Summer Internship At IIHMR, Delhi (April 1 to May 31st, 2020)

A Report

By Disha Soni

Post-graduate Diploma in Hospital and Health Management 2019-2021



(Completion of Summer Internship from respective organization)

DECLARATION

I Ms. Disha Soni, hereby declare that this Internship Assignments entitled Case Study on Allscript which includes Organizational and Operational Aspects, along with the key services of the organization, Telemedicine Trends in India and China: A Comparative Analysis, Healthcare Advancements using ICT for Rural and Tribal women is the outcome of my own study undertaken under the guidance of Prof Dr Nishikant Bele, IIHMR-New Delhi. It has not previously formed the basis for the award of any degree, diploma, or certificate of this Institute or of any other institute or university. I have duly acknowledged all the sources used by me in the preparation of this field internship report.

Date: July 14, 2020

Sign: Disha Soni

Postgraduate Diploma in Hospital and Health Management

International Institute of Health Management Research

New Delhi

CERTIFICATE OF COMPLETION

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Ms. Disha Soni (PG/2019-21/026)

In recognition of having successfully completed her/ his Internship in the department of

IIHMR, DElhi

and has successfully completed her/his Project on **Healthcare Advancements using ICT for Rural and Tribal** women

Dated: 14 July, 2020

IIHMR, Delhi

She/ He has found to be a committed, sincere and diligent student who has a strong drive & zeal for learning.

We wish him/her all the best for future endeavors

Dean- Academics & Student Affairs

Dr Pradeep Panda

Certificate of Approval

The following Summer Internship Project titled "Healthcare Advancements using ICT for Rural and Tribal women" at "IIHMR, Delhi" is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of Post Graduate Diploma in Health and Hospital Management for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the report only for the purpose it is submitted.

Dr Nishikant Bele Associate Professor IIHMR, Delhi **ACKNOWLEDGEMENT**

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PG/19/026

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ABBREVIATIONS

1.	M.D.	Managing Director
2.	G.M.	General Manager
3.	C.E.O.	Chief Executive Officer
4.	B.O.D.	Board of Director
5.	V.P.	Vice President
6.	S.V.P.	Senior Vice President
7.	E.V.P.	Executive Vice President
8.	E.M.R.	Electronic Medical Record
9.	E.H.R.	Electronic Health Record
10.	ICT	Information and communication technology



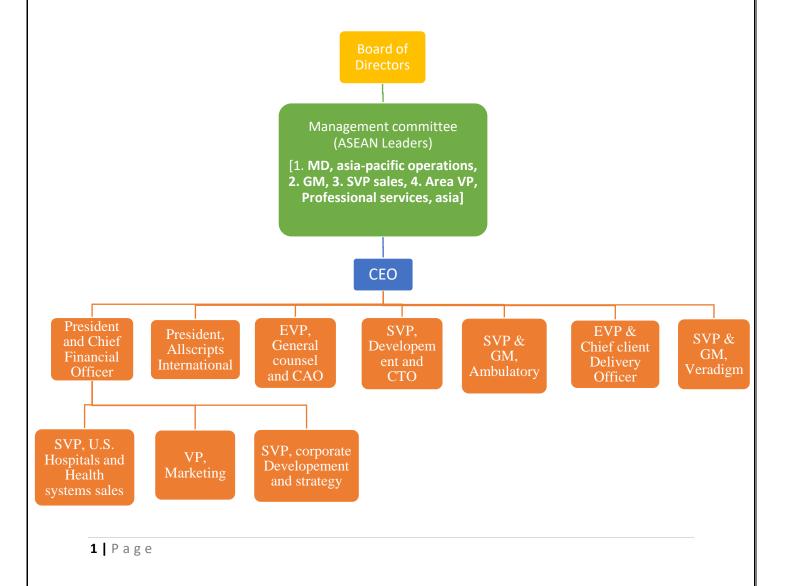
ORGANISATIONAL AND OPERATIONAL ASPECTS

Overview

Allscripts Healthcare Solutions, Inc. is one of the largest organizations in the IT field of health. Allscripts as a corporation is committed solely to IT technologies and facilities in healthcare. Allscripts Healthcare Technologies, Inc. is a privately owned American company offering patient administration and electronic health record services to medical practitioners, hospitals and other healthcare providers. The firm has more than 180,000 pharmacy customers and programs in 2,700 hospitals and 13,000 advanced care organizations.

Organogram

This organization has adopted the hybrid organization structure. It is an organization which has its roots in various developed nations. The organogram followed by this organization is as shown below:



Each member in the organization has different roles and responsibilities as per their qualifications and previous experiences.

Leadership

Allscripts' Leader supports the Open-Door Policy which creates a community of conformity, and team members recognize their obligations and are confidently express their questions dauntlessly. Team leaders ensures that the whole staff adhere to their company's Code of Conduct and follow measures if any breaches of the Code have been identified. All the members are urged to follow these steps to facilitate to maintain the ethical codes:

1. PREVENT COMPLIANCE ISSUES:

- Recognise business regulation risks
- Ensure that procedures relevant to their unique risk areas are shared and implemented
- Include detail on Allscripts strategies for monitoring to (where appropriate) third parties

2. DETECT COMPLIANCE ISSUES:

- Enforce safety measures to detect increased compliance risks and/or violations
- Promote an impactful Speak Free program
- Ensure that periodic compliance reviews are carried out with the guidance of the Allscripts Compliance Group.
- 3. TAKE ACTION: Leaders will take measures when a alleged breach has been identified
- 4. RESPOND TO COMPLIANCE ISSUES:
 - Call the Allscripts Compliance Team if complaints are raised
 - Consult with the Allscripts Compliance Team on recognized issues
 - Quick reaction to raised problems
 - Take immediate disciplinary steps to fix established deficiencies.

The leaders of the organization consist of their <u>Board of Directors</u>, <u>ASEAN leaders</u> and <u>CEO (Chief executive officer)</u> of the organization.

1. Board of Directors

The Board of Directors are authorized to work on behalf of the founders and perform day-to-day corporate affairs. The Board will be directly responsible to the shareholders and holds an annual general meeting (AGM) of the corporation each year. BOD's main objective is to ensure the company's stability by mutually handling the affairs of the company, while at the same time meeting the correct needs of its owners and stakeholders. In addition to business and financial issues, boards of directors

must address difficulties and issues pertaining to corporate governance, corporate social responsibility and business ethics.

