

Empirical Study on Brand Building of Digital Health (Remote Patient Monitoring)

By

Mansi Rawat

*Dissertation submitted for the partial fulfillment of the
MBA Pharmaceutical Management*

Academic year, 2018-2020



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(MUTELCOR GmbH Germany's India Alliance Partner)

The certificate is awarded to

Name MANSI RAWAT

On 25th May, 2020

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

Name of Department Digital Health

and has successfully completed her Project on

**Empirical Study on Brand Building of digital health
(Remote Patient Monitoring)**

During 10th Feb To 19th May 2020

Organization Mutelcor GmbH

She comes across as a committed, sincere & diligent person who has
a strong drive and zeal for learning

We wish her all the best for future endeavors



Mentor
(YK Gauba)
Director

Training & Development

Zonal Head-Human Resource

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B.A. Solutions India Pvt. Ltd.	Registration	Domestic Bank Account	International Bank Account
Address: 54, Deepak Building, Nehru Place, New Delhi-19, India Tel: +91 11 2467 3082 Fax: +91 11 2647 3084	CIN: U74999DL2006PTC155492 TAN: DELB12384B GSTIN: 07AADCB1211C1ZL IMPEX: 0516942735	Name: ICICI Bank Limited Branch: Panchsheel Park, Delhi-17 Account No.: 022405002118 RTGS / NEFT / IFSC: ICIC0000224	Name: ICICI Bank Limited Branch: Panchsheel Park, Delhi-17 Account No.: 022406000059 SWIFT/BIC: ICICINBBCTS

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2. INTRODUCTION

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This section contains a discussion of the dissertation and should address the following points:

- What is the Global Health Scenario?
- What is the Indian Health Scenario?
- What problems can be answered by Digital Health Solution (Remote Patient Monitoring?)

7. SUGGESTION/CONCLUSION

8. REFERENCE

“Acknowledgement”

The Dissertation opportunity I had with **B.A. Solutions India Private Limited (MUTELCOR GmbH Germany's India Alliance Partner)** as a Business Development Executive was an incredible learning for my expert turn of events. Therefore, I view myself as a fortunate Person as Who persuade a chance to be a piece of it.

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This open door is a major forward leap in my vocation improvement.

Want to proceed with this connection with every one of you later on.

Name: Mansi Rawat
MBA- Pharmaceutical Management
10th Batch

Chapter - 1

ABSTRACT

Abstract:

This study looks at the Brand & Brand Building for Digital Health (Monitoring Monitoring). The product is known for its prices, services, and aspirations for being successful. This study provides insight into the need for health care services.

Changes that have a significant impact on medical care are being considered worldwide. These include old age, an increasing number of chronic patients, and difficult access to health services. Medical institutions, doctors and patients face those challenges and their consequences. Individual and personal health affect not only the economy, but also general happiness and life satisfaction.

In this way, we can keep up great consideration while improving access and lessening costs.

Advanced Health Solution (Remote Patient Monitoring) is a medicinal services administration, by which basic factor like separation can be maintained a strategic distance from to get social insurance offices. Human services suppliers utilizing data and correspondence innovations to trade official information for conclusion, treatment and counteraction of malady and injury, examination, and testing.

This examination follows the elements that should be viewed as when constructing a Brand; Customer Analysis (understanding buyer need), Competitive Analysis (concentrating on qualities, shortcomings, dangers, openings).

This study was used as a Descriptive Study by taking the help of various journals, Articles, Live Webinar Septs, PubMed, Google Scholar, White Papers.

Chapter 2

INTRODUCTION

Introduction:

Company Profile

Mutelcor is internationally recognized company with a global perspective in the areas of IoT, mobile telecommunication & digital health care. We are proud to be a professional team with a legacy of success across Europe, Africa, North America, and Asia over the last 15 years and utilize different customer products and services worldwide. We are equipped with a unique understanding of the market and apply the best of both worlds while considering location information.

Mutelcor Digital Health

Mutelcor Digital Health's solution that combines physician portal web portal, patient mobile application and smart data analytics is a secure, HL7-compliant tool, based on cloud storage and remote patient monitoring endpoints. Released after extensive market research and consultation with a few health professionals, Mutelcor Digital Health aims to:

- improve post-operative remote monitoring of patients based on treatment protocol
- provide patients with easy to use mobile application for accessing and sharing health information
- Provide immediate treatment to patients based on complexity
- Provide practitioners with rightful information into actionable data at first glance

With web-based communication tools, a physician can track patients through remotely chatting / texting and provide online consultation with a video calling feature that is more compatible with remote patients for the physician to review and monitor their health status.

Getting started:

India: Mutelcor's advanced patient monitoring platform has been successfully used in 8 hospitals in India and over 1000 patients registered in the first six months of implementation.

Worldwide: The one-month driver's case was successfully resolved by doctors in Brazil in 2018 and another trial is expected to begin in Malaysia.

