WELCOME

- INNOVATIVE & SUSTAINABLE HEALTH CARE MANAGEMENT/ SERVICES IN RURAL AREAS

- BY

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- FESTIVAL GREETINGS TO ALL
• Definition
• In earlier years
• Present scenario
• PPP - Public Private Partnership
• Role of NGOs
• Way forward
• Group working
Definition

Healthcare management, also referred to as healthcare administration, is the administration, management or oversight of healthcare systems, public health systems, hospitals, entire hospital networks or other medical facilities. There are general healthcare managers and those who are considered specialists.
Importance of Health Care

- Health sector is the lifeline for a nation's wellbeing.
- It is the sum total of the health of its citizens, communities and settlements in which they live.
The Constitution of India divides health-related responsibilities between the central and the state governments.

While the Central government maintains responsibility for medical research and technical education, state governments shoulder the responsibility for infrastructure, employment, and service delivery.
Health Care in 60s (earlier years)

- I come from AMALAPURAM, Eg Dt.
- 1962 - I have joined in AMC Visakhapatnam.
- Graduated in 1968 / 1969 Internship
- 50 bedded Government Hospital – 3 or 4 doctors.
- About 6-10 Private Practitioners.
- Minimal Transport / communication facilities.
- We have no Railway Station. Nearest is Rajahmundry. Need to cross Godavari.
- Some RMPs and PMPs are there.
NOW

- 100 BEDDED Area Hospital – 10 or more doctors working – specialists
- 50 or more Private practitioners
- 40 Nursing Homes
- MEDICAL COLLEGE / HOSPITAL - 2004
- Near by PHCs
- 108 / Ambulance facility
- Better Communication system
Health care structure

1. Based on Ownership

- The Public sector: run by central government and state governments like government hospitals (GH), dispensaries, clinics, primary health care centers (PHC) and sub-centers, and paramedics;

- The not-for-profit sector run by charitable institutions, missions, churches, trusts and other voluntary organizations (VHS)

- The organized private sector, including general practitioners (having at least a bachelor's degree or equivalent in medicine), private hospitals and small private hospitals (popularly known as nursing homes), registered medical practitioners, dispensaries and other licensed practitioners;

- The private informal sector, including practitioners not having any formal qualifications (e.g., faith healers, herbalists, priests, tantriks, hakims, and vaidyas)
2. Based on the Systems of medicine
- Allopathic,
- homeopathic,
- Ayurvedic
- Unani
- Other traditional and indigenous systems; and

3. Types of organization
- Multi Specialty hospitals,
- Hospitals
- Dispensaries,
- Clinics
- Others

These dimensions are interdependent and overlapping in nature.
First Hospital

- **Government General Hospital**, officially named Rajiv Gandhi Government General Hospital (RGGGH), is a major state-owned hospital situated in Chennai, India.
- The hospital with 3,000 beds is funded and managed by the state government of Tamil Nadu. **Founded in 1664** by the British East India Company, it is the first medical institution in India.
- In the 19th century, the Madras Medical College joined it.
ACCESS TO HEALTH CARE

- There are 1.4 million doctors in India. Yet, India has failed to reach its Millennium Development Goals related to health.
- The definition of 'access is the ability to receive services of a certain quality at a specific cost and convenience.
- The healthcare system of India is lacking in three factors related to access to healthcare: provision, utilization, and attainment.
- Provision, or the supply of healthcare facilities, can lead to utilization, and finally attainment of good health.
- However, there currently exists a huge gap between these factors, leading to a collapsed system with insufficient access to healthcare.
Differential distributions of services, power, and resources have resulted in inequalities in healthcare access.

Access and entry into hospitals depends on gender, **socioeconomic status**, education, wealth, and location of residence (urban versus rural).

Furthermore, inequalities in financing healthcare and distance from healthcare facilities are barriers to access.

Additionally, there is a lack of sufficient **infrastructure** in areas with high concentrations of poor individuals.

Large numbers of **tribes** and ex-untouchables that live in isolated and dispersed areas often have low numbers of professionals.