The Allscripts have 8 members as their Board of Directors namely,

- 1. Michael Klayko (Chairman of Board since March 2014)
- 2. Paul Black (CEO of Allscripts)
- 3. Mara G. Aspinall (president & CEO of Health Catalysts)
- 4. **Greg Garrison**, (ex-CEO of PWC)
- 5. **Jonathan Judge** (also a BOD of FEXCO Holdings Ltd)
- 6. Yancey Spruill (CEO and CFO of SendGrid, Inc.)
- 7. **Dave Stevens** (founder and MD of Keelan capital LLC)
- 8. **David D. Stevens** (has served leader's roles at Accredo Health Group, Inc.)

2. <u>Management Committee</u> (ASEAN Leaders)

ASEAN Leaders of the company forms the Management committee of the organization, which comprises of 4-members namely:

- 1. **David Chambers** (Allscripts Asia-Pacific Operations: Managing Director): He has served for International healthcare markets for more than 30 years.
- 2. **Dr Rohan Ward** (Allscripts in the ASEAN region: General Manager): He is a co-founder of Core Medical Solutions and now handling the BOSSnet team as a General Manager.
- 3. **Tommy Soh** (Asia Region: Sales Vice President)
- 4. **Peter Morgan** (Asia: Area VP for Executive services): ASEAN Region's service deliveries are managed by him.

3. Chief Executive Officer

Paul Black is Chief Executive Officer. As CEO, Paul is leading the organisation's mission to achieve its global dedication to create the linked healthcare systems.

***** Roles and Responsibilities

Various significant positions and duties are assigned to the organization's organizational executives, in addition to those of senior management. Corporate leaders are senior executives and administrators in managerial roles, responsible for making decisions that impact their corporate divisions and departments. The CEO is also one of the corporate leaders and other corporate leaders except the CEO reports directly to the CEO as shown in the Organogram are:

- 1. **Rick Poulton** (President and CFO): As president, he is accountable for the everyday activities of all company divisions. Rick originally joined the company as a CFO in 2012 to manage the overall financial activities, corporate growth and policy. There are three of the other corporate leaders who reports directly to rick are:
- **I. Richard Elmore** (Sr. VP, Corporate development and strategy): At Allscripts, he is accountable for business growth and planning. He has brought new approaches through investment and developments related to distribution network transformation, healthcare technologies, clinical management, treatment planning, public wellness, post-acute care, clinical knowledge sharing, health insurance strategies.
- **II. John Sage** (Sr. VP of U.S. Hospitals and Health systems sales): He oversees company processes and field analysis, while also monitoring the performance of the Management Committee, which insists on ensuring strong customer loyalty.
- III. **Rebecca Whaley** (Vice President of Marketing): She is responsible for overseeing the policy and implementation of corporate branding, strategic messaging, online management, internet media, business analysis and collaboration that facilitates the development of Allscripts.
 - **2. Alan Fowles** (President): He is responsible for market growth and logistic services. He has around 30 years of experience in bringing innovation and cultivating leaders of healthcare IT firms, globally.
 - **3. Brian Farley** (EVP, General counsel and chief administrative officer): Being In this high-ranking position, Brian Farley leads the company's day-to-day legal matters and persuades the BOD and the Executive Board on matters such as contracts, collaborations, job opportunities, lawsuits, regulatory matters, security. He is also in-charge of the marketing group and look after their all the activities.
 - **4. Leah Jones** (Sr. VP and general Manager): He is liable for the Ambulatory Business Group, which manages the production and customer delivery of ambulatory-focused EHRs and financial programs, as well as Allscripts ® Revenue Cycle Professional services.
 - **5. Tom Langan** (senior VP and GM, Veradigm): He's in charge of their Veradigm company unit. It is the new category for their <u>Payer & Life Sciences</u> business segment. It provides Life Sciences Information & Analytics and Medical Testing Companies, Patient System, Medical Workflow Software.
 - **6. JOE Rostock,** Senior Vice President of Development and Chief Technology Officer, oversees all facets of the company's strategic software growth group.

***** HR Practices and Policies

The key points of their policies and practices that keeps their employees motivated and enthusiastic at work are mentioned below:

1. They do the supply forecasting, by which they analyse the current and the future requirement of human resources for a defined task. By this, they do internal transfers and promotions.

- 2. They conduct Job Analysis within the organisation, which is a methodical process of analysing the knowledge, skills and abilities required for performing job. They conduct this analysing the employee's engagement through surveys, summits and performance reviews within the organisation.
- 3. They provide in-house preparation for various professional certifications
- 4. They provide education reimbursement assistance
- 5. They provide opportunities for training and career development through Allscripts Learning Centre and other eLearning opportunities.
- 6. They have open door policies.¹
- 7. They provide good opportunities for growth through IJP program

Other Benefits that are provided to the employees under HR practices are:²

- 1. They provide several medical plans that include pharmacy, dental and vision coverage with reduced premiums for more focus on wellness
- 2. They provide the various plans such as: Health Safety Account (HAS), House Rent Allowance (HRA) and Flexible Spending Account (FSA) and so on
- 3. They furnish savings plans including 401k and employee stock purchase plan
- 4. They give Paid time off for numerous purposes like medical, vacation, holidays and so on
- 5. They provide Adoption reimbursement assistance
- 6. They conduct Health fairs, flu shots and educational events, etc

Communication channel and strategies

All Team Members are responsible to maintain company's reputation and code of conduct by ensuring clear, correct, and appropriate communications. Everything could be used as a testimony against them and/or the organization at a later date that a team leader does, or writes on behalf of organisation. Team Leaders must be mindful while using Allscripts materials or programs that be used as a proof in courtrooms, legal department, and by the media.³

Channels used for communications:

- 1. written memoranda
- 2. handwritten notes
- 3. drawings

- 4. email
- 5. computer files
- 6. voice mail and
- 7. pictures

Facts must be explicitly mentioned in order to guarantee that the substance of the correspondence is not distorted. Should not overstate or make false conclusions in your correspondence. Crew Leader will always be mindful that any disrespectful or threatening correspondence using Allscripts programs will therefore be liable to exposure, even though the intention of such contact is of a personal nature.

Strategies adopted by the Company are based on 2 key analysis as follow:

Managers opt for SWOT analysis, to do a situational analysis of the organization. It is an important technique to analyse the problems organisation is facing in its current scenario.



Source: (Huawei SWOT Analysis Matrix [Step by Step] Weighted SWOT, n.d.)

SWOT Matrix Strategies Objective

The objective of SWOT matrix is to analyse the organisation's strength, weakness, opportunities and threat.