“Postimplementation- Feedback”

Care Provider: Doctors especially find the EMR (Electronic Medical Record) feature on the health web portal very useful as they can now look at the patient's complete medical history, as well as current treatment, physician information, end-to-end capabilities, last appointments, X-ray and lab on one screen and get a quick update on patients' health status.

Patients: Patients now feel at ease as they can monitor their vitals at home, communicate remotely with doctor, receive e-prescription on mobile app, book appointments, and report symptoms in matter of minutes to the doctor for a quick consultation.

Clinicians: Patients feel sense of security as now they can be in constant touch with the doctors, they are happy to send routinely vital readings, log nutrition & activity intake, upload and share X-Ray & lab reports to for the doctor's review remotely.

Now they are able to view and monitor their own health trends such as BMI, Weight loss, Blood Pressure, Sugar, calories consumed vs prescribed, protein-carbs-fat intake which was much needed as in order to improve the patient care outcomes, the patients require 360 degree lifestyle and behavior change which was a huge challenge until now as we had very limited data about their routine, medication, diet and activity.

Mutelcor –Product Streams

mHealth

Remote Patients Monitoring Solution
Intelligent Patient Data Analytics
AI-based auto detection for PD Cloudy Bags and Volume

IoT

End-to-End IoT LoRa Wireless Solution for Corporates, Smart Cities
Internally designed & engineered Hardware (Sensors, PCBs, Trackers)
Internally developed Embedded and IT-Applications for IoT

Telecom

Telecom-operators Technical Consultancy for 4G, VoLTE, 5G Services
Technical Expertise in Solution Design, Deployment & integration
Experts in arena of Service & Life-cycle management

CHAPTER 3

LITERATURE REVIEW

Literature review

Brand:

- West, Ford, and Ibrahim (2010, 190) define a brand as “Brand is what identifies the company selling goods and/or services”. The brand is not just a product or service but all those elements which differentiate it from its competitors, like a name, symbol, word, sign, design, or a combination of them (West et al. 2010, 215).
- Riezebos (2003, 32-33) defines brand to be all those symbols which are able to separate goods and services from a company. Here symbols mean words, slogans, pictures, and marks, or a name, which can be seen to be different from goods. Ordinarily, a brand's name is the one single element which consumers recognize. A brand's sign or logo is another recognizable feature, which differentiates the brand from a product. (Riezebos 2003, 32-33.)

Brand identity, image & Personality:

- Brand image is how the organization's consumers see and persuade the brand. Brand image is a good way to measure how well the brand identity has worked to create unique characteristics, and how well the consumers have adopted them. Brand image's idea is to get the consumers to purchase the image, which correlates with the product, and because of that, the image should be positive and unique. To affect the brand image, the organization can use communication tools such as advertising, packaging, and word of mouth publicity – the so-called guerrilla marketing. (MSG 2016b.)
- Brand personality is the aspect of branding which speaks and behaves. Its only task is to be the personification of the brand. To put into one sentence, brand personality means all those experiences the consumers have had with the brand. When brand image aims to bring physical associations with the brand, the brand personality aims to stay on the 9 emotional level in the consumers' mind. Brand equity is what develops from brand personality, and those two should not be misinterpreted. (MSG 2016c.)

Brand Equity:

- Aaker (2002, 7-8) defines brand equity as, a set of assets (and liabilities) linked to a brand's name and symbol that adds to (or subtracts from) the value provided by a product or service to a firm and/or that firm's customers. The brand is born and its identity is defined. Brand image emerges in consumers' minds. Brand personality develops. Consumer benefit from consuming brand. Firm benefits from the brand. Time

10 major asset categories are brand name awareness, brand loyalty, perceived quality and brand associations. (Aaker 2002, 8.)

- Four major categories include brand name awareness, loyalty, perceived quality, and brand associations. Brand name awareness means how strongly a consumer is familiar with the availability of a certain product. Brand recognition and brand recall are part of brand awareness. Brand recognition measures how well a consumer can differentiate the brand from competitors when s/he has some previous knowledge of it. Brand recall means that a consumer can recover a memory of a brand when a certain product category is mentioned. (MSG 2016e.)

Brand Analysis:

- The Brand analysis includes three main elements: customer analysis, competitor analysis, and current brand audit. The goal of the brand analysis is to create a relationship with the customers, understand 12 competitor's strengths and weaknesses, and develop and utilize own strengths against competitors. (Aaker 2002, 190.)
- The brand must first understand target customer trends, needs, motivations and existing perceptions of the brand category before entering a market (Aaker 2002, 190). If the brand does not offer products or services which match the customer's needs, it is more certain that the customer will choose the other brand (De Chernatony 2006, 205).

CHAPTER 4

RESEARCH QUESTION & OBJECTIVES

Study Introduction:

Research question

How to create a successful brand of Remote patient monitoring which can address people health care services?

Objectives

- To understand Remote patient monitoring.
- To understand the Global health.
- To understand the Indian disease condition in which Remote patient monitoring fits.
- To understand the positioning of major companies the study has been incorporated.
- To understand the impact of branding strategies in the doctor's mindset about remote patient monitoring.

