternative energy sources.

- In 2016, the PradhanMantri Ujjwala Yojana (PMUY) was launched to provide LPG connections to the entire nation by 2019.
- The scheme also complemented the Prime Minister's 'Give It Up' campaign which encourages voluntary surrender of the cooking gas subsidy by those who can afford to pay the market price for LPG.
- PMUY achieved its target of providing 8 crore LPG connections to deprived households and enhanced LPG coverage from 62 percent in 2016 to 99.8 percent in 2021.

Conclusion

- Analysis of district-level data from NFHS can pave the way for the development of targeted strategies for further increasing the coverage of clean cooking across the country.
- The implementation of such interventions, in turn, will have a significant impact on checking household air pollution and minimising morbidity as well as mortality due to household air pollution linked diseases

Rural Healthcare Infrastructure

Introduction

- With more than 70 percent of India's population living in rural areas, the importance of rural healthcare facilities cannot be overemphasised.
- The healthcare facilities in rural areas under the National Rural Health Mission (as part of the National Health Mission) have been developed as a three-tier system – Sub-Centres, Primary Health Centres (PHC) and Community Health Centres (CHC).
- As part of Ayushman Bharat, the government is supporting the States for transformation of Sub Health Centres and Primary Health Centres into 1.5 lakh Health and Wellness Centres across the country by December, 2022 for provision of Comprehensive Primary Health Care (CPHC) that includes preventive healthcare and health promotion at the community level with continuum of care approach.



- Under this programme, CPHC services of an expanded range of services that are universal and free to users, with a focus on wellness, are provided to the community.

Health Facility	Norm	Average Rural Population Covered
Sub Centre	300 – 5000	5729
Primary Health Centre (PHC)	20000 – 30000	35730
Community Health Centre (CHC)	80000 – 120000	171779

National Health Mission

- In the 15 years of implementation, the National Health Mission has enabled achievement of the Millennium Development Goals (MDGs) for health.
- Since public health is a State subject, the responsibility of strengthening public healthcare system especially in rural areas, including setting up of new hospitals, dissemination of information regarding COVID-19, upgradation and strengthening of existing health facilities lies with the respective State/UT governments.

Some of the important areas of NHM support are:

- Providing financial support in the form of untied funds, annual maintenance grants and Rogi Kalyan Samiti (RKS) funds for development of health facilities and ensuring services.
- Providing infrastructural support to State/ UTs for constructing new health facilities and/ or for upgradation of infrastructure, Mother and Child Health (MCH) wings, upgradation of the trauma centres and First Referral Units, proper operation of the blood banks, etc.
- Operationalising health facilities in rural areas (through placement of human resources in difficult areas, supply of equipment, drugs and diagnostics).
- In addition, certain new initiatives have been undertaken like
 - the Screening for Non- communicable Diseases (NCDs),
 - Mothers Absolute Affection (to promote exclusive breast feeding),



- Pradhan Mantri Shurakshit Matratva Abhiyan (to improve access to specialist maternal care through voluntary participation of private providers),
- Pradhan Mantri National Dialysis Program, Ayushman Bharat programme (which include Health and Wellness Centres (HWC) and PradhanMantri Jan Arogya Yojana (PMJAY),
- Mission Indradhanush (to immunise partially or uncovered population),
- Rashtriya Swasthya Bal Karyakram (RBSK), Kayakalp (to promote cleanliness, hygiene and infection control practices in public healthcare facilities),
- Labour room quality improvement initiative- LaQshya (Initiative to reduce preventable maternal and new-born mortality, morbidity and still births associated with the care around delivery in Labour room and Maternity OT and ensure respectful maternity care),
- Surakshit Matritva Aashwasan (SUMAN) (to end all preventable maternal and neonatal deaths), etc.

ASHA Workers

- One of the key components of the National Rural Health Mission is to provide every village in the country with a trained female communityhealth activist – ASHA (Accredited Social Health Activist).
- The ASHA worker acts as the interface between the community and the public health system in rural India, and is empowered with knowledge and a drug-kit to deliver first-contact healthcare, ASHA workers are the fountainhead of community participation in public healthprogrammes in villages.
- As per as NHM-MIS report, the total number of ASHAs under National Health Mission (NHM) stand at 10.7 lakh.
- A cash award of Rs. 20,000 and a citation is given to ASHAs who leave the programme after working for minimum of 10 years, as acknowledgement of their contribution.