STRENGTH

- 1. Strong Free Cash Flow
- 2. Successful track record in product innovation
- 3. Strong Brand Portfolio
- 4. High level of customer satisfaction
- 5. Strong workforce & dealer community
- 6. Superb Performance in New Markets

WEAKNESS

- 1. Financial planning is not proper and efficient
- 2. Low investment in R&D
- 3. Not up to mark product demand forecasting
- 4. Days inventory is high
- 5. Organization structure is only compatible
- 6. High attrition rate in work force

7. Low profitability ratio and Net Contribution %

OPPORTUNITY

- 1. Government green drive
- 2. Economic uptick and increase in customer spending
- 3. The new taxation policy
- 4. New trends in the consumer behaviour
- 5. New customers from online channel
- 6. Opening up of new markets because of government agreement

THREAT

- 1. Intense competition
- 2. No regular supply of innovations
- 3. Rising pay level
- 4. Shortage of skilled workforce
- 5. New technologies
- 6. Growing strengths of local distributors
- 7. Continuous fluctuations in different laws

SERVICES AND PROGRAMMES

Being a pioneer of the EMR services, Allscripts have broaden the spectrum of their services and products under various domain. The services and products offered by them are as such:

The services that they provide are:

1. Education and Training services

Education Services offered by them provide services that are designed to create success for their employees. They help the employee to increase their efficiencies, and to increase the rate of adoption.

2. Managed services

The Managed Services provided by them supports client infrastructure and third-party apps. It engages employees in project delivery & leadership-planning activities.

3. Professional services

It helps the employee to perform workflow optimisation, best practices, applied technologies and learning experiences to achieve quality outcomes through.

4. Remote Hosting and Hardware services

It uses advance-edge technology and deep IT management expertise to serve its clients higher quality.

5. Revenue cycle management services

It is a management and financial management solution that enhance efficiencies, and make sure that client get the best out of their investments.

6. Technical and support services

Technical Services team assist the client to servers, upgrade software or hardware.

The products that they provide are:

1. <u>EMR's</u>

They design EMRs to meet the needs of today's healthcare environment, from large practices up to small health systems, and everything in between. They have two variants under their EMR-

- **Sunrise EMR:** It is a single-platform, that provides a single patient record solution for acute, ambulatory and revenue cycle solution for hospitals and health systems to provide more informed patient care.
- **BOSSnet EMR:** It is a document and record management solution that provides quality in capturing and distributing health information with higher speed. All the documents are available in the **Sunrise documentation tab** as it is fully integrated with the <u>Sunrise Application Suite</u>.

2. Population Health management

It Provides more coordinated, informed patient care, with an up-to-date, complete patient picture, shareable care plan and informed referral process. There are two tools under it-

- **dbMotion**TM: It is an interoperability platform that provides a longitudinal patient record with semantically normalised data, point of care tools and an analytics gateway.
- **Population Health Analytics**TM: It helps providers to have a real-time actionable insight into the health of their populations, to monitor, manage and measure performance and maximise reimbursement in value-based care initiatives.

3. Patient Engagement

It Empower the patients as they can access their information anytime and anywhere for streamlined processes, value for money to patient and more satisfied patients.

• FollowMyHealth

It is a mobile-first, enterprise patient engagement solution for providers, hospitals and health systems that would like to promote healthy patient populations and manage quality.

4. Precision Medicine

It consumes genetic/genomic data from clinical information from client's preferred EMR, combining them into a comprehensive patient record.

❖ INNOVATIONS OR PATH BREAKING INITIATIVES

In 2004, Allscripts being the leading provider of clinical software, connectivity and information solutions for physicians, announced a new **electronic prescribing solution**, designed specifically for physicians practicing on their own or in small group settings. The e-prescription

was the result of collaborative development effort between Allscripts and Microsoft Corporation's (.NET technology)

In 2019, Allscripts has been recognized by Frost & Sullivan with the 2019 Best Practices Award for its population health management solutions. According to the report, Allscripts has "pioneered the concept of an open yet connected platform architecture, fueled by a real-time application programming interface (API) that incorporates disparate medical evidence seamlessly across the care continuum."⁵

The F&S states that company has demonstrated proven expertise in optimizing every element of a population health management program, including the following:

- EHR-integrated data analytics
- Cross-continuum care management
- Patient engagement
- Comprehensive outcomes reporting

❖ LOCAL AND GLOBAL REACH

This is a Healthcare IT company with immense local and global reach. They have made their presence worldwide. They have their centers in following countries:

- 1. United States of America: Being the parent Country of the organization, they have total 18 different states
- 2. United Kingdom: There they have centers in 2 states
- 3. Israel: There they have centers in 2 states
- 4. Singapore: There they have centers in 1 state
- 5. Australia: There they have centers in 1 state

KEY SERVICES OF THE ORGANISATION

Allscripts is an Industry leader in **EHR** and **EMR** software. For the EMR services, Allscripts has a platform named, Sunrise and for EHR services they have Professional EHR platform.

Sunrise EMR

It is an integral EMR platform for the entire care continuum. Hospitals and health systems are facing a number of challenges in the current scenario. Today organizations are trying to advance healthcare delivery, by staying at the forefront of innovation, teach medicine's future and increase service lines and options, all while making regulatory changes successful, improving clinical experience and providing quality patient care. At the right time, your care teams need the right information, which results in the right choices.

It is a fully meshed network for inpatient, emergency and surgical services integrating all clinical and financial facets of the hospital or health care program. Its free, expandable portal is the foundation for the ongoing development of customers and developers along with administrative processes. From software physician data entry and primary care through financial approaches and analytics, it encompasses all main health care web pages with a common portal and patient record through hospital, pharmacy, emergency and other high-acuity environments.

It is a dynamic forum for the acute, out-patient and revenue process that helps hospitals to succeed in a time of tremendous health care change. With over 25 years of good response embedded in the engine of a rigorous law, it represents Allscript's dedication to modernise the areas that include availability and user experience, testing, genomics and methodologies for application. Sunrise helps organizations across the globe to effectively adopt public health programs, develop payment standards and provide organized treatment across settings. Its Open APIs provide organizations with a risk-free platform that they can tailor for their frameworks, standards and application formats and that can work for existing and future applications and revenue-generating partnerships such as ACOs — no matter if laws or associations change.

EMR services for different platforms and their benefits:

1. For small Hospitals

• Robust resource-maximizing solution—Sunrise provides smaller hospitals with a full end-toend program that enables the hospital to save on budget and increase staff efficiency through a simplified user interface and Tools such as the Sunrise Workflow Management Tool for a fast, simplified task completion checklist view, Sunrise Patient Avatar which streamlines clinical paperwork by reducing the amount of document clicks, Sunrise Compass and Sunrise Patient Timeline. • Credible, value-effective deployment — The Managed Technology Engagement Model offers a fixed-budget deployment that prevents overruns of costs and performs reliably

BENEFITS

- Functionality they have to grow Sunrise offers a fully integrated business solution for micro businesses which does everything they need at a cost that fits with their budgets.
- Convenient to use Allscripts Sunrise user-centric design performed the best in user-centric design, methods and test results from the American Medical Association and the National Center for Human Factors at MedStar Health in 2015. Sunrise's proprietary "hover" technology enables clinicians to access, on demand and with limited clicks, related health, monetary, and care management info together.