CHAPTER- 5

RESEARCH METHODOLOGY

Methodology

Literature review –White papers, Articles, Journals, Survey reports, Google scholars, PubMed

Source of data – Secondary

Study design - Descriptive study

Data analysis tool- MS Excel.

The study has been incorporated with secondary data research with the help of various published White papers, Articles, Journals, Survey reports, Google scholars, PubMed. It is a descriptive study which his giving suggestion based on secondary data.

CHAPTER- 6

DISSERTATION

DISCUSSION

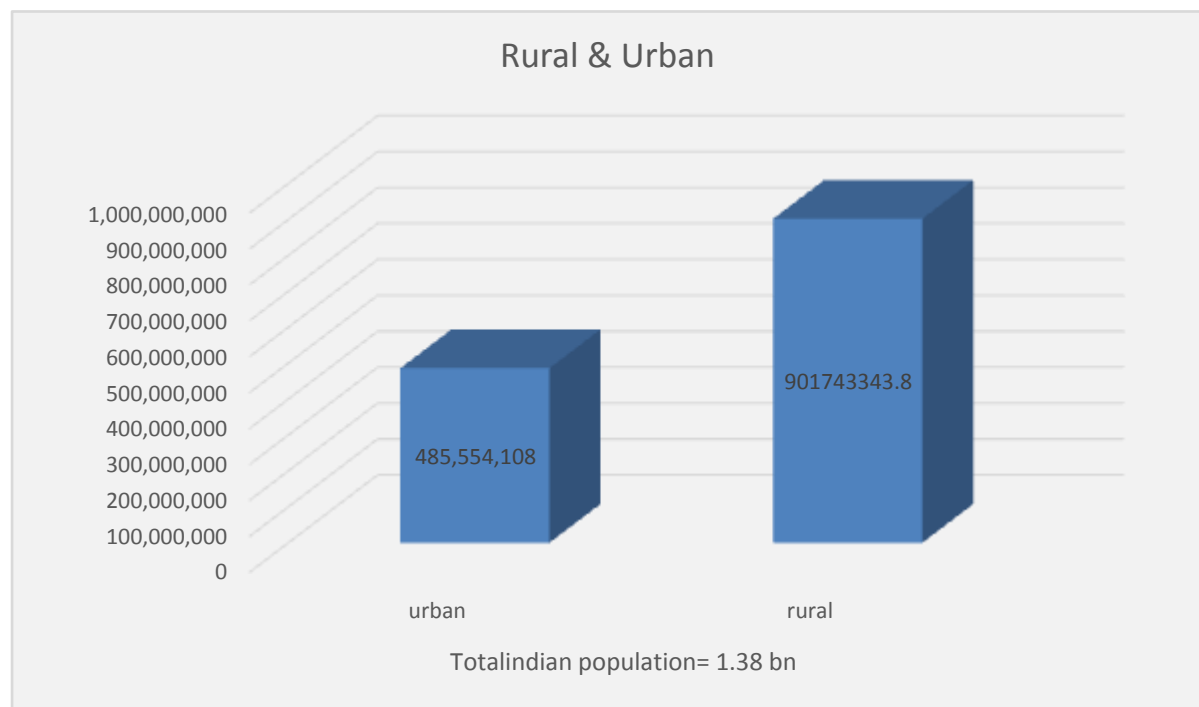
Dissertation discussion

Problem Statement:

In India where the population is 1.38bn, and the total number of doctors are 840,130. The overall doctor population ratio is 1:1600, while WHO says it should be 1:1000.

India population are divided into two parts:

Rural & Urban



Primary Health Centres (PHCs) are keystone of Rural Health Delivery system. The number of PHCs are 23877. Whereas only one allopathic doctor is present. Only 30% PHCs are having two or more doctors. India's large population is 65% are present in rural areas which need more health care services, and the urban population is about 35%, where more Lifestyle disease burden is increasing which require continuous follow ups with doctors.

Digital Health/Remote Patient Monitoring/Telemedicine/eHealth/:

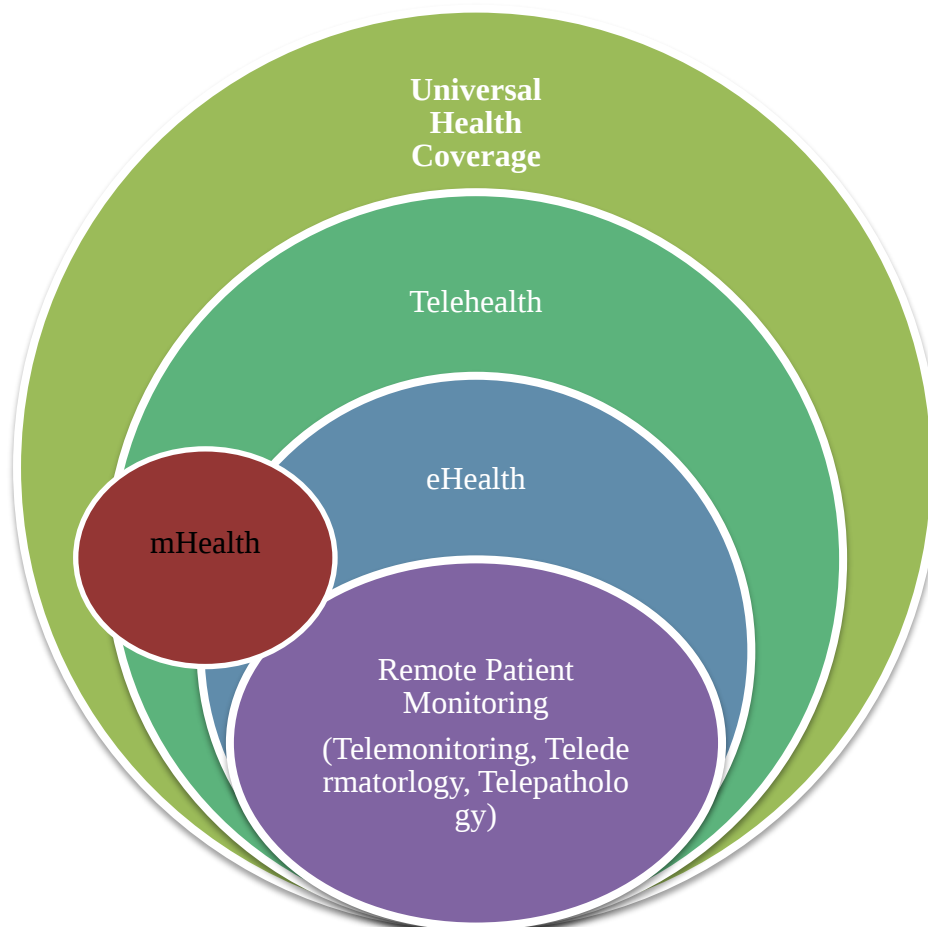
Definition:

“In 2005, the World Health Assembly recognized eHealth/mHealth as the way to achieve cost-effective and secure use of information and communication technologies for health and related fields, and urged its Member States to consider drawing up long-term strategic plans for developing and implementing eHealth services and infrastructure in their health sectors. mHealth is the use of information and communication technologies (ICT) for health.” (Editorial, 2013)

Remote Patient Monitoring is delivery of health and health care services including medical care, patient care education, health information service & self-care via telecommunication and digital communication.

The simplest definition of Digital Health/eHealth/mHealth is the use of telecommunication to support and monitor Health care ranging from a simple land phone to a highly sophisticated connected device.

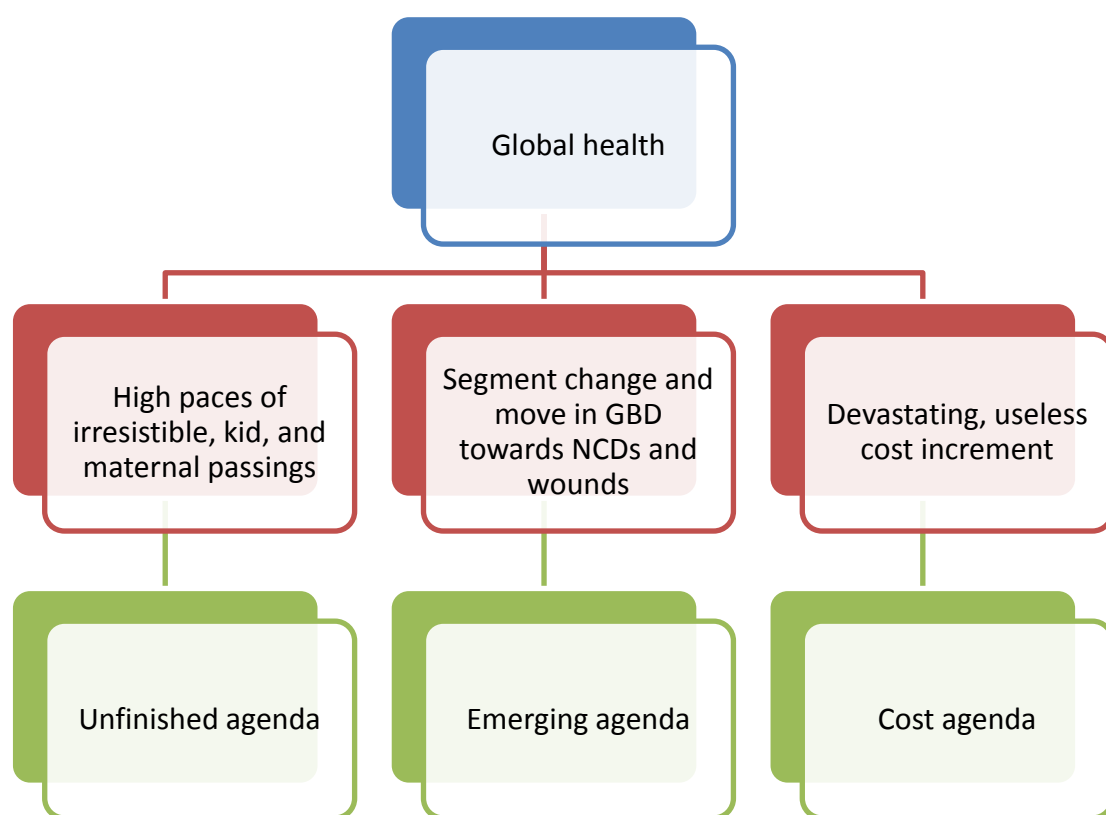
(Ziobrowska Natalia. Remote Patient Monitoring Health Transformation)