Maternal and Child Health

Introduction

- Poor maternal nutrition in India is caused by a combination of variables such as early and repeated pregnancies, poverty, caste discrimination, and gender inequality, as described in the Global Burden of Disease Study (2017).
- The World Health Organization (WHO) recommends 49 interventions for Antenatal care (ANC), 14 of



which are dietary interventions. India's national standards are based on global recommendations for key nutrition treatments for pregnant women, including better diets.

- POSHAN Abhiyaan – India's flagship National Nutrition Mission – aims to enhance maternal nutrition by employing technology, behavior change communication, community engagement, and cross-sectoral convergence.
- In India, there are a variety of programs and policies in place to improve maternal diets, including take-home rations and hot cooked meals for pregnant and lactating women, micronutrient supplements, food fortification, and delivery of subsidised staples through the Public Distribution System, cash transfers, nutrition-sensitive agriculture, diet education and counseling.
- In India, schemes for maternal and child health are mostly implemented through the flagship programmes of two ministries:
 - The Ministry of Women and Child Development's Integrated Child Development Services (ICDS) programme provides micronutrient-fortified supplementary food and/or energy-dense take-home meals for pregnant women and mothers who are breast-feeding.
 - The Ministry of Health and Family Welfare provides micronutrient supplements (IFA and monitoring, and nutrition advice to pregnant women as part of their antenatal care.

Year	Policies and Programs Catering to Maternal and Child Health
1975	Integrated Child Health Services Program – includes provisions of nutritious meals, preschool education, primary healthcare, immunisation and healthcare to children under 6 years of age and their mothers.
1993	National Nutrition Policy – includes nutrition specific and sensitive interventions.
2005	National Health Rural Mission – provides accessible, affordable and quality healthcare including nutrition to rural population, especially vulnerable groups.
2007	National Food Security Mission – includes increased production of rice, wheat and pulses through area expansion, productivity enhancement, restoring soil fertility, enhancing farm level economy.



2013	National Urban Health Mission – provides healthcare needs including nutrition to the urban population with a focus on urban –poor.
2013	National Food Security Act – provides subsidised food grains to approximately two thirds of the country's 1.2 billion people.
2017	Pradhan Mantri Matru Vandana Yojana – is a maternity cash incentive scheme to provide conditions for safe delivery and nutrition practices.
2018	POSHAN Abhiyaan – India's flagship program to improve nutrition through inter sectoral convergence – technology and community mobilisation. <i>Anemia Mukht Bharat</i> strategy launched.
2020	POSHAN 2.0 – POSHAN Abhiyaan was merged with existing supplementary nutrition program. Region specific diet charts were introduced for pregnant women by National Institute of Nutrition.

The Integrated Child Development Services

- ICDS scheme is one of a number of programs being implemented by the Government of India to enhance the nutritional status of children in the country.
- The programme is aimed towards children under the age of six, as well as pregnant and breastfeeding women.
- Take-Home Rations (THR) comprising micronutrient fortified blended food and/or energy dense food are supplied to children aged 0-6 years as well as pregnant and lactating women for consumption at home under the scheme.
- THR is provided with the goal of bridging the nutrition gap and improving infant and young child feeding (IYCF) practices.



Pradhan Mantri Matru Vandana Yojana

- As a part of the National Food Security Act of 2013, the Maternity Benefit Program has been implemented in all regions of the country starting January 1, 2017 titled as Pradhan Mantri Matru Vandana Yojana (PMMVY). This scheme is covered under the ICDS umbrella.
- Special features of PMMVY are as follows:
 - The beneficiary can only apply for the plan if the scheme eligibility standards are met within 730 days of the recipient's last menstrual period (LMP).
 - The Date of Pregnancy to be considered will be the LMP indicated in the MCP Card. In circumstances where the LMP date is not recorded in the MCP Card, such as when a beneficiary is submitting a claim for the third instalment under the plan, the claim must be presented within 460 days after the child's birth date, beyond which no claim will be considered.
 - After institutional delivery, the eligible beneficiaries would receive the remaining cash incentive as per approved norms towards the Maternity Benefit under Janani Suraksha Yojana (JSY) by the Health Department on an annual basis.
 - Pregnant Women and Lactating Mothers (PW&LM) shall receive a cash benefit of Rs. 5,000 in three instalments.