2. For Large Hospitals and Health Systems

Link through the Continuum — With Sunrise's open platform, businesses can link with stakeholders with multiple frameworks and alliances, such as ACOs, for better coordination of treatment and greater access of health information now and as standards shift.

• International support — Allscripts Sunrise has a footprint in many countries, including the United Kingdom, Singapore and Australia — optimal for rising organizations with development plans.

BENEFITS

- Integrated Health System Solution Individual Sunrise devices including Emergency Department, Ambulatory, Oncology, Rehabilitation, Anesthesia and Surgical Care offer the same features as customized systems which share a common patient registry with Sunrise Acute EHR, one document across the care settings.
- Workflows to improve efficiency Clinicians can produce better results with the Sunrise Workflow Management Tool, Sunrise Patient Avatar and Sunrise Patient Timeline, which provides a visual overview of all visit history. Unbroken workflow is supported by Sunrise Compass and it helps to reduces manual EHR interventions.

3. For Speciality organisations

• Strong content for specialized workflows — With Sunrise, specialized organizations (for example, stand-alone oncology or rehabilitation facilities) have advanced specialized workflows they prefer with specialized solutions including acute EHR integration and integrated work schedules and invoicing abilities.

BENEFITS

• Smart choice for the future — Specialty organizations at this time that need only a portion of the high-quality Sunrise capabilities. Organizations may add additional Sunrise or third-party solutions down the road with the integrated Sunrise framework as they grow or as affiliations shift.

❖ Different Sunrise EMR Solutions (as per different settings)

1. Clinical

Allow efficient patient care with a full, configurable approach that covers both acute and ambulatory care settings to represent quality and monitor performance.

- <u>Sunrise Acute Care</u> It is an Intensive and multidisciplinary solution that provides help to the care team for integrating the necessary practices and standards into their workflows. It provides an excellent solution for workflows that help to guide the patient care in acute settings with advanced decision making, including CPOE, note and flow chart document and clinical analysis views.
- <u>SunriseTM Ambulatory Care</u>— This helps to operate more effectively at every level of care and management. In ambulatory and inpatient environments, physicians could use the same browser-friendly software instead of learning multiple apps. It monitors critical procedures relating to current orders, prescriptions, outcomes and records to make sure health at all levels and handoff. It enables to make process easily configurable, and to specialized clinical directions.
- <u>iPro Anaesthesia</u>— Robust end-to-end digital management system developed by anaesthesiologists for providing information regarding anaesthesia. This offers the patient's report from pre-operative to post-operative care, offers anaesthesiologist with instant accessibility to the necessary medical, financial and administrative records, also facilitates quick, reliable clinical information.
- <u>SunriseTM Emergency Care</u>— It is a robust information system has been shown to help improve efficiency and have a positive effect on medical and economic results in the emergency department. It is a much more efficient and concise interface, order update at a glimpse, and critical tasks and records are easily accessible.
- <u>SunriseTM Intensive Care</u>— It provides complete crucial-care process management for adolescent, paediatric and neonatal. It removes the process gap, connects doctors, nurses and other professionals to result-based health information, it allows organisations to improve productivity and enhance patient safety in the most urgent environments. It helps to observe and examine the patients and their vitals, and assist doctors to spend more time with patients.
- <u>Allscripts LabTM</u>— It is an information system that serves to all laboratory systems. It optimizes the whole laboratory procedure, it takes orders, process specimens, perform patient selection, diagnostic procedures, knowledge dissemination, financing and company achievement processing.
- <u>SunriseTM Mobile</u>— It is a convenient-to-use smartphone-based app for nurse practitioners and other medical personnel and it allow doctors to monitor their day-to-day operations using increasingly mobile technology. Natively incorporated with Sunrise Acute Care, specially built to optimize the versatility of smartphone apps, it provides seamless and engaging user-interface customized to physician needs and workflows.

- <u>SunriseTM Oncology</u>— Robust conceptual approach precisely developed to address the challenges of cancer treatment in an outpatient environment. Which provides evidence-based action options, accurate clinical reports, standardized prescription collections, staging of cancer and medical assessment support services.
- <u>SunriseTM Pharmacy</u>— It is information program that allows hospital pharmacists to get power over the drug distribution system. It lets companies increase protection in the dynamic substance distribution system, boost performance and profitability, and increase profit along with better inventory tracking.
- <u>SunriseTM Radiology</u>— It is an Information System that helps a radiologist to make sure that radiology divisions can eliminate Total ownership costs by removing external equipment, libraries and the requirement to manage and create new interfaces and radiology is no longer segregated.
- <u>SunriseTM Rehabilitation</u> It is a robust solution developed by Madonna Rehab that offers proof-based inpatient and outpatient recovery treatment assessment leveraging the best-in-class workflows from Madonna Recovery Hospitals, allows to simplify complicated assessments and reports and ensure consistency with post-acute care criteria.
- <u>SunriseTM Surgical Care</u>— It supports a clear, uninterrupted medical log from the perioperative suite to postoperative treatment and beyond. All through the Organizational Room (OR) schedule and post-operative recovery schedules, health, financial and organizational coordination around the organization is improved.
- <u>SunriseTM</u> Wound Care via TRUE— It provides detailed multidisciplinary reports for inpatient and outpatient environments regarding their evaluation, diagnosis and supervision. That involves Image storages and capture Technology that provides resource to the organisations for precise recording and review of wound treatment.
- <u>Allscripts® Chronic Care Management</u>— It is a regulated program that offers non-one-to-one treatment to Medicaid beneficiaries with two or more chronic illnesses. This allows companies to reduce costs, build additional income sources and enhance health care. It ensures that workers raise organisations need to be able to provide a non-risk deal for the repayment of CPT code 99490.

2. Operational

Augment the Sunrise EHR and improve efficiency of operating procedures to boost clinical effectiveness.

- <u>SunriseTM Access Manager</u>— It is an automated system that allows enterprises to capture sensitive patient records before time in the process and distribute it throughout the network. It helps the system that links the health and financial approaches to Allscripts via a centralized portal, with minimized mistakes, continuity, great process with full remuneration.
- <u>SunriseTM Clinical Performance Management</u>— It is a tool that allows medical organisations to extract and turn clinical data into useful information. It provides specialized data analysis and monitoring that offer access to the large volume of medical data obtained in EHR, allowing

stakeholders to accelerate organizational and clinical progress by optimizing efficiency and patient satisfaction with lowered costs. Dashboards enable healthcare practitioners with full access to feedback metrics to enable quality enhancement across the enterprise. In fact, it is a professional approach to help Patient Quality Reviews for EHR benefit systems.