Worldwide Health Scenario

Medical issues, and worries that cross national limits, are affected by conditions or encounters in different nations and are best tended to through community-oriented activity and arrangements (Institute of Medicine, USA, 1997)

Models incorporate irresistible ailments (TB, Avianin Fluenza, Malaria) irresistible ailments (diabetes mellitus, tobacco related infections) and other wellbeing dangers (an unnatural weather change, strife, atomic vitality). Three Domains of Health Challenges:2015-2035.



Worldwide Vision and Approach Required:

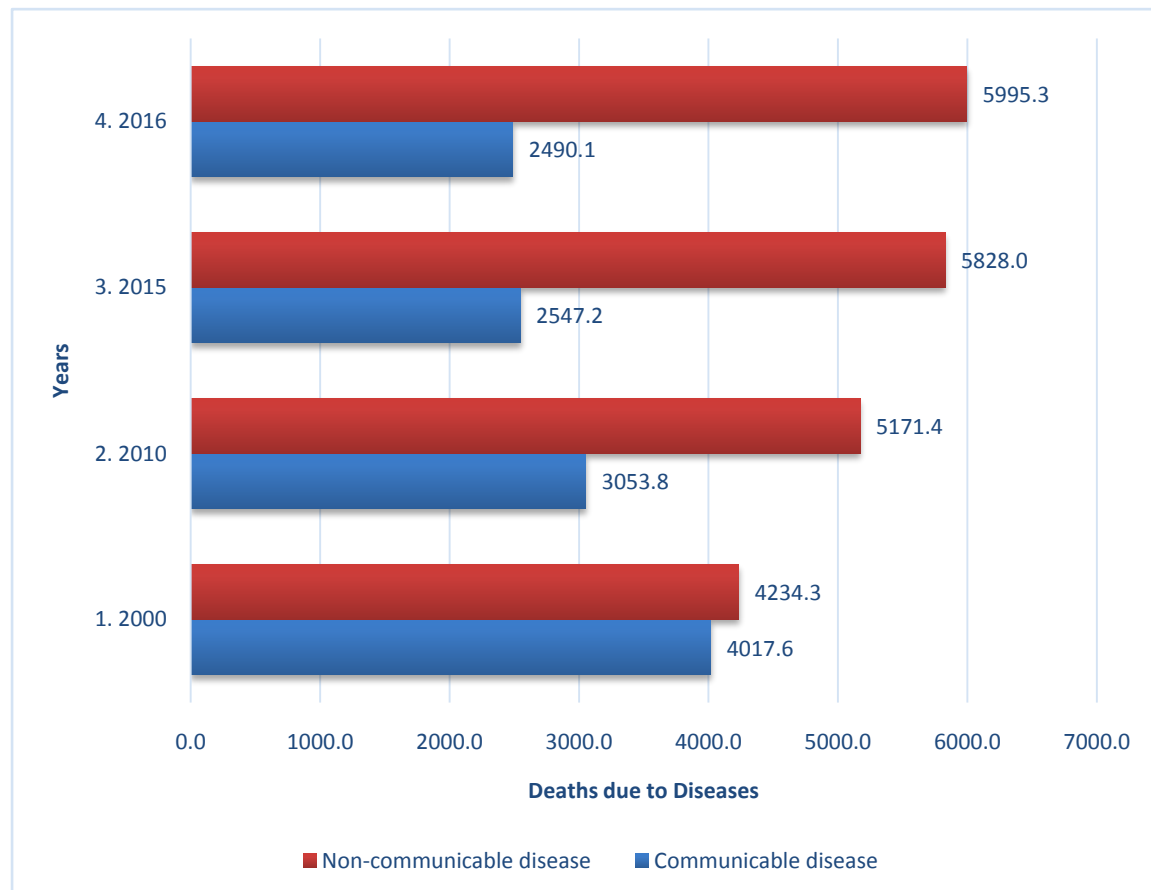
Wellbeing is a general right. The test for most nations is how to extend social insurance administrations to address developing issues with restricted assets, for example, accomplishing all-inclusive wellbeing inclusion (UHC). This requires a solid, productive, all around run social insurance framework, basic drugs and innovation, and satisfactory, propelled wellbeing laborers

With almost 20000 known illnesses, a large portion of them spread the world over, there is no single national social insurance framework that can dedicate human or monetary assets to managing them. Worldwide collaboration and coordination are the main way forward. It is an

ideal opportunity to consolidate best practices from various nations and societies from around the globe.