Finally, health services may have long wait times or consider ailments as not serious enough to treat. Those with the greatest need often do not have access to healthcare.
NATIONAL HEALTH POLICY

- The National Health Policy was endorsed by the Parliament of India in 1983 and updated in 2002, and then again updated in 2017.
- The recent four main updates in 2017 mentions the need to focus on the growing burden of non-communicable diseases, on the emergence of the robust healthcare industry, on growing incidences of unsustainable expenditure due to health care costs and on rising economic growth enabling enhanced fiscal capacity.
- In practice however, the private healthcare sector is responsible for the majority of healthcare in India, and most healthcare expenses are paid directly out of pocket by patients and their families, rather than through health insurance.
• Government health policy has thus far largely encouraged private sector expansion in conjunction with well-designed but limited public health programmes.

• A government funded health insurance project was launched in 2018 by the Government of India, called Ayushman Bharat.

• According to the World Bank, the total expenditure on health care as a proportion of GDP in 2015 was 3.89%.

• Out of 3.89%, the governmental health expenditure as a proportion of GDP is just 1%, and the out-of-pocket expenditure as a proportion of the current health expenditure was 65.06% in 2015.
The Government of India, while unveiling the National Health Portal, has come out with guidelines for Electronic health record standards in India.

The document recommends a set of standards to be followed by different healthcare service providers in India, so that medical data becomes portable and easily transferable.

India is considering to set up a National eHealth Authority (NeHA) for standardization, storage and exchange of electronic health records of patients as part of the government's Digital India programme.

The authority, to be set up by an Act of Parliament will work on the integration of multiple health IT systems in a way that ensures security, confidentiality and privacy of patient data.

A centralized electronic health record repository of all citizens which is the ultimate goal of the authority will ensure that the health history and status of all patients would always be available to all health institutions.

Union Health Ministry has circulated a concept note for the setting up of NeHa, inviting comments from stakeholders.
Challenges in Rural Areas

- Rural areas in India have a shortage of medical professionals.
- 74% of doctors are in urban areas that serve the other 28% of the population. This is a major issue for rural access to healthcare.
- The lack of human resources causes citizens to resort to fraudulent or ignorant providers.
- Doctors tend not to work in rural areas due to insufficient housing, healthcare, education for children, drinking water, electricity, roads and transportation.
- Additionally, there exists a shortage of infrastructure for health services in rural areas.
- In fact, urban public hospitals have twice as many beds as rural hospitals, which are lacking in supplies.
• Studies have indicated that the mortality risks before the age of five are greater for children living in certain rural areas compared to urban communities.
• Full immunization coverage also varies between rural and urban India, with 39% completely immunized in rural communities and 58% in urban areas across India.
• Inequalities in healthcare can result from factors such as socioeconomic status and caste, with caste serving as a social determinant of healthcare in India.
Some problems IN RURAL AREAS

- Reaching the location, transportation.
- Facilities.
- Lack of doctors.
- Lack of money to pay for treatment, medicines.
- Lack of education about sanitary practices, low hygiene - like spitting wherever they feel like and cough loudly without covering their mouths thereby spreading the diseases.
Some challenges

- Inaccessibility - Inability to reach services to all corners of the rural hinterland.
- Some of our villages are situated at remote locations that not many doctors are willing to go to.
- Superstitions - People tend to trust mystics and astrologers more than doctors with their strange contraptions. Especially with chronic ailments.
- Workforce - In spite of having such a large unemployed population, we are unable to provide enough health workers.
- Most village clinics have a single doctor, with a lot of stress on him/her.
- Pay Returns - There are not too many service...
Initiatives to improve access

- The government of India has a Twelfth Plan to expand the National Rural Health Mission to the entire country, known as the National Health Mission.

- Community based health insurance can assist in providing services to areas with disadvantaged populations.
PPP

- PUBLIC PRIVATE PARTNERSHIP
WHY PPP IS IMPORTANT

Government

Helps to bridge the financial gap by stimulating private sector.