- <u>SunriseTM Health Information Management (HIM)</u>— It is a systematic approach for the online documentation. It allows physicians as well as employees to access the information they require to facilitate teamwork, improve chart delivery and reduce manual data analysis whilst helping organisations reach regulatory criteria. This allows administrators to achieve the instant, reliable and consistent results that they require to successfully handle licit documents and schedule it for HIMSS Phase 7 which ensure its compliance with HIPAA, Joint Commission and CMS guidelines along with more compliance and continuity policies.
- <u>SunriseTM Multi-year Subscription Upgrade Service</u>— This is a Maintenance Program that allows Allscripts to collaborate with Sunrise customers, to ensure that they are primed for changes, to mitigate conflicts and to provide additional support for the smooth implementation of new launches.
- <u>EZ CAP</u>— EZ CAP puts together insurance coverage, payments and other healthcare expenses on a common value processing network to help insurers handle day-to-day processes efficiently by improving work processes.
- <u>Managed Technology Deployment Model</u>— It is a delivery method that provides specified-cost, specified-scope to companies with effective implementations by actively fostering ongoing acceptance, speeding up execution and attenuating company peril.
- <u>Allscripts Patient Administration System (PAS)</u>— It primarily responses for the global health market, addressing a huge variety of logistical requirements.
- <u>Allscripts® Surgical Logic</u>— Allows surgical team members to maximize block and OR prime time use. This also lets companies efficiently control assistance line development along with simplifying and optimizing staff grids against surgical demand to minimize idle time and overhead expenses and maximize surgical efficiency.
- <u>Allscripts® Patient Flow with Census Logic</u>— It help companies to monitor their organizational effectiveness, identify and resolve customer flow challenges in advance days, weeks, or even before months. Also improves the amount of nurse-to-patient personnel and lets organisations adapt as requirement.
- <u>Allscripts® Infusion Logic</u>— It Uses the recent information for patient's appointment mix, trends and ability. It offers customized plan that assist to minimize patient's waiting time and increase volumes and greater staff usage to increase patient satisfaction and employee contentment.
- <u>SunriseTM Charge Logic</u>—It is an internet-based program and allows patients to assess facility-level payments. Well-tested software help patients to maximize hospital billing performance as well as paying for emergency room appointments, monitoring, surgical treatment and cancer treatment.

3. Financial

Ameliorates financial flexibility of the medical care network and handle sales more efficiently through the company.

- <u>SunriseTM Financial Manager</u>— It is a holistic accounting framework for medical care agencies that allow organisations to control sales across the organisation. It offers robust cash cycle features, including revenue collection, payroll and invoice tracking for both patient and facility-based medical payroll. It provides a stable base that responds and extends to emerging payment and treatment frameworks, such as Responsible Service company.
- Allscripts EPSiTM— It is a leading advanced technology which aims to provide resources and expertise for producing successful results. This covers cash allocation, financial budgeting, strategic planning, cost control, workforce efficiency and policy support systems. Every aspect leads to a quicker recognition of key market problems and helps companies prevent expensive missteps.
- <u>SunriseTM Abstracting</u>— A efficient map abstracting approach that complements Sunrise perfectly. This is the main method to assist coders obtain the details required for state-related criteria, the key evidence collection method or all other medical-specific specifications.

4. Wellness

Offer ailed people with a common source to search their medical records which helps them to participate more deeply in their treatment.

- Allscripts FollowMyHealth® Patient Portal— Customer-owned care approach that allows patients access of their health records, prescription and also improves their awareness.
- Allscripts FollowMyHealth AchieveTM— It enable caregivers to closely control how patients are following their treatment guidelines, interrupt once the patient is failing, and encourage them to follow it for good health.

Professional EHR

Today's rehabilitation services are facing major obstacles. Health professionals are striving to treat more patients, to speed up paperwork and treatment, and to communicate along with different doctors, beneficiaries and pharmacies, whilst also dealing with changing regulatory requirements. It is a fragile mix. Professional EHR, provides solution to it and was initially developed by physicians. It is a crucial option for small and medium-sized physician practices that aim and deliver healthier health services, streamline procedures and increase sales. With **Professional EHR**, organisations can perform:

1. Documentation become fast with one click templates

It has efficient, one-click system that allow practitioners to record patient visits comprehensively and reliably on the basis of past records under identical situations, and then make adjustments accordingly and easily — all of which improve the satisfaction of the

provider. Physician Dashboard provides clinicians with an simple way to handle patient groups by delivering full health information by a single computer.

2. Meet regulatory requirements

Technical EHR, like many EHRs, is a master. This encourages the application of a Physician Professional Monitoring Program, and facilitates the monitoring of a Constitutionally Competent Health Centre.

3. Providers become more productive

Allscripts Specialist EHR Smartphone offers fast, easy accessibility to various demanding apps in the EHR, so that practitioners can update their rosters, monitor texts, or prescribe medications while out of the office.

4. Financial results are strengthened

It allows activities to enhance tax benefits and minimize fines, to achieve reliable, fast returns, to boost the sales process and to remove missed income, and to measure spending per recipient.

5. Specialty requirements and practices are fully met

It has models & procedures for around 20 research areas prepared to get out of the box. These models can be configured depending on inner business processes.

6. Connect to partners and integrate with different solutions

Its Open Access helps to bind tools and services that practitioners knows and love using. Also facilitates partnering activities and interfaces with main wellness stakeholders.

7. <u>Improves outcome by leveraging the integrated finances</u>

The Medical Financial System is a robust framework combined with Certified EHR that provides patient administration, payment collection and sales cycle tracking tools that are suitable for the needs of professional practitioners and payment providers. Enhance monetary and operating efficiencies by revamping appointment and patient delivery, payments, applications, rejection control, account processing, checking of compliance in real time, streamlined revenue generation and transparent reporting.

8. Provides informed patient care with more safety

Built on the Allscripts ® Analytics System of Professional EHR, Allscripts ® Practice Analytics detects and aims to narrow holes of treatment by actionable notifications in the physician process, analyses data patterns and tracks patient results throughout the organization.

Telemedicine Trends in India and China: A Comparative Analysis

India and China being the Asia's most populated countries, become the habitat for diversified cultures, environment, government system and all other facilities. Highly populated and expanded culture of both the countries brings in the great mess while delivering of essential services like education, Medical services, and so on.

Both the Nations have already come a long way to attain the high standards for healthcare delivery and still they have a long way to go. Over the time with new technologies, advancements have been occurring in the field of healthcare to make it more efficient and sustainable. High adoption rate of smartphones and tablets worldwide is showing a positive result for the adoption of technology in healthcare.