Indian Scenario:

The Ratio of death rate caused by communicable or non-communicable diseases in India is shown in a graph:



(Global Health Estimates 2016: Deaths by Cause & 2018)

This above graph is showing till 2016 ratio of deaths caused by Non-communicable & Communicable disease, in which Non-communicable disease are increasing more than communicable disease. Which shows that chronic diseases are having more impact than acute disease in a death ratio.

As the study is a Descriptive study based on secondary data like White papers, Articles, Journals, Survey reports, Google scholars, PubMed etc.

Brand Analysis

To examine a brand or trust clients and assemble associations with them, first investigate its rivals and actualize self-examination, to comprehend where the organization is at present.

Here SWOT examination is used to decide the qualities and shortcomings of contenders, just as dangers and openings. This investigation can likewise be utilized for self-appraisal.

Competitor Analysis:



To build a brand the competitive analysis must as various companies come up with the Remote Patient Monitoring Apps.

After studying the competitor's solution and comparing the solution with the Mutelcor Solutions, which is a complete pack for doctor and patient starting from Patient registration till years of follow ups. (Ziobrowska Natalia. Remote Patient Monitoring Health Transformation)

Mutelcor are focusing on patient data management which is a key thing for the medical practitioner to find out the new outcomes or study the pattern of diseases.

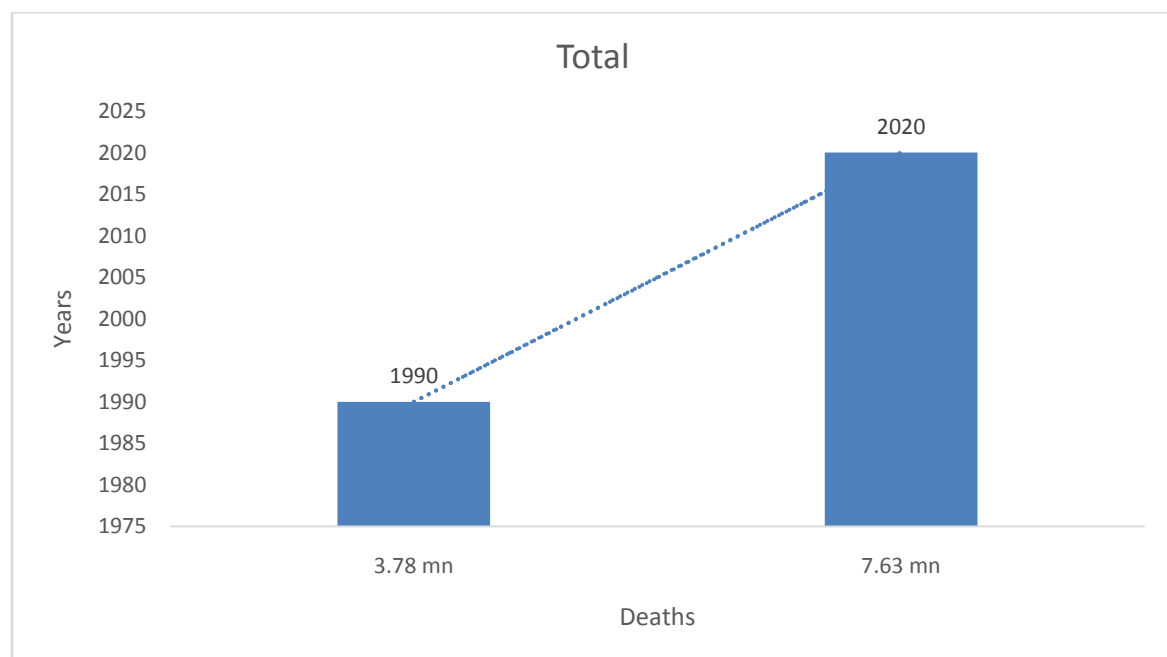
These data also can help them to do the future projections of health care service models.

Indian Disease Scenario

The communicable diseases like this year pandemic Covid-19 is more likely to spread when the person is coming on physical touch, this kind of situations can be avoided by using Remote Patient Data Management solutions.

Chronic diseases are a long-term disease where long term follow ups & continuous monitoring are required to increase the quality of life.

In India Deaths due to Chronic diseases are:

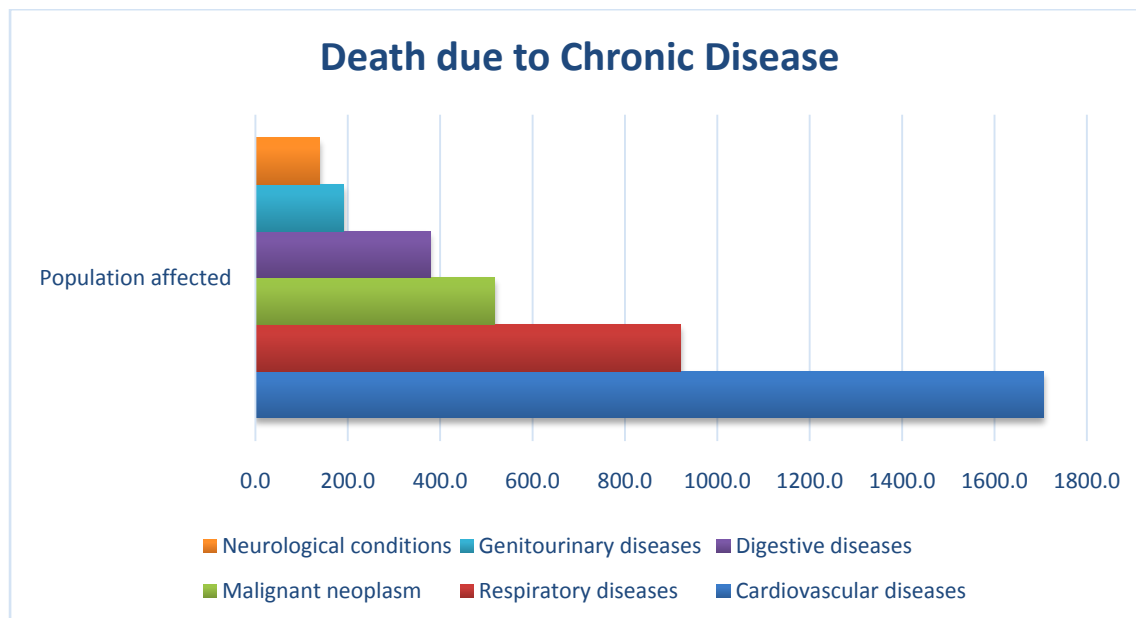


(Global Health Estimates 2016: Deaths by Cause & 2018)

According to the study the deaths due to chronic disease in 1990 is 3.78mn, and in the year of 2020 it is likely to be increased by 7.63mn, and future forecast says at the rate of current scenario is likely to be increased in coming years.

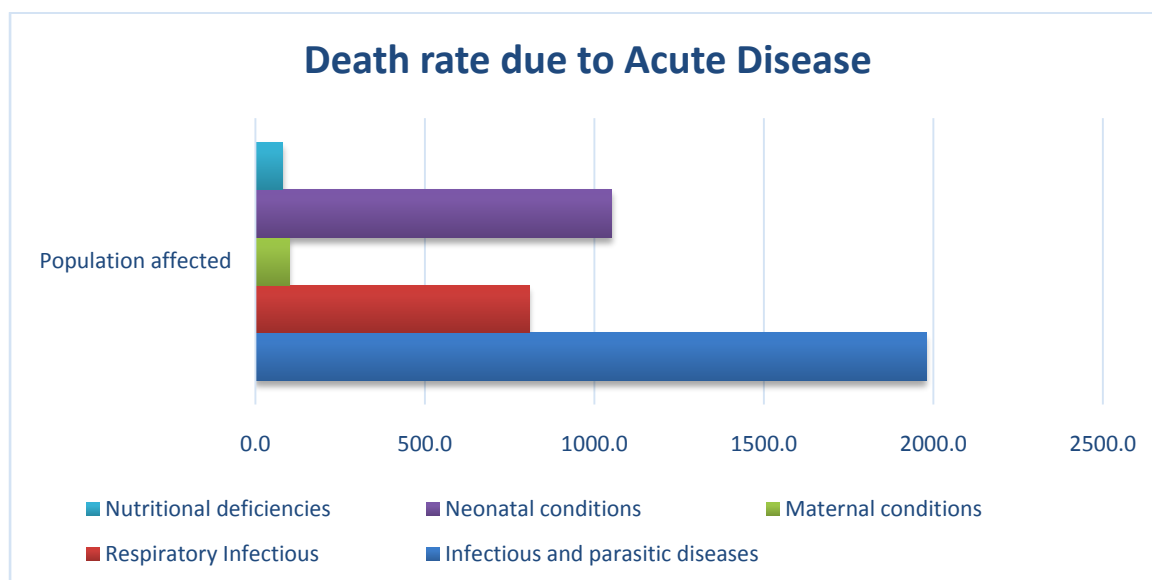
For this situation, the quality of life can be increased by following the new emerging technology, as same as glucometer came into the picture because of giving real time measurement of blood sugar level. These remote patient monitoring technologies are same as which is giving the real time advices to the needy one providing all the medical documents like EMR, Medical certificate electronically at one touch.

Indias most affected Chronic diseases:



(Global Health Estimates 2016: Deaths by Cause & 2018)

India's most affected acute disease death rate



(Global Health Estimates 2016: Deaths by Cause & 2018)

How it works: Remote Patient Monitoring

To understand the work and answer the question of the study, take one of the products as an example:

Web-Based information System - Up to Data Post-Percutaneous) And stent enlargement up to 1.5 years.

Selective versatile application for organizers (attendants)

The Android based application is anything but difficult to follow, with key highlights of the pre-screen for facilitators (attendants), enlistment and follow up of patients, post-percutaneous coronary intercession (PCI) and versatile application for stent sending in every one of the 50 communities in India.

