IIHMR UNIVERSITY

SUMMER INTERNSHIP AT NATIONAL HEALTH MISSION – STATE INSTITUTE OF HEALTH AND FAMILY WELFARE, GOVERNMENT OF KARNATAKA

Transforming Health through Digitization: A Study of e-Sanjeevani, Department of e-Health, Government of Karnataka

INTRODUCTION

- The e-Health department has been significant in adopting healthcare digitalization in the state which makes data gathering, processing, and distribution more efficient by leveraging digital platforms.
- It facilitates the seamless integration of healthcare systems, resulting in greater coordination and communication among healthcare practitioners.
- The department focuses on developing strong telemedicine services, online health portals, and electronic health record systems in order to improve patient participation, remote consultations, and follow-up care.
- Furthermore, e-Health projects protect data security and privacy, hence increasing confidence and secrecy in healthcare services.

HISTORY

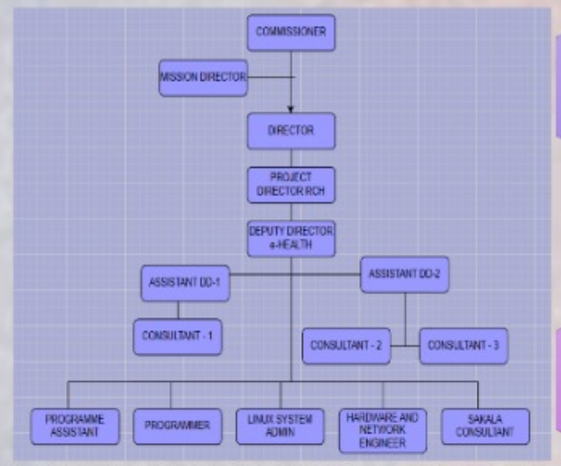
- Government of Karnataka in collaboration with ISRO (2004) – started Telemedicine program.
- Implemented using e-Sanjeevani application, developed by C-DAC-Mohali, through MoHFW (2019).

VISION

- "To establish a robust and inclusive e-Health ecosystem in Karnataka that leverages technology and innovation to provide accessible, affordable, and quality healthcare services to all citizens, thereby promoting better health outcomes and overall well-being."

MISSION

- "Our mission is to transform healthcare delivery in Karnataka through the strategic use of digital technologies, data-driven decision-making, and collaboration with key stakeholders. We aim to strengthen healthcare systems, improve patient care, enhance healthcare access in rural and remote areas, empower healthcare professionals with digital tools and skills, and promote health awareness and education among the population."



e-Hospital | e-Sanjeevani | FEATURES | TEMI | ABDM | Tele-medicine

- 38 Hub Centres
- 146 Taluk G.H
- 207 C.H.C
- 2530 P.H.C
- 6198 H.W.C

OBJECTIVES

- **Assessing the user-friendliness and ease of navigation of the e-Sanjeevani 2.0 platform for healthcare professionals and patients.**
- **Evaluating the impact of the Healthcare Professional Registry System on improving workforce management and allocation of healthcare professionals across different regions or healthcare facilities.**
- **Gathering insights into the scalability and replicability of the e-Health Department's approaches in other state's seeking to digitize their healthcare systems.**

METHODOLOGY

Literature Review → Data Selection → Data Extraction → Data Validation → Data Consolidation

TYPES

e-Sanjeevani AB-HWC – PHC Doctor/CHO of HWCs to MBBS/ Specialist through desktop/laptop/phone

e-Sanjeevani OPD – Patient to Doctor directly through mobile application

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E-Sanjeevani 1.0 (2019) Based on Hub and Spoke architecture

- Cloud based real time telemedicine system.
- Modelled on HER and telemedicine practice guidelines of MoHFW.
- ABDM Compliant.
- SNOMED-CT Compliant.
- Family Member consultation facility.
- Supports over 50 specialities.
- Accessible through population scale apps like Arogya Setu.
- e-Prescription.

E-Sanjeevani 2.0 (2023) E-Sanjeevani features plus:

- Unified e-Sanjeevani
- Microservices Architecture.
- Multilingual support for 10 languages.
- Operational capacity of 10 lakh consultations per day.
- Artificial Intelligence enablement.
- Follow-ups enabled.
- Integration facility available.
- Bluetooth enabled diagnostic services integration.

2

SOURCE : NHA | Official website for Ayushman Bharat Digital Mission (abdm.gov.in)

3

Key factors for Karnataka's success in HPR

- Active engagement with healthcare professionals and medical councils
- Increasing the capabilities of council employees as well as state authorities
- Demonstrating HPR's value proposition
- Leveraging on the government empanelment programmes
- Establishing mechanisms for grievance redressal.
- Active monitoring of progress

SWOT

STRENGTHS
- Government support
- Comprehensive Infrastructure
- Skilled Workforce
- Interagency collaboration
- Technological Innovation

WEAKNESSES
- Limited awareness and adoption
- Infrastructure challenges
- Data Privacy and Security Concerns
- Training and Education
- Network issues in hard-to-reach areas
- New features launched

OPPORTUNITIES
- Enhanced Access to Healthcare
- Data-driven Decision Making
- Collaborative Partnerships
- Public Awareness and Acceptance

THREATS
- Privacy an Data Breaches
- Resistance to Change
- Regulatory Compliance
- Financial Stability

LEARNING OUTCOMES

- Understanding public health principles, concepts and practices.
- Practical application of theoretical knowledge
- Conducting public health interventions at grassroot levels.
- Understanding the process involved in policy formulation, implementation and evaluation.

VALUE ADDITION

- Skill development – research methods, inter and intrapersonal communication, teamwork, data analysis.
- Networking opportunities with veterans of the field.
- Understood the functioning of the healthcare system of Karnataka.
- Gained strong work ethics and professional skills for professional development.

Theoretical knowledge gained at the university proved to be a steppingstone in understanding the complexities of functioning of the public healthcare system.

THEORY KNOWLEDGE	PRACTICAL EXPOSURE
Was imparted theoretical fundamental concepts, theories and frameworks in field of public health and healthcare management.	Worked on the ground, interacted with healthcare professionals, community members and stakeholders.
Gained conceptual understanding of subject matter and acquired knowledge through assignments and classroom discussions.	Gained firsthand experience in program implementation, data collection, monitoring and evaluation.
A comprehensive understanding of subject area was developed that formed the basis of a professional practice.	Gained insights into the complexities, constraints and unique aspects of local healthcare system.

CHALLENGES FACED

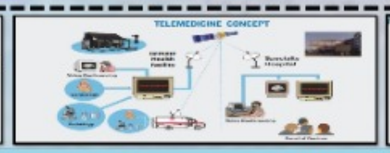
- Time constraints
- Adapting to work environment
- Language Barriers
- Complex Organization Culture

SUGGESTIONS

- Enhancing Health Education and Awareness
- Leveraging Technology for the upliftment of society
- Enhanced focus on preventive healthcare
- Increased emphasis on Sustainability
- Improving Monitoring and Evaluation.

CONCLUSION

- The Department of e-Health in Karnataka has made significant strides in digitizing healthcare delivery. Their efforts have resulted in improved efficiency, accessibility, and patient outcomes.
- The successful implementation of digital solutions sets a precedent for other regions or countries seeking to transform their healthcare systems. Embracing digitization holds immense potential for revolutionizing healthcare and addressing the evolving needs of populations worldwide.

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