Technology has given rise to mobile healthcare and telemedicine is one of its branches. Telemedicine is well-rooted in some of the Asian countries, whereas it is in the first phase for others. Asia, being the largest continent of all, consist countries which are highly developed and also which are lowest on the development scale.

Telemedicine trend has been analysed among Asia's two of the developing countries, namely India and China. Both the countries are in developing phase, as per the development classification of World Economic Situation and Prospects, 2019 report by United Nation.¹

Following table shows the countries which falls under all the level of development:

Development Classification	Country	Region
Highly Developed Country	Japan	East
Developing Countries	China	East
	India	South
Least Developed Country	Afghanistan	South



❖ To study the trend among both the demography's, following variables are considered:

- 1. <u>Government's guidelines</u>: Guidelines for both healthcare providers and patients, in the form of rule and regulation to practice the telemedicine and make it a part of normal healthcare service. Formulation of proper guidelines to run the service help both the parties to function accordingly and to prevent any illegal activity.
- 2. <u>Doctor's acceptance</u>: It is very important to get the doctors on the good term for using it and incorporating it in their daily practice to make it a successful initiative. Along with doctors, patients also must be comfortable with telemedicine, as they both are the key pillars to get the success.
- 3. <u>Cost and time effectiveness:</u> It's a measure of efficiency and effectiveness of the services on both patient's and doctor's time and money. For an example, if a patient is consulting doctor over the voice or video call then, the patient will save his travelling cost and time whereas doctor can also save his time and money by consulting a patient from his own place. It will also help the doctor to utilize his time and money on his further education from distance.
- 4. Insurance coverage: To analyse whether telemedicine is covered under the health insurance be it public or private. As there are numerous healthcare services provided by private and public providers, but not all the services are covered under the insurances.

Analysis of both the nations, as per the selected variables

o INDIA

1. Government's Guidelines

On March 2020, Indian government has launched the new guidelines for healthcare providers to practice telemedicine and consider it as a normal healthcare delivery practice. To achieve the equality and equity in the healthcare services, digital solutions plays a critical role. It will help to transform the Indian healthcare by attaining the Universal health coverage by increasing the accessibility and by providing the best possible care.²

2. Acceptance by Doctors

Various healthcare providers workers are not comfortable working with technology and computers. They also fear that it may cause the unemployment and jobs will be taken by digital solutions. It also impacts their relation building with patients, due to no-face-to-face consultation. To make them comfortable with this technology and accept it, government should come up with simple designs.⁴

3. Cost and time effectiveness

It is a good approach for both doctors and patients, as it also allows professionals to carry on with their education on a regular basis using distance learning. For patients as well, it also saves money and time, as they only have to pay the usual consultation charges irrespective of the money that is spent on the teleconsultation set-up. Patients are rarely charged separately for that services, even if they have to pay, they still save on their travelling cost and time.⁴

4. Insurance Coverage

Till date, Indian government has no provision of insurance coverage for telemedicine services or any reimbursement for the same. Although the charge for the telemedicine services will be

same as of in-person consultation. It is mandatory for Registered Medical personnel to provide the invoice/receipt for fee charged for telemedicine service provided.

o **CHINA**

1. Government's Guidelines

On August 29, 2014, the National Health and Family Planning Commission of the People's Republic of China (NHFPC) issued the associated guidelines and Interpretations concerning the telemedicine practice in China. The guidelines exhibit the efforts by Chinese government to promote the use of telemedicine and to make it as a normal practice.

On January 15, 2015, the NHFPC issued a new report, which laid down a progressive plan to create the telemedicine practice network which will be universal to whole nation. It pointed out to technical standards and the lack of interconnectivity and the ways to remove those barriers in achieving the effective telemedicine practice.³

2. Acceptance by Doctors

Acceptance rate by doctors is not so high, as they give more preference to their traditional (face-to-face) Chinese medical culture. It is more challenging to doctors as telemedicine is majorly practiced in rural areas. The practitioners have no inspiration to make telemedicine part of their regular job, as they feel it is more irksome than face-to-face consultation and they will get no incentive for doing this anyways.⁸

3. Cost and time effectiveness

The telemedicine market is very small in china as their telemedicine services are not affordable by most of the people. They basically approach rural areas for this service, which makes it more ineffective as those people are not capable to bear hefty service charges.⁸

4. <u>Insurance Coverage</u>

Some of the private insurance companies are running some projects by providing essential healthcare services, provision of telemedicine is one of those projects. If these projects will be successful, they will replicate these services nationwide with support of government.

Conclusion

S. No.	Countries	India	China
	Variables		
1.	Practice Guidelines	Recently in 2020, GOI has	NHFPC has issued the
		rolled out the telemedicine	guidelines in 2014.
		practice guidelines.	
2.	Acceptability by doctors	They fear the loss of their	They feel it to be more
		jobs.	troublesome and less
			motivated as no incentive
			is given.
3.	Cost and time	C&T effectiveness is high,	C&T effectiveness is less
	effectiveness	as they have to pay the	as the telemedicine
		same charges for	charges are out of the
		teleconsultation as of	budget of most of the
		regular consultation	rural people.
		charges.	

4.	Insurance Coverage	Currently, no provision ⁶	Certain projects are
			going on by private
			insurance companies, to
			make it full-fledge. ⁵

Suggestions to make telemedicine stronger in both the nations

- 1. Government should come up with plans and policies that helps the poor people living in both urban and rural areas, so that health system could be strengthened.
- 2. Government should give more funds for R&D of telemedicine, so that its effectiveness and efficiency can be analysed thoroughly. Research based guidelines must be developed to have the real-time benefits of telemedicine by both doctors and patients.
- 3. To increase practitioner's motivation, they must receive good incentives to opt for digital services instead of face-to-face communication
- 4. Thorough training must be provided to medical practitioners which could enable them to provide these services effectively and efficiently.

Similar and dissimilar factors among both the nation

Variables	India	China
	SIMILARITIES	
Infrastructure (Broadband networks)	Networks that helps to transmareas of both the nations. ⁴	it video are limited in many
Success rate	Both the countries have high acceptability and success rate. Once patient get comfortable using it, they avoid unnecessary visits to hospitals/clinic and opt for telemedicine service. ⁷	
Population coverage	Both the nations cover almost	70% of the population
	DIFFERENCES	
Infrastructure (Technology)	Comparatively high	Comparatively low
Innovation	Comparatively high	Comparatively low
Effectiveness	Comparatively high	Comparatively low

As per the above-mentioned differences, China is delivering slightly better healthcare services as compare to India under various aspects. Somehow, it represents that overall development of China is stronger than India which is reflected on their healthcare practices.