Janani Suraksha Yojana

- The National Rural Health Mission's Janani Suraksha Yojana (JSY) is a safe motherhood intervention.
- It is being adopted with the goal of lowering maternal and infant mortality by encouraging pregnant women to give birth in a hospital.
- The system is being implemented in all states and Union Territories (UTs), with a special focus on states that are under performing (LPS).
- States were classified as Low Performing States (LPS) or High Performing States (HPS) based on their institutional delivery rate.
- States with an institutional delivery rate of 25 percent or less were classified as LPS, while those with an institutional delivery rate of more than 25 percent were classified as HPS. JSY aims to reduce maternal and infant mortality by promoting institutional delivery among pregnant women.
- The programme also offers performance-based incentives to ASHA (Accredited Social Health Activist)



who promote institutional delivery among pregnant women.

- Eligible pregnant women can get JSY benefits straight into their bank accounts under this initiative.

Category	Rural Area		Urban Area	
	Mother's package	ASHA's package*	Mother's package	ASHA's package**
LPS	1400	600	1000	200
HPS	700	200	600	200

In both LPS and HPS, BPL/SC/ST women are entitled for cash assistance in accredited private institutions

***ASHA package of Rs. 600 in rural areas include Rs. 300 for ANC component and Rs. 300 for facilitating institutional delivery**

****ASHA package of Rs. 400 in urban areas include Rs. 200 for ANC component and Rs. 200 for facilitating institutional delivery**

Pradhan Mantri Surakshit Matritva Abhiyan – Janani Shishu Suraksha Karyakram

- The Janani-Shishu Suraksha Karyakram (JSSK) was established with the goal of eliminating out-of-pocket payments for pregnant women and unwell newborns seeking treatment at a public health facility and was launched in June 2011.
- Pregnant women in their second and third trimesters are provided with a minimum package of antenatal care services at Government health facilities (PHCs/CHCs, DHs/urban health facilities, etc.) in both urban and rural areas as part of the campaign.

Entitlements for Pregnant Women under JSSK Entitlements for Sick Infants under JSSK till One Year After Birth

Free Delivery and Caesarean Section

Free treatment

Free Drugs and Consumables

Free Drugs and Consumables



Free Essential Diagnostics (Blood, Urine tests and Ultra sonography, etc.)

Free Provision of Blood

Free Transport from Home to Health institutions

Free Transport between facilities in case of referral

Exemption from all kinds of User Charges

Free Diet during stay in the health institutions (up to 3 days for normal delivery and 7 days for caesarean section)

Free Essential Diagnostics

Free Provision of Blood

Free Transport from Home to Health institutions

Free Transport between facilities in case of referral

Exemption from all kinds of User Charges

Rashtriya Bal Swasthya Karyakram

- The Rashtriya Bal Swasthya Karyakram (RBSK) is a significant effort aimed at early detection and intervention for children aged newborn to 18 years, covering the four 'D's: Birth Defects, Deficiencies, Diseases, and Developmental Delays including Disability

What can India do to improve the nutrition and wellbeing of mothers and children in our society?

- Policy Strengthening
- Address Logistic Challenges
- Improve Education, Research and their Dissemination

e-Health Services and Technology Interventions

Introduction

- e-Health can be described as the delivery of healthcare services using electronic information and communication technologies.



- e-health services are provided in a setting where healthcare providers and patients are not directly in contact, and the interaction is mediated through electronic means.
- It consists of different electronic health data exchange such as:
 - **Telemedicine:** Telemedicine also referred to as telehealth, can be described as the remote delivery of healthcare services including medical examinations and consultations using telecommunication services. It provides healthcare providers the opportunity to evaluate and treat patients without being physically present.
 - **mHealth** (mobile health): mHealth refers to the practice of medicine and welfare using mobile smart devices.
 - **Electronic Health Records (EHR):** EHR is a systemised collection of patient history stored electronically that can be accessed across multiple formats.
 - **Wearable Sensors:** Wearable sensors refer to the health monitors which help in tracking an individual's body functions like heart rate, sleep quality, oxygen levels, etc.

The World Health Organisation defines three key areas of e-Health as:

- Delivery of health information and records, for both the professionals as well as the consumers
- Using the power of information technology and e-commerce platforms to improve the public health infrastructure.
- Use of e-commerce and e-business practices in health management systems.