Advanced Form Filling:

Persistent Data Form Filling (Baseline Symptoms, consideration, Angioplasty intercession, Follow-up, and Adverse Event Reporting); Attach and transfer understanding reports.

Patient Management:

Patient Management permits the organizer to see all patient enlistment records and enlist new patients as a feature of the enlistment procedure

Persistent Follow-up Notifications:

Message pop-up in the Mobile App 'Whenever the structure accommodation, update and patient follow-up usefulness is characterized for the Pioneer Registry process as required by the patient follow-up track for any facilitator.

Capable web-based interface for specialists and Health heads

A multi-client responsive web-based interface for website analysts and task chiefs to assess vault execution, take a gander at an everyday schedule, and configuration present market reconnaissance exercises on meet library necessities; This is accomplished through the primary elements of an online data framework:

- Dr. Dashboard: View/Track Center-wise Registry KPI Performance Analytics
- Administrator Dashboard: View/Track Zone-wise Registry KPI Performance Analytics
- Task the board like auto warnings/updates/remarks/notes/schedule/

Patient database management

The savvy cloud stage is utilized to help secure sharing and access of patient wellbeing information by giving adaptability, adaptability, assurance, and reinforcements. Cloud-based information the board has empowered the customer to keep up critical operational expenses, just as mistake free and paperless activity in the library procedure at more than 50 medical clinics/focuses the nation over. Consequently, the Custom Cloud Solution Client assists with concentrating on library achievements without concentrating on overseeing physical server farm distribution centers in different areas.

Advantages to clients:

- Real-time remote patient observing from anyplace on the planet
- Quick and simple paperless vault activity
- Extracting secure patient information without mistake
- Multi-dimensional spellbinding investigation of immense information like a flash
- Rapid estimation of vault the executives KPIs

Advantages to People:

- Early recognition of ailments.
- Continues subsequent meet-ups.
- Access to human services in remote spots.
- Quality administrations to the patient by interfacing
- Facilitate human services for interminable illnesses
- Continuous self-checking

CHAPTER- 7

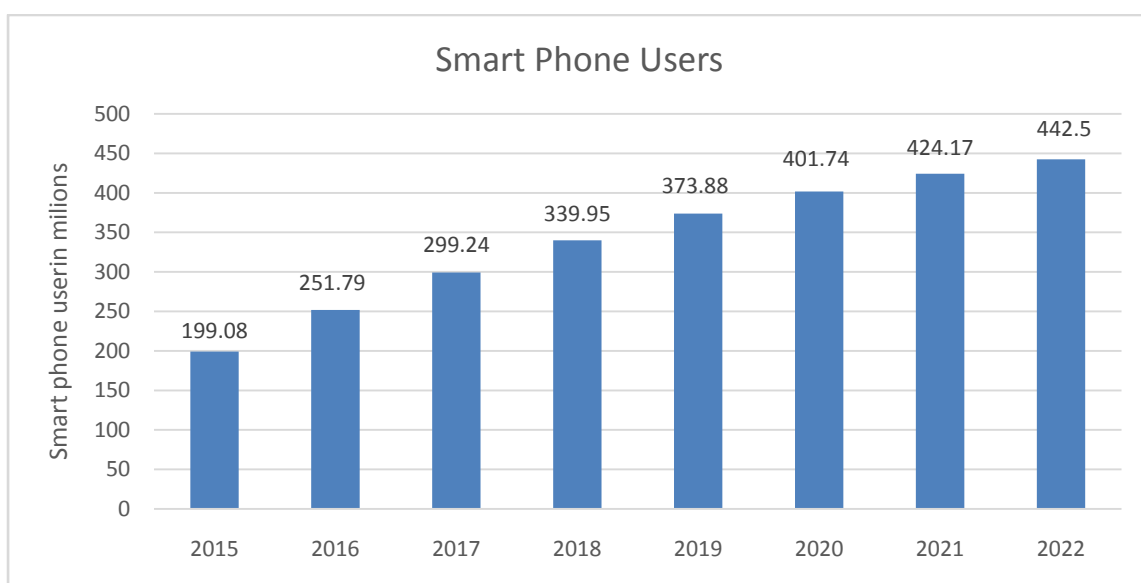
SUGGESTION/ CONCLUSION

Suggestion/conclusion:

In India there are many people especially in Remote places where health care services are not delivered completely. Sometimes they take one-time consultation but never go for any follow-ups.

To overcome of this situation technology transfer is the only way.

The smart phone user ratio has been shown in graph below:



(millions)*, May 26, 2020)

The rate of Smart Phone users will be 442.5mn till 2022. Which means that the adaption rate of Digital Health Solution will be high.

Which will be helpful in:

Up to date and
comprehensive
health information

Ability to intervene
rapidly in the event
of disturbing
changes

Reduction in Health
care cost

Increase
patient involvement

Possibility of
coordinated care

Improvement of
communication
between medical
staff and patient

Better treatment
results, fewer re-
admissions

Saving time for
patients and
medical staff

Greater availability
of services

CHAPTER- 8

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