Healthcare Advancements using ICT for Rural and Tribal women

INTRODUCTION

Worldwide, a revolution has been observed in the technological advancements in the last decade and India is also vying to get the top spot. Information and communication technology (ICT) have impacted almost every settlement be it urban, rural or tribal. Indian government is also striving to keep abreast with new trends of technology and to make it accessible to every citizen irrespective of their location, education or monetary status. The government has launched various e-projects, e-programmes and e-missions to make socially excluded groups adept in using the technology and to make all the groups can be counterbalanced.

India being a country of vast population having 1.21 billion people with a variety of culture, religion, caste, language and belief which are divided among different inhabitants. Scheduled Tribes (STs) are also known as Adivasis or tribal groups, they are excluded in India majorly on the social grounds and they face discrimination on the basis of their race. STs are categorized on the basis of Geographical isolation, Backwardness, Distinctive culture, language and religion, Shyness of contact with people from other cultures.²

There are some communities and groups such as STs, which have been marginalized for generations and even in the 21st century, they are still relegated to various aspects and don't have equal access and opportunities. As per the World Economic Forum, 2016, India ranked at the 87 out of 144 countries for the Gender Gap Index India. For a patriarchal society like India, Women in spite of having almost equal strength to the men even in the tribal areas, they are dominated by the male members of the family and are not given equal opportunities by their parents itself and it is even more prominently visible in STs communities (Mukherjee et al., n.d.).

The impact of unequal treatment to women is visible in their literacy rate although there has been a change in the pattern of female literacy in the last four decades among STs in shown below in **Table 1**

TABLE 1: Literacy rate among STs among last 4 decades

Year	Male	Female
1981	24.52	8.04
1991	40.65	18.19
2001	59.17	34.76
2011	68.50	49.40
Source: Office of Regis	trar General, India	1

Tribal people have lower levels of antenatal care, fewer institutional deliveries, lower levels of immunization, and higher prevalence of reproductive tract and sexually transmitted infections. Women are more likely to seek care only when the illness is out of control. Pregnancy like conditions are not even considered by STs as worthy to require medical attention (Kumar &

Bansal, n.d.).⁴ Among the tribal women, the rate of early child birth with early marriage, high anaemia incidence and low BMI rates are the influential factors for the high maternal mortality rate (*Executive Summary – Tribal Health Report, India*, n.d.).⁵

The gender discrimination also persists to create a digital divide among STs. As shown in the IAMAI report (2015), 71 percent of internet users are male and female stands for only 29 percent. However, it is slightly lower in urban India. A report by Women and the Web shows that 40 percent of women lack the confidence to use the technology and those who are comfortable with technology don't have the exposure to internet technologies that could allow them to develop their digital literacy skills (*Women and the Web*, n.d.).⁶ The women are the most vulnerable group considering the digital exclusion and it becomes more worse for the women who belong to the socially excluded groups (Mukherjee et al., n.d.).³

RESEARCH PROBLEM

The women's health is under a perilous condition due to lack of resource and equality in the society. It is worse for the women belonging to lower strata of the society. Acc. to the NFHS report, the women from scheduled tribe have higher IMR, MMR, poor nutrition status, less no. of institutional deliveries as compare to the women belonging to general categories (*Executive Summary – Tribal Health Report, India*, n.d.).⁵

The health of the women is of paramount importance in every section of the society. The health of the women belonging to the lower section of the society e.g., scheduled tribe are in perilous condition.

RATIONALE

The significance of this study is to explore the various services that are available for the empowerment of tribal women in India and to understand how information and communication technology (ICT) is helping the tribal women to improve their livelihood through education, health awareness and health facilities.

RESEARCH QUESTION

- 1. What is the governments' perspective about Digital India Mission towards the tribal women and how is it executed for their welfare?
- 2. What type of different ICT platforms are employed to make tribal women empowered?
- 3. Are tribal women aware about the ICT and what is their perception towards it?

METHODOLOGY

We have conducted a literature-based review to form a descriptive study with an aim to obtain the deeper understanding about the health of women particularly among the Tribal groups. Databases searched were Scopus, Web of Science, ProQuest, Google Scholar and PubMed, Research gate to obtain related articles. Along with various databases, we have also used publicly available data from the Annual report of International and national public-private agencies. The keywords *Health status of women, Tribal women, ICT, e-governance* were used in combination with *digital health solution, m-health for Tribal women, government initiatives*,

Census of India using Boolean operators (and/or) to retrieve the most related papers. The time frame was between 2005 and 2019. Due to paucity of scientific articles related to use of ICT for health of Tribal women, articles and reports from blogs, online magazines, and regulation authority websites were included. All the data sources used in the analyses is given in the following table 2.

TABLE 2: ANNUAL REPORTS REFERRED IN THIS STUDY

SOURCE	PUBLISHING YEAR
	2017-18
Report of expert committee on tribal health	
(Executive Summary – Tribal Health	
Report, India, n.d.) ⁵	
Ministry of tribal affairs (Annual Report) ⁷	2017-18
Digital Inclusion of low-skilled and low-	2018
literate people (Digital Inclusion for Low-	
Skilled and Low-Literate People: A	
Landscape Review - UNESCO Digital	
Library, n.d.) ⁸	
PUKAR Annual report 2018-199	2018-19
Exclusion from Digital Infrastructure and	2016
Access ³	

All the factors that impacts a girl child or women's health and well-being are considered in this study. These data sources are referred to extract the various factors like no. of institutional deliveries, MMR, various projects that are implemented for them on the ICT platform, and so on.

RESULT

As per the study, it has been analysed that in the past four decades various provisions have been made in the constitution of India pertaining to STs, which have brought about enormous changes in their life. With the realization that women's health is the most crucial factor for the growth of a community as a whole, the government have gradually made several amendments in the plan and policies concerning the tribal women population in India. Over the time, government has rolled out various schemes for the STs women to make them more digitally inclusive and make the Digital India Mission fully successful by reaching to the society with is hard to reach. Information and communication technology intensify the reach of tribal women to health information and act as an arsenal to combat their health problems. ICT act as a well-scrutinized medium to deliver the e-governance services like health and education for women. There is copious amount of services with different purposes that are available for tribal women which works on the ICT platform, such as to induce the behavioural changes, to improve the RMNCH services and so on (Majumdar & Sikdar, n.d.).

Along with the national and state government efforts, there are various NGOs, foundations and international bodies which have brought new innovations to remove the gender gap among

tribal population and to empower women. Diverse projects have been implemented on the ICT platforms which are currently being used for the women or by the women itself as they are shown in the following table 3.