- Improve efficiency and service delivery to users and gain access to new expertise and technology.

- Reduce annual cost of infrastructure to government service
• Private- - Investment would increase the quality of service and reduce the time to implement.

• Opportunity for competition and innovation among private investors.

• No regulatory or legislative restrictions in taking private investment in the delivery of public
Public-private partnership

- One initiative adapted by governments of many states in India to improve access to healthcare entails a combination of public and private sectors.
- The Public-Private Partnership Initiative (PPP) was created in the hopes of reaching the health-related Millennium Development Goals.
- It consists of three separate projects with different focuses:
  - Fair Price shops which aim to reduce the costs of medications and treatment options;
  - Rashtriya Swasthya Bima Yojana which reimburses those under the poverty line; and
  - National Rural Telemedicine Network which assists with non-medical costs.
- This initiative was analyzed in the states of Maharashtra and West Bengal.
The largest segment of the PPP initiative is the tax-financed program, **Rashtriya Swasthya Bima Yojana** (RSBY).

The scheme is financed 75% by the central government and 25% by the state government.

This program aims to reduce medical out-of-pocket costs for hospital treatment and visits by reimbursing those that live below the **poverty line**.

RSBY covers maximum 30,000 **rupees** in hospital expenses, including **pre-existing conditions** for up to five members in a family.

In 2015, it reached 37 million households consisting of 129 million people below the poverty line. However, a family has to pay 30 rupees to register in the program. Once deemed eligible, family members receive a yellow card.

Those in the outskirts of villages tend to use the service less than those who live in the center of villages.

RSBY has been applied in 25 states of India.
**TELE MEDICINE**

- The National Rural Telemedicine Network connects many healthcare institutions together so doctors and physicians can provide their input into diagnosis and consultations.
- This reduces the non-medical cost of transportation as patients do not have to travel far to get specific doctor's or specialty's opinions.
- The results of the PPP in the states of Maharashtra and West Bengal show that all three of these programs are effective when used in combination.
- They assist in filling the gap between outreach and affordability in India.
- However, even with these programs, high out-of-pocket payments for non-medical expenses are still deterring people from healthcare access.
- Scholars state that these programs need to be expanded across India.
To counteract the issue of a lack of professionals in rural areas, the government of India wants to create a 'cadre' of rural doctors through governmental organizations.

The National Rural Health Mission (NRHM) was launched in April 2005 by the Government of India.

The goal of the NRHM is to provide effective healthcare to rural people with a focus on 18 states with poor public health indicators and/or weak infrastructure.

NRHM has 18,000 ambulances and a workforce of 900,000 community health volunteers and 178,000 paid staff. The mission proposes creating a course for medical students that is centered around rural healthcare. Furthermore, NRHM wants to create a compulsory rural service for younger doctors in the hopes that they will remain in rural areas.

However, the NRHM has failings. For example, even with the mission, most construction of health related infrastructure occurs in urban cities.

Rajiv Aarogyasri Community Health Insurance Scheme in Andhra Pradesh, India have also been implemented by state governments to assist rural populations in healthcare accessibility, but the success of these programs (without other supplemental interventions at the health system level) has been limited.
National Urban Health Mission

- The National Urban Health Mission as a sub-mission of National Health Mission was approved by the cabinet on 1 May 2013.
- The National Urban Health Mission (NUHM) works in 779 cities and towns with populations of 50,000 each.
- As urban health professionals are often specialized, current urban healthcare consists of secondary and tertiary, but not primary care.
- Thus, the mission focuses on expanding primary health services to the urban poor.
- The initiative recognizes that urban healthcare is lacking due to overpopulation, exclusion of populations, lack of information on health and economic ability, and unorganized health services.
- NUHM has appointed three tiers that need improvement: Community level (including outreach programs), Urban Health Center level (including infrastructure and improving existing health systems), and Secondary/Tertiary level (Public-Private Partnerships). Furthermore, the initiative aims to have one Urban Public Health Center for each population of 50,000 and aims to fix current facilities and create new ones. It plans for small municipal governments to take responsibility for planning healthcare facilities that are prioritized towards the urban poor, including unregistered slums and other groups.
- Additionally, NUHM aims to improve sanitation and drinking water, improve community outreach programs to further access, reduce out-of-pocket expenses for treatment, and initiate monthly health and nutrition days to improve community health.
Pradhan Mantri Jan Arogya Yojana (PM-JAY)