Digital health or e-health advantages:

- **Efficiency:** Using modern technology within healthcare enables professionals to reduce inefficiency, save time and accurately diagnose and treat diseases.
- **Reduction in cost:** More efficient treatments lead to reduction in cost. One potential way is by dodging duplicative assessment through improved communications between healthcare providers and electronic medical records.
- **Empowerment:** e-Health services enable both the consumers and healthcare providers to feel more empowered by making available the knowledge base of medical data and health records over the internet.



- **Better relations:** e-Health services can enable better relations between the patient and the expert since it provides clear and easier channels of communication.
- **Equity:** e-Health is a great concept for reducing the gap between the haves and the have nots. It enables equitable healthcare access irrespective of age, race, gender, ethnicity, geography, etc. Digital health also enables access of better healthcare facilities to remote locations.
- **Education:** e-Health services are beneficial for educating healthcare professionals of any medical advancements. These services can also be beneficial for consumers to educate themselves about personalised preventive healthcare.
- **Faster decision making:** With the advent of decision-making software and increased automation, decision making in medical situations have become much faster and more efficient.

Some major trends in digital health in the post COVID-19 world are:

- **Smartphones:** With the increasing number of smartphones consumers, these devices can be used to effectively operate digital technology to support healthcare facilities, address the growing health concerns and support the use of m-health services.
- **Big Data:** Big data is expected to be a game changer in this space by providing lower rate of medication errors.
- **Virtual Reality:** Virtual Reality has already started making its mark in the digital health world by providing support in treating anxiety, post-traumatic stress and stroke, among others. Virtual Reality is stated to play a major role in complicated surgeries.
- **Wearables:** In the age of smart watches, fitness bands, sugar monitors etc, wearables are playing an important role in making patients aware of the likelihood of a health emergency. With wearables tracking heart rate, exercise levels, sleep quality etc, these can play a key role in providing up to date monitoring of high-risk patients.
- **Artificial Intelligence (AI):** The power of artificial intelligence can be seen in areas such as precision medicine, medical imaging, drug discovery and genomics. Additionally, the use of chatbots and virtual assistants shall see a sharp increase in the times to come.
- **Blockchain:** Blockchain technology has already been deployed to create digital versions of medical charts.



Digitising Health services in India

- The first aspect of digitising health services in India is the Interoperable Electronic Health Records (EHRs).
 - EHRs are an online repository of medical records of citizens that facilitate continuity among different healthcare providers, ensure affordability of service, and promote a better decision support system.
- Furthermore, a Hospital Information System (HIS) is being implemented for computerised registration and capturing of patients' EHRs. The HIS improves efficiency and leads to better delivery of services to patients.
- The MoHFW has also implemented a framework for the National Health Stack (NHS) that has recommended a National Digital Health Blueprint.
 - The blueprint details a pathway for the holistic adoption of digital technologies based on global best practices.
 - Key features of the blueprint include a Federated Architecture, a set of architectural principles, a 5-layered system of architectural building blocks, Unique Health ID (UHID), privacy and consent management, national portability, EHR, applicable standards and regulations, health analytics and above all, multiple access channels like call centre, Digital Health India portal and MyHealth App.
- Indeed, India's experience with the tremendously successful AarogyaSetu app is a testament to the growing public ease with health services.
- Telemedicine is a key component of digital healthcare especially as telephone (and smart phone) subscribers in India are growing at a rapid pace.
 - More Indians have easier access to healthcare facilities on the phone than in person.
 - The COVID-19 pandemic also enhanced the adoption of telemedicine as country-wide lockdowns made access to non-Covid patients difficult.
 - A survey by Indian health-tech company Practo revealed that India witnessed a 67 percent decline in in-person doctor visits and a 500 percent growth in online medical consultations just between 1 March 2020 and 31 May 2020.



Conclusion

- The pandemic has presented our country with a myriad of opportunities towards boosting technological advancements in the healthcare sector.
- India's advancements in this sector with a strong push from the government has proven well to the country's advancements.
- Given India's vast diversity and population size the sector presents tremendous opportunities and scope in the future.
- Extending the idea of the age old saying of 'Health is Wealth', we can safely say that new technology will be a great investment in Indian healthcare system.