TABLE 3: DIFFERENT PROJECTS LAUNCHED BY VARIOUS PUBLIC AND PRIVATE BODIES

Project	Launched	Target	Delivery	Function	Expected impact
	by	users	channel		
e-Mamta	Govt. of Gujrat	Mother and Child	App	Recording and tracking system	To maintain the data of pregnant women so that IMR and MMR can be tracked easily
ImTeCHO	SEWA Rural with HFW (Govt. of Gujrat)	ASHAs	Mobile- and web- based application	Supportive supervision, change management	To enhance the performance of ASHAs through improved management to reduce the IMR and MMR.
Medic Mobile	Medic Mobile (NGO)	Female CHWs	SMS/Text	TSE*, RMS**, diagnosis, and monitoring Information delivery service	To strengthen community health systems and improve record-keeping for patients.
Kilkari	Mobile Alliance for Maternal Action (USAID)	Pregnant women and new mothers	App	Information and knowledge management	To improve the knowledge of low-literate rural population
MIRA channel	ZMQ Development	Rural women	App	Information delivery service	To empower them by providing the necessary health knowledge and make them aware about the health services they require.

**TSE = Target and skill enhancement

1. **E-Mamta**, it is a web-based software application, which provides the unique IDs to individual mothers and children under six years of age along with the adolescents. It provides complete services of antenatal care, child birth, postnatal care, immunisation, nutrition and adolescent services.

It follows a distinctive work plans, that has made possible to achieve the tracking of tribal pregnant women's along with the urban and rural pregnant women. It provides and autogenerated SMS service to ANC mother for ANC and vaccination facilities (*E-Mamta*, n.d.)¹¹

- **2. ImTeCHO**, stand for *Innovative Mobile phone Technology for Community Health Operation* launched by SEWA Rural to empower the Accredited Social Health Activists (ASHAs) in tribal areas of south Gujrat (*Community Health Project SEWA Rural*, n.d.).¹² It was launched as mobile- and web-based application with three major motives, which are: to improve the MNCH services in rural tribal coteries of Gujrat, India, to empower the Primary Health Center (PHC) staff and ASHAs by providing them a job aid, to screen mothers, newborns and children along with timely referrals to prevent any morbidity, to report all the data timely to PHC medical officers for supporting and monitoring programme, including accurate and timely reporting of births and deaths and incentive disbursement to ASHAs.¹³⁻¹⁴
- **3. Medic Mobile** is tool developed by NGO, which is designed specifically for the female community health workers (CHWs) to provide the appropriate, stable and impactful services to other women living in hard-to-reach settings. It enables female CHWs to enhance their skillset, to do remote management, enable them to diagnosis and monitor, and a platform for information delivery service. With this tool, CHWs can send SMS from basic phones or smartphones to register people in their community, each pregnancy in their community, women for postnatal care (PNC) and children under two for immunization and it also enabled them to improve the no. of institutional deliveries and vaccination received⁸⁻¹⁵⁻¹⁶.
- **4. Kilkari,** it is a mobile-based health education application used to educate the pregnant women, new mothers and the families from the rural areas about the maternal, reproductive and child health. It uses the IVR technology, which makes it suitable for low literate and low-technology handsets. Initially this app was launched only with few rural languages, but with its visible success 2 tribal languages are also incorporated in this application ("MAMA Lessons Learned Report," n.d.). ¹⁷⁻¹⁸
- **5. MIRA Channel,** also known as Women Mobile Lifeline Channel. It is a mobile phone-based application and this platform enables women to access health information more easily. It connects the women with public health services in rural and remote areas.

The application was designed with two objectives, primary objective is to empower women using the digital platform to help them manage their health records by themselves and secondary objective is to improve the maternal and child health through RMNCH+ approach. Menstrual-cycle calculator, immunization-tracking, week-by-week pregnancy tracker, family-planning tracking are some of the features that are provided by this application. It is an easy application which enables the low literate tribal women to access the information in their local language, supported with micro-audio feature. ⁸⁻¹⁹⁻²⁰

DISCUSSION

The above results indicate that women play a crucial role to form the sound social-ecosystem but still they are not treated equitably in India. To make the tribal women healthy, empowered and independent to live a dignified life, there are various schemes or policies developed by Central and state governments, voluntary organisations, NGOs, private companies which are proactively working for the out-and-out welfare of tribal women using ICT. However, there are various constraints in the system that prevents women from utilizing those ICT services to their full extent due to lack of awareness about its benefits, lack of access facilities, language barrier, lack of motivation. There must be sufficient infrastructure, in terms of electricity connection, internet services, hardware to make any e-governance initiative successful, as these are the issues that are persistent in the remote areas.²⁴

There are various studies that claims how the digital inclusion of a women, can upgrade the lifestyle of their entire family leading to the community upgradation. With the empowerment of the tribal communities by educating them and introducing them about different platforms can exponentially improve their perception about their rights and privileges. 8-21-23

The generalizability of the result is limited by the finite amount of scientific research conducted on the *use of ICT for tribal women*, so annual reports of various public-private organisation, blogs and articles are referred for this study. There is a larger scope for the primary study to be conducted regarding this subject, to understand the real-time perspective of tribal women and to give a clearer viewpoint to the government to improve their services and to the society as well to make them more inclusive. The government should approach more towards the public-private partnership (PPP), as it helps to achieve more sound result towards development (*Information and Communication Technology (ICT) As a Characteristic Tool for Development of Tribes: A Study by Using Data Mining: Computer and Mathematical Sciences Journal: Computer and Maths Journal: Computer and Mathematical Journal, n.d.).²⁴ It is important for inclusion of all the socially excluded groups especially Scheduled Tribes and women, considering the faster pace of technological development of India (<i>Role of ICTs in Indian Rural Communities | The Journal of Community Informatics*, n.d.).²⁵

CONCLUSION

This research is aimed at analysing the effective ICT solutions available for the tribal women and how it can improve their skillset to empower them. Based on the literature review and descriptive analyses, it can be concluded that there are numerous solutions available on the ICT platform for the tribal women which assist to educate them about health, nutrition, knowledge, pregnancy and many more conditions (*Role of ICTs in Indian Rural Communities | The Journal of Community Informatics*, n.d.).²⁵ As per the government data, women are socially ignored and its impact can be seen on their health and well-being as there are least bothered to seek any medical care until symptom aggravates, follow unsafe birth practices, have poor nutrition which leads to increased IMR, MMR, malnutrition and much more complications. The rate of IMR, MMR, child vaccine, nutritional status has been improved with the enhanced of ICT platform for the women's welfare as it provides various apps and portals to them to improve their awareness and knowledge (*Executive Summary – Tribal Health Report, India*, n.d.).⁵

ANNEXURE

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TASK 1

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