- Pradhan Mantri Jan Arogya Yojana (PM-JE) is a leading initiative of Prime Minister Modi to ensure health coverage for the poor and weaker population in India.
- This initiative is part of the government's view to ensure that its citizens – particularly poor and weaker groups, have access to healthcare and good quality hospital services without facing financial difficulty.
- PM-JAY Provides insurance cover up to Rs 5 lakh per annum to the 100 million families in India for secondary and tertiary hospitalization.
- For transparency, the government made an online portal (Mera PmJay) to check eligibility for PMJAY.
- Health care service includes follow-up care, daycare surgeries, pre and post hospitalization, hospitalization expenses, expense benefits and newborn child/children services.
- The comprehensive list of services is available on the website
MEDICAL TOURISM

- **Medical tourism** is a growing sector in **India**. In October 2015, India's medical tourism sector was estimated to be worth US$3 billion. It is projected to grow at a CAGR of 200% by 2020, hitting $9 billion by 2020.

- In 2017, 495,056 patients visited India to seek medical care. The top 10 source countries for patients were **Bangladesh, Afghanistan, Iraq, Maldives, Oman, Yemen, Uzbekistan, Kenya, Nigeria** and **Tanzania**

- To encourage applications and ease the travel process for medical tourists, the government has expanded its e-tourism VISA regime on February 2019, to include medical visas. The maximum duration of stay under this visa is 6 months.

- The promotion of Medical Tourism in India has helped private players capitalize on this market opportunity.

- Private institutions and organisations such as **Max Healthcare** and Health Travellers Worldwide have consulted and treated up to 50,000 foreign patients in hospitals across the country.

- Industrialist **Sanjay Dalmia**'s healthcare company Dalmia Healthcare on 2018, declared medical treatment consultation to international patients.
Advantages

Advantages of medical treatment in India include reduced costs, the availability of latest medical technologies and a growing compliance on international quality standards, doctors trained in western countries including the United States and the United Kingdom, as well as English-speaking personnel, due to which foreigners are less likely to face language barrier in India.

Cost
Most estimates found that treatment costs in India start at around one-tenth of the price of comparable treatment in the United States or the United Kingdom.[1]

The most popular treatments sought in India by medical tourists are alternative medicine, bone-marrow transplant, cardiac bypass, eye surgery, and hip replacement.

Quality of care
India has 39 JCI accredited hospitals. However, for a patient traveling to India, it is important to find the optimal doctor-hospital combination.

After the patient has been treated, the patient has the option of either recuperating in the hospital or at a paid accommodation nearby.
Many hospitals also give the option of continuing the treatment through telemedicine.
• **Ease of travel**
  - The government has removed visa restrictions on tourist visas that required a two-month gap between consecutive visits for people from Gulf countries which is likely to boost medical tourism.
  - A visa-on-arrival scheme for tourists from select countries has been instituted which allows foreign nationals to stay in India for 30 days for medical reasons.
  - In 2016, citizens of Bangladesh, Afghanistan, Maldives, Republic of Korea and Nigeria availed the most medical visas.

• **Language**
  - Despite India's diversity of languages, English is an official language and is widely spoken by most people and almost universally by medical professionals.
  - In Noida, a number of hospitals have hired language translators to make patients from Balkan and African countries feel more comfortable while at the same time helping in the facilitation of their treatment.\[19\]
  - A large number of medical tourism companies are facilitating foreigners, especially patients from Arabic-, Russian-, English-, and Bangla-speaking countries.
The city of Chennai has been termed "India's health capital"

Multi- and super-specialty hospitals across the city bring in an estimated 150 international patients every day.

Chennai attracts about 45 percent of health tourists from abroad arriving in the country and 30 to 40 percent of domestic health tourists.[1]

Factors behind the tourists inflow in the city include low costs, little to no waiting period, and facilities offered at the specialty hospitals in the city.

The city has an estimated 12,500 hospital beds, of which only half is used by the city's population with the rest being shared by patients from other states of the country and foreigners.[2]

Dental clinics have attracted dental care tourism to Chennai
• HEALTH INSURANCE SCHEMES BY VARIOUS COMPANIES
ROLE OF NGOs

- 1. Support the Govt Programmes
- 2. Patient friendly
- 3. Health Education and Motivation - Running Free clinics / Health Camps
- 4. Support to the needy.

Ex of Voluntary Organizations like IMA
- TB Association of AP
- Lions Clubs / Rotary Clubs
- Walkers Clubs
Top 13 Healthcare Technology Innovations

- Payer-Provider Analytics/Data software.
- Artificial Intelligence.
- Blockchain for Healthcare.
- Internet of Medical Things (IoMT).
- Update from 2017 – Tricorder XPrize.
- Breast Cancer Drug – Abemaciclib.
- Patient Engagement.
- Centralized Monitoring of Hospital Patients.
- LDL Cholesterol Drugs
- Gene Therapy for Inherited Retinal Diseases
- Hybrid Closed-Loop Insulin Delivery System
- Non-Invasive Diabetes Monitoring
- 5G Mobile Technology
It all boils down to high-quality data, and who has it.

An example of how this is used in a care coordinator’s workflow is when a patient is about to be transferred to a specialist after an initial screening at a PCP or insurance company.

The coordinator at the point of care has full visibility to their referral network, provider affiliations (in-network status), accepted insurances, proximity to the patient, experience of the doctor, and even ranks the specialist on a quantitative score from 1 to 100.
2. Artificial Intelligence

- While promising, **AI** is still in its infancy, but holds promise for patients today that wish to schedule doctor appointments based on the severity of the symptoms, minimize staffing challenges, monitor the health status and notifying a human nurse immediately if the parameters are out of control, helping homecare assistants stay informed about patients’ evolution.

- Eg: The company, [Kore.ai](https://kore.ai) offers smart bots for healthcare facilities.

- The digital assistant can connect patients to the right contacts directly, give appointment details or make any changes. It lets the patients easily refill prescriptions or pay bills.

- It delivers lab, test or procedure outcomes or recommended next steps.
3. Blockchain for Healthcare

- Effectively a blockchain is a kind of independent, transparent, and permanent database coexisting in multiple locations and shared by a community.
- This is why it’s sometimes referred to as a mutual distributed ledger (MDL) versus a single client-server database like your standard website where one owner controls the access credentials.
- The end goal would be a decentralized record system using blockchain independent of EMR’s controlling the data.
- But as we know this will not happen until a government mandate or EMRs opening up their data silos.
4. **Internet of Medical Things (IoMT)**

- Internet of Medical Things, or Healthcare IoT, refers to a connected infrastructure of medical devices and software applications that can communicate with various healthcare IT systems.

- As an example, this can be thought of as simple as someone who wears a FitBit to track his or her steps; that step count is tabulated on an iPhone via Bluetooth technology, and then that data can be shared with a physician to provide feedback via Wi-Fi connection and automated reporting data, and it can also send that data to your closest friends and family.
5. Update from 2017 – Tricorder XPrize

- As you may have read from our previous ReferralMD Healthcare Article, Final Frontier Medical Devices was awarded $2.5M from Qualcomm to continue improving their device and bring it to market.
Eli Lilly’s breast cancer drug Abemaciclib is all set to hit the market very soon. It belongs to CDK4/6 inhibitors which have been shown to have the most positive effect on metastatic breast cancer, specifically in HER2+ breast cancers.

Abemaciclib is armed with certain advantages over its rivals — Pfizer’s Ibrance and Novartis’ Kisqali — as it can be dosed continuously.

The clinical studies results have put Abemaciclib roughly on par with its competitors in the first-line setting.
7. Patient Engagement

- The **global patient engagement solutions market** is expected to grow at a compound annual growth rate of 16.2% over the next five years, reaching $18.7 billion in 2022, according to MarketsandMarkets.

- Driving the growth is an aging population, the increasing burden of chronic diseases and a push to get patients to assume more responsibility for managing their care.

- While patient engagement tools can **enhance communication** and help to improve outcomes while reducing costs, barriers such as patient data security and lack of interoperability persist and could prevent the market from reaching its full potential, the report says.
Patient Engagement

1. Establish Vision
2. Create Culture of Engagement
3. Employ the Right Technology
4. Empower Patients
5. Be Ready to Evolve
8. Centralized Monitoring of Hospital Patients

- Centralized monitoring provides off-site monitoring of patients by technicians to give patients and clinicians the second set of eyes while providing better care from a distance.
- Technicians communicate directly with the caregivers on-site.
- Using sensors and high-definition cameras, clinicians can monitor blood pressure, heart, respiratory rates, pulse oximetry and more easily.
- An alert is generated that alerts caregivers on-site that help is needed.
- A recent study that evaluated the system reported a 93% survival rate of cardiopulmonary arrests using the systems.
9. LDL Cholesterol Drugs

- There is a new class of LDL cholesterol-lowering drugs that are expected to be disruptors in the next year.
- The new drugs are expected to lower cholesterol to unprecedented levels.
- When taken with a Statin cholesterol-lowering drug, the new class of drugs is expected to lower cholesterol levels by 75%.
- The small interfering RNA therapy to lower LDL was also an innovation in 2017.
- They are given twice a year instead of monthly or weekly like other treatments.
11. Hybrid Closed-Loop Insulin Delivery System

- The most anticipated healthcare technology disruptor will be the hybrid closed-loop insulin delivery system, better known as an artificial pancreas.
- It is the next step in creating a fully-automated delivery system.
- In 2016, the FDA approved the first hybrid closed-loop insulin delivery system.
- The system is designed to help manage Type 1 diabetes. It is a fully automated insulin delivery system that connects a continuous glucose monitor with an insulin pump, eliminating the need for people with diabetes having to test and manage their insulin levels themselves.
- Studies have shown that the system steadies blood glucose levels and has even dropped A1C levels by a half percent.
12. Non-Invasive Diabetes Monitoring

- Apple is reportedly working on a “super-secret” medical project: building sensors to monitor blood sugar levels without piercing the skin and has hired a small team of biomedical engineers to work at a nondescript office in Palo Alto, California, miles from corporate headquarters.

- They are part of a super-secret initiative, initially envisioned by the late Apple co-founder Steve Jobs, to develop sensors that can noninvasively and continuously monitor blood sugar levels to better treat diabetes, according to three people familiar with the matter.

- “So if we can provide them with better information to make better decisions on managing their diabetes, I think we can get some of these better outcomes that are going to ultimately reduce the cost of managing diabetes.”
13. 5G Mobile Technology

- Fast communication and healthcare are not usually mentioned in the same sentence, but as wireless technology gets better, we are starting to see how the Internet of Medical Things (IoMT) will greatly improve patient lives.
• 5G enhanced Mobile BroadBand (eMBB) could save you a trip to the doctor.

• If you don’t like visiting your doctor, that’s fine, because soon your doctor may visit you.

• 5G is expected to usher in a new age of greatly enhanced eMBB data rates and hyper-connectivity, which will allow doctors to study and analyze numerous patient medical data feeds simultaneously and provide personalized treatment for patients.
Gene Therapy for Inherited Retinal Diseases

- Gene therapy for inherited retinal diseases is expected to receive a number of FDA approvals.
- Currently, there are no known treatments for the rare diseases, but the growing research of specific genetic etiology may soon restore vision loss in patients.
• SMART WATCHES

• 99 DOTS in RNCTP
SUM UP / WAY FORWARD

- Need for New Innovations
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Best Of Luck
GROUP ACTIVITY